Substructure Repair by Michael Close, PE

GeoStabilization International®

New Salem Loop Rd Bridge over CSX R&R – Nortonville, KY

New Salem Loop Rd Bridge over CSX R&R – Nortonville, KY

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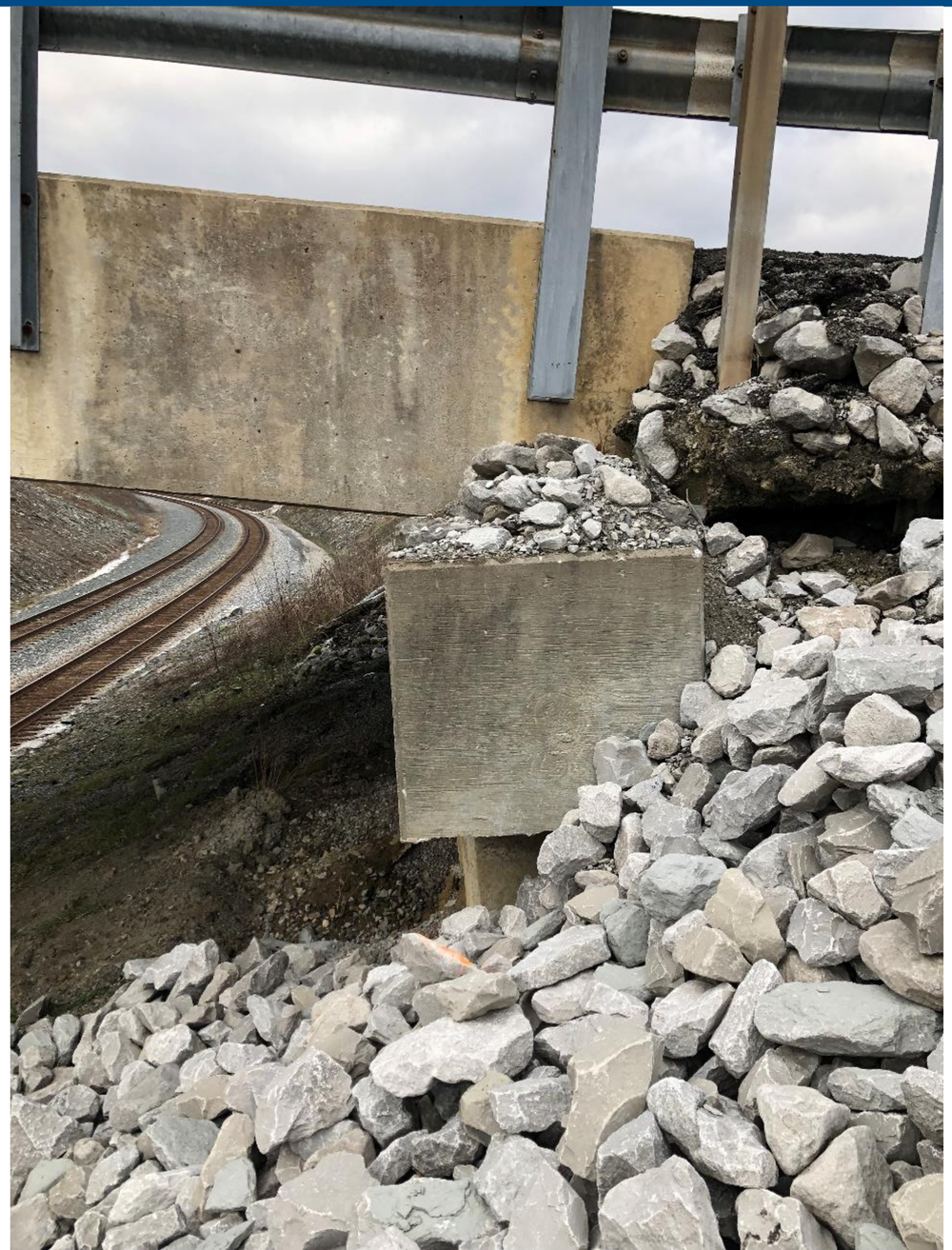

New Salem Loop Rd Bridge over CSX R&R – Nortonville, KY

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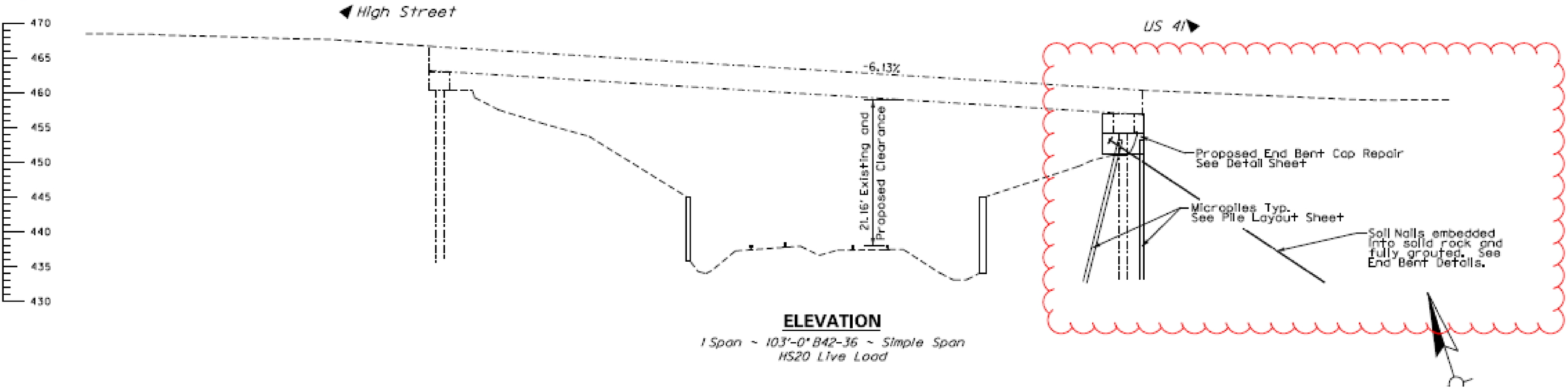
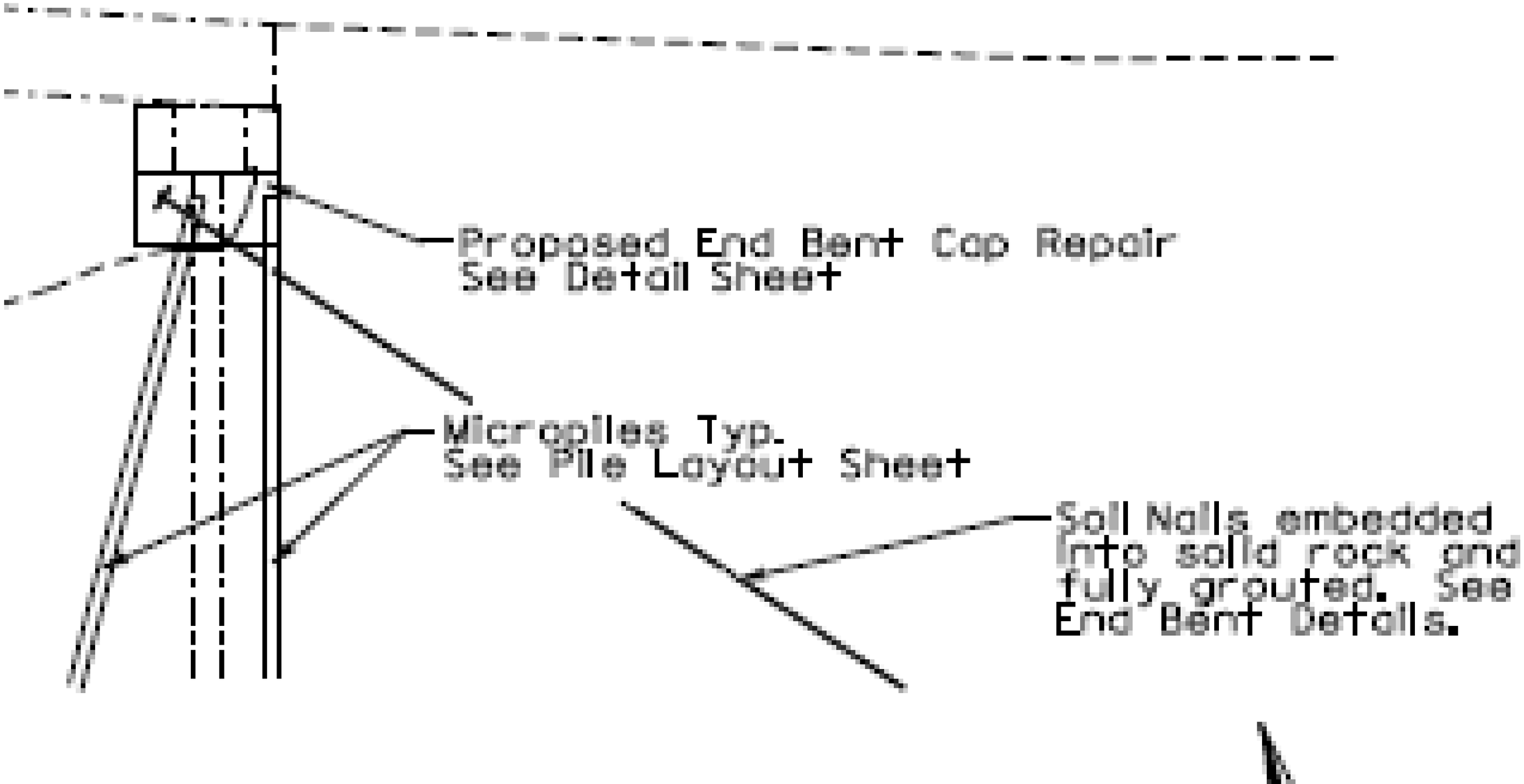
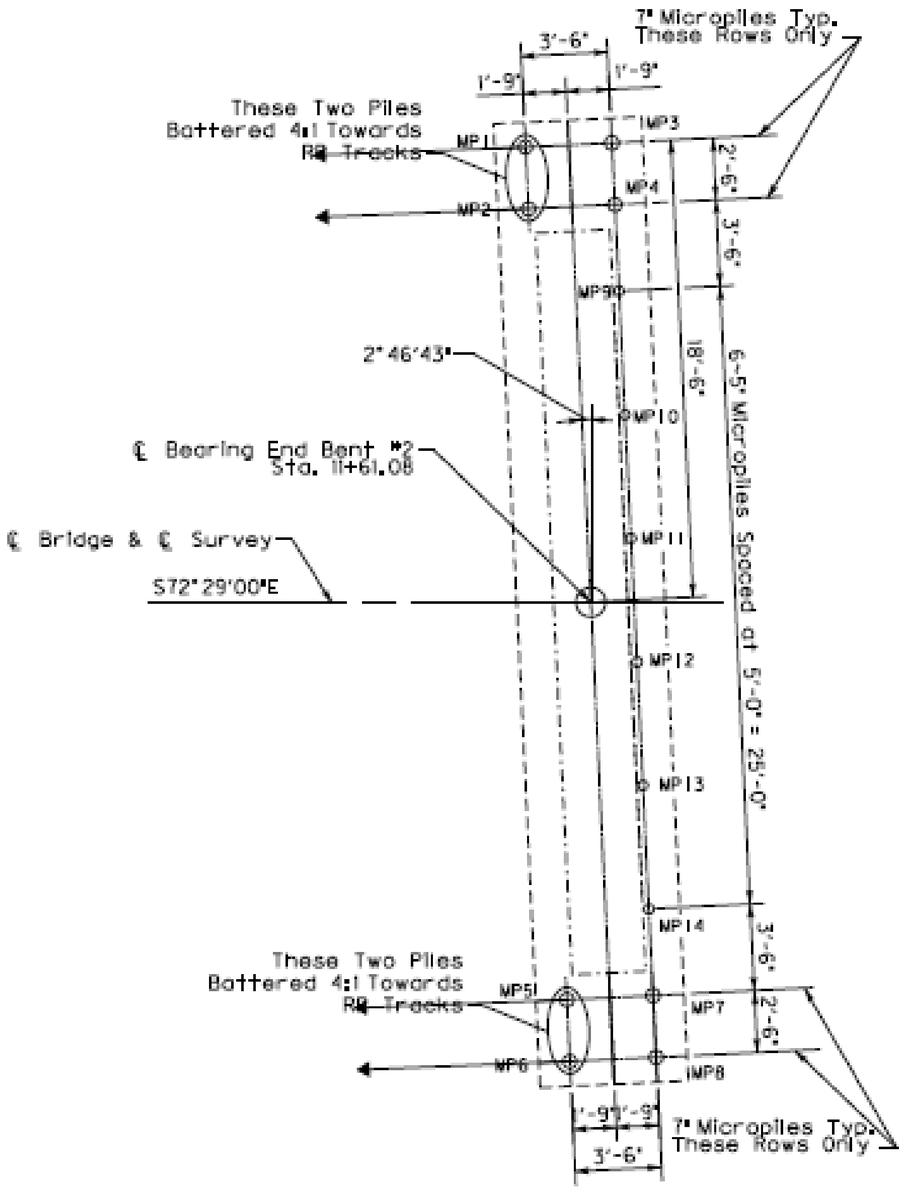


