



# Dulles Corridor Metrorail Project Phase 2 – Package B

Quarterly Update to MWAA Board of Directors

Michael Barker  
Hensel Phelps

March 2019





## Phase 2 Package B - Agenda

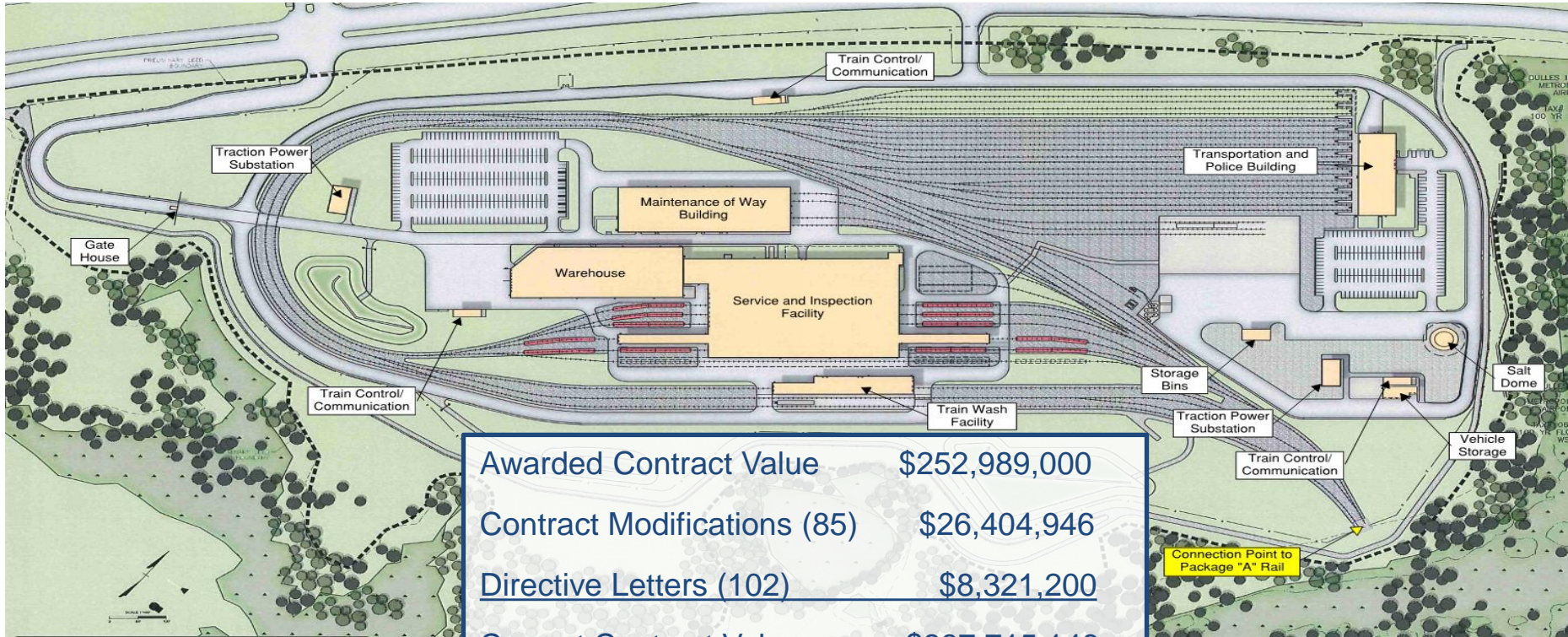


- Contract/Project Overview
- Safety
- Schedule
- Project Status
- DBE
- Diversity
- Environmental





