Implementing Vision Zero Treatments
Fremont’s “Vision Zero 2020” Program

Alameda CTC Safety Workshop
May 9, 2019
Vision Zero Approach

- Traffic deaths are unacceptable
- Safety takes priority over speed; Speed is a fundamental predictor of crash survival
Focus on “Major Crashes”

- Minor or Moderate Injuries, 25%
- Property Damage Only, 70%
- Severe Injuries, 4%
- Fatal, 1%

“Protecting bodies, not bumpers”
Traffic Crashes in Fremont

Fatalities in 2014 and 2015 Were Up Significantly
Fremont Fatal Traffic Crash Trends

Vision Zero in Fremont
Initiated by City Council in July 2015; Policy Adopted in September 2015

- **Vision Zero Action Plan**
  (Adopted March 2016)
  - Safer People — “Enforcement, Education”
  - Safer Streets — “Engineering”
  - Safer Vehicles

- **7th U.S. City to Adopt Vision Zero Plan**
  1. New York City (2014),
  2. San Francisco,
  3. Seattle,
  4. San Jose,
  5. Boston,
  6. Washington DC,
  7. Fremont
Fremont Major Traffic Crash Trends

Since start of Vision Zero program, major traffic crashes are down over 50%
Fremont’s Safety Success Recipe

“Just Do It” ... No new budget, staff, consultants, or committees

- Rigorous Evaluation of Safety **Data** (by internal staff)
- Align Transportation **Engineering Investment Toward Safety** (repurposed $2 million from CIP)
- Proactive Engagement by **Police Department**
- Integrate Traffic Safety Into Public **Communication**
- Encourage **Community** to Participate
Safety Priority Streets
10% of Streets - Have 90% of Fatalities and 67% of Severe Injuries

2013 to 2015
Major Crash Locations
- Fatalities (Red)
- Severe Injury (Blue)
Spot vs Systemic Issues

2013 to 2015
Major Crash Locations
- Fatalities (Red)
- Severe Injury (Blue)
Grimmer Curve

“The Miracle of 10-foot Travel Lanes”
Civic Center Drive “Road Diet”
“Safe and Complete” Street Design
10-Foot Vehicle Travel Lanes, Buffered Bike Lanes, Road Diets

“Complete street” conversions incorporated into annual pavement maintenance program.
Enhanced Street Crossings

Updated Pedestrian Master Plan identified 40 locations for street crossings improvements
Countdown Pedestrian Signals

- Increased from 50 locations to all 220 traffic signal locations Citywide

In 2015, two senior pedestrians were struck and killed in signalized crosswalks; possibly due to lack of awareness of available crossing time.
Brighter Street Lighting

Fully converted all Fremont streetlights to brighter LED lights (16,000 lights)
Enforcement

Increased Traffic Safety Discussion from Quarterly to Weekly
Enforcement

Priority on visibility and education ... not tickets and fines

- **Focused on High Risk Locations/Behaviors**
  - Safety Priority Streets
  - Speeding and DUI

- **Expanded Resources by Cross-Training**
  - 11 traffic officers; 93 patrol officers
  - Purchased more speed detection equipment

- **Tripled Number of Speeding “Stops”**
  - From 1,231 (2015) to 4,258 (2016)

- **Saturation Patrols for DUI**
  - 2 officers dedicated to DUI patrol 20 days a year
  - Safety visits with bartenders
Education and Engagement

Stickers, Newsletters, Events, Social Media, Commissions, Youth Service Projects
Neighborhood Traffic Calming

*Increased speed lump locations from approximately 200 to 250*
School Safety Plans
Partnership with Fremont Unified School District

School area traffic safety site assessment plans were prepared for all 42 public schools
Fremont Major Traffic Crash Trends

Since start of Vision Zero program, major traffic crashes are down over 50%
Yield Markers

Placed between lanes at uncontrolled multi-lane crossings

Installed at 25 locations in 2018
Painted Islands Between Lanes
Prevents lane changes near crosswalks
Grind and Replace Lane Lines

Accelerates “safe and complete street” conversions
“Quick-Build” Projects
Protecting Pedestrians with Paint and Plastic

400 “quick build” projects to be completed in school zones by 2019.
Intersection Narrowing
Protected Intersections
What’s Next for VZ in Fremont?

