



STAPLETON
DEVELOPMENT PLAN
Integrating Jobs, Environment and Community

FORESTCITY
DEVELOPMENT

PREPARED BY
STAPLETON REDEVELOPMENT FOUNDATION
CITY AND COUNTY OF DENVER
CITIZENS ADVISORY BOARD
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VI. REDEVELOPMENT MANAGEMENT STRUCTURE

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The Need

One of the most significant institutional decisions associated with the Stapleton redevelopment program is the type of management structure created to guide the site's disposition and development.

The 4,700 acre Stapleton site is owned by the City and County of Denver. Its disposition is subject to specific obligations imposed by the Charter of the City and County, commitments to airport system bondholders, federal grant conditions, provisions in airline tenant leases and other sources. Fundamentally, however, the City and County is the owner and the Mayor and City Council are the ultimate decision-makers. This fact places the City and County in the role of owner and potentially direct participant in the development and management of land, rather than its more traditional role of regulator of the use of privately owned land.



The City and County seeks to dispose of the Stapleton property in a prudent fashion and achieve a positive financial return on the asset. Given the enormous size of the asset, this disposition is likely to take place over time rather than through a single transaction or conveyance. In addition, the City and

County hopes to advance a number of community economic and social objectives through the reuse of the Stapleton property. The City and County's opportunity to do so is potentially much greater as an owner of land rather than simply a regulator. It can and must, as an owner, assure quality development.

The City and County will seek ways to attract private interest and investment in the Stapleton property. Successful redevelopment from a financial and community perspective will require ongoing public involvement (beyond normal regulatory approvals), in one form or another. The alternative would be to eliminate public involvement at the outset and convey the entire site immediately to one or more private parties (assuming willing buyers exist).

Absent adopting this approach, the public will be a participant at some level in the redevelopment process. The roles it plays and the vehicle or vehicles it uses to play them may well be critical to the long-term success of the redevelopment program. The public management role must encourage, rather than substitute for, private involvement.

The important question becomes how best to structure the public involvement. There is clearly a need to balance the desire for continuing public accountability with the desire to create a vehicle capable of operating in an efficient, professional and flexible fashion. Given that redevelopment activity could span more than 30 years, it is essential that a structure be developed that can provide continuity and be somewhat insulated from short-term pressures and the uncertainties of four-year election cycles.

Roles and Possible Structures

The structure established may need to address a number of governance, management and financing requirements of a long-term redevelopment program. For example, a public redevelopment entity may need to perform or otherwise require the ability to address the following:

- project management
- service delivery
- programming and management of events and interim uses on the site
- physical and financial master planning
- sales and leasing
- project phasing
- financing and provision of site improvements (infrastructure and amenities)
- communications and community outreach
- programmatic activities (training and economic development programs, project financing, incentives, affirmative action programs, research, etc.)
- design review and other quasi-regulatory functions

"INSTEAD OF OPERATING AS MASS SUPPLIERS OF PARTICULAR GOODS OR SERVICES, PUBLIC AGENCIES ARE FUNCTIONING MORE AS FACILITATORS AND BROKERS AND SEED CAPITALISTS IN EXISTING OR INCIPIENT MARKETPLACES. AS THE PAST DECADE HAS TAUGHT MANY OF THE LEADING PRIVATE CORPORATIONS, THIS MORE ENTREPRENEURIAL ROLE CANNOT BE PERFORMED WELL BY TRADITIONAL COMMAND STYLE BUREAUCRACIES."

THE CORPORATION FOR ENTERPRISE DEVELOPMENT FROM REINVENTING GOVERNMENT BY D. OSBORNE AND T. GAEBLER

Discussion of possible management structures for the redevelopment program began in 1990-1991 as part of the Stapleton Tomorrow process. More recently, a work group convened by the Stapleton Redevelopment Foundation and composed of representatives of the City and County administration, City Council, Citizens Advisory Board, Stapleton Redevelopment Foundation and the Denver Urban Renewal Authority reviewed the range of possible options. In addition to exploring the possible roles a management or development entity might play, the work group considered the characteristics that might be essential or desirable in such an entity.

The work group reviewed five categories of options for a Stapleton development entity. Those categories included:

- A newly formed 501(c)(3) nonprofit development corporation.
- The Denver Urban Renewal Authority (DURA) or a sub-structure created under DURA consistent with provisions of urban renewal law.
- A newly created public development authority, requiring specific authorization by the Colorado General Assembly.
- A new entity created pursuant to the Intergovernmental Agreement provisions of Colorado law.
- A City and County department or agency operating under the City and County Charter.

Recommended Approach

The recommended approach that emerged involves the City and County and DURA entering into an agreement to create a third structure, a nonprofit development corporation. In general, the structure would have the following characteristics:

- The City and County and DURA would create a third entity to assume responsibility for management of the Stapleton site and redevelopment project.
- The entity would be a 501(c)(3) corporation governed by a board of directors appointed by the Mayor and DURA Commissioners and confirmed by the Denver City Council.

THE ATTRIBUTES OF THE MANAGEMENT STRUCTURE SUGGESTED AS APPROPRIATE AT THE OUTSET OF THE INVESTIGATION INCLUDED THE FOLLOWING:

Control Must have control of Stapleton asset and authority to make and carry out decisions. Must provide continuity over time.

Authority Must have legal authorities necessary to carry out responsibilities (sell, lease, own, contract, finance, etc.). Must have community support and must provide for direct community involvement in governance structure.

Mandate Must have a defined public mission and mandate from the community (the Vision and Development Plan). Must see its primary mission as enabling private development activity to achieve that vision over time and assuring high quality development.

Capacity Must have the skills, experience and tools necessary to perform its various roles effectively (manage, plan, market, finance, regulate, service, lease and sell, involve community, etc.).

Capitalization Must have sufficient resources to cover 1) operating and administrative costs, 2) property management, 3) programming of events, 4) site improvements and 5) economic and community development initiatives. Must be able to draw resources from a variety of public, private and philanthropic sources. Must ultimately be self-sufficient.

Accountability Must insure continuing commitment to public development objectives and responsiveness to evolving needs of the community. Must be accountable but not political.



- The City and County would provide initial operating support to the entity with the expectation that it will ultimately be financially self sufficient. The City and County will have a formal operating agreement with the entity defining its role and responsibilities.



- The entity would function on behalf of the City and County and would have the necessary capacities to perform required functions (manage, lease, sell, contract, provide services, etc.). The entity would operate outside of City and County contracting, personnel and other systems.

- The entity could issue tax-exempt revenue bond debt to finance infrastructure and site improvements with prior

approval of the City and County. DURA would provide any necessary urban renewal powers such as tax-increment financing if requested by the entity and the City and County to do so.

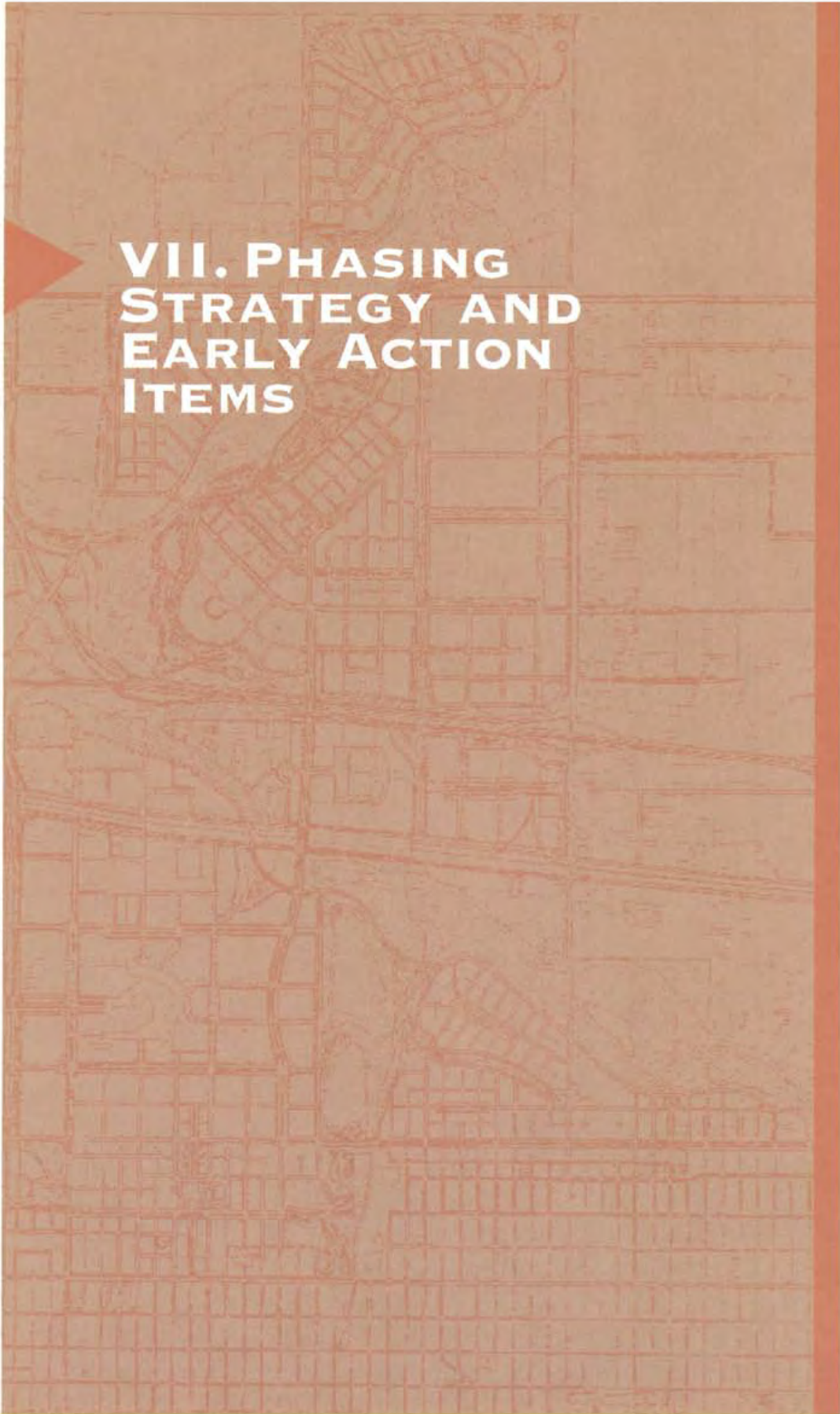
- The entity would function consistent with open meeting and open records provisions and would adopt a code of ethics to govern members of its board and its staff.
- The entity would be exempt for purposes of Amendment 1.
- The entity could take title to Stapleton property if necessary and subject to existing requirements and obligations.

The approach described above has been recommended by the work group to the Mayor and City Council. The draft documents necessary to create such a structure have been developed by the City and County and the Stapleton Redevelopment Foundation and reviewed by the Citizens Advisory Board. Consideration and creation of a new entity is expected to take

place at approximately the same time as consideration and adoption of the Stapleton Development Plan by the City Council. Transition of responsibility to the new entity would begin following adoption of the Development Plan. Once transition to the new entity has been substantially achieved, it is the intention of the board of the Stapleton Redevelopment Foundation to sunset the foundation.

In addition to the legal steps required to create and empower a new development entity, there are additional issues that will need resolution. Funding sources for the development entity must be identified and committed. Once operational, the governing body of the development entity will need to work with the City and County, airlines, FAA and others to further define how best to fulfill the fair market value obligations associated with disposition, as well as the mechanisms and timing for addressing issues such as transfer of title, environmental remediation and long-term responsibility for stewardship of Stapleton assets prior to disposition or conveyance.

Beyond these activities, the City and County will continue to exercise a variety of responsibilities that will influence the nature and pace of redevelopment of the site. The City and County will continue to exercise its role as regulator of land use, provider of services and general purpose government of the jurisdiction in which the Stapleton property lies. In addition, the City and County will continue to have oversight of implementation of the Development Plan from a policy perspective and approval responsibilities with respect to the issuance of debt and creation of other financing and regulatory mechanisms. Creation of a development entity to manage development activity will not alter the City and County's ultimate responsibilities with respect to development of the site. It will, however, shift the day-to-day responsibility for the conduct of the business of redevelopment to the new entity. The Mayor and City Council will retain their role as the ultimate policy-makers and the ultimate point of accountability for the redevelopment program.



VII. PHASING STRATEGY AND EARLY ACTION ITEMS

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PHASING STRATEGY

The full buildout of the Stapleton site will likely span several decades. The exact sequence of events over this period of time cannot be predicted with precision. It will be important, however, to focus development activity in a selected set of subareas and provide improvements and service extensions in a logical and efficient fashion.

Following are specific phasing principles with respect to the location, timing and type of development.

Location of Development - Given the large scale of the site, early development should occur in a limited number of locations, allowing for concentrations of investments in infrastructure and amenities and avoidance of the need to make expensive site improvements in multiple locations at the same time.

Each area of development should facilitate efficient extension of infrastructure and services, by taking advantage of opportunities to build on existing site improvements and utilities.

Timing of Development - New phases of development should not be initiated until previous phases have reached a critical mass necessary to support facilities and services such as schools, retail services, public transportation, etc. In addition, the phasing sequence should allow sites to be reserved whose maximum potential cannot be realized until value has been created by prior development and changes in the site's identity.

Property disposition or improvements made outside of an intended phasing sequence may be appropriate at times, but should not unduly limit future flexibility and should not trigger additional financial obligations that cannot be reasonably accommodated.

Within the northern portion of the site, development of an open space system should be encouraged as early as possible.

Type of Development - Early phases should contain a mix of uses and provide a balanced picture of the larger vision for full buildout of the site. Each identified phase must respond to market opportunities and set a precedent for high quality development.

PHASE 1 DEVELOPMENT RECOMMENDATIONS

Adherence to the phasing strategy described above could result in a number of different ultimate development scenarios. Regardless of the exact sequence of events, the initial stage of development should be focused on District I (the southwest corner of the site), District V (the Havana Street corridor immediately south of the King Soopers site) and the open space system. The terminal area, District II, could also be part of early development activity. Its fate and timing are dependent in part on market response to solicitations of interest in the terminal building and associated improvements.

Districts I and V respond most effectively to the phasing criteria established. Both areas can build upon existing access and utility improvements. Both areas are adjacent to developed portions of the community that support similar land uses to those identified in the Development Plan. District I can be developed as an extension of the existing residential grid. District V has already attracted market interest as a site for office, manufacturing, warehouse and distribution activities. There appear to be current market opportunities for both of these Districts. The environmental condition of each of these Districts, while not uncomplicated, does not appear to prevent their inclusion in Phase I of the development program.

The Stapleton open space system will take many years to reach maturity and will do more to change the character and identity of the site than any other improvements. Several of its components, such as Bluff Lake, Sand Creek, Westerly Creek, the Sandhills Prairie Park and drainage system may be eligible candidates for funding from outside sources. For these reasons, development of this system should commence with the development of Districts I and V as part of Phase I.

"BUSINESS IS THE MOST
FORCEFUL AGENT OF
CHANGE. AS BUSINESS
LEADERS, WE ARE
RESPONSIBLE FOR
CHANGE THAT IS POSI-
TIVE. THIS MEANS TO
OFFER RETURNS TO OWN-
ERS, JOBS AND DEVELOP-
MENT OPPORTUNITIES FOR
EMPLOYEES, QUALITY
SERVICES AND PRODUCTS
TO SUPPLIERS AND CUS-
TOMERS. BUT IT ALSO
MEANS TO BRING POSITIVE
CHANGE TO SOCIETY AT
LARGE OVER THE LONG-
TERM. THIS CHANGE MUST
BE A COMMITMENT TO SUS-
TAINABLE DEVELOPMENT."

ANTONIA AXSON JOHNSON
CHAIRMAN
AXEL JOHNSON AB,
SWEDEN

EARLY ACTION ITEMS

The development corporation will have several immediate priorities to address related to project finance, marketing, communications, planning, infrastructure design, project management, asset management, pursuit of demonstration opportunities and additional studies. These priorities are summarized below. Work has already commenced in many of these areas. In addition, a phasing strategy has been developed which identifies Districts I and V as areas of initial development for residential and business and other uses.

1. Redevelopment Management Structure

- define character and role of the organization
- appoint the Board of Directors
- determine funding mechanisms
- identify and hire staff

2. Regulatory and Institutional Structure

- prepare and adopt site infrastructure and subdivision plans
- adopt master rezoning ordinance
- permanently designate open spaces through conveyance, easement, dedication or other mechanisms, as appropriate
- develop regulatory incentive and programmatic structures to support the development program's environmental, social and economic objectives
- establish a Transportation Management Organization

3. Finance

- develop initial infrastructure funding mechanisms
- identify initial carrying cost funding sources
- identify initial environmental remediation funding sources
- develop open space funding structures
- develop final impact fee structure

4. Marketing/Communications

- develop and implement land marketing program
- develop and implement existing building marketing program
- develop communications and public outreach program
- develop and implement strategies to attract environmental science and technology firms

5. Planning and Infrastructure Design

- develop plans for initial northern site storm drain improvements and diversion of Havana ditch flows from Havana Lake
- identify and design infrastructure improvements for subareas of Districts I and V
- complete design of Sand Creek corridor restoration improvements
- complete design of Westerly Creek channel restoration improvements
- commence planning and design for the learning golf course adjacent to Westerly Creek
- commence design of the District VIII Prairie Park
- continue Section 10 design coordination with the Rocky Mountain Arsenal National Wildlife Refuge planning and Commerce City's planning of Section 9
- prepare tree planting program for Montview Boulevard



Redevelopment will take several decades to complete. Interim management of the site and its facilities will be critical to early success. Initial employment, housing, open space and infrastructure projects must contribute to a strong, new identity for the site.

6. Project Management

- complete terminal reuse solicitation process
- initiate first phase of airfield recycling program to support new road and site improvement construction
- construct 56th and 51st Avenue roadway improvements
- construct northern site stormwater management improvements and diversion of Havana ditch flows from Havana Lake
- construct infrastructure improvements for subareas of Districts I and V
- commence Sand Creek corridor restoration and trail development
- commence Westerly Creek channel, water quality, stormwater management and trail improvements
- continue on site environmental remediation activities
- coordinate with the Denver Smart Places Project
- complete King Soopers and Union Pacific transactions and manage development of these initial business environments
- initiate tree planting program along Montview Boulevard

7. Asset Management

- implement property management program
- implement site security program
- selectively demolish and recycle structures and airfield improvements
- implement interim management and events program

8. Demonstration Opportunities

- Pursue homebuilding demonstration opportunities for District I with partners interested in promoting resource conservation and other sustainable development objectives.
- Pursue infrastructure demonstration opportunities, including water reuse for golf course and open space irrigation and waste minimization, reuse and recycling through initial elements of a resource recovery program.

9. Additional Studies

- evaluate village scale energy system application to Phase I neighborhood development
- develop a tree planting program
- develop short and long-term water and wastewater management strategy
- identify feasibility of a solid waste resource village
- continue joint visitor facility and program planning with U.S. Fish and Wildlife Service
- participate in the RTD rail corridor alignment
- identify and complete necessary environmental studies
- evaluate and recommend appropriate open space management strategies
- participate in the DRCOG I-70 corridor study
- identify and evaluate options to provide innovative educational opportunities

10. Social and Economic Strategies

- Create a business plan for the Center for Environmental Technology and Sustainable Development including pursuit of an environmental business incubator.
- Develop a program to expand entrepreneurial skills of surrounding and new residents.
- Create a task force to develop an education and job training delivery model for Stapleton and to identify specific K-12 educational options for future residents.
- Pursue establishment of, and funding opportunities for, school to work programs with employers recruited to the site.
- Evaluate Stapleton buildings for reuse as educational or community facilities.
- Initiate collaborative planning efforts with Aurora to rejuvenate the area between Stapleton and Lowry.

CURRENT WORK ON ACTION ITEMS

Prior to and during the creation of the Development Plan, work has commenced on a number of these action items. This work ranges from early site restoration and open space improvements to actual disposition of sites for industrial use. A brief status report on the most significant current project activities is provided below.



Bluff Lake Environmental Education Center

Center: The Bluff Lake area, in the southeast corner of the Stapleton site (between Havana Street and Sand

Creek) is being developed as an environmental education center. Initial funds (\$1 million) for restoration and development of the site (for restrooms, interpretive signage, etc.) have been committed by the City and County of Denver as part of a settlement of a lawsuit with the Sierra Club over water quality violations in Sand Creek.

The Friends of Sand Creek — a coalition of representatives from the Denver Parks and Recreation Department, Denver Public Schools, Stapleton Redevelopment Foundation and the University of Denver Environmental Policy Program — has pursued the development of programming for the site. Grants from the U.S. Forest Service and U.S. Bureau of Reclamation will allow the group to hire a program administrator in the winter of 1995, who will work with educators/advisors, funders, volunteers and local schools to begin on-site programming in the fall of 1995. The group is also exploring the possibility of serving as a satellite location for the Colorado Division of Wildlife's Urban Wildlife Education Center at the Denver Zoo.



Shawel and Fitzwell

Rocky Mountain Wildlife

Refuge: The Rocky Mountain Arsenal National Wildlife Area (a 27-square-mile site to the north of Stapleton and east of Commerce City) is undergoing a transition from its former use as a U.S. Army chemical weapons plant and Shell Chemical Co. pesticide production facility to its

development and protection as a Congressionally designated National Wildlife Refuge under the jurisdiction of the U.S. Fish and Wildlife Service. The Army and Shell Oil are undertaking cleanup to address groundwater and soil contamination problems. Once cleanup is complete, the National Wildlife Area will officially become part of the National Wildlife Refuge system. The National Wildlife Area contains important wildlife habitats, including winter communal roosts for bald eagles and several other species of raptors. A master planning process for the Wildlife Refuge is currently underway, and should be complete by the fall of 1995.

The Stapleton Redevelopment Foundation has entered into a Memorandum of Understanding with the U.S. Fish and Wildlife Service, formalizing an ongoing process of cooperative planning between the two entities for the adjacent sites. The northernmost portion of the Stapleton site (Section 10) is surrounded on three sides by the National Wildlife Area. Possible areas for cooperation include the siting of visitor facilities on Stapleton land leading into the Wildlife Area; cooperative wildlife and land use management strategies between the Wildlife Area and the Stapleton Sandhills Prairie Park and drainage corridors; joint educational program and interpretive area development; and cooperative planning among the U.S. Fish and Wildlife Service, the Stapleton Redevelopment Foundation, and Commerce City for the future development of Section 9 of the Wildlife Area, which is to be sold for private development.



**Sand Creek
Corridor:**

The Stapleton
Redevelopment
Foundation is coordinating a cooperative master
planning effort —
involving the cities

of Aurora, Commerce City and Denver — for the inventory, restoration and development of trails along Sand Creek, which runs through the center of Stapleton. Consultants are already under contract to begin trail planning and design work in the Denver and Commerce City segments. Once complete, the Sand Creek Corridor trail will join the High Line Canal and South Platte river trail systems to form a complete circuit trail around the city. The Corridor will form the southern edge of the proposed Emerald Strands trail system in the northeast metro area.

To fund this effort, the cities have requested a grant from Great Outdoors Colorado. The cities hope to create an independent, non-profit support and advocacy group for the greenway: a “Sand Creek Conservancy.” Their effort is being coordinated with the EPA Sand Creek Corridor Watershed Brownfields Project, aimed primarily at improving environmental health and economic development in Commerce City along Sand Creek.



**Westerly Creek
Multiple Use Greenway
and Water Quality
Area:**

Westerly Creek is a tributary to Sand Creek that runs from Fairmount Cemetery in the south-

east, through the former Lowry Air Force Base, and enters Stapleton at Montview Boulevard, nine blocks to the north of Lowry. On Stapleton, the creek runs approximately one and a half miles from Montview to the confluence with Sand Creek. Most of Westerly Creek now runs through pipes and lined channels, and is managed as a storm drain.

In coordination with the city of Aurora, the Urban Drainage and Flood Control District and Denver Wastewater, the Stapleton plan will uncover buried creek segments and restore Westerly Creek as an ecologically healthy, multiple-use river corridor. Enhanced wetland and ponding areas will improve water quality — a cost-effective alternative to repairing and replacing existing broken pipes. The Stapleton restoration activity will serve as a model for replication along the length of the creek. The creek improvements have also been proposed as a national demonstration for management of non-point source pollution.



**Residential
Development
Pilot Project:**

This project would create a model energy-efficient residential development. Among those involved in

the initial discussions have been Public Service of Colorado, the Electric Power Research Institute, the National Renewable Energy Laboratory, the Governor’s Office of Energy Conservation, the Public Utilities Commission and the Denver Smart Places Project, through Denver Department of Health and Hospitals. Such a development could showcase available technologies for energy-efficient and environmentally beneficial construction and the use of renewable energy sources. The project could serve to demonstrate and monitor the short- and long-term costs and benefits of such technologies. The development would be privately built and financed.



**“Groundswell”
Community Farm and
“Just Say Whoa!” at the
Urban Agriculture Center:**

The Denver Urban Gardens and a non-profit equestrian program for at-

risk youth have proposed a community farm, to be developed and located on land near the existing city nursery facility in

District V. This area has been designated in the development plan as an "Urban Agriculture Center." The proposal offers an early opportunity to meet long-term goals for the site. The farm would provide job-training and experiential education programming for disadvantaged populations, as well as food for the needy. The development and maintenance of the facility would be funded through program fees and private "shares" in the farm program (using the community-supported agriculture model).



Environmental Remediation: Remediation of identified surface, subsurface and groundwater contamination has been ongoing for several years and

will continue for several more. The Development Plan Resource Document describes the location and types of contamination as well as the ongoing remediation efforts.

The environmental remediation and restoration of natural features — such as those at Bluff Lake, Westerly Creek and Sand Creek — will create a solid foundation for future development.



56th Avenue:

Within three months after airport closure, construction will commence on 56th Avenue across the northern portion of the

Stapleton site. Initially this facility will be two lanes, but right-of-way has been reserved for up to six lanes. A bridge structure has been included in the roadway design to provide a grade-separated connection for trail connections, drainage and the safe transit of people and wildlife.



Recycled airfield material will be used in the construction of 56th and 51st Avenues, as well as site improvements to the King Soopers site.



Runway

Recycling:

Efforts are underway to identify a contractor or contractors interested in a long-term recycling program for the site.

Terminal:

The City and County of Denver has begun a process to solicit qualifications in order to identify a firm or firms to acquire (by lease

or purchase) and redevelop the Terminal complex portion of Stapleton. The complex consists of the two-million-square-foot Terminal building, an attached 4,300-car parking garage, a number of adjacent hangars and other buildings — totaling up to one million square feet, and up to 600 acres of land.

Industrial Land Sales:

Currently two land sales are in various stages of completion. Both involve land designated for industrial and commercial development, in an area bordering Havana Street on the east, 56th Avenue on the north and Interstate 70 on the south.

One of the parcels, covering approximately 140 acres north of 51st Avenue, will be sold to the Dillon Real Estate Company, known locally as King Soopers. The land is zoned for wholesale grocery storage processing and distribution. Construction will begin in the spring of 1995, with gradual development over the next 10 to 15 years. The acquisition schedule calls for

take-downs over a five-year period, including options that may affect the ultimate parcel size. The first takedown, approximately 19 acres, occurred in May, 1995.



The other parcel, covering approximately 280 acres south of 51st Avenue, will be sold to Union Pacific Realty, a national developer. Plans call for a “high-end” business park development, in harmony with the master plan. Closing is anticipated in the summer of

1995, contingent upon zoning acceptable to both parties.

To facilitate these land sales, the City will purchase environmental insurance, which will cover potential costs of litigation and remediation. Coverage will be assigned to the buyer at closing.

In both cases, the buyers are required to incorporate design guidelines, extensive landscaping and Urban Drainage Best Management Practices. The buyers are also encouraged to implement environmentally sustainable practices — as identified and refined over time — in building and infrastructure design.

Asset Management: Stapleton’s Asset Management program seeks to preserve, enhance and capture the value of the site’s 4,700 acres, including its more than 4 million square feet of developed space, its diverse infrastructure and its unique topographical and natural drainage features. In the near term, plans are in place for the orderly closure, maintenance and demolition of existing buildings; grounds and building security; landscape maintenance; signage; and snow removal.



Economical buildings will be leased for the interim uses reflected in transitional zoning legislation. The buildings have already attracted considerable interest for light industrial use. The

site’s unique facilities will be marketed as venues for special events — “human-scale” activities designed to transform Stapleton’s image from that of an abandoned single-use site to that of an interesting mixed-use site.

The Denver Smart Places Project:

A public-private partnership of local, state and national interests has been created to develop The Denver Smart Places Project for use in Stapleton redevelopment. The project involves the adaptation and application of a GIS-based energy modelling program (PLACE3S - Planning for Community Energy, Environmental and Economic Sustainability) to the Stapleton site. The development and use of this tool for sub-area planning will greatly aid efforts to meet the goal of sustainable resource use (for energy, air, water and land resources) on the site. The project also demonstrates the benefits of innovative planning and technology for community development. The program has proven to be a valuable planning tool in locations as diverse as San Jose and San Diego, CA; Tucson, AZ, Portland, OR and British Columbia.

Project partners include the Denver Department of Health and Hospitals, Environmental Protection Division; Public Service Company of Colorado; Electric Power Research Institute (EPRI); Colorado Public Utilities Commission; Governor’s Office of Energy Conservation; USEPA; Environmental Defense Fund (EDF) and the Stapleton Redevelopment Foundation.

STAPLETON’S ASSET
MANAGEMENT PROGRAM
SEEKS TO PRESERVE,
ENHANCE AND CAPTURE
THE VALUE OF THE
SITE’S 4,700 ACRES.




VIII. CONCLUSION-
IMAGES OF THE FUTURE

VIII. CONCLUSION - IMAGES OF THE FUTURE

A New Approach

Through its history, the Stapleton site has changed dramatically. It is about to change again. Stapleton's closure and reuse is not an isolated event. The entire region continues to change and mature. The challenges we face today are more pressing and more complex than those of the past. Stapleton's next life needs to be part of a meaningful response to the economic, social and environmental demands of the 21st Century. Stapleton presents many opportunities to the Denver community. The choices are ours to make.



The Development Plan presented in this document represents a new approach — to planning and design, to markets and regulation and to governance. It sets out a very ambitious agenda, but one that is within the capacity of the community to achieve.

What is the alternative? We can leave sites like Stapleton behind, and continue to urbanize the far edges of the metropolitan area at a rapid rate. This pattern addresses few of the region's economic and social needs, and compounds environmental damage exponentially. We can encourage Stapleton's development in a more conventional fashion, but will a market with an enormous supply of land support such an approach? Will Stapleton really change, or will it become a marginally-used site that contributes little in the end to the renewal of northeast Denver?

Simple infilling of the site is not enough. Liquidation is not the answer. The community must pursue a more significant future for the Stapleton site. It must have the proper tools and it must have the perseverance to pursue community development goals over an extended period of time. It must also have the private partners who are willing to share and invest in this vision.

If the development of Stapleton follows the direction outlined in this Development Plan, what will the community have gained?

First - a job base that increases the depth and diversity of the regional economy, oriented towards expanding markets. Development of this job base must be accompanied by an increased commitment to develop skills in all segments of the population to participate in this job base.


Second - communities that can work in the 21st Century, combining the best of the old and the new. The communities created at Stapleton will excel in training and educate people. They will be better prepared to support diversity, encourage participation and local control and satisfy the needs of people. Community structure and technology will promote rather than diminish a sense of community.

Third - an unprecedented expansion of open space and recreational opportunities. The benefits of these resources will accrue to the entire region.

Fourth - a start in reversing the trend towards living beyond the capacities of the natural environment. Stapleton will consume far less and produce far fewer impacts. It will do so not at the expense of people and economic needs, but as a fundamental part of the community's approach to addressing these needs.

Images of the Future

What will life at Stapleton really be like in ten, twenty or thirty years? We close with four possible glimpses of that future.



STAPLETON TECHNOLOGY INCUBATOR

In Dave and Dorothy Mitchell's imagination, their new filtration system will revolutionize drinking water supply around the world. The Mitchells designed the device several months ago, but finding the right place to develop it was proving difficult. Without the resources of Stapleton's Technology Incubator, their invention might never have left the drawing board.

After touring the Incubator — on the grounds of the former Stapleton International Airport — the Mitchells knew it would suit their needs perfectly. They were looking for a site that reflected their concern for the environment; Stapleton exceeded their expectations. Each of the Incubator's buildings incorporates recycled runway concrete, passive solar design, high-efficiency lighting, and low water-use plumbing. Overall energy costs have been reduced by more than 75 percent. Recycling also cuts waste and landfill costs.

The Mitchells are equally appreciative of Stapleton's landscape. The building they occupy stands on a greenway, offering a spectacular view of the mountains. A nearby trail leads from the Incubator to Sand Creek, passing through a major park along the way. Stapleton's recreational amenities will provide a welcome respite from long days at the office.

Better yet, getting to the office will not take the Mitchells all day. While they live on the opposite side of town, a shuttle — funded by Stapleton employers and the local Transportation Management Organization — will bring them directly to the Incubator. And thanks to Stapleton's investments in information technology, some of the Mitchells' employees will be able to remain at home and telecommute. Many of the Incubator's other tenants hike or bike to work; a wide range of housing also lies within walking distance.

While the Mitchells were attracted by Stapleton's infrastructure, they were sold by its workforce. The Incubator and the services that surround it have helped make Denver a major center of environmental technology. Stapleton has emerged as a major employment center within the region. A number of leading businesses and laboratories have moved to the area in recent years. Large corporations, as well as start-up ventures such as the Mitchells', benefit from an ample supply of high-skilled labor.

Stapleton's job training programs ensure that this supply will continue. The program in environmental technology, conducted at the Incubator and co-sponsored by the Lowry Campus, is tailored to companies like the Mitchells'. Each year, more than 200 youth also take part in special demonstration projects, ranging from wildlife conservation to training in the manufacture of thin-film photovoltaic systems.

Stapleton also offers incentives to firms that provide apprenticeships for community residents. All of the entrepreneurs who participate are delighted with the program, and the Mitchells are looking forward to joining their ranks.

Once the Mitchells' device is ready for market, Stapleton's Export Assistance Program will help them get it there. The program has developed extensive networks in Eastern Europe and Southeast Asia — where the Mitchells have already found considerable interest in their invention. With Stapleton's support, the Mitchells may be able to turn their home-grown business into a world-class success.

WESTERLY PARK NEIGHBORHOOD

After finishing his exam, Bill Romero places it on his instructor's desk and accepts her congratulations with pride. In another two weeks, Bill will complete the requirements for an environmental accounting certificate, and join 20 other adults in the Whole Life Education Center's first-ever commencement exercises.

The Center's opening last year marked the newest addition to the Westerly Park Community School — a cluster of buildings in a quiet residential neighborhood on the grounds of what was once Stapleton International Airport. Bill's Education Center shares space with his daughter's elementary school and several other uses. A large building that once served as an aviation hangar is a neighborhood recreation facility. Alongside sit a block of administrative offices, a day care center, and a small public library. And across the street lies a village green — the very heart of Westerly Park.

Bill and his wife moved here four years ago, seeking a more tightly knit community in which to raise their family. Westerly Park proved perfect. The wide lawns and stately trees remind Bill of his childhood in Park Hill. A mix of young families and older homeowners lends the neighborhood a sense of stability. And Bill managed to find not only a house for his own family but an apartment for his mother-in-law as well — in a quiet brick building overlooking the village green.

Bill's wife Linda finishes work at about the same time his classes begin. The export company she runs is headquartered in a modern building, just blocks from her mother's apartment house. When she has time, Linda joins her mother for lunch at the local cafe, or picks up supplies at the business service center next door. (Part convenience mart, part post office, part telecommunications facility, the service center is Westerly Park's equivalent of a "general store.")

After work, Linda retrieves her son from day care, her daughter from dance class, and her electric car from the nearby Recharging Facility (one of the local innovations that has kept Westerly Park's pollution levels among the lowest in the state). Nearly all of the Romeros' errands lie within walking distance; their car spends most days in the alley behind their house.

Bill bikes home after dusk and shares a late dinner with Linda. Their son is already asleep, resting up for a big day of community gardening with his grandmother. But Bill and Linda's daughter stays up to tell her parents about next week's field trip to the Westerly Creek Nature Center. Her class has been collecting prairie grassland seeds to be planted on the hike. Bill's only question: Why he can't go, too?

STAPLETON PARKS AND OPEN SPACE

Amy crouches by the riverbank, her eyes fixed on the opposite shore. The other fifth-graders have already headed down the trail, but Amy is mesmerized by the scene before her. Moments earlier, a hawk plunged into the water, snatched a fish and lifted it into the air. Now the bird has returned to its roost in an old snag tree along the river, and Amy watches with a mixture of fear and fascination as its prey struggles in vain.

The site of Amy's adventure, Sand Creek was once hidden behind the fences of Stapleton International Airport and the industrial development of nearby Commerce City. But thanks to the airport's closure, the commitment of state and local officials, and the hard work of countless volunteers, the waterway has been restored to ecological health. The 12-mile trail that now runs along it connects the High Line Canal and the South Platte River — completing a riverfront loop around Denver.

Amy and her classmates have no intention of circumnavigating the city today; their immediate destination is Baird Bluff, another area restored after Stapleton's closure. Amy leaves Sand Creek and follows her classmates toward the top.

The bluff provides a spectacular view. To the west, Amy can see the skyscrapers of downtown Denver and the mountains beyond. A bit to the north, she can make out the city nursery, the new equestrian center, and the Stapleton Community Farm. And to the south lie the neighborhood of Bluff Lake and the elementary school Amy attends.

Winding their way back down the trail, Amy and her classmates reach the confluence of Sand Creek and Westerly Creek. Before them stretch 175 acres of meadows and streams, spacious playing fields and even a nine-hole learning golf course! This lush parkland is designed with the same respect for nature that characterizes the entire Stapleton development. Many of the plants, for example, require little irrigation; treated reuse water from the surrounding neighborhoods supplies almost all of the park's irrigation needs.

Amy's older brother spent last summer in the park's "stewardship training" program, learning how to protect and manage natural and recreational resources like this one. (Amy herself attended a workshop in Bluff Lake's Environmental Education Center.)

Amy and her classmates leave the park and rejoin the Sand Creek trail. They pass through a series of drainage corridors that once served as runway tunnels — a remnant of Stapleton's past. The stream banks here have been restored to shelter wildlife migration, and as Amy walks along, she spots a set of animal tracks. Bending down, she recognizes the hoofprints of a deer.

From the other side of the creek, Amy can hear loud whistles and cheers — the sounds of a Little League game in progress. (Stapleton's new athletic complex hosts teams from throughout the city, day and night.) Amy follows her classmates across the creek.

The trail forks near Quebec Street, Stapleton's western boundary. Amy's group takes the branch leading north, toward the Sandhills Prairie Park and the Rocky Mountain Urban Wildlife Refuge. The landscape slowly opens up; just ahead lies the site of a new championship golf course and bird sanctuary. Beyond lies the Prairie Park: 365 acres of rolling sandhills, seeded native grasses, indigenous wildflowers and willow groves. Amy's exploration ends here — to be resumed, she hopes, another day.

GREEN BUILDER

Brenda Williams enters the final pieces of data into her computer and, with the press of a key, submits the final building plans for her next project. Next spring, Brenda's small homebuilding company will build its eighth project on the former site of Stapleton International Airport.

Brenda has been involved with the property since the mid-1990s, when she and several other small homebuilders constructed the first residential units on the site. Today those units are nearing their 15th anniversary. Whole neighborhoods have evolved from these very modest beginnings, and much has changed at Stapleton and in the process of homebuilding.

Brenda's electronic submittal of plans is typical of current practice. In fact, on-line regulatory review was pioneered at Stapleton. In addition to the basic information, Brenda's submittal shows that her project meets or surpasses Stapleton standards for energy efficiency, water conservation, and inclusion of recycled materials. While Stapleton's standards are still among the highest in the state, many projects and jurisdictions have implemented similar approaches to resource conservation.

Brenda's project will also receive an excellent rating from the Metro Homebuilders Association's "Green Builder" program. The program assigns point values to individual units based on a variety of criteria, including energy efficiency, water conservation, indoor air quality, materials reuse, toxicity, and contribution to air and water quality protection. Since its inception as a pilot project, the rating system has become an essential piece of information for prospective homebuyers. Much as consumers once demanded information on the fuel efficiency of automobiles, today's con-

sumers require a complete Green Builder rating before reaching a decision about a new home. New units on the Stapleton site have consistently averaged between 85 and 90 on the system's 100-point scale. A project constructed by Brenda's company three years earlier still holds the record for the highest rating ever awarded to a new unit.

The homebuilding process has changed significantly over the last 15 years. Building codes, zoning and design controls have been greatly simplified and reoriented. The current regulatory structure continues to ensure public safety, convenience and community character, but it also facilitates projects that are highly efficient, take less time to produce, use many more recycled materials, and are far more adaptable to changes in lifestyle and use over time.

Zoning requirements at Stapleton, for instance, identify general requirements for height, density, scale and the relationship of buildings to public spaces and one another. Use restrictions tend to be flexible and to reflect performance characteristics. The design review process Stapleton has used for the last 15 years is demanding but predictable — and actually less time-consuming than previous forms of regulation and required rezonings, variances, conditions and appeals. Many of the mechanisms first tested at Stapleton have now been applied city-wide.

Stapleton's evolution has paralleled that of Brenda's own company. Over the last 15 years, her company has produced at least five different types of housing products at Stapleton, ranging from single-family and townhouse units to a senior care facility, a 45-unit co-housing village and a 100-unit mutual housing project. Brenda describes her work as having evolved from homebuilding to "community building."

Brenda's company has also experimented with new approaches to highly efficient community lawn irrigation

systems; telecommunications links among homes, schools and workplaces; and incorporation of electric vehicle recharging facilities in residential projects.

Stapleton's focus on recycling has helped Brenda become a local expert on reducing and recycling construction debris. Her company is currently exploring plans to manufacture building products from recycled materials — for the company's own use and for sale to other builders. The Stapleton Development Corporation will assist Brenda in identifying financing sources and training area residents to staff the operation.

Twelve years ago, when Brenda received her first community builder award for producing an environmentally and socially superior housing project, she was truly worried. She feared that consumers would perceive the award as a sign that her housing products were too expensive or impractical. Instead, the awards have come to represent durability, a healthy environment and attention to detail — values that any serious homebuilder would be happy to have associated with his or her name.



IX. ACKNOWLEDGEMENTS

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 U.S. Fish and Wildlife Service
 Colorado Division of Wildlife
 Colorado Department of Corrections
 Denver Urban Renewal Authority



**DISTRICT
DESCRIPTIONS**

KEY ELEMENTS

1. Predominately residential land use with smaller scale complementary employment.

2. District Center near 25th Avenue and Wabash Street.

3. Average densities of 8-15 dwelling units per acre for residential uses, with greater mixed use density between 26th and 29th Avenues.

4. Transportation elements including 26th Avenue discontinuous entering Park Hill on the west, and Syracuse discontinuous entering East Montclair on the south.

5. Parks including treelawn setback on Montview Boulevard, an improved Fred Thomas Park, a neighborhood center park, drainage corridors, and a learning golf course along Westerly Creek.

6. Special sites are reserved for institutional or corporate use.

7. Reuse identified for existing structures that complements residential quality.

8. Elementary school site at neighborhood center.

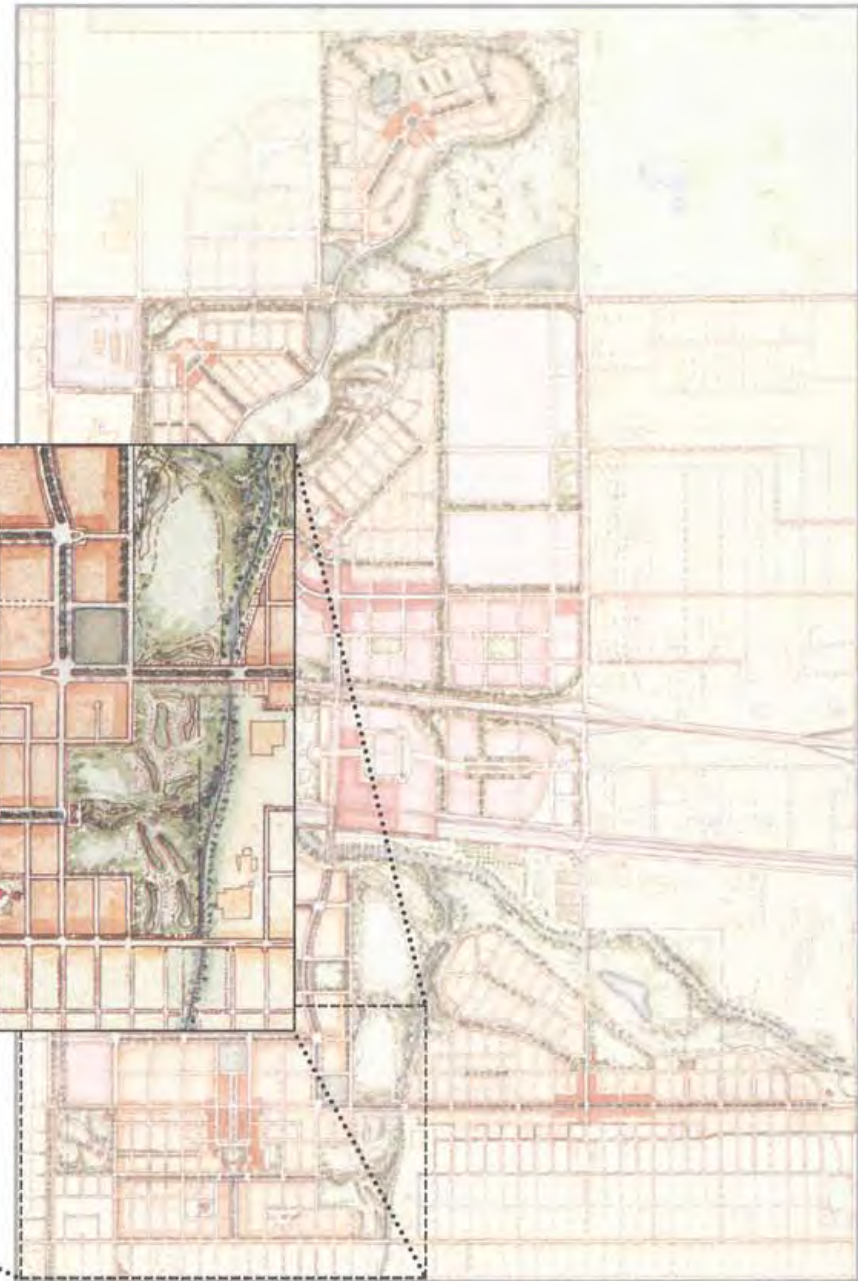
► **DISTRICT I**
"Westerly Creek Neighborhood"

URBAN NEIGHBORHOOD

MODERATE DENSITY

BUILDING REUSE
OPPORTUNITIES

STRONG TIES TO PARK HILL
AND EAST MONTCLAIR



District I is a 489 acre residential neighborhood located in the southwest corner of the Stapleton site adjacent to the Park Hill, East Montclair and Original Aurora neighborhoods. It is bounded by Quebec Street and Fred Thomas Park on the west, Montview Boulevard on the south, the Westerly Creek area on the east and extended 29th Avenue on the north.

