

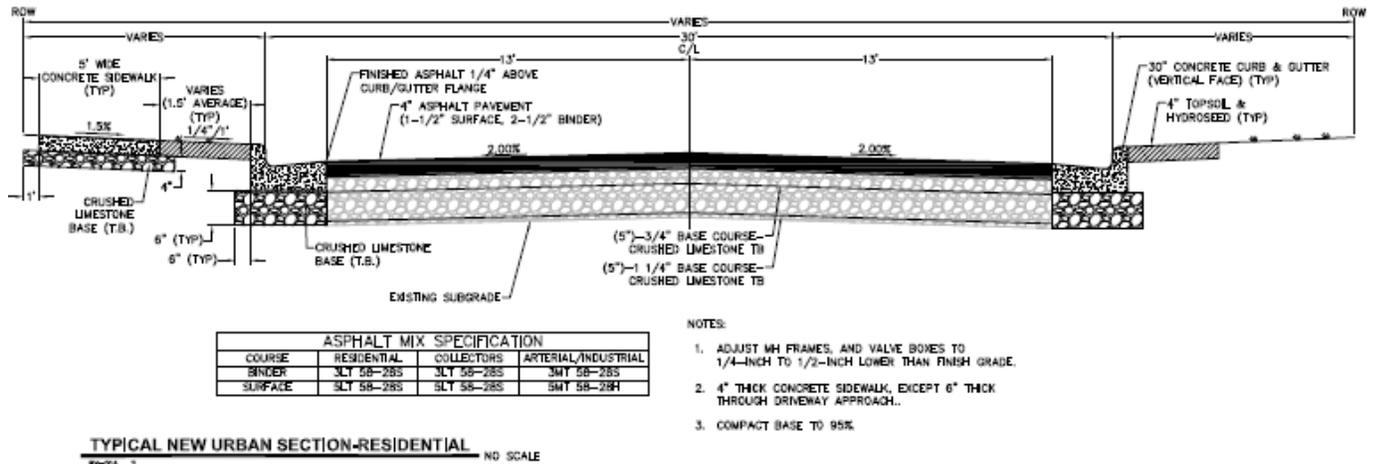
MEMO

TO: Tim Rhode, Village Administrator
 FROM: Ryan Amtmann, Village Engineer
 DATE: July 8, 2020
 SUBJECT: Willow Drive Connection

This memo provides information to support the discussion regarding the connection of Willow Drive to a public road being proposed in the LCL development area.

Typical Village Residential Urban Section

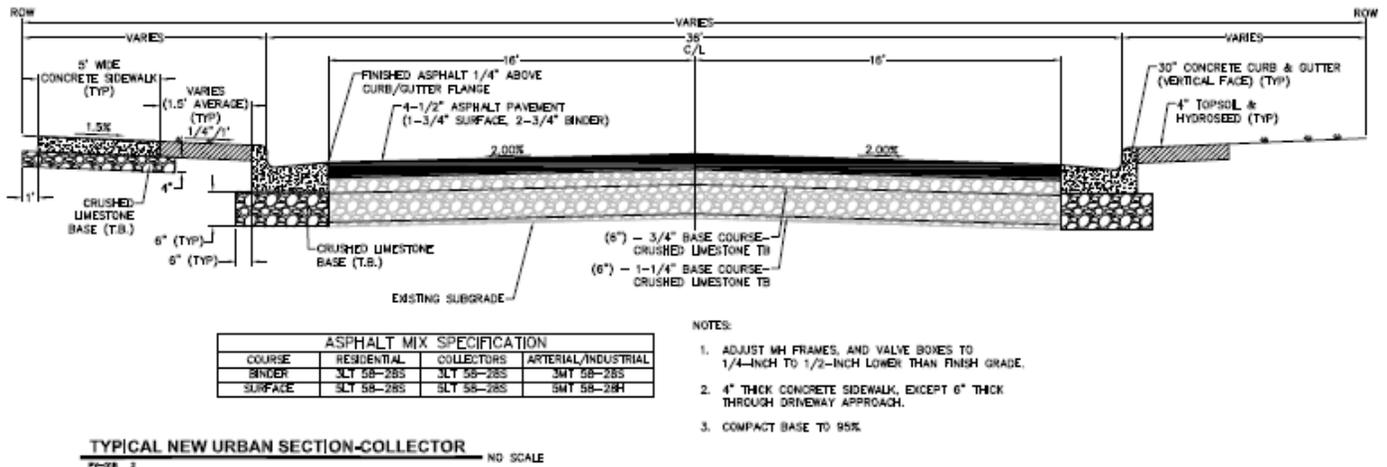
- 30-foot wide face of curb to face of curb
- Typically used for lower volume residential roadways
- Assume 8-ft wide for parking, 10.5-ft wide for drive lanes.
 - Allows for parking on 1 side of street or staggered parking on both sides of streets
 - Parking on both sides of street in same location creates a bottleneck with only 14-foot of room between parked cars, tight to not enough room for cars to pass one another
 - Could consider signing the roadway as parking on one side only
- Other roadways in the Village that are 30-foot wide curb to curb include:
 - Sunnyslope Drive (Rae to Merton) – the eastern 1/2 of Sunnyslope is signed for parking on 1 side of the road only
 - Renson Road (Nixon to Merton)



