
APPENDICES

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APPENDIX B – INFRASTRUCTURE TECHNICAL MEMO

APPENDIX C – SITE DEVELOPMENT PROTOTYPES

APPENDIX A – STREETScape CONCEPT PLAN DRAWINGS



RIVERSIDE GATEWAY PROJECT

LEGEND

- Ornamental, deciduous tree, 30'-0" to 40'-0" high (large canopy)
- Large, evergreen screen tree
- Flowering accent tree @ intersections, 15'-0" to 20'-0" high
- Flowering accent tree @ street planters, 15'-0" to 20'-0" high
- Deciduous shade tree, 15'-0" to 20'-0" high
- Street Lighting: luminaries, mounted @ 25'-0" - 30'-0" spaced approx. 225'-0" apart. (Note: Exact type and location of street lights to be determined during the preparation of construction drawings.)
- Existing parcel lines
- Curb
- Curb-Cut

NOTES

1. Streetscape enhancement locations shown on the site plans are drawn diagrammatically only and all landscaped planter areas are subject to relocation.
2. The information presented in these drawings is preliminary; engineering study and analyses are required, and details and specifications must be prepared, before any construction.

scale:	1"=30'-0"
job no.:	03110082.01
drawn by:	POOJA SINGH
checked by:	JOHN ZANZI

**RIVERSIDE AVENUE
 STREETSCAPE
 CONCEPT PLAN**

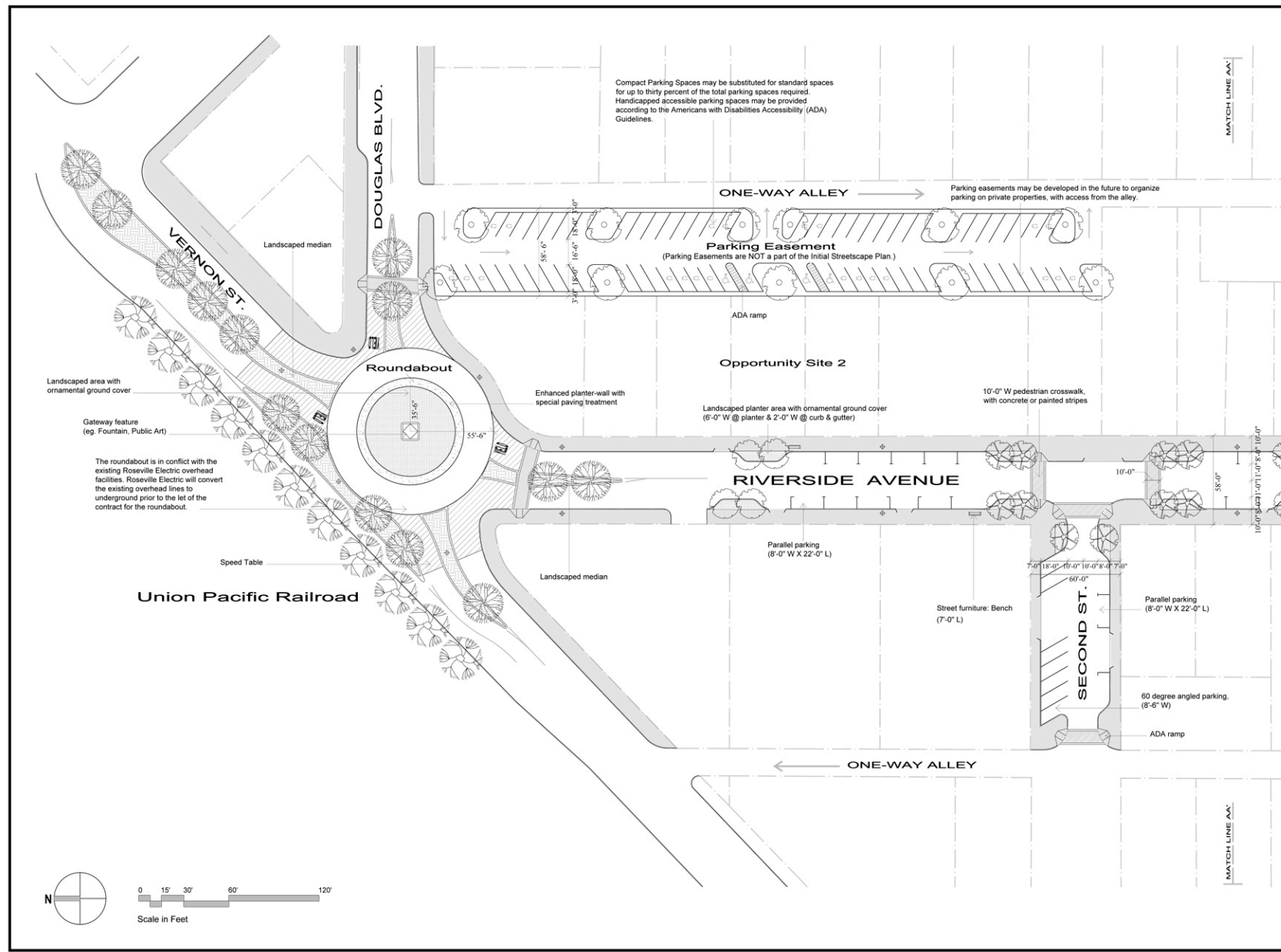
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sheet no.:

sheet 1 of 5
 date: 04/20/05



Compact Parking Spaces may be substituted for standard spaces for up to thirty percent of the total parking spaces required. Handicapped accessible parking spaces may be provided according to the Americans with Disabilities Accessibility (ADA) Guidelines.

Parking easements may be developed in the future to organize parking on private properties, with access from the alley.

Parking Easement
 (Parking Easements are NOT a part of the Initial Streetscape Plan.)

Opportunity Site 2

Landscaped planter area with ornamental ground cover (8'-0" W @ planter & 2'-0" W @ curb & gutter)

10'-0" W pedestrian crosswalk, with concrete or painted stripes

RIVERSIDE AVENUE

Parallel parking (8'-0" W X 22'-0" L)

Street furniture: Bench (7'-0" L)

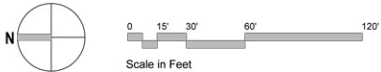
Parallel parking (8'-0" W X 22'-0" L)

60 degree angled parking, (8'-6" W)

ADA ramp

ONE-WAY ALLEY

The roundabout is in conflict with the existing Roseville Electric overhead facilities. Roseville Electric will convert the existing overhead lines to underground prior to the let of the contract for the roundabout.





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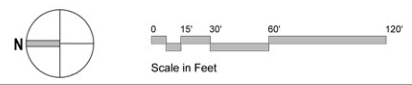
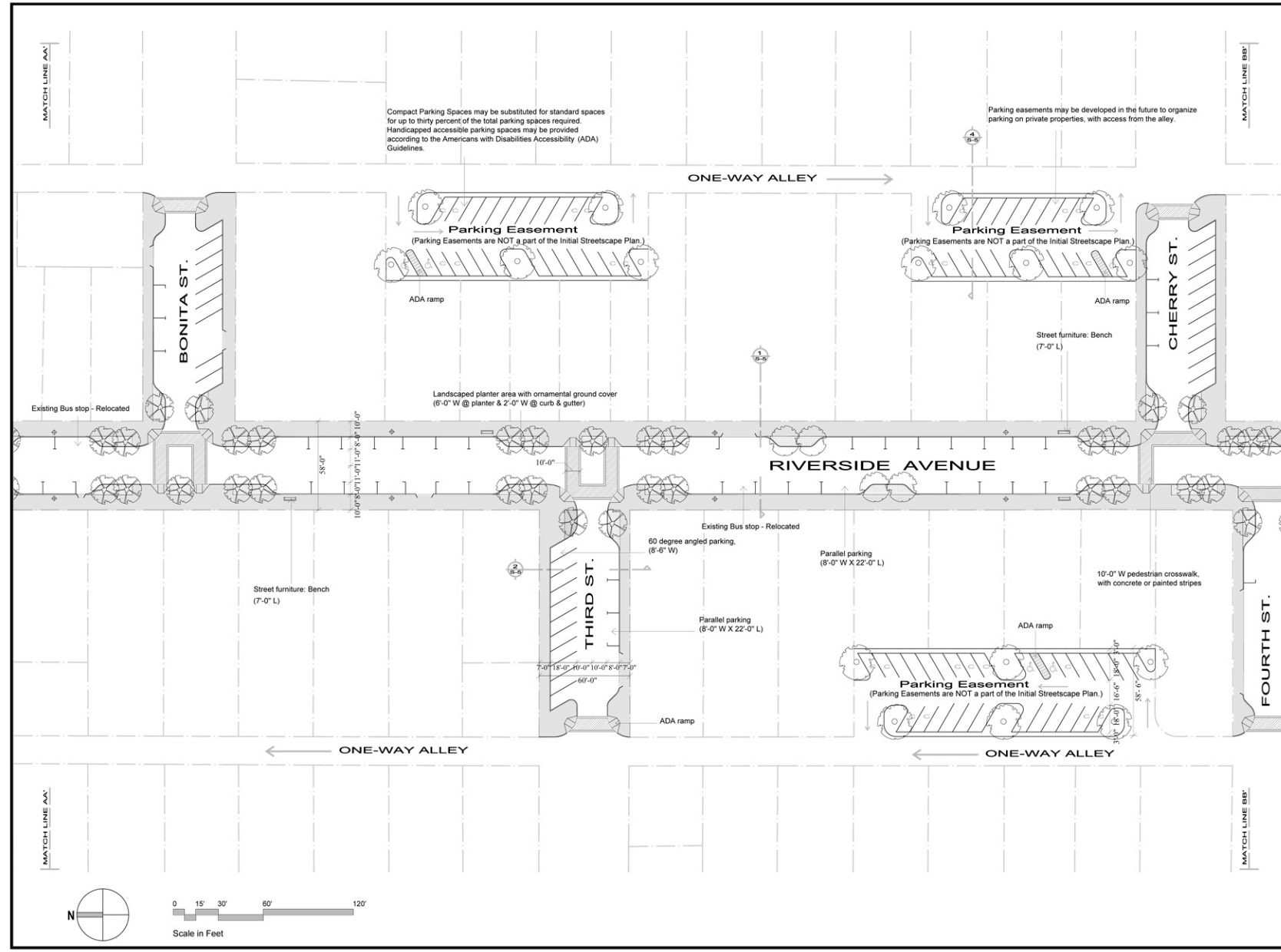
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sheet no.:	8-2
sheet:	<u>2</u> of <u>5</u>
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RIVERSIDE GATEWAY PROJECT

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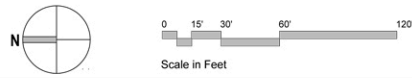
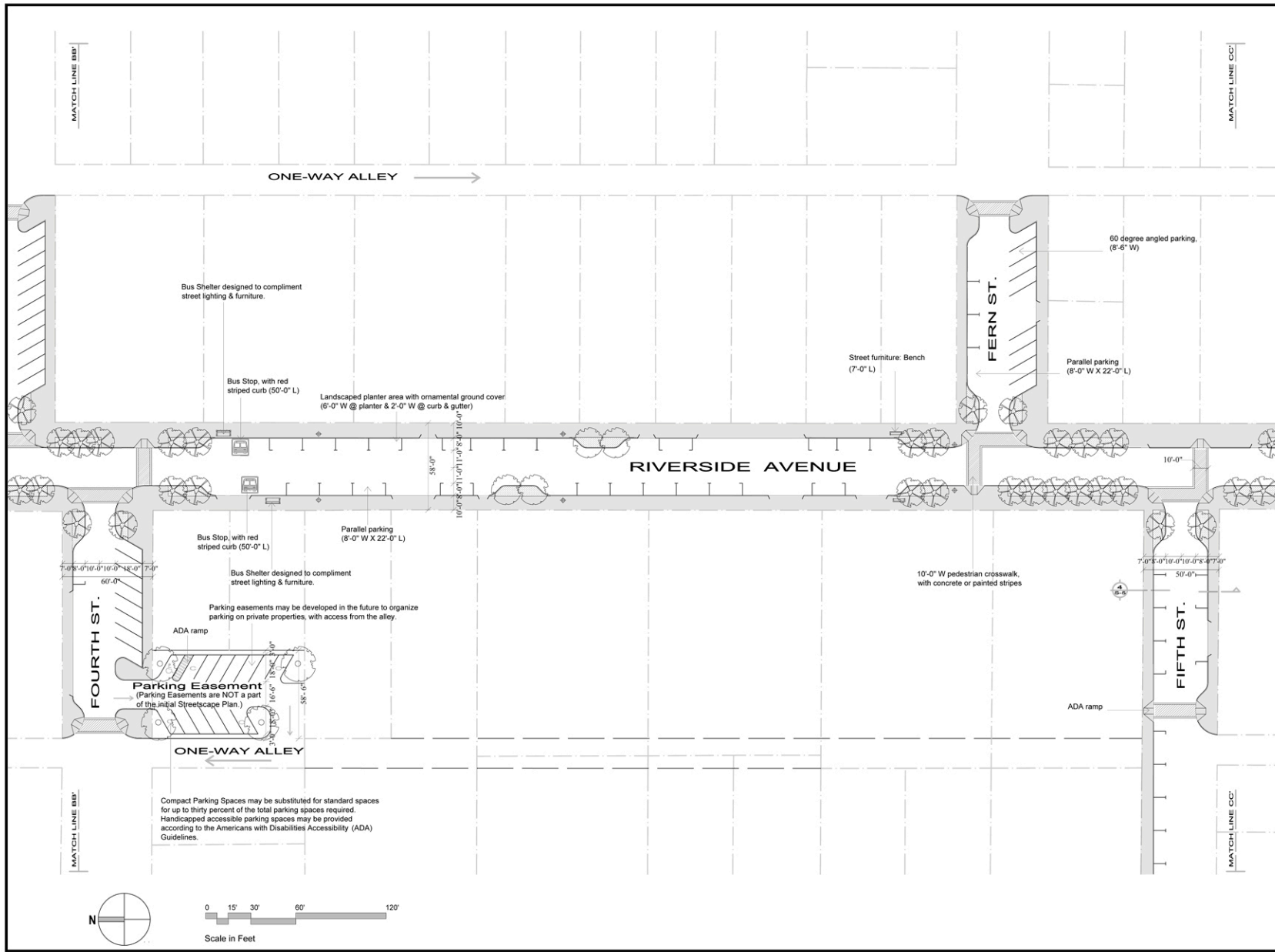
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sheet **3** of **5**
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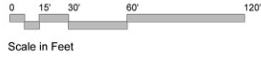
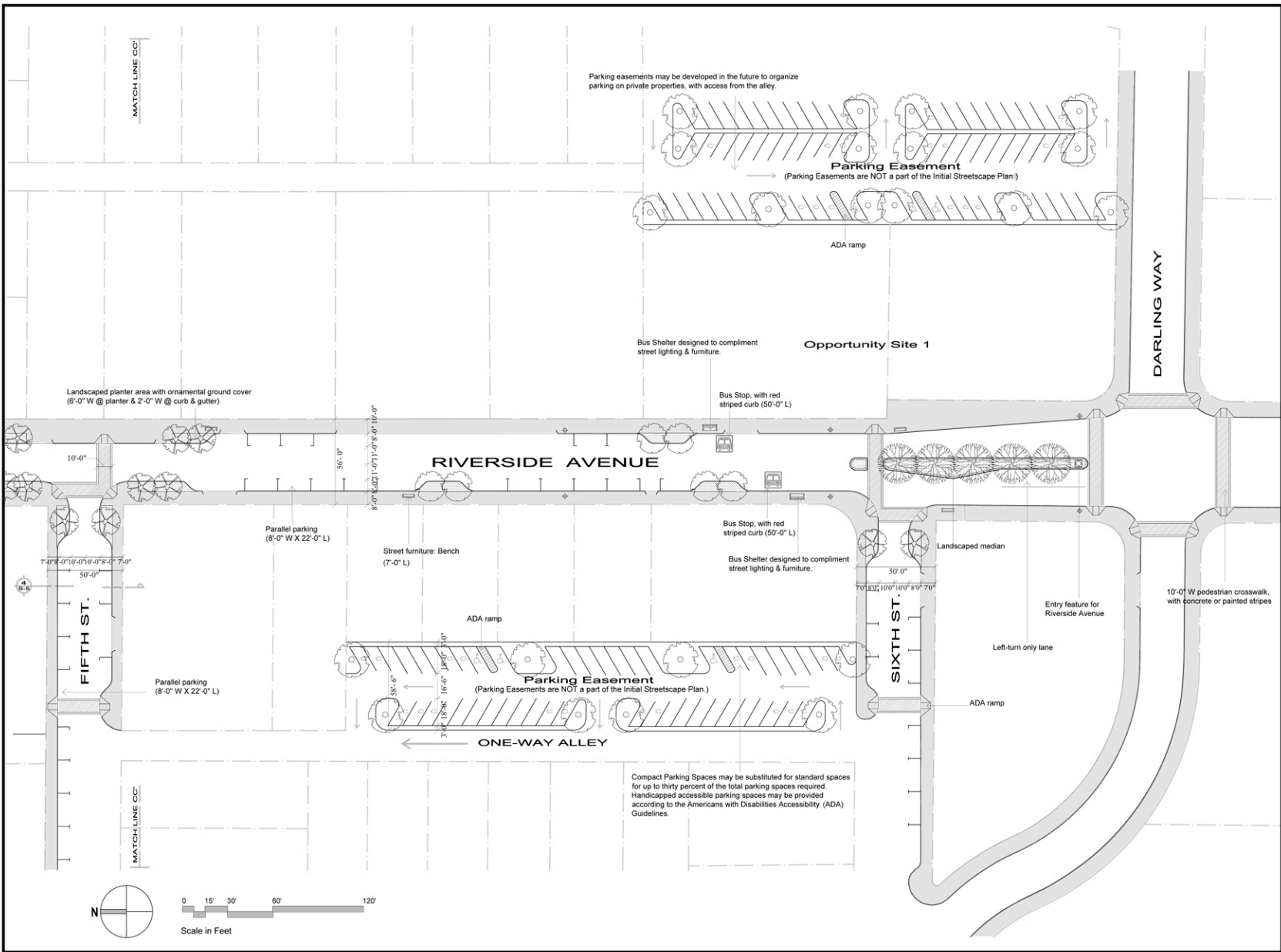
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sheet **4** of **5**
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APPENDIX B – INFRASTRUCTURE TECHNICAL MEMO

