DATE: February 4, 2022
FROM: Cathleen Gent
TO: Richmond Transportation Committee
RE: Packet for February 8 Meeting

As a reminder, our regular meeting takes place next Tuesday at 5:30 PM. For this meeting, you may join the meeting via zoom or attend in person at the Town Offices Third Floor Meeting Room.

1. Meeting Agenda – February 9 - *Attached*

2. Minutes from January 25 Meeting – *Attached*

3. Committee Planning Session: Committee Priorities – 1) *Transportation Implementation Plan (6/4/2020); 2) Transportation Committee report for 2021 Town Report*
   The Transportation Implementation Plan and the final submitted RTC report for the 2021 Town Report are provided solely as background for this topic. It is not the intent to modify the Transportation Implementation Plan during our meeting.

   As discussed during our last meeting, we will plan on about 20 minutes for this topic. It may be that we continue the planning session at our next meeting as well. Using the Transportation Implementation Plan and the RTC report for the town report as reference, it makes sense to begin our discussion about holistic approaches to streetscapes in the village, and then discuss and consider prioritizing specific projects. My list of our current projects (which may not be complete) includes:
   - Bridge Street – new sidewalks and curbing for eastern side of Bridge Street, between Jolina Court and Volunteers Green.
   - New sidewalk or trail on westerly side of Jericho Road, between the Richmond schools and Valley View Road
   - New sidewalk or trail along the northerly side of Huntington Road, between Stone Corral Brewery and the Cross Vermont Trail head at Johnnie Brook Road
   - Bike/Ped trail/path between village and I-89 to Riverview Commons mobile home park
   - Improvements for intersection of Huntington Road / Cochran Road / Thompson Road
   - Phase 2: Pedestrian and Bicycle Master Plan – South End – integrate with Phase 1 – North End

4. UPWP FY22 Project Updates - Ravi will provide updates for both projects.
   - Sidewalk Scoping – *No attachments*
     Tentative date for the local concerns meeting is March 17th at 6 pm.
   - Phase 2: Pedestrian and Bicycle Master Plan – South End – *No attachments*
     The local concerns meeting is scheduled for February 9th.

5. Route 2 Repaving Update – *No attachments – see links listed below*
   The Selectboard is discussing this topic at Monday's February 7 meeting. Members are encouraged to attend.
   Draft letter from Selectboard to VTrans: http://www.richmondvt.gov/wp-content/uploads/2018/11/2d1-DRAFT-Letter-from-Selectboard-to-VTrans-2-7-22.pdf
   Letter from VTrans to Richmond per Richmond review: http://www.richmondvt.gov/wp-content/uploads/2018/11/2d2-Letter-and-response-regarding-engineering-plans.pdf
   Link to drop box with VTrans engineering plans: https://www.dropbox.com/s/1myjhpdbio9hb0j/2d3%20z10c254_Final%20Plans.pdf?dl=0

6. Bridge Street & Railroad Street Update and Light Fixtures – *Attachments: Three light fixture cut sheets* - Ravi will provide an update on progress with addressing the matter and the committee will review the light fixture cut sheets for lighting fixtures available from Green Mountain Power for new lights.

7. AARP Walkability Audit Tool – *Attachments: AARP Walkability Audit Tool and Worksheets* – Ravi received from AARP the revised audit tool documents. As discussed at a previous meeting, these audits are a great resource for analyzing multiple areas within Richmond for pedestrian walkability. A goal for the meeting is to finalize the Committee's interest in taking a lead on the project, to lay out what streets in Richmond should be targeted and to begin formulating a plan for carrying out the audits. Ravi is asking AARP to consider attending the next (if possible) RTC meeting to offer some tips in doing the walkability audit.

8. Grant Opportunities
   - Building a Better America grant opportunities – *Attachment: Information Sheet*
   This lists grant programs available through the final big bipartisan infrastructure bill passed in the fall. There are good opportunities for the types of projects we are undertaking.

9. Old and New Business
   - I-89 2050 Study – Allen has participated in the most recent public meeting for the study.
   The Chittenden County I-89 2050 Study is a collaborative effort of the Chittenden County Regional Planning Commission (CCRPC) and the Vermont Agency of Transportation (VTrans) to develop a comprehensive investment program for the 37 mile I-89 corridor in Chittenden County, Vermont through 2050. See Link: https://envision89.com/

10. Adjourn

Richmond Transportation Committee
Tuesday, February 8, 2022
5:30 PM

PLEASE NOTE: In accordance with Act 78, this meeting will be held by login online and conference call only. You do not need a computer to attend this meeting. You may use the "Join By Phone" number to call from a cell phone or landline. When prompted, enter the meeting information provided below to join by phone.

For additional information about this meeting, please contact Ravi Venkataraman at 802-434-2430 or at rvenkataraman@richmondvt.gov.

Join Zoom Meeting
https://us02web.zoom.us/j/83066929588?pwd=d3Q3dGl0WHRWbHpVc296MXQ1R3hhZz09
Meeting ID: 830 6692 9588
Passcode: 723188
Join by Phone: 929 205 6099

AGENDA

1. Revisions to Agenda

2. Approve Minutes from January 25 meeting

3. Committee Planning Session: Committee Priorities

4. UPWP FY22 Project Updates
   - Sidewalks Scoping
   - Phase 2: Pedestrian and Bicycle Master Plan – South End

5. Route 2 Repaving Project Update

6. Bridge Street & Railroad Street Update and Light Fixtures

7. AARP Walkability Audit Tool

8. Grant Opportunities
   - Building a Better America grant opportunities

9. Old and New Business
   - I-89 2050 Study

10. Adjourn

Richmond Transportation Committee

Meeting Minutes – January 25, 2022

Committee members present: Cathleen Gent (chair), Chris Cole (vice-chair), Mark Damico, Jon Kart, Allen Knowles
Others present: Ravi Venkataraman (Town Planner)

Ravi Venkataraman was present at the meeting physical location; all other participants participated remotely.

A quorum was reached and the chair convened the meeting at 5:30 PM.

1. Revisions to Agenda: There were no revisions to the agenda.

2. Meeting Minutes: *January 11, 2022 minutes were moved by Knowles, seconded by Kart*. Gent added a sentence that Gosselin suggested committee members could review the VTrans engineering plans for East Main Street. *The amended minutes were approved unanimously.*

3. Discussion of S.222, RE: temporary Open Meeting Law procedures
Gent briefly reviewed the basic provisions in the law, which has been signed by Governor Scott, called Act 78, and summarized Josh Arneson's email about the Selectboard's decision to hold their meetings without a physical meeting location. Venkataraman said he supports going fully digital for Transportation Committee meetings, since committee members and members of the public (when participating) are participating remotely. Knowles asked what the two forms of electronic notice will be for posting agendas and Venkataraman said they will be Front Porch Forum and the town's web site. Venkataraman said the posting of minutes can be extended as needed. No formal motion was made, but all committee members endorsed holding meetings without a physical meeting location until further notice this year, with meeting agenda posting done electronically.

4. Route 2 Repaving Update
Venkataraman provided an overview of his assessment of the VTrans engineering plans, which staff received very recently. In general, the plans show what was expected. There are 350 pages to the plans, in an enormous file. He specifically discussed the Exit 11 area and portions of Route 2 between the Park and Ride and the village. There are generally 5 foot shoulders, however, there is a pinch point at Rod West's related to a culvert, with the shoulder width of 3' to 3.5'. Closer to the village, the shoulders are also reduced at points down to 3'7" and 2'4" past the Willis farm to the village line. To the Bridge Street intersection, there are largely 3' shoulders. The committee looked at the plans (on screen) and discussed the dangerous conditions for pedestrians and bicyclists with the narrow shoulders. *Motion made by Cole, seconded by Knowles, that it is the opinion of the Transportation Committee that the shoulder widths identified in the VTrans plans between the Park and Ride and the village are more than pinch points and present an unsafe infrastructure for pedestrians, bicyclists and vulnerable users of Route 2 for transportation. The Transportation Committee requests VTrans to minimize the length of the pinch points and ensure five-foot shoulders as much as feasible without incurring exorbitant costs. The motion was passed unanimously.* Venkataraman will coordinate with Josh Arneson to bring this feedback to VTrans. Venkataraman also said that there remain questions about the stormwater plans on East Main Street. The VTrans plans for East Main Street to not include sidewalks and curbing, as those are Richmond's responsibility.

5. Discussion of Highway Department Projects
a. Follow up from meeting with Peter Gosselin and Josh Arneson – Jon Kart reiterated his willingness to explore options for burying utilities. Venkataraman said he is looking into lighting fixture options available through Green Mountain Power. At the next Transportation Committee, Venkataraman will present cut sheets for lighting options. Damico said it is important to differentiate between lighting fixtures and lighting design. Putting utilities and lighting underground can help foster good lighting design, which also involves light coverage. Knowles added that currently there is a limitation related to light poles and fixtures, which cast as big a lighting surface as possible. There was general agreement that getting underground utilities will take time, Kart adding

that is primarily because there is no funding and doing underground utilities is expensive. Cole pointed out any underground utility projects that involve a change in user rates must go through the Vermont Public Service Board for a certificate of public need, showing that underground is a less expensive user rate. A cost benefit analysis is required. Damico said that the improvement in aesthetics would be significant and could have an economic benefit for businesses.

b. Follow up from Selectboard Discussion RE: Pedestrian & Bike Safety at Bridge and Railroad Streets – Venkataraman said Peter Gosselin is talking with Dan Noyes about adding light(s) in the Railroad Street right-of-way. He said the town received $1.3 million in ARPA funds and that committee is doing its due diligence and will soon be soliciting ideas for project funding. Knowles said the type of "yield to pedestrians" cone suggested for Railroad Street would be helpful. Venkataraman said a cone there would be difficult due to trucks turning on Railroad Street. Knowles suggested that a "yield to pedestrians" sign at the upper block mid block crossing would be helpful, since he recently was almost hit when crossing. Damico said all of the solutions are temporary, that the approach we are taking throughout the village is piecemeal and band aid solutions are not optimal. We should look at Bridge Street holistically.

6. UPWP FY23 Grants

a. Richmond applications – Gent pointed out that Venkataraman sent out the two submitted final applications to committee members. He expects to learn if the grants are awarded in April.

b. Green Mountain Transit application – Gent noted that the Transportation Committee had recommended during the last meeting that Richmond apply for a third UPWP grant to explore a transit route analysis for Richmond. Since then, Cole reached out to GMT and Venkataraman reached out to CCRPC, with the happy result that Richmond's transit route analysis will be included – as part of the Williston to Waterbury analysis -- in the GMP FY23 UPWP grant application. Gent suggested this would be a good topic to bring to the Selectboard and Cole added that, after a new Selectboard is in place in March, the Transportation Committee should discuss the GMT work and to provide a brief update.

7. UPWP FY22 Project Updates

a. Sidewalk Scoping – Venkataraman said that Stantec has not yet provided draft alternatives for the three locations, but he expects to get that shortly and will provide that in the next committee packet. He said the project is still on schedule.

b. Phase 2: Pedestrian and Bicycle Master Plan – South End – Venkataraman said the public outreach plan for the February 9th local concerns meeting is completed and he will begin posting FPF announcements, getting flyers posted in town, the wikimap is launched, and the large format map will be placed at the library.

8. Committee Priorities for Future Construction Projects – Gent proposed, and committee members agreed, there should be a work session soon to take up prioritizations, as well as planning for designs holistically, and reviewing the Committee scope -- goals and objectives. Time will be set aside possibly at the next meeting.

Kart brought up parking for recreational locations and discussed the Transportation Committee's potential role. Gent pointed out that there is a committee focused on parking for recreational trails, the Winooski River, etc.

9. Grant Opportunities – Venkataraman had sent the committee ahead of the meeting a copy of the "Building a Better America" list of infrastructure funding opportunities. This will be discussed at the next meeting.

10. Old and New Business – The committee discussed potential topics for the February 8th meeting: UPWP project updates, lighting fixture cut sheets for Bridge Street, Committee priorities and planning session, AARP walkability audit tool, traffic calming policies, Building a Better America grant opportunities.

11. Adjourn – At 7:05 PM, motion to adjourn by Cole, seconded by Knowles. Approved unanimously.

-Minutes taken by Cathleen Gent

Transportation Implementation Plan

Richmond Transportation Committee

6/4/2020

The Richmond Transportation Committee seeks to develop a town Transportation Implementation Plan with projects selected based on community input, feasibility studies and current cost estimates. The Transportation Implementation Plan will support the Town Plan and the regional plan and will promote public health and safety while seeking to avoid and minimize environmental impacts. The Transportation Committee will confirm the plan elements using a public process that encourages and incorporates participation from stakeholders and community members.

Items are <u>not</u> in priority order

I. Implement a "Complete Streets" program that encourages multi-modal transportation options such as walking and biking in addition to motor vehicle traffic.

A. Improve pedestrian mobility along Bridge Street.

B. Improve safety for all users at the Bridge/Railroad/Jolina intersection.

C. Support sidewalks and bike paths or striping for cyclists and pedestrians on State and town road projects.

D. Implement a town policy that pedestrian crosswalks have safety lighting and illumination (when streetlights are not in place).

E. Work with VTrans to prioritize rebuilding Route 2 (Main Street) including sidewalks and bicycle/pedestrian accommodations, either on alignment or off alignment from East Main Street to Park & Ride and Riverside Commons.

F. Identify and bridge gaps in interconnectivity of trails and connectivity of trails with destinations such as the market or park and ride to support non-motorized means of travel.

G. Install bike storage lockers and electric-bike charging capability at key locations.

II. Improve safety and efficiency of public roads, bridges, paths, and all modes of transportation.

A. Work with partner agencies and organizations to identify and test (e.g., through pop-up demonstrations or other means) best practices in bike and pedestrian safety.

B. Implement low-cost improvements such as better signage and road markings and improve signage for existing parking areas.

C. Develop design standards for signage and install signs for all public paths as needed throughout town.

D. Support Safe Routes to School and other bike/ped programs on town highways.

E. Work with VTrans to adjust the signaling at the Route 2/Bridge Street intersection to improve traffic flow and safety, and continue supporting policing and traffic management at this location during morning and evening busy times.

F. Encourage the town to require the Creamery parcel developer to conduct a traffic study of the Railroad Street, Bridge Street, Jolina Court intersection and address both vehicular access and pedestrian/bicycle safety strategies during the Act 250/master plan review process.

G. Improve safety with all multi-modal project implementations.

III. Increase the resilience of transportation infrastructure.

A. Support the Selectboard and Highway Department by finding opportunities to support more resilient transportation improvements.

IV. Encourage transportation policies and programs that reduce single-occupancy vehicle travel on town roads and support equity of mobility.

A. Support public and private efforts promoting alternatives to single-occupancy vehicle travel such as public transit, rapid transit buses, car-sharing and carpooling, ride sharing ("hitching post"), telecommuting, rail commuter station, local bus shuttle, flexible work schedules and school bus usage.

B. Pursue partnerships with employers to subsidize shuttle and public transit.

C. Add/expand park and ride facilities in Richmond with access to public transit and encourage the same in neighboring towns.

D. Encourage smart growth development in village center, downtown, and near transit options.

E. Support social service transportation such as SSTA, Neighbor Rides and others for elderly, disabled, or other non-drivers.

F. Partner with Mount Mansfield Unified School District to explore the potential to use school buses to help meet community transportation needs.

V. Pursue energy-improvement related transportation projects.

A. Consider energy efficiency and alternative fuels when purchasing municipal vehicles, recognizing there may be limited options at this time for heavy duty vehicles and vehicles for first responders.

B. Identify and implement actions to reduce carbon footprint such as public transit, bike paths, sidewalks, infrastructure for electric vehicles and bikes (EV charging stations).

C. Support education and other efforts to reduce presence of idling vehicles.

VI. Improve economic vitality in Richmond village.

A. Ensure sufficient public parking for commercial and housing needs in Richmond village area

B. Improve access via public transportation to employment centers.

Richmond Transportation Committee – For FY21 Richmond Town Report
Draft – 12/23/2021

The Richmond Transportation Committee's second year activities involved working toward building infrastructure for sidewalks, trails, and safe ways to get around Richmond for pedestrians and bicyclists and to begin to explore what public transit might mean in Richmond. This year, we completed work on two grants – a scoping study for Bridge Street sidewalks and a master bicycle/pedestrian plan for the northern part of Richmond. The reports for those two projects are being used for move forward with two new grants underway between autumn 2021 and spring 2022. One project focuses on improving pedestrian safety, accessibility, and mobility along Jericho Road (between the Richmond schools and Valley View Road), along the east side of Bridge Street, and on Huntington Road to the Johnny Brook trail. The other project will result in the second part of a master bicycle/pedestrian plan with goals and priorities to improve walking and biking in the southern area of town.

The Transportation Committee is in the process of applying for additional grants to continue planning and taking the next steps toward building sustainable infrastructure for safe walking and bicycling around Richmond and public transit options. The key to ensuring Richmond has the right mix of infrastructure is to get lots of options and ideas from the public for all aspects of transportation planning.

Whether you like to walk, bicycle, or are seeking out public transit options in town, we want to hear from you. We meet the second and fourth Tuesday at 5:30 PM.

The committee said goodbye to two valued members of the Transportation Committee – Erik Filkorn and James Floyd – who resigned from the committee during the year.

Respectfully submitted by:
Cathleen Gent (chair), Chris Cole (vice-chair), Mark Damico, Jon Kart, Allen Knowles

Project	GMP LED Floodlights	**Catalog #**	UFLD-CA2-80-730-U-66-T-AP-C1610-PR (#19068) UFLD-CA2-120-730-U-66-T-AP-C1610-PR (#19069)	**Type**	
Prepared by	CED/Wilder, Vt.	**Notes**	Detailed unit specifications noted below.	**Date**	1/12/22

Streetworks

UFLD Utility Flood

Floodlight Luminaire

Product Features

Light ARchitect™

Interactive Menu

- Ordering Information page 2
- Product Specifications page 3
- Mounting Details page 3
- Energy and Performance Data page 4

Product Certifications

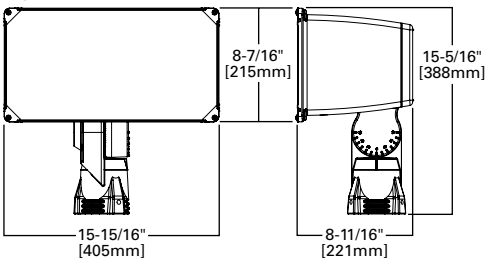
ISO CERTIFIED · 3G VIB · IP66 · UL CERTIFIED · 5 YEAR LIMITED WARRANTY · BAA BUY AMERICAN ACT COMPLIANT OPTION AVAILABLE

Quick Facts

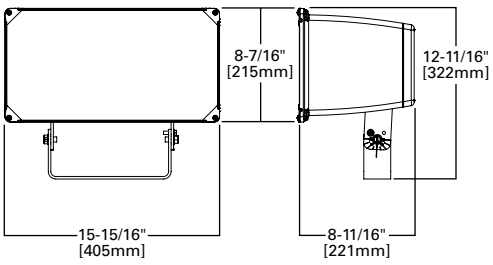
- Up to 156 lumens per watt
- Two optical distributions (Spot, Wide)
- 7 lumen packages ranging from 9,551 - 26,307 delivered lumens
- Offered in 2200K, 2700K, 3000K, 4000K, 5000K, 5700K CCTs

Dimensional Details

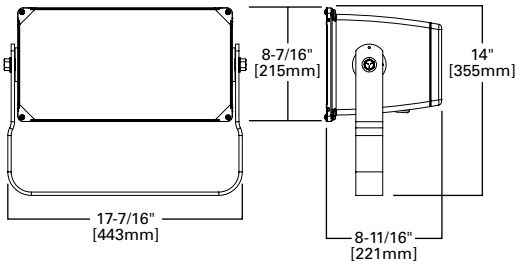
Slipfitter Mount



Trunnion Mount



Yoke Mount



GMP #19068

GMP #19069

Ordering Information

SAMPLE ORDER NUMBER: **UFLD-CA2-180-740-U-66-C-BK-10K-PR7**

Product Family	Configuration	Wattage Bucket	Color Temperature	Voltage	Distribution	Mounting	Color
UFLD=Utility LED Floodlight **BAA-UFLD**=Utility LED Floodlight Buy American Act Compliant[15] **TAA-UFLD**=Utility LED Floodlight Trade Agreements Act Compliant[15]	**CA2**=2 LED	**80**=80W **90**=90W **120**=120W **130**=130W **140**=140W **150**=150W **180**=180W	**740**=70CRI, 4000K **727**=70CRI, 2700K [2] **722**=70CRI, 2200K [2] **730**=70CRI, 3000K [2] **750**=70CRI, 5000K [2] **760**=70CRI, 5700K [2]	**U**=Universal (120-277V) **8**=480V [1] **9**=347V	**66**=NEMA 6H x 6V Wide [14] **33**=NEMA 3H x 3V Spot [13]	**C**=Slipfitter, 2-3/8"-3" O.D. (SO cord through housing) **S**=Slipfitter, 2-3/8" - 3" O.D. (Leads through slipfitter) **T**=Trunnion **Y**=Yoke	**BK**=Black **BZ**=Bronze **AP**=Grey **WH**=White

Options (Add as Suffix)	**Controls**	**Accessories** (Order Separately)[16]
10K=Series 10kV UL 1449 Surge Protective Device **20K**=Series 20kV UL 1449 Surge Protective Device **20KI**=Series 20kV UL 1449 Surge Protective Device with light indicator **10MSP**=Parallel 10kV MOV Surge Protection Device **20MSP**=Parallel 20kV MOV Surge Protective Device **HA**=50°C High Ambient Temperature [3] **D10**=<10% Dimming **CXXXX**=Cord Type [11] **FADC**=Field Adjustable Dimming Controller [12]	**PR**=NEMA 3-PIN Photocontrol Receptacle **PR7**=NEMA 7-PIN Twistlock Photocontrol Receptacle **MSP/DIM-L12**=Integrated Occupancy Sensor for Dimming Operation, 8' - 12' Mounting Height [4, 5] **MSP/DIM-L30**=Integrated Occupancy Sensor for Dimming Operation, 12' - 30' Mounting Height [4, 5] **MSP-L12**=Integrated Occupancy Sensor for ON/OFF Operation, 8' - 12' Mounting Height [4, 5] **MSP-L30**=Integrated Occupancy Sensor for ON/OFF Operation, 12' - 30' Mounting Height [4, 5]	**FA63**=3" O.D. Surface Mount Bracket [7] **OA1223**=10kV/10kA UL 1449 Surge Protective Device Replacement **OA/RA1013**=Photocontrol Shorting Cap **OA/RA1014**=NEMA Photocontrol - 120V OA/RA1016=NEMA Photocontrol - Multi-Tap **OA/RA1027**=NEMA Photocontrol - 480V **OA/RA1201**=NEMA Photocontrol - 347V **RAB-XX**=Right Angle Pipe Bracket for Slipfitter **SAB-XX**=Steel Angle Bracket for Trunnion **TYS-XX**=Slipfitter Adapter for 2-3/8", 3" or 3-1/2" O.D. Tenon [8] **TS2/UFLD-XX**=Top and Side Visors [9] **VS/UFLD**=Vandal Shield [9] WG/**UFLD**=Wire Guard [9] **ISHH-01**=Integrated Sensor Programming Remote **LLPC**=Long-life Photocontrol [10] **LLPC-FO**=Long-life Photocontrol (Fail-Off)

We order these with a #16 3 conductor 10' cord installed on the fixtures.

