



## 2.0

# EXISTING SITE CONDITIONS AND CHARACTERISTICS

## 2.1 Site History

Prior to 1940, the land currently occupied by the Federal Center was used for agriculture and ranching purposes and was known as Downing Ranch. In January 1941, the U.S. Government purchased 1,422 acres of land (including the approximately 640 acres of land now known as the Federal Center campus) for the Denver Ordnance Plant (DOP), a facility constructed for the purpose of the production of small arms ammunition, to be operated by the Remington Company. At its peak, the DOP occupied a site of approximately 3.25 square miles in area, had over 200 buildings with more than 2,400,000 square feet of floor space, 11 miles of railway spur, 15 miles of fencing, 17 miles of roads, six restaurants serving 20,000 meals a day, complete modern police and fire departments, and a fully equipped hospital (DPL 1943).

After World War II, the ammunition plant closed and the buildings were used for office, research, and administration purposes by a number of federal agencies. Many of these buildings continue to be used for such purposes today.

Exhibit 2-1; Denver Ordnance Plant Aerial, 1943



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## 2.2 Land Use

The Federal Center has approximately 4.1 million sf of rentable space in over 50 active buildings. Although located within Lakewood's city limits, the property retains federal jurisdiction. Except for a few buildings and facilities within the campus, the General Services Administration (GSA) is responsible for the operation and maintenance of the Federal Center's physical assets and natural resources. Facilities not controlled by GSA include the U.S. Post Office at the intersection of Alameda Avenue and Oak Street; the current Regional Transportation District (RTD) park-n-Ride on the northwest corner of the Federal Center site; and, the U.S. Army Reserve facility on the northeast corner of the property. There is currently no private development on the property.

The 6,000 employees located on site represent a range of federal agencies and bureaus, including the, Department of the Interior (U.S. Geological Survey, Bureau of Land Management, Bureau of Reclamation, Minerals Management Services, Office of Surface Mining), U.S. Department of Agriculture, U.S. Department of Health and Human Services (Food and Drug Administration), National Archives and Records Administration, U.S. Environmental Protection Agency, Government Printing Office, U.S. Department of Homeland Security, and the GSA.

Most of the buildings on the campus are concentrated near the central portions of the property, what was originally part of the DOP facility built in the early 1940s. This area is primarily located between 1st Street on the east; 7th Street on the west; Main Avenue on the south; and, North Avenue on the north. The area consists primarily of six single-story buildings with floor plates ranging from 70,000 sf to over 350,000 sf.

Since the 1940s, development on the property has primarily on the periphery of the site's central core, and has not adhered as closely to the original 1940s grid layout. Buildings constructed since 1960 have smaller building footprints and are predominately multi-storied, the tallest of which is Building 67 (see exhibit 2-4), a 16-story office building built in the late 1960s. The exception to this is the single-story 700,000 sf Building 810 also built in the 1960s, located on the southwestern corner of the property.

Exhibit 2-2; Denver Ordnance Plant Parking Lot, 1941



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Exhibit 2-3; Denver Ordnance Plant Security Gate, 1941



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Exhibit 2-4; Denver Federal Center Aerial



Source: GSA 2007

## 2.3 Natural Features and Resources

### 2.3.1 Topography and Landform

The topography of the Federal Center site is primarily flat, sloping down gradually from the west to the east at between a 2 percent to 3 percent grade. The only areas with slope conditions more than 8 percent occur along McIntyre Gulch, near Building 710A, and on the eastern edge of Building 810. The high point of 5,716 feet above sea level is located near the northwest corner. The low point of the site is 5,548 feet above sea level, at the eastern edge of McIntyre Gulch. The total difference between the two elevations is less than 200 feet. The terrain rises more dramatically to the southwest toward the top of Green Mountain, 6,856 feet above sea level and approximately 1.5 miles away. To the north, east, and south, the terrain is flat.

Exhibit 2-6; View Northeast from Proposed LRT Fed Center Station



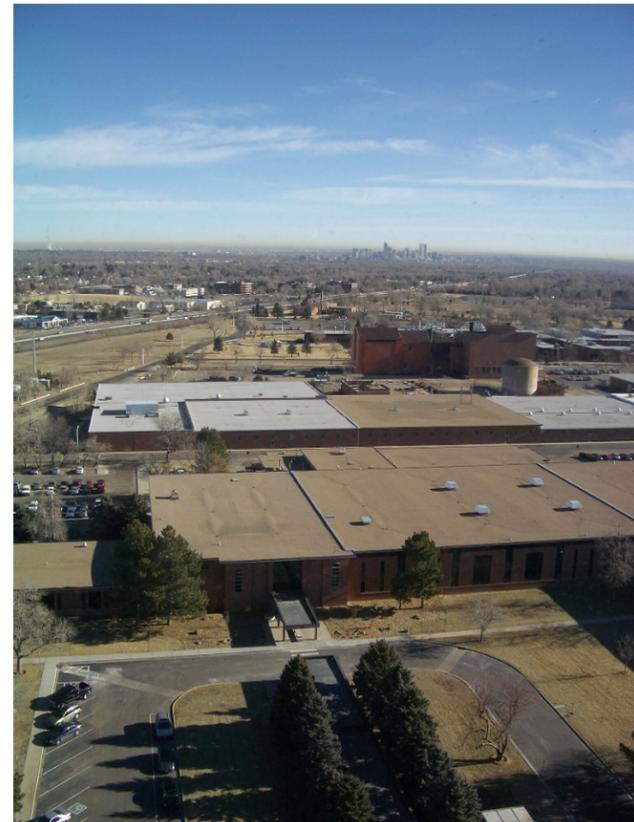
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Exhibit 2-5; Site Topography



