

# ORIGINATION FORM

Proposed Revisions to a Standard Plans Index  
(Please provide all information – Incomplete forms will be returned)

## Contact Information:

Date: July 26, 2018  
Originator: **Derwood Sheppard**  
Phone: (850) 414-4334  
Email:

## Standard Plans:

Index Number: **120-001**  
Sheet Number (s): All Sheets  
Index Title: Embankment Utilization

## Summary of the changes:

Sheet 1: Added REMOVAL OF EXCESS BASE MATERIAL details from Index 000-506; Changed detail Notes.  
Sheet 2: Removed Treated Permeable Base reference (Patrick Overton).  
Sheet 3: New Sheet 2  
Sheet 4: New Sheet 3. Added Special Stabilized Subbase.



## Commentary / Background:

### Other Affected Offices / Documents: (Provide name of responsible personnel)

- | Yes                                 | No                       |   |
|-------------------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Other Standard Plans – Derwood Sheppard |
| <input type="checkbox"/>            | <input type="checkbox"/> | FDOT Design Manual –                    |
| <input type="checkbox"/>            | <input type="checkbox"/> | Basis of Estimates Manual –             |
| <input type="checkbox"/>            | <input type="checkbox"/> | Standard Specifications –               |
| <input type="checkbox"/>            | <input type="checkbox"/> | Approved Product List –                 |
| <input type="checkbox"/>            | <input type="checkbox"/> | Construction –                          |
| <input type="checkbox"/>            | <input type="checkbox"/> | Maintenance –                           |

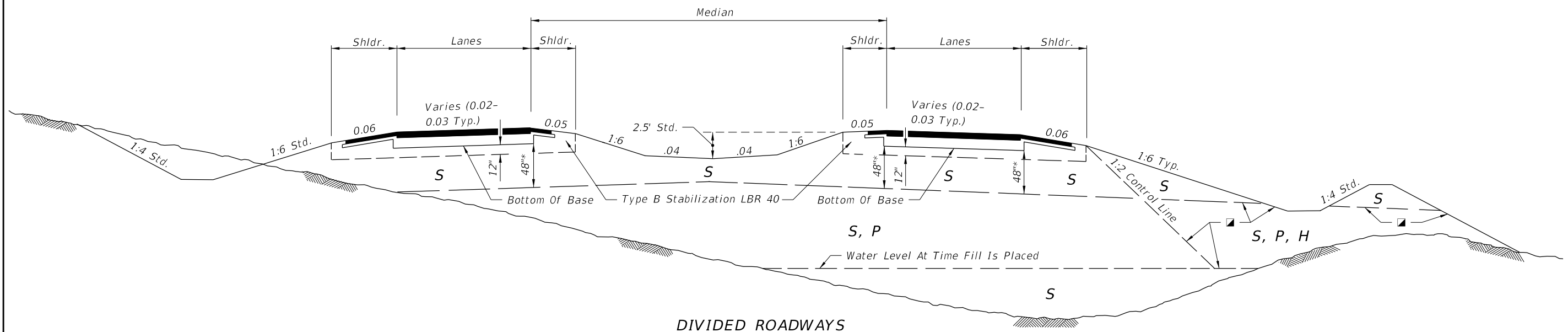
### Origination Package Includes: (Email or hand deliver package to Derwood Sheppard)

- | Yes                                 | N/A                      |   |
|-------------------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Redline Mark-ups                          |
| <input type="checkbox"/>            | <input type="checkbox"/> | Proposed Standard Plan Instructions (SPI) |
| <input type="checkbox"/>            | <input type="checkbox"/> | Revised SPI                               |
| <input type="checkbox"/>            | <input type="checkbox"/> | Other Support Documents                   |

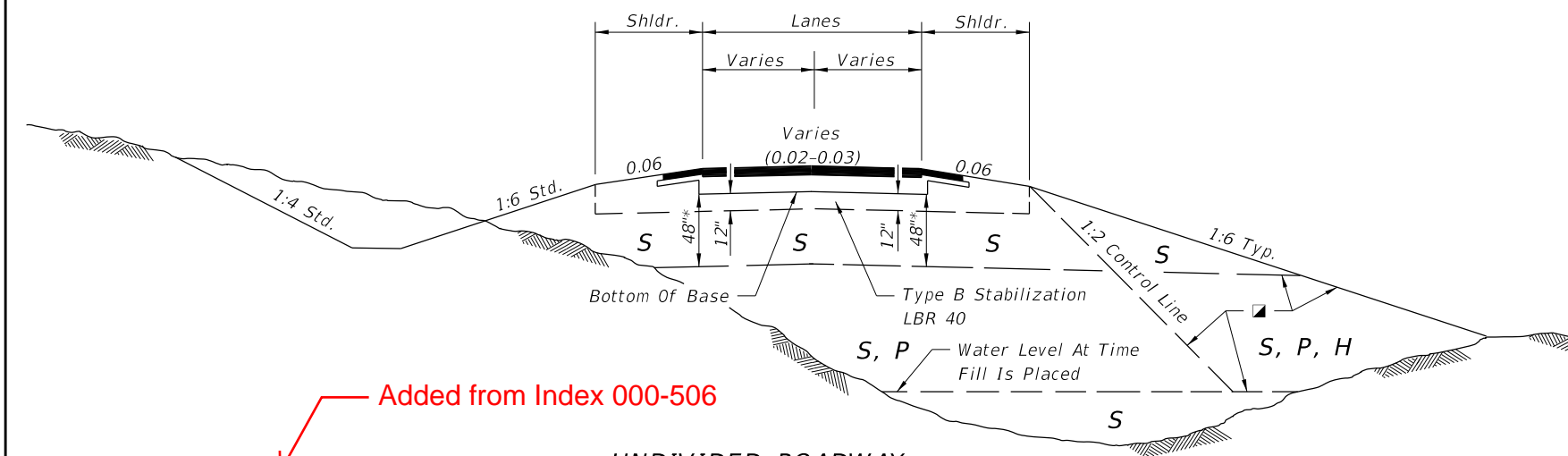
## Implementation:

