



REPORT TO COUNCIL

City of Sacramento

915 I Street, Sacramento, CA 95814-2604
www.CityofSacramento.org

Public Hearing
September 5, 2006

**Honorable Mayor and
Members of the City Council**

Title: R Street Corridor Urban Design Amendments

Location/Council District: The R Street Corridor (Plan) encompasses the blocks bounded by Q Street on the north, S Street on the south, I-5 on the west, and 29th Street on the east. Located in Council Districts 1, 4, and 6.

Recommendation: Adopt: 1) a **Resolution** adopting the Mitigated Negative Declaration and the Mitigation Monitoring Plan for the R Street Urban Design Guidelines; 2) a **Resolution** amending the Central City Community Plan with regard to street cross sections and pedestrian circulation between 9th and 19th Streets; 3) a **Resolution** amending the Central City Neighborhood Design Guidelines with new guidelines for 9th to 19th Streets. Receive and File 1) the R Street Urban Design and Development Plan; 2) the R Street Corridor – Estimates and Phasing Study.

Contact: Tara B. Goddard, Assistant Planner, 808-8332; Fedolia "Sparky" Harris, Senior Planner, 808-2996; Dana Allen, Senior Environmental Planner, 808-2762

Presenters: Tara B. Goddard; Todd Leon, Capitol Area Development Authority (CADA) R Street Development Manager

Department: Planning

Division: Long Range Planning

Organization No: 4912

Description/Analysis

Issue: The R Street Corridor was initially built as a heavy commercial and warehouse district. The railroads played a significant role in the development of R Street, and the historic track and spurs remain in much of the Corridor. The current R Street Corridor Plan, adopted in 1996, allows for context-sensitive intensive development. However, market conditions and development assumptions have changed since the original plan was adopted and require amendments to the relevant Central City Plans to better facilitate development of

the corridor. Challenges in the Corridor include:

- Infrastructure/financing Issues, including the need for: Combined Sewer & Storm Water (CSS) drainage system upgrades, water system for fire protection upgrades; and roadway improvements
- Brownfield remediation needs
- Lack of traditional park opportunities and inconsistency with current park policies
- Limited parking availability and inconsistency with current parking standards
- Challenges with street trees
- Historic structures/rail limitations
- Lack of marketing
- Lack of direction on urban design

Policy Considerations: The R Street Urban Design and Development Plan (aka the R Street Urban Design Guidelines) and the related amendments are consistent with several of the Smart Growth policies of the General Plan including: providing a mix of uses and transportation choices, providing a mix of housing opportunities, promoting development of an urbanized area, creating walkable and bikeable development, providing opportunities for public input in the decision making process, and taking advantage of existing assets.

Committee/Commission Action: On July 19, 2006, the Design Review/Preservation Board recommended that City Council approve the R Street documents as outlined in the Recommendation section. On July 27, 2006, the City Planning Commission recommended that City Council approve the R Street documents as outlined in the Recommendation section.

Environmental Considerations: Mitigated Negative Declaration. A Notice of Availability for public review and comment on the Mitigated Negative Declaration was published in a local paper on June 22, 2006, and circulated through the State Clearinghouse. The 20-day comment period closed on July 12, 2006. Written comments and the City's responses are included in the attached Appendixes. The City's Environmental Services Section recommends that the City Council adopt the proposed Mitigated Negative Declaration and the Mitigation Monitoring Plan.

Rationale for Recommendation: The Capitol Area Development Authority (CADA) has developed an urban design concept that provides a comprehensive set of design guidelines, streetscape design recommendations, infrastructure standards, financing strategies, and implementation steps to realize the vision for a portion of the 1996 R Street Corridor Plan. The Urban Design and

Development Plan and its related amendments address future infrastructure improvements in the CADA portion of the R Street Corridor, located between 9th and 19th Street.

Financial Considerations: None.

Emerging Small Business Development (ESBD): No goods or services are being purchased under this Plan.

Respectfully Submitted by:


Steve Peterson
Principal Planner, Long Range Planning

Approved by:


Carol Shearly
Director of Planning

Recommendation Approved:


Ray Kerridge
City Manager

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Attachment 1Background

Summary: The R Street Urban Design and Development Plan is a neighborhood design concept plan that provides a comprehensive set of design guidelines, streetscape design recommendations, infrastructure standards, financing strategies, and implementation steps to realize the vision of the 1996 R Street Corridor Plan. The Urban Design and Development Plan includes future improvements to Capitol Area Development Authority (CADA) portion of R Street between 9th and 19th Street.

Background Information: The R Street Urban Design and Development Plan was presented to the City Council on January 18, 2005. At that meeting, the following relevant background information was shared:

The R Street Corridor Plan - In December of 1996, the City of Sacramento adopted the R Street Corridor Plan. The R Street Corridor Plan encompasses the 54 blocks bounded by Q Street on the north, S Street on the south, the I-5 freeway on the west, and 29th Street on the east. The land use vision transforms the R Street Corridor from a commercial, warehouse, and state office district into a mixed-use district of residential, office and neighborhood oriented commercial uses. The Plan promotes infill development, home ownership, and higher density housing opportunities to serve anticipated Central Business District employment growth over the next 20 years. The Special Planning District (SPD) for the R Street Corridor is the implementation zoning for the R Street Corridor Plan. The Central City Community Design Guidelines also provide the R Street Corridor with design standards that complement the corridor's industrial past and the surrounding neighborhoods.

Capitol Area Development Authority (CADA) – CADA, a joint powers authority of the City of Sacramento and the State of California, has been a partner and leader in expediting community-driven neighborhood improvements in the vicinity of the Capital Corridor Area. In 2003, CADA received state legislative authority to function as a redevelopment entity for the portion of the R Street Corridor between 9th and 19th Streets, Q and S Streets.

Consultant Selection and Work – In January 2004, CADA initiated an Urban Design and Development planning project by selecting a consultant team led by *Moore, Iacofano, Goltsman Inc.* to develop the Urban Design and Development process and Plan. During the past 2 ½ years the project team has worked closely with key stakeholders of the R Street Corridor, including property and business owners, residents, Regional Transit, the disabled community, and preservation groups.

Updated Background – Since the Urban Design and Development Plan was endorsed by the Design Review/Preservation Board, Planning Commission and City Council in late 2004 and early 2005, City staff, CADA staff, and the consultant team have

continued to expand and refine CADA's Plan. The team has also identified all the necessary amendments to implement the Urban Design and Development Plan, including amending the Central City Community Plan and the Central City Neighborhood Design Guidelines. In addition, amendments to the R Street Special Planning District are being prepared (M05-068) and are expected to be brought forward late this year or early next year.

After finalizing the Plan with the relevant departments, agencies, stakeholders, and other interested groups, staff is now bringing the Urban Design and Development Plan and related amendments forward for acceptance and adoption, as relevant.

Public/Neighborhood Outreach and Comments: A series of three community workshops were held in the late spring and early summer 2004 to understand the development design concept, alternatives, and strategies.

The three community workshops included participation from local residents, affected property owners, neighborhood and business groups, and local public agencies (including Regional Transit, CADA, Friends of Light Rail and Transit, and various City departments). Objectives for these meetings were:

- Meeting #1 (April 14, 2004): review of existing assets, opportunities, and challenges to revitalization; reconfirm the vision for the Corridor, discuss a preferred urban design direction for the project area.
- Meeting #2 (May 19, 2004): review of preliminary design guidelines for the Corridor.
- Meeting #3 (June 29, 2004): finalize the neighborhood concept plan and preferred urban design guidelines.

Attachment 2

RESOLUTION NO. 2006-

Adopted by the Sacramento City Council

ADOPTING THE MITIGATED NEGATIVE DECLARATION AND THE MITIGATION MONITORING PLAN FOR THE R STREET CORRIDOR URBAN DESIGN AMENDMENTS TO THE CENTRAL CITY COMMUNITY PLAN AND THE CENTRAL CITY NEIGHBORHOOD DESIGN GUIDELINES (M04-053)

BACKGROUND

A. The City of Sacramento's Environmental Planning Services conducted or caused to be conducted an initial study on the R Street Corridor Urban Design amendments to the Central City Community Plan and the Central City Neighborhood Design Guidelines (M04-053) ("Project") to determine if the Project may have a significant effect on the environment.

B. The initial study identified potentially significant effects of the Project. Revisions were made to the Project before the proposed Mitigated Negative Declaration and Initial Study were released for public review which were determined by the City's Environmental Planning Services to avoid or reduce the potentially significant effects to a less than significant level, and, therefore, there was no substantial evidence that the Project as revised and conditioned would have a significant effect on the environment. A Mitigated Negative Declaration (MND) for the Project was then completed, noticed and circulated in accordance with the requirements of the California Environmental Quality Act (CEQA), the State CEQA Guidelines and the Sacramento Local Environmental Procedures as follows:

1. On June 21, 2006 a Notice of Intent (NOI) to Adopt the MND dated June 22, 2006 was circulated for public comments for 20 days. The NOI was sent to those public agencies that have jurisdiction by law with respect to the proposed project and to other interested parties and agencies, including property owners within 500 feet of the boundaries of the proposed project. The comments of such persons and agencies were sought.

2. On June 22, 2006 the project site was posted with the NOI, the NOI was published in the Daily Recorder, a newspaper of general circulation, and the NOI was posted in the office of the Sacramento County Clerk.

C. The City Council has reviewed and considered the information contained in the MND, including the initial study, the revisions and conditions incorporated into the Project, and the comments received during the public review process and the hearing on the Project. The City Council has determined that the MND constitutes an adequate, accurate, objective and complete review of the environmental effects of the proposed project.

D. Based on its review of the MND and on the basis of the whole record, the City Council finds that the MND reflects the City Council's independent judgment and analysis and that there is no substantial evidence that the Project will have a significant effect on the environment.

E. Pursuant to CEQA Guidelines section 15091(e), the documents and other materials that constitute the record of proceedings upon which the City Council has based its decision are located in and may be obtained from the Office of the City Clerk at 915 I Street, Sacramento, California. The City Clerk is the custodian of records for all matters before the City Council.

BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:

Section 1. The City Council adopts the MND for the Project.

Section 2. Pursuant to CEQA Guidelines Section 15074, and in support of its approval of the Project, the City Council adopts the Mitigation Monitoring Plan attached as Exhibit A to require all reasonably feasible mitigation measures be implemented.

Section 3. Upon approval of the Project, the City's Environmental Planning Services shall file or cause to be filed a Notice of Determination with the Sacramento County Clerk and, if the project requires a discretionary approval from any state agency, with the State Office of Planning and Research, pursuant to section 21152(a) of the Public Resources Code and section 15075 of the State EIR Guidelines adopted pursuant thereto.

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Exhibit A. Mitigation Monitoring Plan

Exhibit A**Mitigation Monitoring Program****R Street Urban Design Guidelines and Related Actions**

The Mitigation Monitoring Program includes:

- A list of mitigation measures with a space for the monitoring progress and completion dates,
- The full text of the mitigation measures, and
- Monitoring details, including:
 - a. Agency responsible for implementation,
 - b. Timing, and
 - c. Standards of success

MITIGATION MEASURE #1: Parking.

At the design phase of implementation of new street improvements along R Street between 9th and 19th Streets, a block by block parking evaluation shall be undertaken to ensure that the loss of designated parking spaces is minimized and to ensure continued access to any loading docks, loading areas or driveways essential to existing businesses.

Party Responsible

For Mitigation: City of Sacramento Department of Transportation for public street improvements, and private development sponsors for frontage improvements.

Monitoring Agency: City of Sacramento Environmental Planning Services

Timing Process: As part of the design phase for each phase of street improvements, and as part of the preliminary and final design plan check.

Standards of Success: This mitigation measure will be deemed successful when new on-street parking which meets City standards has been installed and the loss of existing casual parking spaces and loading area access has been minimized.

Monitoring Notes and

Dates:

MITIGATION MEASURE #2: Tree Resources

1. At the design phase of street improvement projects for the area between 9th and 19th of the R Street area, the City of Sacramento Arborist shall be consulted regarding the dimension of tree planters for street segments which include tree plantings. Adequate light and growing space shall be provided for designated areas planned for planting in the Urban Design Guidelines.
2. In addition, prior to and during construction of any street improvement project, the City, CADA or development sponsor shall comply with all permitting and mitigation requirements as specified by the City's Urban Forest Division, Department of Parks and Recreation to protect existing public trees. These requirements are designed to reduce and mitigate impacts to the urban forest.

Party Responsible

For Mitigation: City of Sacramento Department of Transportation for public street improvements, and private development sponsors for frontage improvements and building improvements.

Monitoring Agency: City of Sacramento Environmental Planning Services and City Urban Forest Division

Timing Process: As part of the design phase for each phase of street improvements, and private frontage improvement projects, the City Arborist shall be consulted the preliminary and final design plan check.

Standards of Success: This mitigation measure will be deemed successful when final street designs are completed showing planting spaces with adequate space and light for tree survival.

Monitoring Notes and

Dates:

MITIGATION MEASURE #3: Impacts to Historically Important Streetscape Elements (revised August 10, 2006).

1. During the design phase for the implementation of any streetscape improvements in the roadbed of the R Street Corridor between 9th and 19th Streets, the City of Sacramento shall consider whether it is feasible to preserve the rail tracks and related historic features (cobblestones, spurs or related rail elements) in place during construction or if the tracks and related features will need to be temporarily removed and re-installed during construction.
2. In the event it is determined during the design phase that it is not technically feasible to retain the central line of the rail or spurs in place during the construction, the project sponsor shall consult with the City's Preservation Director to make a preliminary determination regarding the eligibility of the contributing features to be removed, pending any required additional cultural research for the streetscape project as described in Section 3 of this Mitigation Measure (below).
3. Prior to construction of any streetscape improvements in the roadbed of the R Street Corridor between 9th and 19th Street, the City shall require a field study by a qualified historian to record and document in both document and photo media any exposed elements of the railroad line and any features to be removed or disturbed by the project. Documentation shall follow to the extent applicable the procedures outlined for a HABS report, State Department of Parks and Recreation 523 form or equivalent.
4. During construction or excavation of the street bed in the R Street Corridor, a qualified historian or archeologist shall be present to monitor and identify any subsurface resources unearthed. Works shall stop for recovery of significant resources and such resources shall be catalogued and stored in accordance with Section 3 of this Mitigation Measure (above).
5. Final post-construction treatment of identified historic resources shall be reviewed and confirmed with the City Preservation Director, and a post-project completion City maintenance program for the improved segment of R Street shall ensure the continued protection of historic resources in the right-of-way (i.e. avoid paving or resurfacing over any exposed resources or other maintenance activities that would damage or alter the historic integrity of the resources).

Party Responsible

For Mitigation: City of Sacramento Department of Transportation for public street improvements, and private development sponsors for frontage improvements.

Monitoring Agency: City of Sacramento Environmental Planning Services and the City Preservation Director.

Timing Process: The City Preservation Director shall be review all preliminary designs, plans and methods of construction and shall consult during the design phase of street and frontage improvements as to the best methods for preservation of historic railroad artifacts including rail tracks and spurs. The Preservation Director shall also consult with the engineer responsible for street improvement projects regarding the selection of a qualified archeologist and historic resources assess and monitor for construction phases of the project. The City Preservation Director shall also be notified when work is completed to conduct a post-construction inspection of the project and the treatment of historic features.

Standards of Success: This mitigation measure will be deemed successful when street improvement projects have been successfully completed with minimal disruption and or adequate restoration of historic railroad features.

Monitoring Notes and

Dates:

MITIGATION MEASURE #4: Impacts to Subsurface Historic or Cultural Features

1. In the event cultural materials or potential cultural materials are encountered during excavation activities, work shall cease within 100 feet of the feature discovered until consultation with qualified archaeologist and Native American Heritage Commission (NAHC) representative. If necessary, further mitigation measures may be developed and implemented by the qualified archaeologist and NAHC representative.
2. Immediate cessation of work within the vicinity of finding human bone of unknown origin and immediate contact of County Coroner; the Coroner will notify the NAHC if the remains are determined to be Native American and NAHC will notify the person it believes to be the most likely descendant who will work with the contractor to develop a program for re-interment of the human remains and any associated artifacts. No additional work is to take place in the immediate vicinity of the find until the appropriate actions have been carried out.
3. If human burials are encountered, all work in the area shall stop immediately and the County Coroner's office shall be notified immediately. If the remains are determined to be Native American in origin, both the Native American Heritage Commission and any identified descendants must be notified and recommendations for treatment solicited (CEQA Section 15064.5); Health and Safety Code Section 7050.5; Public Resources Code Section 5097.94 and 5097.98. The NAHC will notify the person it believes to be the most likely descendant who will work with the contractor to develop a program for re-interment of the human remains and any associated artifacts. No additional work is to take place in the immediate vicinity of the find until the appropriate actions have been carried out.

Party Responsible

For Mitigation: City of Sacramento Department of Transportation for public street improvements, and private development sponsors for frontage improvements.

Monitoring Agency: City of Sacramento Environmental Planning Services and the City Preservation Director.

Timing Process: All construction documents for work involving excavation shall include the above language or similar language to require the contractor to comply with the mitigation language above.

Standards of Success: This mitigation measure will be deemed successful when street improvement projects have been successfully completed with minimal disruption of and proper handling of any significant cultural resources.

Monitoring Notes and

Dates:

Attachment 3

RESOLUTION NO.

Adopted by the Sacramento City Council

AMENDING THE R STREET CORRIDOR SECTION OF THE CENTRAL CITY COMMUNITY PLAN RELATING TO STREETSCAPE SECTIONS AND PEDESTRIAN CIRCULATION BETWEEN 9TH AND 19TH STREETS (M04-053)

BACKGROUND

- A. On December 10, 1996, the City Council of Sacramento adopted the R Street Corridor Plan as Chapter X of the Central City Community Plan. The R Street Corridor Plan envisioned the transformation of the R Street Corridor from a commercial, warehouse, and state office district into a mixed-use district of residential, office, and neighborhood oriented commercial uses. Additionally, the R Street Corridor Plan contains diagrams and text governing the development of the public right of way..
- B. Capitol Area Development Authority (CADA) has prepared Urban Design Guidelines and new streetscape sections for CADA's R Street Project Area, which includes the areas of R Street from 9th through 19th Streets. The new streetscape sections from 9th through 19th Street incorporate the historic, industrial character of the area; and were developed through a series of public workshops in 2004.
- C. The City Council reviewed the CADA Urban Design Guidelines and Streetscape Sections on January 18, 2005. City staff was directed to return to Council with the necessary amendments to incorporate CADA's urban design plan into various planning documents for Council consideration.

BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:

- Section 1. The City Council approves text and policy amendments to the Streetscape and Circulation Sections of Chapter X of the Central City Community Plan as shown in Exhibit A.
- Section 2. The City Council approves the amended and new R Street Cross Sections as shown in Exhibit B.

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Exhibit A: Central City Community Plan Text Amendments

Exhibit B: Central City Community Plan Amended R Street Cross Sections

Exhibit A

The City of Sacramento's Central City Community Plan, Chapter X: R STREET CORRIDOR, Section F, Page 93 shall read as follows:

F. CIRCULATION

The Circulation Plan for the R Street Corridor includes vehicular and pedestrian improvements designed to enhance the area as a residential mixed use neighborhood. The Circulation Plan complements land use policies and links neighborhoods with public amenities and the existing light rail stations. The Circulation Plan (Map 2) identifies the location of existing bike lanes, light rail stations and the proposed southern light rail extension and the intersections proposed for pedestrian enhancements. The proposed R Street cross sections are depicted in Figures 1 and 2.

Map 2 identifies several locations for "pedestrian enhanced intersections". These enhancements could include, but are not limited to, pedestrian controlled signals, enhanced lighting, sidewalk bulbing, and alternative paving materials at crosswalks. Of particular importance are the intersections at 15th and Q, 16th and Q, 15th and R, 16th and R, 29th and Q, and 29th and R. These are locations at which a major, high traffic street separates existing and proposed moderate to high intensity commercial and residential development from existing light rail stations. Pedestrian friendly crossings are important at these locations to facilitate the linkage between the developments and the stations, thereby maximizing the transit ridership potential generated by the development.

1. Vehicular Circulation

GOAL 10. DESIGN R STREET AS A LOCAL, PEDESTRIAN SCALE STREET

Policies

- 10.1 Retain the local street classification for R Street as a two-lane, two-way street. Facilitate pedestrian, bicycle and vehicular forms of circulation. Retain stop signs, as warranted, to reduce traffic volumes and slow the speed of traffic.
- 10.2 Limit vehicle access from R Street and encourage parking access from the alleys to reduce the amount of street frontage devoted to the automobile and to minimize traffic on R Street.
- 10.3 Improve portions of R Street which are currently substandard, and design streets to reflect a pedestrian scale.

2. Transit/Bus Service

The R Street Corridor is adequately served by four existing light rail stations: The 13th Street and 16th Street Stations, one half-block north of R Street, and the 23rd Street and 29th Street Stations, on R Street. Bus routes currently link the Corridor to Downtown Sacramento and the Downtown light rail stations.

The proposed Union Pacific Railroad/Sacramento City College alignment will begin in the R Street Corridor by branching off the existing Folsom line light rail train (LRT) tracks on the alley north of R Street.

The southbound LRT extension will establish the 16th Street Light Rail Station as a primary transfer point for LRT patrons traveling to and from South Sacramento, East Sacramento, North Sacramento, and the Central City area. The increased activity at this station heightens the importance of transit/land use coordination with Regional Transit (RT). It also increases the importance of encouraging mixed-use development of sufficient commercial intensity and residential density to increase and maximize the potential transit market in this area, consistent with RT guidelines.

Policy

- 10.4 Future enhancements to bus or shuttle service within the Corridor should link the Intensive Mixed-Use district on the west end with the 13th Street Light Rail Station.

3. Bicycle Circulation

The R Street Corridor is served by on-street (Class II) bike lanes on T Street and 11th, 20th, 24th, and 28th Streets.

4. Street Cross Sections

**GOAL 11. PROMOTE MULTIPLE MODES OF CIRCULATION
THROUGH THE ADOPTION OF NEW R STREET CROSS
SECTIONS**

Policy

- 11.1 Within the R Street public right of way, provide planter strips with street trees where appropriate, street lighting, on-street parking, and sidewalks pedestrian walkways to provide a safe and attractive environment for pedestrians, bicyclists, and other modes of transportation.

Two Several different street cross sections are proposed for R Street to address different historic, urban design, transit, circulation and land use conditions. The

west end of the corridor, the 3rd to 49th ~~9th~~ Street section, is proposed to serve more intensive office, and residential mixed uses. The central section of the corridor, from 9th to 19th Streets, is proposed to address the historic, industrial character of R Street in addition to planned residential mixed-use developments.

For the east end of the corridor, from 23rd to 29th Streets, the light rail line occupies the middle of the street, and a significant amount of the street right of way. This cross section is proposed to serve predominantly residential and retail uses.

3rd-19th to 9th Street Cross Sections

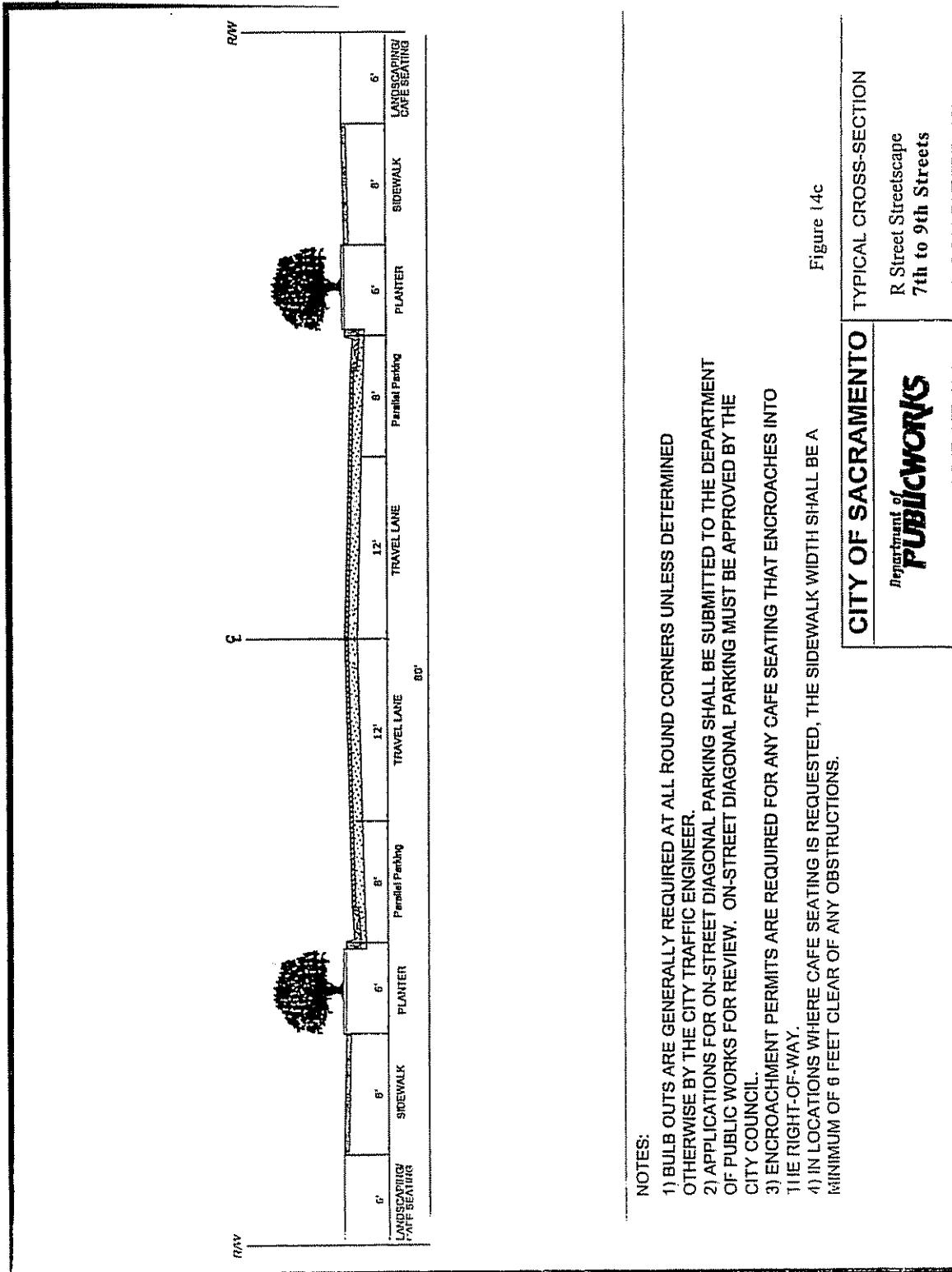
From 2nd to 19th Streets, an 80-foot right-of-way exists to accommodate the desired two way, two lane local street. From 3rd to 7th ~~9th~~ Streets the cross sections will be those specified in Figures 14a, b, and c. From 7th to 19th ~~9th~~ Streets typical cross sections will be as indicated in Figure 14c. Alteration of this typical cross section, to accommodate existing conditions, may be evaluated by staff on a case-by-case basis without need for a Community Plan Amendment. Certain minimum standards must be met by all proposed cross sections unless existing conditions preclude compliance with the typical cross section, as determined by the City: 1) Bulb-outs are generally required at all round corners unless determined otherwise by the City Traffic Engineer 2) Applications for on-street diagonal parking shall be submitted to the Department of Public Works for review. Diagonal parking requests will be considered on a block-by-block basis. On-street diagonal parking must be approved by the City Council; 3) A minimum six foot wide sidewalk is required; 4) Street trees must be provided, with a minimum six foot wide planter, and; 5) Street lights must be provided. (Amend Res 2003-180)

9th to 19th Street Cross Sections

Figures 15a to 15f depict the proposed cross sections for the 9th to 19th Street section of R Street. The street sections are categorized according to the four sectors A through D, indicated in the Central City Urban Design Guidelines for the R Street Corridor. The character and land uses along the Corridor change dramatically from block to block which these street sections address by each sector. Alterations of these street sections may be needed due to diverse conditions of R Street. Alterations of these typical street sections may be evaluated and approved by the city manager or designee on a case-by-case basis without need for Community Plan Amendment. However, the following minimum standards must be met by any proposed cross sections unless conditions preclude compliance with the typical cross section as determined by the City: 1) A minimum five-foot continuous pedestrian walkway must be provided on at least one side of R Street; [2) A minimum three-foot wide detectable warning strip of yellow truncated cones domes along with bollards, wheel stops, and other vertical elements must be provided between the pedestrian pathway and vehicular travel lanes if valley gutters or slotted drains are utilized in the design without other approved vertical signals to visually-impaired pedestrians]; and 3) Street lights must be provided.

Exhibit B**Figure 14c**

R Street Corridor
Cross Sections
7th to 19th 9th Streets



NOTES:

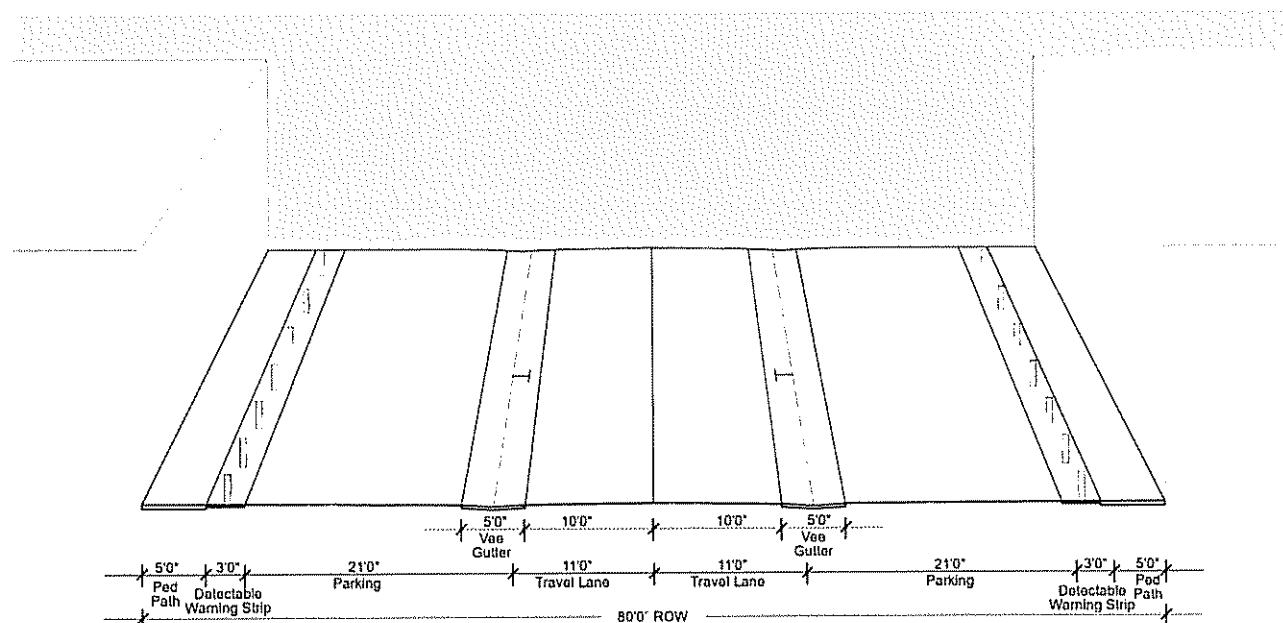
- 1) BULB OUTS ARE GENERALLY REQUIRED AT ALL ROUND CORNERS UNLESS DETERMINED OTHERWISE BY THE CITY TRAFFIC ENGINEER.
- 2) APPLICATIONS FOR ON-STREET DIAGONAL PARKING SHALL BE SUBMITTED TO THE DEPARTMENT OF PUBLIC WORKS FOR REVIEW. ON-STREET DIAGONAL PARKING MUST BE APPROVED BY THE CITY COUNCIL.
- 3) ENCROACHMENT PERMITS ARE REQUIRED FOR ANY CAFE SEATING THAT ENCROACHES INTO THE RIGHT-OF-WAY.
- 4) IN LOCATIONS WHERE CAFE SEATING IS REQUESTED, THE SIDEWALK WIDTH SHALL BE A MINIMUM OF 6 FEET CLEAR OF ANY OBSTRUCTIONS.

Figure 14c

CITY OF SACRAMENTO Department of Publicworks	TYPICAL CROSS-SECTION R Street Streetscape 7th to 9th Streets
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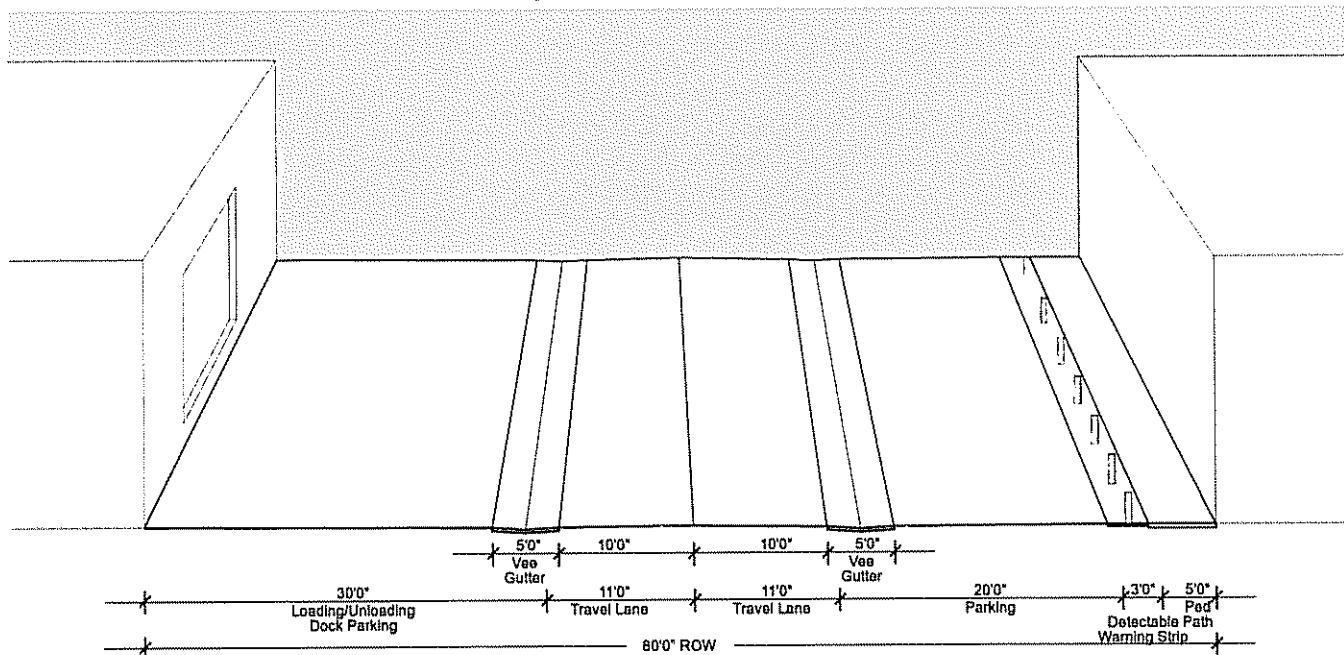
Figure 15a
R Street Corridor
Capitol Area Neighborhood Streetscape Sections
Sector A 9th to 12th/13th Streets

Sector A - Prototypical Section



Dimensions and elements of the cross section might be modified during the design phase.

Sector A - Loading on One Side of Street (9th to 10th Street)

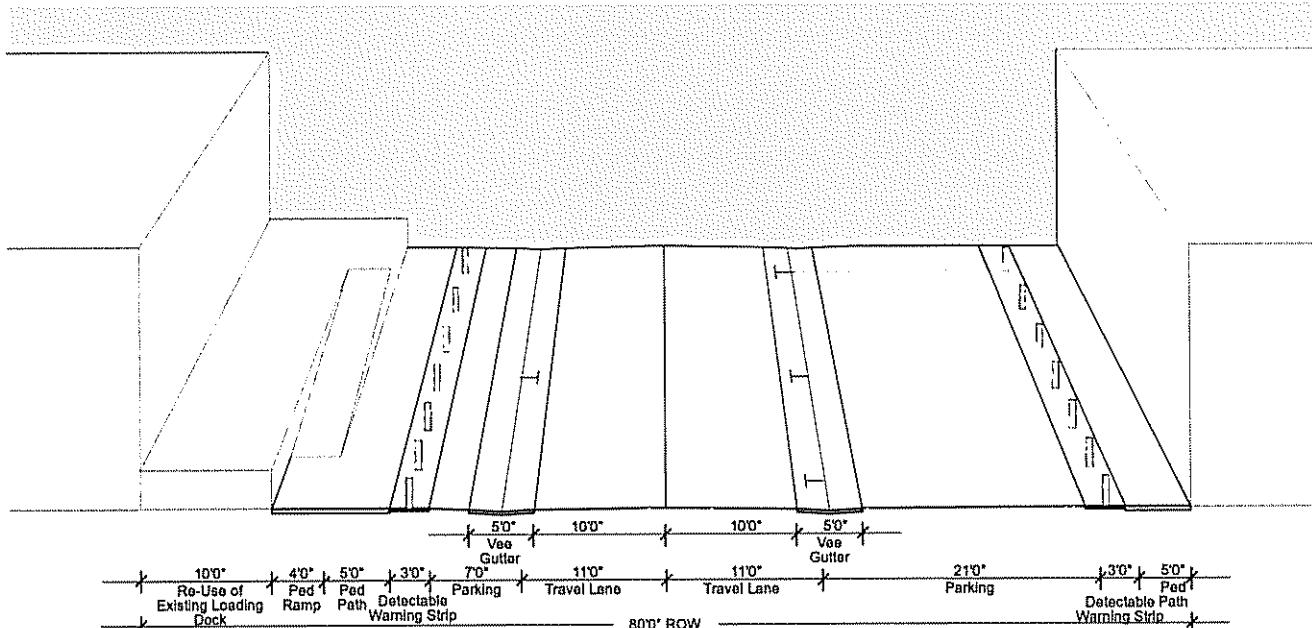


Dimensions and elements of the cross section might be modified during the design phase.

Figure 15b

R Street Corridor
Capitol Area Neighborhood Streetscape Sections
Sector A 9th to 12th/13th Streets

Sector A - Protruding Loading Dock (10th to 11th Street)



Sector A - Protruding Loading Dock (11th to 12th Street)

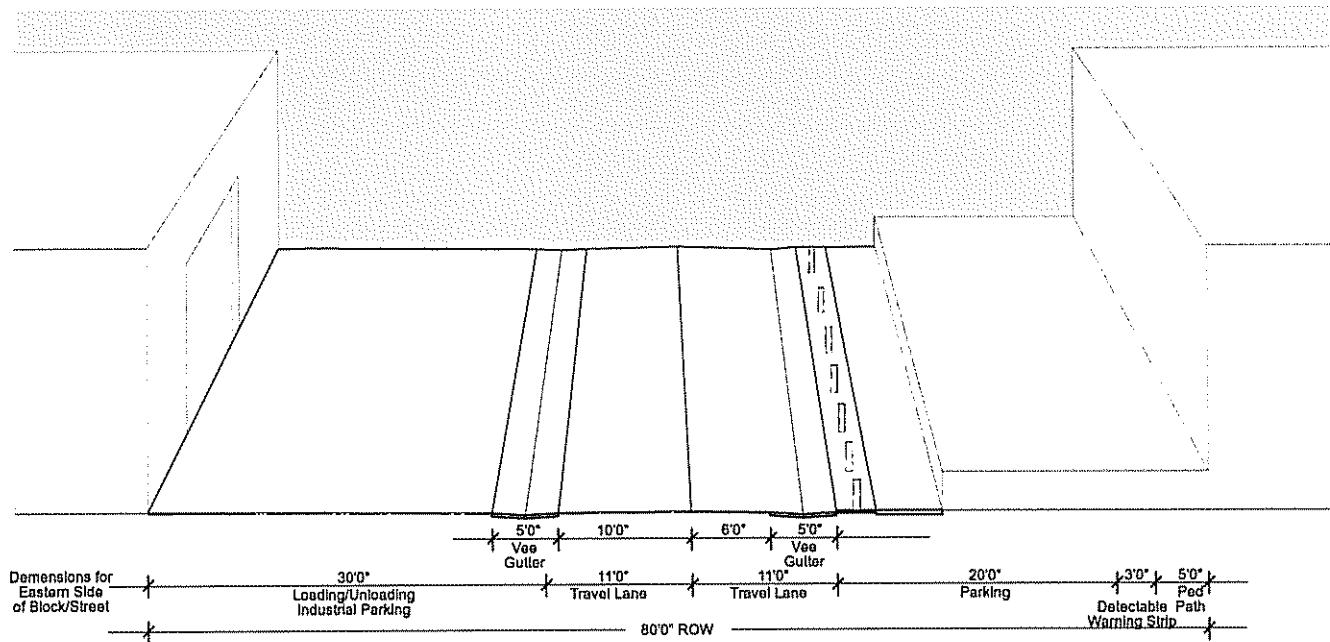
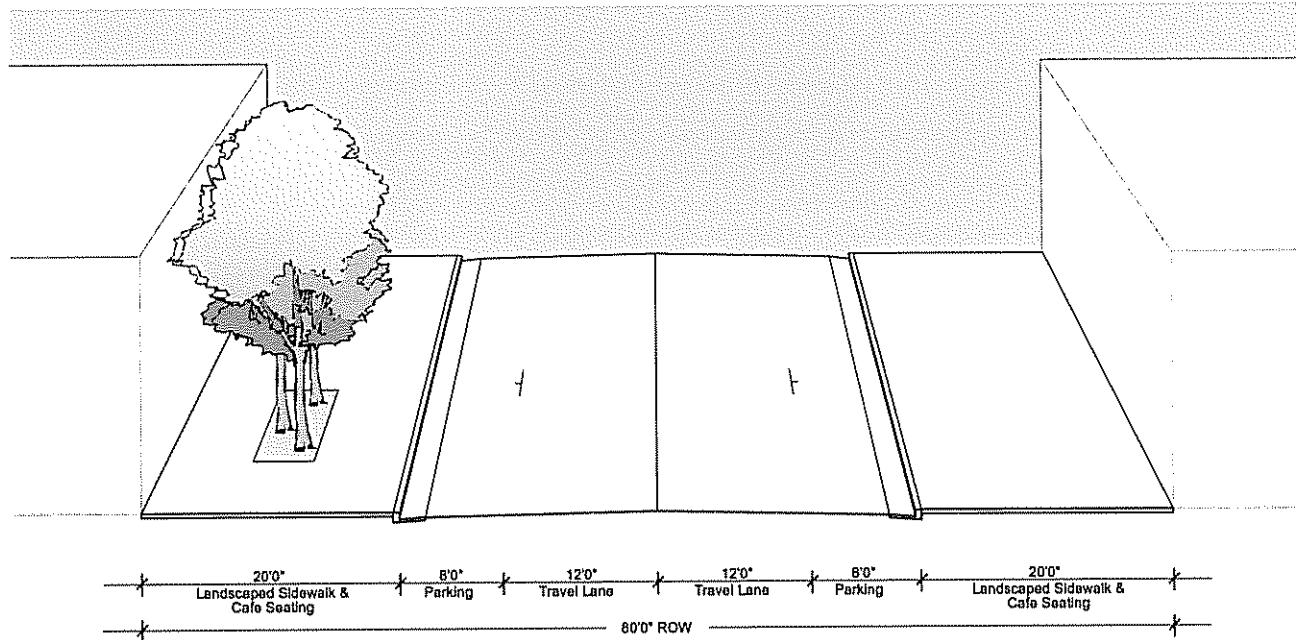


Figure 15c

R Street Corridor
Capitol Area Neighborhood Streetscape Sections
Sector B 12th/13th to 15th Streets

Sector B - Prototypical Section Phase I



Sector B - Prototypical Section Phase II

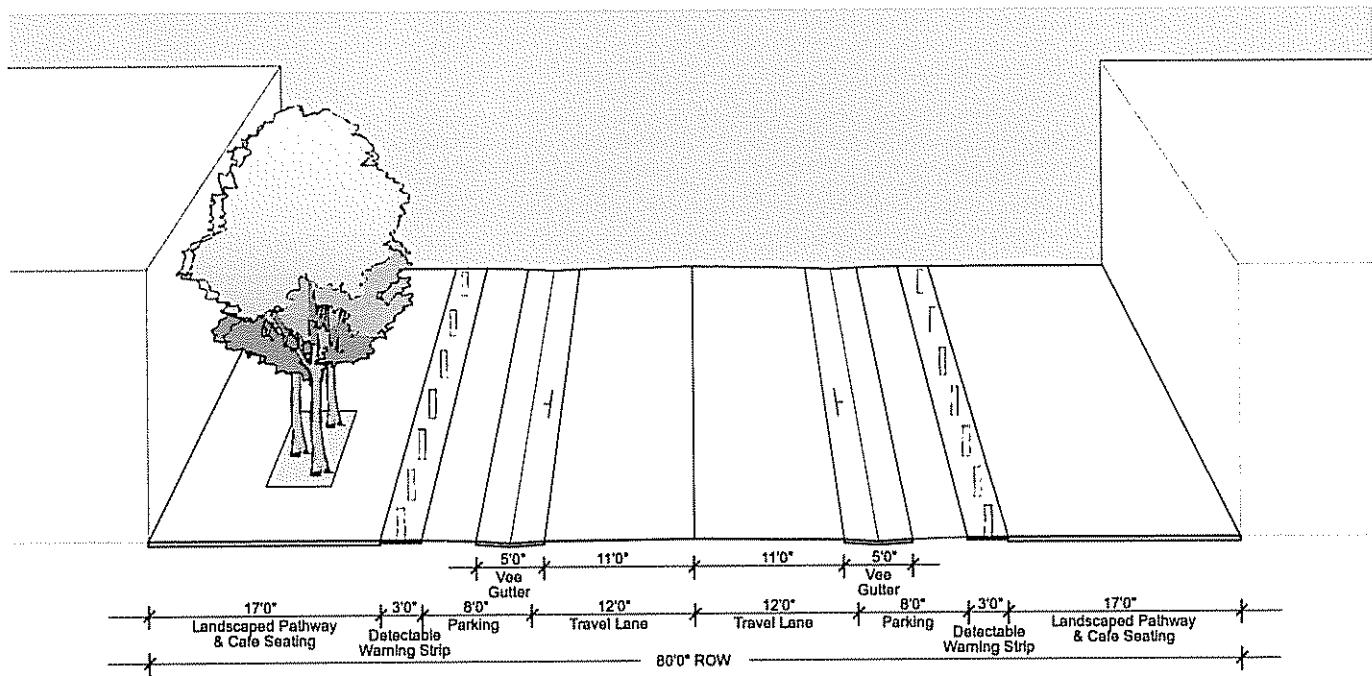
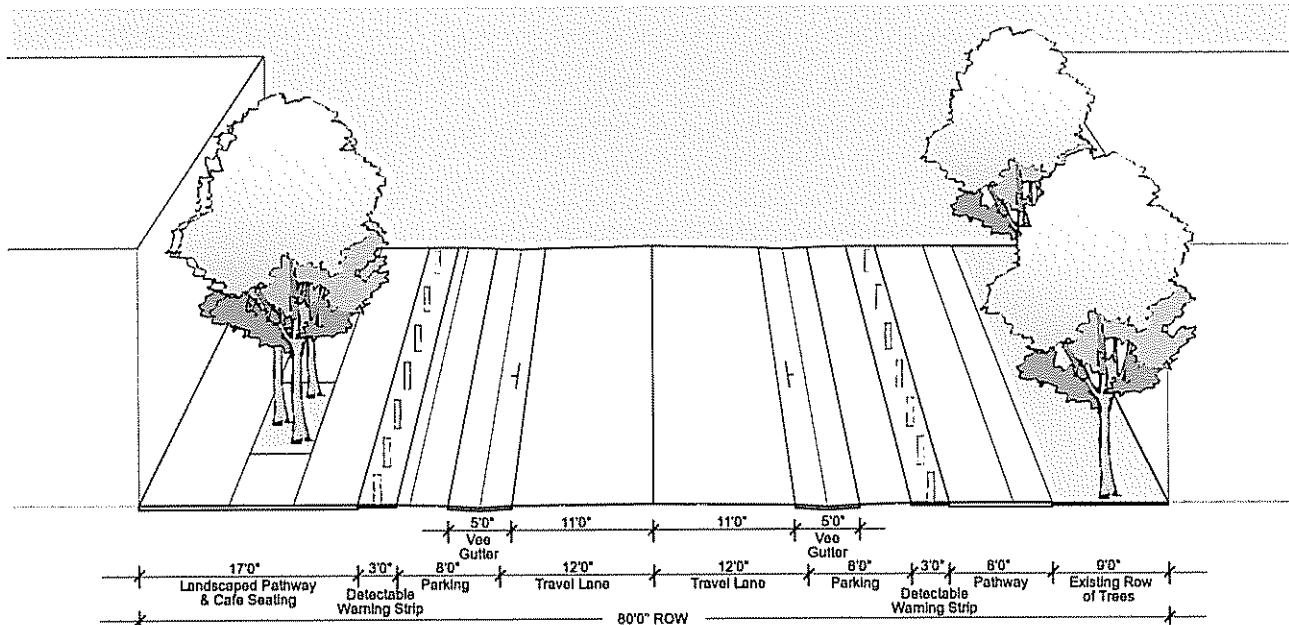


Figure 15d

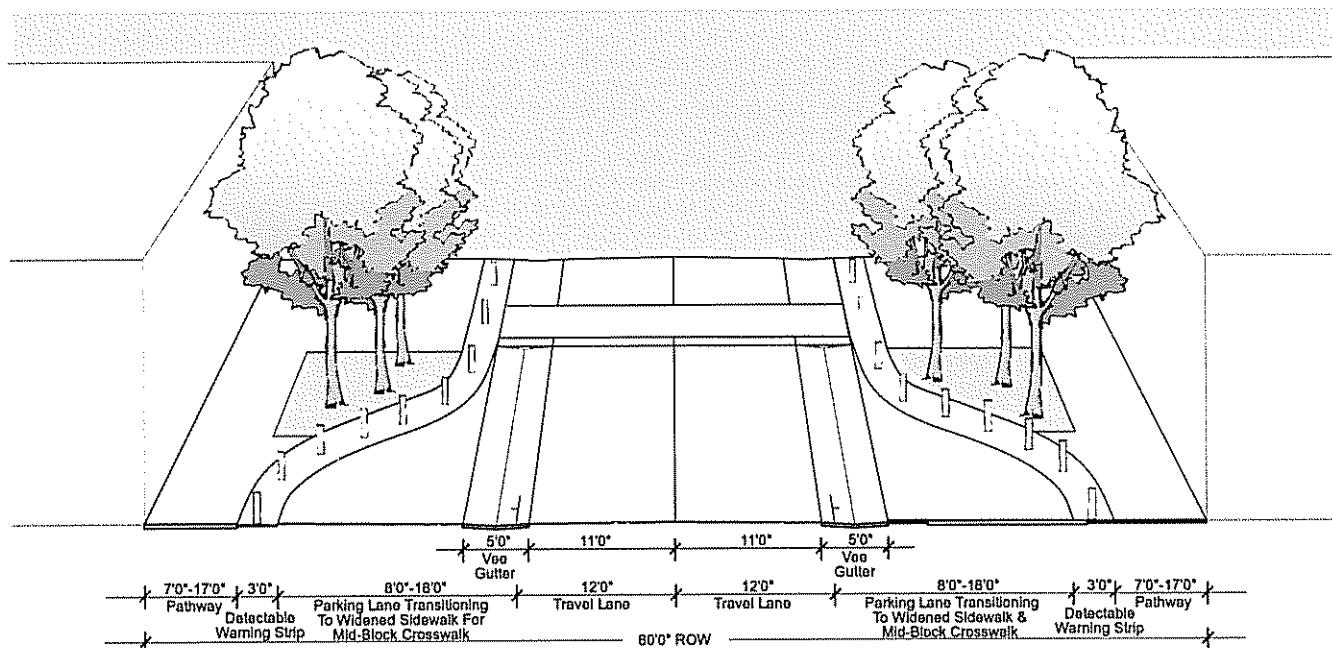
R Street Corridor
Capitol Area Neighborhood Streetscape Sections
Sector B 12th/13th to 15th Streets

Sector B - Phase II Option (12th to 13th Street)



Dimensions and elements of the cross section might be modified during the design phase

Sector B – Mid Block Crossing

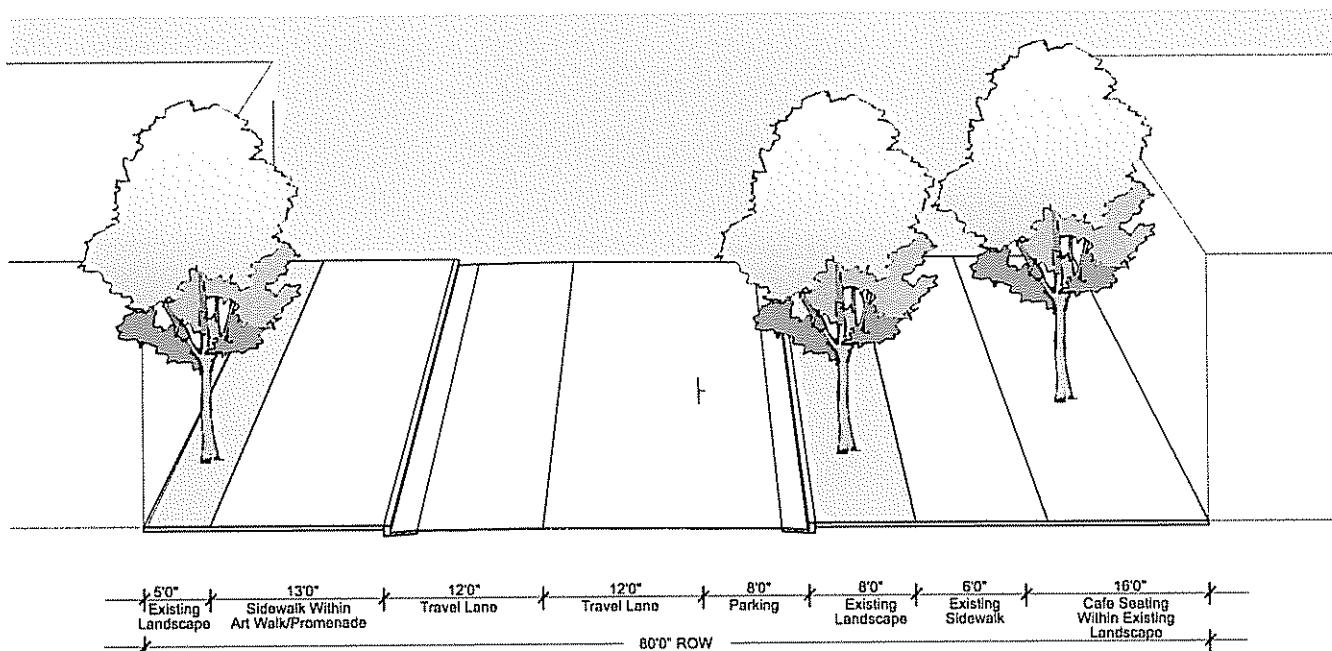


Dimensions and elements of the cross section might be modified during the design phase.