GSA 2007

Exhibit 2-7; View East from Building 67



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Exhibit 2-8; View West from Building 67



EDAW December, 2005

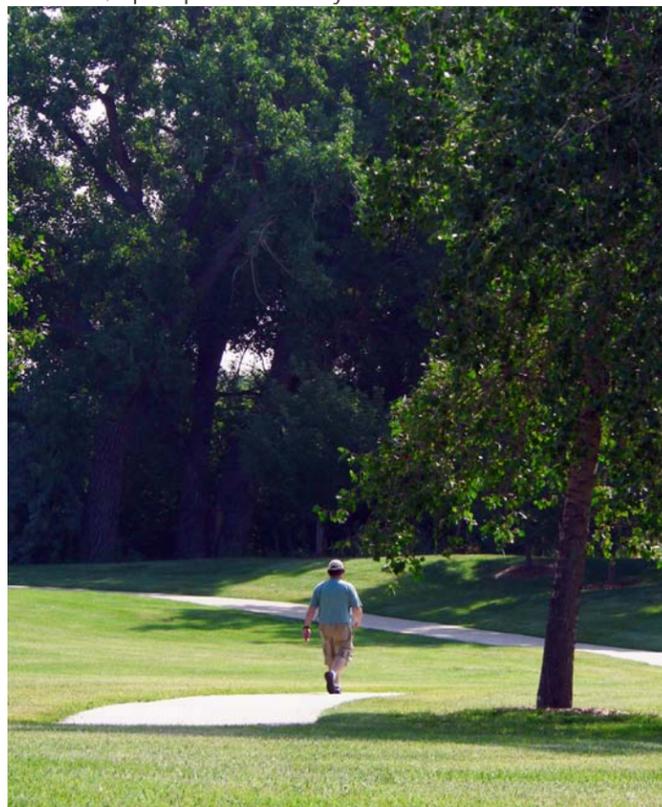
### 2.3.2 Open Space

The Federal Center includes approximately 350 acres of natural open space (just over half of the total area of the site). The natural open space is located primarily along the outer edges of the site, forming a perimeter around the more developed areas of the campus. On the northern edge of the property, the natural open space provides a significant green buffer between the Federal Center's central core and 6th Avenue. Most of the trees lining the streets of the campus were planted during the 1940s, not only to enhance the appearance of the Denver Ordnance Plant, but also to help reduce dust that might infiltrate and compromise the ammunition-manufacturing equipment

Passive open spaces are generally located within the central core of the Federal Center campus. These spaces consist primarily of green, manicured foundation plantings, green medians, and small parcels of open space.

Active on-site open spaces include two ball fields located south of the central core and just north of the U.S. Post Office as well as two major recreation paths along the Agricultural Ditch and McIntyre Gulch and other smaller active spaces and trails located throughout the DFC site.

Exhibit 2-9; Open space near McIntyre Gulch



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Exhibit 2-10; Open Space - Linkages



Source: EDAW

### 2.3.3 Hydrology and Water Quality

McIntyre Gulch is a natural drainage that flows from west to east across the southern portion of the Federal Center site. Two tributaries flow north into McIntyre Gulch, one to the west of Building 810, and the other to the east of Building 810 and 8th Street. McIntyre Gulch then flows into Lakewood Gulch, approximately 2 miles east of the Federal Center; Lakewood Gulch flows into the South Platte River. McIntyre Gulch maintains much of its natural condition and supports a variety of riparian vegetation communities.

Two constructed irrigation canals are located within the Federal Center property, including Agricultural Ditch, which diverts water from Clear Creek in Golden; and Welch Ditch, which flows into McIntyre Gulch in an area that will be part of the St. Anthony Central Hospital. Agricultural Ditch enters the northern boundary of the Federal Center site approximately halfway between Kipling Street and Union Boulevard. It then flows southeast and exits the southeastern corner of the site before continuing approximately 8 miles to Wolcott Lake, located just east of Sheridan Boulevard and Evans Avenue.

Three detention ponds and one reservoir are located within the Federal Center site. Located on the northern portion of the site, the ponds were designed to divert stormwater runoff originating from the west of the site through each basin from west to east and, if necessary, into the Agricultural Ditch. Downing Reservoir, located adjacent to Kipling Street on the eastern portion of the site, is the single permanent surface water impoundment on the Federal Center site. Approximately 4.25-acre reservoir in area, it is, on average, 6 feet deep and is supplied by cooling water, spring water, and stormwater.

