YALE STATION AREA STUDY

Presented to the City and County of Denver

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FINAL
City & County of Denver

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Executive Summary

The Denver Comprehensive Plan 2000 and Blueprint Denver: An Integrated Land Use and Transportation Plan call for transit oriented development (TOD) around proposed light rail stations in Denver. With the direction set forth by this policy and the T-Rex/Southeast Corridor light rail transit under construction, the City and County of Denver has developed the Yale Station Area Study. The key to a successful TOD requires municipalities to plan the framework for improvements around future light rail stations early-on. Therefore, the City developed the Yale Station Area Study in preparation for the 2006 opening of the Yale station on the Southeast Corridor transit line.

The Yale Station Area is the six-acre parcel located in the northwest quadrant of the I-25 and Yale interchange. Bordered on the west by Grace United Methodist Church, on the east by I-25, on the north by the Arapahoe County line and on the south by Yale Avenue, the land uses consist of office buildings, a gas station, a retail strip mall, three single-family homes along the northern boundary, and approximately two acres of vacant land. The purpose of the Study for this station area is to assist the City, property owners, and developers in identifying and analyzing potential development and redevelopment opportunities and to create guiding principles for redevelopment.

Metropolitan regions throughout the country are finding that building light rail transit (LRT) alone is often not enough to increase transit ridership and enhance areas around transit stations. TOD addresses this issue by helping to create transit-supportive environments that encourage a mix of land uses, allowing people to live, work, and play in a community without relying on a car. This is a key element to most successful light rail programs. TOD opportunities and configurations are unique to each station in Denver, thus potential TOD at the Yale Station Area must be tailored to meet the needs and goals of the City, the neighborhood, and the businesses in the area.

Meetings with stakeholders and community members early in the planning process to discuss existing conditions and issues revealed key opportunities and constraints to TOD at the Yale Station Area. These interests laid the foundation for developing a range of scenarios and guiding principles. By incorporating the evaluation of projected market demand, opportunities and constraints, and stakeholder input, the project team developed a range of conceptual land use scenarios for the Yale Station Area. These scenarios describe development potential at the station area and are based on assumptions that specific actions would be taken by the City and/or property owners. Each scenario was evaluated to ascertain its viability and to determine how well each is likely to meet the goals of TOD at the Yale Station Area.

- Scenario A describes the potential result if neither the City nor the property owners proactively pursue redevelopment around the station area. While this scenario involves no risk on the City’s part, neither does it advance the City’s TOD goals. Rather, most of the site will likely be dedicated to surface parking.
- Scenario B illustrates the potential outcome if the City facilitates a public investment and/or urban renewal to redevelop the entire station area. While this scenario best meets the City’s TOD goals, a financial proforma concluded that it does not achieve the fiscal requirements necessary for viable development.
- Scenario C describes a mid-range alternative in which the City provides specific entitlements to promote TOD and property owners initiate joint-development. Because this scenario
depends on actions by private property holders, the timing of redevelopment is unpredictable, but likely to meet some TOD goals.

In developing these scenarios, the project team and City staff also prepared Guiding Principles to help public and private entities maximize land development opportunities and evaluate any redevelopment plans around the Yale Station Area. The Guiding Principles also provide property owners and developers with clear expectations by which to base future development and/or redevelopment plans and embrace the most desirable characteristics of potential TOD scenarios evaluated earlier in the planning process.

The Guiding Principles for the Yale Station Area are as follows:

**Surrounding Neighborhoods**

1. Promote development that is compatible with and complementary to surrounding residential neighborhoods.

2. Establish building heights that are appropriate for an urban village center and that transition to surrounding residential neighborhoods.

3. Ensure building scale, placement, design, and landscape treatment provide adequate visual and noise buffers between new development and existing adjacent neighborhoods.

4. Recognize the character of single-family neighborhoods in Arapahoe County that abut the station area as a part of the overall plan. Create methods to address spillover of transit station parking into surrounding neighborhoods.

**Access and Circulation**

5. Prepare for the changing transportation patterns that the opening of light rail will bring.

6. Provide safe and efficient vehicular access to the site.

7. Ensure adequate internal traffic circulation within the station area.

8. Ensure convenient bus access to the site and efficient circulation within the station area.

9. The location and design of parking lots should not cause conflicts with bus, bicycle and pedestrian circulation.

10. Improve pedestrian access within ¼ - ½ mile of Yale Station.

11. Provide bicycle access to Yale Station.

**Parking**

12. Encourage the development of structured or underground parking to minimize land consumption earmarked for parking and maximize land development opportunities in those areas.

13. Design multi-story parking garages to fit the scale of the surrounding buildings.

14. Encourage shared parking arrangements to make optimum use of the site.

**Redevelopment**

15. Maximize development potential within the transit station area to increase the return on public investment and local property values.
16. Promote a mixed-use development with office and multi-family residential development, with limited amounts of convenience and lifestyle retail.

17. Encourage development at the Yale Station Area that reflects its position in relation to the larger T-REX/Southeast Corridor.

18. Encourage multi-family housing to diversify housing options at the Yale Station Area.

**Urban Design**

20. Require pedestrian connections within and between all parcels with the development and redevelopment of all parcels in the station area.

21. Provide a public open space network in the station platform, bus-boarding areas, streets, and sidewalks.

22. Design parking lots and structures so they do not dominate the frontage of pedestrian-oriented streets or establish impediments to pedestrian routes.

23. Design ground floor uses of station area buildings to take advantage of their location near an active transit station.

24. Make use of site topography.

**Timing/Phasing**

25. Encourage private property owners to direct development at the Yale Station Area.


27. Facilitate a long-term development strategy.

28. Plan surface parking lots as temporary uses.

Specific actions that proactively implement the Guiding Principles are essential to the full realization of TOD potential in the Yale Station Area. In itself, the introduction of the LRT station could stimulate land development opportunities in and near Yale Station, but it is unlikely to do so alone or in a coordinated approach. Several other factors, such as a strong investment climate combined with flexible public regulations, incentives and, possibly, infrastructure improvements and/or investments, should be in place to realize the vision outlined in the Guiding Principles.

The following implementation actions have emerged as the most promising specific private and public strategies:

- Explore zoning changes that are consistent with TOD guiding principles.
- Consider public investments in an LRT park-n-Ride structure.
- Identify additional financing mechanisms to stimulate TOD implementation.
- Study the feasibility of a tax increment financing district.
- Develop a parking management program with Arapahoe County.
- Consider a signal at the Yale Avenue/Yale Circle (west) intersection with pedestrian crossings.
- Determine needed pedestrian improvements across I-25.
- Pursue Yale Avenue corridor improvements.
- Reassess the preliminary station design with respect to bus access.
How to Use This Document

The Yale Station Area Study is intended to be used by City staff, other public agencies, property owners, and developers as a guide to future development in the area. The Study includes the following four sections:

**Introduction:**

The Introduction section of the Study identifies the context in which the Study was developed by providing background information on the Light Rail Station Development Program and the Southeast Corridor/T-Rex Project. This section also describes Transit-Oriented Development (TOD), the purpose of the Study, and the planning process.

**Project Elements:**

The Elements section of the Study provides a detailed description of the components to consider in developing a TOD at the Yale Station Area. The discussion includes an analysis of existing land use, ownership, vehicular and pedestrian access and circulation, parking, and environmental conditions. This section also presents a summary of a market and economic analysis of the study area, a discussion of site opportunities and constraints, and a synopsis of Yale Station Area land use scenarios.

**Conclusions:**

The Conclusions section of the Study describes the lessons learned as each Study Element was evaluated throughout the planning process. These lessons are then incorporated into a set of Guiding Principles and Recommended Actions to implement a TOD at the Yale Station Area. These Guiding Principles, which may also be useful for other station areas with context similar to the Yale Station Area, address surrounding neighborhoods, access and circulation, parking, redevelopment, urban design, and timing/phasing.

**Appendices:**

The Appendices contain detailed analyses of specific station area conditions and TOD scenarios for reference. This section also includes a traffic circulation analysis, a market and economic analysis, and a detailed assessment of the Yale Station Area land use scenarios.
SECTION 1. INTRODUCTION

Background on the Light Rail Station Development Program

The 2000 Denver Comprehensive Plan (Plan 2000) identified a regional rapid transit system as the primary form of transportation to address the mobility needs of the city, while at the same time offering the greatest benefit to and protection of Denver neighborhoods. In conjunction with providing improved mobility, development of a regional light rail system is also a unique opportunity for the City to promote higher-density, mixed-use development patterns around rapid transit corridors and stations. To realize these goals, the City established the Light Rail Station Development Program in 1995. The program encourages Transit-Oriented Development (TOD) around existing and future light rail stations. With the planned extension of the existing light rail transit (LRT) system into the Southeast Corridor along I-25, described below, the program is currently focusing on creating areas around future stations that will support transit ridership while enhancing the stations’ surroundings.

An initial assessment of the Southeast Corridor prepared in October 1999 identified the Yale/I-25 station as having “some opportunity for mixed-use redevelopment in the area immediately west of the proposed station.” 1 This area – the Yale Station Area – includes approximately six acres immediately west of the proposed Yale station and provides the greatest opportunity for redevelopment, as it sits as an isolated island of office and commercial uses surrounded by established single-family neighborhoods. Accordingly, Blueprint Denver: An Integrated Land Use and Transportation Plan identifies the Yale Station Area as “an Area of Change surrounded by Areas of Stability.”

SE Corridor / T-Rex Project

The Transportation Expansion Project (T-REX), formerly known as the Southeast Corridor Project, is a joint venture between RTD and CDOT to expand over 16 miles of interstate highways and to construct 19 miles of light rail transit (LRT). (See Figure 1.) Light rail will extend along I-25 from Broadway Boulevard in Denver to Lincoln Avenue in Douglas County and along I-225 from Parker Road in Aurora to a newly configured I-25/I-225 interchange. The Yale Station will be one of 13 new stations on the Southeast Corridor light rail line. The current design for the Yale LRT platform and park-n-Ride calls for 161 commuter parking spaces. RTD has acquired parcels adjacent to the future Yale Station to meet this need. Preliminary designs call for surface parking in the northeast quadrant of the station area, with a circular bus turnaround located adjacent to the station platform.

