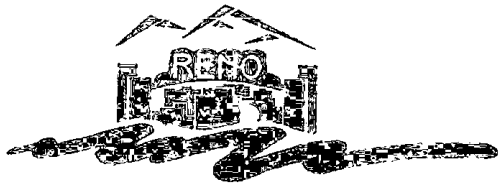
City of Reno
Redevelopment District
Streetscape Master Plan



Redevelopment
Agency

Prepared by
SDA
Schoenberg Design Associates
100 N. Arlington Ave., Mezzanine
Reno, Nevada 89501

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Adopted November 4, 1996

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I. Introduction

The purpose of the Streetscape Master Plan is to establish and clarify the extent of sidewalk improvements within the public right-of-way with respect to pavement treatment, landscaping, lighting fixtures and street furniture. This document is intended to establish streetscape standards to strengthen the identity of the downtown Redevelopment Area by providing a common linkage of streetscapes in creating a visually interesting and appealing streetscape for both pedestrian and vehicular traffic.

This plan is based upon a hierarchy of street functions within the context of the distinct subareas that comprise the Redevelopment Area. For example, more elaborate streetscape design features (stained and stamped concrete) are concentrated in the downtown Entertainment Core where high levels of pedestrian traffic occur in a vibrant casino setting continuously day and night throughout the year. A less intense streetscape standard is provided for in the residential areas with more subtle lighting and smooth finished pavement with an emphasis on landscaping.

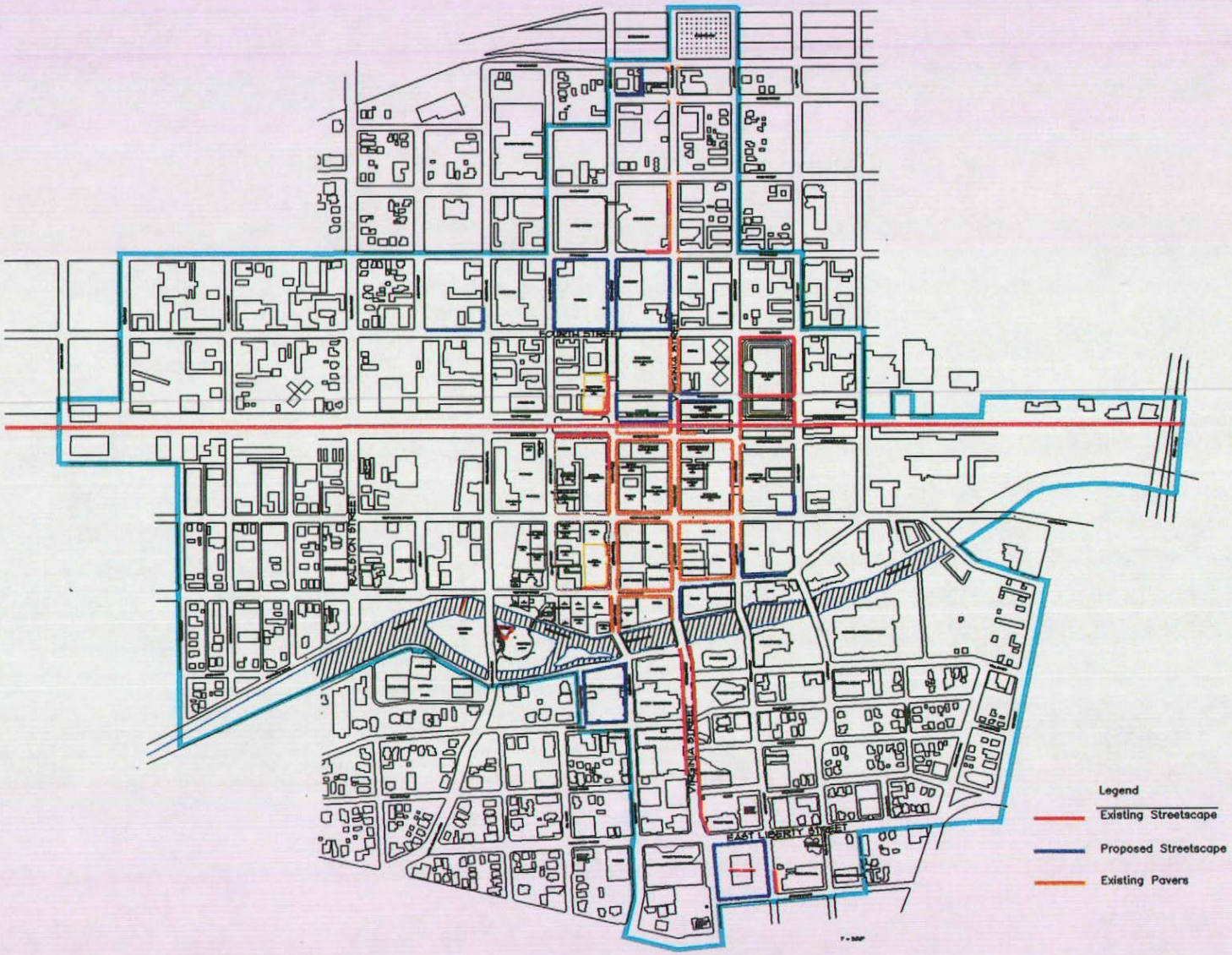
This document augments City standards in more explicit detail, essentially building upon the pattern of development set forth in *The Blueprint: A Revitalization Strategy for Downtown Reno (1992)* and the *Amendment to the Redevelopment Plan for the Downtown Redevelopment Area (1990).* New roadways are not expected to be built in the downtown Redevelopment Area because the street pattern is essentially built out.

The Redevelopment District encompasses the majority of the area referred to and known as "Downtown". It includes the Casino or Entertainment Core, Downtown Riverfront District, Civic/Office District, and neighborhood transition districts. In addition, the railroad tracks and Truckee River traverse the Redevelopment area and form distinct corridors.

Gateways and focal nodes serve as entrances into downtown. The primary gateway is at the entrance into downtown from the Interstate 80 Freeway. Secondary gateways are located at the eastern and western areas of Fourth Street, and South Virginia. Concepts presented in *The Gateways Master Plan (1996)* as entrances to the city, are cornerstone elements and an extension of the Streetscape Master Plan.

The Streetscape Master Plan is intended to improve upon the image of the downtown area in general. Much of the subdistricts within the redevelopment area are in a state of transition from older, obsolete uses to "best and highest" use. Many properties in the downtown area are being converted, upgraded and retrofitted or razed to accommodate new development. A great deal of property on the fringes of the district is in poor and decaying condition.

EXISTING STREETSCAPES MAP



II. Goals and Objectives

The mission of this plan is to accomplish the following:

> *Establish a hierarchy of streetscape and street functions which strengthens the identity of the district while optimizing financial resources, minimizing maintenance expenses and promoting the sense of safety and serenity for residents and visitors.*

As a means to accomplish this mission, the following goals and objectives have been established for the plan.

- Complete the construction of the entertainment core.
- Create safe, hospitable and logical pedestrian circulation zones and linkages primarily through improved street lighting.
- Develop a common "thread" of unity which ties all subdistricts together visually and thematically.
- Develop a priority based system for evaluating public expenditures for streetscape improvements over the greatest distance.
- Encourage private investment in facade upgrades by leveraging public expenditures in streetscape improvements.
- Create a clean, visually simple and unifying streetscape.
- Reflect historic themes in the streetscape palette.
- Define design variations to achieve greatest benefit from monies invested.
- Establish treatments for landscaping and pedestrian utilization of the railroad corridor.

III. Planning Framework

The Planning Framework for the downtown Redevelopment Area was essentially set in place with the adoption of *The Blueprint: A Revitalization Strategy for Downtown Reno* (The Blueprint) in December, 1992. The Blueprint recognized that the pattern of existing development in the downtown area was characterized by distinct subareas or districts. These districts include the Entertainment Core, Riverfront District, Civic/Office District, and outlying areas of support commercial and residential neighborhoods. Central to the "Blueprint" is the reinforcement of the Casino and Entertainment core as the economic engine that drives the local economy.

The Streetscape Master Plan is intended to complement and reinforce the identity of each of these distinctive areas. The streetscape treatment assigned to the respective streets is based upon their function as a street for circulation purposes and the existing/proposed land uses. More elaborate detail is provided for in the Entertainment Core while more subdued streetscapes conducive to a residential environment are provided for in neighborhoods.

The existing and newly adopted streetscape elements within the core frequently clash. Black cherry colored street furnishings intermingle with the newly adopted paving standard. Other areas within the core and along the river blend with other styles. At the present, no single theme weaves throughout the district. Existing furnishings have a useful "lifespan" in the sense of capital improvements. A plan of action for replacing the existing elements to the new streetscape standards with a common theme must be devised.

Much of the downtown area has not completed the transition and/or transformation from blighted area to revitalized development. To a certain extent, streetscapes "create value" to the adjacent stores and properties fronting the streets. By introducing streetscape improvements, the process of upgrading and remodeling adjoining facades can in fact be facilitated by anchoring private capital improvement investments of businesses. The image and appeal of the street is significantly enhanced when both streetscapes and building facades are upgraded.

Outlying areas from the Entertainment Core suffer from visual blight and outright neglect. Property owners have allowed many buildings to decay, along with the paving materials and associated landscaping. Many older structures are built directly on the right of way boundary and thus have no building setback. Additional visual disturbance results from overhead electrical and telephone lines, as well as, sign clutter. Many street scenes are harsh, uninviting and intimidating to pedestrians. Additionally, few street trees are present to soften the environment.

An important aspect of the Streetscape Master Plan is to provide pedestrian linkages for safe, secure and improved circulation. A primary objective is to create a pedestrian friendly atmosphere in the Redevelopment Area, particularly on routes that have frequent use and exposure to residents and visitors alike. In effect, the Streetscape Master Plan sets the stage for the creation of safe, hospitable and logical circulation zones and patterns.

IV. Themes and Guidelines

A primary goal of the Streetscape Master Plan is to establish a hierarchy of streets and corridors with established design themes appropriate to that hierarchy in the downtown Redevelopment Area. The objective is to strengthen the identity of the downtown Redevelopment Area by introducing a rhythm of street lights and trees on decorative sidewalk pavement. The conceived hierarchy for streetscape elements follows below:

A. Entertainment Core Standard
- Arlington Avenue
- Sierra Street
- Virginia Street
- West Street
- Center Street
- Lake Street

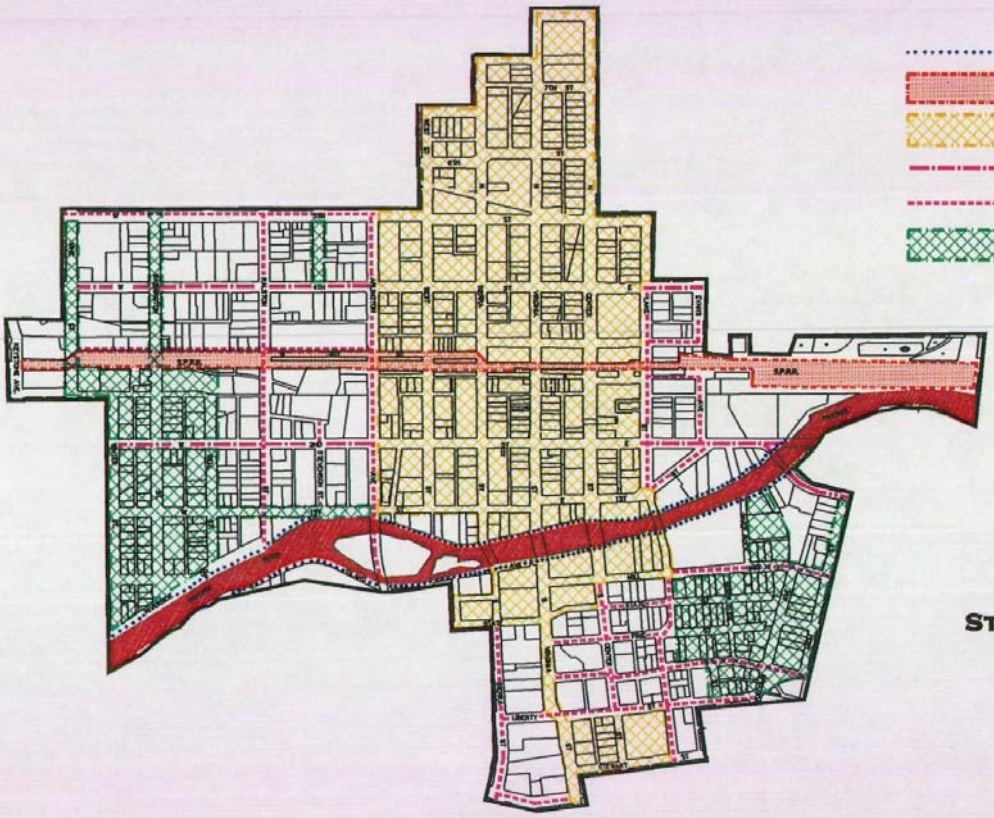
B, Major Arterial Standard With and Without Medians
- Fourth Street
- Second Street

C. Urban Transition Standard (a variation of the Major Arterial Standard)
- Stevenson Street
- West side of Arlington Avenue
- East side of Sierra Street, south of Court Street
- Center Street, south of State Street
- State Street, between Center and Lake Streets
- Pine Street, between Virginia and Lake Streets
- Ryland Street, between Virginia Street and Sinclair Street
- Third Street
- Liberty Street
- Mill Street
- Third Street, north side
- Fifth Street

D. Neighborhood Standard
- Ralston Street
- Washington Street
- Holcomb Avenue
- Rock Street
- Ryland Street, east of Sinclair Street

E. River Corridor Standard
- Riverside Drive
- Island Avenue
- Truckee River Lane

F. Railroad Corridor Standard
- Third Street
- Commercial Row



Streetscape Legend

- River Corridor Standard
- Railroad Corridor Standard
- Entertainment Core Standard
- Major Arterial Standard
- Urban Transition Standard
- Neighborhood Standard

Streetscape Standards Map

City of Reno
Redevelopment District
Streetscape Master Plan

0 900 1200 1500

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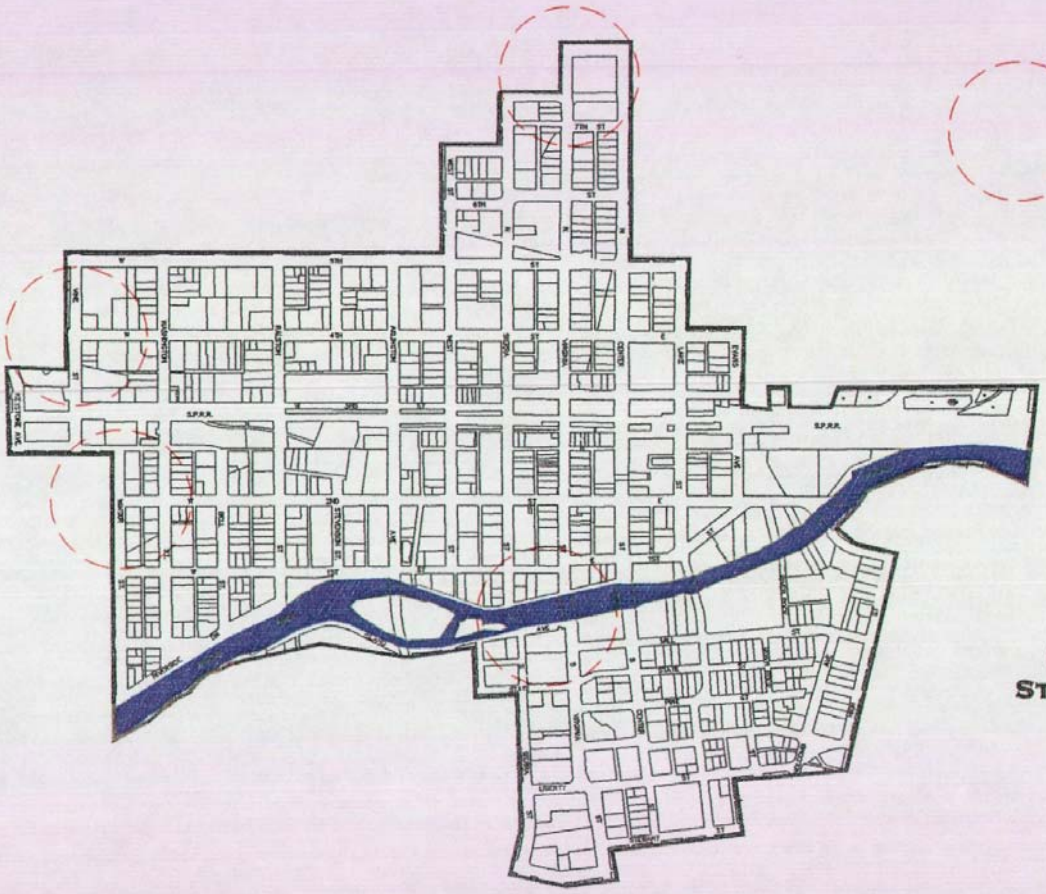

Streetscape Legend

Gateway Location

Virginia Street at 7th

4th St. at Vine St.

2nd St. at Winter St.

Truckee River at Virginia Street

Gateways Key Map

City of Reno
Redevelopment District
Streetscape Master Plan

0 900 1200 1500

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G. Gateways
- North Virginia Street
- West Fourth Street
- West Second Street
- Virginia at theTruckee River

The hierarchy rationale places importance upon particular elements that will provide immediate visual identity to the street. Light fixture types and spacing, light levels, and street trees create a visual image which is immediately recognizable.

Themes for the streetscape are essentially derivatives of the Entertainment Core standard, as follows:

- Verde green finished candy cane lights with banner arms in a Victorian Style
- Verde green finished bollards
- Street trees planted with cast iron tree grates and guards
- Dark tinted and stamped concrete paving with tinted, brick, soldier course, stamped bands
- Terra cotta styled trash receptacles and planters
- Benches with cast iron frames and recycled plastic slats

As the street scenes change with land use and distance away from the Entertainment Core, so does the streetscape treatment. In all cases, the street widths remain unchanged; only striping may be different, as detailed in *The Downtown Traffic and Parking Study (1996)*. Differences lie in the application of parkways, medians, sidewalk widths, street light heights; styles, the presence of stamped or tinted concrete; spacing and illumination levels; and the extent of street trees and planting.

