Colorado Street Bridge
Suicide Mitigation Task Force
Community Meeting
La Casita del Arroyo
177 S. Arroyo Blvd
Pasadena, CA 91105
November 29, 2017
6:30 to 8:30 PM
Why a Task Force?

• On **July 19, 2017**, due to a recent and alarming trend, City Staff provided the City’s Public Safety Committee a presentation on the Colorado Bridge; its history relative to suicides, statistics and literature on the subject, how others have dealt with similar issues, and several sample treatments or deterrents.

• After which, the City’s Public Works Director assembled a **Task Force** with Community Members and representatives from the Historic Preservation Community, First Responders (Police and Fire), Public Health, Mental Health, Architects, and Engineers in hopes of developing options that are amenable to all stakeholders and the Community at large.
Task Force – Who We Are

Ms. Claire Bogaard
Pasadena Heritage, Pasadena Resident

Mr. Melvyn Green, SE
Structural Engineering Consult., Melvyn Green & Assoc.

Ms. Sue Mossman
Pasadena Heritage, Pasadena Resident

Mr. Chris Peck, AIA, PE
CM Peck Consulting, Pasadena Resident

Ms. Andrea Rawlings
Architect, Pasadena Resident

Ms. Patricia Speelman, Division Director, Suicide Prevention Center - Didi Hirsch

Dr. Ying Ying Goh, MD
Health Officer, Pasadena Public Health

Detective Darryl Harris
Pasadena Police Department

Mr. Michael Johnson
Director of Public Health, Pasadena Public Health

Mr. Ara Maloyan, PE
Director of Public Works, Pasadena Public Works

Ms. Kris Markarian, PE
City Engineer, Pasadena Public Works

Mr. Brent Maue, PE
Assistant City Engineer, Pasadena Public Works

Corporal Brad May
Pasadena Police Department

Ms. Takako Suzuki
City Council District Liaison

Deputy Chief Jon Trautwein
Pasadena Fire Department
Task Force – Proposed Timeline

- Oct. 18, 2017  Task Force Meeting – Introduction; Define Mission and Vision
- Nov. 9, 2017   Task Force Meeting – Create agenda for Community Meeting
- Nov. 16, 2017  Task Force Meeting – Bridge Site Visit
- Nov. 29, 2017  Community Meeting – Introduction, Listen, Learn; Solicit ideas from Community Members
- Dec. 13, 2017  Task Force Meeting – Evaluate ideas expressed at Community Meeting; Begin to define options
- Jan. 4, 2018   Task Force Meeting – Further refine options; Determine feasible options to be presented to community for review and comment
- Jan. 18, 2018  Community Meeting – Present feasible options to community for feedback
- Feb. 2018      Public Safety Committee – Present Alternatives for Committee recommendation to Council
- Feb. 2018      City Council Meeting – Present Alternatives for Council action
MISSION

The mission of this Task Force is to engage the community in developing solutions that will deter people from attempting suicide on the Colorado Street Bridge while preserving its national historic character and significance.

Vision

Allow the community to experience and enjoy the Colorado Street Bridge and the Arroyo as a safe and beautiful environment now and in the future.
Colorado Bridge - History

Construction Completed in 1913
Colorado Bridge - History

150 ft in height (tallest concrete bridge at that time)
1,486 feet in Total Length
During the 1930’s Great Depression, the Bridge began to “earn” its Nickname. An estimated 79 people leapt off the bridge in the early 1930’s. The City’s Engineers began designing mitigation measures – Fencing Drawing circa 1932.
Netting Design - Drawing circa 1932
Some of these designs were better than others – Drawing circa 1932
Colorado Bridge - History

Design Promoted by Pasadena’s City Manager in Newspaper Article
Dated 1936
Fence Constructed in Late 1930’s – Photo Circa 1943
Colorado Bridge - History

Photo 1940’s
Colorado Bridge - History

Photo 1988 – Prevented attempt
Colorado Bridge - History

Present Day – Wrought Iron Fencing Installed During Seismic Retrofit in early 1990’s
What are the Problems?

With a total height of nearly 8 feet, the existing barrier and railing combination are adequate but there are several problem spots.
What are the Problems?

- **Alcoves**
  - Seating area, barrier rail, and pedestal combine to provide “steps” to an elevation where jumpers can go over the railing.
  - Gaps in the railing at the pedestals allow for even easier access.
  - There are 20 of these on the bridge – 10 on each side.
What are the Problems?

Ends/Approaches

- Potential jumpers can climb outside of the barrier/railing at these points and “walk the edge” to higher locations over the Arroyo.

