

## 6.1 INTRODUCTION

This chapter addresses issues concerning water, waste water, solid waste, storm water/drainage, public safety, and other public services within the Downtown Development Plan area. This analysis assumes that new development in the Downtown Development Plan area will largely fall within the maximum build-out previously calculated in Chapter 3 - Land Use Regulations and Zoning. Accordingly, the type and amount of potential development through year 2030 would include the following: 222 total new residential units (including mixed-use residential units), and up to 405,000 square feet of total new commercial space. Most development activity would be focused on maximizing existing built tenant space, renovations, and adaptive re-use. Over the lifespan of the Downtown Development Plan document, this represents an approximate 160% increase in residential development and an approximate 530% increase in commercial development.

## 6.2 INFRASTRUCTURE OVERVIEW

Due to the near build-out condition in downtown Frederick, the infrastructure and utilities required to serve this revitalization effort are largely in place. Most of the roads in the area are at built-out conditions as well. The Downtown Development Plan recommendations will not require significant service upgrades for most utilities and services.

*Table 6-1 is a summary of the Downtown Development Plan area infrastructure adequacy:*

**Table 6-1: Summary of infrastructure status in the project area.**

<b>Type of Utility or Public Facility</b>	<b>Will 100% build-out of the Downtown Development Plan area exceed the existing service capacity of the utility or public facility in question?</b>
Water	Unknown
Sewer/Waste Water	Unknown
Storm Drains (Drainage & Hydrology)	Unknown
Trash & Recycling	No
Electrical Power	Yes
Natural Gas	No
Telecommunications	No
Cable	No
Police	No
Fire	No
Public Schools	No
Rail Transit	N/A
Bus Transit	Yes

## 6.3 WATER

### Existing Conditions

The Town of Frederick provides potable water service for the Downtown Development Plan area and non-potable irrigation water for the parks and Colorado Boulevard street landscaping. Central Weld County Water District (CWCWD) treats the Town's high quality raw water supply which is received through the Colorado-Big Thompson Project, and delivers treated water to the Town through several master meters. The Town provides potable water storage, and maintains its own distribution system for areas of Town east of I-25. The Town owns the 1,160 acre-foot Lake Milevac plus shares in local ditch companies that supply the non-potable water for the Town's irrigation system.

In addition, the Town of Frederick has recently elected to participate in the Northern Integrated Supply Project (NISP) for future potable water supplies. The Town has committed to acquire 2,600 shares in NISP which would meet the Town's estimated needs for an additional five thousand homes in Frederick.

### Build-Out Conditions

It is anticipated that the Town's projected water supply and existing distribution system is adequate to serve the expected demand from incremental in-fill development within the plan study area. Some new uses may demand greater amounts of water for their operations. For example, restaurants typically demand more water than the typical retail shop. Likewise, residential uses typically demand more water than office space. Future development would be required to adhere to the provisions of all Town ordinances regarding water demand allocations if applicable. Any new water line extensions or line size modifications would be designed in accordance with applicable provisions of the Municipal Code and to the satisfaction of the Town Engineer.