Design Guidelines

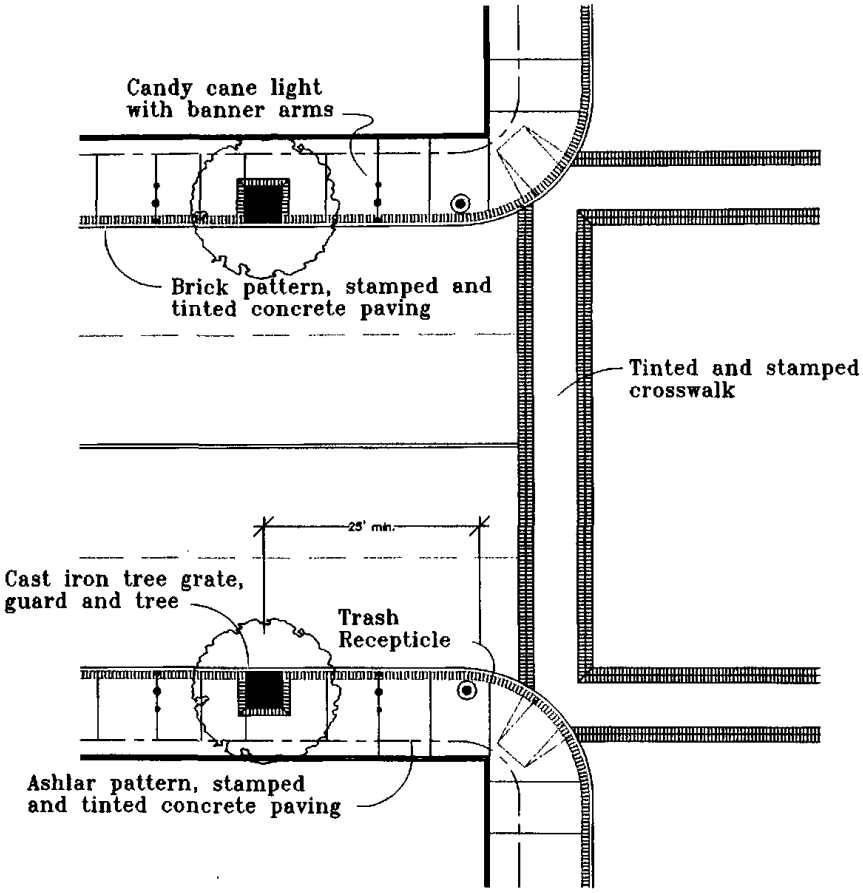
The following design guidelines are intended as the design standard, however in certain situations, modifications may be necessary, depending upon existing and proposed development. These conditions shall be subject to approval by the Redevelopment Agency staff.

A. Entertainment Core Standard

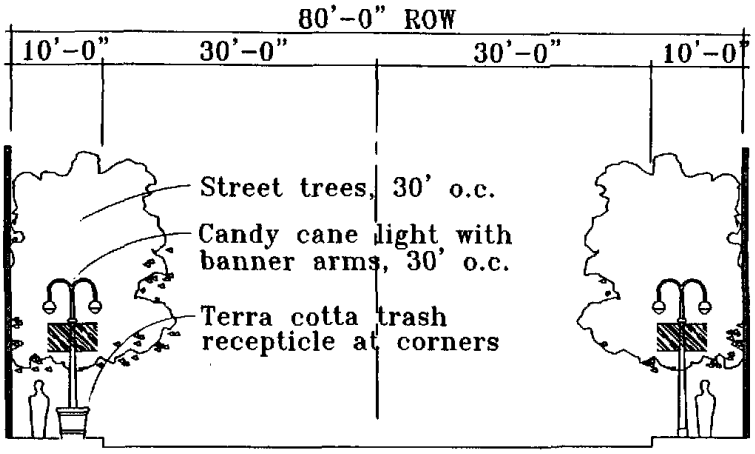
1. Wide sidewalk (minimum) tinted and stamped concrete; gray ashlar slate pattern field; and single row of red brick soldier course banding behind sidewalk.

2. Street trees planted with cast iron tree grates and guards, outlined with tile red tinted, brick soldier course stamped concrete, 30 feet on center (o.c.). Tree grates shall be 4-6 feet square, depending upon the sidewalk width.

3. Verde green finished candy cane lights with banner arms, spaced at approximately 30 foot intervals, providing 3 foot candles (f.c.) on pavement.



PLAN – ENTERTAINMENT STANDARD
1"=20'-0"



SECTION – ENTERTAINMENT STANDARD

1"=16'-0"

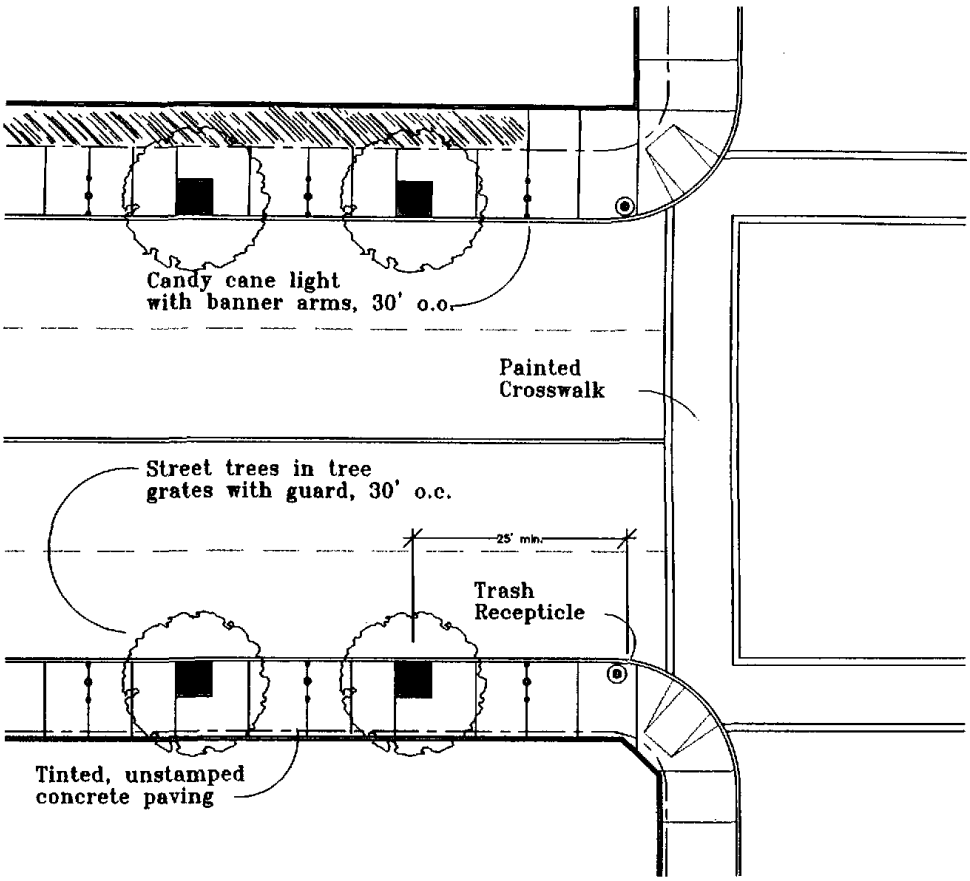
4. Verde green finished lighted bollards, placed at points of potential conflict between pedestrians and vehicles, i.e. drop off zones, beneath skybuildings, etc.
5. Terra cotta styled trash receptacles and planters, placed at intersection corners.
6. Benches made with black cast iron frames and tinted high density polyethylene (HDPE) slats clustered at major entrances and activity points, depending upon building design, grouped in pairs facing each other or the street.
7. Options for an integrated entertainment or special events system on Virginia Street.

B. Major Arterial Standard

1. 10 foot wide tinted concrete without stamping and banding, the length of Fourth Street, west of Arlington Avenue and east of Lake Street.
2. 5 foot wide tinted and stamped concrete on all streets other than Fourth Street between the east side of Arlington Avenue and the west side of Lake Street.
3. Verde green finished candy cane lights with banners the entire length of Fourth Street through the Redevelopment Area, spaced approximately 30 foot o.c. providing 3 foot candles (f.c.) average light level.
4. Verde green finished candy cane lights without banner arms on streets other than Fourth Street.
5. Street trees planted approximately 30 feet o.c. in cast iron tree grates with tree guards.
6. A minimum 9 foot wide planted median with two travel lanes in each direction and turning pockets at each end.
7. Medians located between Vine Street and Arlington Avenue.
8. Medians shall be planted with deciduous trees, ± 20 feet o.c. evergreen shrubs not exceeding 3 feet in height and mulched with river cobble.

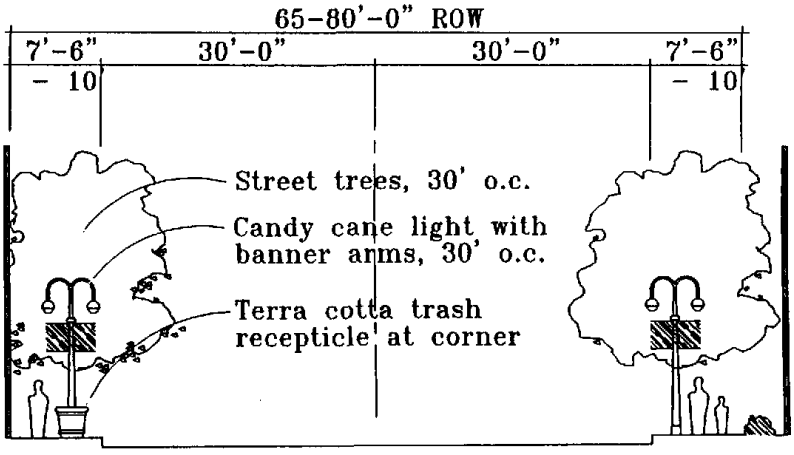
C. Urban Transition Standard

1. A minimum 5 foot wide sidewalk, tinted concrete.
2. Verde green finished candy cane lights without banner arms; no bollards.
3. Street trees planted 30 foot o.c. in cast iron tree grates with tree guards.
4. Terra cotta styled trash receptacles and planters.
5. Cast iron benches with tinted, HDPE slats at pedestrian congregation points.



PLAN – MAJOR ARTERIAL STANDARD

1"=20'-0"



SECTION - MAJOR ARTERIAL STANDARD

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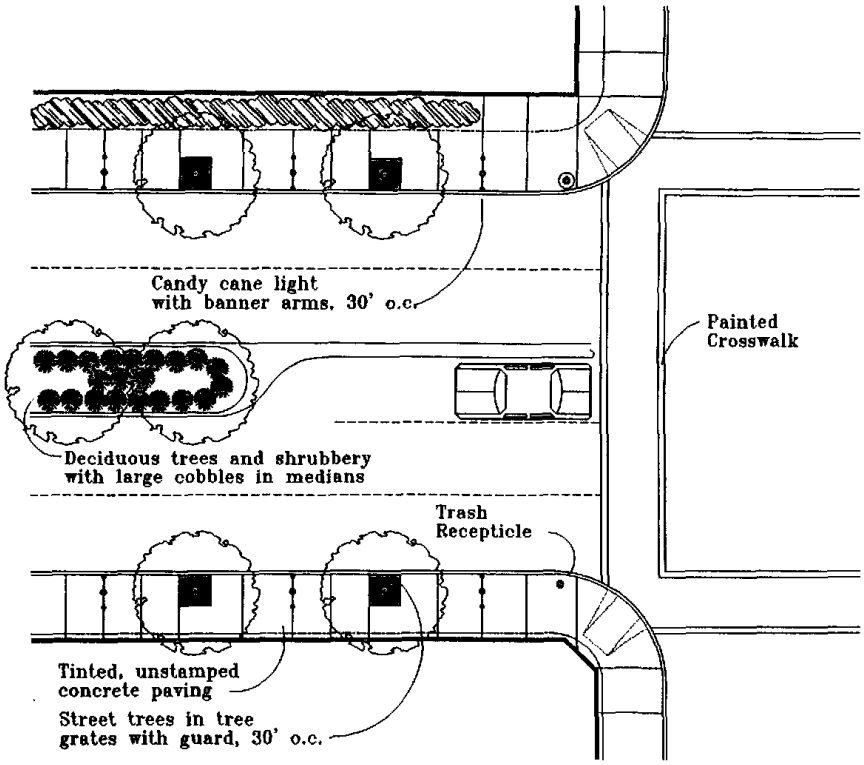
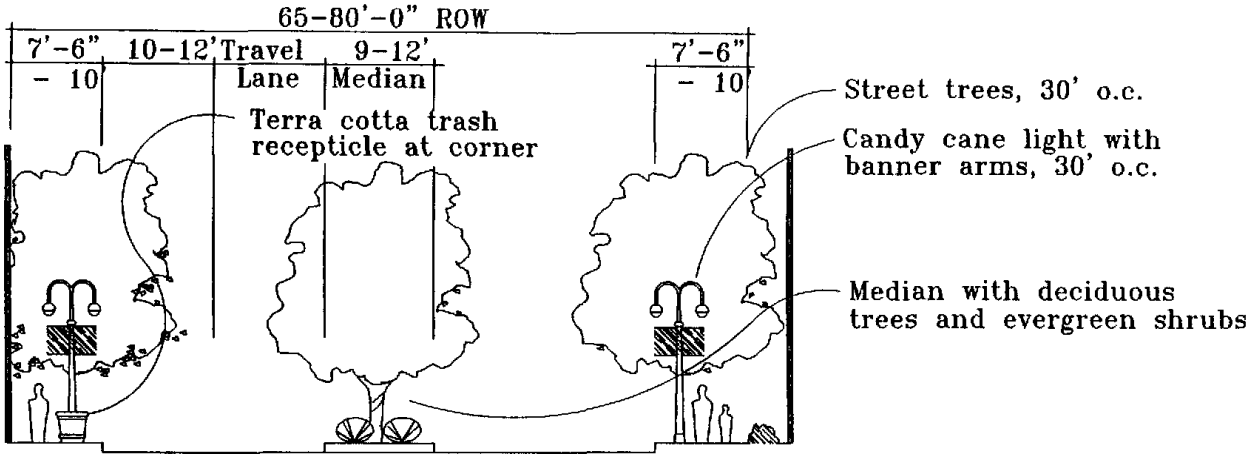


PLAN – MAJOR ARTERIAL STANDARD WITH MEDIAN
1"=20'-0"



SECTION – MAJOR ARTERIAL STANDARD WITH MEDIAN

1"=16'-0"

D. Neighborhood Standard

1. 5 foot wide parkways planted with street trees spaced 30 feet o.c. and mulched with 6 inches of coarsely chipped bark mulch.
2. Minimum 5 foot wide untinted concrete sidewalk.
3. Verde green finished 14 foot tall single luminaire street light spaced 70 feet o.c. Pole to match entertainment core standard.

E. River Corridor Standard

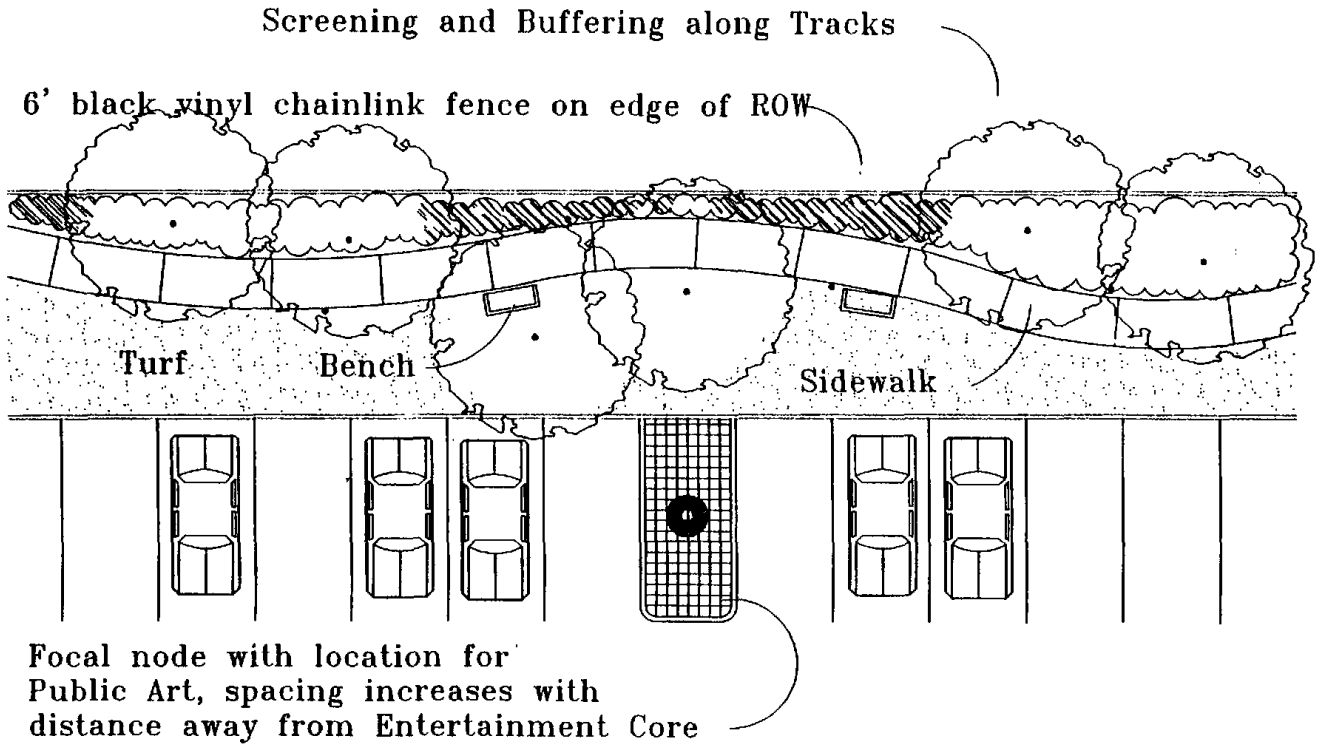
1. Adopted Riverfront Development Standards shall apply.
2. Trees and lights installed at 20 foot intervals, 40 feet o.c.
3. Pole lights shall be black aluminum, poles, 12 feet tall with single white luminaires, approximately 40 feet o.c.
4. Wall mounted lights shall be black, aluminum poles, with single white luminaire, mounted at 12-13 feet, spaced 40 feet o.c., mounted to wall pilasters.
5. Trees planted in cast iron tree grates, as per adopted standards.

