# Public Works Council Meeting

November 16, 2023



## 1. Welcome, Introductions, & Roll Call

The meeting agenda, presentation, and any handouts are located on the Public Works Council webpage: <a href="https://www.nctcog.org/envir/committees/public-works-council">https://www.nctcog.org/envir/committees/public-works-council</a>







Please use the chat function to add your name and organization for attendance



# **Action Items**



## 2. Meeting Summary

The August 17, 2023 meeting summary is available for review: https://www.nctcog.org/getmedia/15d0c1c5-1a52-446f-bccc-92323857ea54/PWC\_-Meeting-Summary\_8-17-2023\_draft.pdf?ext=.pdf

### The Public Works Council will vote to approve the summary



NCTCOG's Executive Board approved the PWC nominations for FY24 at their September meeting

The following slides list the new (highlighted yellow) and/or returning members for FY24–FY25

PWC Bylaws overview will occur after special presentations and Tx-APWA update



Standing Seat	Name	Title
NEW: City of Allen	Joseph Cotton	Assistant Director of Engineering
City of Arlington	Keith Brooks	Director of Public Works & Transportation
City of Dallas	Ali Hatefi	Director of Public Works
City of Fort Worth	Michael Owen	City Engineer
City of Grand Prairie	<mark>Brister Merritt</mark>	Utility Operations Manager
City of Lewisville	<mark>Aaron Russell</mark>	Director of Public Services
City of Mesquite	<mark>John Mears</mark>	City Engineer
Tarrant County	Joseph Jackson	County Engineer

Subregion Seat	Name	Title	City	Communities
Northeast Tarrant Subregion	Keith Miertschin	Assistant Director of Operations	Grapevine	Colleyville, Grapevine, Haslet, Keller, Roanoke, Southlake, Trophy Club
Northwest Dallas Subregion	<mark>Danielle Rix</mark>	City Engineer	Farmers Branch	Addison, Coppell, Farmers Branch, Highland Park, University Park
Northwest Tarrant Subregion	Larry Hoover	Director of Public Works	White Settlement	Azle, Blue Mound, Lakeside, Lake Worth, Pelican Bay, River Oaks, Saginaw, Sanctuary, Sansom Park, Springtown, Westover Hills, Westworth Village, White Settlement
South Tarrant Subregion	Raymond Coffman	Director of Engineering Services	Mansfield	Benbrook, Burleson, Crowley, Dalworthington Gardens, Edgecliff Village, Everman, Forest Hill, Kennedale, Mansfield, Pantego
Southeast Subregion	James Gaertner	Executive Director of Public Works & Utilities	Waxahachie	Alma, Angus, Bardwell, Barry, Blooming Grove, Corsicana, Dawson, Ellis County, Emhouse, Ennis, Eureka, Frost, Garrett, Goodlow, Italy, Kerens, Maypearl, Mildred, Milford, Mustang, Navarro, Navarro County, Oak Valley, Palmer, Pecan Hill, Powell, Red Oak, Retreat, Rice, Richland, Waxahachie

Private Seat	Name	Title	Organization
Associated General Contractors	Sam Davis	Performance Manager	TexasBit
Associated General Contractors	Connor VanSteenberg	North Texas Area Manager	Associated General Contractors
Council of Engineering Companies	Chris Cha	Principal	Pacheco Koch
Council of Engineering Companies	<mark>Ted Sugg</mark>	Principal Regional Municipal Manager	CobbFendley

# **Discussion Items**



## 4. Implementing Infrastructure AI for Roadway Safety

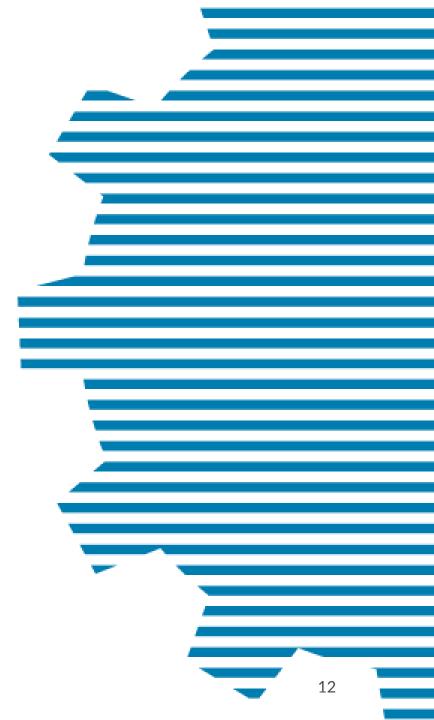
Presented by: Collin Moffett, Senior Transportation Planner, NCTCOG





## Agenda

- 1. TTIP Introduction
- 2. Workzone Data Exchange (WZDx)
- 3. Situational Awareness Applications
- 4. NCT 911 STIC Incentive Program



