



Complete Streets,  
Autism Spectrum Disorder, and  
Intellectual and Developmental Disabilities

N | V | 5

**TOOLE** CIVIC EYE  
DESIGN COLLABORATIVE

2023 NJ Complete Streets Summit

## NJ STATE LEGISLATURE / JAN. 2023

- The Complete Streets policy shall require the consideration and implementation of design elements and infrastructure improvement projects that **promote the ability of persons diagnosed with autism spectrum disorder and persons with intellectual and developmental disabilities to travel independently.**
- NJDOT-BSBPP asked the NV5 Team (NV5, Toole Design Group, and Civic Eye Collaborative) to facilitate this work.



## HOW DID WE GET HERE?

- Federal Funding + NJDOT State Initiatives + Regional Plans + Municipal Policies
- Evolution of transportation policy + funding over time

### Programs...

1990 ISTEA

1998 TEA-21


2005 SAFETEA-LU

2012 MAP-21

2016 FAST ACT

2021 Infrastructure

Investment & Jobs Act

B/P facility planning, traffic calming, SRTS, bike/ped safety, transit-friendly/TOD, senior mobility, micro-mobility, bike share, e-bikes/scooters, green/sustainable streets, smart streets, freight, level of traffic stress, curbside management; protected bicycle facilities, complete streets, trails & greenways, ADA/PROWAG,  CS/IDD

## Perspectives...

- People-focused streets
- Universal Design
- Active Transportation
- Safe System Approach
- Equity & Engagement Tools
- Placemaking

## What's missing...

- Neurodivergence
- Intellectual disabilities
- Developmental disabilities
- Autism spectrum

IDD/inclusive design expands beyond access, mobility, safety –  
it broadens EQUITY and ECONOMIC PARTICIPATION

*“All Modes All Users All Abilities”*

*“Nothing about us – without us”*



# NJDOT & CONSULTANT TEAM SCOPE OF WORK

# N|V|5

## **POLICY AND BEST PRACTICE REVIEW**

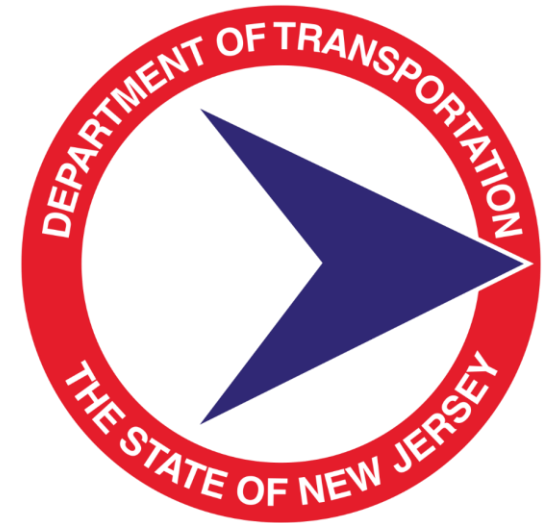
- Summary of policies, design guides, and best practices
- Identify design standards that need revision to meet the needs of people with IDD, or for which more research is needed

## **STAKEHOLDER WORKING GROUP**

- Internal NJDOT representatives from Traffic, Design, Civil Rights, and others

## **IMPLEMENTATION ACTION PLAN**

- Internal NJDOT policy, procedures, guides
- Executive Summary for Public (external)



Collaborating With



## IMPLEMENTATION ACTION PLAN

### Future CS/IDD Recommendations & Activities

- Case studies
- Videos
- Webinar series
- Training Materials & Workshops
- Speaker's Bureau
- Pilot or Demonstration Projects

- **Policy & Best Practices** August - November 2023
- **Working Group** August – December 2023
- **Implementation Action Plan** September 2023 – January 2024



1. Initiated Outreach to national Subject Matter Experts/Organizations
  - Institute of Transportation Engineers (ITE)
  - Association of Pedestrian & Bicycle Professionals (APBP)
  - United State Access Board/PROWAG
2. Reviewed key subject matter design documents related to IDD's
3. Conducted 1<sup>st</sup> Working Group September 2023

## KEY TAKEAWAYS – BIG PICTURE

- Limited existing research and guidance
- It's often about balancing needs of people with different types of disability
- Inclusion of caregivers in engagement process is critical
- Travel training is key
- Certain specific design issues repeatedly come up, and appear to be particularly relevant

## FHWA Proven Safety Countermeasures

OFFICE OF SAFETY  
Proven Safety Countermeasures

**SPEED MANAGEMENT**

- Speed Safety Cameras
- Variable Speed Limits
- Appropriate Speed Limits for All Road Users

**ROADWAY DEPARTURE**

- Wider Edge Lines
- Enhanced Delineation for Horizontal Curves
- Longitudinal Rumble Strips and Stripes on Two-Lane Roads
- SafetyEdge<sup>SM</sup>
- Roadside Design Improvements at Curves
- Median Barriers

**INTERSECTIONS**

- Backplates with Retroreflective Borders
- Corridor Access Management
- Dedicated Left- and Right-Turn Lanes at Intersections
- Reduced Left-Turn Conflict Intersections
- Roundabouts
- Systemic Application of Multiple Low-Cost Countermeasures at Stop-Controlled Intersections
- Yellow Change Intervals

**PEDESTRIANS/BICYCLES**

- Crosswalk Visibility Enhancements
- Bicycle Lanes
- Rectangular Rapid Flashing Beacons (RRFB)
- Leading Pedestrian Interval
- Medians and Pedestrian Refuge Islands in Urban and Suburban Areas
- Pedestrian Hybrid Beacons
- Road Diets (Roadway Reconfiguration)
- Walkways

**CROSSCUTTING**

- Pavement Friction Management
- Lighting
- Local Road Safety Plans
- Road Safety Audit

FHWA-SA-21-082