District I comprises 489 acres in the far southwest corner of the site. The site abuts the existing Park Hill and East Montclair neighborhoods on the west and south. The goal is to create an urban, predominantly single family residential neighborhood connected to — and consistent in scale with — the adjacent residential communities. Some of the site's existing structures can support employment and public uses within the newly created neighborhood.



Selected aviation structures, such as the AMR Combs Executive Terminal, will become part of the new neighborhood. The balance will be phased out and their materials recycled to the extent possible.

A district center is a small mixed-use area providing services and amenities to residential and employment uses in the surrounding neighborhood. Uses in District I would include a park, school, day care, recreation, apartments, community gardens, bus service and limited employment.

Birds-eye view of District I looking west from Westerly Creek across rooftops and drainageways to the neighborhood center, and beyond to Park Hill.



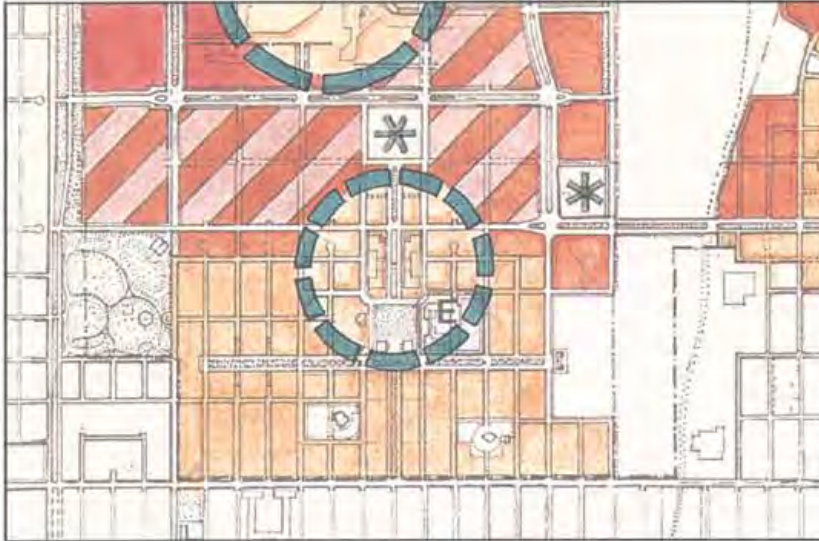
Moderate density residential projects will comprise the majority of housing south of 26th Avenue. The illustration above depicts single family detached homes currently being constructed in an infill project in northwest Denver.



Housing patterns in neighborhoods such as Park Hill or Washington Park illustrate desirable aspects of a model for new development. Streets are residential in scale with parking, tree lawns and detached sidewalks. Homes are typically single family and duplex structures with porches in front and alley access in the back.

District I is a moderate density residential neighborhood. South of 26th Avenue, residential densities averaging eight du/acre will blend with those of existing adjacent neighborhoods. Twenty-Sixth Avenue and north will have a mix of more moderate density housing averaging fifteen du/acre, including single family detached, townhouses, duplexes and triplexes, garden apartments and walk-ups, two to four stories. This area will also provide a mix of lower density, two to four story commercial uses, including office campus, research, professional, educational and employment services. A careful selection of existing smaller-scale buildings reused for these types of commercial uses can be interwoven into this neighborhood providing walk-to-work opportunities for residents. The neighborhood will be flanked on its edges by parks and open space — an enhanced Quebec Street and Fred Thomas Park on the west; and a restored Westerly Creek/drainageway/golf course network on the east. Other smaller parkways, boulevards and parks will also become part of the neighborhood. These provide additional opportunities for unique residential settings, including some higher-density, two to three story, single-family residential building types (townhouses, carriage houses, two families, etc.).

A District Center will serve the population of the immediate neighborhood as well as existing adjacent neighborhoods. This center will provide services to allow surrounding residents to meet their daily needs within walking distance. The center will also serve as a focal point for community facilities and resources. Daycare, transit stops and an elementary school with recreation areas, will be located around a two-acre public square. This area could become the setting for a post office, church or community hall, with convenience retail and professional offices focused around 26th Avenue. The District Center will also provide sites for moderate density housing types, including elderly housing and flats above shops and offices.



Private Development - At full buildout it is anticipated that District I will contain approximately 2,400 units of housing and 2,100 jobs in 1.31 million square feet of space. Housing densities will vary from an average of eight du/acre (sufficient to support transit) south of 26th Avenue to 15 du/acre north of 26th Avenue transitioning into District II. The District Center will serve the population of the immediate neighborhood as well as adjacent existing neighborhoods, allowing the majority of residents to meet their daily needs within walking distance of their residence.



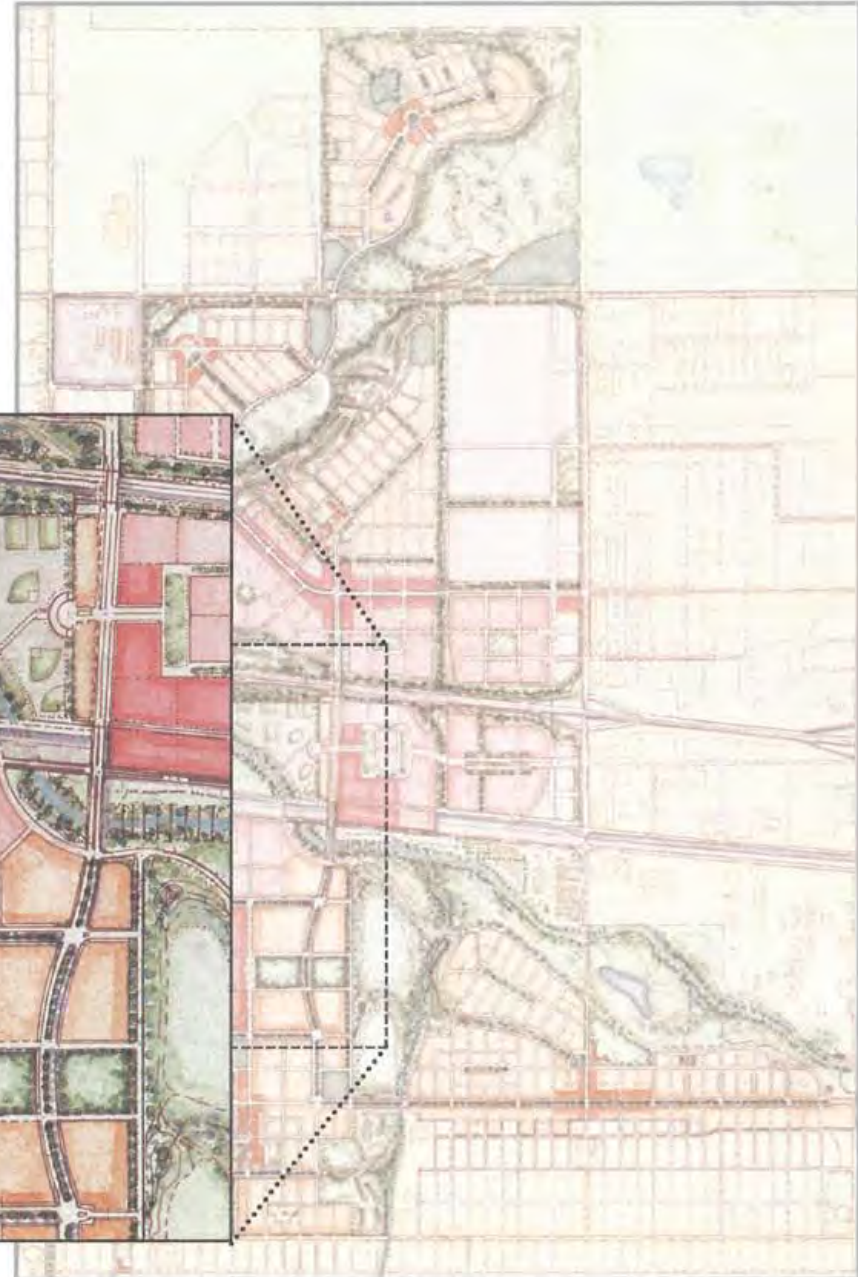
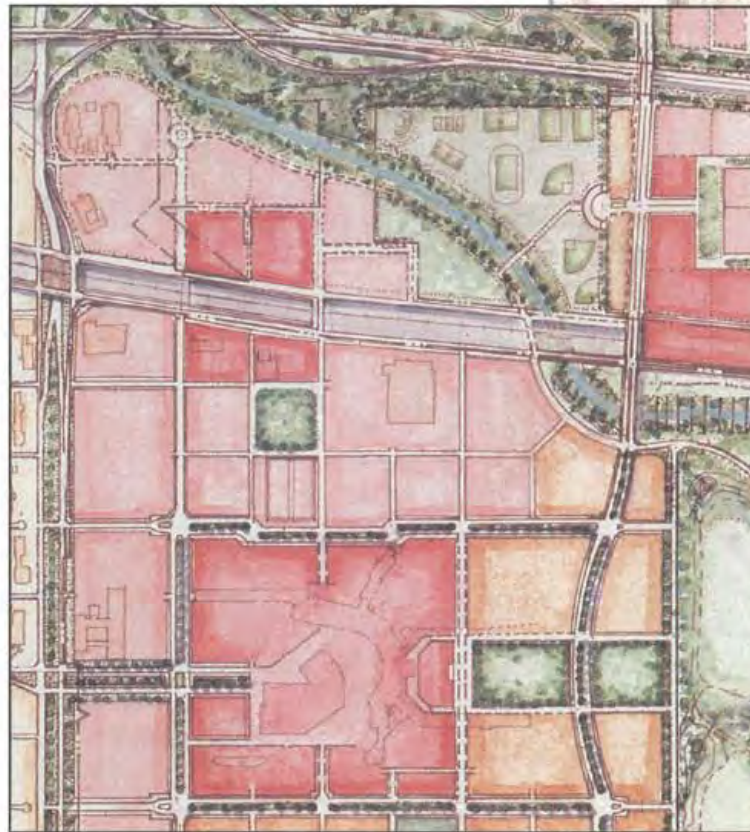
Public Realm - District I is anchored at its east and west edges by parks and recreation facilities. Along its western edge will be an enlarged and enhanced Fred Thomas Park. Along its eastern edge will be a nine hole learning golf course and driving range, a restored Westerly Creek and a large urban park. A landscaped drainageway will serve as a linear park along 23rd Avenue, connecting the eastern and western open space elements. In addition to 23rd Avenue, primary new streets serving District I will be 26th Avenue, 29th Avenue and Yosemite Parkway. Twenty-sixth Avenue will be discontinuous at Quebec Street so that traffic cannot move west across Quebec Street and impact the adjacent neighborhood. Syracuse Street will also be discontinuous near Fred Thomas Park to prevent continuous traffic south through existing neighborhoods. A neighborhood park and school site are located at the District Center. A special site reserved for a public, institutional or civic use is indicated by the star.

KEY ELEMENTS

1. Predominately employment land uses with residential areas adjacent to parks.
2. Rail transit District Center at Syracuse Street and Smith Road, serving the entire district including the existing terminal.
3. Higher employment and residential densities throughout, particularly at major rail or street access points. Midrise density average with structured parking.
4. Transportation elements include an improved Smith Road corridor connecting Smith Road to Yosemite Parkway. The street system surrounding the terminal will be heavily influenced by the nature of the buildings' use. Emergence of a major regional traffic generator at the terminal could necessitate modified access and other connections.
5. Midrise housing adjacent to parks. Twenty-ninth and thirty-fifth Avenues include park and drainageway medians.
6. Special sites reserved for institutional or corporate uses.
7. Reuse of all or portions of existing Terminal buildings, as well as appropriate support structures.
8. Incorporate reuse of historic structures into district development plan.

► **DISTRICT II**
"Stapleton Park Neighborhood"

REGIONAL ACTIVITY CENTER
HIGHER DENSITY
INTERMODAL TRANSIT CENTER
SIGNIFICANT BUILDINGS AND INFRASTRUCTURE



District II is a 654 acre high density mixed use district located in the southwest part of the Stapleton site at the terminus of Martin Luther King Boulevard. It is adjacent to the Park Hill neighborhood, the I-70/270/ Quebec freeway interchange and the hotels along Quebec Street. District boundaries are Quebec Street on the west, Sand Creek near I-70 on the north, extended 29th Avenue on the south, and a major urban park at the confluence of Sand and Westerly Creeks on the east.

District II is a 654-acre area that includes the existing Stapleton terminal and the major support buildings and airfield improvements that surround it. This district is currently the most urbanized portion of the Stapleton site. It has the greatest concentration of building space, paved surface, infrastructure and environmental remediation requirements. The district has been an important regional destination for 65 years. With regional highway access and a future regional transit center at Smith Road and Syracuse Street, the area will retain the capacity to support large-scale regional activities. Whether the terminal building itself is reused or removed, this site will be important to the entire northeast metropolitan area.



District II contains the vast majority of existing building space on the Stapleton property.

Medium to high density mixed-use development will benefit from excellent access, visibility and many other site amenities.



Birds-eye view of District II looking west from the urban park over a mixed-use commercial neighborhood to the Smith Road transit station, and the Quebec Street hotels just beyond.



An intermodal transportation facility, linking rail transit with buses, autos, pedestrians and bicycles will be located within the District Center, at the intersection of Syracuse Street and the proposed rail corridor along Smith Road.

Historic structures within District II such as Hangars 5 and 6, provide opportunities for creative reuse. These facilities may be suitable for recreational, retail, or entertainment reuse within this special-use district.

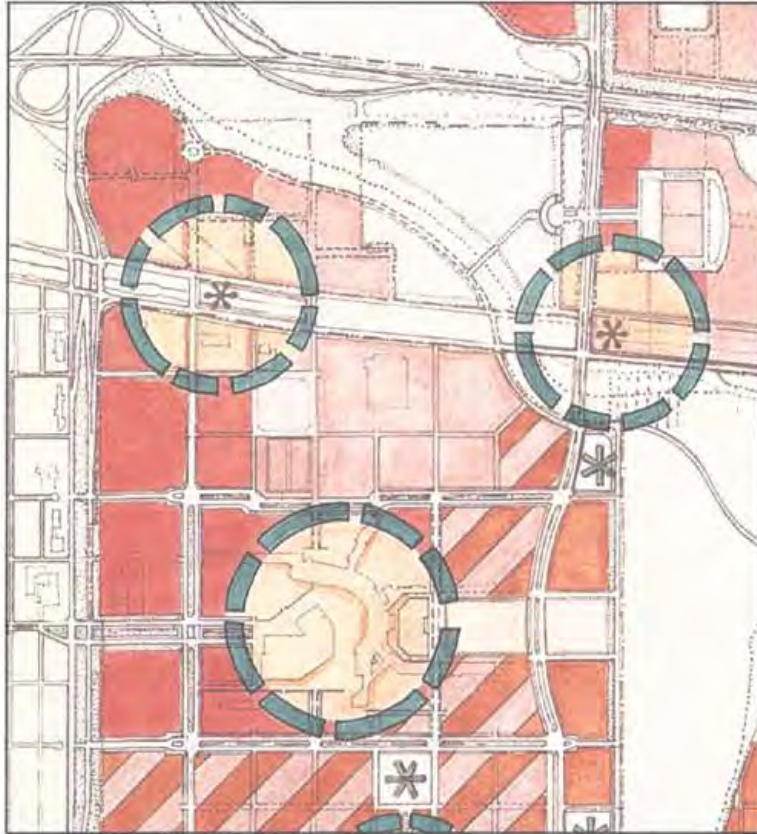


A transit-oriented District Center will be located by a proposed rail corridor along the north edge of the district where Smith Road intersects with Syracuse Street. This Center will serve primarily employment and higher-density residential needs. It will also serve as an intermodal facility linking rail, bus and pedestrian networks.

District II is considered a special-use district, but it is not a single-use zone. The terminal building or site will accommodate a mix of retail/commercial/entertainment/ educational resources for the region. This location of higher-density office/commercial uses may expand over time from the terminal area to Quebec and Syracuse streets, with densities of 0.5 to 1.0 FAR in buildings ranging from three up to seven stories.

Lower-density commercial, office and research facilities will be located south of the terminal. Average FARs of 0.5 in buildings of two to four stories and higher density housing along Yosemite Parkway and the new urban park will be typical in this area.

Over the long term, this area will become appropriate for concentrations of higher density office/commercial as well as residential space within Stapleton, taking advantage of extraordinary access, amenities, and visibility and the rail stop and bus feeder system. Office densities up to 1.5 FAR and housing densities of up to 40 du/acre could be located here.



Private Development - At full buildout, District II could employ more than 15,000 people, roughly 49% of the site's total, in 6.6 million square feet of space. In addition, it will contain approximately 850 housing units at densities reaching up to 40 du/acre. Higher employment and housing densities are consistent with the district's high degree of accessibility to regional transportation systems and the presence of the substantial base of hotels along Quebec Street. While this district will benefit greatly from successful reuse of the terminal building, its long-term viability is not dependent on the terminal structure.



Public Realm - The public realm of District II includes several parks and parkway components. The major urban park to the east links Westerly Creek to the terminal area. In anticipation of the terminal area's role as a regional destination, it is surrounded by a street and parkway system including Syracuse Street to the west, Yosemite Parkway to the east, 35th Avenue to the north and 29th Avenue to the south. Parkways on 35th Avenue and 29th Avenue will also act as linear greenways conveying surface water drainage to Westerly Creek. A water quality enhancement area is located adjacent to Sand Creek near a special site reserved for a significant institutional or corporate use, as indicated by the star.

KEY ELEMENTS

1. Predominately residential land use.
2. District Center at Havana Street and 26th Avenue.
3. Density of 6-12 dwelling units per acre for residential uses.
4. Transportation elements including improved Havana Street, which is discontinuous entering Original Aurora to the south, and 26th Avenue connecting east to Peoria St.
5. Sand/Westerly Creek corridor parks restoration. Landscaped setbacks, drainage corridors, and median on 26th Ave.
6. Develop neighborhood rehabilitation and enhancement programs with Aurora.
7. Develop state/city and county correctional facility design guidelines for height, right-of-way improvements, drainage and buffers, access, screening and sound control, etc.
8. Elementary school site at neighborhood center.

► **DISTRICT III**
"Bluff Lake Neighborhood"

URBAN NEIGHBORHOOD

MODERATE DENSITY

SIGNIFICANT NATURAL
AMENITIES

STRONG TIES TO ORIGINAL
AURORA



District III is a 429 acre residential neighborhood located in the southwest corner of the Stapleton site adjacent to Original Aurora, Peoria Street and Morris Heights neighborhoods. It is bounded by the 25th Avenue area of northwest Aurora on the south, Peoria Street, Fitzsimons Hospital, Sand Creek Park on the east, Sand Creek to the north and Westerly Creek to the west. Immediately northeast of Sand Creek are correctional facilities of both the City and County and the State of Colorado.

District III is a 429-acre area occupying the far southeast corner of the Stapleton site. It lies adjacent to the existing residential communities in Aurora immediately to the south. District III provides another opportunity to create a diverse, vibrant residential community with strong ties to the adjacent neighborhoods. The future of District III will be heavily influenced by the areas around it. The restoration and improvement of Westerly Creek, Sand Creek and Bluff Lake will allow this district extraordinary access to outdoor amenities, wildlife and recreation.



Bluff Lake is an important natural amenity along Sand Creek. The area offers significant wildlife and impressive views of downtown and the front range.

Single family detached residences, townhouses, and multi-unit structures will be mixed within the natural neighborhood setting of District III.



Birds-eye view looking southeast from the confluence of Sand and Westerly Creeks to the neighborhood center, 26th Avenue parkway and beyond, to Original Aurora.

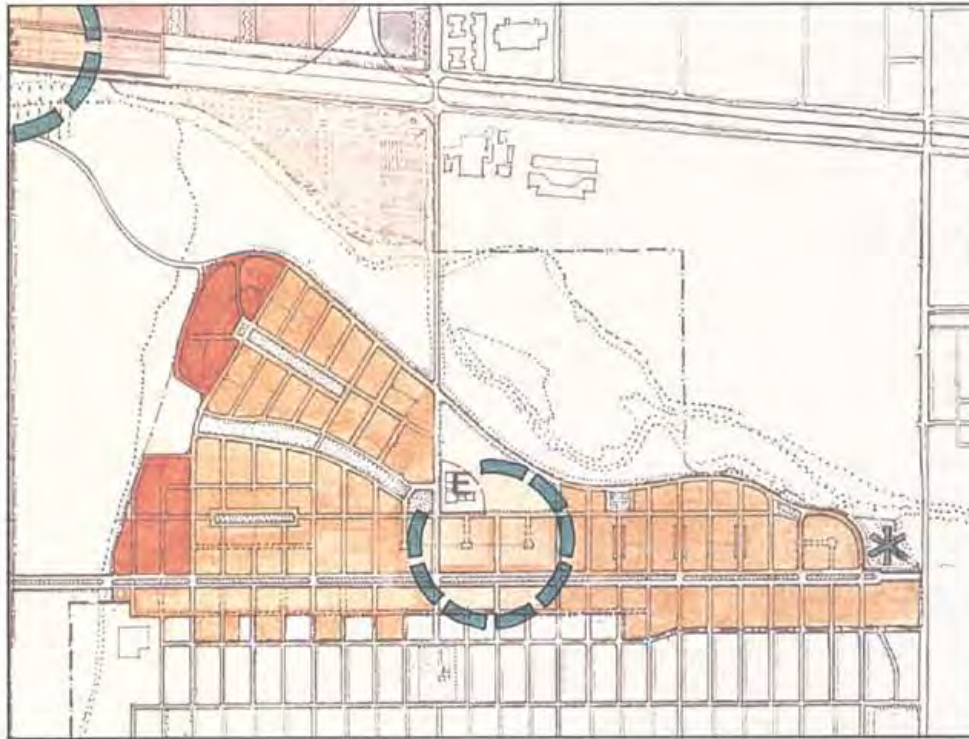


Bluff Lake will be the focal point of an extensive open space system within and adjacent to District III. This area will be restored along with Westerly Creek and Sand Creek as part of the site's overall open space system. One million dollars of funding has been committed to its development as an Environmental Education Center where local schools will begin on-site environmental education programs in the fall of 1995.

Access to adjacent open space amenities, coupled with dramatic views of the Front Range and skyline of downtown Denver, will give the site significant appeal. Successful development as an urban village, however, will also require joint efforts with Aurora to improve the edge conditions along the current airport boundary and rehabilitate housing and commercial structures in the area between Colfax Avenue and 25th Avenue. In addition, proposed expansion of City and County and State correctional facilities immediately north of Bluff Lake will need to be managed carefully, so that it does not prevent successful conversion of District III to primarily residential use. Access to correctional sites should be oriented to Smith Road. Buildings should not exceed midrise heights. Facility perimeters should screen ground level activity from view, reduce visibility of security wire and limit sound (loudspeaker) impacts.

District III is intended as a low-rise, relatively low-density residential neighborhood (at 10 du/acre average) with densities and scale roughly similar to that of adjacent residential neighborhoods. Predominantly a single-family residential district, it will contain a neighborhood center of lesser size, intensity and mix of uses than the District Center in District I or II. This will be the center of community facilities (including elementary school and recreation facilities) around a community park and adjacent to Bluff Lake. A range of more moderate-density housing types (two to three story townhouses, duplexes, flats and apartments) could also be located here.

The District will also contain a traditional residential parkway, and a park drive edging the Sand and Westerly Creek corridors, as well as smaller parks and drainage-ways. These locations provide opportunities for a range of housing types.



Private Development - District III is comprised mostly of residential housing at relatively low densities (10 du/acre). At build out it is anticipated that District III will accommodate approximately 2,550 housing units and a limited amount of employment. The majority of these jobs will be located in a small neighborhood center. An elementary school will be incorporated within the center adjacent to Bluff Lake.



Public Realm - District III is surrounded by public parks and open space amenities. Immediately to the north will be the Bluff Lake Environmental Education Center and the restored Sand Creek, which will be fronted by a scenic roadway. Immediately to the west will be restored Westerly Creek and a large urban park similar in size to Washington Park. A linear drainage/greenway will extend into the district from Westerly Creek. Twenty-Sixth Avenue Parkway will extend along the southern edge of the district terminating at a special site indicated by the star near Peoria Street. As with the other district sites identified by stars, this site is a location where the combination of access, visibility, proximity to open space or other factors suggests that only special public or private uses should occur.

NOTE: A handful of half-block parcels along the southern boundary of District III are part of the Stapleton site owned by the City and County of Denver, but lie within the municipal boundaries of the City of Aurora. Ultimate decisions regarding the use and zoning of these parcels must be approved by Aurora. A cooperative effort will be undertaken with Aurora to address the specific circumstances of this southern perimeter of the site.

KEY ELEMENTS

1. Predominately employment land uses with highest quality office and R&D uses along Yosemite Parkway.

2. Transit-oriented District Center at Yosemite Parkway and Smith Road.

3. Density of 1-3 story structures and surface parking, with greater height along Yosemite Parkway.

4. Transportation elements including preservation and use of the existing Yosemite Parkway bridge across I-70, improvements to the Smith Road arterial corridor, realignment of the existing rail spur to the north and full buildout of the Havana Street interchange.

5. Landscape the I-70 setback and restore and develop multi-use trails in the Sand Creek corridor.

6. Reuse existing nursery and weather service site for community agriculture and equestrian activities. Expand the organic composting operation there.

► **DISTRICT IV**
"Sand Creek Neighborhood"

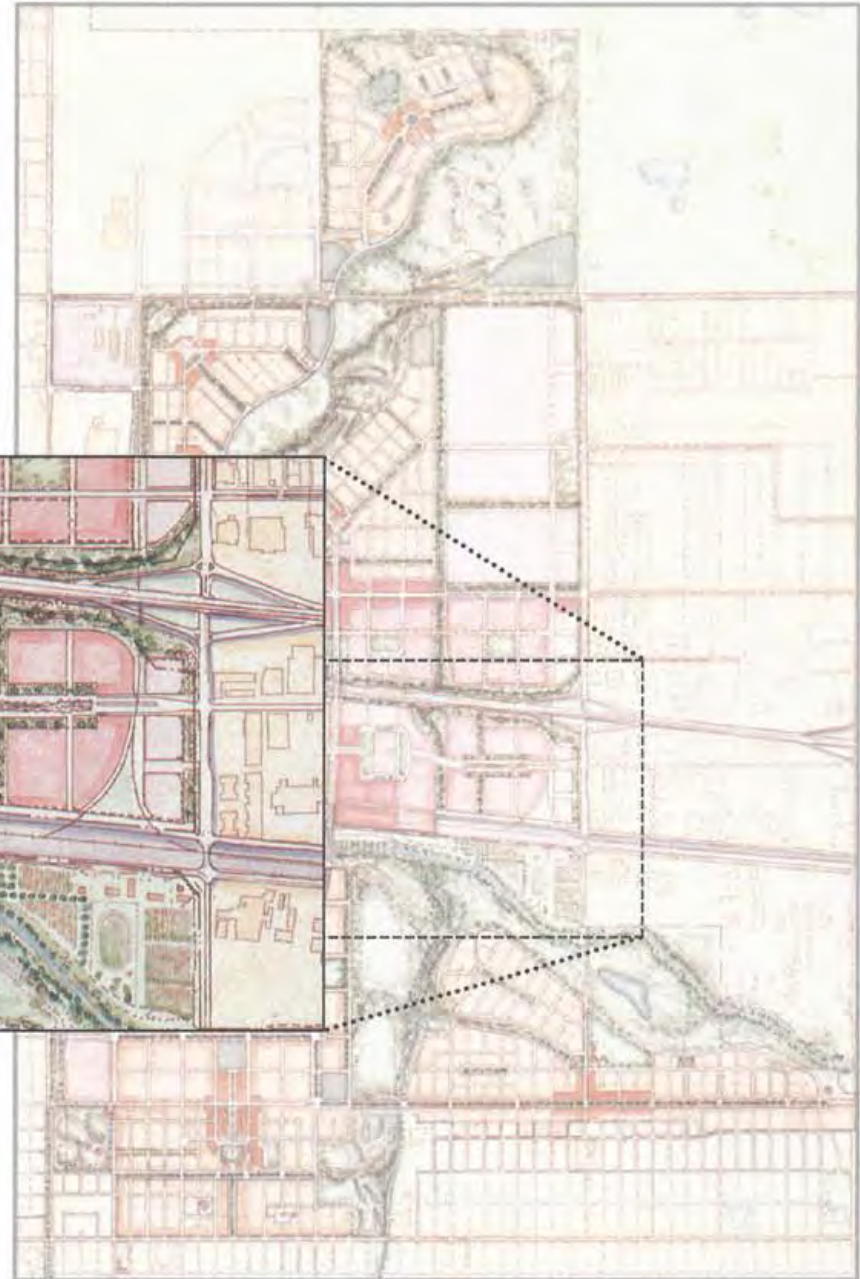
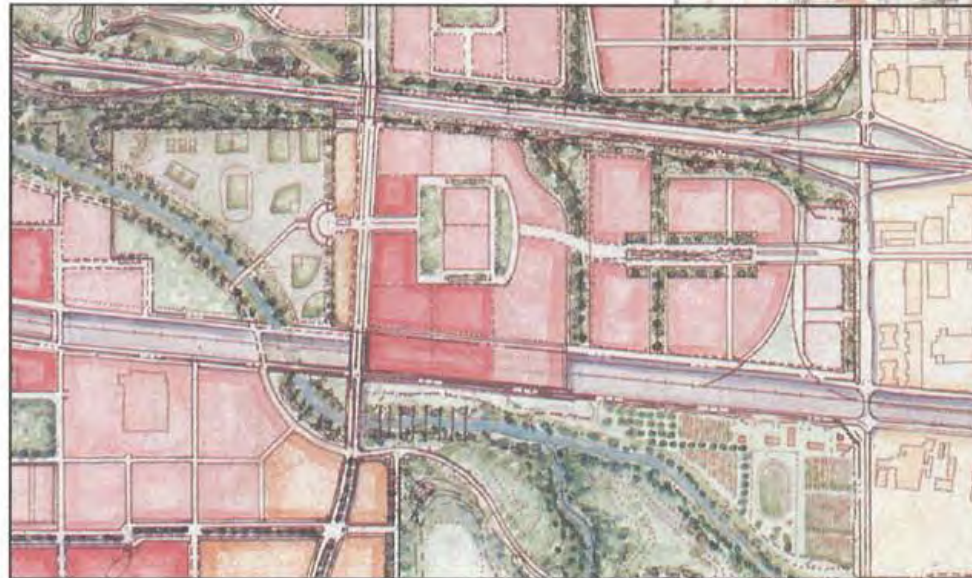
EMPLOYMENT CENTER

OUTDOOR SPORTS COMPLEX

RAIL AND HIGHWAY ACCESS

VISIBILITY AND TRAIL CONNECTIONS

URBAN AGRICULTURE CENTER



District IV is a 279 acre employment-oriented area located in the middle of the Stapleton site flanked by regional highway and rail corridors. It is bounded by I-70 on the north, Havana Street on the east, and Sand Creek on the south and west.

District IV comprises 279 acres between I-70 and the Smith Road/Union Pacific railroad corridor. This area is highly visible from the highway and has direct access to the highway via the Havana Street interchange. Site access is complicated to some extent by the presence of the rail spur running north to serve the Montbello area and the northern portion of the Stapleton site. This district can accommodate a wide variety of employment-related uses. Once the Yosemite Parkway road connections are in place, the portions of the district abutting Yosemite will provide exceptional visibility, dramatic views and good access for business users. A future rail transit stop will become a neighborhood focal point at Smith Road and Yosemite Parkway near the Sand Creek corridor trail system.



Long-span aviation structures could be disassembled and relocated to the District IV urban agriculture area for use as a horse barn or for other related functions.

Transit and highway-oriented business development and related employee services occur in District IV.



Birds-eye view of District IV looking east from the Sand Creek ball field complex across transit-oriented business development on Yosemite Parkway to flex and industrial structures, the rail corridor and freeway interchange.



District IV will be located immediately adjacent to a regional outdoor Sports Complex of approximately 100 acres. Providing lighted ball fields, basketball courts, etc., this complex will serve all of northeast Denver.

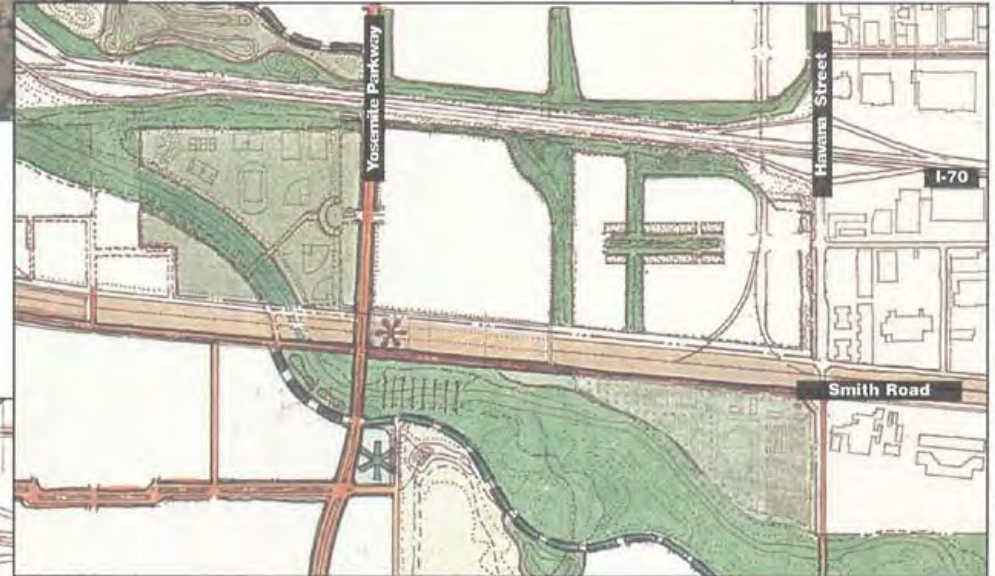
In addition to substantial business uses, an Urban Agricultural Center will be located in District IV south of the Union Pacific rail corridor, north of Sand Creek and west of the County jail facility. This unique site will be the home of a community farm, equestrian facilities, composting yards and a nursery. These facilities offer an excellent opportunity to provide job training and experiential education programming for disadvantaged youth, as well as food for the needy.



Sites located between Smith Road and I-70 will typically support low-rise, low-density business uses — with the exception of the highly visible frontage along Yosemite Parkway, which could accommodate higher density business uses. A diversity of business uses is encouraged in this district. The western half towards Yosemite Parkway will be reserved for office and office campus uses with site densities up to 1.0 FAR in three to five story buildings oriented to preserve mountain views. The eastern half towards Havana Street, Smith Road and Union Pacific rail corridors will incorporate office campus, R&D and flex-space uses with a density of 0.3 FAR in one to three story buildings.



A Hewlett-Packard Company plant located in East Fort Collins provides a good example of how thoughtful siting of buildings, truck access, parking and landscape buffers can minimize impact to surrounding areas.



Public Realm - District IV is enhanced by its relationship to the parks, recreation and open space system. To the west lies the ball field complex and to the south, the restored Sand Creek Corridor. Along I-70 a significant setback will be reserved for landscaping. Stormwater will be transmitted to Sand Creek via surface drainageways which will also serve as linear greenways and parkways.

Private Development - At buildout, District IV is anticipated to accommodate approximately 3,250 jobs in 12.3 million square feet of space. No residential units are currently anticipated to be located here.

KEY ELEMENTS

1. Predominately employment land use including manufacturing, assembly, distribution, office and research and development with highest quality environment provided closer to I-70 and District VI.

2. District Center serving employees and others near 47th Avenue and Havana Street.

3. Density of 1-3 story structures with surface parking.

4. Transportation elements including relocation of rail spur to the west, minimization of truck traffic on 47th Avenue and truck routing through adjacent residential areas in District VI.

5. Drainage corridors serving as public parks with trails, landscape buffering and habitat. Landscape of the I-70 setback and completion of the Havana Ditch diversion.

► DISTRICT V

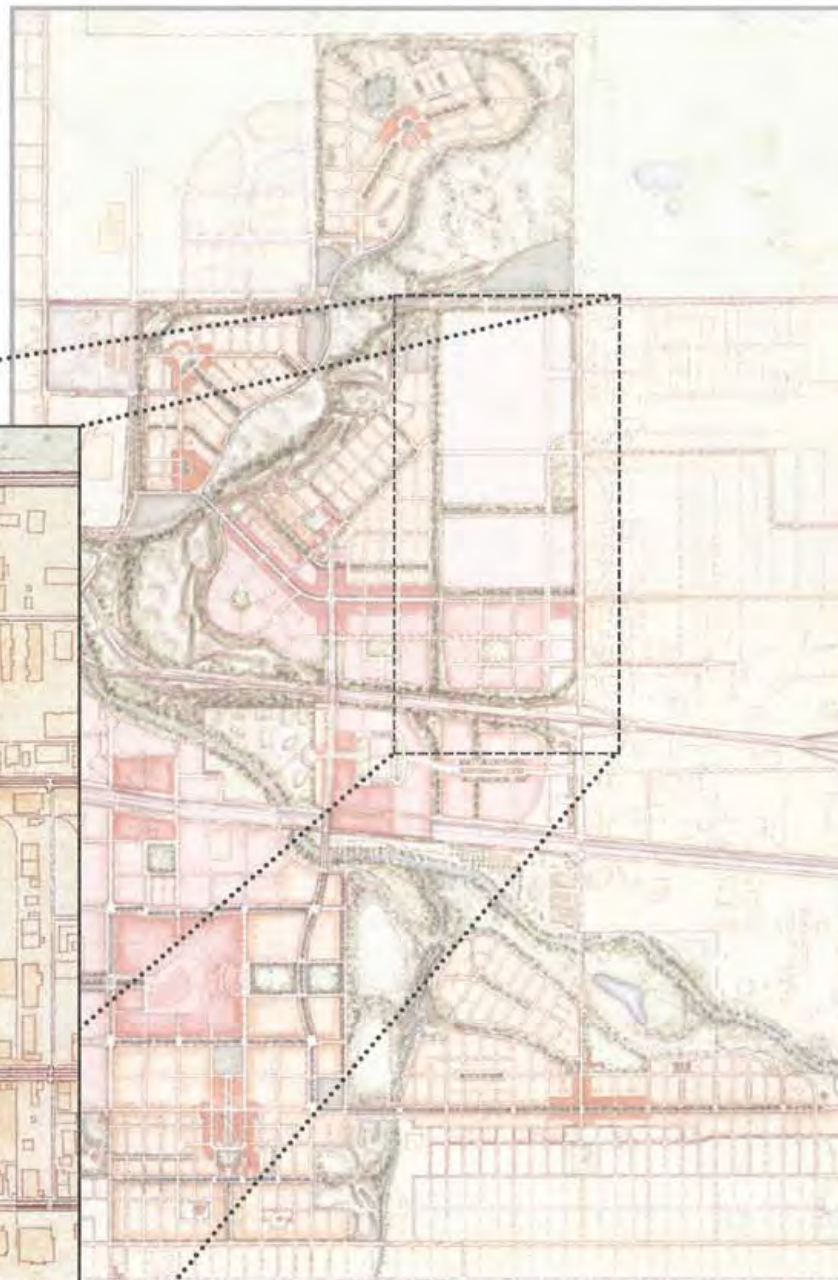
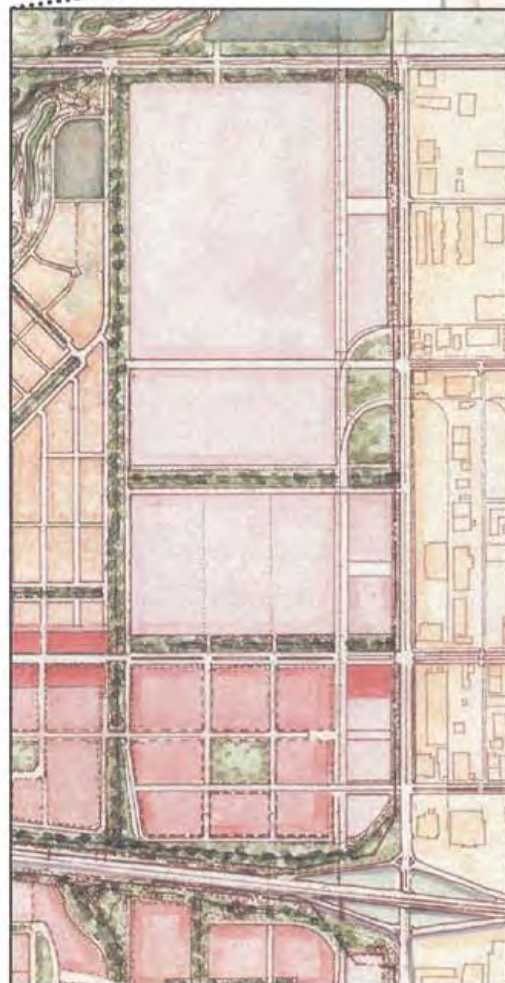
"Irondale Park Neighborhood"

PRIMARY EMPLOYMENT AREA

LARGER, FLEXIBLE SITES

RAIL AND HIGHWAY ACCESS

TRANSITION TO
RESIDENTIAL USE



District V is a 561 acre employment-oriented area located in the northeast corner of the Stapleton site adjacent to the Montbello industrial area. It is bounded by I-70 on the south, Havana Street on the east, the extended 56th Avenue on the north, and a major drainageway and open space area to the west.

District V comprises 561 acres north of I-70 and immediately west of Havana Street. This area has the greatest capacity to accommodate employment activity, particularly larger footprint buildings. The area also provides the greatest access and flexibility for truck and rail service. While this area will be largely employment-oriented, it will abut a residential area immediately to its west. The goal is to create a successful environment for many forms of business activity, while keeping the site walkable, transit accessible, respectful of the natural environment, and completely integrated with the adjacent elements of the community.



Havana Street provides access to District V. Rail and bike corridors parallel the street. The Havana Ditch, a diversion of Irondale Gulch storm water from adjacent Montbello, also parallels this major street.

District V will offer an environment capable of accommodating high quality corporate, research and development and manufacturing facilities.



Birds-eye view of District V looking northwest from the I-70/ Havana freeway interchange across generous setbacks to an employment-oriented complex of corporate and manufacturing facilities. Views beyond are to the primary open space corridor and adjacent residential areas.



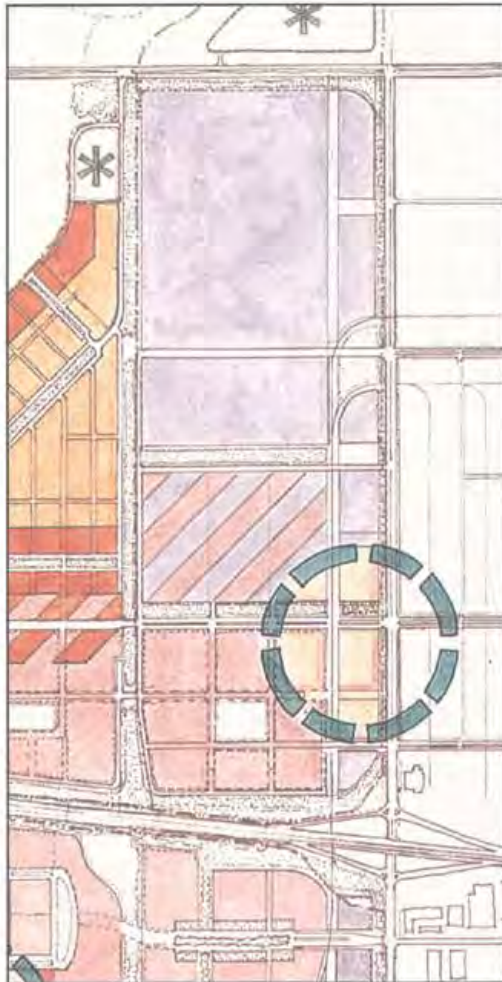
Major employers fronting the I-70 corridor will have a significant influence on the site's image. These uses will be substantially set back from the landscaped freeway frontage and linked to the interior of the Stapleton community through open space, trail and roadway connections.

District V will contain a mix of employment uses, including low-density warehouse, distribution and light manufacturing; as well as flex, R&D and potentially office-related uses. The King Soopers site immediately west of Havana Street and south of 56th Avenue, is part of this district. A variety of parcel sizes and configurations can be accommodated, from two up to 30 or more acres. Also, various frontage opportunities will include the Havana and associated rail corridors, a new business boulevard along the extended 47th/49th Street corridor, 51st Street extended, as well as new drainageway/open space corridors and the landscaped I-70 corridor itself. Careful site planning and building criteria will ensure the success of these more visible locations.

