PALMER STATION
PLANNING + DESIGN

MassDOT Palmer Station Planning & Design

Alternatives Analysis Executive Summary

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Executive Summary

Palmer, Massachusetts, nicknamed the "Town of Seven Railroads," has a history of railroad activity dating back to the 1800's. Although passenger service was discontinued in 1971, recent studies conducted by the Massachusetts Department of Transportation (MassDOT) have considered reintroducing passenger rail service to Palmer as part of the Compass Rail vision for intercity passenger rail in Massachusetts. Compass Rail is comprised of existing and proposed West-East and North-South services with a robust hub in Springfield. Future passenger service through Palmer would be part of the proposed West-East Rail routes, including an Inland Route between Boston and New Haven through Springfield and a Boston and Albany route. Both routes would use the Boston & Albany Line owned and operated by CSX Transportation (CSX).

The Palmer Station Planning and Design project aims to identify the location for a new passenger rail station serving the Town of Palmer and surrounding communities as a step towards realizing the Compass Rail vision. This report describes the project background and site Alternatives Analysis approach and results.

The purpose of this project is to identify a new passenger rail station along the proposed Compass Rail Corridor serving the Town of Palmer and surrounding communities that will enhance mobility and connectivity, support local planning goals, and drive economic development.

The five goals and objectives of the project are to:

1. Provide and create an **intercity rail stop** on the proposed Compass Rail corridor while **meeting operational requirements** for Amtrak, CSX, and other freight operators and **minimizing freight operations impacts**;
2. **Enhance passenger mobility and connectivity** for local and regional growth and to support access to the Five College Consortium;
3. Improve local and regional **economy and livability;**
4. Support local and regional goals to **reduce dependency on auto transportation** by offering an alternative choice for travelers and providing opportunities for multimodal station access; and,
5. **Avoid and minimize** social, cultural, and natural **environmental impacts**.

Building off previous studies, a review of the corridor, and stakeholder feedback, a total of nine potential sites were identified and evaluated in the Alternatives Analysis. Figure 1 provides an overview of the alternative site locations along the Compass Rail corridor, with the historic station location in Palmer marked with a star for reference.

Figure 1 Sites Evaluated in the Alternatives Analysis



The project used a two-level approach to compare and evaluate each of the station site locations identified. The Level 1 Fatal Flaw Screening evaluated the operational and engineering feasibility of constructing a station at each of the potential sites. High-level sketches on aerial imagery placed the essential rail infrastructure – such as turnouts to a station siding, a station siding, and a passenger platform – on the Compass Rail corridor where possible within the vicinity of each identified site. Each site was then evaluated against three fatal flaw criteria:

- **Operational Compatibility:** Is the site on the Compass Rail Corridor?
- **Track Geometry and Right-of-Way (ROW) Limits:** Does sufficient space exist to accommodate the station on a siding track with associated track and signal infrastructure meeting minimum standards?
- **Freight Operations Impacts:** Does the site interfere with the diamond junction (CP-83, between CSX and the New England Central Railroad) or the CSX Palmer Yard?

Table 1 summarizes the Level 1 screening results. Of the nine potential sites (Figure 1), six met all the Level 1 screening criteria and advanced to the Level 2 Comparative Evaluation (Figure 2). The Level 1 Fatal Flaw screening removed the site of the historic depot (Site H) from further consideration due to insufficient right-of-way. There is insufficient horizontal clearance to accommodate a station siding track and platform immediately adjacent to the historic depot without impacting either the historic building or private properties located along South Main Street. The closest placement of a station siding to the Palmer Diamond would require bridge reconstruction and private property acquisition.

Table 1 Summary of Level 1 Fatal Flaw Screening Results

Site	Meets Criteria			Result to Advance to Level 2 Evaluation
	Operational Compatibility	Track Geometry and ROW Limits	Freight Operations	
Site A: East of Crane Hill Road (Wilbraham)	**Yes**	**Yes**	**Yes**	**Advance**
Site B: South of Palmer Yard	**Yes**	**Yes**	**Yes* (Potential)**	**Advance**
Site C: US 20, East of Nipmuck Street (North Side of Track)	Yes	Yes	No	Do Not Advance
Site C: US 20, East of Nipmuck Street (South Side of Track)	**Yes**	**Yes**	**Yes**	**Advance**
Site D: Boston Road (North Side of Track)	Yes	Yes	No	Do Not Advance
Site D: Boston Road (South Side of Track)	**Yes**	**Yes**	**Yes**	**Advance**
Site E: Palmer Redevelopment Authority (PRA) Lot	No	N/A	N/A	Do Not Advance
Site F: Palmer Department of Public Works (DPW) Lot	**Yes**	**Yes**	**Yes* (Potential)**	**Advance**
Site G: Water Street Fields	No	N/A	N/A	Do Not Advance
Site H: Historic Location	Yes	No	N/A	Do Not Advance
Site I: North of Palmer Yard	**Yes**	**Yes**	**Yes* (Potential)**	**Advance**

