



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF TRANSPORTATION

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### STATE HYDRAULIC ENGINEERING DIRECTIVE

**Date:** August 8, 2020

**To:** Virginia Design, Construction, and Maintenance Communities; VDOT Location & Design, Capital Outlay, Right of Way and Utilities, Construction, Materials, and Local Assistance Divisions, District Environmental Managers

**From:** Victoria Bains, P.E. – State Hydraulics and Utilities Engineer, VDOT Location & Design Division

**Subject:** Environmental Commitment (EC) Plan for VDOT Design-Bid-Build Projects

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This State Hydraulic Engineering Directive (SHED) shall apply to all VDOT plans (No Plans, Minimal Plans, and Standard Plans) for construction projects where environmental resources are present and environmental permits or commitments are applicable to the construction activity. It describes the Environmental Commitment (EC) Plan to be included in plan assemblies for VDOT projects that identify the location of environmental resources and environmental commitments associated with the construction activities and associated Environmental permits and special conditions. The SHED applies to construction projects implemented under the Design/Bid/Build (D/B/B)/RAAP (Regular Advertisement and Award Process).

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#### BACKGROUND

The development of the Environmental Commitment (EC) Plan is a collaborative effort between the Environmental and Location and Design Divisions to enhance awareness of the requirements and conditions of the various environmental permits and commitments that must be implemented during the construction of a VDOT project. The EC Plan is an integral part of the Environmental Performance Program (EPP), a tool to convey the requirements and conditions of the environmental commitments implemented during the appropriate project construction phase. See Environmental Memorandum EM-COMP-03-05-2019 Environmental Commitment Plan Sheets (ECPS) for Design-Bid-Build Projects for more information:

[https://insidedot.cov.virginia.gov/Docs/Documents/EM\\_Env%20Plan%20Sheet%20Process\\_Final.pdf](https://insidedot.cov.virginia.gov/Docs/Documents/EM_Env%20Plan%20Sheet%20Process_Final.pdf)

The EC Plan includes a tabulated summary and (where appropriate) a graphical display of project environmental commitments as provided in CEDAR and controlling environmental documents. The purposes of the EC Plan are to increase visibility and provide clarity to construction contractors regarding EC. The EC Plan is ancillary to, but does not override, other controlling environmental documents in the contract such as water quality permits, special provisions, etc., and will be subservient to any conflicts with the controlling environmental documents.

## ENVIRONMENTAL COMMITMENTS

A number of different environmental commitments may apply to a given VDOT project. For the EC Plan, the commitments have been organized into six categories:

- Cultural Resources (CR)
- General Environmental (ENV)
- General Natural Resources (NR)
- Hazardous Materials (HM)
- Threatened and Endangered Species (TE)
- Water Quality Permits (WQ)

## ROLES

The VDOT District Environmental Staff work to secure permits and identify environmental commitments during the location and design phase of VDOT projects. The environmental commitments shown on the EC Plan will be developed by the District Environmental Staff and provided to the Location & Design (L&D) Division staff for incorporation into construction plans as the EC Plan.

The L&D Division provides support to the District Environmental Staff during the planning and design phases, where the Hydraulics Program currently assists with the development of permit sketches and documents supporting the Environmental permit process. The process of developing the final EC Plan for insertion into a construction plan set will be the responsibility of the L&D Division Hydraulics Program staff. The State and District Hydraulics Engineers and designated Central Office and District Hydraulics staff will work closely with the District Environmental Staff to develop the EC Plan for insertion into construction plans for Design-Bid-Build projects.

## IMPLEMENTATION

The EC Plan consists of two parts: the EC Summary Sheet and the EC Plan Sheet(s). The EC Summary Sheet will include tables on a common sheet or series of sheets. In addition, on projects where Environmental Avoidance Areas Outside of the Project Limits exist, the ECPS will include a graphical depiction of the Avoidance Areas. The graphical depiction of Avoidance Areas may be placed on the EC Summary sheet if adequate room is available, or on a separate sheet following the EC Summary Sheet when necessary. Each of the six EC categories listed above will be included in separate tables on the EC Summary Sheet, when applicable to a project. The District Environmental Staff will provide the summary tables to the Hydraulics section to place on the EC Summary Sheet using the standard format shown in the example EC Summary Sheet in Attachment A. Note that the EC Summary Sheet tables may include commitments that are not depicted graphically on the EC Plan Sheets.

To provide for cross-reference between the EC Summary Sheet and EC Plan Sheet(s), the Environmental Commitments requiring graphical depiction will be numbered in the summary tables and the same numbering used in the call-outs on the EC Plan Sheet(s). For instance, the first General Environmental commitment in the summary table will be identified as “ENV-1”, with the call-out on each sheet where the commitment applies also being “ENV-1”. The third Hazardous Materials commitment will be identified as “HM-3”. Note that a commitment listed in the summary tables may apply to multiple plan sheets, and some commitments in the summary tables may have no graphical call out associated with them. The EC Summary Sheet tables also provide the construction plan sheet number(s) where the EC applies.

