




Highway Safety Improvement Program (HSIP): Building Better Intersections, Batch by Batch

April 16, 2026 | Presented to: MCDITE 2026 Annual Conference



Our Agenda

- 01 HSIP/ISIP Overview
- 02 Working in Batches
- 03 Workflow & Team Evolution
- 04 Feedback Loop
- 05 Takeaways

A quote by Guy Fieri is displayed on a dark background. The quote is in white, bold, sans-serif font. Below the quote is a teal rectangular box containing the name 'GUY FIERI' in white, bold, sans-serif font. At the bottom of the image, the words 'EVERYDAYPOWER' are written in a smaller, white, sans-serif font.

Sometimes you pull up to a place and you just know it's going to be good.

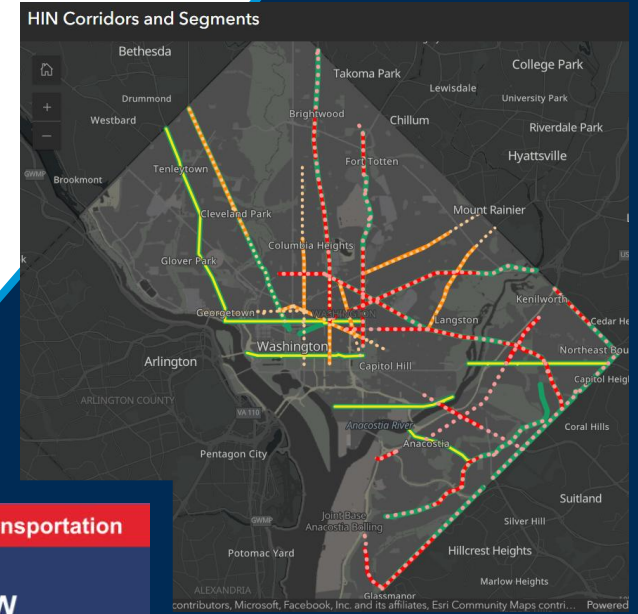
GUY FIERI

EVERYDAYPOWER



HSIP Overview

- What is HSIP?
- “The Highway Safety Improvement Program (HSIP) is a core Federal-aid program with the purpose to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned roads and roads on tribal land. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads with a focus on performance.”



District Department of Transportation

7th Street and New York Avenue NW

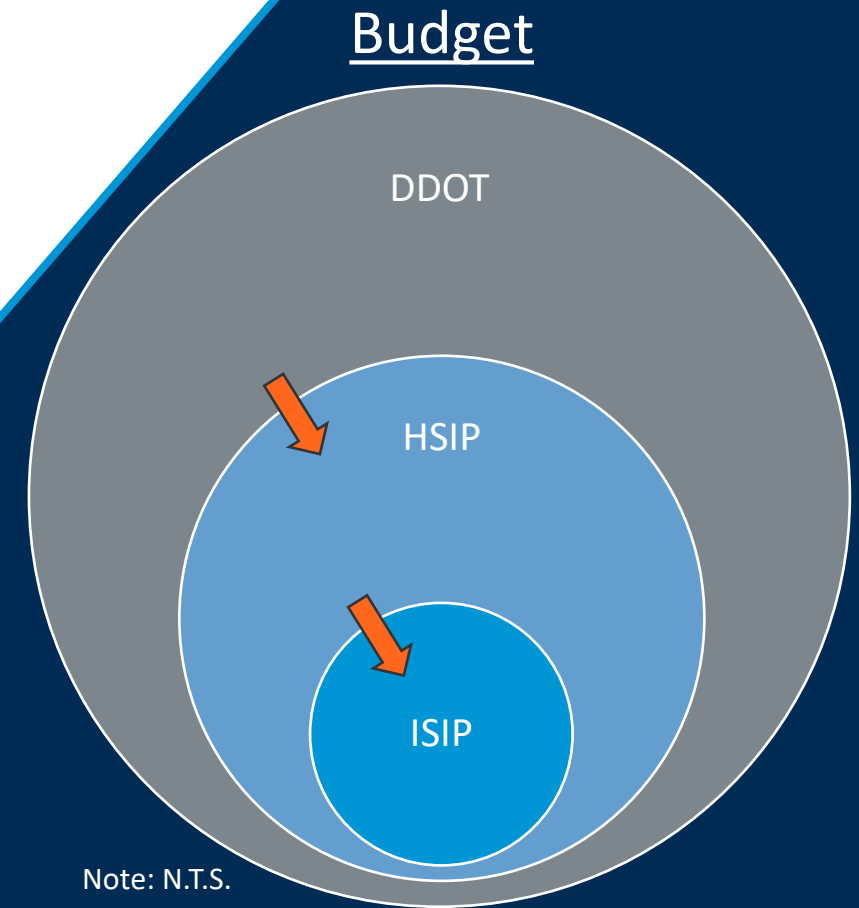
Winter 2024
DDOT Highway Safety Improvement Programs
Contract DCKA-2017-T-0122, Task Order 04
Prepared for District Department of Transportation by Vanasse Hangen Brustlin, Inc. (VHB)





ISIP Overview

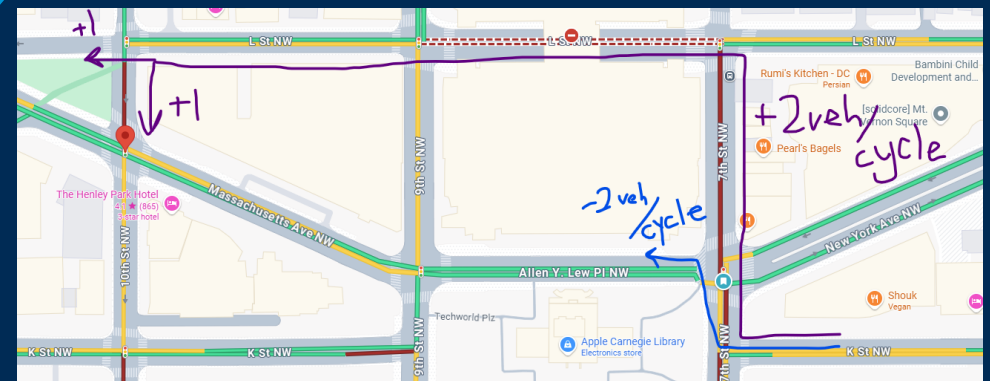
- What?
 - Intersection Safety Improvement Program (ISIP)
- Why?
 - To find low-cost, high-impact solutions to support the HSIP objective
 - “to achieve a significant reduction in traffic fatalities and serious injuries on all public roads”
- Where?
 - Intersections within Washington, D.C.
 - Selected by DDOT’s data-driven prioritization model
 - Intersections are deconflicted from active or upcoming projects
- How?
 - That’s for later in the presentation