### 2.3.4 Vegetation

Vegetation communities within the Federal Center include riparian and wetland communities as well as urban landscapes, disturbed areas, and grasslands. Developed portions of the Federal Center campus are surrounded by landscaped vegetation. Undeveloped open space areas are categorized as either open mixed grasslands or open disturbed areas. Open grasslands consist of naturally occurring, but largely non-native vegetation. Open disturbed areas have little or no vegetation as a result of human-related disturbances.

Exhibit 2-11; McIntyre Gulch



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### 2.3.5 Riparian Communities

The riparian community found along the detention ponds on the northern side of the Federal Center, Downing Reservoir, the Agricultural Ditch, and McIntyre Gulch retain valuable native vegetation properties. This community is composed of deciduous trees and shrubs, along with various willow species (GSA 2005b).

### 2.3.6 Wetlands

A wetland survey, conducted in 1997 delineated wetland communities around detention ponds in the northwest portion of the site and Downing Reservoir along the eastern site boundary. In 2004, the U.S. Army Corps of Engineers (USACE) determined that these wetlands are not jurisdictional "waters of the U.S." and, therefore, not regulated by Section 404 of the Clean Water Act (CWA) (GSA 2005b). Additional wetlands are associated with riparian communities along McIntyre Gulch and its tributaries. McIntyre Gulch itself is a water of the U.S. regulated by the Clean Water Act (GSA 2005a).

Wetland communities within the Federal Center site are dominated by cattail willow, and mixed wetland species. In addition, riparian/wetland communities along McIntyre Gulch and its tributaries are composed of a mix of woody riparian vegetation and a fringe of herbaceous wetland vegetation along the banks, such as cattail, sedges, and rushes.

Exhibit 2-12; Agricultural Ditch



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### 2.3.7 Wildlife

The open grassland habitats within the Federal Center support the potential occurrence of more than 40 species of mammals. The drainage corridors on site, especially the riparian community-lined McIntyre Gulch provide an important wildlife corridor as well a source of water and cover for many species.

While the wildlife population at the Federal Center site is regarded as a positive component of the environment, some conflicts between wildlife and humans do occur; some rodent species have the potential to invade buildings, and others are attracted to trash and have the ability to den under and around buildings.

Many raptors likely nest within the Federal Center property or in nearby areas. Prairie dogs and other rodents, as well as smaller bird species such as pigeons, provide an adequate prey base for raptors, which are considered ecologically beneficial and assist with population control for prey species.

Other birds likely to be found at the property include waterfowl and wading birds, all of which are attracted to riparian areas and wetlands in the vicinity of McIntyre Gulch, detention ponds, and Downing Reservoir.

Reptiles and amphibians known or likely to occur on the Federal Center site include the wandering garter snake, the western plains garter snake, western rattlesnake, bullsnake, northern leopard frog, and bullfrog. Most of the snakes likely to be present on the site, particularly the bullsnake, help control rodent populations, which are often a sanitation concern.

Exhibit 2-13; View of Downing Reservoir



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Exhibit 2-14; Vegetation and Wildlife Habitats



## 2.4 Environmental and Hazardous Sites

Historical activities have resulted in the contamination of soil, sediment, surface water, and groundwater within and around the Federal Center. GSA is actively working to identify and remediate known and potential environmental contamination on the site. Investigation and remediation work is being conducted under three Specific Consent Orders issued by the Colorado Department of Public Health and Environment, including:

1. Resource Conservation and Recovery Act (RCRA) Consent Order 91-01-24-03a, issued in 1995, requires that GSA investigate and remediate the suspected on-site source of a groundwater contaminant plume in the vicinity of Building 52, of which FHWA is the tenant.
2. RCRA Consent Order 96-04-11-01, issued in 1996, establishes schedules and requirements for the implementation of a groundwater containment system at the eastern boundary of the Federal Center to prevent further off-site migration of groundwater contaminated with hazardous waste or hazardous constituents in excess of established state groundwater standards. This consent order specifically requires that GSA remediate an off-site groundwater plume associated with the Building 52 plume addressed in Consent Order 91-01-24-03a.
3. RCRA Consent Order 97-07-18-01, issued in 1997, requires that GSA identify and investigate the nature and extent of sitewide environmental contamination from current and past releases of hazardous substances on the Federal Center and remediate those releases.

