

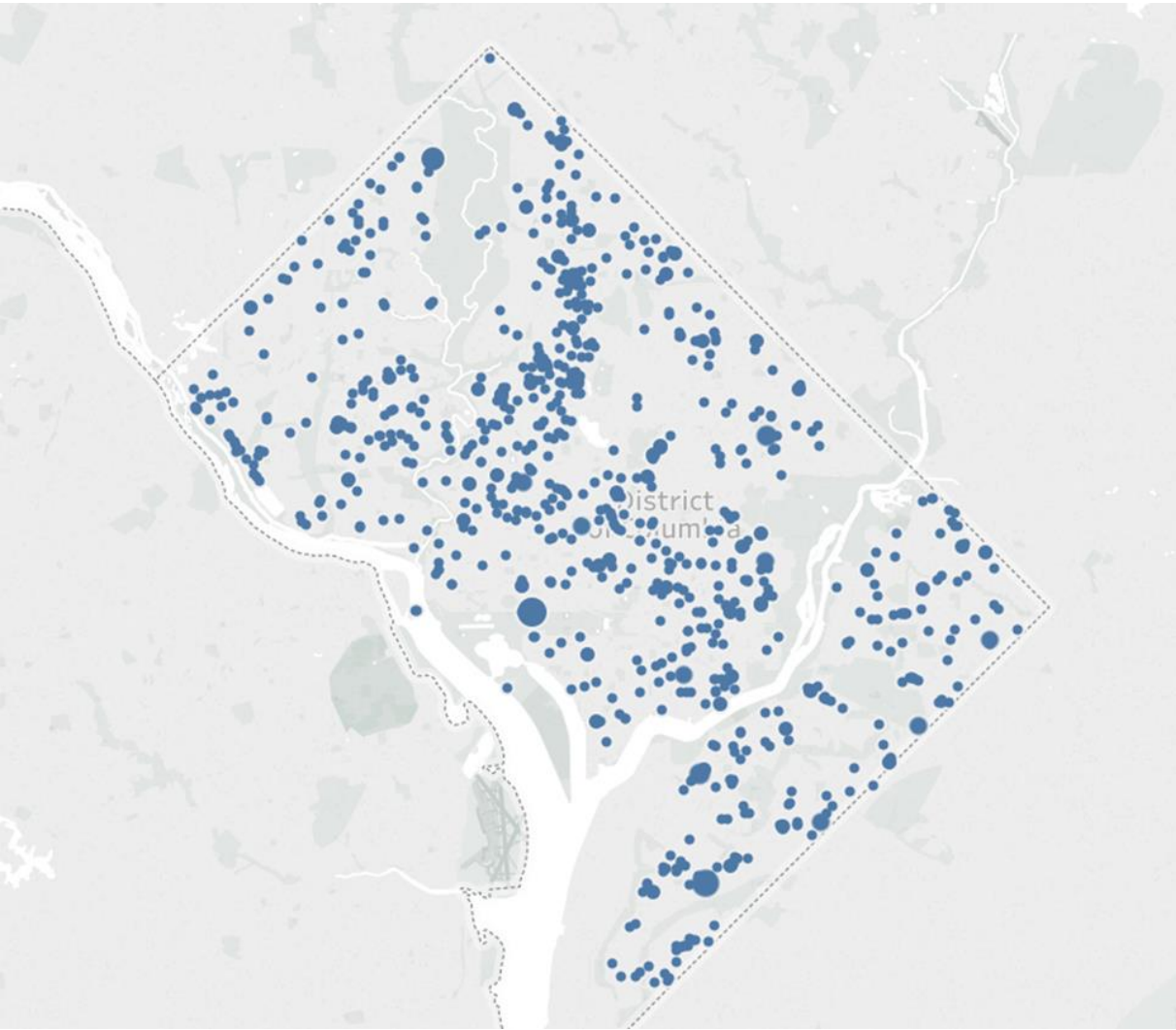


Streetlight Advisory Panel

d.