Note: This Appendix is intended to provide a reference and a summary of the Infrastructure Technical Memo prepared by Nolte and Associates, and does not include all appendices originally included with the memo. The entire text of the memo with all appendices is available at the City of Roseville Planning and Redevelopment Department.

INFRASTRUCTURE TECHNICAL MEMO

FOR

RIVERSIDE GATEWAY SPECIFIC PLAN

Prepared for:



Prepared By:

NOLTE ASSOCIATES, INC.
1750 CREEKSIDE OAKS DRIVE, SUITE 200
SACRAMENTO, CA 95833

PROJECT NUMBER: SAB015300



April 2005

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STORM DRAINAGE

Existing Conditions

The existing storm drain system serving the Riverside Gateway Specific Plan Area is located in Riverside Avenue. An 8-inch pipeline flows from Second Street to Bonita Street, a 10-inch pipeline from Bonita Street to Third Street, and a 12-inch pipeline from Third Street to Cherry Street. A 14-inch pipeline then flows from Cherry Street and discharges into Dry Creek at Darling Way and Clinton Avenue.

Investigations by City maintenance staff has revealed the 8-inch and 10-inch pipelines between Second Street and Third Street, have been compromised by tree roots and need to be replaced. The manholes on Riverside at Fern Street and Third Street are buried beneath the roadway surface and will need to be brought up to road grade with any future improvements. The drainage inlets for the system along Riverside are located in the curb returns of the street and interfere with the accessibility ramps at the street corners. All of the drainage inlets in the system need to be replaced according to City Public Works Staff.

Capacity Analysis

The analysis in this report is based on methods from the City of Roseville Improvement Standards for a 10-year storm event. In order to establish the flow into the drainage system, the peak flow must be calculated. For this analysis, the standard method for determining peak flow was simplified on the basis that the study area is already developed and highly impervious. Since the shed areas are highly impervious, infiltration becomes negligible and the flow equation is simplified. This simplification is shown in Appendix A-1.

Since the peak flow is a product of watershed area and peak discharge per unit discharge (peak unit discharge), the first step in determining the peak flow is to delineate the sheds served by the existing storm drain system. A shed map developed from field research can be found in Appendix A-2.

The peak unit discharge is based on the response time of the watershed to intense precipitation. The total response time is determined from the sum of the overland response time and the collector response time. The overland response time is for the initial overland sheet flow of the uppermost watershed contributing to the drainage system. Due to the small size of the watersheds within the study area, a maximum overland response time of 15 minutes was used. Response times within the collector system were calculated assuming a minimum flow velocity of 2 ft/sec. Collector response times for the pipe to be analyzed was calculated by multiplying the total length of upstream pipe by the assumed velocity.

When a total response time is determined for a specific pipe, the peak unit discharge can be determined from equation 10-3 and applying the appropriate coefficients, C_0 and C_1 , from Table 10-3 of the Standards. The peak flow can then be calculated by multiplying the peak unit discharge by the total area of the sheds contributing to the pipe being analyzed. Example calculations for this analysis can be found in Appendix A-1.

Every pipe segment in the Riverside Avenue drainage system was analyzed individually per this method. Results of this analysis are shown in Appendix A-3.

Based on the capacity analysis, it has been determined that the existing storm drain system is undersized to handle the current City standards for a 10-year storm event. Pipes will need to be upsized to 15" at the uppermost end of the system to 30" at the outfall to meet current standards. Pipe sizes are based on a slope of 1% and a manning's coefficient(n) of 0.015. Using a 1% slope on the pipes is an assumption since information on the inverts of the existing system is not available at this time. If the pipe slopes are less than 1%, pipe sizes could possibly increase to 48" at the outfall. The pipe sizes recommended for the Riverside Gateway Specific Plan area per this analysis can be found in the calculation results in Appendix A-3.

Facility Replacement and Pipe Sizing

As previously stated, the existing storm drain system in Riverside Avenue is undersized per current City standards. Due to budgetary constraints, it is proposed that only the portions of the system that have failed or have conflicts be replaced. Even with the undersized system, there have been no flooding issues along Riverside Avenue according to Public Works Staff. In the event of a 10-yr or greater storm, Public Works anticipates that there will be additional gutter flow, but says it is unlikely that there will be any flooding of buildings in the area.

Due to root intrusion and structural failure, the storm drain pipe in Riverside Avenue between Second and Third Streets will need to be replaced. This length of pipe is proposed to be upsized to a 15-inch pipe in order to conform to current City standards. Based on their interference with the accessibility ramps, all drain inlets serving the Riverside Avenue storm drain system will be replaced. Along with these improvements, the inlet leads are proposed to be upsized from the existing 6-inch pipe to 12-inch pipe. The manholes at Fern Street and Third Street are currently buried, and will need to be adjusted to street grade. A new manhole will need to be constructed on Bonita Street to serve the inlet laterals. A new manhole will also need to be constructed at the existing lateral between Cherry Street and Fern Street since it is currently a blind tie into the system. The storm drain facilities recommended for the Riverside Gateway Specific Plan area can be found on the facilities map in Appendix A-4.

Estimated Construction Costs

Replacement costs for the existing system will include all drain inlets and inlet leads serving the storm drain system in Riverside Avenue along with the pipes and manholes previously mentioned. Costs are also included for drainage facilities associated with placing bulbouts along Riverside Avenue. These facilities are included because bulbouts interrupt the flow of drainage along the gutter in the street. The total estimated cost of all the drainage improvements is approximately \$306,000 including contingencies. A breakdown of the costs for these improvements is included in the cost estimate in Appendix F.

Conclusions

The proposed changes in land use for the Riverside Gateway Specific Plan area do not affect the amount of drainage flow contributed to the existing storm drainage system due to the fact that the area is already developed and highly impervious. The existing system is currently undersized per the criteria for a 10-year storm event according to the City of Roseville Standards, but does not appear to have flooding problems. The proposed improvements recommended in this report is the first step to bringing the existing storm drain system up to current standards and will fix the problems immediately apparent in the system.

WASTEWATER

Existing Conditions

The existing wastewater collection system serving the Riverside Gateway Specific Plan Area consists of 6-inch pipelines located within the adjacent alleys on both sides of Riverside Avenue and a short length of 6-inch pipeline within Riverside Avenue just South of Cherry Street. The existing buildings along Riverside Avenue are served by the system in the alleys at the rear of the lots. The 6-inch pipeline just south of Fourth Street in the alley west of Riverside Avenue is located directly under an existing building and will need to be abandoned and relocated. A 12-inch pipeline crossing Riverside Avenue at Fourth/Cherry Street and a 6-inch pipeline crossing Riverside Avenue at Sixth Street convey the wastewater away from the Plan Area.

The City of Roseville recently used video cameras to inspect the wastewater system in the Riverside Gateway Specific Plan Area and concluded the entire pipeline system was in poor condition and needed to be replaced or repaired.

The Riverside Gateway Specific Plan area is served by the Dry Creek Wastewater Treatment plant. The plant has an Average Dry Weather Flow (ADWF) capacity of 18 mgd, and a Peak Wet Weather Flow (PWWF) capacity of 45 mgd. Currently, the plant is treating a flow of 11 mgd ADWF.

Capacity Analysis

The first step in determining the capacity of the wastewater system is to determine the amount of flow generated by the area contributing to the system. The City of Roseville Standards does not contain methods for determining flow generation for small sheds that are common with infill development. Therefore, flow generation methods from the City of Sacramento Standards were used for this analysis.

To develop the flow generation, the area contributing to the wastewater system was divided into sheds. The sheds were delineated by node with the assumption that each node in the wastewater system will service the upstream shed. Please see Appendix B-1 for the wastewater contributing shed map.

Wastewater flows are determined based on the land use of the parcels within each contributing shed. Since exact land use has not yet been determined for the study area, all parcels not currently classified as residential were classified as commercial/retail. A list of parcels along Riverside Avenue, grouped by shed, is included in Appendix B-2 of this report. In addition to the commercial/retail parcels and residential units listed for Riverside Ave., there are 85 residential units along 'B' Street and Clinton Avenue in the contributing sheds that generate flow to the system. A list of the number of residential units in each shed is included in Appendix B-2.

For commercial/retail parcels, flow is based on the floor area of the buildings. Floor areas are determined by using a floor area ratio (FAR) based on the assumed future land use. Floor area is then converted to equivalent single family dwelling units (ESD's) which is converted to flow. The areas of all commercial/retail parcels in each shed were added together and a FAR of 0.6 was applied. Flow generation from the commercial/retail parcels was then determined by applying a factor of 0.2 ESD / 1,000 sf of floor area. This factor is based on section 9.1.2 of the City of Sacramento Standards and can be found in Appendix B-3 of this report. Flow was then calculated by using the equivalency of 1 ESD = 400 gallons per day (gpd).

For residential parcels, flow is based on the number of dwelling units. For this analysis, it was assumed that each unit in a multi-unit dwelling would be treated as a single dwelling unit. Flow generation for the residential parcels in each shed is determined by applying a factor of 400 gal per day per unit. Therefore, by multiplying the number of dwelling units in each shed by 400 gpd, a contributing flow was determined for the residential portion of each shed.

The total flow of each shed was then determined by adding the generated flow from commercial/retail parcels to the generated flow from the residential parcels. A peaking factor was then applied to the total flow based on the curve in Appendix B-3 per the City of Sacramento Standards. (This curve is identical to the peaking factor curve used in the City of Roseville Standards). By applying the peaking factor, the peak daily flow is

attained and necessary pipe sizes can be determined. Results of the capacity analysis can be found in Appendix B-4.

Wastewater flow from the Riverside Gateway Specific Plan area is conveyed offsite by three separate pipelines. The 6" pipeline in Fifth Street conveys a peak flow of 0.04 mgd out of the project area. The 6" pipeline in Sixth Street conveys 0.03 mgd out of the project area. And the 12" main in Fourth Street conveys 0.68 mgd out of the project area which includes 0.56 mgd of peak flow that is generated outside of the project.

The total wastewater flow generated by the Riverside Gateway Specific Plan area is 0.19 mgd. As previously stated, the Dry Creek Treatment Plant is currently treating 11 mgd with a capacity of 18 mgd. There seems to be enough capacity at the plant to handle the flows contributed by the Riverside Gateway project.

Pipe Sizing

Pipe sizes were determined per the City of Roseville Standards with a depth of flow equal to 0.7 and a minimum pipe size of 6". Per the Standards, capacity of a 6" pipe is equal to 0.22 million gallons per day (mgd) and the capacity for a 12" pipe is 0.85 mgd.

Based on the results of the capacity analysis (Appendix B-4), the pipe sizes in the current wastewater collection system have more than enough capacity to convey the cumulative flows generated by the proposed land use. The analysis reveals that the 6" collector pipes will flow at 3% to 35% of capacity, even with the proposed 0.6 FAR. The analysis also reveals that the 12" main crossing Riverside Avenue at Cherry/Fourth Street will flow at 66% to 80% of capacity. This flow includes 0.56 mgd of wastewater that is generated outside of the project area. It should also be noted that the capacities in this section are based on a depth of flow equal to 0.7.

Pipe Replacement

As stated in the Existing Conditions section of this report, the wastewater system in the Riverside Gateway Specific Plan area is in poor condition. Per the recommendations of the City of Roseville Environmental Utilities Department pipelines within the system are to be replaced or slip lined. Even with a FAR of 0.6, the wastewater system has more than enough capacity for the flows generated by the contributing sheds. Therefore no upsizing of the piping system is required when replacing the existing pipes. The location of the proposed improvements can be found on the map in Appendix B-5 of this report.

Estimated Construction Costs

Improvements to the wastewater system will include the replacement and sliplining shown in Figure 2-3 along with new services to all the buildings served by pipes scheduled for replacement. The number of new services was determined from a list of water services provided by Environmental Utilities. This list can be found in Appendix B-6 of this report. The total estimated cost of these improvements is approximately

\$695,000 including contingencies. A breakdown of the costs for these improvements is included in the cost estimate in Appendix F of this report.

Conclusions

Despite the assumed increase in FAR for the Riverside Gateway Specific Plan area, the existing wastewater system has more than enough capacity for the increased flow generation. Unfortunately the existing system is in poor condition and will nevertheless need to be improved. These improvements would need to be constructed at some point as determined by the Environmental Utilities Department whether or not the land uses along Riverside Avenue were changed as proposed by the current Specific Plan study.

WATER / FIRE

Existing Conditions

The City of Roseville depends primarily on surface water, but there are also two wells in service that are used for emergency supply. The City has a contract for 32,000 acre-feet of water from the US Bureau of Reclamation (USBR) along with options for another 30,000 acre-feet from the Placer County Water Agency (PCWA). The additional 30,000 acre-feet from PCWA is stored in reservoirs above Folsom Lake. Negotiations are currently under way to allow this water to be conveyed through USBR facilities for municipal and industrial use. The City has also obtained an allotment of 4,000 acre-feet for the Foothill Business Park annexation and the West Roseville Specific Plan from the San Juan Water District (SJWD).

The existing water system in the Riverside Gateway Specific Plan Area flows North/South through the alleyways adjacent to Riverside Avenue. The alley on the west side of Riverside Avenue contains a 4-inch pipeline from Vernon Street to Sixth Street. A portion of this pipeline is currently located underneath an existing building and will need to be abandoned in the future. The alley on the east side of Riverside contains a 6-inch pipeline from Douglas Blvd to Cherry Street and a 4-inch pipeline from Cherry Street to the south end of the alley. Riverside Avenue is crossed by an 8-inch pipeline at Douglas Blvd, a 6-inch pipeline at Fourth/Cherry Street and a 12-inch pipeline at Sixth Street.

