

# Appendix A

## Facility Inventory, Opportunities, and Constraints

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## 1.0 Facility Inventory

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An inventory of the existing facilities at the Federal Center site was conducted during fall 2005 by The Abo Group, Inc. During the inventory, personnel used the following methods of research: visual observation of the exteriors of buildings, observations of interior spaces of some major buildings, meetings with General Services Administration (GSA) Asset Management personnel, and a review of the existing documentation of the buildings provided by GSA.

Of 65 active buildings on site, 35 were identified as having the potential for either mid- or long-term continued use or re-use and 30 buildings were identified for short-term demolition (Exhibit A-1 and Table A-1).

During the inventory, the following criteria were used to evaluate the facilities:

- **Hold Period**—GSA Asset Management defines this criterion as facility assets that are considered long-term hold (greater than 15 years), mid-term hold (6 to 15 years), and short-term hold (0 to 5 years).
- **Tier**—GSA Asset Management uses this criterion to describe the financial performance of a facility. Tier 1 is the best performing building in terms of the return on investment. Tier 2 is a middle performing asset, and Tier 3 is the least performing asset. Tiering the performance of a facility often does not accurately depict the conditions of buildings that may have sat vacant without a tenant for a portion of the year that the building was rated.
- **Building Condition**—This criterion is a relatively subjective analysis that is used by the architect and based on written analysis of the asset management reports provide by GSA for each of the building and facilities on the Federal Center site. The following conditions classifications are used in the analysis:
  - **Excellent**—The building has been recently built or has undergone major modernization.
  - **Good**—The building is in relatively good condition but the major building systems have reached or are reaching a half-life of 10 to 15 years.
  - **Fair**—The building is structurally sound but the major building systems are in need of replacement.
- **Security Requirements**—These rankings are taken from GSA’s asset management reports, which use a scale of 1 to 4 (4 being the highest). For example, the scale is in part based on the number of people concentrated in one building, an assumption being that the higher the concentration of people, the higher the security requirement.
- **Year Constructed**—Most of the older buildings on the Federal Center were built in the 1940s (the World War II era). These buildings tend to be on the northeastern portion of

the Federal Center site. The newer buildings, built from the 1960s on, are on the western portion of the Federal Center site.

- Major Reinvestment—This indicates the year that major building modernization was completed, if applicable.
- Major Tenant—While the larger buildings tend to have multiple tenants, this category indicates the tenant that occupies the most area in the facility. This criterion was used for informational purposes only and did not factor into decisions regarding demolition.
- Building Area or Gross Square Footage (GSF)—GSF is used to describe the entire area of the building measured from the outside of the outside walls.
- Rentable Square Footage (RSF)—RSF includes all useable area that a tenant occupies and pays rent for.
- Vacant Area—This represents the vacant area in a building at the time of the asset management report.
- Percent Vacant Space—This is the percentage of vacant space to GSF.
- Parking Spaces—This represents the total number of parking spaces assigned to a building.
- Number of Employees—This represents the estimated number of employees occupying a building at the time of the asset management report completed.
- Number of Floors—This indicates the total number of stories in a building. Generally, most buildings are one- and two-story buildings. There is one 16-story high-rise building on the Federal Center site.
- Floor Plate Size—This indicates the ground floor square-foot coverage of a building.



# Denver Federal Center SITE PLAN STUDY



## LEGEND

- Buildings with a Long-Hold Period
- Buildings with a Mid-Hold Period
- Buildings with a Short-Hold Period and Buildings to be Demolished
- Buildings Not Owned by GSA to Remain
- Areas not to be disturbed