- Design Bulletin (Interim)    DCE Memo    Program Mgmt. Bulletin    FY-Standard Plans (Next Release)

Contact the Roadway Design Office for assistance in completing this form

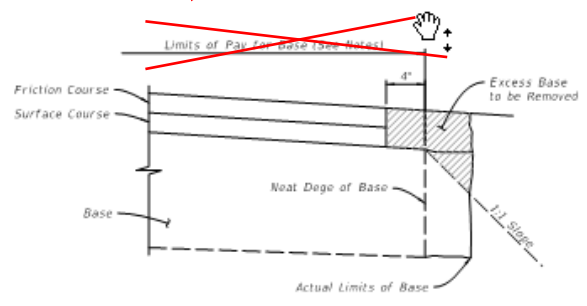


DIVIDED ROADWAYS



UNDIVIDED ROADWAY

Added from Index 000-506



**CLASSIFICATION (AASHTO M 145)**

- A-1, A-3, A-2-4 \*\*
- A-2-5, A-2-6, A-2-7, A-4, A-5, A-6, A-7 (ALL WITH LL < 50)
- A-2-5, A-2-7, A-5 Or A-7 (ALL WITH LL > 50)
- A-8

Changed Notes

**NOTES:**

1. The cost for removal of excess base material is included in the contract unit price for base.
2. Calculate payment for base using normal width.

**REMOVAL OF EXCESS BASE MATERIAL**

\* For cut sections this dimension may be reduced to 24"; see Index 120-002. For minor collectors and local facilities this dimension may be reduced to 18".

**FLEXIBLE PAVEMENT**

**GENERAL NOTES**

1. Roadway dimensions are representative. Subgrade dimensions and control lines are standard. The details shown on this Index do not supersede the details shown in the plans or on Index 120-002 or 000-506.
2. Plastic (P) soils may be placed above the existing water level (at the time of construction) to within 4 feet of the proposed base. It should be placed uniformly in the lower portion of the embankment for some distance along the project rather than full depth for short distances.
3. High Plastic (H) soils excavated within the project limits may be used in embankment construction as indicated on this index. High Plastic soils are not to be used for embankment construction when obtained from outside the project limits.
4. Select (S) soils having an average organic content of more than two and one-half (2.5) percent, or having an individual test value which exceeds four (4) percent, shall not be used in the subgrade portion of the roadbed. Select (S), Plastic (P), or High Plastic (H) soils having an average organic content of more than five (5) percent, or an organic content individual test result which exceeds seven (7) percent, shall not be used in the portion of embankment inside the control line, unless written authorization is provided by the District Geotechnical Engineer; these soils may be used for embankment construction outside the control line, unless restricted by the plans or otherwise specified in the plans, provided they can be compacted sufficiently to sustain a drivable surface for operational vehicles as approved by the Engineer. Average organic content shall be determined from the test results from a minimum of three randomly selected samples from each stratum or stockpile of a particular material. Tests shall be performed in accordance with AASHTO T 267 on the portion of a sample passing the No. 4 sieve.
5. Highly organic soils, composed primarily of partially decayed organic matter, often dark brown or black in color with an odor of decay, and sometimes fibrous, shall be designated as muck. Further, any stratum or stockpile of soil which contains pockets of highly organic material may be designated as Muck (M). Highly organic soils shall not be used within the subgrade or embankment portion of the roadbed, with the exception of muck used as a supplement to construct a finish soil layer as described in Section 162 of the FDOT Standard Specifications.

**UPDATED NOTES**

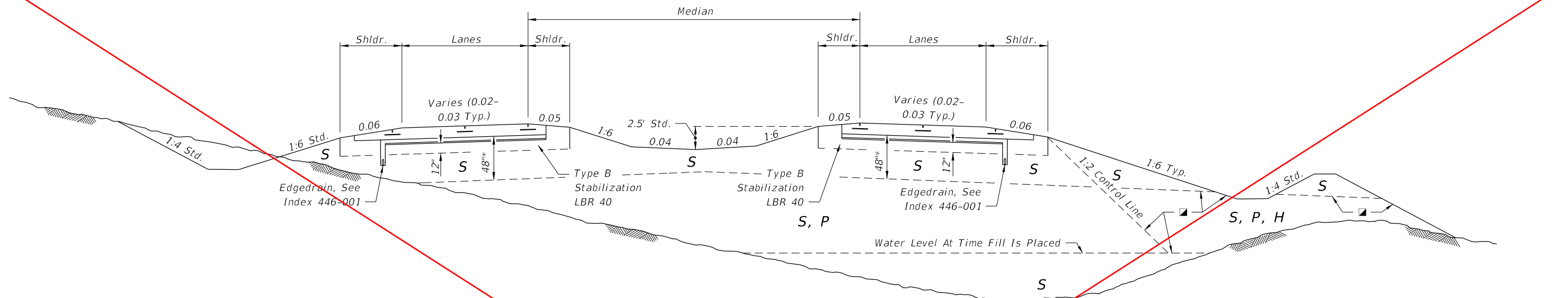
**DESIGN NOTES**

1. ~~The designer shall take into consideration the expectancy of roadway widening to the outside, and where widening is anticipated, specify in the plans the location of the future widening control line for utilization of High Plastic (H) soils and/or soils classified as organic material in the embankment.~~
2. ~~The designer shall take into consideration the position of the drainage swales in the portion of the embankment where Plastic (P) soils, High Plastic (H) soils, or soils classified as organic material would be allowed. The designer shall limit the use of Plastic (P) soils, High Plastic (H) soils, and/or soils classified as organic material to locations that will not inhibit the infiltration of stormwater from the swales.~~

