

SS4A Grant Overview

Thomas Jefferson Planning District Commission

May 1, 2025



0

OVERVIEW

Grant Funding: USDOT Safe Streets and Roads for All (SS4A) Grant Proposal (Planning and Demonstration)

Lead Applicant: Charlottesville-Albemarle Metropolitan Planning Organization (CA-MPO)

Strategic Partners: University of Virginia Research Team

Critical Stakeholders: Albemarle County, City of Charlottesville, Honda Motor Company, VDOT, VTRC

Project Title: Crash Analytics and Injury Research (CAIR) – Holistic Approach to Vulnerable Road User Safety

Application Type: Conduct Demonstration or Other Supplement Planning Activities (only)

Anticipated Letters of Endorsement: Virginia Senators Warner and Kaine, City of Charlottesville, Albemarle County

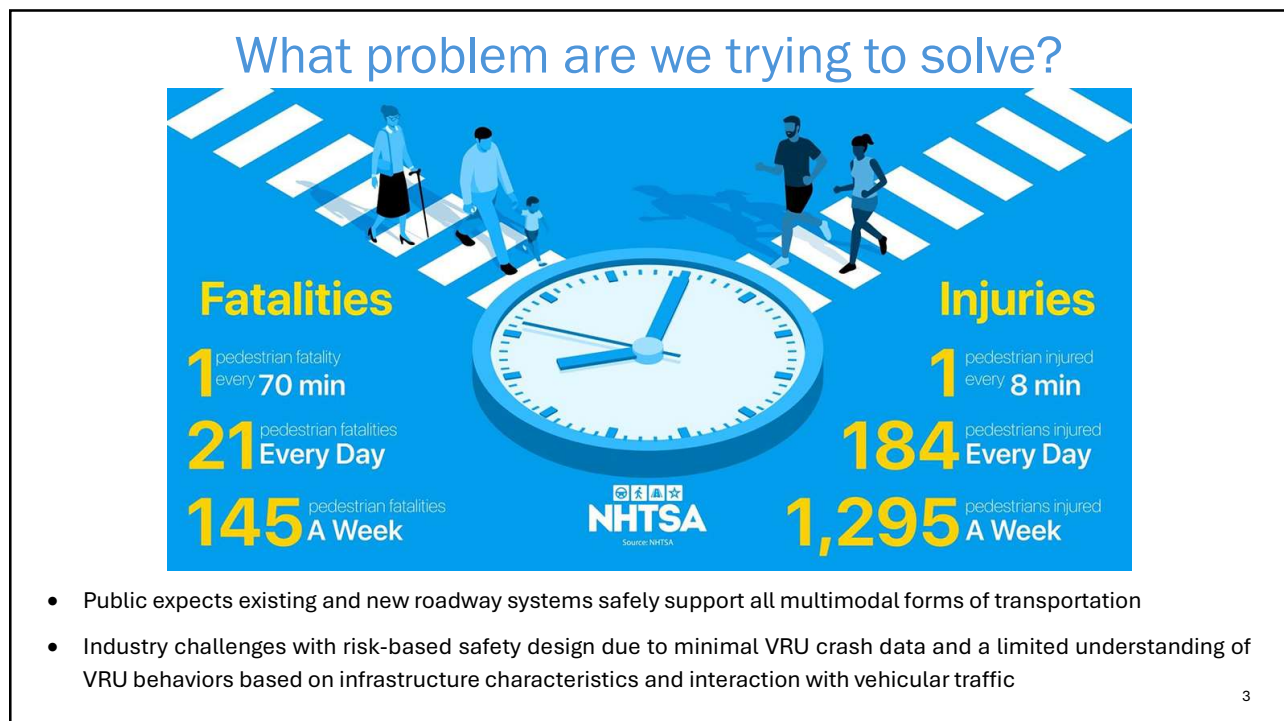
Anticipated Grant Funding Request: \$4,620,000 over 3 years, 20% match (10% Honda, 10% UVA)

1

1



2



3

3

How we got here?



4

4

Objectives

- Improve VRU safety, reduce accidents, reduce injury associated morbidity and costs, and save lives
- Improve understanding of VRU interactions with traffic and infrastructure
- Provide holistic safety picture to better evaluate realized safety benefits and risks in infrastructure design
- Develop models to advance automotive crash avoidance systems to further protect VRUs



