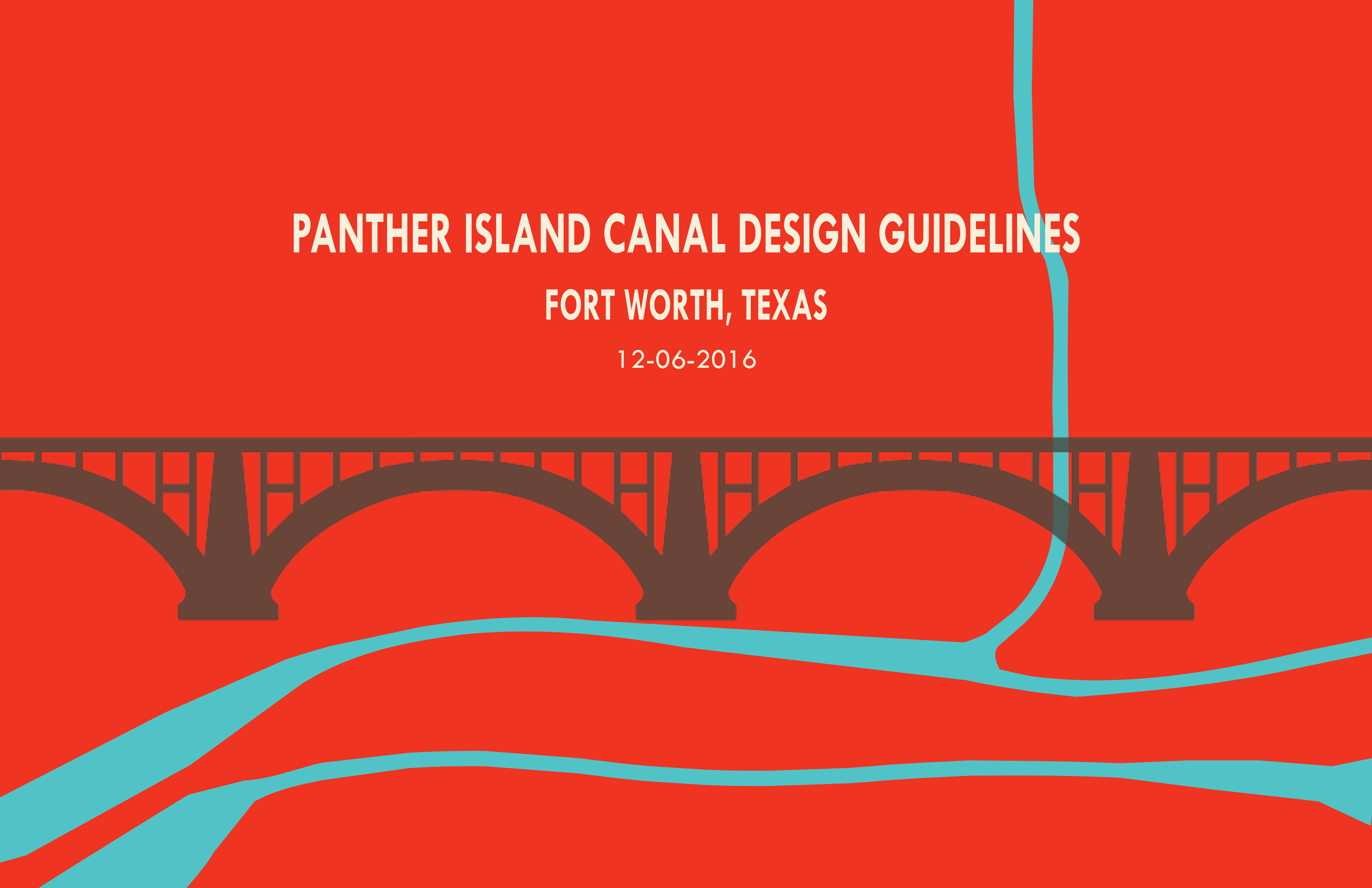
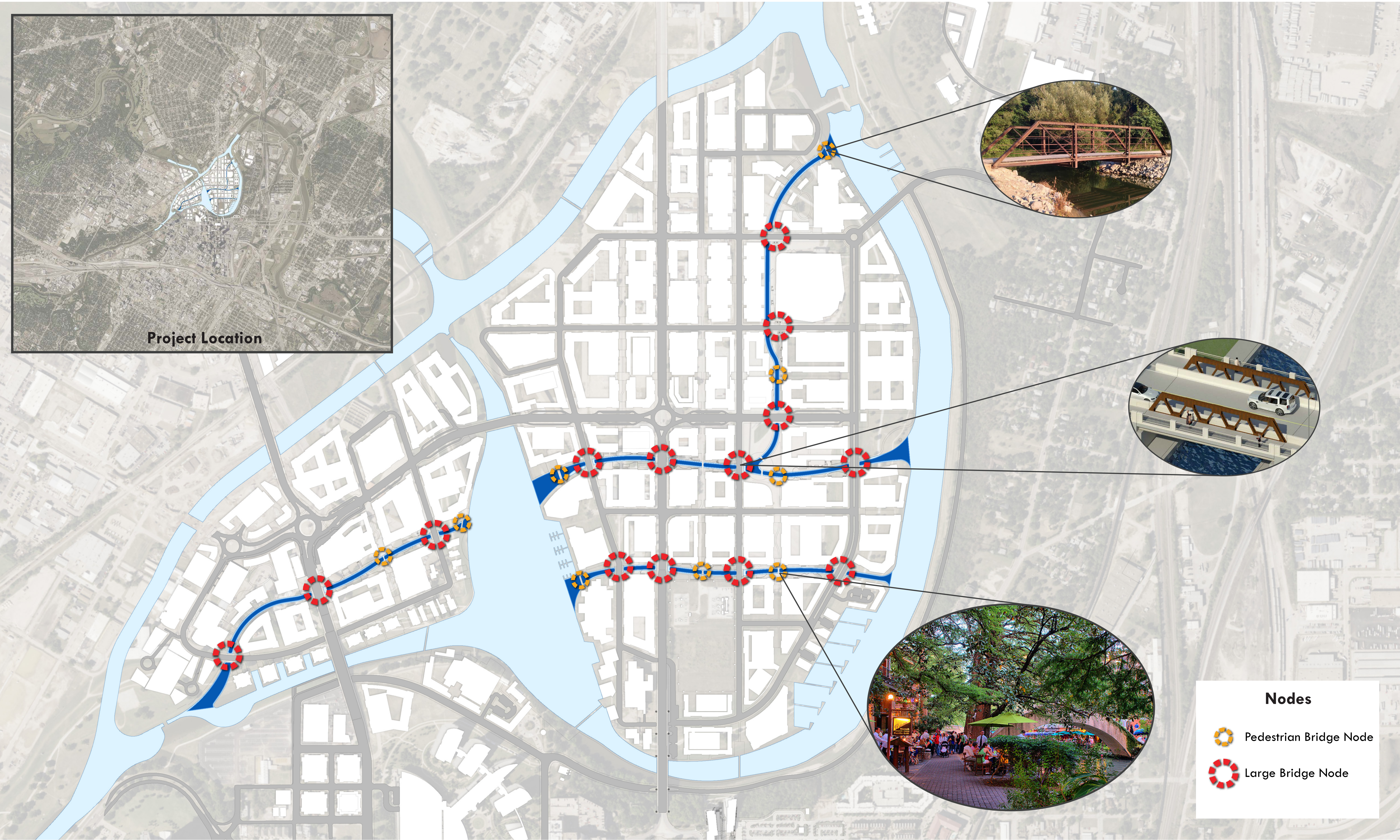
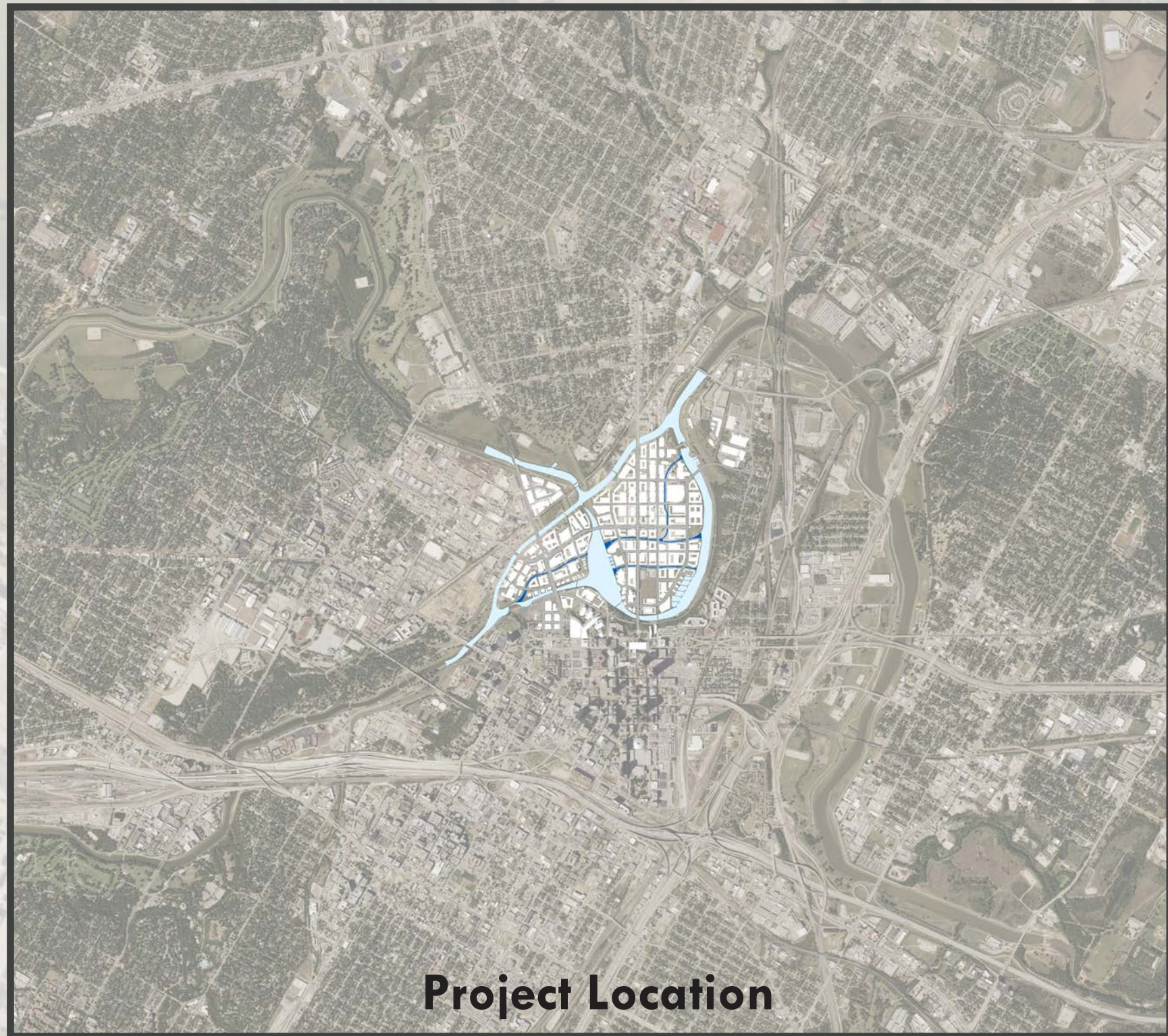


PANTHER ISLAND CANAL DESIGN GUIDELINES



FORT WORTH, TEXAS

12-06-2016





Nodes

-  Pedestrian Bridge Node
-  Large Bridge Node

Design Guidelines Intent

The Design Guidelines for the Canal Right of Way and Pedestrian Zone in the Panther Island District of Fort Worth are intended to promote the development of a public realm along the canals that is both vibrant and timeless. This document is intended to create a flexible set of guidelines that focus primarily on materials and styles, rather than a strict emphasis on form, which will allow the “canal-scape” to grow organically. Guiding the overarching forms and materials will promote the development of a strong sense of place, while still providing the variation and flexibility necessary to foster creative design approaches along the canal.