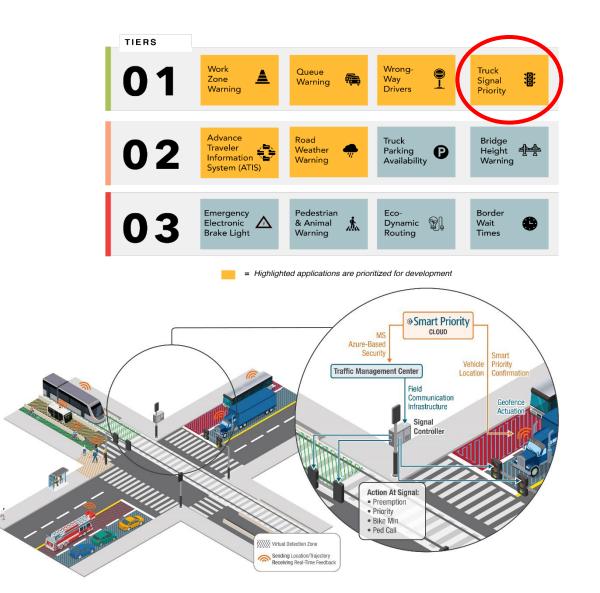


## Freight Optimization Project

**TxDOT Connected Freight Corridors** 

**Freight Signal Priority** 

**Green Light Optimized Speed Advisory (GLOSA)** 





## Broadband As A Transportation Mode



# Adoption

• Service Affordability

• Device Access

# Utilization

- Digital Navigation
- Software



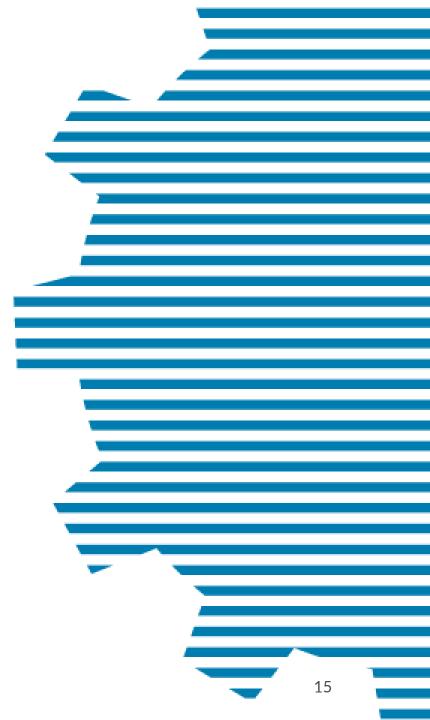
# AV 2.0 Program

Supporting AV Deployments for Local Governments

Total of **\$24.5 million** invested

Leverages a Variety of Technologies

Rapidly expand AV infrastructure & adoption





# AV 2.1









#### l-30 Test Bed

- Deployment of RSUs
- C-V2X Tech
- TxDOT Partnership

#### Waze Data Sharing

- Publish public sector data feeds
- Integrate into common driving apps

#### Traffic Signal Data Sharing

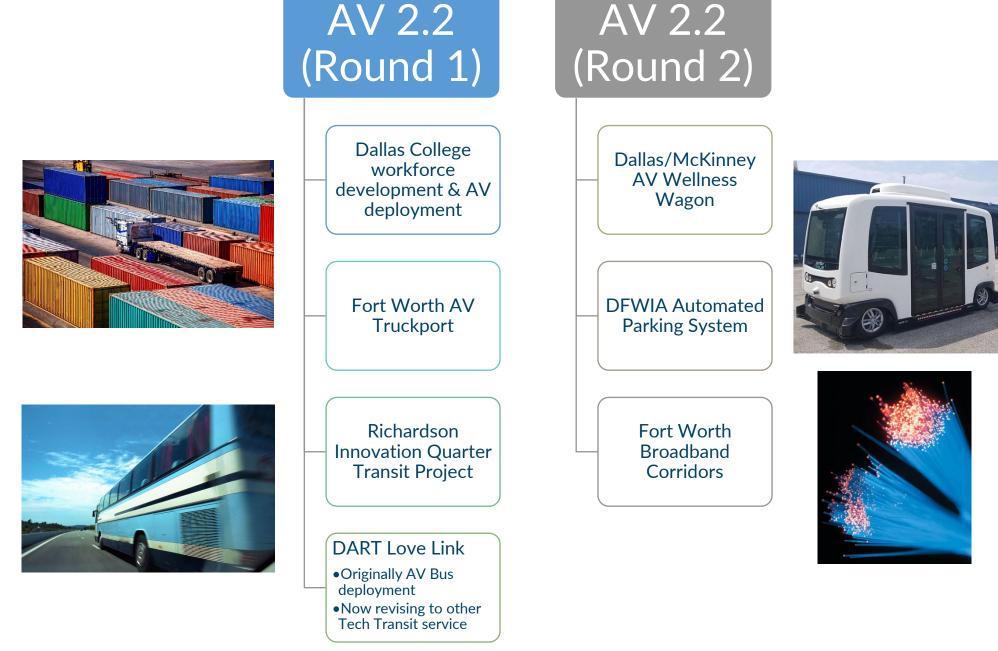
 Publish signal data for private app developers

### Regional AV Plan

- Provide overview of AV adoption impacts
- Plan for infrastructure needs



## AV 2.2





## Workzone Data Exchange (WZDx)

Integrate and harvest data on planned roadway construction and outages



Publish WZDx feed to driving apps and C/AVs





# WZDx Cooperative Procurement

Three categories of services

- 1. Convert raw work zone data into WZDx format
- 2. Establish WZDx-compliant reporting system
- 3. General WZDx services

Five vendors under contract: Blyncsy iCone Mixon Hill Navjoy One.Network





# Situational Awareness App - Blyncsy



Figure 13. This figure shows show two different examples of missing raised pavement markings