### 2.4.1 Groundwater Contamination

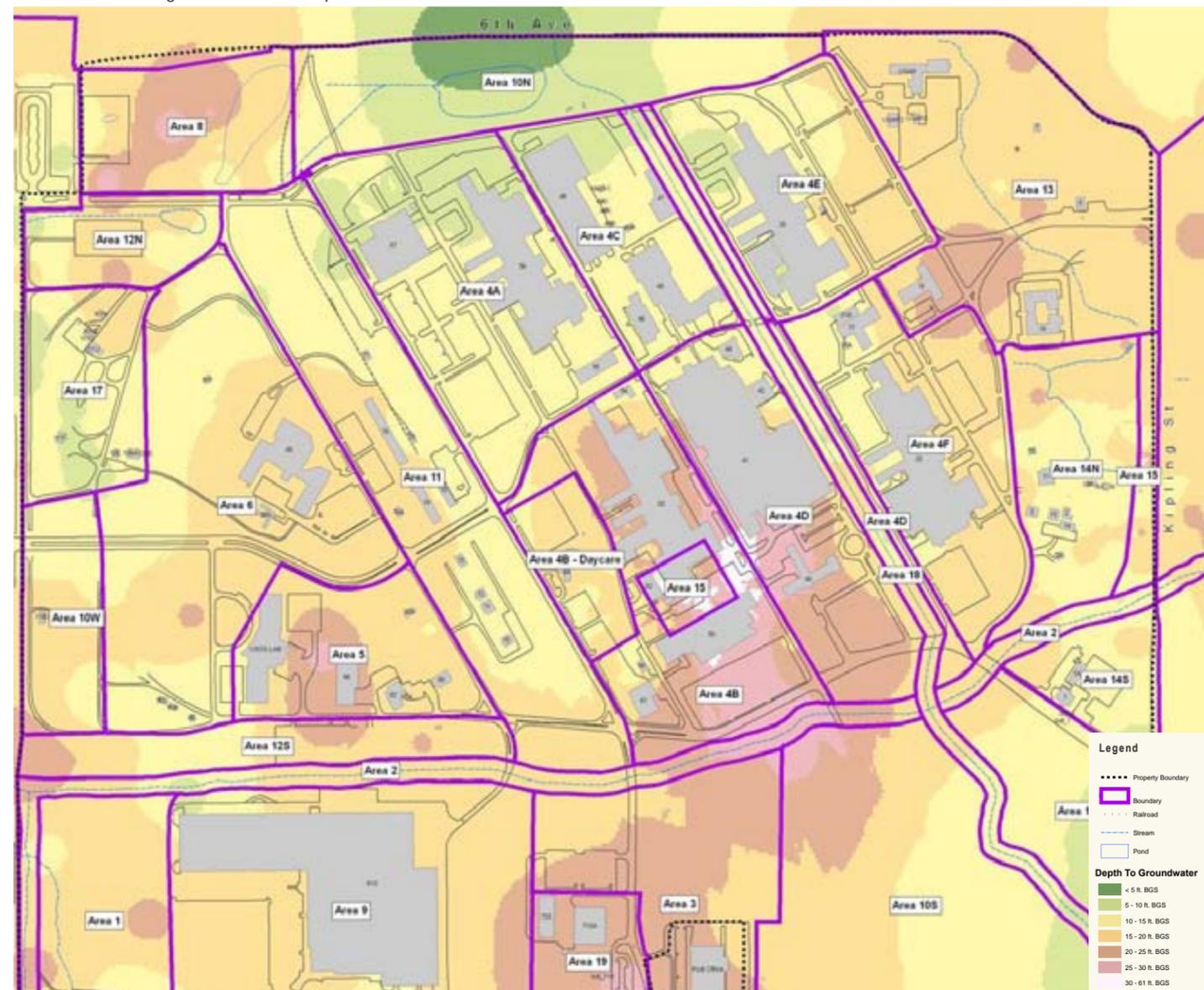
Groundwater in the vicinity of the Federal Center occurs at approximately 10–20 feet below ground surface (bgs), and generally flows toward the east, shifting slightly to the north in the northern portions of the site. Groundwater is not currently used for drinking water or irrigation on site, groundwater to the west of the site is used as a source of irrigation water (TTEC 2005).

Groundwater monitoring began at the Federal Center in 1995 and continues today. Solvents have been identified in groundwater on the property at concentrations in excess of either regulatory or risk-based screening level criteria identified in the Consent Orders for the site. There are multiple sources of these solvents, the most significant of which is an underground storage tank associated with the FHWA operations at Building 52, where the tank leaked a waste solvent into groundwater.

### 2.4.2 Soil, Sediment, and Surface Water Contamination

GSA began investigations on soil, sediment, and surface water conditions at the Federal Center in 1997, and these continue today. Chemical and site-specific risk-based screening level criteria have been developed for a variety of human and ecological receptors, including but not limited to, on-site grounds workers and resident fauna, which could be exposed to contaminated soil at the Federal Center. Chemical and site-specific risk-based screening level criteria have been developed for sediment and surface water.

Exhibit 2-15: Investigation Areas and Depth to Groundwater



Source: Matrix Design Group

## 2.5 Market

The land on which the Federal Center is located is potentially quite valuable change real estate. Because the site has been owned and operated by the federal government for more than 50 years, the cities of Lakewood and Golden have grown up around the site and continued on to the west, leaving the Federal Center site surrounded by substantial density, creating latent demand for a variety of land use types.

Situated at the junctions of Alameda Avenue, Kipling Street, Union Boulevard and 6th Avenue, the property comprises four “hard corners.” Easy access to downtown and western suburbs via Alameda Avenue and 6th Avenue make the site attractive to a variety of development opportunities.

The planned expansion of the West Corridor Light Rail Transit (LRT), with a key intermodal station stop planned in the western part of the DFC further enhances connectivity and provides opportunity for robust mixed-use transit-oriented development. The relocation of St. Anthony Hospital to the southwestern portion of the site will increase the viability of certain retail categories, boost potential residential demand, and generate medical office space demand. Available mountain views and potentially attractive green space along McIntyre Gulch add natural amenities that enhance the possibilities for residential development. If Federal Center parcels were available, they would represent some of the more sought-after pieces of development land in the metropolitan area.