Historic Spanish Colonial and Mission Revival Influences



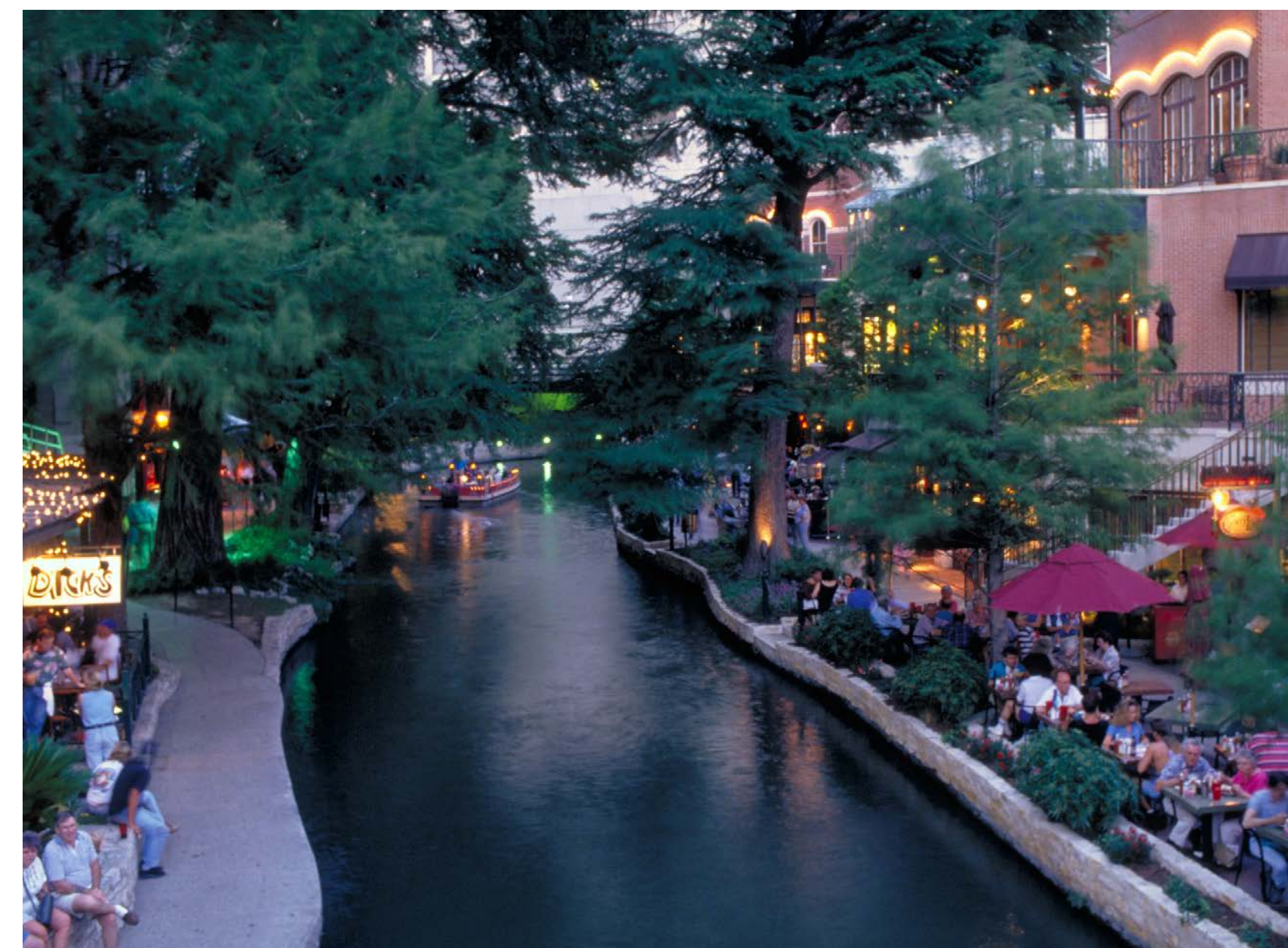
San Antonio Riverwalk

Design Precedents

The primary design precedents for the development of the Panther Island Public Realm are drawn from the historic architecture of Texas and the southwest. The San Antonio Riverwalk, with its eclectic mix of various materials, treatments, and design styles, is the primary inspiration for the Canal Zone because of its similar climate and history. Traditional Mexican, Spanish Colonial, and Spanish Mission Revival elements should be used to inform design elements, with materials such as stone, brick, tile, and flagstone used as the base for the canal zone and elements such as stucco and iron used as accents.



Historic Commercial Facade



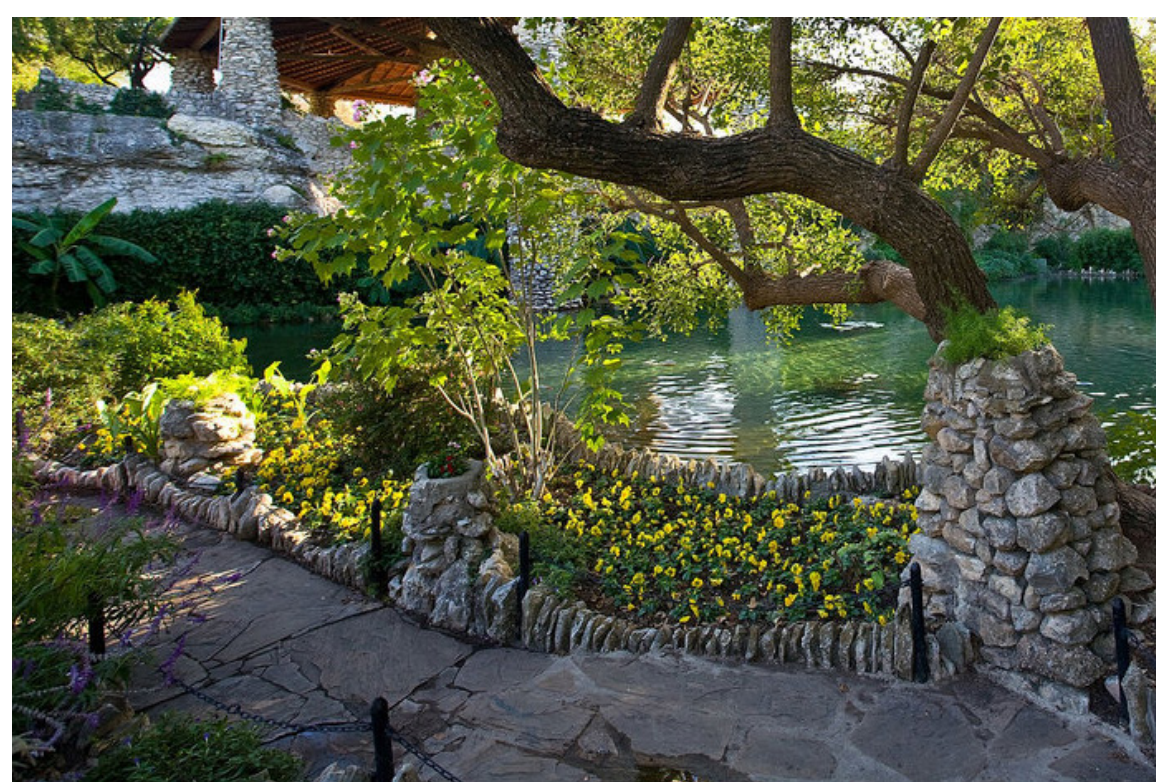
San Antonio Riverwalk



Spanish Colonial Architecture



San Antonio Riverwalk



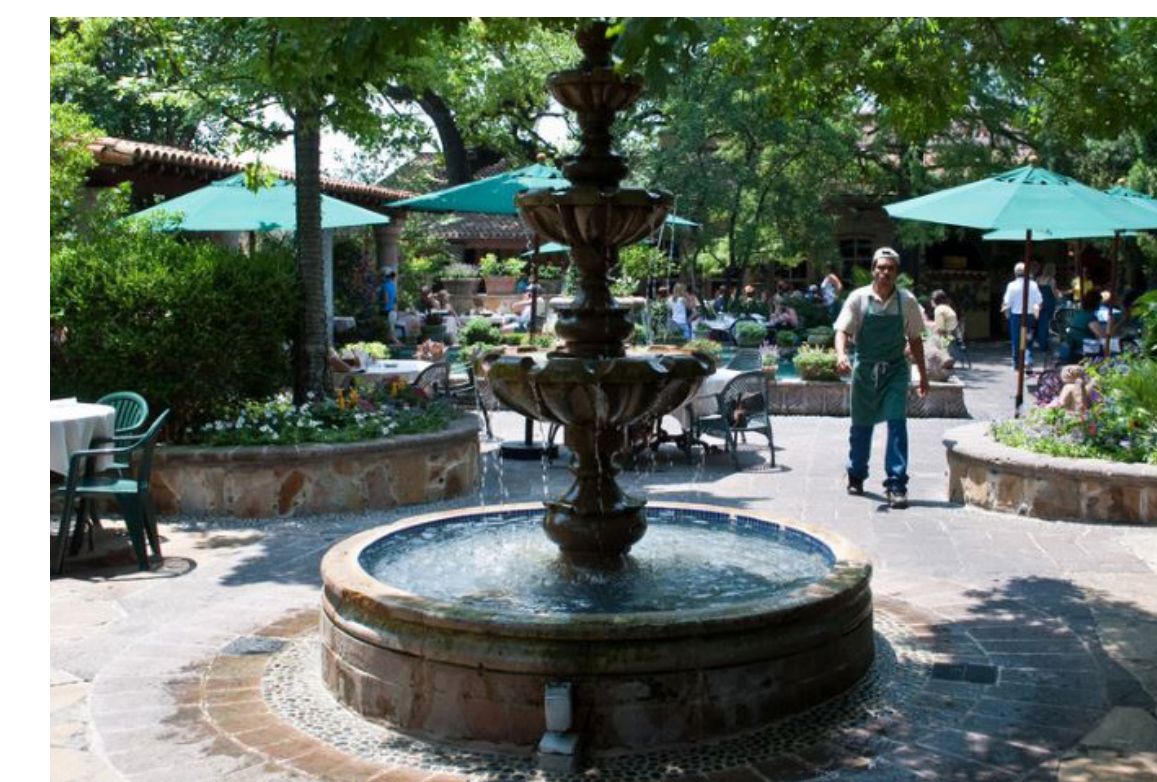
Rustic Stacked Stone



Pony Truss Bridge



Traditional Mexican Fountain



Mixed Materials and Textures



Mexican Tile



Spanish Tiles and Fountain



Texas Limestone

Design Precedents

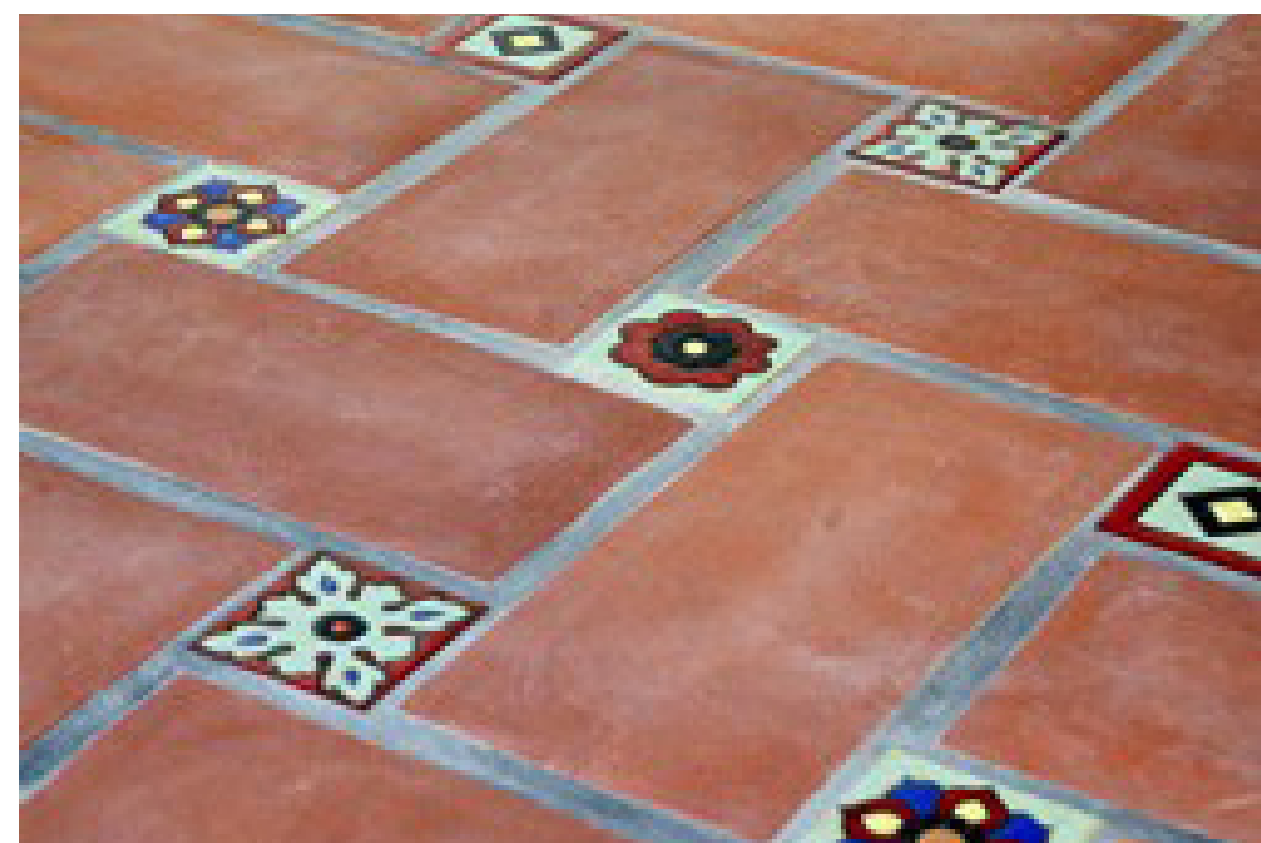
The Design intent for the Panther Island Canals is to create a district that has a traditional southwestern atmosphere. Elements such as Mexican tile, brick and stone pavers, flagstone, inlays, and carved stone are encouraged to provide historic flair within the pedestrian zone, and accent materials such as wrought iron are highly encouraged. Design motifs should reflect the Mexican and Spanish influences that are prevalent throughout the historic towns of southern and central Texas. Suspended light systems are encouraged to create a sense of enclosure and make spaces along the canal zone feel more intimate.



