



SECTION 4. INFRASTRUCTURE AND SERVICES

The infrastructure, utilities, and public services to be provided as part of the development of Riverwalk Vista are discussed in this section.

4.1 CIRCULATION

The circulation plan for Riverwalk Vista reinforces the concept of a village neighborhood design. In addition to providing safe and efficient movement of vehicular traffic through the community, the circulation plan also provides a safe environment for pedestrian and bicycle movement to and from nearby commercial and educational facilities as well as to the Metrolink rail station located within Planning Area 1. The circulation plan for Riverwalk Vista encourages the pedestrian and bicycle mobility thereby reducing the reliance on the automobile as a means of travel. The "Master Circulation Plan," Exhibit 13 establishes the hierarchy and general location roadways within the Riverwalk Vista Specific Plan.

4.1.1 *Streets*

Riverwalk Vista is bounded by two of the City of Riverside's public arterial streets and two local streets that will provide access to and from Riverwalk Vista. Within Riverwalk Vista interior residential streets of varying design will provide access and circulation through the community.

4.1.1(a) *Indiana Avenue*

Indiana Avenue separates Planning Areas 1 and 2 abutting Planning Area 1 on the south and Planning Area 2 on the north. Indiana Avenue is a designated major arterial street (four travel lanes) with a total right of way of 110 feet between La Sierra and the primary project entry to Riverwalk Vista then narrowing to a 94 foot wide right of way from the primary project entry easterly to Vallejo Street. The right of way improvement for Indiana Avenue are illustrated in Exhibit 14, "Indiana Avenue Sections". At the intersection of Indiana Avenue and Vallejo Street an additional 10 feet of right of way will be improved for right turn movements southbound on to Vallejo Street as illustrated in Exhibit 15, "Indiana Avenue at Vallejo Street Section. The developer of Planning Area 2 of Riverwalk Vista will be responsible for the dedication of any additional needed right of way and the



installation of ½ width street improvements along the southerly portion of Indiana Avenue between La Sierra Avenue and Vallejo Street. Improvements are anticipated to include between 44 and 54 feet of paved area and between 10 to 12 feet of parkway with a curb adjacent sidewalk and landscaping between the back of sidewalk and the property line.

4.1.1(b) La Sierra Avenue

La Sierra Avenue abuts Riverwalk Vista on the west and is a designated major arterial (six travel lanes) with a total right of way varying between 118 feet to 151 feet. The City of Riverside will be responsible for the ultimate improvements to La Sierra Avenue, however, the developer of Riverwalk Vista shall contribute to the funding of these improvements through the payment of the Transportation Uniform Mitigation fee. The developer of Planning Area 2 of Riverwalk Vista will be responsible for the dedication of any additional right of way adjacent to the Project Site between Indiana Avenue and Arizona Avenue as well as the development of the parkway. The ultimate right of way improvements required for La Sierra Avenue are illustrated in Exhibit 16, "La Sierra Avenue Sections".

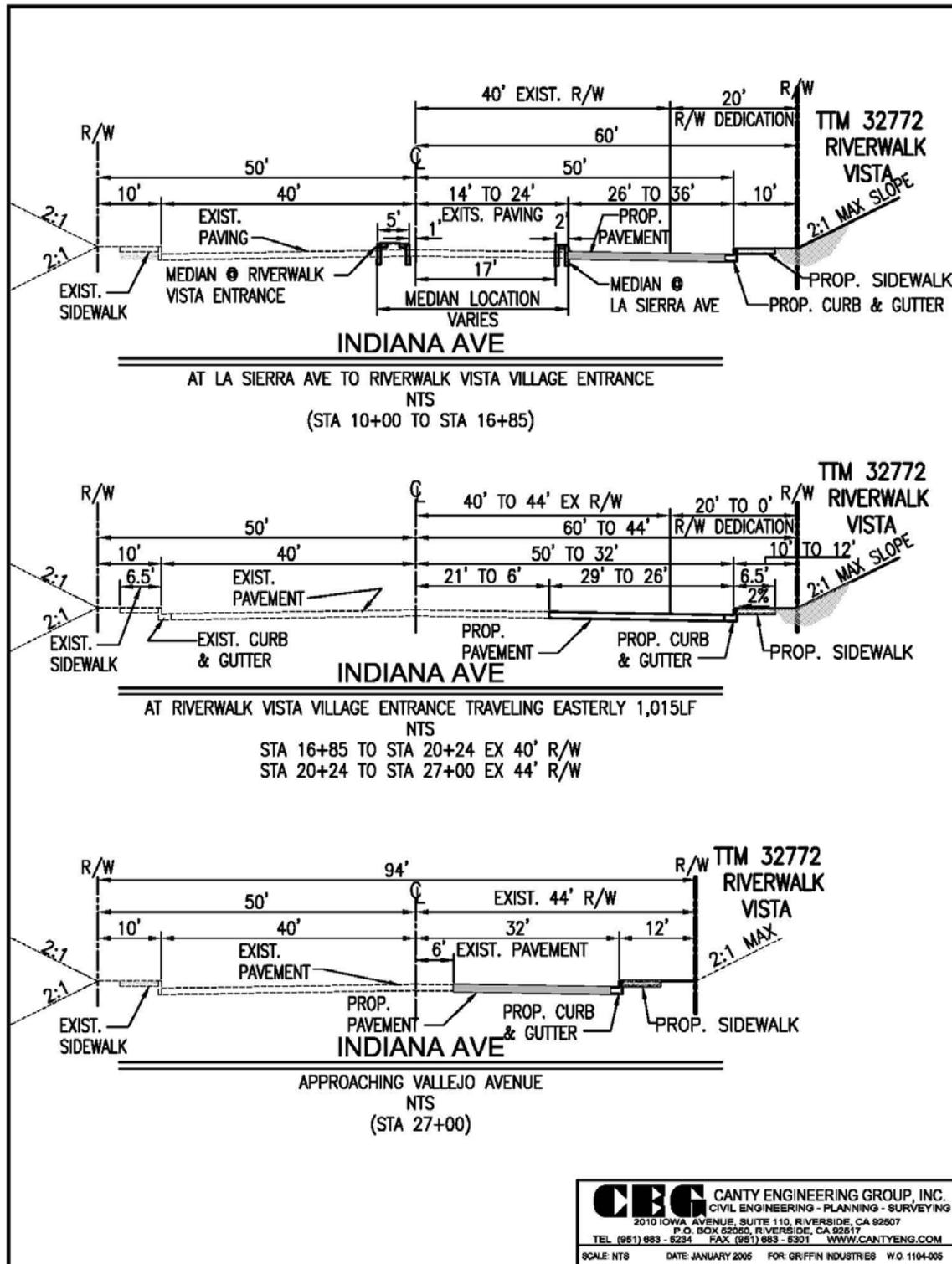
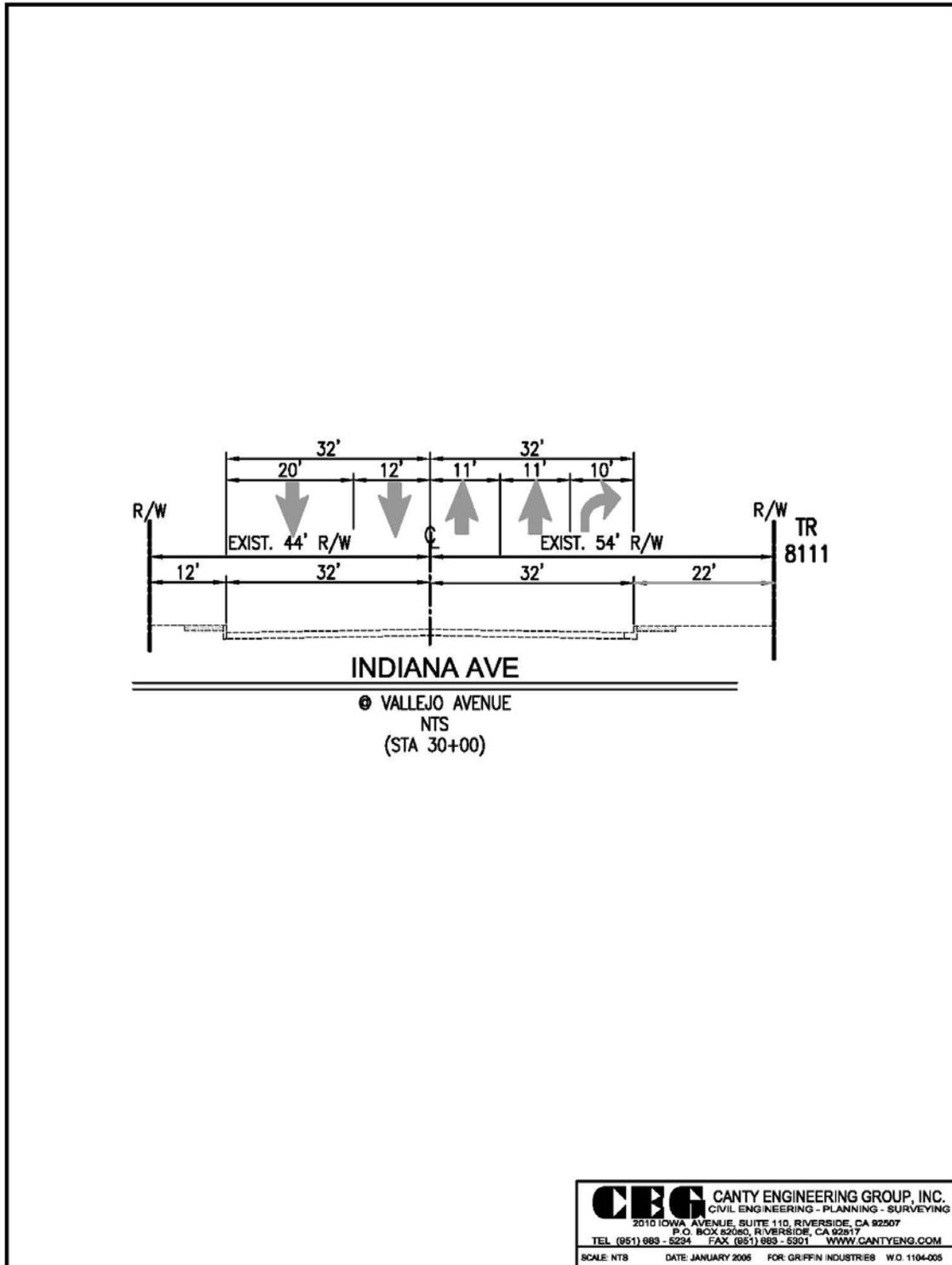


