

Chapter 6: Infrastructure

6.1 Introduction

The purpose of this report is to provide an overview of existing and planned infrastructure facilities, and to outline recommended infrastructure upgrades for the City of Compton TOD Specific Plan. The recommended upgrades are based on the analysis of the existing utilities /infrastructure within the Transit Oriented Development (TOD) project area which are based upon the information gathered from the City of Compton's Public Works Department and private utility purveyors, and the development capacity shown in Figure 6-1.

The study area encompasses public/non-government institutions, residential and commercial properties, industrial, commercial/limited/heavy manufacturing, and mixed use. The available utility infrastructure has little constraints regarding future redevelopment.

The highest density demand allowed by the city is 175 du/acre, although most development is not anticipated to reach that density.

Study Area: A

This area encompasses the north corridor from North of Rosecrans Avenue and between N. Matthisen Avenue eastbound to N. Willow Avenue.

Study Area: B

This sector runs along E. Rosecrans Avenue, from N. Matthisen Avenue to N. Santa Fe Avenue.

Study Area: C

The sector is bordered by N. Matthisen Avenue to N. Willowbrook Avenue to the west and east and W. Spruce Street, and W. Palmer Street to the north and south, respectively.

Study Area: D

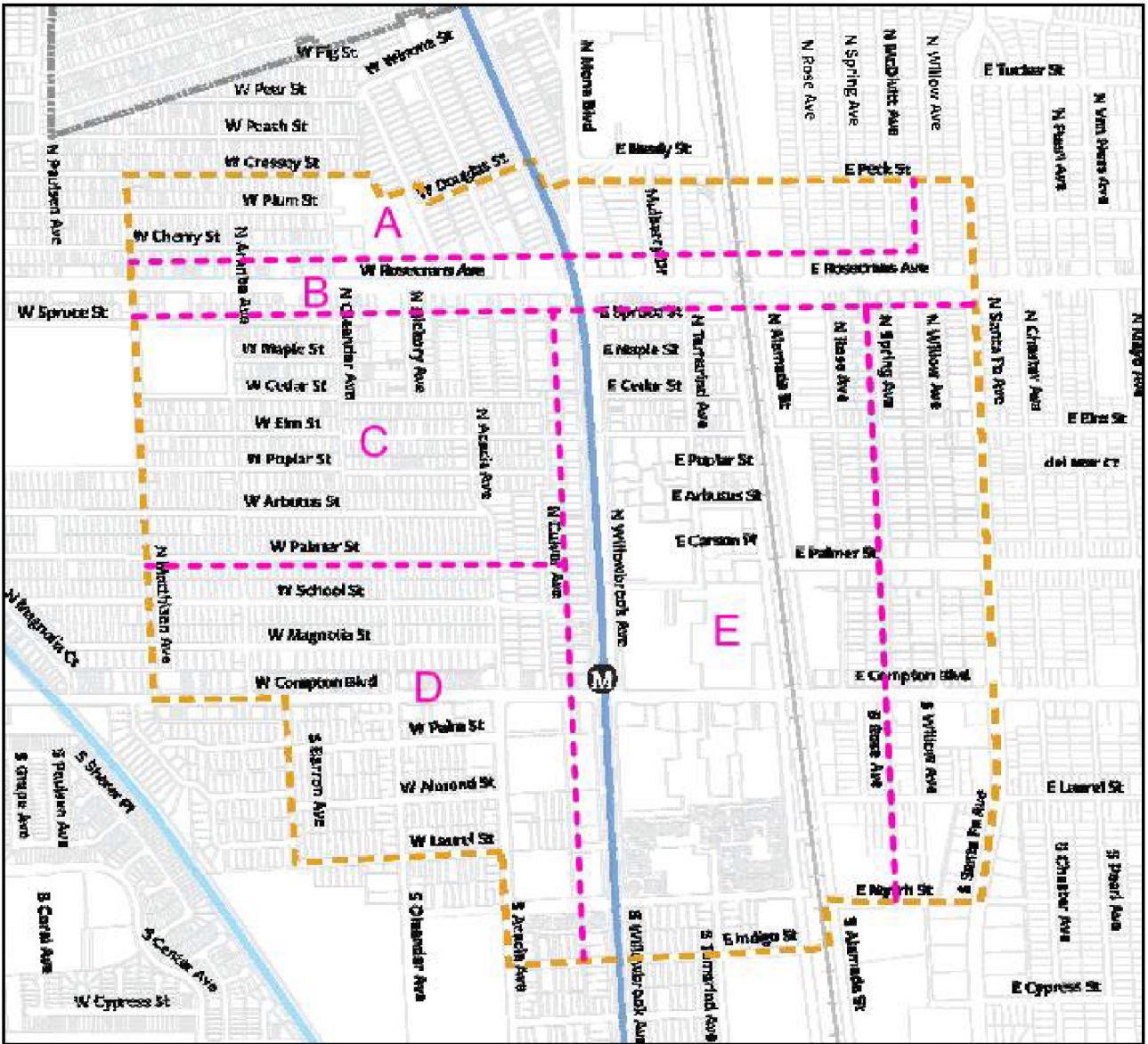
This sector is bounded by W. School Street to the north and S. Willowbrook Avenue to the east. Starting southbound on N. Matthisen avenue to eastbound on W. Compton Boulevard to southbound on S. Barron Avenue to eastbound on W. Laurel Street to southbound on N. Acacia Ave to eastbound on W. Indigo Street.