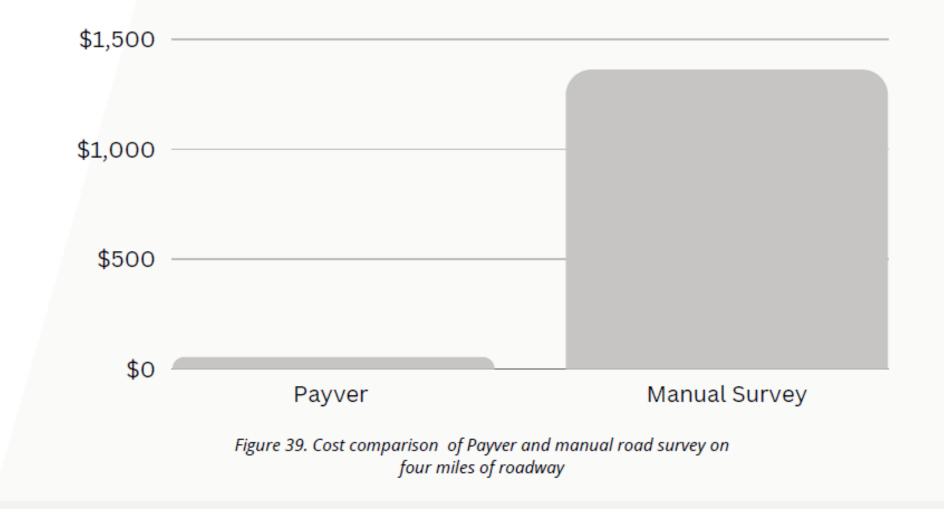
 Plano Case Study
 WZDx
 Automated Workzone Detection

**blyncsy** 

AI + Crowdsourced Dashcam Data = Automated WZDx Inputs "Payver's ability to quantify and inventory traffic elements can be a very powerful tool that could save lots of man-hours and help maintain and stay informed about the condition of city infrastructure." -Chad Ostrander, Senior Traffic Engineer, City of Plano Transportation Engineering



By automating this 4 mile manual survey on 11 different assets, Payver saved an average of 450 pounds of carbon emissions, 20 man hours, and a total of \$1,307. If Payver were to survey all 2,900 lane miles of Plano, the savings potential would be \$475,238.





# NCT 911 STIC Initiative – TTIP Collaboration

**Project:** Improving Emergency Response to Roadway Incidents Using Traffic Speed Deviation Alerts from Crowdsourced Data ("Project")

Tasks:

- Tool Development
- NCTCOG9-1-1 Tool Roll Out
- Training Manual Prep
- FSL Levelled Outreach
- Final Report





# Future Initiatives?

### Regional ITS Cybersecurity

### Distributed Acoustic Sensing

### Dynamic Flood Warning System

Smart Intersections (Freight/VRUs) AI-Enabled Infrastructure Inspections



# Getting Involved

https://www.nctcog.org/trans/plan/vehicles/cav

http://smarttransport.solutions/

https://tradfw.org/ntcmt/

https://www.txdot.gov/cavtaskforce





# CONTACT US

Collin Moffett Senior Transportation Planner <u>cmoffett@nctcog.org</u> | (817) 695-9252