Exhibit 14, "Indiana Avenue Sections"
Section 4. Infrastructure and Services



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SCALE: NTS DATE: JANUARY 2005 FOR: GRIFFIN INDUSTRIES W.D. 1104-005

Exhibit 15, "Indiana Avenue @ Vallejo Street Section"
Section 4. Infrastructure and Services

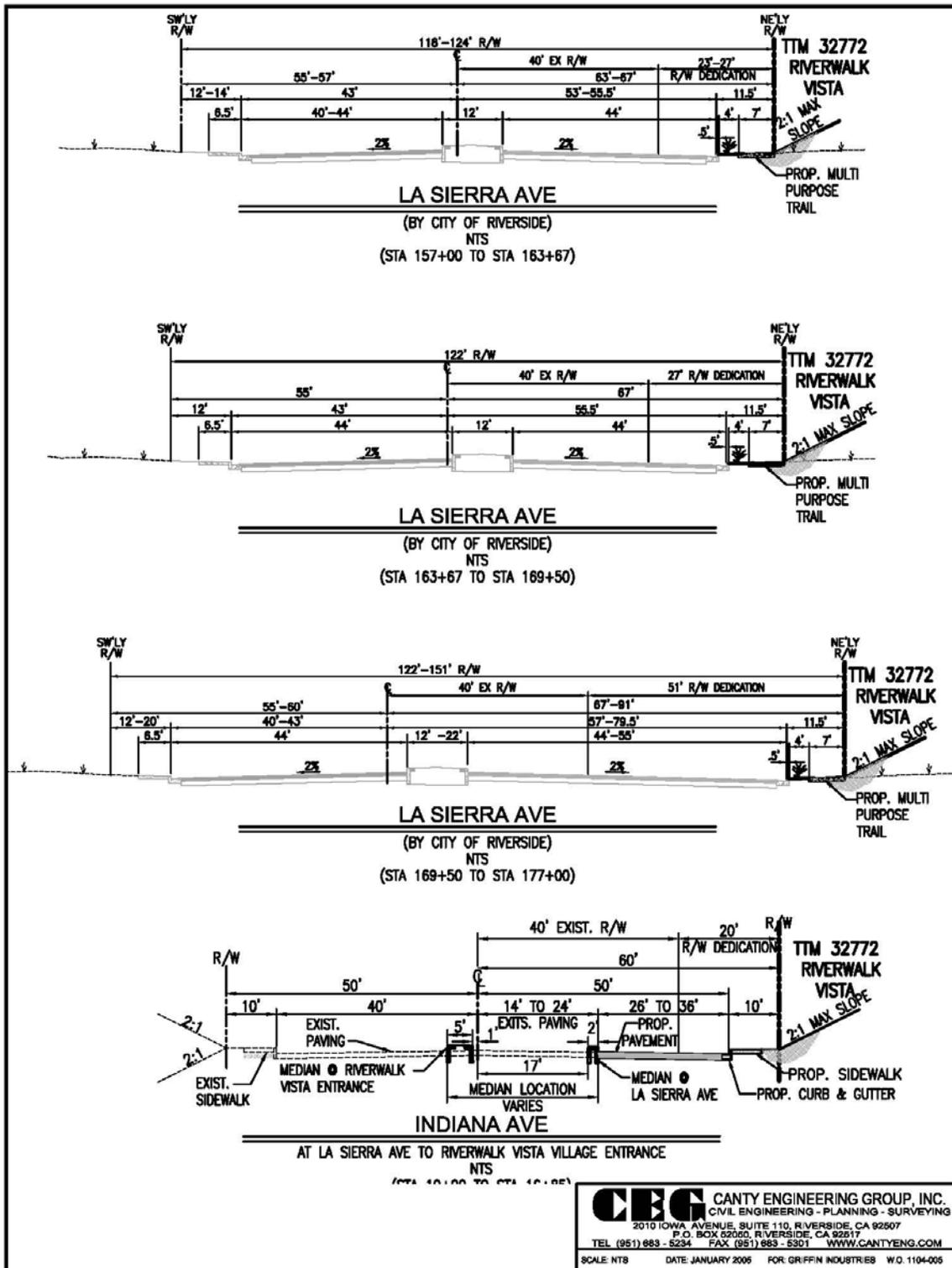


Exhibit 16, "La Sierra Avenue Sections"
Section 4. Infrastructure and Services



4.1.1(c) Vallejo Street

Vallejo Street is a designated Local Street with a total right of way of 53 feet. Vallejo Street is currently improved with 28 feet of paved area and a 13 foot wide parkway. The developer of Planning Area 2 of Riverwalk Vista will be required to improve 20 feet of right of way on the westerly side of Vallejo Street adjacent to the Project Site. Improvements will consist of 14 feet of paved area, a 6 foot wide proposed landscape area, and the installation of a cul-de-sac at the terminus of the street. In addition to the street improvements the developer of Riverwalk Vista will be responsible for the installation of street lights and drainage improvements along Vallejo Street adjacent to the Project Site. The ultimate improvements for Vallejo Street are illustrated in Exhibit 17, "Local Streets Sections"

4.1.1(d) Arizona Avenue

Arizona Avenue abuts Riverwalk Vista on the south. Arizona Avenue is a designated Local Street with a total right of way of 80 feet with 20 feet of paved area and a 20 foot wide parkway on each side of the street. The developer of Planning Area 2 of Riverwalk Vista will install a cul-de-sac at the terminus of Arizona Avenue easterly of the entry to Riverwalk Vista. The ultimate improvements for Arizona Avenue are illustrated in Exhibit 17, "Local Streets Sections". As part of the development of Riverwalk Vista the developers of Planning Area 2 will provide the improvement of a vehicle turnaround /drop off area along Arizona Avenue for students attending the Arizona Intermediate School as illustrated in Exhibit 18, "Vehicle Turnaround at Arizona Avenue".