A District Center will be located near 47th Avenue and Havana Street, offering transit access, daycare and other services to area employees.



District V is intended to accommodate a mix of workplace uses, including warehouse, distribution and light manufacturing; low density flex, R&D, and office campus uses; low to medium density office uses; and at a later stage, higher density office uses. The intent is that the land use mix and parcel size become more fine-grained with a greater proportion of office-type uses in the areas closer to I-70 and to District VI.



Private Development - At buildout, District V will employ approximately 5,300 people in about 4.5 million square feet of space. It will offer rail served sites as well as freeway frontage. Densities will be low to moderate (.3 to .5 FAR) with typical building configurations of one to three stories. Limited services that do not compete with the commercial center in District VI will be provided near 47th Avenue and Havana Street.



Public Realm - Linear public drainageways of widths up to 200 feet organize District V into larger parcel groupings, reinforced by a modified grid network of streets. These street extensions provide direct connections to the Montbello industrial district directly to the east. Boulevard extensions will occur at 45th Avenue, 47th Avenue and 51st Avenue. Forty-Seventh Avenue provides access across the site to Quebec Street, and serves as the main entry point for this area and District VI. The design of local street systems is flexible enough to accommodate a variety of parcel configurations and uses. Truck loop access is provided from Havana Street at reasonable intervals to distribute traffic through the site without unduly impacting 47th Avenue.

KEY ELEMENTS

1. Mix of residential and employment land uses, with employment oriented along 49th/47th Avenues and near I-70.
2. A Center is located in each District. The District VI Center provides business/retail services to the northern portion of the property.
3. Density of 8-15 dwelling units per acre for residential use.
4. Transportation elements including improvement of the I-70/I-270/Quebec interchange, provision of direct access into the northern portion of the site from Quebec Street and minimization of truck traffic on residential streets.
5. Integrated parks development and management of golf, drainage, trails, natural areas, wildlife habitat and other uses.
6. Special sites reserved for institutional or corporate uses.
7. Elementary school sites in VI and VII and a middle school site in VI.

► DISTRICTS VI/VII

"Sand Hills Neighborhood"

MIXED RESIDENTIAL/
EMPLOYMENT ZONE

SIGNIFICANT OUTDOOR
AMENITIES

TOWN CENTER

WALKABLE SCALE



Districts VI/VII are 808 acres of mixed use neighborhoods located in the northwest corner of the Stapleton site near the I-270/ Quebec Street interchange and Commerce City. They are bounded by I-70 on the south, Quebec and Roslyn Streets on the West, by 56th Avenue on the north and by District V to the east. The Districts are bisected by the major amenity on the northern portion of the site - a multi-use parks and open space corridor which connects to the adjacent national wildlife area.

These two districts contain a total of 808 acres of land. Together, they provide a mix of housing, employment and institutional uses flanking the heart of the open space system on the northern portion of the Stapleton property. District VI will accommodate a variety of employment activities that are less truck-oriented than those in District V and more compatible with adjacent residential use. District VI will also be the site of the “commercial center” for all of the people living and working north of I-70.

Shahil and Rozinsky



The multi-use parks and open space corridor will be a regionally accessible amenity within the neighborhood. Integrated uses will include storm drainage, water quality enhancement, trails, a golf course, canals and ponds for irrigation, natural areas and wildlife habitat.

The District VI Center will be the heart and gathering place for surrounding neighborhoods. Services will occur in this center and will be limited on perimeter arterial roads.

Birds-eye view of Districts VI/VII looking northeast through the parks and open space corridor from near the I-270/Quebec Street interchange, across commercial and residential sites to the national wildlife area beyond.

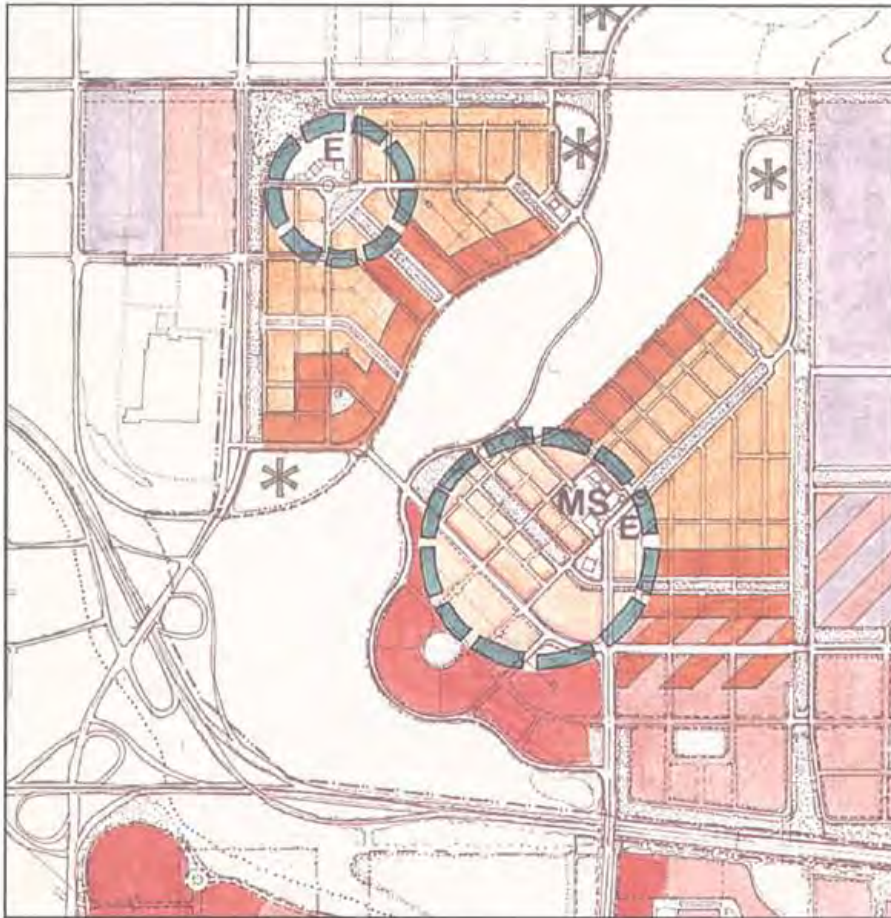


A highly visible District Center, located at the intersection of 49th Street and Yosemite Parkway, will contain a mix of residential, retail and commercial services, in addition to a transit stop and elementary school. The center will be within walking distance for a substantial number of residents and employees. It will provide commercial services for the entire northern portion of the site.

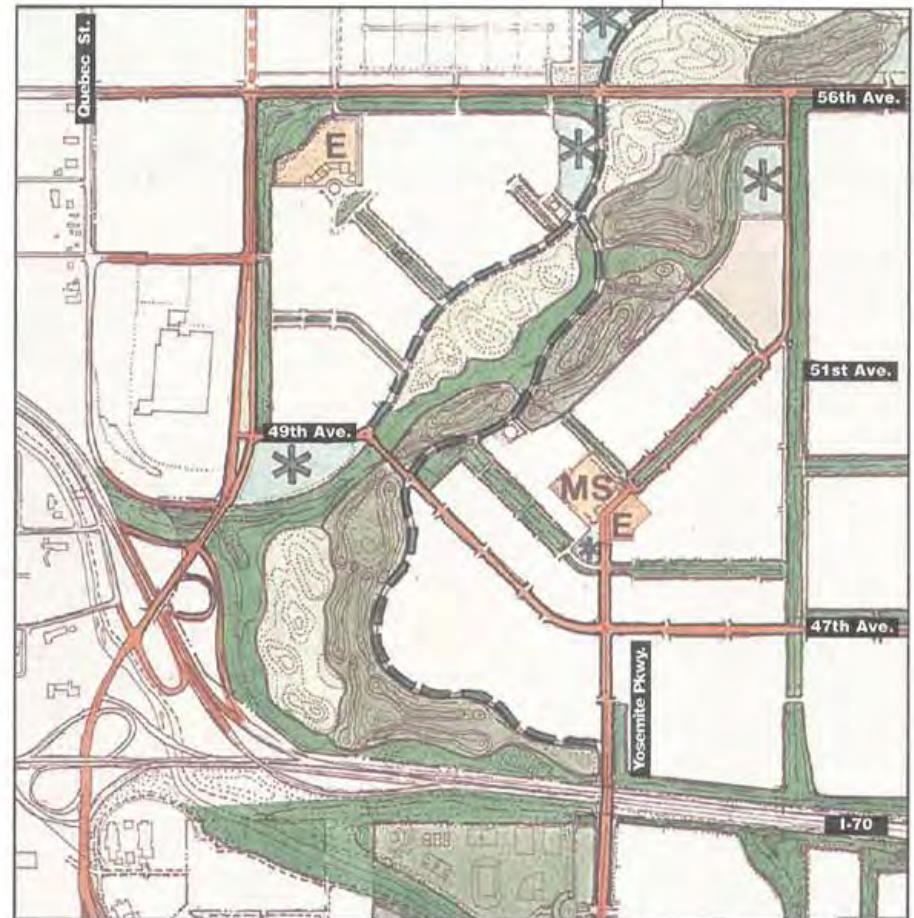
District VI is intended as a mixed-use district, containing a balance of residential, office, commercial and retail uses. The southern portions of the district adjacent to the interstate corridor and District V will contain a mix of low density office, office campus or R&D/flex type uses. Higher-density office sites are appropriate along the most visible portions of the site: the drainage/golf course/highway corridors. The remainder of the district will contain residential uses, with a mix of low- and mid-density housing types in one- to three-story configurations. An average density of 8-15 du/acre is called for here.

The District Center sits at the crossroads of 49th Avenue and Yosemite Parkway. Highly visible and accessible, this center will contain a mix of mid- to higher-density housing and local convenience retail to serve the residential and nearby workplace populations — possibly anchored by a neighborhood retail center (containing supermarket, drugstore and support retail). Commercial services for the majority of adjacent residential areas and workplaces will be located within walking distance. Competing services will be discouraged in strip commercial centers flanking arterials such as Quebec Street, Havana Street and 56th Avenue on the exterior of the property. The center will contain a transit stop, as well as an elementary school, middle school, and possibly other civic or institutional facilities. A major east/west drainageway connects the center to the major open space/golf course amenity, where the golf club facilities will be located. This center is connected to District VII via bridge and open space connections, where it serves as the location for moderate density housing clustered around specially designated sites for civic or corporate facilities.

District VII is predominantly a residential neighborhood, with a mix of low and moderate density housing types. Residential densities will average 10 units per acre in one- to three-story housing types. Some moderate density housing types (townhouses, courtyard apartments, garden apartments and flats) will be located along the open space corridor and public open spaces. A small neighborhood center is clustered around the local elementary school, with access to the adjacent community park/drainageway system, and will contain small quantities of moderate density housing, daycare and public space.



Private Development - Districts VI and VII will contain approximately 3,000 housing units and employ approximately 4,000-5,000 people in about three million square feet of space. Many prominent commercial and residential development sites will be located along the significant open space system, either adjacent to the golf course, habitat areas or the prairie park. Given their setting, accessibility and proximity to the airport and downtown, these sites will be difficult to duplicate anywhere in the metropolitan region.



Public Realm - Districts VI and VII will include significant public assets including parkways, greenways, special sites, two elementary school sites, a middle school, a community park, and one of the largest open space components found on site. The open space will serve a variety of needs, including addressing local and regional parks, recreation and golf demand, supporting restoration of natural systems, establishing wildlife habitat and trail connections, accommodating 100 year flood requirements and reducing nonpoint source pollution. Major road connections serving the district are Yosemite Parkway running north/south, and 49th/47th Avenues running east/west. A redesigned I-270/Quebec interchange will provide major access for the area.

KEY ELEMENTS

1. Predominately residential land use with opportunities for corporate and institutional use.
2. District Center in the middle.
3. Density of 8-15 dwelling units per acre for residential uses.
4. Transportation including 56th as a limited access parkway with landscaped median through the site.
5. Significant restoration of sand hills prairie character of parks, trails connections using the 56th Ave. underpass, and development of habitat, facilities and programs to complement and connect to the wildlife refuge.
6. Special sites reserved for institutional and/or corporate uses.
7. Joint planning with Commerce City and the U.S. Fish and Wildlife Service for refuge and open space visitor facilities, access, programming, habitat development and management.

► **DISTRICT VIII**
"Prairie Park Neighborhood"

RESIDENTIAL/
EMPLOYMENT ENCLAVE

MODERATE
DENSITY

REFUGE AND
PRAIRIE PARK

SENSITIVE
ENVIRONMENT



District VIII is a 316 acre compact residential neighborhood located at the northern extent of the Stapleton site. It is adjacent to the Rocky Mountain Arsenal National Wildlife Area which, following environmental cleanup, will become a national wildlife refuge and permanent open space. District VIII is bounded by 56th Avenue on the south, and by the wildlife refuge to the north and east. The Arsenal land immediately west, Section 9, is intended to be excluded from the Wildlife Area's boundaries and may ultimately be annexed to Commerce City.

District VIII is a 316-acre parcel located in the far northern portion of the site above 56th Avenue. Today this area is bounded on three sides by the Rocky Mountain Arsenal National Wildlife Area. This district's future is closely tied to the development of the Arsenal National Wildlife Area as a National Wildlife Refuge, and the major Sandhills Prairie Park on the Stapleton site. The uses accommodated in this district must be very well integrated with a sensitive natural environment dedicated to restoration, wildlife and habitat management, and public education. While the district is presumed to be primarily residential, appropriate-scale research or office uses could be incorporated as well. This area also offers several excellent sites for regional cultural, educational, corporate or visitor-oriented facilities.



The northern areas of Stapleton such as District VIII are vast open spaces which have been regraded to accommodate long paved runway and taxiway structures.

Compact development of residential, institutional and corporate uses will front onto natural open space, offering exceptional views and recreation access.



Birds-eye view of District VIII looking northeast from the nature trail bridge at 56th Avenue across institutional and corporate development bordering the Sandhills Prairie Park, to a compact residential neighborhood, and finally beyond to the grasslands, lakes and wooded areas of the National Wildlife Area.

District VIII is a residential neighborhood of moderate-density housing types, with average densities of 8-15 du/acre (single family, townhouses, terrace housing, flats, apartments, carriage houses in two to four story configurations). With orientation, access and/or views to the mountains, Sandhills Prairie Park, wildlife refuge and local neighborhood parks, this neighborhood will offer a unique living environment. A neighborhood center will contain small amounts of public space, community facilities, and a transit stop.

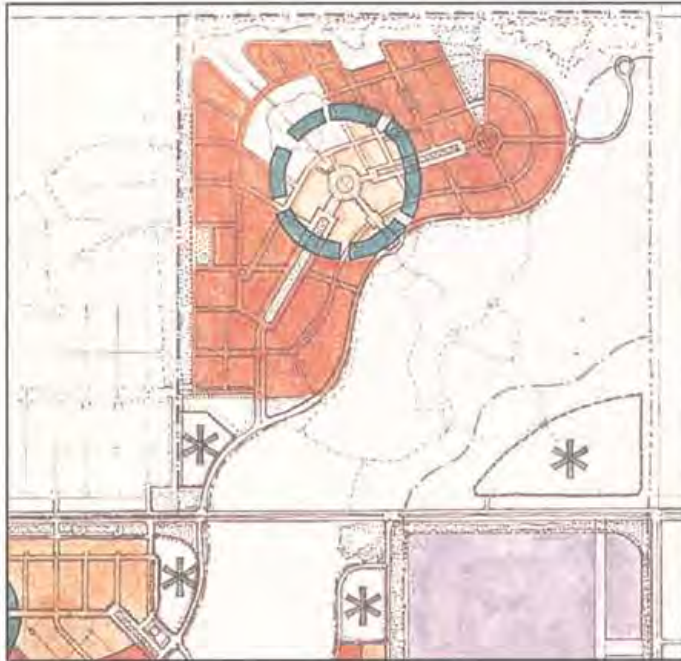
To the east is the National Wildlife Area interpretation site, destination for thousands of visitors. To the west is section 9, an area earmarked for commercial, park and visitor facilities by Commerce City. Cooperative planning regarding District VIII, the National Wildlife Area and Section 9 has already begun, including representatives of Commerce City, Denver, the U.S. Fish and Wildlife Service and the Stapleton Redevelopment Foundation.



Residents of District VIII will have unparalleled access to wildlife and the outdoors. Adjacent to the 27-square mile Rocky Mountain Arsenal National Wildlife Area and the Prairie Park, District VIII offers the opportunity to live in an environment dominated by nature, but minutes from the heart of the metropolitan area.

This district also provides an appropriate setting for businesses and public institutions. Key sites along the prairie park have been reserved for these uses.





Private Development - Ultimately, approximately 4,300 residents will occupy 1,900 units of housing in District VIII at densities averaging 8-15 du/acre. An additional 500 or more employees will work in this district as well. Residential units will be oriented around the Prairie Park, National Wildlife Area, and internal greenways as much as possible. Special use sites occur along 56th Avenue fronting the open space. The prominent locations have been set aside for major institutional or corporate users.



Public Realm - The dominant public feature of District VIII will be the 365 acre Sandhills Prairie Park. It will be a new type of park for the City and County of Denver and metropolitan region, restoring the original High Plains landscape, the Sandhills Prairie. The park's topography of rolling sandhills, vegetated with tall and short prairie grasses, cottonwoods, willows and other shrubs will attract a wide variety of birds and small mammals. With a direct connection to the National Wildlife Area to the north and east, it will be managed to protect the restored prairie ecosystem, while providing maximum opportunities for public recreation. A grade-separation at 56th Avenue provides connections for animals, trails and drainage between Stapleton and the National Wildlife Area to the north. Special use sites occur along 56th Avenue fronting the open space.

E. SOCIAL AND ECONOMIC INITIATIVES

Introduction

The social and economic aspects of a community are key components of the concept of sustainability. A strong sense of community, healthy and stable households, vital social institutions and a resilient local economy capable of providing continuing support to the population are all necessary elements. These conditions must accompany innovations in the physical environment and resource management if Stapleton is to become a truly sustainable community.

While the Development Plan process did not provide the opportunity to fully explore these aspects, some important directions did emerge. Additional work and community consensus building will be required to more completely define and pursue the social and economic objectives of the Development Plan.

Discussion with a variety of community representatives identified a number of functions and services as important aspects of social and economic development for the Stapleton project. Among those emphasized were the following:

Economic Development	Childcare
Employment Assistance	Family Assistance
Youth Programs	Recreation/Leisure
Business Assistance	Library & Information Services
Education & Job Training	Culture
Senior Care Programs	Elder and Intergenerational Care
Public Safety	Public Art
Health and Wellness	
Housing	

The greatest attention in the Development Plan process was given to housing and the creation of a sense of community, development of an economic base and education and training.



Goals and Principles

As part of the Development Plan process, project team members and community representatives reviewed goals identified in the City and County's Comprehensive Plan, Overall Economic Development Plan, neighborhood plans and other documents. Each of these documents identified important community objectives regarding the development of neighborhoods, expansion of the community's economic base, advancement of educational and training objectives and most desirable methods for addressing a variety of social and cultural challenges. The project team and Citizens Advisory Board also created a set of principles to guide planning and development of the Stapleton site. Thirteen of these principles related directly to the goals of creating and supporting viable neighborhoods, promoting diverse housing opportunities, fostering a strong sense of community, increasing educational and training capacity and relevance, and expanding economic opportunities for Denver residents.

Clearly many aspects of social, community and economic development will need to be addressed as the Stapleton development program moves forward. The Development Plan does provide some specific guidance with respect to 1) housing and the creation of diverse neighborhoods and a sense of community, 2) development of the Stapleton employment base and 3) creation of an innovative education and training system. Highlights of the recommendations regarding each are provided below:

Criteria and Next Steps

Clearly many aspects of social, community and economic development will need to be addressed as the Stapleton development program moves forward. The Development Plan does provide some specific guidance with respect to 1) housing and the creation of diverse neighborhoods and a sense of community, 2) development of the Stapleton employment base and 3) creation of an innovative education and training system. Highlights of the recommendations regarding each are provided below:

Neighborhood Diversity and Sense of Community

Special attention shall be given to providing a variety of housing at Stapleton and to producing a diverse resident population for the project and for each of its residential neighborhoods. These objectives include diversity in resident incomes, races, ages and family types.

"THE FINAL TEST OF AN ECONOMIC SYSTEM IS NOT THE TONS OF IRON, THE TANKS OF OIL, OR THE MILES OF TEXTILES IT PRODUCES; THE FINAL TEST LIES IN ITS ULTIMATE PRODUCTS - THE SORT OF MEN AND WOMEN IT NURTURES AND THE ORDER AND THE BEAUTY AND SANITY OF THEIR COMMUNITIES."

LEWIS MUMFORD

Housing development policies should address a wide range of market segments and income levels.

RECOMMENDED HOUSING POLICIES INCLUDE:

- Stress homeownership in the mix of units provided. Stapleton must compete effectively in the metro market by combining the advantages of urban and suburban living.
- Provide a variety of housing types and densities suitable for lower, middle and higher levels of income, special needs and the elderly.
 - Concentrate the highest density housing near transit lines and amenities in neighborhood centers.
 - Provide lower income and special needs housing in a dispersed fashion in all neighborhoods, keeping the proportion of affordable units consistent with the mix found in the larger community.
 - Develop dispersed special needs housing following successful establishment of market rate housing.
 - Emphasize housing for middle income families
 - Provide open space and amenities to attract high end housing necessary to support the site's role as an employment center.
- Address the Plan's sustainability objective by emphasizing such aspects as solar access, water and energy conservation, district and reusable approaches to energy supply, recycling and transit orientation.
- Highlight the positive aspects and amenities of adjacent residential neighborhoods, such as the major parkways in Park Hill, when marketing Stapleton housing and neighborhoods.

A variety of development and private land use controls will be employed to seek a diverse housing population. Housing alternatives such as co-housing, mutual housing, sweat equity programs and continuing care environments for the elderly will be allowed and encouraged together with combined live/work space. Special incentives might be needed to encourage the development of targeted housing types. A design committee may be established to, among other things, carefully incorporate affordable housing into each neighborhood. Zoning and

building codes may require amendment to facilitate the development of a mixture of housing types. Special siting and design requirements, beyond those currently required by City ordinance, shall be created to effectively and appropriately integrate a limited number of "special use" facilities into the overall development plan.

All development decisions shall take into consideration the varied characteristics of those housing neighborhoods that surround the project.

Along with the design and siting of the housing itself the development and management of ancillary facilities such as schools, public facilities, recreation areas, daycare facilities, transportation, job sites and shopping areas shall also be evaluated to determine how they can best effect the creation and maintenance of a diverse residential population for Stapleton.

Successful creation of diverse and healthy neighborhoods and a sense of community will require community participation in decision-making and governance that encourages residents and business owners of neighborhoods surrounding Stapleton as well as those on site, to be part of decisions regarding the development of the property and the delivery of public and quasi-public services. In this regard, a task force should be established to recommend methods of community participation toward these ends.

A sense of community can be further developed by creating a level of permanency through the location of institutional uses in the neighborhoods. An aggressive marketing strategy and necessary incentives should be developed to attract the cultural and community institutions sought for the neighborhoods on the site such as churches, educational and research facilities and institutions such as the Museum of Natural History and the CSU Extension Service.

"HUMAN DEVELOPMENT
REQUIRES A COMMITMENT
TO APPLY THE BENEFITS
OF COLORADO'S GROWTH
SO THAT ALL COLORADANS
ARE PROVIDED WITH
ACCESS TO INCOME AND
EMPLOYMENT OPPORTUNI-
TIES, HEALTH CARE, EDU-
CATION, BASIC SOCIAL
SERVICES, A CLEAN AND
SAFE PHYSICAL ENVIRON-
MENT AND THE CHANCE
TO PARTICIPATE FULLY IN
COMMUNITY DECISION-
MAKING."

FINAL REPORT - CHOICES
FOR COLORADO'S FUTURE
THE COLORADO TRUST



Employment Base

Consistent with the Development Plan principle of Economic Opportunity, Stapleton will provide an employment center that serves Denver's needs into the next century and allows Denver residents to prosper through improved job and business opportunities and an enhanced

tax base. Diverse opportunities should be developed and encouraged, including family enterprise, incubator businesses and secondary support businesses. Redevelopment of Stapleton and Lowry can serve as a springboard to stimulate reinvestment in the neighborhoods and business areas surrounding the two sites.

Economic Program

The project's long-term economic success will not be the result of early identification of one or two substantial users. An economic program for a site of this size will require several components, including:

- **Flexibility:** Stapleton must be able to respond to changing market conditions over a long period of time. A mix of uses will enable the site to offer product in different sectors of the real estate market. As one sector becomes weak, the site will be able to shift emphasis to a stronger sector.
- **Adherence to Vision:** Initial site activities need to demonstrate the "vision" of the project and establish an image. Early actions will also set precedents for how future decisions are made and how future development will occur.

• **Market Creation Strategies:** The size and long-term buildout of the site heighten the need for strategies to attract users, tenants, developers and owners to the site. Prior work under Stapleton Tomorrow identified several potential market creation strategies. These strategies focused on 1) federal, corporate and university-based research; 2) an education and training center; and 3) cultural and tourism attractions. The Stapleton Development Plan has identified an additional strategy which is consistent with the goal of environmental responsibility practiced throughout the site. Based upon the new markets for environmental technologies being created throughout the world and Colorado's large existing base of professional, institutional, academic and organizational resources, the Stapleton site should be positioned as a Center for Environmental Technology and Sustainable Development. Stapleton has the opportunity to provide a physical site that can be identified nationally and internationally as a vital center for the development and application of environmental technology and sustainable development practices, providing a location for research, demonstration projects, training and education, production facilities, related business and institutional activities, environmentally sound communities and infrastructure systems, and a business environment that would provide economic and marketing benefits for firms locating there.

• **Marketing Plan:** Several characteristics of the site, including its scale and proximity to downtown and DIA, will attract national and international user interest. A comprehensive marketing plan must be drafted and implemented to take advantage of this interest. The plan should strive to differentiate the site in as many ways as possible: e.g. by highlighting its open spaces, mixed-use urban villages, mobility, efficient technologies, community ties, "green" business environment and technologies, and decentralized management and service delivery structures.

• **Diverse Funding Base:** One of the keys to Stapleton's economic success will be its ability to pursue grants from state and federal agencies, foundations and corporations. The site's large open space and wildlife habitat corridors, innovative infrastructure and advances in transportation system design, as well as community training and education initiatives, could all be eligible for grant funding under traditional programs or under special discretionary grants. Stapleton's designation as the National Center for Environmental Technology and Sustainable Development would enhance its ability to obtain funding.

ECONOMIC PROGRAM RECOMMENDATIONS INCLUDE:

- developing an aggressive marketing strategy to seek and attract firms in the fields of environmental science and technology
- incorporating business areas in early phase development
- continuing to pursue developers for the terminal area
- mounting an aggressive marketing effort to lease existing buildings and facilities
- engaging local telecommunications experts to evaluate installation of advanced information technologies in the business and residential areas of Stapleton
- developing an incubator on Stapleton to nurture emerging environmental technologies and businesses
- providing entrepreneurial development and support programs
- initiating collaborative planning efforts with the City of Aurora, the Lowry Redevelopment Authority and East Colfax business and neighborhood organizations to develop strategies to rejuvenate the area between Stapleton and Lowry
- placing a priority on "signature proposals" for the site which will serve as an economic stimulus for the region.

Existing businesses must thrive and new entrepreneurial businesses must emerge. A program to expand entrepreneurial skills of new Stapleton residents as well as residents of surrounding neighborhoods should be developed. The program could be modeled after other successful economic programs such as entrepreneurial training programs available through the Denver Metro Chamber of Commerce, educational institutions and the State of Colorado. Marketing strategies and incentives should be developed to attract employers to Stapleton who will be active in promoting community and economic goals for Stapleton such as entrepreneurial skill development, innovative education programs, hiring and training youth and local residents, etc.



Education and Training Systems

The quality of the public school system and worker training is considered by many in the business community to be the most critical

issue facing Denver and especially its neighborhoods. Image, integration, the representation of different constituencies and quality concerns surround the Denver Public Schools. Elementary school busing continues to be a major issue for parents and the single most important reason why middle class families of all ethnic groups leave Denver while their children are school aged.

In contrast, many believe that the overall quality and special programs of the Denver Public Schools are far better than perceived. Some of the innovative programs that may have applicability to Stapleton include family resource schools; magnet schools, fundamental academies; the career education center; extended day programs; challenged and highly gifted programs; and the High School for the Arts. For Stapleton to have integrated, diverse neighborhoods that include families with young children, an effective approach to public education must be provided. Stapleton must be able to support innovation and experimentation with new models.

"INDIVIDUALS ARE THE ORIGIN AND DRIVING FORCE OF A CAPITALIST ECONOMY. COLORADO RESIDENTS CLEARLY MUST BE THE CENTER OF ATTENTION IN DEVELOPMENT EFFORTS. ECONOMIC DEVELOPMENT IN PARTICULAR MUST BE WOVEN AROUND PEOPLE - AROUND THEIR COLLECTIVE SKILLS AND ABILITIES, NEEDS AND EXPECTATIONS - INSTEAD OF AROUND ASSUMPTIONS THAT PEOPLE'S NEEDS WILL BE MET SOMEHOW AS THE BY-PRODUCT OF ECONOMIC DEVELOPMENT."

FINAL REPORT - CHOICES FOR COLORADO'S FUTURE
 THE COLORADO TRUST

The educational goal of Stapleton is to create an innovative public and private education and training system. Educational programs at Stapleton will be linked to and complementary with those at Lowry, as well as with other recreation and social service programs and facilities provided on site. As an example, Stapleton could house school-to-work programs.

School-to-work programs prepare young people for the labor market by integrating school-based learning at high school with structured learning experiences at the workplace. Upon graduation, students are well prepared for a range of post secondary options, including skilled entry level work, technical training and college. Employers enter into structured partnerships with educational institutions and community-based organizations. European versions of such programs typically include structured learning at the work site under the tutelage of a master and certification of workplace skills by employers.

**EDUCATION & TRAINING SYSTEM PROGRAMMATIC
RECOMMENDATIONS INCLUDE:**

- Establishment of a strategic task force to develop an education and job training delivery model for Stapleton. The task force should include representatives of Denver Public Schools, higher education, experts on innovative approaches to education, training and business representatives, private and nontraditional providers of education and training, and community and political leaders.

The task force should:

- Conduct research on the most effective education and training models both nationally and internationally to identify current innovations.
- Evaluate whether the charter school legislation and successful programs at DPS represent opportunities for Stapleton and how education at Stapleton could relate to the programs being offered at Lowry.
- Evaluate how education can be used as a magnet to attract businesses and families to the site.

- Evaluate new approaches to educating and training at-risk students and integrating intern, training and employment opportunities with firms locating on site.
- Determine if there are innovative ways to develop entrepreneurial skills and business opportunities for residents in the immediate area.
- Determine whether the presence of education facilities and programs can provide a center for community life and how the design of neighborhoods or other aspects of community planning would be affected in order to achieve this end.
- Develop specific recommendations for Stapleton regarding what education services should be delivered, how and by whom; what physical and design implications will arise and how the recommendations can be implemented.

- Pursue school-to-work programs with employers recruited to the site.
- Pursue funds available through the School-to-Work Opportunities Act of 1994, which provides "venture capital" to states and communities to develop approaches that are consistent with their unique social, economic and political institutions.

Working with a clean slate, an opportunity exists to examine the physical location and facility needs of schools on site and their proximity to other uses. Denver Public Schools is concerned that stand alone, single purpose education facilities will be inflexible and a burden to maintain in the future. Schools on Stapleton should share facilities with other activities or encourage joint use of facilities. Shared facilities located in a neighborhood center could offer private childcare, adult education, recreation, health care, elder care or other services.

Existing Stapleton buildings should be evaluated for reuse as educational or community facilities. A hangar building, for example, could be renovated as a school recreational facility. Specific opportunities for such reuse exist within District I of the site.

F. FINANCIAL ANALYSIS

Infrastructure Costs

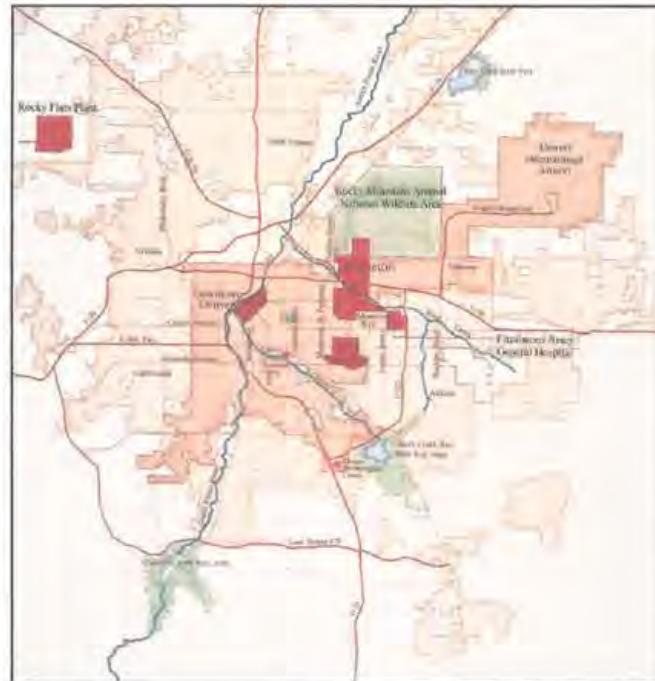
As the Stapleton site changes character over the next several decades, new development will require a significant investment in infrastructure, including major transportation projects such as freeway improvements, public transit, roadways and bridges; utilities; drainage in greenways; parks and parkways; recreation facilities; and community facilities such as schools, libraries, recreation facilities and police stations.

This infrastructure is estimated to cost approximately \$288 million (in 1994 dollars). This estimate assumes:

- that the Airport System is responsible for the costs of abatement of hazardous materials in all buildings and of remediation of all surface, subsurface and groundwater contamination;
- that the Airport System is responsible for the cost of demolition of all buildings and structures not intended for use beyond the interim program; and
- that the cost of runway, taxiway and apron demolition will be fully offset by revenues generated through on-site and off-site reuse of aggregates generated by recycling.

The chart titled Summary of Infrastructure Costs provides a list of infrastructure identified in the Stapleton Development Plan the cost of which is \$287.6 million. Some of the facilities, such as the regional parks and cultural facilities, benefit not only Stapleton but also the Denver region. These facilities are candidates for broad-based funding mechanisms.

The preliminary cost estimates for roads, bridges, water, sewer and parks, recreation and parkways/greenways were based on average quantities and unit costs. The estimates were prepared by BRW, Inc. and Civitas, Inc., engineers and planners on the Development Plan team, with review by City and County staff



Stapleton will occupy a unique niche among the many new development and redevelopment areas within the region.

for areas such as parks, recreation and open space. Significant additional engineering work is necessary to refine the cost estimates to account for engineering and design. An additional amount has been added as a contingency allowance. Costs do not include finance charges. All costs are in 1994 dollars.

The cost estimates were prepared based on Development Plan level information and will be updated as the infrastructure items reach more detailed stages of design and engineering. The cost estimates are adequate for purposes of preparing the Infrastructure Financing Plan, but the expected changes in the estimates as better information becomes available will require adjustments to calculations of fees and allocation of costs to various funding sources.



Description of Facilities

The Stapleton Development Plan identifies the major categories of facilities necessary to serve the redevelopment program. Infrastructure and community facilities will be constructed on Stapleton in response to development demands. As level of service thresholds are approached for each facility, further development will be permitted only with the construction of the next needed increment of infrastructure. Since development will be in accordance with market demand, it is not possible to specify in this report precisely where or when various elements will be required. This section, therefore, will describe infrastructure needed at buildout. With respect to public works projects, Ordinance 717 will apply, requiring 1% of the project cost to be invested in public art. The following paragraphs provide an expanded description of the infrastructure to be funded.

Major Transportation Projects

NOTE: No specific cost estimates are presently available for the freeway improvements or public transit improvements programmed to serve the Stapleton area. The Denver Regional Council of Governments (DRCOG) will be the source for developing these estimates. DRCOG has programmed over \$325 million for the I-70 corridor which is defined as a Major Transportation Investment Corridor in its 2015 Interim Regional Transportation Plan dated October 13, 1993. A study of I-70 corridor options is ongoing.

SUMMARY OF INFRASTRUCTURE COSTS (IN 1994 DOLLARS)	
	TOTAL ESTIMATED COST
1 Major Transportation Projects	
Havana/I-70 & Quebec/ I-270 interchange upgrades	\$50,000,000
Light Rail & Air Train Stations	\$3,000,000
Subtotal Transportation	\$53,000,000
2 Roadways/Structures	
Arterials	\$75,118,595
Structures - Bridges	\$14,249,400
Subtotal Roadways	\$89,367,995
3 Utilities	
Sanitary Sewer	\$4,496,118
Water Distribution	\$14,557,172
Utility Abandonment	\$1,557,020
Subtotal Utilities	\$20,610,309
4 Drainage in Greenways	\$13,025,800
5 Parks, Rec., Parkways, etc.	
Major Traditional Park	\$14,875,000
Prairie Park	\$10,950,000
Community Parks	\$8,250,000
Neighborhood Parks	\$8,000,000
Parkways	\$9,866,340
Trail Habitat Corridors	\$6,771,600
Golf Course	\$7,000,000
Other Recreation Facilities	\$8,110,000
Subtotal parks, etc.	\$73,822,940
6 Community facilities	
Schools	\$36,000,000
Library	\$1,125,300
Fire Stations	\$0
Police Stations	\$635,100
Subtotal Community Fac.	\$37,760,400
Total	\$287,587,444

Freeway Improvements Development of the area will require improvements to the Quebec/I-270 interchange and the Havana/I-70 interchange. The costs of these interchanges are preliminarily estimated at \$50 million, but substantial engineering work is required to determine final cost. No other major freeway improvements are necessary to support development of the project. However, due to regional travel conditions, major expansion of I-70 and I-270 is programmed by DRCOG.

Public Transit The Denver Regional Transportation District (RTD) is responsible for providing transit service to the Stapleton site. Initially the site will be served by bus transit. Rail transit is planned to serve the project in later stages of development. Bus stops and park-and-ride stations will be provided at the major activity centers as a means of facilitating public transit.

RTD will be responsible for construction of any rail system alignment between Downtown Denver and the Denver International Airport which will also serve development at Stapleton. RTD is presently studying the implementation of the rail system in the northeast corridor.

RTD has not developed a final strategy for this extension and substantial additional work needs to occur before the alignment can be submitted for funding. In financing for such improvements, it is common for 25% of the funding to come from local sources and 75% from federal and state sources.

Costs assigned to new development at Stapleton will likely be the costs of bus turnouts, bus shelter and station costs at an intermodal station serving buses and rail vehicles.

Roadway/Structures

The road system will include lanes for regional traffic as well as lanes serving local traffic. None of the major roads are programmed for greater than four lanes. Costs of these roadways include clearing and grading, curb, gutter, sidewalk, paving, medians, landscaping, drainage, lighting, street furniture, as

well as a 25% allowance for design and contingencies. Roadway costs do not include costs for associated major sewer and water transmission mains. Further, no cost sharing between Aurora or Commerce City is assumed, although these cities may contribute funding to the roadways benefiting their respective areas.

Major east/west connectors include: 56th Avenue, 47th-49th Avenue, Smith Road, extension of Martin Luther King Boulevard, 26th Avenue and 23rd Avenue.

Initially the site will be served by bus transit. Rail transit is planned to serve the project in the later stages of development.

The major north/south connectors will be Yosemite Parkway and Syracuse Street. Yosemite Parkway will require new bridge construction or reconstruction of the existing bridge over I-70. Quebec Street on the west border and Havana Street on the east border will require substantial improvements to support development of Stapleton. Significant structure improvements are required across I-70 and at the I-270/Quebec interchange to improve capacity, safety and trail connections.

Utilities

Sanitary Sewer Costs Sanitary sewer costs are for the major sanitary sewer pipe system both under the roadways and off-road. The only areas presently served by sewer are the terminal complex and existing buildings.

"FOR DENVER TO MAXIMIZE ITS ECONOMIC BENEFIT FROM THE REDEVELOPMENT OF STAPLETON AND THE NEW AIRPORT, INCREASED ACCESS THAT TIES THESE AREAS TO OTHER GROWTH AND EMPLOYMENT AREAS IN DENVER WILL BE REQUIRED."

CITY AND COUNTY
OF DENVER
COMPREHENSIVE PLAN
1988

Water Transmission and Distribution The existing looped water supply network ties into existing mains at the 56th Avenue 42" diameter steel conduit and terminates with a connection to an existing 36" diameter RCP conduit in Montview Boulevard. The proposed site service main is a 36" diameter main that runs in Yosemite Parkway. All proposed service loops are tapped into the Yosemite main with taps provided for by future-phased development.

Water transmission and distribution costs include the major water line system both under the roadways and off-road. The only areas presently served by water are the terminal complex and locations occupied by existing buildings.

Utility Abandonment The site has numerous existing water, sewer and drainage lines serving the existing airport operation that will likely be abandoned because they are unnecessary, standard or inadequate to serve the new development programmed for the site. These lines will have to be removed or filled.

Other Utilities A cost of other utilities such as telephone, gas and electric has not been included because it is assumed that these are costs recovered directly by the respective utility companies. To the extent that utilities are constructed ahead of reimbursements, the project's cash flow may be impacted.

Greenways/with Drainage

The Development Plan includes a natural drainage system that will provide open space, water recharge and recreation opportunities as well as accommodate stormwater management requirements. The drainage system is planned to cost less and be more beneficial to the environment than the more conventional piped storm drainage systems. Costs include grading of swales and drainage basins, landscaping and piping costs.

Parks/Recreation and Parkways

Regional Parks Two major regional parks are planned. A 175-acre traditional regional park is planned for the area just east of the Stapleton Terminal. This park will be designed for both active and passive recreational activities as well as a site for major institutional uses. North of I-70, a 365-acre prairie park is planned which will border Districts VI, VII and VIII.

Neighborhood and Community Parks Six neighborhood parks are planned for each of the major residential areas. Two new 20-acre community parks are planned. Fred Thomas Community Park is planned for a 10-acre expansion. A 106-acre sports complex with both a baseball/softball and soccer/rugby complex is planned in the western portion of the site between the Union Pacific railroad tracks and I-70.

Parkways Linear parkways are incorporated into the design of several of the major roads for additional open space and trails.

Major Trail/Habitat Corridors Three major trail/habitat corridors are programmed for the site. These include the stream corridors along Sand and Westerly Creeks, the lowland corridor between Sand Creek and the National Wildlife Area and the upland corridor between Sand Creek and the National Wildlife Area..

Recreation Facilities A substantial number of recreation facilities can be accommodated in the Development Plan. Facility locations have been identified for a championship golf course, a learning golf course, an outdoor sports complex and equestrian facilities. Additional items such as a recreation center, swimming facilities, ice skating rink, cycling facilities and other items may also need to be accommodated over time on the site.

Community Facilities

Schools Denver Public Schools (DPS), an independent school district, operates public schools that will serve the project. The development plan includes sites for four elementary schools and one middle school.

Land for school sites would be dedicated by the City and County to Denver Public Schools consistent with the City's Zoning Ordinance. DPS is assumed to be responsible for funding the construction of the schools. The estimated cost of school construction is \$6 million each for four elementary schools and \$12 million for the middle school.

The Development Plan Principles call for innovative approaches to provide delivery of public services, including schools. Programs such as shared facilities development and use, charter schools or other innovative approaches to education may be implemented. Only the basic costs of conventional educational facilities have been estimated to date.

Library Although no specific sites have been identified for a library, it is likely that with over 25,000 residents some library facilities will be needed on site.

Fire and Police Two fire stations serving the airport are already located on the site. No additional fire stations are necessary.

Denver has relocated its Policy Academy onto the site. If a substation is necessary to serve the project, Stapleton will fund its share in a fashion comparable to the Gateway development area.

The infrastructure facilities described above will be phased in response to the market for housing and commercial/industrial space. The overall project is anticipated to have a lengthy buildout period of 30 to 50 years depending on demand. The site does contain a number of areas where development can be initiated without significant infrastructure cost. Development will occur in these areas in response to market demand and the ability to fund necessary infrastructure. It will be important for the City and County to identify increments of development that are financially feasible. Appropriate phasing will be particularly important for the early stages of development to make certain that the project begins successfully.

OVERVIEW OF FINANCIAL STRATEGY

The general requirements for infrastructure and facilities, and the recommended method of funding to implement the Development Plan, are described in the following paragraphs. The infrastructure and public facilities required to serve Stapleton can be grouped into three categories:

1. Backbone Infrastructure. This group includes freeway and interchange improvements, major arterial roads, rail and bus transit, roadway medians, sewer trunk system, water transmission system, storm drainage system, basic utilities and neighborhood connector streets.

2. Community Facilities. This group includes regional and community parks, open space corridors, schools, library, police and fire facilities.

3. In-Tract Subdivision Infrastructure. This group includes neighborhood roads, sewer, water, storm drainage, setback landscaping and street trees and neighborhood parks.

Backbone infrastructure primarily serves the adjacent development but also all land uses within the project area and the broader region. In Denver, most backbone infrastructure is assigned to adjacent development as frontage improvements. However, oversized facilities, such as the fifth and sixth travel lanes of major roads and medians, are financed through a broad based funding system such as a fee program.

Community facilities serve all land uses within the project area and are funded through a financing system that allocates the costs fairly to each benefiting land use.

In-tract subdivision infrastructure benefits only a specific neighborhood and the costs are allocated only to the benefiting properties within that development. In-tract infrastructure will be assigned to the specific property benefitted by the improvements.

Backbone infrastructure typically assigned as frontage improvements and in-tract subdivision improvements are programmed to be financed privately. Regional serving backbone infrastructure costs and community facilities will be funded through a combination of impact fees, connection charges, City and County funding sources, bond financing, grant and private funding. Fees and connection charges include City impact fees, connection fees for sewer and water and storm drainage assessments.