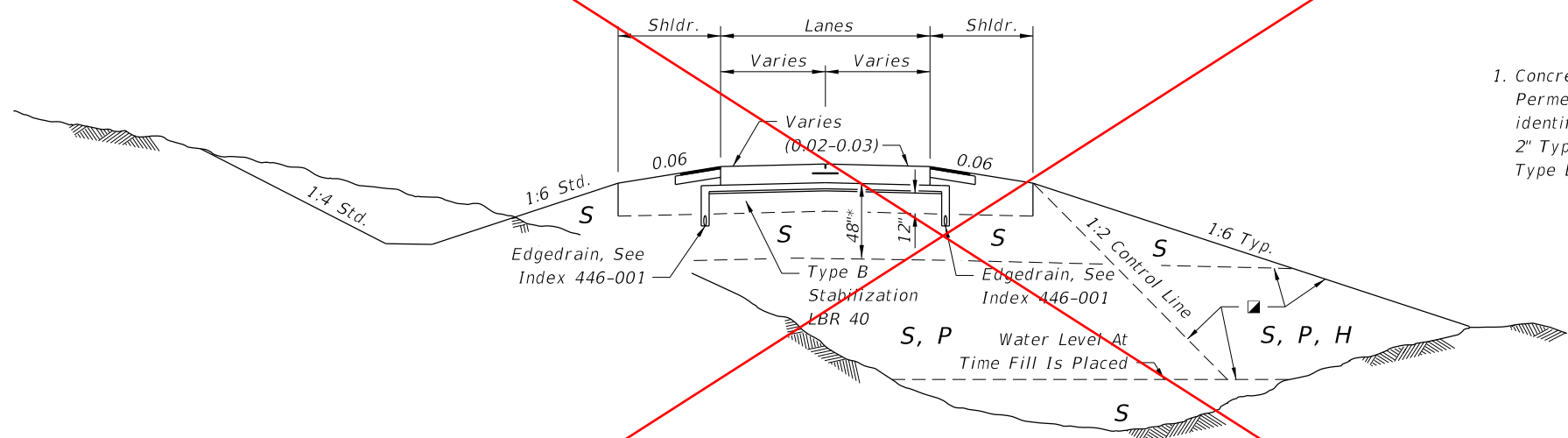
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LAST REVISION <del>11/01/17</del>	DESCRIPTION: 11/01/18	 FY 2018-19 STANDARD PLANS	<b>EMBANKMENT UTILIZATION</b>	INDEX 120-001	SHEET 1 of 4 3
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**DIVIDED ROADWAYS**



**UNDIVIDED ROADWAY**

**DESIGN NOTE**

1. Concrete pavement is to be placed over 4" of Asphalt Treated Permeable Base (ATPB) or Cement Treated Permeable Base (CTPB) as identified in the plans. This will be placed on a separator layer using 2" Type SP. This will be placed on a working platform using 12" of Type B Stabilization.

<u>SYMBOL</u>	<u>SOIL</u>	<u>CLASSIFICATION (AASHTO M 145)</u>
S	Select	A-1, A-3, A-2-4 **
P	Plastic	A-2-5, A-2-6, A-2-7, A-4, A-5, A-6, A-7 (ALL WITH LL < 50)
H	High Plastic	A-2-5, A-2-7, A-5 Or A-7 (ALL WITH LL > 50)
M	Muck	A-8

Classification listed left to right in order of preference.

■ See General Notes Nos. 4 & 5 for utilization of soils classified as organic material or muck.

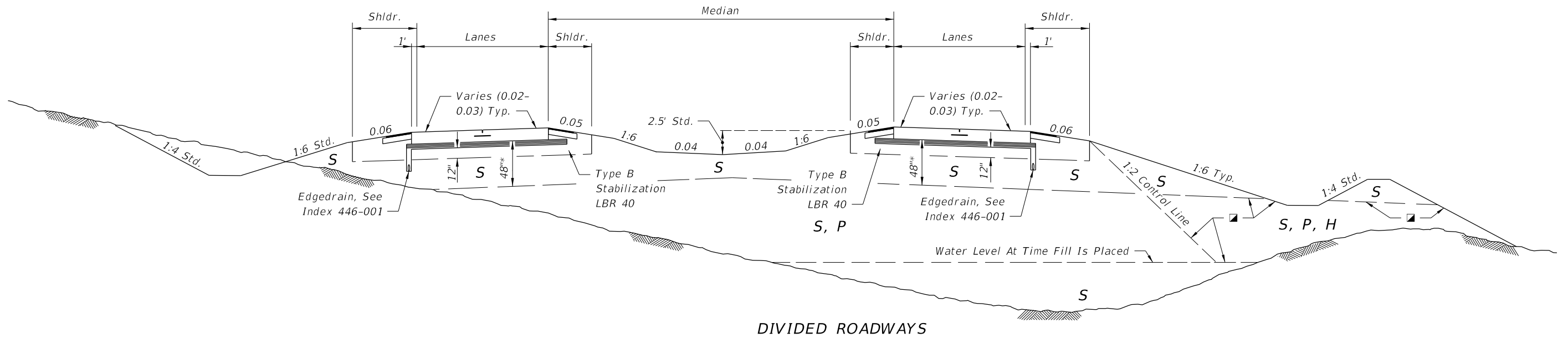
\*\* Certain types of A-2-4 material are likely to retain excess moisture and may be difficult to dry and compact. They should be used in the embankment above the water level existing at time of construction. They may be used in the subgrade portion of the roadbed when approved by the District Materials Engineer. A-2-4 material placed below the existing water level must be nonplastic and contain less than 15% passing the No. 200 U.S. Standard sieve.

