Design and Construction Update
Design Development Timeline

Tunnel Inlet to Houston Street

• Feb. 9: Internal review of design to Houston Street
• Feb 28: Balance of design submitted for pricing
  • Landscaping, irrigation and wayfinding
• Apr 27: Price proposal from SDJV for remainder of scope
Design Development Timeline

Phase 1 South of Houston and Phase 2

- May 19: 90% Design Submittal to be submitted for pricing
- Jul 15: Guaranteed Maximum Price (GMP) from SDJV
- Sept 1: Projected start of construction
Construction Activities

• Horizontal Directional Drills (Joint Bores)
  • All bores complete
  • Completing hand holes and restoration on Houston, Commerce and Dolorosa
• AT&T work ongoing on Houston and Commerce
Construction Activities

• Excavation at Tunnel Inlet
• Tree preservation and removal
• 8” Sewer and Waterline relocations at tunnel inlet
Traffic Control Schedule

• Current Closures
  • Phase 1
Traffic Control Schedule

Upcoming Closures

• February 9 - March 3: same as current closures

• March 6 - March 31:
  • Same as current from tunnel inlet to Houston
  • Commerce- working with AT&T and Time Warner Cable to develop schedule
  • Dolorosa Street: all lanes open
  • Nueva Street: Westbound lane closed
Traffic Control Schedule

Projected Closures

• Full closure of Commerce Street:
  September/October 2017 for 3 months
  • Houston Street will be fully opened during the full closure of Commerce Street

• Projected closures of other street bridges in Phases 1 & 2 currently under review by CoSA
Upcoming Activities

• Complete hand holes and restoration on Dolorosa and begin work on Nueva
• Excavation from Santa Rosa to Martin
• Begin installation of fountain piping at tunnel inlet
• Begin construction of structures at tunnel inlet
Communications Update
Branding

As in some ancient legend, a city bubbled forth.
Promotion Materials

- Fact sheets
- Information packets
- Posters
- Bumper stickers
- Hard hat stickers
- Fiesta medals
- Construction fencing
- Displays
Website Revamp

Rooted in the past, destined for the future.

Phase 1 Construction Now Underway
Weekly Emails

• 82 new subscribers from the project website
• 526 total new subscribers since December
• 1,028 total subscribers
Media Coverage

• 63 pieces of media coverage from November 9 – February 7
• 239,000 estimated coverage views
Social Media

Launched on December 13
3,280 social media shares

• 248 likes
• 180 followers
• 87 followers
App

- Available on Google Play & Apple Store
- 40 downloads
Property Owner Mixer

- November 30, 2016
- 60 property and business owners in attendance
Community Meeting

• December 14, 2016
• 125 citizens in attendance
• Streamed on Facebook live
Presentations and Tours

• Presentations to community groups, neighborhood associations, partners
• Construction tours: starting the end of March
Presentation Tour

• Public outreach “SPC Tour” is currently being activated
• To date, 38 community organizations and stakeholder groups contacted and interested in presentations
Property & Business Owner Outreach

• Proactive and ongoing one-on-one meetings with property and business owners
Partnerships

• Bexar County and City of San Antonio
• Centro San Antonio
  • Partner in distribution of street closures and traffic detours
  • Met with 60 Centro Ambassadors
  • Provided 2,000 project factsheets for Ambassadors to share with downtown visitors
• DHS and Haven for Hope
  • Outreach for homeless along the creek
CULTURE WALLS
THE EPIC STORY OF OUR COMMUNITY & CULTURE
“TO CREATE A WORLD RENOWNED PLACE OF CULTURE IN THE SPIRIT OF SOME OF THE MOST ICONIC PUBLIC SPACES ON EARTH.”
WORLD CLASS EXAMPLES
PARK GÜELL
Gaudí’s complex iconography referenced political vindication to religious exaltation, passing through mythology, history and philosophy. The symbols found in Park Güell are associated to political and religious signs, with a touch of mystery.
THE GREAT WALL OF LOS ANGELES
PICTORIAL MURALS
JUDY BACA, LOS ANGELES