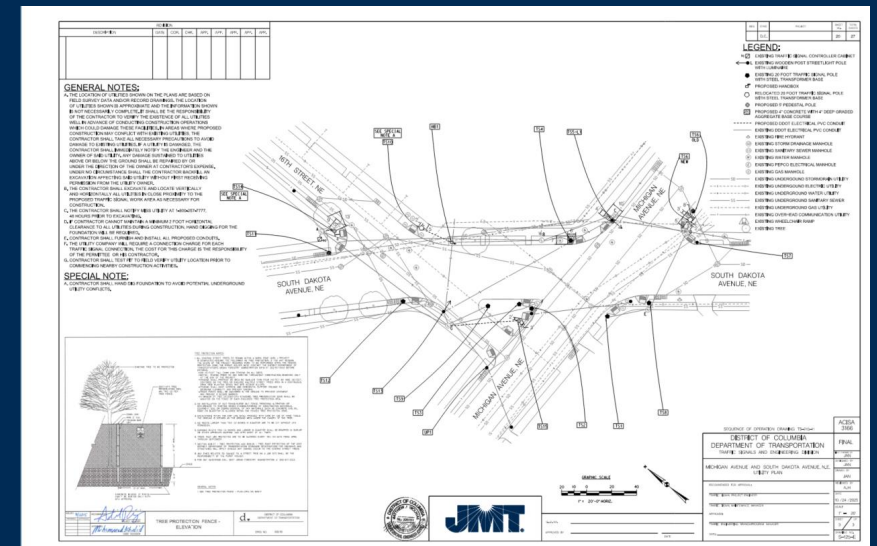
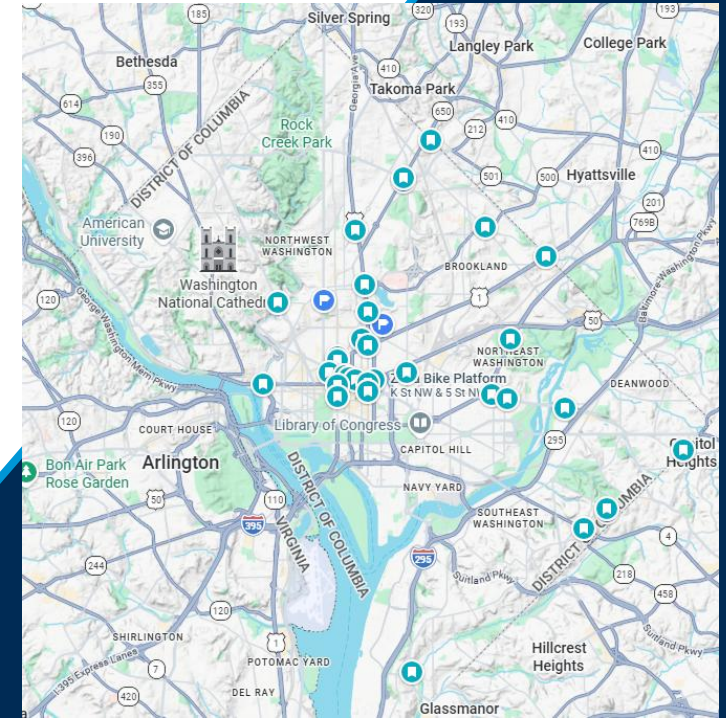
ISIP Overview

- What is **JMT** doing with DDOT?
 - “The HSIP [...] requires a data-driven, strategic approach to improving highway safety on all public roads with a focus on performance.”
 - We’re supporting DDOT in that effort by focusing on **data-driven strategies** and **program performance**.
- Scope:
 - 30% Concept → PS&E
- What we actually do:
 - 30% Concept → PS&E
 - Coordinate additional studies and analyses
 - Now formalized into ISIP Workflow
 - Notice of Intent (NOI) support
 - Immediately apply lessons-learned across parallel and successive batches



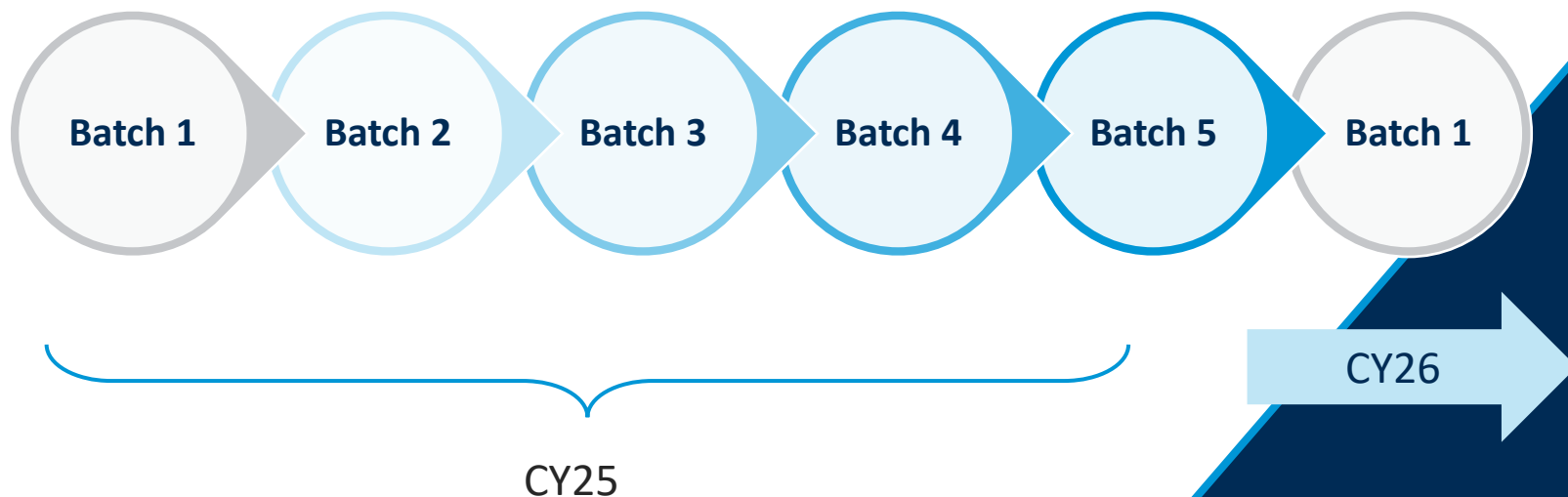
> Working in Batches

- Typical Batch = 5 intersections
- Batches Completed = 9
- Batches In-progress = 2
- Intersections Designed = 43
 - Many supported by supplemental safety studies and signal network analyses
- Continuous delivery of ISIP Batches > 2 years