Connor Sadro Transportation Planner II <u>csadro@nctcog.org</u> | (817) 608-2395



# Questions

## 5. City of San Antonio's Cool Pavement Program

Presented by: Murray Myers, Senior Sustainability Manager, City of San Antonio

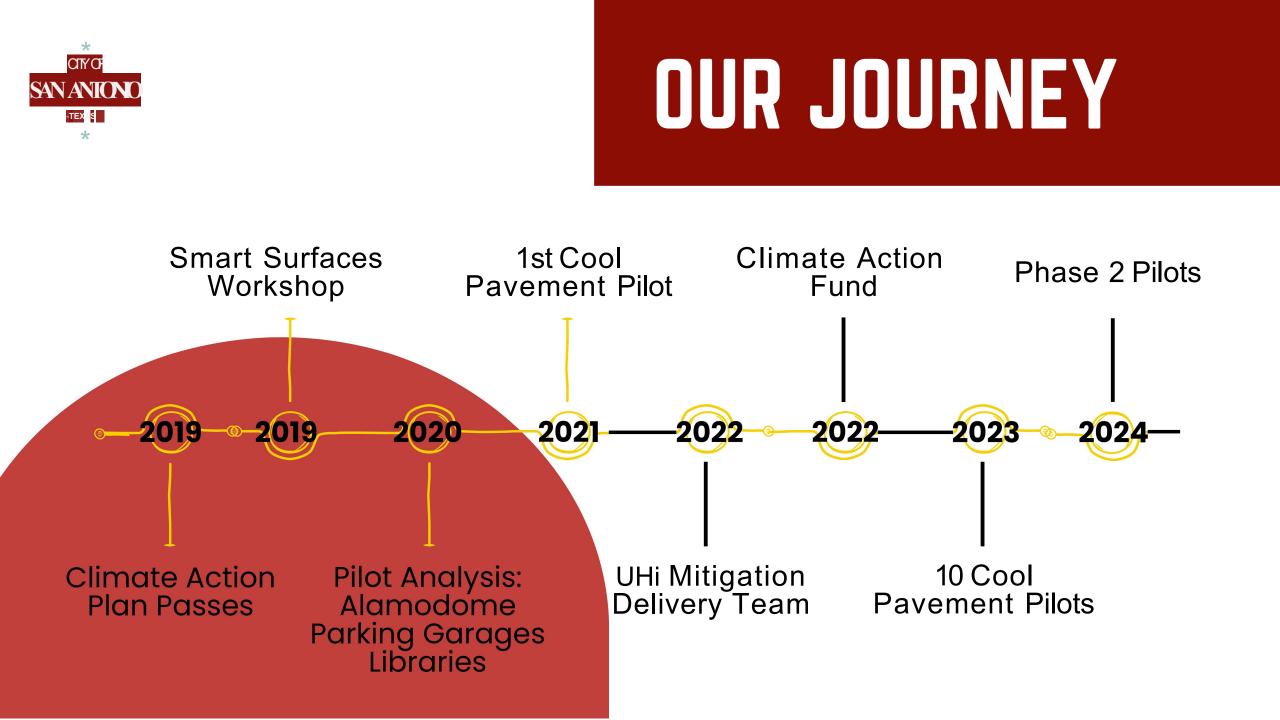




# **SAN ANTONIO** U H I M I T I G A T I O N

Transportation & Public Works









# SMART SURFACES WORKSHOP

#### **Mitigation Tools**

- Cool Roofs
- Tree Canopy
- Cool Pavement
- Cool Walls

#### Latest Research

- USC
- CalTech

Lessons Learned from Los Angeles



SRI=30-40

WORK?

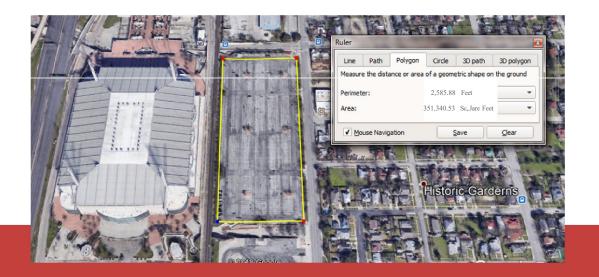
Cool pavement is a reflective sealcoat that leads to less heat absorption

SR1=10-20



# **PILOT ANALYSIS**

Finding suitable pilot locations





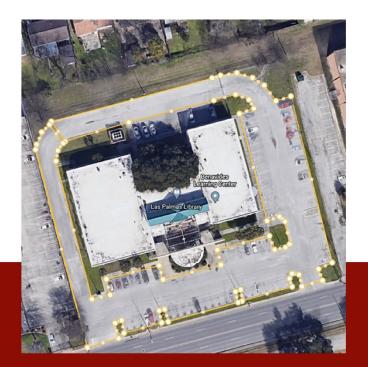
#### Alamodome

#### **Collins Garden Library**



# **PILOT ANALYSIS**

Finding suitable pilot locations





#### Las Palmas Library

Houston St. Garage

### 1ST PILOT IN TEXAS (2021)

SUNNING INNINGERER I

Cool pavement installed in east San Antonio.

- 8,000 sq. ft.
- Severe heat island
- High equity score

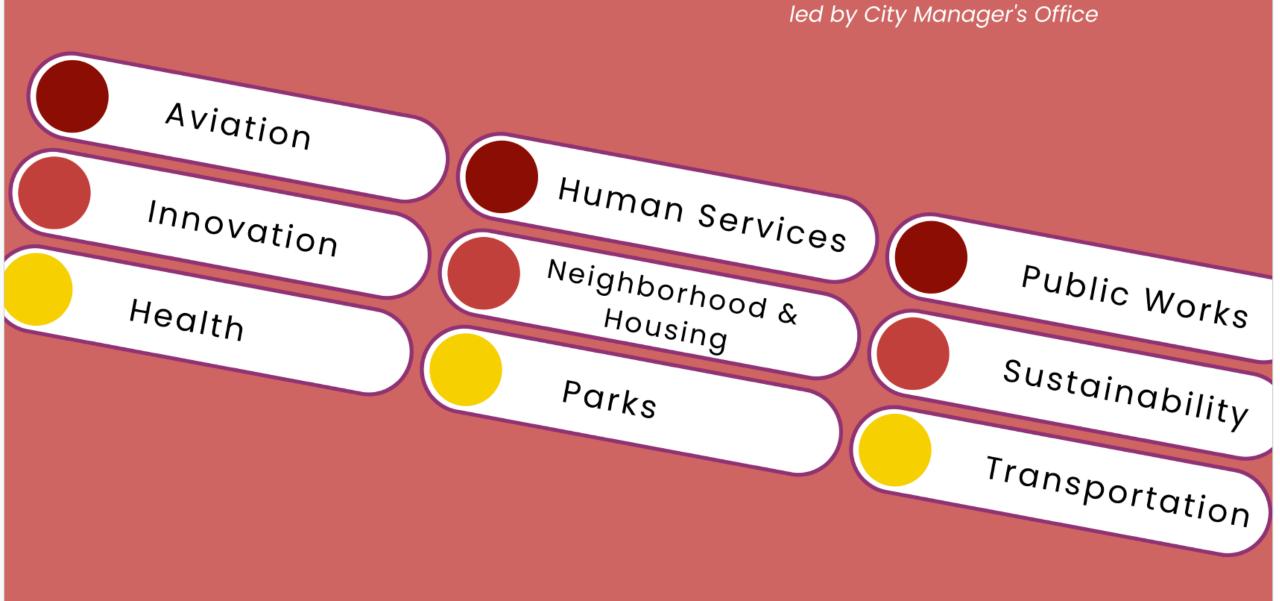
# RECORD BREAKING SUMMER

### Summer2022

- Hottest May, June & July on record
- 1st for days over  $90^{\circ}$
- 2nd for days over 100°
- 2nd driest year