The City's existing maximum day demand for potable water is approximately 50 mgd. The estimated future maximum day demand for potable water is 99.4 mgd. The City's current water supply allocation of 66,000 acre-feet per year is sufficient to meet the estimated future demands.

Capacity Analysis

Water system capacity is based on a maximum day plus fire flow demand condition. The City of Roseville Water Model Update (WMU) dated July 2003 provides for water system design criteria. The WMU states, "Fire flows are to be met concurrently with a maximum day demand condition, while maintaining a minimum residual pressure of 20

psi, as measured at the flowing hydrant.” In order to perform a capacity analysis on the Riverside Gateway Specific Plan area, the maximum day demand and the fire flow for the area must be determined.

The maximum day demand is calculated by using a unit water demand factor, the acreage of the area to be analyzed and a peaking factor. Table 3-3 of the WMU recommends a unit demand factor of 2,598 gpd/ac for commercial/retail land use. According to City Environmental Utilities Staff, this factor is based on actual meter data from local commercial/retail sites. Roseville’s typical floor area ratio (FAR) for this land use type ranges from 0.25 to 0.35. Since the FAR is a ratio of floor area to land area, the increase on the unit demand factor is conservatively assumed to be directly proportional to the increase in the FAR. Since an FAR of 0.6 is being proposed for the Riverside Gateway Specific Plan area, the unit demand factor used for the analysis will be 5,196 gpd/ac. The Riverside Gateway Specific Plan area consists of 17.5 acres of commercial/retail property. Using the new unit demand factor, an average day demand of 90,930 gpd is obtained. Page 3-6 of the WMU recommends a peaking factor of 2.0 be used in analyzing future maximum day demand. Applying this peaking factor to the demand calculated above, a maximum day demand of 181,860 gpd is obtained. A summary of the calculations can be found in Appendix C-1 of this report.

Despite the proposed change in the FAR for the Specific Plan area, the change in the maximum day water demand citywide is only a small increase. The existing demand for the Riverside Gateway Specific Plan area, based on the City’s existing demand factors, is 90,930 gpd. The demand for the Specific Plan area using the proposed FAR of 0.6 is 181,860 gpd. To determine the increase in demand based on the changes for the Specific Plan area, the difference in maximum day demand between the current build out demand of 0.09 mgd and the proposed project build-out demand of 0.22 mgd is 0.13 mgd. Considering that the City’s existing maximum day demand is approximately 50 mgd, this project only accounts for less than two-tenths of a percent increase in total maximum day demand.

Required fire flow is determined from criteria in the California Fire Code and the City of Roseville Municipal Code. Per these codes, fire flows are based on type of building construction, building floor area and the presence, or lack thereof, of an automatic fire sprinkler system. It is unknown at this time what types of development will occur within the Specific Plan area, therefore, the fire flows required for this area are also unknown.

The WMU specifically analyzes the Riverside Avenue Vicinity for the maximum day plus fire flow demand condition. With the land use changes proposed for the Specific Plan area only causing a small change in the City’s maximum day demand and required fire flows being unknown at this time, the WMU analysis of the water pipelines serving the area around Riverside Avenue will be used for this report. The results of that analysis are as follows:

“A 4,000 gpm fire flow was simulated in this commercial/retail area during maximum day demand conditions simultaneous with a 1,500 gpm fire flow event on the opposite side of City in a low-residential area.”

Pipelines in this Vicinity are mostly 4-inch and 6-inch diameter pipelines. Under these conditions, these areas were unable to maintain 20 psi minimum required pressures.”

These results show that the existing system is undersized to provide these types of flows. Improvements to the water system in the Specific Plan area will be needed to address this problem.

Facility Improvements

Improvement recommendations for the water system in the Riverside Gateway Specific Plan area were based on the recommendations in the WMU with minor modifications from City Environmental Utilities Staff (EU). The recommendations found on page 6-9 of the WMU are as follows:

“Replace the 4-inch and 6-inch diameter pipelines in this area with 8-inch diameter pipelines. Install the proposed connections on the intersection of B Street and Fifth Street, and on the intersection of Sixth Street and alley between B Street and Riverside Avenue. Also install the proposed 16-inch diameter pipeline along Clinton Avenue, south of Darling Way, and install the proposed 8-inch diameter pipeline along alley, between Riverside Avenue and Clinton Avenue...”

These recommendations were echoed by EU Staff along with some clarification that the 16-inch pipeline along Clinton Avenue is to the north of Darling Way and it is replacing the pipeline just north of Darling Way, between Riverside Avenue and Clinton Avenue; which will be abandoned with future development.

Along with the improvements previously described, new domestic water services will be installed for all the buildings served by pipes scheduled for replacement. New fire services will also be installed along these pipelines. It is unclear at this time how many buildings will need new fire services, so for cost estimating purposes, an assumption was made that a third of the lots fronting Riverside Avenue would receive new fire services.

Per the request of the City Fire Department, new hydrants were located along Riverside Avenue. These hydrants were placed at a maximum spacing of 350’ to be consistent with City Standards. The existing fire hydrants within the alleys parallel and just east and west of Riverside Avenue are old and are proposed to be replaced per the City EU and Fire Department’s request. A map of all the improvements to the water system can be found in Appendix C-2.

Estimated Construction Costs

Improvements to the existing system includes pipes, valves, fire hydrants and domestic and fire services. The total estimated cost of constructing these improvements is approximately \$685,000 including contingencies. A breakdown of the costs for these improvements is included in the cost estimate in Appendix F.

Conclusions

As stated previously, the proposed increase in the FAR to 0.6 in the Riverside Gateway Specific Plan area, does not significantly affect the overall City water supply. The main contributing factor necessitating improvements to the water system is the need for increased fire flows to the area. A fire flow of 4,000gpm was used for this analysis, but could possibly be higher due to the requirements of the City Municipal Code and the City Fire Department.

All buildings must meet minimum fire and life safety requirements as set forth in the California Fire Code (CFC) as adopted by ordinance by the Roseville City Council creating Chapter 16.16 of the Roseville Municipal Code. When existing conditions or proposed construction methods do not follow the exact language of the Fire Code/Municipal Code, the Building and Fire Department will accept applications for materials, test and methods of construction as allowed under CFC section 103.1.2. All alternative method requests must be approved by the Building Official and the Fire Marshal.

STREETSCAPE

Existing Conditions

The streetscape features vary greatly throughout the Riverside Gateway Specific Plan Area. Although the curb face to curb face width is generally consistent, Riverside Avenue has varying types and widths of curb, gutter and sidewalk between Vernon Street and Darling Way. According to the Brown and Caldwell Evaluation of Water Distribution and Sewage Collection Systems and Pavement, dated July 13, 2001, "Sidewalks vary from 4'- 13.5' with different patterns width and very little of the sidewalk is in good condition." Standard and non-standard rolled curb and gutter is intermingled with 6-inch vertical curb and gutter that varies in width between 12 and 18 inches. The roadway has a high crown but is in fairly good condition. The high crown causes severe sloping from the road centerline to the gutters and can affect accessibility at the street crossings. Accessibility ramps in the area are non-standard or in some cases missing from intersections where they are needed. There are also numerous driveways of various widths serving the properties along Riverside Avenue.

The condition of the alleyways adjacent to Riverside Avenue varies from good to poor. Measured pavement widths differ along these alleyways between 12' and 14'. Pavement conditions are inconsistent throughout, varying from relatively new pavement in good condition to pavement that is potholed and cracking.

Proposed Improvements

The proposed streetscape improvements for the Riverside Gateway Specific Plan area were developed by EDAW (detailed in Chapter 6 and Appendix A of this plan). The

improvements include a gateway feature, trees and landscaping, street lighting and signage, banners, bulbouts, accessibility ramps, increased parking and a roundabout. Additionally, alleyway improvements will need to be made due to sewer and water improvements being made and to improve the condition of some alleyway sections.

The gateway feature is located at the south end the Riverside Avenue corridor. Improvements for the gateway feature will include a landscaped median improved crosswalks and accessibility and possibly signage.

Trees and landscaping are proposed throughout the Riverside Avenue corridor. These improvements are generally located at the intersections of the streets along Riverside Avenue. Trees and landscaping are also provided for in the gateway feature, the roundabout and in regularly placed 2-tree bulbouts along the length of Riverside Avenue.

Improved street lighting has also been provided for in the proposed improvements. Street lights are proposed to be placed on every street corner and every 100' along Riverside Avenue.

Bulbouts are proposed in part to help make the Riverside Avenue corridor more pedestrian friendly by slowing traffic and providing improved pedestrian access at intersections. Bulbouts are proposed at every intersection and along the length of Riverside Avenue at regular intervals.

Increased parking is proposed on the side streets along the Riverside Avenue corridor. These improvements will require relocating curb, gutter and sidewalk on one side of the street and constructing additional pavement for the parking areas. Bulbouts and accessibility ramps are also included as part of these improvements. The roundabout is proposed at the intersection of Vernon Street, Riverside Avenue and Douglas Boulevard. It is designed to slow traffic speeds and facilitate vehicular movement. It is also intended to be a design feature to introduce Riverside Avenue as a unique area within the City.

The fire department has expressed concern regarding any measures designed to slow traffic speeds on major response routes as these measures also may potentially impede their ability to quickly arrive on scene of an emergency. They have requested involvement in the design of any traffic calming devices, including roundabouts, proposed for Riverside.

Estimated Construction Costs

The total estimated cost of the streetscape improvements listed above is approximately \$2,624,000 including contingencies. This cost includes all the improvements listed previously along with street furniture, banners and replacing the curb, gutter and sidewalk for the entire length of Riverside Avenue. A detailed breakdown of the costs for these improvements is included in the cost estimate in Appendix F.

DRY UTILITIES

Existing Conditions

Electrical

Electrical services in the Riverside Gateway Specific Plan Area are provided by Roseville Electric. Service is conveyed via aerial lines in the alleys directly adjacent to Riverside Avenue. Main lines are contained in the alley to the East with local lines in the alley to the West. These aerial lines are connected through crossings at Douglas Blvd, Fourth/Cherry Street and Sixth Street. See the attached Electrical figure for a map of the existing electrical system.

Natural Gas (PG&E)

Natural gas service in the Riverside Gateway Specific Plan Area is provided by Pacific Gas and Electric (PG&E). The gas mains are generally located in the alleys directly adjacent to Riverside Avenue along the entire length of the plan area. Within Riverside Avenue there is a 2-inch gas main located between Fourth Street and Fifth Street, and a 3-inch main located between Fifth Street and Darling Way. A 3-inch main crosses Riverside Avenue at Fourth/Cherry Street, and there is a 6-inch main crossing at Fifth/Fern Street. See the attached Natural Gas figure for a map of the existing natural gas system.

Cable (Comcast)

Cable service for the Riverside Gateway Specific Plan Area is provided by Comcast. The facilities in the area consist of two aerial crossings of Riverside Avenue. These crossings are located on joint poles at Fourth/Cherry Street and at Sixth Street. See the attached Cable figure for a map of the existing cable system.

Telecommunications (Surewest)

Telecommunications services for the Riverside Gateway Specific Plan Area are provided by Surewest. The plan area is served by underground conduits containing fiber optic and copper coaxial cable. These conduits are located parallel to Riverside Avenue along Clinton Avenue from Douglas Blvd to Fern Street. The conduits continue West along Fern Street and South on Riverside Avenue to Sixth Street. There are also a group of conduits located in Cherry/Fourth Street crossing Riverside Avenue. See the attached Telecommunications figure for a map of the existing telecommunications system.

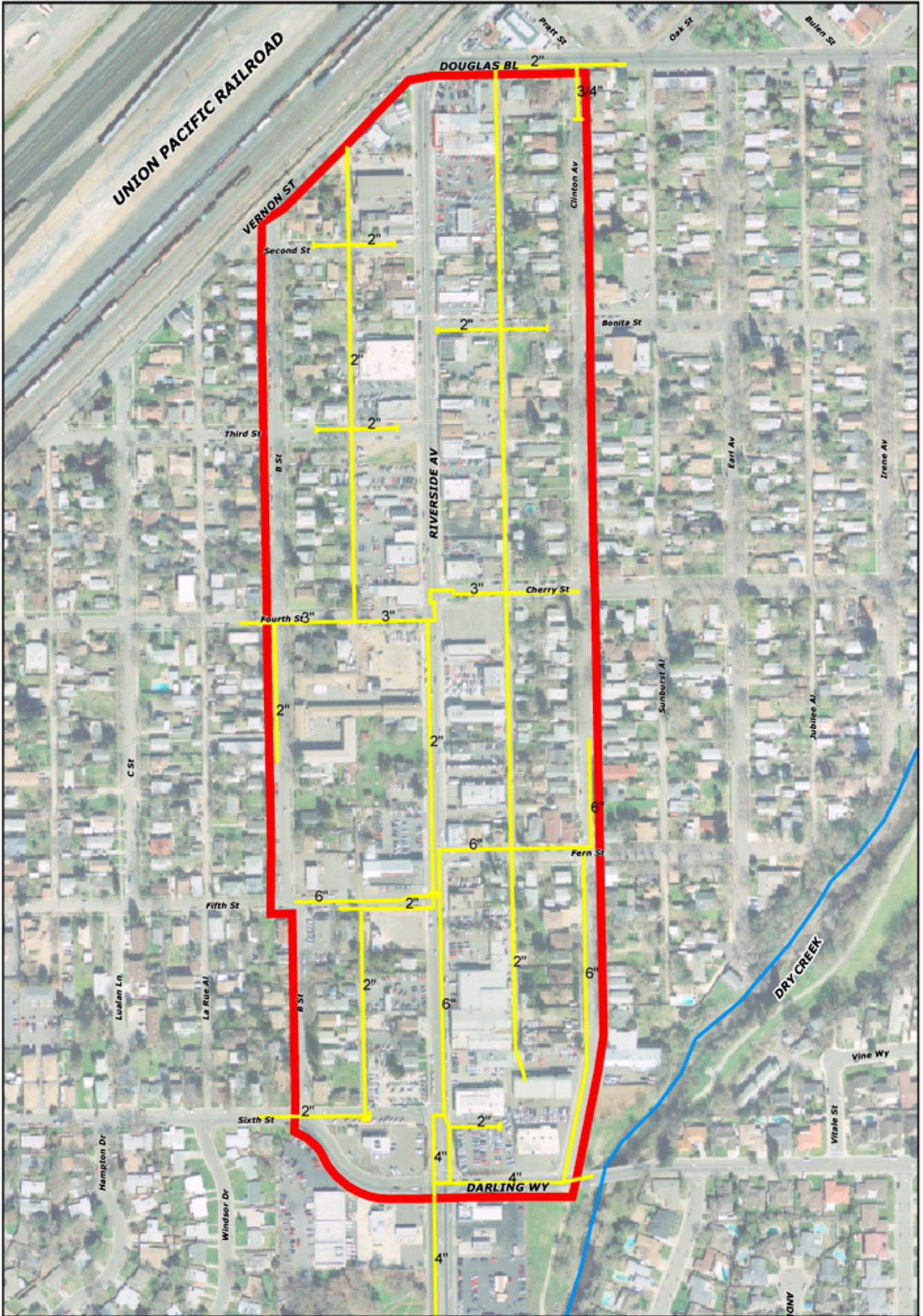
Proposed Conditions

Roseville electric is currently planning to underground the existing overhead electrical utilities in the Riverside Gateway Specific Plan Area. There is no conceptual alignment

for the undergrounding of the utilities at this time. According to Roseville Electric Staff, this project would not only underground the overhead electrical lines, but the cable and telecommunication lines as well.