Batching as a Delivery Strategy



Benefits

- ✓ Immediate Stakeholder Feedback = feedback provided in one review state can be immediately applied to other batches
- ✓ Work progresses in parallel = Get more done
- ✓ Overlapping Batches = continuous pipeline of design + review



Batch Work Flow Process

HSIP Report Finalized

- Provided by Consultant

Background Research

- 4-week period at the beginning of each Batch
- Confirm base conditions
- Request additional, relevant documentation
- Perform feasibility analyses of proposed countermeasures
- Provide recommendations
 - Traffic Studies
 - Constructability reviews

JMT Design

- Recommendations can be applied to “downstream” and “upstream” batches

DDOT Review

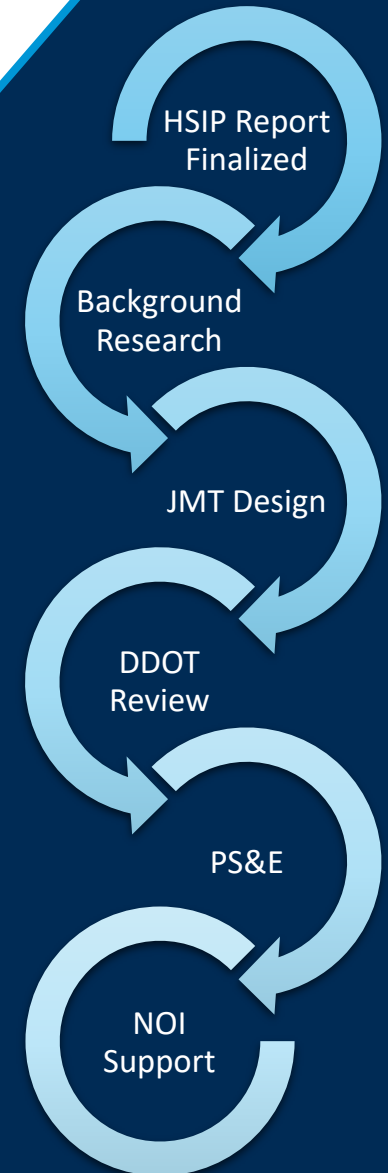
- HSIP Team review along with applicable DDOT Teams

PS&E Submission

- Completed after 65% and 90% design revisions

NOI Support

- Unofficial part of scope
- Slide decks and other supporting documents
- Redlines based on community feedback





