GETTING THE MOST FROM "GOOD AI"

AND HOW IT CAN HELP ENGINEERS (AND PLANNERS)DO MORE

10:00 AM – 11:15 AM
FRIDAY, OCTOBER 24, 2025

by
Dennis Randolph
Public Works Manager
City of Kalamazoo

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WHAT WE ARE GOING TO TALK ABOUT

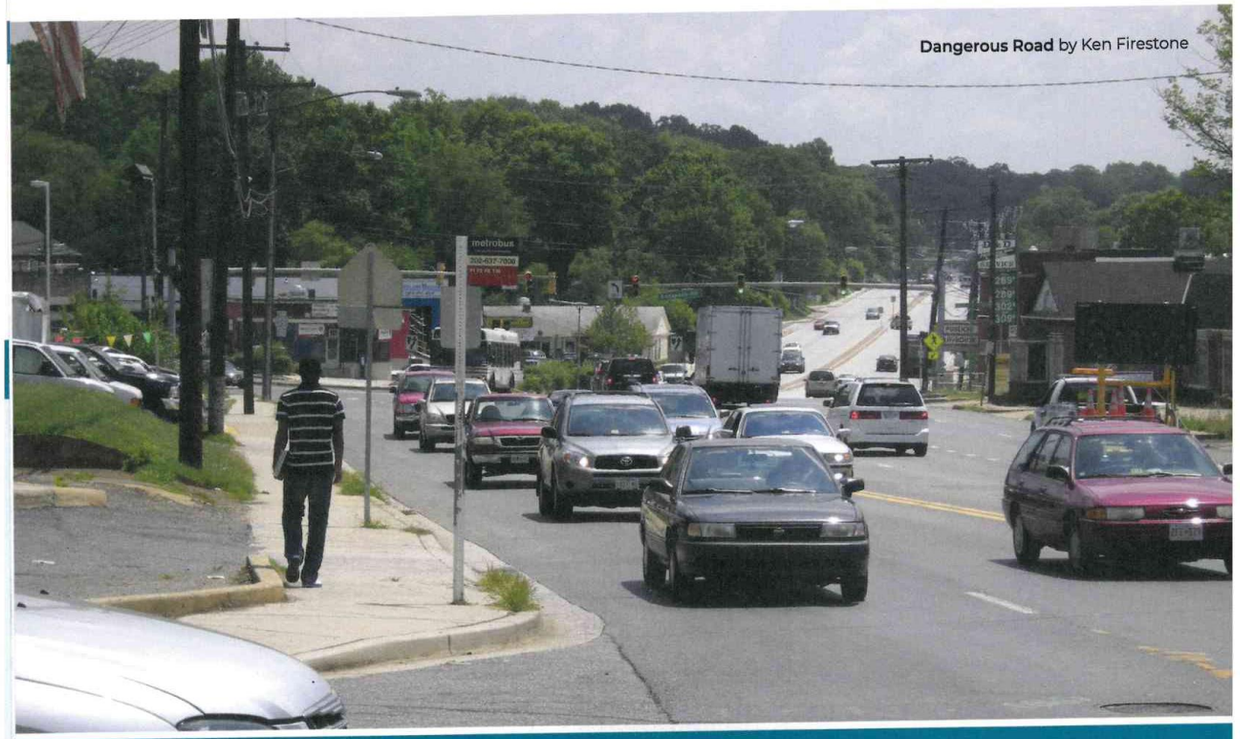
- Introduction
- History
- What We are doing in Kalamazoo
  - NotebookLM
  - Chat GPT5
  - Other “Stuff”
- AI and the future of work
- Ethical AI
- Questions

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MICHIGAN PLANNER

July/ August 2025

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Dangerous Road by Ken Firestone

Traffic Engineers and Planners Need to Do Better

Professions need to improve over time. Physicians, for instance, have been around for at least 5,000 years. In those early days, and for a long time since, physicians probably killed more people than they saved. But as an empirical science, they learned and got better. And better. And better. It's still not perfect, but physicians have come a long way. Life expectancy was around 30 years for most of human history, and now it's over 70 years in most of the world today.

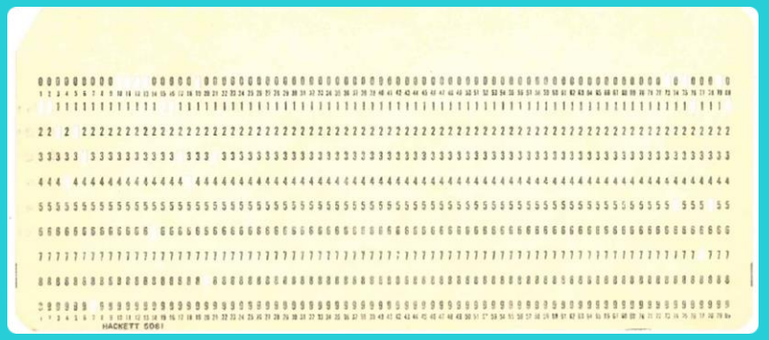
Traffic engineering? Well, my discipline is only about 100 years old. While it may be a while before we can admit this, we still might be killing more people than we save.

Do traffic engineers work to improve road safety? Of course we do, but these efforts tend to be reactive instead of proactive. In other words, our protocols are set up so that we wait for someone to get hurt or die in our transportation system before we step in and try to improve safety. In fact, we need to see more than one person get hurt or die. To be more specific, we usually need to see more than two people get hurt or die in a single location, ideally within a two- or three-year window, for their sacrifice to trigger what's called an MUTCD *warrant*.

The Manuals

A "warrant" refers to the numeric thresholds that the Manual on Uniform Traffic Control Devices (MUTCD) uses to justify – or "warrant" – the installation of traffic control devices. The MUTCD tells us what our traffic signs, signals, and markings need to look like. Less logically, the MUTCD also sets thresholds telling us how many pedestrians must risk their lives before a traffic control device such as crosswalk, pedestrian hybrid beacon, or HAWK (high-intensity activated crosswalk beacon) signal would be "warranted".

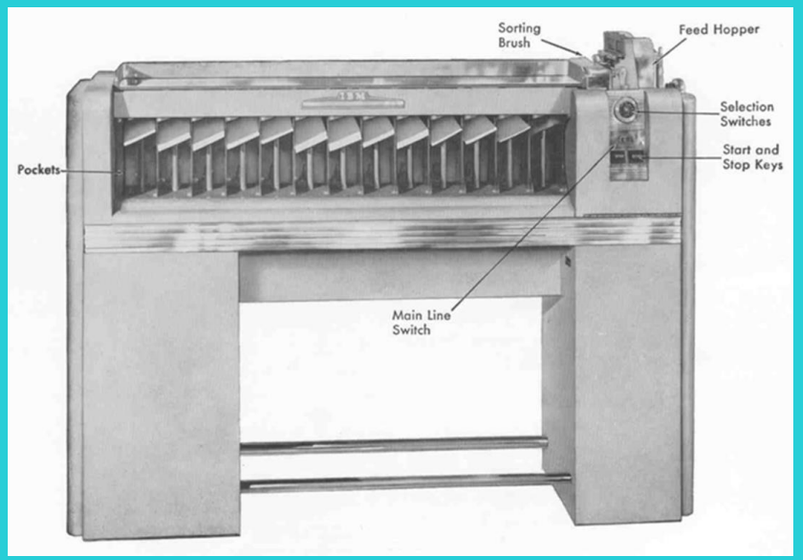
One Pedestrian Volume warrant says that we need at least 93 pedestrians crossing a major street in the peak hour before a traffic control device would be considered justified. Where that 93 number comes from isn't clear because the MUTCD doesn't cite any research. Even if we do install a signal, the MUTCD tells us that we are welcome to put it in flashing



Our Discussion

- Some History
- Some Examples
- Some Cautions







Do You Know Who These Characters Are?



Lisbeth



Reacher

What Trait Do They Share?



Basic Pattern Matching

BINARY CODE ALPHABET REFERENCE

1	A	00001	14	N	01110
2	B	00010	15	O	01111
3	C	00011	16	P	10000
4	D	00100	17	Q	10001
5	E	00101	18	R	10010
6	F	00110	19	S	10011
7	G	00111	20	T	10100
8	H	01000	21	U	10101
9	I	01001	22	V	10110
10	J	01010	23	W	10111
11	K	01011	24	X	11000
12	L	01100	25	Y	11001
13	M	01101	26	Z	11010