F. Railroad Corridor Standard

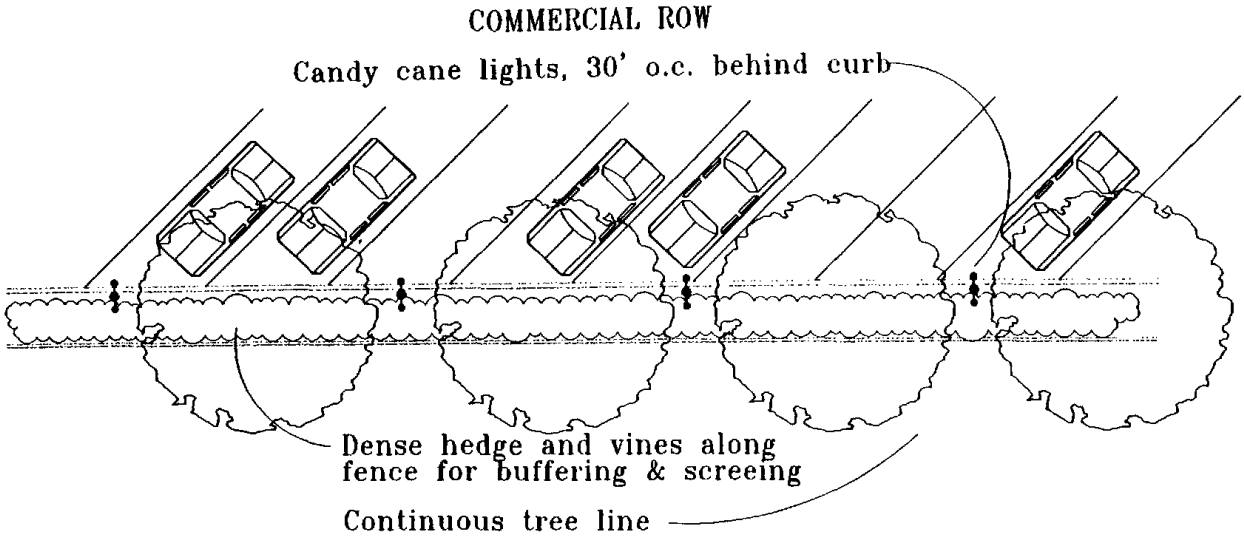
1. 6 foot black vinyl, chain link fence at edge of right of way.
2. Minimum 5 foot wide planter between parking edge treatment or pathway.
3. 5 foot minimum width, meandering pedestrian path with turf and plantings; incorporation of public art where appropriate or feasible.
4. Parking within the Entertainment Core, alternating north and south sides of the tracks.
5. Entertainment core standard for sidewalk paving and lighting within the entertainment district.
6. Light levels at 3 f.c. average.

G. Street Tree Standard

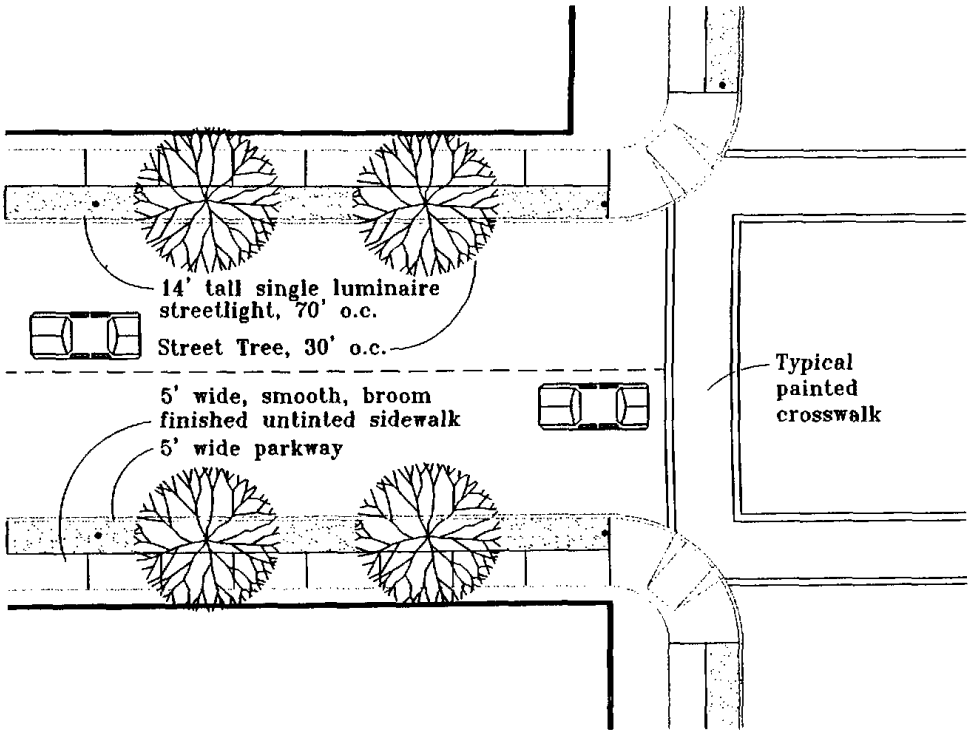
1. Street trees shall be deciduous in nature, minimum 2 inch caliper at the time of planting.
2. Trees shall either be field grown or container grown and conform to the Reno Urban Forester's standards for acceptable quality.
3. The following tree species shall be considered:
   - Pyrus Calleryana - Flowering Pear
   - Quercus robur "Fastigiata"- Columnar English Oak



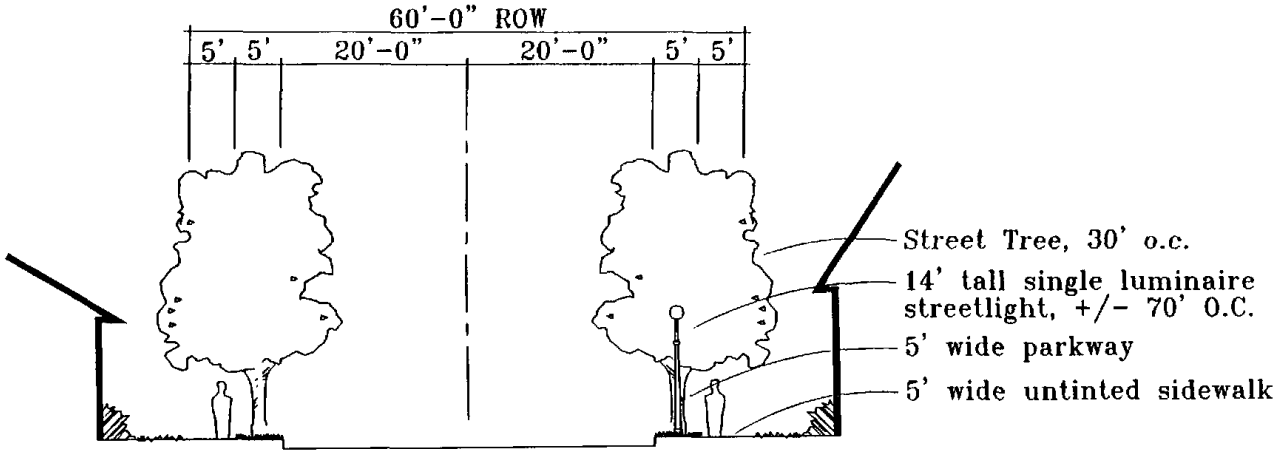
PLAN – RAILROAD STANDARD–URBAN TRAIL
THIRD STREET



PLAN – RAILROAD STANDARD–LANDSCAPED EDGE COMMERCIAL ROW



PLAN – NEIGHBORHOOD STANDARD
1"=20'-0"



SECTION – NEIGHBORHOOD STANDARD

1"=16'-0"

- Acer griseum - Paperbark Maple
- Zelkova serrata "Green Vase"- Green Vase Zelkova
- Platanus acerifolia "Bloodgood"- London Plane

H. Trees shall be planted consistently in one species type for each particular standard.

a. Entertainment Core Standard
   - London Plane

b. Major Arterial Standard
   - Flowering Pear

c. Neighborhood Standard
   - Green Vase Zelkova

d. Railroad Corridor Standard
   - Columnar English Oak

Conditions may vary within each area, necessitating modifications to the species list. However, consistency in the plant palette along the street scene is the goal. To prevent the possibility of death among all trees of a particular species, subtle variety changes are suggested. For additional information on acceptable substitutes, please contact the Urban Forester.

V. Implementation Plan & Maintenance

The implementation plan is an important element of the Streetscape Master Plan because it establishes priorities for constructing streetscape improvements. In many cases, limited public funds are available for use to construct streetscape improvements. The implementation plan is intended to be used as a guide in allocating public expenditures by identifying priorities for streetscape improvements.

The implementation program accepts the presumption that removing existing streetscapes in good physical condition is premature and an inefficient use of funds. Therefore, sidewalks, streetlights and street furniture would remain until new development triggered compliance with the streetscape standards or specific decisions are made to phase out the older streetscapes.

There are three levels of priority in completing the streetscapes in the Redevelopment Area based upon their importance and location. The purpose in structuring a priority based system for implementation of the Streetscape Master Plan is to ensure that basic objectives are evaluated and accomplished. Consequently, recommendations for actual streetscape improvements will be evaluated in comparison to the priority of improvement.

- **Priority 1: Completion of the Entertainment Core**

Completion of key linkages to the central activity spine of Virginia Street from activity generators in the Entertainment Core. Activity generators can be a host of public and private facilities, i.e. museums, casinos, parks, etc., that generate large volumes of pedestrian traffic. Whenever possible, it is strongly recommended that public investments for streetscapes be leveraged with private investments in facade remodels or projects seeking Redevelopment Agency assistance to encourage redevelopment of blighted areas and immediately improve the image of entire frontages or blocks. Also within this priority is the completion of any missing links or segments within the entire Entertainment Core.

Sidewalk paving in the downtown area is largely a combination of the older quartzite pavers, standard smooth-finished sidewalks, and the current standard of stamped/tinted concrete. In keeping with the principle of utilizing older streetscapes to their fullest extent, removing the older streetscapes is not recommended until they need extensive repair and replacement, or new development occurs adjacent to the streets in question. Instead, the implementation plan and maintenance program calls for replacing the older quartzite pavers in the "high impact" areas which are primarily located at street corners and alleys. These high impact areas continually require repairs. Replacing the pavers with stamped concrete incrementally over the years through the maintenance program would eventually complete a substantial portion of the Entertainment Core streetscapes.

Where feasible and necessary, or where new development dictates, the introduction of new paving and lighting should occur. Older fixtures which are approaching the end of their "life cycle" are suitable candidates for retrofit. These fixtures include the older street lights, cobra luminaires and eventually the black cherry fixtures. In addition, areas poorly illuminated, are of higher priority for replacement, retrofit or addition.

- **Priority 2: Completion of Major Arterials, East/West Linkages, Gateways and Corridors**

The second priority for implementation of the plan is completion of major arterials and gateways which include Fourth and Second Streets, and the Interstate 80 gateway entrance into the downtown. Key east/west linkages include First, Fifth, Sixth and Seventh Streets.

The railroad and river corridors stand independently in terms of implementation. The Downtown Riverfront District would be governed by a separate set of guidelines and implementation of those guidelines is specified in the draft *Design Standards* for the river corridor. The railroad is currently being studied for the feasibility of relocation. Despite the outcome of that effort, and in the interim, the proposed standards are being recommended for implementation at any time new development occurs.

- **Priority 3: Neighborhood Standards**

Providing streetscapes can be a considerable incentive to development of housing in the downtown area, especially when Redevelopment Agency assistance is sought. New development and upgrades to existing property would trigger the installation of the Neighborhood Standard Streetscape.

VI. Cost Comparison and Analysis

The following streetscape cost comparison provides a brief analysis of the differences between the construction costs of the various streetscape standards. As discussed earlier, one of the primary goals of the Streetscape Master Plan is to minimize the unnecessary investment in constructing streetscapes while maximizing the public benefits received from a completed streetscape program.

For example, extending the Entertainment Core standard throughout the entire Redevelopment Area could be prohibitively expensive in contrast to the less-intense design formats specified in the Streetscape Master Plan. These alternative standards achieve the same look and appearance especially when viewed from a vehicular perspective on the arterial streets.

For purposes of cost comparison, it is estimated that the Major Arterial Standard with broom finished, unstamped, tinted concrete paving is approximately half the cost of the Entertainment Core Standard with stamped, tinted, concrete paving.

Similarly, the Neighborhood Standard with untinted, unstamped, broom-finished concrete paving is roughly one-third the cost of the Entertainment Core Standard. This savings in construction costs can often be more effectively utilized in illuminating neighborhoods for greater safety and security with additional street lights. Furthermore, attaining a build-out of the entire Streetscape Master Plan is more feasible and likely to occur at an accelerated rate due to the reduced construction costs.

Time Frames

Time frames for completing the streetscapes are effected by and vary depending upon the amount of private improvements constructed each year. A time frame and cost analysis for completing the Entertainment Core streetscapes was prepared because the Entertainment Core is the highest priority. Furthermore, development in the Entertainment Core is not nearly as speculative as estimating the build-out of the remainder of the streetscape in the Redevelopment Area. A more detailed cost analysis and comparison is provided in Appendix. Private improvements on redevelopment projects may shorten the build-out schedule. Possibilities for leveraging private participation with incentives to promote completion of the Entertainment Core streetscapes could accelerate the schedule. Examples involve a 50/50 public to

private participation, facade improvement programs, loan programs and the like.

The following time frames are provided with assumptions necessary to complete the streetscapes in the Entertainment Core:

15 Years: Assumes 50% of the streetscapes are completed by the private sector with new or remodeled projects. Would require a public commitment of approximately $420,000 per year.

10 Years: Assumes 35% of the streetscapes are completed by the private sector with new or remodeled projects. Would require a public commitment of approximately $820,000 per year.

8 Years: Assumes 50% of the streetscapes are completed by the private sector through incentive programs and development projects. Would require an average public commitment of approximately $780,000 per year.

VII. APPENDIX

A. GLOSSARY

ENTERTAINMENT CORE: The area north of the Truckee River generally bordered by Arlington Avenue on the west, Lake Street on the east and I-80 on the north.

MAJOR ARTERIAL: A major street in the hierarchy of streets within the redevelopment area, creating connections from the eastern and western boundaries of the Redevelopment District.

NEIGHBORHOOD: The areas on the perimeters of the Redevelopment District which are residential or office in land usage and characterized by narrow roadways, detached sidewalks, planted parkstrips and street trees. This designation is not the same as "neighborhood" defined in Article 18 of the city code.

HDPE: High density polyethylene; a post-consumer recycled plastic product.

VERDE GREEN: Verdigris finish used for bollards and street lights; resemblespatina found on weathered copper.

FOCAL NODE: A visual point of interest, suitable for specialty signage, public art orpaving, located along the railroad corridor, facing Third Street.

FOOT CANDLE, F.C.: Measured light level at the ground surface; average required light levels on the ground within the city are 1 F.C.

STREETSCAPE: Landscape and design treatment for those areas of a street scene which affect pedestrian activity, paving, signage, lighting, and landscaping.

BOLLARDS: Low level ± 42 inch tall vertical light element which is used to define edges and boundaries at a pedestrian scale, prohibit vehicle activity, and provide lighting at points where tall standards are impractical.

B. COST COMPARISON ANALYSIS

Streetscape Construction Cost Estimates for Completing the Entertainment Core

	Stamped Concrete	Lights and Trees	Full Streetscape
Plain Sidewalks	$3.3 Mil.	$6.7 Mil	$10 Mil.
Quartzite Pavers	$1.4 Mil.	$1.2 Mil.	$2.6 Mil.
Entertainment Core Streetscape Completion Total			$12.6 Mil

ASSUMPTIONS:

Average Downtown Block Length	390 L.F.
Stamped Concrete (includes removal of old concrete)	$13.00/sq. ft.
Lights and Trees (electrical outlets and irrigation)	$94,000/block
Plain Sidewalk Area and Length	254,000 sq. ft. and 28,000 L.F.
Quartzite Paver Area and Length	108,000 sq. ft. and 7,500 L.F.

Design and inspection is not included in these cost estimates which can increase the total project cost by 15%. However, this may actually balance out because the cost estimates do not account for reductions in lights and trees due to driveways and irregular block lengths which can account for 15% to 20%. Construction cost may also increase or decrease depending upon the scope and extent of the project area. The above cost estimates were compiled in today's present value and do not account for inflationary increases over time.

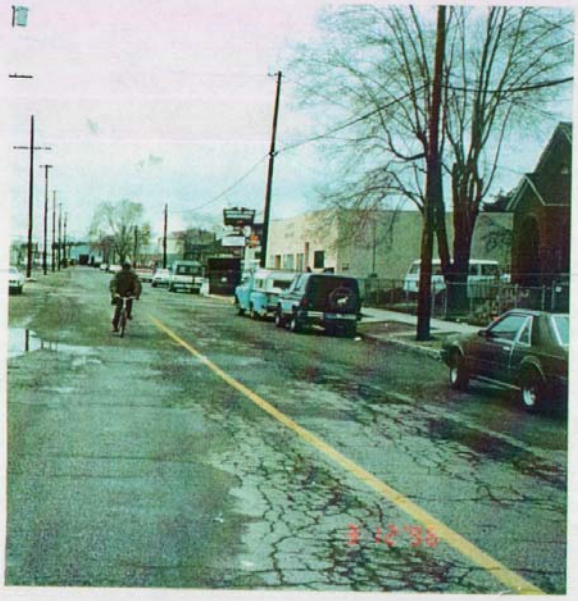
EXISTING CONDITIONS PHOTOS

14. EXISTING CENTER STREET

15. EXISTING 4TH STREET

16. EXISTING 1ST AND ARLINGTON

17. EXISTING PINE STREET



18. EXISTING 3RD STREET

DESIGN SPECIFICATIONS

312 CONCRETE ALLEY APRONS, SIDEWALKS, AND PEDESTRIAN RAMPS

312.01 Description

This work shall consist of the removal and replacement of the existing tile sidewalk, pedestrian ramps, and alley approaches with stamped concrete. All of the said items shall be constructed in conformance with the Standard Details. The pedestrian ramps and sidewalk for individual locations shall be bid and subsequently constructed together. In all instances, the Contractor shall match the existing top of curb and the existing tile sidewalk. All work shall conform to Section 312 of the Standard Specifications and as specified in these Special Provisions.

