Place Types

In order to better understand land use and transportation interactions and to make more informed policy decisions, neighborhood characteristics can be analyzed by the role that they play in the region; a more comprehensive view than parcel changes, but more specific than zoning and comprehensive plans. These neighborhood characteristics influence the transportation choices that individuals make, and ultimately affect the overall amount of vehicle travel in the region. By comparing the existing built environment characteristics to what is expected to occur in the future, we are able to explore how changes to the built environment can affect travel. Place Types are data-driven ways to define and visualize the many aspects of land use-transportation interactions embodied in our land use plans. They are then used as an input to the Regional Strategic Planning Model (RSPM), allowing us to measure the impact of future changes to transportation and land use policies.

Place Types are defined as:

AREA TYPE + DEVELOPMENT TYPE = PLACE TYPE

Area Type (or Regional Role) describes the inter-dependencies of each neighborhood compared to the rest of the region, e.g. how centered is it to jobs in the region. The Area Type is a measured by the accessibility to Destinations (jobs accessible from TAZ), Density (jobs and households per acre), and walkable street Design (multi-modal network links).

Development Type(or Neighborhood Character) is used to describe the physical characteristics of each neighborhood in isolation. Development Type is determined by the Density (jobs and households per acre), walkable street Design (multi-modal network links), land-use Diversity (ratio of jobs to households), and presence of transit (service level) within each neighborhood district.

How the built environment is measured

Variables	Measures	Levels	
Destination Accessibility	Share of regional jobs within 5 miles	High Medium Low Very Low	*0.95 or more* *0.85 to 0.95* *0.15 - 0.85* *Less than 0.15*
Density	Jobs & households per acre within ¼ mile	High Medium Low Very Low	*15 or more* *5 - 15* *1 - 5* *Less than 1*
Design	Multi-modal street lane miles per square mile	High Medium Low Very Low	*3.3 or more* *2.5 - 3.0* *1.3 - 3.0* *Less than 1.3*
	Pedestrian oriented street lane miles per square mile	High Medium Low Very Low	*20 or more* *15.6 - 20* *12.2 - 15.6* *Less than 12.2*
Diversity	Jobs to household ratio within ¼ mile	High Medium Low Very Low	*1:2 - 2:1* *1:2 - 1:4 or 2:1 - 4:1* *1:4 - 1:8 or 4:1 - 8:1* *Other*
	Retail/service jobs to households ratio within ¼ mile	High Medium Low Very Low	*1:4 to 10:1* *1:4 - 1:8 or 10:1 - 20:1* *1:16 - 1:8 or 20:1 - 40:1* *Other*
Transit Service	PM peak hourly transit service within ¼ mile	High Medium Low Very Low	*150 or more* *20 - 150* *1 - 20* *Less than 1*

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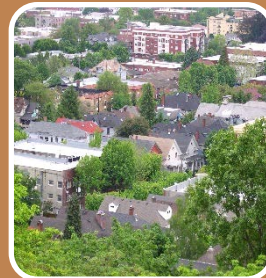
Oregon Department of Transportation

Oregon Department of Land Conservation and Development

Regional Center

- High densities of housing and employment
- Region's center of employment
- Street design and transit-supportive densities expand access to jobs in denser core area

Close in Community

- Medium densities of housing and employment
- Located adjacent and with good access to the region's employment center
- Lower densities decrease multi-modal access to jobs

Suburban/Town

- Lower densities of jobs and/or housing
- Lower accessibility to regional jobs
- Lower densities decrease multi-modal access to jobs

Low Density/Rural

- Very low densities of jobs and housing
- Very low accessibility to jobs and services
- Generally outside of UGB or undeveloped areas within UGB
- Auto dependent transportation, due to low densities of jobs and services

Area Type
Regional Role

Area Type is used to describe the role of each neighborhood district compared to the rest of the region, e.g. how centered is a district to jobs in the region. Area Type is primarily determined by the destination accessibility and, density, and job accessibility in areas of high levels of street design.

Area Type is measured by:

Destination Accessibility
- How accessible are the region's employment centers to each location?

Density
- How concentrated are the activities (jobs and households) in each location?
- Do densities support a multi-modal transportation system?

Design
- What modes of transportation does the street system support (e.g. auto, bike, ped)?
- How well connected is the street network?

