

RAILROAD COORDINATION

DeIDOT

Winter Workshop

March 14, 2014

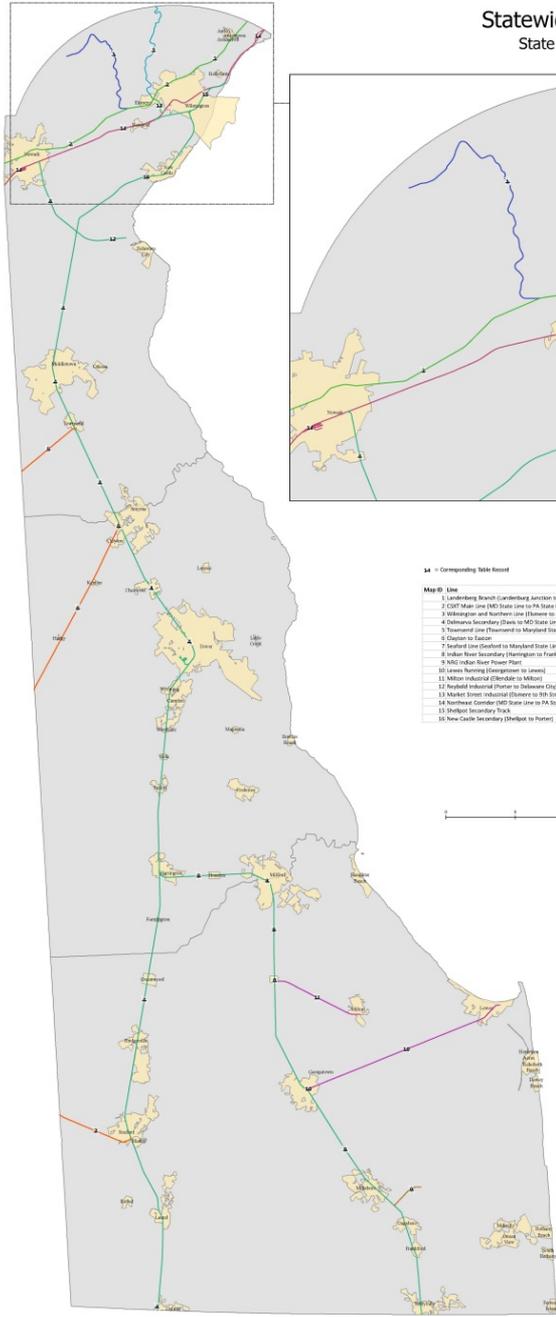
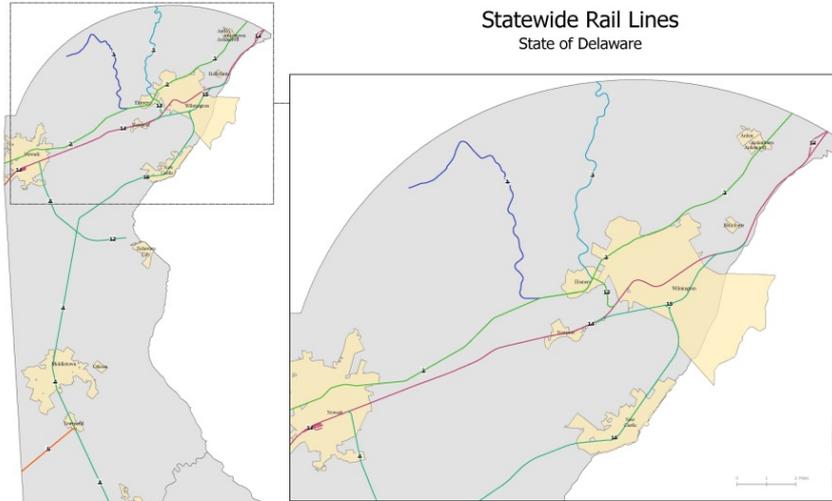
- **DeIDOT's Process**
 - History
 - Goals Moving Forward
 - Overall Project Coordination
- **ADA Requirements for At-Grade Railroad Crossings**
- **DEMUTCD Striping Guidelines**