312.02 Materials

All stamped concrete shall be Class DA, which shall have a coarse aggregate gradation conforming to Size No. 67 in Subsection 200.05.03 of the Standard Specifications. It shall also have between 6 and 8 sacks of cement per cubic yard, a maximum of 5 gallons of water added per sack of cement, a 1 to 4 inch slump, 4.5 to 7.5 percent entrained air, Polypropylene Fibers added per Manufacturers recommendations, and have a minimum 28 day compressive strength of 4,000 psi. No water shall be added to the concrete after leaving the plant. No water shall be added in the truck or to the surface of poured concrete other than is normally incidental to maintaining the cleanliness of tools utilized in the achievement of a smooth and even finish. Super plasticizer additives may be allowed if approved as part of the submitted design.

Base material shall conform to subsection 308.02 of the Standard Specifications or as specified in the Special Provisions.

To ensure intregal color schemes in the areas designated for colored, stamped concrete in the plans or specifications, the concrete shall contain Chromix Admixture for Color-Conditioned Concrete (L.M. Scofield Company), QC Integral Color (QC Construction Products Company), or Bomanite (all bags to be properly marked). The admixture shall be C-14 French Gray for those areas designated to be Random Ashler Stone Pattern "no relief" (Per City of Reno Standard Detail Drawings R-104A thru R-104C, Dated September, 2001) and C-22 Coral Red for those areas designated as the Soldier Course Pattern, unless specified otherwise in the Special Provisions. The color-conditioning admixture shall be a single component, pigmented, water-reducing concrete admixture, factory formulated, packaged in cubic yard dosage increments, not multiple additives and pigments to be dosed separately into the mix. It shall comply with ASTM C979 and ASTM C494.

Color Hardener - Non-Vehicle Areas:

All concrete designated as stamped (either random ashler stone random pattern or soldier course pattern) shall be color hardened with Lithochrome Color Hardener (L.M. Scofield Company), QC Color Hardner (QC Construction Products Company), or

Bomanite in accordance with manufacturer's recommendations. The Random Ashlar Stone Random pattern "no relief" (Per City of Reno Standard Detail Drawings R-104A thru R-104C, Dated September, 2001) will use Classic Gray "L.M. Scofield Match" at a minimum of 60 pounds per 100 square feet. Note: Contractor may use a manufacturer's pre-mixed 90% Classic Grey and 10% Slate Grey combination. Additionally, Slate Gray "L.M. Scofield Match" will be broadcast intermittently (flashed) as an accent color. The application rate shall be a minimum of one (1) 60-pound bag per 1000 square feet. The soldier course pattern will use Tile Red at a minimum of 60 pounds per 100 square feet. The color hardener shall be formulated for optimum surface hardening, with aggregates graded through a wide particle-size range and selected for hardness and purity.

Color Hardener - Vehicle Areas:

All concrete designated as stamped (either Random Ashler Stone pattern or soldier course pattern) and located in vehicle traffic areas shall be color hardened with Emerchrome Floor Hardener (L.M. Scofield Company), QC Heavy Duty Hardner (QC Construction Products Company), or Bomanite. The colors shall correspond to those listed in the previous section on Non-traffic areas. The hardener shall be applied at a minimum of 120 pounds per 100 square feet. The hardener shall be formulated with graded, non-slip, non-rusting, emery aggregate.

Eucobond (Euclid Chemical Company), or an approved equal, shall be used as a concrete bonding agent between all new concrete and existing concrete surfaces.

The area representative of the L.M. Scofield Company is Robert Torres, 1550 Bryant Street, Suite 600, San Francisco, CA 94103 (415-255-2728) or (707-449-4155). The main L.M. Scofield office is located at 6533 Bandini Boulevard, Los Angeles, CA 90040. The area representative for QC Construction Products Company is Steve Maydock, PO Box 599, Madera, CA 93939, (1-800-453-8213). The area representative for Bomanite is Anchor Concrete, 1750 Marietta Way, Sparks, NV 89431 (775-359-4969).

Antiquing Release Agent:

All concrete designated as (either Random Ashler Stone pattern or soldier course pattern) and utilizing color hardener, whether located in vehicle or non-vehicle area, shall receive a clear liquid release agent from either L.M. Scofield Company, QC Construction Products Company, or Bomanite.

The color and hardening admixtures, bonding, antiquing and sealing agents shall be compatible and designed to form one complete system. All stamped concrete shall be constructed in accordance with the products/procedures listed herein or an approved equal. A contractor desiring to use "an approved equal" must submit the necessary information to the Engineer a minimum of 15 working days prior to its proposed use. Any "equal" product will need to provide a 5 year documented performance record for each specific product. In particular, said product must have performed in a climate similar to the City of Reno. The Engineer will be the final judge as to whether the proposed product and/or method will be accepted.

312.08 Placement and Stamp Specifications

During the demolition of the existing designated areas, the contractor shall be responsible for the repair or replacement of any loose or damaged tiles. The materials for the repair will be provided by the Redevelopment Agency. The Contractor shall salvage all 8 inch by 8 inch white and red mauve tiles.

The Type II base material shall be well-drained and be uniformly graded below finish grade. It must be moistened to a nominal depth, compacted to 95% relative density, and be free of frost at the time of concrete placement. If necessary, it should be dampened with water just prior to concrete placement, but shall be free of standing water.

The pedestrian ramps shall have a slope of 1 inch per 12 inches. The slope shall begin at the existing top of curb and will daylight out of the sidewalk. The pedestrian ramps and sidewalk shall be constructed together.

The concrete shall be placed and consolidated so as to completely fill spaces in the forms and to provide suitable surface for finishing. The concrete adjacent to the forms shall be spaded. All surrounding surfaces or walls shall be protected to prevent discoloration. Water must not be sprayed on the surface to retemper the plastic concrete for additional trowelling. Hard steel trowelling shall be minimized to avoid trowel burns. There will be "no relief" in the surface of the concrete for the Ashler Stone Random pattern areas. Information regarding the appropriate stamps for the "no relief" Ashler Stone Random pattern can be obtained from the local Bomanite Representative (775-359-4969), which ranges in size from 16 inches by 4 inches rectangular and square. The Soldier Course shall be 4 inches by 8 inches in size and may be either a single or double row as specified on the plans (Per City of Reno Standard Detail Drawings R-104A thru R-104C, Dated September, 2001). All Stamps shall be approved by the City of Reno. The surface shall be broom finished (light) and have a Flat Surface finish as described in subsection 312.11.02 herein, unless specified otherwise by the Engineer and/or special provisions.

When concrete is placed in hot/cold and windy situations, precautions must be taken to prevent plastic cracking, which would result from excessive rapid drying or freezing at the surface. Rejection and/or mitigation of concrete that shows evidence of plastic cracking will be at the sole discretion of the City of Reno. Furthermore, the Soldier Course will not be placed behind the curb ramp associated with pedestrian ramps. The Soldier course will be placed along the outside edges (transverse to sidewalk) of the pedestrian ramp and along the top edge of the pedestrian ramp (opposite curb ramp area) as depicted in the applicable standard detail.

Stamped Concrete Test Section Required -

The Contractor will be required to construct a test section for the stamped concrete sidewalk. Once the mix design for the stamped concrete sidewalk has been approved, the contractor will construct said test section. The test section will consist of a portion of the final sidewalk work, full width and a minimum length of 10 feet. The Engineer reserves the right to increase the length of the test section to 20 feet if the situation warrants such. The Contractor may construct the test section between expansion joints to become a portion to the final sidewalk work.

Acceptance of the stamped concrete test section shall be in accordance with these Special Provisions and the Standard Specifications. The Contractor shall construct the test section to demonstrate his ability to supply, place and consolidate, finish, cure and texture, and seal stamped concrete. The color shall be uniform and conform to the manufacturer's color chips. The stamped lines shall not be skewed and shall have lines that are continuous across contraction and expansion joints. Once accepted by the Engineer, this test section will be the standard used for judging the remainder to the work.

The Contractor shall not commence work on the remainder of any of the stamped concrete until the test section has been completed and accepted by the Engineer. If deemed necessary by the Engineer, the Contractor may be required to construct additional stamped concrete test sections, if the initial test section is not acceptable. All stamped concrete placed in the final work shall be accepted based on the Contractor's ability to produce the same quality as that shown in the test section and in accordance with the Standard Specifications and these Special Provisions. Areas not having uniform color, stamping, or other specified requirements shall be removed and replaced at the Contractor's expense.

312.09 Edging and Jointing

312.09.01a Expansion Joints - Expansion joints as shown on the plans shall consist of a 1/2inch premolded expansion joint with white cap or backer rod and caulk. The premolded expansion joint material is an asphalt coated fiber expansion joint, the white cap/backer is a closed backer rod and the caulk shall be Lithoseal Trafficalk-3G (L.M. Scofield Company), or Sikaflex 2C SL (D.M. Figley Company in Deep Charcoal, or an approved equal.

Expansion joints (transverse to the street centerline) shall be constructed in the stamped concrete sidewalks and driveway approaches at intervals not exceeding thirty (30) feet. The Contractor shall also provide an expansion joint between the concrete and any existing buildings encountered as part of the prescribed work. Such joints shall be filled with premolded joint filler as described above.

Expansion joints 1/2 inch in width shall be located in curb and gutters at each side of structures, at the end of all curb returns and abutting hardened in-place curb and gutter. However, expansion joints shall not be installed within 20 feet of an island nose. Expansion joints shall be 1/2 inch thick shaped to the cross section of the curb and gutter and shall be constructed at right angles to the curb and gutter.

312.09.01b Sidewalk Expansion Joints - Transverse expansion joints 1/2 inch wide shall be constructed at all sidewalk returns, opposite expansion joints in adjacent curb and at regular intervals not to exceed 30 feet. Transverse expansion joints shall also be constructed at transition points that would normally crack due to angle points or similar occurrences. Isolation joints shall be installed around all structures.

312.09.01c Saw Cuts - Saw cuts will be required between expansion joints as specified hereinafter:

1. From all angle points including, but not limited to pull boxes, vaults, manholes, pillars, drop inlets, steel inserts, stair wells, etc., or any angle point from an adjoining structure.

2. The area between saw cuts and an expansion joint shall not exceed 100 square feet.

3. Saw cuts shall be 1-1/4 inch deep and 1/8 inch wide. Any deviations to this requirement must be approved by the Engineer.

312.11 Curing and Sealing

312.11.01 *Curing - Under no circumstances will the contractor apply a curing compound* to stamped concrete unless authorized by the Engineer. The use of curing blankets or other acceptable measures will be required. Under no circumstances will vehicular traffic be permitted on stamped concrete surface until the concrete has cured for a minimum of 72 hours, or longer as directed by the Engineer. The Contractor will be required to ramp and plate the sections of stamped concrete in vehicular areas as necessary to protect the concrete during cure time.

312.11.02 *Sealing - The Contractor shall have the option of using the following products* for sealing the stamped concrete depending upon whether a glossy or flat surface appearance is specified of directed by the Engineer:

Glossy Surface Appearance:

Cemetone Clear Sealer (L.M. Scofield Company), QC Solvent Seal (QC Construction Products Company), or I-18 Bomaseal shall be applied at a maximum rate of one gallon per 125 square feet of surface. It may be necessary to apply 2 or 3 applications of said sealer if deemed appropriate be the Engineer. The concrete shall not be covered with plastic sheeting or burlap.

Flat Surface Appearance:

Euco-Guard VOX or Eucoguard 100, QC Solvent Seal (QC Construction Products Company), or Bomanite shall be applied in accordance with the manufacturer's recommendations.

The curing compound and sealer compound listed above are available from the following local suppliers for the respective products:

Scofield or Eucogaurd	Sierra Supply 1830 E. Lincoln Way Sparks, NV 89431 Phone: (702) 353-3333	QC	Laforge Construction Supply 1007 Greg Street Sparks, NV 89431 Phone: (702) 331-7876

Hydroza Coatings - The sealer available through this company shall be Hydrozo Enviroseal 20. It shall be applied in accordance with the manufacturer's recommendations. Furthermore, the applicator shall be certified by Hydroza Coatings

Company. The applicator shall submit with their quotation, a copy of the applicator's certifications by Hydroza Coatings Company.

The sealer as manufactured by Hydroza Coatings is available from the following supplier:

Construction Sealants and Supply
7 Glen Carran Circle
Sparks, NV 89431
Phone: (702) 331-3144

312.11.02A *Sealing, General Requirements:*

All stamped concrete to be sealed shall be sufficiently cured prior to application of said sealant. Also, all caulking and expansion joint work shall be fully cured prior to application of the sealant. The coverage rate shall be 100 to 125 square feet per gallon, unless otherwise specified by the manufacturer and approved by the Engineer.

The materials involved in this application shall be guaranteed by the manufacturer. The guarantee shall ensure the moisture performance of the system for a period of five years form the date of application. Provisions of the guarantee shall include responsibility for water penetrations, chloride (salt), and freeze-thaw damage through structurally sound areas, otherwise no liability is to be required for defects in the substrate. Liability for damage, in any respect, to the adjacent buildings or contents thereof is specifically form these requirements.

The Contractor will be required to apply sealer to the test section mentioned in Subsection 312.08. Application of the sealer will be in accordance with the manufacturer's recommendations. Applications methods may range from brush/push broom to airless spray. It should be noted, that there may be a need to broom the sealing compound into the surface even with an airless application. The Engineer will determine the need from brooding an airless application.

The Contractor will be required to submit a quart sample of the proposed sealing compound to the Engineer a minimum of two weeks prior to its proposed application to the test section. The Engineer shall have the sample evaluated by an approved independent laboratory to ensure the material conforms with the specified performance criteria.

All materials shall be delivered in the original manufacturer's sealed containers. Materials shall be stored to prevent damage to the containers. The sealer shall be thoroughly stirred before and during use. Surface, air and material temperatures shall not be less than 50 degrees Fahrenheit during application or within 4 hours after said application. Areas not subject to natural ventilation shall have positive ventilation provided throughout the application. Personnel shall be warned against prolonged breathing of vapors and contact of materials with the skin of eyes. Protect other surfaces not being sealed as necessary during the application process.

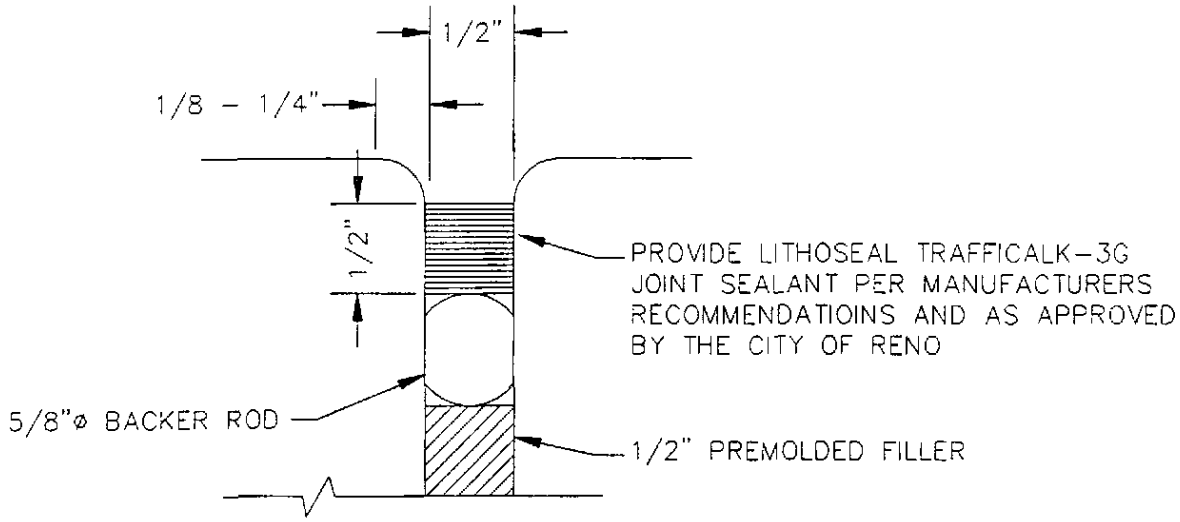
The Contractor shall not allow foot or vehicular traffic on surfaces which have been sealed until such time they are thoroughly dry as determined by the Engineer.

312.15 Measurement of Quantities and Basis of Payment

The contract bid item for "Concrete Sidewalk with Pedestrian Ramp (Stamped)", or "Concrete Alley (Stamped), shall be measured for payment on a square foot basis.