\* For cut sections this dimension may be reduced to 24"; see Index 120-002. For minor collectors and local facilities this dimension may be reduced to 18".

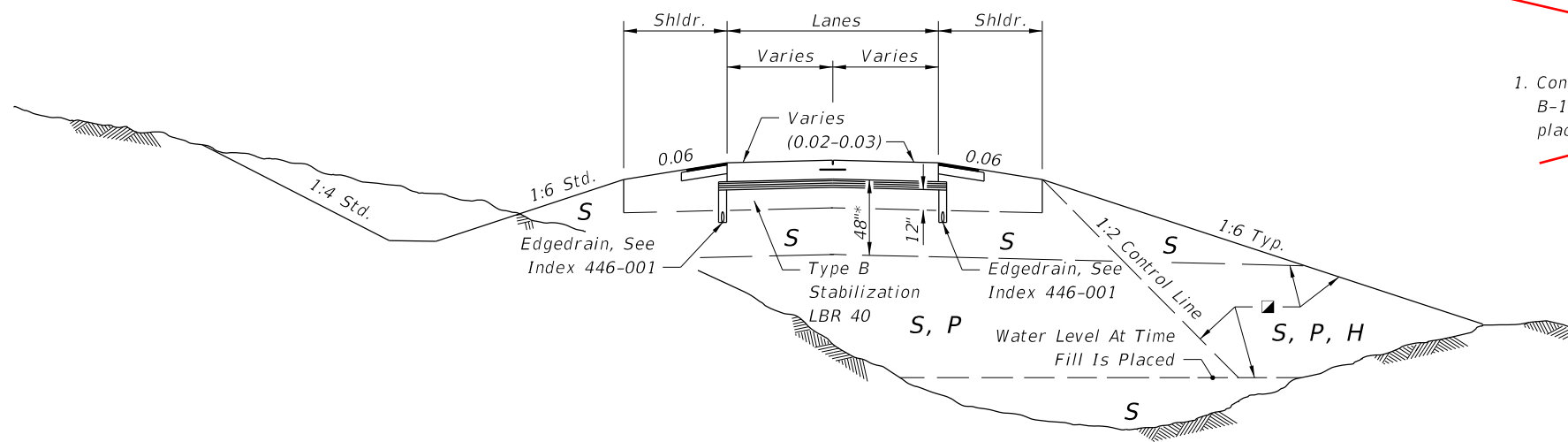
**DELETE SHEET -  
REMOVE TREATED  
PERMEABLE BASE OPTION**

**RIGID PAVEMENT - TREATED PERMEABLE BASE OPTION**

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DIVIDED ROADWAYS



UNDIVIDED ROADWAY

~~DESIGN NOTE~~  
 1. Concrete pavement is to be placed over Optional Base Group 1 Type B-12.5 only Asphalt Base as identified in the plans. This will be placed on a working platform using 12" of Type B Stabilization.  
 DELETED

SYMBOL	SOIL	CLASSIFICATION (AASHTO M 145)
S	Select	A-1, A-3, A-2-4 **
P	Plastic	A-2-5, A-2-6, A-2-7, A-4, A-5, A-6, A-7 (ALL WITH LL < 50)
H	High Plastic	A-2-5, A-2-7, A-5 Or A-7 (ALL WITH LL > 50)
M	Muck	A-8

Classification listed left to right in order of preference.

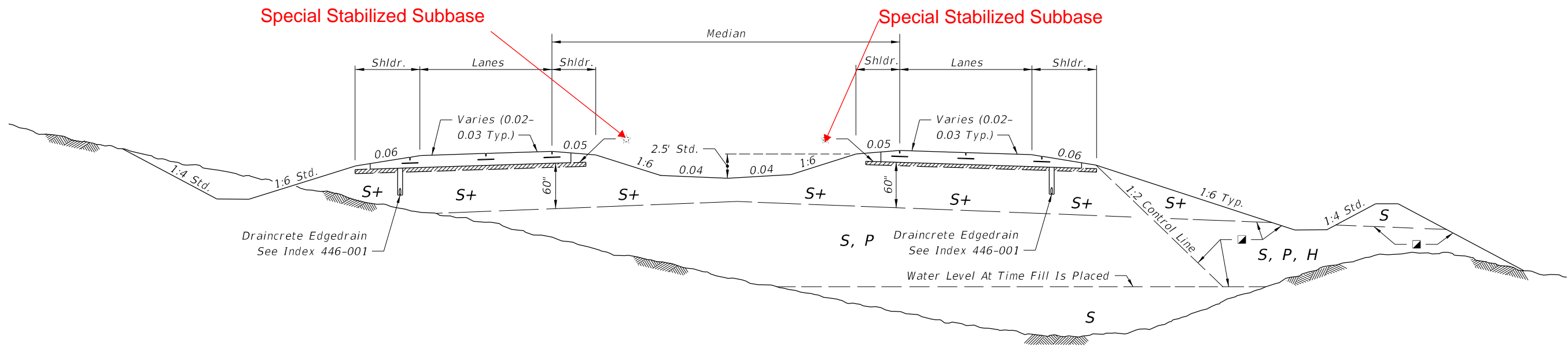
■ See General Notes Nos. 4 & 5 for utilization of soils classified as organic material or muck.

\*\* Certain types of A-2-4 material are likely to retain excess moisture and may be difficult to dry and compact. They should be used in the embankment above the water level existing at time of construction. They may be used in the subgrade portion of the roadbed when approved by the District Materials Engineer. A-2-4 material placed below the existing water level must be nonplastic and contain less than 15% passing the No. 200 U.S. Standard sieve.