Tile Inlay Detail



Hot Oil Dipped Iron Paver Inlay



Tile Inlay Paver Detail



Corten French Drain



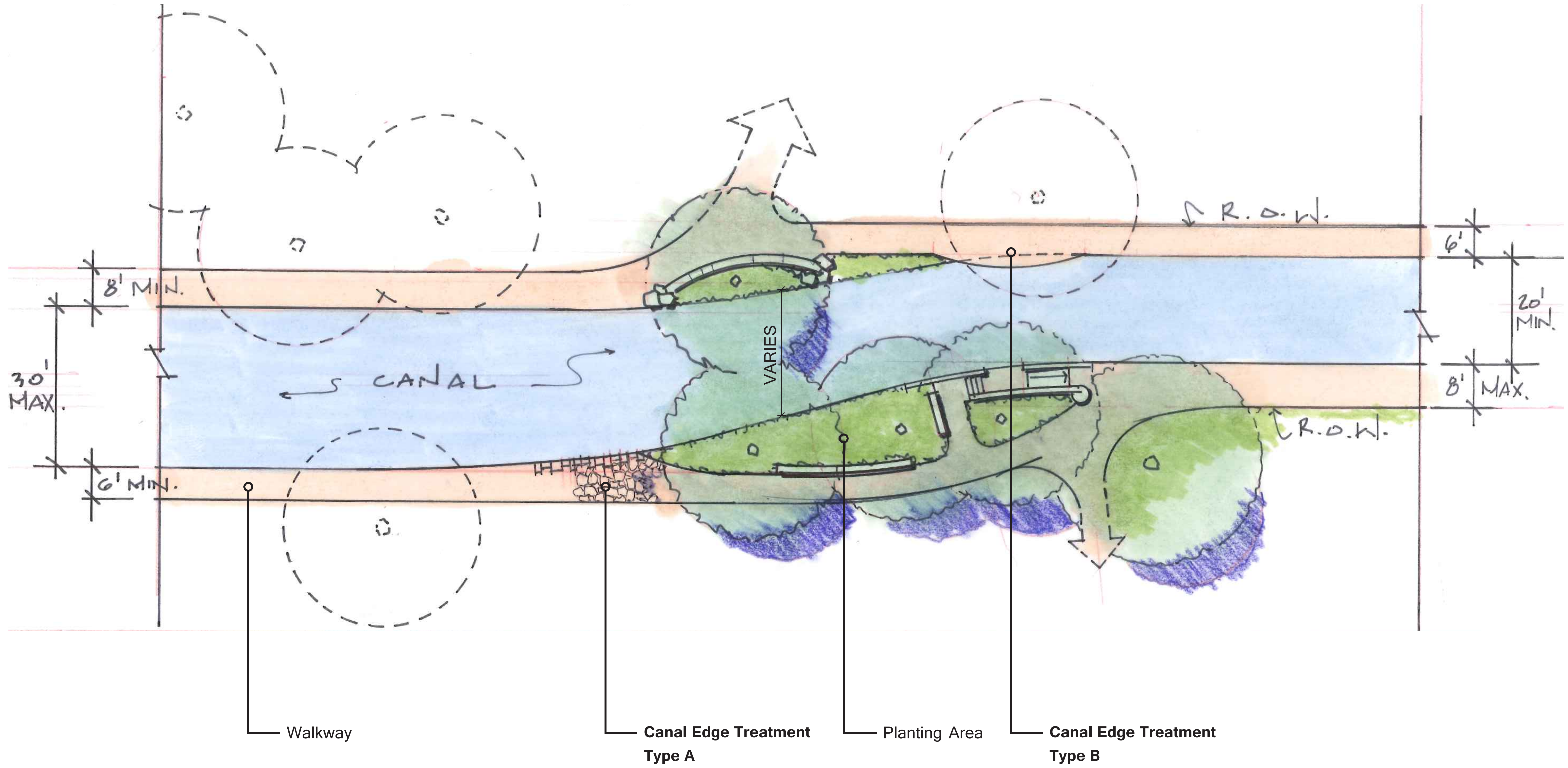
Tile and Limestone Detailing

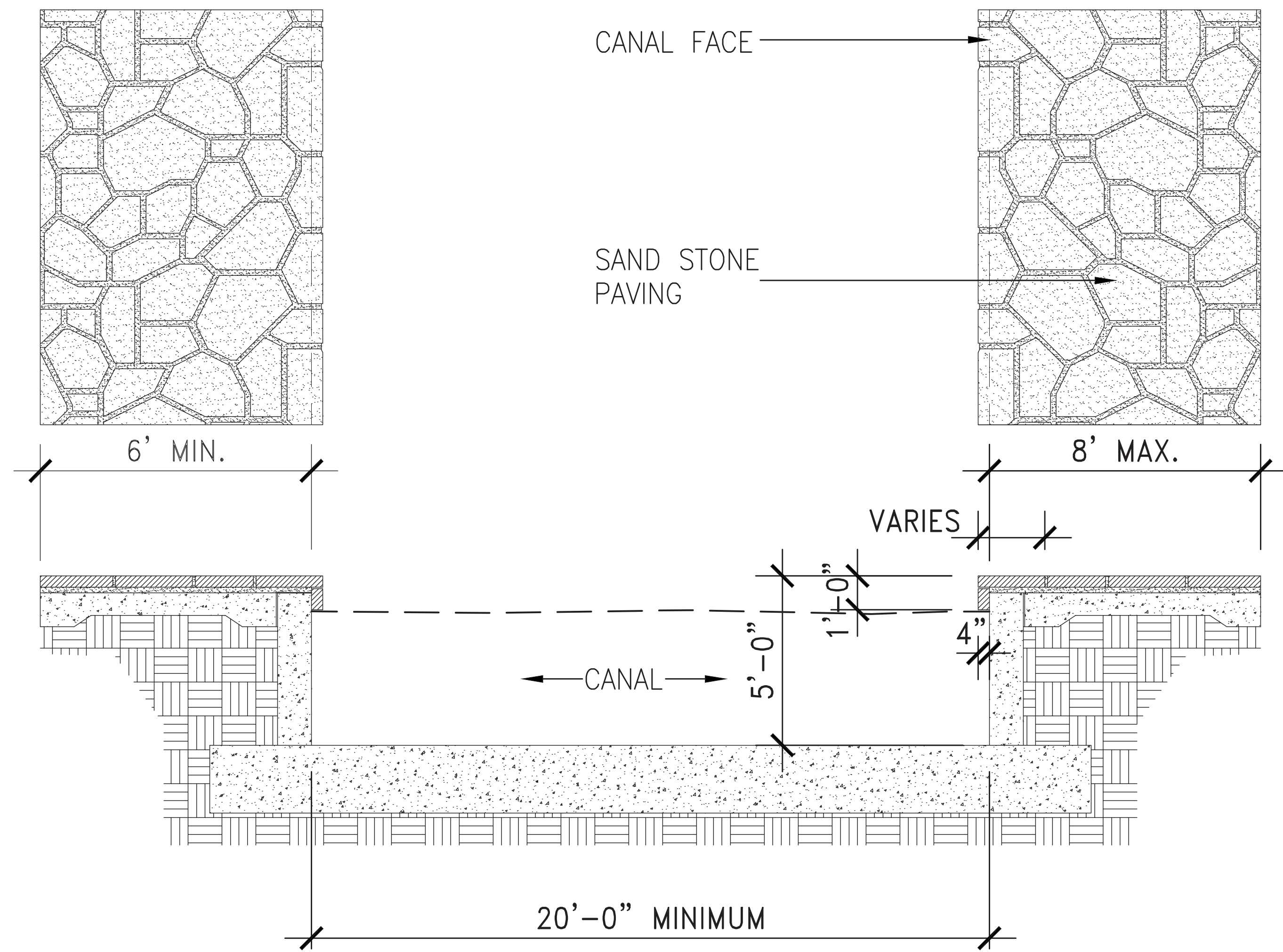


Texas Limestone

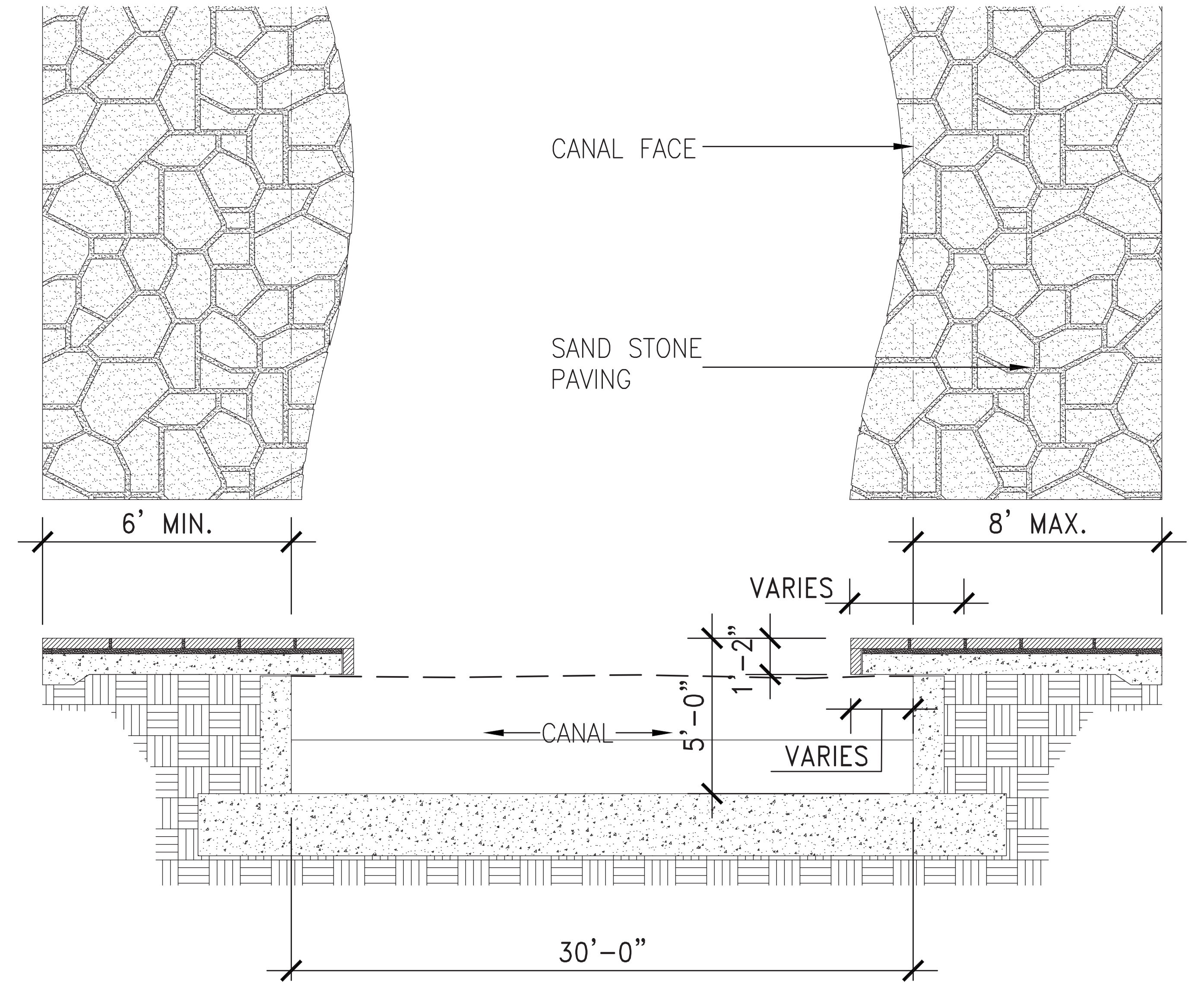


Suspended Lights





Canal Edge Treatment Type A



Canal Edge Treatment Type B



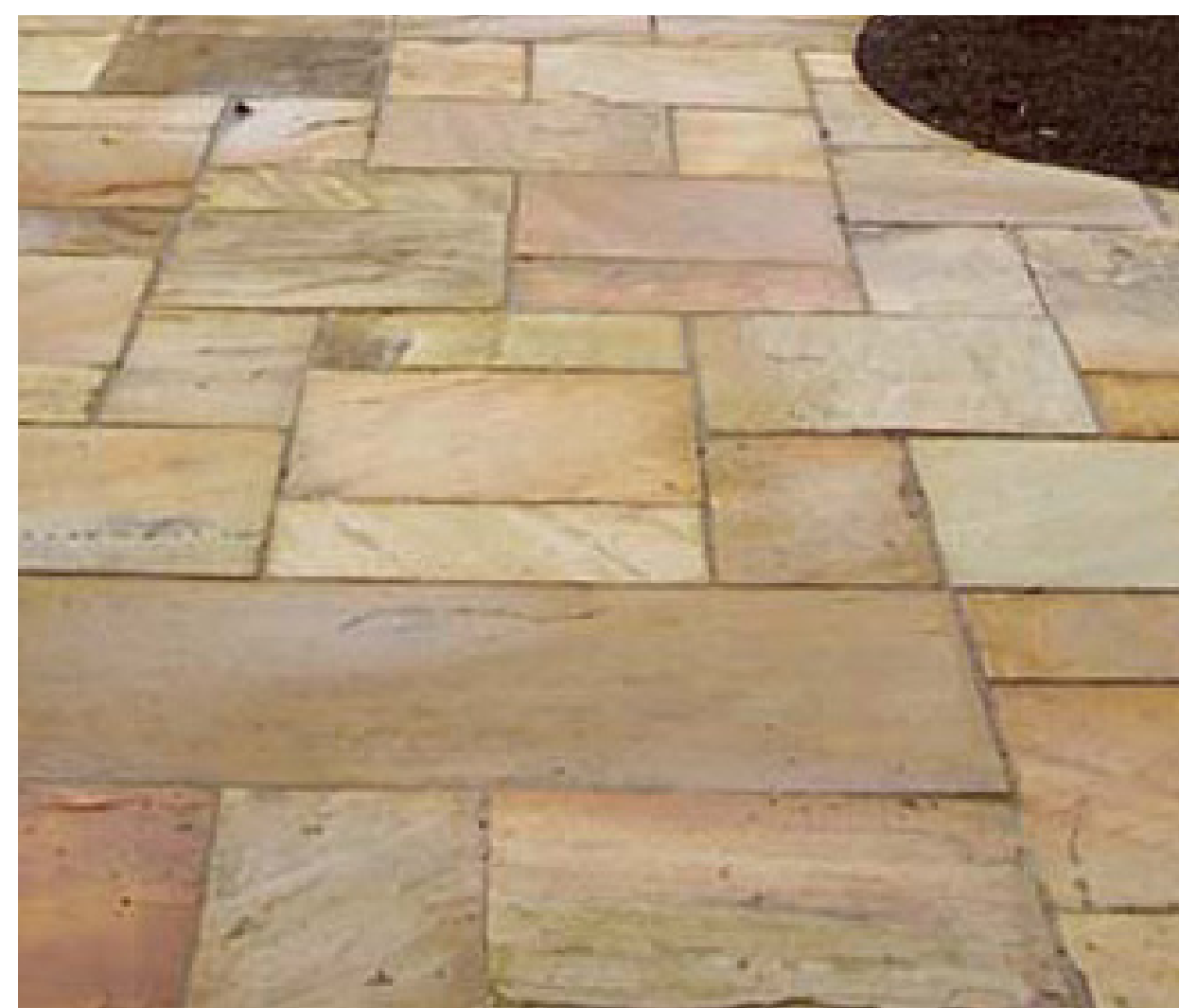
Brick - Herringbone



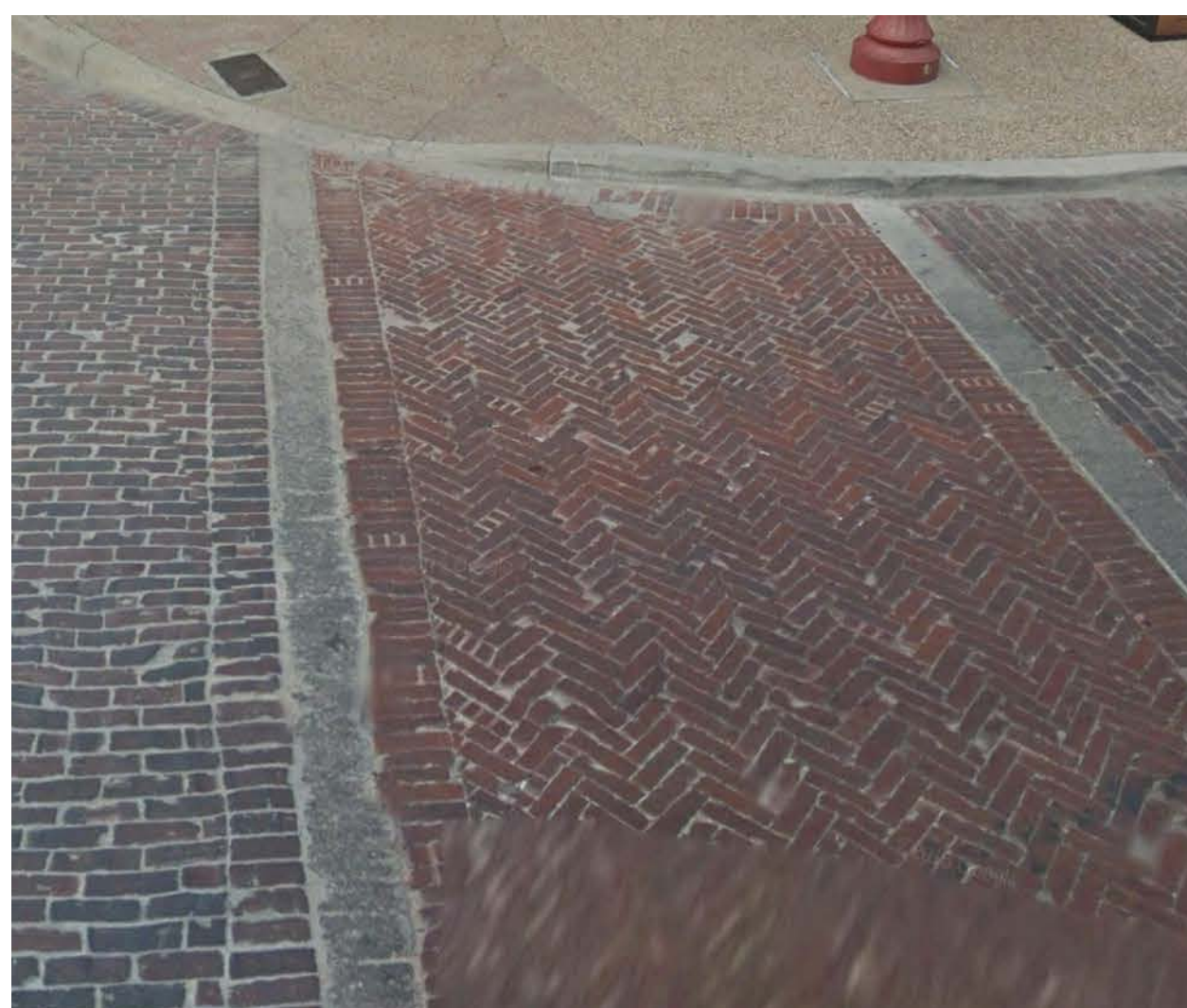
Limestone - Tumbled Pavers



Brick - Fan Pattern



Sandstone Paving



Brick - Mixed Patterns (Stockyards)



Limestone Flagstone Paving



Mixed Materials - Accent

Paving Intent

Paving is an important component of the canal pedestrian zone. Informal designs and patterns are encouraged, along with a mixture of materials, colors, and textures to create contrast and interest along the pedestrian walkway. Materials that reflect historic Texas and Fort-Worth architecture, such as brick, limestone, and flagstone, are highly favored; other materials, such as architectural concrete, may be appropriate as accent paving in specific areas. The walkway should not be strictly geometric, to the greatest extent possible within the right of way. Variation in the width and a meandering course are desired to create an aesthetic that is loose and organic, while long, uninterrupted, monotonous designs are discouraged. Paving materials should also be used to clearly define spaces, access to the waterfront, and access to various uses, such as plazas, restaurants, or building facades.

