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track, structure, and signal infrastructure design include:

- Optimizing track configuration for joint freight and passenger rail operations.
 - Assemble and upgrade the Scranton Running Track and the Mall Siding between NAY AUG and a new controlled point (CP) at the west end of the platform (CP Phoebe)—designated "Pocono Main Track #1"—primarily for Amtrak movements.
 - Equip the track with PTC and ABS, the latter primarily for broken rail detection.
 - Serves south side of new island platform.
 - Isolated from other Zone tracks by electric locked switches on a timer or CPs.
 - · Also available for freight and excursion train movements as needed.
 - Add a new second signalized track designated "Pocono Main Track #2" between a new CP on the Pocono Main Track #1 west of South Washington Avenue (CP Snow) and CP Phoebe.
 - Serves north side of new island platform.
- Consolidate scattered freight interchange traffic into a designated receiving/marshalling yard.
 - Create a two-track "Hat Yard" with 2,550 linear feet of capacity.
 - in the event of overflow, 6,350 linear feet of the Scranton Running Track between RIDGE and NAY AUG can be temporarily assigned to provide additional capacity (D-L trains can bypass that portion of the Running Track, if necessary, via the Pocono Main Track).
- Accommodate a new ADA-accessible Amtrak train station at Scranton adjacent to the LTC.
 - A single island platform with high (48-inch) car floor-level boarding.



Figure 1-13. Design Impacts of Alternative Platform Access Options

UNDERPASS OPTION

- Existing underpass links activities on the north side of active tracks (*Amtrak*, *Transit Center*, *Downtown*) and on the south (*Steamtown NHS*, *Electric City Trolley Museum*).
- A ramp provides passive ADA access to a highlevel island Amtrak platform.
- Passive vertical circulation is a lowermaintenance solution that reduces operating costs and the carbon footprint for the station.



ELEVATOR OPTION

- Three (3) elevators and a new pedestrian bridge needed to provide connectivity equivalent to the Underpass Option.
- No redundancy—each elevator represents a single point of failure.
- Parking lot geometry forces pedestrian bridge further east., lengthening walking distances for Amtrak passengers.
- Active vertical circulation is a highmaintenance solution that increases operating costs and the carbon footprint for the station.



- A 600 by 24-foot platform (sufficient to platform the all doors on a Type-B2 AIRO consist).
- Up to 7,000-square feet of enclosed space for ticketing, waiting room, back-office space, transportation, maintenance, and material storage based on existing availability of space.
- Use the existing underpass for grade-separated ADA platform access without elevators, as illustrated in Figure 1-13 and in greater detail in Appendix 1C
- Double-track the existing Cedar Avenue Bridge to eliminate the current operational bottle-neck and single-point-of-failure (see Technical Report #3/Structures for more details). Figure 1-14 provides a schematic representation of the operating rules in effect for the corresponding revised track configuration.
 - Amtrak trains can operate freely through the Scranton Terminal IFHZ over the Pocono Main Tracks while freight and excursion trains operate in parallel on the other Zone tracks, the two parts of the Zone kept separate by electric locked switches and powered switches at CPs.



Figure 1-14. Operating Rules in Effect: Scranton Terminal IFHZ

2.2.2.1. LAYOVER FACILITY

The operating plan provided by Amtrak included four draft schedule options for the new Scranton service. Each draft schedule showed three daily roundtrips with one trainset and crew terminating in Scranton at the end of the day, representing the first New York-bound trip the next morning.

It is assumed that the primary maintenance base for trainsets in Scranton service will be at an existing Amtrak maintenance facility along the Northeast Corridor, such as Sunnyside Yard. But, even if daily inspections and scheduled maintenance is performed elsewhere, trains overnighting in Scranton will be cleaned and serviced by a contractor to Amtrak. There should also be a capability to perform light running repairs, such is typically defined as topping off fluids and replacing components no bigger than that a single worker can carry (e.g.: light bulbs, brake shoes, filters).

Rudimentary canopy coverage of the servicing area is recommended in this case because:



- 1. Scranton can experience severe weather extremes, especially in winter months when snowfalls can be significant;
- 2. The new Amtrak Airo trainsets are more sophisticated than its predecessors and shielding components and maintainers from the elements during servicing would improve work quality; and
- 3. Servicing rolling stock from track-level in a poorly lit railroad operating environment often results in compromised access to the equipment and a higher-than-average incident of injuries from slips, trips, and falls.

