



URBAN DESIGN GUIDELINES

TAMPA INTERSTATE STUDY

FLORIDA DEPARTMENT OF TRANSPORTATION

DISTRICT VII

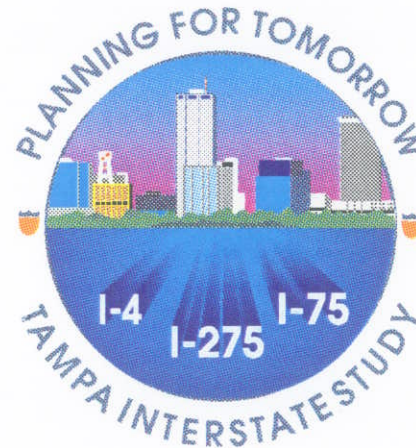
URBAN DESIGN GUIDELINES

TAMPA INTERSTATE STUDY

W.P.I. No. 7140004

State Project No. 99007-1402

F.A.P. No. IR-9999(43)



Prepared For

FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT VII

Prepared By

GREINER, INC.

Final - December 1994

INTENT OF THE GUIDELINES

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From the inception of the Tampa Interstate Study Master Plan project, visual quality and aesthetics have been an integral component of the planning process. Goals and objectives outlined in the Master Plan are as follows:

- To improve the overall aesthetics and unity of the interstate system;
- To establish a hierarchy of areas for special visual emphasis; and
- To develop a palette of man-made and natural design elements to be used in the implementation of the project.

The Urban Design Guidelines for the Tampa Interstate Study have been developed to minimize adverse visual and auditory impacts to both users of the freeway and land use neighbors adjacent to the system. The goal of these guidelines is to ensure a consistent, aesthetically pleasing treatment for design and to minimize visual effects throughout the limits of the interstate study.

The objective of these guidelines is to provide the design team guidance on specific aesthetic requirements contained in approved environmental documents, the Section 4(f) Evaluation and Section 106 commitments. It is emphasized that the aesthetic requirements have been agreed upon by federal, state and local agencies as appropriate and in some areas serve as mitigation. These measures must be followed and documented as are any other project criteria necessary for project implementation approval by the Federal Highway Administration.

While these guidelines present concepts and examples, their goal is to encourage the design team to exercise fully their own talents and intuition in shaping the aesthetic experience of any design. The Urban Design Guidelines should be used to provoke, not to inhibit, design expression. It should be used to facilitate observation, develop an awareness of aesthetic responses and evaluate the relative

success of alternative solutions. Although sharing the common framework of the interstate corridor, every project is unique. Only through the design team, with intimate project knowledge and first-hand participation in the design evolution, can the intent and objectives of this document be realized.

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1.0

INTRODUCTION

1.0 INTRODUCTION

In 1989, the Tampa Interstate Study team produced a plan for the proposed reconstruction of 37 miles of Tampa's interstate system. This multi-modal transportation project, referred to as the Tampa Interstate Study (TIS) Phase I Master Plan, consisted of the full range of master planning and impact analyses for several reconstruction alternatives to safely accommodate transportation needs in the year 2010. The TIS Master Plan was approved by the Federal Highway Administration (FHWA) in November 1989. The limits of the study include portions of I-275, I-75 and I-4, as illustrated on Exhibit 1.1. The Master Plan study area was divided into 6 geographic study segments and 20 design segments for planning and analysis. The design segments are shown on Exhibit 1.2 and discussed in Appendix A. The FHWA-approved TIS Master Plan concept is documented in the Florida Department of Transportation's (FDOT) Master Plan Report (August 1989).

From the inception of the project, visual quality and aesthetics of the interstate expansion have been an integral component of the Master Plan process for both the system user and the adjacent land area. Goals and objectives outlined in the Master Plan are as follows:

- To improve the overall aesthetics and unity of the interstate system;
- To establish a hierarchy of areas for special visual emphasis; and
- To develop a palette of man-made and natural design elements to be used in the implementation of the project.

The intent of the Phase I Master Plan was to document visual quality and provide the framework for tempering design decisions so that these goals and objectives are not overlooked or compromised in the subsequent phases of the project. While aesthetics is an integral part of functional roadway design, no design features should be proposed that would interfere with current roadway safety standards and criteria. The TIS project is included in the Hillsborough County MPO 2010 Long Range Transportation Plan, adopted September 10, 1991.

Phase II of the TIS began in May 1990 and involves the environmental documentation necessary for state and federal approvals and funding for those concepts approved in Phase I. Environmental documentation completed to date is discussed in Appendix B. The Environmental Impact Statement portion of the TIS includes the Section 106 and Section 4(f) analyses, which address mitigation for impacts on cultural, historic, and recreational resources. A Memorandum of Agreement (MOA), developed as part of the Section 106 process, will be signed by coordinating and cooperating agencies to establish the appropriate mitigation required to be carried forth in subsequent project phases. The Urban Design Guidelines will be incorporated as part of the MOA, which is a legally binding agreement. The reality of such a complex project is that a multitude of consultants will be involved with the design of the project. This underscores the importance of providing a concise set of guidelines that will ensure integration and continuity of design standards throughout the different contracts so the overall aesthetic goals of the interstate reconstruction are achieved.

The design documentation, or final design for the proposed improvements, will be accomplished in Phase III of the TIS. Selected design consultants will complete bid documents by geographic segment as outlined in the Master Plan. At designated submittals, design consultants will be required to address aesthetic issues in writing, detailing compliance with the Urban Design Guidelines. Presentations to a Design Review Committee will be required, at specified intervals of project completion, to ensure compliance with the Urban Design Guidelines and coordination with adjacent design segments.

Phase IV of the TIS will involve right-of-way acquisition, relocation, and construction of the proposed improvements. Purchase of additional properties necessary for the proposed interstate reconstruction, as well as the construction of the improvements, will be completed by design segment.

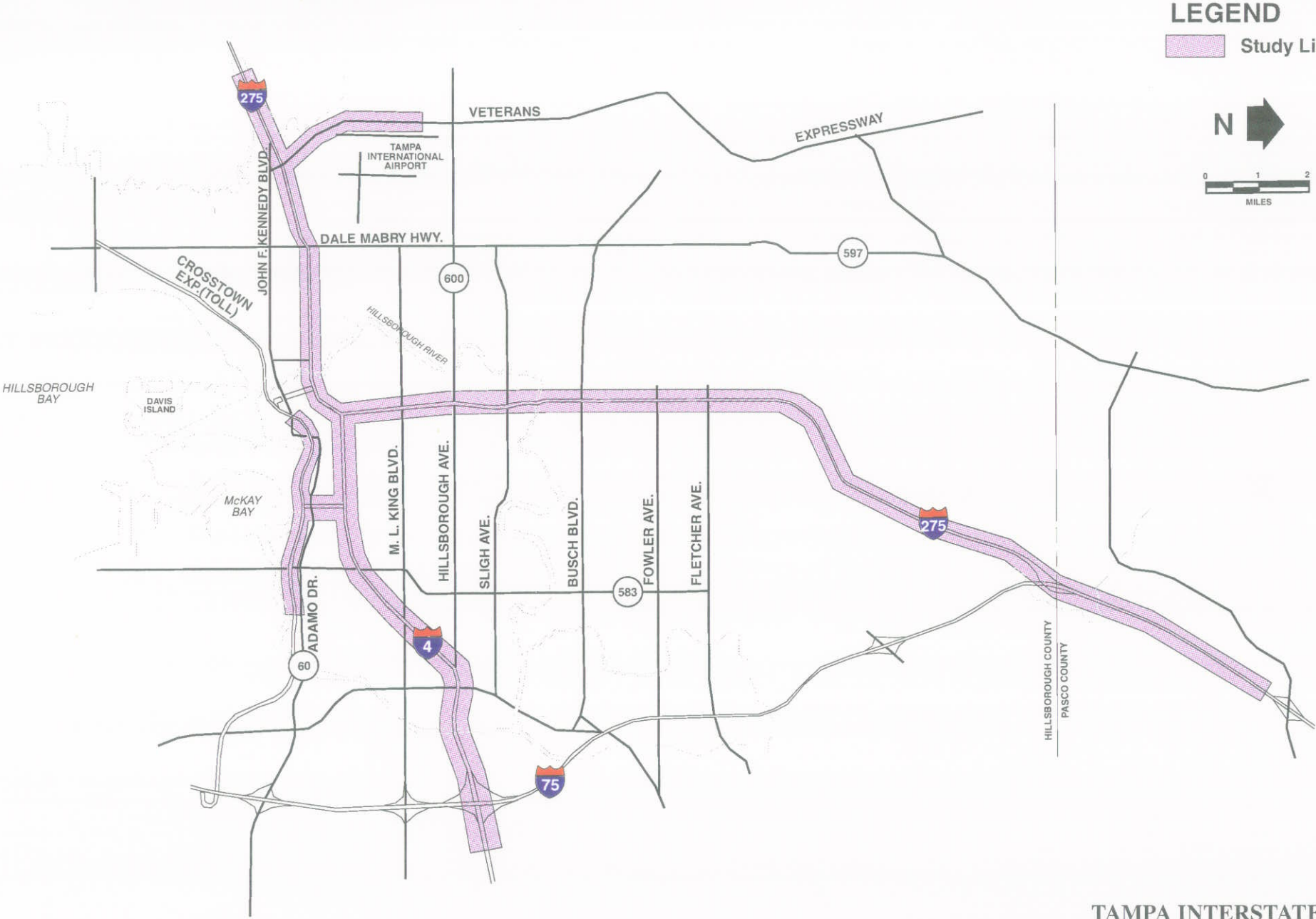


EXHIBIT 1.1
TAMPA INTERSTATE STUDY LIMITS

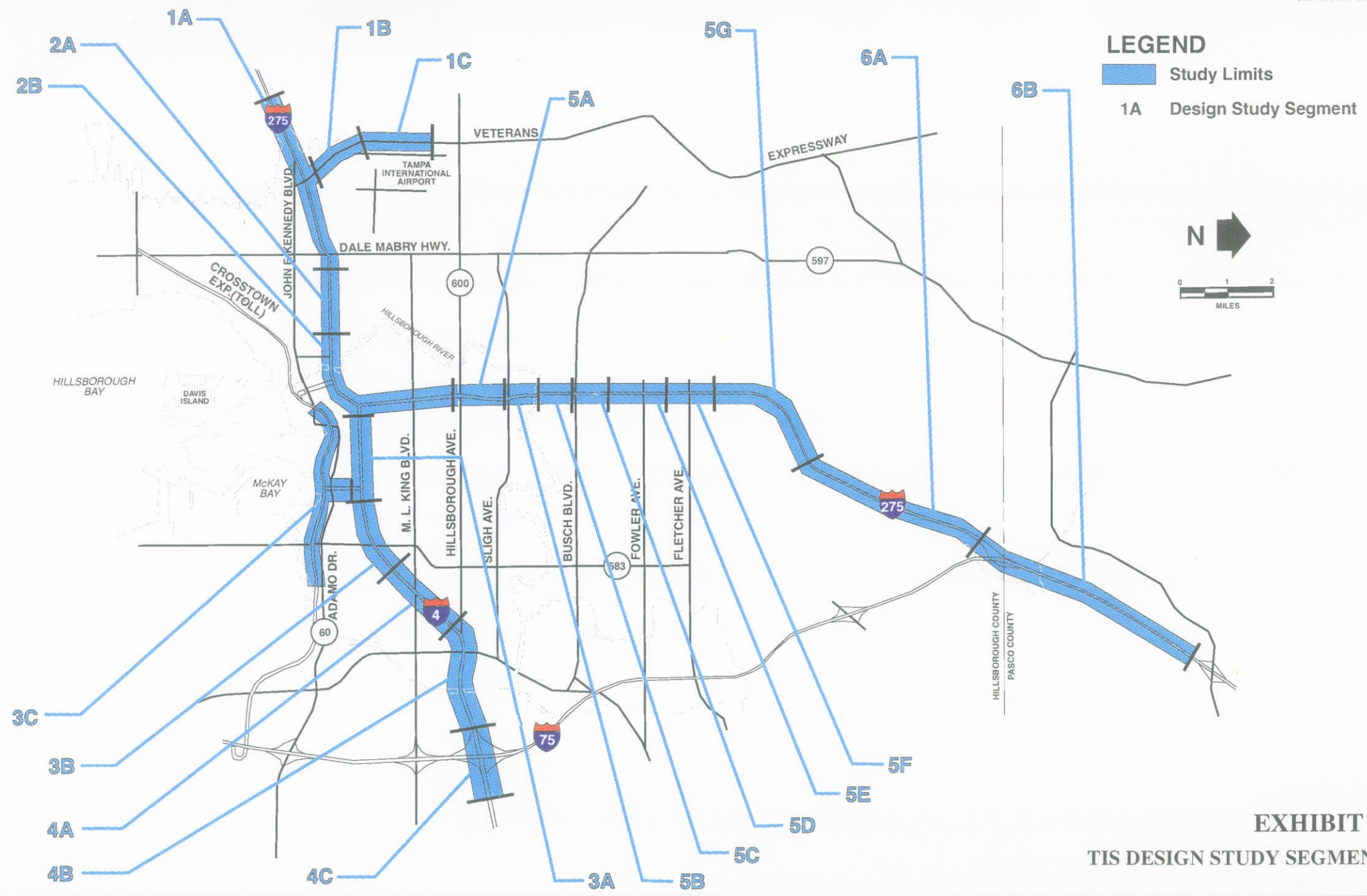


EXHIBIT 1.2
TIS DESIGN STUDY SEGMENTS

2.0

PURPOSE OF URBAN DESIGN GUIDELINES

2.0 PURPOSE OF THE URBAN DESIGN GUIDELINES

The TIS Urban Design Guidelines have been developed to minimize adverse visual and auditory impacts to users of the freeway and to land uses adjacent to the system. The goal of the guidelines is to ensure a consistent, aesthetically pleasing design and to minimize adverse effects in the project area. A description of the various levels of treatment throughout the 37-mile corridor is provided in Section 3.2 of this document.

An objective of these guidelines is to provide the designer with specific aesthetic requirements relative to the approved environmental documents, Section 4(f) Evaluation and Section 106 commitments and requirements. It should be noted that the aesthetic requirements have been approved by federal, state, and local agencies as appropriate mitigation of adverse effects in some design segments. These specific mitigation measures must be followed and documented as any other project criteria and commitment.

2.1 AESTHETIC DESIGN THEME

It is the intent of this document to refine the general design concepts and performance standards established in the Master Plan, and to delineate requirements for conformance to an aesthetic design theme and criteria. These criteria are for use by the government agencies responsible for maintaining the design process, by the professional design consultants responsible for preparing final design documents, and for the construction administration of the design segments.

Because the interstate reconstruction is scheduled for implementation by individual design segments over an estimated 20-year time frame, coordination to ensure consistency and continuity among adjacent design segments is essential to the long-term success of the project. This coordination will require continued agency liaison efforts throughout the duration of the project.

2.2 MINIMIZING VISUAL IMPACTS

In addition to improving the overall unity and visual quality of the project, the Urban Design Guidelines address specific performance standards for unique areas within the corridor. These areas include West Tampa, Ybor City, Seminole Heights and Tampa Heights, recognized for their historic resources, and downtown Tampa and Westshore, which encompass several culturally significant and historic resources. These special design areas are discussed in Section 3.3. These areas are the subject of environmental analysis and documentation as required by Section 106 of the National Historic Preservation Act and Section 4(f) of the Federal Highway Act/Department of Transportation Act of 1966 (in conjunction with the National Environmental Policy Act).

The Section 106 process, as illustrated on Exhibit 2.1, considers the potential effects of proposed actions on historic properties. In addition to addressing such direct impacts as physical destruction, isolation or alteration of setting, and neglect of historic properties, the Section 106 evaluation criteria of adverse effects includes alteration of visual, audible or atmospheric elements to a property's setting. Consultation among the State Historic Preservation Officer (SHPO), the Federal Highway Administration (FHWA), and the Advisory Council on Historic Preservation and the FDOT will result in a Memorandum of Agreement (MOA), which will outline agreed upon measures that will reduce, avoid, or mitigate adverse effects. The City of Tampa and the FDOT will be concurring signatures to the MOA. Therefore, the visual components of the urban design elements in the area of potential effect as outlined in these Urban Design Guidelines will serve as mitigation measures for the negative impacts created by the proposed interstate improvements.

Section 4(f) protected lands impacted by the project include historic sites and publicly owned properties used for parks and recreational facilities. Proposed actions which may directly or indirectly impact such properties are subject to the Section 4(f) process. Direct impacts include property acquisition for additional right-of-way and access to the facilities. Indirect impacts include, among other elements,

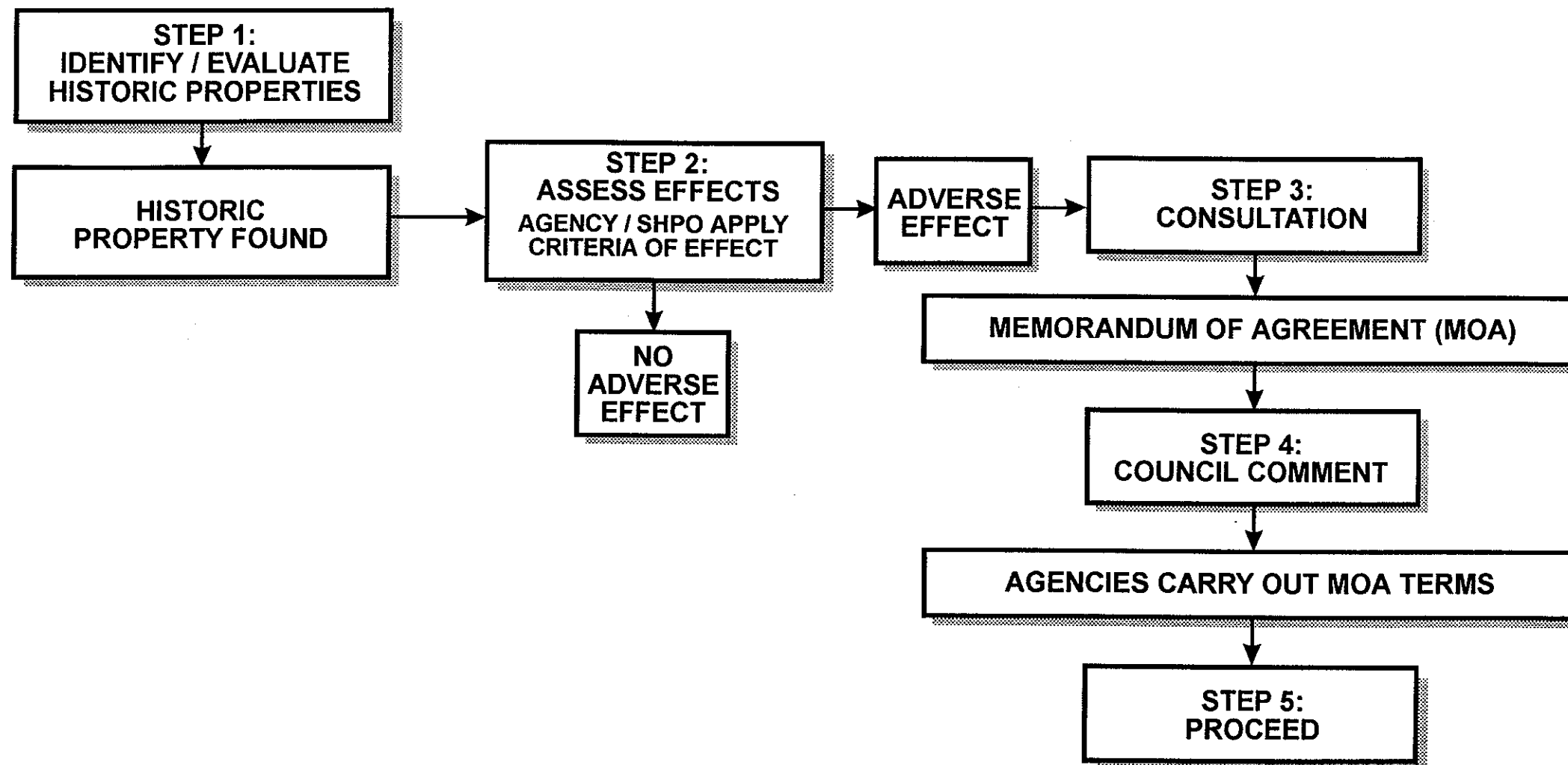


EXHIBIT 2.1
SECTION 106 PROCESS

visual aesthetics and noise. Similar to the Section 106 concerns, the Urban Design Guidelines are intended to minimize adverse indirect impacts to Section 4(f) properties in the vicinity of the proposed interstate improvements.

Due to the small size of parcels in many locations, right-of-way for the interstate improvements in these areas will be acquired by parcel. The remainder parcels will be available for aesthetic treatments outlined in this report to be a "good neighbor" to the surrounding community. No partial parcels will be left which would be unusable by the property owner due to code or setback requirements.

3.0

DESIGN THEME AND AREAS OF EMPHASIS

3.0 DESIGN THEME AND AREAS OF EMPHASIS

3.1 DESIGN THEME AND PRIORITIES

As stated in the TIS Master Plan Report, four urban design objectives were established for the project:

- To create a strong positive image of the Tampa metropolitan area,
- To provide continuity of design components within the interstate system,
- To design the interstate system to be in harmony with the character of the Tampa area, and
- To make using the interstate system a safer and more pleasant experience.

In developing a comprehensive design theme which reflects these objectives, physical landmarks and cultural aspects of the Tampa area were documented. Historic districts such as Ybor City, with its multi-cultural influence, offer unique attributes to be addressed in the interstate reconstruction. Physical landmarks, such as the balustrade along Bayshore Boulevard and the minarets of the University of Tampa, portray distinct images of the city. The influence of the water and the area's subtropical climate are also elements to be incorporated into the design theme. From this preliminary inventory, the following corridor-wide concepts were considered:

- uniform** -- design treatments for components which are identical throughout the corridor;
- unified** -- design elements which vary at specific locations, but have consistency in one or more of the following: form, line, color, and texture, and are integrated into an overall design theme; and
- unique** -- design treatments which specifically address features according to singular neighborhood character and local design choices.

Specific elements of the design theme are identified as follows:

- **Uniform** elements are appropriately identified for the corridor as lighting for the mainline roadway and sign supports, a palette for plant species for both upland and aquatic situations; these elements are of particular importance for on-system users;
- Elements that signify a **unified** design theme include noise walls, bridge structures, landscaping, retention and detention areas, fencing, greenbelts in remainder parcels, native plant materials; and
- Elements which are **unique** to the corridor focus on individual neighborhoods, such as Ybor City, West Tampa, and Tampa Heights; outdoor public art; water features; specialty hardscape; surface treatments on retaining walls and other vertical structural elements, such as local street lighting and sign supports.

Design priorities must address both the freeway traveler and the surrounding communities or the "neighbors" to the interstate. Design priorities within these categories are as follows:

Surrounding Communities on "Neighbor" Side

- Emphasis should be placed on adjacent properties and cross streets
- Surface treatments to noise walls and retaining walls should reflect character of surrounding neighborhood and have anti-graffiti coatings
- Areas under structures should be well lighted to provide pedestrian safety and enhance structural elements
- Where possible, walls should include some type of landscape treatment, so that attention is focused on vegetation, not structure
- Neighborhood areas should be identified for placement of outdoor public art
- Use of chainlink fencing should be minimized or avoided
- Hardscape enhancements should include changes in pavement for crosswalks and stormwater management areas

- Lighter colors should be specified to give a feeling of safety at cross streets under the freeway and avoid tunnel effect

"Interstate Traveler" on System Side

- Noise walls and retaining walls should have simple surface treatments with anti-graffiti coatings and blend with other design components
- Variety in character should be used to define special districts
- Patterns should be simple and continuous over long segments, but offer limited variety to avoid monotony
- Landscaping should be emphasized at interchanges
- Segments with different levels of treatment should be harmoniously blended with adjacent segments
- Remainder parcels should be used for visual greenbelts and mitigation
- Established uniform design elements for continuity of the system, such as those previously listed.

3.2 AREAS OF EMPHASIS - LEVELS OF TREATMENT

As indicated on Exhibit 3.1 and in Table 3.1, levels of treatment have been generally defined by design segment, with urban and historically significant areas receiving the highest levels of treatment. The three levels of visual quality and design treatment are summarized as follows:

Rural - Level 1

- Generally located in less developed areas
- Cosmetic improvements to current FDOT roadway and bridge design standards
- Use of noise walls in designated areas
- Landscaping limited to interchanges, buffers and screens on mainline roadway

An example of a rural level design treatment for a bridge structure and cross street is shown in Exhibit 3.2.

Moderate - Level 2

- Generally located in areas of moderate development, such as suburbs and land use transition areas
- Enhanced detail treatment of bridge superstructure, substructure and abutments
- Use of color and surface textures
- Enhancement of noise wall surface treatments
- Landscaping emphasis of design to address mainline roadway, as well as interchange and portal areas.

A candidate solution for a moderate level design segment is shown in Exhibit 3.3.

Urban - Level 3

- Areas of highest aesthetic standards for design treatments
- Stormwater management areas as visual features, where feasible
- Creative as well as functional uses of remainder parcels for passive and active recreational activities
- Opportunities for public art
- Specialty noise wall and retaining wall treatment
- Irrigation of landscaped areas for gateways, portals and interchanges

Exhibit 3.4 presents a potential solution for an urban level design treatment.

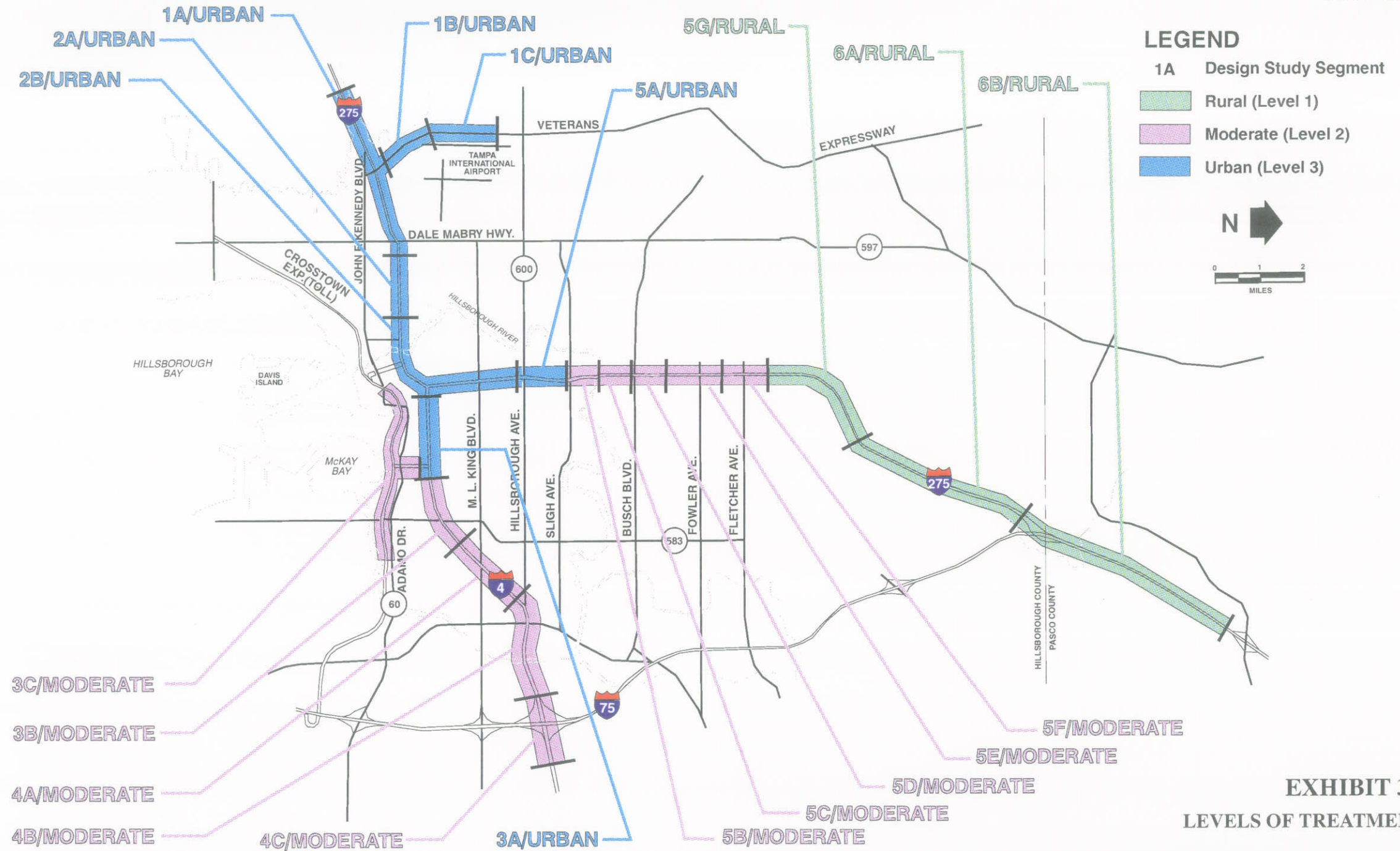


EXHIBIT 3.1
LEVELS OF TREATMENT

DESIGN SEGMENT	LOCATION	LEVEL OF TREATMENT
1A	I-275/Veterans Expressway - Cypress Street to Himes Avenue (east) and to Howard Frankland Bridge (west)	Urban (3)
1B	Veterans Expressway - Cypress Street to Fish Creek	Urban (3)
1C	Veterans Expressway - Fish Creek to Independence Boulevard south of Hillsborough Avenue	Urban (3)
2A	I -275 - Himes Avenue to North Boulevard	Urban (3)
2B	I-275/I-4 - North Boulevard to 14th/15th Street and north of Dr. M. L. King, Jr. Boulevard (I-275)	Urban (3)
3A	I-4 - 14th/15th Street east to 26th Street	Urban (3)
3B	I-4 - 26th Street to 50th Street, including Crosstown Connector to 7th Avenue	Moderate (2)
3C	Crosstown Connector and Crosstown Expressway	Moderate (2)
4A	I-4 - 56th Street to east of Orient Road (west of Hillsborough Avenue)	Moderate (2)
4B	I-4 - East of Orient Road to Faulkenburg Road (west of I-75)	Moderate (2)
4C	I-4 - West of I-75 to east of I-75	Moderate (2)
5A	I-275 - Dr. M. L. King, Jr. Boulevard to north of Hillsborough Avenue	Urban (3)
5B	I-275 - North of Hillsborough Avenue to south of Hillsborough River	Moderate (2)
5C	I-275 - South of Hillsborough River Bridge to north of Waters Avenue	Moderate (2)
5D	I-275 - North of Waters Avenue to north of Busch Boulevard	Moderate (2)
5E	I-275 - North of Busch Boulevard to north of Fowler Avenue	Moderate (2)
5F	I-275 - North of Fowler Avenue to north of Fletcher Avenue	Moderate (2)
5G	I-275 - North of Fletcher Avenue to north of Nebraska Avenue	Rural (1)
6A	I-275/I-75 - North of Nebraska Avenue to south of I-75	Rural (1)
6B	I-275/I-75 - South of I-75 to south of S.R. 54	Rural (1)

TABLE 3.1
LEVELS OF TREATMENT BY DESIGN SEGMENT



EXHIBIT 3.2
CANDIDATE RURAL LEVEL DESIGN TREATMENT

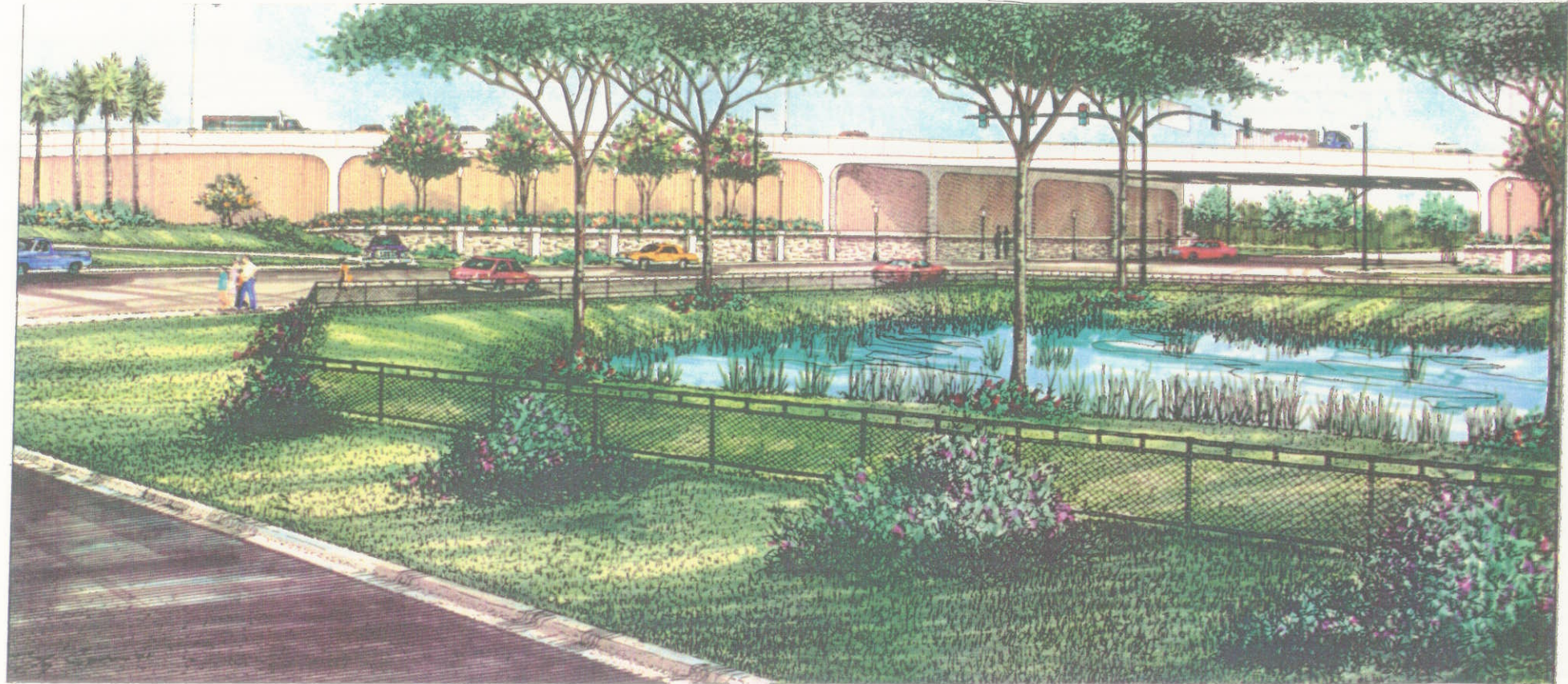


EXHIBIT 3.3

CANDIDATE MODERATE LEVEL DESIGN TREATMENT



EXHIBIT 3.4

CANDIDATE URBAN LEVEL DESIGN TREATMENT

Design priorities were studied during the Phase I Master Plan to identify which areas warranted special emphasis. Of primary importance are the locations where motorists first sense their arrival into a community, or the "gateway" to a community. Three major gateways were delineated as entrances to the Tampa metropolitan area as an effective method to enhance the image of the interstate and to create a signature for the city. These gateways are listed below and are located on Exhibit 3.5. Potential design treatments are illustrated in Exhibits 3.6, 3.7 and 3.8.

- At the I-4 and I-75 interchange, when arriving from the east
- At the east end of the Howard Frankland Bridge, when arriving from the west
- At the Pasco/Hillsborough County line, when arriving from the north

Another design priority is a "portal", a term which refers, in this context, to entrances and exits from the interstate system, and cross-streets which provide access to major destination points in the Tampa metropolitan area. Destination points frequented by local residents and visitors were mapped by route to determine the interchanges most often used. From this information, a hierarchy of portals and levels of aesthetic treatment were established as discussed in Section 5 of this document.

Design priorities are described in detail in Section 5 of this document for the following urban design components:

- Bridge structures
- Retaining walls and embankments
- Noise walls
- Lighting
- Fencing
- Sign supports
- Stormwater management areas
- Landscaped areas
- Opportunities for public art
- Utilities
- Berms and grading
- Recreational facilities and architectural elements

3.3 SPECIAL DESIGN AREAS

During the development phase of the Urban Design Guidelines, community meetings were held with neighborhood representatives from several of the special design areas identified in the TIS Master Plan. These areas, recognized for historic or cultural resources, are as follows:

- Westshore
- Downtown Tampa
- West Tampa
- Ybor City
- Tampa Heights
- Seminole Heights

Input from community members was considered in establishing general design parameters and goals for their respective communities. The following provides a summary of these design objectives as expressed by local residents and community members. Some of the proposed ideas may be contradictory to other proposals established by the Urban Design Guidelines. However, the design team should consider the community's design objectives and, where appropriate, should carefully evaluate and explore the expressed general design concepts. **The following general design goals have been expressed by community members and do not necessarily dictate required design solutions:**

Westshore

- Establish a hierarchy of structures so that highly visible structures are designed as architectural features.
- Design less visible structures with simple detailing.
- Textures and colors should be used to de-emphasize structure mass.