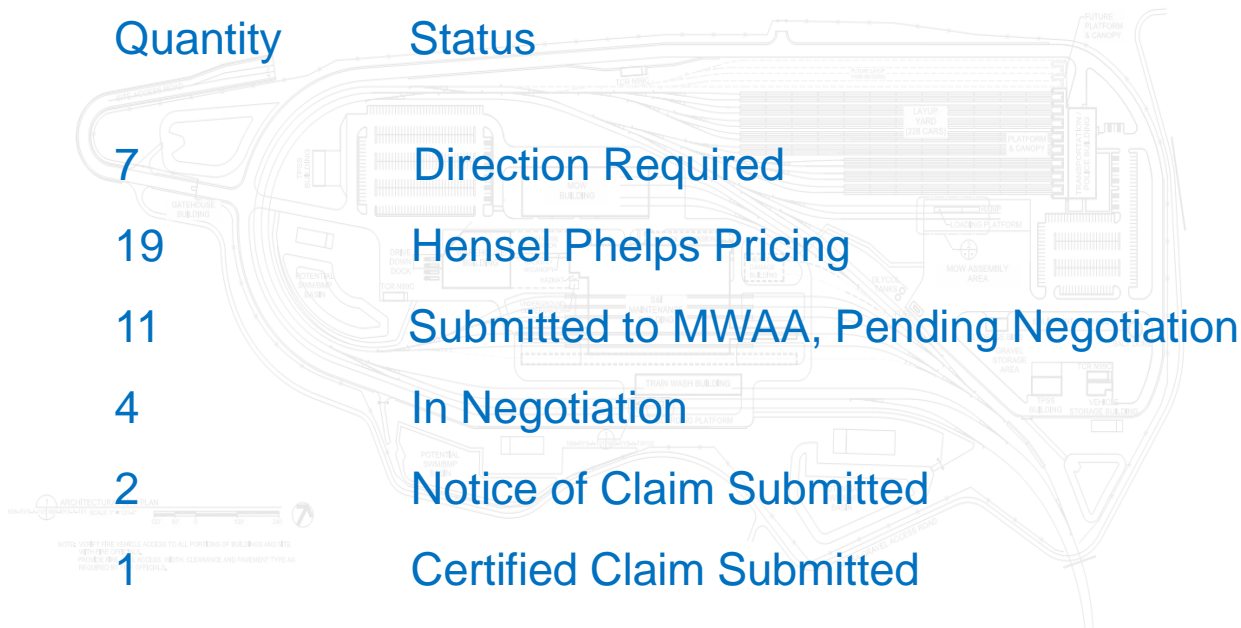
# Project Status - Value



Awarded Contract Value	\$252,989,000
Contract Modifications (85)	\$26,404,946
Directive Letters (102)	\$8,321,200
Current Contract Value	\$287,715,146



# Project Status – Outstanding Changes





# Outstanding Cost and Schedule Impacts

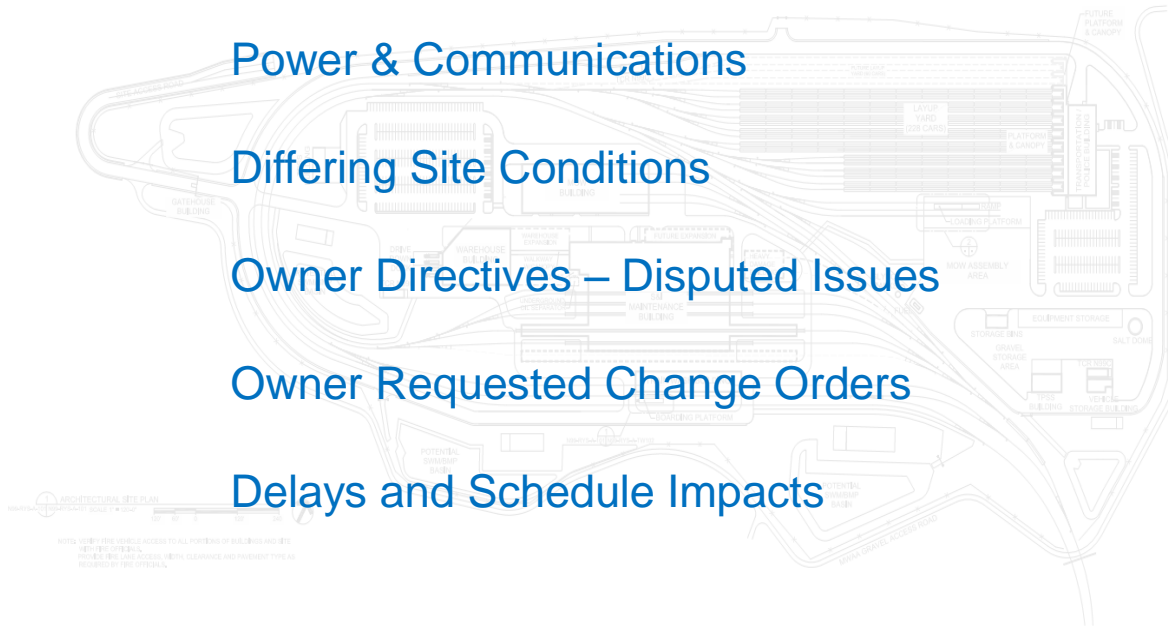
Power & Communications

Differing Site Conditions

Owner Directives – Disputed Issues

Owner Requested Change Orders

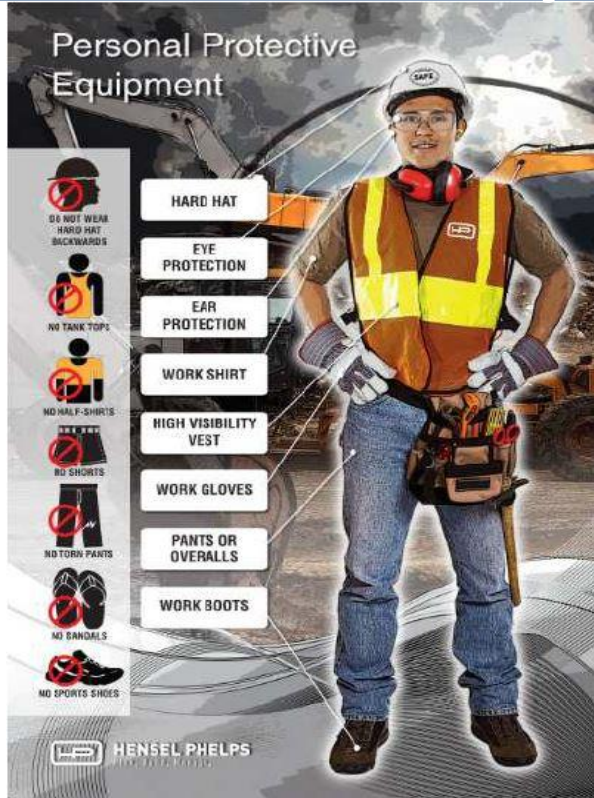
Delays and Schedule Impacts







# Project Safety Record



- **Man-Hours:** **1,820,320**  
(2015 - 2018)
- **PROJECT DART RATE:** **1.32**  
(Days Away, Restricted, Transferred)
- **Safety Orientation:** **2200 +**  
(Total Trained)
- **Project OSHA Recordable Rate:**
  - Project Wide **1.75**
  - Hensel Phelps **0.22**
- **Lost Time Rate – Project Wide:** **0.11**
- **Lost Time Rate – Hensel Phelps:** **0.00**



# Project Schedule Overview



Notice to Proceed

Aug 18, 2014

Design Build Performance Period

1,460 Days

Substantial Completion

Aug 17, 2018

Revised (CO-043): Dec 23, 2018

Final Completion

Oct 16, 2018

Feb 21, 2019

February 2019  
Schedule Update

In-Negotiation

TBD

TBD

Substantial Completion Delays are related to changes to Platforms in the SIB.