The Stapleton Development Plan includes many unique features associated with the concept of a sustainable community.

Bond financing mechanisms may be used to fund either the private funding or the fee funding. These mechanisms include local tax and assessment districts, Title 32 Special Districts and General Obligation bonds.

Grant funding may be available from a variety of federal, state, foundation and corporate sources. Many grant funding sources may not even be available today, but will evolve as the result of new policies and programs. Additional funding may be available from the Airport System, as discussed in the previous section, from either the interim use program or profits from the operation of DIA.

The Stapleton Development Plan includes many unique features associated with the concept of a sustainable community. The large open space and wildlife habitat corridors, innovative storm drainage system and advances in transportation system design all merit special attention. Many of these improvements

could be eligible for grant funding under traditional programs or under special discretionary grants. A key to implementing many of the unique characteristics of the Development Plan will be devising a program to aggressively pursue grants from state and federal agencies, foundations and corporations. The concept of Stapleton being designated as a national center for environmental technology and sustainable development may enhance the ability to attract such grants.

Facilities that provide specific benefits to the development projects should be funded through impact and connection fees unless timing considerations and costs require the sale of special district bonds in order to provide the required infrastructure. In addition to connection fees, a Stapleton Infrastructure Fee is proposed to fund many of the required infrastructure improvements. This strategy is meant to allow market demand to dictate the pace of development and to minimize the debt burden and interest carrying costs. In addition, it reflects the anticipated desirability of limiting the use of special district bonds for the financing of Stapleton development.

Funding Sources

The following paragraphs briefly describe the recommended financing techniques.

The financing of Stapleton's infrastructure will come from a variety of sources, depending upon the type of improvement and the relative benefit to the local community and/or region. Funding will be obtained through a combination of infrastructure fees, local tax and assessment districts, private capital, state and federal transportation funding, grants, general municipal revenues, tax increment financing, Airport System revenue, connection fees and special districts. Primary and secondary funding sources for each infrastructure line item are shown in the chart titled Recommended Public Facilities Costs and Funding Sources. Infrastructure commitments associated with on-going negotiations with prospective purchasers of property were not considered in this analysis.

RECOMMENDED PUBLIC FACILITIES COSTS AND FUNDING SOURCES							
(IN THOUSANDS OF 1994 DOLLARS)							
	TOTAL ESTIMATED COST (\$000S)	STAPLETON DEVELOPMENT		STATE, REGIONAL, FEDERAL	FOUNDATIONS / SPECIAL INTEREST GROUPS	DENVER CITY-WIDE	SPECIAL DISTRICTS
		1) Stapleton Infrastructure Fee	1) Local Tax and Assessment District 2) Private Capital	1) Grant Programs 2) Transportation Funding Programs	1) Private Foundations 2) Special Interest Groups 3) Parks & Open Space Funders	1) General Fund/-Urban Renewal Tax Increment Financing 2) Connection Fees 3) New GO Bonds 4) Land Sale Profits 5) Airport System	1) Denver Public Schools 2) RTD 3) Urban Drainage
1 Major Transportation Projects							
Havana/I-70 & Quebec/I-270 I/C Imp.	\$50,000			P			
Light Rail & Air Train Station	\$3,000			P			S
Subtotal Transportation	\$53,000						
2 Roadways/Structures							
Roadways	\$75,119	P	P				
Structures - Bridges	\$14,249	P		P			
Subtotal Roadways	\$89,368						
3 Utilities							
Sanitary Sewer	\$4,496	P	P				
Water Distribution	\$14,557	P	P				
Utility Abandonment	\$1,557					P	
Subtotal Utilities	\$20,610						
4 Drainage in Greenways	\$13,026		P	S	S	S	P
5 Parks, Rec., Parkways, etc.							
Major Traditional Park	\$14,875	P			P	P	
Prairie Park	\$10,950	P			P	P	
Community Parks	\$8,250	P				P	
Neighborhood Parks	\$8,000		P				
Parkways	\$9,866	P	S				
Trail/Habitat Corridors	\$6,772	P		S	S	P	P
Golf Course	\$7,000				P		
Other Recreation Facilities	\$8,110	P			P	P	
Subtotal Parks, etc.	\$73,823						
6 Community Facilities							
Schools	\$36,000						
Library	\$1,125	P					P
Fire Stations	\$0	P				S	
Police Stations	\$635	P				S	
Subtotal Community Facilities	\$37,760						
Total	\$287,587						

Source: BRW, Civitas and Economic & Planning Systems

Site Development Sources

Stapleton Infrastructure Fee The Stapleton Development Plan requires construction of a number of facilities that provide benefits solely or primarily to Stapleton. Many of these facilities are of general benefit to the entire Stapleton project. Also, one of the major tenets of the financing plan is to build facilities, where possible, on a pay-as-you-go basis. In order to fund these pay-as-you-go facilities, the financing plan calls for a special Stapleton Infrastructure Fee to be charged at the time of development (building permit). The fee is similar in structure and intent to the proposed Gateway Development Impact Fee that is presently being reviewed by the City and County. The Stapleton Infrastructure Fee may be used to fund the following items:

- major roadways and medians
- bridges and structures
- sewer collection lines and facilities
- water distribution mains and facilities
- library facilities
- police facilities
- community parks and recreation facilities
- trails and habitat corridors

If adopted, the City will establish a special fund for this fee and will determine the construction sequence of improvements funded by the fee. The fee will be adjusted annually for inflation and periodically for cost changes as better information becomes available concerning the facilities.

Many facilities proposed for funding by the Stapleton Infrastructure Fee may instead be funded by a special district bond (e.g. roads, sewer, water, park and recreation improvements) with credits against the infrastructure fee. The amount of funding from each of these sources will evolve over time based on actual needs, the pace of development and the ability to sell bonds. Potential application of these funding mechanisms is discussed below.

The Stapleton Infrastructure Fee has been estimated based on the full buildout of the project. However, due to the lengthy absorp-

tion periods for some of the office and industrial land uses, it is likely that the fee collected will not be sufficient to construct some improvements by the time they are necessary. A similar problem is faced in the Gateway Financing Plan. Financing mechanisms may be necessary to address such timing issues.

Local Tax and Assessment Districts Colorado law provides for a variety of local tax and assessment districts. Property owners may establish one of these districts through the City and County to accomplish specific purposes. The City and County may also be able to establish a district on its own developable property. Improvements constructed as part of a special improvement district must confer a special benefit to the real property which is included within the district and against which an assessment is imposed or levied.

The following briefly describes each of four types of special districts that could be implemented as part of the redevelopment of Stapleton:

- **Local Improvement District (LID):** An LID is a geographical area defined in the ordinance adopted by the municipality creating the district. It is not a separate entity, has no power to tax or condemn property and does not have a separate governing board. Facilities funded typically include: street construction, curb, gutter and sidewalk improvements, water distribution or sewer collection lines or facilities. The property to be assessed must receive a corresponding special benefit. Bonds may be issued to fund improvements.
- **General Improvement District (GID):** A GID requires that more than 50% of the registered electors who own real property in the proposed district file a petition. The district is a quasi-municipal corporation and political subdivision of the state. The governing board of the municipality is the ex-officio board of directors of the district, but a separate governing board may be appointed. The district can be established for the purpose of constructing or acquiring any public improvement although the improvement cannot duplicate any existing or proposed municipal improvement. General obligation bonds of the district may be issued following approval by the registered voters of the district.

- **Business Improvement District (BID):** A BID requires that 50% of the acreage shall have been developed and used as commercial property prior to the formation of the district. The district is a quasi-municipal corporation and political subdivision of the state. The governing board of the municipality is the ex-officio board of directors of the district, but the governing board may also be appointed. Improvements authorized for funding are similar to an LID and bonds may be issued.
- **Title 32 Special District:** These special districts give landowners the ability to tax and assess property to support the issuance of their own bonds to finance infrastructure and to control that process within limits. Title 32 Special Districts differ from the LID, GID or BID districts in that the developer, rather than the City and County, controls the District. The City has historically been opposed to such districts, but may consider such a district at Stapleton under restricted conditions and special circumstances. The impact of Amendment 1, which limits the City and County's revenues and expenditures, may also warrant a new look at Title 32 Special Districts.

The use of these districts will evolve over time as debt financing requirements are identified. Different special district applications are likely to occur within specific development areas at Stapleton. However, these special districts will primarily be used to fund improvements benefiting a specific project and not for a significant portion of the general improvements benefiting the entire project.

Private Capital

Private funding from development projects will primarily be used to fund in-tract subdivision improvements and frontage improvements (road, curb, gutter, sidewalk, underground utilities, drainage, neighborhood parks and landscaping). Private funding may be advanced for certain area-wide improvements that must be funded to serve the project with a reimbursement agreement. These funding and construction agreements will be handled with Subdivision Improvement Agreements and Concurrency Requirements. Local tax or assessment districts discussed above may be used to fund some or all of the in-tract improvement.

State, Regional, Federal

Transportation Funding Programs

Major improvements to the I-70 corridor are presently being planned by the Denver Regional Council of Governments (DRCOG). The 2015 Interim Regional Transportation Plan identifies the I-70 corridor from Downtown Denver to DIA as a Major Transportation Investment Corridor. Currently \$325 million is programmed for investment in the corridor. DRCOG is beginning a Corridor Study to determine the necessary combination of freeway, arterial roads and/or transit facilities necessary to serve the Corridor. It is likely that Stapleton will gain significant benefit from the recommended improvements.

Funding for transportation improvements is available from federal, state and local levels. DRCOG's Regional Transportation Plan describes transportation funding sources in detail. The following paragraphs briefly summarize the major transportation funding sources.

Federal funds are programmed under the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA). These funds are designated for highway, transit and paratransit purposes. ISTEA provides unprecedented local discretion for directing the funds to road or transit projects that substantially improve the efficiency of the transportation system. Demonstration grants are available to test new technologies or operating systems.

State funds are primarily provided by the Colorado Highway Users Trust Fund. These capital funds are typically used to match federal projects to leverage as much federal money as possible.

Local funds for highway and road projects are primarily provided by local government general funds or local government special assessments. The E-470 Authority is a special district designed to fund the construction of E-470. Local funds for bus and rail transit are provided by the Regional Transit District sales and use tax and farebox revenues.

Grant Programs The innovative features of the Stapleton reuse plan may provide the opportunity to attract grants from a wide variety of sources including state, federal and corporate sources. The extent of grant funding cannot be known with certainty, but will require an opportunistic approach aggressively pursuing grants where available.

The innovative features of the Stapleton reuse plan may provide the opportunity to attract grants from a wide variety of sources including state, federal and corporate sources.

Foundations and Special Interest Groups

The unique features of Stapleton associated with a sustainable community may make improvements eligible for funding from a variety of private foundations, special interest groups, and parks and open space funders. Examples of these opportunities include the large open space and wildlife habitat corridors, innovative storm drainage systems, advances in transportation design, energy efficient communities, and environmental restoration, to name a few.

Denver City-Wide

Denver General Obligation Bonds

As mentioned earlier, Denver's voters have historically approved general obligation bonds for parks, schools, libraries and infrastructure of significant importance to the City. Some of Stapleton's facilities may qualify as providing city-wide benefit and could be included in future general obligation bond issues.

Denver General Fund/Urban Renewal Tax Increment

Financing Denver has in special cases shared net new tax revenues from a new development project with the property owner as part of an economic incentive program to achieve City goals. Initially, the Airport System is the property owner, but over time the Airport System will convey land to private owners. In order to achieve specific goals, the City and County, on a case-by-case basis, may elect to provide some general fund money to specific aspects of the Development Plan that provide community-wide benefit.

One method of revenue sharing is through the redevelopment powers of the Denver Urban Renewal Authority (DURA). The authority can create an urban renewal district at Stapleton and use sales tax increment or property tax increment revenues as the source of repayment for bond financing of infrastructure and improvements. The authority can also reimburse developers for eligible infrastructure improvements through tax increment revenues without issuing bonds.

Upon closure of Stapleton, the base levels of sales and property taxes generated by the site will be extremely low. An urban renewal tax increment district created for all or a portion of the site in the early stages of redevelopment could capture some portion of the new increment associated with redevelopment for reinvestment in the site. Revenues from this source have not been presumed in the financial and infrastructure financing analysis provided here. Use of tax increment financing will be a policy decision made by the Mayor, City Council and the DURA Board of Commissioners. It is likely that tax increment financing will play some role, and perhaps an important role, in the financing of infrastructure and site improvements. Use of tax increment financing could reduce the need for infrastructure funding from other sources.

City Profits from the Airport System and Land Sale Projects

Net revenues of the Airport System may be available to support a limited number of early site transition and improvement costs.

Also potentially available for investment are proceeds from the land disposition program that can be used to enhance the land values of future sales by reinvesting in the infrastructure program. Use of the proceeds of disposition land sales is an open issue and requires negotiation between the City and County, the airlines, the FAA and other interested parties.

Connection Fees The major connection fees include the following:

Water Tap Fee: funds water treatment and transmission facilities - collected by Denver Water Department

Sewer Tap Fee: funds wastewater collection and treatment facilities - collected by Metro Wastewater Reclamation District and Denver Wastewater Management Division.

Stapleton Airport has already funded both sewer and water capacity for the existing airport operations. As a result, some credits for sewer and water system capacity may be available to reduce the amount of connection fees required from the Stapleton redevelopment project. Estimates of these credits are not available at this time. Also, the City and County will need to determine the most appropriate method of allocating these benefits to specific areas or users of the site.

Special Districts

Regional Transportation District (RTD) Sales and Use Tax

Funding for rail transit service and bus service to the Stapleton site will be provided through a combination of federal transit funding matched with local funding. RTD will likely use a combination of Sales and Use Tax revenues and other revenues (passenger fares, etc.) to fund capital improvements. RTD is presently studying a rail alignment from Downtown Denver to DIA along with several other transit corridors in the metropolitan area.

Denver Public Schools Denver Public Schools (DPS), a separate entity from the City and County of Denver, is responsible for providing K-12 public school facilities. School facilities are traditionally funded through the DPS general fund or through general obligation bonds authorized by the voters of the school district. The most recent bond issue was passed in 1989 which included \$100 million for schools construction. However, no schools located on the Stapleton site are presently planned by the school district and no funding is presently available.

In order to attract families to the proposed residential projects included in the Development Plan, a strong schools program will be necessary. Funding for elementary schools at the K-6 level located on the Stapleton site will be of critical concern.

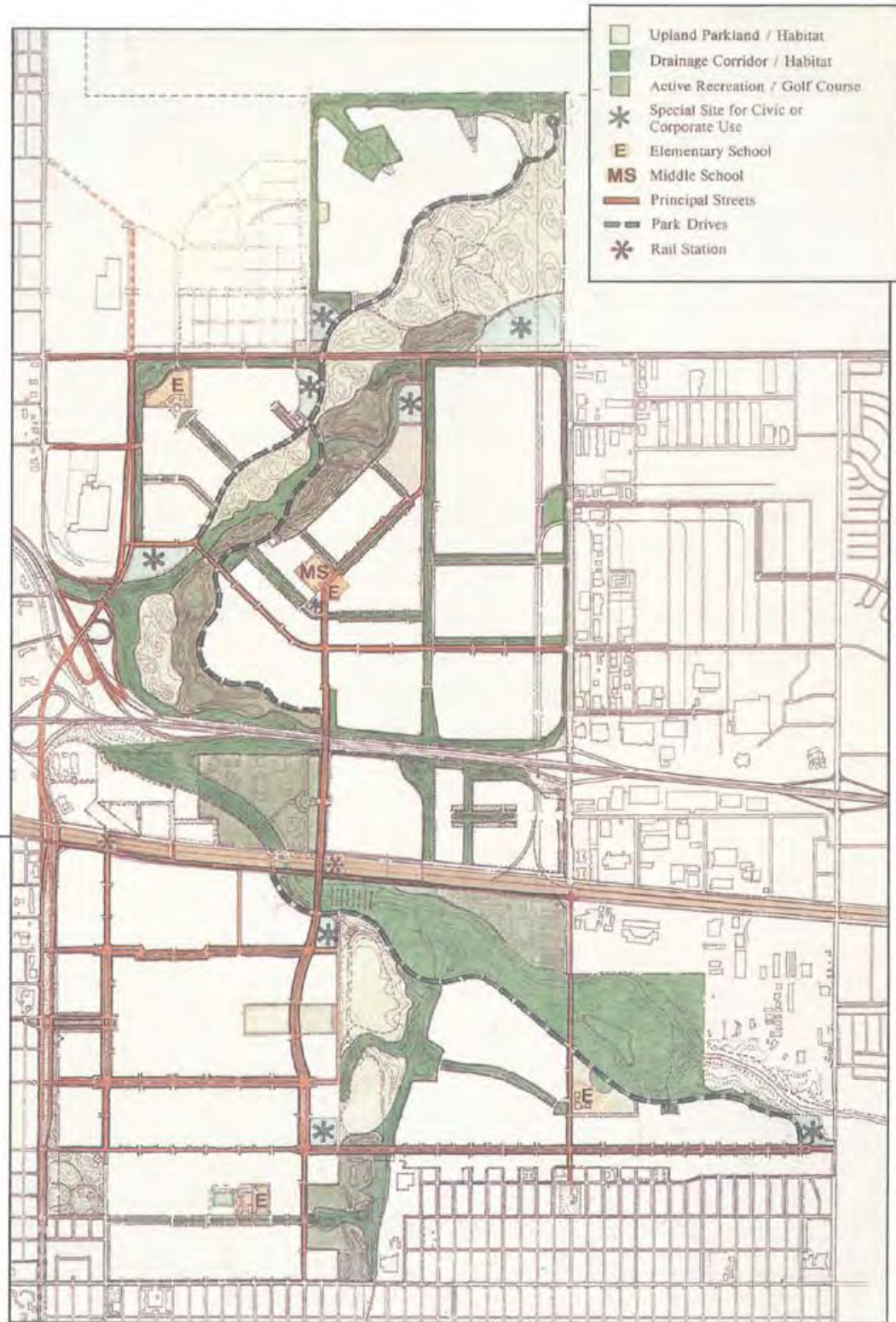
Enhanced funding for schools located on the Stapleton site may be needed to open schools early in the development process. Funds could be provided by adding a schools component into the Stapleton Impact Fee on residential development projects. Charter schools and other alternatives should also be considered for the Stapleton project.

Urban Drainage and Flood Control District

Urban Drainage and Flood Control District is responsible for flood control projects and drainage throughout the region. The District's source of funding for capital and operations is a mill levy against the value of property. Recently, the City and County of Denver has been receiving approximately \$1 million annually for flood control projects. Stapleton will have to compete with other City and County projects for a share of this funding. The most likely initial project to be funded is the Westerly Creek/Sand Creek flood control and restoration project.

The Public Framework Mapping Plan illustrates the essential elements of the public realm, such as arterial and principal streets, major open space and drainage areas, and special sites for civic, corporate, or institutional use. The mapping plan identifies the key public decisions that will be necessary to establish the community structure within which development activity can take place.

The mapping plan will be complemented and reinforced by future decisions made as part of zoning, subdivision, platting and district planning activities.



G. REGULATORY AND MARKET MECHANISMS

Perhaps one of the greatest challenges associated with the Stapleton project is the creation of regulatory approaches, market mechanisms and programs which together can encourage achievement of the project's sustainable development objectives. The development of Stapleton will be influenced by standards, codes and other requirements relating to land use, buildings, environment, public safety and health, commerce and other subject areas. Without changes in our existing methods, many of the social, economic and environmental objectives of the Stapleton development program will be difficult if not impossible to attain. At the same time, the approaches relied upon must be understood and accepted by the development industry and marketplace.

The Development Plan outlines a general approach and provides some specific examples. The responsibility for developing these tools will presumably fall to the newly created development entity and the City and County of Denver, with assistance from interested individuals and organizations within the community. The opportunity also exists to draw upon the experiences of other communities across the United States and elsewhere who have been experimenting with new approaches to these same needs.

Will new approaches really be necessary? Clearly some aspects of our existing regulatory and market structures can be readily adapted. But many aspects of our current practices will inhibit or even preclude efforts to achieve Stapleton's fundamental social, environmental and economic goals. Many land use and zoning controls tend to segregate uses and inhibit walkable community structure. Our inability to account for a variety of externalities and impacts encourages inefficient use of resources. Experimentation continues to determine the most effective means of linking private job creation with skill development and employment opportunities for low income and minority households. New approaches will be essential to fulfill the objectives established in the Stapleton Development Principles.

A New Approach

How should our current approaches be modified to support a more sustainable form of development? The following guidelines provide a start:

- Regulation is unavoidable, but is not by itself the answer. Market-based approaches that incorporate signals, feedback and incentives must play an increasingly larger role.
- So called "third sector" and community-based organizations can play important roles in advancing community objectives. Such entities already play significant roles in areas such as affordable housing, employment training and social services. Achieving Stapleton's sustainable development objectives will require mechanisms for establishing and operating essential programs. A mix of public, private and nonprofit approaches will be required.
- Where possible, regulatory structures need to become more performance oriented — concerned less with what people do and more with how they do it. Regulation can sometimes be static and respond slowly to continuing changes in markets and technologies.
- Prescriptive regulation ("Use this material;" "Install this equipment") should be used only as a last resort. Instead, regulation should establish objectives (energy use per household, water consumption per capita) and provide incentives and a range of options for achieving those objectives. Standards and methods for achieving them should evolve over time.
- Over time, full-cost accounting will provide the most accurate set of signals to businesses and individuals. These signals may be distorted today by failure to account for externalities, failure to consider life cycle costs, subsidies between activities and users, etc. The challenge will be to move towards more accurate market signals for activities within the Stapleton site without creating a short-term disincentive for site investors and users.

"TO MOVE AHEAD, DEVELOPERS NEED THE POLICY TO RESPOND TO AND THE CERTAINTY OF APPROVALS. THE CURRENT PROCESS IS A VERY REAL AND EXPENSIVE PROCESS."

COMMENTS FROM DEVELOPERS, PLANNERS AND OTHER PARTICIPANTS IN A 1991 FORUM ON SUSTAINABLE DEVELOPMENT AND CALIFORNIA'S FUTURE. COMMUNITY ENVIRONMENTAL COUNCIL. SANTA BARBARA, CALIFORNIA

- Regulatory, market and programmatic approaches should create long-term benefits and value for Stapleton businesses, residents, visitors and investors. Potential benefits include increased competitiveness due to efficiency gains, improved worker productivity, protection from increasing regulatory demands, increased community stability and increased customer/employee/community loyalty.

The enormity of this task should not be underestimated. Attention must be given to a whole variety of land use, design, infrastructure, resource management, service delivery, community linkage and community institution aspects of the program. One of Stapleton's greatest strengths, however, is the fact that the site is publicly owned. This circumstance provides a great opportunity for community innovation in these areas. Stapleton must be viewed as a "zone of innovation", where new approaches to all aspects of the project's institutional framework will be defined and implemented. Success in creating new models that encourage innovation and support sustainable development objectives will contribute greatly to the market identity and appeal of the Stapleton site.

Examples

The project's institutional framework can be divided conceptually into two components:

1. Those decisions largely within the control of the project's sponsor/master developer (the City and County and new development entity). This category includes such things as basic decisions on community infrastructure, land use, urban design and financial policies. It is essential that the choices involved in addressing these aspects of the development program result in a circumstance that is as supportive as possible of the program's sustainable development objectives.
2. Those decisions that will be made by many businesses, households and individuals.

At this second level, the challenge is to find ways to influence and support the decisions made by businesses, households and individuals over the course of the development and operation

LAND USE CONTROLS - ZONING AND DESIGN GUIDELINES

One of the most basic and important components of the institutional framework will be the zoning, design guidelines and other tools used to regulate the physical form of the Stapleton community and encourage the pattern of development described in the Stapleton Development Plan. The specific structure will likely be a combination of some existing approaches as well as tools and methods developed to address Stapleton's unique circumstances and objectives.

The structure will include three components, including 1) broad land use controls at the sitewide level, 2) more detailed design controls for individual districts, and 3) a mix of standards and programs applicable at the individual project scale.

Sitewide Controls - A Public Framework Mapping Plan and new underlying zone district will be adopted for the site. The mapping plan will identify essential elements of the public realm, such as arterial and principal streets, major open space and drainage areas and sites for public facilities. The underlying zone district will establish the basic framework for private development. The zoning will establish basic use and density relationships, consistent with the Development Plan. It will provide substantial flexibility and encourage the integration of uses and densities in subareas.

District Level Controls - District plans and design guidelines will be developed for each District. District plans will provide more detailed definition of street and block patterns, building relationships and the design characteristics of District centers. Enforceable design guidelines will address issues such as construction quality, height, density, massing, setbacks, solar access, pedestrian systems, parking, landscaping, etc.

Standards, Incentives and Programmatic Activities at the Project Level - Approaches to encouraging resource efficient design, reduced reliance on the automobile and stronger community linkages will also influence the physical design of individual buildings and subareas. These provisions, in combination with the subarea guidelines, will be extremely important in balancing the sustainable development and market acceptance objectives of the Stapleton reuse program.

Basic components of the land use control system such as the mapping plan and master rezoning will need to be early priorities. District plans can be phased over time as different portions of the site are brought on line. Basic standards, design guidelines and other programmatic elements will be needed to govern disposition of land in Districts designated for first phase marketing and disposition. It is anticipated that the newly created Stapleton development entity will play a significant role in crafting and implementing many of the elements of the land use regulatory structure.

of the site. How will regulation, market mechanisms and programmatic initiatives lead to reduced consumption of resources, support expanded economic opportunities and promote diverse, successful communities?

One major area of emphasis for the project is to substantially reduce the resources consumed and environmental impacts created by employment, housing and other human activity accommodated on the site. The project's basic resource management objectives can be summarized as reduce, reuse and recycle. This philosophy in turn can reduce waste volumes, emissions and other impacts. At the macro scale, the commitment to mixed use villages, intelligent infrastructure, diverse mobility options and restoration and preservation of natural systems will contribute significantly to achievement of these objectives. Beyond these commitments, however, the project also requires successful approaches at the scale of individual projects/developers/ businesses/households.



There is a role for regulation, market approaches and programmatic initiatives in achieving these objectives. Regulatory approaches will be important in areas such as defining overall urban design requirements, preserving solar access, establishing minimum energy and water efficiency standards for buildings, requiring waste separation and facilitating use of recycled materials in new construction. Market mechanisms will play an important role in pricing of resources, providing incentives to consumers and creating market demand for waste products and recycled materials. Programmatic approaches will be most appropriate in areas such as creating renewable energy demonstration projects, providing public education programs, forming a transportation management organization or facilitating recycling of construction waste.

Clearly these are but a few examples of a wide range of approaches that may be necessary for Stapleton to achieve its dual objectives of succeeding in the marketplace and succeeding as a model of responsible resource management. The mix of what is required, what is encouraged and what is actively promoted through programs will vary from one subject area to another. Only a flexible, user friendly and relatively comprehensive approach, however, will succeed in reducing resource consumption and environmental impacts over time.

Similar challenges and opportunities apply with respect to the program's social and economic goals. Objectives such as diversity, improved educational opportunities, job training and placement linkages and support for new forms of child and elder care cannot simply be mandated by regulation. Success in these areas will also require a mix of approaches, with a very heavy emphasis on programmatic activities and market mechanisms. As with resource management, it is essential that the underlying community structure be supportive of these objectives. Good land planning, infrastructure design and financial policies alone, however, will not insure successful communities that effectively address Stapleton's social and economic objectives.

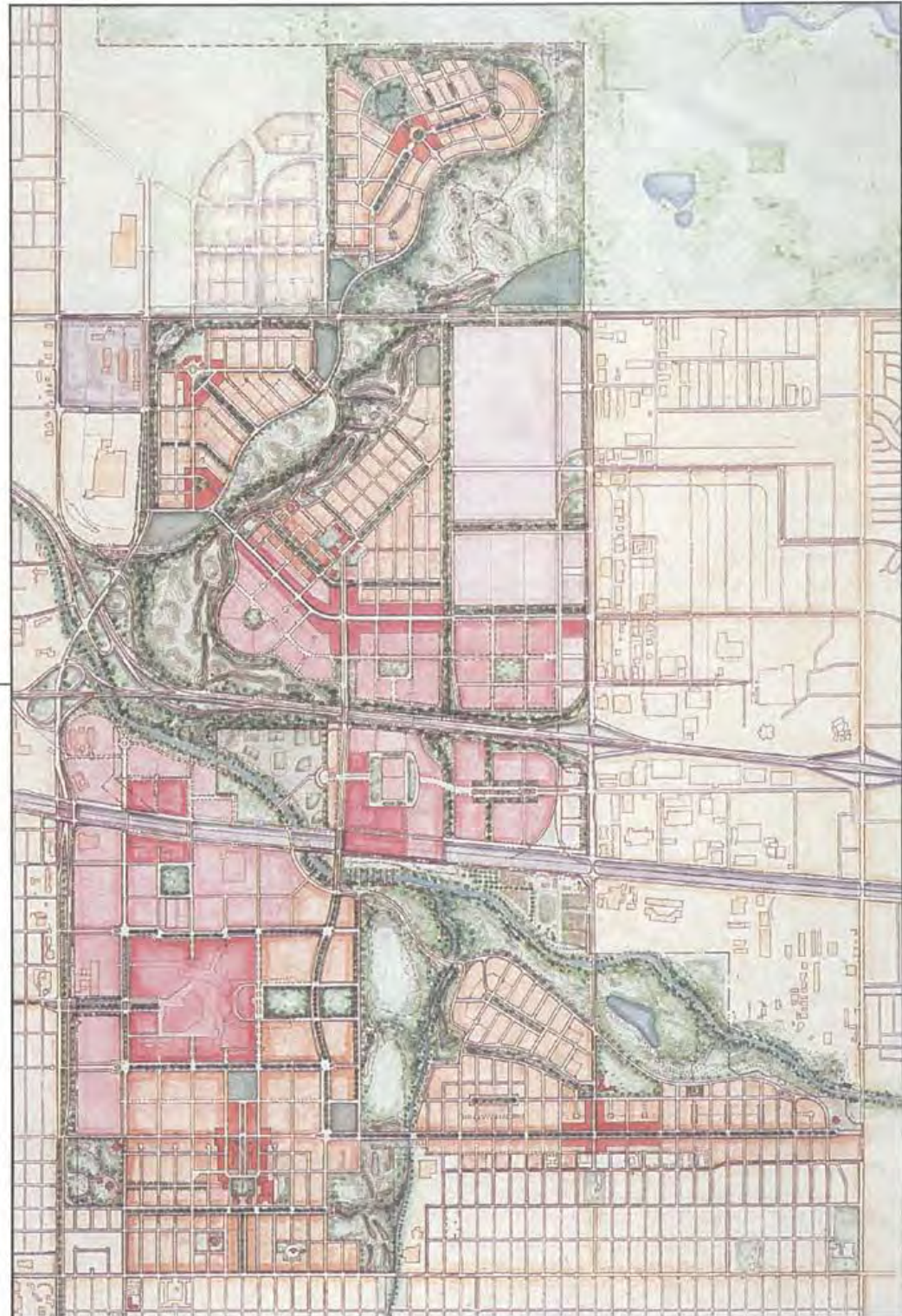
Regulatory approaches can assist with such things as insuring a mix of housing types and densities, or requiring that commercial and public services be located where they are most accessible by foot and transit. Market mechanisms can provide support for private provision of childcare, elder care or specialty forms of housing (co-housing, continuing care environments, etc.). Many of these activities, however, will most likely be addressed through programmatic activities. For example, model education programs, training and placement linkages with the Lowry community college facilities or local youth involvement in site restoration and management will all require a programmatic base of some sort. Stapleton must become a place of innovation in terms of human institutions as well as physical development.



V. DEVELOPMENT PLAN

V. DEVELOPMENT PLAN

The Stapleton Development Plan defines a new development model for Denver for the next century. The redevelopment of the Stapleton site is based upon the principle of sustainability. In addition, the physical plan is based on four important concepts: *one*, the successful integration of urban development, transportation, natural systems and wildlife habitat; *two*, a balanced mix of uses and densities to provide efficient, accessible, diverse neighborhoods and communities; *three*, a desire to incorporate, build and improve upon what is best about Denver's neighborhoods, parks, and natural settings; and *four*, response to the environment, context and character of the site and the communities that surround it.



A. VISION

The Development Plan created for Stapleton is a direct response to the contexts and principles described in the previous sections. Stapleton will be a unique mixed-use community capable of supporting more than 30,000 jobs and 25,000 residents. More than one third of the property will be managed for parks, recreation and open space purposes. Developed portions of the site will provide an integrated mix of employment, housing, recreation and access to public transportation.

Stapleton's reuse will support the health of surrounding neighborhoods and provide strong ties to the adjacent Rocky Mountain Arsenal National Wildlife Area and Lowry educational campus. Development and operation of the Stapleton community will provide a model for the region of serving the economic and social needs of people without degrading the natural environment. The process of restoration and redevelopment of the Stapleton site will establish Denver and Colorado as world leaders in addressing the economic, social and environmental challenges of the next century.

The Plan reinforces Stapleton's role as a regional employment center, but through the creation of compact, accessible communities that integrate uses and create strong ties between the Stapleton site and the surrounding community.

Key Features of the Vision

The Development Plan assigns approximately 65 percent of the site to urban development and 35 percent to a mix of open space uses. Development is organized in eight distinct districts. The districts each contain an identifiable center and emphasize the integration of employment and housing and walkable scale. The Plan reinforces Stapleton's role as a regional employment center, but through the creation of compact, accessible communities that integrate uses and create strong ties between the Stapleton site and the surrounding community. The open space system serves a major role in unifying the eight districts, making effective regional connections and restoring the ecological health of natural systems on and off the site.

Any Development Plan for a site of this significant scale must provide a degree of flexibility. The Development Plan identifies the general scale, character, density and mix of uses desired in each district. Specific land uses, parcel configurations and the relationship between employment, housing and other uses will vary as development proceeds. What are most important to establish now are the basic character of the site's mixed use districts and the basic community infrastructure, open space, civic sites and other elements of the public realm which will guide the long-term development of the site.

The Stapleton Development Plan describes a community that is different in important respects from many large scale suburban or urban infill projects. Key features of the Development Plan include:

Linking the physical plan with people through the integration of economic and social objectives with development

The challenge is not simply to fill available land or build buildings, it is to create successful communities for people. Most fundamental to the Stapleton Development Plan is the integration of economic and social objectives with physical development. Creation of a new job base at Stapleton provides an important opportunity to increase and diversify employment opportunities available in the City and County. Job creation

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ENVIRONMENT.

"IT IS MERELY POSSIBLE TO SET THE STAGE FOR COMMUNITY. THE EXTENT AND THE WAYS IN WHICH COMMUNITY IS REALIZED DEPENDS ON A RANGE OF OTHER, NON-PHYSICAL FACTORS."

WILLEM VAN VLIET,
COLLEGE OF ARCHITECTURE
AND PLANNING,
UNIVERSITY OF COLORADO

must be accompanied by a commitment to education, skill development and entrepreneurial opportunity for disadvantaged and minority populations in our community.

An employment base of 30,000 - 35,000 jobs can be readily accommodated over time on the site. The Havana Street corridor and areas north and south of I-70 provide significant opportunities for creating a manufacturing, assembly and distribution base on the site. These areas offer rail service and easy interstate access. Section 10 on the far north and the interior area above the I-70 corridor provide significant office and research and development opportunities. The area surrounding the existing terminal will become a regional destination offering a mix of exhibition, entertainment, retail, office and other uses. Each neighborhood center on the site will also provide opportunities for employment. In total, the Development Plan allocates roughly 1,200 acres, or 54% of the developable land, to employment use.

The Plan also emphasizes establishing the site as a national center for the development of environmental technologies, products and services; creating an environmental technology incubator to support start up firms; creating training and skill development programs designed to provide area residents with the work skills needed by employers operating on the Stapleton site; and developing programs that encourage the participation of youth and entrepreneurs, particularly from minority communities.

Development of successful neighborhoods will require direct involvement in the nature and quality of educational and other services, enhancement of public safety and promotion of opportunities for resident participation in all forms of governance and service delivery. The physical form of the community can do a great deal to support these objectives and foster a strong sense of community. Attention to the human aspects of development, however, will be essential for Stapleton to achieve its stated objectives.



Building true urban neighborhoods that have character, identity and meet the needs of people

Denver has a strong tradition of urban neighborhoods as the foundation of

the community. The Development Plan reflects a strong commitment to the continuation of this tradition. Foremost, the Plan seeks neighborhoods that can encourage and support diversity in age, income and ethnicity. These neighborhoods must be inclusive and accessible. Their physical form will emphasize defined centers for services and civic uses, walkable scale, access to nearby employment, diverse transportation options and strong connections to parks and nature. These are many of the same qualities that have allowed some of Denver's strongest neighborhoods to thrive over many decades of economic, social and technological change.

PUBLIC ART

Within the City and County of Denver, one percent of all public works projects must be invested in public art. Public art is an important part of Denver's character, cultural expression and history. It creates memorable impressions in the minds of residents and visitors alike. The current Public Art Program creates opportunities for all people to experience art in a broad range of public spaces. Stapleton will build upon the existing program by identifying additional funding sources and creating a Public Art Master Plan to provide guidelines and a vision for public art projects throughout the implementation of the Development Plan. A Public Art Master Plan will provide the opportunity for public art commissions within the site to respond to the goals of the Development Plan, to provide a relationship between individual projects, and provide a model for private development on the site to incorporate public art.

Stapleton's mixed use neighborhoods can accommodate an ultimate population of approximately 10,000 households. The average density of residential areas for the entire site is roughly 12 units per acre, sufficient to support reasonable public transportation service. Higher densities are provided for in close proximity to neighborhood centers, transit stops and major public amenities. Each neighborhood on site is organized around a center and provides a variety of mobility options beyond the automobile including walking, bus, bicycling, rail transit (along the Smith Road corridor) and the use of telecommunications to substitute for the need for travel. School facilities will be located in neighborhood centers, will be multi-use community facilities and will play a central role in the life of the surrounding neighborhood. Stapleton neighborhoods will provide a range of housing types and densities that support diversity.

Integrating nature and wildlife with the urban environment on a permanent basis

The open space system planned for Stapleton is rich and diverse. The system includes a wide range of opportunities, from urban parks, trails and recreation facilities, to extensive natural areas that support significant wildlife and allow the restoration of native plant and animal communities that have been displaced or eliminated. This focus represents a return to Denver's natural heritage as a city established on the prairie. In its scale and diversity, the Stapleton system is unlike anything undertaken by this community since the City and County's basic urban and mountain park systems were established roughly a century ago.

The Stapleton open space system includes more than 1,600 acres of parks, trails, recreation facilities and natural areas. The principle trail corridors are along Sand Creek, Westerly Creek and the newly created open space corridor connecting Sand Creek with the Rocky Mountain Arsenal National Wildlife Area. The system includes a championship golf course above I-70 and a nine-hole learning course along Westerly Creek. A major ballfield and outdoor recreation



Shattil and Rozinski

complex is located between Sand Creek and I-70 west of Yosemite Parkway. An urban agriculture center and equestrian facility are accommodated on the north side of Sand Creek just west of Havana Street. A major urban park is provided at the confluence of Sand and Westerly Creeks, as well as a number of smaller scale parks and public spaces. Parkways and landscaped drainageways connect neighborhoods to each other and to the major components of the open space system. Significant areas of prairie and riparian corridor restoration, particularly in the northern half of the site, will dramatically increase the wildlife habitat provided by the site. A 365-acre Prairie Park in the far northern portion of the site, primarily above 56th Avenue, will be the centerpiece of these restoration efforts.

The open space system is completely integrated with the urban community that will develop around it.

Perhaps equally important, the open space system is completely integrated with the urban community that will develop around it. The system is functional. It addresses stormwater management, water quality improvement, irrigation and other development requirements. It is also a defining element of the communities that will emerge at Stapleton. All portions of the site and all types of land use have strong connections to the system. Denver is a city whose early identity was largely framed by parks and parkways. The transformation of Stapleton's identity from airport to mixed use community will be even more directly dependent on the development and care of its open space and natural resources.

Implementing a more sustainable pattern of development that supports economic and community needs, but consumes fewer natural resources and creates fewer impacts on the natural environment

The Development Plan is rooted in the presumption that economic, social and natural systems must be sustainable over time. Our region is beautiful and fragile, and in search of better methods to accommodate our needs without degrading the natural health and beauty of our home. The Stapleton Development Plan stresses efficiency in the use of resources and the reduction of environmental impacts.

This sustainable philosophy is reflected in many different aspects of the program. Land use planning and community design stress compact, mixed use communities that are walkable and transit-oriented. These characteristics can reduce automobile dependence and emissions and increase the efficiency of service delivery. Approaches to community infrastructure stress water reuse, energy and water conservation, renewable sources of energy supply and innovative stormwater management approaches to maximize opportunities for on-site irrigation and water quality improvement. The solid waste management strategy seeks to achieve a zero net contribution from the site to local landfills, in part through the creation of a "resource recovery village" on site to promote waste minimization, recycling and reuse. Transportation technologies emphasize bus and rail transit, bicycling, walking and alternative fuels for vehicles. The Development Plan also emphasizes the need to support demonstrations of technologies and practices on site that support the project's basic sustainable development objectives.

Basic choices about land use patterns and community infrastructure can have enormous implications for the long-term resource needs and impacts of the Stapleton community. The Development Plan identifies important choices that can result in infrastructure and operating practices that are efficient, affordable and more environmentally benign. In addition, the Plan calls for approaches that provide the ultimate users of the site with more options, more information and more incentive to manage resources wisely. Stapleton is intended to be a place of innovation in these areas, and a center for the development of environmentally-oriented technologies, services and businesses.

The Development Plan identifies important choices that can result in infrastructure and operating practices that are efficient, affordable and more environmentally benign.



Photograph by Stephen Szurlej NYT Sports/Leisure Magazines Inc.
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B. HIGHLIGHTS

Stapleton has the potential to integrate economic, social and environmental objectives in a fashion unique within the region. The result will be an extraordinary set of communities that combine strong Denver traditions with new forms of innovation. Defining features will include:



1. Link With Nature: Stapleton will demonstrate the most successful integration of urban activity with wildlife and the natural environment in Colorado. Stapleton will serve

as a catalyst for restoration and trail development in the Sand Creek and Westerly Creek corridors. Stapleton will provide approximately 1,680 acres of open space, much of it restored native grasslands, stream corridors and animal habitat. The Arsenal wildlife program will be extended onto the Stapleton property and connected to the Sand Creek waterway. Stapleton and Lowry together will increase the recreational and open space opportunities provided by the Denver park system by 50 percent. The Rocky Mountain Arsenal National Wildlife Area will become the premier urban wildlife refuge in the country.



2. Urban Villages: Development at Stapleton will occur in a series of urban centers or villages. Each will provide a mix of employment and housing, as well as walking access to

public transportation and recreation. These communities will be efficient, people-oriented and accessible. They will support a diversity of income, age and ethnic groups and address the demand for locally accessible, quality public education.



3. Mobility:

Stapleton must provide an unparalleled set of mobility options to employees, residents and visitors. These options must de-emphasize the car

and allow for dramatic reduction in the ownership and usage of personal automobiles on the site. Walkable neighborhoods, housing/employment links, an attractive bikeway system and a variety of forms of transit and paratransit will be used to expand mobility options.



4. Best Technologies and Practices:

Stapleton will be developed with a commitment to use the best technologies and practices available in creating

and managing the urban environment. Systems will be efficient, environmentally benign and economical.



5. "Green" Business

Environment: Stapleton will be a regional employment center and offer a new environment for businesses seeking to reduce consumption of natural resources and become more competitive in a global marketplace. Stapleton will offer an environment that encourages demonstrations and supports

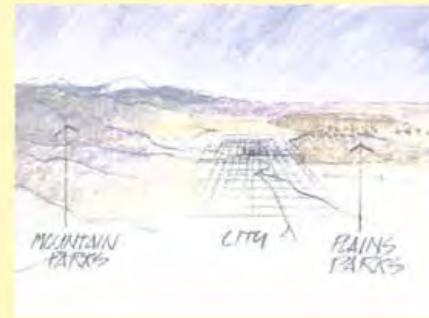
innovation. Stapleton will also be a center for environmental business and a leader in advancing the development of environmentally-oriented products and services.



6. Community Linkage:

The economic opportunities created at Stapleton must be tied directly to individuals with the greatest economic needs. Job creation and investment at Stapleton must be linked to training, skill development and entrepreneurship opportunities. The outmigration of middle income families must be

reversed. Stapleton will be a tool for investing in people and strengthening the communities around the site, and protecting and enhancing the social and economic well being of children and their families.



7. Governance, Service Delivery and Participation:

Stapleton provides the opportunity to explore new forms of governance, service delivery and

citizen participation that empower people. These features can expand opportunity, increase the level of community commitment and enhance the overall health of the community. Stapleton will encourage innovation and demonstrate new approaches to the use of regulatory structures, market mechanisms and community-based initiatives.

"THE WORLD WE HAVE
CREATED TODAY AS A
RESULT OF OUR THINKING
THUS FAR HAS PROBLEMS
WHICH CANNOT BE
SOLVED BY THINKING THE
WAY WE THOUGHT WHEN
WE CREATED THEM."

ALBERT EINSTEIN

C. STRUCTURING ELEMENTS

1 INTRODUCTION

The Development Plan presented here was not derived in the abstract and imposed on the site. The Development Plan has grown out of a careful analysis that has considered the site's local and regional context, a wide variety of community objectives and a set of specific intentions regarding the purpose and form of this new community that are summarized in the Guiding Principles presented in Section IV of this plan.

