

Technical Memorandum

To: Electronic Distribution Recipients

From: Nancy T. Daubenberger, P.E. 
Assistant Commissioner, Engineering Services

Subject: MnDOT Land Use Contexts: Types, Identification, and Use

Expiration

This is a new Technical Memorandum and shall remain in effect until June 14, 2023 unless superseded prior to that date.

Implementation

The guidance and procedures in this Technical Memorandum are effective immediately for all new construction, reconstruction, and preservation projects on Minnesota's Trunk Highway System. This guidance supplements the planning, scoping, and design guidance in the Statewide Multimodal Transportation Plan, Road Design Manual, Technical Memoranda, Traffic Engineering Manual, and Access Management Guidelines.

MnDOT should apply this guidance to the maximum extent practicable on projects that are currently moving through planning, scoping and design phases. It will provide value when making design decisions even late into the design process, hence its recommended application throughout.

Introduction

Context Sensitive Solutions (CSS) has been MnDOT's overarching design philosophy since adopted by technical memorandum in 2000. Still accessible as a 'historical' technical memorandum, current MnDOT policies (e.g. Complete Streets, Performance-Based Practical Design), the Statewide Multimodal Transportation Plan, the Road Design Manual and other manuals, and technical memoranda, refer to CSS principles and rely on an understanding of project context to inform design decision-making. Current planning and design guidance is typically based on urban, rural, and sometimes suburban and small town land use contexts, which are valid but often fall short of sufficiently describing real-life settings. The Statewide Multimodal Transportation Plan (2017) identifies among its 'next steps' the need to develop tools and resources to support the many transportation initiatives at MnDOT (from planning through project scoping and decision-making) that better reflect a broader view of context while also allowing for greater design flexibility.

[NCHRP Report 855: An Expanded Functional Classification System for Highways and Streets \(April 2017\)](#)

evaluated the functional classification system and recommended that it be augmented with context setting classifications, forming a new best-practice expanded functional class framework that takes contexts, road functions, and users and their needs into account. Report 855 refines 'context' beyond the typical rural, urban

(and sometimes suburban) land use contexts typical in transportation planning and design. Report 855 is a key resource; it will be implemented in The American Association of State Highway and Transportation Officials' (AASHTO's) forthcoming 7th edition of its 'Green Book.' The U.S. Federal Highway Administration (FHWA) is also considering ways to incorporate the guidance in Report 855 into its policies and practices. MnDOT is using Report 855 as it further develops and refines its context guidance.

This Technical Memorandum describes a set of common MnDOT land use context types and guidance to identify the land use context types. More detailed guidance is being developed regarding the application of land use context types in MnDOT's planning, scoping, and design development and decision-making; this is expected to be issued in 2018 and 2019.

In addition, MnDOT has begun the process of updating its Road Design Manual and will do so using these classifications as appropriate and useful.

The MnDOT land use context types are MnDOT's interpretation of land uses as they exist or are planned by others (typically townships, counties, cities, and regional and metropolitan planning organizations). Land use context types are not zoning and do not reflect or interpret zoning as established by an entity with zoning authority.

Purpose

The purpose of this Technical Memorandum is to provide MnDOT staff and users with an improved common land use context type guidance that serves as a robust framework for planning, scoping, and preliminary and final design at MnDOT.

Guidelines

Definitions

Context is a physical, economic, and social setting, which includes the community, ecological, aesthetic, and transportation conditions as well as the political and policy environment and environmental justice considerations.

Land Use Context Types are areas of land with a unique combination of characteristics that reflect the place and the activities that occur there.

Procedures

Demonstrate comprehensive understanding of context and Land Use Context Types

Transportation systems and facilities are part of the places where people live, work, learn, play and access services. It is important for MnDOT staff to understand the often multiple contexts along a typical road within a project limits and the scope of their work. A road's context includes how it fits into the broader transportation system as well as past, present and future communities, cultures, ecosystems and economies of the areas it serves and passes through. MnDOT staff should reference MnDOT's land use context types, as well as road (functional classification) types for consistency. A given transportation

project may have many different land use contexts along the length of the project. MnDOT staff should familiarize themselves with MnDOT's land use context types.

Identify and use Land Use Context Types

Planners, project managers, designers, and traffic engineers should work with stakeholders to identify future and existing land use contexts. Identify land use contexts by comparing the similarity of places to the photographs and text MnDOT uses to describe land use context types. Staff should consider and include land use context types in project documentation and use them to structure and inform planning and design thought processes and decisions. As a practical first step, divide plans, corridor studies, and project limits/areas into segments matching MnDOT's land use context types.