Estimated Construction Costs

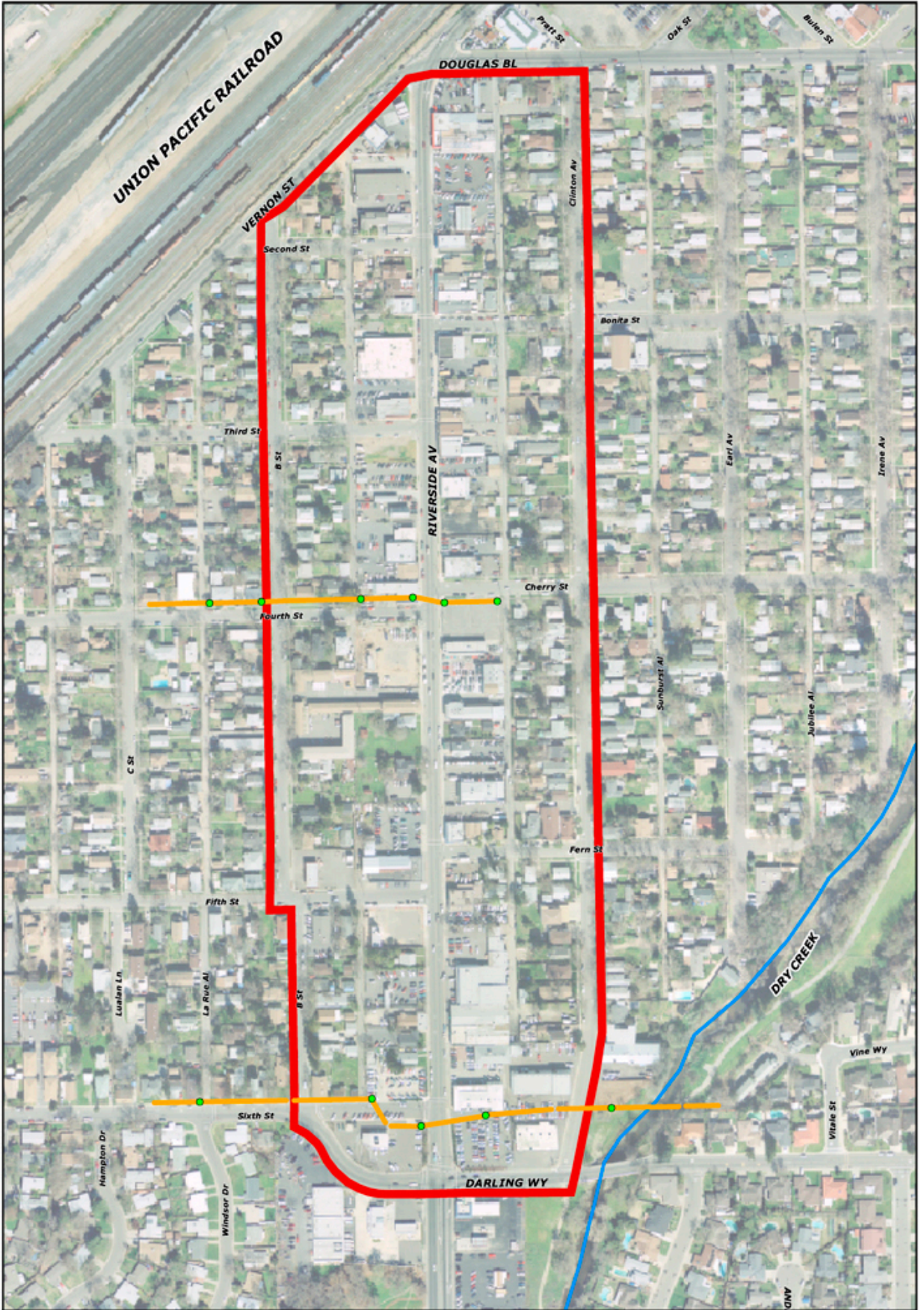
A budget of \$1.9 million has been allocated for the undergrounding of electrical utilities. A detailed breakdown of the costs associated with this project is not available or included within this report.



NATURAL GAS (PG&E)

RIVERSIDE GATEWAY PROJECT
CITY OF ROSEVILLE, CALIFORNIA





CABLE (COMCAST)

RIVERSIDE GATEWAY PROJECT
CITY OF ROSEVILLE, CALIFORNIA

Legend

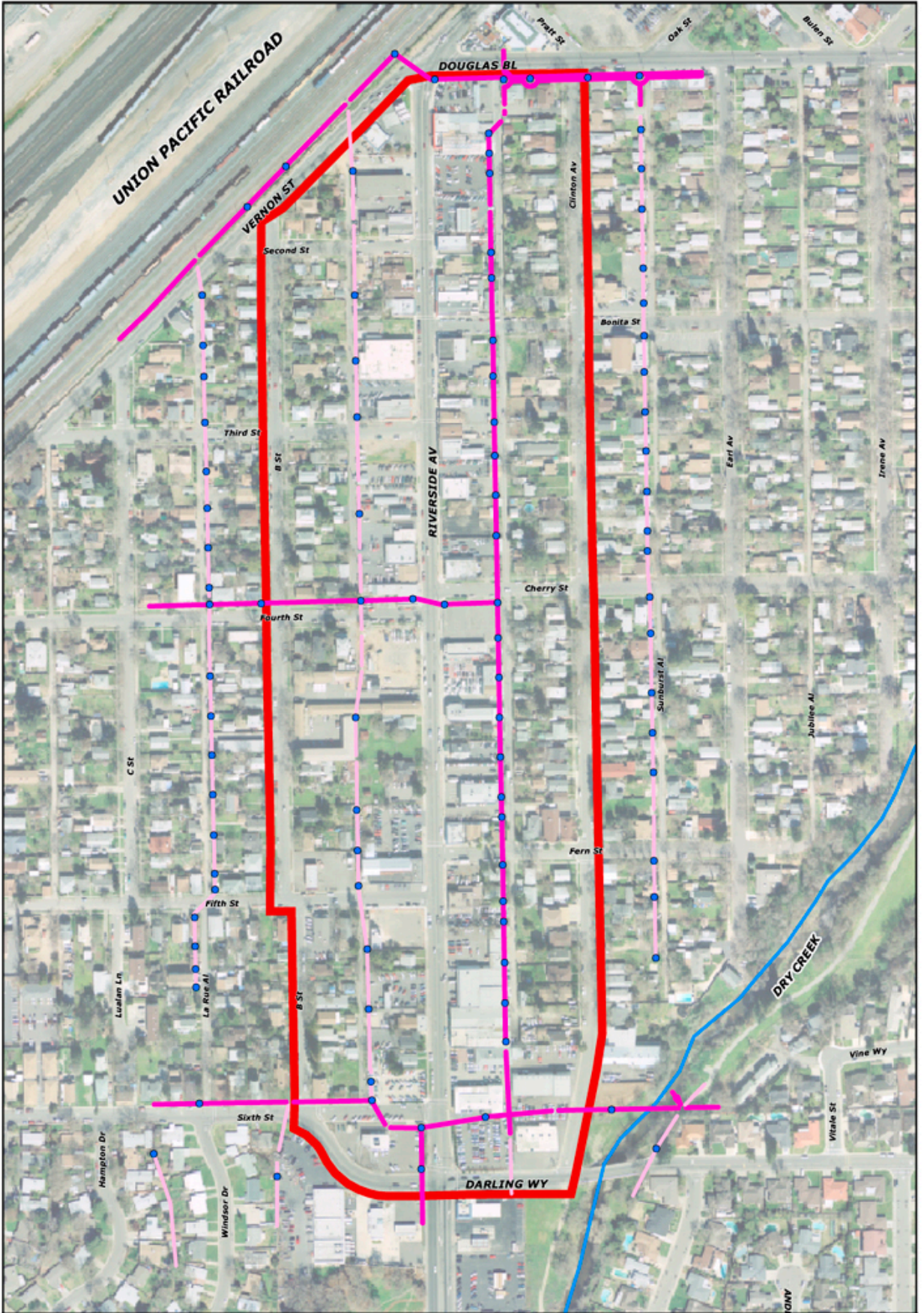
- █ Riverside Gateway Project Area
- Cable
- Cable Pole

NOLTE
BEYOND ENGINEERING

CITY OF ROSEVILLE
CALIFORNIA

Scale: 1" = 100'

0 50 100 200 Feet



ELECTRICAL

RIVERSIDE GATEWAY PROJECT
CITY OF ROSEVILLE, CALIFORNIA

Legend

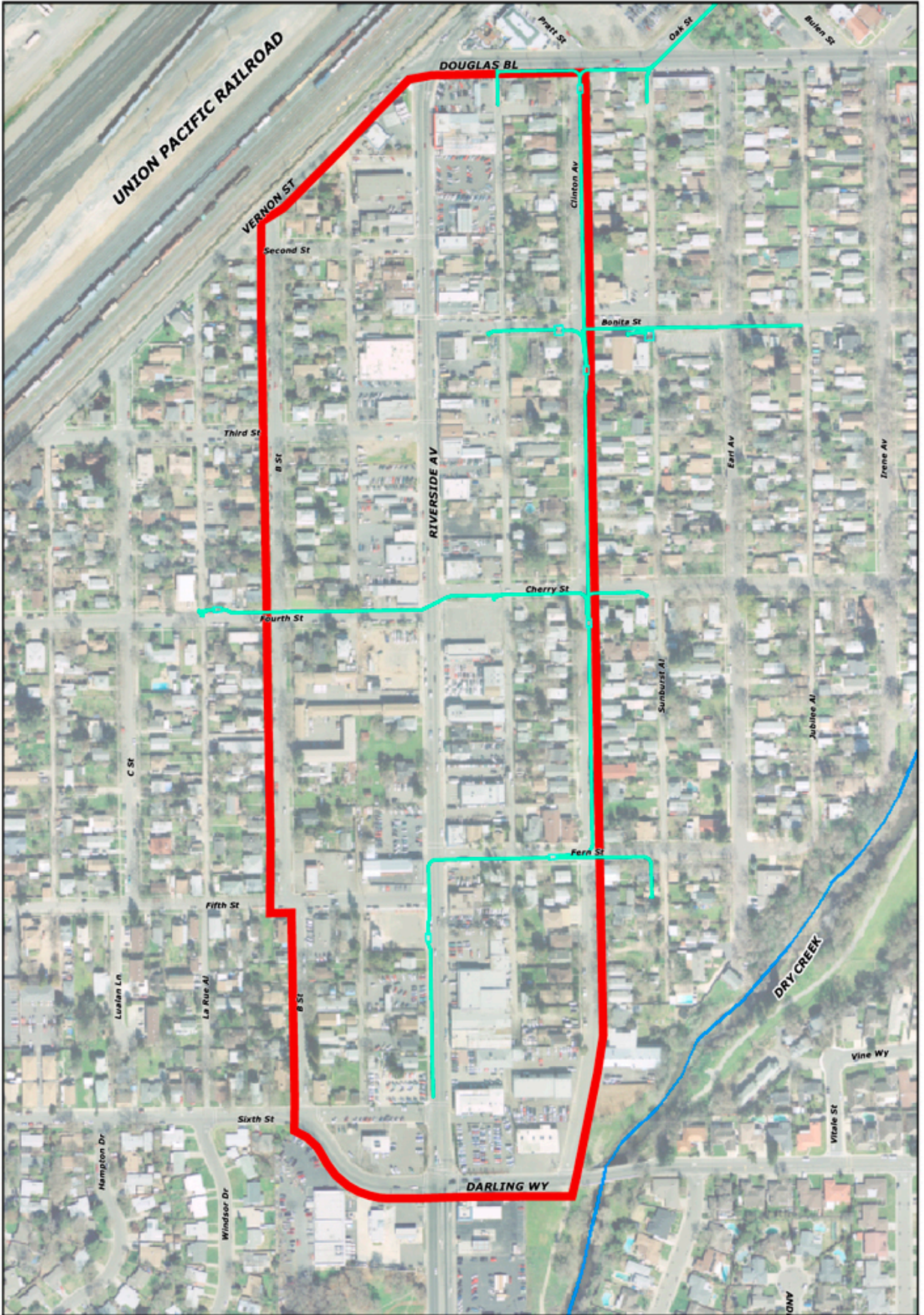
- █ Riverside Gateway Project Area
- █ Overhead Line Layout
- █ Conduit Line Main
- Pole

NOLTE
BYRON ENGINEERING

CITY OF ROSEVILLE
CALIFORNIA



Scale: 1" = 100'
0 50 100 200 Feet



TELECOMMUNICATIONS

RIVERSIDE GATEWAY PROJECT
CITY OF ROSEVILLE, CALIFORNIA

Legend

- Riverside Gateway Project Area
- Conduits
- Junction Boxes

NOLTE
SIVANO ENGINEERING

CITY OF ROSEVILLE
CALIFORNIA

Scale: 1" = 100'

0 50 100 200 Feet

CONSTRUCTION COST ESTIMATES

Riverside Gateway Project

Cost Estimate Summary

February 2005

Item	Initial City Budget dated May 12, 2004	Current Budget based on Nolte Prelim. Cost Est. Feb 11, 2005	Nolte Prelim. Cost Est. Feb 11, 2005 incl. Contingency Costs
Design Development			
Includes: Specific Plan			
Concept Streetscape			
Environmental			
Design Guidelines			
Subtotal =	\$500,000	\$489,506	\$489,506
Construction Docs			
	\$0	\$0	
Subtotal =	\$0	\$0	\$0
Streetscape			
Includes: Landscaping, Trees, Furniture, etc...	\$1,000,000	\$493,517	\$740,276
Constr. Admin	\$0	\$0	
10% Contingency	\$100,000	\$0	
Subtotal =	\$1,100,000	\$493,517	\$740,276
Infrastructure			
Includes: *Storm Drain	\$40,000	\$267,250	\$400,875
**Water	\$748,725	\$513,300	\$769,950
***Sewer	\$533,645	\$463,000	\$694,500
Paving/21 HC Ramps	\$1,052,500	\$1,371,428	\$2,057,142
Alleyways	\$0	\$179,335	\$269,003
Roundabout	\$0	\$500,000	\$500,000
Elec. Underground	\$1,900,000	\$1,900,000	\$1,900,000
Subtotal =	\$4,274,870	\$5,194,313	\$6,591,470
Staffing			
Includes: ECS	\$80,000	\$0	
Other Departments	\$85,000	\$0	
Subtotal =	\$165,000	\$0	\$0
Administration			
Contingency Assumes 20%	\$0	\$657,566	
Engineering/Inspection/Admin. Assumes 30%	\$0	\$986,349	
Subtotal =	\$0	\$1,643,915	\$0
TOTAL =	\$6,039,870	\$7,821,251	\$7,821,251

* Storm drain costs include costs associated with 2-Tree Bulbouts

** Original numbers include a 25% contingency

*** Original numbers include a 10% to 25% contingency

Riverside Gateway Project Paving Summary

February 2005

<i>Item</i>	<i>Quantity</i>		<i>Unit \$</i>	<i>Total</i>
Gateway Feature	1	EA	23,590	23,590
Side Streets				
Sixth Street	1	EA	7,300	7,300
Fifth Street	1	EA	13,970	13,970
Fern Street	1	EA	26,905	26,905
Fourth Street	1	EA	40,345	40,345
Cherry Street	1	EA	26,905	26,905
Third Street	1	EA	28,585	28,585
Bonita Street	1	EA	36,985	36,985
Second Street	1	EA	26,905	26,905
Side Street Sub Total				207,900
Bulbouts				
2-Tree Bulbout	11	EA	1,125	12,375
North End Bulbouts	1	EA	7,875	7,875
Second St. Bulbouts	1	EA	50,902	50,902
Bonita St. Bulbouts	1	EA	53,219	53,219
Third St. Bulbouts	1	EA	51,700	51,700
Cherry / Fourth St. Bulbout	1	EA	75,582	75,582
Fern St. Bulbout	1	EA	40,447	40,447
Fifth St. Bulbout	1	EA	37,663	37,663
Bulbout Sub Total				329,763
Roundabout	1	EA	0	0
Alleyways	1	EA	0	0
Misc. Items				
Additional Vert. Curb and Gutter (remove & replace)	5,165	LF	25	129,125
Additional Sidewalk - 10' width (remove & replace)	53,950	SF	7	377,650
Driveway Curb Cuts	5,200	EA	8	41,600
2" Pavement Overlay - Riverside Ave.	103,600	SF	3	259,000
4" Striping - Riverside Ave.	2,800	LF	1	2,800
Street Light (1 per 100 ft and at every corner)	0	EA	0	0
Misc Items Sub Total				810,175
Total Construction				\$1,371,428