The Federal Center is a very large and unique land use that can expand its presence and serve as a centerpiece for area redevelopment efforts. Future development will serve the Federal Center tenants first and foremost allowing for a more optimal physical distribution of facilities, accommodating for employment growth and expansion among existing tenants, and providing a more diverse range of space to attract other federal tenants currently in off-site leased facilities.

As a major employment base, the Federal Center itself provides additional appeal to private sector developers of retail, high-density residential, as well as complementary office and research space. The special security/access requirements of many of its tenants and its unique mix of land use types, presents certain constraints to any efforts at development. These constraints and barriers include:

- The nature of the Federal Center impedes local through traffic increasing traffic onto surrounding arterials;
- Perceptions (on the part of prospective retailers, residents, and private-sector employees) of potentially security-related impositions;
- Perceptions of costly bureaucratic development complexities given the jurisdictional arrangements governing the site; and,
- Potential mismatch between real estate market demands and the redevelopment preferences of existing federal tenants and other key stakeholders (such as residential neighborhoods).

Despite these perceptual and physical constraints, the Federal Center property is well positioned to capture a significant share of demand potential across all major land use types, including office, industrial/ research and development, retail, and residential. The potential demand for these uses were projected in the market study in three categories: conservative, moderate, and aggressive. The ranges expressed in Table 2-1 reflect the different market conditions likely to influence the Master Plan development.

### 2.5.1 Office

Office demand is viewed as being a function of overall employment growth in Lakewood. The portion of that demand that can be captured at the Federal Center depends in part on the attractiveness of the site (such as access, visibility, design quality, and amenities), and will also be heavily influenced by growth in the specific government programs found at the Federal Center and in the surrounding area. To the extent with which those programs “spin off” related private-sector activity requiring office space, the Federal Center should capture a disproportionate share of office sector growth. Favorable site characteristics of the property, together with its unique proximity to federal employment activity, suggest that the Federal Center could capture a significant share of demand.

Initial demand will likely be Class B multi-tenant and medical office space developed in association with the new St. Anthony Hospital. The exception will be Class A and/or B space developed in proximity to the future multi-modal facility. As the area redevelops and land prices begin to increase, demand for higher density mixed-use projects (e.g., “office-over-retail”) could also begin to emerge. The more successful the property owner is in establishing the Federal Center as a destination, the greater will be the site’s ability to capture demand from tenants seeking an urban setting in a suburban location.

The attainable absorption figures described in these scenarios are exclusive of any medical office space development that will occur on St. Anthony Hospital property.

Table 2-1; Land Use Summary

Product Mix	Market Projections		
	Conservative	Moderate	Aggressive
Office	635,150	827,660	1,082,750
Research & Development	378,300	504,400	630,500
Retail	319,140	505,500	747,920
Federal (net new)	1,600,000	1,800,000	2,100,000
Residential Units	0	2,858	3,681
Lodging	164	195	244

Source: Leland Consulting 2006

Exhibit 2-16; Fitzsimmons Health Campus, Denver CO



EDAW: September 2007

### 2.5.2 Industrial/ Research and Development

Many of federal tenants rely on the Federal Center as a place for their unique research and industrial needs. Therefore, the Federal Center also lends itself to expanded private and federal research and industrial activities and space.

The Federal Center, as a key employment center within the City of Lakewood, could provide a unique set of offerings in the form of amenities, services, transportation, living and lodging accommodations, and commercial outlets.

As with office space, the Federal Center could capture a disproportionate share of research and industrial space from the City of Lakewood if it can leverage relationships between federal tenants and complementary private-sector firms. Unlike the previous land use types, industrial/research and development demand is unlikely to be significantly impacted by completion of the light rail facilities.

Exhibit 2-17; Microsoft Campus, Silicon Valley CA



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### 2.5.3 Federal

The primary focus of the master site plan is to meet the current and future needs of federal tenants. The development of an inventory strategy in concert with tenant mission is an integral component of this study.

The master site plan assumes that over the course of implementation, from 500,000 sf to 1,000,000 sf of existing space would be replaced based on GSA's disposition and portfolio management strategy. In addition to the phased replacement, the net new projections in Table 2-1 represents a range of new space that could augment the existing Federal inventory.

### 2.5.4 Retail

In addition to capitalizing on the existing and growing employment base on and around the site, the demand and character of retail uses at the Federal Center is likely be influenced by the completion of the West Corridor light rail transit line and Federal Center Intermodal Station.

Transit Oriented Development (TOD) such as first floor storefront retail uses, food and drink, personal and professional services, medical, convenience, and entertainment that supports site activities and is likely to increase over time with enhanced transit availability and ridership.

In addition, a mid-sized neighborhood center is viable along Alameda Avenue and can be shared with the surrounding neighborhood residents.