Review and analyze, as appropriate:

- Future (planned) and existing land uses in a regional, county or local comprehensive plan
- Existing zoning districts in a county or local zoning ordinance, and related zoning district changes
- Land use context characteristics (using photographs, field visits and data, information and discussion with county and local staff and decision-makers), and future (planned) land use changes, for example,
 - Land uses (including their scale and intensity)
 - Density (existence of buildings/structures, and their size and type)
 - Building setbacks (distance of buildings/structures from adjacent roads/sidewalks) and frontage (relationship of building entrance[s] to the street and/or sidewalk or shared-use path)
- Special and/or mode-oriented land uses, zoning districts (future and existing), and nodes, for example,
 - mode-oriented developments (e.g. transit-oriented development)
 - transportation, emergency management facilities (e.g. safety rest area, weigh-scale, police/fire-station)
 - historic/potentially historic places and cultural sites and structures
 - park and recreation areas (local, regional, state, national)
 - trails and waterways and accesses (local, regional, state, national)
 - forests (local, regional, state, national)
 - areas of note, refuge, concern or significance (e.g. floodplain, erosion-sensitive, wildlife, rare-threatened-endangered [RTE] specie, wetland, farmland, woodland, bluffland, navigable/public and impaired waters)
 - scenic and visual quality areas and corridors (e.g. scenic byways)
 - equity/environmental justice populations and areas
 - areas/concentrations of specific users and populations (e.g. senior, limited ability and disabled, and children)

- large, concentrated public, semi-public or institutional uses (e.g. school, college/university, city government/civic center, hospital/medical campus, sports stadium/arena, power plant, utility facility/corridor, etc)
- large, district scale retail/business centers such as a regional shopping center, corporate campus
- other special districts, uses, and activity centers

Questions

Any questions regarding the technical provisions of this Technical Memorandum can be addressed to either:

Greg Pates, Design Flexibility Planner, Office of Project Management and Technical Support
651-366-4779

Jim Rosenow, Design Flexibility Engineer, Office of Project Management and Technical Support
651-366-4673

Any questions regarding publication of this Technical Memorandum should be referred to the Design Standards Unit, DesignStandards.DOT@state.mn.us. A link to all active and historical Technical Memoranda can be found at <http://techmemos.dot.state.mn.us/techmemo.aspx>.

To add, remove or change your name on the Technical Memoranda mailing list, please visit the web page <http://techmemos.dot.state.mn.us/subscribe.aspx>

Attachment:

MnDOT Land Use Context Types, 180614

MnDOT Land Use Context Types

Introduction and Background

Land use context types are areas of land with unique characteristics that reflect the place and the activities that occur there. The land use context types listed in this document provide ‘context’ to ‘road types’ (e.g. functional classification, and network designations such as National Highway System, and corridors such as scenic byways). The context types are general, qualitative descriptions of land uses and their *typical* characteristics. Land use context types are based on NCHRP Report 855: An Expanded Functional Classification System for Highways and Streets (April 2017) and metropolitan planning organization, state, national, and international approaches to defining and using land use types in transportation and land use planning and design.

Typical land use characteristics include:

- Kinds, mix, scale, and intensity of uses and activities, including
 - Agricultural, forestry, residential, commercial/office/retail, industrial, warehouse, shipping, mining, institutional (religious, educational, social/healthcare), public/civic (governmental), park and recreation, open space and trail, resource conservation/protection, ports (air/water), entertainment, tourism/resort
- Density of buildings and structures on the land
- Building size, scale, and distance from a road (also known as ‘setback’)
- Multi-modal transportation networks and facilities (e.g. auto/truck, pedestrian, bicycle, transit, and parking)
- Public street and driveway access and connections (including frequency and spacing)
- People, of all ages and abilities, using the transportation system (also known as ‘users’)

The land use context types included in this document apply to planned (or future) and existing land uses.

The land use context types are a general organizing framework, intended to give a common structure to the wide range of activities that MnDOT performs. Planners and project managers should work with stakeholders to jointly identify and understand land use contexts, users and activities, and types of roads and shared-use paths. As a practical first step, staff should ‘segment’ their plans and projects by land use context types, based on the land use context types described. In doing so, they should consider both future, and existing, land uses and conditions.

Land use context types are not as simple as described here; variations within land uses, and transitions between land uses, are not addressed; more guidance will be coming. Contexts may vary in location, scale and length along and across a highway. *Note that there isn’t a ‘small town’ or ‘small city’ land use context. A small town typically includes many of the land use context types described below, but may be of a smaller scale or length along a highway corridor compared to those in a larger developed area; see Appendix B.*

The land use context types are briefly illustrated in Figure 1; more detailed information is provided in the descriptions following Figure 1 and in the table in Appendix A.

