Chapter 6:
Planning and Engagement Process

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Introduction to the Planning and Engagement Process

Interagency coordination and community engagement are essential to planning and implementing transit priority projects and encouraging more people to ride transit. In Massachusetts there are separate agencies responsible for managing transit service, local transportation policy, and roadway changes. Each agency has an important role to play regardless of if they are the project lead.

There are typically five steps in the project lifecycle for transit priority treatments:

1. **Step 1**
   Problem identification and diagnosing travel time and reliability challenges

2. **Step 2**
   Defining planning context

3. **Step 3**
   Selecting treatments

4. **Step 4**
   Implementation

5. **Step 5**
   Evaluation

Coordination and engagement happen throughout the project lifecycle, with each agency and stakeholder group playing a unique role at each step. The following guidance outlines what each step entails, key stakeholders involved, level of engagement, and other considerations, such as funding and project delivery methods. The graphic to the right summarizes the typical steps of the project lifecycle.
## Key Stakeholders

The table below summarizes the role of each stakeholder group and outlines how they should coordinate with one another.

<table>
<thead>
<tr>
<th>Role</th>
<th>Coordination</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MBTA</strong></td>
<td>Coordination with the MBTA throughout the project lifecycle is essential to ensure roadway changes support existing and future transit operations. Municipalities are encouraged to work with the MBTA to integrate transit priority treatments into their street improvement projects.</td>
</tr>
<tr>
<td><strong>State agencies</strong></td>
<td>Coordination: The lead agency should coordinate and seek approval from state agencies if a project overlaps with state-owned segments to ensure treatments are consistent with state guidance and regulations.</td>
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<tr>
<td><strong>Municipalities</strong></td>
<td>Coordination: The lead agency should consult neighboring municipalities and their constituencies for feedback to ensure transit priority treatments are benefiting transit riders who travel through the project area as well as within it.</td>
</tr>
<tr>
<td>Community groups and advocates</td>
<td>General public</td>
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<tr>
<td><strong>Role:</strong> Transit, health, pedestrian, bicycle, environmental, and disability advocates (such as Councils on Aging, Disability Commissions, etc.) can articulate mobility problems on behalf of their constituencies and help municipalities and the MBTA develop appropriate solutions.</td>
<td><strong>Role:</strong> Residents and people who ride transit understand the ins and outs of the system and can provide insights on mobility problems and needs beyond what can be found in data.</td>
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<tr>
<td><strong>Coordination:</strong> Advocates are important to engage early and often because rider stories can help contextualize and strengthen the case for transit priority treatments. In some cases, advocates may conduct their own outreach to support project development or evaluation.</td>
<td><strong>Coordination:</strong> It’s important to engage the public early and often and to meet people where they are to make it easier for them to share feedback.</td>
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Step 1: Problem Identification and Diagnosing Travel Time and Reliability Challenges

Public engagement is vital to identifying mobility problems and opportunities for improving walking, biking, and transit conditions. Municipalities should work closely with the MBTA and one another to verify data with community and operator feedback. Data sharing and transparency can support interagency collaboration and build a stronger case for transit priority treatments. Municipalities should coordinate with the MBTA and collectively review transit, equity, and safety data, as well as stakeholder feedback, to identify and prioritize corridors with the greatest need.

When a project enters the project development phase the lead agency should visit the corridor and engage the public to confirm the root causes of mobility problems. Transit priority treatments need to account for what is happening on the street and all the potential sources of transit delays, such as traffic congestion, frequent stop spacing, signal delay, or conflicting/curtailing movements by other road users. By diagnosing what is causing delay the lead agency can develop potential treatment options to improve transit speed and reliability.

Type of Engagement: Collaborate

Engagement with community and advocacy groups, operators, riders, and local businesses is essential to identifying and verifying mobility problems. As first-hand users and observers these stakeholder groups allow roadway owners to see the full picture of what might be slowing down bus service or compromising roadway safety. Deep engagement in the form of collaborative charrettes and workshops is most valuable at this stage because it sets a strong foundation and relationships for subsequent steps in the planning process. Ride-along outings with operations staff and transit advocacy groups are also an effective way to collect feedback and experience mobility problems first-hand.