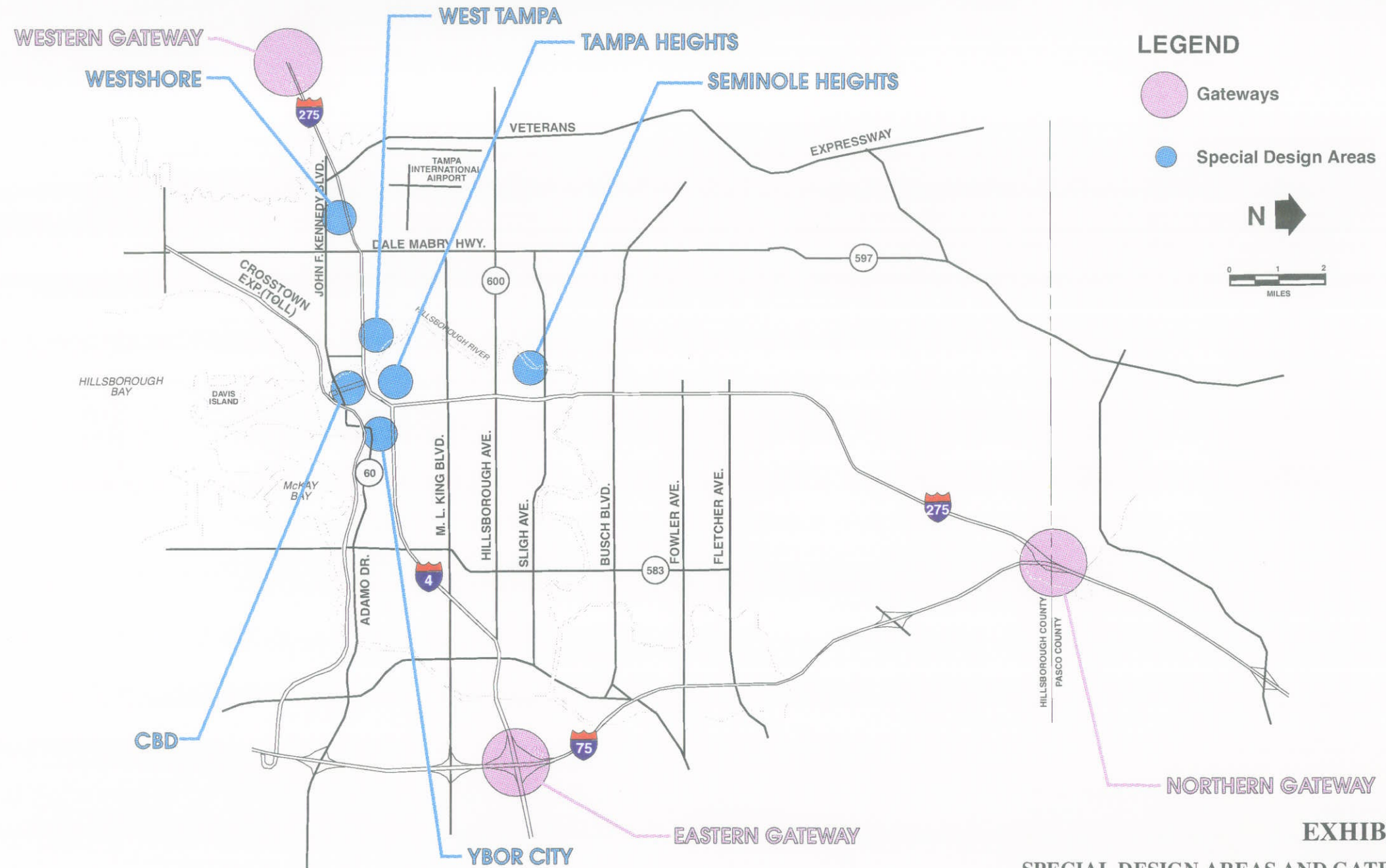


EXHIBIT 3.5
SPECIAL DESIGN AREAS AND GATEWAYS



EXISTING CONDITION

WESTBOUND I-4 AT THE I-75 INTERCHANGE



CANDIDATE TREATMENT

EXTENSIVE LANDSCAPING TO EMPHASIZE
GATEWAY THEME AND ESTABLISH A SIGNATURE
FOR THE INTERSTATE SYSTEM

EXHIBIT 3.6
POTENTIAL TREATMENT FOR EASTERN GATEWAY



EXISTING CONDITION

KENNEDY BOULEVARD OFF-RAMP AT I-275
LOOKING EAST



DETAILED CLOSED-BOX GIRDER AND PARAPET DESIGN

LANDSCAPING AND TERRACED RETAINING WALLS

CANDIDATE TREATMENT

VERTICAL BRIDGE ABUTMENTS

ENHANCED RETENTION AREA LANDSCAPING

EXHIBIT 3.7
POTENTIAL TREATMENT FOR WESTERN GATEWAY



EXISTING CONDITION
SOUTHBOUND I-275 AT COUNTY LINE ROAD

NEW SIGN REFLECTING
CHARACTER OF AREA



CANDIDATE TREATMENT

EXTENSIVE LANDSCAPING WITH NATIVE
PALMS AND WILDFLOWERS TO ESTABLISH
GATEWAY THEME AND CREATE IMAGE FOR
INTERSTATE SYSTEM

EXHIBIT 3.8
POTENTIAL TREATMENT FOR NORTHERN GATEWAY

- Create pedestrian activity and gathering spaces in paved areas under bridge structures within the established cross street typical section. (No additional bridge length should be required.)
- Utilize decorative materials as often as possible.
- Consider alternatives to plain white concrete.
- Minimize grass in landscaped areas.
- Incorporate outdoor art in structures and walls.
- Create a linear park to connect to Cypress Point Park.
- Incorporate bikeways in cross-street improvements.

A candidate treatment for the Westshore area is shown on Exhibit 3.9.

Downtown

- Structures should be design features reflecting existing architectural styles.
- Tiered landscaping and balustrades should be used as integral components.
- Add textures and colors to large wall areas.
- Streetscape elements should have a clean, modern style or reflect styles currently used.
- Maintain views of skyline.
- Develop stormwater areas as a visual focal point.

A candidate design treatment for the downtown area is shown in Exhibit 3.10.

West Tampa

- Design structures should have simple detailing to reflect "simple family lifestyle."
- Howard and Armenia Avenues should be highlighted as gateways to historic areas.
- Create numerous opportunities for public art.
- Streetscape elements should represent history of the area.
- Landscaping and outdoor art are most desirable methods of minimizing impacts.
- Maintain high levels of lighting under bridges for security.
- Planted "crib walls" and terraced retaining walls are not desirable.

A candidate treatment for design in West Tampa is shown in Exhibit 3.11.

Ybor City

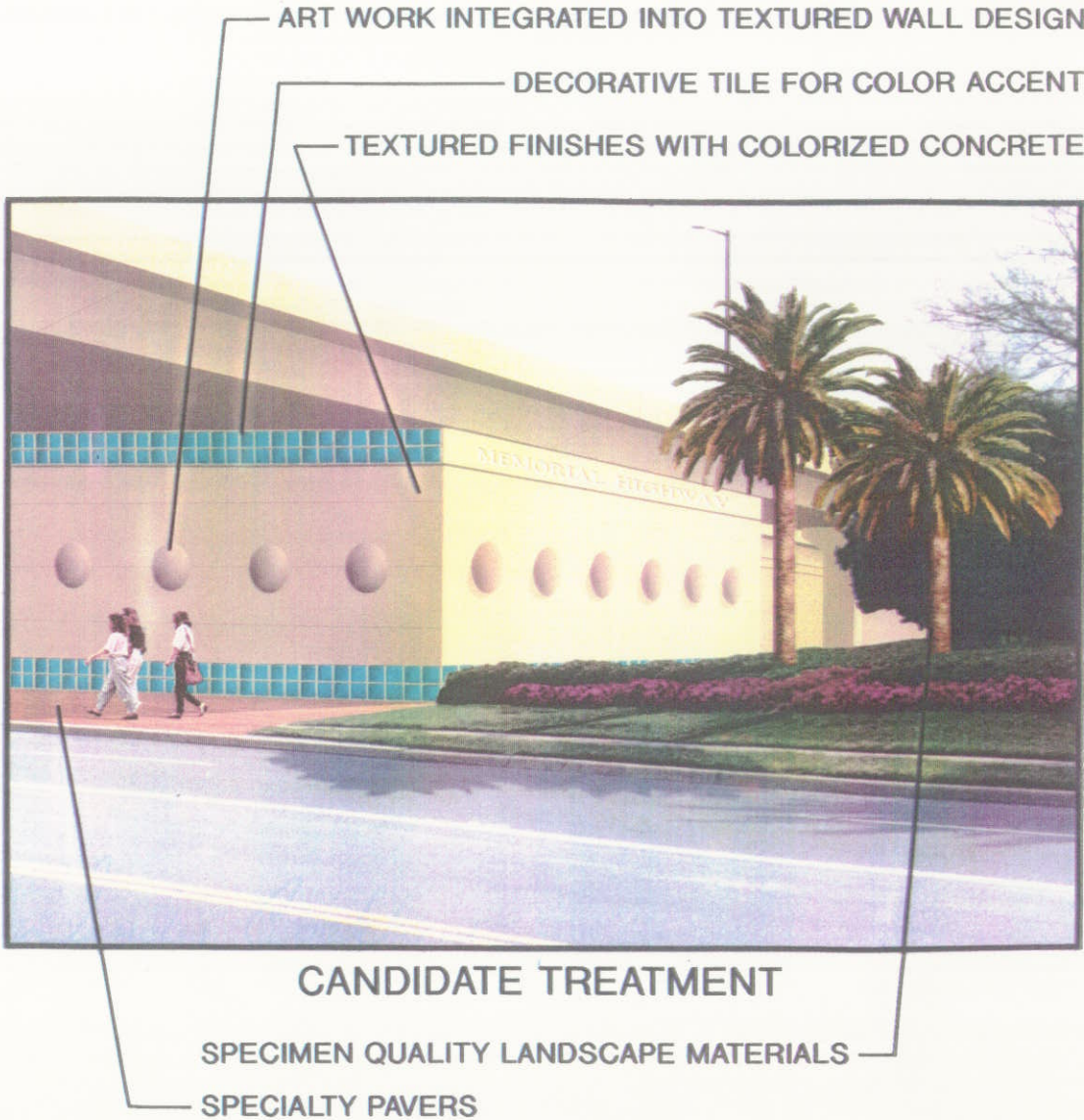
- Historic architectural elements should be reflected in designed structures.
- Utilize specialty lighting and pavers under bridge structures.
- Minimize noise wall impacts through use of outdoor art, color, detailing, and landscaping.
- Hexagonal pavers should be used for cross-street intersections and sidewalks.
- Brick should be used for retaining and noise walls where possible.
- Integrate opportunities for public art into structures.
- Streetscape elements should reflect styles currently used.

Potential aesthetic treatments for Ybor City are illustrated in Exhibit 3.12.



EXISTING CONDITION

CYPRESS STREET AND FRONTAGE ROAD
LOOKING SOUTHEAST



CANDIDATE TREATMENT

EXHIBIT 3.9
POTENTIAL TREATMENT FOR WESTSHORE AREA



EXISTING CONDITION

LAUREL PLACE AND FLORIDA AVENUE
LOOKING NORTH



CANDIDATE TREATMENT

DECORATIVE FENCING STREETScape ELEMENTS
SPECIALTY PAVING AT CROSSWALKS

INTEGRAL COLOR FOR ACCENT
DARK ANODIZED LIGHT AND SIGN POLES
CONCRETE TEXTURING
SPECIAL LANDSCAPING

EXHIBIT 3.10
POTENTIAL TREATMENT FOR DOWNTOWN AREA



EXISTING CONDITION

MAIN STREET AND TAMPANIA AVENUE
LOOKING SOUTH



CANDIDATE TREATMENT

EXHIBIT 3.11
POTENTIAL TREATMENT FOR WEST TAMPA



EXISTING CONDITION

14TH STREET AND 15TH AVENUE
LOOKING SOUTH

BRICK ABUTMENTS AND PARAPETS
TO REFLECT HISTORIC
NEIGHBORHOOD CHARACTER

DECORATIVE NOISE WALL
WITH BRICK ACCENTS

INTEGRAL COLOR FOR
BRIDGE SUPERSTRUCTURE



CANDIDATE TREATMENT

DECORATIVE LIGHTING
FOR PEDESTRIAN SAFETY

ORNAMENTAL CROSS-STREET
LIGHTING FIXTURE

EXHIBIT 3.12
POTENTIAL TREATMENT FOR YBOR CITY

Tampa Heights

- Designed structures should reflect architectural history of area.
- Lighting and fencing styles should be unique to neighborhood.
- Designed structures should complement elements of the proposed Tampa Heights Greenway.
- Provide areas under bridge structures to accommodate community activities (i.e., open air market within the established cross street typical section. (No additional bridge length should be required.)
- Ensure adequate lighting for safety and security.
- Add textures and colors to large noise walls.
- Use hexagon pavers and brick for walks and pedestrian areas.
- Create opportunities for public art.
- Streetscape elements should reflect the area's history.

A potential design treatment for Tampa Heights is shown in Exhibit 3.13.

Seminole Heights

As of the publication date of the guidelines, the required environmental documentation for Seminole Heights area had not been initiated. Upon completion of the appropriate documents, design and performance standards for mitigation will be established and incorporated as part of the Urban Design Guidelines.

A potential design treatment for Seminole Heights is shown in Exhibit 3.14.

CONCRETE RETAINING WALL WITH
TEXTURED SURFACE TREATMENT
TO REFLECT NEIGHBORHOOD
CHARACTER

DETAILED PARAPET AND
CLOSED-BOX GIRDER
DESIGN WITH COLOR
ACCENT



EXISTING CONDITION

HENDERSON AND JEFFERSON STREETS
LOOKING SOUTH



CANDIDATE TREATMENT

LANDSCAPE BUFFER

PEDESTRIAN/BICYCLE PATHWAY

EXHIBIT 3.13
POTENTIAL TREATMENT FOR TAMPA HEIGHTS



EXISTING CONDITION



NEW LANDSCAPING FOR
ACCENT AND BUFFERING

DECORATIVE NOISE WALL

CANDIDATE TREATMENT

CARACAS STREET LOOKING EAST
FROM CENTRAL AVENUE

EXHIBIT 3.14
POTENTIAL TREATMENT FOR SEMINOLE HEIGHTS

4.0

DESIGN REVIEW PROCESS

4.0 DESIGN REVIEW PROCESS

The purpose of these guidelines is to coordinate all design elements to assure that the established goals and objectives are met. Since individual design segments will be contracted to separate consultant teams, it is necessary to provide a set of uniform urban design criteria. These criteria will allow for decisions to be made by the individual design consultants while maintaining the unity and integrity of the entire project. The Urban Design Guidelines also provide criteria for appropriate transitions between the three different treatment levels.

The Urban Design Guidelines present criteria that will be unique to the interstate corridor, and special care should be taken to ensure adequate review and enforcement of design proposals. Therefore, a specific design review process has been established to assist the FDOT in assuring that the aesthetic goals and objectives of the project are being met. This includes the creation of the Tampa Interstate Design Review Committee (DRC), composed of FDOT district and local agency representatives from the FDOT, the City of Tampa and Hillsborough County to review required design plan phase submittals for compliance with the Urban Design Guidelines. The review process is outlined in the following sections.

4.1 PRE-DESIGN CONFERENCE

At the notice to proceed meeting for the project design phase, the selected consultant shall receive direction and interpretation of the Urban Design Guidelines from the FDOT and the DRC. This meeting should be attended by senior design professionals from each discipline involved in the project, as well as the project manager.

4.2 DESIGN REVIEW COMMITTEE

The DRC will review, through presentations by the design consultants concurrent with required FDOT design plan submittals, issues that affect the visual quality of the Tampa interstate reconstruction. The DRC presentations do not supplant the FDOT technical design review of component plan sets by their respective disciplines. Rather, the DRC review and recommendation process coincides with the scheduled consultant presentation and submittals to the FDOT.

The DRC shall consist of five members: at least three members appointed by FDOT, one member appointed by the Mayor of the City of Tampa, and one member appointed by the Chairman of the Hillsborough County Board of County Commissioners. At least one member of the DRC shall be a structural or civil engineer. One other DRC member shall be a landscape architect or an architect. An additional DRC member shall have experience in stormwater management and mitigation practices. The City and County appointed members of the DRC should serve for a term of two years, on a staggered basis.

Vacancies shall be filled by appointment for the unexpired term only. A member whose term expires should continue to serve until his or her successor is appointed.

The DRC shall meet, as scheduled, to review all design phase submittals from the consultants. A checklist of design issues to be addressed in DRC presentations is included in Appendix G.

4.3 FINAL DESIGN

It will be the responsibility of the segment design consultant, through regularly scheduled submittal meetings, to address design issues relative to the visual quality objectives of the Urban Design Guidelines. The following list summarizes the types of issues to be discussed in the DRC presentation

for the four phases of final roadway design. For bridge reviews, presentations to the DRC would be less frequent, 30, 90, and 100 percent. The Phase IV roadway design presentation and review should be concurrent with the 100 percent bridge review.

Phase I Design

- Bridge aesthetics chapter as part of Bridge Development Report (BDR)
- Signing type, location, and color
- Coordination of all design elements with adjacent design segments
- General location and configuration of stormwater management areas
- Fencing type(s) and locations
- Landscape concepts and locations of landscaped areas
- Retaining wall type, material, color, location, surface treatments
- Noise wall type, material, color, location, height, surface treatments
- Concept sketches of special design areas, gateways, and portals
- Treatment of high-slope areas

At the Phase I design submittal to FDOT, the consultant shall present plans and sketches to the DRC to illustrate compliance with the intent of the Urban Design Guidelines. The consultant should be prepared to discuss the potential effects of submitted design concepts in achieving the aesthetic goals and objectives of the project. Discussion comments from the presentation and from the DRC checklist will formulate the DRC's recommendation to FDOT. The DRC will present comments and recommendations to the FDOT within two weeks from the Phase I submittal. The FDOT will then review and resolve the comments with the design consultant prior to the preparation of Phase II plans.

Phase II Design

- Bridge structure, retaining wall and anticipated noise wall locations and elevations illustrating form, style, proposed materials and color
- Lighting plans identifying location and type of fixture, finish and color
- Plans showing roadway alignment, configuration of stormwater management areas

- Landscape plans indicating location and character of plant masses, trees, transitional and herbaceous aquatic species
- Irrigation feasibility and potential water sources for urban (level 3) areas, special design areas, gateways and portals
- Treatment of high-slope areas indicating wall treatment, location and plant materials

At the Phase II design submittal to FDOT, the consultant shall present plans and sketches to the DRC to illustrate compliance with the intent of the Urban Design Guidelines. The consultant should be prepared to discuss the potential effects of submitted design concepts in achieving the aesthetic goals and objectives of the project. Discussion comments from the presentation and from the checklist will formulate the DRC's recommendations to the FDOT. The DRC will present comments and recommendations to FDOT within two weeks of the Phase II submittal. The FDOT will then review and resolve the DRC's comments with the consultant prior to the development of Phase III plans.

Phase III Design

- Bridge structure types, color and detailing
- Actual retaining and noise wall locations and design including heights, materials, colors and finishes
- Areas set aside and identified to receive public art; potential sources of art
- On- and off-system lighting design indicating locations, fixtures, finishes and required light levels
- Detailed design of stormwater management areas indicating configuration, volume and planting requirements
- Landscape plans indicating plant locations, quantities and sizes to be installed
- Irrigation plans showing water sources and head layout design in required areas

- Selection of site furnishings and pedestrian areas design for required cross-street improvements
- Treatment of transition between components of adjacent design segments

At the Phase III design submittal to FDOT, the consultant shall present sketches and plans to the DRC to illustrate compliance with the intent of the Urban Design Guidelines. The consultant shall be prepared to discuss the design's intent in achieving the project's aesthetic goals. Comments from the presentation and checklist will formulate the DRC's recommendations to the FDOT. The DRC shall have two weeks to review the design submittal and prepare comments. The FDOT will then review and resolve the comments with the consultant prior to the final phase plans.

Phase IV Design

- Review of completed design drawings to ensure compliance with aesthetic goals and objectives outlined in the Urban Design Guidelines and the bridge aesthetics chapter of the BDR
- Elevations and finish details of retaining walls, noise walls and bridge structures
- Final selections of all material, colors and finishes
- Irrigation plans indicating water sources, irrigation equipment including head types, controller types and locations
- Planting plans illustrating plant types, sizes and uses as well as installation time frame, planting details, proposed soil amendments and methods of maintenance until establishment
- Proposed maintenance responsibilities and agreements
- Selection, sources and finishes for streetscape elements for both on- and off-system areas
- Design details for art work on design features to be integral to structural components

- Integral design transition between levels of treatment and design segments

At the Phase IV design submittal, the consultant shall present final sketches and plans to the DRC to illustrate aesthetic concepts established for the project. Comments from the presentation and the DRC checklist will formulate the DRC's recommendations to the FDOT. The DRC shall have two weeks to submit comments. The FDOT will review and resolve comments with the consultant prior to preparation of final bid documents.

4.4 SUBMITTAL PROCESS

The submittal process described in this section, and summarized in Exhibit 4.1, represents a significant evolution from standard FDOT design requirements. Although additional steps are required in the review process, it is not the intention of these guidelines to create delays in the design and permitting process. Submittals and presentations to the FDOT and the DRC are to be concurrent. Effective coordination between the design consultants, the DRC and FDOT should ensure meeting both the requirements of the Urban Design Guidelines and the overall project schedule.

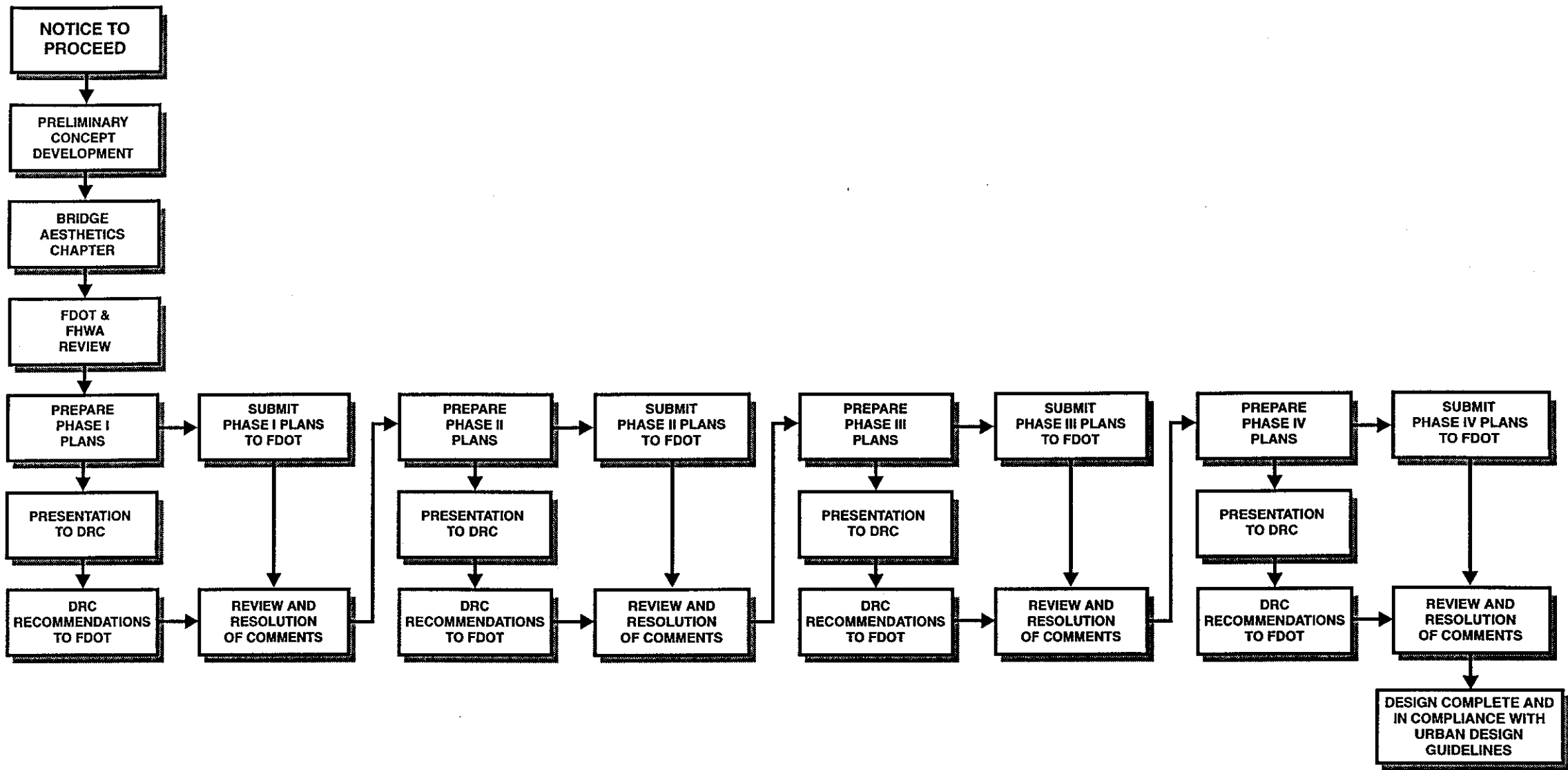


EXHIBIT 4.1
DESIGN REVIEW PROCESS

5.0

URBAN DESIGN CRITERIA

5.0 URBAN DESIGN CRITERIA

Project components and prototype design treatments are presented in this section. These components include bridge structures, retaining walls and embankments, noise walls, lighting, fencing, sign supports, stormwater management areas, landscaping, pavement, opportunities for public art, utilities, grading, recreational facilities and architectural elements.

The consultants for the individual design segments should refer to this section for all applicable design guidelines. Descriptions of design treatments are intended for use throughout the study area unless otherwise specified.

5.1 BRIDGE STRUCTURES

The FDOT Structures Design Guidelines requires that all bridge designs must integrate three basic elements: efficiency, economy, and elegance. The first two elements are well-defined requirements that are routinely quantified and rigorously evaluated. The Bridge Development Report (BDR), which is required to be prepared for all bridges, provides a convenient and concise mechanism for assuring and documenting that the goals of efficiency and economy are achieved. However, the implementation of the third objective, elegance, is less precisely defined in the Structures Design Guidelines, relying on "...the designer's willingness to accept the challenge and opportunity presented." General guidelines for levels of aesthetic effort are provided in the Structures Design Guidelines, but specific details are appropriately left to be determined on a project-by-project basis. The Structures Design Guidelines do emphasize, however, that "In bridge aesthetics, the designer is dealing with the basic structure itself, not with enhancement, additions, or other superficial touches."

One of the fundamental purposes of these Urban Design Guidelines is to quantify the specific details of the bridge aesthetic requirements for the Tampa interstate reconstruction. These aesthetic goals are

not only related to improving the visual quality of our surroundings, but they are in some cases specific mitigative measures that are necessary to secure project approvals in response to visual impacts on historic and sensitive neighborhoods and to fulfill project requirements and commitments.

Pursuant to these goals, this section provides a general discussion and background of the aesthetic goals related to bridge design, specific definition of the bridge aesthetic requirements for the TIS project, and recommendations and commitments for implementing these aesthetic requirements.

5.1.1 General

Due to the vast size and varying character of the interstate reconstruction project, a series of 6 planning and design segments were identified. These segments were subdivided into 20 smaller segments. Each segment represents an area of unique characteristics that requires specific aesthetic treatments.

Three levels of treatment have been created for the Tampa interstate reconstruction project to ensure an aesthetically pleasing design that minimizes adverse effects on the community. FDOT's Structures Design Guidelines was used as a guideline in developing the three levels of treatments since the most visible elements of the proposed reconstruction will be bridge structures and walls.

5.1.2 Identification of Aesthetic Levels

The three levels of treatment and their corresponding construction segments for the Tampa interstate reconstruction project are as follows:

<u>Level of Treatment</u>	<u>Construction Segment</u>
Rural (level 1)	5G, 6A, 6B
Moderate (level 2)	3B, 3C, 4A, 4B, 4C, 5B, 5C, 5D, 5E, 5F
Urban (level 3)	1A, 1B, 1C, 2A, 2B, 3A, 5A

Prudent judgement suggests that within these segments are exceptions that need to be considered. For example, urban (level 3) aesthetics incorporating closed box girder sections may not be appropriate for some bridges crossing local streets or canals. A site-by-site classification of required bridge aesthetic levels is provided in Table 5.1. It is noted that the normal process of project development and construction will undoubtedly result in changes to the location of some structures, or even the addition or elimination of some structures. Therefore, Table 5.1 should be used as a broad guide to establish the classification of the final structure treatment levels.

Based on FDOT's Structures Design Guidelines, the following criteria have been established for each level of aesthetic treatment:

Requirements for Rural (Level 1) Aesthetics

- Cosmetic improvements to conventional FDOT bridge types
- Modifications to fascia walls, beams, caps and columns for more pleasing shapes
- Integration of color pigments and texturing of surfaces
- Preparation of a bridge aesthetics chapter within the BDR (see Section 5.1.4)

Requirements for Moderate (Level 2) Aesthetics

- Careful integration of bridge components and structure for efficiency, economy and elegance.
- Consideration of visually pleasing structural systems such as hammerhead or T-shaped piers and oval or polygonal shaped columns
- Integration of multiple colors both integral and applied
- Use of more intricate textures or finishes to deter graffiti and vandalism
- Integration of facades, piers, beams, and other structural components to complement surrounding elements

- In highly visible areas, such as gateways or portals, consideration of a closed box girder type superstructure for a smooth bottom soffit.
- Preparation of a bridge aesthetics chapter within the BDR (see Section 5.1.4)

Requirements for Urban (Level 3) Aesthetics

- Meet or exceed moderate (level 2) criteria plus the following items:
- Involvement of an architect or landscape architect to assist in the integration of the bridge structure with design elements
- Consideration of unique neighborhood features to help define gateways and destinations through use of form, texture, color, or public art
- Consideration of a closed box girder type of superstructure to present a smooth bottom soffit (see Section 5.1.3 for information concerning appropriate superstructure).
- Enclose drainage appurtenances and utilities in cross sections, away from public view.
- Use of extra care in structural detailing
- Preparation of a bridge aesthetics chapter within the BDR (see Section 5.1.4)

Exhibit 5.1 provides examples of candidate bridge treatments for each aesthetic level. Appropriate structural details for each level of treatment are shown on Exhibit 5.2.

5.1.3 Costs

The issue of how much cost is reasonable or acceptable to secure improved aesthetics is not easily addressed. This process involves placing value on appearance, which is a highly subjective perception. For purposes of the Bridge Development Report (BDR) evaluations of alternative structure types related to satisfying these Urban Design Guidelines, it is suggested that the analysis consider costs as follows:

DESIGN SEGMENT 1A

Location	Aesthetic Level	Notes
Ramp K over I-275	3	Western gateway to Tampa
Ramp B viaduct	3	
Ramp A fly-over	3	
Ramp D fly-over	3	
Ramp C fly-over	3	
Memorial Highway southbound C/D viaduct	3	
Northbound mainline Memorial Highway over Cypress Street	3	
Northbound C/D Memorial Highway over Cypress Street	3	
Ramp H connector	3	
Ramp E connector	3	
Westbound I-275 C/D extension	3	
Westbound I-275 C/D viaduct	3	
Eastbound I-275 mainline over Memorial Highway	3	Portal
HOV over Memorial Highway	3	Portal
I-275 westbound mainline over Memorial Highway	3	Portal
Eastbound I-275 C/D viaduct	3	
I-275 westbound mainline over Westshore Boulevard	3	Portal
I-275 eastbound mainline over Westshore Boulevard	3	Portal
HOV over Westshore Boulevard	3	Portal
I-275 westbound mainline & HOV over Trask Street	2	
I-275 eastbound mainline & HOV over Trask Street	2	
Westbound C/D crossover ramp	2	
Eastbound C/D crossover ramp	2	
I-275 mainline, HOV & C/D over Lois Avenue	2	Portal
I-275, HOV, C/D, & ramps over Cypress Street	2	
Westbound C/D over Dale Mabry Highway	2	Portal
Eastbound C/D over Dale Mabry Highway	2	Portal
I-275 mainline & HOV over Dale Mabry Highway	2	Portal
I-275 mainline, HOV & C/D over Himes Avenue	2	

DESIGN SEGMENT 1B

Location	Aesthetic Level	Notes
Ramp A over mainline, eastbound C/D, ramps C, D, E & J, loop H, & Fish Creek	3	
Ramp B over mainline, eastbound C/D, & ramps E & J	3	
Ramp B over Loop H	2	
Ramp C over ramps E & J	3	
Ramp D over mainline, eastbound C/D & ramps B, C, & J	3	
Ramp E over Fish Creek	1	
Ramp F over Fish Creek	1	
Ramp F1 over Fish Creek	1	
Ramp F1 over ramp J	3	
Ramp G over Fish Creek	1	
Crossover access over Fish Creek	1	

DESIGN SEGMENT 1C

Location	Aesthetic Level	Notes
Courtney Campbell Causeway Bridge over Frontage Road Connector	3	
Ramp A-3 over ramps A-3 & A-4	3	
Southbound C/D over ramps A-2, A-4 & A-5	3	
Mainline express lanes over ramps A-4 & A-5	3	
Mainline expresslanes over Independence Parkway	3	
Eisenhower Bridge over S.R. 60	3	

DESIGN SEGMENT 2A

Location	Aesthetic Level	Notes
C/D westbound I-275 at McDill Avenue	2	
HOV & mainline C/D I-275 at McDill Avenue	2	
C/D westbound I-275 at Armenia Avenue	3	West Tampa Neighborhood/Portal
Mainline & HOV at Armenia Avenue	3	West Tampa Neighborhood/Portal
C/D eastbound I-275 at Armenia Avenue	3	West Tampa Neighborhood/Portal
I-275 at Howard Avenue	3	West Tampa Neighborhood/Portal
I-275 at Rome Avenue	2	

TABLE 5.1
REQUIRED AESTHETIC LEVELS FOR BRIDGES

DESIGN SEGMENT 2B

Location	Aesthetic Level	Notes
I-275, C/D & HOV over Willow Avenue	2	
I-275, C/D & HOV over North Boulevard	3	
I-275 northbound mainline viaduct & HOV	3	
Ashley Street/I-275 southbound ramp	3	
Endspan for Ashley Street/I-275 southbound ramp	3	
I-275 southbound C/D over Hillsborough River	3	
I-275 southbound mainline viaduct & HOV	3	
I-275 northbound C/D over Hillsborough River	3	
Orange Street ramp over Hillsborough River (B & C)	3	
Southbound Orange Street viaduct	3	
Southbound Ashley Street over Laurel Place	3	Portal
Northbound Ashley Street ramp	3	Portal
Northbound C/D viaduct	3	Portal
Northbound Orange Street viaduct	3	Portal
Southbound C/D to Ashley Street ramp	3	Portal
Southbound C/D connector	3	
Southbound C/D viaduct	3	
HOV northbound & southbound over Hillsborough River	3	
HOV over C/D southbound I-275	3	
Northbound C/D west of Hillsborough River	3	
Ramp B - southbound Ashley Street before Laurel Place	3	
Ashley Street cross-over	2	
Northbound C/D over Jefferson Street & Orange Street	3	
Northbound mainline over Ramp E (with HOV)	3	
Lower HOV over Ramp E	3	
Southbound mainline over Ramp E (with HOV)	3	
Southbound C/D over Ramp E	3	
Ramp E from I-275 southbound & Palm Avenue	3	
Ramp E from westbound I-4 & Palm Avenue	3	
C/D southbound I-275 & Palm Avenue	3	
Mainline southbound I-275 & Palm Avenue	3	
HOV I-275 & Palm Avenue	3	
Mainline northbound I-275 & Palm Avenue	3	
Ramp E to northbound I-275 & Palm Avenue	3	
C/D northbound I-275 & Palm Avenue	3	
Ramp E to eastbound I-4 & Palm Avenue	3	
Ramp C/D I-275 northbound & Palm Avenue	3	
C/D northbound I-275 & Palm Avenue	3	
C/D northbound I-275 cross northbound I-275 to eastbound I-4	3	
C/D northbound I-275 over I-275/I-4 HOV	3	

DESIGN SEGMENT 2B (continued)

Location	Aesthetic Level	Notes
C/D northbound I-275 cross mainline southbound I-275 from I-4	3	
C/D northbound I-275 at Columbus Drive	3	
Ramp L from westbound I-4 to C/D southbound I-275	3	
C/D from westbound I-4 to Southbound I-275	3	
Mainline westbound I-4 to southbound I-275	3	
HOV westbound I-4 to southbound I-275	3	
C/D northbound I-275 to eastbound I-4	3	
C/D northbound I-275 to eastbound I-4	3	
C/D northbound I-275 to eastbound I-4 & Nebraska Avenue	3	
Ramp E from northbound I-275 to eastbound I-4 & Nebraska	3	
Mainline northbound I-275 to eastbound I-4 & Nebraska Ave	3	
HOV northbound I-275 to eastbound I-4 and Nebraska Avenue	3	
Mainline westbound I-4 to Southbound I-275 & Nebraska Ave	3	
C/D westbound I-4 to southbound I-275 & Nebraska Avenue	3	
Mainline westbound I-4 to northbound I-275 & Nebraska Ave	3	
Ramp L westbound I-4 to southbound I-275 & Nebraska Ave	3	
C/D westbound I-4 to northbound I-275 & Nebraska Avenue	3	
C/D northbound I-275 to eastbound I-4 & Nebraska Avenue	3	
Ramp southbound I-275 to 13th Avenue & Nebraska Avenue	3	
C/D westbound I-4 to northbound I-275 & Columbus Drive	3	
Ramp L westbound I-4 to northbound I-275 & Nebraska Ave	3	
Ramp L westbound I-4 to Northbound I-275 & Columbus Drive	3	
Mainline westbound I-4 to northbound I-275 & Columbus Drive	3	
HOV & mainline I-275 at Columbus Drive	3	
C/D, ramp southbound I-275 at Columbus Drive	3	
C/D southbound I-275	3	
C/D southbound I-275 to eastbound I-4 at southbound I-275	3	
C/D southbound I-275 to eastbound I-4 at C/D northbound I-275	3	
C/D southbound I-275 to eastbound I-4 at C/D northbound I-4	3	
Mainline southbound I-275 to eastbound I-4	3	
I-275 & Floribanks Avenue	3	Portal
C/D southbound I-275 & Lake Avenue	3	
Mainline & HOV I-275 at Lake Avenue	3	
C/D northbound I-275 at Lake Avenue	3	
I-275 at Dr. M. L. King, Jr., Boulevard	3	Seminole Heights Neighborhood/Portal
I-275 at Chelsea Avenue	3	Seminole Heights Neighborhood
I-4 at 14th Street	3	Ybor City/Portal
I-4 at 15th Street	3	Ybor City/Portal

TABLE 5.1 (Cont'd)

REQUIRED AESTHETIC LEVELS FOR BRIDGES

DESIGN SEGMENT 3A

Location	Aesthetic Level	Notes
C/D westbound I-4 cross 21st & 22nd Streets	3	Ybor City/Portal
Mainline cross 21st & 22nd Streets	3	Ybor City/Portal
HOV cross 21st & 22nd Streets	3	Ybor City/Portal
C/D cross 21st & 22nd Streets	3	Ybor City/Portal
Westbound I-4 C/D cross 26th Street	3	
Westbound I-4 mainline cross 26th Street	3	
I-4 HOV cross 26th Street	3	
Eastbound I-4 mainline cross 26th Street	3	
Eastbound I-4 C/D cross 26th Street	2	
Southbound Crosstown Connector over 4th Avenue	2	
Northbound Crosstown Connector over 4th Avenue	2	
Southbound Crosstown Connector over C.S.X. Trans.	2	
Northbound Crosstown Connector over C.S.X. Trans.	2	
Southbound Crosstown Connector over 7th Avenue	2	
Northbound Crosstown Connector over 7th Avenue	2	
Westbound mainline over C.S.X. Trans.	2	
HOV I-4 cross C.S.X. Trans.	2	
Mainline eastbound I-4 cross C.S.X. Trans.	2	
C/D westbound I-4 cross C.S.X. Trans.	2	
C/D eastbound I-4 cross C.S.X. Trans.	2	
Ramp B eastbound I-4 to southbound Crosstown Connector	3	
Ramp A eastbound I-4 to southbound Crosstown Connector	3	
Ramp D westbound I-4 from northbound Crosstown Connector	3	
Ramp C westbound I-4 from northbound Crosstown Connector	3	
Mainline westbound I-4 cross Ramp E	2	
HOV I-4 cross Ramp E	2	
Mainline eastbound I-4 cross Ramp E	2	
C/D separated from I-4 cross Ramp E	2	