Figure 15e

**R Street Corridor
Capitol Area Neighborhood Streetscape Sections
Sector C 15th to 16th Streets**

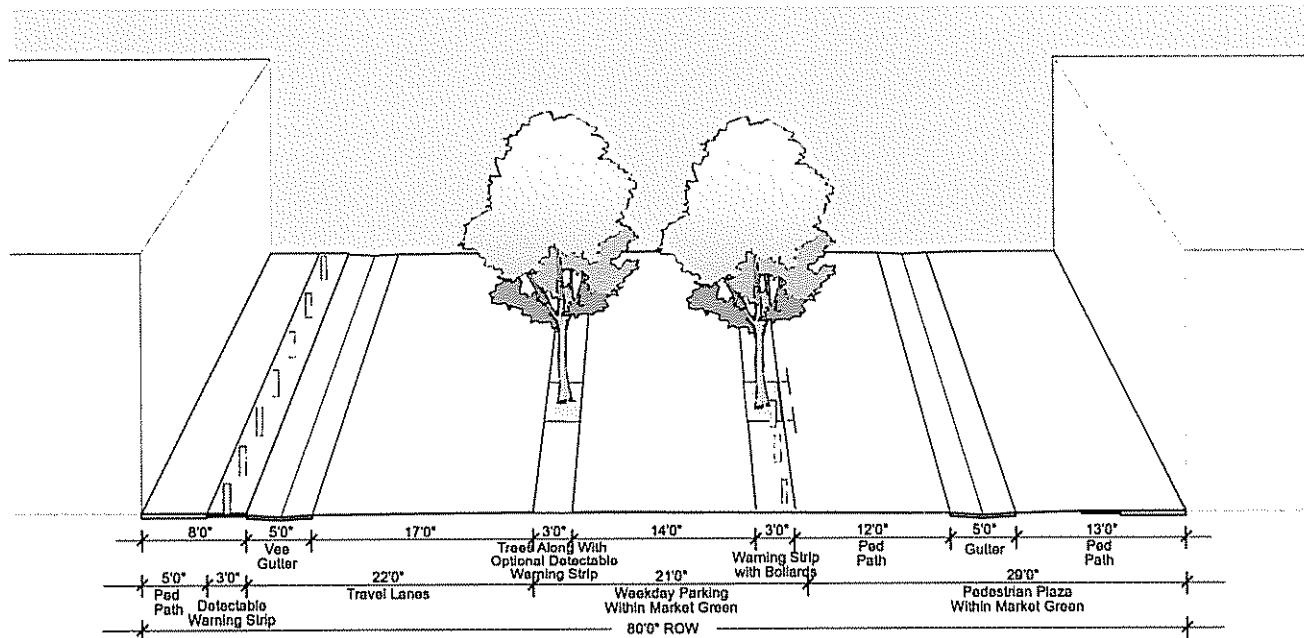
Sector C – Prototypical Section



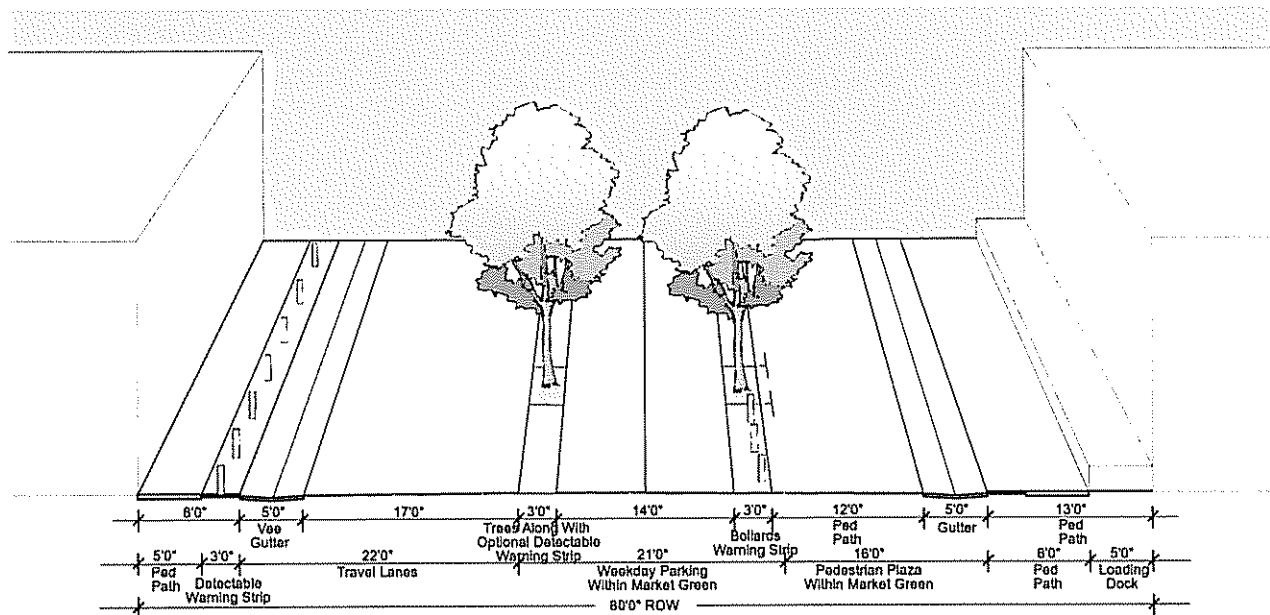
Dimensions and elements of the cross section might be modified during the design phase.

Figure 15-F

R Street Corridor
Capitol Area Neighborhood Streetscape Sections
Sector D 16th to 18th Streets

Sector D – Weekday Section

Dimensions and elements of the cross section might be modified during the design phase.

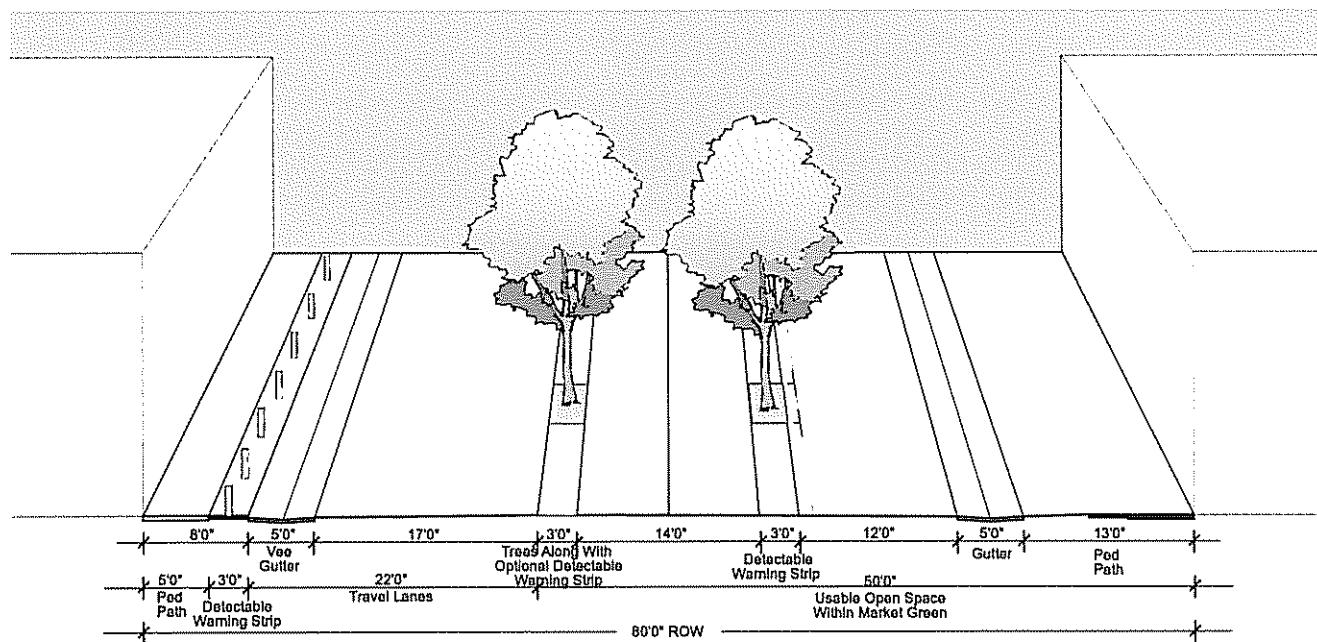
Sector D - Weekday Section (Loading Dock 16 to 17th)

Dimensions and elements of the cross section might be modified during the design phase.

Figure 15 F

R Street Corridor
Capitol Area Neighborhood Streetscape Sections
Sector D 16th to 18th Streets

Sector D - Weekend Section



Attachment 4

RESOLUTION NO.

Adopted by the Sacramento City Council

**AMENDING THE CENTRAL CITY NEIGHBORHOOD DESIGN GUIDELINES
FOR THE R STREET CORRIDOR FROM 9TH TO 19TH STREET. (M04-053)**

BACKGROUND

- A. On December 10, 1996, the City Council of Sacramento adopted the R Street Corridor Plan as part of the Central City Community Plan. The R Street Corridor Plan envisioned the transformation of the R Street Corridor from a commercial, warehouse, and state office district into a mixed-use district of residential, office, and neighborhood oriented commercial uses. Additionally, the R Street Corridor Plan contains diagrams and text governing the development of the public right-of-way on R Street.
- B. In September 1997 the City Council of Sacramento adopted the Central City Neighborhood Design Guidelines. The document establishes the design principles and guidelines that the City of Sacramento Design Review and Preservation Board and staff utilize when reviewing proposed buildings, alterations, or public improvements within the Central City Design Review District's neighborhoods and mixed-use corridors.
- C. The Capitol Area Development Authority (CADA) has prepared urban design guidelines and new streetscape sections for CADA's R Street Project Area, which includes the areas of R Street from 9th through 19th Streets. The design guidelines incorporate the historic, industrial character of the area and were developed through a series of public workshops in 2004.
- D. The City Council reviewed the draft CADA Urban Design Guidelines and Streetscape Concepts on January 18, 2005. City staff was directed to return to Council with the necessary amendments to incorporate the R Street Urban Design and Development Plan into various planning documents for Council consideration.
- E. The Urban Design Concept articulates the preferred character and experience of the area by illustrating present and future land uses, adjacencies, and relationships. The Concept and Design Guidelines emphasize improvements to the public realm, circulation patterns, and open space networks that will link new developments together to realize the vision of the R Street Corridor Master Plan.

BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL

RESOLVES AS FOLLOWS:

Section 1. The City Council amends the Central City Neighborhood Design Guidelines to include new design guidelines for the R Street Corridor from 9th to 19th Street as shown in Exhibit A.

Table of Contents:

Exhibit A: Central City Neighborhood Design Guidelines for the R Street Corridor 9th – 19th Streets.

Section 6: Supplemental Design Guidelines
B. R Street Corridor Design Guidelines
1. 2nd to 9th, 9th to 19th Streets
a. Introduction

B. R STREET CORRIDOR DESIGN GUIDELINES

1. INTRODUCTION

These design guidelines supplement the Project Design Guidelines (Section 3) applicable to the Central City.

The R Street Corridor includes 54 city blocks located within Sacramento's Central City, south of the Central Business District, the mixed-use State Capitol Plan area, and between several well-established Central City neighborhoods. The R Street Corridor is bounded by 2nd Street

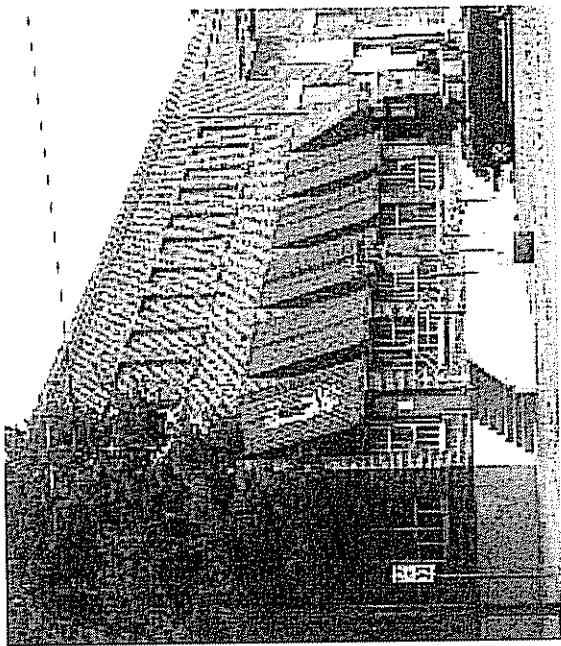


Figure 6.17. A well known R Street Landmark - The Building at 10th and R Street.

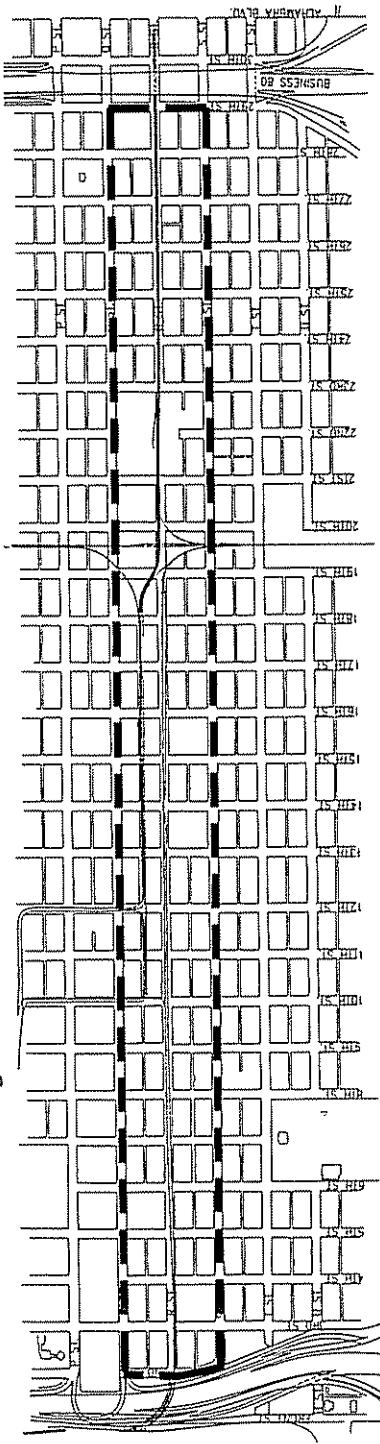


Figure 6.18. R Street Corridor.

Section 6: Supplemental Design Guidelines
R Street Corridor Design Guidelines

1. 2nd to 9th, 9th to 19th Streets
- b. Applicability / c. Urban Design Context

to the west, Q Street to the north, S Street to the south, and 29th Street to the east. (See Figure 6.18.)

2. APPLICABILITY

The R Street Supplemental Design Guidelines are one of three planning documents that guide future development decisions within the corridor. The Design Guidelines are used by City staff, the Design Review/Preservation Board, the Sacramento Housing and Redevelopment Commission and the City Planning Commission in the review of development proposals.

3. URBAN DESIGN CONTEXT

Figure 6.19 illustrates the R Street Corridor as defined by the Zoning Ordinance, defines the permitted and conditional uses, development standards and procedures for the review and approval of development proposals.

The R Street Corridor Plan, a chapter of the Central City Community Plan, establishes the overall vision, goals and policies for land use and community facilities. The goal for the R Street Corridor is to transition the existing warehouse and light industrial uses into a new residential mixed use neighborhood served by light rail transit service. These guidelines assure compatible design between existing, older industrial buildings and new mixed use development.

The plan includes streetscape standards for circulation to assure that R Street is designed as a local, two-way pedestrian scale street. The R Street Special Planning District (SPD), Section

2.99 of the Zoning Ordinance, defines the permitted and conditional uses, development standards and procedures for the review and approval of development proposals.

Foster opportunities for alley development and a variety of architectural styles in keeping with the surrounding neighborhood.

Promote transit friendly site design at the four light rail stations.

Create a pedestrian-friendly environment within the corridor through neighborhood scale streetscape improvements.

Promote historic preservation of residential and commercial structures.

Foster opportunities for alley develop-

- Promote transit friendly site design at the four light rail stations.
- Create a pedestrian-friendly environment within the corridor through neighborhood scale streetscape improvements.
- Focus retail and open space uses at important street corners and midblock locations to support transit use, pedestrian safety and new centers for neighborhood activity centers.

- Promote the R Street Corridor Framework and the application of the design principles. The following Urban Design Principles should guide the review and approval of development proposals in the R Street Corridor.

- Respect the neighborhood context and scale of existing neighborhoods through appropriate setbacks, massing and height limits.

- Promote appropriate reuse of existing industrial and warehouse buildings to assure compatibility with future new residential and commercial development.
- Strengthen linkages between the mixed use Capitol Area Plan District, the Central Business District, the Riverfront Master Plan District, and the Alhambra Corridor District through bicycle, pedestrian and view corridors.

Section 6: Supplemental Design Guidelines

R Street Corridor Design Guidelines

1. 2nd to 9th, 9th to 19th Streets

d. Site and Context Issues

4. SITE AND CONTEXT ISSUES

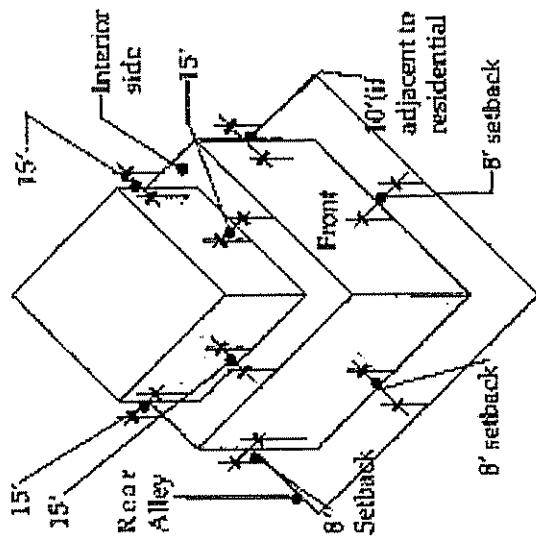


Figure 6.20. Commercial Setback and Stepbacks.

6.B.4.1. Commercial - Massing, Height, and Bulk.

6.B.4.1.(a) Commercial Setbacks and Stepbacks: As specified in the R Street Corridor Special Planning District Ordinance, in the Office Building West and Central SPD zones, the applicable setbacks and stepback for commercial uses are illustrated in Figure 6.20.

6.B.4.1.(b). Maximum Diagonal Dimension: For commercial buildings, the maximum diagonal dimension should be 300 feet on the portion of the building which is over 40 feet in height. (See Figure 6.21. for illustration).

6.B.4.2. Residential - Massing, Height, and Bulk.

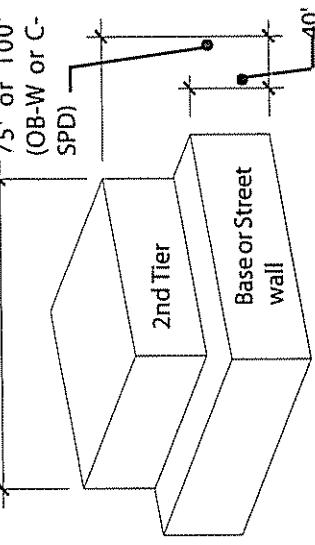


Figure 6.21. Maximum Diagonal Dimension.

6.B.4.2.(b). Mid-block Setback Texturing: On the north side of R Street a midblock mini open space should be provided that is a minimum of 30 feet wide (parallel with R Street) and 15' deep (from the property line) and should provide seating, play equipment or some other community amenity to encourage use of the space by residents on the block.

6.B.4.2.(c). Projections at Corners: At selected corners along R Street (specified in the SPD), a projection of 6 feet is allowed to encroach into the front and side yard setbacks within 30 feet of each corner of the building for the second floor elevation and above. Column widths that do not exceed 15% of the face length of the corner projection are allowed at the ground floor.

6.B.4.2.(d). Mass and Parcel Size: New development along numbered streets, Q Street, and S Street should be broken up into a massing pattern that expresses the surrounding 40 foot lot pattern of the adjacent neighborhood. Within the interior of the corridor along R Street, there are larger parcel sizes (one-half block) which allow more creative design. A typical R Street block includes larger parcel sizes along the industrial R Street and a variety of smaller parcel sizes adjacent to the lettered streets (Q and S

Section 6: Supplemental Design Guidelines
R Street Corridor Design Guidelines
 1. 2nd to 9th, 9th to 19th Streets
 d. Site and Index Issues

Street) and numbered streets consistent with Central City neighborhoods. (See Figure 6.22.) The different parcel sizes provide an opportunity for a variety of housing types: alley/attached single family units (40' x 80' lot), moderate density residential (80'x160' lot) and moderate density residential over retail at corners (80' x 160' lot). (See Figure 6.23).

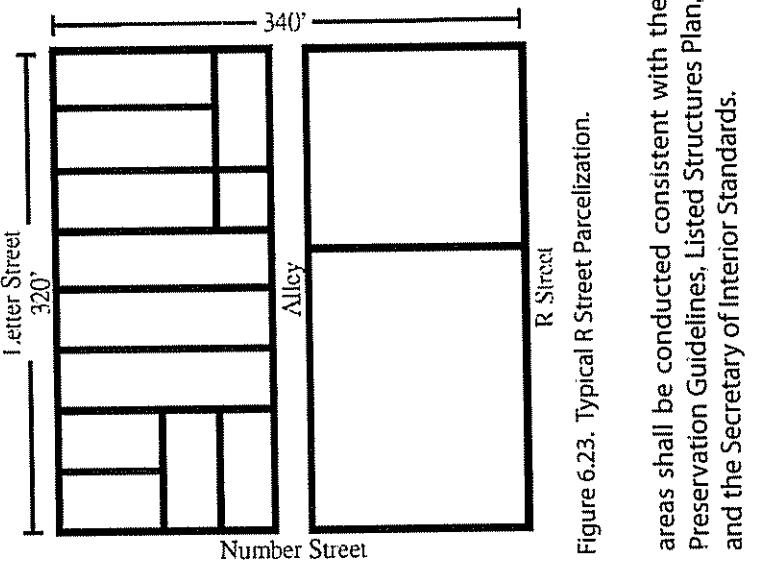
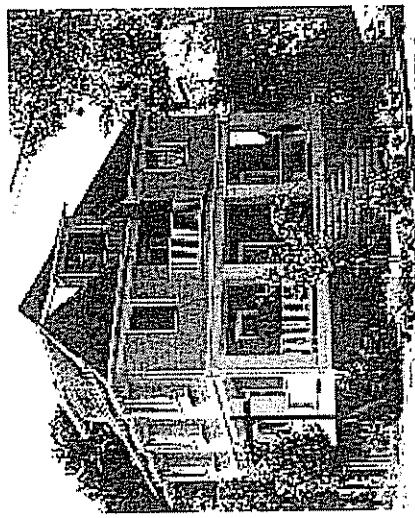


Figure 6.23. Typical R Street Parcelization.

areas shall be conducted consistent with the Preservation Guidelines, Listed Structures Plan, and the Secretary of Interior Standards.

6.B.4.3.(a) Architectural Details: Delta Type Cottages, Queen Anne or Craftsman style details predominant the surrounding area and should be strongly considered when conducting the contextual design process (See Figure 6.24.)



6.B.4.3. Historic Structures: All building rehabilitation and relocations within the R3A-SPD area (Q and S Streets) and preservation

6.B.4.3.(b) Precedent Structures: 1000, 1206, 1226, 1314, 1316, 1318, 1322, 1322, 1500, 1504 -6, 1516, 1518, 1522, 1526, 1910 Q Street; 1108, 1409-1413 R Street; 723, 1201, 2601 S Street; 1801 2nd Street; 1713-1715 1/2 10th Street; 1800, 1801 11th Street; 1711 12th Street; 1712 13th St; 1712, 1714 14th Street; 1700-06 16th Street; 1822 21st Street; 1707 18th Street; and 1819, 1823 20th Street.

Section 6: Supplemental Design Guidelines

R Street Corridor Design Guidelines

1. 2nd to 9th, 9th to 19th Streets

e. Industrial Uses

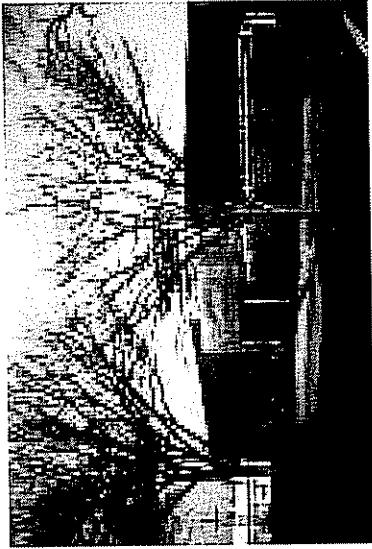
5. INDUSTRIAL USES

It is anticipated that certain industrial uses will remain in operation for a number of years and will undergo physical modifications from time to time. When this remodeling occurs the industrial uses must respect and respond to the evolving context and character of the corridor. The modifications to existing industrial uses shall, to the extent feasible, respond to the following:

6.B.5.1. Building Orientation: Industrial building modifications should be placed as closely to the street as possible, buildings should face the major commercial street. The main pedestrian entry to a project should be related directly to the main street frontage. To the extent feasible, people oriented activities such as offices and cafeterias, should be oriented to the street.

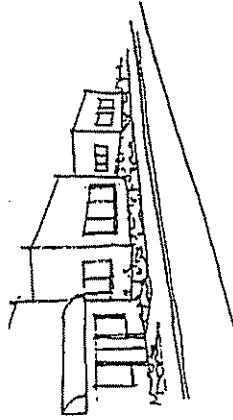
6.B.5.2. Parking Location: Employee and visitor parking should be oriented to the interior or interior side of the site and, where appropriate, to the rear of lots. Vehicle entrances should be located away from the residential or commercial uses. (See Figure 6.25.)

6.B.5.3. Safety: Projects should include safety conscious design through adequate clear glass, lighting, surveillance, and access for emergency



6.B.5.5. Fencing: Chainlink fences visible from street elevations are highly discouraged. If chainlink fencing is used, vegetation should mask the fence and plastic coated fencing is encouraged. The use of concertina or ribbon wire is not permitted.

6.B.5.6. Color and Texture: An integrated color palette for the entire project should be submitted with the design. The colors should be selected to achieve specific goals such as harmony, contrast, or articulation. The use of a variety of colors is encouraged. Most projects should incorporate a minimum of three colors. Large, uninterrupted and unarticulated monochromatic expanses are



6.B.5.4. Massing and Articulation: Existing buildings with lengthy, flat horizontal facades are permitted to remain, but during the design review process some articulation of building elevations will be encouraged commensurate with the level of rehabilitation. Elements such as planar changes, height changes, awnings, etc., may be required and linked to the surrounding development patterns if appropriate. Structures should generally have articulation at entries, bases and tops to break up the overall mass into smaller elements. (See Figure 6.26.)

discouraged.

6.B.5.7. Windows and Doors: Additional window space facing the public street is encouraged. Main service or utility doors should not face the street frontage. Metal, including steel and aluminum, and glass are encouraged. Wood and plastics requiring higher maintenance are discouraged.

6.B.5.8. Details: Awnings and canopies of durable quality are encouraged. These elements provide shadow and relief to flat facades and even further enhance slightly recessed areas. Dissimilar materials should receive consideration on how they abut one another.

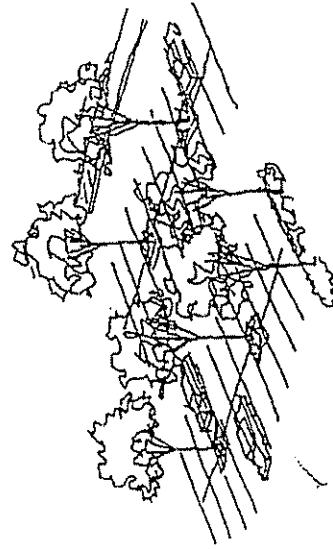
6.B.5.9. Placement of Trees: The retention of existing trees that have been determined to be significant in value is encouraged. Street trees should be located along street frontages to provide a shading canopy, color, and foliage to soften the hard streetscape. In employee and visitor parking areas, it is encouraged that extensive use of trees be planted to meet and exceed wherever possible the minimum shading requirements of the City Ordinance.

6.B.5.10. Automobile Parking: Parking areas should be shaded by canopy trees, as

recommended by the City Ordinance (See Figure 6.27.) Special accent paving at entries to the parking areas are welcomed. This accent paving could possibly tie in with the enhanced paving of the building entries. The main entry driveway should be identifiable, possibly incorporating building elements in a hierarchy of planting materials and colors. Visitor parking should be located as conveniently as possible to the street and building entry. Employee parking areas are encouraged to be located to the rear or the side of the site. Public transit access in site design is encouraged. The use of public transit to and from the site is encouraged.

6.B.5.11. Trash Storage: Trash storage should be located in as visually unobtrusive a position as possible. The design of the structure and the materials used should be compatible with the building. Permanent materials such as concrete or masonry with heavy steel gates are required. Provide landscaping to soften the trash enclosure. (See Figure 6.28.)

6.B.5.12. Storage Areas: Any article, goods, material, machine, equipment, vehicle, trash, or similar items to be stored other than in an



Section 6: Supplemental Design Guidelines

R Street Corridor Design Guidelines

1. 2nd to 9th, 9th to 19th Streets

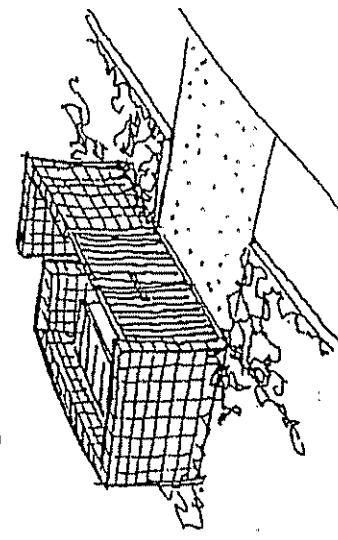
f. Light Rail Transit (LRT) Stations

enclosed, covered building, should be screened with planting and/or berthing to shield views from public streets, adjacent properties, parking areas or pedestrian walkways.

6.B.5.13. Roof Mounted Equipment: All roof mounted equipment should be screened from public ways. The use of mechanical wells integrated into the building design is encouraged.

F. LIGHT RAIL TRANSIT (LRT) STATIONS

These guidelines encourage better site design, improve access to public transportation, make more efficient use of land and create lively focal points for neighborhood activity. Figure 6.29 illustrates the LRT station provisions as they might apply to a mixed use development in the R Street Corridor. These provisions apply to all properties located within 660 feet of a light rail transit station, as defined in Section 2.99 of the Zoning Ordinance.



residents, transit patrons and workers in the corridor and neighboring areas, particularly the 13th and 23rd Street station locations. Parks and plazas should be the focus of developments and should be placed next to public streets, residential areas and retail uses. Parks and plazas should not be formed from residual areas, used as buffers to surrounding developments, or used to separate buildings from streets;

6.B.6.5. Parking Lots: Parking lots should not dominate the frontage of pedestrian streets, interrupt pedestrian routes or negatively impact surrounding neighborhoods. Alley access to parking structures is encouraged;

6.B.6.6. Massing: Mass and height of the transit-oriented mixed use development should step down and transition to the smaller scale context of the existing neighborhood;

6.B.6.7. Pedestrian Connection: Walkways should be short and direct from entrance to entrance between adjacent developments and from buildings to adjacent transit stops;

6.B.6.8. Fences: Walls and fences which lengthen distances between main entrances of adjacent commercial or multi-family residential structures are discouraged;

6.B.5.14. Service Access: Service access, including loading docks, should be located to not obstruct the flow of pedestrians or user circulation when in use, or not to create an unsightly condition while it is between maintenance. Loading docks and service doors should be located out of view of primary street frontage and entry.

Section 6: Supplemental Design Guidelines

R Street Corridor Design Guidelines

1. 2nd to 9th, 9th to 19th Streets

f. Light Rail Transit (LRT) Stations

6.B.6.9. Windows and Detailing: Large windows and protective awnings or overhangs on building facades that face sidewalks are encouraged;

6.B.6.10. Walkways: Pedestrian walkways should be constructed of some sort of alternative paving materials (i.e., stepping stones, pavers);

6.B.6.11. Streetscape: Building frontages of office projects should incorporate pedestrian amenities such as benches, plazas, outdoor eating areas, and pedestrian scaled street lighting.

Section 6: Supplemental Design Guidelines

North
↑

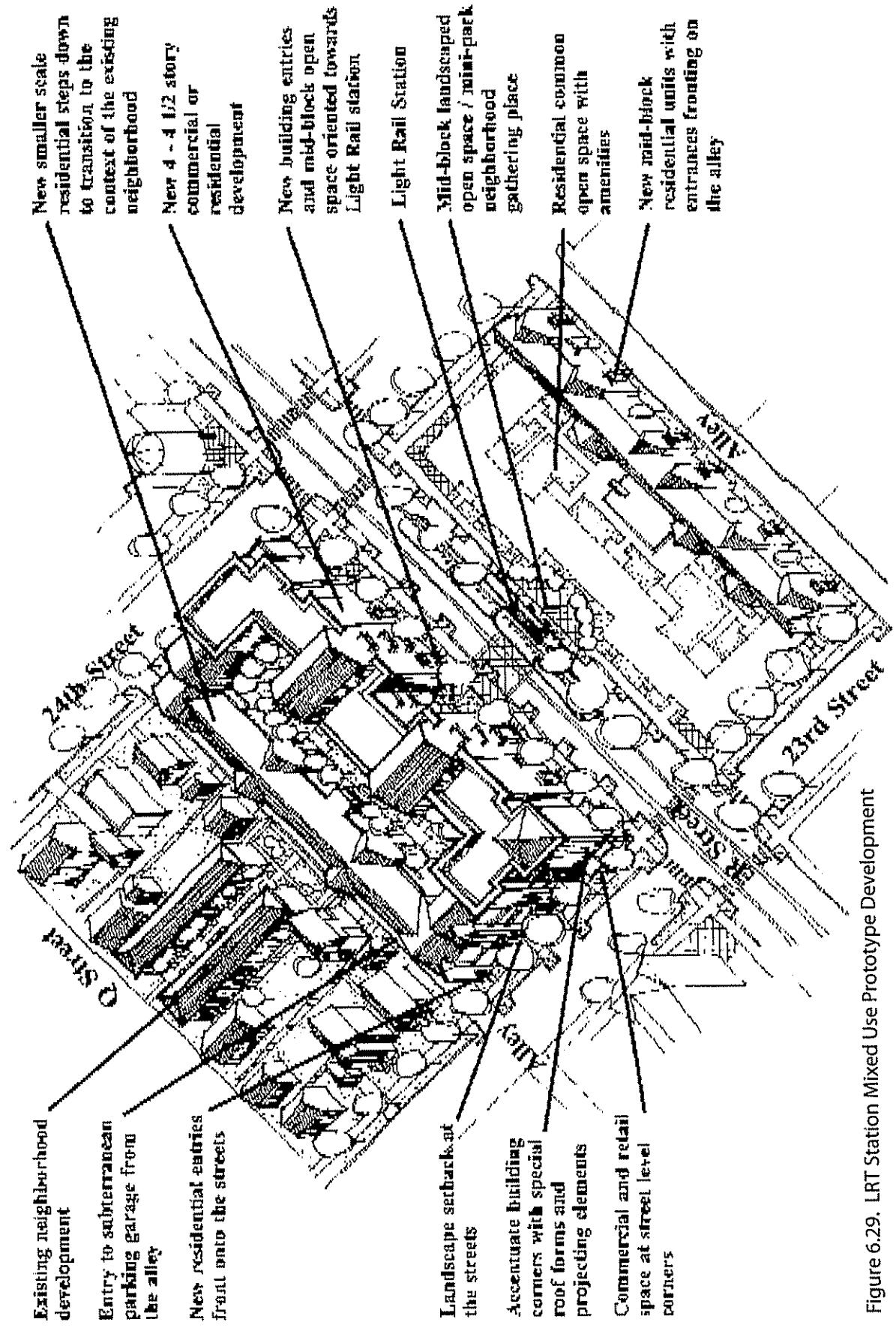


Figure 6.29. LRT Station Mixed Use Prototype Development

urban design concept

THE URBAN DESIGN DEVELOPMENT CONCEPT for the R Street corridor and surrounding project area articulates the preferred character and experience of the area by illustrating present and future land uses, adjacencies, and relationships (see Figure 6.30). It emphasizes improvements to the public realms, circulation patterns, and open space networks that will link new developments together. The Concept also identifies strategic development opportunity sites. It is the visual blueprint or "road map" for the corridor's future development.

IN THIS SECTION

URBAN DESIGN CONCEPT

CORRIDOR SECTORS

An analysis of the varied character along the corridor indicates that certain segments of the corridor require a different type of design response. Therefore, this design study divides the corridor into four "sectors". There are a number of planning concepts and design features that apply to the entire R Street project area, while others have been tailored to the unique experience within each sector. The broad vision relevant to the corridor as a whole is described in the following section. Design components specific to the corridor's four sectors, A through D, are described in detail later in this chapter.

URBAN DESIGN CONCEPT

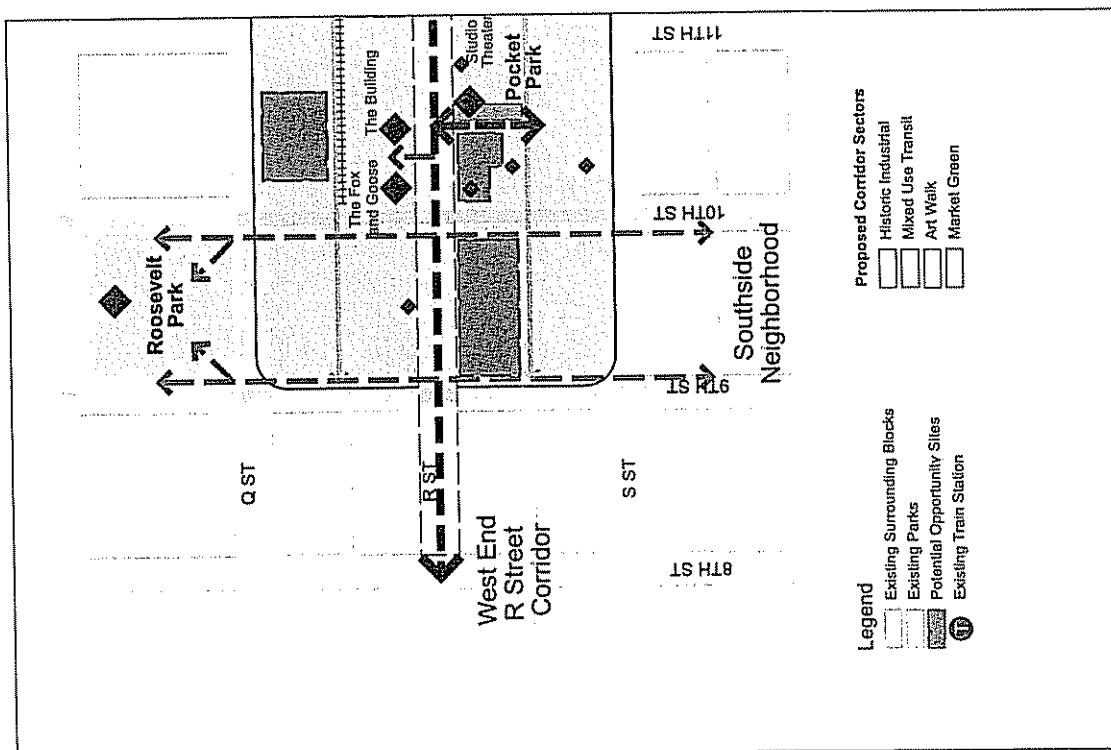
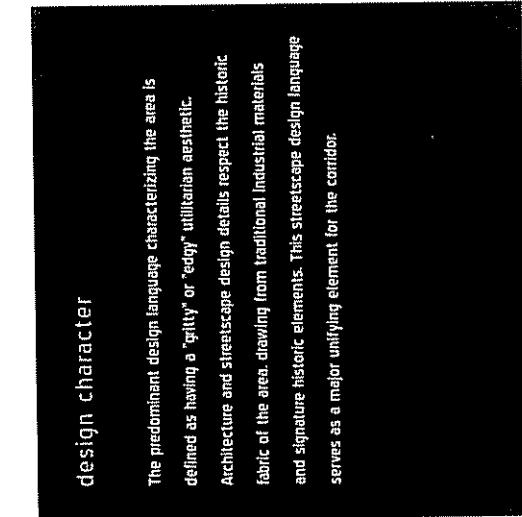
The "R Street Corridor" is envisioned as a mixed-use transit hub that celebrates its historic industrial spirit. The Light Rail Stations at 13th and 16th Streets become centerpieces of the R Street Corridor, with new development synergizing transit, retail, office and residential uses.

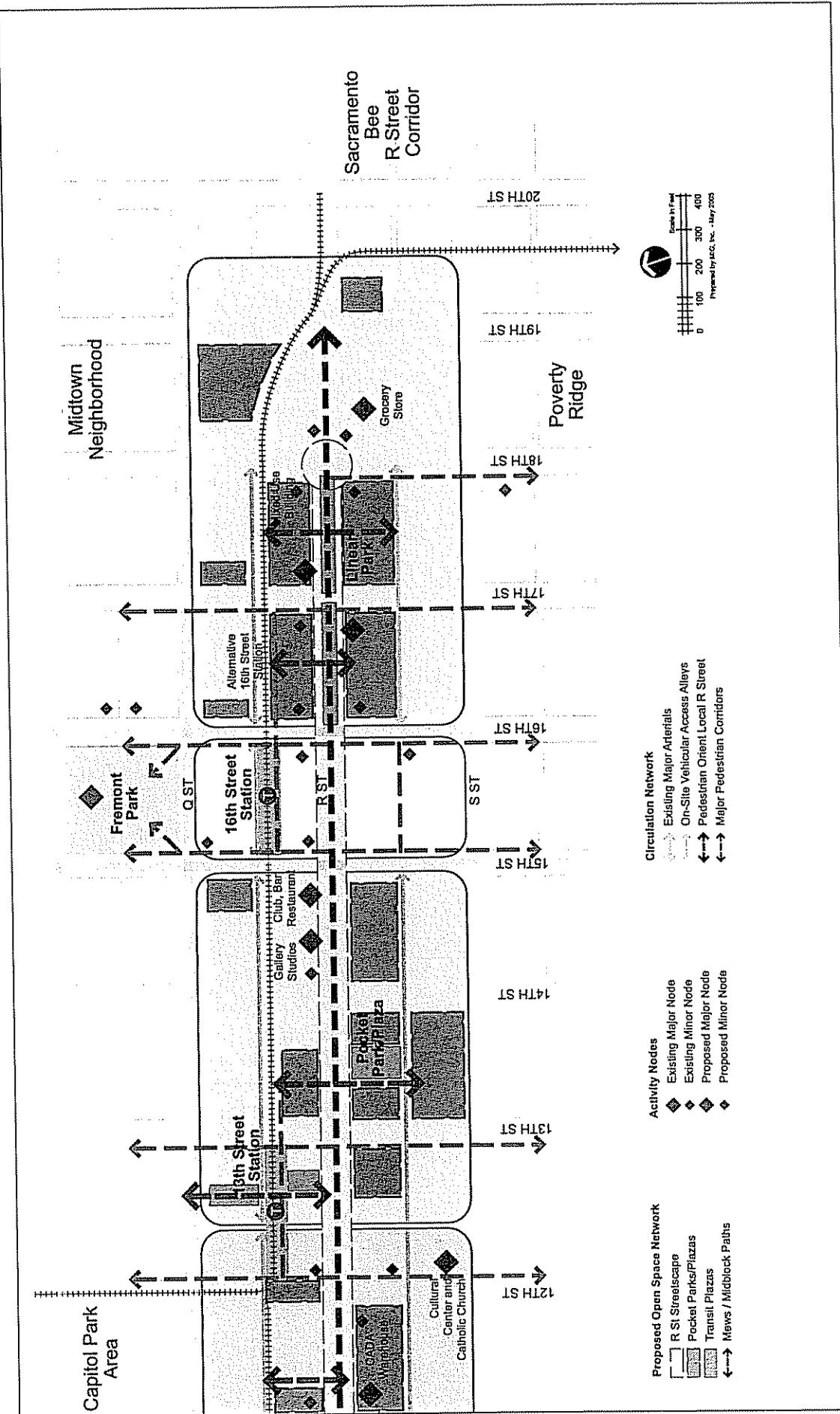
PUBLIC REALM

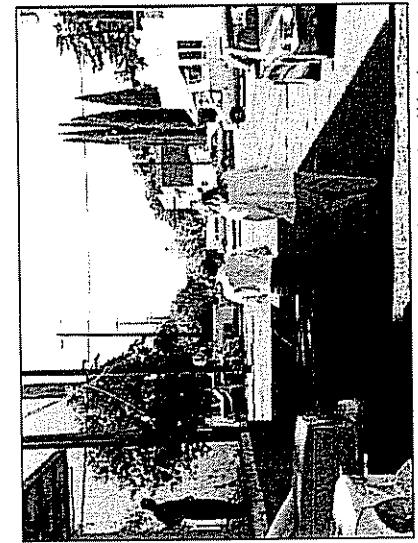
The urban design concept is based on a series of four interconnected sectors along the corridor that share a safe, well-designed and adequately programmed public realm. The public realm is comprised of a network of interwoven streets, pocket parks, Light Rail transit plazas, entry plazas, and mid-block pathways and mews (see Figure 4.1). Along with existing activity nodes and new planned development, the public realm provides staging spaces for community interaction and neighborhood revitalization.