Figure 1: Overview of Land Use Context Types (as seen from the air)

Natural



Suburban Residential



Rural



Suburban Commercial



Rural Crossroad



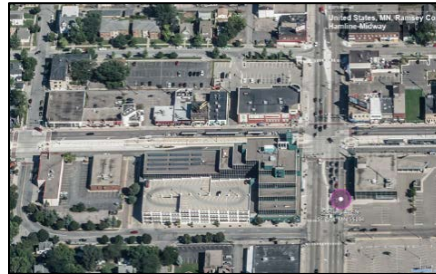
Urban Residential



Industrial – Warehouse - Port



Urban Commercial



Urban Core



Land Use Context Types

Natural land use context type



A Natural land use is a sparsely settled area in a natural condition, including places like wetlands, forests, meadows/prairies, lakes, rivers, scenic areas, steep slopes, wilderness, and some historic areas.

- **Uses** include resource preservation/conservation, forestry, park, trail, scenic/tourist, resort, water access, and mining.
- **Buildings and structures** are very low density, small to medium (1 - 2 story) size, and setbacks are typically large.
- **Parking** is often on-site; access and driveways may be limited and moderately (to widely) spaced.
- **Traffic** is typically low to medium volume, with more bicycling and walking on scenic routes and crossing at developed/service areas, and some trucks hauling logs/gravel, buses, recreational vehicles, and snowmobiles-ATVs. Main/busier roads are often connected to varied, sometimes widely spaced paved or gravel roads or shared-use paths.

Rural land use context type



A Rural land use is a medium to large size, occasionally or sparsely settled area of farms and scattered forests.

- **Uses** include agriculture, forestry, resource conservation, mining, park, trail, public/civic, lake residence, and resort.
- **Buildings and structures** are low density, small to medium (1 - 3 story) size, and setbacks are typically large.
- **Parking** is often on-site; access and driveways may be limited and moderately spaced, with some field accesses.
- Auto, truck, and farm **traffic** is typically low to medium volume; bicycle and bus traffic may be low, with people walking and bicycling and crossing at or near priority destinations (e.g. grocery, bus stop, home, park, school, and restaurant) and at intersections. Slow-moving horse-and-buggy, and ATV-snowmobile users may be present. Main/busier roads are typically connected to a varied, sometimes widely spaced paved or gravel road grid, and shared-use paths.

Rural Crossroad land use context type



A Rural Crossroad land use is a small, lightly developed area at the crossing or intersection of two rural roads, typically in an unincorporated or very small community.

- **Uses** include residential, commercial, industrial, institutional, agriculture, public/civic, park, trail, and airstrip.
- **Buildings and structures** are low to medium density, small to medium (1 – 3+ story) size, with small to medium setbacks.
- **Parking** is often on-site, or on-street or shoulder; access and driveways may be closely to moderately spaced.
- Auto and truck **traffic** is typically low to medium volume, with higher truck use in freight corridors. Non-motorized (especially pedestrian) use may be medium, with a need to cross at or near/priority destinations (e.g. grocery, home, park, school, restaurant, and maybe bus stop). Slow-moving horse-and-buggy, ATV-snowmobile, and freight-rail, buses, and trails may be expected. Main roads are typically connected to varied, sometimes sparsely spaced streets.

Suburban Commercial land use context type



A Suburban Commercial land use is a medium (to large) size, moderately developed area of shops, restaurants, entertainment, office/work, and other activities, typically with medium to large areas of parking lots.

- **Uses** include commercial/retail/office, institutional (e.g. medical), public/civic, entertainment, and some residential.
- **Buildings and structures** are low to medium density, medium to large (1 - 4+ story) size; setbacks are medium to large, and may be narrower in town centers/office parks.
- **Parking** typically includes large parking lots, possibly ramps, and on-street parking in a town center/office park. Access and driveways may be limited, and moderately spaced on main/busier roads.
- Auto and truck **traffic** is typically medium to high volume, with some bus, and varied non-motorized use with a need to cross mid-block to priority destinations (e.g. grocery, bus stop, home, park, school, and restaurant). Main roads typically connect to medium-spaced streets that form a grid, or shared-use paths.

Suburban Residential land use context type



A Suburban Residential land use is a medium to large size, lightly to moderately developed residential area, mostly of single-family (with some multi-family) housing, and occasional neighborhood parks and trails, and lakes and woodlands.