DESIGN SEGMENT 3B

Location	Aesthetic Level	Notes
C/D westbound I-4 cross 34th Street	2	
Mainline westbound I-4 cross 34th Street	2	
HOV I-4 cross 34th Street	2	
Mainline eastbound I-4 cross 34th Street	2	
C/D eastbound I-4 cross 34th Street	2	
I-4 cross C.S.X. Trans.	1	
C/D eastbound I-4 at C.S.X. Trans. by 38th Street	2	
I-4 cross 40th Street	2	Portal
Mainline & HOV I-4 & new interstate with Columbus Drive	2	
C/D westbound I-4 cross new Columbus Drive	2	
C/D eastbound I-4 cross new Columbus Drive	2	
I-4 cross 50th Street	2	

DESIGN SEGMENT 3C

Location	Aesthetic Level	Notes
Mainline I-4 westbound over 50th Street	2	
Mainline I-4 eastbound over 50th Street	2	
Mainline Crosstown Expressway westbound over 18th Street	2	
Mainline Crosstown Expressway eastbound over 18th Street	2	
Mainline Crosstown Expressway westbound over 22nd Street	2	
Mainline Crosstown Expressway eastbound over 22nd Street	2	
Mainline Crosstown Expressway westbound over 26th Street	2	
Mainline Crosstown Expressway eastbound over 26th Street	2	
Mainline Crosstown Expressway westbound over S.C.L. Railroad	2	
Mainline Crosstown Expressway eastbound over S.C.L. Railroad	2	
Mainline Crosstown Expressway westbound over 34th Street	2	
Mainline Crosstown Expressway eastbound over 34th Street	2	
Mainline Crosstown Expressway westbound over 38th Street	2	
Mainline Crosstown Expressway eastbound over 38th Street	2	

TABLE 5.1 (Cont'd)
REQUIRED AESTHETIC LEVELS FOR BRIDGES

DESIGN SEGMENT 4A

Location	Aesthetic Level	Notes
I-4 mainline & HOV over Dr. M. L. King, Jr., Boulevard	2	Portal
Eastbound I-4 mainline & HOV over Orient Road	2	Portal
Westbound I-4 mainline & HOV over Orient Road	2	Portal

DESIGN SEGMENT 4B

Location	Aesthetic Level	Notes
Hillsborough Avenue Ramp over I-4 to US 301	2	Portal
Hillsborough Avenue over I-4 to eastbound C/D I-4	2	Portal
Hillsborough Avenue over westbound Hillsborough to westbound I-4	2	Portal
Southbound U.S. 301 ramp over westbound C/D I-4	2	Portal
US 301 over I-4	2	Portal
Ramp D over I-4	2	Portal
Ramp E over I-4	2	Portal
Ramp D over US 301	2	Portal
Ramp E over US 301	2	Portal
I-4 eastbound C/D over Six Mile Creek	1	Bridge widening
I-4 mainline & HOV over Six Mile Creek	1	Bridge widening
I-4 westbound C/D over Six Mile Creek	1	
Westbound Hillsborough Avenue to I-4 over Six Mile Creek	2	
Westbound I-4 ramp to northbound U.S. 301 over Six Mile Creek	1	
US 92 connector over I-4	2	

DESIGN SEGMENT 4C

Location	Aesthetic Level	Notes
Faulkenberg Road over I-4	2	Eastern gateway to Tampa
Sligh Avenue extension over Six Mile Creek	1	

DESIGN SEGMENT 5A

Location	Aesthetic Level	Notes
I-275/Osborne Avenue southbound	3	Seminole Heights neighborhood
I-275/Osborne Avenue northbound	3	Seminole Heights neighborhood
I-275/Hillsborough Avenue southbound	3	Seminole Heights neighborhood/Portal
I-275/Hillsborough Avenue northbound	3	Seminole Heights neighborhood/Portal
I-275/Hanna Avenue southbound	3	Seminole Heights neighborhood
I-275/Hanna Avenue northbound	3	Seminole Heights neighborhood

DESIGN SEGMENT 5B

Location	Aesthetic Level	Notes
I-275/Sligh Avenue southbound	2	Portal
I-275/Sligh Avenue northbound	2	Portal
I-275/Broad Street southbound	2	
I-275/Broad Street northbound	2	

DESIGN SEGMENT 5C

Location	Aesthetic Level	Notes
I-275/Hillsborough River southbound	2	
I-275/Hillsborough River northbound	2	
I-275/Bird Street southbound ramp	2	Portal
I-275/Bird Street southbound	2	Portal
I-275/Bird Street northbound	2	Portal
I-275/Bird Street northbound ramp	2	Portal
I-275/Waters Avenue southbound	2	
I-275/Waters Avenue northbound	2	
I-275/Yukon Street southbound	2	
I-275/Yukon Street northbound	2	

TABLE 5.1 (Cont'd)

REQUIRED AESTHETIC LEVELS FOR BRIDGES

DESIGN SEGMENT 5D

Location	Aesthetic Level	Notes
I-275/Busch Boulevard southbound	2	Portal
I-275/Busch Boulevard northbound	2	Portal
Southbound ramp at Busch Boulevard	2	Portal
Northbound ramp at Busch Boulevard	2	Portal
I-275/Linebaugh Avenue southbound	2	
I-275/Linebaugh Avenue northbound	2	

DESIGN SEGMENT 5E

Location	Aesthetic Level	Notes
I-275/Bougainvillea Avenue southbound	2	
I-275/Bougainvillea Avenue northbound	2	
I-275/109th Avenue southbound	2	
I-275/109th Avenue northbound	2	
I-275/Fowler Avenue southbound	2	Portal
I-275/Fowler Avenue northbound	2	Portal

DESIGN SEGMENT 5F

Location	Aesthetic Level	Notes
I-275/127th Avenue southbound	2	
I-275/127th Avenue northbound	2	
I-275/Sinkhole	2	
I-275/Fletcher Avenue southbound	2	Portal
I-275/Fletcher Avenue northbound	2	Portal

DESIGN SEGMENT 5G

Location	Aesthetic Level	Notes
I-275/April Lane	1	
I-275/Bears Avenue	1	Portal
Southbound I-275/Sinclair Hills Road	1	
Northbound I-275/Sinclair Hills Road	1	
I-275/Nebraska Avenue & C.S.X. Trans.	1	

DESIGN SEGMENT 6A

Location	Aesthetic Level	Notes
I-275/Livingston Avenue	1	
I-275/North Tampa Parkway	1	

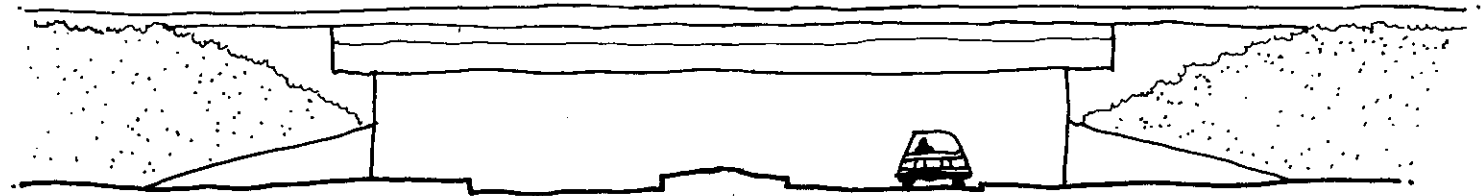
DESIGN SEGMENT 6B

Location	Aesthetic Level	Notes
Ramp G southbound I-275	1	
Ramp G northbound I-275 & I-75	1	
Ramp G/Cypress Creek	1	
Northbound I-75/Cypress Creek Interchange	1	Bridge widening
Southbound I-75/Cypress Creek Interchange	1	Bridge widening
Northbound I-275/I-75	1	
County Line Road/I-275 & I-75	1	
County Line Road/northbound I-275	1	
I-75/Cypress Creek	1	
New SR 54/I-75	2	Northern gateway to Tampa

TABLE 5.1 (Cont'd)
REQUIRED AESTHETIC LEVELS FOR BRIDGES

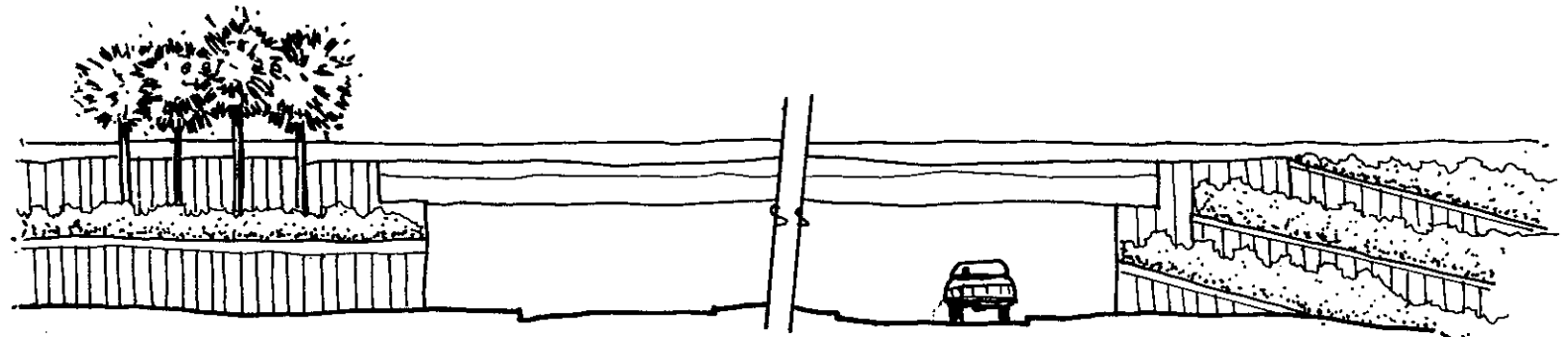
RURAL LEVEL BRIDGE STRUCTURE

- COSMETIC IMPROVEMENTS TO CONVENTIONAL FDOT TYPES
- INTEGRATION OF COLOR AND TEXTURE ON SURFACES



MODERATE LEVEL BRIDGE STRUCTURE

- INTEGRATION OF STRUCTURE COMPONENTS FOR EFFICIENCY, ELEGANCE AND ECONOMY
- USE OF INTRICATE TEXTURES AND FINISHES TO DETER VANDALISM
- INTEGRATION OF STRUCTURE WITH SURROUNDING ELEMENTS



URBAN LEVEL BRIDGE STRUCTURE

- MEET OR EXCEED MODERATE LEVEL
- CREATION OF UNIQUE DESIGN FEATURES TO DEFINE GATEWAYS AND SPECIAL DESIGN AREAS
- ATTENTION TO STRUCTURAL DETAILING

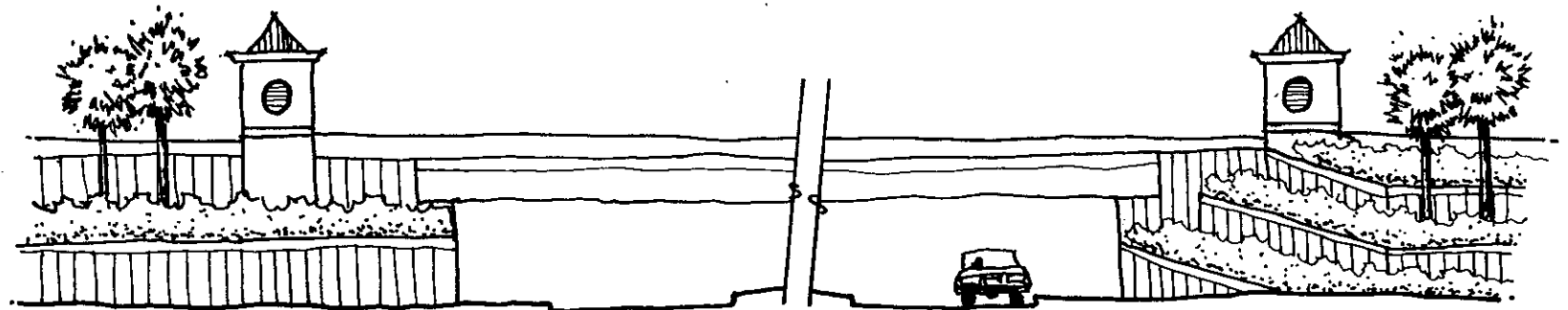
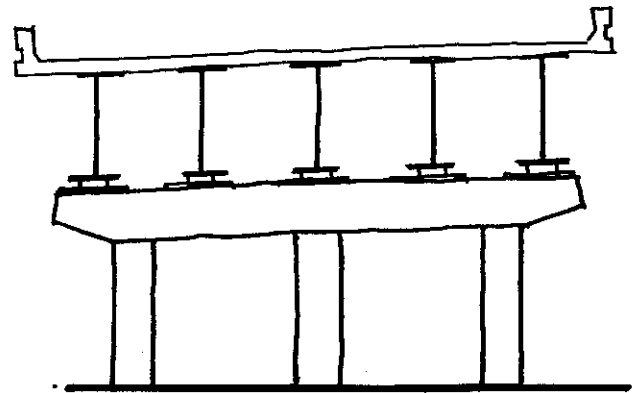


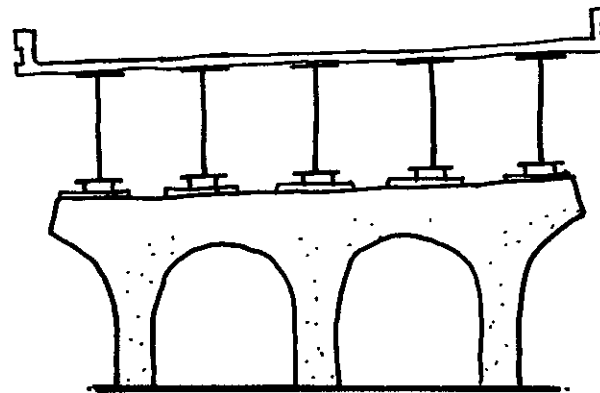
EXHIBIT 5.1
CANDIDATE BRIDGE TREATMENTS

RURAL LEVEL



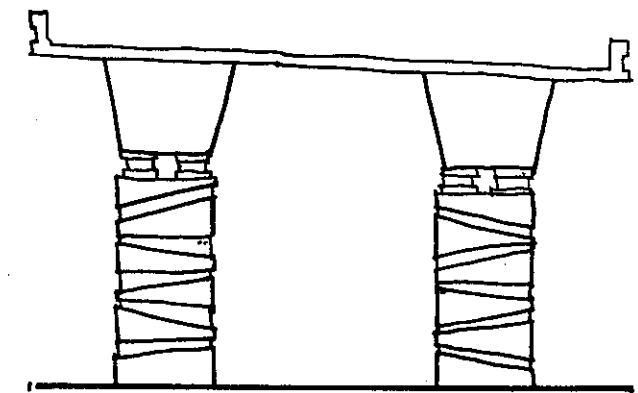
- INTEGRATION OF COLOR AND TEXTURE
- MODIFICATIONS TO COLUMNS, BEAMS AND CAPS
- COSMETIC IMPROVEMENTS TO CONVENTIONAL FDOT BRIDGE TYPES

MODERATE LEVEL



- VISUALLY PLEASING STRUCTURAL SYSTEMS
- USE OF MORE INTRICATE COLOR AND TEXTURES
- IN HIGHLY VISIBLE AREAS, USE CLOSED BOX GIRDERS FOR PLEASING APPEARANCE

URBAN LEVEL



- CREATION OF UNIQUE DESIGN FEATURES
- USE CLOSE BOX GIRDERS
- UTILITIES ENCLOSED IN CROSS-SECTION
- EXTRA CARE IN STRUCTURAL DETAILING

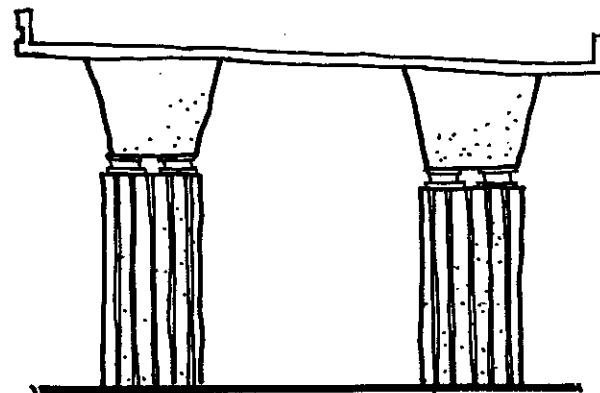


EXHIBIT 5.2 APPROPRIATE STRUCTURE DETAILS

- Rural (level 1) bridges should consider all viable structure types as is normal practice in a BDR. No special consideration of aesthetics is required, although all designs should provide a well proportioned, visually appealing structure.
- For moderate (level 2) and urban (level 3) bridges, treatments should include structure types normally considered, as well as those structure types that are consistent with the aesthetic requirements identified in this document. This is important because, in extraordinary circumstances, maintenance, geometric or structural conditions may preclude the use of a closed box structure.
- In the final selection, it should be realized that the cost estimates at this stage of project development are likely only accurate within 5 to 10 percent. Therefore, it should be reasonable to select one alternative over another due to preferred visual appearance (or any other improved quality such as improved maintenance of traffic) within these limits. However, to thoroughly compare structure types, alternatives to a closed box girder type should be evaluated to ensure a cost-reasonable structure that meets the aesthetic requirements of this project (see Section 5.1.4).

It is not the intention of these guidelines to unnecessarily increase the cost of the project beyond that required to meet the specific requirements for project approvals. It is considered that bridge aesthetics should be emphasized for all bridge designs and should be carried out in a reasonable manner and generally without excesses in either omissions or extravagance. Some isolated cases of unadulterated economy or bold visual expression may be warranted, but these extremes should be clearly needed and carefully chosen and documented in close consultation with local government and the affected community.

5.1.4 Documentation of Bridge Aesthetics

The implementation of certain visual elements for the reconstruction of the Tampa interstate is paramount, as these elements are included in the agreements necessary to satisfy the environmental documentation and Section 106 and Section 4(f) requirements and to secure federal approvals for the project. In order to document compliance with such agreements, and therefore facilitate ultimate

project approvals, a bridge aesthetics chapter of the Bridge Development Report (BDR) should be prepared for all design segments.

Bridge aesthetics should be addressed as a separate chapter in the BDR and should define the specific visual requirements for the subject bridges and walls, describing the proposed means of implementing these goals. Specific contents of the bridge aesthetics chapter should include:

- Identification and definition of specific requirements and visual impacts (neighborhoods, portals, gateways, cultural and historic resources, etc.).
- Documentation of any mitigative measures necessary for project approvals, including any previously incorporated or approved documents.
- Documentation of ideas and suggestions considered from citizen and agency involvement.
- Identification of acceptable structure types consistent with aesthetic goals and requirements
- Discussion of the visual incorporation of the subject bridges in the project, including interfacing with adjacent contracts (sketches should be included).
- Specific identification of proposed architectural treatments, such as color, texture, ornamentation, lighting, etc. (sketches should be included).

The development of the bridge aesthetics concepts should be viewed as a continuing process, and should include public involvement activities to continue to inform the public and local agencies of current plans and to solicit ideas, particularly for unique neighborhoods, where a strong public interest in the project has been expressed. Public involvement activities should be held in conjunction with development of the bridge aesthetics chapter of the BDR.

Any specific design considerations, such as special treatments in designated areas, should be explicitly demonstrated. As discussed in the BDR under "Alternative Designs", the bridge aesthetics chapter will serve to ensure that any contractor alternatives or value engineered revisions meet the aesthetic goals of the project.

For bridges that require urban (level 3) aesthetic treatment, the BDR shall include an alternative employing a closed box girder superstructure. If this alternative is not the recommended alternative due to extraordinary engineering or cost issues, geometric constraints, maintenance limitations or structural concerns, a written justification outlining these issues will be required. It is the intent to provide the closed box girder superstructure unless there are extraordinary reasons prohibiting it.

5.1.5 Architectural Involvement

The FDOT Structures Design Guidelines recommends that an architectural subconsultant be involved with projects in highly urbanized areas where landscaping or unique neighborhood features need to be considered. It is encouraged that an architect's involvement be utilized for those sites, and further, such involvement should be required for sites designated as gateways or portals and for such issues as color, texture, lighting, and ornamentation. This involvement should occur during the design concept stage, and may continue through design development. This involvement can have a positive contribution, but it should be specified that the architect be trained to work with bridges and have demonstrated expertise and credentials in bridge design.

5.1.6 Citizen Involvement

Public and community relations are an important aspect of the ultimate goal to enhance the appearance of the Tampa interstate. In the end, it is how the public accepts these efforts that really counts. It is therefore imperative that citizens' input and appropriate ideas be considered in the final project.

An extensive citizen involvement program has been implemented for the TIS project. This has included attendance of over 3,000 persons at four public meetings which are recorded in the documents: Public Meeting No. 1 Comments Summary Working Paper (September 1988), Public Meeting No. 2 Comments Summary Working Paper (January 1989), Public Meeting No. 3 Comments Summary Working Paper (March 1989), and Alternatives Public Meeting Comments Summary Working Paper (May 1991). In addition to these four meetings, two historic resource meetings (November 12, 1992 and October 25, 1993) and four community workshops (February/March 1994) were held. The historic resources public meetings and community workshops were held to receive input regarding secondary effects of the proposed improvements and measures for providing visual unity to the project as outlined in the TIS Urban Design Guidelines. It is recommended that additional citizen involvement meetings be conducted specifically in conjunction with development of the bridge aesthetics chapter of the BDR and the amenities design in the following special design areas:

- Ybor City
- Tampa Heights/Central Business District
- Seminole Heights
- West Tampa
- Westshore

5.1.7 Alternative Designs and Bridge Aesthetics

The FHWA encourages the provision of alternative designs for major bridges, typically providing two alternatives using the basic superstructure materials of concrete and steel. In cases where there is a small cost differential in the estimated alternative bridge design costs at the BDR stage, the provision of these alternative designs is viewed as a business strategy, and typically alternative designs are provided to take advantage of fluctuating costs in the marketplace, as well as fostering competition in the design and contracting industry to lead to a least cost structure (see Section 5.1.3). For bridges that require urban (level 3) aesthetic treatment, the BDR shall include an alternative employing a closed

box girder superstructure, as noted in Section 5.1.4. If this alternative is not the recommended alternative, a written justification outlining these issues will be required. It is the intent to provide the closed box girder superstructure unless there are extraordinary reasons prohibiting it.

Further, it is common to permit contractor alternatives to the contract designs, either through the "value engineering" process or simply through change orders. The premise here is that the desire to win the bid will lead to cost-saving ideas. It is possible that some of these ideas will affect the appearance, perhaps only in detail, but nevertheless a change in the designer's intention of the appearance.

The above issues are further complicated in a large project such as the Tampa interstate reconstruction by the necessity of a multitude of design and construction contracts and the resulting potential for dissimilarities in adjacent contracts. The results of these individual influences and actions can create a phenomenon known as "piece mealng". This is to be avoided.

The purpose of these guidelines is not to inhibit the provision of economical designs, but to allow economical designs to develop within a set of aesthetic guidelines that are consistent with the Section 106 and Section 4(f) requirements, the commitments made in the approved environmental documents, and the generally perceived aesthetic goals of the designers. Therefore, the following is recommended relative to the provision of alternative designs.

In such cases where it is deemed advantageous to provide alternative designs for bidding, the bridge aesthetics chapter of the BDR shall address the aesthetics of both designs in a consistent manner, such that any combination of constructed alternative structure types will be consistent with the aesthetic goals of the project. This consistency should extend to adjacent sections as well as to contracts within the same interchange. In some situations, the use of steel and concrete structures in close proximity may be necessary, but this is generally discouraged for aesthetic reasons. Possible treatments include the

use of consistent column and abutment appearances and treatments between alternatives, provision of consistent structure forms (such as closed box girders) for both concrete and steel alternatives, or provision that consistent colors be utilized for all alternatives (such as painting steel girders "concrete gray" or painting or coating both concrete and steel bridges the same color). As stated in the FDOT Structures Design Guidelines, "... disregard for this continuity or lack of attention to detail can spoil the best intent."

Contract documents should be prepared to provide specific direction on limits and requirements for value engineering or change order type revisions. The bridge aesthetics chapter of the BDR should be referenced, and any proposed changes should be consistent with its requirements and subject to review and approval based on meeting the original aesthetic objectives. The requirement for an "aesthetic compliance statement" should be included to specifically demonstrate the compliance with the aesthetic requirements.

5.2 RETAINING WALLS AND EMBANKMENTS

Reconstruction of the Tampa interstate will require high embankments and, due to right-of-way limitations, extensive retaining walls. These walls and high embankments are significant design elements relative to the aesthetic character of the overall interstate system and require special attention to visually integrate them into the system.

A major characteristic will be the extreme height of some walls, particularly for locations that incorporate noise walls. A primary goal of the wall and embankment design guidelines will be to reduce the perceived height of such walls and embankments through the use of terracing, landscaping, texture, and lighting.

5.2.1 General

As previously noted for bridge aesthetics, one of the goals of these guidelines is to provide designers with guidance on specific aesthetic requirements relative to approved environmental documentation for this project. This section provides a compilation of these requirements relative to retaining walls and embankments; however, the designers should refer to the project development and environmental documentation for further details.

It is again emphasized that the aesthetic requirements have been agreed upon by federal, state and local agencies as appropriate and in some areas serve as mitigation. These measures must be followed and documented as any other project criteria necessary for project approvals.

5.2.2 Identification of Aesthetic Levels

The definition of the aesthetic requirements for retaining walls and embankments follows the same areas as defined for bridges listed in Tables 3.1 and 5.1, previously referenced. This information provides the general level of aesthetic treatments within each design segment. The retaining wall and embankment levels of aesthetic treatment should generally correspond to the treatment level for the adjacent bridges. As discussed in Section 5.1.2, there are exceptions where greater or lesser levels of treatment are recommended within each design segment. Retaining wall treatments should be dictated by the highest level of treatment within the design segment. Within particular segments, certain areas, such as unique neighborhoods, portals, and gateways, should receive special consideration relative to the appearance of retaining walls and embankments.

The form and appearance of retaining walls should harmonize with adjacent bridge structures. Embankments should generally be sodded slopes with gradients consistent with safety requirements.

The selection of wall surface treatment should place an emphasis on providing a visual quality consistent with the overall structural aesthetic goals. From the viewpoint of the interstate traveler, it is important that walls be unified and harmonious to prevent an irregular and confused impression. This should include consideration of the wall geometry to enhance form, a more extensive use of textures and integration into adjoining structures.

Each level of aesthetic treatment has specific criteria to be followed as outlined below:

Requirements for Rural (Level 1) Aesthetics

- Use of color should be limited to earth tones
- Use of manufacturer's standard texture forms for pre-cast panels
- Use of #4 or #5 sandblast finish on smooth finishes to add texture and detail
- Integration with surrounding structures
- Landscaping should be limited to areas of emphasis or screening

Requirements for Moderate (Level 2) Aesthetics

- Use of multiple colors, both integral and applied
- Use of more intricate manufacturer's texture forms for pre-cast panels
- In special design areas, use of integrated custom texture forms
- Integration of architectural forms to create accents
- Use of specialty lighting, such as uplighting along local streets
- Use of finishes or appurtenances to allow vines along local streets to cover the wall
- Use of landscaping and earthen mounds to reduce visual impacts and perceived height
- Additional landscaping should be used in areas of emphasis or screening
- Integration of header cap in proportion to wall height to create a finished look
- Use of textures and finishes to deter graffiti and vandalism
- Creation of opportunities for outdoor public art

Requirements for Urban (Level 3) Aesthetics

- Use of moderate level criteria plus the following items:
- Extensive use of custom texture forms
- Integration of architectural forms and materials for colors and detail
- Use of terraced walls for landscaping

- Integration of specialty lighting
- Use of berms and landscaping to reduce visual impacts and perceived wall height
- Integration of wall design with surrounding structures
- Creation of opportunities for outdoor public art

Exhibit 5.3 illustrates candidate treatments for wall surfaces. For special design areas, gateways, portals or other specified locations, wall texturing may take the shape of abstract architectural forms, or may utilize a form representative of an object unique to the Tampa Bay area or the specific neighborhood.

Treatment of all walls and embankments within the Tampa interstate reconstruction area require documentation as part of the bridge aesthetics chapter of the BDR, which is discussed in Section 5.1.4.

5.3 NOISE WALLS

The Tampa interstate reconstruction project must address noise attenuation for all proposed improvements. Noise walls will be used in designated areas to mitigate adverse noise impacts. These noise walls will be composed of concrete and/or concrete-based sound-absorptive materials. Two types of walls are anticipated to be considered for the proposed interstate improvements: cast in-place concrete and pre-cast panels. The use of pre-cast panels will be more expedient and require less initial right-of-way to construct.

Noise walls may be the most critical design element in how the interstate system will be judged aesthetically, both from the interstate traveler's point of view and that of the adjacent land owner. If not handled correctly and designed appropriately, noise walls can negate all of the other positive aesthetic treatments incorporated along the roadway. The design and treatment of proposed noise walls should be part of the bridge aesthetics chapter of the BDR, as discussed in Section 5.1.4.

5.3.1 General

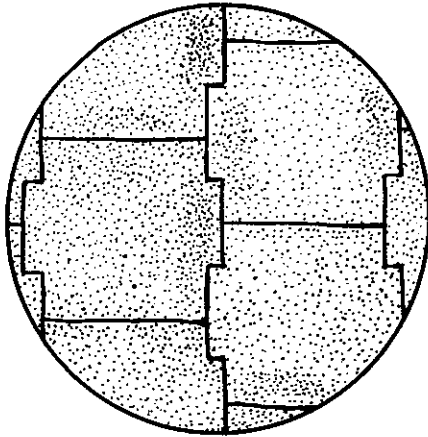
Specific textures will be dependent on the level of treatment. In general, a coarse texture will be used on the roadway side and a finer, more detailed texture for the neighborhood side. The texture on the roadway side should not be made too distracting; the use of bright colors and extremely bold patterns should be avoided. However, the texture along the roadway side should be interesting and not monotonous, using details that create balance, not distractions. The texture used along the roadway, at cross street areas, and in certain residential areas should incorporate anti-vandalism measures. This can be accomplished with the use of anti-graffiti coatings or certain coarse textures. As an example, the use of a 'fuzzy finish', created by using a garden rake with every other tooth missing, raked across the panel in random semi-circles has proven to be an effective deterrent to graffiti. The use of fluted or fractured finishes has also been an effective deterrent.

Noise walls should provide visual continuity with other structural elements. This is to be done especially with those elements that the noise walls may come into contact with, such as retaining walls. This continuity can be accomplished by the use of similar colors, materials and textural patterns. Some suggestions for enhancing the visual quality include the use of earth tone colors, integration of landscaping, and the balance of vertical and horizontal elements. Color should not seek to be identical with the surroundings, e.g., green-colored noise walls with extensive landscaping. Complementary or contrasting colors are a better choice. Refer to Appendix C for a discussion of the use of color.

Noise walls are structural elements and should not try to reflect the natural materials used in landscaping. Landscaping should be used in situations of sufficient space, especially on the neighborhood side of the noise wall. Landscaping can reduce the perceived height of walls and break the monotony of one continuous mass. The walls should incorporate vertical and horizontal elements to balance the perceived height and length of walls. Vertical elements will increase the perceived height of high walls, and horizontal elements will increase the perceived length of walls. Horizontal

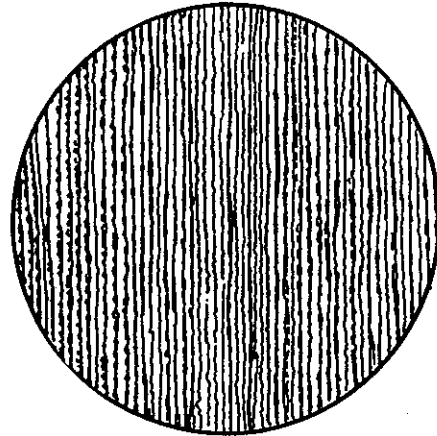
RURAL LEVEL TEXTURES

• BUSH HAMMER FINISH IS A NON-REPETITIVE ROUGH TEXTURE



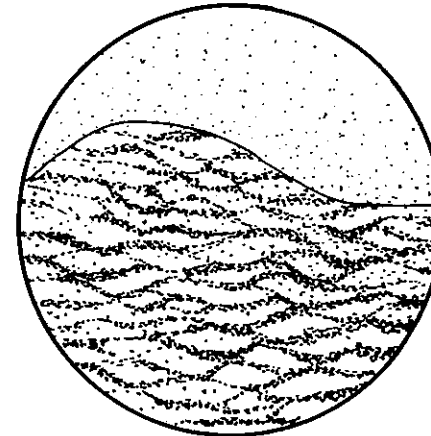
MODERATE LEVEL TEXTURES

• FRACTURAL FIN IS A LINEAR-PRODUCED TEXTURE OF ROUGH EDGED VERTICAL RIBS

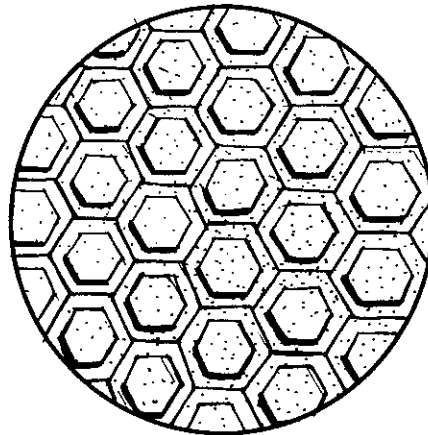
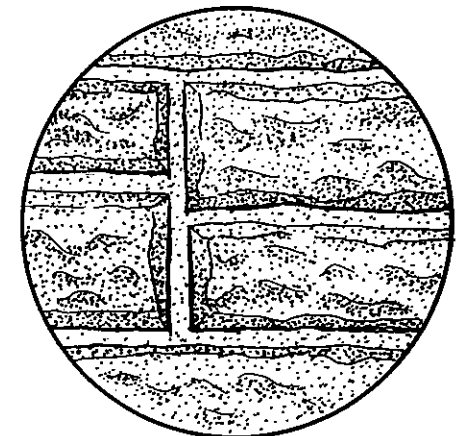


URBAN LEVEL TEXTURES

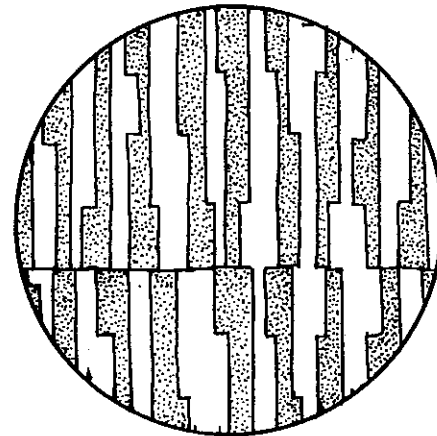
• COMBINED FINISHES CREATE A VISUALLY STRIKING SURFACE



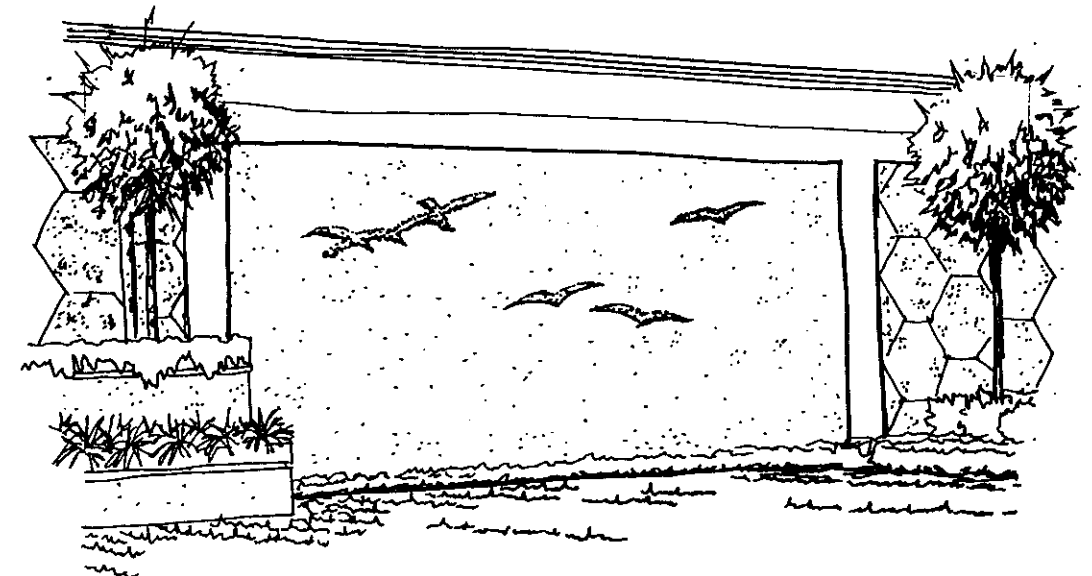
• BRICK OR STONE VENEER CAN BE USED TO CREATE A TRADITIONAL APPEARANCE



• RAISED RELIEF PANELS MAY BE COMBINED WITH OTHER FINISHES



• A GEOMETRIC PATTERN PROVIDES A UNIQUE CUSTOM FINISH



• OPPORTUNITIES FOR THE DISPLAY OF PUBLIC ART SHOULD BE INCORPORATED INTO MODERATE AND URBAN LEVEL WALLS

EXHIBIT 5.3

CANDIDATE RETAINING WALL TREATMENTS

to vertical proportional ratios of 3:5 or 5:8 should be used to create visual balance and harmony. Textures should be limited to no more than two on the same wall. Alternating textures in quick, repetitive sequences should not be used because it creates monotony and possible distraction.

Noise walls should not begin or end abruptly. There should be a transition from grade to top of the noise wall. This transition can be either the stepping or sloping of the wall itself or the use of landscaping to transition the wall down to grade. Necessary openings to accommodate access to fire hydrants and other possible emergency equipment must be provided. This should be addressed in early design submittals. The aesthetic treatment for noise walls should be considered in the aesthetics chapter included as part of the BDR.

