

INFRA AND BUILD BEST PRACTICE ANALYSIS



September 2019

TABLE OF CONTENTS

Executive Summary	4
Methodology	6
Review of Current PA Process	6
Research INFRA and BUILD Funding in Other States	6
Develop INFRA and BUILD Findings Report	6
U.S. Infrastructure for Rebuilding America (INFRA) Discretionary Grant Program.....	7
Program Description	7
Project Eligibility	7
Applicant Eligibility.....	8
Conditions	8
Pennsylvania’s Experience	8
Overview of Recent Awards and Applications.....	8
Current PennDOT INFRA Process.....	9
Better Utilizing Investments to Leverage Development (BUILD) Transportation Discretionary Grant Program.....	10
Program Description	10
Project Eligibility	10
Conditions	10
Pennsylvania’s Experience	11
Overview of Program and Recent Awards.....	11
Current PennDOT BUILD Application Process	11
Interview Summaries	13
Delaware Valley Regional Planning Commission (DVRPC).....	13
PennDOT District 2-0 (I-80/I-99 INFRA)	13
Centre Regional Planning Agency (CRPA) (I-80/I-99 INFRA)	14
PennDOT District 6-0	14
PennDOT Bureau of Rail Freight, Ports, and Waterways.....	15
Other States’ Experience.....	16
California	16
Caltrans Recommendations.....	16
Caltrans Grant Awards.....	16

Tennessee	17
TDOT Recommendations	17
TDOT Grant Awards	17
Illinois	18
IDOT Recommendations	18
IDOT Grant Awards	18
Washington	19
WSDOT Recommendations.....	19
WSDOT Grant Awards.....	19
New York	20
NYSDOT Recommendations.....	20
NYSDOT Grant Awards.....	20
Recommendations	21
Recommendation #1: Select Priority INFRA/BUILD Project(s) Early	21
Recommendation #2: Devote Appropriate Resources to Developing the Benefit–Cost Analysis.....	21
Recommendation #3: Coordinate Support and Outreach for State Applications	22
Recommendation #4: Coordinate Matching Funds	22
Recommendation #5: Conduct Pre-Application Workshops for Potential BUILD Sponsors.....	23
Recommendation #6: Submit Only One State Applications Per Grant Cycle	23
Recommendation #7: Participate in a USDOT Debriefing Conference after Every Application Round	23
Bibliography	24

EXECUTIVE SUMMARY

PennDOT engaged Gannett Fleming, Inc., and Delta Development Group, Inc., (project team) to conduct a best practice study of two federal grant programs: Infrastructure for Rebuilding America (INFRA) and Better Utilizing Investments to Leverage Development (BUILD). The goal of the study was to identify potential areas of improvement to make Pennsylvania’s applications more competitive.

The project team analyzed PennDOT’s current policies, procedures, and practices. Additionally, the project team interviewed representatives of PennDOT District Offices, Metropolitan Planning Organizations (MPOs), Rural Planning Organizations (RPOs), and local stakeholders with INFRA/BUILD grant experience. The following challenges were identified:

- The lengthy process for selecting a project for submission decreases the time available to develop the application.
- Developing an effective Benefit–Cost Analysis (BCA).
- Dedicating the manpower and resources to develop a strong application.
- Garnering local support and sponsors.
- Outreach to the congressional delegation and coordination with the U.S. Department of Transportation (USDOT).
- Effectively coordinating matching funds.

Next, the team conducted interviews with DOT staff from California, Illinois, New York, Washington, and Tennessee. Interviewees acknowledged many of the same challenges facing Pennsylvania. However, they did provide insight into approaches they have implemented to mitigate and address the challenges.

Based on the information and feedback collected from PennDOT officials, local planning partners, other state DOTs, and stakeholders involved with INFRA and BUILD applications, the project team developed the following recommendations for PennDOT’s consideration:

1. **Select priority INFRA/BUILD project(s) early** – PennDOT should maintain a list of prequalified projects that are eligible for federal funding to help simplify the selection process, thereby increasing the time available to develop grant applications.
2. **Devote appropriate resources to developing the Benefit–Cost Analysis** – Dedicate in-house or consultant personnel with experience in economic modeling and USDOT BCA guidelines. USDOT, other states, and local planning partners all emphasized the importance of a competitive BCA as a major component of a successful application.
3. **Coordinate support and outreach for state applications** – Applications must demonstrate broad support and a positive impact on the national transportation system. The state, planning partners, and local stakeholders must sell the merits of the project to decision-makers in Washington, D.C.
4. **Coordinate matching funds** – PennDOT should assist in coordinating funding sources for the required match beyond standard Transportation Improvement Program (TIP)-identified funding.

5. **Conduct pre-application workshops for potential BUILD sponsors** – Workshops would help ensure applications are well-developed and competitive, and would assist local applicants in preparing for success and understanding grant management requirements.
6. **Submit only one state application per grant cycle** – Focusing resources on developing one excellent application for each INFRA and BUILD cycle is likely to produce better results than pursuing multiple applications. This prevents Pennsylvania projects from competing against each other and allows unified state support and advocacy for the project as the Commonwealth's top priority.
7. **Participate in a USDOT debriefing conference after every application round** – Soliciting direct feedback from USDOT on an application's strengths and weaknesses is vital for improving future applications.

