GUIDEBOOK

This guidebook provides an overview of Ohio's Research Initiative for Locals (ORIL) program. It provides information on the development and operation of the program. Evaluation criteria utilized for the prioritization of research ideas and selection of researchers are detailed herein along with standard forms and submission instructions.

Sections included in the guidebook are as follows:
- ➢ History
- ➢ ORIL Board
- ➢ Technical Advisory Committees
- ➢ Program Execution
    - ➢ Phase 1: Idea Generation
    - ➢ Phase 2: Project Execution
    - ➢ Phase 3: Results Implementation
    - ➢ Phase 4: Program Assessment

Forms
- ORIL Research Idea Form
- ORIL Request for Proposals (RFP)
- ORIL Proposal Formatting & Submission Guidelines
- ORIL Proposal Review Form

Referenced Documents
- ORIL Board Standard Operating Procedures
- ORIL Strategic Research Plan
- ORIL Annual Calendar
- ORIL Research Idea Evaluation & Prioritization Criteria
- 2011 ODOT Peer Exchange Final Report
- ODOT Contract Templates (used for ORIL projects)
- ODOT RD&T^2 Manual of Procedures – Chapter 5

HISTORY

In September 2011, the Ohio Department of Transportation (ODOT)'s Research Section, in collaboration with the Ohio Local Technical Assistance Program (LTAP), set out to create a method for Ohio's locals to participate and benefit from transportation research. A peer exchange was conducted in which representative s from established and successful local-focused research programs from Iowa and Minnesota were invited to share their experiences and best practices. Additional participants in the exchange expressing their support for this concept included the Federal Highway Administration Ohio Division Office and the County Engineers Association of Ohio. From this event, a model was drafted for a local research program in Ohio. Approval to move forward with the program was provided by ODOT's Executive Leadership in July 2012.

Partnerships were formed between ODOT and the Ohio Township Association, Ohio Municipal League, and County Engineers Association of Ohio. A Board was established to oversee the development and administration of the program. The inaugural meeting of the ORIL Board occurred in February 2013.

To read the entire 2011 ODOT Peer Exchange Final Report, click here.

ORIL BOARD

The Board was established to oversee the development and administration of Ohio's local transportation research program. Specific roles and responsibilities of the Board include the following:
- o   Develop and maintain the program.
- o   Market the program.
- o   Establish strategic research focus areas.
- o   Conduct regional focus groups for project ideas.
- o   Select and recommend projects for funding.
- o   Establish Technical Advisory Committees (TAC) to oversee individual projects.
- o   Select researchers to conduct projects.
- o   Review progress of projects.
- o   Review and approve/deny all contract modification requests.
- o   Assess research results and implementation potential.

The Board conducts business in accordance with the adopted ORIL Board Standard Operating Procedures. Board members volunteer their time and expertise to the ORIL program. They are not reimbursed for their time or travel to meetings. In general, the Board meets four times a year: (1) strategy meeting, (2) idea prioritization and TAC establishment, (3) program review, and (4) researcher selection. Annually the Board elects a Chair to oversee its activities and establishes a calendar outlining key meetings and dates.

The Board consists of fifteen (15) voting members and three (3) support/non-voting members. The membership is diverse to ensure representation of all local entities within Ohio. A standard term of four (4) years is applied to all members, with the exception of representatives from academia who are limited to two (2) years. For the inaugural Board, organizations with four representatives were provided a staggered term, allowing for two of their members to serve for two years. This was done to establish a rotation of membership to assist with knowledge retention and ensure ease of transition for future Board members.