- Pedestal and concrete barrier combination provide a climbing opportunity for jumpers to get over any additional fencing “extension” that may be installed.
Alcove Fencing

As a result of the recent uptick in suicides and attempts from the bridge, City Staff contracted the installation of temporary fencing at the alcove locations.

a. This fencing prevents entry to the locations which provide the easiest access over the barrier/railing.

b. Fencing is located at all 20 alcoves.

c. This fencing is a temporary measure until a more permanent solution is identified and implemented.
Temporary Measure – Alcove Fencing
The Statistics

Total Reported Events = 78

Male Attempts, 47
Female Attempts, 17
Male Deaths, 8
Female Deaths, 6

Statistics: 3/15/15 to 11/2/17
The Statistics – A Closer Look

Age Distribution

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Total Deaths</th>
<th>Total Attempts</th>
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<tbody>
<tr>
<td>16 to 19</td>
<td>2</td>
<td>9</td>
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<tr>
<td>20 to 29</td>
<td>4</td>
<td>19</td>
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<td>30 to 39</td>
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<td>50 to 59</td>
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<td>0</td>
</tr>
<tr>
<td>60 to 69</td>
<td>2</td>
<td>0</td>
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</table>

Pasadena Residency Status at Time of Attempt

<table>
<thead>
<tr>
<th>Residency Status</th>
<th>Total Deaths</th>
<th>Total Attempts</th>
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</thead>
<tbody>
<tr>
<td>Pasadena Resident</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Non-Pasadena Resident</td>
<td>14</td>
<td>61</td>
</tr>
<tr>
<td>Homeless</td>
<td>0</td>
<td>6</td>
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</tbody>
</table>

Data Source – Pasadena Police Department
Period Including 3/15/15 to 11/2/17
Suicide Prevention: The Psychological Component

So what drives people to this?

If we install barriers, won’t they just go somewhere else or choose another method?

Can mental health efforts be focused in any way?
A large 2015 study published in The Lancet found:

- Unequivocal evidence that “restricting access to means” (the bridge or other hotspot) can avert suicides at these sites
- Other approaches are not as effective, but often are used simultaneously
  > encouraging help-seeking, increasing the likelihood of intervention by a third party, encouraging responsible media reporting of suicide, installing blue lights for calming effect
- Substitution is not observed (deaths are reduced overall)

Suicide Prevention:  
*The Psychological Component*

- Restricting access to means is thought to work because:
  - It can delay the suicide attempt, allowing the individual to reconsider his or her actions and give others the opportunity to intervene.
  - Period of risk is usually very brief – minutes, hours, days
  - Impulsivity is a factor
  - Alternative means are generally less lethal = higher likelihood of survival

“… 90 percent of them got past it. They were having an acute temporary crisis, they passed through it and, coming out the other side, they got on with their lives.”

- Dr. Richard Seiden, PhD, MPH, professor emeritus and clinical psychologist at the UC Berkeley School of Public Health, on his research of individuals who attempted (unsuccessfully) to jumped off the Golden Gate Bridge

“If you can curb that initial impulsive attempt, patients often realize, even without treatment, that they don’t want to die.”

- Mel Blaustein, MD, Director of Psychiatry, St. Francis Hospital, San Francisco, CA
1. Why do some people want to end their lives?

2. Why would a young person take his or her life?

3. Why do some places seem to become a magnet or hotspot for suicide?

4. Are bridge barriers effective at reducing suicide?

5. What are some important facts about suicide?
Where do we go from here?

What are our options?
What can we do?

Not a problem unique to Pasadena!

How are others managing and mitigating?
Prince Edward Viaduct – Toronto Canada
Prince Edward Viaduct

“Luminous Veil” Suicide Barrier
Constructed in 2003

- Total Bridge Length 1,620 Feet
- Barrier cost - $5.5 million Canadian in 2003
- Suicides reduced to zero after completion
Since its completion in 1937 over 1,600 have committed suicide from the Golden Gate Bridge in San Francisco.
Golden Gate Bridge

Netting will be installed for 1.7 mile total length at a cost of $204 million.
Cold Spring Canyon Bridge

Highway 154 Near Santa Barbara, California
Constructed in 1964 - 55 Suicides occurred between then and 2012.

Bridge span is 1,217 feet in length and barrier was constructed in 2012 for $3.2 million.
End Treatments Required to Exclude Jumpers From Getting Behind Railing
Nationwide study in Switzerland published in January 2017 compared the effectiveness of various structural suicide prevention measures, barriers and netting in particular.

- Study determined a suicide reduction rate of:
  - 68.7% for partial barrier installations
  - 77.1% for netting
  - 82.0% for complete barriers
- Complete barrier installations of at least 7.5 feet tall completely eliminated suicides over the course of the study.
- Study recommends installation of complete barrier systems (7.5 foot minimum height) at sites with a suicide incidence greater than 0.5/year.
Additional Treatment Options

Non-Structural Interventions

- Suicide prevention signing – *existing in place*
- Crisis hotline – *existing in place*
- Phones/intercoms
- Bridge patrols
- Pedestrian exclusion
Additional Treatment Options

Grafton Bridge – Auckland NZ
Additional Treatment Options

High Level Bridge – Edmonton Ontario
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We would like to open the floor for comment.

We hope to hear everyone!