

5

CIRCULATION, INFRASTRUCTURE AND PUBLIC SERVICES

The infrastructure, utilities, and public services to be provided as part of the development of the Colony Commerce Center West Specific Plan are discussed in this section.

5.1 Circulation

The circulation plan for Colony Commerce Center reinforces the objective of moving vehicles, pedestrians, cyclists, and public transit safely and efficiently through and around the project. Exhibit 5.1, Circulation Plan establishes the hierarchy and general location of roadways within Colony Commerce Center West.

The minimum design speeds to be used for center line curve radii, super elevation, corner and approach site distances, vertical and horizontal alignment, and sight distances for the Master Plan of Streets will comply with City Standards below:

- » Merrill Avenue: 45 mph
- » Carpenter Avenue: 40 mph
- » Remington Avenue: 40 mph

5.1.1 Master Plan Roadways

The project site is bounded on the north by Merrill Avenue, a City of Ontario Collector Roadway as identified in Exhibit 5.2, Functional Roadway Classification Plan, providing access to and from the site.

Carpenter Avenue bounds the project site on the west; Remington Avenue bounds the project site on the south.

The Cucamonga Creek Channel, a non-vehicle open space area bounds the project site to the east.

A traffic study prepared as part of the project's EIR may identify the need for additional rights-of-way at critical intersections to accommodate lanes for left and right turn movements.

The developer shall be responsible for those improvements as determined by the City Engineer and pursuant to the mitigation measures identified in the EIR and/or Conditions of Approval established on the approved tentative maps for the project.

Phasing and construction of the improvements shall be implemented as required by the City Engineer and pursuant to the mitigation measures identified in the EIR and the conditions of approval adopted with the approval of tentative maps for the project. The locations and construction of bus turnouts may be required within the project to the satisfaction of the City of Ontario and Omnitrans.

5.1.2 Merrill Avenue

The Mobility Element of the Policy Plan (Figure M-2 Functional Roadway Classification Plan) designates Merrill Avenue as a 4-Lane Collector Street with a Class II bikeways and multipurpose trails. Merrill Avenue will provide east/west access to Colony Commerce Center West at the northern boundary of the project site. The proposed improvement to Merrill Avenue

are illustrated in Exhibit 5.3a, Merrill Avenue. Parking is prohibited along Merrill Avenue.

The southern half of the existing Merrill Avenue bridge crossing over Cucamonga Creek will be designed and constructed in accordance to the Ontario Master Plan of Streets and Highways.

5.1.3 Carpenter Avenue

Carpenter Avenue bounds the project site to the west and will provide north/south access to and from the Colony Commerce Center West Specific Plan area. Carpenter Avenue is designated as a 2-Lane Local Industrial Street. Exhibit 5.3b, Carpenter Avenue illustrates the ultimate improvements to Carpenter Avenue.

On-street parking is not allowed on Carpenter Avenue. Intersections and driveways shall be shown/designed in accordance to the Ontario Master Plan of Streets and Highways and coordinated with the City of Chino if necessary.

5.1.4 Remington Avenue

Remington Avenue bounds the project site to the south and will provide east/west access to and from the Colony Commerce Center West Specific Plan area. Remington Avenue is designated as a 2-Lane Local Industrial Street. Exhibit 5.3b, Remington Avenue illustrates the ultimate improvements to Remington Avenue by this project. No on-street parking shall be permitted on Remington Avenue.

Intersections and driveways shall be shown/designed in accordance to the Ontario Master Plan of Streets and Highways and coordinated with the City of Chino if necessary.

5.1.5 Pedestrian Circulation

In addition to vehicular circulation, a pedestrian circulation system utilizing the sidewalks will be provided within the Colony Commerce Center West Specific Plan.

Sidewalks will be provided along all streets abutting the Specific Plan area, and will be a minimum of five (5') feet in width. Sidewalks shall be constructed of concrete as part of the adjacent roadway improvements.

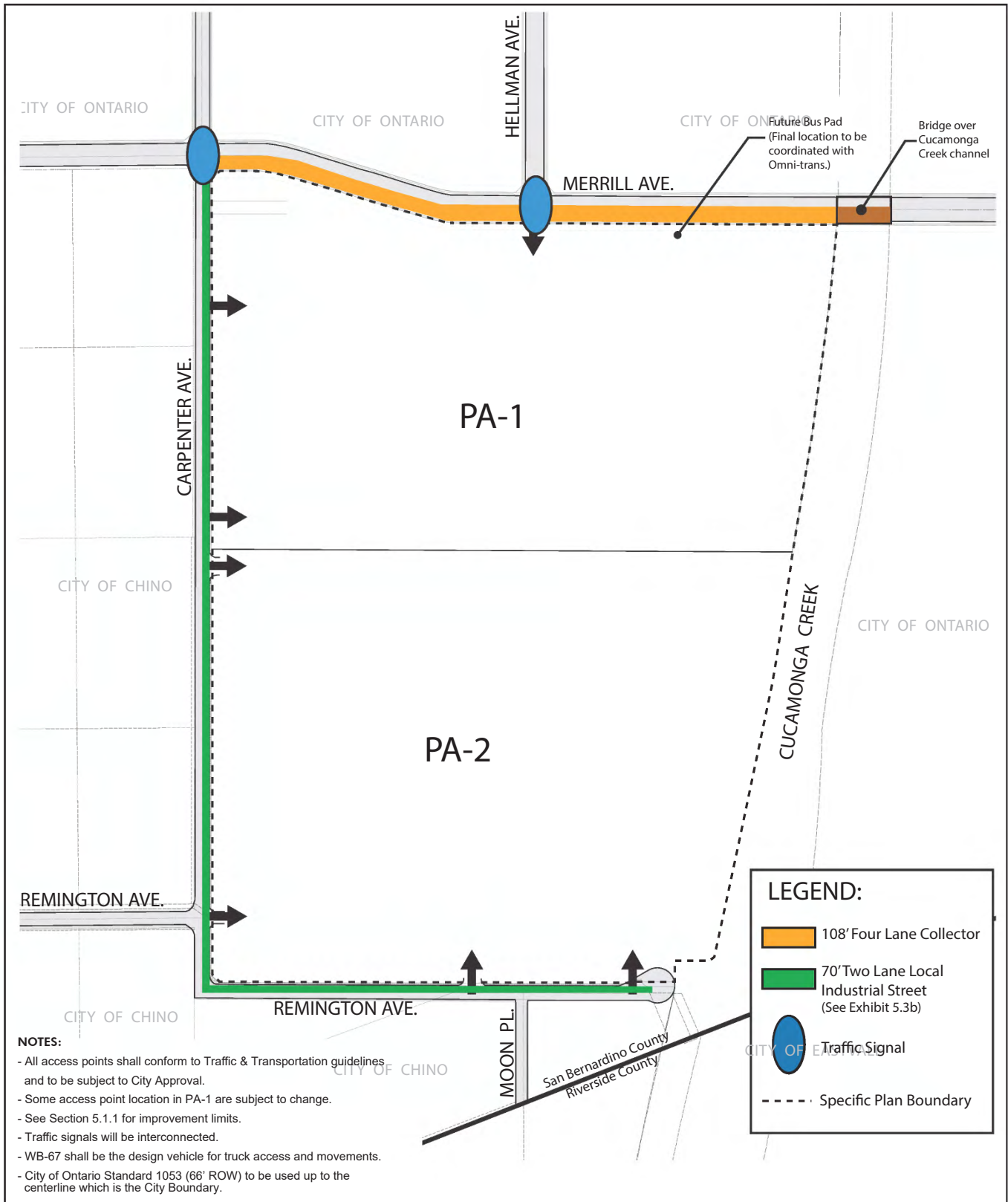
5.1.6 Bicycle Circulation

Bicycle trails are an integral element in creating accessibility and mobility within the Specific Plan. A Class I bikeway will be provided within the Cucamonga Creek Channel as illustrated in Exhibit 5.3c. The Specific Plan will construct trail connections to link the bikeway along Cucamonga Creek Channel with the on-street bicycle system.

The Mobility Element of the Policy Plan (Figure M-1 Mobility Element System) designates a Class II Bikeway & Multi-purpose Trail along Merrill Avenue. These bike paths will provide linkages to the City's master planned bike paths system. General timing and responsibility will be discussed in the Development Agreement.

Refer to Exhibit 5.4, Pedestrian and Bicycle Circulation Plan, for locations of these paths and trails. Refer to Exhibit 5.5, City of Ontario Trails & Bikeway Plan to see how the Specific Plan connects to the larger network.