Study Area: E

This sector is bounded by N. Willowbrook Ave to the west and N. Spring Ave to the east, E. Spruce to the north and W. Indigo St. to the south.

Study Area: F

This sector is bounded by N. Willow Ave to the west and N. Santa Fe Ave to the east, south of Rosecrans Ave., and north of E. Myrrh St.



-  City of Compton
-  TOD Specific Plan Area
-  Metro Line A
-  Alameda Corridor
-  Compton Creek
-  Downtown
-  Sub areas

Figure 6-1. Development Capacity Map.

Development Capacity						
Location	Existing Residential (units)	New Residential (units)	Total Residential (units)	Existing Non-Residential (sf)	New Non-Residential (sf)	Total Non-Residential (sf)
Area A	379	15	394	40,953	0	40,953
Area B	179	125	304	197,042	0	197,042
Area C	873	45	918	69,457	0	69,457
Area D	894	252	1146	199,112	100,000	299,112
Area E	877	1,631	2,508	644,649	48,000	692,649
Area F	364	110	474	225,057	0	225,057
Total:	3,566	2,178	5,744	1,376,270	148,000	1,524,270

Figure 6-2. Development Capacity by Infrastructure Analysis Area.

6.2 Water

6.2.1 Existing Conditions

The City of Compton services approximately 80% of the City’s residents through more than 15,000 individual water connections. The City of Compton’s Water Utility Division oversees the largest network of water infrastructure, approximately one hundred and fifty-six (156) miles of pipe in length. The drinking water is a blend of groundwater from the Central Basin groundwater basin and surface water imported by the Metropolitan Water District (MWD). The water imported by the MWD is a blend from Northern California’s State Water Project water and from the Colorado River Aqueduct. Also, the City has adjudicated rights to pump 70% of the City’s water demand. The majority of the City’s water utility network is comprised of pipes made of Asbestos-cement (Transite) pipes, Ductile Iron (DI) pipes and Cast Iron (CI) pipes and range from 4”-16” in diameter.

Study Area A: The water mains range from 4”-12” in diameter and comprised of TR, CI, and DI lines.

Study Area B: The water mains range from 4”-16” in diameter and comprised of TR, CI, and DI lines.

Study Area C: The water mains range from 4”-10” in diameter and are TR, CI, and DI lines.

Study Area D: This sector of the study area is the southwest quadrant, south of W. Palmer Street and west of S. Willowbrook Ave. The water mains range from 4”-12” in diameter and are TR, CI, and DI lines.

Study Area E: The water mains range from 4”-12” in diameter and are TR, CI, and DI lines.

Study Area F: The water mains range from 4”-12” in diameter and are TR, CI, and DI lines.

6.2.2 Recommendations

Currently the City’s water system can accommodate existing demands and they do not anticipate any issues with meeting future water demands.

