

Traffic Control Device (TCD) Consortium Pooled Fund Study (PFS) Charter

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1.0 Vision

To have effective uniform traffic control devices that meet national traffic operational needs and support safety and mobility on the Nation's roadways.

2.0 Mission

To assemble a consortium composed of State Departments of Transportation; additional interested entities or organizations; County, regional, and/or local transportation agencies; and FHWA program offices to meet national and state needs in support of the MUTCD. Activities of the consortium include:

- a) Identify human factors, safety, and operational issues related to TCDs;
- b) Select new and existing TCDs for evaluation;
- c) Initiate and monitor research projects;
- d) Disseminate results; and
- e) Facilitate collaboration and information sharing among members.

3.0 Scope

The following are examples of issues that have been addressed by the TCD PFS:

- Pavement markings for speed reduction
- Signing and marking for roundabouts and alternative intersections
- Pedestrian countdown signals
- Colors for Electronic Toll Collection (ETC) only tollbooth lanes
- Evaluation of new and existing symbol signs
- Alternative flashing patterns
- Diagrammatic and overhead arrow per lane guide signs
- Lane reduction signing and marking
- Sign conspicuity

Generic versions of potential devices may be tested as long as the device is not protected by a patent, trademark, or copyright, and that the traffic control device is in the public domain and may be used freely in traffic control device design and application without infringement or claim of trade secret misappropriation.

4.0 Membership

TCD PFS members include:

1. State Departments of Transportation;
2. Additional interested entities or organizations, such as ATSSA, with shared or similar mission and subject matter expertise (considered on a case-by-case basis);
3. County, regional, and/or local transportation agency; and
4. FHWA program offices.

There are two types of membership categories, as defined below.

Core member – An organization type from the list above that contributes financially to the TCD PFS at least once every three (3) consecutive federal fiscal years.

The financial contribution for one county and one city member is provided by FHWA. As such, FHWA appoints these members and technical representatives and may seek input when determining replacements. These members will be reevaluated every two years, but not necessarily changed.

Associate member – Associate members include:

1. Previous core member that has not financially contributed to the TCD PFS at least once in the previous three (3) consecutive federal fiscal years and has been approved by the Chair, Co-Chair, and Lead Agency Contact.
2. An organization type from the list above that plans to join the TCD PFS as a new core member and has provided written confirmation to the TCD PFS Lead Agency Contact (as defined in Section 5.0) of a plan to contribute to the TCD PFS within the next federal fiscal year.

As the TCD PFS continues to grow, membership caps may be put into place to ensure balanced representation by member type.

Each core and associate member will designate one or more individuals for the following roles.

Technical representative(s) – Active participant(s) in the TCD PFS who share information and speak on behalf of their entity, FHWA program office, or organization.

Financial representative(s) – Point-of-contact for commitments and contributions for their entity, FHWA program office, or organization.

5.0 TCD PFS Leadership

TCD PFS Leadership includes the Chair (and Chair-elect), Co-Chair, Lead Agency Contact, and Administrative Team.

Chair – Technical representative selected by core members who serves for a term of two years.

If a chair vacates the position before the completion of a term, the core members will vote to select a new chair in accordance with Section 7.0 of this charter.

Chair-elect – Technical representative selected by core members as the incoming chair who serves in this position for a transition period of 6 months while the chair finishes their term.

The chair and chair-elect will:

- Assist with planning the annual meeting,
- Assist with carrying out the project selection process,
- Provide representation of the TCD PFS, as needed, at meetings or events the individual normally attends, such as the AASHTO CTE meeting, and
- Participate in general planning and strategizing for the TCD PFS.

Co-Chair – A representative from the FHWA MUTCD Team who provides support to the Chair and the TCD PFS members, as needed.

Lead Agency Contact – A staff member of the FHWA Office of Safety and Operations Research and Development that manages the TCD PFS.