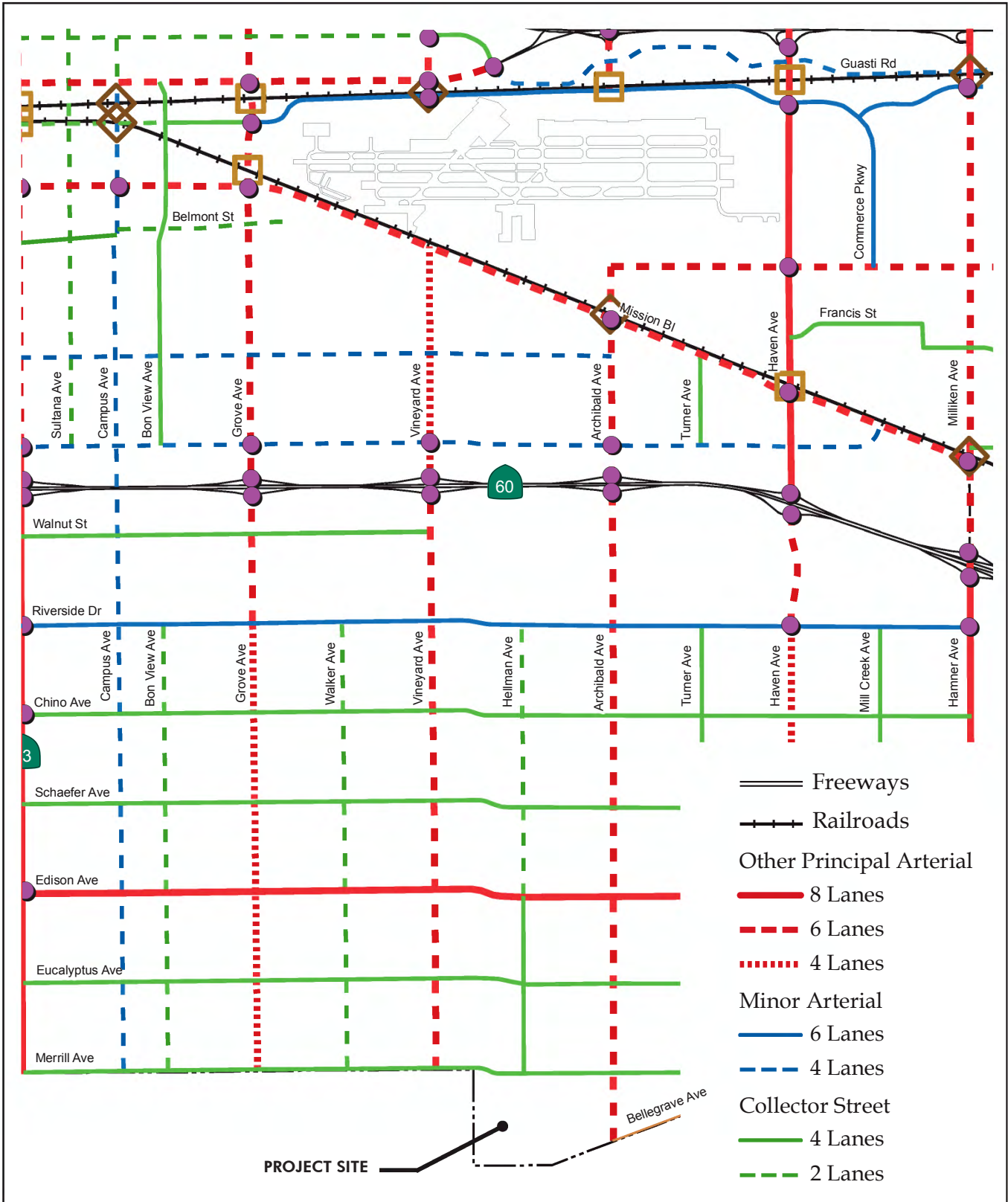
Exhibit 5.1, Circulation Plan



Source: KTG Group



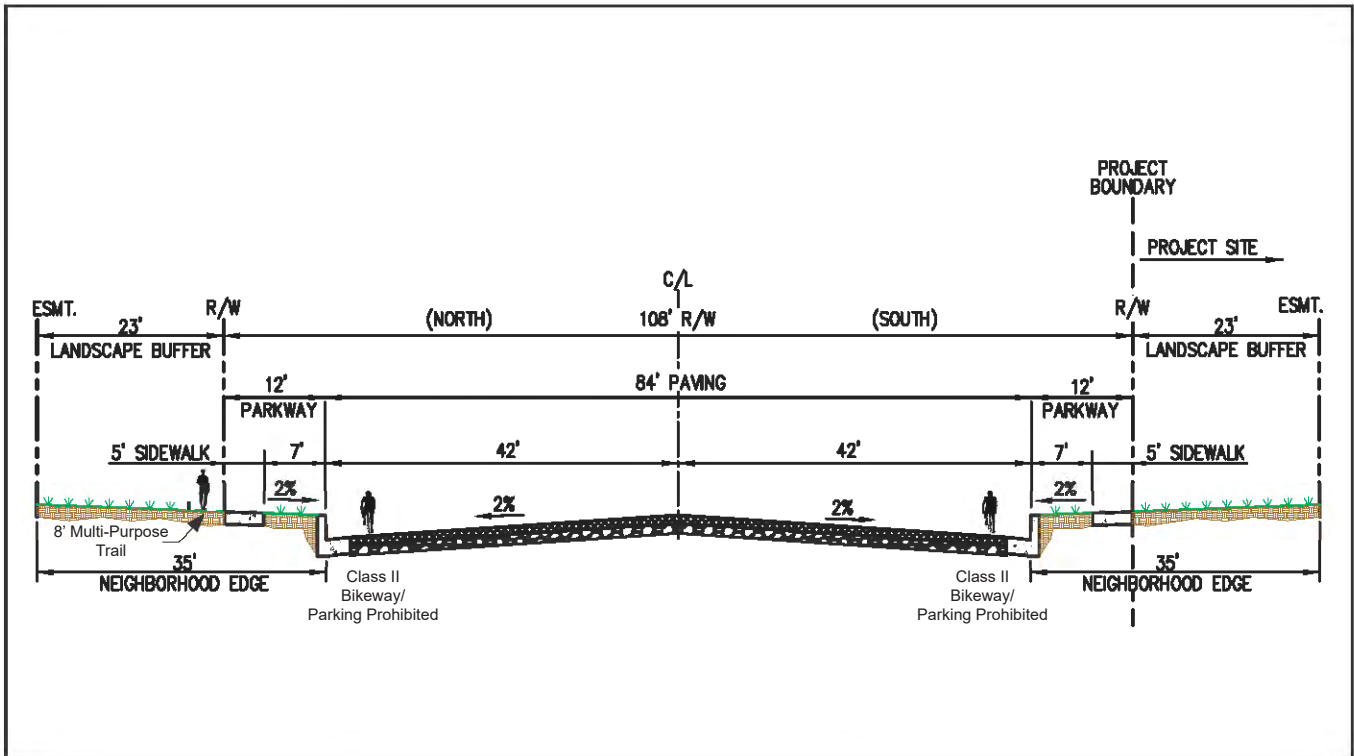
Exhibit 5.2, City of Ontario Roadway Classification Plan



Source: City of Ontario, Figure M-2 Functional Roadway Classification Plan, August 19, 2014
 NOTE: Reference the City's most current Master Plan for the latest designations.

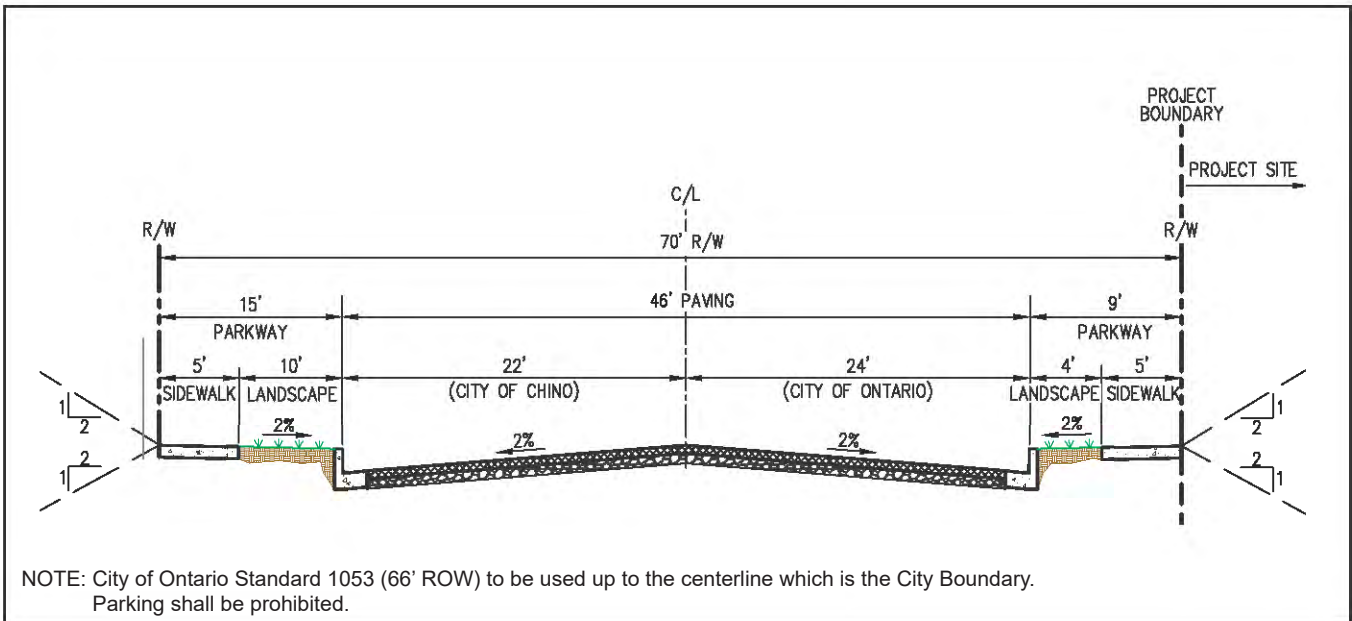


Exhibit 5.3a, Typical Street Cross Section - Merrill Avenue (108' ROW)



Source: David Evans & Associates

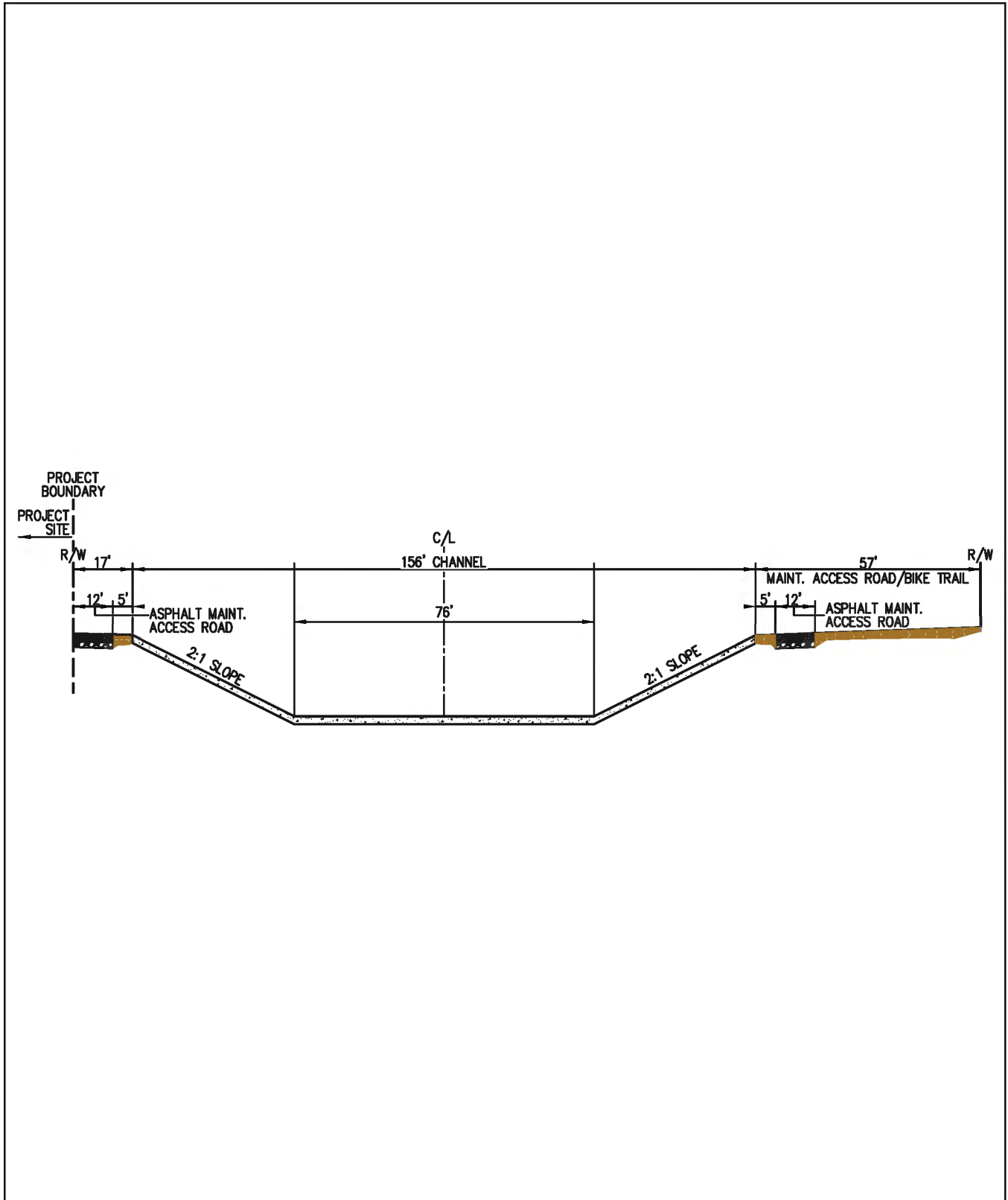
Exhibit 5.3b, Typical Street Cross Section - Carpenter Avenue & Remington Avenue (70' ROW)



NOTE: City of Ontario Standard 1053 (66' ROW) to be used up to the centerline which is the City Boundary. Parking shall be prohibited.

