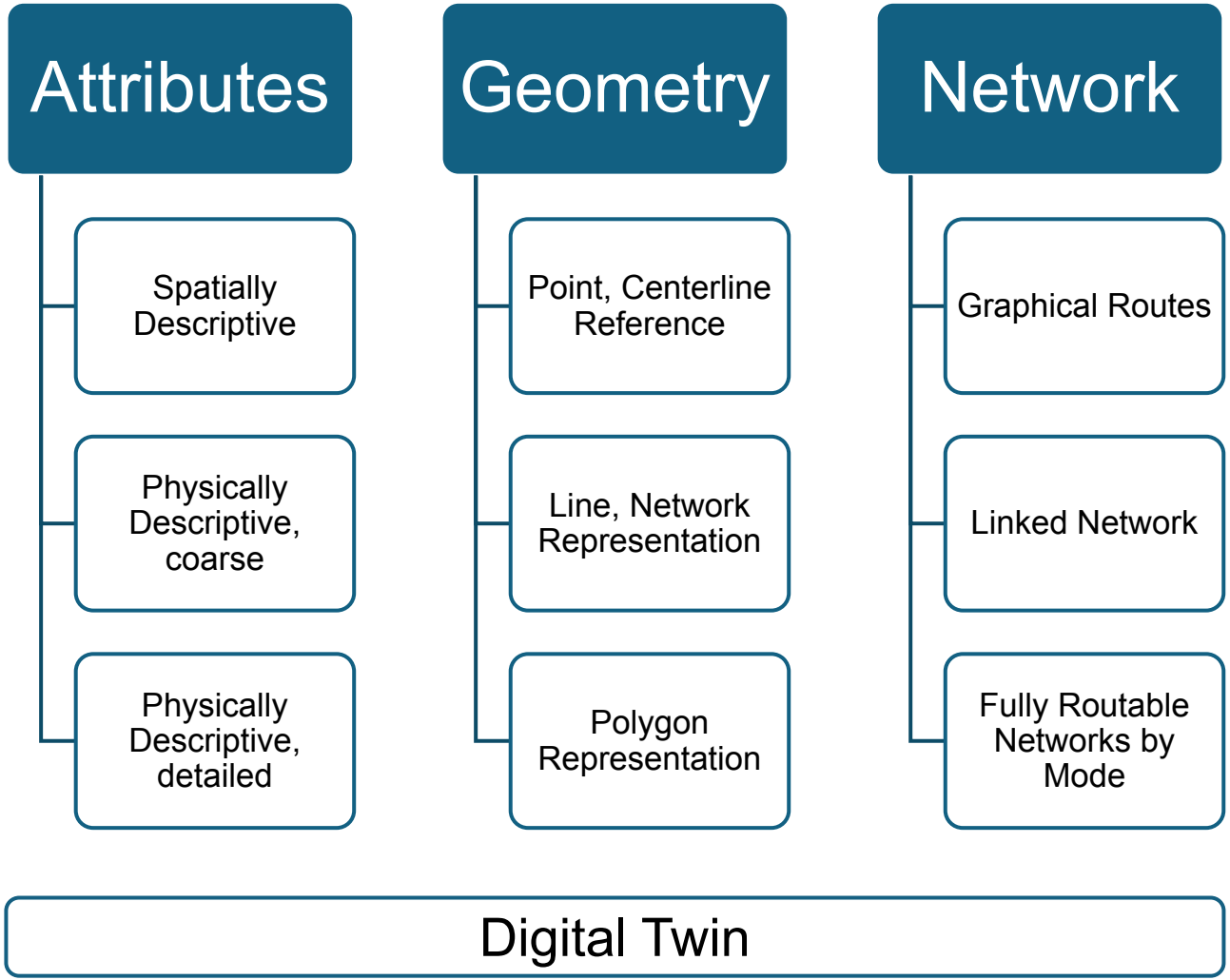


Attributes must be contained in fields

More attributes can be inferred from geometric representation

Sidewalks

Attributes must be contained in fields

Centerline Representation → Linear Referencing System

Disaggregation of sidewalk features from a more simplistic, centerline representation, to a more spatially descriptive representation

