



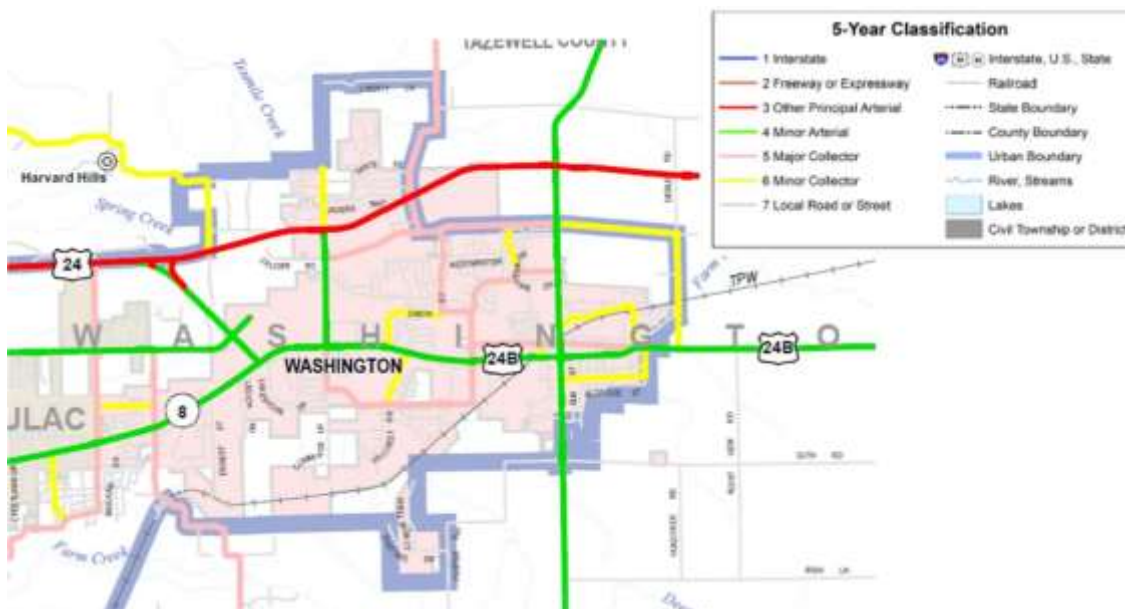
Memo

TO: Public Safety Committee
FROM: Ed Andrews, PE
Public Works Director
SUBJECT: Westgate Road Review
DATE: April 12, 2017

Please accept the following memorandum in follow up to engineering related questions posed regarding Westgate Road at the March Public Safety Meeting.

Roadway Network:

Westgate Road connects Newcastle and Wilmor at its southern termini with Devonshire at its northern termini, in the central northeastern portion of the City of Washington. It also serves to collect traffic from a number of surrounding residential streets / local roads. Westgate Road is currently classified as a Major Collector with a posted speed of 25mph. The connecting roadways at each end of Westgate Road are also classified as Major Collectors, see the following mapping from IDOT's website.



These functional classifications are established by the Illinois Department of Transportation (IDOT), reviewed and submitted to the Federal Highway Administration (FHWA) every five years. Only roadways which have functional classifications above a Local Road are eligible

for Federal Funding. Records indicate that Westgate is not / was not originally constructed as a Federal Aid Urban (FAU) Route.

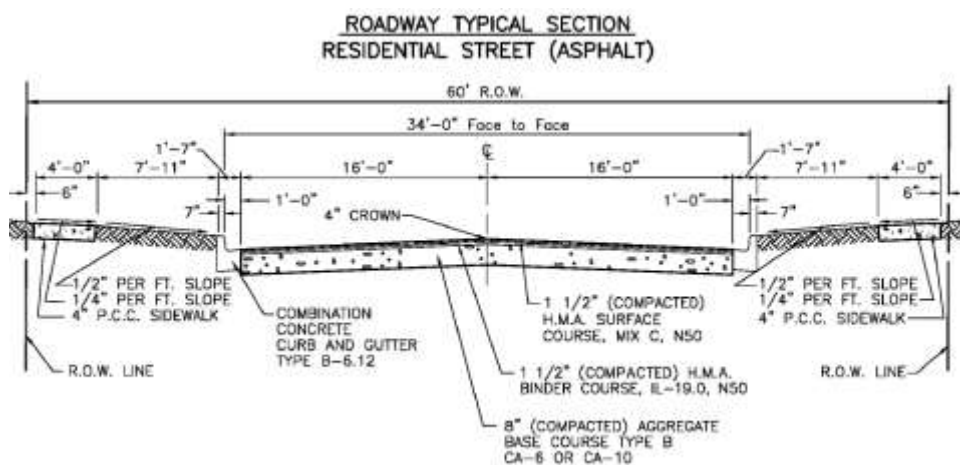
Traffic volumes along Westgate vary, ranging from 3050 AADT (Average Annual Daily Traffic) at its south end to 1900 AADT at its north end. These volumes, coupled with connectivity to other higher functional classification roadways contribute to Westgate Road's designation as a Major Collector.