Implementing the above recommendations will help to address challenges identified at all phases of the INFRA/BUILD grant application process.

METHODOLOGY

In order to develop a comprehensive overview of Pennsylvania’s INFRA and BUILD program structure, challenges, and best practices, the project team used the following methodology, characterized by extensive outreach.

REVIEW OF CURRENT PA PROCESS

The first step in the project was to understand Pennsylvania’s current process for managing and assisting with INFRA and BUILD funding applications. The project team interviewed key PennDOT staff involved in the process.

The project team then reviewed details of submitted Pennsylvania INFRA and BUILD grant applications. Because INFRA and BUILD funding requests can be made directly by local and regional applicants to the USDOT, the project team interviewed selected applicants and awardees (at PennDOT’s direction) to specifically discuss their level of coordination with PennDOT during the application and award period.

RESEARCH INFRA AND BUILD FUNDING IN OTHER STATES

The project team conducted a comprehensive analysis and identified the most successful and competitive states for both INFRA and BUILD funding. This process included a review of project awards throughout the lifespan of both grant programs, including in their prior designations as the Fostering Advancements in Shipping and Transportation for the Long-Term Achievement of National Efficiencies (FASTLANE) and Transportation Investment Generating Economic Recovery (TIGER) grant programs. The project team selected competitive states for the INFRA and BUILD programs using available performance metrics for all states, which included similarity to Pennsylvania, funding size, and number of awards. The top five states identified were California, Illinois, Washington, New York, and Tennessee.

The project team conducted research and interviews with state DOT program applicants, managers, and other stakeholders from these five states who were directly involved in the grant application processes of both INFRA and BUILD. The interviews were focused on how the state DOTs were involved in supporting the development of successful INFRA and BUILD applications. The aspects of state DOT support that were reviewed included, but not were not limited to: promotion of the two funding programs, technical support with application development, and programs to assist with local funding match requirements.

DEVELOP INFRA AND BUILD FINDINGS REPORT

Based on the information and feedback collected from PennDOT officials, local planning partners, other state DOTs, and stakeholders involved with INFRA and BUILD applications, the project team identified best practices and developed recommendations for PennDOT. This report details the INFRA and BUILD programs and application processes, summarizes the research and feedback from interviews, and presents a set of recommendations based on the identified best practices.

U.S. INFRASTRUCTURE FOR REBUILDING AMERICA (INFRA) DISCRETIONARY GRANT PROGRAM

PROGRAM DESCRIPTION

USDOT allocates \$855–902.5 million each year to fund projects to rebuild America’s infrastructure. INFRA provides funding for nationally and regionally significant freight and highway projects that align with the program goals outlined below:

- Improve the safety, efficiency, and reliability of the movement of freight and people;
- Generate national or regional economic benefits and an increase in global economic competitiveness of the U.S.;
- Reduce highway congestion and bottlenecks;
- Improve connectivity between modes of freight transportation;
- Enhance the resiliency of critical highway infrastructure and help protect the environment;
- Improve roadways vital to national energy security; and
- Address the impact of population growth on the movement of people and freight.

The INFRA discretionary grant program evolved from the FASTLANE grant program. INFRA uses updated criteria to evaluate projects against national and regional economic vitality goals and to leverage additional non-federal funding. The INFRA grant program aims to increase the impact of these projects by leveraging federal grant funding and incentivizing project sponsors to pursue innovative strategies, including public-private partnerships.

USDOT provides awards under the INFRA program to both large and small projects. For large projects, awards must total a minimum of \$25 million while awards for small projects must total at least \$5 million. For each fiscal year of INFRA funding, 10 percent of available funds are reserved for small projects. The INFRA grant program maintains the statutory requirement of the original Fixing America’s Surface Transportation (FAST) Act of 2015 to award at least 25 percent of funding to rural projects.

INFRA grants may be used for up to 60 percent of future eligible project costs. Other federal funds may be used, but total federal assistance for a project receiving an INFRA grant may not exceed 80 percent of future eligible project costs.

PROJECT ELIGIBILITY

The following types of projects are eligible for INFRA funding:

- A highway freight project carried out on the National Highway Freight Network (23 U.S.C. 167).
- A highway or bridge project carried out on the National Highway System (NHS), including projects that add capacity on the Interstate Highway System to improve mobility, or projects in a national scenic area.
- A railway–highway grade crossing or grade separation project.
- A freight project that is:
 - An intermodal or rail project, or;
 - Within the boundaries of a public or private freight rail, water (including ports), or intermodal facility; a surface transportation infrastructure project necessary to facilitate direct

intermodal interchange, transfer, or access into or out of the facility; and needed to significantly improve freight movement on the National Highway Freight Network. For these projects federal funds can only support project elements that provide public benefits.