Area Type
Regional Role

REGIONAL CENTER | CLOSE IN COMMUNITY | SUBURBAN/TOWN | LOW DENSITY/RURAL

Area Type measures the interdependencies that each neighborhood fills in comparison to the rest of the region, e.g. where are the bulk of the jobs for area residents, how close is a neighborhood to the downtown of a region. The Area Type of a location is measured by the accessibility of Destinations (jobs accessible from each location), activity Density (jobs and households per acre), and street Design (multi-modal transportation network) of each neighborhood.

Area Types are defined using information about the built environment

		Destination Accessibility			
		High	**Med**	**Low**	**Very Low**
Design	**High**	Regional Center	Close in Community	Suburban/Town	
	Med				
	Low Very Low				
Density	**Very Low**	Low Density/Rural			

Area Types for Corvallis Area MPO

AreaType
- Low Density/Rural
- Suburban/Town
- Close In Community
- Regional Center
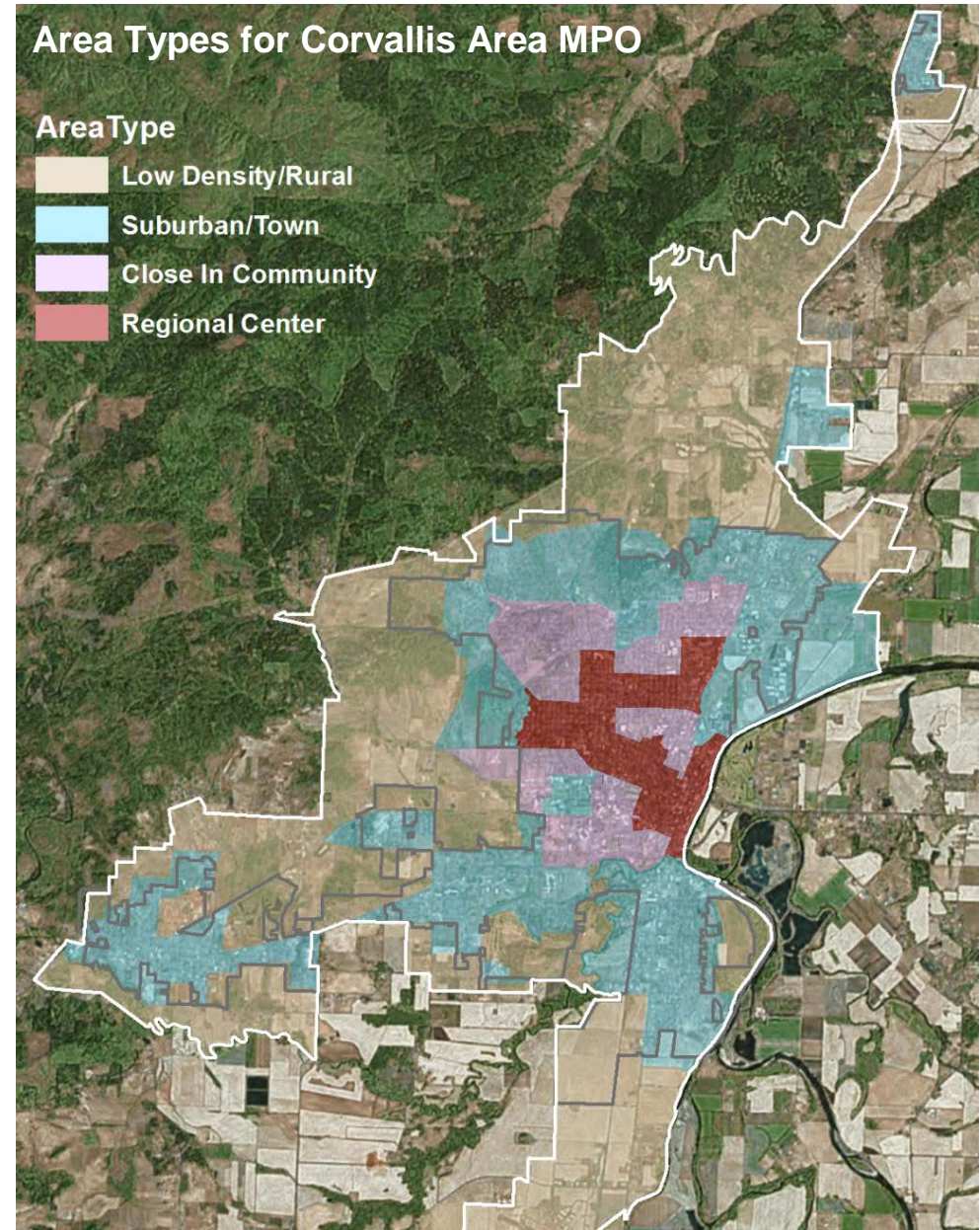
Transit Supportive Development