# Project Schedule – 12 Mo Look Ahead

1 <sup>st</sup> Quarter 2019	2 <sup>nd</sup> Quarter 2019	3 <sup>rd</sup> Quarter 2019	4 <sup>th</sup> Quarter 2019
<ul style="list-style-type: none"> <li>• <i>Finish and Punch Buildings</i></li> <li>• <i>Commissioning of Industrial Equipment</i></li> <li>• <i>Energizing Third Rail</i></li> <li>• <i>System Integration Testing</i></li> <li>• <i>Training</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Finish and Punch Site</i></li> <li>• <i>Commissioning of Industrial Equipment</i></li> <li>• <i>Mill and Pave Mercure Circle</i></li> <li>• <i>System Integration Testing</i></li> <li>• <i>Training</i></li> <li>• <i>Demonstrations</i></li> <li>• <i>Safety &amp; Security Documentation</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Change Order Work</i></li> <li>• <i>System Integration Testing for Changes</i></li> <li>• <i>Demonstrations for Changes</i></li> <li>• <i>Project Closeout</i></li> <li>• <i>Safety &amp; Security Documentation fro Changes</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>System Integration Testing for Changes</i></li> <li>• <i>Demonstrations for Changes</i></li> <li>• <i>Project Closeout</i></li> <li>• <i>Safety &amp; Security Documentation fro Changes</i></li> </ul>

Building Key:      MWB – Maintenance of Way Building    SIB - Service & Inspection Building  
 TWF – Train Wash Facility    TPB – Training & Police Building      WHB - Warehouse Building





# Project Status

November  
2018

Looking  
East





# Project Status

November  
2018

Looking  
Southwest







# Project Status

## Service & Inspection Facility

186,000 sf

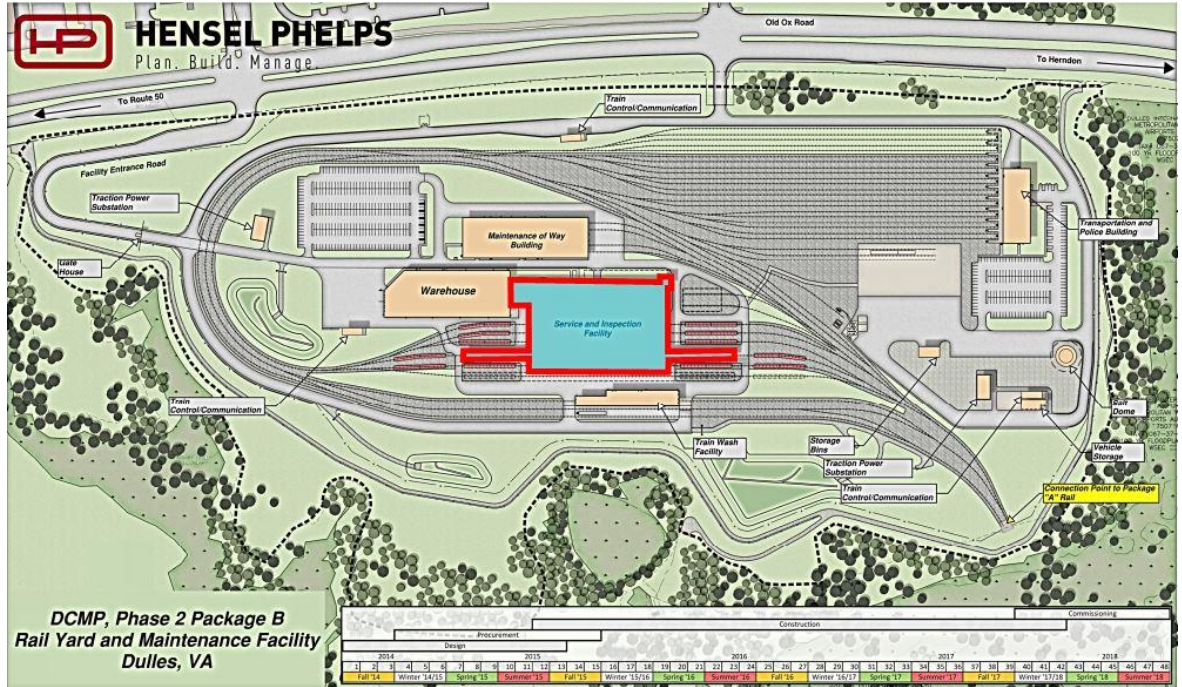
Percent Complete: 96%

**Includes:**

- a single story high bay maintenance area  
Primary Function: is the maintenance, repair, interior and cleaning
- a two-story administrative area.  
Includes :yard control tower

**Equipment Included:**

- 20 turntables,
- 36 vehicle lifts,
- 4 truck lifts,
- 1 wheel truing machine,
- 1 wheel and axle press,
- 1 wheel boring machine,
- 4 20-ton bridge cranes,
- 1 10-ton bridge crane
- 1 5-ton bridge crane.