Exhibit 2-18; Lowry Town Center, Denver CO

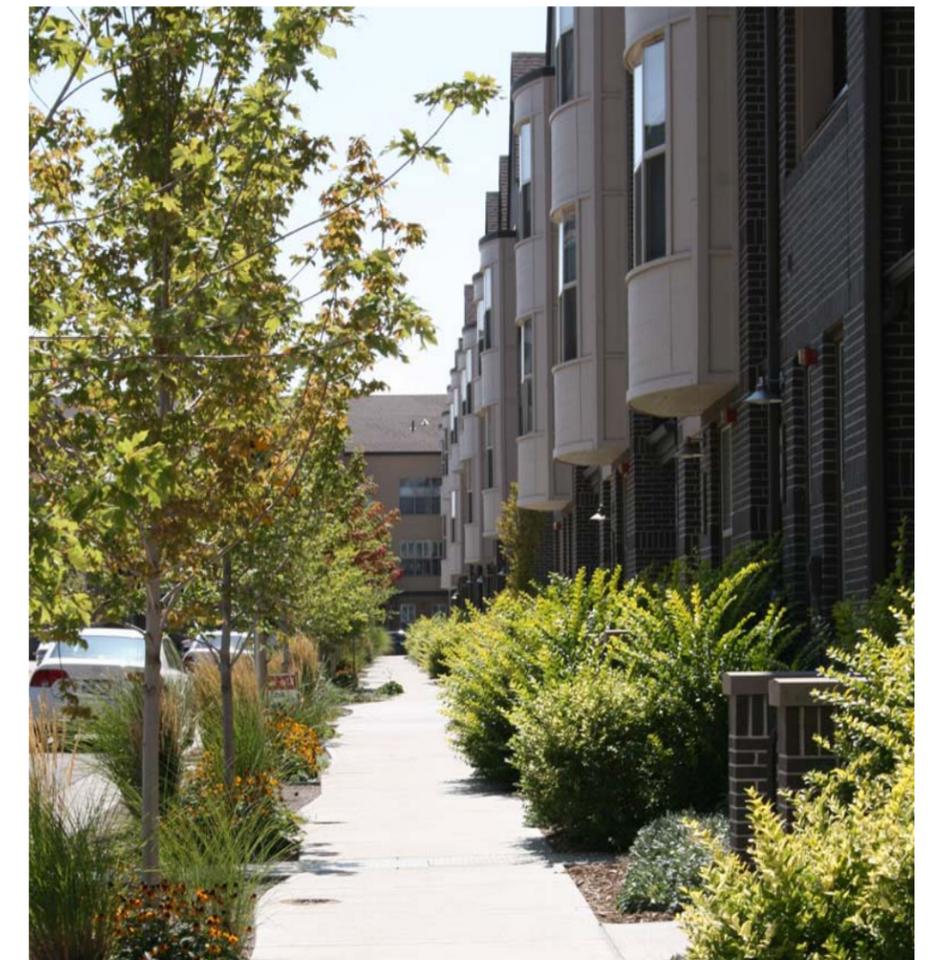


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### 2.5.5 Residential

Demand for new residential units is primarily a factor of growth in income-qualified households within the City of Lakewood. A review of key demographic and psychographic indicators suggests that residential demand opportunities lie primarily in the ownership of attached (condominium and townhome) housing products and within rental apartments. Demand in both sectors should cross a wide price spectrum. Increasing the density of housing near planned transit improvements will provide additional demand for convenience and/or service retail space and will help to create a highly dynamic atmosphere around the station stop. With light rail expected to be complete and available in approximately 2013, it is expected that capture rates for residential will increase after that time. Market demand for residential uses, even at a conservative capture rate, is likely to exceed both land capacity and stakeholder preference for this use on the Federal Center site.