- High densities of jobs and housing
- High diversity of land uses, with jobs and housing
- Highly accessible multi-modal transportation system
- Frequent transit service (multiple routes) in peak periods

Mixed Use/Mixed High

- Medium to high densities of residential and commercial uses
- High diversity of land use mix, with both jobs and housing
- Multimodal transportation network supported by peak period transit service

Employment

- Land use is dominated by commercial or industrial activities
- Low diversity of land uses
- Jobs/Housing balance: mostly jobs
- Missing either the density or street design required of mixed use

Residential

- Land use is dominated by housing
- Low diversity of land uses
- Jobs/Housing balance: mostly housing
- Missing either the density or street design required of mixed use

Rural/ Low Density

- Very low densities of housing and jobs
- Very low accessibility to jobs and services
- Generally outside of UGB, or undeveloped areas within UGB
- Auto dependent transportation, due to low activity densities

Development Type
Neighborhood Character

Development Type is used to describe more detailed physical characteristics of each neighborhood. The Development Type of a neighborhood is determined by the activity Density, street Design, land use Diversity, and presence of transit service (level of service).

Development Type is measured by:

Density

- How concentrated are the activities (jobs and households) in each location?
- Are densities sufficient to support a multi-modal transportation system?

Design

- What levels of multi-modal transportation options exist in each location?
- What modes of transportation does the street system support (e.g. auto, bike, ped)?

Diversity

- Is there a mix of residential and employment uses?
- Does the land use mix provide work, shopping opportunities to residents of the neighborhood, enabling reduced auto use/ownership?

Transit

- How many transit routes serve this neighborhood and at what frequency during peak periods?
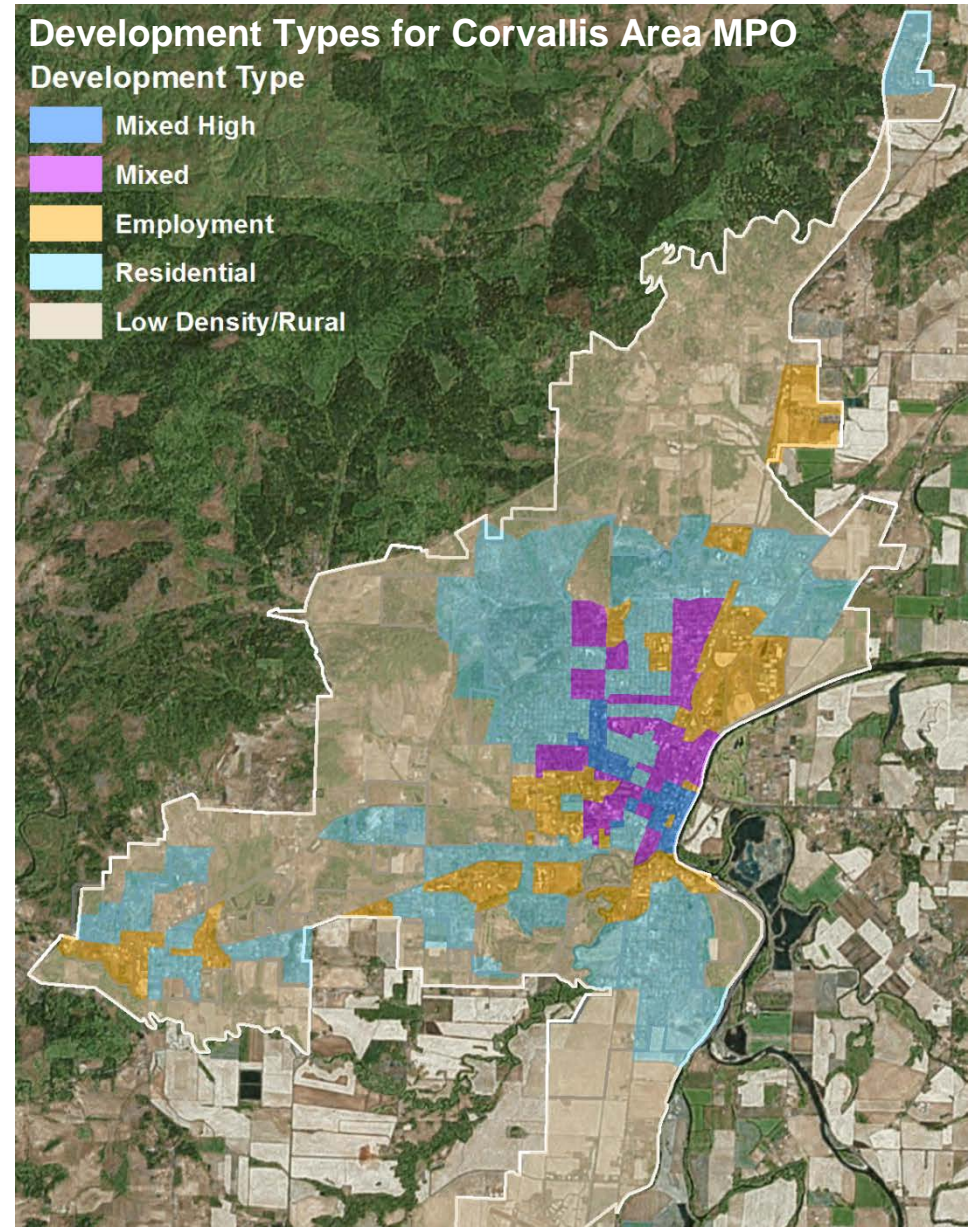- Does the level of transit enable reductions in auto ownership?