• **Continue What’s Working**
  - Complete street conversions
  - Targeted enforcement

• **Update Speed Surveys**
  - Lower speed limits

• **Enhanced Pedestrian Crossings**
  - 4 new pedestrian signals
  - 8 new pedestrian beacons
  - 10 protected intersections

• **Traffic Safety Education Banners**
  - Grant from Kaiser Permanente

• **Citywide Systemic Safety Study**
Fremont Major Traffic Crash Trends

Since start of Vision Zero program, major traffic crashes are down over 50%
# Fremont Vision Zero Results

Comparing Factors in Major Crashes Before and After Vision Zero

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<tr>
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<tbody>
<tr>
<td><strong>Major Crashes</strong></td>
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<tr>
<td></td>
<td>104</td>
<td>68</td>
<td>Down 35%</td>
</tr>
<tr>
<td>- Fatal</td>
<td>24</td>
<td>18</td>
<td>Down 14%</td>
</tr>
<tr>
<td>- Severe Injury</td>
<td>83</td>
<td>50</td>
<td>Down 40%</td>
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<tr>
<td><strong>Travel Mode</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Walking</td>
<td>34</td>
<td>21</td>
<td>Down 38%</td>
</tr>
<tr>
<td>- Bicycling</td>
<td>13</td>
<td>8</td>
<td>Down 38%</td>
</tr>
<tr>
<td>- Motorcycle</td>
<td>12</td>
<td>12</td>
<td>No Change</td>
</tr>
<tr>
<td>- Driving</td>
<td>45</td>
<td>27</td>
<td>Down 40%</td>
</tr>
<tr>
<td><strong>Dark</strong>*</td>
<td>47</td>
<td>36</td>
<td>Down 23%</td>
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*Pedestrian Involved Crashes in Dark Dropped from 10 (2015) to 4 (2018); Down 60%
## Fremont Vision Zero Results

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<tr>
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<tbody>
<tr>
<td><strong>Speed Limit</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- 40 mph or more</td>
<td>61</td>
<td>29</td>
<td>Down 52%</td>
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<tr>
<td></td>
<td>(11% of streets)</td>
<td></td>
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<tr>
<td><strong>DUI</strong></td>
<td>15</td>
<td>10</td>
<td>Down 33%</td>
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<tr>
<td><strong>Age Groups</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>- Under 16</td>
<td>12</td>
<td>1</td>
<td>Down 92%</td>
</tr>
<tr>
<td>- 16 to 29</td>
<td>29</td>
<td>24</td>
<td>Down 17%</td>
</tr>
<tr>
<td>- 30 to 49</td>
<td>32</td>
<td>20</td>
<td>Down 38%</td>
</tr>
<tr>
<td>- 50 to 64</td>
<td>24</td>
<td>15</td>
<td>Down 38%</td>
</tr>
<tr>
<td>- 65 and over</td>
<td>18</td>
<td>10</td>
<td>Down 44%</td>
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## Fremont Vision Zero Results

Comparing 2015 to 2018

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</thead>
<tbody>
<tr>
<td>Major Crashes</td>
<td>36</td>
<td>17</td>
<td>Down 53%</td>
</tr>
<tr>
<td>- Fatalities</td>
<td>8</td>
<td>4</td>
<td>Down 50%</td>
</tr>
<tr>
<td>- Severe Injury</td>
<td>28</td>
<td>13</td>
<td>Down 57%</td>
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<tr>
<td>Walk/Bike</td>
<td>21</td>
<td>10</td>
<td>Down 59%</td>
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<tr>
<td>Speed Limit</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>- 40 mph or more</td>
<td>25</td>
<td>10</td>
<td>Down 60%</td>
</tr>
<tr>
<td>DUI</td>
<td>5</td>
<td>1</td>
<td>Down 80%</td>
</tr>
<tr>
<td>Age Under 16</td>
<td>3</td>
<td>0</td>
<td>Down 100%</td>
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Implementation Efforts/Challenges

• **Efficient Implementation**
  - Pavement Maintenance Program (“Smooth, Safe and Complete”)
  - Street Maintenance Crews

• **Staff Training and Engagement**
  - NACTO Conferences and Design Standards

• **Internal Stakeholder Coordination**
  - Police Partnership (Timely Crash Reports and Enforcement)
  - Fire Department Coordination (Street Design Standards)

• **Managing the Politics**
  - Community Opposition (Narrow Travel Lanes, “Empty” Bike Lanes)
  - Treat “Safe and Complete Streets” like ADA
  - Have a “Balanced” Transportation Program (Congestion, Schools)
  - Regular Council Communication
What Can Get Us to Zero?

• **Safer Vehicle Technology**
  - 60% of fatal crashes would likely have been prevented with “pedestrian detection and forward emergency braking”

• **Automated Speed Enforcement**
  - 35% of fatal crashes may have been prevented if drivers knew that they would get mailed a ticket for exceeding the speed limit

• **Use of “Old Technology”**
  - 15% of fatal crashes would likely have been prevented by using a newer vehicle equipped with air bags
Safer Vehicles

New Crash Avoidance Technology Can Offset Human Errors/Limitations

Automatic Emergency Braking is planned for all new vehicles by 2022
Recommendations for ACTC

• Regional Traffic Safety Campaign

• Policy Advocacy
  - Reform CA Process for Setting Speed Limits
  - Enable Automated Speed Enforcement in CA

• Get Caltrans “On Board”
  - Freeway interchanges and local State Highways need to be upgraded to accommodate safe walking and bicycling
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