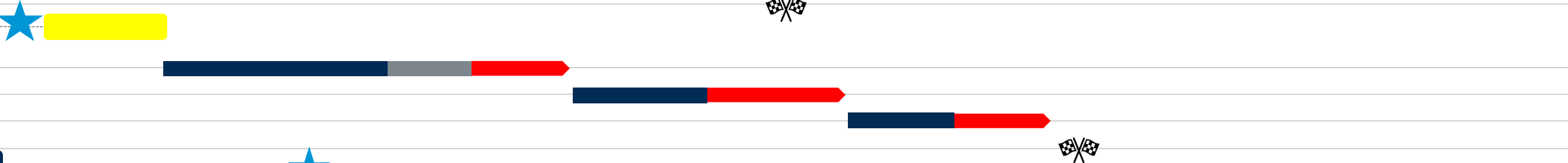
HSIP 25, Batch 5

- ✓ 65% Design
- ✓ 90% Design
- ✓ 100% Design
- ✓ PS&E JMT



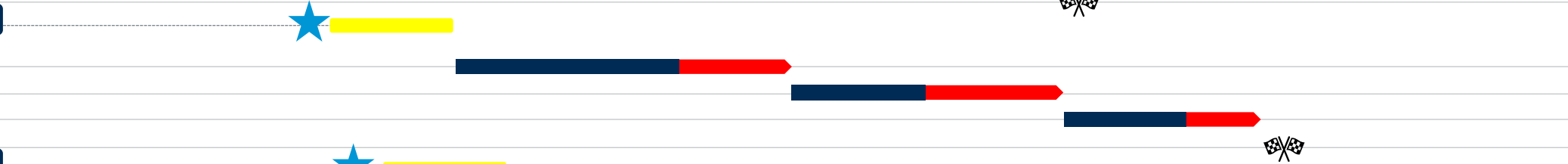
HSIP 26, Batch 1

- ✓ 65% Design
- ✓ 90% Design
- ✓ 100% Design
- ✓ PS&E JMT



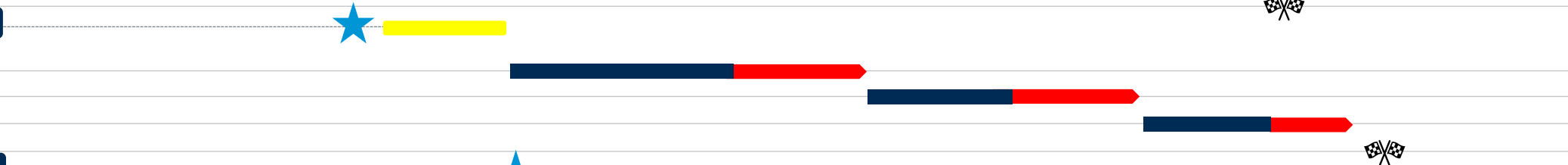
HSIP 26, Batch 2

- ✓ 65% Design
- ✓ 90% Design
- ✓ 100% Design
- ✓ PS&E JMT



HSIP 26, Batch 3

- ✓ 65% Design
- ✓ 90% Design
- ✓ 100% Design
- ✓ PS&E JMT



HSIP 26, Batch 4

- ✓ 65% Design
- ✓ 90% Design
- ✓ 100% Design
- ✓ PS&E JMT

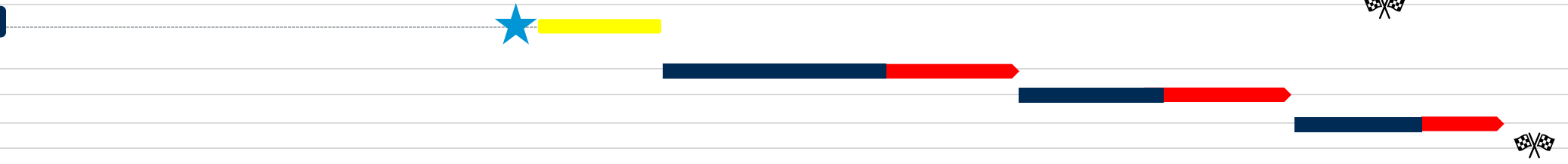


Chart Key

- JMT Design
- DDOT Review
- Extension
- ★ HSIP Report Delivered/NTP
- 🚩 PS&E Submission
- Background Research

Anticipated Batch Schedule



Applying Changes “Downstream”

HSIP 26, Batch 1



- ✓ 65% Design
- ✓ 90% Design
- ✓ 100% Design
- ✓ PS&E JMT

*Any changes or corrections provided in an **Earlier** batch review can be immediately applied to other batches regardless of their design stage*

- ✓ No Rework
- ✓ No schedule Impacts
- ✓ Fewer Comments from Client

HSIP 26, Batch 3



- ✓ 65% Design
- ✓ 90% Design
- ✓ 100% Design
- ✓ PS&E JMT



Batching “Upstream”

HSIP 26, Batch 1

- ✓ 65% Design
- ✓ 90% Design
- ✓ 100% Design
- ✓ PS&E JMT

*Any changes or corrections provided in a **LATER** batch review can be applied to earlier batches during the next design phase*

HSIP 26, Batch 3

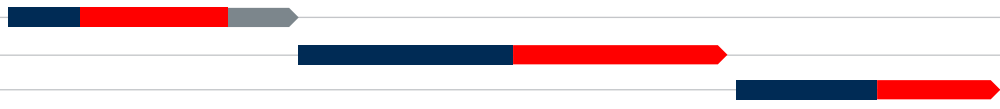
- ✓ 65% Design
- ✓ 90% Design
- ✓ 100% Design
- ✓ PS&E JMT

- ✓ Negligible Rework
- ✓ Minimal schedule Impacts
- ✓ Better Designs



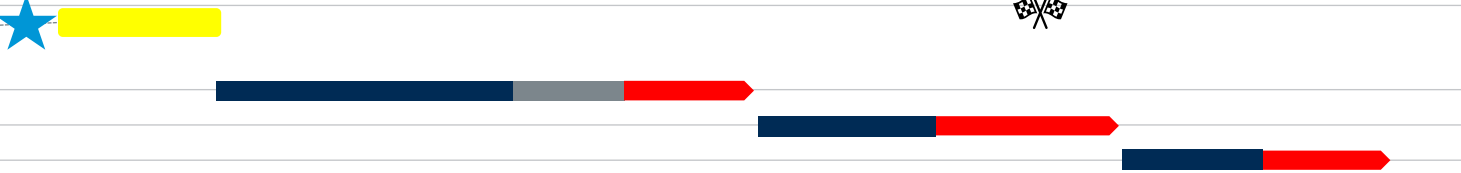
HSIP 25, Batch 5

- ✓ 65% Design
- ✓ 90% Design
- ✓ 100% Design
- ✓ PS&E JMT



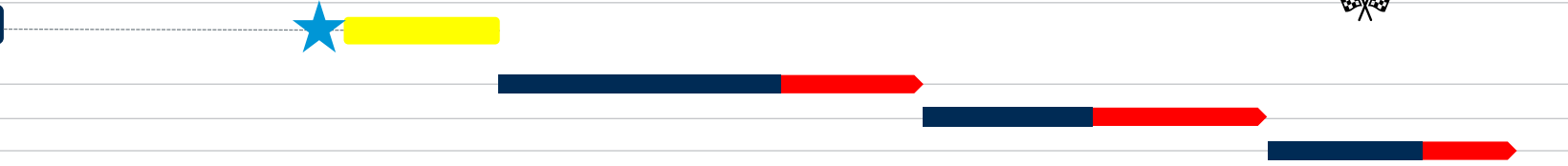
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- ✓ 100% Design
- ✓ PS&E JMT



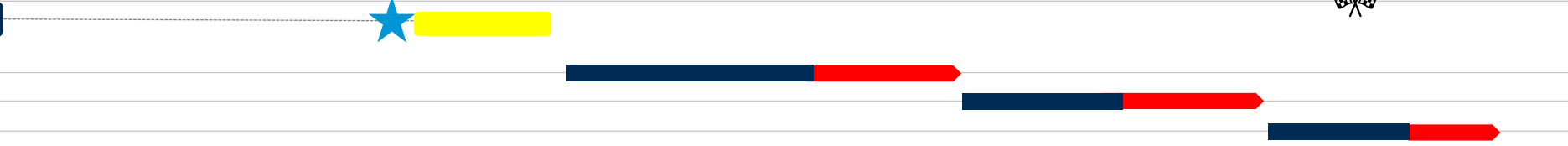
HSIP 26, Batch 2

- ✓ 65% Design
- ✓ 90% Design
- ✓ 100% Design
- ✓ PS&E JMT



HSIP 26, Batch 3

- ✓ 65% Design
- ✓ 90% Design
- ✓ 100% Design
- ✓ PS&E JMT



HSIP 26, Batch 4

- ✓ 65% Design
- ✓ 90% Design
- ✓ 100% Design
- ✓ PS&E JMT

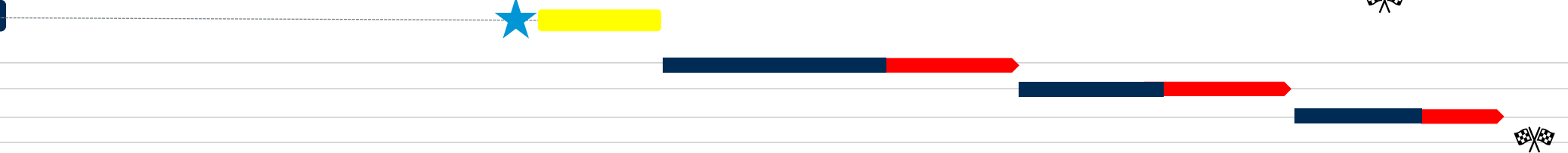


Chart Key

- JMT Design
- DDOT Review
- Extension
- HSIP Report Delivered/NTP
- PS&E Submission
- Background Research