RAILROAD COORDINATION

- **Seven (7) Rail Operators in Delaware**
 - Amtrak
 - CSX
 - Norfolk Southern
 - East Penn
 - Maryland and Delaware
 - Delaware Coast Line
 - Wilmington & Western
 - Several Private / Industry Sidings
 - PBF (Refinery)
 - Printpack
 - Evraz Steel
- **Over 300 At-Grade Railroad Crossings & Over 70 Grade Separated Crossings**

RAILROAD COORDINATION

Statewide Rail Lines State of Delaware



14 - Corresponding Table Record

| Map ID | Line | Line Owner | Operating Railroad (Franchise Right) |
|--------|--|-------------------------|--------------------------------------|
| 1 | Landsberg Branch (Landsberg Junction to Stockton) | Harbor Rail Clay Valley | Wilmington and Vicinity |
| 2 | CSX Main Line (MD State Line to PA State Line) | CSX | CSX |
| 3 | Wilmington and Northern Line (Wilmington to PA State Line) | East Penn Railway | East Penn Railway |
| 4 | Delaware Secondary (Docks to MD State Line) | Norfolk Southern | Norfolk Southern |
| 5 | Transport and Placement to Maryland State Line | State of Maryland | Maryland and Delaware |
| 6 | Clayton to Easton | State of Maryland | State of Maryland |
| 7 | Southern Line (Easton to Maryland State Line) | State of Maryland | Maryland and Delaware |
| 8 | Sabon River Secondary (Harrington to Funford) | Norfolk Southern | Norfolk Southern |
| 9 | M&D Near Shore "Plant" | M&D Group | Norfolk Southern & M&D Energy |
| 10 | Lanes Running (Dorchester to Lewis) | State of Delaware | Delaware Coast Line Railroad Company |
| 11 | Wilson Industrial (Dorchester to Milton) | State of Delaware | Delaware Coast Line Railroad Company |
| 12 | Seaboard Industrial (Porter to Delaware City) | Norfolk Southern | Norfolk Southern |
| 13 | Market Street Industrial (Downtown to 28th Street) | CSX | CSX |
| 14 | Northeast Corridor (DMD State Line to PA State Line) | Amtrak | Amtrak / CSX / Norfolk Southern |
| 15 | Delport Secondary Track | Norfolk Southern | Norfolk Southern |
| 16 | New Castle Secondary (Shipbox to Porter) | Norfolk Southern | Norfolk Southern |



Prepared by:
Delaware Department of Transportation
GIS/SCRP/Facilities
Last Revised: 10/13/2008

- **General Railroad Facts:**
 - **Railroad Owns the Right of Way across the roadway.**
 - **Railroad maintains the physical track crossing surface.**
 - **Agreement required for work within the Railroad Right of Way.**

RAILROAD COORDINATION

- In the Past....



RAILROAD COORDINATION

- In the Past....



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RAILROAD COORDINATION

- In the Past....



RAILROAD COORDINATION

- **Moving Forward**
 - **Enhanced Coordination with all DeIDOT Sections**
 - **Planning (Transportation Alternatives and Trails Program)**
 - **Design**
 - **Bridge**
 - **Maintenance**
 - **Pavement and Rehab**

 - **Early Project Scoping**
 - **Identify Projects with Railroad Involvement**
 - **At-Grade Crossings**
 - **Railroad Right of Way Encroachment**
 - **Road Structure Crossing over Railroad**
 - **Railroad Structure Crossing over Road**

RAILROAD COORDINATION

- **Coordination with the Railroads**
 - **Prioritization of the Crossing Replacement Program**
 - **Identification of required Railroad Agreements**
 - **Identification of required Right of Way Agreements**
 - **Identification of the Specific Construction Parameters for the location, e.g.**
 - **Railroad Flaggers and Funding**
 - **Temporary Construction Crossings**
 - **Railroad Service Interruptions**

RAILROAD COORDINATION

- **Identification of Projects with Specific ADA Requirements**
 - Doing “nothing” is not an option.
 - Continue the Accessible Path through the At-Grade Railroad Crossing where pedestrian facilities are present today.
 - Planning for future Pedestrian and Bicycle Facilities