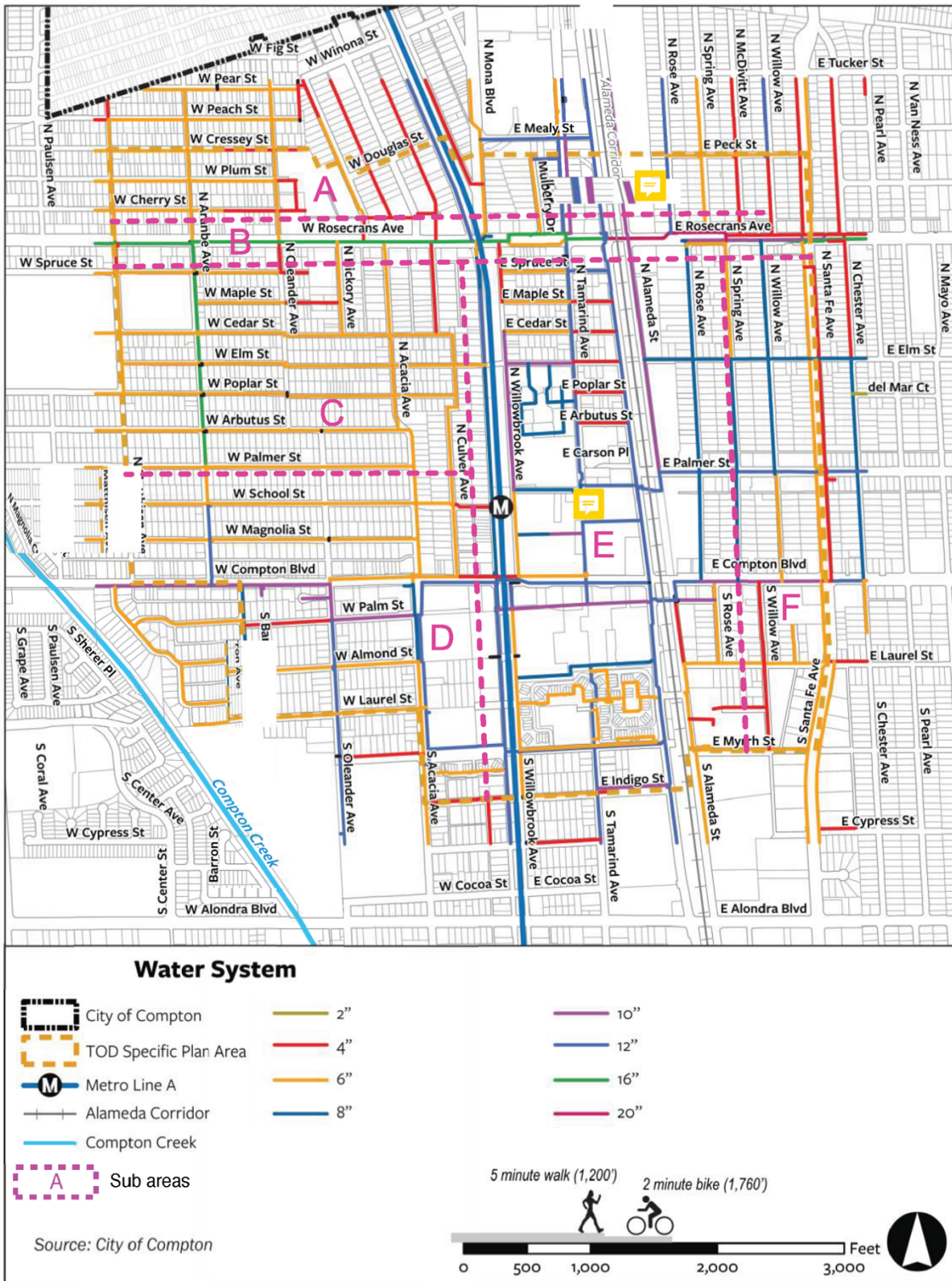


Figure 6-3. Water System.

6.3 Sewer

6.3.1 Existing Conditions

The City's Public Works department owns and maintains the existing sewer system, which is a comprehensive network. Majority of the existing sewer mains are 8" lines but also does range from 6"-12" in diameter. The sewer pipe material for most of the network within the study area is unconfirmed.

Study Area A: The sewer mains range from 6"-10" in diameter and are reinforced concrete pipelines.

Study Area B: The sewer mains range from 8"-10" in diameter and are reinforced concrete pipelines.

Study Area C: The sewer mains range from 8"-12" in diameter and the material is mostly unconfirmed and reinforced concrete pipelines.

