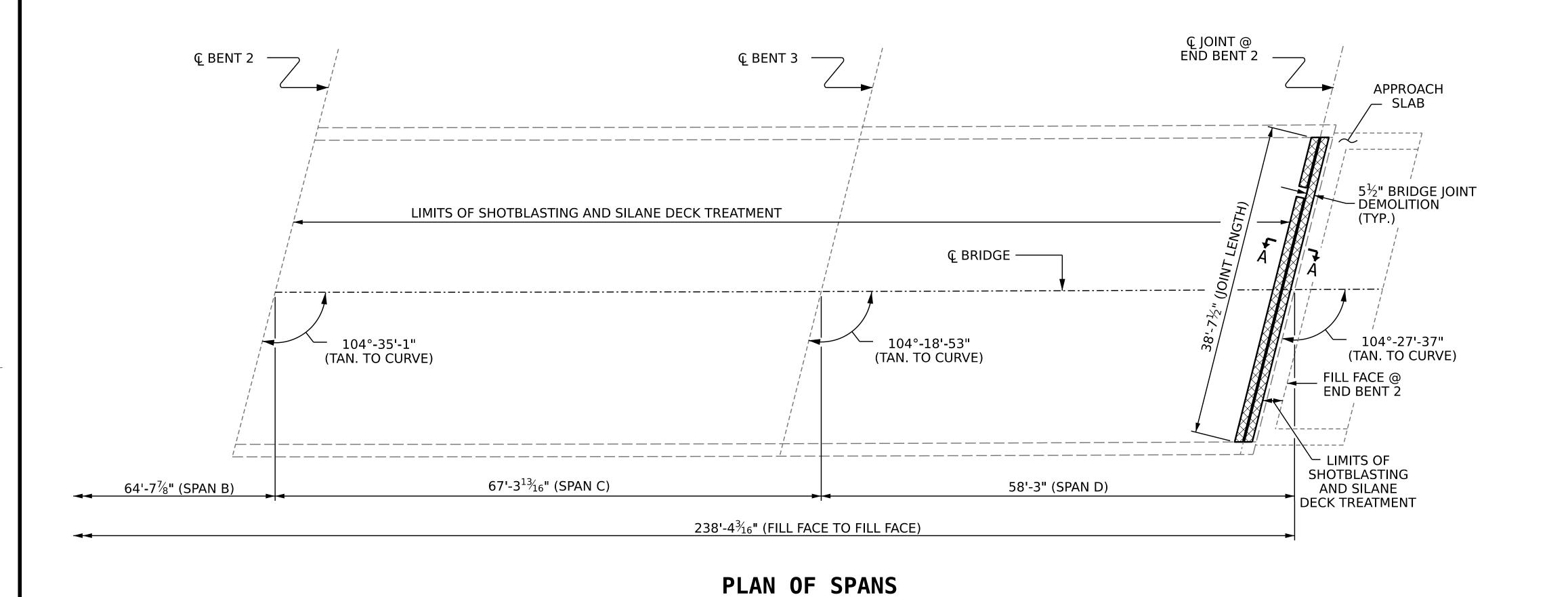
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€ JOINT @ END BENT 1 € BENT 1 € BENT 2 **APPROACH** SLAB · LIMITS OF SHOTBLASTING AND SILANE DECK TREATMENT € BRIDGE — FILL FACE @ END BENT 1 · 104°-18'-5" (TAN. TO 104°-25'-18" 104°-35'-1" (TAN. TO CURVE) (TAN. TO CURVE) CURVE) 2'-5½" 48'-1½" (SPAN A) 64'-7⁷/₈" (SPAN B) 67'-3¹³/₁₆" (SPAN C) (TYP.) LIMITS OF -SHOTBLASTING $238'-4\frac{3}{16}$ " (FILL FACE TO FILL FACE) AND SILANE **DECK TREATMENT** PLAN OF SPANS



SUMMARY OF QUANTITIES FOR DECK AND APPROACH SLAB

	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	993.6 SY	
SILANE DECK TREATMENT	993.6 SY	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0 SF	
BRIDGE JOINT DEMOLITION	70.8 SF	

NOTES

- REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN IN DRAWINGS ARE DEEMED NECESSARY BY ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITES ENTERED INTO THE SUMMARY OF QUANTITIES TABLE.
- FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE SILANE DECK TREATMENT IS COMPLETE.
- FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.
- FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.
- FOR SECTION A-A, SEE JOINT REPAIR DETAILS SHEET S5-4.