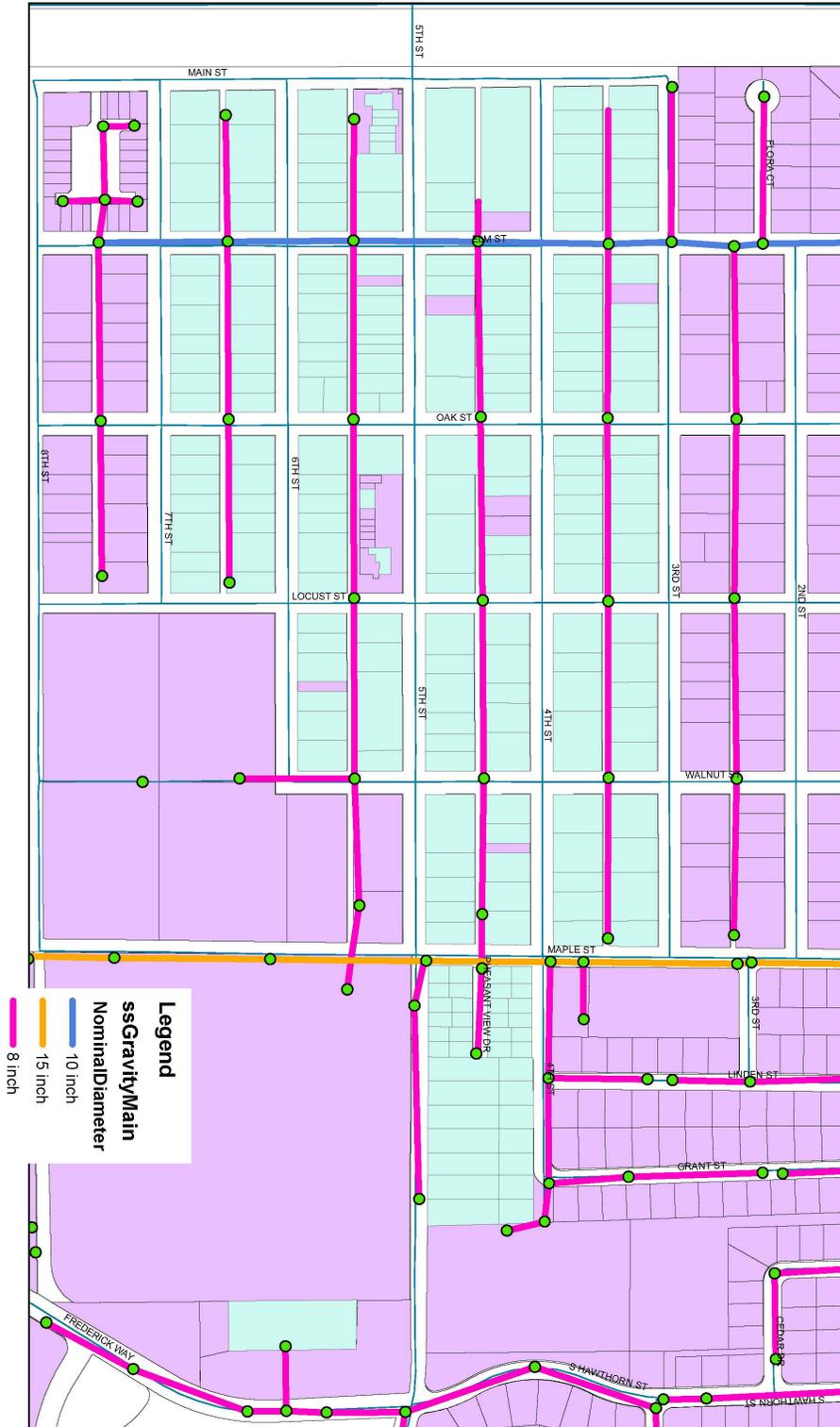


Figure 6-1: Downtown sewer mains

## 6.4 SEWER/WASTE WATER

### Existing Conditions

The St. Vrain Sanitation District (SVSD) recently inherited The Weld County Tri-Area Sanitation District, and is responsible for enhancing the serviceability of sewers. Currently, the Downtown Development Plan area is served primarily by 8" sewer mains, although there are a couple of 10" and 15" sewer mains as well (*see Figure 6-1*). Based on the current number of taps sold within the project area, there are 220 existing downtown customers.

### Build-Out Conditions

The SVSD anticipates that the sewer system within the Downtown Development Plan area will require additional studies to determine whether it is adequate to serve the anticipated new development in the project area. If studies determine that customer growth exceeds capacity, then the sewer lines will need to be upsized. However, the SVSD will not fund any line upsizing, and therefore it would need to be developer or Town funded. Any new sewer line extensions, or line size modifications, will be designed in accordance with applicable provisions of the Municipal Code, and to the satisfaction of the SVSD.

## 6.5 DRAINAGE AND HYDROLOGY

### Existing Conditions

The Town of Frederick Storm Water Utility is responsible for enhancing the serviceability of storm drains and catch basins. Storm water drainage in a region is affected by a number of factors including rainfall intensity, duration, and the amount of impermeable surface area. Hard surfaces such as buildings, streets, parking lots, and plazas, etc. increase storm water run-off. The majority of the Downtown Development Plan area is already built out and new development in the area is likely to occur as redevelopment on already-developed sites. Thus, the incremental increase in storm water run-off is not likely to be significant.

