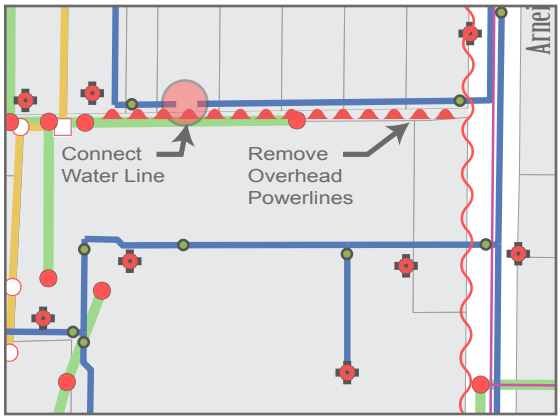
Chapter 7 - Infrastructure and Utilities

INTRODUCTION

This chapter addresses issues concerning dry utilities, water, storm water/drainage, and other public services within the Plan Area. This chapter includes an analysis of existing infrastructure and notes the areas that can be improved to support new development in the Plan Area. Considering the Plan Area currently houses many uses, the infrastructure and utilities required to serve this new development are largely in place.



EXISTING INFRASTRUCTURE

Roadways

Arneill Road — Arneill Road is classified as a Secondary Arterial Street. Secondary Arterial Streets provide the primary circulation within the City of Camarillo. Arneill Road is considered to be one of the most highly traveled streets within the City. It currently consists of 4 lanes (two in each direction) and a landscaped median divider. Due to the high traffic into and out of the Plan Area, it appears that deceleration lanes into the area would be beneficial to aid the flow of traffic.

The condition of the existing pavement, curb, gutter and sidewalk are poor in some areas. The roadway is lined with beautiful landscaping, trees and detached sidewalks. Although the City has done a good job of maintaining the landscaped areas, it appears that the root system of the trees has encroached into the concrete areas, thus deteriorating the integrity of the flatwork. Evidence of such encroachment is the uplifting and cracking of roadway sidewalks and curbs.

Discussions with the City landscape maintenance personnel suggest that the City has recently updated their streetscape tree and planting list and they no longer plant trees that impact the adjacent roadways and concrete. It is the opinion of City staff that most likely the trees along Arneill Road will be removed and/or replaced with more suitable varieties.

It appears that the roadway has had a number of overlays and/or slurry seals over time, which has lead to an increased slope to the crown of the roadway. The median looks to have been added at a later time than the initial construction of the roadway. The street should be reconstructed to remove the crowns and return the street to a standard cross slope.

Most of Arneill Road has rolled curbs as opposed to standard curb and gutters. The rolled curbs should be replaced with city standard curb and gutters.

Daily Drive — Daily Drive is also classified as a Secondary Arterial Street, although it is not currently configured as a typical Secondary Arterial (two lanes in each direction). It appears that Daily Drive is currently being upgraded, as the new development at the intersection of Daily Drive and Arneill Road includes a widened street section that tapers down as it heads west away from the intersection and ties into the existing road width adjacent to

older development. This widened street section is consistent with the City's current plan, as the City's long-range circulation improvement plan designates Daily Drive as a three lane roadway between Mobile Avenue and Arneill Road.

Mobil Avenue — Mobil Avenue is classified as a Collector Street. The collector street system in the City is intended as the intermediate route to handle traffic between local streets and arterial streets. The street is bounded on the east side by primarily retail, commercial and office buildings, while the west side hosts a combination of retail and residential lots. Due to the abundance of driveways and drive approaches along this portion of Mobil Avenue, traffic occurs to flow rather inconsistent, with stop and go traffic. In addition, the intersection of Pickwick Drive and Mobil Avenue contains a unique configuration that adds to the inconsistent flow of traffic (intersection discussed in greater detail in the Pickwick Drive section of this report). Through this particular intersection, Mobil Avenue physically jogs to the east as it heads north through the intersection.

The width of Mobil Avenue is not consistent from Ponderosa Drive to Daily Drive. The southern portion becomes narrower than the northern portion. The southern portion should be widened to match the width of the northern portion and help the flow of traffic.

The pavement section on Mobil Avenue appears to be weathered and worn throughout the majority of the roadway. There are isolated sections of newer paving adjacent to new or recent construction. During a recent field visit, it was observed that new construction was underway at the intersection of Mobil Avenue and Ponderosa Drive. Due to the stage of the construction, it was unclear as to the extent of proposed roadway improvements adjacent to the site at that time.