What follows here are descriptions of the essential structuring elements of the Development Plan - open space and parks, transportation, services and land use and urban design. The layering and integration of these elements is what defines the form and character of this "new" place. The approach taken places strong emphasis on the following:

- The community that emerges at Stapleton must respond to its immediate neighborhood and regional context. Stapleton is not an island, but a part of the community fabric that must be reconnected. It's future use will be heavily influenced by existing patterns of land use and by larger natural, transportation and infrastructure systems that cross and converge on the site.
- The pattern of urban development on the property will be significantly shaped by restoration of natural systems and the creation of a new permanent open space system. Development and healthy natural areas can be integrated on a permanent basis.
- The provision of transportation and utility services to the new Stapleton community is an integral component of community development. Decisions regarding these systems are fundamental to the form and life of this new community.
- A conscious attempt has been made to apply the principles developed to the creation of viable urban neighborhoods. The structure of these neighborhoods emphasizes districts with definable centers; mixing of uses to support diversity, efficiency and mobility objectives; walkable scale, transit orientation,

and a defined hierarchy of streets; prominent roles and locations for public spaces and civic uses; and an extension of some of the best traditions of Denver neighborhoods, parks and public spaces.

The overall success of the environments created at Stapleton for work, home, play and other uses will be a function of the ability to thoroughly integrate land uses, man-made and natural systems and the site and its larger community context. The physical structure of the community seeks to combine many old and new approaches, pursue efficiency and livability simultaneously, and create a diverse, urban mixed use community that can attract the support of the marketplace and the loyalty and commitment of its residents and users.



The structuring elements of the development plan; open space and parks, transportation, services, and land use and urban design, will begin to organize development areas on the Stapleton site.

"IF YOU DON'T KNOW HOW THINGS ARE INTERCONNECTED, THEN A SOLUTION CAN CAUSE MORE PROBLEMS THAN IT SOLVES. ON THE OTHER HAND, IF YOU UNDERSTAND THE HIDDEN CONNECTIONS BETWEEN ENERGY, WATER, AGRICULTURE, TRANSPORTATION, SECURITY, AND ECONOMIC AND SOCIAL DEVELOPMENT, YOU CAN OFTEN DEVISE A SOLUTION TO ONE PROBLEM (SUCH AS ENERGY) THAT WILL CREATE SOLUTIONS TO MANY MORE PROBLEMS AT NO EXTRA COST."

AMORY LOVINS,
ROCKY MOUNTAIN
INSTITUTE

STRUCTURING ELEMENTS

2 OPEN SPACE AND PARKS

The Big Picture

Stapleton's open space system builds on Denver's rich park legacy of traditional community parks and recreation facilities, parkways and greenbelts connecting neighborhoods, natural features defining the city and a visionary string of mountain parks. The Plan also expands our traditional ideas of a park with its High Plains landscape restoration, extensive natural systems, and commitment to water quality, wildlife and habitat development. The Stapleton open space system is a blend of the best of Denver's past and present parks and a new attention to Denver's lost landscapes and critical need for environmental stewardship.

Approximately 35 percent of the Stapleton site will be devoted to some form of open space. This system will address a variety of goals for Denver, including:

1. Contributing to a dramatic change in the physical appearance and identity of the Stapleton site. The investment in open space will not only increase adjacent property values, it will expand market opportunities, create long-term value and provide each new neighborhood with an identifiable center and defined edges.
2. Meeting local and regional demand for open space and recreation opportunities. As important, Stapleton enables Denver to provide major, specialized recreation facilities for the city at large that it cannot provide elsewhere. These facilities include a lighted outdoor sports complex, golf courses, agricultural and equestrian facilities and a large urban park for northeast Denver.
3. Complementing the classic urban park system of the City and County, the mountain park system on the west, with a bold regional system on the east that celebrates the original Denver landscape of High Plains plants, water and animals. The Stapleton system will support the restoration of natural systems on site and establish and maintain extensive wildlife habitat.

4. Providing cost effective and environmentally beneficial approaches to water management on site. The open space system is designed to accommodate all of the site's stormwater management and 100-year flood control requirements. The system also uses natural filtration, constructed wetlands, water reuse and other techniques to improve water quality and minimize the use of scarce water resources for irrigation.

5. Reconnecting Stapleton to the rest of the city and region. Major regional trail connections will be provided between Stapleton and the Platte River and High Line Canal trail systems, Lowry Air Force Base, the Rocky Mountain Arsenal National Wildlife Area and adjacent neighborhoods. These trail linkages, along with extensions of Denver's historic parkways, will greatly encourage pedestrian and bicycle travel.

Approximately 35 percent of the Stapleton site will be devoted to parks, recreation and open space.

Approximately 1,680 acres of the Plan is devoted to some form of park, open space or stormwater management. The breakdown of components of the system is roughly as follows:

- formal parks (neighborhood and large urban). 250-275 acres. This commitment to formal parks is comparable to the ratio of parklands to residents in other portions of Denver.
- special facilities (outdoor sports complex, golf courses, agricultural center). 350-400 acres.
- natural areas, creek and trail corridors and floodplain (Sand Creek, Westerly Creek, Sand Hills Park). 600-650 acres.
- parkways and greenways carrying stormwater. 375-425 acres.

NOTE: Double counting of open space acreage occurs when areas perform multiple functions.

"YOU CAN LOOK AT A PARK PRIMARILY AS A SOCIAL TOOL, PRIMARILY AS AN AESTHETIC ELEMENT, OR PRIMARILY AS A PRACTICAL AND FUNCTIONAL THING."

PAUL GOLDBERGER,
NEW YORK TIMES



Shall and Rozinski

Sustainable Resources

As this list indicates, the open space system planned for Stapleton is diverse and complex. Open space improvements will support restoration and enhancement of habitat in all areas of the Stapleton site. The reintroduction of original High

Plains landscapes will incorporate a variety of indigenous types of vegetation and provide a viable scale and healthy environment for wildlife. This restoration will affect the kind of transformation of the whole site that is crucial to building the vision and identity of the new Stapleton. Healthy habitat areas will add value to the site as aesthetic and recreational amenities, with trails, wildlife viewing areas, picnic areas and volunteer restoration opportunities. These habitats will enhance and benefit from the storm water drainage system, and provide a model of reduced irrigation demand in public spaces.

The sustainability of indigenous landscapes depends not only on the restoration and protection of significant natural areas but also on maintaining vital biotic corridors, and on landscape management practices that sustain the natural processes of the larger ecosystem. The goal is to restore and manage the indigenous plant and animal communities of the Western High Plains



Drainage Corridor Illustration: A network of drainage corridors will connect developed neighborhoods to Westerly Creek and other primary drainageways, serving to detain water and clean pollutants from the urban runoff. As stormwater infiltrates along the canal, it will sustain a network of trees and vegetation. A pedestrian path will allow access for periodic maintenance and cleaning.

within a renewed urban fabric. This goal will be realized at many scales throughout Stapleton, from a regional scale establishment of sandhills prairie and restoration of the historic forested stream channels of Sand and Westerly Creeks to the smallest habitat areas in gardens or schoolyards.

The components of the open space system must be carefully integrated in order to prevent conflicts. No piece of the system can be one-dimensional. A golf course, for instance, must support broader objectives such as habitat development, water conservation and reuse, trail connections, stormwater management and public access.

Management and Funding

A system of this scale and diversity will require new approaches to development and long-term funding and management. Phasing will also be a critical issue since open space development (and its costs) may precede adjacent residential and commercial development (and their revenues). Open space development costs, like the rest of the infrastructure, will be shared by development fees, city funds, philanthropic and other external sources of funding and other special revenue mechanisms.

Long-term management and maintenance responsibilities will require similar sophistication. Formal parks, from neighborhood to large urban parks, and recreation facilities must be supported either by city revenues generated by development on the site, special district fees or other financial tools. The regional, High Plains system will require a partnership with other interested agencies and jurisdictions. The extensive greenways carrying stormwater, too, must have a solid funding source to finance their maintenance. The development program must take advantage of opportunities to reduce costs and capture value through the development and operation of the open space system. Elements of this system will increase adjacent land values and broaden market opportunity. The integration of flood control, natural irrigation and water quality treatment through filtration can also offset costs that would otherwise be incurred for more expensive infrastructure to satisfy the same requirements. Native plants and natural areas can also reduce overall maintenance requirements.

"TOWN AND COUNTRY
MUST BE MARRIED AND
OUT OF THIS JOYOUS
UNION WILL SPRING A
NEW HOPE, A NEW LIFE,
A NEW CIVILIZATION."

EBENEZER HOWARD

The parks plan below identifies the major components of the Stapleton open space system. These include:



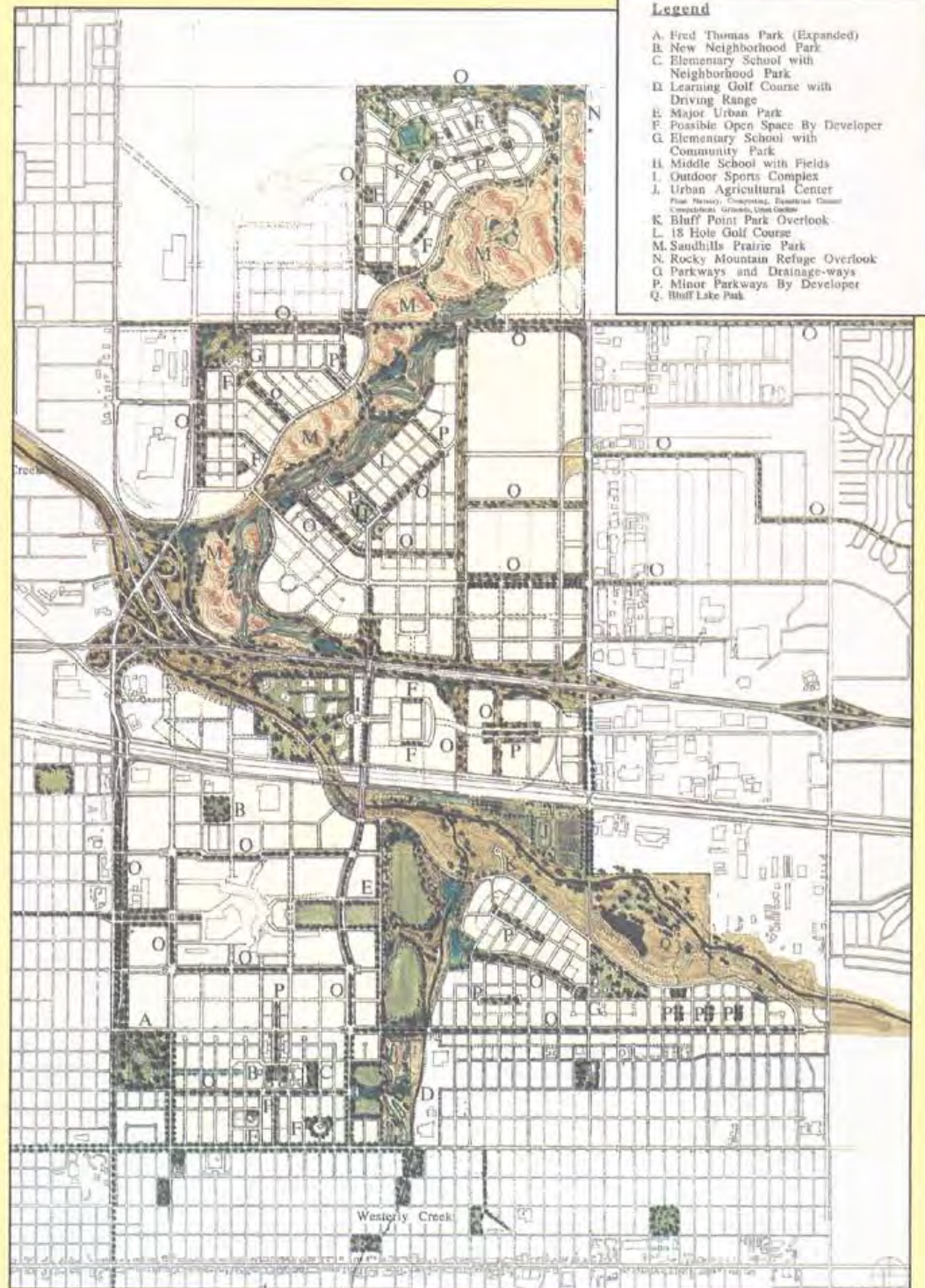
1. Major Urban Park (marked E on the accompanying map): This park, planned for the southern end of the site, to the east of the terminal area, will be similar to traditional Denver parks, such as Washington, Cheesman and City Parks.

It will cover approximately 175 acres, bordered on two edges by Westerly and Sand Creek greenway corridors. The park will accommodate a variety of uses — from playing fields to social gathering areas — serving as an amenity both for new residential and commercial development on the site, and for existing neighborhoods.



2. Sandhills Prairie Park (M on the map): This park will be the defining characteristic for the northern half of the site. It will be approximately a 365-acre restoration of the original landscape type of this area — the Sand Hills Prairie — bringing a sense of

the High Plains back into Denver. The park's topography of rolling sand hills, vegetated with tall and short prairie grasses, cottonwoods, willows and other shrubs, will attract a wide variety of birds and small mammals. Among other uses, the park will provide an entryway into the National Wildlife Refuge under development at the Rocky Mountain Arsenal National Wildlife Area to the north. The scale and unique character of the site will require a major restoration effort. It will be managed to protect the restored prairie ecosystem, while providing maximum opportunities for public enjoyment and learning through bicycle/pedestrian trail systems, bird/animal watching, picnicking and scenic drives, restoration demonstration areas and volunteer activities.



The Stapleton Parks Recreation and Open Space Plan will become a nationally recognized model of restoration and integration of a diverse set of urban and natural land uses.



3. Community Parks (A and G on map):

The plan calls for the creation or expansion of three community-scale parks of 20-40 acres each. These parks will feature playing fields and, in

two cases, be co-located with elementary schools.



4. Neighborhood Parks (B and C on map):

There will be several smaller parks (up to 10 acres each) within easy walking distance for families and children. In some cases, these may serve

as transition areas between different types of development (e.g. single family homes, commercial areas and multiple family residences), or as important components of a neighborhood center.



5. Parkways (O and P on map):

Parkways will provide continuity between traditional Denver neighborhoods and new development at Stapleton.

Parkways will be developed along selected major streets as well as small neighborhood streets, where they will serve as local park areas and enhance real estate values. Parkways will also incorporate grass-lined drainage swales and trail systems in many areas.



6. Outdoor Sports Complex (I on map):

Adjacent to Sand Creek, a 107-acre outdoor recreational area will be accessible by bike, transit and car to

groups both day and night. This area could potentially include a full range of amenities, including lighted basketball courts, ball fields, etc.



7. Golf Courses (D and L on map):

The plan calls for two courses to be developed on the Stapleton site: one, a youth training course and driving range at the south

end of the site adjacent to Westerly Creek; and the other, an 18-hole championship golf course integrated with the Sand Hills Prairie restoration to the north. Both would seek to minimize environmental impact through water reuse for irrigation, low chemical use, habitat development and integration of natural landscapes.



8. Urban Agricultural Center (J on map):

This center is to be located on or adjacent to the site of the current city nursery. Initial

plans are to develop a community farm, market and garden area, with an equestrian center and programming for at-risk populations.



9. Trail Systems: Extensive trail systems are planned throughout the Stapleton site for both recreation and commuting (pedestrian, bicycle and possibly equestrian).

Trails will be located along Sand and Westerly Creek corridors, and through the central habitat and open space corridor to the northeast, as well as along roads and in parks and drainage corridors. Trail improvements will provide both local and regional access.



10. Bluff Lake Environmental Education Area:

The City and County of Denver has already committed over a million dollars to funding for restoration and

development of the Bluff Lake area as an urban environmental education facility. Bluff Lake has significant wildlife resources, and is located adjacent to Sand Creek. Partnerships with local, state and federal agencies will support united programming for school children in the fall of 1995.



11. Greenway Corridors: The Sand and Westerly Creek corridors will be important elements of the Stapleton parks and open space system. Both corridors

will be the focus of intensive resource inventory and restoration efforts. Once developed, they will provide regional trails and wildlife corridors and will provide natural water quality enhancement features (ponds and wetlands) for surface water drainage. Both efforts will require extensive cooperation between the cities of Denver, Aurora and Commerce City and among local, regional, state and (in some cases) federal agencies. The Sand Creek Corridor also offers the opportunity to connect the existing Platte River and High Line canal trail systems, forming a loop for these linear systems.

Since its origins in the last century, parks and natural features have been the defining elements of Denver's neighborhoods and urban fabric. The Stapleton Development Plan builds on this legacy, but also expands it to include a broader appreciation for natural and man-made landscapes. Denver's tradition of parks and parkways can be extended onto the site and connected to extensive open space areas that transition from formal urban spaces to far more natural areas. The Stapleton system will forge important connections to regional trail systems, adjacent neighborhoods, the Rocky Mountain Arsenal National Wildlife Area and Lowry open space and recreation facilities. This system can also increase understanding of our natural environment, its resources and our role as responsible stewards for future generations.

AND IN TIME THERE'S NO
MORE TELLING WHICH IS
WHICH BETWEEN THEM,
NO SHARP DISTINCTION,
NO CLEAR EDGE OF
DIFFERENCE WHERE IT
CAN BE SAID THAT HERE
THE LAND ENDS AND HERE
THE MAN BEGINS.

DON BERRY

TRASK

FROM: THE THUNDER TREE

LESSONS FROM AN

URBAN WILDLAND

BY ROBERT MICHAEL PYLE

THEY CALL OUR

COTTONWOODS A CHEAP

TREE. IT IS ALONG THE

MISSOURI RIVER, BUT IT

HAS NOT BEEN A CHEAP

TREE IN DENVER. OUR

PEOPLE HAVE PAID LARGE

PRICES FOR COTTONWOODS,

AND LARGER SUMS FOR

WATER TO MAKE THEM

GROW...THE COTTONWOOD

HAS BEEN A NECESSITY,

MAY MORE, IT HAS BEEN A

LUXURY AND A LIVING JOY

— A LUXURY AND JOY NO

PEOPLE CAN EXPERIENCE

WHO LIVE IN A TIMBERED

COUNTRY, NO MATTER HOW

BEAUTIFUL OR GRACEFUL

OR EVER RENOWNED THEIR

TREES FOR SHADE MAY BE.

W.G.M. STONE, THE

COLORADO HANDBOOK, 1893

FROM: THE THUNDER TREE

LESSONS FROM AN URBAN

WILDLAND

BY ROBERT MICHAEL PYLE

The Plan for Restoration of Soils, Vegetation and Wildlife Habitat



The Stapleton Development Plan envisions urban and natural environments that strengthen each other for their mutual benefit. Restored site soils, vegetation communities and animal habitat will play an important

role in the making of new, healthy Denver communities. These natural system concerns have been incorporated into the Parks, Recreation and Open Space initiative as a key structuring element of the Development Plan.

Aviation use has allowed for degraded topsoil conditions and severe changes to natural site grading. The vegetation of the Stapleton site today has been so modified that, with the exception of a few patches along Sand Creek, virtually all of the historic vegetation has been eliminated. As a result, only degraded remnants of the native prairie and riparian habitats are left and these fail to capture any of the drama, scale or beauty of the original Colorado landscape. These fragments also are neither large enough nor continuous enough to sustain the indigenous plant and animal communities of the region.

Redevelopment of the Stapleton site offers the opportunity to restore the patterns and the functions of the larger ecosystem that will be required if these natural values are to be sustained into the future within the Denver metropolitan area.

The proposed open space system integrates a unique mix of natural areas, outdoor sports facilities, drainage corridors, multi-use trails and scenic urban parks and parkways. The plan includes traditional parks and parkways as well as restored native landscapes. The best landscape images of urban and rural Colorado will be brought together to change Stapleton. Familiar landscape types such as golf courses, park drives and residential streets will be retained but subtly modified to reflect the goals of sustainability. The management of

these landscapes will foster native plants and animals and also serve as models for reduced irrigation demand as well as innovative and cost effective stormwater control and pollutant reduction. More than any other single feature, the restoration of the landscapes of the High Plains will affect the kind of transformation of the whole site that is crucial to building the vision of the new Stapleton.

A comprehensive restoration and management strategy is included in the Development Plan support documentation. The

The Stapleton Development Plan envisions urban and natural environments that strengthen each other for their mutual benefit.

intent is simply to reintroduce the matrix of mixed prairie vegetation landscapes naturally found on the site. Included are Upland Landscape types such as short grass prairie and sandhills prairie, Riparian Landscape types such as sandbar channels, lake bottoms and lake fringes, and Modified Prairie Landscape types such as woody draws and prairie turf. These landscapes will in turn support a diverse mix of wildlife and provide important habitat connections for regional wildlife resources.

Major Habitat Types



Upland Landscape - shortgrass prairie

The shortgrass prairie, characterized by shorter, more drought resistant grasses, occurs where there are heavier, finer-textured clay soils that prevent water from percolating to

depth. In the larger open spaces in the southern part of the Stapleton site, shortgrass prairie can be restored adjacent to Sand and Westerly Creeks. It could also be used at the farthest margins of drainage corridors in this portion of the site and along landscape edges where an alternative to turf is desired.



Upland Landscape - sandhills prairie

The sandhills prairie will be the primary prairie landscape of Stapleton, with its centerpiece at the Prairie Park. The terrain consists of gently undulating hills oriented to and created by the

prevailing winds. Tallgrass prairie occurs in the High Plains where the more permeable soils allow moisture to percolate deep into the sand. Sand blowouts and sandhill depressions can also be found in the rolling prairie dune environments.



Riparian Landscape - sandbar channels

All the drainage ways within the larger open space system of Stapleton are modelled on sandbar channels — free-flowing, wide, flat, main channels, within which minor channels

are free to braid and meander. Sinuous lines of cottonwoods grow on higher ground and thick patches of sandbar willows with occasional peachleaf willow grow within the channels.



Riparian Landscape - streamside prairie

In the lower area, along the prairie stream corridors, switchgrass covers the entire ground except where the stream channel is actively eroding.

Switchgrass should be established early on so

that as the site gets wetter the plants can spread. Prairie cordgrass can be planted across the bottom of the channel as it will grow in standing water. Western wheatgrass has a wide range of tolerance and can be planted when the channel is still relatively dry. Later it will be able to tolerate flooding and grow even in standing water.

Riparian Landscape - lake bottom

Where a basin is constructed for stormwater management, either to improve water quality or to control flooding, the model will be the playa lake. Playa lakes are ephemeral waterbodies that are found throughout the plains region. The playa lakes at Stapleton will be designed to maintain groundwater contact and to build up the “groundwater mound” that will develop beneath the basin. Continuous groundwater contact allows the basin bottom to support a rush meadow that will reduce pollutants and improve water quality.



Riparian Landscape - lake fringes.

Water bodies that fluctuate between wet and dry are found throughout the high plains region. At the upper reaches of the playa basins and along their margins there will be less frequent contact with groundwater and the moisture regimen will fluctuate more dramatically. These fringes are characterized by spike rush and dense stands of prairie cordgrass.



Modified Prairie Landscape - woody draw

The woody draw is an intermediate prairie landscape zone where root systems can access water sources below. Example species are box elder, green ash, serviceberry, American elm, red-osier dogwood, ponderosa pine and burr oak.

Modified Prairie Landscape - prairie turf

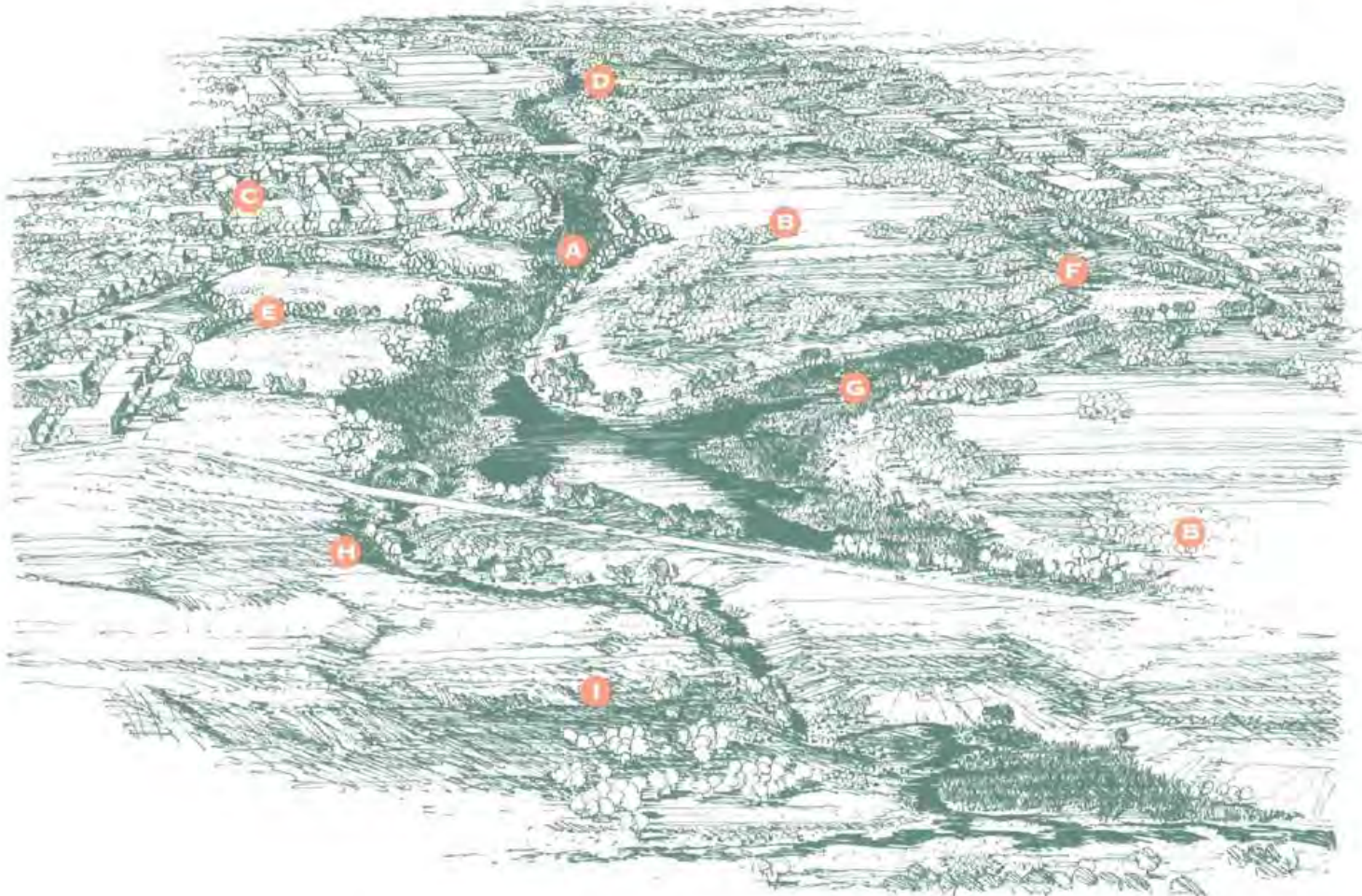
Many buffer or transition areas will occur in the restored urban and natural landscapes. Turf areas should be durable, easily maintained and water conserving. Indigenous examples are buffalo grass, blue gramma grass and western wheatgrass.



SECTION V C / DEVELOPMENT PLAN
STRUCTURING ELEMENTS



The Habitat Plan identifies locations for the mixed prairie vegetation landscape types on the Stapleton site. It illustrates the integration of natural areas, transitional parklands and urban development.



WESTERLY CREEK CORRIDOR AND SURROUNDINGS:

A birds-eye view looking south along a 1½ mile length of Westerly Creek between Sand Creek and Montview Boulevard. This segment of the corridor contains the following elements:

A) Excavation and restoration of the natural stream corridor where aircraft runways previously constricted local and regional storm flows;

B) major urban park adjacent to the District II employment neighborhood;

C) District III residential neighborhood;

D) learning golf course adjacent to Westerly Creek and the District I residential neighborhood;

E) tree-lined local drainage corridor connecting adjacent urban neighborhood flows through to Westerly Creek;

F) hierarchy of surface channels and canals convey stormwater from larger urbanized basins to water quality treatment areas;

G) ponds and wetlands where stormwater is temporarily detained allowing for biological uptake and sedimentation of pollutants and nutrients;

H) a series of grade control drop structures stabilize the stream bed, preventing further erosion; and

I) wetlands at the edge of Sand Creek valley provide wildlife habitat and improve Westerly Creek stormwater quality before entering Sand Creek.

STRUCTURING ELEMENTS

3 TRANSPORTATION



The Denver region has one of the highest per capita rates of vehicle ownership in the nation and is grappling with the air quality impacts of a largely automobile-based system. From 1980 to 1991, vehicle miles travelled in the region increased by 35%. As

the metropolitan region continues to grow, the number of privately owned vehicles will grow as well. As suburbs continue their outward expansion, commute distances will lengthen and vehicle miles traveled will grow. Resulting impacts to air quality and roadway congestion are likely to worsen.

The Stapleton Development Plan offers an alternative approach to development and mobility that seeks to reduce vehicle miles traveled and resulting air quality impacts through land use design, multiple modes of transit, and transportation demand management strategies. Diverse transportation options will be a long-term key to Stapleton's success as a place of employment, housing and recreation.

Existing Conditions

As an island surrounded by development, the Stapleton site is reasonably well served by streets leading up to its perimeter. As an operating airport, however, Stapleton has created a significant barrier to east/west and north/south continuity in the area's roadway system. I-70 is the only roadway corridor crossing the site, providing two regional access points, the Quebec Street and Havana Street interchanges. Primary east/west streets leading to the perimeter of the site are 56th Avenue, Smith Road, Martin Luther King Boulevard and Montview Boulevard. Primary north/south streets leading to the perimeter include Quebec Street and Havana Street. A number of neighborhood streets also intersect with the site's perimeter on the west, south and northeast.

In addition to the I-70 roadway corridor, the Union Pacific rail main line also crosses the site. This line travels through downtown and is a primary corridor in the national system. Surrounding neighborhoods are currently provided with reasonably efficient bus service, a network of on-street bike trails and pedestrian sidewalks. Existing bus service for the Stapleton site serves only the terminal location. No regional trails of any sort cross the Stapleton property.

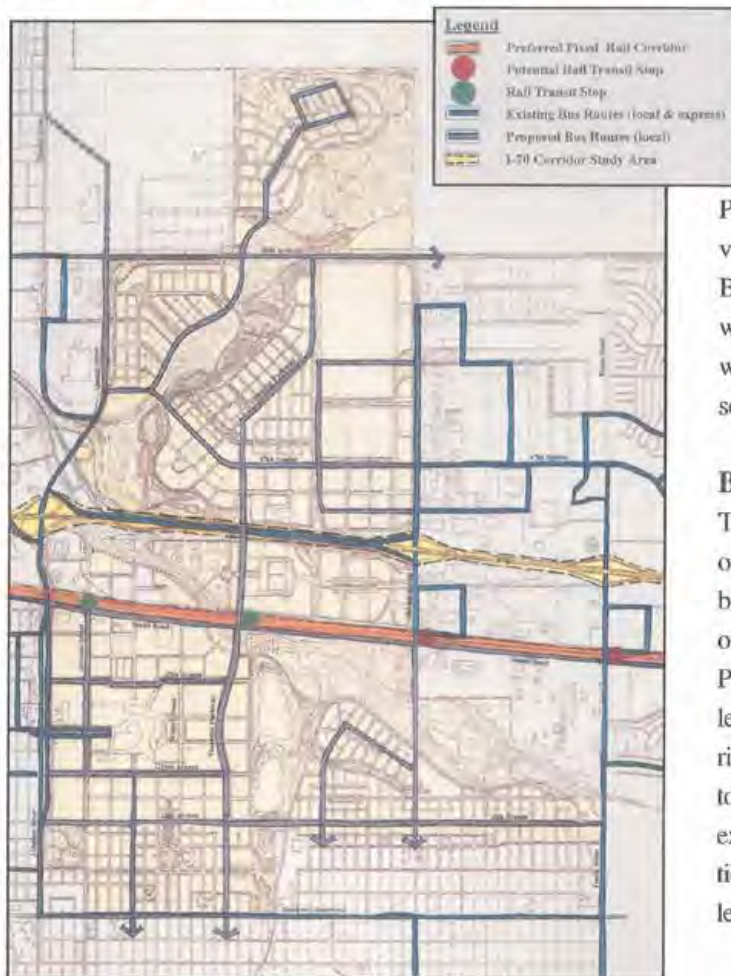
Land Use Design

Fundamental to the Development Plan are compact, transit-oriented, mixed use neighborhoods. Walkable scale, mixed use neighborhoods encourage walking and transit use by generating many relatively short trips. These trips are spread out through the day creating a steady demand for transit as opposed to the peak morning and evening rush hours. Also fundamental are greater densities around access points for public transportation. Greater densities will maximize the number of people who either live or work within walking distance of public transportation, increasing the likelihood of its use. In each district of the site, minimum densities necessary to support transit are incorporated into the Plan and all employment areas are located within walking or biking distance of housing.

Travel Modes

Rail Transit

The existing Union Pacific rail corridor crossing the site south of I-70 along Smith Road is currently the proposed alignment for rail transit in the east corridor as defined by the Regional Transportation District (RTD). The Development Plan supports this specific location, and recommends locating two intermodal facilities along the corridor at its intersection with Syracuse Street and Yosemite Parkway. These facilities will link rail transit, bus transit, bikeways, pedestrian networks and automobiles



TRANSIT PLAN: All portions of the site will be within five minutes walking distance (1/4 mile or less) of public transportation. Fixed rail service in the I-70/Smith Rd. corridor is currently under study. The Development Plan proposes rail stations along Smith Road at Syracuse Street and Yosemite Parkway.

within one single facility. These locations can also serve regional connections to downtown, DIA, the Rocky Mountain Arsenal National Wildlife Area and the Lowry campus. The east corridor will be studied over the next 18 months by the Denver Regional Council of Governments (DRCOG), Colorado Department of Transportation (CDOT) and RTD to determine which transportation improvements will serve the corridor most efficiently. This effort must be coordinated with Stapleton's redevelopment. The goal will be to maximize the potential for future rail investment and complimentary adjacent development to generate significant transit ridership and reduced automobile reliance in this portion of the Smith Road corridor.

Bus Service

Introduction of bus service to the site will require logical extensions of existing routes. The Stapleton Development Plan provides necessary through street connections for bus service to operate through the site and into surrounding locations. Bus stops will be located throughout the site in locations that will ensure all residents and workers are within a five minute walk of a stop. All district and neighborhood centers will be served by this route structure.

Bicycles

The Development Plan is designed to encourage greater usage of bicycles for recreation and commuting. A comprehensive bicycle network has been developed for the site as an extension of the route structure defined in the Denver Bicycle Master Plan. This network features off-street regional bikeways parallel to Sand Creek, Westerly Creek and the major open space corridor in the northern half of the property connecting Sand Creek to the Rocky Mountain Arsenal National Wildlife Area. An extensive collection of signed on-street bike routes serves all portions of the site. For on-street bike routes, the curb lane will be at least 15 feet wide to accommodate both vehicles and bicycles.

A REGIONAL RAPID TRANSIT SYSTEM IS NECESSARY TO SERVE CITY RESIDENTS AS WELL AS SUBURBAN COMMUTERS TO THE CENTRAL BUSINESS DISTRICT (CBD) AND OTHER ACTIVITY CENTERS. INCREASES IN RIDE SHARING, VEHICLE OCCUPANCY, BICYCLING AND WALKING ARE ALSO VIEWED AS VITALLY IMPORTANT GOALS

CITY AND COUNTY OF DENVER COMPREHENSIVE PLAN, 1988





SAND CREEK TRAIL: The existing runway tunnel structure could be opened up with the arched wall elements remaining for historical interest.



TRAILS PLAN: Multi-use pedestrian, bike and equestrian trails will connect the site's mixed use districts and link the site with the region.

Pedestrian Walkways and Trails

Sidewalks will be provided adjacent to all streets. Special pedestrian amenities will be provided in the area between Quebec Street and Yosemite Parkway, and Smith Road and 29th Avenue to help mitigate the pedestrian impacts of wider streets and intersections. The Development Plan also includes a number of parkways with significant landscaping that will encourage pedestrian use and designates multiple use trail linkages to connect the site into the regional trails system. Trails lie within mapped street or open space areas. Regional

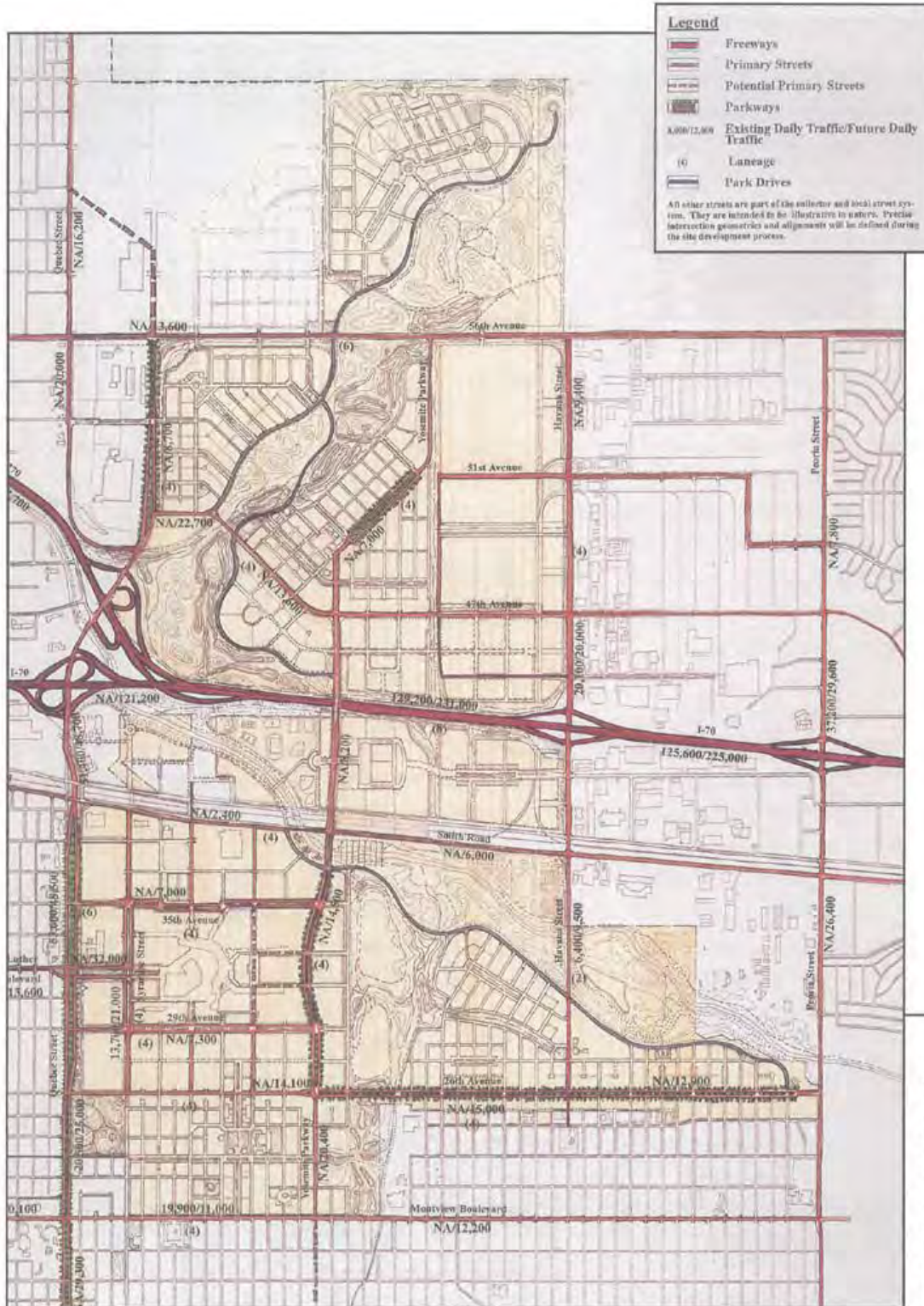
trails include the Sand Creek Trail connecting the Platte River Greenway east through Stapleton into Aurora to the High Line Canal, the Westerly Creek Trail from the Sand Creek Trail ultimately to the High Line Canal through Lowry, and a new trail from Sand Creek northeast along the Sandhills Prairie Park to the Rocky Mountain Arsenal National Wildlife Area. Fingers from these backbone trails will penetrate development areas via the surface water drainage system, parks and parkways. The multi-use Sand Creek Trail will also have an equestrian component for its full length on Stapleton.

Automobiles

Recognizing that I-70 is currently the only major roadway across the site, a number of roadway improvements will be required to reconnect the site with neighborhood and regional systems.

Highways

Until the I-70 corridor study is complete, it is impossible to know how the site will be impacted by future potential improvements. Accordingly, a 300 to 350-foot envelope is being reserved for these as yet unspecified improvements with additional buffering and drainage along the perimeter. The total corridor width for all of these combined purposes equals 700 feet. All travel demand modeling for the site assumed eight through lanes for I-70. If this does not become the case, the size and capacity of each recommended roadway will need to be reevaluated. Irrespective of the results of the study, it is clear, however, that both the I-70/Havana Street interchange and the I-70/I-270/Quebec Street interchange will need to be redesigned to accommodate the ultimate access needs of the site through these key points. More specific design recommendations will be made as part of the I-70 corridor study.



The Stapleton Development Plan provides necessary through street connections for bus service to operate through the site and into surrounding locations.

STREET PLAN: The basic grid of Northeast Denver will be extended onto the site. Important connections will occur along 56th Ave., Smith Road, 26th Ave., 49th / 47th Aves., Syracuse St., and Yosemite Parkway within the site. Quebec St., Havana St., Montview Blvd. and Martin Luther King Blvd. provide important perimeter connections.

Streets

Primary recommended street improvements are broken down between north/south and east/west improvements. Final street improvement design will require coordination with existing plans of jurisdictions surrounding the site.

The primary north/south streets include Quebec Street, Syracuse Street, Yosemite Parkway, Havana Street and Peoria Street.

Quebec Street: Currently Quebec Street is a two-lane facility south of 23rd Avenue, a four-lane facility between 23rd Avenue and 29th Avenue, and a six lane facility between 29th Avenue and I-70. In order to accommodate projected 2015 regional traffic volumes of 20,000 to 29,000 vehicles per day, it is necessary to widen Quebec to four lanes between 29th Avenue and Colfax Avenue. Widening is consistent with the Lowry Redevelopment Plan and would not be required until the southwestern portion of the site is substantially developed. Right-of-way will need to be acquired to construct this facility.

North of I-70, the Plan proposes a realignment of Quebec eastward to provide improved access to I-270, a high capacity connection to I-70 and an appropriate entrance into Districts VI and VII. A connection back to the existing Quebec Street alignment north of I-270 occurs at 56th Avenue. It must be noted that the alignment represented is conceptual. Determination of a final engineered alignment will be the result of a future study involving Commerce City, the CDOT and the City and County of Denver. Final construction will not be necessary until the north-west portion of the site is actively under development.

Syracuse Street: Syracuse Street is a two-lane neighborhood street serving the East Montclair neighborhood. It will be extended north into the site to serve neighborhoods planned in District I and will be terminated near Fred Thomas Park. North of 26th Avenue, it will be continued as a four-lane facility to serve District II and will not extend north of I-70.

Yosemite Parkway: Yosemite Parkway provides direct continuity from 56th Avenue to Montview Boulevard through the “heart” of the development. It will bridge over both the railroad corridor and I-70 using existing roadway bridge structures that will remain in place. Yosemite Parkway will also provide access to the businesses along Colfax Avenue and to the Lowry campus to the south.

Havana Street: Havana Street provides continuity from 56th Avenue to 26th Avenue, where it will terminate. The segment between 56th Avenue and I-70 is currently a four lane facility. Havana Street between I-70 and 26th Avenue is initially proposed as a two lane facility, but right-of-way should be preserved for a future four-lane section to accommodate future development.

Peoria Street: No changes to Peoria Street are proposed, although several streets serving the Stapleton site will now connect to it. They include 26th Avenue, Smith Road, 47th Avenue and 56th Avenue.

The primary east/west streets include 56th Avenue, 47th Avenue, Smith Road, 35th Avenue, Martin Luther King Boulevard, 29th Avenue, 26th Avenue, 23rd Avenue and Montview Boulevard.

56th Avenue: Fifty-sixth Avenue right-of-way will be capable of ultimately accommodating a parkway of up to six-lanes with a landscaped median, setbacks and limited access. Within 90 days of the closure of Stapleton, construction on two lanes of 56th Avenue will commence. Construction will utilize materials recycled from the Stapleton airfield.

47th Avenue: Forty-seventh Avenue, transitioning to 49th Avenue, will provide continuity through the north half of the development from Quebec Street to Havana and Peoria Streets. This will be a four-lane facility with minimal truck traffic.

Smith Road: Smith Road currently penetrates the site from the east and west but is not continuous. It will be connected and reconstructed as a four-lane facility with an intersection with

Yosemite Parkway. The Smith Road corridor will provide a major east/west connection and will accommodate rail transit, bicycles and pedestrians as well as automobiles.

35th Avenue, Martin Luther King Boulevard and 29th

Avenue: Thirty-fifth Avenue, Martin Luther King Boulevard and 29th Avenue are intended to serve the proposed high density terminal area in District II. The existing MLK Boulevard/Quebec Street intersection will be preserved to provide a high capacity “front door” to the terminal area development sites. Both 35th and 29th Avenues will be “disconnect-ed” west of Quebec Street to discourage travel through the residential Park Hill neighborhood to the west. The emergence of a major regional traffic generator at the terminal may necessitate modifications to these configurations and other connections different or in addition to those the Plan currently recommends. In addition, more detailed intersection design in this area may result in further modification to the street system.

26th Avenue: Twenty-sixth Avenue provides continuity through the south half of the site from Quebec Street to Peoria Street. It will be discontinued west of Quebec Street to discourage travel through neighborhoods to the west. It will be a standard four-lane street west of Yosemite Parkway, and a four-lane residential parkway east of Yosemite Parkway.