High-density housing, neighborhood-serving retail, office, and industrial uses and public open spaces mix along R Street. A vibrant arts culture is a signature of the area with galleries, artists' lofts and studios, a neighborhood-scale theater, and design service-oriented office spaces.

► FIGURE 6.30: URBAN DESIGN CONCEPT







The plan preserves R Street as a space that pedestrians and motor vehicles share.

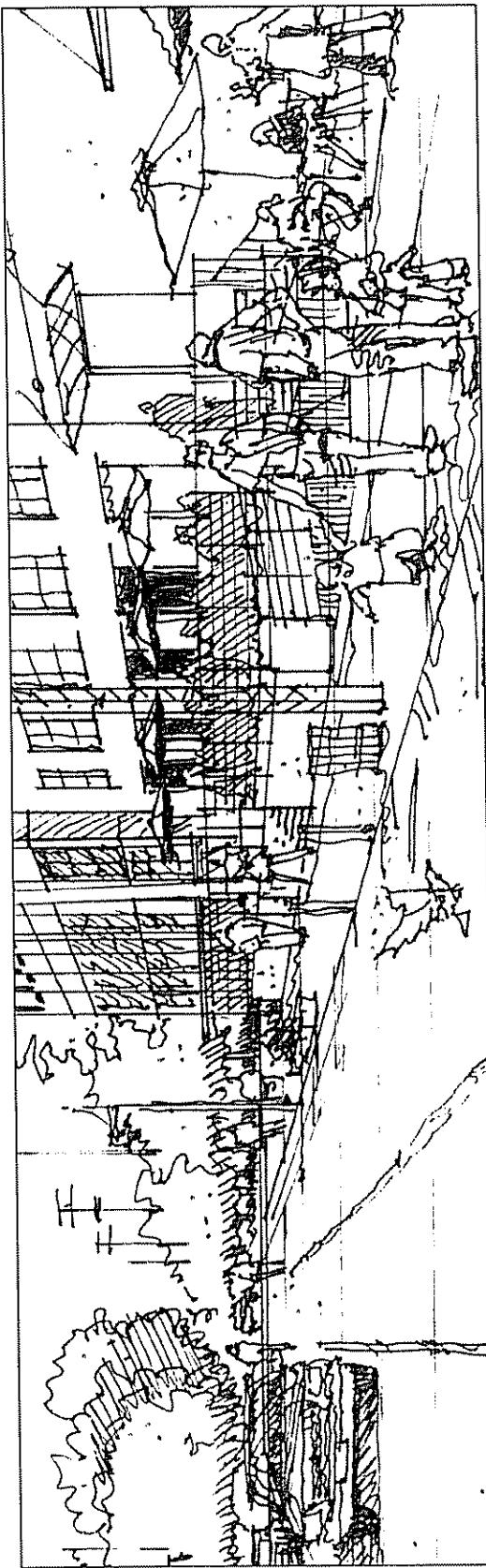
R STREET CHARACTER

The pedestrian quality of R Street is strengthened by maintaining the historic sense of shared space between pedestrians, bicycles and vehicular traffic in existing areas, and where possible, extending it to the remaining areas in the Corridor. Along with industrial streetscape elements, that respect the historic industrial spirit of the Corridor, this is a distinguishing, cohesive design treatment that respects the scale of existing development for the entire corridor (see Figure 4.2).

BUILT EDGES & STREETSCAPE

Well-shaded streets; public art; improved contiguous ADA pathways; outdoor café seating and pedestrian oriented retail show windows contribute vibrant activities. Streets and building edges are also activated with new infill development along primary pedestrian routes.

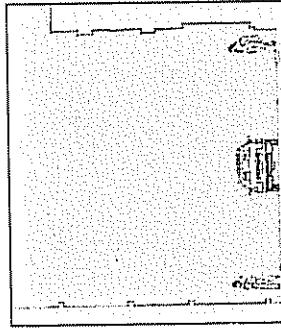
► FIGURE 6.31: PERSPECTIVE - R STREET CHARACTER



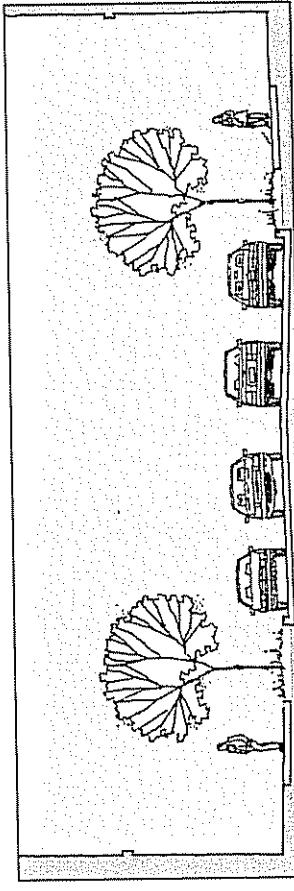
Building Scale

Development on R Street will be large scale and higher intensity than the neighboring residential streets. S Street will be compatible with existing one to three story residential developments. Development along Q Street will reflect the changing character of the street as it transitions from the office commercial Capitol Area to the residential Midtown Neighborhood, west to east respectively. Similarly, new mixed-use residential development along the north south numbered streets will respect the existing character.

♦ FIGURE 6.32: TYPICAL ALLEY SECTION

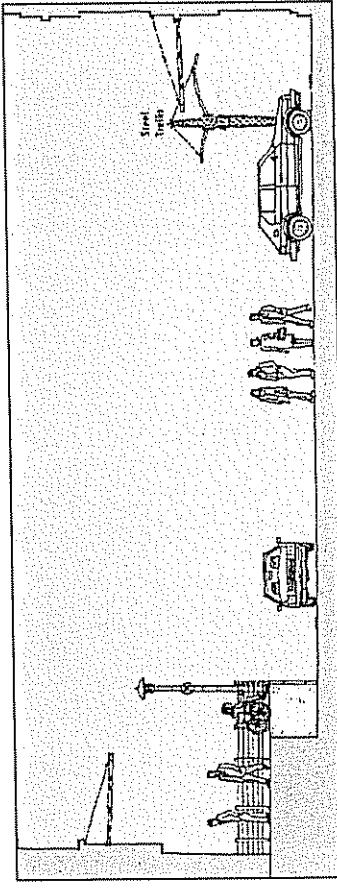


♦ FIGURE 6.33: TYPICAL NUMBERED STREET SECTION



♦ FIGURE 6.34: TYPICAL R STREET SECTION

Auto Circulation & Parking
 The east-west alleys and numbered streets provide primary routes for vehicular access to parking for both new and existing development (See Figures 4.3 and 4.4). On-site parking and service entries to new developments are primarily accessed from numbered streets and alleys. As a result, as new development occurs, R Street will absorb minimal additional through traffic and maintain its comfortable pedestrian environment (See Figure 4.5). The numbered cross streets serve as important connectors between adjacent neighborhoods, recreational resources and other destinations to the north and south of R Street.



CORRIDOR SECTORS

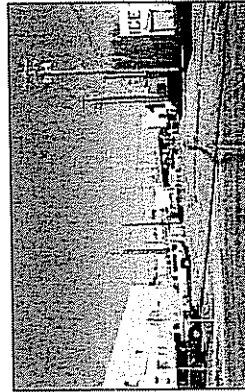
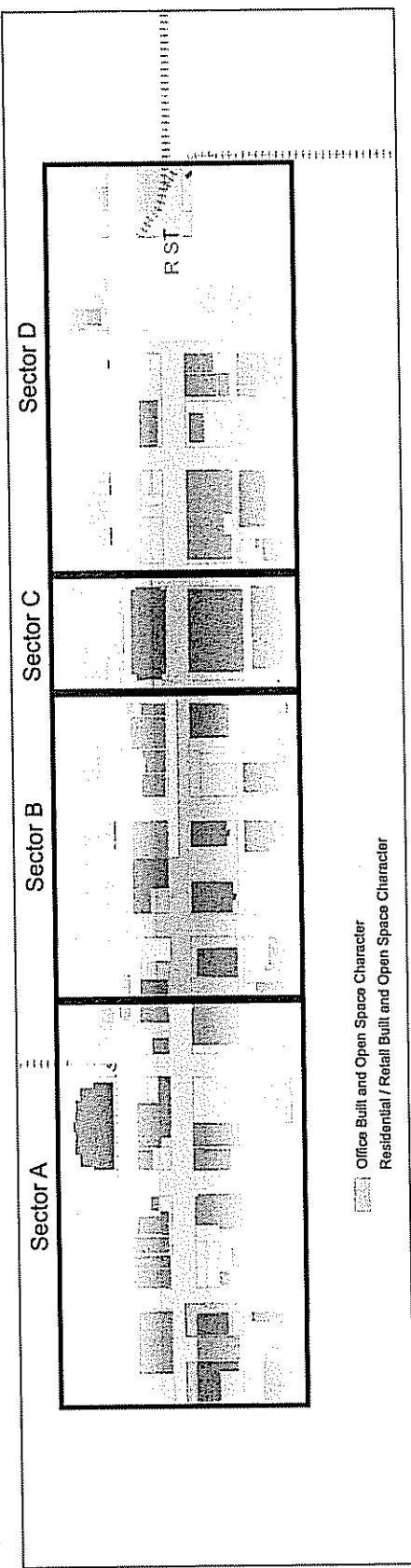
The Urban Design Concept recognizes the distinct characteristics of the different sections of the R Street corridor. Accordingly, the Concept is based on a series of four interconnected sectors or sub-areas along the corridor. The predominance of a certain type of character provides the rationale for defining sectors. This character is based on: the nature of uses; architectural form/design; historic elements; and significant clusters of underutilized buildings and vacant open space.

The discussion below is organized by sectors A through D. The description of each sector includes: a definition of boundaries; a review of existing character; a description of long term vision and ideal character; a discussion of design treatment of the public realm (including streets, parks and plazas); characterization of key circulation components; an outline of preferred types of future development as appropriate for each area; and a list of development opportunity sites that have the greatest potential to bring visible improvements to the area.

As highlighted with the shaded areas on the Concept Diagram (see Figure 4.1) and on the Sector Diagram (see Figure 4.6), sectors as they run west to east within the R Street project area include:

1. Sector A: Historic-Industrial;
2. Sector B: Mixed-Use Transit Hub;
3. Sector C: Art Walk; and
4. Sector D: Market Green.

➔ FIGURE 6.35: SECTOR DIAGRAM



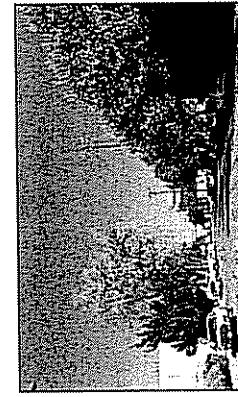
Sector D: Market Green

This sector includes the largest inventory of boarded up and underutilized buildings, vacant open lots, and underused roadways along R Street. This contrasts with the recently built and well-used "6 Street Market." There is a tremendous opportunity to develop animated multi-use open and built spaces that will connect to this key anchor development and capitalize on its synergy with the east end of the Corridor.



Sector C: Art Walk

The mostly developed four blocks of Sector C include high-rise government office buildings and seven story parking structures that are pedestrian unfriendly. The open space around the 16th Street Station underlines its importance as a major transfer station in the Light Rail system and a primary entry point to Downtown. There is an immediate need to improve the street and station area environments in a way that provides an enriching and enjoyable pedestrian experience.



Sector B: Mixed-Use Transit Hub

Sector B has the largest number of automobile-oriented tilt-up construction buildings on R Street, which intermingle with some industrial, cultural and entertainment uses. Single-use residential uses front Q Street, while some front S Street. This segment features the opportunity to replace the stark office building facade with a pedestrian-friendly open space and mixed-use residential development. This will help capitalize on the TOD opportunities provided by the 13 Street Station.



Sector A: Historic-Industrial

Sector A has a significant concentration of historic brick warehouse buildings and industrial uses. This western-most segment features the strongest industrial character of the R Street Project area. The traditional sharing of the roadway between pedestrians, bicyclists, and automobiles is most prominent in this area. Development of new buildings and streetscape elements provide a unique opportunity to maintain and strengthen the unique historic fabric of R Street.

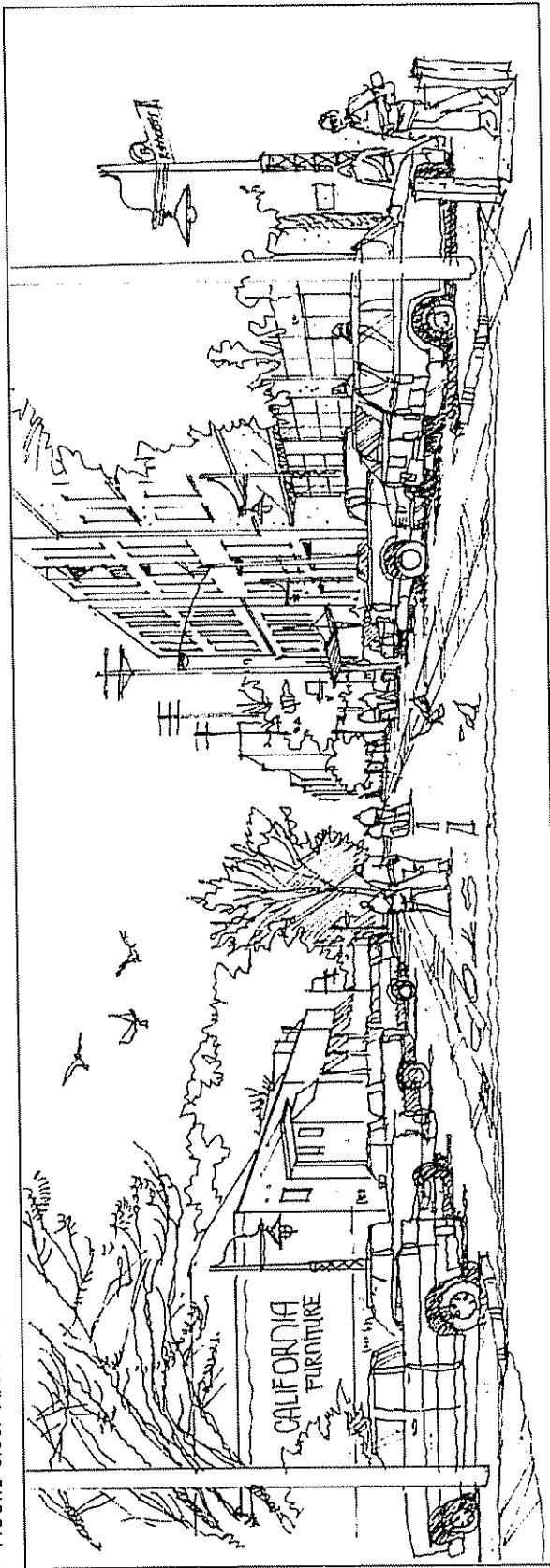
SECTOR A: HISTORIC-INDUSTRIAL

The sector formally runs from 9th Street to mid-block between 12th and 13th Street (immediately east of the Capitol Wholesale Electric Building).

However, the identifying qualities of the sector continue west to 8th Street. In order to maintain a continuous and consistent design treatment, recommendations for streetscape improvements and design guidelines should also apply to this extra block to the west of the formally designated sector.

Key destinations such as well established restaurants, a neighborhood theater, and art galleries help make this one of the most well known parts of the entire R Street Corridor.

► FIGURE 6.36: SECTOR A PERSPECTIVE



SECTOR A VISION

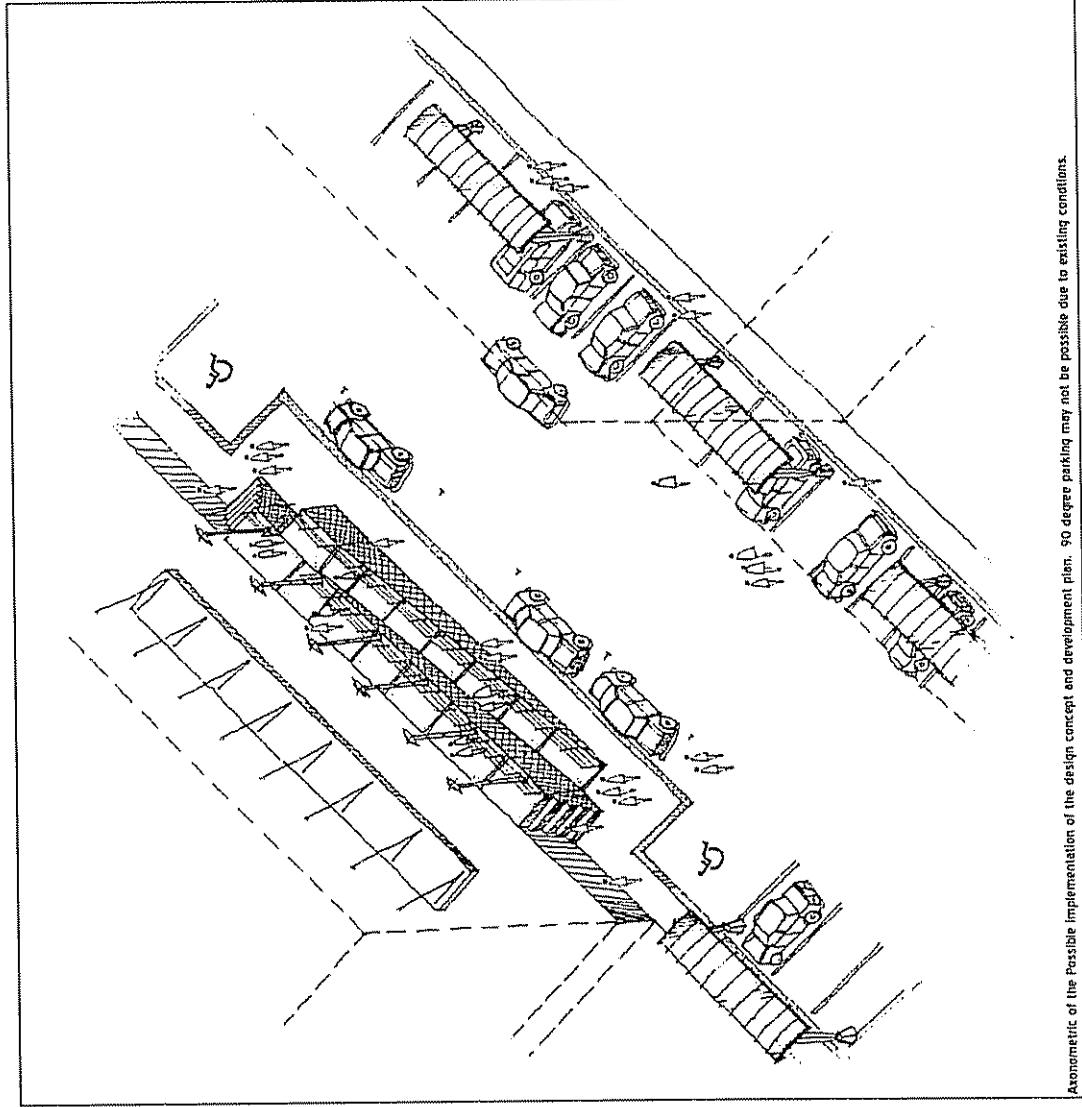
Overall, the Historic-Industrial sector is visualized as a sub area that:

- Capitalizes on its proximity to the 13th Street Station to accommodate new TOD; and
- Strengthens its unrefined, industrial character through streetscape improvements and building edge articulation.

Vacant historic buildings are reused and new building development continues to reflect the large-scale industrial warehouse style. A simple, utilitarian design aesthetic dominates both the building edge articulation and new streetscape improvements. Typical design elements and architectural materials that reflect the historic industrial character of the area are utilized in new development. Some of these elements include loading docks, wide awnings, steel, brick and paned glass.

The nearby landmark signal tower at the southeast corner of 8th and R Street is retained, and its unconventional, "gritty" quality informs R Street design details. Its simple, industrial form makes it an appropriate gateway marker to the Historic-Industrial sector.

► FIGURE 6.37: SECTOR A AXONOMETRIC

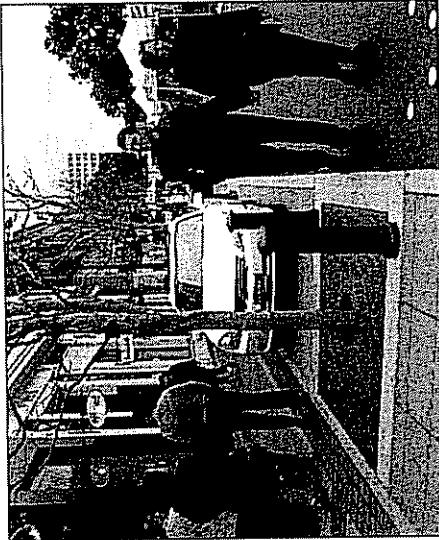


Axonometric of the Possible Implementation of the design concept and development plan. 90 degree parking may not be possible due to existing conditions.

SECTOR A CONCEPT PLAN ELEMENTS

Public Realm

An absence of sidewalks and street trees defines this segment of R Street, and contrasts with the tree-lined sidewalks of the cross streets. A unique sense of shared space by pedestrians, bicycles and vehicular traffic occurs in this sector, and is maintained throughout the corridor as a cohesive design treatment. A five-foot pathway along one side of R Street (but at the same level and with the same texture as the rest of the roadway) is universally accessible. On-street industrial activities are maintained, such as the loading and unloading of freight trucks.



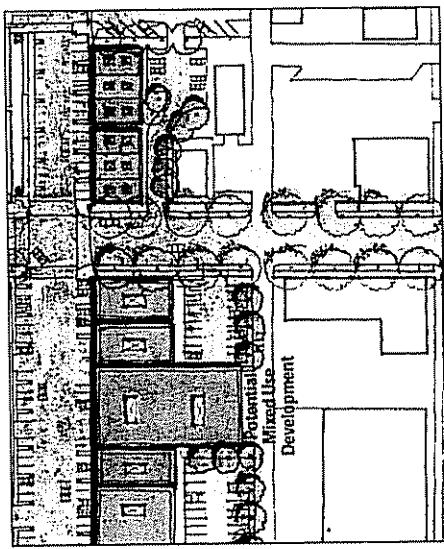
Sector A creates a public environment that vehicles and pedestrians share, as observed in Santana Row, San Jose.

The loading docks of former industrial buildings are delineated with industrial-style wire railings and converted into overflow space for retail and restaurants. Streetscape elements such as a steel trellis/shade structure, "I"-beam bollards, and utilitarian street lighting continue the industrial design language of the corridor. A pedestrian plaza in front of the Studio Theatre serves as a spillover space, articulated with "I"-beam bollards.



Sections of the historic Pearl neighborhood in Portland typify a shared public realm and provide a model for potential development along R Street.

a. Design Concept

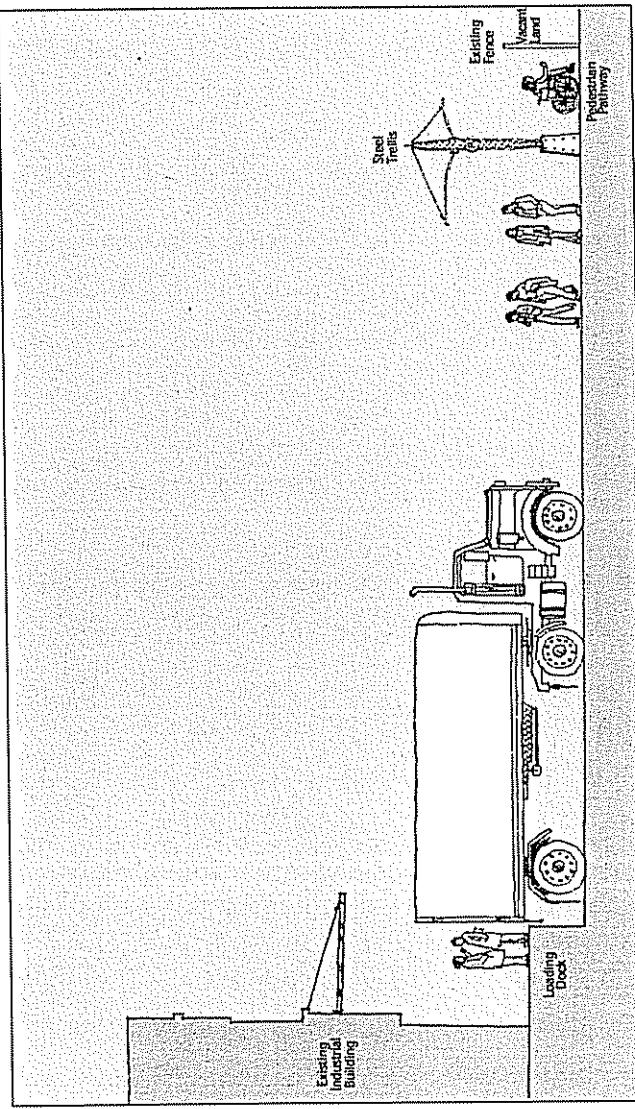


Circulation

Ninth and 10th Streets remain primary one-way couplets. The mid-block alley between R and S Streets becomes the primary automobile access route to parking in the rear of new developments. On-street parallel parking continues on both sides of R Street, except where loading docks are located, allowing a continuous dedicated pathway for universal accessibility (See Figure 4.9).

North-south connections that are currently impeded along 12th Street (at the alley between R and Q) because of rail development activity will be improved for safe pedestrian and bicycle access to the 13th Street Light Rail Station.

♦ FIGURE 6.38: SECTOR A SECTION



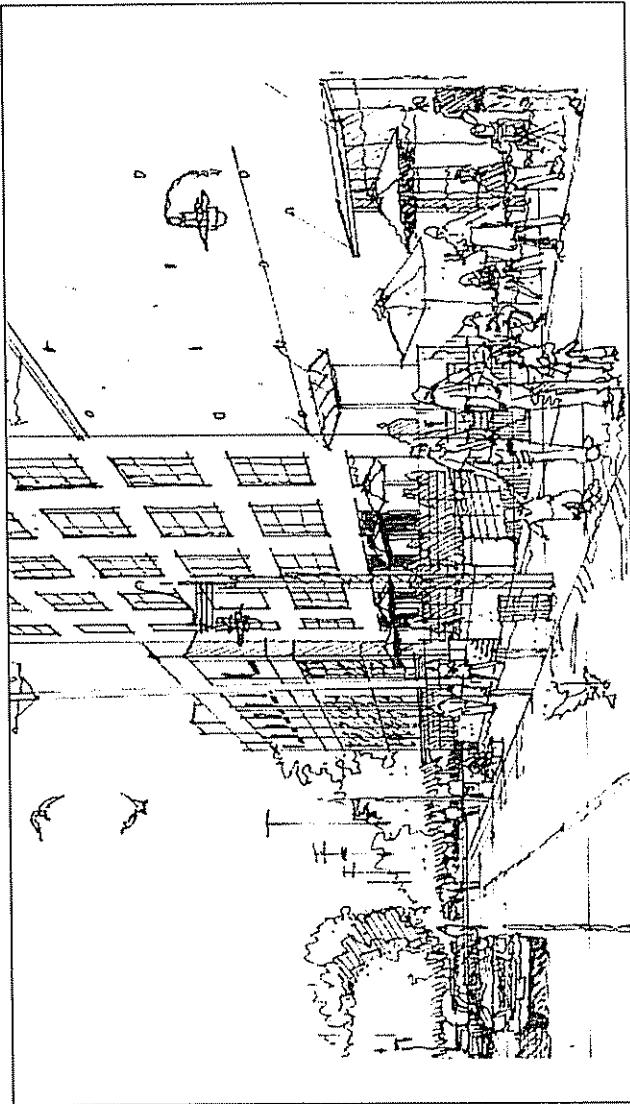
New Development and Opportunity Sites

New mixed use development should be oriented towards the 13th Street Station (where adjacent) and should be at least three to four stories high to maximize transit-oriented development potential.

The parking lot site along Q Street at 10th Street could potentially become a parking structure with ground floor retail facing Q Street near Roosevelt Park.

CADA's 122-unit residential loft mixed use development "Capitol Lofts," is a turnkey project that promises to generate more activity in this sector. In addition, strategic opportunity sites have been identified because of their potential to catalyze additional development and investment in the area. These sites are illustrated in Figure 4.10.

* FIGURE 6.39: PERSPECTIVE CADA'S CAPITOL LOFTS



♦ FIGURE 6.40: SECTOR A PLAN & OPPORTUNITY SITES

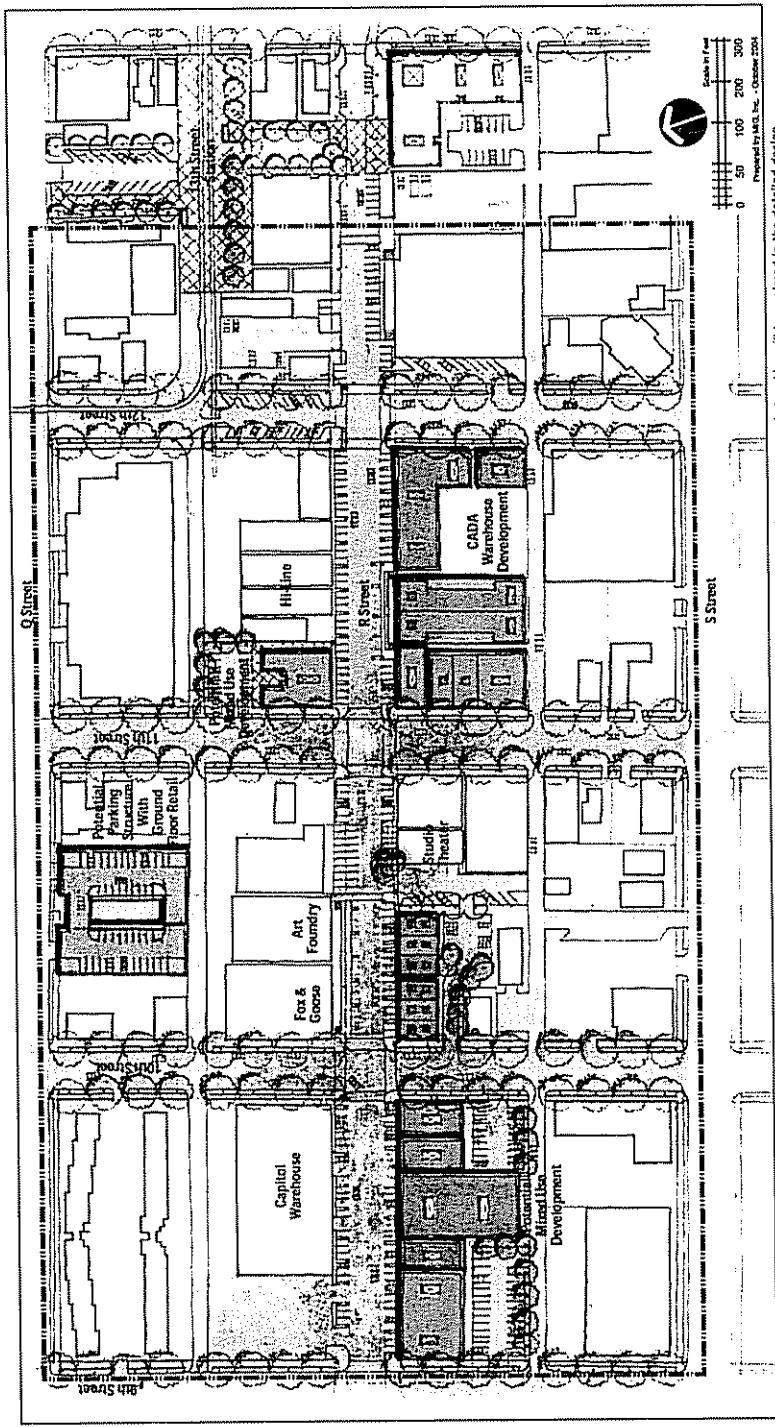


Figure 6.40 is a conceptual plan sketch. After this sketch was completed it was determined the street right-of-way is not sufficient for 90 degree parking; however, angled parking will be explored in the detailed design.

Opportunity Sites

- The parking lot at the southeast corner of R and 10th Streets, opposite the Fox and Goose Restaurant;
- The vacant historic building at the southwest corner of R and 10th Streets;
- Half a block south of R between 8th and 10th Streets;
- The parking lot fronting Q Street between 10th and 11th Streets;
- The northeast corner lot at R Street and 11th Streets; and
- The vacant lots immediately north of the 13th Street Station.

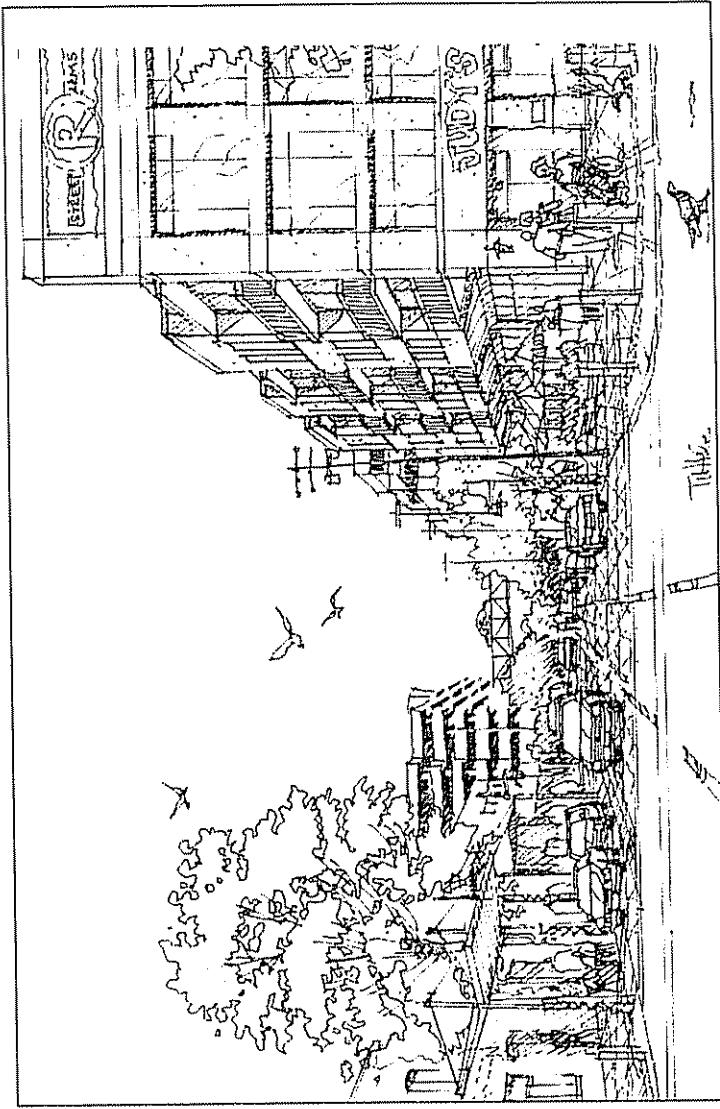
SECTOR B: MIXED-USE

TRANSIT HUB

Sector B runs from mid-block between 12th and 13th Streets, east to 15th Street, and contains a major cluster of office buildings. Development in this sector is primarily composed of single-story buildings and surface parking lots that are significantly underutilized.

These low-density uses do not capitalize on the opportunities inherent from proximity to the 13th and 16th Light Rail Stations. The recent development of a bustling restaurant and club along R Street just west of 15th Street has activated a portion of the street, however, and it promises to ignite further development in the area.

♦ FIGURE 6.41: SECTOR B PERSPECTIVE

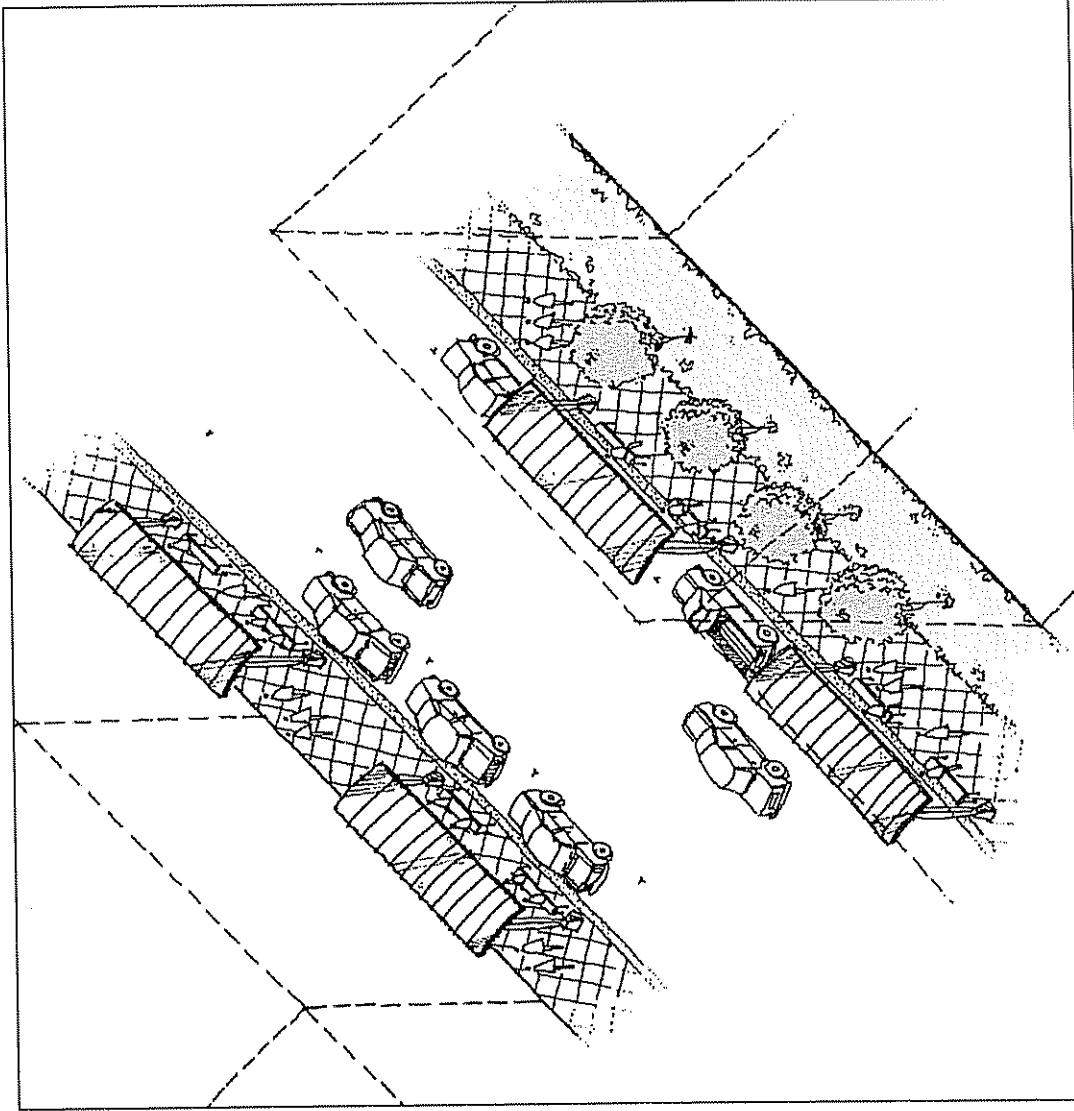


SECTOR B VISION

Significantly underutilized land and buildings in this area present exciting opportunities to infill with new transit-oriented development that will encourage a synergy of uses. As this sector transitions into a high density, mixed use residential and retail/commercial area, it is envisioned as a vibrant place with live-work lofts, artist studios, corner cafes, ground floor neighborhood-serving retail and restaurants, pocket parks and plazas, and neighborhood amenities that are oriented around the 13th and 16th Street Light Rail Stations.

New development along R Street accommodates existing light manufacturing and warehouse uses; retains the eclectic coexistence of diverse uses that permeates the entire study area; and respects the interface of residential neighborhoods. The industrial streetscape design treatment unifies this sector together with the rest of the corridor.

* FIGURE 6.42: SECTOR B AXONOMETRIC

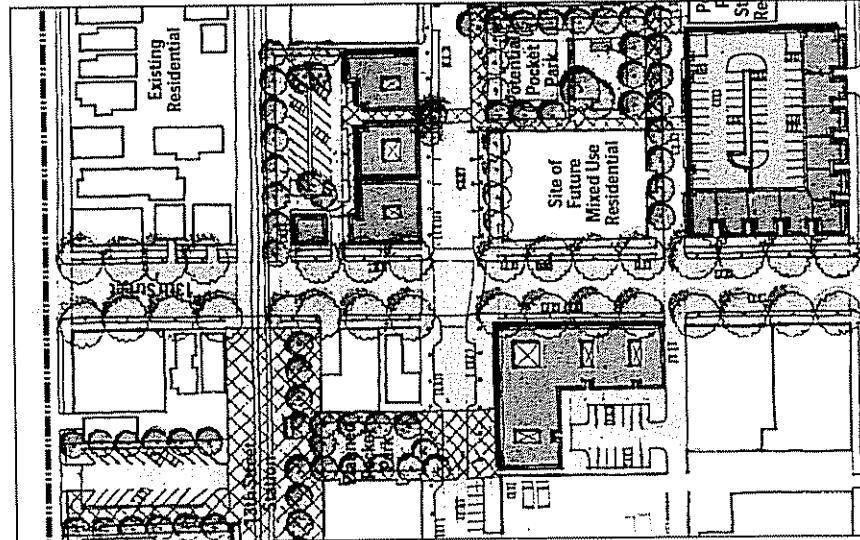


SECTOR B CONCEPT PLAN ELEMENTS

Public Realm

The Development Concept proposes pocket parks and small-scale plazas to serve local employees, transit-users and nearby residents.

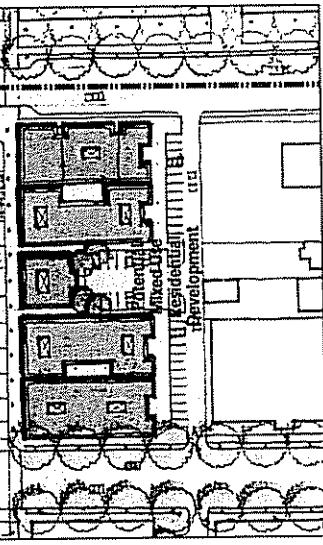
One pocket park is sited just south of the 13th Street Light Rail Station at the current location of the parking lot. A similar pocket park/green plaza is situated mid-block between 13th and 14th Streets, just south of R Street. These open spaces with groves of trees, seating and water features will serve as green oases and valuable gathering social spaces for employees of the adjacent offices, and for future residents and transit users.



Sector B includes a series of interconnected public pocket parks and plazas that are with private development.

The 13th Street Light Rail Station is improved with a public transit plaza. In addition, the parking area between the Station and Q Street is renovated to allow for a landscaped, tree-lined pedestrian connection. Small temporary food (hawker) stands at the edge of the Station would prove convenient for transit users waiting for the train.

The Urban Design Concept reconfigures the existing 80-foot right-of-way to allow for a more generous, universally accessible pedestrian pathway (see Figure 4.14). In the long term, the sidewalks in this sector are removed so that the pedestrian pathway is at-grade with the roadway. Streetscape elements, such as the steel trellis/shade structure continue the industrial design language of the corridor.

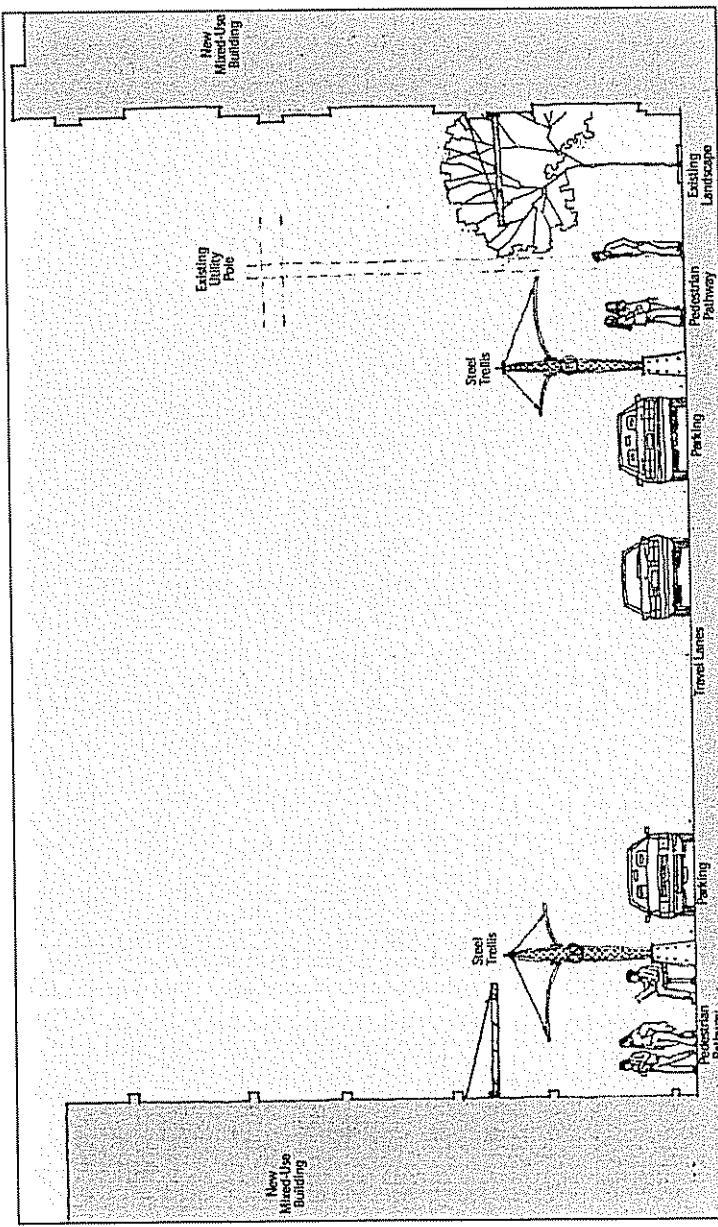


Circulation

Fifteenth Street continues to serve as a primary one-way arterial. A mid-block pedestrian link through the proposed pocket park connects the 13th St Light Rail Station to R and S Streets. Fifteenth Street parallel parking continues on both sides of the road along a single lane of traffic in either direction, albeit in a reduced roadway width of 40 feet. All new development has adequate off-street parking tucked in the rear of buildings. Alleys serve as primary vehicular access ways for both parking and service vehicles.

Mid-block alleys provide vehicular access to buildings and parking lots.

► FIGURE 6.43: SECTOR B CONCEPTUAL SECTION (LONG TERM)



New Development and Opportunity Sites

New development should build on the momentum of the successful new restaurant/club on the north-west corner of 15th and R Streets. The reuse of this historic brick building has begun to activate the block. Similar conversions should support transit activity, residential living and nearby arts-related uses, such as art galleries, artists' lofts, and design studios.

Buildings should reflect a greater intensity, with a minimum of 3 to 4 stories to maximize the available building envelope. Buildings should also ensure a comfortable walking distance to key destinations in relation to nearby transit stations. Development opportunities along the numbered streets at the intersections of Q and S Streets should be earmarked for high-density townhomes or apartments that respect the adjoining residential character.