RAILROAD COORDINATION

- **ADA Requirements**



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RAILROAD COORDINATION

- **ADA Requirements**

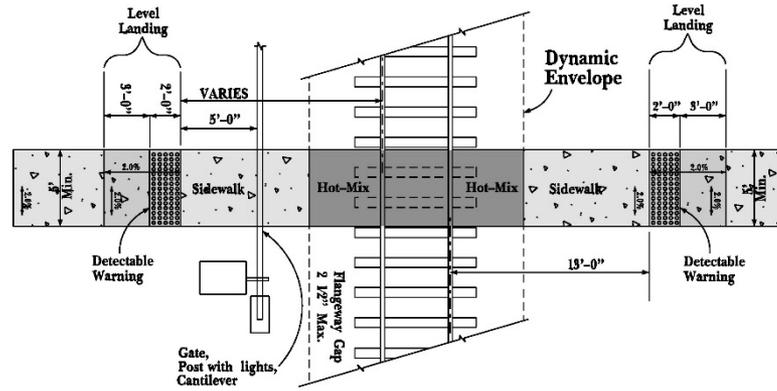


RAILROAD COORDINATION

- **Finalizing DeIDOT ADA Guidelines for At-Grade Freight Rail Crossings**
- **Working with:**
 - DeIDOT
 - FHWA
 - FRA
 - AREMA
 - Rail Operators
 - Other DOT's
- **Incorporate into DeIDOT Standard Construction Details**

RAILROAD COORDINATION

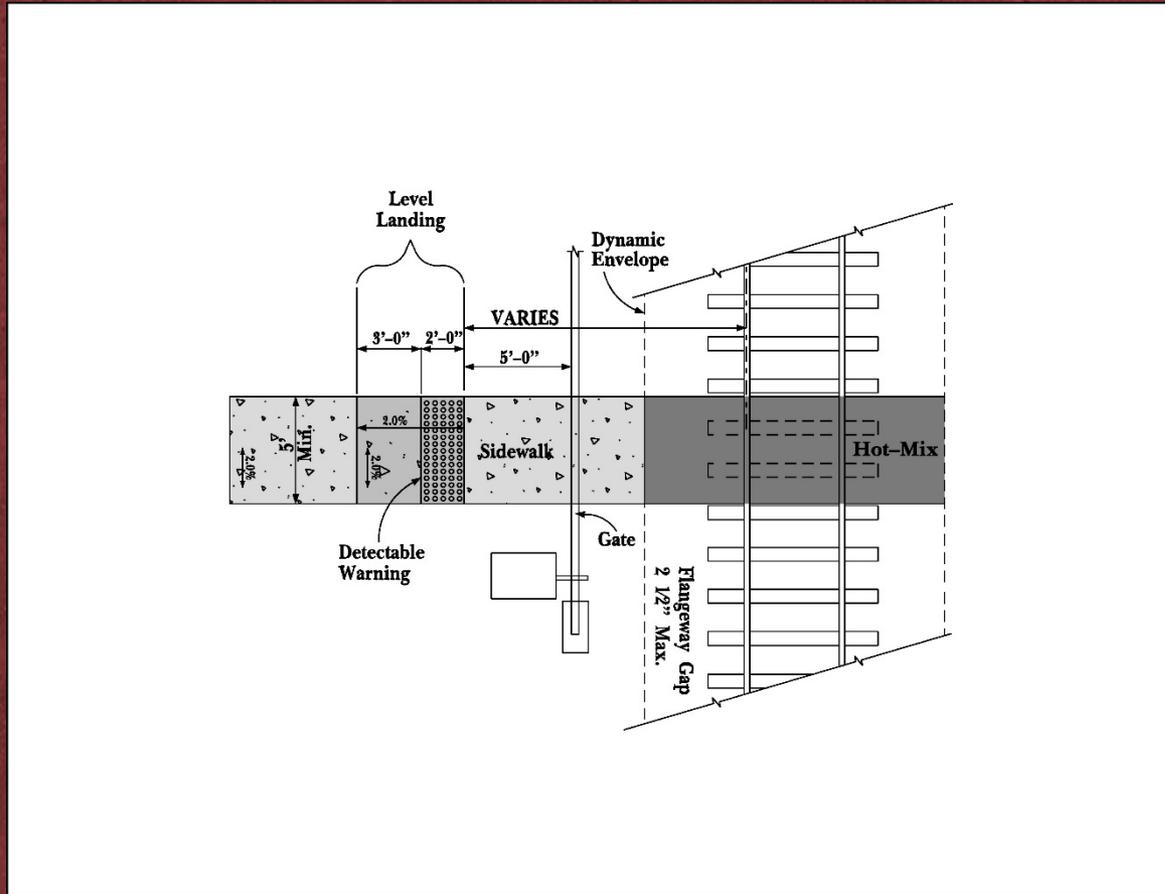
- Proposed ADA Details (Draft)