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1 Southeast Corridor Light Rail Development Program, October 1999.
Figure 1. SE Corridor / T-REX
CDOT and RTD are overseeing construction of the LRT in conjunction with reconstructing and widening the I-25 and I-225 highways. When construction is complete, RTD will operate the light rail system. While responsibilities for these projects are clearly divided between CDOT (corridor construction and long-term highway operations), RTD (transit operations) and the City and County of Denver (land use decisions), the three agencies are coordinating closely to meet the T-REX goals of increasing mobility, enhancing accessibility and transportation options, and improving safety in a heavily congested, growing business corridor. T-REX construction began in 2001 and will be completed by late spring/early summer 2006, with the Yale Station expected to open in 2006.

Project Purpose

In preparation for the 2006 opening of the Yale station on the Southeast Corridor line, the City and County of Denver has developed the Yale Station Area Study. The purpose of this plan is to assist the City and property owners in identifying and analyzing potential development and redevelopment opportunities and to create guiding principles for redevelopment. These Guiding Principles will direct future land use decisions around the transit station to promote transit-oriented development, a concept that is described in detail below. Further, the guidelines will provide City staff, other public agencies, property owners, and developers with clear direction to develop and/or evaluate specific development proposals for the area around Yale Station. Specifically, the Guiding Principles address surrounding neighborhoods, access and circulation, parking, redevelopment, urban design, and timing/phasing and have been developed for adoption into the Denver Comprehensive Plan.

Transit-Oriented Development (TOD)

Metropolitan regions throughout the country are finding that building a light rail alone is often not enough to increase transit ridership and enhance areas around transit stations. TOD addresses this issue by helping to create transit-supportive environments by encouraging a mix of land uses that allow people to live, work, and play in a community without relying on a car, a key element to most successful light rail programs.

Thus, pedestrian-friendly development and design is essential. Landscape, streetscape, entrances at the sidewalk, and an inviting scale are essential to this concept. Minimizing surface parking adjacent to the station encourages pedestrian activity. The intent of TOD is to promote high-quality transit, bike, and pedestrian connections while encouraging a compact, mixed-use development. TOD opportunities and configurations are unique to each station in Denver, thus potential TOD at the Yale Station Area must be tailored to meet the needs and goals of the City, the neighborhood, and the businesses in the area.

While each station has a tailored program based on its character, surroundings, and potential, some key attributes of TOD commonly include:

- A balance of mixed uses (residential, retail, office, entertainment, public facilities, etc.).
- Compact, mid- to high-density development.
- Close proximity to transit, emphasizing a walkable and attractive pedestrian environment.
- Multi-modal transportation connections (rail, bus, bicycle, pedestrian, etc.).
• De-emphasis of auto parking – including reduced parking requirements and replacement of surface parking lots with structured and shared parking.

• Urban design guidelines and aesthetic requirements.

• Affordable housing opportunities.

• Access to open space and recreational amenities.

Like other metropolitan regions, the City and County of Denver recognizes the benefits of TOD and has incorporated TOD principles into its policy documents. The *Denver Comprehensive Plan 2000 (Plan 2000)* calls for TOD around existing and proposed transit stations. *Plan 2000* states that “Transit Oriented Development concentrates an attractive mix of housing, retail, entertainment, and commercial development near transit stops. This enables residents to live, shop, and socialize in their immediate neighborhoods while having nearby transit access to distant urban centers.” In addition, *Blueprint Denver*, adopted in 2002, emphasizes TOD and provides key strategies and tools to implement *Plan 2000*.

**Planning Process**

**Process Summary**

Since the Yale Station Area property owners must choose how, when, and if to redevelop their properties, the City chose to facilitate and encourage transit-supportive development by producing conceptual development scenarios and “guiding principles,” laying a framework for future development. The process used by the City created an atmosphere where property owners felt comfortable discussing their individual interests in exploring opportunities for mutual gains.

The Yale Station Area Study process began in early 2001 with a technical analysis of existing conditions that addressed existing land use, ownership patterns, zoning, traffic and pedestrian circulation, parking, and environmental and market conditions. The market analysis assessed the Yale Station Area in the larger context of the entire Southeast Corridor, showing its secondary position to the Colorado Boulevard office market and the University Hills retail center. The projected market demand for the Yale Station Area included a mix of office and residential uses with limited demand for retail space.

Based on a review of existing conditions and projected market demand, the project team formulated a series of land use scenarios to explore development potential at the station area. The range of scenarios covered such possibilities as laissez faire market-driven
redevelopment and publicly-directed urban renewal. A mid-range scenario – privately-led redevelopment with some public-sector support – showed the most promise. Based on discussions of these scenarios with stakeholders and City staff, a list of Lessons Learned was developed and finally incorporated into the Guiding Principles and Implementation Actions.

**Public Involvement**

Public involvement for the project consisted of three tiers of participation, representing a cross-section of community interests:

**Tier 1: Stakeholders/Property Owners**
Participation by stakeholders or property owners in the immediate six-acre study area was a key component of the public process. A series of meetings was held with property owners to identify their interests and concerns, as well as to evaluate proposed development scenarios and guiding principles.

**Tier 2: Area Residents**
Residents of both Denver and Arapahoe counties from the neighborhoods surrounding the study area formed the second tier of participants and met with the project team on two separate occasions to discuss their issues and concerns, which primarily related to ensuring that new development will be compatible with the surrounding neighborhood.

**Tier 3: General Public**
The general public, which also included some overlap with Tier 2 residents of the surrounding neighborhoods, formed the third tier and participated in two public meetings during the planning process. The first public meeting was held in May 2001 to introduce the planning process and information gathered on existing conditions and to provide a forum for participants to discuss site opportunities and constraints. The second public meeting, held later in the planning process in October 2001, was designed to receive input and feedback on conceptual development scenarios and draft guiding principles.
SECTION 2. PROJECT ELEMENTS

Site Area Description and Existing Conditions

Land Uses

The Yale Station Area is the six-acre parcel located in the northwest quadrant of the I-25 and Yale interchange. Bordered on the west by Grace United Methodist Church, on the east by I-25, on the north by the Arapahoe County line and on the south by Yale Avenue, the parcel’s land uses consist of single-family homes, office buildings, a gas station, a retail strip mall, and approximately two acres of vacant land.

As depicted in Figure 2, the interior of Yale Circle contains two office buildings and associated surface parking, with a third office structure at the west corner of Yale Avenue and Yale Circle. Land uses to the west of Yale Circle include a strip retail center on the west corner of Yale Avenue and Yale Circle, a church parking lot, vacant land, and three single-family houses located north of the vacant property. Land uses to the east of Yale Circle include a gas station on the east corner of Yale Avenue and Yale Circle and a vacant office building to be demolished prior to construction of the light rail station. The northeast corner of the Yale Station Area is currently a vacant lot that has been acquired by RTD for a park-n-Ride with 161 surface parking spaces.

A variety of uses surround the Yale Station Area, with single-family neighborhoods providing the predominant character of the area. The residential neighborhoods north and west of the Yale Station Area are located in unincorporated Arapahoe County. Other surrounding uses include mid-rise apartment buildings located just east of I-25 and north
of Yale. Denver Academy, a private school, is located approximately ½ mile northwest of the proposed station and the University Hills shopping center is just beyond a half-mile radius, to the west of the site.

Ownership Patterns

In addition to the residential properties in the northern portion of the site, additional properties in the Yale Station Area are currently owned by five major property holders:

- Walter “Buz” Koelbel: four parcels along Yale Avenue and Yale Circle (east).
- Legend Retail Group: medical office building on Yale Circle.
- Nicole Property Group: office building on Yale Circle.
- JDM Equities LLP: retail strip center on Yale Avenue.
- Grace United Methodist Church: contiguous parcels on Eudora Street and on Yale Circle.
- RTD: acquiring rights-of-way along the I-25 corridor for the light rail station, including two residential properties located in Arapahoe County north of the Yale Station Area.

Zoning

The Yale Station Area is zoned primarily B-2, neighborhood commercial, and R-1, low-density residential. The following are general descriptions of the two predominant zoning categories.

B-2 Neighborhood Commercial

This zoning applies to all the parcels adjacent to Yale Circle. These are the key parcels in the core of the Yale Station Area with the greatest potential for redevelopment.

B-2 zoning allows smaller retail uses, banks, childcare centers, medical offices, dry cleaners, grocery stores, and restaurants, in addition to single- and multi-family residential, nursing homes, offices, and schools. Figure 3 illustrates the maximum buildout potential of the Yale Station Area under current B-2 zoning. Should property owners choose to develop and/or redevelop their properties under existing zoning; the intensity of development is unlikely to change considerably. Most of the existing structures could increase in density by one to three stories.
Figure 3. Maximum Build-Out Potential, B-2 Zone Neighborhood Commercial

B-2 Zone
Neighborhood Commercial

BULK PLANE AND SETBACKS - General Rules:
Building setback = Centerline of all abutting streets.
Above-ground starting point = 10 feet.
Bulk plane = 45 degrees.
Maximum gross FAR = 1.0

Existing roadway configurations and building footprints underlay the illustrations.
R-1 Low-Density Residential
Denver’s R-1 zoning applies to the parcels on the perimeter of the station area. These parcels are the properties owned by Grace United Methodist Church, three single-family homes, and a private tennis court. Some single-family residences in Arapahoe County are also included.

R-1 zoning permits single-family residential and limited institutional uses such as churches, schools, libraries, and parks. The district requires a minimum lot size of 6,000 square feet with a 50-foot minimum lot width.

Traffic Circulation

Primary auto access to the Yale Station Area is provided via Yale Avenue, an east-west minor arterial that carried approximately 29,000 vehicles per day in four lanes in 2001. Yale Avenue’s interchange with I-25 is a diamond, with I-25 over Yale. The station area north of Yale Avenue is served directly by Yale Circle, a two-lane local street that forms a loop with both ends connecting directly to Yale Avenue.

