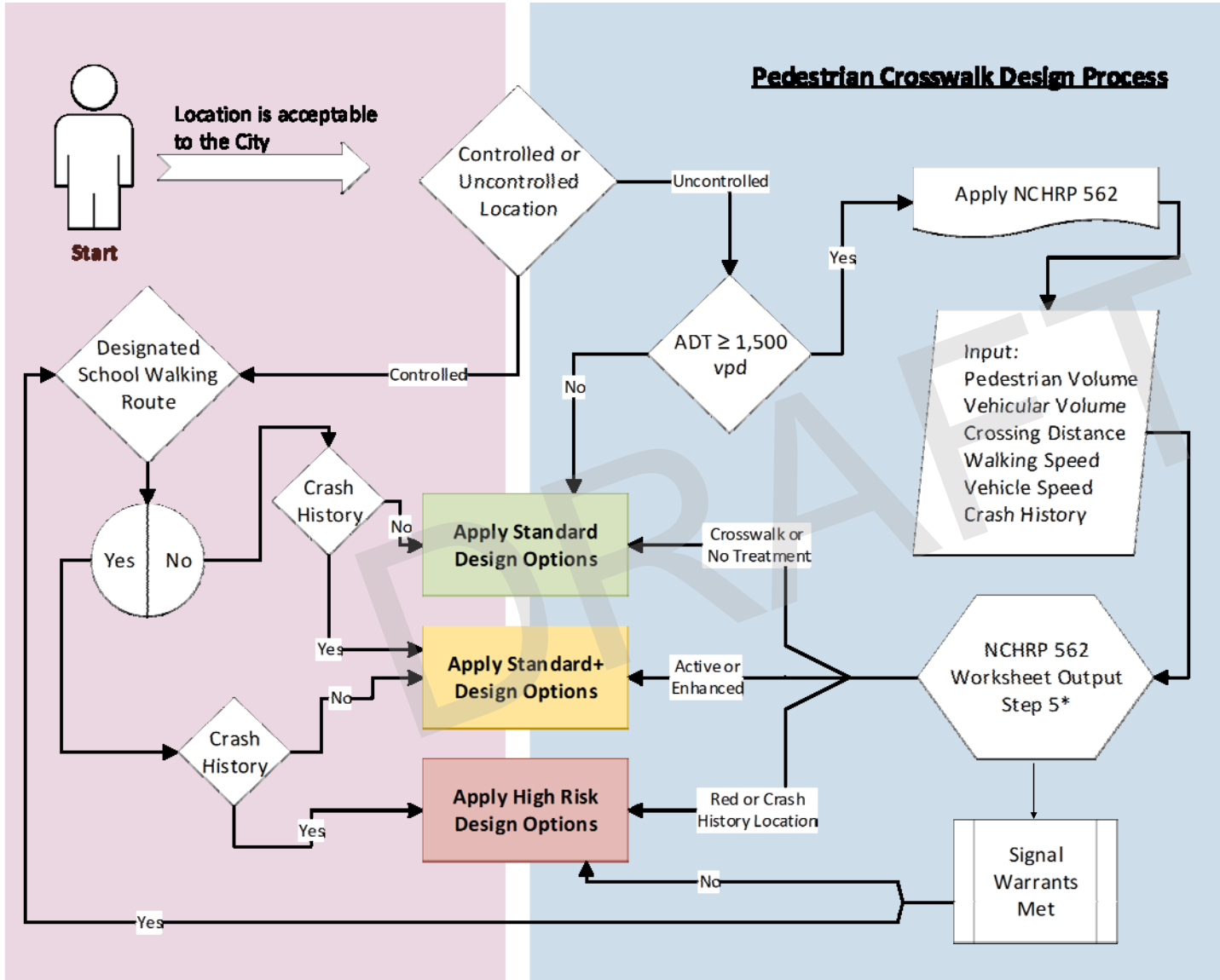


Crosswalk Design Guidelines: Overview



Data Needs:

- Pedestrian Volume, hourly
- Vehicular Volume, hourly,
- Crossing Distance
- Walking Speed
- Vehicular Speed
- Crash History

Special Considerations:

- Sensitive population?
- Adjacent School?
- Published school walk route?