APPLICANT ELIGIBILITY

The following entities may apply for INFRA funding (serve as project sponsors):

- A state or group of states.
- An MPO that serves an urbanized area (as defined by the U.S. Census Bureau) with a population of more than 200,000 individuals.
- A unit of local government or group of local governments.
- A political subdivision of a state or local government.
- A special-purpose district or public authority with a transportation function, including a port authority.
- A federal land management agency that applies jointly with a state or group of states.
- A tribal government or a consortium of tribal governments.
- A multi-state or multi-jurisdictional group of public entities.

Multiple states or jurisdictions that submit a joint application should identify a lead applicant as the primary point of contact. Each applicant in a joint application must be an eligible applicant. Joint applications must include a description of the roles and responsibilities of each applicant and must be signed by each applicant.

CONDITIONS

INFRA grants may be used to fund a variety of components of an infrastructure project. However, USDOT strongly favors projects in which the local sponsor is significantly invested and is positioned to proceed rapidly to construction. Eligible INFRA project costs may include reconstruction, rehabilitation, acquisition of property (including land related to the project and improvements to the land), environmental mitigation, construction contingencies, equipment acquisition, and operational improvements directly related to system performance.

PENNSYLVANIA'S EXPERIENCE

OVERVIEW OF RECENT AWARDS AND APPLICATIONS

Over the lifespan of the INFRA/FASTLANE grant programs from fiscal years 2016 to 2018, two projects in Pennsylvania have been awarded grants, totaling \$60,610,410. In the 2017–2018 round, INFRA applications were submitted for the following Pennsylvania projects:

- Monaca Gateway Project
- I-80 and I-99 Interstate Connection
- Pennsylvania Turnpike Broadband Public-Private Partnership
- Packer Avenue Marine Terminal Capacity and Warehouse Relocation Project
- Southport Marine Terminal Development
- PPC Regional Waterways Infrastructure Program

Of these, the following projects were awarded:

- I-80 and I-99 Interstate Connection – \$35,110,410
- Packer Avenue Marine Terminal Capacity and Warehouse Relocation Project – \$25,500,000

CURRENT PENNDOT INFRA PROCESS

PennDOT has direct experience in the last three rounds of INFRA/FASTLANE grants. PennDOT's Center for Program Development and Management (Program Center) has taken the lead in identifying projects for potential INFRA applications. The Program Center requests potential projects from the District Offices. The District Offices work with local planning partners (MPOs/RPOs) to identify and recommend potential projects. The Program Center develops a list of prioritized projects and presents them to PennDOT executive staff. PennDOT executive staff select the priority project(s) that will be submitted for INFRA grants. After a project(s) is selected, the District Office or planning partner and local stakeholders develop the application with support from the Program Center. Local partners are responsible for gathering Letters of Support and conducting outreach to local, state, and federal officials. The Program Center submits the application on behalf of the Commonwealth.

RECENT EXAMPLES

In the 2016–2017 round, PennDOT submitted an INFRA grant application for a project on I-95/I-476. Letters of Support were provided, but limited outreach and advocacy were conducted after the initial application. The application was technically strong but was not awarded a grant. During the debriefing conference with USDOT, the project did receive positive feedback on the application and the strength of its BCA.

In the 2017–2018 round, PennDOT focused its efforts on the I-80/I-99 project in Centre County, an extensive project with a large budget. The project had been put on hold more than a decade ago, after planning had started, due to inadequate funding. The INFRA application focused on funding the project's first phase, which had completed the National Environmental Policy Act (NEPA) process. The application was developed and advocated through a team approach, with extensive involvement from local stakeholders, government officials in Centre County, PennDOT District 2-0, PennDOT's Program Center, and the PennDOT executive team. PennDOT engaged a consultant to develop the application—the same consultant who had developed the strong BCA for the I-95/I-476 application. The I-80/I-99 INFRA application was successful.

LESSONS LEARNED

PennDOT's primary challenges with INFRA grant application and administration are:

1. Identifying priority projects rapidly after a Notice of Funding Availability (NOFA) is released.
2. Managing the application process with tight development and submittal timelines.
3. Developing an effective BCA.
4. Dedicating the personnel and resources to develop a strong application.
5. Garnering local support and sponsors.
6. Outreach to congressional representatives and coordination with USDOT.
7. Effectively coordinating matching funds.

BETTER UTILIZING INVESTMENTS TO LEVERAGE DEVELOPMENT (BUILD) TRANSPORTATION DISCRETIONARY GRANT PROGRAM

PROGRAM DESCRIPTION

USDOT maintains the BUILD discretionary grant program to enable investment in road, rail, transit, and port projects that support national objectives. BUILD replaced the TIGER discretionary grants program but retains much of its framework. Through these two programs, Congress has dedicated nearly \$7.1 billion in 10 rounds of national infrastructure investments to fund projects that have a significant local or regional impact.

The Trump Administration increased the percentage of total funding awarded to projects in rural areas to 50 percent. Rural applicants are encouraged to highlight their needs in response to several of the evaluation criteria, including the deployment of rural broadband, as part of an eligible transportation project. BUILD encourages local governments to proactively raise new sources of revenue with a new criterion that evaluates local activities to generate additional non-federal revenue for transportation infrastructure.