The Great Wall of Los Angeles is one of Los Angeles’ true cultural landmarks and one of the country’s most respected and largest monuments to inter-racial harmony. The Great Wall is a landmark pictorial representation of the history of ethnic peoples of California from prehistoric times to the 1950’s, conceived by SPARC’S artistic director and founder Judith F. Baca. Begun in 1974 and completed over five summers, the Great Wall employed over 400 youth and their families from diverse social and economic backgrounds working with artists, oral historians, ethnologists, scholars, and hundreds of community members.
EDUARDO KOBRA
BRAZIL
For the 2016 Rio Olympics, Brazilian graffiti artist, Eduardo Kobra created the world’s largest street mural, titled Las Etnias (the Ethnic-ities), in Rio’s Port District. It features five faces from five different continents that represent both the five Olympic rings and the cultural diversity of the games.
The History of Mexico mural in the stairwell of the National Palace in Mexico City was executed between 1929 and 1935 by Diego Rivera. The subject of the mural is Mexico’s history from ancient times to the present. They depict the many struggles of the common Mexican people to fight against the Spanish, the French, and the dictators that controlled the country at different points in its history. Rivera was hired by the government to portray Indians in a better light, and to criticize the Spaniards. They did this to celebrate the Mexican Revolution, the overthrow of the Porfirio Diaz dictatorship, and the new government.
THE EPIC STORY OF SAN ANTONIO
FROM FOUNDING TO PRESENT.

OVER 300 YEARS
AND 2 MILES OF CANVAS.
PICTURES, WORDS, COLORS, PATTERNS, HISTORY & CULTURE
WOVEN INTO ONE MONUMENTAL STORY.
MONUMENTALITY
UNITY OF DESIGN
COLOR PALETTE
 MOSAIC TILE
STONE
POETIC WORDS
METAL WORK
NARRATIVE
“WALK IN THE FOOTSTEPS OF OUR ANCESTORS.”
“LIKE THE PAGES OF A BOOK, THESE WALLS TELL THE EPIC STORIES OF OUR PEOPLE.”
“SOME WOULD BUILD WALLS TO SEPARATE PEOPLE, THESE WALLS WERE DESIGNED TO BRING PEOPLE TOGETHER & CREATE CULTURAL UNDERSTANDING.”
JESSE TREVIÑO

THE FIRST LATINO ARTIST COLLECTED BY THE SMITHSONIAN INSTITUTION.

BELOVED SAN ANTONIO ARTIST.

SPENT HIS ENTIRE CAREER TELLING THE STORY OF SAN ANTONIO.

SANTA ROSA HOSPITAL [TREVIÑO’S LAST COMMISSION]

Treviño is internationally lauded for his realist paintings and his public artworks representing the history and cultural institutions of Mexican Americans.

Born in Monterrey, Mexico, Treviño moved to San Antonio in 1948 and studied the craft on scholarship at the Art Students League in New York. It was there that he received his draft notice for Vietnam, and while enlisted, he was injured in a booby trap blast and shot by a sniper.

As he lay on the battlefield, injected with morphine, Treviño has told people that he thought about home. “I was thinking about my mother, my brothers, the barrio where I grew up in San Antonio and all those images,” he’s told reporters. “That’s what I was thinking: ‘If there’s any way I can come out of this alive, I’m going to paint those places and those people.’”

Treviño lost his painting arm in the blast but taught himself to use his left arm and has since been prolific: in addition to the Casa Navarro piece, he is known for his “Spirit of Healing” mural on the Christus Santa Rosa Hospital and the three-dimensional candle, “La Veladora of our Lady of Guadalupe,” at the Guadalupe Cultural Art Center, among others. Treviño’s La Ofrenda, is a 130-foot tall, steel-and-epoxy veterans’ monument commissioned by the City of San Antonio, which will be installed at Elmendorf Lake at Our Lady of the Lake University. Two of his works are a part of the Smithsonian’s American Art Museum’s permanent collection in Washington, D.C.
MICHAEL MENCHACA

EDUCATION:
2011 Skowhegan School of Painting & Sculpture, Skowhegan, ME.
2011 Texas State University, San Marcos, TX - B.F.A. Printmaking.
2007 San Antonio College, San Antonio, TX, Associates in Graphic Design.

