

CHAPTER IV: PUBLIC SERVICES, UTILITIES, AND COMMUNITY FACILITIES

A. WATER Facilities

A.1 Existing WATER Facilities

An existing 16-inch water main is located in the western paved section of Guasti Road and in Haven Avenue. A 12-inch water line is located in the Southern Pacific railroad right-of-way, perpendicular to the southern boundary line of the site. The nearest public fire hydrant to the Specific Plan area is located on Guasti Road across Haven Avenue. The installation of a new fire hydrant or hydrants will be part of the construction of the Guasti Road extension. The hydrant(s) will be located per the standards of the Fire Department.

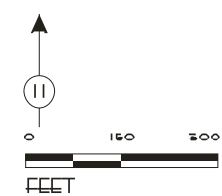
A.2 Proposed WATER Facilities

To serve the new development in the Ontario Gateway, new water facilities will be constructed and connected to the City's existing system. The new water facilities will include both domestic and recycled water facilities. The proposed domestic water facilities are illustrated in Figure 4.1 (Existing and Conceptual Domestic Water Plan). As shown in Figure 4.1, new 12-inch water lines are proposed for Guasti Road and on the 69-foot private access easement to Office Planning Area 1. The proposed water system will be looped with the existing main within Guasti Road east of the proposed Specific Plan facilities. New lines have been sized to meet anticipated fire flows along with projected domestic water demands. The final sizes of these new water lines are subject to an approved hydraulic analysis of the site.

Water utilities may be designated as "public utilities" if located within public or private streets. All public utilities within private streets shall be designed and constructed per City standards and contained within acceptable easements. The CC&RS shall contain language that requires all proposed work by the HOA within said easements to be plan checked and inspected by the City, including applicable fees. Generally, utilities will not be accepted as public within alleys, parking areas, or driveways. Utilities within commercial and industrial parking lots and loading areas shall be designated as private. The extent to which said utilities will be accepted as public utilities shall be determined, at the full discretion of the City during final design plan review.

A.3 Recycled WATER Facilities

When available, recycled water will be used to irrigate street landscaping as well as all commercial/industrial/hotel landscaping. The project developer will be responsible for the construction of a master recycled water main in Guasti Road,



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Existing and Conceptual Domestic Water Plan 4.1

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which will serve the development when recycled water is available, as shown in Figure 4.2 (Conceptual Recycled Water Plan). Recycled water will be provided in each planning area for the purpose of landscaping.

At the present time there is no City recycled water system near the site, nor is one planned in the near future. As requested by the City, a complete facility map of the proposed recycled water mains is to be provided with the construction of Guasti Road. An Engineer's Report approved by the City and the Department of Health will be provided prior to the use of recycled water. As there will be a period when recycled water is not available to the project site, the recycled water system will connect to the potable water system until recycled water service is available.

Recycled water utilities may be designated as "public utilities" if located within public or private streets. All public utilities within private streets shall be designed and constructed per City standards and contained within acceptable easements. The CC&RS shall contain language that requires all proposed work by the HOA within said easements to be plan checked and inspected by the City, including applicable fees. Generally, utilities will not be accepted as public within alleys, parking areas, or driveways. Utilities within commercial and industrial parking lots and loading areas shall be designated as private. The extent to which said utilities will be accepted as public utilities shall be determined, at the full discretion of the City during final design plan review.

A.4 WATER DEMAND

Using the water consumption rates in the City of Ontario *Public Works Potable and Recycled Water Guidelines* (December 1, 2005), the future water demand for the proposed Specific Plan Land Uses was calculated for the project. These preliminary calculations are tabulated in Tables 4.A through 4.D. Table 4.A shows the water demand factors to be used for estimating water demand for commercial land use. Table 4.B indicates the estimated daily water demand for commercial uses on the project site. Table 4.C shows the estimated service for potable and recycled water. Table 4.D calculates the peaking demands for water service.

Table 4.A: WATER DEMAND EQUIVALENTS FOR COMMERCIAL

Land Use	Water Demand Factor (gpd ^A /acre)	Average Day Demand (gpm ^B /acre)	Maximum Day Peaking Factor	Maximum Day Demand (gpm/acre)	Average Density (units/acre)	Water Demand Equivalents (gpm/unit)
Commercial ^C	2,495	1.73	1.48	2.56	1.0	2.56