# **UHI DELIVERY TEAM**





# **CLIMATE ACTION FUND**

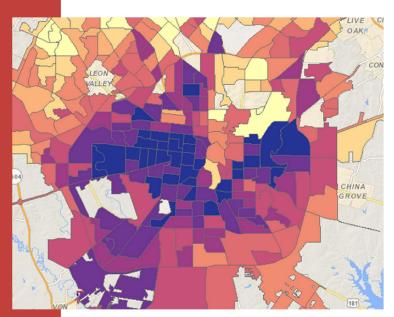
\$8 to \$10M Annually

BusinessUHiLeverageSmallBusinessUHiFederalGrants toIncentivesMItigationFundingCommunityOrgs

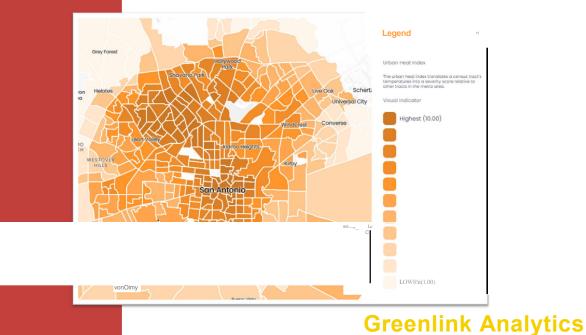
# 10 CCOL PAVEVENT PLOTS

#### Sites selected based on:

- equity
- heat
- pavement condition
- tree canopy



#### **Equity Atlas**



## 10 CCOL PAVENENT PLOTS

1 in each Council District Project costs = \$810,000

4 products tested:

- GAF
- GuardTop
- PaveTech
- Sea/Master



## 10 CCOL PAVENENT PLOTS

1 in each Council District

*Project costs = \$810,000* 

4 products tested:

- GAF
- GuardTop
- PaveTech
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#### Testing

Lead Professor Dr. Somer Dessouky

**Pavement Performance** 

- skid resistance
- glare
- adhesion to existing pavement
- improved structural stability