NOTES:

1. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corne Grounded Delta systems)
2. Extended lead times apply. Use dedicated IES files for 3000K, 5000K, and 5700K when performing layouts. These files are published on the UFLD luminaire product page on the website.
3. Not available with 3H x 3V spot distribution.
4. Integrated sensor option only available in slipfitter mounting.
5. Not available with Photocontrol.
6. Replace XX with color designation. Additional brackets and adaptors available on the poles product page on the website.
7. Not available with tenon mount.
8. Not available with slipfitter mount.
9. Cannot combine TS2 (Top and Side Visor), VS (Vandal Shield), or WG (Wire Guard), limited to one external guard per fixture.
10. Sold as accessory. Not covered under luminaire warranty.
11. 3-conductor cord available in 12, 14, and 16 gauge with lengths of 5, 8, 10, 15, 20, and 25 feet. Specify cord gauge with the first 2 digits and cord length with the last 2 digits (ex: C1605 = 16-gauge, 5 feet length cord). Standard cord is 16-gauge with length of 3.5 ft if not specified.
12. Cannot be used with motion response control options.
13. Only available in 90W and 140W.
14. Available in 80W, 120W, 130W, 150W, and 180W wattage buckets.
15. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
16. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

Product Specifications

Construction

- Heavy-duty, die cast aluminum housing, driver compartment and driver door.
- A separate driver compartment and external fins provide optimal thermal management that result in longer LED and driver life.
- The housing, optical chamber and driver compartment are IP66 rated.
- Access to the driver for maintenance is achieved with a removable driver door using pan head screws.
- A one-piece silicone gasket seals the door to the fixture housing.
- The fixture is 3G vibration rated (ANSI C136.31) to ensure durability in area and site lighting applications. Suitable for mounting within 4' (1.2m) of the ground.

Optics

- The LED chamber incorporates a vacuum metalized reflector that provides high-efficiency illumination.
- Optics are precisely designed to shape the NEMA type 6H x 6V wide distribution and 3H x 3V spot distribution, maximizing efficiency and application spacing.
- Clear glass tempered lens with full circumference form-in-place silicone gasket protects the optics from damage.
- Various CCTs available, offered in 2200K, 2700K, 3000K, 4000K, 5000K, or 5700K and minimum 70 CRI.

Electrical

- LED driver is mounted to the removable die-cast aluminum door for optimal heat sinking and ease of maintenance.
- 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation.
- Integral 6kV surge is standard. 10kV/10kA common- and differential- mode surge protection available as an option.
- 0-10V dimming driver is standard to accommodate controls capability such as dimming and occupancy.
- Available with 3-PIN or 7-PIN NEMA photocontrol receptacles.
- Suitable for ambient temperatures from -40°C to 40°C. Optional 50°C HA (high ambient) available.
- 89% lumen maintenance greater than 60,000 hours per IESNA TM-21.
- Luminaire available with the field adjustable dimming controller (FADC) to manually adjust wattage and reduce the total lumen output and light levels. Comes pre-set to the highest position at the lumen output selected.

Accessories

- Heavy-duty steel top and side visors control glare and spill light. 1/8" thick UV stabilized vandal guard shields glass lens from impact when mounted at low levels.
- Easy to install wire guard features a heavy-gauge welded construction with corrosion resistant polyester powder coat finish to protect glass from projected objects.

Mounting

- Mounting options include an integral die-cast aluminum slipfitter that is preset to a tilt of 45°.
- The knuckle base is supplied with a tooth lock adjustment that can be adjusted in 5° increments. Visual 15° adjustment indicators on the knuckle allow for 180° field rotation of the floodlight assembly.
- The slipfitter fits standard 2-3/8"-3" O.D. tenon.
- The trunnion mounting includes a 3/16" polyester powder coated galvanized steel trunnion with a 16/3 STW-A cord.
- The trunnion mount uses an interlocking slide adjustment that is locked in place with a set screw.

Finish

- Housing and cast parts finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear.

Shipping Data

- Approximate net weight: 20 lbs. (9.09 kgs.)
- EPA: 1.25 sq. ft.

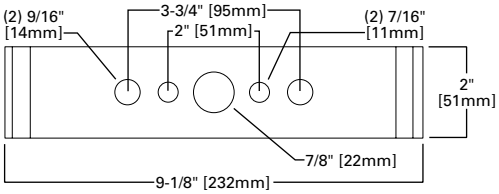
Warranty

- Standard five-year warranty.
- Optional ten-year warranty, please see your Cooper Lighting Solutions Streetworks sales representative for more information

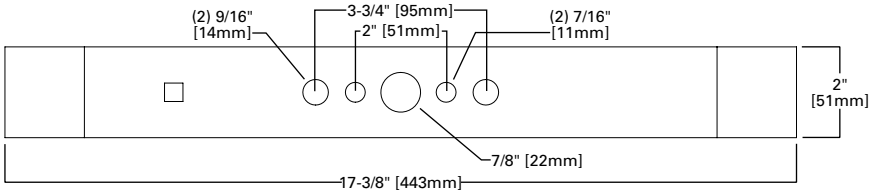
Mounting Details

Drilling Patterns

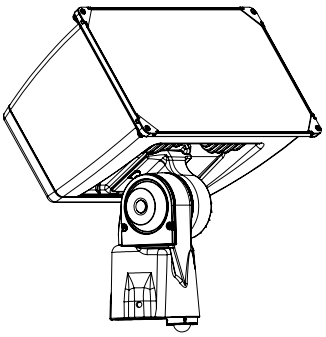
Trunnion Mount



Yoke Mount

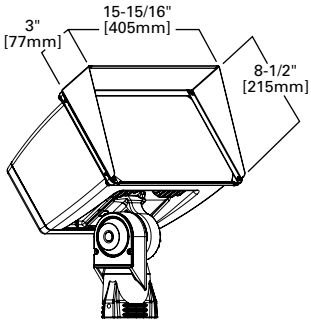


Optional Integrated Sensor

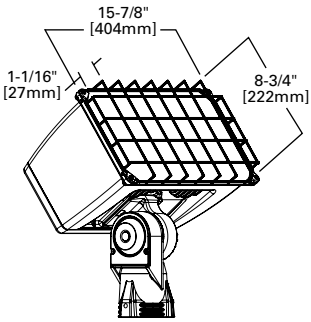


Accessories

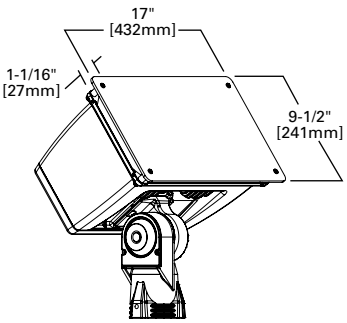
Top and Side Visors



Wire Guard



Vandal Shield



Streetworks

GMP #19068

GMP #19069

Energy and Performance Data

Distribution	6x6				
ANSI Wattage	80	120	130	150	180
Wattage	82	124	133	151	183
2200K	9,619	15,672	16,575	18,369	21,054
Lumens Per Watt	117	127	125	121	115
2700K	9,994	16,284	17,222	19,086	21,875
Lumens Per Watt	122	131	130	126	120
3000K	11,588	18,882	19,970	22,131	25,365
Lumens Per Watt	141	161	151	146	139
4000K	11,802	19,230	20,338	22,539	25,833
Lumens Per Watt	144	155	153	149	141
5000K	12,018	19,583	20,711	22,952	26,307
Lumens Per Watt	146	158	156	152	144
5700K	11,764	19,168	20,272	22,466	25,749
Lumens Per Watt	143	155	153	149	141

Distribution	3x3	
ANSI Wattage	90	140
Wattage	90	137
2200K	9,551	13,830
Lumens Per Watt	107	101
2700K	9,924	14,370
Lumens Per Watt	111	105
3000K	11,505	16,660
Lumens Per Watt	129	122
4000K	11,719	16,970
Lumens Per Watt	131	124
5000K	11,928	17,272
Lumens Per Watt	133	126
5700K	11,681	16,915
Lumens Per Watt	131	124

Current Draw

Voltage	Model Series						
	6 x 6	6 x 6	6 x 6	6 x 6	6 x 6	3x3	3x3
	80W	120W	130W	150W	180W	90W	140W
	Current (A)	Current (A)	Current (A)	Current (A)	Current (A)	Current (A)	Current (A)
120V	0.688	1.07	1.11	1.26	1.53	0.748	1.14
277V	0.31	0.47	0.5	0.54	0.67	0.33	0.51
347V	0.26	0.38	0.4	0.44	0.56	0.28	0.42
480V	0.19	0.29	0.31	0.33	0.4	0.21	0.31

Lumen Maintenance

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
All Distributions		
40°C	88.90%	151,000

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
10°C	1.03
15°C	1.02
25°C	1.00
40°C	0.97
50°C	0.96

FADC Settings

FADC Position	Percent of Typical Lumen Output
1	25%
2	48%
3	56%
4	65%
5	75%
6	80%
7	85%
8	90%
9	95%
10	100%

NOTES: +/-5% typical value

RSW Series

RSW™ LED Street Luminaire – Small

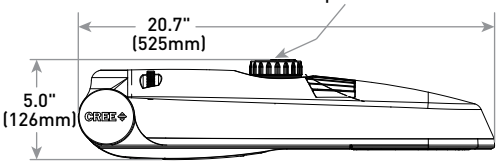
GMP #19217

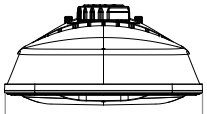
Rev. Date: V21 04/20/2021

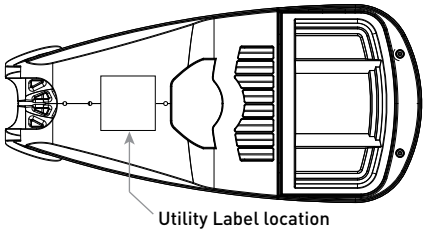
Product Description

The RSW Series, utilizing WaveMax® Technology, will transform the way utilities and municipalities light their residential streets. With the first viable LED streetlight at warm CCT, the RSW Series delivers up to 127 LPW, enhanced visual comfort with reduced glare and high color contrast leading to improved overall illumination using less energy. The RSW Series provides warm, inviting dark sky friendly lighting that makes good economic sense.

Applications: Residential roads, collector roads, parking lots, and general area spaces







Performance Summary

Utilizes WaveMax® Technology
Assembled in the U.S.A. of U.S. and imported parts
Initial Delivered Lumens: Up to 5,000
Efficacy: Up to 127 LPW
CRI: Minimum 70 CRI (3000K, 4000K & 5000K); 80 CRI (2700K, 3000K, 4000K & 5000K)
CCT: 2700K, 3000K, 4000K, 5000K
Limited Warranty†: 10 years on luminaire; up to 5 years for Synapse® accessories; 1 year on luminaire accessories

† See http://creelighting.com/warranty for warranty terms

Accessories

Field-Installed	
Backlight Control Shield RSW-BLSS - Provides 1 mounting height cutoff - 0.5" (13mm) 301 stainless steel construction - Refer to initial delivered lumen tables for lumen output	**Cul-De-Sac Shield** RSW-CLSS - Provides backlight and sidelight control - 0.5" (13mm) 301 stainless steel construction - Lumen multiplier: 0.77
Bird Guard RSW-BRDGRDS - 5052-H32 aluminum construction	**Front Light Shield** RSW-FLSS - Provides front light control - 0.5" (13mm) 301 stainless steel construction - Lumen multiplier: 0.87
Shorting Cap XA-XSLSHRT	

Weight*
9.4 lbs. (4.3kg)

* RSW-BLSS, RSW-CLSS, or RSW-FLSS Accessories: add 0.4 lbs. (0.2kg)

Ordering Information

Example: RSWS-A-HT-2ME-3L-27K8-UL-GY-N

RSWS	A	HT				UL		N	
Product	**Version**	**Mounting***	**Optic**	**Lumen Package*** **	**CCT/CRI†**	**Voltage**	**Color Options**	**Utility Label/Receptacle**	**Options†**
RSWS Small	**A**	**HT** Horizontal Tenon	**2LG**** Type II Long **2ME**** Type II Medium **3ME**** Type III Medium	**3L** 3,000 lumens **5L** 5,000 lumens	**27K8** 2700K, 80 CRI **30K7** 3000K, 70 CRI **30K8** 3000K, 80 CRI **40K7** 4000K, 70CRI **40K8** 4000K, 80 CRI **50K7** 5000K, 70CRI **50K8** 5000K, 80CRI	**UL** Universal 120-277V	**BK** Black **BZ** Bronze **GY** Grey	**N** **Utility Label and NEMA® 7-Pin Photocell Receptacle** - External wattage label per ANSI C136.15 - 7-pin receptacle per ANSI C136.41 - Factory connected 0-10V dim leads - Requires photocell or shorting cap by others	**PP** **Pallet Packaging** - Multiple luminaires (up to 26 maximum per pallet) **Q4/Q3/Q2/Q1 Field Adjustable Output** - Must select Q4, Q3, Q2, or Q1 - Offers full range lumen adjustability - Includes wattage label for setting selected - Refer to pages 5 & 6 for power and lumen values - Luminaire may also be dimmed through 7-Pin receptacle with use of dimming control by others - Refer to dimming spec sheet for dimming multipliers **SS** **Stainless Steel Bolts** **X3/X2/X1 Locked Lumen Output** - Must select X3, X2, or X1 - Lumen output is permanently locked to the setting selected - Includes wattage label for setting selected - Refer to pages 5 & 6 for power and lumen values - Dimming is only available through 7-Pin receptacle with use of dimming control by others - Refer to dimming spec sheet for dimming multipliers

* Reference EPA and pole configuration suitability data on page 4
** Available with Backlight Shield when ordered with field-installed accessory (see table above)
*** Lumen Package codes identify approximate light output only. Actual lumen output levels vary depending on CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values
† 22K7, turtle friendly amber LED, DALI, and 20kV surge protection special options available. Consult factory for details

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

Product Specifications

WAVEMAX® TECHNOLOGY

Featuring up to 90% optical efficiency and precise control, WaveMax® Technology provides unmatched comfort and decreased LED source luminance by smoothly spreading brightness over a broader area. When integrated with luminous surfaces made of a polymer medium engineered with DiamondFacet™ optical elements, extremely high efficacy luminaires are the result – ultimately creating more visually comfortable and appealing environments while exceeding illumination performance.

CONSTRUCTION & MATERIALS

- Housing constructed of high strength, lightweight bulk molding compound for long weathering and durability
- UV stabilized polymeric door with handle pocket for tool-less entry
- Straight in wiring to terminal block for power input (#6-#14 AWG)
- Optic box and driver enclosure inside optic box meet IP66 requirements
- Mounts on 1.25" (32mm) IP, 1.66" (42mm) O.D. or 2" (51mm) IP, 2.375" (60mm) O.D. horizontal tenon (minimum 8" [203mm] in length) and is adjustable +/- 5° in 2.5°increments to allow for fixture leveling (two axis T-level included)
- Luminaire secures with two grade 5 steel mounting bolts w/clear zinc clad finish standard; optional 316 stainless steel mounting bolts available with SS option
- Comes standard with Utility Label per ANSI C136.15 and 7-pin NEMA® Photocell Receptacle per ANSI C136.41
- **Weight:** 9.4 lbs. (4.3kg); add 0.4 lbs. (0.2kg) for RSW-BLSS, RSW-CLSS, or RSW-FLSS accessories

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V, 50/60Hz
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- **10V Source Current:** 0.15mA
- **Operating Temperature Range:** -40˚C - +50˚C (-40˚F - + 122˚F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- Meets CALTrans 611 Vibration testing
- ANSI C136.2 10kV surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Meets Buy American requirements within ARRA
- RoHS compliant. Consult factory for additional details
- Dark Sky Friendly, IDA Approved when ordered with 27K or 30K CCT. Please refer to https://www.darksky.org/our-work/lighting/lighting-for-industry/fsa/fsa-products/ for most current information
- DLC and DLC Premium qualified versions available. Please refer to https://www.designlights.org/search/ for most current information
- ⚠ **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Product Specifications

SYNAPSE® SIMPLYSNAP INTELLIGENT CONTROL FOR NON-STREET LIGHTING APPLICATIONS ONLY

The RSW Series is compatible with the Synapse® SimplySNAP platform. A highly intuitive connected lighting solution for Site and Area applications only. The system features a reliable and robust self-healing mesh network with a browser-based interface that runs on smartphones, tablets, and PCs. Using a Twist-Lock Lighting Controller and Site Controller, SimplySnap provides: energy productivity, code compliance and a better light experience for non-street lighting installations. SimplySNAP is optimized to create and manage networks for campus wide Area and Site applications which differs from networking requirements for street lighting applications.

Synapse Wireless Control Accessories (for Non-Street Lighting Applications only)

Twist-Lock Lighting Controller
TL7-B2
- Suitable for 120-277V (UL) voltage only
- Requires NEMA/ANSI C136.41 7-Pin Dimming Receptacle
- Not for use with Q options
- Provides On/Off switching, dimming, power metering, digital sensor input, and status monitoring of luminaires
- Refer to TL7-B2 spec sheet for details

SimplySNAP Central Base Station
CBSSW-450-002
- Includes On-Site Controller (SS450-002) and 5-button switch
- Indoor and Outdoor rated
- Refer to CBSSW-450-002 spec sheet for details

Synapse Wireless Sensor
WSN-DPM
- Motion and light sensor
- Control multiple zones
- Refer to WSN-DPM spec sheet for details

SimplySNAP On-Site Controller
SS450-002
- Verizon® LTE-enabled
- Designed for indoor applications
- Refer to SS450-002 spec sheet for details

Building Management System (BMS) Gateway
BMS-GW-002
- Required for BACnet integration
- Refer to BMS-GW-002 spec sheet for details

Outdoor Antennas (Optional, for increased range, 8dB gain)
KIT-ANT420SM
- Kit includes antenna, 20' cable and bracket

KIT-ANT360
- Kit includes antenna, 30' cable and bracket

KIT-ANT600
- Kit includes antenna, 50' cable and bracket
- Refer to Outdoor antenna spec sheet for details

Electrical Data*

Lumen Package	CCT/CRI	System Watts 120-277V	Utility Label Wattage	Efficacy	Total Current (A)			
					120V	208V	240V	277V
3L	27K8	32	30	103	0.27	0.16	0.14	0.13
	30K7	28	30	118	0.23	0.14	0.12	0.11
	30K8	31	30	106	0.25	0.15	0.13	0.12
	40K7	26	30	127	0.21	0.13	0.11	0.10
	40K8	29	30	114	0.24	0.14	0.13	0.11
	50K7	26	30	127	0.21	0.13	0.11	0.10
	50K8	28	30	118	0.23	0.14	0.12	0.11
5L	27K8	53	50	94	0.44	0.26	0.23	0.20
	30K7	45	50	111	0.37	0.22	0.20	0.18
	30K8	51	50	98	0.42	0.25	0.22	0.20
	40K7	41	40	122	0.34	0.20	0.18	0.16
	40K8	47	50	106	0.39	0.23	0.20	0.18
	50K7	41	40	122	0.34	0.20	0.18	0.16
	50K8	45	50	111	0.37	0.22	0.20	0.18

* Electrical data at 25˚C (77˚F). Actual wattage may differ by +/- 10% when operating between 120-277V +/- 10%

RSW Series (RSWS) Ambient Adjusted Lumen Maintenance[1]

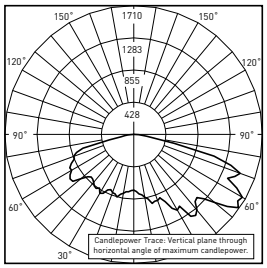
Ambient	Initial LMF	25K hr Reported[2] LMF	50K hr Reported[2] LMF	75K hr Reported[2] LMF	100K hr Estimated[3] LMF
5˚C (41˚F)	1.04	1.03	1.02	1.02	1.02
10˚C (50˚F)	1.03	1.02	1.01	1.01	1.01
15˚C (59˚F)	1.02	1.01	1.00	1.00	1.00
20˚C (68˚F)	1.01	1.00	0.99	0.99	0.98
25˚C (77˚F)	1.00	0.98	0.98	0.98	0.97

[1] Lumen maintenance values at 25˚C (77˚F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the Temperature Zone Reference Document for outdoor average nighttime ambient conditions.
[2] In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.
[3] Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

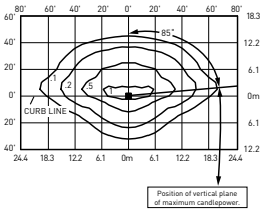
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: https://creelighting.com/products/outdoor/street-and-roadway/rsw-series

2LG



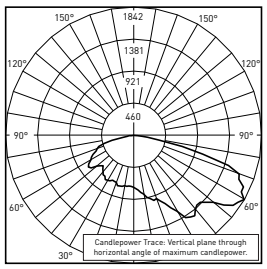
UL Verification Services Test Report #:
11624878.01
RSWS-A-**-2LG-3L-30K7-UL-GY-N
Initial Delivered Lumens: 3,294



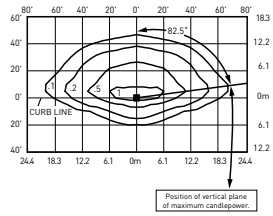
RSWS-A-**-2LG-3L-30K7-UL-GY-N
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 3,300
Initial FC at grade

Type II Long Distribution			
Lumen Package	CRI	2700K/3000K/4000K/5000K	
		Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
3L	All	3,300	B1 U0 G1
5L	All	5,000	B1 U0 G1

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt



UL Verification Services Test Report #:
11675461.06
RSWS-A-**-2LG-3L-30K7-UL-GY-N
w/RSW-BLSS
Initial Delivered Lumens: 3,080

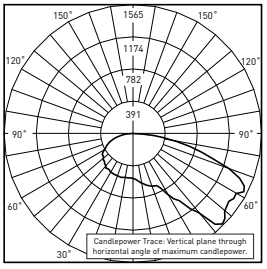


RSWS-A-**-2LG-3L-30K7-UL-GY-N
w/RSW-BLSS
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 3,050
Initial FC at grade

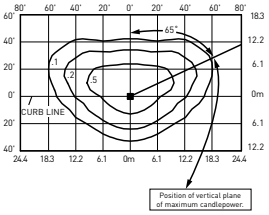
Type II Long w/BLS Distribution			
Lumen Package	CRI	2700K/3000K/4000K/5000K	
		Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
3L	All	3,050	B1 U0 G1
5L	All	4,630	B1 U0 G1

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

2ME



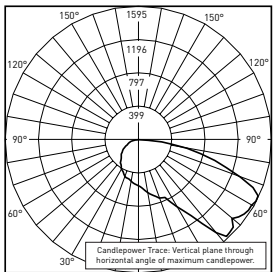
UL Verification Services Test Report #:
11644102.09
RSWS-A-**-2ME-3L-30K7-UL-GY-N
Initial Delivered Lumens: 3,251



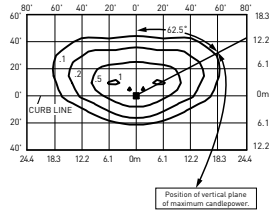
RSWS-A-**-2ME-3L-30K7-UL-GY-N
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 3,300
Initial FC at grade

Type II Medium Distribution			
Lumen Package	CRI	2700K/3000K/4000K/5000K	
		Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
3L	All	3,300	B1 U0 G1
5L	All	5,000	B1 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt



UL Verification Services Test Report #:
11675461.02
RSWS-A-**-2ME-3L-30K7-UL-GY-N
w/RSW-BLSS
Initial Delivered Lumens: 2,975



RSWS-A-**-2ME-3L-30K7-UL-GY-N
w/RSW-BLSS
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 3,050
Initial FC at grade

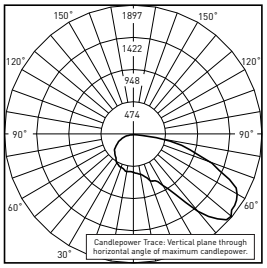
Type II Medium w/BLS Distribution			
Lumen Package	CRI	2700K/3000K/4000K/5000K	
		Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
3L	All	3,050	B1 U0 G1
5L	All	4,630	B1 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

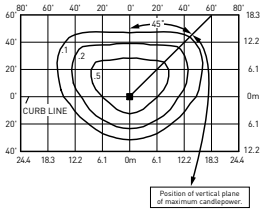
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: https://creelighting.com/products/outdoor/street-and-roadway/rsw-series

3ME



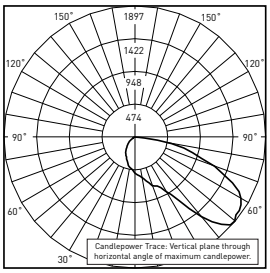
UL Verification Services Test Report #:
11644102.08
RSWS-A-**-3ME-3L-30K7-UL-GY-N
Initial Delivered Lumens: 3,399