Key Stakeholders

- Municipalities
- MBTA
- State agencies
- Community and advocacy groups
- The general public, particularly riders
Step 2: Defining Planning Context—Funding and Project Structure

Transit priority improvements need to account for the local roadway context, relevant stakeholder groups, and the role each stakeholder has in project planning, design, and implementation. State agencies or municipalities may be the roadway owner, and responsible for sidewalks and potentially transit shelters, while the MBTA is responsible for transit routes, stop placement, and some stop amenities. Decisions on roadway changes require coordination with municipal transportation and planning staff, and elected officials who are responsible for setting budgets and policy changes.

After clearly outlining mobility problems, municipalities should determine the function and or character of the street. For example, is the street a key part of the transit network, a regional freight connector, or a neighborhood bikeway? Local transportation and master plans for walking, biking, and transit are key resources to determining how a specific street or corridor serves broader mobility needs. After reviewing relevant plans, the roadway owner should coordinate with the MBTA and other municipalities on project funding and structure. This is a critical component of the planning process as budget is often the biggest constraint to implementing and scaling bus priority efforts.

**Type of Engagement: Consult**

Most of the engagement during this phase is internal and directed towards local and regional agencies to understand relevant plans, upcoming developments, and the purpose of the street or corridor. It is also important to brief elected officials before finalizing the project scope as they can advise on funding, objectives, and potential community concerns. The support of elected officials is extremely valuable and, given their influence on the project, can help streamline planning and implementation. The lead agency should also consult community and advocacy groups to define project objectives and desired outcomes. Attending standing meetings for community and advocacy groups often allows for a more in-depth and productive dialogue compared to open houses.

**Key Stakeholders**

- Municipalities
- MBTA
- State agencies
- Elected officials
- Community and advocacy groups
Project Structure

Transit priority treatments can be implemented as standalone projects or incorporated into other projects. The latter approach provides implementation efficiencies for outreach, permitting, design, construction, and project management. Repaving, roadway reconstruction, bicycle infrastructure, and sidewalk improvements are the most likely categories of projects that can incorporate transit priority treatments. The roadway owner should proactively engage public works and transportation departments, local and regional planning departments, the MBTA, and state agencies in project scoping.

Municipal and state agencies can add transit priority treatments to existing local, regional, or state Capital and Transportation Improvement Plans (CIP/TIP). The lead agency would need to agree to the change, and the proposing agency may need to identify additional funding and file a formal CIP/TIP amendment. Expansion of an existing project can be difficult if the proposed changes impact schedule, staff resources, or permitting requirements. It is easier to justify integrating transit priority treatments into projects with larger scopes of work (e.g., adding curbside bus lanes along a street being reconstructed with new sidewalks, plantings, signals, and pavement).

Funding Overview

Transit priority projects are almost wholly partnership-based, usually with a municipality or state agency, since MBTA bus service almost exclusively operates on roadway infrastructure that they do not own. Transit agencies typically fund operations and maintenance through a combination of local funding sources, whereas major capital projects are more likely to receive federal funding. Below outlines federal, state, and local funding sources available to support planning and implementing transit priority treatments.

State Funding

The Commonwealth of Massachusetts offers several programs that can fund the implementation of transit priority treatments. These are typically discretionary grants that municipalities can apply for if their project is eligible. Below is a list of funding programs offered by MassDOT.

- The Chapter 90 Program provides annual funding to municipalities for transportation improvements.
- The Complete Streets Funding Program is a multi-step process that provides funding for complete streets improvements on local roads. Eligible projects include transit priority treatments.
- The MassDOT Shared Streets and Spaces Program provides funding to municipalities and public transit authorities for street and plaza improvements that support public health, mobility, and business.
See It in Action:
State Funding for North Common Street,
City of Lynn

In December 2020, the City of Lynn received $125,000 from MassDOT’s Shared Streets and Spaces Program to construct a bus lane on North Common Street. The bus lane was a quick-build project that opened in April 2021. The 2019 Lynn Transit Action Plan included a recommendation for bus priority on this street.