5

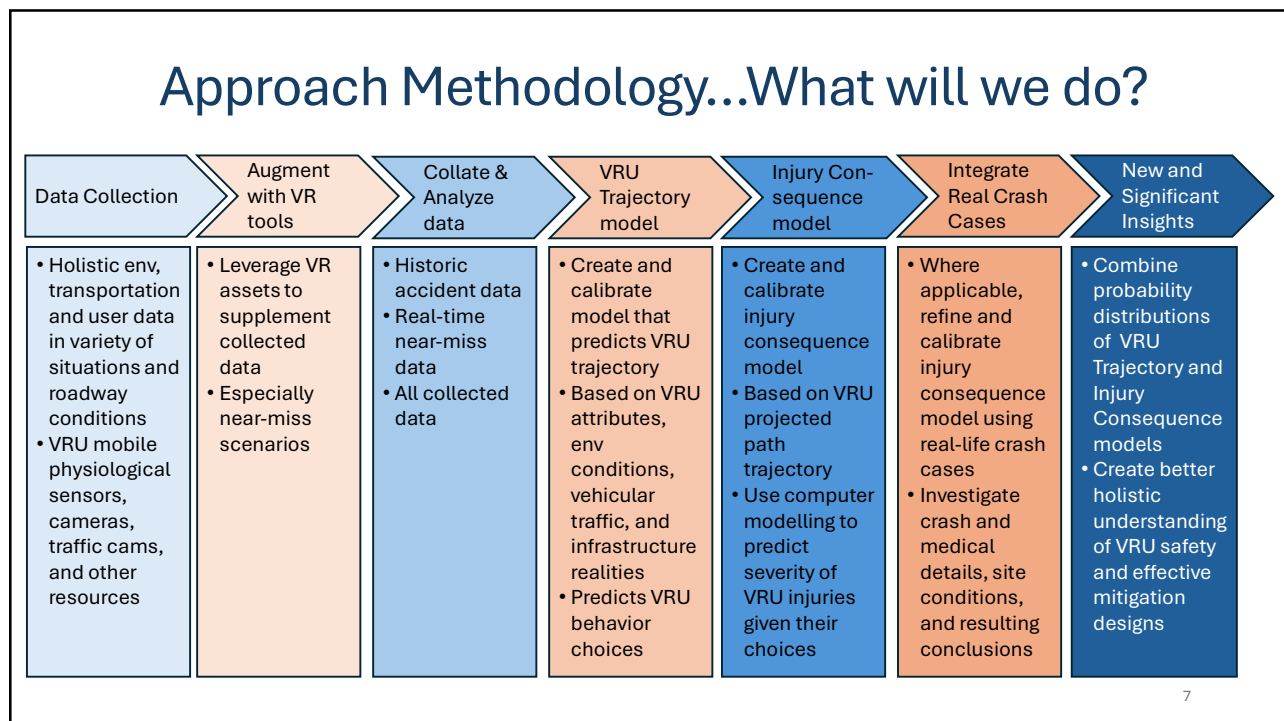
5

World-Class UVA Research Team – Key Leaders

UNIVERSITY OF VIRGINIA SCHOOL OF ENGINEERING	UVA ENGINEERING Omni Reality & Cognition Lab	UNIVERSITY OF VIRGINIA CENTER FOR APPLIED BIOMECHANICS	UVAHealth
Collaborative research solving global challenges	Dedicated to the human interaction with infrastructure systems and environments	Largest university-based biomechanics lab in the world	Renowned expertise in injury analysis and consequences of crash trauma
 Brian Smith Senior Associate Dean for Research	 Donna Chen Associate Professor	 Jason Foreman Associate Professor	 Mark Sochor CAB Medical Director
 Rob Tieman Professor of Practice	 Arsalan Heydarian Assistant Professor	 Greg Shaw Senior Researcher	 George Glass Medical Director Emergency Management

6

Approach Methodology...What will we do?



7

Primary Deliverable

Enhance TJPDC comprehensive action plan with data-driven VRU safety action plan for CA-MPO area

- Focus on safety, accessibility, and equity
- Actionable items with prioritized short-, mid-, and long-term timelines



Additional Benefits



Resource for Albemarle County, City of Charlottesville, and other multi-modal safety action plans



This information could be used by VDOT, localities, and consultants to better evaluate safety when practicing risk-based, performance-based design



Models and methodology could be extended to improve design and safety of VRUs in high-risk situations, such as urban work zones



These findings could be integrated into automotive crash avoidance technologies to advance predictive safety features which could reduce VRU accidents and fatalities

8

8



PATH FORWARD

- **4/15/25:** MPO Technical Committee, informational presentation and request action
- **4/23/25:** MPO Policy Board, informational presentation and request resolution of support
- **5/1/25:** TJPDC Commission, request Letter of Support
- **5/21/25:** Citizens Transportation Advisory Committee, Informational presentation
- **May-June:** Secure letters of support (Senators, C'ville, and Albemarle)
- **June:** Finalize application for 6/26/25 due date

9

9



Thank You!

Any Questions?



10