Riverside Gateway Project Streetscape Summary

February 2005

<i>Item</i>	<i>Quantity</i>		<i>Unit \$</i>	<i>Total</i>
Gateway Feature	1	EA	7,133	7,133
Side Streets				
Sixth Street	1	EA	0	0
Fifth Street	1	EA	0	0
Fern Street	1	EA	0	0
Fourth Street	1	EA	0	0
Cherry Street	1	EA	0	0
Third Street	1	EA	0	0
Bonita Street	1	EA	0	0
Second Street	1	EA	0	0
Side Street Sub Total				0
Bulbouts				
2-Tree Bulbout	11	EA	1,855	20,405
North End Bulbouts	1	EA	3,653	3,653
Second St. Bulbouts	1	EA	10,060	10,060
Bonita St. Bulbouts	1	EA	10,788	10,788
Third St. Bulbouts	1	EA	10,174	10,174
Cherry / Fourth St. Bulbout	1	EA	14,068	14,068
Fern St. Bulbout	1	EA	9,617	9,617
Fifth St. Bulbout	1	EA	8,120	8,120
Bulbout Sub Total				86,885
Roundabout	1	EA	0	0
Alleyways	1	EA	0	0
Additional Streetscape Elements				
Street Furniture, Banners etc ...	1	EA	200,000	200,000
Street Light (1 per 100 ft and at every corner)	57	EA	3,500	199,500
Misc Items Sub Total				399,500
Total Construction				\$493,517

Riverside Gateway Project Contingency Summary

February 2005

<i>Item</i>	<i>Quantity</i>		<i>Unit \$</i>	<i>Total</i>
Wastewater	1	EA	92,600	92,600
Water	1	EA	102,660	102,660
Storm Drain	1	EA	40,800	40,800
Gateway Feature	1	EA	6,145	6,145
Side Streets				
Sixth Street	1	EA	1,460	1,460
Fifth Street	1	EA	2,794	2,794
Fern Street	1	EA	5,381	5,381
Fourth Street	1	EA	8,069	8,069
Cherry Street	1	EA	5,381	5,381
Third Street	1	EA	5,717	5,717
Bonita Street	1	EA	7,397	7,397
Second Street	1	EA	5,381	5,381
Side Street Sub Total				41,580
Bulbouts				
2-Tree Bulbout	11	EA	1,746	19,206
North End Bulbouts	1	EA	2,306	2,306
Second St. Bulbouts	1	EA	12,192	12,192
Bonita St. Bulbouts	1	EA	12,801	12,801
Third St. Bulbouts	1	EA	12,375	12,375
Cherry / Fourth St. Bulbout	1	EA	17,930	17,930
Fern St. Bulbout	1	EA	10,013	10,013
Fifth St. Bulbout	1	EA	9,157	9,157
Bulbout Sub Total				95,980
Roundabout	1	EA	0	0
Alleyways	1	EA	35,867	35,867
Misc. Items	1	EA	241,935	241,935
Total Construction				\$657,566

Riverside Gateway Project
Engineering/Inspection/Const. Management Summary

February 2005

<i>Item</i>	<i>Quantity</i>		<i>Unit \$</i>	<i>Total</i>
Wastewater	1	EA	138,900	138,900
Water	1	EA	153,990	153,990
Storm Drain	1	EA	61,200	61,200
Gateway Feature	1	EA	9,217	9,217
Side Streets				
Sixth Street	1	EA	2,190	2,190
Fifth Street	1	EA	4,191	4,191
Fern Street	1	EA	8,072	8,072
Fourth Street	1	EA	12,104	12,104
Cherry Street	1	EA	8,072	8,072
Third Street	1	EA	8,576	8,576
Bonita Street	1	EA	11,096	11,096
Second Street	1	EA	8,072	8,072
Side Street Sub Total				62,370
Bulbouts				
2-Tree Bulbout	11	EA	2,619	28,809
North End Bulbouts	1	EA	3,458	3,458
Second St. Bulbouts	1	EA	18,289	18,289
Bonita St. Bulbouts	1	EA	19,202	19,202
Third St. Bulbouts	1	EA	18,562	18,562
Cherry / Fourth St. Bulbout	1	EA	26,895	26,895
Fern St. Bulbout	1	EA	15,019	15,019
Fifth St. Bulbout	1	EA	13,735	13,735
Bulbout Sub Total				143,969
Roundabout	1	EA	0	0
Alleyways	1	EA	53,801	53,801
Misc. Items	1	EA	362,903	362,903
Total Construction				\$986,349

PRELIMINARY COST ESTIMATE
Riverside Gateway
CITY OF ROSEVILLE

SUMMARY

<i>Item</i>	<i>Quantity</i>		<i>Unit \$</i>	<i>Total</i>
Wastewater	1	EA	694,500	694,500
Water	1	EA	769,950	769,950
Storm Drain	1	EA	306,000	306,000
Gateway Feature	1	EA	46,084	46,084
Side Streets				
Sixth Street	1	EA	10,950	10,950
Fifth Street	1	EA	20,955	20,955
Fern Street	1	EA	40,358	40,358
Fourth Street	1	EA	60,518	60,518
Cherry Street	1	EA	40,358	40,358
Third Street	1	EA	42,878	42,878
Bonita Street	1	EA	55,478	55,478
Second Street	1	EA	40,358	40,358
Side Street Sub Total				311,850
Bulbouts				
2-Tree Bulbout	11	EA	13,095	144,045
North End Bulbouts	1	EA	17,292	17,292
Second St. Bulbouts	1	EA	91,443	91,443
Bonita St. Bulbouts	1	EA	96,011	96,011
Third St. Bulbouts	1	EA	92,811	92,811
Cherry / Fourth St. Bulbout	1	EA	134,475	134,475
Fern St. Bulbout	1	EA	75,096	75,096
Fifth St. Bulbout	1	EA	68,674	68,674
Bulbout Sub Total				719,846
Roundabout	1	EA	249,706	249,706
Alleyways	1	EA	269,003	269,003
Misc Items				
Additional Vert. Curb and Gutter (remove & replace)	5,165	LF	25	193,688
Additional Sidewalk - 10' width (remove & replace)	53,950	SF	7	566,475
Driveway Curb Cuts	5,200	EA	8	62,400
2" Pavement Overlay - Riverside Ave.	103,600	SF	2.50	388,500
4" Striping - Riverside Ave.	2,800	LF	1.00	4,200
Street Light (1 per 100 ft and at every corner)	57	EA	3,500	299,250
Misc Items Sub Total				1,514,513
Total Construction				\$4,881,451

PRELIMINARY COST ESTIMATE
Riverside Gateway
CITY OF ROSEVILLE

WASTEWATER

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
6" Sewer Pipe	4,050 LF	50.00	202,500
6" Slipline of Sewer Pipe	1,100 LF	35.00	38,500
12" Slipline of Sewer Pipe	450 LF	40.00	18,000
Sewer Manhole	12 EA	4000.00	48,000
4" Sewer Service	104 EA	1500.00	156,000
Sub Total Construction			\$463,000
<i>Contingency (20%)</i>			92,600
<i>Engineering, Inspection and Construction Management (30%)</i>			138,900
Total Construction			\$694,500

Assumptions:

1. New 4" service to every lot with exist service where mainline is being replaced
2. Paving over pipelines is not included in pipe unit costs since alleyway paving costs have been calculated seperately.

PRELIMINARY COST ESTIMATE
Riverside Gateway
CITY OF ROSEVILLE

WATER/FIRE

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
8" Water Pipe	3,650 LF	40.00	146,000
12" Water Pipe	650 LF	50.00	32,500
16" Water Pipe	190 LF	70.00	13,300
Gate Valves	10 EA	1800.00	18,000
Fire Hydrant	7 EA	3000.00	21,000
Replace Exist. Fire Hydrant	8 EA	3000.00	24,000
3/4" Water Service	57 EA	3000.00	171,000
4" Fire Service	25 EA	3500.00	87,500
Sub Total Construction			\$513,300
<i>Contingency (20%)</i>			102,660
<i>Engineering, Inspection and Construction Management (30%)</i>			153,990
Total Construction			\$769,950

Assumptions:

1. Fire hydrant every 300' along Riverside Ave.
2. 3-gate valves are every 500'
3. New 3/4" to replace every existing service for where mainline is replaced
4. Fire services assumed to be needed for 1/3 of lots along Riverside Ave.
5. Cost of water services include meters
6. Exist fire hydrants to be replaced are located in alleys adjacent to Riverside Ave.
7. Paving over pipelines is not included in pipe unit costs since alleyway paving costs have been calculated seperately.

PRELIMINARY COST ESTIMATE
Riverside Gateway
 CITY OF ROSEVILLE

STORM DRAIN

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
15" Storm Drain Pipe	460 LF	150.00	69,000
Construct Storm Drain Manhole	2 EA	5000.00	10,000
Adjust Storm Drain Manhole	2 EA	1000.00	2,000
12" Inlet Lead	600 LF	125.00	75,000
Remove & Replace Drain Inlet	16 EA	3000.00	48,000
Sub Total Construction			\$204,000
<i>Contingency (20%)</i>			40,800
<i>Engineering, Inspection and Construction Management (30%)</i>			61,200
Total Construction			\$306,000

PRELIMINARY COST ESTIMATE
Riverside Gateway
 CITY OF ROSEVILLE

GATEWAY FEATURE

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
Median Curb	300 LF	30.00	9,000
Accessibility Ramp	4 EA	3500.00	14,000
4" Striping	80 LF	1.00	80
12" Cross Walk Stripe	170 LF	3.00	510
Landscaping	870 SF	4.75	4,133
Trees	6 EA	500.00	3,000
Sub Total Construction			\$30,723
<i>Contingency (20%)</i>			6,145
<i>Engineering, Inspection and Construction Management (30%)</i>			9,217
Total Construction			\$46,084

PRELIMINARY COST ESTIMATE
Riverside Gateway
CITY OF ROSEVILLE

SIXTH STREET

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
4" Striping	300 LF	1.00	300
Accessibility Ramp	2 EA	3500.00	7,000
Sub Total Construction			\$7,300
<i>Contingency (20%)</i>			1,460
<i>Engineering, Inspection and Construction Management (30%)</i>			2,190
Total Construction			\$10,950

* Existing curb, gutter and sidewalk are nonstandard and may need to be replaced.

PRELIMINARY COST ESTIMATE
Riverside Gateway
CITY OF ROSEVILLE

FIFTH STREET

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
Vert. Curb and Gutter (remove & replace)	140 LF	25.00	3,500
Sidewalk (remove & replace)	1,400 SF	7.00	9,800
4" Parking Striping	520 LF	1.00	520
4" Striping	150 LF	1.00	150
Sub Total Construction			\$13,970
<i>Contingency (20%)</i>			2,794
<i>Engineering, Inspection and Construction Management (30%)</i>			4,191
Total Construction			\$20,955

* Existing curb, gutter and sidewalk are nonstandard and may need to be replaced.

PRELIMINARY COST ESTIMATE
Riverside Gateway
CITY OF ROSEVILLE

FERN STREET

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
3" AC on 8" AB	480 SF	7.00	3,360
Vert. Curb and Gutter (remove & replace)	305 LF	25.00	7,625
Sidewalk (remove & replace)	1,200 SF	7.00	8,400
Accessibility Ramp	2 EA	3500.00	7,000
4" Parking Striping	400 LF	1.00	400
12" Cross Walk Stripe	40 LF	3.00	120
Sub Total Construction			\$26,905
<i>Contingency (20%)</i>			5,381
<i>Engineering, Inspection and Construction Management (30%)</i>			8,072
Total Construction			\$40,358

1. Existing curb and gutter replaced due to widening of asphalt
2. Existing sidewalks are 4 feet wide and may need to be replaced.

PRELIMINARY COST ESTIMATE
Riverside Gateway
CITY OF ROSEVILLE
FOURTH STREET

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
3" AC on 8" AB	960 SF	7.00	6,720
Vert. Curb and Gutter (remove & replace)	305 LF	25.00	7,625
Sidewalk (remove & replace)	2,640 SF	7.00	18,480
Accessibility Ramp	2 EA	3500.00	7,000
4" Parking Striping	400 LF	1.00	400
12" Cross Walk Stripe	40 LF	3.00	120
Sub Total Construction			\$40,345
<i>Contingency (20%)</i>			8,069
<i>Engineering, Inspection and Construction Management (30%)</i>			12,104
Total Construction			\$60,518

1. Existing curb, gutter and sidewalk replaced due to widening of asphalt

PRELIMINARY COST ESTIMATE
Riverside Gateway
CITY OF ROSEVILLE
CHERRY STREET

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
3" AC on 8" AB	480 SF	7.00	3,360
Vert. Curb and Gutter (remove & replace)	305 LF	25.00	7,625
Sidewalk (remove & replace)	1,200 SF	7.00	8,400
Accessibility Ramp	2 EA	3500.00	7,000
4" Parking Striping	400 LF	1.00	400
12" Cross Walk Stripe	40 LF	3.00	120
Sub Total Construction			\$26,905
<i>Contingency (20%)</i>			5,381
<i>Engineering, Inspection and Construction Management (30%)</i>			8,072
Total Construction			\$40,358

1. Existing curb and gutter replaced due to widening of asphalt
2. Existing sidewalks are 4 feet wide and may need to be replaced.

PRELIMINARY COST ESTIMATE
Riverside Gateway
CITY OF ROSEVILLE

THIRD STREET

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
3" AC on 8" AB	720 SF	7.00	5,040
Vert. Curb and Gutter (remove & replace)	305 LF	25.00	7,625
Sidewalk (remove & replace)	1,200 SF	7.00	8,400
Accessibility Ramp	2 EA	3500.00	7,000
4" Parking Striping	400 LF	1.00	400
12" Cross Walk Stripe	40 LF	3.00	120
Sub Total Construction			\$28,585
<i>Contingency (20%)</i>			5,717
<i>Engineering, Inspection and Construction Management (30%)</i>			8,576
Total Construction			\$42,878

1. Existing curb and gutter replaced due to widening of asphalt
2. Existing sidewalks are 4 feet wide and may need to be replaced.