AWARDS, GRANTS, AND HONORS:
Fine Arts Work Center Fellowship 1st Year (2015)
Peter St. Onge Memorial Travel Grant, Sri Lanka, Rhode Island School of Design (2013)
- Graduate Fellowship, RISD (’13-’14)

USA Projects, Grant Recipient (2012)
Artist Foundation of San Antonio, Grant Recipient (2011)
Skowhegan School of Painting & Sculpture, Residency (2011)
Texas State University Travel Grant (2011)
TX State University, Juror’s Merit Award for Printmaking (’11)
FASA Spring, Best in Show (2011)
Family, Audience Choice Award (2010)
FASA Spring, Best in Show (2010)
TX State University Dean’s List (2010)
Southwest School of Art, Scholarship (2009)
ADDY Awards, Judges Award, Gold, Silver (2007)
Beverly Cainer Scholarship (2007)

SOLO EXHIBITIONS & PROJECTS:
2016 Temporary Union, Fine Arts Work Center, Hudson D. Walker Gallery, Provincetown, MA
2015 Luminous, Yet Devoid of Chroma, Art League Houston, Houston, TX (Curated by Jen Ash)
Territorium Insula, Dirt Palace Window Installation, Olneyville, RI
2013 Autos Sacramentales, Artpace, Window Works Exhibition, San Antonio, TX
2012 New Works: Michael Menchaca, Austin Museum Of Art/Arthouse Laguna Gloria
- (Curated by Andrea Mellard), Austin, TX
Sacred Dance of the Migratos, Luminaria 2012, Performance, San Antonio, TX
Of Migratos, Red Space Gallery
- (Curated by Caitlin McColloM) Austin, TX
2011 Crooked American Boarders: The Beaner Express, Transit Cooperative, San Antonio, TX

ARTIST RESIDENCIES:
2016 The Wassaic Project, Wassaic, NY
2015 Fine Arts Work Center, Provincetown, MA
2014 Roger Williams National Memorial, Providence, RI
2013 Vermont Studio Center, Johnson, VT
2012 Serie Project XIX at Coronado Studios, Austin, TX
2011 Transit Cooperative, San Antonio, TX
2011 Skowhegan School of Painting & Sculpture, Skowhegan, ME

COLLECTIONS:
Artpace, San Antonio, TX
Artspace, New York, NY
Austin Museum Of Art/Arthouse, Austin, TX
Coronado Studios, Austin, TX
Crystal Bridges Museum of American Art, Bentonville, AR
Harriet and Ricardo Romo, San Antonio, TX
Gilbert Cardenas, University of Notre Dame, IN
Joe A. Diaz, San Antonio, TX
McNay Art Museum, San Antonio, TX
Mexic-Arte Museum, Austin, TX
National Museum of Mexican Art, Chicago, IL
San Antonio Museum of Art, San Antonio, TX
John Phillip Santos, born and raised in San Antonio, Texas, is the first Mexican American Rhodes Scholar whose awards include the Academy of American Poets’ Prize at Notre Dame and the Oxford Prize for Fiction. His articles on Latino culture have appeared in the Los Angeles Times, The New York Times, and the San Antonio Express-News. Writer and producer of more than forty television documentaries for CBS-TV and PBS-TV, two of them Emmy nominees, he lives in New York City.
As our city prepares for its 300th anniversary, it’s clear how profoundly San Antonio’s long history testifies to a unique mingling of cultures and heritages in the borderlands of the United States. Our history is a unique testimonio to the way encounters between peoples shape a new kind of humanity. We are older than the Republic, but we are also an emerging capital of America’s undeniably mestizo future. The San Pedro Creek linear park will offer visitors a pathway into deep currents of San Antonio’s history and memory.

John Phillip Santos
DESIGN ENHANCEMENTS
1. TUNNEL INLET STRUCTURE
PATTERN STUDY
“WE CAME FROM FAR BELOW, OUT FROM ANCIENT EARTH WITH THESE BLESSED COOLING WATERS, PECANS, FRUIT & FISH.”
14. BRIDGE RAILING PATTERN
15. PASEO PAVEMENT PATTERN
17. WORD ART

SAINT

OF THE

FUTURE

ORDER

WHEN

DISORDER

WELL
18. TILE ON CONCRETE RETAINING WALL & BENCH
19. “FROM ALL ROADS WE ARE ALL ONE.”
“DE TODOS CAMINOS SOMOS TODOS UNO.”
21. BRIDGE RAILING PATTERN
23. “LOST WILDLIFE”
27. WORD ART ON STONE
28. “CAMARON”