- **Uses** include residential, neighborhood park and open space and trail, and some commercial, and institutional.
- **Buildings and structures** are low to medium density, medium (1 - 3 story) size, with medium to large setbacks.
- **Parking** is on-street and driveway, and typically restricted on main/busier roads. Access and driveways from main roads are typically limited and moderately spaced.
- Auto, pedestrian, bicycle, bus, and truck **traffic** is typically low to medium on internal roads and higher on main roads. People use often widely spaced shared-use paths (sometimes with grade-separations) and roads (with occasional sidewalks) to access nearby parks, trails, greenways, and lakes, and bus stops on main roads.

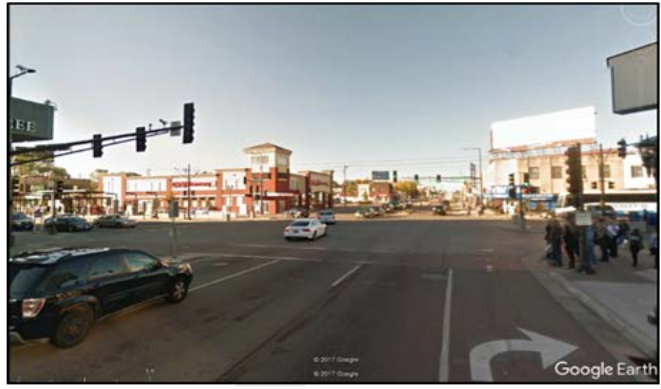


Industrial – Warehouse – Port land use context type

An Industrial – Warehouse – Port land use is typically a medium to large size, limited, and specific-use developed area.

- **Uses** include industrial/manufacturing, warehouse/shipping, commercial, and ports (air, water).
- **Buildings and structures** are medium density, medium to very large (1+ story) size; setbacks are medium to large.
- **Parking** is often in large parking lots, and sometimes structures like ramps, and some on-street parking. Truck access/sized driveways are prominent, direct access may be limited, moderately spaced, and controlled (e.g. by fences/gates).
- Large truck, and auto **traffic** is expected; non-motorized use may be low, with a need to cross at (sometimes widely spaced) bus stop and site entrances, intersections, and to access shared-use paths. Main roads typically connect to a medium to widely spaced grid-like internal road system.

Urban Commercial land use context type



An Urban Commercial land use is a small to large size, highly developed area often of mixed commercial and other uses.

- **Uses** include commercial/retail/office, some residential, institutional (e.g. medical), and public/civic, often mixed.
- **Buildings and structures** are medium to high density (including parking structures), vary in size (1 - 6 story), and setbacks typically vary from none to small.
- **Parking** may be on-street (on-sidewalk for bicycles) in parking lots (front, side, rear) and structures/ramps. Access and driveways may be limited, and variably spaced; trucks may access key loading docks/areas, or load on-street.
- Pedestrian, bicycle, and transit **traffic** may be medium to high volume, especially if a road is a primary 'transit' and/or 'pedestrian-bicycle corridor.' There is often a need to cross (sometimes mid-block) to priority destinations (e.g. business/restaurant, transit stop, school, park, grocery, home). Motor-vehicle use may be medium (to high). Main roads (non-freeway) are typically connected to a closely to moderately spaced street grid, and there may be occasional shared-use paths.

Urban Residential land use context type



An Urban Residential land use is a medium to large size, highly developed residential area with local shops and parks.

- **Uses** include single- and multi-family residential, and some local commercial-institutional areas (e.g. shop, service, church, school) and neighborhood park and open space and trail.
- **Buildings and structures** are medium to high density, of varied (typically 1 - 4 story) size; setbacks are small to none.
- **Parking** is on-street (sometimes on-sidewalk for bicycles) and in rear/alleys. Access and driveway spacing may vary, and be closely spaced; truck access and parking may be constrained.
- Pedestrian, bicycle, bus, and auto **traffic** is typically medium to high volume, with less truck/freight use. There is often a need to cross to priority destinations (e.g. small grocery, bus stop, school, park, restaurant, home). Roads (non-freeway) are typically a closely connected street grid; there may also be some shared-use paths.

Urban Core land use type



An Urban Core land use is a compact, highly developed area of mixed uses, often stacked within buildings and structures.