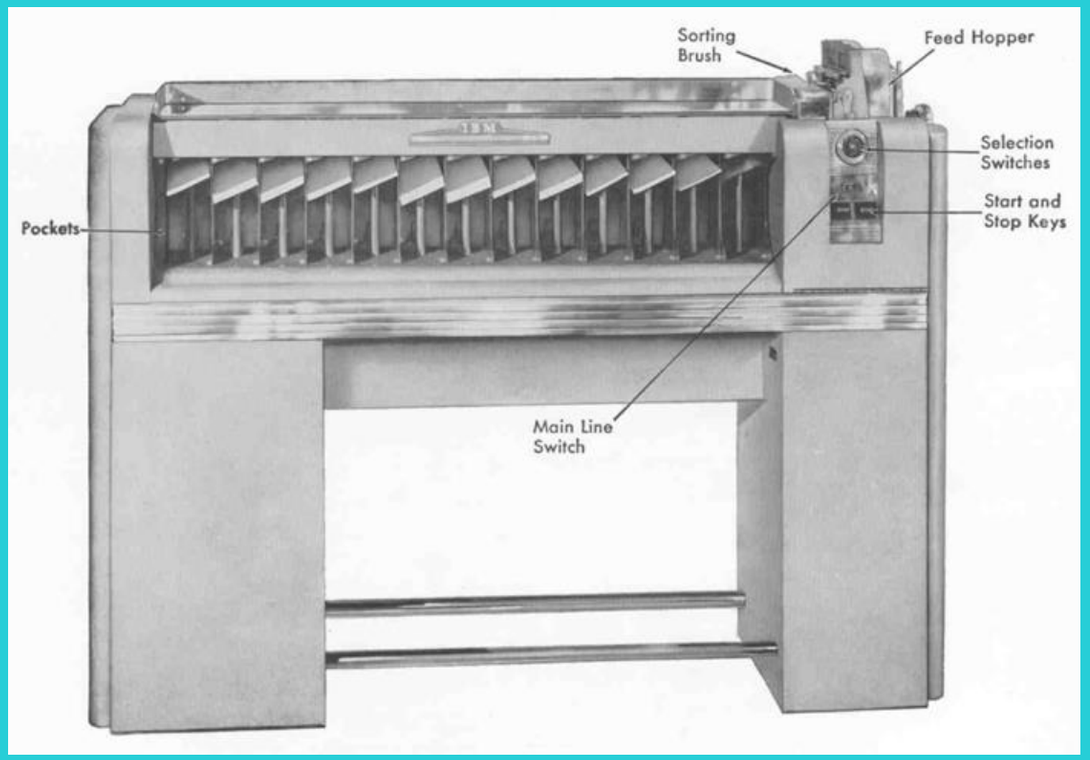
OUR FAMILY CODE



CPU



Pattern Matcher

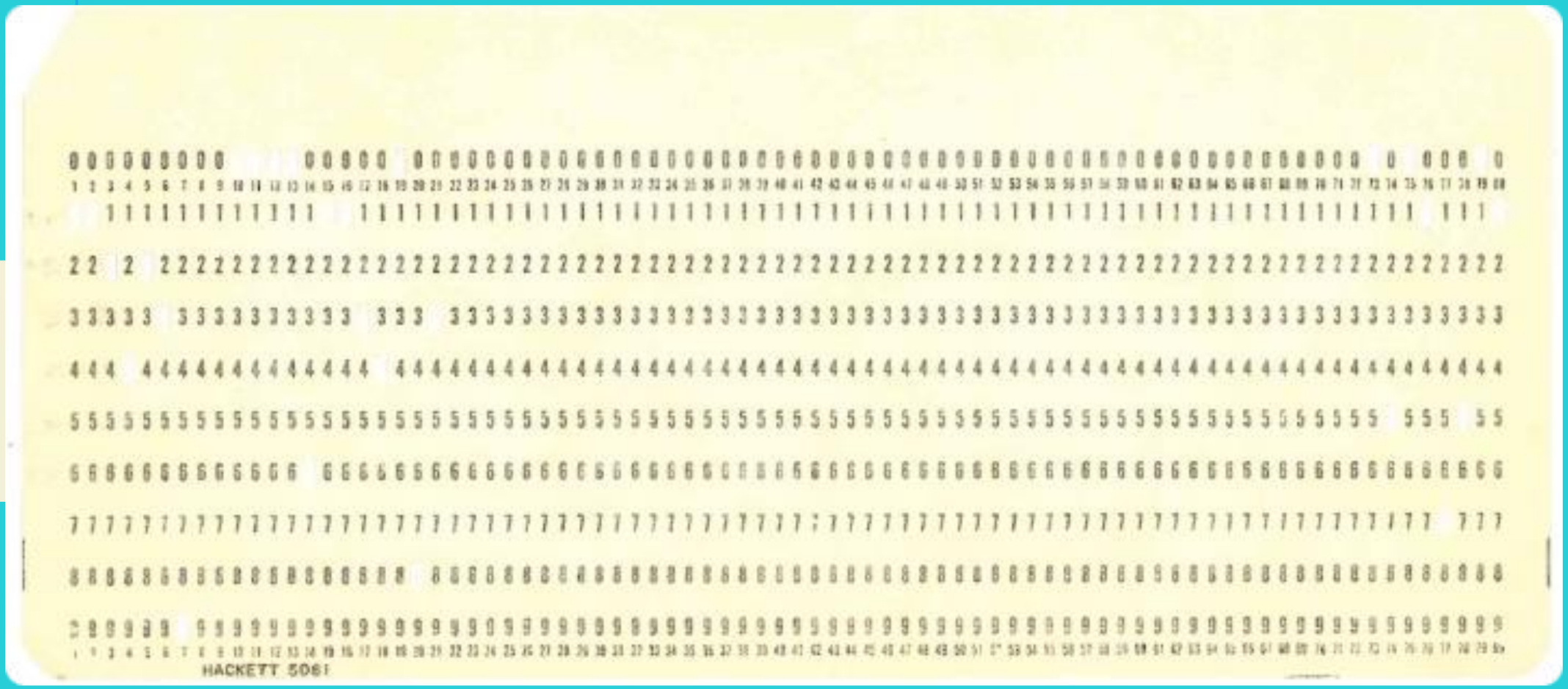


Input Device



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Old Time USB Drive



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Early Foundations Pre-1960)

1

Pre-20th Century

Aristotle's formal logic systems laid philosophical groundwork.

2

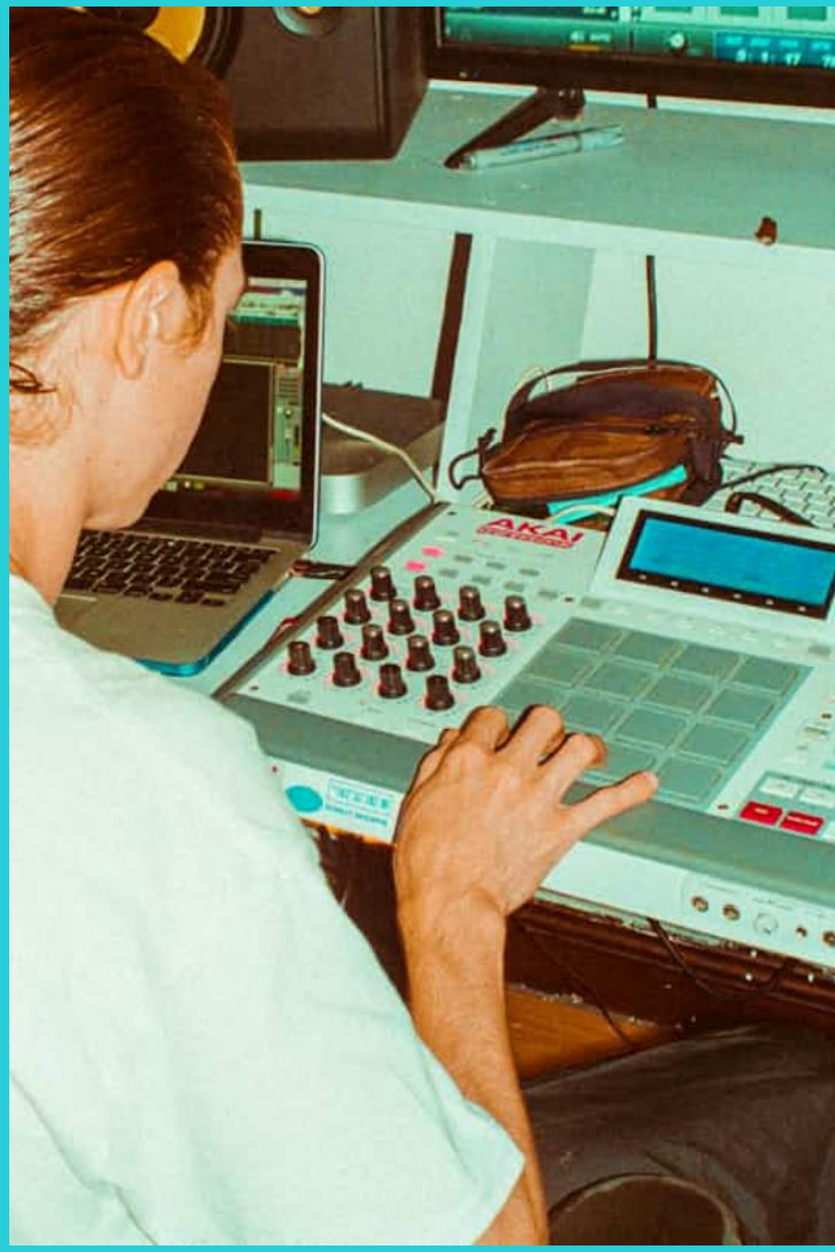
1940s-1950s

Turing's universal machine and the Turing Test emerged.

3

1956: Birth of AI

The Dartmouth Conference established AI as a formal discipline.



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Early Enthusiasm and AI Winters (1960-1980)

Early Enthusiasm

Expert systems like ELIZA showed promise.

The First AI Winter

Mid-1970s: Over-promising led to decreased funding.

Revival and Expansion

Neural networks and expert systems saw resurgence.

Self-Driving Car

In 1986, Ernst Dickmanns created the first self-driving car.

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Contemporary and Future Directions (2020-Present)

Rapid Advancements

Generative AI models are rapidly advancing.

OpenAI's GPT Models

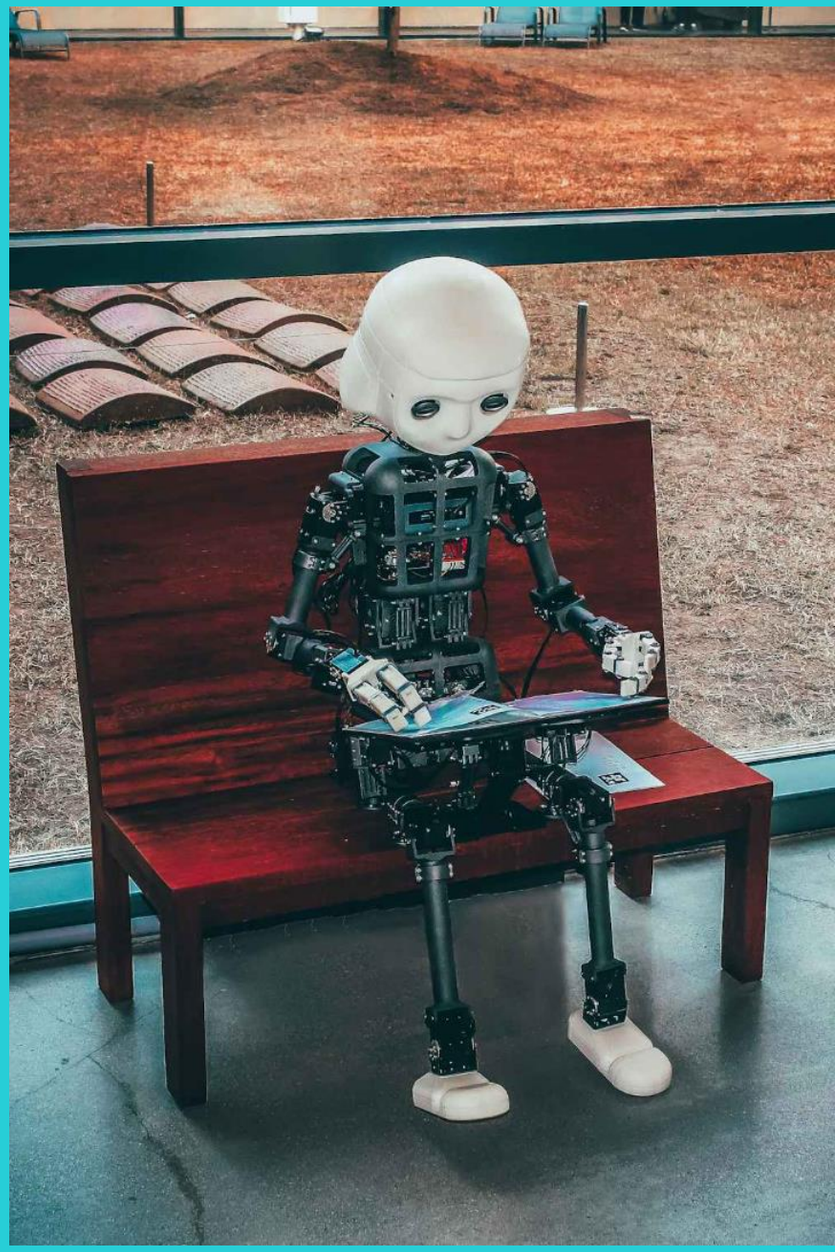
Nuanced and creative AI responses emerged.

ChatGPT

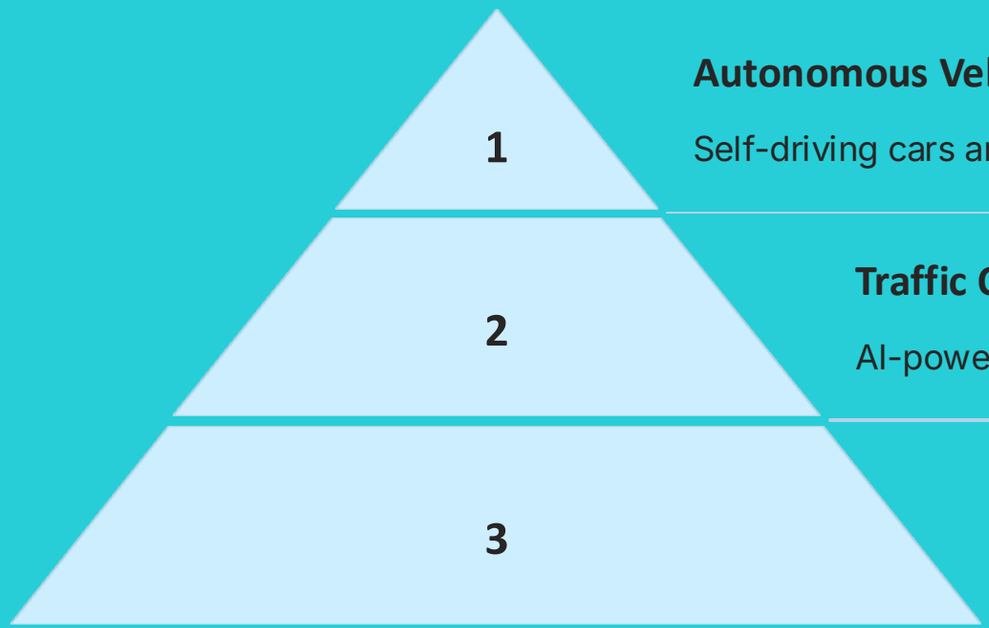
Launched in November 2022, transforming public adoption.

ChatGPT-Gov

In January 2025, OpenAI announced ChatGPT-Gov.



AI in Transportation



Autonomous Vehicles

Self-driving cars and trucks for safer roads.

Traffic Optimization

AI-powered systems to reduce congestion.

Predictive Maintenance

Forecasting maintenance needs for vehicles.

But There Is Much More!!

What Are We Doing With AI in Kalamazoo

- Basic pattern matching
- Neural Networks
- Programs with AI Built in’s
- Pure AI
  - Chat GPT
  - Gamma
  - NotebookLM



Basic Uses

- Document Preparation
- Document Review
- Data Analysis



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WHY??????