For comparison, Figure 1-15 presents a generic overnight layover facility specifically scaled to accommodate a single Type B1 Airo trainset in its NEC configuration, which is expected to initially operate Scranton service (presented at larger scale in Appendix 1D).

The programmatic specifications for this generic design include:

- One 800-foot storage/servicing track
- An open-air train shed over the storage/servicing track
 - Modular shed design expandable in 8-foot increments
 - Task lighting mounted on underside of shed
 - Asphalt servicing apron on both sides of the track
 - Environmental containment (drip pans) under locomotive area
 - Wayside power hook-ups and utilities
- Yard office/material storage building (2400 sq ft)
- Wastewater oil separator & storage tank

The scale and massing of the generic facility was applied as a benchmark against which prospective Scranton sites were judged. Its 800 by 36-foot shed design is longer than what would be initially needed for a Type B1 *Airo* trainset or its Amfleet equivalent, but the longer design reflects the footprint for the ultimate layover facility allowing for future growth when Type B2 *Airo* trainsets may be needed.

At first glance, the adjacent Steamtown NHS shop and yard tracks would appear to offer opportunities to store and maintain Amtrak rolling stock. However, the Museum's shops and yards are from a different era



Figure 1-15. Generic Overnight Layover Facility Assumptions

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when trainsets were typically broken down between runs and their component parts were individually serviced. As such, it contains more switches and shorter track lengths between switches than a modern yard designed around a unit trainset like the *Airo* – 583 to 752 feet in length. Its yards and approaches were also laid out to align with a terminal station 3,400 feet further east than the proposed Amtrak station adjacent to the Lackawanna Transit Center (LTC), introducing operational complications hostling trainset in and out of service. Upgrading Steamtown NHS facilities to modern standards and to accommodate whole-train maintenance would be costly and intrusive on the NPS visitor experience. SThree other prospective layover sites were investigated better aligned with and more proximate to the assumed LTC station location (see Figure 1-16).

2.2.2.1.1. .Layover Site 🗛

Figure 1-17. Prospective Layover Site 🛽





Site O occupies a narrow strip property between the Mall at Steamtown and the Pocono Main Track (presently Mall Siding). It would be on an eastward extension of Pocono Main Track #2 beyond CP Snow (see Figures 1-17 & 1-18).

The advantage of this site is its proximity to the station platform. Trains terminating on Pocono Main Track #2 would reverse direction and proceed eastward for 1,650 feet to directly enter the facility.

Trains terminating on Pocono Main Track #1 would reverse direction and proceed eastward until clear of CP Snow, reverse again and proceed westward to

Figure 1-18. Prospective Layover Site 🔕





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crossover to Pocono Main Track #2, and then reverse a third time before entering the facility—an accumulated travel distance of about 4,100 feet.

Its chief disadvantage is its constrained site with the south wall of the *Marketplace at Steamtown* mall on one side and active operating tracks on the other. While the generic design calls for a 36-foot-wide work area under the shed, a cross-section through the site (Figure 1-19) indicates that only 27¹/₂ feet is available, which necks down to a paltry 19 feet beneath the overhead pedestrian bridge (Figure 1-20).

Furthermore, the closest space available for office and material storage, as provided for in the generic design, is either across the active tracks or nearly 1,000 feet to the west between Cliff Street and Avenue.



2.2.2.1.2.

Layover Site 🕒

Figure 1-21. Prospective Layover Site 🕒

Site ⁽²⁾ occupies NPS property between the Scranton Running Track and the Electric City Trolley alignment, west of South Washington Avenue (see Figures 1-21 & 1-22).

The advantage of this site is its capability to accommodate the full footprint of the generic shed design with ample space available to accommodate a yard office and material storage.







Its disadvantages are three-fold:

- 1. About 750 feet of retaining wall is needed parallel to the trolley line alignment to stabilize the adjacent slope and level off the upper-level servicing shed site.
- 2. Nestled between two curving railroad alignments, there is not 800 feet of tangent available, resulting in a "kinked" storage track and servicing facility.
- 3. Access between the station and layover facility is convoluted, involving three reversals on the Pocono Main Track, the Scranton Running Track, and the Depot Siding—a cumulative travel distance of about 5,600 feet. This movement would require a new crossover between the Pocono Main Track and Scranton Running Track plus additional switch on the Depot Siding.