June 11, 2019

Lighting Survey Requests



These dots represent constituent requests for lighting level reviews since Feb. 2017, totaling 935.

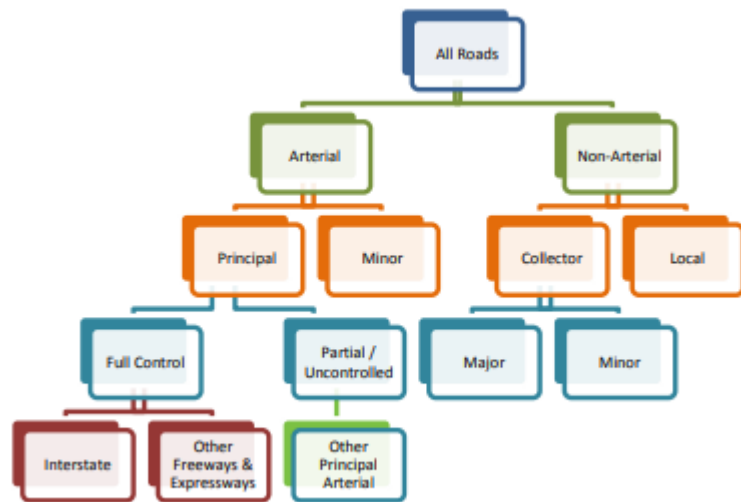
DDOT averages one request for enhanced lighting per day.

Road Classifications

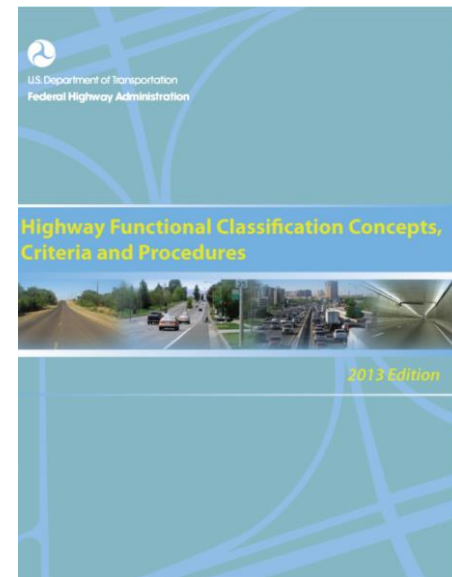
How does the District define road types?

1. Guidance on how to classify roads comes from the Federal Highway Administration.
2. DDOT contracts with the Metropolitan Washington Council of Governments to study and classify all of its streets.