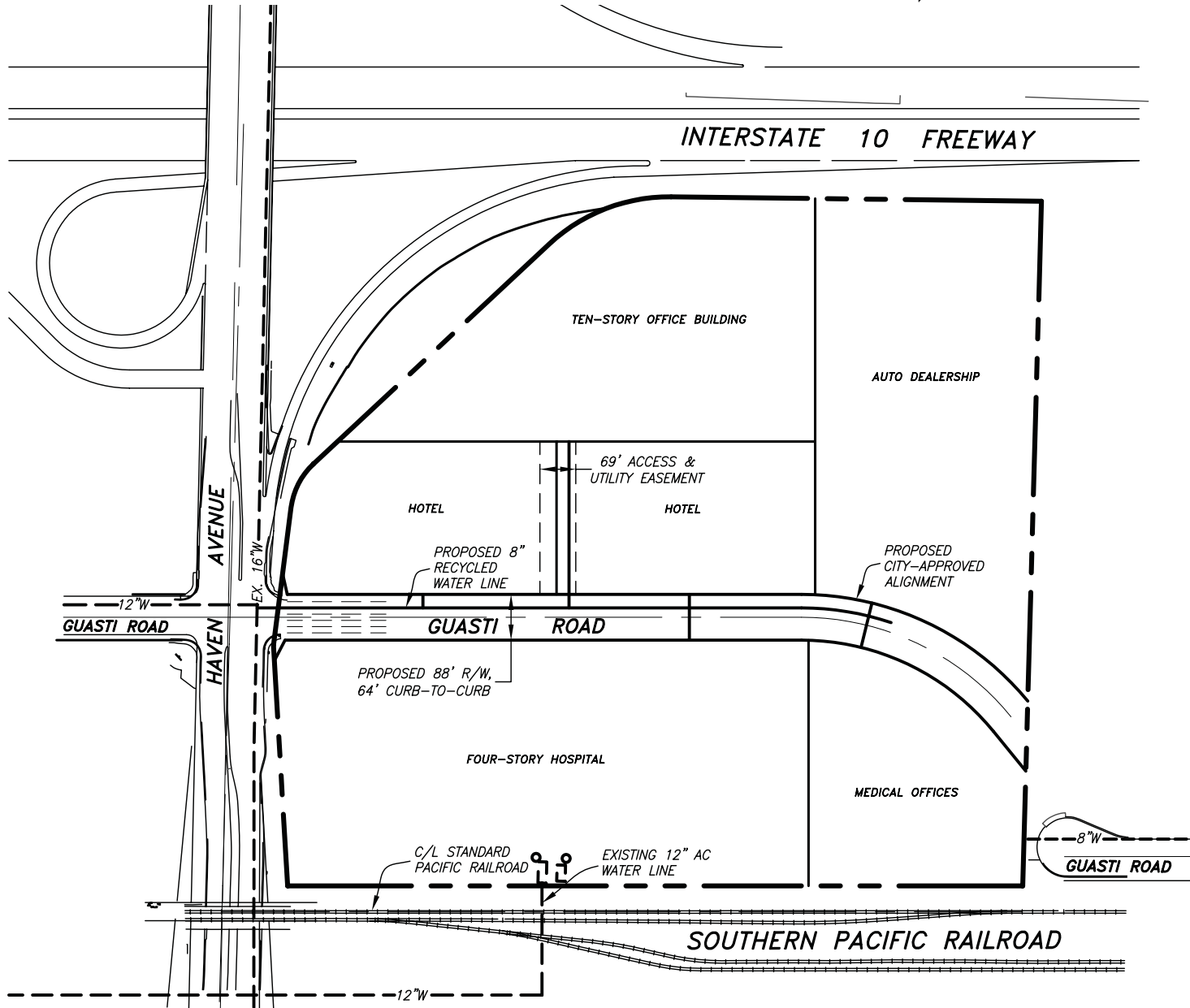
A gpd = gallons per day

B gpm = gallons per minute

C Includes Support Retail, Hotels, Auto Dealership, Offices, Hospital, and Restaurant uses.

Source: City of Ontario, Public Works Agency, *Potable and Recycled Water Guidelines for the Preparation and Review of Hydraulic Analysis for New Developments in the City of Ontario*, updated 12-01-05.

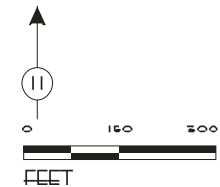
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--- EXISTING WATER LINE
 — PROPOSED RECYCLED WATER LINE
 (8" DIAMETER MINIMUM)

NOTE: PER THE CITY OF ONTARIO, UTILITIES DEPARTMENT, THE PROPOSED 8" RECYCLED WATER LINE SHALL TIE-IN TO THE EXISTING 16" DOMESTIC WATER LINE IN HAVEN AVENUE, UNTIL SUCH TIME AS THE CITY EXTENDS A RECYCLED WATER MAIN TO HAVEN AVENUE.

NOTE: RECYCLED WATER SHALL BE PROVIDED TO EACH PARCEL FOR REUSE IN PROPOSED LANDSCAPE AREAS.



SOURCE: TGA Development & Engineering, Inc.

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Conceptual Recycled Water Plan 4.2

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Table 4.B: Estimated Daily Water Demand

Land Use	Acres (gross)	Water Demand (gpd ^A)	Average Day Demand (gpm ^B /ac)	Maximum Day Peak (gpm/ac)	Maximum Day Demand (gpm/ac)	Average Density (units/ac)	Water Demand Equivalents (gpm/unit)
Commercial ^C	39.79	99,276.05	68.84	58.89	101.86	39.79	101.86

A gpd = gallons per day

B gpm = gallons per minute

C Includes Support Retail, Hotels, Auto Dealership, Offices, Hospital, and Restaurant uses.