2.2.2.1.3. Layover Site **G**



Figure 1-23. Prospective Layover Site $oldsymbol{\Theta}$

Site **O** occupies private property a third of a mile west of the LTC station north of West Linden Street on the NS Sunbury Line (see Figures 1-23 & 1-24).

The advantage of this site is its capability to accommodate the full footprint of the generic shed design, yard office, and material storage without compromise. The site is directly accessible from either station platform in a singular movement though CP Phoebe without reversals.

The property is currently used for miscellaneous light industrial activities. A cursory review suggests that a layover facility could be sited on unused Figure 1-24. Prospective Layover Site $oldsymbol{\Theta}$





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portions of the property bordering the tracks without impact to the other on-site activities currently taking place.

Its disadvantage is that it is on NS, requiring interaction with that railroad to design, build, and operate. A fourth prospective site was identified on vacant commercial property directly across the tracks from Site Θ , with similar advantages and disadvantages.

2.2.2.2. AT-GRADE PEDESTRIAN CROSSINGS

As illustrated in Figure 1-25, there are four at-grade pedestrian crossings in the Scranton Terminal IFHZ protected only with crossbucks. While acceptable operating practice given present track speed and train frequencies, each crossing will need to be reevaluated in light of other improvements anticipated with the introduction of Scranton-New York intercity passenger rail service.







2.2.2.2.1. Boardwalk Crossing

Boardwalk is an at-grade pedestrian crossing of 11 tracks linking the PTC facility and Steamtown National Historical Site to a boarding platform shared by NPS excursion trains and Electric City trolleys. It is constructed for the most part of concrete capped with a decorative brick surface. As illustrated in Figures 1-26 and 1-27, the northernmost portion of the crossing does not extend all the way to the LTC parking lot but stops short of it. Access is barred by a locked gate.

It would be difficult to safely maintain the Boardwalk crossing in its present location after the start of Scranton-New York corridor service. The crossing is very close to the assumed location of the new highlevel station platform, which would obscure sight lines for pedestrians and train engineers.

Further, as previously discussed, it is assumed that the Boardwalk crossing can be cost-effectively replaced by a safer, grade-separated crossing ADA access using the existing out-of-service underpass on site (illustrated in Figures 1.11 & 1-13).

DESIGN ASSUMPTION

The Boardwalk Crossing terminates at the NPS/trolley platform and does not extend across the Pocono Main Tracks. The existing underpass will be adapted for grade-separated access between Steamtown and the LTC as well as to/from the Amtrak platform.

Figure 1-27. Broadway access to LTC gated



Figure 1-26. Boardwalk from Overhead



West Station Crossing 2.2.2.2.2.

The West Station Crossing is a combination of stairways and an at-grade pedestrian crossing of the future Pocono Main Track and Scranton Running Track. It is located at the west end of the Radisson Hotel property (the former DL&W Station).

The West Station Crossing provides a vital connection between Downtown Scranton and a 188-space permit parking lot for the University of Scranton, which would be difficult to replace.

As illustrated in Figures 1-28 through 1-30, West Station Crossing consists of three levels:

- Upper level (hotel) 1.
- Track level 2.
- Lower level (parking lot) 3.

Maintaining a safe track crossing at this location will prove difficult as track speeds and train frequencies increase. Its multiple levels and constrained conditions complicate its replacement with a grade-separated structure using ADA-compatible ramps, but an alternate structure using elevators would be hard to justify for only 188 potential customers.

Exacerbating the low cost-benefit of a new pedestrian bridge, the alternative pedestrian path in the absence of the crossing (via the Cedar Avenue sidewalk) traverses an equivalent distance and can be considerably shorter depending on where in the lot one parks and where in Downtown Scranton is one is headed.

DESIGN ASSUMPTION

Eliminate the West Station Crossing.