Local Funding

With federal and state funds unlikely to fully cover the cost of transit priority treatments, municipalities should prepare to share the costs of the design, installation and/or maintenance of transit priority treatments. Municipalities can fund transit priority treatments out of their local budgets or through special assessments in certain neighborhoods, such as through District Improvement Financing or Tax Increment Financing. Municipalities can also request funding for transit priority treatments through the regional TIP process. Within the MBTA bus service area, the TIP is prepared by the Boston Region Metropolitan Planning Organization (MPO). The Boston Region MPO and Metropolitan Area Planning Council (MAPC) also offer technical assistance grants that can support the implementation of transit priority treatments.

Other Funding Sources

In addition, some non-profit organizations and private institutions fund the implementation of transit priority treatments. Funding from the Barr Foundation was instrumental in creating the MBTA Transit Priority Group, which allowed MBTA to build institutional capacity and become a national leader in bus transit priority implementation. The Barr Foundation also funded bus lanes and other transit priority treatments in Everett, Cambridge, and Arlington, as well as the Bus Priority Toolkit.
Funding Considerations

External funding can come with stipulations and conditions and require additional staff resources to request, spend, monitor, and close out the grant. Below is a partial list of funding considerations for municipalities. Project leads should coordinate with MBTA to streamline the funding process.

- **Application requirements** Level of effort may vary significantly by funding source, with some applications taking weeks or months to prepare, requiring a detailed narrative, charts and graphics, and several forms. Several federal discretionary grant applications also require a Benefit Cost Analysis (BCA), which should be prepared by an economist.

- **Performance measures** Some funding sources may require the recipient to commit to meeting certain performance measures when a project is complete (e.g., bus travel time savings).

- **Reporting** Whether in conjunction with a performance measure requirement, or independently, the awarded recipient is typically required to report data that track the benefit of the transit priority treatments over a defined period of time.

- **Resource requirements** Federal funding, and potentially other sources, require the funding recipient to adhere to certain labor requirements and provisions to use domestically sourced materials for certain components.

- **Future use requirements** Some funding sources may require the recipient to maintain the transit priority treatment for a certain period of time or risk needing to refund some or all of the grant.

- **Future maintenance requirements** It is often easier to identify funding to build a transit priority project than it is to maintain it. As such, it is important to identify maintenance responsibilities and funding early in the design or project development process. Memorandums of Understanding (MOUs) or Construction and Maintenance Agreements (C&Ms) typically document the partnership and roles and responsibilities for each agency.
Step 3: Selecting Treatments

The next step after engaging with stakeholders to diagnose transit delays is to identify potential treatments to improve transit speed and reliability. Transit priority treatments can range from tactical (typically improvements with paint and signs, possibly posts) to completely redesigning the street to change traffic and transit operations and to address accessibility deficiencies.

To develop treatment options, municipalities need to understand what is happening on the street and at the curb, and how much space is available to repurpose for transit or other improvements. Treatment selection also depends on the local transportation network and modal priorities for the corridor. For example, if there are existing and planned bike lanes, the design should improve safety for people who bike. Curbside activity is also important to consider as parking or loading within bus lane decreases speed and reliability benefits.

Transit priority treatments should address mobility problems at both the corridor and intersection-level. For example, short bus lanes and queue jump lanes can help buses pass right-turn queues at congested intersections, whereas full bus lanes offer a corridor-level approach to bypass congestion and increase bus speeds. In cases where there is limited space available, signal and bus stop improvements are cost-effective treatments to improve bus speed and reliability. Complete street redesigns offer the most flexibility in treatment selection, giving agencies the ability to transform the roadway and sidewalk space. These types of projects require deep engagement with the community on their preferred treatments. All relevant stakeholder groups should have the opportunity to provide input on treatment options before the lead agency selects a final design alternative.

Type of Engagement: Consult/Collaborate

Selecting transit priority treatments is one of the most important pieces of the planning process because once a project enters the detailed design phase it can be difficult to make changes. Collaborating with key internal and external stakeholder groups to collect their feedback on treatment options will lead to better project outcomes. Municipalities should consider hosting interactive design workshops with representatives from key agencies involved in defining the local planning context as well as community and advocacy groups. Pop-ups are also a great opportunity to explain benefits and tradeoffs of potential treatments and collect feedback on preferred options. Virtual and public open houses are effective ways to collect feedback from large numbers of people, however, if there are certain stakeholder groups agencies wish to engage, a more targeted approach may be appropriate.