- **Uses** include commercial/office, residential, institutional (e.g. hospital), public/civic, and some park and open space and greenway/trail, water access, and special event (e.g. convention center, sports stadium).
- **Buildings and structures** (including parking) are typically high density, medium to very large (2 - 60+ story) size, and typical setbacks are none or narrow.
- **Parking** is typically in structures (like ramps), and some on-street (including taxi), and on-sidewalk for bicycles/bikeshare hubs. Access and driveways may be limited, and closely spaced; trucks may use truck access/loading areas or docks, or load on-street.
- **Traffic** of all types is expected to be medium to high volume. There is often a need to cross (sometimes mid-block) to priority destinations (e.g. bus or rail stop, workplace/business, restaurant, school, park). Roads (non-freeway) are typically a closely spaced and connected street grid; there may also be some shared-use paths.

Appendix A: Land Use Context Types Typical Characteristics

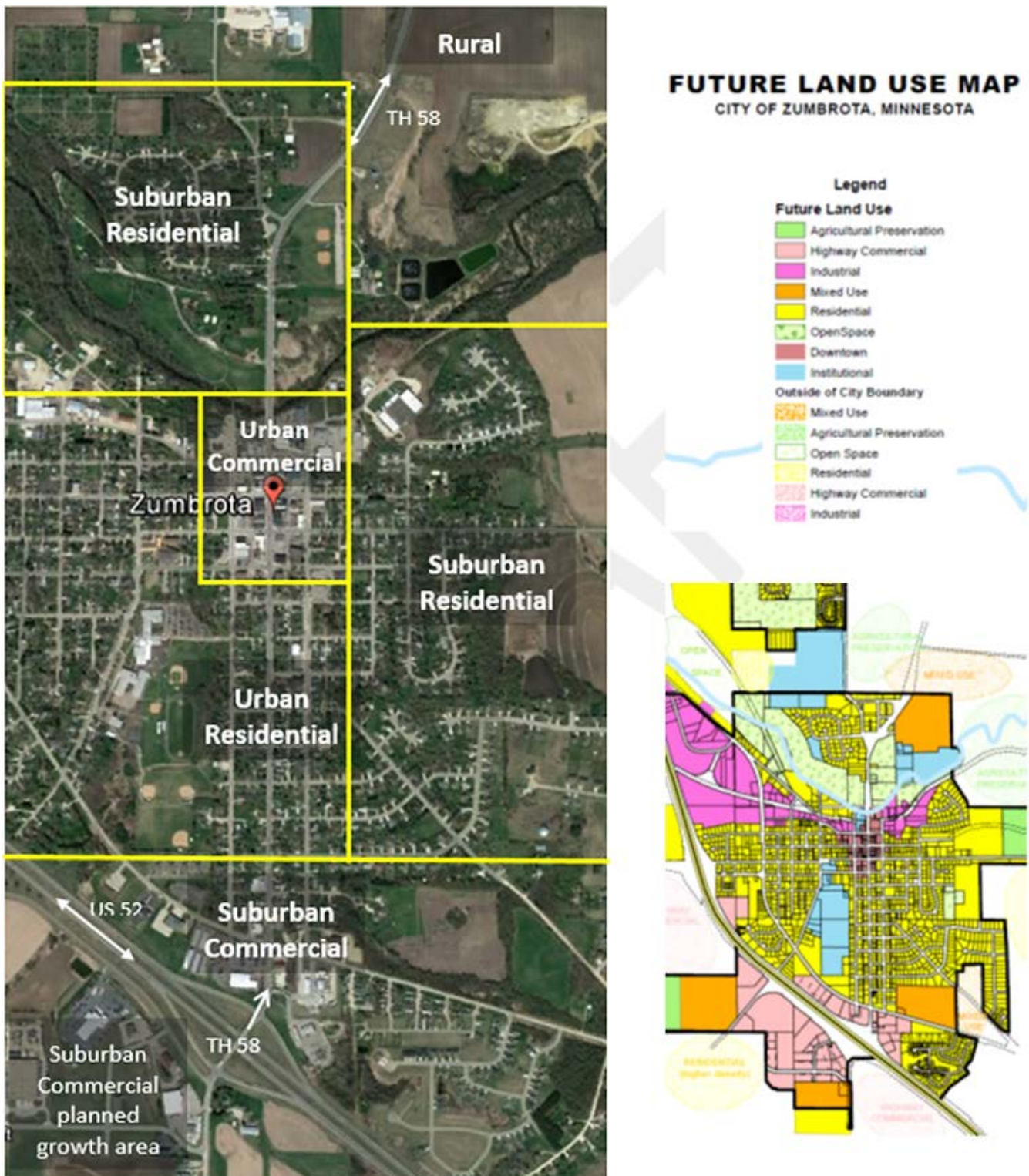
Type & Character	Natural	Rural	Rural Crossroad
Description	Sparsely settled, medium to large scale, low intensity use area in a natural condition. Places less suited for development (wetlands, unique forests, meadows, prairies), lakes, waterways, steep slopes, historic areas. Destinations may be moderately to widely spaced	Sparsely settled, medium to large scale, low intensity use area. Destinations may be moderately to widely spaced.	Small scale, low to medium intensity use area. Destinations may be closely to moderately spaced. A more intensely developed area may function as a mini- 'main street' or commercial node.
Land Use	Resource conservation-preservation, scenic, park, open space and trail, water access, forest, resort, tourist, mining.	Agriculture, forestry, mining. Some industrial, park/recreation, trail, water access, public/civic (e.g. town hall, airfield), institutional; sparse residential, commercial.	Residential, commercial ('corner' bar-gas), agriculture, forestry. Some industrial, institutional (e.g. church), public/civic, park, open space and trail, and airstrip.
Density	Very Low	Low	Low to Medium
Buildings	Sparse, mostly single-use, small to medium size (1 – 2 story). Some park, campground, other recreation facilities.	Sparse, mostly single-use, small to medium size (1 – 3 story). Some park, campground, other recreation facilities.	Concentrated area, mainly single-use, small to medium size (1 – 3+ story). Some road-level 'storefronts' with other uses above/to side. Some park, ballfield, other recreation facilities.
Distance setback from road	Large (>75') building setback; may be less (≤45') in developed/service areas	Large (>75') building setback; may be less (≤45') in residential, commercial areas	Small to medium (11' - 75') building setback
Road Frontage	Often natural buffers, parking lots. Buildings oriented internally, or to road in developed, service areas.	Often farm or forest front yards, buffers, parking lots. Buildings oriented internally or to road (in residential, commercial areas).	Often front yards, landscape buffers, parking lots. Buildings oriented to crossroad, connecting road, or parking lots.
Users, Facilities, Parking	All users, especially tourist, recreation. Multi-modal roads, shoulders, some shared-use paths, few sidewalks. Some on-demand or shuttle transit, little fixed route service. Mainly surface lot parking, some on shoulders to access recreation, etc.	All users. Multi-modal roads, shoulders, some shared-use paths few sidewalks. Some on-demand transit; few transit stops. Mainly surface lot and some on-shoulder parking.	All users. Multi-modal roads, shoulders, occasional sidewalk or shared-use path, maybe on-demand transit; few transit stops. Mainly surface lot and some on-street and on-shoulder parking.
Access (streets, driveways)	Varies; may be limited, moderately spaced. Includes recreational vehicle-trailer, snow/ATV, emergency uses.	Varies; may be limited, moderately spaced. Includes farm tractor, truck, snow/ATV, emergency uses.	Closely to moderately spaced. Includes farm tractor, truck, snow/ATV, emergency uses.
MN examples	-TH 1 Superior Natl Forest -TH 38 Chippewa Natl Forest -TH 74 Whitewater St Park	-TH 52 in Goodhue County -TH 61 North Shore/Lake Superior	-TH 210/CR 6-16 Tamarack -MN 38/CR 5 Effie -TH 19/10th Ave Stanton -TH 61 Miesville (transitioning)

