



# Streets

## Community High Priority

May 26, 2020



## Mission

Deliver exceptional services to support a high quality of life and place for our community

## Values

Integrity, **R**espect, **E**xcellence,  
**A**ccountability, **P**eople

## Vision

Develop a vibrant regional economy, safe and beautiful neighborhoods and exceptional recreational, cultural and educational opportunities powered by a high performing government



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# Strategic Goals

## Goal 7 - Enhance and Sustain El Paso's Infrastructure Network

- 7.2 - Improve competitiveness through infrastructure improvements impacting the quality of life
- 7.5 - Set one standard for infrastructure across the city





## STREET INVESTMENT HISTORY

- INVESTMENTS PER YEAR
- INVESTMENT TYPE
- RESULTS

## TRAFFIC SAFETY:

### • TRAFFIC SIGNAL IMPROVEMENTS

- Flashing Yellow Traffic Signal Head
- HAWK Traffic Signals
- Traffic Signal Synchronization
- Traffic management Center (TMC)
- Signalized intersections

### • TRAFFIC SIGN IMPROVEMENTS

- Speed Feedback Signs
- Flashing LED Stop Signs
- Traffic Sign Maintenance

### • TRAFFIC MARKING IMPROVEMENTS

- Marking Materials & Maintenance
- Thermoplastic Truck
- Bike Lane Installations

**\$75.8 M** Streets and Maintenance  
Operating Budget

**\$193 M** Capital Street Budget  
through FY 2023



## •TRAFFIC SAFETY (CONT'D):

### •PHYSICAL IMPROVEMENTS

- Roundabouts
- Curb Extensions
- American Disability Act (ADA)

### •PROGRAM IMPROVEMENTS

- Neighborhood Traffic Management Program (NIP)
- Safe Routes to School
- Pavement Cut & Traffic Control Permits

### •SAFETY INVESTMENTS

- Highway Safety Improvement Projects
- Street Lights
- Drone

## •OTHER SERVICES

- Potholes
- Median Maintenance
- Graffiti Abatement
- Fleet Services
- Facilities

# Streets: High Priority



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# Street Investment History



# **STREETS**

## **Public Investment History**

**INVESTED**  
**\$98M**  
**SINCE 2016**

**PROJECTING**  
**TO INVEST**  
**\$70M**  
**IN CALANDER**  
**YEAR 2020**

**EXPENDITURES**  
**OF \$120M**  
**FROM FY21 TO 23**

**TOTAL OF STREET**  
**EXPENDITURES OF**  
**\$288M**  
**FROM FY16 TO 23**

**\$190M**  
**EXPENDED**  
**ON STREETS**  
**IN THE NEXT**  
**3 YEARS**

**\$288M**  
**IN 8 YEARS**  
**550%**  
**INCREASE**  
**PER AVG YEAR**



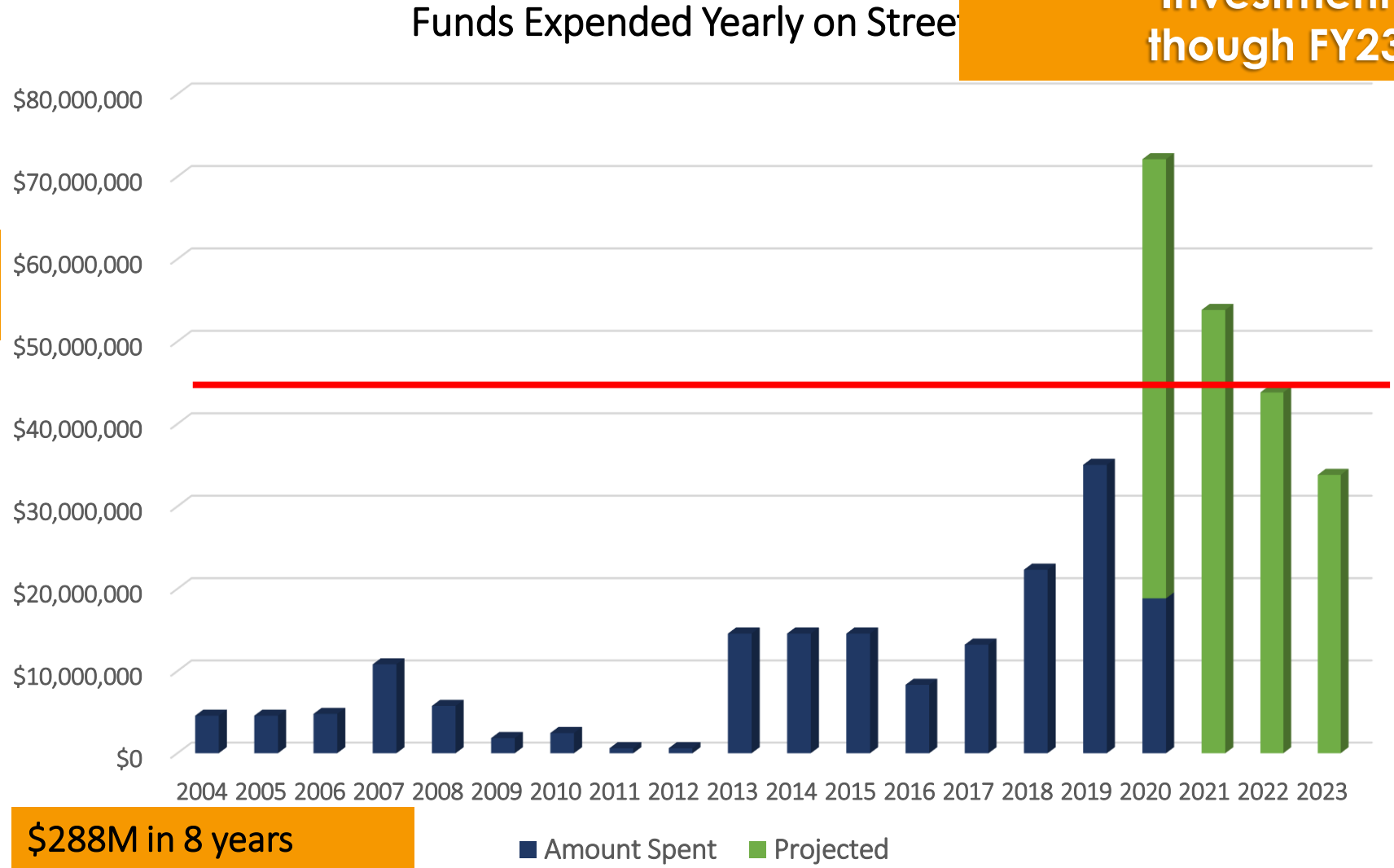


# Street Investment Per year

**\$190M**  
Projected  
Investment  
through FY23

Contract Year	Amount Spent	Projected
2004	\$4,572,142	
2005	\$4,572,142	
2006	\$4,787,607	
2007	\$10,827,025	
2008	\$5,761,805	
2009	\$1,846,445	
2010	\$2,462,740	
2011	\$608,775	
2012	\$608,775	
2013	\$14,572,091	
2014	\$14,572,091	
2015	\$14,572,091	
2016	\$8,329,959	
2017	\$13,218,725	
2018	\$22,321,672	
2019	\$35,039,139	
2020	\$18,843,479	\$53,272,050
2021		\$53,823,800
2022		\$43,823,800
2023		\$33,823,800

**\$65M in 10 years**



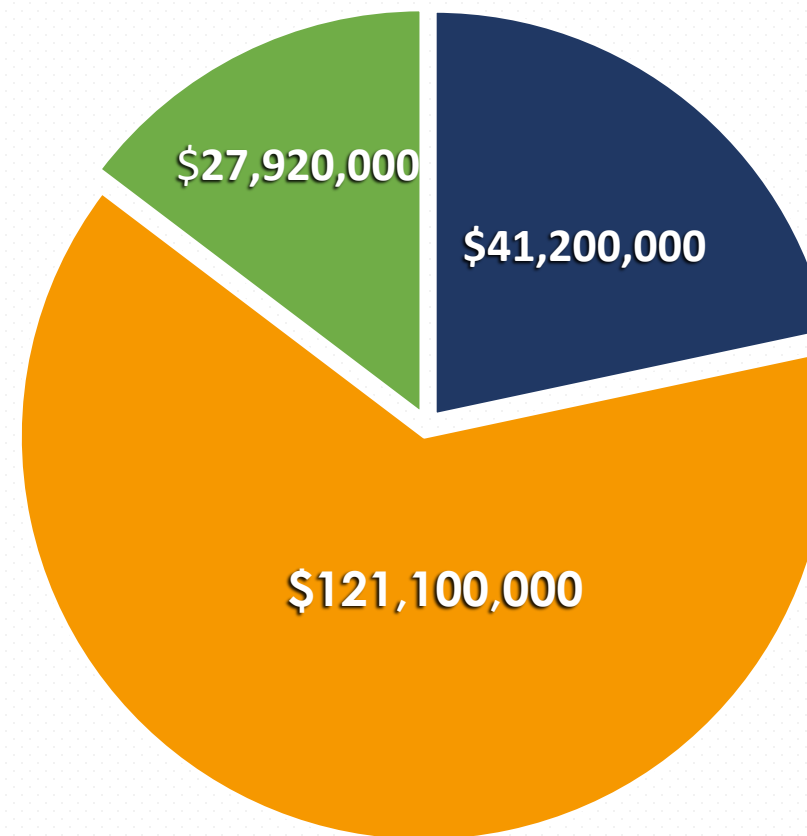
**\$288M in 8 years**  
**550% increase per avg year**

# Street Investment per Type

**\$190 M** Projected Investment  
through FY 23

Fund	Type	Amount
2012 Street	Resurfacing	\$ 9,700,000
2012 Street	Reconstruction	\$ 40,600,000
2017 Capital Plan	Reconstruction	\$ 3,200,000
2017 Capital Plan	Traffic Safety	\$ 1,800,000
2018 Capital Plan	Reconstruction	\$ 21,100,000
2019 Capital Plan	Traffic Safety	\$ 17,300,000
2020 Capital Plan	Reconstruction	\$ 5,400,000
\$7M - FY21-23	Resurfacing	\$ 21,000,000
\$3M FY 20-23	Resurfacing	\$ 10,500,000
Federal Grants	Reconstruction	\$ 50,800,000
Federal Grants	Traffic Safety	\$ 5,520,000
TXDOT HSIP	Traffic Safety	\$ 3,300,000
<b>TOTAL</b>		<b>\$ 190,220,000</b>