Key Stakeholders

- Municipalities
- MBTA
- State agencies
- Community and advocacy groups
- General public
Design Standards

When selecting treatments, the lead agency should consider relevant design standards, guidance, and best practices. The lead agency should verify which standards apply to each location.

Below are the standards and guidelines to consult during the design phase.

**Local**
- MBTA Bus Priority Toolkit
- MBTA Bus Stop Planning & Design Guide
- MBTA Design Directives, Standards and Guidelines

**State**
- MassDOT Bus Lane Standards
- MA Architectural Access Board (MAAB)

**Federal**
- Americans with Disabilities Act (ADA)
- Title VI
- Manual on Uniform Traffic Control Devices (MUTCD)

**National**
- National Association of City Transportation Officials (NACTO)
- American Association of State Highway and Transportation Officials (AASHTO)
- Transit Cooperative Research Program (TCRP)
Evaluating Design Impacts and Project Approvals

The roadway owner needs to formally approve the project before implementing transit priority treatments. Approval and coordination processes vary by roadway owner and there are also additional federal, state, or local environmental and historical approval requirements to consider.

- **Municipalities**: Depending on agency structure, the local transportation, public works, or planning department will need to approve the project design and issue permits. City/town councils may also need to approve the project and local funding allocation depending on the scale of the project and/or local policies or ordinances.

- **State Agencies**: For any project on a state road or right-of-way (ROW), the state agency with jurisdiction over the road must approve the project and issue an access permit.

**Environmental and Historical Coordination**

The design team should attempt to minimize impacts to environmental and historical resources. This reduces coordination needs, cuts costs, and streamlines project design and implementation. However, environmental and historical impacts are sometimes unavoidable. The lead agency may need to obtain environmental and historical approvals from federal, state, or local agencies depending on the scope, funding source, and location of a project. Examples of potential approvals are listed below.

<table>
<thead>
<tr>
<th>Potential Local Approvals</th>
<th>Potential State Approvals</th>
<th>Potential Federal Approvals</th>
</tr>
</thead>
<tbody>
<tr>
<td>▶ Historic Commission</td>
<td>▶ MA Historic Commission (MHC)</td>
<td>▶ National Historic Preservation Act (NHPA)</td>
</tr>
<tr>
<td>▶ Conservation Commission</td>
<td>▶ MA Environmental Policy Act Agency (MEPA)</td>
<td>▶ National Environmental Policy Act (NEPA)</td>
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</tbody>
</table>

**Abutters**

The level of engagement with directly impacted abutters will vary by project depending on the significance of the impacts. Lead agencies should coordinate with abutters when developing design concepts to address their concerns as best as possible. In cases where the footprint for transit priority treatments impacts private property, even temporarily during construction, the lead agency will need a license agreement or easement. Coordination with abutters is critical to successful project implementation; obtaining signed agreements from abutters can delay projects and add costs.
Step 4: Implementation of Treatments

State agencies and local municipalities are typically responsible for the design and implementation of roadway, sidewalk, parking, and bus stop changes. Shared awareness and cooperation are necessary to ensure the road works for everyone throughout implementation. Municipalities will need to coordinate with the MBTA and emergency services if construction involves any partial or full street closures. Municipalities may also need to mitigate traffic impacts through signal timing changes, turn restrictions, or traffic detours.

Type of Engagement: Inform

The lead agency should consult local businesses, and the general public on their construction preferences. For example, do they prefer a low impact construction approach that takes longer to complete, or a faster, high impact construction approach? Mailing notifications to property owners and local businesses along the project corridor may be required depending on the type of construction. For more disruptive construction municipalities should also notify adjacent properties and consider other engagement methods, such as open houses or targeted stakeholder meetings. At this point in the project lifecycle, most of the engagement is focused on informing people of the construction impacts and final project details.

Key Stakeholders

- Municipalities
- MBTA
- Local businesses
- General public

Quick-Build Projects

MBTA has become an industry leader in implementing low-intensity, quick-build transit priority treatments on a short schedule. Quick-build treatments typically use simple, affordable materials like paint, signs and vertical delineators, like flex posts. MBTA uses the quick-build approach to implement curbside, parking off-set and shared bus lanes, as well as transit signal priority (TSP).