Sources:  
General Services Administration, 2005



## EXHIBIT A-1: FACILITY INVENTORY



**TABLE A-1:**  
 Denver Federal Center Facility Inventory

Building Number	Hold Period	FY05 Tier	Building Condition	Function	Security Requirements	Year Constructed	Major Reinvestment	Major Tenant	Building Area (GSF)	Rentable Area (RSF)	Vacant Area	%Vacant Space	Parking Spaces	Number of Employees	Number of floors	Floor Plate Size
1	Mid-Long	1	F	O	3	1941		DHS	5,440	5,166	-	0.00%	56	50	1	5,440
1-A	Mid-Long	1	F	O	2	1986		GSA	5,180	5,180	-	0.00%	84	14	1	5,180
2	Short															
2-A	Short			Utility												
3	Short															
3A	Short															
6	Long	U		Utility	1	1941			235	178	-	0.00%	0	0	1	235
7	Long	U		Utility	1	1941			1,015	928	-	0.00%	0	0	1	1,015
10	Mid	3	F	W	1	1980		DOI								
11	Mid	2b	F	W	1	1980		EPA	5,200	5,200		0.00%	0	0	1	5,200
13	Short	1		W				DEA	3,700	2,757		0.00%	5	0	2	1,850
14	Short	3		W					5,660	5,128	5,128	100.00%	8	0	2	2,830
15	Mid	1	F	L/O	3	1966	Late 1970s	USGS	29,540	27,749	-	0.00%	32	35	2	14,770
16	Long	3	G	O	2	1966	2005	DCMA	35,480	33,625	33,625	100.00%	80		2	17,740
20	Mid	2a	G	L/O	4	1941	1985	USGS	418,103	389,292	-	0.00%	684	630	3	139,368
21	Mid	3	G	L/O	2	1941		USGS	18,765	18,090	-	0.00%	4	74	2	9,383
21-A	Mid	3	G	W	N	1941		USGS	500	458	-	0.00%	0	0	1	500
21-B	Mid	1	G	O	2	1986		USGS	5,660	5,660	-	0.00%	0	38	1	5,660
25	Long	1	E	O/L	4	1941	2004	USGS	399,691	360,797	14,696	4.07%	1045	468	2	199,846
40	Mid	1	F	O	3	1940		BLM	50,092	45,592	-	0.00%	80		2	25,046
41	Long	1	G	O/W	3	1941	Current	GSA	499,124	486,924	-	0.00%	397	348	2	249,562
42	Short	3							10,510	10,171	4,942	48.59%	0	0	1	10,510
44	Mid	3	F	O	2	1941		FPS	8,224	8,224	-	0.00%	40	55	1	8,224
45	Mid	3	P	W	4	1941		GSA	80,932	78,329	-	0.00%	213	136	3	26,977
46	Short	3	F	O	2	1941		NARA	21,655	21,053	6,122	29.08%	80	21	1	21,655
47	Short	U	F	Utility	1	1941		Vacant	31,895	30,645	-	0.00%	111	0	6	5,316
48	Mid	3	F	O/W	2	1941		NARA	152,280	149,947	-	0.00%		21	2	76,140
49B	Short	3														
49C	Short	3														
49D	Short	3														
50	Mid	1	P	O	3	1941/77		BLM	132,830	124,043	-	0.00%	539	50	1	132,830
52	Mid	1	P	O/L	1	1941		DOT	11,785	11,228	-	0.00%	38	20	1	11,785
53	Mid	1	P	O	4	1941		DOI	387,387	373,371	106,863	28.62%	432	1029	2	186,686
54	Mid	U	F	Utility	1	1941		DOI	2,200	2,062		0.00%	0	0	1	2,062
55	Mid	3	G	O	2	1941		DOE	13,220	12,837	-	0.00%	8	0	1	13,220
56	Long	1	G	O/L	4	1941		DOI	311,570	304,165	-	0.00%	672	507	2	155,785
61	Short	U														
64	Mid		F	CC	3	1973		CC	5,600	5,600		0.00%	0	0	1	5,600
64A	Short		E	CC	3	1998		CC	3,585	3,585		0.00%	0		1	3,585
67	Long		G	O	4	1967	2003	BOR	372,208	342,722	1,593	0.46%	917	1422	16	23,263
71	Short															
73	Short															
74	Short															
75	Mid	3	F		2	1944		Health Club								
77	Short															
78	Short															
82	Short															
82A	Short															
83K	Short															
84A	Short															

Building Number	Hold Period	FY05 Tier	Building Condition	Function	Security Requirements	Year Constructed	Major Reinvestment	Major Tenant	Building Area (GSF)	Rentable Area (RSF)	Vacant Area	%Vacant Space	Parking Spaces	Number of Employees	Number of floors	Floor Plate Size
85	Long	1	F	O	4	1975	2002	MMS	83,740	80,285	-	0.00%	322	422	1	83,740
85A	Long	1	E	O	2	2002		MMS	15,354	15,180	-	0.00%	28	92	1	15,354
85B	Short															
90C	Short															
94	Long	1	G	W	1	1992		USGS	28,744	28,464	3,531	12.28%	0	0	1	28,744
95	Long	1	E	L	2	1999		USGS	190,130	163,206	-	0.00%	183	140	2	95,065
710	Mid	1	G	O	High	1963		FEMA	35,600	33,877	-	0.00%	23	75	3	11,867
710-A	Mid	1	G	O	3	1985		FEMA	54,000	35,690	-	0.00%	182	0	2	27,000
720	Mid	1	G	W	1	1985		FEMA	17,600	17,600	-	0.00%	0	50	1	17,600
810	Long	1	G	O/W	3	1965	1993	USGS	681,185	673,643	128,509	18.87%	742	601	1	681,185
106	Short															
110D	Short															
111G	Short															
111H	Short															
111J	Short															
USAR																
Post Office																
<b>TOTALS</b>									<b>4,135,619</b>	<b>3,918,651</b>	<b>305,009</b>	<b>7.38%</b>	<b>7,005</b>	<b>6,298</b>		

### Legend

Building Condition		Function		Tier		Hold Period		Tenants	
E	Excellent	CC	Childcare	1	A Performing Asset	Long	Long-term investment: 15+ years	BLM	Bureau of Land Management
G	Good	L	Lab	2a	Performing Asset Needing Reinvestment	Mid	Mid-term investment: 6-15 years	CC	Child Care Facility
F	Fair	L/O	Lab/Office	2b	Under Performing Asset	Short	Short-term investment: 0-5 years	DCMA	Defense Contract Management Agency
P	Poor	O	Office	3	Non performing Asset			DHS	Department of Homeland Security
		O/L	Office/Lab	U	Untiered			DOI	Department of the Interior
		W	Warehouse					DOT	Department of Transportation
		U	Utility					FEMA	Federal Emergency Management Agency
								FPS	Federal Protective Services
								MMS	Minerals Management Service
								NARA	National Archives and Records Administration
								USAR	U.S. Army Reserve
								USBR	U.S. Bureau of Reclamation
								USGS	U.S. Geological Survey

Notes to the Facility Inventory Matrix:

Building 46 is listed in the current Asset Management Reports as a Short-Term Hold; however, there was a recent reinvestment in window replacement that would result in this asset moving to the Mid-Term Hold category.

