RIOGRAVELANDS
MASTER PLAN
LAREDO, TEXAS
SEPTEMBER 2008
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The following individuals and organizations were participants in the Rio Grande Vega Lands Master Plan process:

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- Dr. Michael Landeck, District III
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- Gene Belmares, District VI
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**U.S. Representative(s):**
- Henry Roberto Cuellar, U.S. Congressman

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In early 2005, the City of Laredo began its Rio Grande Vega Lands Master Plan project and accepted proposals from qualified firms until Friday January 13, 2006. The Master Plan project consists of approximately two and a half miles of Rio Grande riverfront and will guide the long-term development of a regional, inner connected system of parks, greenways and nature trails. It not only identifies opportunities for parks and nature trails, but exhibits creative and integral solutions that bring together recreational, social, economic, environmental and educational opportunities along the river Vega while specifically enhancing downtown economic development.

The Rio Grande River was designated as an American Heritage River by Executive Order in 1997. The natural beauty of the river remains hidden due to dense brush and inaccessibility. The City proposes to reveal the beauty of the river with preservation-minded development such as El Portal Riverfront Development Project and includes necessary infrastructure improvements to facilitate pedestrian and automobile access. Specific examples include motorized access along Santa Ursula from IH 35 and pedestrian destinations such as a riverfront promenade connecting public plazas. Overall, the project will promote tourism, job creation and downtown revitalization.

The scope of services for the project consists of the following elements:

- Provide a Master Plan for the long-term development (10-20 year) of a regional, inner connected system of linear parks and greenways and trails of approximately four miles within the River Vega Land to support the “El Portal Riverfront Development Project”.

▲ Existing site photos
• Identify, recommend and prioritize projects to provide economic development, ecotourism and downtown revitalization to support the Master Plan.

• Identify and recommend a scenic River Road to support the Master Plan.

• Prepare a 5-year Capital Improvement Plan to implement the phases of the Master Plan.

• Create a 3-d visualization for stakeholders/public presentations

• Identify the funding mechanism to implement the Capital Improvement Plan.
The design principles of the Master Plan involve a long-term collaborative effort among city organizations and the citizens of Laredo and a process which, over time, plays a significant part in the successes of Laredo’s Riverfront Corridor.

• A river has to be part of the City fabric.

The Rio Grande has to be part of the everyday lives of Laredo’s citizens, whether it be through a linear park system, a downtown paseo, crossing it, or enjoying the view. It follows that significant and meaningful public access to the riverfront is essential. This creates a public constituency for the river, which gives the river a voice within the political framework. The public access also gives vibrancy to the community through entertainment and park districts.

For the Vega Lands, this means a turnaround in how the City addresses the river. Presently, one can look at the parking lots and isolated park spaces and logically reason that the City does not view the Rio Grande as an asset. This attitude must change to a realization that Laredo’s citizens can capitalize on the Rio Grande on a daily basis, through commerce and quality of life.

• Riverfront is a finite resource.

There is only so much riverfront, and therefore the community should view it as a matter of “highest and best use” within the community’s context. Uses should be balanced between urban and rural, city and habitat, public and private, and other competing uses.

Further, riverfront protection/development should be carefully nurtured, following a Master Plan that Laredo has adopted. To carefully develop in a timeless fashion is to do it right the first time. It follows that the Rio Grande corridor should be addressed in a multi-objective fashion, accommodating several uses ranging
from development to habitat preservation/enhancement to infrastructure to civic spaces to transportation.

One of the uses that has to be balanced is that of Border Security. This Master Plan contends that Border Security has to be an integral part of the Master Plan, but does not have to detract from the riverfront access in the downtown area or in the Las Palmas area.

• Circulation along the river is key.

Circulation and public access go hand in hand; the City must have multi-modal circulation that provides access to the riverfront. Laredo has already realized this, since the Major Thoroughfare Plan has shown a “River Road” for the last several years. This needs to be expanded to include other modes of transportation, as well as address the patrol needs of Border Security.

• The river must be healthy to be an asset.

The water quality, aquatic habitat, riparian zones, and impacts to the river have to be considered and balanced in favor of a healthy river. Adjacent development along the Rio Grande should be sustainable so that proposed improvements aid in increasing (or at the very least, be neutral) the overall health of the river.

• In this case, improvements proposed by the Master Plan cannot cause flood flows to exceed the regulated flood elevations.

There are two flood elevations that govern the Rio Grande. The first is the IBWC flood elevation, which is enforced by the IBWC for both Mexico and the US. The second is the 100 year floodplain elevation, which is enforced for property insurance purposes through FEMA and other agencies.
Laredo and the Rio Grande have been woven together throughout their known history. They are essential and elemental to each other, as one is not the same without the other. Now, as Laredo has grown to a city of 200,000, as the edge of its downtown brushes against the river, as pressures and misconceptions about the border mount up daily, the time has come for Laredo to manifest both its history and its future with the Rio Grande.

The vision for the Vega Lands starts with the name for the green swath along the river. "Vega" is translated as the forested banks along a river. In semi-arid South Texas, vegas are landmarks, symbolize water, and are the connective fabric between communities. The vega along the Rio Grande always has been special, because there is no other large river for many miles. Now, the Rio Grande is an international border, replete with the concerns and demands of 2 sovereign nations, and over 1.5 million people live on its banks in Texas.

The vision continues with the modern-day position of Laredo. NAFTA has transformed the City into one of the nation’s largest inland ports. The resulting growth has brought both prosperity and pressures to the community. The prosperity is in terms of business, opportunity, and growth. The pressures are on image of the community, quality of life for its residents, and vibrancy to keep the town viable as a community for people.

Laredo’s nexus is downtown, which in turn is a stone’s throw from this national and historical thread called the Rio Grande. Laredo was founded because of a ford in the river. It’s unique. Laredo, Texas, was founded first. That’s the reason that the Mexican counterpart to the south is called “Nuevo Laredo” (New Laredo). The Rio Grande was part of everyday life, the scene of special events, and the backdrop for Laredo’s growth. The downtown with its historic districts and retail districts recalls history and shows current day prosperity.....but now largely ignores the Rio Grande.
The vision for the Vega Lands Master Plan is to reconnect Laredo with its raison d’etre; bring downtown back to the river; take the first steps to celebrate the Rio Grande as a river, not as a border; marry the draw of downtown to the natural fascination of the water’s edge; contrast the urban with the natural; and make the Rio Grande riverfront something to enjoy, not hide.

This Master Plan seeks to do what other locales have done with their riverfronts across the world. Specific to Laredo, the essential goals are to:

• Determine the best use of the riverfront
• Provide the setting and infrastructure for unique and desirable development that enhances Laredo’s economic position
• Improve circulation
• Address border security pressures
Where's the River?

Photos of existing riverfront illustrating blocked views to the river.
Where's the River?
Where’s the River?

Photos of existing riverfront illustrating blocked views to the river.
The Site Inventory and Analysis include a wide range of land surrounding the project area. The Jacob’s Carter Burgess (JCB) team took into consideration the two and a half mile span between the Rio Grande river bend and Slaughter Park and the River as the southern boundary. Several site visits were made to collect data on existing site conditions that could have bearing on future landscape design. The information was then brought back to the office and converted to a graphic form, making it easier to view and analyze the data in its entirety.

**Rio Grande Vega Lands • Between Rio Grande West River Bend and KCS Railroad Bridge**

The majority of the West Riverfront is preserved by the U.S.A.C.E as Laredo’s Riverbend Ecosystem Restoration Project. This large area sits in the 100-year floodplain and consists mainly of dense vegetation and a few segregated ponds. The purpose for the project is to restore the area’s natural habitat and its significance to the city. Open areas along the escarpment offer great views of the project and are ideal environments for birding and other wildlife activities. Border security is limited, however, resulting in restricted visitation.

North of the river bend project is the old historic neighborhood, El Cuatro. This area first served as housing for early railroad workers and with time, has become somewhat neglected. Run-down remnants still stand in this location depreciating its surrounding natural scenery. Fort McIntosh just to the north is an old military base established in the aftermath of the Mexican War and abandoned after World War II. Laredo Community College (LCC) now occupies the lower portion and has many of the original army structures from the old fort along with a few modern buildings. The southern end of the campus is lined by the Historic Fort McIntosh Wall abutting El Cuatro.
The Kansas City Southern Railroad bounds this section to the east. It is the only railway that crosses the U.S.-Mexico border in Laredo and has played its part in Laredo’s history with a few historic railroad structures still in tact along the tracks. It is, however, a major east/west site division that interrupts circulation to the west riverfront. Immobile transit cars sitting on the tracks act as visual barriers as well as cut Laredo off from its west end. The railway’s lack of break through points hinders border security and the overall safety of Laredo citizens.

Rio Grande Vega Lands • Between KCS Railroad Bridge and Bridge I

The entire central section of the riverfront sits in the 100-year floodplain, below the escarpment. It is lined with dense overgrown vegetation, acting as a visual barrier between the city and river. Border security is critical along the riverbank, and growing safety issues with illegal immigration have caused the city and its people to turn their backs to the river, in a sense, associating the riverfront with risk and criminal activity. Border Patrol routes consist of both dirt and paved roads located in areas where views and access are most prominent. A high point just east of the KCS Railroad Bridge is within close proximity to the river and provides an open view of the lower riverfront. It is currently a practical location for border surveillance, and as a result, discourages public activity.

Los Dos Laredos Park, along the edge of the riverfront, is heavily used by the citizens of Laredo. Park amenities include 0.80 miles of trail, three playgrounds, two basketball courts, picnic tables, benches, lighting and outdoor barbecue pits. It is a popular place for people to visit during the warmer months and because it is out in the open and completely visible, pedestrians have a stronger sense of security. The park itself is currently one of the riverfront’s main attractions. Its length is equivalent to the span of six blocks in downtown Laredo; however, it is difficult to access and in far walking distance from town. Overall, it provides the city with a nice gathering location welcoming to all ages.
The remainder of the riverfront is used primarily for parking. The concrete area is at least twice that of Los Dos Laredos Park. It consists of several parking lots, all of which are either city owned or leased by local businesses. A couple lots accommodate buildings above the escarpment and the remainders are left unused serving no particular facility or function. This surplus in parking takes up valuable space, adds an unattractive setting to the riverfront and last but not least, further distances the river from the city. Parking is indeed a significant component to any urban environment; however appropriate location and distribution are key to using it most efficiently.

Water Street, on top of the escarpment, is lined by a few buildings, a couple of which include a rundown JC Penney and the vacant Rio Grande Plaza Hotel. The hotel is visually unappealing and stands mainly as a directional landmark for pedestrians on or near the riverfront. The newest improvement in this vicinity is the renovated El Portal building, located just west of Bridge I. It serves as an indoor mall and welcoming “Gateway to the Americas”. With the exception of El Portal, the existing buildings face inland with their backs to the river, disengaging the city from the riverfront. Santa Cleotide Avenue, Davis Avenue and Santa Maria Avenue are the main throughways that intersect Water Street. Many adjacent avenues dead-end at Zaragoza Street a block north and provide little direction to the existing riverfront.

Two historic districts which exist in the area are St. Peters District and the Proposed Jarvis Plaza District. The St. Peter’s District is generally defined by Moctezuma Street to the North, Lincoln Street to the south, Santa Isabel Avenue to the west, and Santa Maria Avenue to the east. Named after the first English speaking Catholic Church, the St. Peter’s District developed as an elite neighborhood for European and Jewish emigrants settling in Laredo. The Proposed Jarvis Plaza District is generally located east of Santa Maria Avenue, west of Flores Avenue, north of Grant Street, and south of Victorian Street. This district contains Jarvis Plaza named after Samuel Jarvis, mayor of Laredo from 1868 to 1872. Significant historic buildings in the district include the Bender Hotel, the St. Anthony Hotel, and the Hamilton Hotel which is designated as a National Register Landmark.
The riverfront between Bridges I and II is located below the escarpment in the 100-year floodplain. Bridge I, formally known as the Gateway to the Americas Bridge, has four lanes for non-commercial traffic and two pedestrian sidewalks. Bridge II, also known as the Juarez-Lincoln Bridge, has six lanes used for limited commercial and non-commercial vehicular traffic and marks the terminus of the U.S. Interstate Highway 35. Both bridges are owned and operated by the City of Laredo and the Secretaría de Comunicaciones y Transportes. They’re used heavily throughout the day in both directions and are two extremely influential components to the city of Laredo. There is currently no direct way to access the riverfront from either bridge or from downtown. River Road, running east and west, is the only means of entry and connection to this area. A current plan for a downramp would connect I-35 to the Laredo riverfront, dramatically improving circulation.