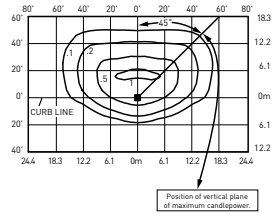
RSWS-A-**-3ME-3L-30K7-UL-GY-N
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 3,300
Initial FC at grade

Type III Medium Distribution			
Lumen Package	CRI	2700K/3000K/4000K/5000K	
		Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
3L	All	3,300	B1 U0 G1
5L	All	5,000	B1 U0 G1

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt



UL Verification Services Test Report #:
11675461.01
RSWS-A-**-3ME-3L-30K7-UL-GY-N w/RSW-BLSS
Initial Delivered Lumens: 3,113



RSWS-A-**-3ME-3L-30K7-UL-GY-N w/RSW-BLSS
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 3,050
Initial FC at grade

Type III Medium w/BLS Distribution			
Lumen Package	CRI	2700K/3000K/4000K/5000K	
		Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
3L	All	3,050	B1 U0 G1
5L	All	4,630	B1 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

Luminaire EPA

Horizontal Tenon Mount – Weight: 9.4 lbs. (4.3kg); RSW-BLSS, RSW-CLSS, or RSW-FLSS Accessories: add 0.4 lbs. (0.2kg)					
Luminaire	Single	2 @ 90°	2 @ 180°	3 @ 90°	4 @ 90°
Tenon Configuration If used with Cree Lighting tenons, please add tenon EPA with luminaire EPA					
	PD-1H4; PT-1H	PD-2H4(90); PT-2H(90)	PD-2H4(180); PT-2H(180)	PD-3H4(90); PT-3H(90)	PD-4H4(90); PT-4H(90)
Standard Luminaire	0.61	0.89	1.22	1.50	1.78
Luminaire w/RSW-BLSS, RSW-CLSS or RSW-FLSS Accessory	0.61	1.25	1.22	1.85	2.49

Tenon EPA

Part Number	EPA
PD Series Tenons	0.09
PT Series Tenons	0.10
WM-2L	0.13
XA-TMDA8	0.19

Tenons and Brackets* (must specify color)

Square Internal Mount Horizontal Tenons (Aluminum)
- Mounts to 4" (102mm) square aluminum or steel poles
PD-1H4 – Single
PD-2H4(90) – 90° Twin
PD-2H4(180) – 180° Twin
PD-3H4(90) – 90° Triple
PD-4H4(90) – 90° Quad

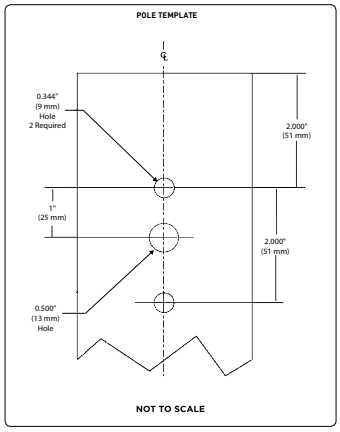
Wall Mount Brackets
- Mounts to wall or roof
WM-2L – Extended Horizontal

Round External Mount Horizontal Tenons (Aluminum)
- Mounts to 2.375"-3" (60-76mm) O.D. round aluminum or steel poles or tenons
PT-1H – Single
PT-2H(90) – 90° Twin
PT-2H(180) – 180° Twin
PT-3H(90) – 90° Triple
PT-4H(90) – 90° Quad

Direct Arm Pole Adaptor Bracket
- Mounts to 3-6" (76-152mm) round or square aluminum or steel poles
XA-TMDA8

* Refer to the Bracket and Tenons spec sheet for more details

Fixture Mounting Drill Pattern for XA-TMDA8



Field Adjustable Output (Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the street and area luminaire within the RSW Series on this page to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected lumen output, will be fully adjustable between the outputs, and will include a wattage label that indicates the wattage of the luminaire at the selected lumen output (Rounded to nearest 10 watts per ANSI C136.15-2015.). Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the RSW Series street and area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected, and will include a wattage label that indicates the wattage of the setting selected. When this option is selected, the luminaire output is not able to be adjusted in the field except if a dimming control (by others) is used in the 7-Pin receptacle.

Q & X Option Power & Lumen Data – 3L

Q Option Setting	X Option Setting	CCT/CRI	System Watts†	Label Wattage	Lumen Values†		Optics Qualified on DLC QPL	
			120-277V		2LG, 2ME & 3ME	w/BLS	Standard	Premium
		27K8	32	30			2LG, 2ME, 3ME	
		30K7	28	30				2LG, 2ME, 3ME
		30K8	31	30			2LG, 2ME, 3ME	
Q4 (Full Power)	N/A (Full Power)	40K7	26	30	3,300	3,050		2LG, 2ME, 3ME
GMP 30LED tariff		40K8	29	30			2LG, 2ME, 3ME	
		50K7	26	30				2LG, 2ME, 3ME
		50K8	28	30				2LG, 2ME, 3ME
		27K8	26	30			2LG, 2ME, 3ME	
		30K7	23	20				2LG, 2ME, 3ME
		30K8	25	30			2LG, 2ME, 3ME	
Q3	X3	40K7	21	20	2,756	2,547		2LG, 2ME, 3ME
GMP 20LED tariff		40K8	23	20				2LG, 2ME, 3ME
		50K7	21	20				2LG, 2ME, 3ME
		50K8	23	20				2LG, 2ME, 3ME
		27K8	20	20			2LG, 2ME, 3ME	
		30K7	17	20				2LG, 2ME, 3ME
		30K8	19	20			2LG, 2ME, 3ME	
Q2	X2	40K7	16	20	2,169	2,004		2LG, 2ME, 3ME
		40K8	18	20				2LG, 2ME, 3ME
		50K7	16	20				2LG, 2ME, 3ME
		50K8	17	20				2LG, 2ME, 3ME
		27K8	15	20			2LG, 2ME, 3ME	
		30K7	13	10				2LG, 2ME, 3ME
		30K8	15	20			2LG, 2ME, 3ME	
Q1*	X1*	40K7	12	10	1,633	1,509		2LG, 2ME, 3ME
		40K8	14	10				2LG, 2ME, 3ME
		50K7	12	10				2LG, 2ME, 3ME
		50K8	13	10				2LG, 2ME, 3ME

† Electrical and lumen data at 25°C (77°F). Actual wattage and lumen output may differ by +/-10% when operating between 120-277V +/-10%
* Q1/X1 settings are qualified for 120-240V only

Field Adjustable Output (Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the street and area luminaire within the RSW Series on this page to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected lumen output, will be fully adjustable between the outputs, and will include a wattage label that indicates the wattage of the luminaire at the selected lumen output (Rounded to nearest 10 watts per ANSI C136.15-2015.). Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the RSW Series street and area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected, and will include a wattage label that indicates the wattage of the setting selected. When this option is selected, the luminaire output is not able to be adjusted in the field except if a dimming control (by others) is used in the 7-Pin receptacle.

Q & X Option Power & Lumen Data – 5L

Q Option Setting	X Option Setting	CCT/CRI	System Watts†	Label Wattage	Lumen Values†		Optics Qualified on DLC QPL	
			120-277V		2LG, 2ME & 3ME	w/BLS	Standard	Premium
Q4 (Full Power)	N/A (Full Power)	27K8	53	50	5,000	4,630		
		30K7	45	50			2LG, 2ME, 3ME	
		30K8	51	50				
		40K7	41	40				2LG, 2ME, 3ME
		40K8	47	50			2LG, 2ME, 3ME	
		50K7	41	40				2LG, 2ME, 3ME
		50K8	45	50			2LG, 2ME, 3ME	
Q3	X3	27K8	49	50	4,654	4,310		
		30K7	41	40				2LG, 2ME, 3ME
		30K8	46	50			2LG, 2ME, 3ME	
		40K7	38	40				2LG, 2ME, 3ME
		40K8	43	40			2LG, 2ME, 3ME	
		50K7	38	40				2LG, 2ME, 3ME
		50K8	41	40			2LG, 2ME, 3ME	
Q2	X2	27K8	42	40	4,105	3,801	2LG, 2ME, 3ME	
		30K7	36	40				2LG, 2ME, 3ME
		30K8	40	40			2LG, 2ME, 3ME	
		40K7	33	30				2LG, 2ME, 3ME
		40K8	38	40			2LG, 2ME, 3ME	
		50K7	33	30				2LG, 2ME, 3ME
		50K8	36	40			2LG, 2ME, 3ME	
Q1	X1	27K8	36	40	3,617	3,350	2LG, 2ME, 3ME	
		30K7	30	30				2LG, 2ME, 3ME
		30K8	34	30			2LG, 2ME, 3ME	
		40K7	28	30				2LG, 2ME, 3ME
		40K8	32	30			2LG, 2ME, 3ME	
		50K7	28	30				2LG, 2ME, 3ME
		50K8	30	30				2LG, 2ME, 3ME

† Electrical and lumen data at 25°C (77°F). Actual wattage and lumen output may differ by +/-10% when operating between 120-277V +/-10%

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING®

A COMPANY OF *IDEAL INDUSTRIES, INC.*

RSW Series

RSW™ LED Street Luminaire – Medium

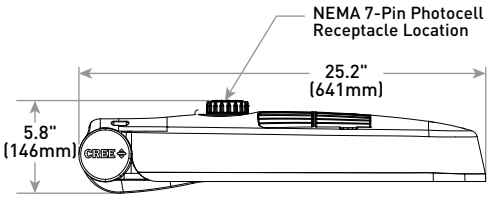
GMP #19221

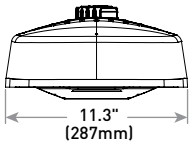
Rev. Date: V11 01/06/2021

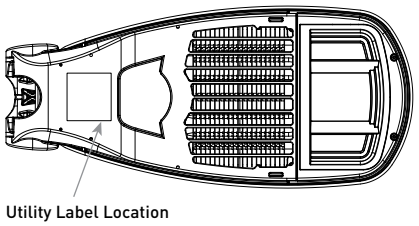
Product Description

The RSW Series, utilizing WaveMax® Technology, will transform the way utilities and municipalities light their residential streets, interchanges, and expressways. With the first viable LED streetlight at warm CCT, the RSW Series delivers up to 121 LPW, enhanced visual comfort with reduced glare and high color contrast leading to improved overall illumination using less energy. The RSW Series provides warm, inviting dark sky friendly lighting that makes good economic sense.

Applications: Residential roads, collector roads, parking lots, and general area spaces







Performance Summary

Utilizes WaveMax® Technology
Assembled in the U.S.A. of U.S. and imported parts
Initial Delivered Lumens: Up to 9,325
Efficacy: Up to 121 LPW
CRI: Minimum 70 CRI (3000K, 4000K & 5000K); 80 CRI (2700K, 3000K, 4000K & 5000K)
CCT: 2700K, 3000K, 4000K, 5000K
Limited Warranty†: 10 years on luminaire; up to 5 years for Synapse® accessories; 1 year on luminaire accessories

† See http://creelighting.com/warranty for warranty terms

Accessories

Field-Installed	
Backlight Control Shield RSW-BLSM - Provides 1 mounting height cutoff - 0.5" (13mm) 301 stainless steel construction - Refer to initial delivered lumen tables for lumen output	**Cul-De-Sac Shield** RSW-CLSM - Provides backlight and sidelight control - 0.5" (13mm) 301 stainless steel construction - Lumen multiplier: 0.77
Bird Guard RSW-BRDGRDM - 5052-H32 aluminum construction	**Front Light Shield** RSW-FLSM - Provides front light control - 0.5" (13mm) 301 stainless steel construction - Lumen multiplier: 0.87
Shorting Cap XA-XSLSHRT	

Weight*
15.6 lbs. (7.1kg)

* RSW-BLSM Accessory: add 0.4 lbs. (0.2kg); RSW-CLSM or RSW-FLSM Accessories: add 0.6 lbs. (0.3kg)

Ordering Information

Example: RSWM-A-HT-2ME-9L-27K8-UL-GY-N

RSWM	A	HT		9L		UL		N	
Product	**Version**	**Mounting***	**Optic**	**Lumen Package*** **	**CCT/CRI†**	**Voltage**	**Color Options**	**Utility Label/Receptacle**	**Options†**
RSWM Medium	**A**	**HT** Horizontal Tenon	**2LG**** Type II Long **2ME**** Type II Medium **3ME**** Type III Medium	**9L** 9,000 Lumens	**27K8** 2700K, 80 CRI **30K7** 3000K, 70 CRI **30K8** 3000K, 80 CRI **40K7** 4000K, 70CRI **40K8** 4000K, 80 CRI **50K7** 5000K, 70CRI **50K8** 5000K, 80CRI	**UL** Universal 120-277V	**BK** Black **BZ** Bronze **GY** Grey	**N** **Utility Label and NEMA® 7-Pin Photocell Receptacle** - External wattage label per ANSI C136.15 - 7-pin receptacle per ANSI C136.41 - Factory connected 0-10V dim leads - Requires photocell or shorting cap by others	**PP** **Pallet Packaging** - Multiple luminaires (up to 22 maximum per pallet) **Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1 Field Adjustable Lumen Output** - Must select Q8, Q7, Q6, Q5, Q4, Q3, Q2, or Q1 - Offers full range lumen adjustability - Includes wattage label for setting selected - Refer to pages 7 & 8 for power and lumen values - Luminaire may also be dimmed through 7-Pin receptacle with use of dimming control by others - Refer to dimming spec sheet for dimming multipliers **SS** **Stainless Steel Bolts** **X7/X6/X5/X4/X3/X2/X1** **Locked Lumen Output** - Must select X7, X6, X5, X4, X3, X2, or X1 - Lumen output is permanently locked to the setting selected - Includes wattage label for setting selected - Refer to pages 7 & 8 for power and lumen values - Dimming is only available through 7-Pin receptacle with use of dimming control by others - Refer to dimming spec sheet for dimming multipliers

* Reference EPA and pole configuration suitability data on page 6
** Available with Backlight Shield when ordered with field-installed accessory (see table above)
*** Lumen Package codes identify approximate light output only. Actual lumen output levels vary depending on CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values
† 22K7, turtle friendly amber LED, UH voltage, DALI, and 20kV surge protection special options available. Consult factory for details

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

Product Specifications

WAVEMAX® TECHNOLOGY

Featuring up to 90% optical efficiency and precise control, WaveMax® Technology provides unmatched comfort and decreased LED source luminance by smoothly spreading brightness over a broader area. When integrated with luminous surfaces made of a polymer medium engineered with DiamondFacet™ optical elements, extremely high efficacy luminaires are the result – ultimately creating more visually comfortable and appealing environments while exceeding illumination performance.

CONSTRUCTION & MATERIALS

- Housing constructed of high strength, lightweight bulk molding compound for long weathering and durability
- UV stabilized polymeric door with handle pocket for tool-less entry
- Straight in wiring to terminal block for power input (#6-#14 AWG)
- Optic box and driver enclosure inside optic box meet IP66 requirements
- Mounts on 1.25" (32mm) IP, 1.66" (42mm) O.D. or 2" (51mm) IP, 2.375" (60mm) O.D. horizontal tenon (minimum 8" [203mm] in length) and is adjustable +/- 5˚ in 2.5˚increments to allow for fixture leveling (two axis T-level included)
- Luminaire secures with two grade 5 steel mounting bolts w/clear zinc clad finish standard; optional 316 stainless steel mounting bolts available with SS option
- Comes standard with Utility Label per ANSI C136.15 and 7-pin NEMA® Photocell Receptacle per ANSI C136.41
- **Weight:** 15.6 lbs. (7.1kg); add 0.4 lbs. (0.2kg) for RSW-BLSM accessory; add 0.6 lbs. (0.3kg) for RSW-CLSM or RSW-FLSM accessories

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- **10V Source Current:** 0.15mA
- **Operating Temperature Range:** -40˚C - +50˚C (-40˚F - + 122˚F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- Meets CALTrans 611 Vibration testing
- ANSI C136.2 10kV surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Meets Buy American requirements within ARRA
- RoHS compliance. Consult factory for additional details
- Dark Sky Friendly, IDA Approved when ordered with 27K or 30K CCT. Please refer to https://www.darksky.org/our-work/lighting/lighting-for-industry/fsa/fsa-products/ for most current information
- DLC and DLC Premium qualified versions available. Please refer to https://www.designlights.org/search/ for most current information
- ⚠ **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Product Specifications

SYNAPSE® SIMPLYSNAP INTELLIGENT CONTROL FOR NON-STREET LIGHTING APPLICATIONS ONLY

The RSW Series is compatible with the Synapse® SimplySNAP platform. A highly intuitive connected lighting solution for Site and Area applications only. The system features a reliable and robust self-healing mesh network with a browser-based interface that runs on smartphones, tablets, and PCs. Using a Twist-Lock Lighting Controller and Site Controller, SimplySnap provides: energy productivity, code compliance and a better light experience for non-street lighting installations. SimplySNAP is optimized to create and manage networks for campus wide Area and Site applications which differs from networking requirements for street lighting applications.

Synapse Wireless Control Accessories (for Non-Street Lighting Applications only)

Twist-Lock Lighting Controller
TL7-B2
- Suitable for 120-277V (UL) voltage only
- Requires NEMA/ANSI C136.41 7-Pin Dimming Receptacle
- Not for use with Q options
- Provides On/Off switching, dimming, power metering, digital sensor input, and status monitoring of luminaires
- Refer to TL7-B2 spec sheet for details

SimplySNAP Central Base Station
CBSSW-450-002
- Includes On-Site Controller (SS450-002) and 5-button switch
- Indoor and Outdoor rated
- Refer to CBSSW-450-002 spec sheet for details

Synapse Wireless Sensor
WSN-DPM
- Motion and light sensor
- Control multiple zones
- Refer to WSN-DPM spec sheet for details

SimplySNAP On-Site Controller
SS450-002
- Verizon® LTE-enabled
- Designed for indoor applications
- Refer to SS450-002 spec sheet for details

Building Management System (BMS) Gateway
BMS-GW-002
- Required for BACnet integration
- Refer to BMS-GW-002 spec sheet for details

Outdoor Antennas (Optional, for increased range, 8dB gain)
KIT-ANT420SM
- Kit includes antenna, 20' cable and bracket

KIT-ANT360
- Kit includes antenna, 30' cable and bracket

KIT-ANT600
- Kit includes antenna, 50' cable and bracket
- Refer to Outdoor antenna spec sheet for details

Electrical Data*

Lumen Package	CCT/CRI	System Watts 120-277V	Utility Label Wattage	Efficacy	Total Current (A)			
					120V	208V	240V	277V
9L	27K8	83	80	98	0.74	0.42	0.36	0.32
	30K7	83	80	112	0.74	0.42	0.36	0.32
	30K8	83	80	105	0.74	0.42	0.36	0.32
	40K7	78	80	120	0.70	0.40	0.34	0.30
	40K8	83	80	111	0.74	0.42	0.36	0.32
	50K7	77	80	121	0.69	0.39	0.34	0.29
	50K8	80	80	117	0.72	0.41	0.35	0.31

* Electrical data at 25˚C (77˚F). Actual wattage may differ by +/- 10% when operating between 120-277V +/- 10%

RSW Series (RSWM) Ambient Adjusted Lumen Maintenance[1]

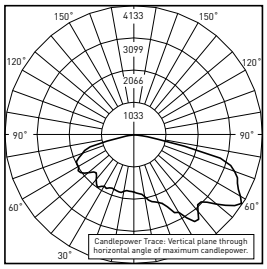
Ambient	Initial LMF	25K hr Reported[2] LMF	50K hr Reported[2] LMF	75K hr Estimated[3] LMF	100K hr Estimated[3] LMF
5˚C (41˚F)	1.04	1.04	1.04	1.04	1.04
10˚C (50˚F)	1.03	1.03	1.03	1.03	1.03
15˚C (59˚F)	1.02	1.02	1.02	1.02	1.02
20˚C (68˚F)	1.01	1.01	1.01	1.01	1.01
25˚C (77˚F)	1.00	1.00	1.00	1.00	1.00

[1] Lumen maintenance values at 25˚C (77˚F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the Temperature Zone Reference Document for outdoor average nighttime ambient conditions.
[2] In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.
[3] Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

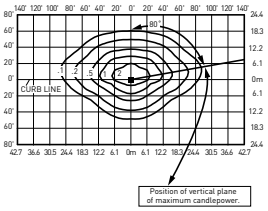
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: https://creelighting.com/products/outdoor/street-and-roadway/rsw-series

2LG



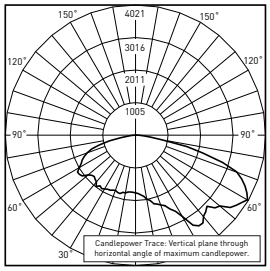
UL Verification Services Test Report #:
12311460.01
RSWM-A-**-2LG-9L-30K7-UL-**-N
Initial Delivered Lumens: 9,178



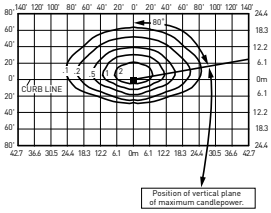
RSWM-A-**-2LG-9L-30K7-UL-**-N
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 9,325
Initial FC at grade

Type II Long Distribution									
Lumen Package	CRI	2700K		3000K		4000K		5000K	
		Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
9L	70	N/A	N/A	9,325	B2 U0 G2	9,325	B2 U0 G2	9,325	B2 U0 G2
	80	8,175	B2 U0 G2	8,700	B2 U0 G2	9,200	B2 U0 G2	9,325	B2 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt



UL Verification Services Test Report #:
11705478-02
RSWM-A-**-2LG-9L-30K7-UL-**-N
w/RSW-BLSM
Initial Delivered Lumens: 8,466



RSWM-A-**-2LG-9L-30K7-UL-**-N
w/RSW-BLSM
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 8,550
Initial FC at grade

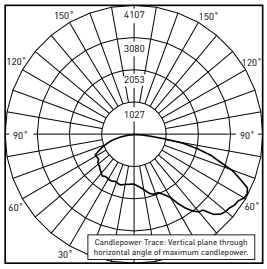
Type II Long w/BLS Distribution									
Lumen Package	CRI	2700K		3000K		4000K		5000K	
		Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
9L	70	N/A	N/A	8,550	B2 U0 G2	8,550	B2 U0 G2	8,550	B2 U0 G2
	80	7,500	B2 U0 G2	7,975	B2 U0 G2	8,450	B2 U0 G2	8,550	B2 U0 G2

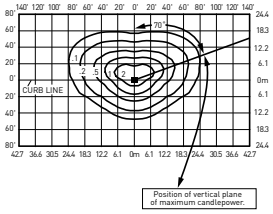
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: https://creelighting.com/products/outdoor/street-and-roadway/rsw-series

2ME



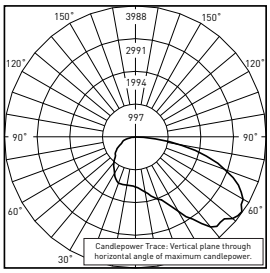


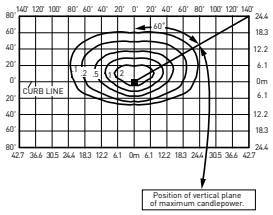
UL Verification Services Test Report #:
12311460.05
RSWM-A-**-2ME-9L-30K7-UL-**-N
Initial Delivered Lumens: 9,487

RSWM-A-**-2ME-9L-30K7-UL-**-N
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 9,325
Initial FC at grade

Type II Medium Distribution									
Lumen Package	CRI	2700K		3000K		4000K		5000K	
		Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
9L	70	N/A	N/A	9,325	B2 U0 G3	9,325	B2 U0 G3	9,325	B2 U0 G3
	80	8,175	B2 U0 G2	8,700	B2 U0 G2	9,200	B2 U0 G3	9,325	B2 U0 G3

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt





UL Verification Services Test Report #:
11705478.01
RSWM-A-**-2ME-9L-30K7-UL-**-N
w/RSW-BLSM
Initial Delivered Lumens: 8,383

RSWM-A-**-2ME-9L-30K7-UL-**-N
w/RSW-BLSM
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 8,550
Initial FC at grade