ORIL Board Composition	
Organization Represented	**Members**
Voting Board Members	
County Engineers Association of Ohio	4
Ohio Municipal League	4
Ohio Township Association	1
Ohio Department of Transportation (ODOT)	4
Academia	2
Non-Voting Board Members	
Ohio LTAP ODOT Research Program FHWA Ohio Division Office	3

Board members representing the County Engineers Association of Ohio, Ohio Municipal League, and Ohio Township Association are appointed by their respective organization. Memorandums of Understanding (MOU) have been established between each of these organizations and ODOT. These MOUs outline the specific role and commitment of the organization to the ORIL program and provide guidance on the selection, term, responsibilities, and ability to propose projects of their respective Board members. In the event a Board member from one of these organizations is unable to perform their duties or fulfill their term, upon request by the Board, the organization will provide a suitable replacement to satisfy the remaining term of that representative. Board members from these organizations must recuse themselves from voting on the awarding of projects that include any entity (e.g.: university, consulting firm, etc.) which they are in active employment status.

Board members representing ODOT are appointed by ODOT Executive Leadership or their designee. ODOT's Research Section coordinates an open solicitation for ODOT staff to submit applications for consideration. In the event an ODOT Board members is unable to perform their duties or fulfill their term, upon request by the Board, ODOT Executive Leadership or their designee will provide a suitable replacement to satisfy the remaining term of that representative. .

Board members representing academia are selected by the seated Board members during their strategy meeting. An open solicitation for applications is coordinated by ODOT's Research Section to seek candidates from Ohio-based universities. In the event an academic Board member is unable to perform their duties or fulfill their term, upon request by the Board, ODOT's Research Section will solicit for replacement candidates. The seated Board members will select a suitable replacement from the applications received to satisfy the remaining term of the departing academic representative. The voting for this selection may occur via the most expeditious method available (e.g.: email) and does not have to wait for Board meeting to occur. While serving on the Board, academia members are not permitted to submit proposals for advertised/posted research projects overseen by the Board. However, this does not exclude others from the academics' institutions from submitting proposals. Academic members must recuse themselves from voting on the awarding of projects that include their institution of employment and the selection of academic Board representatives if they are seeking reappointment or another individual from their institution of employment has applied. Academics who are conducting active projects sponsored by ORIL cannot submit applications to join the ORIL Board until their projects are completed. ODOT has established MOUs between the individual academic representatives outlining their specific role and commitment in the ORIL program.

To learn more about the current Board members, visit the ORIL website (www.dot.state.oh.us/groups/oril/board/Pages/default.aspx).

Technical Advisory Committee

A Technical Advisory Committee (TAC) is a group of technical experts who provide oversight and direction on a research project. TACs are established by the Board after an idea has been selected for project development.

In general, TACs will be comprised of: (1) the submitter of the idea, (2) an ORIL Board member, and (3) an ODOT staff member with experience in the subject matter. There is no limit on how many individuals can serve on a TAC or on how many TACs to which one person may belong.

The responsibilities of a TAC include:
- Developing the idea into a Request for Proposal (RFP).
- Reviewing proposals and providing recommendations for researcher selection.
- Monitoring project progress.
- Providing technical advice and guidance to researchers.
- Assisting in project related activities (as appropriate).
- Participating in project meetings.
- Reviewing and commenting on project reports.
- Reviewing and making recommendations on requests to modify contracts.
- Assessing the researcher's findings and recommendations.
- Marketing practice-ready research findings to colleagues.

TAC members volunteer their time and expertise to projects. They are not reimbursed for time or travel.