Guidelines & Precedent Images

1. Brick and Stone

- i. Brick and Stone are considered the primary paving materials in the Canal Pedestrian Zone. A minimum of 75 percent of paving must be composed of brick, stone, or other approved, non-concrete pavers.

2. Pedestrian paths should include variation in width, and be meandering in course

- i. Straight edges of more than 50 feet are discouraged
- ii. The path should vary between 5 ft and 8 ft, except when adjacent to patios or barge loading zones.
- iii. Paving should narrow to 5 feet when crossing under vehicular or pedestrian bridges to reduce bridge spans
- iv. Cut-outs and refuge areas are encouraged to allow pedestrians to enjoy views of the canal without blocking the walkway.

3. The pedestrian should be continuous along the canals and promote access to various buildings and uses along the canal.

4. Paving materials and patterns should reflect or complement building facades and spaces adjacent to the pedestrian walkway

- i. The materials should promote a strong relationship between the surrounding neighborhood and the canal walkway

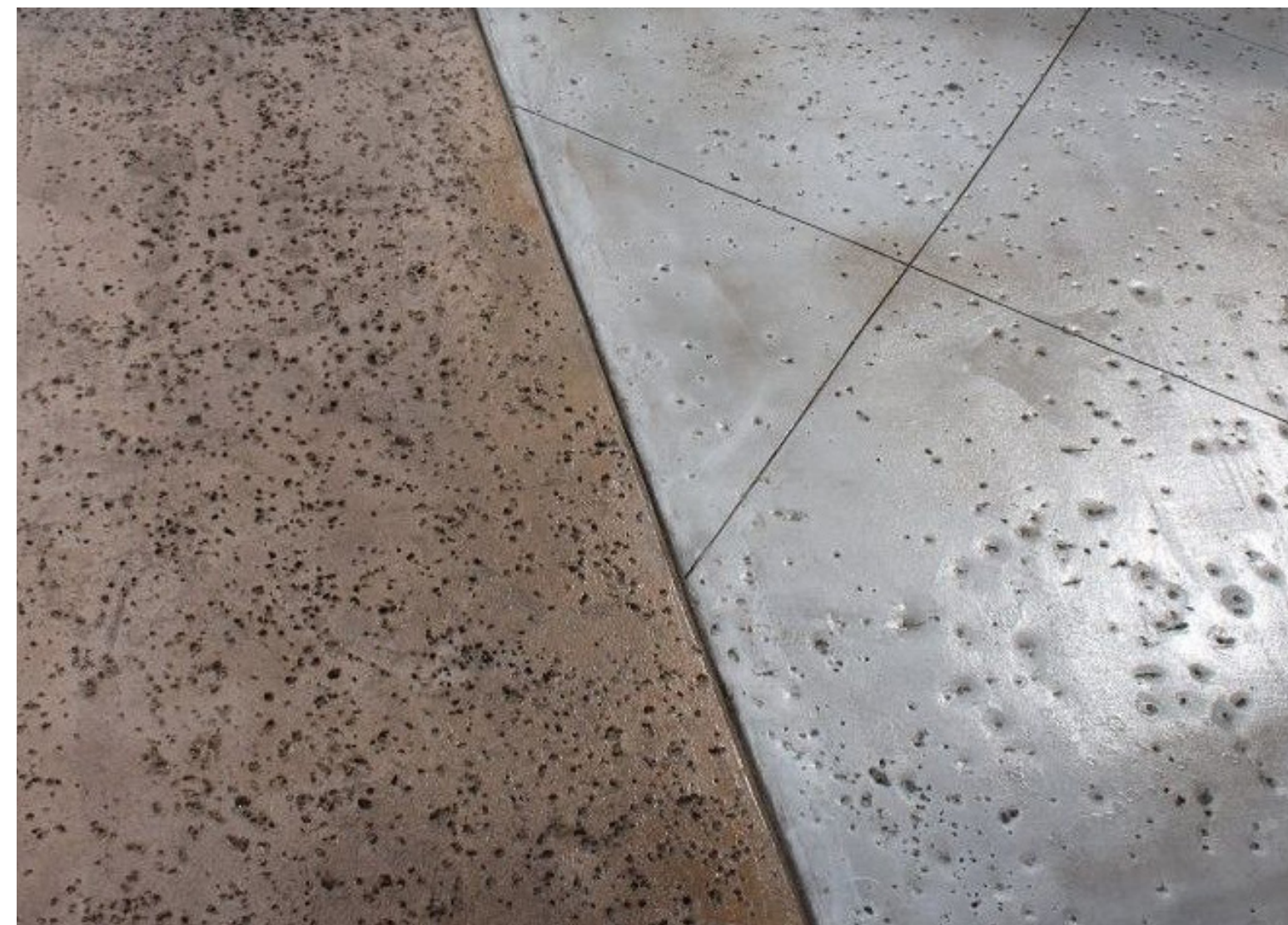
5. Use stormwater management techniques in paving areas and promote structural soil system (Silva-Cell) underlayment wherever possible when pavement is adjacent to canopy and shade trees