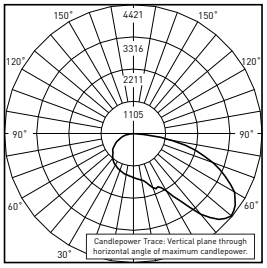
Type II Medium w/BLS Distribution									
Lumen Package	CRI	2700K		3000K		4000K		5000K	
		Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
9L	70	N/A	N/A	8,550	B2 U0 G3	8,550	B2 U0 G3	8,550	B2 U0 G3
	80	7,500	B1 U0 G2	7,975	B2 U0 G2	8,450	B2 U0 G3	8,550	B2 U0 G3

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

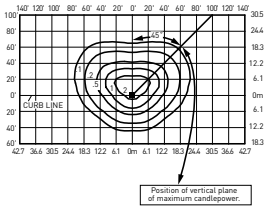
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: https://creelighting.com/products/outdoor/street-and-roadway/rsw-series

3ME



UL Verification Services Test Report #:
12311460.02
RSWM-A-**-3ME-9L-30K7-UL-**-N
Initial Delivered Lumens: 9,302



RSWM-A-**-3ME-9L-30K7-UL-**-N
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 9,325
Initial FC at grade

Type III Medium Distribution									
Lumen Package	CRI	2700K		3000K		4000K		5000K	
		Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
9L	70	N/A	N/A	9,325	B2 U0 G2	9,325	B2 U0 G2	9,325	B2 U0 G2
	80	8,175	B2 U0 G2	8,700	B2 U0 G2	9,200	B2 U0 G2	9,325	B2 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
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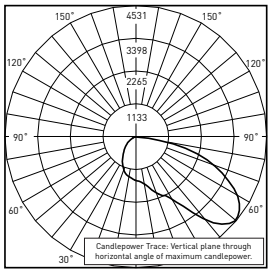
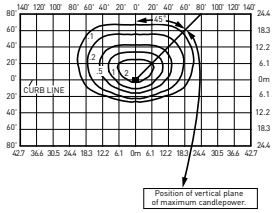


UL Verification Services Test Report #
11705478.03
RSWM-A**-3ME-9L-30K7-UL-**-N
w/RSW-BLSM
Initial Delivered Lumens: 8,532



RSWM-A-**-3ME-9L-30K7-UL-**-N
w/RSW-BLSM
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 8,550
Initial FC at grade

Type III Medium w/BLS Distribution									
Lumen Package	CRI	2700K		3000K		4000K		5000K	
		Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
9L	70	N/A	N/A	8,550	B2 U1 G2	8,550	B2 U1 G2	8,550	B2 U1 G2
	80	7,500	B1 U1 G2	7,975	B1 U1 G2	8,450	B2 U1 G2	8,550	B2 U1 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
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Luminaire EPA

Horizontal Tenon Mount – Weight: 15.6 lbs. (7.1kg); RSW-BLSM Accessory: add 0.4 lbs. (0.2kg); RSW-CLSM or RSW-FLSM Accessories: add 0.6 lbs. (0.3kg)					
Luminaire	Single	2 @ 90˚	2 @ 180˚	3 @ 90˚	4 @ 90˚
Tenon Configuration If used with Cree Lighting tenons, please add tenon EPA with luminaire EPA					
	 PD-1H4; PT-1H	 PD-2H4(90); PT-2H(90)	 PD-2H4(180); PT-2H(180)	 PD-3H4(90); PT-3H(90)	 PD-4H4(90); PT-4H(90)
Standard Luminaire	0.86	1.24	1.71	2.10	2.49
Luminaire w/RSW-BLSM, RSW-CLSM or RSW-FLSM Accessory	0.86	1.59	1.71	2.45	3.19

Tenon EPA

Part Number	EPA
PD Series Tenons	0.09
PT Series Tenons	0.10
WM-2L	0.13
XA-TMDA8	0.19

Tenons and Brackets* (must specify color)

Square Internal Mount Horizontal Tenons (Aluminum)
- Mounts to 4" (102mm) square aluminum or steel poles

PD-1H4 – Single
PD-2H4(90) – 90˚ Twin
PD-2H4(180) – 180˚ Twin
PD-3H4(90) – 90˚ Triple
PD-4H4(90) – 90˚ Quad

Wall Mount Brackets
- Mounts to wall or roof

WM-2L – Extended Horizontal

Round External Mount Horizontal Tenons (Aluminum)
- Mounts to 2.375"-3" (60-76mm) O.D. round aluminum or steel poles or tenons

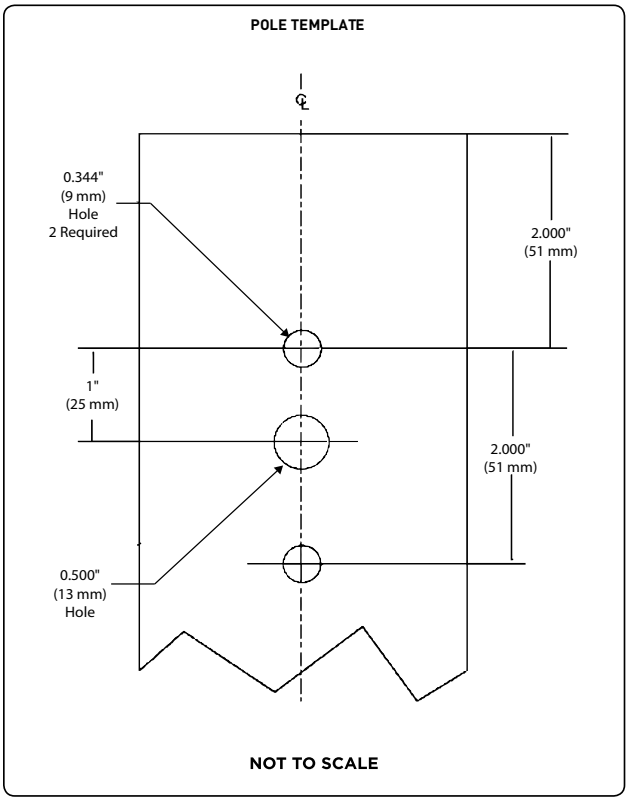
PT-1H – Single
PT-2H(90) – 90˚ Twin
PT-2H(180) – 180˚ Twin
PT-3H(90) – 90˚ Triple
PT-4H(90) – 90˚ Quad

Direct Arm Pole Adaptor Bracket
- Mounts to 3-6" (76-152mm) round or square aluminum or steel poles

XA-TMDA8

* Refer to the Bracket and Tenons spec sheet for more details

Fixture Mounting Drill Pattern for XA-TMDA8



Field Adjustable Output (Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the street and area luminaire within the RSW Series on this page to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected lumen output, will be fully adjustable between the outputs, and will include a wattage label that indicates the wattage of the luminaire at the selected lumen output (Rounded to nearest 10 watts per ANSI C136.15-2015.). Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the RSW Series street and area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected, and will include a wattage label that indicates the wattage of the setting selected. When this option is selected, the luminaire output is not able to be adjusted in the field except if a dimming control (by others) is used in the 7-Pin receptacle.

Q & X Option Power & Lumen Data – 9L

Q Option Setting	X Option Setting	CCT/CRI	System Watts†	Label Wattage	Lumen Values†		Optics Qualified on DLC QPL	
			120-277V		2LG, 2ME & 3ME	w/BLS	Standard	Premium
Q8 (Full Power)	N/A (Full Power)	27K8	83	80	8,175	7,500	2LG, 2ME, 3ME	
		30K7	83	80	9,325	8,550	2LG, 2ME, 3ME	
		30K8	83	80	8,700	7,975	2LG, 2ME, 3ME	
		40K7	78	80	9,325	8,550		2LG, 2ME, 3ME
		40K8	83	80	9,200	8,450	2LG, 2ME, 3ME	
		50K7	77	80	9,325	8,550		2LG, 2ME, 3ME
		50K8	80	80	9,325	8,550		2LG, 2ME, 3ME
Q7	X7	27K8	81	80	7,975	7,325	2LG, 2ME, 3ME	
		30K7	81	80	9,100	8,350	2LG, 2ME, 3ME	
		30K8	81	80	8,500	7,800	2LG, 2ME, 3ME	
		40K7	76	80	9,100	8,350		2LG, 2ME, 3ME
		40K8	81	80	8,975	8,250	2LG, 2ME, 3ME	
		50K7	75	80	9,100	8,350		2LG, 2ME, 3ME
		50K8	78	80	9,100	8,350		2LG, 2ME, 3ME
Q6	X6	27K8	75	80	7,850	7,200	2LG, 2ME, 3ME	
		30K7	75	80	8,975	8,250		2LG, 2ME, 3ME
		30K8	75	80	8,375	7,675	2LG, 2ME, 3ME	
		40K7	71	70	8,975	8,250		2LG, 2ME, 3ME
		40K8	75	80	8,850	8,125		2LG, 2ME, 3ME
		50K7	70	70	8,975	8,250		2LG, 2ME, 3ME
		50K8	73	70	8,975	8,250		2LG, 2ME, 3ME
Q5	X5	27K8	69	70	7,300	6,700	2LG, 2ME, 3ME	
		30K7	69	70	8,325	7,650		2LG, 2ME, 3ME
		30K8	69	70	7,775	7,125	2LG, 2ME, 3ME	
		40K7	65	70	8,325	7,650		2LG, 2ME, 3ME
		40K8	69	70	8,225	7,550		2LG, 2ME, 3ME
		50K7	64	60	8,325	7,650		2LG, 2ME, 3ME
		50K8	67	70	8,325	7,650		2LG, 2ME, 3ME

† Electrical and lumen data at 25°C (77°F). Actual wattage and lumen output may differ by +/-10% when operating between 120-277V +/-10%

Field Adjustable Output (Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the street and area luminaire within the RSW Series on this page to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected lumen output, will be fully adjustable between the outputs, and will include a wattage label that indicates the wattage of the luminaire at the selected lumen output (Rounded to nearest 10 watts per ANSI C136.15-2015.). Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the RSW Series street and area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected, and will include a wattage label that indicates the wattage of the setting selected. When this option is selected, the luminaire output is not able to be adjusted in the field except if a dimming control (by others) is used in the 7-Pin receptacle.

Q & X Option Power & Lumen Data – 9L

Q Option Setting	X Option Setting	CCT/CRI	System Watts†	Label Wattage	Lumen Values†		Optics Qualified on DLC QPL	
			120-277V		2LG, 2ME & 3ME	w/BLS	Standard	Premium
		27K8	65	70	6,800	6,250	2LG, 2ME, 3ME	
		30K7	65	70	7,750	7,125		2LG, 2ME, 3ME
		30K8	65	70	7,225	6,625	2LG, 2ME, 3ME	
Q4	X4	40K7	62	60	7,750	7,125		2LG, 2ME, 3ME
GMP 80LED tariff		40K8	65	70	7,650	7,025		2LG, 2ME, 3ME
		50K7	61	60	7,750	7,125		2LG, 2ME, 3ME
		50K8	63	60	7,750	7,125		2LG, 2ME, 3ME
		27K8	61	60	6,400	5,875	2LG, 2ME, 3ME	
		30K7	61	60	7,300	6,700		2LG, 2ME, 3ME
		30K8	61	60	6,825	6,275	2LG, 2ME, 3ME	
Q3	X3	40K7	59	60	7,300	6,700		2LG, 2ME, 3ME
		40K8	61	60	7,200	6,600		2LG, 2ME, 3ME
		50K7	58	60	7,300	6,700		2LG, 2ME, 3ME
		50K8	60	60	7,300	6,700		2LG, 2ME, 3ME
		27K8	60	60	6,125	5,625	2LG, 2ME, 3ME	
		30K7	60	60	7,000	6,425		2LG, 2ME, 3ME
		30K8	60	60	6,525	6,000	2LG, 2ME, 3ME	
Q2	X2	40K7	56	60	7,000	6,425		2LG, 2ME, 3ME
		40K8	60	60	6,900	6,325	2LG, 2ME, 3ME	
		50K7	56	60	7,000	6,425		2LG, 2ME, 3ME
		50K8	58	60	7,000	6,425		2LG, 2ME, 3ME
		27K8	50	50	5,700	5,225	2LG, 2ME, 3ME	
		30K7	50	50	6,500	5,975		2LG, 2ME, 3ME
		30K8	50	50	6,050	5,550	2LG, 2ME, 3ME	
Q1	X1	40K7	48	50	6,500	5,975		2LG, 2ME, 3ME
GMP 50/60 LED Tariff		40K8	50	50	6,400	5,875		2LG, 2ME, 3ME
		50K7	47	50	6,500	5,975		2LG, 2ME, 3ME
		50K8	49	50	6,500	5,975		2LG, 2ME, 3ME

† Electrical and lumen data at 25°C (77°F). Actual wattage and lumen output may differ by +/-10% when operating between 120-277V +/-10%

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AARP®

Walk Audit Tool Kit

A self-service guide for assessing a community's walkability

Worksheets available at
AARP.org/WalkAudit

AARP is the nation's largest nonprofit, nonpartisan organization dedicated to empowering people 50 or older to choose how they live as they age. With nearly 38 million members and offices in every state, the District of Columbia, Puerto Rico and the U.S. Virgin Islands, AARP strengthens communities and advocates for what matters most to families, with a focus on health security, financial stability and personal fulfillment.

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TTY Users, Dial 711: English: 1-877-434-7598 | Spanish: 1-866-238-9488

AARP Livable Communities

The AARP Livable Communities initiative supports the efforts of local leaders and residents throughout the nation to make their communities more livable and age-friendly.

Web: *AARP.org/Livable* and *AARP.org/WalkAudit*
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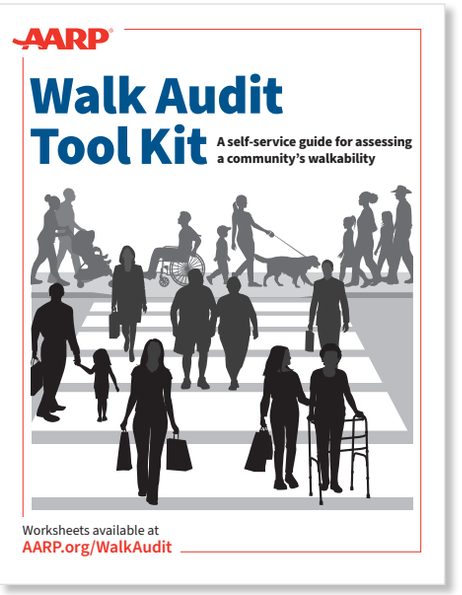
Email: *Livable@AARP.org*
Twitter: *@AARPLivable*
Facebook: *@AARPLivableCommunities*

HOW TO USE THE
AARP Walk Audit Tool Kit

The ***AARP Walk Audit Tool Kit*** has been created for use by individuals, local leaders, large groups and teams of just two people. In other words, the information in it can be used by anyone who is concerned about the safety and walkability of a street, neighborhood or community.

This walk audit booklet is organized into three parts, and the print edition contains a back cover pocket for storing the tool kit's worksheets, which are listed below and can be viewed and downloaded for printing at ***AARP.org/WalkAudit***. (Photocopying the worksheets for sharing is encouraged!)

As new materials — such as additional worksheets or translations into other languages — are added to the tool kit, we'll spread the news through the free, weekly ***AARP Livable Communities e-Newsletter***. Sign up at ***AARP.org/LivableSubscribe***.



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Walk Audit Worksheets

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2. **Who's Using the Street — and Why?**
3. **Sidewalks, Streets and Crossings** (Single-Location Audit)
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5. **Sidewalks**
6. **Streets and Crossings**
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8. **Public Transit Access**
9. **Build a Better Block**
10. **Summary**

Visit *AARP.org/WalkAudit* to download or order this publication and access its worksheets.

Introduction

THE PROBLEM

Too many communities in the United States are designed exclusively or almost exclusively for automobile travel, with very little consideration given to the needs of pedestrians.

Among the factors that discourage or outright prevent people from walking: multilane roadways, high-speed corridors that are unsafe to cross, a lack of street maintenance, a scarcity of sidewalks.

According to Smart Growth America's 2021 *Dangerous by Design* report, from 2010 to 2019, drivers in the U.S. struck and killed 53,435 pedestrians — an average of more than 14 people each day.

In 2017, an estimated 137,000 pedestrians were treated in emergency rooms for nonfatal crash-related injuries, according to the Centers for Disease Control and Prevention.

To ensure that walking is a safe, accessible and convenient alternative for people who cannot or choose not to drive — and to reverse the trends in pedestrian fatalities and injuries — it is critical for communities to become more pedestrian-friendly.

A SOLUTION

Local leaders and residents can help make the nation's neighborhoods more walkable by conducting a "walk audit" to identify the roads and intersections that should be walkable and crossable but are instead dangerous (by design) for pedestrians.

A walk audit can help inform local decision-making by prioritizing areas in need of improvement and educating community members about the importance of street and sidewalk design. Participating in a walk audit can help people become better champions for local change.

THE TIME COMMITMENT

It can take less than an hour to complete a targeted, single-location walk audit. Or an audit can become a multi-hour event. The amount of time involved is entirely up to the "auditor" or audit team. ■

▲ **Multilane, two-way roadways are common throughout the United States. Unlike most, this thoroughfare actually has pedestrian-supportive features, including sidewalks, crosswalks, traffic lights and pedestrian-controlled Walk/Don't Walk signals. But is this a nice place to walk? Is it even possible to cross the entire expanse at once?**

A WALK AUDIT IS ... an activity in which participants observe and evaluate the walkability of a location to identify and document if and how pedestrians can safely travel along a street, navigate an intersection and get from Point A to B and C and so on.

A WALK AUDIT CAN ...

- Gather input about community infrastructure needs and investments
- Educate residents about design elements that support safety
- Empower community members and local leaders to become agents of change

A WALK AUDIT CAN LEAD TO ...

- Reduced traffic congestion and pollution
- Healthier, more active lifestyles
- Increased property values
- Safer streets for people of all ages

WHO CAN DO A WALK AUDIT?

- *Everyone and anyone!*

AARP and Walkability

In a livable community, people of *all* ages can safely walk for fitness and to get where they need or want to go. However:

- A community without sidewalks — or with sidewalks that suddenly end — is not walkable
- Streets that are too wide, have multiple lanes or lack traffic lights are uncrossable
- Public transit stops that pedestrians can't safely access are essentially useless

Because the vast majority of the nation's roadways were designed to move cars *fast*, far too many streets are simply unwalkable.

Walkability is an important issue to AARP because older adults — along with people of color and residents of low-income communities — are disproportionately the victims of fatal motor vehicle crashes involving pedestrians.

In fact, according to the Insurance Institute for Highway Safety, the rates of pedestrian deaths in vehicle crashes per 100,000 people are highest for those age 70 or older.

The ***AARP Walk Audit Tool Kit*** provides community leaders and residents with a way to identify unsafe streets, gather and document needed information and observations, and then advocate for solutions to make streets safer for all users. ■

Walk This Way — or Any Which Way

The words "walking" and "pedestrians" are used in this tool kit as inclusive terms.

To quote the *Inclusive Walk Audit Facilitator's Guide*, published in 2020 by the Minnesota Department of Health, walking "includes both ambulatory and non-ambulatory modes. Walking encompasses all forms of mobility devices, including using a wheelchair, cane, walker or other mobility device that allows the user to travel at human speed."

Inclusivity is important to the walk audit process since streets should be usable by people of all ages, experiences and abilities.

For that reason, walk audits done by groups or teams are best when they include auditors who walk at different speeds, who "roll" rather than walk, who have vision or hearing impairments, or other differences that impact them as pedestrians.

After all, when a street is safe and accessible for someone with a disability or mobility difference, it is safe and accessible for everyone.

Creative Solutions

Frederick, Maryland

◀ There are two ways to reach the pedestrian bridge that crosses a small canal in the center of town. Option 1: Take the stairs. Option 2: Use the ramp.

▶ A portable beach access mat makes the shore accessible — and walking or rolling on the sand easier — for all visitors.

Hilton Head Island, South Carolina

GETTING STARTED

Step 1: Get *READY*

1 WHERE
IDENTIFY THE WALK AUDIT LOCATION

Visit and map an area where people need or want to walk. The audit location can cover just one spot — such as an intersection or block — or it can take place along an entire route covering several streets and intersections.

Keep in mind:

- The smaller the area, the easier it is to conduct an audit, identify problems and advocate for solutions to get results.
- The larger the audit area, the larger the potential impact.

WALK AUDIT TYPE:

Single-Location Audit

▼ A person on foot usually can't cover the full expanse of this multilane, two-way roadway all at once. (Look closely. A pedestrian is waiting on the small median until the light changes and it's possible to cross.) This intersection is adjacent to apartments, medical offices, restaurants and several shops, but because walking is both unpleasant and unsafe, people generally drive to destinations in the area.

2 WHAT
DECIDE ON A TYPE OF WALK AUDIT

Will the walk audit take place in one location? Or will the audit occur along a route?

This tool kit contains worksheets suitable for an observational single-location audit or a walking audit in which the participants experience an area's walkability (or, more likely, nonwalkability).

Keep in mind:

- A single-location audit allows for observing a specific area at different times of the day. It's also a good activity for people who are unable to remain on their feet for long stretches of time.
- A single-location audit is also a great way to include very young and much older participants in the activity since the auditors can sit in a safe and comfortable spot (such as on a building patio or beneath the shade of a nearby tree) while counting people or cars or whatever their assigned task might be.
- A walking audit assesses the walkability of a larger area, such as between key destinations, and is a useful activity for people who can and want to walk longer distances and can be active for longer amounts of time.

Learn the Lingo

Study up by examining the illustrations and vocabulary words on page 10. Knowing the elements of a streetscape will be very helpful when you write a report (see page 16) and describe to local leaders or transportation officials what's wrong and what needs to be fixed.

3 WHO
INVITE PEOPLE TO PARTICIPATE

Will the walk audit be conducted by one person or several? If several, how will people of different abilities, ages and life experiences be included?

The tool kit contains worksheets suitable for a solo auditor or a team made up of neighbors, colleagues, community members and, ideally, elected officials or others with influence.

(Having local leaders see and experience the location and pedestrian safety problems firsthand can be a fast track to achieving needed change.)

Keep in mind:

- If the walk audit is conducted by one person, multiple visits might be needed in order to perform all of the desired observations (or to evaluate the street activity at various times of the day) and document them accordingly.
- If the audit is done by two or more people, individual assignments can be made. Train the auditors ahead of time so everyone counts and documents their observations in the same way.
- After a team audit, someone will need to gather and tally the collective results.

4 WHEN
CHOOSE A DATE AND TIME

The volume and type of traffic (cars, buses, bikes, pedestrians) will likely vary depending on the day of the week or time of day.

Is the walk audit being done because of concerns about the safety of particular pedestrians, such as schoolchildren, workers, shoppers or retirees? If so, conduct the audit when those people will be present.

If observations are needed during multiple times of the day (including after dark), schedule auditors to work in shifts.

Keep in mind:

- Check the weather forecast! There's no need for walk auditors to endure extreme temperatures, precipitation or wind.
- To be more comprehensive in the audit and secure about the observations, consider repeating the audit in the same spot, in the same way but on a different day.
- Once the audit is done, start preparing the report. (See page 16.) The findings can be shared with the community and presented to local leaders who may be able to solve or help solve the documented problems. ■

WALK AUDIT TYPE:

Walking Audit

▶ The young people in this photograph are walking home from school along a 1½-mile route dotted with houses, stores, eateries and other businesses — but no sidewalks, crosswalks or mid-block crossings. Due to early school starting times and late-ending extracurricular activities, teenagers often walk to or from school in the dark.

Step 2: Get *SET* ...

1 PRINT THE WALK AUDIT WORKSHEETS

The ***AARP Walk Audit Tool Kit***'s worksheets can be downloaded at ***AARP.org/WalkAudit*** for printing, photocopying and sharing. Some of the worksheets are suitable for a solo auditor. Others are helpful for group efforts. There are options for observational audits that take place in one location, as well as for audits that document the walkability between destinations.

The collection is listed on page 1, and the printed edition of this guide contains a pocket for storing the worksheets.

2 GATHER THE WALK AUDIT SUPPLIES

In addition to the selected worksheets, each walk auditor will need a:

- clipboard
- notebook, pen or pencil, tape measure
- digital or smartphone camera
- printed or online street map

It can also be important to have:

- comfortable footwear
- weather-suitable clothing
- insect repellent
- portable seating
- a beverage and snack
- a hat, sunscreen and sunglasses
- a flashlight or headlamp
- a brightly colored shirt, jacket or safety vest for visibility (preferably one with pockets for holding supplies)

A. Children can't safely cross this street to travel between their homes (in a development on the left) and the elementary school (seen on the right).