The raised parking area above the escarpment is owned by the General Services Administration (GSA). The building just behind it, also GSA property, blocks all potential northern views from reaching the river. The property was formerly used as an export inspection station but hasn’t been operated since the opening of Bridge II. The building now serves as a training facility for Customs and its lot primarily serves the overflow of downtown parking.
The San Augustin de Laredo Historic District is one of the oldest Historic districts in Texas. It is roughly bounded by Iturbide Street and Water Street to the north and south and Santa Ursula Avenue and Convent Avenue to the east and west. Prominent features include: the San Augustin Roman Catholic Cathedral, San Augustin Plaza, La Posada Hotel, Zaragoza Walkway and Aldo Tatangelo Walkway. Buildings in the district, especially San Augustin Cathedral, are known for their traditional gothic architecture. The church’s steeple rises over San Augustin Plaza and is a great directional landmark, spotted easily from any location in the city. The recently renovated La Posada Hotel is located between Zaragoza Street and Water Street in front of San Augustin Plaza. It includes two museums and is a popular Laredo tourist attraction.

Tatangelo Walkway, a brick pedestrian promenade, is located on San Augustin Avenue in between Lincoln Street and Grant Street and connects Old Mercado Plaza to San Augustin Plaza. It’s lined with benches, trees and green landscaping providing a cool intermission between the city’s hot summer heat and heavy urban traffic. Just north of the San Augustin de Laredo Historic District is the Old Mercado Historic District. This neighborhood extends north to Farragut St, and is bounded by Santa Ursula Avenue to the east, and Salinas Avenue to the west. In the 1880’s, a new city hall was built in this district, expanding the business district to the north from the San Agustin District. The area became known as El Mercado due to the abundance of products and produce sold on the street levels of the district while the second through forth levels of the buildings were utilized for more private uses such as hotels and offices.

This section of riverfront is located in a very energetic part of town. It openly sits between two active ports of entry and is seen by thousands everyday. It has great potential but its existing appearance is drab and uninviting. The historic districts and their features are visited frequently by out-of-towners and access to an appealing riverfront would only improve the quality and success of the area.
Rio Grande Vega Lands • Between Bridge II and Slaughter Park

The eastern end of the riverfront is known for its rich natural riparian habitat. The majority of the area spans from Bridge II to the KCS Rail Yard Vega and is known as Las Palmas Park. The park borders the Rio Grande and contains a small secondary channel of river created by an island within the main river channel. The island is covered with river cane and is a relatively stable hydraulic feature. Recently, 0.57 miles of trail were added to the park and it is a popular birding location for locals and tourists. The island is dense with vegetation and views to the River are almost entirely blocked making navigation extremely difficult. With exception to the trail, park access is limited inhibiting border security. Las Palmas has great potential for future enhanced hiking, biking, site seeing, birding and other wildlife activities. Safety throughout the park is weak, however, preventing people from visiting and appreciating all the amenities that the environment has to offer.

Zacate Creek sits west of the KCS Railyard and flows south through the city emptying into the Rio Grande by Las Palmas. It is a major east/west site division in Laredo and has few connecting routes from one side to the other. There is little water flowing in the creek due to its lack of a constant water source. The surrounding upper banks are barren and neglected preventing the creek from having its own “sense of place” in the city. A Waste Water Treatment Plant (WWTP) is located at the mouth of Zacate Creek and gives off a horrible odor that the area is now known for. It sits on a high point and is unsightly let alone smelly. An existing linear walkway lines Zacate Creek and can be productively walked for about one-half mile upstream and is a popular route for exotic bird watchers. Plans have been proposed for a Zacate Creek Park as well. Its amenities would include: playgrounds, a soccer field, restrooms, water fountains, basketball courts, 0.5 miles of trail, a concession building and security lighting. The creek does have potential to compliment its surroundings and serve as an urban greenway rather than a city divider. With proper attention it can justify the term “Urban Nature”.
The majority of housing between I-35 and Zacate Creek is part of El Azteca Historical District, which extends north to Metamoros Street and south to the Rio Grande. It consists of low-income housing and is one of Laredo’s poorest neighborhoods. Lack of attention to the area has lead to an abundance of run-down property and a dramatic increase in crime. The district is nationally recognized for its Mission and Spanish Revival style architecture and has 140 buildings eligible for the National Register of Historic Places. Unsightly surroundings, unsafe environments and poor circulation, however, decrease property value and one’s interest to visit or pass through. The city’s mission is to organize the Azteca residents and work with them to rebuild the neighborhood into a healthy community through housing development, economic revitalization, job creation, skills training, neighborhood safety, and beautification.

East of Zacate Creek and abutting the riverfront is the Kansas City Southern Railyard. This location houses transit cars and large industrial rail structures along with a few older historic buildings with great architectural appeal. The rail yard has no definite entry or edge and encompasses a large area along the riverfront known as the Railyard Vega. A potential brownfield is located just on top of the escarpment and stands as a relict of its former industrial site. This area contains some of the best views along the riverfront. Its higher elevation provides expansive panoramic scenes in which the Vega, the Rio Grande and Mexico are all visible from one vantage point. The KCS Railyard has potential as a redevelopment site and future connector to the planned active recreation facility, Slaughter Park, to its east.
Overview

After completing the Site Inventory and Analysis for the project, the development of the physical Master Plan could begin. In this phase of design, professional judgments were made regarding responses to existing on-site conditions, economic factors, international security issues, and site circulation. Several initial options and concepts were considered in the early stages of the Master Plan development, and modifications were made accordingly to each option. Eventually, with input from City staff and from the Blue Ribbon Committee, the design team was able to narrow down and combine elements from different options into one comprehensive Master Plan. The Master Plan is meant to serve as a “roadmap” or general guide for the area’s long-term physical development and is a graphic representation of the design in its final stage.
The Rio Grande Vega Lands Master Plan project area lies between the KCS Railroad Bridge and the KCS Railyard. The implementation of the recommended master plan to achieve the primary goals of the project will involve the restoration of some elements, the re-programming of others, and the creation of completely new improvements. The primary goals of the plan are as follows:

- Minimize the distance between the River and downtown and enhance their connection with one another;
- Increase border security and safety in a way that will not seal the River off from the rest of the city;
- Create view sheds from downtown to the River for visual enhancement and attraction;
- Improve transportation and circulation along the riverfront while promoting a pedestrian friendly atmosphere;
- Restore natural habitat and improve pedestrian and vehicular patrol navigation in Las Palmas;
- Revitalize existing park space without losing its identity in an urban environment, and create viable new park spaces where appropriate.
The physical components of the Master Plan that combine to achieve these goals can be divided up into two categories: global and local. Global elements are those that can be found throughout the project, regardless of phase. Local elements, in contrast, are those that occur only at specific locations along the project.

**Rio Grande Vega Lands Master Plan • Global Elements**

**Border Security**

Safety along the riverfront is not more important in any one area than it is in others, and was contemplated with the design of each section of the Master Plan. Without effective border security measures included in the design, the riverfront would remain a place in which locals and out-of-towners are hesitant to visit. Security will be enhanced by removing all invasive overgrown vegetation lining the river bank so that pedestrian and Border Patrol views of the River are unobstructed. Unobstructed views, free of hiding places for ill-doers, create a more inviting atmosphere for the visiting public. By definition, well known and well used public spaces are more secure. The proposed master plan uses this concept to increase the security along the Rio Grande riverfront.

Other elements that will improve riverfront security are:

- Night Lighting along trails
- Emergency Phones/Security Kiosks
- Bulkhead Wall

▲ Border security section in Las Palmas.

▲ Graphic of patrol capable hike and bike trail through Las Palmas
Another consistent component throughout the Master Plan is the installation of a bulkhead wall along the river bank. The wall is a proposed +/- 14 feet tall with its top 7 feet above the water’s surface, with the top level to the grade of bank. The wall’s combined height above and below the water surface will prevent immigrants from illegally scaling the riverbank, but at the same time, will not interfere with Laredo’s views of the Rio Grande and Mexico. This execution of a “fence without a fence” will further secure the riverfront without visually or physically sealing the River off from the rest of the city. It is an extremely important feature in that it will provide pedestrians with a stronger sense of security but also a reinforced connection to their neighboring country of influence.

The wall is proposed to be constructed of steel sheet piling with a formed concrete cap, and span the riverfront from the KCS Railroad Bridge to the entry of Las Palmas. Its facade will provide visual appeal through its warm color tone contrasted against the cool dark edge of the Rio Grande. Lights built into its structure can reflect off of the water’s surface at night to illuminate the seam between the River and its northern riverfront. These details contribute to the celebration and emphasis of the Rio Grande as a riverfront amenity.
Hydraulics

During the development of the master plan, the global premise of the hydraulics analysis was that the ultimate design was to result in no adverse impacts to the regulatory flood elevations for both the International Boundary and Water Commission (IBWC) flood flow and the Federal Emergency Management Agency (FEMA) base flood elevations. The design team used the regulatory IBWC HEC-RAS model for the Rio Grande as the baseline when incorporating hydraulic considerations into the master plan. Water surface elevation impacts resulting from modifying the river geometry per Master Plan elements have been reflected in the HEC-RAS model at various stages throughout the design process. The progression of the hydraulic modeling results is provided in further detailed in Appendices E & F. At every design stage along the way, the modeling indicated that the proposed master plan elements result in no significant increase in regulatory flood elevations.

Although the hydraulic modeling work performed by the design team provides a sufficient basis for the level of design undertaken to develop the master plan, additional design and analysis will be required moving forward toward final design and implementation. Most notably is the refinement in design related to water depth adjacent to the bulkhead wall. The actual resulting depth of water at the wall will be dependent on several factors including: final elevation of wall, final elevation of river bottom (adjacent to wall), sedimentation over time, normal flow of river (water availability) and use of grade control at downstream end of project. All of these factors will require further detail study before final design and construction to assure that the resulting project realizes the goals of the Master Plan.

Circulation

The proposed realignment of River Road extends from the west side of the KCS Railroad Bridge, under Bridges I and II, over Las Palmas and continues east serving as Laredo Riverfront’s main east/west means of circulation. It also serves as a Border Patrol route enabling continuous riverfront surveillance for an area that currently offers only a very few, intermittent surveillance opportunities. Within the project limits, the road accommodates two-way vehicular traffic and varies in its proximity to the River’s edge, from 140 feet away to approximately 80 feet. A hike and bike trail is proposed along the riverfront for pedestrian circulation. It is roughly located between the river bank and River Road so that pedestrian access to the river edge isn’t interrupted by vehicular traffic. The trail is ten feet wide along the majority of the riverfront, and like River Road, extends from the KCS Railroad Bridge, under Bridges I and II, and into Las Palmas where it widens to accommodate Border Patrol vehicles. Lighting along the trail is proposed in
order to assure a safe experience for the public regardless of the time of day. The materials used to construct the proposed trail will vary depending upon location and site context. For instance, along the riverfront just below downtown, a decorative concrete or paver surface might be appropriate, while a compacted crushed granite or stone dust surface might be more fitting for the trail in the Los Dos Puentes Park area.

Overall, the trail will provide a pedestrian friendly environment for walkers, bikers, joggers, dog walkers, skaters, bird watchers, etc., and allow them to experience the transition of an open urban setting to a densely wooded natural habitat. River Road and the hike and bike trail offer organized accessibility which prioritizes safety and will create a more intimate physical relationship between the public and the River.
**Preliminary graphic done early in the design process. It notes key points only and does not represent the final Master Plan design.**
Before and after section cuts through the downtown riverfront.
Rio Grande Vega Lands Master Plan • Local Elements

While local elements of the Master Plan are those that occur only at specific locations along the project, those elements can be further divided based upon the character of the proposed spaces in which they fall. During the development of the Master Plan, the design team realized that an overlying order to the site, based on proposed land uses, was taking shape. Three distinct “zones” of the project emerged: the “Urban” zone, the “Transition” zone, and the “Natural” zone.

Urban Zone

The urban zone, the most upstream zone and located roughly between the KSC Railroad Bridge and Bridge I, lies immediately adjacent to downtown Laredo. The area includes a proposed convention center site, open plaza space, retail and entertainment etc., all of which have their own designated locations contributing to the area’s formal organization.