5.3.2 Identification of Aesthetic Levels

The definition and identification of levels of aesthetic treatment requirements for noise walls coincides with the levels of treatment for bridge structures. However, as with retaining walls, noise wall treatments should be dictated by the highest level of treatment within the design segment. Section 3.2 defines levels of aesthetic treatment for each design segment.

Each level of aesthetic treatment has specific criteria to be followed, as outlined below. Exhibit 5.4 illustrates candidate noise wall treatments. Additional illustrations of noise wall treatments are contained in Section 3 and Appendix H.

Requirements for Rural (Level 1) Aesthetics

- Integral earth tone color
- The use of manufacturer's standard texture forms for pre-cast panels
- The application of anti-vandalism protective coatings

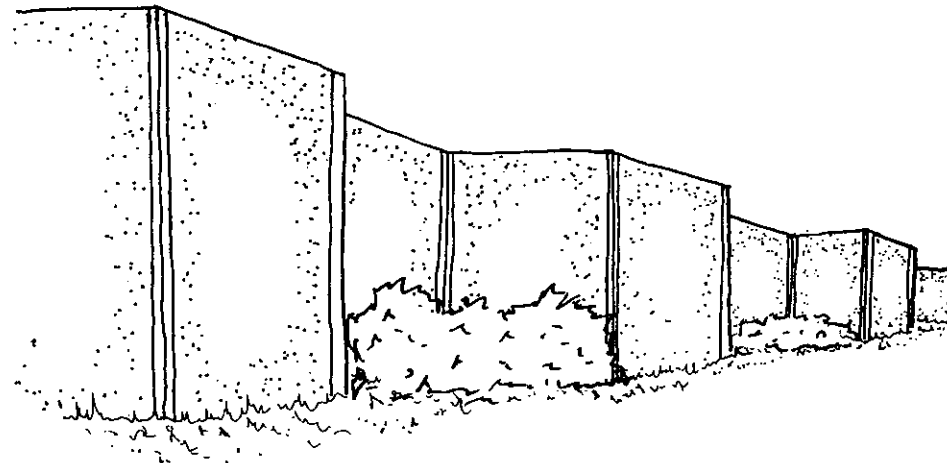
- The use of #4 or #5 sandblast finish on smooth finishes to add texture and detail to match retaining walls and bridge structures
- Integration of noise walls with other surrounding structures

Requirements for Moderate (Level 2) Aesthetics

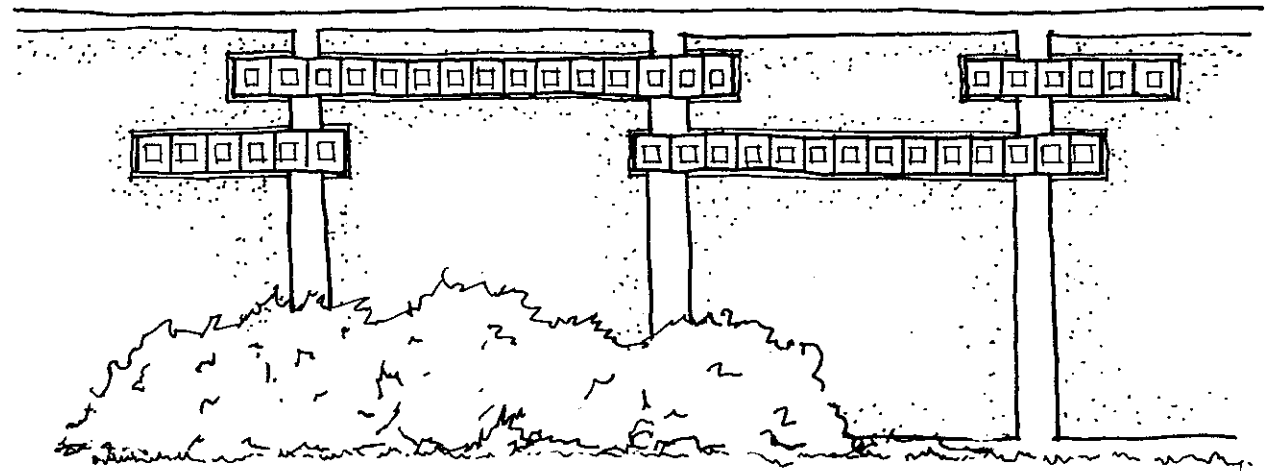
- The use of multiple colors both integral and applied
- The use of more intricate manufacturers' texture forms for pre-cast panels, especially for use on the neighborhood side of noise walls
- The integration of custom texture forms for pre-cast panels, especially for use to express possible cultural icons of a particular neighborhood
- The integration of architectural forms to create accents that can be carried throughout the wall and carried through to other surrounding noise walls
- The use of specialized lighting such as uplighting
- The use of finishes or appurtenances that allow the integration of vines to cover the noise wall
- The integration of a header cap in proportion to the height of the wall to create a more finished look
- The integration of landscaping along the wall to reduce visual impacts and perceived height

Requirements for Urban (Level 3) Aesthetics

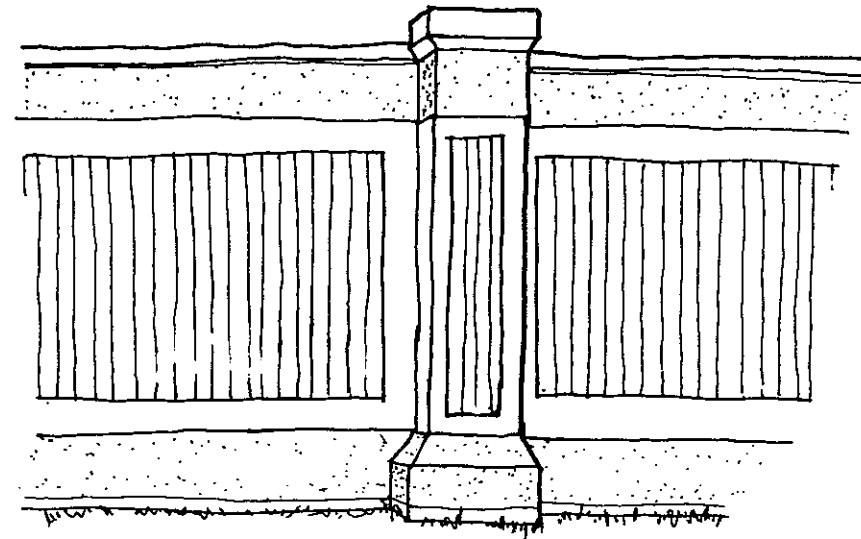
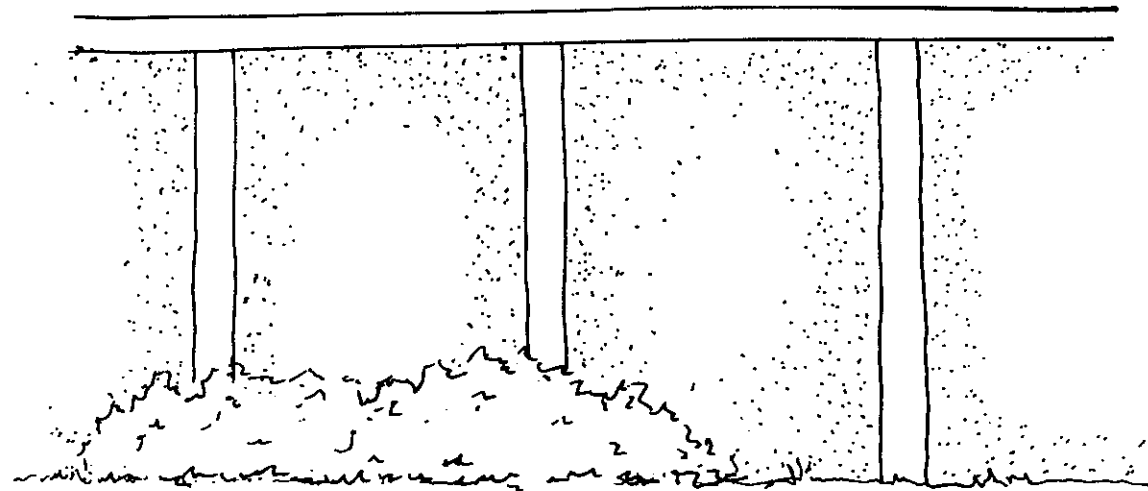
- The use of moderate (level 2) criteria plus the following items:
- Extensive use of custom texture forms on neighborhood side
- Integration of architectural forms and materials for additional color and detail
- Integration of specialty lighting and possible use of fiber optics in non-residential areas
- Integration of earthen berms to reduce perceived height



**RURAL AND MODERATE LEVEL - PRE-CAST OR
CAST-IN-PLACE NOISE BARRIERS**



**URBAN LEVEL - CUSTOM DESIGNED NOISE WALLS
REFLECTING NEIGHBORHOOD CHARACTER**



**EXHIBIT 5.4
CANDIDATE NOISE WALL TREATMENTS**

5.4 LIGHTING

The use of lighting is an integral part of the aesthetic hardware for the interstate reconstruction project. An adequate lighting system is essential to the success of a design, and will act as a major deterrent to crime and provide a sense of security and comfort to motorists and pedestrians. Safety considerations have established minimum lighting design criteria in existing state and federal standards. Aesthetic criteria should address efforts to soften the possible intrusion of highway lighting into established neighborhoods and designate fixture components which reiterate the overall design theme.

There are essentially two types of lighting situations to be addressed: the lighting on the roadway system and the lighting off the system, which includes lighting of local streets and cross streets associated with the proposed improvements. To serve as an element of continuity, one type of light pole and fixture should be used on the mainline roadway. Examples are illustrated in Exhibit 5.5. The style should have clean lines and rounded form. An anodized finish is recommended for ease of maintenance. In areas where utility lines will remain on poles, lights should be incorporated on the poles to minimize the total number of poles in the landscape. Poles for utilities, lights and signs should be consolidated where possible to minimize visual clutter.

Placement of lighting should reflect a relationship with other surrounding structural elements. Height should be appropriate for design speed and use. Light poles should have frangible bases except where protected by concrete barriers. On service roads and ramps, single units placed on the right-hand side of the roadway should be used where possible. Lighting for primarily pedestrian use should be scaled accordingly. Proper scale transition from interstate lighting to cross street or neighborhood lighting must be demonstrated. The transition from interstate lighting style to neighborhood styles should be integrated with other structural elements to provide visual balance and quality. Examples of neighborhood lighting poles and fixtures are illustrated in Exhibit 5.6.

To ensure pedestrian safety, a fairly high level of light should be maintained. Where possible, light sources should be high-pressure sodium for maximum efficiency. It is recommended that all lighting within the project limits meet or exceed established state and federal standards for lighting specifications. Consideration should be given to neighborhood preferences for light source type.

Street lights should be located on the back of the sidewalk in pedestrian areas. They should be located on all four corners of signalized intersections and on two corners (diagonal) of all other intersections.

All wiring should be underground in PVC conduit where there are no existing overhead lines. Service points should be coordinated with Tampa Electric Company (TECO). The lighting units specified should provide the required cut-off to limit spill light off the right-of-way without external shields.

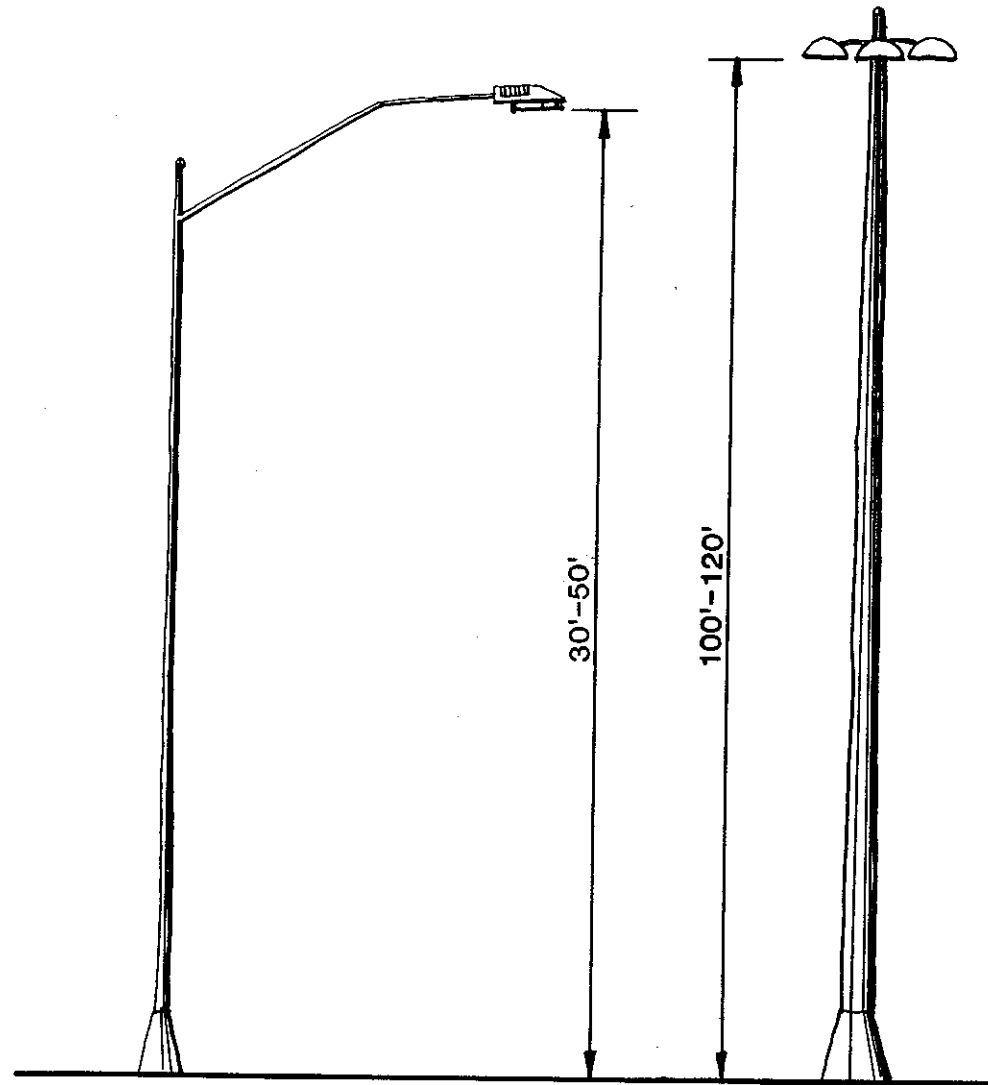
General criteria have been established for each level of aesthetic treatment as follows:

Requirements for Rural (Level 1) Aesthetics

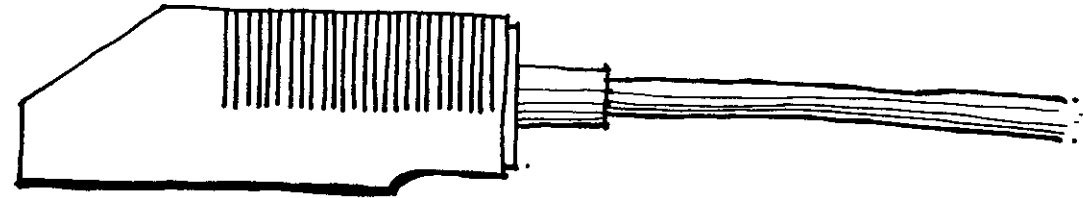
- Interstate lighting levels should be relative to surrounding elements
- Cross street lighting should use standard manufacturers' styles and should be a clean non-ornamental type
- Cross street lighting levels should be relative to surrounding elements
- Materials can be steel, aluminum or concrete; no wood will be allowed

Requirements for Moderate (Level 2) Aesthetics

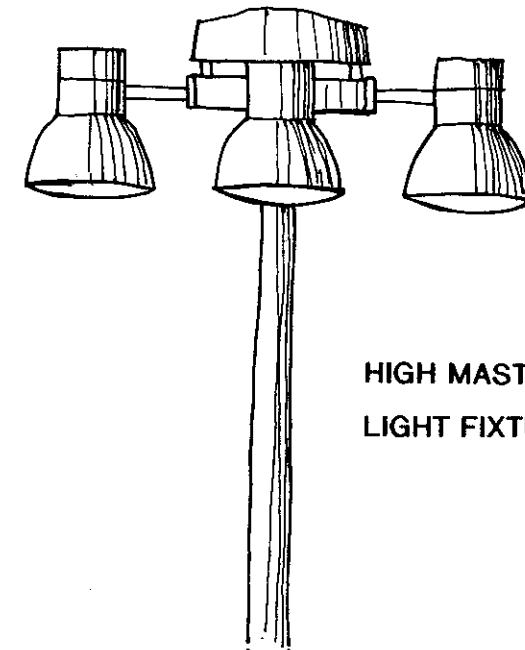
- Interstate lighting levels should be relative to surrounding elements
- Interstate lighting materials can be steel, aluminum or concrete
- Cross street lighting can be more ornate to reflect neighborhood influences but should still contain clean lines
- Materials for local street lighting can be steel, aluminum, concrete, or fiberglass-reinforced polyester; no wood will be allowed



HIGHWAY LIGHTING

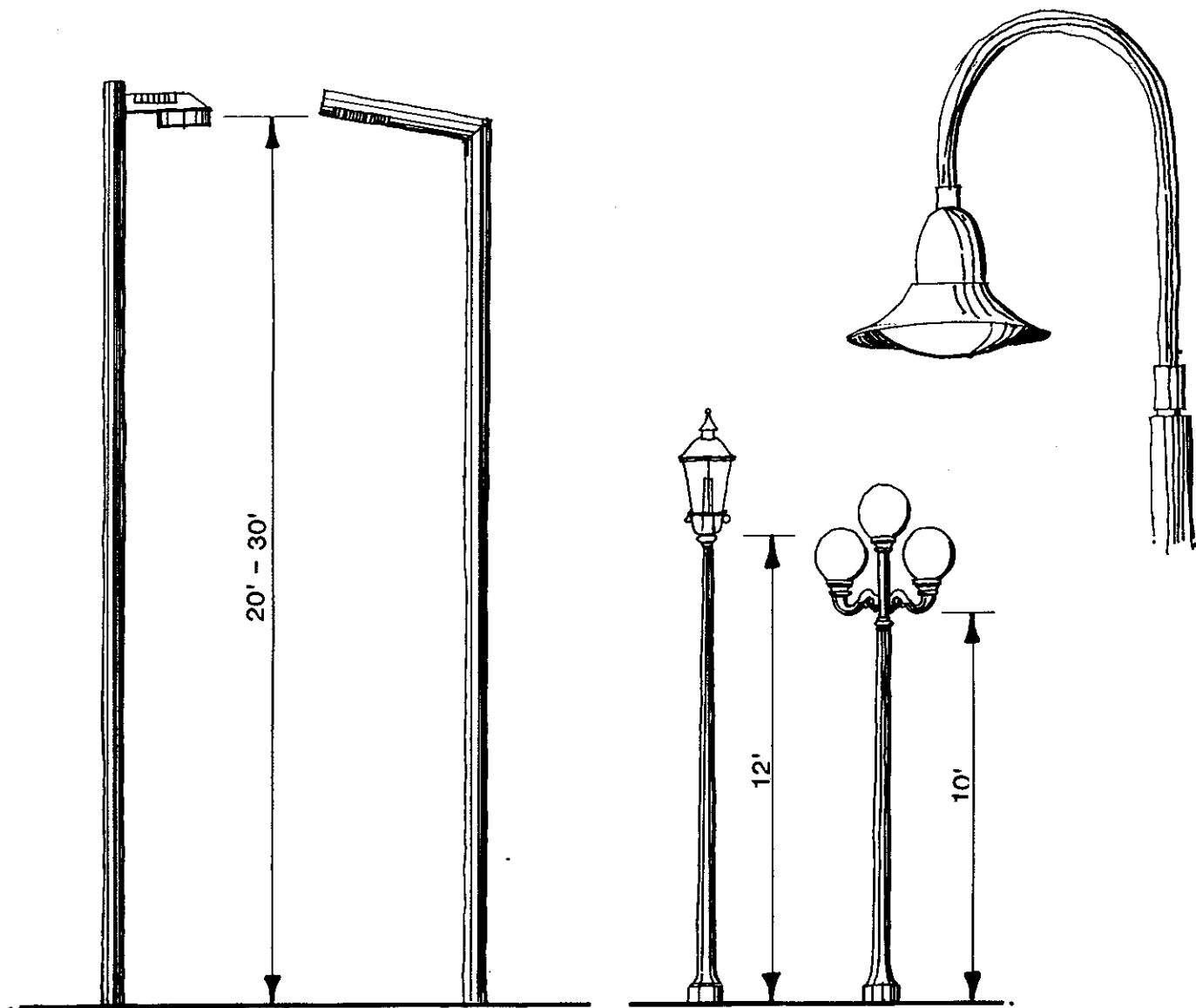


ROADWAY LIGHT FIXTURE



HIGH MAST
LIGHT FIXTURE

EXHIBIT 5.5
HIGHWAY LIGHT POLE AND FIXTURE PROTOTYPES



SPECIALTY AND CROSS-STREET LIGHTS

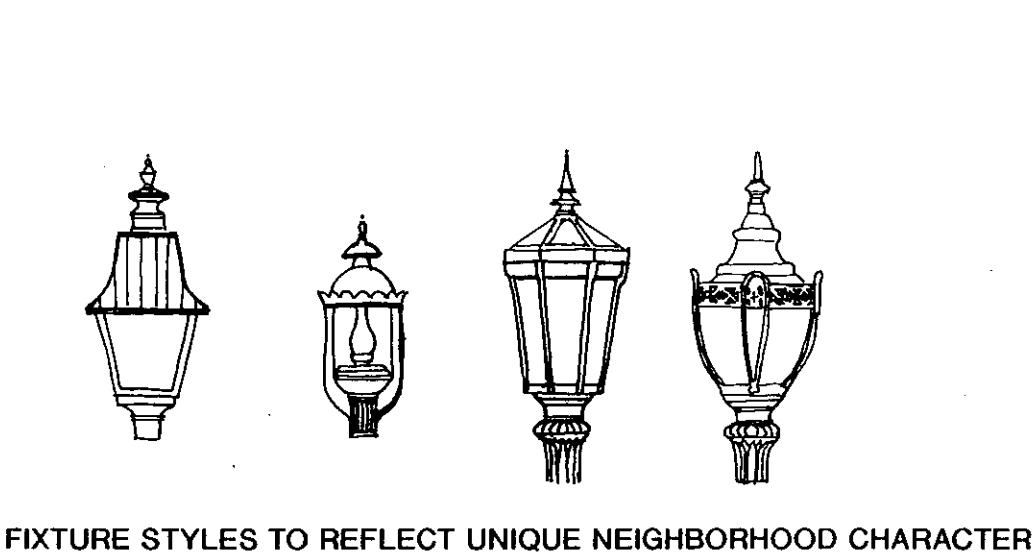


EXHIBIT 5.6
NEIGHBORHOOD POLE AND FIXTURE PROTOTYPES

Requirements for Urban (Level 3) Aesthetics

- Interstate lighting levels should be relative to surrounding elements
- Interstate lighting materials can be steel or cast aluminum
- Cross street lighting can be custom fixtures that reflect neighborhood icons
- Materials for local street lighting can vary but should be as durable as standard materials such as aluminum, steel, fiberglass-reinforced polyester and cast iron; no wood will be allowed

5.5 FENCING

Fences will be required along the limited access right-of-way as safety and security measures. Placement of fencing, as well as types of fences, should be carefully considered to achieve unity in design and reduce visual clutter. While the customizing of 'highway hardware' must conform to engineering safety considerations, it should also reflect the visual character of the overall design theme and unique neighborhoods.

In areas where visual quality is a priority, alternatives to standard chainlink fencing should be used. Materials used should correspond to the level of treatment category for the design segment. The form and height of the fencing should meet necessary requirements for safety and security and be appropriate in scale to its surroundings.

The following criteria shall be met for each level of aesthetic treatment:

Requirements for Rural (Level 1) Aesthetics

- Standard chainlink fencing (painted black)
- Black vinyl-coated chainlink fencing

Requirements for Moderate (Level 2) Aesthetics

- Colored vinyl-coated chainlink fencing, non-standard mesh opening sizes
- The use of eurostyle color-coated galvanized steel or aluminum fencing
- Color should be compatible to surrounding elements

Requirements for Urban (Level 3) Aesthetics

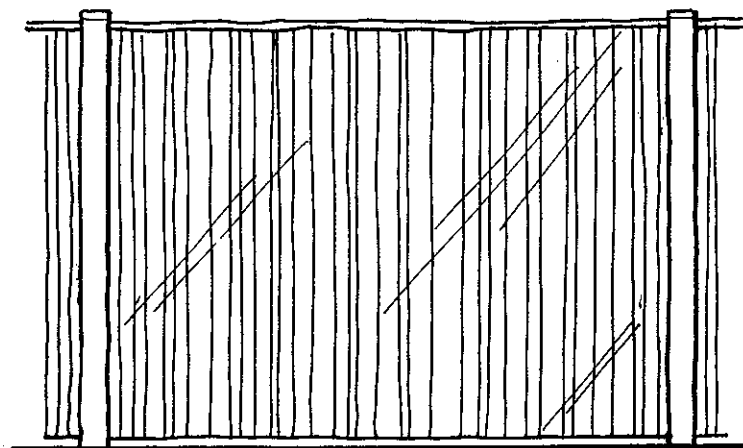
- Custom galvanized steel, cast iron, or aluminum fencing relating to neighborhood cultural icons
- Colored coated vertical rail galvanized steel or aluminum fencing with color relating to surrounding elements
- Cast iron fencing may be black in color, other fencing colors must relate to surrounding elements

Representative examples of fencing to be implemented are illustrated in Exhibit 5.7.

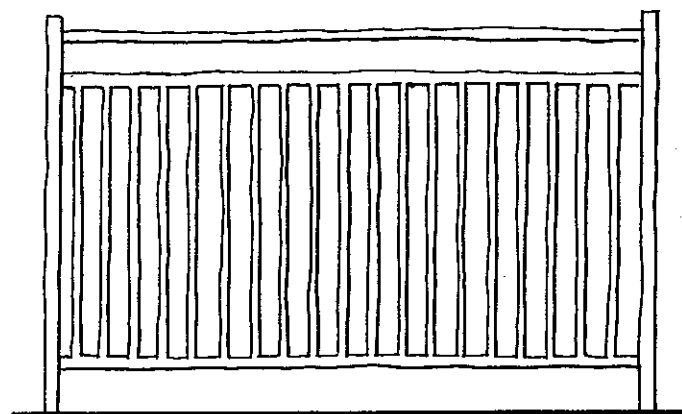
5.6 SIGN SUPPORTS

The overhead sign supports on interstate highways are important and significant visual features to the overall design of the roadway system. The economics of scale make it possible to design special supports for signing on Tampa's interstate. The freeway traveler needs clean, clearly visible, and uncluttered signs to receive directional and location information.

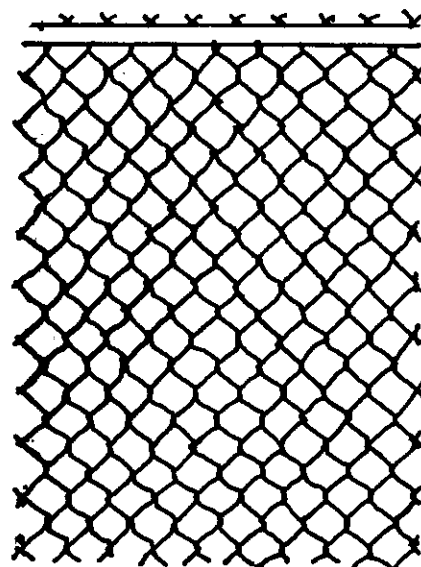
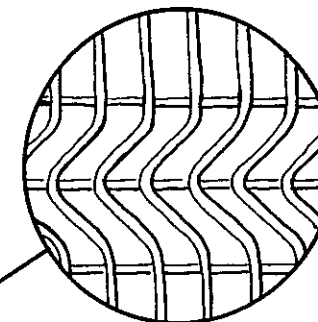
Because signing is required throughout the entire corridor, it is a design element that should offer continuity in the overall theme of the project. Generally, the materials to be used should be fiberglass tubular steel columns with tubular trusses to hold the signs. The color and finish of columns should complement surrounding vertical structural elements. As shown in Exhibit 5.8, the sign supports should have clean lines and no exposed structural framework. Signs that are to be placed on bridges should be within the bridge's profile and multiple signs should have similar height. Poles for signs should be consolidated where possible to achieve an uncluttered appearance.



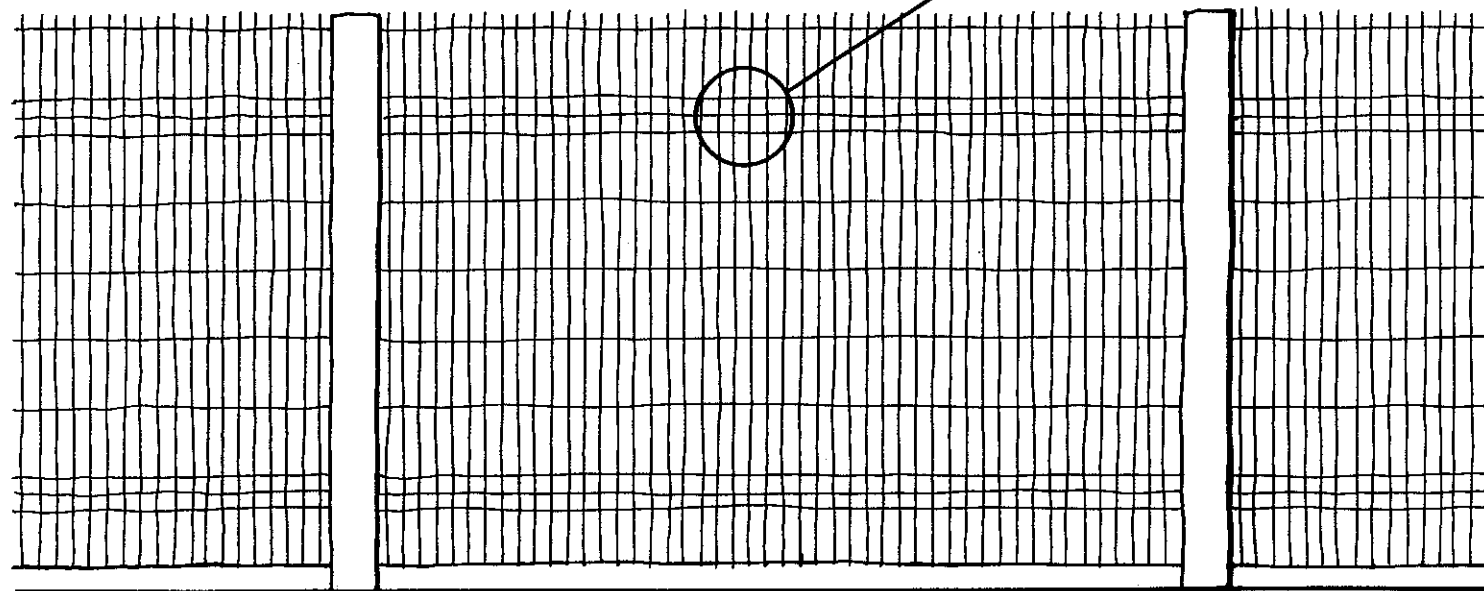
METAL SCREENING FENCE



ORNAMENTAL ALUMINUM FENCE



CHAIN LINK FENCE WITH
COLOR TREATMENT



VINYL COATED STEEL MESH FENCE

EXHIBIT 5.7
FENCING PROTOTYPES

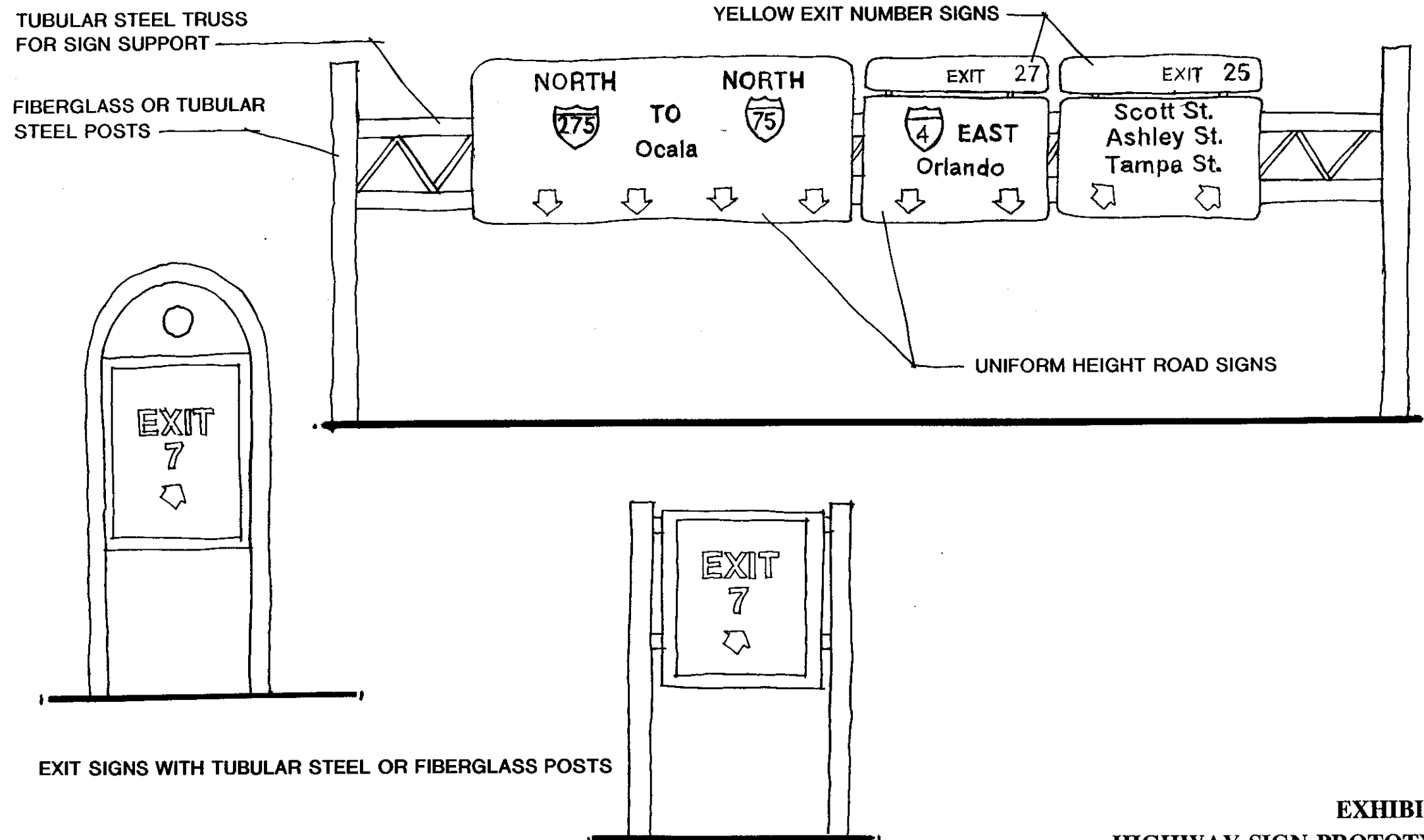


EXHIBIT 5.8
HIGHWAY SIGN PROTOTYPES

The same design format for sign supports should be used for all levels of treatment throughout the entire project. Colors used for the trusses and columns should be similar and compatible with surrounding elements. Signs for local cross streets should reflect the character of the surrounding neighborhood, as illustrated on Exhibit 5.9. Supports used for signing and traffic signals on cross-street improvements should conform to the City of Tampa standards when used in the Central Business District.

The design review by the DRC, as discussed in Section 4 of these guidelines, should provide the enforcement of these design standards for uniformity of sign supports, and other elements, throughout this project. General criteria established for all levels of treatment are listed below:

Requirements for Rural (Level 1), Moderate (Level 2), and Urban (Level 3) Aesthetics

- Color of sign supports to be integral and consistent with surrounding elements
- Signs to meet standard FDOT requirements

5.7 STORMWATER MANAGEMENT AREAS AND SURFACE WATER FEATURES

5.7.1 General

Stormwater management areas will be required for the Tampa interstate reconstruction due to the increase in impervious surface area. The design criteria for these areas must comply with federal, regional, state, and local regulations for water quality treatment and peak discharge attenuation capacity, as well as with applicable safety regulations. The configuration and aesthetic quality of the stormwater facilities will be dependent on available area, right-of-way constraints, soil conditions, water table elevations, and the designated level of aesthetic treatment with respect to the individual locations of facilities (Exhibits 5.10, 5.11, and 5.12). The proposed locations of the stormwater

facilities have been identified in previous studies, but some adjustments may be necessary due to permitting activities. Where feasible, the stormwater facilities should be incorporated as a visual amenity. The placement of stormwater facilities under the interstate system, where practical, should also be considered. All facilities should be designed to meet and/or exceed current FDOT and SWFWMD standards and specifications. It should be noted that the level of maintenance may increase as the level of aesthetic treatment increases.

