Complete Streets and Individuals with Autism Spectrum Disorder (ASD) and Intellectual and Developmental Disabilities (IDDs)

In response to new legislation directing the New Jersey Department of Transportation (NJDOT) to implement a Complete Streets policy that "improves safety for persons diagnosed with autism spectrum disorder and persons with intellectual and developmental disabilities" (S-147), the Alan M. Voorhees Transportation Center (VTC) is developing a primer on the basics of autism, intellectual and developmental disabilities, and transportation needs. As part of this research, which is being funded by NJDOT, VTC has assembled a working glossary of terms related to autism and intellectual and developmental disabilities. This glossary is one piece of the larger primer, which is currently under development. Ultimately, the glossary and primer will serve as tools to support practitioners as they work to incorporate the needs of those with autism and intellectual and developmental disabilities in Complete Streets policies, planning, and implementation.

Note: The terms included within this glossary are frequently being updated as research on autism spectrum disorder and intellectual and developmental disabilities progresses. The definitions of these terms are current as of November 2023.

For more information on this topic, visit the New Jersey Bicycle and Pedestrian Resource Center website (njbikeped.org) and read our New Jersey Walks and Bikes Newsletter article on Complete Streets for Individuals with Autism Spectrum Disorder (ASD) and Intellectual and Developmental Disabilities (IDDs) (njbikeped.org/complete-streets-asd-idd).

Glossary of Terms

Accessible Design – Accessible design is a design process in which the needs of people with disabilities (including auditory, cognitive, physical, and visual disabilities) are specifically considered. Accessibility sometimes refers to the characteristic that products, services, and facilities can be independently used by people with a variety of disabilities. Accessibility has a narrower scope than inclusive or universal design in that it is focused on specific accommodations.

Source: Nielsen Norman Group; University of Washington

Autism Spectrum Disorder (ASD) – Autism spectrum disorder (ASD) is a neurological and developmental disability that affects how people interact with others, communicate, learn, and behave. People with ASD often have challenges with social interaction, restricted or repetitive behaviors or interests, and process sensory information differently than their neurotypical peers. Autism is known as a "spectrum" disorder because there is wide variation in the type and severity of symptoms people experience.

Source: Centers for Disease Control and Prevention; National Institute of Mental Health

Augmentative/Alternative Communication Devices (AACs) – AACs are devices (commonly tablets) that help someone with speech or language impairments communicate.

Source: Lingraphica.com

Complete Streets – Complete Streets is an approach to planning, designing and building streets to enable safe access for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. Complete Streets also emphasize the needs of those who have experienced systemic

underinvestment, or those whose needs have not been met through traditional transportation planning and design.

Source: [NJ Bicycle and Pedestrian Resource Center](#)

Human-Centered Design – Human-centered design is an approach to problem-solving that puts people at the heart of the process. The human-centered design process begins with empathy for the people being designed for. The process generates a wide variety of ideas, translates some of these ideas into prototypes, and shares these prototypes with the people being designed for to gather feedback in an iterative process.

Source: [vic.gov.au](#)

Identity-First Language – Identity-first language puts the condition before the person and describes a person as a member of a group. Ex. *An autistic person.* For some people who prefer identity-first language, the choice is about empowerment and pride. Some prefer identify-first language because they consider characteristics associated with their disability as a core part of their identity. While identify-first language is not preferred by all persons with disability, many in the deaf and autism community prefer it to person-first language.

Source: [Northeastern.edu](#); [National Institute of Health](#)

Inclusive Design – Inclusive design describes methodologies to create products or environments that understand and enable people of all backgrounds and abilities. Inclusive design may address accessibility, age, culture, economic situation, education, gender, geographic location, language, and race. The focus is on fulfilling as many user needs as possible, not just as many users as possible. Inclusive design often involves as many people as possible in the design process to promote personal well-being, social cohesion, and enjoyment for all. The term "inclusive design" is similar to and sometimes used interchangeably with the term "universal design." (*see below*)

Source: [Nielsen Norman Group](#); [UK Commission for Architecture and Built Environment](#)

Intellectual and Developmental Disabilities (IDDs) – IDDs are differences that are usually present at birth and that uniquely affect the trajectory of the individual's physical, intellectual, and/or emotional development. The term is composed of two types of disabilities: intellectual or developmental.