Building 47 is the decommissioned boiler plant. It is listed as a Short-Term Hold in the Asset Management Report because this building is not generating any income. The building is structurally in good shape, but there are large pieces of equipment in the building that make the building difficult to use. This building, given the right market conditions and Master Site Plan considerations, could be adaptively used.

Building 64A is a 1998 addition to the childcare building, Building 64. Even though building 64A is listed as a Short-Term Hold in the GSA Asset Management Reports, this building is integral to Building 64, which is listed as a Mid-Term Hold.

Hold periods do not necessarily correspond to those buildings included in the Master Site Plan alternatives due to further analysis of criteria including unique use or facilities, prior investments, planned upgrades, asset value, or historic designation.

## 2.0 Development Opportunities and Constraints

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### 2.1 Land Use

The disposal of 65 acres to the city of Lakewood by negotiated sale and the two proposed developments in this location provide unique opportunities for the future of the Federal Center. The Master Site Plan can capitalize on the two catalyst developments occurring in the near term, St. Anthony Central Hospital relocation and the Regional Transportation District's (RTD) light rail transit station. These developments have the potential to spur development around the light rail transit station and provide the impetus for more public-private partnerships. In addition, this Master Site Plan has the opportunity to influence what is developed at and near the light rail transit station. The plan can guide the developing character of a pedestrian-oriented, urban village for years to come, redefining itself as the significant "place" within the Denver metropolitan area. The creation of a new urban center has the opportunity to attract federal agencies that currently lease space outside the Federal Center boundary. The timing of this plan, as it relates to the light rail construction and hospital development, is integral to creating the "place" envisioned by the community and to realizing the vision for the Federal Center site. A future detailed study of the area immediately adjacent to the transit station could outline more comprehensive opportunities for this area.

The Federal Center site is one of the largest, contiguous parcels of land in the Lakewood area that is owned by a single entity. GSA therefore has numerous opportunities for attractive, controlled infill development and additional public-private partnerships. Transitioning from the secure site that exists today to a "regional urban center" may require private-sector incentives for the construction of high-quality, urban infrastructure (RTD 2006).

The Federal Center site is well integrated within the surrounding urban land uses (Exhibit A-2). The development of the West Corridor light rail line will further improve access to the Federal Center site by creating a multi-modal transportation hub. GSA, in coordination with the city of Lakewood and private investors, should consider developing two shuttle systems (one internal and one external) to the light rail transit station at the Federal Center site and to Belmar, Union Boulevard, and adjacent neighborhoods.

The site is also connected to surrounding areas via open space linkages (Exhibit A-3). High-density, multiple-use buildings within 2,000 feet of the light rail transit station district should be concentrated and connected with high-quality exterior spaces. Freestanding buildings, such as those found in suburban areas, should be avoided. Creating places such as a central gathering place and identifying an area as a "Federal Square" with a high level of activity and a mix of uses will keep the area busy as well as safe.

Attracting new federal tenants while meeting the needs of current federal tenants at the Federal Center site remains a top priority for GSA. Maintaining adequate accommodations for existing tenants is a key component of any redevelopment strategies considered for the Federal Center site. Similarly, there are numerous buildings on the Federal Center site that

must remain given their unique function, recent investment, and/or their role. These factors could constrain the redevelopment possibilities around them.

The existing and future security conditions on the Federal Center site create challenges for any new development and may affect the amount of private-public development that can occur on the Federal Center site. Implementation of appropriate security measures will allow the Federal Campus to integrate more effectively with the broader community.

Another dimension that creates challenges to the planning process and for GSA is the federal government budget constraints that have limited the amount and type of infrastructure improvements, thus resulting in short-term fixes and face lifts to the aging systems. GSA is faced with difficult and often contentious issues, competing interests, and limited or constrained resources.

## 2.2 Facility Inventory

Sixty-five buildings were identified as currently active on the Federal Center site. Five buildings, one for the U.S. Postal Service and four for the U.S. Army Reserves, are within the boundaries of the Federal Center site, but the facilities are not owned or managed by GSA. No information on these buildings was available for review. For the purposes of planning, it is assumed that these buildings and agencies will remain. Of the remaining 60 buildings identified as currently active, 35 buildings were identified as being facilities that had the potential for continued use or re-use. The total gross area of the buildings with potential continued use is 4,110,549 square feet. The remaining 30 buildings were either identified by GSA Asset Management for demolition, as short-term holds, or as small storage facilities.

The largest concentration of buildings occurs in the northeastern section of the Federal Center site, where the large World War II munitions plants were constructed. There are six buildings with a total gross area of more than 300,000 square feet on two floors. These buildings are functioning as affordable laboratory/office buildings for federal tenants such as the U.S. Bureau of Reclamation, U.S. Environmental Protection Agency, and the U.S. Department of the Interior. Two of the buildings—Building 41 and Building 25—have been recently modernized. Building 53 is in the poorest condition; it has building systems that are at or past operational life span. Building 53 sits above a plume of contaminated groundwater related to a leak from an underground storage tank filled with solvent. Contaminated soil has been removed.

Building 67, which is occupied by the U.S. Bureau of Reclamation and is the only high-rise on the site, was built in 1967 and underwent a major modernization in 1983.