Ponderosa Drive — Ponderosa Drive is classified as a Secondary Arterial Street and appears to be highly traveled throughout the Plan Area. The roadway is a major pedestrian thoroughfare as well. Much like Arneill Road, Ponderosa Drive is a 4-lane roadway lined with landscaped medians and streetscapes. On the south side of the street, adjacent to the sidewalk area is an open storm water channel with fencing, intermittent with an underground culvert system. The width of the channel and size of the culverts varies throughout the Plan Area. It appears as though the original design was an open channel and that portions have been under grounded by subsequent development. In areas with underground culverts, the streetscape is lined with grassy mounds and landscaping.

Overhead Utilities Between Ponderosa North and Ponderosa Center off of Arneill Road.

Traffic congestion at the intersection of Ponderosa Drive and Arneill Road has been noted by City staff as a current problem in the area. Discussions with staff indicate that the congestion could be eliminated by the construction of two left turn lanes from Ponderosa Drive (heading east) onto Arneill Road north. Subsequent research into the City's long-range circulation improvement plan for Ponderosa Drive provides for a dual left-turn lane at Arneill Road.

Portions of Ponderosa Drive consist of rolled curbs as opposed to standard curb and gutters. Where rolled curbs exist, the rolled curbs should be replaced with city standard curb and gutters.

Example of Rolled Curb on Ponderosa Drive

Pickwick Drive — Pickwick Drive is classified by the City as a Collector Street. As in the case with Mobil Avenue (also a Collector Street), traffic congestion and traffic flow are current issues. On the south side of Pickwick Drive, approximately half way between Mobil Avenue and Arneill Road is a newer development that houses the local Fire Department and Post Office. During a current field visit to the site, a constant flow of steady traffic was observed driving into the Post Office. It appeared that the majority of the traffic was directed to the series of "drive up" mail boxes adjacent to the Post Office. At times, the traffic was backed up and cars were forced to stop in Pickwick Drive.

The immediate area is further impacted by a substandard intersection at Pickwick Drive and Mobil Avenue. It is well noted by City staff that minor traffic instances are common at the intersection due to its current design. Due to the unique alignment at the intersection, the City had been forced to install a stop sign in the middle of the road. It is documented by the City that the stop sign is routinely run into, prompting the need for repair and/or replacement. As is, the intersection adds to the congestion to the local traffic condition and poses an ongoing safety hazard to motorist and pedestrians. The City is currently looking at options to improve the intersection. The most popular proposal is the incorporation of a "roundabout" at the intersection. The proposal is currently under review and should be considered as a possible solution to the current issue.

The pavement section, sidewalk, curb and gutter appear to be in fair condition. The street appears to be worn and should be replaced and/or repaired to bring it back into an acceptable condition. For a portion of the roadway, the streetscapes are lined with landscaping and mature trees. The trees should be protected where possible.

Barry Street—Barry Street tees into Arneill Road on the east side of the Plan Area. Proposed plans for this area show the extension of Barry Street through the Plan Area as a future street. A recent field visit to the site revealed this alignment to be a viable future street, as much of the traffic into the Plan Area uses the paved area of the parking lots as a thoroughfare from Arneill Road to Mobil Avenue.

Barry Street will need to be reconstructed to meet the proposed traffic volumes. Reconstruction should included curbs, gutters, sidewalks and various utilities to serve the proposed redevelopment.

Raemere Street — Raemere Street is located in the southern most portion of the Plan Area and is the local residential street for the existing single family housing development. A recent field visit to the area verified the street section on Raemere Street to be in need of repair. There are a number of potholes in the existing pavement section and the majority of the roadway shows signs of weathering, cracking, and deterioration. The adjacent sidewalk, curb and gutter were also in need of repair and/or replacement.

EXISTING UTILITIES

Sewer

Existing sewer infrastructure is provided for the entire Plan Area by the Ventura Regional Sanitation District. Sewer atlas's for the area were obtained from the City and reviewed.

At this time, no studies exist as to the condition of the existing infrastructure or the current capacity of the system, other than the verification of service. During a recent site visit, no sign of any existing sewer infrastructure issues were discovered. Discussions with City staff did not indicate any noted current sewer issues.

Studies should be conducted prior to any redevelopment that would determine the existing sewers capacities and it's ability to handle the proposed increase. Should the study show that the current system is inadequate, then improvements to the sewer main should be provided.

Water

Existing water service is provided for the entire Plan Area by the City of Camarillo. Water atlas's for the area were obtained from the City and reviewed.