River Expansion

Presently, the width of the Rio Grande in this location (+/- 350 feet) is insignificant when compared to width of land between its north bank and the escarpment (+/- 700 feet). This section of the Master Plan proposes to push the north riverfront inland, closer to downtown. At its widest point, this expansion reaches +/- 340 feet from its existing north bank location. The international borderline, defined as the center line of the existing Rio Grande River, must remain the same after the River is expanded in width. The border location will be marked after river expansion by an in-channel row of sculptural lighted buoys. The buoys will define the international boundary and also serve as a visual evening attraction. This proposed river expansion will condense the gap between the River and downtown and play a huge part in emphasizing the River’s role as a destination point. It is a first step in restoring the visual and physical bond between river and city.
Hydraulics

The river cross-section geometry in the IBWC hydraulic model was modified by JCB from just downstream of the KCS Railroad Bridge to Bridge II. These sections were modified to reflect the Master Plan concepts. The model cross-sections from the KCS Railroad Bridge to Bridge I were modified to reflect the River Expansion (increased width) and the Bulkhead Wall along the Laredo riverbank. River bottom geometry, in this same area was configured to tie into the existing centerline of the River. Starting from the centerline and moving toward Laredo, the river sections were modeled to slope down to a flat channel bottom, then feature a 14-foot vertical wall at a constant elevation, and finally tie back into the existing ground along the downtown waterfront. Shortly downstream of Bridge I, the River converges back to its existing width with the 14-foot wall still in place and continues in this manner to just upstream of Bridge II. In addition, the roughness coefficients (or n-values) in the hydraulic model were modified to reflect anticipated changes in surface treatment resulting from Master Plan elements. Though the Master Plan elements proceed further downstream, there are no additional modifications that impact the hydraulic model. Detailed hydraulic model changes and results are presented in Appendices E & F.

Convention Center

The JCB Team proposes the vicinity of the existing Riverfront Plaza Hotel to be a potential site for a future Laredo Convention Center. As a large public building, the Convention Center will demand enough space to host public and private business and social events for the surrounding metropolitan areas. The facility also must have easy vehicular access to accommodate out-of-towners’ unfamiliarity of the city. This particular location was chosen because of its height above the river and surrounding land and its adjacency to downtown. Additionally, its prominent location overlooking the Rio Grande along with the proposed River Road realignment, allow the location to be extremely accessible and easy to locate. The center could offer outstanding views of the riverfront and provide a great first impression of the city of Laredo from both sides of the river.
Riverfront Linear Park

The proposed Vega Lands Riverfront between the KCS Railroad Bridge and Bridge I consists of park space, trails and open plazas, all of which are interconnected in order to provide easy access along the River. A linear park is located along the western riverfront adjacent to the potential Convention Center site. The park’s pedestrian friendly atmosphere buffers the hard edge between River Road and the Rio Grande. Interwoven paths within its lawn space connect to the hike and bike trail and can provide up to 0.5 miles of walkway condensed along only 0.15 miles of riverfront, similar to the existing, and well used, Los Dos Laredos Park. The proposed park provides the public with a sufficient route to walk, jog, walk their dogs, etc., all in one location. Its overall layout will contribute a passive character to the riverfront and balance its surrounding city bustle with a sense of leisure and repose.

Riverfront Plazas/Farmer’s Market

The central downtown riverfront will contain two large paved plazas and one lawn plaza, each +/- 19,500 square feet. The paving patterns of the two plazas incorporate warm color tones to compliment surrounding architecture and contribute to Laredo’s cultural character. Two rows of trees, an arbor and casual seating line all but the southern edges which remain open to the River and hike and bike trail. The trees provide a sense of enclosure and intimacy along the riverfront as well as a shaded escape from the hot summer heat. The lawn plaza, farthest east, provides an open area perfect for casual lounging, picnicking, etc. All plazas are intended to be ideal locations for festival space, weekly gatherings, concert venues, farmers markets and other outdoor events.

Three north/south connections adjacent to both plazas consist of two seven foot wide paved paths interrupted by a twenty-five foot wide strip of lawn. All three connections contain handicap
accessible ramps and steps that lead down to the hike and bike trail and terminate as small circular plazas extending slightly over the River’s edge. These destinations will provide a nice panoramic view of the River and Mexico along with the opportunity for pedestrians to get a few steps closer to Laredo’s influential Rio Grande.

River Road Circulation

The proposed realigned River Road is located along the bottom of the escarpment, just below the upper plaza. As a global element of the project, it is the Laredo riverfront’s main east/west vehicular traffic route. In this particular section of riverfront, it will provide direct access to El Portal, the proposed Convention Center site, parking and eventually connect riverfront traffic back up to downtown by way of Santa Isabel Avenue. Between the proposed Convention Center and El Portal, an approximately 18 foot wide lawn median is proposed to split River Road into two sections. Two rows of palm trees line the median providing height and visual appeal for passerbys.

Parking - Covered/Underground

All existing parking along this section of riverfront would be removed due to the proposed expansion of the Rio Grande. The Master Plan proposed parking is dispersed among areas most suitable and convenient for the city of Laredo and riverfront amenities. These areas include the following:

- A +/- 75 space parking lot west of Bridge I, in front of El Portal (serves El Portal and riverfront)
- Covered parking under the escarpment (serves riverfront and upper plaza)
- Covered parking under the Convention Center site location (serves Convention Center, riverfront and upper plaza)
- A proposed +/- 600 space multi-level garage on Zaragoza Street between Santa Maria Avenue and Davis Avenue (serves downtown Laredo, new economic district and upper plaza)

The approximate number of parking spaces proposed by the Master Plan after river expansion actually exceeds that from before expansion. In addition to creating more parking, the proposed design emphasizes parking is that is almost entirely out of view, with the exception of the El Portal lot. Covered parking conceals the unattractive appearance of paved lots, provides a strong sense of security, both from bad weather and crime, and when located underground, frees up valuable riverfront property so that space is used more efficiently. Lower riverfront parking facilities would be directly accessible from River Road while the proposed Zaragoza Street garage is conveniently located in the heart of downtown and in close walking distance to the upper plaza and entertainment district. All proposed parking locations will help make visiting the Laredo Riverfront a popular, safe and uncomplicated activity, which is critical to the economic and popular success of the project.
Upper Pedestrian Plaza

A pedestrian plaza is proposed on top of the escarpment (approximately 16 feet above River Road). It consists of a large paved pedestrian walkway, designated lawn areas, shops and cafes and various water features. The walkway itself extends along the south side of Water Street from the Convention Center to El Portal. A 48” railing lines the edge of the escarpment, similar to that along the riverbank. At four locations, the edge rounds outward providing a covered balcony, in a sense, for pedestrians to pause and view the River and lower riverfront in full perspective.

Six buildings are situated along the edge of the escarpment, but far enough away to provide a throughway for pedestrian traffic. The retail buildings house various shops, boutiques, cafes, etc., and serve as additional attractions along the riverfront; especially on nice warm summer days when outdoor shopping is ideal. Individual lawn areas are located behind the north side of each building. The majority of the upper plaza is paved, so the lawn areas would be perfect spots to sit down and eat lunch, drink a coffee, finish a book or cool off under one of the surrounding tree canopies. Water fountain features are situated in between each lawn adding a peaceful ambience to the upper urban plaza.

Pedestrian Promenades

Two pedestrian promenades extend out over the escarpment above River Road. One is purposefully aligned with Davis Avenue and the other with Santa Maria Avenue, both providing pedestrian continuations toward the River. Each is lined with a 48” railing and houses two retail buildings. The central walkway is covered and eventually opens up to a rounded overlook. Here pedestrians will have the option to enjoy the riverfront view from above or experience it on a more personal level by continuing down a stairway that leads to the lower sidewalk. A handicap accessible elevator is also available as an alternate means of descent.

El Portal

El Portal, as noted earlier, is known as a welcoming “Gateway to the Americas”. Situated next to Bridge I, its increasing success makes it one of the riverfront’s primary anchors as well as the first building people pass when entering the city from Nuevo Laredo. In the proposed design, visitors can access El Portal via the upper
plaza walkway, where behind the building, it steps up onto a smaller raised plaza lined with two rows of trees. This direct connection between El Portal and the rest of the upper plaza will allow circulation to flow more smoothly and enable easier security patrolling activities.

Retail/Entertainment Redevelopment District

A new multi-story retail and entertainment district is proposed on the north side of Water Street, across from the upper plaza. The entire development occupies a total of five blocks between Santa Cleotide Avenue and Salinas Avenue. Unlike the existing buildings along Water Street, the proposed district faces toward the Rio Grande as a means to engage the riverfront with the rest of downtown. The roadways that intersect Water Street serve as visual funnels to the riverfront, in a sense, while the surrounding district streetscapes frame their views. The multi-story buildings could include individual levels dedicated to retail (an indoor outlet mall), entertainment/restaurants and office space.

The existing Water Street serves as a two-way vehicular traffic route and will continue to do so in the proposed Master Plan design. A proposed, wide, convenient sidewalk lining its northern edge and the adjacent upper plaza will make it a popular and secure pedestrian corridor as well as one of downtown’s most significant thoroughfares. The proposed redevelopment along Water Street will serve as a major economic enhancement for the city of Laredo and its new riverfront. Its improved connections will allow residents to safely experience and further appreciate the valuable bond between their city and the Rio Grande.
Transition Zone

Generally located between Bridge I and Las Palmas, the Transition Zone is a progression of programmed park space to non-programmed park space, serving as a physical and experiential link between the urban and natural zones of the Vega Lands Master Plan.

Los Dos Puentes

The existing park space along the riverfront, although limited, is frequently used by Laredo residents. Due to the loss in land area from the proposed widening of the river, the proposed location for new park space shifts east, from the existing location of Los Dos Laredos and extends from Bridge I to Las Palmas through a series of linear parks. A proposed name for the new parks pace is Los Dos Puentes (LDP), meaning “The Two Bridges.” Its size is nearly double that of the existing Los Dos Laredos Park, and its location provides it with its own designated “place” along the riverfront. The pedestrian experience at the existing Los Dos Laredos is downgraded by the large expanse of surrounding parking. Safety along the riverfront is weak in Los Dos Laredos and the River is undetectable. The proposed Los Dos Puentes encompasses a large area where safety is a top concern and views to the River are completely unobstructed.

I-35 Downramp and River Road

The layout of the proposed park is governed by its overall circulation. The primary addition to this area will be the installation of a downramp from I-35 to the riverfront. I-35 presently terminates at the U.S. side of Bridge II. The downramp is basically a continuation of the roadway itself. After it passes the escarpment, it gently curves right where views of the park and Rio Grande are first introduced. From here it gradually descends until reaching level ground where it then tees into the east/west connector, River Road. At this intersection, drivers will have the option to turn right,
toward downtown, the Convention Center, El Portal etc., or left to LDP or Las Palmas further east.

A large section of the proposed River Road is split by a lawn median lined with two rows of palm trees. This contributes to the surrounding natural quality of LDP and replaces a typical circulation route with a relaxing scenic boulevard. The palms continue alongside the outside curve of the downramp providing height and visual rhythm for vehicles descending. With River Road serving as the main border patrol vehicular route, its central location will promote security throughout all areas of LDP.

**Parking**

In the proposed design, the existing GSA parking lot above the escarpment remains in tact. A portion of it will be available for LDP visitors and is accessible through its River Road entrance located underneath the downramp. At this location a roadway slopes upward toward the GSA lot where it is lined by attractive vegetation and landscaped beds. The entire lot is bordered by a stone wall which provides a handsome backdrop to its surrounding outer landscape as well as a visual barrier to its inner parking lot. Proposed additional parking is available underneath the downramp as well which is accessed by vehicles turning left through the same River Road entrance instead of continuing straight toward the upper lot. The parking begins at the entrance and heads west about 450 feet, where the space between the ground and the underside of the ramp can no longer accommodate a vehicle. The shelter provided by the downramp and its proximity to park amenities, such as the hike and bike trail, will make this an ideal location for riverfront parking. A third location is along the south side of River Road. Three lots, each made up of six spaces, are only a short distance away from the riverfront. They are excellent locations for pedestrians who plan to directly access adjacent riverfront amenities, use the hike and bike trail or continue east for a visit to Las Palmas.
Section sketch through Los Dos Puentes showing parking under downramp and along River Rd.
LOS DOS PUENTES
SECTION/ELEVATION

Section sketch through Los Dos Puentes showing downramp, playground, River Rd., the hike and bike trail, parking, etc.
Trail/Riverfront Amenities

The interconnected riverfront park system will offer a number of opportunities and activities. Downtown’s proposed riverfront consists of an organized urban layout with access to open plaza space and designated locations to step out and overlook the Rio Grande. It then continues under Bridge I and into LDP where several additional riverfront amenities are introduced. The hike and bike trail, for one, breaks free from its strict alignment at the River’s edge and takes on a more casual winding flow. Large trees and landscape planting beds are situated along its edge, reinforcing the park’s natural character. Picnic shelters, BBQ grills, and seating are scattered along the riverfront between the river bank and River Road which will encourage pedestrians to step off the trail and mingle with their surrounding park space. Large open lawn areas are situated both behind and in front of the trail in order to accommodate various park activities such as throwing a Frisbee, backyard football, group picnics or playing catch.