Anticipated Batch Schedule

Workflow Evolution

- Formalization of “Background Research” period
 - 4-week period at the beginning of each Batch
 - Confirm base conditions
 - Perform feasibility analyses of proposed countermeasures
 - Provide recommendations
 - Targeted countermeasures
 - Additional analysis
 - Traffic Studies
 - Constructability reviews
- Informal Improvements
 - Supplemental analyses
 - Early engagement with SMEs
 - NOI Support

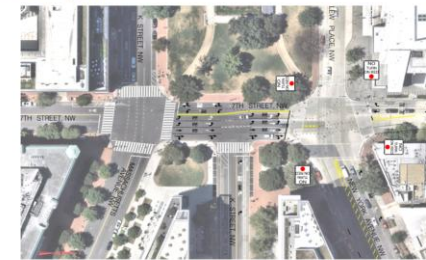


Improvements - New York Avenue/7th Street/K Street NW

- Installing Accessible Pedestrian Signal (APS) Pushbuttons at all corners to enhance pedestrian safety and reduce crashes involving vulnerable road users.
- Installing No Turn On Red for all approaches will provide more protection for pedestrians and cyclists and mitigate right-turn crashes.
- Replacing Signal Bulbs with Arrows to better communicate protected and permissive traffic movements.
- Replacing and Repairing existing traffic poles and signal equipment to ensure all traffic signal infrastructure remains safe, serviceable, and operable.
- Installing Quick Kurb and Rubber Speed Humps to prevent K Street queuing activity from obstructing northbound travel lanes and deter dangerous maneuvers.
- Lane Reconfiguration will result in smoother flow → shorter queues → fewer blocked crosswalks and intersections.
- Improving Signal Visibility by installing a mast arm-mounted signal head for northbound traffic, and tree trimming to better view the eastbound signal heads.
- Improving Road Serviceability by removing the long of aggregate that has been on the southbound approach since at least October 2014.
- Improved Signage to better communicate lane utilization and turn prohibitions which will improve motorist decision-making and mitigate conflicts.