# Project Status

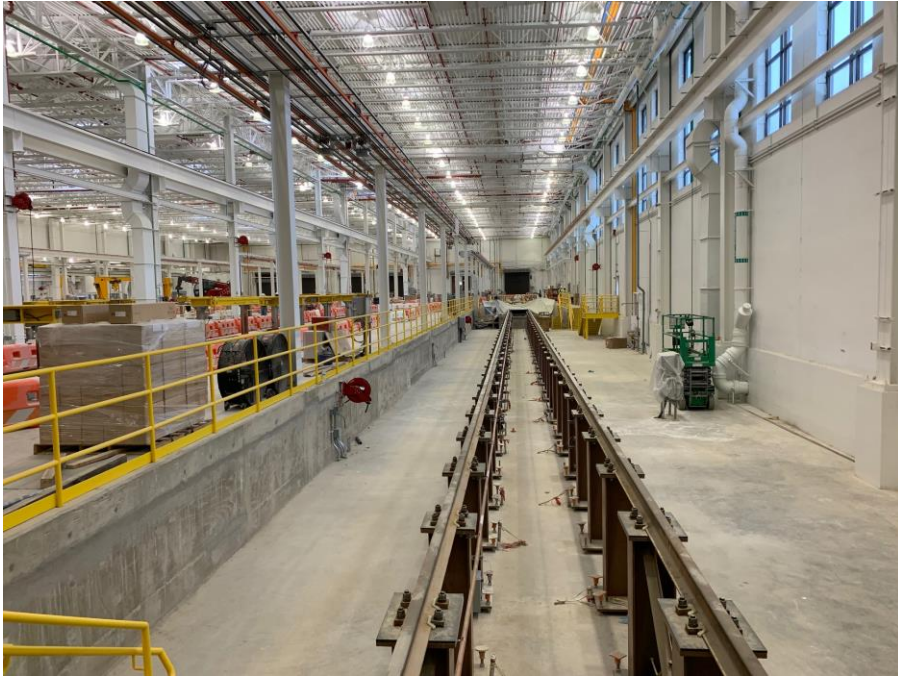
November  
2018

SIB





# Project Status



SIB Shop Area





## Project Status



SIB Shop Area



SIB Shop Area





# Project Status



Upper Mezzanine



SIB Control Tower



# Project Status

## Maintenance of Way Facilities

67,000 sf

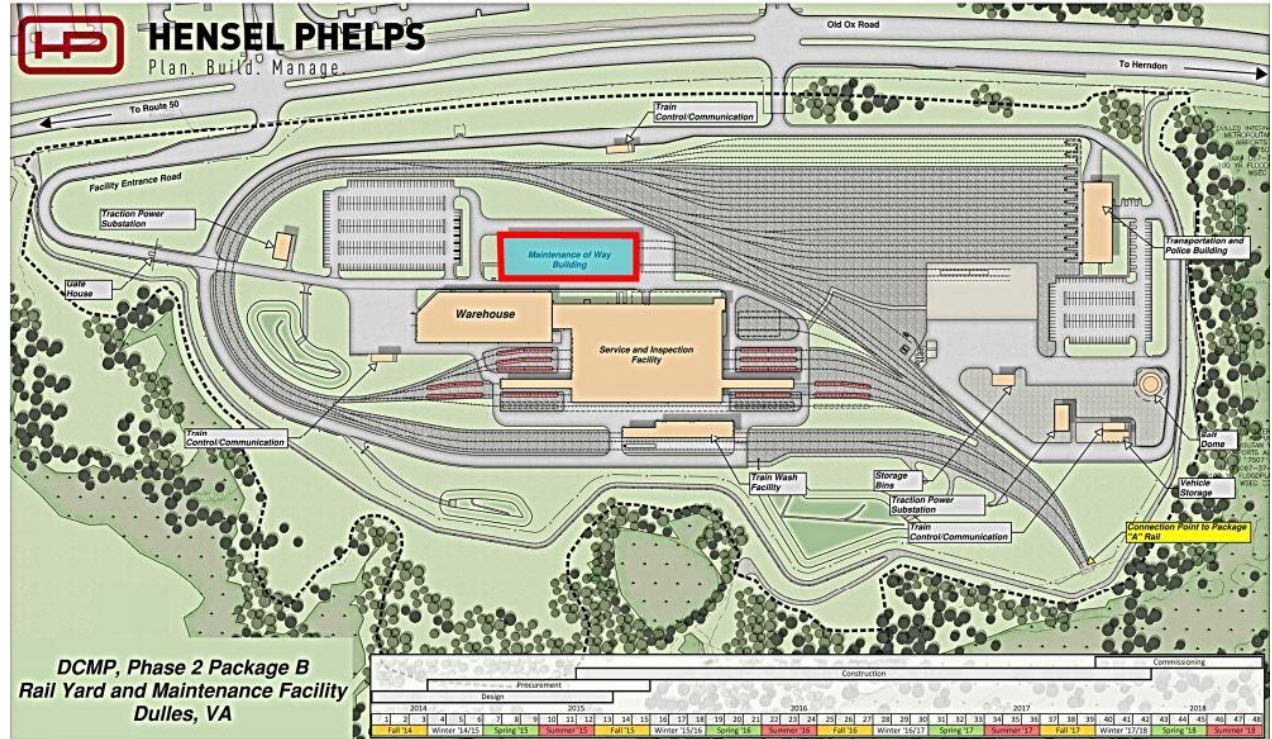
Percent Complete: 92%

Consists of:

- a single story high bay maintenance area and
- a two-story administrative area

Primary function:

- the maintenance and repair of the revenue track maintenance equipment
- houses the MOW department.