The EC Plan includes insert plan sheets, similar to the current Erosion and Sediment Control (ESC) plan sheets. An EC Plan Sheet will be included for each overall plan sheet in a series when that plan sheet

includes EC. When no EC are located within the area represented by an overall plan sheet, an EC Plan Sheet is not required. The EC Plan Sheet will follow the ESC plan sheet(s) in series, and be numbered consecutively; e.g., if the ESC plan sheets are numbered 3B (phase 1) and 3C (phase 2), the related EC Plan Sheets would follow consecutively as sheet number 3D. The ECs are not included in the overall plan sheet or the ESC plan sheet to avoid confusion with other information and make it easier for the EC to stand out in the construction plan set.

## CADD STANDARDS AND LIBRARY

CADD standards and a CADD library have been developed to assist with the EC Plan and the use of standard lines, hatched areas, call-outs, and appropriate legends to show the location, extent, and nature of EC shown.

The notes to be used on the EC Summary Sheet are in the CADD Library and shown in Figure 1 below.

Figure 1. EC Summary Notes

*Notes:*

*Information on this sheet is a reference document related to the Environmental Commitments, Conditions and Clearances applicable to this project. Refer to the controlling documents (Bid/Proposal/Contract, Special Provisions, final Construction Plans, etc.).*

*Environmental shall be contacted regarding any field adjustments, construction Plan revisions, etc. prior to work proceeding to allow review to verify environmental compliance.*

There are also EC Summary Abbreviations in the CADD Library that are included on the EC Summary Sheet, as shown in Figure 2.

Figure 2. EC Summary Abbreviations

*Abbreviations*

*ACM - Asbestos Containing Materials*  
*BMP - Best Management Practice*  
*DEM - District Environmental Manager*  
*ECI - Environmental Commitment Inspector*  
*VDGIF - Department of Game and Inland Fisheries*  
*FHWA - Federal Highway Administration*  
*MOA - Memorandum of Agreement*  
*MOU - Memorandum of Understanding*  
*NEPA - National Environmental Policy Act*  
*NOI - Notice of Intent*  
*NWP - Nationwide permit*  
*TOYR - Time of Year Restriction*  
*T&E - Threatened and Endangered Species*  
*PCN - Pre-Construction Notification*  
*VDEQ - Virginia Department of Environmental Quality*  
*VMRC - Virginia Marine Resources Commission*  
*USACE/COE - U.S. Army Corps of Engineers*  
*USFWS - U.S. Fish and Wildlife Service*  
*WOTUS - Waters of the United States*  
*WQ - Water Quality*  
*CR - Cultural Resources*

Environmental Contacts for the EC Plan are also listed on the EC Summary Sheet, as in the example for Figure 3. Note that the information may vary from that shown below based upon the District where the

project is located. The District Environmental Manager (DEM) and project Environmental Commitment Inspector (ECI) will be the contacts usually provided, although alternative or additional contacts may be provided by the Environmental Division for inclusion on the EC Summary Sheet.

Figure 3. EC Summary Contacts (Example – Use District Project Contacts)

***Environmental Contacts:***  
*District Environmental Manager:*  
 Kevin Bradley  
 (434) 856-8288  
 kevin.bradley@vdot.virginia.gov  
*Environmental Commitment Inspector:*  
 Blake Barnes  
 (434) 841-0499  
 blake.barnes@vdot.virginia.gov

Figure 4 below shows the EC Legend with line types, hatches, and call-outs for the six categories, as used on the EC Plans Sheets.

Figure 4. EC Plan Sheet Legend

<i>ENVIRONMENTAL COMMITMENTS LEGEND</i>		
	<i>&lt;ENV-#&gt;</i>	<i>General Environmental</i>
	<i>&lt;NR-#&gt;</i>	<i>General Natural Resources</i>
	<i>&lt;WQ-#&gt;</i>	<i>Water Quality Permits</i>
	<i>&lt;TE-#&gt;</i>	<i>Threatened and Endangered Species</i>
	<i>&lt;CR-#&gt;</i>	<i>Cultural Resources</i>
	<i>&lt;HM-#&gt;</i>	<i>Hazardous Materials</i>
		<i>Water Feature</i>
		<i>Wetland</i>
		<i>Limits of Disturbance</i>

A standard note for the EC Plan Sheet(s) is also provided in the CADD Library, and should be used on each EC Plan Sheet as shown in Figure 5.

Figure 5. ECAP Plan Sheet Note

**Note:**  
***The Environmental information on this sheet is a reference;  
 refer to the controlling documents for project-specific details.***