As surface parking lots are developed into other uses, a potential structure is proposed at the northeast corner of 13th and S Streets to accommodate parking needs. This structure is proposed as a mixed-use development with residential uses fronting the streets and access to parking structure from the alley.

Promising infill opportunity sites in Sector B are illustrated on Figure 4.15.

◆ FIGURE 6.44: SECTOR B PLAN & OPPORTUNITY SITES

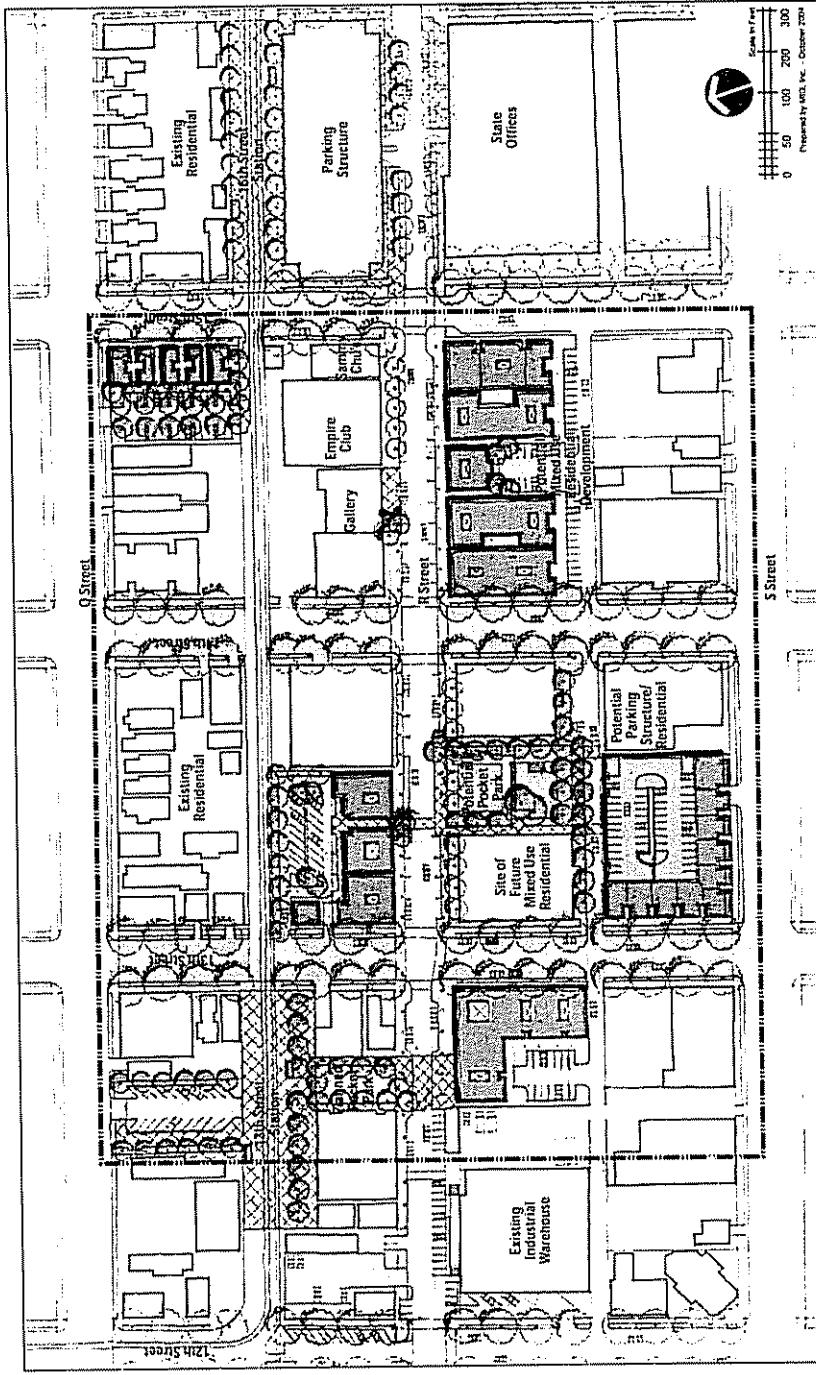


Figure 6.45 is a conceptual plan sketch. After this sketch was completed it was determined the street right-of-way is not sufficient for 90 degree parking; however, angled parking will be explored in the detailed design.

Opportunity Sites

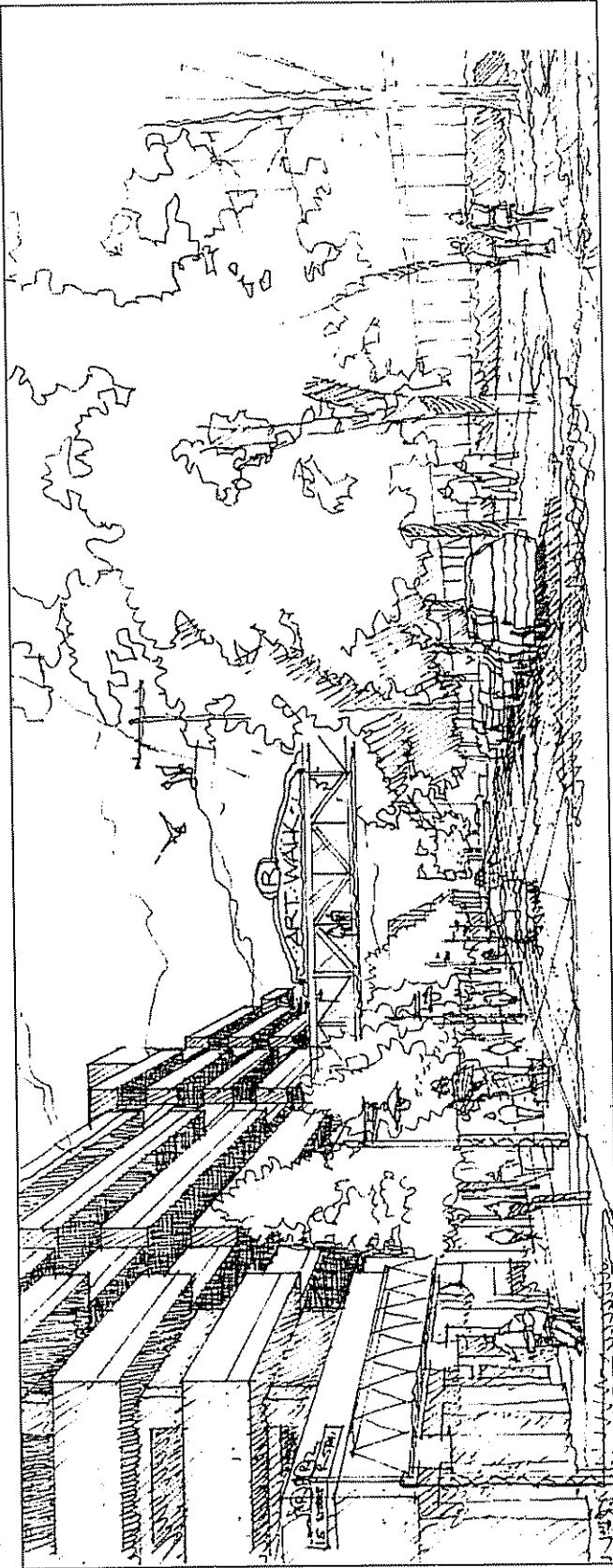
- The northeast and southwest corner of 13th and R Streets;
- The south side of R Street between 14th and 15th Streets;
- The northeast corner of 13th and S Streets;
- The vacant lot west of 15th Street between Q and R Streets; and
- The parking lot fronting R Street between 13th and 14th Streets.

SECTOR C. ART WALK

Sector C is a short, two-block automobile-oriented segment of the corridor between 15th and 16th Streets. While the large buildings in the area provide shade and a sense of enclosure, their imposing facades and edges are void of detail and activity, both along R Street and the Light Rail Station.

In addition, the orientation of the one and two-story residential structures, with their backs fronting the north edge of the Light Rail Station further creates an unappealing pedestrian environment.

◆ FIGURE 6.45: SECTOR C PERSPECTIVE

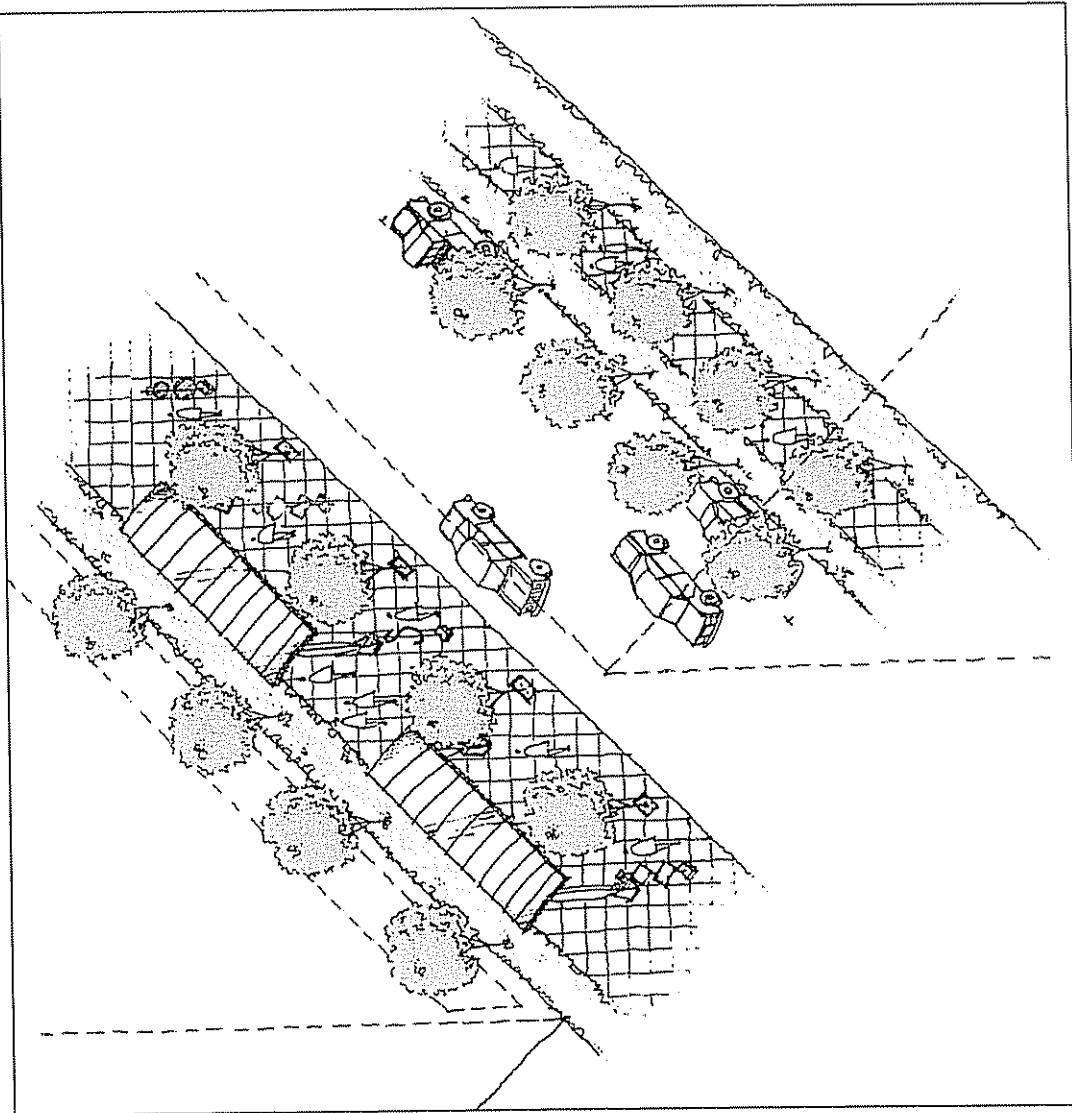


SECTOR C VISION

The vision for Sector C is to improve the interface between the public realm and the existing buildings fronting R Street and the 16th Street Light Rail Station. This small sector evolves into a vital "art walk", connecting activity nodes immediately to the east and west.

Both the ground floor building facades and the pedestrian right-of-way is transformed into a pedestrian-friendly space that accommodates various types of art exhibition. This allows for a celebration of the arts; provides a more pleasant building edge; and creates a pedestrian-friendly street environment. The tree-lined promenade itself serves to connect the mixed-use arts entertainment cluster one block to the west, to the neighborhood mixed-use retail commercial corridor to the east.

* FIGURE 6.47: SECTOR C AXONOMETRIC



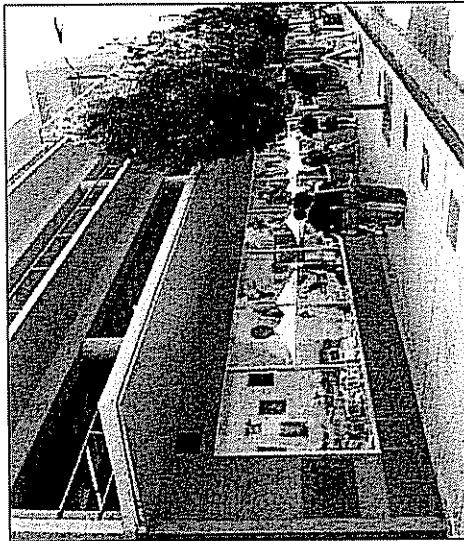
SECTOR C : CONCEPT PLAN ELEMENTS

Public Realm

As an immediate streetscape improvement, widen the northern edge of the existing sidewalk such that the pedestrian realm is 18 feet wide. This is achieved by removing parking on the northern side of the road. This reconfiguration will create space for a generous promenade where various art exhibits will

enrich the pedestrian experience. Features could include display boxes, murals, permanent or rotating exhibits and/or sculptures and space to accommodate art-related events and festivals.

As seen in downtown Berkeley parking structure, blank walls, such as those in Sector C, can be transformed into public gallery space to create an engaging pedestrian experience.



The alley between R and Q Streets along the 16th Street Light Rail Station is improved and consolidated with existing Station open space to create a vibrant transit plaza. A row of trees along the northern edge of the transit plaza provides an attractive shade canopy and serves as a privacy screen for nearby residences.

Cafes, small convenience stores, and other pedestrian-friendly retail uses will further activate the plaza around-the-clock while increasing the perception of safety. The current dark glass treatment on the ground floor of the parking structure facing the station should be replaced with a more inviting transparent glass building edge. Additionally, an active leasing program should be developed for the retail edge.

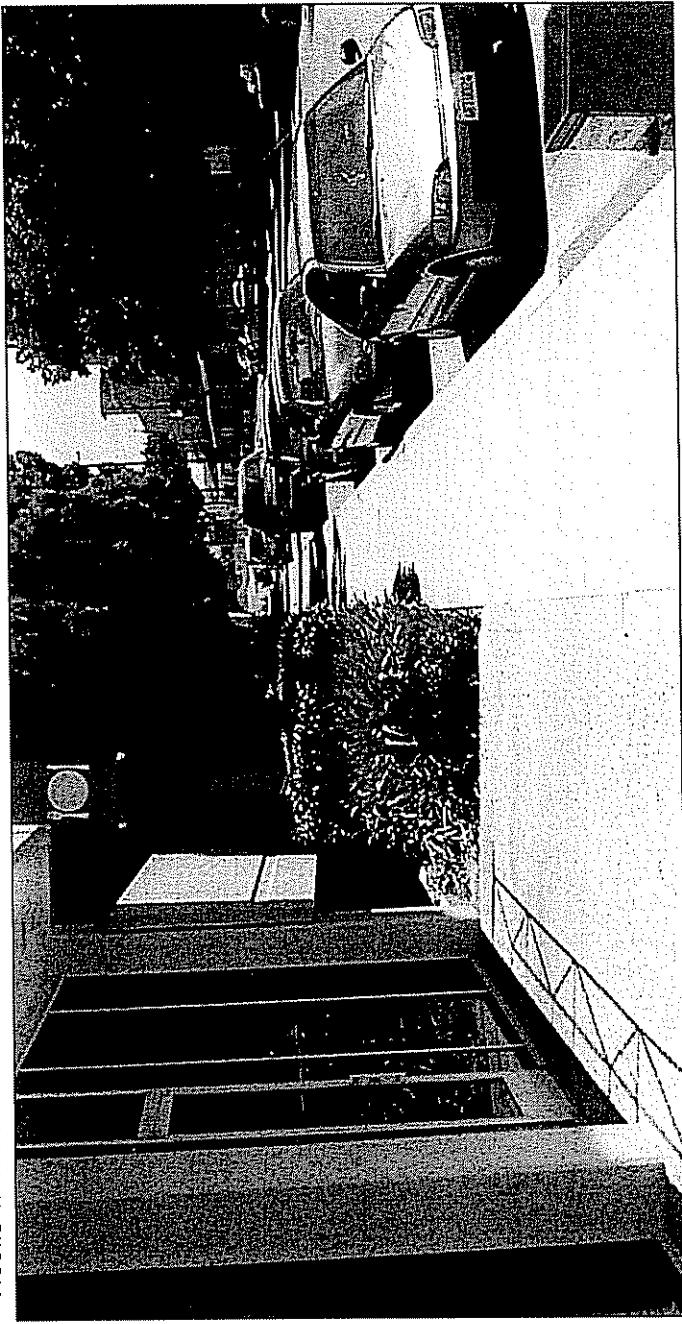
Improve the barren automobile-oriented edge of the parking structure by reconfiguring the 5 foot wide building space facing R Street into an exhibition space, transforming it into a public gallery. This space could be used to display art and/or provide a much-needed visual descriptive history of the corridor. Seating on the tree-lined southern edge of the roadway is activated by complementary uses, such as hawker stands to serve the foot traffic. Fifteenth and 16th Streets, which are bus routes and major pedestrian corridors, retain their pedestrian-friendly, tree-lined character.

Circulation

Fifteenth and 16th Streets continue to function as major one-way arterial couplets for the Central City.

In the unlikely event that the parking structure were demolished and replaced with mixed use development, a mid-block "public" north-south connection between the 16th Street Light Rail Station and the 16th Street Plaza would be valuable.

► FIGURE 6.47: NORTH SIDE OF R STREET LOOKING EAST BETWEEN 15TH AND 16TH.



New Development and Opportunity Sites

Since this sector is fully developed, short-term improvements take advantage of the opportunities provided by the positive synergy of the 16th Street Light Rail Station. These include reconfiguring and activating the existing building edges and creating a vibrant aesthetically pleasing station plaza. In the event of demolition of existing buildings along R Street (especially the parking garage) transit-oriented high-density mixed-use development with ground floor should be prioritized.

If the opportunity arises, a longer-term goal is to complement nearby transit use by developing mixed-use buildings with ground floor retail on both sides of R Street.

Section 6: Supplemental Design Guidelines
R Street Corridor Design Guidelines
2. 9th to 19th Streets

a. Design Concept

♦ FIGURE 6.48: SECTOR C PLAN

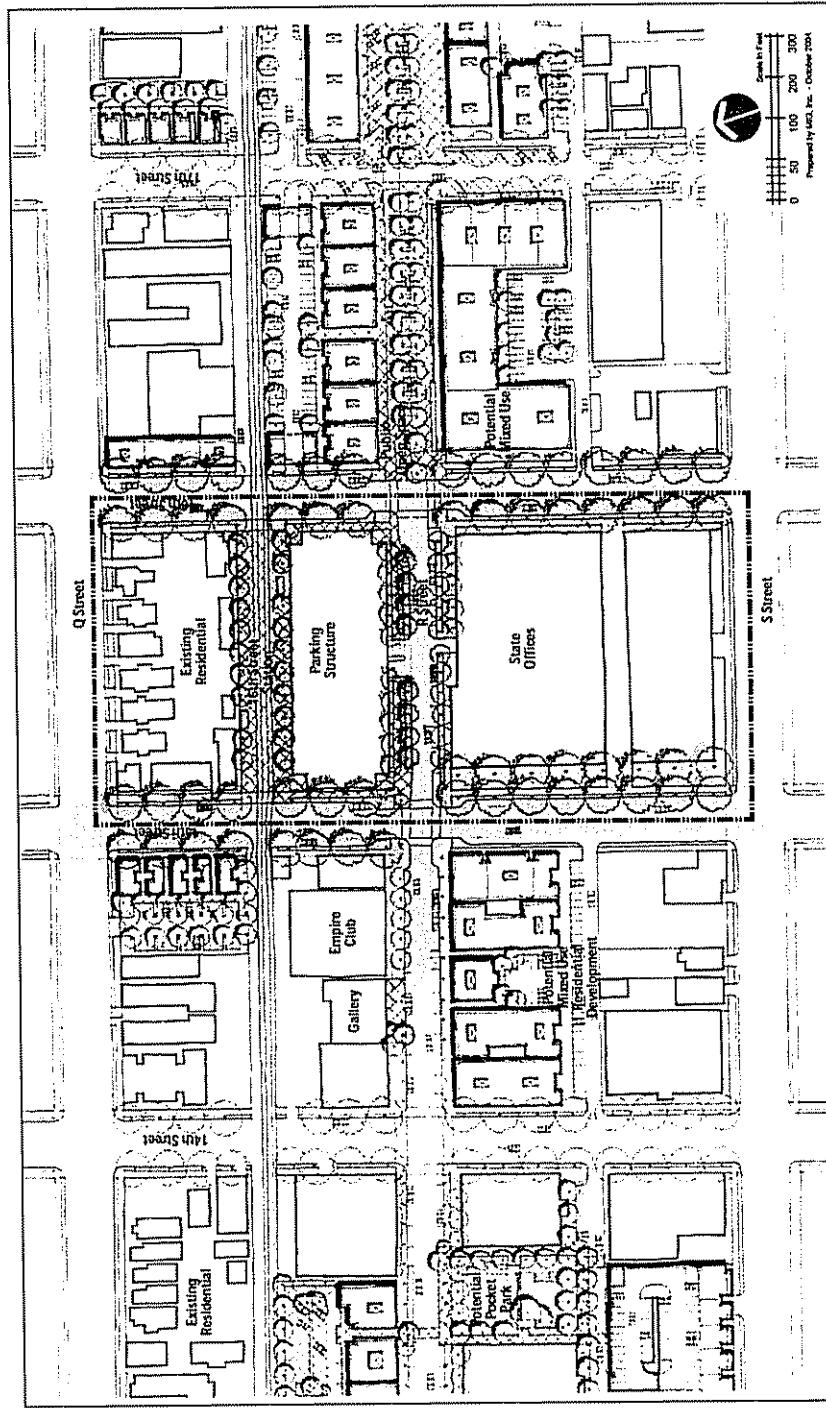


Figure 6.49 is a conceptual plan sketch of the possible implementation of the design concept and development plan.

SECTOR D: MARKET GREEN
 Sector D extends from 16th Street to the eastern edge of the study area (mid-block between 19th and 20th Streets). The recently built "R Street Market" is a mixed-use retail development (east of 18th Street immediately north and south of R Street) that

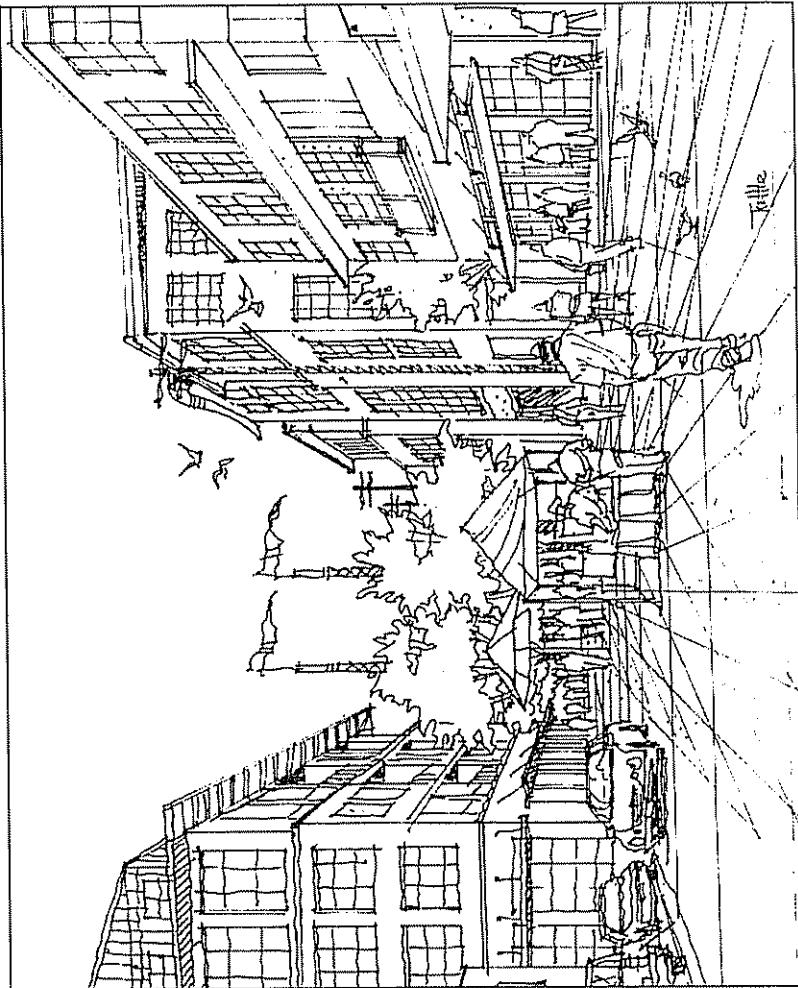
includes a ground floor neighborhood grocery store, cafe and restaurant with upper story housing.

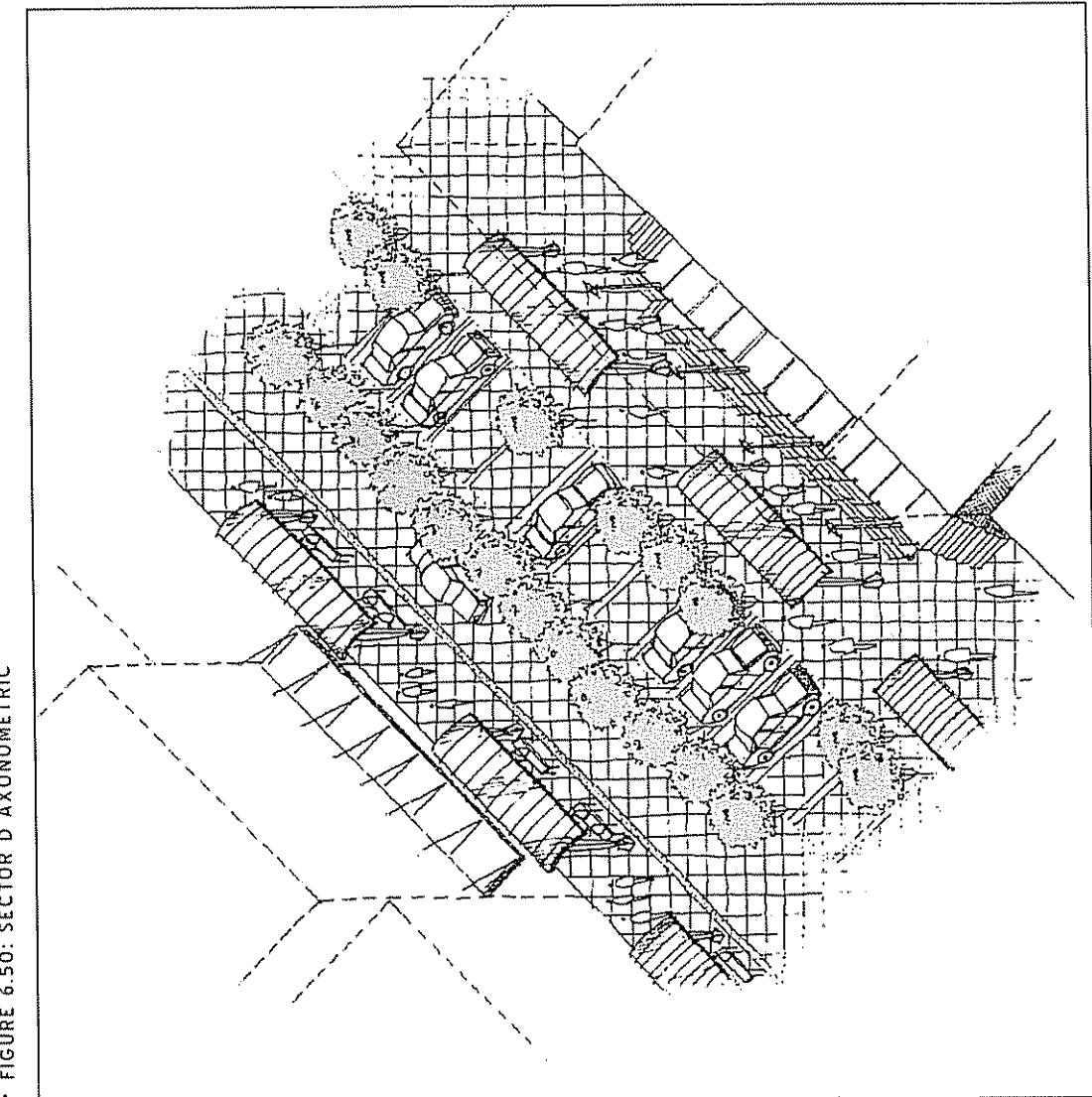
SECTOR D VISION
 Sector D is visualized as an area that builds upon anchor development to the east with vibrant, active uses. It maximizes the transit-oriented potential of underutilized sites and provides a signature public open space.



► FIGURE 6.49: SECTOR D PERSPECTIVE

The proposed "market green" along the spine of R Street





◆ FIGURE 6.50: SECTOR D AXONOMETRIC

becomes a primary social gathering space.

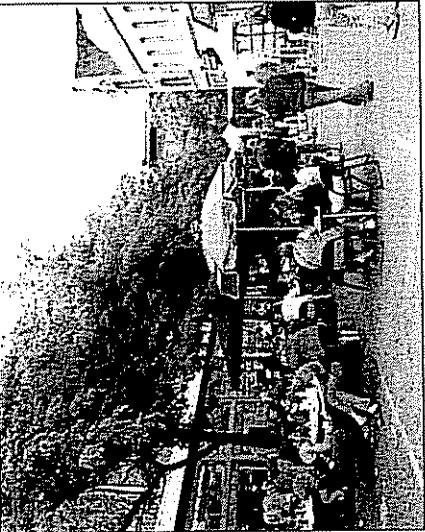
Surrounded on two sides by high-density housing and transit-oriented, neighborhood-scale uses, this two-block linear open space within the existing, generous 80-foot wide R Street roadway (between 16th and 18th Streets) is a vibrant, landscaped multi-use, multi-functional, public open space.

The green terminates at a neighborhood-scale plaza near the new retail hub on the corridor's east end. Reuse of historic brick buildings strengthens the historic character of the area.

The sense of shared space design concept utilizing a curbless street design continues in this section, recapturing the historic joint use of the roadway.

SECTOR D CONCEPT PLAN ELEMENTS

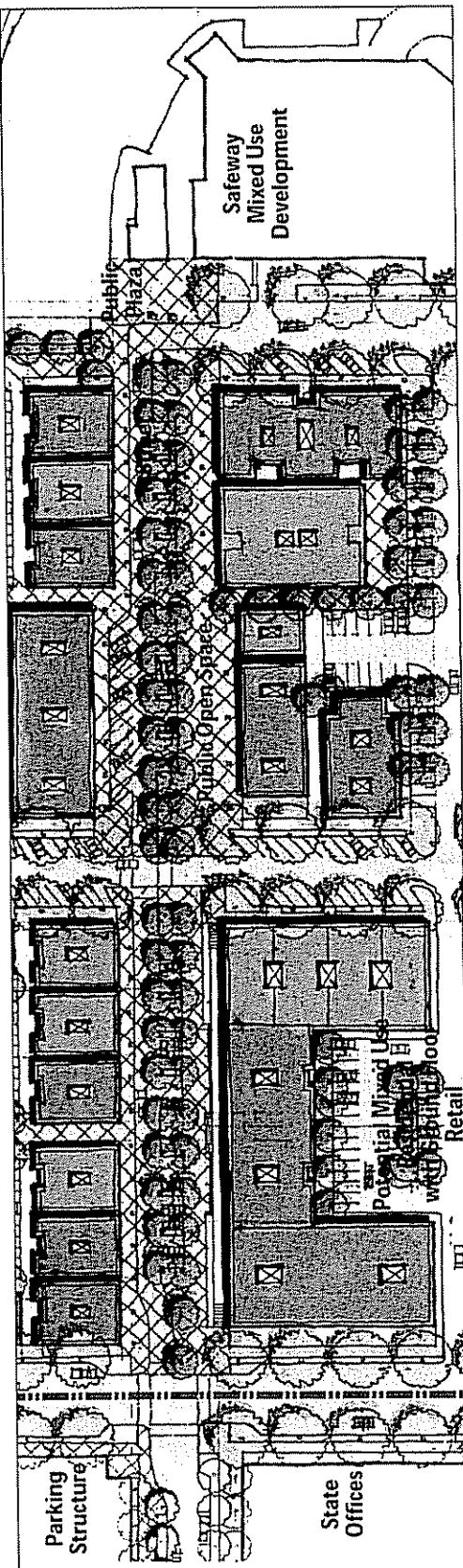
Public Realm



retail and commercial uses, and during weekends transform as a space to host flea markets, farmer markets or other community events and festivals.

The "Green," or central open space on R Street, is a shaded area with a double bosque of trees running down the center of the street. Trellis shelters, awnings and tall buildings on the south side of the street provide shade during hot summers. Seating, benches, lighting, and other pedestrian-scale amenities also accentuate the space. The park accommodates multiple uses throughout the day, week and year. For example, during weekdays, it could serve as a small pocket plaza with limited parking for the

Sector D can emulate the use of open space as seen in Portland.



The Market Green is a two block long multiuse public open space within the existing underused R Street right-of-way that connects to the recently completed R Street Market

Circulation

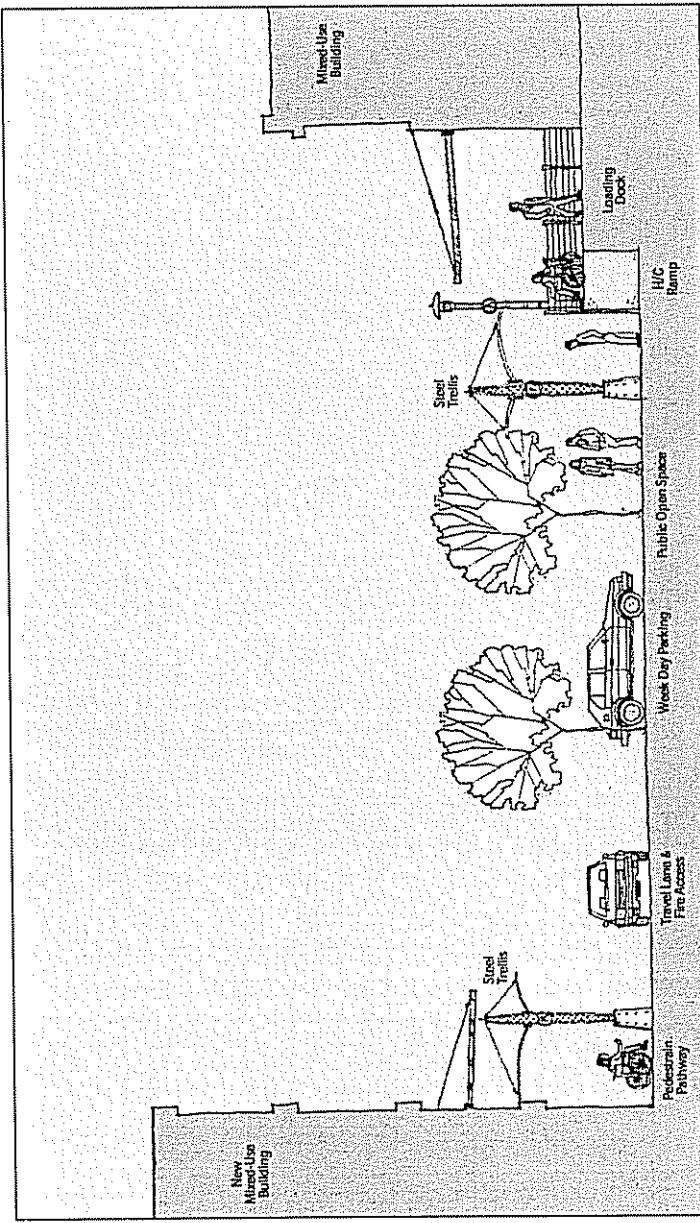
A two-way vehicular lane is integrated into the northern portion of the street to accommodate fire trucks and service vehicles. Sixteenth Street remains a major arterial, both for the corridor and the City. Seventeenth and 18th Streets are reinforced as neighborhood pedestrian-friendly streets with bulb-outs at R, S, and Q Streets, and mid-block alleys between

Q and S Streets. Due to the merging of the two RT lanes and track elevation half a block away, automobile and pedestrian traffic on 18th Street will continue to be disconnected between R and Q Streets.

On-street parking along R Street is restricted to a single row of angled parking on the south

side of the roadway (see Figure 4.22). Off-street parking for all new developments in this sector occurs to the rear of new buildings, and is accessed by alleys and numbered streets only. Alleys continue to be the primary auto access routes for both off-street parking and service vehicles for the new developments along R Street.

♦ FIGURE 6.51: SECTOR D CONCEPTUAL SECTION



New Development and Opportunity Sites

A number of development opportunities exist for Sector D, including the reuse of historic brick buildings and development of large parcels of vacant land. The primary opportunity sites are illustrated on

Figure 4.23.

◆ FIGURE 6.52: SECTOR B PLAN & OPPORTUNITY SITES

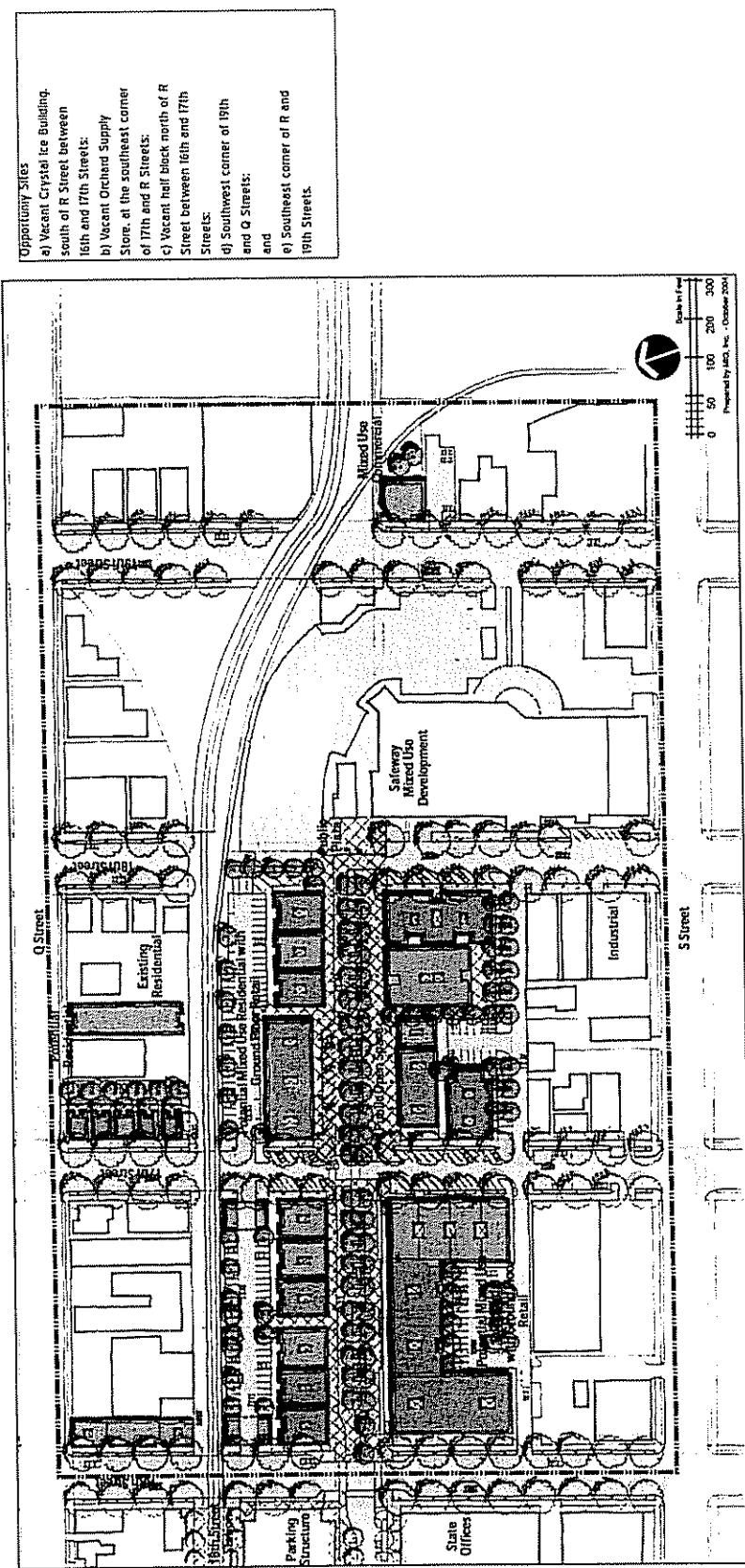


Figure 4.23 is a conceptual plan sketch of the possible implementation of the design concept and development plan.

design guidelines

IN THIS SECTION

BUILDING CHARACTER

Building Massing and Scale

Building Elements

Building Materials

ON-SITE PARKING

SERVICE ACCESS AND ENTRIES

STREETS

Pedestrian Pathways

Accessible Pathways

Alleys

Landscape Features

Street Furniture

On-Street Parking

Other Elements

USABLE PUBLIC SPACES

Pocket Parks/Plaza

Transit Plazas

THESE DESIGN GUIDELINES ARE A TOOL to ensure that built and open spaces are conceived and constructed in accordance with the urban design concept described in the previous chapters. The guidelines will be used to inform design processes and produce the highest caliber development, while maintaining the underlying historic industrial spirit of the corridor. They will also create compatibility in the environment, both public and private, through sensitive architecture and site design.

The guidelines are meant to be a flexible, yet effective means of protecting the unique character of the area. A range of implementation options are provided, and a concerted effort has been made to avoid prescriptive guidelines that would stifle design creativity. Additionally, due to the unique street conditions and characteristics within each block on R Street, some guidelines may need to be modified and in some cases an alternative design may need to be utilized.

Specific Site Design and Planning Guidelines have been divided into the following categories:

1. Site Design & Planning of the Private Realm
2. Site Design & Planning of the Public Realm
3. Infrastructure Standards (presented in the next section)

OVERARCHING DESIGN GUIDELINES

Due to the variability of existing conditions, uniform street sections may not be implementable. However street sections should adhere to the following overarching design elements (references to applicable design guidelines are included in parentheses):

1. A minimum 5' wide ADA-accessible pedestrian path shall be provided on at least one side of the street throughout the entire corridor (2Aii-1). The pathway may jog mid-block from one side of the street to the other side. The mid-block crossing will be ADA compliant (2Aii-7).
2. All pedestrian pathways shall be compliant with ADA standards. Where the roadway is flush with a pedestrian pathway, a 3 foot wide detectable warning strip shall be provided between the roadway and the pathway along with bollards, wheel stops, and other vertical elements to enhance pedestrian safety (2Aii-4, 2Aii-5).
3. Two-way travel lane widths should be a minimum of 11 feet wide (2Avi-7).
4. Street sections should allow for outdoor seating by varying parking type (angled, parallel) as needed. On-street parking is generally provided on either end of the travel lane (2Avi-1).
5. On-street parking opposite active loading docks and loading dock activity should be allowed as long as clear 30-foot-wide space is provided (to accommodate an ADA compliant pathway and two travel lanes) on the other side of the road. Loading dock activity should be restricted to parallel or diagonal loading for vehicles over 30 feet long. Vehicles under 30 feet should be allowed to load/unload perpendicular to the docks (2Avi-2).
6. Active loading docks should not be allowed directly across the street from each other (2Avi-3)
7. New buildings in the R Street Corridor should reflect the historic industrial character of R Street (1Ai to 1Aii).

8. Vee gutters used to accommodate street drainage should be located between parking areas and travel lanes or between travel lanes. Vehicular splashing should be minimized by slow design speeds. (Chapter 2, Page 36).
9. Textured paving that simulates historic cobble stones should be utilized adjacent to existing railroad tracks when possible (Chapter 2, page 44).
10. A minimum vertical clearance of one foot should be provided between the R Street centerline elevation adjacent to a building and a building's finish floor elevation (1Aii-14).

These Design guidelines build, to a significant degree, upon previous documents including the 1999 Sacramento Central City Neighborhood Design Guidelines (SCCNBG) and the R Street Special Planning District (SPD) standards, Section 2.99 of the Zoning Ordinance.

i. SITE DESIGN AND PLANNING OF THE PRIVATE REALM

The "private realm" consists of buildings and open spaces on individual privately-owned lots and parcels. It is necessary that there be ample freedom and flexibility in designing buildings in the private realm. However, there are certain features or aspects of building and site design that have a direct effect on the "public realm," or the surrounding public context. The design guidelines presented here focus on the aspects of building design that are most likely to impact the overall character of the corridor.

These include:

- A. Building Character;
- B. On-site Parking; and
- C. Service Access and Entries.

ii. SITE DESIGN AND PLANNING OF THE PUBLIC REALM

The intent of the design guidelines presented below is to reclaim the "public realm" for the pedestrian. The existing "public realm" is largely characterized by auto-oriented spaces and privately-owned parking lots. This public area under discussion includes the right-of-way along R, S, Q, and the numbered north-south Streets, mid-block alleys and useable open spaces such as pocket parks and plazas.

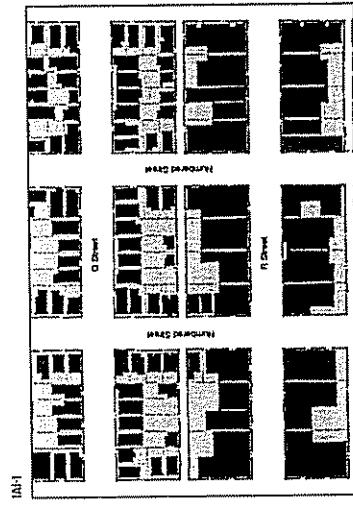
Improving the public realm will strengthen the historic industrial spirit of the entire Corridor. The development of the public realm is also the most effective way to create a variety of social gathering places that are integral to improving the quality of life in the area. Overall, reclaiming the public realm will encourage greater opportunities for residents, users and visitors to experience spontaneous meetings, recreate, and enjoy the unique character of the neighborhood, as they stroll down the Corridor.

The design guidelines focus on two primary components of the public realm:

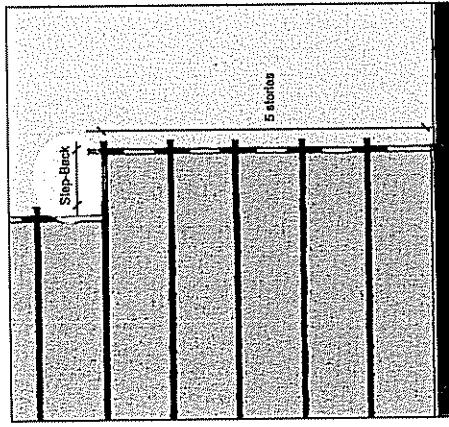
- A. Streets; and
- B. Usable Public Spaces.

♦ IAI BUILDING MASSING AND SCALE

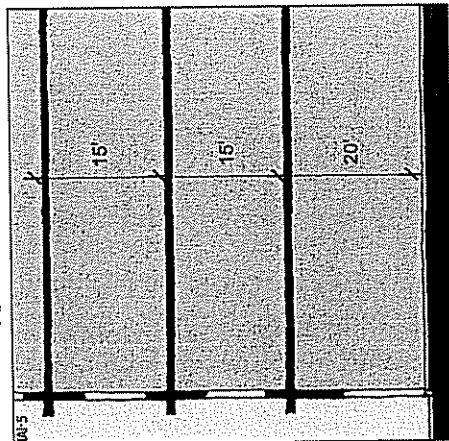
IAI-1
 Encourage large-scale buildings that reflect historic R Street building scale (Buildings along Q, S, and the numbered north-south streets should express the smaller 40-foot lot pattern of the adjacent neighborhoods).



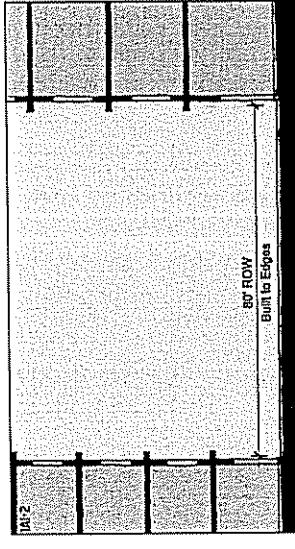
IAI-3
 Allow upper story step-backs at five stories and above for buildings that front on to R Street.