New Salem Loop Rd Bridge over CSX R&R – Nortonville, KY

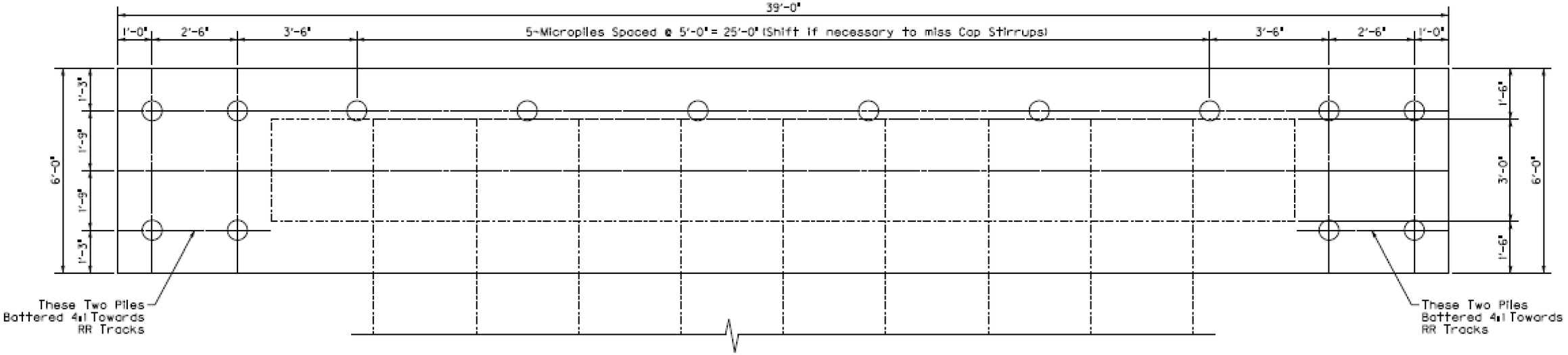


New Salem Loop Rd Bridge over CSX R&R – Nortonville, KY

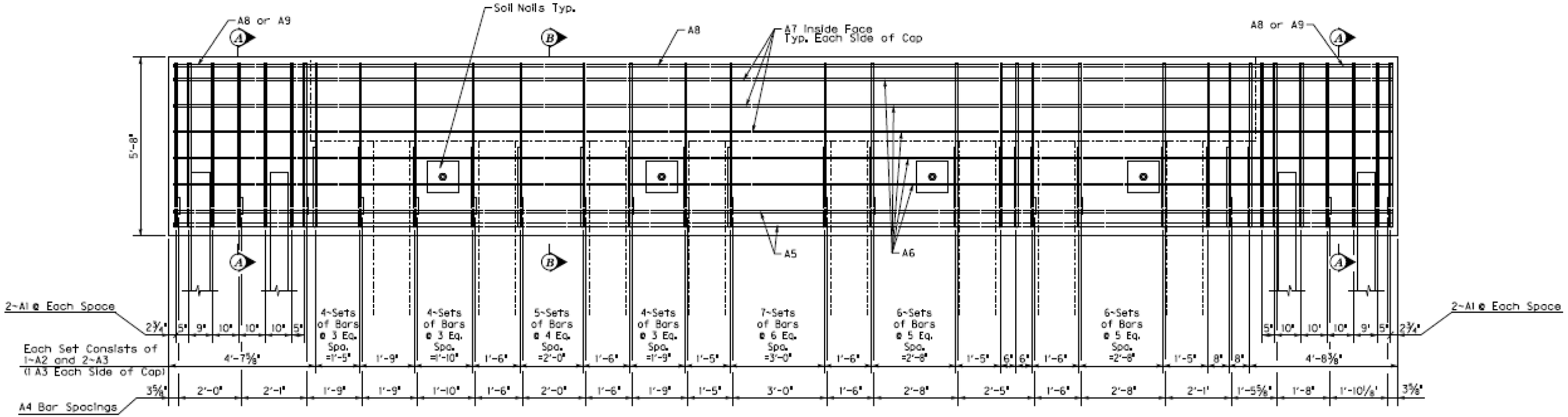


PROPOSED PILE LAYOUT
FOR CAP REPAIR END BENT 2

New Salem Loop Rd Bridge over CSX R&R – Nortonville, KY



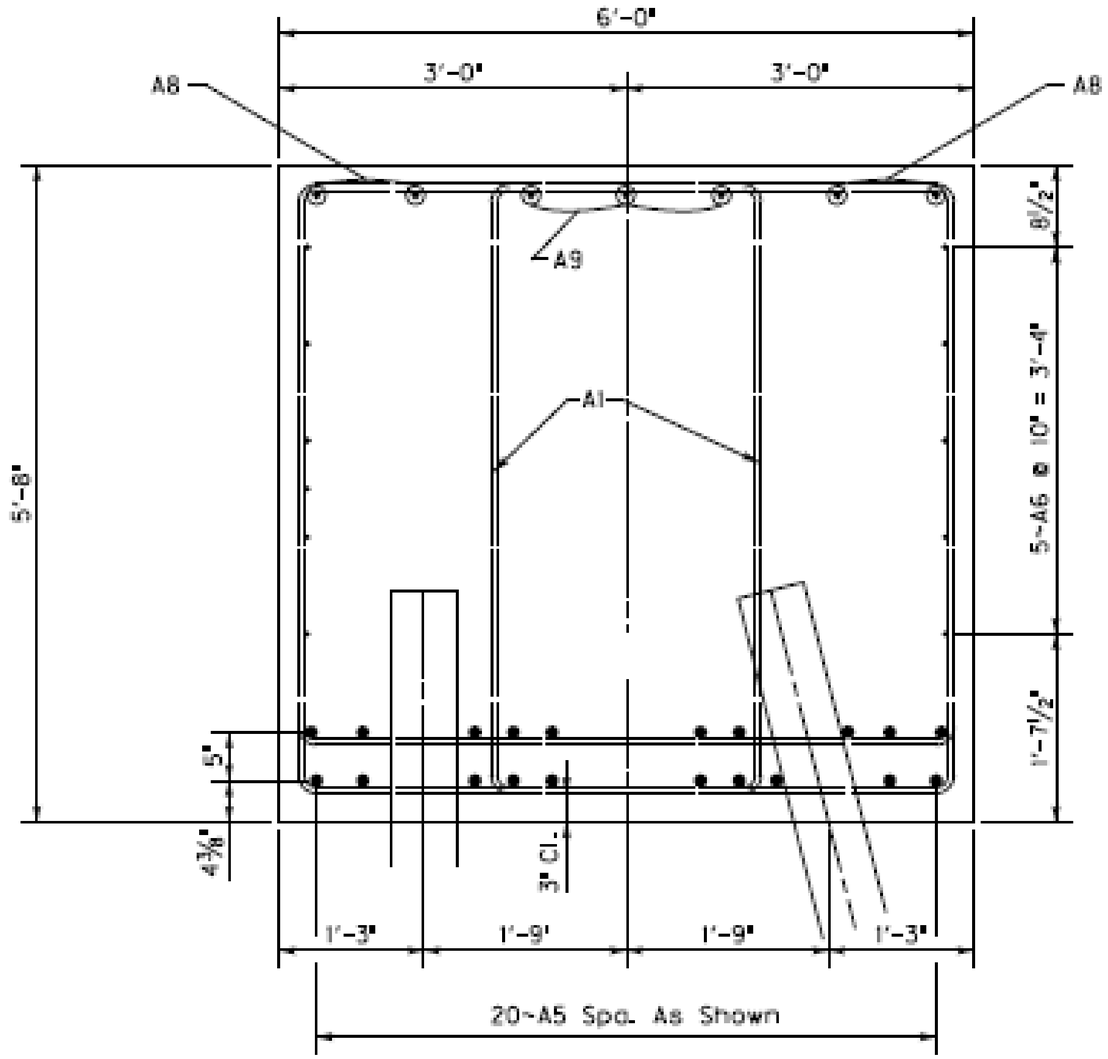
PLAN VIEW SHOWING MICROPILE LAYOUT



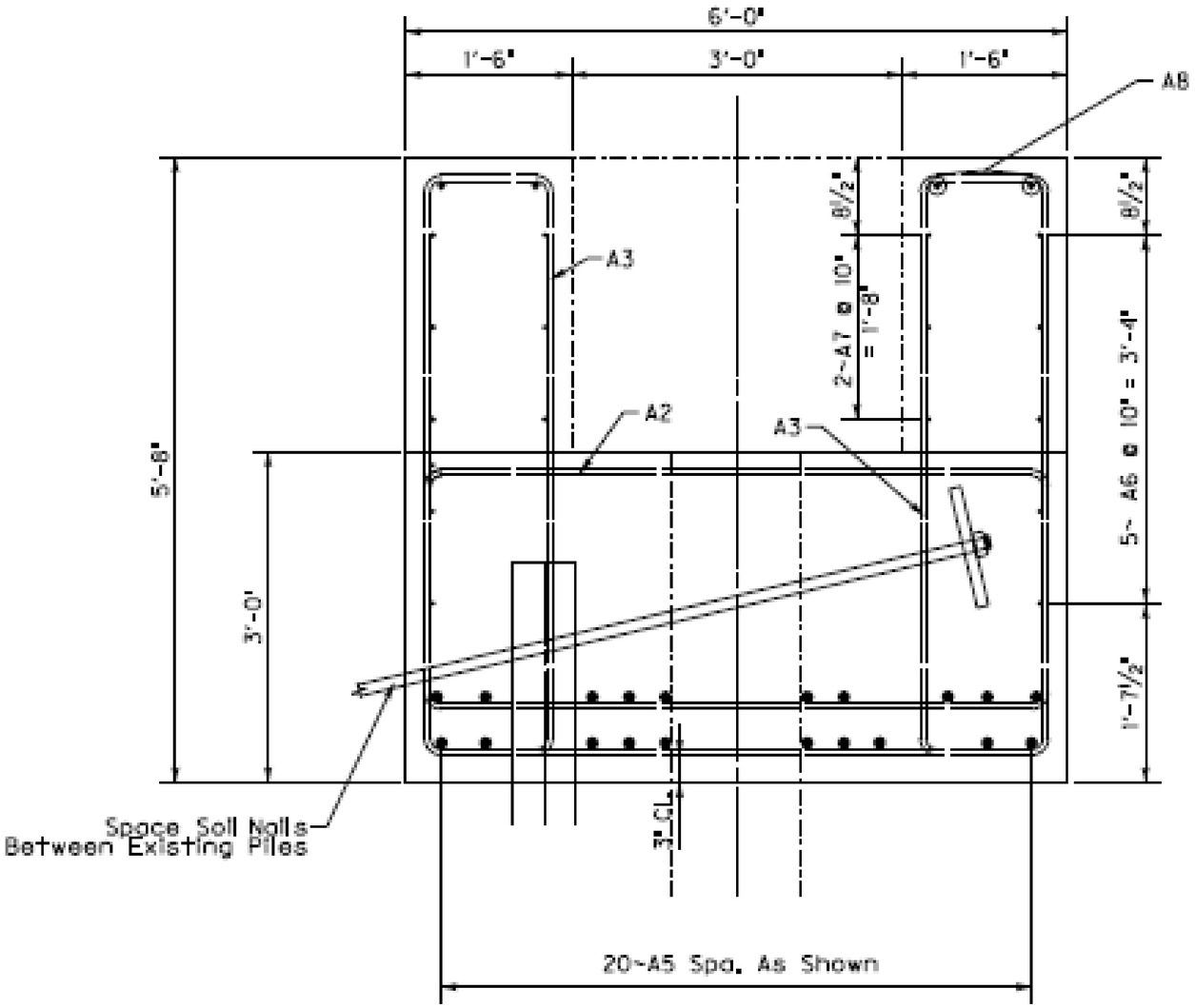
ELEVATION VIEW SHOWING CAP REINFORCEMENT

New Salem Loop Rd Bridge over CSX R&R – Nortonville, KY

Note Dimensions and Reinforcement Symmetrical unless otherwise noted.