Typical Collector Urban Section

- 36-foot wide face of curb to face of curb
- Typically used in areas with more through traffic and higher volumes
- Assume 8-ft wide for parking, 10-ft wide for drive lanes.
 - Allows for parking on 2 sides of street with 20-foot of room between cars
- Other roadways in the Village that are 36-foot wide curb to curb include:
 - Oxford Drive
 - Imperial Drive

- o Rae Drive (Hartbrook thru River Meadows Sub)



Willow Drive Connection

- Proposed public road in the LCL development is proposed to be a 30-foot road section with a cul de sac on east end, not connecting to Willow Drive.
- Existing Willow Drive through the Chestnut Ridge Subdivision is a "Typical Residential Urban Section" with a width of 30-feet wide face of curb to face of curb
- Parking is allowed on both sides of the street; HOWEVER, a 30-foot road section does not work well for cars parked on both sides of the street opposite one another
- If the Village Board desires to for the LCL development public road to be connected to Willow Drive, then the Village could consider:
 - o Signing as parking on one side of the road only
 - o Widening roadway in future by additional 6-feet to meet the Collector roadway section if parking is desired on both sides of the street.
 - o Traffic calming measures such as raised speed humps if speed were a problem.

Traffic Study for LCL Development

- Developed by Traffic Analysis and Design, dated April 8, 2020
- Did not analyze the traffic impacts of connecting the public road and Willow Drive.
- With multi-family 1,490 trips per day to Campus Drive. 450 trips per day on public road b/c of two additional Campus Drive connections
- Without multi-family 520 trips per day to Campus Drive. Much fewer to public road (estimate 200 trips per day)
- With 100+/- vehicles during peak hours on Campus Drive
- In a follow up to an inquiry from the Plan Commission about the impact of connecting the public road and Willow Drive, Neumann's traffic engineer (without further analysis) stated that the net effect of traffic if the roads were connected would likely equal out because some traffic from Chestnut Ridge would travel west and some traffic from Campus Drive would travel east.

On-Site Development Trip Generation Table¹

Land Use	ITE Code	Proposed Size	Weekday Daily	AM Peak			PM Peak		
				In	Out	Total	In	Out	Total
Single-Family Detached Housing	210	47 Units	520 FCE	10 (25%)	30 (75%)	40 FCE	30 (63%)	20 (37%)	50 FCE
Multi-Family Housing (Low-Rise)	220	134 Units	970 FCE	15 (23%)	50 (77%)	65 FCE	45 (63%)	30 (37%)	75 FCE
Total New Trips			1,490	25	80	105	75	50	125

¹ ITE Trip Rates (X.XX) and/or Fitted Curve Equations (FCE) are from the ITE Trip Generation Manual, 10th Edition.

TRIP DISTRIBUTION (New Trips)

Location	Percentage	Trips	AM In	AM Out	PM In	PM Out
W. on Hill Street	10%	150	0	10	10	5
E. on Campus Drive	15%	225	5	10	10	10
S. on STH 83	75%	1115	20	60	55	35
Total	100%	1490	25	80	75	50

School Dwy.