PROGRAM EXECUTION

In order to fullfill the mission and vision of the program, ORIL will function as its own transportation research program. This encompasses all aspects of program management: solicitation of research ideas, development of requests for proposals, selection of transportation research professionals to conduct contracted studies, oversight of research work, guidance in the form of technical direction [as necessary], and assessment of research results for implementation. These efforts will be led by the Board. ODOT's Research Section provides assistance to the Board in the development and management of the individual projects. ODOT's Research Section also serves as a contracting agent for the ORIL program.
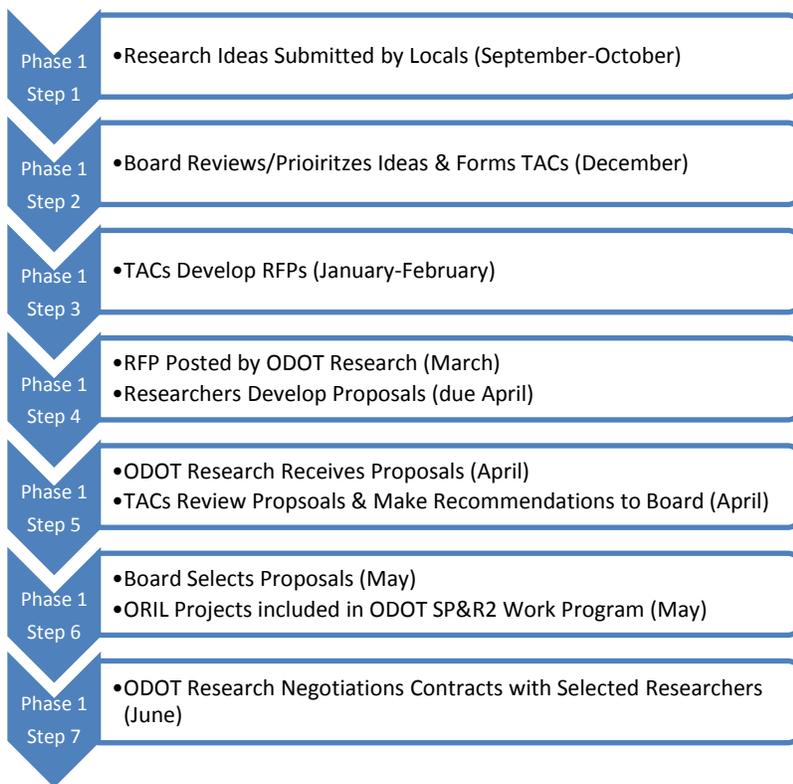
In general, the execution of the ORIL program consists of four phases:

| (1) Idea Generation | → | (2) Project Execution | → | (3) Results Implementation | → | (4) Program Assessment |
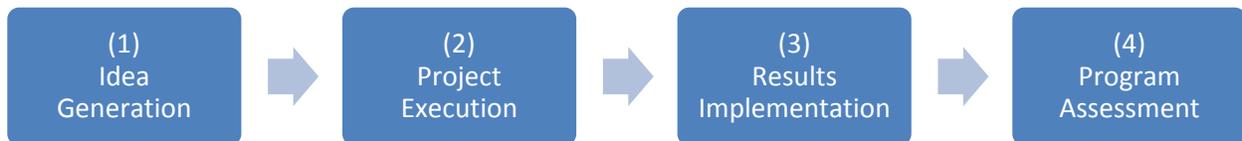
Phase 1: Idea Generation

To ensure the program is meeting the transportation research needs of Ohio's locals and funds are being utilized in a responsible manner, the Board will establish, review, and update a strategic research plan. This plan will outline the direction and focus of the program and serves as the basis for research idea generation.

The process of going from research idea to research project can be summarized in seven steps as outlined in the provided graphic.

Phase 1 Step 1
- Research Ideas Submitted by Locals (September-October)

Phase 1 Step 2
- Board Reviews/Prioiritzes Ideas & Forms TACs (December)

Phase 1 Step 3
- TACs Develop RFPs (January-February)

Phase 1 Step 4
- RFP Posted by ODOT Research (March)
- Researchers Develop Proposals (due April)

Phase 1 Step 5
- ODOT Research Receives Proposals (April)
- TACs Review Propsoals & Make Recommendations to Board (April)

Phase 1 Step 6
- Board Selects Proposals (May)
- ORIL Projects included in ODOT SP&R2 Work Program (May)

Phase 1 Step 7
- ODOT Research Negotiations Contracts with Selected Researchers (June)

Once a year, a formal solicitation for research ideas will be issued by the Board. Any representative from a local government organization (e.g.: city, township, county, village, MPO, RPO, etc.) may submit an idea for consideration. Ideas submitted by non-locals (e.g.: researchers, state, federal) will **not** be considered for the ORIL program. Ideas may be submitted at any time; however, the Board will consider ideas for project development/funding only once a year.