Both of Yale Circle’s intersections with Yale Avenue are slightly offset from the streets serving the residential area south of Yale Avenue. The nearest traffic signals are at the I-25 interchange to the east (one block) and Dahlia Street to the west (four blocks).

A proposed traffic signal at the Forest Street/Yale Avenue/Yale Circle (west) intersection could handle future traffic demands for the Yale Station Area.

See Appendix A for a detailed traffic analysis.

Pedestrian Circulation

Pedestrian access to the Yale Station Area is limited by a lack of connections. While the street grid west of I-25 provides several access points to Yale Avenue, attached sidewalks along Yale Avenue are generally substandard. Numerous curb cuts on the north side of Yale Avenue may also discourage active pedestrian use. Through the interchange, fast-moving traffic and multiple turn movements create hazards for pedestrians. The sidewalk under I-25 has ample width, but becomes more restricted on either side of the interchange. Within the study area, attached sidewalks are located along the interior of Yale Circle and are intermittent along the outside of Yale Circle.

Parking

Existing parking in the Yale Station Area is adequate to meet current needs. The on-site office buildings currently have an informal reciprocal parking arrangement with Grace United Methodist Church to the west that accommodates overflow parking situations. Commercial uses occasionally overflow to the church parking lot on weekdays and, on Sundays, church patrons use the office building parking lots. On rare occasions, church parking extends onto local streets. The lack of curb and gutter and the narrow width of portions of Vassar Avenue to the north discourage on-street parking.

This informal parking arrangement is likely to change when the light rail station opens and light rail patrons seek parking beyond that provided by RTD. Local residents are
concerned about overflow parking on residential streets. The City of Denver might explore implementing parking management strategies prior to the opening of the light rail station and Arapahoe County has already expressed interest in cooperating with Denver to enforce a parking program.

**Environmental Conditions**

The physical environment of the Yale Station Area is highly developed, with few natural conditions remaining on site. Development on the property could be affected by the possible presence of hazardous materials associated with the leaking of underground petroleum storage tanks belonging to the two gasoline stations on the site. Redevelopment of these lots would require that appropriate measures be taken by property owners to ensure proper environmental assessments are conducted.

**Market and Economic Analysis**

A real estate market analysis was conducted in 2001 to determine the market potential for a variety of land uses at the Yale Station Area. This analysis took into consideration how much of the projected market demand for various uses along the Southeast corridor could reasonably be absorbed by the Yale Station Area, based on the following assumptions:

- Development pressures from the I-25 Corridor and Southeast Denver metro area will dictate that:
  - Principal competition for land uses at the Yale Station Area will come from other LRT stations within the corridor and development in neighborhoods adjacent to I-25, south of Broadway and north of Belleview.
  - The corridor will remain a linear market with unique submarkets.
  - The market will respond to the presence of the LRT station, but within the context of the surrounding single-family residential neighborhoods.
  - Market demand at the Yale Station is affected by its relationship to other stations; demand may dictate that the station serve as an overflow location of the office market at Colorado Station.
  - An intensification of retail opportunities within the Yale Station Area is limited by competition from nearby University Hills retail center.
  - A precedent exists for vertical/dense residential properties both east and west of the station.
  - The Yale Station Area could meet a demand for new condominium/townhouse development, because of the aging and limited supply of competitive residential products in the Denver area in general and in the Yale Station Area in particular.

Based on these assumptions and a fair share analysis from within the I-25 Corridor South impact area and Denver County, the project team projected the following market absorption:
Yale Station Area Adjusted Supportable Space over 10 Years:

- Residential: 200 to 250 units (2% to 7% of the SE Corridor)
- Office: 100,000 to 150,000 sf (5% to 15% of the SE Corridor)
- Retail: 40,000 to 60,000 sf (5% to 20% of the SE Corridor)
- Flex: 40,000 to 60,000 sf (3% to 5% of the SE Corridor)
- Undetermined Public Spaces and Civic Uses

See Appendix B for a detailed market analysis.

**Opportunities and Constraints**

Meetings with stakeholders and community members early in the planning process to discuss existing conditions and issues revealed key opportunities and constraints to TOD development at the Yale Station Area. Figure 4 illustrates several of these site characteristics. These interests laid the foundation for developing a range of scenarios and guiding principles.

**Figure 4. Opportunities and Constraints**

**Opportunities:**

- The Yale Station Area already has good access to I-25 and will have increased commuter access with the opening of the LRT station.
- Yale Avenue is currently under capacity and can therefore accommodate increased traffic volumes.
- Property owners have a history and experience with shared parking arrangements, which could be a key component of future TOD.
- The Yale Station Area is surrounded by stable residential neighborhoods.
• The area’s location between major employment centers at Colorado Boulevard and the Denver Technological Center lends itself well to redevelopment as a secondary employment center along the Southeast Corridor.

• The site’s topography, which rises to the northeast, may allow for increased building heights closer to the intersection of Yale Avenue and I-25.

• Property owners are proactively discussing redevelopment opportunities.

**Constraints:**

• Pedestrian access across Yale Avenue and under I-25 is currently difficult. Sidewalks along Yale Avenue are also inadequate.

• The misalignment of Yale Circle and Forest Street (to the south) makes safe signalization and associated pedestrian crossings difficult.

• The proximity of Yale Circle East limits sight lines from the interstate off-ramp to the site.

• Existing R-1 and B-2 zoning limits the potential for TOD in the Yale Station Area.

• The relatively small size of the site, its configuration within and around Yale Circle, and its limited access reduce its potential for intensive uses.

• Multiple property ownership within the Yale Station Area requires coordination and cooperation among several diverse interests.

• The retail potential of Yale Station Area is limited by its proximity to the University Hills shopping center.

• The limited size of the Yale Station Area may necessitate the construction of one or more relatively expensive parking structures or underground parking to maximize development potential.

**Summary of Land Use Scenarios**

By incorporating the evaluation of projected market demand, opportunities and constraints, and stakeholder input, the project team developed a range of conceptual land use scenarios for the Yale Station Area. These scenarios describe development potential at the station area and are based on assumptions that specific actions would be taken by the City, RTD, and/or property owners.

Each scenario, as presented in the following matrix, was evaluated to ascertain its viability and to determine how well each is likely to meet the goals of TOD at the Yale Station Area. The scenarios cover a range of alternatives from laissez faire market-driven redevelopment described in Scenario A to publicly-directed urban renewal described in Scenario B. The mid-range alternative, Scenario C (privately-led redevelopment with some public-sector support) shows the most promise as a politically and fiscally viable scenario.

• Scenario A describes the potential result if neither the City nor the property owners proactively pursue redevelopment around the station area. While this scenario
involves no risk on the City’s part, neither does it advance the City’s TOD goals. Rather, most of the site will likely be dedicated to surface parking.

• Scenario B illustrates the potential outcome if the City facilitates public investments and/or urban renewal to redevelop the entire station area. While this scenario best meets the City’s TOD goals, a financial performa concluded that it does not achieve the fiscal requirements necessary for viable development.

• Scenario C describes a mid-range alternative in which the City provides specific entitlements to promote TOD and property owners initiate joint-development. Because this scenario depends on actions by private property holders, the timing of redevelopment is unpredictable, but likely to meet some TOD goals.

Because Scenario C was determined to be the most viable alternative, the project team further explored potential land use mixes and phasing, including land use types, densities, and orientations on the site. As shown in Figure 5, land owners explored the potential building mass of different buildout scenarios. A more detailed analysis of Scenario C is provided in Appendix C. However, by the conclusion of the planning process, significant land owners were not prepared to engage a developer and initiate the process of a joint development. Therefore, while the ideas put forth in Scenario C remain viable, they are not to date being pursued.
### Range of Development Scenarios for the Yale Station Area

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<tbody>
<tr>
<td><strong>Scenario A</strong></td>
<td>Minimum Effort:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status Quo/Do</td>
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</tr>
<tr>
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<td></td>
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<tr>
<td></td>
<td>City offers no</td>
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<tr>
<td></td>
<td>entitlements or</td>
<td></td>
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<tr>
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<tr>
<td></td>
<td>NO RISK</td>
<td></td>
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<tr>
<td>Church, Retail,</td>
<td></td>
<td></td>
<td>Significant land area is dedicated to surface parking.</td>
</tr>
<tr>
<td>Office, Vacant,</td>
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<td></td>
<td></td>
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<tr>
<td>RTD</td>
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</tbody>
</table>

| **Scenario B**    | Significant Effort: | Redevelopment occurs through acquisition and land assemblage. | City drives land use and timing of development. |
| Redevelopment of  | City rezones and    |             |          |
| Entire Site       | provides inducements to redevelop. |             |          |
|                   | City provides       |             |          |
|                   | significant public  |             |          |
|                   | investment and/or   |             |          |
|                   | urban renewal.      |             |          |
|                   | NO RISK              |             |          |
| Church, Retail,   |                     |             |          |
| Office, Residential, RTD |                |             |          |

| **Scenario C**    | Development Inducements: | Redevelopment occurs on its own: | City has less control over and ability to predict development outcomes. |
| Redevelopment of  | City rezones and      | Potential for joint development increases between property owners. | Timing of development is variable and depends on private property owner initiatives. |
| Key Parcels       | provides entitlements, i.e., parking reductions, increased height, and land use intensity. City offers no public investment. |             | MEETS SOME TOD GOALS |
|                   |                      |             |          |
| Church, Retail,   |                      |             |          |
| Office, Residential, RTD |                |             |          |

|                      | LOW RISK             |             |          |
|                      |                      |             |          |
|                      |                      |             |          |
SECTION 3. CONCLUSIONS

Lessons Learned

As the project team worked with project stakeholders to evaluate the range of potential development scenarios – and their feasibility from both a programming and a financial standpoint – a key set of “lessons learned” emerged. The Lessons Learned are incorporated into the Guiding Principles which immediately follow.

Land Use

• No relationship currently exists between the Yale Station Area and the surrounding neighborhoods. Once light rail opens, however, this will change and the relationship that develops should be a positive one.