REPAIR KEY

- SHOTBLASTING AND SILANE DECK TREATMENT

- CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT



- BRIDGE JOINT DEMOLITION

PROJECT NO. HI-0006 WILSON COUNTY

BRIDGE NO. ____

970250



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

SILANE DECK TREATMENT

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS S5-3 NO. BY: DATE:

7/11/2022 S:\DPG1\Division4\HI-0006\Plans\970250\405_005_HI-0006_SMU_S*_S5-3_970250.dgn aabraha

_ DATE : 2/2022 _ DATE : 5/2022

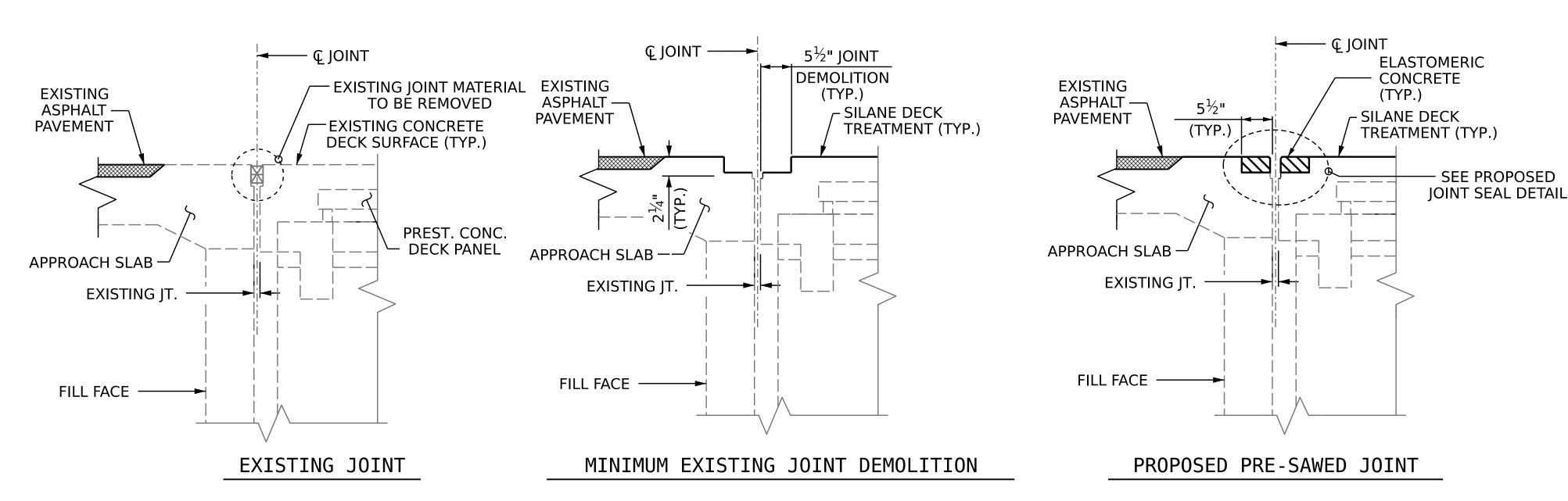
G. AYES

A. G. ABRAHA

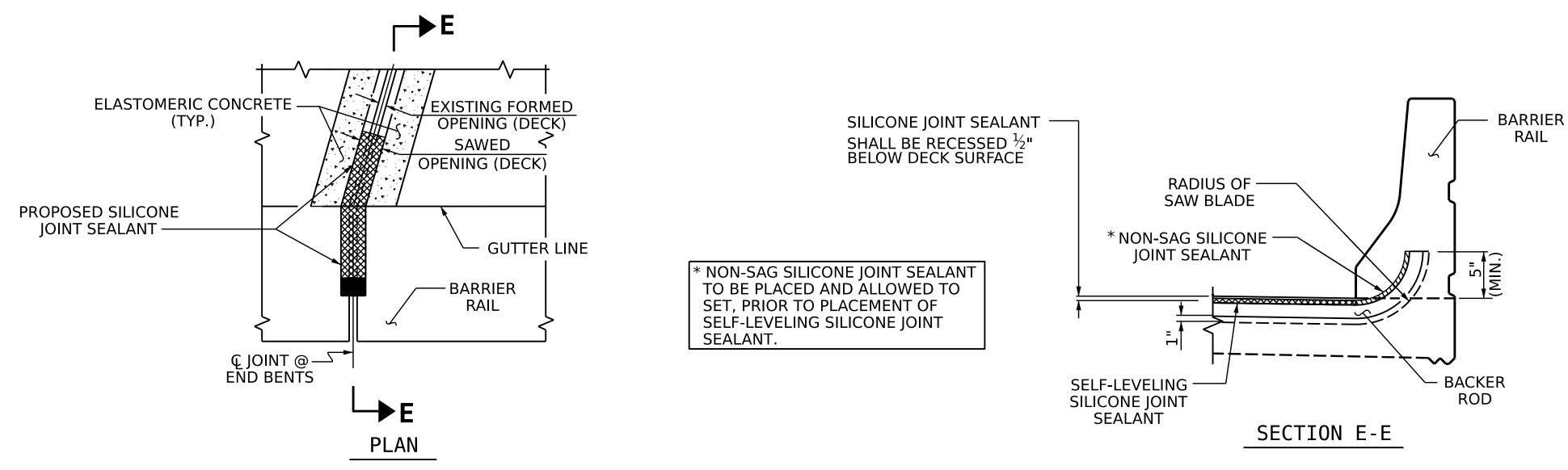
DRAWN BY :

CHECKED BY : .

DESIGN ENGINEER OF RECORD: _



SUMMARY OF	QUANTI	ΓIES
	ESTIMATE	ACTUAL
ELASTOMERIC CONCRETE FOR PRESERVATION	13.3 CF	
POURABLE SILICONE JOINT SEALANT	77.2 LF	



NOTES

FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE SILANE DECK TREATMENT IS COMPLETE.

CONTRACTOR SHALL FIELD VERIFY THE EXISTING FORMED OPENING PRIOR TO OBTAINING JOINT MATERIAL. IF ACTUAL JOINT OPENINGS VARIES FROM THE OPENING INDICATED IN DETAIL MORE THAN 1/4" NOTIFY ENGINEER. REVISION TO THE JOINT SEAL SIZE MAY BE NECESSARY.