Figure 1-28. West Station Pedestrian Crossing



Figure 1-29. Track Level



Figure 1-30. Lower Level





Figure 1-31. East Station Crossing in Foreground



Figure 1-32. East Station at Track Level



2.2.2.2.3. East Station Crossing

The East Station is another combination of stairways and an at-grade pedestrian crossing of the future Pocono Main Track and Scranton Running Track. It is located behind dumpsters at the east end of the Radisson Hotel property (the former DL&W Station) and provides a short-cut to University of Scranton athletic fields and the sidewalk on the west side of the Biden Expressway (see Figures 1-31 through 1-33).

As with the West Station Crossing, maintaining a safe track crossing at this location will prove difficult as track speeds and train frequencies increase, complicated by multiple levels and constrained conditions which would complicate replacing it with a gradeseparated structure using ADAcompatible ramps.

Figure 1-34 presents of an analysis comparing walking distances from Downtown to the base of the East Station Crossing via the track crossing versus existing sidewalks. It concluded that walking via existing sidewalks was either Figure 1-33. East Station at Ground Level



Figure 1-34. Comparative Walking Distances





shorter or not sufficiently longer (less than 100 feet) as to warrant the continued risk of an at-grade crossing or the expense of grade-separation.

DESIGN ASSUMPTION

Eliminate the East Station Crossing.

2.2.2.2.4. West University Crossing

The West University Crossing is another combination of stairways and an at-grade pedestrian crossing of four tracks, including the future Pocono Main Track and the Scranton Running Track (see Figure 1-35).

The West University Crossing connects University of Scranton classroom and sports facilities along Ridge Row with a 140-space permit parking lot.

It crosses effectively in the middle of what will become the two-track Hat Interchange Yard, which makes keeping the crossing in its present at-grade form operationally impractical. The closest alternative crossing location is about 900 feet to the east (East University), away from the campus, and there is no alternative crossing location to the west before the depressed Biden Expressway intervenes.

DESIGN ASSUMPTION

Replace the West University Crossing with a new grade-separated structure with ADA-compatible ramps.

2.3. Controlled Siding Moscow

Controlled Siding Moscow provides a short stretch of signalized double track where meets and overtakes can be scheduled between Amtrak and traffic of lesser priority (e.g.: excursion or freight



Figure 1-35. West University Pedestrian Crossing

Figure 1-36. Pedestrian Crossing at Moscow





trains), with remotely operated switches and Controlled Points at both ends. It and its complement— Controlled Siding East Stroudsburg—provides the additional capability of splitting the Pocono Mainline into three absolute positive blocks in which rolling stock without Positive Train Control can operate in isolation from other trains.

2.3.1. Existing Conditions





The Pocono Mainline between Block Stations at NAY AUG and ARMY is for the most part a dark, singletrack railroad maintained in a condition consistent with FRA Class 2 standards. Two exceptions to this are segments of double-track between WINTON and COBBS and between MOSCOW and DALE, the latter centered on the historic DL&W Moscow Station building.

There are no freight customers along this portion of the Pocono Main Track. There is a pedestrian crossing at the old station, used to cross passengers on the rare occasion that an excursion train is stopped on the opposite track. The Freight House siding is used to stage maintenance of way (MoW) equipment. East of Dale is a receiving yard for the Tobyhanna US Army Post that is not currently in service.

The current arrangement of the physical plant in vicinity of Moscow is illustrated in Figure 1-37.

2.3.2. Assumed Configuration





Assumptions made that would affect track, structure, and signal infrastructure design (see Figure 1-38) include:

• Optimizing track configuration for joint freight and passenger rail operations.

- Upgrade the one existing track between NAY AUG and DALE as the *Pocono Main Track*, maintained in a condition consistent with FRA Class 3 or 4 standards, as permitted by track geometry.
 - Equip the track with PTC and ABS, the latter primarily for broken rail detection.
 - Primarily intended to expedite Amtrak movements but also available for D-L freights transiting between IFHZs and main line excursion train movements.
- Extend the existing Moscow siding 950 feet westward to the present location of the Freight House switch and upgrade it to standards equivalent to the Pocono Main Track
 - Designate the track furthest from the station as <u>*Pocono Main Track #1*</u> and the track closest from the station as <u>*Pocono Main Track #2*</u>.
 - Configure the turnouts at both ends of Pocono Main Track #1 for diverging moves at reduced speed.
 - Configure turnouts at both ends of Pocono Main Track #2 for straight moves by through trains at speed (this is the assumed routing for all Amtrak trains)
- Reconfigure Freight House turnout and MoW siding off of Pocono Main Track #2, protected with an electric locked switch on a timer.
- Eliminate the at-grade pedestrian crossing at the old Moscow Station (see Figure 1-36). Presently, this crossing is only used by excursion train passengers in conjunction with an event at Moscow Station, under the supervision of railroad employees. It would be unsafe to allow uncontrolled pedestrian access across tracks over which higher-speed trains may be operating.
- Figure 1-39 provides a schematic representation of the operating rules in effect for the revised Pocono Main Track configuration between the Scranton Terminal and Summit IFHZs, inclusive of Controlled Siding Moscow.