Plan View

RAILROAD COORDINATION

- Proposed ADA Details (Draft)



RAILROAD COORDINATION

- **Recent Examples of ADA Improvements at Railroad Crossings**
 - **US40 Improvements**
 - **Felton (with Railroad)**
 - **Harrington Pavement and Rehab**
 - **Loockerman Pavement and Rehab**
 - **SR48 Maintenance Contract**
 - **SR41 Railroad Project (Future)**
 - **Wilmington Avenue (Future)**
 - **New Castle Avenue (Future)**

RAILROAD COORDINATION

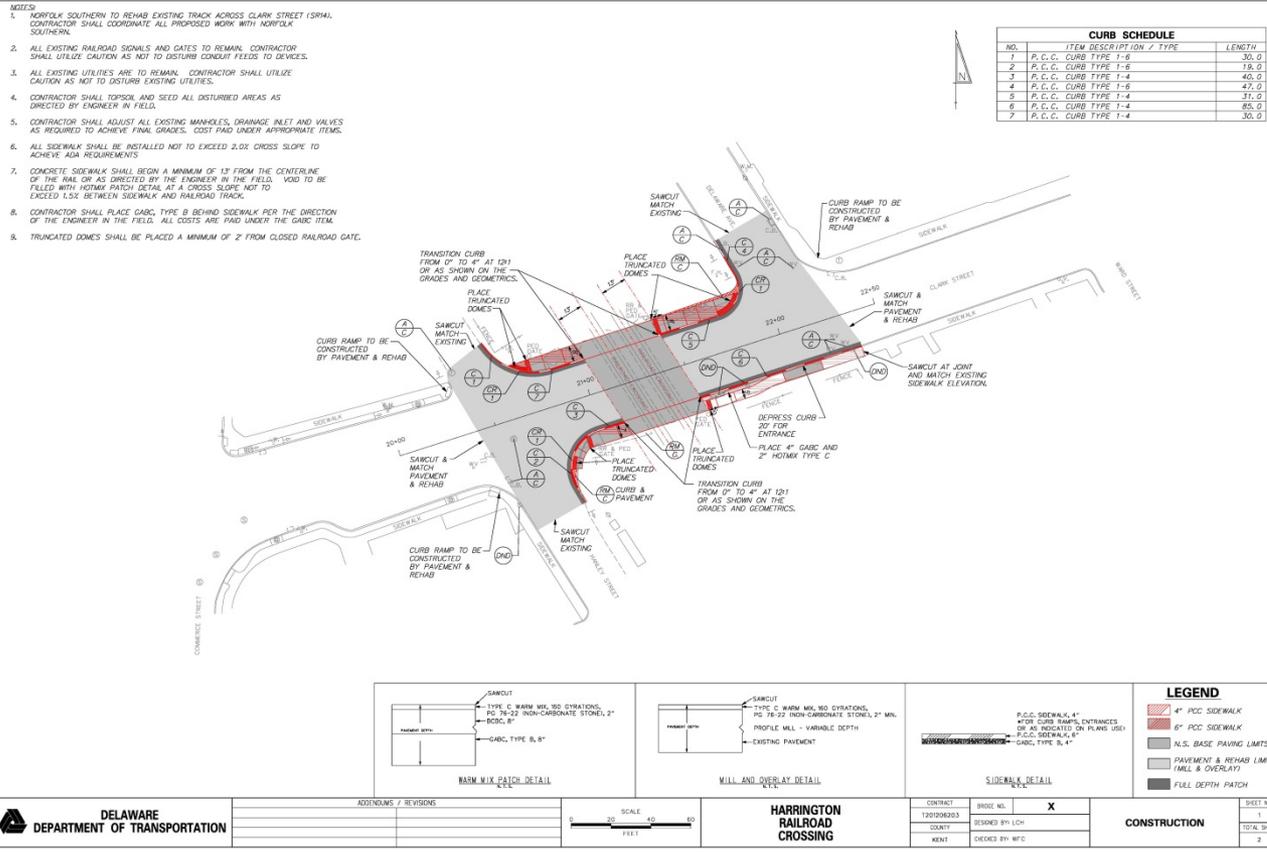
- **ADA Improvements - Harrington**