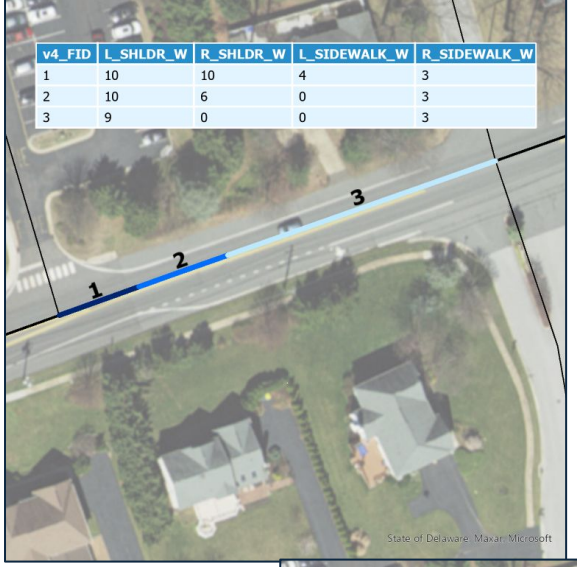
Network Representation

Construction of polygons representing the sidewalks to create a more geometricly descriptive representation

Polygon Representation

More attributes can be inferred from geometric representation

What do we call this?



v4_FID	L_SHLDR_W	R_SHLDR_W	L_SIDEWALK_W	R_SIDEWALK_W
1	10	10	4	3
2	10	6	0	3
3	9	0	0	3

Sidewalks

Centerline Representation → Linear Referencing System

Disaggregation of sidewalk features from a more simplistic, centerline representation, to a more spatially descriptive representation

Attributes must be contained in fields

Network Representation

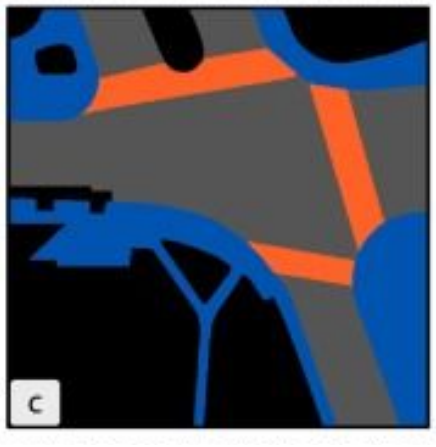
Construction of polygons representing the sidewalks to create a more geometricly descriptive representation

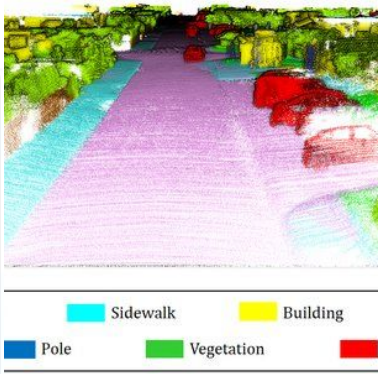
Polygon Representation

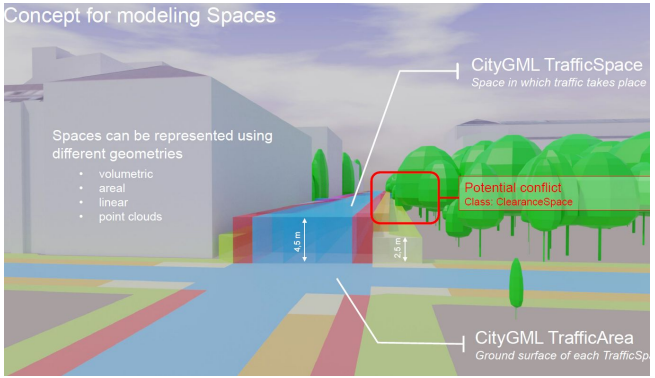
Further enrichment of the geometry of the space