#### Testing

#### Lead Professor(s)

- Dr. Neil Debbage
- Dr. Esteban Lopez Ochoa
- Dr. Wei Zhai

#### Heat Mitigation

- air temperature
- surface temperature
- wet bulb temperature
- solar radiation







# **LESSONS LEARNED**



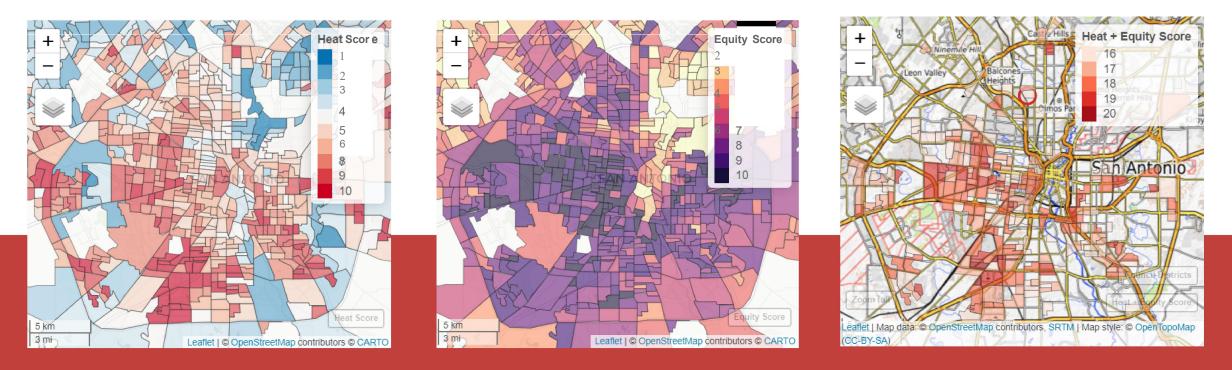








## **NEXT STEPS** UTSA UHi Hiqh Priority Neighborhood Analysis 1Jr. Kristen Brown & team



Heat Score

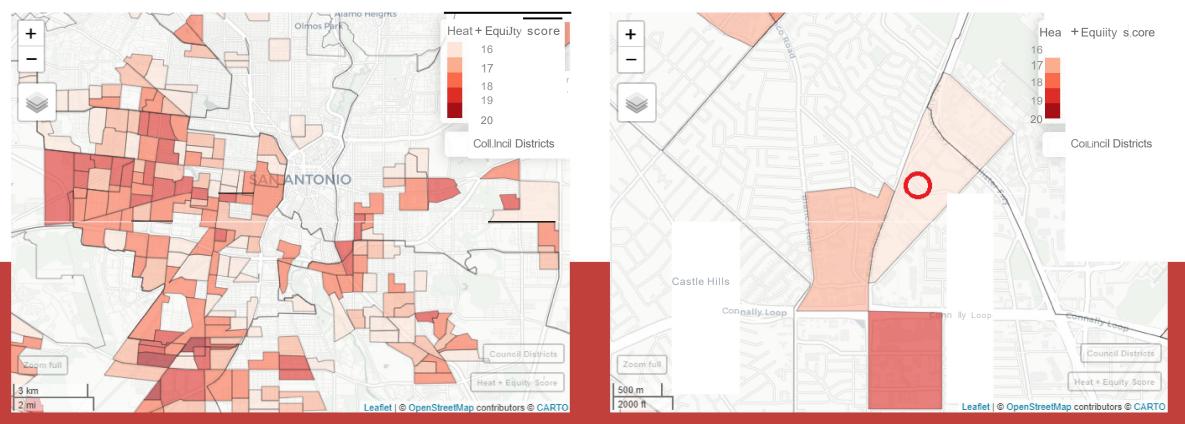
**Equity Score** 

Heat & Equity



# **DATA DRIVEN POLICY**

UTSA UHi Hiqh Priority Neighborhood Analysis 1Jr. Kristen Brown & team



Heat & Equity

Heat & Equity - Old San Francisco Steakhouse



# NATIONAL LEAGUE OF CITIES

Smart Surfaces Technical Assistance Program

#### **Baltimore Smart Surfaces Adoption: Target Scenario**

20-year adoption period, analysis extends 10 years beyond adoption period

Roofing Targets					Pavement Targets			
	ofs	- * <del>-</del>	Roofs	PV**	Surface Type	Reflective	Porous	Bioswale- managed*
Surface Kind	Roofs	val ge	Ro		Parking	50%	5%	20%
Surface Kind	Cool I	Bioswale managed	Green	Solar	Streets	15%	N/A	0%
					Sidewalk	0%	5%	0%
			Ň		Adoption Timeframe	20 years	20 years	20 years
Low slope roofs	80%	20%	2%	40%	Urban Tre	e Canopy Ta	argets	
Steep slope roofs	20%	N/A	N/A	20%				
Adoption Timeframe	20 years	20 years	20 years	20 years	Surface Kind	1	e Canop 40%	у
					City Area (% of to Adoption Timefra		40 <i>7</i> 6 20 years	



Cooling Cities, Slowing Climate Change and Enhancing Equity: Costs and Benefits of Smart Surfaces Adoption for Baltimore

This broad, transformative strategy allows cities to become cooler, reduce contribution to clim change, advance equity, protect their economy, and become healthier and more livable.

www.smartsurfacescoalitio



# GOOGLE COOL ROOFS

Smart Surfaces Technical Assistance Program

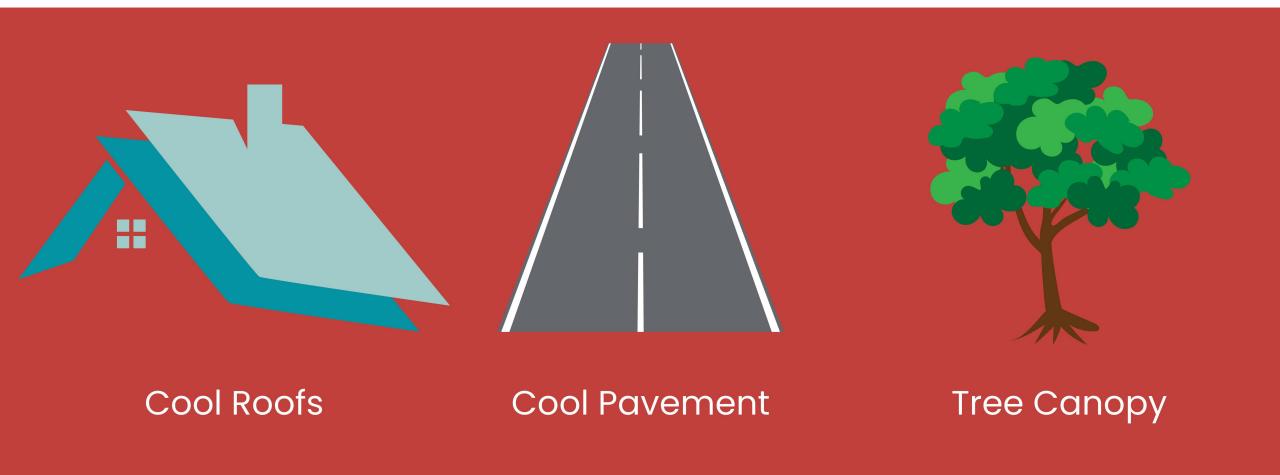


- Similar to Project Sunroof, Google will be developing cool roof albedo maps
  City uses the Cool Roofs tool, reviews the
- City uses the Cool Roofs tool, reviews the data & identifies potential actions
- City implements at least laction



# **NEXT STEPS**

Cool Neighborhood Pilot



# THANK YOU

Transportation & Public Works

SECTION T-

# Information Items



7. Other Program Activities (Out of sequence due to speaker availability)

**Texas Chapter of American Public Works Association** 

Update provided by: Katie Barron, North Central Branch President ('23-'24)



#### AMERICAN PUBLIC WORKS ASSOCIATION (APWA) TEXAS CHAPTER — NORTH CENTRAL BRANCH





## YOUR LOCAL NORTH CENTRAL BRANCH

- The largest Branch in APWA (800+ members)
- Monthly board meetings
- Near-monthly events and activities
  - Luncheons
  - Educational Sessions
  - Roundtables (Directors, Operators, Inspectors, Management and Leadership, etc.)
  - Golf Tournament (Oct)
  - Road-eo (Fall)
  - Sporting Clay Tournament (Apr 19th)
  - Fishing Tournament
  - Young Professionals Events
- Scholarship Opportunities
- Student Membership Group (UTA)



## UPCOMING LOCAL EVENTS

- December 19<sup>th</sup> : General Membership Meeting / Annual Holiday Luncheon
  - Fundraiser for North Texas and Tarrant Area Food Banks
  - Contractor of the Year Award
  - Crosby Center, Carrollton
  - Registration now open!