PRELIMINARY COST ESTIMATE
Riverside Gateway
CITY OF ROSEVILLE

BONITA STREET

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
3" AC on 8" AB	480 SF	7.00	3,360
Vert. Curb and Gutter (remove & replace)	305 LF	25.00	7,625
Sidewalk (remove & replace)	2,640 SF	7.00	18,480
Accessibility Ramp	2 EA	3500.00	7,000
4" Parking Striping	400 LF	1.00	400
12" Cross Walk Stripe	40 LF	3.00	120
Sub Total Construction			\$36,985
<i>Contingency (20%)</i>			7,397
<i>Engineering, Inspection and Construction Management (30%)</i>			11,096
Total Construction			\$55,478

1. Existing curb and gutter replaced due to widening of asphalt
2. No existing sidewalks, so cost for new sidewalks included

PRELIMINARY COST ESTIMATE
Riverside Gateway
CITY OF ROSEVILLE
SECOND STREET

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
3" AC on 8" AB	480 SF	7.00	3,360
Vert. Curb and Gutter (remove & replace)	305 LF	25.00	7,625
Sidewalk (remove & replace)	1,200 SF	7.00	8,400
Accessibility Ramp	2 EA	3500.00	7,000
4" Parking Striping	400 LF	1.00	400
12" Cross Walk Stripe	40 LF	3.00	120
Sub Total Construction			\$26,905
<i>Contingency (20%)</i>			5,381
<i>Engineering, Inspection and Construction Management (30%)</i>			8,072
Total Construction			\$40,358

1. Existing curb and gutter replaced due to widening of asphalt

PRELIMINARY COST ESTIMATE
Riverside Gateway
CITY OF ROSEVILLE

2-TREE BULBOUT

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
Vert. Curb and Gutter (remove & replace)	45 LF	25.00	1,125
Drain Inlet	1 EA	2500.00	2,500
Inlet Lead	25 LF	50.00	1,250
Storm Drain Manhole	0.5 EA	4000.00	2,000
Landscaping	180 SF	4.75	855
Trees	2 EA	500.00	1,000
Sub Total Construction			\$8,730
<i>Contingency (20%)</i>			1,746
<i>Engineering, Inspection and Construction Management (30%)</i>			2,619
Total Construction			\$13,095

PRELIMINARY COST ESTIMATE
Riverside Gateway
 CITY OF ROSEVILLE

NORTH END DRIVEWAY BULBOUTS

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
Vert. Curb and Gutter (remove & replace)	105 LF	25.00	2,625
Sidewalk - 10' width (remove & replace)	750 SF	7.00	5,250
Landscaping	348 SF	4.75	1,653
Trees	4 EA	500.00	2,000
Sub Total Construction			\$11,528
<i>Contingency (20%)</i>			2,306
<i>Engineering, Inspection and Construction Management (30%)</i>			3,458
Total Construction			\$17,292

1. Drainage costs may need to be included due to design of bulbouts.

PRELIMINARY COST ESTIMATE
Riverside Gateway
CITY OF ROSEVILLE

SECOND ST. BULBOUTS

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
Vert. Curb and Gutter (remove & replace)	320 LF	25.00	8,000
Sidewalk - 10' width (remove & replace)	3,074 SF	7.00	21,518
Accessibility Ramp	6 EA	3500.00	21,000
12" Cross Walk Stripe	128 LF	3.00	384
Landscaping	960 SF	4.75	4,560
Trees	11 EA	500.00	5,500
Sub Total Construction			\$60,962
<i>Contingency (20%)</i>			12,192
<i>Engineering, Inspection and Construction Management (30%)</i>			18,289
Total Construction			\$91,443

1. Drainage costs may need to be included due to design of bulbouts.

PRELIMINARY COST ESTIMATE
Riverside Gateway
CITY OF ROSEVILLE

BONITA ST. BULBOUTS

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
Vert. Curb and Gutter (remove & replace)	369 LF	25.00	9,225
Sidewalk - 10' width (remove & replace)	3,230 SF	7.00	22,610
Accessibility Ramp	6 EA	3500.00	21,000
12" Cross Walk Stripe	128 LF	3.00	384
Landscaping	1,008 SF	4.75	4,788
Trees	12 EA	500.00	6,000
Sub Total Construction			\$64,007
<i>Contingency (20%)</i>			12,801
<i>Engineering, Inspection and Construction Management (30%)</i>			19,202
Total Construction			\$96,011

1. Drainage costs may need to be included due to design of bulbouts.

PRELIMINARY COST ESTIMATE
Riverside Gateway
CITY OF ROSEVILLE

THIRD ST. BULBOUTS

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
Vert. Curb and Gutter (remove & replace)	320 LF	25.00	8,000
Sidewalk - 10' width (remove & replace)	3,188 SF	7.00	22,316
Accessibility Ramp	6 EA	3500.00	21,000
12" Cross Walk Stripe	128 LF	3.00	384
Landscaping	984 SF	4.75	4,674
Trees	11 EA	500.00	5,500
Sub Total Construction			\$61,874
<i>Contingency (20%)</i>			12,375
<i>Engineering, Inspection and Construction Management (30%)</i>			18,562
Total Construction			\$92,811

1. Drainage costs may need to be included due to design of bulbouts.

PRELIMINARY COST ESTIMATE
Riverside Gateway
 CITY OF ROSEVILLE

CHERRY / FOURTH ST. BULBOUTS

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
Vert. Curb and Gutter (remove & replace)	510 LF	25.00	12,750
Sidewalk - 10' width (remove & replace)	4,904 SF	7.00	34,328
Accessibility Ramp	8 EA	3500.00	28,000
12" Cross Walk Stripe	168 LF	3.00	504
Landscaping	1,488 SF	4.75	7,068
Trees	14 EA	500.00	7,000
Sub Total Construction			\$89,650
<i>Contingency (20%)</i>			17,930
<i>Engineering, Inspection and Construction Management (30%)</i>			26,895
Total Construction			\$134,475

1. Drainage costs may need to be included due to design of bulbouts.

PRELIMINARY COST ESTIMATE
Riverside Gateway
CITY OF ROSEVILLE

FERN ST. BULBOUTS

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
Vert. Curb and Gutter (remove & replace)	310 LF	25.00	7,750
Sidewalk - 10' width (remove & replace)	2,635 SF	7.00	18,445
Accessibility Ramp	4 EA	3500.00	14,000
12" Cross Walk Stripe	84 LF	3.00	252
Landscaping	972 SF	4.75	4,617
Trees	10 EA	500.00	5,000
Sub Total Construction			\$50,064
<i>Contingency (20%)</i>			10,013
<i>Engineering, Inspection and Construction Management (30%)</i>			15,019
Total Construction			\$75,096

1. Drainage costs may need to be included due to design of bulbouts.

PRELIMINARY COST ESTIMATE

Riverside Gateway

CITY OF ROSEVILLE

FIFTH ST. BULBOUTS

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
Vert. Curb and Gutter (remove & replace)	265 LF	25.00	6,625
Sidewalk - 10' width (remove & replace)	2,398 SF	7.00	16,786
Accessibility Ramp	4 EA	3500.00	14,000
12" Cross Walk Stripe	84 LF	3.00	252
Landscaping	762 SF	4.75	3,620
Trees	9 EA	500.00	4,500
Sub Total Construction			\$45,783
<i>Contingency (20%)</i>			9,157
<i>Engineering, Inspection and Construction Management (30%)</i>			13,735
Total Construction			\$68,674

1. Drainage costs may need to be included due to design of bulbouts.

PRELIMINARY COST ESTIMATE
Riverside Gateway
CITY OF ROSEVILLE

ROUNDBOUT

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
3" AC on 8" AB	1,600 SF	7.00	11,200
2" Pavement Overlay	10,800 SF	1.00	10,800
Vert. Curb and Gutter (remove & replace)	1,051 LF	25.00	26,270
Median Curb	450 LF	30.00	13,500
Sidewalk - 10' width (remove & replace)	6,800 SF	7.00	47,600
Raised Hardscape	1,131 SF	10.00	11,310
Accessibility Ramp	8 EA	3500.00	28,000
12" Cross Walk Stripe	290 LF	3.00	870
Landscaping	2,510 SF	4.75	11,921
Trees	10 EA	500.00	5,000
Sub Total Construction			\$166,471
<i>Contingency (20%)</i>			33,294
<i>Engineering, Inspection and Construction Management (30%)</i>			49,941
Total Construction			\$249,706

PRELIMINARY COST ESTIMATE
Riverside Gateway
 CITY OF ROSEVILLE

ALLEYWAYS

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
2" Pavement Overlay (West Alley)	17,323 SF	1.00	17,323
3" AC on 8" AB (West Alley)	9,328 SF	7.00	65,293
2" Pavement Overlay (East Alley)	20,280 SF	1.00	20,280
3" AC on 8" AB (East Alley)	10,920 SF	7.00	76,440
Sub Total Construction			\$179,335
<i>Contingency (20%)</i>			35,867
<i>Engineering, Inspection and Construction Management (30%)</i>			53,801
Total Construction			\$269,003

Assumptions:

1. 35% of alleyways will need new pavement sections

PRELIMINARY COST ESTIMATE
Riverside Gateway
CITY OF ROSEVILLE

MISCELLANEOUS ITEMS

<i>Item</i>	<i>Quantity</i>	<i>Unit \$</i>	<i>Total</i>
Additional Vert. Curb and Gutter (remove & replace)	5,165 LF	25.00	129,125
Additional Sidewalk (remove & replace)	53,950 SF	7.00	377,650
Driveway Curb Cuts	5,200 SF	8.00	41,600
2" Pavement Overlay - Riverside Ave.	103,600 SF	2.50	259,000
4" Striping - Riverside Ave.	2,800 LF	1.00	2,800
Street Furniture, Banners etc ...	1 EA	200,000	200,000
Street Light (1 per 100 ft and at every corner)	57 EA	3500.00	199,500
Sub Total Construction			\$1,209,675
<i>Contingency (20%)</i>			241,935
<i>Engineering, Inspection and Construction Management (30%)</i>			362,903
Total Construction			\$1,814,513

Assumptions:

1. Quantities for Riverside Avenue paving are based on a constant 37' street width and a length of 2800'.

APPENDIX C – SITE DEVELOPMENT PROTOTYPES

CODE SUMMARY

CODE COMPLIANCE
 2001 CALIFORNIA BUILDING STANDARDS CODE
 - CALIFORNIA CODE OF REGULATIONS, TITLE 24, PARTS 1 - 8, 10, & 12, INCORPORATING THE 1997 UNIFORM BUILDING CODE, THE 1999 NATIONAL ELECTRIC CODE, THE 2000 UNIFORM MECHANICAL CODE, AND THE 2000 UNIFORM PLUMBING CODE

OCCUPANCY SEE UBC CHAPTER 3
 RESTAURANT A-3
 OFFICE B
 RETAIL M
 RESIDENTIAL (1-2 DWELING UNITS) R-3
 RESIDENTIAL (3+ DWELING UNITS) R-1

OCCUPANCY SEPARATIONS

OCCUPANCY	OCCUPANCY	REQD. SEP.
B	M	NONE
B	R-1/R-3	1-R
B	A-3	NONE
M	R-1/R-3	1-R
M	A-3	NONE
R-1/R-3	A-3	1-R

FROM UBC TABLE 5B

TYPE OF CONSTRUCTION SEE UBC CHAPTER 6
 TYPE V-N, (NON-RATED)

ALLOWABLE BUILDING AREA/HEIGHT SEE UBC CHAPTER 3

OCCUPANCY	AREA	# OF STORES
A-3	6000 SF	1
B,M	8000 SF	1
R-1	6000 SF	2
R-3	UNLIMITED	3

FROM UBC TABLE 5B

(UBC SEC 504 AND 505): NO AREA INCREASES REQUIRED. ALLOWED AREA BY USE IS GREATER THAN ALLOWED BY FAR. (7500 SF LOT x .6 = 4500 SF)
 (UBC SEC 506): THE NUMBER OF STORES LISTED ABOVE MAY BE INCREASED BY ONE STORY IF THE BUILDING IS PROVIDED WITH AN APPROVED AUTOMATIC SPRINKLER SYSTEM THROUGHOUT.

FIRE-RESISTIVE REQUIREMENTS BY LOCATION TO PROPERTY LINE

SEE UBC CHAPTER 5, TABLE 5A

	EXTERIOR WALLS	OPENINGS
A-3	BEARING <3" = 2HR <20" = 1HR OTHER = NR	NON-BEARING SAME AS BEARING <3" = NP <10" = PRT
B,M	BEARING <20" = 1HR OTHER = NR	NON-BEARING SAME AS BEARING <3" = NP <10" = PRT
R-1	BEARING <3" = 1HR OTHER = NR	NON-BEARING SAME AS BEARING <3" = NP
R-3	BEARING <3" = 1HR OTHER = NR	NON-BEARING SAME AS BEARING <3" = NP

OPENINGS REQUIRING PROTECTION IN EXTERIOR WALLS SHALL BE PROTECTED BY A FIRE ASSEMBLY HAVING AT LEAST A 3/4HR FIRE-PROTECTION RATING.

FIRE RESISTIVE REQUIREMENTS BY CONSTRUCTION TYPE

SEE UBC CHAPTER 6, TABLE 6A

	EXTERIOR BEARING WALL	TYPE V-N
EXTERIOR BEARING WALL	N	N
INTERIOR BEARING WALL	N	N
EXTERIOR NON-BEARING WALL	N	N
STRUCTURAL FRAME	N	N
PARTITIONS	N	N
SHAFT ENCLOSURE	N	N
FLOORCEILING/FLOOR	N	N
ROOFCEILING/FLOOR	N	N
EXTERIOR DOORS/WINDOWS	SEE UBC 606.3	
STAIRWAY	SEE UBC 606.4	

MINIMUM EGRESS REQUIREMENTS SEE UBC CHAPTER 10, TABLE 10A

USE	2 EXITS REQD	EXIT SF/OCC
OFFICE	100	100
STORES, B & G	30	30
STORES, 2+	30	60
ASSEMBLY, LESS	30	15
DWELLINGS	10	300

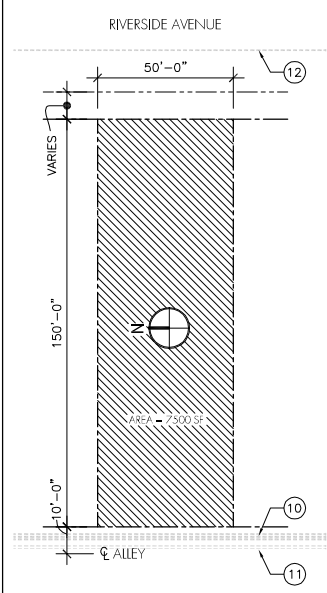
2+ SECOND FLOOR ABOVE B & G. MINIMUM HORIZONTAL DIST. OF OCCUPANT LOAD FACTOR

MINIMUM PLUMBING FIXTURES

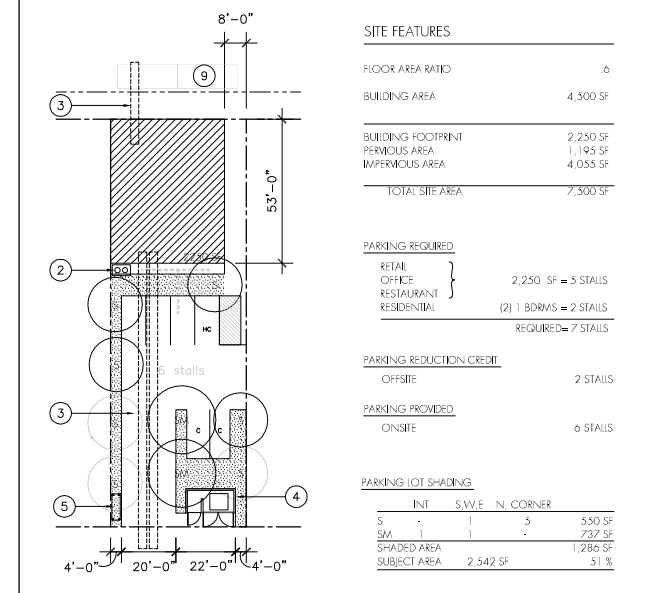
SEE UBC CHAPTER 29, TABLE 29A

OCCUPANCY	M or F	UAVS: M or F
A RESTAURANT	1: 1-25 2: 26-75 3: 76-125 4: 126-200 5: 201-300 EACH	UP TO 141 - 1 T (1) LAV FOR EVERY (1) TOILET > 141 - 1 : 2 (1) LAV FOR EVERY (2) TOILETS
B OFFICE	1: 1-15 2: 16-35 3: 36-55 EACH	1 : 2
M RETAIL	1: 1-50 2: 50-100 3: 101-400 EACH	1 : 2
R DWELLING UNITS	1: UNIT TOTAL	1 : 1 SHOWER/TUB KITCHEN

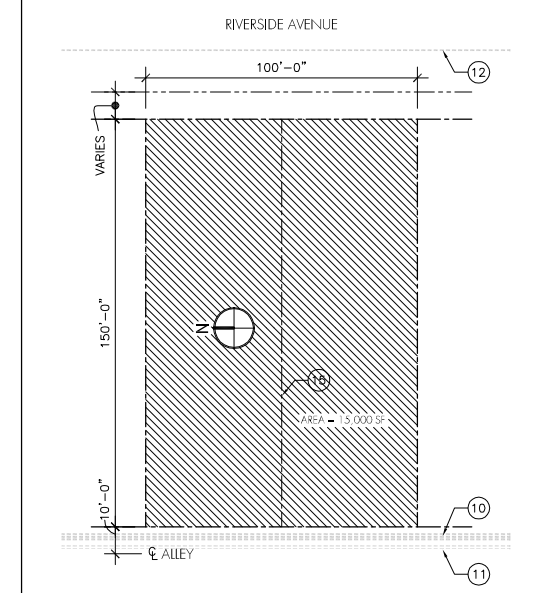
TYPICAL SITE I:



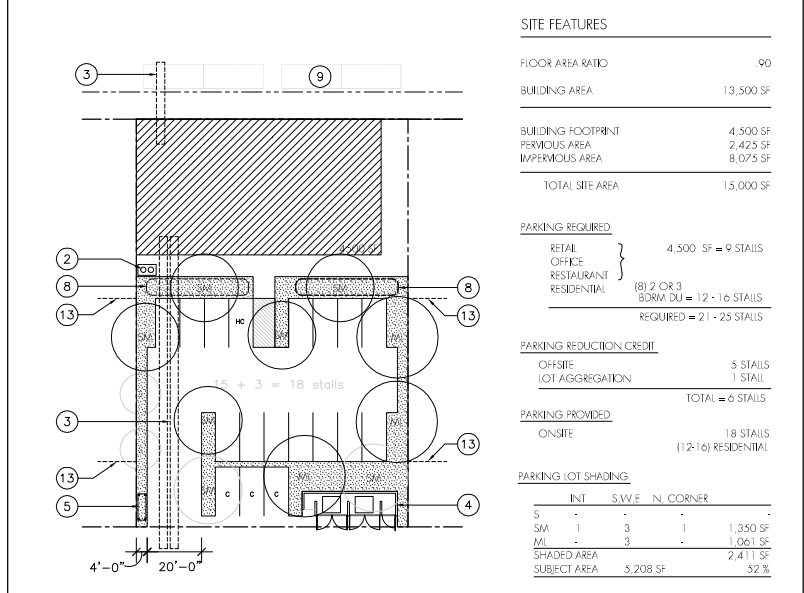
DEVELOPMENT PROTOTYPE I: (FORMERLY PLAN A SITE OPTION I-B)



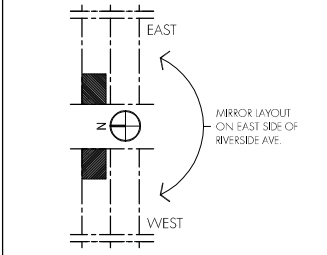
TYPICAL SITE II:



DEVELOPMENT PROTOTYPE II: (FORMERLY PLAN E SITE OPTION II-B)



CONTEXT



ZONING:

SEE TITLE 19, ROSEVILLE CITY MUNICIPAL CODE

ZONING DESIGNATION	CMU/SA/RG
OPTION	A B C-D
F.A.R.	48 .60 .90
ALLOWED BUILDING AREA	3,600 SF 4,500 SF 6,000 SF

ALLOWED USES: SEE RIVERSIDE GATEWAY SPECIFIC PLAN
DESIGN DEVELOPMENT STANDARDS: SEE RIVERSIDE GATEWAY SPECIFIC PLAN
MAX HEIGHT ALLOWED: 50'
CLEAR VISION TRIANGLE AT CORNER LOTS: SEE 19.12.030.C

PARKING REQUIRED (ON-SITE):
 COMMERCIAL USES 1/500 SF
 RESIDENTIAL 1/DWELLING
 STUDIO+1 BDRM 1.5/DWELLING
 RESIDENTIAL 2 BDRM 2/DWELLING
 RESIDENTIAL 3 BDRM+ 2/DWELLING

+1 HANDICAP STALL MEETING VANPOOL REQUIREMENTS FOR ACCESSIBILITY REQUIRED FOR 5 OR MORE PARKING SPACES
 +1 COMMERCE STALL @ 10' X 12'
 +1 STANDARD STALL @ 8' X 12'

BICYCLE PARKING: TO BE DETERMINED

SITE LIGHTING:
 PARKING 1 FOOTCANDLE
 DRIVE AILES 1 FOOTCANDLE
 PEDESTRIAN WALKS 5 FOOTCANDLES

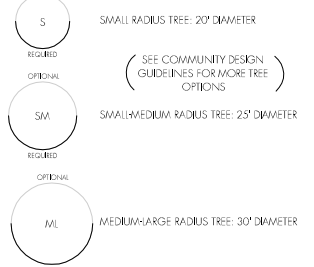
KEYNOTES

- 1 FIRE SPRINKLER RISER CLOSET (MIN 35 SF AREA)
- 2 GREASE INTERCEPTOR @ RESTAURANT ONLY
- 3 UTILITY TRENCH/ CONNECTION TO UTILITIES (2) 36" X 24" TRENCHES (WET & DRY UTILITIES)
- 4 DUMPSTER/W/ ENCLOSURE & GATE PER CITY OF ROSEVILLE SOLID WASTE DEPARTMENT BACKFLOW PREVENTER VALVES WITH CEEMENT BOULARDS @ EACH CORNER CLEAR VISION TRIANGLE AT CORNER LOTS, UP TO 8'-0" ABOVE GRADE
- 5 1-HR VENT SHAFT FOR KITCHEN BLOW
- 6 SWALE - STORM WATER RETENTION
- 7 REPRESENTS ON-STREET PARKING CREDIT
- 8 BELOW GROUND UTILITIES: WATER, SANITARY SEWER, & NATURAL GAS
- 9 ABOVE GROUND UTILITIES: TELECOM & ELECTRIC
- 10 STORM SEWER
- 11 ALIGN WITH PARKING AREA IN ADJACENT LOT.
- 12 ALL ROOFTOP MECHANICAL EQUIPMENT TO BE SCREENED
- 13 EXISTING LOT LINES FOR COMBINED PARCELS WILL NEED TO BE VARGED PRIOR TO ISSUANCE OF A BUILDING PERMIT
- 14 ELEVATOR IS OPTIONAL AND TO BE INSTALLED AT THE DISCRETION OF THE DEVELOPER. REFER TO THE CALIFORNIA DISABLED ACCESSIBILITY GUIDEBOOK (CAGAB)

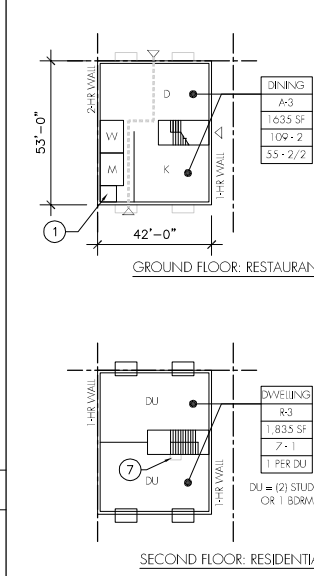
ABBREVIATIONS

DU	DWELLING UNITS	NR	NON-RATED
HR	HOUR	OCC	OCCUPANT
NP	NOT PERMITTED	REQD	REQUIRED
D	DINING	BDRM	BEDROOM
K	KITCHEN	C	CENTRINE

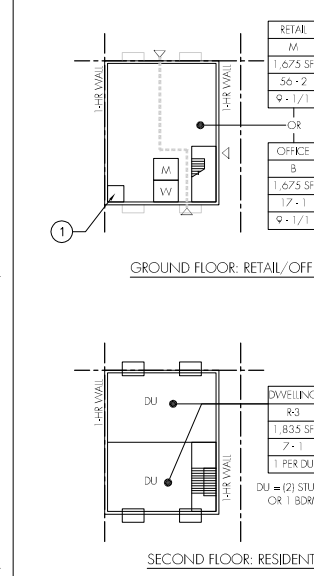
LEGEND



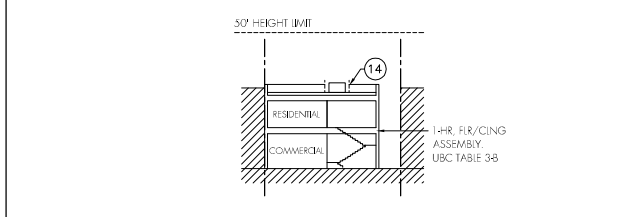
B1: RESTAURANT - RESIDENTIAL



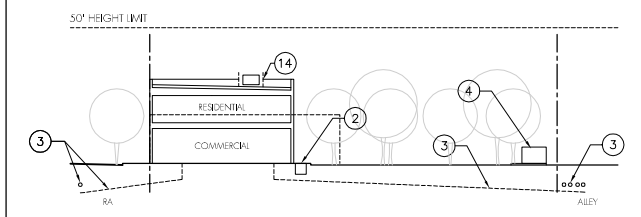
B2: RETAIL/OFFICE - RESIDENTIAL



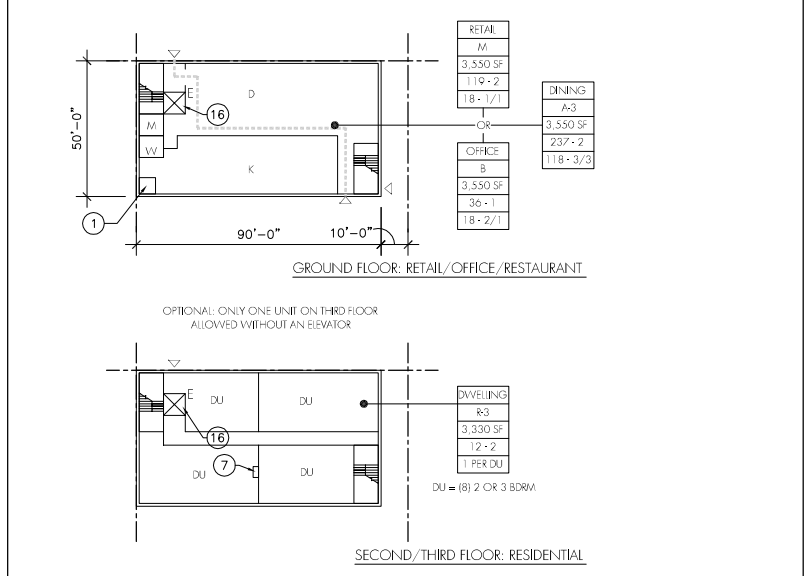
CROSS SECTION



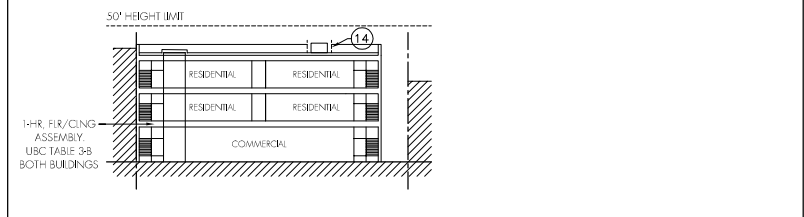
LONGITUDINAL SECTION



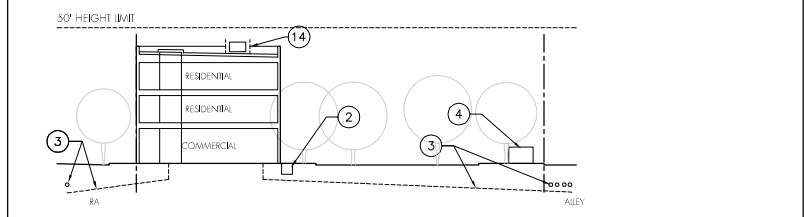
RESTAURANT OR RETAIL/OFFICE - RESIDENTIAL



CROSS SECTION



LONGITUDINAL SECTION



CODE SUMMARY

CODE COMPLIANCE
 2001 CALIFORNIA BUILDING STANDARDS CODE
 - CALIFORNIA CODE OF REGULATIONS, TITLE 24, PARTS 1 - 8, 10, & 12, INCORPORATING THE 1997 UNIFORM BUILDING CODE, THE 1999 NATIONAL ELECTRIC CODE, THE 2000 UNIFORM MECHANICAL CODE, AND THE 2000 UNIFORM PLUMBING CODE

OCCUPANCY SEE UBC CHAPTER 3
 RESTAURANT A-3
 OFFICE B
 RETAIL M
 RESIDENTIAL (1-2 DWELING UNITS) R-3
 RESIDENTIAL (3+ DWELING UNITS) R-1

OCCUPANCY SEPARATIONS

OCCUPANCY	OCCUPANCY	REQD. SEP.
B	M	NONE
B	R-1/R-3	1-HR
B	A-3	NONE
M	R-1/R-3	1-HR
M	A-3	NONE
R-1/R-3	A-3	1-HR

FROM UBC TABLE 5B

TYPE OF CONSTRUCTION SEE UBC CHAPTER 6
 TYPE V-N, (NON-RATED)

ALLOWABLE BUILDING AREA/HEIGHT SEE UBC CHAPTER 3

OCCUPANCY	AREA	# OF STORES
A-3	6000 SF	1
B/M	8000 SF	1
R-1	6000 SF	2
R-3	UNLIMITED	3

FROM UBC TABLE 5B

(UBC SEC 504 AND 505): NO AREA INCREASES REQUIRED. ALLOWED AREA BY USE IS GREATER THAN ALLOWED BY FAR. (7500 SF LOT x .6 = 4500 SF)
 (UBC SEC 506): THE NUMBER OF STORES LISTED ABOVE MAY BE INCREASED BY ONE STORY IF THE BUILDING IS PROVIDED WITH AN APPROVED AUTOMATIC SPRINKLER SYSTEM THROUGHOUT.

FIRE-RESISTIVE REQUIREMENTS BY LOCATION TO PROPERTY LINE

SEE UBC CHAPTER 5, TABLE 5A

	EXTERIOR WALLS	OPENINGS
A-3	BEARING <3" = 2HR <20" = 1HR OTHER = NR	NON-BEARING SAME AS BEARING <3" = NP <10" = PRT
B/M	BEARING <20" = 1HR OTHER = NR	NON-BEARING SAME AS BEARING <3" = NP <10" = PRT
R-1	BEARING <3" = 1HR OTHER = NR	NON-BEARING SAME AS BEARING <3" = NP
R-3	BEARING <3" = 1HR OTHER = NR	NON-BEARING SAME AS BEARING <3" = NP

OPENINGS REQUIRING PROTECTION IN EXTERIOR WALLS SHALL BE PROTECTED BY A FIRE ASSEMBLY HAVING AT LEAST A 3/4HR FIRE-PROTECTION RATING.