The Lead Agency Contact will:

- Manage the TCD PFS budget;
- Ensure appropriate support of the TCD PFS by utilizing and managing a support contractor;
- Coordinate with others within FHWA to ensure no duplication of research; and
- Manage and administer contracts for TCD PFS projects, including:
 - developing work statements and facilitating the award process of new projects, in coordination with appropriate FHWA subject matter experts (SMEs);
 - overseeing budget;
 - reviewing deliverables, in coordination with the project panel (defined in Section 8.2); and
 - overseeing the publication and dissemination of final documents.

Administrative Team – the Lead Agency Contact and support contractor(s).

In coordination with the TCD PFS members, the Administrative Team will:

- Facilitate identifying and prioritizing project needs;
- Process travel reimbursements;
- Coordinate and organize meetings and after actions;
- Update the TCD PFS website;
- Manage contact lists, email lists, and the TCD PFS Teams site;
- Facilitate and update the TCD PFS charter;
- Assist with outreach and recruitment of new members; and
- Write and post TCD PFS quarterly reports.

6.0 Meetings and Communication

All TCD PFS members (core and associate) will meet on a quarterly basis to participate in discussions to carry out PFS activities. These activities also include updates from member organizations through open roundtable discussions. The Annual Meeting is typically in-person and the three remaining meetings are typically virtual. Other individuals may attend quarterly meetings, including FHWA Division Office staff and other organizations interested in joining the TCD PFS.

When feasible, the Annual Meeting should be held in, or near, a state that is not a current TCD PFS Member. Prior to the meeting, the FHWA Lead Agency Contact will contact the state, in coordination with the associated FHWA Division Office, inviting them to attend the Annual Meeting.

Travel support is available for one technical representative from each core member for the in-person Annual Meeting. Agencies interested in joining the TCD PFS can receive travel support for one person to attend one in-person Annual Meeting. Travel costs cover transportation expenses and per diem, including lodging and meals and incidentals. These travel expenses will be paid out of the core member contributions.

Associate members will not receive funding for travel support, but are welcome to attend the Annual Meeting.

Additional core and associate member technical representatives *may* be allowed to attend an in-person Annual Meeting depending on space availability; however, the core and associate member must pay for the additional individual's travel. Interested agencies should be given priority for a space over multiple attendees being sent by a core or associate member.

Other TCD PFS member discussions and information exchanges will take place via the TCD PFS email group and Teams site.

7.0 Voting

Many decisions that the TCD PFS representatives make will be built on a consensus-building process regardless of whether a vote is required.

- Core Members are the only voting members. Each core member has equal voting privileges and one vote regardless of the number of technical representatives.
- Core members will have opportunities to vote at annual meetings, quarterly meetings, and via email outside of meetings. Therefore, the voting may take place in-person, virtually, and/or electronically. The members will determine, as a group, if a particular method of voting is preferred for a certain item below, such as voting in-person for charter amendments.
- 75% of core members must participate in a vote for it to be valid and 50% of core members must vote “yes” to move forward.

Voting will occur for the following.

Project selection – A multi-step process to establish project ideas, problem statements, and vote to move forward with a project or projects based on the amount of available funding, detailed in Section 8.0.

Selection of a Chair – The Administrative Team will gather nominations of core member representatives from other core member representatives, including the outgoing chair, after the current chair has served eighteen months of their term. Current or previous chair(s) may be included in the nominations and selected for additional terms. If there are two or less candidates, a single vote will occur. If there are three or more candidates, there will be a multi-stage voting process similar to the project selection process. When a new chair is selected, that individual will become the Chair-Elect.

Charter updates and revisions – The process of making changes to this document, detailed in Section 10.0.

8.0 Project Selection and Execution

This section describes the four stages of a project, as well as PFS members' roles for project selection, as illustrated in the figures below.

