

Sign Research Foundation 2018-2019 Research Grant

Project Title: Sign Conspicuity and Legibility Guidelines

Problem Statement

One of the justifications to regulate signs is to promote public safety. Communities should be aware that the size and placement of signs affects the ability of motorists to see and understand them in time to make safe driving maneuvers. Research regarding sign conspicuity and legibility will help educate local officials so that they write sign regulations which promote traffic safety.

Research Product

The purpose of this project is to write a review article that summarizes Penn State's body of work and builds off of the 2014 NSREC presentation by Phil Garvey on illuminated vs non-illuminated conspicuity. The report should include examples such as a visual-acuity chart and should incorporate factors such as traffic speed, distance, sign height, cone of vision (the angle at which the sign disappears from view), etc. The general rule of thumb is to add 1 inch of letter height on a sign for every 40-50 feet of distance from the sign. This project should build on those findings. Compile key findings and summarize in simple, clear language and graphics within a 5-7 page paper based on literature review. Also create a downloadable PowerPoint to use at city planning meetings. Some resources that can be useful for this topic are:

- The Signage Sourcebook has an entire chapter called [Conspicuity and Readability Issues](#). This would benefit from an academic group and a "pretty" more simplified display of the math.
- There may also be some beneficial data within: Iowa State University's "Guidelines, identity and competing needs: The effect of signage design guidelines on uniformity and variety in urban retail business districts": <https://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=1842&context=etd>.
- Thorough literature review, including supplemental data from [Michigan State study](#) on the use of Visual Attention Software.

Target Audience

Urban Planners, Economic Development Officials, Downtown Managers, Business Owners

Budget

No more than \$5,000 unless new data is being requested.

PROPOSALS MUST INCLUDE THE FOLLOWING:

Lead Researcher:

Job Title:

University/Organization/Affiliation:

Address:

Email:

Phone:

Date:

Additional Researchers:

Scope of Research (describe your methodology, process, literature review):

Project Timeline with Deliverables

Task/Deliverable	Months													
	1 Sep	2 Oct	3 Nov	4 Dec	5 Jan	6 Feb	7 Mar	8 Apr	9 May	10 Jun	11 Jul	12 Aug	13 Sep	14 Oct
Start Date														
Task 1														
Task 2														
Task 3														
Task 4														
Task 5														
Task 6 Submission of draft report														
Task 7 Submission of final draft with the incorporation of edits from advisory council. This includes preparation of all presentation/webinar materials.														

Project Milestones and Payment

The following schedule identifies target dates for completions of task. If changes to the schedule are necessary, the lead researcher will contact SRF to discuss their impact.

Milestone	Due Date	Payment
Task 1 –		
Task 2 –		
Task 3 -		
Task 4 -		
Task 5 -		
Task 6 –		
Task 7 –		
Travel & Presentation at conference TBD		
TOTAL		