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NotebookLM

Welcome to NotebookLM

+ Create new



Weekly Work Report

Feb 5, 2025 · 17 sources



RCE Grant: Analysis of Executive Order...

May 16, 2025 · 3 sources



Michigan Traffic Accident Reports

May 9, 2025 · 1 source



Kalamazoo Church Street Parking...

May 12, 2025 · 5 sources



Durham TwoWay Discussions

Mar 26, 2025 · 34 sources



Two way Conversion circa 2003

Mar 5, 2025 · 1 source



Streets Jurisdiction Transfer: Kalamazo...

Apr 23, 2025 · 1 source



Michigan SHPO Research System...

May 7, 2025 · 3 sources

https://notebooklm.google.com

NotebookLM



Peer Review Summaries

Feb 2, 2025 · 30 sources



Michigan Pedestrian Vehicle Crash...

May 2, 2025 · 3 sources



APWA Reporter: January 2024

May 1, 2025 · 4 sources



America's Infrastructure: 202...

May 1, 2025 · 2 sources



Stuart Area Traffic Collision Narratives

Apr 25, 2025 · 4 sources



Kalamazoo Avenue Conversion Project...

Apr 24, 2025 · 1 source



E Michigan Avenue Traffic Collisions

Apr 24, 2025 · 1 source



School Bus Collision Narratives

Apr 24, 2025 · 1 source



Kalamazoo Shared Streets and Spaces...

Apr 23, 2025 · 1 source



Kalamazoo Railroad Crossing Grant: FR...

Apr 17, 2025 · 5 sources



Kalamazoo Traffic Crash Narratives

Apr 22, 2025 · 1 source



Michigan Amish-Related Traffic Cras...

Apr 17, 2025 · 1 source

Nearly 200 individual application since November 2024

Document Preparation



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https://notebooklm.google.com/notebook/3f816ab8-2ecd-4686-925f-53e31b6cc305

Weekly Work Report

Share Settings

Sources

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Select all sources

- Snowmelt evaluation.pdf
- Weekly Summary 1 02062025.pdf
- Weekly Summary 10 04102025.pdf
- Weekly Summary 11 04172025.pdf
- Weekly Summary 12 04242025.pdf
- Weekly Summary 13 05012025.pdf
- Weekly Summary 14 05082025.pdf
- Weekly Summary 15 05152025.pdf
- Weekly Summary 16 05222025.pdf
- Weekly Summary 2 02132025.pdf
- Weekly Summary 3 02202025.pdf
- Weekly Summary 4 02272025.pdf
- Weekly Summary 5 03062025.pdf

Chat

Refresh

Weekly Work Report

17 sources

These excerpts from various Public Works Division weekly summaries offer a look into the City of Kalamazoo's operational activities, primarily focusing on **maintenance and infrastructure**. A significant portion details the ongoing issues and required repairs for the **city's snowmelt system**, including problems with boilers, pumps, heat exchangers, and numerous leaks and faults within the manifold network and private expansions. Additionally, the reports highlight efforts in **traffic safety**, discussing crash data analysis, the impact of traffic calming measures like the Streets for All program and speed humps, and routine tasks related to **traffic signals and signage**. Other key areas covered include **right-of-way permitting and inspections**, general **facilities maintenance** at various city buildings like City Hall and Public Works Headquarters, and the logistical challenges of tasks such as **snow removal** and **storm debris cleanup**.

Save to note

Add note Audio Overview Mind Map

What has been going on

Based on the provided sources, here is a summary of recent activities within the Public Works Division:

General Updates and Traffic Safety Trends

Jump to bottom

Start typing... 16 sources

When was the snowmelt system installed? How many Miss Dig tickets were received? What percentage reduction in crashes occurr

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https://notebooklm.google.com/notebook/1401285a-2eda-48a2-9bb2-d5ae0fe4ee86

Tech Manuals TM

Sources

+ Add | Discover

Select all sources

- ARN33491-TM_3-34.44-001-Concrete and Masonry.p...
- ARN34363-TM_3-34.42-000- ConstrutionPM.pdf
- ARN35831-TM_3-34.47-000-Carpentry.pdf
- ARN6987_TM 3-34x61 Geology.pdf
- Construction-Mechanic-Basic v1-NAVEDTRA-14264.p...
- TM 3-34x63 FINAL Paving and Surfacing Operations.p...
- TM 4-33x31 FINAL WEB Cold Weather Maintenance O...
- tm3_34x21 Medium Girder Bridge.pdf
- tm3_34x43 Materials Testing.pdf
- tm3_34x62 Earthmoving Operations.pdf
- tm3_34x64 Soils Engineering.pdf
- tm3_34x65 Quarry Operations.pdf
- tm3_34x70 Sewerage and Plumbing.pdf

Chat

Refresh

What are the primary materials and techniques used in construction projects?

Based on the sources, construction projects utilize a variety of primary materials and techniques.

Primary Materials

A range of materials are used in construction projects, including:

- **Cement**: This includes White portland cement, used mainly for architectural purposes [1]. Portland Blast-Furnace Slag cement (types IS and IS-A) is used in ordinary concrete construction and contains granulated blast-furnace slag blended with portland-cement clinker; type IS-A includes an air-entraining additive [1]. Portland Pozzolana cement (types P, IP, PA, and IP-A) is made by blending pozzolana (containing silica and alumina) with ground portland-cement clinker; types PA and IP-A also contain an air-entraining additive [1]. In the United States, cements for general construction conform to specifications like ASTM C150 (portland cements), ASTM C595 (blended cements), and ASTM C1157 (hydraulic cements) [2]. **Portland cement** conforming to ASTM C150 includes Type I for general-purpose use (predominant in general construction) and Type II for moderate sulfate conditions or lower heat evolution [3]. Cement is a key material in concrete [2] [...]. In concrete mixes, sacked cement is normally the unit of measure, although bulk cement is common in commercial construction [5]. Bulk cement requires special transport equipment, so sacked cement is almost exclusively used in troop construction [5].
- **Aggregate**: Concrete is made using cement, water, and suitable aggregates such as sand, gravel, crushed stone, cinders, burned shale, or slag [4] [...]. For penetration-macadam wearing surfaces, the aggregates used are macadam aggregate (coarse), uniformly graded keystone (intermediate), and uniformly graded FA (fine aggregate) or choke stone (stone chips or clean, coarse sand) [7]. CA (coarse aggregate) and FA are listed as m... project [8] and materials needed for precast items [9]. CA and keystone should be clean, tough, durable particles or

Jump to bottom

Start typing...

13 sources

What are two deep foundation types?

What are three types of pavement?

What are two soil ...

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Chat

Activities in this section involved maintaining city buildings and systems, responding to issues, and coordinating projects 17 ... .

- **Snowmelt system maintenance and repair** was a significant and ongoing task 40 ... . Leaks were being tracked down and isolated, which required much time and manpower, including adding water, turning valves, and walking sidewalks to maintain pressure 40 ... . Repairs to a 2-inch line resulted in a significant improvement in pressure loss, but more investigation is needed to find additional leaks 46 ... . Glycol replenishment was expected to be expensive 40 . An evaluation report assessed the system's condition, highlighting issues like aging equipment, failing manifold boxes (needing upgrading to stainless steel), leaks and breaks (difficult to locate), problematic private expansions, damage from outside contractors, depleted glycol concentration, and faulty valves 65 ... . A timeline outlined the system's history and recurring issues 67 ... .
- **Fan coil installation at City Hall** was a major project 24 ... . Work progressed on different floors, coordinating with contractors and other departments 24 ... . The chilled water system was filled and turned on, with the last step being programming the units into the building management system 52 ... . Issues required some piping to be reconfigured 58 .
- **Bathroom remodels at 415 Stockbridge** were underway 17 ... . This involved coordinating with contractors 17 ... . An incident involved breaking a valve during the remodel, requiring placement of valves in water lines to maintain service elsewhere and cleaning up leaked water 50 .
- **New furniture installation at 415 Stockbridge** also occurred 43 ... . This involved working with installers and moving existing furniture 44 ... . Some installations took longer due to external power outages 44 . Ordering new chairs for the new furniture was also mentioned 44 . Preparations involved disassembling offices, repairing walls, and painting 84 .
- **General building maintenance and repairs** took place across various city facilities, including City Hall, 415 Stockbridge, KDPS stations, Headquarters, Riverside Cemetery, and Central Pump 39 ... . Examples include repairing a water line at City Hall 41 ... , fixing a frozen heater line 41 , maintaining sidewalks around buildings 41 ... , repairing a roof leak at Headquarters 61 , assisting with kitchen remodels at KDPS stations 61 ... , replacing a broken window at Mt. Home Cemetery 49 , repairing irrigation line breaks at Riverside Cemetery 53 ... , repairing a toilet at Central Pump 50 , cleaning the trough drain and sewer lines at Headquarters 53 , securing exterior boards at KDPS Station 6 56 , evaluating generators at 150 Crosstown and KDPS Station 2 39 ... , and repairing the evidence elevator at Headquarters 57 .
- **ADA improvements** at City Hall were being discussed and information gathered 54 Jump to bottom ompliance report highlighted various issues at city facilities, including sidewalk width, parking signage and markings, access aisles, handrails, door

Start typing...

When was the snowmelt system installed? | How many Miss Dig tickets were received? | What percentage reduction in crashes occurr

Document Review



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America's Infrastructure: 2025 Report Card

Sources

+ Add | Discover

Select all sources

- Executive-Summary-2025-Natl-IRC-WEB.pdf
- Full-Report-2025-Natl-IRC-WEB.pdf

Chat

Refresh

What is the overall current state and future funding needs of America's infrastructure?

Based on the sources provided, here is an overview of the overall current state and future funding needs of America's infrastructure.

The American Society of Civil Engineers (ASCE) has been issuing a quadrennial assessment of U.S. infrastructure networks, known as the Report Card for America's Infrastructure, since 1998 [1] [...]. This assessment uses a simple A to F school report card format to examine current conditions and needs and make recommendations [3] [...].

Current State: The **overall GPA for America's infrastructure in the 2025 Report Card is C** [5] [...]. This marks an **improvement from the C- grade in the previous 2021 report** [7] [...]. This positive trend is attributed to **recent federal investments, innovative solutions, and bold leadership** [7] [...]. Specifically, recent federal investments have positively affected many infrastructure sectors, leading to incremental improvements across some historically lowest-graded categories [7] [...]. Almost half of the 18 assessed categories saw increased grades [7] [...].

However, despite these advancements and the positive trend, the sources emphasize that a **substantial investment gap persists** [11] [...]. The backlog of maintenance projects grew for decades as investments failed to keep pace with demands, and demands on systems have intensified due to community expansion, usage trends, economic growth, unpredictable events, and new technologies [13] [...]. Key challenges that continue include aging infrastructure systems, which are increasingly vulnerable to natural disasters and extreme weather [15] [...], and the lack of reliable or available data on key performance indicators in certain sectors like school facilities, broadband, energy, levees, stormwater, and public parks [17] [...].

Future Funding Needs: To reach and maintai[illegible]which would be reflected in the Report Card with a B grade, ASCE estimates significant investment is necessary [19] [...]. The ASCE's

Jump to bottom

Start typing...

2 sources

When did ASCE begin issuing report cards?

What does a "C" grade signify for infrastructure?

NotebookLM can be inaccurate; please double check its responses.

America's Infrastructure: 2025 Report Card

Sources

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- Executive-Summary-2025-Natl-IRC-WEB.pdf
- Full-Report-2025-Natl-IRC-WEB.pdf

Chat

Refresh

Are there any contradictions?

Based on the sources provided, there do not appear to be any direct contradictions regarding the overall current state and future funding needs of America's infrastructure. The sources present a consistent picture derived from the ASCE's 2025 Report Card and related studies.