Study Area D: The sewer mains range from 8"-15" in diameter and the material is mostly unconfirmed and reinforced concrete pipelines.

Study Area E: The sewer mains range from 8"-15" in diameter and the material is mostly unconfirmed and reinforced concrete pipelines.

Study Area F: The sewer mains range from 8"-15" in diameter and the material is mostly unconfirmed and reinforced concrete pipelines.

6.3.2 Recommendations

Based on the analysis on the capacity and capability to meet future demand of the City of Compton study area, an assessment of the existing sewer line was re-evaluated for the increase demand and the outcome of the analysis are as follows:

Study Area A – There is no future development on this area.

Study Area B – The existing sewer mains are capable to carry additional capacity of the future development in this area.

Study Area C – The existing sewer mains are capable to carry additional capacity of the future development in this area.

Study Area D – Future residential development will occur at the residential zoning area within the study area. Additional new development also includes hotel and office building which will be constructed at the commercial zone along the Compton Boulevard. The additional sewer flow for these developments will tap into the existing sewer lines at the residential and commercial areas which are mostly 8-inch RCP and onto the 15-inch RCP main sewer line at S. Oleander Avenue which is where all sewage generated by the new developments will discharge to. Therefore, the existing sewer mains are capable to carry additional capacity of the future developments.

Study Area E – Future residential development will occur at the residential zoning area within the

study area. Envisioned new development also includes an office building which will be constructed along the Compton Boulevard. The additional sewer flow for these developments will tap into the existing sewer lines at the residential and commercial areas which are mostly 8-inch RCP and onto the 10-inch RCP sewer line at N. Tamarind Avenue and at the 15-inch RCP main sewer at S. Willowbrook Avenue which is where all sewage generated by the new developments will discharge to. Additional sewer flow for future commercial developments at the Renaissance Plaza and Towne Center will tap into the existing 15-inch sewer line at Douglas Dollarhide Drive which is where all sewage generated by these new developments will discharge to. Therefore, the existing sewer mains are capable to carry additional capacity of the future development.

Study Area F – The existing sewer mains are capable to carry additional capacity of the future development in this area.