# Street Investment Through FY 23

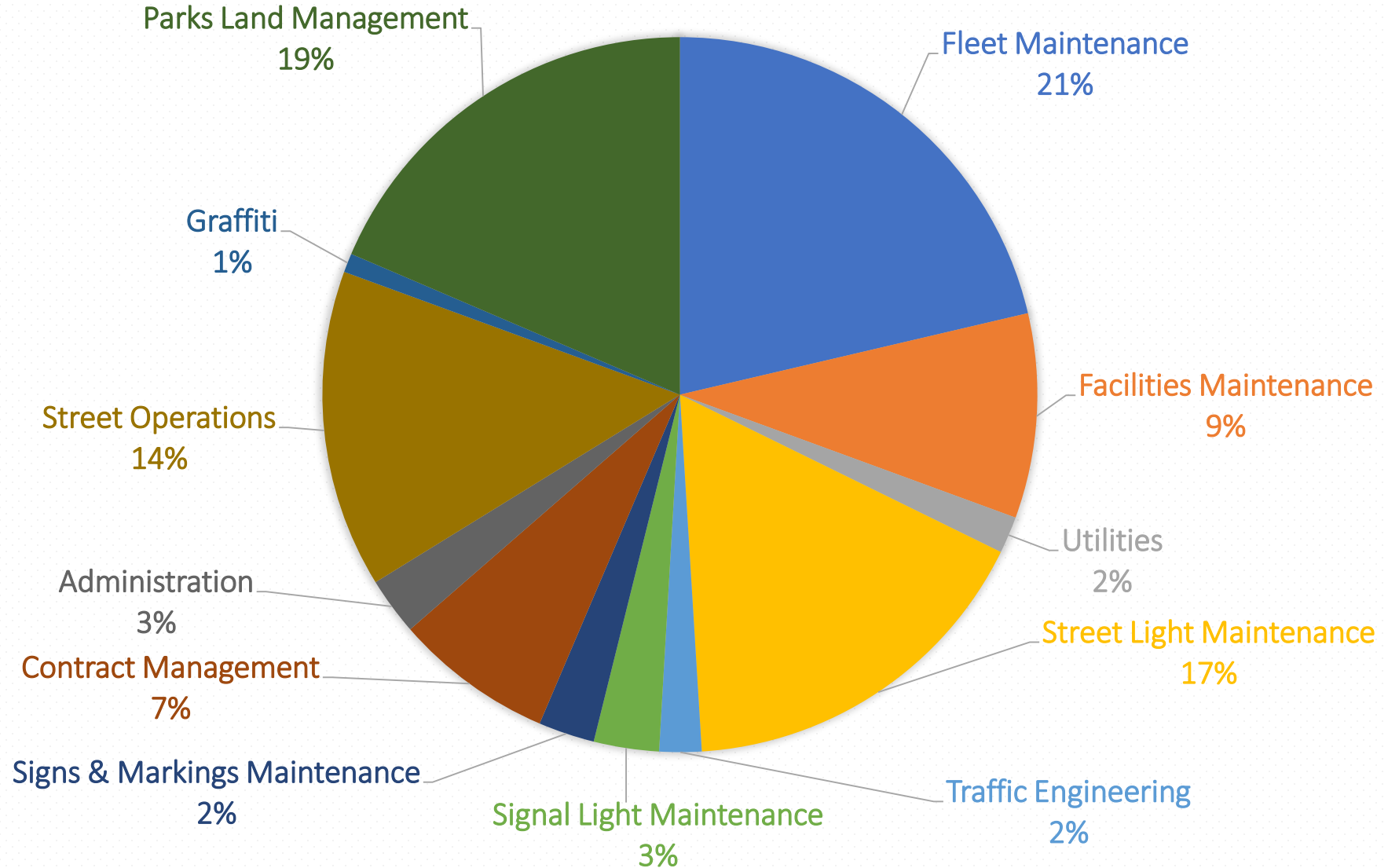


■ Resurfacing ■ Reconstruction ■ Traffic Safety

**318 Fatalities**  
since 2015

Program	Before 2015 Plan Approx. 10 Year	2020 YTD Results (4.5 Years)	2020-2022 Projected Results
2012 Quality of Life Bond	6 Complete	115 Complete 42 Active	157 Total Complete 63 Deferred
Reconstruction	0 Complete	32 Complete 27 Active	59 + 2 NTMP Total Complete 6 + 1 NTMP Deferred
2012 Street CIP Resurfacing	65 Complete	367 Complete 15 Active	382 Total Complete
\$7 M Residential FY 19,20	N/A	41 Complete	41 Total Complete 63 Deferred to FY21
\$7 M Residential FY 22,23	N/A	0 Complete 110 Programmed	110 Total Complete by FY 2023
\$3 M Collectors	N/A	0 Complete 2 Programmed	2 Complete 6 Programmed
Jobs Supported	6,358	26,629	TBD

# STREETS AND MAINTENANCE BUDGET BY PROGRAM



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# Traffic Safety

# STREETS and MAINTENANCE

DEPARTMENT



**6,100+ STREETS**

3,900 crosswalks



200 Linear Miles of  
Bike Lanes



**673 TRAFFIC SIGNALS**

115,000+ Signs



2,500+ Centerline  
Mile of Streets

**50,000+ STREET LIGHT FIXTURES**

# Traffic Signal Improvements



- In accordance with Rules & Regulations set by:
  - Federal Highway Administration (FHWA)
  - Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) - FHWA
  - Texas Manual on Uniform Traffic Control Devices (TMUTCD) – TxDOT
  - Texas Transportation Code – TxDOT
  - City of El Paso Municipal Code

Flashing Yellow

HAWK Beacon

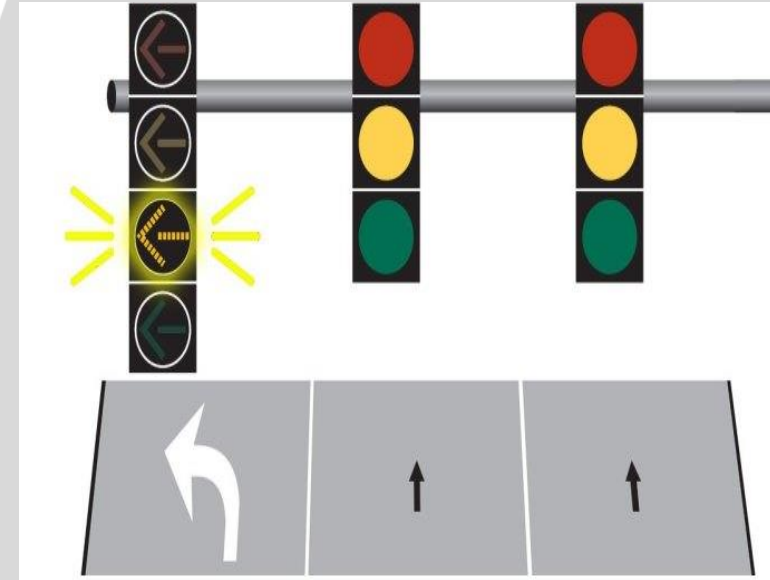
Synchronization

# Flashing Yellow Traffic Signal Head

- The flashing yellow arrow allows waiting motorists to make a **left-hand turn after yielding** to oncoming traffic
- Replace the traditional circular green signals currently used
- Since implemented in 2009 by FHWA, reported **decrease in left turning accidents by 25%** countrywide
- Currently 3 Locations in El Paso - Alameda Avenue inside of Americas (Loop 375)



- Next – along North Loop Drive





# HAWK Traffic Signal

## High-Intensity Activated crossWalk

- Traffic control device used to stop road traffic and allow pedestrians to cross safely
- AKA - Pedestrian Hybrid Beacon
- Allows **protected pedestrian crossings**, stopping road traffic only as needed where standard traffic signals cannot be installed



# HAWK Traffic Signal

## High-Intensity Activated crossWalk

### New HAWKS (2015 to present)

1. Alameda & Vocational (12/19/18)
2. Alameda & Flicker (12/19/18)
3. Alameda & Centro San Vicente (12/19/18)
4. Alameda & Dorbandt (3/24/18)
5. Stanton & California (4/19/18)
6. Paisano & Alameda Roundabout (TxDOT) (5/23/15)
7. Edgemere & Rich Beem Roundabout (3/25/19)
8. Edgemere & RC Poe Roundabout (3/26/2020)

**How to use the HAWK High Intensity Activated CrossWalk**

PEDESTRIANS		DRIVERS	
SEE THIS	DO THIS	SEE THIS	DO THIS
	<b>PUSH THE BUTTON</b>		<b>DRIVE</b> Always look for people who plan to cross.
	<b>STOP &amp; WAIT</b> for the WALK signal.		<b>SLOW DOWN</b> A person has activated the push button.
	<b>START CROSSING</b> Always watch for cars.		<b>PREPARE TO STOP</b>
	<b>FINISH CROSSING</b>		<b>STOP</b> for pedestrian. (As with any signal RED means STOP)
			<b>STOP FIRST</b> Proceed with caution if no people are present.

*\*Published by the City of Phoenix*

# Traffic Signal Synchronization

## Signal Synchronization Program (2013 - 2016)

- The Signal Synchronization program **optimized** the traffic signal system/corridors by **re-timing all signalized intersections** within city limits.
- Project: 2012 Street Infrastructure Plan FY2013 – FY2019
- Budget: \$4.5M
- Current Program Status: **COMPLETED** October 31, 2016

## Signal Synchronization Program      **[DEFERRED – COVID-19 RESPONSE]**

- Another synchronization study program was awarded late fall of 2019. The Signal Synchronization program will optimize the traffic signal system/corridors by re-timing all signalized intersections within city limits.
- The 1<sup>st</sup> study under this program is in development and will address all 114 signalized intersections within the Eastside of the city (East of Yarbrough, north of I-10).
- Project: 2020 CO Projects
- Budget: \$3.5M
- Current Program Status: In Progress – tentatively scheduled through FY2022

# Traffic Management Center (TMC)

- Oversees operation of City's TMC Computerized Signal System
- **Remote operations** from TMC to 95% of 673 signals citywide
- **Incident Management**
  - Real time response
  - Remotely implement emergency signal timing
  - Ease traffic congestion
    - Traffic Accidents, Special Events & Construction



TMC Relocation won **Gold Medal** (Top Honor) in its category, Building/Technology Systems from the American Council of Engineering Companies Texas Chapter (ACEC Texas).

# New Signalized Intersections

2015 to Present



1. Alameda & El Paso (5/11/15)
2. Paisano & Concepcion (5/11/15)
3. Paisano & Spur 1966 (TxDOT) (5/19/15)
4. Martin Luther King & North Hills Wal-Mart (6/3/15)
5. Resler & LP 375 (TxDOT; City accepted 6/24/15)
6. Northwestern & LP 375 (TxDOT; City accepted 6/24/15)
7. LP375 & Plexxar (TxDOT; City accepted 6/24/15)
8. LP 375 & Paseo Del Norte (TxDOT; City accepted 6/24/15)
9. Pebble Hills & Rich Beem (4/26/18)
10. Mesquite Hills & US54 (TxDOT) (3/12/18)
11. Mesa & Champions (5/23/16)
12. Resler & Northern Pass (5/25/18)
13. Pebble Hills & Sunfire (6/22/18)
14. Sun Valley & Kenworthy (8/6/18)
15. Sean Haggerty & Marcus Uribe (9/7/18)
16. Tierra Este & Tierra Cortez (9/13/18)
17. Sunland Park & Emory (12/10/18)
18. Lee & Turner (2/21/19)
19. Montana & Birch (8/5/19)
20. Mesa & Vin Granada (10/8/19)
21. Pellicano & Michaelangelo (3/9/2020)
22. Alameda & Whittier (2/27/2020)
23. Helen of Troy & Northwestern (04/20/2020)

# Signalized Intersections – Under Construction



1. North Loop & Lafayette
2. Schuster & El Paso
3. Zaragoza & John Hayes
4. Shadow Mountain & Silver Springs
5. Resler & Nardo Goodman

# Traffic Signs Improvements



- In accordance with Rules & Regulations set by:
  - Federal Highway Administration (FHWA)
  - Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) - FHWA
  - Texas Manual on Uniform Traffic Control Devices (TMUTCD) – TxDOT
  - Texas Transportation Code – TxDOT
  - City of El Paso Municipal Code

Speed  
Feedback  
Signs

Flashing LED  
Stop Sign

Traffic Sign  
Maintenance

# Speed Feedback Signs

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Radar speed /Speed feedback Signs, are traffic calming devices designed to slow speeders down by alerting them of their speed.