30. BRIDGE RAILING PATTERN
31. TILE ON CONCRETE MAINTENANCE SHAFT
32. “BOTANICAS”
PROJECT SCOPE
2.3 WALL SIGNAGE

INTERPRETIVE TOPICS

“Rain from the Heavens”
“Protecting the City”
4.5. MOSAIC TILE BENCH
4 • 5. MOSAIC TILE BENCH

Place of Origins Patterns by Michael Menchaca
10•34 BENCHES

Generations/Tree of Life Patterns by Michael Menchaca
SIGNAGE

8•9•12•16•20•22•26•33•35•36

INTERPRETIVE TOPICS

The Diverse Cultures of Upper San Pedro Creek
Birth of A City
Celebrating the Tri-Centennial of San Antonio de Bexar
The channelization of San Pedro Creek
Reclaiming nature, water quality
Industry on San Pedro Creek
“The Legacy of Early Settlers”
A Financial Legacy
The Barrio del Norte
Health Care West of the Creek
PUBLIC ART
25. BOARDWALK: PUBLIC ART

HIGHLINE, NYC ART PLINTH
29. BRIDGE ABUTMENT
San Pedro Creek is central to much of San Antonio's formative but overlooked history. The revitalization of San Pedro Creek includes a renaissance narrative of San Antonio's neglected history from 1718 through 1968. Houston and Nueva Streets formed the north and south boundaries of the original Villa de San Fernando town site, with San Pedro Creek forming the west boundary and the San Antonio River the east.
“Whispers of memories, echoes of song, rhythms of poesy, drumbeats and bugles, punctuated by cannonades and long intervals of peace.”
Initial Characterization of Sediment Quality and Water Toxicity in Westside Creeks, 2014

Presented by:
U.S. Geological Survey
in cooperation with the San Antonio River Authority
December 21, 2016
Westside Creeks

- Project Overview
- Major Findings
- Report Products
Background

- Westside Creeks flow through historic neighborhoods
  - Urbanized for a long time
  - Potential contaminants washed off streets, yards, etc.

- Some contaminants attach to sediment rather than water
  - Hydrophobic, persistent in the environment

- Restoration efforts planned along the Westside Creeks
  - Could disturb sediment
  - Potential concern for aquatic life

QUESTION: What is in the sediment?

- Reconnaissance of sediment quality in the area
  - Snapshot of the current conditions at limited selected locations
Westside Creek Project Sampling Approach

- **Sample locations:** 10 sites
  - One sample at confluence with downstream creek
  - One sample farther upstream
  - Similar areas as the restoration project target areas

- **Timing:** sampled twice
  - Once during base flow (normal)
    - January 2014
  - Once after a storm event
    - May 2014
Westside Creeks Laboratory Analyses

- Sediment samples analyzed for:
  - Trace Elements
    - Can be naturally occurring or man made
    - Examples: lead, chromium, zinc, arsenic
  - Pesticides
    - Man made, both historical use (now banned) and current use
    - Example: DDT (historical)
  - Brominated Flame Retardants
    - Man made, now commonly occurring in the environment
  - Polychlorinated Biphenyls (PCBs)
    - Man made, used for plasticizers and hydraulic lubricants
  - Polycyclic Aromatic Hydrocarbons (PAHs)
    - Can be naturally occurring or man made
    - Sources include coal-tar-based sealcoats, auto exhaust, wood fires

- Water samples analyzed for:
  - Fish Toxicity - *Pimephales promelas* (fathead minnow)
Sediment Quality Guidelines

• Data were compared to sediment quality guidelines
  – Non-enforceable
  – Science-based
  – Useful for water resource managers to make informed decisions

• Trace elements, Pesticides, PCBs, and PAHs
  – Paired guidelines
  – Threshold Effect Concentration (TEC)
  – Probable Effect Concentration (PEC)

• Brominated Flame Retardants
  – Canadian guidelines
  – Federal Environmental Quality Guidelines
Trace Elements

Concentration, in milligrams per kilogram

<table>
<thead>
<tr>
<th>Map ID</th>
<th>Short name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTZ-US</td>
<td>Upstream Martínez</td>
</tr>
<tr>
<td>MTZ-DS</td>
<td>Downstream Martínez</td>
</tr>
<tr>
<td>ALZ-US</td>
<td>Upstream Alazán</td>
</tr>
<tr>
<td>ALZ-DS</td>
<td>Downstream Alazán</td>
</tr>
<tr>
<td>APC-US</td>
<td>Upstream Apache</td>
</tr>
<tr>
<td>APC-DS</td>
<td>Downstream Apache</td>
</tr>
<tr>
<td>SPD-US</td>
<td>Upstream San Pedro</td>
</tr>
<tr>
<td>SPD-MD</td>
<td>Middle San Pedro</td>
</tr>
<tr>
<td>SPD-DS</td>
<td>Downstream San Pedro</td>
</tr>
<tr>
<td>SAR</td>
<td>San Antonio River</td>
</tr>
</tbody>
</table>