B. The street lacks sidewalks and crosswalks.

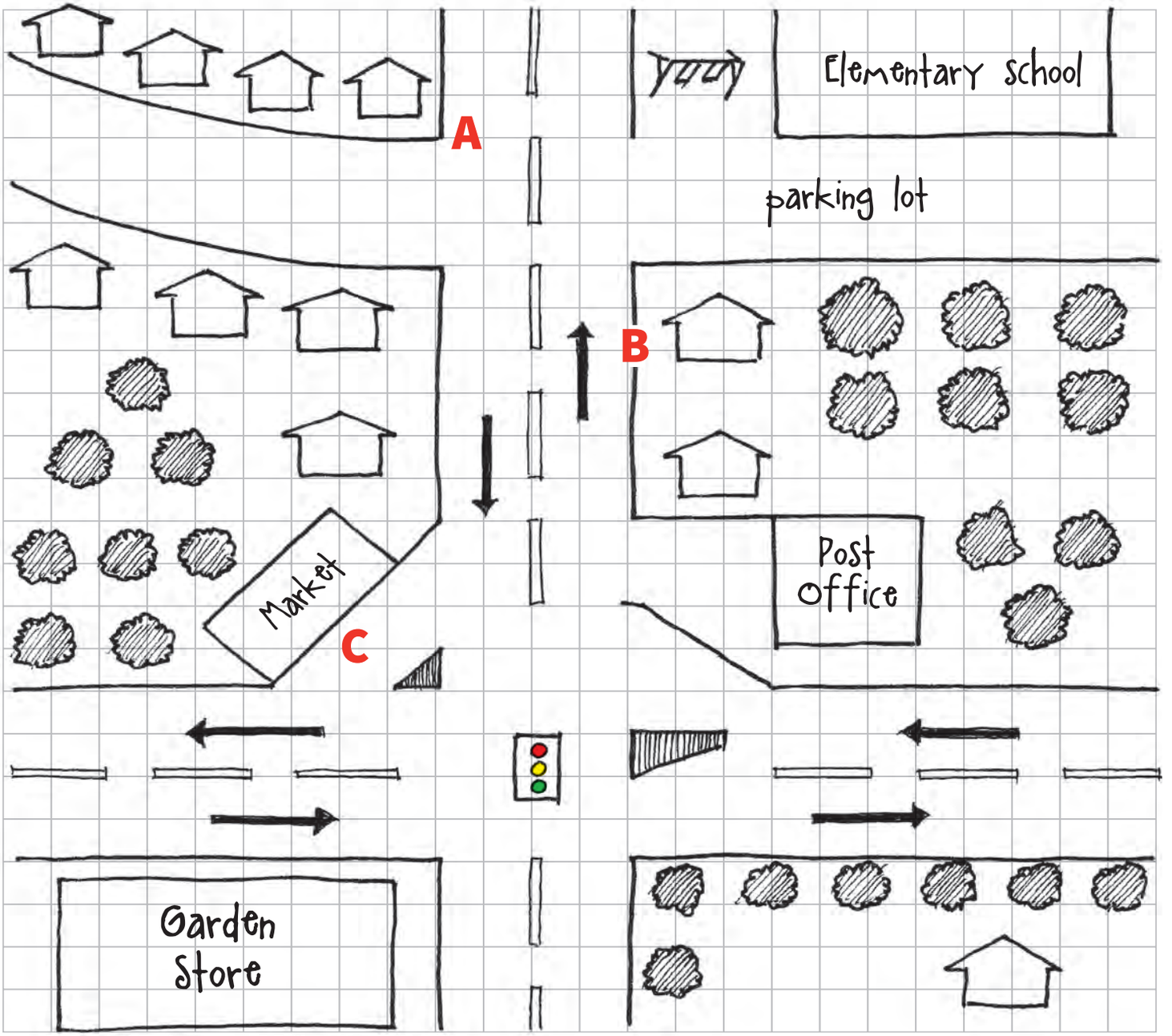
C. With such a large intersection and no crosswalks or pedestrian beacons (described on page 11), walking to the market is difficult and dangerous.

Sample

3 MAKE A MAP

Use a mapping website to capture and print a bird's-eye-view image of the walk audit area, or use our Make a Map worksheet (which can be downloaded and printed from *AARP.org/WalkAudit*) to draw a simple map.

- Label the streets and make note of any key features, such as stores, schools and (if they exist) sidewalks.
- Take photographs and/or video of the area so others can see the challenges and strengths.
- Match and mark the photographs and/or video location(s) on the map.
- Indicate any other problem spots or areas of opportunity (e.g., a bus stop with no seating or shelter). ■



STEP 3: *GO* do the Walk Audit!

1 LOOK AND LEARN

With clipboards and worksheets in hand, go to the audit site. When a walk audit is staffed by many workers or volunteers, the tasks can be divvied up among them.

Audit activities can include:

- Counting cars that pass the location
- Counting pedestrians who walk along and/or cross the street
- Noting demographic characteristics of the pedestrians (e.g., age, physical ability)
- Timing how long the traffic light stops vehicles so pedestrians can cross
- Assessing why people are walking in the location (exercising, commuting, shopping, dog walking, etc.)

Creative Solutions

Washington, D.C.

Bicycles shouldn't be used on sidewalks, and bikes and stairs are not a good mix. But cyclists sometimes do need to navigate one or both. ▲ A narrow, metal ramp helps cyclists move bikes along steps. ◀ A message stenciled on a sidewalk serves as a safety reminder.

Lewes, Delaware

Understanding the "Why"

Although a walk audit needn't involve stopping pedestrians for interviews, it's important to have a sense of why people are walking in a particular area. Doing so can help pinpoint problems and solutions.

Look for clues:

- Pedestrian traffic that picks up around lunchtime might indicate nearby workers are traveling from their jobs to area shops and restaurants. (If so, can they move about safely? Are there crosswalks? Do the traffic lights allow pedestrians enough time to cross the street?)
- Are people driving to eateries, shops and businesses near their homes or workplaces because there's no safe way for them to walk?
- The lack of pedestrians can also provide clues. What could be done to encourage more walking and less driving?

A true example:

A housing development is located next to a public library and a community center.

The residents routinely drive to both destinations. Why?

Conversations with some of the neighbors reveal the (fixable) reason: The sidewalk connecting the neighborhood to the community buildings ends abruptly, forcing pedestrians to either walk in the roadway or follow an uneven dirt path through a wooded area.

Get Inspired!

The *AARP Walk Audit Tool Kit* gets results!

- Jermaine Mitchell, an assistant professor of exercise and nutrition science at the University of Montevallo in **Montevallo, Alabama**, has his students use the *AARP Walk Audit Tool Kit t*o assess the walkability of local neighborhoods. Sidewalks have been fixed and crosswalks added as a result of their work.

- Working with AARP, older residents in **South Austin, Texas**, conducted a walk audit to document the dangers of crossing a busy four-lane roadway that separated a bus stop and the local senior center. With their observations in hand (documented by a video and a detailed report about the results), the auditors delivered their findings to their city council member. A pedestrian hybrid beacon (see page 11 to learn what that is) was installed.

- In **Edgewater, Maryland**, a retirement community was built just three-tenths of a mile from two shopping centers. To get to the retail areas by foot, however, residents needed to cross four lanes of traffic with cars often coming, sometimes dangerously fast, from both directions. Two neighbors joined forces to lobby the county transportation department for a safer street. The result: A pedestrian island (pictured) was installed to provide walkers with a safe place to stand when they can't cross all four lanes at once. In addition, a sensor-operated beacon with flashing lights alerts drivers when a pedestrian enters the crosswalk.

Edgewater, Maryland

▲ **This walk audit duo succeeded in getting their county's transportation department to install a pedestrian island.**

2 PRODUCE THE PROOF

Although a summary report will be created based on the information in the worksheets, taking photographs and video of the audit location will help clarify what's working and what isn't.

Use the photographs and video (along with the audio if traffic noise is among the concerns) to document and show the overall area as well as the problem spots.

Since many walk audits reveal both bad features and good ones, be sure to photograph the location's positive attributes as well. ■

Details to focus on include:

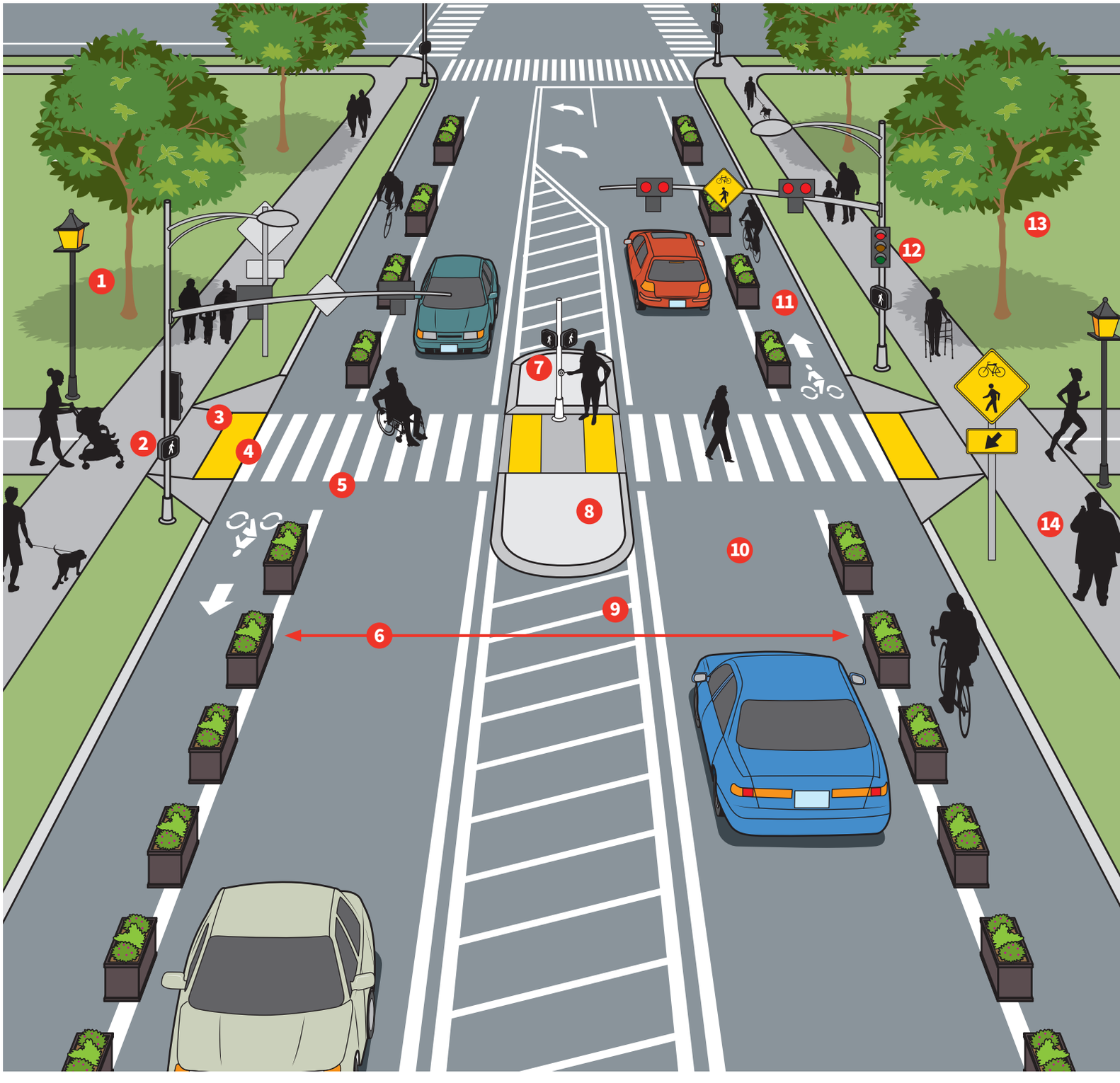
- crossing signals
- overhead traffic lights
- turning lanes
- curb cuts
- sidewalks
- crosswalks and vehicle stop lines
- lighting

Photographs can be taken to show where such safety and pedestrian-friendly features *should* exist.

INFORMATION AND INSTRUCTIONS

A Streetscape Vocabulary List

Transportation planners, engineers and advocates speak in a language that is sometimes incomprehensible to the average reader or resident. Employing terminology used by these professionals in the walk audit report will show that the auditor or auditors have done the necessary homework. Herewith some words and terms for talking the talk.



1 Pedestrian-Scaled Lighting
These light fixtures are positioned lower (about 12 to 14 feet above the sidewalk) than typical roadway or highway lights, are placed more closely together and are directed toward where people walk or bicycle.

2 Signalized Pedestrian Crossing
Properly timed Walk/Don't Walk devices enable pedestrians to complete a crossing before the signal changes and the vehicles move again.

3 Curb Cut (or Curb Ramp)
A solid ramp graded down from the top of a sidewalk to the surface of an adjoining street allows smooth passage for wheelchairs, bicycles and baby strollers.

4 Tactile Ground Surface Indicators
Installed in sidewalks, roadways and other surfaces, the indicators are raised stubs or bumps that warn pedestrians who are blind or have impaired vision that they're about to step into a street.

5 Crosswalk
Marked crosswalks show pedestrians where to cross and signify to motorists that they must yield. Crosswalks are usually indicated by white or yellow painted lines that are about 12 inches wide and extend from curb to curb.

6 Lane Width
When vehicle lanes or roadways are overly wide, pedestrians are forced to walk farther to cross streets. Highways generally have 12-foot-wide lanes. Streets in city and suburban neighborhoods can range from 9 to 15 feet wide.

7 Pedestrian Hybrid Beacon
Unlike a pretimed traffic signal or Walk/Don't Walk sign, this device is activated by pedestrians when needed. (Note: A real streetscape like the one at left likely wouldn't need this type of beacon since the traffic lights and walk signs would be synchronized to enable the crossings.)

8 Pedestrian Island
Also referred to as a crossing island or refuge island, a pedestrian island protects people who are crossing a multilane roadway. An island allows pedestrians to focus on one direction of traffic at a time as they cross, and it provides a place to wait for a gap in oncoming traffic. Another benefit: drivers typically slow down due to a narrowing of the vehicle lanes.

9 Median Strip
A portion of the roadway that separates opposing traffic. The area may be paved, planted, painted (as shown) or raised.

10 Travel Lane
The dedicated space on the roadbed for motorized vehicles to drive on.

11 Bicycle Lane
A designated (ideally barrier-protected) bike lane is safest for cyclists, drivers and pedestrians. On very wide streets, a dedicated bicycle lane can be created by placing an ancillary lane for parked cars directly next to the roadway, and then using the space between the parked cars and the sidewalk as a bike lane. See an example on page 13.

12 Signal Timing
Traffic signal (aka traffic light) timing involves assigning "green time" to the vehicles and pedestrians entering an intersection.

13 Tree Canopy
Street trees provide shade and cooling — and safer streets! In a 2018 study, University of Colorado Denver researchers found that "increased tree canopy coverage was significantly associated with fewer crashes."

14 Sidewalk
If set back from the curb, a sidewalk needs to be at least 5 feet wide — or 6 feet if extended to the curb. For two people to walk together, 5 feet is the minimum suitable width. ■

INFORMATION AND INSTRUCTIONS

What Is a 'Complete Street'?

A "Complete Street" is designed for all roadway users, whether they're driving, riding, walking, bicycling or rolling (e.g., pushing a baby stroller, using a wheelchair).

Since not every street can or should be "complete," Complete Streets policies simply require that the needs of all users be *considered* and, when appropriate, met.

During a demonstration project in Fort Wayne, Indiana, the urban planners of the firm Team Better Block worked with AARP to complete an existing street with a temporary makeover that transformed it from a street for cars into (as seen at right) one for all users.

Designing streets for pedestrians isn't a new concept. In fact, until the 20th century, people walked *in* the street. Once automobiles arrived en masse, speed and efficiency became the point of street design and transportation planning.

When congestion slowed traffic, roads were widened, traffic signals and stop signs were removed, crosswalks faded away. In many places, being able to safely cross a street on foot or by bicycle is the exception rather than the rule.

Complete Streets policies — also referred to as Safe Streets policies — are being implemented by city, county and state governments nationwide. (See page 22 to learn more.) ■

Streets, Roads and 'Stroads'

There is a difference!

As explained by Charles L. Marohn, Jr., a transportation engineer and founder of the nonprofit organization Strong Towns, "Roads connect places, streets are the framework for building a place."

According to Marohn, streets support destinations — homes, businesses, shops, attractions. Roads create "the greatest value by providing the fastest connection" between two places where people want to be.

The problem, he says, is that too many communities are filled with "stroads," which are multilane roadways designed to move cars quickly — yet they are populated with businesses, shops, attractions and even homes.

"Stroads are the most dangerous environment we routinely build in our cities," Marohn declares in his 2021 book *Confessions of a Recovering Engineer.* "A person on a sidewalk has no defense at all if a vehicle leaves the roadway at stroad speeds. The person crossing the stroad is even more exposed and vulnerable. That is true even when they cross at designated places and at specified times."

A stroad, Marohn emphasizes, "contains the elements of both [a] road and street but fails to provide the benefits of either."

Fort Wayne, Indiana

1. **This residential block's Complete Streets demonstration created a one-way roadway with on-street curb parking.**

2. **Landscaping (represented here by potted plants) serves as a "swale," or pervious surface for capturing stormwater.**

3. **A floating parking lane located away from the curb becomes a safety buffer for pedestrians and cyclists.**

4. **A "limitless lane," which is wider and slower than a traditional bike lane, is a shared-use path for bicyclists, people in wheelchairs, joggers and others.**

5. **Pedestrians are provided a very visible crosswalk.**

6. **An existing sidewalk is safely away from the vehicle and bicycle lanes.**

INFORMATION AND INSTRUCTIONS

The Scorecard

Walk auditors can use whichever worksheets, measurements or rating system they want — so long as an explanation of the chosen method is provided. Letter grades, numerical rankings or words can be used to score the audited streets and spaces.

It's not unusual for an audit location to have a mix of positive and negative features. For example, the sidewalks might be perfect for walking, but the intersections are difficult to cross. If an overall rating is desired, one can be provided that encompasses the observations as a whole.

Several worksheets in the *AARP Walk Audit Tool Kit* ask the auditor to select an adjective that best describes the street or location's safe walkability. The following words and definitions are provided as an example.

Great: The area is very pedestrian-friendly and safe

Acceptable: The area is mostly pedestrian-friendly and safe

Mixed: The area is somewhat pedestrian-friendly and safe

Poor: The area is absolutely not pedestrian-friendly or safe

Included among our worksheets is a summary sheet (opposite) for tallying, calculating and listing the scores of different audit observations. ■

Creative Solutions

▶ A pedestrian island, prominent crosswalk, landscaped median and raised brick-curbs (to prevent cars from parking and impeding visibility near the crosswalk) help make San Pablo Avenue safer for people walking between the neighborhood's schools, senior center and community center.

Emeryville, California

Summary

Sample

Record the score totals for each observation type

- Record the total number of yes responses for the category
- Record the total number of no responses for the category
- Record the one-word rating for the category

This information — as well as all notes, photographs, videos and observation discussions — will be helpful for writing a short report and/or preparing a PowerPoint presentation.

Community Name: Anytown

Street/Intersection Observed: Main between Elm Street **and** Walnut Street

Audit Date: September 23

WORKSHEET	YES RESPONSES	NO RESPONSES	RATING Great | Acceptable | Mixed | Poor
Sidewalks, Streets and Crossings (Single-Location Audit)	9	0	Great
Sidewalks, Streets and Crossings (Walking Audit)	9	2	Acceptable
Sidewalks	10	9	Mixed
Streets and Crossings	2	8	Poor
Street Safety and Appeal	8	8	Mixed
Public Transit Access	2	4	Mixed

NOTES OR OTHER OBSERVATIONS:

Also see the "Who's Using the Street – and Why?" and "Build a Better Block" worksheets.

Visit *AARP.org/WalkAudit* to download, print, copy and/or share additional worksheets.

PART 3

TAKING ACTION

Reporting Results, Proposing Solutions

It's not easy to persuade local leaders to make transportation and roadway improvements. Obstacles abound: politics, costs, past practices and, very often, overlapping jurisdictions, such as when a road is managed by the state rather than the county or municipality that it passes through. But individuals and community groups can get the ball rolling — and inspire and achieve needed change — by identifying problems and calling attention to them. Some next steps:

1 PREPARE A REPORT

Summarize the walk audit's findings in a short, easy-to-read and easy-to-share report, handout, PowerPoint presentation and/or video.

As tempting as it may be to share every observation from the audit, elected officials, other local leaders and municipal staff might be put off and overwhelmed by a dense and lengthy document.

Share the most compelling highlights in the summary report. The deep details can be provided later if needed or requested.

A suggested outline of what to include:

1. **Opener:** This top sheet or introductory slide or video clip should attract the attention of the intended recipient(s), so include a photograph or other visuals that show the location; the name of the community, street(s), route and/or destinations; and a brief statement describing the auditing group or participants.

2. **Explanation of the Problem**: Provide information about the location, such as why it was chosen. If crash data exists for the location (from, perhaps, the local police, a government agency or advocacy group) include those details, including the time of day, speeds involved, likely causes and outcomes.

3. **Map:** Download a map from the internet or use our map worksheet to draw one. Add labels and street names as needed.

4. **Observations and Findings:** Provide a list or short narrative detailing what was observed.

5. **The Need:** Answer the potential question "Why does this street or location even *need* to be walkable?"

6. **Proposed Solutions:** No one wants to be handed a problem and simply told to fix it. Share ideas and suggestions for how the observed problems can be solved.

7. **Contact Information:** The recipients or target audience should know how to reach the audit team to ask questions, collaborate or, ideally, share news that the problems are being addressed and how.

2 SHARE THE RESULTS

If no local leader with the power to pursue a solution participated in the audit, send the report to those who *can* implement the desired changes or advocate for them. Consider sharing the report with local media as well.

- Research the submission options before starting the report — or even better, before the walk audit. That way the information can be gathered and provided in a format that will be the most useful. (Also, many government offices and community groups have an email address, online form or phone number for reporting street and sidewalk problems.)

- Keep a record of who the report was sent to, how and when. If there's no response, follow up.

- Talk to neighbors, friends and family about the results. Encourage them to do their own walk audit or join the continuing advocacy work.

Continued on page 18 ▶

Sample Report

The following example slides show how a presentation can be organized and what it could look like

1

Community Walk Audit of Center Street

Between **The Villas** and **The Towne Shopping Center**

Conducted by residents of The Villas and several surrounding neighborhoods

2

The Problem

In The Villas, a community for older adults, residents can't safely walk to or from The Towne Shopping Center, located across Center Street.

- There's no traffic light or even a stop sign
- Pedestrians need to cross four lanes of fast-moving traffic
- The street has two lanes of traffic moving in each direction but no median
- There's no pedestrian island
- The painted crosswalk isn't readily visible to drivers
- The area isn't lit at night

3

The Location Map

4

Our Observations

Residents of The Villas and several surrounding neighborhoods audited the street and crossing location.

- Pedestrians had to wait up to 7 minutes to cross all four lanes of traffic
- Pedestrians needed 20 to 40 seconds to cross all four lanes
- Several pedestrians had to wait in the middle of the street to complete their crossing
- Nearly all the pedestrians we observed appeared to be in their 20s or 30s
- The older adults and parents with children we saw drove from the residential areas to the shopping center, even when their destination was the closest business

5

Why the Street Should Be Pedestrian-Friendly

- People of all ages are getting too little exercise and are spending too much time driving or being driven in cars
- Residents who don't drive and/or don't have access to a car should be able to safely walk to the stores and businesses near their homes
- If residents can safely walk to the shopping center — and in doing so walk to the post office, library, grocery store, bank, hair salon, restaurants and medical offices located within it — the community will have fewer cars on the road, which will mean less vehicle traffic and less pollution
- If residents can safely and easily walk to the shopping center, they will be more likely to frequent the local businesses

6

Possible Solutions

The crossing location on Center Street can and should be made safer.
Ways this can be achieved include:

- Adding a pedestrian-controlled traffic signal
- Timing the traffic light and Walk/Don't Walk signs so slower pedestrians have enough time to cross
- Painting a crosswalk that is more visible to drivers
- Narrowing the roadway to one lane in each direction at the spot pedestrians will cross
- Placing a pedestrian island between the lanes of opposite-moving traffic
- Installing pedestrian-scaled lighting

7

Contact Us

We want to work with the local government to make **Center Street** safer.