The COEP installs them through the NTMP program as a Tier 1 treatment and through Service Request Engineering Studies. They are used across the country, and around the world, because they are **effective at slowing down speeding drivers**. Tests repeatedly show that:

- Speeders will slow down up to 80% of the time when alerted by a radar sign
- Typical speed reductions are 10-20%.
- Overall compliance with the posted speed limit will go up by 30-60%.
- Radar speed signs are particularly effective at getting “super speeders”—speeders driving 20 mph or more over the posted speed limit—to slow down



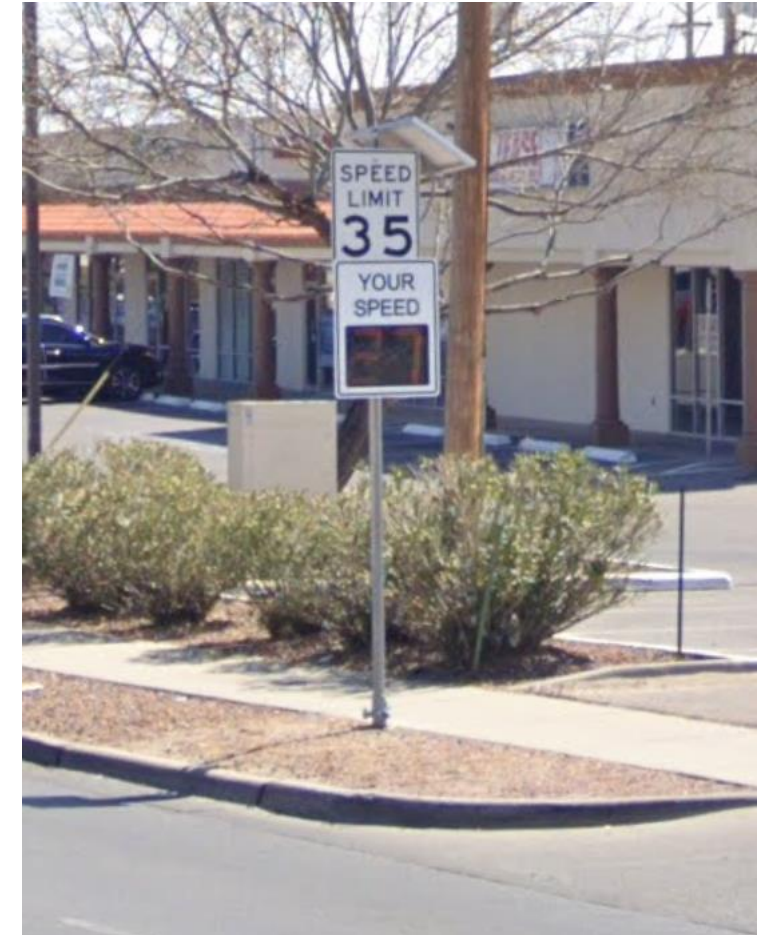


# Speed Feedback Signs

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## Speed Feedback Installations (2015 to Present)

1. Trowbridge – Debord to Chelsea/Howze to Montana
2. Via Serena – High Ridge/Calle del Sur
3. Vista del Sol – Pete Faulkner to Peter Hurd
4. Franklin Hills/Cougar Ridge
5. Carolina – Rancho Alegre/Giles
6. Pebble Hills/Tierra Mina
7. Belvidere/Bellacumbre
8. Mesa/Glory
9. Rojas – James Kelley/Chito Samaniego



# Flashing LED Stop Signs

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LED treatment is applicable for STOP signs at unsignalized intersections.

- Improve the visual conspicuity of the STOP signs
- Especially under low-light or visibility
- **Increased awareness** may be desirable approaching **urbanized areas**

Embedded Light Emitting Diodes (LED) in sign faces

- Improves safety at intersections
- Enhances driver awareness of traffic-control signs
- Improve the conspicuity
- Increase the legibility of sign



Borderland and Upper Valley

# Traffic Sign Maintenance

Diamond  
Grade  
Material



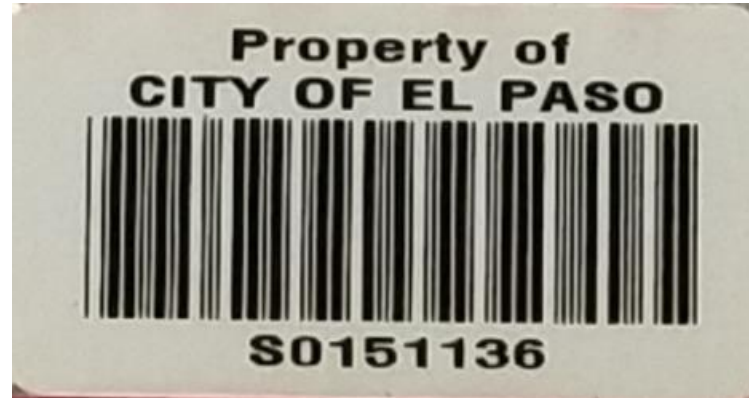
Barcode  
System



Astro  
Clamps



Higher  
Standard



Staff has provided TXDOT and El Paso County hands-on training on how to manufacture, design and install signs.

\*Signs manufactured onsite

118,00+  
Signs  
Citywide

# Traffic Markings Improvements



- In accordance with Rules & Regulations set by:
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  - Texas Transportation Code – TxDOT
  - City of El Paso Municipal Code

Marking  
Materials  
& Maintenance

Thermoplastic  
Truck

Bike Lane  
Installations

# Markings Maintenance

The Markings Shop maintains the lane markings on all City roads and some TxDOT roads.



## Roadway Striping

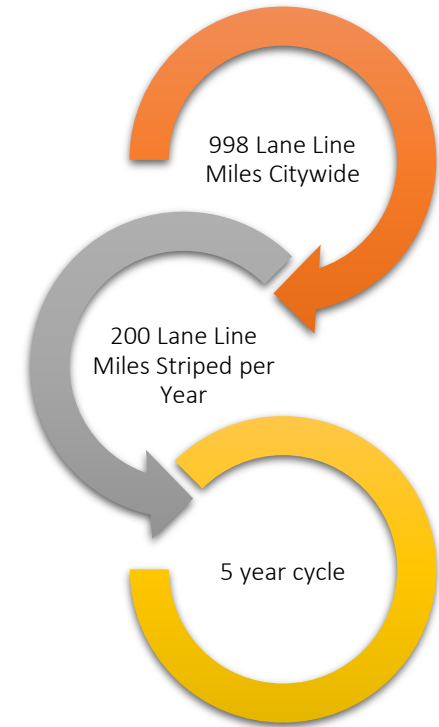
- 998 Lane Line Miles of Streets
- 200 Linear Miles of Bike Lanes

## Crosswalks

- 3,900
- School Zones
- Warning Flashers
- Intersections

## Miscellaneous Markings

- City Parking Lots
- Metered Parking Stalls
- Loading Zones



Crews work at night on major projects in order to minimize the impact on traffic during the day



# Thermoplastic Truck

The  
**BEAST**



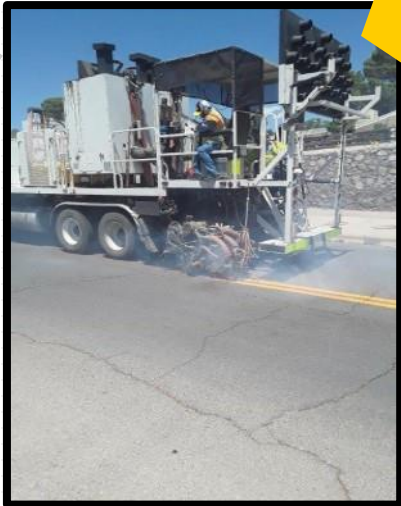
200+  
Lane Line  
Miles  
Annually



Outperformed Previously  
Outsourced Contractor

Self Trained Crew

Acquired in 2015;  
Outsourced = 120 Lane Line Miles  
for 36 Months



Used for all roadway striping, pedestrian crosswalks, edge lines, end and begin bars.

# Other Marking Materials

- **Pre-formed Thermoplastic Strips**

- Durability of 36 months\*
- Holds reflectivity through life span
- Used for all pavement symbols and crosswalks.
- Application done with 2 employees & minimal traffic control
- Keeps crosswalks highly visible in low light conditions; ideal for use in smaller residential streets.

- **MMA Colored Lane Treatment (Green Paint)**

- Durability of 5-6 years\*
- Specialized Lane Treatment
- Premium pigments to deliver extremely durable, highly visible and color stable lane delineation treatment
- Meets non-slip requirements needed for cyclists
- Application done with 6 employees, requires full lane closures.
- Used to delineate bike lanes and increase bicycle lane presence; especially in areas where bicycle and vehicular conflict is expected and added safety is needed.

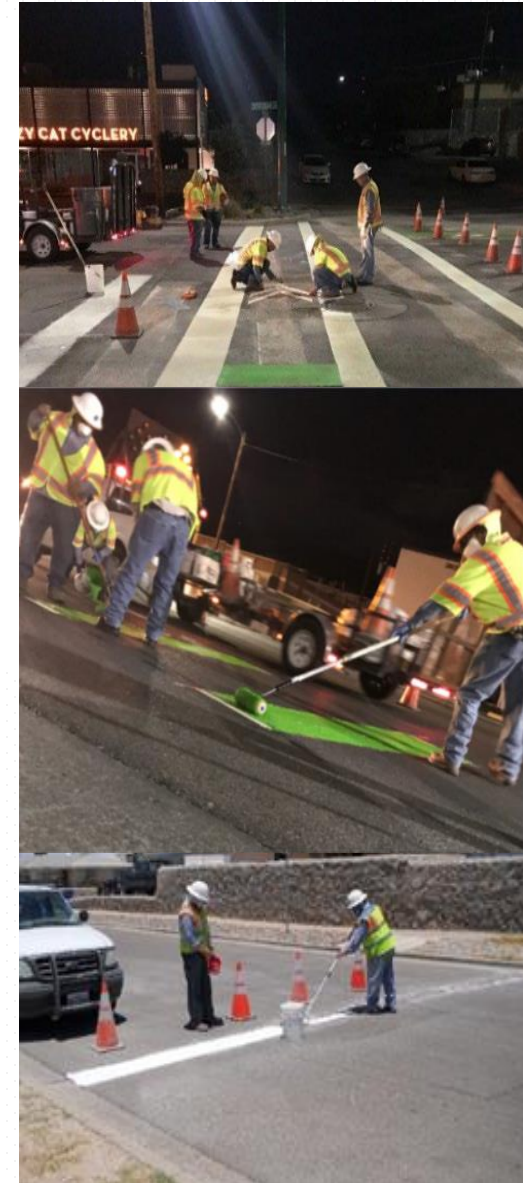
- **Pilot for Gorilla Paint (*in-progress*)**

- Introduced Fall of 2019
- Durability & Reflectivity under evaluation\*
- Application done with 2 employees & minimal traffic control
- Thicker material; only requires one coat to maximize visibility
- Used in less than ideal pavement conditions
- Can be applied year-round

- **Pilot for Cold Thermoplastic (*evaluating*)**

- Will be utilized under any weather conditions as opposed to thermoplastic striping truck which is only used during colder months.