Quick-build projects can be temporary pilots or more permanent installations. The length of the pilot depends on the lead agency’s objective. Some lead agencies want to demonstrate or test the effectiveness of different transit priority treatments, particularly if there is no local precedence, so they use cones or temporary striping. If the pilot is considered a success, based on the results of the evaluation and public feedback, the demonstration is made permanent with new roadway markings, signage, and other complementary treatments. Other pilots are implemented using semi-permanent materials that, if successful, can remain in place with the municipality only required to make minor refinements to account for any areas of improvement identified in the evaluation.
Delivery Methods

Public sector entities typically choose one of five delivery methods to build transportation projects:

- **Design-Bid-Build (DBB)** This is the traditional construction delivery method, where different entities design and build the treatment. The project is designed by in-house staff or by a consultant. The design plans are then used to procure a contractor to construct the project.

- **Design-Build (DB)** This delivery method features a single design and construction team procured to engineer and build the project, based on a concept design. DB projects can result in schedule efficiencies since the DB team can start construction on some project elements before design is complete. In addition, only one procurement process is needed, whereas a DBB project may need up to two. Although DB projects may reduce the public sector’s exposure to some risk, it increases risk for the DB entity, which can result in higher costs to accommodate the additional risk.

- **On-call engineering/construction contracts** These are typically issued on a task-by-task basis to design and build projects. Can be completed on a much shorter schedule compared to a full procurement process for each transit priority project.

- **Existing construction contract change orders** These allow agencies to add transit priority treatments to construction projects already under contract. This method is typically only appropriate for low intensity transit priority treatments that fall within the overall scope of work of the existing construction contract and do not impact the overall project schedule.

- **In-house staff** An agency may be able to use internal staff and equipment to design and build the transit priority treatment.

Scheduling Considerations

The project sponsor can anticipate impacts to construction schedules, such as:

- **Construction hours** Some elements of construction may be limited to a brief timeframe, such as overnight for striping and paint application.

- **Traffic diversion/traffic management** Work may need to occur in phases or during off-peak hours to avoid adverse impacts to traffic.

- **Transit impacts** Work may need to occur in phases or with temporary active or inactive facilities to minimize adverse impacts to bus operations or access to bus stops.

- **Weather** Work may need to stop during the winter months or winter moratorium when some municipalities will not issue permits. A severe winter season may delay work to the spring.

- **Procurement** Supply chain shortages may delay the delivery of key components.

- **Utility coordination** Utility companies may not be able to accomplish their work within the schedule anticipated by the project team. In addition, utility companies may conduct unrelated work on newly constructed treatments, which may force the project team to make repairs.
Memorandums of Understanding

The lead agency should consider the durability and long-term maintenance costs when selecting transit priority treatments. Municipalities and the MBTA should sign MOUs or C&Ms outlining operations and maintenance responsibilities before initiating final design. Some of the items to consider incorporating into these agreements are:

- Maintenance responsibilities for pavement markings, red paint, shelters, sidewalks, bus stop amenities, transit signals, lighting, signage, vertical delineators, landscaping, etc.
- Capital improvement responsibilities, if different than the maintenance responsibilities.
- Day-to-day operational responsibilities for trash removal, snow removal, and ice treatment of the bus lane and bus stop.
- The entities and types of vehicles that can use a dedicated bus lane. In addition to buses and authorized transit service vehicles, emergency vehicles, people on bicycles, trucks, school buses, and occupied traditional taxis could utilize a bus lane.

Education and Enforcement

It is important for the lead agency to communicate project changes early and often. Operational changes that impact how people get around may also require a more robust education campaign. For example, with bus lanes, it’s important that people driving vehicles are clear where and when they are permitted to enter the bus lane. Education and enforcement campaigns can improve compliance and maximize transit speed and reliability benefits.

MBTA and the roadway owner should confirm that the legal authority to enforce unauthorized use of bus lanes exists. If this authority does not exist, then the state or municipality should adopt an ordinance to grant this authority. The transit agency and roadway owner should then coordinate to identify the most effective enforcement mechanism, such as law enforcement observation, stationary cameras, or cameras on buses. Local police departments should also share data and best practices about how to increase compliance.