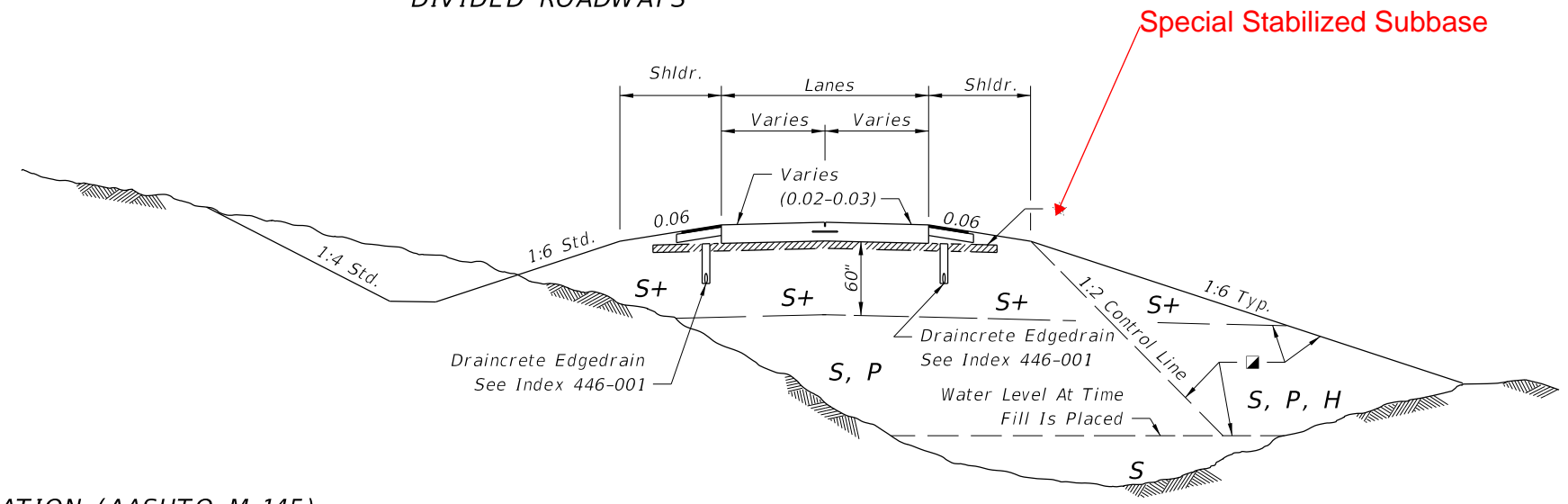
\* For cut sections this dimension may be reduced to 24"; see Index 120-002. For minor collectors and local facilities this dimension may be reduced to 18".

RIGID PAVEMENT - ASPHALT BASE OPTION

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DIVIDED ROADWAYS



UNDIVIDED ROADWAY

SYMBOL	SOIL	CLASSIFICATION (AASHTO M 145)
S	Select	A-1, A-3, A-2-4 **
S+	Special Select	A-3 *** With Minimum Average Lab Permeability of $5 \times 10^{-5}$ cm/sec. (0.14 ft./day) as per AASHTO T 215
P	Plastic	A-2-5, A-2-6, A-2-7, A-4, A-5, A-6, A-7 (ALL WITH LL<50)
H	High Plastic	A-2-5, A-2-7, A-5 Or A-7 (ALL WITH LL>50)
M	Muck	A-8

Classification listed left to right in order of preference.

- ☑ See General Notes Nos. 4 & 5 for utilization of soils classified as organic material or muck.
- \*\*\* When allowed by the plans, some types of A-2-4 material may be approved in writing by the District Materials Engineer. This material must meet the minimum lab permeability requirement, be nonplastic, and not exceed 12% passing the No. 200 U.S. Standard sieve.
- \*\* Certain types of A-2-4 material are likely to retain excess moisture and may be difficult to dry and compact. They should be used in the embankment above the water level existing at time of construction. A-2-4 material placed below the existing water level must be nonplastic and contain less than 15% passing the No. 200 U.S. Standard sieve.

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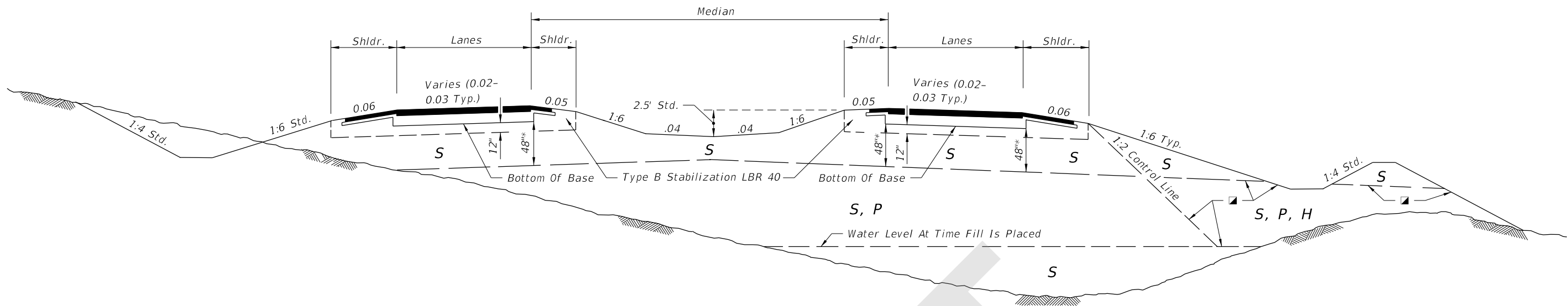
~~Note: SPECIAL SELECT SOIL OPTION may be used only when approved in writing by the District Materials Engineer and shown in the plans.~~

3" of #57 or #89 Coarse Aggregate Mixed Into Top 6".