5.7.2 Identification of Aesthetic Levels

As previously discussed in Section 3.2, a hierarchy of treatment levels has been established for this project. As listed below, each level of treatment has specific criteria to be followed:

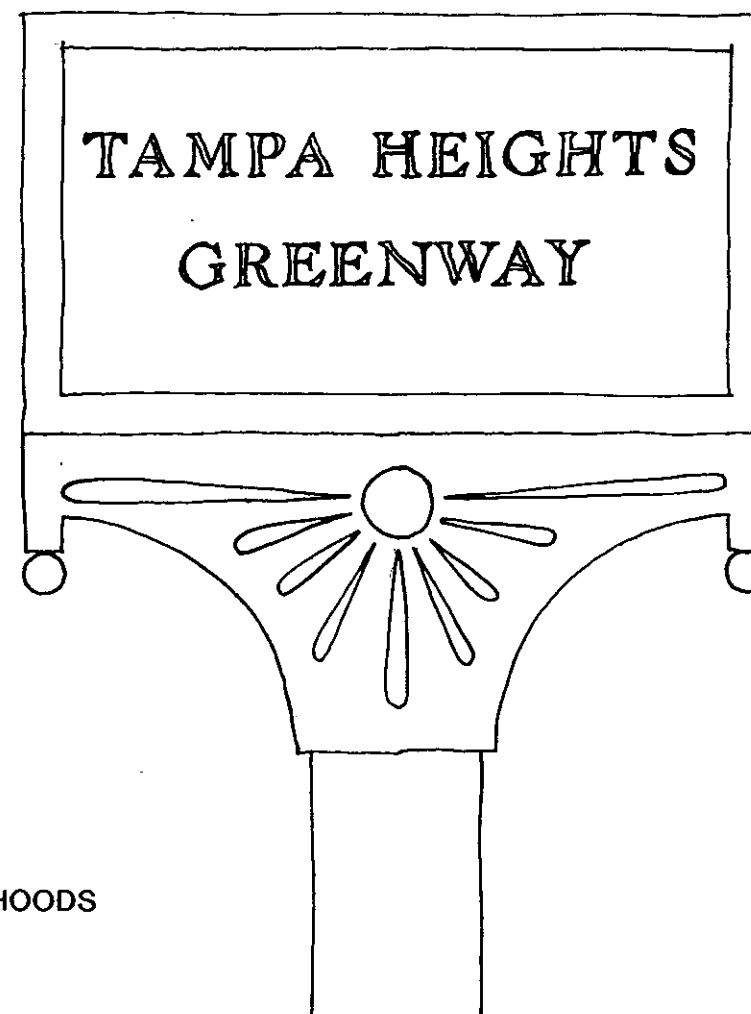
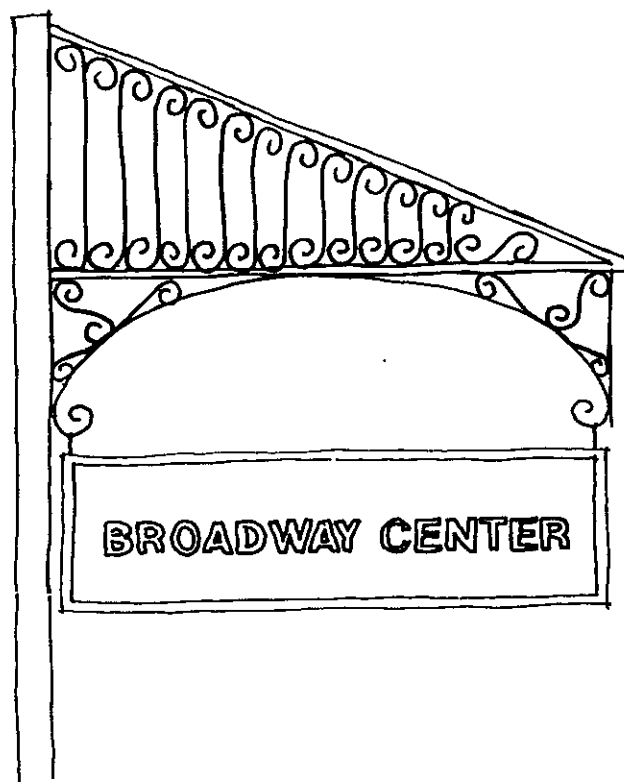
Requirements for Rural (Level 1) Aesthetics

Swales:

- Must meet FDOT and SWFWMD criteria
- Swales must be seeded and mulched or sodded

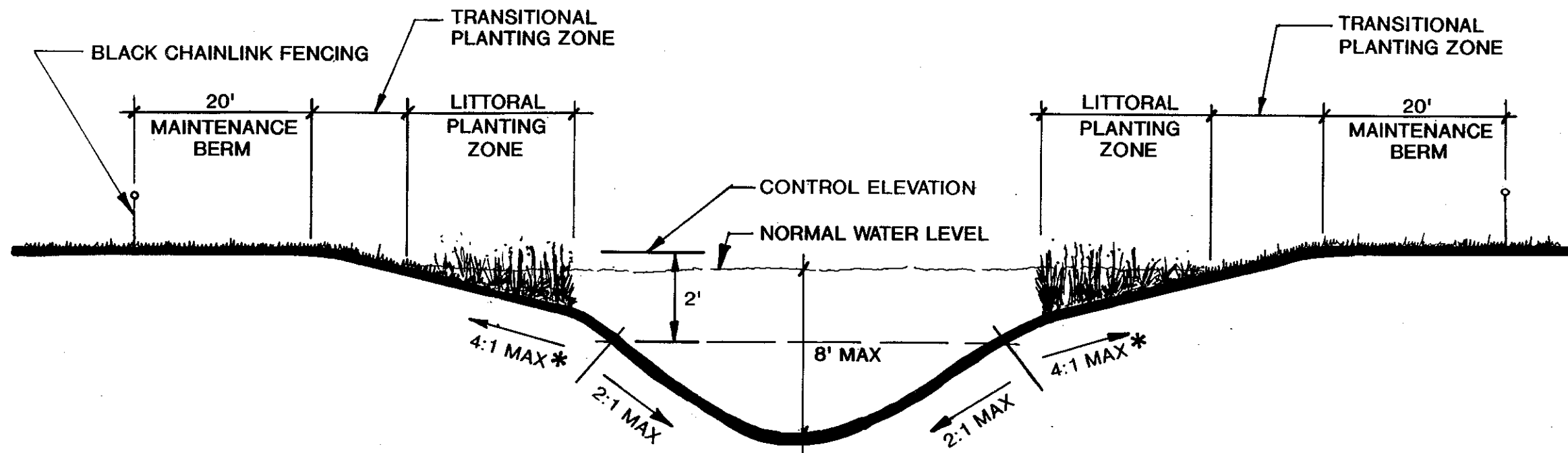
Detention Ponds:

- Pond configuration to utilize naturalistic shapes with smooth shorelines
- Pond slopes to be 4:1 (maximum) out to a depth of 2 feet below the control elevation
- Fencing, where utilized around ponds, to be dark-colored chainlink (6 feet high)
- Maintenance berm to be 20 feet wide and sodded
- Sediment sumps to be used at inflow points
- Pond depth to be 8 feet maximum for 'wet' ponds



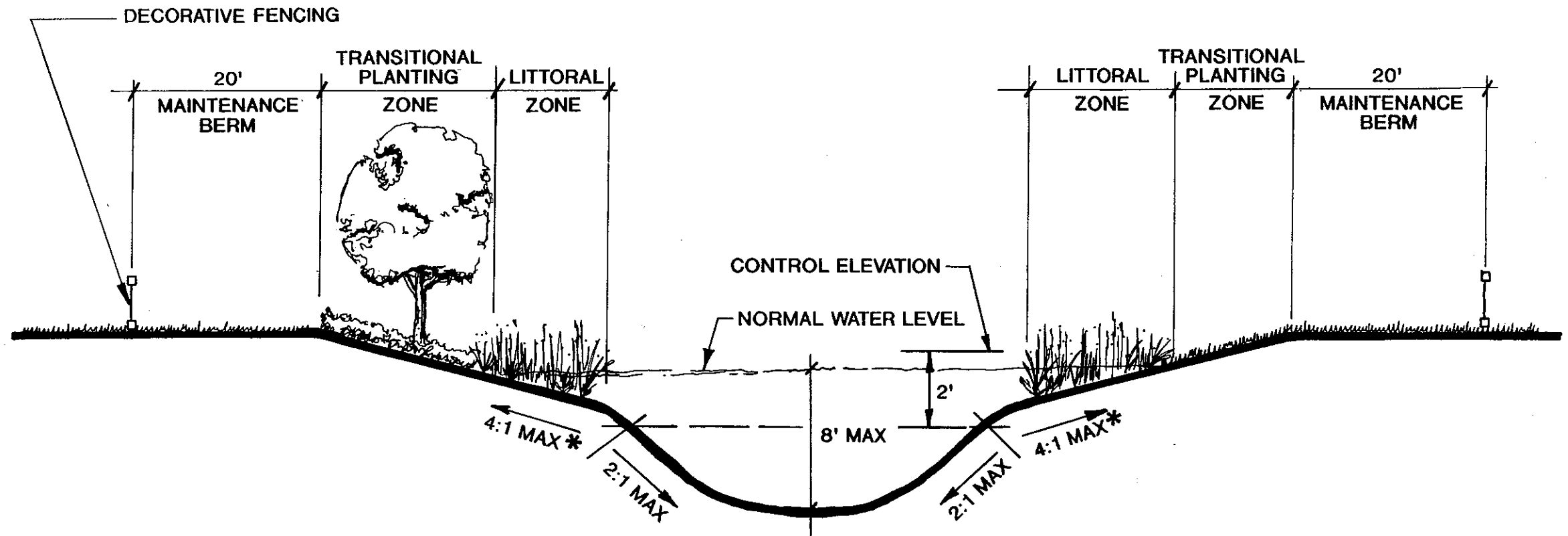
APPROPRIATE SIGN STYLES REFLECTING CHARACTER OF NEIGHBORHOODS
SUCH AS YBOR CITY AND TAMPA HEIGHTS

EXHIBIT 5.9
NEIGHBORHOOD SIGN PROTOTYPES



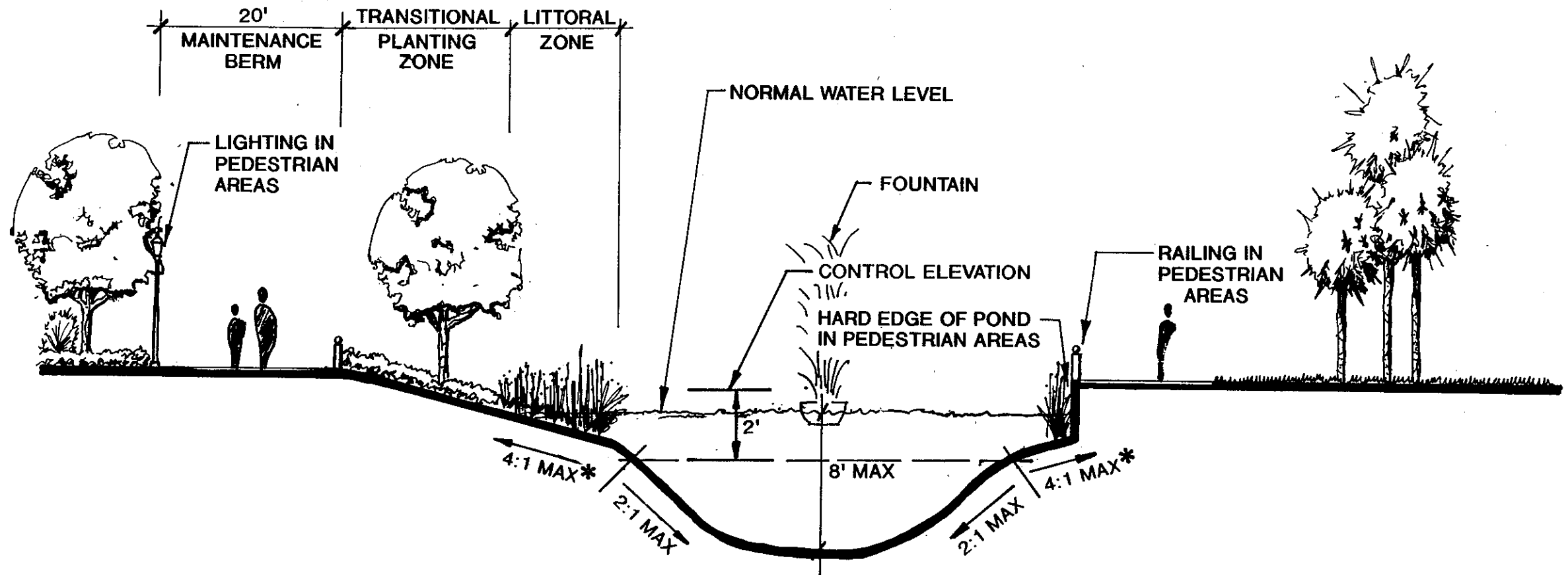
* IN PONDS UTILIZING LITTORAL ZONES USE 8:1 SLOPE MAX.

EXHIBIT 5.10
STORMWATER MANAGEMENT AREA - RURAL TREATMENT SECTION



*IN PONDS UTILIZING LITTORAL ZONES USE 8:1 SLOPE MAX.

EXHIBIT 5.11
STORMWATER MANAGEMENT AREA - MODERATE TREATMENT SECTION



* IN PONDS UTILIZING LITTORAL ZONES USE 8:1 SLOPE MAX.

EXHIBIT 5.12
STORMWATER MANAGEMENT AREA - URBAN TREATMENT SECTION

- Littoral zone plantings to be incorporated into wet ponds (see Section 5.8, Landscaping, for recommended aquatic plant species)
- Discharge structures should utilize oil skimmer baffle system
- Use of minimal landscape materials around ponds from normal water level to top of bank (see Section 5.8, Landscaping, for applicable plant species); remaining areas to be sodded.

Requirements for Moderate (Level 2) Aesthetics

- Pond configuration to utilize naturalistic shapes
- Pond slopes 4:1 (maximum) out to a depth of 2 feet below the control elevation
- Sediment sumps to be used at inflow points
- Decorative fencing, where utilized, in accordance with Section 5.5
- Maintenance berms to be 20 feet wide, sodded and landscaped
- Pond depth to be 8 feet maximum for 'wet' ponds
- Littoral zone to be incorporated into wet pond (see Section 5.8, Landscaping, for recommended aquatic plant species)
- Discharge structure should utilize oil skimmer baffle system
- Use of landscape plant materials in accordance with Section 5.8
- Utilize fountains in ponds which may have visual impact

Requirements for Urban (Level 3) Aesthetics

- Pond configuration to utilize naturalistic shapes
- Pond slopes 4:1 (maximum) out to a depth of 2 feet below control elevation, except in hard edge areas

- Sediment sumps to be used at inflow points
- Utilize hard edge in pedestrian use areas or where applicable
- Fencing to be decorative in accordance with Section 5.5
- Incorporation of the detention area into an urban design feature, especially in areas in proximity to pedestrian use areas
- Incorporation of detention areas under elevated roadway structures, minimizing necessary right-of-way and creating a pedestrian or neighborhood amenity
- Discharge structure should utilize oil skimmer baffle system
- Use of extensive landscaping around ponds in accordance with Section 5.8
- Utilize lighting for landscape areas and water features, where applicable
- Maintenance berms to be 20 feet wide where applicable. Berms to be sodded, landscaped, or surfaced with specialty pavers in pedestrian areas
- Fountains should be utilized in ponds which may have high visual impact

5.8 LANDSCAPING

The landscape design and planting scheme developed for the Tampa interstate improvements is of primary importance for providing complementary forms to the rigid materials and geometry of the roadway environment. Effective landscape design provides a mechanism for buffering the surrounding land uses from the roadway system. The development of landscape criteria, to be followed during construction of all facilities, is an integral component in achieving the project's goals and objectives.

5.8.1 General

This section sets forth the general criteria for landscape improvements within the FDOT right-of-way and local street improvements associated with the Tampa interstate reconstruction. These criteria include a recommended plant palette for landscape design, watering requirements, safety and setback requirements, and maintenance issues.

The goals and objectives used to develop the criteria to be addressed include:

- The landscape component of the interstate reconstruction shall be a unifying element
- Designs should emphasize mass plantings to accommodate viewing at highway design speeds
- Plants should be used as primary materials for directing views, screening undesirable views, and to mediate unbroken areas of paving and ground plane
- Materials should be selected to address proportion of plant masses (low shrubs to tall hedges, etc.). These materials should maintain such proportions over time without excessive maintenance or pruning
- Plant palette should be primarily native or indigenous species that harmonize with natural environmental factors associated with the site. These factors include salt tolerance, soil composition, and the ability to withstand heat, drought, and windy conditions
- Plant palette should reflect species consistent with water conservation principles
- Designs should facilitate ease of maintenance
- Thorny and toxic plants should not be used near pedestrian areas. Tree species with fruit or coarse textured deciduous foliage should not be used

5.8.2 Identification of Aesthetic Levels

In concert with other urban design elements, a hierarchy of landscape treatments has been established. The geographic locations for the three levels of treatment are illustrated on Exhibit 3.1, previously referenced. Exhibits 5.13, 5.14, and 5.15 provide examples of rural (level 1), moderate (level 2), and urban (level 3) aesthetic treatments, respectively. Each level of treatment has specific criteria to be followed:

Requirements for Rural (Level 1) Aesthetics

- Emphasis of design to be focused on interchange and portal areas
- Planting along mainline highway to be limited to screening and buffering to obstruct negative views and enhance positive views
- Minimal use of transitional plantings adjacent to retention ponds from normal water level to top of bank
- Limit plant palette to a minimal number of species (approximately 8 to 10), with little or no understory plantings
- No irrigation to be provided
- Littoral zone plantings to be incorporated into wet ponds
- Plant materials to be clustered for ease of maintenance
- Use of wildflowers to be identified as "no mow" zones
- No additional requirements associated with local street improvements

Requirements for Moderate (Level 2) Aesthetics

- Emphasis of design to address mainline roadway, as well as interchange and portal areas

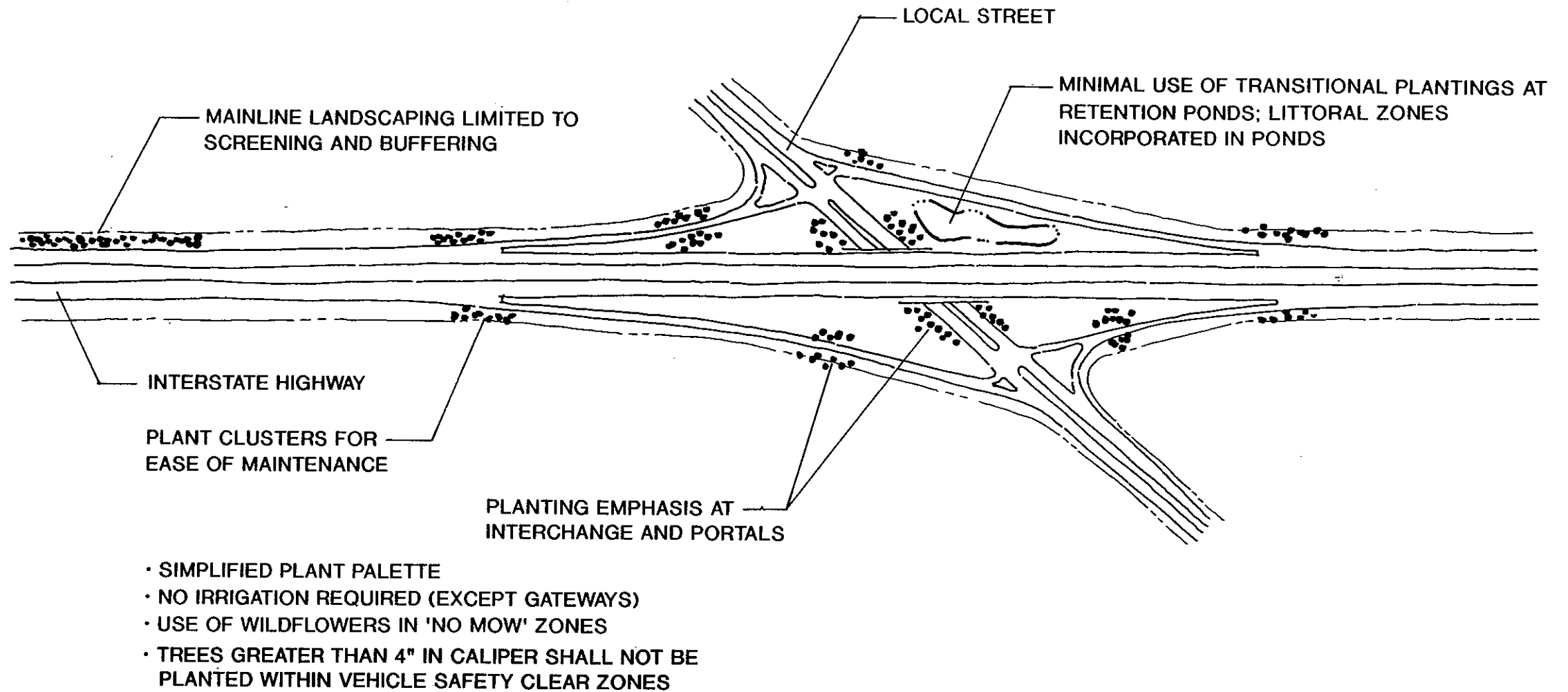
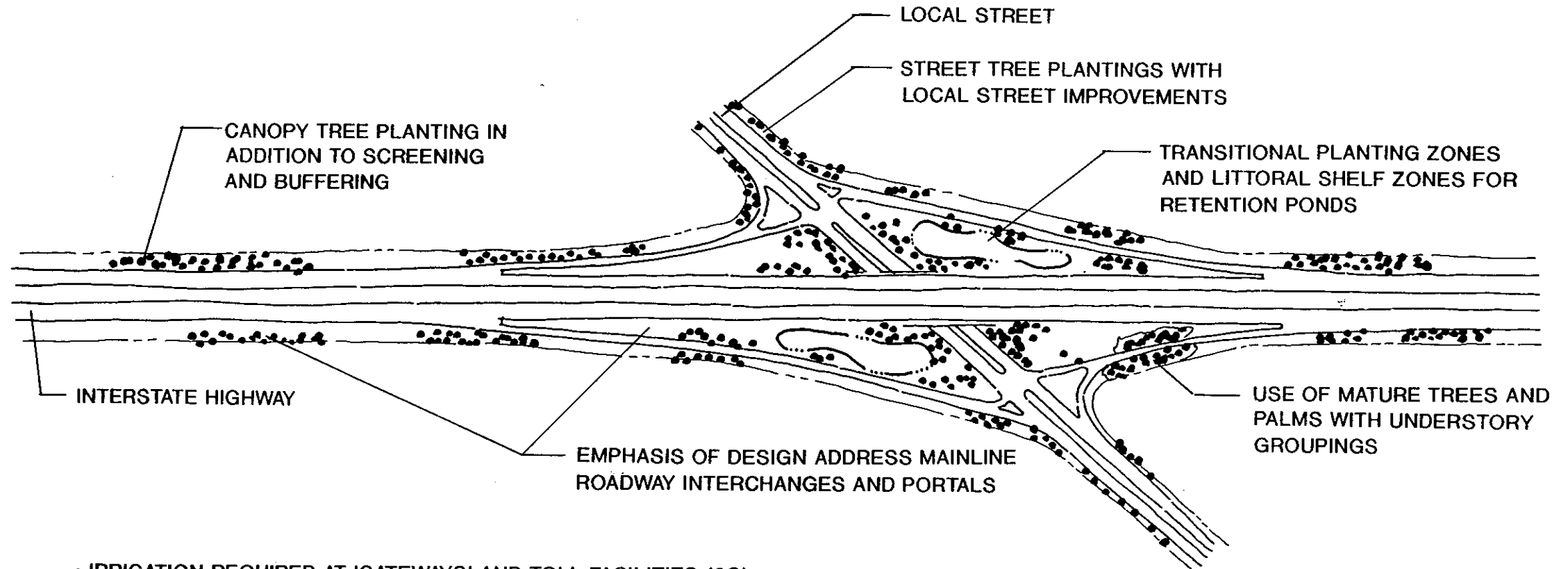
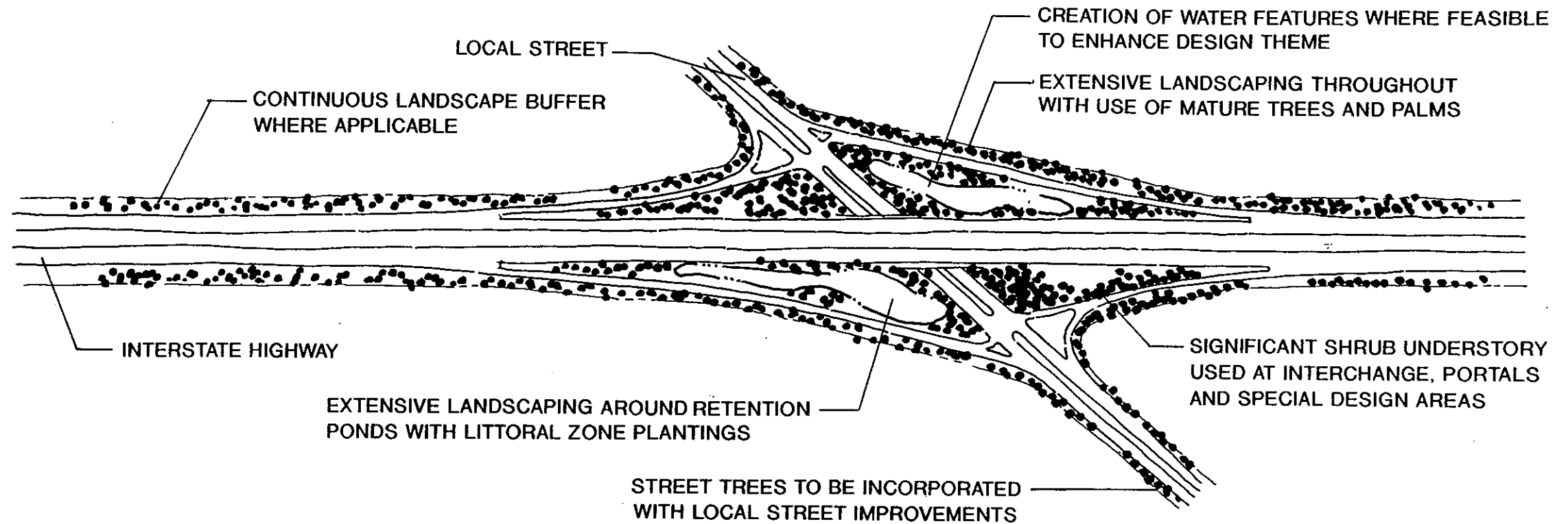


EXHIBIT 5.13
LANDSCAPE - RURAL LEVEL TREATMENT



- IRRIGATION REQUIRED AT 'GATEWAYS' AND TOLL FACILITIES (3C)
- USE OF WILDFLOWERS IN 'NO MOW' ZONES
- TREES GREATER THAN 4" IN CALIPER SHALL NOT BE PLANTED WITHIN VEHICLE SAFETY CLEAR ZONES

EXHIBIT 5.14
LANDSCAPE - MODERATE LEVEL TREATMENT



- AUTOMATIC IRRIGATION SYSTEM
- USE OF VINES ON FENCES AND WALLS WHERE APPROPRIATE
- TREES GREATER THAN 4" IN CALIPER SHALL NOT BE PLANTED WITHIN VEHICLE SAFETY CLEAR ZONES

EXHIBIT 5.15
LANDSCAPE - URBAN LEVEL TREATMENT

- Use of mature trees and palms with significant understory groupings at gateway, interchange and portal areas
- Irrigation feasibility to be conducted for emphasis areas, with irrigation required at gateway locations and toll plaza facilities (Segment 3C - Crosstown Connector)
- Mainline roadway to include planting of tree canopy species, in addition to buffering and screening requirements listed for rural (level 1) treatment areas
- Street tree plantings to be incorporated with local street improvements
- Transitional planting zones to be provided adjacent to retention ponds where feasible
- Littoral zone plantings to be incorporated into wet ponds
- Use of wildflowers in areas of emphasis to be designated as "no mow" areas

Requirements for Urban (Level 3) Aesthetics

- Extensive landscaping throughout, with use of mature specimen trees and palms
- Significant shrub understory used at interchanges, portals, and special design areas
- Continuous landscape buffer from adjacent land uses where applicable, with enhancement of views to significant local features and landmarks
- Extensive use of landscaping around retention ponds, with littoral shelf plantings where feasible (typically not on "hard edge" ponds)
- Creation of water features to define focal points and enhance design theme
- Street trees to be incorporated into local street improvements associated with interstate reconstruction
- Use of vines on fences and walls where appropriate solar orientation exists
- Automatic underground irrigation system

5.8.3 Plant List

The landscape palette for the Tampa interstate is provided on Table 5.2. As stated in the project goals and objectives, the selected species include primarily hardy, drought-tolerant, native vegetation with efficient water conservation principles. In urban (level 3) treatment areas, the list has been expanded to include species that are specific to special design areas.

5.8.4 Prohibited Species

Several aggressive plants have been introduced to the Florida landscape and have invaded native plant communities, altering the visual landscape and ecological balance. These plants shall not be used as they may cause hazards and continue to threaten native species. The following list of species shall not be specified for any design segment within the interstate reconstruction program:

Australian Pine (Casuarina spp.)
 Brazilian Pepper (Schinus terebinthifolius)
 Asiatic Colubrina (Colubrina asiatica)
 Punk Tree (Melaleuca quinquenervia)
 Australian Mimosa (Mimosa pigra)
 Chinese Tallow (Sapium sebiferum)
 Chinaberry (Melaleuca azedarach)
 Ear Tree (Enterolobium cyclocarpum)
 Silk Tree (Grevillea robusta)
 Taro (Colocasia esculenta)

Should such species exist on-site, they should be removed in accordance with the guidelines specified in the "Exotic Woody Plant Control" publication, as referenced in Appendix F.

Common Name	Botanical Name	Minimum Size and Specification
TREES		
Chickasaw Plum	Prunus angustifolia	15-gallon, 6'-8' height., 3'-4' spread, 1"-1 1/2" caliper
Sweet Gum	Liquidambar styraciflua	30-gallon, 10'-12' height, 4'-5' spread, 2"-2 1/2" caliper
Crape Myrtle**	Lagerstromia indica 'Muskogee' 'Natchez' 'Tuscarora'	15-gallon, 8'-10' height, Multi-stem, 3-5 stems
Ligustrum**	Ligustrum ludicum	15-gallon, 8'-10' height, Multi-stem, 3-5 stems
Shumard Oak	Quercus shumardii	65-gallon, 12'-14' height, 6' spread, 3"-3 1/2" caliper
Slash Pine	Pinus elliottii 'Densa'	15-gallon, 7'-8' height, , 3'-4' spread, 1 1/2"-2" caliper
Live Oak	Quercus virginiana	30-gallon, 10'-12' height, 4'-5' spread, 2"-2 1/2" caliper
Sand Pine	Pinus clausa	15-gallon, 7'-8' height, , 3'-4' spread, 1 1/2"-2" caliper
Dahoon Holly	Ilex cassine	30-gallon, 10'-12' height, 4'-5' spread, 2"-2 1/2" caliper
'East Palatka' Holly	Ilex X attenuata 'East Palatka'	30-gallon, 10'-12' height, 4'-5' spread, 2"-2 1/2" caliper
Bald Cypress	Taxodium distichum	30-gallon, 10'-12' height, 4'-5' spread, 2"-3" caliper
Red Maple	Acer rubrum	65-gallon, 12'-14' height, 6' spread, 3"-3 1/2" caliper
Redbud	Cercis canadensis	15-gallon, 6'-8' height, 3'-4' spread, 1"-1 1/2" caliper
Southern Magnolia	Magnolia grandiflora	15-gallon, 6'-8' height, 3'-4' spread, 1"-1 1/2" caliper
Southern Red Cedar	Juniperus siliciola	15-gallon, 6' height, 3' spread, 1 1/2" caliper
Red Bay	Persea borbonia	15-gallon, 6'-8' height, 3'-4' spread, 1"-1 1/2" caliper
Wax Myrtle	Myrica cerifera	15-gallon, 5'-6' height, 3'-4' spread, 1 1/2"-2" caliper

* Denotes Non-native Species ** To be utilized in irrigated special design areas only

TABLE 5.2
RECOMMENDED PLANT LIST

Common Name	Botanical Name	Minimum Size and Specification
PALMS		
Needle Palm	Rhapidophyllum hystrix	5-gallon, 2'-4' spread
Sabal Palm	Sabal palmetto	8'-20' clear trunk, Straight
Pindo Palm	Butia capitata*	8'-12' clear trunk, Straight
Washington Palm	Wahsingtonia robusta*	8'-20' clear trunk, Straight
Windmill Palm	Trachycarpus fortunei*	8'-20' clear trunk, Straight
Canary Island Date Palm**	Phoenix canariensis*	8'-16' clear trunk, Straight Heavy Trunk
SHRUBS		
Walters Viburnum	Viburnum obovatum	3-gallon, 24"x24", Full
Fakahatchee Grass	Tripsacum floridanum	3-gallon, 24"-30" height, Full
Saw Palmetto	Serenoa repens	3-gallon, 20"x20", Full
Dwarf Yaupon	Ilex vomitoria 'Schillings'	3-gallon, 24"x30", Full
Sand Cordgrass	Spartina bakeri	1-gallon, 20" height, Full
Spanish Bayonet	Yucca aloifolia	3-gallon, 3'-4' height, Full
Indian Hawthorn	Raphiolepus indica*	3-gallon, 24"x30" height, Full
Beauty Berry	Callicarpa americana	3-gallon, 3'-4' height, Full
Wild Olive	Forestiera segregata	1-gallon, 20" height, Full
Twinberry	Myrciathes fragrans	3-gallon, 3'-4' height, Full
Oleander	Nerium Oleander*	3-gallon, 24"-30" height, Full
Downy Jasmine**	Jasminium multiflorum*	3-gallon, 24"x24", Full
Cast Iron Plant**	Aspidistra elatior*	3-gallon, 24"-30" height, Full

* Denotes Non-native Species

** To be utilized in irrigated special design areas only

TABLE 5.2 (Cont'd)
RECOMMENDED PLANT LIST

Common Name	Botanical Name	Minimum Size and Specification
GROUNDCOVERS		
Society Garlic	Tulbahaia violacea*	1-gallon, 12" height, Full
Giant Liriope	Liriope muscari 'Evergreen Giant'*	1-gallon, 15" height, Full
Coontie	Zamia pumila	3-gallon, 15"-18", Full
Beach Sunflower	Helianthus debilis	1-gallon, 12"-18", 3-4 stems min.
Gold Lantana	Lantana depressa*	1-gallon, 12"x12", Full
Purple Lantana	Lantana montevidensis*	1-gallon, 12"x12", Full
Sea Ox-Eye Daisy	Borrchia arborescens	1-gallon, Full
Coral Honeysuckle	Lonicera sempervirens	1-gallon, 15"-18" Runners, 3 Runners/Pot
Creeping Fig**	Ficus pumila*	1-gallon, 15"-18" Runners, 3 Runners/Pot
Spider Lily	Hymenocallis latifolia	1-gallon, 12"-18" height, Full
WILDFLOWERS		
Lupine	Lupinus diffusus	20 lbs/Ac., 60% germinated, Florida Native Seed Source only
Black-eyed Susan	Rudbeckia hirta	15 lbs/Ac., 80% germinated, Florida Native Seed Source only
Blue-eyed Grass	Sisyrinchium rosulatum	20 lbs/Ac., 80% germinated, Florida Native Seed Source only
Tickseed	Coreopsis gladiata	20 lbs/Ac., 80% germinated, Florida Native Seed Source only
Gaillardia	Gaillardia pulchella	25 lbs/Ac., 80% germinated, Florida Native Seed Source only
Blazing Star	Liatris tenuifolia	25 lbs/Ac., 60% germinated, Florida Native Seed Source only

* Denotes Non-native Species

** To be utilized in irrigated special design areas only

TABLE 5.2 (Cont'd)
RECOMMENDED PLANT LIST

Common Name	Botanical Name	Minimum Size and Specification
HERBACEOUS AQUATIC VEGETATION		
Arrowhead	<i>Sagittaria lancifolia</i>	12"-24" height, 3-4 Stems minimum, Bare Root, Full Clump
Arrowhead	<i>Sagittaria latifolia</i>	12"-24" height, 3-4 Stems minimum, Bare Root, Full Clump
Pickernelweed	<i>Pontederia cordata</i>	12"-18" height, 3-4 Stems minimum, Bare Root, Full Clump
Soft Rush	<i>Juncus effusus</i>	12"-18" height, 3-4 Stems minimum, Bare Root, Full Clump
Sand Cordgrass	<i>Spartina bakeri</i>	24"-30" height, 3-4 Stems minimum, Bare Root, Full Clump
Softstem Bulrush	<i>Scirpus validus</i>	24"-30" height, 3-4 Stems minimum, Bare Root, Full Clump
Lemon Bacopa	<i>Bacopa caroliniana</i>	12"-18" height, 3-4 Stems minimum, Bare Root, Full Clump
Floating-hearts	<i>Nymphoides aquatica</i>	12"-18" height, 3-4 Stems minimum, Bare Root, Full Clump
Water-lilies	<i>Nymphaea odorata</i>	3-5 Petioles/Plant, 12"-24" Petiole Length, Bare Root
Cinnamon Fern	<i>Osmunda cinnamomea</i>	12"x12" spread, Full, Bare Root
Royal Fern	<i>Osmunda regalis</i>	12"x12" spread, Full, Bare Root
Canna	<i>Canna</i> spp.	15"x12" spread, Bare Root, Full Clump
Swamp-lily	<i>Crinum americanum</i>	12"-18" height, 3-4 Stems minimum, Bare Root, Full Clump
Blue Flag Iris	<i>Iris virginica</i>	12"x12" spread, Full
Spider-lily	<i>Hymenocallis</i> spp.	12"-18" height, 3-4 Stems minimum, Bare Root, Full Clump
Cardinal flower	<i>Lobelia cardinalis</i>	12"-18" height, 3-4 Stems minimum, Bare Root, Full Clump
Arum	<i>Peltandra sagittifolia</i>	12"-18" height, 3-4 Stems minimum, Bare Root, Full Clump

TABLE 5.2 (Cont'd)

RECOMMENDED PLANT LIST

* Denotes Non-native Species

** To be utilized in irrigated special design areas only

5.8.5 Plant Material Size

The following criteria should be followed for plant material sizes:

- Trees: Generally, minimum specifications for plant material height and spread are indicated on Table 5.2. Trees placed adjacent to sidewalks or other pedestrian areas should have a minimum clear trunk clearance of 7 feet.
- Shrubs: Shrubs used for screening or buffering should have a minimum height of 24 inches at time of installation. All other shrubs should have a minimum of 15 inches in height at time of installation. Shrub spacing should be indicated on plans, within close proximity (30 inches to 4 feet on center) to eliminate excessive expanses of mulch and to minimize potential for weed invasion.
- Groundcovers: Groundcovers should be planted in such a way as to present a 'grown-in' appearance within one growing season of landscape installation.
- Vines: All vines should be full with minimum 12-inch runners.
- Grass: All interchange areas and stormwater management areas should be sodded.

5.8.6 Setbacks and Safety Considerations

Specific location criteria are listed in the AASHTO Roadside Design Guide and Index #700, "Design Criteria Related to Highway Safety." These publications must be considered in the placement of trees along the roadside to address the possibility of a vehicle leaving the roadway. Additionally, no plants over 4 inches in caliper or raised planters should be placed within vehicle clear zones as per FDOT landscaping policy. A list of additional standards and applicable guidelines is contained in Appendix F.

Plant materials should not be located where they may ultimately interfere with existing and/or proposed utilities and site elements (overhead and/or underground) such as power lines, water and sewer lines, gas lines, fire hydrants, sidewalks, or parking areas.

Plant material locations should not interfere with the driver's clear line of sight of vehicles, pedestrians, signage, and other traffic control devices. All landscaped areas should be designed in such a manner that cross-visibility is not obstructed and a traffic hazard is not created. The designer shall adhere to the criteria listed in FDOT Standard Index #546, "Landscaping at Intersections."