Reach us by:

- Email: *pedestrians@email*
- Telephone: 555-555-5555

A report can also include:

- Testimonials (or quotes) from walk audit participants and area residents
- A brief history of the location, if known and if useful in explaining the problems
- A summary of the worksheet results
- Lots of photographs — of both the problems and examples of potential solutions (see page 20)

TAKING ACTION

Reporting Results, Proposing Solutions

3 ASK FOR A MEETING — AND ASK QUESTIONS

If distributing the report doesn't result in the desired action, seek a meeting with local leaders and organizations. In preparation for a scheduled meeting:

- Determine the preferred format for presenting the walk audit findings. For instance, does the local leader want a PowerPoint presentation, a single-page handout, a written report? Should the materials be provided before the meeting or during it?
- Meeting durations are often limited and may be cut short, so be ready to address the top priorities or most egregious problems first.
- Visit Smart Growth America's *Complete Streets Policy Atlas* to identify whether the community already has a Complete Streets policy. If a policy doesn't exist, encourage local leaders to adopt one.
- First implemented in Sweden in the 1990s, "Vision Zero" is a multi-national strategy to, as stated by the Vision Zero Network, "eliminate traffic fatalities and severe injuries among all road users, and to ensure safe, healthy, equitable mobility for all." Check out the network's *Vision Zero Communities Map*. If your community isn't on the list, encourage local leaders to set Vision Zero goals.
- Learn whether the community has attained certification as a *Walk Friendly Community* (from Walk Friendly Communities) and/or a *Bicycle Friendly Community* (from the League of American Bicyclists).
- If the town, city or county is enrolled in the AARP Network of Age-Friendly States and Communities, examine its age-friendly action plan to see if walkability is among its age-friendly goals.

4 TESTIFY!

Another way to pursue solutions — especially if distributing the report doesn't result in the desired outcome or if local officials are unwilling to meet — is to testify in person at a public meeting or hearing.

Unlike courtroom testimony, testifying at a public meeting of a city, town or county council usually occurs during a portion of the meeting when members of the public are invited to speak about a topic of concern.

Testimony rules vary greatly by community and organization. Some meetings require speakers to register and submit materials in advance. Many have time limits (2 minutes, 3 minutes, 4 minutes) per speaker.

A TIP: If more time is needed for explaining and presenting the walk audit findings, bring along others to testify about the topic. Each person can handle a portion of the report or presentation, so instead of a 2-minute airing, the walk audit can be discussed and more comprehensively explained over several minutes from several speakers.

5 PROPOSE SOLUTIONS

Elected officials constantly hear about problems. What isn't as common is for them to hear about a problem *and* a solution.

Strategies, plans and proposals can come from the community. In fact, the chances of achieving positive change increase when knowledgeable community members inform, work with and assist the local leaders and transportation officials who will need to implement solutions. ■

(The website addresses for the mentioned resources can be found on page 22.)

Seeking Solutions

The Types of Elected Officials Who May Be of Help

Outreach should begin at the local level. State representatives can be contacted later if needed or if the roadway in question is within their jurisdiction.

- **Local:** Mayor, County Executive, City Council Member, County Council Member, Town Council Member, Alderperson, District or Ward Liaison, Homeowner Association Board Members
- **State:** Delegate, Senator, Assembly Member, Governor

The Types of Government Departments That Might Have Jurisdiction

- **Local:** Department of Public Works, Department of Streets and Sidewalks, Department of Transportation, Regional Planning Commission
- **State:** Department of Transportation
- **Federal:** Department of Transportation

The Types of Organizations That Can Help Advocate for Change

- Area Agencies on Aging
- Businesses and business advocacy groups
- Civic associations
- Homeowner associations
- Local advocacy organizations (e.g., AARP)
- Local media (newspapers, websites, TV)
- Schools
- Nonprofits
- Walking and bicycling groups

An Aside About Sidewalks

Getting a sidewalk added can be complicated. Among the challenges and considerations:

- Unless the land where a sidewalk will be placed is owned by the municipality, or is an easement area that allows the local government to use of a strip of private property for public use, access for adding a sidewalk could require negotiating with the respective property owners. That might involve buying or taking (through eminent domain) land from a homeowner or business.
- Installing a sidewalk where one doesn't already exist is easier if the work involves filling a gap in an otherwise continuous sidewalk.
- In many areas, the local department of public works or transportation will need to be involved in any decisions about the placement and width of sidewalks.
- Although the responsibility for maintaining publicly owned sidewalks officially falls to the local government, homeowner association or public works department, maintenance of many if not most sidewalks is the property owner's responsibility. Some owners fulfill that responsibility, some don't.
- Caring for trees and bushes that intrude upon a sidewalk is usually the responsibility of the property's owner, but the local government or homeowner association can send a notice asking the owner to perform the maintenance. If the property owner does not comply, a public works or contracted landscape crew might trim the greenery and bill the property owner.
- Some communities or neighborhoods have ordinances restricting the installation of sidewalks or curbs for aesthetic reasons. Advocating for sidewalks in these areas can be challenging. If adding sidewalks is not possible, the local government can still make the streets safer for pedestrians by employing traffic-calming measures (such as those described in the next section).

TAKING ACTION

Strategies for Safer Streets

Elected officials and other local leaders don't know everything about every aspect of managing or planning for a community's needs. After all, in many communities, local government is a part-time — and unpaid — job. The daily life grind of immediate needs often prevent community leaders from addressing complicated or long-term problems, learning about new and improved best practices, or staying updated about innovative ideas and solutions.

Following are some traffic-calming methods that make streets safer for all roadway users, especially pedestrians. Many local leaders aren't even aware of these terms, definitions and solutions.

Fargo, North Dakota

Bath, Maine

◀ Unlike the towering, "high-mast" lighting used on highways, **PEDESTRIAN-SCALED LIGHTING** brightens sidewalks, crosswalks and any dark spots where people might walk at night. Street lamps also enhance a location's appeal, help pedestrians see potential hazards and make them visible to drivers.

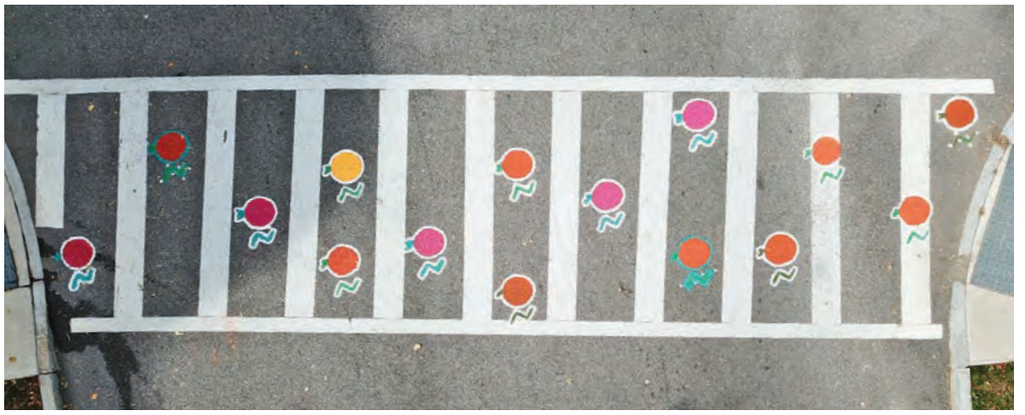
Edgewater, Maryland

Wayne, Maine

◀ A **PEDESTRIAN ISLAND** provides a safe place for pedestrians to stop and stand at a wide roadway's mid-point. **FLASHING TRAFFIC SIGNS** can (among other benefits) alert drivers to congested areas or to pedestrians crossing the roadway.

Arlington, Virginia

◀ By extending the sidewalk, a **CURB EXTENSION** or **BULB-OUT** narrows a roadway to reduce pedestrian crossing distances as well as driving speeds.



Buffalo, New York

◀ Artistic **CROSSWALKS** are fun and attractive and draw the attention of pedestrians *and* drivers. Another option (not shown) is a **RAISED CROSSWALK**, which, by being flush with the height of the sidewalk, increases the visibility of pedestrians and serves as a speed hump for vehicles.

Hilton Head, South Carolina

◀ When temperatures rise, the shade provided by a **TREE CANOPY** helps cool down streets, sidewalks and entire neighborhoods. According to the Environmental Protection Agency, a dense tree canopy can provide a cooling temperature difference of up to 45 degrees Fahrenheit.

Charlotte, North Carolina

◀ A **ROAD DIET** is a solution that reduces the number of lanes and/or the width of a street to help control traffic speeds. (In this example, the road was narrowed by turning the center lanes into a landscaped median.)

Continued ▶

New York, New York

◀ **PROTECTED BICYCLE LANES** and **SIDEWALKS** help organize street traffic and enhance the safety of all users by providing designated travel lanes for vehicles, bicycles and pedestrians.

Washington, D.C.

◀ Another way to make a street more people-friendly is to convert parking spots into **PARKLETS**, which are essentially custom-designed on-street patios that provide parking for people rather than cars. Parklets became a very popular public-spaces solution for restaurants and other businesses during the COVID-19 pandemic.

Chino Valley, Arizona

▲ Outdoor, street-level furnishings are usable and needed by people of all ages. For locations with bus stops or other public transit waiting areas, **SEATING** and **SHELTER** from the elements (rain, snow, a blazing sun) are important — in fact, essential — streetscape features. ■

More Strategies

- If a traffic signal already exists, ask that the **TRAFFIC-SIGNAL TIMING** be adjusted to accommodate slower moving pedestrians, such as children, older adults and people with disabilities.
- A **NEIGHBORHOOD WATCH** group can keep an eye out for speeders, criminal activity and other conditions or activities that prevent people from being able to safely walk.
- The tactics in this section can be introduced to a community through a **POP-UP DEMONSTRATION**, which is a temporary installation (lasting for a few hours, days or weeks) that allows a solution to be tested and tweaked before making a permanent change.

TAKING ACTION

Learn More

ONCE ALL THAT'S DONE, DO IT AGAIN!

- Invite local leaders and decision-makers to join the next walk audit!
- Choose a different street, or several, to learn whether conditions similar to those in the first walk audit exist.
- Get involved to help address the barriers that are keeping the community's streets and sidewalks from being safe and welcoming for all users.
- Download and print the needed worksheets at ***AARP.org/WalkAudit***. If you have the printed edition of the tool kit, store them in the back cover pocket. ■

The Walking College

Established in 2015, the Walking College is a competitive, six-month, remote-learning fellowship offered by America Walks, with support from AARP and the Centers for Disease Control and Prevention.

Participants complete a series of modules covering topics including the basics of walkable design, navigating the public policy process, effectively engaging decision-makers and fostering a local advocacy movement.

By the end of the program, fellows develop a walking action plan that lays out a series of short- and long-term strategies for tackling an identified problem in their communities.

WAYS TO LEARN MORE

The following organizations are advocates for walkability and safer streets for all users. Each has useful resources for local leaders and community members.

Active People, Healthy Nation
CDC.gov/physicalactivity/activepeoplehealthynation

America Walks
AmericaWalks.org

How I Walk: A Campaign to Rebrand Walking
NCHPAD.org/HowiWalk/

Institute of Transportation Engineers
ITE.org

National Association of City Transportation Officials
NACTO.org

National Complete Streets Coalition
SmartGrowthAmerica.org/Program/National-Complete-Streets-Coalition

Smart Growth America's Complete Streets Policy Atlas
SmartGrowthAmerica.org

The League of American Bicyclists
BikeLeague.org

Vision Zero Network's Vision Zero Communities Map
VisionZeroNetwork.org

Walk Friendly Communities Recognition Program
WalkFriendly.org

Get In Touch!

We want to hear about your walk audit. What worked? What didn't? Do you have suggestions for how to improve this tool kit? If the *AARP Walk Audit Tool Kit* helped achieve needed change, please tell us about your success!

Email: *Livable@AARP.org* | Twitter: *@AARPLivable*

WORKSHEETS

Visit ***AARP.org/WalkAudit*** to view, download and print the worksheets you need. Sharing copies of the worksheets — and adapting them to better serve your community's needs — is encouraged!

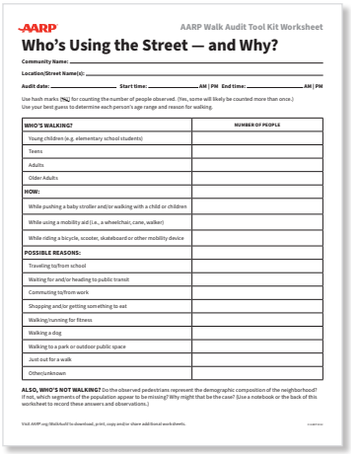

AARP WALK AUDIT TOOL KIT WORKSHEET

Make a Map

- Use a mapping website to capture and print a bird's-eye-view image of the walk audit area or draw a simple map of the location in the space below.
- Label the streets and make note of any key features, such as stores, schools and (if they exist) sidewalks.
- Take photographs and/or video of the area so others can see the challenges and strengths of the audit location. Match and mark the images on the map.
- Indicate any other problem spots or areas of opportunity (e.g., a bus stop with no seating or shelter).

Visit AARP.org/WalkAudit to download, print, copy and/or share additional worksheets.

1. Make a Map


AARP Walk Audit Tool Kit Worksheet

Who's Using the Street — and Why?

Community Name: _____

Location/Street Name(s): _____

Audit date: _____ Start time: _____ AM | PM End time: _____ AM | PM

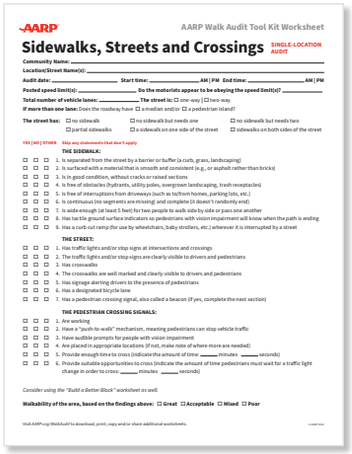
Use hash marks (正) for counting the number of people observed. (Yes, some will likely be counted more than once.)
Use your best guess to determine each person's age range and reason for walking.

WHO'S WALKING?	NUMBER OF PEOPLE
Young children (e.g. elementary school students)	
Teens	
Adults	
Older Adults	
HOW:	
While pushing a baby stroller and/or walking with a child or children	
While using a mobility aid (i.e., a wheelchair, cane, walker)	
While riding a bicycle, scooter, skateboard or other mobility device	
POSSIBLE REASONS:	
Traveling to/from school	
Waiting for and/or heading to public transit	
Commuting to/from work	
Shopping and/or getting something to eat	
Walking/running for fitness	
Walking a dog	
Walking to a park or outdoor public space	
Just out for a walk	
Other/unknown	

ALSO, WHO'S NOT WALKING? Do the observed pedestrians represent the demographic composition of the neighborhood? If not, which segments of the population appear to be missing? Why might that be the case? (Use a notebook or the back of this worksheet to record these answers and observations.)

Visit AARP.org/WalkAudit to download, print, copy and/or share additional worksheets.

2. Who's Using the Street — and Why


AARP Walk Audit Tool Kit Worksheet

Sidewalks, Streets and Crossings SINGLE-LOCATION AUDIT

Community Name: _____

Location/Street Name(s): _____

Audit date: _____ Start time: _____ AM | PM End time: _____ AM | PM

Posted speed limit(s): _____ Do the motorists appear to be obeying the speed limit(s)? _____

Total number of vehicle lanes: _____ The street is: ☐ one-way ☐ two-way

If more than one lane: Does the roadway have ☐ a median and/or ☐ a pedestrian island?

The street has: ☐ no sidewalk ☐ no sidewalk but needs one ☐ no sidewalk but needs two ☐ partial sidewalks ☐ a sidewalk on one side of the street ☐ sidewalks on both sides of the street

YES | NO | OTHER Skip any statements that don't apply

THE SIDEWALK:

☐ ☐ ☐ 1. Is separated from the street by a barrier or buffer (a curb, grass, landscaping)
☐ ☐ ☐ 2. Is surfaced with a material that is smooth and consistent (e.g., or asphalt rather than bricks)
☐ ☐ ☐ 3. Is in good condition, without cracks or raised sections
☐ ☐ ☐ 4. Is free of obstacles (hydrants, utility poles, overgrown landscaping, trash receptacles)
☐ ☐ ☐ 5. Is free of interruptions from driveways (such as to/from homes, parking lots, etc.)
☐ ☐ ☐ 6. Is continuous (no segments are missing) and complete (it doesn't randomly end)
☐ ☐ ☐ 7. Is wide enough (at least 5 feet) for two people to walk side by side or pass one another
☐ ☐ ☐ 8. Has tactile ground surface indicators so pedestrians with vision impairment will know when the path is ending
☐ ☐ ☐ 9. Has a curb cut ramp (for use by wheelchairs, baby strollers, etc.) wherever it is interrupted by a street

THE STREET:

☐ ☐ ☐ 1. Has traffic lights and/or stop signs at intersections and crossings
☐ ☐ ☐ 2. The traffic lights and/or stop signs are clearly visible to drivers and pedestrians
☐ ☐ ☐ 3. Has crosswalks
☐ ☐ ☐ 4. The crosswalks are well marked and clearly visible to drivers and pedestrians
☐ ☐ ☐ 5. Has signage alerting drivers to the presence of pedestrians
☐ ☐ ☐ 6. Has a designated bicycle lane
☐ ☐ ☐ 7. Has a pedestrian crossing signal, also called a beacon (if yes, complete the next section)

THE PEDESTRIAN CROSSING SIGNALS:

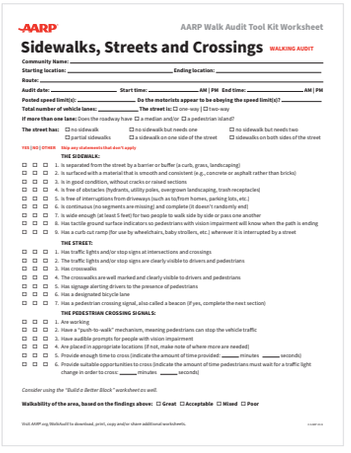
☐ ☐ ☐ 1. Are working
☐ ☐ ☐ 2. Have a "push-to-walk" mechanism, meaning pedestrians can stop vehicle traffic
☐ ☐ ☐ 3. Have audible prompts for people with vision impairment
☐ ☐ ☐ 4. Are placed in appropriate locations (if not, make note of where more are needed)
☐ ☐ ☐ 5. Provide enough time to cross (indicate the amount of time: _____ minutes _____ seconds)
☐ ☐ ☐ 6. Provide suitable opportunities to cross (indicate the amount of time pedestrians must wait for a traffic light change in order to cross: _____ minutes _____ seconds)

Consider using the "Build a Better Block" worksheet as well.

Walkability of the area, based on the findings above: ☐ Great ☐ Acceptable ☐ Mixed ☐ Poor

Visit AARP.org/WalkAudit to download, print, copy and/or share additional worksheets.

3. Sidewalks, Streets and Crossings (Single-Location Audit)


AARP Walk Audit Tool Kit Worksheet

Sidewalks, Streets and Crossings WALKING AUDIT

Community Name: _____

Starting location: _____ Ending location: _____

Route: _____

Audit date: _____ Start time: _____ AM | PM End time: _____ AM | PM

Posted speed limit(s): _____ Do the motorists appear to be obeying the speed limit(s)? _____

Total number of vehicle lanes: _____ The street is: ☐ one-way ☐ two-way

If more than one lane: Does the roadway have ☐ a median and/or ☐ a pedestrian island?

The street has: ☐ no sidewalk ☐ no sidewalk but needs one ☐ no sidewalk but needs two ☐ partial sidewalks ☐ a sidewalk on one side of the street ☐ sidewalks on both sides of the street

YES | NO | OTHER Skip any statements that don't apply

THE SIDEWALK:

☐ ☐ ☐ 1. Is separated from the street by a barrier or buffer (a curb, grass, landscaping)
☐ ☐ ☐ 2. Is surfaced with a material that is smooth and consistent (e.g., concrete or asphalt rather than bricks)
☐ ☐ ☐ 3. Is in good condition, without cracks or raised sections
☐ ☐ ☐ 4. Is free of obstacles (hydrants, utility poles, overgrown landscaping, trash receptacles)
☐ ☐ ☐ 5. Is free of interruptions from driveways (such as to/from homes, parking lots, etc.)
☐ ☐ ☐ 6. Is continuous (no segments are missing) and complete (it doesn't randomly end)
☐ ☐ ☐ 7. Is wide enough (at least 5 feet) for two people to walk side by side or pass one another
☐ ☐ ☐ 8. Has tactile ground surface indicators so pedestrians with vision impairment will know when the path is ending
☐ ☐ ☐ 9. Has a curb cut ramp (for use by wheelchairs, baby strollers, etc.) wherever it is interrupted by a street

THE STREET:

☐ ☐ ☐ 1. Has traffic lights and/or stop signs at intersections and crossings
☐ ☐ ☐ 2. The traffic lights and/or stop signs are clearly visible to drivers and pedestrians
☐ ☐ ☐ 3. Has crosswalks
☐ ☐ ☐ 4. The crosswalks are well marked and clearly visible to drivers and pedestrians
☐ ☐ ☐ 5. Has signage alerting drivers to the presence of pedestrians
☐ ☐ ☐ 6. Has a designated bicycle lane
☐ ☐ ☐ 7. Has a pedestrian crossing signal, also called a beacon (if yes, complete the next section)

THE PEDESTRIAN CROSSING SIGNALS:

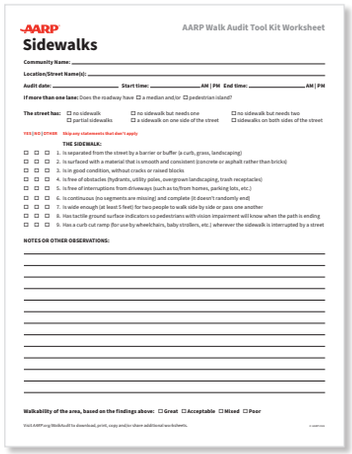
☐ ☐ ☐ 1. Are working
☐ ☐ ☐ 2. Have a "push-to-walk" mechanism, meaning pedestrians can stop the vehicle traffic
☐ ☐ ☐ 3. Have audible prompts for people with vision impairment
☐ ☐ ☐ 4. Are placed in appropriate locations (if not, make note of where more are needed)
☐ ☐ ☐ 5. Provide enough time to cross (indicate the amount of time provided: _____ minutes _____ seconds)
☐ ☐ ☐ 6. Provide suitable opportunities to cross (indicate the amount of time pedestrians must wait for a traffic light change in order to cross: _____ minutes _____ seconds)

Consider using the "Build a Better Block" worksheet as well.

Walkability of the area, based on the findings above: ☐ Great ☐ Acceptable ☐ Mixed ☐ Poor

Visit AARP.org/WalkAudit to download, print, copy and/or share additional worksheets.

4. Sidewalks, Streets and Crossings (Walking Audit)


AARP Walk Audit Tool Kit Worksheet

Sidewalks

Community Name: _____

Location/Street Name(s): _____

Audit date: _____ Start time: _____ AM | PM End time: _____ AM | PM

If more than one lane: Does the roadway have ☐ a median and/or ☐ pedestrian island?