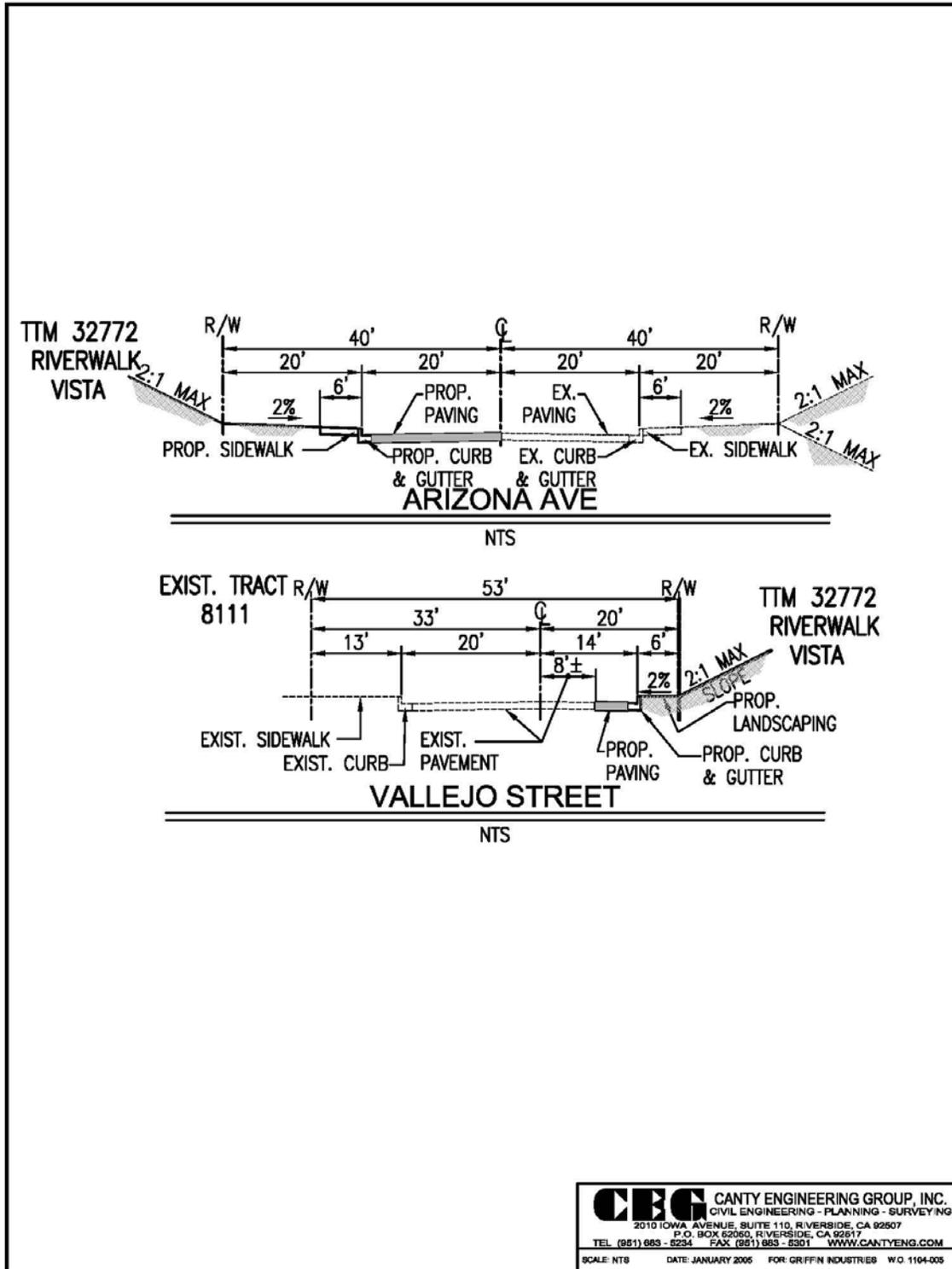


Exhibit 17, "Local Streets"
Section 4. Infrastructure and Services

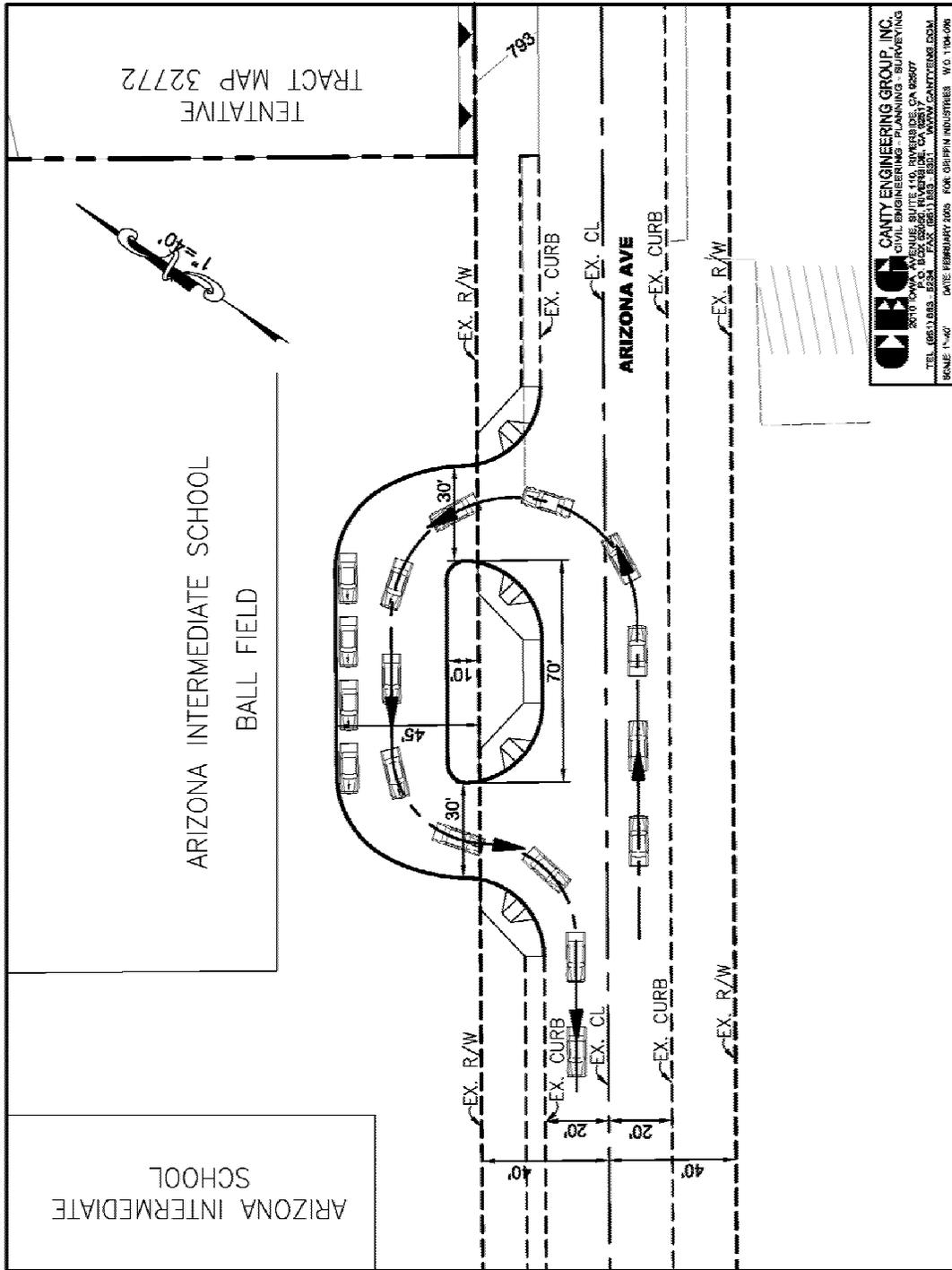


Exhibit 18, " Vehicle Turn around at Arizona Avenue"
Section 4. Infrastructure and Services



4.1.1(e) Private Interior Residential Streets

Residential streets within Riverwalk Vista are designed to distribute vehicular traffic from the public arterial streets adjacent to Riverwalk Vista into and through residential villages as illustrated in Exhibit 19, "Interior Street System". Local streets will be private and have varying widths as described below and illustrated in Exhibit 20, "Private Residential Streets".

Main Loop Road

A Main Loop Road is planned as the backbone interior street serving all three residential villages within Riverwalk Vista. The Main Loop Road will connect with Indiana Avenue on the north meandering through Riverwalk Vista and connecting with La Sierra Avenue on the west. The Main Loop Road will be a pedestrian friendly streetscape with a total right of way of 56 feet with 36 feet of paved area and a 4 foot wide sidewalk separated from the street by a 6 foot wide landscaped parkway. No garage access to homes will occur along the Main Loop Road and no parking will be permitted along this roadway, enhancing the pedestrian environment of the neighborhood.

Interior Residential Streets

Residential streets connecting to the Main Loop Road will serve individual product areas within each village. Within single family detached residential areas, residential streets will have a total right of way of 44 feet with 36 feet of paved area and curb adjacent 4 foot wide sidewalks. Within single family detached cluster residential areas, residential streets will have a total right of way of 36 feet consisting of paving and curb improvements.

Court Drives

Court Drives will serve cluster and patio home products within Village 3. Court Drives of 28 feet in paved width will serve the cluster patio home products within Village 3.