• Although the City and County of Denver’s jurisdiction does not extend to the north part of the study area, the success of a Study that enhances surrounding neighborhoods is contingent on cooperation between Denver and Arapahoe County. Opportunities for cooperation include land use decisions about the appropriate transition between residential and commercial uses.

Property Ownership and Development Phasing

• Given the multitude of interests among property owners, single-owner redevelopment of the entire site is unlikely. Instead, development is likely to be incremental and occur in phases.

• Property owners may look to natural partners for initial development opportunities. For instance, RTD and Grace United Methodist Church would not have to tear down buildings to engage in a joint development and may therefore realize development opportunities on vacant land sooner than property owners with built structures.

• Later phases of development may be realized as property owners’ interest levels in development increase with the opening of the light rail in 2006. Interest will be further stimulated as an increasing number of light rail passengers arrive and depart the LRT station. The final phases of development may include newer properties, such as the Koelbel office building, which is currently under construction, and the Total gas station, which has a five-year lease.

• A development program in which individual property owners work collectively to address issues such as parking and drainage would increase the area’s development potential and would likely work out financially.

Zoning

• Should property owners choose to develop and/or redevelop their properties under existing zoning, the intensity of development is unlikely to change considerably. Most of the existing structures could increase in density by one to three stories.
Traffic Circulation

- Although Yale Circle and Forest Street could be realigned to create a four-way intersection, a traffic signal with pedestrian crossings on either side would suffice to handle future traffic.

- Reconfiguring Yale Circle might yield a larger development area, but the cost of relocating existing underground utilities on Yale Circle would likely preclude this realignment.

- The current Total gas station parcel has two driveway curb cuts to Yale Avenue between Yale Circle (east) and the ramp junction signal. When this parcel is redeveloped, the driveways for the gas station should be closed. Adequate sight distance can be maintained with Yale Circle (east) remaining open.

Pedestrian Circulation

- A lack of pedestrian connections contributes to the isolation of the Yale Station Area from surrounding neighborhoods. Improved connections should include detached sidewalks along Yale Avenue and upgraded pedestrian crossings at a future traffic signal.

Parking

- Parking needs must be met at every phase of redevelopment.

- For structured parking to be viable and encourage maximum development on the site, parking should be centrally located and shared, including parking for RTD park-n-Ride purposes. Structured parking will likely require dense development to justify its cost.

- Overflow parking associated with the light rail station should be addressed through a management program or some other means, so that it does not become a neighborhood issue.

City Actions

- If development interest in the station area becomes more solidified, the City could consider the establishment of an Urban Renewal Area to help facilitate the redevelopment.

- With the exception of the light rail, significant public investments in the station area are unlikely and, therefore, redevelopment will primarily depend on action by property owners.
Guiding Principles

The Guiding Principles have been prepared to help public and private entities maximize land development opportunities and evaluate any redevelopment plans around the Yale Station Area. The following set of Guiding Principles provides property owners and developers with clear expectations by which to base future development and/or redevelopment plans. The Guiding Principles embrace the most desirable characteristics of potential TOD scenarios evaluated earlier in the planning process.

Surrounding Neighborhoods

1. **Promote development that is compatible with and complimentary to surrounding residential neighborhoods.** According to Blueprint Denver (Denver’s Land Use and Transportation Plan), the Yale Station Area is an Area of Change surrounded by Areas of Stability. The goal of this Station Area Study is to focus development at the station area, not to encourage the redevelopment of surrounding single-family neighborhoods.

2. **Establish building heights that are appropriate for an urban village center and that transition to surrounding residential neighborhoods.** Locating taller buildings near the eastern edge of the site will maximize visibility of the site from the interstate highway, at the same time creating a buffer between interstate traffic and surrounding neighborhoods. Buildings on the western side of the site should step down in height to create a visual transition between higher-intensity land uses adjacent to the light rail station and smaller-scale residential neighborhoods to the north and west of the station area. The Yale Station Area is not located in an existing Denver View Preservation Corridor.

3. **Ensure building scale, placement, design, and landscape treatment provide adequate visual and noise buffers between new development and existing adjacent neighborhoods.** Seek opportunities to locate structures as buffers between I-25 and the single-family residential areas.

4. **Recognize the character of single-family neighborhoods in Arapahoe County that abut the station area as a part of the overall Study.**

5. **Create methods to address spillover of transit station parking into surrounding neighborhoods.**

Access and Circulation

6. **Prepare for the changing transportation patterns that the opening of light rail will bring.** Opening day of the light rail system will bring an immediate change to transportation patterns around the station area. The introduction of light rail in combination with development on the site will increase the number of people who use the station area.

7. **Provide safe and efficient vehicular access to the site.** Although the use of alternative modes will increase with the opening of the light rail system, private automobile access will continue to be a major transportation mode in the Yale Station Area.
8. **Ensure adequate internal traffic circulation within the station area.** In case of traffic incidents on Yale Circle, maintain the two existing access points at Yale Circle.

9. **Ensure convenient bus access to the site and efficient circulation within the station area.** Accommodate bus loading near the light rail station for passenger convenience.

10. **The location and design of parking lots should not cause conflicts with bus and pedestrian circulation.** Entrance and exit points of parking facilities should be located within safe and adequate distance from bus-loading and turn-around areas. Parking access should also be located to avoid areas with high levels of pedestrian activity.

11. **Improve pedestrian access within ¼ - ½ mile of Yale Station. Provide signal-protected access at Yale Circle and Forest Street for vehicles and pedestrians.** Coordinate sidewalk improvements on Yale Avenue on east of I-25 with Arapahoe County. Improve the safety of pedestrian crossings at I-25 ramps. Encourage the construction of detached sidewalks on Yale Avenue and within the station area.

12. **Provide bicycle access to Yale Station.** The proposed traffic and pedestrian improvements near the station area should also include improvements to bicycle access to the site.

**Parking**

13. **Encourage shared parking arrangements to make optimum use of the site.** Seek opportunities to share parking for RTD park-n-Ride purposes (contingent on RTD’s on-site participation).

14. **Encourage the development of structured or underground parking to minimize land consumption and maximize land development opportunities in those areas.** Parking structures should be centrally located to promote shared parking and serve multiple uses. Preferably, a parking garage will serve on-site employees, residents, and shoppers as well as park-n-Ride patrons.

15. **Design multi-story parking garages to fit the scale of the surrounding buildings.** For large structures, the ground floor level facing the street could be dimensioned to accommodate retail and create a pedestrian-friendly presence on the sidewalk. Architectural treatment and detailing should be used to make the structure less intrusive and more aesthetically pleasing.

**Redevelopment**

16. **Maximize development potential within the transit station area to increase the return on public investment and local property values.**
   - Public investment should leverage private investment.
   - Value capture and higher land values increase City tax base and revenues.
   - Redevelopment of currently under-utilized parcels should provide the built-in ridership needed to support transit.
   - Maximizing development allows investors to realize the full market potential stimulated by the public’s investment in transit.
17. **Promote a mixed-use development with office and multi-family residential development, with limited amounts of convenience and lifestyle retail.** A mix of employees and residents in the Yale Station Area will optimize transit use by generating peak and off-peak transit trips. Providing a variety of land uses within walking distance of each other will also reduce off-site trips and support shared parking. For instance, retail services would provide a convenient option for transit users, employees, and residents of adjacent neighborhoods to run daily errands without the use of a car.

18. **Encourage development at the Yale Station Area that reflects its position in relation to the larger T-REX/Southeast Corridor.** The market projections for office space, residences and retail development take into account the proximity of the Colorado Boulevard Station, the University Hills retail center, and other nearby developments. The projected demand for the next 10 years at the Yale Station Area is:

   - Office 100,000-150,000 sq. ft.
   - Residential 200-250 units
   - Retail 40,000-60,000 sq. ft.

19. **Encourage multi-family housing to diversify housing options at the Yale Station Area.** Desirable types of housing for the station area are senior and assisted-living housing. Demographic information further suggests a market for other types of one- and two-person households.

**Urban Design**

20. **Require pedestrian connections within and between all parcels with the development and redevelopment of all parcels in the station area.** All sidewalks must be continuous, connecting the station platform to the existing sidewalks on Yale Avenue.

21. **Provide a public open space network in the station platform, bus-boarding areas, streets, and sidewalks.** Because of the limited size of the station area, public investment in open space should be restricted to the areas mentioned above. Additional plazas and open space may be appropriate as components of private development.

22. **Design parking lots and structures so they do not dominate the frontage of pedestrian-oriented streets or establish impediments to pedestrian routes.** Encourage development on street-side edges of parking structures to decrease the view of the structure.

23. **Design ground floor uses of station area buildings to take advantage of their location near an active transit station.** Retail or other active uses should be located on the ground floors of parking structures and other buildings in areas of pedestrian activity. Where active first-floor uses are not appropriate, provide a clear demarcation between public and private spaces.

24. **Make use of site topography.** Existing grade changes on the site could facilitate the transition between the single-family houses already there and the higher-density development coming to the site. Grade changes allow varied building heights and
entrances at different levels. Structured parking can be built into existing slopes with parking decks at a substantial cost savings compared to underground structured parking.

**Timing/Phasing**

25. **Encourage private property owners to direct development at the Yale Station Area.** The City of Denver does not expect to take the lead but will facilitate development at the Yale Station Area that is compatible with the goals of transit-oriented development.

26. **Promote land assemblage.** Encouraging the consolidation of small lots of less than one acre into larger parcels will increase the station area’s development potential and increase owners’ ability to address such issues as drainage, parking, setbacks, bulk planes, etc. If land assemblage does not occur, ensure that incremental development by multiple owners does not preclude long-term transit-oriented development opportunities.

27. **Facilitate a long-term development strategy.** Phasing development in the near-, mid-, and long-term will enhance the financial feasibility by allowing incremental, market-driven changes to build on each other toward a single vision. Prior to the opening of the T-REX/ Southeast I-25 Corridor light rail system, near-term development should demonstrate compatibility with the future transit station and with the adjoining neighborhood.