More attributes can be inferred from geometric representation

Volumetric Representation







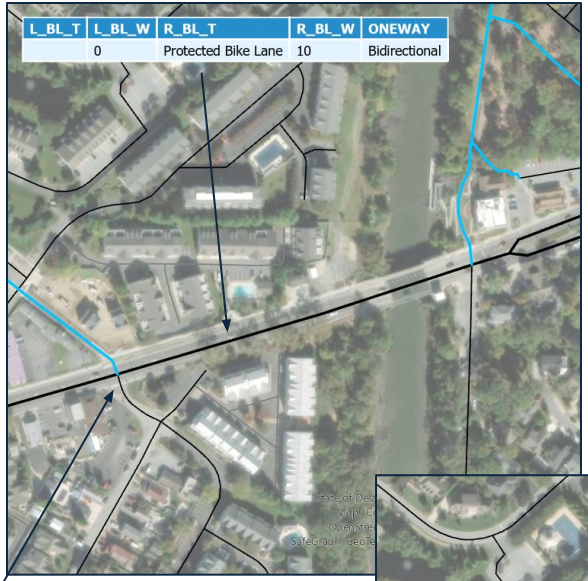
Bicycle Infrastructure

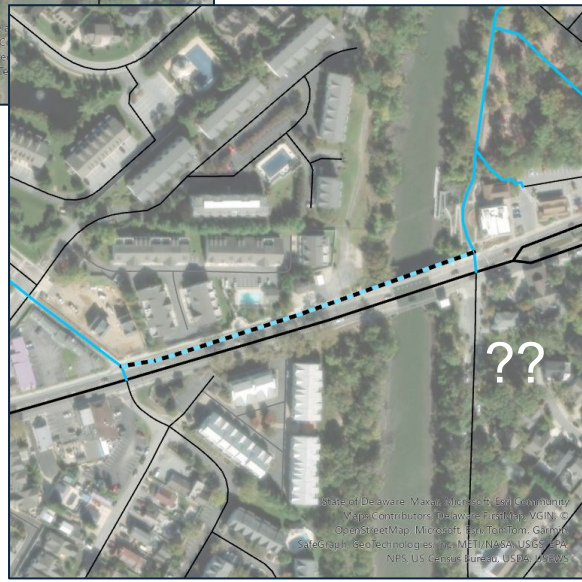
Centerline Representation → Linear Referencing System

When does it make sense to separate bicycle facilities along a roadway into separate linear representations??