An increasing number of transit agencies and municipalities outside of Massachusetts rely on automated enforcement to ensure compliance with bus lane regulations. Automated enforcement is considered a more objective, equitable, and efficient means of enforcement than traditional observation enforcement methods used by local police departments. The use of automated enforcement in Massachusetts will require action by the Massachusetts Legislature.
Step 5: Evaluation

To scale bus priority efforts, municipalities and the MBTA need to comprehensively evaluate and communicate how transit performs before and after implementation. The evaluation process should be transparent, with robust public engagement and metrics that help communicate the full impact of the project and areas for improvement.

The steps to evaluating a transit priority treatment are:

1. Establish metrics and goals. The project team can report on additional metrics if desired. Suggested metrics include:
   - Bus reliability
   - Bus travel time savings
   - Reductions in bus delay
   - TSP-specific metrics

2. Identify evaluation tools and procedures

3. Develop methods for reporting for this project and consider ways to use the data to inform future projects


Type of Engagement: Inform/Consult

The lead agency should engage all relevant stakeholder groups to ensure transit priority treatments are achieving their desired outcomes. It is essential in the first few months following implementation that the lead agency meets regularly with the MBTA. The lead agency typically collects public feedback through online or physical surveys, which the MBTA and community and advocacy groups can help distribute or administer. Community and advocacy groups can also help collect rider testimonials, which are a powerful way to communicate project impacts.

In the first months following project implementation, the lead agency should meet regularly with the MBTA to discuss if transit priority treatments are achieving their desired outcomes. If staff (from either the MBTA or lead agency) discover ineffective treatments or new mobility challenges, they should work together to refine the project. As the regional transit provider, MBTA should be the repository for lessons learned in the Boston region and should be responsible for distributing this information to current and potential transit priority partners.

Key Stakeholders

- MBTA
- Community and advocacy groups
- Local businesses
- General public
Data Collection and Performance Indicators

Municipalities and the MBTA should identify key performance indicators (KPIs) and provide consistent progress reports to the public on transit priority treatments. MBTA typically uses two KPIs to measure bus service:

- **Reliability** as measured by schedule adherence. Reliability is measured at the bus route endpoints and at key timepoints. There are different standards for routes that operate every 15 minutes or less and for routes that operate at greater than 15-minute frequencies.

- **Customer Satisfaction** A panel of MBTA passengers is surveyed monthly and asked to rate four questions on a seven-point scale:
  1. How satisfied are you with the MBTA's communication overall?
  2. How would you rate the MBTA overall?
  3. How would you rate your most recent trip?
  4. How much do you agree with the statement: The MBTA provides reliable public transportation services.

Progress reports should also include rider and community feedback and testimonials, as often perceived travel time savings may be different than actual travel time savings.

Communicating Project Impact

Proactive storytelling that communicates the tangible benefits and impacts of the project helps build support and awareness for transit priority treatments. This also helps prevent opposition to the project from dominating the conversation. Messaging should address travel time savings, reliability enhancements, safety improvements, and project satisfaction and include community and rider testimonials.

Including professional quality before and after photos is one of the most effective ways to communicate the benefits of transit priority treatments. Photos allow people to imagine what it would be like to experience transit in that corridor or a similar one. These photos are valuable for general marketing purposes and to make the case for future bus priority projects. Photos should include infrastructure, buses, and people.

Projects funded by State agencies and/or municipalities must comply with all federal and state rules and regulations, including PROWAG, ADA and MAAB 521 CMR. This is most pertinent where stops are rebuilt, road resurfacing or signal upgrades occur. All bus improvements serving MBTA bus service must also meet Office of the Chief Engineer Design Directives and MBTA Design Guidelines for Access.
See It in Action: Communicating Project Impact on Columbus Ave, City of Boston

For the Columbus Ave center-running bus lane project, MBTA and the City of Boston partnered on a communication plan for messaging key components for the launch of the project, including producing a “how-to-ride” video in English and Spanish, promoting the project in local newspapers, and collaborating with local partners on press releases and press events. This proactive approach to communication helped positively define the project and build support well before the project was completed.