- i. In limited instances, tree grates may be used where insufficient space for shade trees is available adjacent to the pathway

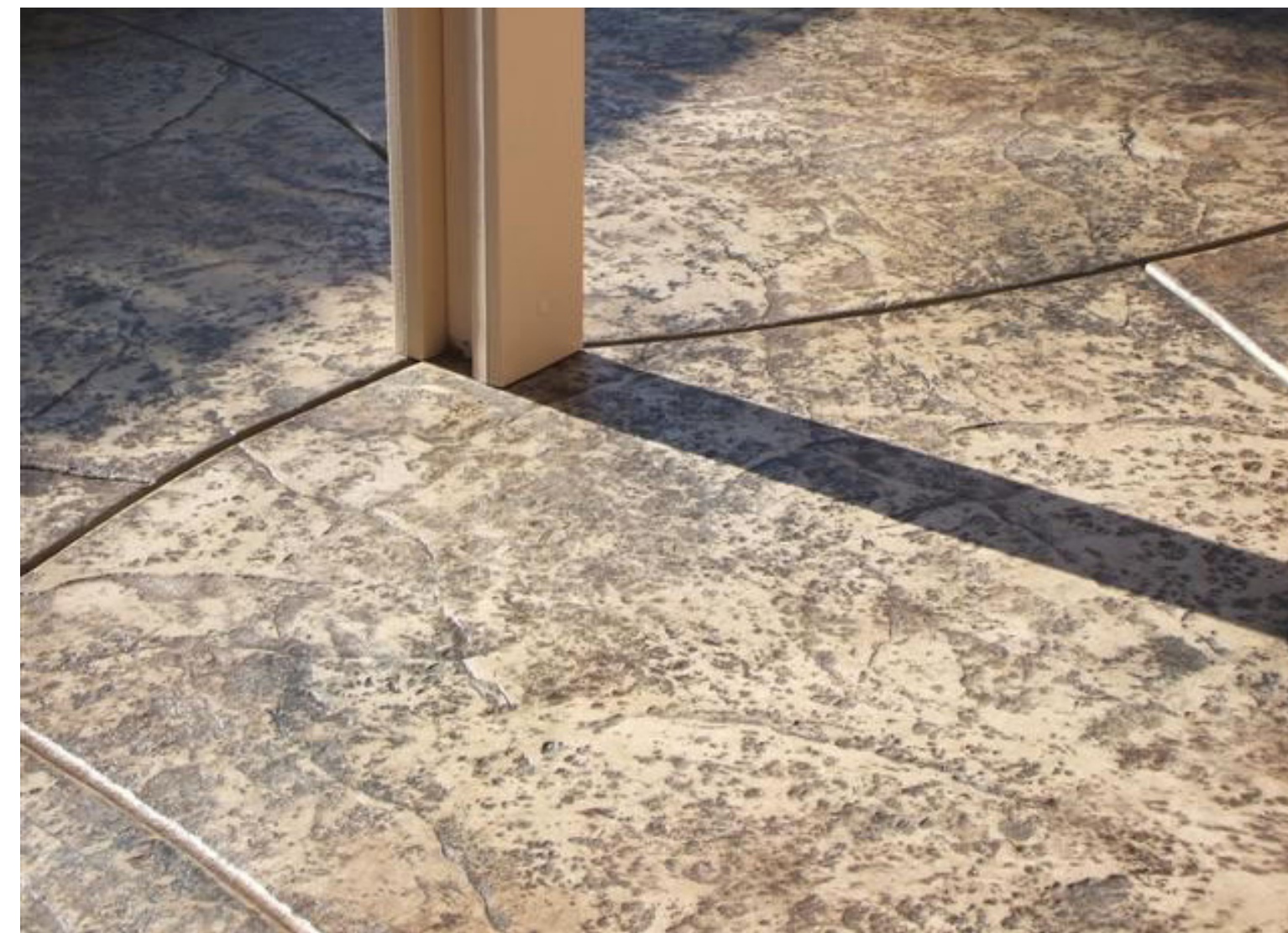




Limestone Wall with Concrete Walk



Rock Salt Finish



Acid Wash Finish



Sandblast Finish



Brick with Concrete Accents

Architectural Concrete Paving Intent

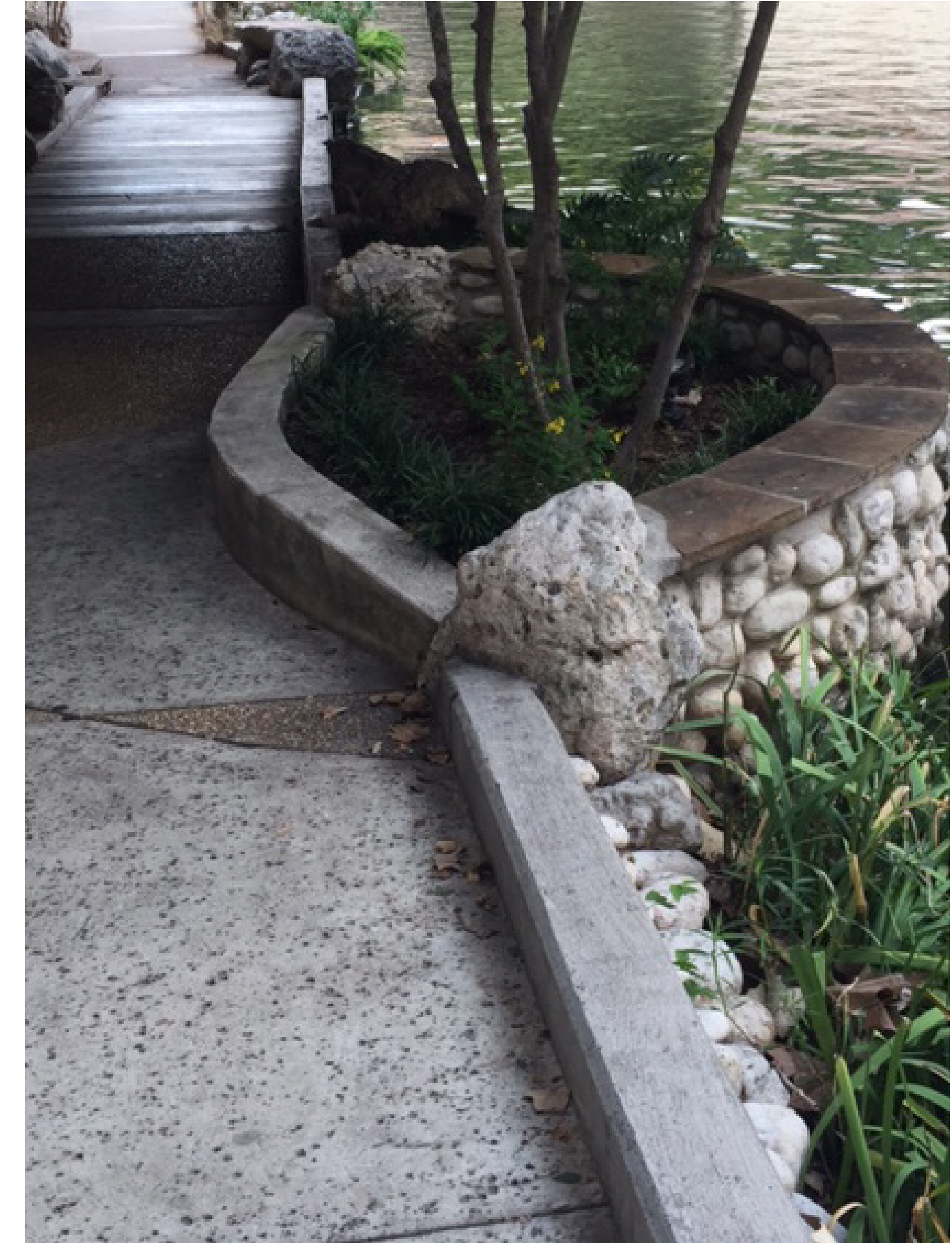
Concrete pavement is intended to serve primarily as an accent or transition zone material within the canal pedestrian zone. Concrete is a valuable material because of the flexibility it offers in form, texture, and color, and it is encouraged that any use of concrete be integrated with other materials such as brick, flagstone, or cobbles, or with other contrasting patterns and colors of concrete to create a more varied and interesting visual texture. All architectural concrete pavement should include various finishes that add aesthetic texture and interest. Appropriate examples might include rock-salt, sand blasting, or acid-wash finishes. Finishes that should not be used would be those where the concrete is treated to imitate other, more expensive materials. The canal is envisioned to embody an authentic, old world feel, which necessitates that any concrete paving must be thoughtfully designed to serve as a design accent



Recycled Concrete

Guidelines & Precedent Images

1. Brick and Stone Pavers are intended to be the primary paving material in the Canal Pedestrian Zone. Concrete should be used as a transition or accent paving material except in special cases
 - i. Concrete should comprise less than 25 percent of total pavement area
2. Concrete paving must conform to approved textures, and colors, and finishes as set forth in this guideline, and must be approved by the district.
 - i. Approved finishes include acid-wash, rock-salt, etching, sandblast, and broom finishes.
 - a. Exposed aggregate and stamped-finishes are not permissible in the canal pedestrian zone.
 - ii. When colored concrete is used, it should be stained with a topical color to compliment or coordinate with surrounding paving and buildings.
 - a. Earth tones and warm color pallets are highly encouraged
 - iii. Paving should contain adequate texture to prevent slipping when wet





Precast Concrete Seat Wall



Limestone Block Wall

Seat and Retaining Wall

Retaining walls and seat walls are an integral component of the canal. These elements delineate spaces, transition elevations, frame plantings and pathways, and offer places of respite to pedestrians along the path. These elements should generally be composed of traditional materials such as stone block, cobbles, or brick to emphasize an organic flavor, and other elements such as tile be incorporated to add flair and visual interest. Finishing materials in a rough texture, such as tumbled blocks or split-face stone, along with undulations in the walls and variations in height, are encouraged to help establish an informal character.