Intellectual disabilities begin any time before a child turns 18 and are characterized by differences with intellectual functioning or intelligence, which include the ability to learn, reason, problem solve, and other skills. They are also characterized by differences in adaptive behavior, which includes everyday social and life skills.

Developmental disabilities are a broader category of often lifelong challenges that can be intellectual, physical, or both.

Source: [National Institute of Child Health and Human Development](#)

Level 1/2/3 ASD – Level 1, 2, and 3 ASD are terms that refer to the level of independence a person with autism has. For example, a person with Level 1 ASD may be capable of independently holding conversations with peers, performing self-care tasks, and self-regulating their response to sensory information. In contrast, a person with Level 3 autism may have significant language delays and require significant support to complete daily tasks.

Formerly referred to as "low & high functioning" autism, a growing dislike for these terms in the neurodivergent community has led to them being phased out and replaced with "levels" of autism.

Level 1 ASD – Formerly known as "high functioning," is the mildest form of ASD and requires minimal support.

Level 2 ASD – This level is characteristic of moderate symptoms and may require substantial support.

Level 3 ASD – Formerly known as "low functioning," is the most severe level of symptoms and requires significant support.

Source: Verywellhealth.com

Mobility Impairment – A mobility impairment is a disability that affects movement ranging from gross motor skills, such as walking, to fine motor movement, involving manipulation of objects by hand.

Source: Washington.edu

Neurodivergent/Cognitively Divergent – The term "neurodivergent" refers to a person on the autism spectrum or, more generally, to someone whose brain processes information in a way that is not typical of most individuals. These people may have learning disabilities, attention deficit and anxiety disorders, obsessive-compulsive disorder, and Tourette's syndrome. Through a neurodiversity lens, such conditions reflect different ways of being that are all normal human experiences.

Source: University of Washington

Neurodiversity – Neurodiversity describes how people experience and interact with the world around them in many different ways; there is no one "right" way of thinking, learning, and behaving, and differences are not viewed as deficits. The word neurodiversity refers to the diversity of all people, but it is often used in the context of autism spectrum disorder (ASD), as well as other neurological or developmental conditions such as ADHD or learning disabilities. "Cognitively Divergent" is a similar term and may be used similarly to neurodiverse.

Source: Harvard Medical School

Neurotypical - The term neurotypical may be used to describe individuals whose brains develop and function in ways that are considered usual or expected by society. Perceived traits of a neurotypical personality may include strong social and communication skills, proficiency in navigating socially complex situations, and the ability to participate in loud, crowded, or visually overwhelming settings.

Source: Verywellhealth.com

Person-First Language – Person-first language puts the person before the disability and describes what a person has or struggles with, not who a person is. Ex. *A person with autism*. Person-first language was written into law in the Americans with Disabilities Act (1990) and the Individuals with Disabilities Education Act (1997).

Source: Office of Disability Rights; National Institute of Health

Sensory – A common symptom of ASD and IDDs are differences in the perception of sensory information: sight, hearing, taste, touch, and smell. Individuals with these disorders may experience hyper or hyposensitivity to a wide range of stimuli. Many individuals with ASD experience hypersensitivity to bright lights, certain smells, tastes, and textures. Noisy, crowded areas may also be overwhelming to people with ASD, which will cause them to avoid certain places and activities.

Source: National Library of Medicine

The Cliff – The "cliff" is a term for the point in the lives of people with ASD or IDDs when they reach adulthood and are no longer eligible for federal support services including their federal entitlement to special education and some other services provided by mental health clinicians, speech therapists,

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social workers, and subsidized transportation services. This sudden loss of services contributes to a situation where young adults with ASD or IDDs have difficulty accessing employment and may even regress in some skillsets.

Source: [Drexel University](#)

Universal Design – Universal Design is the design and composition of an environment so that it can be accessed, understood, and used to the greatest extent possible by all people regardless of their age, size, ability, or disability. An environment (or any building, product, or service in that environment) should be designed to meet the needs of all people who wish to use it. The term "universal design" is similar to and sometimes used interchangeably with the term "inclusive design." (*see above*)

Source: [The Center for Excellence in Universal Design](#)