THE MANUFACTURER IS TO PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE BACKER ROD FOR THE SIZE OF THE OPENING ON THE PLANS AND ACCOMMODATE THE MINIMUM EXPANSION SHOWN ON THE PLANS.

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO DROP ANY MATERIAL BELOW THE BRIDGE WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL. ANY MATERIAL THAT FALLS BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT. IF THE ENGINEER DETERMINES THAT THE PROTECTIVE DEVICES ARE NOT ADEQUATE OR NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

UNLESS NOTED OTHERWISE RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.

ALL EXPOSED ENDS OF CUT BARS SHALL BE COATED WITH EPOXY PRIOR TO THE NEW JOINT MATERIAL INSTALLATION.

THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF SAWING THE JOINT.

POURABLE SILICONE JOINT SEALANT AND BACKER ROD SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATION.

THE INSTALLATION OF JOINT SEAL SHALL BE WATERTIGHT.

DURING JOINT INSTALLATION PROCEDURE, THE JOINT AND SURROUNDING AREA SHALL BE KEPT CLEAN AND FREE OF DEBRIS.

FOR POURABLE SILICONE JOINT SEALANT, SEE SPECIAL PROVISIONS.

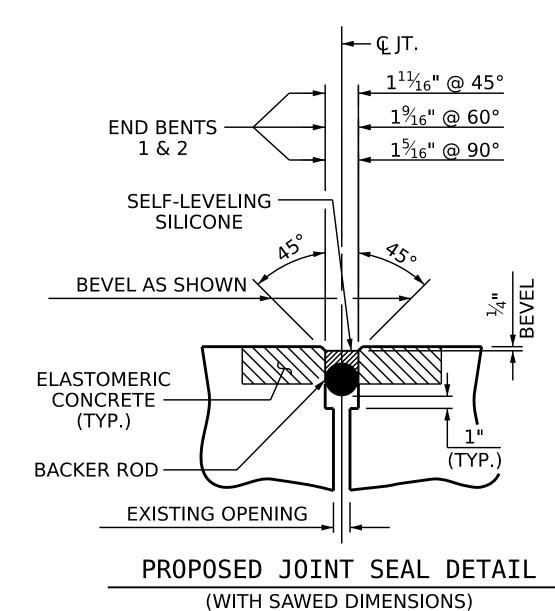
QUANTITIES SHOWN IN THE ELASTOMERIC CONCRETE FOR PRESERVATION TABLE ARE BASED ON THE MINIMUM JOINT DEMOLITION SHOWN.