BUILD applications are evaluated based on the following merit criteria: safety, economic competitiveness, quality of life, environmental protection, state of good repair, innovation, partnership, and additional non-federal revenue for infrastructure investments.

The federal share of project costs for projects that receive BUILD grant funds may not exceed 80 percent for a project located in an urban area. The U.S. Secretary of Transportation may elect to increase the federal share of costs above 80 percent for a project located in a rural area.

PROJECT ELIGIBILITY

Projects eligible for BUILD transportation discretionary grants are surface transportation capital projects including, but not limited to:

- Road or bridge projects eligible under Title 23, United States Code;
- Public transportation projects eligible under Chapter 53 of Title 49, United States Code;
- Passenger and freight rail transportation projects;
- Port infrastructure investments (including inland port infrastructure and land ports of entry);
and
- Intermodal projects.

Research, demonstration, or pilot projects are eligible only if they result in long-term, permanent surface transportation infrastructure that has independent utility as defined in the NOFA.

CONDITIONS

Applicants are strongly encouraged to submit applications only for eligible award amounts.

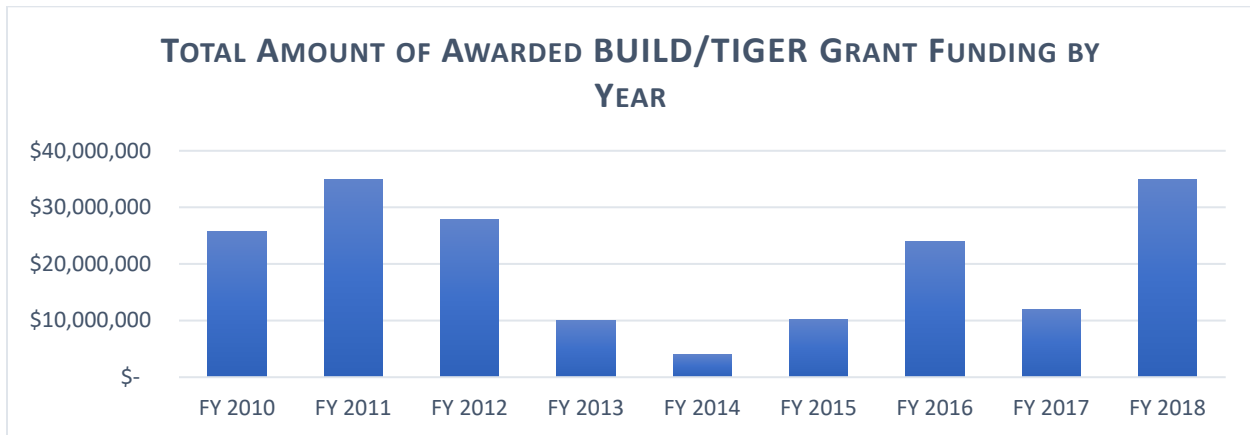
Award Maximum – \$25 million per project; \$90 million per state

Award Minimum – \$5 million

PENNSYLVANIA'S EXPERIENCE

OVERVIEW OF PROGRAM AND RECENT AWARDS

Over the lifespan of the BUILD/TIGER grant programs from federal fiscal years 2010 to 2018, 17 projects in Pennsylvania have been awarded, totaling \$184,004,331. The breakdown of funds awarded by year is provided in the chart below.



In the 2017–2018 round of BUILD grants, applications were submitted for the following Pennsylvania projects:

- Monaca Gateway Project
- Randall Avenue Bridge Replacement over Amtrak Northeast Rail Corridor
- 2018 City of Warren Multi-Modal Downtown Transportation Planning Project
- Clark Street and Pennsylvania Avenue Projects
- Valley Forge Interchange Slip Ramp
- Riverside Multimodal Revitalization Corridor
- Southport Marine Development
- PPC Regional Waterway Infrastructure Program
- Pocono Summit Economic Development District PA
- Longhouse and Allegheny Reservoir Outdoor Access Project PA
- Laurel Valley Transportation Improvement Project PA

The following projects were awarded:

- 30th Street Station Transformation – \$15,000,000
- Gateway 228 Capacity and Safety Improvements Project – \$20,000,000

CURRENT PENNDOT BUILD APPLICATION PROCESS

PennDOT has made the strategic decision not to submit BUILD applications directly. When requested, District Offices will provide assistance to local sponsors developing applications. PennDOT provides Letters of Support on a case-by-case basis. This policy has resulted in Pennsylvania's BUILD applications being entirely locally driven. However, if a local entity secures a BUILD grant for highway improvements,

PennDOT will work with the local entity and the Federal Highway Administration (FHWA) to administer the grant.

Implementation has been a challenge due to (1) local applicants being unaware of the federal funding compliance requirements and the process for advancing projects, and (2) the variation in federal standards depending on which agency the funds are directed through—FHWA, the Federal Transit Administration (FTA), or the Federal Railroad Administration (FRA).

INTERVIEW SUMMARIES

The following sections summarize interviews conducted with the planning partner and PennDOT District Offices.