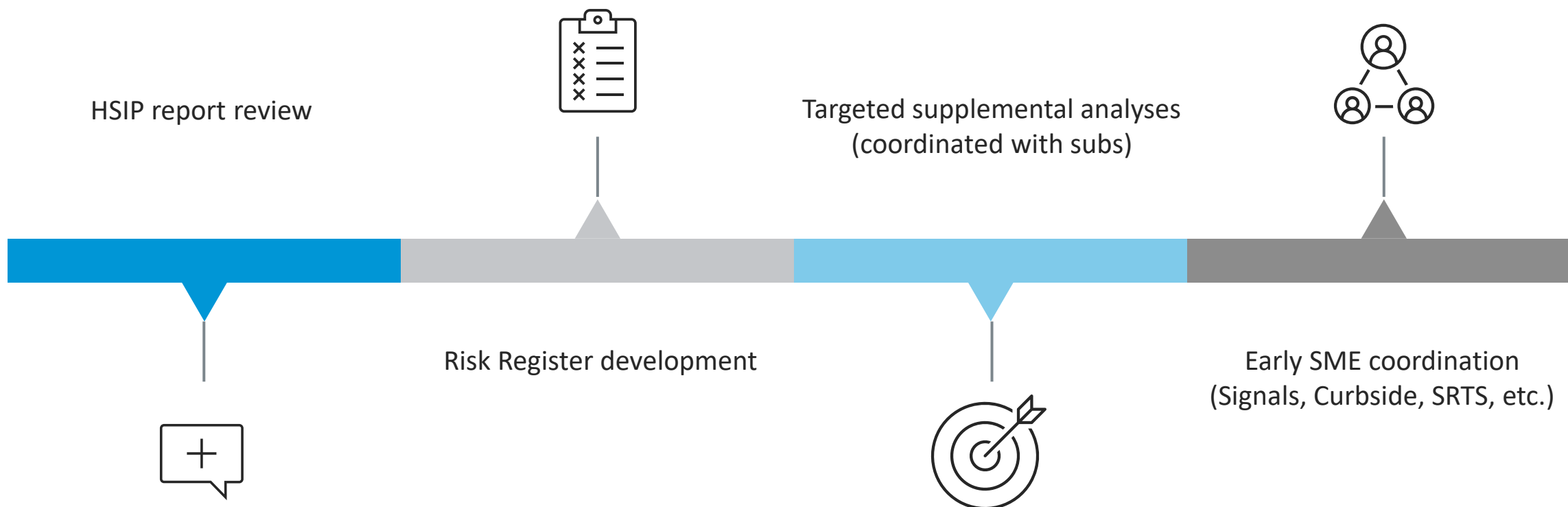


Lane Reconfiguration



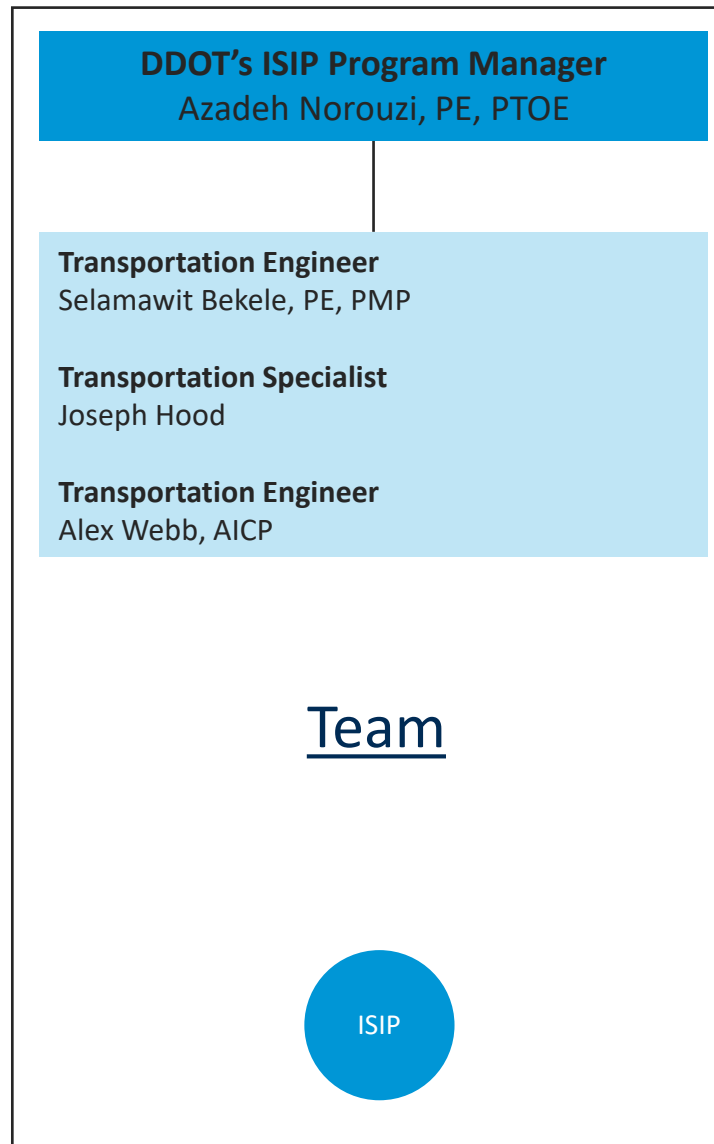
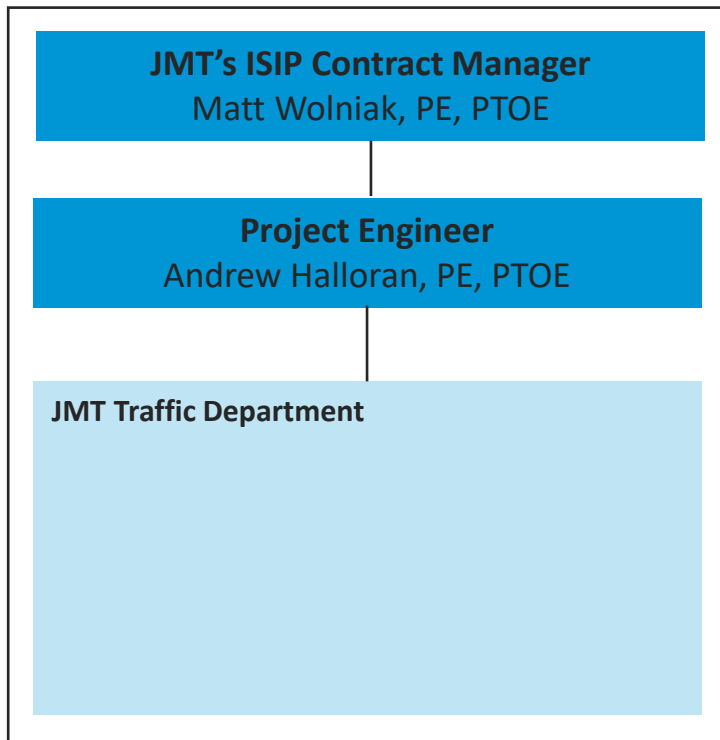


What Happens Up Front Now



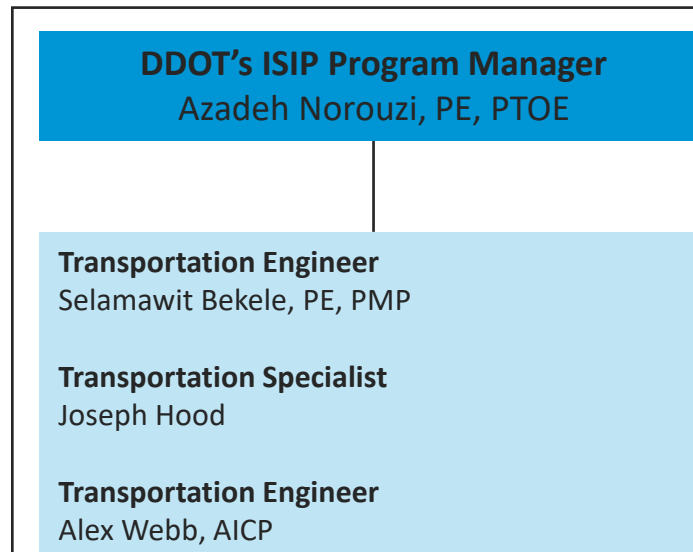
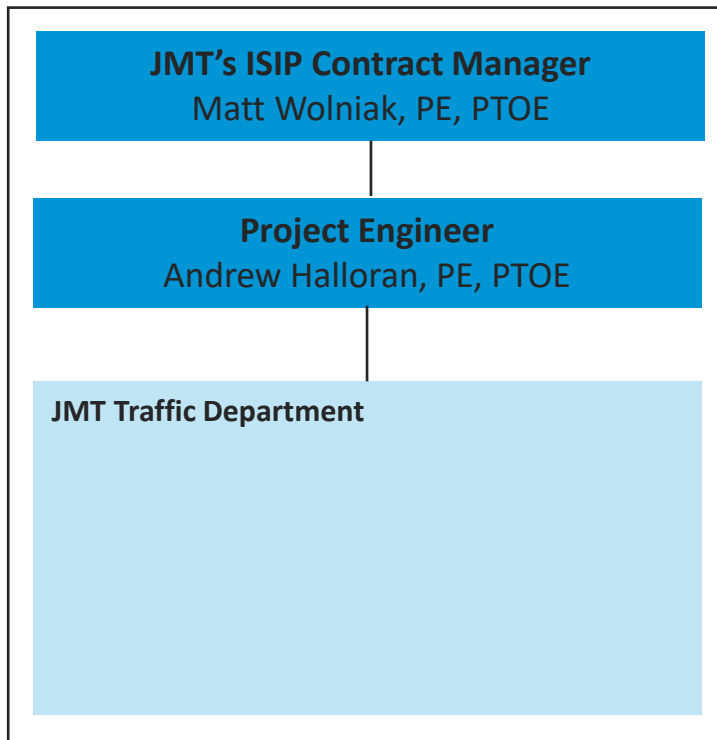