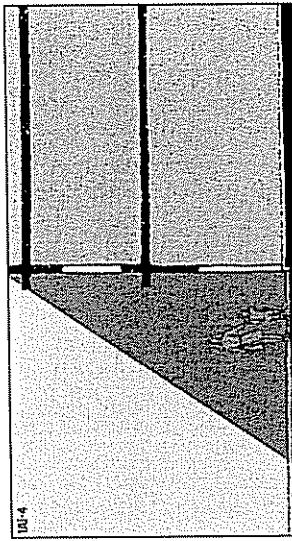
IAI-5
 Encourage a 15 - 20 foot floor-to-floor range for buildings along R Street to reflect the historic industrial building prototype.



IAI-2
 Construct all buildings along R Street at the edge of the right-of-way, rather than set back from the right-of-way to create a sense of enclosure.



IAI-4
 Ensure a two-story minimum for buildings on the south side of R Street to provide shade for pedestrians.



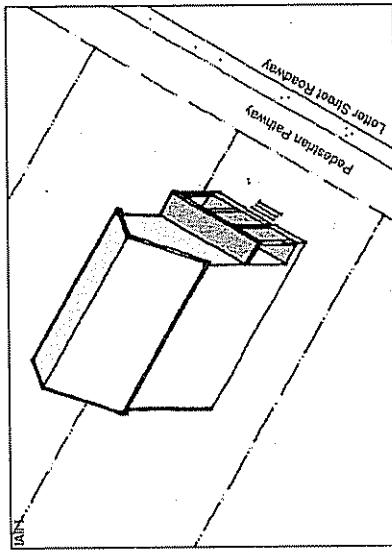
IAI-5
 Buildings along Q and P Streets and buildings facing the north-south numbered streets should respect the existing residential interface. Buildings in these areas should follow the massing, height and bulk requirements as specified in the R Street Special Planning District Zoning Standards.

► 1Aii BUILDING ELEMENTS: GENERAL

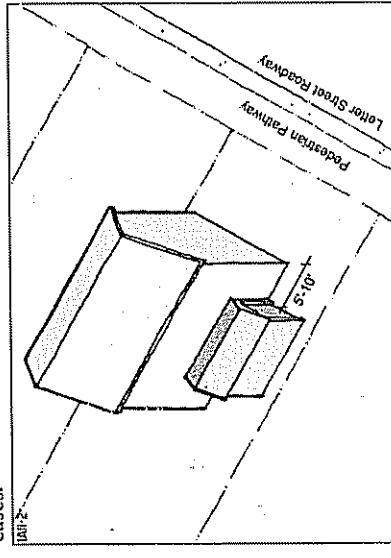
All building facades facing key streets should engage the pedestrian. The transparency of the building edge can be provided in a number of ways, such as in the use of clear, visible windows and through well-articulated building facades.

Key building facade elements that will strengthen the R Street Corridor's character and enhance the pedestrian experience include, the design of fenestrations, roof form, and other unique elements such as loading docks and awnings.

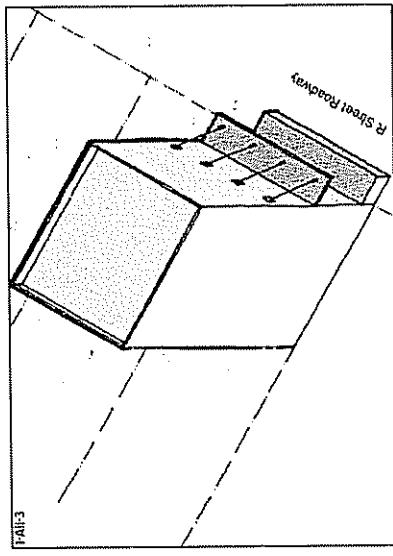
1Aii-1
Ensure that residential buildings facing Q and S Streets incorporate key features such as porches, stoops, sloping and well-defined cornices.



1Aii-2
Set back garage entries (where possible) five to ten feet from primary building entrances and/or staircases.



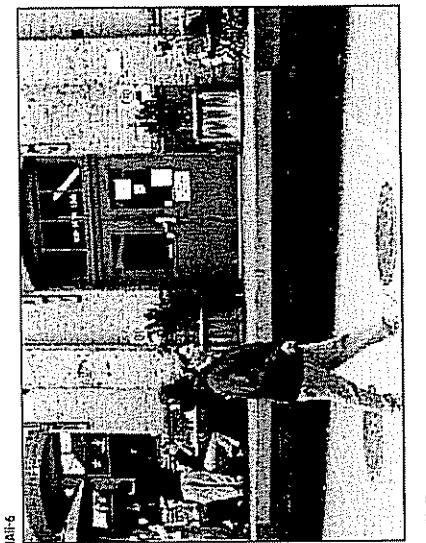
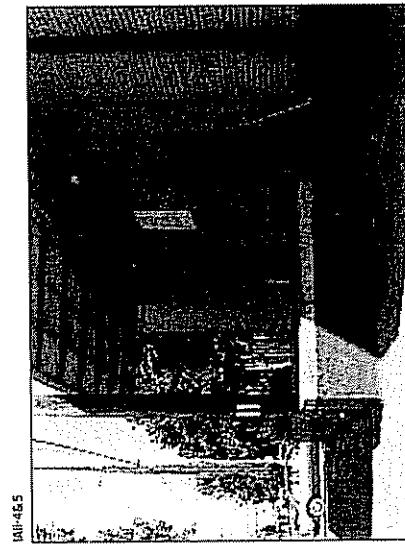
1Aii-3
Include elements that reflect the historic character of the neighborhood, such as loading docks and awnings for buildings facing R Street.



♦ 1Aii BUILDING ELEMENTS: LOADING DOCKS

1Aii-4
 Retain all existing loading docks.

1Aii-5
 Continue use of docks for current loading and unloading of goods in existing industrial buildings.

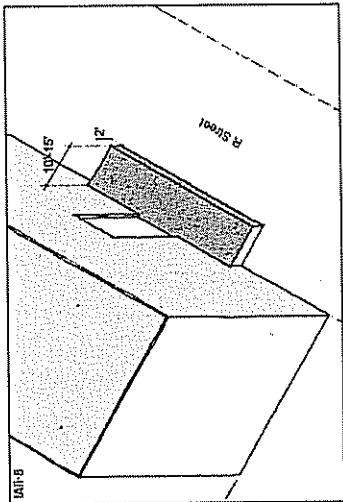


1Aii-6

Re-use historic docks for non-industrial (residential and retail) purposes to serve as public or semi-public outdoor spill-over spaces, such as outdoor cafés and entry porches.

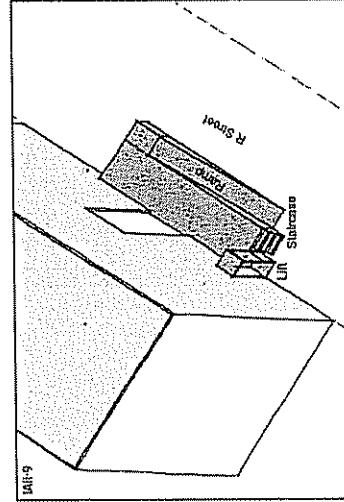
1Aii-7

1Aii-8
 Ensure that any new docks for buildings are 10-15 feet wide and at least two feet high to clearly distinguish them from building plinths.



1Aii-9

When used for public purposes, access to loading docks should be provided via a accessible ramp and a staircase. A mechanical lift may further enhance the ADA accessibility.



Avoid building solid impermeable boundary walls around the docks. For safety reasons, permeable railings made of metal angle balustrades and wires that respect the industrial character may be used to define non-industrial docks. Avoid typical 'cyclone' fences.

♦ IAIi BUILDING ELEMENTS. AWNINGS

IAIi-10

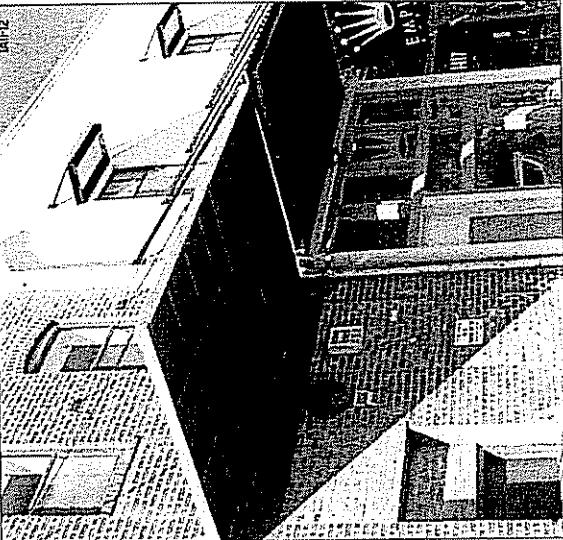
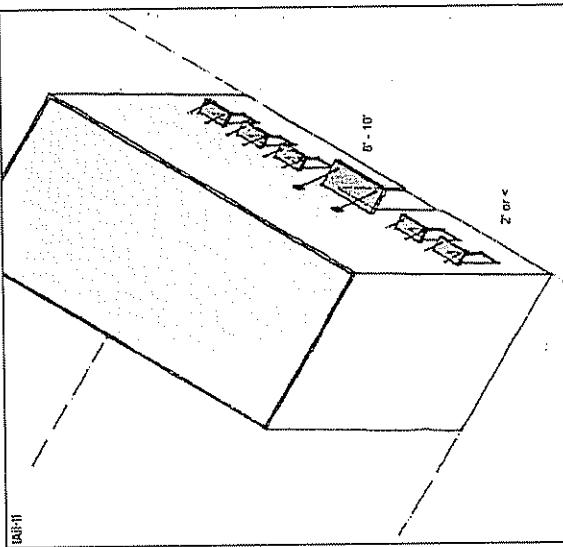
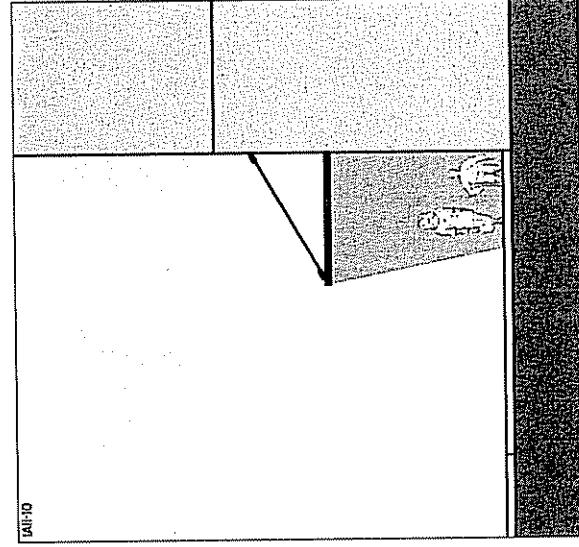
Use awnings to define major building entries and to provide shade to pathways adjacent to buildings

IAIi-11

Define building entries with awnings that are at least eight to ten feet wide. Smaller awnings for windows should be a minimum of two to three feet wide.

IAIi-12

Utilize metal for awning material where possible. Canvas could be used as an alternative. Plastic and vinyl should be avoided.



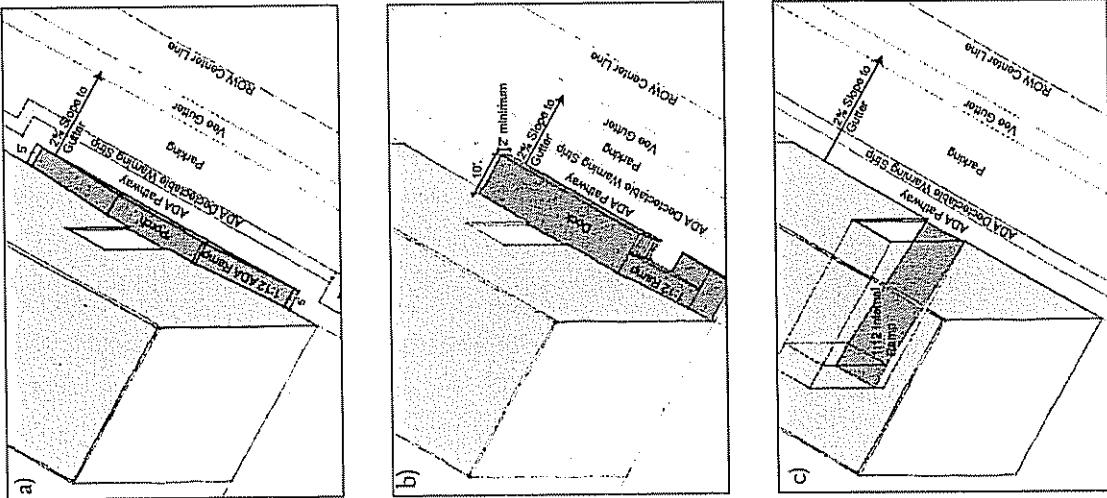
► 1Ai BUILDING ELEMENTS: BUILDING ENTRIES

1Ai-13 Ensure that all major entries to buildings facing R Street are provided directly from R Street. Locating primary building entries from internal parking lots or from interior parcels is strongly discouraged.

1Ai-14

Achieve preferred vertical clearance of one foot between the R Street centerline elevation adjacent to a building and a building finish floor elevation by using the following ADA compliant alternatives:

- Create a minimum five-foot-wide elevated entry 'porch' in front of building entry that can be accessed by gentle ADA ramps and steps. The ADA pathway will jog around the 'porch';
- Create a minimum 10-foot-wide elevated protruding semi-public 'dock' within the existing ROW that respects the character and form of the typical historic loading dock. Similar to other existing docks that serve non-industrial uses ensure a combination of ADA accessible ramps and steps connecting the street to the dock; and
- Create an ADA accessible ramp within the building that connects the street level to the true building entrance lobby.



► 1Aii BUILDING ELEMENTS: FENESTRATIONS (CONTINUED)

1Aii-15 Create a rhythm of fenestrations on new building facades fronting R Street, such as those seen in the existing historic buildings on the north side of R Street between 10th and 11th Streets (Fox and Goose and "The Building") and 14th and 15th Streets.

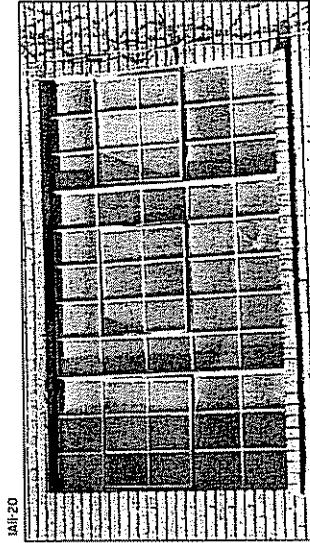
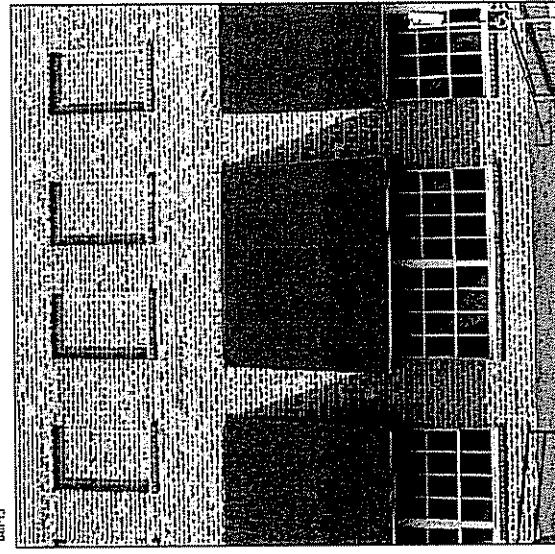
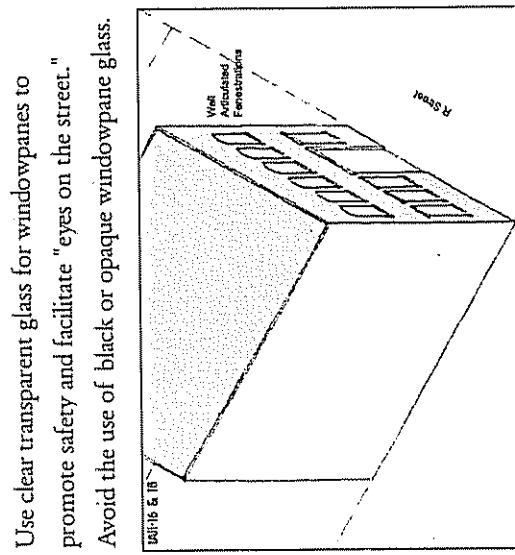
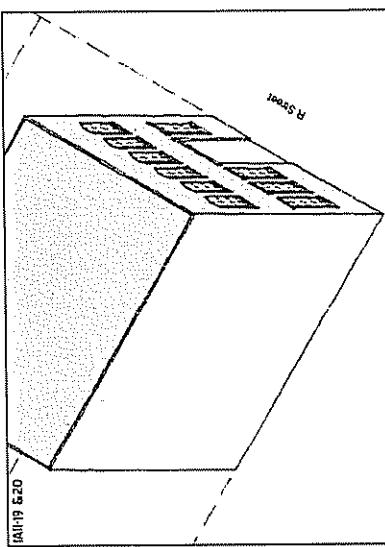
1Aii-16 Provide smaller individual windows to contrast with the larger warehouse and entry doors.

1Aii-17 Use clear transparent glass for windowpanes to promote safety and facilitate "eyes on the street."

1Aii-18 Avoid the use of black or opaque windowpane glass.

- 1Aii-19 Allow windows to be set back by least 2 inches to create a play of light and shadows and to break imposing building facades.

- 1Aii-20 Encourage windows to reflect the industrial multi-paneled character.



♦ IAIii BUILDING MATERIALS

IAIii-1
Maintain the industrial utilitarian aesthetic of the corridor through the use of industrial materials such as brick, concrete and clear glass. Discourage the use of substantial and inappropriate applied ornament on building facades.

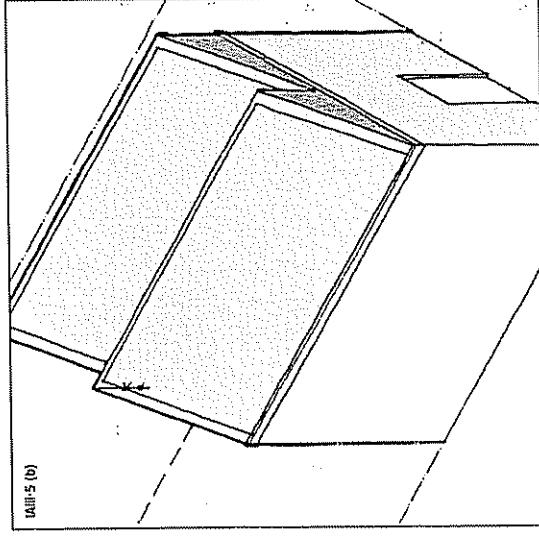
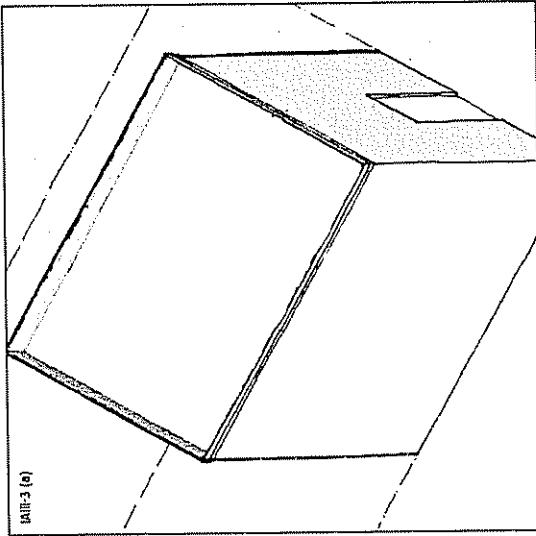
IAIii-2
Utilize steel and corrugated metal as an accent material to define lintels, create awnings and enhance roof form. Wood and stucco should be used sparingly.

IAIii-3
IAIii-4
IAIii-5

IAIii-3
Encourage strong horizontal roof forms that are highlighted by a simple cornice. (a) However, other roof forms that respect the prototypical language of industrial buildings such as saw-toothed roofs may also be acceptable. (b)

IAIii-4
Encourage a building color palette that takes advantage of the true nature of materials such as exposed brickwork and concrete.

IAIii-5
Encourage use of metal sash and multi-paned clear glass windows.



* 1B ON-SITE PARKING

R Street Special Planning District (SPD), Section 2.99 of the Zoning Ordinance determines the quantity of on-site parking. These Design Guidelines focus on the location of surface parking and the interface of parking lots with the public realm. The following design guidelines are relevant for on-site parking design:

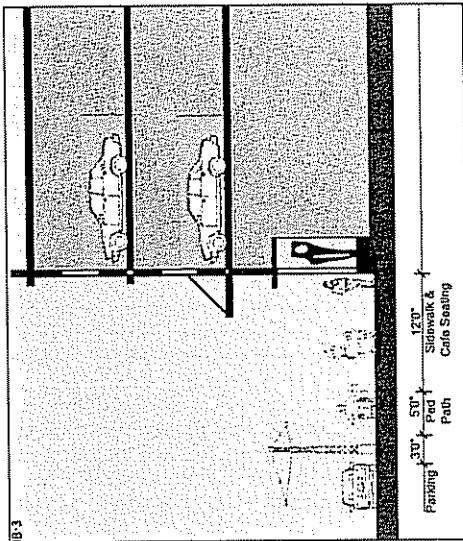
1B-1

Ensure that parking for all new developments facing R Street is located at the back or to the side of lots. Parking lots should be accessed either through the alleys or from the north-south numbered streets.

1B-2
Enhance the pedestrian-friendly public interface of existing parking lots facing R Street. Metal wires running between angled steel sections could provide attractive, effective, industrial style parking lot fencing. Cyclone fence railings are strongly discouraged.

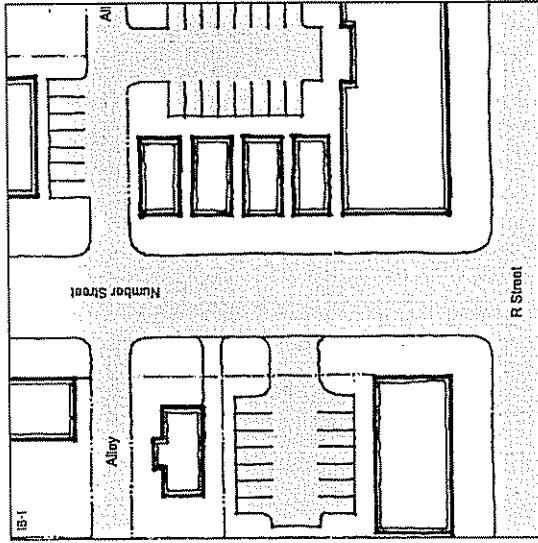


1B-3
Require ground floor parking structure uses and facades to engage the pedestrian. Retail uses (such as cafes), attractive display windows, murals and landscape planters can help activate building edges.



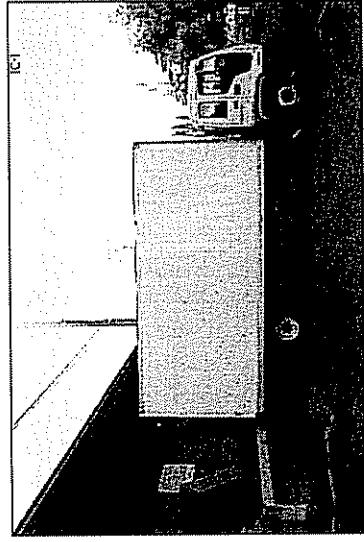
1B-4

Require all parking structures to respect the scale and character of the Corridor.

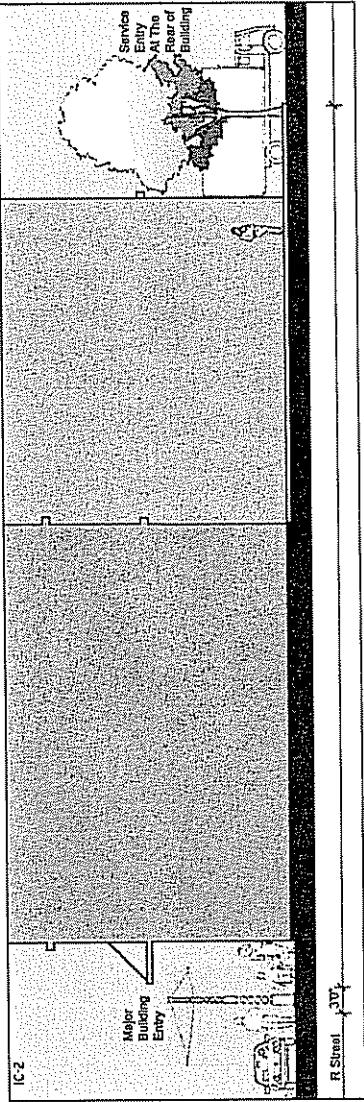


♦ IC SERVICE ACCESS AND ENTRIES

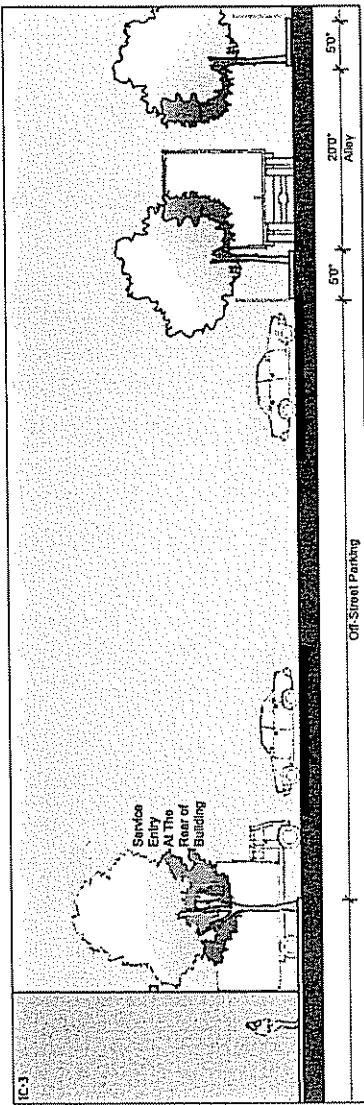
IC-1
Retain existing service access and loading docks for functioning industrial buildings.



IC-2
Locate all service entries for all new non-industrial buildings to the rear of buildings. Primary building entries should be accessed from R Street.

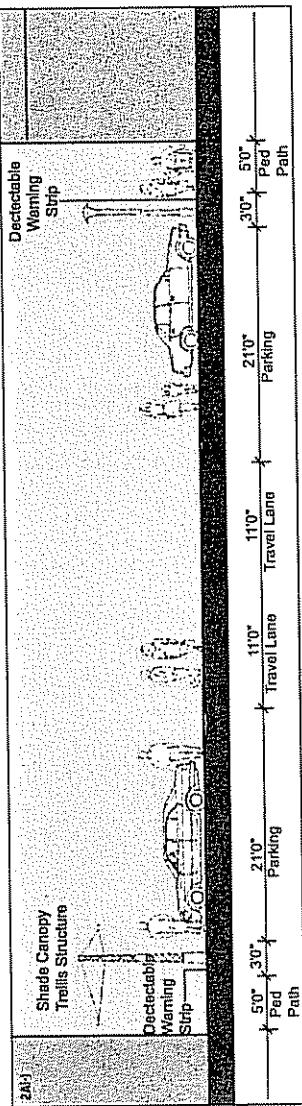


IC-3
Ensure service vehicle access for various development sites primarily through alleys.

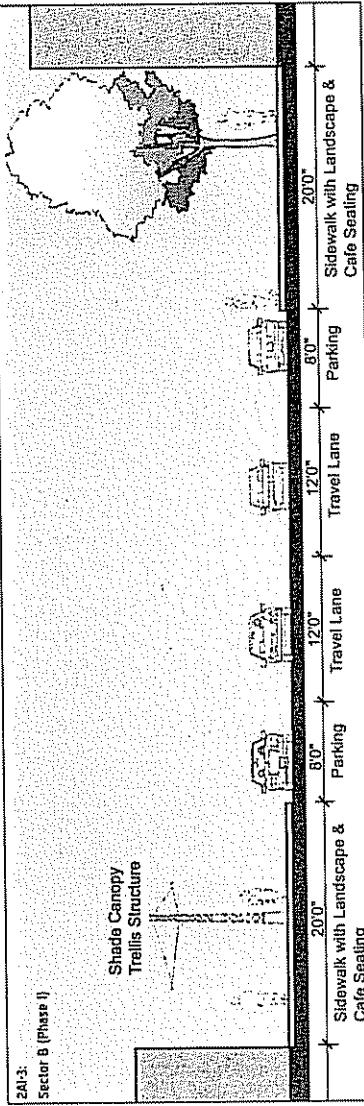


♦ 2A1 PEDESTRIAN PATHWAYS

2A1-1
Maintain a sense of shared space between pedestrians, cyclists, cars and trucks along R Street. This unique curbless street concept is defined by an absence of sidewalks, and by on-street parking primarily located along the edge of pedestrian pathways.

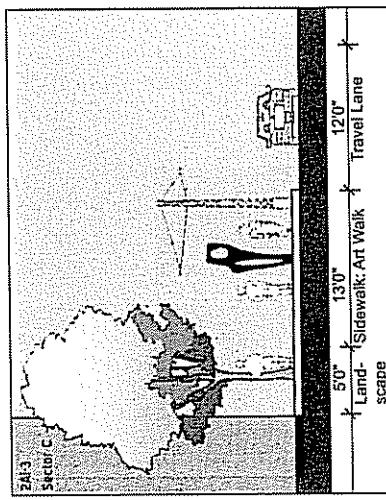


2A1-2
Enhance the pedestrian environment on R Street by providing shade/canopy trellis structures and by utilizing special paving patterns such as stained or textured concrete.



2A1-3
In the short term, maintain existing curbed sidewalks in Sectors B and C. However, as these Sector blocks change and improve, ensure that the width of the pedestrian pathway/sidewalk is enlarged in the following manner:

- In Sector B, ensure that the pedestrian pathway/sidewalk extends 15 to 20 feet into the public right-of-way from the Right-of-Way.
- In Sector C, ensure that the landscaped sidewalk is 18 feet wide on the north side of R Street to incorporate the Art Walk components. Art exhibits, shade structures and trees along the sidewalk are encouraged to enhance the pedestrian experience.



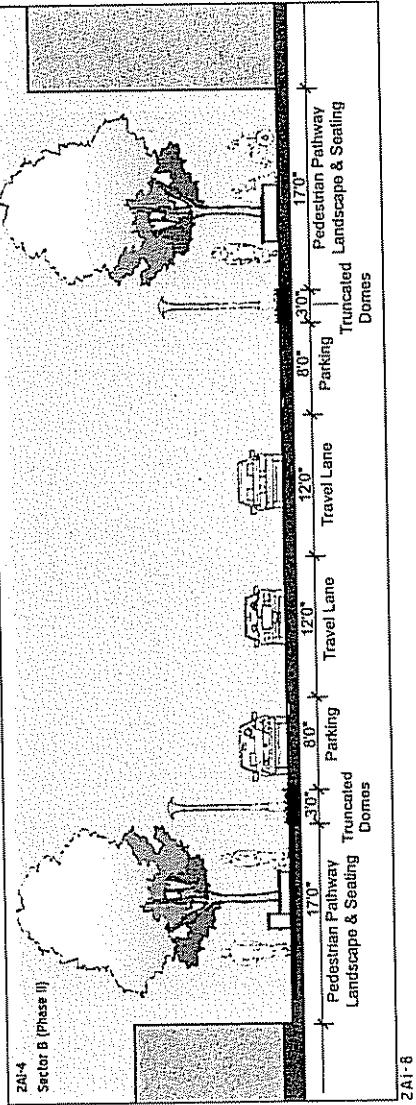
♦ 2AI PEDESTRIAN PATHWAYS (CONTINUED)

2AI-4 Explore demolishing the sidewalks on R Street Sectors B and C in the long term to continue the tradition of providing sense of shared space to pedestrians, bicyclists and automobiles.

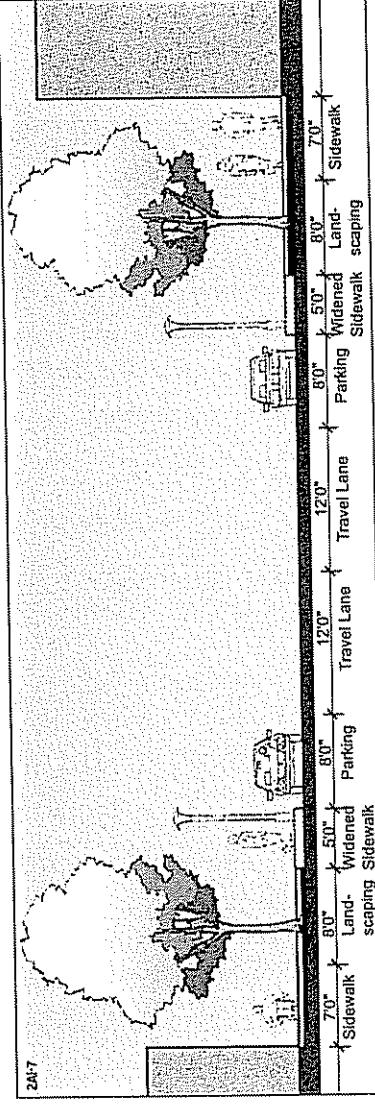
2AI-5 Maintain existing pedestrian pathways on Q, S and numbered streets that are defined by approximately seven feet of sidewalk abutting the property line. An approximately eight-foot wide landscape buffer should continue to separate the sidewalk from the roadway.

2AI-6 Where possible, widen sidewalks along local numbered streets that are neither major city arterials nor have dedicated bike routes, like 12th, 13th, 14th and 17th Streets.

2AI-7 Explore widening sidewalks on 12th Street between S Street R Street by approximately five feet on both sides of the street to calm traffic and enhance pedestrian connections to the 13th Street Light Rail Station from the Southside neighborhood.

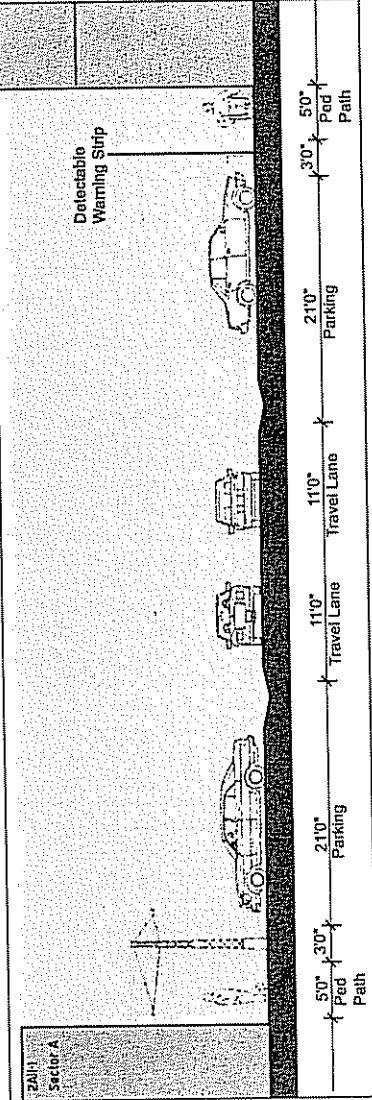


Maintain the City prescribed criterion for bulb outs along the numbered streets. No bulb outs should be created along R Street.



* 2Aii ACCESSIBLE PATHWAYS

2Aii-1
 Maintain a minimum five-foot wide pedestrian pathway along at least one side of the R Street. Where possible, create pedestrian pathways on both sides of the street along most sections of the corridor.

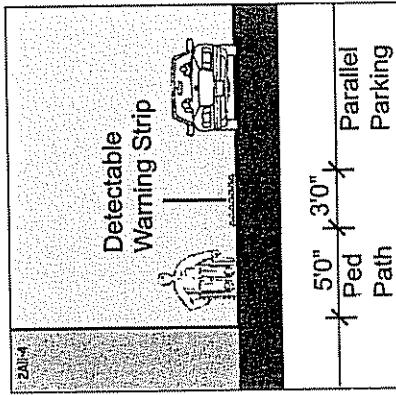


2Aii-2
 Maintain existing six to seven foot wide sidewalks along Q, S and the numbered north-south streets, to accommodate accessible pathways.

2Aii-3

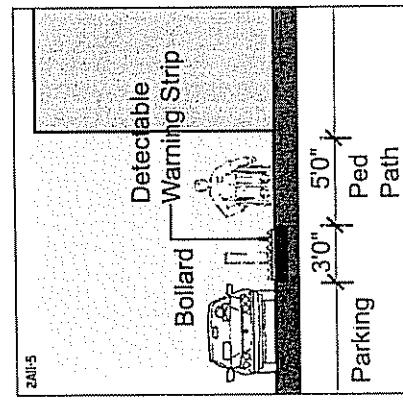
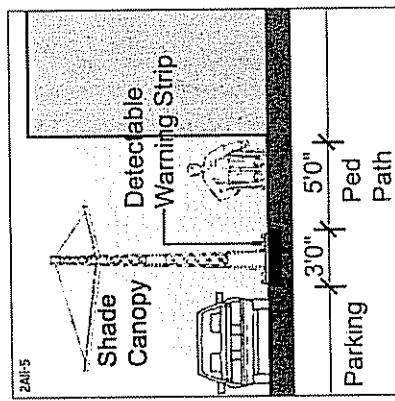
Enlarge certain existing four-foot wide sidewalks along R Street to achieve ADA compliance.

2Aii-4
 Provide a three-foot wide detectable warning strip of yellow truncated domes between the pathway and the rest of the roadway along the sections of the Corridor that do not have sidewalks. Although the domes do not reflect the historic industrial context of the Corridor, they do respect the functionality of the Corridor as a place that is accessible to all. In the future, if technology and regulations permit, provide alternative color for the truncated domes that better reflect the street color palette and character of R Street.

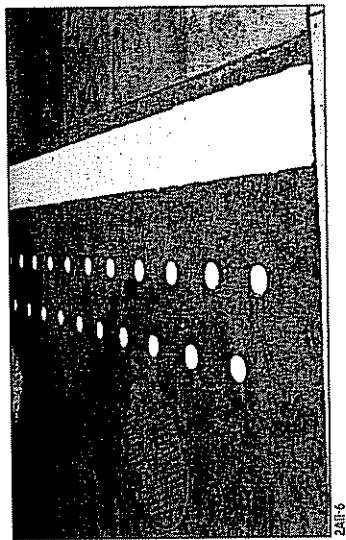


♦ 2Ai ACCESSIBLE PATHWAYS (CONTINUED)

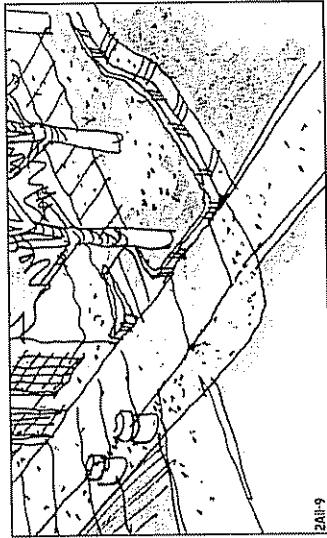
2Ai-5
 Provide streetscape elements to minimize the monotony of the continuous bright yellow warning strip. Elements could include bollards, seating and directional signage (within the three-foot wide detectable warning strip area).



2Ai-6
 Provide detectable warning devices or other detection devices before all crosswalks and midblock crossings to orient disabled pedestrians to possible on-coming vehicular traffic



2Ai-7
 Ramp down the sidewalks along the numbered street and make them become flush with the road, before they meet the planned accessible pathways along R Street.



2Ai-8
 Provide mid-block crosswalks in areas where existing active industrial activities along loading docks preclude safe accessible pathways. This will allow people to cross safely to the other side of the street where accessible pathways are provided.

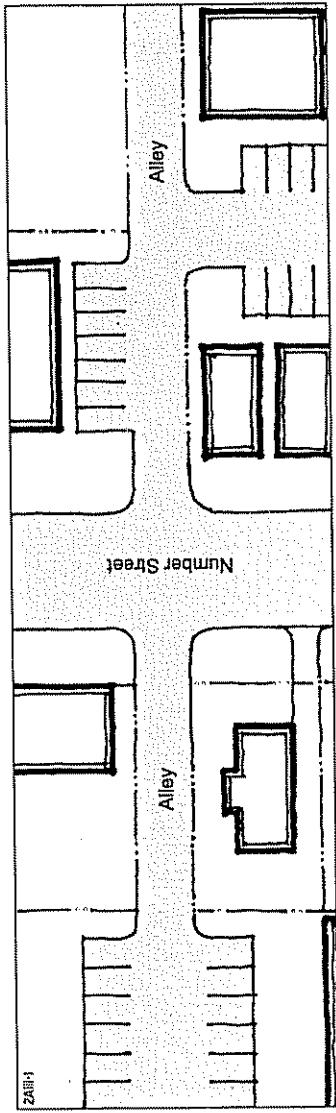
2Ai-9

Ramp down the sidewalks along the numbered street and make them become flush with the road, before they meet the planned accessible pathways along R Street.

2Ai-9
 Prohibit any type of sharp elements from protruding into pathways. Ensure that edges of streetscape elements that abut pedestrian pathways are smooth to ensure a safe experience for all.

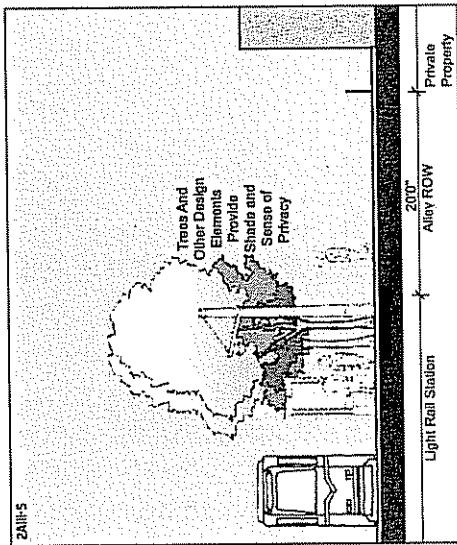
♦ 2Aiii ALLEYS

2Aiii-1
Utilize alleys as the primary vehicular routes for on-site parking and service access for most new and existing development along R Street.

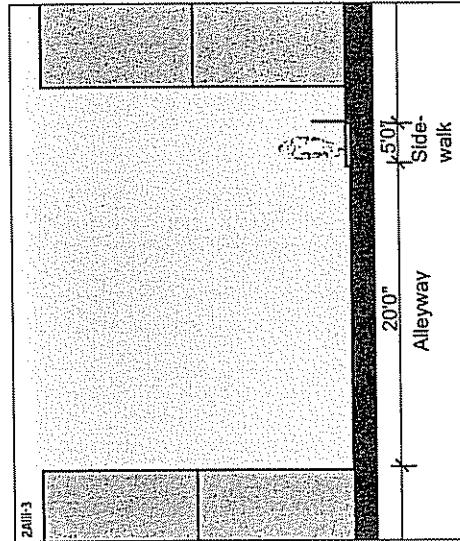


2Aiii-4

Plant trees as a privacy buffer between alleys and buildings.



2Aiii-5
Treat alleys that front transit plazas with design features, such as landscaping to make plazas more transit user-friendly and aesthetically appealing. For example, planting rows of trees along alleys that face plazas will create a more attractive environment and will provide shade to the transit user.



2Aiii-2
Designate alleys as either one-way or two-way for vehicular traffic depending on the availability of space in the adjoining lots.

2Aiii-3

Explore creating minimum 5-foot wide sidewalks along at least one side of the alley. This sidewalk would be outside the public ROW.

♦ 2Aiv LANDSCAPE FEATURES

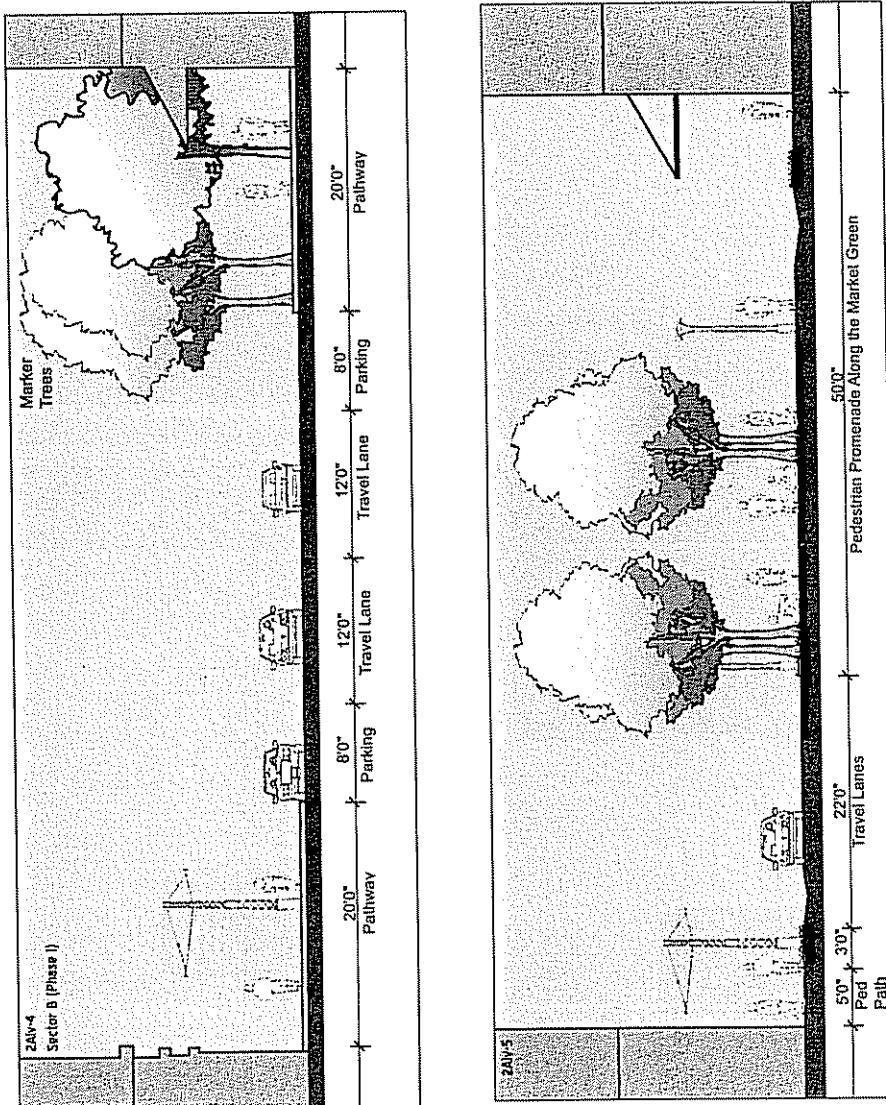
2Aiv-1
 Retain existing trees along R Street.

2Aiv-2
 Maintain the industrial flavor of R Street, by limiting street tree plantings to focal pedestrian areas, such as plazas, parks and promenades.

2Aiv-3
 Use trees as vertical markers to celebrate focal public spaces such as the Studio Theater pedestrian plaza, the 13th Street Station Pocket Park, the northeast corner of 13th and R Streets, and the R Street Pocket Park between 13th and 14th Streets.

2Aiv-4
 Plant trees along R Street (between 9th and 14th Streets) in groupings of two or three trees and locate them along the edge of the roadway parking.

2Aiv-5
 Create a double row of trees in the middle of the Pedestrian Promenade between 16th and 18th Streets to enhance its special sense of place.



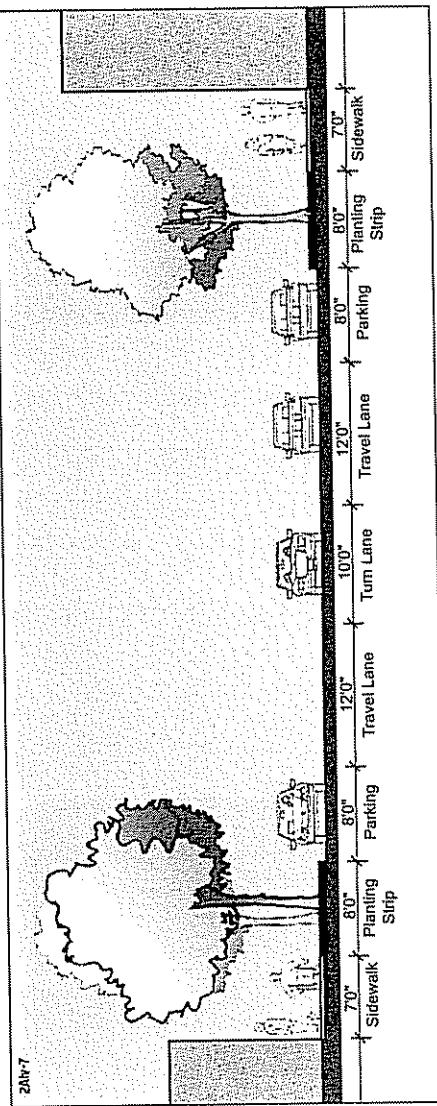
* 2Aiv LANDSCAPE FEATURES (CONTINUED)

2Aiv-6

Discourage new landscape planting strips along the R Street right-of-way.