**Special Stabilized Subbase:**

RIGID PAVEMENT - SPECIAL SELECT SOIL OPTION

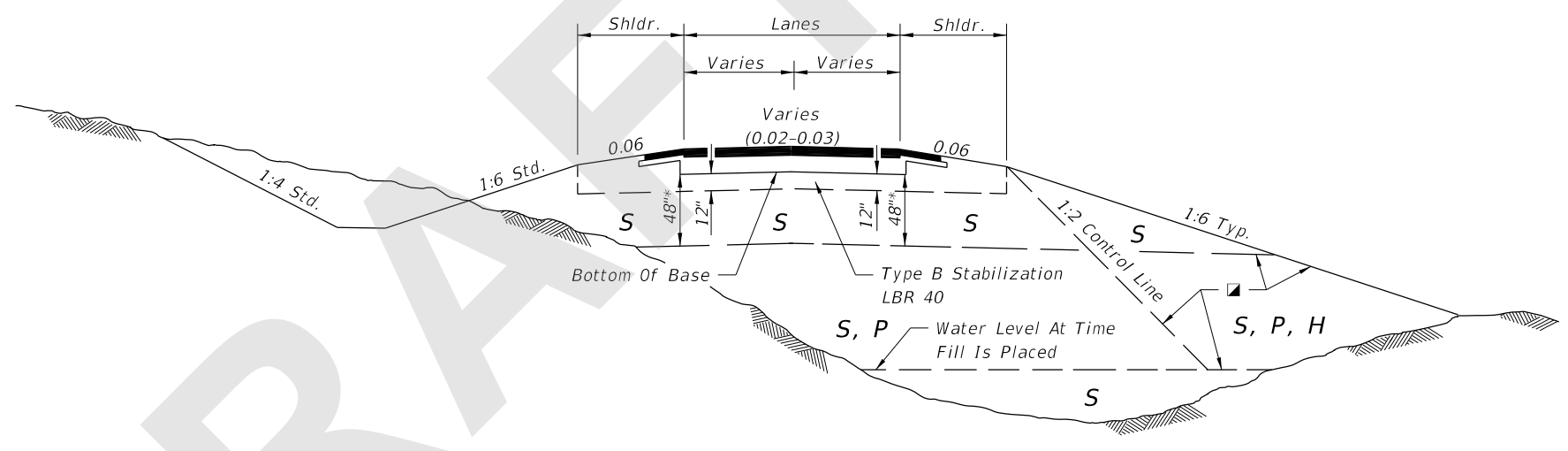
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**DIVIDED ROADWAYS**

**GENERAL NOTES:**

- Roadway dimensions are representative. Subgrade dimensions and control lines are standard. The details shown on this Index do not supersede the details shown in the Plans or Indexes 120-002 and 160-001.
- Plastic (P) soils may be placed above the existing water level (at the time of construction) to within 4 feet of the proposed base. It should be placed uniformly in the lower portion of the embankment for some distance along the project rather than full depth for short distances.
- High Plastic (H) soils excavated within the project limits may be used in embankment construction as indicated on this Index. High Plastic soils are not to be used for embankment construction when obtained from outside the project limits.
- Select (S) soils having an average organic content of more than two and one-half (2.5) percent, or having an individual test value which exceeds four (4) percent, is not permitted in the subgrade portion of the roadbed. Select (S), Plastic (P), or High Plastic (H) soils having an average organic content of more than five (5) percent, or an organic content individual test result which exceeds seven (7) percent, is not permitted in the portion of embankment inside the control line, unless written authorization is provided by the District Geotechnical Engineer; these soils may be used for embankment construction outside the control line, unless restricted by the Plans or otherwise specified in the Plans, provided they can be compacted sufficiently to sustain a drivable surface for operational vehicles as approved by the Engineer. Determine average organic content from the test results from a minimum of three randomly selected samples from each stratum or stockpile of a particular material. Perform tests in accordance with AASHTO T 267 on the portion of a sample passing the No. 4 sieve.
- Highly organic soils, composed primarily of partially decayed organic matter, often dark brown or black in color with an odor of decay, and sometimes fibrous, are designated as muck. Further, any stratum or stockpile of soil which contains pockets of highly organic material may be designated as Muck (M). Highly organic soils are not permitted within the subgrade or embankment portion of the roadbed, with the exception of muck used as a supplement to construct a finish soil layer as described in Specification 162.



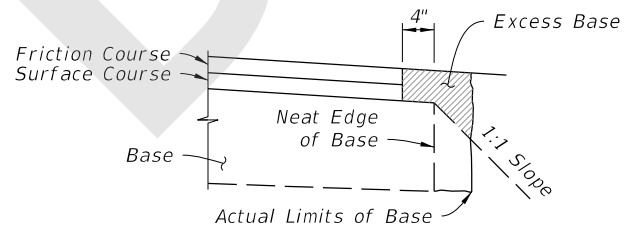
**UNDIVIDED ROADWAY**

<u>SYMBOL</u>	<u>SOIL</u>	<u>CLASSIFICATION (AASHTO M 145)</u>
S	Select	A-1, A-3, A-2-4 **
P	Plastic	A-2-5, A-2-6, A-2-7, A-4, A-5, A-6, A-7 (ALL WITH LL < 50)
H	High Plastic	A-2-5, A-2-7, A-5 Or A-7 (ALL WITH LL > 50)
M	Muck	A-8

Classification listed left to right in order of preference.  
 ■ See General Notes Nos. 4 & 5 for utilization of soils classified as organic material or muck.