EC Plan Checklist for Hydraulics Staff/Designer

- ( ) EC Summary Sheet
  - ( ) Include the summary tables required for the project (up to 6) (*provided by Environmental*)
    - ( ) Cultural Resources (CR)
    - ( ) General Environmental (ENV)
    - ( ) General Natural Resources (NR)
    - ( ) Hazardous Materials (HM)
    - ( ) Threatened and Endangered Species (TE)
    - ( ) Water Quality Permits (WQ)
  - ( ) Add EC Plan Sheet number(s) where each EC appears to the summary tables
  - ( ) EC Abbreviations (*see CADD Library*)
  - ( ) Environmental Division Contact(s) (*provided by Environmental*)
  - ( ) Water Quality Permit Info Summary Table (*provided by Environmental*)
  - ( ) EC Notes (*see CADD Library*)
- ( ) Environmental Avoidance Area Outside of the Project Limits Sheet
  - ( ) Base Map (*similar to a Project Location Map*)
    - ( ) Scale as needed to show location and extent of Avoidance Areas Outside of the Project Limits
    - ( ) North Arrow
    - ( ) Project limits and call-out
    - ( ) Routes and Route number/name labels for locating the Avoidance Areas
    - ( ) Other landmarks deemed useful for identifying the Avoidance Areas as specified by Environmental (e.g., stream line with name, National Park, battlefield, etc.)
  - ( ) Avoidance Areas Outside of the Project Limits (*provided by Environmental*)
  - ( ) EC Abbreviations (*see CADD Library*)
  - ( ) EC Notes (*see CADD Library*)
  - ( ) EC Legend (*see CADD Library*)
- ( ) EC Plan Sheet(s)
  - ( ) Sheet for each overall plan sheet where an EC occurs (*numbered sequentially after Erosion and Sediment Control Plan Sheets*)
  - ( ) Base Map
    - ( ) Same scale (usually 1" = 25' or 1" = 50') as the overall plan sheet
    - ( ) North Arrow
    - ( ) Limits of Disturbance (LOD)
    - ( ) Right-of-Way and Easements
    - ( ) Waters of the US/Wetlands Lines (black lines and hatches)
    - ( ) Existing and proposed features and infrastructure shown (grey lines and hatches)
  - ( ) EC Legend (*see CADD Library*)
  - ( ) EC Areas (*provided by Environmental - see CADD Library*)
  - ( ) EC Call-Outs (*1 per commitment numbered as provided by the Environmental Division in the Summary Tables*)
  - ( ) EC Notes (*see CADD Library*)

State Hydraulic Engineering Advisory  
Environmental Commitments Plan Sheets (ECPS) for VDOT Design-Bid-Build Plans  
August 8, 2020

ATTACHMENTS

Attachment A Example EC Summary Sheet

Attachment B Example Environmental Avoidance Area Outside of the Project Limits Sheet

Attachment C Example EC Plan Sheets

PROJECT MANAGER BBIAN CASTO, P.E. (434) 856-8276 (LYNCHBURG DISTRICT)  
 SURVEYED BY, DATE BAY CLARK, L.S. (434) 856-8262 (LYNCHBURG DISTRICT)  
 DESIGN BY PAUL ANDERSON, P.E. (540) 856-8262 (AECOM) -----  
 SUBSURFACE UTILITY BY, DATE BAY CLARK, L.S. (434) 856-8262 (LYNCHBURG DISTRICT)

# Environmental Commitments Summary

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	29	0029-162-270, RW-201, C-501	2F(6)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

## Environmental Commitments

### CONSTRUCTION

#### Cultural Resources

Commitment Name: Cultural Resources Avoidance Areas  
 Description: Avoid any impacts to the Taylor Mill Property (Parcel 001). Refer to **Plan Sheet 3**. 

#### General

Commitment Name: Road/pathway fencing  
 Description: Fencing will be installed along the park access road and multiuse pedestrian pathway to separate and secure the bridge construction work zone from park traffic.

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Commitment Name: Construction Staging Areas  
 Description: Area shall be between the existing bridge and railroad trestle bridge.

Commitment Name: Avoidance Area\_ Boy Scout Orchard Area within English Park  
 Description: Area shall be avoided during Construction. Refer to **Plan Sheet 5**. 

Commitment Name: Pedestrian Access Trail  
 Description: A new pedestrian access trail beneath the bridge will be constructed to the edge of the river for boating, fishing, etc. Refer to **Plan Sheet 4**. 

Commitment Name: Scope of work and project limits  
 Description: The existing project limits and scope of work are in accordance with the NEPA document. Any modifications must be coordinated with the ECI.

Commitment Name: Right-of-Way and Easements  
 Description: Stay within RW and easements shown on the final plans. If any additional areas are required, coordinate with the Env Section. Absolutely no activities shall take place on any areas outside of RW and easements shown on the plans until the Project staff is provided with written documentation from the District Env Mgr that the appropriate coordination has taken place and work may proceed.

Commitment Name: Reconfiguration of Park Access Road  
 Description: Park access road under the bridge will be reconfigured to eliminate the grass median and provide a simple two-lane roadway.

#### Hazardous Materials

Commitment Name: Management of Contaminated Soils  
 Description: Contractor will need to manage any contaminated soils on property acquired from the RR in accordance with the Special Provision in the Bid Proposal/Contract. Refer to **Plan Sheets 4, 5 & 6**. 

Commitment Name: Identification and Avoidance of Asbestos Containing Materials (ACM)  
 Description: USGS gaging station will need to be inspected for asbestos prior to demolition. Refer to **Plan Sheet 4**. 

Commitment Name: Management of Contaminated Groundwater  
 Description: Abide by Special Provision in Bid Proposal/Contract. Refer to **Plan Sheet 5**. 

#### Natural Resources

Commitment Name: Bats/Migratory Birds  
 Description: Negative bat/bird inventory required prior to demolition of the existing structure over the Staunton River. If any bats, signs of bats or active bird nests are identified, no activities may take place below the bridge deck until the Environmental Section provides written documentation that the appropriate coordination has taken place. Abide by TOYR for tree removal. 4/15 to 9/15 Drilling occurred outside toyr for tree removal.