5.8.7 Watering Requirements

It is the intent of these guidelines to address design requirements for two watering conditions: areas where irrigation will not be used, or is not available for use, and areas which should be irrigated. Water conservation measures shall be incorporated for all new landscape areas associated with the interstate reconstruction.

The purpose of the irrigation system is to help establish newly installed plant materials and maintain healthy and vigorous growth. In rural (level 1) landscape treatments, areas along the roadway, with the exception of gateways, should not be irrigated. All plant species selected should be drought-tolerant, and adequately mulched to retain moisture in the soil.

The primary candidates for irrigation should be highly visible areas receiving moderate (level 2) and urban (level 3) treatment, including, but not limited to, gateways, portals, and interchanges.

Irrigation will be required for all gateways and portals, and for urban (level 3) interchanges. Treated effluent water should be used for irrigation where available.

General Design Parameters

All irrigation system design and location of system components should consider existing plantings. Piping should be located so as to avoid damage to existing plant materials from trenching of irrigation piping. All irrigation sleeves under roadway pavement should be cast iron. All piping should be PVC schedule 40.

Plant materials should be grouped according to water requirements for most efficient watering applications.

All irrigation areas should be designed for 100 percent head-to-head coverage. The system shall be designed so as not to overspray onto sidewalks, roadways, or other paved surfaces.

Moisture and rain gauge sensors should be incorporated in all irrigation systems to avoid irrigation during periods of sufficient rainfall. All irrigated areas within the Tampa interstate reconstruction project should be managed from a single, central controller for complete resource management. A centralized control system should allow for support of multiple stations, provide multi-source alarms and an automated alarm paging system. A radio-based control system will allow for full automatic irrigation scheduling by station based on environment, system design, plant materials, soil conditions, terrain, and specific operator requirements.

Water use, application rates, and scheduling should be consistent with all SWFWMD regulations.

The use of low volume emitter or target irrigation is preferred for trees, shrubs and groundcovers. Rotor or pop-up spray heads should be specified in all large areas of turf to minimize number of heads. Low trajectory spray heads should be used in high wind areas. Use of heads on fixed risers should be avoided where possible.

Emission devices and distribution components with different precipitation rates should not be designated within the same zone. Irrigation components should be grouped with similar precipitation rates.

Height of pop-up sprinklers, if used, should be appropriate for the function which it serves: 6 inches for grass areas, 12 inches for shrubs and groundcovers.

The irrigation mainline should be looped wherever feasible. Mainlines should have a minimum cover of 18 inches. Lateral piping downstream of the mainline should have a minimum cover of 12 inches.

5.8.8 Maintenance Considerations

As stated previously, one of the objectives of the Urban Design Guidelines is to present criteria which facilitates ease of maintenance once the project is implemented. The following measures should be considered for efficient landscape maintenance.

Maintain a mulched bed throughout large groupings of plants to reduce difficulty of mowing. Designate a 3-inch depth for all mulch beds. Mulch should be pine bark or pine needles, 100 percent organic. Eucalyptus mulch may be substituted. Do not use cypress mulch. Composted yard waste, from an approved source, may also be used as mulch.

Any and all mulch used should be free of extraneous seeds, seed spores, weeds, sticks, and other tree residue. All mulched areas should be treated with a pre-emergent herbicide to control new seed germination.

Maintain a minimum of 4 feet from all trees and plants from driving or parking lanes to allow for operation of mowers and other equipment. Where backside public access is not available, maintain

an 8-foot clearance from right-of-way fences for all plantings. Maintain reasonable clearance of all plantings from all regulatory and informational signs.

All trees and palms are to be self-supporting at time of planting. Where protection is needed to prevent blow-over during root establishment period, specify proper guying and staking for trees and palms in accordance with FDOT Specification Section 580. Maintain all staking and guying until trees have been established. Stakes and guy wires shall not extend into typically mowed turf areas. Under no circumstances should stakes remain longer than 12 months beyond installation date. A 3- to 4-foot diameter mulch ring should be specified and maintained around all trees to prevent trunk damage from mowers and edgers.

5.9 PAVEMENT AND STREETSCAPE

Pavement and streetscape requirements are used to provide high quality pedestrian-oriented streets and open spaces. These elements beautify streets and create a sense of orientation for motorists and pedestrians where safety is a major concern. Specialty paving features can also be used to maintain and enhance the integrity of unique neighborhoods, historic districts, and special design areas.

5.9.1 General

The use of specialty paving and hardscape will be limited to cross-street areas of the Tampa interstate reconstruction project where pedestrian use and concerns for pedestrian safety are the highest. The design of pedestrian cross-walks should allow for obvious distinction, either by texture, color, or materials, from roadway paving. This distinction will allow for increased awareness of pedestrians by vehicle users in cross-street areas.

Paving materials for pedestrian use, including sidewalks, should be concrete, granite, brick, or asphalt and designed to be durable under urban conditions of high volume and high weight traffic loads.

Materials used for streetscape elements, such as benches and trash receptacles, should also be durable for urban use. Streetscape elements should be vandal-resistant, maintenance-free, and not allow for removal from the sites.

Textures and material of elements should relate to the surrounding structural elements and neighborhood areas. The use of art in the design of paving and streetscape elements could be a way of incorporating the design into the neighborhood context.

The texture of the materials used should be safe for all pedestrians. Sidewalks and pedestrian cross walks should provide visual and tactile warnings for users when approaching or interacting with vehicular traffic. The use of steps and stairs in pedestrian areas should be discouraged. The Americans with Disabilities Act (ADA) design standards are to be met or exceeded.

5.9.2 Identification of Aesthetic Levels

As previously discussed, a hierarchy of treatment levels has been established for this project. Each level of treatment has specific requirements to be followed.

Requirements for Rural (Level 1) Aesthetics

- Standard concrete should be used for sidewalks and other pedestrian areas
- Crosswalks should be painted on street surface
- All intersections shall incorporate handicap ramps
- Streetscape elements should be vandal resistant and maintenance free

Requirements for Moderate (Level 2) Aesthetics

- Sidewalks and pedestrian areas should be designed with integral colored concrete, concrete pavers or brick
- Crosswalks should be defined by texture changes, such as pavers or brick, or painted with contrasting colors and patterns
- Handicap ramps should be incorporated at all intersections and should be identified with tactile warnings
- Streetscape elements should reflect design theme of surrounding structures or neighborhood
- Streetscape elements should be vandal resistant and maintenance free

Requirements for Urban (Level 3) Aesthetics

- Entire intersection and sidewalks between stop bars should be designed with decorative paving
- Decorative pavements for roads, sidewalks and crosswalks should consist of colored concrete, granite or brick pavers
- Design texture and color of pavement materials should reflect surrounding neighborhoods
- Handicap ramps should be incorporated at all intersections and should be identified with tactile warnings
- Streetscape elements should reflect the design theme of surrounding structures or neighborhood
- Streetscape elements should be vandal resistant and maintenance free

5.10 OPPORTUNITIES FOR PUBLIC ART

Public art has been well demonstrated in the Tampa Bay area through projects involving both the Hillsborough County Arts Council and the City of Tampa's "Art in Public Places" program. Such works as the "Cycle of Waves" on the Marion Street Transitway and "Solstice" in the Barnett Plaza, illustrate the area's commitment to providing cultural landmarks and improving the visual environment.

Appropriately placed art works in public transportation facilities have played a significant role in the visual quality of projects such as the Squaw Peak Parkway in Phoenix, Arizona. The success of these projects is attributed to extensive coordination between the roadway design teams, artists, and community representatives from initiation through implementation of the project.

Due to the right-of-way constraints and available urban open spaces within the corridor, there are limited opportunities for large, stand-alone sculpture pieces. However, numerous opportunities will be presented for the incorporation of art works into the urban design structural elements integral to the interstate reconstruction. This integration can take such forms as reliefs on retaining walls or bridge facades, murals on large retaining walls, or the ornamentation of fencing. The integration of art allows an opportunity for local cultural influences to be incorporated into design elements, reflecting the unique neighborhoods where they are found.

It is recommended that coordination efforts by local arts councils with FDOT be conducted to designate candidate locations for public art. When art is used, it should be as vandal-proof as possible. Art should be secured or made to deter its removal. Urban pedestrian areas, where art might be included, may be under the elevated roadways and at cross streets. Art work should also not require more than the usual level of maintenance for urban streetscape situations. Materials should be compatible with the surrounding structural elements and reflect a regional character. The material should also be durable and be able to withstand typical urban use without constant replacement.

General criteria for public art are as follows:

Requirements for Rural (Level 1) and Moderate (Level 2) Aesthetics

- Art forms should be integrated into structural elements

Requirements for Urban (Level 3) Aesthetics

- Design should create opportunities for the incorporation of public art into urban elements in high-use urban areas, interchange areas, and pedestrian areas at cross-streets
- Art forms should be integrated into structural elements within designated unique neighborhood areas

5.11 UTILITIES

Utilities within the TIS project area provide specific needed services such as water, power, and light. The equipment and materials required for these services must be integral to the design of the interstate improvements in terms of visual quality and aesthetics. As stated in Section 5.1, provisions for the placement of utilities must be addressed in the preliminary phases of design, and not appear just as functional afterthoughts attached to the surfaces. For example, the utility lines should be contained within the structure cross-section to maintain a clean appearance. Within pedestrian areas, where feasible, utilities should be underground or not readily visible or distracting to the visual quality of the area. Maintenance access points should not be obtrusive but should be screened or integrated into the structural element. If utilities cannot be placed underground and must be placed on poles, then the poles should relate to the surrounding elements.

General criteria for aesthetics have been established for utilities as follows:

Requirements for Rural (Level 1), Moderate (Level 2), and Urban (Level 3) Aesthetics

- Utilities are to be underground or hidden from view within structures, where practical
- Columns and poles, as needed, are to relate to surrounding structural elements

5.12 MOUNDS AND GRADING

Earthen mounds are a naturalistic feature of the landscape that can soften the structural perception of urban elements. An undulating ground plane provides interest and enhanced visual interest.

5.12.1 General

Earthen mounds (or berms) and undulating ground planes should be utilized, where sufficient right-of-way is available, to reduce the perceived height of retaining and noise walls. The use of berms, when incorporated with landscape plantings, will reduce the dominance of walls thus improving the project's visual quality.

Where noise and retaining walls are used, berms should be used to augment the transition to grade. In areas where large retention areas will be built, the incorporation of cut in the construction of berms will reduce the cost of removing excess material.

5.12.2 Identification of Aesthetic Levels

Aesthetic treatments for berms and grading are as follows:

Requirements for Rural (Level 1), Moderate (Level 2), and Urban (Level 3) Aesthetics

- Where right-of-way distances allow, side slopes of berms should not exceed 3:1; desirable slopes for planted areas should not exceed 4:1; for grass areas, desirable slopes should not exceed 6:1
- Slopes greater than 3:1 should be planted in shrubs and groundcover
- Grading and earthen mounds should be used to augment transitions to grade for walls and reduce perceived structure height

5.13 RECREATION FACILITIES AND ARCHITECTURAL ELEMENTS

Recreation facilities are not integral components of the Tampa interstate reconstruction. However, new facilities and improvements to existing, adjacent facilities should be implemented as part of the interstate reconstruction. Recreation facilities, such as the proposed Tampa Heights Greenway illustrated in Exhibits 5.16 and 5.17, should be developed as a component of mitigation measures described herein.

Existing recreation areas at Perry Harvey, Sr. Park and Riverfront Park will require grading, landscape and structural improvements to mitigate adverse effects from the interstate expansion. Candidate design improvements for Perry Harvey, Sr. Park are illustrated in Exhibits 5.18 and 5.19. Improvements and facilities developed for these parcels, new or existing, should comply with the intent of the Urban Design Guidelines with respect to forms, colors and textures as described in this document and in coordination with the City of Tampa and Hillsborough County. This compliance

should further establish the unity and cohesiveness of the proposed roadway improvements with adjacent land uses.

Although no specific criteria have been developed for recreational elements as a part these Urban Design Guidelines, it is anticipated that designers for these facilities will be required to follow the same review process as described in Section 4, Design Review Process.

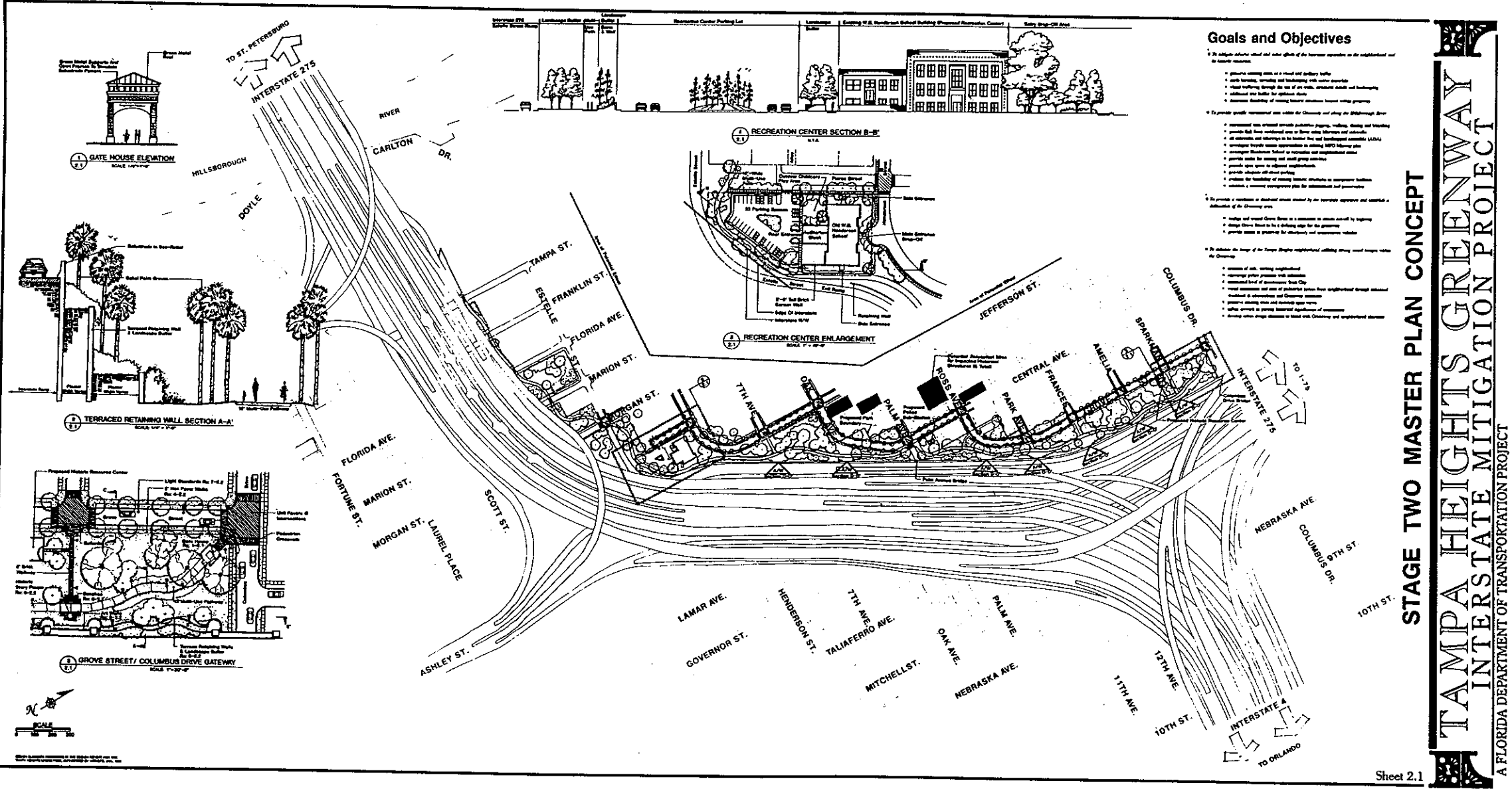


EXHIBIT 5.16
PRELIMINARY TAMPA HEIGHTS GREENWAY MASTER PLAN



EXHIBIT 5.17
CANDIDATE DESIGN TREATMENT FOR TAMPA HEIGHTS GREENWAY

PERRY HARVEY, SR. PARK ... PRELIMINARY CONCEPT

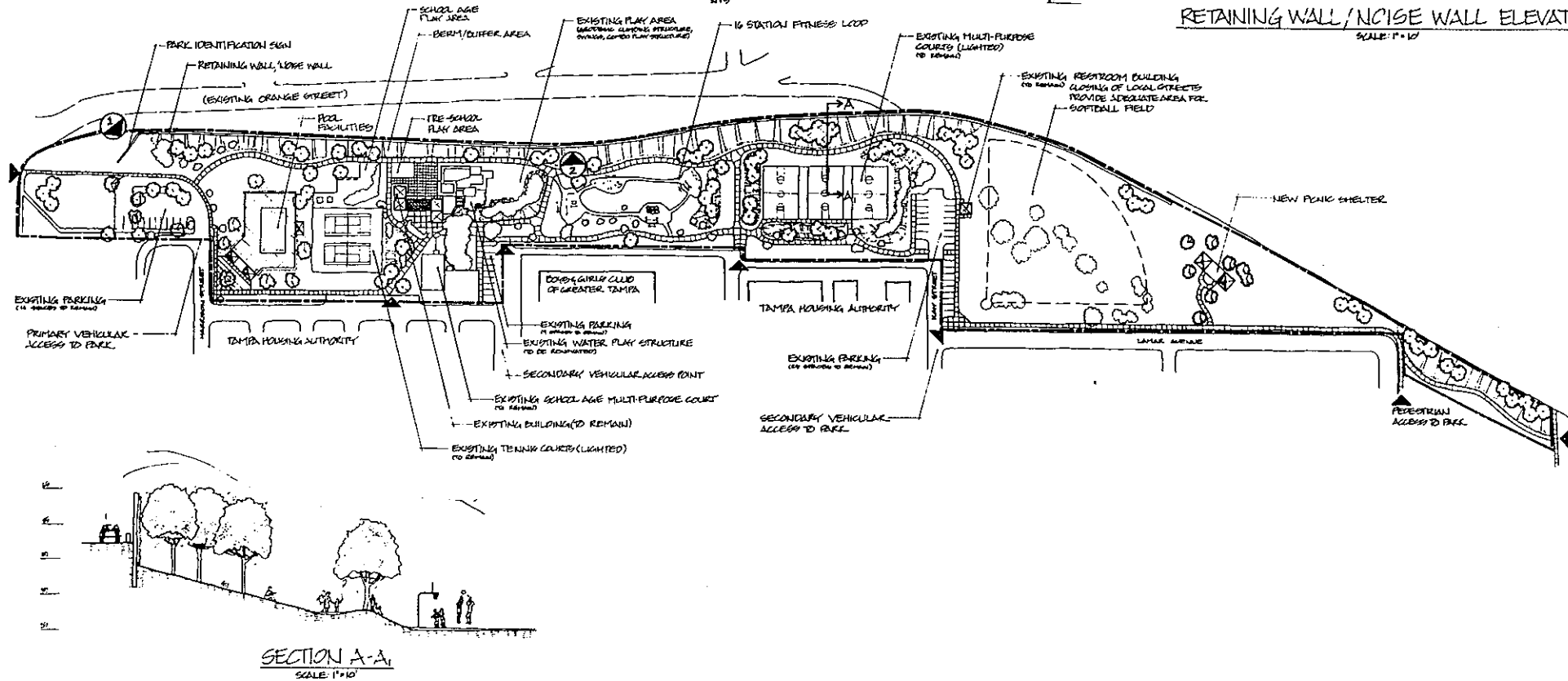
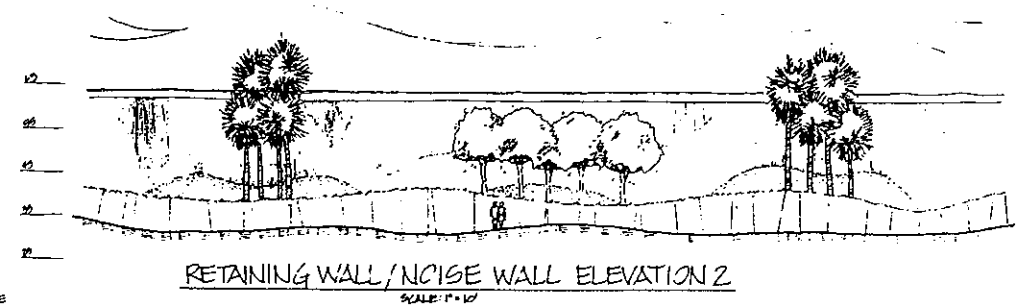
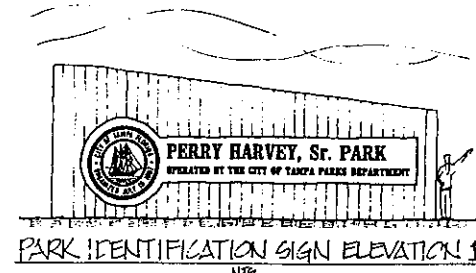


EXHIBIT 5.18
PRELIMINARY PERRY HARVEY, SR. PARK MASTER PLAN



EXISTING CONDITION

PERRY HARVEY, SR. PARK ALONG
ORANGE STREET LOOKING NORTH



CANDIDATE TREATMENT

ATTRACTIVE LANDSCAPING
PROVIDES VISUAL BUFFER
AND INTEREST

DECORATIVE NOISE WALL WITH
CAST INTEGRAL COLOR, ART WORK
AND PARK NAME

HIGHWAY RAMPS WITH
DETAILED PARAPET
DESIGN FOR INTEREST

VANDAL RESISTANT, TEXTURED
RETAINING WALL AND INTEGRAL
WALL CAP

EXHIBIT 5.19

CANDIDATE DESIGN TREATMENT FOR PERRY HARVEY, SR. PARK

APPENDICES

APPENDIX A PROJECT DESCRIPTION

PROJECT DESCRIPTION

Early in the project study, a logical series of planning and design segments were identified. These segments will continue to be used during the study to accomplish the objectives of the Master Plan, as well as to establish funding and construction staging.

The project limits have been grouped into 6 study areas consisting of 20 design segments. Each of these study areas has established logical termini for which environmental documents have, or are being, completed.

DESIGN STUDY SEGMENT 1A

The limits of Design Segment 1A include I-275 from the Howard Frankland Bridge/Kennedy Boulevard ramps to the I-275/Dale Mabry Highway interchange on the east and just north of Cypress Street to the north. Also included are the Sherrill Street extension north from Memorial Highway (S.R. 60) under I-275 to Cypress Street, Westshore Boulevard from Gray Street to Laurel Street, Trask Street from Gray Street to Cypress Street, Cypress Street from I-275 to Lois Avenue, and the new Lemon Street Connector to Westshore Boulevard from Occident Street. This design segment extends approximately 3 miles and includes multilane improvements to the existing interstate.

An Environmental Assessment (EA) was prepared for the proposed improvements, and a Finding of No Significant Impact (FONSI) was approved by the Federal Highway Administration (FHWA) on August 16, 1993. The following sections describe the existing transportation facility and the proposed improvements.

Existing Conditions

Currently, I-275 provides a four-lane facility from the Howard Frankland Bridge to Memorial Highway (S.R. 60) and six lanes from Memorial Highway (S.R. 60) to east of the Dale Mabry Highway interchange. An auxiliary lane is also provided for the eastbound weaving section between the Westshore Boulevard and Lois Avenue interchanges.

Proposed Improvements

As a result of the tier evaluation process, a master plan concept was recommended for this facility. The Preferred Alternative for this segment of the interstate is documented in the TIS Environmental Assessment/Finding of No Significant Impact (August 1993).

The Preferred Alternative for this design segment consists of a four-roadway system made up of interstate express multi-modal lanes and separate local access freeway lanes. High Occupancy Vehicle (HOV)/Transitway lanes are included within the express interstate alignment ending at Trask Street with an envelope reserved to eventually continue the HOV/Transitway lanes across the Howard Frankland Bridge. HOV priority ramps will be provided to and from the east on I-275 at Trask Street. A fully directional interchange will be included for the I-275 connection to the Veterans Expressway, and direct ramping will be provided from Memorial Highway (S.R. 60) and Kennedy Boulevard to the Veterans Expressway. Existing interchange locations at Westshore Boulevard, Lois Avenue, and Dale Mabry Highway will remain. Other non-interstate improvements include the Sherrill Street extension north from Memorial Highway (S.R. 60) and Kennedy Boulevard under I-275 to Cypress Street, the new Lemon Street Connector to Westshore Boulevard from Occident Street, and the Occident Street extension south from Lemon Street to Gray Street under I-275.

DESIGN STUDY SEGMENTS 2A, 2B, 3A, 3B, and 3C

The project consists of approximately 12 miles of multi-lane improvements to I-275 from the Dale Mabry Highway interchange north to Dr. Martin Luther King, Jr. Boulevard and I-4 from I-275 (including interchange) to east of 50th Street (U.S. 41); a multi-lane controlled access facility (Crosstown Connector) on new alignment from I-4 south to the existing Tampa South Crosstown Expressway; and improvements to approximately 4.4 miles of the Tampa South Crosstown Expressway from the Kennedy Boulevard overpass east to Maydell Drive, Hillsborough County.

The Preferred Alternative and potential environmental impacts for these segments are documented in the Environmental Impact Statement (EIS). The following describes the existing transportation facilities and proposed improvements.

Existing Conditions

Currently, I-275 provides a six-lane facility from east of Dale Mabry Highway to Howard Avenue and eight lanes from Howard Avenue to the Ashley Street ramps. From Ashley Street eastward through the Central Business District (CBD), six mainline lanes, with various auxiliary lane segments, are provided through the I-275/I-4 interchange. On I-275 north between the I-4 junction and Dr. Martin Luther King, Jr. Boulevard, the facility has eight lanes and six lanes north of Dr. Martin Luther King, Jr. Boulevard.

On I-4, six lanes are provided from the I-4/I-275 junction east to 21st Street. From 21st Street eastward beyond 50th Street, I-4 is a four-lane facility. The existing South Tampa Crosstown Expressway is a four-lane facility.

Proposed Improvements

The recommended concept on I-275 consists of a four-roadway system (two roadways for both directions of interstate express multi-modal lanes and two roadways for both directions of separate local access freeway lanes) from east of Dale Mabry Highway to north of Dr. Martin Luther King, Jr. Boulevard. HOV/Transitway lanes will be included within the express interstate alignment. Interchange improvements include the recently constructed interchange ramps at Himes Avenue to and from the east on I-275; split interchange ramps remaining at Howard and Armenia Avenues; modification of ramps at Ashley, Scott, and Kay Streets to and from the west on I-275 to provide a west side CBD collector-distributor interchange at Ashley/Tampa Streets serving all movements; a new west bank CBD interchange with ramps to and from the west on I-275 at North Boulevard; modification of ramps at Jefferson and Orange Streets to provide a fully directional, east side CBD distributor interchange; removal of the existing ramps to and from the north at Floribaska Avenue; and a full interchange at Dr. Martin Luther King, Jr. Boulevard.

I-4 improvements include a four-roadway system throughout the study area transitioning to a two-roadway system at 50th Street. HOV lanes will be included within the interstate alignment. A new Ybor City and east side CBD split interchange will be included on I-4 at 14th and 15th Streets (with extension of the ramps at 14th and 15th Streets as parallel frontage roads to 21st and 22nd Streets to replace the existing access from I-4 to these streets). The concept includes the removal of the 19th Street overpass and maintenance of the 26th Street overpass. Other interchange improvements include the reconfiguration of the split interchange at Columbus Drive and 50th Street, the removal of the interchange ramps at 40th Street, and a new directional freeway-to-freeway interchange with the proposed Crosstown Connector on I-4 in the vicinity of 31st Street.

The proposed Crosstown Connector will be a six-lane facility on a new alignment beginning at I-4 in the vicinity of 31st Street and extending south to the South Tampa Crosstown Expressway.

Expressway improvements will begin at the Kennedy Boulevard overpass and extend east to Maydell Drive.

DESIGN STUDY SEGMENTS 4A, 4B, and 4C

The Preferred Alternative for these segments and potential environmental impacts are documented in the Categorical Exclusion (October 1992) approved by the FHWA. The following sections describe the existing transportation facility and proposed improvements.

Existing Conditions

I-4 from east of U.S. 41 (50th Street) to the Hillsborough/Polk County line is a four-lane divided, rural freeway. This facility consists of four, 12-foot travel lanes divided by a grass median with 10-foot (8-foot paved) shoulders on the outside and 8- or 10-foot shoulders (4-foot paved) in the median except for the I-4 crossroad overpass structures which have no inside or outside shoulders. From 50th Street (U.S. 41) to Hillsborough Avenue (U.S. 92), the existing median is 64 feet wide, and from Hillsborough Avenue to the Hillsborough/Polk County line, the median is 40 feet wide. Access to the facility is available at 12 interchanges with various county and state highways. The posted speed limit on I-4 from 50th Street (U.S. 41) to Mango Road (C.R. 579) is 55 miles per hour (mph), while east of C.R. 579, it is 65 mph. The existing right-of-way width is 300 feet between 50th Street (U.S. 41) and Hillsborough Avenue (U.S. 92) and 200 feet between U.S. 92 and the Hillsborough/Polk County line. The improvements will provide additional capacity for existing and projected traffic demands through the implementation of multi-modal transportation system improvements, as well as improve safety, substandard vertical geometry, and levels of service deficiencies.

Proposed Improvements

The proposed project involves capacity improvements to I-4 from east of 50th Street to the Hillsborough/Polk County line as recommended in the FHWA approved I-4 Corridor Master Plan Study and the TIS Master Plan Report. The project length is approximately 23 miles. The existing I-4 crossroad overpass structures will be improved to accommodate the improvements to I-4 and the existing truck weigh station will be relocated.

DESIGN STUDY SEGMENTS 5A THROUGH 5G, 6A, and 6B

The limits of these segments include I-275 from just north of Dr. Martin Luther King, Jr. Boulevard to the Hillsborough/Pasco County line and I-75 from the Hillsborough/Pasco County line to south of S.R. 54 in Pasco County. The following sections describe the existing transportation facility and the Preferred Alternative for these segments.

Existing Conditions

Design Segments 5A through 5D are four-lane facilities that extend for 3.8 miles along I-275 from north of Dr. Martin Luther King, Jr. Boulevard to north of Linebaugh Avenue. The existing roadway consists of six 12-foot travel lanes, 8.5-foot outside shoulders with curb and gutter, and 4-foot inside shoulders. At Busch Boulevard, the roadway transitions from six to four lanes. Design Segments 5E through 5G extend for 4.7 miles along I-275 from north of Linebaugh Avenue to north of Livingston Avenue. The existing roadway consists of four 12-foot travel lanes, 10-foot outside shoulders, and 4-foot inside lanes.

Design Segment 6A extends for 5.4 miles along I-275 from south of Livingston Avenue to the Hillsborough/Pasco County line. Design Segment 6B extends for 5.5 miles along I-75 from the Hillsborough ~ Pasco County line to south of S.R. 54 in Pasco County. The existing roadway for Design Segments 6A and 6B is a rural section with 64-foot-wide medians, 12-foot-wide travel lanes, 10-foot-wide outside shoulders, and 4-foot-wide inside shoulders.

Proposed Improvements

A two-roadway system with HOV/Transitway lanes within the interstate alignment is proposed for Design Segments 5A through 5D.

HOV priority ramps to and from the north and south on I-275 at Yukon Street are proposed to access an existing park-n-ride lot. New interchange ramps at Linebaugh Avenue to and from the south on I-275 are proposed. Also proposed are one-way frontage roads from Bird Street to Busch Boulevard parallel to I-275 and the relocation of the Bird Street interchange ramps to Waters Avenue to and from the south on I-275.

A two-roadway system with HOV/Transitway lanes within the interstate alignment is proposed for the 4.7 miles of Design Segments 5E through 5G. An HOV priority ramp to and from the south on I-275 via Sinclair Hills Road with access to a new HOV park-n-ride lot is proposed. New underpasses through I-275 at 109th Avenue, April Lane, and Sinclair Hills Road are also proposed.

Within the alignment of Design Segment 6A, a two-roadway system is proposed. I-275 will be reconstructed as a six-lane roadway with HOV/Transitway lanes beginning and ending north of Livingston Avenue. A new interchange with the Commerce Park Boulevard/Livingston Avenue HOV park-n-ride lot will be constructed.

Within the alignment of Design Segment 6B, a two-roadway system is proposed. The system will transition from twelve lanes to ten lanes between County Line Road and new S.R. 54, eight lanes north of new S.R. 54, and six lanes north of existing S.R. 54. Directional flyover ramps from I-275 northbound to I-75 southbound and I-75 northbound to I-275 southbound will be provided. A new interchange at new S.R. 54 on I-75 and a new HOV park-n-ride lot will also be provided.

SPECIAL DESIGN AREAS

Six specific areas within the interstate reconstruction project are designated as "unique neighborhoods" and hence are classified as "special design areas" that will require particular attention. These special design areas are:

- Ybor City
- Tampa Heights
- Seminole Heights
- West Tampa
- Westshore
- Downtown Tampa/Central Business District (CBD)

Each of these communities has a unique character which requires special consideration. The visual character of the reconstruction projects should complement the individual character of the neighborhoods. This is particularly important for surface street users in adjacent neighborhoods. Where feasible, motorists using the interstate should be aware that they have arrived somewhere special when reaching, or driving through, these areas. The challenge of creating a sense of arrival will be more significant in areas where views may be obstructed by noise walls.

In the review and analysis of the existing interstate system, areas have been identified as "gateways" to the Tampa community. Gateways are strategic foci that serve as identifying landmarks to users and visitors. These gateways, or nodes, are often junctions of paths, such as an interstate interchange, or concentrations of some use, such as a downtown central business district (CBD).

Within the interstate project area, three gateways have been identified. The area near the I-4 and I-75 interchange is quickly developing as a gateway that serves as an identifying arrival point when travelling along I-4 from the east. The east end of the Howard Frankland Bridge serves as a strong geographic landmark to travellers from the west along I-275. Coming from Pasco County, the I-75/I-275 interchange at the Pasco/Hillsborough County line is considered the gateway when arriving from the north.

These gateways, when developed, should present a strong, positive impression to motorists that they have arrived in the Tampa metropolitan area.

Also identified in the TIS Master Plan Report are "portals" or specific entrances and exits relative to the interstate system and major destination points. Although special treatments may not be required for specific structures, design consultants should be aware of any opportunities afforded in these areas, particularly towards visual enhancements. Gateways and major portals within the study area are identified in Section 3 of this document.

APPENDIX B STUDY PROCESS

STUDY PROCESS

A multi-disciplinary team approach of collaboration between design professionals, area residents, and government agencies has been used to develop the Urban Design Guidelines for the interstate improvements. The TIS project team is composed of transportation and environmental planners; landscape architects; architects; and roadway, structural, water resource, and electrical engineers. Through a series of public workshops and meetings with citizens and neighborhood groups, participants have offered valuable input into the design theme and preferences for treatment of various urban design elements. Input from local agencies has been obtained through the Urban Design Agency Liaison Group, MPO's Liveable Roadway Committee, review of environmental documents, and by formal consultation initiated as part of the Section 106 and Section 4(f) process. Exhibit B.1 outlines the TIS Urban Design Guidelines study process.

PUBLIC PARTICIPATION

Community acceptance of the proposed project will be strongly influenced by how the visual effects of the project are treated. Opportunities for the public to review and comment on candidate design amenities have been provided at the following public meetings:

Phase I:

July 13, 1988 - Public Workshop
November 7, 1988 - Public Workshop
January 26, 1989 - Public Workshop

Phase II:

April 30, 1991 - Alternatives Public Meeting
November 12, 1992 - Historic Resources Public Meeting I
March 22, 1993 - Public Hearing (EA)
October 25, 1993 - Historic Resources Public Meeting II

In addition to the public meetings and hearings listed above, four community workshops were conducted with representatives of different neighborhood organizations and public agencies. The purpose of the workshops was to solicit input from community members specifically on the proposed mitigation and elements contained within the Urban Design Guidelines. Each community workshop is listed below:

- February 28, 1994 - Westshore Community Workshop
- March 3, 1994 - Tampa Heights/Central Business District Community Workshop
- March 7, 1994 - Ybor City Community Workshop
- March 9, 1994 - West Tampa Community Workshop

AGENCY INVOLVEMENT

An Agency Liaison Group (ALG) formed during Phase I of the TIS was composed of design-oriented members of various regulatory agencies in the Tampa Bay area. In Phase II, additional members were added to the group. The ALG has provided integral input and information for the Urban Design Guidelines. Members of the ALG include representatives from the following organizations:

- City of Tampa Parks Department
- City of Tampa Planning Department
- City of Tampa Art in Public Places
- City of Tampa Public Works
- City of Tampa - Parks, Recreation, and Cultural Service
- Arts Council of Tampa/Hillsborough County
- Historic Tampa/Hillsborough County Preservation Board
- Hillsborough County Planning and Development Management Department
- Hillsborough County Metropolitan Planning Organization
- Florida Center for Design, University of South Florida

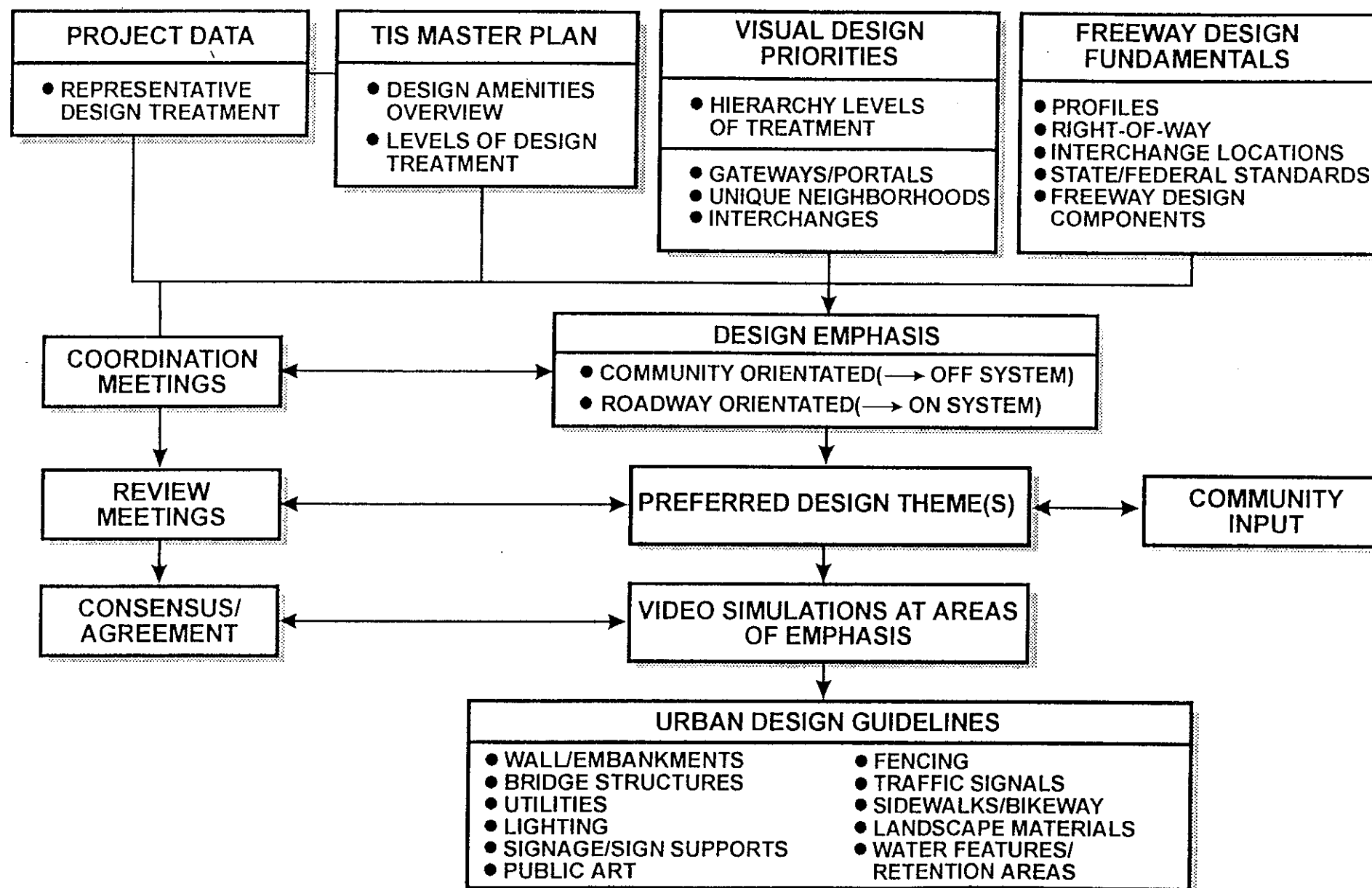


EXHIBIT B.1
URBAN DESIGN GUIDELINES STUDY PROCESS

In developing a consensus on preferred visual design treatments, the following study components have been critical:

- an identification of opportunities and constraints within the corridor
- a visual databank including slides, photographs, and videotape of representative urban design treatments used in other locations
- an identification of unique areas in establishing locations for visual design emphasis
- the establishment of a hierarchy for levels of treatment throughout the corridor

In meetings held with the ALG and community representatives, freeway design fundamentals and constraints were reviewed, and priorities for design theme and areas of emphasis were agreed upon. Design priorities discussed in Section 3.1 are a culmination of meetings with ALG members and community agencies. The overall design theme, in terms of which elements should be uniform throughout the corridor, unified between adjacent geographic segments and unique to a particular segment, was developed to reflect the input from ALG members. This document represents the end product in the form of design guidelines to provide graphic and written guidance in the preparation of final design documents, considering both the view from the roadway and the views from the adjacent communities.