Source: David Evans & Associates

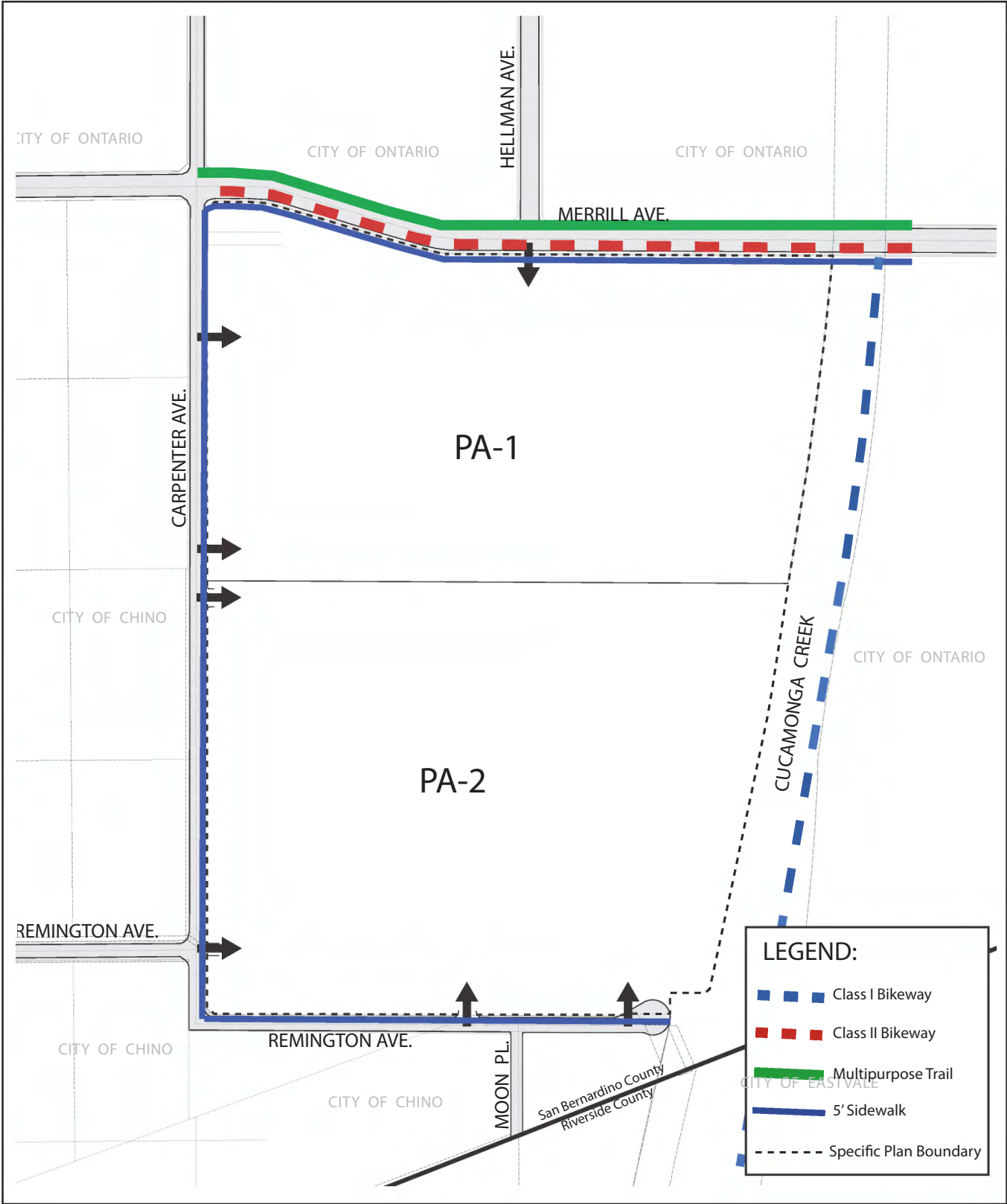
Exhibit 5.3c, Cucamonga Creek Channel



Source: David Evans & Associates

N. T. S.

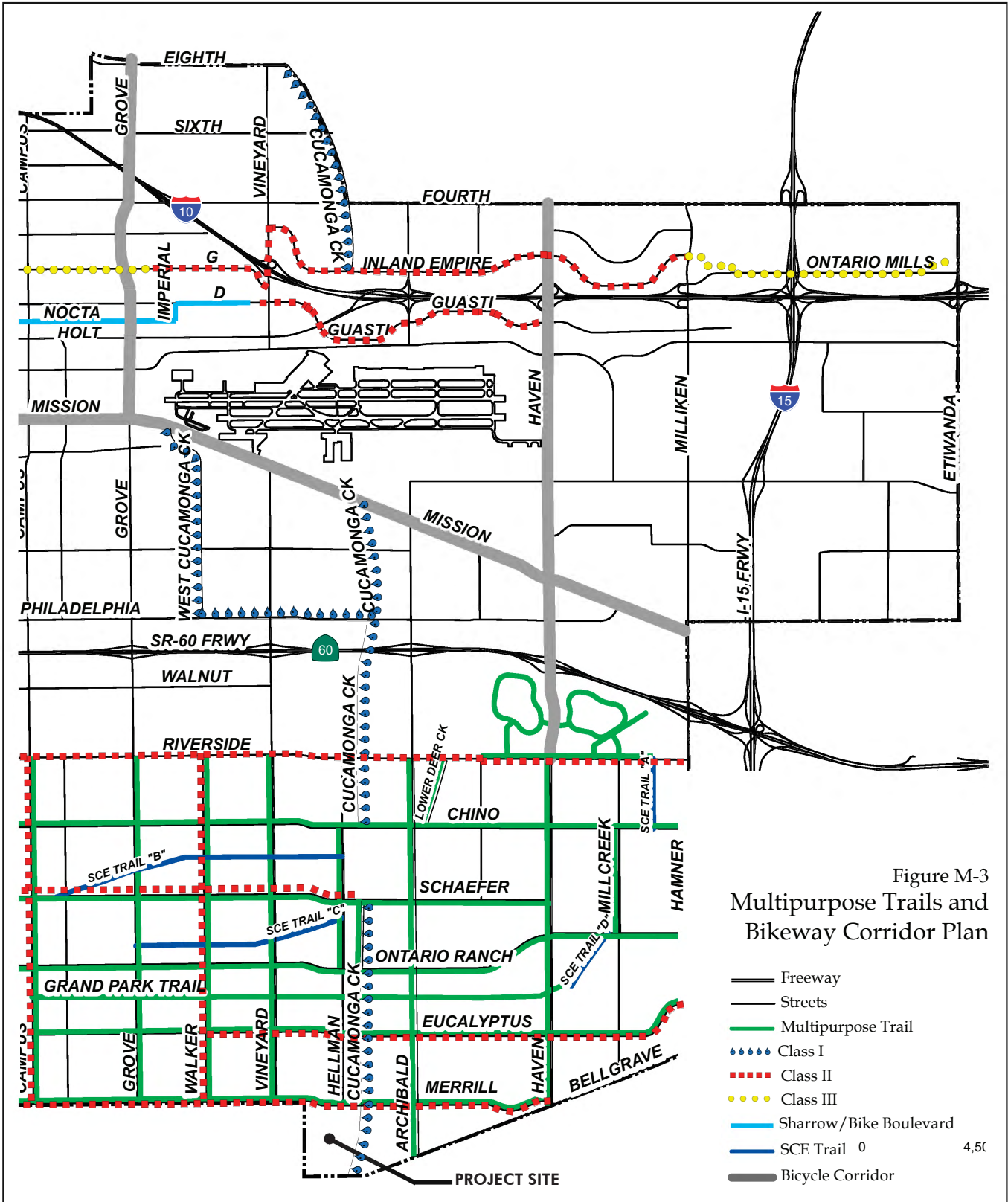
Exhibit 5.4, Pedestrian and Bicycle Circulation



Source: KTG Group



Exhibit 5.5, City of Ontario Trails & Bikeway Plan



Source: City of Ontario, Figure M-3 Multipurpose Trails and Bikeway Corridor Plan (Sept. 2016)
NOTE: Reference the City's most current Master Plan for the latest route.

N. T. S.

5.2 Water Master Plan

Domestic water will be provided by the City of Ontario. The City's Water Master Plan identifies new water facilities to serve the Ontario Ranch area, which will need to be constructed prior to or concurrent with on-site water improvements.

All private agricultural wells located within each Tract shall be destroyed per Cal Department of Water Resources prior to the issuance of a certificate of occupancy for any construction activity. Well destruction requires a permit from County Health Department. A copy of such permit shall be provided to Engineering and OMUC prior to issuance of certificate of occupancy.

Note: Reference the City's most current Master Plan for sizing/alignment.

5.2.1 Master Planned Domestic Water System

The project site lies within the 925' Pressure Zone as depicted on Exhibit 5.6, City of Ontario Ultimate Water System. The ultimate improvements for domestic water will include a 12" Master Plan water main in Merrill Avenue, from Archibald Avenue to Carpenter Avenue, and a 12" water main in Carpenter Avenue, from Merrill Avenue to Remington Avenue. The water main continues east on Remington Avenue, crosses the Cucamonga Creek Channel and connects to the existing 12" water main in Archibald Avenue as depicted on Exhibit 5.7, Domestic Water System.

Within the project site, a network of 8" and 10" water lines will be installed for the private fire system. The on-site water system includes connections to the main in Carpenter Avenue or the main in Merrill Avenue. The proposed on-site water system sizing is subject to the recommendations of the City Building Department.

Existing Phase 1 water supply infrastructure for the 925' Zone has been recently constructed and are generally located within the eastern portion of Ontario Ranch. Water supply infrastructure (production, storage,

transmission) required for this Specific Plan will also need to incorporate the following:

- a) The future Phase 2 backbone water infrastructure for the 925' Zone generally consisting of transmission mains, wells, and reservoir as depicted in Exhibit 5.6.
- b) A minimum of two points of connection to the backbone transmission main(s) (Phase 1 and/or Phase 2) to provide for looped water service.

Note: Reference the City's most current Master Plan for sizing/alignment.