PEC – Probable Effect Concentration

TEC – Threshold Effect Concentration

Arsenic
PEC = 33.0

Cadmium
PEC = 4.98

Chromium
PEC = 1.06

Copper
PEC = 48.6

Lead
PEC = 1.06

Mercury
PEC = 1.06

Nickel
PEC = 48.6

Zinc
PEC = 48.6
Pesticides – Historical Use

Chlordane

Concentration, in milligrams per kilogram

Dieldrin

PEC = 61.8

DDD

PEC

DDE

TEC

DDT

Base flow, detection

Base flow, non-detection

Post-storm, detection

Post-storm, non-detection

[DDD, dichlorodiphenyldichloroethane; DDE, dichlorodiphenyldichloroethylene; DDT, dichlorodiphenyldichloroethane]
Brominated Flame Retardants

Organic carbon normalized concentration

Canadian Guideline (FEQG)

- 99
- 100
- 85
- 153
- 154

- Base flow, detection
- Base flow, non-detection
- Post-storm, detection

Compounds

Map identifier (table 1)
Total PCBs

PEC=676

Map identifier (table 1)

- **Base flow, detection**
- **Post-storm, detection**
Polycyclic Aromatic Hydrocarbons (PAHs)

Total PAH, in ug/kg

Map identifier (figure 1)

Base flow, detection
Post-storm, detection

PEC
TEC
Fish Toxicity

Fathead minnow survival, in percent

- Base flow, non-toxic
- Base flow, toxic
- Post-storm, non-toxic

Sample groups:
- MTZ-US
- MTZ-DS
- ALZ-US
- ALZ-DS
- APC-US
- APC-DS
- SPD-US
- SPD-MD
- SPD-DS
- SAR
- Control Sample 1
- Control Sample 2
Summary Conclusions

- **Trace elements**
  - Lead greater than PEC at Upstream and Middle San Pedro Creek sites
  - All the other trace elements (7) at the other sites (8 out of 10) were less than PEC

- **Pesticides**
  - Historical
    - Less than PECs at most sites
    - Greater than PECs at Upstream and Middle San Pedro Creek sites

- **Brominated Flame Retardants**
  - Elevated levels in all base-flow samples and most post-storm samples
    - Highest in base-flow samples from upstream Apache Creek site

- **PCBs**
  - Detected in all samples, but at levels less than the TECs

- **PAHS**
  - Most sites less than PECs
  - Upstream Apache Creek and Upstream San Pedro Creek greater than PECs post-storm

- **Fish Toxicity**
  - Six base-flow samples were toxic to fathead minnows
  - Did not evaluate possible causes
Bexar County Sediment Quality Study
2007–2009

Source: Wilson, 2011
Where to get the report

Scientific Investigations Report
- Download free online at http://dx.doi.org/10.3133/sir20165136
- Data release at https://dx.doi.org/10.5066/F71R6NN5
- Print versions available soon

Fact Sheets
- English & Spanish Versions
- Download free online at https://doi.org/10.3133/fs20163096


U.S. Department of the Interior
U.S. Geological Survey
What we learned…

• There are questions moving forward that need to be looked into including elevated levels of metals, pesticides and polycyclic aromatic hydrocarbons (PAHs) and brominated flame retardants in the streambed sediment.
Proposed Future Sampling

- Select sample locations near USGS sample sites
- Water quality, sediment and fish tissue sampling for Pesticides, PAH monitoring will be proposed during the next budget cycle
Future considerations to have future projects be successful

- Construction Remediation
- Stormwater BMPs
- Phytoremediation
- Source Controls
- Outreach
Future considerations to have future projects be successful

Construction Remediation

INSPIRING ACTIONS FOR HEALTHY CREEKS & RIVERS
Future considerations to have future projects be successful

Stormwater BMPs
Future considerations to have future projects be successful

Phytoremediation
Future considerations to have future projects be successful
Future considerations to have future projects be successful