SECTION A-A



SECTION B-B

New Salem Loop Rd Bridge over CSX R&R – March 14, 2019

New Salem Loop Rd Bridge over CSX R&R – March 14, 2019

New Salem Loop Rd Bridge over CSX R&R – March 14, 2019

New Salem Loop Rd Bridge over CSX R&R – March 14, 2019

New Salem Loop Rd Bridge over CSX R&R – March 14, 2019

New Salem Loop Rd Bridge over CSX R&R – March 14, 2019

South Feather Water & Power – Forbestown, CA March 7, 2019

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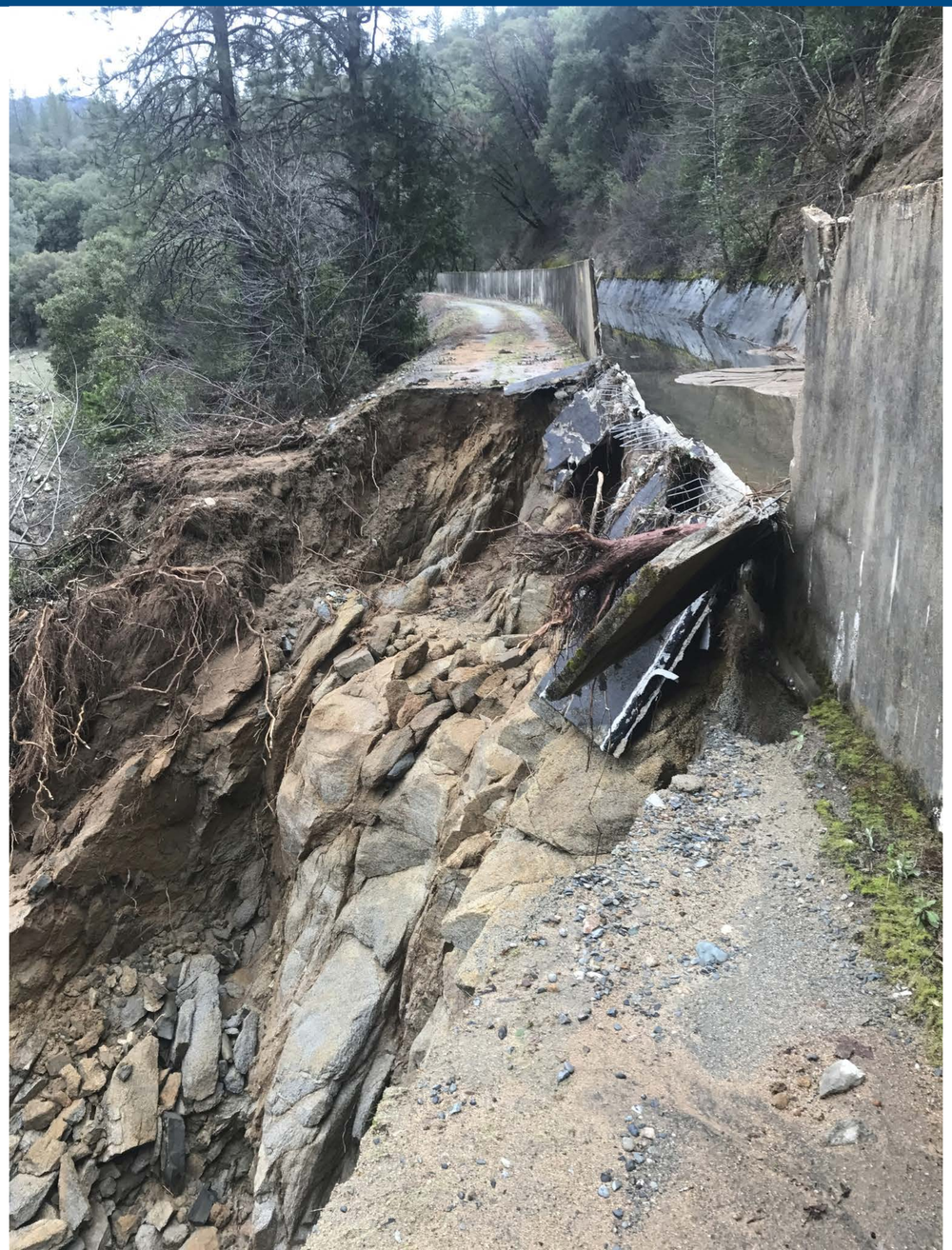
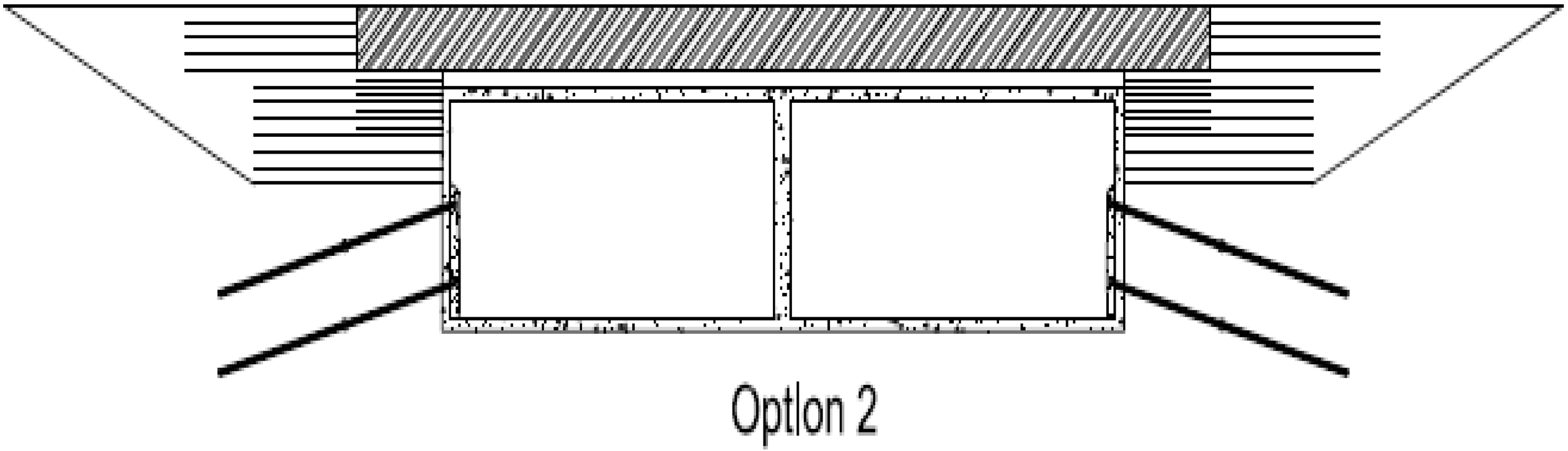


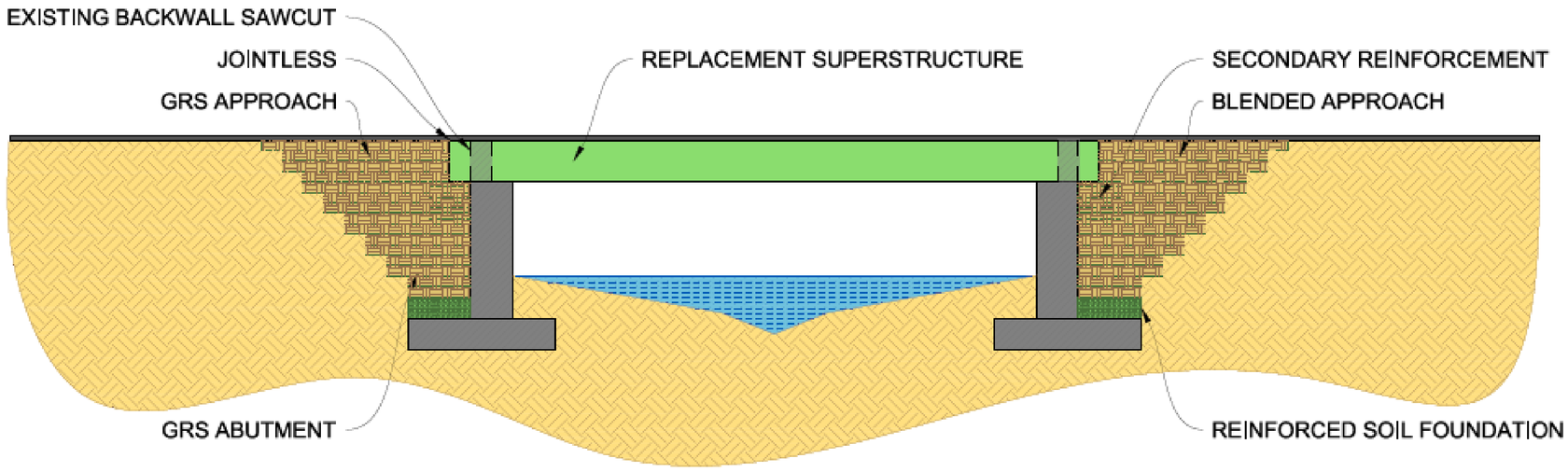
Nassau County, Florida new GRS-IBS bridge with culvert