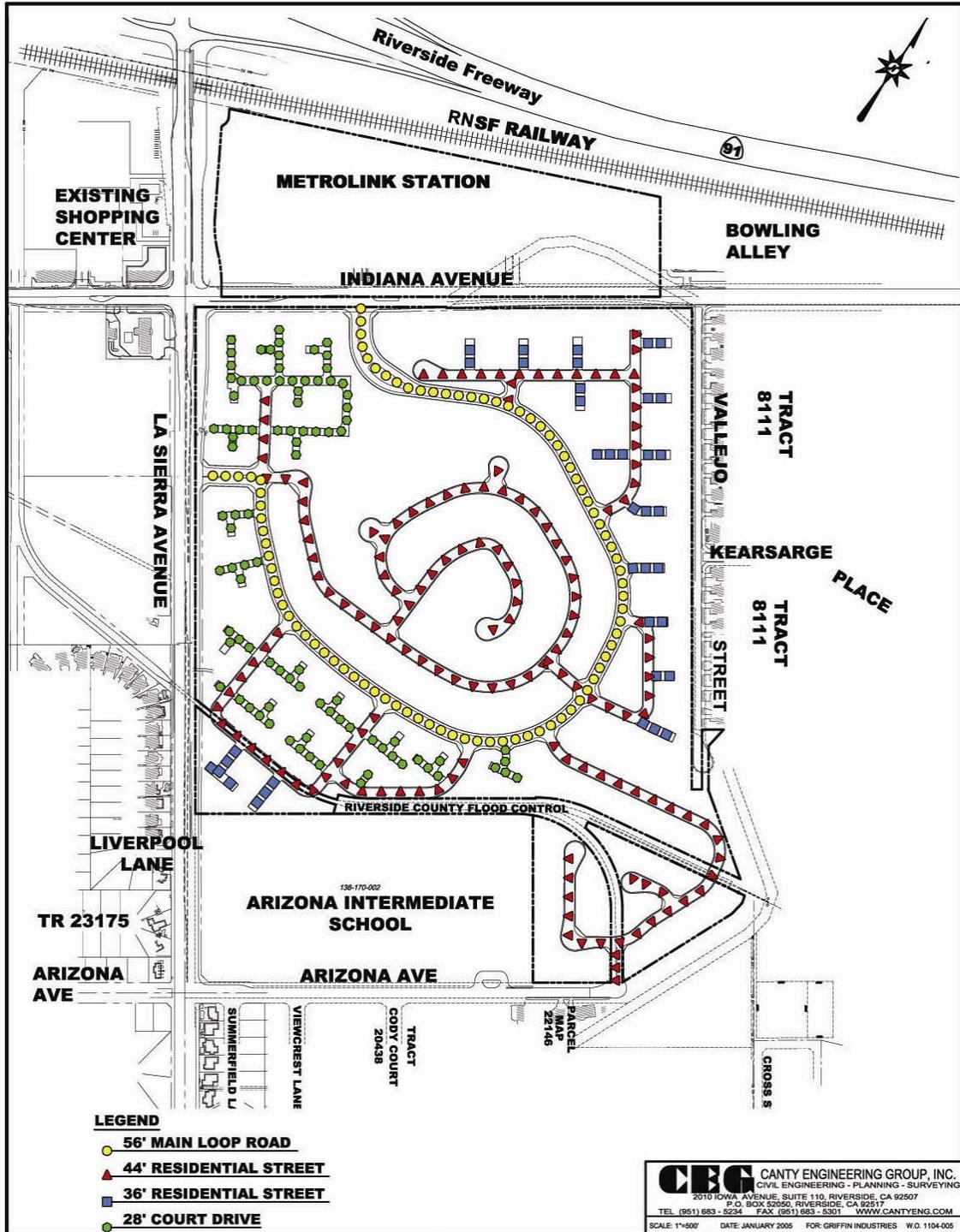


Exhibit 19, "Interior Street System"
Section 4. Infrastructure and Services

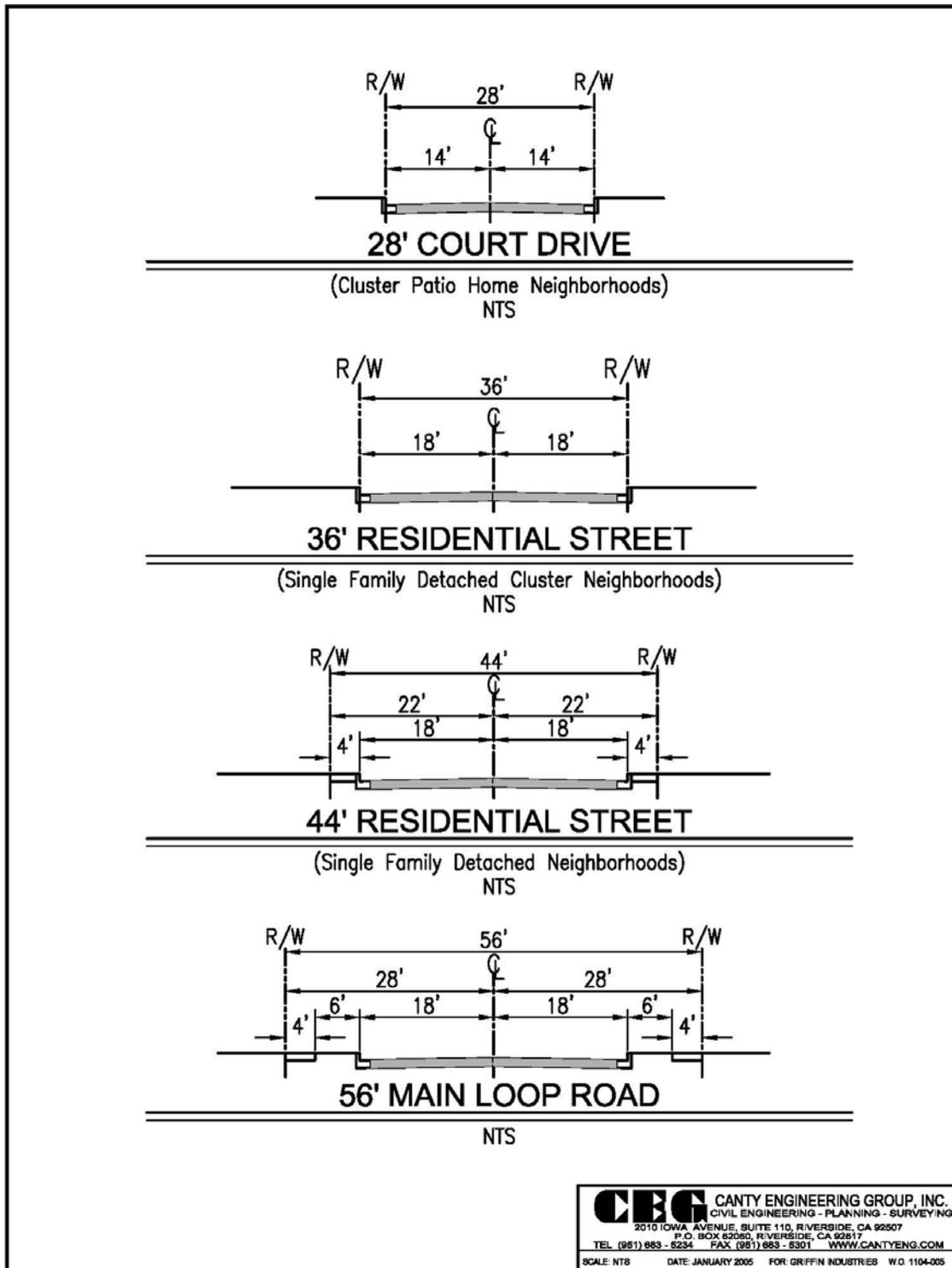


Exhibit 20, "Private Residential Streets"
Section 4. Infrastructure and Services



4.1.2 On Street Guest Parking

On street guest parking will be permitted within the private residential streets and court drives of Riverwalk Vista except that no parking will be permitted on the Main Loop Road. On street guest parking will be restricted as illustrated on Exhibit 21, "On Street Guest Parking".

4.13 Traffic Calming

Riverwalk Vista provides for traffic calming to slow traffic and reduce traffic noise on streets contributing to safe and livable neighborhoods in which to walk, bike, and drive.

Traffic calming will be designed to address the following:

- Reduction in traffic speeds.
- Reduction in traffic related noise.
- A safe and pedestrian friendly circulation system to encourage walking.
- Permit non-restricted access for emergency services vehicles such as police, fire, and ambulances.