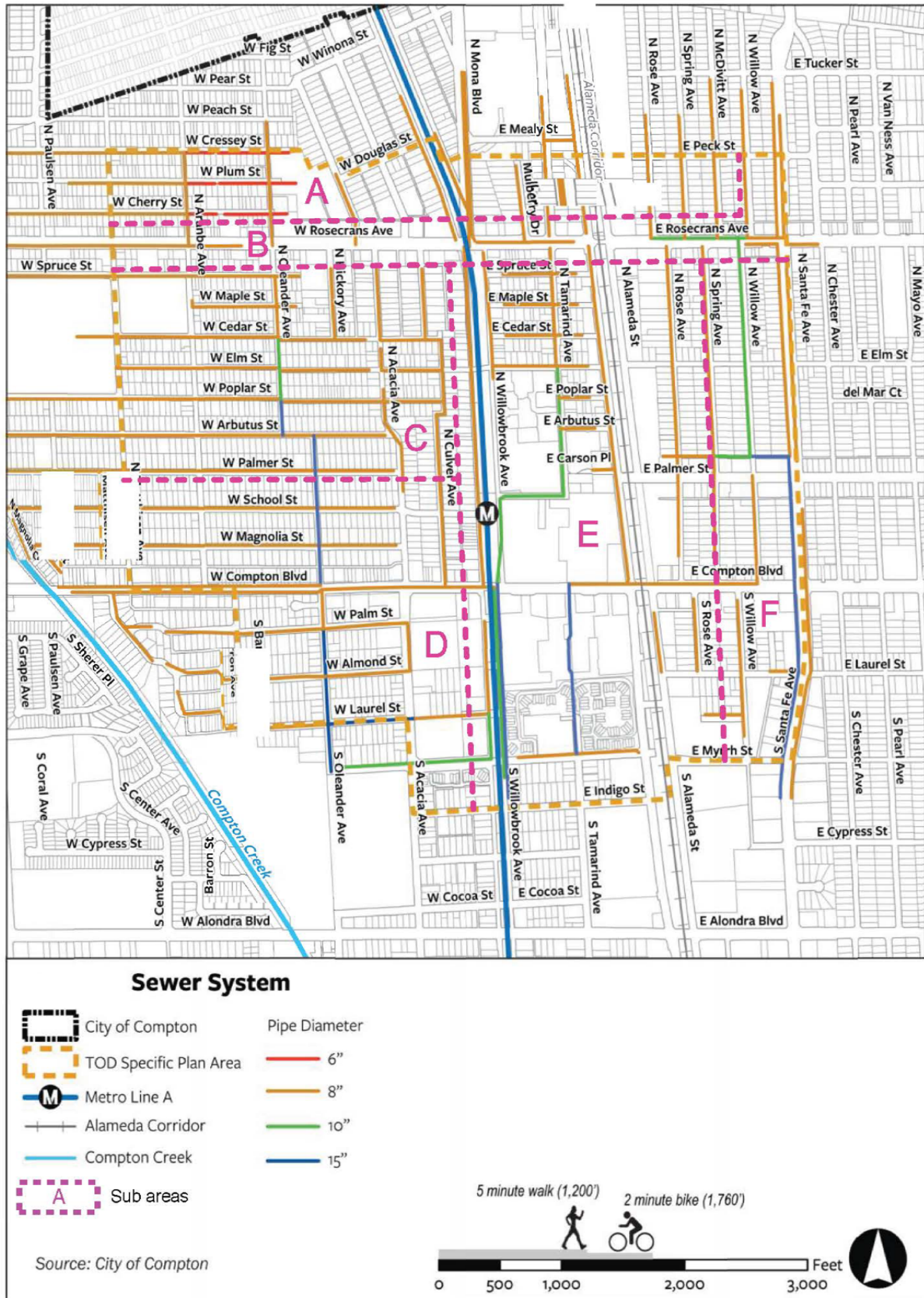


Figure 6-4. Sewer System.

6.4 Storm Drain

6.4.1 Existing Conditions

The Los Angeles County Storm Drain System (LACFCD) is responsible for the management of the existing storm drain system, which is a comprehensive network. The existing trunkline Glen Avenue drainage system located at Mona Blvd and Willowbrook Avenue, BI 0006 - Unit 2 Line E, BI 0006 - Unit 1 Line A and BI 0421 Line E located at Santa Fe Avenue are the main storm drain system. The City's Public works department is also responsible for the maintenance of small lateral pipes and other storm drains within the city.

Study Area A: The stormwater mains range from 39", 60" and 108" in diameter and are reinforced concrete pipelines.

Study Area B: The stormwater mains range from 24", 27", 39", 48", 60", 66" and 108" in diameter and are reinforced concrete pipelines.

Study Area C: The stormwater mains range from 24", 27", 30" and 36" in diameter and are reinforced concrete pipelines.

Study Area D: The stormwater mains range from 30", 42" and 48" in diameter and are reinforced concrete pipelines.

Study Area E: The stormwater mains range from 24", 33", 39", 42", 54", 108" and 138" in diameter and are reinforced concrete pipelines.

Study Area F: The stormwater mains range from 42", 60", 108" in diameter and are reinforced concrete pipelines.

6.4.2 Recommendations

Upgrading of the existing storm drain system will require a further study in the specific plan and an Environmental Impact Report (EIR) will analyze the existing infrastructure. This is according to the City of Compton Public works department Senior Planner managing the TOD project. They are not yet on the level of detail in the specific plan, so there are no immediate recommendations thus far to upgrade the existing storm drain system within the City of Compton TOD Study Area.