Shaded Terrace

At the east side of Bridge I, north of River Road, proposed stone seat walls step down from the GSA lot forming a large seated terrace that mimics the shape of the upper GSA wall. Several trees line the edges providing shade and a sense of intimacy to the stepped lawn below. The area offers a large amount of seating and is an ideal location for relaxing, reading a book or escaping the sun’s heat.

Nature Trail/Inner Park Space

The proposed east end of the GSA lot provides access to another inner park trail. The walkway, made up of a blue multi-colored paving material, brings vibrancy to the park’s appearance and symbolizes the Rio Grande as an integral component to the Laredo riverfront. It stretches from the GSA lot, under the I-35 downramp, through the adjacent park space, and continues east.
under Bridge II and toward Las Palmas. Large rocks and boulders are randomly arranged along its edge, further emphasizing the park’s natural character. Surrounding amenities between the downramp and Bridge II consist of a large playground, picnic shelters, and the park as a potential learning center or sculpture garden, directed toward Laredo’s younger generations. The north end of the park slopes slightly upward and is edged by a raised row of arbors. Evergreen trees and shrubs are planted in the background, along the sloped escarpment in order to screen upper parking decks. In the foreground, a large planting bed can provide a burst of perennial color or an educated display of unique Laredo plant species along with their corresponding plant descriptions.

The park and nature trail extend under Bridge II where they take on a less formal organization. Palm trees are randomly situated along the walkway as if they had been pulled from the adjacent natural zone of Las Palmas. The surrounding environment provides the area with little program, installing a more passive form of recreation for pedestrians, along with an appreciation for the east riverfront and its upcoming Las Palmas.

▲ Examples of park recreation

▲ Nature trail and inner LDP park: Still shot from video animation
Natural Zone

The existing east riverfront, more popularly known for its exquisite natural habitat and wildlife, is not used to its full potential. The Master Plan proposes improvements to further enhance the transition of Laredo’s riverfront from an urban setting to a safe and accessible natural environment.

River Road and the Hike and Bike Trail

River Road enters the east riverfront under Bridge II. It is raised over Las Palmas and continues east across Zacate Creek. Near the entrance of Las Palmas, the roadway branches off and merges with the hike and bike trail, forming a larger circulation corridor. It consists of a 16 foot central trail, paved over to accommodate Border Patrol vehicles and two 5 foot shoulders for pedestrians and bicyclists. The patrol capable hike and bike trail is situated at the edge of Las Palmas and bridges over Zacate Creek where it continues east along bank of the Rio Grande. The River’s edge is cleared of overgrown vegetation so that views to the River are unobstructed, improving safety and park appearance.

I-35 Upramp

The proposed I-35 downramp provides a central, direct route to Laredo’s entire riverfront. With the exception of River Road’s proposed connection to Santa Isabel Avenue on the west riverfront, access back toward town is limited. A proposed I-35 upramp connected to River Road on the east riverfront provides a primary northern route back toward town and completes the cycle for riverfront circulation. It tees off of River Road by Las Palmas and works its way around the Port of Entry of Bridge II connecting back to I-35 N. Regardless of one’s location on the riverfront, access to and from town is now direct and easily navigable.
Las Palmas

Access to the existing Las Palmas is limited and indirect. The Master Plan proposes to connect the nature trail in Los Dos Puentes to an improved inner trail system through Las Palmas along with signage throughout the park for enhanced navigability.

The nature trail enters Las Palmas under River Road (where River Road is raised over Las Palmas), allowing pedestrians park access without having to cross vehicular traffic. At this location, entry signage can provide direction, trail layouts, birding/wildlife information, etc., along with individual brochures or trail maps for visitors to take with them on their hike. The patrol capable hike and bike trail entry into Las Palmas will also provide signage and serve as the main trailhead for Las Palmas. A proposed gate at this location limits park access after dark in order to ensure safety along the east riverfront. Proposed trails through the inner woods of Las Palmas are spread throughout the park providing access from one end to the other. The trails head east where they then connect to the proposed trail system along Zacate Creek’s west upper bank. All trails within Las Palmas eventually work their way back to the patrol capable hike and bike trail which serves as a secure corridor and direct route for pedestrians.
Las Palmas Signage example.
**Future Recommendations: TXDOT Overpass/Springfield Underpass & Extension**

The KCS Railyard has great redevelopment potential, but at the same time, is difficult to access. A proposed TXDOT overpass on Guadalupe Street and Highway 83 would greatly improve east/west circulation across the KCS Railroad. It would involve narrowing the gap between the two roadways where they intersect the KCS Railroad, forming them into a two-way overpass, then gradually realigning them back in place, once they pass over the railroad tracks. Springfield Avenue, a major traffic arterial in Laredo, is directly aligned with the west edge of the KCS Railyard. The railroad cuts off Springfield Avenue, however, preventing direct access to the KCS Railyard. A proposed extension of Springfield Avenue under the railroad and into the KCS Railyard would greatly improve north/south access and encourage the future development of a potential riverfront neighborhood.

▲ Enlargement of proposed TXDOT overpass & Springfield underpass/extension.
A true Capital Improvements Plan (CIP) is typically indexed to funding sources. Because funding sources are undetermined at this point, it is difficult to write a true CIP for the City of Laredo. In understanding the construction standards and techniques, it is important to understand that some Phases of development happen prior to other Construction Phases so little impacts to existing projects can be achieved. A CIP would typically take into account multi-year spending on identified projects. Due to the uncertainty of funding and in order for the City to better understand and work for an achievable goal certain Phases may be taken out of the initial order proposed. These justifications for the order of phases are as follows:

**Phase 1** is the primary phase that begins the Vega Lands project. It is the phase that starts to create the vision of reconnecting the river to the City and includes major river improvements such as the dredging and re-structuring of the Rio Grande itself. In order to advocate the loss of existing parking, it would be necessary to also include a parking garage to house the lost parking spaces. It is important to attend to these major projects first and foremost because they address the primary concerns for reconnecting the existing riverfront to the City and are the basis for the entire project design. Once completed, this phase will serve as the future foundation for construction of additional phases.

**Phase 2** consists of an upper pedestrian promenade that will create a sense of revitalization along Water Street as well as improved access from downtown Laredo to the riverfront. This promenade structure overlooks the remaining riverfront lands that will, through additional phases (Phase 3), be a pedestrian dominate plaza. Once complete the upper promenade will provide...
additional parking underneath its structure. This parking area will also help to reclaim the removal of riverfront parking spaces due to the widening of the river in Phase 1. Once both parking structures (from Phases 1 and 2) are constructed, parking will be plentiful yet obscure, allowing for a more efficient use of space along the riverfront.

Phase 3 involves merging the gap between Phases 1 and 2 by providing a pedestrian dominate atmosphere to the adjacent riverfront and improving vehicular circulation by way of a realigned River Road. Once the first three phases are constructed, the western riverfront can provide the city with a great entertainment district as well as a potential site for a future convention center allowing Laredo to celebrate its location and culture along the Rio Grande.

Phase 4 involves the installation of a pedestrian-friendly park space, Los Dos Puentes Park, along the riverfront, directly adjacent to Phase 3. The extension of River Road through Los Dos Puentes Park, will allow for easy monitoring, installing a general sense of safety to all visitors. This park will replace the existing heavily used Los Dos Laredos Park and will serve as an attractive and inviting connective space from Laredo’s west riverfront, east to Las Palmas. One of the biggest challenges that all phases will face is the need of access to the riverfront. Continuation and installation of the future I-35 downramp will provide a gateway to the park (and riverfront as a whole) and provide a direct entry so that access will no longer be an issue.

Phase 5 entails the transition of Phase 4 program elements into Las Palmas, along the east end of the project limits. In this phase, circulation throughout the wooded park will be greatly improved due to an enhanced wayfinding and educational signage system for pedestrians, as well as a more direct safety-monitoring route for the Border Patrol. The added ability for a patrol-capable hike and bike trail will create a more inviting space for pedestrians and complete one of the project’s goals of a continuous patrol route, so that all visitors can safely experience the entire project from one end of the riverfront to the other.

Phase 6 directly addresses future vehicular circulation both east (across Zacate Creek) and north. Though critical, this is suggested as a final phase due to the large amount of infrastructure it entails. An upramp will provide an exit from the riverfront, back to I-35, providing vehicles with a direct means of access, which otherwise would only be available at the west end from River Road. Future connection east across Zacate Creek is crucial in strengthening Laredo riverfront’s east/west connection which is currently scarce. This phase will also encourage future design development in areas such as the Kansas City Southern Railyard, further improving the riverfront community.
## Phase Identification

**Rio Grande Vega Lands**

**Date**: 12-Sep-08  
**Prepared For**: City of Laredo

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**Phase 2 Sub-total**: $9,115,751.00
## Phase 3: Lower West End Riverfront (Between KCS Bridge and Bridge I) / River Road

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## Phase Identification

### Rio Grande Vega Lands

**Date**: 12-Sep-08  
**Prepared For**: City of Laredo

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<th>Phase</th>
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<th>Quantity</th>
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<th>Unit Cost</th>
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**Phase 4 Sub-total**: $9,733,346.67

### Phase 5: Las Palmas / Inner Trails / Patrol Capable Hike and Bike Trail

- Border Patrol Capable Hike and Bike Trail - to Zacate Creek | 3,000 | LF | $156.00 | $468,000.00 |
- At-Grade Pedestrian Paving | 8,600 | SF | $7.50 | $64,500.00 |
- Steps - on grade | 800 | SF | $24.00 | $19,200.00 |
- Handrails / Guardrails (for steps) | 200 | LF | $60.00 | $12,000.00 |
- Border Patrol Road Gate | 2 | EA | $1,500.00 | $3,000.00 |
- Park Trails through interior of Las Palmas | 30,000 | SF | $3.00 | $90,000.00 |
- Monuments / Icons / Sculptural Elements | 10 | EA | $7,500.00 | $75,000.00 |
- Wayfinding Elements | 1 | LS | $7,500.00 | $7,500.00 |
- Site Furniture - Benches | 10 | EA | $600.00 | $6,000.00 |
- Site Furniture - Trash Receptacles | 5 | EA | $400.00 | $2,000.00 |
- Site Furniture - Drinking Fountains | 4 | EA | $300.00 | $1,200.00 |
- Emergency Call Boxes | 3 | Ea | $1,600.00 | $4,800.00 |

**Phase 5 Sub-total**: $753,200.00

### Phase 6: Upramp / River Road to Zacate Creek

- River Road - Undivided - Extension from Upramp Intersection east to proposed Zacate Creek Bridge | 2,300 | LF | $195.00 | $448,500.00 |
- Zacate Creek Bridge on River Road | 1 | LS | $3,500,000.00 | $3,500,000.00 |
- Zacate Creek Bridge (Low Water Crossing) on Border Patrol Road | 1 | LS | $750,000.00 | $750,000.00 |
- Border Patrol Road Gates for Riverbend Segment | 2 | EA | $1,500.00 | $3,000.00 |

**Phase 6 Sub-total**: $4,701,500.00
# Phase Identification

**Rio Grande Vega Lands**

**Date:** 12-Sep-08  
**Prepared For:** City of Laredo

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<th>Total Cost</th>
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**Phase Identification**

**Rio Grande Vega Lands**

**Date:** 12-Sep-08  
**Prepared For:** City of Laredo

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**Notes**

1. Convention Center is assumed to be a Public/Private Partnership and is therefore is excluded.
2. Demolition of existing "round" hotel is assumed to be included as part of the Convention Center cost, and is excluded from this estimate.
3. Riverbend border patrol road is considered to be a federally funded item and is excluded.
4. Downtown Mall redevelopment is assumed to be a Privately funded effort and is therefore excluded.
5. River Road extension from Zacate Creek bridge, through railyard, around Slaughter Park and to Meadow is excluded.
6. Bridge across Zacate Creek for River Road extension is excluded.
7. WWTP relocation is excluded.
8. Pedestrian Pavements: "plain gray" @ $3.30 / SF; "premium" @ $15.00 / SF
9. Trees: "palms" @ $800 ea; "large canopy" @ $600 ea; "small flowering" @ $250 ea
10. Lights: "poles" @ $4,500 ea; "bollards" @ $1,200 ea
11. No pedestrian lighting is included in Las Palmas
12. All project land acquisition is excluded.
13. "Contingency" Line item includes, but is not limited to, the following items:
   - Haul routes, permitting, disposal site for excavation
   - Erosion protection
14. Prices based on December 2006 pricing schedules. Since 2006, construction costs have escalated by 1.6% per month.
Funding Sources:

Major projects such as the Vega Lands require multiple funding sources for completion. The requirement to revitalize older urban areas and to take advantage of underused assets often require “creative alliances” between governmental entities, private developers, nonprofit associations, and community-based organizations. Such partnerships reflect the many appealing aspects of the Vega Lands project.