23rd Avenue: Currently, 23rd Avenue carries more traffic through Park Hill than Montview Boulevard and 26th Avenue combined. It will be extended into the site until it intersects Yosemite Parkway.

Montview Boulevard: No changes to Montview Boulevard are proposed, other than a large, landscaped setback on the north side along the Stapleton property.

Scenic Parkways: Two scenic parkways will be located along the major open space and drainage corridors. One will follow the south bank of Sand Creek across the site. The other will travel along the Sandhills Prairie Park open space network in the north half of the site. Final locations for these parkways

will be developed with detailed design and engineering of the open space system.

Transportation Demand Management Strategies

Transportation demand management (TDM) strategies are intended to maximize the people-moving capability of the transportation system by increasing the number of persons in a vehicle, or by influencing the time of, or need to, travel. To accomplish these types of changes in travel behavior, a combination of incentives and disincentives are typically used. Examples of TDM strategies for the Stapleton area include:

Residential Neighborhoods

- Neighborhood transit subsidy (Eco-Pass) program
- Tele-work, teleconference centers in neighborhoods
- Tele-service centers (banking, city services, library access, etc.)
- Latest communication technologies (home shopping, etc.)
- Daycare, health and public services and schools in neighborhood centers

Commercial/Retail/Office Development

- Establishing maximum parking ratios
- Charging for parking
- Reduced-price, preferential location parking for carpool/van pool users
- Subsidies for transit and taxis for retail customers
- Employer-based Eco-Pass program
- Compressed work weeks and other alternative work schedules such as staggered shifts
- Support retail and restaurant facilities within walking distance of workplaces
- Shared fleet of low-emission vehicles for midday travel
- Shuttles to/from DIA or to/from transit station
- Bicycle parking, lockers and showers
- Health clubs in office developments
- Guaranteed Ride Home programs
- Rideshare matching
- Providing ready access and encouraging use of alternative fuels
- Financial incentives for ridesharing, bicycling or walking



Multi Use Streets



Extensive Bikeways



5 Minute walk to bus



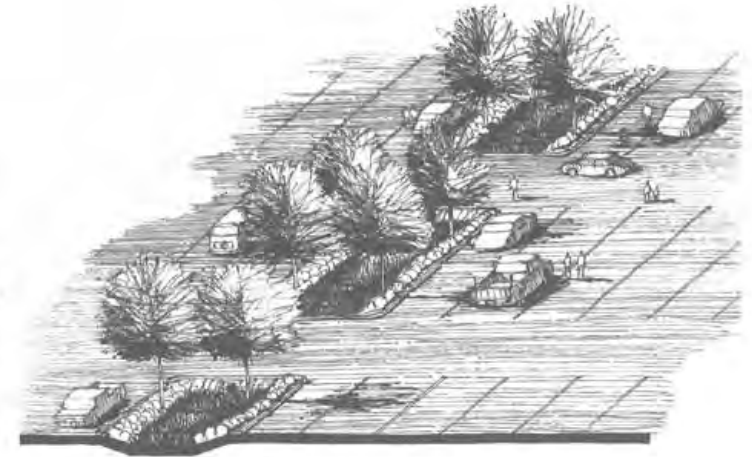
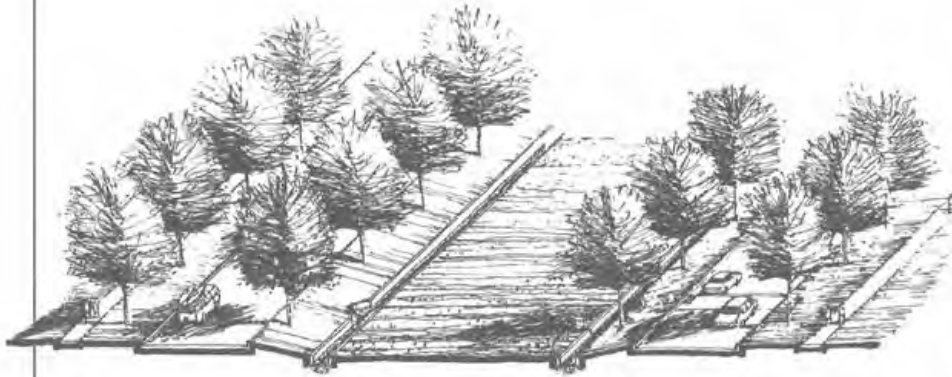
Rail Transit



Intelligent Vehicle Highway System

- In-home transit information
- Travel advisories (changeable message signs, highway advisory radio, personal communication devices, smart kiosks; etc.)
- Incident detection and response information

Successful implementation of some or all of these strategies will require early establishment of a Transportation Management Organization (TMO). The TMO would be responsible for incorporating and implementing strategies in new development rather than trying to retrofit them in established areas of development which may be resistant to change.



PARKING AND PARKWAY ILLUSTRATIONS: On site parking areas and some parkways, such as extended 35th or 29th Avenues, are examples of multiple use right-of-way design. A coordinated approach will integrate public safety, transportation, landscape, drainage and water quality functions. Maintenance concerns are incorporated as well.

Above right for example, parking lot runoff is directed to a series of connected shallow landscaped basins in order to detain stormwater, remove urban pollutants and irrigate drought tolerant and riparian plantings. The shallow basins connect to either on-site or regional detention areas via drainage corridors.

Above left for example, small rain showers are collected within the parkways in cleanable canals at the bottom edge of a broad median channel that directly infiltrates stormwater, irrigating adjacent street trees. Larger storms are conveyed to the regional stream network by the grass-lined median channel which also acts as a linear park. Along the sides, right-of-way is also reserved for pedestrians and bicyclists.

STRUCTURING ELEMENTS

4 SERVICES



Overview

For much of its history, the Stapleton site was open land or in agricultural use. Urbanization of the property began in earnest in the late 1920s with the construction of Denver's first municipal airport. Since that time,

the site has been extensively modified. Many physical improvements and an extensive system of infrastructure have been added over the last 65 years to support the growing demands of aviation activity.

Upon the airport's closure in 1995, a new set of requirements and service demands will begin to emerge. Improvements and infrastructure originally created to serve aviation must be adapted and/or replaced with larger and different infrastructure systems designed to serve non-aviation use. In its present form, Stapleton is only partially prepared to support extensive reuse. Its existing infrastructure is concentrated in the southwestern portion of the site. It lacks internal systems sufficient to accommodate substantial employment, housing and other activities on site. Natural systems of topography, vegetation and drainage have also been destroyed or significantly altered. In addition, the interior of the site is disconnected from much of the local and regional systems of transportation, open space and service delivery.

Fundamental to the task of redevelopment is the ability to design and construct new systems to support new mixed-use communities and public use of the site. Existing infrastructure and improvements will be adapted, reused or recycled whenever possible. Significant new infrastructure investment in energy, water, wastewater, stormwater, solid waste, telecommunications, transportation and open space systems will be required. These investments must be made in a fashion that is cost-effective and supports the larger sustainable development objectives of the redevelopment program.

Stapleton infrastructure must provide cost-effective, low maintenance and environmentally sustainable approaches to urban service delivery. It must integrate urban and natural systems. It must respond to the limitations of traditional infrastructure provision where systems are often built and operated in isolation from one another and from consideration of broader environmental and social costs. For example, stormwater has traditionally been conveyed directly from streets to underground storm drains to rivers as quickly as possible. This approach eliminates opportunities for on-site irrigation and increases water quality impacts. When solid waste is indiscriminately landfilled, opportunities to reclaim its value as a resource through reuse, recycling and composting are also lost. Energy production is often associated with reduced air quality and glob-

Stapleton infrastructure must provide cost-effective, low maintenance and environmentally sustainable approaches to urban service delivery.

al warming impacts, fossil fuel mining and geopolitical strife, but new developments of Stapleton's magnitude are often designed with insufficient attention to energy conservation.

Stapleton provides an opportunity to integrate utility systems in a way that recognizes resource values in both inflows (water, energy, consumer goods from raw materials) and outflows (wastewater, stormwater, garbage), and captures these values through conservation and reuse wherever possible. Stormwater runoff channeled through grass-lined swales provides irrigation for green spaces and is filtered through vegetation, improving downstream water quality in river systems. Solid waste, pre-sorted and processed, produces raw materials for local end-use

"ECONOMIC GROWTH HAS
ITS IMPERATIVES;
IT WILL OCCUR.
THE KEY QUESTION IS:
WITH WHAT TECHNOLOGIES?"

JAMES GUSTAVE SPETH
UNITED NATIONS
DEVELOPMENT PROGRAM

industry production activity or compost for soil amendment. Energy conservation through both demand and supply-side management reduces consumption and internalizes costs. Proposed systems will thus be both more resource-efficient and cost-effective, and will minimize environmental impacts.

The new systems developed for Stapleton must facilitate efficient use of natural resources, provide diverse mobility options, support compact communities, promote restoration of natural systems (habitat, plant communities, water quality, etc.) and take advantage of technological advancement and opportunities for demonstration projects.

Meeting Future Service Demands

Fundamental to redevelopment is the delivery and pricing of a wide variety of urban infrastructure services to the people living, working and recreating on the Stapleton site. Existing improvements will be adapted, reused and recycled whenever possible, but significant new investment in infrastructure will be necessary.

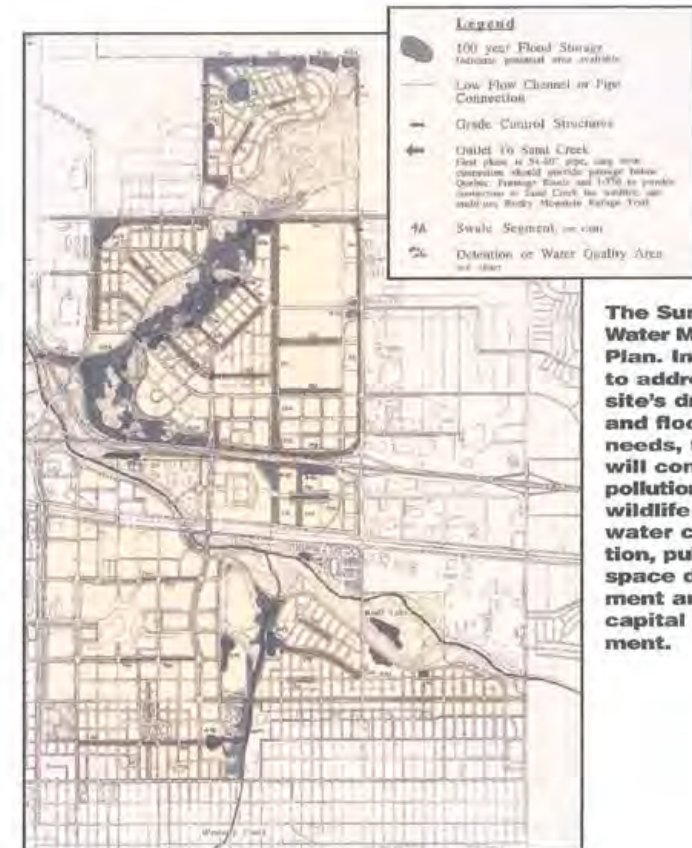
With environmental responsibility as a principle focus of the development program, implementation must go further than simply identifying the delivery of utilities to the site. New community infrastructure services must be sustainable over time. The goals have been to define cost-effective approaches to service delivery that make a project truly sustainable, to integrate systemic solutions when possible, and to produce efficient, durable and manageable solutions. In addition, it will be important to price these services in a manner that accurately reflects their cost – including economic, social and environmental costs. Accurate pricing will provide incentives for achievement of a sustainable urban form. Four areas are highlighted in order to demonstrate an integrated systems approach. They are storm-water management, energy management, water and wastewater management and solid waste management.



Storm Water Management and Flood Control

Currently, Stapleton has a very limited set of stormwater management improvements. The portion of the site below I-70 has some piped collection facilities that direct stormwater flows to Sand

Creek and Westerly Creek. The balance of the flows are surface flows carried by the topography to these same waterways. North of I-70, the site has little in the way of stormwater management facilities. The soil is extremely sandy and porous, and most of the rainwater is absorbed directly into the ground. This infiltration is possible because so large a proportion of the northern half of the site is open land with no impervious surface.



The Surface Water Management Plan. In addition to addressing the site's drainage and flood control needs, the plan will contribute to pollution reduction, wildlife habitat, water conservation, public open space development and reduced capital investment.

Non-aviation use of the site will dramatically increase the amount of connected impervious surface in many areas of the property, and particularly north of I-70. Much higher concentrations and volumes of water will need to be accommodated. The existing grade will tend to direct surface flows to the northwest towards Commerce City and the Rocky Mountain Arsenal National Wildlife Area. Commerce City's stormwater system is not designed or intended to manage these flows, and the Arsenal can accept only historic flows due to its unique circumstances (containing and treating groundwater flows as part of the overall cleanup program).

The project team has worked with the Urban Drainage and Flood Control District, Denver Wastewater and other agencies to develop a comprehensive flood control and stormwater management system for Stapleton. This system will:

- avoid piped collection systems and rely primarily instead on storage and management of water on site through a series of swales, small channels, storage facilities, and a new riparian corridor north of I-70, with an outfall at Sand Creek near Quebec Street;
- handle the vast majority of the site's stormwater management needs in the public realm to ensure ongoing maintenance, assist natural irrigation of public spaces, and provide greater site development flexibility;
- serve multiple purposes, including:
 - irrigation of natural areas;
 - establishment of vegetation for wildlife habitat;
 - 100-year flood detention;
 - extensive use of natural filtration to control nonpoint source pollution and improve water quality.
 - provision of a more cost-effective solution than traditional piped systems.
 - creation of water amenities; streams, ponds and wetlands

The Surface Water Management Plan illustrates the essential elements of this system. This approach allows for state-of-the-art management of stormwater. Regional detention is maximized, water is essentially harvested from private property to irrigate and improve public spaces, and overall capital investment in the site is reduced.



Energy Management

During the last 10 years, energy efficiency in American industry (home building, automobile manufacturing, etc.) has improved significantly in response to market demand. The social costs of energy consumption include environ-

mental damage and geopolitical conflict over fossil fuel sources; the risks of nuclear power; air pollution, potential climate change and the consumption of forest, desert, river and ocean habitats. These relationships are increasingly apparent to consumers, who have developed a greater interest in conservation, and in products that have reduced impacts on the environment. In addition, buyers of real estate increasingly consider long-term energy costs as a factor in purchase decisions.

During the last 10 years, energy efficiency in American industry has improved significantly in response to market demand.

The goal of the Development Plan is to use innovative building and community design, technology and market mechanisms to decrease the overall energy demand at Stapleton, and to incorporate "clean" energy sources wherever possible.

As part of the Stapleton Development Plan, an analysis identified potential energy requirements for the site and scenarios for meeting those requirements. Once again, the goal was to explore the most effective options likely to be available over time to meet energy requirements while promoting efficient use of resources and reduced impacts on the natural environment.

Three different demand scenarios were examined, each presuming different levels of conservation and demand-side management. These scenarios illustrated the potential at buildout to achieve savings of 50, 60 and 70 percent over current standard practices, relying on presently available technology. The analysis emphasizes the critical role of demand-side strategies as the most cost-effective and most readily available components of an overall energy strategy for the site. Demand-side management includes all forms of design, construction and operating practices that reduce energy consumption. Demand-side efficiency will be directly affected by land use patterns, building orientation, density, landscaping, solar access, wind protection and other factors.

Supply-side options were also evaluated. Given the 30-40 year anticipated buildout of the site, a number of renewable sources can play a role in meeting the site's supply requirements. The analysis specifically examined wind electric conversion systems, solar thermal applications, distributed and concentrating photovoltaics and fuel cells. The cost competitiveness and opportunities to incorporate these approaches may vary, but Stapleton does provide an ideal setting for demonstrations of these and other renewable technologies, even in the short term.

The report also examined the potential role of village-scale district energy systems and opportunities for commercial/industrial energy cascading among different energy users on the Stapleton site. District energy systems may be a viable alternative to distributed (individual) heating, cooling, and hot water systems. These systems could meet the thermal and electric demand requirements of a properly balanced mix of users minimizing the peak demand of the electric utility. Opportunities for cascading on the site should also exist, given the potential close proximity of industrial, commercial and residential users.

THE MAJOR RECOMMENDATIONS WITH RESPECT TO ENERGY MANAGEMENT INCLUDE:

- *Maximize conservation through demand-side strategies.*
- *Establish energy performance standards for buildings rather than prescribe levels of component performance.*
- *Ensure solar access rights through multi-level solar zoning.*
- *Use life-cycle cost analysis to select demand-side technologies.*
- *Develop appropriate zoning, codes, covenants and incentives to encourage/require energy efficient site and building designs.*
- *Develop village-scale energy systems (cogeneration) based on mixed land-use scenarios that support energy management goals.*
- *Install renewable energy demonstration projects*
- *Use tree planting to reduce heating and cooling loads on site.*
- *Develop energy hook-up, delivery, transmission and end use pricing schedules that encourage conservation*



Water and Wastewater Management

Denver, though located in a semi-arid region, has long enjoyed its status as an irrigated community. Water consumption in the Denver metro area (at an average rate of 151 gallons per person per day)

has grown steadily over time, and has skyrocketed in recent years with population growth. This trend has not been without costs to the region. Water use in Denver has implications not only for the long-term viability of our rivers and groundwater, but for the viability of regional agriculture and critical wildlife habitat on the South Platte and other regional rivers.

Current Denver water supplies are adequate to support the full buildout of Stapleton. However, Stapleton represents an opportunity to demonstrate new approaches to water use, reuse and

conservation. Efficient use of the resource, through the use of new technologies and management practices, can provide a model for the west.

Potable water for the Stapleton site is provided by Denver Water. Stapleton has been essentially a private system for all of its history. All of its existing on-site improvements for water distribution were constructed and operated by the airport. Stapleton's system must now be adapted, extended, and integrated with the rest of the public water system.

Wastewater services are currently handled by the Metro Wastewater Reclamation District. In addition to their other service delivery responsibilities, Denver Water and Metro Wastewater are each currently studying options for a northeast metro area reuse water system.

As with all other services, the goals regarding water and wastewater have been to maximize efficient use of the resource, to minimize environmental impacts, and to support the broader objectives of the redevelopment program. Over the course of the redevelopment program, we should be able to move towards an ideal in which:

- use of potable water is greatly reduced from present consumption patterns;
- non-potable water reuse and stormwater flows play an increasingly greater role in meeting irrigation, industrial and other non-human consumption demands;
- reuse water is supplied by wastewater treatment facilities treating flows that currently move through the site or that in the future are generated on site.;
- water management approaches will reduce demand, contribute to water quality improvements in the South Platte River basin and support habitat development and restoration on site.

Achievement of these objectives will require a phased approach. Some options, such as enhanced conservation measures, are available immediately. Others, such as regional reuse programs or significant reuse of wastewater flows gener-

ated on site, will need to be anticipated now but will not be possible to implement until later stages of the program.

THE MAJOR RECOMMENDATIONS WITH RESPECT TO WATER AND WASTEWATER MANAGEMENT INCLUDE:

Short Term Policies

- Implement aggressive conservation and demand management programs.
- Install dual distribution systems within public open spaces.
- Use nontributary groundwater to supplement dual distribution system until on-site wastewater flows are sufficient to meet supply needs for irrigation.
- Explore opportunities for a one-million-gallon-per-day reuse program with Aurora's Sand Creek Wastewater Treatment Plant immediately adjacent to the site.
- Explore options for diverting and treating wastewater flows in the 56th Avenue sanitary sewer at a satellite treatment facility on site.
- Pursue wetlands banking opportunities and incorporate best available technologies for water quality management in site restoration, open space and storm drainage improvements.

Mid and Long Term Policies

Continue above efforts, and:

- Explore possible expansion of Sand Creek treatment facilities and increased reuse volumes.
- Pursue opportunities to work with Metro Wastewater to receive additional reuse flows as part of its response to South Platte River water quality issues or its effluent management program.
- Pursue similar reuse opportunities with Denver Water through future phases of its water reclamation project.
- Apply local or sub-regional approaches to wastewater treatment and reuse as opportunities arise.

STAPLETON'S APPROACH TO WATER MANAGEMENT WILL EMPHASIZE CONSERVATION AND MAXIMUM USE OF STORMWATER FLOWS AND WATER REUSE TO ADDRESS IRRIGATION AND INDUSTRIAL NEEDS.

"IMAGINE WASTES
BEING CONVERTED INTO
HIGH VALUE PACKAGING,
WHICH OFFERS A VIABLE
SUBSTITUTE FOR SEVER-
AL PETROLEUM PLAS-
TICS, SUBSEQUENTLY
DEGRADES TOTALLY, OR
ALTERNATELY, CAN BE
RECYCLED BACK TO THE
EXACT SAME USE."

MARK MONTGOMERY,
PRESIDENT OF ECOCHEM
(A JOINT VENTURE OF
CON AGRA AND DUPONT
FOUNDED IN 1990 TO
PRODUCE PACKAGING
MATERIALS FROM WASTE
PRODUCTS)

It should be noted that the recommendations described on the previous pages with respect to water reuse will require a high degree of intergovernmental cooperation between various service providers. The Metro Wastewater Reclamation District is responsible for treatment of wastewater collected by Denver within Denver's boundaries. Denver's current contractual relationship requires the direction of all flows to the District's treatment system. The Board of Directors of the Metro District, as well as other policy makers, will need to ultimately approve a number of the more innovative concepts described above. All of the relevant service providers have expressed a willingness to pursue the general service objectives identified for the Stapleton site.



Solid Waste Management

The average American generates 4.4 pounds of solid waste per day, resulting in a national total of 208 million tons per year, according to the U.S. Environmental Protection Agency. Even though landfill capacity and disposal costs are not perceived to be a constraint in the Denver region, there are increasing concerns and consequences resulting from our waste disposal practices. Much of what we dispose is reusable, recyclable or compostable. In addition, the entire process of raw material development, use and disposal has economic and environmental consequences.

In planning for the Stapleton site, emphasis has been placed on achieving higher ratios of recovery and reuse of materials. Evaluation of solid waste options for the site began with an evaluation of the volume and composition of waste a community of the size planned for Stapleton would currently generate. Strategies were then evaluated for moving the community as close as possible to a condition of no net waste: i.e. no contribution of waste to local landfills.

At full buildout, the Stapleton community is anticipated to produce 25,000 tons of waste products per year. The strategy developed for the site includes reduction of this volume, as

well as opportunities to import material to the site for reuse as part of an overall solid waste management system. The strategy addresses handling and processing of material, remanufacturing opportunities and institutional policies required to support successful implementation of the program. Many components of this plan are considered viable in the current market.

THE MAJOR RECOMMENDATIONS WITH RESPECT TO ENERGY MANAGEMENT INCLUDE:

- Develop a resource village on site to address processing of recyclable material, yard waste, household hazardous waste and construction/demolition debris.
- Identify public or private organizations to manage and/or provide the following services:
 - operation of recyclable materials processing facility;
 - operation of yard-waste composting facility, in combination with a clean source of sludge, to be recycled as part of Stapleton land restoration;
 - handling and transportation of household hazardous wastes;
 - operation of construction/demolition debris processing facility;
 - collection of wet/dry wastes from commercial and residential generators;
 - operation of end-market manufacturing facilities to create reusable products from processed, reusable, recyclable and compostable materials.
- Coordinate with the City and County of Denver and Stapleton development management entity to implement a solid waste rate structure and public education programs necessary to achieve source reduction
- Establish procurement policies that maximize the use of reusable or recycled content products in development, operation and maintenance of the site.

STRUCTURING ELEMENTS

5 LAND USE AND URBAN DESIGN

The land use plan and development program for Stapleton reflect the site's context and the principles adopted to guide redevelopment. The land use plan describes a substantial mixed-use community which could support an ultimate employment base of more than 30,000 jobs and 10,000 households in a unique environment: a series of urban villages that each provide access to employment, housing, public transportation and open space. Districts of the site are organized around identifiable centers that support a variety of services and civic uses. The emphasis is on compact, walkable communities and strong ties between the Stapleton site and the surrounding community.

The land use plan reflects Stapleton's future role as a significant employment center. Stapleton represents an important opportunity to create an employment base — in response to the significant trend towards concentration of employment growth in suburban areas. At the same time, the plan attempts to create integrated communities rather than large, single-use districts. The integration of jobs and housing forms part of an overall strategy to increase access and reduce vehicle miles and regional air quality impacts. This plan also suits the size of the site: absorbing such a large property in the Denver market would be difficult without a broad mix of uses.

The land use plan is intended to be flexible. No one can predict market demand or absorption of land with any accuracy over 30 or 40 years. As a result, the mix of uses and densities must remain somewhat flexible — particularly for portions of the site likely to be developed in later phases of the project. What are most important to establish now are the general character, scale and density of the mixed-use community and its districts, as well as the basic community infrastructure, open space, civic sites and other elements of the public realm. Specific land uses, parcel configurations and relationships among various forms of employment, housing and other uses should be determined more definitely as development and the

process of district planning, zoning and platting proceeds. The development program defines the land use allocations, average densities and anticipated employment and population totals projected for buildout of the site. Some of these parameters will vary over time, but the development program provides a feasible baseline, consistent with current and anticipated market conditions.

The development program assigns 65 percent of the site to urban development and 35 percent to a mix of open space uses (stormwater management, parks, golf courses, recreation facilities, trails and natural areas). Approximately 16 percent of the site will be required for parkways, streets and other forms of public rights-of-way. With all forms of open space and public rights-of-way accounted for, approximately 2,285 acres of net developable property remain. Of this acreage, 52 percent is allocated to all forms of employment and commercial uses, 41 percent to residential use and 7 percent to institutional/cultural use. The figures on the following page describe the preliminary Land Budget for the site.

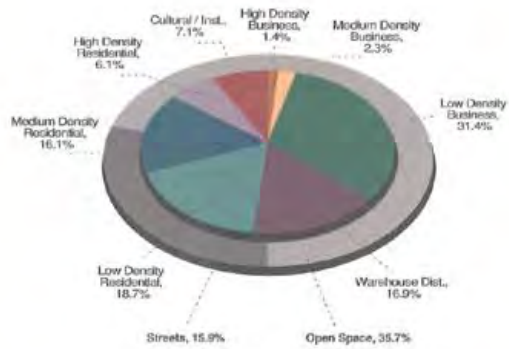
The land use plan reflects Stapleton's future role as a significant employment center.

The allocation described above supports approximately 10,000 housing units with approximately 25,000 residents (at densities that vary from three to sixty dwelling units per acre) and approximately 17-20 million square feet of office, commercial and industrial space (at floor-to-area ratios ranging from 0.3 to 1.0). In addition, 1,680 acres of parks, recreation and natural areas are provided by the development program. Portions of this system also address necessary storm drainage management and water quality improvement requirements of the site.

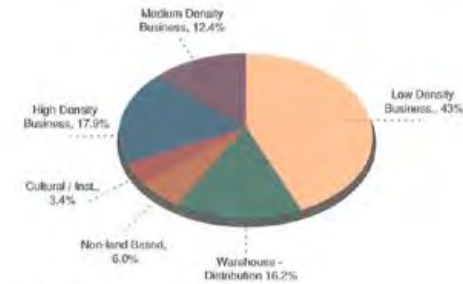
"LIKE THE TRADITIONAL VILLAGE, THE NEW KIND PROVIDES FOR A VARIETY OF HOUSING TYPES (DETACHED, TOWNHOUSE, "GRANNY FLATS" ABOVE GARAGES AND SHOPKEEPERS' APARTMENTS ABOVE THE STORES) - WHICH IMPLIES A RANGE OF INCOMES, AGES AND FAMILY TYPES."

NEWSWEEK
DECEMBER 26, 1994

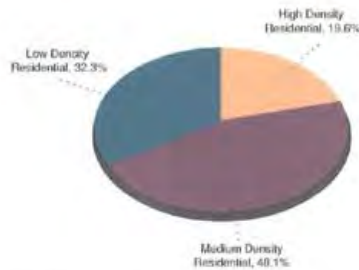
LAND BUDGET



EMPLOYMENT AND POPULATION DISTRIBUTION



On Site Employment, 31,138



Resident Population, 25,469

PRELIMINARY LAND USE ALLOCATION AND BUILDING PROGRAM SUMMARY

		BUILDING UNITS (MSF OR DU)	DEVELOPABLE (NET ACRES)	STREETS (ACRES)	OPEN SPACE (ACRES)	TOTAL (GROSS ACRES)	EMPLOYMENT OR RESID. WORKERS
Non-Development Areas							
Regional (not included in the districts)		n.a.	n.a.	39 ac*	1,154 ac	1,187 ac	n.a.
Local (within the districts)		n.a.	n.a.	175 ac*	491 ac**	666 ac	n.a.
		* (includes streets and the railroad R.O.W.)					
		** (includes community parks and local drainage.)					
		All neighborhood open spaces and local streets are included below					
Non-Residential Development							
Cultural/Inst. Public Services/Amenities	.2 F.A.R. 1000 sf/ employee	0.86 msf	99 ac	25 ac	0 ac	124 ac	864 empl (2.8%)
High Density Business/ Office/Retail	1.0 F.A.R. 250 sf/ employee	1.39 msf	32 ac	15 ac	2 ac	49 ac	5,576 empl (17.9%)
Medium Density Business/ Office/Retail	.5 F.A.R. 300 sf/ employee	1.15 msf	53 ac	18 ac	2 ac	73 ac	3,848 empl (12.4%)
Low Density Business/ Office/Retail/ R&D/Flex Light Manuf./Assembly	.3 F.A.R. 700 sf/ employee	9.37 msf	717 ac	128 ac	5 ac	850 ac	13,385 empl (43.0%)
Warehouse-Dist./ Light Manuf./Assembly	.3 F.A.R. 1000 sf/ employee	5.06 msf	387 ac	69 ac	2 ac	458 ac	5,057 empl (16.2%)
Non Land-based	6% of employees.	n.a.	n.a.	n.a.	n.a.	n.a.	1,868 empl (6.0%)
Residential Development							
Neighborhood Institutional	.2 F.A.R. 1000 sf/ employee	0.54 msf	62 ac	21 ac	(included elsewhere)	83 ac	540 empl (1.7%)
High Density Multi-family	18 du/ac avg (16+) 2.0 res/du; 36/res/ac	2,496 du (23%)	139 ac	62 ac	6 ac	207 ac	4,993 res
Medium Density Multi & Single Family	14 du/ac avg (10-17.5) 2500-4400 sf lots 2.375 res/du; 33.25/res/ac	5,161 du (48%)	369 ac	126 ac	15 ac	512 ac	12,257 res
Low Density Single Family	7 du/ac avg (3-9) 4500-14500 sf lots 2.75 res/du; 19.25/res/ac	2,989 du (28%)	427 ac	77 ac	10 ac	514 ac	8,219 res
Totals	Cultural/Institutional. Residential	0.54 msf 10,646 du	62 ac 935 ac	21 ac 267 ac	0 ac 31 ac	83 ac 1,233 ac	540 empl 25,469 res
Site Totals	Residential Cultural/Institutional. Commercial Non-development	10,646 du 1.40 msf 16.98 msf	935 ac 161 ac 1,189 ac	267 ac 46 ac 230 ac	31 ac 0 ac 11 ac	1,233 ac 207 ac 1,430 ac	25,469 res 1,404 empl 29,734 empl
Total		10,646 du 18.38 msf	2,285 ac	751 ac	1,687 ac		25,469 res 31,138 empl
Gross Development Area *					2,870 ac		
Gross District Area					3,536 ac		
Gross Site Area					4,723 ac		
Residential Average		11.4 du/acre					

*excludes non-development areas; arterial streets, principal streets, local drainage, community parks, the railroad r.o.w. and all regional parks and drainage.

The Preliminary Land Use Allocation and Building Program Summary provides a illustrative summary of the development program's land allocation, densities, square footages, unit totals and population and employment goals. The densities assumed for employment and residential uses will be influenced by market demands over time. In some areas, increased density of activity would further enhance project economics and improve the efficiency of a variety of forms of transportation and service delivery. Increased densities in some locations could increase demands on the capacities of some elements of necessary infrastructure as well. Reductions in densities below those depicted in the Preliminary Land Use Allocation and Building Program Summary could adversely affect project economics and would likely reduce the efficiency of service delivery and increase some forms of environmental impacts.

The district and neighborhood centers help establish neighborhood identity.

Districts and Centers

The land use concept for the site divides the Stapleton property into eight distinct districts. Each district is intended to support a mix of uses. The specific mix of uses depends upon location, size, site characteristics and adjacencies. The districts vary from providing great diversity to circumstances where one or more uses predominate. In every case, the goal is to promote diverse and successful communities rather than isolated, single-use developments.

Each district consists of a neighborhood, a grouping of neighborhoods or a special-use area. The districts have defined edges and an identifiable center. The edges can be natural or man-made features. Open space areas, drainage corridors, golf courses, high volume regional roadways or lower density residential neighborhoods can all serve as edges.

The district and neighborhood centers help establish neighborhood identity. Each is sized according to its role within each district. Some are modest and local in size and function, primarily serving the nearby population. Others are larger in scale, incorporating a greater mix of uses intended to service a larger population. Each center will include a public place of some kind (a park, square, community garden), an educational facility (elementary school, daycare, etc.) and a public transit stop. These centers can also serve as a location for other public buildings and uses (church, post office, library, meeting hall). In addition, the centers can provide retail services and employment opportunities within walking distance of home or workplace.

Mixed Use Districts

Mixed use districts are essential to achieving the project's social, economic and environmental goals. Mixing of uses has far-reaching implications with respect to crime, economic and social diversity, transit and access, operating costs and utility costs.

Crime - Planning for a variety of residential uses adjacent to and within commercial developments will allow thoughtful introduction of people and activity to areas which would otherwise be dormant after business hours. Potential benefits may include reduced crime and vandalism, helping to increase land values.

Diversity - Mixed-use and mixed-density developments can help achieve economic and social diversity by providing a variety of housing products for family sizes, age groups and economic levels. A diverse neighborhood will encourage regional migration to the site.

Transit and Access - Mixed-use developments encourage the use of transit by generating many relatively short trips. These trips are spread throughout the day creating a steady demand for transit as opposed to the peak morning and evening rush hours.



Illustrative plan showing the possible buildout of the District I center. A series of uses are grouped around a two acre neighborhood park or square. They include community gardens, day care, an elementary school, a bus stop, services, neighborhood businesses, church sites and elderly midrise housing.

Operational Costs - The proper integration of design elements in a mixed-use development results in operational savings in energy, maintenance, security, management, communications, utility access, parking and water supply.

Utility Costs - Mixed-use developments diversify energy and utility demands which causes a lowering of peak usage. In turn, this can cause a reduction in utility rates.

Traditional Denver residential neighborhoods such as Park Hill, Washington Park and Congress Park have pockets of increased density and mixed use which enhance the quality of life within these neighborhoods. Future neighborhoods of Stapleton will share these qualities and exploit the benefits outlined above.

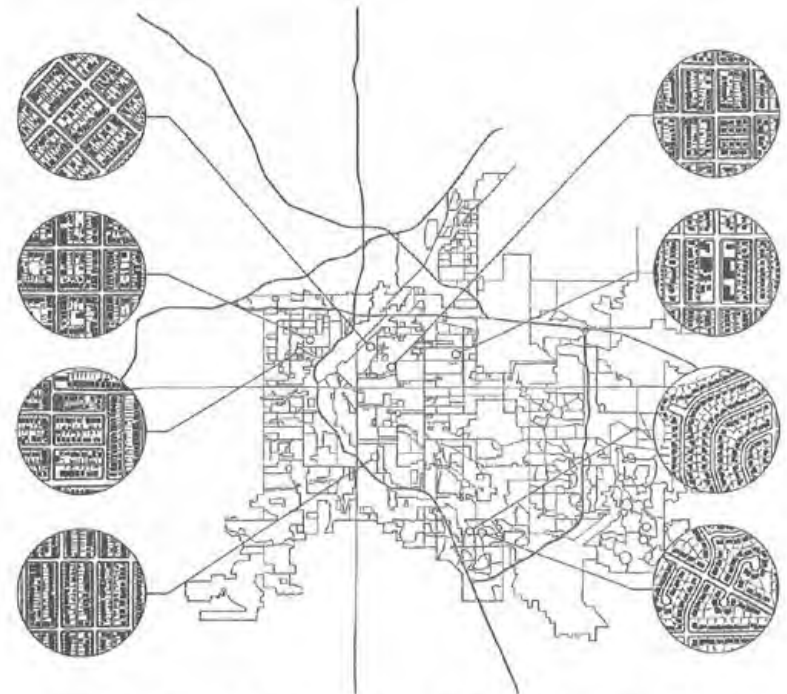
The density of residential or employment-related development in each district is typically described with net dwelling units per acre (for residential development) or floor-to-area ratio (for employment-related development). Both of these measures can be confusing and easily misinterpreted. Dwelling units per acre can vary substantially depending on the type and mix of housing units as shown in the adjacent chart.

HOUSING TYPE	DENSITY
1. Large lot, single family, detached	3-5 dwelling units/net acre
2. Medium lot single family, bungalows, cottage, patio homes	6-9 dwelling units/net acre
3. Zero lot line single family, townhouse	8-12 dwelling units/net acre
4. Townhouses with stacked flats	10-14 dwelling units/net acre
5. Two families, three families, carriage houses	10-20 dwelling units/net acre
6. Courtyard apartments, garden apartments	20-30 dwelling units/net acre
7. Apartments, stacked flats	30-50 dwelling units/net acre
8. Mid/high rise apartment buildings (assumes decked parking)	60+ dwelling units/net acre

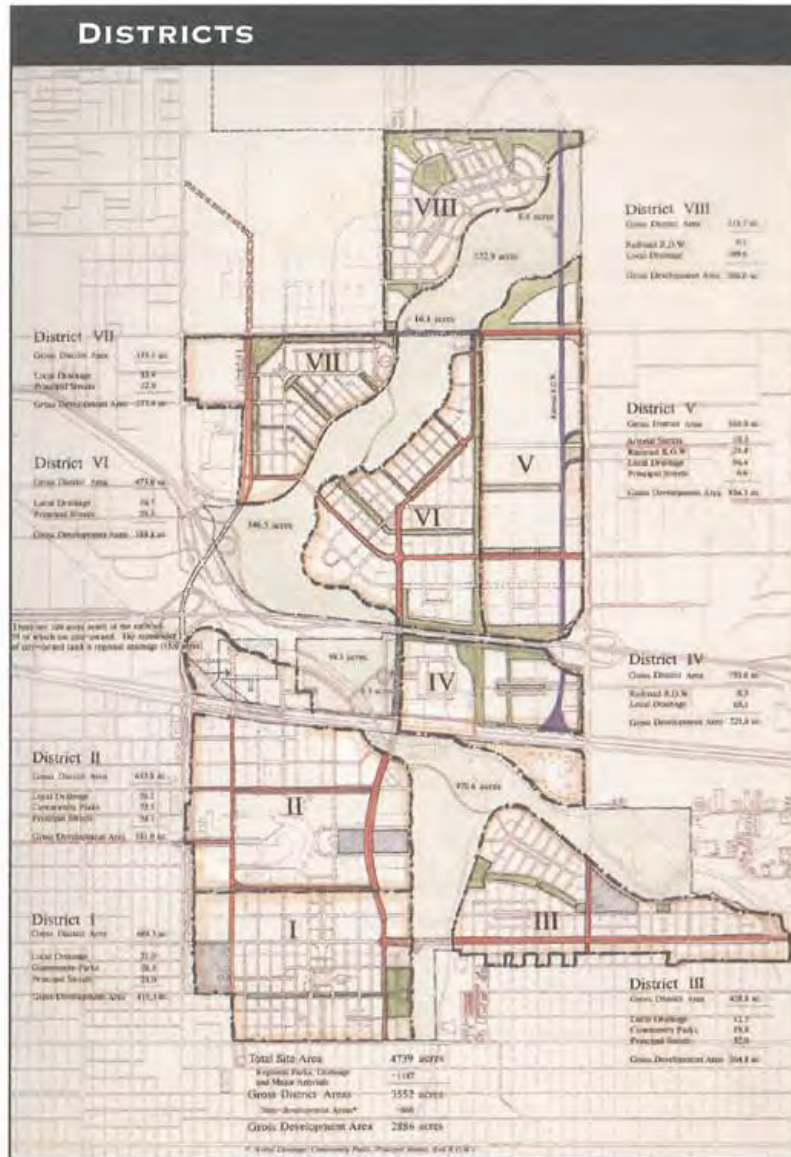
Average residential densities for the different districts range from eight dwelling units/acre to 18 dwelling units/acre. Eight dwelling units per acre is considered to be the minimum necessary to support public transit.



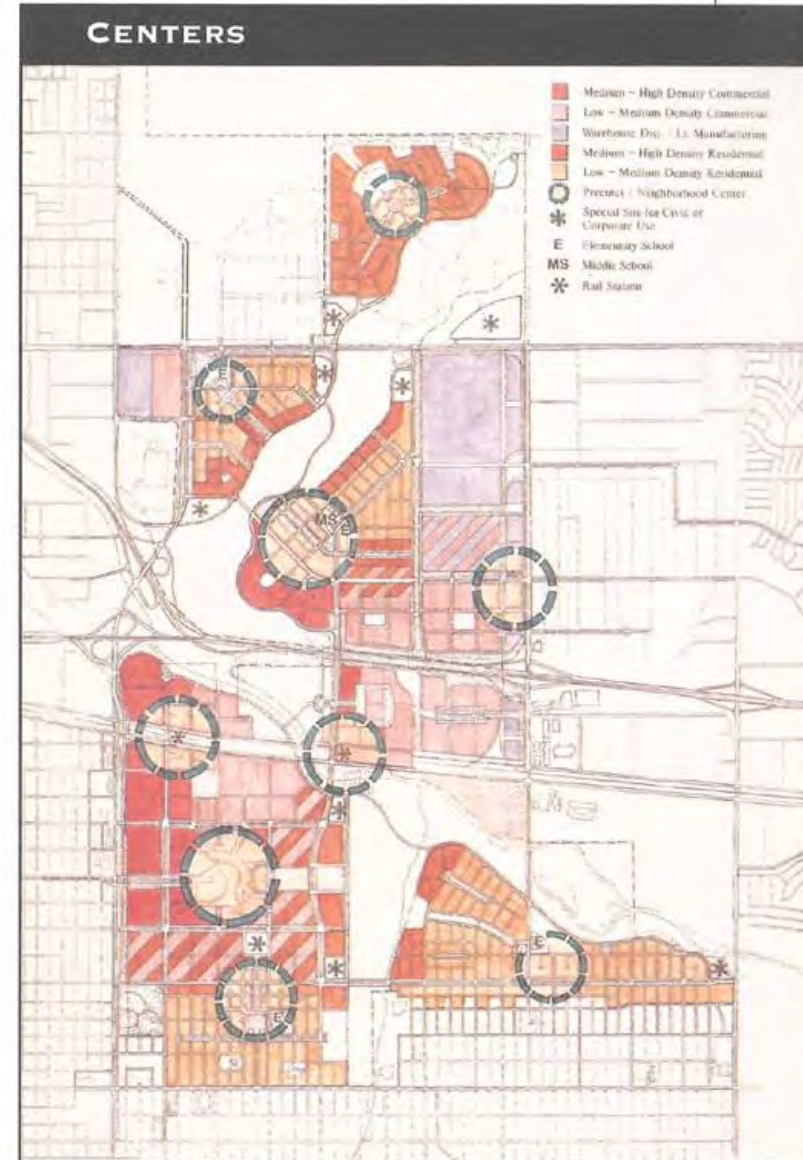
The Park Hill neighborhood, immediately west of Districts I and II, is shown in an aerial view. The residential street grid and alley pattern will be repeated in new Stapleton neighborhoods as will the integration of institutional, commercial and other land uses.



Denver residential neighborhoods reflect a great variety of block patterns, densities and mix of uses.



Major streets and open space improvements define eight land use districts within the Stapleton Development Plan. These land use districts are intended to support a mix of uses, but each with a separate and distinct character. The goal of each district is to promote diverse and successful communities rather than isolated, single-use developments. General character, scale and densities are defined, but substantial flexibility is provided for a variety of market responses.



Each district will contain a district center to help establish neighborhood identity. Uses within each center will vary, but at a minimum will include a public area (park, square, community garden), an educational facility (elementary school, daycare), and a transit stop. Many centers will include employment, and larger centers may also contain retail, commercial services and other public buildings.



The urban intersection of Drake and Lemay in East Fort Collins demonstrates the successful integration of land uses. The Woodward-Governor industrial campus occupies the northwest corner (upper right). A lake and luxury housing are to the northeast. A church complex is on the southeast corner. A retail center and multi-family housing is to the southwest.



Wallace Park in the Denver Technological Center provides a shared amenity that buffers high density office and residential towers on the west from lower density townhome and single family housing development to the east.



The Cherry Creek neighborhood today provides an example of a major regional destination and activity center, surrounded by an area that transitions from medium density commercial, office and residential uses to a predominately residential environment of single family homes and townhouses. A transition similar to this one may occur in the terminal area (District II) on the Stapleton site. Regional destination uses at the terminal may be surrounded by a mix of office, commercial and housing uses that will ultimately transition to the single family housing in District I and adjacent existing neighborhoods.

While the projected buildout density of a district will remain constant to preserve its ultimate character, the mix of individual uses which will define the density may vary in response to demographics, economics and lifestyle changes. For instance, a net density of eight dwelling units per acre will be realized under either of the following scenarios:

SCENARIO 1	% *	SCENARIO 2	% *
Garden apts., townhouses	25	3 story apts., garden apts.	20
2-3 families	20	2-3 families	10
Small lot single family	20	Small lot single family	30
Large lot single family	35	Large lot single family	40

*of net land area

Within any given district, the site will be able to accommodate a variety of product types and densities while still meeting the overall density and land use goals which will ultimately define the character of the district.