Here's a breakdown of the consistent points:

1. **Overall Current State:** The sources consistently report that the **overall GPA for America's infrastructure in the 2025 Report Card is C**, which is an **improvement from the C- grade in 2021** 1 ... . This positive trend is attributed to **recent federal investments** 2 . However, despite this improvement, a **substantial investment gap persists** 2 ... . Challenges such as aging systems and vulnerability to extreme weather events continue 5 ... .
2. **Future Funding Needs:**
   - The sources consistently estimate that **total investment needs reach $9.1 trillion over the 10-year period from 2024 through 2033** to achieve a state of good repair across all 18 assessed categories 7 ... .
   - Anticipated public and private investments over this period are forecast at **$5.4 trillion**, assuming Congress continues funding at recent levels established by legislation like the IIJA and IRA 7 ... .
   - Based on these figures, there is a consistent calculation of a **$3.7 trillion gap in investments** over the next 10 years if funding continues at current levels 7 ... .
3. **"Snapback" Scenario:** The sources uniformly warn about the consequences if Congress were to revert ("snap back") to investment levels in place prior to recent increases 7 ... .

Start typing...

2 sources

How does resilience affect infrastructure costs?

What are factors in dam hazard potential?

https://notebooklm.google.com/notebook/e51237d9-26eb-4c6e-889a-3403eaa542a2

Climate and Construction

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Sources

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- Brickwork.pdf
- Building Materials.pdf
- Climate and Construction.pdf
- Impact of Climate.pdf
- Managing the Implications.pdf
- Top 5 Considerations.pdf
- World Economic Forum.pdf
- asce1.pdf
- asce2.pdf
- construction managers.pdf

Chat

Climate and Construction

10 sources

These sources collectively explore the **multifaceted impact of climate change on the construction industry**. They highlight how **extreme weather events affect construction timelines and materials** like brickwork and pavement, while also discussing the **significant carbon footprint of building materials**. The texts emphasize the need for **climate-resilient designs and sustainable building practices**, including the use of **alternative materials and innovative technologies**. Furthermore, they address the **financial and risk management implications** of climate change for construction projects and the **growing demand for data and tools** to assess and mitigate these risks.

Save to note

Add note | Audio Overview | Mind Map

Start typing... 10 sources

How does climate change impact various construction phases and materials?

Studio > Note

Climate Change and Resilient Construction Practices

(Saved responses are view only)

Here is a summary of the sources, structured as a 30-slide PowerPoint presentation:

Slide 1: Title Slide
- Title: Climate Change and Construction: Building Resilience for the Future

Slide 2: Introduction
- The construction industry is significantly impacted by climate change, necessitating adaptation for sustainability and profitability [1, 2].
- Clients, regulators, and the public are pushing for more sustainable construction practices [1].

Slide 3: The Impact of Climate Change
- **Extreme climate events are becoming more frequent**, including heatwaves, droughts, and extreme rainstorms [3].
- Adverse weather events delay 45% of construction projects worldwide, costing billions [4].

Slide 4: Climate Change and Construction Materials
- **Traditional construction methods contribute to greenhouse gas emissions, landfill waste, and ecological damage** [1].
- The production of building materials like cement, steel, and aluminum involves chemical processes that release greenhouse gases [5].

Slide 5: The Need for Climate-Resilient Designs
- The construction industry must conceptualize climate-resilient and energy-efficient designs [2].
- This includes reinforcements for storm-prone areas and water conservation in areas with decreasing precipitation [6].

Slide 6: Integrating Principles for Financing
- Integrating environmental, social, and governance principles into construction designs is crucial for securing financing [7].
- Investors and creditors are more interested in funding sustainable projects [7].

Slide 7: Shifting to Green Building Practices
- More project owners are embracing green building practices [7].
- Eco-friendly development projects require distinct competencies [8].

Slide 8: Challenges in Sustainable Construction
- Sustainable products often cost more due to lack of economies of scale [8].
- Stringent environmental compliance requirements make paperwork processes more demanding [9].

Slide 9: Utilizing Technology to Overcome Challenges
- Cloud technology ensures all project stakeholders are on the same page, improving collaboration

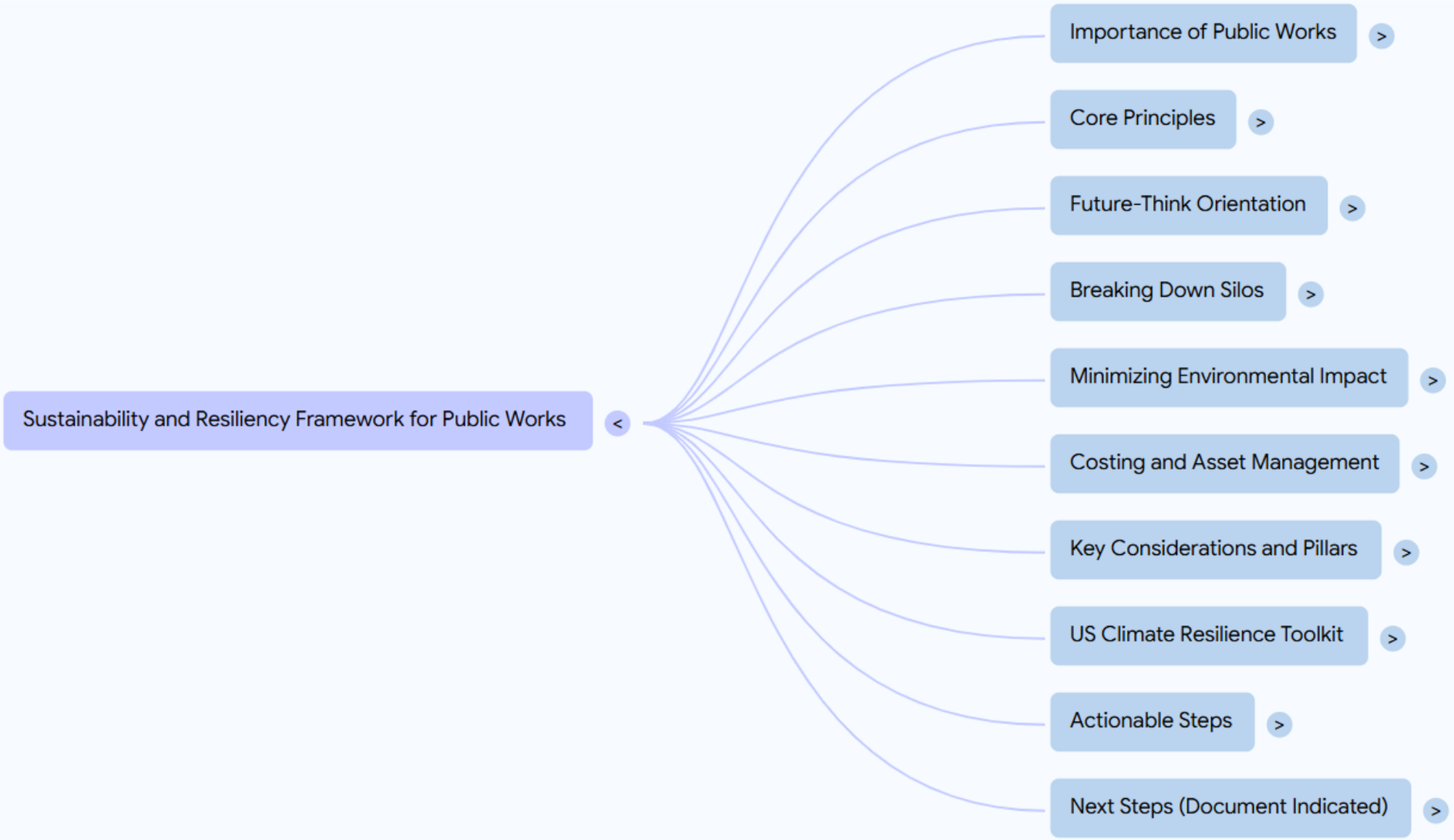
Convert to source

NotebookLM can be inaccurate; please double check its responses.

4:55 PM
5/21/2025

Public Works Sustainability and Resiliency Framework

Based on 2 sources



FTA Master Agreement v33 04/25/2025

Sources

+ Add | Discover

Select all sources

FTA-Master-Agreement-v33-04-25-2025.pdf

Chat

Refresh

are there any contradictions?

Based on the sources provided, there are instances where the Master Agreement acknowledges or addresses potential contradictions, differences, or cases where certain provisions either do not apply or are superseded by other laws, regulations, or agreements.

Here are some examples from the sources:

- For the **State Infrastructure Bank (SIB) Program**, any provision of the Master Agreement applicable to the Recipient's Underlying Agreement for its SIB Project that conflicts with any other federal law or regulation applicable to a SIB, federal SIB Guidelines, the SIB Cooperative Agreement, or the Underlying Agreement, generally **does not apply**, unless FTA expressly determines otherwise in writing 1.
- Similarly, for the **Transportation Infrastructure Finance and Innovation Act (TIFIA) or Railroad Rehabilitation and Improvement Financing (RRIF) Programs**, any provision of the Master Agreement that is applicable but conflicts with the laws, regulations, and requirements specifically applicable to the TIFIA or RRIF Underlying Agreement, **will not apply** to the TIFIA or RRIF Loan, Loan Guarantee, Line of Credit, or Master Credit Agreement, unless FTA determines otherwise in writing 2.
- For the **Joint FTA–FRA Program**, where both FTA and the U.S. Federal Railroad Administration (FRA) provide federal assistance for the same Underlying Agreement, the Recipient agrees to administer the agreement to achieve **maximum compliance** with both FTA's and FRA's statutory and regulatory requirements, as well as other federal statutory requirements 3. The sources explicitly state that:
  - Statutory and regulatory provisions relating to **Disadvantaged Business Enterprises (DBE)** **differ significantly** between FTA and F zed to use FTA's DBE regulations 4. The Recipient must comply with FTA's DBE provisions when using FTA federal assistance for

Jump to bottom

Start typing...

1 source

Are private entities prohibited from forced labor?

Does the Recipient comply with planning guidance?

Data Analysis



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Crashes Involving Hit and Run or Leaving the Scene

(Saved responses are view only)

Based on the provided sources, several crash narratives mention incidents involving **hit and run** or one of the vehicles leaving the scene without providing information. While "Fleeing Police" is listed as a potential special circumstance in the data fields 1 ..., none of the crash narratives describe a collision occurring while a vehicle was actively fleeing from the police.

Here are the crashes identified in the narratives where a hit and run or leaving the scene occurred:

- **Crash ID 9619032** (Before, 2/9/2016): Unit 1 was sideswiped by Unit 2, and **Unit 2 left the scene after the collision and was not located** 33. No citations were issued 33.
- **Crash ID 9623942** (Before, 2/13/2016): Vehicle 2 side-swiped Vehicle 1 while attempting a left turn and then **fled the scene** 34. A Be On the Lookout (BOL) was sent out for a black Ford Escape 34.
- **Crash ID 9868150** (Before, 11/20/2016): Vehicle 2 backed up into Vehicle 1 while stopped for a train, then **changed lanes and did not stop and ID after the collision** 6. Vehicle 2 was described as an older white Jeep Cherokee, but the driver was not identified 6.
- **Crash ID 1146932** (Before, 10/1/2017): Vehicle 2 pulled out from Walbridge St onto E Michigan Ave without yielding and was struck by Vehicle 1. **Vehicle 02 then fled the scene east on E Michigan** 35. Vehicle 2 was described as a blue sedan with no further information provided 35.

Chat

Based on the provided sources, concrete work was reported on the following days:

- **March 18, 2024** [1] - S2 concrete was reported from High Grade and accepted as placed [1].
- **April 11, 2024** [2] - Sawcutting for curb areas was being finished by K&H [2]. K&H Sawcutting was noted cutting concrete to a flush and flat finish at Pioneer [3] [...].
- **April 16, 2024** [5] [...] - Standard Mortar from Grand Valley was accepted, and Precast Reinforced Concrete Units for Dr (Drainage Structures) from Northern Concrete were accepted [5] [...]. A structure not on the original plans was added due to a duct bank conflict [6] [...].
- **April 17, 2024** [9] - Standard Mortar from Grand Valley and Precast Reinforced Concrete Units from Northern were accepted [9]. Removal of two Dr Structures was noted for structure 8A and 8B [9].
- **April 30, 2024** [10] - Castings from East Jordan were accepted as placed [10].
- **June 27, 2024** [11] - Removal of 24.000 Ft of Curb and Gutter was reported [11].
- **July 13, 2024** [12] - One K&R crew worked on setting sanitary structure #1 at the Crosstown Pkwy and Westnedge intersection [12].
- **July 20, 2024** [13] - Darren's Crew was finishing sanitary work [13].
- **July 26, 2024** [14] [...] - S2 concrete from Peterman was accepted by test [14]. Items reported included Manhole Castings from East Jordan, Concrete Brick from Grand Valley, Standard Mortar from Grand Valley, and 82.000 Ft of Concrete Driveway Opening, Detail M, placed by Martin J. Concrete, Inc. [15].
- **August 1, 2024** [16] [...] - Concrete, Grade S2 from High Grade was accepted by test [16] [...]. Detectable Warning Surface from Accesstile was accepted [17].
- **August 2, 2024** [18] - Manhole Castings from East Jordan and Precast Concrete Handholes and Manholes from QPI were accepted [18].
- **August 3, 2024** [19] - Martin J. Concrete, Inc. Crew spent the day pouring the Cross[...]e course and misc. areas south on site [19].