Exhibit 2-19; High Density Residential Units in Belmar, Lakewood CO



EDAW, September 2007

## 2.6 Circulation

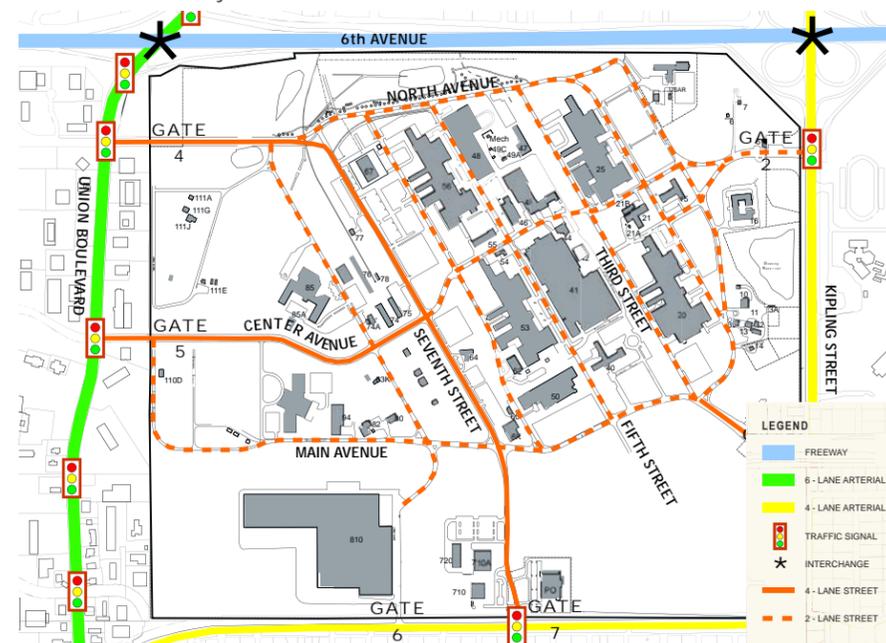
### 2.6.1 Roadway Network

The Federal Center is bounded by four major roadways (6th Avenue on the north, Kipling Street on the east, Alameda Avenue on the south, and Union Boulevard on the west). Sixth Avenue (U.S. 6) is a six-lane controlled-access freeway. Kipling Street is a four-lane arterial with a posted speed limit of 45 miles per hour (mph) and has a partial cloverleaf interchange with 6th Avenue. It also is designated as State Highway 391 and is classified as a non-rural principal highway (NR-A). Alameda Avenue also is a four-lane arterial with a posted speed limit of 45 mph. Union Boulevard is a six-lane arterial with a posted speed limit of 40 mph and has a diamond interchange with 6th Avenue.

The Federal Center site has five functional access points. Two gates (1 and 2) are off Kipling Street, one gate (7) is off Alameda Avenue, and two gates (4 and 5) are off Union Boulevard. All gates are secured entrances. Once traffic enters the Federal Center, it is distributed via a network of collector and local streets. The collector streets include North Avenue, Center Avenue, Main Avenue, Routt Street, and 7th Street. All collector streets provide four travel lanes (two lanes in each direction). All other streets are classified as local streets. These are two lanes wide (one lane in each direction).

The grid pattern surrounding the Federal Center generally follows the standard north-south grid orientation found throughout the older areas of Lakewood and Denver. However, the grid pattern within the Federal Center site also follows a land use pattern that is a diagonally skewed grid, based on the 1940 Denver Ordinance Plant (DOP) development.

Exhibit 2-20; Roadway Network



Source: Matrix Design Group 2006

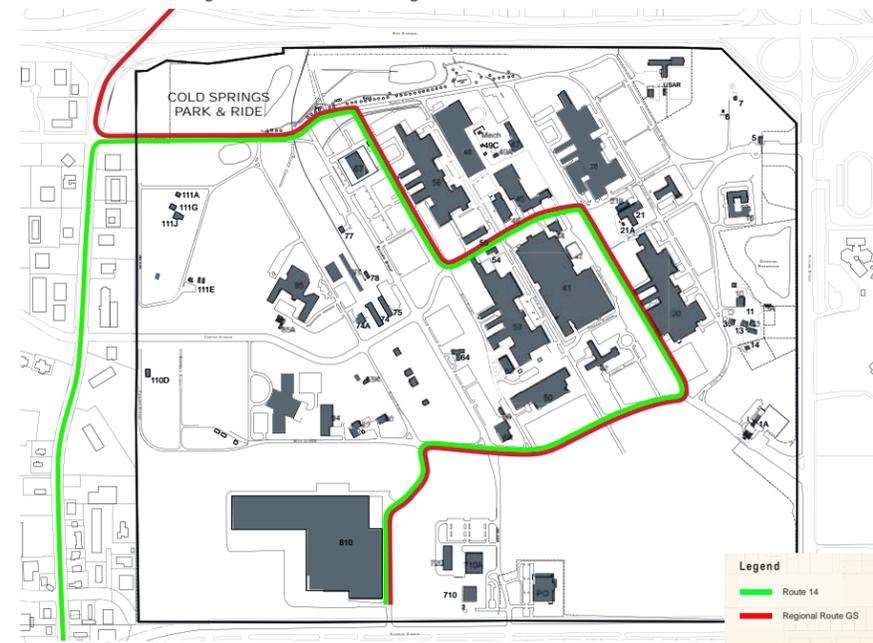
### 2.6.2 Transit Service

The Federal Center is directly served by two RTD routes. These include one local and one regional service route. Service from the east is provided by Route 14 (Florida). Regional Route G5 is available from Boulder and Golden. An additional 15 routes serve the Cold Springs park-n-Ride, which is located at Union Boulevard and 6th Avenue.

The West Corridor Light Rail Transit Line is scheduled to open in 2013. The proposed West Corridor is 12.1 miles in length and extends from downtown Denver to the Jefferson County Government Center in Golden. Currently, there is an RTD-operated bus transfer and park-n-Ride station located near the intersection of Union Boulevard and West 4th Avenue on land leased from GSA. The Federal Center Intermodal Station will replace the Cold Springs park-n-Ride. The station is anticipated to have 1,000 parking spaces (354 net new spaces) and 18 bus bays. Twenty-three percent of the riders are forecast to access the station by automobile, 58 percent by bus, and 19 percent by walking.

Fifteen bus routes will serve the station (a maximum of 95 buses per hour). These routes will consist of local, express, regional, and new feeder services; none of these routes will enter the Federal Center site. Access to the station will be from both Union Boulevard via Second Place and Alameda Avenue via the new Routt Street connection. As part of the RTD and hospital developments, Routt Street will be constructed from Alameda Avenue to North Avenue. These improvements also include the signalized intersection of Routt Street at Alameda Avenue.