Discussions with City staff indicated that the current system is functioning properly and only a few areas of improvement should be needed. Currently the water main in Pickwick Drive does not extend to Arneill Road. An 8" water main should be extended in Pickwick Drive to connect to the water main in Arneill Road.

On the south side of the Fire Station and Post Office a water main extends East and West. The water line is not continuous along this area and should be connected together to provide better water pressures during periods of fire flow needs.

Spacing of fire hydrants for fire fighting needs should be added where needed to meet the standards of the local fire department.

Storm Drain System

Existing storm water service is provided for the entire Plan Area. Storm drain system atlas's for the area were obtained from the City and reviewed.

Research was conducted as to the condition of the existing infrastructure and the existing conditions during storm events. Field verification and discussions with the City Public Works staff did not reveal any major flooding problems reported for the area.

During field visits no flooding or storm drain issues were observed, however all field visits were conducted during clear to fair weather, not during storm events. Discussions with City staff indicated no noteworthy current issues. The area is relatively flat and susceptible to regional temporary flooding; however discussions with staff did not indicate any flooding issues, other than the occasional standing water in Arneill Road.

Existing Storm Water Channel Along Ponderosa Drive

The existing storm water channel on the north side of the project conveys storm water during storm events and appears to be sufficient for the current development. As noted earlier in this report, a portion of the storm water channel has been diverted to culverts and the storm water conveyed underground. There are no signs of system failure adjacent to the channel or underground culverts. Where the open channel exists along Ponderosa Drive, it should be covered with a permanent surface as discussed in the Cities CIP plan for the storm drain system.

There is some evidence of localized ponding of water in the parking lots of the retail shopping area as indicated by water stains and pavement failure. In the future, during new construction, this can be prevented by maintaining adequate slopes in the pavement area. This localized ponding of water does not appear to pose a safety hazard to the adjacent businesses nor the motorist or pedestrians that visit the area.

There are numerous factors that affect an areas demand for storm drainage infrastructure, such as rainfall volume and landscape permeability. Hard surfaces such as asphalt and concrete typical of an urban environment decrease permeability and increase storm drainage. A review of the existing conditions in the Plan Area finds a vast amount of' existing hard surfaces (large parking lots with little or no landscaping features). As a result, the recommended redevelopment of this site should have an insignificant impact on the storm drainage systems and no detention should be needed.

The proposed storm drain systems throughout the project site should meet the current National Pollutant Discharge Elimination System (NPDES) standards for discharge. This can be implemented by installing filter systems at all storm drain basins or by use of a regional stormwater filter vaults on stormdrain systems at the point of discharge to the main system. Also a requirement for scheduled parking lot sweeping should be required to minimize the deposits of pollutants into the system.

Dry Utilities

Utility services are provided for the Plan Area by the following companies:

Cable TV — Time Warner

Electricity — Southern California Edison Company

Gas Service — Southern California Gas Company

Telephone Service — Verizon

Refuse/Recycling Collection — E.J. Harrison & Sons

The majority of the Plan Area's services are provided for by overhead lines and services. As a condition of future development in the area, it is required that all overhead lines must be placed underground.

No detailed research was conducted as to the condition of the existing infrastructure or the current capacity of the utilities at this time, other than verification of service and field observation of existing conditions. During a recent site visit, no sign of existing infrastructure issues were observed. Discussions with City staff indicated no noteworthy current issues.

A future issue regarding utilities will arise during the revitalization of the streetscapes adjacent to the existing roadways in the Plan Area and/or the future widening of streets. It was noted during a field visit that a majority of the underground vaults for utilities were adjacent to the curb in the street right-of-ways. These underground vaults and their respective utilities will need to be relocated during future construction that involves disturbing their current location.

Discussions with City staff indicated that at a minimum, streetscapes are scheduled for

future upgrades and sidewalks relocated. In either case, these utility vaults will have to be verified as to falling outside of the area or relocated at the time. In more aggressive discussions, streets are proposed to be widened and additional turn lanes constructed. There is also the possibility of additional signalization that will require additional underground vaults to be constructed.

SUMMARY

The Plan Area is typical of an older retail center development. Although the area is currently being utilized, by today's standards it is safe to say that there exists the possibility of increased utilization. The infrastructure overall appears to be adequate, however in some instances it is marginal and in need of attention as described above.

The most prominent existing issue noted in this report is the substandard traffic infrastructure. The inconsistent flow of traffic in the area can be greatly improved by implementing some of the City's proposed traffic upgrades such as additional turn lanes and the widening of streets. As with all future developments, whether remodels or new construction, a traffic study has been conducted to adequately evaluate the impact of the proposed development on the area and offer mitigating measure to minimize traffic congestion and maximize safety.