\*\* Certain types of A-2-4 material are likely to retain excess moisture and may be difficult to dry and compact. They should be used in the embankment above the water level existing at time of construction. They may be used in the subgrade portion of the roadbed when approved by the District Materials Engineer. A-2-4 material placed below the existing water level must be nonplastic and contain less than 15% passing the No. 200 U.S. Standard sieve.

\* For cut sections this dimension may be reduced to 24"; see Index 120-002. For minor collectors and local facilities this dimension may be reduced to 18".



**NOTES:**

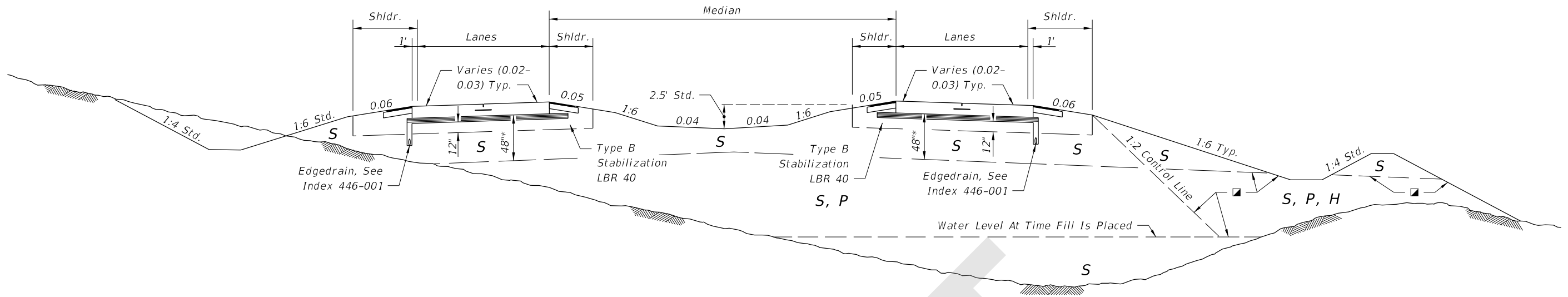
- All material in the shaded area is excess base to be removed.
- There is no additional payment for removal of excess base material.

**REMOVAL OF EXCESS BASE MATERIAL**

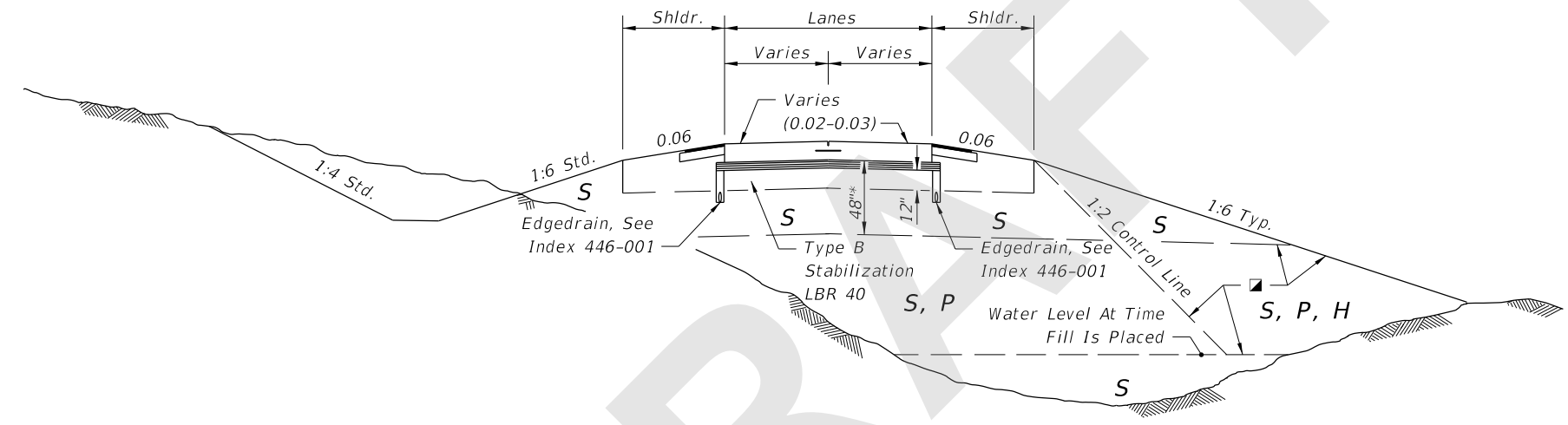
**GENERAL NOTES AND FLEXIBLE PAVEMENT**

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**DIVIDED ROADWAYS**



**UNDIVIDED ROADWAY**

SYMBOL	SOIL	CLASSIFICATION (AASHTO M 145)
S	Select	A-1, A-3, A-2-4 **
P	Plastic	A-2-5, A-2-6, A-2-7, A-4, A-5, A-6, A-7 (ALL WITH LL < 50)
H	High Plastic	A-2-5, A-2-7, A-5 Or A-7 (ALL WITH LL > 50)
M	Muck	A-8

Classification listed left to right in order of preference.

See General Notes Nos. 4 & 5 for utilization of soils classified as organic material or muck.

\*\* Certain types of A-2-4 material are likely to retain excess moisture and may be difficult to dry and compact. They should be used in the embankment above the water level existing at time of construction. They may be used in the subgrade portion of the roadbed when approved by the District Materials Engineer. A-2-4 material placed below the existing water level must be nonplastic and contain less than 15% passing the No. 200 U.S. Standard sieve.