*\*Durability/life span depending on road conditions, volume of traffic and weather.*



# Bike Lane Installations

Since 2015 SAM Department has installed approximately **18 miles** of bike lanes through resurfacing and restriping projects.



Fiscal Year	Name	Limits (to-from)	Length (miles)	Type of Project	Proposed Bike Infrastructure
2017	BROWN	Rim to Lost Padres Mine	0.4	Restriping	Shared Use Path
2017	JON CUNNINGHAM	OFC Andrew Barcena to Alfredo Vasquez	0.53	Resurfacing	Buffered Bike Lane
2017	LEE	Montwood to Pebble Hills	1.1	Resurfacing	Buffered Bike Lane
2018	RAILROAD	MCCOMBS TO JULIAN	2	Resurfacing	Buffered Bike Lane
2018	RAILROAD	TRANSMOUNTAIN TO THREADGILL	1.21	Resurfacing	Bike Lane
2018	MCCOMBS	DYER TO RAILROAD	2.04	Resurfacing	Combination
2018	GEORGE DIETER	EDGEEMERE TO PEBBLE HILLS	0.55	Resurfacing	Buffered Bike Lane
2018	GEORGE DIETER	PEBBLE HILLS TO MONTWOOD	0.91	Resurfacing	Buffered Bike Lane
2018	GEORGE DIETER	MONTANA TO EDGEEMERE	0.78	Resurfacing	Combination
2018	RESLER	HIGH RIDGE TO BELVIDERE	1.08	Resurfacing	Buffered Bike Lane
2018	RESLER	BELVIDERE (Orizaba) TO WHITE CLIFFS	0.16	Resurfacing	Buffered Bike Lane
2018	YARBROUGH	MONTANA TO PEBBLE HILLS	1.03	Resurfacing	Buffered Bike Lane
2018	YARBROUGH	GATEWAY EAST TO NORTH LOOP	1.68	Resurfacing	Buffered Bike Lane
2018	YARBROUGH	TRAWOOD TO GW	0.96	Resurfacing	Buffered Bike Lane
2018	YARBROUGH	ALAMEDA TO CESAR CHAVEZ	1.17	Resurfacing	Buffered Bike Lane
2018	HAWKINS	MERCHANT TO NORTH LOOP	1.13	Resurfacing	Buffered Bike Lane
2020	VENTANA	Tierra Este to Rich Beem	0.95	Restriping	Buffered Bike Lane





# Physical Improvements



- In accordance with Rules & Regulations set by:
  - Federal Highway Administration (FHWA)
  - Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) - FHWA
  - Texas Manual on Uniform Traffic Control Devices (TMUTCD) – TxDOT
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Roundabouts

Curb Extensions

American  
Disability Act  
(ADA)

# Roundabouts



A roundabout (also called a traffic circle, road circle, rotary, rotunda or island) is a type of circular intersection or junction in which road traffic is permitted to flow in one direction around a central island, and priority is typically given to traffic already in the junction.

## Locations (2015 to Present)

1. Country Club & Memory - 2015
2. Dale Road & Butcher Road - 2016
3. Dale Road & Nichols Road - 2016
4. Dale Road & Orgain - 2016
5. Pebble Hills and Mike Price (by Developer) - 2015
6. Pebble Hills and Tim Floyd (by Developer) - 2017
7. Edgemere and Vista del Este (by Developer) - 2019
8. Edgemere and Tim Floyd (by Developer) - 2018
9. Edgemere and Rich Beem (City/Fed. Funded) - 2019
10. Regulus and Titan - 2017
11. Havenrock and Edgerock - 2018
12. Rim and Hague - 2019
13. Edgemere and RC Poe - 2020
14. Charles Foster and Mike Price (by Developer) - 2019
15. Charles Foster and Road A (unnamed by developer) - 2019

# Curb Extensions

Las Palmas and the Streets and Maintenance Department coordinated construction of pedestrian safety elements.

- Las Palmas Hospital requested, at the hospital's cost
- City designed, installed, and will maintain the right-of-way improvements, which included street resurfacing, curb extensions, necessary striping and signage, curb ramps and sidewalks in compliance with the Americans with Disabilities Act, and landscaping at the intersection of **El Paso Street and Rim Road**
- Beautified the right-of-way and provides traffic calming measures for the safety of the public
- Designed and constructed in accordance with City standards and specifications
- Provides the hospital and the City with the necessary and appropriate control of vehicular and pedestrian traffic



# American Disability Act (ADA) Improvements



The Streets and Maintenance Department focuses on providing ADA accessibility path of travel by eliminating sidewalk gaps, installing curb cuts, wheelchair ramps and removing architectural barriers.

## 2015 to Present

### Street Resurfacing - ADA and Pedestrian Path of Travel Improvements

- Sidewalk (LF): 127,959 LF (24.23 mi)
- Ramps: 2,022

### New Signal Installs

- 218 APS pushbuttons from new intersections or from intersection improvements (Including TXDOT built)
- 36 APS pushbuttons from HAWKS (including TXDOT built)

### Parkway Path of Travel Improvements

- Sidewalk: 62,553 LF
- Curb Cuts: 1,121

# Program Improvements



- In accordance with Rules & Regulations set by:
  - Federal Highway Administration (FHWA)
  - Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) - FHWA
  - Texas Manual on Uniform Traffic Control Devices (TMUTCD) – TxDOT
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Neighborhood  
Traffic  
Management  
Program (NTMP)

Safe Routes  
to School

Pavement Cut &  
Traffic Control  
Permits

# Neighborhood Traffic Management Program (NTMP)

- Evaluates traffic concerns to determine appropriate traffic calming measures in residential areas
- Formal application process that includes community involvement

## NTMP is a two-tiered program

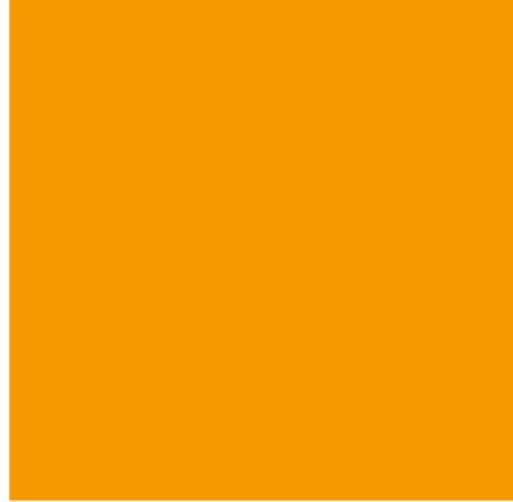
**Tier 1** - Process addresses most traffic situations and is implemented in less time with in-house resources. (Speed humps)

**Tier 2** - Process is a robust approach to solving traffic issues using more community-involved, time-intensive and capital-intensive solutions. (Capital Projects)



Application Online:

[www.elpasotexas.gov/streets/transportation-management](http://www.elpasotexas.gov/streets/transportation-management)



# NTMP

## 35 Completed Projects

STREET	Limit From	Limit To	STREET	Limit From	Limit To
East Glen	Robert Wynn	George Dieter	Pasodale	Pasodale	Valley View
Fiesta	Camille	Castile	Manila	Dyer	Railroad
Dale Douglas	Trawood	Bob Mitchell	Mobile	Byron	Dyer
Winslow Homer	Sal Rasura	St. Cassian	Roseway	Presa	Leonardo
Villa Plata	Pico Norte	Montwood	Vista De Oro	Lakewood	Vista De Oro
Beatrix	Alameda	Josephine	Lorne	ShIPLEY	Castletown
Apollo	US-54	Diana	Lake Erie	Lee	Chris Roark
Medina	Medina	Delta	Sunland	Zaragoza	Pendale
Roseway	Pendale	Zaragoza	Francis Scobee	Leroy Bonse/Firehouse	Meadow Gate/Village Gate
Tierra Mina	Pebble Hills	Tierra Mision	Fort Worth	Lubbuck	Sweetwater
Jim Ferriell	George Dieter	Leroy Bonse	Camden Lake	Westvale	Bainworth
Pendale	Roseway	Old Country Road	Robert Wynn	East Glen	Montwood
Montoya	Montoya	Woodland	Lindberg	Charl Ann	Montoya
Mauer	Yarbrough	North Loop	Whittier	Alameda	Independence
Deer	Dyer	Railroad	Imperial Ridge	Redd	Sun Ridge
Gene Torres	Henry Phipps	Pelicano	Tenaha	Proud Eagle	Running Deer
Candlewood	Yarbrough	Vista De Oro	Bessemer	Leo Collins	Vista Del Sol
			Rufus Brijalba	Juliette Low	Saul Kleinfeld



# NTMP Qualified List

[DEFERRED – COVID-19 RESPONSE]