Nassau County, Florida new GRS-IBS bridge with culvert

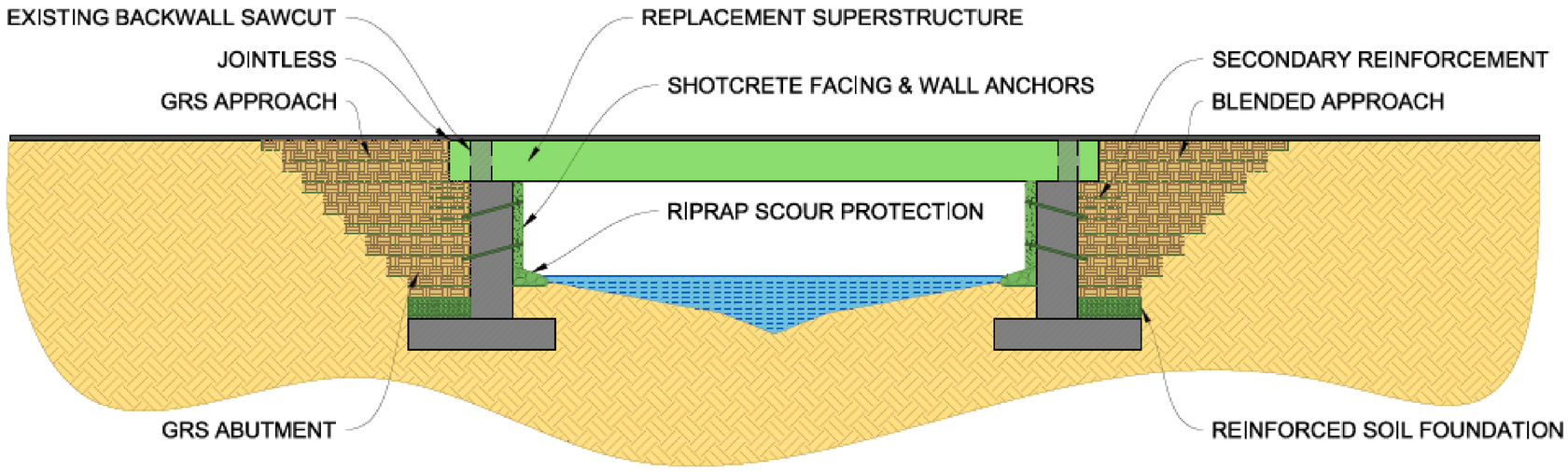


Nassau County, Florida new GRS-IBS bridge with culvert

New GRS Abutments behind Existing Abutments

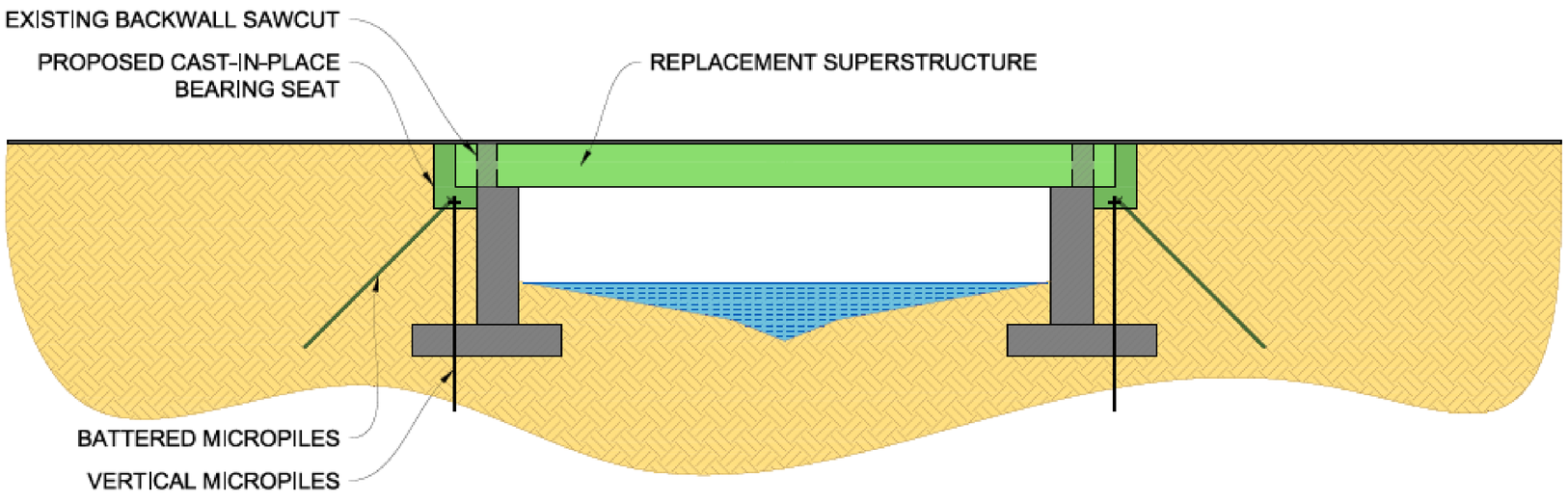


GRS STRUCTURE FABRICATED IN EXISTING ABUTMENT W/O SOIL ANCHORS IN FACE

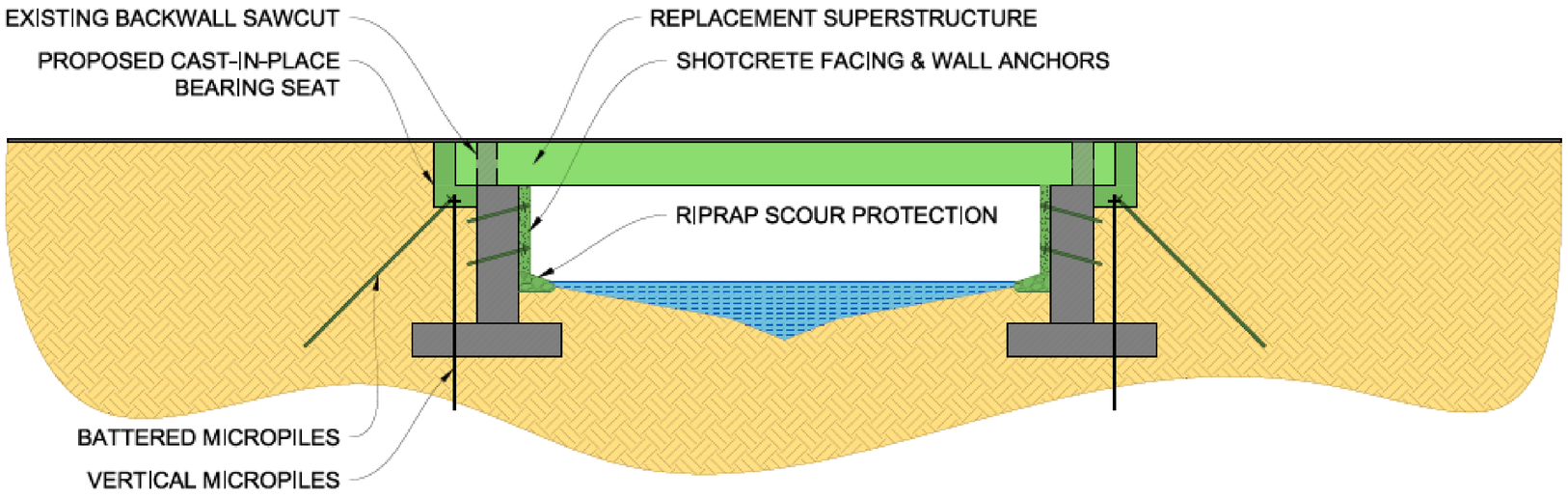


GRS STRUCTURE FABRICATED IN EXISTING ABUTMENT WITH SHOTCRETE FACING & WALL ANCHORS

New Micropile Abutments behind Existing Abutments