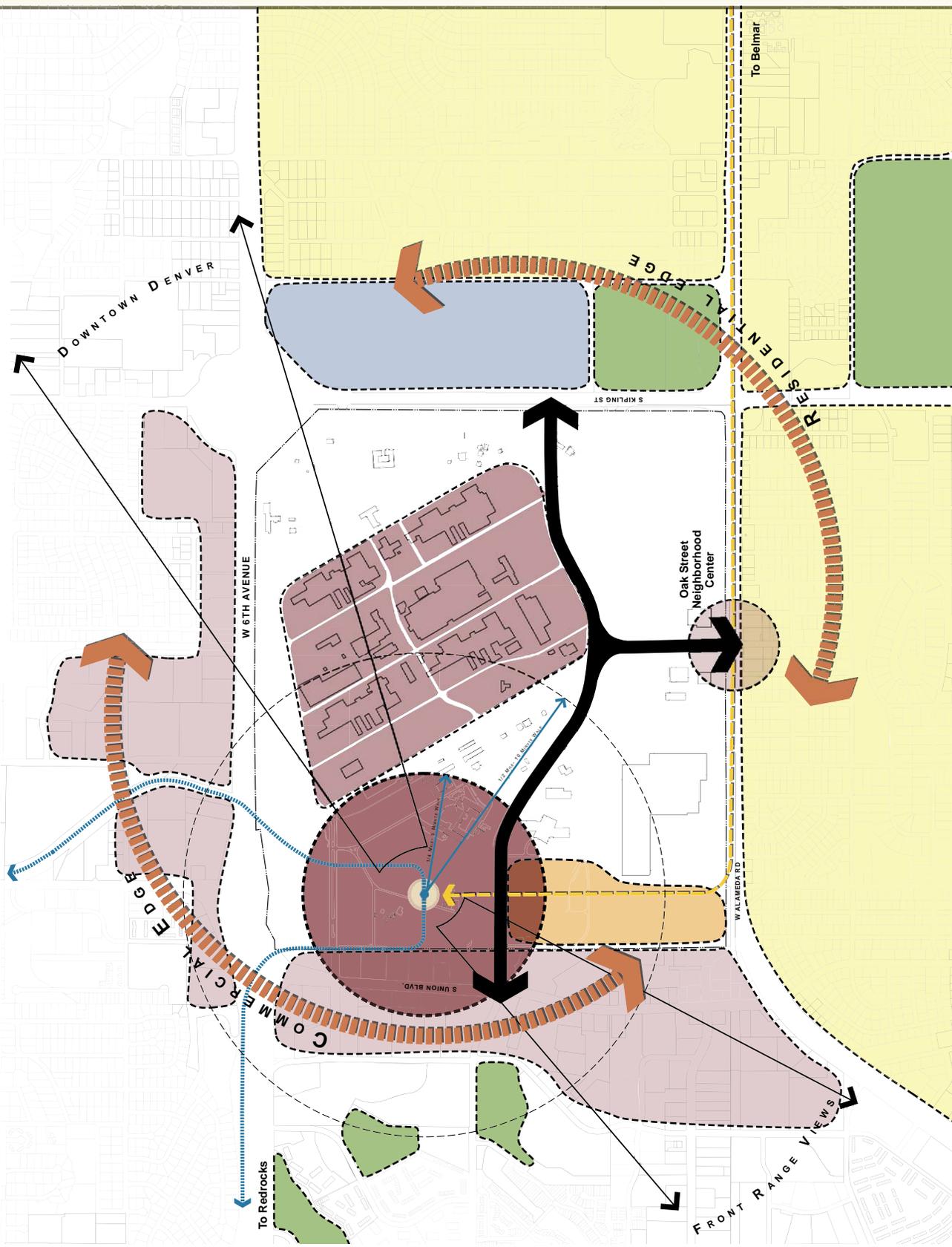
On the western portion of the site, Buildings 94 and 95 are laboratory buildings that were constructed in the 1990s and are considered to be in good to excellent condition. Buildings 85 and 85A, occupied by the Bureau of Minerals Management Service, are also considered to be in good condition.



# Denver Federal Center SITE PLAN STUDY

**LEGEND**

Residential	Light Yellow
Hospital	Orange
Institutional	Light Blue
Mixed Use	Brown
Open Space	Green
RTD	Dark Brown