5.2.2 Master Planned Recycled Water System

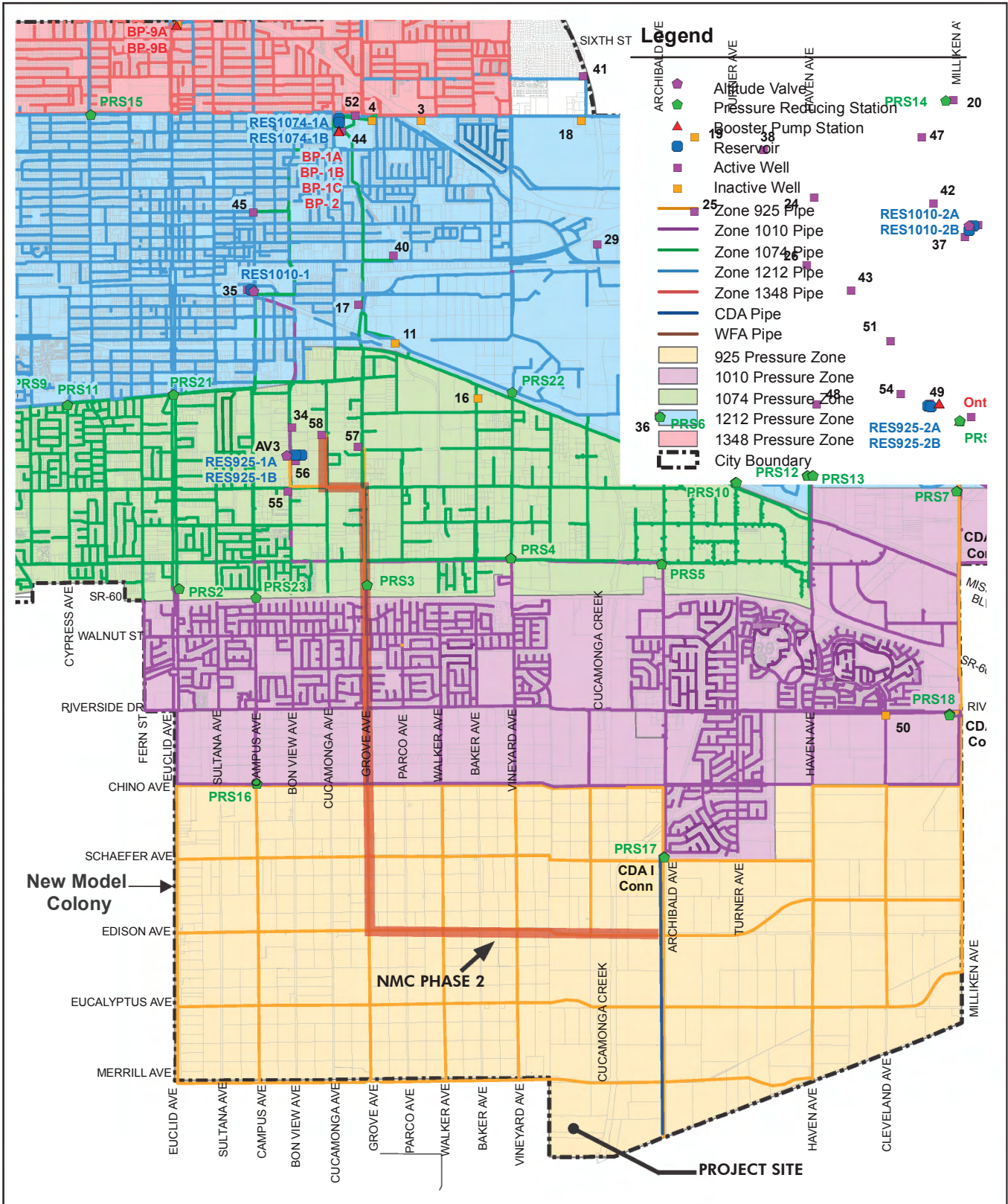
The City of Ontario will ultimately provide recycled water from IEUA's RP-1 and RP-1 outfall parallel located in Carpenter Avenue and via City of Ontario recycled water improvements as presented in the City's Recycled Water Master Plan (see Exhibit 5.8).

The 930' Pressure Zone recycled water system has an existing Inland Empire Utilities Agency (IEUA) 30" line in Carpenter Avenue that runs along the project frontage from Remington Avenue to Merrill Avenue. This project will construct a 12" City of Ontario line along Merrill Avenue from Carpenter Avenue to Archibald Avenue that will serve Colony Commerce Center West as illustrated on Exhibit 5.9, Recycled Water System.

The developer of Colony Commerce Center West will utilize the existing recycled water laterals that stub into both Planning Areas and enhance where required to serve the project. The Colony Commerce Center West Specific Plan shall comply with City Ordinance 2689 and make use of recycled water for all approved uses, including but not limited to the irrigation of street landscaping, and common areas.

The developer shall prepare and secure approval of an Engineering Report from the City of Ontario and State Water Resources Control Board (SWRCB) prior to the use of recycled water. Sizing of the on-site system

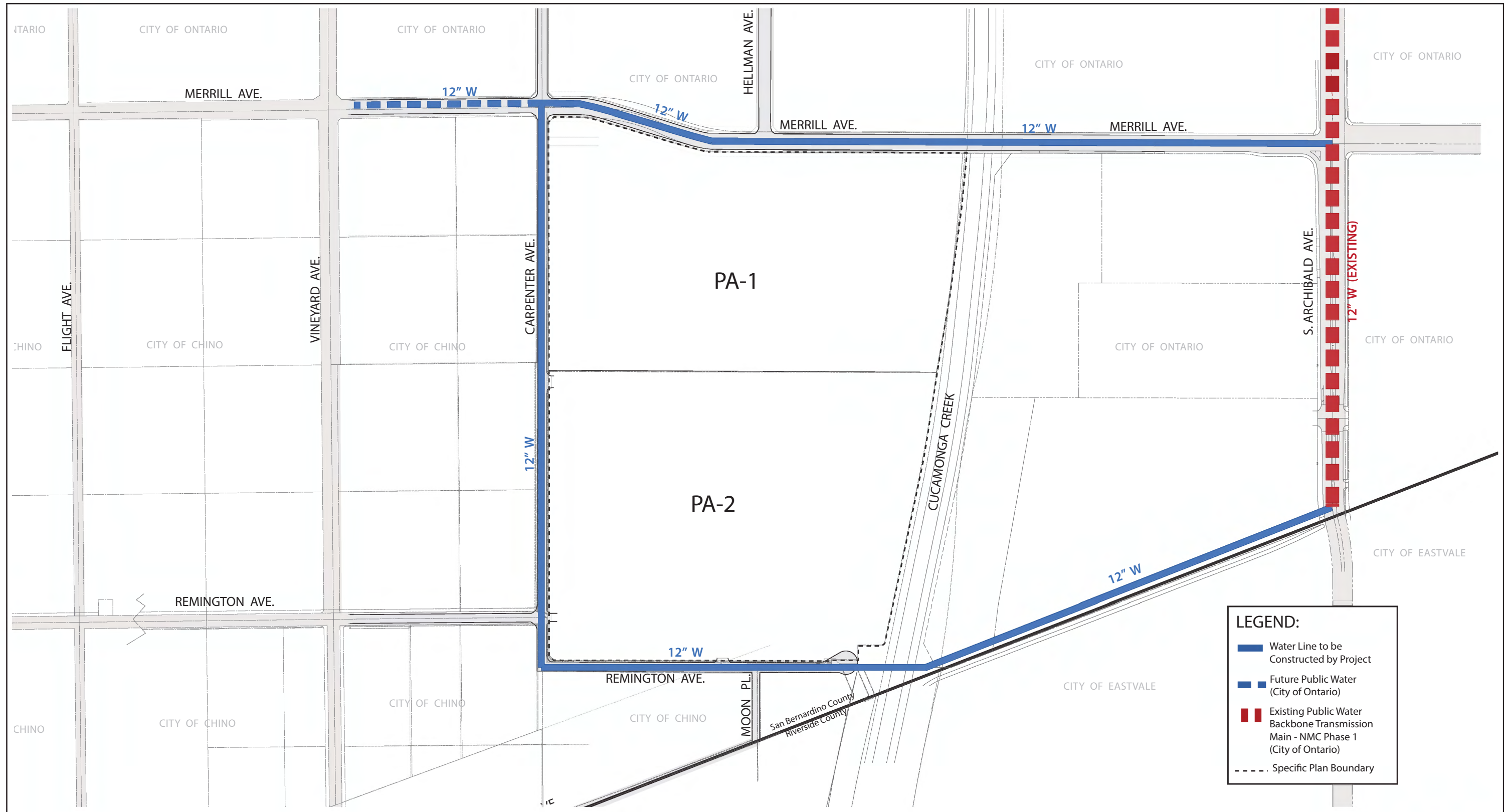
Exhibit 5.6, City of Ontario Ultimate Water System



Source: City of Ontario, Ultimate Water System (Figure 10-1) October 2011
 NOTE: Reference the City's most current Master Plan for sizing/alignment.



Exhibit 5.7, Domestic Water System



LEGEND:

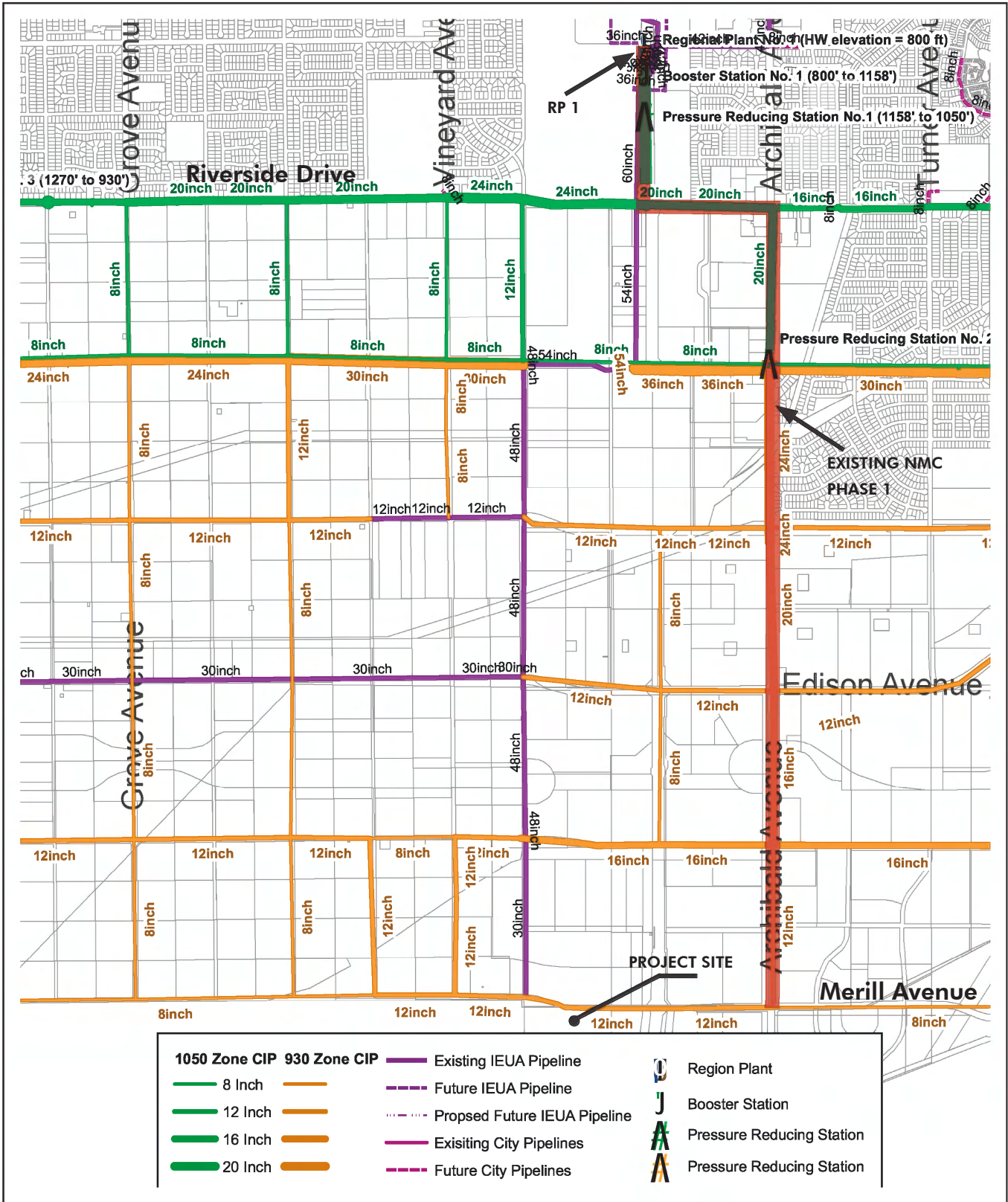
- Water Line to be Constructed by Project
- - - Future Public Water (City of Ontario)
- - - Existing Public Water Backbone Transmission Main - NMC Phase 1 (City of Ontario)
- - - Specific Plan Boundary

Source: David Evans & Associates
 NOTE: Reference the City's most current Master Plan for sizing/alignment.



