

Center for Transportation Excellence



Metro[™]

April 2023

The Impetus for the Project



- **Metro has many bus, rail, and infrastructure projects with similar challenges:**
 - Limited access to vehicle and system level testing
 - Limited access to trained, skilled workforce
 - Limited access to vendors
 - Limited access to R&D facilities
 - Project and new vehicle deployment delays are often the result
- **New technologies are being incorporated in regional projects and programs**
 - Zero emission, microgrids, autonomous vehicles, high speed rail, etc. coming in next several decades
 - Project risk is reduced when expertise and testing is local
- Metro, and the region at large, needs **qualified transit workforce, including engineers and operators**

Key Site Requirements



Phase 1:

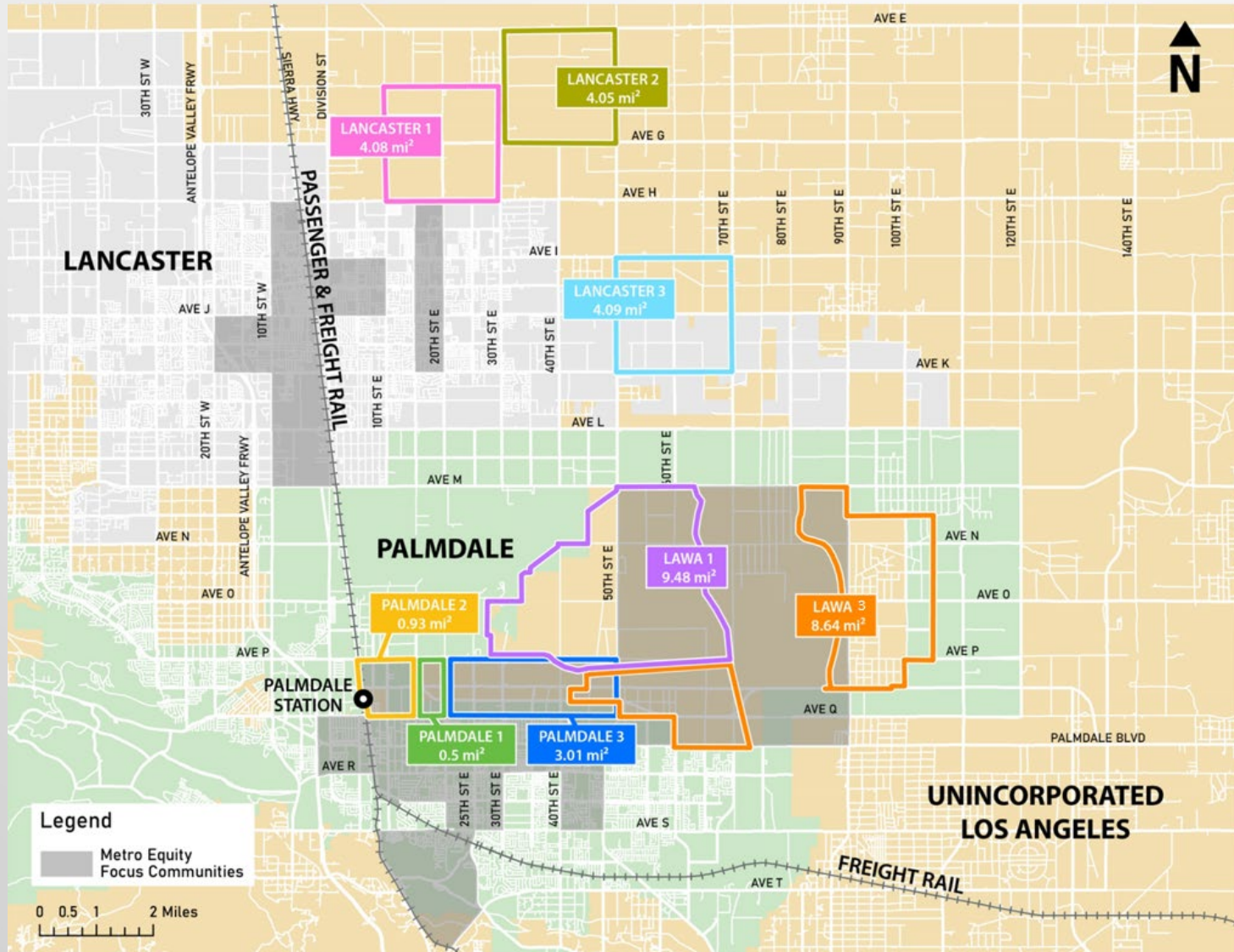
Approx. 7 square miles needed for Rail Test Tracks and Vehicle Testing Laboratories to Serve Metro and 3rd Parties, and approximately 500,000 square feet of system testing laboratories and auxiliary uses:

- Track must sustain rail vehicle speeds of 85 mph
- Advanced dynamometer for electric vehicles
- Testing for microgrids, vehicle-grid integration
- Climate room for railcar and bus HVAC testing
- Space for 3rd parties to make refinements based on tests
- Facilities for Training Engineers and Operators

Phase 2:

Two manufacturing facilities for bus and rail vehicle assembly, collectively sized at 1,500,000 square feet.