Mexican Cobblestone - Accent



Limestone Wall



Cobble Stone wall with Brick Coping



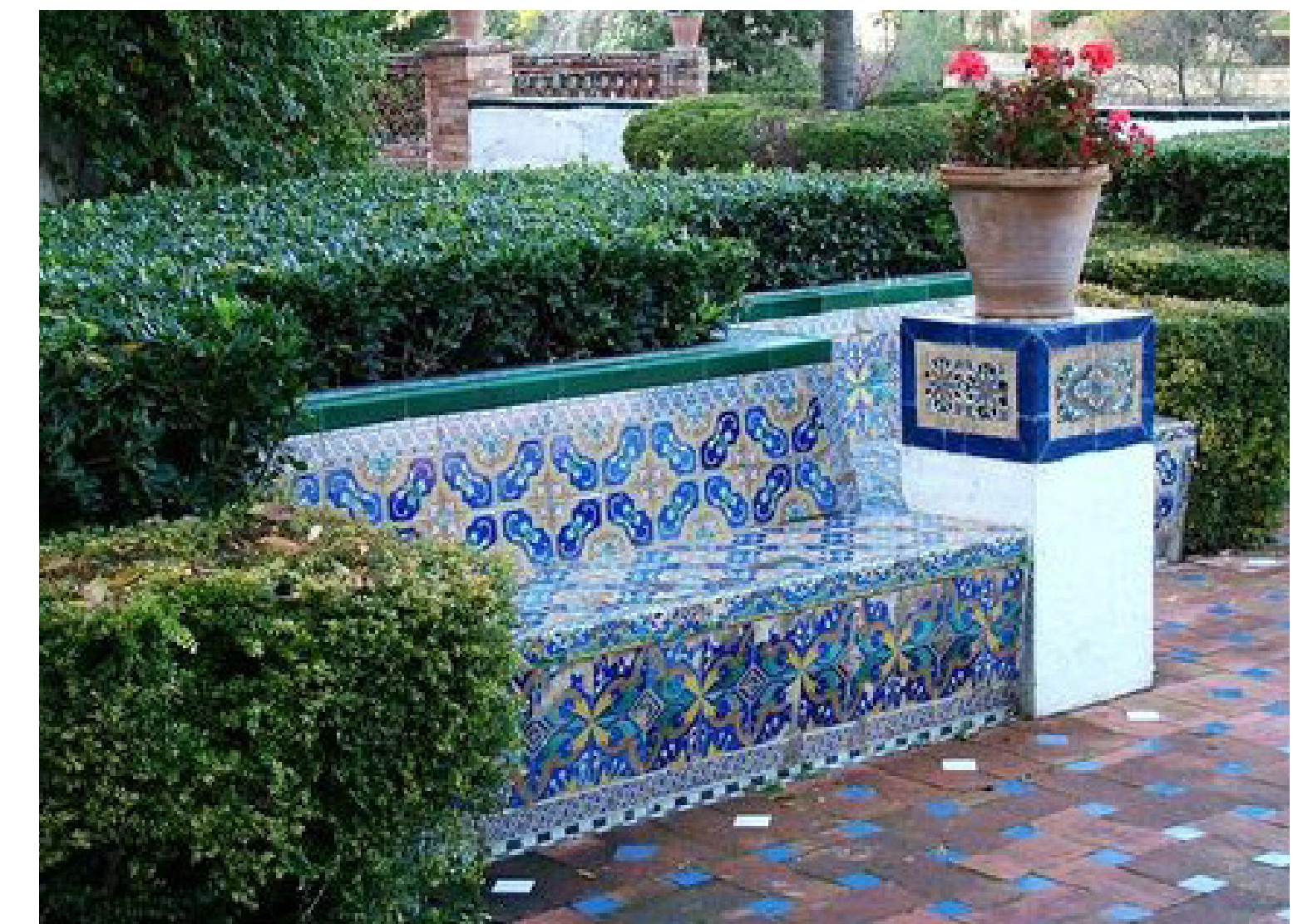
Undulating Limestone Wall



Brick Wall with Mexican Tile Accents



Wood and Stone Bench



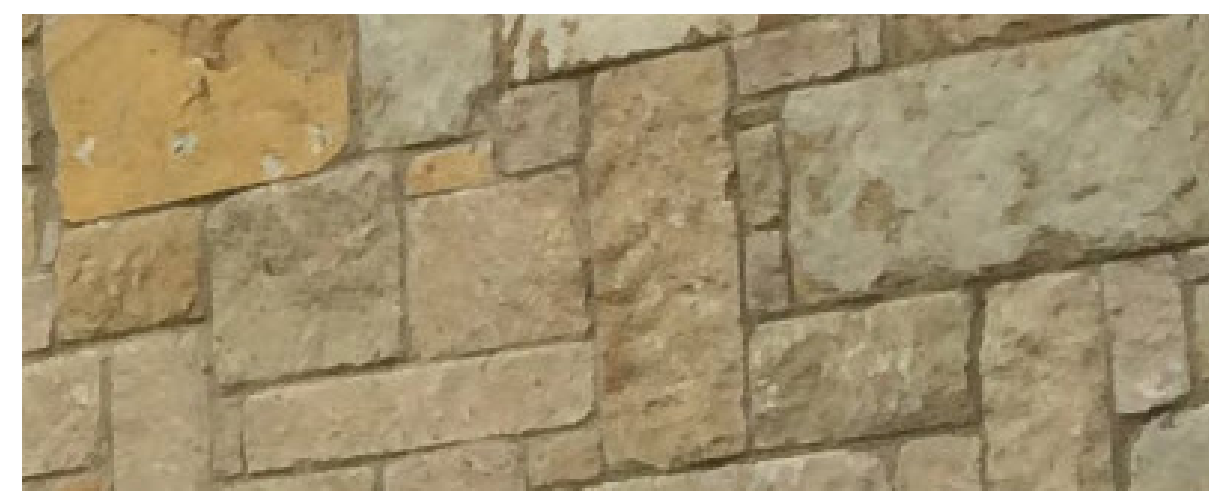
Mixed Brick Colors



Stone with Mortar



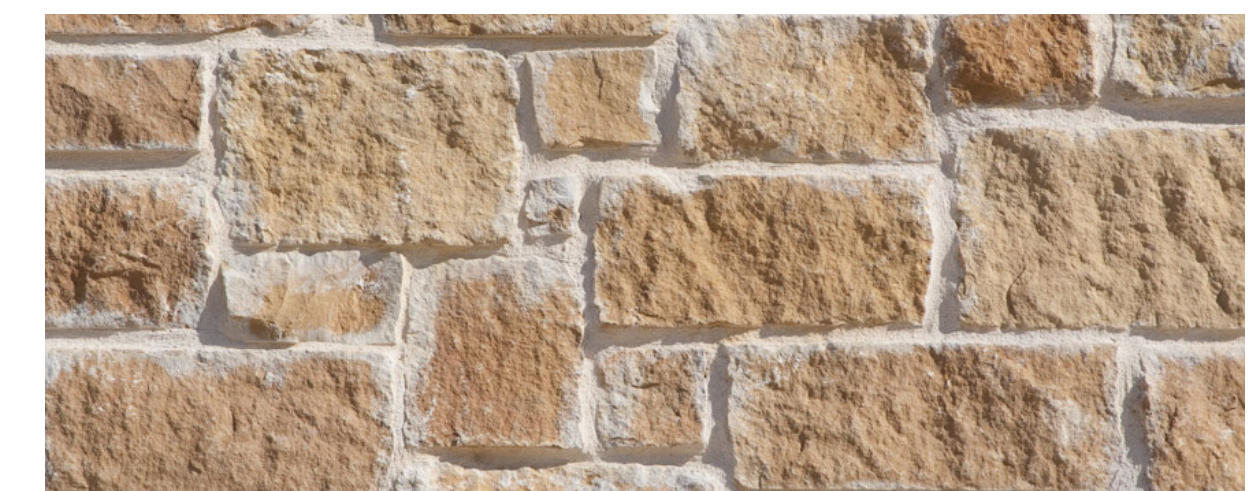
Dry Stack Stone



Lueder Limestone Natural Shell Finish



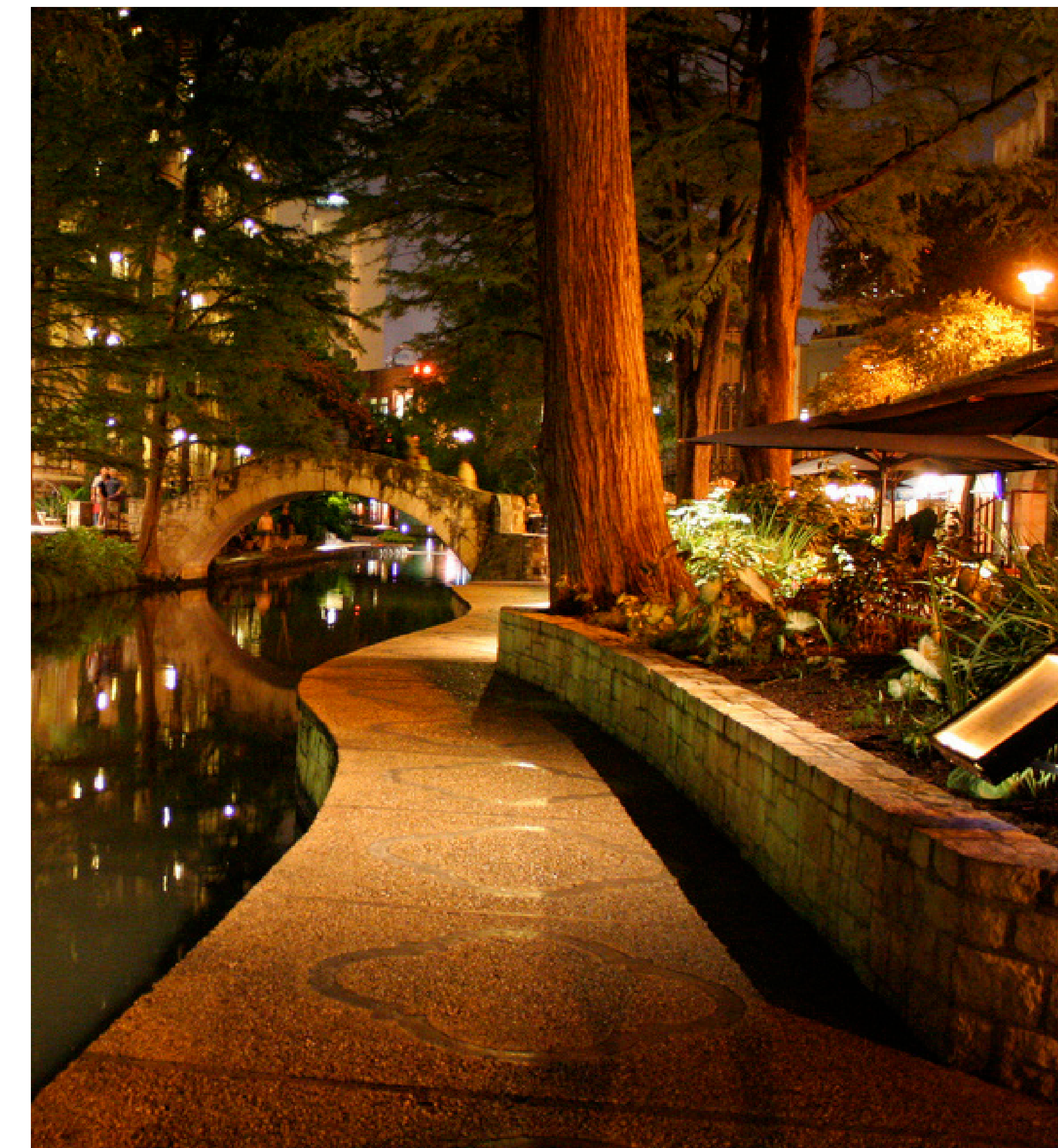
Lueder Limestone Finish



Lueder Limestone Caramel Finish

Guidelines & Precedent Images

1. Seat wall and retaining wall materials should complement adjacent paving and buildings.
 - i. Organic materials such as stone, cobbles, and brick are encouraged
 - ii. Materials used should have a rough appearance, such as tumbled stone or bricks or split face block.
 - iii. Design elements such as tile inlay and mixing of materials, such as wood benches on stone walls, is encouraged.
 - iv. Concrete is acceptable as a wall material, provided it has some type of textural treatment and a cap.
 - v. Elements such as fountains and artwork can be incorporated into walls to create focal points
2. Walls should have variation in height and materials to create visual interest
 - i. Walls cannot have expanses of more than 25 feet without undulation in course and variation in height to break up their length.
3. Planting beds held by retaining walls should be a minimum of 3 feet wide where trees are contained, and a minimum of 2 feet wide where no trees are present. Variation in the width of the bed is encouraged to create an informal appearance
4. Seat walls should have sufficient clearance so that users do not block the free movement of other pedestrians along pathways
 - i. Seats that are recessed back to create a sense of refuge are encouraged.





Boulder / Natural Edge Treatment



Stone Coping



Rough Stone Wall

Canal Edge / Coping Elements

The coping of the canal governs how pedestrians relate to the waterway. Variations in the coping are encouraged to create multiple ways for pedestrians to interact with the canal and create visual interest along the corridor. Materials used as coping along the corridor should contribute to the area's informal and organic aesthetic, with elements such as brick, stone, flagstone, or limestone block highly favored. Various elements such as fountains, planters, steps, or boulders should also be considered for incorporation wherever extra visual interest is required. Changes in condition should be signified through changes to colors, textures, or materials, such as when different uses or buildings are adjacent to the pedestrian path. In areas where pedestrians are not interacting directly with the water, the coping should serve as a visual edge that enhances the pedestrians sense of physical security. Where more interaction is desired, a step down edging can be incorporated. This could take the form of an actual step down, or a naturalistic boulder edge for sitting and climbing.