FIRE RESISTIVE REQUIREMENTS BY CONSTRUCTION TYPE

SEE UBC CHAPTER 6, TABLE 6A

	EXTERIOR BEARING WALL	TYPE V-N
EXTERIOR BEARING WALL	N	N
EXTERIOR NON-BEARING WALL	N	N
STRUCTURAL FRAME	N	N
PARTITIONS	N	N
SHAFT ENCLOSURE	N	N
FLOORCEILING/FLOOR	N	N
ROOFCEILING/FLOOR	N	N
EXTERIOR DOORS/WINDOWS	SEE UBC 606.3	
STAIRWAY	SEE UBC 606.4	

MINIMUM EGRESS REQUIREMENTS

SEE UBC CHAPTER 10, TABLE 10A

USE	2 EXITS REQD	CHF. SF/OCC.
OFFICE	100	100
STORES, B & G	30	30
STORES, 2+	30	60
ASSEMBLY, LESS	30	15
DWELLINGS	10	300

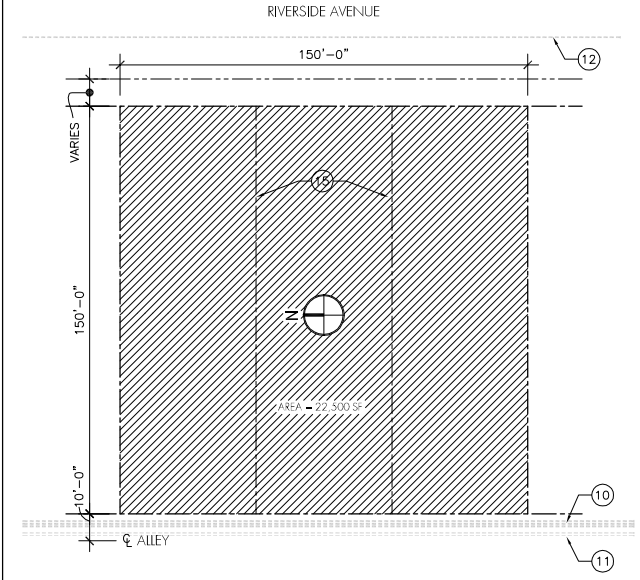
2+ SECOND FLOOR AND ABOVE
 B & G BUSINESS AND OFFICE FLOOR
 OCCUPANT LOAD FACTOR

MINIMUM PLUMBING FIXTURES

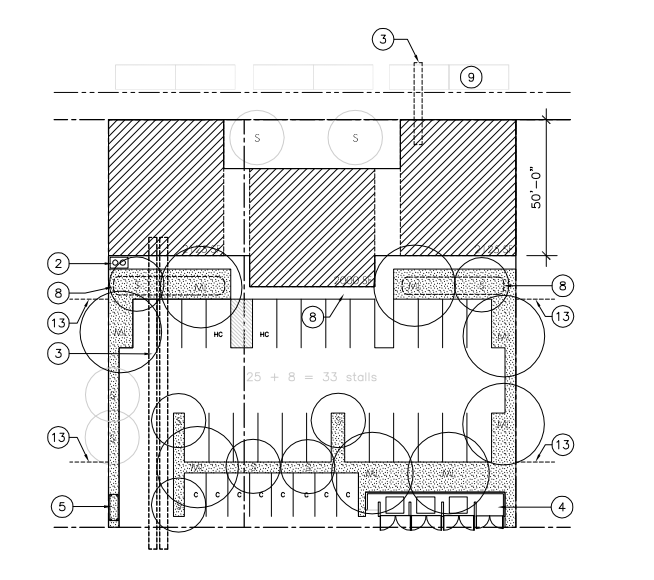
SEE UBC CHAPTER 29, TABLE 29A

OCCUPANCY	M or F	UAVS: M or F
A RESTAURANT	1: 1-25 2: 26-75 3: 76-125 4: 126-200 5: 201-300 EACH	UP TO 14: 1-1 11) LAV FOR EVERY (1) TOILET > 14: 1-1-2 11) LAV FOR EVERY (2) TOILETS
B OFFICE	1: 1-15 2: 16-35 3: 36-55 EACH	1-2
M RETAIL	1: 1-50 2: 50-100 3: 101-400 EACH	1-2
R DWELLING UNITS	1: UNIT TOTAL	1-1 SHOWER/TUB KITCHEN

TYPICAL SITE III:



DEVELOPMENT PROTOTYPE III: (FORMERLY PLAN G SITE OPTION III-C)



SITE FEATURES

FLOOR AREA RATIO	90
BUILDING AREA (1) x 6250 (2) x 7000	20,250 SF
BUILDING FOOTPRINT	7,000 SF
PERVIOUS AREA	3,050 SF
IMPERVIOUS AREA	12,450 SF
TOTAL SITE AREA	22,500 SF

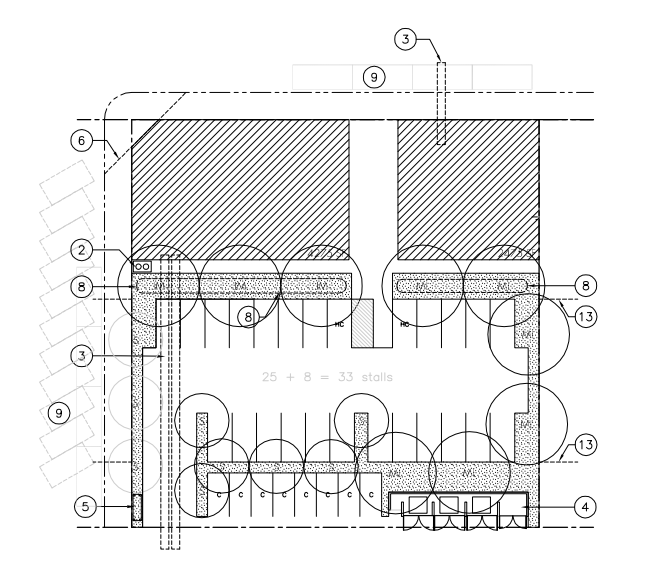
PARKING REQUIRED
 RETAIL OFFICE } 6,250 SF = 13 STALLS
 RESTAURANT }
 RESIDENTIAL (B) 2 OR 3 BDRM DU = 12 - 16 STALLS
 REQUIRED = 25 - 31 STALLS

PARKING REDUCTION CREDIT
 LOT AGGREGATION 7 STALLS
 3 STALLS
 PARKING PROVIDED TOTAL = 10 STALLS

ONSITE 33 STALLS
 PARKING LOT SHADING (1824) RESIDENTIAL

INT.	S.W.E.	N. CORNER	AREA
S	4	2	1,649 SF
SM	.	.	. SF
ML	7	1	2,651 SF
SHADED AREA			4,300 SF
SUBJECT AREA			8,642 SF 50 %

DEVELOPMENT PROTOTYPE IV: (FORMERLY PLAN H SITE OPTION III-D)



SITE FEATURES

FLOOR AREA RATIO	90
BUILDING AREA	20,250 SF
BUILDING FOOTPRINT	6,750 SF
PERVIOUS AREA	4,225 SF
IMPERVIOUS AREA	11,525 SF
TOTAL SITE AREA	22,500 SF

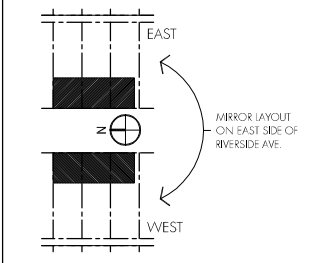
PARKING REQUIRED
 RETAIL OFFICE } 6,250 SF = 13 STALLS
 RESTAURANT }
 RESIDENTIAL (B) 2 OR 3 BDRM DU = 12 - 16 STALLS
 REQUIRED = 26 - 30 STALLS

PARKING REDUCTION CREDIT
 OFFSITE LOT AGGREGATION 7 STALLS
 3 STALLS
 PARKING PROVIDED TOTAL = 10 STALLS

ONSITE 33 STALLS
 PARKING LOT SHADING (1824) RESIDENTIAL

INT.	S.W.E.	N. CORNER	AREA
S	4	1	1,492 SF
SM	.	.	. SF
ML	8	1	3,005 SF
SHADED AREA			4,496 SF
SUBJECT AREA			8,642 SF 52 %

CONTEXT



KEYNOTES

- 1 FIRE SPRINKLER RISER CLOSET (MIN 35 SF AREA)
- 2 GREASE INTERCEPTOR @ RESTAURANT ONLY
- 3 UTILITY TRENCH/ CONNECTION TO UTILITIES (2) 36" X 24" TRENCHES (WET & DRY UTILITIES)
- 4 DUMPSTER/VL ENCLOSURE & GATE PER CITY OF ROSEVILLE SOLID WASTE DEPARTMENT BACKFLOW PREVENTER VALVES WITH CEMENT BOLLARDS @ EACH CORNER
- 5 CLEAR VISION TRIANGLE AT CORNER LOTS, UP TO 8'0" ABOVE GRADE
- 6 1-HR VENT SHAFT FOR KITCHEN BELOW
- 7 SWALE - STORM WATER RETENTION
- 8 REPRESENTS ON-STREET PARKING CREDIT
- 9 BELOW GROUND UTILITIES: WATER, SANITARY SEWER, & NATURAL GAS
- 10 ABOVE GROUND UTILITIES: TELECOM & ELECTRIC
- 11 STORM SEWER
- 12 ALIGN WITH PARKING AREA IN ADJACENT LOT.
- 13 ALL ROOFTOP MECHANICAL EQUIPMENT TO BE SCREENED
- 14 EXISTING LOT LINES FOR COMBINED PARCELS WILL NEED TO BE MARKED PRIOR TO ISSUANCE OF A BUILDING PERMIT
- 15 ELEVATOR IS OPTIONAL AND TO BE INSTALLED AT THE DISCRETION OF THE DEVELOPER. REFER TO THE CALIFORNIA DISABLED ACCESSIBILITY GUIDEBOOK (CAGDB)
- 16

ZONING:

SEE TITLE 19, ROSEVILLE CITY MUNICIPAL CODE

ZONING DESIGNATION	CMU/SA/RG
OPTION	A B C-D
F.A.R.	48 60 90
ALLOWED BUILDING AREA	10,800 SF 13,500 SF 20,250 SF
ALLOWED USES	SEE RIVERSIDE GATEWAY SPECIFIC PLAN
DESIGN DEVELOPMENT STANDARDS	SEE RIVERSIDE GATEWAY SPECIFIC PLAN
MAX HEIGHT ALLOWED	50'
CLEAR VISION TRIANGLE AT CORNER LOTS	SEE 19.12.030.C
PARKING REQUIRED (ON-SITE):	1/500 SF
COMMERCIAL USES	
RESIDENTIAL	
STUDIO+1 BDRM	1/DWELLING
RESIDENTIAL 2 BDRM	1.5/DWELLING
RESIDENTIAL 3 BDRM+	2/DWELLING
*1 HANDICAP STALL MEETING MINIMUM REQUIREMENTS FOR ACCESSIBILITY. REQUIRED FOR 5 OR MORE PARKING SPACES	
*2 COMMERCE STALLS @ 10' X 10'	
*3 STANDARD STALL @ 8' X 12'	
BICYCLE PARKING	TO BE DETERMINED
SITE LIGHTING	
PARKING	1 FOOTCANDLE
DRIVE AILES	1 FOOTCANDLE
PEDESTRIAN WALKS	5 FOOTCANDES

ABBREVIATIONS

DU	DWELLING UNITS	NR	NON-RATED
HR	HOUR	OCC	OCCUPANT
NP	NOT PERMITTED	REQD	REQUIRED
D	DINING	BDRM	BEDROOM
K	KITCHEN	C	CENTRINE

LEGEND

- REQUIRED EXIT
- ACCESSIBLE ROUTE
- PERVIOUS LANDSCAPING
- USE OCCUPANCY CLASSIFICATION
- NET OCCUPIED SQUARE FOOTAGE
- EXITING OCC. LOAD - NUMBER OF EXITS REQD
- PLUMBING OCC. LOAD - TOILETS / LAVS REQD FOR EACH SEX
- ELEVATOR
- SMALL RADIUS TREE: 20' DIAMETER
- SMALL-MEDIUM RADIUS TREE: 25' DIAMETER
- MEDIUM-LARGE RADIUS TREE: 30' DIAMETER

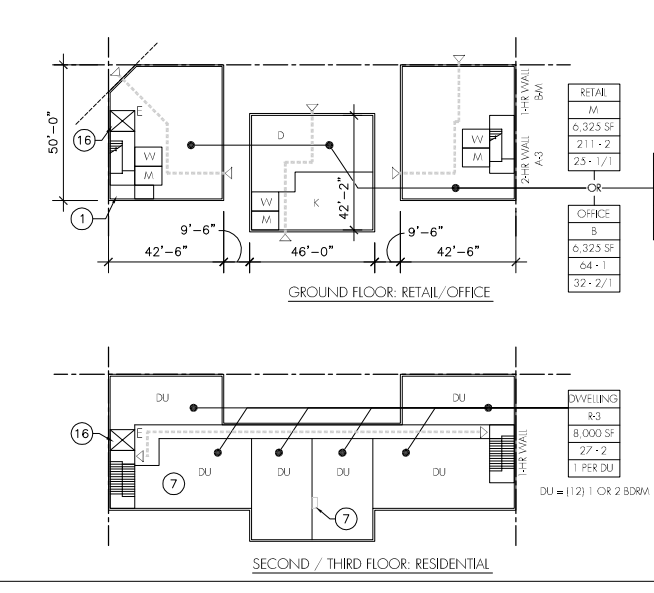
CITY OF ROSEVILLE: SUPPLEMENTAL REQUIREMENTS

ALL COMMERCIAL BUILDINGS SHALL BE PROVIDED WITH AN APPROVED AUTOMATIC SPRINKLER SYSTEM THROUGHOUT. THE FIRE DEPARTMENT CONNECTION (FDC) TO THE AUTOMATIC FIRE SPRINKLER SYSTEM SHALL BE LOCATED ON THE FRONT OF BUILDINGS FACING RIVERSIDE AVENUE, NOT THE ALLEY SIDE.

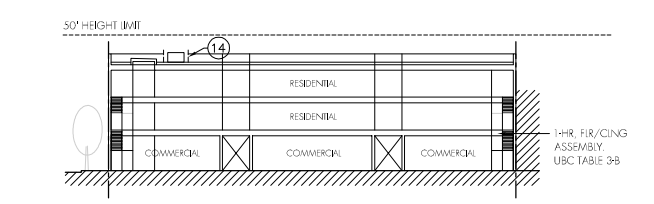
DISCLAIMER:

INFORMATION CONTAINED IN THIS MATRIX IS INTENDED AS A GUIDE ONLY AND DOES NOT STATE ALL ZONING AND CODE REQUIREMENTS; CONSULT THE CITY OF ROSEVILLE'S MUNICIPAL CODE - TITLE 19, THE UBC, AND THE CITY OF ROSEVILLE DESIGN GUIDELINES FOR FURTHER REQUIREMENTS.

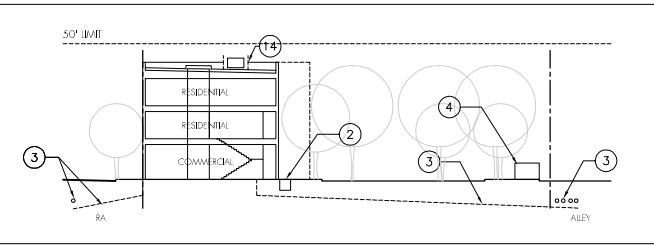
C1: RESTAURANT OR RETAIL/OFFICE - RESIDENTIAL



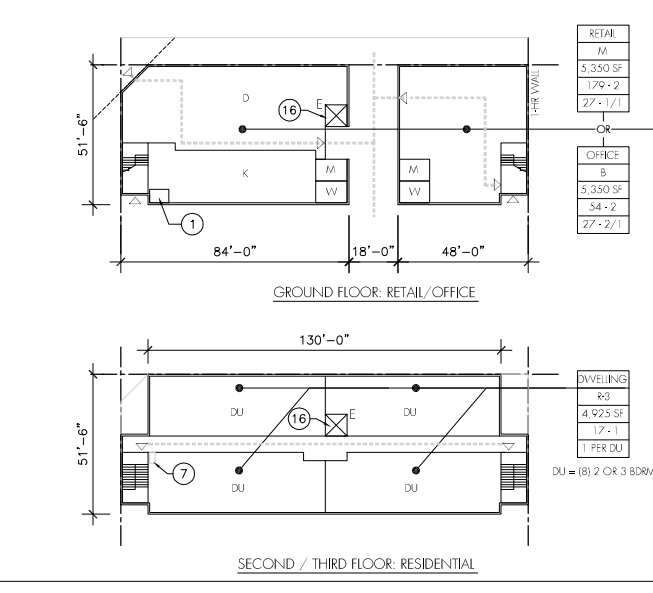
CROSS SECTION



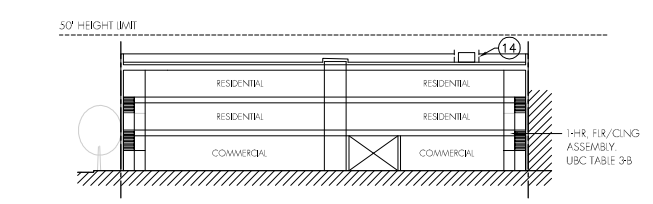
LONGITUDINAL SECTION



D1: RESTAURANT OR RETAIL/OFFICE - RESIDENTIAL



CROSS SECTION



LONGITUDINAL SECTION