	Application No.	District	Street	Limits From	Limits To	Date approved
1	NTMP17-465	1	BROADMOOR*	Thunderbird	Pinehurst	4/5/2017
2	NTMP18-502	5	TENAHA	Proud Eagle	Running Deer	3/6/2018
3	NTMP18-504	7	WHITTIER	Alameda	Independence	3/19/2018
4	NTMP18-496	1	IMPERIAL RIDGE	Redd	Sun Ridge	3/27/2018
5	NTMP14-361	7	TREY BURTON	George Dieter	Chito Samaniego	4/7/2018
6	NTMP18-511	7	JANWAY	Springwood	Causeway	5/16/2018
7	NTMP18-513	7	BESSEMER	Leo Collins	Vista Del Sol	5/23/2018
8	NTMP18-519	6	ROBERT WYNN	Lake Victoria	Lake Superior	6/6/2018
9	NTMP18-524	5	RUFUS BRIJALBA	Juliette Low	Saul Kleinfeld	9/4/2018
10	NTMP17-483	2	COMET	Hondo Pass	Moonlight	9/5/2018
11	NTMP15-396	6	GERANIUM	Marigold	Kingswreath	9/26/2018
12	NTMP18-514	4	WREN	Roanoke	McCombs	9/27/2018
13	NTMP08-036	1	CHELTENHAM	Meridian	Rodchester	10/2/2018
14	NTMP17-469	1	PALMDALE	Camden Lake	Stoneheath	10/8/2018
15	NTMP17-492	3	SAIGON	Edgemere	Ballymote	10/8/2018
16	NTMP18-517	2	PIERCE	Piedras	Byron	10/8/2018
17	NTMP18-518	3	SAM SNEAD	Lee Trevino	Lee Elder	10/8/2018
18	NTMP18-526	1	THORN RIDGE	Thorn Ridge	Ridge	10/11/2018
19	NTMP18-529	2	HASTINGS	Gateway N	Radford	10/29/2018
20	NTMP16-436	4	YVETTE	Rushing	Eloice	11/5/2018
21	NTMP18-522	6	DAVID CARRASCO	George Dieter	Pebble Hills	11/20/2018
22	NTMP18-530	3	BAYO AVE	Saigon	Karen	11/29/2018
23	NTMP18-539	1	THUNDERBIRD*	Los Cerritos	Broadmoor	12/3/2018
24	NTMP18-531	3	ALBUM	Yarbrough	Escarpa	12/10/2018
25	NTMP14-378	1	HEMPSTEAD	Amsterdamm	San Marino	12/17/2018
26	NTMP17-481	5	TIERRA SONORA	Tierra Mission	Tierra Mina	12/17/2018
27	NTMP18-542	6	BUENA PARK	Cathedral Circle	Padres	1/17/2019
28	NTMP17-479	7	LAKEWOOD	Vista De Oro	Vista Lomas	2/7/2019
29	NTMP18-533	3	LIMERICK	Shamrock	Edgemere	2/14/2019
30	NTMP18-535	4	BABE RUTH	Colin Powell	Mickey Mantle	2/19/2019
31	NTMP18-537	7	ARNOLD PALMER	Montwood	Trawood	2/21/2019
32	NTMP15-415	5	EDWARD JAMES	Lee	Saul Kleinfeld	3/4/2019
33	NTMP18-540	1	BANDOLERO	Los Robles	Los Cerritos	3/5/2019
34	NTMP19-552	1	PINEHURST*	Bandolero	Thunderbird	3/12/2019
35	NTMP19-545	1	CINCINNATI	Piedmont	Park	3/13/2019
36	NTMP19-544	3	DARLINA	Hawkins	Viscount	3/26/2019
37	NTMP19-550	1	TARASCAS	Belvidere	Westwind	4/18/2019
38	NTMP19-543	6	BOB MITCHELL	Robert Wynn	George Dieter	4/22/2019
39	NTMP19-549	5	TIERRA SERENA	Pebble Hills	Tierra Robles	4/22/2019
40	NTMP16-447	6	ROSE BUD	Amber Morgan	Thunder Bolt	5/8/2019
41	NTMP18-497	2	SACRAMENTO	Copia	Dyer	5/15/2019
42	NTMP19-561	8	TOBIN	Alameda	Dunne	9/25/2019
43	NTMP17-466	2	MOUNT DELANO	Hondo Pass	Blue Ridge	9/25/2019
44	NTMP19-558	4	STAHALA	Diana	Rutherford	10/1/2019
45	NTMP19-556	3	EDITH	Little Flower	Sparrow	10/17/2019
46	NTMP19-563	5	PENDLETON	Edgemere	Turner	11/4/2019





# Neighborhood Traffic Management Program

## Montoya

In response to a fatal collision on Montoya Drive, Traffic Engineering staff initiated the implementation of safety improvements.

An extensive traffic analysis was performed, staff implemented the following measures:



### Speed Cushions

Installation of speed cushions along Montoya Drive from Montoya Road to Woodland Avenue



### Multi-way Stop

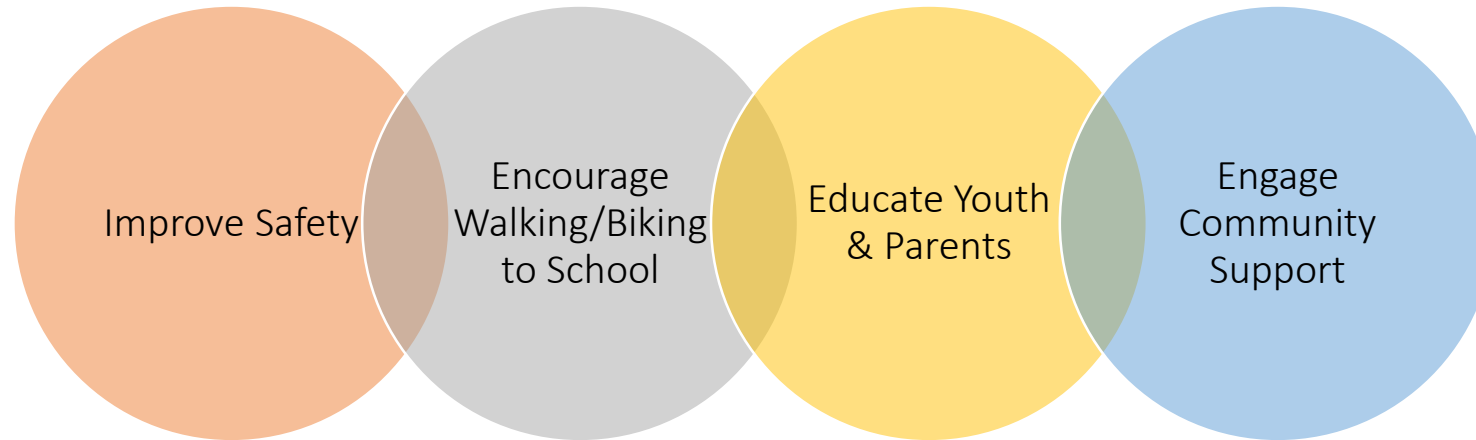
Installation of a multiway stop at Montoya Drive & Redd Road



### Crosswalks

Refurbishment of crosswalks and stop bars along Montoya Drive from Montoya Road to Woodland Avenue

# Safe Routes to School Program (SRTS)



Possible Award  
by CityHealth  
El Paso  
Complete  
Streets Policy

Beaumont Foundation &  
Kaiser Permanente

SAM is working with a cross-functional team, in a multi-agency effort, to support and expand existing Safe Route to School initiatives

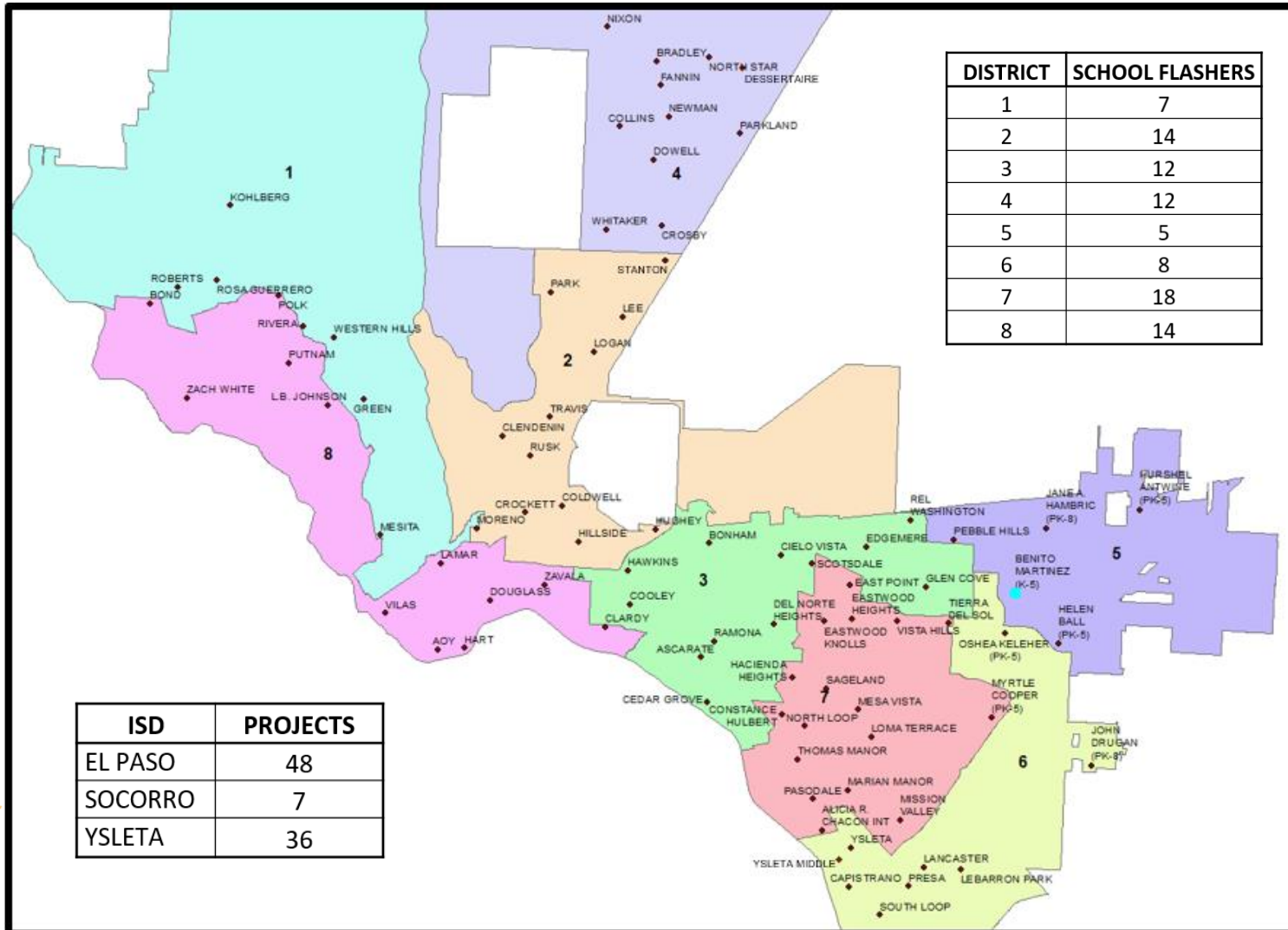
- Jan. 21, 2020 - The SRTS working group hosted a work session led by Katie Chennisi and Aimee Schultze from Harris County Public Health/Pasadena Texas SRTS Project
- Feb. 20, 2020 - Staff attended Las Cruces SRTS Coalition Meeting
- In-Process - SRTS pilot program to with MacArthur Intermediate School
  - “Walking School Bus” program
  - “Bike Rodeos”
  - Bicycle Safety Trainings
  - “Ride your Bike to School Challenge”
- Reevaluating the City of El Paso Complete Streets Policy which was adopted on March of 2012



# Safe Routes To School Federally Funded Projects

\$3.1 Million - 90 schools were benefited with new and upgrades for school flashers

\$999,953 - Bicycle and pedestrian infrastructure improvements for Ysleta Middle School SRTS 2022



# Permits

## Pavement Cut (PCPs) & Traffic Control (TCPs)

In 2015 pavement cut permit management duties assigned to the Streets and Maintenance Department

### Divided Central Review into 5 Areas

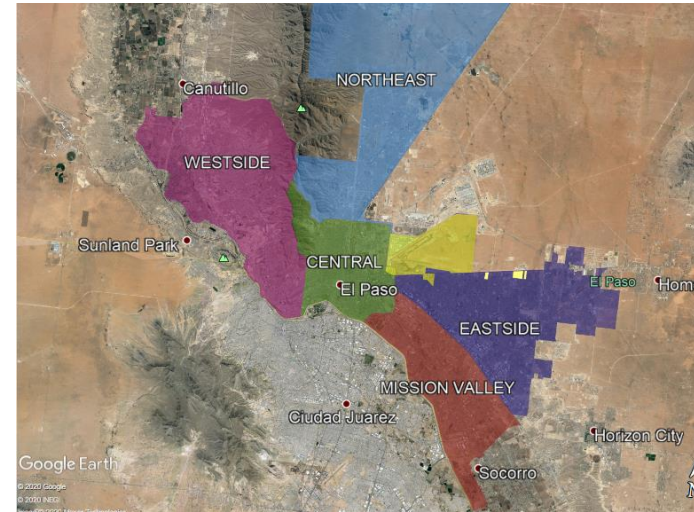
- Increased Productivity & Efficiency
- Increased Oversight
- Inspection & Safety Awareness
- Improved Traffic Flow