Exhibit 2-21; Existing Transit Routes through Federal Center Site



Source RTD Routes Map 2006

### 2.6.3 Bicycle Facilities

Bicycle paths are located along three of the Federal Center's perimeter streets (Kipling Street, Alameda Avenue, and Union Boulevard). The City of Lakewood has plans to improve connections between the Federal Center and the rest of Lakewood through a number of bike lane and path extensions. Key investments include:

- Overpass of 6th Avenue as part of the future Routt Street extension; and
- A bike path along McIntyre Gulch with an underpass of future Routt Street.
- Bike lanes along the newly constructed Routt Street from Alameda Avenue to North Avenue.

Exhibit 2-22; Bicycle Facilities



Source: City of Lakewood Bicycle System Master Plan 2004

## 2.7 Utilities and Infrastructure

GSA has planned infrastructure projects throughout the Federal Center that will upgrade the utility service within the central core area and accommodate a planned expansion across the site (from the existing utility lines), beginning in 2007. Agreements are in place with the Green Mountain Water and Sanitation District (GMWSD) to improve infrastructure capacity to support hospital and RTD transit uses and other future development.

### 2.7.1 Water Supply System

Two separate water distribution systems serve the Federal Center site, both of which are operated and maintained by GSA. One system is used to provide drinking water to the facilities, and the second system provides water to the fire sprinkler systems and hydrants throughout the site. Although the systems operate independently, cross-connections between the two systems are known to exist; many more are thought to exist, but they have not been verified.

The water supply is provided to the Federal Center site from the Denver Water Board (Denver Water) through a single 16-inch line connection near Kipling Street and 6th Avenue. Having only a single water supply connection may become problematic in the future as Denver Water upgrades its system, which could require shutting down the line serving the Federal Center site. A secondary emergency feed from GMWSD exists; however, the connection is not in service. Use of this connection would require an agreement for service between the Federal Center and the GMWSD.

Separate from the proposed Federal Center improvements, extensive improvements to the water supply system are currently underway. The design and construction of two new 16-inch water service mains from the eastern boundary of the Federal Center site is currently underway. Improvements include a new storage tank and pump station, the replacement of fire and domestic service lines, and new valves and backflow preventers as needed.

### 2.7.2 Sanitary Sewer System

The Federal Center site's sanitary sewer collection system is owned and operated by GSA, and connects to the City of Lakewood's outfall at Kipling Street. The City of Lakewood's system connects to the Metropolitan Wastewater Reclamation District (MWRD) interceptor, and MWRD provides wastewater treatment at the regional facility adjacent to the South Platte River. A majority of the sanitary sewer system is in working order; however, many of the lines are too small for present sanitary design criteria; some of the lines need rehabilitation due to cracking and root growth in the system.

### 2.7.3 Stormwater System

The storm sewer system of the Federal Center site is owned and operated by GSA. A series of stormwater ponds along the northern boundary of the site, adjacent to 6th Avenue, drain to the Agricultural Ditch. A majority of the site's storm sewers drain to McIntyre Gulch. McIntyre Gulch enters the southwest corner of the Federal Center site, runs north to the middle of the site, and then runs east before exiting at Kipling Street, approximately halfway between Alameda Avenue and 6th Avenue. No easements exist for McIntyre Gulch, it is not up to date according to Urban Drainage and Flood Control District design criteria, and it is not currently available to receive maintenance funding.

### 2.7.4 Electrical System

Electrical service is provided to the site by Xcel Energy via an overhead feed and on site substation located between North Avenue and 6th Avenue. The Federal Center is a federal enclave, and has no franchise agreement existing for service to the site. A master meter monitors service for the entire Federal Center, and direct billing from Xcel Energy to individual buildings does not occur at this time. Sturgeon Electric currently provides maintenance support for the electrical system.

In 2005, an additional lightning arrester and grounding grid were added to the main substation, overhead secondaries were converted to underground in 25 buildings, and the underground lead-shield conductor feeding Building 67 was replaced. A number of load break switches, boxes, junctions, and switchgear packages have also been replaced or repaired (CH2M Hill; Inc. 2002).

### 2.7.5 Natural Gas Service

The original natural gas system was installed by the federal government and then dedicated in 1990 to Xcel Energy. Xcel Energy continues to own, operate, and maintain the natural gas distribution system at the Federal Center site. Natural gas is provided via underground service lines that generally run adjacent to major streets. There are individual meters at each of the facilities/buildings; GSA is billed by Xcel Energy at the metered point.

### 2.7.6 Telecommunications System

The main telecommunication system at the Federal Center site is owned and operated by Qwest Communications. Multiple telecommunication systems exist, and some of the agencies at the Federal Center have separate cable and communication systems. The majority of the wiring, cable, and fiber optic systems are contained within an underground conduit.

### 2.7.7 Easements and Rights of Way

The Federal Center owns three out of its six utility systems. No easements currently exist for the private utilities, and ownership of these private utilities is under separate agreements with Xcel Energy and Qwest. Because GSA is not looking to transfer utility services within the central core area, easement for the central core area will not be required in the future. Easements or rights of way may be required for the provision of utility services and associated maintenance by outside providers.

Exhibit 2-23; Power line and Substation at DFC



EDAW: July, 2007