Type & Character	Suburban Commercial	Suburban Residential	Industrial – Warehouse -Port
Description	Medium to large scale, (low to) medium intensity uses. Destinations are typically moderately spaced.	Medium to large scale, low to medium intensity. Destinations are typically closely to moderately spaced.	Medium to large scale, medium intensity. May be in an isolated location within a rural area, or located within or adjacent to suburban and urban settings. Destinations are typically moderately spaced.
Land Use	Commercial, retail/big box, office, entertainment. Some public/civic, park/trail, institutional, limited residential. Often higher density-intensity commercial-office in town centers and office parks.	Single-family, and some multi-family. Some public/civic (school, library), parks, trails; may have church, and small retail node adjacent or along the setting edge.	Industrial, manufacturing, commercial, warehouse, intermodal (airport, water-port).
Density	Medium (to low); higher in town centers, office parks.	Low to Medium	Medium
Buildings	Single-use, some mixed-use, medium to large size (1 – 4+ story ‘big box’).	Single-use, medium size (1 – 3 story).	Mostly single-use, (medium to) very large size industrial/big-box, 1+ story.
Distance setback from road	Medium to large (>45’) building setback; less where new or re-construction, town center, office park.	Medium to large (>45’) building setback.	Medium to large (>45’), may have facilities where cargo is transferred from one mode (e.g. rail) to another (e.g. ship).
Road Frontage	None to small landscape buffers, parking lots, occasional sidewalks, shared-use paths, street trees. Buildings oriented to parking lots, occasionally to a ‘main street.’	Medium front-yard landscape buffers, driveway parking, occasional sidewalks, and some street trees. Houses oriented to street or side-yard.	Medium to large landscape buffers, some fences, parking lots. Occasional sidewalks, bikeways, bus stops. Buildings oriented to parking, truck access, and rail facilities if present.
Users, Facilities, Parking	All users. Multi-modal roads, shoulders, occasional sidewalk or shared-use path, some big-box or street-side transit stops, park and rides. Large surface lot, occasional on-street, and structure parking.	All users, especially children. Multi-modal roads, shoulders, occasional paths, bus stops usually on adjacent-edge roads. Internal street, path connections to edge/main roads often limited, moderately spaced. Parking on-driveway, on-street.	All users, especially medium and large truck/freight users. Multi-modal roads, shoulders, occasional sidewalks, paths, bus stops often on adjacent edge/main roads. On-street parking, large internal surface lot and occasional structure parking.
Access (streets, driveways)	Often moderately spaced, limited; truck access may focus internally on rear/side of buildings.	Often moderately spaced; internally, large truck access may be constrained.	May be limited, moderately spaced, internally controlled by fences/gates. Access to edge highways often limited.
MN examples	-Division St (St Cloud) -Robert St (W St Paul) -Excelsior Blvd (St Louis Park)	-Chippewa park neighborhood (Woodbury) -Northern hills neighborhood (Rochester)	-Terminal Drive industrial area (Eagan) -Industrial Drive area (north Faribault) -ConAgra Foods area (New Prague) -Port of Duluth -Airports statewide