Source: <https://www.gettingaroundillinois.com/gai.htm?mt=aadt>

Roadway Geometrics:

Westgate Road has a typical right of width (ROW) of 60' and pavement widths of 32', which are in keeping with the City of Washington's Residential Street - Standard Drawing #001 from February 2008, see below:





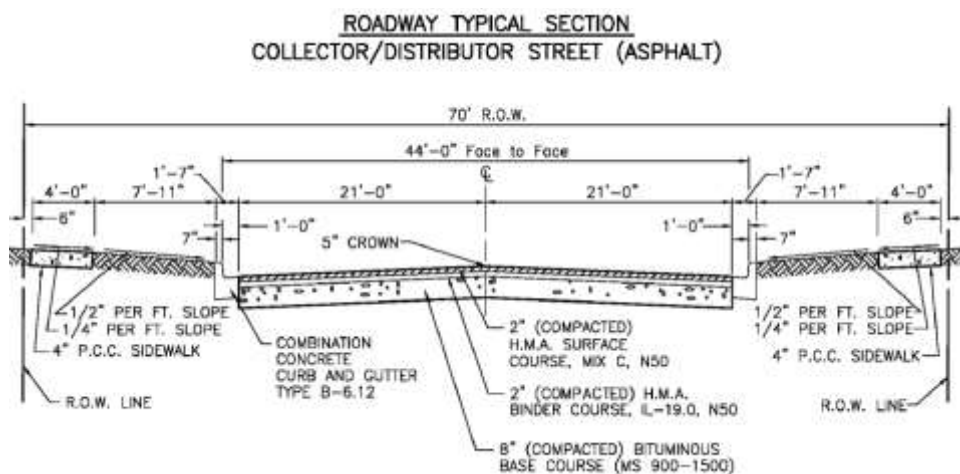
Google Earth Street View at Washington Park Pool facing east towards Stratford

Sidewalks also generally adhere to this standard, but a portion were constructed at the back of curb beginning just east of Stratford Drive to Devonshire Road.



Google Earth Street View facing north towards Devonshire

Should this roadway have been proposed under the current standards, the higher volumes of traffic on Westgate would have likely elevated the typical section of Westgate to that of City of Washington's Collector Street - Standard Drawing #003, see below:



Additional review of IDOT's current Bureau of Local Roads Manual (BLRM) was undertaken under the premise that if Federal Funds were available that those guidelines would need to be adopted. The BLRM shows that for "3R" type projects for existing roadways with a Design Hour Volume (DHV) < 1400, 10' minimum driving lanes with 8' minimum parking lanes (see excerpted Figure 33-3D). This would make for a 36' wide roadway with B6.12 curb and gutter, less than the City's Collector standard but greater than the current Residential standard with a minimum required design speed of 30mph.

Design Element		Manual Section	Design Volume (DHV)		
			Two-Way DHV < 1400 (1)	Two-Way DHV 1400 - 2400 (1)	Two-Way DHV 2400 - 3400 (1)
Design Controls	Highway Type	---	TWS-2	TWS-4	TWS-6
	Design Forecast Year	27-6.02	Current		
	Design Speed *	27-5.02	30 mph – 40 mph		
	Level of Service (LOS) *	27-6.04	D		
Cross Section Elements	Surface Width *	Number of Travel Lanes	2	4	6
		Travel Lane	Desired 11' / Minimum 10'		
		Travel Lane (Shared with Bicycles)	See Section 42-3.02		
		Parking Lane (2)	8'		
		Auxiliary Lane (2)	Single Left & Right – Desired 11' / Minimum 10' / Dual Lefts & Rights – Desired 22' / Minimum 20'		
	Cross Slope	Travel Lane (Minimum) *	1.5% - 2.0%	1.5% - 2.0% (3a)	
		Auxiliary Lanes	2.0% (3b)	(3b)	
	Outside Curb and Gutter Type		B-6.12, B-6.18, or B-6.24 CC&G (4)		
	Median Width	Flush	N/A	Existing	
		Flush (TWLTL) (5)	31-1.06	11'	
		Traversable		Existing	
		Raised Curb		Existing	
	Sidewalk Width (6)		Desired 5' / Minimum 4'		
	Obstruction Free Zone * (7)		1.5'		
Roadway Slopes	Side Slope (8) (Maximum)	Cut Section (Curbed)	---		
		Rock Cut	---		
	Median Slope	Fill Section (Curbed)	---		
		Concrete Surface / Traversable	N/A	1.5%	
		Flush / TWLTL Surface	31-1.06	1.5%	
Grass/ Landscape Surface		N/A	5% (Towards C&G)		