Notes:

If adjacent to a school or on published school walking route map, design to results plus one level.

Evaluation of street lighting conditions is a concurrent process. Street light installation is managed through the street light Asset Management Team.

Crosswalk Design Guidelines: Uncontrolled

Street Type	Uncontrolled Design Options		
	Standard	Standard+	High Risk Location
Local	Unmarked	Pavement Markings	High Visibility Markings
			Pedestrian Warning Series (W11-2) or School Warning Series (S1-1)
Collector	High Visibility Markings	Pedestrian Warning Series (W11-2) or School Warning Series (S1-1)	Bright Sides
			In-Lane Signs (R1-6a)
			Pedestrian Islands
			R1-6a Signs on Island
			Bump Outs
			Stop Here for Ped. (R1-5b) Signs w/ Stop Bar on Multilane Approach
Minor & Major Arterials ≤ 3 Lanes	High Visibility Markings	Pedestrian Warning Series (W11-2) or School Warning Series (S1-1)	Rectangular Rapid Flashing Beacon (RRFB) - Side Mounted
			Pedestrian Hybrid Beacon (PHB)
			Pedestrian Signal
			Bright Sides
			In-Lane Signs (R1-6a)
			Pedestrian Islands
			R1-6a Signs on Island
			Bump Outs
Stop Here for Ped. (R1-5b) Signs w/ Stop Bar on Multilane Approach			
Minor & Major Arterials ≥ 3 Lanes	High Visibility Markings	In-Lane Signs (R1-6a)	Rectangular Rapid Flashing Beacon (RRFB) - Additional Mounting Overhead or on Island
			Pedestrian Hybrid Beacon (PHB)
	Pedestrian Warning Series (W11-2) or School Warning Series (S1-1)	R1-6a Signs on Island	Pedestrian Signal
	Bright Sides	Bump Outs	Overhead Mounted "Local Law, Stop for Ped" (R1-9a)
	Mid-block: Stop Here for Ped. (R1-5b) Signs w/ Stop Bar	Stop Here for Ped. (R1-5b) Signs w/ Stop Bar on Multilane Approach	

Notes:

Design options are a suite of devices that are appropriate for a particular design level.

The final design for a given location will be tailored to meet the needs of that particular location.

Final design is subject to the opinion of the City Engineer.

Crosswalk Design Guidelines: Controlled

Control Type	Street Type	Standard	Standar +	High Risk Location
Stop Controlled	Local	Unmarked	Pavement Markings	High Visibility Markings Intersection Warning Series
	Collector, Minor & Major Arterial	High Visibility Markings	Enhanced High Visibility Markings, e.g. 10' wide crosswalk	Intersection Warning Series Bump Outs
Signalized	All Types	High Visibility Markings Stop Bars Count Down Pedestrian Heads	Enhanced High Visibility Markings, e.g. 10' wide crosswalk	Advanced Pedestrian Phase Pedestrian Only Phase Pedestrian Scramble Phase
Roundabout	Local & Collector: Single Lane	Standard Markings R1-6a Signs on Island	High Visibility Markings	Stop (Yield) Bars Stop Here for Ped. (R1-5b) Signs Audible Warning Strips
	Minor Arterial & Major Arterial: Single Lane	High Visibility Markings R1-6a Signs on Island Audible Warning Strips	Stop (Yield) Bars Stop Here for Ped. (R1-5b) Signs	Pedestrian Warning Series (W11-2) or School Warning Series (S1-1)
	Minor Arterial & Major Arterial: Multi Lane	High Visibility Markings R1-6a Signs on Island Audible Warning Strips Stop (Yield) Bars Stop Here for Ped. (R1-5b) Signs	Rectangular Rapid Flashing Beacon (RRFB) - Side Mounted	Pedestrian Hybrid Beacon (PHB)

Notes:

Design options are a suite of devices that are appropriate for a particular design level.

The final design for a given location will be tailored to meet the needs of that particular location.

Final design is subject to the opinion of the City Engineer.