Commitment Name: Time of year restriction - Roanoke logperch  
 Description: Staunton River\_ All instream activities must abide by TOYR from 3/15 to 6/30 drilling occurred outside toyr

Commitment Name: T&E Sensitive Areas  
 Description: Contractor operations must avoid sensitive areas associated with T&E species. Refer to **Plan Sheets 3 and 4**. 

Commitment Name: Wetlands - Temporary Impact Restoration  
 Description: All wetland areas temporarily impacted during construction of the Project shall be restored to the original contours and seeded with wetland seed mix. Disturbed areas shall be ripped prior to seeding to loosen the soil and help with establishment of vegetation.

Commitment Name: General - River Caution Signs for Bridge Construction  
 Description: Special provision in contract for river signage. Signs provided and placed by contractor.

#### Water Quality Permits

Commitment Name: Monitor Compliance with Water Quality Permits  
 Description: WQ Permits authorizes impacts to WOTUS May include commitments for T&E, CR and E&S measures. Commitments and permit conditions may be subject Contractor and/or Department regulatory enforcement. Any proposed deviations to env commitments and WQ permits must be coordinated through DEM/ECI. Unauthorized impacts or discharge of fill to WOTUS must be reported to the DEM/ECI. Other activities not in compliance WQ permits shall be reported to the DEM/ECI. Refer to **Plan Sheet 5**. 

Water Quality Info				
Permit Type	Permit	Permit #	Issuance Date	Expiration Date
COE	Nationwide Permit 23	17-4161	12/08/2017	03/18/2022
VMRC	VGP-1	17-4161	02/23/2018	02/23/2021

Project will adhere to all permit conditions included in the Bid Proposal/Contract.

#### Abbreviations

ACM - Asbestos Containing Materials  
 BMP - Best Management Practice  
 DEM - District Environmental Manager  
 ECI - Environmental Commitment Inspector  
 VDGIF - Department of Game and Inland Fisheries  
 FHWA - Federal Highway Administration  
 MOA - Memorandum of Agreement  
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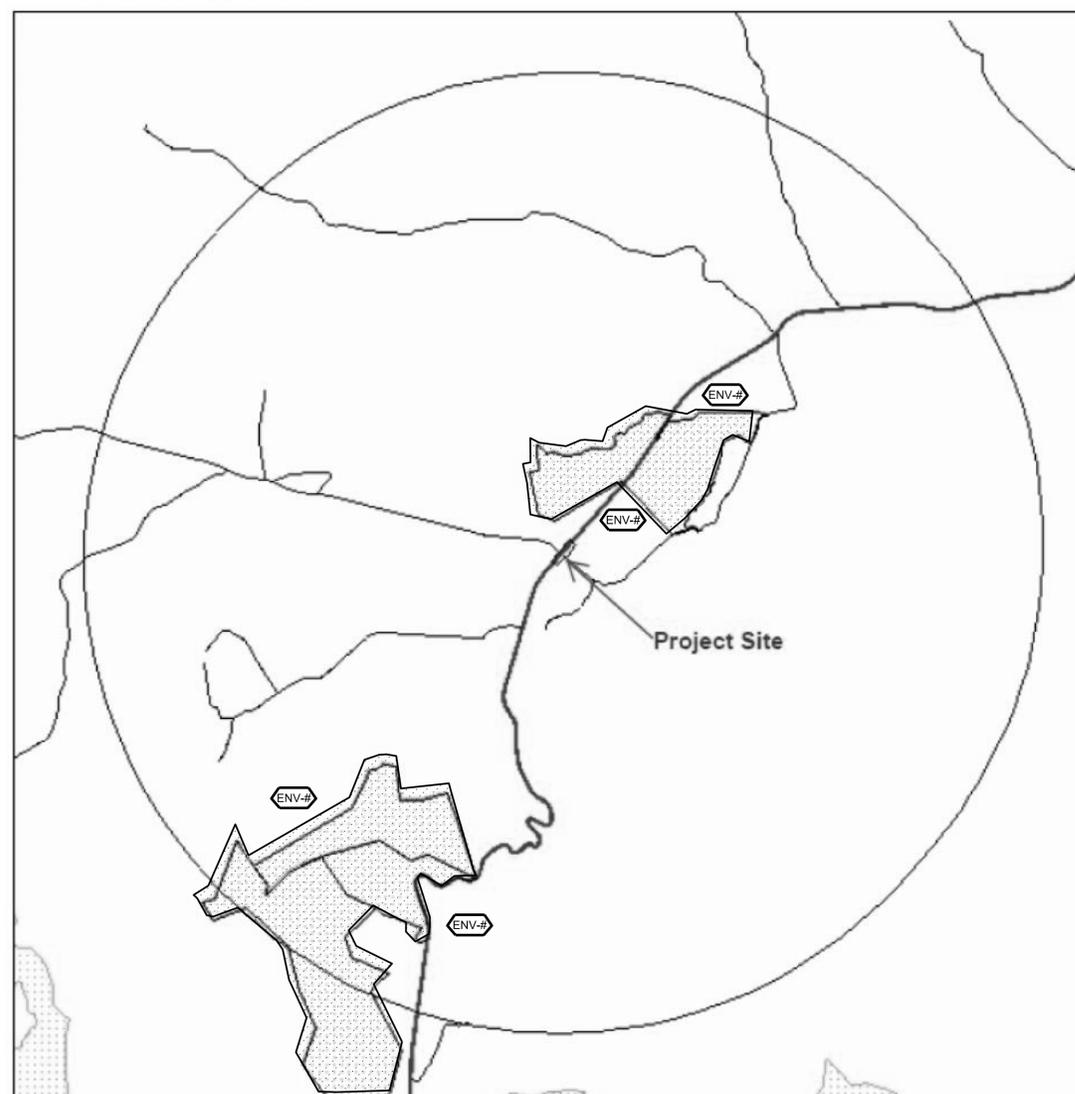
PROJECT MANAGER \_\_\_\_\_  
 SURVEYED BY, DATE \_\_\_\_\_  
 DESIGN BY \_\_\_\_\_  
 SUBSURFACE UTILITY BY, DATE \_\_\_\_\_