Table 4.C: Estimated Potable and Recycled Water Service

Land Use	Acres (gross)	Density (units/ac)	WDE Factor (gpm ^A)	% recycled water	Potable MDD ^B (gpm)	Recycled MDD (gpm)
Commercial ^C	39.79	1.0	2.56	13	88.62	13.24

A gpm = gallons per minute

B MDD = maximum daily demand

C Includes Support Retail, Hotels, Auto Dealership, Offices, Hospital, and Restaurant uses.

Table 4.D: Peaking Demands for Water Service

Commercial Land Use	Acres (gross)	ADD	MinDD/ADD	MDD/ADD	PHD/ADD
Peaking Factor (gpm/ac)		1.73	1.21	2.56	3.63
Peaking Demands (gpm)	39.79	68.84	48.15	101.86	144.44

ADD = Average Day Demand; MinDD = Minimum Day Demand; MDD = Maximum Day Demand; PHD = Peak Hour Demand.

PEAKING FACTOR CALCULATIONS: 1.73 (ADD) × 0.7 (Peaking Factor MinDD/ADD) = 1.21
 1.73 (ADD) × 1.48 (Peaking Factor MDD/ADD) = 2.56
 1.73 (ADD) × 2.1 (Peaking Factor PHD/ADD) = 3.63

The water demand of the Specific Plan site was accounted for in the Ontario Water Master Plan at a possibly lower rate than may be necessary to serve the proposed new uses. The water for the Ontario Gateway Specific Plan will be supplied by the City of Ontario through a connection to the existing water line in Haven Avenue. Water calculations were performed to verify that the proposed water system will provide the required flow and pressure to meet both the fire flow and the consumption demands of the proposed development uses. WaterCAD by Heastad Method software was utilized in the analysis, and the findings are detailed in *Tentative Parcel Map 18094 Water Study* prepared by TGA in August 2, 2006. As shown in the water study analysis, the minimum requirements for flow and pressure are satisfied, exceeding the 40 psi and 20 psi minimum City criteria. Further, this analysis will be prepared and submitted to the

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City for review during final design review. The proposed on-site and off-site improvements are subject to the approval and recommendation of the analysis.

B. SEWER SYSTEM

B.1 Existing Wastewater System

On the project site, the existing 21-inch diameter sewer line flows from the properties north of the project site, running to the west along 1-10, then southwesterly along the Caltrans right-of-way, and then extends straight south along Haven Avenue, continuing past the southern project boundary as illustrated in Figure 4.2 (Existing and Proposed Sewer Plan).