Development Type
Neighborhood Character

MIXED USE | EMPLOYMENT | RESIDENTIAL | TRANSIT SUPPORTED DEVELOPMENT | LOW DENSITY/RURAL

Development Type is used to describe the physical environment of a neigborhood. The Development Type of a neighborhood is determined by the activity Density (jobs and households per acre), street Design (multi-modal network links), land use Diversity (ratio of jobs to households), and the presence of transit service (level of service).

Development Types are defined using information about the built environment

		Density # of jobs per acre	Design Level of street connectivity	Diversity Mix of housing and jobs	Transit Level of transit service
Development Types	Transit Supportive Development	High	High	High	High
		High	High	Jobs > HH	High
	Mixed Use High	High	High	High	-
	Mixed Use	Medium	Medium	High	-
	Employment	Not Mixed		Jobs > HHs	-
	Residential	Not Mixed		HH > Jobs	-
	Low Density/ Rural	Very Low	-	-	-

Development Types for Corvallis Area MPO
Development Type
- Mixed High
- Mixed
- Employment
- Residential
- Low Density/Rural

Place Type Logic

Area Type + Development Type = PLACE TYPE

4 **LAND USE PLACE TYPES**

NEIGHBORHOOD CHARACTER (Development Type)	REGIONAL ROLE (Area Type)			
	Regional Center	Close In Community	Suburban/ Town	Low Density/ Rural
Transit Supported Development	√	√	√	
Mixed Use - High	√	√	√	
Mixed Use	√	√	√	
Employment	√	√	√	
Residential	√	√	√	
Low Density/ Rural				√

2 **REGIONAL ROLE** *(Area Type)*

	Destination Accessibility			
	H	M	L	VL
Design — H	Regional Center			
Design — M		Close In Community		
Design — L V L			Suburban/Town	
Density — V L	Low Density/Rural			

3 **NEIGHBORHOOD CHARACTER** *(Development Type)*

	Density	Design	Diversity	Transit
Mixed Use	M	M	H	
	H	H	H	
Employment	Not MIXED		Jobs> HHs	
Residential	Not MIXED		HH>jobs	
Transit Supported Development	H	H	H	H
	H	H	Jobs>HHs	H
Low Density/ Rural	VL			