### Build-Out Conditions

In the 1980's, the National Pollution Discharge Elimination System (NPDES) mandated local jurisdictions to institute their respective storm water management programs in order to comply with the broad policies of the Clean Water Act. New incremental development will be reviewed by the Town Engineer for compliance with storm water discharge requirements. Mitigation may include on- or off-site improvements. The exact form of improvements will be determined during plan review process after submittal of storm water and hydraulic calculations for each new develop-

ment. In order to minimize storm water run-off impacts, the Town will review new development against the following factors:

- Conserve existing landscaped areas and create additional urban green space.
- Minimize storm water pollutants through compliance to all NPDES standards.
- Provide storm drain system stenciling, and signage to prevent unauthorized dumping.
- Ensure properly designed outdoor storage areas.
- Ensure properly designed trash and disposal areas.
- Ensure proof of on-going adherence to Best Management Practices (BMPs).

With compliance to the above listed regulations and BMPs, the Downtown Development Plan is not expected to violate any water quality standards established by the Town and other regulatory agencies.

The drainage system should be analyzed to determine whether the existing conveyances are adequate to meet the Town's adopted standards. Any necessary drainage improvements should be made prior to building surface improvements.

## 6.6 DRY UTILITIES

The following section describes the existing public or "dry" utilities in the vicinity of the Plan area, including trash and recycling, electricity, natural gas, and telecommunications (i.e. telephone and cable), and lists guidelines and standards.

### TRASH & RECYCLING

#### Existing Conditions

Waste Connections has been the single-source residential waste and recycling waste hauler for the Town of Frederick since 2009. Services include weekly residential trash pickup, residential recycling, residential green waste recycling, and residential bulky item collection. Commercial and industrial trash service must be contracted by individual business owners.

#### Build-Out Conditions

No crucial change in the level of service for waste disposal is expected upon build-out of downtown Frederick. However, if necessary, Waste Connections can add additional trucks to the downtown Frederick waste and recycling collection routes.

## ELECTRICAL POWER

### Existing Conditions

The Town's Electric Utility serves the Downtown Development Plan area. Electric power is purchased from the Western Area Power Authority and also from Tri-State Generation & Transmission through United Power. United Power, a non-profit cooperative, provides operations and maintenance services as a contractor to the Town.

Within the Downtown Development Plan area there are currently 47 commercial meters and 212 residential meters.

### Build-Out Conditions

The Town has completed significant improvements in recent years that provide service from two substations which increases the reliability of electric service. The existing distribution lines are mainly overhead construction in the back alleys. Although there is limited capacity in the old lines, it is sufficient for the present load. As new construction takes place, such lines are typically converted to underground at the expense of the developer. In the conversion, the lines are upsized to accommodate the new growth. In addition, there are ample distribution feeder lines along Main Street, Colorado Boulevard, Maple Street, and Frederick Way to supply anticipated new development.

## NATURAL GAS

### Existing Conditions

Source Gas is the current provider of natural gas service in the downtown area. Its existing 3" HP (high pressure) Steel loop line has a maximum capacity of 96.6 MCFH (thousands of cubic feet per hour).

### Build-Out Conditions

Planned residential customer growth is expected to involve 12.6 MCFH of new load. Upon build-out, commercial hourly peak load is expected to be 55.69 MCFH. This brings the new peak hourly load to 68.38 MCFH.

Source Gas can handle the expected upgrade in load without any reinforcement. Therefore, the existing 3" steel high pressure line has enough capacity to handle downtown build-out.

## TELECOMMUNICATIONS

Currently, residents and businesses can choose from Comcast and Qwest for their telecommunications service (*Figure 6-2*).



*Figure 6-2: Overhead telephone lines in a downtown alley.*

### Existing Conditions

Comcast offers digital voice services to Frederick and bills itself as “the leader when it comes to effective and convenient telecommunications combos”.

Qwest offers telephone landlines, internet, digital television, cellular phone service, and limited VOIP service within the project area.

Due to confidentiality, Comcast and Qwest cannot release data regarding the number of existing customers within the Downtown Development Plan area.

### Build-Out Conditions

Comcast and Qwest will increase capacity as necessary based on demand at the time of the service request.

## CABLE TELEVISION AND INTERNET

### Existing Conditions

Currently, residents and businesses have a wide variety of cable, satellite, and digital television and internet providers to choose from including Comcast, Direct TV, Dish Network, and Qwest.