VERTICAL & BATTERED MICROPILES W/O SOIL ANCHORS IN FACE



VERTICAL & BATTERED MICROPILES WITH SHOTCRETE FACING & WALL ANCHORS

SCI 136 280 (Gibson Rd) over Grove Run – Pickaway Co., Ohio

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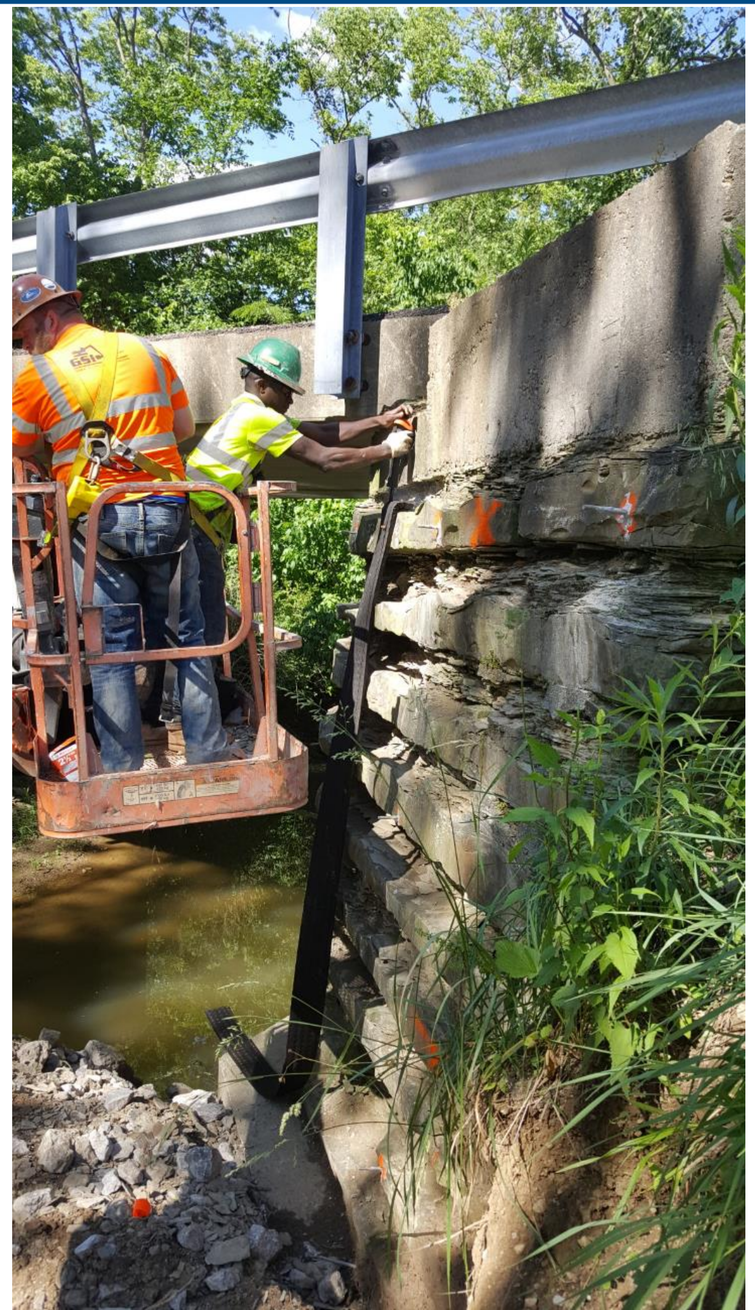

Smith Creek Road Bridge – Repair of abutment undermining

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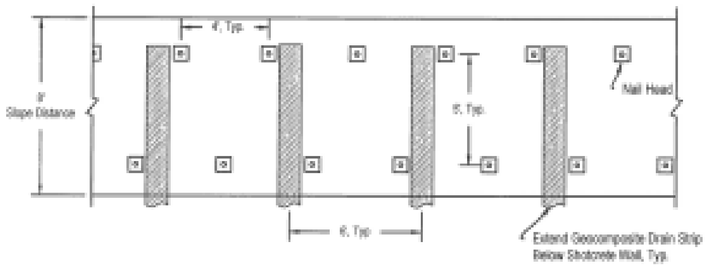
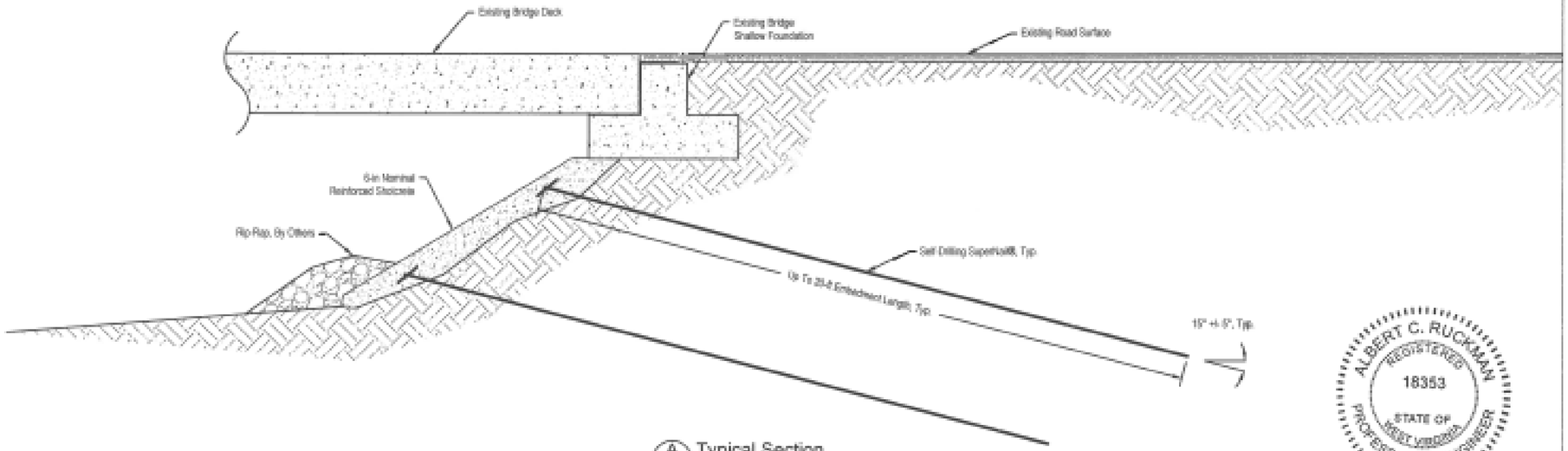