1 **BUILT ENVIRONMENT VARIABLES**

Built Environment Variables			
Destination Accessibility	Share of Regional Jobs within 5 miles (ratio)	H-M-L-VL
Density	Jobs & Households per acre within 0.25 mile	H-M-L-VL
Design	Multi-modal & Pedestrian-Oriented street density (links per sq mile)	H-M-L-VL
Diversity	Jobs (total or retail- service) to household ratio, within 0.25 mile	H-M-L-VL
Transit Service Level	PM Peak hourly transit service within 0.25 mile	H-M-L-VL

AREA TYPE + DEVELOPMENT TYPE = PLACE TYPE

REGIONAL ROLE *(Area Type)*

NEIGHBORHOOD CHARACTER *(Development Type)*

Built Environment Variables:

Destination Accessibility	Density	Design		Diversity		Transit Service Level
Share* of regional jobs within 5 miles (ratio)	Jobs + households** per acre, within 0.25 mile	Multi-modal or pedestrian-oriented street density (links per square mile) Maximum of two measures		Jobs (total or retail- service) to household** ratio, within 0.25 mile Maximum of two measures		PM Peak hourly transit service on routes, within 0.25 mile
Levels:		Multi Modal	Ped-oriented	Total	Retail/Service	
H	0.95 or more	15 or more	3.3 or more	20 or more	Between ½ - 2	Between ¼ - 10	150 or more
M	0.85 to 0.95	5 to 15	2.5 to 3.0	15.6 to 20	Between ¼ - ½ or 2-4	Between ¼ - 1/8 or 10-20	20 to 150
L	0.15 to 0.85	1 to 5	1.3 to 3.0	12.2 to 15.6	Between ¼ - 1/8 or 4-8	Between 1/16-1/8 or 20-40	1 to 20
VL	Less than 0.15	Less than 1	Less than 1.3	Less than 12.2	Otherwise	otherwise	Less than 1

Source:

All Years: Travel Model Jobs		**Base**: EPA Smart Location DB (NAVSTREETS) **Future**: User Input	**All Years**: Travel Model Households, Group Quarters, Jobs, plus unprotected lands	**Base**: EPA Smart Location DB (GTFS) **Future**: User Input

* Destination Accessibility shares are calculated relative to the 85th percentile value for the region.

**University Group Quarters converted to households, assuming 2 per household.
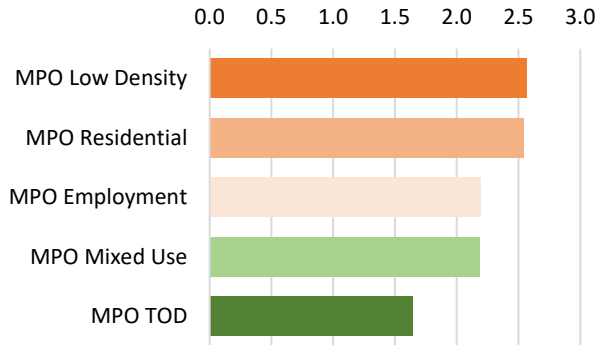
Note: Density & Diversity attributes assumed an average of TAZs' within 0.25 miles, measured as centroid-to-centroid distance.