Figure 1-39. Operating Rules in Effect: Scranton Terminal IFHZ to Summit IFHZ

2.4. Summit IFHZ

The Summit IFHZ encompasses a mix of smaller shippers along with the largest shipper on the Pocono Mainline: Ardent Mills' Mount Pocono Mill Facility in Pocono Summit.

2.4.1. Existing Conditions

Figure 1-40 illustrates the current arrangement of physical characteristics of the west end of the Summit IFHZ in the vicinity of Tobyhanna, which for the most part is a single track bordered on its north side by the





Figure 1-40. Existing Conditions: Summit IFHZ (West End)

US Army's Tobyhanna Depot. There is a second track between West East Toby and East East Toby, the latter at the PA Route 423 highway at-grade crossing and the site of a former passenger station. There are also remnants of a wye at East East Toby on which is located Keystone Propane, a local gas distributor that receives product by rail.

The Pocono Mainline necks down to a single-track east of East East Toby until West Ramp in Pocono Summit, where the second track is restored (Figure 1-41). The second track is maintained for about 1,400 feet past the Mount Pocono Mill to East Ramp. D-L routinely uses both tracks to shift the Mill.

Assumed The Summit IFHZ is envisioned as a self-contained operating zone wherein D-L can conduct their freight operations at any time with no interaction with Amtrak or NPS movements. Towards that end, an appreciable amount of storage capacity is assumed will be added to the Zone sufficient to receive and store inbound carloads for delivery to the Mill while simultaneously mustering outbound empties prior to return back to the interchange yard in Scranton (Hat Yard). Amtrak's Operating Plan also calls for a passenger station in the Zone (Mount Pocono).



Figure 1-41. Existing Conditions: Summit IFHZ (East End)



2.4.2. Assumed Configuration

Figure 1-42. Assumed Configuration: Summit IFHZ (West End)



Figures 1-42 and 1-43 illustrate the assumed infrastructure changes in the west and east ends of the Zone, respectively. Assumptions made affecting track, structure, and signal infrastructure design, include:

- Optimize track configuration for joint freight and passenger rail operations.
 - Continue to upgrade one existing track between electric locked switches at Hap and Mill as the <u>Pocono Main Track</u>, maintained in a condition consistent with FRA Class 3 or 4 standards, as track geometry may permit.
 - Equip the track with PTC and ABS, the latter primarily for broken rail detection.
 - Primarily intended to expedite Amtrak movements through the IFHZ.
 - Extend a new <u>Monroe Running Track</u> between electric locked switches at Hap and Mill, maintained in a condition consistent with FRA Class 3 or 4 standards, as track geometry may permit.
 - Primarily intended to facilitate D-L freight servicing of the Mount Pocono Mill and other local shippers within the Zone without affecting parallel moves on the Pocono Main Track.
 - Add 10,100 feet of additional yard storage at the west end of the Zone (Tobyhanna Yard).
- Add a new ADA-accessible Amtrak train station at Mount Pocono
 - A single side platform with high (48-inch) car floor-level boarding.
 - A 600 by 24-foot platform, sufficient to platform the all doors on a Type-B2 Airo consist.

Figure 1-43. Assumed Configuation: Summit IFHZ (East End)





- Property has been dedicated at approximately MP 101.45 in Tobyhanna Township, Monroe County, for a new Amtrak Station as part of a new family recreational development. This site is assumed to be the location of Mount Pocono Station for design purposes.
- Figure 1-44 provides a schematic representation of the operating rules in effect for the corresponding revised track configuration.
 - Amtrak and NPS excursion trains can operate freely past the Zone over the Pocono Main Track while D-L freight operate on parallel tracks kept separated behind electric locked switches.