ISIP Team: How It Started





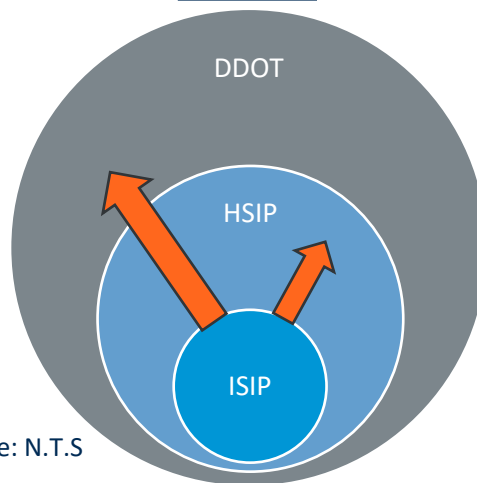
ISIP Team: How It's Going



- Other DDOT SMEs**
- Signal
 - ADA
 - UFD
 - Curbside
 - SWM
 - Bike
 - Bus
 - SRTS
 - Streetlight
 - Community Engagement
 - Misc/Multiple



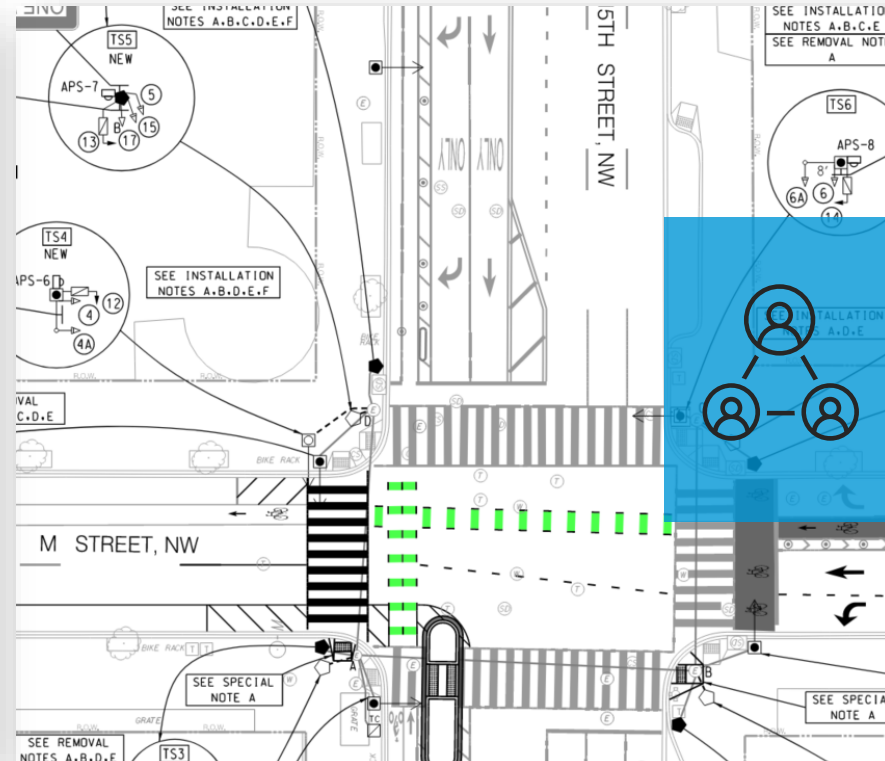
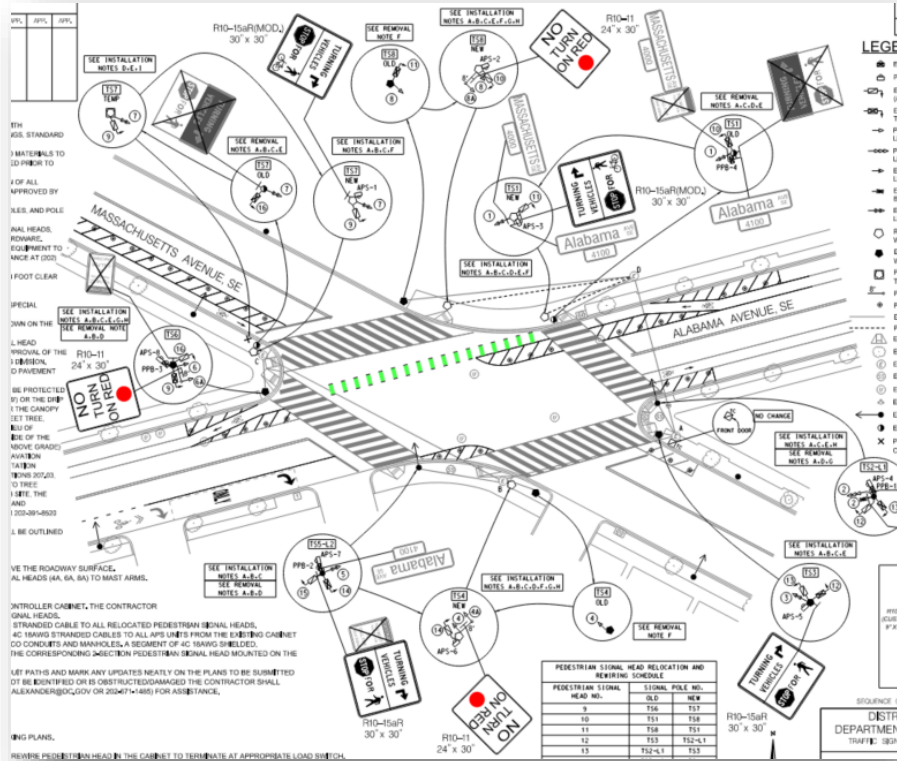
Team



Note: N.T.S



Safety Improvements at Scale



Proven Safety Countermeasures

Core Treatments

- ADA-Compliance
- Improving Sight Lines (i.e. Daylighting)
 - Signing & marking upgrades
 - Retroreflective backplates
 - NTOR

Targeted Solutions

- Pedestrian refuges
- Queue jumps
- Bike signalization
- Turn conflict mitigation

Continuous Improvement Across Batches

Based on DDOT phase 1 memo, provided on 10/31/25, these farside flex posts were removed.