## **UPCOMING CHAPTER EVENT**

- February 5<sup>th</sup> -- 7th: Texas Chapter Public Workshop
  - Tx-APWA Public Workshop —geared towards operators and field staff
  - Wichita Falls, TX-MPED Multi-Purpose Convention Center
  - PDH/CEU hours
  - State Roadeo Competition
  - New! Hydrant Frenzy
  - Registration open soon
  - https://txapwaworkshop.net/





#### **MORE INFORMATION**

https://www.apwa.org

https://nct-apwa.com

Katie Barron, P.E., ENV SP North Central Branch President ('23-'24) <u>kbarron@uptexas.org</u>



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NCT Branch Website
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# 3. New Member Welcome PWC Bylaws

- <u>NCTCOG Mission</u>: Facilitate the delivery of innovative, cost-effective public works services to jurisdictions in the region
- <u>PWC Purpose</u>: Provide a forum for exchanging ideas and resources that address specific common needs
- PWC Membership/Qualifications
  - 22 seats for standing members
  - 16 seats for 16 subregions
  - 5 seats for private sector entities
  - Support and documented authorization of the member organization



#### 3. New Member Welcome

#### PWC Bylaws (Continued)

- Appointment Process/Terms of Office
  - ~Half of the PWC members are appointed/re-appointed each year
  - Term of appointment runs October 1 to September 30 of the second fiscal year
- Officer Duties
  - Chair presides at meetings
  - Chair has the authority to break a tie
  - Vice-Chair performs Chair's duties in his/her absence
  - If both absent, PWC members present will elect a Chair Pro-Temp



## 3. New Member Welcome

#### PWC Bylaws (Continued)

- Meetings
  - Meet once every quarter
  - Appointed PWC members or designated alternate may vote on action items
  - Combination of 11 or more PWC members constitutes a quorum
- Attendance/Vacancies
  - Members expected to attend meetings/participate in assigned subcommittees/activities
  - NCTCOG to contact inactive members requesting an active replacement
  - Attendance and participation evaluated during the reappointment process
  - NCTCOG will work with member communities to fill any vacancies



## 3. New Member Welcome

#### PWC Bylaws (Continued)

- Annual Work Program/Budget
  - Regional activities guided by an Annual Work Program and supported through voluntary cost shares
  - Cost share calculation reviewed by the PWC at least every 5 years
  - Sponsorships are allowed at the discretion of the PWC

#### Bylaws Guidance

- Changes only made with a positive vote of 2/3 by the PWC membership or NCTCOG Executive Board
- Bylaws reviewed by the PWC once every 5 years



# 6. FY2024 Public Works Work Program Update

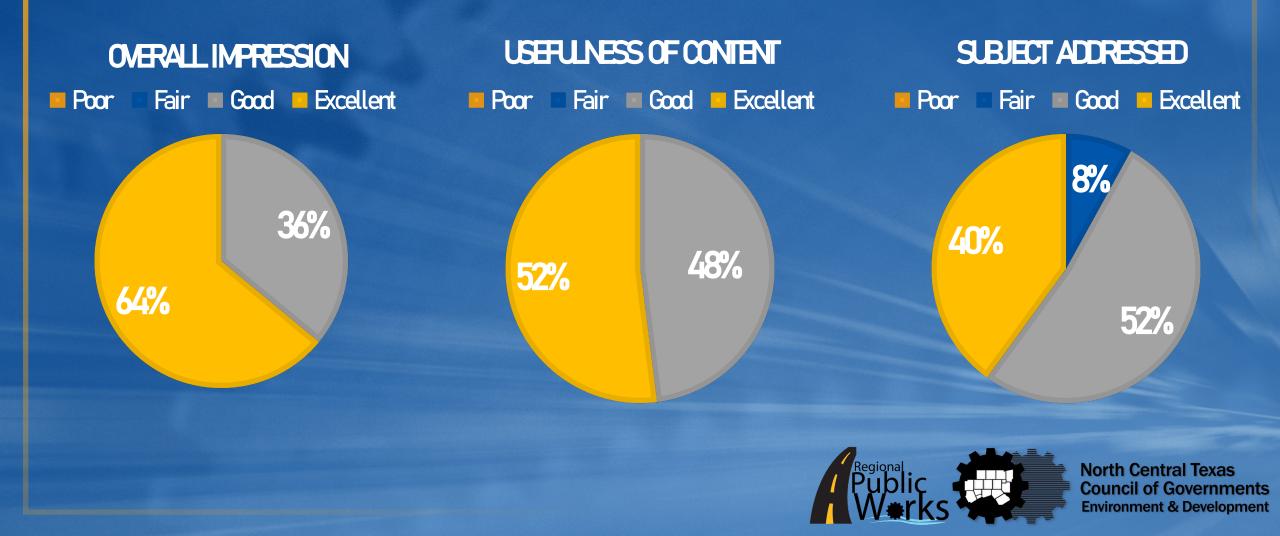
- Allen
- Arlington
- Aubrey
- Benbrook
- Cleburne
- Crandall
- Hudson
   Oaks
- Ponder

Thank you to our cost-sharing members! The Public Works Work Program would not be possible without your contributions!