Pre-Construction Conditions

RAILROAD COORDINATION

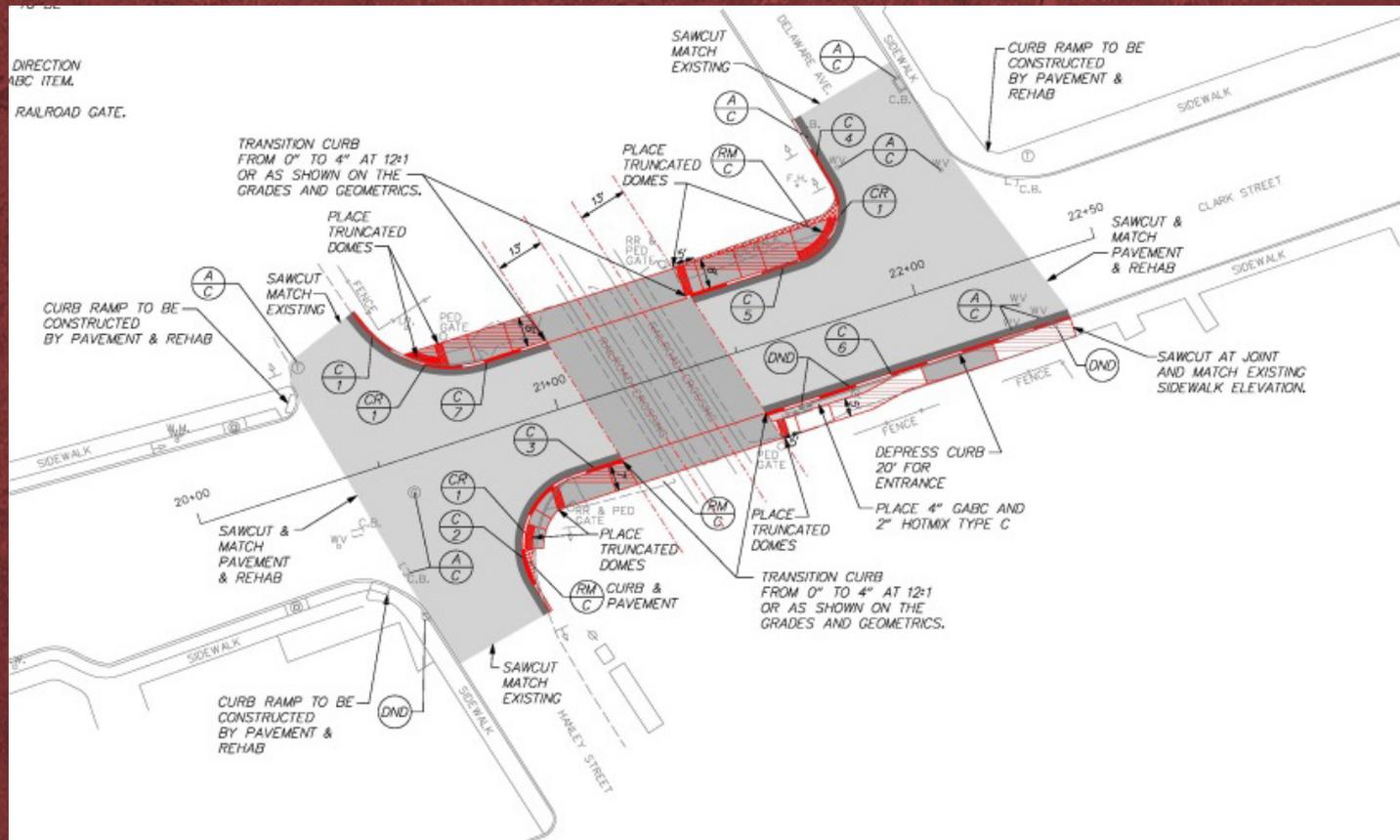
• ADA Improvements - Harrington



Proposed Improvement Plan

RAILROAD COORDINATION

• ADA Improvements - Harrington



Proposed Improvement Detail

RAILROAD COORDINATION

- **ADA Improvements - Harrington**



Post-Construction

RAILROAD COORDINATION

- **ADA Improvements - Harrington**

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- **ADA Improvements – SR48**

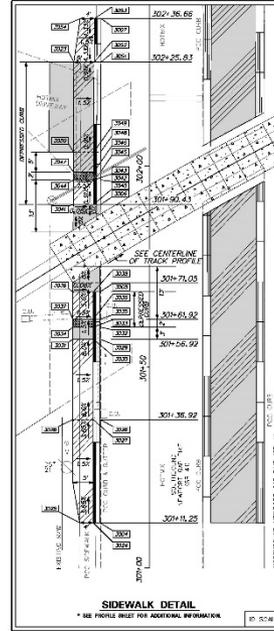
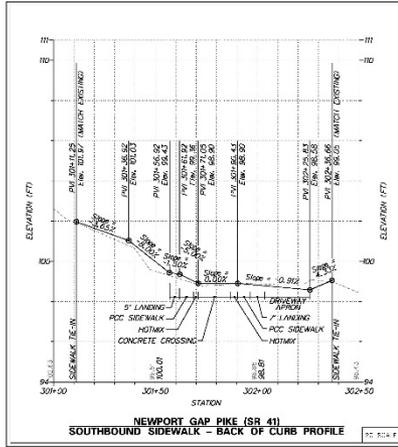