# Project Status



MWB Maintenance Bay





## Project Status



MWB Second Floor



MWB Second Floor



# Project Status

## Transportation & Police Building 35,000 sf

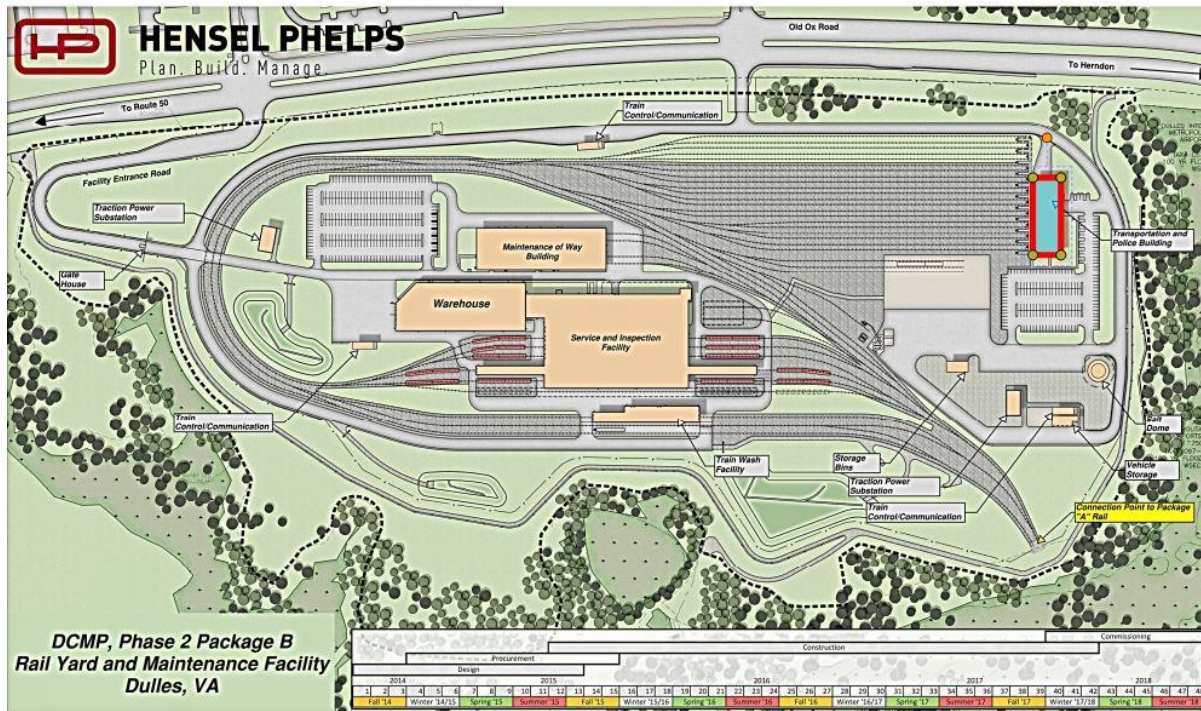
Percent Complete: 92%

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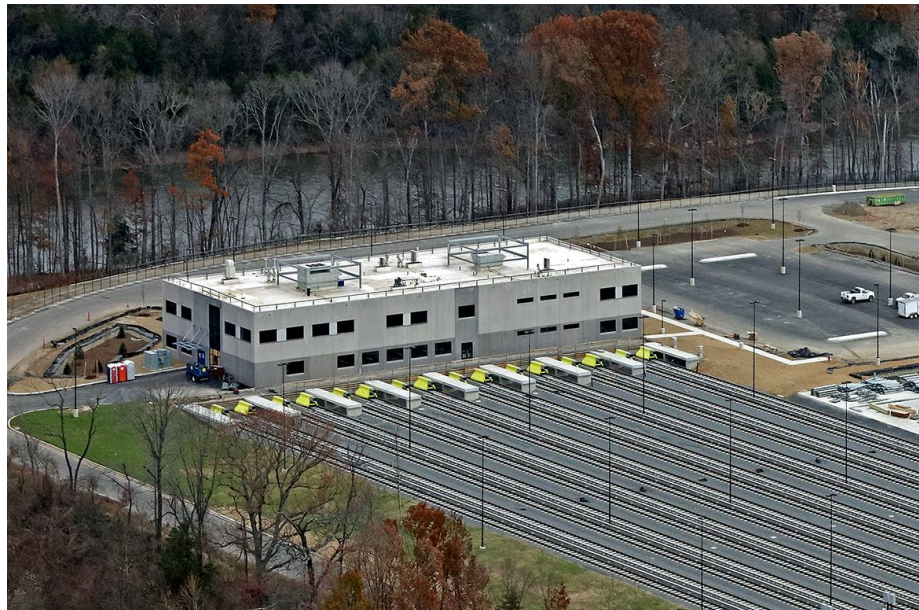