Jump to bottom

Start typing...

Who was the construction engineer? | How many foreman worked November 7, 2024? | What caused work stoppage on July [...]

NotebookLM can be inaccurate; please double check its responses.

Chat

Based on the provided sources, the **CAT Paver AP1055** was reported on site with Michigan Paving and Materials Company on the following dates:

- **August 19, 2024** 1
- **September 7, 2024** 2 ...
- **September 13, 2024** 4
- **October 14, 2024** 5

Save to note

Chat

How man

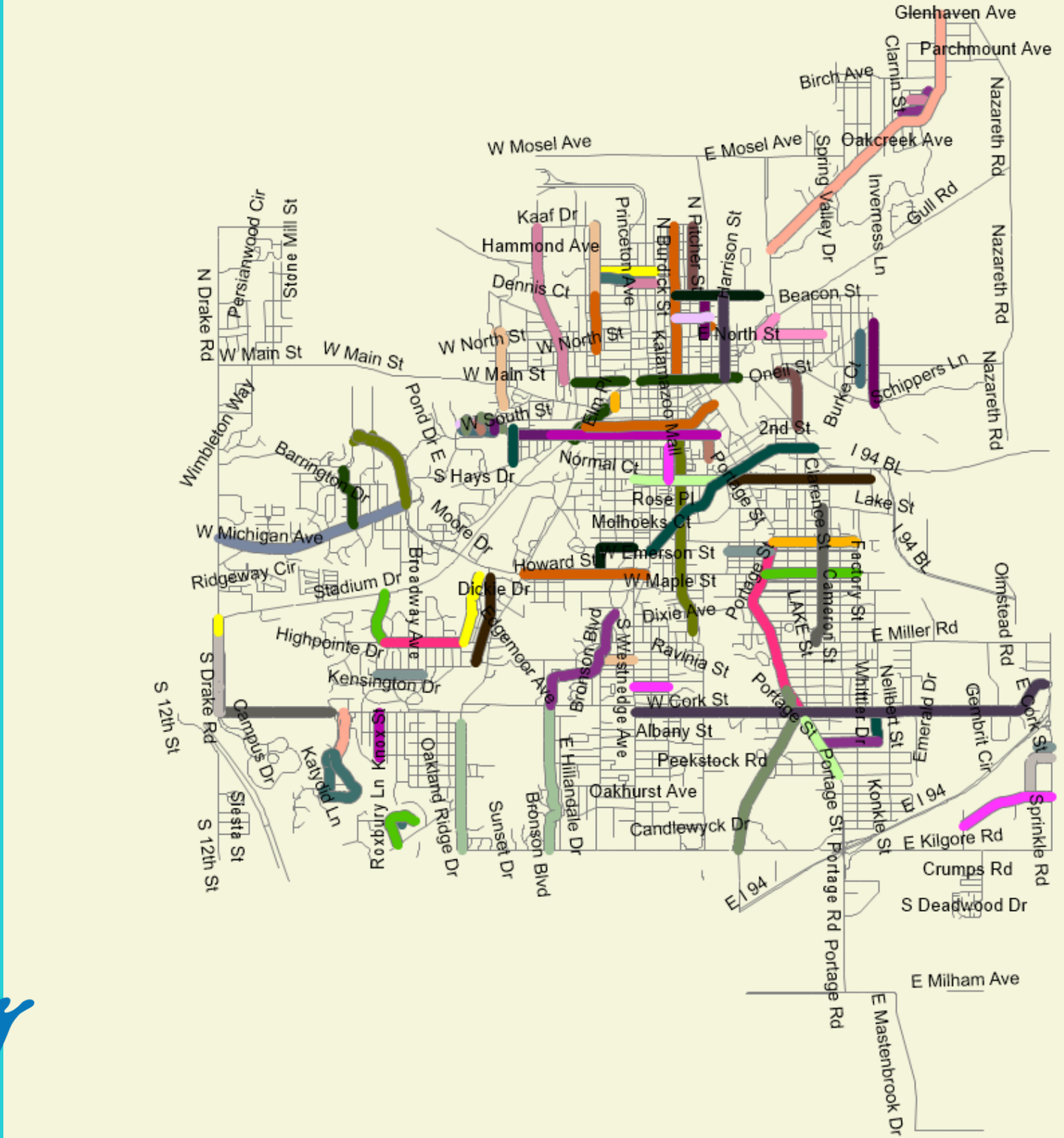
Based on the provided sources, information regarding the number of people on site between June 1, 2024, and June 15, 2024, is available for the following dates:

- **June 3, 2024:**
  - **Kamminga & Roodvoets, Inc.** (Prime Contractor) was on site [1]. Personnel reported for this date included:
    - Foreman: 1 [2]
    - Laborer: 3 [2]
    - Operator: 2 [2]
  - Total reported personnel on site on June 3, 2024 was **6**.
  - Comments mention "The crew" working at Whitcomb and "Darren (K&R foreman)" working between Maple and Parkwood [1].
- **June 7, 2024:**
  - **Kamminga & Roodvoets, Inc.** (Prime Contractor) was on site [2]. Personnel reported for this date included:
    - Foreman: 1 [2]
    - Laborer: 3 [2]
    - Operator: 2 [2]
  - **J. L. Milling Inc.** was also on site [3]. Personnel reported for this date included:
    - Groundsmen: 2 [3]
    - Operator: 1 [3]

Start typing...

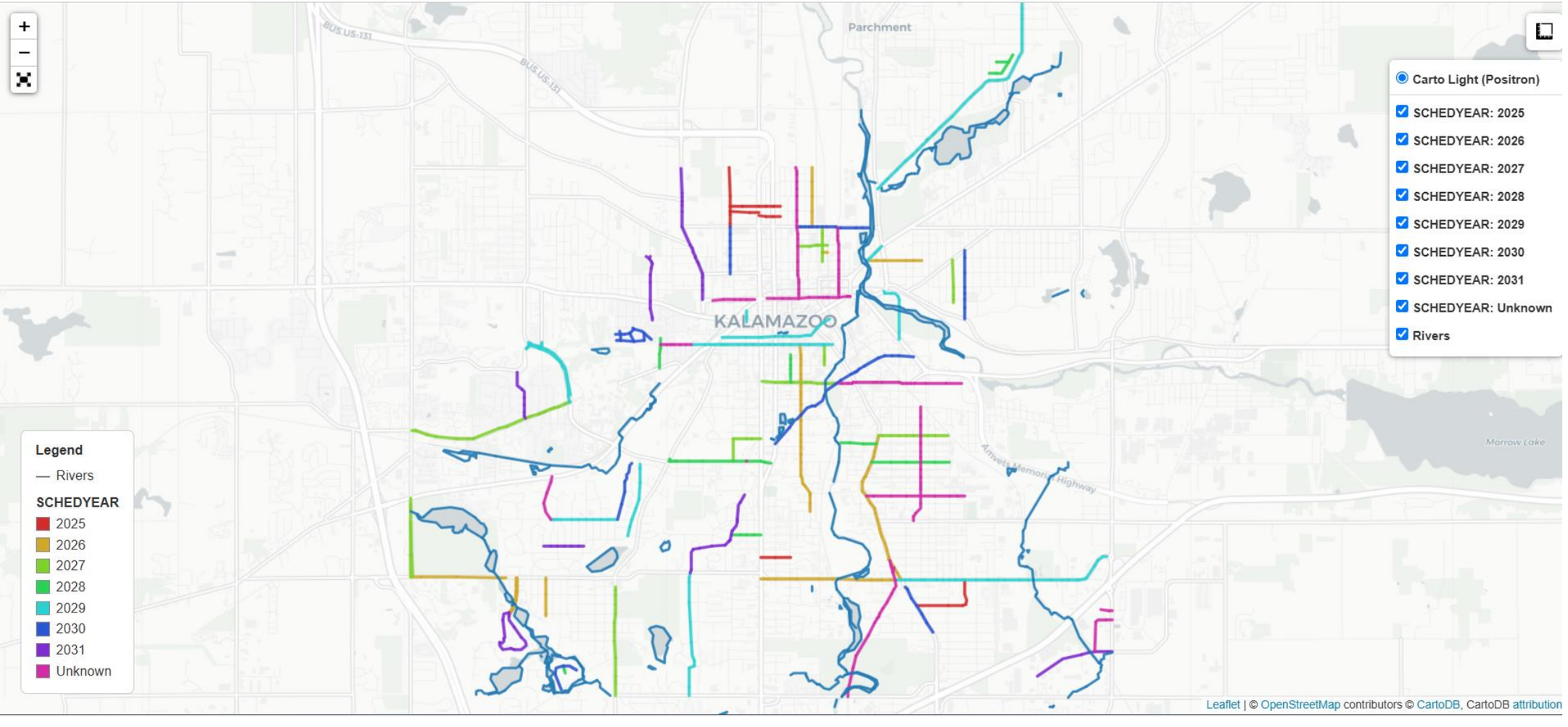
Who is the project engineer? | What is the prime contractor's name? | What quantity of Class III granular material was on-si

CIP



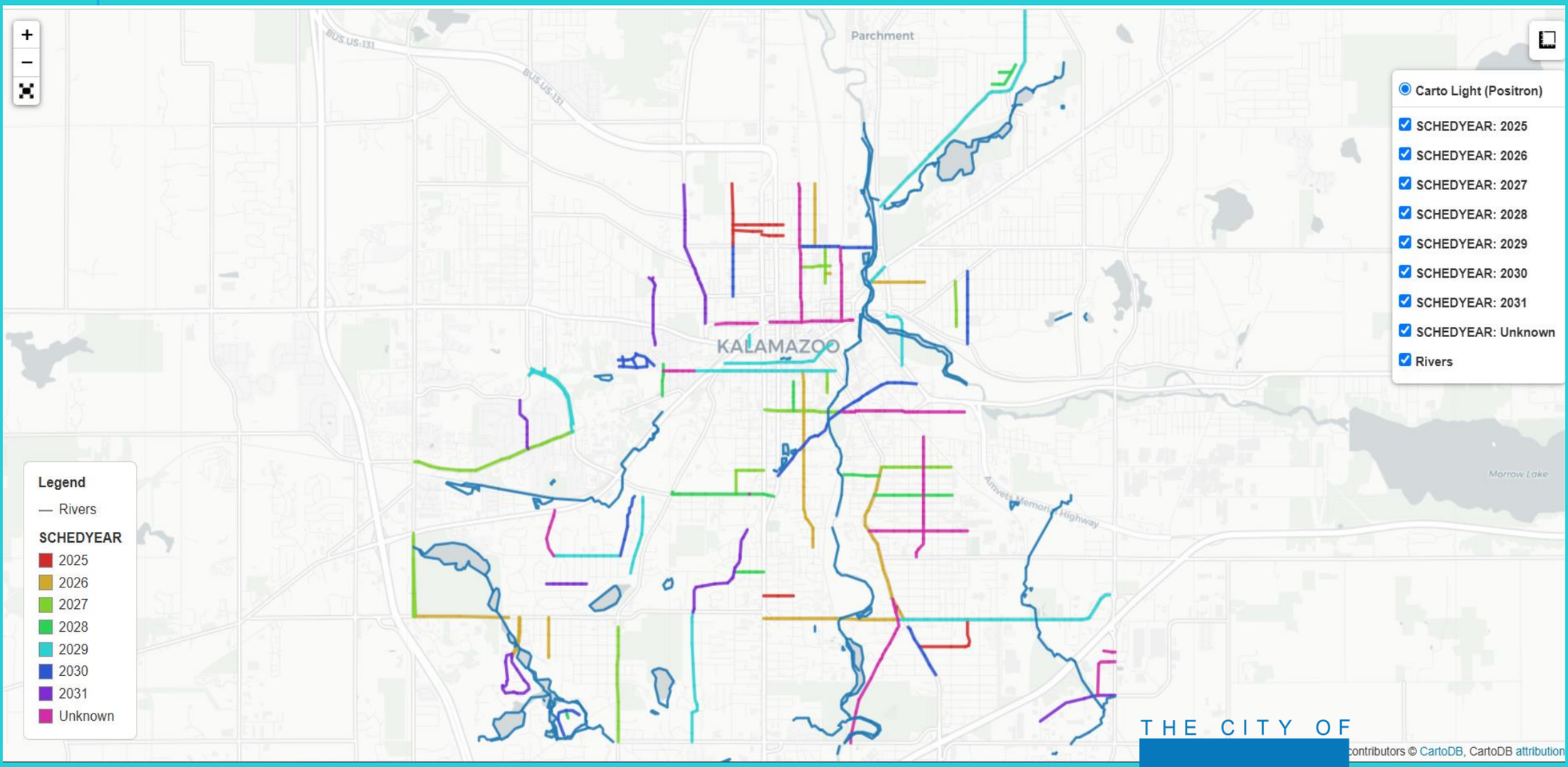
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MAINTENANCE ACTIVITY - CRACK AND SEAL