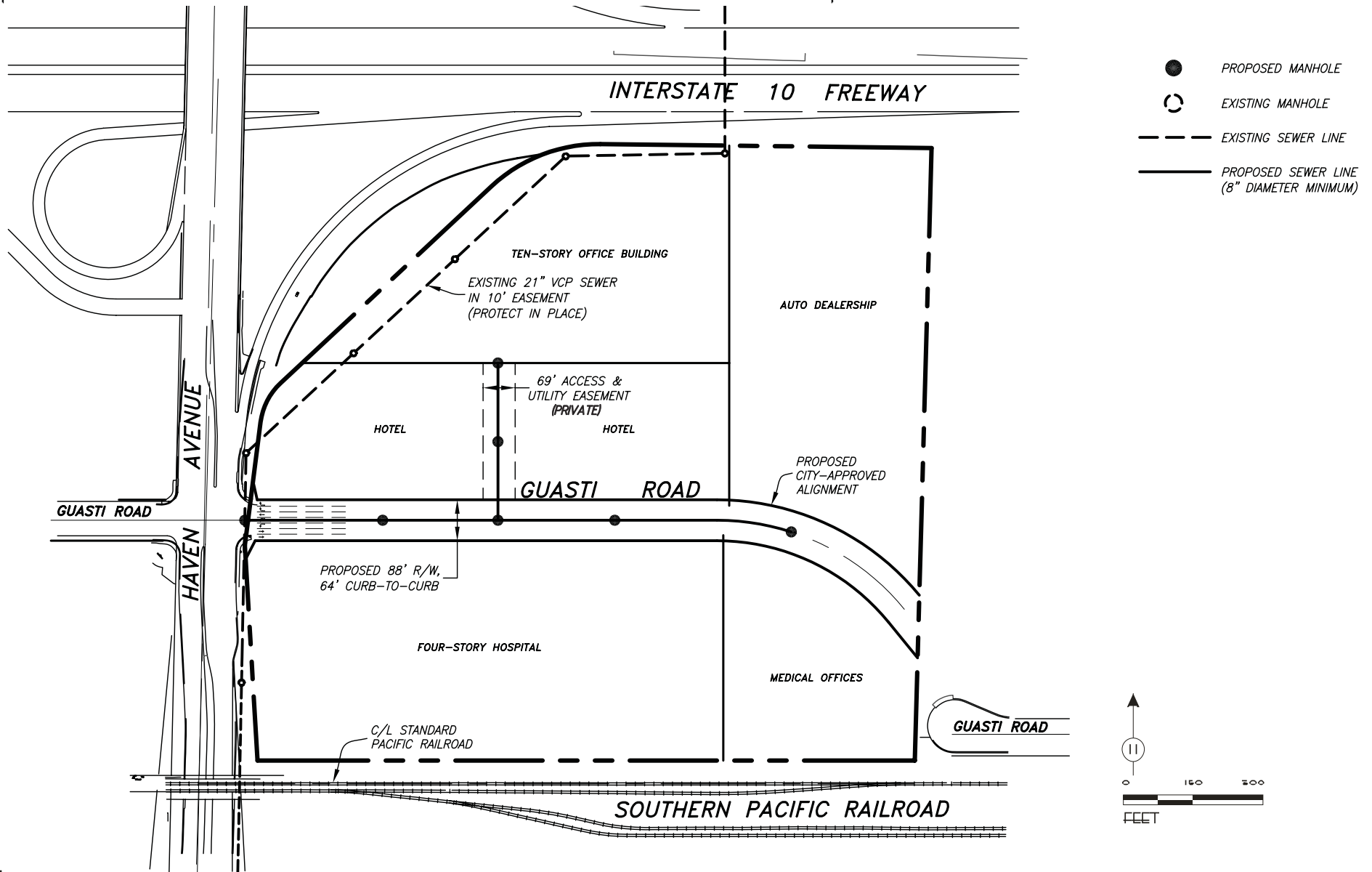
B.2 Proposed Wastewater Facilities

The sewage discharge from the project site will be treated at Inland Empire Utilities Agency's Regional Plant No. 1 (IEUA RP-1) facilities. The estimated wastewater discharge for the Ontario Gateway is based upon the City of Ontario March 2006 unit flow factor of 2,200 gallons per day per acre (gpd/acre) for Regional Commercial/Office uses. Using the 2,200 gpd/acre flow factor, the uses proposed for the approximately 40 developed acres in the Specific Plan would generate 88,000 gpd. Based on this preliminary calculation, new sewer lines will be installed in the project area in order to meet this wastewater service demand.

As shown in Figure 4.3 (Existing and Proposed Sewer Plan), the proposed sewer system for the Ontario Gateway will consist of a minimum 8-inch diameter sewer line installed in Guasti Road. The proposed new sewer line will connect to the existing Haven Avenue 21-inch sewer line. As demonstrated in the *Sewer Study for Tentative Parcel Map 18094* prepared by TGA on July 28, 2006, the existing 21-inch sewer line that runs southwesterly along the Caltrans property adjacent to the project site and then southerly along the entire Haven Avenue frontage has an existing flow depth of 5.61 inches. The sewage flow from the proposed additional project acreage would increase the existing flow depth to 5.82 inches. This new depth would be substantially lower than the allowed 15.75 inches; therefore, the existing 21-inch sewer line can adequately service the proposed project development.

In addition, the 8-inch diameter sewer line proposed to be installed in Guasti Road is sized adequately to convey the project's sewage to the larger 21-inch sewer line in Haven Avenue. As shown by TGA in the aforementioned report, the depth of the sewage flow in the 8-inch diameter sewer line will be 3.25 inches, 2.75 inches less than the maximum allowable depth flow. The final pipe sizing will be subject to approved hydraulic analysis for the site.

ONTARIO GATEWAY Specific Plan



SOURCE: TGA Development & Engineering, Inc.

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Existing and Proposed Sewer Plan 4.3



A sewer study shall be prepared and submitted to the City for the final design review. The proposed on-site and off-site improvements are subject to the approval and recommendations of the study.

Sewer utilities may be designated as "public utilities" if located within public or private streets. All public utilities within private streets shall be designed and constructed per City standards and contained within acceptable easements. The CC&RS shall contain language that requires all proposed work by the HOA within said easements to be plan checked and inspected by the City, including applicable fees. Generally, utilities will not be accepted as public within alleys, parking areas, or driveways. Utilities within commercial and industrial parking lots and loading areas shall be designated as private. The extent to which said utilities will be accepted as public utilities shall be determined, at the full discretion of the City during final design plan review.

C. WATER QUALITY

C.1 EXISTING WATER QUALITY DEVELOPMENT STANDARDS

The County of San Bernardino and the City of Ontario have adopted development standards requirement that all developers prepare and have approved a Water Quality Management Plan (WQMP) in order to minimize the detrimental effects of new development projects on receiving waters. Both agencies have concluded the effects of water runoff can be minimized by the implementation of site designs that reduce runoff and pollutant transport through the minimization of impervious surfaces and the maximization of on-site infiltration.