Identification of a Suitable Site



Site Evaluation Summary



Property Size

- *Only two of the eight sites meet the minimum criteria for light and heavy rail testing – the most critical criteria.*

The sites performed the same under all other criteria:

Proximity to rail corridor

- All sites were within six miles of a rail corridor. One site contained a rail spur within its boundary.

Zoning

- Six of the eight sites fall within two jurisdictions to varying degrees: Unincorporated Los Angeles County and the City of Palmdale. Two sites are entirely within Unincorporated LA. Each of the sites show an array of zoning designations, including Residential, Commercial, Industrial, Manufacturing, and Agricultural.

Flood plains

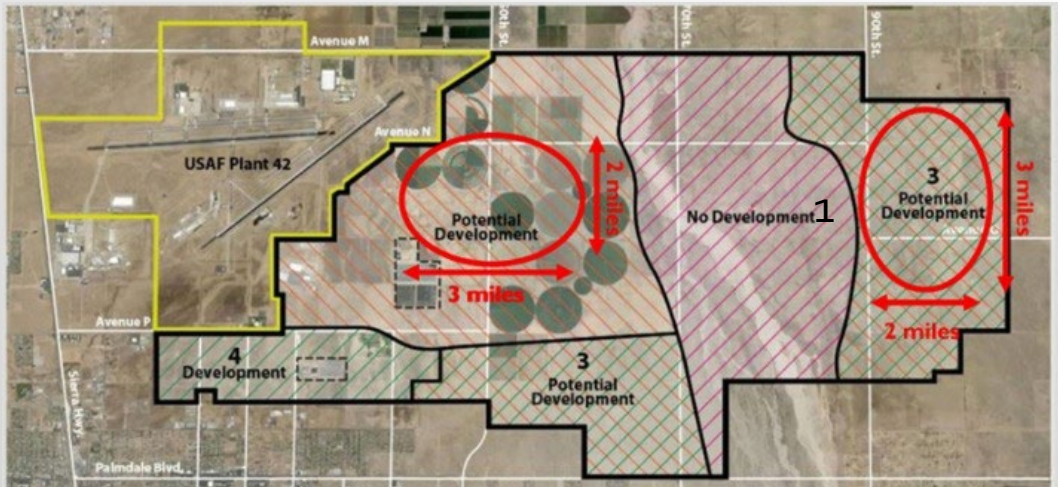
- All but one site fall at least partially within an existing flood hazard zone.

Local Public Transportation

- All but two sites are adjacent to or include local transit routes.



LAWA Properties



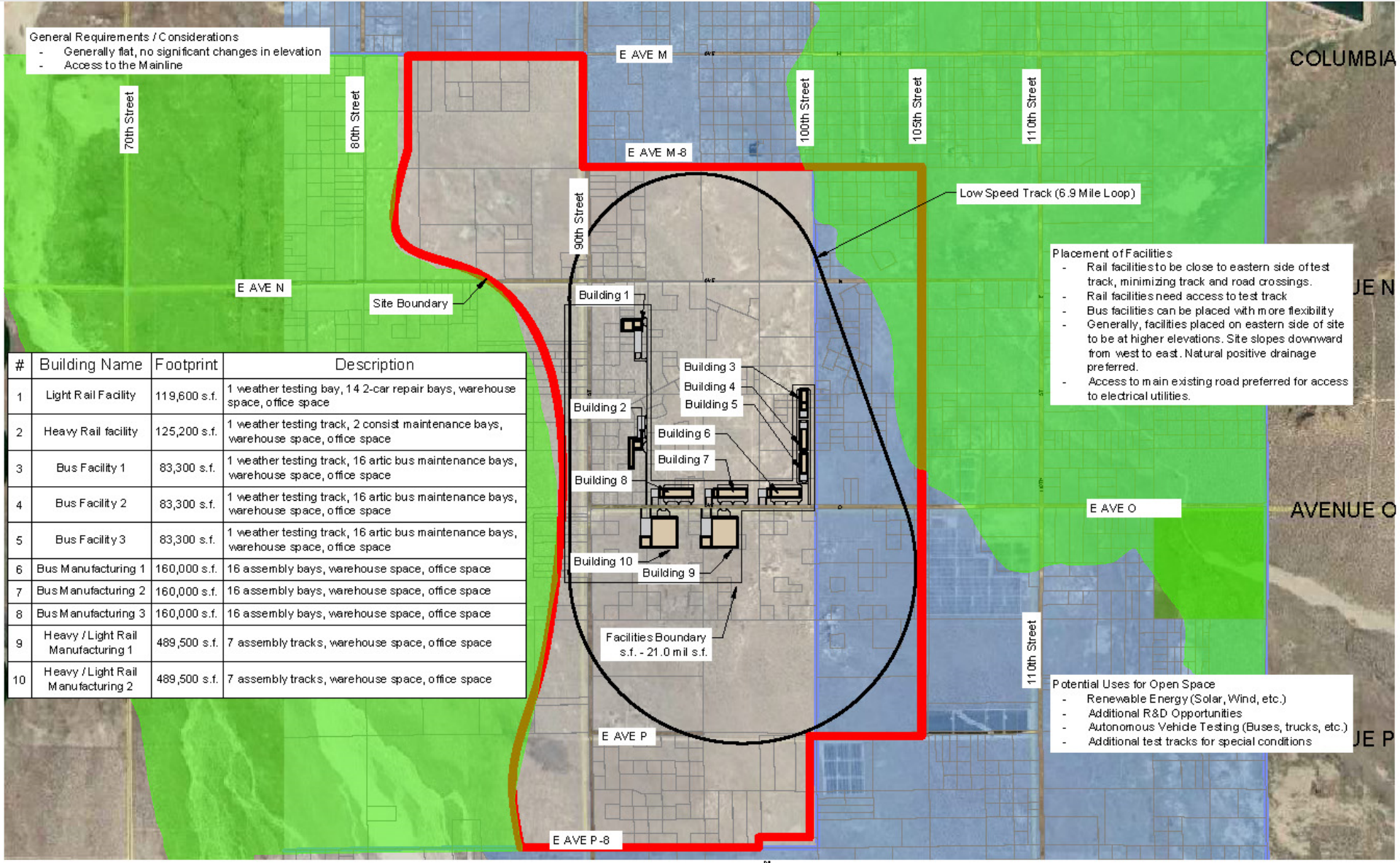
- Adequate Size
- Public and Willing Property Owner
- No existing built improvements on the Property
- Proximity to future High Desert Corridor
- Equity Focused Community