Post-Construction

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• ADA Improvements – SR41

NEW SR-41



| COORDINATE LIST | | | | | |
|-----------------|-----------|---------|-----------|-----------|-------------|
| POINT NO. | STATION | OFF-SET | NORTHING | EASTING | ELEVATION |
| -5004 | 301+11.25 | -12.17' | 4915.2880 | 9910.2297 | MATCH EXIST |
| -3005 | 301+68.70 | -12.14' | 4972.7168 | 9911.7930 | 98.94' |
| -5006 | 301+80.41 | -12.08' | 4994.4203 | 9912.4611 | 98.82' |
| -3007 | 302+36.66 | -11.87' | 5040.5436 | 9913.8853 | MATCH EXIST |
| -3027 | 302+25.84 | -18.59' | 5035.0078 | 9906.8852 | 98.66' |
| -5024 | 301+11.25 | -13.63' | 4915.3346 | 9908.9637 | MATCH EXIST |
| -3025 | 301+11.25 | -17.15' | 4915.4280 | 9905.2502 | MATCH EXIST |
| -3026 | 301+36.92 | -12.16' | 4940.9951 | 9910.5263 | 100.36' |
| -3027 | 301+36.92 | -13.87' | 4940.9936 | 9909.8522 | 101.03' |
| -3028 | 301+36.92 | -18.82' | 4941.1288 | 9904.2840 | 101.11' |
| -3029 | 301+56.93 | -12.15' | 4902.9468 | 9911.4726 | 99.35' |
| -3030 | 301+56.93 | -13.82' | 4860.9915 | 9909.8063 | 98.43' |
| -3031 | 301+56.93 | -18.82' | 4881.1256 | 9904.8683 | 99.51' |
| -3032 | 301+56.93 | -12.15' | 4963.9457 | 9911.5342 | 99.31' |
| -3033 | 301+56.93 | -13.81' | 4863.9904 | 9909.8881 | 99.30' |
| -3034 | 301+56.93 | -18.81' | 4884.1245 | 9904.8997 | 99.47' |
| -3035 | 301+81.93 | -12.15' | 4965.9449 | 9911.6007 | 98.28' |
| -3036 | 301+81.93 | -13.81' | 4865.9896 | 9909.9425 | 99.36' |