Note: 30 L.F. of stabilization as shown
- Extend stabilization 5 feet on either side of bridge deck
- Minor excavation required; removal of rock, concrete and other debris
- Fill voided areas beneath bridge foundation with shotcrete
- Soil nail inclination may be field adjusted to a flatter slope to ensure installation without contact between bridge deck drill mast

B/4 Elevation Detail
Not to Scale



A/4 Typical Section
Not to Scale

ALBERT C. RUCKMAN
REGISTERED
18353
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER
9/28/17

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Sheet Revision		
Date:		By:

Typical Cross–Section & Elevation View

Project:	Project No.
Smith Creek Road Bridge	170314WV01

Date:	Drawn By:	Checked By:	Sheet No.:
September 2017	DM	BSE	4

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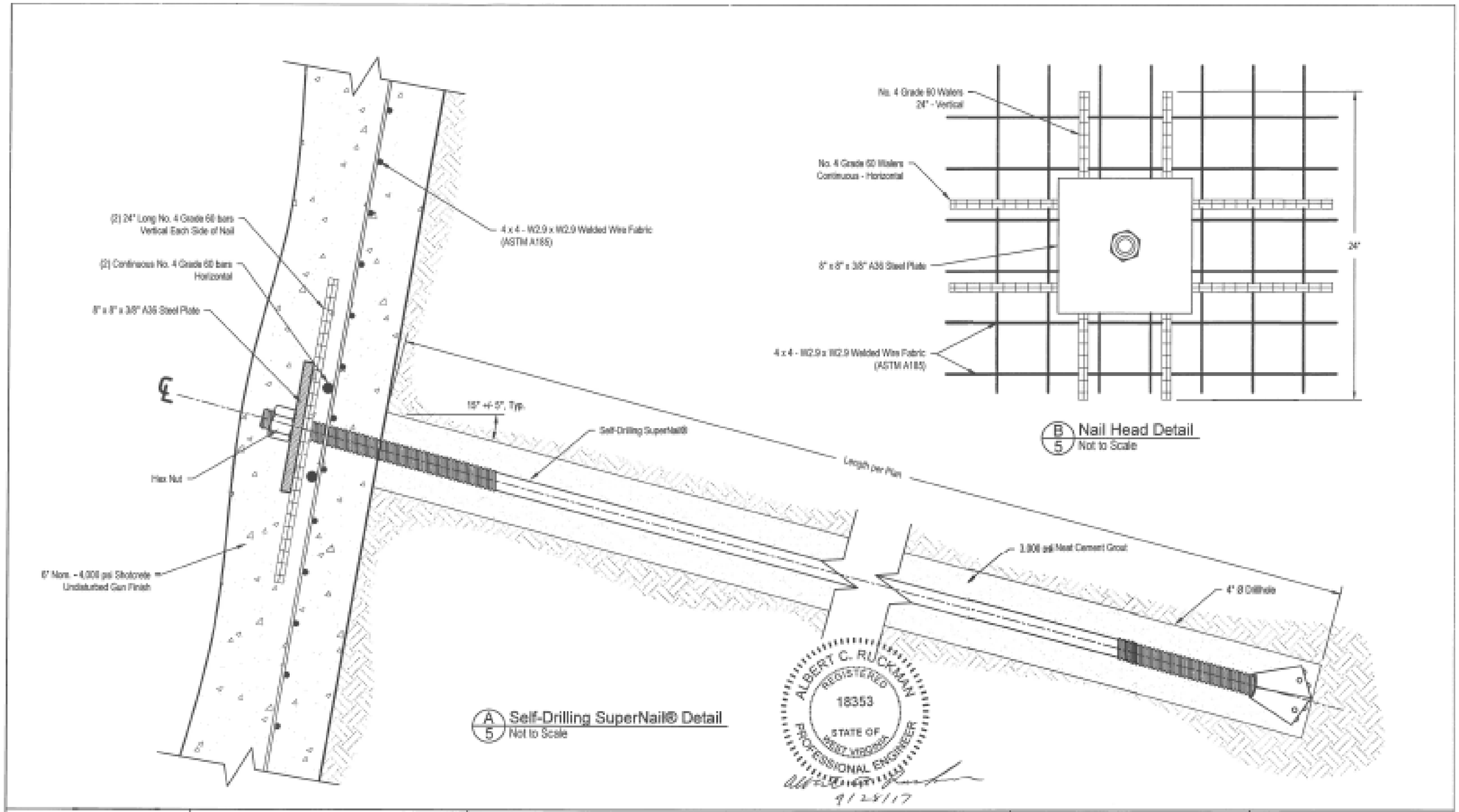
Grand Junction, CO 81502
P: 970.210.6170
F: 970.245.7737
www.geostabilization.com

Smith Creek Road Bridge – Repair of abutment undermining



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Sheet Revision

Date:		By:

Self–Drilling SuperNail® Detail

Project:	Project No.
Smith Creek Road Bridge	170314WV01

Date:	Drawn By:	Checked By:	Sheet No.:
September 2017	DM	BSE	5

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Smith Creek Road Bridge – Repair of abutment undermining

Rocky Fork Road Bridge – Wingwall Stabilization

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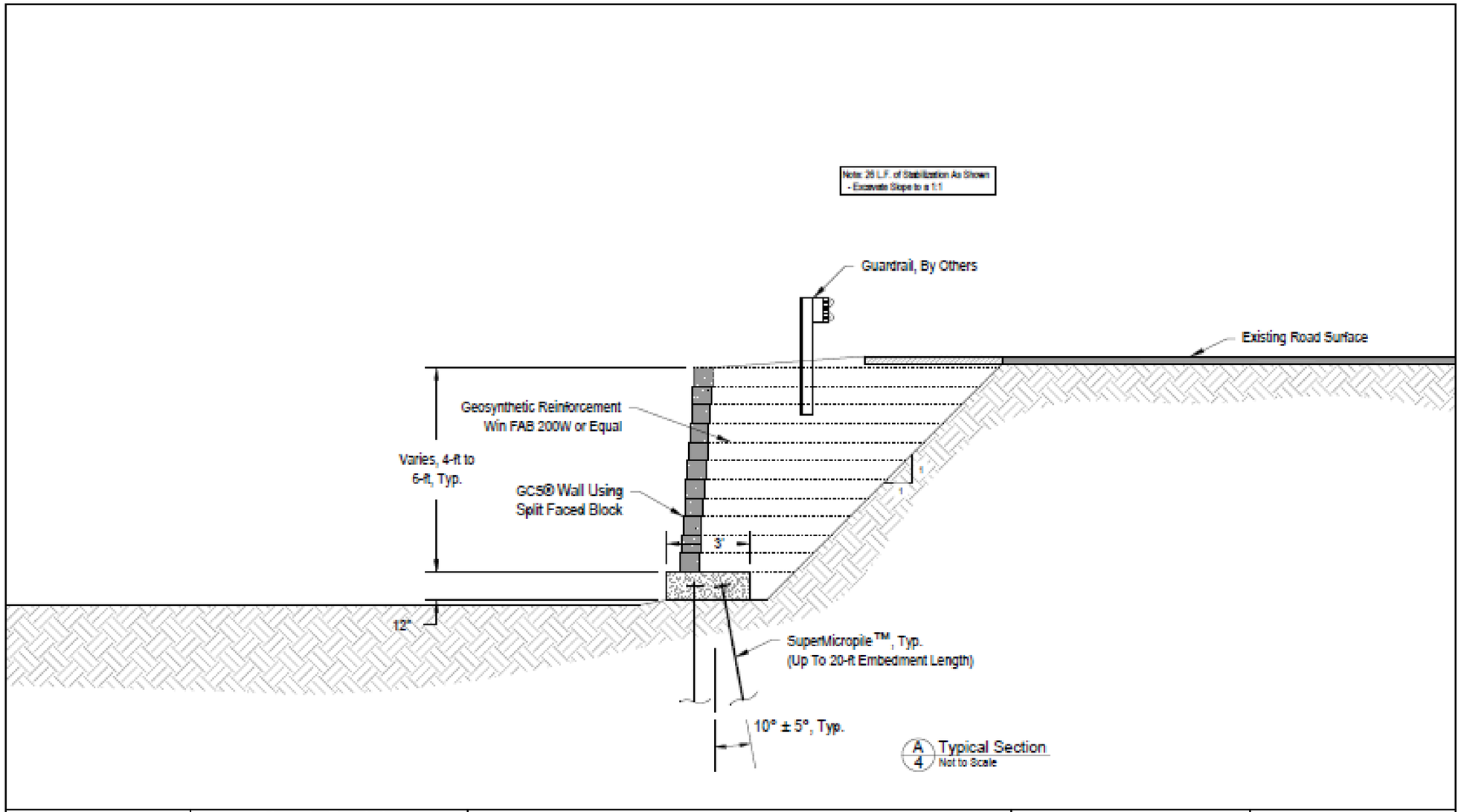
Rocky Fork Road Bridge – Wingwall Stabilization