To submit an idea, an ORIL Research Idea Form must be provided. All ideas must relate to at least one of the focus areas identified in the current ORIL Strategic Research Plan. Special submission instructions posted on the ORIL website during the solicitation period must be followed in order to receive full consideration.

All properly submitted ideas will be considered by the Board for project development and potential funding. The Board has established criteria to evaluate and prioritize research ideas. Based on the availability of program funds, the Board will identify the ideas to move forward for full project development. For these ideas, the Board will establish Technical Advisory Committees (TAC) to assist in the development and management of the project. ORIL projects will be forwarded to ODOT's Research Section for inclusion in the *ODOT State Planning & Research Part 2 State Fiscal Year Work Program*. ORIL projects must be included, and approved, in this *Work Program* in order for ODOT to fulfill its role as ORIL's contracting agent.

With assistance from ODOT's Research Section, TACs will develop research ideas into Requests for Proposals (RFP). Literature searches may be performed as part of the RFP development process. ODOT's Research Section will coordinate the posting and processing of ORIL RFPs. Once the ORIL RFP has been posted, a "black-out" period will be in effect, which prohibits any individual from discussing posted RFPs with potential researchers. Instructions for submitting questions on posted RFPs will be

included in the posting. RFP questions and responses received during a posting will be made available on the RFP website for public viewing.

Researchers interested in conducting ORIL projects may submit proposals in response to the posted ORIL RFPs only. The Board will not consider unsolicited proposals from the research community. Unless otherwise instructed in the posted ORIL RFP, all proposals must be formatted and submitted in accordance with the established proposal guidelines. Failure to follow these guidelines or the instructions provided on the active posting will result in the submission being considered non-compliant and subject to rejection.

All properly submitted proposals will be forwarded to the appropriate TAC for evaluation.   TACs utilize a proposal review form to assist in this process. Recommendations from TACs will be forwarded to the Board, who will make the final recommendation concerning researcher selection. ODOT's Research Section will proceed with contract negotiations with the selected researcher once final approval of their *Work Program* has been obtained. Since proposals are incorporated into executed contracts, multiple revisions to a proposal may occur prior to a full contract being issued. This process will be coordinated by ODOT's Research Section with the appropriate TACs as necessary. Contracts utilized for ORIL projects will be standard research agreements utilized by ODOT's Research Section.

Phase 2: Project Execution
Once the contract is fully executed, work can begin. The execution of research work is a collaborative effort between the Board, ODOT's Research Section, TACs, and researchers. The Board provides
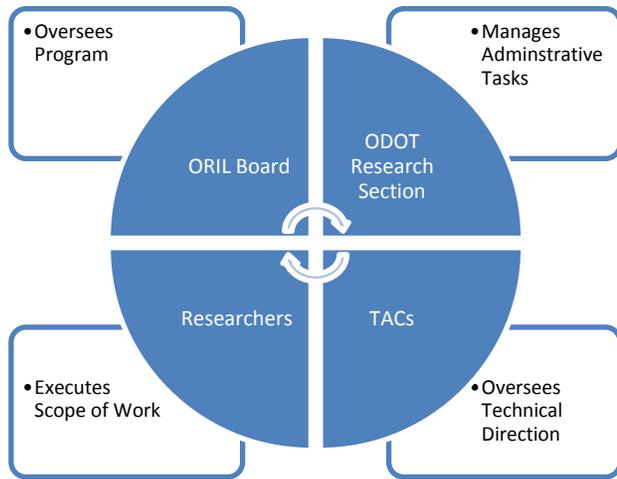
oversight to the entire program, general review of the progress of individual projects, in-depth evaluation of the implementation potential of the findings and recommendations of those projects. ODOT's Research Section provides administrative management of all ORIL projects in regards to contractual oversight, billing, and deliverables. In addition, ODOT's Research Section assists in coordination efforts between TACs, researchers, and the Board. TACs work closely with researchers to provide technical oversight and direction on specific projects. Researchers perform work and provide recommendations based on their findings in accordance with their respective contracts.