Figure 1-44. Operating Rules in Effect: Summit IFHZ

2.5. Boiler IFHZ

2.5.1. Existing Conditions

The volume of freight traffic drops precipitously east of the Summit IFHZ to the extent that D-L typically services the remainder of the Pocono Mainline once a week (versus up to six days a week west of Mill). Reflecting that, the complexity of the remainder of the physical plant to support combined passenger and freight train is likewise assumed to be simpler.

Most of the freight customers along this portion of the Pocono Mainline are clustered along the Gravel Siding between ANA and the Mill Creek Road at-grade crossing with one notable exception: Bestway Enterprises, Inc., a building materials supplier near CRESCO.

2.5.2. Assumed Configuration

Assumptions made that would affect track, structure, and signal infrastructure design include:

- Optimize track configuration for joint freight and passenger rail operations.
 - Upgrade the one existing track between MILL and Courtland Street (PA Route 309) as the continuation of the *Pocono Main Track*, maintained in a condition consistent with FRA Class 3 or 4 standards, as permitted by track geometry.
 - Equip the track with PTC and ABS, the latter primarily for broken rail detection.
 - Primarily intended to expedite Amtrak movements through the IFHZ.
 - Extend a new <u>Stroudsburg Running Track</u> between electric locked switches at East and West Boiler, maintained in a condition consistent with FRA Class 3 or 4 standards, as track geometry may permit.



- The Boiler IFHZ is assumed to facilitate shifting of freight customers along the Gravel Siding without impacting Amtrak train movements. While freight service operates fewer days per week east of Mill are less, the opportunities for passenger-freight train interference in remain consistent each day freight operates.
- Amtrak and NPS excursion trains can operate freely past the Zone over the Pocono Main Track while D-L freight operate on parallel tracks kept separated behind electric locked switches.
- Figure 1-45 provides a schematic representation of the operating rules in effect for the corresponding revised track configuration.

2.6. Controlled Siding East Stroudsburg

Controlled Siding East Stroudsburg like its compliment at Moscow provides another short stretch of signalized double track where meets and overtakes can be scheduled or the Pocono Mainline can be split into multiple absolute positive blocks.

2.6.1. Existing Conditions

The Pocono Mainline between the Courtland Street (PA Route 309) at-grade crossing and the Interstate-80 overhead bridge was once four tracks through the original station site on the south side of Analomink Street. Track throws were made to the alignment during the Conrail era with little regard for their negative influence on train performance (see Figure 1-46).

The railroad is presently a dark, single-track line maintained in a condition consistent with FRA Class 2 standards. (see Figure 1-47). There are currently no freight customers along this portion of the Pocono Mainline. From the west, there are four atgrade highway crossings in quick succession and one at-grade pedestrian crossing in East



Figure 1-46 Aggregeous track throw behind Danbury Depot





Stroudsburg linking downtown shops with parking.

Shops ("Danbury Depot") were built atop the station's original concrete platform. The distance between the northeast corner of that platform and a historic railroad tower preserved on site is barely 40 feet, which presents a significant constraint on the design of future track, station, and grade crossing facilities.

2.6.2. Assumed Configuration

Assumptions affecting infrastructure design (see Figure 1-48) include:

- Optimizing track configuration for joint freight and passenger rail operations.
 - Upgrade the one existing track between Courtland Street (PA Route 309) and I-80 overhead bridge as the continuation of the <u>Pocono Main</u> <u>Track</u>,.
 - Equip the track with PTC and ABS for broken rail detection.