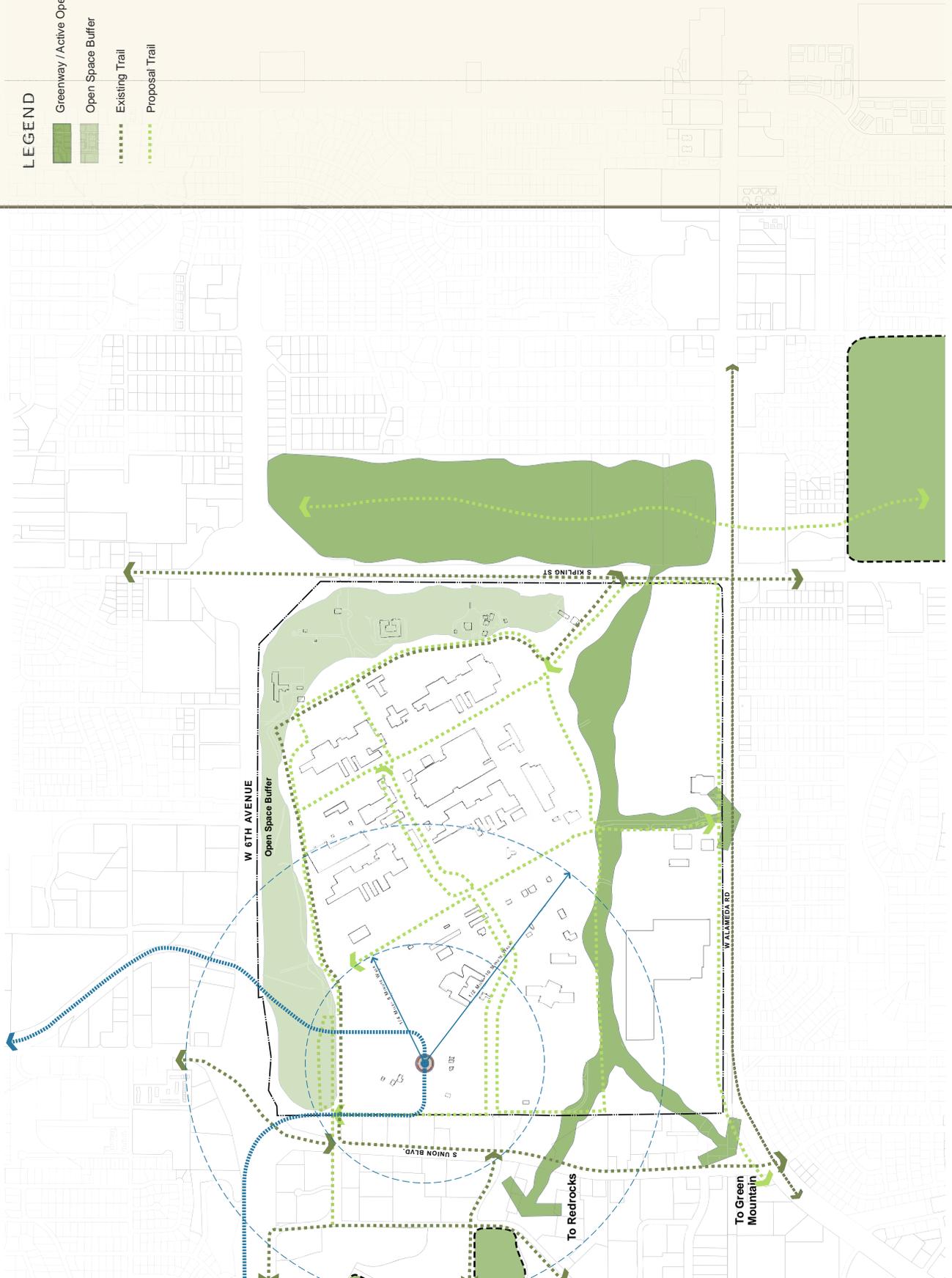


## EXHIBIT A-2: URBAN CONTEXT





# Denver Federal Center SITE PLAN STUDY



## EXHIBIT A-3: OPEN SPACE - LINKAGES



Building 810, fronting Alameda Avenue on the western portion of the Federal Center site, is the largest building on the Federal Center site with a gross area of 681,185 square feet. A large portion of this building provides warehouse space. The U.S. Geological Survey renovated the office portion in 1993.

The Federal Emergency Management Agency (FEMA) has a complex of three buildings (710, 710A, and 720) next to Alameda Avenue on the southern edge of the Federal Center site. Building 710 is listed on the National Register of Historic Places. Because of FEMA's mission and the historic designation of Building 710, the buildings within the complex will remain onsite.

Two small buildings on the eastern edge of the Federal Center site, Buildings 6 and 7, house the main distribution for natural gas and a water pump station. If city of Lakewood utilities are used and individual connections are made to the existing buildings, these buildings would not be needed and could be removed.

## 2.3 Building Assessment

Further analysis of the short-, mid- and long-term classifications that were completed in the building inventory led to development of different building demolition assessments. Three scenarios were developed for the existing GSA-owned buildings: conservative, moderate, and aggressive. The analysis of hold periods and demolition scenarios will be essential to the implementation of the Master Site Plan. Ongoing improvements and investments in facilities retained as part of the long-term plan will be important to consider as the implementation of the plan moves forward.

The short- and mid-term buildings will be addressed at each phase of implementation. The implementation strategy will be part of the final Master Site Plan once a preferred alternative is selected. Buildings included in the short- and mid-term hold will be part of a phasing strategy that will be decided upon as a result of a number of criteria, including location, market condition, proposed land use, and the tools of disposition available to GSA for implementation of the preferred plan. As short- and mid-term buildings approach a demolition and replacement time period, careful decisions regarding maintenance and building investments will be essential.

To develop the long-range Master Site Plan alternatives, the planning team used the Aggressive Facility Assessment. The Conservative and Moderate assessments may be used in the future for phasing the development. In addition to assessments described below, Building 20 may be demolished in the future if renovation costs prove to be excessive.

### *2.3.1 Conservative Facility Assessment*

The Conservative Facility Assessment retains those buildings that were good performing assets for GSA and were mid- and long-term hold assets as classified in the GSA Asset Management Reports in 2005. Buildings to be demolished were identified from a list of buildings to be decommissioned by GSA (see Exhibit A-4).

Buildings 46 and 47 are short-term hold facilities. Building 50, even though it is a mid-term hold asset, will require major reinvestment in the next few years to modernize the building's systems. Building 45 is primarily warehouse space, but this function could be duplicated elsewhere on-site in a new facility. Under the Conservative Facility Assessment scenario, it was determined that these buildings could be removed to allow for a higher and better use of the land.