Factors affecting traffic speeds are those that influence the driver's perception of the roadway such as:

- Type of adjacent development and distance of development from the roadway.
- Frequency of access points onto the roadway.
- Roadway alignment and curvature.
- Type and massing of landscaping adjacent to the roadway.
- Frequency of traffic control devices along the roadway.
- Narrowness of travel lanes.

The following traffic calming techniques will be implemented in the design of the roadways within Riverwalk Vista.



Local Street Design:

- The Main Loop Road within Riverwalk Vista will be heavily landscaped on each side within parkways to add interest in the street encouraging drivers to slow their travel speed and observe their surroundings.
- Speed humps will be installed in downhill conditions within both the Main Loop Road and Private Interior Residential Streets.

Landscaping:

Landscaping adjacent to streets within Riverwalk Vista will combine the use of shade trees, shrubs, and groundcover adjacent to sidewalks to create a more intimate streetscape encouraging drivers to slow down and observe their surroundings. The landscape concept for Riverwalk Vista is designed to contribute to a sense of the street system as a pedestrian protected area to promote slower traffic speeds.

4.1.4 Mass Transit

The Riverside Transit Agency (RTA) provides public transit services for the Project Site. Transit stops and bus shelters will be installed by the applicant along the major arterial streets adjacent to Riverwalk Vista as required by the RTA.

The existing Metrolink Station located north of Indiana Avenue will remain as part of the development of the Project Site. Transit service provided by Metrolink will continue.

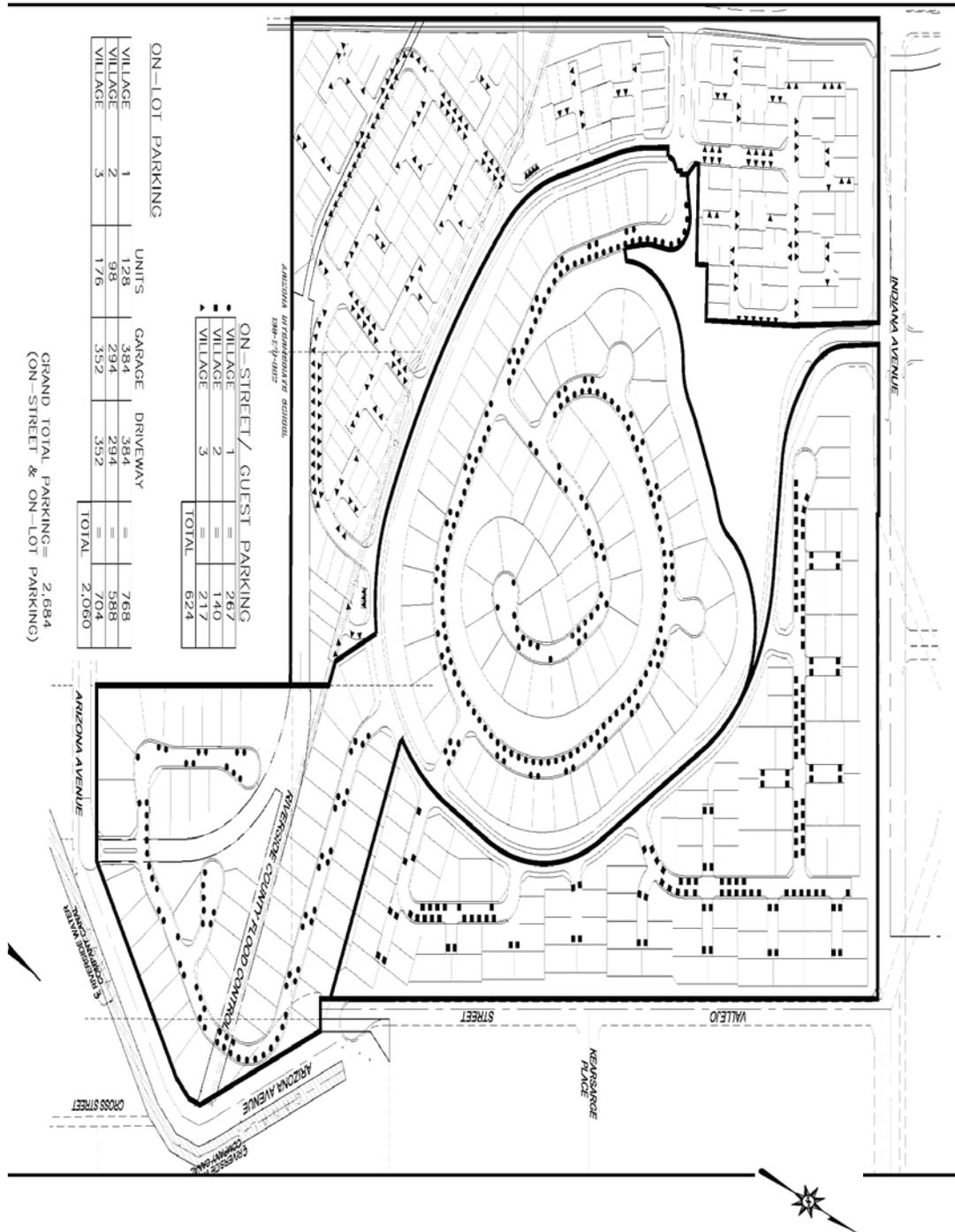


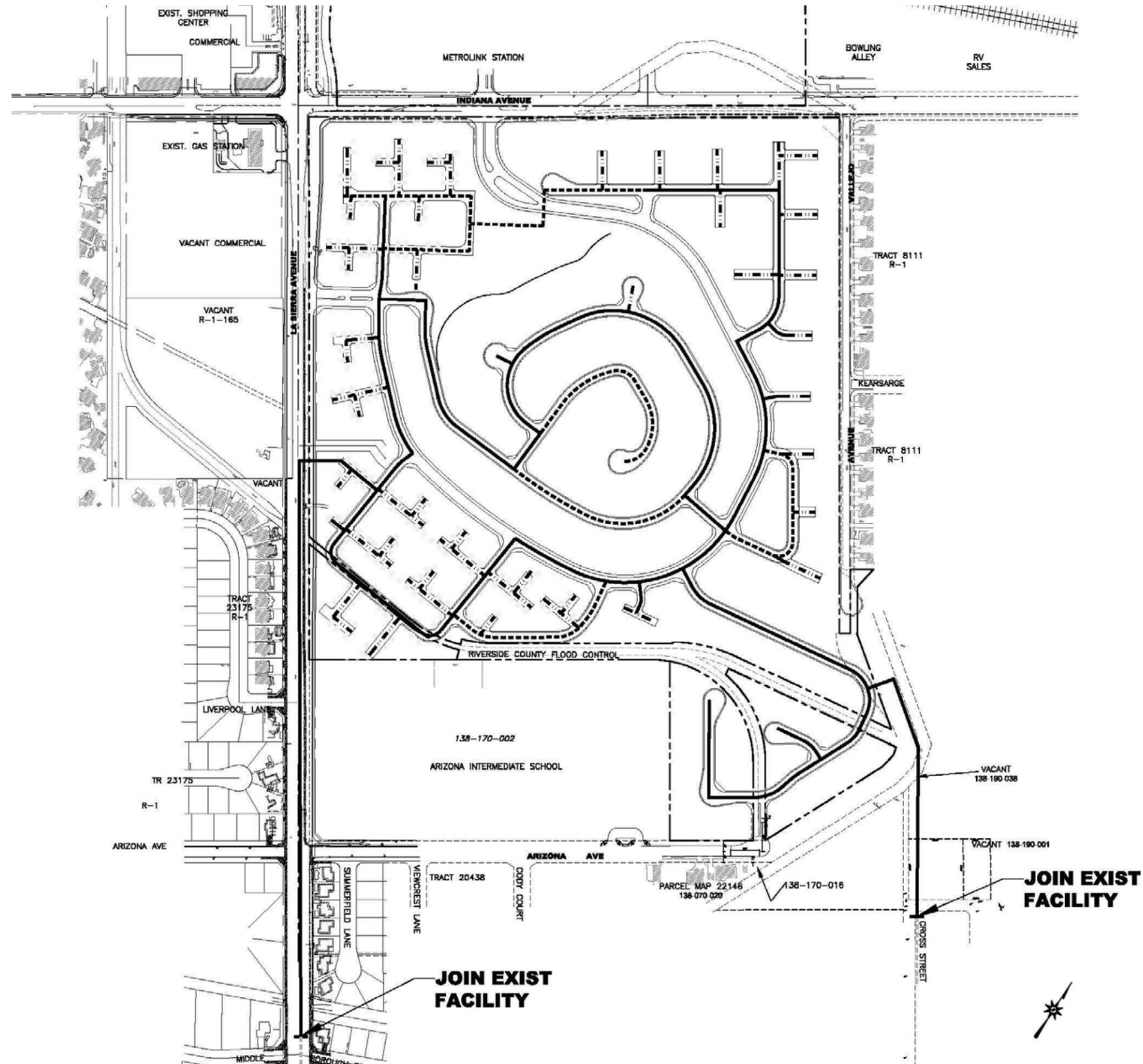
Exhibit 21, "On Street Guest Parking"
Section 4. Infrastructure and Services



4.2 WATER MASTER PLAN

Domestic water for Riverwalk Vista will be provided by the City of Riverside. New water system improvements will be constructed as part of development. The new water system for Planning Area 2 will require connection to the City of Riverside 1100 pressure zone piping in La Sierra Avenue near the intersection of La Sierra Avenue and Middleborough Road to adequately service the Project Site. Extending the 1100 pressure zone to the Project Site will require approximately 2,200 linear feet of off-site water improvements in La Sierra Avenue and approximately 900 linear feet of off-site water improvements from Cross Street. This water system will be a looped system interconnected on-site. Within the Project Site new 8-inch water mains will be developed within the local street system.