- Extend a new track in parallel to and on the north side of the Pocono Main Track from a point immediately east of Broad Street (designated "CP Henwood") 4,200 feet east to a point short of the Interstate-80 overhead bridge (designated "CP Warrior").
 - Construct new track to standards equal to the Pocono Main Track
 - Designate the original track as <u>Pocono Main Track #1</u> and new track as <u>Pocono Main Track #2</u>.
 - Configure the turnouts at both ends of Pocono Main Track #1 for diverging moves at reduced speed.
 - Configure turnouts at both ends of Pocono Main Track #2 for straight moves by through trains at speed (this is the assumed routing for all Amtrak trains).
- Eliminate Burson Street at-grade highway crossing
 - Short, low volume street
 - Other crossings nearby
 - Interferes with track speed (limits superelevation in curve)
- Add a new ADA-accessible Amtrak train station at East Stroudsburg (see Figures 1-49 & 1-50)
 - Two 780 by 15-foot side platforms, sufficient to platform an entire on a Type-B2 Airo consist.
 - Extra length needed to avoid fouling Analomink Street or its pedestrian crossing
 - Platform on Track #1 configured for low-level boarding—8-inches above top of rail (ATOR)
 - Necessary to preserve clearance for extra-dimensional (wide) loads on Pocono Mainline



Figure 1-49. East Stroudsburg Station Detail





Figure 1-50. Cross-Section at East Stroudsburg Station

- Type-B₂ *Airo* train consists are equipped for ADA access from low or high-level platforms (although high is the preferred default)
- NPS Steamtown rolling stock can work off of high or low-level platforms
- Platform on Track #2 configured for high-level boarding—48-inches above top of rail (ATOR)
 - Primary platform for Amtrak trains in both directions
 - Uses sidewalk at Analomink street crossing to access and change platforms
- Eliminate at-grade pedestrian crossing in the station area. Use Analomink Street crossing.
- Figure 1-51 provides a schematic representation of the operating rules in effect for the revised Pocono Mainline.



Figure 1-51. Operating Rules in Effect: Controlled Siding East Stroudsburg



3. CONCLUSIONS

This technical report presents a general overview of existing conditions and design assumptions underlying the changes and upgrades deemed necessary to adapt the existing PNRRA Pocono Mainline to accommodate shared operations safely and reliably by Amtrak intercity passenger trains, D-L freights train, and NPS Steamtown excursions, as a prelude to the three following technical reports focused on track, structures, and signals and communications.

3.1. Cost Estimates

Each technical report sets out an assumed scope of work and estimated cost for infrastructure improvements and upgrades deem necessary to achieve Amtrak's operating goals along with reducing life-cycle maintenance costs for the physical plant cost estimate referred to as the "Suggested Program." Each technical report also considers an "Minimum Program" that would defer some non-safety-critical improvements in the Suggested Program for up to ten years in order to reduce the initial amount of capital outlay prior to the start of revenue service at the cost of increased maintenance expense over the first decade of operation. A summary of cost estimates is contained in Table 1-2.

	SUGGESTED PROGRAM		MINIMUM PROGRAM
ТКАСК	\$ 120,244,000	\$	56,875,000
SIGNALS & COMMUNICATIONS	\$ 24,303,500		\$22,483,500
Train Control	\$ 20,728,500	61	18,908,500
Crossing Protection	\$ 3,575,000	\$	3,575,000
STRUCTURES	\$ 30,153,000	\$	16,739,000
TOTAL	\$ 174,700,500	\$	96,097,500

Table 1-2. Summary of Cost Estimates

4. EXHIBITS

Photographs documenting the condition of the Pocono Mainline traveling from east to west, most collected in March and April 2022, under the supervision of D-L personnel. Photos of mile markers highlight the variable state of the roadbed and ballast shoulders over distance.



Lackawanna Cutoff Alignment south of Slateford Yard



MP 73.83 Lackawanna Cutoff Undergrade Bridge over Slateford Road & Pocono Mainline



MP 73.79 Private Crossing atv 376 Slateford Rd



MP 73.95 Decker Ferry Rd Crossing



MP 74.06 Private Crossing at 671 Slateford Rd



MP 75.00



MP 76.00

MP 77 Marker



MP 77.83 River Rd Ped Crossing





MP 77.83 River Rd Crossing



MP 78 Marker



MP 78.0



MP 78.5



MP 78.70 RockTenn Siding



MP 78.77 Bells Bridge UG Bridge & I-80 OH Bridge



MP 79.00



MP 79.50



MP 80.00

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MP 80.65 Rock Cut



MP 80.70 Forge Rd Crossing



MP 81 Marker (looking West)



MP 81 Marker (looking East) & I-80 OH Bridge



MP 81.20 Homeless Encampments near East Stroudsburg



MP 81.29 Ridgeway OH Bridge & Another Sloppy Throw