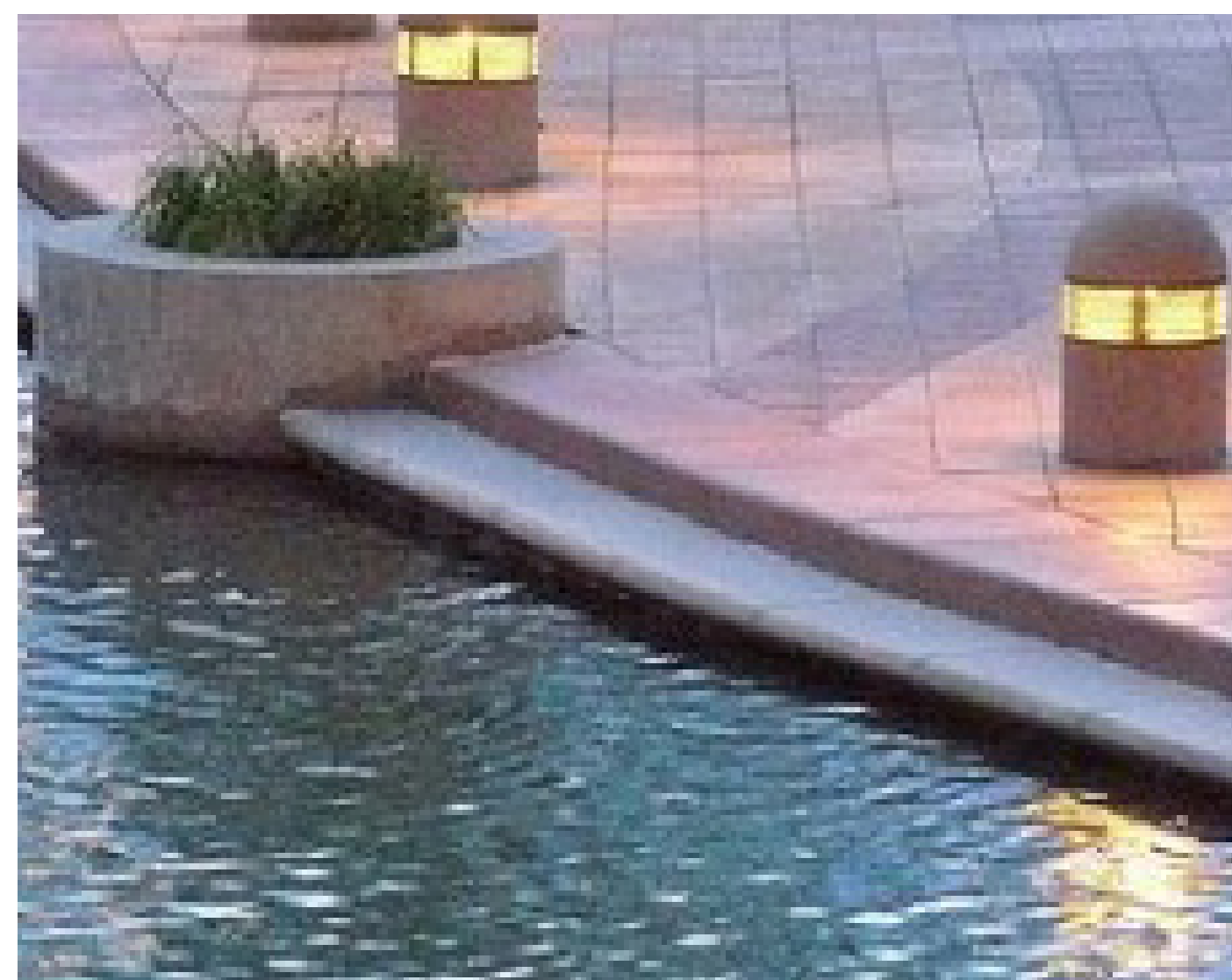
Corten Edging



Bioretention Drainage



Rough Stone Block Wall / Coping



Step Down Coping



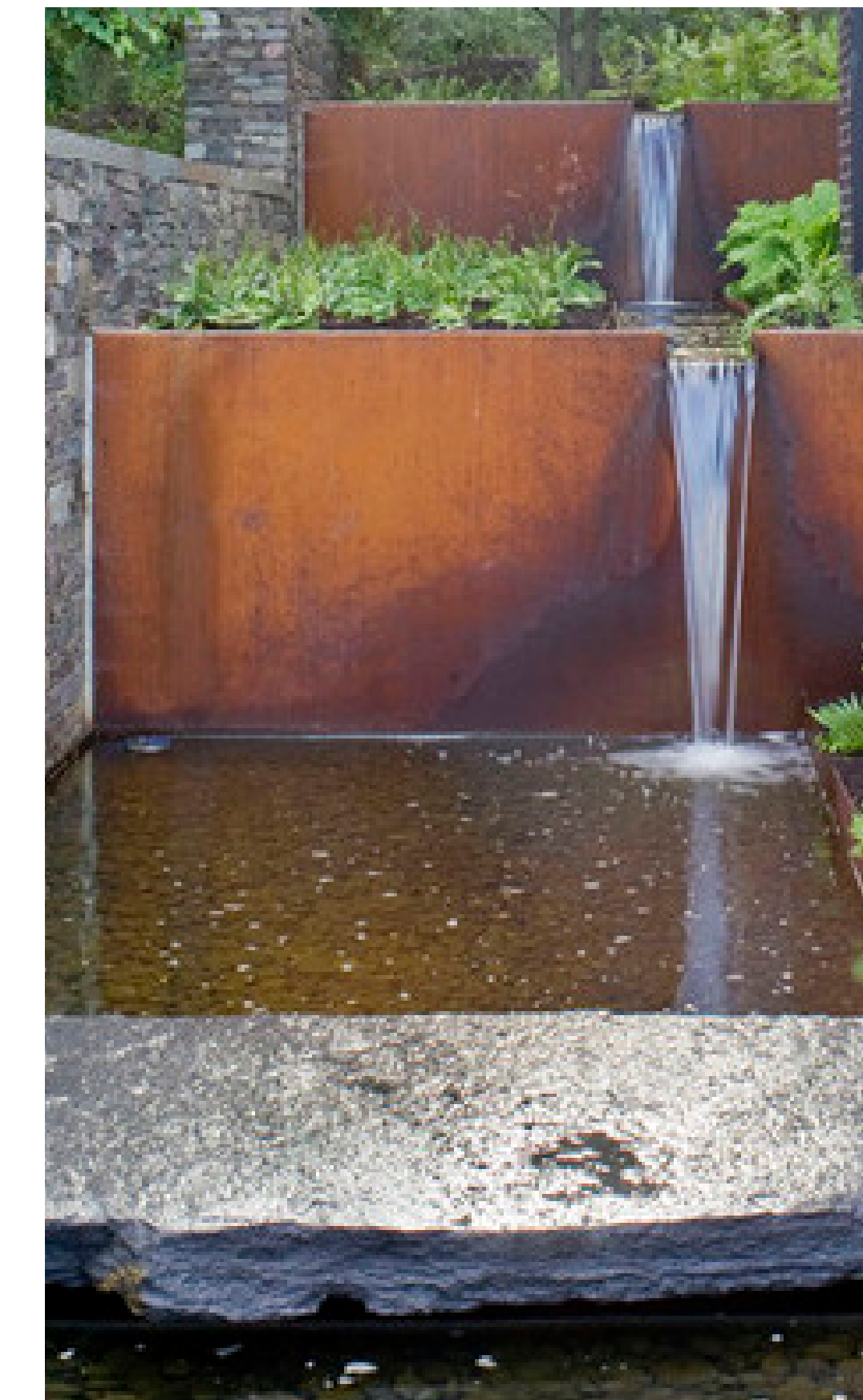
Mosaic Edge Treatment



Rough Flagstone Coping



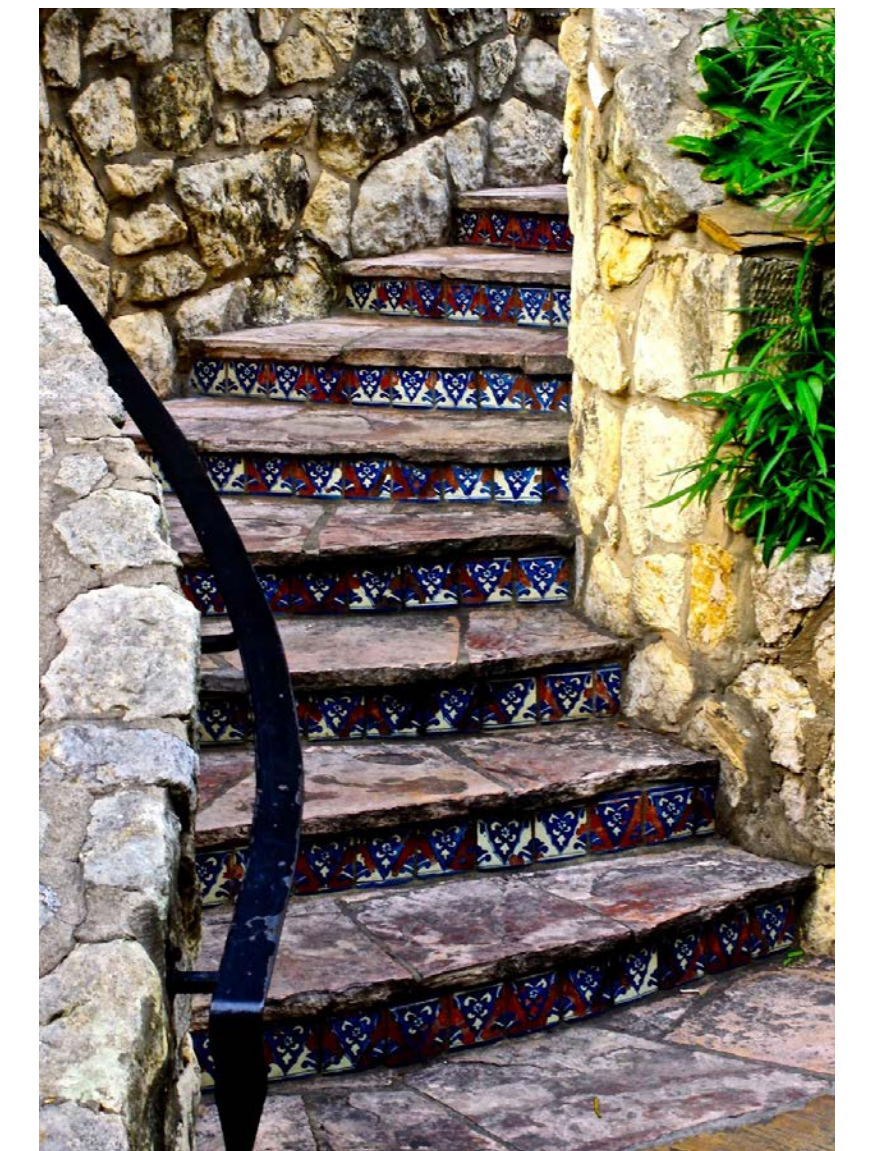
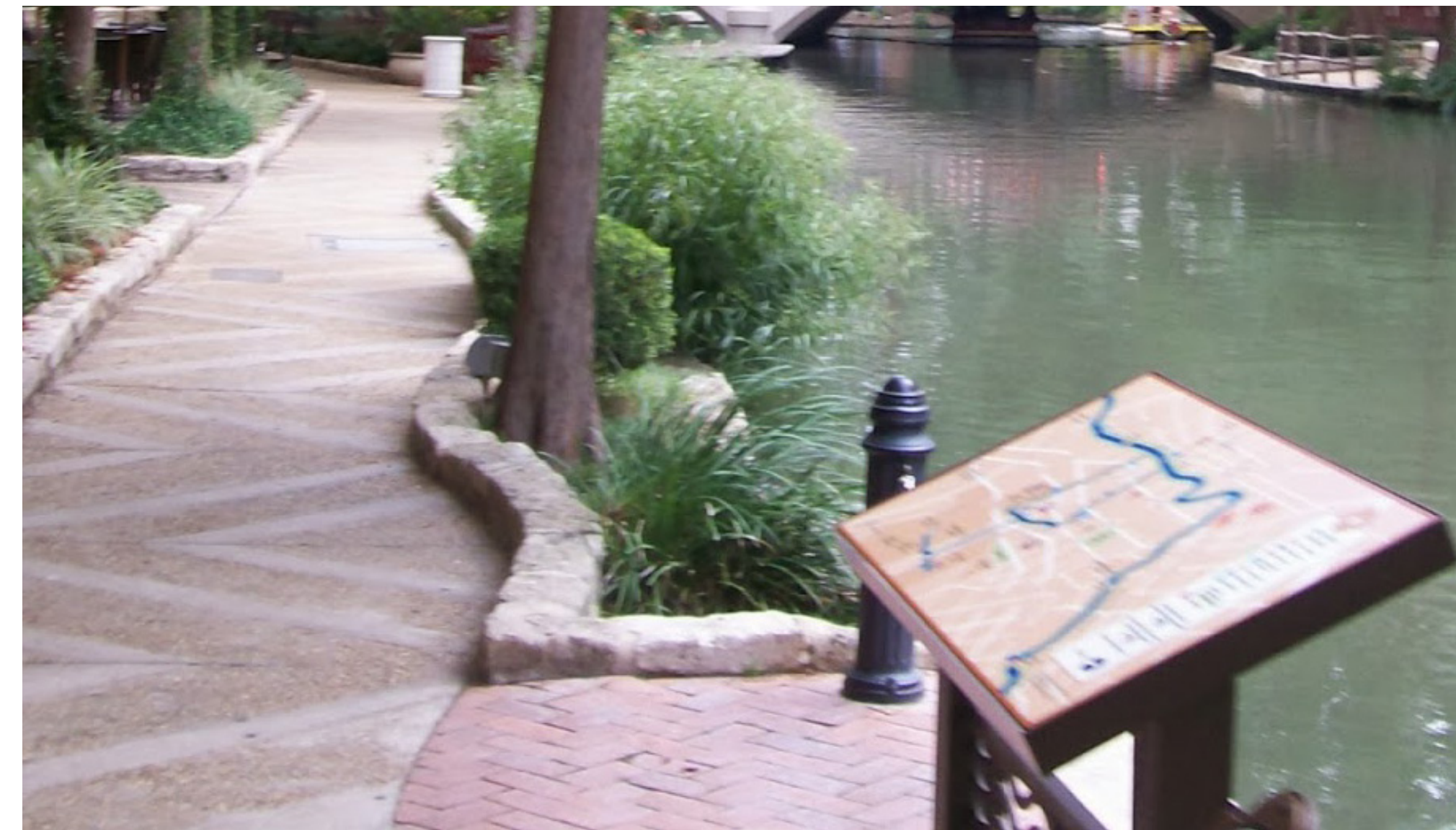
Raised Limestone Coping