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Exhibit 5.8, (Partial) Ontario Ranch Recycled Water Master Plan

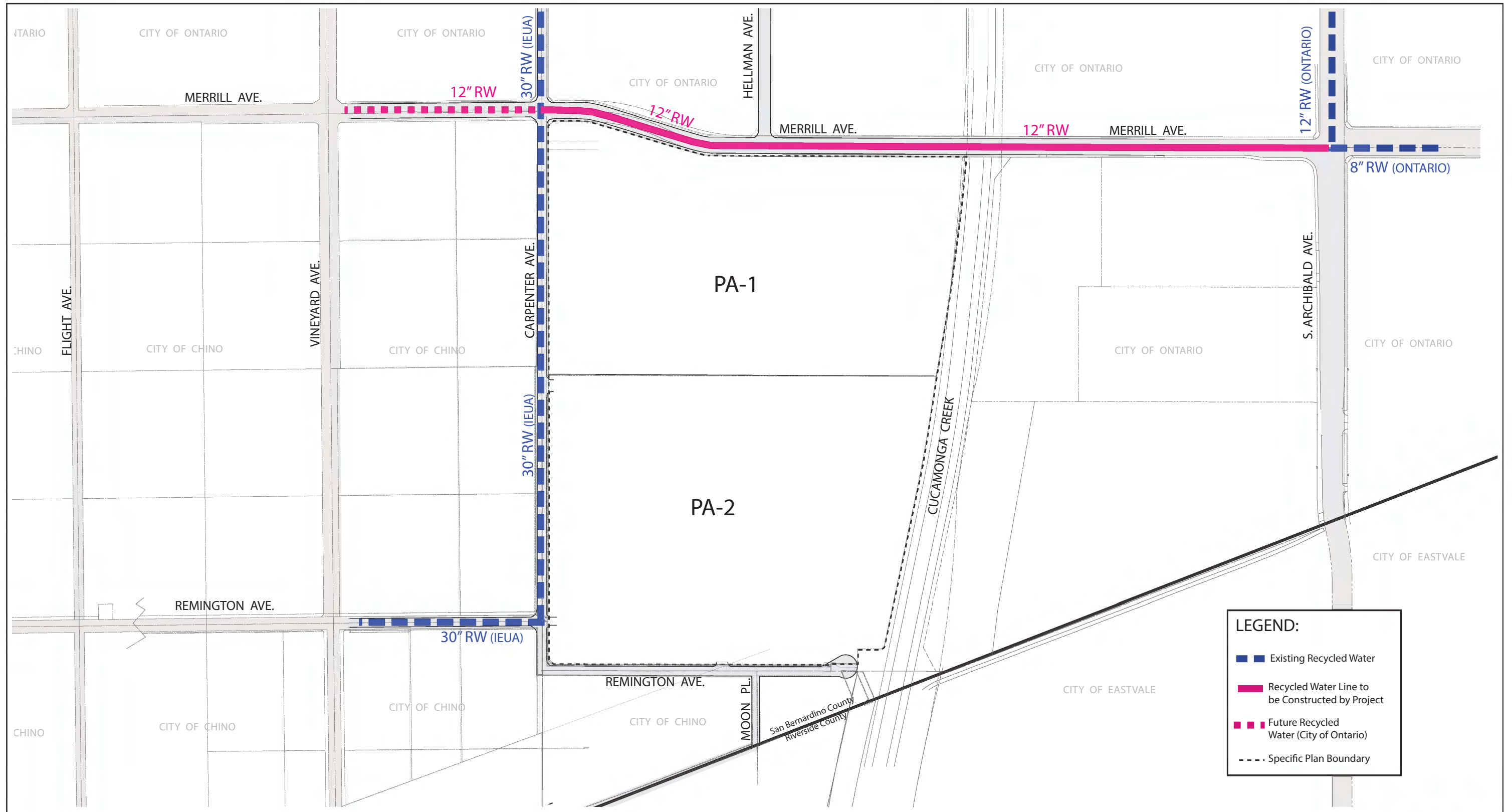


Source: City of Ontario, Recycled Water Master Plan, Figure 6-2 (October 2011)
 NOTE: Reference the City's most current Master Plan for sizing/alignment.



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Exhibit 5.9, Recycled Water System



LEGEND:

- Existing Recycled Water
- Recycled Water Line to be Constructed by Project
- Future Recycled Water (City of Ontario)
- Specific Plan Boundary

Source: David Evans & Associates
 NOTE: Reference the City's most current Master Plan for sizing/alignment.



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is subject to the City approved hydraulic analysis and minimum requirements of the City. Interim connection to potable water is not allowed.

Note: Reference the City's most current Master Plan for sizing/alignment.

5.3 Sewer Master Plan

Sewer service for Colony Commerce Center West will be provided by the City of Ontario. The City of Ontario Master Plan of Sewer as depicted on Exhibit 5.10, proposes an 18" Sewer Trunk Line in Carpenter Avenue from the Eastern Trunk Sewer north to Merrill Avenue. The latest design of this master planned trunk sewer line, performed by MDS Consulting, requires the upsizing of this 18" line to a 24" line between the Eastern Trunk Sewer and Merrill Avenue.

The Colony Commerce Center West Specific Plan proposes a revised alignment for this 24" Sewer Trunk Line. The new alignment will run eastwardly in Remington Avenue from the southerly extension of Carpenter Avenue and southwardly on Moon Place where it will connect to the Eastern Trunk Sewer approximately 1,000 feet northeast of the original connection point. The reason for this proposed revision to the connection point (See Exhibit 5.11, Sewer Master Plan) is the lack of right-of-way or easement availability from the landowner south of Remington Avenue.

The revised alignment will allow the 24" Sewer Trunk Line to be constructed within Moon Place, which is a publicly dedicated street. It should be noted that this alternative alignment will require the City to amend its Sewer Master Plan.

The size and location of the on-site private sewer system required to service the buildings will be engineered during preparation of the final on-site construction documents, per Building Department requirements..

Note: Reference the City's most current Master Plan for sizing/alignment.

5.4 Drainage

The City of Ontario Storm Drain Master Plan identifies storm drain improvements to serve the project site. Completion of these Master Plan improvements will provide storm water drainage for the properties within this specific plan.

The runoff that leaves the site drains to the lower reach of Cucamonga Creek a tributary of the Santa Ana River at Prado Reservoir. The site is a part of the 74 square mile drainage area that is tributary to the Creek. The total drainage area is bounded by the San Gabriel Mountains on the north, San Antonio Creek drainage area on the west, Day Canyon drainage area on the east and Prado Reservoir on the south. The channel has an approximate gradient of 40 feet per mile and is designed to carry 45,000 cfs at the Confluence with the County Line Channel just downstream of the project site.

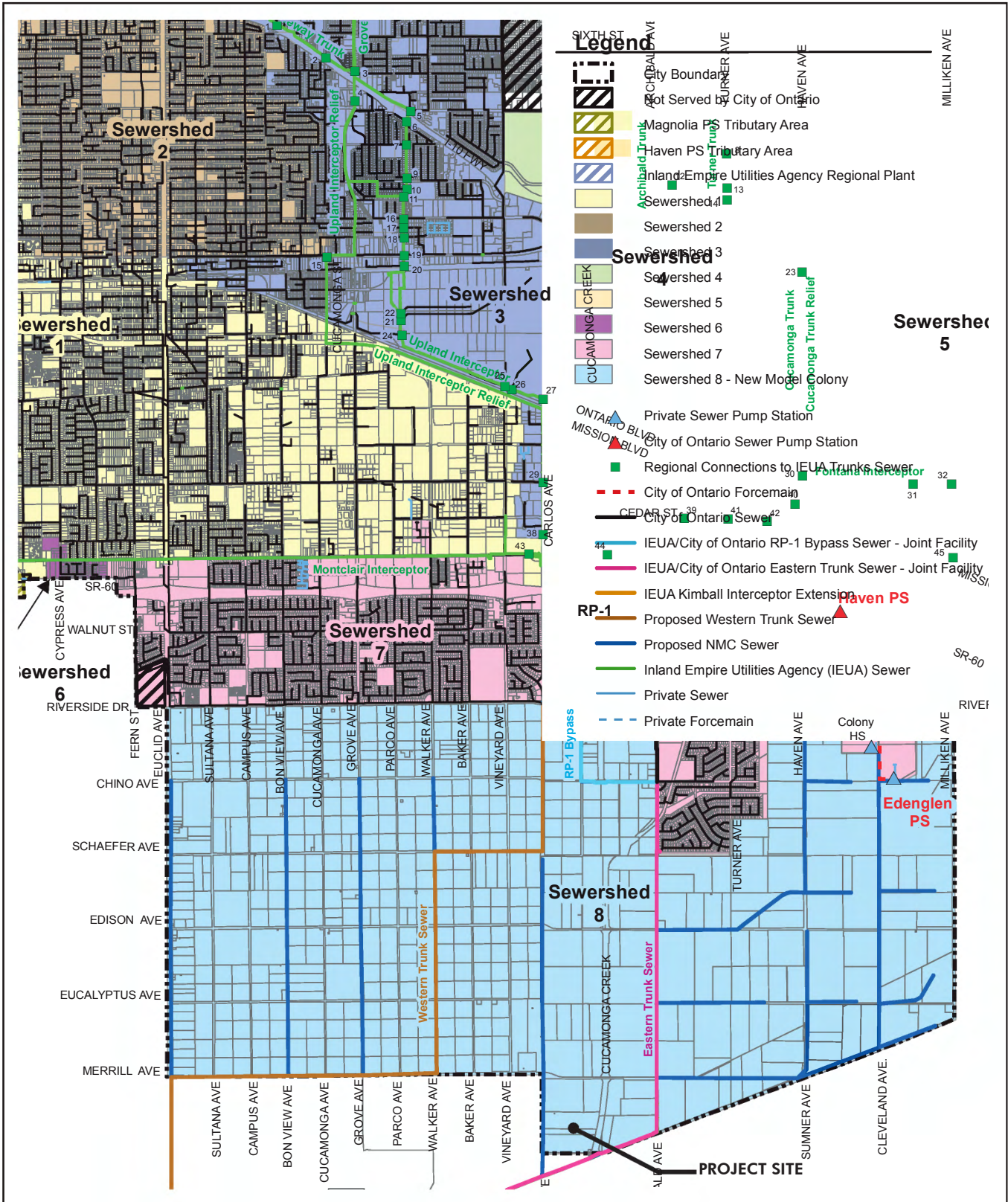
The existing Storm Drain Master Plan indicates the properties within this specific plan as tributary to the Walker Storm Drain System and calls out a double 10-foot by 10-foot box culvert (Double 10x10 Box) serving Area XII as depicted on the City of Ontario's Drainage Area Map, see Exhibit 5.12. That alignment depicts the 10x10 Box beginning northerly on Walker Avenue and continuing south past Merrill Avenue to Remington Avenue, then east along Remington Avenue, connecting into Cucamonga Creek.