| -3037 | 301+81.93 | -18.81' | 4886.1237 | 9904.8444 | 98.44' |
| -3038 | 301+68.70 | -13.81' | 4972.7852 | 9910.1989 | 98.03' |
| -3039 | 301+68.70 | -18.81' | 4972.8982 | 9905.1288 | 99.03' |
| -3040 | 301+80.41 | -13.73' | 4984.4511 | 9910.7007 | 98.90' |
| -3041 | 301+80.41 | -18.73' | 4984.8992 | 9905.7923 | 98.91' |
| -3042 | 301+96.53 | -12.07' | 5000.5308 | 9912.8494 | 98.76' |
| -3043 | 301+96.53 | -13.70' | 5000.9796 | 9910.8783 | 98.84' |
| -3044 | 301+96.53 | -18.70' | 5000.7097 | 9905.8811 | 98.92' |
| -3045 | 301+96.53 | -12.07' | 5002.5299 | 9912.7110 | 98.79' |
| -3046 | 301+96.53 | -13.70' | 5002.9747 | 9911.8416 | 98.85' |
| -3047 | 301+96.53 | -18.70' | 5002.7088 | 9906.8428 | 98.91' |
| -3048 | 302+03.53 | -12.01' | 5007.2678 | 9912.8650 | 98.70' |
| -3049 | 302+03.53 | -13.68' | 5007.6754 | 9911.1950 | 98.78' |
| -3050 | 302+03.53 | -18.68' | 5007.7065 | 9906.1970 | 98.86' |
| -3051 | 302+25.81 | -11.59' | 5009.8207 | 9912.8518 | 98.58' |
| -3052 | 302+25.83 | -13.59' | 5029.8653 | 9911.8812 | 98.58' |
| -3053 | 302+36.66 | -13.54' | 5040.6901 | 9912.9179 | MATCH EXIST |
| -3054 | 302+36.66 | -17.03' | 5040.7841 | 9908.7298 | MATCH EXIST |



DELAWARE
DEPARTMENT OF TRANSPORTATION

REVISIONS / REVISORS

| NO. | REVISION | DATE | BY | CHKD. |
|-----|----------|------|----|-------|
| | | | | |

STATEWIDE RAILROAD CROSSING
REPAIR II, 2011

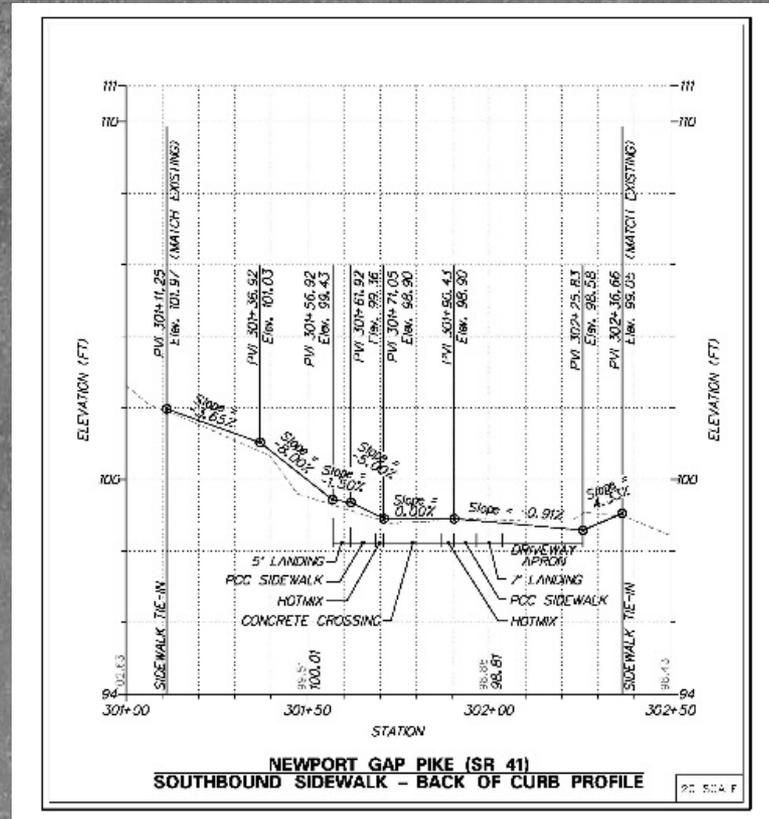
| CONTRACT NO. | PROJECT NO. | SECTION NO. |
|--------------|-------------|-------------|
| | | |