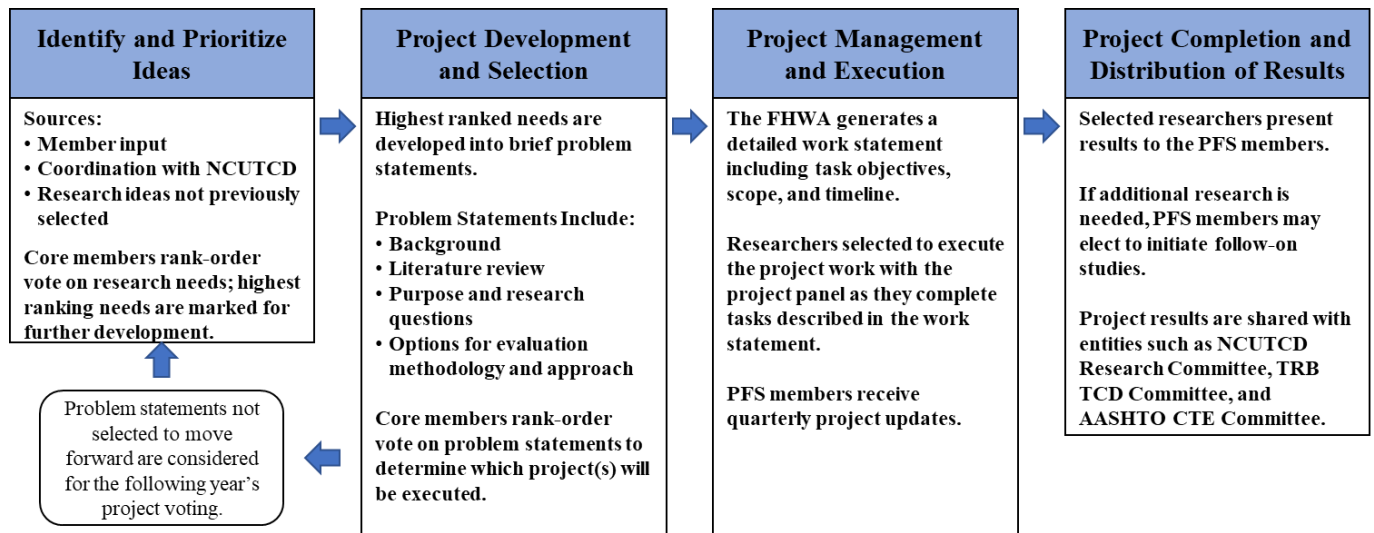


Figure 1. TCD PFS Project Selection Chart

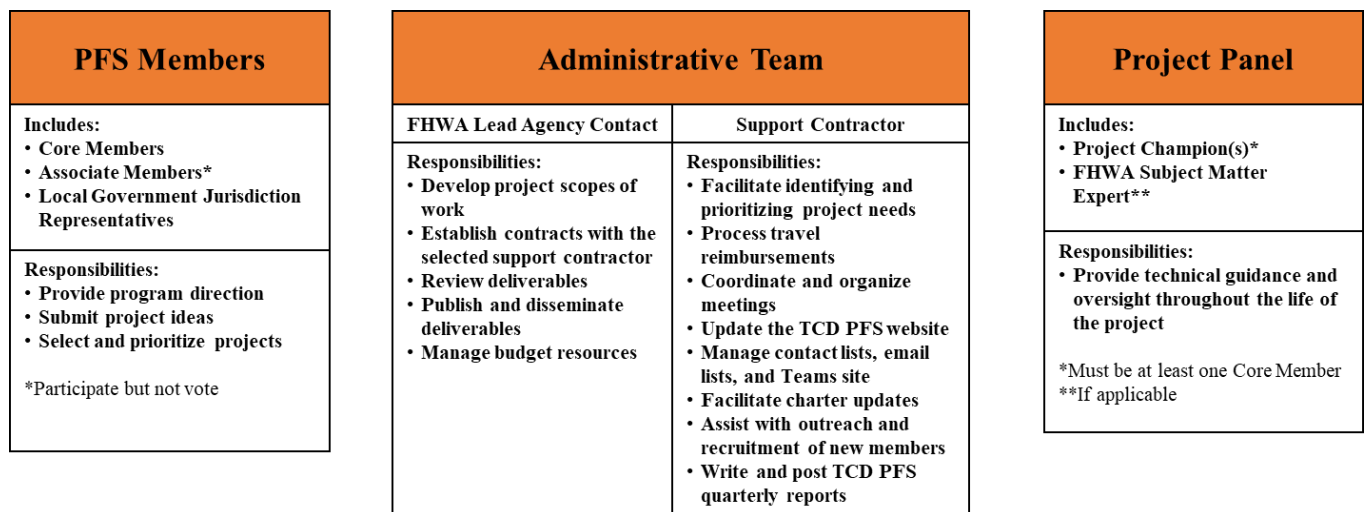


Figure 2. Project Selection Roles

8.1 Identify and Prioritize Ideas

Research ideas are identified in the three following ways throughout the year leading up to the Annual Meeting.