### Centralized Database

- Electronic Permit Submittal & Review
- Facilitated Permit Tracking
- Increased Interdepartmental Coordination
- Accessible Storage

### Scheduled Inspections

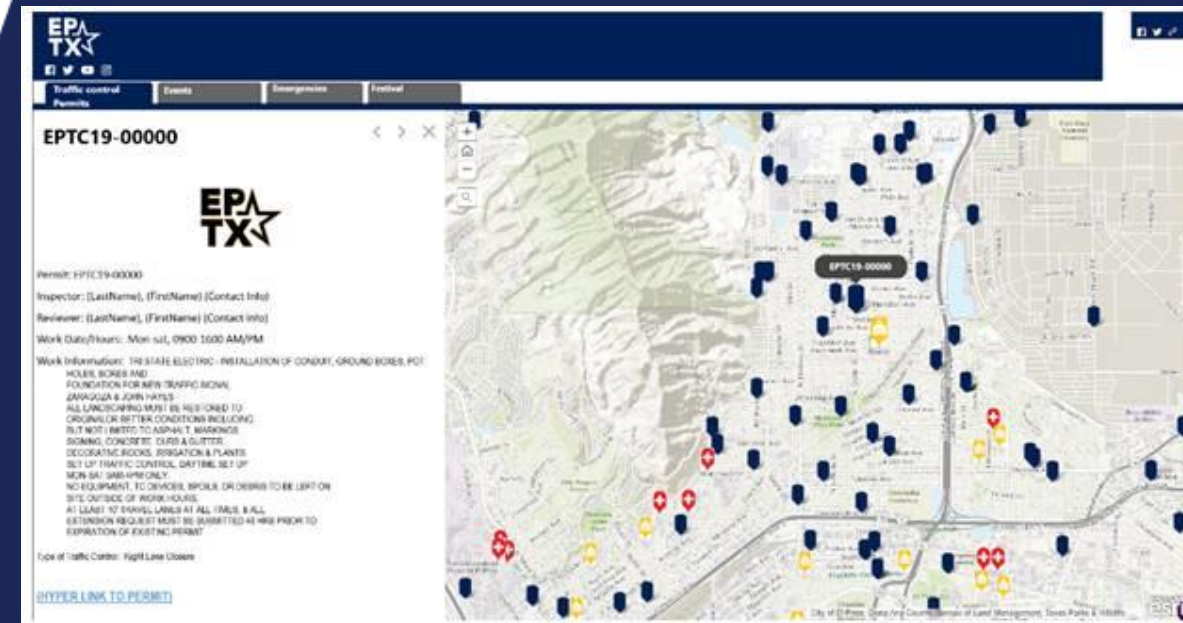
- Quality Control
- Warranty Follow Up
- Enforcement Officer Deputized (Class C Citations)
- Red Tag-Program
- Mobile Inspection App



# Pavement Cut & Traffic Control Permits

In Progress – Implementation of a map to illustrate TCP's / PCP's City Wide to have a visual aid of active permits (Prevent Permit Conflicts).

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
PAVEMENT CUT PERMITS ISSUED	2,313	3,222	5,035	5,343	4,724	4,250
TRAFFIC CONTROL PERMITS ISSUED	4,755	5,573	6,828	6,748	5,972	4,410



# Safety Investments



- In accordance with Rules & Regulations set by:
  - Federal Highway Administration (FHWA)
  - Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) - FHWA
  - Texas Manual on Uniform Traffic Control Devices (TMUTCD) – TxDOT
  - Texas Transportation Code – TxDOT
  - City of El Paso Municipal Code

Highway Safety  
Improvements  
Projects

Streetlights

Drone

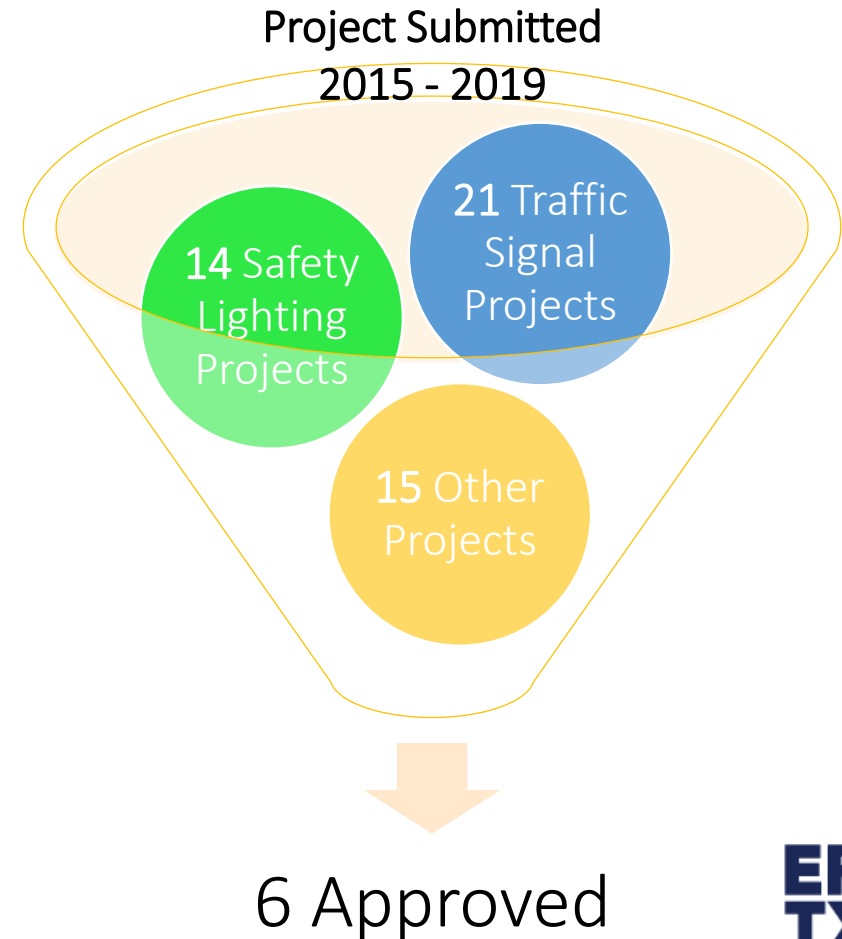
# Highway Safety Improvement Program

## Competitive Federal Aide Program Submittal Process



Purpose = Achieve a significant reduction in traffic fatalities and serious injuries.

- Location specific projects
- Construction is 100% funded through FHWA
- City responsible for design
- 2015 to present - **(50) projects** submitted
  - 2020 - **14** projects submitted under review



# Highway Safety Improvement Program

## Traffic Signals Submitted:

2016, 2017	Alameda Ave & Whittier Dr
2016, 2017	Doniphan Dr & Bird Ave
2016, 2017	Doniphan Dr & West Green Ave
2016, 2017	Helen of Troy Dr & Northwestern Dr
2016, 2017	Kenworthy St & Sun Valley Dr
2016, 2017	Pebble Hills Blvd & Rich Beem Blvd
2016, 2017	Pebble Hills Blvd & Sun Fire Blvd
2016, 2017	Pellicano Dr & Michaelangelo Dr
2016, 2017	Resler Dr & Northern Pass Dr
2016, 2017	Resler Dr & Nardo Goodman Dr
2016, 2017	Sean Haggerty Dr & Marcus Uribe Dr
2016, 2017	Tierra Este Rd & Tierra Cortez Dr
2017	North Loop Dr & Lafayette Dr
2017	Schuster Ave & El Paso St
2017	Shadow Mountain Dr & Silver Springs Dr
2017	Zaragoza Rd & John Hayes St
2018	Zaragoza Rd & Golden Gate Rd
2020	Redd Rd & Gus Rallis Dr
2020	Tierra Este Rd & RC Poe Rd
2020	Alameda Ave & Polo Inn Rd
2020	Kenworthy & Walmart Access Road

## Safety Lighting Submitted:

2017	Belvidere St (Resler to Westwind)
2017	Edgemere Blvd (McRae to Joe Battle)
2017	Escondido Dr (Resler to Westwind)
2017	Hercules Ave (US54 to Dyer)
2017, 2018	Pellicano Dr (Lee Trevino to Loop 375)
2017	Rushing Blvd (Dyer to Sean Haggerty)
2017	Schuster Ave (Mesa to Cotton)
2017	Shadow Mountain Dr (Mesa to Thunderbird)
2017, 2018	<b>Sunland Park Dr (Mesa Hills to Mesa)</b>
2017	Sun Valley Dr (US54 to McCombs)
2017	Trawood Dr (Yarbrough to Montwood)
2017, 2018	<b>Vista Del Sol Dr (Zaragoza to Loop 375)</b>
2017	Yarbrough Dr (I10 to Montana)
2018	<b>Diana Dr (Maxwell to Dyer)</b>

## Other Projects Submitted:

2018	<b>Dyer St (Gateway North to Hercules)</b>	Sidewalk Improvements
2018	<b>Dyer St (Fillmore to Johnson)</b>	Pedestrian Flashers
2018	Executive Center Blvd (btw Westcity & Rio Bravo)	Left Turn Bay
2018	<b>Lee Trevino Dr (@ La Quinta)</b>	Raised Median
2018	McRae Blvd (@Lockerbie)	Raised Median
2020	Alabama St & Arizona Ave	Install Roundabout
2020	Upper Valley Rd & Gomez Rd	Install Roundabout
2020	Edgemere Dr & John Hayes Dr	Install Roundabout
2020	Zaragoza Rd & Mt Carmel	Install Hawk
2020	Dyer St & Titanic Ave	Install Hawk
2020	Stanton St & Glory Rd	Install Hawk
2020	Phoenix Ave & Hunter Dr	Install Hawk
2020	Hunter Dr & Cuba Dr	Install Hawk
2020	Hercules Ave (Magnetic St to Railroad Dr)	Raised Median
2020	Lee Trevino Dr (Trawood Dr to Montwood Dr)	Raised Median

2015 to 2019 - 6 approved

2020 - 14 submitted under review



# Streetlights Program



The City of El Paso has over 50,000 streetlight fixtures on approximately 30,000 poles within the city limits. Approximately 19,000 LED's, 27,000 HPS, over 2,100 high mast fixtures (both HPS and LED), and close to 3,000 older technology bulbs (metal halide, mercury vapor, and induction).

Prior to 2018, Streets and Maintenance retrofitted approximately 10,000 HPS fixtures with LED luminaires which use 70% less energy than HPS fixtures. Streets and Maintenance continues to replace HPS fixtures with LED luminaires moving the City towards energy efficient lighting technology. LED luminaires requires a significant initial cost investment. This cost is offset by future energy consumption savings.