* Controlling design criteria (see Section 27-7)

DHV = Design Hourly Volume / TWS = Two-Way Street

GEOMETRIC DESIGN CRITERIA FOR URBAN TWO-WAY ARTERIALS AND COLLECTORS (3R Projects)

Figure 33-3D (US Customary)

33-3-10

BUREAU OF LOCAL ROADS & STREETS
GEOMETRIC DESIGN OF EXISTING HIGHWAYS

August 2016

Note: DHV is approximated as 10% of the AADT, or 305 in this case.

On-Street Parking:

A question arose as to the restriction of parking along some areas of Westgate and it being allowed at others, specifically from Stratford to Devonshire. Research with the City Clerk shows that the parking restriction for Westgate was adopted in 1983 under Ordinance #1372, attached at the end of this document. This ordinance allowed for on-street parking from Stratford to Devonshire to remain.

As previously mentioned, the geometrics of Westgate change in this section, with sidewalks construction immediately behind the back of curb. While not consistent with either City of Washington current standard, this arrangement is somewhat permissible by the BLRM provided that:

- (1) the width of the sidewalks were increased to 6' to provide the standard two (2') clear zone and minimum 4' sidewalk for roadways with posted speeds of 45mph or less with curb and gutter protection.
- (2) The edge of traveled way (the edge of the through lane) is delineated and the parking lane is retained to help meet clear zone requirements for pedestrian safety.

Note: Either situation may still require upgrades to meet desired rather than minimum widths for funding eligibility.

Interim Findings:

The existing 4' sidewalks constructed at the back of curb do not meet the City's current roadway standards or the BLRM's clear zone requirements without the protection of parking lanes. Retention of the parking lanes help provide an additional clear zone, however a painted "edge of traveled way" would assist in formally delineating this when parked vehicles are not present.

Pavement widths marginally support on-street parking throughout and would need to be addressed during future reconstruction should Stratford continue to function as a Collector Street, either Major or Minor.

Other considerations should be reviewed against current roadway policy and the BLRM to insure future funding options remain viable or at least recognized at time of adoption.

AN ORDINANCE AMENDING §73.001
OF THE CODE OF ORDINANCES TO
THE CITY OF WASHINGTON, ILLINOIS.

WHEREAS, §73.001(N) of Chapter 73 of the Code of Ordinances of the City of Washington, Illinois, provides in part as follows:

§ 73.001(N) Parking Prohibited

It shall be unlawful to permit any vehicle to stand at any time in any of the following places, except when necessary to avoid conflict with other traffic or in compliance with the directions of a policeman or traffic-control device. . . . ;

and

WHEREAS, it is in the best interests of the residents of the City of Washington that parking on both sides of Westgate Road from Wilmor Road to Stratford Drive be eliminated:

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF WASHINGTON, TAZEWELL COUNTY, ILLINOIS, that:

Section 1. That the following be added at the end of said §73.001(N):

"Westgate Road Both Wilmor Road to Never
Stratford Drive

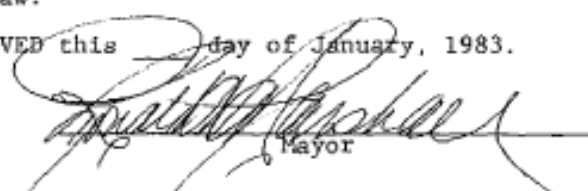
Section 2. That all ordinances or parts of ordinances in conflict with the provisions of this ordinance be, and the same are hereby repealed.

Section 3. That this ordinance shall be in full force and effect from and after its passage, approval and publication as required by law.

PASSED AND APPROVED this 2 day of January, 1983.

ATTEST:


City Clerk


Mayor
AYES: 8
NAYS: 0