The street has: ☐ no sidewalk ☐ no sidewalk but needs one ☐ no sidewalk but needs two ☐ partial sidewalks ☐ a sidewalk on one side of the street ☐ sidewalks on both sides of the street

YES | NO | OTHER Skip any statements that don't apply

THE SIDEWALK:

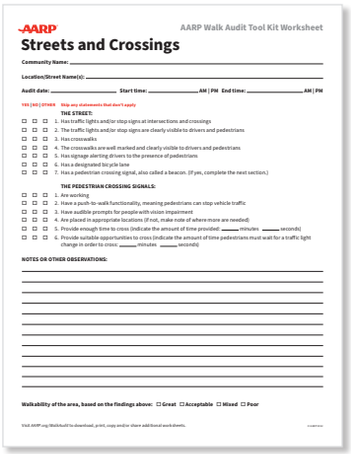
☐ ☐ ☐ 1. Is separated from the street by a barrier or buffer (a curb, grass, landscaping)
☐ ☐ ☐ 2. Is surfaced with a material that is smooth and consistent (concrete or asphalt rather than bricks)
☐ ☐ ☐ 3. Is in good condition, without cracks or raised blocks
☐ ☐ ☐ 4. Is free of obstacles (hydrants, utility poles, overgrown landscaping, trash receptacles)
☐ ☐ ☐ 5. Is free of interruptions from driveways (such as to/from homes, parking lots, etc.)
☐ ☐ ☐ 6. Is continuous (no segments are missing) and complete (it doesn't randomly end)
☐ ☐ ☐ 7. Is wide enough (at least 5 feet) for two people to walk side by side or pass one another
☐ ☐ ☐ 8. Has tactile ground surface indicators so pedestrians with vision impairment will know when the path is ending
☐ ☐ ☐ 9. Has a curb cut ramp (for use by wheelchairs, baby strollers, etc.) wherever the sidewalk is interrupted by a street

NOTES OR OTHER OBSERVATIONS:

Walkability of the area, based on the findings above: ☐ Great ☐ Acceptable ☐ Mixed ☐ Poor

Visit AARP.org/WalkAudit to download, print, copy and/or share additional worksheets.

5. Sidewalks


AARP Walk Audit Tool Kit Worksheet

Streets and Crossings

Community Name: _____

Location/Street Name(s): _____

Audit date: _____ Start time: _____ AM | PM End time: _____ AM | PM

YES | NO | OTHER Skip any statements that don't apply

THE STREET:

☐ ☐ ☐ 1. Has traffic lights and/or stop signs at intersections and crossings
☐ ☐ ☐ 2. The traffic lights and/or stop signs are clearly visible to drivers and pedestrians
☐ ☐ ☐ 3. Has crosswalks
☐ ☐ ☐ 4. The crosswalks are well marked and clearly visible to drivers and pedestrians
☐ ☐ ☐ 5. Has signage alerting drivers to the presence of pedestrians
☐ ☐ ☐ 6. Has a designated bicycle lane
☐ ☐ ☐ 7. Has a pedestrian crossing signal, also called a beacon. (If yes, complete the next section.)

THE PEDESTRIAN CROSSING SIGNALS:

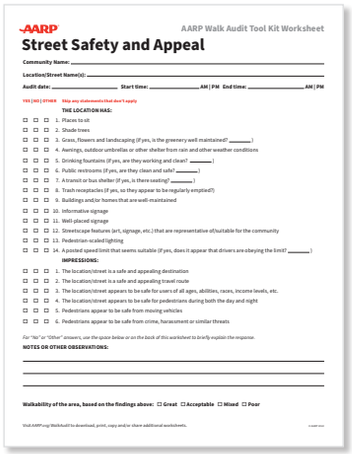
☐ ☐ ☐ 1. Are working
☐ ☐ ☐ 2. Have a push-to-walk functionality, meaning pedestrians can stop vehicle traffic
☐ ☐ ☐ 3. Have audible prompts for people with vision impairment
☐ ☐ ☐ 4. Are placed in appropriate locations (if not, make note of where more are needed)
☐ ☐ ☐ 5. Provide enough time to cross (indicate the amount of time provided: _____ minutes _____ seconds)
☐ ☐ ☐ 6. Provide suitable opportunities to cross (indicate the amount of time pedestrians must wait for a traffic light change in order to cross: _____ minutes _____ seconds)

NOTES OR OTHER OBSERVATIONS:

Walkability of the area, based on the findings above: ☐ Great ☐ Acceptable ☐ Mixed ☐ Poor

Visit AARP.org/WalkAudit to download, print, copy and/or share additional worksheets.

6. Streets and Crossings


AARP Walk Audit Tool Kit Worksheet

Street Safety and Appeal

Community Name: _____

Location/Street Name(s): _____

Audit date: _____ Start time: _____ AM | PM End time: _____ AM | PM

YES | NO | OTHER Skip any statements that don't apply

THE LOCATION HAS:

☐ ☐ ☐ 1. Places to sit
☐ ☐ ☐ 2. Shade trees
☐ ☐ ☐ 3. Grass, flowers and landscaping (if yes, is the greenery well maintained? _____)
☐ ☐ ☐ 4. Awnings, outdoor umbrellas or other shelter from rain and other weather conditions
☐ ☐ ☐ 5. Drinking fountains (if yes, are they working and clean? _____)
☐ ☐ ☐ 6. Public restrooms (if yes, are they clean and safe? _____)
☐ ☐ ☐ 7. A transit or bus shelter (if yes, is there seating? _____)
☐ ☐ ☐ 8. Trash receptacles (if yes, so they appear to be regularly emptied?)
☐ ☐ ☐ 9. Buildings and/or homes that are well-maintained
☐ ☐ ☐ 10. Informative signage
☐ ☐ ☐ 11. Well-placed signage
☐ ☐ ☐ 12. Streetscape features (art, signage, etc.) that are representative of/suitable for the community
☐ ☐ ☐ 13. Pedestrian-scaled lighting
☐ ☐ ☐ 14. A posted speed limit that seems suitable (if yes, does it appear that drivers are obeying the limit? _____)

IMPRESSIONS:

☐ ☐ ☐ 1. The location/street is a safe and appealing destination
☐ ☐ ☐ 2. The location/street is a safe and appealing travel route
☐ ☐ ☐ 3. The location/street appears to be safe for users of all ages, abilities, races, income levels, etc.
☐ ☐ ☐ 4. The location/street appears to be safe for pedestrians during both the day and night
☐ ☐ ☐ 5. Pedestrians appear to be safe from moving vehicles
☐ ☐ ☐ 6. Pedestrians appear to be safe from crime, harassment or similar threats

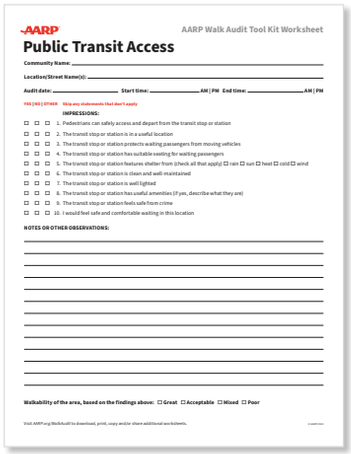
For "No" or "Other" answers, use the space below or on the back of this worksheet to briefly explain the response.

NOTES OR OTHER OBSERVATIONS:

Walkability of the area, based on the findings above: ☐ Great ☐ Acceptable ☐ Mixed ☐ Poor

Visit AARP.org/WalkAudit to download, print, copy and/or share additional worksheets.

7. Street Safety and Appeal


AARP Walk Audit Tool Kit Worksheet

Public Transit Access

Community Name: _____

Location/Street Name(s): _____

Audit date: _____ Start time: _____ AM | PM End time: _____ AM | PM

YES | NO | OTHER Skip any statements that don't apply

IMPRESSIONS:

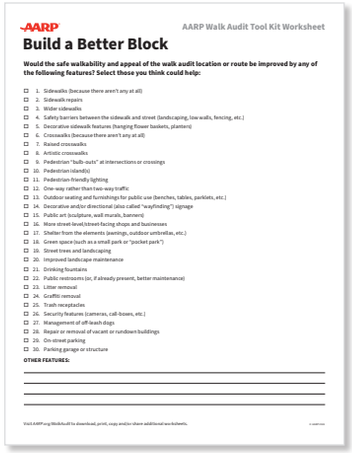
☐ ☐ ☐ 1. Pedestrians can safely access and depart from the transit stop or station
☐ ☐ ☐ 2. The transit stop or station is in a useful location
☐ ☐ ☐ 3. The transit stop or station protects waiting passengers from moving vehicles
☐ ☐ ☐ 4. The transit stop or station has suitable seating for waiting passengers
☐ ☐ ☐ 5. The transit stop or station features shelter from (check all that apply) ☐ rain ☐ sun ☐ heat ☐ cold ☐ wind
☐ ☐ ☐ 6. The transit stop or station is clean and well-maintained
☐ ☐ ☐ 7. The transit stop or station is well lighted
☐ ☐ ☐ 8. The transit stop or station has useful amenities (if yes, describe what they are)
☐ ☐ ☐ 9. The transit stop or station feels safe from crime
☐ ☐ ☐ 10. I would feel safe and comfortable waiting in this location

NOTES OR OTHER OBSERVATIONS:

Walkability of the area, based on the findings above: ☐ Great ☐ Acceptable ☐ Mixed ☐ Poor

Visit AARP.org/WalkAudit to download, print, copy and/or share additional worksheets.

8. Public Transit Access


AARP Walk Audit Tool Kit Worksheet

Build a Better Block

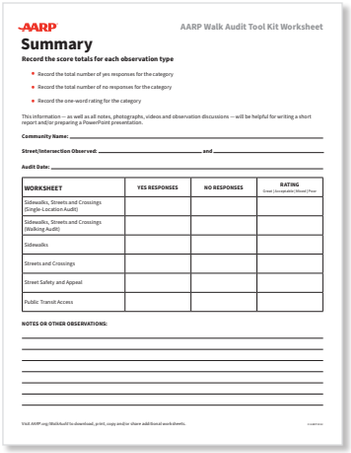
Would the safe walkability and appeal of the walk audit location or route be improved by any of the following features? Select those you think could help:

☐ 1. Sidewalks (because there aren't any at all)
☐ 2. Sidewalk repairs
☐ 3. Wider sidewalks
☐ 4. Safety barriers between the sidewalk and street (landscaping, low walls, fencing, etc.)
☐ 5. Decorative sidewalk features (hanging flower baskets, planters)
☐ 6. Crosswalks (because there aren't any at all)
☐ 7. Raised crosswalks
☐ 8. Artistic crosswalks
☐ 9. Pedestrian "bulb-outs" at intersections or crossings
☐ 10. Pedestrian island(s)
☐ 11. Pedestrian-friendly lighting
☐ 12. One-way rather than two-way traffic
☐ 13. Outdoor seating and furnishings for public use (benches, tables, parklets, etc.)
☐ 14. Decorative and/or directional (also called "wayfinding") signage
☐ 15. Public art (sculpture, wall murals, banners)
☐ 16. More street-level/street-facing shops and businesses
☐ 17. Shelter from the elements (awnings, outdoor umbrellas, etc.)
☐ 18. Green space (such as a small park or "pocket park")
☐ 19. Street trees and landscaping
☐ 20. Improved landscape maintenance
☐ 21. Drinking fountains
☐ 22. Public restrooms (or, if already present, better maintenance)
☐ 23. Litter removal
☐ 24. Graffiti removal
☐ 25. Trash receptacles
☐ 26. Security features (cameras, call-boxes, etc.)
☐ 27. Management of off-leash dogs
☐ 28. Repair or removal of vacant or rundown buildings
☐ 29. On-street parking
☐ 30. Parking garage or structure

OTHER FEATURES:

Visit AARP.org/WalkAudit to download, print, copy and/or share additional worksheets.

9. Build a Better Block


AARP Walk Audit Tool Kit Worksheet

Summary

Record the score totals for each observation type

- Record the total number of yes responses for the category
- Record the total number of no responses for the category
- Record the one-word rating for the category

This information — as well as all notes, photographs, videos and observation discussions — will be helpful for writing a short report and/or preparing a PowerPoint presentation.

Community Name: _____

Street/Intersection Observed: _____ and _____

Audit Date: _____

WORKSHEET	YES RESPONSES	NO RESPONSES	RATING (Great | Acceptable | Mixed | Poor)
Sidewalks, Streets and Crossings (Single-Location Audit)			
Sidewalks, Streets and Crossings (Walking Audit)			
Sidewalks			
Streets and Crossings			
Street Safety and Appeal			
Public Transit Access			

NOTES OR OTHER OBSERVATIONS:

Visit AARP.org/WalkAudit to download, print, copy and/or share additional worksheets.

10. Summary

As new materials are added to the tool kit — such as additional worksheets or translations into other languages — we'll spread the news through the free, weekly ***AARP Livable Communities e-Newsletter***. Sign up at ***AARP.org/LivableSubscribe***. ■

AARP Walk Audit Tool Kit

A SELF-SERVICE GUIDE FOR ASSESSING A COMMUNITY'S WALKABILITY

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City of Charlotte (Charlotte, North Carolina)
Page 22: Melissa Stanton, AARP (New York, New York | Washington, D.C.) | Yavapai Regional Transit (Chino Valley, Arizona)
Back Cover: Melissa Stanton, AARP

Walk Audit Tool Kit

A self-service guide for assessing a community's walkability

Pedestrian and Cyclist Crosswalks
Washington, D.C.

Road Diet, Bulb-Outs, Curb Ramps and more
Cape May, New Jersey

Dedicated Bike Lane
Pittsburgh, Pennsylvania

In too many communities, people can't safely walk to where they need or want to go due to a lack sidewalks, crosswalks or other safety features that make streets safe for pedestrians *and* drivers.

A walk audit is a simple activity in which an individual or a team observes and evaluates the walkability of a location to document how and if pedestrians can safely travel along a street, navigate an intersection and get from point A to B, C and so on.

Who can conduct a walk audit? Anyone!

The ***AARP Walk Audit Tool Kit*** can be used by local leaders, advocates, community organizations and residents to …

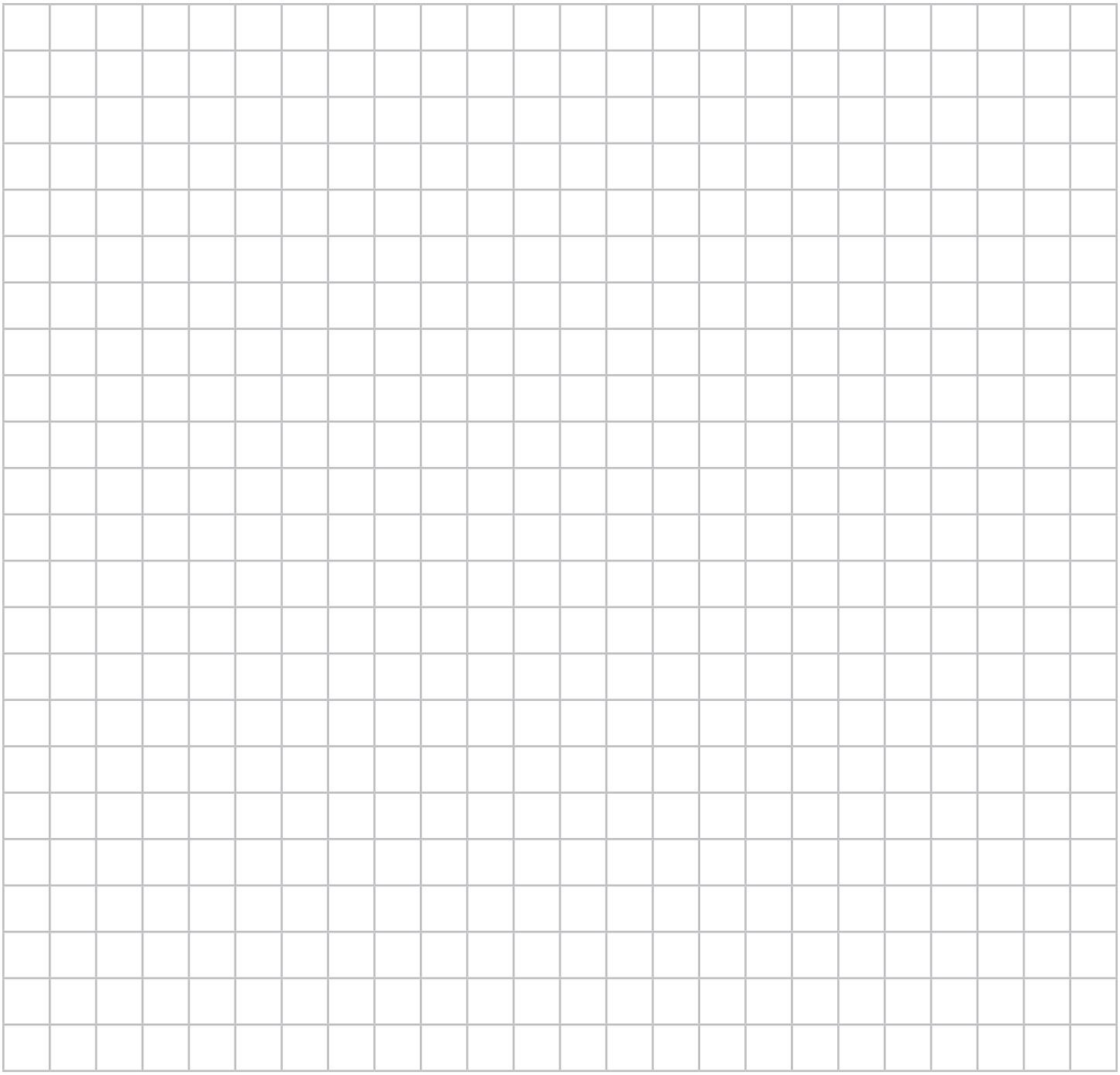
- enable people to get around without having to drive
- help reduce traffic congestion and pollution
- inspire the development of pedestrian-friendly streets
- increase exercise opportunities for people of all ages
- gather input about community infrastructure needs
- educate residents about street design elements that support safety
- encourage social interactions among neighbors
- give a boost to property values
- empower community leaders and residents to be the agents of needed change

The ***AARP Walk Audit Tool Kit*** is free and available for download or order.
Visit ***AARP.org/WalkAudit.***

D20381

Make a Map

- Use a mapping website to capture and print a bird's-eye-view image of the walk audit area or draw a simple map of the location in the space below.
- Label the streets and make note of any key features, such as stores, schools and (if they exist) sidewalks.
- Take photographs and/or video of the area so others can see the challenges and strengths of the audit location. Match and mark the images on the map.
- Indicate any other problem spots or areas of opportunity (e.g., a bus stop with no seating or shelter).



Who's Using the Street — and Why?

Community Name: _____

Location/Street Name(s): _____

Audit date: _____ **Start time:** _____ **AM | PM** **End time:** _____ **AM | PM**

Use hash marks (𝍸) for counting the number of people observed. (Yes, some will likely be counted more than once.)
Use your best guess to determine each person's age range and reason for walking.

WHO'S WALKING?	**NUMBER OF PEOPLE**
Young children (e.g. elementary school students)	
Teens	
Adults	
Older Adults	
HOW:	
While pushing a baby stroller and/or walking with a child or children	
While using a mobility aid (i.e., a wheelchair, cane, walker)	
While riding a bicycle, scooter, skateboard or other mobility device	
POSSIBLE REASONS:	
Traveling to/from school	
Waiting for and/or heading to public transit	
Commuting to/from work	
Shopping and/or getting something to eat	
Walking/running for fitness	
Walking a dog	
Walking to a park or outdoor public space	
Just out for a walk	
Other/unknown	

ALSO, WHO'S NOT WALKING? Do the observed pedestrians represent the demographic composition of the neighborhood? If not, which segments of the population appear to be missing? Why might that be the case? (Use a notebook or the back of this worksheet to record these answers and observations.)

Sidewalks, Streets and Crossings

SINGLE-LOCATION AUDIT

Community Name: _____

Location/Street Name(s): _____

Audit date: _____ **Start time:** _____ **AM | PM** **End time:** _____ **AM | PM**

Posted speed limit(s): _____ **Do the motorists appear to be obeying the speed limit(s)?** _____

Total number of vehicle lanes: _____ **The street is:** ☐ one-way | ☐ two-way

If more than one lane: Does the roadway have ☐ a median and/or ☐ a pedestrian island?

The street has:

☐ no sidewalk
☐ no sidewalk but needs one
☐ no sidewalk but needs two
☐ partial sidewalks
☐ a sidewalk on one side of the street
☐ sidewalks on both sides of the street

YES | NO | OTHER **Skip any statements that don't apply**

THE SIDEWALK:

☐ ☐ ☐ 1. Is separated from the street by a barrier or buffer (a curb, grass, landscaping)
☐ ☐ ☐ 2. Is surfaced with a material that is smooth and consistent (e.g., or asphalt rather than bricks)
☐ ☐ ☐ 3. Is in good condition, without cracks or raised sections
☐ ☐ ☐ 4. Is free of obstacles (hydrants, utility poles, overgrown landscaping, trash receptacles)
☐ ☐ ☐ 5. Is free of interruptions from driveways (such as to/from homes, parking lots, etc.)
☐ ☐ ☐ 6. Is continuous (no segments are missing) and complete (it doesn't randomly end)
☐ ☐ ☐ 7. Is wide enough (at least 5 feet) for two people to walk side by side or pass one another
☐ ☐ ☐ 8. Has tactile ground surface indicators so pedestrians with vision impairment will know when the path is ending
☐ ☐ ☐ 9. Has a curb cut ramp (for use by wheelchairs, baby strollers, etc.) wherever it is interrupted by a street

THE STREET:

☐ ☐ ☐ 1. Has traffic lights and/or stop signs at intersections and crossings
☐ ☐ ☐ 2. The traffic lights and/or stop signs are clearly visible to drivers and pedestrians
☐ ☐ ☐ 3. Has crosswalks
☐ ☐ ☐ 4. The crosswalks are well marked and clearly visible to drivers and pedestrians
☐ ☐ ☐ 5. Has signage alerting drivers to the presence of pedestrians
☐ ☐ ☐ 6. Has a designated bicycle lane
☐ ☐ ☐ 7. Has a pedestrian crossing signal, also called a beacon (if yes, complete the next section)

THE PEDESTRIAN CROSSING SIGNALS:

☐ ☐ ☐ 1. Are working
☐ ☐ ☐ 2. Have a "push-to-walk" mechanism, meaning pedestrians can stop vehicle traffic
☐ ☐ ☐ 3. Have audible prompts for people with vision impairment
☐ ☐ ☐ 4. Are placed in appropriate locations (if not, make note of where more are needed)
☐ ☐ ☐ 5. Provide enough time to cross (indicate the amount of time: _____ minutes _____ seconds)
☐ ☐ ☐ 6. Provide suitable opportunities to cross (indicate the amount of time pedestrians must wait for a traffic light change in order to cross: _____ minutes _____ seconds)

Consider using the "Build a Better Block" worksheet as well.

Walkability of the area, based on the findings above: ☐ **Great** ☐ **Acceptable** ☐ **Mixed** ☐ **Poor**

Sidewalks, Streets and Crossings WALKING AUDIT

Community Name: _____

Starting location: _____ **Ending location:** _____

Route: _____

Audit date: _____ **Start time:** _____ **AM | PM** **End time:** _____ **AM | PM**

Posted speed limit(s): _____ **Do the motorists appear to be obeying the speed limit(s)?** _____

Total number of vehicle lanes: _____ **The street is:** ☐ one-way | ☐ two-way

If more than one lane: Does the roadway have ☐ a median and/or ☐ a pedestrian island?