### *2.3.2 Moderate Facility Assessment*

In determining the criteria for the Moderate Facility Assessment scenario, demolishing underutilized land uses, such as storage and warehouse space, to facilitate a better use of the land was considered. The required storage and warehouse space needed for leases would be built elsewhere on the Federal Center site. Buildings 48, 94, and parts of the warehouse portions of Building 810 and 41 were recommended for removal in the Moderate Assessment scenario. In addition, favorable development opportunities were created by replacing older, smaller single-story office buildings with new office facilities and combining the land from other buildings scheduled for demolition under the Conservative Facility Assessment scenario. Buildings 46, 55, and 40 were therefore identified as buildings that could be demolished in a Moderate Facility Assessment, as seen in Exhibit A-5.

### *2.3.3 Aggressive Facility Assessment*

Under an Aggressive Facility Assessment scenario, facilities were identified for demolition based on their use and location on the Federal Center site. Buildings 85 and 85A are on the western portion of the Federal Center site and are newer buildings in relatively good condition. They also occupy an important position in relation to the future RTD light rail transit station. This location coupled with the low-density, single-story nature of the buildings resulted in the recommendation that these buildings be removed and tenants could be relocated to other GSA-owned space or provided with replacement space. In addition, the childcare facility, Building 64, was identified as a building that could be relocated elsewhere on the Federal Center site. All of the warehouse space of Buildings 41 would be removed, and the western wing of the warehouse space of Building 810 would be removed under the Aggressive Facility Assessment scenario, as seen in Exhibit A-6.

## 2.4 Natural Features

### *2.4.1 Vegetation*

Vegetation communities that provide screening or value for wildlife habitat should be preserved when feasible. This includes riparian or wetland communities along McIntyre Gulch, irrigation ditches, or detention ponds/reservoirs.

Opportunities for development or vegetation enhancement include disturbed and weedy areas as well as some open grasslands. Section 2.1.2.2, *Wildlife Management*, describes specific vegetation areas within the Federal Center site that provide wildlife habitat value in more detail.



# Denver Federal Center SITE PLAN STUDY



## LEGEND

- Buildings to be Maintained
- Buildings to be Demolished
- Buildings Not Owned by GSA to Remain
- Area not to be Disturbed

Buildings to be Maintained  
(gross sq. ft.)  
3,475,417

Buildings to be Demolished  
(gross sq. ft.)  
660,202

**Total Square Footage**  
4,135,619

Sources:  
General Services Administration, 2005



## EXHIBIT A-4: CONSERVATIVE FACILITY ASSESSMENT





# Denver Federal Center

## SITE PLAN STUDY



### LEGEND

- Buildings to be Maintained
- Buildings to be Demolished
- Buildings Not Owned by GSA to Remain
- Area not to be Disturbed

Buildings to be Maintained  
(gross sq. ft.)  
2,946,086

Buildings to be Demolished  
(gross sq. ft.)  
1,189,533

**Total Square Footage**  
**4,135,619**

Sources:  
General Services Administration, 2005



## EXHIBIT A-5: MODERATE FACILITY ASSESSMENT





# Denver Federal Center

## SITE PLAN STUDY



### LEGEND

- Buildings to be Maintained
- Buildings to be Demolished
- Buildings Not Owned by GSA to Remain
- Area not to be Disturbed
- Pond to be Demolished

Buildings to Maintain  
(gross sq. ft.)  
2,553,645

Buildings to be Demolished  
(gross sq. ft.)  
1,581,974

**Total Square Footage**  
**4,135,619**

Sources:  
General Services Administration, 2005



## EXHIBIT A-6: AGGRESSIVE FACILITY ASSESSMENT



## 2.4.2 Wildlife Management

Future development activities on the Federal Center site should include preservation of the most valuable wildlife habitat on site, including the riparian and wetland areas associated with McIntyre Gulch. Wetland areas associated with the detention and/or retention ponds on site should also be protected and enhanced when feasible.

Management focus should concentrate on educational opportunities and especially on mitigating conflicts between wildlife and facility personnel.

## 2.5 Environmental Constraints and Preliminary Mitigation Measures

This section is intended to provide guidance with regard to reuse planning activities, including appropriate land uses, budgeting considerations, potential schedule impacts, and land use controls. Soil and groundwater contamination is present in numerous locations throughout the Federal Center site.

More detail regarding the contamination of soils and water resources on the Federal Center site is provided in Appendix E. Preliminary indications are that soil, sediment, and surface water contamination in the east-central portion of the site appears to be significant. Without extensive engineering controls, the installation of utilities, basements, and subsurface parking would likely be precluded in areas of groundwater contamination where groundwater is less than 10 feet below ground surface. Remediation requirements will be determined after the Master Site Plan Land Use Plan is developed. If economic studies and market analyses indicate that a contaminated area is a prime location for development, engineering and land use controls may be used to mitigate contamination if full-scale remediation is not cost-effective. Land use controls and long-term monitoring should be considered in the overall budget.

All construction and renovation involving subsurface excavation activities should be conducted under a Health and Safety Plan and Materials Management Plan. If potentially contaminated soil and/or water is observed during construction or renovation activities, the procedures outlined in this plan should be followed.

## 2.6 Economic Development

The degree to which the Federal Center site can capture new demand within the trade area (and beyond) is a function of the redevelopment process itself. Given the highly competitive nature of new development and the heightened challenges of developing in an infill environment, successful redevelopment of the Federal Center site will depend on defining a “place” in the minds of the area’s residents, employers, employees, and consumers. Developing key catalyst areas as retail, residential, employment, and community destinations will necessarily increase the Federal Center site’s ability to capture not only a greater share of its trade area demand but also to reach beyond those boundaries. As new development begins to take hold and land prices begin to rise, opportunities will succumb to market forces seeking the highest and best use for an increasingly valuable asset, yielding products with higher floor area ratios. Obviously, this evolution will be expedited if assisted by a favorable

regulatory environment that encourages a denser product model, tighter building form, balanced parking requirements, stronger connections, and adjustments in security levels.