28. **Plan surface parking lots as temporary uses.** Surface parking lots should serve land-banking functions, converting the land to other uses, such as mixed uses with consolidated parking, in later phases of development.

**Implementation**

Specific actions that proactively implement the Guiding Principles are essential to the full realization of TOD potential in the Yale Station Area. In itself, the introduction of the LRT station could stimulate land development opportunities in and near Yale Station, but it is unlikely to do so alone. Several other factors, such as a strong investment climate combined with flexible public regulations, incentives and, possibly, infrastructure improvements and/or investments, should be in place to realize the vision outlined in the Guiding Principles.

The following implementation actions describe specific private and public strategies.

1. **Explore Zoning Changes that are Consistent with TOD Guiding Principles:** Properties with the greatest development and/or redevelopment potential in the Yale Station Area are currently zoned B-2. This type of neighborhood commercial zoning limits opportunities to develop a mix of higher-intensity transit-oriented uses that are consistent with the Guiding Principles. For instance, B-2 parking requirements restrict opportunities for formal shared parking arrangements. The City is in the process of developing transit mixed use (TMU) zoning that would “give teeth” to the Guiding Principles. Zoning changes should also address a provision for bonuses for higher-intensity development, as well as a streamlining of design review and approval processes to stimulate appropriate development.
2. **Consider Public Investments in an LRT Park-n-Ride Structure**: As an inevitable property owner in the Yale Station Area, RTD has considered providing its land as a contribution to a public/private TOD venture. While the City currently has limited investment capabilities to finance infrastructure improvements such as a parking structure, RTD has already committed to making an investment on the site and is therefore better situated to participate in a joint public/private partnership.

3. **Identify Additional Financing Mechanisms to Stimulate TOD Implementation**: The City currently has a limited number of tools available to promote TOD development. The City’s existing mechanisms include planning, zoning, and infrastructure improvements, but do not include significant financing mechanisms to engage public/private partnerships. Implementing a combination of private and public actions could lead to increased system ridership, help create an interesting mix of pedestrian-friendly uses, and broaden the area’s range of choices in travel, housing, work, and shopping.

4. **Study the Feasibility of a Tax Increment Financing Area**: Opportunities to institute a tax increment financing area based on property values could be used to fill the potential profit gap of a development program.

5. **Develop a Parking Management Program with Arapahoe County**: Currently, patron parking in the Yale Station Area is limited to the Study Area. With the opening of the LRT station, however, transit station parking may overflow into surrounding Arapahoe County neighborhoods to the north. The City and County of Denver should consider working with Arapahoe County to develop a parking management program to address these potential impacts.

6. **Signalize the Yale Avenue/Yale Circle (west) Intersection with Pedestrian Crossings**: The Southeast Corridor EIS noted that the Yale Avenue/Yale Circle (west) intersection would require a signal to accommodate projected traffic, even without redevelopment in the station area. In conjunction with a traffic signal, pedestrian crossings of Yale Avenue should be provided on both sides of the intersection.

7. **Determine Needed Pedestrian Improvements across I-25**: Existing pedestrian connections between the Yale Station Area and Arapahoe County neighborhoods east of I-25 are inadequate and potentially unsafe. In order to improve pedestrian connectivity to the site, what types of improvements are necessary should be assisted to enhance pedestrian and bicycle access, allowing neighborhoods on both sides of I-25 to access the light rail station.

8. **Pursue Yale Avenue Corridor Improvements**: Yale Avenue is currently an unfriendly environment for pedestrians and bicyclists alike. Attached sidewalks are narrow in width and do not provide pedestrians with a sense of safety from vehicular traffic. Potential improvements to Yale Avenue that would create a “boulevard effect” with safety medians for pedestrians and detached sidewalks should be explored.

9. **Reassess the Preliminary Station Design with Respect to Bus Access**: Ingress and egress for the Yale Station Area and bus circulation within the site should be evaluated in greater detail. In addition, the proposed design for the bus turnaround in the preliminary engineering plans does not appear to satisfy RTD’s
basic guidelines for bus station design. The circular drive proposed means that
the rear door of any bus using it would be away from the curb. A design using
linear curb (rather than circular) should be developed with either an in-line or
shallow “sawtooth” configuration.
SECTION 4. APPENDICES

Appendix A: Traffic Circulation Analysis

Proposed Design from Southeast Corridor EIS (Carter & Burgess), 1999

The EIS site plan assumes that the existing Yale Circle alignment would remain. The traffic analysis performed for the EIS did not assume any redevelopment in the station area or its vicinity. That analysis also indicated that even without redevelopment, the Forest Street/Yale Circle (west) intersection would require signalization to handle future traffic demands. The EIS design did not address the question of how the offset between Forest Street and Yale Circle (west) would affect operations or whether the offset should be corrected (presumably by realigning some portion of Yale Circle (west)).

Yale Circle Alignment and Connections to Yale Avenue

East

City and County of Denver (CCD) staff has recommended examining the option that part of Yale Circle (east) be vacated, and access to Yale Avenue be closed at that location. This action would allow greater contiguous land area for redevelopment just north of Yale Avenue between the I-25 interchange and Yale Circle (west), and would concentrate all inbound and outbound access to the station and redeveloped parcels at a single intersection (Yale Circle (west)). The main premise supporting the closure is the proximity of the Yale Circle (east) intersection to the I-25 southbound interchange ramp intersection (about 200 feet). While that proximity can be a significant issue for stopping sight distance and for traffic progression if the intersection is signalized, those concerns can be addressed in some cases. Here, the intersection would not be signalized.

The Total gas station parcel currently has two driveway curb cuts to Yale Avenue between Yale Circle (east) and the ramp junction signal. When this parcel is redeveloped, the driveways for the gas station should be closed. Adequate sight distance can be maintained with Yale Circle (east) remaining open.

If sight distance and proximity to I-25 continue to be significant issues for this intersection, closure of access to certain movements should be considered. In particular, southbound left turns would pose the biggest problem and face the most delay at the intersection. It might also be considered that the intersection allow inbound traffic only, consolidating all outbound traffic activity at the west intersection. Finally, restricting the intersection to inbound transit buses only could provide opportunities for improved bus circulation as well.

West

The CCD has suggested that the project team examine the option of realigning Yale Circle (west) so that it intersects Yale Avenue at the same point as Forest Street to the south. This would create a conventional four-leg intersection that would lend itself better to signalization than the existing "offset" configuration. The EIS noted that the intersection would require a signal in the proposed condition (station), even without the consideration of redevelopment in the station area. EIS analysis also concluded that the signal would not introduce traffic progression problems along Yale Avenue. It is likely
that the intersection would be signalized, but realignment of the Yale Circle Approach with Forest Street is not currently being considered. Pedestrian crossings of Yale Avenue at the intersection could be provided on both sides of the intersection.

**Neighborhood Traffic South of Yale Avenue**
Potential improvements for access to the Yale station area could involve restrictions to certain left turn movements in and out of the streets that serve the neighborhood south of Yale Avenue (primarily Glencoe and Forest Streets). For example, the signalization of the Yale Circle (west) intersections could create a complex situation for traffic and pedestrians if northbound left turns from Forest Street are still permitted. Also, northbound left turns from Glencoe Street would probably be prohibited if the eastbound left turn from Yale Avenue in to the station area (via Yale Circle (east)) is restricted to buses only. In either case, the City and County of Denver would decide whether turn restrictions are warranted.

**Bus Access and Circulation**
The proposed design for the bus stop in the preliminary engineering plans would not appear to satisfy RTD’s basic guidelines for bus station design. The circular drive proposed means that the rear door of any bus using it would be away from the curb. A design using linear curb (rather than circular) should be used with either an in-line or shallow “sawtooth” configuration.

If buses operate on Yale Circle, on-street parking would probably be prohibited wherever buses operate. A more secondary concern is whether the use of articulated buses would affect the street design. If buses only use Yale Circle in one direction, on-street parking might be permissible in the other direction. Another benefit of one-way bus circulation (if it’s counter-clockwise) is that buses would not make a left turn from Yale Circle into the station area. Eliminating this left turn (180 degrees) from the design proposed in the preliminary engineering plans means that the bus lane at the station would not intrude as far into the pedestrian and amenity portion of the station area.

If the east Yale Circle intersection is closed, all bus ingress and egress would occur at the west intersection. If not, there are several alternatives for bus access. Buses from the east would probably enter at the east intersection (right turn) and leave through the west intersection (right turn). If one-way bus circulation on Yale Circle is desirable, buses from the west would also enter at the east intersection (left turn) and leave at the west intersection (left turn). If not, buses from the west might use the west intersection for both ingress and egress. It should not be considered likely that buses would be allowed to make a left turn out of the east intersection because it would not be signalized.