A full financial plan is in development. Potential funding sources for the implementation of the Vega Lands Project include:

Local funds through a bond program, public improvement district (PID), or tax increment financing district (TIF)
Federal grants through:
  - Department of Homeland Security
  - International Boundary Water Commission
  - Environmental Protection Agency
  - Economic Development Administration
  - Community Development Block Grants
Public/Private Partnerships (PPP)
Private sector development of adjacent properties

Indeed, the fastest growing arena for the use of PPP’s is urban economic development. A full discussion of the potential application of a PPP to the Vega Lands cannot be discussed here.

For more information about PPP’s, we urge you to consult the Ten Principles for Successful Public/Private Partnerships, published by the Urban Land Institute, and found at www.uli.org.
APPENDIX A - City of Laredo Meeting Minutes

Meeting Report
PROJECT: City of Laredo Rio Grande Vega Lands Master Plan
PROJECT NO.: 310432.011

PRESENT: City of Laredo:
John Porter
Mike Pescador
Adrian Gause

Carter & Burgess:
Kevin Conner
Neil Thomas
Guy Wilson

Frank Architecture:
Frank Rotnofsky

The following is our understanding of the subject matter covered in this meeting. If this differs from your understanding, please notify us within five working days.

- City understands that no land is federally owned along river front (subsequent to this meeting, C&B learned that the GSA does own several blocks)
- There is no connection from Slaughter Park to the Rio Grande
- There is an opportunity/desire to turn Zacate Creek into an Amenity
  - Low water dams
  - Pump effluent water up stream from waste water treatment plant to add higher flow; irrigation opportunities
  - Restore amphitheater and bridge across creek?
- 15 to 20 million dollars are going into waste water treatment plant in upgrades at Zacate Creek, money has not been programmed for specific improvements.
- August 14th positions will be filled for the Blue Ribbon Committee (appointed by the Mayor)
- Mike Pescador mentioned proposed city water park (location not yet programmed) along Vega Lands, possible location along Vega Lands
- Mike Pescador expressed a desire to try to extend Los Dos Laredos Park system to Tex Mex Rail Road Bridge

REPORTED BY: Guy Wilson
KC starts by drawing attention to the projection screen for Inventory and Analysis Flash presentation.
- Explains that the Kansas City Southern Rail Yard is currently being used as rented space.
  - Some of the best views on site are here.
- Shows areas of Downtown’s highest and best uses.
  - Although it is used, parking is in the wrong place. It leaves riverfront unattractive and uninviting.
  - It is currently difficult to engage downtown with the river due to the lack of visual connection and restricted access.
- Explains the idea of expanding the river: it has to be “there” in order to see it.
  - Access to/from a proposed Convention Center by way of an downramp/upramp.

Q: What are the possibilities of putting a road on the west side of Zecate Creek?
KC: We didn’t look to connect to HWY 83, but it’s a possibility.

KC: In the Master Plan, the river needs to be more visible.
  (shows animation of widening the river)

KC: -Discusses the idea of a weir downstream.

Q: What are the requirements to get a weir? Is there an approval right we need?
KC: -Brief explanation about the why we need a weir
  - Hydraulic studies and models back up the necessity of a weir

KC: -Continues with presentation; Introduces Frank Rotnofsky

Frank: -Shows preliminary downtown design
  - Bridge I: proposes to connect to Convention Center by upper pedestrian plaza
  - which provides an overview of the riverfront
  - Covered parking: ability to have a place where people are above and parking is unseen and covered.
  - Farmer’s Market: direct connection to the riverfront.

Q: How many parking spaces are you accounting for?
KC: More than the existing amount, plus in a more efficient location: under Convention Center and upper plaza.

Q: Have there been any discussions with the federal government about acquiring the GSA parking lot?
Collazo: There’s been talk about it, yes.

Frank: -Shows images board and discusses riverfront vision.
  (several agree with visioning assets: farmer’s market/festival space etc.)
  This is preliminary and we appreciate your input.

KC: -Continues with Master Plan
  -Park: (compares it to Miami) There’s a lot that can be done under the bridges.
  -These green spaces will connect just as Los Dos Laredos does.
  -Las Palmas: Trails will draw people into the park.
  -Patrol Capable Hike n’ Bike Trail: provides BP access along the riverfront.

KC: -Closes the brief on the preliminary Master Plan
  -Additional things to address:
    1. River Rd. access over Zecate Creek
    2. Extension of Springfield for north/south connection
    3. WWTP-significant renovation or removal.

Q: Slaughter Park is cut off on the Master Plan. Are you pushing it aside?
KC: I’m not going to design it, but I do agree that there is a tremendous opportunity there.

KC adjourned meeting.
- Thanked those present for coming, invited attendees to take a closer look at boards and ask any other questions they may have.

REPORTED BY: Cali McMullin
1. KC began with a brief explanation of the process involved.
   a. Inventory, Analysis, Master Plan, Phasing and Funding…
   b. KC made it clear that we are still far from the final product.
   c. KC went into a more in-depth explanation of the process.
      1. Site Inventory and all existing influential elements addressed:
         a. Escarpment, Las Palmas, downramp, historic districts, Los Dos Laredos Park, river
            width, riverfront access etc.
         b. Site Analysis
            i. Given the riverfront, Laredo is a valuable location
            ii. Downtown dies out at Water St.
            iii. The river is almost ignored due to poor riverfront access and visibility
               2. There’s a need for synergy and vibrancy along the riverfront
            iv. Parking, we’re told, is important but at the same time isn’t being used to its
               potential
            v. A border fence acts as a barrier between the city of Laredo and the Rio Grande
            vi. Connectivity along the riverfront is crucial.
               3. Los Dos Laredos is a significant park and is used, however, not to it’s full potential
      2. KC mainly addressed how to improve interaction with the riverfront.
         a. Uses Riverwalk as an example
         b. Widening the river and building a retaining wall allows us to use the river’s edge as
            the border security feature instead of an actual fence barrier.
         c. Parking won’t be taken away. It will be moved to more convenient locations and
            even increased by 200 spaces (+/-).
         d. Los Dos Laredos Park will be replaced by Los Dos Puentes Park which will also
            act as a transition into Las Palmas.
      3. Connectivity along the riverfront is crucial.
      4. Given the riverfront, Laredo is a valuable location
      5. Downtown dies out at Water St.
      6. The Rio Grande is a highly recognized river and how the river projects there really opened his eyes.
      7. -Talks briefly about his trip with Kevin and others to Arkansas and Oklahoma City
          and how the river projects there really opened his eyes.
          a. The economic impact we saw in Little Rock was amazing.
          b. Laredo has never been a destination city, let’s make it one.
      8. C (Les, speaking to all): The economic impact we saw in Little Rock was amazing.
         a. Laredo has never been a destination city, let’s make it one.
         b. The Rio Grande is a highly recognized river but as of now, you can’t even see it.
      9. Q: What is the price tag for all of this?
         a. Price isn’t known for sure yet but guessing… probably somewhere between $60
            and $80 million.
      10. Q: Will the community being paying for it all?

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Les Norton
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Frank Rhotnfsky  Frank Architects  956.725.7418  frank.rhotnfsky@bizlaredo.rr.com

PUBLIC MEETING: 

The following is our understanding of the subject matter covered in this meeting. If this differs from your 
understanding, please notify us via email or fax within five working days from the issue date of the minutes.