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Sheet Revision

Date:		By:

Typical Cross–Section

Project:		Project No.
Rocky Fork Wingwall Stabilization		180025WV01
Date: February 14, 2018	Drawn By: SDH	Checked By: RF	Sheet No.: 4

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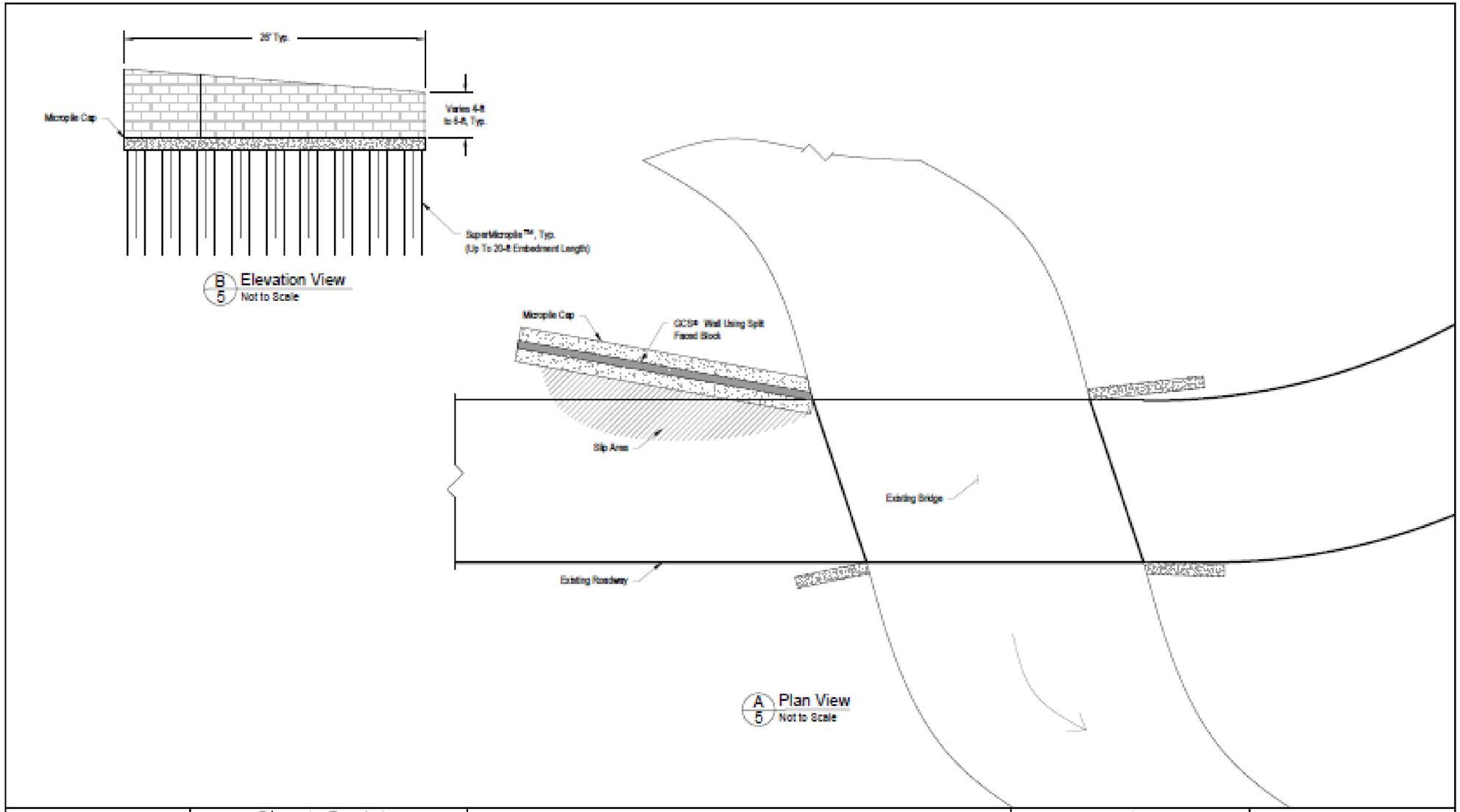
Rocky Fork Road Bridge – Wingwall Stabilization



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Sheet Revision

Date:		By:

Plan & Elevation View

Project:		Project No.
Rocky Fork Wingwall Stabilization		180025WV01
Date: February 14, 2018	Drawn By: SDH / Checked By: RF	Sheet No.: 5

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Rocky Fork Road Bridge – Wingwall Stabilization

New Hope Road Bridge over Blue Creek – Crib Wall Stabilization

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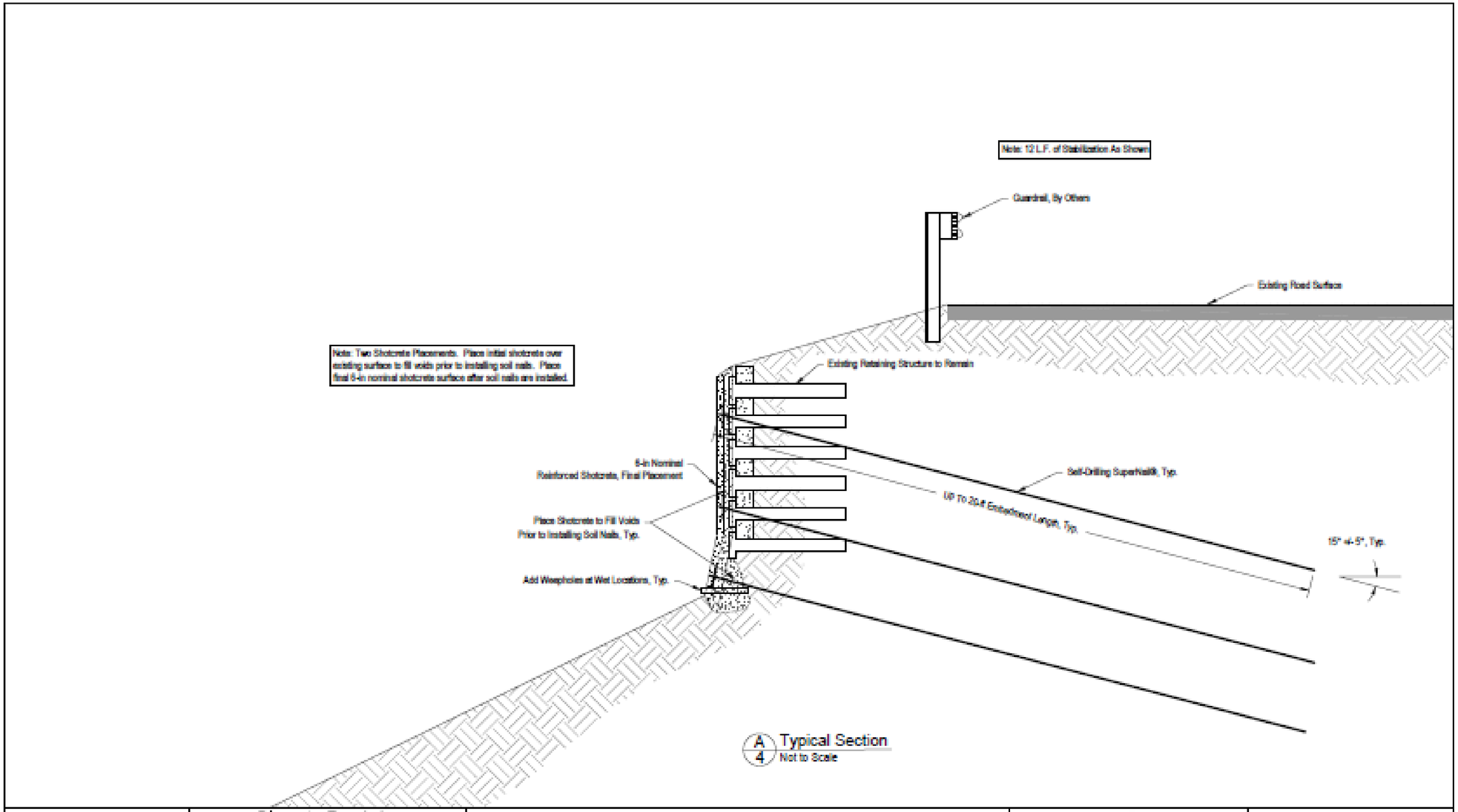
New Hope Road Bridge over Blue Creek – Crib Wall Stabilization



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Sheet Revision

Date:		By:

Typical Cross–Section Detail

Project:		Project No.
New Hope Road Bridge over Blue Creek		180028WV01
Date: February 8, 2018	Drawn By: SDH / Checked By: RF	Sheet No.: 4

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F: 970.245.7737
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New Hope Road Bridge over Blue Creek – Crib Wall Stabilization

Vanderbilt Road Bridge – WingWall Stabilization

Vanderbilt Road Bridge – WingWall Stabilization

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Vanderbilt Road Bridge – WingWall Stabilization