Thresholds set to approximate one standard deviation from the mean value
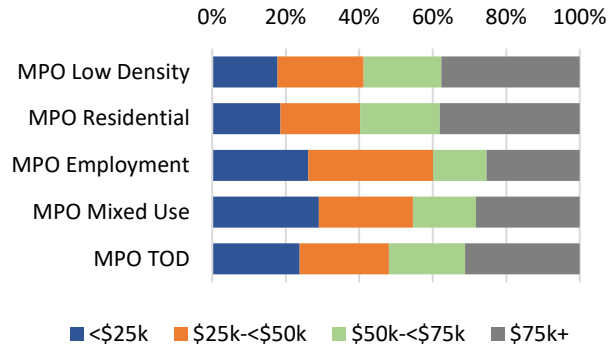
Attributes of Oregon Households by Place Type, per Oregon Households Activity Survey, 2010.
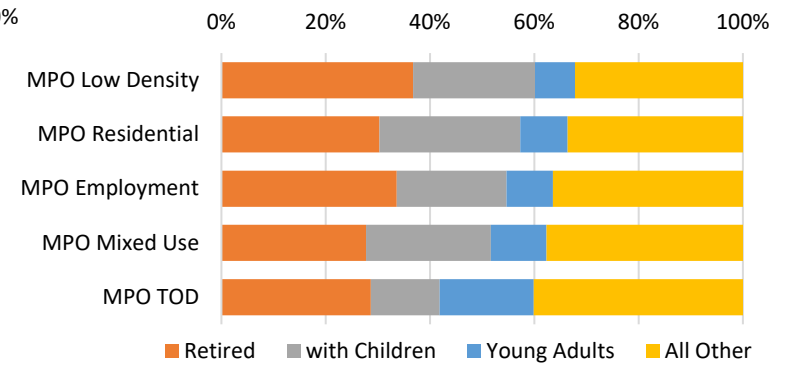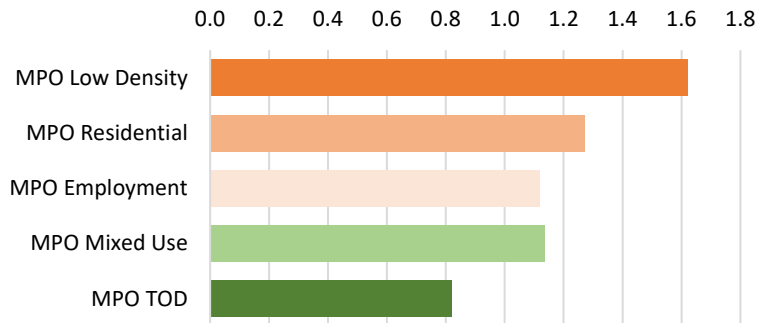
DEMOGRAPHICS

Household Size

	0.0	0.5	1.0	1.5	2.0	2.5	3.0
MPO Low Density							
MPO Residential							
MPO Employment							
MPO Mixed Use							
MPO TOD							

Per Capita Household Income

■ <$25k ■ $25k-<$50k ■ $50k-<$75k ■ $75k+

Presence of Specific Household Groups

■ Retired ■ with Children ■ Young Adults ■ All Other

AUTO OWNERSHIP AND DWELLING TYPE

Vehicles per Worker

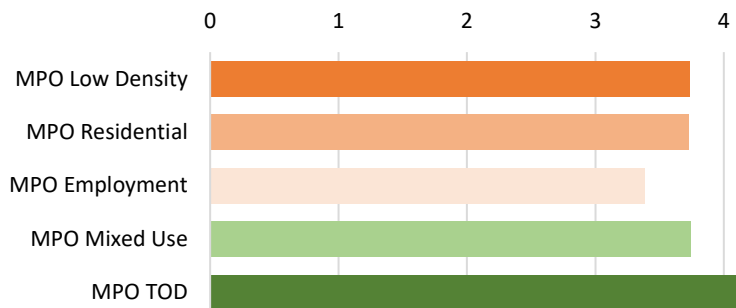### Dwelling Unit Type

■ Single Family ■ Duplex ■ Apts (3+ units) ■ MobHome
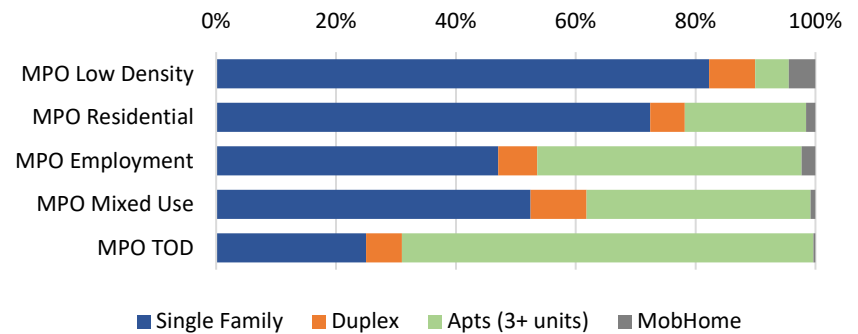
TRAVEL BEHAVIOR

Daily Trips per Capita (all modes)

Travel Mode

■ Auto ■ Auto-Shared ride ■ School Bus ■ Transit ■ Bike/Walk