REVISED	STATE		STATE		SHEET NO.
	STATE	ROUTE	PROJECT		
	VA.	151	6151-062-794, C501		2H(2)

# Environmental Avoidance Area Outside of the Project Limits

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

## VOF Avoidance Area



**Notes**  
 Virginia Outdoors Foundation (VOF) avoidance areas located within 2 miles of the project's limits of disturbance.

### Abbreviations

- ACM - Asbestos Containing Materials
- BMP - Best Management Practice
- DEM - District Environmental Manager
- ECI - Environmental Commitment Inspector
- VDGIF - Department of Game and Inland Fisheries
- FHWA - Federal Highway Administration
- MOA - Memorandum of Agreement
- MOU - Memorandum of Understanding
- NEPA - National Environmental Policy Act
- NOI - Notice of Intent
- NWP - Nationwide permit
- TOYR - Time of Year Restriction
- T&E - Threatened and Endangered Species
- PCN - Pre-Construction Notification
- VDEQ - Virginia Department of Environmental Quality
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ENVIRONMENTAL COMMITMENTS LEGEND	
	ENV-# General Environmental
	NR-# General Natural Resources
	WQ-# Water Quality Permits
	TE-# Threatened and Endangered Species
	CR-# Cultural Resources
	HM-# Hazardous Materials
	Water Feature
	Wetland
	Limits of Disturbance

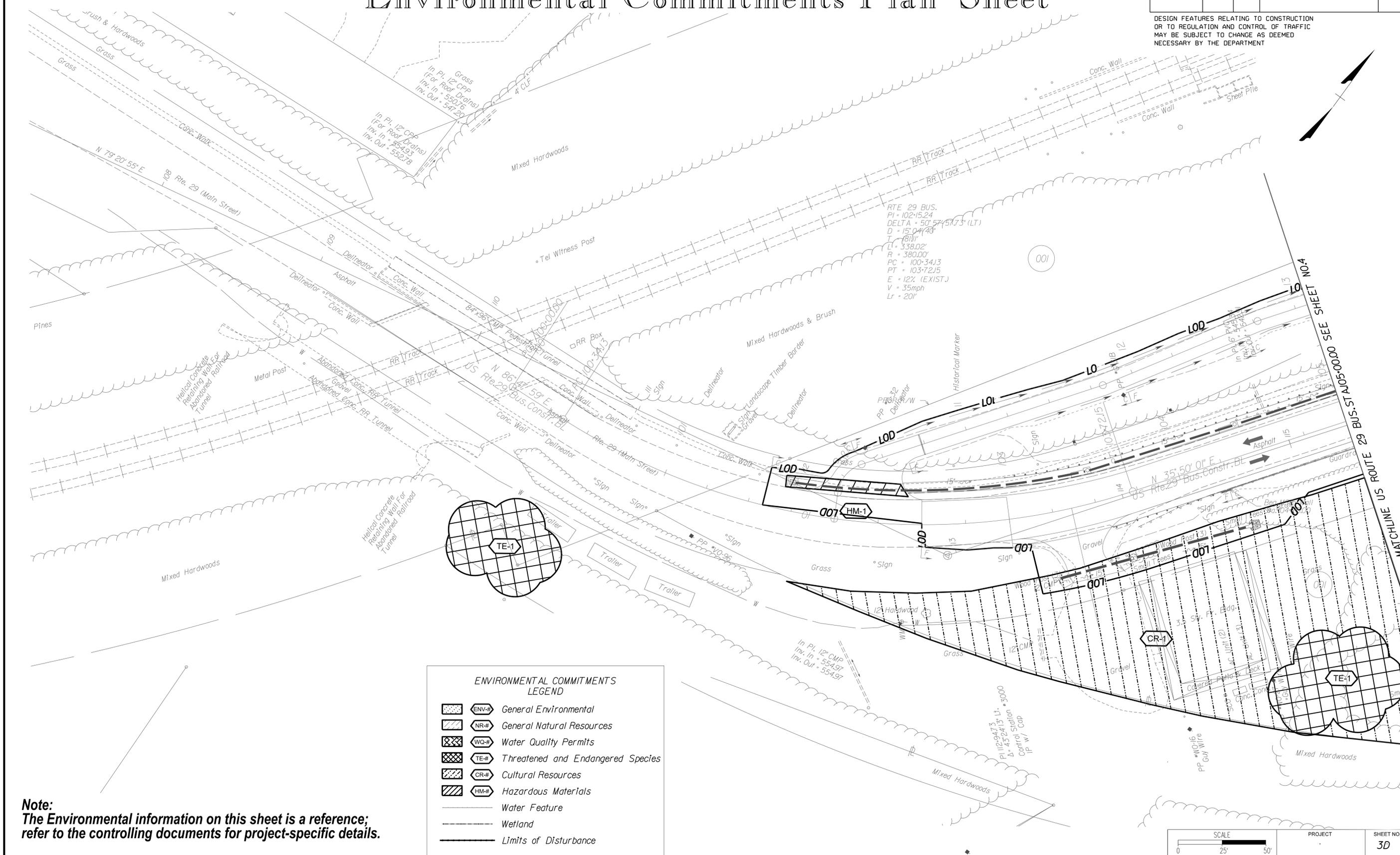
NOT TO SCALE	PROJECT 6151-062-794	SHEET NO. 2H(2)
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PROJECT MANAGER \_\_\_\_\_  
SURVEYED BY, DATE \_\_\_\_\_  
DESIGN BY \_\_\_\_\_  
SUBSURFACE UTILITY BY, DATE \_\_\_\_\_