Vanderbilt Road Bridge – WingWall Stabilization

Vanderbilt Road Bridge – WingWall Stabilization

Vanderbilt Road Bridge – WingWall Stabilization

Cow Creek Road Bridge Reconstruction, Putnam Co., WV

Cow Creek Road Bridge Reconstruction, Putnam Co., WV

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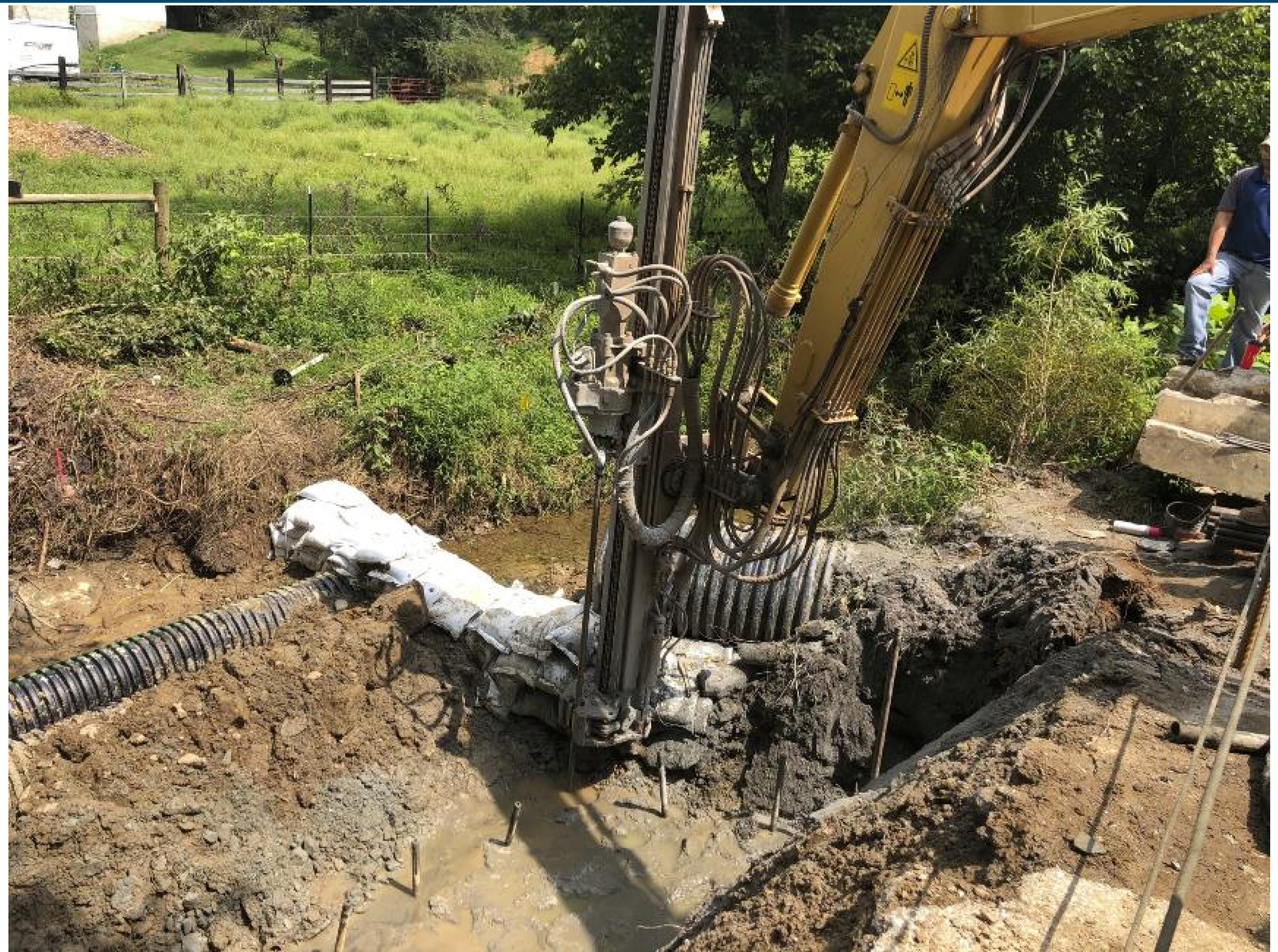
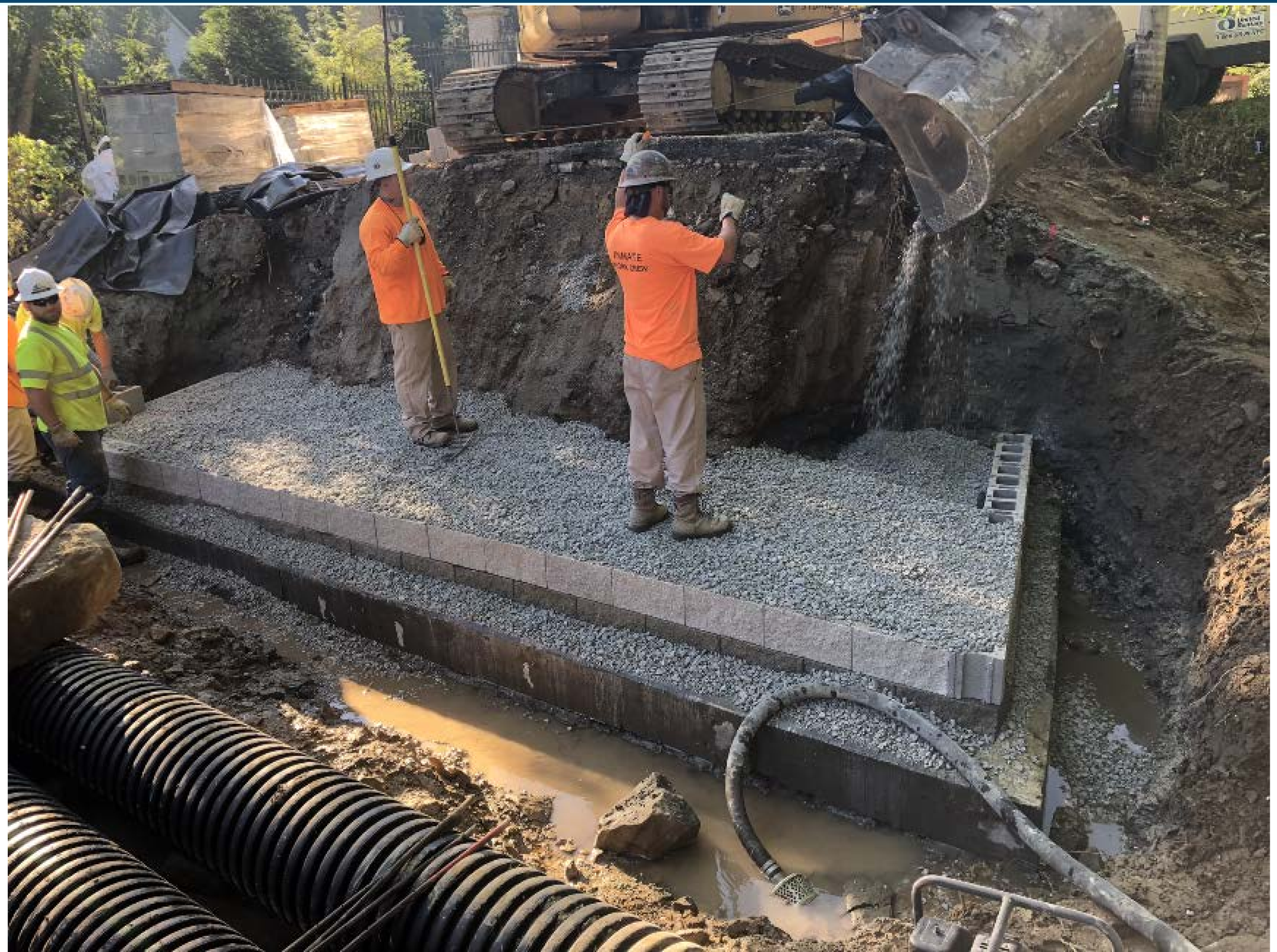
Cow Creek Road Bridge Reconstruction, Putnam Co., WV



Cow Creek Road Bridge Reconstruction, Putnam Co., WV

Cow Creek Road Bridge Reconstruction, Putnam Co., WV



Cow Creek Road Bridge Reconstruction, Putnam Co., WV

Cow Creek Road Bridge Reconstruction, Putnam Co., WV

Cow Creek Road Bridge Reconstruction, Putnam Co., WV

Cow Creek Road Bridge Reconstruction, Putnam Co., WV

Cow Creek Road Bridge Reconstruction, Putnam Co., WV

Walke Rd. Bridges, Laurens Co., GA – GRS-IBS & Scour Micropiles

Walke Rd. Bridges, Laurens Co., GA – GRS-IBS & Scour Micropiles

Walke Rd. Bridges, Laurens Co., GA – GRS-IBS & Scour Micropiles

Walke Rd. Bridges, Laurens Co., GA – GRS-IBS & Scour Micropiles

SR 129 over Raccoon Cr, Ripley Co., Indiana – Wingwall Reconstr.

SR 129 over Raccoon Cr, Ripley Co., Indiana – Wingwall Reconstr.

SR 129 over Raccoon Cr, Ripley Co., Indiana – Wingwall Reconstr.

SR 129 over Raccoon Cr, Ripley Co., Indiana – Wingwall Reconstr.

SR 129 over Raccoon Cr, Ripley Co., Indiana – Wingwall Reconstr.

Thank You

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