**Eliminating Yale “Circle”**
One concept that has not been explored in detail is the complete reconfiguration of the property access that is currently provided by Yale Circle. In concept, this is what happens if the east intersection with Yale Avenue is closed. If the street connection between Yale Avenue and the LRT station is configured more directly, much greater contiguous development parcel area could be achieved, and more logical parking arrangements could be made for both tenants and station users. The feasibility of this concept depends somewhat on the location of existing utility connections. Further analysis is needed before determining if it is cost-prohibitive to relocate the existing utilities that currently align with the public right-of-way of Yale Circle or if it is possible to build around the utilities in their current location.
Appendix B: Market and Economic Analysis

Underlying Assumptions and Considerations

Economics of Transit-Supportive Development

- Perceived Higher Risk Since Limited Examples in Market
- Greater Market Depth and Diversity
- Lower Land Costs Per Unit
- Lower Infrastructure Costs
- Lower On-Going Maintenance
- Higher Sales Per Square Foot
- Higher Values (Including Residual)
- Broader, More Balanced Tax Base
- Greater Profits Over Long Term

Physical

- Size Limitations of Site – Ability to Accommodate Program With Identity and Activity Generation
- Station’s Ability to Serve as “Gateway” to Area Development
- Blending “Urban” Station Area With Suburban Development—Mixed-Use, Higher Density, Lower Parking Ratios, Pedestrian Connections
- Programming Uses Which Support Multiple Markets – Transit, Neighborhood, Auto Within Confined Area
- Barriers Requiring City Participation - Curb Cuts, Road Alignment, Street Lights, Orientation of Bus Drop and Platform

Regulatory (assumptions)

- City Commitment to Appropriate Mix of Uses
- Where Feasible, Variety of Housing Products Encouraged
- Unique Financing Mechanisms and Regulatory Processes Available *
- Corridor-Specific Land Use Designations -- Density and Compatibility Rather Than Use Alone
- High Standard of Design Consistently Maintained
- Internal Regulatory Process(es) Streamlined

*Fee credits, shared parking, lower ratios


**Market**

- Development Pressures From Interstate 25 Corridor and Southeast Metro Area
  - Corridor Recognized as Linear Market With Unique Submarkets
  - Principal Competition -- Other Stations Within Corridor, Developments Within Impact Area
  - Market Will Respond to Presence of Station, Yet Within Context of Neighborhood
- Relationship to Other Stations – Overflow Location for Office Market at Colorado Station
- Intensification of Retail Opportunities Limited by Competition and Prevailing Orientation
- Precedence for Vertical/Dense Residential Opportunities Among Older Properties
- Age of Competitive Residential Products, Limited Supply of Attached Ownership
- Limitations on DRCOG Projections and Resolution with Census Figures
- Fair Share Analysis From Within Impact Area (I-25 Corridor South) and Denver County

Adjusted Supportable Space – 10 years:
- Residential: 200 to 250 units (2% to 7%)  
- Office: 100,000 to 150,000 sf (5% to 15%)  
- Retail: 40,000 to 60,000 sf (5% to 20%)  
- Flex: 40,000 to 60,000 sf (3% to 5%)  
- Public Spaces, Civic Uses

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2 Neighborhoods adjacent to I-25, south of Broadway and north of Belleview.
### Issues for Consideration

<table>
<thead>
<tr>
<th>Physical Issues</th>
<th>Regulatory Issues</th>
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<tbody>
<tr>
<td>• Surrounding land uses</td>
<td>• Southeast Corridor EIS (design/build in progress)</td>
</tr>
<tr>
<td>• Planned station area design</td>
<td>• Neighborhood Plan</td>
</tr>
<tr>
<td>• Parking requirements of existing uses</td>
<td>• Nature of property ownership</td>
</tr>
<tr>
<td>• Adjacency to I-25 Corridor, LRT, University Hills</td>
<td>• Neighborhood’s desire for weekday uses</td>
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<tr>
<td>• Proximity to Colorado and Hampden stations</td>
<td>• Station’s role within the region (parking and/or development)</td>
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<tr>
<td>• Connections to/isolation from neighborhoods</td>
<td>• Land Use &amp; Transportation Plan – Mixed-Use “Area of Change”</td>
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<tr>
<td>• Condition of off-site improvements</td>
<td>• Incentives for infill development</td>
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<tr>
<td>• Environmental impacts</td>
<td>• Limits on growth legislation</td>
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<td>• Regulators issues</td>
<td>• Inclusionary zoning</td>
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<tr>
<td>• Environmental impacts</td>
<td>• Vacation of street</td>
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<tr>
<td>• Condition of off-site improvements</td>
<td>• Adjacent jurisdictions</td>
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### Financial Issues

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<tr>
<td>• Potential cost of cleanup</td>
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<tr>
<td>• Potential for public participation in infrastructure</td>
</tr>
<tr>
<td>• Qualifying conditions for urban renewal</td>
</tr>
<tr>
<td>• Access to transportation funds</td>
</tr>
<tr>
<td>• Increasing property values in area</td>
</tr>
<tr>
<td>• Empirical evidence: increase in value among transit served properties; higher occupancy rates; higher rates of increase in commercial rents; increases in housing unit pricing</td>
</tr>
<tr>
<td>• Potential need for additional property acquisition</td>
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### Market Issues

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<tbody>
<tr>
<td>• Established perception of area</td>
</tr>
<tr>
<td>• Concentrations of middle market sf detached housing nearby</td>
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<td>• Established and expanding neighborhood infrastructure</td>
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<tr>
<td>• Strength of Colorado Station as an office location</td>
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<tr>
<td>• Proximity to University Hills</td>
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<td>• Timing of improvements</td>
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## Demographic Profile

### Population Growth

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<td>Yale Trade Area</td>
<td>37,884</td>
<td>41,597</td>
<td>42,821</td>
<td>0.85%</td>
<td>0.58%</td>
<td>Yale Trade Area</td>
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<td>18.8%</td>
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<tr>
<td>I-25 Corridor</td>
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<td>102,388</td>
<td>105,688</td>
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<td>0.64%</td>
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<td>19.3%</td>
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<td>13.9%</td>
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<td>Denver County</td>
<td>467,610</td>
<td>560,542</td>
<td>593,475</td>
<td>1.70%</td>
<td>1.20%</td>
<td>Denver County</td>
<td>26.3%</td>
<td>5.1%</td>
<td>14.9%</td>
<td>17.6%</td>
<td>14.0%</td>
<td>22.0%</td>
<td>37.0</td>
</tr>
<tr>
<td>Denver MSA</td>
<td>1,622,997</td>
<td>2,106,181</td>
<td>2,276,371</td>
<td>2.40%</td>
<td>1.60%</td>
<td>Denver MSA</td>
<td>28.0%</td>
<td>5.6%</td>
<td>14.3%</td>
<td>17.8%</td>
<td>14.5%</td>
<td>19.7%</td>
<td>36.2</td>
</tr>
</tbody>
</table>

### Households Growth

<table>
<thead>
<tr>
<th>Region</th>
<th>1990</th>
<th>2001</th>
<th>2006</th>
<th>CAAGR&lt;sup&gt;3&lt;/sup&gt; 1990-01</th>
<th>CAAGR 2001-06</th>
<th>Housing Units (Actual Increase) 1990-01 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yale Trade Area</td>
<td>18,900</td>
<td>20,976</td>
<td>21,714</td>
<td>0.95%</td>
<td>0.69%</td>
<td>Yale Trade Area 2,011 827</td>
</tr>
<tr>
<td>I-25 Corridor</td>
<td>46,210</td>
<td>50,983</td>
<td>52,746</td>
<td>0.90%</td>
<td>0.68%</td>
<td>I-25 Corridor 4,494 1,960</td>
</tr>
<tr>
<td>Denver County</td>
<td>210,952</td>
<td>252,897</td>
<td>267,768</td>
<td>1.70%</td>
<td>1.20%</td>
<td>Denver County 42,588 16,988</td>
</tr>
<tr>
<td>Denver MSA</td>
<td>650,231</td>
<td>867,488</td>
<td>945,562</td>
<td>2.70%</td>
<td>1.70%</td>
<td>Denver MSA 23,499 89,076</td>
</tr>
</tbody>
</table>

### Average Household Size

<table>
<thead>
<tr>
<th>Region</th>
<th>1990</th>
<th>2001</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yale Trade Area</td>
<td>1.93</td>
<td>1.91</td>
<td>1.9</td>
</tr>
<tr>
<td>I-25 Corridor</td>
<td>1.96</td>
<td>1.96</td>
<td>1.96</td>
</tr>
<tr>
<td>Denver County</td>
<td>2.17</td>
<td>2.18</td>
<td>2.18</td>
</tr>
<tr>
<td>Denver MSA</td>
<td>2.46</td>
<td>2.4</td>
<td>2.38</td>
</tr>
</tbody>
</table>

### 1990 Households by HH Type

<table>
<thead>
<tr>
<th>Region</th>
<th>Male +0</th>
<th>Female +0</th>
<th>Married</th>
<th>Other Fam</th>
<th>Non-Fam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yale Trade Area</td>
<td>1.5%</td>
<td>3.6%</td>
<td>40.8%</td>
<td>3.8%</td>
<td>50.2%</td>
</tr>
<tr>
<td>I-25 Corridor</td>
<td>1.3%</td>
<td>3.6%</td>
<td>41.6%</td>
<td>4.0%</td>
<td>49.5%</td>
</tr>
<tr>
<td>Denver County</td>
<td>1.8%</td>
<td>4.5%</td>
<td>37.7%</td>
<td>8.3%</td>
<td>47.7%</td>
</tr>
<tr>
<td>Denver MSA</td>
<td>1.5%</td>
<td>3.7%</td>
<td>52.0%</td>
<td>8.0%</td>
<td>34.8%</td>
</tr>
</tbody>
</table>