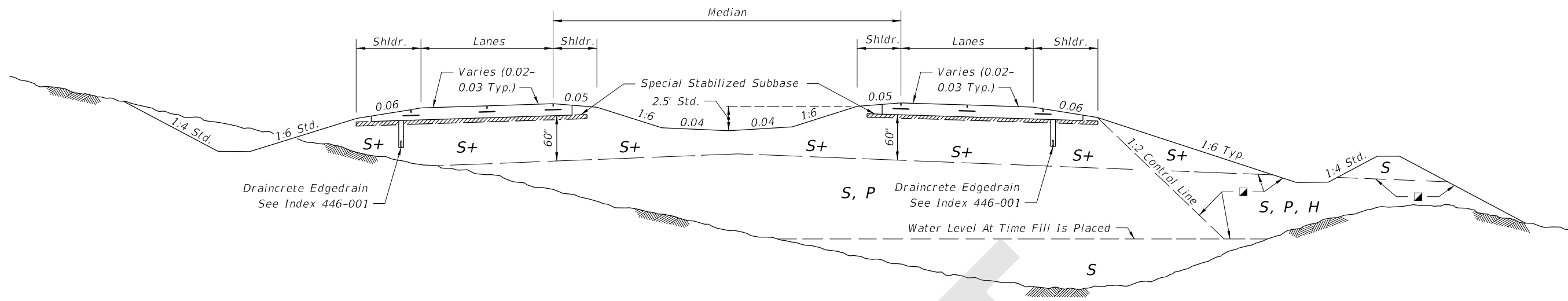
\* For cut sections this dimension may be reduced to 24"; see Index 120-002. For minor collectors and local facilities this dimension may be reduced to 18".

**RIGID PAVEMENT - ASPHALT BASE OPTION**

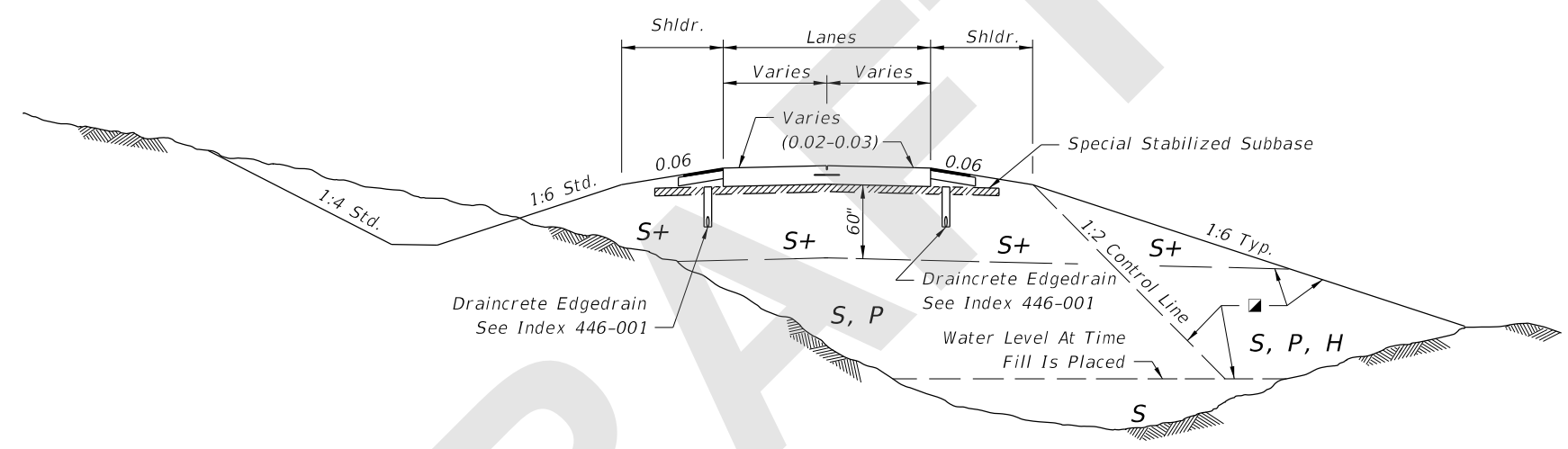
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LAST REVISION 11/01/17	REVISION	DESCRIPTION:		<b>FY 2019-20 STANDARD PLANS</b>	<b>EMBANKMENT UTILIZATION</b>	INDEX 120-001	SHEET 2 of 3
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**DIVIDED ROADWAYS**



**UNDIVIDED ROADWAY**

SYMBOL	SOIL	CLASSIFICATION (AASHTO M 145)
S	Select	A-1, A-3, A-2-4 **
S+	Special Select	A-3 *** With Minimum Average Lab Permeability of $5 \times 10^{-5}$ cm/sec. (0.14 ft./day) as per AASHTO T 215
P	Plastic	A-2-5, A-2-6, A-2-7, A-4, A-5, A-6, A-7 (ALL WITH LL<50)
H	High Plastic	A-2-5, A-2-7, A-5 Or A-7 (ALL WITH LL>50)
M	Muck	A-8

Classification listed left to right in order of preference.

☑ See General Notes Nos. 4 & 5 for utilization of soils classified as organic material or muck.

\*\*\* When called for in the Plans, some types of A-2-4 material may be approved in writing by the District Materials Engineer. This material must meet the minimum lab permeability requirement, be nonplastic, and not exceed 12% passing the No. 200 U.S. Standard sieve.

\*\* Certain types of A-2-4 material are likely to retain excess moisture and may be difficult to dry and compact. They should be used in the embankment above the water level existing at time of construction. A-2-4 material placed below the existing water level must be nonplastic and contain less than 15% passing the No. 200 U.S. Standard sieve.

Special Stabilized Subbase: 3" of #57 or #89 Coarse Aggregate Mixed Into Top 6".

**RIGID PAVEMENT - SPECIAL SELECT SOIL OPTION**

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