The water master plan for Riverwalk Vista is illustrated on Exhibit 22 " Water Improvement Master Plan".



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Exhibit 22, "Water Master Plan"
Section 4. Infrastructure and Services



4.3 SEWER MASTER PLAN

Sewer service for Riverwalk Vista will be provided by the City of Riverside. Development of Planning Area 2 will require two connection points to adequately service the Project Site as follows.

- a. The northerly approximately 64.5 acres of Riverwalk Vista will require an off-site connection to an existing 10 inch sewer main located behind the existing shopping center at the northwest corner of La Sierra Avenue and Indiana Avenue. The new sewer system must be bored easterly below La Sierra Avenue to Planning Area 1 and proceed southerly along La Sierra Avenue for approximately 750 linear feet to Indiana Avenue where the system will then extend approximately 650 linear feet in an easterly direction to reach the Project Site.
- b. The southerly approximately 29 acres of Riverwalk Vista will be served by a connection to an existing sewer main in La Sierra Avenue.

Onsite sewer will be provided by an 8-inch sewer system within the local street system.

The Sewer Master Plan for Riverwalk Vista is illustrated on Exhibit 23, "Sewer Improvement Master Plan".

4.4 DRAINAGE

The City of Riverside requires that 10-year peak flows be contained within the street curb section. When this criteria is exceeded, a pipe must be installed to convey 10 year flows downstream with the 100 year flow being contained within the street right of way until flows can be discharged of properly. In sump condition situations, catch basin openings shall be sized for a 50- year storm.

The Project Site has been divided into three drainage tributaries. These areas substantially follow the existing site topography and drainage patterns. A system of inlets and collector pipes for each tributary will be implemented to convey anticipated storm flows to both existing and proposed drainage facilities. Additionally, the project may provide filtered catch basins on-site to improve water quality.

Exhibit 22, "Water Master Plan"
Section 4. Infrastructure and Services

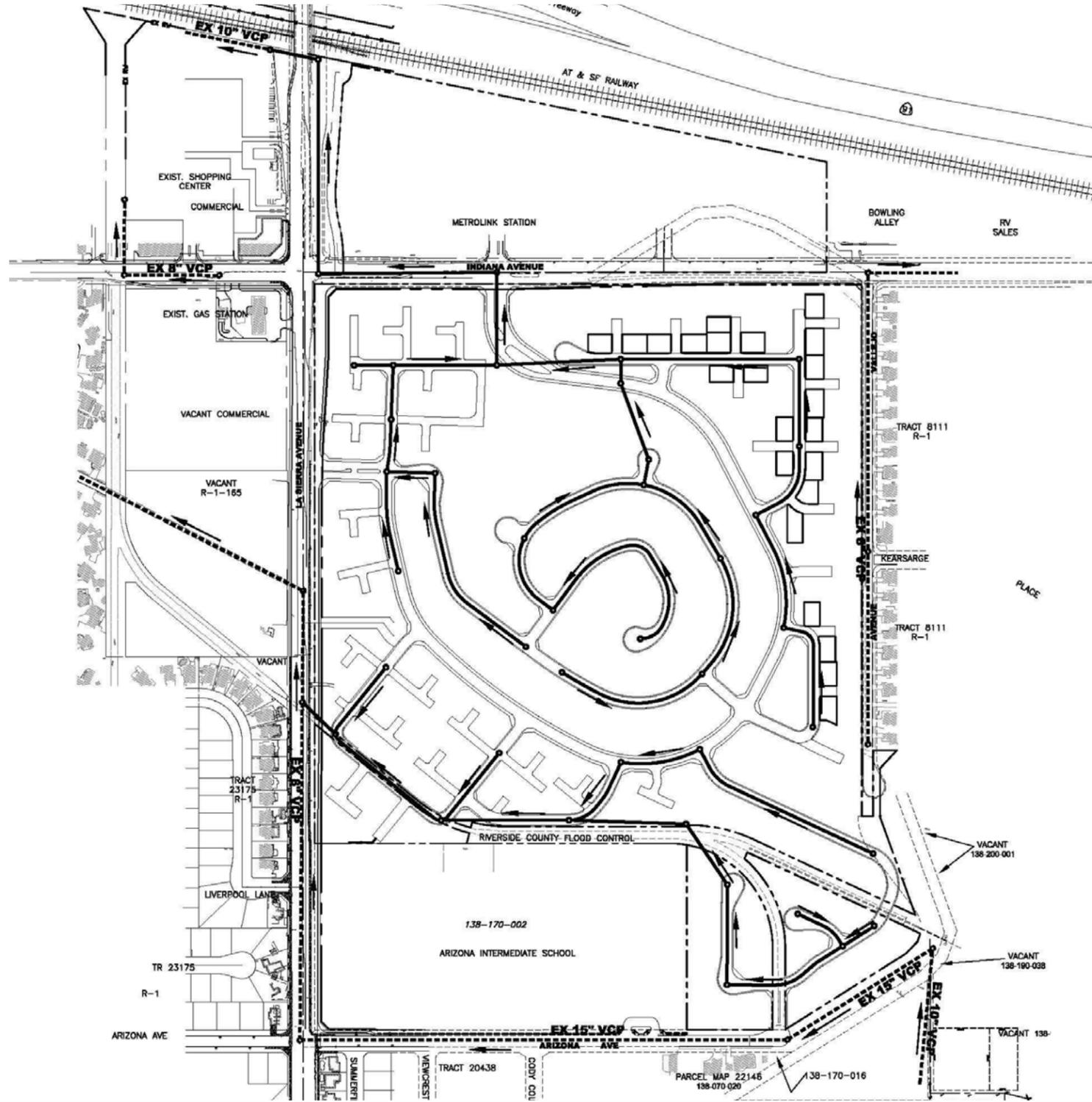


Tributary "A" - Drainage generated from tributary "A" will be intercepted and conveyed to Arlington Channel via a new proposed public storm drain system. This system will connect to the Arlington Channel, be bored under the BNSF Railway, extend south along La Sierra Avenue to Indiana Avenue, and then extend easterly approximately 570 linear feet into the entrance Riverwalk Vista.

Tributary "B"- The existing 30 inch pipeline within Planning Area 1 is limited in the amount of flow draining from the Riverwalk Vista project. All drainage from Riverwalk Vista will drain into an existing sump in Indiana Avenue and to Tributary A.

Tributary "C"- All drainage within this tributary will be directed to the existing RCFCD Arizona Channel via proposed project storm drains.

The Drainage Master Plan for Riverwalk Vista is illustrated in Exhibit 24, "Storm Drain Improvement Master Plan".