## Maintenance Responsibilities

Streets and Maintenance Dept.	El Paso Electric Company
Light Emitting Diode (LED) Lighting	High Pressure Sodium (HPS) Lighting
Approximately 19,000 LED fixtures	Approximately 27,000 HPS fixtures
Daytime Streetlight knockdowns	After Hours Freeway Streetlight knockdowns
HPS High Masts and Luminaires	HPS High Masts and Luminaires on EPEC Poles
Decorative Lighting (Concordia Cemetery, downtown, Country Club Rd.)	Installation of new residential illumination



# Drone

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Unmanned Aerial Systems (UAS), or “drone technology,” is a fairly new technology used in GIS. They are one of the newest and most innovative tools to be considered for commercial use. They survey data in less time, using fewer resources than traditional GPS technologies. We have used it to provide traffic engineering current traffic patterns around areas where studies need to be conducted. Also to receive updated orthophotography.

- Infused into Traffic Studies
- Provides excellent perspective not seen from ground level
- Up-to-date and higher quality images
- Better decision making



# Special Projects



# Hawkins Median Improvement Project

*In Progress*



Removal of the existing plastic Quick-Kurb and replacement with a concrete median.



Reduction of the existing street median to allow for an extra left turn lane to make it a dual left turn. By creating an extended southbound dual left turn bay, this will improve safety for pedestrians and vehicles using the intersection - doubles the capacity for turning movements (in-progress, to be completed spring 2020).



Create an extended north dual left turn bay to improve safety for pedestrians and vehicles using the intersection - doubles the capacity for turning movements (in-progress, to be completed spring 2020).

# Quarterly Fatality Analysis Cross-Functional Team

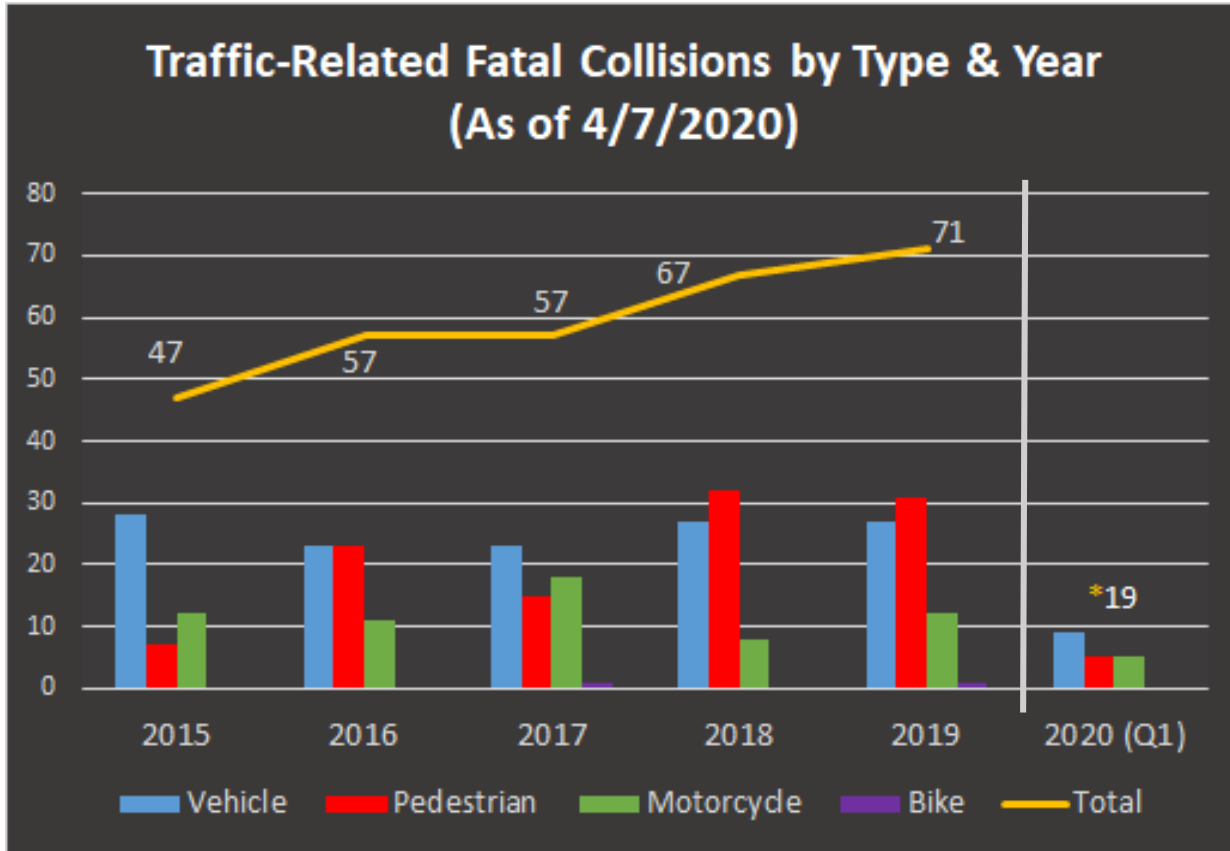
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## Coordinated Review of Traffic Related Fatalities

Traffic Engineering and Police Special Traffic Investigation (STI) Unit share data on pedestrian and vehicle fatalities in order to gain understanding on trends and factors to use as an information tool for potential safety improvements, enforcement, and public education efforts. The working group recommends solutions based on data collection that includes improvements in the street infrastructure, projects in planning, design or construction, traffic counts, and collision records.



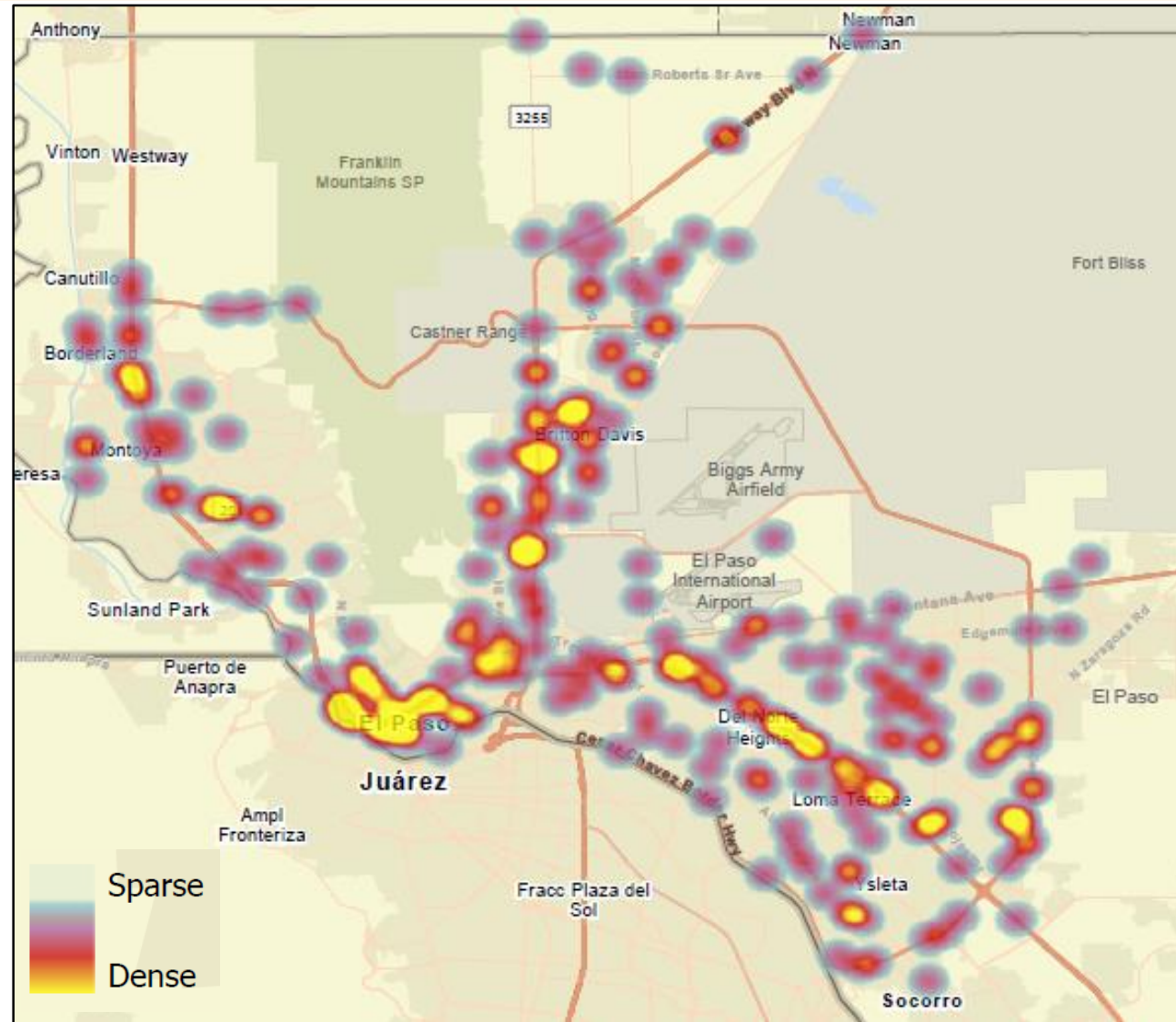
# El Paso Numbers (2015 – March 31, 2020 )



**Traffic-Related Fatal Collisions by Type & Year  
(As of 4/7/2020)**

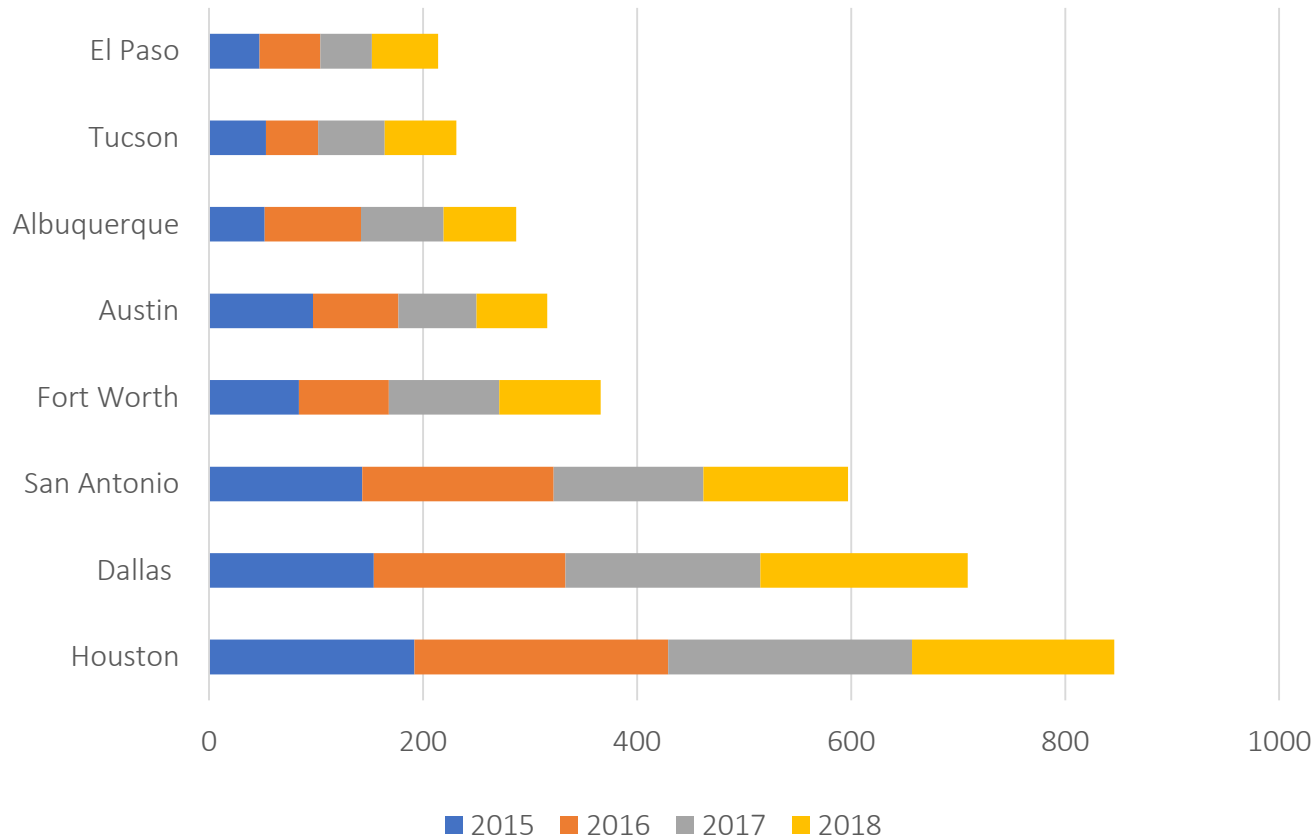
	2015	2016	2017	2018	2019	2020 (Q1)	Total
Vehicle	28	23	23	27	27	9	137
Pedestrian	7	23	15	32	31	5	113
Motorcycle	12	11	18	8	12	5	66
Bike	0	0	1	0	1	0	2
<b>Total</b>	<b>47</b>	<b>57</b>	<b>57</b>	<b>67</b>	<b>71</b>	<b>19</b>	<b>318</b>