### Build-Out Conditions

No crucial change in cable and satellite television and internet level of service is expected upon build-out of the Downtown Development Plan area.

## 6.7 PUBLIC SAFETY

The incremental growth anticipated by the Downtown Development Plan will increase the need for public safety services from both police and fire departments, including primarily additional personnel, sworn officers, and firefighters to serve this additional population.

## POLICE

### Existing Conditions

Law enforcement in the Town of Frederick is provided by the Town of Frederick Police Department (*Figure 6-3*). The Department is authorized to employ eighteen sworn Officers including the Chief of Police, one Commander, one Detective, and three Sergeants. Also on staff are two full-time Community Service Officers, one full-time Records Clerk, one part-time Police Secretary, and three seasonal Crossing Guards.

The Department provides all aspects of law enforcement to local schools and the community. Each Sergeant is responsible for a third of the Town in terms of communication with residents about problems specific to each area. There are presently fourteen different Neighborhood Watch blocks throughout the town. The Department has three Officers who are members of the Longmont Police Department SWAT Team through an intergovernmental agreement between the City of Longmont and the Town of Frederick. The Department also participates in the Weld County Drug Task Force, the Juvenile Assessment Center, the St. Vrain Valley School District Safety Committee, the Weld County Regional Communications Center Advisory Committee, and the Nineteenth Judicial District Victim Assistance & Law Enforcement (VALE) Board.

### Build-Out Conditions

The anticipated increase in the number of residents, employees, and patrons within the Downtown Development Plan area should not exceed the capacity of the Police Department to adequately serve downtown Frederick. However, there are three options available if the department's calls or demands for service exceed available resources. The first option is to add more personnel; the second option is to modify what types of calls the department responds to or modify how the response is made; and the third option is to require some reports to be taken over the telephone or at the front desk and reserve the on-duty police units for emergency or urgent matters only.

## FIRE

### Existing Conditions

The Frederick-Firestone Fire Protection District has 33 career personnel, and 20 reserve firefighters on staff. Its resources consist of three fire stations and 11 emergency vehicles, including three engines, one aerial apparatus, one heavy rescue, one brush truck, two ALS ambulances, and five additional support vehicles. A fourth fire station is in the planning phase for 2012.

As of today, the District provides 24 hour coverage to 18,500 residents located in an area of 28 square miles, which includes four and one half miles of Interstate 25 and five miles of Colorado

State Highway 52. Over the past three years, the District has responded to an average of 1000+ calls annually. The District estimates the total number of calls for 2009 to total over 1,300.

#### **Build-Out Conditions**

The Downtown Development Plan area is served by Fire Station #1 located at 31 Walnut Drive. Customer capacity is driven largely by road miles from a fire station, response time, and call volume which greatly fluctuates with demographics and structural make-up of the community.

Each station is designed to respond to an optimal 3 mile radius and a maximum 5 mile radius. The Fire Department District currently serves 28 square miles. The target response time is less than 5.5 minutes 80% of the time, and the current actual response time is 4.6 minutes. Once the response time reaches 5.5 minutes within the optimal service area of an existing station, an additional staffed unit is added to that station. If the increase in response time is in an area outside of the optimal service area of an existing station, an additional station is planned.

With new construction and advancing code standards, fire load is expected to continue to decrease per capita. An increase in population in the area will mainly affect demand on Emergency Medical and Rescue Services, depending largely on the age and health characteristics of the proposed area.

Career personnel are added at a rate of two per year, one additional 24-hr staffed unit every three years, and an additional station every five years to meet any increase in demand for services. By the projected build-out of 2030, the District will have added seven additional 24-hr units staffed with a minimum of two personnel each, and an additional 3-4 stations which will maintain the current service level throughout the jurisdiction.

In light of the anticipated growth of the Fire Department over the next 20 years, it is anticipated that development build-out of the Downtown Development Plan area will not exceed the capacity of the Fire Department to adequately serve downtown Frederick.

## 6.8 SCHOOLS

The project area is served by the St. Vrain Valley School District. There are also a variety of private schools serving the project area that specialize in elementary, secondary, and adult education.