Public Meeting was held in the City of Laredo conference hall. Presentation open to and directed toward 
members of the community. The purpose of the presentation was to update the public on the design 
process and concept ideas for the Vega Lands Master Plan and then open the meeting to all questions and 
comments.
```
KC: Most likely not for all. Looking toward federal funding.

C: Merchants will be the only ones benefiting from this. No, everyone will from the business brought in.

QC and all attendees:

C (from Les):

City will get tax from all the revenue brought in therefore benefiting the entire community and in turn aiding toward project cost.

Q: Is there anything happening on the other side of the river in Mexico?

KC: Not that we know of but unsure.

C: As a member of the community, this will be beneficial to the children as well. As of now, we've missed out on opportunities that the river has to offer Laredo.

Q: Where is the retaining wall going to extend to?

KC: From about the Kansas City Southern Railroad Bridge to a little after Bridge II.

Q: Has any other border city attempted something like this?

KC: No. In D.C. we were told that Laredo is the only city that has come up with a creative solution instead of just gripe about it, like other border cities have in the past.

Q: Where will the future Convention Center be located?

KC: The decision is still in process but the location presented is the best option thus far.

Q: How does widening the river have an impact on the riverfront?

KC: It will improve border infrastructure and patrol along with several other aspects. There isn't just one reason for doing it. The border between the USA and Mexico will not change due to this adjustment.

Q: How usable will the river be? Could it be used to give tours of the city?

KC: This can't be answered now. It may be possible in the future but it will depend on border security and safety along with many other things.

Q: There's no number regarding cost that can be given to the citizens of Laredo?

KC: No, not yet. All the other projects that have been looked at have had help with funding from the government.

C: I'm from San Marcos and was surprised at how many people came to visit the town's wonder cave. If little things like this can make a destination city, just think of what this project can do for Laredo.

Q: How long do you think a project like this would take? 5, 10, 20 years?

KC: A good guess would be about 10 years but it could take longer.

C (former property owner from Galveston):

There was a similar project done in Galveston and it all ended up being paid off in three years due to the amount of money brought into it as a “destination city.”

Q: Would the dredging for widening the river be paid for by the government?

KC: Yes, it’s most likely.

5. KC adjourned meeting

Thanked those present for coming, invited attendees to take a closer look at boards and ask any other questions they may have.

REPORTED BY: Callie McMullin.
MEETING REPORT

PROJECT: Rio Grande Vega Land
Master Plan

PRESENT: Kevin Conner, RLA, ASLA
Tom Mountz, PE, CFM
Laura McKay, EIT, CFM

DATE: 10/20/06

The following is my understanding of the subject matter covered in this meeting. If this differs from your understanding, please notify me within (5) working days.

The Rio Grande Vega Land hydraulic model will be based on the new effective FEMA model with added intermediate cross-sections, as needed. ALL LONG AS THIS INCLUDES THE IBWC FLOWS. The added cross-sections will be created from the 2002 2-foot aerial contour data, which is the most current collective contour data that we have for the City of Laredo, for the Texas side of the river and interpolated elevation data for the Mexican side of the river. I will verify that the new FEMA model is consistent with the IBWC model as revised by Tom Mountz in 2003 and 2005 for City of Laredo projects (i.e. verify 100-year floodplain). The focus of this modeling effort is to define the maximum width of the Rio Grande that can be achieved for the segment of the Rio Grande upstream of Bridge No. 1 and downstream of Tex-Mex RR Bridge (the "Lake") with the following considerations:

ANOTHER WAY TO WORD THIS IS: WHAT IS THE FARDEST SOUTHERN LIMIT THAT A RETAINING WALL CAN BE PUT?

- There is an international agreement to maintain the conveyance channel for a flow of 140,000 cfs (approximately equivalent to the 25-year storm event). The 100-year storm event is roughly 200,000 cfs.
- IBWC is verbally ok with us possibly installing a weir but not a DAM
- The existing flowline of the Rio Grande is the "border"; this lowest point of flow is to remain in its present location. The flowline may be hydraulically defined as the smooth line representing the general flow path of floodwater which begins at the maximum low points in a water way. Therefore, as the river is widened at each cross section, all proposed grading will include elevations higher than the effective flowline elevation and/or will lower the flowline in place.
- The minimum normal water depth of the "lake" should be between 6 to 8 feet to prevent cattails and other wetland type vegetation from setting in; these can cause maintenance and conveyance issues in the long term.
- Widening the Rio Grande will include maximum encroachment on the U.S. side. No encroachment will be proposed on the Mexican side. FEMA tends not to allow maximum encroachment to occur on only one side of a river to protect property owners that are forced to lose developable land to the floodplain. In this case IBWC governs and not FEMA so this may be a non-issue. However, the City has warned us that the Mexican side may require(?) the same kind of improvement/encroachment. Therefore, as the river is widened at each location, may want to consider floodproofing construction alternatives. Behind this, an upper level would be constructed where all proposed development will be above the 100-year floodplain. A good example of floodproofing is the El Portal building which was constructed 2 feet below the 100-year floodplain and currently has floodproofing along the lower 3 feet of the building to allow for 1 foot of required freeboard per FEMA requirements. Goal is no increase in 100-year floodplain or 140,000 cfs flood elevation.

These modeling efforts should take about two weeks. We intend on starting on these items toward the end of this week. Our goal is to have a summary document with our findings ready for you by the end of next week (11/3). The summary document will include ROUGH cross-section graphics that summarizes the maximum width of the river, developable land, recommended finish floor elevations, etc.

THAT'S GOOD, LAURA. REMEMBER THAT THIS IS A "WORKING" MODEL, NOT A "SWISS WATCH" MODEL. THE GOAL OF THIS MODEL IS TO PROVIDE SOME EARLY ASSURANCE THAT THE BASE DEVELOPMENT CONCEPT IS WORKABLE, ALthough IT OBIVIOUSLY WILL REQUIRE SOME REFINEMENT. THE "SWISS WATCH" MODEL WILL COME LATER.

THIS IS PART OF THE ART OF H&H...KNOWING THE DIFFERENCE BETWEEN THE LEVELS OF COMPLETION, CHECK WITH TOM IF YOU NEED HELP IN DISCERNING THIS.

IF YOU HAVE ANY QUESTIONS AT ALL, EITHER NOW OR DURING THE WORK, PLEASE FEEL FREE TO CALL ANYTIME. NO, YOU WILL NOT BE BOTHERING ME NOR WILL I TAKE IT AS A SIGN OF WEAKNESS. IN FACT, I'LL BE SURPRISED IF YOU DON'T CALL.

REPORTED BY: Laura McKay, EIT, CFM

01/31/2008
Option 2: Widen the Rio Grande, construct 40-foot wide road 3 to 4 feet above the normal WSEL (i.e. this road will flood during any significant rain-storm event, possible maintenance issue?). Behind this construct a wall so that all proposed development will be above the 100-year floodplain with freeboard. Goal is no increase in 100-year WSEL or 140,000 cfs flood elevation.

Option 3: Widen the Rio Grande, construct 40-foot wide road 3 to 4 feet above the normal WSEL, behind this construct a wall so that a lower pedestrian level can be constructed above the 140,000 cfs flood but below the 200,000 cfs flood (i.e. this will restrict the type of buildings that can be constructed in this area, may want to consider floodproofing construction alternatives). Behind this, an upper level would be constructed where all proposed development will be above the 100-year floodplain. A good example of floodproofing is the El Portal building which was constructed 2 feet below the 100-year floodplain and currently has floodproofing along the lower 3 feet of the building to allow for 1 foot of required freeboard per FEMA requirements. Goal is no increase in 100-year WSEL or 140,000 cfs flood elevation.

The alternatives to be modeled include:

Option 1: Widen the Rio Grande between the Railroad Bridge and International Bridge #1 (and possibly partially to Bridge #2). Construct a wall so that all proposed development will be above the 100-year WSEL with 1 foot of freeboard, as required by FEMA. Goal is no increase in 100-year WSEL or 140,000 cfs flood elevation.

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REPORTED BY: Laura McKay, EIT, CFM
Meeting Report

PROJECT: City of Laredo Rio Grande Vega Lands Master Plan
PROJECT NO.: 310432.011
MTG DATE: April 13, 2007
ISSUE DATE: April 17, 2007

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The following is our understanding of the subject matter covered in this meeting. If this differs from your understanding, please notify us via email or fax within five working days from the issue date of the minutes.

- Smullen will need to look at “open garage/parking area” with landscape
- Rong requested adding a cross-section through areas of improvement
- Weir must be upstream of Bridge #2.
  - Bridge #2 has a water gauging station
  - Better to have no weir at all.
    - Review is easier without weir.
- Permanent markers for the border are necessary so that it doesn’t move.
  - Perhaps a monument...
- The border is determined as the center line of the normal flow
  - Determined at bridges
  - Maybe use the monument as a design element.
- Falcon Reservoir has buoys for border markers in the lake
  - The buoys are spelled out in the reservoir agreement
- Mexico has issues if the fill is greater than the cut. There needs to be a balance
- The normal process for approval: IBWC will receive the proposal first for reviews and comments. If it is approved by the US, it will then be sent to the Mexican section (CILA).
  - The 1970 Boundary Treaty governs IBWC.
  - Both Falcon and Amistad lakes have individual border agreements.
  - May not have to mark the border...Very touchy issue
- Gauging station data is online at the IBWC website
  - Bridge #2: 0 gauge height is at 107.57 meters
- IBWC is a reviewer of EA and EIS
  - Can be the lead federal agency
  - Will be a cooperating agency
  - USACE will be involved a little
- Discussion of a split weir arose
  - The split is another way to represent the border’s location which would occur at the center line of normal flow
    - Could present visual interest and appeal
- Smullen suggested that it would be possible to get a Master Plan approval
- Send:
  - Refined drawings and cross-sections
  - Refined H & H model

REPORTED BY: Kevin Conner
Meeting Report

Rio Grande Vega Lands Master Plan
Carter & Burgess Project No. 310432.011

Meeting with US and Mexican staffs of the IBWC

Meeting Date: November 16, 2007
Meeting Location: IBWC Offices, El Paso, Texas
Issue Date: November 20, 2007
Revision Date: N/A

Attendees:

<table>
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Cc: John Porter, Assistant Director of Environmental Services Dept, City of Laredo

The following minutes contain the conclusions and action items that pertain to the referenced meeting. Action items are underlined, and a summary of action items is provided at the end of the minutes. Jacobs Carter Burgess is responsible for their completion unless noted otherwise. If there are any comments or questions regarding the minutes, please email the author within five days of the issue date. If there are no comments or questions after five days of the issue date, then the minutes stand as part of the official project record.

1. One of three courses of action will have to take place regarding the US/Mexico border delineation. The border is defined as “the center of the channel width over its length”. Widening the river as proposed in the Vega Lands Master Plan has the potential to alter the border.

1.1. The border will be moved pursuant to the remapping process that adjusts the border every ten years. (The US and Mexican sections of the IBWC are currently working on this border remapping process, which examines the movement of the Rio Grande and moves the border accordingly.) This would have the effect of giving land from the US to Mexico.

1.2. The border will be monumented similar to that in Falcon Lake and Lake Amistad. This could be accomplished with buoys or similar markers in the river. This would have the effect of keeping the border in place, regardless of the shape of the river.

1.3. The river will be widened in such a fashion that the border does not need to be altered. This could potentially be done by leaving a linear island or linear caisson in the river that marks the old riverbank. A secondary channel would then be dug on the US side. This option may succeed in keeping the border in place, but may not accomplish the design intent of the Master Plan.

2. The first two choices (items 1.1 and 1.2 above) will require concurrence from both countries.

2.1. S.Spener noted that these methods pose questions that need to be addressed by the Foreign Affairs officer. K.Conner will compile a list of questions and send to the IBWC via J.Nunez.

3. K.Conner will send a copy of the Master Plan in .pdf format plus a list of questions that need to be addressed by the IBWC.

4. J.Nunez will distribute the questions to the IBWC staff, compile the answers, and send them to K.Conner.

5. K.Conner will then respond with an option(s) for addressing the border delineation.

6. The IBWC Commission has to concur on a base flow or normal flow for the hydraulic model to be used for the Vega Lands Master Plan effort, or could stipulate the base flow or normal flow.

6.1. The IBWC has flow gages at Bridge 2 and on the Camino Colombia Bridge. The link to the web page is http://www.ibwc.state.gov/Water_Data/rio_grande_WF.html#Stream.

6.2. The river will be widened in such a fashion that the border does not need to be altered.

7. K.Conner noted that no weir is proposed in the Master Plan currently, and that J.Thomas will send a new hydraulic model that deletes the previously-proposed weir to J.Nunez. This will happen after the border delineation issue is resolved.

8. S.Smullen noted that the bed and banks of the Rio Grande are likely owned by the State of Texas. K.Conner will research the necessity of a “bed and banks” or similar permit.

9. Aeration may be needed for water quality within the widened stretch of the river.

10. The project may need a Mexican proponent. K.Conner will discuss with John Porter (City’s Project Manager for the Vega Lands Master Plan).

End of Minutes

APPENDIX C - Blue Ribbon Committee Meeting Minutes

Meeting Report

PROJECT: City of Laredo Rio Grande Vega Lands Master Plan
PROJECT NO.: 310432.011
MTG DATE: September 21, 2006
ISSUE DATE: October 2, 2006

PRESENT:

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JoEmma Sherfey
Civil Engineer
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The following is our understanding of the subject matter covered in this meeting. If this differs from your understanding, please notify us via email or fax within five working days from the issue date of the minutes.