---

<sup>3</sup> CAAGR = Compound Annual Average Growth Rate
**Demographic Profile (cont.)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yale Trade Area</td>
<td>$19,417</td>
<td>$36,739</td>
<td>5.5%</td>
<td>$30,393</td>
<td>$55,058</td>
<td>5.1%</td>
<td></td>
</tr>
<tr>
<td>I-25 Corridor</td>
<td>$21,897</td>
<td>$42,054</td>
<td>5.6%</td>
<td>$32,723</td>
<td>$62,176</td>
<td>5.5%</td>
<td></td>
</tr>
<tr>
<td>Denver County</td>
<td>$15,563</td>
<td>$30,542</td>
<td>5.8%</td>
<td>$25,142</td>
<td>$46,962</td>
<td>5.3%</td>
<td></td>
</tr>
<tr>
<td>Denver MSA</td>
<td>$16,072</td>
<td>$30,196</td>
<td>5.4%</td>
<td>$31,958</td>
<td>$56,419</td>
<td>4.9%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2001 HH by HH Income</th>
<th>&lt;$24,999</th>
<th>$25,000-$34,999</th>
<th>$35,000-$49,999</th>
<th>$50,000-$74,999</th>
<th>$75,000-$99,999</th>
<th>$100,000-$149,999</th>
<th>$150,000&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yale Trade Area</td>
<td>18.1%</td>
<td>12.2%</td>
<td>14.7%</td>
<td>21.3%</td>
<td>13.2%</td>
<td>12.0%</td>
<td>8.6%</td>
</tr>
<tr>
<td>I-25 Corridor</td>
<td>14.6%</td>
<td>9.8%</td>
<td>14.5%</td>
<td>21.5%</td>
<td>14.4%</td>
<td>13.4%</td>
<td>11.9%</td>
</tr>
<tr>
<td>Denver County</td>
<td>25.8%</td>
<td>11.5%</td>
<td>15.0%</td>
<td>19.1%</td>
<td>11.6%</td>
<td>9.7%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Denver MSA</td>
<td>18.8%</td>
<td>10.0%</td>
<td>14.9%</td>
<td>21.9%</td>
<td>14.6%</td>
<td>11.8%</td>
<td>8.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2001 Owner-Occ HH by Value</th>
<th>&lt;$74,999</th>
<th>$75,000-$99,999</th>
<th>$100,000-$149,999</th>
<th>$150,000-$199,999</th>
<th>$200,000-$299,999</th>
<th>$300,000-$499,999</th>
<th>$500,000&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yale Trade Area</td>
<td>0.9%</td>
<td>2.5%</td>
<td>37.3%</td>
<td>33.6%</td>
<td>17.9%</td>
<td>6.8%</td>
<td>1.0%</td>
</tr>
<tr>
<td>I-25 Corridor</td>
<td>1.2%</td>
<td>2.9%</td>
<td>29.3%</td>
<td>32.1%</td>
<td>23.3%</td>
<td>8.6%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Denver County</td>
<td>6.5%</td>
<td>14.5%</td>
<td>37.4%</td>
<td>22.5%</td>
<td>12.1%</td>
<td>4.7%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Denver MSA</td>
<td>4.5%</td>
<td>9.5%</td>
<td>36.2%</td>
<td>25.5%</td>
<td>16.0%</td>
<td>5.9%</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

<sup>4</sup> CAAGR = Compound Annual Average Growth Rate

---

40 Yale Station Area Study
# Market Characteristics

## Commercial Retail
Supply Conditions – Year-End 2000/99

<table>
<thead>
<tr>
<th>Total Square Feet</th>
<th>Vacant Square Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total SF</td>
</tr>
<tr>
<td>Denver Metro Area</td>
<td>64,748,900</td>
</tr>
<tr>
<td>Percent of Total</td>
<td>7.6%</td>
</tr>
</tbody>
</table>

## Absorption

<table>
<thead>
<tr>
<th>Total SF</th>
<th>Single Ten</th>
<th>Small Strip</th>
<th>Large Strip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denver Metro Area</td>
<td>1,673,000</td>
<td>213,200</td>
<td>82,200</td>
</tr>
<tr>
<td>Southeast Submarket</td>
<td>(25,800)</td>
<td>0</td>
<td>22,900</td>
</tr>
<tr>
<td>Percent of Total</td>
<td>5.5%/5.8%</td>
<td>5.0%/6.2%</td>
<td>6.0%/5.9%</td>
</tr>
</tbody>
</table>

## Southeast Rental Rates

- **Small Strip**: $10-$20
- **Large Strip**: $12-$24
- **Metro Range**: $7-$40
- **Operating Expenses**: $2-$3

---

5 Denver Metro Area = 5 Counties of Adams, Arapahoe, Denver, Douglas, and Jefferson
6 Southeast Submarket = Area south of 6th Avenue; west of Havana; north of Hampden and east of University.


**Market Characteristics**

**Commercial Retail Demand**

2000 Trade Area Households: 21,930
2005 Trade Area Households: 22,473
2010 Trade Area Households: 24,170

Household Growth:
- 2000 to 2005: 543
- 2005 to 2010: 1,697

Annual Average HH Expenditures:* 
- 2000 to 2005: $14,700
- 2005 to 2010: $18,700

Aggregate Sales Potential from HH Growth:
- 2000 to 2005: $7,982,100
- 2005 to 2010: $31,733,900

Imported Sales from Outside Trade Area: 20%

Total Trade Area Sales Potential:
- 2000 to 2005: $9,578,520
- 2005 to 2010: $38,080,680

Total Trade Area Supportable Retail SF:
- 2000 to 2005: 45,000 to 65,000
- 2005 to 2010: 115,000 to 135,000

* Includes purchases for goods typically purchased within a Community Center.
** Figures adjusted to reflect inflation.

---

7 Includes University, University Park, Wellshire, University Hills, Goldsmith, Virginia Village and Cory-Merrill neighborhoods.
### Market Characteristics

#### Commercial Office

**Supply Conditions – Year-End 2000/99**

<table>
<thead>
<tr>
<th></th>
<th>Total Square Feet</th>
<th>Vacant Square Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total SF</td>
<td>Class A</td>
</tr>
<tr>
<td>Denver Metro Area</td>
<td>78,133,300</td>
<td>36,425,400</td>
</tr>
<tr>
<td>Southeast Submarket</td>
<td>8,887,400</td>
<td>2,345,300</td>
</tr>
<tr>
<td>% of Total</td>
<td>11.4%</td>
<td>6.4%</td>
</tr>
</tbody>
</table>

#### Absorption

<table>
<thead>
<tr>
<th></th>
<th>Total SF</th>
<th>Class A</th>
<th>Class B</th>
<th>Class C</th>
<th>% Vacant</th>
<th>Class A</th>
<th>Class B</th>
<th>Class C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denver Metro Area</td>
<td>3,045,900</td>
<td>3,078,600</td>
<td>(200,500)</td>
<td>167,800</td>
<td>8.2%/8.3%</td>
<td>7.8%/8.2%</td>
<td>8.9%/7.9%</td>
<td>8.0%/9.6%</td>
</tr>
<tr>
<td>Southeast Submarket</td>
<td>137,900</td>
<td>79,900</td>
<td>27,000</td>
<td>31,000</td>
<td>8.6%/8.5%</td>
<td>16.6%/14.9%</td>
<td>4.6%/4.7%</td>
<td>8.3%/9.9%</td>
</tr>
<tr>
<td>% of Total</td>
<td>4.5%</td>
<td>2.6%</td>
<td>%</td>
<td>18.5%</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

#### Owner Occupied

<table>
<thead>
<tr>
<th></th>
<th>Total SF</th>
<th>class A Rental Rates</th>
<th>class B Rental Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denver Metro Area</td>
<td>16,705,200</td>
<td>Class A $20-$28</td>
<td>Class B $18-$22</td>
</tr>
<tr>
<td>Southeast Submarket</td>
<td>1,982,000</td>
<td>Metro Range $8-$35</td>
<td>Operating Expenses $5-$7</td>
</tr>
<tr>
<td>% of Total</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
</tbody>
</table>

---

8 Southeast Submarket = Area south of 6th Avenue; west of I-225; north of Hampden and east of Sheridan.
MARKET CHARACTERISTICS

Commercial Office Demand

2000 Trade Area Employment*: 71,814
2005 Trade Area Employment*: 75,001
2010 Trade Area Employment*: 76,026

Total Employment Growth:
  2000 to 2005 3,187
  2005 to 2010 1,025

Annual Average Increase:
  2000 to 2005 637
  2005 to 2010 205

Annual Demand for Office Space Employees (65%):
  2000 to 2005 414
  2005 to 2010 133

Office Square Feet Per Employee: 200

Total Trade Area Annual Office Demand:
  2000 to 2005 75,000 to 100,000
  2005 to 2010 25,000 to 50,000

* Includes self-employed workers.

---

* Includes University, University Park, Wellshire, University Hills, Goldsmith, Virginia Village, Cory-Merrill, Hampden, Southmoor Park, and Hampden South neighborhoods.
**Market Characteristics**

### Industrial

#### Supply Conditions – Year-End 2000/99

<table>
<thead>
<tr>
<th></th>
<th>Total Square Feet</th>
<th>Vacant Square Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Single/Ware</td>
<td>Multi/Ware</td>
</tr>
<tr>
<td>Denver Metro Area</td>
<td>74,422,800</td>
<td>49,735,300</td>
</tr>
<tr>
<td>Central Submarket</td>
<td>17,845,400</td>
<td>7,130,900</td>
</tr>
<tr>
<td>% of Total</td>
<td>24.0%</td>
<td>14.3%</td>
</tr>
</tbody>
</table>

#### Absorption

|                      | Single/Ware       | Multi/Ware         | Single R&D | Multi R&D |
| Denver Metro Area    | 221,500           | 3,659,000          | 9,200      | 661,500    |
| Central Submarket    | 358,900           | 150,800            | 0          | (9,100)    |
| % of Total           | 162.0%            | 4.1%               | 0.0%       | (1.4%)     |

#### Metro Rental Rate Range

<table>
<thead>
<tr>
<th></th>
<th>Single Tenant Warehouse</th>
<th>Multi-Tenant Warehouse</th>
<th>Single Tenant R&amp;D</th>
<th>Multi-Tenant R&amp;D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Tenant Warehouse</td>
<td>$2.75-$9.00</td>
<td></td>
<td>$4.75-$14.00</td>
<td>$4.25-$14.25</td>
</tr>
<tr>
<td>Multi-Tenant Warehouse</td>
<td>$3.00-$9.00</td>
<td></td>
<td>$4.00-$7.00</td>
<td>$4.00-$7.00</td>
</tr>
<tr>
<td>Single Tenant R&amp;D</td>
<td>$4.75-$14.00</td>
<td></td>
<td>$4.75-$7.00</td>
<td>$4.25-$14.25</td>
</tr>
<tr>
<td>Multi-Tenant R&amp;D</td>
<td>$4.25-$14.25</td>
<td></td>
<td>$4.25-$7.00</td>
<td>$2-$3</td>
</tr>
</tbody>
</table>

---

10 Central Submarket = Area south of I-76; west of Colorado Boulevard; approximately north of Alameda and east of Sheridan.
**Market Characteristics**

**Industrial**

**Demand**

- 2000 Trade Area Employment*: 71,814
- 2005 Trade Area Employment*: 75,001
- 2010 Trade Area Employment*: 76,026

Total Employment Growth:
- 2000 to 2005: 3,187
- 2005 to 2010: 1,025

Annual Average Increase:
- 2000 to 2005: 637
- 2005 to 2010: 205

Annual Demand for Industrial Space Employees (20%):
- 2000 to 2005: 127
- 2005 to 2010: 41