Member input: Members share issues, questions, and concerns from their entity, FHWA program office, or organization.

Coordination with NCUTCD: The Lead Agency Contact or a representative of the TCD PFS coordinates with the NCUTCD Research Committee Chair to obtain research ideas and shares the ideas with TCD PFS members.

Previous research ideas: Ideas that were identified by members in previous years, but not executed.

Using input from the above methods, the Administrative Team develops a list of high-level research ideas and provides it to TCD PFS members for their review prior to the Annual Meeting. During the Annual Meeting, members discuss the ideas and develop a prioritized list of research ideas prior to ranking. Through this process, members agree on potential research ideas that focus on the evaluation of new and existing TCDs that are of interest to the members,

employing a consistent process that addresses human factors and operations issues. Members will rank-order vote on the prioritized list of research ideas. The highest-ranking issues are marked for further development; the exact number will be based on available funding amounts and how many projects can be executed that year.

The Lead Agency Contact will select Project Champion(s) for the projects that are marked for further development.

Project Champion – Core or Associate Members who voluntarily support(s) a specific TCD PFS project. Priority will be given to the representative who submitted or brought up the idea.

There must be at least one Core Member technical representative on each Project Panel to serve as the champion.

8.2 Project Development and Selection

The research idea(s) with the most votes are designated for further evaluation and development. The Administrative Team will prepare brief problem statements for each project, in coordination with the project champion(s), to enable the core members to evaluate the feasibility of completing the projects with available resources and if there is a sufficient gap in the literature. The problem statements will include the following information,

- background,
- summary of existing literature,
- a list of desired research questions and/or purpose, and
- proposed evaluation methodology and approach(s).

The Administrative Team will present the details of the problem statement(s), amount of funding available, and any other relevant or related current research projects to the members, typically at a quarterly meeting. After reviewing the project statements and hearing the additional information, the core members will rank-order vote on the projects to determine the project(s) that will be executed. The Lead Agency Contact ultimately decides what project(s) will move forward based on available funding and redundancies with other FHWA research.

Especially during each project selection process, all parties must disclose any known potential conflicts of interest, including, but not limited to, organizational conflict of interests as defined in FAR Subpart 9.5 or any financial or other interest that conflicts with the service of an individual because it 1) could impair the individual's objectivity, or 2) could create an unfair advantage for any person or organization.

8.3 Project Management and Execution

The FHWA Lead Agency Contact will administer and oversee contracts for each project, including the project budget. The FHWA generates a detailed work statement based on the problem statement. Member feedback may be obtained to clarify the goals or scope of the project. In regard to the entity that executes the work, FHWA awards the projects through either

- A. the existing research teams and tools at the Turner-Fairbank Highway Research Center,
- or
- B. a competitive bid process.

The researchers selected to execute the work then complete the tasks in the work statement, including developing a project work plan which will be shared with the project panel. At this phase in the project life cycle, comments and adjustments to the work are limited to minor changes within the scope of work.

The Lead Agency Contact, project champion(s), and FHWA SME(s), if applicable, make up the project panels that are formed to guide and advise specific projects.

FHWA Subject Matter Expert – An FHWA staff member outside of the Administrative Team that provides input throughout the lifecycle of a specific TCD PFS project.

The project champion(s) and FHWA SME(s) will:

- Participate on the project panel to provide technical guidance/input throughout the life of the project;
- Participate in the problem statement development;
- Attend the project kickoff meeting;
- Review project deliverables (e.g., work plan, visualizations, report); and
- Participate in project meetings and discussion, as needed.