DELAWARE VALLEY REGIONAL PLANNING COMMISSION (DVRPC)

- DVRPC engages in project implementation (utilizing five in-house engineers; running PennDOT programs), capital programming, and operations (working with other DOTs as partners).
- DVRPC serves as PennDOT's planner for District 6-0.
- The FASTLANE I-476 application was well planned.
- Having a point person at PennDOT is beneficial when developing INFRA/BUILD grant applications.
- PennDOT District 6-0 engaged a consultant to develop grant applications.
- Stakeholder meetings and collaboration among the county, District 6-0, and DVRPC for the I-476 project grant request were helpful.
- DVRPC does not develop INFRA or BUILD applications internally and often does not know which projects are pursuing funding until the applicants request Letters of Support.
- DVRPC does not have the manpower to offer technical assistance on grant applications. However, DVRPC does provide brief guidance sessions by phone and may review short sections of the application.
- Local applicants are unaware of the requirements to draw down federal funding.

PENNDOT DISTRICT 2-0 (I-80/I-99 INFRA)

- The INFRA application development was led by a consultant with support from District 2-0 and Centre County Regional Planning Commission.
- PennDOT District 2-0 provided an editorial/messaging strategy for developing INFRA applications.
- Having PennDOT support one INFRA project rather than three allowed more effective outreach.
- There was a significant local advocacy movement.
- PennDOT's Secretary Richards directed communication with decision-makers in Washington, D.C., and promoted the significance of the project, which made the difference.
- Having a diverse collection of Letters of Support is invaluable.
- A significant portion of project design, including right-of-way and utilities, was completed before the INFRA application began.
- The application process should begin as early as possible, allowing a few months to complete the application and gather support.
- The application benefited from having a thorough BCA.
- The grant application benefitted from the confluence of exceptional effort by PennDOT, the consultant, and local advocates.
- Federal funds (grants in particular) have a lot of strings attached, so applicants need to be aware of requirements when applying.

CENTRE REGIONAL PLANNING AGENCY (CRPA) (I-80/I-99 INFRA)

- CRPA participated in the project kick-off meeting and provide historical context for the project.
- CRPA reviewed and edited portions of the application narrative.
- CRPA's main role was to obtain Letters of Support.
 - CRPA focused on municipalities; counties; colleges and local school districts; councils of government; and local, state, and federal elected officials
 - CRPA partnered with the Chamber to identify potential private sector Letters of Support.
- The MPO moved and committed TIP funding to improve the road between the two interchanges.
- The portion of the project funded by INFRA was 100 percent designed prior to the application and the right-of-way had been acquired.
- Lesson learned:
 - Start gathering Letters of Support earlier—CRPA underestimated the time and effort required.
 - Improve engagement of private entities/stakeholders (e.g., trucking companies and healthcare providers).
 - More time is needed to develop the applications. There was less than two months to develop the applications.
- Keys to success:
 - PennDOT's leadership, including Secretary Richards' personal support, was the biggest factor in the application's success.
 - County and stakeholder support from outside of Centre County demonstrated the regional impact of the project.
 - Providing talking points to organizations encouraged them to develop individual Letters of Support instead of using form letters.
 - A press event held in D.C. with the Pennsylvania congressional delegation, PennDOT, local elected officials, and stakeholders enhanced project visibility and support at the federal level.
 - Engaging a consultant to develop the BCA resulted in a stronger submittal.

PENNDOT DISTRICT 6-0

- PennDOT District 6-0 is currently conducting a transportation planning study for the Packer Avenue Marine Terminal Capacity and Warehouse Project (an INFRA grant winner), determining feasibility, lifespan, challenges, etc.
- The District became involved after the grant was awarded.
- PennDOT District 6-0 involvement will include issuing a Highway Occupancy Permit (HOP) and conducting a technical review. The project is being managed by Park Avenue outside of the ECMS system.
- There is an administrative process in place to handle additional projects with partners; the resource impact from discretionary funding for an unanticipated project is minimal. The 30th Street Station Project (a BUILD grant winner) is a unique development project due to Amtrak's status as a stakeholder.

- Submitting applications for projects that are well underway is best, and it is important to effectively demonstrate financial need (which is not possible for a project that already has TIP funding).
- Challenges for federal discretionary funding:
 - Must have the project advanced through planning by the date of obligation.
 - There is an FHWA financially constrained best practice/requirement on funding and design.
 - PennDOT cannot design a project that cannot be funded for construction.
 - Fiscal constraint for MPOs is beneficial.
- FHWA would prefer that PennDOT oversees BUILD projects so that local sponsors do not have to do so. However, local sponsors has the ability to manage the project.
- Demonstrating a project's economic benefit is a more challenging prospect than advancing a soon-to-fail structure/infrastructure (the benefits of the former are less tangible than the risks of the latter).