Figure 3-4: Federal Functional Classification Decision Tree



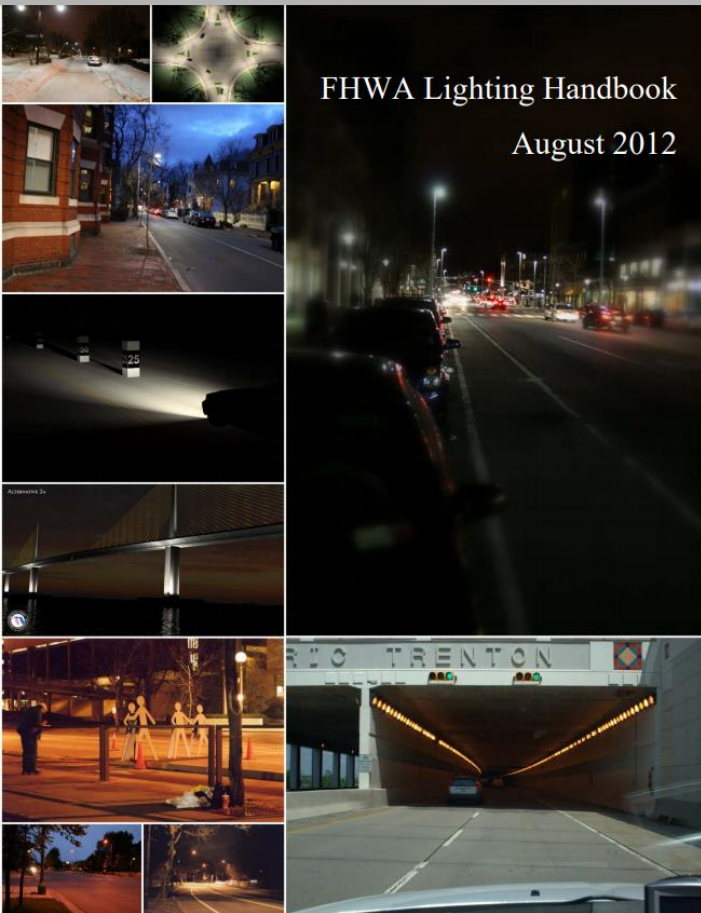
Source: FHWA and CDM Smith



Roadway Classifications

- **Interstate & Other Freeways**
 - Interstates are the highest classification of Arterials. They are designated by USDOT
 - Interstates, freeways, and expressways have a physical barrier between travel directions and limited access/egress via ramps
- **Other Principal Arterials**
 - Serve major centers of metropolitan areas, providing a high degree of mobility
 - But principal arterials typically do not have access control and make connections at-grade
- **Minor Arterials**
 - Interconnect principal arterials, offering more connectivity
- **Collectors**
 - Gathering traffic from local roads and funnel them to the arterial network
- **Local**
 - Provide direct access to adjacent land and often designed to discourage through traffic
 - Default classification and largest percentage of mileage

Lighting Design



From the *FHWA Lighting Handbook* (August 2012)

Lighting levels are established by applying criteria based on road classification (arterial, local, collector), type of pavement, pedestrian activity/conflict level. The higher the level of pedestrian conflict, the higher the level of lighting recommended.

The present design practice is to use the highest pedestrian conflict/activity level for an area or segment of roadway to establish the minimum lighting levels for the portion of roadway under consideration. Once the minimum level of lighting is established, street lights have traditionally provided that level of lighting throughout the hours of darkness as adaptive technologies have been unavailable.

LED Color Temperature & Wattage Specifications Chart

Application		COBRAHEAD		TEARDROP		POSTTOP	
		Color Temp.	Wattage	Color Temp.	Wattage	Color Temp.	Wattage
Interstate & Other Freeways	Commercial (Class A)	3000K	215W	3000K	215W	3000K	180W
	Intermediate (Class B)	3000K	215W	3000K	215W	3000K	180W
	Residential (Expressway)	3000K	215W	3000K	215W	3000K	120W
Other Principal Arterials (Major)	Commercial (HIGH)	3000K	215W	3000K	215W	3000K	180W
	Intermediate (MEDIUM)	3000K	215W	3000K	215W	3000K	180W
	Residential (LOW)	2700K	110W	2700K	110W	2700K	120W
Minor Arterials (Major)	Commercial (HIGH)	3000K	215W	3000K	215W	3000K	180W
	Intermediate (MEDIUM)	3000K	215W	3000K	215W	3000K	180W
	Residential (LOW)	2700K	110W	2700K	110W	2700K	120W
Collectors	Commercial (HIGH)	2700K	215W	2700K	215W	2700K	180W
	Intermediate (MEDIUM)	2700K	110W	2700K	110W	2700K	120W
	Residential (LOW)	2700K	110W	2700K	110W	2700K	120W
Local	Commercial (HIGH)	2700K	110W	2700K	110W	2700K	120W
	Intermediate (MEDIUM)	2700K	110W	2700K	110W	2700K	120W
	Residential (LOW)	2700K	110W	2700K	110W	2700K	80W
Alley	Commercial (HIGH)	2700K	75	N/A	N/A	N/A	N/A
	Intermediate (MEDIUM)	2700K	75	N/A	N/A	N/A	N/A
	Residential (LOW)	2700K	75	N/A	N/A	N/A	N/A

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District Department of Transportation