The TCD PFS members receive regular project updates through quarterly reports and quarterly meetings.

8.4 Project Completion and Distribution of Results

Upon completion of a project, the researchers selected present the final project results to the TCD PFS members.

The FHWA Lead Agency Contact or other TCD PFS representatives, such as the co-chair or chair, share project updates and results with external entities such as the NCUTCD, TRB TCD Committee, ATSSA Sign Committee, and AASHTO CTE Committee. These presentations can increase awareness of the TCD PFS and serve as a form of member recruitment.

The members of the FHWA MUTCD Team involved in the TCD PFS are aware of the results of the project. The FHWA MUTCD Team considers the results, along with other information, when proposing updates to the MUTCD, or when taking other actions such as issuing interim approvals for traffic control devices.

9.0 Funding Requirements

Funding will be derived from contributions received from core members. There is no minimum contribution needed to become a core member.

The TCD PFS will not accept funds from individual private industry companies for research evaluations.

10.0 Charter and Amendments

This Charter provides rules that govern: TCD PFS scope; membership; meetings and communication; voting; project selection and execution; and funding requirements.

Charter amendments can be initiated in one of three ways.

1. Members can propose amendments during quarterly meetings throughout the year.

2. The Administrative Team, chair, and co-chair will review the charter once a year. If this review brings to light a difference between the charter and current practices, the administrative team will bring this to the attention of the members and coordinate with the core members for any needed amendments or conformance with the existing charter.
3. Amendments will also be considered as changes to current or new practices are identified or initiated.

Members will have an opportunity to review the draft, updated charter prior to discussion and voting. It is possible there will be multiple iterations of draft charters. The format and timing of proposed amendment(s) discussion and voting will be determined by the members.

Charter Addendum: Voting Procedures for Research Ideas

Effective August 28, 2025.

Applicability

This addendum supplements Section 8.1 (“Identify and Prioritize Ideas”) of the Charter. It clarifies and updates the voting method and process used to prioritize research ideas during the Annual Meeting. Where conflicts exist between this addendum and the original Charter language, this addendum shall take precedence.

Identify, Prioritize, and Vote on Research Ideas

The number and readiness of research ideas may vary each year. If there is an opportunity during the Annual Meeting, less-developed ideas may be discussed in small groups, breakout sessions, or informal input from the whole group during the meeting to further build out the research idea(s). These ideas may be included in the final list of project ideas for vote. During the Annual Meeting, the Administration Team will determine what ideas:

- are ready for voting that year,
- require further refinement,
- can be combined,
- or could be addressed by a State of the Practice Review or Literature Review.

Based on these determinations, the Administrative Team will develop a final list of research ideas. The Administrative Team will review this list with members, providing additional context, such as research perspectives or rationale for any ideas that were combined or removed from consideration for the current year. The technical representatives will then review the list and confirm they are comfortable with the final set of ideas.

As long as 75% of core members are present (in-person or virtually), voting will be conducted electronically during the Annual Meeting. Technical representatives will vote using a sequential, consensus-based approach (as described in the following paragraphs); using a ranked-choice format, prioritizing their top 5 research ideas in each voting round, rather than ranking the entire list.

During the initial round of voting, members rank their top 5 research ideas from the final list of project ideas. Top-ranked ideas with broad support will automatically advance for problem statement development and be removed from the list of project ideas.

If the number of top-ranked ideas with broad support from the initial round of voting is less than the number of problem statements being developed that year, the remaining project ideas that do not clearly advance in the initial round will be discussed as a group. Technical representatives will have an opportunity to share thoughts on the project ideas again and the Administrative Team can provide clarification, as needed.

After the discussion, the Administrative Team will conduct a second round of voting. Technical representatives will ranked-choice vote, again, selecting and ranking their top 5 ideas from the remaining pool (i.e., excluding those that advanced in the initial vote). Top-ranked ideas with broad support from the second vote will automatically advance for problem statement development.

- Additional rounds of discussion and voting will occur until the number of top-ranked project ideas matches the number of problem statements that will be developed that year.