APPENDIX C

DESIGN AESTHETICS

DESIGN AESTHETICS

While rules cannot be established that will ensure an elegant design, the TIS Urban Design Guidelines provide specific recommendations towards meeting aesthetic goals for sensitive areas and aid in the integration of the overall system. The Guidelines do not attempt to provide strict rules of aesthetic design. It is emphasized that individual designers bear the primary responsibility of providing a quality design. To aid the designer in achieving this goal, this section provides a general discussion on the aesthetic goals related to design and detailing.

INTEGRATION IN THE LOCAL ENVIRONMENT

Good appearance for a design element is not simply a matter of elegance in form itself, but also considers the appropriateness of the setting. This is particularly true for bridges and walls in urban settings, which encompass much of the Tampa interstate reconstruction. The appearance of proposed elements should consider the context of the local environment as well as any proposed construction in determining both form and scale.

In order to provide a safe and comfortable environment for pedestrians, bridges traversing local neighborhood streets should be open and well lit. Retaining walls should appropriately relate to integrated structures and human scale. The integration of design elements into the landscape must consider dimensional relationships as well as form. For example, long span bridges with deep heavy beams may interfere with the view from parks and recreation areas. Structures in urban settings with massive columns tend to invoke an uneasy feeling, due to the lack of reference to human scale. The total harmony of a site's design components with its setting is fundamental to all good design.

FORM

Form should be considered as the "broadly perceived shape" in three dimensions, including vertical and horizontal aspects. The choice of form is an essential prelude to design and should be seen as appropriate to the function and situation of use. In many cases, elements formed by parallel straight lines appear stiff and static, producing uncomfortable illusions, such as tall vertical walls that appear to tilt inward or tall prismatic columns that appear larger at the top. Curved sidewalk, bridge or wall alignments that utilize chorded straight edges appear awkward and may cause semi-circular shadows that emphasize the inconsistent form.

Form should consider appearance from all vantage points of the future observer. Often the pure elevation view is satisfactory, but when the form is viewed at a skewed angle, unpleasant overlapping occurs.

PROPORTION

A fundamental characteristic necessary to achieve elegance in design is harmonious proportions. Appropriate proportions must exist between the relative sizes of the various parts of an element, between masses and voids, and light and dark caused by sunlight and shadow. As shown in Exhibit C.1, principal proportions of a bridge structure are governed by the ratios of:

- pier height to span
- superstructure width to span
- superstructure depth to span (including parapet)

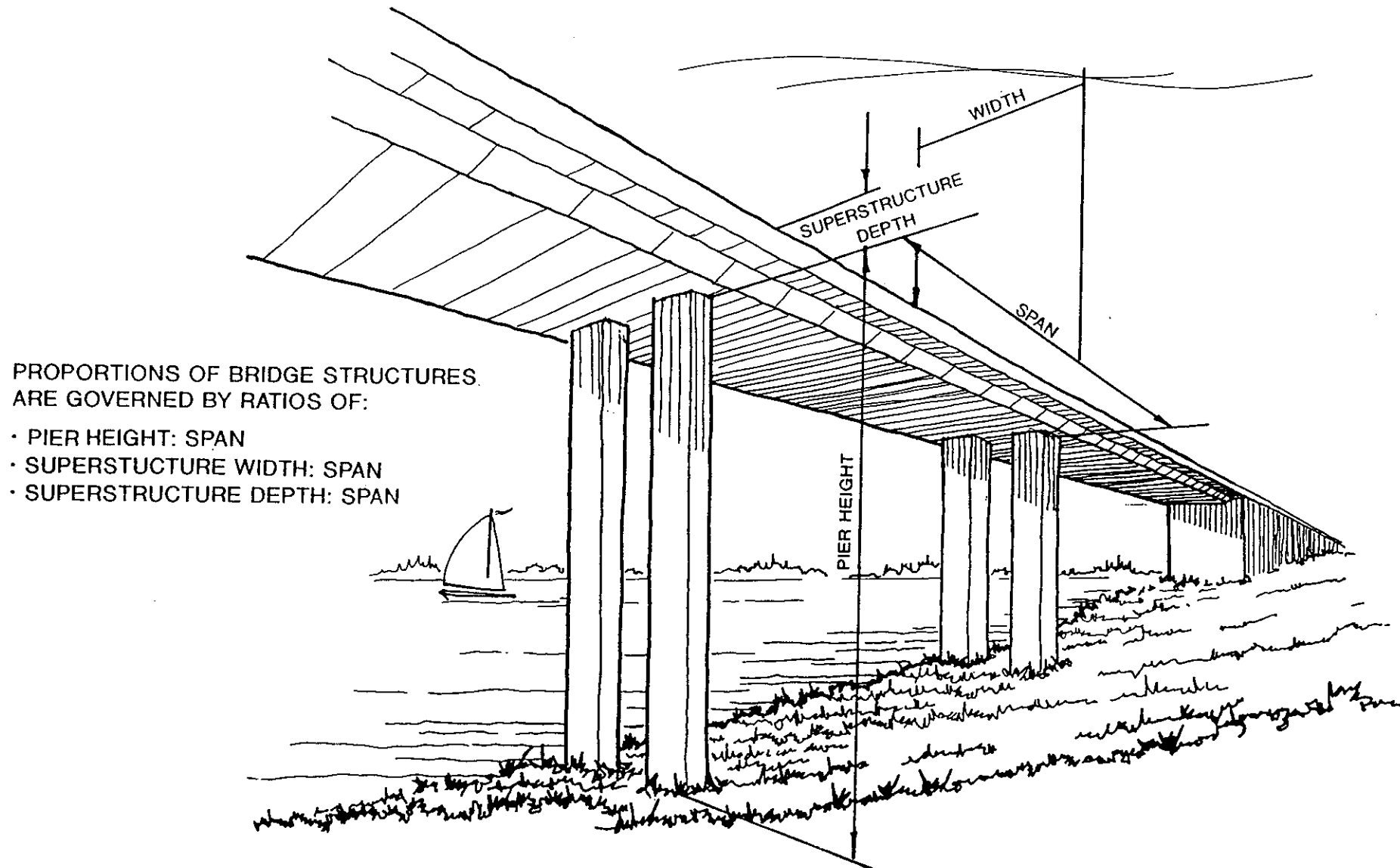


EXHIBIT C.1
DIMENSIONS GOVERNING PROPORTION

Good design cannot be developed solely from the application of mathematical formulas to determine proportions without the influence of creative imagination and a sensitive "feel" for what is pleasing and appropriate. In the final analysis, the designer must understand the effect on proportion of varying these ratios by personal observation. Careful observations of views that look right or wrong in the everyday scene is the key to good judgement in such matters.

Where there is an "assembly of associated forms," proportion is as much concerned with the appropriate relationships between the forms as their individual proportions. A poorly proportioned design may have components which appear too light or too heavy for their apparent role, leading to the impression of structural inefficiency, imbalance, or lack of stability. Typically, such errors result from reliance on two-dimensional drawings only. For example, a typical section through a bridge column and deck gives an entirely different impression of proportion to the real structure in three dimensions, as illustrated in Exhibit C.2. In this case, the underside of the bridge only becomes more apparent in a perspective view.

HARMONY

A harmonious relationship exists between a number of objects when they complement each other so that their combined effect is more pleasing than their separate contributions.

The achievement of harmony when designing for an existing landscape or urban setting at first appears to be complicated because of the interplay of diverse shapes and colors in the surroundings, many of which are beyond the control of the designer. However, the problem is simplified by considering only the more significant scenic elements and keeping novel features to a manageable minimum by repeating selected shapes, colors, and textures which already exist in the setting.

Components should present stable, simple, and elegant appearances that harmonize with the surrounding landscape or urban setting. This means there should be no discordant features and at least some of the attributes of rhythm, form, and color should blend in a positive way with corresponding important characteristics in the surroundings.

SCALE

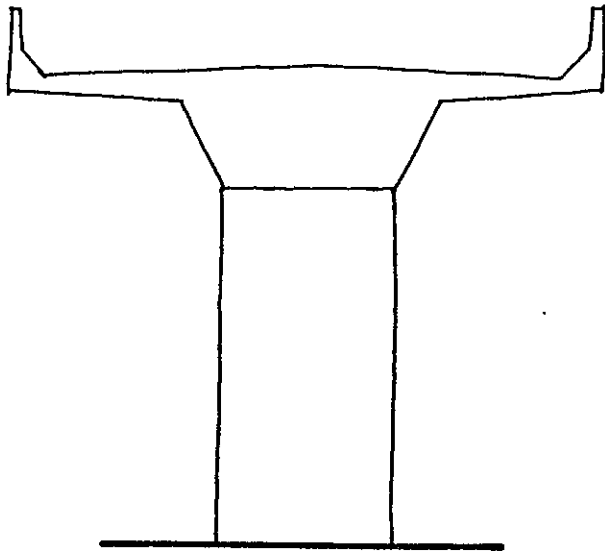
Scale is concerned with size relationships in terms of visual effect, including the relative extravagance or exaggeration in the choice of dimensional detail.

The size of each element is perceived relative to the sizes of other elements around it. Where a large structure, such as a bridge or wall, can be viewed as whole, its successful integration will depend very much on its relationship with other elements of similar scale, such as adjacent building groups, major topographical features or the highway itself. Where an element is likely to be viewed at close quarters, the scale and texture of its component parts become more important, and the relationship with correspondingly smaller local features will require greater attention.

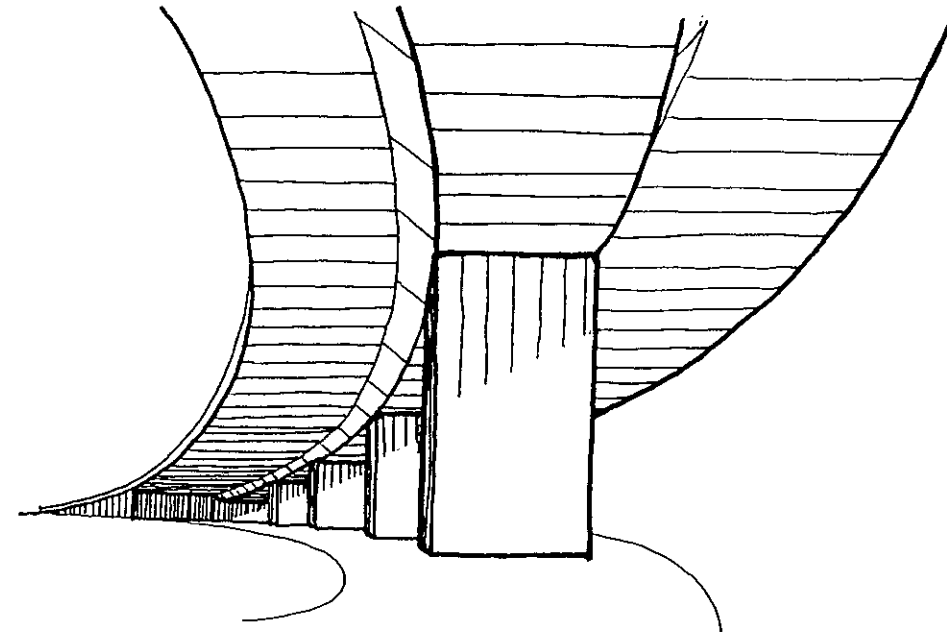
By virtue of their size, walls and bridges will invariably be significant elements in a viewer's perception and, more often than not, will need to be "scaled down" if they are not to dominate the setting. For this reason, bridges should be designed with a profile that is as slender as can be reasonably achieved.

FUNCTION

The primary function of a bridge is to conduct traffic over an obstacle, and this can best be expressed by a smooth, flowing appearance. The purpose of retaining walls is to contain earthen embankments, thus preventing slope failure from excessive gradients and resulting in more efficient site use.



SECTION VIEW



PERSPECTIVE VIEW

A TYPICAL CROSS-SECTION THROUGH A BRIDGE COLUMN AND DECK CREATES
A VERY DIFFERENT IMPRESSION OF PROPORTION TO THE REAL STRUCTURE
VIEWED IN THREE DIMENSIONS

EXHIBIT C.2
TYPICAL SECTION THROUGH COLUMN AND DECK

Highway curvature and wall terracing are the designer's greatest allies in the achievement of appropriate visual form. The structural form should maximize the visual expression that is provided by the required vertical and horizontal aspects. As illustrated in Exhibits C.3 and C.4, by avoiding the introduction of elements of form that disrupt the visual expression of the flowing curvature, a clear expression of function is achieved.

In general, if function is to be articulated, it should be clearly expressed using minimum means. However, modifying or even disguising functional details to improve appearance is acceptable provided this does not lead to confusion or contradiction in the overall design statement. For example, functional details such as bearings and joints can sometimes be concealed, and dimensions derived from purely structural considerations can be adjusted to improve line and proportion.

For structural elements within the interstate reconstruction project, there should be no contradiction between external form and internal function. Each component should appear to be fully capable of fulfilling its apparent role, even if its form is modified by other considerations. For example, a column which derives its stability by fixity at the base should not be detailed with a narrow base and excessive flare towards the top, as this form would apparently contradict its function. However, provided the column base has sufficient dimensions to express fixity, it would be acceptable to increase the flaring and details at the top, particularly where this modification accomplishes better positioning of the bearings. Exhibit C.5 illustrates this concept.

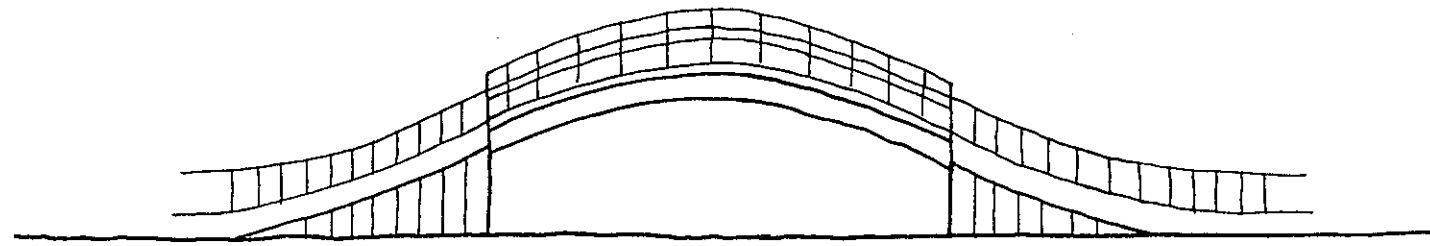
VISUAL STABILITY

For visual stability, particularly when viewed from a passing vehicle, landscape and highway structures require a sufficient measure of verticality. The apparent inclination of sloping walls may change from different angles of view, giving the impression that decks are slipping off, or trees are falling over, as the observer travels by. Other inclined members can intensify the effect. Even from a static

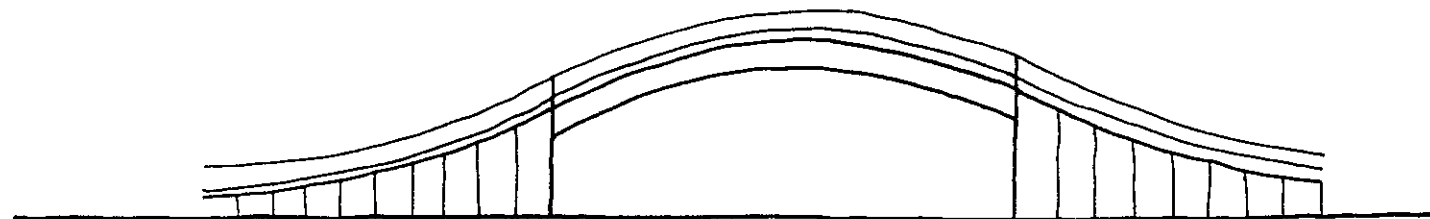
viewpoint, trapezoidal bridge supports used on long, curving bridges can give the impression of varying shape or tilting at different angles. This effect is illustrated in Exhibit C.6. Vertical retaining walls or abutment walls that appear to lean outward at the top when viewed from below can be made visually stable by utilizing a slight upward and backward slope, or batter. Inclined members are not inherently visually unstable, but the designers must be aware of the possibility of perceived visual instabilities when using such elements.

Visual stability also requires consideration of the arrangement of elements, or components, to ensure unity. Multi-span bridges are generally considered to provide a more pleasing appearance when comprised of an odd number of spans. Clumps of trees are more appealing in groups of threes or fives. An even number of elements may cause a visual effect known as unresolved duality. This visual effect occurs because the observer has difficulty in finding a central focus point, with the eye wobbling between the voidal spaces. This effect for a two-span bridge is illustrated as drawing A in Exhibit C.7. Increasing the visual mass of the center pier provides a central focus and resolves the duality, as shown in drawing B of Exhibit C.7. Increasing the mass of the abutments and superstructure, as shown in drawing C of Exhibit C.7, can also reduce the visual effect of the duality by minimizing the visual separation of the two spans. This unresolved duality does not occur for an odd number of spans where the central span provides the focal point as shown in drawing D of Exhibit C.7.

Another unpleasant effect is produced when a central pier coincides with the highest point of the bridge superstructure, so that the bridge seems to droop away from that point, as illustrated in Exhibit C.8. The effect is not only loss of unity, but also similar to placing a support under the center of an arch, which is self-supporting, and therefore associated with a contradiction of function. A structure must not only look stable but also be reasonably logical if it is to be visually pleasing.

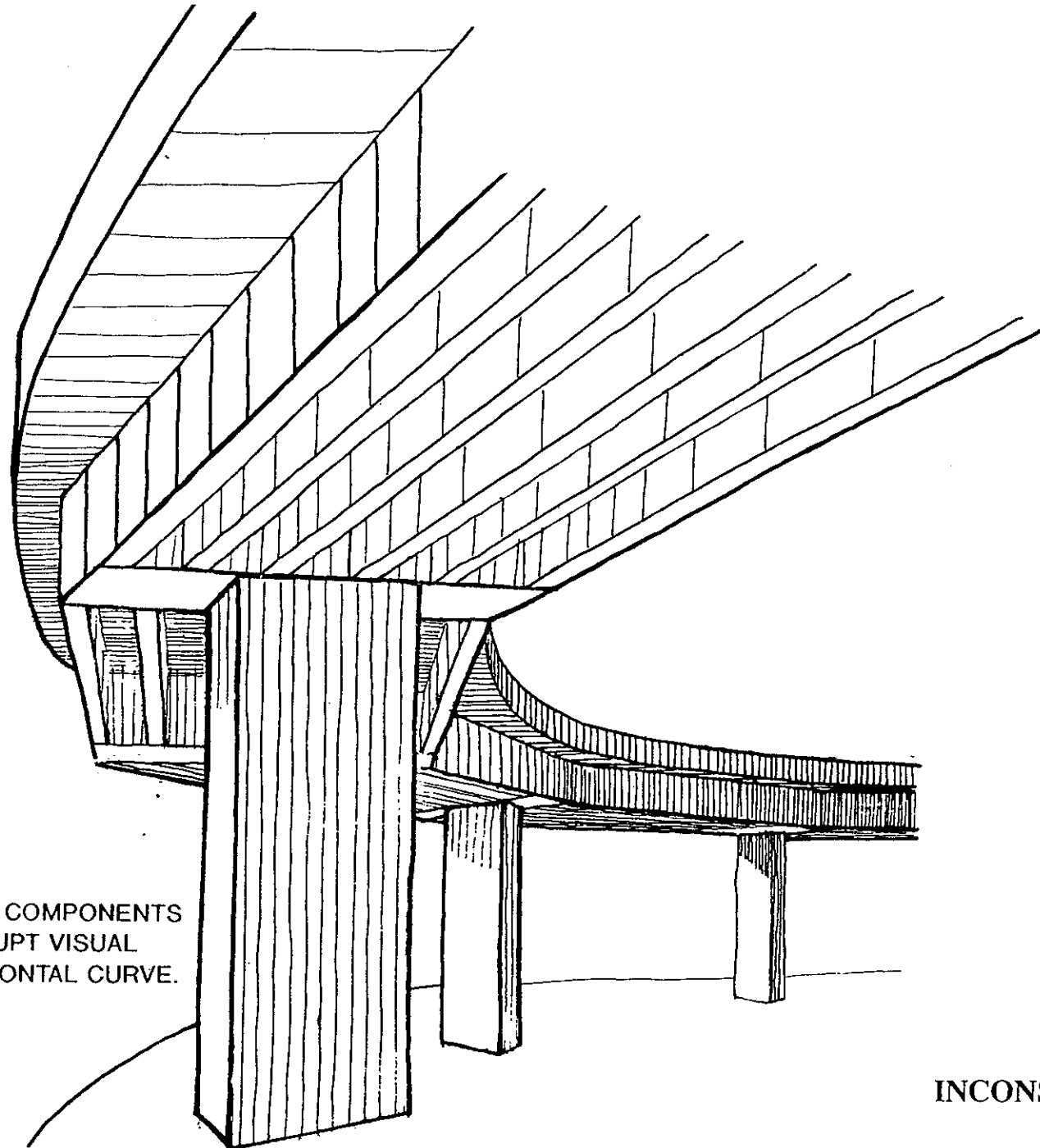


INTRODUCTION OF VERTICAL ELEMENTS DISRUPTS
VISUAL EXPRESSION OF FLOWING CURVATURE



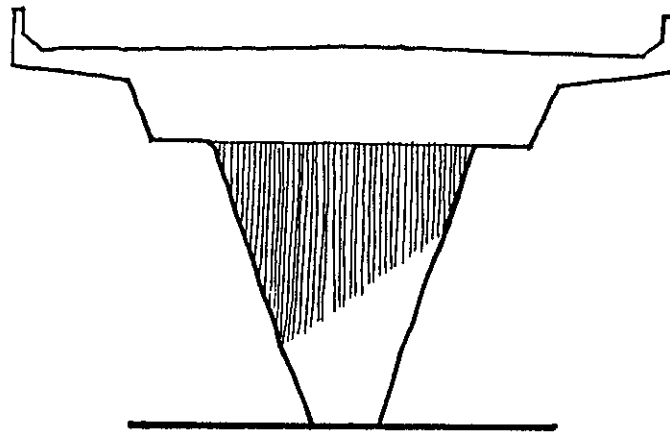
ELEMENTS SHOW CLEAR EXPRESSION OF FLOWING CURVATURE

EXHIBIT C.3
EXPRESSION OF FUNCTION - SMOOTHNESS OF FLOW



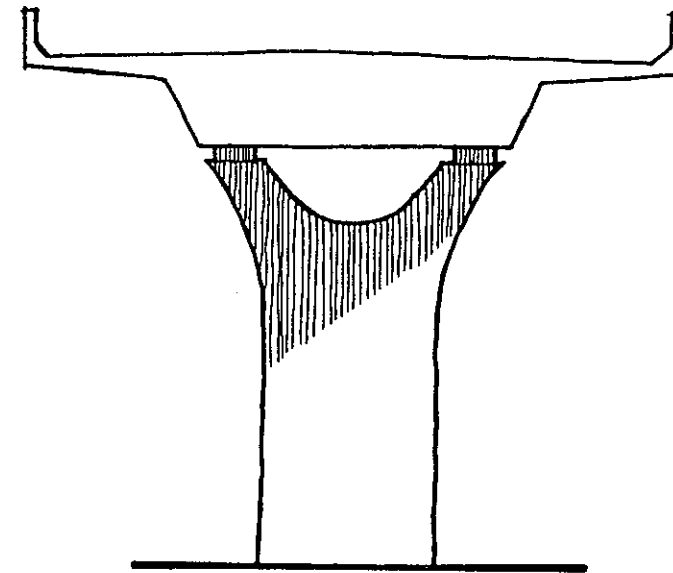
LINEAR AND CURVED STRUCTURAL COMPONENTS
WHEN USED TOGETHER, CAN DISRUPT VISUAL
EXPRESSION OF A FLOWING HORIZONTAL CURVE.

EXHIBIT C.4
INCONSISTENT USE OF FORMS



VISUALLY UNSTABLE

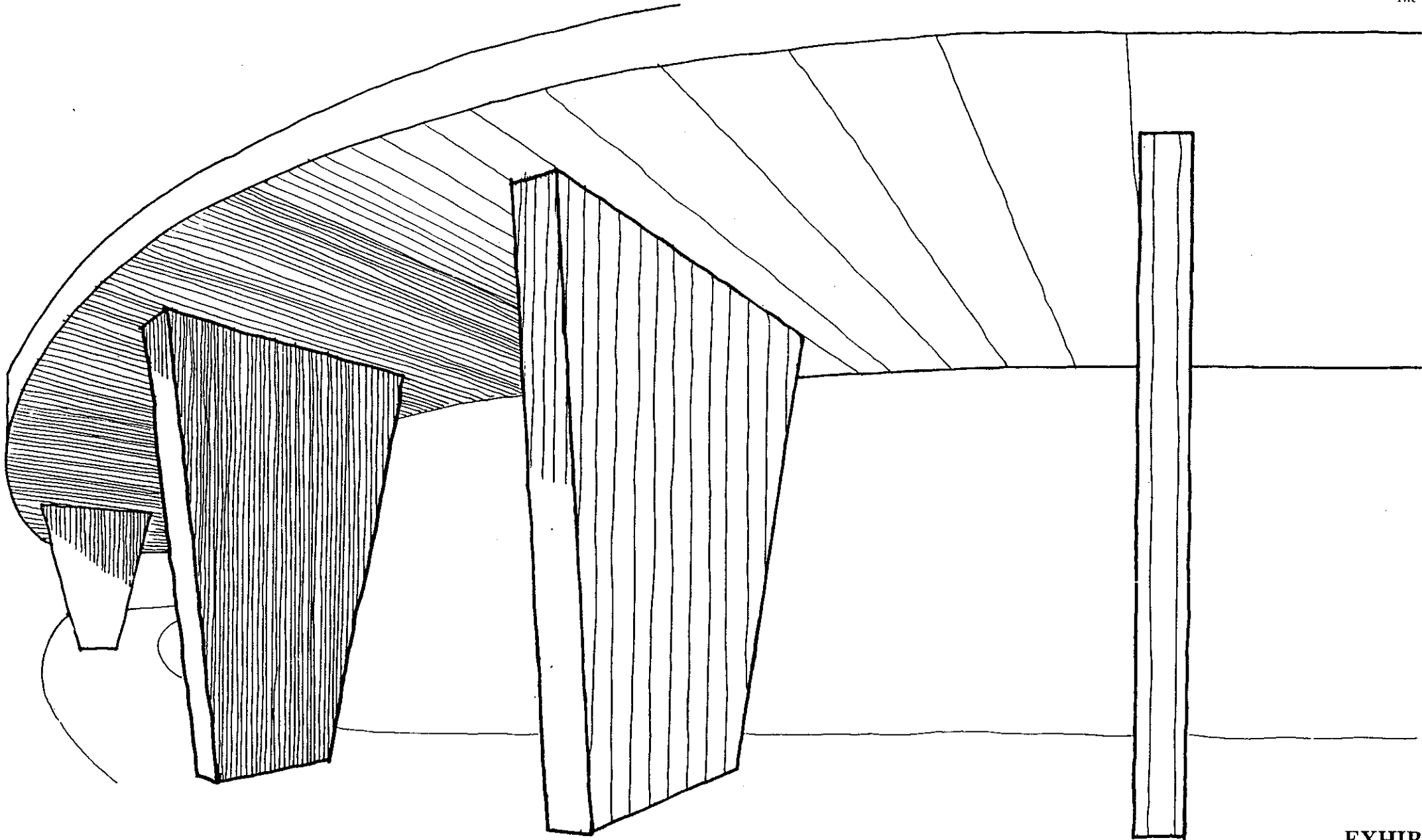
EXCESSIVE FLARING FROM BASE CREATES APPARENT CONTRADICTION BETWEEN FORM AND FUNCTION CAUSING A FEELING OF INSTABILITY



VISUALLY STABLE

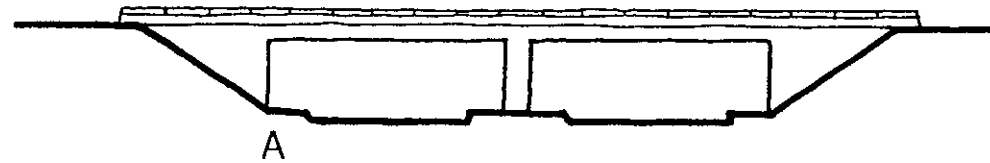
SUFFICIENT ROBUST DIMENSIONS AT BASE CREATES AN EXPRESSION OF STABILITY EVEN WITH FLARING AT THE TOP

EXHIBIT C.5
EXPRESSION OF FUNCTIONAL STABILITY

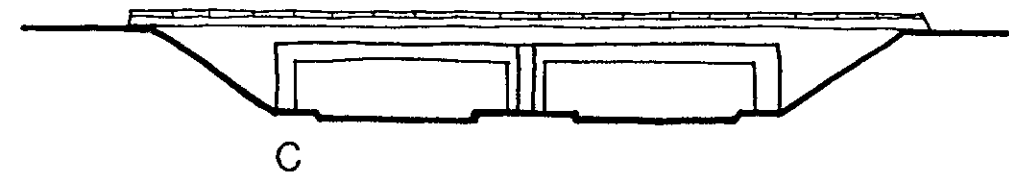


WHEN VIEWED FROM A STATIC VIEWPOINT, TRAPEZOIDAL SUPPORTS CAN CREATE UNCOMFORTABLE ILLUSION OF VARYING SHAPE OR TILTING AT DIFFERENT ANGLES.

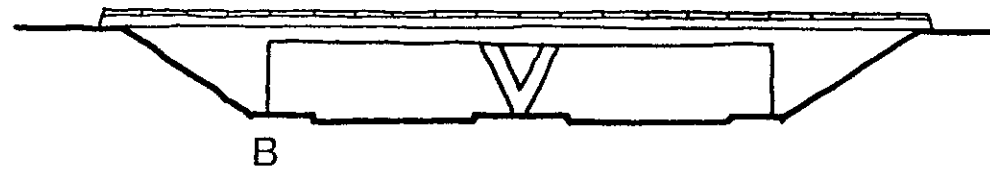
EXHIBIT C.6
VISUAL INSTABILITY - TRAPEZOIDAL SUPPORTS



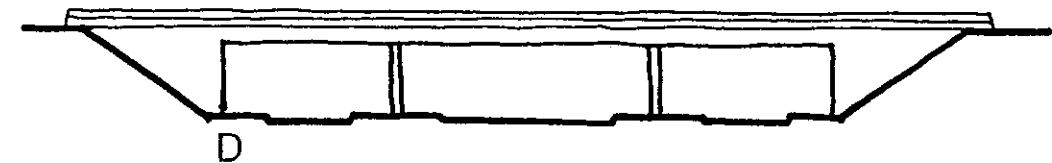
A
UNRESOLVED DUALITY CAUSED BY DIFFICULTY IN FINDING A CENTRAL
FOCUS POINT WITH AN EVEN NUMBER OF SPANS



C
INCREASING MASS OF ABUTMENTS AND SUPERSTRUCTURE
MINIMIZES THE VISUAL SEPARATION OF THE TWO SPANS

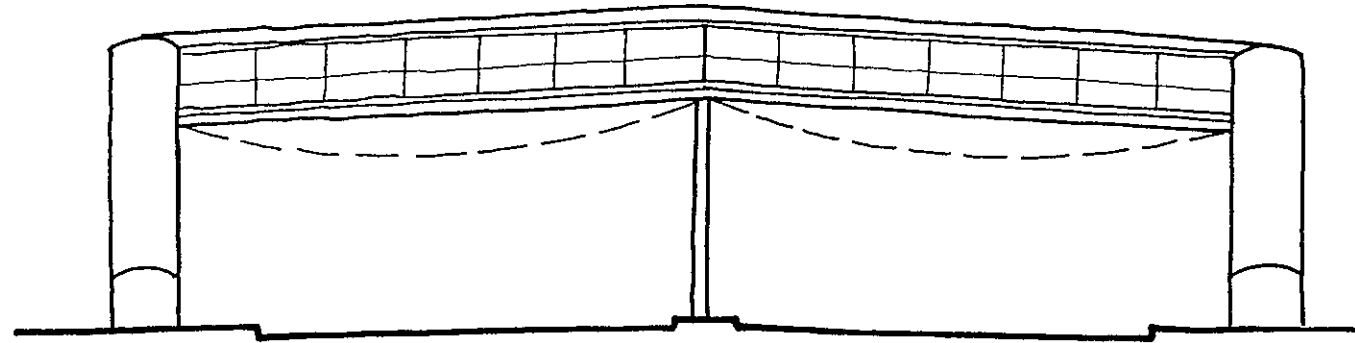


B
INCREASING THE MASS OF THE CENTER PIER
PROVIDES A STRONG FOCAL POINT



D
UNRESOLVED DUALITY DOES NOT OCCUR
WITH AN ODD NUMBER OF SPANS

EXHIBIT C.7
VISUAL INSTABILITY - UNRESOLVED DUALITY



A CENTRAL PIER COINCIDING WITH BRIDGE HIGH POINT CAN CREATE AN
ILLUSION OF SAG AS THE STRUCTURE SEEMS TO DROOP AWAY FROM THAT POINT

EXHIBIT C.8
BRIDGE SUPERSTRUCTURE - ILLUSION OF SAG

RHYTHM AND RHYME

Rhythm is concerned with the organization of repetitive features, which should be, as far as possible, both uniform and simple. Rhyme is "likeness tempered with difference" which requires compatibility among closely related repetitive forms.

Rhythm follows from a constant pattern, such as a constant length to height ratio of a retaining wall. However, too many repetitions creates monotony, and should be interrupted by a contrasting, but related, element. Rhyme introduces a controlled contrast into repetitive elements, such as the introduction of a single area of height and length variation in the example above.

Neglect of rhythm and rhyme makes an irregular, confused impression on the observer who feels instinctively that anything so unorganized cannot perform effectively. The design elements for the Tampa interstate reconstruction project should convey a comforting impression of efficiency through a disciplined design of rhythm and rhyme.

LIGHT AND SHADE

Changing patterns of light and shade animate spaces, enliven color and articulate forms. Component parts of design elements should be chosen so that shadows cast onto objects below emphasize the form.

Tampa is at a relatively low latitude that minimizes the lengths of shadows. Since the intensity of sunlight is fairly constant and its duration predictable, the determinants for visual impact on surfaces, forms and spaces are the size, location and treatment of structural and landscape elements within the design scheme.

Light and shade may also be extended to incorporate aesthetic lighting to provide dramatic emphasis and exaggeration of shadows and textures for night viewing.

TEXTURE

The selection of texture should be influenced by surrounding environmental features, historical context and community traditions. Texture can have a significant effect on appearance and should always be carefully selected. Different textures may be combined on the same element to modify apparent proportions, to provide contrast and interest, or to emphasize the different roles of component parts.

Large areas of smooth concrete should be avoided since such areas are not only difficult to form without blemishes, but they also tend to emphasize such blemishes and minor defects. These surfaces also tend to weather badly and encourage graffiti writing and bill posting. Alternatively, such surfaces can be made less insipid and monotonous by treating them with grooving, ribbing, or texturing. For special locations, the casting of graphic reliefs may also be considered.

At locations where surface texturing is used, consideration should be made to minimize weathering. The action of rain washing of dust over surfaces or the fungi growth on damp areas should also be controlled. These effects will greatly influence the long-term appearance of the surface and must be carefully considered in relation to each unique location.

COLOR

A viewer's response to color is both impulsive and emotional. People are generally more affected by the color of an object than by its form. Color offers the possibility of enhancing the form and appearance of a design as long as the produced effects are consistent with the overall theme. However, if a design is unattractive, attempts to correct it through elaborate color palettes will fail.