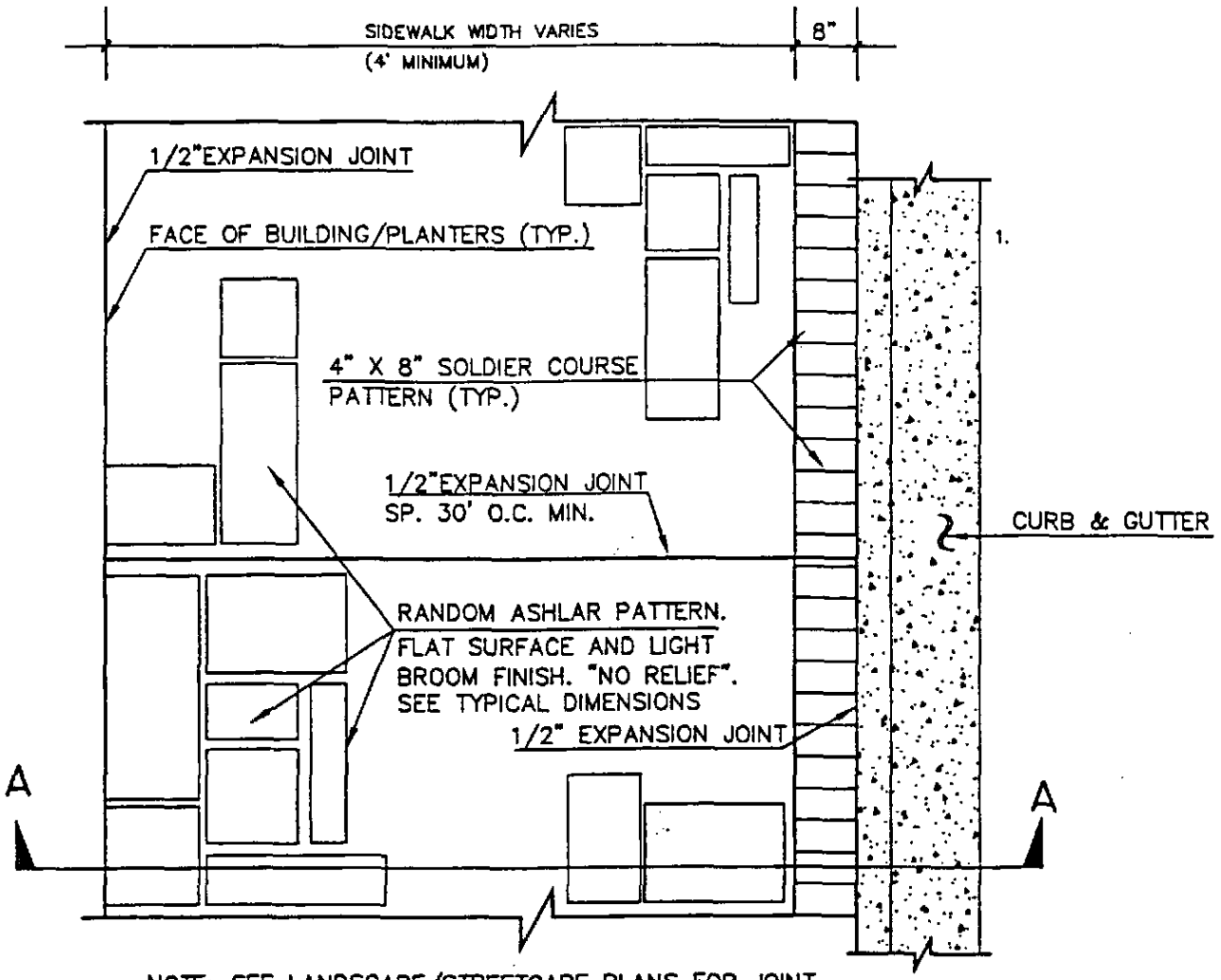
Construction of the test section(s) shall be per the same unit price bid for the overall stamped concrete included in the project. The location of the test section shall be under the direction of the Engineer.

The accepted quantity of "Concrete Sidewalk with Pedestrian Ramp (Stamped)" or "Concrete Alley (Stamped), measured as provided above, shall be paid for at the contract unit price bid per square foot. The price shall be considered full compensation for furnishing all labor, materials, supplies and any incidentals necessary to complete the work as directed by the Engineer.



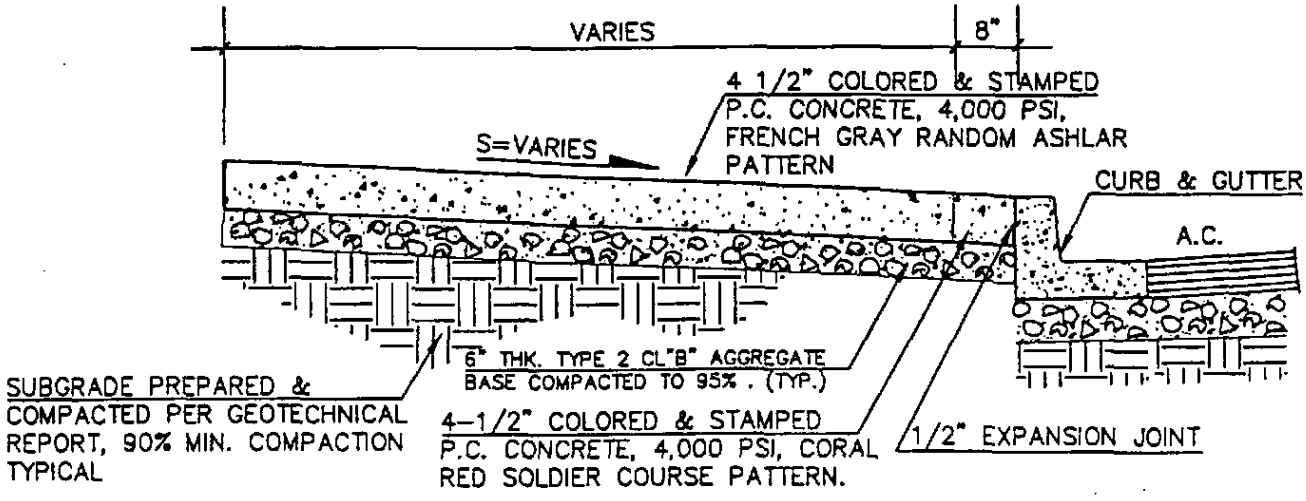
P.C.C. EXPANSION JOINT DETAIL

NO.	REVISION	DATE	STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	SECTION RENO	
			P.C.C. EXPANSION JOINT DETAIL	DRAWING NO. R-28	
				DATE 10-96	PAGE 28
APPROVED BY: S.V.					



NOTE: SEE LANDSCAPE/STREETCAPE PLANS FOR JOINT LAYOUTS, TREEWELL & STREETSCAPE APPURTENANCES

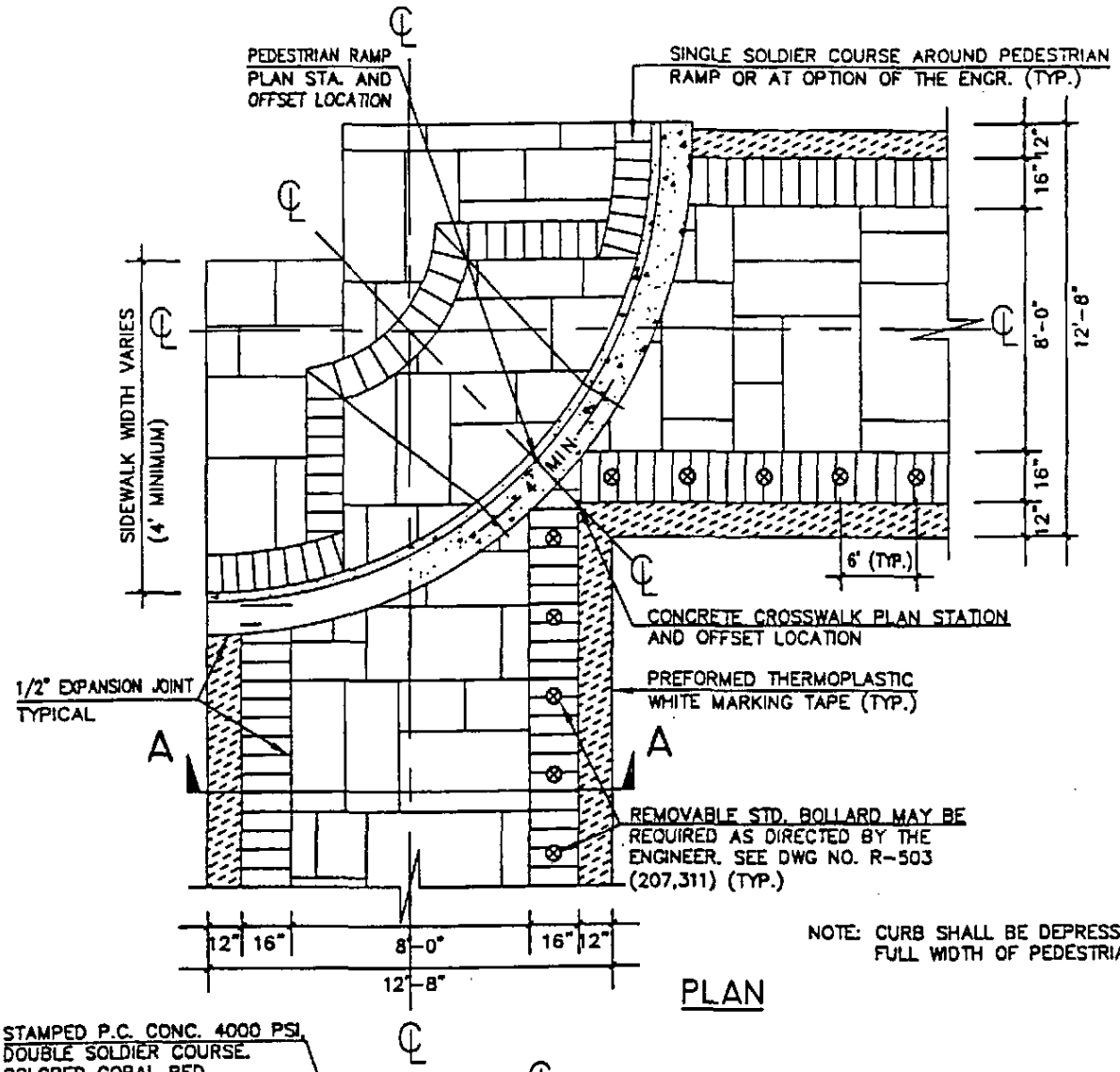
PLAN



SECTION A-A

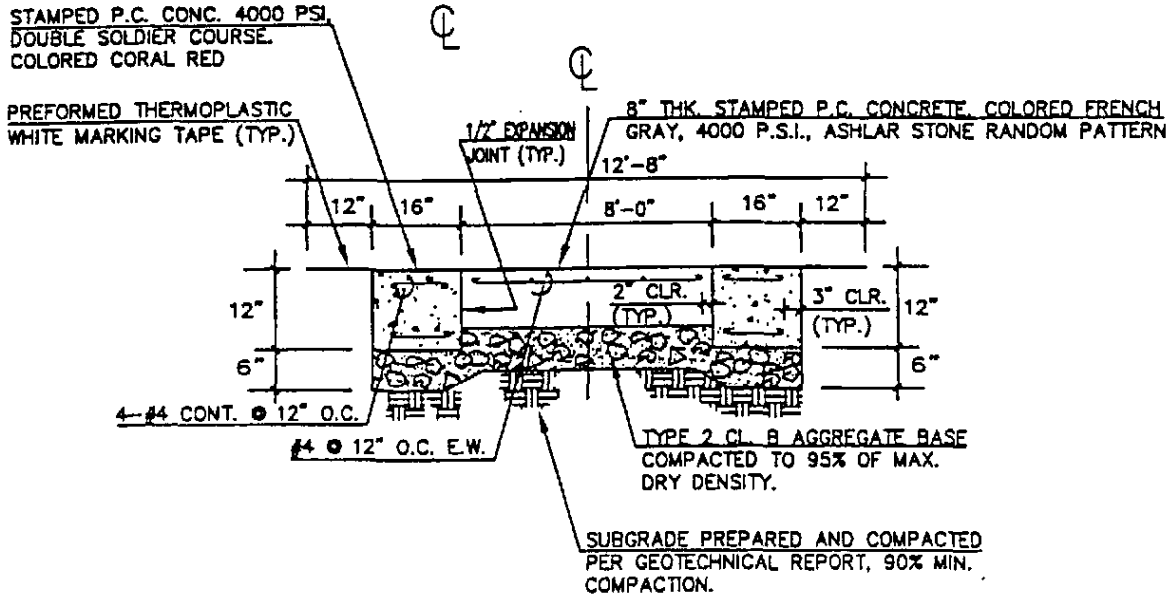
NOT TO SCALE

NO.	REVISION	DATE	STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	SECTION RENO
			COLORED AND STAMPED P.C. CONCRETE SIDEWALK	DRAWING NO. R-104A (312)
				DATE 08-01 / PAGE 5A
APPROVED BY		9/13/01		



NOTE: CURB SHALL BE DEPRESSED AT FULL WIDTH OF PEDESTRIAN RAMP

PLAN



SECTION A-A

NOT TO SCALE

NO.	REVISION	DATE
APPROVED BY : GAS		9/17/01

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

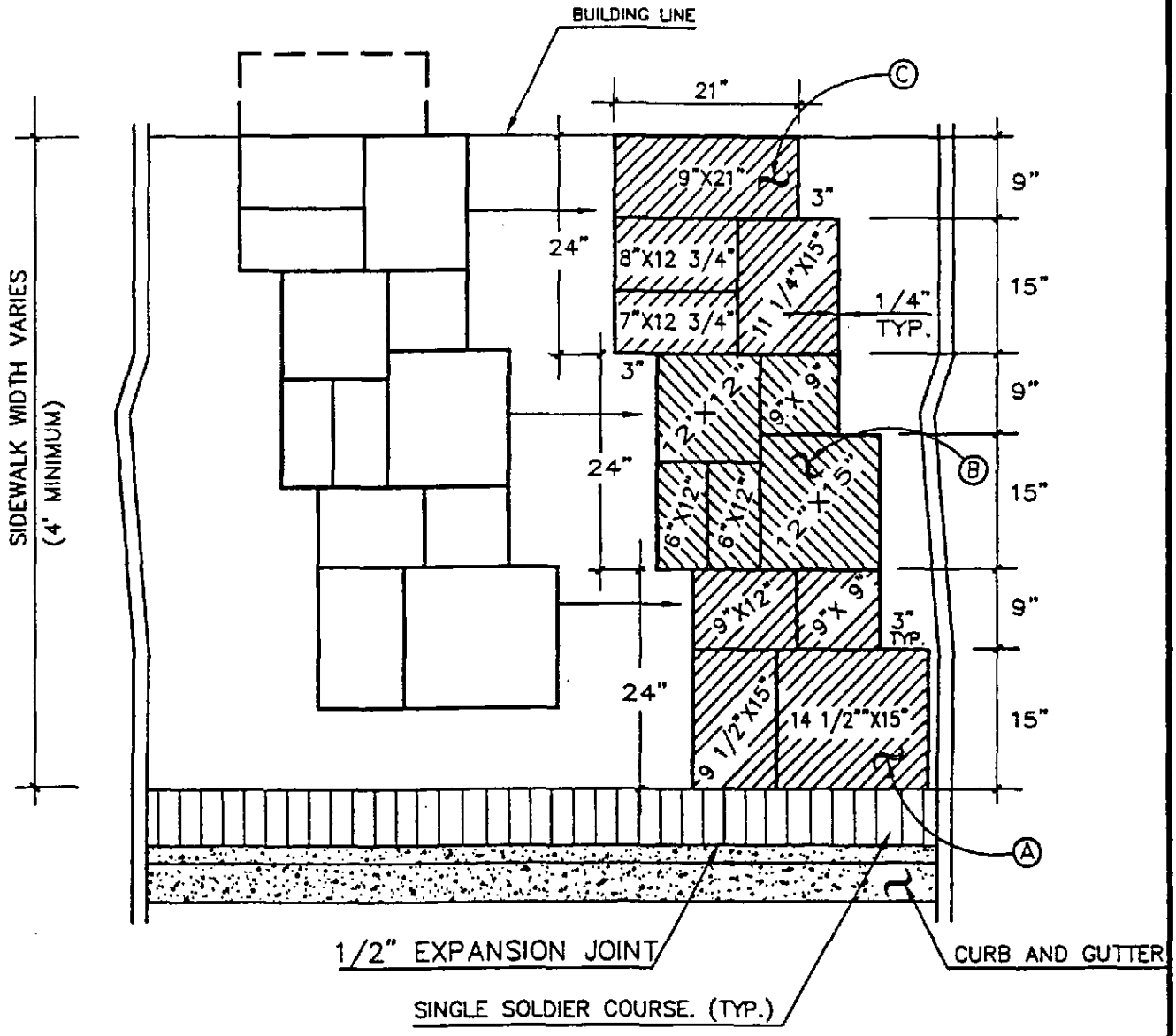
COLORED AND STAMPED P.C. CONCRETE CROSSWALK AND PEDESTRIAN RAMP

SECTION RENO

DRAWING NO. R-104B (312)

DATE 08-01

PAGE 5B

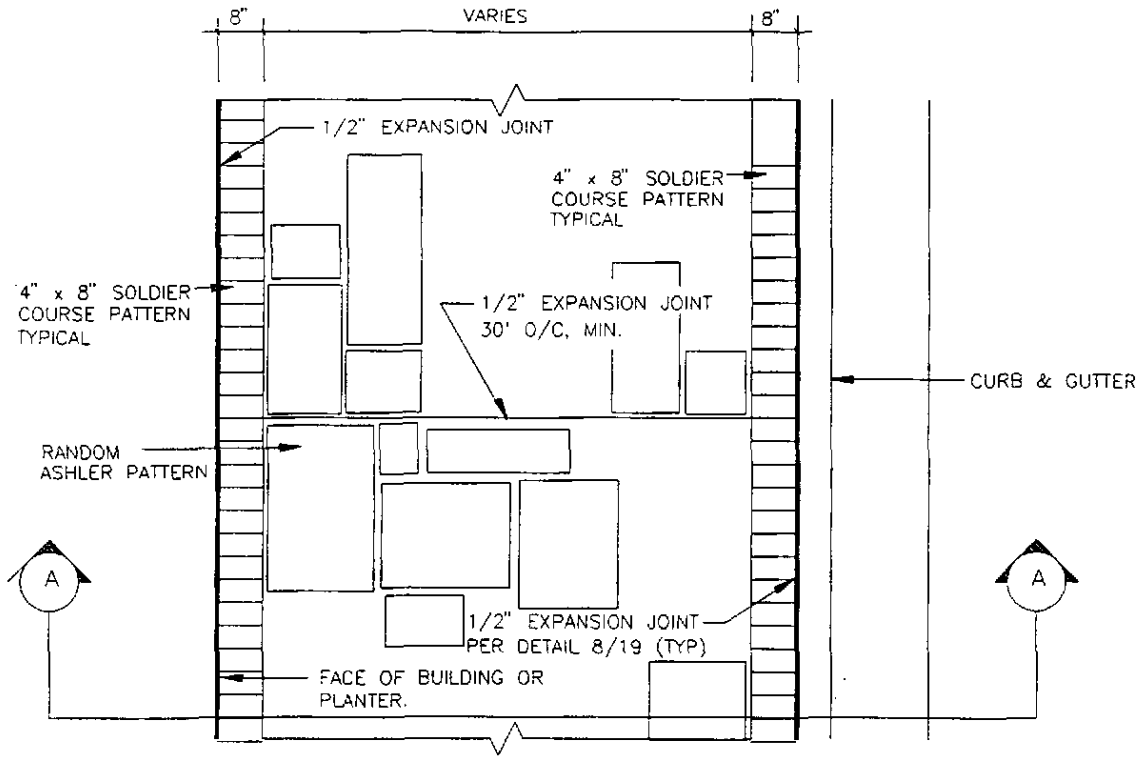


NOTES:

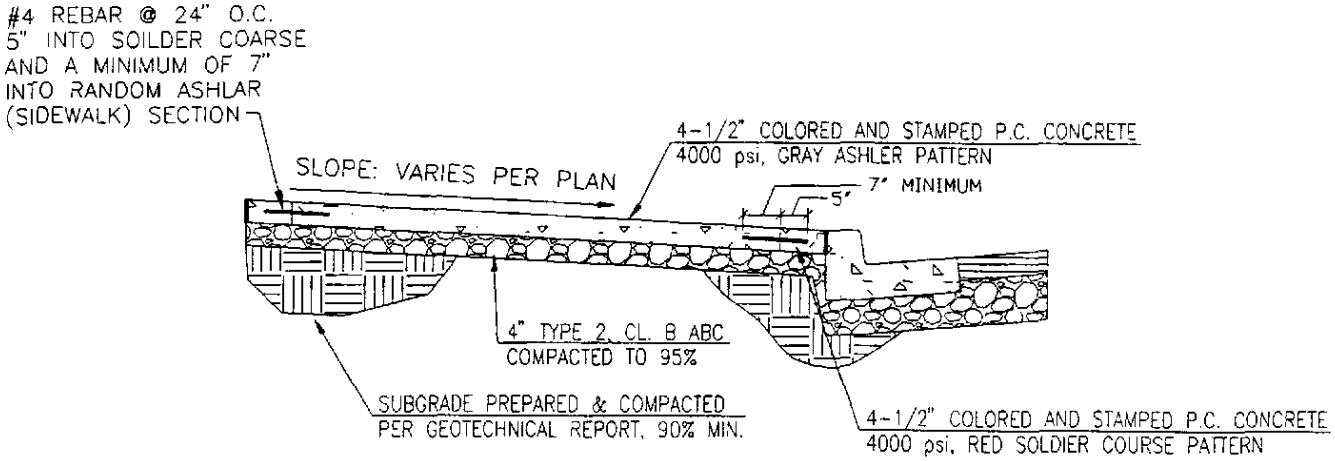
1. DIMENSION TOLERANCE:
   1.) LENGTH – 1/4"±–1/8"
   2.) WIDTH – 1/4"±–1/8"
   3.) DEPTH – 1/4"±–1/8"
2. SIZES OF DESIGN AT END/EDGE VARY AND/OR ADJUSTED TO FIT THE LENGTH AND WIDTH OF SIDEWALK, AND WILL REQUIRE SEPARATE "A", "B" AND "C" STAMP, AND HAND TOOLING.
3. STAMPS MAY VARY FROM (3) 2'X2' COMPONENTS (A,B & C) TO (1) 2' X 6' COMPONENT
4. FINAL ALIGNMENT OF THE PATTERNS WILL BE REVIEWED AND APPROVED BY THE CITY DURING THE TEST POUR.

NOT TO SCALE

NO.	REVISION	DATE	STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	SECTION RENO
			TYPICAL ASHLAR SLATE STAMP PATTERN DIMENSIONS	DRAWING NO. R-104C (312)
				DATE 08-01 / PAGE 5C
APPROVED BY: GAS		9/13/01		



NOTE: SEE LANDSCAPE/STREETSCAPE PLANS FOR JOINT LAYOUTS, TREEWELL AND STREETSCAPE APPURTENANCES.

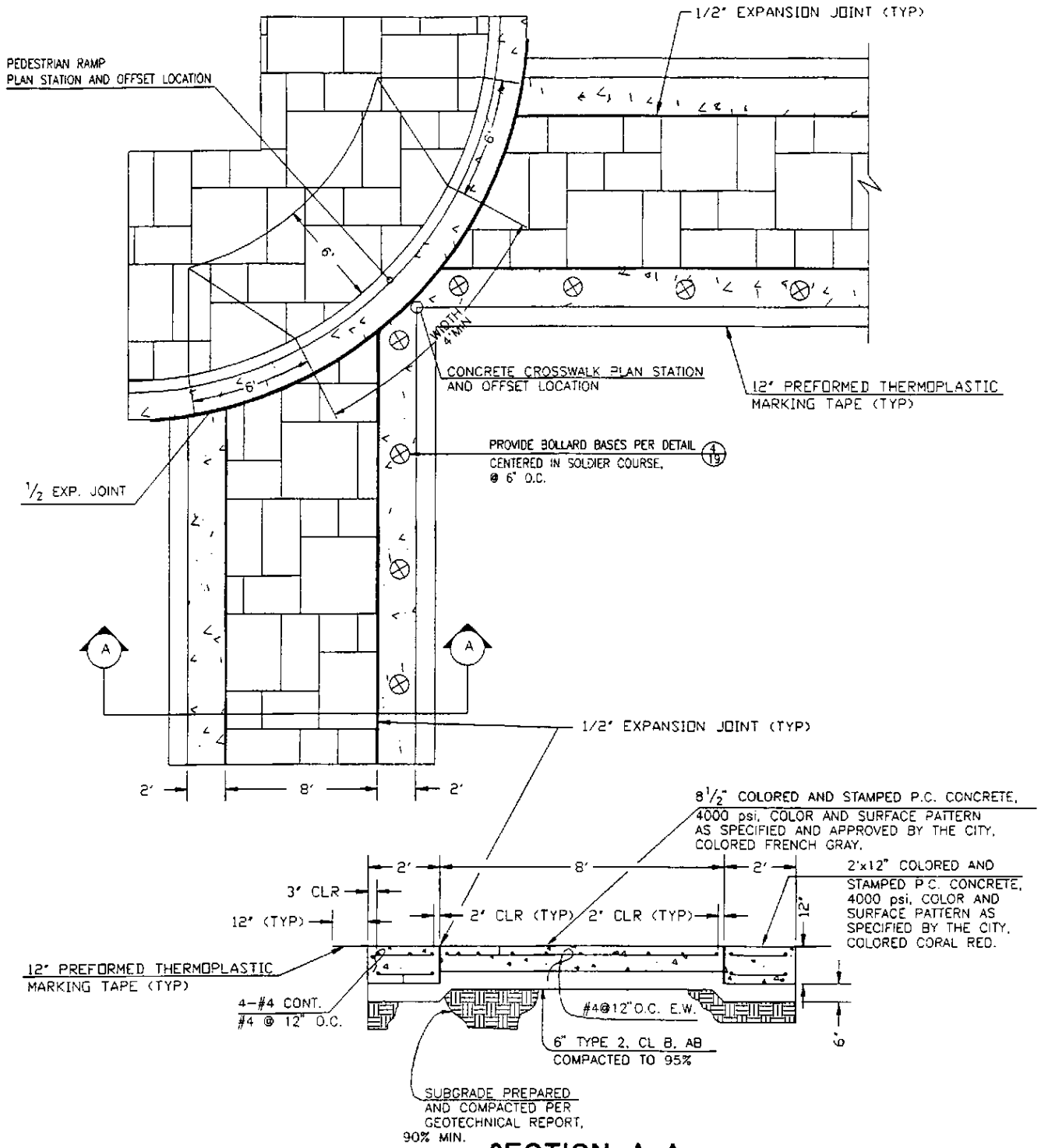


SECTION A-A

COLORED/STAMPED CONCRETE SIDEWALK DETAIL

NTS

NO.	REVISION	DATE	STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	SECTION RENO
			COLORED AND STAMPED P.C. CONCRETE SIDEWALK	DRAWING NO. R-30 A
APPROVED BY S.V. 11/26/96				DATE 10-96 / PAGE 30.1



SECTION A-A

COLORED AND STAMPED P.C. CONCRETE CROSSWALK

NTS

NO.	REVISION	DATE	STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	SECTION RENO	
			COLORED AND STAMPED P.C. CONCRETE CROSSWALK	DRAWING NO. R-30 B	
APPROVED BY [illegible]		11/26/96		DATE 10-96	PAGE 30.2

325 STREET LIGHTING AND LIGHTED BOLLARDS

325.01 Description

All street lights and bollards will be installed as indicated on the plans or as indicated in the specifications. Locations shown are generally approximate only and field verification will be necessary.

325.02 Materials

The street lights shall be a twin arm unit. Pole and bracket arm assembly sections shall be a one piece welded assembly from base casting through the heavy fixture fitter. Slip fit and/or set screws mounting of bracket arm assembly to pole will not be permitted.

Cast aluminum base to be .250 to .188 wall and fitted with matching cast aluminum door held with stainless steel recessed Allen Head tamper resistant screws. Floor base to be .750 thick. O.D. of base to be 11 1/2". Four galvanized foundation bolts to be located inside the base. Base section to be 41" high.

The shaft will be 4" dia. - .125 wall of 6061-T-6 structural grade aluminum welded both inside and outside to the cast base. Top of shaft to be 12"-0" off grade.

Banner arms, two pair, 20" long to be on each side of the pole, parallel to fixture arms, one at 8'-3" and one at 11'-3" above grade and painted to match pole. The detachable banner arms shall be held with 1/2" x 20" s.s. bolts threaded through pm castings welded to the side of the pole and threaded through the pole wall.

The bracket arms to be a modified tee shape. It is to be 2' O.D. with .125 wall. Top of the tee to be 17"-6" above grade. The horizontal section to extend 14" to each side and then turn down on a radius of 14". Bottom of globe to be 14'-0" above grade. Grade to be 6061-T-6 aluminum. The shaft section of the bracket arm shall extend into the shaft section of fluted shaft at least 18". It shall be internally fastened at that point without visible appearance of any fastening device. The bracket arm shaft section shall them be circumferentially welded to the fluted section at the point of intersection.

The cast fitter, .250 wall thickness, shall contain the ballast assembly.

The reflector - acorn assembly shall attach to the fitter with four stainless steel set screws with an interference fit. The reflector shall have a welded metal ring for acorn fitter attachment. The entire assembly to be fitted with neoprene gaskets. The underside of the reflector to be finished in high reflectivity white enamel.

The acorn shape globe will be of polycarbonate 12" to 12".

A glass refractor will be in each fixture. Light distribution of Type III or V as required.

The luminaire to be manufactured by the pole manufacturer and to be U.L. listed as an assembly fixture.

The exterior of the assembly will first have a two part catalytic primer followed by a matte black base coat. The final finish is a hand applied verde green to look like oxidized brass.

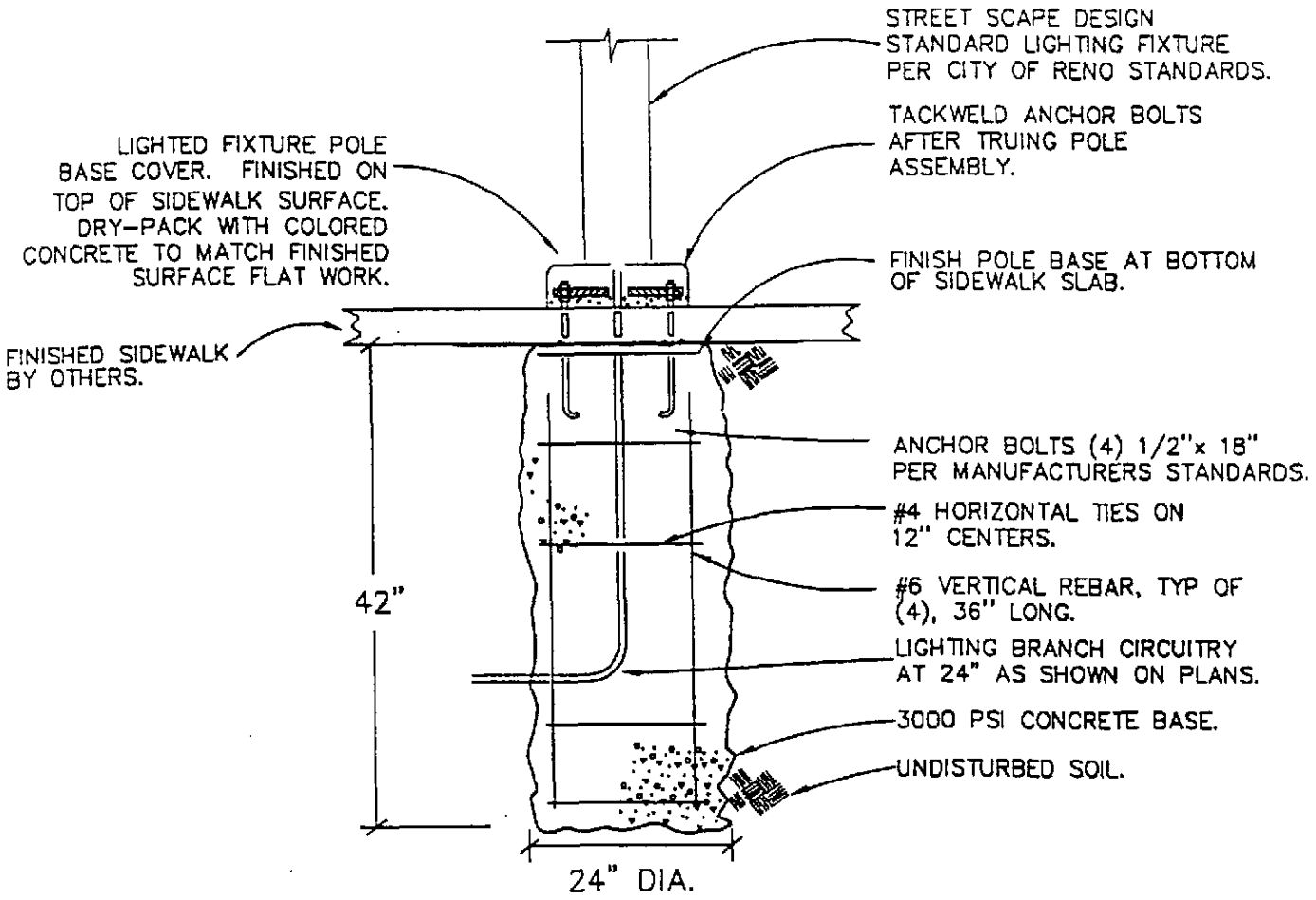
Each luminaire shall contain a multi-tap ballast suitable for a 175 watt metal halide medium base lamp. Voltage as shown on the plans, CWA design.

Lamp to be clear metal halide, designation MS-175/BU/MED.

Each pole shall be individually cartoned after being shock pad wrapped.

Assembly to be Catalog #2-1910/MRRT/RE/175 MH/4900-T-14 AG/2BA manufactured by Sternberg Lanterns or approved equal.

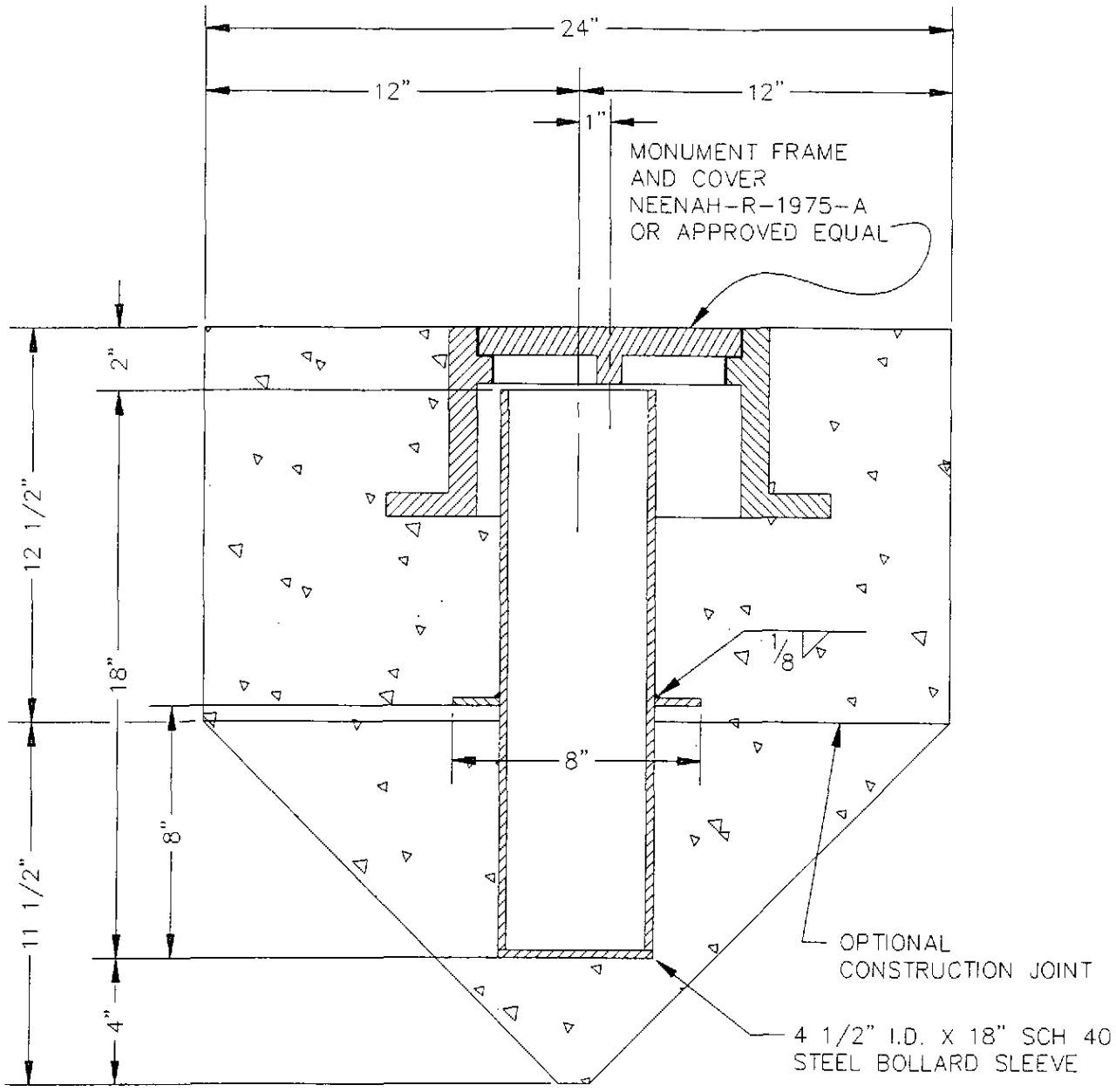
Lighted bollard to be 42" high in the same pattern and color as the street light assembly Catalog #3901-LB-70MH-VG manufactured by Sternberg Lanterns or approved equal.