## Project Status



TPB First Floor



TPB Looking East



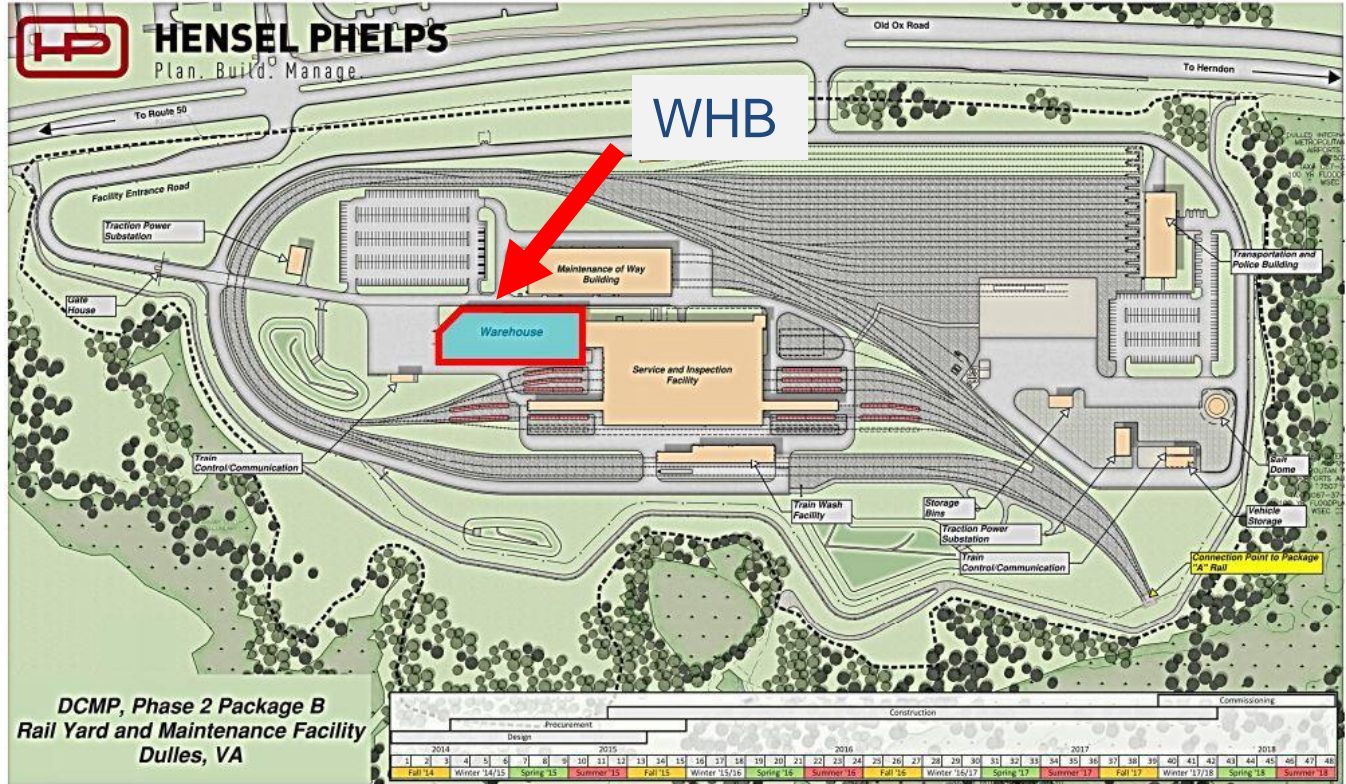


# Project Status

**Warehouse**  
50,000 sf

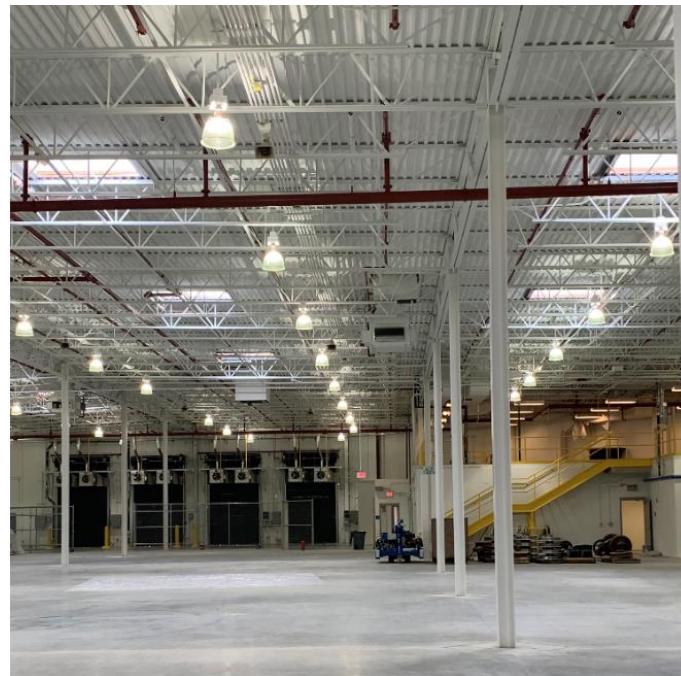
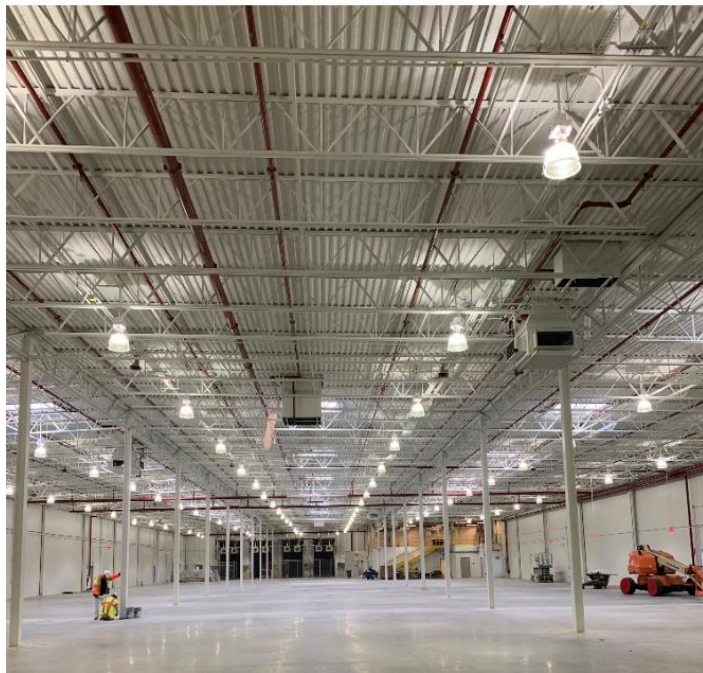
**Percent Complete: 90%**