NEWPORT GAP PIKE (SR 41)
CONSTRUCTION PLAN

| SHEET NO. | TOTAL SHEETS |
|-----------|--------------|
| | |

RAILROAD COORDINATION

- ADA Improvements – SR41

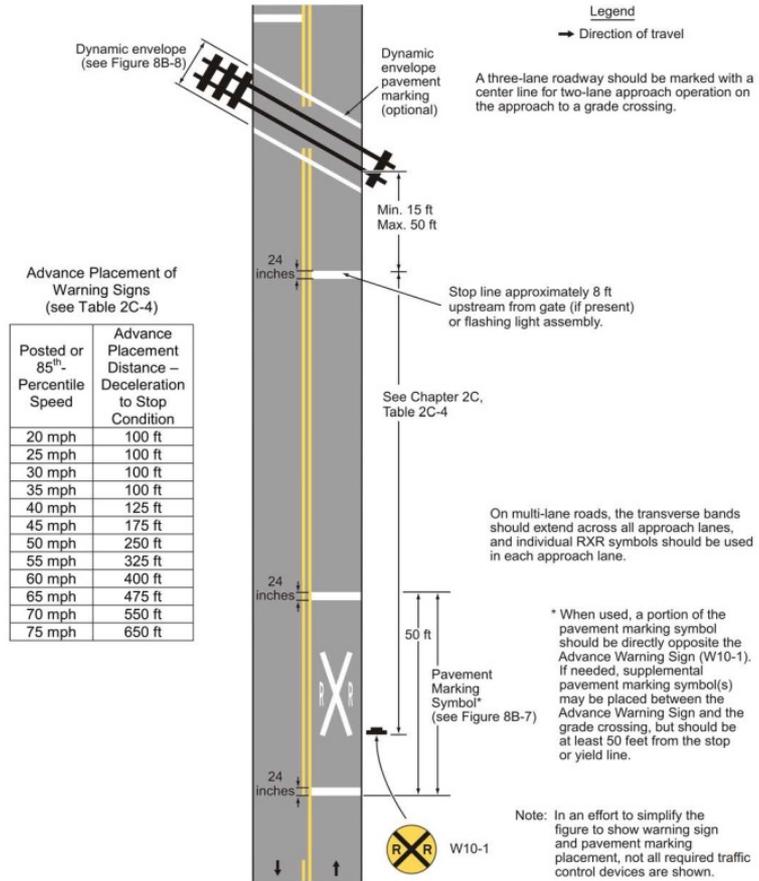


RAILROAD COORDINATION

- **DEMUTCD Striping Guidelines**
 - **Part 8 - Traffic Controls for Highway-Rail Grade Crossings**

RAILROAD COORDINATION

Figure 8B-6B. Example of Placement of Warning Signs and Pavement Markings for Active Grade Crossings (Delaware Revision)



Revision 1, December 2012

RAILROAD COORDINATION

- **QUESTIONS?**



- **Contact Information**

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- **Email: Robert.Perrine@state.de.us**

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