POLE BASE DETAIL

N.T.S.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC IMPROVEMENTS	SECTION 1
			RENO REDEVELOPMENT AGENCY POLE BASE DETAIL	DRAWING NO.
				DATE 6/93 PAGE 1
APPROVED BY:				



BOLLARD BASE DETAIL

NTS

NO.	REVISION	DATE	STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	SECTION RENO
			BOLLARD BASE DETAIL	DRAWING NO. R-29
				DATE 10-96 / PAGE 29
APPROVED BY: S.V.		11/26/96		

PRE-CAST PLANTERS AND TRASH RECEPTACLES

Description

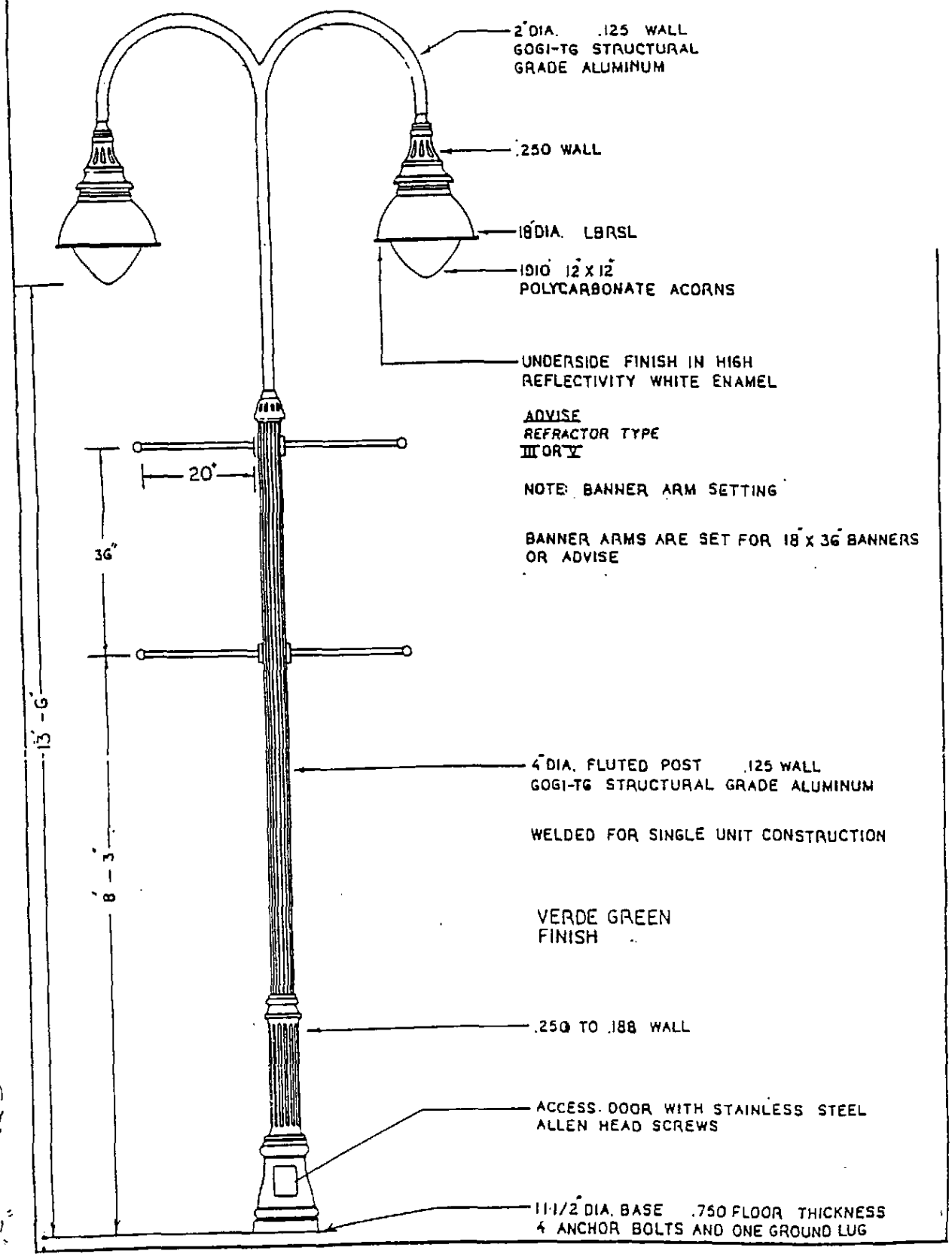
All planters and trash receptacles shall be installed as indicated in the plans or as indicated in the specifications. Locations shown will be field verified.

Materials

All planters and trash receptacles shall be made of pre-cast glass fiber reinforced concrete.

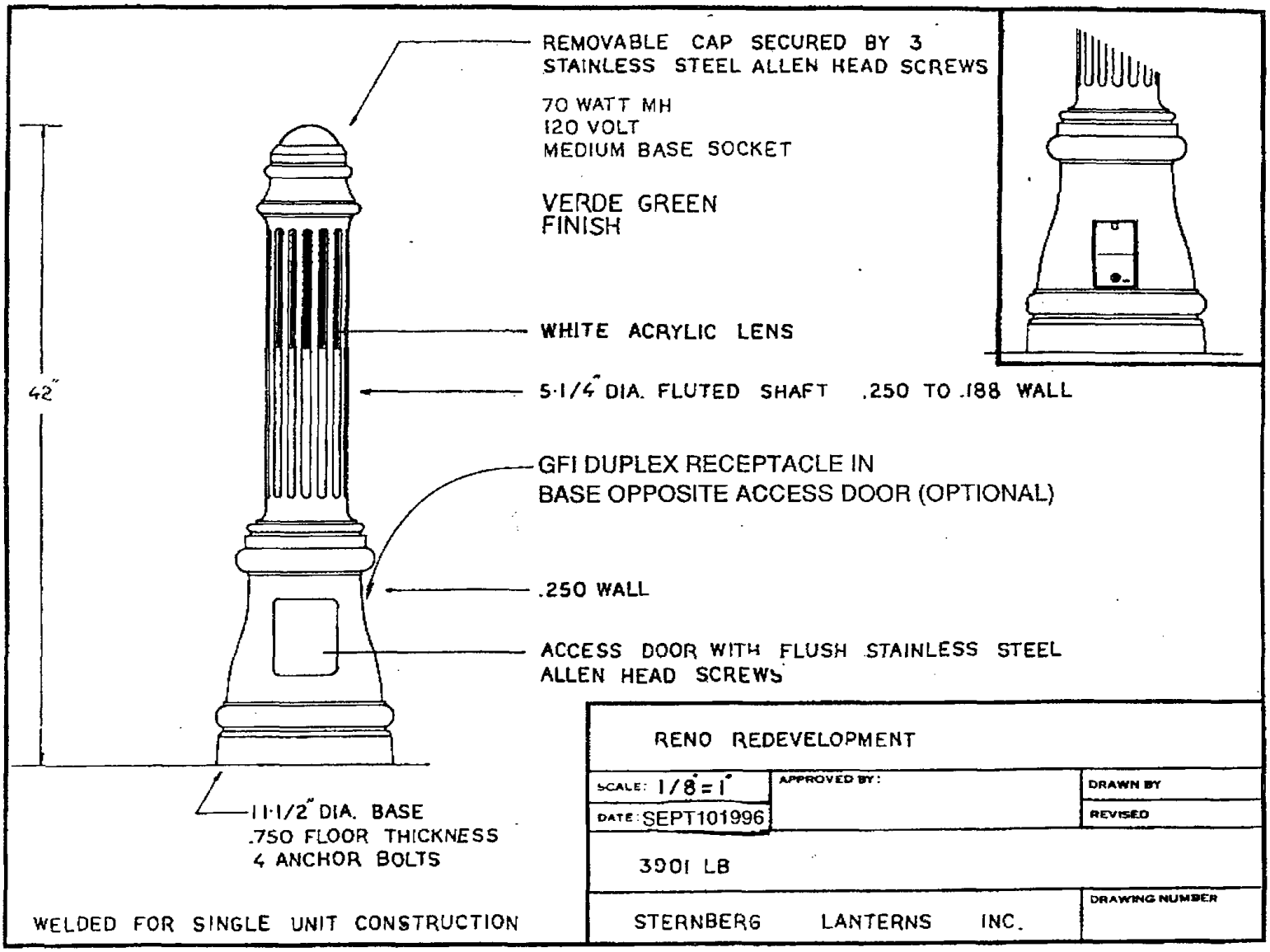
Planters and trash receptacles shall be manufactured by Magna Lite Systems, Inc. or approved equal. Planter shall be Part No. NC4836, Nastello Series, unless otherwise designated in the plans or specifications. Trash receptacles shall be Part No. TN3030, Nastello Series, unless otherwise designated in the plans or specifications. Color and finish for both planters and trash receptacles shall be NS87 unless otherwise designated.

PRODUCT CUT SHEETS



STYLE "B"

	RENO REDEVELOPMENT PHASES I AND II
SCALE: 3/4" = 1'	APPROVED BY:
DATE: APR30 1992	DRAWN BY:
	REVISED
2-1910 LBRSL 4913 RRP CC3693	DRAWING NUMBER:
STERNBERG LANTERNS INC.	



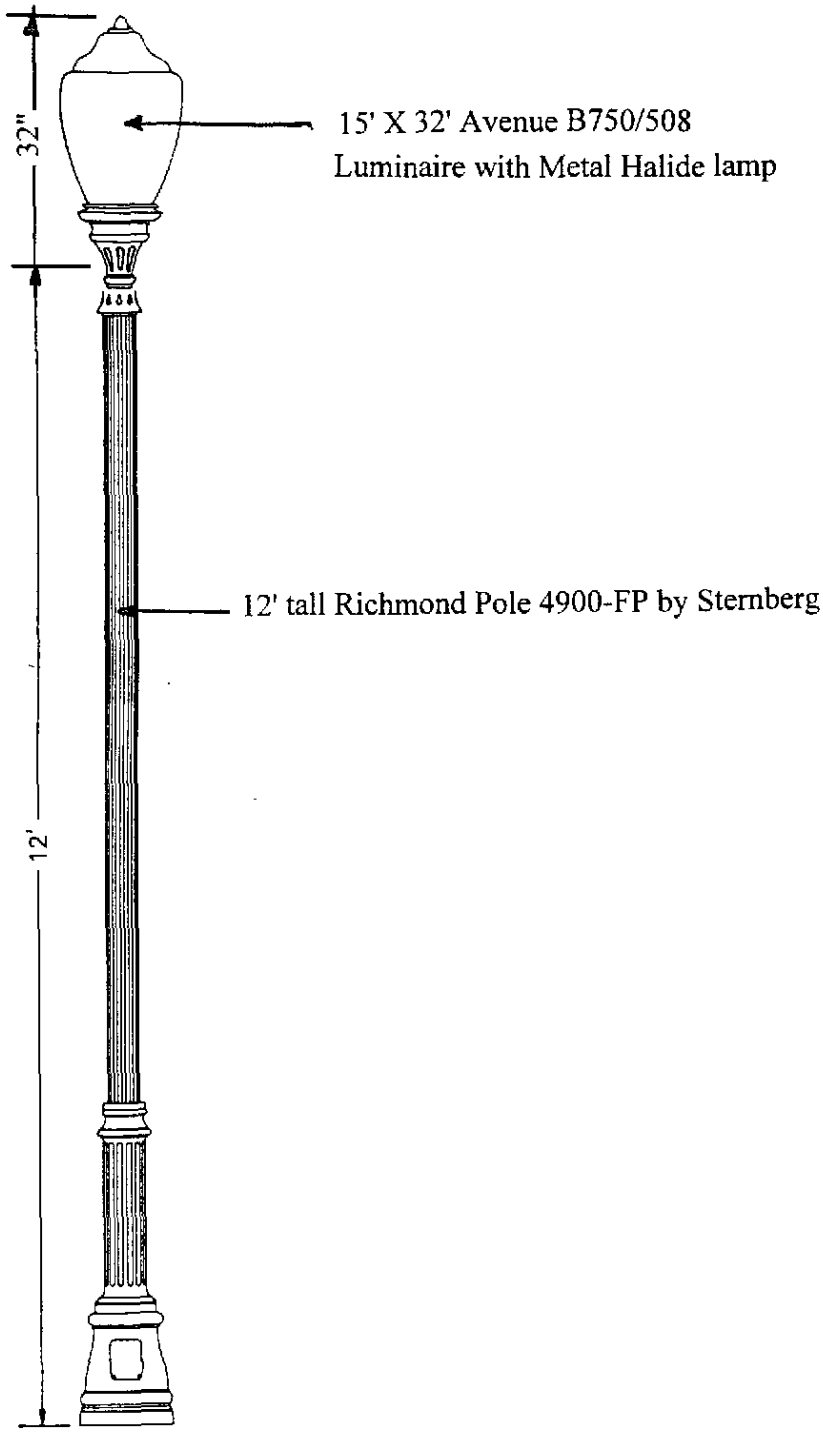
RENO REDEVELOPMENT

SCALE: 1/8"=1"	APPROVED BY:	DRAWN BY
DATE: SEPT101996		REVISED

3901 LB

STERNBERG LANTERNS INC.

DRAWING NUMBER



Neighborhood Standard Street Light

Victor Stanley, Inc.

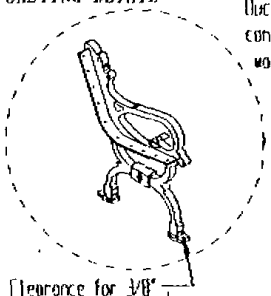
P.O. DRAWER 330 - DUNKIRK, MD 20754 USA
TEL (301) 855-8300 - FAX (410) 257-7579

PG 1 | OF 1

* C-10 Classic Series bench / 6' Length *

CADD Department	VIEWS-6
DRAWN B.K.S.	REV. 5/30/96

CASTING-DETAIL

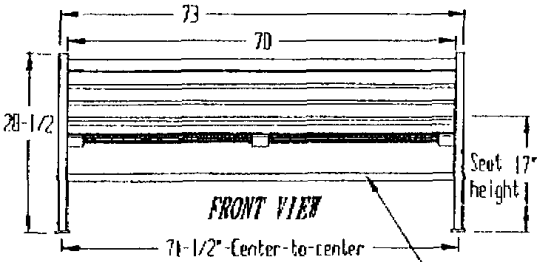


Clearance for 3/8" diameter anchor bolt

(Anchor bolts provided by others)

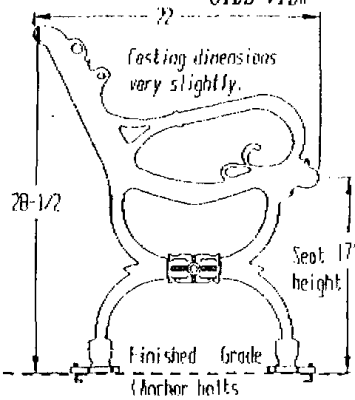
Ductile Iron castings come with a 5 year warranty against breakage.

All specifications are subject to change. Please contact factory for details.



Center-to-center distances are approximate. (Variations in castings arise from different rates of cooling)

SIDE VIEW



Cross-brace is 1 5/16" O.D. High-Tensile Strength Tubular steel

Rigid center brace constructed of 3/8" x 3" solid steel bar

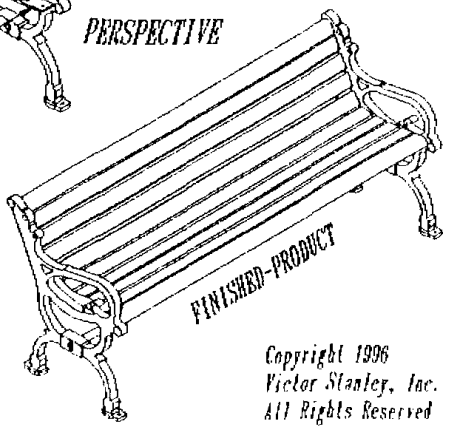
Steel frames are pre-drilled with the appropriate hole pattern to mount the 2" x 3" (nominal) wood slats

* Custom lettering is available for the C-7 and C-10 cast directly into the frame for a special location or a place to be commemorated *

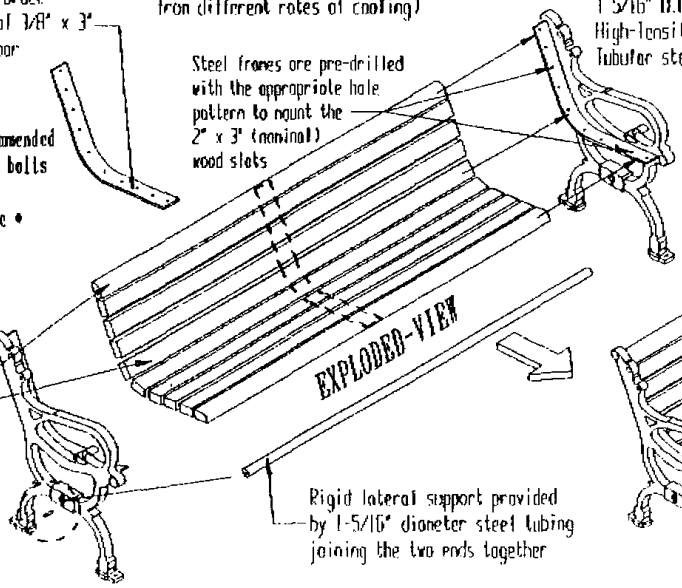
Note:
• It is NOT recommended to locate anchor bolts until assembled bench is in place •

All steel components are steel shot-blasted, etched, phosphatized and electrostatically powder coated with TGIC polyester powder coatings.