C.2 BEST MANAGEMENT PRACTICES

All new developments are to use source-control Best Management Practices (BMPs), on-site structural treatment control BMPs, and/or participation in regional or watershed-based structural treatment control BMPs where applicable. The goal of these methods is to create a project that mimics the predevelopment hydrologic regime by detaining on-site the difference between the five-year developed and the five-year undeveloped storm events.

The approved WQMP will identify the individual Site Design BMPs for water quality and may include the following:

- a. Maximizing permeable areas (pervious open space) of the site by reducing the amount of pavement, decreasing the project's footprint, or by utilizing alternative paving materials in select areas;
- b. Draining rooftops into pervious, swaled landscaped areas, prior to discharge of overflow into storm drain;

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- c. Constructing streets and parking lot aisles to the minimum width necessary;
- d. Constructing walkways, parking stalls, overflow parking lots, and other low-traffic areas with open-jointed paving materials;
- e. Using pervious drainage channels (rock- or grass-lined systems) for conveying parking lot runoff into storm drain overflows;
- f. Using perforated pipe, gravel infiltration pits, and drywells for low-flow infiltration following treatment by an acceptable method;
- g. Constructing on-site vegetated ponding areas and swaled landscaping (not mounded) that drain within 72 hours to prevent the development of vector-breeding areas;
- h. Providing curb cutouts, curb cores, or concrete mow strips and wheel sops to allow stormwater runoff to flow into swaled landscaped areas;
- i. Where soil conditions are suitable, constructing vegetated infiltration trenches in paved parking lot areas to infiltrate and filter stormwater runoff;
- j. Maximizing canopy interception and water conservation by preserving mature existing native trees, and planting additional native or drought-tolerant trees and large shrubs; and
- k. Using other site design options that are comparable and equally effective.

All development projects in the Specific Plan will incorporate Site Design BMPs as well as Source Control and Treatment Control BMPs in their approved WQMPs. Source Control BMPs are defined as any administrative action, structural facility design, use of alternative materials, or operation, maintenance, inspection, and compliance of a site that aims to eliminate or reduce stormwater pollution. Treatment Control BMPs are defined as any engineered system designed and constructed to treat the adverse impacts of stormwater and urban runoff pollution.

The master system of the Water Quality/Storm Drain plan for the Specific Plan area will be provided at the time Guasti Road is extended through the Specific Plan area. Each property owner will be responsible for providing a site-specific water quality/storm drain system that connects to the master system. The master system will be maintained by the Property Owners Association and the cost for construction of the backbone system will be borne by the property owners within the Specific Plan.

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C.3 SOURCE CONTROL BMPs

Source Control BMPs to be used by development shall be consistent with the current San Bernardino County Regional Water Quality Management Plan template document. Source Control BMPs are divided into four categories as shown in Table 4.E.

Table 4.E: SOURCE CONTROL BMPs

Routine Non-Structural	Education of Property Owners
	Activity Restrictions
	Spill Contingency Plan
	Employee Training/Education Program
	Street Sweeping Private Street and Parking Lots
	Common Areas Catch Basin Inspection
Routine Structural	Landscape Planning
	Hillside Landscaping
	Roof Runoff Controls
	Protect Slopes and Channels
	Storm Drain Signage
	Efficient Irrigation
	Inlet Trash Racks
	Energy Dissipaters
Individual Project Features	Trash Storage Areas and Litter Control
	Fueling Areas
	Air/Water Supply Area Drainage
	Maintenance Bays and Docks
	Vehicle Washing Areas
	Outdoor Material Storage Areas
	Outdoor Work Areas
	Outdoor Processing Areas
Alternative Material	Wash Water Controls for Food Preparation
	Pervious Pavement
	Alternative Building Materials

C.4 TREATMENT CONTROL BMPs

One or more of the following Flow-Based or Volume-Based Treatment Control BMPs may be considered for the Master Drainage Plan and by each individual development project WQMP, based on the identified Pollutants of Concern and the impairments of any downstream receiving waters:

- a. Vegetated Buffer Strips;
- b. Vegetated Swales;



- c. Extended Detention Basins;
- d. Infiltration Basins;
- e. Wet Ponds or Wetlands;
- f. Media Filtration;
- g. Bioretention;
- h. Construction Wetlands;
- i. Water Quality Inlets;
- j. Retention/Irrigation;
- k. Infiltration Trenches;
- l. Multiple Systems; and/or
- m. Manufactured/Proprietary Devices.