PENNDOT BUREAU OF RAIL FREIGHT, PORTS, AND WATERWAYS

- Specializes in non-highway projects: rail/waterway conditions and coordination with Amtrak and the Keystone Corridor.
- Has experience working with FTA, FRA, and FHWA.
- Sends synopses of new NOFAs and Notices of Funding Opportunity (NOFOs) to potential applicants that PennDOT may support.
- A strong BCA is critical:
 - Using consultants with specialized experience can strengthen BCAs and augment public-sector manpower.
 - Often, BCAs show not only the benefits, but also reduction of potential risk—a BCA may demonstrate that if a project is not undertaken, then the costs associated with risks will increase.
 - Those conducting BCA analyses need to understand USDOT BCA guidelines.
 - Passenger rail projects can have broader benefits—a passenger rail award can also benefit a freight railroad.
- Letters of Support are important for a successful grant, especially a diverse set of letters.
- It is good practice to have projects planned in advance and ready for construction whenever funds become available.
- Schedule a debriefing session for unsuccessful grant applications.

OTHER STATES' EXPERIENCE

Interviews were conducted with the California, Illinois, Washington, New York, and Tennessee DOTs to review their process and experience with developing INFRA/BUILD applications. Interview summaries and recommendations from other states follow.

CALIFORNIA

The California Department of Transportation (Caltrans) submits three INFRA/ BUILD applications per cycle. Caltrans requests project suggestions from its 12 district offices. Each district coordinates with local agencies and submits recommended projects. Caltrans evaluates, ranks, and provides a recommended project list to management for review and selection. Caltrans noted that this selection process is time-consuming and reduces the time available for developing the application. Therefore, Caltrans is in the process of developing a statewide list of preapproved projects to expedite the selection process and allow for additional time to develop the application.

After a project is selected, the application is developed by the district office, or a local consultant/engineer already working on the project, with support from the central office. The BCA is developed by the district office. Caltrans' central office submits the application.

The district office and local agencies are responsible for outreach and building support. They meet with local officials and congressional offices to provide information, gain support, and solicit support letters.

Matching funds for INFRA and BUILD projects are provided from local sources (e.g., local gas tax revenue and private funds).

CALTRANS RECOMMENDATIONS

- Debrief after every application cycle.
- Select projects early to allow adequate time for application development.
- Focus on the story behind the technical improvement. Be succinct and clearly state what is the problem, how does this project fix the problem, and what are the regional/national benefits to fixing the problem.

CALTRANS GRANT AWARDS

INFRA: 3 awards – \$146,280,000 total funding

BUILD: 37 awards – \$493,807,860 total funding

TENNESSEE

Tennessee's four regional offices work with local municipalities to maintain a three-year investment plan. This plan is separate from the TIP and includes priority projects that are not fully funded. Therefore, when the Tennessee Department of Transportation (TDOT) shares an INFRA/BUILD NOFA with regional offices, they can quickly recommend appropriate projects from the investment plan. A shortlist is provided to senior management for review and selection. TDOT typically submits one INFRA application and three BUILD applications per cycle.

TDOT leads the application development with a group of subject matter experts (SME) from throughout the department. The SMEs are asked to assist based on the project technical approach and their expertise. TDOT develops BCAs for INFRA and engages consultants to develop BCAs for BUILD. Outreach and support letter responsibility is bifurcated. The chief of staff provides outreach and gathers Letters of Support from federal officials. The legislative director provides outreach and gathers Letters of Support from state representatives and senators. TDOT is responsible for coordinating local support. Additionally, TDOT communicates with FHWA district offices to ensure they are aware of which projects are being submitted and their benefits to the transportation network.

TDOT RECOMMENDATIONS

- Develop a shortlist and select a project quickly to allow enough time to develop a winning application.
- According to TDOT debriefing conferences, the BCA is crucial. Competitive projects should have a BCA of 1.5, but 2 or higher is better.

TDOT GRANT AWARDS

INFRA: 1 award – \$71,196,996 total funding

BUILD: 6 awards – \$73,339,000 total funding

ILLINOIS

When an INFRA/BUILD NOFA is released, the Illinois Department of Transportation (IDOT) notifies its nine districts to develop a list of eligible projects. The districts maintain a list of potential projects that would qualify for federal funds and use the lists to submit potential projects to IDOT's central office. IDOT selects one project to submit in each round.

On-call consultants for the district offices draft the INFRA/BUILD grant applications and complete the BCA. The district offices conduct outreach to local and federal officials. Additionally, they inform the FHWA division office of the project that will be submitted and its benefits to the transportation system. Recent applications have focused on IDOT's CREATE program, which has 70 identified projects. CREATE is a partnership between the USDOT, State of Illinois, Cook County, City of Chicago, Metra, Amtrak, and the nation's freight railroads. CREATE will invest billions in critically needed improvements to increase the efficiency of the region's passenger and freight rail infrastructure and enhance the quality of life for Chicago-area residents. Additionally, for INFRA projects, IDOT has selected freight projects and leveraged funding from private rail companies to assist with matching requirements.

IDOT notifies municipalities of NOFOs by memo. The state avoids providing Letters of Support to locally submitted applications unless IDOT was involved with the project prior to the application phase. In the case of local projects that received prior state funding, IDOT may provide a letter saying that it helped to fund a portion of the project.