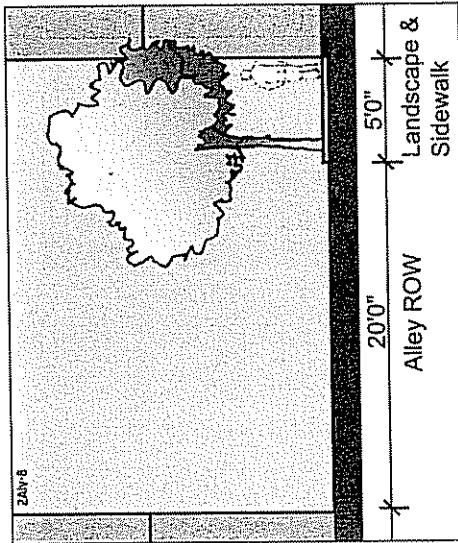
2Aiv-7

Strengthen the strong tree-lined character of the numbered north-south streets by infilling trees along sections of 12th, 14th and 18th Streets between R and Q Streets. Trees should be planted in the eight-foot landscape buffer between parking and pedestrian sidewalks.



2Aiv-8

Plant trees along alleys to improve the aesthetic appeal and character of the alleys.



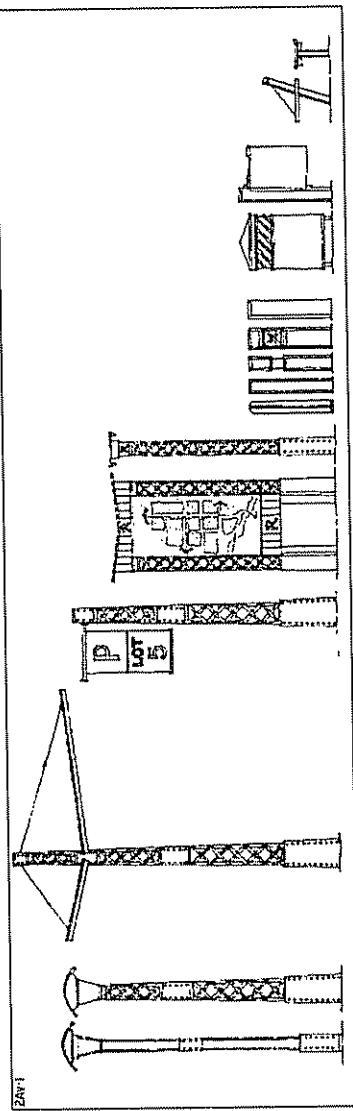
♦ 2AV STREET FURNITURE

2Av-1

Utilize a common palette of materials, such as metal angles, cross braces and rivets that reflect historic materials and the functional character of the industrial railroad Corridor (See Appendix A for complete furniture palette).

2Av-4

Ensure that universally accessible pathways provide adequate shade and comfort by locating amenities such as seating, bollards, trash receptacles and shelter canopies along the two to three-foot wide detectable warning strip.

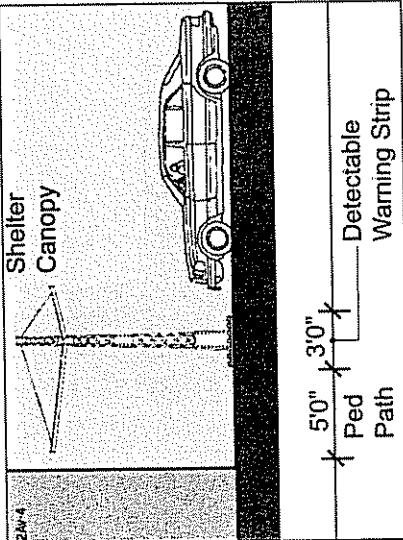


2Av-2

Provide shelter/shade canopies at intervals along the length of R Street.

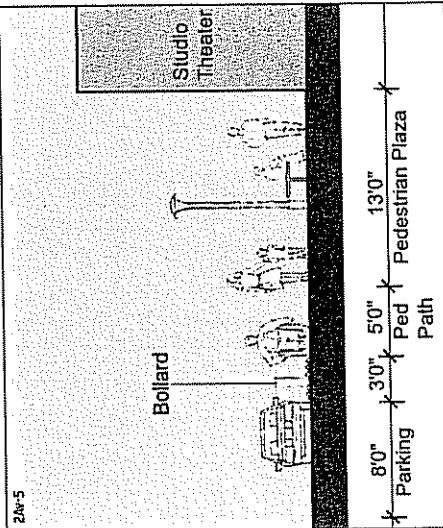
2Av-3

Locate directional signage at key intervals and existing and planned major activity nodes as identified in the Plan, such as at the Fox and Goose Restaurant, Studio Theater, Empire Club, and along the key new developments along the proposed Market Green.



2Av-5

Install bollards to define and protect small public gathering spaces such as the pedestrian plaza in front of the Studio Theater.



♦ 2AVI ON-STREET PARKING & TRAVEL LANES

2AVI-1

Overall, provide a mix of parallel, diagonal and angled parking along R Street. Street sections should allow for outdoor seating by varying the angle of parking. On-street parking is generally provided on either end of the travel lane.

2AVI-2

On-street parking opposite active loading docks and loading dock activity should be allowed as long as clear 30-foot-wide space is provided (to accommodate an ADA compliant pathway and two travel lanes) on the other side of the road. Loading dock activity should be restricted to parallel or diagonal loading for vehicles over 30 feet long. Vehicles under 30 feet can load/unload perpendicular to the docks.

2AVI-2

On-street parking opposite active loading docks and loading dock activity should be allowed as long as clear 30-foot-wide space is provided (to accommodate an ADA compliant pathway and two travel lanes) on the other side of the road. Loading dock activity should be restricted to parallel or diagonal loading for vehicles over 30 feet long. Vehicles under 30 feet can load/unload perpendicular to the docks.

2AVI-3

Active loading docks should not be allowed directly across the street from each other.

2AVI-4

Consider parallel parking adjacent to loading docks that protrude up to ten feet into the right-of-way and are no longer used for industrial purposes. In these instances, angled parking could occur on the

opposite side of the street.
Art Promenade section of R Street (between 16th and 18th Streets).

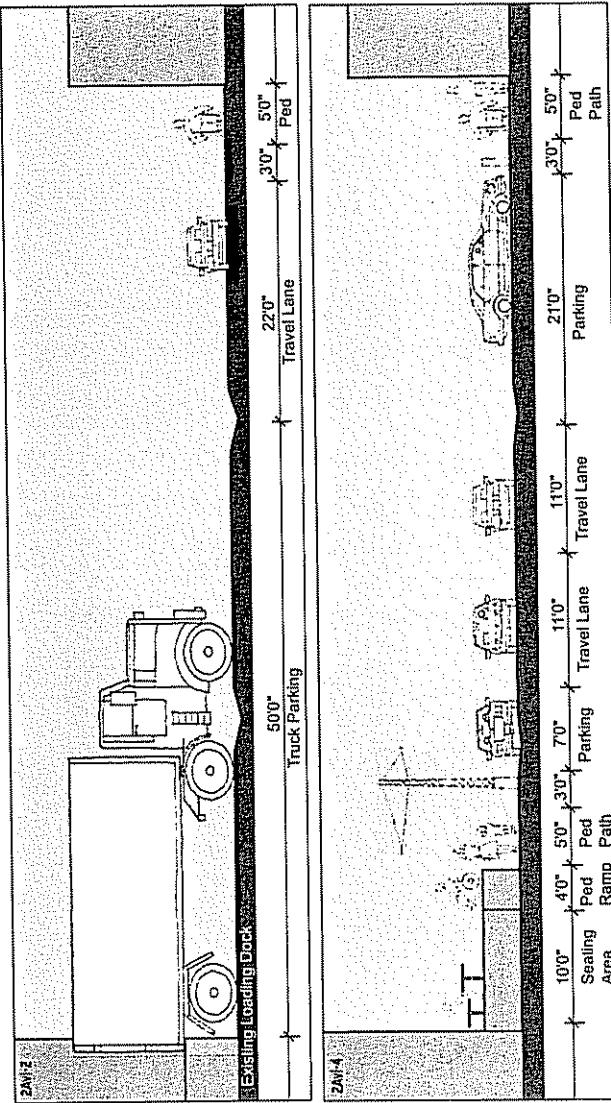
2AVI-5

Install angled parking on the south side of the two-way roadway between 16th and 18th Street.

2AVI-6

Maintain parallel parking along the numbered north-

south streets, except along 17th and 18th Streets between the Light Rail tracks and S Street. In this area provide diagonal parking where possible on both sides of the street to calm traffic coming to the



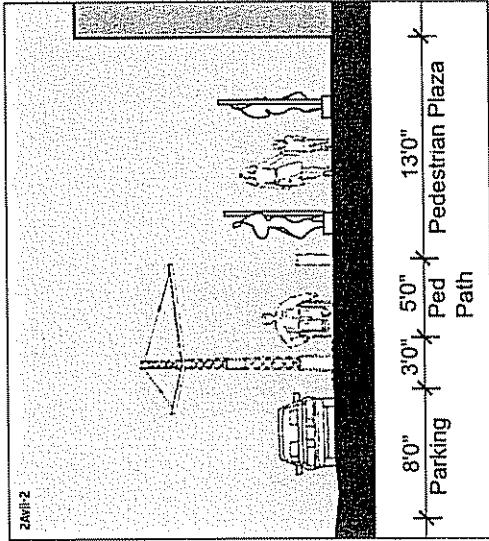
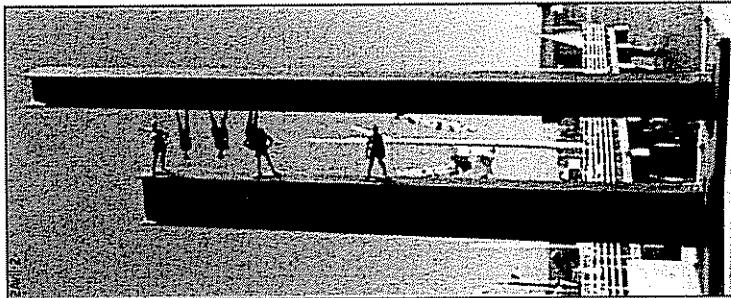
2AVI-7

Two-way travel lane widths should be a minimum of 11 feet wide.

♦ 2Avii OTHER ELEMENTS

2Avii-2

Provide art pieces such as wall murals and sculptures along the R Street Corridor. Focal locations for art display include the pedestrian plaza in front of Studio Theater (between 10th and 11th Streets), the Art Walk (between 15th and 16th Streets), the Public Promenade (between 16th and 18th Streets), and at the main entries of various art galleries. These exhibits could also serve as interpretive elements that describe the history of the Corridor and its contribution to Sacramento's evolution.



2Avii-1
Provide a strong vertical gateway element at the pedestrian plaza at R and 18th Streets. The scale and character of this feature should complement the utility signal post at the southeast corner of R and 8th Streets.

♦ 2B1 POCKET PARKS/PLAZA: 13TH STREET STATION POCKET PARK

2B1-i Remove existing surface parking and replace the asphalt with decorative paving that extends to the southern edge of R Street to create a well landscaped, aesthetically pleasing 100' x 60' pocket park.

2B1-2 Add trees to strengthen the existing row of trees on the east and west edges of the park. This will provide valuable shade and a sense of enclosure to the park.

2B1-4 Provide seating and recreational amenities. A temporary food facility at the northern edge of the park will activate both the park and the transit plaza.

2B1-5

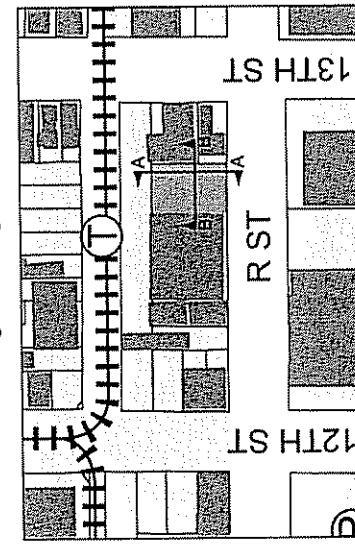
Provide a grouping of two to three trees at the southwest edge of the park along R Street. This will serve as a key identifying vertical marker for the park.

2B1-3 Add trees to strengthen the existing row of trees on the east and west edges of the park. This will provide valuable shade and a sense of enclosure to the park.

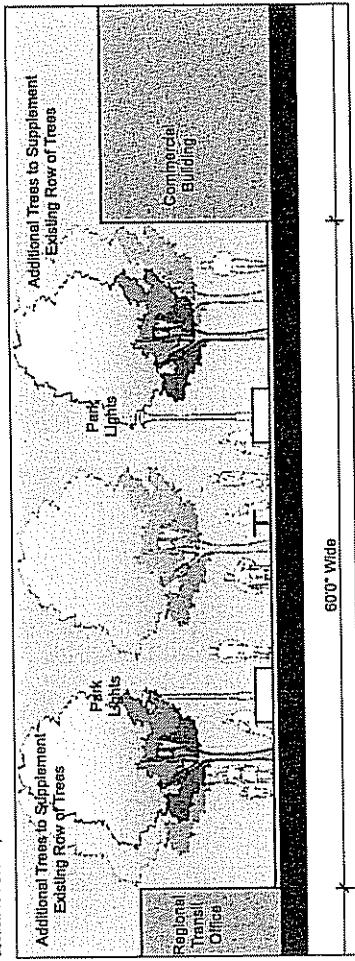
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2B1-5

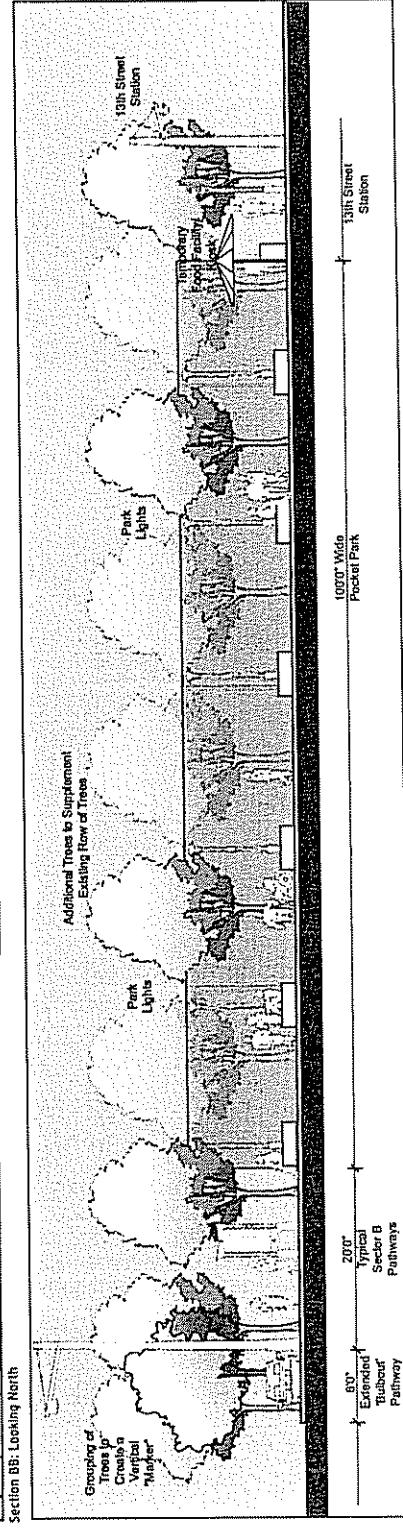
Provide a grouping of two to three trees at the southwest edge of the park along R Street. This will serve as a key identifying vertical marker for the park.



Section BB: Looking North



Section AA: Looking West

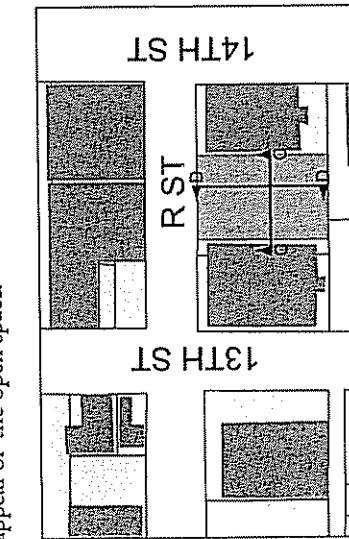


Section BB: Looking North

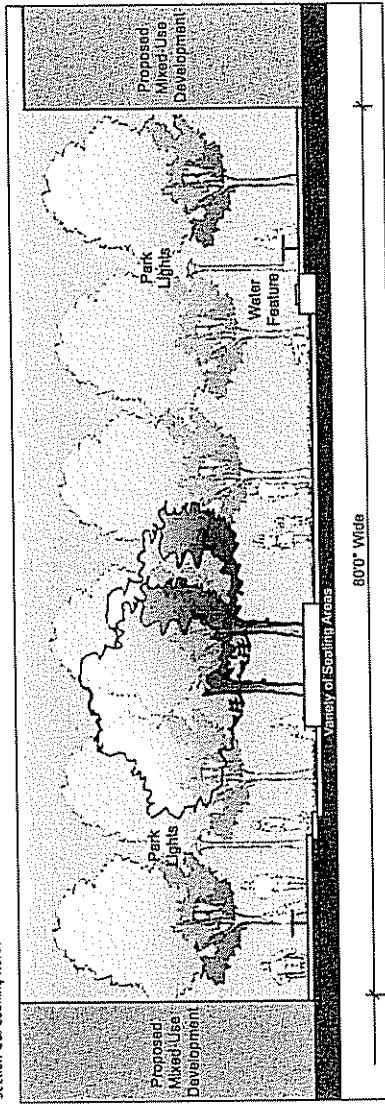
Section 6: Supplemental Design Guidelines
R Street Corridor Design Guidelines
 2. 9th to 19th Streets
 b. Design Guidelines

♦ 2B1 POCKET PARKS/PLAZA: R STREET PUBLIC POCKET PARK

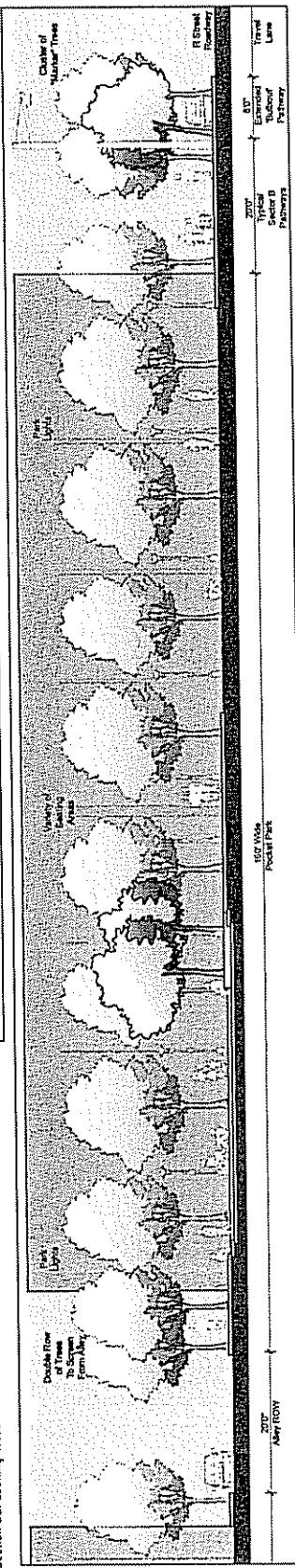
- 2B1-6 Remove existing surface parking and replace the asphalt with a combination of decorative paving and lawn that extends to the south edge of the R Street roadway.
- 2B1-7 Include landscape amenities such as flowering plants and water features to enhance the serene aesthetic appeal of the open space.
- 2B1-8 Provide movable chairs, benches and playful seat walls or steps to create a variety of seating areas.
- 2B1-9 Plant trees to create a sense of enclosure for the park. Plant a double row of trees on the southern edge of the park, to provide valuable shade and screening from the alley.
- 2B1-10 Provide a grouping of two to three trees along the northern edge of the park along R Street. This will serve as a key identifying vertical marker for the park.



Section CC: Looking North



Section BB: Looking West



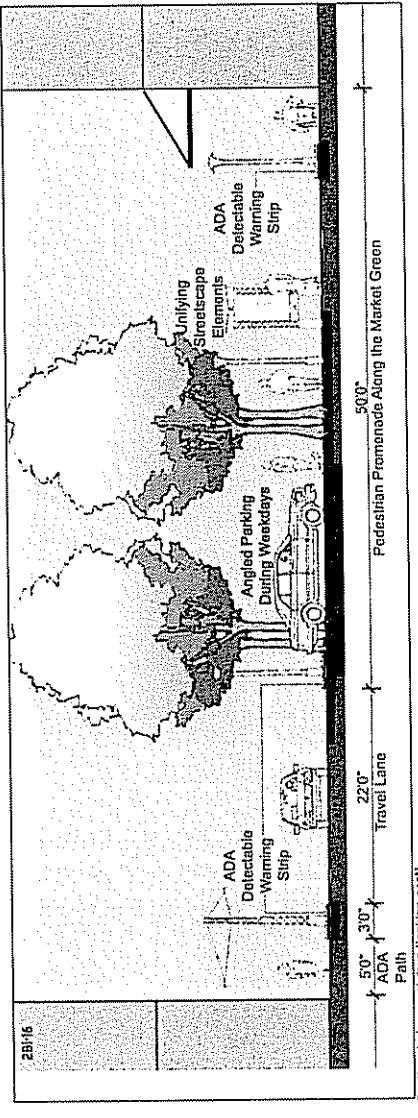
♦ 2B1 POCKET PARKS/PLAZA: R STREET MARKET GREEN

2B1-12

Replace the asphalt with decorative paving that extends along the entire section of R Street between 16th and 18th Streets.

2B1-13

Provide a five-foot universally accessible pathway along the northern edge of R Street. Provide a slow-moving auto travel lane, in either direction. Create angled parking (30 to 60 degrees) on the southern edge of the travel lanes.



Section during weekdays (location east)

2B1-14

Locate a three-foot wide detectable warning strip between the northern travel lane and the accessible pathway. In the short-term, provide a similar detectable warning along the northern edge of the pathway fronting the south side of R Street.

2B1-15

Plant a double row of trees in the middle of the right-of-way to provide shade and a unique sense of place to this "Market Green" section of R Street.

2B1-16

Design the Green as a flexible open space such that it can used in multiple different ways during the course of a week and year.

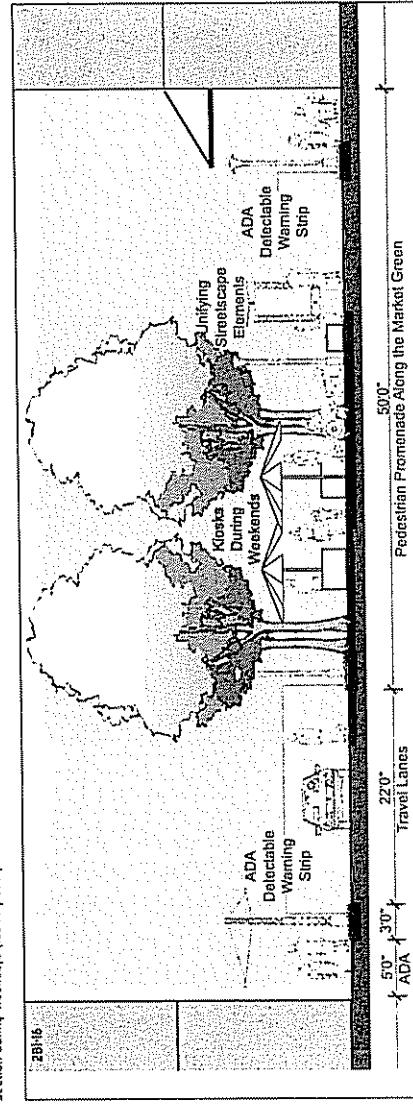
2B1-17

Allow unifying streetscape elements into the central Green. Such elements could include: shade trellis canopies, seating, and directional signage..

2B1-18

Terminate the Plaza Green in a small pocket plaza fronting the mixed-use retail buildings along 18th Street. Install a vertical gateway element at the east-end pocket plaza terminus that celebrates the historic industrial character of the Corridor.

Section during weekdays and holidays (location east)



P96

* 2Bii TRANSIT PLAZAS: GENERAL

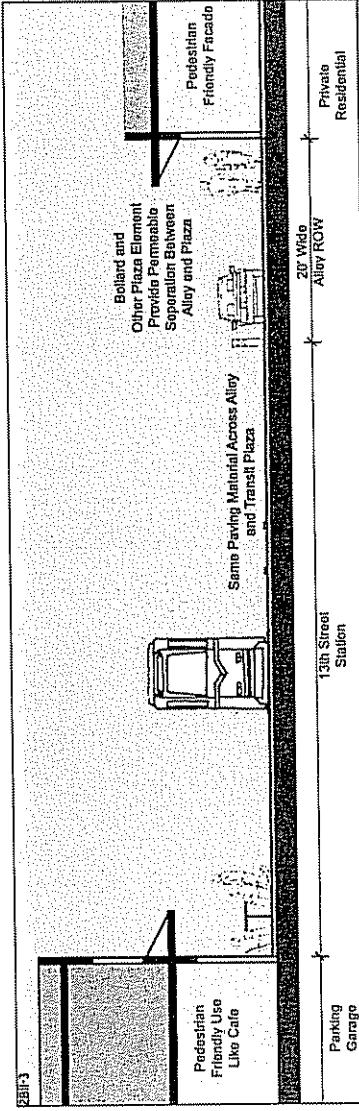
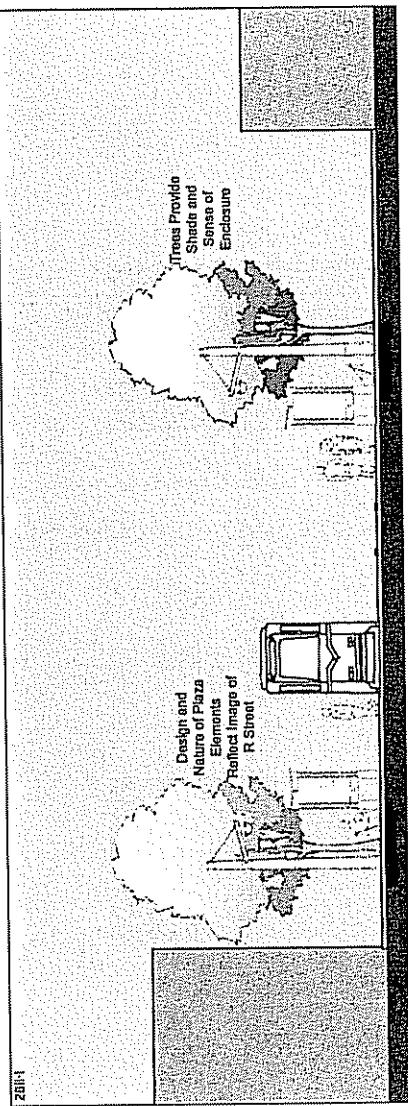
2Bii-1 Provide additional amenities to transit users including shade structures that provide protection from inclement weather, better seating and rows of trees that will enhance the experience of transit users. The nature of hardscape elements should continue the character of streetscape elements along R Street.

2Bii-2 Extend the same paving material and pattern from the plazas and the adjacent alleys. This will create a strong connection between the spaces and visually make the plaza area appear larger.

2Bii-3 Ensure that all building edges fronting plazas help to activate the open space.

2Bii-4 Improve wayfinding strategies to and from the plazas. Provide signage features that tell a brief history of the corridor. A directory map should highlight the key activity nodes around the stations.

2Bii-5 Enhance the pedestrian connections to and from the plazas.



♦ 2Bii TRANSIT PLAZAS: 13TH STREET LIGHT RAIL STATION PLAZA

2Bii-6

Improve pedestrian connections to the station by creating contiguous sidewalks leading up to the station. Redesign the 12th St area between R St and Whitney Ave to create a multi-purpose plaza/parking lot.

2Bii-7

Activate plaza edges with temporary convenient food facilities (hawkers or food stalls).

2Bii-8

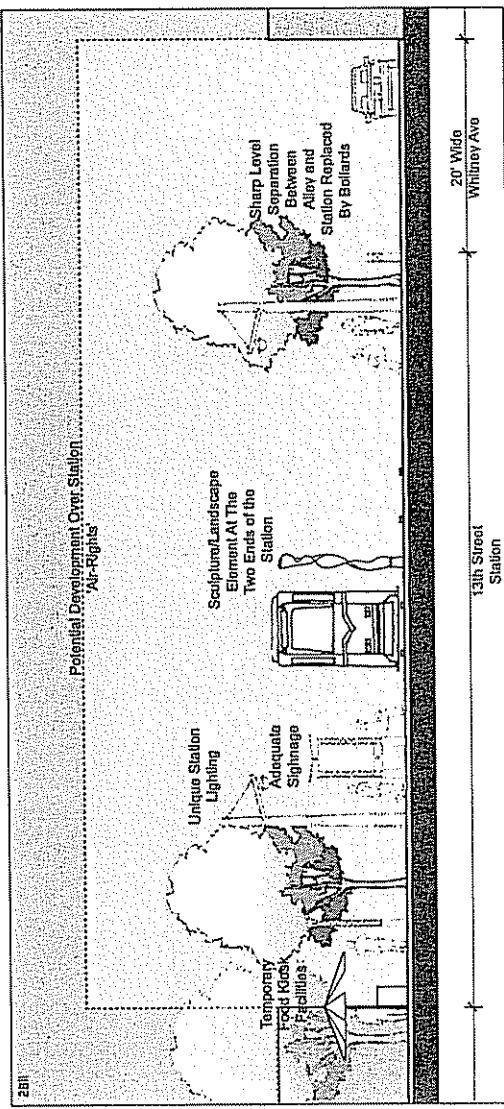
Strengthen the linear row of trees along the southern and northern edges of the station. This will provide much-needed shade and a sense of enclosure to the station plaza, while adding to the sense of privacy for the adjoining residences.

2Bii-9

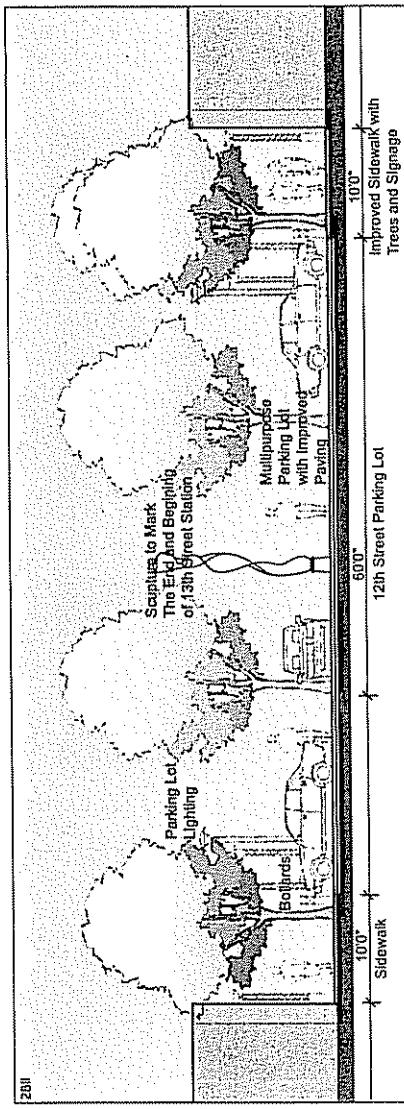
Celebrate the ends of the plaza with an image-identifying feature, such as a sculpture or water feature. Redesign the 12th St area between R St and Whitney Ave to create a multi-purpose plaza/parking lot.

2Bii-10

Explore using the 'air rights' of the station by building a structure at the western edge of the station over the existing utility area.



2Bii



2Bii

2Bii-9

In the event of major redevelopment of the area around the station ensure that all uses on the ground floor of new buildings fronting the station activate the plaza.

2Bii-10

Provide plaza amenities such as lighting and signage to reflect the character of R Street.

2Bii

♦ 2Bii TRANSIT PLAZAS: 16TH STREET LIGHT RAIL STATION PLAZA

<p>2Bii-13</p> <p>Activate the vacant commercial retail space on the ground floor of the parking garage fronting the station with transit-friendly uses such as cafes and convenience stores. Replace all dark glass fronting the station with clear transparent glass to improve safety for transit users.</p>	<p>2Bii-16</p> <p>Explore providing a grand, well-articulated canopy feature over the station (with adequate clearance for the light rail trains). A canopy element will not only provide protection from inclement weather, but will also establish a unique sense of identity for the station.</p>	<p>2Bii-17</p> <p>In the event of major redevelopment of the station (including demolition of the parking garage and adjacent residential uses on the north side of the station), ensure all uses on the ground floor of buildings fronting the station are transit user-friendly, such as cafes, restaurants and retail stores with pedestrian friendly window displays.</p>
<p>2Bii-14</p> <p>Mitigate the stark white, aesthetically unappealing building facade of the parking garage fronting the plaza with a vibrant palette of colors. Use color to break the monotony and volume of the building mass.</p>	<p>2Bii-13 • 2Bii-17</p>	<p>2Bii-15</p> <p>Provide a linear row of trees along the southern edge of the alley fronting the station. This will provide much-needed shade on the northern half of the station and, along with the parking garage, provide a sense of enclosure to the station plaza. It will also help in providing a permeable screen and sense of privacy for the adjoining residential uses.</p>

infrastructure standards

THE STREETSCAPE GUIDELINES ARE INTRINSICALLY LINKED TO INFRASTRUCTURE PRACTICES AND POLICIES. In order to create a comprehensive and effective urban design plan, it is essential to provide cost efficient infrastructure systems without compromising the unique character of the corridor.

IN THIS SECTION

SEWER & STORM DRAINAGE

WATER DISTRIBUTION

ELECTRICAL & TELEPHONE SUPPLY

NATURAL GAS & PETROLEUM

STREET LIGHTING

ROADWAY & SIDEWALK PAVEMENT SURFACE

The proposed alignment of new underground utilities have been developed to avoid conflict with existing underground utilities and surface features such as railroad tracks. The existing utility information utilized to compile these recommendations are based upon field observations and a review of existing infrastructure studies (R-Street Corridor Infrastructure Needs Assessment). Utility conflicts may arise during the detailed design process and alternate utility alignments may be required.

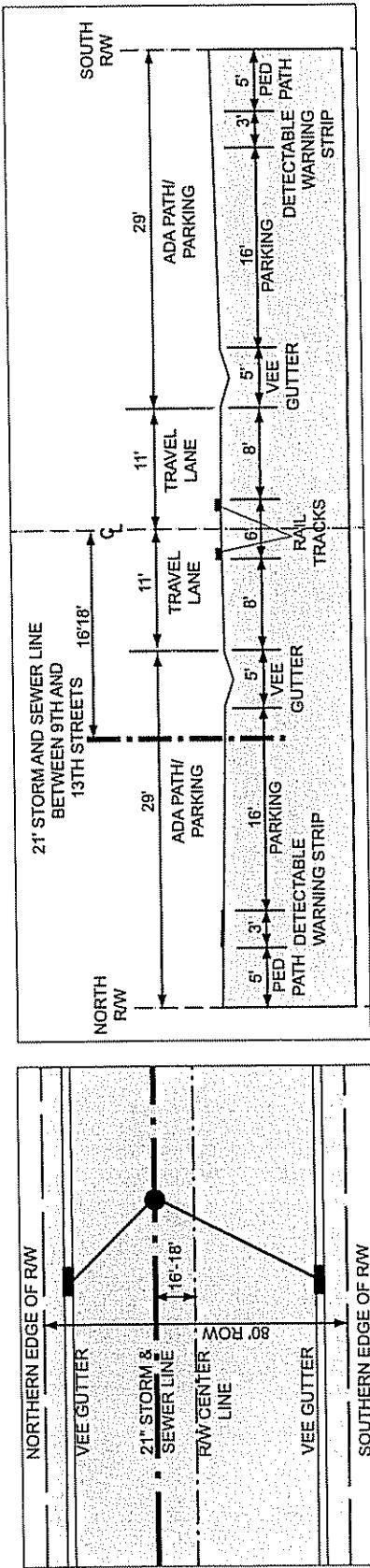
SEWER AND STORM DRAIN

The existing combined sewer and storm drain system is old and does not have adequate capacity to serve the needs of existing and planned development on R Street. Standard curb and gutter systems are located along existing sidewalks. Alternate drainage systems such as Vee gutters are used in sections of the Corridor without sidewalks.

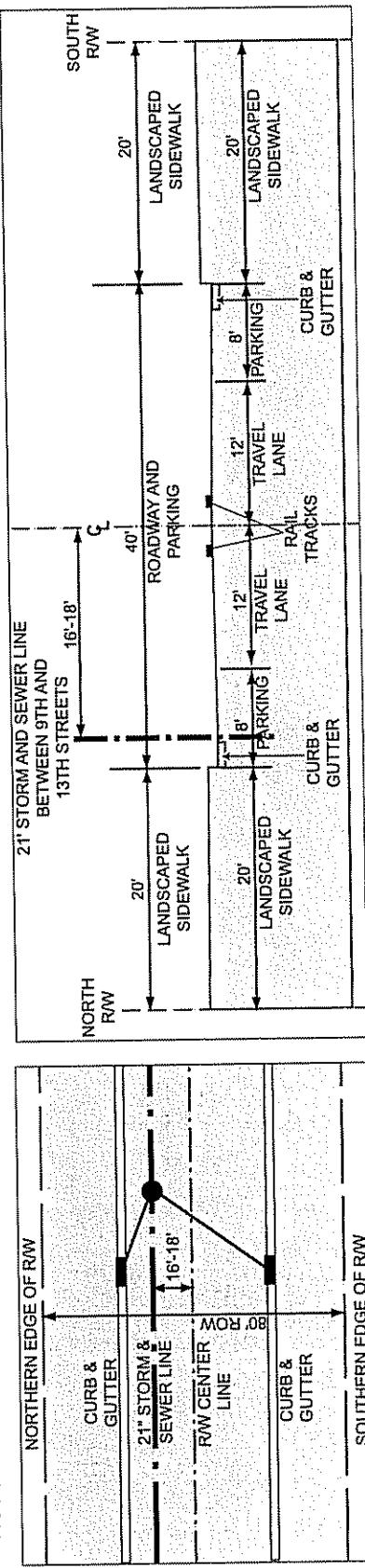
In order to support the proposed development along R Street, the City has proposed measures that

alleviate additional demand upon the combined storm sewage system. The city has proposed up-sizing the sewer along S Street between 7th and 8th Street and constructing an inverted siphon at 18th and U Street. In addition, the City is constructing a new 48" main line between 11th and 13th Streets and a new 24" mainline to replace the existing 8" main on 11th street between R and S Streets. These short-term projects will provide much needed improvements for R Street.

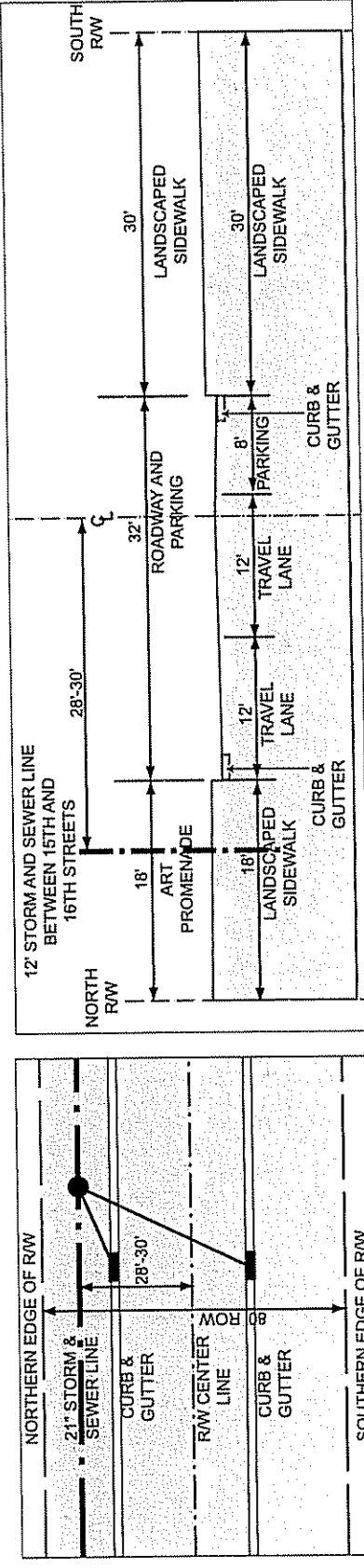
➔ FIGURE 2.1: SECTOR A TYPICAL SEWER AND STORM DRAIN LAYOUT



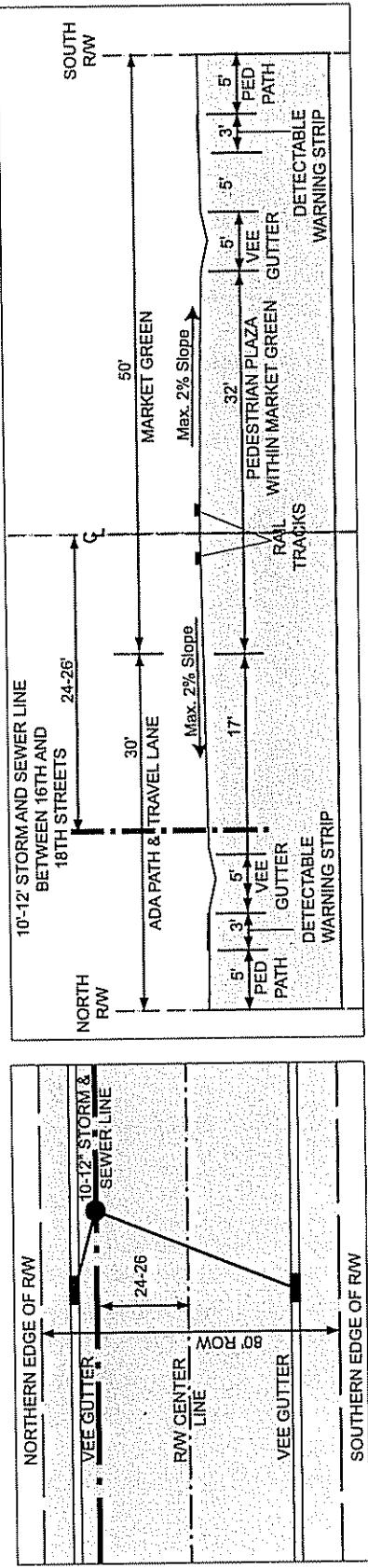
♦ FIGURE 2.2: SECTOR B TYPICAL SEWER AND STORM DRAIN LAYOUT (PHASE 1)



♦ FIGURE 2.3: SECTOR C TYPICAL SEWER AND STORM DRAIN LAYOUT



♦ FIGURE 2.4: SECTOR D TYPICAL SEWER AND STORM DRAIN LAYOUT

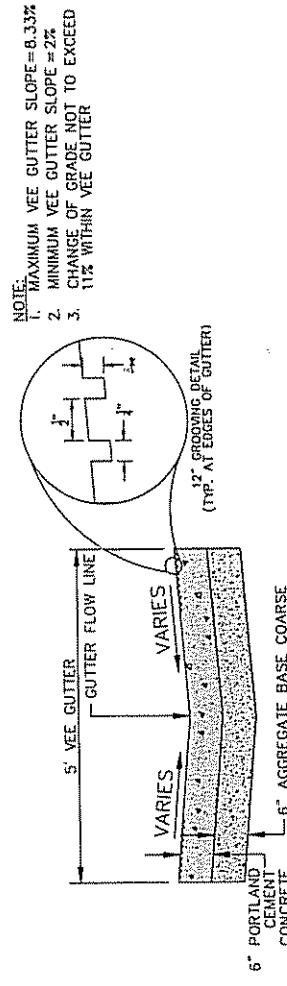


In the long term, improve sewer and storm drain systems, increase portions of the pipe size of the combined sewer main lines and add large diameter pipes to connect proposed inlets to the existing system to temporarily detain storm water run off during peak storm events. As the planned new sewer and storm drain pipes run well below the roadway, they will not affect most of the streetscape

improvements recommended above the ground level. However, any short- or long-term combined sewer system improvement should preserve the existing abandoned rail tracks along R Street.

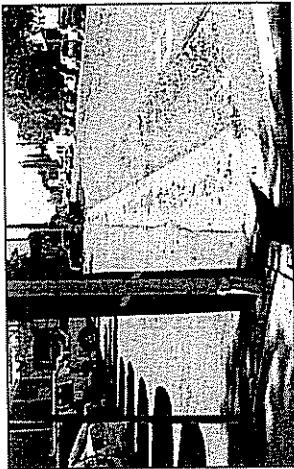
The surface drainage system should be located on both sides of street. Where sidewalks are absent, Vee gutter drainage inlets are located between ADA accessible pedestrian paths and travel lanes.

♦ FIGURE 2.5: MODIFIED VEE GUTTER DETAIL



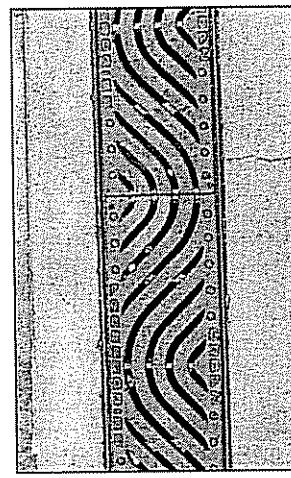
Design alternatives for drainage inlets and their respective surface drainage systems are:

1. Vee Gutter: A smooth stained concrete finished vee gutter is the most cost effective solution that respects the sense of shared space. The slope of the gutter is modified to incorporate ADA compliance and allow comfortable pedestrian accessibility across the roadway. Community members preferred this option for Sector A and D at the community workshops.



Vee gutters maintain the shared roadway concept on R Street.

2. Slotted Drain: The slotted drain is a 1 ¼" opening in the roadway with mesh protection over a surface drainage pipe of up to 36". This alternative provides a surface drainage system that most respects the historic industrial character of R Street and enhances the pedestrian usage of the public realm. However, a slotted drain is more costly to construct and maintain than other alternatives.



A slotted drain system would respect the unique industrial character of R Street's history.

3. Curb and Gutter: A City-standard curb and gutter system with drop inlets should be used for Sectors B and C of the Corridor that contain sidewalks. The curb and gutter system is the most cost-effective surface drainage alternative but does not provide a historic sense of shared space.



In the long term, as sidewalks are demolished and pedestrian pathways are made flush with travel lanes, Vee gutters or slotted drains should replace standard curbs and gutters.

Feasibility of each design alternative will be evaluated in the design phase.

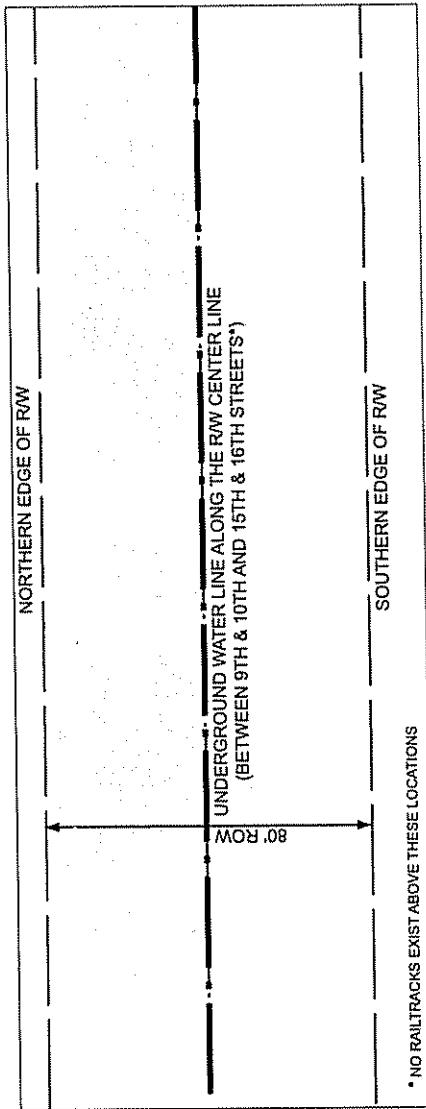
short term.

WATER DISTRIBUTION

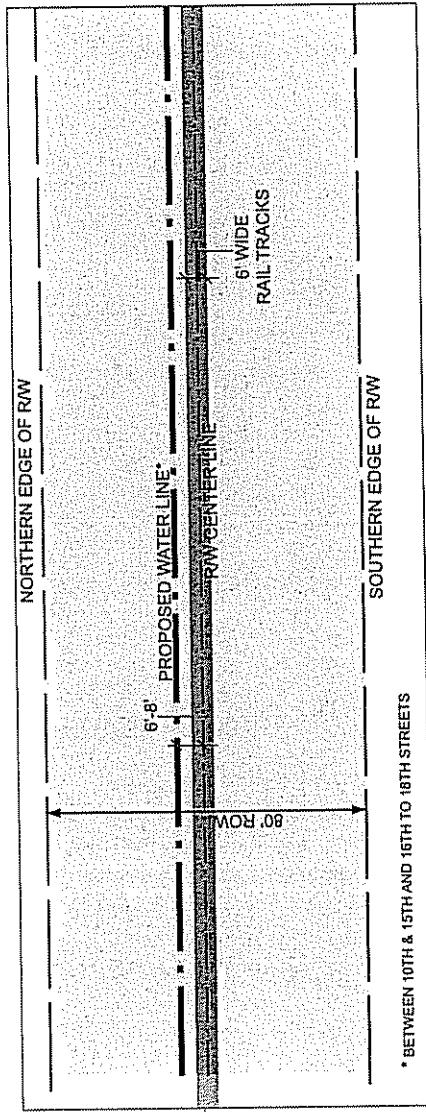
The existing water mains serving the domestic water and fire flow needs of the R Street Corridor are old and undersized six-inch diameter cast iron distribution mains that typically run in east-to-west along alleys between Q and R Streets. The existing water conduits along R Street are between 9th and 10th Streets and 15th and 16th Streets. Fire hydrants are mostly located mid-block and, in a few cases, at street corners.