- K.Conner presented the overall design process, role of the Blue Ribbon Committee, and the presented the preliminary Inventory and Analysis graphics.
- Primary role of the Blue Ribbon Committee is to provide a connection between the Carter & Burgess Design Team and the Laredo community. The Committee is advisory in nature and will serve as a sounding board to the Design Team.
- L.White will arrange for an ftp site for file transfer between the City and the design team.
- Next Committee meeting is Thursday, October 19th, at Noon at the Environmental Services Dept Conference Room. The agenda will be to present the Inventory and Analysis, as well as the comparison cities that will be used for the programming of this project.

REPORTED BY: Kevin Conner
Meeting Report

PROJECT: City of Laredo Rio Grande Vega Lands Master Plan

MTG DATE: October 19, 2006

ISSUE DATE: October 20, 2006

PRESENT:

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The following is our understanding of the subject matter covered in this meeting. If this differs from your understanding, please notify us via email or fax five working days from the issue date of the minutes.

- K.Conner presented the Visioning Boards to the Blue Ribbon Committee. This task involved defining the essence of the community’s values regarding the riverfront by posing subjective questions on which to discuss and elaborate.

- The Blue Ribbon Committee provided feedback on various issues mentioned in the questions in order for the Carter and Burgess Design Team to better understand the community’s definition of “visioning” for the Rio Grande Vega Lands.

1. The committee understands that there needs to be a better plan for border fencing than just building a wall
2. The wall disengages the people to the riverfront
3. The riverfront needs to induce a welcoming sense and attraction so that it is not seen as merely a border that interrupts two countries but rather a unique connectivity between two historic cultures
4. The committee is aware that this project is a large investment that will take time
5. Border Patrol’s strict security makes the riverfront uninviting to the community
6. Inconsistency in the river’s water level poses a problem with stabilized riverfront structures: there needs to be a more regular water flow
7. Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians
8. The riverfront needs residential accommodations (hotels/condos/apartments) in order to draw tourism and take advantage of its amazing views
9. Suggestions were made by the committee to put water back into Zacate Creek in hopes of minimizing odor caused by the waste water treatment plant
10. Top concerns of the riverfront include:
   a. Limited access
   b. Crime
   c. Lacking sense of place
   d. Water quality/pollution
11. Top concerns of downtown Laredo include:
   a. Limited parking
   b. Difficult way finding
   c. Narrow pedestrian sidewalks
12. Committee suggested presenting issues to downtown council and taking a weekend tour along the river

Summary:
K.C.: The preferred location for the Convention Center will add to the area’s social infrastructure. K.C.: How important is the riverfront to downtown? (Question 1)
   o Not pedestrian friendly. We see the river as a border. We need to see it as a river
   o There’s no “there” there
   o The flood plain poses a problem – flood proof
   o Large investment. Need convincing that it’s something worth investing in.
   o Change in the river is a negative
   o It is the greatest natural asset but is treated poorly
   o It makes sense to continue project through Riverbend – there’s not enough money
   o There needs to be opportunities for being at the river
   o Needs life/vibrancy and a diversity of uses
   o The border is fascinating to tourists

Committee suggests that the riverfront itself will need to make money in order to survive.

- K.Conner - introduce the preferred location of the Convention Center and it’s ability to invoke a social infrastructure.
• K. Conner - order Fence legislation scheduled to be considered by the Senate during the week of September 25 could negatively impact the project. While the fence may work well in rural and suburban areas, there needs to be language in the legislation to allow for alternatives in urban areas that would accomplish the same goals as a fence.

• L. White will arrange for an ftp site for file transfer between the City and the design team.

• Next Committee meeting is Thursday, October 19th, at Noon at the Environmental Services Dept Conference Room. The agenda will be to present the Inventory and Analysis, as well as the comparison cities that will be used for the programming of this project.

REPORTED BY: Kevin Conner
Meeting Report

**PROJECT:** City of Laredo Rio Grande Vega Lands Master Plan  
**PROJECT NO.:** 310432.011  
**MTG DATE:** October 19, 2006  
**ISSUE DATE:** October 24, 2006

**PRESENT:**
- Blue Ribbon Committee:
  - Margarita Araiza, Chair  
  - Gayle Aker Rodriguez  
  - Dr. James M. Earhart  
  - Elizabeth Gill  
  - David T. Newman  
  - Jack Sunesov  
  - Rafael Torres  
- City of Laredo:
  - Horacio DeLeon  
  - John Porter

**Carter & Burgess Design Team:**
- Kevin Conner  
- Cali Mckinley  
- Viviana Frank  
- Frank Rodgers  
- Jocelin Sherley

The following is our understanding of the subject matter covered in this meeting. If this differs from your understanding, please notify us via email or fax within five working days from the issue date of the minutes.

K. Conner presented the Visioning Boards to the Blue Ribbon Committee. This task involved defining the essence of the community’s values regarding the riverfront by posing subjective questions on which to discuss and elaborate. The Blue Ribbon Committee provided feedback on various issues mentioned in the questions in order for the Carter and Burgess Design Team to better understand the community’s definition of “visioning” for the Rio Grande Vega Lands.

1. The wall disengages the people to the riverfront
   - The committee understands that there needs to be a better plan for border fencing than just building a wall
2. The river is seen as a border, not a river

- The riverfront needs to induce a welcoming sense and attraction so that it is not seen as merely a border that interrupts two countries but rather a unique connectivity between two historic cultures
- There is no “there” there

3. The committee is aware that this project is a large investment that will take time
   - There needs to be convincing to the city that this project is worth investing in
   - Have to be in it for the long hall

4. Border Patrol’s strict security makes the riverfront uninviting to the community
   - Chases people away

5. The riverfront needs "life" and "vibrancy"
   - The committee introduced the idea of a riverfront with diverse uses
   - Connection of greenspace
   - Idea of Convention Center will attract a social infrastructure
   - However this may have an impact on the other side–IBWC.
     - What is good for Laredo may also be good for Nuevo Laredo and its amenities such as the famous Plaza de Oro
     - Nuevo Laredo works quickly when it wants to

6. The border is fascinating to tourists
   - Tourists embrace the World Trade Bridge
   - There’s an interest in being right across from Mexico

7. Something needs to be done about the river’s inconsistent water level
   - The committee addressed that this poses a problem with stabilized riverfront structures and flooding: Cannot exacerbate flooding
   - A possible solution may be a change in the river’s edge
   - However, the water is navigable and can be seen as an icon for Nuevo Laredo as well

8. There is too much asphalt/parking along the riverfront
   - The committee understands that parking is not the best use for the riverfront, however, it still has to be there…just in a different way

9. There needs to be an adequate amount of shade coverage
   - Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians

10. The riverfront needs residential accommodations and amenities in order to draw tourists
    - The committee suggested amenities such as “Mexican/American outdoor farmers’ markets”

11. Laredo needs that “something special” to draw people (similar to how Mexico draws people)
    - Idea of Convention Center will attract a social infrastructure
    - Connection of greenspace
    - Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians

12. The committee introduced the idea of a riverfront with diverse uses
    - Connection of greenspace
    - Idea of Convention Center will attract a social infrastructure
    - However this may have an impact on the other side–IBWC.
      - What is good for Laredo may also be good for Nuevo Laredo and its amenities such as the famous Plaza de Oro
      - Nuevo Laredo works quickly when it wants to

13. The committee brought up the phrase, “Gateway to Mexico” and it’s connotation of Laredo as a “pass-thru” city.
    - Idea of Convention Center will attract a social infrastructure
    - Connection of greenspace
    - Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians

14. The committee introduced the idea of a riverfront with diverse uses
    - Connection of greenspace
    - Idea of Convention Center will attract a social infrastructure
    - However this may have an impact on the other side–IBWC.
      - What is good for Laredo may also be good for Nuevo Laredo and its amenities such as the famous Plaza de Oro
      - Nuevo Laredo works quickly when it wants to

15. The committee brought up the phrase, “Gateway to Mexico” and it’s connotation of Laredo as a “pass-thru” city.
    - Idea of Convention Center will attract a social infrastructure
    - Connection of greenspace
    - Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians

16. The committee brought up the phrase, “Gateway to Mexico” and it’s connotation of Laredo as a “pass-thru” city.
    - Idea of Convention Center will attract a social infrastructure
    - Connection of greenspace
    - Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians

17. The committee brought up the phrase, “Gateway to Mexico” and it’s connotation of Laredo as a “pass-thru” city.
    - Idea of Convention Center will attract a social infrastructure
    - Connection of greenspace
    - Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians

18. The committee brought up the phrase, “Gateway to Mexico” and it’s connotation of Laredo as a “pass-thru” city.
    - Idea of Convention Center will attract a social infrastructure
    - Connection of greenspace
    - Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians

19. The committee brought up the phrase, “Gateway to Mexico” and it’s connotation of Laredo as a “pass-thru” city.
    - Idea of Convention Center will attract a social infrastructure
    - Connection of greenspace
    - Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians

20. The committee brought up the phrase, “Gateway to Mexico” and it’s connotation of Laredo as a “pass-thru” city.
    - Idea of Convention Center will attract a social infrastructure
    - Connection of greenspace
    - Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians

21. The committee brought up the phrase, “Gateway to Mexico” and it’s connotation of Laredo as a “pass-thru” city.
    - Idea of Convention Center will attract a social infrastructure
    - Connection of greenspace
    - Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians

22. The committee brought up the phrase, “Gateway to Mexico” and it’s connotation of Laredo as a “pass-thru” city.
    - Idea of Convention Center will attract a social infrastructure
    - Connection of greenspace
    - Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians

23. The committee brought up the phrase, “Gateway to Mexico” and it’s connotation of Laredo as a “pass-thru” city.
    - Idea of Convention Center will attract a social infrastructure
    - Connection of greenspace
    - Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians

24. The committee brought up the phrase, “Gateway to Mexico” and it’s connotation of Laredo as a “pass-thru” city.
    - Idea of Convention Center will attract a social infrastructure
    - Connection of greenspace
    - Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians

25. The committee brought up the phrase, “Gateway to Mexico” and it’s connotation of Laredo as a “pass-thru” city.
    - Idea of Convention Center will attract a social infrastructure
    - Connection of greenspace
    - Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians

26. The committee brought up the phrase, “Gateway to Mexico” and it’s connotation of Laredo as a “pass-thru” city.
    - Idea of Convention Center will attract a social infrastructure
    - Connection of greenspace
    - Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians

27. The committee brought up the phrase, “Gateway to Mexico” and it’s connotation of Laredo as a “pass-thru” city.
    - Idea of Convention Center will attract a social infrastructure
    - Connection of greenspace
    - Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians

28. The committee brought up the phrase, “Gateway to Mexico” and it’s connotation of Laredo as a “pass-thru” city.
    - Idea of Convention Center will attract a social infrastructure
    - Connection of greenspace
    - Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians

29. The committee brought up the phrase, “Gateway to Mexico” and it’s connotation of Laredo as a “pass-thru” city.
    - Idea of Convention Center will attract a social infrastructure
    - Connection of greenspace
    - Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians

30. The committee brought up the phrase, “Gateway to Mexico” and it’s connotation of Laredo as a “pass-thru” city.
    - Idea of Convention Center will attract a social infrastructure
    - Connection of greenspace
    - Minimal shade amenities (vegetation/shade structures etc.) make riverfront unpleasant for pedestrians

The following is our understanding of the subject matter covered in this meeting. If this differs from your understanding, please notify us via email or fax within five working days from the issue date of the minutes.

The Blue Ribbon Committee provided feedback on various issues mentioned in the questions in order for the Carter and Burgess Design Team to better understand the community’s definition of “visioning” for the Rio Grande Vega Lands.

1. The committee understands that there needs to be a better plan for border fencing than just building a wall
2. The river is seen as a border, not a river
12. Redevelopment of the Tex-Mex Railroad is a great opportunity for Laredo
   - Tex-Mex Railroad long range plan is to act as a route around the city and use bridge #5

13. Zacate Creek may be an answer in minimizing the odor cause by the Waste Water Treatment Plant
   - Suggestions were made by the Committee to put water back into Zacate Creek

14. What is the real Laredo?
   - Close border proximity
   - Shopping – the best of both worlds
   - Historic old city
   - Fly under more than one flag
   - La Azteca; La Posada; San Augustín; Downtown; St. Peter’s
   - Architecture – hybridization of both cultures
   - Historically Laredo has embraced the river

15. Top concerns of the riverfront include:
   - Limited access
   - Crime
   - Lacking sense of place
   - Water quality/pollution