The property owner south of Merrill Avenue and West of Carpenter Avenue, in City of Chino, does not need to connect to this Double 10x10 Box and does not want it constructed within their property.

Planning Areas 1 & 2 will drain to the existing 60" storm drain connection into Cucamonga Channel at Remington Avenue that will provide proper drainage capacity to serve the properties within this specific plan.

This specific plan proposes modifying the ultimate alignment of the Double 10x10 Box to turn east at Merrill Avenue and connect into the Cucamonga Channel at the intersection of Merrill Avenue. Due

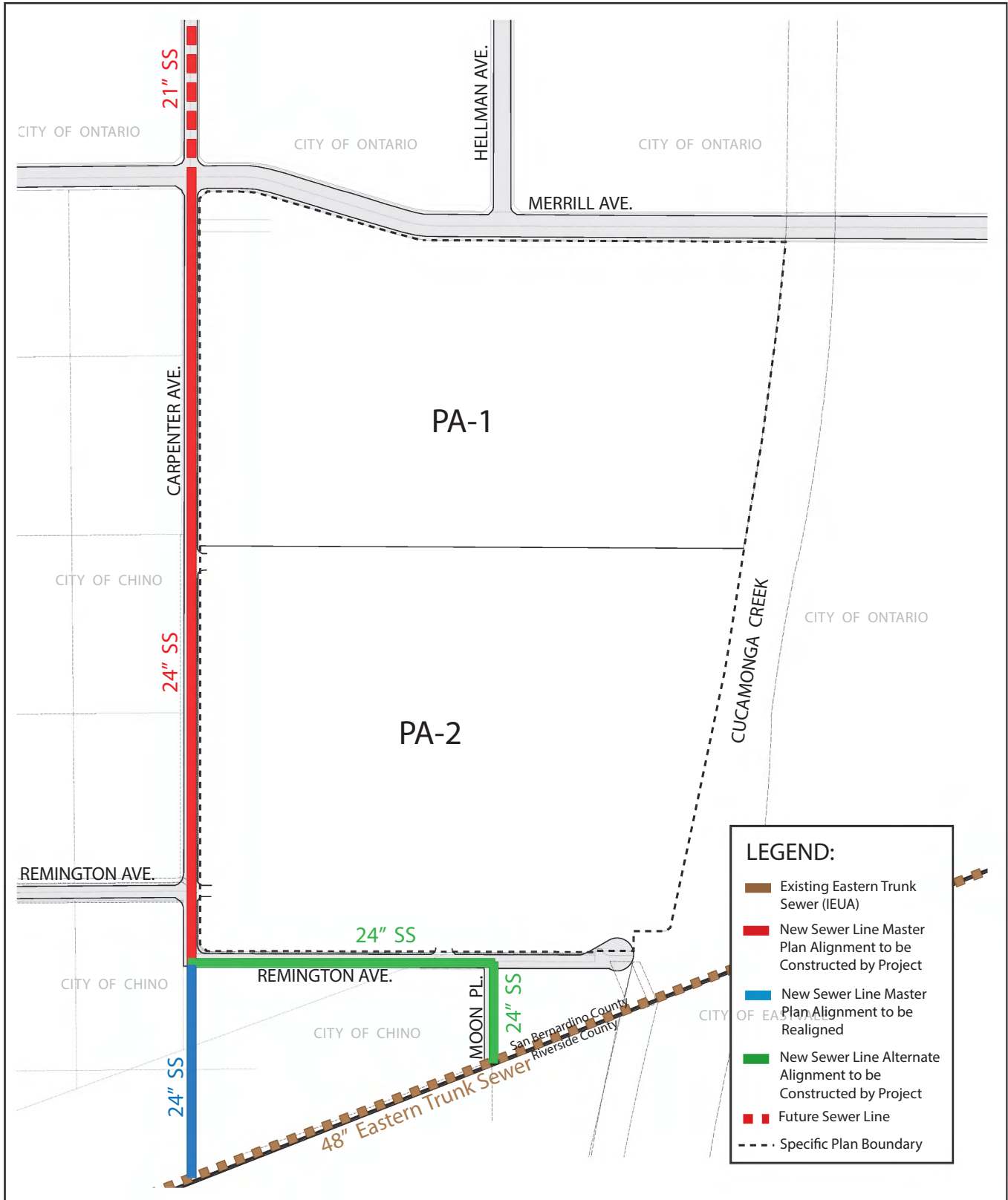
Exhibit 5.10, City of Ontario Ultimate Sewer System



Source: City of Ontario, Ultimate Sewer System (Figure 6-1) October 2011
 NOTE: Reference the City's most current Master Plan for sizing/alignment.



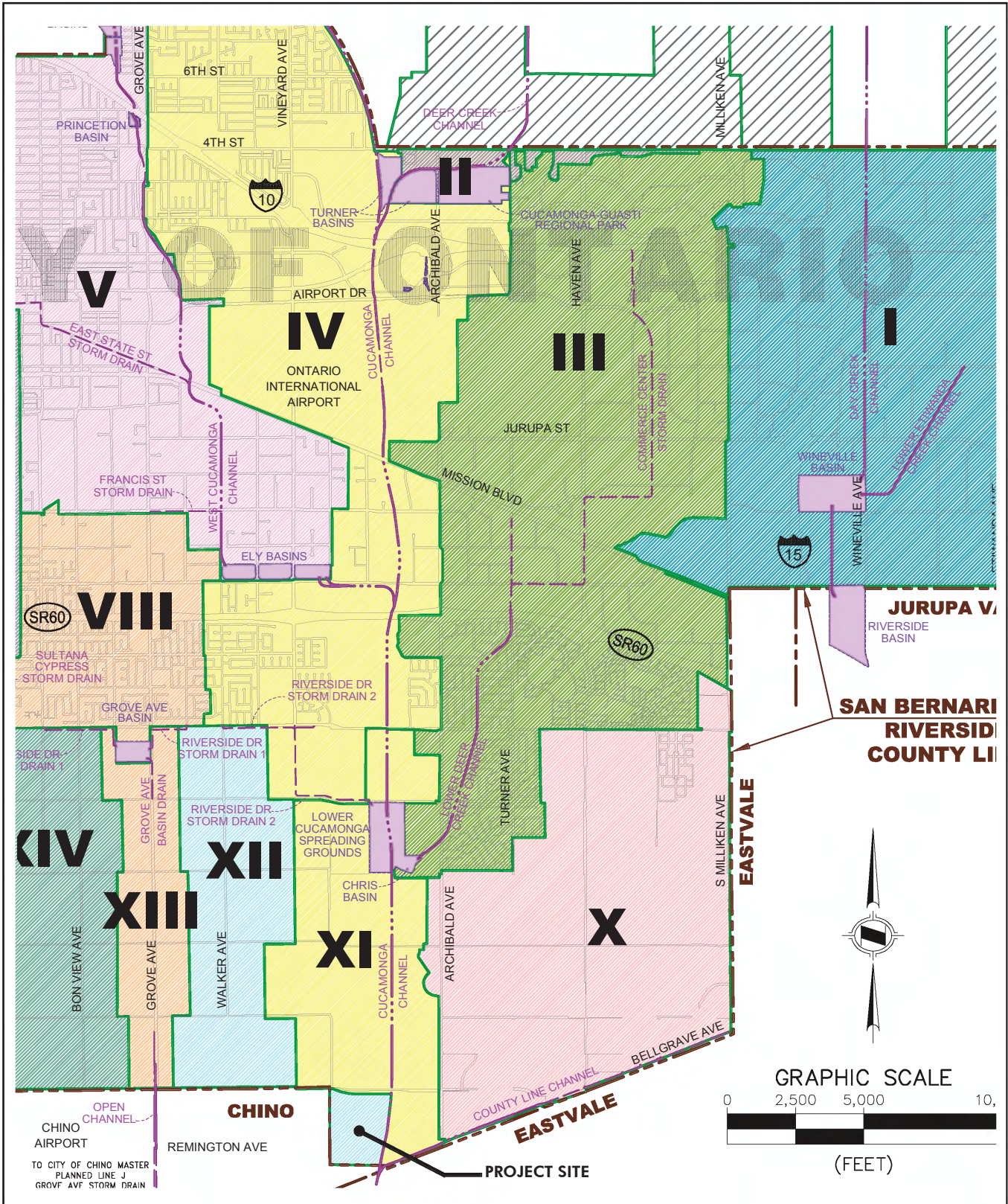
Exhibit 5.11, Sewer Master Plan



Source: David Evans & Associates
 NOTE: Reference the City's most current Master Plan for sizing/alignment.



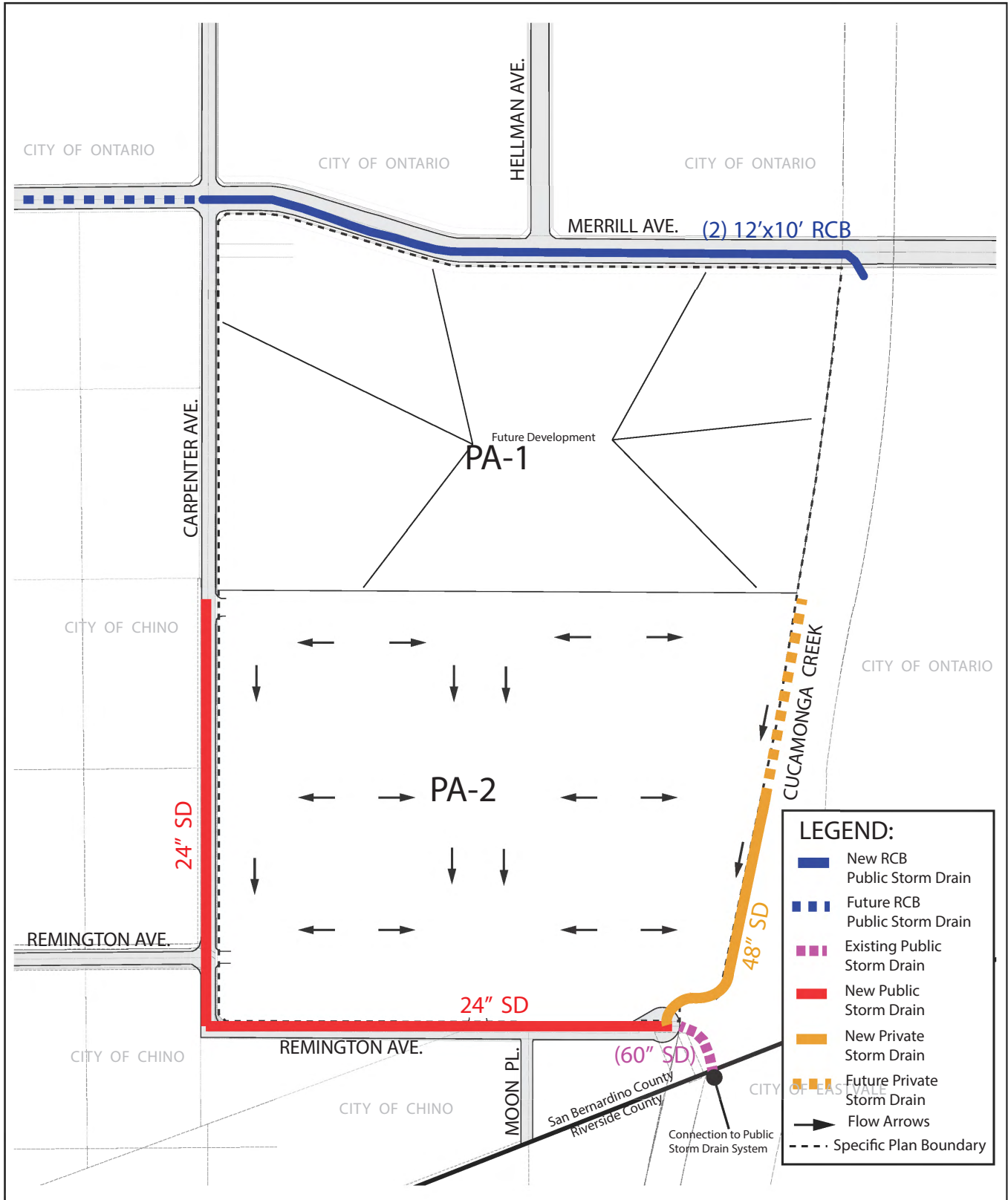
Exhibit 5.12, City of Ontario Drainage Area Map



Source: City of Ontario's Drainage Area Map (Exhibit 7), March 10, 2012
 NOTE: Reference the City's most current Master Plan for sizing/alignment.