Fountain Edging

Guidelines & Precedent Images

1. A pedestrian edge treatment or coping shall be used along the edge of the canal where the pedestrian path directly abuts the canal waterway
 - i. Edge of sidewalk shall be cantilevered at least 4 inches over the edge of the water wherever there is no direct interaction between the pedestrian and the water in order to enhance the pedestrian's sense of connection to the water, and create attractive shadow lines.
 - ii. The coping can be either flush or raised where interaction with the water is not desired
2. Materials with a "natural" look are encouraged to create a rustic, informal aesthetic.
 - i. Preferred materials include brick, decorative Mexican tile, flagstone, stone block, and other similar natural elements
 - ii. Concrete may be used as an accent material that should comprise no more than 20 percent of the coping length
3. Where interaction with the water is desired, the coping should be stepped down to create areas of refuge out of the line of traffic along the pedestrian path.
 - i. Coping should be at least 24 inches wide in areas that step down to the water
 - ii. In areas where dining or street furniture abuts the canal, a minimum 42" railing is required to be anchored in the coping
4. Planters placed between the pedestrian walkway and the canal edge at periodic intervals are encouraged to break up the edge of the walkway and provide planting space for shade trees.
5. Creativity and flexibility is encouraged; unique edges and treatments add visual interest to the corridor
 - i. Unique elements such as fountains, small boulders, and plantings are encouraged along the edge of the pedestrian walkway.





Tree Grate (Special Conditions)



Cedar Elm - Accent



Savannah Holley - Ornamental



Chaste Tree - Ornamental



Bald Cypress



Montezuma Cypress



Pond Cypress



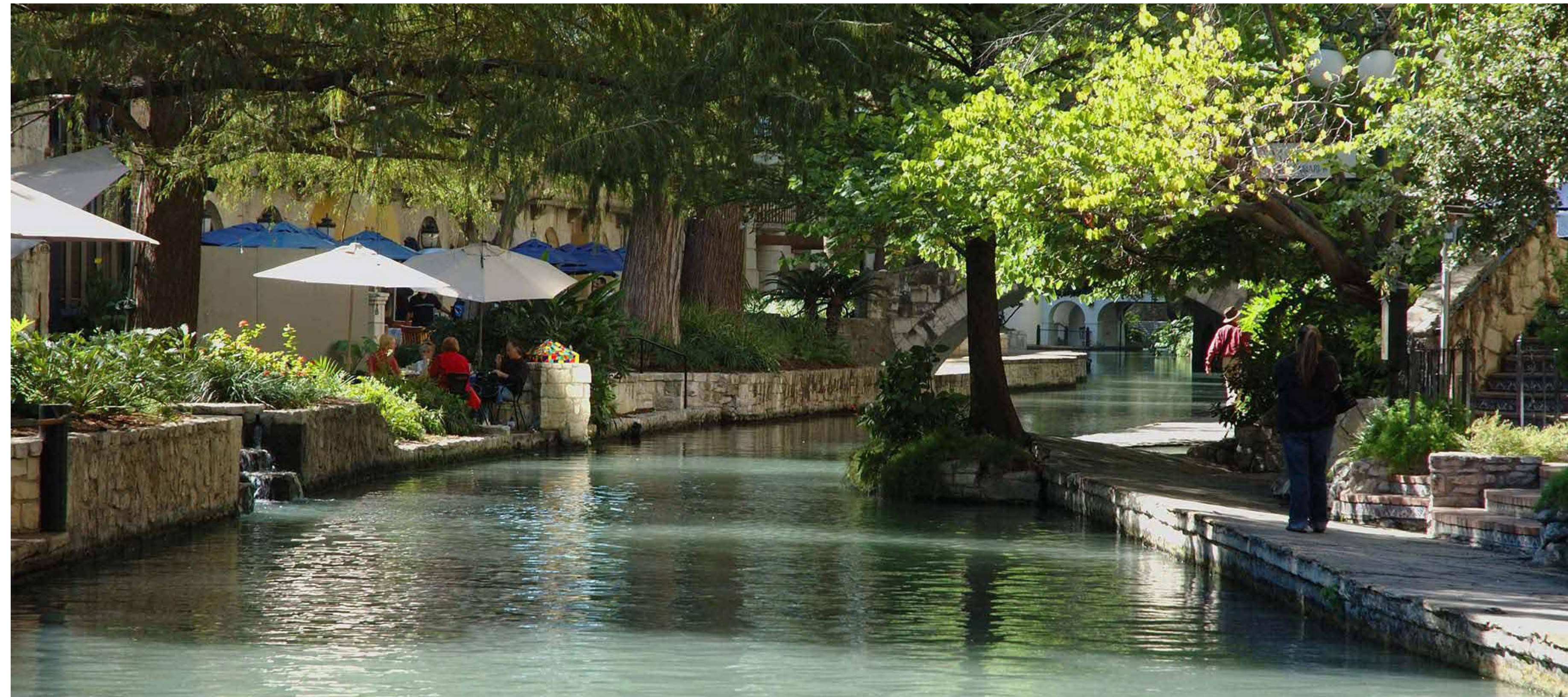
Magnolia - Majestic Beauty - Accent

Planting Pallet

This section is intended to guide the planting of trees and landscaping along the canal to provide a full shade canopy and provide a unified sense of place for the corridor. Trees should be given access to the maximum amount of soil possible, which is necessary for the development of a strong root system to improve tree health, increase longevity, and reduce maintenance. Plantings and landscaping should be informal in nature; the design intent is to create a space that feels as if it has evolved and developed over many years. Strict geometry and rigid lines in plantings should be the exception rather than the rule, and tree grates should be avoided except where space restrictions necessitate their use to provide adequate shade canopy over the canal pedestrian zone. Decomposed granite could be used as an alternative to grates in confined areas. The most important landscaping goal is provide a strong canopy that provides shade and a sense of enclosure for the site.

Guidelines & Precedent Images

1. Landscaping shall use the approved tree species set forth in this section.
2. A minimum of 20 percent of the R.O.W. outside the canal footprint will be set aside as planting area.
3. Canopy shade trees shall be provided a maximum of 30' on center except where vehicular bridges or utility lines crossing over the canal make this standard unfeasible.
 - i. Shade Trees shall be a minimum of six-inch caliper when planted.
 - ii. A minimum of 75 percent of Canopy Shade trees must be a designated preferred species (Pond Cypress, Bald Cypress, and Montezuma Cypress).
 - iii. Non-preferred Canopy Shade Tree species should be reserved for use in special areas such as patio areas, parklets, entrances/exits, or other specific areas as approved by the district.
4. Ornamental trees shall be provided as needed within the Canal PZ, and are encouraged to be used around seating areas where low limbs will not inhibit pedestrian flow.
 - i. Ornamental trees shall be multi-trunked, with a minimum of 3 canes.
5. Trees shall be planted in open planters, except where space restrictions make this requirement unfeasible, as approved by the district on a case by case basis.
 - i. Where open planters are impractical and tree grates are required, such grates should be constructed in a style comparable to the examples provided in these guidelines; decomposed granite may be used in lieu of tree grates where practical.
 - ii. Sylva Cell systems may be incorporated under pavement adjacent to tree grates and planters to provide sufficient space for root growth and drainage, as approved by a registered Landscape Architect or Certified Arborist.
6. Additional landscaping, where provided, such as shrubbery, ornamental grasses, groundcovers, and herbaceous perennials and annuals, shall be informal in nature and consist of non-symmetrical plantings that contain a variety of species to provide year-round visual interest. Species used shall comply with the existing approved plant list for the Panther Island District.
 - i. The use of native species and heat and drought tolerant species is encouraged wherever possible to reduce maintenance.



Pedestrian R.O.W.

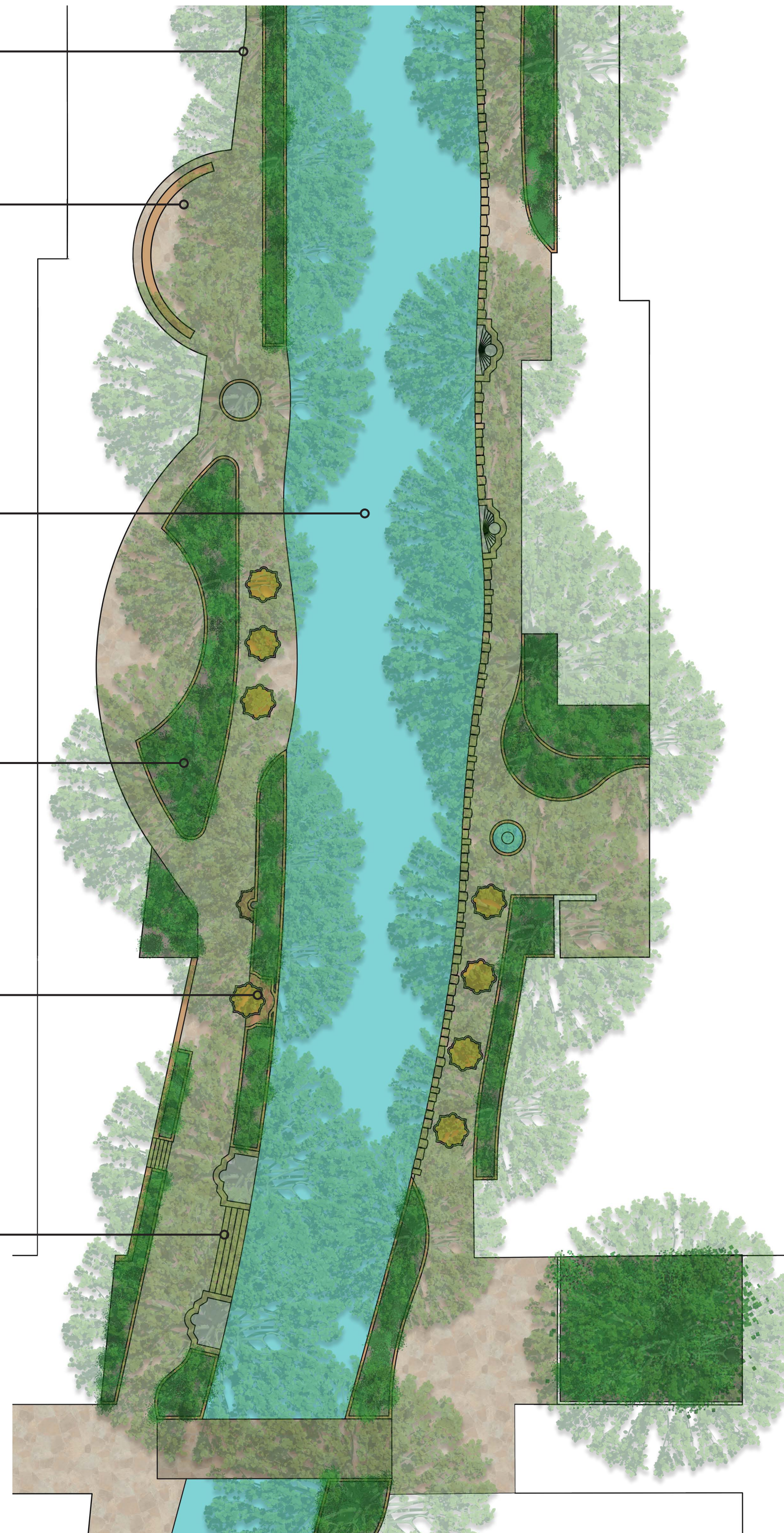
Plaza

Canal

Tree Planter

Decorative Paving Element

Step-Down in Coping



Paving with Southwestern Forms

Appendix

This paving plan is shown as an example of how traditional and southwestern forms, as described in this document, could be used to inform new design along the canal. It is not intended to serve as a guideline for design, but merely as a reference for the reinterpretation of these forms into the canal pedestrian area to create a strong sense of place



Mexican Fountain - Example of a southwestern form reinterpreted in as a paving design in the plan to the left

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