Single story, high bay building that stores rail car maintenance parts.





# Project Status



Warehouse





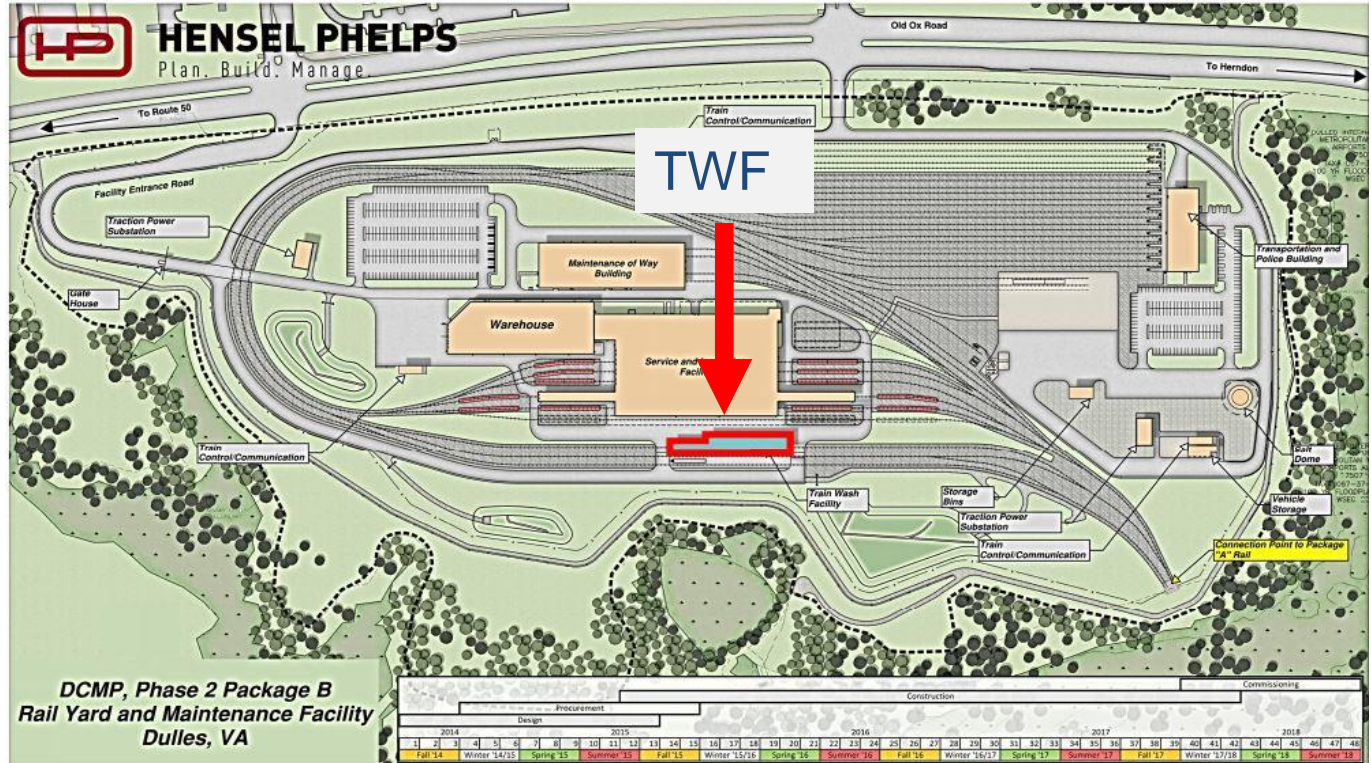
# Project Status

## Train Wash Facility 14,000 sf

Percent Complete: 86%

Single story structure that washes the rail cars.

This is an automatic system that sends the trains through multiple stations of cleaning and drying prior to exiting the facility.