11% of budget received



6. FY2024 Public Works Work Program Update (FY23) Public Works Roundup Results



6. FY2023 Public Works Work Program Update (FY23) Public Works Roundup Results

#### The most useful part of the program...

- Presentations
- Legislative updates
- Networking
- Green infrastructure
- Understanding of the various street resurfacing types
- Challenges in recruiting
- Learning the effects on a community through the work done by Civil Engineers



6. FY2023 Public Works Work Program Update (FY23) Public Works Roundup Results

#### I would add or change..

- SPROW topics
- 30–45 minute session to meet other attendees
- Adding water quality and pumping
- Cluster tables
- More involvement with schools
- Break into the 2 groups sooner
- Review speaker's presentation before they present



6. FY2023 Public Works Work Program Update (FY23) Public Works Roundup Results

What other topics would you like to see at future events?

- How cities conduct plan reviews and approvals
- Railroads and highways
- Project management tools
- Combine with the Tx-APWA one day event
- Conflict resolution for communication
- Salary negotiation
- Municipalities leveraging new technologies



## 6. FY2024 Public Works Work Program Update

#### **Standard Drawings Subcommittee**

#### Update provided by: Chris Cha, Subcommittee Chair



Standard Specifications Standard Drawings



North Central Texas Council of Governments



## 6. FY2024 Public Works Work Program Update

Sustainable Public Rights of Way Subcommittee





6. FY2024 Public Works Work Program Update iSWM Subcommittee

- Next Meeting: January 17, 2024
- NCTCOG Staff & Halff Associates have been developing preliminary material for project deliverables:
  - iSWM BMP Training (Development Submittal & Review)
  - Panel Discussion on iSWM Implementation
  - iSWM Promotional Presentations
  - Research on cumulative stormwater impacts of small footprint developments



# **Other Program Activities**



# 7. Other Program Activities

#### **Cooperative Technical Partnership Program**

East Fork Activities	Start Date	End Date	% Complete
Terrain Data Capture	2/2022	6/2022	99%
Field Surveys	7/2022	11/2022	98%
Hydrologic Data	8/2022	9/2023	79%
Hydraulic Data	8/2022	9/2023	74%
Roodplain Mapping	2/2023	1/2024	3%
Rood Risk Review Meeting	7/2023	9/2023	6%
Rood Resilience Meeting	3/2024	5/2024	0%
Rood Risk Products	1/2024	6/2024	0%
Total Project Percent Co	56%		

Hbg Branch Activities	Start Date	End Date	% Complete
Terrain Data Capture	4/2022	5/2022	96%
Field Surveys	5/2022	8/2023	96%
Hydrologic Data	8/2022	9/2023	99%
Hydraulic Data	8/2022	9/2023	99%
Roodplain Mapping	7/2023	1/2024	43%
Rood Risk Review Meeting	1/2024	1/2023	0%
Rood Resilience Meeting	3/2024	3/2024	0%
Rood Risk Products	1/2024	3/2024	0%
Total Project Percent Cor	74%		



## 7. Other Program Activities

#### Community Rating System Users Group:

- Floodplain Seminar for Elected Officials and Municipal Staff held October 19, 2023
- 56 attendees, including 10 Elected Officials
- Presentations posted to: <u>https://www.nctcog.org/envir/watershed-management/crs-user-group</u>
- Next Meeting: TDB



#### 7. Other Program Activities

Public Works Emergency Response Team

Update provided by: Clay Riggs, PWERT Chairperson



#### 8. Future Agenda Items

# Council Members and NCTCOG staff may suggest future agenda items



## 9. Roundtable Discussion





## 10. Next Meeting

- Next PWC Meeting: February 15, 2023 at 9:30 a.m. (in person, NCTCOG offices)
- All FY24 meetings have been scheduled: https://www.nctcog.org/envir/Events
  - May 16, 2024
  - August 15, 2024
- More information: <u>https://www.nctcog.org/envir/committees/public-works-council</u>



# Upcoming In-Person SW3P Courses Classes held at NCTCOG in Arlington, TX



December 19, 2023 (8:30 am -12:30pm)

April 2, 2024 (8:30 am -12:30pm)

# SW3P for Field Inspectors

December 20, 2023 (8:30 am -12:30pm)

April 3, 2024 (8:30 am -12:30pm)

#### NCTCOG Contact: northtexastdi@nctcog.org

DALLAS-FORT WORTH AIR QUALITY IMPROVEMENT PLAN



The North Central Texas Council of Governments is collaborating with local stakeholders in the Dallas-Fort Worth region to develop a comprehensive Air Quality Improvement Plan (DFW AQIP). The plan will create a roadmap to improve air quality, protect public health, and reduce the impacts of extreme weather events.

Your input is requested and important! Please go to **www.publicinput.com/dfwAQIP** to make recommendations, attend an open house, and more.

#### FOCUS AREAS:



Transportation



Solid Waste

Energy

Water

Protection Agency's Climate Pollution Reduction Grants: Planning Grants.

This work is funded

by the Environmental

#### **Contact & Connect**

Erin Blackman Environment & Development Planner North Central Texas Council of Governments <u>eblackman@nctcog.org</u> 817.608.2360

Samuel Morrall Environment & Development Planner North Central Texas Council of Governments <u>smorrall@nctcog.org</u> 817.704.5667

Kate Zielke Environment & Development Program Supervisor North Central Texas Council of Governments <u>kzielke@nctcog.org</u> 817.695.9227



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EandD@nctcog.org