Figure 2 Sites Evaluated in the Level 2 Comparative Evaluation

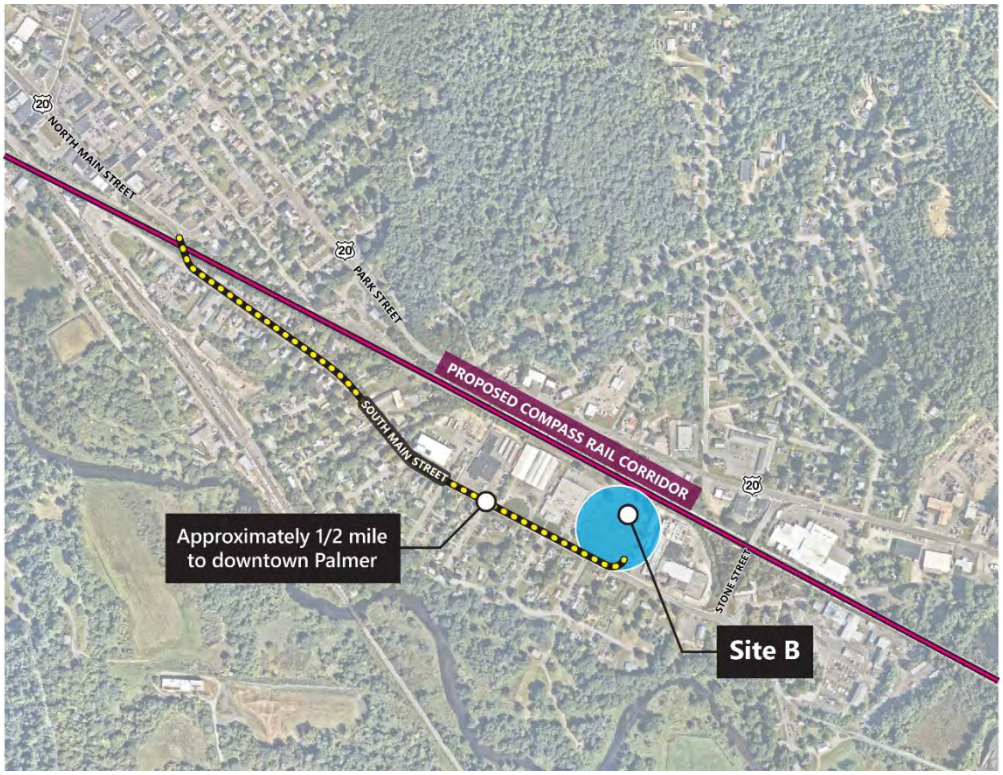


The Level 2 Comparative Evaluation assessed the remaining sites based on criteria across five categories: **Engineering and Operations**, **Environment**, **Mobility**, **Economic Development Potential**, and **Implementation Considerations**. For each criterion, sites were ranked as favorable, neutral, or unfavorable based on qualitative or quantitative metrics. Several criteria, including the mobility metrics and key cost elements, evaluated sites relative to one another. Table 2 summarizes the evaluation results.

A public meeting was held at the Palmer Public Library to present the alternatives analysis and solicit feedback to further inform the site selection.

Based on the Level 2 Comparative Evaluation and public input, Site B (South of Palmer Yard) resulted in the most favorable evaluation. Based on this Level 2 Comparative Evaluation, Site B appears likely to be the least costly and most straightforward to construct and is among the sites with the least anticipated permitting. Of the sites included in the Level 2 Comparative Evaluation, public feedback also seems to favor Site B for its relative proximity to downtown and simplicity. The Level 2 Comparative Evaluation recommends Site B advance to Conceptual Design. Figure 3 depicts Site B in the context of its proximity to downtown Palmer.

Figure 3 Site Selected to Advance to Conceptual Design



Although not advanced to Conceptual Design, Site I would utilize a similar configuration, with the same station track and platform locations. While the analysis and municipal stakeholder committee identified that Site I may provide more adjacent development potential due to its proximity to vacant and underutilized properties on US-20, MassDOT and the municipal stakeholder committee have selected Site B to advance to conceptual design instead of Site I because Site I would require the construction of a pedestrian bridge over Palmer Yard, which would result in additional cost and implementation complexity while reducing convenience for users accessing the site by personal vehicle or transit. Site B also has a greater potential to expand the parking supply if desired at a future time.

Table 2 Summary of Level 2 Comparative Evaluation

Criteria	Site A	Site B	Site C	Site D	Site F	Site I
Engineering and Operations						
Anticipated Horizontal Curvature	●	●	●	●	◒	●
Anticipated Grade through Platform Area	○	◒	●	○	◒	◒
High-Level Assessment of Freight Operations Impacts	●	◒	●	●	○	○
Environment						
Within WPA Wetland Resource Area	◒	◒	○	◒	○	◒
Proximal or Within Endangered Species Habitats	○	●	●	●	●	●
Potential "Use" of Publicly-Owned/Accessible Park, Open Space, Recreation Resources	●	◒	●	●	●	◒
Potential Impacts to Nationally-Listed or Known Eligible Historic Resources	◒	◒	◒	●	◒	◒
Within or Immediately Adjacent to EJ Populations	●	●	●	●	◒	●
Proximity to Sensitive Noise & Vibration Receptors	○	●	●	○	◒	●
Mobility						
Non-Motorized Travel (Walk and Bike Access)	○	●	○	○	●	●
Motorized Travel (Drive Access)	●	●	●	◒	●	●
Ability to Accommodate Vehicular Access Needs (Passenger Cars)	●	●	●	●	●	◒
Ability to Accommodate Vehicular Access Needs (Transit Shuttles)	◒	●	●	●	◒	●
Ability to Accommodate Pedestrian Access Needs (Walk, ADA)	●	●	◒	◒	○	◒
Economic Development Potential						
Conditions Supportive of TOD	○	●	◒	○	◒	●
Conditions Supportive of Revitalization of Existing Uses	○	◒	◒	○	●	◒
Consistency with Local Planning Goals	○	◒	◒	◒	●	◒
Consistency with Local Zoning	○	◒	●	○	◒	●

● Favorable

◒ Neutral

○ Unfavorable