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PROCESSING DATA

Zone Name	2019	2020	2021	2022	2023	2024	2025	2025-2019	
East Crosstown Parkway	6,446	3,948	6,265	6,000	5,792	5,008	5,709	-736.50	1.9%
Mills Street	6,378	6,383	7,084	6,179	6,317	6,738	6,432	54.00	0.1%
Oakland Drive	9,841	4,552	8,319	9,861	8,366	10,456	7,314	-2527.00	6.4%
Portage Street	10,999	8,660	5,071	8,030	8,473	12,226	10,223	-775.50	2.0%
South Burdick Street	5,538	3,984	5,280	5,593	4,944	6,618	4,541	-997.50	2.5%
South Drake Road	24,497	22,916	23,148	24,624	24,020	27,941	28,184	3686.50	9.4%
South Howard Street	21,454	16,247	16,652	15,261	18,439	11,903	18,944	-2510.50	6.4%
South Westnedge Avenue	13,643	11,769	14,096	12,561	11,551	4,434	8,148	-5494.50	13.9%
Stadium Drive	48,187	39,946	42,540	21,461	39,670	41,430	21,843	-26344.00	66.9%
US 131	61,333	55,955	55,242	56,179	57,299	63,182	57,576	-3756.50	9.5%
Total	208,314	174,357	183,695	165,747	184,868	189,934	168,912	-39401.50	100.0%
Volume Impact Factor		COVID			Construction				

Oakland & Angling Monthly Metrics

2019 vs 2025 Summary Dashboard

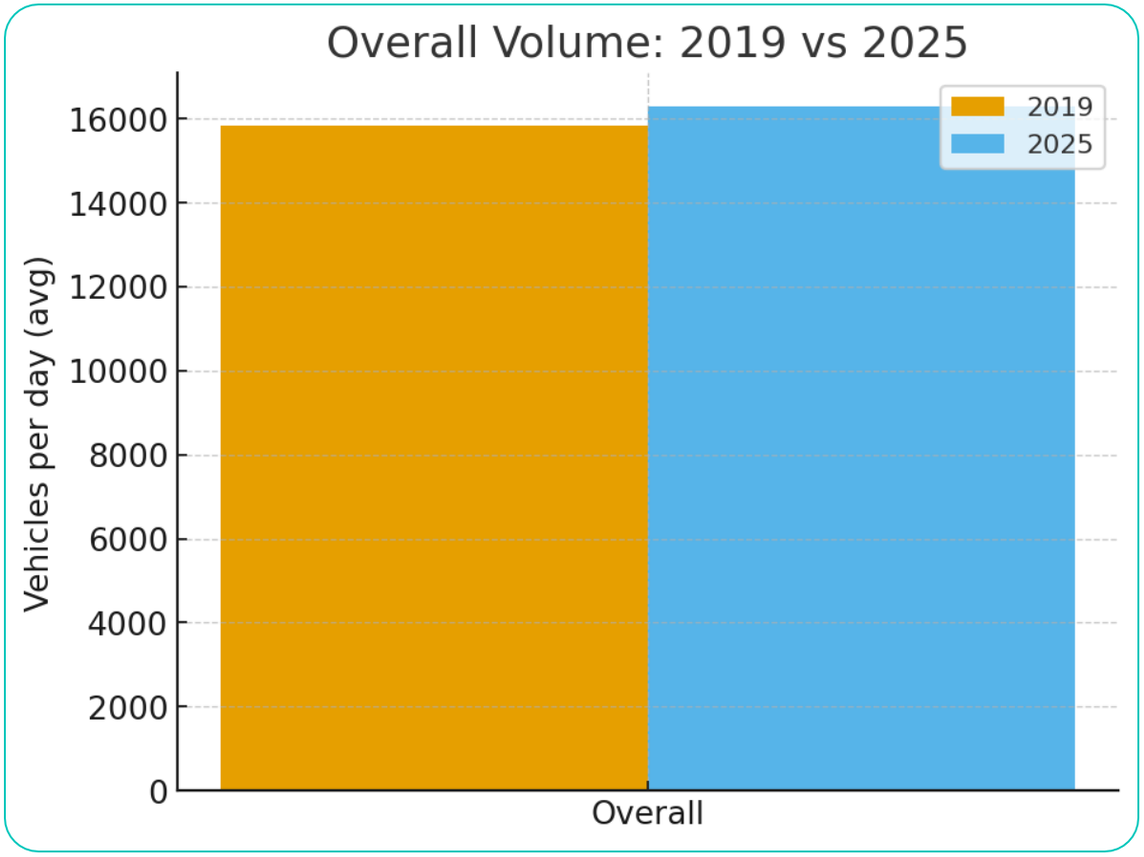
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Key Findings

- Overall changes (All Days, All Day):
  - Volume: 15,825 → 16,285 (+459, +2.9%)
  - Avg speed: 34.9 → 34.1 mph (–0.8 mph, –2.3%)
  - Free-flow speed: 39.4 → 38.8 mph (–0.6 mph, –1.5%)
  - 85th percentile: 40.6 → 39.5 mph (–1.1 mph, –2.8%)
- By zone (largest shifts):
  - South of Angling: Volume +940 vpd (+6.3%), 85th %ile –1.3 mph (–3.2%)
  - North of Angling: Volume –21 vpd (–0.1%), 85th %ile –1.0 mph (–2.4%)

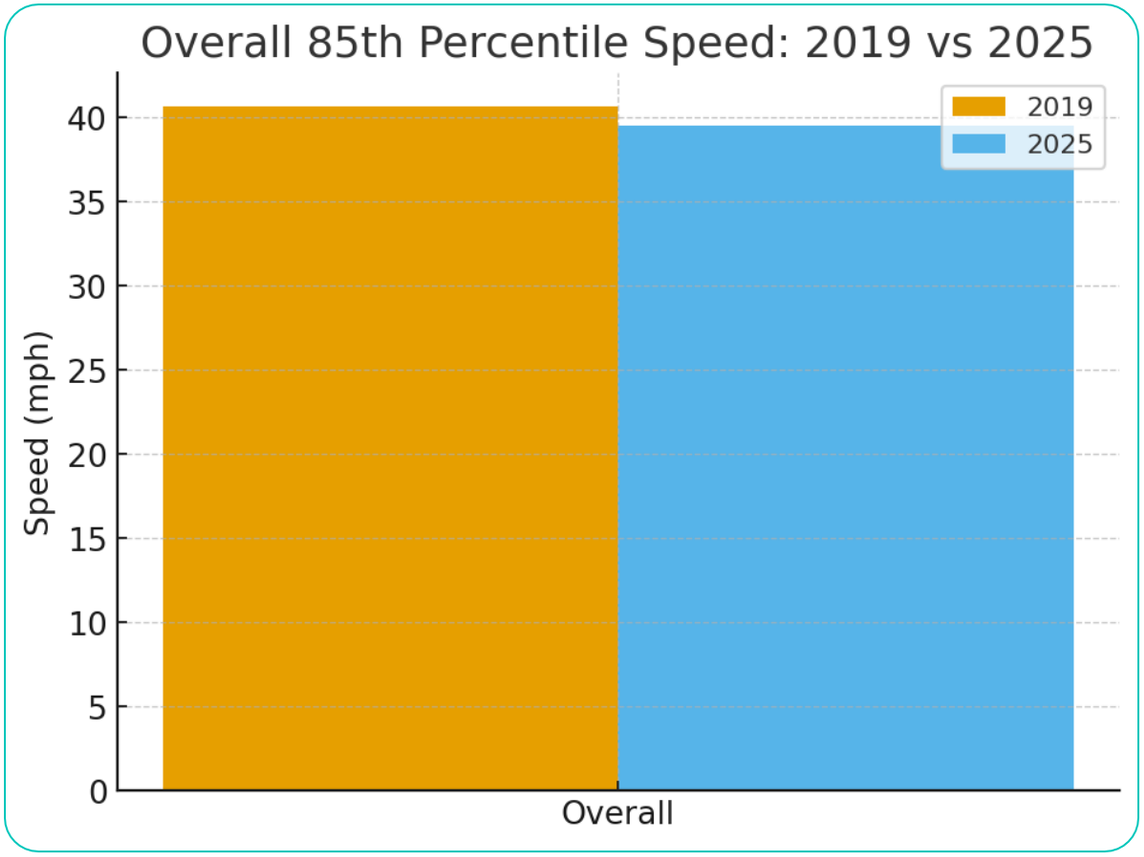
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Overall Volume: 2019 vs 2025



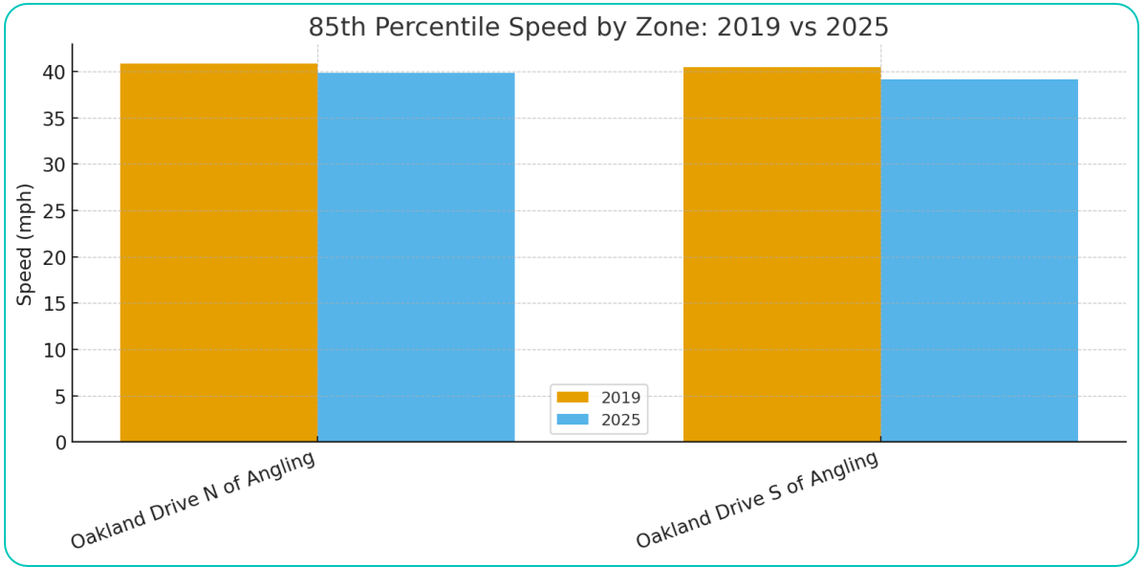
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Overall 85th Percentile: 2019 vs 2025