Appendix C, Market Analysis, provides the foundation for building sound investment strategies for the Federal Center site. Key market observations include the following:

- A review of key demographic and psychographic indicators suggested an opportunity for ownership of attached (condominium and townhome) housing products with a broad price range.
- High-density housing development near planned transit improvements will provide additional demand for convenience and/or service retail space within the study area. Early retail niches include food and drink away from home, personal and professional service, medical, convenience, and entertainment.

While employment growth and market conditions would seem to support new development and/or redevelopment, the environment within the Federal Center site will likely have to be updated to attract tenants. A strong daytime population, potential nighttime population, future transit population, and expanded visitor population, in the near- and long-term, will support an expanded commercial program.

Among the highest growth employment sectors in the trade area, there appears to be support for business clusters, which will occupy smaller, multi-tenant office space, medical, incubator, and live/work units.

Given high trade-area occupancy rates and relatively healthy room rates, as well as the limited product mix combined with planned investment within the study area and site visibility, a lodging project in the near-term is likely.

Taking into consideration these market analysis conclusions, specific development opportunities were analyzed within the context of the development opportunities screening factors presented earlier. Each was further analyzed in the context of their financial feasibility, potential within a larger disposition strategy, and contribution to a unified Master Site Plan serving existing and future federal tenants.

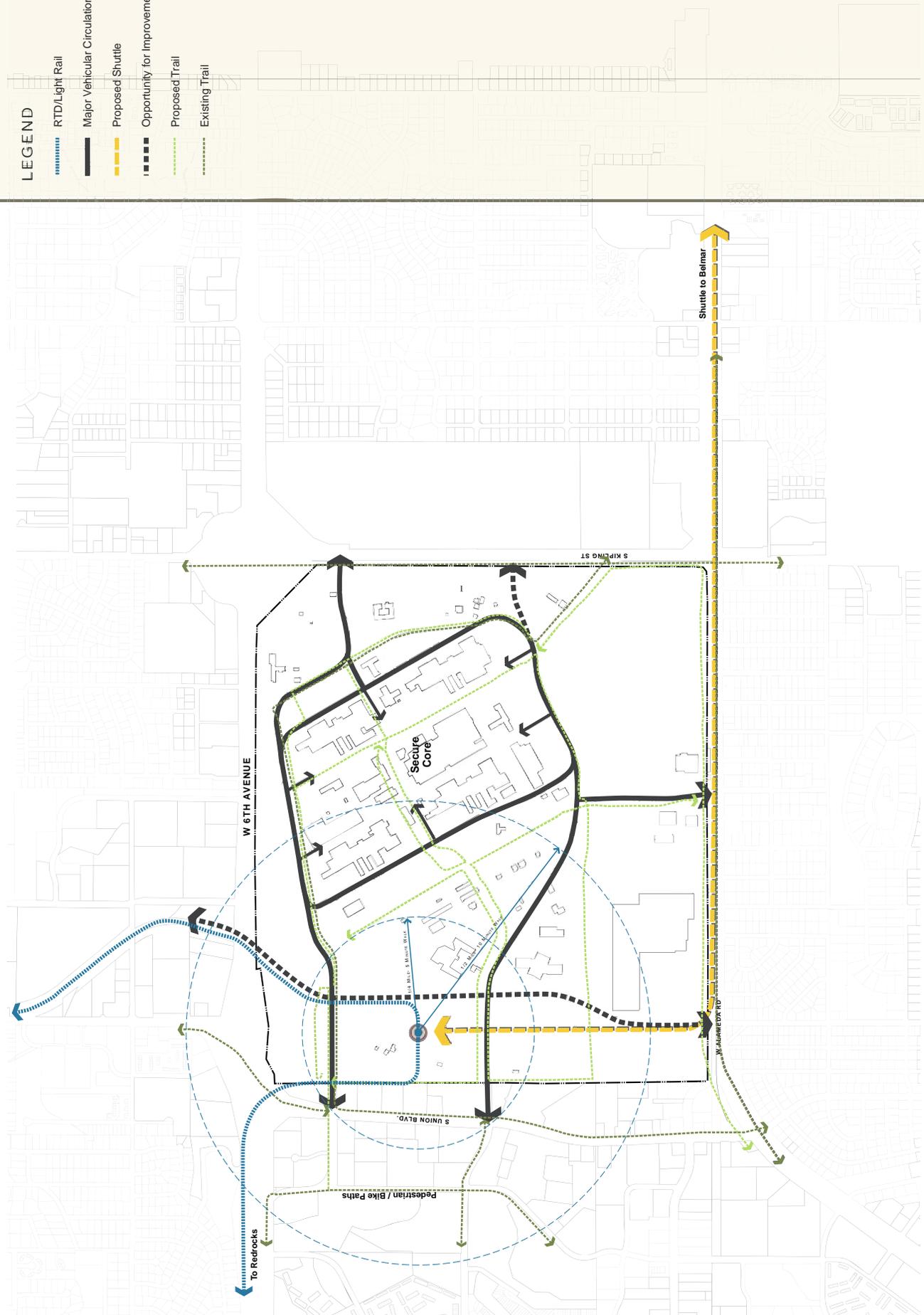
## 2.7 Circulation

The transportation analysis presented here provides the foundation for building sound transportation strategies for the Federal Center site. The related opportunities and constraints for the Federal Center site are illustrated in Exhibit A-7 and include a secure core as well as the following:

- The West Corridor Light Rail Transit Line is scheduled to open in 2013. This new line will penetrate the northwestern corner of the Federal Center site and will significantly increase the capacity of the transportation system serving the area.