### ST. VRAIN VALLEY SCHOOL DISTRICT

#### Existing Conditions

The following St. Vrain Valley School District facilities serve the Downtown Development Plan area:

School	Enrollment Capacity
Carbon Valley Academy K-12 *	550
Frederick ES	530
Coal Ridge MS	750
Frederick HS	865

*\* Denotes a charter school*

In addition, the Front Range Community College has partnered with Frederick High School to offer classes to the general population.

#### Build-Out Conditions

Due to the fact that the student population of the downtown area is expected to remain relatively stable over the next 20 years, the St. Vrain Valley School District will be able to accommodate the influx of new students expected upon build-out of the Downtown Development Plan area. The District is building a new High School on the western boundary of downtown. The existing high school will be converted to a K-8 after the new high school opens.

### PRIVATE SCHOOLS

In addition to the public school system, there are also a number of private elementary, secondary, and adult education schools serving the project area.

## 6.9 PARKS AND PUBLIC FACILITIES

### CARBON VALLEY REGIONAL LIBRARY

#### Existing Conditions

The Carbon Valley Regional Library currently serves all of the residents within the Downtown Development Plan area. The 35,000 square-foot building houses approximately 78,000 items including a special Health and Wellness collection. The library features a 12-person computer lab, 4 study rooms, a large community meeting room, a vending café and an outdoor patio seating area.

This library focuses on providing materials for all age groups, from board books for babies to large print books for those who need it. Programming runs the gamut as well with story times for children ages birth to 6 years old, monthly programs for ages 7-11, Missing End book clubs for teens, book discussion group for adults and a Summer Reading Program for all ages.

#### Build-Out Conditions

The library should be able to adequately handle the expected population increase from build-out of the Downtown Development Plan area.

### PARKS

#### Existing Conditions

Crist Park (*Figure 6-4*) is currently located within the Downtown Development Plan area. Centennial Park is located just a block to the south and the Frederick Recreation Area (including Milavec Lake) is located just over a mile to the north of the downtown area.



*Figure 6-4: Crist Park.*

**Build-Out Conditions**

The Downtown Development Plan proposes upgrades to Crist Park including wide formal walkways and a central gazebo. During the preparation of this Plan, several suggestions were made to add a seasonal ice rink whenever practical.

**COMMUNITY RECREATION FACILITIES**

The Carbon Valley Park and Recreation Center is on the eastern edge of the Downtown Development Plan area on 5th Street. It provides services for the youth, adult, and senior citizen community.

Facilities include a swimming pool, workout areas, gymnasium, locker rooms, multi-purpose room, and a childcare room. In addition, there are various programs and lessons available for all ages including gymnastics, swimming lessons, dance lessons, summer camp, babysitting classes, football, cheerleading, soccer, track, tennis, aerobics, volleyball, softball, basketball, karate, massage therapy, book clubs, quilting, and health and wellbeing sessions for seniors.

**6.10 PUBLIC TRANSIT**

The Weld County Transportation System and other agencies provide public transit including bus service within the Downtown Development Plan area. In addition, studies are currently underway to determine the feasibility of launching a commuter high-speed rail line along the Front Range corridor.

**BUS SYSTEM****Existing Conditions**

The Weld County Transportation System currently provides limited services to the elderly, disabled, and low income individuals. However, as the population of Frederick continues to grow, additional transportation options may become available, and it is likely that services will expand to include regularly scheduled bus routes in and around downtown Frederick. There have been meetings between the Town Board and Regional Transportation District (RTD) representatives to discuss the potential of annexing into RTD and extending bus and/or commuter rail service into Frederick.

**Build-Out Conditions**

Based on the existing capacity of the bus system servicing the downtown Frederick area, the bus system will require major upgrades upon development build-out. Possible upgrades may include adding buses, revenue hours, or routes to better serve the project area and its retail centers.

**COMMUTER RAIL****Existing Conditions**

The Downtown Development Plan area is not currently served by a commuter rail line. However, the approved FasTracks program includes the North Metro commuter rail line that would extend RTD's commuter rail service along Colorado Boulevard to roughly State Highway 7.

**Build-Out Conditions**

Refer to the North I-25 Environmental Impact Statement (EIS) which is formulating a preferred alternative for this region. Studies are currently underway to determine the feasibility of launching a commuter high-speed rail line along the Front Range corridor. If built, the high-speed rail line should be able to adequately handle the expected population increase from build-out of the Downtown Development Plan area.