N. T. S.

Exhibit 5.13, Drainage Plan / Hydrology



Source: David Evans & Associates
 NOTE: Reference the City's most current Master Plan for sizing/alignment.



to the new alignment and hydraulic grade line (HGL), the 10x10 box needs to be upsized to a 12x10. This alignment will reduce the total linear footage of the Double 12x10 Box , provide a straighter alignment & single point of connection, while providing the same storm water drainage capacity for the properties to the north and west that drain to it.

The proposed modification to the Master Plan of drainage for Colony Commerce Center West is illustrated in Exhibit 5.13 Drainage / Hydrology.

5.4.1 NPDES Compliance

The grading and drainage of the Specific Plan Area shall be designed to detain, filter, and treat surface runoff in a manner and combination which is practical, to comply with the requirements of the San Bernardino County NPDES Storm Water Program’s current Water Quality Management Plan (WQMP) for new development projects.

The objective of the WQMP for the project is to minimize the detrimental effects of urbanization on the beneficial uses of receiving waters, including effects caused by increased pollutants and changes in hydrology. These effects shall be minimized through the implementation of on-site and off-site Low Impact Development (LID) Site Design Best Management Practices (BMP’s) that retain/infiltrate or biotreat 85th percentile storm event runoff from the project.

In addition, non structural and structural Source Control BMP’s shall also be implemented and documented in the projects approved Water Quality Management Plan(s) to reduce pollutant generation and transport from the project site.

Participation in an alternative regional or watershed-based Treatment Control BMP , such as, the Mill Creek Wetlands Project, is regulated by the requirements of the San Bernardino County Stormwater SB County MS4 Permit and the Water Quality Management Plan Technical Guidance Document.

Prior to the issuance of grading or construction permits for any parcel map or area that disturbs 1 acre or more of land, within the Colony Commerce Center West Specific Plan area shall be required to obtain coverage, Erosion/Sediment Control Plans and Storm Water Pollution Prevention Plans (SWPPP) shall be prepared. The SWPPP shall be prepared to comply with California State Water Resources Control Board’s (State Water Board) current “General Permit to Discharge Storm Water Associated with Construction Activity” and current “Area Wide Urban Storm Water Runoff (Regional NPDES) Permit.”

The SWPPP shall identify and detail all appropriate Best Management Practices (BMP’s) to be implemented or installed during construction of the project.

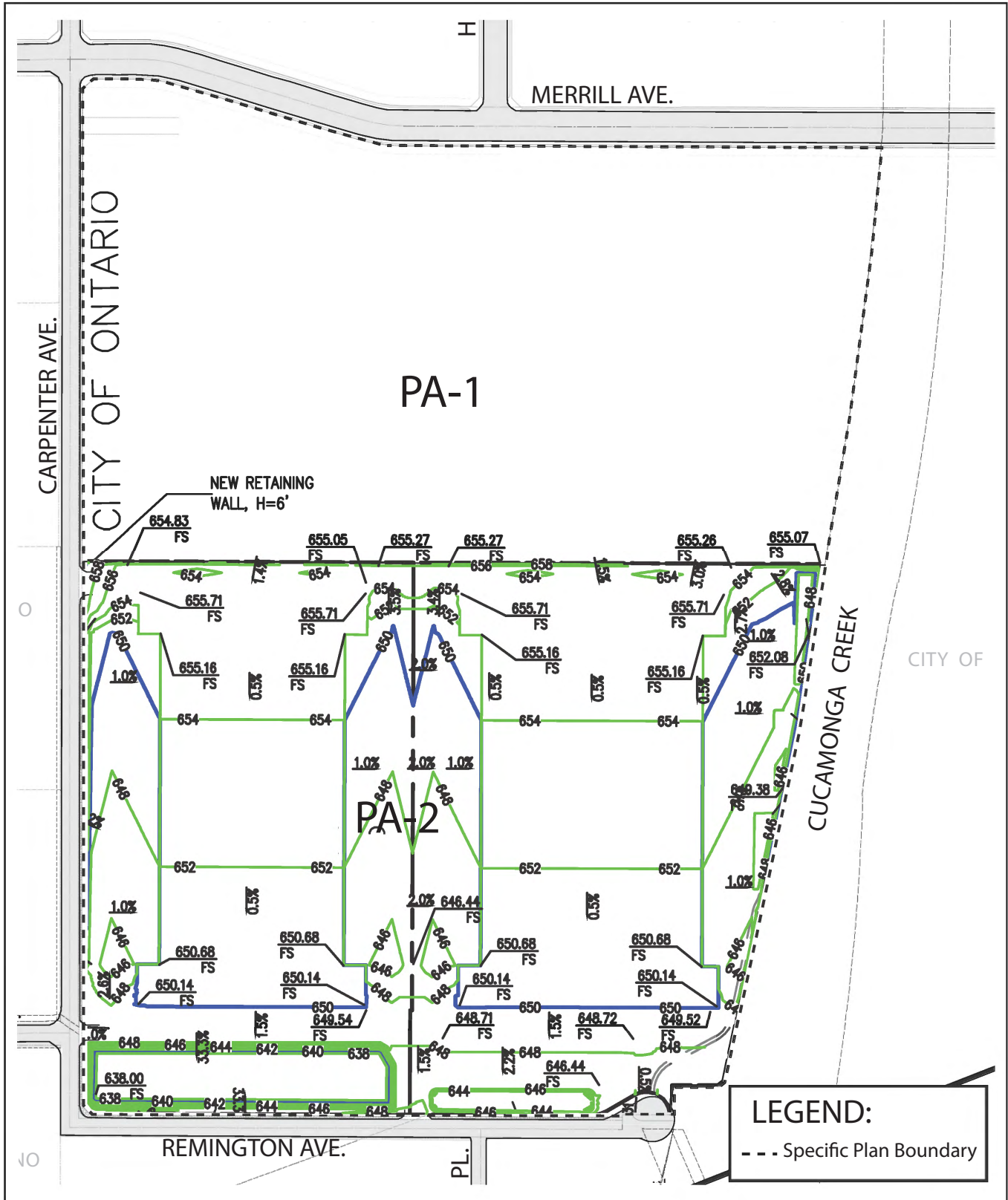
5.5 Grading Concept

The project site generally slopes to the south at approximately 1.0% to 2.0%. The grading activities for Colony Commerce Center West will generally consist of clearing and grubbing, demolition of existing structures, and moving surface soils to construct building pads and streets. Where slope conditions are present, the project lot line shall be located at the top of a slope.

The Conceptual Grading Plan, as illustrated in Exhibit 5.14, Conceptual Grading Plan, provides a balance of cut/fills for the project. Grading plans for each tract within the project shall be reviewed and approved by the City of Ontario Building, Planning, and Engineering Departments prior to the issuance of grading permits. All grading plans and activities shall conform to the City’s grading ordinance and dust and erosion control requirements.

All landscape areas, adjacent to streets, including medians, parkways and neighborhood edges, in the Specific Plan Area, shall be finish graded, at a minimum of 1 ½” below top-of-curb or sidewalk finish surface, for conservation of irrigation water and increased retention of rainwater runoff.

Exhibit 5.14, Conceptual Grading Plan



Source: David Evans & Associates



Wherever practicable, landscaped areas within the project shall be graded as swales and designed to accept runoff water from impervious surfaces. Where necessary, a 5' wide level pad area shall be provided for utilities adjacent to slopes, at each side of detention basins or swales adjacent to paving for pedestrian safety and for screening shrubs.

5.6 Dry Utilities

Utility services provided to the site consist of natural gas, electricity, and communications systems. Utility lines will be installed underground in accordance with City of Ontario guidelines.

5.6.1 Communication Systems

The proposed backbone street fiber optics (conduits, hand holes, tracer wire, and fiber) will be placed underground within a duct and structure system to be installed by the Master Developer in a joint trench, as Illustrated in Exhibit 5.15. In-tract fiber and conduit shall be installed by the Developers per the in-tract fiber optic design guidelines. Maintenance of the installed system will be the responsibility of the City/Special District. Development of the Project requires the installation by the Developers of all fiber optic infrastructure and peripheral equipment necessary to service the Project as a stand-alone development.

5.6.2 Natural Gas

The Gas Company will provide natural gas to the Specific Plan area. The Gas Company will install gas mains to the Specific Plan area as necessary.

5.6.3 Electricity

Southern California Edison Company (SCE) currently provides electrical service in the area. All new lines and all existing lines within the Specific Plan area shall be installed according to City of Ontario requirements.

There are existing power poles that run along the west side of Carpenter Avenue from Merrill Avenue in the north to west extension of Remington Avenue in the

south. From the west extension of Remington Avenue, the power poles diagonally cross Carpenter Avenue and run south until the east extension of Remington Avenue. From there the power poles run east along the north side of Remington Avenue and cross the Cucamonga Creek bridge. The existing overhead lines along the project frontage will be relocated underground per the City's Municipal Code.

5.7 Public Facilities and Services

Public services and facilities play an essential role in providing support services to create viable, sustainable, healthy and cohesive communities.