**Denver Federal Center**  
SITE PLAN STUDY



**LEGEND**

- RTD/Light Rail
- Major Vehicular Circulation
- Proposed Shuttle
- Opportunity for Improvement to Traffic
- Proposed Trail
- Existing Trail

**EXHIBIT A-7: CIRCULATION**





- The Federal Center site has five functional access points. Based on the existing traffic volumes, each access point has adequate capacity to accommodate a wide range of future development opportunities.
- As part of the West Corridor Light Rail Transit Line project, RTD will be constructing Routt Street from West Alameda Avenue to West 2nd Avenue. This street will provide a new north-south connection on the western side of the Federal Center site. The proposed Routt Street also is planned to be extended over U.S. Highway 6 (6th Avenue) and into the Lakewood Industrial Park to connect to Quail Street. This project will help relieve travel demands on Union Boulevard through the congested 6th Avenue interchange area.

The city of Lakewood and the Alameda Gateway Community Association is studying the possibility of implementing a transit circulator system connecting the light rail transit station at the Federal Center site with the Belmar area and possible points east. This line could be routed through the Federal Center site, providing a vital connection between the light rail transit station and the employment core.

Both Union Boulevard and Kipling Street experience congested conditions during the weekday peak hours. Based on travel demand forecasts for the area, these conditions are expected to worsen over the years, even with the addition of RTD's new West Corridor Light Rail Transit Line. These levels of congestion limit the ability to add new access points to the perimeter street system. It also may restrict the type and density of future development opportunities for the Federal Center site.

## 2.8 Utilities/Infrastructure

The infrastructure analysis presented here provides the foundation for building sound infrastructure strategies for the Federal Center site. The related infrastructure opportunities and constraints for the site include:

The Program Development Study and Infrastructure Project (Project), funded by the U.S. Congress, will upgrade and expand the utility systems at the Federal Center site, including the sanitary sewer, storm sewer, water distribution, electrical supply, and communications systems (see Chapter 3, Section 3.5). This upgrade and expansion will keep the utility systems functioning with more reliability and allow for some development within and outside of the central core area, depending on the location of proposed development parcels.

Stormwater management at the site will work well with the open space system. McIntyre Gulch will be preserved as a green corridor across the Federal Center site, allowing for adequate setback of buildings and development from the non-regulatory floodplains along the Gulch. However, a stormwater master plan does not exist for the Federal Center site, and uncertainties remain about the capacity and design intents for many of the storm sewers, open channels, and stormwater detention ponds across the site. Development of parcels across the Federal Center site may require further study and the development of a stormwater master plan to provide risk management for stormwater and flooding and to preserve land area for stormwater detention and water quality treatment.

Development of the Federal Center site has largely been concentrated around the central core area. The remaining areas on the Federal Center site are open, undeveloped, and unencumbered by existing infrastructure, which will allow for incremental growth on a parcel-by-parcel and development-by-development basis. This approach, which can follow a Master Site Plan Land Use Plan, allows for just-in-time delivery of infrastructure as parcels are taken down and/or sold for development purposes.

GSA has shown interest in collaborating with the city of Lakewood and other public utility providers for servicing development sites outside of the central core area, thereby removing GSA's responsibility for operating a utility system and leveraging the existing public utility systems surrounding the Federal Center site.

Infrastructure costs will be large hurdles to overcome in the establishment of reliable systems at the Federal Center site, including off-site improvements for the water supply and sanitary sewer systems. The use of real property transfers, such as the current one with the city of Lakewood for the St. Anthony Central Hospital project and the RTD site, could allow for funding of the needed improvements, based on GSA's desire to develop/sell portions of the undeveloped Federal Center land to private enterprise.

Two off-site water supply connections are needed to create a reliable connection to Denver Water's transmission system. The existing, single-feed connection from Denver Water is inadequate.

A service agreement is under discussion between the Federal Center and the Green Mountain Water and Sanitation District (GMWSD), and use of the emergency feed (constructed) to that system will not be permitted by GMWSD until an agreement is reached.

The proposed development of either action alternative requires the evaluation of the capacity of the sanitary outfall within the city of Lakewood, any associated upgrades or replacements needed, and confirmation with MWRD that the additional flows are acceptable. Development on the Federal Center site might result in a possible bottleneck on a segment of 12-inch pipe on 6th Avenue (within the city of Lakewood). More information will be available once the Utility Master Plan—Sanitary Sewer update is complete by CH2M Hill, Inc. during 2007. This condition limits the ability of the majority of the Federal Center to expand.

The Infrastructure Project will upgrade the utility service within the core area and accommodate planned expansion across the site (from the existing utility lines). Specifically, the sanitary sewer system has a planned 25 percent growth factor designed into each of the lines. This growth opportunity may become a constraint if development loading exceeds the capacity planned within this construction program.

The placement and alignment of existing utilities across the Federal Center site does not necessarily follow the standards for the jurisdictional utilities. Transfer of land and utilities to these utility providers (or the city of Lakewood) may require reconstruction of some streets or utilities to meet the current standards for acceptance by the utility provider, thereby creating a cost or burden on the party requesting the transfer of ownership of the utility. In most cases, the cost burden will probably be on GSA or in land value.