The street has:
☐ no sidewalk ☐ no sidewalk but needs one ☐ no sidewalk but needs two
☐ partial sidewalks ☐ a sidewalk on one side of the street ☐ sidewalks on both sides of the street

YES | NO | OTHER **Skip any statements that don't apply**

THE SIDEWALK:

☐ ☐ ☐ 1. Is separated from the street by a barrier or buffer (a curb, grass, landscaping)
☐ ☐ ☐ 2. Is surfaced with a material that is smooth and consistent (e.g., concrete or asphalt rather than bricks)
☐ ☐ ☐ 3. Is in good condition, without cracks or raised sections
☐ ☐ ☐ 4. Is free of obstacles (hydrants, utility poles, overgrown landscaping, trash receptacles)
☐ ☐ ☐ 5. Is free of interruptions from driveways (such as to/from homes, parking lots, etc.)
☐ ☐ ☐ 6. Is continuous (no segments are missing) and complete (it doesn't randomly end)
☐ ☐ ☐ 7. Is wide enough (at least 5 feet) for two people to walk side by side or pass one another
☐ ☐ ☐ 8. Has tactile ground surface indicators so pedestrians with vision impairment will know when the path is ending
☐ ☐ ☐ 9. Has a curb cut ramp (for use by wheelchairs, baby strollers, etc.) wherever it is interrupted by a street

THE STREET:

☐ ☐ ☐ 1. Has traffic lights and/or stop signs at intersections and crossings
☐ ☐ ☐ 2. The traffic lights and/or stop signs are clearly visible to drivers and pedestrians
☐ ☐ ☐ 3. Has crosswalks
☐ ☐ ☐ 4. The crosswalks are well marked and clearly visible to drivers and pedestrians
☐ ☐ ☐ 5. Has signage alerting drivers to the presence of pedestrians
☐ ☐ ☐ 6. Has a designated bicycle lane
☐ ☐ ☐ 7. Has a pedestrian crossing signal, also called a beacon (if yes, complete the next section)

THE PEDESTRIAN CROSSING SIGNALS:

☐ ☐ ☐ 1. Are working
☐ ☐ ☐ 2. Have a "push-to-walk" mechanism, meaning pedestrians can stop the vehicle traffic
☐ ☐ ☐ 3. Have audible prompts for people with vision impairment
☐ ☐ ☐ 4. Are placed in appropriate locations (if not, make note of where more are needed)
☐ ☐ ☐ 5. Provide enough time to cross (indicate the amount of time provided: _____ minutes _____ seconds)
☐ ☐ ☐ 6. Provide suitable opportunities to cross (indicate the amount of time pedestrians must wait for a traffic light change in order to cross: _____ minutes _____ seconds)

Consider using the "Build a Better Block" worksheet as well.

Walkability of the area, based on the findings above: ☐ **Great** ☐ **Acceptable** ☐ **Mixed** ☐ **Poor**

Sidewalks

Community Name: _____

Location/Street Name(s): _____

Audit date: _____ **Start time:** _____ **AM | PM** **End time:** _____ **AM | PM**

If more than one lane: Does the roadway have ☐ a median and/or ☐ pedestrian island?

The street has:
☐ no sidewalk ☐ no sidewalk but needs one ☐ no sidewalk but needs two
☐ partial sidewalks ☐ a sidewalk on one side of the street ☐ sidewalks on both sides of the street

YES | NO | OTHER **Skip any statements that don't apply**

THE SIDEWALK:

☐ ☐ ☐ 1. Is separated from the street by a barrier or buffer (a curb, grass, landscaping)
☐ ☐ ☐ 2. Is surfaced with a material that is smooth and consistent (concrete or asphalt rather than bricks)
☐ ☐ ☐ 3. Is in good condition, without cracks or raised blocks
☐ ☐ ☐ 4. Is free of obstacles (hydrants, utility poles, overgrown landscaping, trash receptacles)
☐ ☐ ☐ 5. Is free of interruptions from driveways (such as to/from homes, parking lots, etc.)
☐ ☐ ☐ 6. Is continuous (no segments are missing) and complete (it doesn't randomly end)
☐ ☐ ☐ 7. Is wide enough (at least 5 feet) for two people to walk side by side or pass one another
☐ ☐ ☐ 8. Has tactile ground surface indicators so pedestrians with vision impairment will know when the path is ending
☐ ☐ ☐ 9. Has a curb cut ramp (for use by wheelchairs, baby strollers, etc.) wherever the sidewalk is interrupted by a street

NOTES OR OTHER OBSERVATIONS:

Walkability of the area, based on the findings above: ☐ **Great** ☐ **Acceptable** ☐ **Mixed** ☐ **Poor**

Visit *AARP.org/WalkAudit* to download, print, copy and/or share additional worksheets.

Streets and Crossings

Community Name: _____

Location/Street Name(s): _____

Audit date: _____ **Start time:** _____ **AM | PM** **End time:** _____ **AM | PM**

YES | NO | OTHER **Skip any statements that don't apply**

THE STREET:

☐ ☐ ☐ 1. Has traffic lights and/or stop signs at intersections and crossings
☐ ☐ ☐ 2. The traffic lights and/or stop signs are clearly visible to drivers and pedestrians
☐ ☐ ☐ 3. Has crosswalks
☐ ☐ ☐ 4. The crosswalks are well marked and clearly visible to drivers and pedestrians
☐ ☐ ☐ 5. Has signage alerting drivers to the presence of pedestrians
☐ ☐ ☐ 6. Has a designated bicycle lane
☐ ☐ ☐ 7. Has a pedestrian crossing signal, also called a beacon. (If yes, complete the next section.)

THE PEDESTRIAN CROSSING SIGNALS:

☐ ☐ ☐ 1. Are working
☐ ☐ ☐ 2. Have a push-to-walk functionality, meaning pedestrians can stop vehicle traffic
☐ ☐ ☐ 3. Have audible prompts for people with vision impairment
☐ ☐ ☐ 4. Are placed in appropriate locations (if not, make note of where more are needed)
☐ ☐ ☐ 5. Provide enough time to cross (indicate the amount of time provided: _____ minutes _____ seconds)
☐ ☐ ☐ 6. Provide suitable opportunities to cross (indicate the amount of time pedestrians must wait for a traffic light change in order to cross: _____ minutes _____ seconds)

NOTES OR OTHER OBSERVATIONS:

Walkability of the area, based on the findings above: ☐ **Great** ☐ **Acceptable** ☐ **Mixed** ☐ **Poor**

Street Safety and Appeal

Community Name: _____

Location/Street Name(s): _____

Audit date: _____ **Start time:** _____ **AM | PM** **End time:** _____ **AM | PM**

YES | NO | OTHER **Skip any statements that don't apply**

THE LOCATION HAS:

☐ ☐ ☐ 1. Places to sit
☐ ☐ ☐ 2. Shade trees
☐ ☐ ☐ 3. Grass, flowers and landscaping (if yes, is the greenery well maintained? _____)
☐ ☐ ☐ 4. Awnings, outdoor umbrellas or other shelter from rain and other weather conditions
☐ ☐ ☐ 5. Drinking fountains (if yes, are they working and clean? _____)
☐ ☐ ☐ 6. Public restrooms (if yes, are they clean and safe? _____)
☐ ☐ ☐ 7. A transit or bus shelter (if yes, is there seating? _____)
☐ ☐ ☐ 8. Trash receptacles (if yes, so they appear to be regularly emptied?)
☐ ☐ ☐ 9. Buildings and/or homes that are well-maintained
☐ ☐ ☐ 10. Informative signage
☐ ☐ ☐ 11. Well-placed signage
☐ ☐ ☐ 12. Streetscape features (art, signage, etc.) that are representative of/suitable for the community
☐ ☐ ☐ 13. Pedestrian-scaled lighting
☐ ☐ ☐ 14. A posted speed limit that seems suitable (if yes, does it appear that drivers are obeying the limit? _____)

IMPRESSIONS:

☐ ☐ ☐ 1. The location/street is a safe and appealing destination
☐ ☐ ☐ 2. The location/street is a safe and appealing travel route
☐ ☐ ☐ 3. The location/street appears to be safe for users of all ages, abilities, races, income levels, etc.
☐ ☐ ☐ 4. The location/street appears to be safe for pedestrians during both the day and night
☐ ☐ ☐ 5. Pedestrians appear to be safe from moving vehicles
☐ ☐ ☐ 6. Pedestrians appear to be safe from crime, harassment or similar threats

For "No" or "Other" answers, use the space below or on the back of this worksheet to briefly explain the response.

NOTES OR OTHER OBSERVATIONS:

_____

_____

_____

Walkability of the area, based on the findings above: ☐ **Great** ☐ **Acceptable** ☐ **Mixed** ☐ **Poor**

Public Transit Access

Community Name: _____

Location/Street Name(s): _____

Audit date: _____ **Start time:** _____ **AM | PM** **End time:** _____ **AM | PM**

YES | NO | OTHER **Skip any statements that don't apply**

IMPRESSIONS:

☐ ☐ ☐ 1. Pedestrians can safely access and depart from the transit stop or station

☐ ☐ ☐ 2. The transit stop or station is in a useful location

☐ ☐ ☐ 3. The transit stop or station protects waiting passengers from moving vehicles

☐ ☐ ☐ 4. The transit stop or station has suitable seating for waiting passengers

☐ ☐ ☐ 5. The transit stop or station features shelter from (check all that apply) ☐ rain ☐ sun ☐ heat ☐ cold ☐ wind

☐ ☐ ☐ 6. The transit stop or station is clean and well-maintained

☐ ☐ ☐ 7. The transit stop or station is well lighted

☐ ☐ ☐ 8. The transit stop or station has useful amenities (if yes, describe what they are)

☐ ☐ ☐ 9. The transit stop or station feels safe from crime

☐ ☐ ☐ 10. I would feel safe and comfortable waiting in this location

NOTES OR OTHER OBSERVATIONS:

Walkability of the area, based on the findings above: ☐ **Great** ☐ **Acceptable** ☐ **Mixed** ☐ **Poor**

Build a Better Block

Would the safe walkability and appeal of the walk audit location or route be improved by any of the following features? Select those you think could help:

- ☐ 1. Sidewalks (because there aren't any at all)
- ☐ 2. Sidewalk repairs
- ☐ 3. Wider sidewalks
- ☐ 4. Safety barriers between the sidewalk and street (landscaping, low walls, fencing, etc.)
- ☐ 5. Decorative sidewalk features (hanging flower baskets, planters)
- ☐ 6. Crosswalks (because there aren't any at all)
- ☐ 7. Raised crosswalks
- ☐ 8. Artistic crosswalks
- ☐ 9. Pedestrian "bulb-outs" at intersections or crossings
- ☐ 10. Pedestrian island(s)
- ☐ 11. Pedestrian-friendly lighting
- ☐ 12. One-way rather than two-way traffic
- ☐ 13. Outdoor seating and furnishings for public use (benches, tables, parklets, etc.)
- ☐ 14. Decorative and/or directional (also called "wayfinding") signage
- ☐ 15. Public art (sculpture, wall murals, banners)
- ☐ 16. More street-level/street-facing shops and businesses
- ☐ 17. Shelter from the elements (awnings, outdoor umbrellas, etc.)
- ☐ 18. Green space (such as a small park or "pocket park")
- ☐ 19. Street trees and landscaping
- ☐ 20. Improved landscape maintenance
- ☐ 21. Drinking fountains
- ☐ 22. Public restrooms (or, if already present, better maintenance)
- ☐ 23. Litter removal
- ☐ 24. Graffiti removal
- ☐ 25. Trash receptacles
- ☐ 26. Security features (cameras, call-boxes, etc.)
- ☐ 27. Management of off-leash dogs
- ☐ 28. Repair or removal of vacant or rundown buildings
- ☐ 29. On-street parking
- ☐ 30. Parking garage or structure

OTHER FEATURES:

Summary

Record the score totals for each observation type

- Record the total number of yes responses for the category
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This information — as well as all notes, photographs, videos and observation discussions — will be helpful for writing a short report and/or preparing a PowerPoint presentation.

Community Name: _____

Street/Intersection Observed: _____ **and** _____

Audit Date: _____

WORKSHEET	YES RESPONSES	NO RESPONSES	RATING Great | Acceptable | Mixed | Poor
Sidewalks, Streets and Crossings (Single-Location Audit)			
Sidewalks, Streets and Crossings (Walking Audit)			
Sidewalks			
Streets and Crossings			
Street Safety and Appeal			
Public Transit Access			

NOTES OR OTHER OBSERVATIONS:

_____

_____

_____

_____

_____

_____

_____

PRESIDENT JOE BIDEN

BUILDING A BETTER AMERICA

BUILD.GOV

FACT SHEET:
Competitive Infrastructure Funding Opportunities for Local Governments

The Bipartisan Infrastructure Law includes billions of dollars in competitive funding available to cities, towns, and municipalities across dozens of new and existing programs. As local governments begin to rebuild and reinvest in their communities, the Biden-Harris Administration stands ready to support local leaders as they combine funding streams, organize around their priorities, and build local support for long overdue infrastructure projects.

At the U.S. Conference of Mayors Winter Meeting, White House Infrastructure Implementation Coordinator and former New Orleans Mayor Mitch Landrieu will highlight 25 already available or soon-to-be-available sources of funding that local governments – particularly cities – can compete or apply for directly. Listed below is the latest available information on these key programs, including links to agency websites, application timing, and descriptions. Highlighted programs were selected based on their size and cross-cutting objectives. Using these available sources of funds, cities can begin to plan to build in-line with President Biden's economic, equity, climate and resilience, Made in America, and labor goals. The White House will also be releasing a comprehensive guidebook of all available funding from the Bipartisan Infrastructure Law in the coming weeks.

The federal government cannot build a better America alone – it needs state and local leadership to act as coordinators and help prepare communities to benefit from transformative infrastructure funding. Outlined below is a short overview of how cities and towns can begin to prepare, as well as contact information for relevant federal agencies. The support of mayors is essential to fulfilling the Biden-Harris Administration's goal of equitably rebuilding America on time, on task, and on budget. Building back better is going to be a multi-year effort, and we need the help of all local leaders to start building the foundation for years to come.

Program information as of January 20th, 2022

25 Competitive Infrastructure Funding Opportunities for Local Governments[1]

Transportation

1. Rebuilding American Infrastructure Sustainably and Equitably (RAISE) Grants– This existing competitive grant program at the Department of Transportation provides $7.5 billion with an additional $7.5 billion subject to Congressional approval in funding for road, rail, transit, and other surface transportation of local and/or regional significance. Selection criteria safety, sustainability, equity, economic competitiveness, mobility, and community connectivity. Applications will open in the first quarter of 2022.

2. Port Infrastructure Development Program Grants – This existing $2 billion Department of Transportation program funds investment in the modernization and expansion of U.S. ports to remove supply chain bottlenecks, ensure long-term competitiveness, resilience, and sustainability while reducing impacts to the environment and neighboring communities. The infrastructure law expanded the program's eligibilities to include projects that improve goods movement, as well as port electrification projects, idling reduction solutions, equipment charging infrastructure and related worker training initiatives. The Department of Transportation expects to open applications in February 2022.

3. Bus & Bus Facilities Competitive Grants – This existing $2 billion program at the Department of Transportation provides capital funding to replace, rehabilitate, purchase, or lease buses and bus related equipment and to rehabilitate, purchase, construct, or lease bus-related facilities – as well as capital funding for low or no emissions bus projects. Fiscal Year 2021 grant selections will be announced soon. Applications are expected to open for the Fiscal Year 2022 grant program in the first quarter of 2022.

4. National Infrastructure Project Assistance (also known as **"Megaprojects" or MEGA)**– This $5 billion competitive grant program supports multi-modal, multi-jurisdictional projects of regional or national significance. Communities are eligible to apply for funding to complete critical large projects that would otherwise be unachievable without assistance. Selection criteria for the program will be posted on the Department of Transportation website in February 2022.

5. Infrastructure for Rebuilding America (INFRA) Grants – This Department of Transportation program supports highway and rail projects of regional and economic significance. Applications will open in the first quarter of 2022. Learn more about how to apply here.

[1] Funding amounts includes programs' contract authority, advanced appropriations and mandatory appropriations. Funding subject to appropriations not included.

6. Safe Streets and Roads for All – This new $5 billion competitive grant program at the Department of Transportation will provide funding directly to and exclusively for local governments to support their efforts to advance "vision zero" plans and other complete street improvements to reduce crashes and fatalities, especially for cyclists and pedestrians. Applications are expected to open in May 2022.

7. Charging and Fueling Infrastructure Grants – In addition to the $5 billion formula program distributed to states, this $2.5 billion discretionary grant program at the Department of Transportation will fund the strategic deployment of publicly accessible electric vehicle charging infrastructure, as well as hydrogen, propane, and natural gas fueling infrastructure, along designated alternative fuel corridors and in communities. The Department is seeking comments on program design by January 28th here, and after January 28th here.

8. Clean School Bus Program – This new $5 billion competitive grant program at the Environmental Protection Agency (EPA) will provide funding to replace existing school buses with low- or zero-emission school buses. Applications for funding will be made available here later this spring.

9. Reconnecting Communities – The Bipartisan Infrastructure Law creates a first-ever $1 billion program at the Department of Transportation to reconnect communities divided by transportation infrastructure – particularly historically disadvantaged communities too often nearly destroyed or cut in half by a highway. This new competitive program will provide dedicated funding to state, local, metropolitan planning organizations, and tribal governments for planning, design, demolition, and reconstruction of street grids, parks, or other infrastructure to address these legacy impacts. Applications will open in the second quarter of 2022.

10. Rural Surface Transportation Grant - This new $2 billion competitive grant program at the Department of Transportation will improve and expand surface transportation infrastructure in rural areas, increasing connectivity, improving safety and reliability of the movement of people and freight, and generate regional economic growth. This amount includes specific set asides for small projects ($200 million), rural roadway lane departure improvements ($300 million), and the Appalachian Development Highway System ($500 million). Applications will open in the first quarter of 2022.

Climate, Energy & Environment

1. Building Resilient Infrastructure and Communities Program – This existing Federal Emergency Management Agency (FEMA) program will distribute $1 billion to support communities undertaking hazard mitigation projects to reduce the risks they face from disasters and other natural hazards. FY21 applications are open until January 28th, 2022 and hundreds of millions of dollars in funding remains available. Communities will apply as sub-applicants

under their states. Applications for FY22 are expected to open no later than September 30th, 2022.

2. Flood Mitigation Assistance – $3.5 billion from this existing FEMA program can be used for projects that reduce or eliminate the risk of repetitive flood damage to buildings insured by the National Flood Insurance Program. FY21 applications are open until January 28th, 2022. Communities will apply as sub-applicants under their states. Applications for FY22 are expected to open no later than September 30th, 2022.

3. Brownfields Remediation Program – This existing EPA program will provide $1.2 billion in grants and technical assistants to communities to assess and safely clean-up contaminated properties and offer job training programs. Communities are currently able to request funding for Targeted Brownfields Assessments through their regional EPA office. Additional competitive funding opportunities will be announced this spring.

4. Energy Efficiency and Conservation Block Grants – This Department of Energy block grant program will provide $550 million to states, local governments, and tribes for projects that reduce energy use, increase energy efficiency, and cut pollution. The first funding opportunity is expected for release in the Fall of 2022.

5. Grants for Energy Efficiency and Renewable Energy Improvements in Schools – This new Department of Energy Program will provide $500 million for local government education agencies and nonprofit partners to make energy efficiency, renewable energy, and clean vehicle upgrades and improvements at public schools. The opportunity to apply for funding is expected to be open in the Fall of 2022.

6. Energy Improvement in Rural or Remote Areas – This new Department of Energy program will provide $1 billion to entities in rural or remote areas (defined as cities, towns, or unincorporated areas with fewer than 10,000 inhabitants) to increase environmental protection from the impacts of energy use and improve resilience, reliability, safety, and availability of energy. Applications for funding are expected to be open in the Fall of 2022.

7. Grants for Energy Efficiency and Resilience Code Adoption – This Department of Energy program will provide $225 million to state energy agencies, in partnership with local building code agencies, codes and standards developers, utilities, and other entities, to enable sustained, cost-effective implementation of updated building energy codes to save customers money on their energy bills. Applications for funding are expected to be open by the end of 2022.

8. Regional Clean Hydrogen Hubs – This new Department of Energy program will provide $8 billion to support the development of at least four regional clean hydrogen hubs to improve clean hydrogen production, processing, delivery, storage, and end use. Applications for funding will open in the Summer of 2022.

9. Community Wildfire Defense Grant Program – This new $1 billion program at the Department of Agriculture will provide grants to communities at risk from wildfire to develop or revise their community wildfire protection plans and carry out projects described within those plans. It will include a mix of formula and competitive funds. Applications are expected to open early in 2023.

Broadband, Cyber, and Other Programs

1. ReConnect Program – This existing Department of Agriculture program will provide almost $2 billion in loans and grants for projects that provide broadband in rural areas. Applications will likely open in the 3rd quarter of 2022 (and towns in rural areas can apply to the current $1.15B in loans and grant funding, application deadline: February 22, 2022).

2. Middle Mile Grants Program – This new $1 billion program at the Department of Commerce provides grants for the construction, improvement or acquisition of middle mile broadband infrastructure. Applications will likely open during the second quarter of 2022.

3. State and Local Cybersecurity Grant Program – This new $1 billion program at the Department of Homeland Security makes available federal funds to state, local, and tribal governments to address cybersecurity risks and cybersecurity threats to information systems that they own or operate. Applications will likely open during the third quarter of 2022.

4. Smart Grid Investment Grant Program and Energy Sector Operational Support For Cyber Resilience Program – These two Department of Energy programs will provide $3 billion and $50 million, respectively, for electric utilities, including municipal and co-operative utilities, to modernize the electricity grid and increase resilience to cybersecurity threats. Applications for the Smart Grid program are expected to be open by the end of 2022, and applications for the Cyber Resilience program are expected to be open in the Summer of 2022.

5. Water & Groundwater Storage and Conveyance – This existing $1 billion program at the Department of Interior provides funding for water storage projects with capacity between 2,000 and 30,000 acre-feet – as well as projects

convey water to or from surface water or groundwater storage. The Department will hold its final stakeholder sessions this month and open applications later this spring.

6. Emergency Watershed Protection Program – This existing Department of Agriculture program will provide $300 million in technical and financial assistance to project sponsors for the design and construction of measures to help repair damages from a recent disaster. Applications open in February.

Other Opportunities

The law further significantly increased the amount of non-competitive formula funding that will flow first to states and then on to cities and local governments. Examples include funding available through Surface Transportation Block Grant sub-allocations for local governments, which now include significantly expanded the flexibilities for cities to determine how these funds can be used, as well as increases for states' Clean Water and Drinking Water State Revolving Funds. We encourage cities to reach out to the state or regional offices for various federal agencies, as well as state governments' infrastructure coordinators, to better understand forthcoming increases in formula funding.

Getting Ready to Apply for and Receive Federal Infrastructure Funds

Building a better America is a shared endeavor no one can do alone, and investing federal infrastructure dollars will require significant coordination between cities, states, Tribal governments, community stakeholders, and other key partners.

Earlier this month, the White House Infrastructure Implementation Coordinator sent a letter to Governors recommending a series of preparatory actions, including appointing infrastructure coordinators to manage the flow of funds to their states. Cities can also begin to coordinate across their departments and with metropolitan planning organizations (MPO) to:

1. Prioritize your community's capital needs and develop a project pipeline – taking time to think about the projects previously considered impossible due to lack of funding or regional coordination. This is a once-in-a-generation funding opportunity that will require bold, inclusive thinking.
2. Use the forthcoming Bipartisan Infrastructure Law Guidebook to identify federal funding streams to target.
3. Ensure all transit, railway, road, highway, and bridge projects are a part of your MPO's Transportation Improvement Plan.
4. Begin mapping sites for electric vehicle and alternative fuel charging stations.
5. Inventory and map the lead pipes in your city. Read through the Biden-Harris Lead Pipe and Paint Action Plan here for additional federal resources for this effort.
6. Work with your state's broadband agency to ensure your city or region's needs are appropriately mapped and inventoried.

7. Establish relationships with the regional offices for key federal agencies, who can help direct you to resources and provide technical assistance.

The American Rescue Plan also provided over $350 billion in critical resources to every state, county, city, and unit of local government to support their response to the COVID-19 public health emergency, including in making the investments needed to ensure a durable and equitable economic recovery. Cities should look to leverage those resources to help prepare for the transformative investments included in the Bipartisan Infrastructure Law including training the workers needed to build high quality infrastructure; hiring back the public sector workers needed to help manage potential federal investments; and getting a jump start on water, sewer, and broadband projects that could complement investments from the infrastructure law.

We recognize local capacity may be strained due to the pandemic, historic underinvestment, or just the challenges of day-to-day governance. A city's lack of capacity to apply for federal funds can create significant inequities – and for many communities, this will be their first time applying for funds from a suite of federal agencies. While many funding streams in the Bipartisan Infrastructure Law specifically set aside funds for disadvantaged communities, the White House Infrastructure Implementation Team will be engaging states, Tribal governments, territories, federal agencies, philanthropies, and others to leverage all available resources to quickly deliver the necessary technical assistance and capacity to underserved communities.

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