# El Paso Fatal Collisions Heat Map 2015 - 2020



# Texas/Nearby Major City Comparisons of Fatalities

Total Annual Fatal Collisions (2015-2018)



Total Annual Fatal Collisions (2015 – 2018)

City	Pop	2015	2016	2017	2018	Total	2017 Fatality Rate Per 100,000 Pop
El Paso	685 K	47	57	48	62	<b>214</b>	7.31
Tucson	535 K	53	49	62	67	<b>231</b>	11.95
Albuquerque	560 K	52	90	77	68	<b>287</b>	15.04
Austin	950 K	97	80	73	66	<b>316</b>	8.41
Fort Worth	875 K	84	84	103	95	<b>366</b>	12.58
San Antonio	1.5 M	143	179	140	135	<b>597</b>	9.66
Dallas	1.3 M	154	179	182	194	<b>709</b>	14.47
Houston	2.3 M	192	237	228	189	<b>846</b>	10.59

(Sources: TXDOT, UNM, ADOT, NHTSA)



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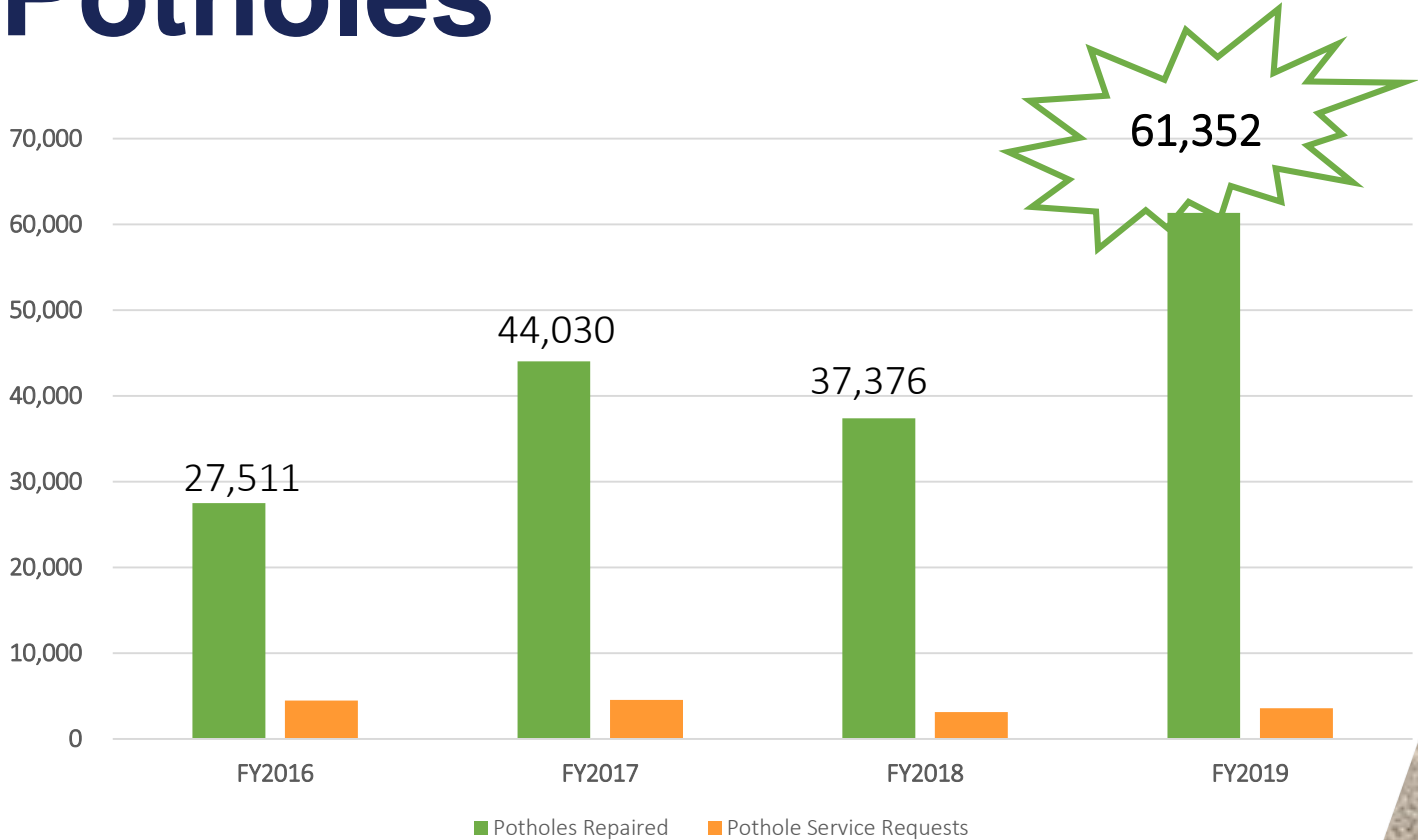
# Other Services

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## **Other Services include:**

- **Pothole repairs**
- **Weed Removal**
- **Parkland Maintenance**
- **Graffiti Removal**
- **Vehicle Maintenance**
- **Facility Maintenance**

# Potholes



	FY2016	FY2017	FY2018	FY2019	FY2020 - QTR 1&2
Potholes Repaired	27,511	44,030	37,376	61,352	48,261
Service Requests	4,469	4,537	3,140	3,573	2,721
Work from SR's	16.2%	10.3%	8.4%	5.8%	5.6%



# Median Maintenance

Absorbed  
State  
Landscaped  
Medians

In-House  
Median  
Maintenance  
Program

\$2 Million  
Cost  
Avoidance



# Graffiti Abatement



Innovation



Public Safety  
Concerns



Private Property  
Issues

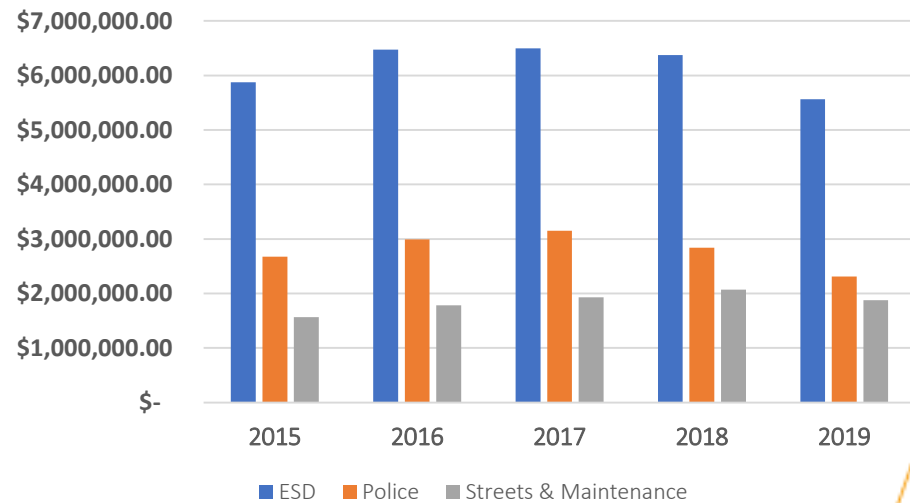


Beautification

Graffiti Removal Operations	Target	FY2019	FY2018	FY2017	FY2016	FY2015
Graffiti - Service Request Turnaround times in 3 days or less	95.00%	96.21%	94.77%	98.26%	99.16%	100.00%
Graffiti - Service Request Turnaround times in 2 days or less	90.00%	93.66%	95.95%	96.66%	97.70%	100.00%
Graffiti - Square Feet Cleaned	1,000,000	526,710	872,477	923,967	605,445	553,060
Graffiti - Sites Cleaned	7,500	6,771	12,160	14,199	12,550	15,277
Graffiti - Service Requests	4,000	865	1,227	1,456	1,668	1,855

# Fleet Services

Largest Departmental Customers of Fleet Maintenance



	2015	2016	2017	2018	2019
ESD	\$ 5,877,266	\$ 6,475,983	\$ 6,496,491	\$ 6,372,680	\$ 5,563,152
Police	\$ 2,677,514	\$ 2,993,019	\$ 3,152,015	\$ 2,838,399	\$ 2,312,873
Streets & Maintenance	\$ 1,565,636	\$ 1,783,079	\$ 1,930,073	\$ 2,069,148	\$ 1,877,733



## Service

All City Departments; except:

- Airport
- Sun Metro
- Fire Department

## Light Fleet

Average age of entire **light fleet** is 10 years (expected useful life is 5 – 7 years)

## Heavy Fleet

Average age of entire **heavy fleet** is 13 years (expected useful life is 10 years)

# Facilities

Maintenance and repairs on City building structures in order to provide for a proper, comfortable, safe and clean environment for our employees and the general public who visit our facilities.

- **240 City owned and leased buildings**

- 3.3 million square feet of occupied space
- Maintain Infrastructure Amenities of 280 Parks
- Oversee and maintain the landscaping of 106 buildings
- Average of 15,000 facility work orders annually



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## **SUMMARY / TAKEAWAYS:**

- **Continue to invest \$190 M within the next 3 years**
- **SaM annual budget \$47.7 M goes towards addressing:**
  - **Street Conditions**
  - **Traffic Safety**
  - **Weed Removal**
  - **Graffiti Removal**
  - **Vehicle and Facility Maintenance**
- **Parkland Management budget: \$28.1 M**
- **Streets are a priority and necessary to realize our vision to develop a vibrant regional economy, safe and beautiful neighborhoods and exceptional recreational, cultural and educational opportunities by a high performing government.**





# QUESTIONS