Conceptual Site Plan



General Requirements / Considerations

- Generally flat, no significant changes in elevation
- Access to the Mainline



Placement of Facilities

- Rail facilities to be close to eastern side of test track, minimizing track and road crossings.
- Rail facilities need access to test track
- Bus facilities can be placed with more flexibility
- Generally, facilities placed on eastern side of site to be at higher elevations. Site slopes downward from west to east. Natural positive drainage preferred.
- Access to main existing road preferred for access to electrical utilities.

Potential Uses for Open Space

- Renewable Energy (Solar, Wind, etc.)
- Additional R&D Opportunities
- Autonomous Vehicle Testing (Buses, trucks, etc.)
- Additional test tracks for special conditions

#	Building Name	Footprint	Description
1	Light Rail Facility	119,600 s.f.	1 weather testing bay, 14 2-car repair bays, warehouse space, office space
2	Heavy Rail facility	125,200 s.f.	1 weather testing track, 2 consist maintenance bays, warehouse space, office space
3	Bus Facility 1	83,300 s.f.	1 weather testing track, 16 artic bus maintenance bays, warehouse space, office space
4	Bus Facility 2	83,300 s.f.	1 weather testing track, 16 artic bus maintenance bays, warehouse space, office space
5	Bus Facility 3	83,300 s.f.	1 weather testing track, 16 artic bus maintenance bays, warehouse space, office space
6	Bus Manufacturing 1	160,000 s.f.	16 assembly bays, warehouse space, office space
7	Bus Manufacturing 2	160,000 s.f.	16 assembly bays, warehouse space, office space
8	Bus Manufacturing 3	160,000 s.f.	16 assembly bays, warehouse space, office space
9	Heavy / Light Rail Manufacturing 1	489,500 s.f.	7 assembly tracks, warehouse space, office space
10	Heavy / Light Rail Manufacturing 2	489,500 s.f.	7 assembly tracks, warehouse space, office space

Facilities Boundary
s.f. - 21.0 mil s.f.

Low Speed Track (6.9 Mile Loop)

Site Boundary

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Summary of Due Diligence and Planning



- **Activities Completed**
 - Prepare Site Lay Out
 - Complete Initial feasibility assessment of Utility Service
 - Complete Land Use and Environmental Assessment
- **Complicating Dynamics**
 - Site is located between two Sensitive Ecological Areas, biological review critical to assessing feasibility of development
 - LA City Charter only authorizes LAWA to enter into 50- year lease
 - Site is located in both unincorporated LA County and City of Palmdale, will need to determined most appropriate entitlement pathway

Next Steps



- Continue planning activities at LAWA_{3E}, including developing a conceptual budget, entitlement, and environmental clearance strategy,
- Complete biological surveys to confirm no fatal site conditions
- Engage the County of Los Angeles, LAWA, the surrounding local jurisdictions, industry stakeholders, to discuss potential partnerships, site control strategies and governing models to advance the project.
- Conducts a financial feasibility analysis and a subsequent financing plan that layers multiple public and private sources.
- Prepare an economic impact study through the Los Angeles Economic Development Corporation (LAEDC).
- Pursue funding opportunities, including appropriations as part of the State and Federal budgets to support planning activities.

Feedback and Questions



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Thank you!