D. STORMWATER Facilities

D.1 EXISTING DRAINAGE SYSTEM

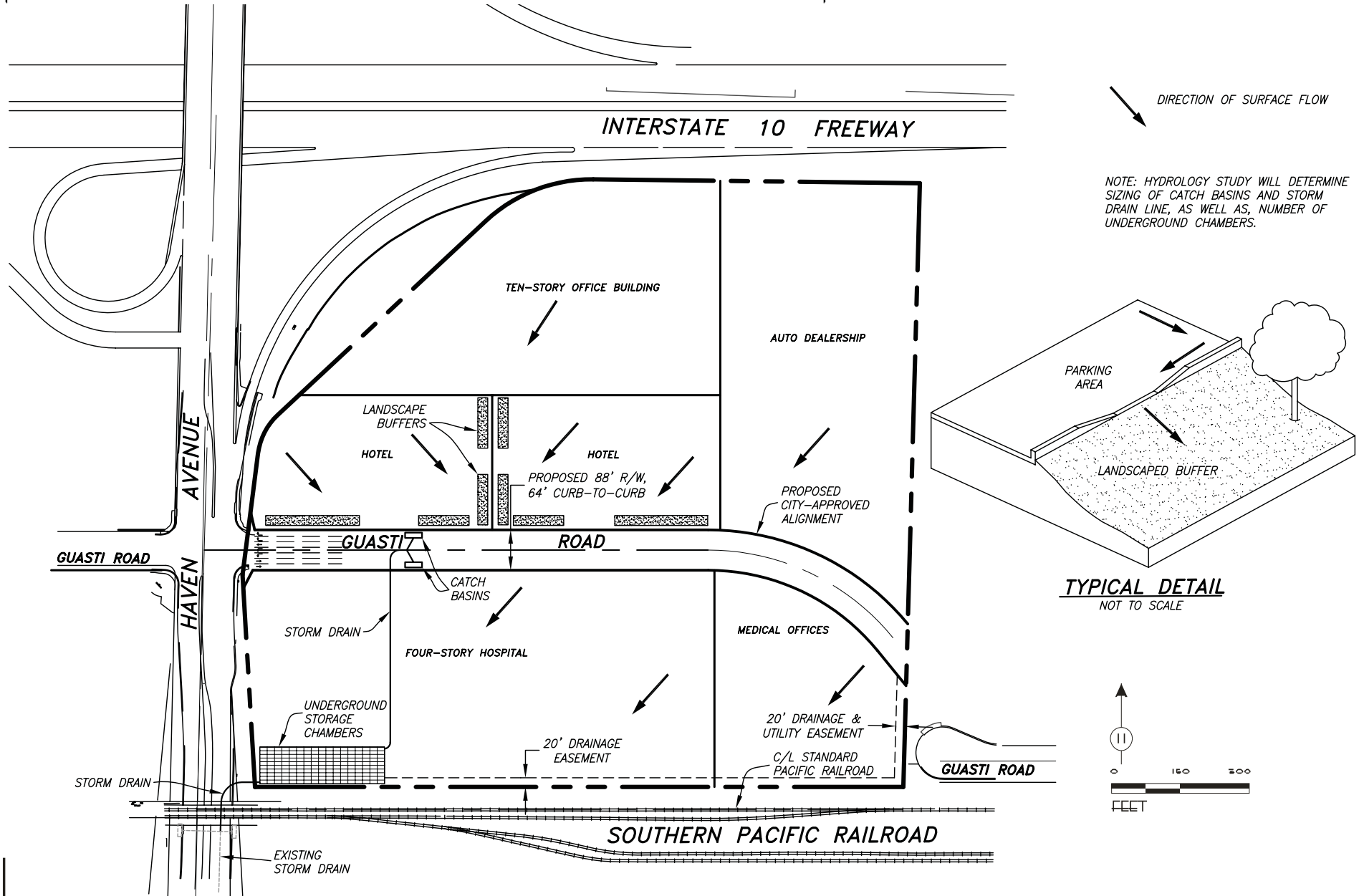
Current drainage in the Specific Plan area is by sheet flow across the existing open field area in the northern portion of the site to southern developed industrial area. An open drainage culvert for the I-10 Freeway exists adjacent to the northern property boundary. The current drainage system would not be able to handle the Specific Plan's flow at build out due in part to proposed changes in ground elevations, proposed coverage of open land, and intensity of uses.

D.2 PROPOSED DRAINAGE SYSTEM

- a. **Hydrology Study.** Development of the 39.79 acres in Ontario Gateway includes a hydrology study of the entire site to determine the sizing of catch basins and storm drain lines as well as the number of underground chambers necessary to contain the required stormwater runoff on-site. Upon completion of the project, surface flows from each parcel will be directed through landscape buffers and other vegetated areas incorporated into the parking areas and parcel perimeter. The runoff will then be carried to Guasti Road, where it will enter two proposed catch basins. The storm drain system will carry storm runoff through a series of underground detention chambers located at the southwesterly corner of the project site, and ultimately connect to the existing 24-inch storm drain in Haven Avenue as shown in Figure 4.4 (Conceptual Water Quality/Storm Drain Plan).

Preliminary calculations have demonstrated a need for approximately 444 chambers to accommodate the storm runoff from the entire project site. The dimensions of an individual chamber are 4.25 feet wide by 2.50 feet

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SOURCE: TGA Development & Engineering, Inc.