LEGEND

- PROPOSED 8" SEWER LINE**
- EXISTING SEWER LINE**



Exhibit 23, "Sewer Master Plan"
Section 4. Infrastructure and Services

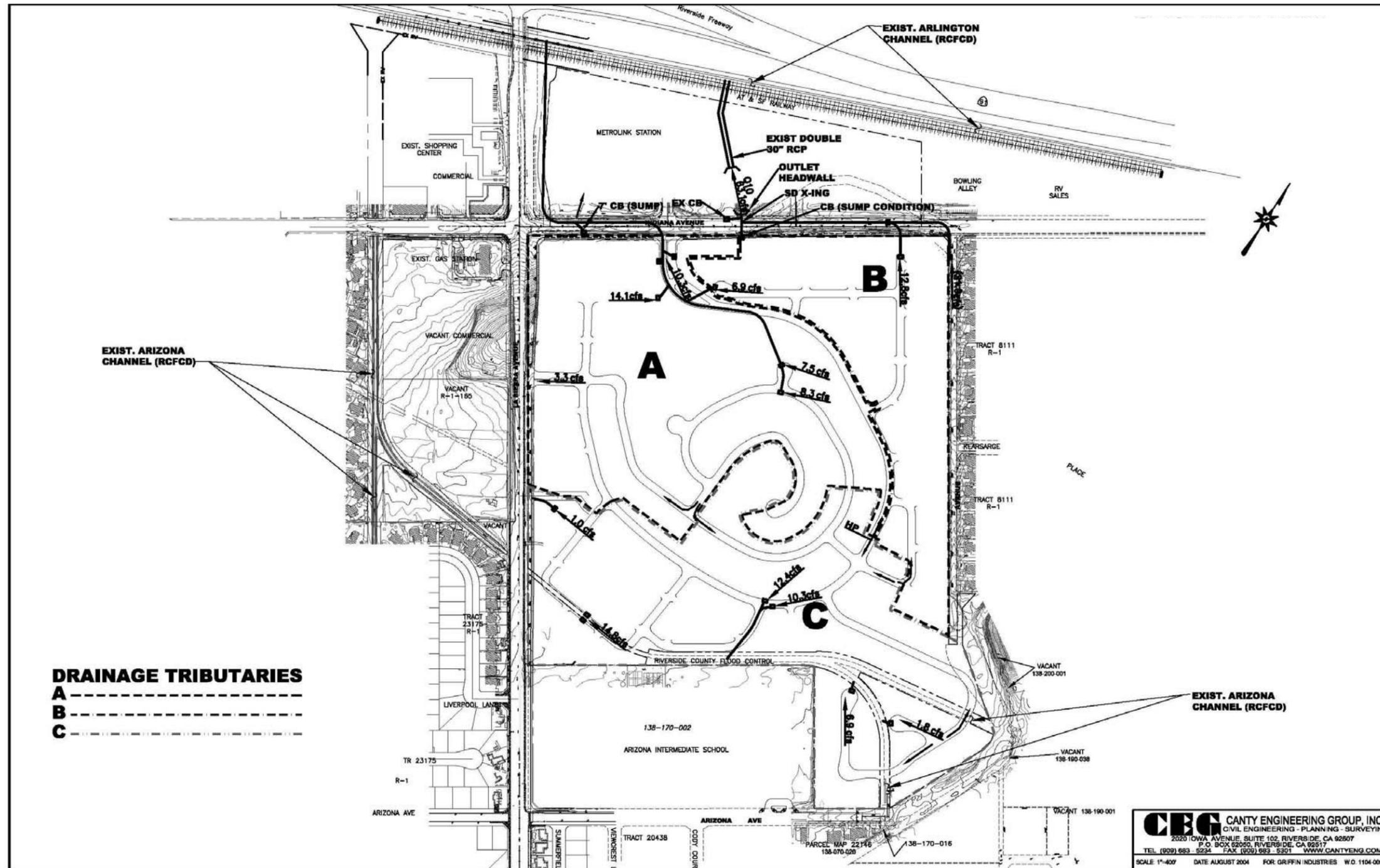


Exhibit 24, "Storm Drain Master Plan"
Section 4. Infrastructure and Services



4.5 SCHOOLS

The Alvord Unified School District is the school district serving the K-12 school needs of Riverwalk Vista. The 2004 Alvord School District Facilities Plan provides for expansion of school facilities through the year 2014. The facilities planned by the Alvord School District will provide for the school needs of the Riverwalk Vista Specific Plan. School facilities to be available for Riverwalk Vista include the Orrenmaa Elementary School, the Arizona Intermediate School, and the La Sierra High School. The developer of Riverwalk Vista will be required to pay school fees as required by the Alvord School District and the State of California for these school facilities.

4.6 PUBLIC UTILITIES

4.6.1 Telephone

SBC will provide telephone service to Riverwalk Vista. Existing telephone service is in place in all four streets surrounding the Project Site. Proposed on-site facilities will be placed underground.

4.6.2 Natural Gas

The Gas Company will provide natural gas to Riverwalk Vista. Existing gas service is in place in all four streets surrounding the Project Site. Gas mains will be installed to the project site by the Gas Company as necessary.

4.6.3 Electricity

The City of Riverside Public Utilities Department will provide electricity to Riverwalk Vista from existing facilities in the vicinity of Riverwalk Vista. Existing electric service is in place at all four streets surrounding the Project Site. Proposed new facilities to serve the project will be owned and operated by the City of Riverside Public Utilities Department and located underground.

4.6.4 Technology Wiring

Residential units within Riverwalk Vista will be installed with the most current technology for Internet access allowing residents to work and shop from home.



4.6.5 *Solid Waste*

The City of Riverside provides solid waste collection services for the City through a contract with a private company which will also service the Project Site.

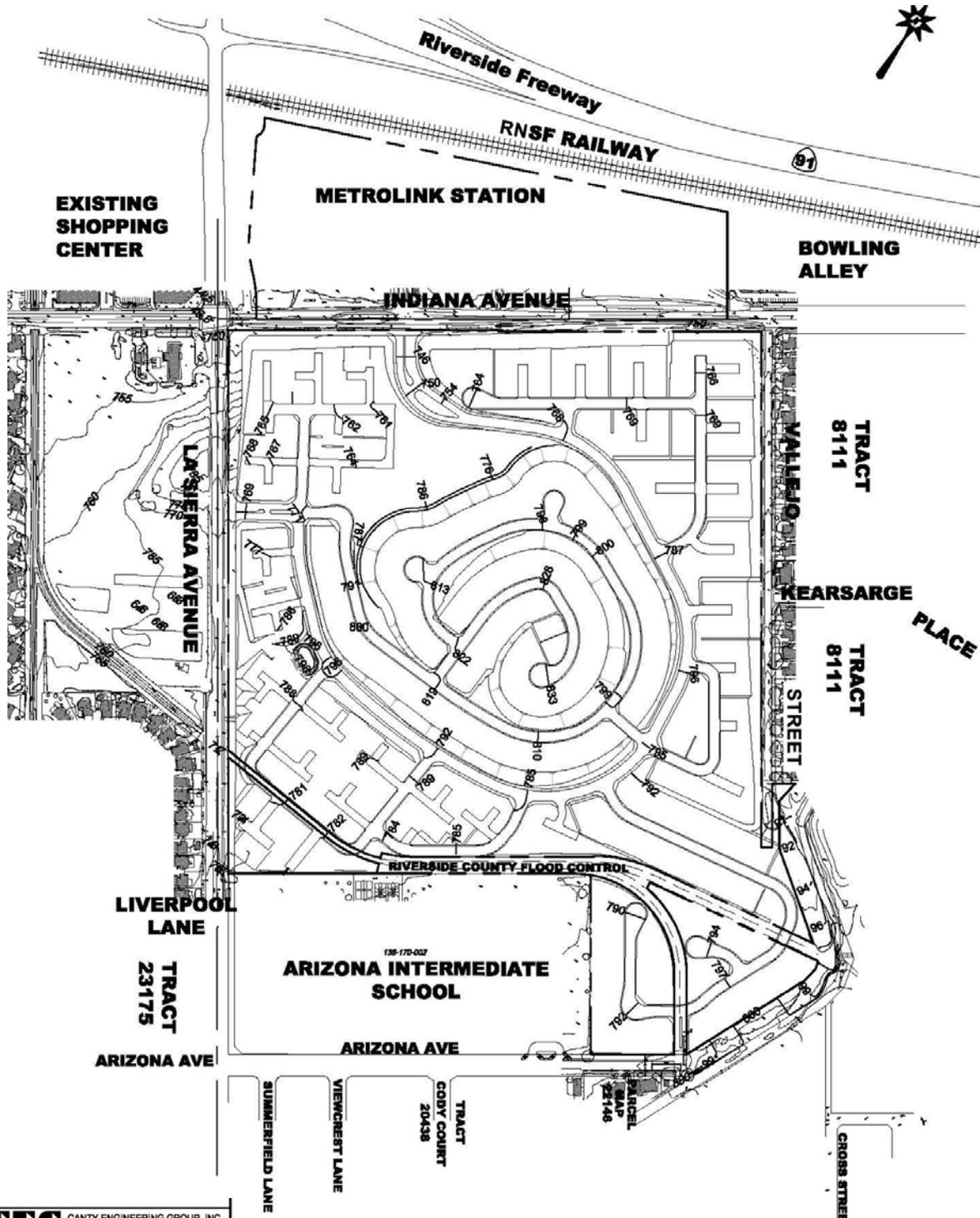
4.7 GRADING CONCEPT

The grading operation for Riverwalk Vista will generally consist of clearing and grubbing, demolition of any existing structures, and moving of surface soils to construct building pads and streets. Grading within Riverwalk Vista will be conducted pursuant to the development regulations included in Section 5, "Development Regulations" of the Riverwalk Vista Specific Plan and will provide for a balance of cut/fills for the site.