Floor-to-area ratio (FAR) describes the extent of development on a given site in comparison to the site's overall area. For example, if an office building covers 25 percent of a site and is one story in height, the FAR is 0.25. If the building is four stories in height, the FAR would be 1.0. The building has a floor area equivalent to covering the entire site with a one-story building. FAR is a useful measure, although density calculations based solely on FAR can be deceiving. Low density, suburban style office parks can have very low FARs due to the significant amount of land devoted to surface parking and landscaping, but still accommodate individual structures of substantial height and mass.

STAPLETON DEVELOPMENT PLAN

CITY AND COUNTY OF DENVER, WELLINGTON E. WEBB- MAYOR
STAPLETON REDEVELOPMENT FOUNDATION, HARRY T. LEWIS, JR.- CHAIRMAN
CITIZENS ADVISORY BOARD, REVEREND PAUL MARTIN- CO-CHAIRMAN
LAWRENCE A. ATLER- CO-CHAIRMAN



THIS DOCUMENT IS PRINTED ON RECYCLED
PAPER WITH SOY-BASED INKS.

MARCH 1995



Fellow Citizens and Interested Readers:

It is with great pride that we present to you the Stapleton Development Plan. This document and its supporting material have been developed by our community to provide a blueprint for the reuse of the 4,700 acre Stapleton International Airport site.

Stapleton has served the aviation needs of our community for more than 65 years. The relocation of aviation activities to Denver International Airport provides an unprecedented opportunity. The Stapleton site is a community - owned asset whose use will have enormous implications for the future of Denver, the region and Colorado. Our goal is to insure that the reuse program for this seven and one half square mile site addresses important community objectives and can be successfully supported over time by the marketplace and our community.

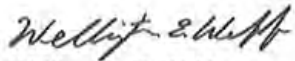
The Development Plan presented here describes the conversion of Stapleton over a 30 to 40 year period to a series of vibrant, mixed use communities connected by an extensive system of open space and transportation improvements. The elements of the Development Plan are united by a commitment to a sustainable form of development. As a result, the Plan emphasizes such things as the integration of housing and recreation within a regional employment center, walkable scale communities that promote diversity and reduce dependence on the automobile, reduced consumption of resources and impacts on the potential of each citizen. Stapleton will be a place of economic, social and environmental innovation that will provide a new development model for the region.

An additional strength of the Development Plan is in the connections it forges between Stapleton and the surrounding community. Stapleton has been a fenced and secured island for two thirds of a century. The former Rocky Mountain Arsenal to the north and Lowry Air Force Base to the south removed an additional 30 square miles of land from public access. These facilities together have created enormous holes and discontinuities in the urban fabric of northeast Denver. The conversion over time of all three of these sites will produce substantial change. The Stapleton Development Plan creates strong ties between this site and the future wildlife refuge at the Arsenal and the educational, recreational, residential and business activities at the Lowry site. In addition, the Plan seeks to reunite the Stapleton site with adjacent neighborhoods in Denver, Aurora and Commerce City.

This plan is the product of a substantial commitment of time, energy and money by many participants. The effort has benefited from the dedicated participation of many elected officials and staff of the City and County of Denver, as well as the Stapleton Redevelopment Foundation, a talented team of local and national technical consultants, and many other public and private organizations. The creation of the Development Plan has also benefited from an unprecedented investment by the local philanthropic community who provided a large portion of the resources necessary to support the Foundation staff and professional consultants involved. Most importantly, the Development Plan has been enriched by the thousands of hours of effort contributed by members of the Citizen Advisory Board, and by the individual citizens who have taken the time to participate in the process. The effort made collectively by all these people demonstrates the affection they share for this community and their desire to shape its future.

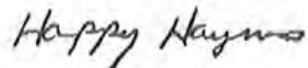
The Development Plan has been formally approved by the Denver Planning Board and adopted as an amendment to the City and County of Denver's Comprehensive Plan by the City Council. The Plan is one part of a package of activities necessary to advance this redevelopment program. Concurrent with the adoption of the Plan are the tasks of establishing a new public development entity to provide long-term stewardship of the site and project, marshaling the human and financial resources necessary to initiate redevelopment and pursuing the initial projects that will begin to give life to the Plan.

Stapleton will be part of the legacy we leave for future generations. If it provides a model for addressing the economic and social needs of people while respecting our natural world, it will be a legacy of which we can all be proud. We benefit daily from the beauty and opportunity created by the vision of DeBoer, Speer, Crammer and so many others over the last century. In their spirit, we must ensure that a century from today Stapleton will be making a similar contribution to the beauty and vitality of this Queen City at the convergence of the mountains and plains.



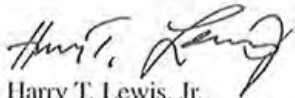
Wellington E. Webb

Mayor, City and County of Denver



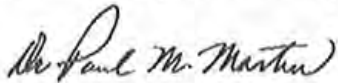
Allegra "Happy" Haynes

District 11, Denver City Council



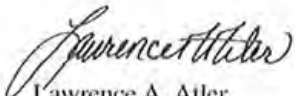
Harry T. Lewis, Jr.

Chairman, Stapleton Redevelopment Foundation



Reverend Paul Martin

Co-Chair, Citizens Advisory Board



Lawrence A. Atler

Co-Chair, Citizens Advisory Board

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I. EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

After 65 years of aviation activity, Stapleton International Airport is about to undergo a transformation...



INTRODUCTION

After 65 years of aviation activity, Stapleton International Airport is about to undergo a transformation which will take at least 30 to 40 years to complete. The Stapleton Development Plan describes a physical, social, environmental, economic and regulatory framework intended to guide this transformation over the next several decades. It describes a new approach to development, a real world example of sustainable development of significant scale. Emerging over time on the Stapleton site will be a network of urban villages, employment centers and significant open spaces, all linked by a commitment to the protection of natural resources and the development of human resources.

The Development Plan has been adopted by the City Council as an amendment to the City's Comprehensive Plan. It is supported by the Development Plan Resource Document which contains illustrative examples as well as extensive detailed technical support material. The Resource Document was not intended to be adopted by the City Council.

Planning for the future of Stapleton has been ongoing since 1989, beginning with the Stapleton Tomorrow process and culminating with this Development Plan. This Plan is the product of a partnership between the City and County of Denver, the Stapleton Redevelopment Foundation, a Citizen's Advisory Board appointed by the Mayor and a highly skilled technical consulting team. Throughout the process, more than 100 community presentations and meetings were held to insure community-wide participation and input.

CONTEXT AND OBJECTIVES

The redevelopment program will be presented with many challenges and opportunities. The national and international context requires attention to the economic realities of a more global and more competitive marketplace, as well as the worldwide challenge to reduce natural resource consumption and the potential for global climate change. Locally, the

Stapleton site provides an opportunity to address important community needs resulting from a shifting job base, demographic change and renewed pressures on the stability of many neighborhoods. The Plan must also distinguish the site from other large scale projects within the City and County such as the Airport Gateway, Lowry, the Central Platte Valley and downtown. In addition, the Development Plan must respond to the specific market and neighborhood context of the site, and the significant changes resulting from conversion of the nearby Rocky Mountain Arsenal and Lowry Air Force Base to new civilian uses.

Over the course of the last six years, there has been a great deal of discussion of the variety of objectives held by the community for the reuse of the Stapleton site. The principle questions have been:

- *What is the appropriate role of the Stapleton site in the regional economy and its relationship to other community centers?*
- *How can Stapleton contribute to improvement of the environment for surrounding neighborhoods and increased access and opportunities for their residents?*
- *How can Stapleton respond to the development and environmental challenges we face locally and globally?*
- *How can Stapleton respond to the significant social and demographic changes taking place and create diverse, successful urban communities?*
- *How can Stapleton succeed in the marketplace and fulfill the disposition obligations of the Denver airport system?*

In 1991, the City Council adopted the Stapleton Tomorrow Concept Plan, which identified the following eight basic objectives for reuse of the site. These objectives continue to enjoy broad community support and have provided the foundation upon which the Stapleton Development Plan has been built:

1. Generate significant economic development.
2. Produce a positive impact on existing neighborhoods and businesses.
3. Enhance environmental quality throughout the site and surrounding areas.
4. Create a positive identity unique to Denver and the surrounding region.
5. Promote high standards of urban design.
6. Generate revenues through appropriate asset management to help fund DIA.
7. Create substantial educational and cultural opportunities and support systems.
8. Provide balanced transportation options and spacious parks and open space.

Creation of the Development Plan was guided by a set of principles developed by the project team staff and the Citizens Advisory Board. These principles address the economic, social and environmental objectives of the project, as well as the physical design of the community and the methods used to manage and implement the project over time.

The Stapleton site will be a network of urban villages, employment centers and significant open spaces, all linked by a commitment to the protection of natural resources and the development of human resources.

"THE HISTORY OF A
NATION IS ONLY THE
HISTORY OF ITS VILLAGES
WRITTEN LARGE."

WOODROW WILSON, 1900



Strong Connections



Mixed Use Communities



Walkable Scale

THE DEVELOPMENT PLAN

The Development Plan created for Stapleton is a direct response to the project's community context and the adopted principles. Stapleton will be a unique mixed-use community capable of supporting more than 30,000 jobs and 25,000 residents. More than one third of the property will be managed for parks, recreation and open space purposes. Developed portions of the site will provide an integrated mix of employment, housing, recreation and access to public transportation. Stapleton's reuse will support the health of surrounding neighborhoods and provide strong ties to the adjacent Rocky Mountain Arsenal National Wildlife Refuge and the Lowry education campus.

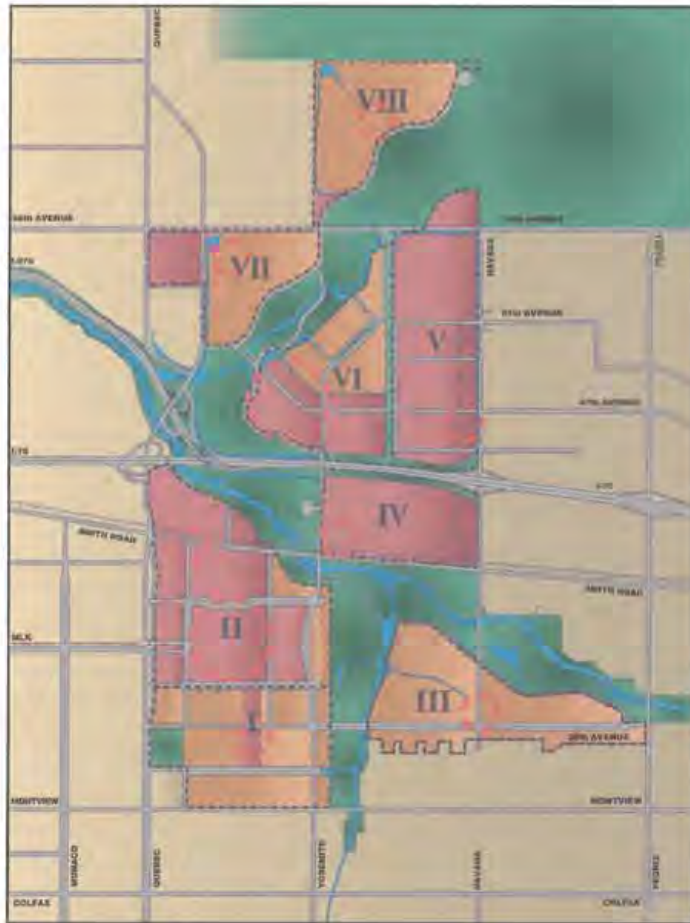
Development is organized in eight distinct districts. Each district contains an identifiable center and emphasizes the integration of employment, housing, public transportation and walkable scale. The Plan reinforces Stapleton's role as a regional employment center through the creation of compact, accessible communities that integrate uses and create strong ties between the Stapleton site and the surrounding community. The open space system serves a major role in unifying the eight districts making effective regional connections and restoring the ecological health of natural systems on and off the site.

An employment base of 30,000 - 35,000 jobs can be readily accommodated over time on the site. The Havana Street corridor and areas north and south of I-70 provide significant opportunities for creating a manufacturing, assembly and distribution base on the site. These areas offer rail service and easy interstate access. Section 10 on the far north and the interior area above the I-70 corridor provide significant office and research and development opportunities. The area surrounding the existing terminal will become a regional destination offering a mix of exhibition, entertainment, retail, office and other uses. Each neighborhood center on the site will also provide opportunities for employment. In total, the Development Plan allocates roughly 1,200 acres, or 54% of the developable land, to employment use.

The Plan also emphasizes establishing the site as a national center for the development of environmental technologies, products and services; creating an environmental technology incubator to support start up firms; creating training and skill development programs designed to provide area residents with the work skills needed by employers operating on the Stapleton site; and developing programs that encourage the participation of youth and entrepreneurs, particularly from minority communities.

Creation of the Development Plan was guided by a set of principles . . . These principles address the economic, social and environmental objectives of the project, as well as the physical design of the community . . .

Stapleton's mixed use neighborhoods can accommodate an ultimate population of approximately 10,000 households. The average density of residential areas for the entire site is roughly 12 units per acre, sufficient to support reasonable public transportation service. Higher densities are provided for in close proximity to neighborhood centers, transit stops and major public amenities. Each neighborhood on site is organized around a center and provides a variety of mobility options beyond the automobile including walking, bus, bicycling, rail transit (along the Smith Road corridor) and the use of telecommunications to substitute for the need for travel. School facilities will be located in neighborhood centers,



will be multi-use community facilities and will play a central role in the life of the surrounding neighborhood. Stapleton neighborhoods will provide a range of housing types and densities that support diversity.

The Stapleton open space system includes more than 1,600 acres of parks, trails, recreation facilities and natural areas. The principle trail corridors are along Sand Creek, Westerly Creek and the newly created open space corridor connecting Sand Creek with the Rocky Mountain Arsenal National Wildlife Area. The system includes a championship golf course above I-70 and a nine-hole learning course along Westerly Creek. A major ballfield and outdoor recreation complex is located between Sand Creek and I-70 west of Yosemite Parkway. An urban agriculture center and equestrian facility are

accommodated on the north side of Sand Creek just west of Havana Street. A major urban park is provided at the confluence of Sand and Westerly Creeks, as well as a number of smaller scale parks and public spaces. Parkways and landscaped drainageways connect neighborhoods to each other and to the major components of the open space system. Significant areas of prairie and riparian corridor restoration, particularly in the northern half of the site, will dramatically increase the wildlife habitat provided by the site. A 365-acre Prairie Park in the far northern portion of the site, primarily above 56th Avenue, will be the centerpiece of these restoration efforts.

The project's sustainable development philosophy is reflected in many different aspects of the program. Land use planning and community design stress compact, mixed use communities that are walkable and transit-oriented. These characteristics can reduce automobile dependence and emissions and increase the efficiency of service delivery. Approaches to community infrastructure stress water reuse, energy and water conservation, renewable sources of energy supply and innovative stormwater management approaches to maximize opportunities for on-site irrigation and water quality improvement. The solid waste management strategy seeks to achieve a zero net contribution from the site to local landfills, in part through the creation of a "resource recovery village" on site to promote waste minimization, recycling and reuse. Transportation technologies emphasize bus and rail transit, bicycling, walking and alternative fuels for vehicles. The Development Plan also emphasizes the need to support demonstrations of technologies and practices on site that support the project's basic sustainable development objectives.

Funding

Development of the site in accordance with the Plan will require significant infrastructure including major transportation improvements such as public transit, roadways and bridges; utilities; drainage in greenways; parks and parkways; and community facilities such as schools, libraries and recreation facilities. The estimated cost of this infrastructure is approximately \$288 million (in 1994 dollars). Financing will come from a



Parks and Open Space



Habitat Restoration



Stormwater Management

"A GARDEN CITY IS A TOWN DESIGNED FOR HEALTHY LIVING AND INDUSTRY; OF A SIZE THAT MAKES POSSIBLE A FULL MEASURE OF SOCIAL LIFE, BUT NOT LARGER; SURROUNDED BY A RURAL BELT; THE WHOLE OF THE LAND BEING IN PUBLIC OWNERSHIP OR HELD IN TRUST FOR THE COMMUNITY."

EBENEZER HOWARD, 1898



Public Realm



Private Development

variety of sources, depending upon the type of improvement and the relative benefit to the local community and/or region. Funding will be obtained through a combination of infrastructure fees, local tax and assessment districts, private capital, state and federal transportation funding, grants, general municipal revenues, tax increment financing, Airport System revenues, connection fees and special districts.

Regulatory and Market Mechanisms

Perhaps one of the more significant challenges associated with the Stapleton project is the creation of regulatory approaches, market mechanisms and programs which together can encourage achievement of the project's sustainable development objectives. As an example, creation of the type of mixed use communities desired for Stapleton will require an innovative approach to land use and design regulation. The approach recommended includes three components: 1) broad land use controls defining the general use, density and character of development at a site-wide level, 2) more detailed design controls for individual districts, and 3) a mix of standards and programs applicable at the individual project scale.

MANAGEMENT STRUCTURE

Adoption of the Plan is an important step towards redevelopment. Equally important is the type of management structure created to guide the site's disposition and development. After significant analysis by a work group comprised of representatives of the City and County administration, City Council, the Stapleton Redevelopment Foundation, the Citizens Advisory Board and the Denver Urban Renewal Authority (DURA), a preferred scenario emerged. This scenario involves the City and County and DURA entering into an agreement to create a third structure, a nonprofit development corporation which would assume responsibility for management of the site and redevelopment.



The development corporation would be governed by a board of directors appointed by the Mayor and DURA Commissioners and confirmed by the Denver City Council. The development corporation would function under a contract with the City and County of Denver specifying its authority and responsibilities. It is intended that the corporation ultimately be financially self-sufficient and recover the costs of its operations from the revenues generated by its activities. Initial start up will likely require support from the City and County and/or other public or philanthropic resources.

EARLY ACTION ITEMS

The development corporation will have several immediate priorities to address related to project finance, marketing, communications, planning, infrastructure design, project management, asset management, pursuit of demonstration opportunities and additional studies. These priorities are summarized below. Work has already commenced in many of these areas. In addition, a phasing strategy has been developed which identifies Districts I and V as areas of initial development for residential, business and other uses.

1. Redevelopment Management Structure

- define character and role of the organization
- appoint the Board of Directors
- determine funding mechanisms
- identify and hire staff

2. Regulatory and Institutional Structure

- prepare and adopt site infrastructure and subdivision plans
- adopt master rezoning ordinance
- permanently designate open spaces through conveyance, easement, dedication or other mechanisms, as appropriate
- develop regulatory incentive and programmatic structures to support the development program's environmental, social and economic objectives
- establish a Transportation Management Organization

3. Finance

- develop initial infrastructure funding mechanisms
- identify initial carrying cost funding sources
- identify initial environmental remediation funding sources
- develop open space funding structures
- develop final impact fee structure

4. Marketing/Communications

- develop and implement land marketing program
- develop and implement existing building marketing program
- develop communications and public outreach program
- develop and implement strategies to attract environmental science and technology firms

5. Planning and Infrastructure Design

- develop plans for initial northern site storm drain improvements and diversion of Havana ditch flows from Havana Lake
- identify and design infrastructure improvements for subareas of Districts I and V
- complete design of Sand Creek corridor restoration improvements
- complete design of Westerly Creek channel restoration improvements
- commence planning and design for the learning golf course adjacent to Westerly Creek
- commence design of the District VIII Prairie Park
- continue Section 10 design coordination with the Rocky Mountain Arsenal National Wildlife Refuge planning and Commerce City's planning of Section 9
- prepare tree planting program for Montview Boulevard

6. Project Management

- complete terminal reuse solicitation process
- initiate first phase of airfield recycling program to support new road and site improvement construction
- construct 56th and 51st Avenue roadway improvements
- construct northern site stormwater management improvements and diversion of Havana ditch flows from Havana Lake
- construct infrastructure improvements for subareas of Districts I and V
- commence Sand Creek corridor restoration and trail development
- commence Westerly Creek channel, water quality, stormwater management and trail improvements
- continue on site environmental remediation activities
- coordinate with the Denver Smart Places Project
- complete King Soopers and Union Pacific transactions and manage development of these initial business environments
- initiate tree planting program along Montview Boulevard



Street Connections



Transit Options



Multi-Use Trails

7. Asset Management

- implement property management program
- implement site security program
- selectively demolish and recycle structures and airfield improvements
- implement interim management and events program

8. Demonstration Opportunities

- Pursue homebuilding demonstration opportunities for District I with partners interested in promoting resource conservation and other sustainable development objectives.
- Pursue infrastructure demonstration opportunities, including water reuse for golf course and open space irrigation and waste minimization, reuse and recycling through initial elements of a resource recovery program.

9. Additional Studies

- evaluate village scale energy system application to Phase I neighborhood development
- develop a tree planting program
- develop short and long-term water and wastewater management strategy
- identify feasibility of a solid waste resource village
- continue joint visitor facility and program planning with U.S. Fish and Wildlife Service
- participate in the RTD rail corridor alignment
- identify and complete necessary environmental studies
- evaluate and recommend appropriate open space management strategies
- participate in the DRCOG I-70 corridor study
- identify and evaluate options to provide innovative educational opportunities

10. Social and Economic Strategies

- Create a business plan for the Center for Environmental Technology and Sustainable Development including pursuit of an environmental business incubator.
- Develop a program to expand entrepreneurial skills of surrounding and new residents.
- Create a task force to develop an education and job training delivery model for Stapleton and to identify specific K-12 educational options for future residents.

**Reuse of Existing Facilities****Recycling of Airfield Paving**

- Pursue establishment of, and funding opportunities for, school to work programs with employers recruited to the site.
- Evaluate Stapleton buildings for reuse as educational or community facilities.
- Initiate collaborative planning efforts with Aurora to rejuvenate the area between Stapleton and Lowry.

Conclusion

Redevelopment of the Stapleton site presents a significant opportunity to shape the future of our community. The Stapleton Development Plan describes a framework and some new approaches — to planning and design, to markets and regulation and project management. The Plan describes a very ambitious agenda, but one that is within the capacity of the community to achieve.

IF THE DEVELOPMENT OF STAPLETON FOLLOWS THE DIRECTION OUTLINED IN THIS DEVELOPMENT PLAN, WHAT WILL THE COMMUNITY HAVE GAINED?

First - a job base that increases the depth and diversity of the regional economy, oriented towards expanding markets. Development of this job base must be accompanied by an increased commitment to develop skills in all segments of the population to participate in this job base.

Second - communities that can work in the 21st Century, combining the best of the old and the new. The communities created at Stapleton will excel in training and educating people. They will be better prepared to support diversity, encourage participation and local control and satisfy the needs of people. Community structure and technology will promote rather than diminish a sense of community.

Third - an unprecedented expansion of open space and recreational opportunities. The benefits of these resources will accrue to the entire region.

Fourth - a start in reversing the trend towards living beyond the capacities of the natural environment. Stapleton will consume far less and produce far fewer impacts. It will do so not at the expense of people and economic needs, but as a fundamental part of the community's approach to addressing these needs.



II. INTRODUCTION AND BACKGROUND

A. INTRODUCTION

The closure of Stapleton International Airport in 1995 marked a unique moment in Denver's history. Sixty-five years of aviation activity came to an end.

Stapleton's closure also marked an important beginning. Denver is faced with the largest urban redevelopment opportunity in its history — 4,700 acres of publicly owned land in the heart of the City.

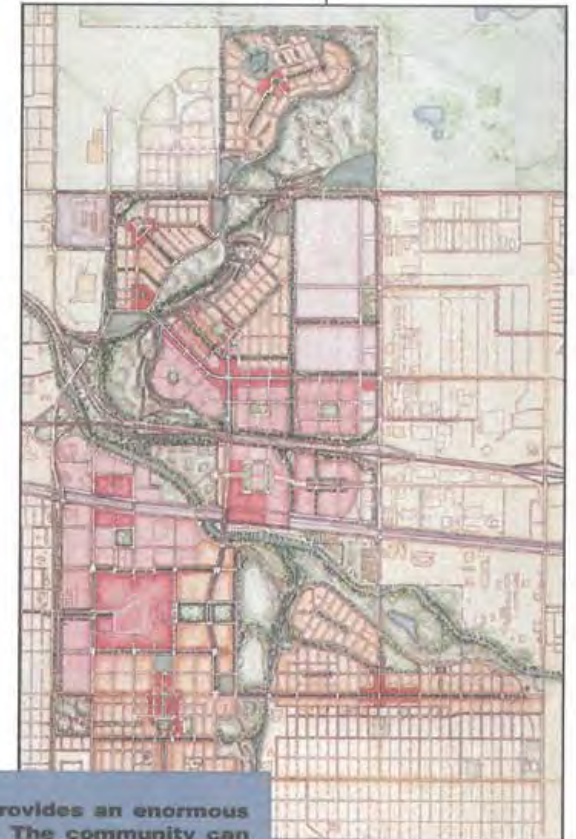
Stapleton sits at the center of a major transformation taking place in the northeast portion of the metropolitan area. Three significant public sites - the Rocky Mountain Arsenal, Stapleton and Lowry Air Force Base - are all undergoing dramatic change. Weapons production, military training and commercial aviation will give way to a major wildlife refuge, mixed-use community and civilian educational and training campus. These changes provide an unprecedented opportunity to shape the future of the Denver area.

What will the people of Denver do with this opportunity?
How can the community make the most of it?

For more than five years, public, private and nonprofit organizations have been working with Denver area residents to answer these questions. The results of these efforts are presented in this Development Plan — a blueprint for the transformation of the Stapleton site and the Denver community.



Stapleton is currently an island. It is a single use asset, with regional exposure but limited access, surrounded by urban development. How should the people of Denver transform such an asset and integrate it with surrounding neighborhoods and communities?



Stapleton provides an enormous opportunity. The community can shape its long-term future by offering a new model for development. Stapleton must succeed in the marketplace and demonstrate the viability and wisdom of a more sustainable approach to economic and human development. This Development Plan describes that path and addresses the challenges that must be faced along the way.



A New Approach

The redevelopment of the Stapleton site will take at least 30 to 40 years to complete. The decisions made with respect to the site will influence the Denver community for many generations to come. Redevelopment presents an unparalleled opportunity for leadership. The world is desperately searching for better examples of how urban communities can adapt and renew themselves. Stapleton can address important local needs and provide an important model. The community planned for the Stapleton site will provide a real world example of sustainable development of significant scale. Sustainable development, in the words of the United Nations, describes a community that can “meet the needs of the present without compromising the ability of future generations to meet their own needs”.

What will emerge over time on the Stapleton site will be a network of urban villages, employment centers and significant open spaces — all linked by a commitment to the protection of natural resources and the development of human resources. Stapleton’s new neighborhoods will reconnect adjacent neighborhoods and promote a strong sense of community. With proper stewardship, Stapleton will become a truly lasting legacy, a tribute to Denver’s ingenuity — and its integrity — for decades to come.

GOALS

The development of Stapleton will be guided by three fundamental goals:

- 1. Economic Opportunity.** Stapleton will be a regional center for job creation in diverse fields, with an emphasis on new technologies and emerging industries. When completed, Stapleton could support more than 30,000 jobs and 25,000 residents, becoming a major contributor to the long term economic health of the city.
- 2. Environmental Responsibility.** Stapleton will demonstrate the economic and community benefits of a long-term commitment to reducing consumption of natural resources and impacts on the natural environment. Human activities will be conducted in a fashion that acknowledges and respects the importance of natural systems.
- 3. Social Equity.** Stapleton will provide broad access to social, cultural and economic opportunities for all segments of the community. Successful redevelopment of the Stapleton site will be a catalyst for improvement in the larger community, and particularly in the neighborhoods surrounding the site.

Fulfilling these goals will require substantial innovation in the physical design of the Stapleton community and the institutional arrangements used to guide its development. A strong commitment to honor diversity and to ensure broad-based participation of minorities and women in all opportunities provided by Stapleton is fundamental to the redevelopment program. In addition, Stapleton must be a pioneer in crafting market-based responses to community, social and economic needs and protection of the natural environment. These attributes will provide Stapleton with a unique identity that will distinguish it locally, nationally and internationally from other large-scale development programs.

How the Development Plan is Used

The Development Plan is the statement of the community's goals for the site's redevelopment and defines the direction for the redevelopment program. It describes a physical, social, environmental, economic and regulatory framework to guide development of the site over the next several decades. The framework is intended to endure over many years and provides the context within which private investment and land ownership can occur. The Development Plan is also intended to provide an effective context for early decision-making regarding important components of the redevelopment program. Although the Plan provides extensive information on the topics mentioned above, no plan can cover every topic in exhaustive detail, and a reasonable amount of flexibility must be retained in any event when addressing the buildout of a community over several decades.

The Development Plan has been adopted by the City Council as an amendment to the City's Comprehensive Plan. It is supported by The Development Plan Resource Document which contains illustrative examples as well as extensive detailed technical support material. The Resource Document was not intended to be adopted by the City Council.



Shatfif and Rozinski



Shatfif and Rozinski



B. BACKGROUND

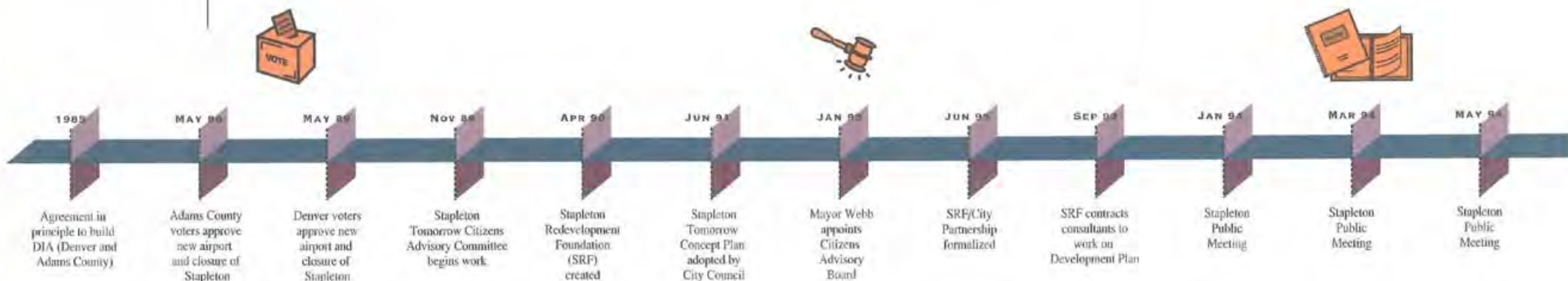


Stapleton Airport has grown dramatically over 65 years. Capacity constraints and community concerns led to the decision in 1985 to relocate aviation activities.

Process History

Stapleton International Airport has served the Denver area's commercial aviation needs for 65 years. Discussion of expansion or replacement of Stapleton began in the 1970s and grew more urgent in the early 1980s. The airport experienced significant growth in passenger volumes and air traffic throughout the 1970s and during the first half of the 1980s. Stapleton's primary capacity constraint was the lack of adequate separation between its runways to support dual arrival streams under reduced visibility conditions. A significant portion of the delays experienced at Stapleton resulted from this limitation. With separation of 800 feet between the east/west runways and 1,600 feet between the north/south runways, Stapleton fell far short of the required 4,300 foot minimum. In addition, dramatic growth in aviation activity led to significant neighborhood opposition to airport operations and expansion proposals.

In January of 1985, representatives of the City and County of Denver and Adams County announced an agreement in principle to relocate commercial aviation operations to a new site north-east of Stapleton. Subsequently, this plan and the agreements required to implement it were approved by the voters of Adams County in May of 1988 and by the voters of the City and County of Denver in May of 1989. Stapleton's closure at some time in the first half of the 1990s thus became a virtual certainty.



Relationship to the 1989 Denver Comprehensive Plan

In 1989, the Mayor and City Council adopted a new Comprehensive Plan that contains the community's vision for the future and identifies broad policies, priorities and specific actions intended to move the city toward that vision. Because of the size and complexity of the city, the plan cannot contain sufficient detail on every neighborhood or issue in the city. More focused direction is provided through detailed neighborhood or subarea plans, such as this plan for Stapleton, or functional plans, such as the Parks Master Plan. Each plan must be consistent with the overall direction of the Comprehensive Plan and is reviewed by the Planning Board and adopted by the City Council as an amendment to the Comprehensive Plan. Each plan is then used to guide decision-making about the area.

In the Comprehensive Plan, Denver citizens expressed their vision for the city: "the fundamental thing we want Denver to both be and become is a city that's liveable for all its people." The Comprehensive Plan identified ten core goals related to Denver's economic, environmental and social needs. Specifically, these core goals are:

1. Stimulate the economy
2. Beautify the City and preserve its history
3. Protect, enhance and integrate a city of neighborhoods
4. Educate all of Denver's residents with excellence

5. Clean the air, now
6. Meet expanding transportation needs, efficiently, cleanly, economically and innovatively
7. Help the disadvantaged help themselves
8. Revise land use controls, streamline the procedures
9. Celebrate the City's arts, culture and ethnic diversity
10. Share resources and responsibilities in the metropolitan area.



OCT 94

Stapleton
Public
Meeting

NOV 94

Consultants
complete technical
work for
Development Plan

JAN 95

Draft Development
Plan submitted
for approval

FEB 95

Planning
Board work
session

FEB 95

Planning
Board public
hearing

FEB 95

Draft Development
Entity submitted
for review

MAR 95

Planning
Board
Recommendation
to City Council

MAR 95

City Council
first reading of
Development
Plan

MAR 95

City Council
final reading,
public hearing,
and approval of
Development Plan

JUN 95

City Council
Decision
regarding the
Development
Entity

JUN 95

Mayor/Council
appoints
Development
Entity Board

AFTER NEARLY SIX YEARS OF COMMUNITY EFFORT, ALL OF THE PARTICIPANTS ARE READY TO COMMIT TO A VISION AND BEGIN TAKING THE STEPS NECESSARY TO REALIZE THAT VISION.

The final recommendations of the Stapleton Development Plan seek to be responsive to each of these core goals and describe how they can be advanced on the Stapleton site. The Development Plan directly supports the Comprehensive Plan goals through its emphasis on expanding the depth and diversity of Denver's job base; restoring natural areas on site and designating an extensive portion of the site for parks and open space; creating diverse, walkable urban neighborhoods; reconnecting and supporting the health of neighborhoods adjacent to the site; providing public transit, bicycle and pedestrian alternatives to increase mobility and reduce dependence on the personal automobile; linking job creation on site with training and skill development opportunities for low income and minority populations in the surrounding community; reinforcing the central role of education and civic uses and spaces in the organization of neighborhoods; pursuing innovative approaches to land use controls and regulatory mechanisms; and pursuing cooperative activities such as trail construction, open space development and neighborhood rehabilitation with Aurora and Commerce City.

Stapleton Tomorrow

Planning for the future of the Stapleton property began in 1989 with the formation of a group of 35 citizens to direct a large-scale community planning exercise known as Stapleton Tomorrow. Over the course of nearly two years, Stapleton Tomorrow sought input from a broad spectrum of Denver area citizens regarding the most desirable approaches to redevelopment of the Stapleton site. Public interest covered a variety of issues, but the predominant concerns included the site's potential to address job creation, open space and recreation, and cultural opportunities.

In 1991, the Stapleton Tomorrow work culminated in the creation of a concept plan for Stapleton reuse. The concept plan emphasized economic development, positive impacts on adjacent neighborhoods, enhanced environmental quality, high standards of urban design, educational and cultural opportunities, and the generation of revenue to support airport revenue objectives. The Stapleton Tomorrow concept plan was adopted by the Denver City Council in June of 1991.



Work on the Stapleton Development Plan has built on the foundation established by the Stapleton Tomorrow Concept Plan. The objectives identified in 1991 continue to enjoy broad community support. Adjustments have been made to respond to changed circumstances, such as the closure and conversion of Lowry Air Force Base to a significant civilian educational campus. Additional areas of emphasis have been explored in the course of creating a more complete development program for the site. The efforts of the last two years have:

- developed a detailed site-wide drainage plan
- produced a more detailed physical Development Plan that emphasizes mixed use communities; walkable scale; a balance between jobs and housing; and a diverse open space system;
- made the redevelopment program more responsive to the site's physical, social and market context;
- given greater priority to sustainable approaches to resource management and economic and social development;
- stressed environmentally related technologies, products and services as an important element of the Stapleton economic base;
- advocated new forms of institutional structures and the creation of an environment that promotes technological and social innovation.

The 1995 Stapleton Development Plan replaces the Stapleton Tomorrow Concept Plan adopted in 1991.

City and County/Stapleton Redevelopment Foundation Partnership

Following completion of the Stapleton Tomorrow process, City and County staff began focusing on initial elements of the redevelopment program. In 1993, the City and County entered into a partnership agreement with the Stapleton Redevelopment Foundation (SRF). The SRF is a nonprofit 501(c)(3) corporation established by community leaders to assist the City and County in maximizing the opportunities provided by the closure and reuse of the Stapleton site. The SRF has raised approximately \$3 million from foundations, corporations and individuals to support its activities and redevelopment objectives.

Working with City and County elected officials and staff, the SRF agreed to take responsibility for management and the majority of funding of the creation of a development plan and physical and financial development program for the Stapleton site. The SRF also agreed to assist the City and County in defining a long-term management structure for the Stapleton redevelopment program and in pursuing desirable first-phase projects and demonstration opportunities.

The City and County of Denver has contributed approximately \$750,000 and considerable staff support from numerous City and County agencies to the Development Plan process. Primary staff support has been provided by the Mayor's Office of Economic Development, the Planning and Community Development Office, the Department of Parks and Recreation, and the Department of Aviation through the Stapleton 2000 office.

Citizens Advisory Board

Redevelopment activities, including creation of the Development Plan, have been overseen by a Citizens Advisory Board (CAB) appointed by the Mayor in early 1993. The Board includes 42 members representing a variety of perspectives and constituencies, including business, neighborhood and professional associations. Board members have devoted hundreds of hours to preparation and review of material created for the Development Plan, as well as participation in an extensive community outreach effort.

Technical Consulting Team

The SRF and the City and County established a Development Plan team of technical consultants representing a variety of skills such as planning, architecture, landscape architecture, urban design, civil engineering, transportation planning and engineering, environmental sciences, market and financial analysis and project management. Team members included firms and individuals from the local community and across the country. Work on the Development Plan commenced in the fall of 1993 and concluded in November of 1994.

The Development Plan is the result of a partnership between the City and County of Denver, the Stapleton Redevelopment Foundation and the Citizens Advisory Board.

The work included three phases, Analysis, Options and Preferred Plan. During the Analysis Phase, the consulting team worked over three months to understand the physical, economic, social and environmental characteristics of the site and its surroundings. All relevant prior planning efforts were also reviewed, such as the Comprehensive Plan, the Stapleton Tomorrow Plan and adjoining neighborhood plans.

As a result of the Analysis Phase, the SRF, City and County, CAB and consulting team adopted a set of principles intended to guide creation of the Plan. The principles covered five specific subjects: Environmental Responsibility, Social Equity, Economic Opportunity, Physical Design and Implementation.

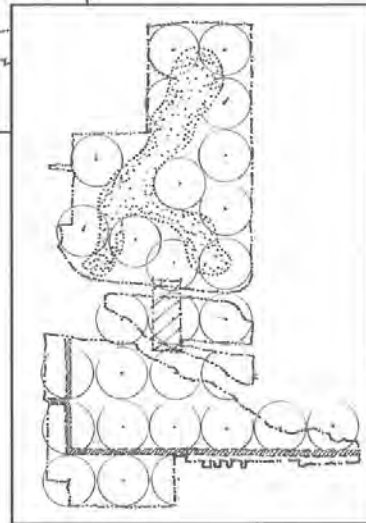
THE LAND LIVES IN ITS
PEOPLE. IT IS MORE
ALIVE BECAUSE THEY
WORKED IT, BECAUSE
THEY LEFT THIS HILLSIDE
AND THAT CREEK BOTTOM
MARKED BY THEIR SHOVELS
AND AXES. THE
MEANING OF THIS PLACE
LIES IN THE ROUGH
WEIGHT OF THEIR HANDS,
IN THE IMPRINT OF THEIR
GUM-BOOTED TRAVEL.

JOHN HAINES
THE STARS, THE SNOW,
THE FIRE

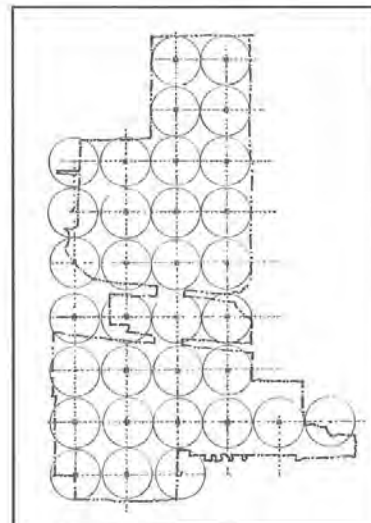
FROM: THE THUNDER TREE
LESSONS FROM AN URBAN
WILDLAND
BY ROBERT MICHAEL PYLE



Land Forms Option



Districts Option



Neighborhoods Option

The team also developed a set of framework drawings describing the site's drainage, open space and natural features, transportation systems and potential patterns of urbanization. In addition, a preliminary land allocation and development program was prepared.

During the Options Phase, the team developed three distinct options for the direction the preferred plan should take. Each option accommodated the preliminary land use program and reflected adherence to the principles adopted during the Analysis Phase. The Options Phase concluded with the selection of a preferred option, i.e. the option most responsive to the adopted principles and Analysis Phase findings.

During the final phase, Preferred Plan, the preferred option was further tested for technical and economic feasibility. The Preferred Plan was refined to produce the basis for the Development Plan presented here.

Community Outreach

During the preparation of this Development Plan, more than 100 community presentations and meetings were held, a number of which were televised. Four general public workshops provided status reports on the Plan's progress and collected feedback on interim products. Additional presentations and public hearings were held as part of the final adoption of the Development Plan by the Denver Planning Board and City Council.

All of the participants in this process, including staff and community representatives, remain committed to the belief that the Stapleton site can make an exceptional contribution to Denver's long-term future. After nearly six years of community effort, all of the participants are ready to commit to a vision and begin taking the steps necessary to realize that vision. With closure of Stapleton as an operating airport, this enormous asset can begin to be transformed to address a new generation of community needs. This Development Plan is intended to provide a roadmap.



III. CONTEXT

III. CONTEXT



Consider Costs

A. NATIONAL AND INTERNATIONAL CONTEXT

The redevelopment of Stapleton comes at a time of tremendous national and international flux. The speed and extent of social, economic and environmental change is remarkable. The iron curtain has crumbled, ethnic turmoil has increased, a truly world marketplace is emerging, telecommunications technology is shrinking the planet, and global population growth and environmental deterioration threaten the basic capacity of the planet to support life.

Decisions regarding redevelopment of the Stapleton site may not by themselves change any of these trends. The primary objectives and circumstances shaping the redevelopment program will appropriately be local. At the same time, Stapleton's future must be considered in this broader context. The redevelopment of this property should be part of the Denver community's response to the challenges and opportunities presented by this world context. How will we respond? What factors will play the greatest role in influencing the type of community we build, the products and services we produce and the social institutions we rely upon?

1. Environmental Challenges

The world is literally reeling under the combined impacts of population growth and resource depletion. The potential for significant global climate change and irreversible losses of biodiversity are increasingly preoccupying the attention of the scientific community. In the first half of the next century, the world's population will surpass 10 billion. Long before that point has been reached, the world's supply of cropland, rangeland and forest will have fallen on a per capita basis by more than 25 percent.

Third world nations are rapidly emulating the production and resource consumption patterns of the industrialized first world. In 1950, seven of the ten largest metropolitan areas in the world were in the first world. By the year 2000, seven of the ten largest metropolitan areas in the world will be in the third world. Mexico City will lead the list at 25 million plus.

Mexico City, Sao Paulo and Jakarta alone will have more people than New York, London, Tokyo, Paris, Shanghai, Buenos Aires, Chicago, Moscow, Calcutta and Los Angeles had combined in 1950. Replication of U.S. or European patterns of resource use, energy consumption, and waste generation holds the potential for environmental catastrophe of enormous proportions.

Cities as diverse as Hanover, Germany, Curitiba, Brazil and Chattanooga, Tennessee are already among those that have moved environmental protection and sustainable development to the top of their agendas in response to these trends. The United States and Denver will not be immune to the global pressures resulting from population growth, resource depletion, global climate change and food shortages.

Stapleton reuse must begin to address the need for greater efficiency in the use of natural resources, reduced impacts on the natural environment and development of the technologies and practices that will allow the first and third worlds to develop economically without surpassing the capacities of the planet's natural resources.

2. Economic Challenges

Global markets and competition have provided significant economic opportunities for United States businesses. These trends have also stripped Americans of much of the economic security we once took for granted. Average wages in the United States have remained relatively stagnant for most of the past 20 years. The average U.S. manufacturer and producer of goods consumes twice the energy and material per unit of output as our next closest competitors, Germany and Japan. In the United States, the gap between rich and poor has continued to widen. On an international scale, this gap has grown even more profound. In 1960, the richest 20 percent of the world's population absorbed 70 percent of global income. By 1989, this proportion had increased to 83 percent. The poorest 20 percent in 1989 received only 1.4 percent of global income.

Economic trends have placed increased significance on efficiency, trade and workforce skills. Unlike periods of economic expansion in the early portions of this century, the modern economy will provide limited income opportunities and little security to those without significant skills. The globalization of labor markets has served to compound this problem.

Changes in Denver's economy reflect nationwide trends. Job creation is shifting to the high technology and service industries that demand more highly skilled workers. Increasing globalization of the economy is forcing businesses to be highly competitive, particularly in terms of labor costs. As the economy shifts, there is a growing need to retrain workers and for workers to be able to change jobs. Opportunities for life long learning are important to maintaining productivity and competitiveness for individuals and communities. These demands are particularly relevant to the economic well being of minority communities. With increasing frequency, businesses and educational institutions are using experiential learning in the workplace to reinforce the importance of formal education. These trends present challenges and opportunities for Stapleton.

How can the local workforce and Denver's job base be developed to compete in this new environment? Where are the employers responding to these challenges? What resources are available to expand the skills of those least prepared to participate in this new economy?