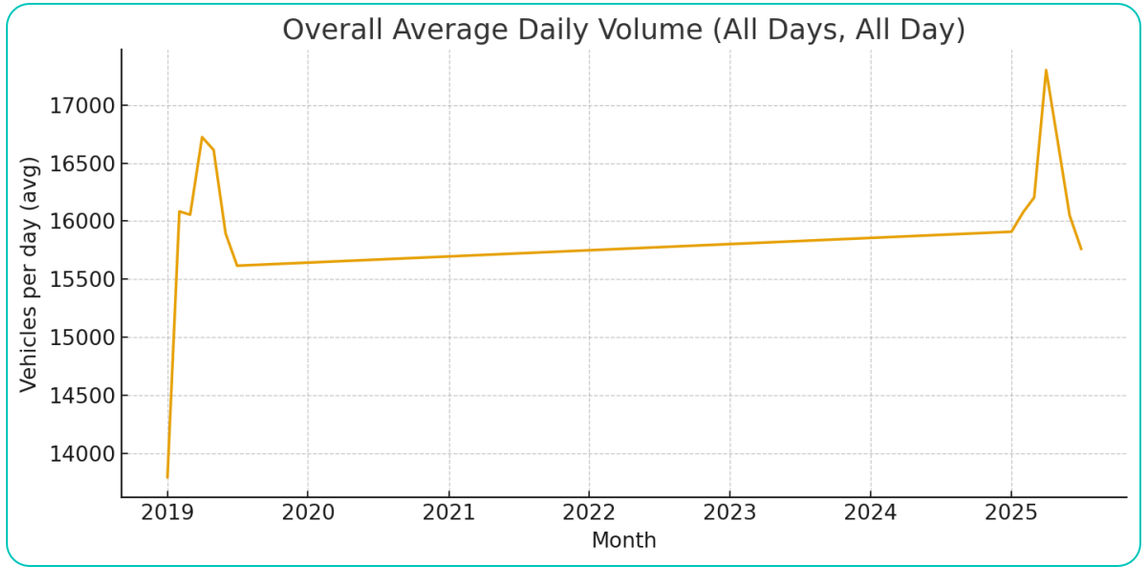
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85th Percentile by Zone: 2019 vs 2025



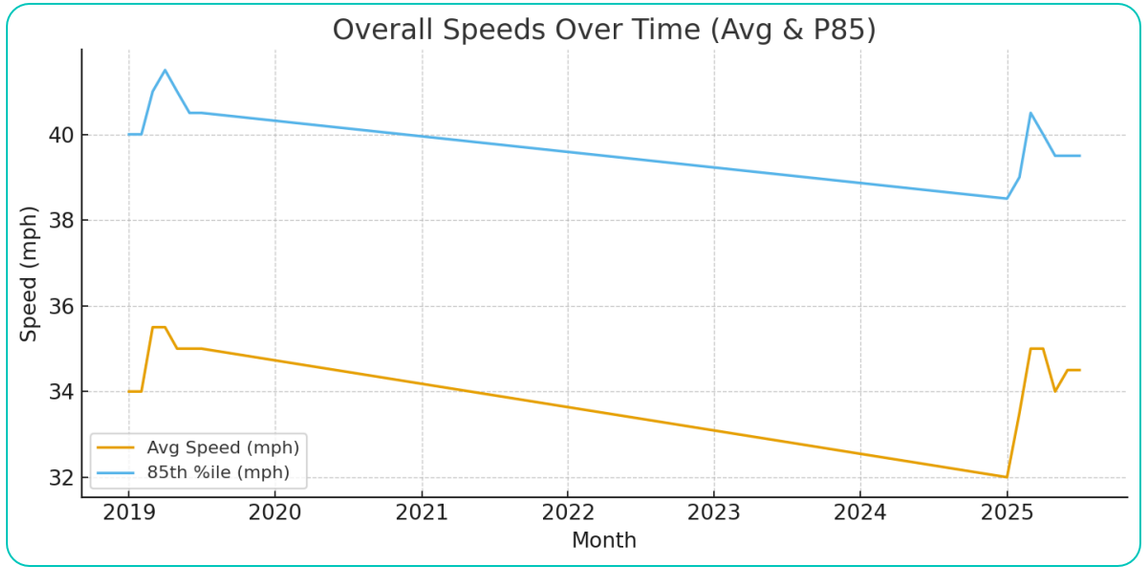
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Overall Volume — Monthly Trend

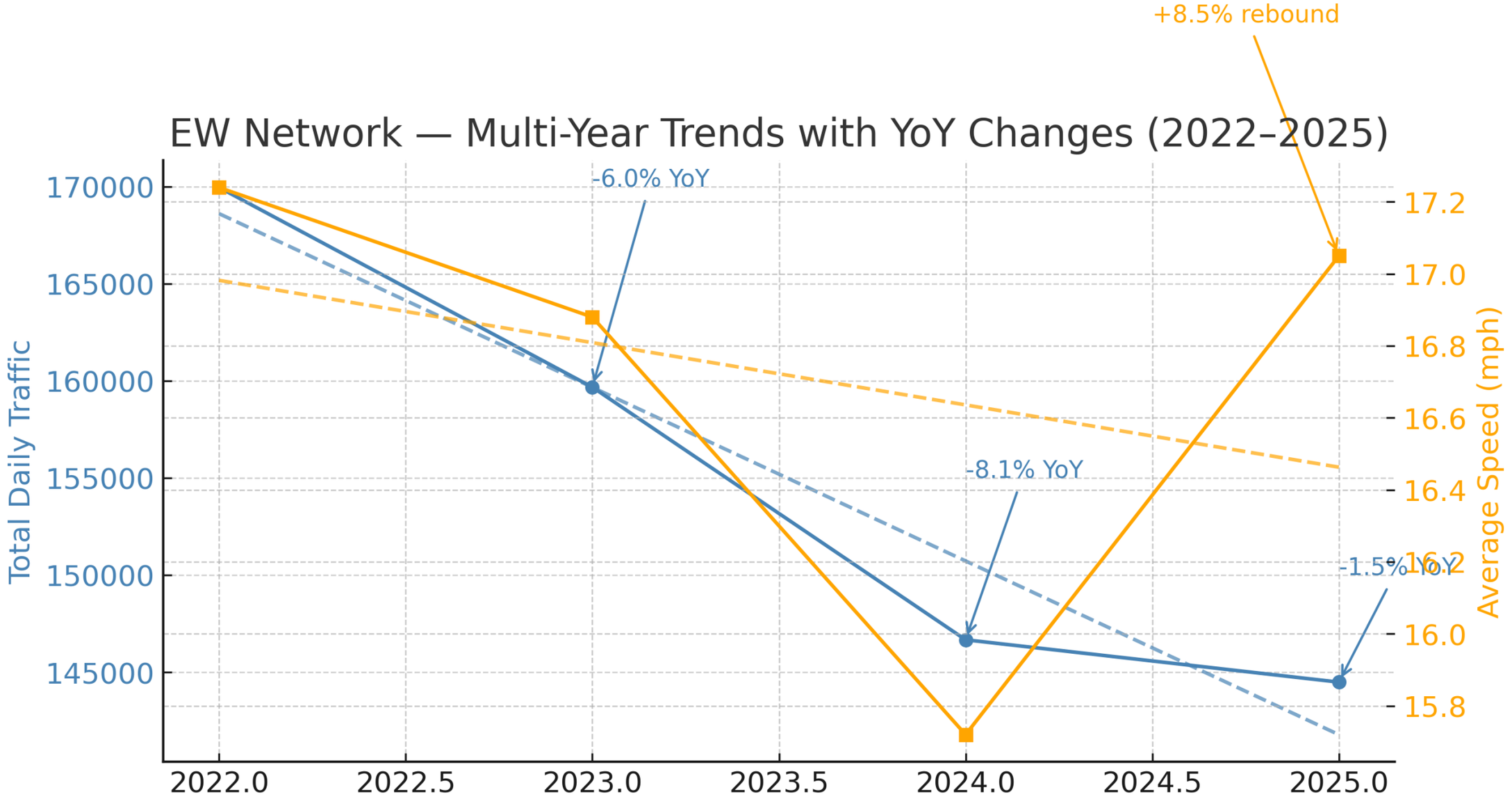


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Overall Speeds (Avg & P85) — Monthly Trend



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NotebookLM

Ohio's Parks: A Report Card



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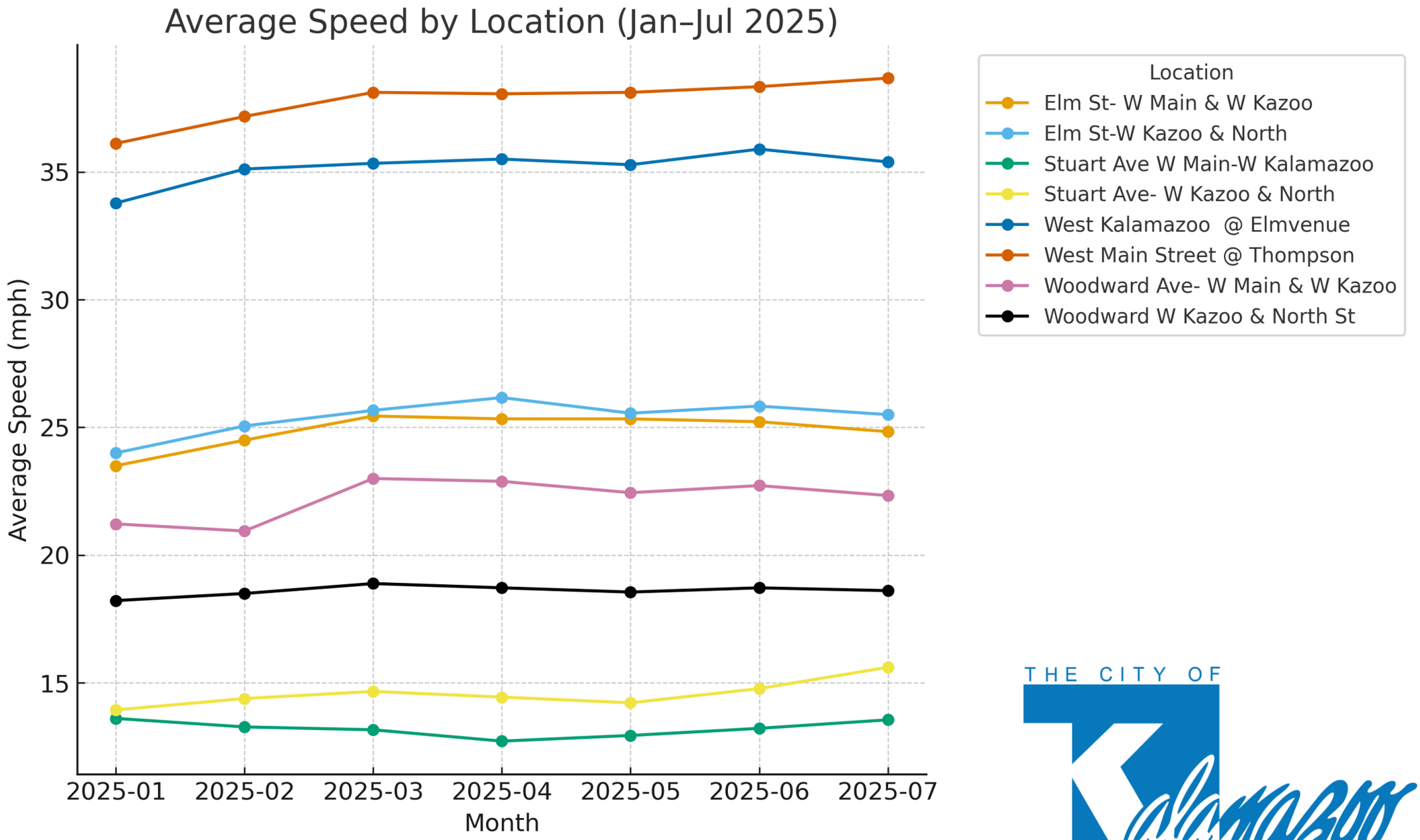
NotebookLM