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.		0029-162-270, RW-201, C-501	3D

# Environmental Commitments Plan Sheet

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



**ENVIRONMENTAL COMMITMENTS LEGEND**

	ENV-#	General Environmental
	NR-#	General Natural Resources
	WQ-#	Water Quality Permits
	TE-#	Threatened and Endangered Species
	CR-#	Cultural Resources
	HM-#	Hazardous Materials
		Water Feature
		Wetland
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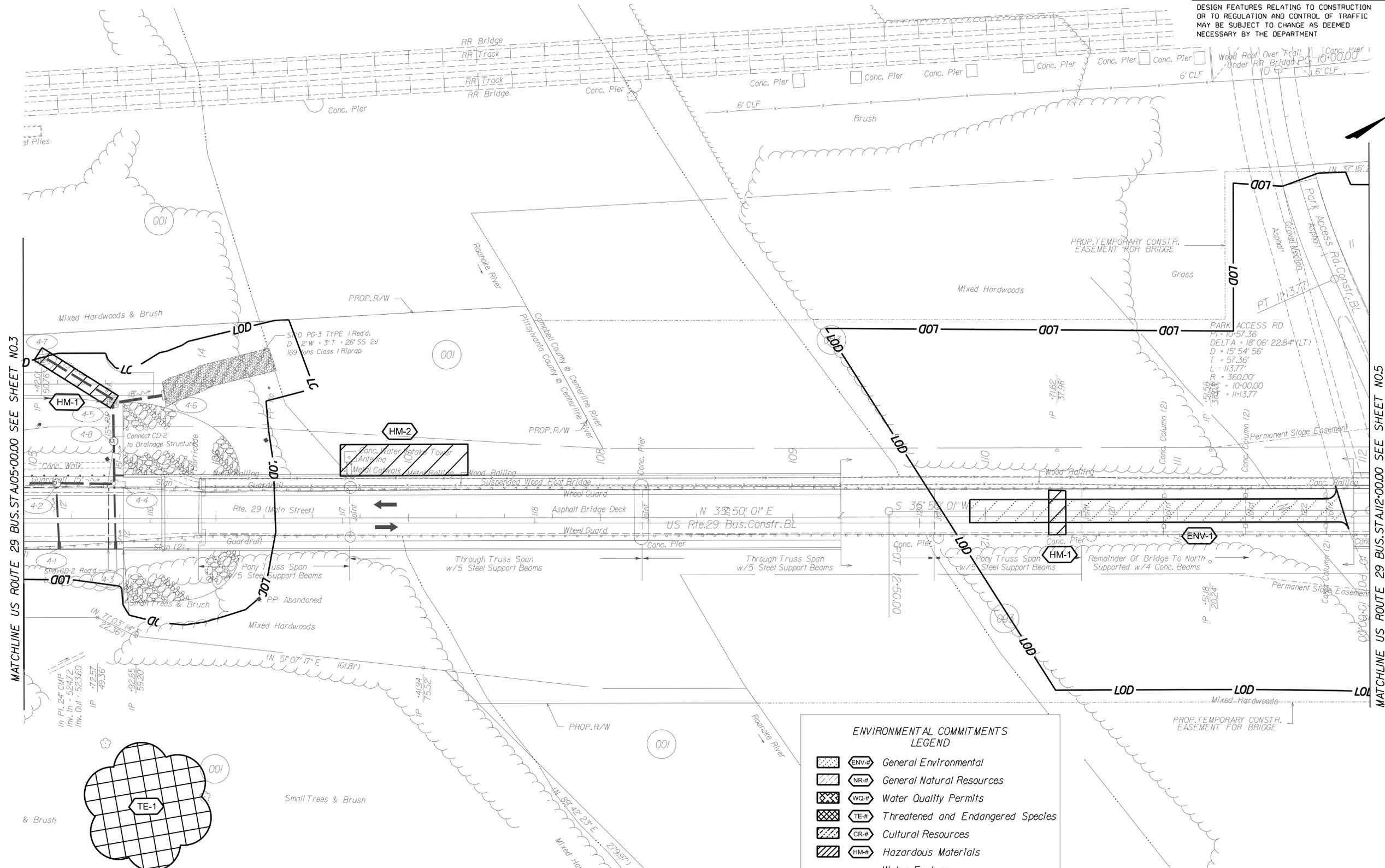
**Note:**  
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PROJECT MANAGER \_\_\_\_\_  
SURVEYED BY, DATE \_\_\_\_\_  
DESIGN BY \_\_\_\_\_  
SUBSURFACE UTILITY BY, DATE \_\_\_\_\_