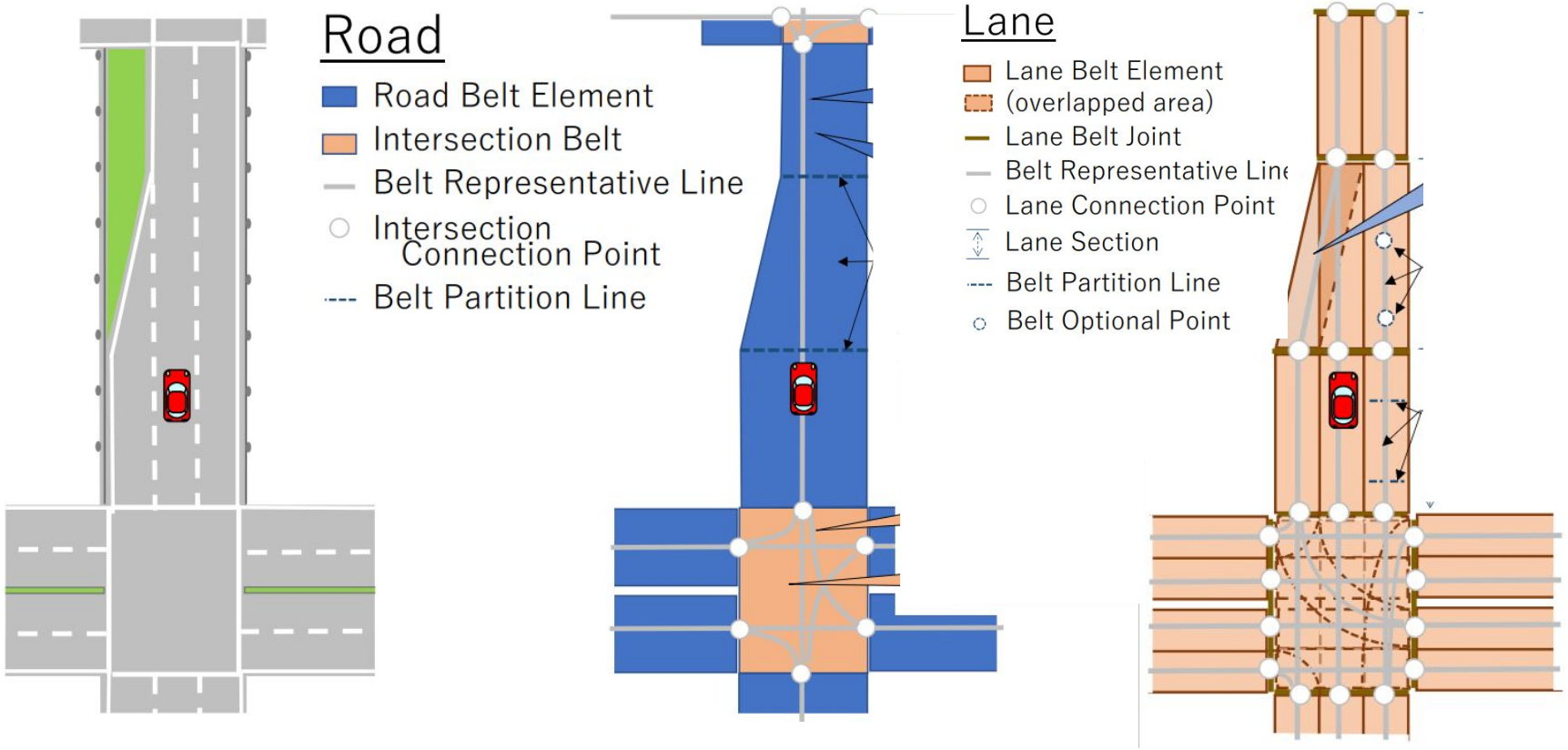
Network Representation

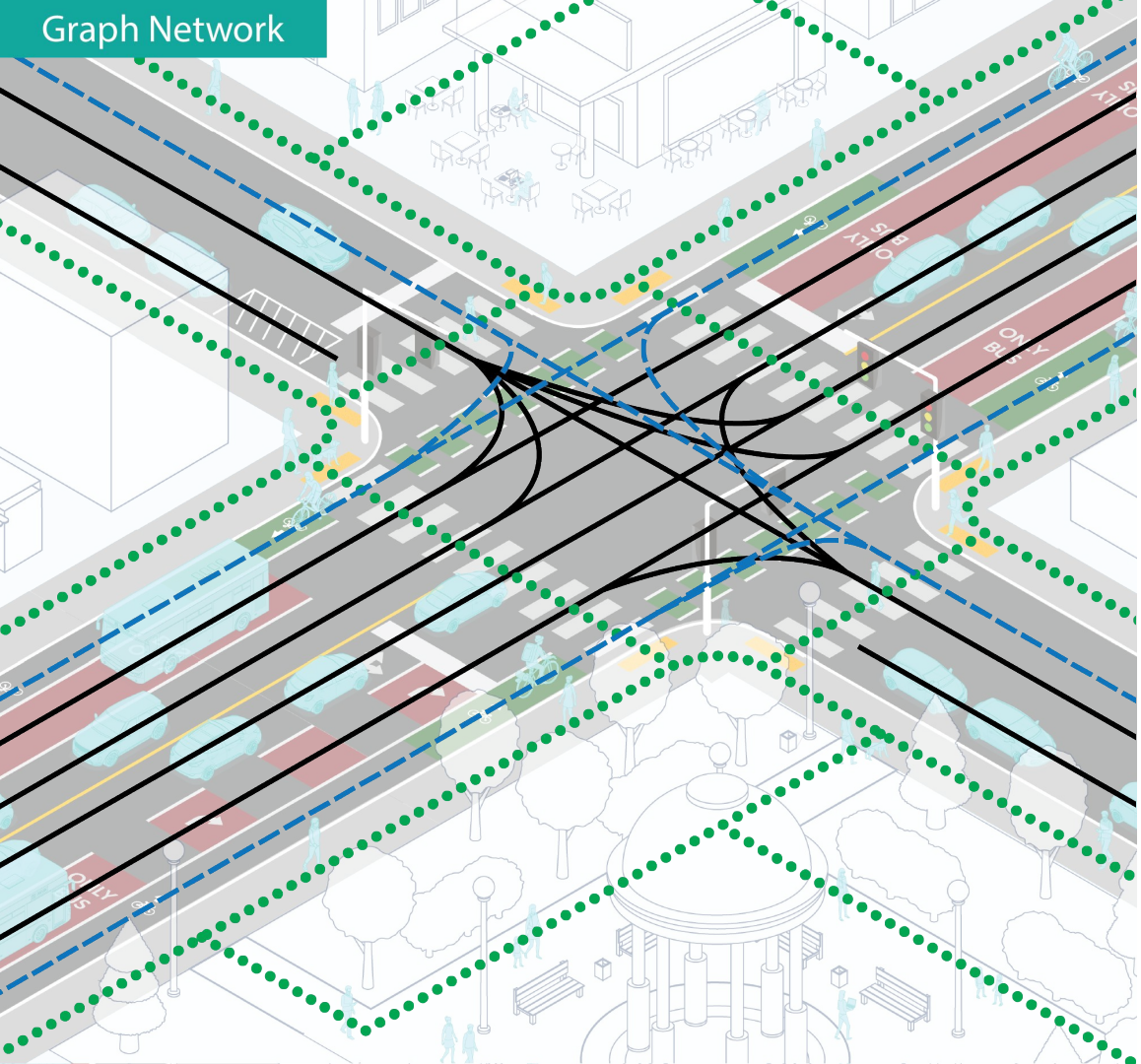
L_BL_T	L_BL_W	R_BL_T	R_BL_W	ONEWAY
	0	Protected Bike Lane	10	Bidirectional





From GDF 5.1 pt 2.



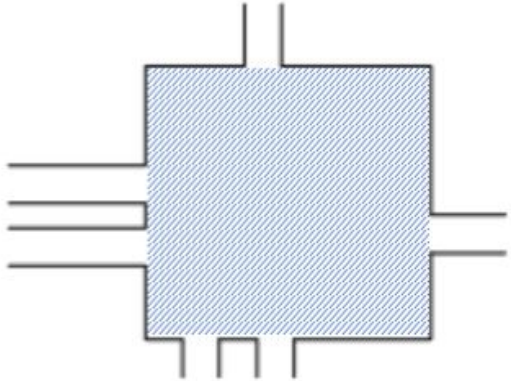


Does this kind level of representation add significant value to a bicycle/ pedestrian standard?

- EnclosedTrafficArea and its attributes -

- Any confined area within which unstructured traffic movements are allowed.

- Followings are defined:
  - parking place
  - parking building
  - unstructured traffic square
  - pedestrian square
  - another type of enclosed traffic area



Some things we've discussed as important

- Consistent and clear ontology of the pedestrian and bicycle infrastructure environment in an American Context, with clear terminology
  - Standards for representing intersections

- Network routability/accessibility

- Explicit spatial representation of infrastructure
  - Well defined within each geometric representation domain (e.g. centerline reference, network representation, polygon/ 3D representations)

- Adaptability to changes or upgrades to the infrastructure–e.g. I don't have to go back and redo work when I add a curb cut, delineators, contra-flow bicycle traffic, or green lane paint

- Attribute schema with overlap/interoperability with other adjacencies or standards (e.g. our standard (ideally) has the required elements of other standards or identifiers useful with other standards) to enable:

- Intersections!!