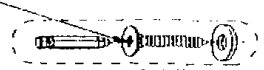
PERSPECTIVE



EXPLODED-VIEW



1-1/2" long x 1/4" O.D. vandal resistant lag screws fasten wood slats to steel supports from beneath

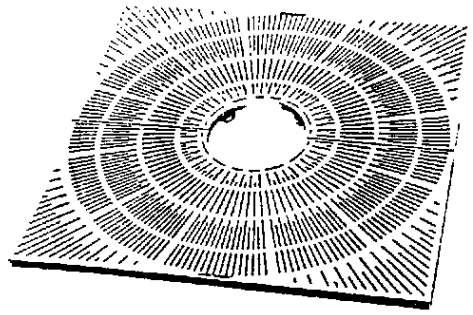


SCREW - DETAIL

Rigid lateral support provided by 1-5/16" diameter steel tubing joining the two ends together

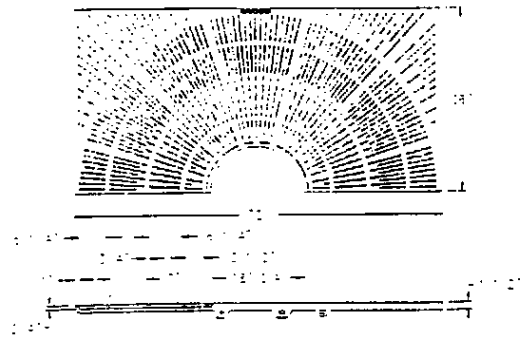
FINISHED-PRODUCT

R-8709 180° SQUARE



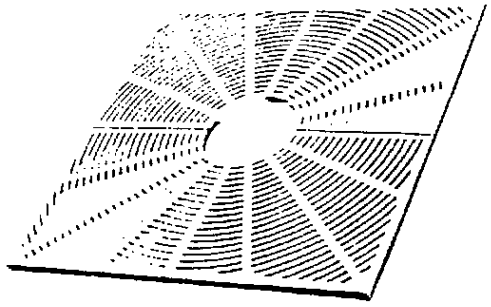
Note ⅜" slot openings for special pedestrian requirements. Two pieces per set with expandable tree opening. Available with cast iron angle frame, if required. PERMA-GRIP surface.

Weight per set — 800 pounds.



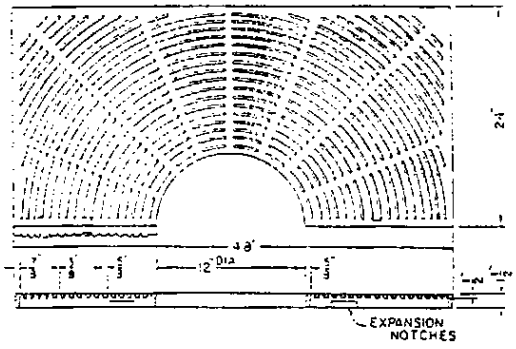
HALF PLAN AND SECTION

R-8710 180° SQUARE



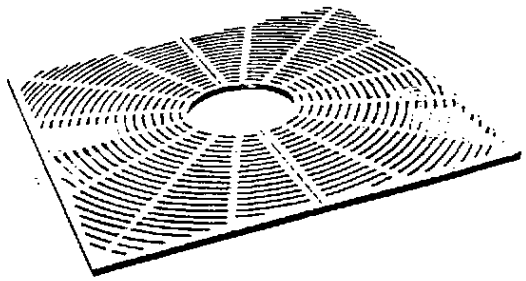
Note ⅜" slot openings for special pedestrian requirements. Grate is notched in 4 places for ease of expanding tree opening to 18" and 24". Available with cast iron angle frame, if required.

Weight per set — 290 pounds



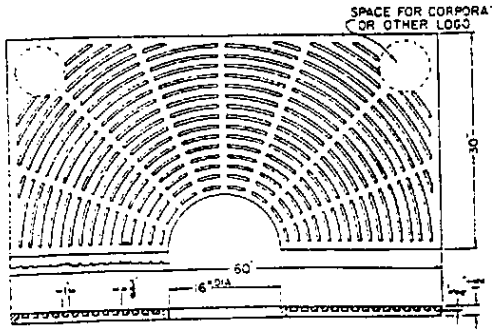
HALF PLAN AND SECTION

R-8712 180° SQUARE

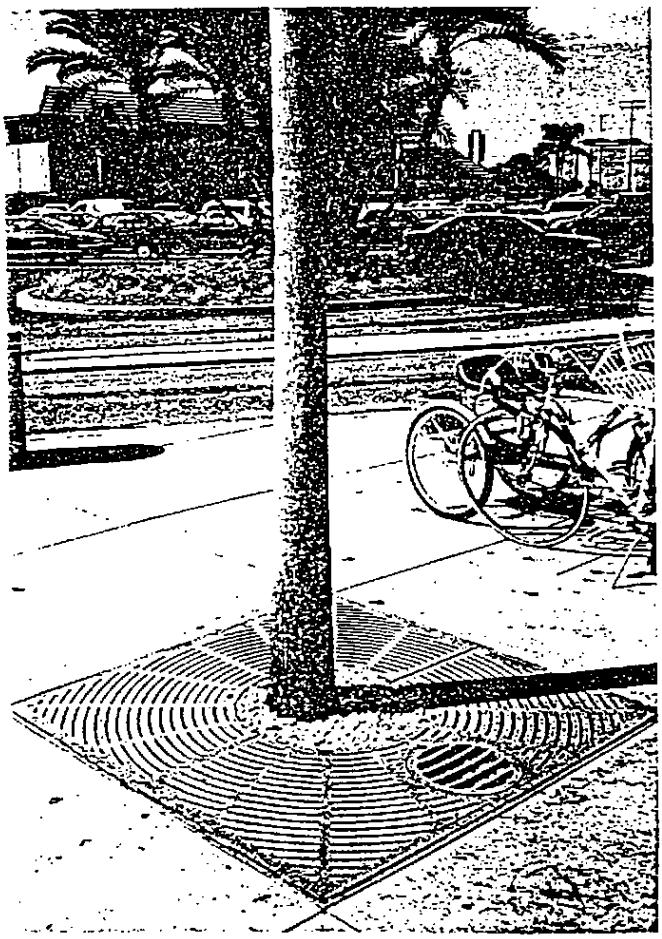


Half plan illustrated with solid section in corners for custom logo. Furnished standard with slots all the way into corners. Tree opening can be expanded. Available with cast iron angle frame, if required. Also note ⅜" slot openings for special pedestrian requirements.

Weight per set — 600 pounds.

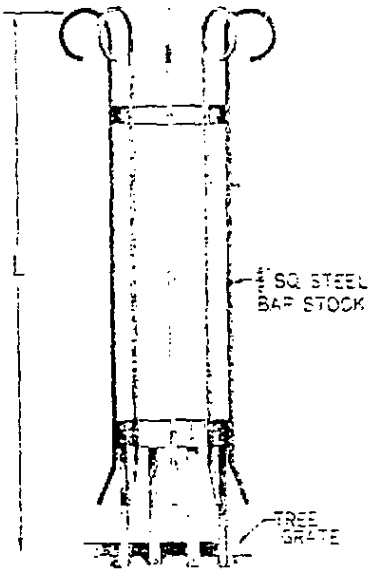


HALF PLAN AND SECTION

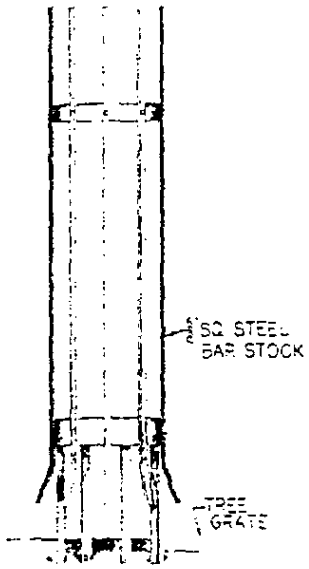


NEENAH
FOUNDRY COMPANY

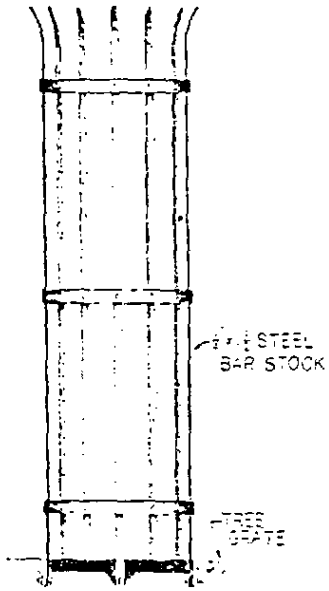
FABRICATED TREE GUARDS



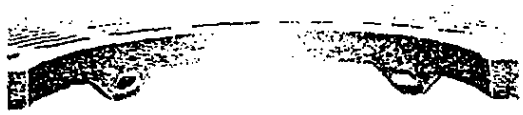
STYLE A



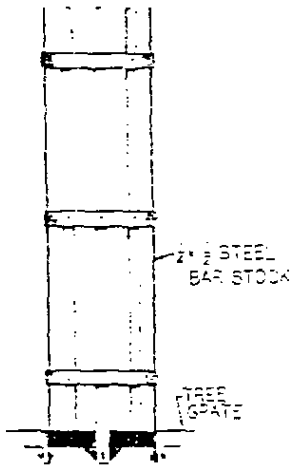
STYLE B



STYLE C



SPECIAL NOTE: All tree grate units are furnished standard with four inconspicuous guard lugs on the underside as shown.



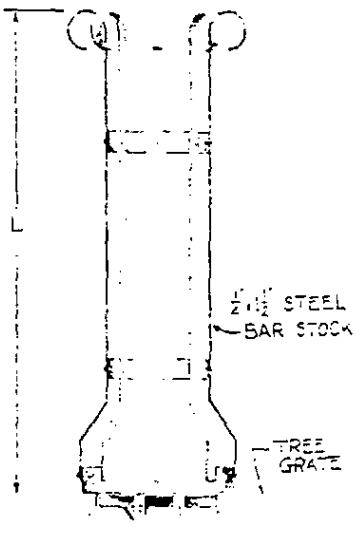
STYLE D

NEENAH tree guards are manufactured from hot rolled mild steel in the five standard illustrated styles. Guards are designed to be attached in four places to bolting lugs which are integrally cast to the underside of the tree grate.

NEENAH furnishes guards completely assembled in two half sections. Pre-assembled guards will be supplied using the standard method of assembly (with the vertical bars bolted to the rings). As an option, bars can be welded to the rings.

Tree guards are furnished painted with one coat of Lo-lustre black enamel as the standard. See advice on painting tree grates on page 4.

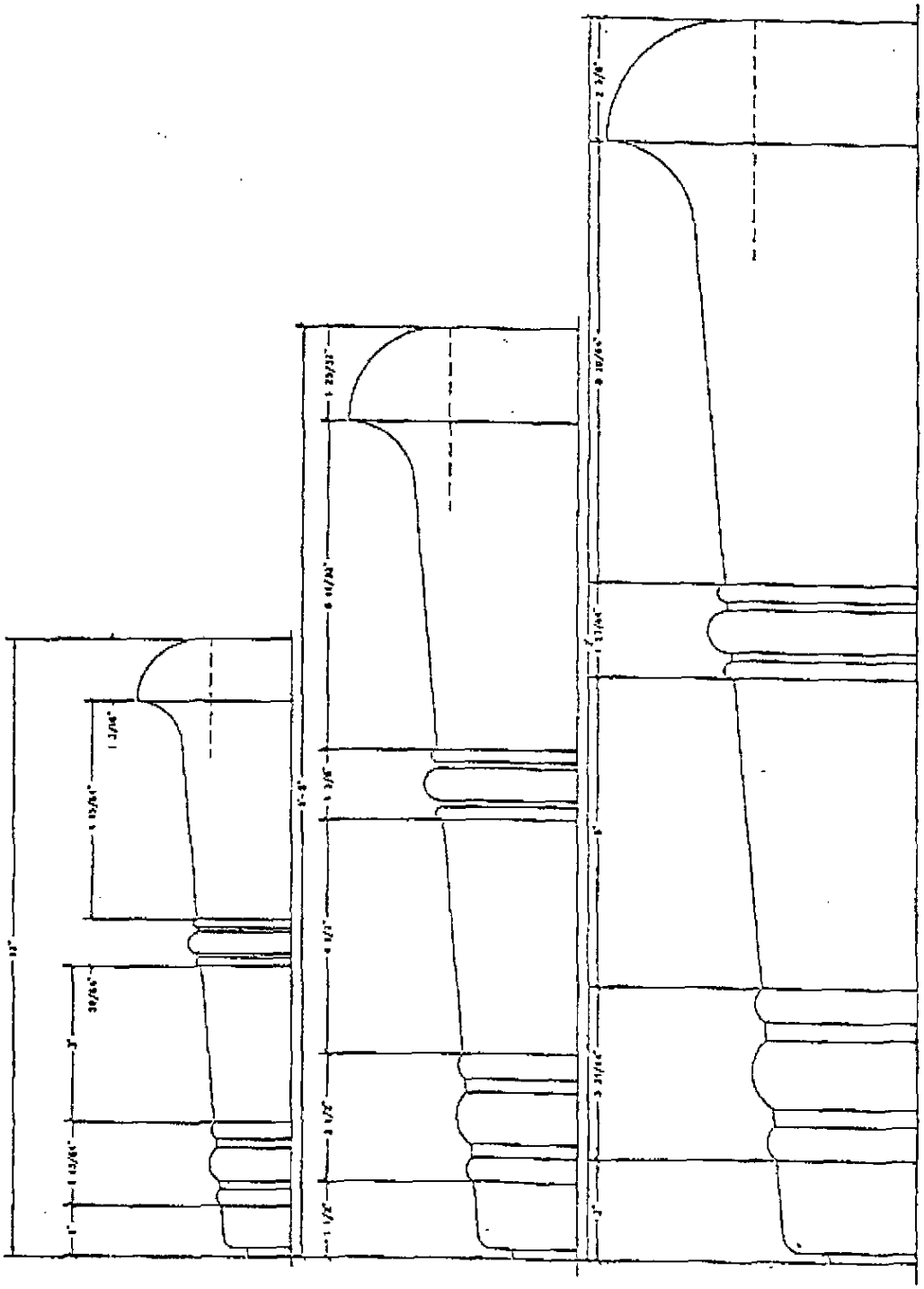
Specify when ordering:
1. Style.
2. Dimension "L" (guard height as measured from top of grate — standard heights are 4', 5' or 6').
3. Tree opening diameter.
4. Additional finish paint coats or no paint.
5. Shop drawings for approval.



STYLE E

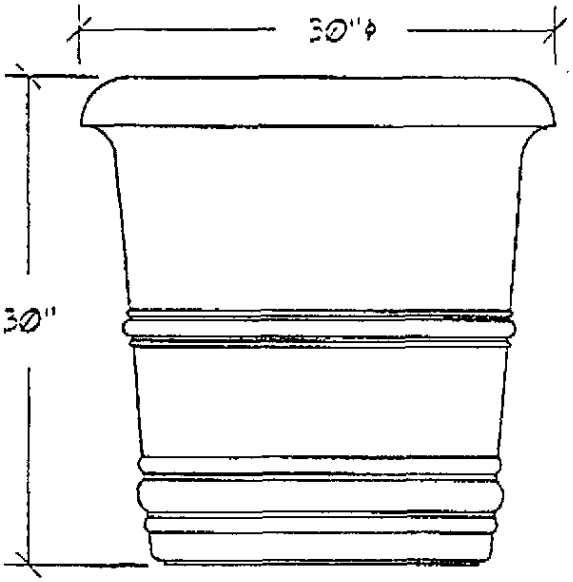
REFERENCE DRAWINGS	REVISIONS	DRAWN BY: LEATHAM	SHEET NO. 1
		CHECKED BY:	DATE

NASTELLO SERIES

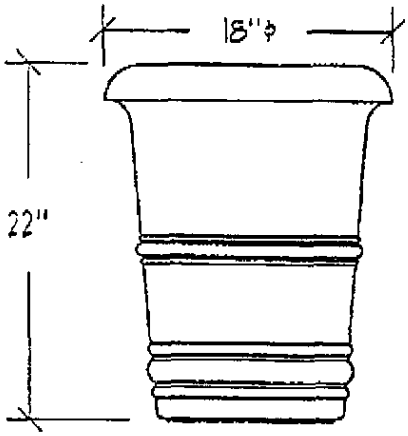


MAGNALITE

NASTELLO SERIES



TN3030



AN1822

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2. Downtown Riverfront District Redevelopment Standards and Design Guidelines - Draft (April 1996)
3. Downtown Riverfront District Plan - Draft (December 1995)
4. Reno, Nevada Downtown Redevelopment Plan (March 1983)
5. Plan Report, Downtown Redevelopment Area (1990)
6. Amendment to the Redevelopment Plan for the Downtown Redevelopment Area (November 1990)
7. Reno Downtown Traffic/Parking Study (December 1995)
8. Reno Gateways Project (November 1995)