Industrial Square Feet Per Employee: 350

Total Trade Area Annual Industrial Demand:
- 2000 to 2005: 40,000 to 60,000
- 2005 to 2010: 10,000 to 30,000

* Includes self-employed workers.
Market Characteristics

Attached Ownership
Residential
Supply Conditions - 2000

New Home Sales by County

<table>
<thead>
<tr>
<th>County</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams</td>
<td>16%</td>
</tr>
<tr>
<td>Arapahoe</td>
<td>21%</td>
</tr>
<tr>
<td>Boulder</td>
<td>14%</td>
</tr>
<tr>
<td>Denver</td>
<td>12%</td>
</tr>
<tr>
<td>Douglas</td>
<td>27%</td>
</tr>
<tr>
<td>Jefferson</td>
<td>10%</td>
</tr>
</tbody>
</table>

Top Selling Single Builder
Subdivisions by Zip Code – Attached Units by Avg Price

<table>
<thead>
<tr>
<th>Zip Code</th>
<th>Avg Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd – 80231</td>
<td>$139.5</td>
</tr>
<tr>
<td>5th – 80231</td>
<td>$136.3</td>
</tr>
<tr>
<td>7th – 80231</td>
<td>$261.0</td>
</tr>
<tr>
<td>12th – 80204</td>
<td>$289.3</td>
</tr>
<tr>
<td>19th – 80218</td>
<td>$390.4</td>
</tr>
<tr>
<td>21st – 80231</td>
<td>$155.0</td>
</tr>
<tr>
<td>27th – 80203</td>
<td>$610.0</td>
</tr>
</tbody>
</table>

* Recorded Home Closings

New Home Demand by Price Band

<table>
<thead>
<tr>
<th>Price Band</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under $100K</td>
<td>0%</td>
</tr>
<tr>
<td>$100K - $125K</td>
<td>2%</td>
</tr>
<tr>
<td>$125K - $150K</td>
<td>9%</td>
</tr>
<tr>
<td>$150K - $175K</td>
<td>14%</td>
</tr>
<tr>
<td>$175K - $200K</td>
<td>15%</td>
</tr>
<tr>
<td>$200K - $225K</td>
<td>13%</td>
</tr>
<tr>
<td>$225K - $250K</td>
<td>6%</td>
</tr>
<tr>
<td>Over $500K</td>
<td>5%</td>
</tr>
</tbody>
</table>

Top 25 Selling Zip Code Areas *

<table>
<thead>
<tr>
<th>Zip Code</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 80126</td>
<td>10.2%</td>
</tr>
<tr>
<td>24th – 80304</td>
<td>0.4%</td>
</tr>
<tr>
<td>80231 – Lowry Field/Windsor</td>
<td></td>
</tr>
<tr>
<td>80204 – Sun Valley</td>
<td></td>
</tr>
<tr>
<td>80218 – Cap Hill/Cheesman Pk</td>
<td></td>
</tr>
<tr>
<td>80203 – Civic Ctr/Cap Hill</td>
<td></td>
</tr>
<tr>
<td>80236 – Fort Logan</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zip Code</th>
<th>Avg Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>29th – 80204</td>
<td>$175.3</td>
</tr>
<tr>
<td>30th – 80231</td>
<td>$234.5</td>
</tr>
<tr>
<td>34th – 80236</td>
<td>$238.2</td>
</tr>
</tbody>
</table>

Rentals Residential
Supply Conditions – 2000/99

Vacancy Rate by County

<table>
<thead>
<tr>
<th>County</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams</td>
<td>5.2%/4.3%</td>
</tr>
<tr>
<td>Arapahoe</td>
<td>5.1%/3.9%</td>
</tr>
<tr>
<td>Boulder</td>
<td>3.8%/8.8%</td>
</tr>
<tr>
<td>Denver</td>
<td>4.7%/4.3%</td>
</tr>
<tr>
<td>Douglas</td>
<td>11.0%/3.8%</td>
</tr>
<tr>
<td>Jefferson</td>
<td>3.4%/4.6%</td>
</tr>
<tr>
<td>Metro Avg</td>
<td>4.9%/4.5%</td>
</tr>
</tbody>
</table>

Average Rents by County and Unit Type

<table>
<thead>
<tr>
<th>County</th>
<th>Eff</th>
<th>1-br</th>
<th>2-br/1-ba</th>
<th>2-br/2-ba</th>
<th>3-br</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denver</td>
<td>$463</td>
<td>$634</td>
<td>$751</td>
<td>$923</td>
<td>$1001</td>
<td>$717</td>
</tr>
<tr>
<td>Metro</td>
<td>$496</td>
<td>$655</td>
<td>$753</td>
<td>$921</td>
<td>$1008</td>
<td>$752</td>
</tr>
</tbody>
</table>

Rent Per SF by County and Unit Type

<table>
<thead>
<tr>
<th>County</th>
<th>Eff</th>
<th>1-br</th>
<th>2-br/1-ba</th>
<th>2-br/2-ba</th>
<th>3-br</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denver</td>
<td>$1.09</td>
<td>$0.98</td>
<td>$0.86</td>
<td>$0.88</td>
<td>$0.76</td>
<td>$0.91</td>
</tr>
<tr>
<td>Metro</td>
<td>$1.10</td>
<td>$1.00</td>
<td>$0.86</td>
<td>$0.89</td>
<td>$0.83</td>
<td>$0.92</td>
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</table>
# Market Characteristics

## Attached Ownership Residential

### Demand

| Housing Sale Price Range: | $125,000 - $175,000 |
| HH Income Range:         | $40,000 - $55,000 |

2000 Trade Area Households: 21,930
2005 Trade Area Households: 22,473
2010 Trade Area Households: 24,170

Total New Trade Area Households: 2,240
Estimated Percent of New Housing Units: 30%
Total Trade Area Demand for New Attached Ownership Housing Units: 672
Annual Trade Area Demand for New Attached Ownership Housing Units: 65 to 85

---

## Rental Residential

### Demand

| Housing Monthly Rent Range: | $800 - $1,200 |
| HH Income Range:            | $30,000 - $50,000 |

2000 Trade Area Households: 21,930
2005 Trade Area Households: 22,473
2010 Trade Area Households: 24,170

Total New Trade Area Households: 2,240
Estimated Percent of New Housing Units: 30%
Total Trade Area Demand for New Rental Housing Units: 672
Annual Trade Area Demand for New Rental Housing Units: 65 to 85

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11 Includes University, University Park, Wellshire, University Hills, Goldsmith, Virginia Village and Cory-Merrill neighborhoods.
Appendix C: Analysis of Alternative Development Scenarios

Several development scenarios were produced based on projected market demand in the area and the ability of the site to absorb higher densities. Several conceptual plans were prepared, refined by the stakeholders, and evaluated through development pro formas to understand what mix of uses that would produce a realistic profit. The following figure conceptually illustrates a hybrid of the scenarios described below:

Scenario 1

Key characteristics of Scenario 1 include the following:

- Existing office structures and related surface parking along the interior of Yale Circle remain.

- The strip retail center on the west corner of Yale Avenue and Yale Circle and the church parking lot immediately north of it are redeveloped with a mix of retail and mid-density retail uses. In this scenario, second story housing may be developed above first floor retail stores.
• The vacant land along the northwest corner of Yale Circle is developed as a park-n-Ride, with either surface parking or a parking structure for joint use by church and light rail patrons.
• The area east of Yale Circle, immediately south of a light rail station plaza, is redeveloped with a mix of multi-story office and residential uses with associated structured parking.
• The northeast corner of Yale Circle, immediately north of a light rail station plaza, is redeveloped with a multi-story office building and associated structured parking.

**Scenario 2**

Key characteristics of Scenario 2 include the following:
• The new Koelbel office structure and related surface parking north of Yale Avenue within the interior of Yale Circle remain. The two older office buildings are redeveloped with either multi-story office or housing with associated structured parking.

• The strip retail center on the west corner of Yale Avenue and Yale Circle remains.
• The church parking lot and vacant land immediately north of the lot is redeveloped with either surface parking or a parking structure for joint use by church and light rail patrons.
• The area east of Yale Circle, immediately south of a light rail station plaza, is redeveloped with a mix of multi-story office and residential uses with associated structured parking.
• The northeast corner of Yale Circle, immediately north of a light rail station plaza, is developed as a park-n-Ride, with either surface parking or a parking structure for light rail patrons.

**Scenario 3**

Key characteristics of Scenario 3 include the following:
• The new Koelbel office structure north of Yale Avenue within the interior of Yale Circle remains. The associated surface parking lot and remainder of land within the interior of Yale Circle redevelops with a mix of multi-story office uses and structured parking for joint use by office tenants and patrons and light rail patrons.

• The strip retail center on the west corner of Yale Avenue and Yale Circle is redeveloped with a mix of senior housing, retail, and associated parking.
• The church parking lot immediately north of the existing retail center remains.
• The vacant land along the northwest corner of Yale Circle is developed with mid-density housing i.e., townhouses, and associated parking.
• The area east of Yale Circle, immediately south of a light rail station plaza, is redeveloped with a mix of multi-story office or residential uses with associated structured parking.
• The northeast corner of Yale Circle, immediately north of a light rail station plaza, is redeveloped with a mix of multi-story office or residential uses with associated structured parking.
Scenario 4

Key characteristics of Scenario 4 include the following:

- The new Koelbel office structure and associated parking north of Yale Avenue within the interior of Yale Circle remains. The remainder of land within the interior of Yale Circle redevelops as surface parking for light rail patrons.

- The strip retail center on the west corner of Yale Avenue and Yale Circle remains.
- The church parking lot, vacant land immediately north of the lot, and vacant land along the northwest corner of Yale Circle is redeveloped with either surface parking or a parking structure for joint use by church and light rail patrons.
- The area east of Yale Circle, immediately south of a light rail station plaza, is redeveloped as either surface parking or a parking structure for light rail patrons.
- The Total gas station north of Yale Avenue and east of Yale Circle remains.