Recommended improvements maintain a "looped" water main system configuration. New 12" diameter water main pipes in the missing sections of R Street between 9th and 18th Streets, six to eight feet north of the ROW centerline, as a high priority infrastructure improvement. New water main pipes running north-to-south should be eight inches in diameter. To provide adequate fire service for the corridor, coordinate location if new hydrants with existing hydrants to provide at a minimum, approximately 300 feet between hydrants, and staggered at opposite corners of the street.

♦ FIGURE 2.6: EXISTING WATER MAIN LAYOUT ALONG R STREET

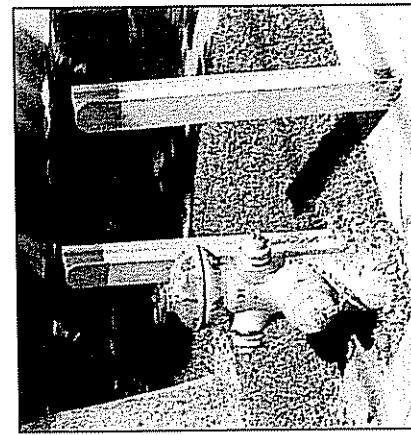


* FIGURE 2.7: PROPOSED WATER MAIN LAYOUT



The existing water distribution pipes run well below the roadway, and along the centerline of the ROW and no rail tracks exist above them. The new water conduits are proposed six to eight feet north of the centerline, safely away from the six feet wide rail tracks that run along the center of the ROW.

Similarly, most other planned water distribution improvements do not affect any streetscape improvements above the ground level. Decorative bollards and "wire mesh guards" used to protect fire hydrants will be visible, however, and should meet the design guidelines.

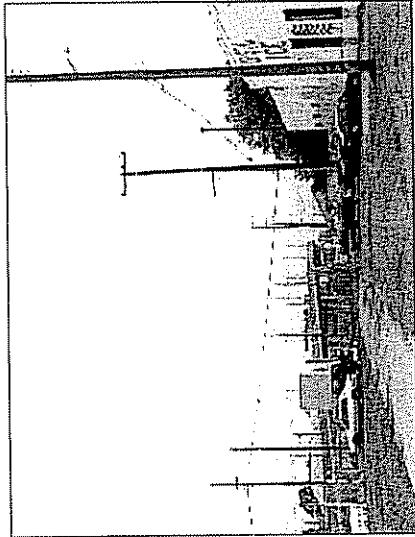


Bollards will be used to protect fire hydrants along the street.

ELECTRICAL & TELEPHONE SUPPLY

The existing electrical and telephone supply lines will adequately serve future development. Utility poles carrying overhead utility lines are typically located on thirty feet south of the R Street ROW.

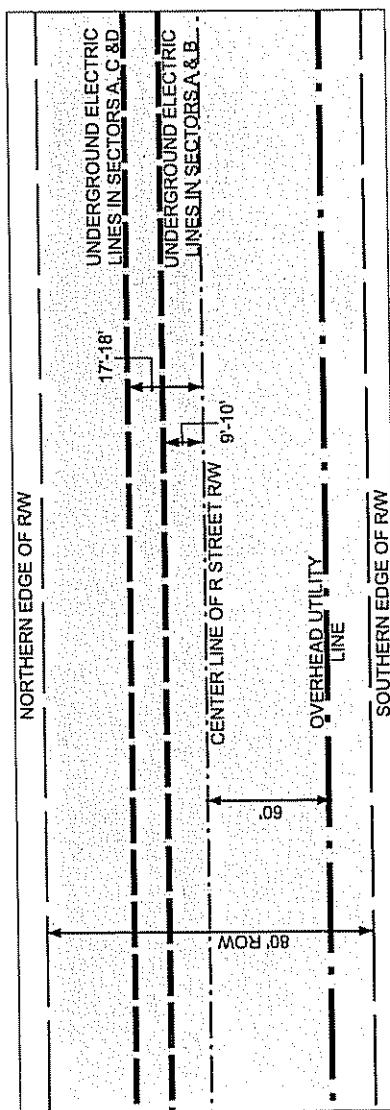
Maintain the existing utility poles and overhead lines, since they contribute to the "gritty" character of the Corridor. Similarly, maintain the existing underground electric lines that are typically located nine to ten feet and seventeen to eighteen feet north of the ROW centerline depending on the location along R Street.



Ensure that the location of proposed streetscape improvements such as steel trellis structures, and parking stalls, respond to the location of existing utility poles.

In the event of under-grounding overhead lines, a joint utilities trench serving electrical, telephone and cable systems should be considered. However, any construction of the trench should preserve existing abandoned rail tracks along R Street.

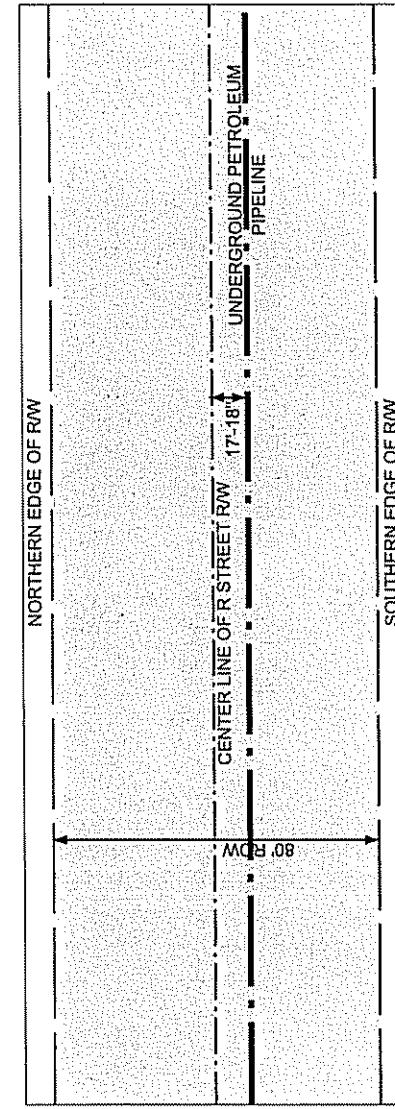
► FIGURE 2.8: EXISTING AND PROPOSED OVERHEAD UTILITY & UNDERGROUND ELECTRIC LAYOUT



NATURAL GAS & PETROLEUM

The existing natural gas lines will adequately serve future development. Natural gas distribution mains are typically located along Q and S Streets with connections in the north-south direction on numbered streets. An inactive private petroleum pipeline owned by Kinder Morgan Energy Partners, LLC, runs along the entire length of R Street.

The natural gas and petroleum pipes run well below the roadway and will not affect most of the recommended streetscape improvements. However, if new surface drainage improvements between 15th and 16th Streets conflict with the existing pipeline, the gutter locations will need to be redesigned.



* FIGURE 2.9: TYPICAL PETROLEUM LINE LAYOUT

STREET LIGHTING

The existing street lighting is chiefly provided by streetlights, typically attached to utility poles at intersections along the Corridor, but illumination is inadequate. Similarly the street lighting along the alleys is insufficient.

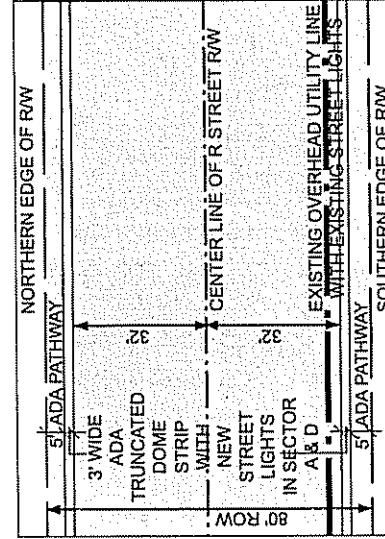
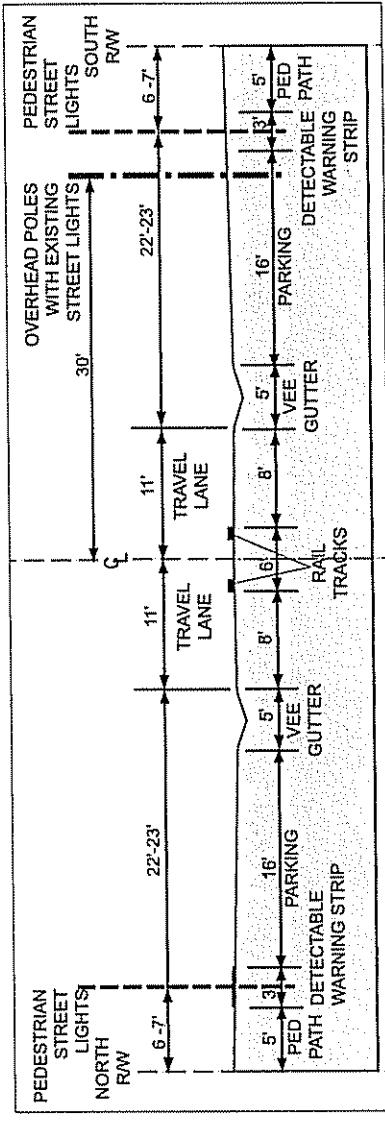
Add midblock streetlights to enhance illumination along the Corridor. In addition, all new pedestrian level streetlights are to be located along the truncated dome strip, between the pedestrian pathway and travel lanes, where the roadway is flush with the ADA pathway.

In addition, existing and planned buildings should incorporate pedestrian-friendly building mounted lighting. Ensure that new streetlights respect the utilitarian and historic character of the Corridor and continue the industrial streetscape palette of steel, cross bracing and rivets. The character of streetlights along R Street should reflect the industrial railroad history of the Corridor and differ from the typical Central City street lights.

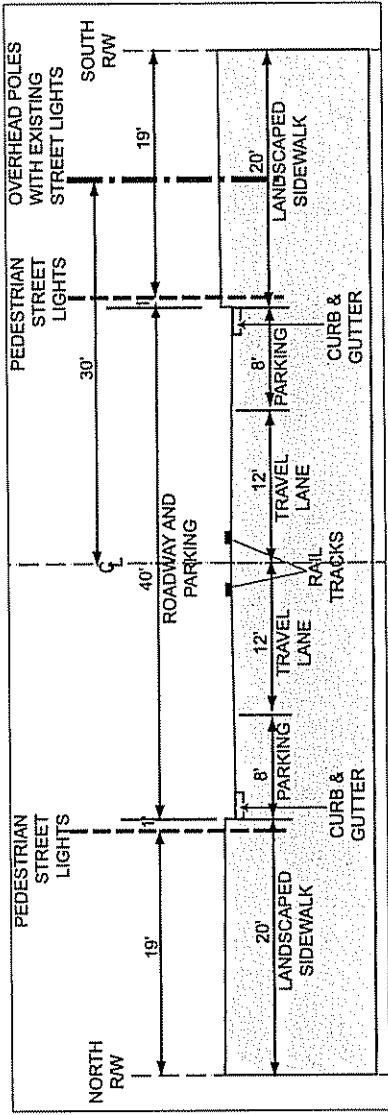
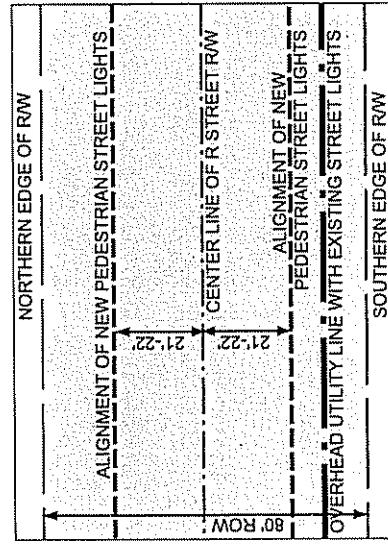
The alleyway lighting must be located in a way that maintains 20' emergency and maintenance vehicle

access. This can best be accomplished by a combination of midblock light poles and overflow lighting from the parking area. Light poles adjacent to the alley must conform to city standards or the guidelines specified in the urban design plan. Building mounted lights that project into the alley right of way will require an encroachment permit. Lights mounted on private property that are privately maintained may not have to conform to city standards for decorative street lights.

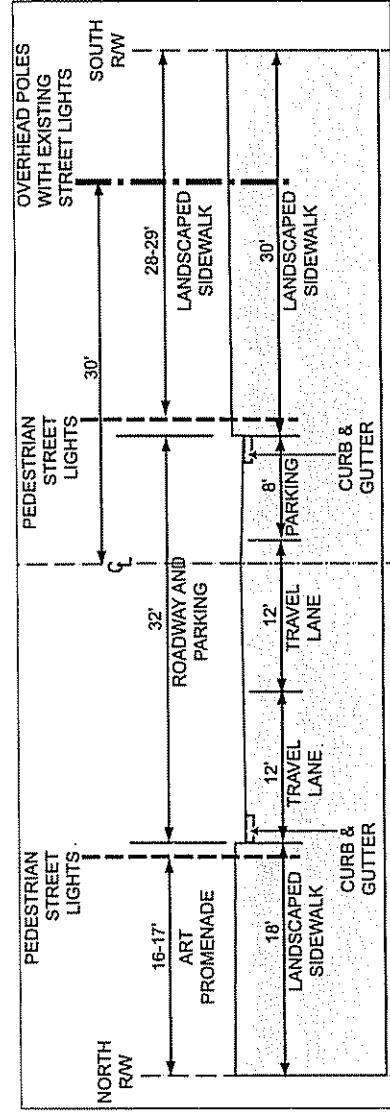
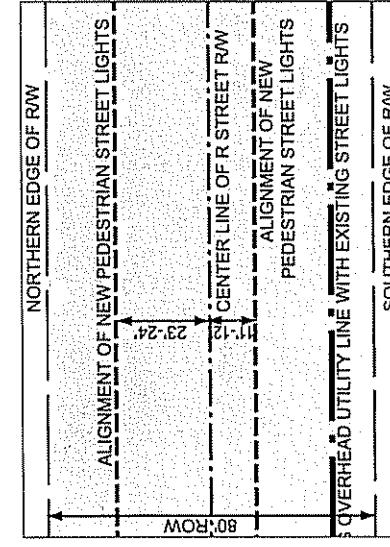
→ FIGURE 2.10: SECTOR A TYPICAL STREET LIGHTING LAYOUT



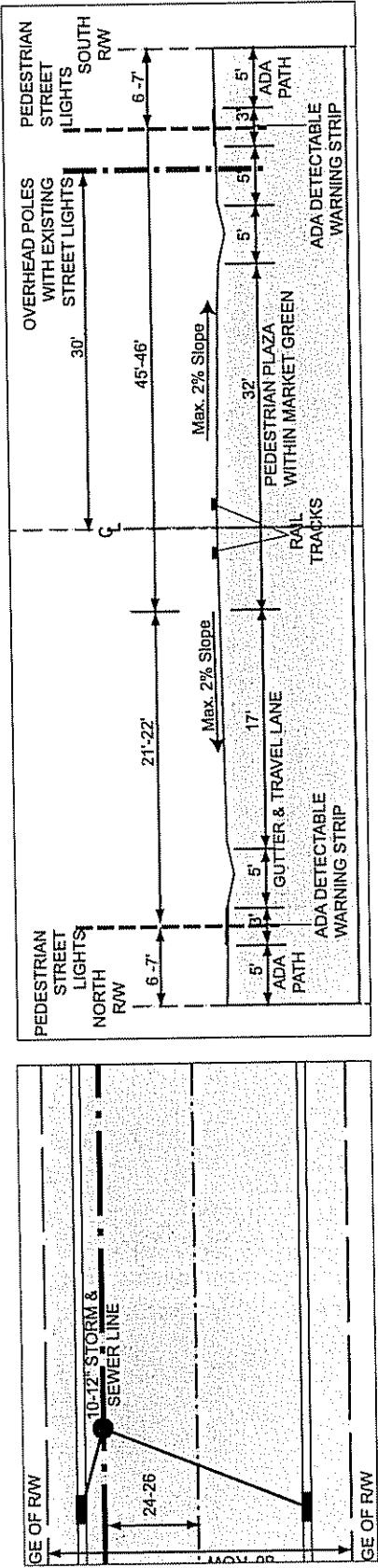
♦ FIGURE 2.11: SECTOR B TYPICAL STREET



♦ FIGURE 2.12: SECTOR C TYPICAL STREET



► FIGURE 2.13: SECTOR D TYPICAL STREET



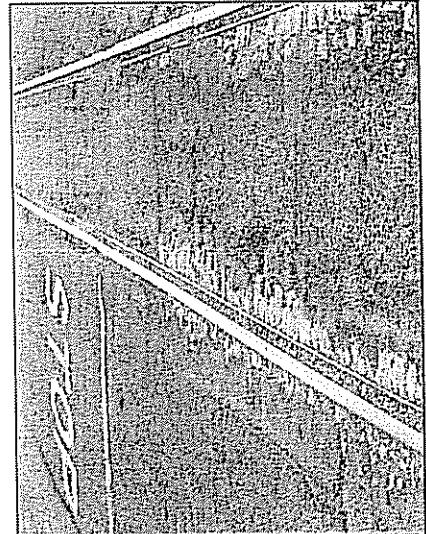
ROADWAY & SIDEWALK PAVEMENT SURFACE

The existing asphalt pavement roadway surface varies in condition from good to poor along the Corridor. Abandoned rail tracks, encased in cobblestones, are present on the roadway surface on most of R Street. The tracks are usually located along the center of the street right-of-way, however, the spur lines meander from the center at several locations. Sidewalks are only located in certain parts of the Corridor, primarily in Sectors C and B. While narrow (with an approximate six feet width), the sidewalks are in fairly good condition.

Implement a program that combines asphalt overlays and reconstruction to address roadway improvement and reconstruction to address roadway improvement

needs that arise as a result of general maintenance, grading re-design and new drainage conditions. In all scenarios, ensure that the existing rail tracks are preserved in their present location, since they are valuable elements of the historic industrial character of the Corridor.

In the long term, during major reconstruction of certain sections of the roadway where the rail tracks are currently hidden under layers of asphalt, an attempt should be made to uncover the tracks. Caution must be taken, however, to address potential toxic soil conditions in this area. Based on existing conditions, Phase 2 toxic evaluation and subsequent remediation may be required before the tracks can be uncovered.

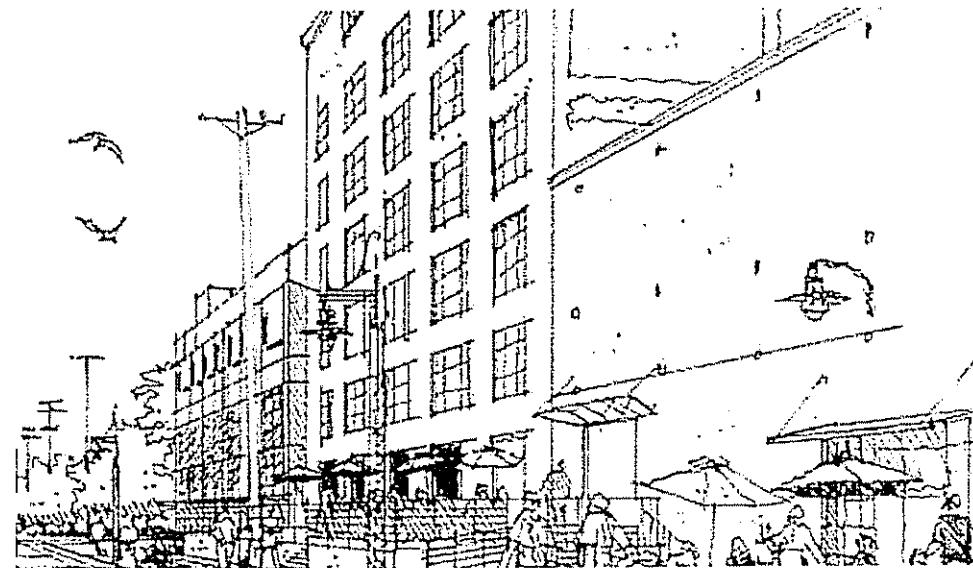


Abandoned rail tracks on R Street contribute to the varying pavement conditions in the area.

This information/document is available on the City of Sacramento Website at:
http://www.cityofsacramento.org/webtech/streaming_video/live_council_meetings.htm
under Future and Archived Meetings and is on file in Hard Copy in the Office of the City Clerk at 915 I Street, Historic Building, First Floor.

INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR THE

R STREET CORRIDOR URBAN DESIGN
GUIDELINES AND
SPECIAL PLANNING DISTRICT
AMENDMENTS



Prepared for the City of Sacramento,
Development Services Department, Planning Division
and the Capitol Area Development Authority (CADA)

August 11, 2006
(with technical corrections made July 10, 2006 and August 10, 2006)

CITY OF SACRAMENTO

R-STREET CORRIDOR— ESTIMATES AND PHASING STUDY

FINAL DRAFT

Prepared by:



December 2, 2004

Executive Summary

The City of Sacramento adopted the R Street Corridor Master Plan in 1996 to transfer R-Street from a warehouse district to a new transit oriented mixed use neighborhood. Corridor improvements will be required to support new businesses and developers, who will provide an entertaining atmosphere to attract visitors from the surrounding area. The City has adopted street sections for improvements to R-Street between 2nd and 9th and 23rd to 29th streets, while a separate urban design plan is currently being prepared for the Capitol Area Development Authority (CADA) which addresses the portion of R-Street between 9th to 19th Streets.

To conform to the proposed street sections between 2nd and 9th streets, the existing roadway will need to be reconstructed with new pavement, curb and gutter, and sidewalk. Between 23rd and 29th streets, travel lanes along with curb, gutter and sidewalk will be constructed alongside the existing light rail tracks. Along with these improvements comes construction of new asphalt pavement section, relocation of existing storm drain inlet structures, landscaping, street lighting and both wet and dry utilities construction.

In order to attract development to the area, the City is developing a plan for constructing the necessary infrastructure, including funding and phasing options. Infrastructure improvements to the corridor include the addition of water facilities, combined sewer facilities, streetscape improvements, and joint trench construction. It is recommended that the construction or phasing of the improvements follow that order.

The costs associated with the infrastructure improvements are summarized below in order of phasing priority:

- | | | |
|----|---------------------------|--------------|
| 1. | Water Facilities | \$7,520,000 |
| 2. | Combined Sewer Facilities | \$1,000,000 |
| 3. | Streetscape Improvements | \$12,940,000 |
| 4. | Joint Trench Construction | \$20,300,000 |

**City of Sacramento
R-Street Corridor Infrastructure and Phasing Study**

Draft Report

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Appendix B-Proposed Street Sections

Appendix C-Fire Department Review Comment

Appendix D-City Sewer Mitigation Recommendations

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Appendix G-OPCC: Streetscape Improvements

Appendix H-OPCC: Joint Trench Construction

City of Sacramento R-Street Corridor Infrastructure and Phasing Study

Draft Report

1.0 PROJECT UNDERSTANDING

The R-Street Corridor consists of the portion of Q, R and S streets between 2nd and 29th streets. The corridor has been identified as a redevelopment area to help revitalize downtown Sacramento and planning documents including the “R-Street Corridor Plan” and “1997 Capitol Area Plan” have been developed to guide this development. Proposed street sections (See Appendix B) have been adopted by the City of Sacramento for improvements to R-Street between 2nd and 9th and 23rd to 29th streets. Also, a separate urban design plan is currently being prepared for the Capitol Area Development Authority (CADA) for the portion of R-Street between 9th to 19th Street.

2.0 INTRODUCTION

Kimley-Horn and Associates, Inc (KHA) has been selected to provide planning level opinions of probable construction costs as well as infrastructure phasing recommendation for this project. The purpose of this Draft Report is to identify design issues and assumptions necessary for the completion of the cost estimates and use this insight to make recommendations about phasing of infrastructure improvements.

The report is divided into the following sections:

- Background Information
- Phasing Recommendations
- Opinion of Probable Construction Costs
- Appendix
 - Existing Street Sections
 - Proposed Street Sections
 - Fire Department Review Comment
 - City Sewer Mitigation Recommendations
 - Opinion of Probable Construction Cost Calculations

3.0 BACKGROUND INFORMATION

3.1 Overview of Existing Street Sections

The existing street sections vary significantly throughout the R-street corridor. From 2nd to 9th street, R-Street is an urban roadway with mixed frontage use, including office buildings and residential homes. Based upon assessor parcel map data of the area, an 80' right-of-way width is typical through this section. Field measurements indicate that the

pavement width varies from 36 to 44 feet, with on street parallel parking and established curb, gutter and sidewalk on both sides of the street. Landscaping and paved “plaza” areas occupy the balance of the right of way.

From 23rd to 29th streets, the corridor consists of mostly industrial buildings fronting the street. Regional Transit light rail tracks are aligned in the center of R-Street. The existing pavement is in poor condition. Recent projects have improved the roadway between 28th and 29th and the North side between 24th and 25th. Typically there is no established drive lane, and cars travel on the light rail tracks. Vehicles currently park perpendicular to the traveled way near buildings and property fences.

Existing street sections are provided in Appendix A.

3.2 Current Improvement Projects

Currently several projects are in the planning, design or construction stages along the R-Street corridor. Each of these projects will have an impact on future improvements to the corridor infrastructure and present opportunities to phase in portions of the corridor improvements. The following list details the current projects and their anticipated impact on the corridor:

CalPERS Office Building:

CalPERS is currently constructing frontage improvements along R-Street between 3rd and 5th streets. Roadway improvements will conform to the City adopted street sections.

CADA Warehouse/Capitol Lofts:

CADA is currently redeveloping an existing warehouse building into apartments and lofts on the South side of R-Street between 11th and 12th streets. In conjunction with this project, the City of Sacramento Utilities Department is preparing improvement plans for the existing combined sewer system (CSS). At present, the CSS upgrades consist of installing a new 48-inch main from 11th to 13th streets on R-Street and replacing an existing 8-inch main between R to S streets on 11th Street with a 24-inch main.

13th and 16th Street Light Rail Station:

CADA has recently acquired funding to proceed with improvements to the existing 13th and 16th street light rail stations which will include signage and aesthetic improvements. The project has not yet been scoped so proposed improvements are not yet known.

9th to 19th Urban Design Plan:

A supplement to the R-Street Corridor Plan is currently in process to improve the portion of the street between 9th and 19th streets. This section of R-Street has been identified as an area that will be a unique fixture of the corridor. The proposed plans include a “flat” streetscape that promotes a shared facility for both pedestrian and automobiles.

Development in this area is intended to create a mixture of residential, shops, restaurants, art galleries and other entertainment venues.

3.3 Continuity of Proposed Street Sections

Special consideration to the evolving nature of the corridor will be necessary to maintain safety and accessibility throughout the R-Street corridor. The proposed improvements consist of distinctly different street sections which will all need to conform to the existing utilities and streetscape features.

Construction of the City adopted R-Street typical sections for the project corridor may create conflicts with the existing roadway features. Because established curb alignments and infrastructure exist, modifications to existing roadway alignments can cause significant conflicts with existing utilities both underground and overhead. It is important to consider how the existing roadway features will conform to the new street section and careful consideration will need to be given to stage the construction of improvements in phases.

According to the city Street Manager, Jerry Way, the pavement along R-Street is in “poor” condition and is long overdue for rehabilitation. A majority of the pavement throughout the corridor will need to be reconstructed in order to conform to the proposed street sections. Construction cost savings may be possible where portions of the existing pavement section can be maintained. A pavement management strategy developed during the design phase should include rehabilitation varying from an asphalt overlay to reconstructing the pavement structural section depending upon the pavement condition.

In order to create a uniform streetscape throughout R-Street and maintain a consistent “character,” improvements from 2nd to 29th streets should utilize a consistent streetscape pallet. Although the street sections will vary along the corridor, elements such as pedestrian pathways, street lights, paving finishes and intersection treatments should be used consistently throughout. Currently, the 9th to 19th street urban design plan is not complete, but where appropriate, the features selected for use should be applied consistently from 2nd to 9th and 23rd to 29th streets as well.

3.4 Existing Railroad Tracks

Historic Railroad tracks are currently located throughout the R-Street corridor and range in condition from rail which has been paved over, to abandoned rail, visible from the surface. There are also light rail tracks currently in use from 22nd to 29th streets and beyond. The abandoned rail tracks located between 11th and 19th streets are considered historic and are to be preserved in their existing location to the extent possible.

Between 2nd and 9th streets, the existing rail tracks have either been removed or paved over and although they are not visible from the surface, they present a significant construction issue. During the design phase of any street frontage or infrastructure upgrades, the tracks will need to be located and improvements planned to avoid disturbing them. From 11th to 19th streets the tracks present a different challenge as they

are to be incorporated into the streetscape improvements, and may not be paved over. Therefore, the tracks set the pavement grade for the roadway, and the proposed improvements must conform to the track grades.

3.4.1 Vertical Curb Conflict

Between 23rd to 29th streets the proposed streetscape improvements include a 6-inch vertical curb to separate the light rail line with the vehicular travel lanes. If constructed as a monolithic curb, it will trap drainage and create standing water along the light rail tracks. To proceed with this design concept the vertical curb will need to include regular openings to allow drainage to escape.

Alternate solutions include eliminating the use of this curb or constructing the top of curb flush with the pavement around the rail. Utilizing a flush curb would require a drive lane at a lower elevation at which existing utilities may cause conflicts.

Recommendation: Eliminate the 6" vertical curb shown in the adopted street section. Conversations with Regional Transit representatives indicate that replacing the curb with striping to clearly delineate separation between drive lanes and light rail tracks is an acceptable alternative to the curb construction.

3.4.2 Vehicle Warning System

Design of the proposed street sections should include careful consideration of vehicles traveling parallel to the existing light rail tracks between 23rd and 29th streets because conflicts may arise between light rail cars and vehicles making left turn movements from R-Street onto the numbered streets. The existing railroad warning system consists of crossing gates designed to stop vehicles traveling North-South on the numbered streets, but does not provide any warning for vehicles traveling East-West. Conversations with Regional Transit representatives indicate that two alternatives are preferred to provide adequate warning to vehicles turning left.

Alternative 1: Relocate Crossing Gates

In order to adequately warn vehicles traveling parallel to the light rail tracks of oncoming rail cars, the crossing gates could be relocated from their existing location (approximately 40-50 feet from the R-Street centerline) to a new location between the light rail and the proposed travel lanes. This alternative would require relocation of the 12 existing crossing gates between 23rd and 29th streets. It would also require construction of one new crossing gate to maintain continuous vehicle warning throughout construction of the roadway improvements. Regional Transit representatives indicated the cost to construct a new crossing gate is approximately \$60,000/each and the cost to relocate an existing crossing gate is approximately \$20,000/each. Based on this information the cost to relocate the crossing gates would be approximately \$300,000.

Alternative 2: Install "No Left Turn" message signs

Regional Transit representatives indicate that adequate warning for vehicles traveling along R-Street could be provided by installation of lighted message signs which provide a

“No Left Turn” warning as well as a flashing red beacon when rail cars are approaching. Regional Transit indicated the warning signs would provide adequate warning if installed on either the left or right side of the travel lane and that costs for installation of the warning signs and beacons are approximately \$5,000/each. Based on this information the cost to install the warning signs between 23rd and 29th streets is approximately \$60,000.

Recommendation:

Because both alternatives 1 and 2 are acceptable methods of warning vehicles of incoming light rail cars, Alternative 2 is recommended because of it's significantly lower cost to construct.

3.5 Utility Conflicts and Considerations

The presence of existing utilities varies block to block throughout the R-Street corridor. Water, combined sewer, underground and overhead electric and petroleum pipelines are generally present in each block. The following is a general overview of the major utility facilities within the project limits which present anticipated impact to the proposed street improvements:

3.5.1 Water

The existing water main servicing 2nd to 19th street is typically located within 5' feet of the existing roadway centerline and does not appear to conflict with the proposed street sections. Developments between 23rd and 29th streets are serviced from waterlines running North-South on the numbered streets so there are no anticipated water line conflicts within the proposed street sections for this area.

Recommended Improvements

Throughout the corridor, the existing water lines are undersized for the anticipated development, and too old and fragile to allow future service connections. This existing main will remain in service. New water mains consistent with those recommended in the “R-Street Corridor Infrastructure Needs Assessment” are recommended along Q, R and S streets. Any East-West construction shall maintain a looped configuration by connecting to an existing main utilizing a standard 8” pipe aligned North-South in the alleyways between blocks, dead end mains will not be allowed. The water main improvements recommended in the “R-Street Corridor Infrastructure Needs Assessment” include the following:

- Q Street: 12” line between 6th and 29th streets.
- R Street: 12” line between 2nd and 18th streets.
- R Street: Dual 12” line between 23rd and 29th streets.
- S Street: 12” line between 2nd and 29th streets.

Additionally, after reviewing the “R-Street Corridor Infrastructure Needs Assessment,” Gary Henslee of the Sacramento Fire Department recommends extending the Q Street

waterline improvements to include a new 12" main and additional fire hydrant construction between 23rd and 29th street (See Appendix C).

3.5.2 Combined Sewer/Storm Drainage

The existing combined sewer system is currently operating near its capacity and requires upgrade to provide detention and control flow volumes entering the network. Between 2nd and 9th streets, the adopted street sections will realign the existing curb line, add landscaped parkways and angled parking, and shift the roadway to the South. The curb realignment will require removal and replacement of the storm drain inlet structures located in the current curb line. The existing lateral combined sewer connections may be suitable for reuse, however it will be important to consider grading at each inlet location to insure positive drainage. Consistent with the recommendations of the "R-Street Corridor Infrastructure Needs Assessment," any additional combined sewer mains constructed should be oversized to provide detention of surface runoff.

Existing drainage inlets between 23rd and 29th streets will also require replacement to conform to the proposed street sections. Between 23rd and 29th, the existing inlets are typically located at the intersection and main lines are not present along R-Street. The required construction of surface drainage features will be completed along with the implementation of the proposed street sections.

In addition to the storm drain collection improvements, the City of Sacramento Utilities Department has proposed two specific projects to mitigate the increased sewer flow caused by the proposed development along the corridor. Based upon sewer modeling completed by Bruce Barbosa, the first mitigation project consists of replacing the existing sewer line located in S-Street between 7th and 8th streets with a proposed 90" pipe. Mitigation project number two involves constructing an inverted siphon diversion weir structure located at the intersection of 18th and U streets. City sewer modeling (See Appendix D) demonstrates that the construction of these two sewer mitigation projects will significantly reduce the demand upon the combined sewer system throughout the entire R-Street corridor. In fact, proposed flood volumes after full corridor build out will be mitigated to levels which are lower than the current situation.

3.5.3 Surface Drainage Collection

The adopted sections require trees in planters spaced at 35-foot intervals within the on-street parallel parking area between 23rd and 29th streets. It can be anticipated that the planters will block the flow of drainage captured by the curb and gutter between the planters. Maintaining positive drainage throughout this section will require either leaving enough room "behind" the planter for the curb and gutter to convey flows to inlet structures, or grading away from the curb and gutter towards the edge of the travel lanes where incorporation of a vee gutter can effectively convey drainage flows.

Recommendation:

The proposed sections between 23rd and 29th streets should incorporate a vee gutter between the proposed travel lanes and parallel parking areas (which is not currently included in the adopted street sections).

3.6.4 Power/Telephone/Communications

Between 4th and 6th streets, utility poles are typically located on the South side of the street at either the back of curb or back of walk. When the curb line is shifted South, these utility poles will need to be relocated out of the proposed parking areas. On the North side of the street between 2nd and 9th, the utility poles will not generally need relocation. Underground electric facilities on the North side of R-Street between 5th and 6th streets appear to be located within a proposed landscaping area. An underground electrical line also appears to be in conflict with the proposed tree planters on the North side of the street between 23rd and 29th streets. If left in its current location, the lines will be located within the planter area and will conflict with the proposed planting of trees on this block.

If trees are planted as recommended by the adopted sections, existing electrical conflicts will require relocation of underground utilities. This construction of a continuous conduit path throughout the corridor provides an opportunity to construct a joint utility trench. Taking advantage of this opportunity to construct a joint trench will provide a conduit path for future dry utilities and reduce the impact of utility provider's future service connections. Also, identifying a dry utility corridor throughout R-Street will reduce the risk of utility conflicts with future improvement projects.

Construction of a joint trench to serve the R-Street corridor would simplify future reconstruction and improvements to the area, however, the existing urban work environment will generate very high construction costs. Cost analysis of utility construction in downtown Sacramento has shown that construction of a trench along R-Street between 2nd and 29th streets, including connections to Q and S streets along each numbered street will cost approximately \$20.3 million. Although the trench would serve the corridor well, it should be considered a very low priority, well behind improving the corridors combined sewer, water and streetscape infrastructure.

4.0 PHASING RECOMMENDATIONS

The proposed improvements along the R-Street corridor will revitalize this central city area street and not only attract businesses and developers, but provide an entertaining atmosphere to attract visitors from the surrounding area. If the corridor rehabilitation plan is carried out successfully, many existing commercial buildings will be transitioned into mixed-use residential buildings and parcels throughout the corridor will undergo infill development projects. This shift in usage will substantially increase demands upon the existing corridor infrastructure.

Review of the existing conditions and proposed development alternatives suggests that sewer mitigation and waterline improvements should be considered the highest priority to accommodate future residential and commercial development. Improving the capacity of both the water system and combined sewer system will allow future development to rely upon the existing corridor utilities for “plug and play” development.

Following the waterline improvements in priority, streetscape improvements including surface runoff collection improvements should be constructed. Streetscape and surface drainage improvements can be constructed in stages and can easily be included in the scope of new development projects.

It is recommended that the R-Street corridor infrastructure improvements follow the priority listed below:

1. Sewer Mitigation projects as identified by Bruce Barboza of the City Utilities Department will allow proposed development to utilize the existing combined sewer system without increasing the current demand upon the system.
2. Waterline improvements are the highest priority issue and should be constructed first. If necessary construct improvements in four phases. Based upon both current and anticipated future development, the phases should be constructed with the following priority:
 1. R-Street: 12-inch line between 2nd and 18th streets
 2. Q-Street: 12-inch line between 6th and 29th streets
 3. S-Street: 12-inch line from 2nd to 29th streets
 4. R-Street: 12-inch line between 23rd and 29th streets

The suggested phases offer the benefits of a continuous water line which can be inspected and tested to insure quality, and provide a sufficient scope to offer an economy of scale cost savings over patching the lines together in smaller phases.

3. Phase in streetscape and surface drainage improvements along with development projects or as future capitol improvement projects.
4. Consider constructing a joint utilities trench to provide a conduit path for future dry utilities. The trench could accommodate future improvements such as street lighting, telephone and data lines, future signal interconnect and miscellaneous electrical lines and minimize future demolition of the finished pavement surface as underground utility improvements become necessary.

5.0 OPINION OF PROBABLE CONSTRUCTION COST

An opinion of probable construction cost has been prepared for waterline improvements constructed both as one improvement project or in four key phases with costs escalated for inflation. Streetscape improvements including surface drainage improvements have also been analyzed and have been included for constructing R-Street improvements in three phases; 2nd to 9th street, 9th to 19th street and 23rd to 29th street. A detailed opinion of probable construction costs is provided in the Appendix and order of magnitude estimates are summarized below:

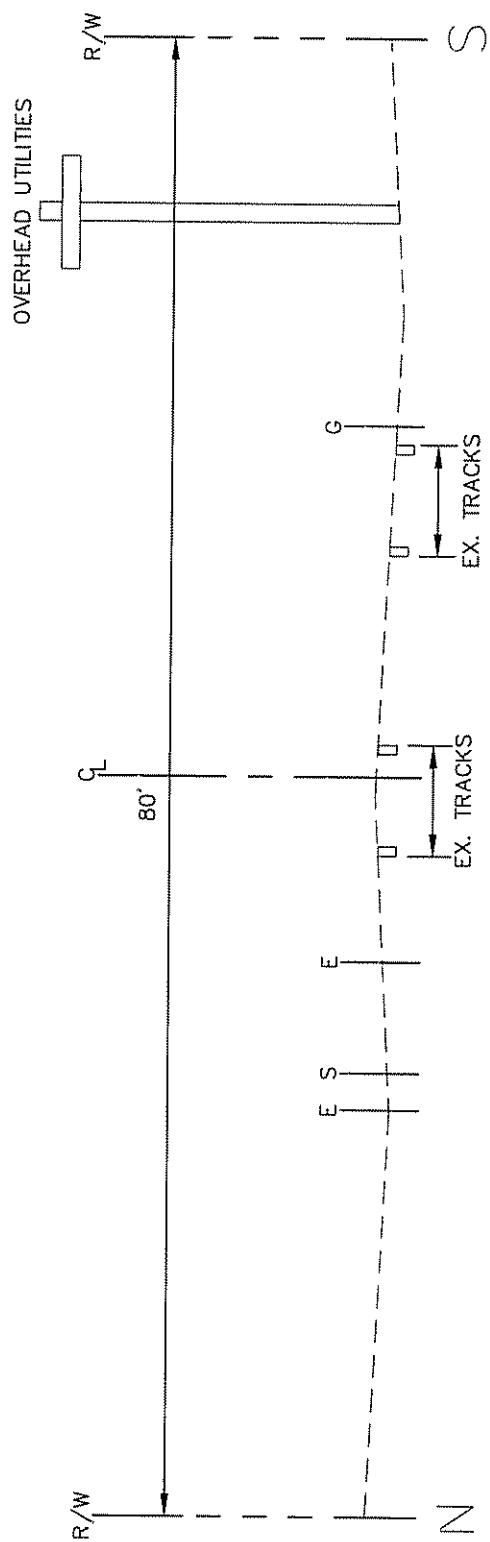
1.	Sewer Mitigation Projects:	
		\$1,000,000
2.	Approximate Cost for Entire Corridor Waterline Improvements if constructed as one improvement project:	
		\$7,520,000
3.	Approximate Cost for Waterline Improvements constructed as 4 phased projects over a 4 year timeframe:	
	• R-Street (2 nd to 18 th):	\$1,400,000
	• R-Street (23 rd to 29 th):	\$1,300,000
	• Q-Street (6 th to 29 th):	\$2,550,000
	• S-Street (2 nd to 29 th):	\$2,750,000
	<i>Total</i>	\$8,000,000
4.	Approximate Cost for Streetscape Improvements:	
	• R-Street (2 nd to 9 th):	\$2,530,000
	• R-Street (Phase 1; 9th to 19 th):	\$4,590,000
	• R-Street (Phase 2; 9th to 19 th):	\$2,220,000
	• S-Street (23 rd to 29 th):	\$3,600,000
	<i>Total</i>	\$12,940,000
5.	Joint Trench:	
		\$20,300,000

The opinion of probable construction costs does not include construction management. A contingency of 25% has been added to the opinion of probable construction costs to account for incidental and unforeseen costs that have yet to be identified by preliminary design.

Appendix A

EXISTING STREET SECTIONS

TYPICAL SECTIONS – R-STREET EXISTING STREETSCAPE
N.T.S.



LEGEND:

E=UNDERGROUND ELECTRIC LINE
S=UNDERGROUND SEWER LINE
G=UNDERGROUND GAS LINE

(1)
—

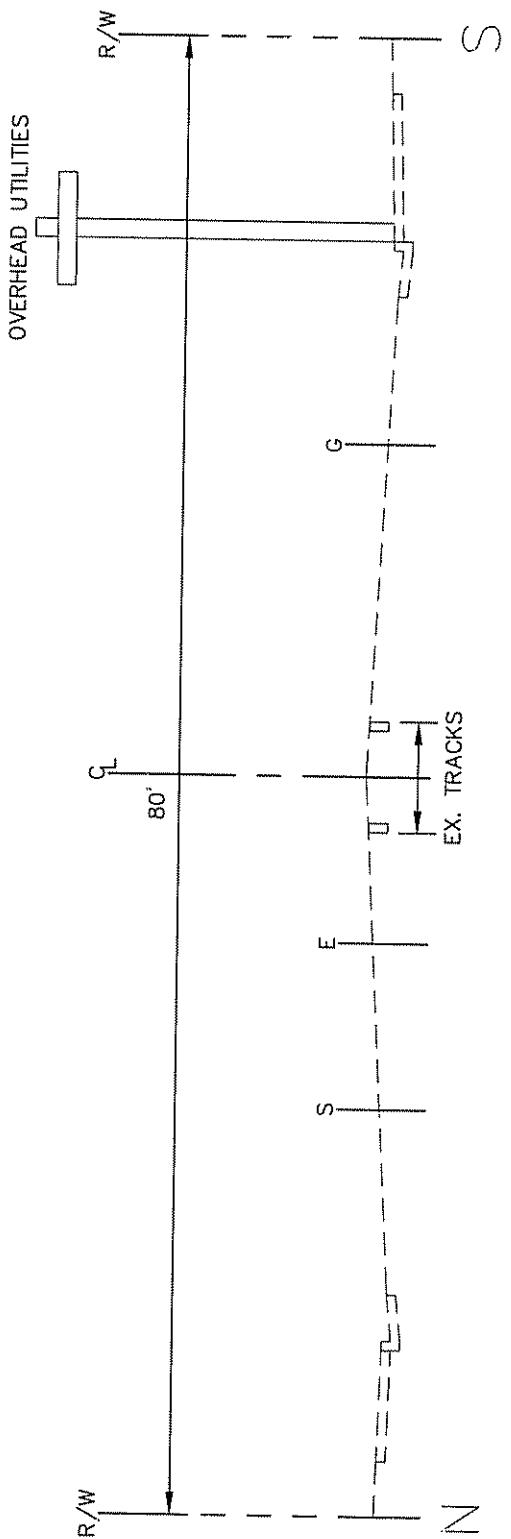
TYPICAL SECTION – SECTOR A

N.T.S.

OVERHEAD UTILITIES
SEPT, 2004

Kimley-Horn and Associates, Inc.

TYPICAL SECTIONS - R-STREET EXISTING STREETSCAPE
N.T.S.



LEGEND:

E=UNDERGROUND ELECTRIC LINE
S=UNDERGROUND SEWER LINE
G=UNDERGROUND GAS LINE

(2)
-

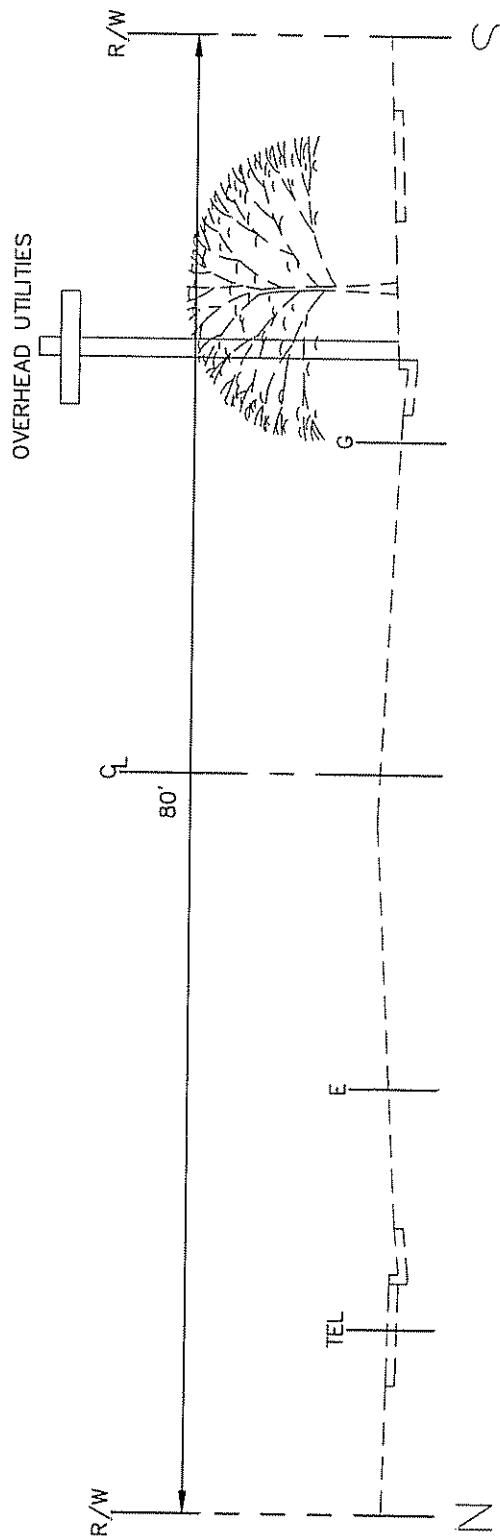
TYPICAL SECTION - SECTOR B

N.T.S.

EXHIBIT 2
SEPT, 2004



TYPICAL SECTIONS— R-STREET EXISTING STREETSCAPE
N.T.S.