IDOT RECOMMENDATIONS

- Prioritize one project per grant cycle.
- Only provide Letters of Support for priority projects.
- Communicate with the congressional delegation and the FHWA district office.
- Maintain a list of projects with NEPA requirements completed.

IDOT GRANT AWARDS

INFRA: 1 award – \$132,034,680 total funding

BUILD: 19 awards – \$356,993,327 total funding

WASHINGTON

The Washington State Department of Transportation (WSDOT) provides the INFRA/BUILD NOFA to planning partners and solicits project ideas for grant applications. WSDOT regional offices rate projects based on NOFA criteria and provide a list to the central office. WSDOT vets and ranks projects, and then provides a list to the executive leadership team for final selection. WSDOT notes that this selection process is time-consuming and does not always leave adequate time to develop the grant application. The state submits one INFRA application and three BUILD applications per cycle.

Project applications are developed by regional offices with support by WSDOT's central office. WSDOT economists develop the BCA for applications unless there is already a qualified consultant working on the project. The state's Government Liaison Office provides Letters of Support and solicits support letters from local partners and their congressional delegation.

WSDOT provides matching funds for state applications and provides funds for local projects if they align with the state's plans and interests. State matching funds are allocated in advance of a project's application. Recently, the Washington State Legislature has directly funded transportation projects through budget appropriations. The state's ability to fully fund these projects has provided Washington with additional toll credits, which can be used as match for INFRA/BUILD applications.

WSDOT always debriefs unsuccessful applications with USDOT.

WSDOT RECOMMENDATIONS

- Applications must have a strong BCA that is defensible.
- Select priority projects as soon as possible. Potentially develop a shortlist of pre-approved projects.

WSDOT GRANT AWARDS

INFRA: 3 awards – \$59,900,000 total funding

BUILD: 19 awards – \$268,099,327 total funding

NEW YORK

The New York State Department of Transportation (NYSDOT) requests potential projects from its 11 regional offices. The planning and program managers of the regional offices work with local planning partners to identify and provide projects to NYSDOT's central office. NYSDOT ranks and provides recommended projects to its executive management team. The executive team, in coordination with the Governor's Office, selects priority projects to be submitted for INFRA/BUILD grants. NYSDOT submits one or two INFRA/BUILD grant applications per cycle on behalf of the state. NYSDOT's goal is to submit one application per cycle to avoid "competing against themselves." The Governor's Office manages Letters of Support and outreach to U.S. Congress members and USDOT.

The regional office prepares applications and engages consultants to develop BCAs. NYSDOT provides support, reviews, and submits the application. The state provides the match for state-submitted applications.

NYSDOT usually requests a debrief on its unsuccessful applications. During debriefs, USDOT has commented favorably on the quality of New York's applications even though they were not selected in that particular year. The feedback encouraged NYSDOT to submit the same project in subsequent years until it was awarded a grant.

NYSDOT RECOMMENDATIONS

- Always request a debrief.
- It may be necessary to submit the same project in multiple rounds to be successful.
- Make sure to tell the story of the project. Identify the benefits and highlight why it is a worthy project.
- Allow as much time as possible to develop the application.

NYSDOT GRANT AWARDS

INFRA: 2 awards – \$42,672,590 total funding

BUILD: 21 awards – \$311,506,254 total funding

RECOMMENDATIONS

RECOMMENDATION #1: SELECT PRIORITY INFRA/BUILD PROJECT(S) EARLY

A universal challenge cited by the other state DOTs, district offices, and planning partners is the tight application development timeframe available after the state selects a project to submit for a grant—typically only three to five weeks to complete a very complicated and time-intensive application.

Other state DOTs, notably Tennessee and California, have shortened their selection process by maintaining a pre-vetted shortlist of projects in each district/region. When a NOFA is released, they review the project list against the NOFA criteria, select the best fit, and are able to more rapidly receive a decision from executive staff.

Specifically, PennDOT should maintain a list of prequalified projects that are eligible for federal funding. Not only would this accelerate the selection of projects for INFRA/BUILD, such a list would be useful whenever new federal funding opportunities arise. Additionally, PennDOT should conduct a preliminary BCA to assist in the selection process. When selecting projects for the list, consideration should be given to:

- Criteria in recent NOFAs.
- Projects with significant regional and national impact.
- Ability to leverage local funding and support.
- Ability to demonstrate a positive BCA.

RECOMMENDATION #2: DEVOTE APPROPRIATE RESOURCES TO DEVELOPING THE BENEFIT-COST ANALYSIS

The most emphasized piece of experience garnered from the interviews with other states and local planning partners was the significance of the BCA to a successful grant award. USDOT debriefing conferences have placed heavy emphasis on an application's BCA. For example, TDOT has received feedback that a competitive project should aim for a BCA of 1.5, but 2 or higher is better. A BCA is a systematic process for identifying, quantifying, and comparing expected benefits and costs of a potential infrastructure project. The information provided in applicants' BCAs helps USDOT ensure that funding is devoted to projects that provide substantial economic benefits to users and the nation as a whole, relative to the resources required to implement those projects. USDOT provides guidelines for developing an acceptable BCA.