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.		0029-162-270, RW-201, C-501, B-601	4D

# Environmental Commitments Plan Sheet

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



MATCHLINE US ROUTE 29 BUS.STA105+00.00 SEE SHEET NO.3

MATCHLINE US ROUTE 29 BUS.STA12+00.00 SEE SHEET NO.5

**ENVIRONMENTAL COMMITMENTS LEGEND**

	ENV-1	General Environmental
	NR-1	General Natural Resources
	WQ-1	Water Quality Permits
	TE-1	Threatened and Endangered Species
	CR-1	Cultural Resources
	HM-1	Hazardous Materials
		Water Feature
		Wetland
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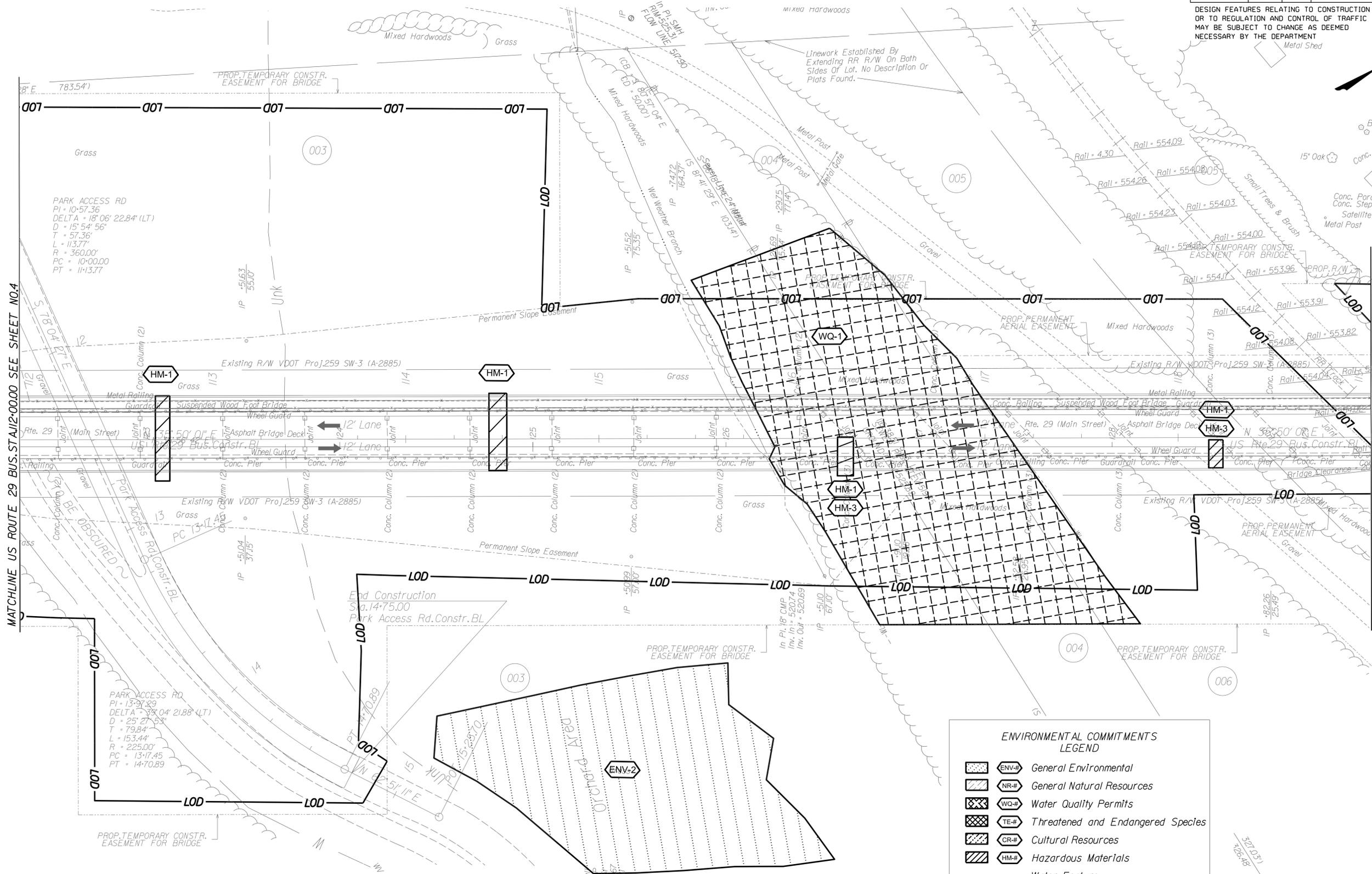
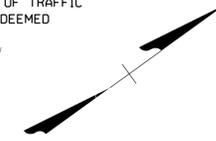
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SUBSURFACE UTILITY BY, DATE \_\_\_\_\_