LEGEND:

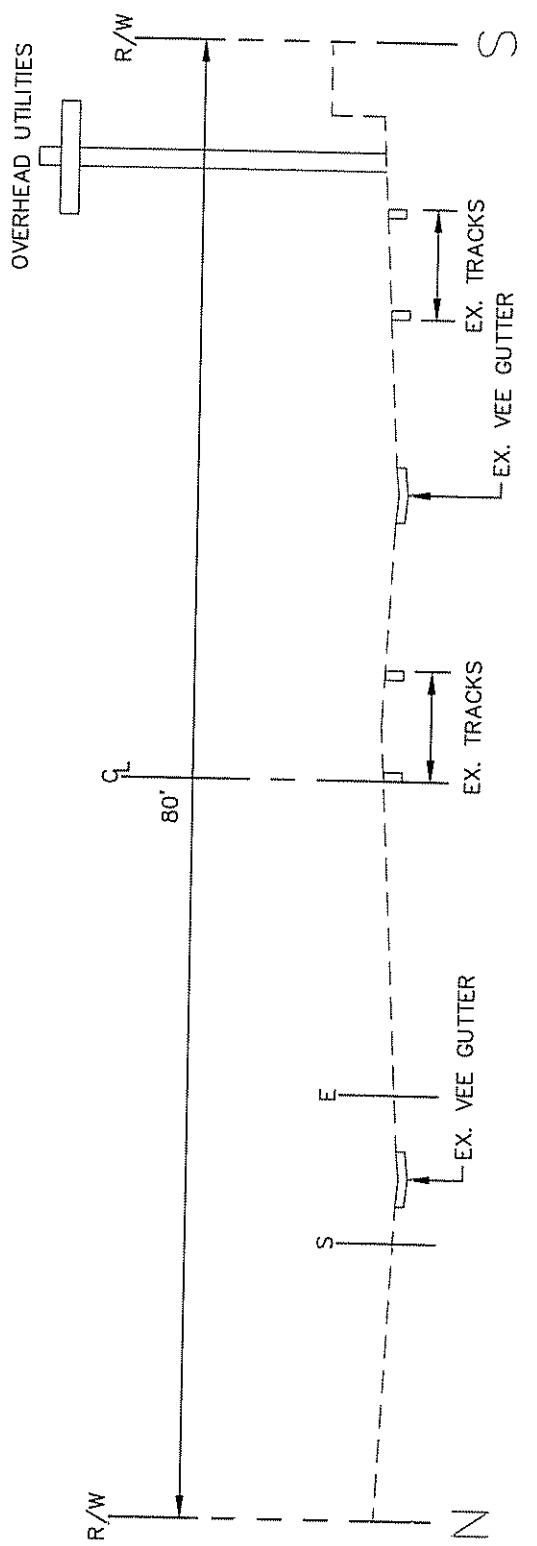
E=UNDERGROUND ELECTRIC LINE
TEL=UNDERGROUND TELEPHONE LINE
G=UNDERGROUND GAS LINE

(3)
—

TYPICAL SECTION — SECTOR C
N.T.S.

EXHIBIT 3
SEPT, 2004

TYPICAL SECTIONS - R-STREET EXISTING STREETSCAPE
N.T.S.



LEGEND:

E=UNDERGROUND ELECTRIC LINE
S=UNDERGROUND SEWER LINE

4
—

TYPICAL SECTION - SECTOR D
N.T.S.

EXHIBIT 4
SEPT, 2004

Appendix B

PROPOSED STREET SECTIONS

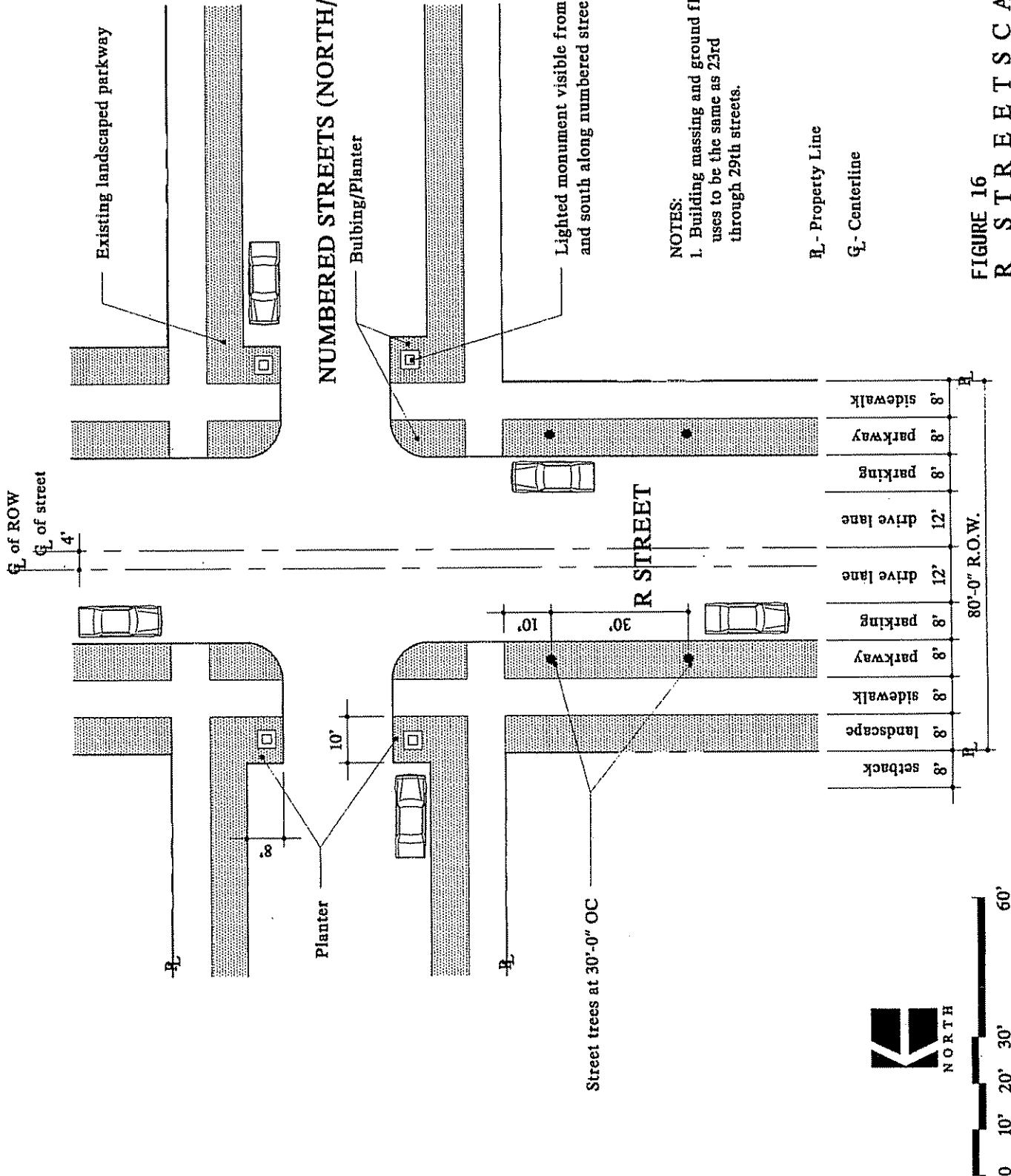


FIGURE 16
R STREETSCAPE PLAN
BETWEEN 3rd - 19TH STREETS

5 December 95

Exhibit 1

SOUTH



Typical* R Street Streetscape

3rd-4th Streets, 6th-7th Streets

*Actual street sections may vary from this typical street section. Implementation is constrained by existing development and street improvements.

Figure 14a

Proposed Amendment to the R Street Corridor Plan Streetscape Section

1:10 Scale

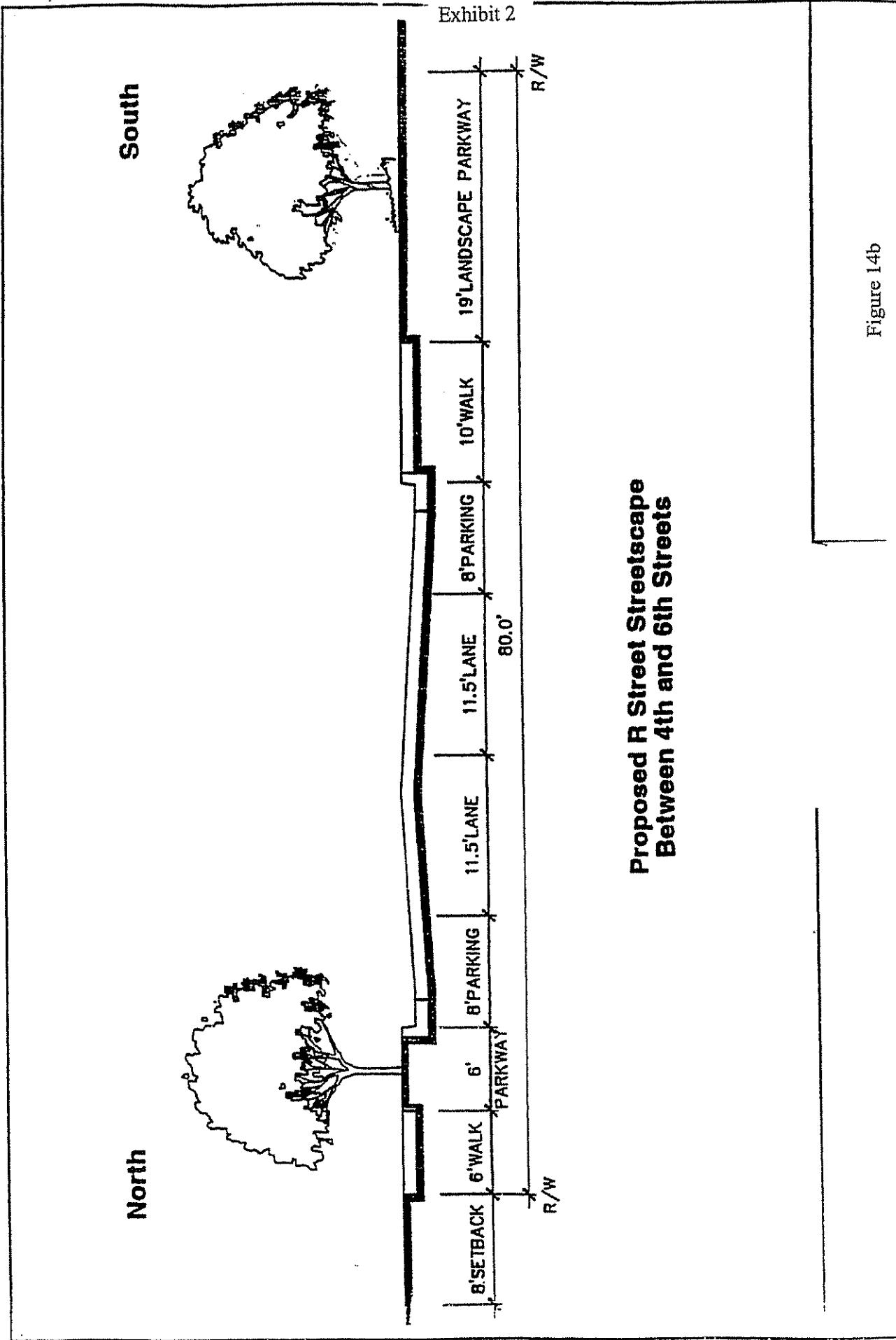
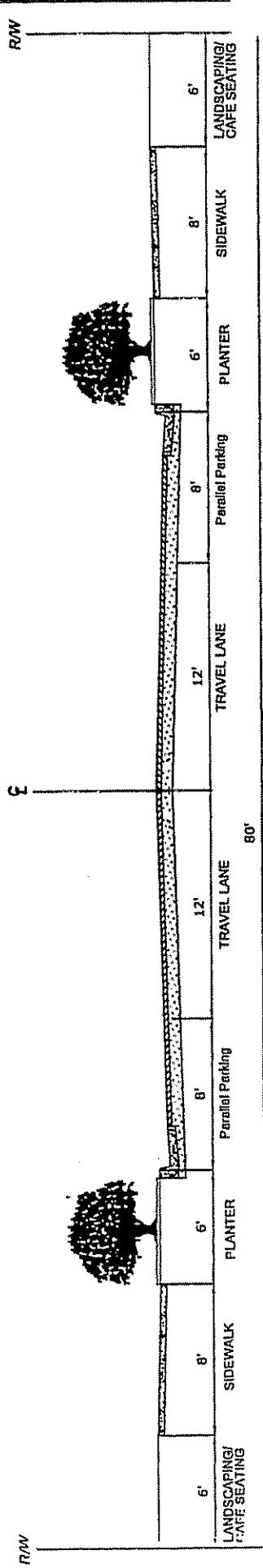


Figure 14b

**R Street Streetscape
Between 4th and 6th Streets**

No Scale

Exhibit 3

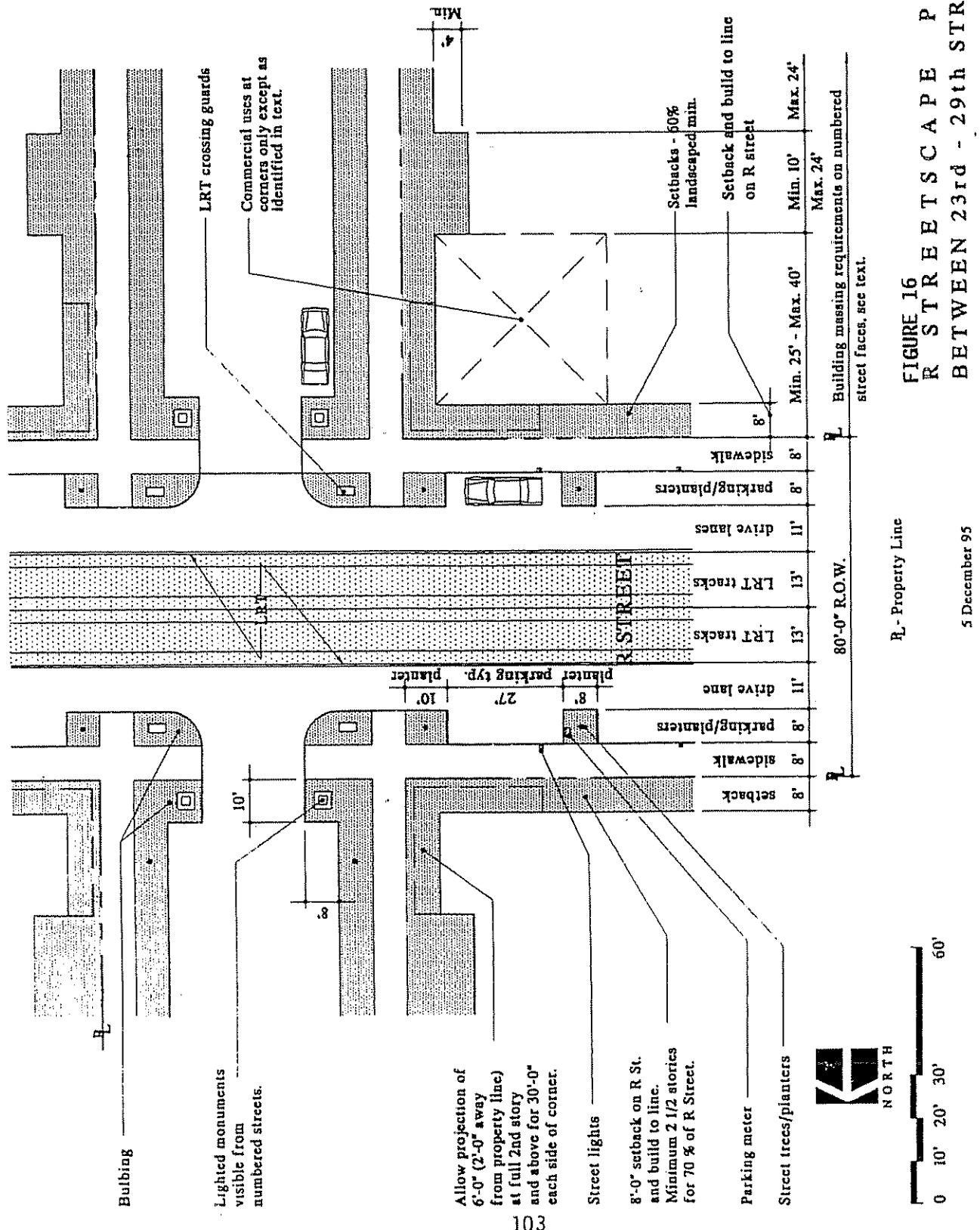


NOTES:

- 1) BULB OUTS ARE GENERALLY REQUIRED AT ALL ROUND CORNERS UNLESS DETERMINED OTHERWISE BY THE CITY TRAFFIC ENGINEER.
- 2) APPLICATIONS FOR ON-STREET DIAGONAL PARKING SHALL BE SUBMITTED TO THE DEPARTMENT OF PUBLIC WORKS FOR REVIEW. ON-STREET DIAGONAL PARKING MUST BE APPROVED BY THE CITY COUNCIL.
- 3) ENCROACHMENT PERMITS ARE REQUIRED FOR ANY CAFE SEATING THAT ENCROACHES INTO THE RIGHT-OF-WAY.
- 4) IN LOCATIONS WHERE CAFE SEATING IS REQUESTED, THE SIDEWALK WIDTH SHALL BE A MINIMUM OF 6 FEET CLEAR OF ANY OBSTRUCTIONS.

Figure 14c

CITY OF SACRAMENTO	TYPICAL CROSS-SECTION
<i>Department of Public Works</i>	R Street Streetscape 7 th –19 th Streets



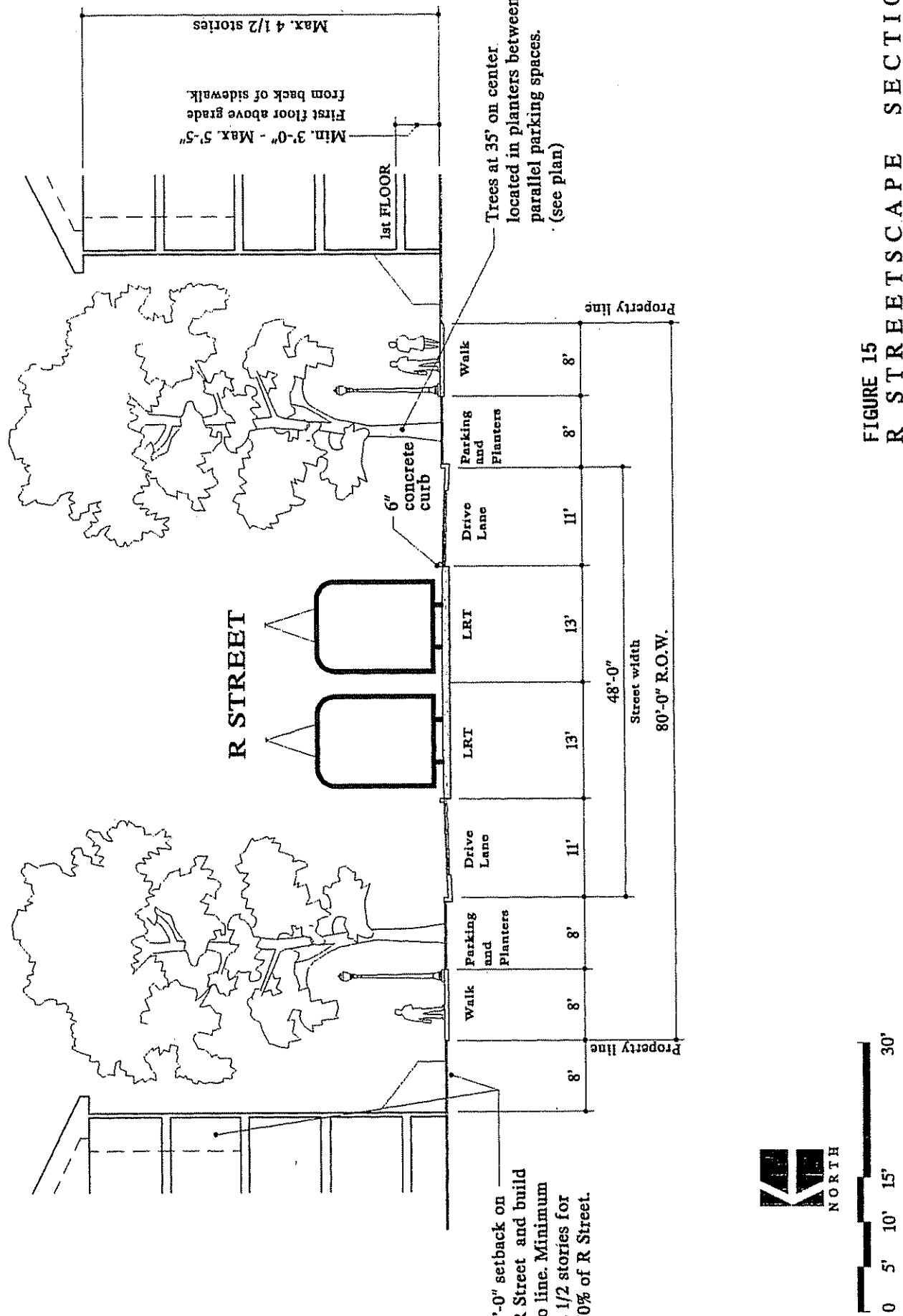


FIGURE 15
R STREETSCAPE SECTION
BETWEEN 23rd - 29th STREETS

5 December 95

Appendix C

Fire Department Review Comment



FIRE DEPARTMENT
"An All-Risk Organization"

JULIUS J. CHERRY
FIRE CHIEF

CITY OF SACRAMENTO
CALIFORNIA

5770 FREEPORT BL.
SUITE 200
SACRAMENTO, CA
95822

PH 916-433-1300
FAX 916-433-1629

TRANSMITTAL

DATE: September 24, 2004

ATTN: Don McAdams, Kimley-Horn & Associates, 858-5800

FROM: Gary Henslee, Prevention Administrative Captain, 433-1622

RE: R Street Infrastructure Needs Assessment

Comments:

On page V4, SA156900 9/29/2003 under Proposed Improvements, you stated, "*There are sufficient existing hydrants connected to the existing 24 inch water main located on Q Street between 23rd and 29th Street that the additional 12' parallel main is not necessary.*" This statement is not true. The existing hydrants are may only be sufficient for what already exists, not for any future planned development along the R Street corridor. Also the additional 12" parallel water main is necessary. On page three of the Department of Utilities-Water Distribution System- Commonly Used Criteria Pamphlet, under Taps it says transmission mains shall only be tapped with distribution mains. Utilities does not allow domestic taps or hydrant taps off any main larger than 12". The 12" parallel water main will still be necessary.

Appendix D

City Sewer Mitigation Recommendations

October 5, 2004

MEMORANDUM

TO: Don McAdams, Kimley-Horn and Associates
FROM: Bruce Barboza, City of Sacramento Utilities Department

SUBJECT: R Street Corridor Combined Sewer Mitigation Evaluation

This memo addresses the recommended sewer mitigation projects for offsetting the increased sewer outflows to the City's combined sewer system (CSS) from build-out conditions of the R Street Corridor Plan. These recommended projects are based on the City's Storm Water Management Model (SWMM) developed for the CSS.

The R Street Corridor project at build-out will discharge a total of 1,882 ESDs* of new sewer flows to the CSS. The SWMM Model identified that four street node locations (nodes 511, 550, 343, 3420) will require mitigation for increased sewer outflows. It was determined that the increased outflows at these nodes could not be mitigated from just one single project location. The two recommended projects are as follows:

Project 1: S Street Sewer Up-sizing

Up-size 400 feet of S Street Sewer from 7th Street to 8th Street with 90-inch diameter pipe. Development of the R Street Corridor blocks between 3rd Street and 18th Street will result in the discharge of 1,248 ESDs to the CSS. This project will mitigate the increased outflows at nodes 343 and 3420. (See Attached Table2)

Project 2: Inverted Siphon at 18th Street and U Street

Construct an inverted siphon in U Street that will divert excess flows in the 56-inch diameter pipe in U Street to pass under the 108-inch diameter interceptor in 18th Street and continue flowing west in the existing U Street pipeline to Sump 1/1A. Development of the R Street Corridor blocks between 18th Street and 29th Street will result in the discharge of 634 ESDs to the CSS. This project will mitigate the increased outflows at nodes 511 and 550. (See Attached Table 2)

* 1ESD = 400 gallons /day

TABLE 1: 1ST R Street Corridor Mitigation Evaluation Test that Doesn't Mitigate
 Assumptions: (No Capitol Area Plan Project and Up-sized 800 feet of S Street sewer from 7th St. to 9th St. with 90-inch)

NODE	Exist outflows before R Street Corridor Plan Cu Ft	% sewer in Exist Outflow	Exist Sewer Volume in Outflow Cu Ft	outflow volume to street from R Street Corridor Plan Cu Ft	% sewer in outflows from R St. Corridor	Sewer Volume in outflow from R St. Corridor Plan Cu Ft	outflow volume with 90inch dia pipe in S St. 7 th to 8 th Cu Ft	% sewer with 90inch dia pipe	Sewer volume in outflow from 90inch pipe Cu Ft
511	149,714	6.8%	10,180	150,727	7.0%	10,550	152,888	7.0%	10,702**
550	23,610	3.4%	803	24,441	3.4%	831	23,856	3.4%	811**
343	6,354	3.55%	226	6,845	4.17%	285	865	4.17%	36
3420	28,048	5.28%	1,481	28,250	5.76%	1,627	18,660	5.76%	1075
Total			12690***				(1)		11,664**

** Nodes 511 and 550 had increased sewer outflows from this proposed mitigation project in S Street need two projects one for nodes 343 & 3420 and another for nodes 511 & 550 SEE TABLE 2 Below for Recommended Solution.

TABLE 2: R Street Corridor Mitigation Evaluation Test That Mitigated
 Assumptions: (No Capitol Area Plan Project and Up-sized 400 feet of S Street sewer from 7th St. to 8th St. with 90-inch and construct inverted siphon diversion weir @ intersection of 18th & U Streets)

NODE	Exist outflows before R Street Corridor Plan Cu Ft	% sewer in Exist Outflow	Exist Sewer Volume in Outflow Cu Ft	outflow volume to street from R Street Corridor Plan Cu Ft	% sewer in outflows from R St. Corridor	Sewer Volume in outflow from R St. Corridor Plan Cu Ft	outflow volume w/ 90" pipe in S St. 7 th to 8 th & Inverted Siphon Cu Ft	% sewer with 90inch dia pipe & Siphon	Sewer volume in outflow from 90" pipe & Siphon Cu Ft
511	149,714	6.8%	10,180	150,727	7.0%	10,550	140,408	7.0%	9,257
550	23,610	3.4%	803	24,441	3.4%	831	23,655	3.4%	810
343	6,354	3.55%	226	6,845	4.17%	285	4,599	4.17	192
3420	28,048	5.28%	1,481	28,250	5.76%	1,627	24,401	5.76%	1,405
Total			12690***				(1)		11,664**

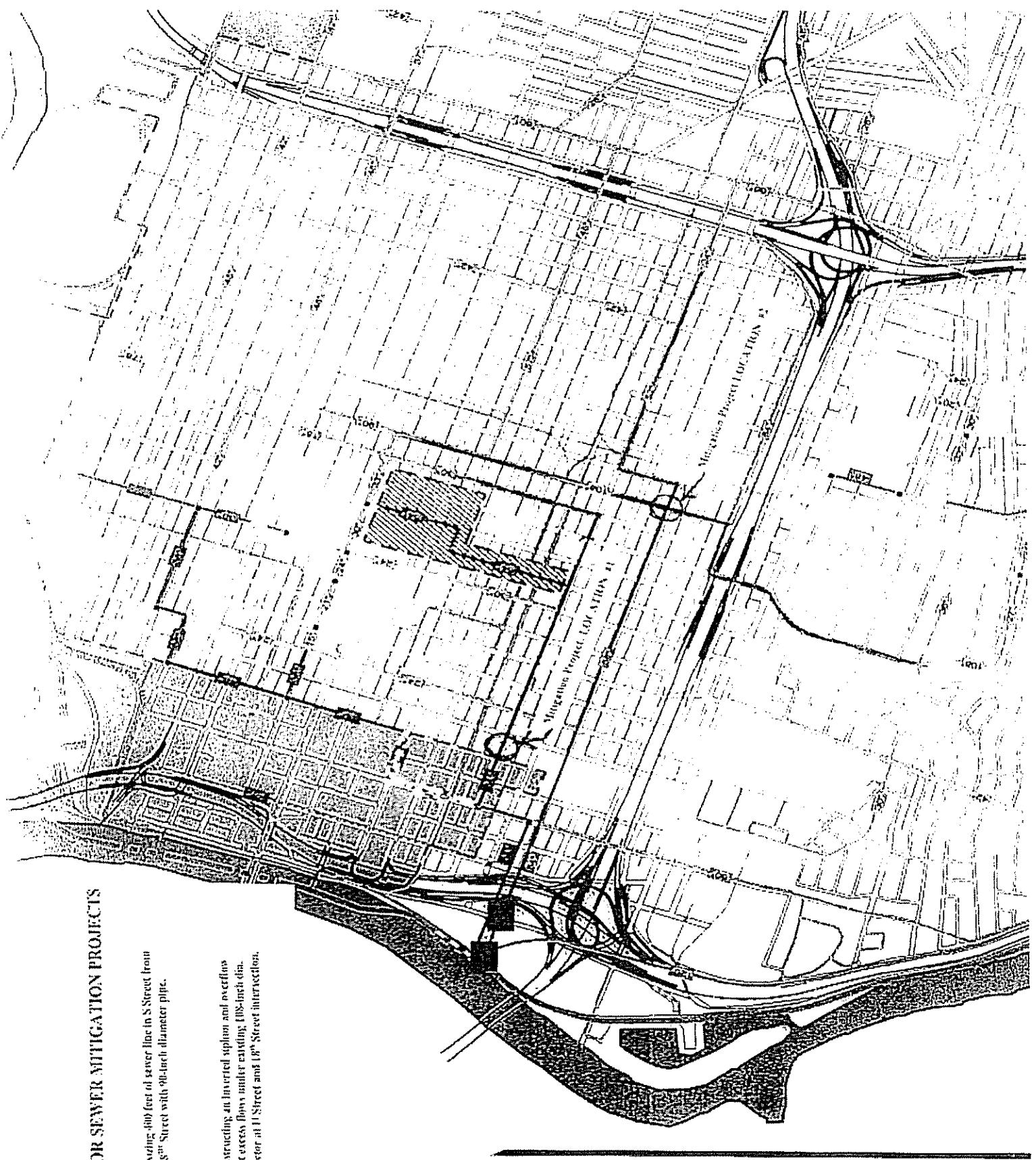
*** This project mitigated sewer volumes to 1,076 cu ft below the existing level before the R Street Corridor

(1) SWMM Model R_mv_nc.dat this column

8 STREET CORRIDOR SEWER MITIGATION PROJECTS

134. ALTUS #1 Requires upgrading 400 feet of sewer line in S Street from 1st Street to 9th Street with 90-inch diameter pipe.

101 N.Y. 22 Requires constructing an inverted siphon and inclosure in diverging pipes under existing 115-foot drain, corner at 11 Street and 17th Street, later rectified.



Appendix E

OPINION OF PROBABLE CONSTRUCTION COST – Sewer Mitigation Projects



**Kimley-Horn
and Associates, Inc.**

**Capitol Area Development Authority
R-Street Corridor Infrastructure Improvements**

Q, R and S Street Combined Sewer Improvements from 2nd to 29th Street

Opinion of Probable Construction Cost

Conceptual -- December, 2004

Sewer Mitigation Projects Opinion of Probable Construction Costs					
	Item	Quantity	Unit	Unit Cost	Cost
1	Sanitary Sewer Mitigation Project No. 1				
	Upsize Mainline to 90"	1	LS	\$475,767	\$475,767
2	Sanitary Sewer Mitigation Project No. 2				
	Inverted Siphon Construction	1	LS	\$255,200	\$255,200
3					\$0
4					\$0
5					\$0
6					\$0
7					\$0
8					\$0
9					\$0
10					\$0
11					\$0
12					\$0
13					\$0
14					\$0
15					\$0
16					\$0
					Sub-Total \$730,967
					Contingency 25% \$182,742
					Opinion of Probable Construction Cost \$913,709
					Approximate Engineering Fee (10%) \$91,371
					Total \$1,005,080
Basis for Cost Projection:					
<input checked="" type="checkbox"/> No Design Completed					
<input type="checkbox"/> Preliminary Design					
<input type="checkbox"/> Final Design					
The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions.					

Appendix F

OPINION OF PROBABLE CONSTRUCTION COST – Waterline Improvements



**Kimley-Horn
and Associates, Inc.**

***Capitol Area Development Authority
R-Street Corridor Infrastructure Improvements***

Q, R and S Street Waterline Improvements between 2nd and 29th Street

Opinion of Probable Construction Cost

Conceptual -- December, 2004

Option 1 - Construct Improvements In Full

Q, R and S Street Waterline Improvements between 2nd and 29th Street					
Item	Quantity	Unit	Unit Cost	Cost	
1 Mainline Connection	14	EA	\$3,500	\$49,000	
2 12" PVC Waterline	29,540	LF	\$85	\$2,510,900	
3 Water Service (1-2")	300	EA	\$1,500	\$450,000	
4 Water Service (2-4")	120	EA	\$2,250	\$270,000	
5 Fire Service	210	EA	\$4,000	\$840,000	
6 Fire Hydrant	72	EA	\$5,000	\$360,000	
7 Boring and Casing	80	LF	\$850	\$68,000	
Sub-Total				\$4,547,900	
Contractor Mobilization (10%)				\$454,790	
Traffic Control (5%)				\$227,395	
Contingency 25%				\$1,307,521	
Opinion of Probable Construction Cost				\$6,537,606	
Engineering (15%)				\$980,641	
Total				\$7,518,247	
Basis for Cost Projection:					
<input checked="" type="checkbox"/> No Design Completed					
<input type="checkbox"/> Preliminary Design					
<input type="checkbox"/> Final Design					
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**Kimley-Horn
and Associates, Inc.**

**Capitol Area Development Authority
R-Street Corridor Infrastructure Improvements**

Q, R and S Street Waterline Improvements between 2nd and 29th Street

Opinion of Probable Construction Cost

Conceptual -- December, 2004

Option 2 - Construct Improvements In Phases

Phase I - R-Street (2nd to 18th)					
Item	Quantity	Unit	Unit Cost	Cost	
1 Mainline Connection	2	EA	\$3,500	\$7,000	
2 12" PVC Waterline	4,900	LF	\$85	\$416,500	
3 Water Service (1-2")	60	EA	\$1,500	\$90,000	
4 Water Service (2-4")	24	EA	\$2,250	\$54,000	
5 Fire Service	42	EA	\$4,000	\$168,000	
6 Fire Hydrant	15	EA	\$5,000	\$75,000	
7 Boring and Casing	0	LF	\$850	\$0	
Sub-Total					\$810,500
Contractor Mobilization (10%)					\$81,050
Traffic Control (5%)					\$40,525
Contingency 25%					\$233,019
Escalation 0%					\$0
Opinion of Probable Construction Costs					\$1,165,094
Engineering (15%)					\$174,764.06
Total					\$1,339,858
Phase II - Q-Street (6th to 29th)					
Item	Quantity	Unit	Unit Cost	Cost	
1 Mainline Connection	2	EA	\$3,500	\$7,000	
2 12" PVC Waterline	9,280	LF	\$85	\$788,800	
3 Water Service (1-2")	100	EA	\$1,500	\$150,000	
4 Water Service (2-4")	40	EA	\$2,250	\$90,000	
5 Fire Service	70	EA	\$4,000	\$280,000	
6 Fire Hydrant	20	EA	\$5,000	\$100,000	
7 Boring and Casing	80	LF	\$850	\$68,000	
Sub-Total					\$1,483,800
Contractor Mobilization (10%)					\$148,380
Traffic Control (5%)					\$74,190
Contingency 25%					\$426,593
Escalation 4%					\$85,318.50
Opinion of Probable Construction Costs					\$2,218,281
Engineering (15%)					\$332,742.15
Total					\$2,551,023
Basis for Cost Projection:					
<input checked="" type="checkbox"/> No Design Completed					
<input type="checkbox"/> Preliminary Design					
<input type="checkbox"/> Final Design					
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**Kimley-Horn
and Associates, Inc.**

**Capitol Area Development Authority
R-Street Corridor Infrastructure Improvements**

Q, R and S Street Waterline Improvements between 2nd and 29th Street

Opinion of Probable Construction Cost

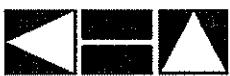
Conceptual -- December, 2004

Option 2 - Construct Improvements In Phases

Phase III - S-Street (2nd to 29th)					
	Item	Quantity	Unit	Unit Cost	Cost
1	Mainline Connection	4	EA	\$3,500	\$14,000
2	12" PVC Waterline	10,480	LF	\$85	\$890,800
3	Water Service (1-2")	100	EA	\$1,500	\$150,000
4	Water Service (2-4")	40	EA	\$2,250	\$90,000
5	Fire Service	70	EA	\$4,000	\$280,000
6	Fire Hydrant	24	EA	\$5,000	\$120,000
7	Boring and Casing	0	LF	\$850	\$0
Sub-Total					\$1,544,800
Contractor Mobilization (10%)					\$154,480
Traffic Control (5%)					\$77,240
Contingency 25%					\$444,130
Escalation 8%					\$177,652
Opinion of Probable Construction Costs					\$2,398,302
Engineering (15%)					\$359,745
Total					\$2,758,047
Phase IV - R-Street (23rd to 29th)					
	Item	Quantity	Unit	Unit Cost	Cost
1	Mainline Connection	4	EA	\$3,500	\$14,000
2	12" PVC Waterline	4,880	LF	\$85	\$414,800
3	Water Service (1-2")	40	EA	\$1,500	\$60,000
4	Water Service (2-4")	16	EA	\$2,250	\$36,000
5	Fire Service	28	EA	\$4,000	\$112,000
6	Fire Hydrant	13	EA	\$5,000	\$65,000
7	Boring and Casing	0	LF	\$850	\$0
Sub-Total					\$701,800
Contractor Mobilization (10%)					\$70,180
Traffic Control (5%)					\$35,090
Contingency 25%					\$201,768
Escalation 12%					\$121,061
Opinion of Probable Construction Costs					\$1,129,898
Engineering (15%)					\$169,485
Total					\$1,299,383
Basis for Cost Projection:					
<input checked="" type="checkbox"/> No Design Completed					
<input type="checkbox"/> Preliminary Design					
<input type="checkbox"/> Final Design					
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Appendix G

OPINION OF PROBABLE CONSTRUCTION COST -- Streetscape Improvements



**Kimley-Horn
and Associates, Inc.**

**Capitol Area Development Authority
R-Street Corridor Infrastructure Improvements**

Q, R and S Street Streetscape Improvements from 2nd to 9th Street

Opinion of Probable Construction Cost

Conceptual -- December, 2004

R-Street Streetscape Improvements from 2nd to 9th Street					
Item	Description	Quantity	Unit	Unit Cost	Cost
1	Misc. Demolition by Block	5	EA	\$60,000.00	\$300,000
2	AC Pavement Section	26,160	SF	\$7.00	\$183,120
3	Slurry Seal	71,040	SF	\$0.75	\$53,280
4	Curb and Gutter	3,520	LF	\$40.00	\$140,800
5	P.C.C. Sidewalk	28,160	SF	\$12.00	\$337,920
6	Curb Ramp	40	EA	\$2,250.00	\$90,000
7	Landscaping	43,200	SF	\$5.00	\$216,000
8	Tree Planting	80	EA	\$200.00	\$16,000
9	Street Light	30	EA	\$4,000.00	\$120,000
10	Storm Drain Inlet-Type B	22	EA	\$2,000.00	\$44,000
11	Manhole	4	EA	\$3,500.00	\$14,000
12	12" SD Lateral	200	EA	\$100.00	\$20,000
					Sub-Total \$1,535,120
					Contractor Mobilization (10%) \$153,512
					Traffic Control (5%) \$76,756
					Contingency (25%) \$441,347
					Opinion of Probable Construction Cost \$2,206,735
					Engineering (15%) \$331,010
					Total \$2,537,745
Basis for Cost Projection:					
<input checked="" type="checkbox"/> No Design Completed					
<input type="checkbox"/> Preliminary Design					
<input type="checkbox"/> Final Design					
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**Kimley-Horn
and Associates, Inc.**

**Capitol Area Development Authority
R-Street Corridor Infrastructure Improvements**

Q, R and S Street Streetscape Improvements from 9th to 19th Street

Opinion of Probable Construction Cost

Conceptual -- December, 2004

R-Street Streetscape Improvements from 9th to 19th Street (Phase I)					
Item #	Item Description	Quantity	Unit	Unit Cost	Cost
1	Demolition	1	LS	\$200,000.00	\$200,000
2	AC Pavement Section	92,160	SF	\$7.00	\$645,120
3	Curb and Gutter	1,920	LF	\$35.00	\$67,200
4	ADA Truncated Domes	4,320	SF	\$25.00	\$108,000
5	P.C.C. Sidewalk	43,360	SF	\$12.00	\$520,320
6	Curb Ramp	46	EA	\$2,250.00	\$103,500
7	Landscaping	0	SF	\$5.00	\$0
8	Street Light	33	EA	\$3,500.00	\$115,500
9	Vee-Gutter	3,200	LF	\$40.00	\$128,000
10	Curb Inlet-Type B	26	EA	\$2,000.00	\$52,000
11	Curb Inlet-Type 22	28	EA	\$1,500.00	\$42,000
12	Manhole	27	EA	\$3,500.00	\$94,500
13	48" RCP (main line)	2,720	LF	\$175.00	\$476,000
14	12" RCP (lateral)	1,080	LF	\$100.00	\$108,000
Sub-Total					
\$2,660,140					
Contractor Mobilization (10%)					
\$266,014					
Traffic Control (10%)					
\$266,014					
Contingency (25%)					
\$798,042					
Opinion of Probable Construction Cost					
\$3,990,210					
Engineering (15%)					
\$598,532					
Total					
\$4,588,742					
Basis for Cost Projection:					
<input checked="" type="checkbox"/> No Design Completed					
<input type="checkbox"/> Preliminary Design					
<input type="checkbox"/> Final Design					
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**Kimley-Horn
and Associates, Inc.**

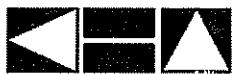
**Capitol Area Development Authority
R-Street Corridor Infrastructure Improvements**

Q, R and S Street Streetscape Improvements from 9th to 19th Street

Opinion of Probable Construction Cost

Conceptual -- December, 2004

R-Street Streetscape Improvement from 9th to 19th Street (Phase II)					
	Item	Quantity	Unit	Unit Cost	Cost
1	Demolition	1	LS	\$75,000.00	\$75,000
2	AC Pavement Section	39,520	SF	\$7.00	\$276,640
3	Curb and Gutter	0	LF	\$35.00	\$0
4	ADA Truncated Domes	10,400	SF	\$25.00	\$260,000
5	P.C.C. Sidewalk	32,000	SF	\$12.00	\$384,000
6	Curb Ramp	18	EA	\$2,250.00	\$40,500
7	Landscaping	12,800	SF	\$5.00	\$64,000
8	Street Light	18	EA	\$3,500.00	\$63,000
9	Vee-Gutter	2,240	LF	\$40.00	\$89,600
10	Curb Inlet-Type 22	23	EA	\$1,500.00	\$34,500
11	Manhole	0	EA	\$3,500.00	\$0
12	48" RCP (main line)	0	LF	\$175.00	\$0
13	12" RCP (lateral)	0	LF	\$100.00	\$0
					Sub-Total \$1,287,240
					Contractor Mobilization (10%) \$128,724
					Traffic Control (10%) \$128,724
					Contingency (25%) \$386,172
					Opinion of Probable Construction Cost \$1,930,860
					Engineering (15%) \$289,629
					Total \$2,220,489
Basis for Cost Projection:					
<input checked="" type="checkbox"/> No Design Completed					
<input type="checkbox"/> Preliminary Design					
<input type="checkbox"/> Final Design					
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**Kimley-Horn
and Associates, Inc.**

**Capitol Area Development Authority
R-Street Corridor Infrastructure Improvements**

Q, R and S Street Streetscape Improvements from 23rd to 29th Street

Opinion of Probable Construction Cost

Conceptual -- December, 2004

R-Street Streetscape Improvements from 23rd to 29th Street					
	Item	Quantity	Unit	Unit Cost	Cost
1	Misc. Demolition by Block	6	LS	\$70,000.00	\$420,000
2	AC Pavement Section	73,500	SF	\$7.00	\$514,500
3	Curb and Gutter	4,224	LF	\$40.00	\$168,960
4	P.C.C. Sidewalk	33,792	SF	\$12.00	\$405,504
5	Curb Ramp	48	EA	\$2,250.00	\$108,000
6	Tree and Planter	240	EA	\$1,000.00	\$240,000
7	Street Light	36	EA	\$4,000.00	\$144,000
8	Storm Drain Inlet-Type B	24	EA	\$2,000.00	\$48,000
9	Manhole	9	EA	\$3,500.00	\$31,500
10	12" Storm Drain Lateral	240	LF	\$100.00	\$24,000
11	Install Lt. Rail Warning Signs	12	EA	\$6,000.00	\$72,000
					Sub-Total \$2,176,464
					Contractor Mobilization (10%) \$217,646
					Traffic Control (5%) \$108,823
					Contingency (25%) \$625,733
					Opinion of Probable Construction Cost \$3,128,667
					Engineering (15%) \$469,300
					Total \$3,597,967
Basis for Cost Projection:					
<input checked="" type="checkbox"/> No Design Completed					
<input type="checkbox"/> Preliminary Design					
<input type="checkbox"/> Final Design					
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Appendix H

OPINION OF PROBABLE CONSTRUCTION COST – Joint Trench Construction



S, Inc.

**Capitol Bent Authority
Street Corridor Improvements**
R Street Joint 1 from 2nd to 29th Street
Opinion of Probable Construction Cost
October, 2004

Opinion of Probable Construction Costs 2nd to 18th Street					
	Item	Quantity	Unit	Unit Cost	Cost
1	J - R-Street	180	LF	\$500	\$3,540,000
2	J - Numbered St	880	LF	\$500	\$5,440,000
3	4' x 6' U-Joint (200 foot spacing)	10	EA	\$25,000	\$224,500
4	9' x 20' U-Joint (1 per block)	7	EA	\$50,000	\$850,000
Sub-Total					\$12,075,000
Contingency 25%					\$3,018,750
Opinion of Probable Construction Cost					\$15,093,750
Approximate Engineering Fee (10%)					\$1,509,375
Total					\$16,603,125

Basis for Construction:

No Design Control Applied

Preliminary Design

Final Design

The Engineer has no control over the cost of equipment, or over the Contractor's methods of determining prices or under competitive bidding conditions.

Opinion of Probable Construction Costs 23rd to 29th Street					
	Item	Quantity	Unit	Unit Cost	Cost
1	Joint U-Joint - R-Street	2,680	LF	\$200	\$536,000
2	Joint U-Joint - Numbered	4,480	LF	\$200	\$896,000
3	4' x 6' U-Joint (200 foot spacing)	36	EA	\$25,000	\$895,000
4	9' x 20' U-Joint (1 per block)	7	EA	\$50,000	\$350,000
Sub-Total					\$2,677,000
Contingency 25%					\$669,250
Opinion of Probable Construction Cost					\$3,346,250
Approximate Engineering Fee (10%)					\$334,625
Total					\$3,680,875

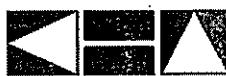
Basis for Construction:

No Design Control Applied

Preliminary Design

Final Design

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**Kimley-Horn
and Associates, Inc.**

**Capitol Area Development Authority
R-Street Corridor Infrastructure Improvements**

R Street Joint Trench Construction from 2nd to 29th Street

Opinion of Probable Construction Cost

Conceptual -- December, 2004

Opinion of Probable Construction Costs 2nd to 18th Street					
	Item	Quantity	Unit	Unit Cost	Cost
1	Joint Utilities Trench - R-Street	7,080	LF	\$500	\$3,540,000
2	Joint Utilities Trench - Numbered Streets	10,880	LF	\$500	\$5,440,000
3	4' x 6' Utility Vault (200 foot spacing)	90	EA	\$25,000	\$2,245,000
4	9' x 20' Utility Vault (1 per block)	17	EA	\$50,000	\$850,000
					Sub-Total \$12,075,000
					Contingency 25% \$3,018,750
					Opinion of Probable Construction Cost \$15,093,750
					Approximate Engineering Fee (10%) \$1,509,375
					Total \$16,603,125
Basis for Cost Projection:					
<input checked="" type="checkbox"/> No Design Completed					
<input type="checkbox"/> Preliminary Design					
<input type="checkbox"/> Final Design					
The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions.					

Opinion of Probable Construction Costs 23rd to 29th Street					
	Item	Quantity	Unit	Unit Cost	Cost
1	Joint Utilities Trench - R-Street	2,680	LF	\$200	\$536,000
2	Joint Utilities Trench - Numbered Streets	4,480	LF	\$200	\$896,000
3	4' x 6' Utility Vault (200 foot spacing)	36	EA	\$25,000	\$895,000
4	9' x 20' Utility Vault (1 per block)	7	EA	\$50,000	\$350,000
					Sub-Total \$2,677,000
					Contingency 25% \$669,250
					Opinion of Probable Construction Cost \$3,346,250
					Approximate Engineering Fee (10%) \$334,625
					Total \$3,680,875
Basis for Cost Projection:					
<input checked="" type="checkbox"/> No Design Completed					
<input type="checkbox"/> Preliminary Design					
<input type="checkbox"/> Final Design					
The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions.					