PennDOT should devote appropriate resources to developing BCAs for state applications. BCAs are time-intensive, require economic analysis skills to develop, and must follow structured USDOT guidelines to be acceptable. Therefore, involving qualified in-house staff or consultants who are familiar with the USDOT guidelines will help to streamline the process and improve the overall likelihood of a successful application.

While all states emphasized the importance of the BCA and dedicating the appropriate time and resources to its development, they take different approaches to accomplishing this goal. California and Washington use in-house staff, Illinois and New York use consultants, and Tennessee has a mixed strategy, with

internal resources developing BCAs for INFRA applications and consultants developing BCAs for BUILD applications.

RECOMMENDATION #3: COORDINATE SUPPORT AND OUTREACH FOR STATE APPLICATIONS

Having a technically solid application is only one aspect of a winning effort. Applications must demonstrate broad support and a project's positive impact on the national transportation system. The state, planning partners, and local stakeholders must sell the merits of the project at the local, state, and federal levels. PennDOT should coordinate support efforts for the state's applications, including the following efforts:

- Work with the local sponsor and planning partners to garner local support from the private sector and local government.
- Inform the FHWA division office of what project(s) the state is applying for and the significance of the projects. While FHWA cannot provide assistance during the grant application process, it is a good practice to make them aware of what the state is doing and why.
- Work with the Governor's Office to coordinate congressional and USDOT outreach and advocacy. It is important to emphasize that this is the state's priority project and the impact it has on the national transportation system.

The New York, Tennessee, and Washington DOTs coordinate outreach and advocacy in support of their grant applications.

RECOMMENDATION #4: COORDINATE MATCHING FUNDS

Recently, USDOT has placed increased emphasis on "creative" sources for non-federal matching funds. INFRA grants may be used for up to 60 percent of future eligible project costs and total federal funds may not exceed 80 percent. BUILD grants can fund 80 percent of a project. Therefore, both programs require a minimum 20 percent non-federal match. All states interviewed and local planning partners stated that securing matching funds is a challenge in tight fiscal times. PennDOT should assist in coordinating funding sources beyond standard TIP-identified funding. Potential sources include:

- PennDOT Multimodal Transportation Fund (PennDOT MTF)
- Commonwealth Financing Authority Multimodal Transportation Fund (CFA MTF)
- Toll credits
- County local-use fee funds
- County impact fee funds
- Private funds:
 - Rail operators
 - Industries in the improvement area

Using such sources for matching funds requires advance planning and is difficult to accomplish after a NOFA is released. For example, the project may need to be divided into phases to apply for state competitive grants and demonstrate required matching funds. PennDOT should encourage local sponsors of priority projects to apply for state competitive grants and engage municipalities and businesses in the improvement area to identify funding commitments in advance of the INFRA/BUILD NOFA.

RECOMMENDATION #5: CONDUCT PRE-APPLICATION WORKSHOPS FOR POTENTIAL BUILD SPONSORS

PennDOT does not currently submit BUILD applications directly. However, if a local entity secures a BUILD grant for highway improvements, PennDOT will work with the local entity and FHWA to administer the grant. Interviews with local planning partners and district offices indicate that local entities are unfamiliar with the application process, federal obligation requirements, and the grant management process.

PennDOT should provide a BUILD pre-application workshop for potential local sponsors. The workshop should focus on:

- NOFA criteria/requirements, including changes in criteria based on the current administration's policies
- BCA process, importance, and available resources
- Obligation period
- Grant management requirements

The goal of a pre-application workshop is twofold:

- Ensure Pennsylvania applications are well-developed and competitive.
- Help local applicants prepare for success and understand grant management requirements and PennDOT's role in implementation.

The workshop could be accomplished via a webinar platform to enable cost-effective, broad participation. Additionally, the workshop should be recorded and made available through PennDOT's website.

RECOMMENDATION #6: SUBMIT ONLY ONE STATE APPLICATIONS PER GRANT CYCLE

Both INFRA and BUILD allow states to submit applications for up to three projects per grant cycle. However, both programs are very competitive, and applications greatly exceed available funds. For example, during the most recent round of INFRA (announced July 25, 2019) USDOT received nearly 200 applications requesting approximately \$9.8 billion in funding, which was more than 11 times the amount of funding available. Only 10.3 percent of applications submitted were awarded funds.

PennDOT should submit/support one application per grant program per cycle. This will enable PennDOT and local planning partners to focus their resources on developing one excellent application. Additionally, it will enable local and state support and advocacy to provide a united outreach message and demonstrate that this is the Commonwealth's top priority.

RECOMMENDATION #7: PARTICIPATE IN A USDOT DEBRIEFING CONFERENCE AFTER EVERY APPLICATION ROUND

USDOT provides feedback regarding the project's ability to meet the criteria of the NOFA, the quality of the BCA, and whether there are other potential funding sources the project may be eligible to receive. Participating in the debriefing conference will help PennDOT develop stronger future applications and provide insight as to whether the same project should be modified and resubmitted in future rounds.

All state DOTs placed a high value on participating in the USDOT debriefing conference after each grant round.

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