There is growing evidence that many businesses are responding to these challenges. Corporations in Colorado and worldwide are pursuing gains in efficiency and environmental performance. The 3M Corporation has established the target of eliminating 90 percent of waste from all of its production processes by 2000. Its ultimate goal is to achieve a zero waste state. Volkswagen is designing all of the parts of its cars to be recycled, and experimenting with the first plant to disassemble and recycle automobiles. S. C. Johnson has made great strides in reducing packaging waste and increasing the recyclability of its products.

Employers throughout the world are focusing more on eliminating waste and maximizing their investment in their labor force. Stapleton must develop an environment and capacities that respond to these interests.

3. Social Challenges

America, like much of the world, is also experiencing significant social change. American society is struggling with the challenges of diversity. Immigration, racial and economic divisions and a loss of confidence in virtually all forms of institutional authority are realities for every major urban area. We are creating walled communities and "edge cities" at the same time we are experimenting with transit-oriented and so-called neo-traditional communities that reflect more traditional community patterns of the late 19th and early 20th century. We are reinventing forms of government, education and the corporation. We are seeking new approaches, less bureaucracy and turning more frequently to community-based "third sector" institutions.

More Americans now live in suburbs than cities and rural areas combined. The urbanization of the suburb has brought with it many of the same problems of crime, violence and physical deterioration that caused many people to leave central cities in the first place. Isolated suburban enclaves, insulated from some of these forces, have failed to satisfy the desires of many for a greater sense of community. Even as technology frees more people to perform work outside of traditional urban areas, we face the significant challenge of remaking much of the urban landscape we have fashioned over the last 50-100 years.

How will Stapleton provide a model of urban communities that work? Can it offer an alternative that accommodates diversity and promotes participation in the life of the community? Are there better answers to urban ills than escapism or walled communities? The development of Stapleton as an integral part of the northeast Denver community will require a direct and thoughtful response to these challenges.



B. COMMUNITY CONTEXT

1. Local Resurgence

The Denver area has much to be happy about in 1995. After a major regional recession in the mid-1980s, Denver's economy has experienced a significant recovery. Denver is at or near the top nationally in terms of every economic indicator.

Unemployment remains relatively low, retail sales and home-building activity are growing and new businesses and residents continue to be attracted to the area.

Denver in 1995 offers many of the qualities that distinguish the small number of truly vital, livable urban centers in the world.

By national standards, the quality of life in the Denver area is also extremely high. Denver has a highly educated population, enviable climate, substantial recreational and cultural resources and relatively affordable and diverse housing opportunities. Recent investments in civic infrastructure include a new international airport, central library, baseball stadium, convention center, stock show facilities, light rail system and expanded theater complex. There is renewed energy and investment in downtown and the Lower Downtown Historic District. The Central Platte Valley will soon host the relocated Elitch's amusement park, a new aquarium and a new sports arena and production studio. Other areas of the city, including Cherry Creek, the southeast I-25 corridor and a number of neighborhood centers, are experiencing a similar resurgence.

In many respects, the people of the Denver area are very fortunate. Denver in 1995 offers many of the qualities that distinguish the small number of truly vital, livable urban centers in the world. Despite all of these strengths, Denver faces many of the same problems that plague cities around the world.

2. Local Challenges

Denver is struggling with a variety of environmental, economic and social problems that threaten to undermine its other successes. For example:

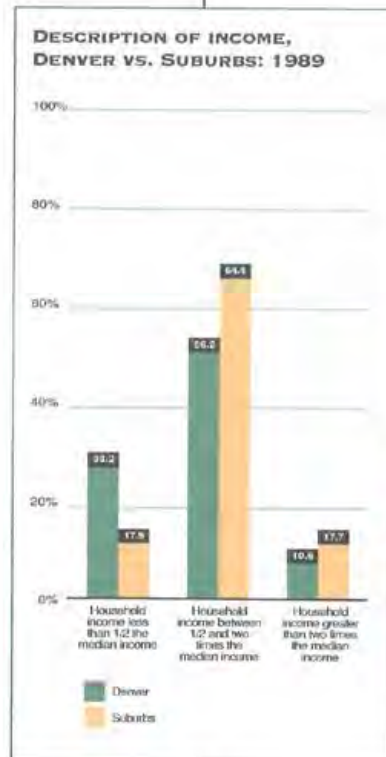
Growth and Environmental Pressures - Colorado is a beautiful and fragile environment. Population growth, loss of open space and high rates of automobile usage threaten Denver's physical environment. Despite recent improvements, regional air quality is likely to once again decline. Each day, Denver area motorists drive more than 30 million miles, or the equivalent of 1,200 times around the circumference of the earth. Urbanization continues to reduce habitat for wildlife, eliminate views and threaten water quality. In recent years, the region's population has grown by 2-3% annually, and is projected to reach 3 million by the year 2025. Denver and the state of Colorado face a significant challenge in coping with these realities.

Stapleton must provide an opportunity to accommodate regional growth in a fashion more efficient and far less damaging than continuing urbanization of the outer edges of the metropolitan area.

Poverty - Despite Denver's relative affluence, the gap between the haves and have-nots continues to grow. In 1989, 17 percent of Denver residents lived in poverty, and another 19 percent were defined as being on the brink of poverty. For people of color, the rate of poverty is two to four times greater than for whites. Between 1979 and 1989, poverty increased in 60 out of 78 Denver neighborhoods. For children, the statistics are even grimmer. Approximately 27 percent of all children in Denver live in poverty. In 1990, only 58 percent of children in Denver lived with two married parents. Fully 43 percent of all single parent families lived in poverty.



As one of the largest urban infill projects in the country, Stapleton redevelopment offers an opportunity to enhance the strengths of the neighborhoods which have grown up around it, by providing employment and job-training opportunities, extensive parks, trails and open space, and a diversity of housing options.



Stapleton must provide opportunities for those at or near the poverty level to earn a reasonable income and improve their lives.

Job Loss - Over the last fifteen to twenty years, the job base of the metropolitan area has grown substantially. In Denver, however, there has been a significant shift in the job base and a loss of jobs for those with the lowest skill levels. In the 1980s, employment in industries that offer the greatest percentage of jobs to workers with less than a high school education declined sixteen percent. While average wage levels increased in the 1980s by four percent in the metro area after adjusting for inflation, wage levels declined in three out of four of the industries employing the highest percentage of low-skilled or unskilled workers. Of the new jobs being created in the regional economy, the majority are in high-skill sectors and the vast majority of these jobs are being created in the suburbs outside of Denver.

Stapleton must respond to these trends, both by capturing a greater share of regional employment growth and by providing entry level and skill development opportunities. Stapleton provides land to accommodate employment opportunities on a scale largely unavailable to the City and County in the last two decades.

In Denver, however, there has been a significant shift in the job base and a loss of jobs for those with the lowest skill levels.

Demographic Change - The City and County of Denver's population is growing older and more ethnically diverse. The City and County's population also tends to have lower average incomes, more single person households and fewer households with school age children than surrounding suburbs. Denver has also experienced a loss of middle income groups. Suburban job

growth and perceptions regarding the quality of public education and personal safety have contributed to these changes. In addition, technology has greatly increased the ability of people to work at home or at locations far removed from traditional centers of employment. Population shifts are reflected in the demographic makeup of the Denver Public School population and the changing demand for housing. Unless these changes are altered, Denver's schools will increasingly serve only the poorest families who cannot afford the costs of private education. The loss of middle class families also reduces Denver's tax base, making it more difficult to financially support public education and services. As the population ages and more women enter the workforce, demand has also increased for a variety of services such as childcare and eldercare that hardly existed in the not-to-distant past.

Stapleton must respond to these demographic changes by providing a mix of housing products, supporting diverse communities, offering a broad range of community services and providing viable alternatives for middle class families.

Loss of a Sense of Community - Many neighborhoods are affected by increased levels of youth violence, rising school dropout rates and the disintegration of community structure. Even residents of affluent suburban neighborhoods express concern for the isolation and loss of connection or commitment to community that many modern neighborhoods engender. Both the urban and suburban community model show signs of failing to satisfy the needs of families and individuals. Demographic changes have compounded these concerns. The traditional American household now represents a minority of the population in most urban communities. Roughly one-third of our population is too young, too old, too poor or physically unable to drive a car, yet our communities continue to be shaped dramatically by the automobile. Our notions of community must be updated and adapted to respond to these changed circumstances and new challenges.

Stapleton must respond by supporting successful communities that promote individual involvement and address resident concerns regarding personal safety, the quality of education and other community characteristics.



3. Local Market Conditions

Land Availability

Upon closure, the Stapleton site will introduce approximately 4,700 acres of new, developable land to the regional real estate market. The regional market is composed of six counties; Adams, Arapahoe, Boulder, Denver, Douglas and Jefferson.

In 1988 there were over 472,000 acres of undeveloped land within this area. Currently, about 25% of this land, or 115,130 acres, consists of 58 projects in excess of 300 acres which are zoned and approved for development. Thirty of these projects, covering 67,630 acres, are under development, and the remaining 28 projects, covering 47,500 acres, have not yet commenced development. Of the 30 projects under development, only three are more than 75% complete.

Land Absorption

Over the last 30 years, private sector development absorbed an average of 4,700 acres annually within the regional market. The

geographic distribution of this activity was approximately 37% to the southeast, 25% to the northwest, 20% to the southwest and 18% to the northeast. Given the existing supply of land in the regional market, and this average annual historical absorption, it is clear that Stapleton will take several decades to develop.

Market Summaries

Following are summaries of each real estate market sector in the Denver region. Because of Stapleton's magnitude, it is likely that each sector, with the possible exception of lodging, will have a significant role in the site's build out.

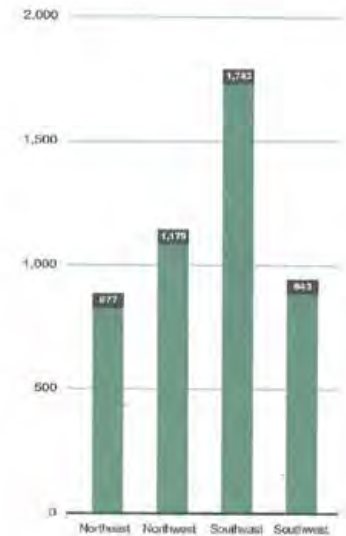
Residential - Current new construction is close to historic averages and substantially above the construction levels of the last five years. Construction is expected to continue at current rates (about 16,000 units annually) as households continue to migrate to Colorado and interest rates remain relatively low.

Office - Current vacancy rates are still high, at 19.1%. Annual absorption has averaged 1.9 million square feet since 1980, but has varied substantially. Current office rents are substantially below revenue requirements which would support new construction.

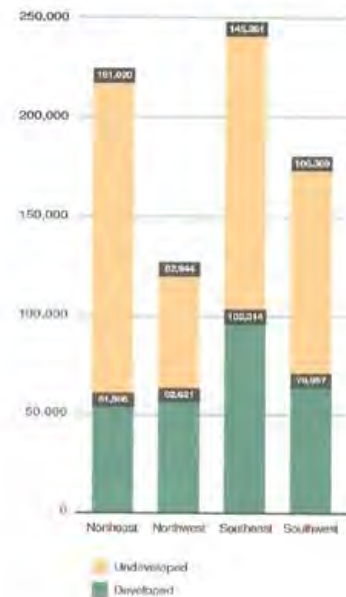
Industrial - Annual absorption for industrial product has averaged 1.4 million square feet since 1980. Current vacancy rates average 8.1% and are declining. Rental rates are still low relative to rates necessary to support new construction. However, as vacancy rates decline, lease rates are increasing and new construction is likely to follow.

Retail - Recent new construction has been primarily for large box users, such as K-Mart and Wal-Mart, and the factory outlet mall in Douglas County. Annual absorption has averaged 1.2 million square feet since 1980. Vacancies in most regional malls are 10% or less. Vacancies in older strip centers are considerably higher. The average vacancy rate among all leasable space is 13.4% and declining. Retail construction is expected to increase consistently with increases in the number of households.

PRIVATELY DEVELOPED ACRES
AVERAGE ANNUAL ABSORPTION:
1960-1988, SIX COUNTY
REGIONAL MARKET



DEVELOPED AND UNDEVELOPED ACRES: 1988
SIX COUNTY REGIONAL MARKET



Lodging - Lodging vacancies are relatively low. While there is market demand for new construction in some portions of the metropolitan area such as downtown and adjacent to Denver International Airport, the difficulties associated with current lodging room rates and securing financing have discouraged new construction to date.

City and County of Denver Sites

The Stapleton site is one of several sites located within the City and County of Denver which could attract the above referenced uses. The planning process recognized other significant City and County of Denver development efforts and tried to distinguish the Stapleton site as much as possible from them.

The other most significant City and County of Denver sites are the downtown area, the Central Platte Valley, the former Lowry Air Force Base, the Airport Gateway, the Denver Technological Center (Denver's portion), Cherry Creek area, Montbello, Green Valley Ranch and the Southwest Denver Grant Ranch annexation. Each of these sites plays a distinctive role in the City and County:

Downtown: Downtown is the metropolitan area's most significant employment, entertainment and cultural center. As a major visitors center, it contains numerous hotels, tourist attractions and a convention center. As the region's largest employment center, its product market emphasizes government, financial, legal and insurance services. As the region's cultural center it features the performing and visual arts and historical and educational institutions. There is also a growing number of housing units downtown that support retail, restaurant and entertainment facilities.

Central Platte Valley : The Central Platte Valley is planned as a mixed use development supportive of, but not competitive with, downtown. It will provide tourist/regional sports and entertainment attractions to support convention center business, hotel occupancies, retail, restaurants and entertainment. It will also contain parks, housing and locations for downtown events.

Light industrial, back office and showrooms are intended to provide support services to downtown businesses. Transit and transportation facilities will improve access to downtown. Overall, the Central Platte Valley will play a significant role in increasing Denver's tax base.

Lowry: Redevelopment of the former Lowry Air Force Base will include mixed use infill development that is supportive of the surrounding neighborhoods. Lowry will host residential, neighborhood and regional open space and recreational facilities, an educational campus including a community college and UCD facilities, as well as business training and an office park campus.

Gateway Area: The Gateway area is 4,500 acres of undeveloped land adjacent to the entry to DIA. This new mixed-use community will include hotels, light industry, businesses, and residential development. It will also contain retail uses, parks, recreational areas and open space to serve Gateway residents and adjoining neighborhoods. Like the Central Platte Valley, it will also serve to increase the City and County of Denver's tax base.

Denver Tech Center: As the metropolitan area's most successful suburban office park, the City and County of Denver portion of the Tech Center will continue to be a major employment center complementary to downtown. As the Tech Center grows, it will also provide complementary residential and commercial uses.

Cherry Creek: The Cherry Creek area serves a variety of market needs. It contains a significant comparison shopping mall, specialty shops, restaurants, neighborhood retail, office, and high-end housing in adjoining neighborhoods.

Other Developing Areas: Areas of the City and County that still have open, developable land must also be considered. These areas include Montbello, Green Valley Ranch and the Southwest Denver Grant Ranch annexation area. These areas can provide a variety of residential, commercial, industrial and office sites.

Stapleton's Competitive Position

Positioning Stapleton not only requires an understanding of regional conditions and the role of other Denver sites, but an understanding of the site's competitive position relative to the residential, office, industrial, retail, lodging and institutional markets.



Residential: The southern portion of Stapleton in the near term is the most viable for residential development. Other residential projects are dependent on the development of major amenities.

These areas will accommodate a variety of product types — including high-end, as long as appropriate amenities are provided. Among the developments that are likely to be providing housing opportunities in Denver at the same time are Lowry, the Airport Gateway, Central Platte Valley, Montbello and Green Valley Ranch. Significant housing supply will also be added in suburban areas such as Jefferson, Arapahoe, Douglas and Boulder counties.



Office: Stapleton is well positioned to attract single-tenant owner/users who seek location advantages, maintain average wage levels, and do not desire a location in an established office center. The principle supply of potential sites serving these uses

currently lies along the I-25 corridor and the US-36 corridor, as well as in downtown.



Industrial: Stapleton's proximity to rail service, the interstate highway system and DIA will position it well with respect to industrial development. The I-70 corridor currently contains more than 50

percent of the metropolitan area's total market for these uses. The site can also compete favorably for high-quality research and development uses, if an attractive environment can be created.



Retail: In general, the northeast quadrant of Denver is underserved for retail purposes. There is currently a limited set of opportunities for convenience shopping, as well as purchases of clothing, electronics and major household items. Stapleton and the Gateway area will increase the size of this market

over time. Stapleton may be able to respond to a portion of this regional demand. Most on-site retail uses are anticipated to be at the community scale. Since this type of retailing will primarily serve newly developed residential areas, it should not compete significantly with existing neighborhood centers, the East Colfax business district in Denver, or Original Aurora.



Lodging: More than 4,000 hotel and motel rooms now lie within 1/2 mile of Stapleton's perimeter. The site is therefore unlikely to attract new investment in lodging facilities — unless a regional attraction is developed.



Institutions: The present and future growth of a number of local institutions is constrained by a lack of available acreage at or adjacent to their current sites. The Denver Botanic

Gardens, Denver Zoo, Museum of Natural History and University Health Sciences Center provide just a few examples. Stapleton provides a potentially appropriate site for expansion through satellite facilities, or even long-term relocation. It will be important to retain flexibility to accommodate the long-term needs of regional educational, cultural and other institutions as they materialize.

"INDUSTRIAL ECOLOGY CONTEMPLATES NOT JUST THE REMEDIATION OF ISOLATED ENVIRONMENTAL INSULTS, BUT THE RE-ENGINEERING OF THE INDUSTRIAL REVOLUTION TO PROVIDE THE TECHNOLOGICAL BASIS FOR A LONG-TERM, STABLE, AND SUSTAINABLE ECONOMY."

BRAD ALLENBY
VICE PRESIDENT -
RESEARCH, AT&T



C. SITE CONTEXT

Site History

The land where Stapleton Airport now sits has seen human activity, in some form or another, for thousands of years.

Archeological Evidence

Two archeological sites near Stapleton have yielded clues to the area's history. At Henderson Hill, a low grassy knoll just north of Stapleton, archeologists have discovered a variety of prehistoric artifacts, including stone flakes from spearheads and knives, fire-cracked rocks from cooking hearths, and a hammer and grinding stones once used for cooking. The artifacts were probably left between 3,500 B.C. and 1,000 A.D. by Archaic Indians, who hunted game and gathered plants for food.

A second archeological site was discovered along Toll Gate Creek at East Iliff Avenue and Chambers Road. The remains of a man and a boy found at the site were dated 670 A.D.

Native American Activity and Pioneer Settlement:

During the early 1500s, Native Americans reached the Stapleton area in tightly organized agricultural units. The arrival of Spanish conquistadors in the southern mountains of Colorado brought horses to the region in the mid-1700s.

In the early 1800s, the Arapahoe and their allies, the Cheyenne, spread south and west from Canada, the Dakotas and Minnesota, periodically warring with the Ute and Comanche. The Arapahoe near Stapleton were completely nomadic, having no permanent settlements, nor any fixed dwellings. They lived exclusively in tents made of buffalo skins. The Arapahoe also depended on the buffalo for food; they did not practice agriculture.

At the same time, many pioneers — hoping to escape the poverty and land shortages of the east — saw their “Eldorado” in the prairies east of Denver. By the end of the nineteenth century, the area was extensively populated with farmers.



Stapleton Airport is just the most recent of many land uses on former prairie grasslands. Before aviation, this land supported extensive wildlife populations, native hunter-gatherers, dry land and irrigated farming, dairy operations and gunpowder manufacturing.

Industrial Development:

In the 1920s, when Mayor Ben Stapleton considered the Sand Creek site for a new municipal airport, the area supported not only ranchers and homesteaders but several industrial users as well. The Standard Meat and Livestock Company, the Dupont DeNumours Powder Company, and the Atlas Powder Company all had facilities on the site — as did Windsor Dairy, the largest operation of its type in Colorado.

The vast Sand Hills prairie had already begun to change. High Line Canal was in place, serving many business and agricultural interests south and east of Denver. Smaller water projects abounded. Remnants of this irrigation system, such as Bluff Lake and the Sand Creek Lateral, are still visible. The urban neighborhoods of Original Aurora, Montclair and Park Hill were beginning development, and thousands of trees were being planted. The Denver park and parkway system had been laid out, but stopped short of Stapleton.

Aviation Use:

When the Denver Municipal Airport was dedicated in 1929, it was intended to consolidate the growing general and commercial aviation interests in the metropolitan area. The initial site covered 345 acres southeast of 32nd and Syracuse Streets. While improved over time, the aviation complex remained south of Sand Creek and bounded by Syracuse Street, Montview Boulevard and Havana Street — until the great expansions of the jet age.

World War II brought lasting changes to Denver Municipal Airport and the surrounding area. Wartime mobilization resulted in the construction of Lowry Airfield, Fitzsimons Army Medical Center and the Rocky Mountain Arsenal.

The arrival of the jet age in 1959 prompted a quarter-century of expansion for Stapleton and the entire air travel industry. Land acquisitions to the east and the north gave Stapleton most of the 4,700 acres it covers today. Neighborhoods soon bordered the airport on every side.



The Denver street grid and parkway system organized the eastern expansion of the city and reached the current Stapleton site by the early 1920s.



When selected as a site for municipal aviation in 1929, the Stapleton site represented the far eastern edge of the urban area.

Changes in Regional Land Use

Northeast Denver is now experiencing a shift as dramatic as any in its modern history. In addition to the conversion of the Rocky Mountain Arsenal to a National Wildlife Refuge, the 1,800-acre Lowry Air Training Center, located nine blocks to the south, has closed and is now in the early stages of redevelopment. The advent of Denver International Airport has opened up an additional 4,500 acres of land for development in the Airport

Gateway three miles east of Stapleton. In central Denver, new infrastructure will allow the several hundred acres of reclaimed rail yard in the Central Platte Valley to develop as well. As these sites are reclaimed and the process of urbanization unfolds, a complete transformation of Denver will occur with profound regional implications.

Surrounding Neighborhoods and Uses:

The Stapleton site is surrounded by many different neighborhoods and land uses. These include Park Hill, East Montclair, Original Aurora, Morris Heights, Montbello, the Rocky Mountain Arsenal National Wildlife Area, Commerce City and state and local correctional facilities. Each of these is discussed in more detail below.

Park Hill

The Park Hill neighborhood located to the west and southwest of the site consists of 4,058 acres. Single and multi-family residences make up the largest land use in the neighborhood. Industrial/commercial uses are located at the north end of the neighborhood along Smith Road.

The Park Hill neighborhood has the distinction of being one of the country's most successful self-integrated communities. Its population is approximately 25,000.



The Denver Municipal Airport opened for business in 1929 on "the Sand Hills site" east of Park Hill - considered by many to be too remote. It was renamed after Mayor Ben Stapleton in 1944.

East Montclair

East Montclair is located on the eastern edge of Denver, at the Aurora city line. The neighborhood is bounded to the north and south by the large, institutional uses at Stapleton Airport and Lowry Air Force Base and contains primarily single and multi-family residential uses. It is clearly defined by higher volume streets at its edges, including Quebec Street, 11th Avenue, Yosemite Street and Montview Boulevard. The Colfax Avenue commercial corridor bisects the residential areas of East Montclair. This historic "main street" is currently experiencing renewal in Denver, Aurora and Lakewood.

Original Aurora

Original Aurora is located immediately east of Denver's East Montclair neighborhood, directly south of the Stapleton site. The neighborhood is primarily comprised of single and multi-family residential uses, with the exception of Colfax Avenue which is commercial. As an older neighborhood, it is currently the focus of several revitalization efforts within the City of Aurora.

Morris Heights

Morris Heights is an Aurora neighborhood east of Stapleton along Peoria Street. Business and industrial uses occur on both sides of Peoria Street. Residential development is located east of Peoria Street between Fitzsimons Army Medical Center and Smith Road.

Montbello

The Montbello neighborhood is bounded by I-70 on the south, 56th Avenue on the north, Havana Street on the west and Chambers Road on the east. East of Peoria street, the neighborhood is residential in character, with slightly more than 5,600 single family homes and 1,250 multi-family units. Businesses generally are located in the Peoria Street commercial area south of Albrook Drive and in the Chambers Place Shopping Center at Chambers Road and 48th Avenue. The office and industrial parks located between Peoria Street and Havana Street provide more than 12,000 jobs. Montbello is the largest of Denver's neighborhoods in both land area and population.

National Wildlife Area

The 27 square mile Rocky Mountain Arsenal National Wildlife Area surrounds the northern-most area of Stapleton on three sides. Formerly the Rocky Mountain Arsenal, it is in the process of being converted to a national wildlife refuge.

Commerce City

Commerce City is an Adams County community which abuts Stapleton on the northwest. Generally, Commerce City is bounded by 48th Avenue (N.E. Park Hill) on the south, Quebec Street on the east and the Platte River on the west. The southeastern and older area of Commerce City is immediately adjacent to Stapleton. The residential population of Commerce City is approximately 16,000, and the area supports a significantly greater number of jobs in manufacturing, distribution and commercial uses.

Correctional Complex

Southeast of Stapleton near Smith Road is a correctional complex containing the Denver County Jail and a State Diagnostic Center. Efforts are under way to identify and minimize the impact of the expansions on the reuse of the Stapleton site. Expansion is planned for both the City and County and state facilities on the site.



"IN THE EARLY PLANNING STAGES OF THE AIRPORT, MANY POSSIBLE SITES WERE SUGGESTED. THE SAND CREEK SITE, SOMETIMES CALLED "THE SAND DUNES", OR "RATTLESNAKE HOLLOW", WAS EAST OF COLORADO WOMEN'S COLLEGE... THE CENTER OF THE PROPOSED TRACT OF ROLLING, SANDY HILLS WAS AT EAST 32ND AVENUE AND WABASH STREET"

DESCRIPTION OF EVENTS IN 1927 IN STAPLETON INTERNATIONAL AIRPORT: THE FIRST FIFTY YEARS BY JEFFREY B. MILLER

SCALE OF THE SITE

Stapleton comprises approximately 4,700 acres and is located within six miles of downtown Denver. It is truly an urban infill project, but one of enormous size, approximately 7.5 square miles. If the site (shown as red outline) was overlaid onto the existing city, it would extend from City Park south to Washington Park and include the neighborhoods of City Park, North Capitol Hill, East Colfax, Capitol Hill, Congress Park, Country Club, Cherry Creek, Bonnie Brae, Washington Park and West Washington Park, as well as much of the City of Glendale.



The Development Plan must recognize the opportunities and limitations presented by the scale and physical characteristics of the site. As a single-purpose site for many decades, it has many unique characteristics, the highlights of which are briefly summarized below:

Hydrology - All Stapleton runoff south of I-70 flows into existing creeks. North of I-70 soils are sandy and absorb water readily. No stream outfall occurs and there is no outfall to the north onto the Rocky Mountain Arsenal National Wildlife Area.

Physiography - Many areas of the site enjoy spectacular views of downtown and the Rocky Mountains. An existing lake, two streams and bluffs provide attractive natural environments. Distinct sand hills patterning of interconnected low and high areas occurs on a limited basis on the north part of the site.

Wildlife Habitat - A variety of wildlife currently exists on the site. The northern portion of the site serves as range and feeding ground for birds of prey, prairie dog colonies and burrowing owls. The Sand Creek Corridor provides habitat for deer, fox and other animals.

Utilities - Private utilities have been extended into the site to primarily serve the terminal and the area surrounding it. The majority of the site has no internal utility service but does have good utility service up to its edge.

Environmental Contamination - Activities on and off the airport have contributed to several areas of surface, subsurface or groundwater contamination. The total area impacted is approximately five to ten percent of the entire site. Remediation activities are either ongoing or planned for these areas.

A number of buildings on site also contain hazardous substances such as asbestos, PCBs or lead-based paint. Assessment and remediation activities are ongoing.

Existing Buildings and Structures - The site contains about 150 buildings and structures, including hangars, storage buildings, concourses, parking lots, rental car facilities, fuel farms and lighting. Some of the buildings may have either short- or long-term reuse potential, while others may have no reuse potential and should be demolished.

Airfields - Runways, taxiways and apron areas cover over 1,000 acres of the site and are composed of multilayered materials that may reach three to four feet in depth.

Access - One roadway corridor, I-70, crosses the 2½ mile wide site. The interior of Stapleton is largely isolated from the surrounding roadway network, but the site does have good access to its perimeter on several sides.

These and other elements of the site characteristics are discussed in detail in the accompanying Development Plan Resource Document. Each characteristic has specific implications for the final Development Plan.

Site Character

During the Analysis phase of planning, the technical consulting team established an understanding of the essential character of the site which served as a building block for the creation of Development Plan options, and the final Development Plan. The site has many significant attributes which define its character and provide opportunities to define its future.

As an edge site, where the city meets open land, an opportunity exists to create a destination on the perimeter which is nevertheless an extension of the city, and to explore new forms of urban edges using open space systems, vegetation and wildlife habitat, and historic regional development patterns. As an original semi-arid sandhill and prairie environment, an opportunity exists to reinforce the prairie setting with a new landscape aesthetic and vocabulary of landscape prototypes adding a prairie park system to the existing system of city and mountain parks. As part of a regional stream corridor system, Stapleton should take advantage of the site's natural features and systems in setting the tone and character of development and explore innovative approaches to the use and management of water resources, urban drainage and water quality treatment areas.

As a thoroughfare, the site is part of a larger transportation context where various regional highway and rail routes pass through or come together. Lying directly between DIA and downtown Denver, Stapleton can benefit from its relationship to both.

The Stapleton site has distinct places with distinct characters, reinforced by the adjacent context. Therefore, it can accommodate neighborhoods and districts of many different activities and uses, densities, access characteristics, park types and character, each with clearly defined edges and boundaries.

Finally, as a former airport site, Stapleton is a reuse, remediation, reclamation and recycling project of unprecedented scale.

Legal Framework

The Stapleton site and its improvements are owned by the City and County of Denver. The airport is an asset of the City and County's airport system, which is a financially self-sufficient component of the City and County's overall structure. Disposition of the site is subject to specific obligations that arise from FAA grant conditions, commitments to airport system bondholders, lease agreements with tenant airlines and other sources. In general, these obligations require that:

- the City and County dispose of the Stapleton property in an expeditious but prudent fashion;
- the net proceeds of disposition be retained by the airport system to retire bonded indebtedness or otherwise support the requirements of the airport system;
- the City and County receive fair market value for land at the time of its disposition (the only exceptions involve (a) property necessary to support conventional public services; and (b) property conveyed at less than fair market value that enhances the value of remaining Stapleton parcels by a more than offsetting amount).



IV. COMMUNITY OBJECTIVES AND GUIDING PRINCIPLES

Stapleton's Appropriate Role?



SIGNIFICANT SOCIAL AND
DEMOGRAPHIC CHANGES

SUCCEEDING IN THE MARKETPLACE

Surrounding Neighborhoods

Development and
Environmental Challenges

ENVIRONMENT

IV. COMMUNITY OBJECTIVES AND GUIDING PRINCIPLES

What do people want from Stapleton? What role can it play in responding to the context described in the previous section? What principles should guide its development? For nearly six years, questions such as these have occupied the attention of individuals within Denver and beyond.

Members of the community recognize the unique opportunity that Stapleton presents. They are also quite aware of the many challenges inherent in the transformation of such a large and complex site over an extended period of time.

MAJOR QUESTIONS AND COMMUNITY OBJECTIVES

Among the many important concerns identified by the community are the following:

What is the appropriate role of the Stapleton site in the regional economy and its relationship to other community centers?

STAPLETON IS EXPECTED TO:

- serve as a regional employment center that makes a positive contribution to the economic base of the community (rather than simply relocates economic activity from one site to another)
- be absorbed into the marketplace without undermining private property values
- complement rather than compete with other community centers such as downtown, the Central Platte Valley, the former Lowry Air Force Base, DIA, the Gateway or surrounding neighborhood business areas
- position Denver to compete in increasingly global markets and provide opportunities to capitalize on emerging technologies
- address the need to directly link job creation on the site with training and skill development opportunities for those currently least able to take advantage of such opportunities

How can Stapleton contribute to improvement of the environment for surrounding neighborhoods and increased access and opportunities for their residents?

STAPLETON IS EXPECTED TO:

- improve the neighborhood physical environment and strengthen the identity of adjacent communities
- increase resident access to jobs, business, education and cultural opportunities
- increase the supply of middle and upper end housing to improve the diversity of housing options in the northeast area
- improve public safety and reconnect long-separated neighborhoods
- provide amenities and services that can be shared by adjoining neighborhoods
- ensure that the benefits of eliminating jet noise are not offset by deterioration of the site and its surroundings during transition
- provide continuing opportunities for meaningful citizen participation throughout the life of the redevelopment program

How can Stapleton respond to the development and environmental challenges we face locally and globally?

STAPLETON IS EXPECTED TO:

- provide an opportunity to restore the health of natural systems on site and make important regional connections to significant natural resources off site
- demonstrate effective approaches to development that emphasize efficiency, reduced resource consumption and reduced impacts on the natural environment
- help solve rather than compound existing problems by providing open space and trails, addressing regional transportation needs in the northeast metro area, reducing air emissions and providing adequate fiscal support for education and service delivery

How can Stapleton respond to the significant social and demographic changes taking place and create diverse, successful urban communities?

STAPLETON IS EXPECTED TO:

- attract middle income families and provide an environment that supports a stable and diverse population
- promote the integration of employment, housing and recreation, and insure diversity in age, income and ethnic groups
- provide walkable scale communities that offer a variety of mobility options and address residents' most basic concerns regarding safety and public education
- encourage community participation and provide opportunities for resident involvement in community governance

How can Stapleton redevelopment succeed in the marketplace and fulfill the disposition obligations of Denver's airport system?

STAPLETON IS EXPECTED TO:

- create value and earn a financial return
- minimize up-front costs of transition and offset these costs as much as possible with revenue generated by the site
- balance long-term value creation objectives with near-term cash flow needs.

"TO WASTE, TO DESTROY,
OUR NATURAL RESOURCES,
TO SKIN AND EXHAUST THE
LAND INSTEAD OF USING IT
SO AS TO INCREASE ITS
USEFULNESS, WILL RESULT
IN UNDERMINING IN THE
DAYS OF OUR CHILDREN
THE VERY PROSPERITY
WHICH WE OUGHT BY
RIGHT TO HAND DOWN TO
THEM AMPLIFIED AND
DEVELOPED."

THEODORE ROOSEVELT
MESSAGE TO CONGRESS
DECEMBER 3, 1907

GUIDING PRINCIPLES

The community and project team have developed a set of principles to guide decision-making in the creation and implementation of the Development Plan. These principles address the economic, social and environmental objectives addressed above, as well as the physical design of the community and the methods used to manage and implement the project over time.

ENVIRONMENTAL RESPONSIBILITY

The challenge of the next century will be the creation and management of urban environments that meet social needs and provide economic opportunity in a manner that preserves rather than degrades the natural environment. Redevelopment of the Stapleton site shall be based on the principle of sustainability, which seeks to manage natural, economic and social systems and resources in a fashion that enhances quality of life yet does not diminish the ability of future generations to also meet their needs. Sustainable design reflects an appreciation of the unique qualities of place and the strong ties between people, nature and the built environment. The Stapleton project will achieve its economic and social objectives, in the context of a high quality sustainable physical environment.

PRINCIPLE 1

Minimize demand for resources (on-site requirements for water, energy, materials, etc.) and maximize opportunities for on-site supply of resources. Resource management will follow this hierarchy of consumption:

- a) *Eliminate the need for the resource*
- b) *Reduce use of the resource*
- c) *Reuse resources*
- d) *Recycle resources*

PRINCIPLE 2

Maximize the use of renewable and indigenous resources in site development and management.

PRINCIPLE 3

Restore and enhance existing natural systems to achieve optimal health and viability.

PRINCIPLE 4

Promote natural, economic and social systems that are diverse and durable. Seek design solutions and development opportunities that integrate systems to produce greater efficiencies and benefits.

PRINCIPLE 5

Place priority on pollution prevention rather than control. Mitigate impacts on site where possible, and as close to the point of impact as possible.

PRINCIPLE 6

Use the following hierarchy in decision-making regarding the use of resources and project impacts:

- a) *First, satisfy resource needs and/or control project impacts entirely on site if possible.*
- b) *Second, where not possible, satisfy resource needs and/or control project impacts within the region.*
- c) *Third, seek to reduce resource demands and project impacts that extend beyond the region.*

PRINCIPLE 7

Include consideration of potential reuse of facilities and improvements over time in site, system and building designs.

PRINCIPLE 8

Support development of environmental technologies, products and services as a significant component of the site's and the region's economic base.



SOCIAL EQUITY

Equity, diversity and opportunity are fundamental to the objectives of the redevelopment program. Stapleton redevelopment shall provide broad access to social, cultural and economic opportunities for all segments of the community. These opportunities will address important community needs and enhance community stability. Successful redevelopment of the Stapleton site will be a catalyst for improvement in the larger community, particularly in the Denver, Aurora and Commerce City neighborhoods surrounding the site.

PRINCIPLE 1

Create a community that accommodates a diversity of people — ages, incomes, races, occupations and lifestyles — and reinforces and enhances the cultural, ethnic and racial diversity of adjacent neighborhoods.

PRINCIPLE 2

Create opportunities for significant minority participation in the development process, employment and residency. Create opportunities for small business participation in the development process.

PRINCIPLE 3

Provide quality neighborhood schools and life-long training and education opportunities.

PRINCIPLE 4

Insure diversity in the job base to provide employment opportunities for a wide range of socio-economic groups, and work with adjacent communities to develop workforce skills and entrepreneurial opportunities for local residents.

PRINCIPLE 5

Facilitate the development of affordable housing as well as attraction of middle and upper income families to the northeast area through provision of a broad mix of housing types, densities and price ranges.

PRINCIPLE 6

Benefit Stapleton and surrounding neighborhoods through the integration of services, public facilities and amenities.

ECONOMIC OPPORTUNITY

The Stapleton site shall be a regional center for job creation in diverse fields with emphasis on emerging technologies and industries. Stapleton will provide an environment that encourages and rewards innovation. The program for the site shall be designed to attract private investment and to provide the financial capacity to support necessary public capital improvements and services over time. The development and operations of the Stapleton community must generate an economic and social return on investment and encourage participation by segments of the community that are often excluded. The characteristics of the community must provide a unique, marketable identity.

PRINCIPLE 1

Establish Stapleton as a major regional employment center and position Stapleton in the marketplace to minimize competition with Lowry, the Gateway/DIA area and downtown. Focus on the quality of jobs created, as well as the quantity

PRINCIPLE 2

Insure public investment in infrastructure, site amenities and institutional support that will attract private investment and the presence of businesses, institutions and residents.

PRINCIPLE 3

Seek partners for demonstration projects to reduce up front capital costs of community and project infrastructure.

PRINCIPLE 4

Provide for a broad mix of land use types, densities and prices to serve multiple markets, and create economic and social diversity.



PRINCIPLE 5

Create an environment that is competitive and adaptable by incorporating advanced telecommunications, transportation, production, environmental and other technologies to anticipate future market opportunities and environmental imperatives.

PRINCIPLE 6

Utilize on-site environmental and open space features to create amenity value for residential and commercial development.

PRINCIPLE 7

Maximize cost-effective public service delivery through efficient land use patterns, appropriate placement of public facilities, use of multi-purpose and shared public facilities, and understanding of the implications of changing demographics.



PHYSICAL DESIGN

Transform the character and image of the airport site in a dramatic and decisive manner. While the site consists of three areas with distinct characters, the overarching physical design principle is to consider the property as a single site with a unique, defining identity. Integration of work, recreation and living environments is essential to Stapleton's success.

A NATURAL SYSTEMS AND LAND FORM:

The form of the site will be heavily influenced by the process of reclamation and the establishment of a series of highly related systems. Critical systems and features include regional storm drainage, wildlife habitat corridors, active and passive recreation areas, transportation, recycling and regrading of runway areas, and soil and groundwater remediation. A comprehensive open space system can accommodate a wide variety of uses and serve multiple functions.

PRINCIPLE 1

Use the pre-existing environment as a basis for change. The site's topography, drainage flows, stream corridors and historic channels will give shape, form and structure to the basic site plan.

PRINCIPLE 2

Support development of the adjacent Rocky Mountain National Wildlife Area as the premier urban wildlife refuge in the U.S., and use the Stapleton open space system to make vital connections between the Wildlife Area and the regional open space system using the Sand Creek/Westerly Creek corridors.

PRINCIPLE 3

Program the Stapleton open space system to serve multiple needs, including: storm drainage, water treatment, wildlife habitats, active and passive recreation and the creation of superior sites for institutional uses.

PRINCIPLE 4

Achieve multiple benefits by using earth moving activities to create necessary drainage basins and swales, improve habitat, provide visual amenity and recreation opportunities and improve soil and water quality.

B TRANSPORTATION SYSTEMS AND CORRIDORS:

Take advantage of the Stapleton site's potential to provide extremely high levels of mobility and alternatives to the automobile for residents, employees and visitors. Organize a flexible transportation system which provides superior access to the site from the arterial system and seeks to minimize impacts to air quality. Dramatically reduce reliance on the automobile and vehicle miles generated by activity on the Stapleton site.

PRINCIPLE 1

Organize community form to provide walkable centers of activity which can be connected to regional public transportation systems on-site. Maximize accessibility of future rail systems and use local and regional bus service to provide access to regional systems and destinations.

PRINCIPLE 2

Establish an intermodal facility on site which will ultimately be capable of serving light rail, heavy rail, bus, auto, truck, bicycle and pedestrian traffic.

PRINCIPLE 3

Clarify and extend the mile-by-mile arterial system through the site wherever possible. Evaluate the feasibility of this system for 56th Ave., 48th Ave., 26th Ave., Quebec St., Yosemite St., Havana St. and Smith Road, working with adjacent jurisdictions and communities where relevant.

PRINCIPLE 4

Design the 56th Avenue corridor as a major parkway connection that will serve as an important connection between downtown and Denver International Airport.

PRINCIPLE 5

Provide a continuous bikeway system throughout the site connecting to the bikeway system described in the recently adopted Bicycle Master Plan and to the Aurora bikeway system.

**C CITY STREET GRID AND URBAN
DEVELOPMENT PATTERNS:**

Incorporate the patterns of the Denver street grid and extend it through the site, adjusting and transforming them to accommodate natural features, large scale parcels and facilities and the building program for the site. Create effective physical and social linkage with adjacent neighborhoods on the southern, southwestern and eastern perimeter of the site.

PRINCIPLE 1

Extend the surrounding street and block configuration into the southeast and southwest portions of the site as an extension of the city.

PRINCIPLE 2

Extend the City and County's parkway system onto the site for streets of major image and character.

PRINCIPLE 3

Plan the site as a mixed-use, balanced community incorporating a coordinated grouping of neighborhoods, specialized districts and special corridors.

PRINCIPLE 4

Utilize a village concept in each of the site's neighborhoods which will incorporate multiple uses, transit access, walk-to-work possibilities, public services and appropriate public spaces.

PRINCIPLE 5

Preserve structures of historic significance and seek to the maximum extent possible to integrate and reuse existing structures and improvements.

PRINCIPLE 6

Evaluate the potential of the terminal building to serve as a regional destination for multiple uses.

PRINCIPLE 7

Ensure flexibility of the physical design to respond to changing market conditions affecting housing densities, transportation systems, types of open space, etc.

D PARKS, RECREATION AND OPEN SPACE:

Utilize portions of the Stapleton site to dramatically alter the identity of the site, create value and add significant new park, recreation and open space resources to the City and County's system. Explore new open space types, designs and management systems and their relationship to urban development.

PRINCIPLE 1

Effectively define the transitions from urban uses to less intensive uses such as open space and the Rocky Mountain Arsenal National Wildlife Area.

PRINCIPLE 2

Connect the Stapleton open space system not only with regional resources, but also with adjacent neighborhoods.

PRINCIPLE 3

Extend the existing park system legacy of a formal network of parks and parkways and an informal system of open spaces and trails associated with regional drainage. Introduce new variations emphasizing a more natural setting, indigenous vegetation, reduced irrigation and alternative forms of management and maintenance.

PRINCIPLE 4

Use natural features and the pre-existing environment as a basis for the design of the park system.

PRINCIPLE 5

In addition to the prairie park, natural areas, and stream corridors, the open space system should also provide at least one new major urban park.

PRINCIPLE 6

Create open space settings as addresses for value creation and as central elements of a phasing strategy for site buildout over an extended period of time.

PRINCIPLE 7

Insure that the open space system and its development and management structure are all designed to be supportable over time.

PRINCIPLE 8

Insure that appropriate recreation facilities are provided on an equitable basis to meet community needs.

IMPLEMENTATION

In order to create a sustainable community that insures a range of housing choices, creates opportunity, celebrates diversity and encourages personal choice, the processes of development and management will also require attention. Success will

depend in large part on the ability to create and implement new institutional structures, forms of governance and market mechanisms. The broad goal is to create substantial community access to the benefits generated by Stapleton's reuse.

PRINCIPLE 1

Create a development/management entity with the authority, skills and financing capabilities to successfully pursue community-wide goals and carry out the requirements of development and disposition of the site over many years.

PRINCIPLE 2

Formulate a phasing program that seeks to strengthen the site's market identity and respond to market opportunities while effectively managing financial risk.

PRINCIPLE 3

Establish innovative mechanisms for service delivery and the development and management of open space, amenities and infrastructure.

PRINCIPLE 4

Guide development activity to meet the policy standards of the City and County and achieve important program objectives through a creative blending of regulatory controls, market mechanisms, incentives, financing programs and direct investment.

PRINCIPLE 5

Pursue catalytic uses that embody both the innovative vision and the economic significance to attract public (Federal, State, local) and philanthropic financial support.

PRINCIPLE 6

Incorporate the broadest possible spectrum of citizenry in decision-making regarding the design, development and implementation of the reuse program, and make substantial use of decentralized and community-based governance structures.