# Project Status

## Train Wash looking North



## Inside Train Wash Facility







# Project Status

## Track Work

Percent Complete: 94%

## Sitework

Percent Complete: 99%

## Asphalt Paving

Percent Complete: 47%





# Project Status

November  
2018

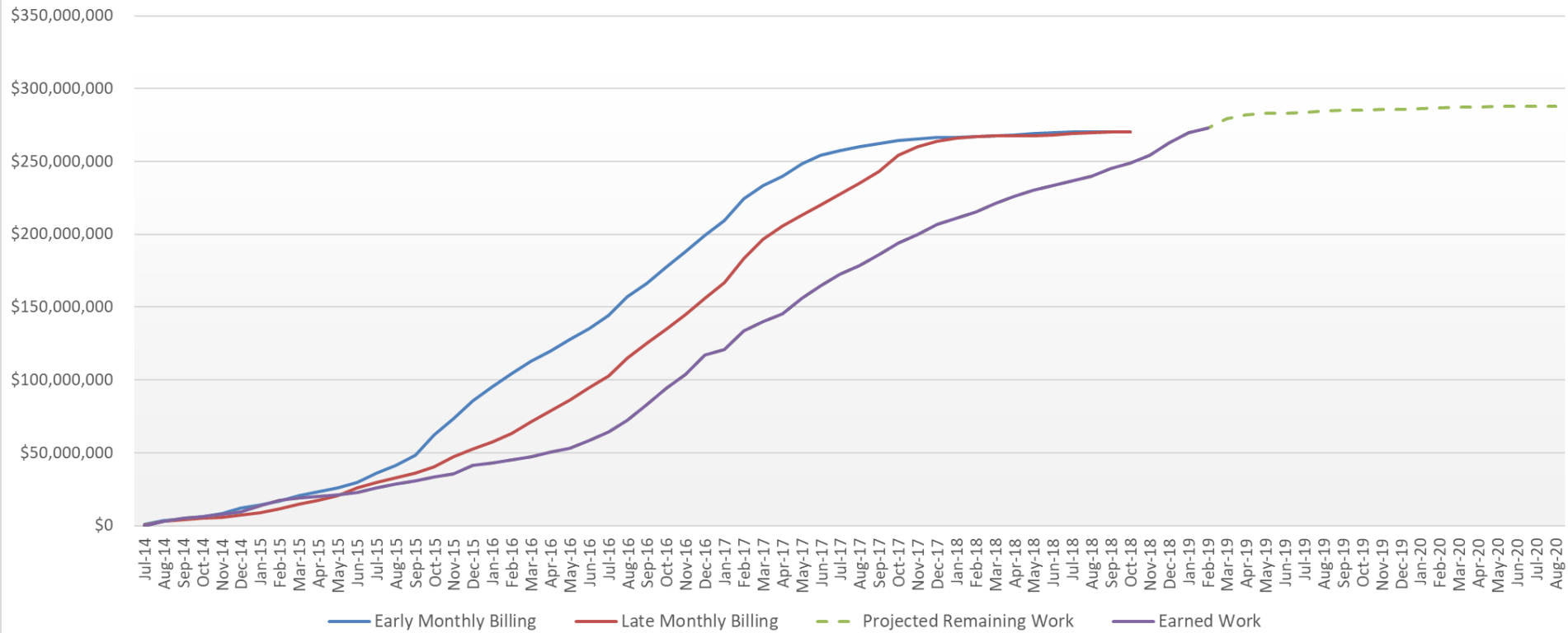
Track







### Billing Curve





# DBE Small Business Procurement

## DBE Participation



- Contracts Awarded
- DBE Participation Commitment

Total Awarded Subcontracts	\$228,788,924
DBE Contracts Awarded	\$ 42,998,602 (14.94%)
Countable DBE Participation	\$ 37,561,661 (13.06%)
Hensel Phelps Current Countable DBE Participation	13.06%
Hensel Phelps Contract Goal	14.0%





# Current Project Labor Diversity

	Professional		Foreman		Laborer		Operator		Finisher		Carpenter		Painter /Glazier/Tile Setter		Pipefitter / Plumber		Iron Worker / Welder		Mechanic / HVAC		Electrician	
African American	9	2%	5	1%	26	6%	5	1%	6	1%	1	0%			5	1%			3	1%	12	3%
Caucasian	81	20%	9	2%	12	3%	14	3%	1	0%	3	1%	3	1%	8	2%	8	2%	15	4%	38	9%
Hispanic	16	4%	6	1%	29	7%	6	1%	23	6%	9	2%	30	7%	21	5%	10	2%	5	1%	25	6%
Other	12	3%									1	0%			6	1%			2	0%	3	1%
Female	12	3%			6	1%							2	0%								

African American	72	15%			Caucasian	192	41%			Hispanic	180	38%			Other	24	5%			Female	20	4%
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# Current Labor by State

	Professional		Foreman		Laborer		Operator		Finisher		Carpenter		Painter/Glazier/Tile Setter		Pipefitter/Plumber		Iron Worker/Welder		Mechanic/HVAC		Electrician	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
VA	57	13%	10	2%	26	6%	13	3%	5	1%	6	1%	25	6%	18	4%	9	2%	5	1%	61	14%
MD	45	10%	8	2%	29	6%	7	2%	22	5%	7	2%	5	1%	19	4%	7	2%	18	4%	8	2%
DC	3	1%			6	1%	2	0%	3	1%					0	0%	1	0%	1	0%	5	1%
Other	13	3%	2	0%	6	1%	3	1%			1	0%	3	1%	2	0%	1	0%	1	0%	5	1%
<b>VA</b>	<b>235</b>	<b>50%</b>																				
<b>MD</b>	<b>175</b>	<b>37%</b>																				
<b>DC</b>	<b>21</b>	<b>4%</b>																				
<b>Other</b>	<b>37</b>	<b>8%</b>																				

\*Includes other states PA, WV, NJ, AZ, OH, FL, TN, NC, KY, IN, GA & CA

\*Manufacturing accounts for 64% of the other states



## Environmental

### Erosion and Sediment Control

In Compliance – No Infractions

### Spills/Releases

In Compliance – No releases





METROPOLITAN  
WASHINGTON  
AIRPORTS AUTHORITY



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