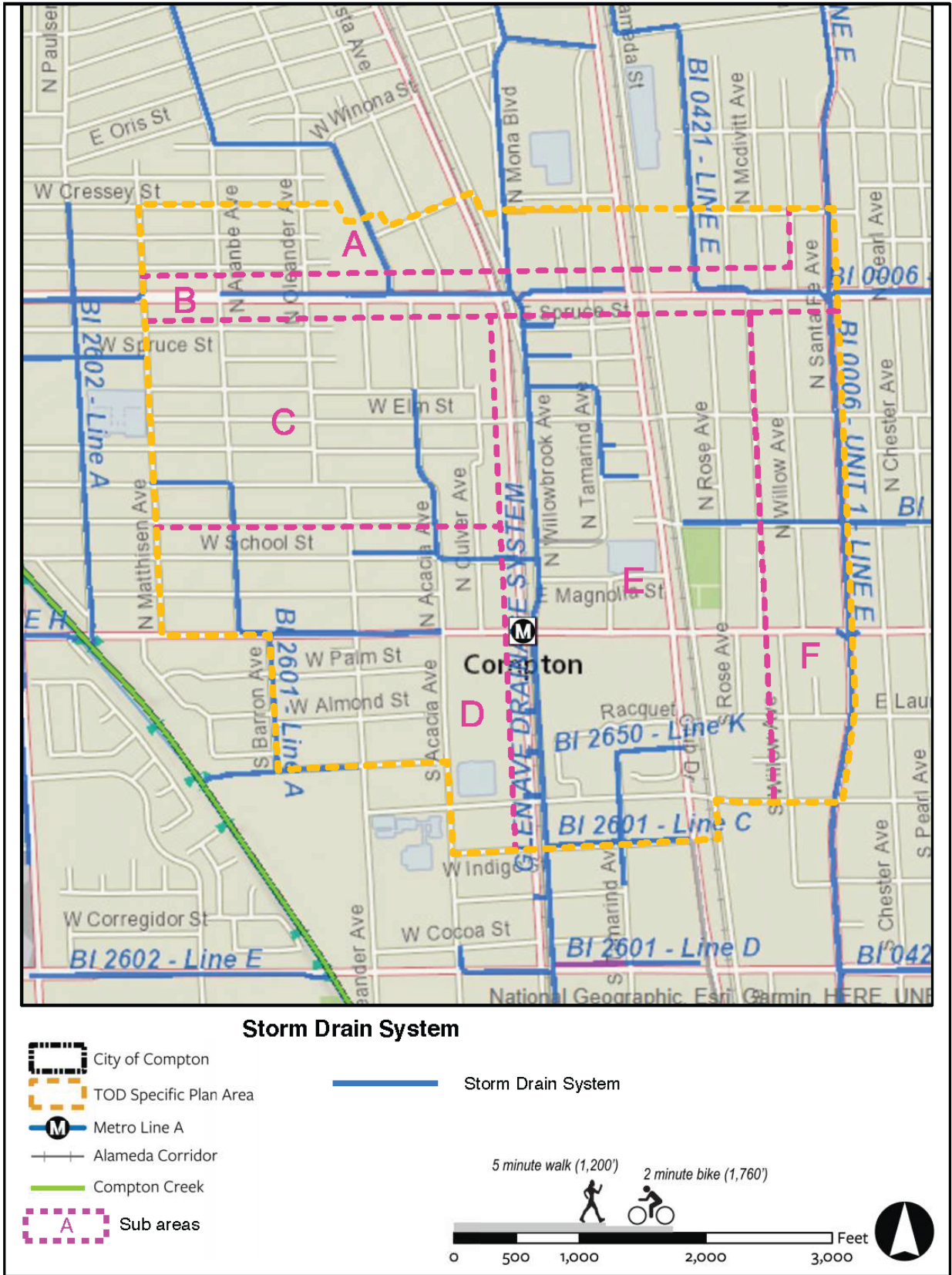


Figure 6-5. Storm Drain System.

6.5 Electrical

6.5.1 Existing Conditions

The Southern California Edison (SCE) Company is the electrical purveyor for the City of Compton. Edison's existing electrical facilities are mostly overhead and underground conductors. The overhead conductors share poles with telecommunications and cable TV facilities.

6.5.2 Recommendations

The decision to upgrade the power supply facilities and the number of upgrades to meet the demand of future development will be determined by SCE in coordination with the city after developers have submitted their building plans. Demand for services and the ability to serve new developments are generally determined on a case-by-case basis.

Most of the electrical distribution facilities in the City of Compton's study area are aerial facilities. It is recommended that existing aerial electrical facilities be placed underground whenever funding is available. Underground electricity provides higher reliability, is safer in general and is also less unsightly. One of the potential funding mechanisms is CPUC Rule 20. CPUC Rule 20 is a set of policies and procedures established by the CPUC to regulate the conversion of overhead electric equipment to underground facilities, a process often referred to "undergrounding". Rule 20 determines the level of ratepayer funding for different undergrounding arrangements.