Although this report finds few instances of substandard infrastructure to the area, as with all older pipes, pavement, wiring, vaults. etc.; there exists the imminent need for upgrading. During the construction document phase of public street improvements, a more thorough review of all existing infrastructure may show some areas where upgrades or replacements of utilities are warranted. In other areas it might be optional but wise to improve the utility prior to constructing a new street section.

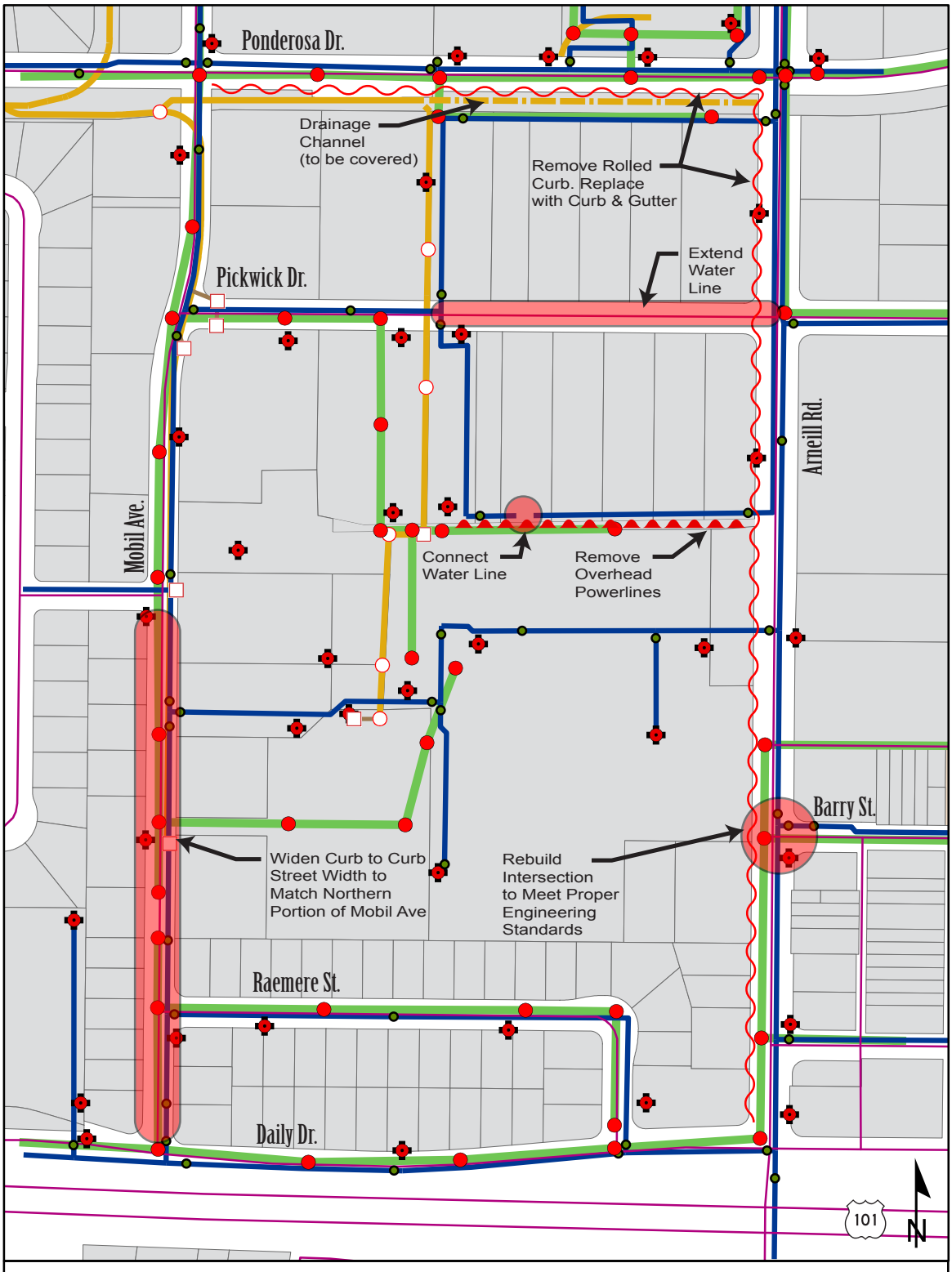


FIGURE 7.1

EXISTING & PROPOSED INFRASTRUCTURE

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