In general, project execution can be broken into three main steps: initiation, management, and close-out. All contracts are executed and administered by ODOT's Research Section on behalf of the ORIL Board. As a result, contracts are issued between ODOT and the selected research agency. The procedural and processing requirements attributed to ORIL contracts are described in Chapter 5 of the ODOT Research, Development and Technology Transfer (RD&T^2) Manual of Procedures. A general overview of the three main steps is provided below; for detailed information, please refer to Chapter 5 of the ODOT RD&T^2 Manual.

Step 1: Project Initiation
After a contract is executed, ODOT's Research Section will schedule a project start-up meeting with the researcher and TAC members. During start-up meetings, contractual and administrative procedures

are discussed; the scope of work, budget, and schedule are reviewed; criteria for determining the performance and success of the project is determined; and an assessment of the project's implementation potential is performed.

Step 2: Project Management
The management of a project occurs at several levels. ODOT's Research Section oversees the administrative and contractual aspects of all ORIL projects. TACs provide guidance on their specific projects in terms of the technical direction and review. Researchers conduct the tasks identified in the contracted proposals and present their findings as useful and useable recommendations. Each participant plays an integral part in the research process and is important to the overall success of the project.

Another key component to successful research is communication. Ensuring all involved parties are informed and up-to-date on activities alleviates problems and aids in transitioning research results into

practice-ready findings. Researchers and TACs are strongly encouraged to communicate with each other on a regular basis throughout the entire duration of the project. To assist in this communication, the submission of reports (quarterly, interim, draft, and final) and participation in meetings (status updates and review sessions) are required for all projects (as appropriate). These forms of communication are considered contractual deliverables, but should not be viewed as the only interactions between project participants.

As work progresses, it may become necessary to revise, or amend components of the project's scope of work, budget, or timeline. In the event this occurs, ODOT's Research Section will coordinate with the TAC and researcher as appropriate. While researchers are encouraged to discuss contractual matters with their TAC, only ODOT's Research Section can authorize/process a change to the proposal/contract. All changes that would result in a modification to the contract must be reviewed and approved by the Board before ODOT's Research Section will issue an addendum.
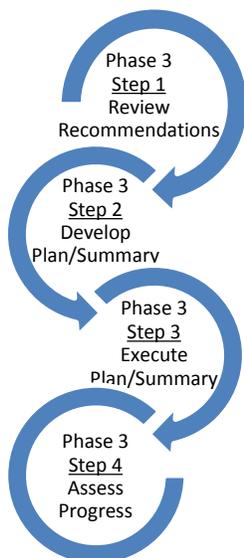
Step 3: Project Close-Out
Projects are considered to be completed once all of the tasks outlined in the final scope of work have been satisfied, all specified deliverables received, and the final invoice processed. Major indicators that a project has been completed include an approved/published final report with accompanying executive summary and a research results presentation. Both of these items assist in sharing the knowledge gained through the research and transitioning into the next phase: results implementation. To aid in this process, ODOT's Research Section will work closely with TACs and may coordinate a project close-out meeting to ensure there are no remaining issues with the project.

Phase 3: Results Implementation

Research is a valuable tool for providing solutions to problems and increasing overall knowledge. However, without proper follow though to ensure findings are appropriately put into practice, the actual benefits of research may not be realized. To ensure that the time and resources allocated to ORIL projects are worthwhile investments, a strong emphasis is placed on implementation of results.