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Conceptual Water Quality/Storm Drain Plan 4.4

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- high by 7.10 feet long, with a minimum capacity of 74.0 cubic feet. The chambers can be placed in a generally square formation with approximate dimensions of 90 feet wide by 160 feet long. Note these dimensions are preliminary and may vary based on the soils report, hydrology study, and site constraints. At the time of development, the proposed on-site storage chambers will be analyzed to ensure adequate sizing. The analysis will evaluate the existing capacity of the 24-inch storm drain to ensure that flows conveyed to this facility do not exceed capacity. The final on-site storm drain pipe sizing will be subject to approved hydraulic analysis for the site.
- b. **Proposed Drainage Facilities.** Drainage of the Specific Plan area will be in conformance with the City's Master Plan of Drainage, and will use a combination of surface drainage systems and storm drains. The drainage system shall be constructed so as to minimize public storm drains within private property.
- c. **Maintenance of Drainage Facilities.** The drainage facilities will be maintained as shown in Table 4.F. The catch basins and storm drain within the ultimate right-of-way will be maintained by the City. Other parts of the drainage facilities such as point of connections, connector pipe to the back of the catch basin through the site and up to the point of connection with the existing main in Haven Avenue shall be maintained by the Association. The CC&RS shall contain provisions that delegate the maintenance to responsible entities. Water quality structures/devices (NPDES facilities) installed for treatment of common area drainage from the Specific Plan area shall be maintained by a property owners association.

Table 4.F: STORM DRAINAGE MAINTENANCE MATRIX

Responsible Entity	Private	Association	Public [City]
Back of Catch Basins			
Points of Connections			
Laterals in each Property			
Chambers			
Private Catch Basin			
Public Catch Basin			
Storm Drains			

- d. During the course of maintenance of the potable/recycled water and sewer, storm drain systems, the City will pave the streets and restore the landscaping per City standards. This applies to all areas where public infrastructure is located (public/private streets, lanes/alleys, easements, etc.). The property owners association will be responsible for restoring the streets and landscape areas to their original condition; especially those areas that have architectural enhancements.



E. Solid Waste Disposal

E.1 Existing Solid Waste Disposal

Solid waste collection and disposal generated in the project area is provided by the City of Ontario, which maintains and operates its own fleet of refuse collection vehicles. The San Bernardino County Solid Waste Management Division (SWMD) is responsible for planning for solid waste management in the County. Currently, the SWMD operates six regional landfills, eight transfer stations and five community collection centers. Currently, the solid waste in the City of Ontario is taken to the West Valley Material Recovery Facility. The nearest landfill is the Mid-Valley Landfill in Rialto. This facility processes about 3,800 tons of municipal solid waste per day, and has a permitted capacity of 5,877 tons per day.

E.2 Proposed Solid Waste Disposal

Individual developments will contract for waste collection services with the City of Ontario. Per the City of Ontario Municipal Code, Section 6-3.601 Business Recycling Plan, each development in the Specific Plan using commercial collection service shall prepare and submit to the City a Business Recycling Plan. The plans shall be submitted to and approved by the Public Works Department prior to contracting for waste collection services. The Business Recycling Plan shall contain at a minimum, the information as specified in Section 6-3.601 (b).

On-site trash bin enclosures will be provided as stipulated in the Specific Plan Development Guidelines and as specified in Section 6-3.314, Commercial Storage Standards, of the City of Ontario Municipal Code. Site improvement plans submitted for Plan Check for all Specific Plan development shall follow the City of Ontario refuse collections standards.