Type & Character	Urban Commercial	Urban Residential	Urban Core
Description	Small to large scale, medium to high intensity. Destinations are typically closely spaced.	Medium to large scale, medium to high intensity. Destinations are typically closely spaced.	Compact area of varied scale, high intensity. Destinations are typically very closely spaced, and may be stacked vertically.
Land Use	Often mixed use, commercial, retail, some housing, and higher intensity multi-use/activity nodes. Some public/civic (library, plaza, fire station, school), and event centers.	Single and multi-family. Some public/civic use (e.g. school) and retail, institutional nodes. May have urban park-trail-water use and access.	Mixed retail, commercial, office, residential, institutional, and higher intensity multi-use/activity nodes. Public/civic (library, plaza, urban park, greenway, trail, school), and event and sports centers.
Density	Medium to high	Medium to high	High
Buildings	Many buildings, sizes vary (1 - 6 story), medium to high density (within-among structures). Some storefronts, and frequent transit stop-station-centers, park and rides and structure/ramp parking.	Many buildings, single-family (1 - 2 story), multi-family (2 - 5 story), medium to high density. Frequent bus stops, and occasional transit station-center.	Many medium to very large buildings, 2 to 60+ stories, high density, mixed uses within/among structures. Storefronts, some street-level housing. Often have structure/ramp parking, and a transit stop-station-center.
Distance setback from road	None to small (<45')	None to small (<45')	None to narrow ($\leq 10'$)
Road Frontage	Small landscape buffers-boulevards, some parking lots. Buildings oriented to street.	Small landscape buffers, boulevards with street trees. Buildings oriented to street.	Narrow landscape buffers-boulevards, some parking lots. Buildings oriented to street, and maybe to greenway, and transit/rail.
Users, Facilities, Parking	All users. Multi-modal streets, shoulders, alleys, sidewalks, street trees, bikeways-paths, transit stops/stations, bikeshare hubs. Street, surface lot and some structure/ramp parking; includes bicycles.	All users. Multi-modal streets, shoulders, alleys, sidewalks, street trees, transit stops, some bikeways-paths, shared streets, bikeshare hubs. On-street, alley-rear parking.	All users. Multi-modal streets, shoulders, alleys, sidewalks, some street trees, skyways, bikeways-paths, transit stops-stations-centers, bikeshare hubs. Surface lot, structure, some on-street parking; includes bicycles.
Access (streets, driveways)	Variably to closely spaced; truck access, parking may be limited, focused on building rear or side; or on-street loading.	Variably to closely spaced; large truck access, parking may be limited, constrained.	Closely spaced; truck access often focused on specific docks; or on-street loading.
MN examples	-Superior St E (Duluth) -University Ave (Minneapolis, St Paul) -Grand Avenue (St Paul) -downtown 'main street' of many rural small towns	-Lyndale neighborhood (Minneapolis) -66 th St (Richfield) -East Hillside neighborhood (Duluth) -older residential areas of some rural towns	-downtown Minneapolis-St. Paul -downtown Duluth -downtown Rochester