CPUC Rule 20

Under Rule 20, undergrounding projects are financed by utility rate money, combined rate funds and local tax proceeds, or private funds, depending on whether Rule 20A, Rule 20B or Rule 20C provisions apply.

Rule 20A: *Rule 20A projects are paid for by all SCE customers and ratepayers, not just those who live in locations where facilities will be undergrounded. To qualify for full funding through utility rate proceeds, projects must produce a benefit to the general public, not just customers in the affected area, by satisfying one or more of these criteria:*

- *The location has an unusually heavy concentration of overhead facilities.*
- *The location is heavily traveled.*
- *The location qualifies as an arterial or major collector road in a local government's general plan.*
- *The overhead equipment must be located within or pass through a civic, recreational, or scenic area.*

Using CPUC formulas, SCE allocates rate funds to communities for undergrounding based on previous allocations, the ratio of customers served by overhead facilities to all the customers in the community, and the fraction that customers in the community represent of all SCE customers. Local governments use these formulas to project allocations, which allow them to prioritize projects and develop project schedules. Because funds are limited, local governments sometimes must wait and accumulate their allocations before starting an undergrounding project.

Rule 20B: *If an area is not eligible for Rule 20A or if local government cannot or chooses not to rely on the Rule 20A allocation process, Rule 20B allows rate funds to subsidize an undergrounding project. The subsidy includes an amount equal to about 5-20% of the total*

cost. The remaining cost is funded by local governments or through neighborhood special assessment districts.

Rule 20C: *Rule 20C enables property owners to pay for undergrounding electric lines and equipment if neither Rule 20A nor 20B applies.*

It is also worth noting that, prior to any undergrounding process, SCE will take the lead in contacting the other low voltage utilities that might be sharing the power poles with SCE aerial facilities, such as the telecommunication providers and cable TV provider to coordinate and execute a joint trench. During this process, SCE will also reach out to the City's Public Service Counter for their assistance in contacting and coordinating with the aforementioned utility providers.

It is recommended that prior to approving new development, the City should contact SCE regional manager for the City of Compton study area and set up an inspection at the new development site in order to determine whether the existing aerial SCE facilities in the area qualifies for Rule 20A funding.

6.6 Natural Gas

6.6.1 Existing Conditions

Southern California Gas Company is the only natural gas purveyor for the residents and businesses within the City of Compton. Almost every parcel within the study area is connected to the SoCalGas facilities. The existing gas mains are predominantly galvanized steel lines with a few polyethylene (PE) and cross-linked polyethylene (PX) lines which range from 1"-8" in diameter.

Study Area A: The gas main ranges from 2"-6" in diameter and are galvanized steel and cross-linked polyethylene lines.

Study Area B: The gas main ranges from 2"-4" in diameter and are galvanized steel and cross-linked polyethylene lines.

Study Area C: The gas main ranges from 2"-4" in diameter and are galvanized steel lines.

Study Area D: The gas main ranges from 2"-8" in diameter and are galvanized steel and cross-linked polyethylene lines.

Study Area E: The gas main ranges from 2"-8" in diameter and are galvanized steel and polyethylene lines.

Study Area F: The gas main ranges from 1"-7" in diameter and are galvanized steel lines.

6.6.2 Recommendations

The analysis on the capacity and capability to meet future demand will be conducted by The Southern California Gas Company (SoCalGas) in coordination with the County upon submittal of building plans by developers.



Figure 6-6. Gas System.

6.7 Telecommunications

6.7.1 Existing Conditions

Level 3 Communications was a multinational telecommunications and internet service provider, the 3rd largest provider of fiber-optic internet access (based on coverage) in the United States. Level 3 was acquired by CenturyLink on November 1, 2017.

Study Area E: CenturyLink's only fiber optic line in the City of Compton runs along Alameda Street West to Los Angeles and continues along the railroad.

6.7.2 Recommendations

The local telecommunication system providers will assess the demand for services and the ability to serve new developments on a case-by-case basis. The capacity and capability analysis for meeting future demands within the study area will be conducted after building plans are submitted by developers.

If there is "undergrounding" of existing aerial telecommunication facilities, SCE will reach out to CenturyLink coordinate a joint trench. To save on costs, the telecommunication company is likely to participate in the joint trench operation. SCE will dictate the layout of the trench, and the telecommunication lines would follow.