Grading plans for Riverwalk Vista will be reviewed and approved by the City of Riverside Building, Planning, and Engineering Departments prior to the issuance of grading permits. All grading plans and activities will conform to applicable rules and regulations.

The conceptual grading plan for Riverwalk Vista is illustrated in Exhibit 25, "Conceptual Grading Plan". A comparison of the grading proposed for Riverwalk Vista with the grading concept previously approved for the La Sierra Specific Plan is illustrated in Exhibits 26 and 27, "Comparative Grading Sections".

RIVERWALK VISTA
Griffin Industries
Specific Plan



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Exhibit 25, "Conceptual Grading Plan"
Section 4. Infrastructure and Services

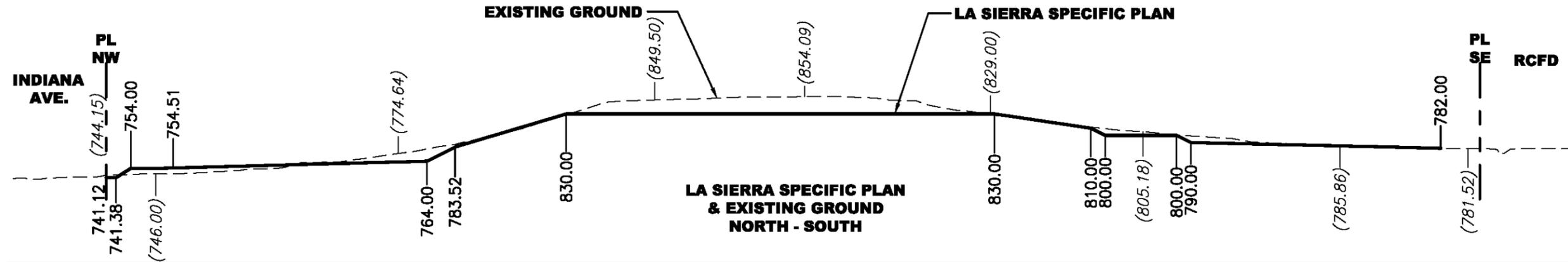
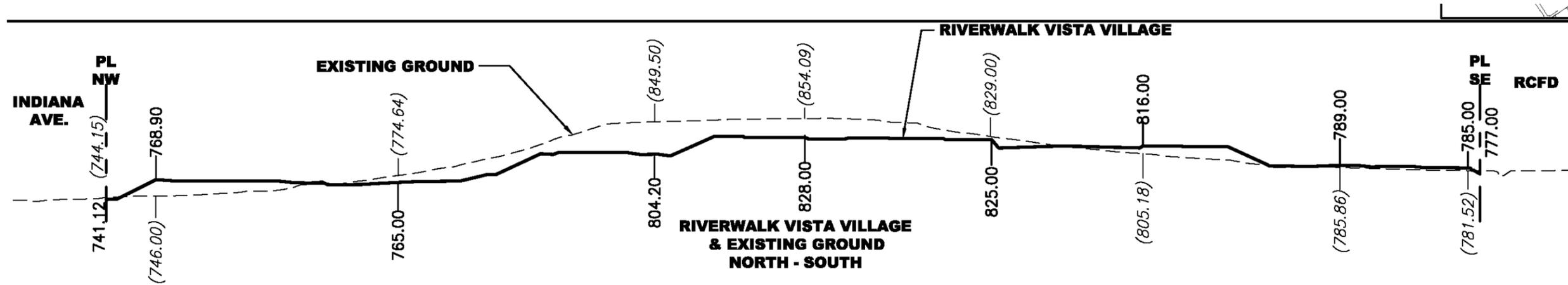


Exhibit 26, "Comparative Grading Sections"
Section 4. Infrastructure and Services

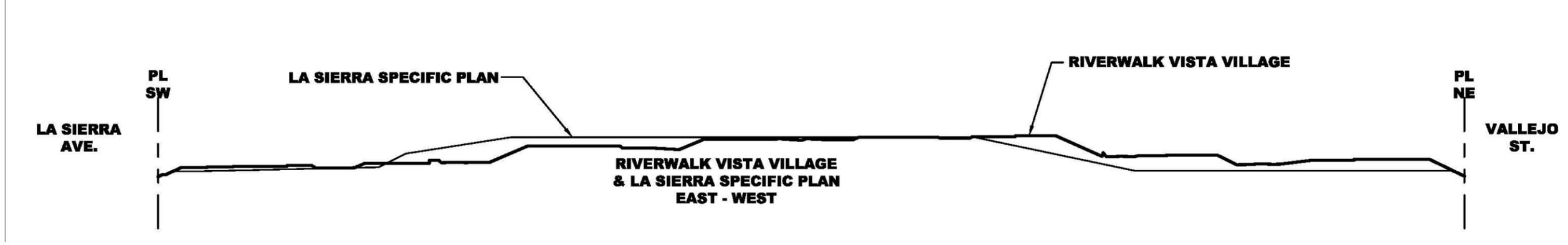
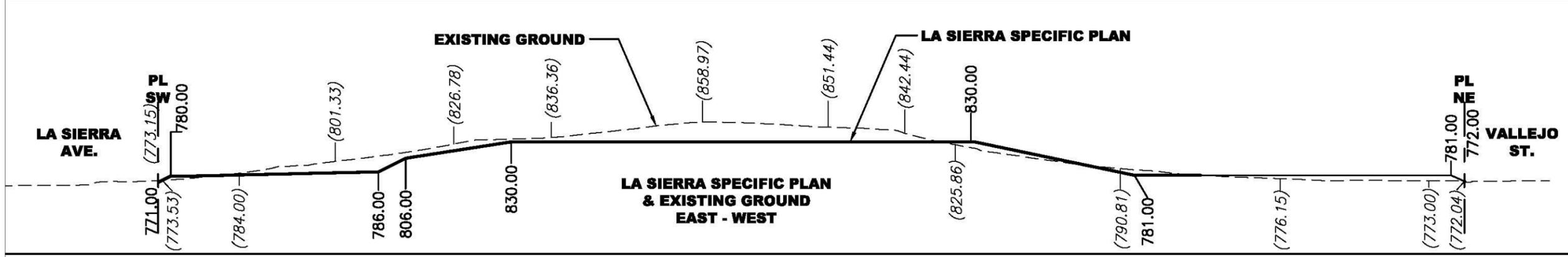
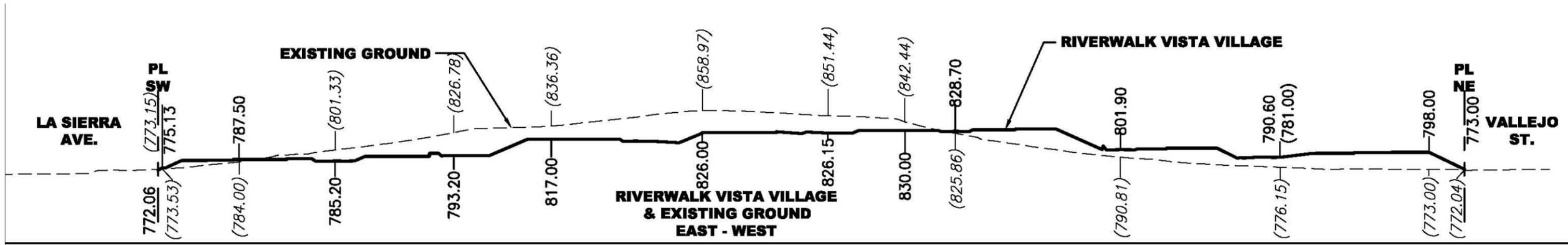
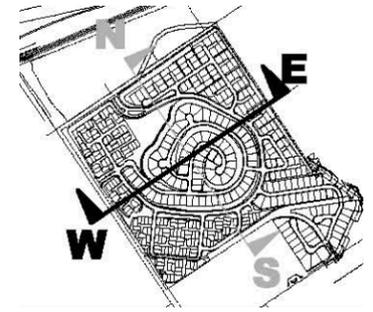


Exhibit 27, "Comparative Grading Sections"
Section 4. Infrastructure and Services