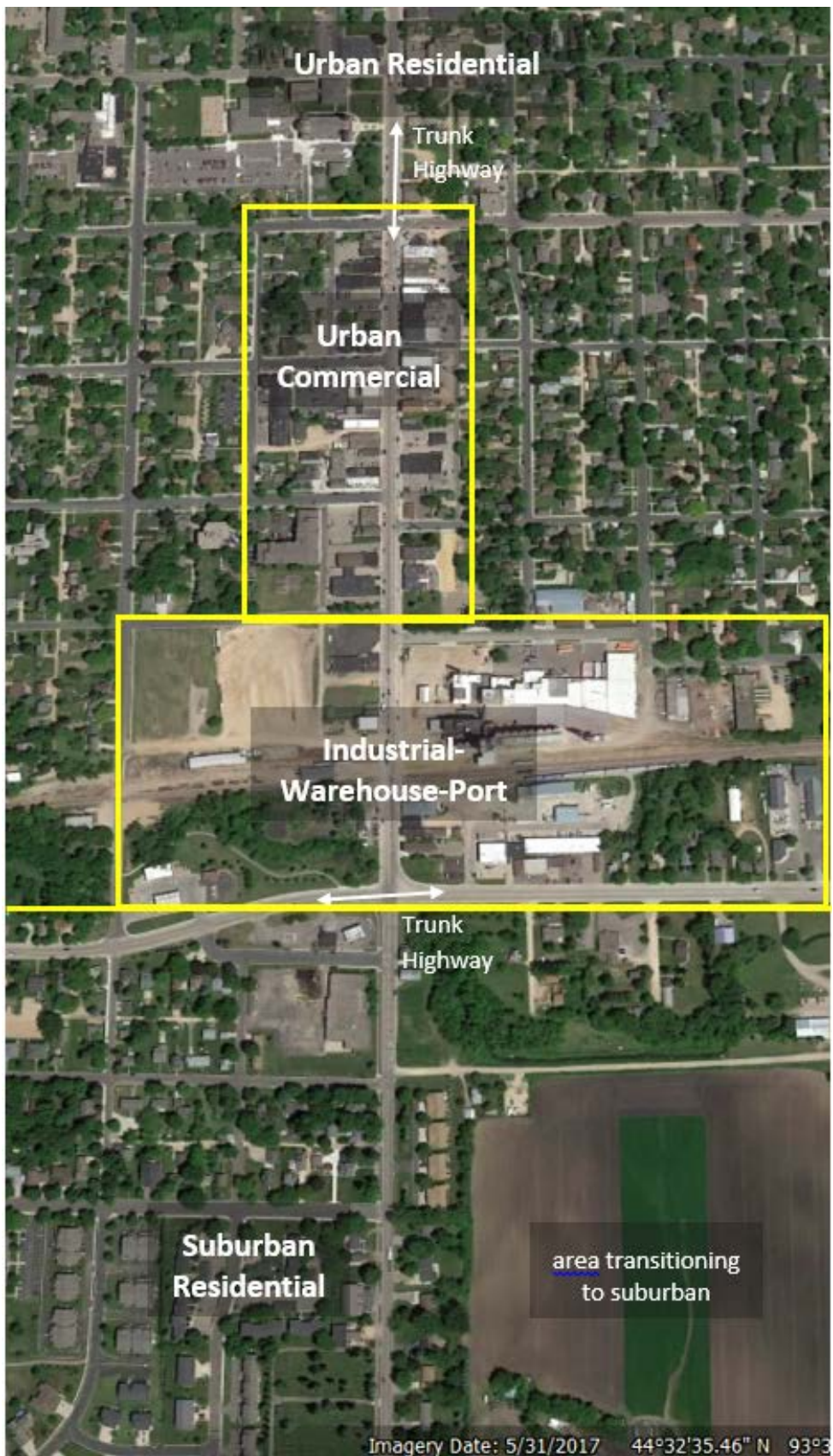
Appendix B: Examples - Land Use Context Types in Use

This graphic shows how land use context types were used in a small town trunk highway corridor study.



MnDOT MN 58 Zumbrota Subarea Study, 2013 (original land use context 'zones' were based on future land use; land use types shown have been updated to match MnDOT land use context types).

This graphic is a more detailed look at possible land use context types along a trunk highway corridor in a small city.



(New Prague, MN)