16. Top concerns of downtown Laredo include:
   - Limited parking
   - Difficult way finding
   - Narrow pedestrian sidewalks

17. Committee suggested presenting issues to downtown council and taking a tour along the river, probably during weekend hours. John Porter will arrange for a tour of the vega lands for the Committee.

18. The next Committee meeting is at noon on November 16th.

REPORTED BY: Kevin Conner
Meeting Report

PROJECT: City of Laredo Rio Grande Vega Lands
PROJECT NO.: 310432.011
MTG DATE: December 14, 2006
ISSUE DATE: December 19, 2006

PRESENT:

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- David T. Newman (Pipey's Restaurante) 956.722.8021
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- Jaque Thomas (Citizen) 956.726.4462
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The following is our understanding of the subject matter covered in this meeting. If this differs from your understanding, please notify us via email or fax within five working days from the issue date of the minutes. Action items are underlined.

- K. Conner presented the preliminary Master Plan; a product of the MP design workshop held two days in advance.
- K. Conner met with the IBWC to update them on the progress of the master plan and to press for a presentation to the IBWC Commission.
  - Overall, the impression of the project among the IBWC staff (Silverio Garza and Steve Smullen) and Commissioner Marin is positive.
  - KC trades emails with PM at IBWC regularly to give updates (Silverio Garza)

- Questions arose about the cost of the project. However, in discussions subsequent to the meeting, rough budget projections will be developed for the major infrastructure elements of the project, the parking garage, and the underpass at Springfield.
- A committee member asked about the removal of parking and where it will occur for the future Convention Center.
  - KC pointed out that the preliminary model shows that the “big idea” of the wall, overlook, and widened river works from a hydraulic standpoint for both the IBWC flows and 100-year flood flows.
- Several questions were asked about the removal of parking and where it will occur for the future Convention Center.
  - KC pointed out the location to be adjacent to the building which is also the destination of the proposed down ramp from I-35 along the newly aligned River Road.
- There were concerns about losing parking that currently exists on the river; the committee wants to see a larger band of greenspace below the future Convention Center and along River Rd. K. Conner will expand the band of greenspace.
- The committee suggested that River Rd. come north to downtown connections, adjacent to Tex-Mex Railroad. The committee would like a presentation from the County on what plans are with Tex-Mex RR along the north side of downtown. County has talked about an additional RR crossing. J. Porter will arrange a presentation from the County on the plans for this railyard, or will investigate what those plans are and present them to the Committee.
- Another parking garage location was mentioned on Diocese property diagonally to the northeast from San Agustin Plaza. This garage may be needed, but is outside of the scope of this project.
- A committee member asked how much fall in elevation occurs along the river. J. Thomas will investigate and report back to K. Conner on the length of possible impoundment relative to the size of the weir.
- There was support on the Committee for proposing the removal of the 1 story GSA building, as the lower story floods, and the building is vacant. The associated parking lot is being used by Border Patrol and needs to remain.
- There was discussion regarding moving the Zacate Creek WWTP.
  - KC Conner suggested that an effluent re-use line be extended to add continuous flow into Zacate Creek and to maintain the planned use of effluent for irrigation in Slaughter Park.
Meeting Report

PROJECT: City of Laredo Rio Grande Vega Lands
Master Plan

PROJECT NO.: 310432.011

MTG DATE: January 18, 2007

ISSUE DATE: January 22, 2007

PRESENT:

Carter & Burgess
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The following is intended to update and inform those involved with this project of the sequence of events, dates, tasks etc. that will be taking place in the near future. If there are any misunderstandings please notify us via email or fax within five working days from the issue date of the minutes.

Notes of Interior Coordination/Milestone Meeting

KC outlined important dates as follows:

- Sister Cities Convention (Jan. 22 - Jan. 26) (KC)
  - May be an opportunity to brief the mayor of Nuevo Laredo
  - Gustavo (possible contact)
  - Note: Jan. 30 there is a scheduled meeting with the mayor of Laredo to discuss project

- Washington’s B-day (2nd and 3rd week of Feb.)
  - Big celebration – many people will be out of town during this time
  - Note: Public Meeting will have to take place before this event

Tasks and Meetings:

- Public Meeting (Feb. 5 – Feb. 9):
  - Update on project progression
    - Formal presentation at beginning of meeting. Maybe informal Q/A afterwards.
    - Show a series of presentation boards:
      - site inventory
      - site analysis
      - master plan
      - proposed circulation diagram vs. existing circulation – show at master plan scale as well as city scale
      - propose a need for wayfinding

- Visualization updates
  - NT/KC contact Michael Potts regarding progress
  - Schedule a coordination trip (NT to DFW) – 1st week in Feb.
  - Need short animation sequencing for public meetings

- Meeting with IBWC
  - KC and NT to contact Steve Smullen (El Paso)
  - Silverio Garza (Falcon Lake) possible alternate contact

- Border Patrol Meeting
  - KC and NT to contact John Porter to schedule
  - Need to show Border Patrol route along River Rd. and within city context

- S.P.P.R.E.’s fee estimate on Railyard Feasibility/Market Analysis
  - KC to contact John Stainback

- Visioning Trip (KC)
  - John Porter on the phone mentioned to avoid Laredo’s spring break (March 12-16)
  - Washington Lobbying Trip is during spring break
  - Combine Visioning Trip with Washington Lobbying trip? - 1st week in March
    - (Hinges on lunch meeting with mayor of Laredo on Jan. 30)
  - CM to investigate tour guides for visioning sites once trip parameters are finalized after Jan. 30 meeting with mayor
This supplemental hydraulics analysis of the Rio Grande Vega Master Plan builds upon preliminary analysis of the conceptual design, completed November 2006.

The following actions were taken to reflect the latest Master Plan refinements for the subject project:

Using the regulatory IBWC (RGV BTTA) model plan, as a baseline we modified the cross-section geometry at section 8.2 (located just downstream of R.R. Bridge) to section 8.015 (Upstream of International Bridge #2). These sections were modified to reflect the Master Plan. Starting at the centerline of the river we scaled the difference to the proposed wall from cross-sections 8.2 to 8.04 and input a flat channel bottom. The depth was to be at a set elevation of 346 ft above sea level and then continue up a vertical distance of 14 ft to a set elevation of 360 ft. We then tied back the cross-section into the existing ground. In areas of proposed changes to the channel cross-section the n-values were modified to reflect intended surface treatments. Refer to attached cross-sections for detailed drawings of the geometry modifications.

Resulting outcome of these model refinements based on the Master Plan refinements is as follows:

The geometry modifications, as a result of the proposed Master Plan do not substantially impact the IBWC 100yr or IBWC Design water surface elevations. The maximum reduction in WSEL is 0.41 feet at section 9.6 and a maximum increase in WSEL of 0.01 foot occurs at section 8.04. At all other cross sections throughout the river reach, no consequential change in WSEL occurs. The attached model outputs provide further details of the results.
Rio Grande-Laredo Vega Land MP
Plan: 1) Vega 6  2) RGV BTTA
RS = 8.2  IBWC xsec-83 between Railroad Bridge and Intl Bridge No. 1.

Legend
- RGV BTTA
- Vega 6
- Ground - RGV BTTA
- Bank Sta - RGV BTTA
- Ground - Vega 6
- Ineff - Vega 6
- Bank Sta - Vega 6

1 in Horiz. = 1000 ft  1 in Vert. = 20 ft
The diagram illustrates the Rio Grande-Laredo Vega Land Master Plan with two plans: 1) Vega 6 and 2) RGV BTTA. The RS = 8.14 Section with BTTA project is highlighted.

Legend:
- WS IBWC 100 yr - RGV BTTA
- WS IBWC 100 yr - Vega 6
- WS IBWC Design - Vega 6
- WS IBWC Design - RGV BTTA
- WS BASE FLOW - RGV BTTA
- WS BASE FLOW - Vega 6
- RGV BTTA
- Ground - RGV BTTA
- Bank Sta - RGV BTTA
- Vega 6
- Ground - Vega 6
- Ineff - Vega 6
- Bank Sta - Vega 6

1 in Horiz. = 1000 ft  1 in Vert. = 20 ft
Rio Grande-Laredo Vega Land MP
Plan: 1) Vega 6  2) RGV BTTA
RS = 8.12 Section w/ BTTA project

Legend
- WS IBWC 100 yr - RGV BTTA
- WS IBWC 100 yr - Vega 6
- WS IBWC Design - RGV BTTA
- WS IBWC Design - Vega 6
- WS BASE FLOW - RGV BTTA
- WS BASE FLOW - Vega 6
- Ground - RGV BTTA
- Bank Sta - RGV BTTA
- Ground - Vega 6
- Ineff - Vega 6
- Bank Sta - Vega 6

1 in Horiz. = 1000 ft  1 in Vert. = 20 ft
Rio Grande-Laredo Vega Land Master Plan

Plan: 1) Vega 6  2) RGV BTTA

RS = 8.1 U/S face of Int'l bridge No. 1 w/BTTA Project

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- WS IBWC 100 yr - Vega 6
- WS IBWC Design - RGV BTTA
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- WS BASE FLOW - RGV BTTA
- WS BASE FLOW - Vega 6
- RGV BTTA
- Vega 6
- Ground - RGV BTTA
- Ineff - RGV BTTA
- Bank Sta - RGV BTTA
- Ground - Vega 6
- Ineff - Vega 6
- Bank Sta - Vega 6

1 in Horiz. = 1000 ft  1 in Vert. = 20 ft
Rio Grande-Laredo Vega Land MP

Plan: 1) Vega 6 2) RGV BTTA

RS = 8.05  BR International Bridge #1

Legend

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- WS IBWC 100 yr - RGV BTTA
- WS IBWC Design - Vega 6
- WS IBWC Design - RGV BTTA
- WS BASE FLOW - RGV BTTA
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- Ground - Vega 6
- Ineff - Vega 6
- Bank Sta - Vega 6

1 in Horiz. = 1000 ft  1 in Vert. = 20 ft
Rio Grande-Laredo Vega Land MP  Plan:  1) Vega 6  2) RGV BTNA
RS = 8.0274 Sta. 8.0274; d/s of proposed Santa Ursula Connector. Revised

Legend

WS IBWC 100 yr - RGV BTNA
WS IBWC 100 yr - Vega 6
WS IBWC Design - RGV BTNA
WS IBWC Design - Vega 6
WS BASE FLOW - RGV BTNA
WS BASE FLOW - Vega 6

- RGV BTNA
Ground - RGV BTNA
Bank Sta - RGV BTNA
- Vega 6
Ground - Vega 6
Bank Sta - Vega 6

1 in Horiz. = 1000 ft  1 in Vert. = 20 ft
Rio Grande-Laredo Vega Land MP  
Plan: 1) Vega 6  2) RGV BT TA

RS = 8.015  BR International Bridge #2

Legend

- WS IBWC 100 yr - Vega 6
- WS IBWC 100 yr - RGV BT TA
- WS IBWC Design - Vega 6
- WS IBWC Design - RGV BT TA
- WS BASE FLOW - Vega 6
- WS BASE FLOW - RGV BT TA
- RGV BT TA
- RGV BT TA
- RGV BT TA
- Pier Debris - RGV BT TA
- Pier Debris - Vega 6
- Vega 6
- Vega 6
- Vega 6
- Pier Sta - RGV BT TA
- Ground - Vega 6
- Ground - RGV BT TA
- Bank Sta - RGV BT TA
- Bank Sta - Vega 6

1 in Horiz. = 1000 ft  1 in Vert. = 20 ft
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**Note:**
- HEC-RAS River: Rio Grande
- Reach: Laredo-N. Laredo (Continued)
APPENDIX F - Hydraulics Report: With a Weir

To: Kevin Conner  
From: Jacque Thomas  
Subject: Rio Grande - Vega Master Plan, Hydraulic Analysis  
Date: August 31, 2007

This supplemental hydraulics analysis of the Rio Grande Vega Master Plan builds upon preliminary analysis of the conceptual design, completed November 2006.

The following actions were taken to reflect the latest Master Plan refinements for the subject project:

Using the regulatory IBWC (RGV BTTA) model plan, as a baseline we modified the cross-section geometry at section 8.2 (located just downstream of R.R. Bridge) to section 8.015 (Upstream of International Bridge #2). These sections were modified to reflect the Master Plan. Starting at the centerline of the river we scaled the difference to the proposed wall from cross-sections 8.2 to 8.04. The depth was to be at a set elevation of 346 ft above sea level and then continue up a vertical distance of 14 ft to a set elevation of 360 ft. We then tied back the cross-section into the existing ground. In areas of proposed changes to the channel cross-section the n-values were modified to reflect intended surface treatments. In addition, a 2-foot tall inline weir was modeled approximately 350 feet downstream of International Bridge #2. Refer to attached cross-sections for detailed drawings of the geometry modifications.

Resulting outcome of these model refinements based on the Master Plan refinements is as follows:

The geometry modifications, as a result of the proposed Master Plan do not substantially impact the IBWC 100yr or IBWC Design water surface elevations. The maximum reduction in WSEL is 0.37 feet at section 8.12 and a maximum increase in WSEL of 0.10 foot occurs at section 9. In many of the cross sections throughout the river reach no consequential change in WSEL occurs. Although very slight increases in the 100-year IBWC WSEL occur at isolated section of the river reach, these can be mitigated with minor refinements in proposed geometry as the design progresses beyond Master Planning. The attached model outputs provide further details of the results.
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- WS IBWC 100 yr - Vega5
- WS IBWC Design - RGV BTTA
- WS IBWC Design - Vega5
- WS BASE FLOW - RGV BTTA
- WS BASE FLOW - Vega5
- RGV BTTA
- Vega5
- Ground - Vega5
- Bank Sta - Vega5
- Ineff - Vega5
- Bank Sta - Vega5

1 in Horiz. = 1000 ft  1 in Vert. = 20 ft
Vegaland Rio Grande-Laredo Plan: 1) Vega5 2) RGV BTTA
RS = 8.11 Section w/ BTTA Project

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- WS IBWC Design - RGV BTTA
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- WS BASE FLOW - RGV BTTA
- WS BASE FLOW - Vega5
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- Bank Sta - RGV BTTA
- - Vega5
- Ground - Vega5
- Ineff - Vega5
- Bank Sta - Vega5

1 in Horiz. = 1000 ft  1 in Vert. = 20 ft
The diagram illustrates the Vegaland Rio Grande-Laredo Plan: 1) Vega5 and 2) RGV BTTA. The scale is as follows: 1 in Horiz. = 1000 ft and 1 in Vert. = 20 ft. The legend includes various lines representing different scenarios such as WS IBWC 100 yr, WS IBWC Design, WS BASE FLOW, and others, each with distinct symbols for Vega5 and RGV BTTA stations.
Vegaland Rio Grande-Laredo Plan: 1) Vega5  2) RGV BTTA
RS = 8.0274 Sta. 8.0274; d/s of proposed Santa Ursula Connector. Revised

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1 in Horiz. = 1000 ft  1 in Vert. = 20 ft
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**Note:** The data includes various measurements such as flow rates, cross-sectional areas, and other relevant hydrological metrics for different reaches of the Rio Grande River. The specific metrics vary and are not all listed here for brevity, but they are crucial for understanding the flow dynamics at different points along the river.
### HEC-RAS: Rio Grande Reach: Laredo-N. Laredo

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*Note: The table above represents data for specific reaches and plans, showing various parameters such as control elevation, mid control, max control, and width.*
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**RIO GRANDE VEGA LANDS MASTER PLAN • AUGUST 2008**

**APPENDIX F**

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