ASCE Peer Review: An Insider's Guide



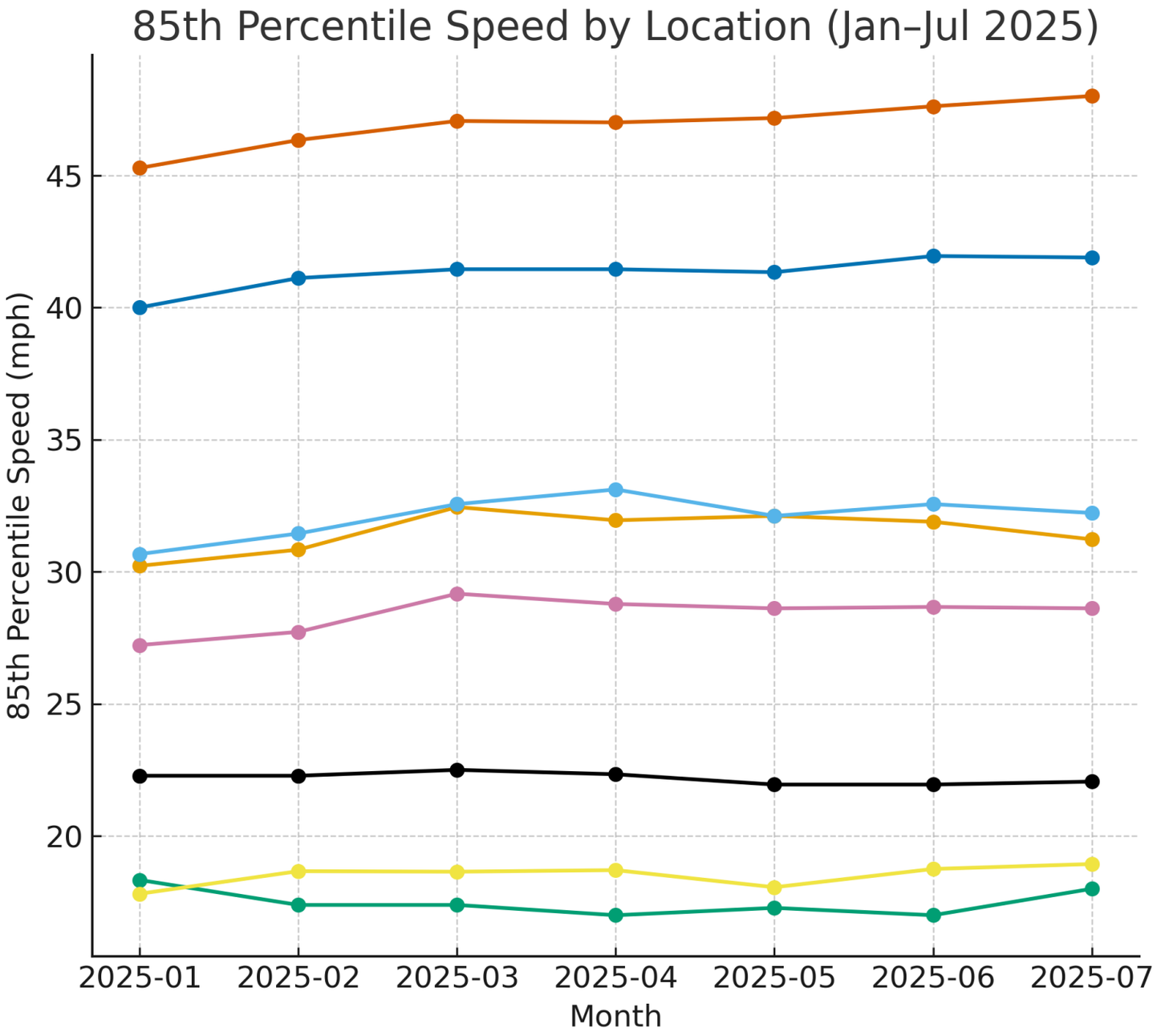
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MORE GRAPHS



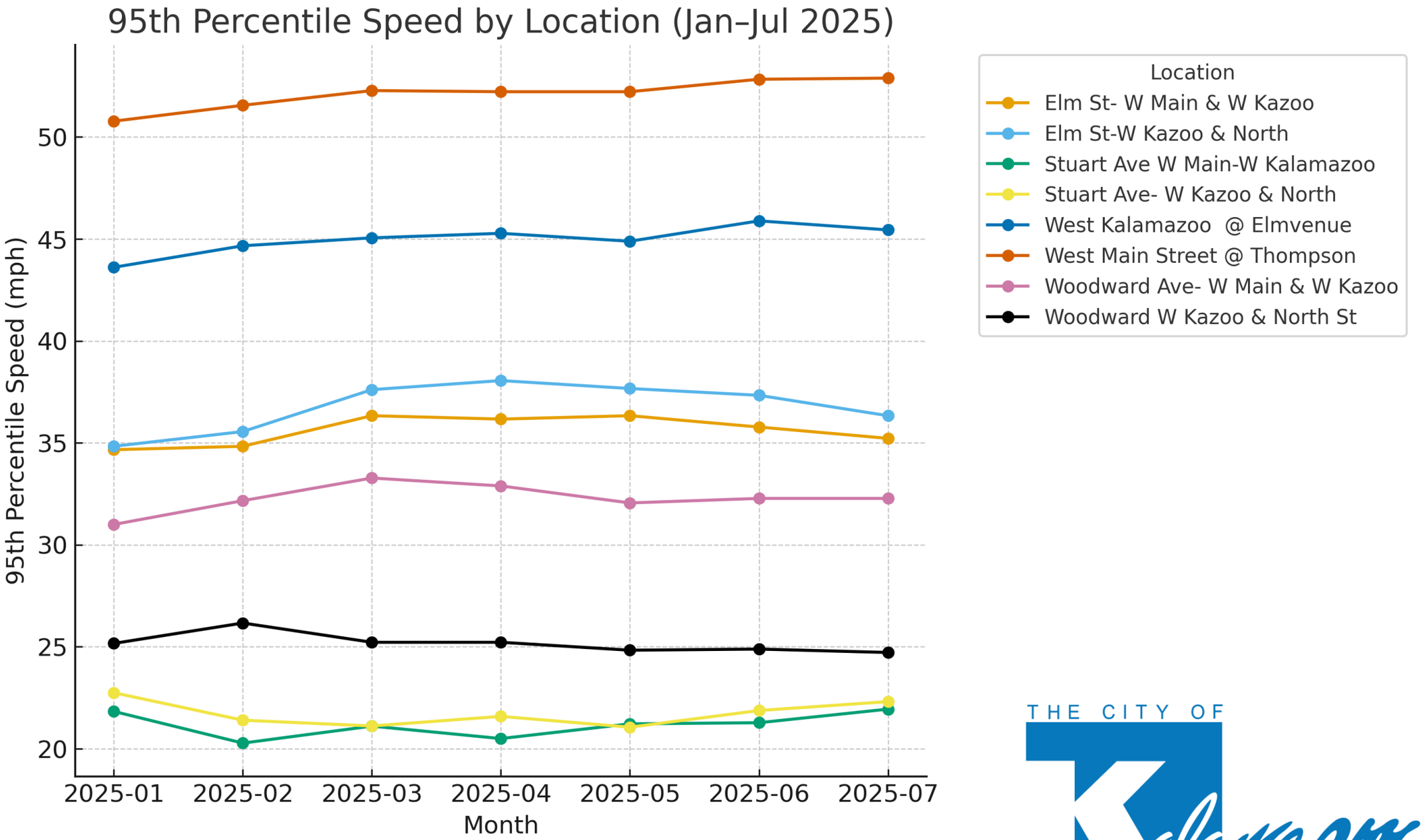
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MORE GRAPHS



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MORE GRAPHS

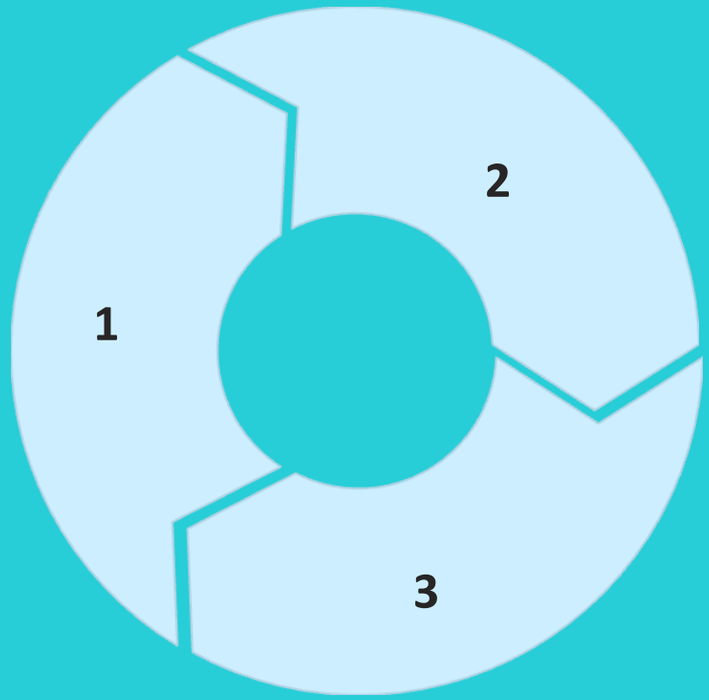


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AI and the Future of Work

Automation

Repetitive tasks are automated.



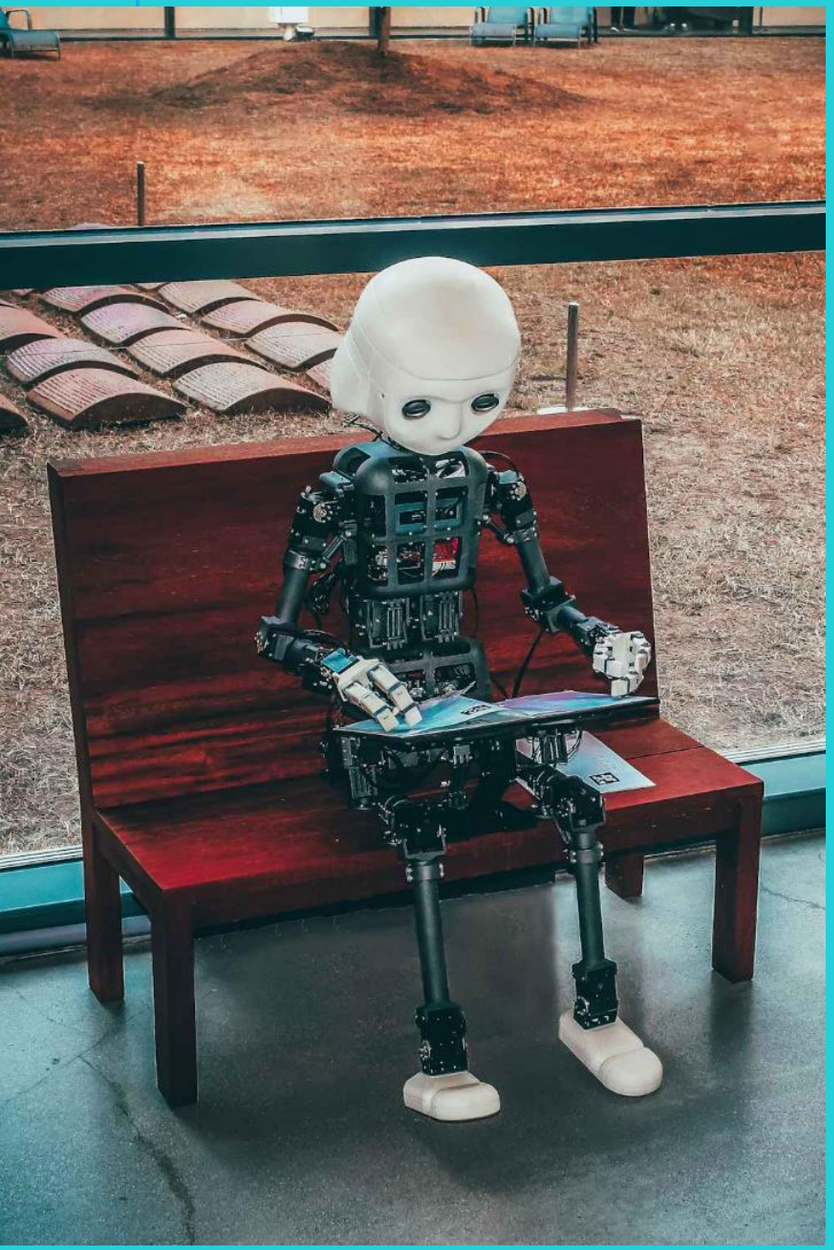
New Jobs

Demand for AI specialists rises.

Upskilling

Workers need to adapt to new roles.

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The Importance Importance of Ethical AI

1 **Transparency**

Understanding how AI systems make decisions.

2 **Fairness**

Ensuring AI treats everyone equitably.

3 **Accountability**

Holding developers responsible for AI's impact.

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Thank You!

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Questions!

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