As with texture, color should be influenced by the surrounding environment, the site's historical context and traditions of the community. However, color should not seek to be identical with surroundings, such as a green colored noise wall with extensive landscaping. Contrasting colors are often a better choice. When using color, consider the existing background and whether the desired effect is to complement or contrast.

By using different colors for different components, form can be emphasized and enhanced. Using lighter colors will result in stronger shadows, making designs that depend on contrasting shadows more effective. Light colors, while still having some vitality, tend to attract less attention.

For steel elements, colors are available in a wider variety and quality control is easier to achieve than with colored concrete. Integrally colored, stained or externally coated concrete tends to present quality control problems, such as variation in color from panel to panel and eventually fading. Nevertheless, colored concrete should still be considered for design elements.

When a special concrete element requires a strong, permanent color as a component of a design theme, inlaid materials of permanent colors such as terra cotta and glazed ceramic tile is a method that should be considered. These are available in a wide variety of colors and have a strong history of exterior use in architecture.

ILLUSION

Illusion can interfere with visual perception. If a designer is to avoid unexpected distortions in appearance, it must be considered in the planning and detailing of a site. Illusion is perhaps the greatest obstacle to the formation of precise rules of proportion.

Common forms of illusion are tall piers with parallel sides that appear from below to be wider at the top than the bottom, long horizontal spans which appear to sag, or vertical retaining walls or abutment walls that appear to lean outward at the top when viewed from below.

The solution to perceived illusion often lies in what may be termed "counter-illusion," which is the deliberate distortion of form to oppose anticipated adverse effects caused by the primary illusion. Tall columns may be given a slight taper, long horizontal spans a slight upward camber, or tall vertical walls a slight batter to counter the perceived illusions. Small, enclosed spaces can be given the illusion of being larger by creating false perspectives. Counter-illusion measures are legitimate design devices that should be considered as a matter of good design.

LONG-TERM APPEARANCE

Every effort should be made to ensure that design elements remain attractive throughout their useful lives. This can be achieved by using durable materials that will weather well and not deteriorate significantly with time.

Sensible detailing of design elements is essential to reduce the chance of subsequent spoiling of surfaces by natural staining, accidental damage, or deliberate vandalism. Flat lawn areas should be graded to prevent stormwater from ponding during rainy seasons. Near-horizontal structural surfaces that are likely to gather dust in dry weather should be sloped to direct wash off away from vulnerable faces. Joints should be carefully designed and executed to prevent leakage, and precautions should be taken to limit any staining that may ensue. Drip grooves should be provided on the underside of concrete surfaces adjacent to all overhanging soffits to prevent wash-water staining.

APPENDIX D

STRUCTURE DESIGN STANDARDS OUTLINE

DEVELOPMENT OF STANDARDS

The reconstruction of the Tampa interstate is a complex project that will ultimately include a significant number of individual consultants. Although the FDOT Structures Design Guidelines provides a basic foundation for Florida bridge designs, it is considered that development of a project-specific structures design standards document would serve to provide continuity over a long, complex project. This design standards document will serve a primary function of ensuring commonality in the design of the various sections, but would also have an added benefit of introducing uniformity in the designs. For example, establishment of a family of standard column cross sections would ensure a basic common visual element between the various design sections, while also reducing design effort (since the interaction diagrams can be included in the design standards) and potentially realizing reduced construction costs as formwork is re-used on multiple portions of the project. A suggested outline for the development of a structures design standards document is shown at right.

OUTLINE OF PROPOSED STRUCTURES DESIGN STANDARDS

- I. General
- II. Piers and Columns
 - A. Recommended Pier Configurations
 - B. Standard Columns
 - C. Column Design Information
- III. Abutments and End Bents
- IV. Barriers
 - A. Standard Barriers
 - B. Median Barriers
 - C. Sign Support Attachment
 - D. Light Pole Attachment
 - E. Glare Screens
 - F. Fencing
- V. Expansion Joints
- VI. Bridge Details
 - A. Deck Drainage and Appurtenances
 - B. Sloping Surfaces
 - C. Utilities
 - D. Bearings
- VII. Surface Finishes and Architectural Treatments
- VIII. Color, Texture and Light
- IX. Retaining Walls
- X. Noise Attenuation Walls

APPENDIX E

CANDIDATE DESIGN TREATMENTS



EXHIBIT E.1
POTENTIAL TREATMENT FOR YBOR CITY AREA

INTEGRAL DESIGN DETAIL IN PIERS TO EMPHASIZE VERTICALITY AND MAKING PIERS APPEAR THINNER

HORIZONTAL DESIGN DETAIL INCORPORATED INTO PARAPET

CLOSED-BOX GIRDERS OF DIFFERENT COLOR FOR ACCENT AND INTEREST



EXISTING CONDITION

WESTSHORE PLAZA
LOOKING WEST



CANDIDATE TREATMENT

BLACK VINYL-COATED FENCING

LANDSCAPE BUFFER

EXHIBIT E.2
POTENTIAL TREATMENT FOR WESTSHORE AREA



EXISTING CONDITION

NORHTBOUND LANES OF I-275 AT
WILLOW AVENUE LOOKING WEST

CLEAR-SPAN, STEEL TRUSS SIGN
SUPPORT SYSTEM WITH SIGN
PANELS OF UNIFORM HEIGHT

ALUMINUM LIGHT POLES
WITH DARK ANODIZED
FINISH



CANDIDATE TREATMENT

HANDSOME NOISE WALL WITH TEXTURED
SURFACE AND INTEGRAL COLOR FEATURES
FOR VISUAL INTEREST FOR ON-SYSTEM
TRAVELERS

EXHIBIT E.3

POTENTIAL TREATMENT FOR ON-SYSTEM VIEW

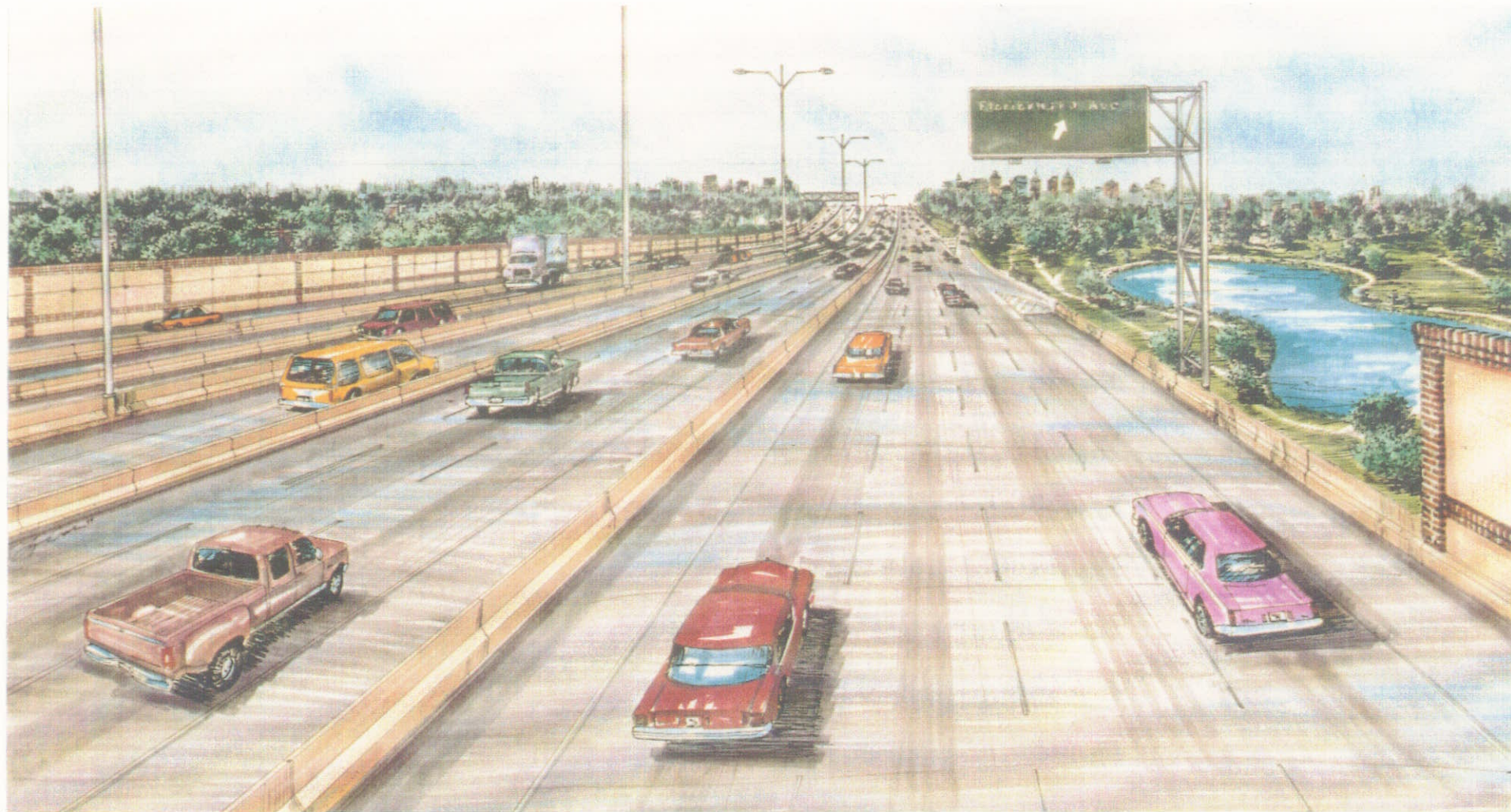
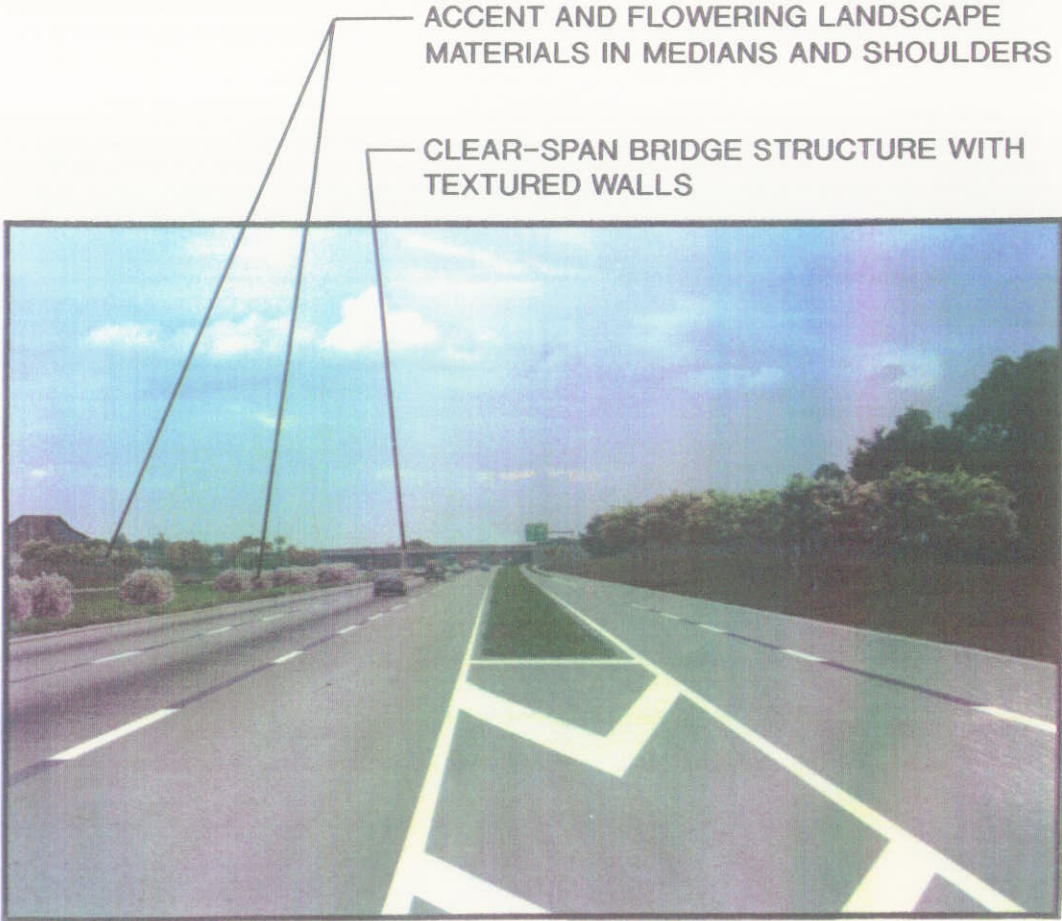


EXHIBIT E.4
POTENTIAL TREATMENT FOR ON-SYSTEM VIEW



EXISTING CONDITION



ACCENT AND FLOWERING LANDSCAPE
MATERIALS IN MEDIANS AND SHOULDERS

CLEAR-SPAN BRIDGE STRUCTURE WITH
TEXTURED WALLS

CANDIDATE TREATMENT

EASTBOUND I-4 AT THE U.S. 92 INTERCHANGE

EXHIBIT E.5
POTENTIAL TREATMENT FOR FAIRGROUNDS AREA

APPENDIX F

APPLICABLE GUIDELINES

APPLICABLE GUIDELINES

In addition to referring to Urban Design Guidelines for specific criteria, the design consultant(s) should incorporate and reference the following documents:

- FDOT Roadway Plans Preparation Manual, Volume I and II, 1989, as amended
- FDOT Standard Specifications for Road and Bridge Construction, 1991, as amended
- FDOT Roadway and Traffic Design Standards, January 1992, as amended
- FDOT Tree Transplanting Procedures
- FDOT Landscaping Policy, January 4, 1989, as amended
- FDOT Structures Design Guidelines (Bureau of Structure Design)
- A Guide for Transportation Landscape and Environmental Design, AASHTO Highway Subcommittee on Design, June 1991
- Roadside Design Guide, AASHTO Task Force for Roadside Safety, 1989
- Rules and Regulations of the Southwest Florida Water Management District, as amended
- Exotic Woody Plant Control, Circular 368, Kent Langeland, editor, Florida Cooperative Extension Service, 1990
- Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, AASHTO, 1985.

Amendments and other revisions to these associated documents should be referenced if, as the program continues, they are updated or supplemented.

APPENDIX G

DESIGN REVIEW COMMITTEE CHECKLIST

**Tampa Interstate System
URBAN DESIGN GUIDELINES
DESIGN REVIEW COMMITTEE PRESENTATION CHECKLIST**

Project Name/Number _____ FDOT Project Manager _____ Reviewer _____
 State Project Number _____ W.P.I. Number _____ F.A.P. Number _____
 Consultant _____ Date of Presentation _____ Design Phase _____
 Design Segment _____ Level of Aesthetic Treatment per the Urban Design Guidelines, Section 3.0 _____

As per Sections 3.0 and 5.0 of the Urban Design Guidelines, list all Special Design Areas, Gateways, and Portals within this Design Segment:

(Prior to the presentation to the Design Review Committee, the FDOT Project Manager shall identify, on this form, the appropriate items for review and evaluation.)

Enter the following for Status: Y Yes, design elements meet the intent of the guidelines
 NA Not applicable
 L To be presented in a later phase (as designated)

N No, design elements do not meet the intent of the guidelines; consultant should re-evaluate (If any item receives a 'No' status, please explain the reasons for the evaluation on the space provided after each item.)

Item	Status
Bridge structures locations and aesthetic treatment	
form _____	style _____
material _____	color _____
surface treatment _____	integration with _____
integration of utilities _____	adjacent components _____
integration of lighting _____	integration of retaining walls _____
comments: _____	

Item	Status
Retaining wall locations and aesthetic treatment	
type _____	height _____
material _____	color _____
surface treatment _____	integration with _____
adjacent components _____	
comments: _____	

Item	Status		
Noise wall locations and aesthetic treatment			
type	_____	height	_____
material	_____	color	_____
surface treatment	_____	integration with adjacent components	_____

comments: _____

On-system lighting requirements			
layout	_____	fixtures	_____
poles	_____	finish	_____
integration with adjacent components	_____		

comments: _____

Off-system lighting requirements at cross-streets			
layout	_____	fixtures	_____
poles	_____	finish	_____
integration with adjacent components	_____		

comments: _____

Item	Status		
On-system fencing requirements			
locations	_____	type	_____
finish	_____		

comments: _____

Off-system fencing requirements			
locations	_____	type	_____
finish	_____		

comments: _____

On-system interstate sign requirements			
locations	_____	pole and truss types	_____
finishes	_____	integration with adjacent components	_____

comments: _____

Item	Status		
Off-system, cross-street sign requirements			
locations	_____	pole and truss types	_____
style	_____	color	_____
finish	_____		

comments: _____

Stormwater management areas and configuration			
location	_____	size	_____
pedestrian amenities		configuration	_____
and fountains in		landscaping	_____
urban areas	_____		

comments: _____

Landscaped areas locations and concepts			
character of plant		use of natives	
masses	_____	trees	_____
transitional and			
aquatic plantings	_____		

comments: _____

Item	Status		
Irrigation feasibility			
water sources	_____	coverage area	_____
head type	_____	efficiency of design	_____

comments: _____

Cross-street pavement and streetscape improvements			
locations	_____	materials	_____
color	_____	style	_____

comments: _____

Opportunities for public art			
locations	_____	types	_____
potential sources	_____	free-standing in high-	
integration with		use areas, interchanges	
structures	_____	and pedestrian areas	_____
safety from vandalism	_____		

comments: _____

Tampa Interstate Study Urban Design Guidelines

The Greiner Team

Item	Status		
Utilities			
locations	_____	types	_____
visibility	_____	columns and poles	_____
integration with		incorporation into	
adjacent components	_____	structure profile	_____

comments: _____

Grading			
slopes of berms	_____	grade transitions	_____

comments: _____

Recreation facilities and architectural elements			
impact on		creation of new	
existing facilities	_____	features	_____

comments: _____

Additional Comments: _____

This presentation checklist is to be prepared by the Design Review Committee for each phase presentation by the design consultant. Upon completion of each checklist, recommendations should be made by the Committee to the Florida Department of Transportation for review and resolution.

Item	Status		
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Handicap provisions _____

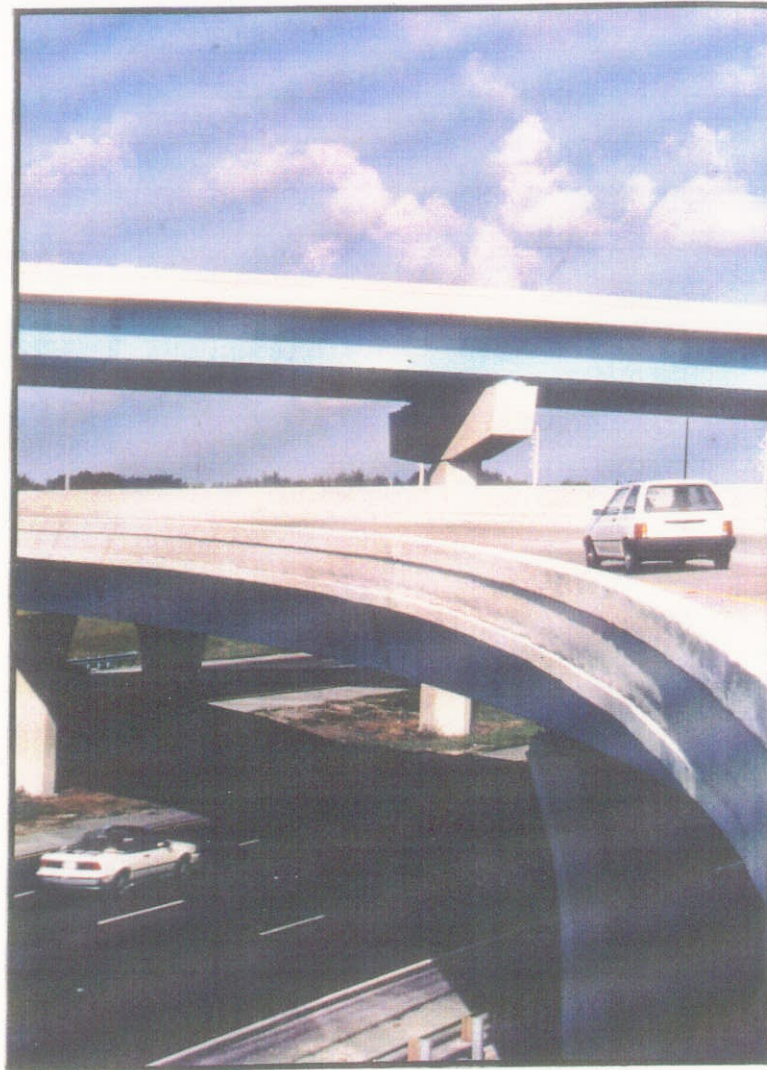
comments: _____

Concept sketches			
interchanges	_____	special design areas	_____
gateways	_____	portals	_____

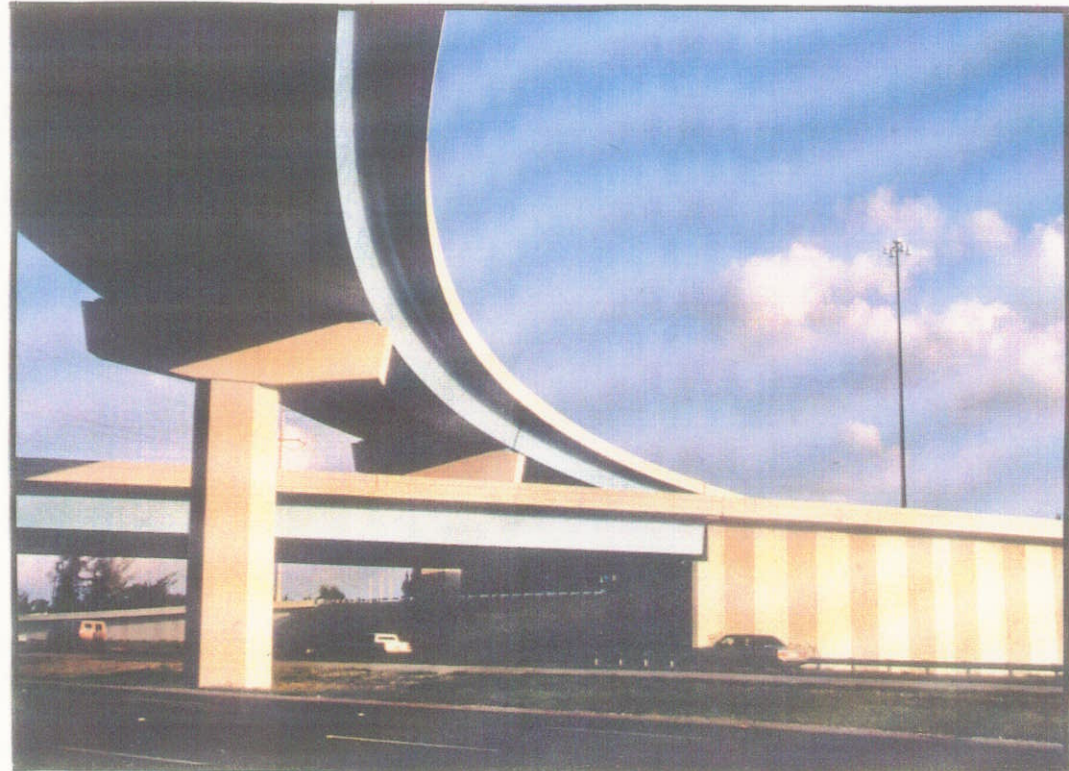
Coordination of all design elements with adjacent design segments _____

comments: _____

APPENDIX H REPRESENTATIVE TREATMENTS ON NATIONWIDE PROJECTS



I-595/FLORIDA TURNPIKE INTERCHANGE
FORT LAUDERDALE, FL

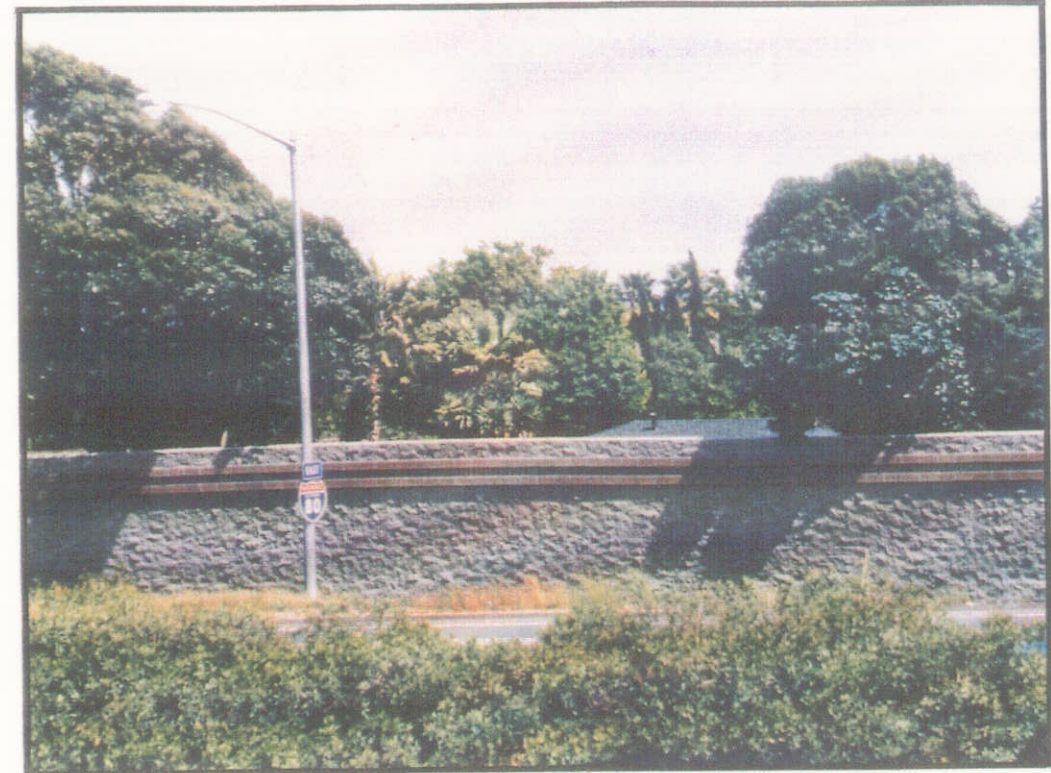


I-595/FLORIDA TURNPIKE INTERCHANGE
FORT LAUDERDALE, FL

EXHIBIT H.1
REPRESENTATIVE TREATMENTS
ON NATIONWIDE PROJECTS



SQUAW PEAK PARKWAY
PHOENIX, AZ



I-80 NORTH OF AIRBASE PARKWAY
FAIRFIELD, CA

**EXHIBIT H.2
REPRESENTATIVE TREATMENTS
ON NATIONWIDE PROJECTS**

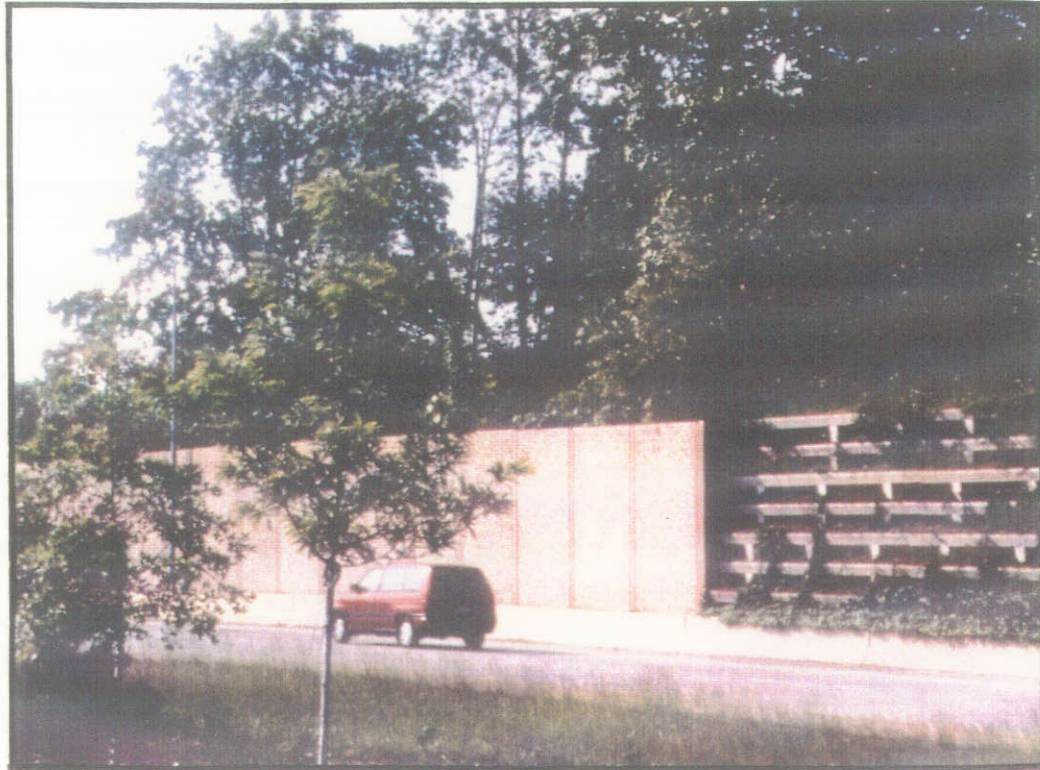


I-25/GARDEN OF THE GODS INTERCHANGE
COLORADO SPRINGS, CO

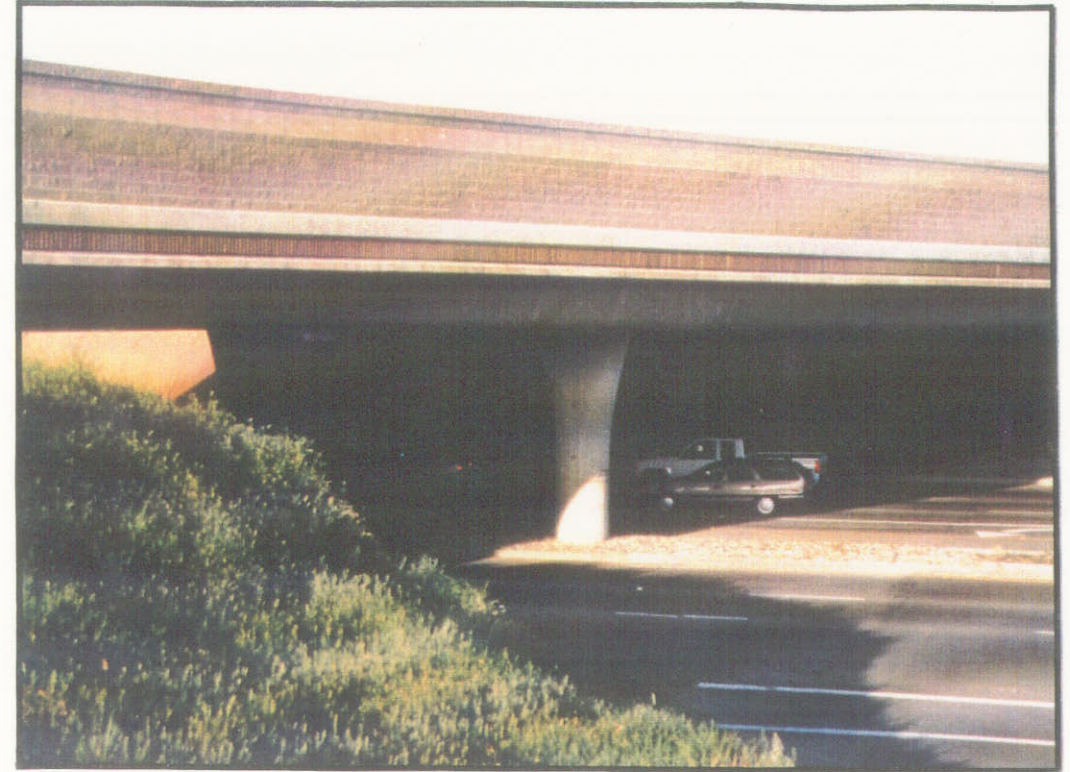


MCDOWELL ROAD/SQUAW PEAK PARKWAY INTERCHANGE
PHOENIX, AZ

EXHIBIT H.3
REPRESENTATIVE TREATMENTS
ON NATIONWIDE PROJECTS



I-476 MID-COUNTY EXPRESSWAY
PHILADELPHIA, PA



CAMDEN AVENUE/ROUTE 85 INTERCHANGE
SAN JOSE, CA

**EXHIBIT H.4
REPRESENTATIVE TREATMENTS
ON NATIONWIDE PROJECTS**

APPENDIX I

GLOSSARY OF TERMS

GLOSSARY OF TERMS

A		DRC	
ADA	Americans with Disabilities Act	Design Review Committee, composed of local agency representatives from the Florida Department of Transportation, the City of Tampa, and Hillsborough County to review required interval submittals for compliance with <u>Urban Design Guidelines</u> .	
ALG	Agency Liaison Group, formed during Phase I of the Tampa Interstate Study. Composed of representatives from various agencies in Tampa Bay area.	E	
Appurtenances	Apparatus, equipment or accessories.	EA	
B		Environmental Assessment; the type of environmental document required, as outlined by the National Environmental Policy Act, for actions in which the significance of the environmental impact is not clearly established. All proposed federal actions that are not Categorical Exclusions or Environmental Impact Statements are Environmental Assessments. An Environmental Assessment is prepared whenever there is a need to ascertain the appropriate class of environmental determination.	
Batter	A gradual upward and backward slope.	EIS	
Bridge Aesthetics Chapter	A chapter of the <u>Bridge Development Report</u> prepared to define the specific visual aesthetic requirements for designed bridges and walls and to describe the proposed means of implementing the established aesthetic goals.	Environmental Impact Statement; the type of environmental document required, as outlined by the National Environmental Policy Act, for proposed federal actions that have the potential to significantly affect the human environment as defined by the Council on Environmental Quality.	
BDR	<u>Bridge Development Report</u> , a report prepared to document that the alternative structure types attain the goals of efficiency and economy as established by the Florida Department of Transportation.	F	
Berm	A large, shaped bank of earth.	FDOT	
C		Florida Department of Transportation.	
Caliper	The diameter of a tree trunk measured at 6 inches above the ground for trunks up to 4 inches in diameter and at 12 inches above the ground for trunks greater than 4 inches in diameter.	FHWA	
CBD	Central Business District; downtown business area.	FONSI	
CE	Categorical Exclusion; the type of environmental document required as outlined by the National Environmental Policy Act when federal actions do not individually or collectively have a significant environmental effect on the human environment, do not induce significant impacts to planned growth or land use, do not require relocation of significant numbers of people, do not have significant impact on any natural, cultural, recreational or historic resources, and do not involve significant air, noise or water quality impacts.	Finding of No Significant Impact; a report, as part of an Environmental Assessment, which recommends a preferred alternative for construction of a project and summarizes all relevant environmental impacts and proposed mitigation.	
D		Fixity	
Detention Ponds	A stormwater management facility, generally a depression, designed to offer temporary storage accompanied by a controlled release of the stored water.	Four-roadway system	
		The quality of steadiness or permanence.	
		Frangible Base	
		Four roads physically separated by medians or traffic barriers providing vehicle circulation in opposite directions; in highway systems, traffic is separated for mainline/express travel and local connector/distributor access. A breakable or break-away base used for traffic signs and light poles.	
		G	
		Gateway	
		An identifying landmark or major entrance feature of the Tampa interstate system.	

Grade	The elevation of the ground plane at any given spot; indication of slope or gradient.	Portals	Specific entrances and exits from the interstate system relative to major destination points.
Grading	The movement of earth by cuts and fills to create landforms.	Public Art	Public art can be defined as artwork that exists in the public realm; whether acquired with public or private funds, the main criteria is that it be accessible for everyone to experience. The concept of public art is as old as the ancient civilizations which commemorated leaders and memorialized events through statues and paintings. Today, public art takes many forms and offers more than heros and ideals; it celebrates the creative process itself. Increasingly, public art is being integrated into the contemporary landscape in interesting new ways that are site-specific, creating new environments that affirm, enhance and reveal a sense of place.
H			
Hardscape	Impervious elements of the landscape environment not including plant materials and water.		
HOV	High Occupancy Vehicle.		
HOV/Transitway	Portions of highway travel lanes designated for High Occupancy Vehicle, bus or light rail transportation systems.		
L		R	
Littoral Zone	The zone or area in shallow fresh water and along the shore where light penetration extends to the bottom sediments; the littoral zone is typically planted with herbaceous aquatic plant species.	Remainder Parcel	Portions of a property not required for the proposed interstate construction.
		Retaining Wall	A wall built to keep a bank of earth from sliding.
		Retention Ponds	A stormwater management facility, generally a depression, designed to offer permanent storage of stormwater without providing an outlet.
M			
Maintenance Berm	An unobstructed easement to allow for vehicle and personnel access to conduct maintenance operations.	S	
MOA	Memorandum of Agreement; developed in the Section 106 process and executed under 36CFR 800.5(e)(4); a legally binding agreement signed by federal agencies, the State Historic Preservation Officer, the Advisory Council on Historic Preservation, and sometimes other parties agreeing on measures to avoid, reduce or mitigate adverse effects on historic properties to be carried forth in subsequent project phases.	Section 106 Process	A section of the National Historic Preservation Act which directs federal agencies to consider the effects of proposed actions on historic properties; agencies are also directed to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such proposed actions.
Minaret	A slender tower in Moorish architecture.	Section 4(f) Evaluation	An FHWA review process to determine the significant effect, if any, of proposed highway construction on Section 4(f) lands as part of the Federal Highway Act/Department of Transportation Act of 1966.
Mitigation	To make or become less severe; to lessen an impact.	Section 4(f) Lands	Land from historic sites of national, state or local significance or publicly owned land used for parks, recreation areas, and wildlife and waterfowl refuges.
MPO	Metropolitan Planning Organization.	Sediment Ponds	A pond designed to collect and accumulate sediment carried in the flow of water.
Multi-modal	Transportation systems which facilitate several different types of transportation simultaneously.	Setback	A minimum horizontal open space distance which must be maintained to provide separation between construction foundations and property lines.
N			
Noise Wall	A wall designed and built to absorb, reflect or deflect noise.		
P			

SHPO	State Historic Preservation Officer
Special Design Area	An area or neighborhood recognized for significant historic and/or cultural resources.
Soffit	The horizontal underside of an eave or bridge.
Streetscape	Elements associated with traffic circulation and pedestrian activity as street signs, lights and traffic signals, benches, tables, landscaping, fountains and paving materials.
Swale	A wide, shallow, slightly sloping depression that collects and transports runoff as open flow drainage.
SWFWMD	Southwest Florida Water Management District.

T

TIS	Tampa Interstate Study.
Transitional Planting Zone	A landscape planting area separating different land use areas or activities.
Two-roadway System	Two roads, physically separated by a median or traffic barrier, providing vehicle circulation in opposite directions.