Curbside

Then: Minimal ch
Now: Early coordination
Team
Impact: Better multimo

GENERAL NOTES:

- FIELD SURVEY DATA SHOWN ON THE PLANS ARE BASED ON THE DATA PROVIDED BY THE CONTRACTOR. THE LOCATION OF UTILITIES SHOWN IS APPROXIMATE AND THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OF ALL UTILITIES WILL BE ADVANCE OF CONSTRUCTION OPERATIONS.
- WHEN COLLISIONS OCCUR BETWEEN THE PROPOSED CONSTRUCTION AND EXISTING UTILITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES. ANY DAMAGE TO UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES UNDER HIS CONTROL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES UNDER HIS CONTROL.
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- THE CONTRACTOR SHALL NOT BE HELD LIABLE AT ANY TIME FOR DAMAGE TO UTILITIES UNDER HIS CONTROL.
- THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PROPOSED UTILITY MARKERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES UNDER HIS CONTROL.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES UNDER HIS CONTROL.

SPECIAL NOTE:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES UNDER HIS CONTROL.

Engineering

Follow HSIP concepts
Recommendations based on analysis
More effective safety outcomes

Flex Posts

Then: Liberal usage
Now: Targeted installs
Impact: More defensible designs

GENERAL NOTES:

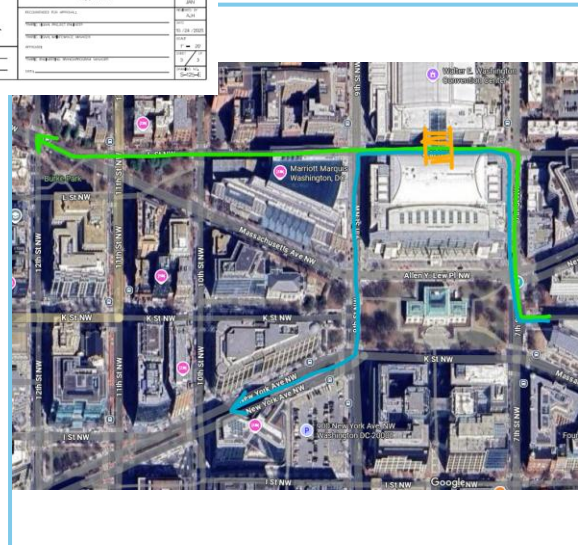
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Conduit Design

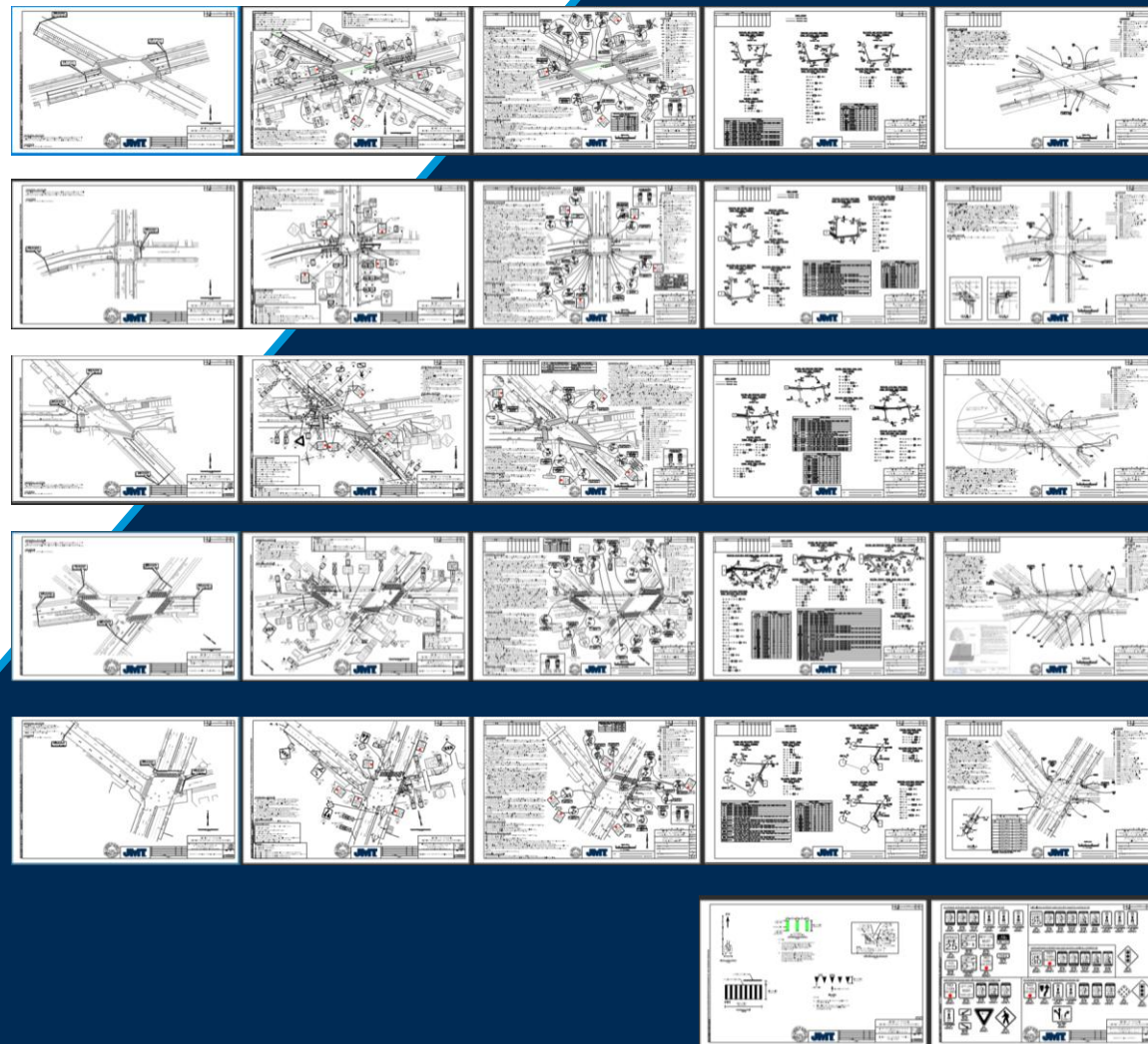
Then: Nearest MH connections
Now: Conduit intercepts + rerouting
Impact: Improved constructability;
Reduced Cost





What This Approach Enables

- Systemic safety application
- Consistency across the District
- Faster adaptation to DDOT priorities
- Scalable, repeatable delivery model





Key Takeaways



Batching

as a delivery method

Early Coordination

reduces rework.

Stronger Feedback Loops

improve each cycle.

Scalable approach

to HIN safety delivery.

Accelerating Innovation

allows us to explore creative solutions for safer intersections.

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Questions?