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.		0029-162-270, RW-201, C-501, B-601	5D

# Environmental Commitments Plan Sheet

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



PARK ACCESS RD  
PI = 10+57.36  
DELTA = 18° 06' 22.84" (LT)  
D = 15' 54' 56"  
T = 57.36'  
L = 113.77'  
R = 360.00'  
PC = 10+00.00  
PT = 11+13.77

PARK ACCESS RD  
PI = 13+97.89  
DELTA = 38° 04' 21.88" (LT)  
D = 25' 27' 53"  
T = 79.84'  
L = 153.44'  
R = 225.00'  
PC = 13+17.45  
PT = 14+70.89

**ENVIRONMENTAL COMMITMENTS LEGEND**

- ENV-# General Environmental
- NR-# General Natural Resources
- WMQ-# Water Quality Permits
- TE-# Threatened and Endangered Species
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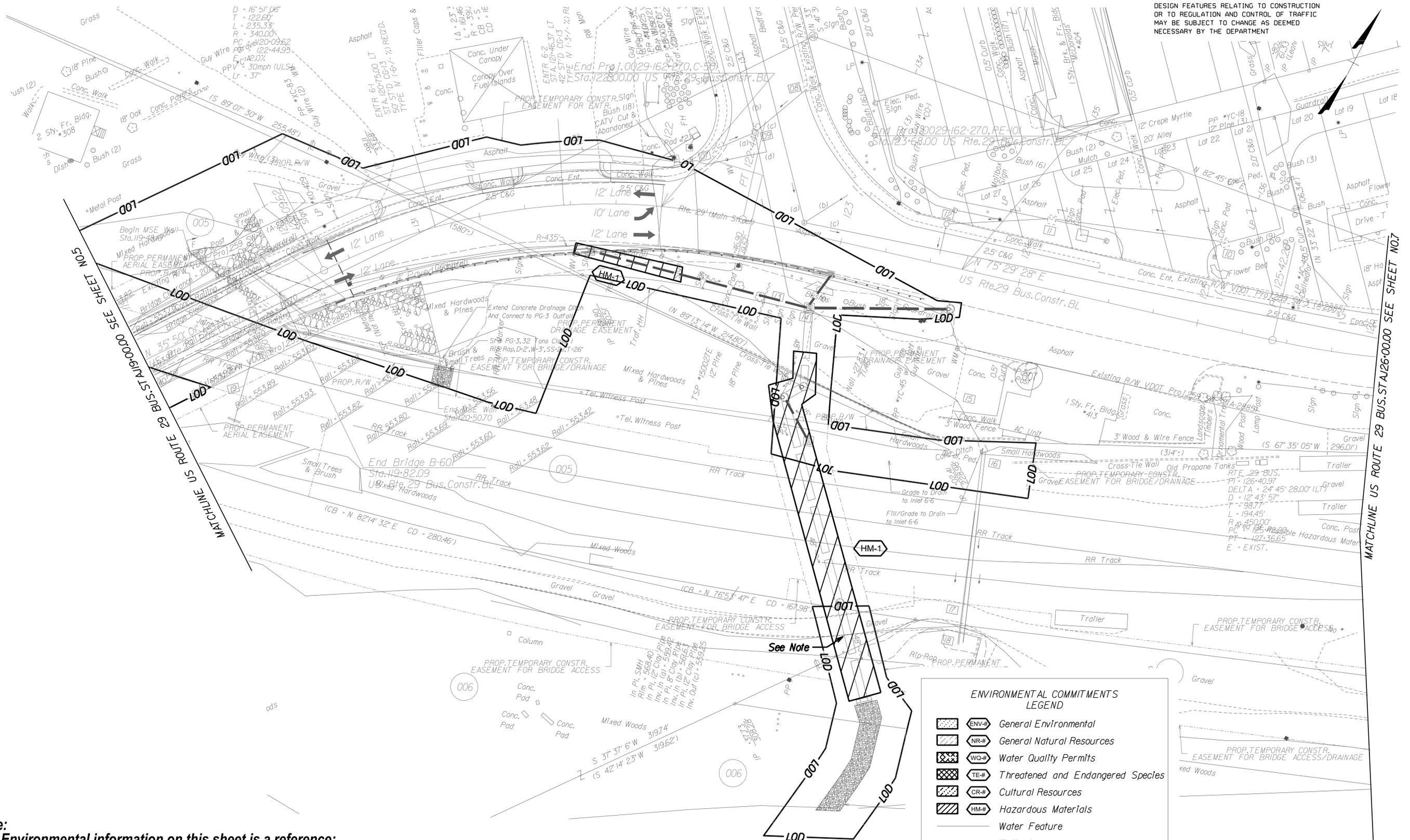
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SUBSURFACE UTILITY BY, DATE \_\_\_\_\_

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.			0029-162-270, RW-201, C-501, B-601	6

# Environmental Commitments Plan Sheet

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



MATCHLINE US ROUTE 29 BUS STA/61000 SEE SHEET NO. 5

MATCHLINE US ROUTE 29 BUS STA/260000 SEE SHEET NO. 7

**ENVIRONMENTAL COMMITMENTS LEGEND**

- ENV-# General Environmental
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