5.7.1 Police

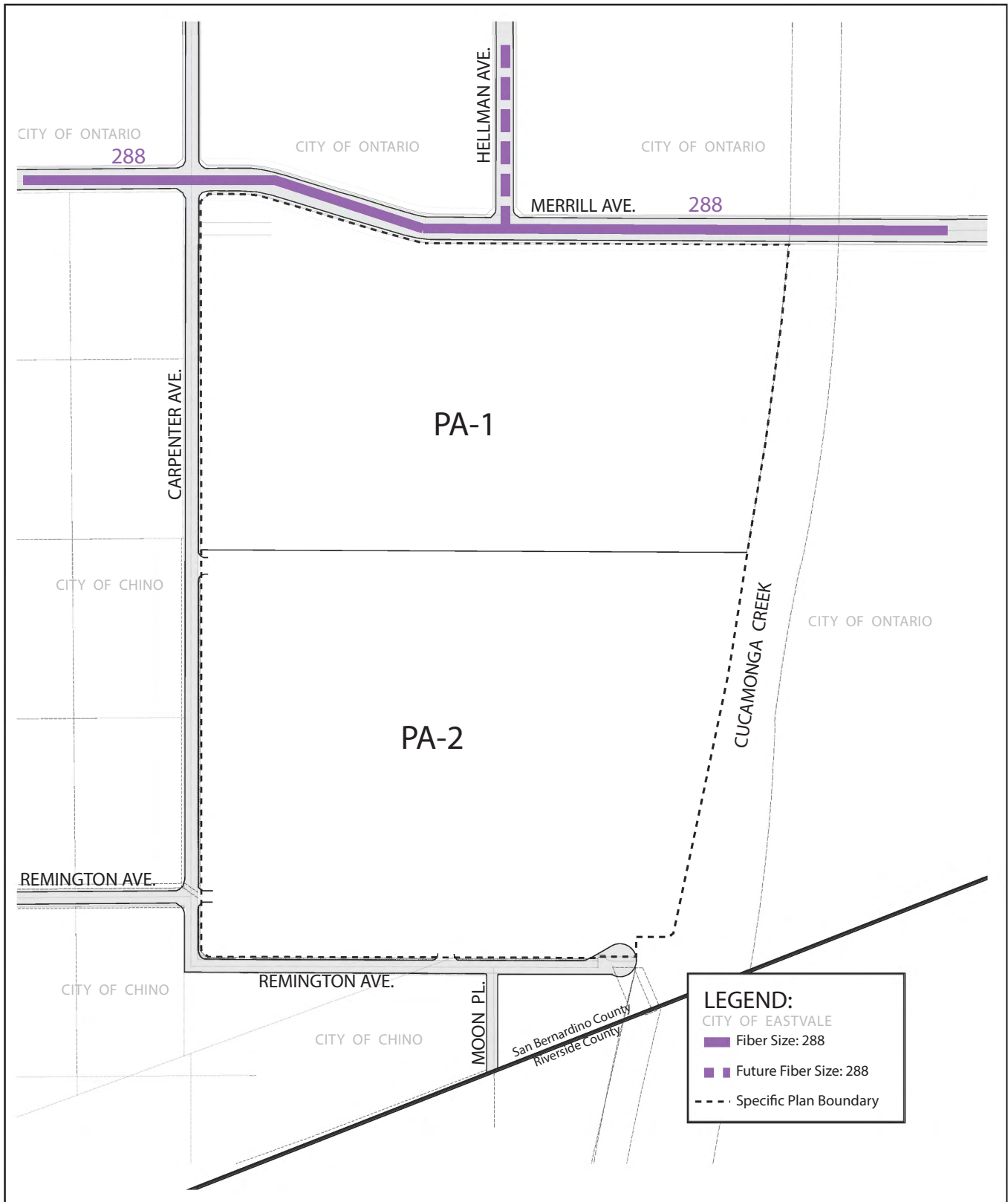
The Ontario Police Department will provide law enforcement to the Colony Commerce Center West area. The Ontario Police Department's mission statement is as follows: "The mission of the Ontario Police Department is to protect life and property, solve neighborhood problems, and enhance the quality of life in our community. We do this by providing superior police services while fostering successful community partnerships."

5.7.2 Fire

The Ontario Fire Department will provide fire protection, paramedic, and emergency response services to the Specific Plan Area. The closest operational fire station is Station 6 located at 2931 E. Philadelphia Avenue. The Ontario Fire Department currently has eight stations, which are comprised of eight 4-man paramedic engine companies and two 4-man truck companies.

The City is in the process of developing 13 square miles in the Ontario Ranch where the Ontario Fire Department will shortly begin construction of Fire Station Number Nine located at 2661 E. Park Vista Drive.

Exhibit 5.15, Fiber Optic Master Plan



Source: City of Ontario, Figure 7 (Fiber Size and Footages)
 NOTE: Reference the City's most current Master Plan for sizing/alignment.

N. T. S.

5.7.3 Solid Waste Disposal

The Ontario Municipal Utilities Company is committed to providing reliable, timely, safe, and affordable refuse collection services to the residents and businesses in the city limits. Solid waste requirements shall follow the approved “Solid Waste Department Refuse and Recycling Planning Manual.”

5.8 Infrastructure Phasing Plan

The primary intent of the phasing of the project is to ensure that complete and adequate public facilities and services are in place and available to the Specific Plan area as needed.

The phasing program for Colony Commerce Center West will be executed to provide the services and infrastructure required for each of the development planning areas. The phasing set forth in this Specific Plan shall be conditioned on the approval of tentative tract maps. It should be noted that the ultimate pace and phasing of the development is dependent on a number of internal and external factors and is subject to change. See Exhibit 5.16, Conceptual Phasing Plan.

Not all planned development within a given phase may be completed prior to the initiation of the next phase. In cases where development within a new phase is to begin prior to the completion of a phase in progress, all infrastructure improvements shall be funded and designed for the phase in progress before any new phase may begin.

5.8.1 Planning Areas and Streets

The project will be developed in three or more phases. These phases may occur sequentially or concurrently with one another. Build out of the project is undetermined at this time.

Public streets within and abutting the Specific Plan area shall be improved in accordance with approved development agreement. Traffic Impact Analysis may recommend additional improvements, including those

potentially outside the limits of the Specific Plan Area, prior to or concurrent with specific development milestones.

5.8.2 Water, Sewer and Recycled Water

Water and sewer services will be provided for each of the planning areas.

Domestic Water: Phases 1A and 1B require the construction of the 12” Master Plan water line in Merrill Avenue from Archibald Avenue to Carpenter Avenue, in Carpenter Avenue from Merrill Avenue to Remington Avenue, and eastward in Remington Avenue to Archibald Avenue. Due to the location of Phase 1A and 1B, the 12” water line will also be able to serve Phase 2.

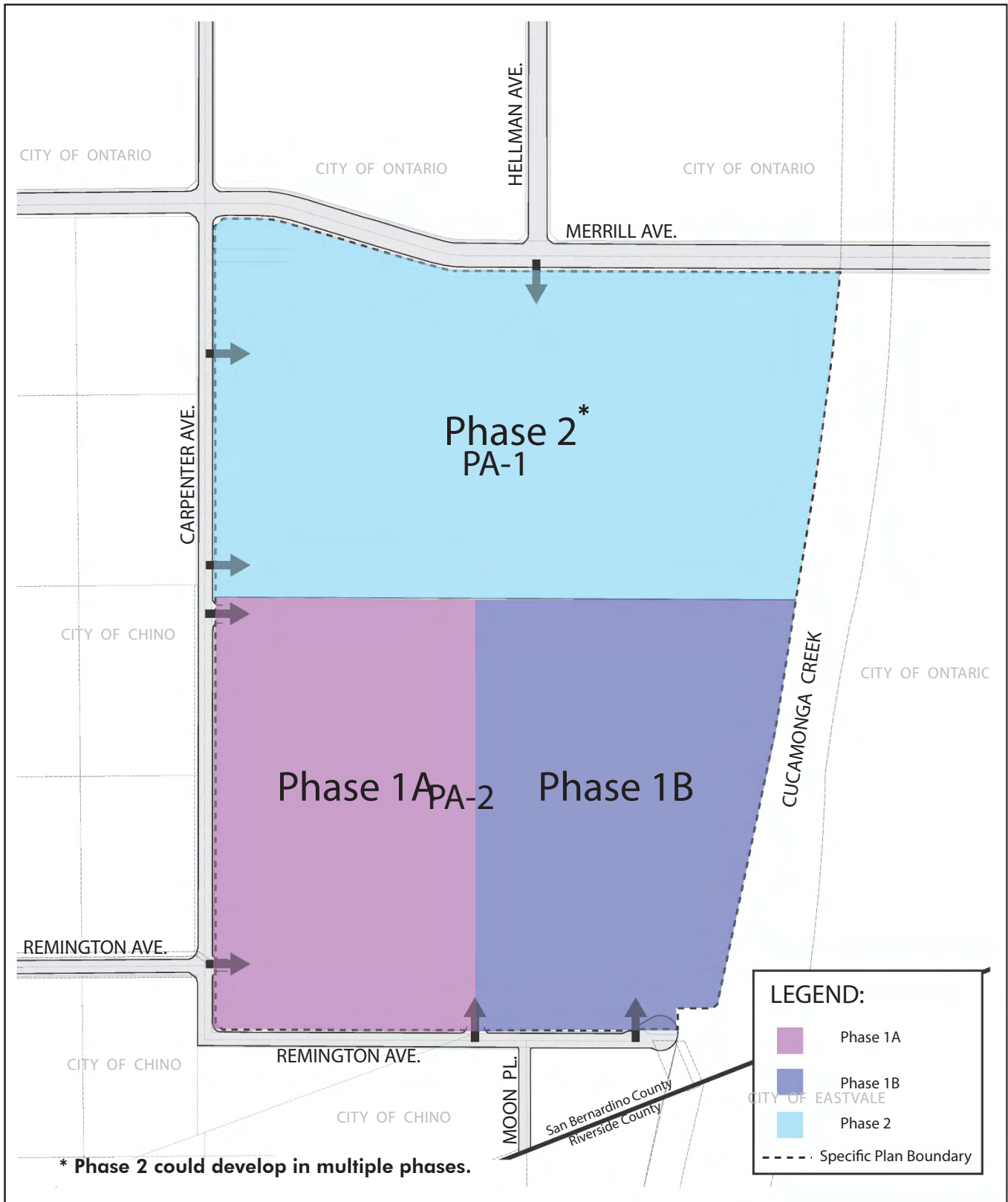
Recycled Water: The developer of Colony Commerce Center West will utilize the existing recycled water laterals that stub into both Planning Areas and enhance where required to serve the project. This project will also construct a 12” City of Ontario line along Merrill Avenue from Carpenter Avenue to Archibald Avenue. The recycled water improvements will not be phased and connection to the system is required prior to occupancy.

Sewer: The City of Ontario Master Plan of Sewer proposes an 18” Sewer Trunk Line in Carpenter Avenue from the Eastern Trunk Sewer north to Merrill Avenue. The latest design of this master planned trunk sewer line, performed by MDS Consulting, requires the upsizing of this 18” line to a 24” line between the Eastern Trunk Sewer and Merrill Avenue.

To provide sewer for all phases of development, this project proposes a realignment of this 24” line. The new alignment will run eastwardly in Remington Avenue from the southerly extension of Carpenter Avenue and southwardly on Moon Place where it will connect to the Eastern Trunk Sewer approximately 1,000 feet northeast of the original connection point.

5.8.3 Drainage

Exhibit 5.16, Conceptual Phasing Plan



Source: KTG Group



Phase 1a & 1b improvements include the construction of a 60” storm drain line from the NWC of Phase 1a & 1b in Carpenter Avenue, down Carpenter Avenue to Remington Avenue (East), where it heads east and ties into the existing 60” storm drain outlet at Cucamonga Channel.

It should be noted that the ultimate phasing of the development is dependent on a number of internal and external factors. Not all planned development within a given phase may be completed prior to the initiation of the next phase.

5.9 Infrastructure Plan and Phasing Adjustments

The Board of Zoning Adjustment shall have the authority to hear and decide applications for modifications to the infrastructure phasing plans. The Board shall be required to make the following findings:

- » That modification is consistent with the General Plan;
- » That the proposed changes will not adversely affect the implementation of the Specific Plan;
- » That it will not be detrimental to the public health, safety, and general welfare; and
- » That the proposed modification will not delay the construction of the master plan improvements necessary to serve the development.