F. Utilities

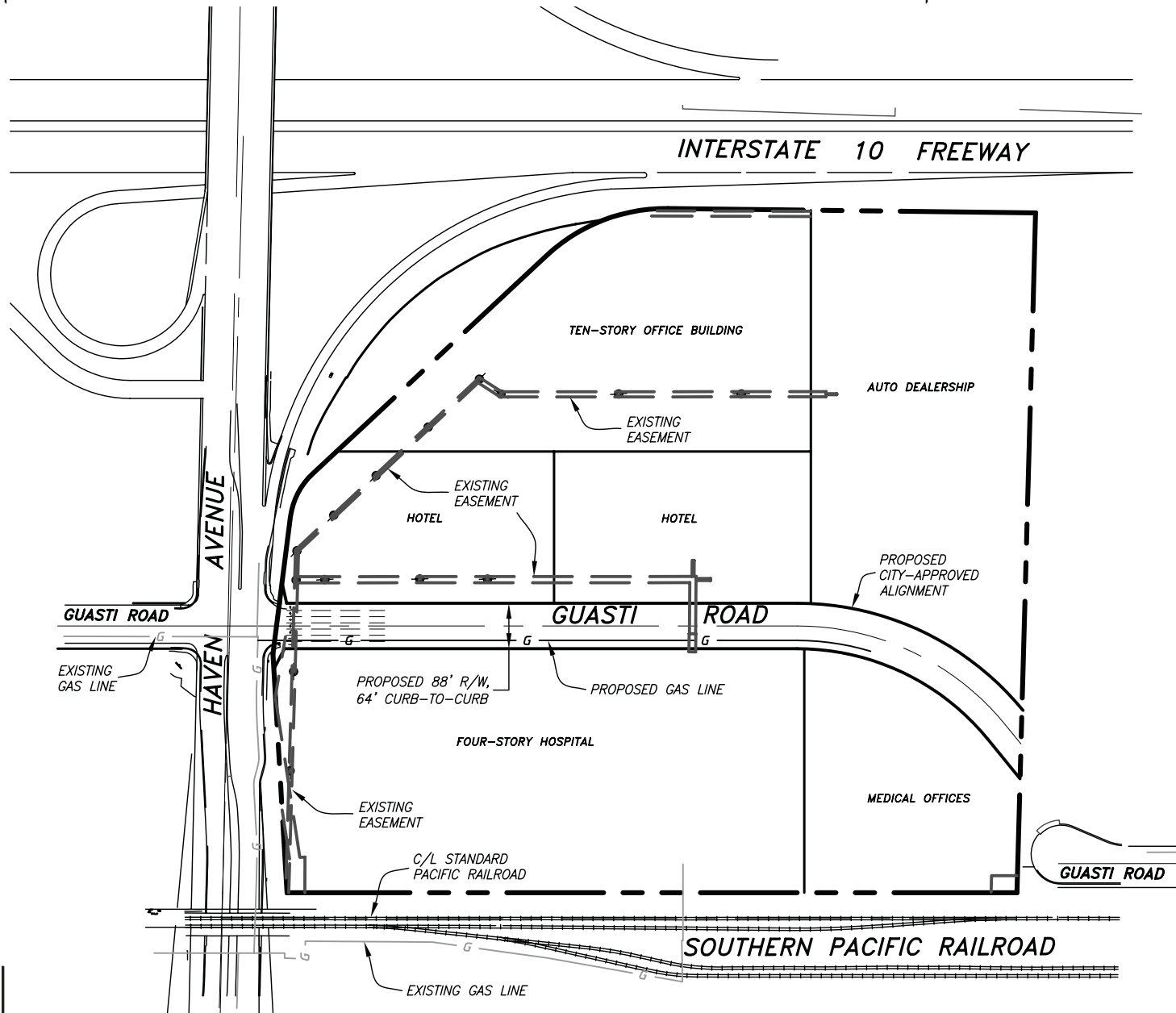
F.1 Existing Utilities

The Specific Plan is surrounded by development and, therefore, most of the backbone dry utilities already exist. The location of the existing dry utilities is shown in Figure 4.5 (Existing and Conceptual Utilities Service Plan).

F.2 Proposed Utilities

- a. **Electrical Services.** Electrical Services will be supplied to the project site by Southern California Edison Company. Overhead electrical facilities of 34.5 kV or less are currently located on the project site as shown in Figure 4.5. Existing overhead utility lines (34.5kV or less) shall be placed underground and rerouted to provide service to each development in conformance with City ordinance.

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- G — EXISTING GAS LINE
- G — PROPOSED GAS LINE
- EXISTING POWER POLE LOCATIONS W/ TELEPHONE

NOTE: EXISTING OVERHEAD UTILITY LINES (34.5 KV OR LESS) SHALL BE PLACED UNDERGROUND AND REROUTED TO PROVIDE SERVICE TO EACH PARCEL.

SOURCE: TGA Development & Engineering, Inc.

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Existing and Conceptual Utilities Service Plan 4.5

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- b. **Natural Gas.** The Southern California Gas Company will provide natural gas service to the project area through a distribution line in Haven Avenue. Service to the new structures will be provided through extension of the existing distribution line.
- c. **Telephone.** Verizon maintains phone lines for the development directly across Haven Avenue from the project site. Telephone service will be provided to the new buildings in the project area from the existing backbone infrastructure.

G. COMMUNITY FACILITIES

G.1 FIRE PROTECTION

The City of Ontario Fire Department will provide fire protection services to the Ontario Gateway Specific Plan. The Ontario Fire Department operates eight fire stations with a ninth station planned. The fire station serving the Specific Plan area is located at 3429 E. Shelby Street, Ontario, approximately 0.4 mile northwest of the project site.

Applicable City fire protection standards and requirements shall be incorporated into all site development plans, including fire alarm systems, high-rise building fire protection as well as related Building and Fire Code requirements. Fire flows and hydrants will meet the requirements of the Fire Department. Developments that handle hazardous materials are required to submit an emergency plan to the City of Ontario Fire Department and County of San Bernardino Environmental Health Department.

G.2 POLICE SERVICES

The City of Ontario will provide police protection services to the Ontario Gateway Specific Plan. The Police Department is headquartered at 2500 S. Archibald Avenue, Ontario, approximately 3.9 miles south of the project site.

Development plans for the Specific Plan will incorporate appropriate security requirements of the Ontario Police Department in compliance with OMC Security Ordinance 4-11, including security lighting, door and window hardware, intrusion alarm systems, security access and appropriate types and locations of screening.