This emphasis is in effect early in the process. Locals submitting ideas include information concerning the potential benefits conducting the research may provide and those impacted. TACs reinforce the emphasis on implementation during the development of RFPs. Researchers enhance the implementation discussion in their proposals. Throughout the project, the research results are revisited during various project meetings. Implementation of research findings can occur at any time; it does not have to wait until the project has concluded

Phase 3
Step 1
Review
Recommendations

Phase 3
Step 2
Develop
Plan/Summary

Phase 3
Step 3
Execute
Plan/Summary

Phase 3
Step 4
Assess
Progress

The process of results implementation can be summarized in four steps: (1) review recommendations, (2) develop a plan/summary, (3) execute the plan/summary, and (4) assess progress. Initially, ODOT's Research Section will coordinate with TACs to review the recommendations from the researcher and develop a recommendation on how to proceed. Based on the individual project and corresponding findings, the TACs recommendation could result in the development of an implementation plan or an implementation summary. As the names allude, an implementation plan requires additional action before full implementation can be realized whereas an implementation summary indicates further work of substance is either unnecessary or unwarranted. The issuance of a summary instead of a full plan is not an indication that the research did not produce useful and useable results.

Any local entity may choose to implement findings from research at their discretion. The process described below is the framework from which the Board will work to encourage the use of research results.

The Board will review the recommendations provided by the TAC to determine the need and extent of additional action at a program level. In general, the Board will consider two potential courses of action:

(1) Execute a specific plan to further prepare research findings for widespread use by local transportation agencies; or
(2) Focus efforts on technology transfer activities to inform local transportation agencies of the practice-ready research results or knowledge gained.

Once the Board has made its decision, the Board will develop and then execute a plan of action. Each plan will be unique to the research project that prompted the findings. The Board's plan of action will outline the specific who, what, when, where, and why of the activities that need to occur. Depending upon the specific situation, additional research may be necessary, which may result in the assembly of a TAC to develop a continuation/pilot project to investigate specific recommendations from the original study. Regardless of the outcome, all implementation plans developed by the Board will include a method to evaluate the efficiency/return/impact/use of the research findings.

Throughout the execution of the plan, the Board will assess the progress being made and, if necessary, make adjustments to ensure needs are being met. Likewise, the Board will ensure locals are kept informed of breakthroughs and findings that are ready for use.

Phase 4 – Program Assessment

Assessing the performance of individual projects and the program as a whole is an on-going activity. However, in an effort to ensure the program is meeting the needs of local transportation agencies in Ohio and safeguard the program's integrity, the Board will formally evaluate the program on an annual basis.

There are four main components to program assessment: (1) process and procedures, (2) strategic research plan, (3) individual projects, and (4) implementation activities.

The Board will review, discuss, and (as needed) make adjustments to its processes and evaluation criteria to ensure the mechanisms utilized to solicit and prioritize research ideas and select researchers to conduct projects are both efficient and effective. Any changes in these areas will be reflected in this guidebook and/or the Board's Standard Operating Procedures (as appropriate).

In coordination with the assessment of processes and criteria, the Board will also review and update the Strategic Research Plan. The evaluation of the Strategic Research Plan is necessary to ensure that the program is focused on meeting the current needs of Ohio's local transportation agencies. Any changes to the Strategic Research Plan will result in the issuance of an updated plan and prompt an immediate outreach to Ohio's locals to inform them of new developments and opportunities to utilize the ORIL program.

On a programmatic level, the Board will review the progress of all active ORIL projects. While TACs are primarily responsible for the progress of their assigned projects, the Board will evaluate, at a high-level, the general evolution of research projects to ensure the program is advancing towards meeting ORIL's established mission and vision. One of the goals of the ORIL program is to have a balanced portfolio of projects that incorporates multiple disciplines and encourages collaboration among local entities. This project-level assessment of the program will assist the Board in ensuring this goal is met.

In addition to developing, executing, and assess implementation plans for individual projects, the Board will assess the progress of implementation activities resulting from research activities. An on-going effort of the Board will be to devise methods for determining the impact research is having on the various local transportation agencies throughout Ohio. The purpose of these activities is to gauge the overall benefit Ohio's local experience from research. In return, the Board will strive to highlight the successes of the program as examples of research-in-action.