FOR EXCAVATION BELOW THE BOTTOM OF THE PLANNED JOINT DEMOLITION, CONCRETE FOR DECK REPAIR SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT BOTTOM OF THE PROPOSED ELASTOMERIC CONCRETE FOR PRESERVATION HEADERS SHOWN.

FINAL SURFACE OF THE JOINT DEMOLITION AREA PRIOR TO PLACEMENT OF CONCRETE REPAIR MATERIAL OR ELASTOMERIC CONCRETE SHOULD BE REASONABLY FLAT AND LEVEL. ENGINEER SHALL DETERMINE THE ACCEPTABILITY OF THE SURFACE PRIOR TO PLACEMENT OF REPAIR CONCRETE OR ELASTOMERIC CONCRETE.

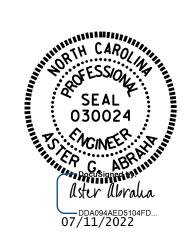
FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.



PROJECT NO. HI-0006
WILSON COUNTY

BRIDGE NO. 970250



STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

JOINT REPAIR DETAILS

REVISIONS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED 2 4

JOINT DETAIL AT BARRIER RAIL

DRAWN BY: G. AYES

CHECKED BY: A. G. ABRAHA

DATE: 6/2022

DESIGN ENGINEER OF RECORD: DATE:

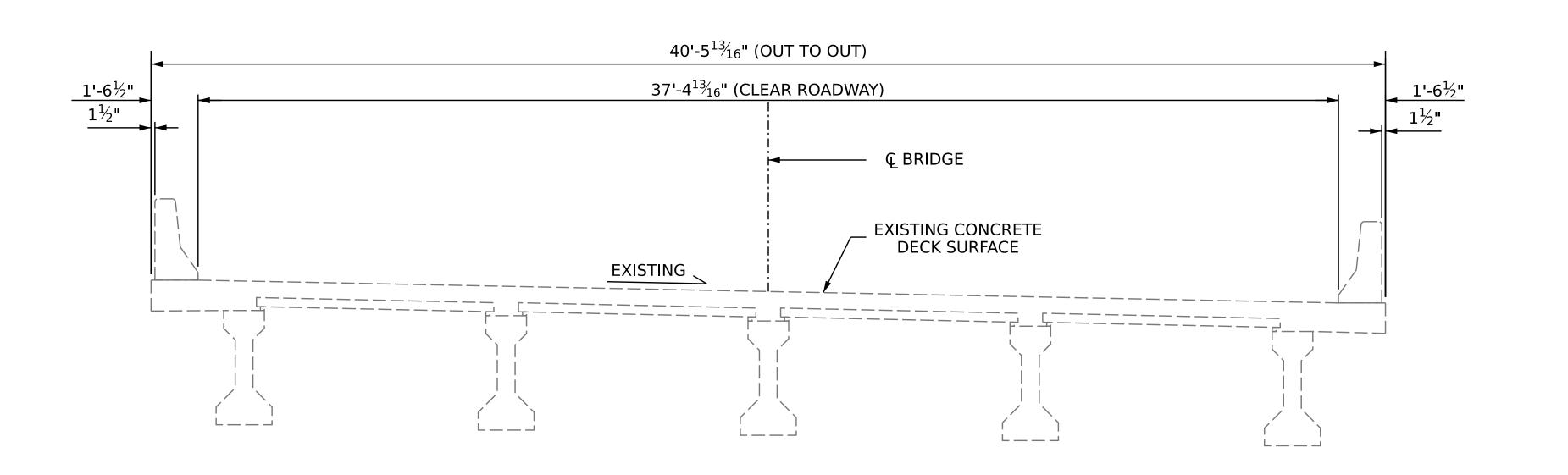
7/11/2022 S:\DPG1\Division4\HI-0006\Plans\970250\405_007_HI-0006_SMU_JT_S5-4_970250.dgn SHEET NO

S5-4

TOTAL SHEETS

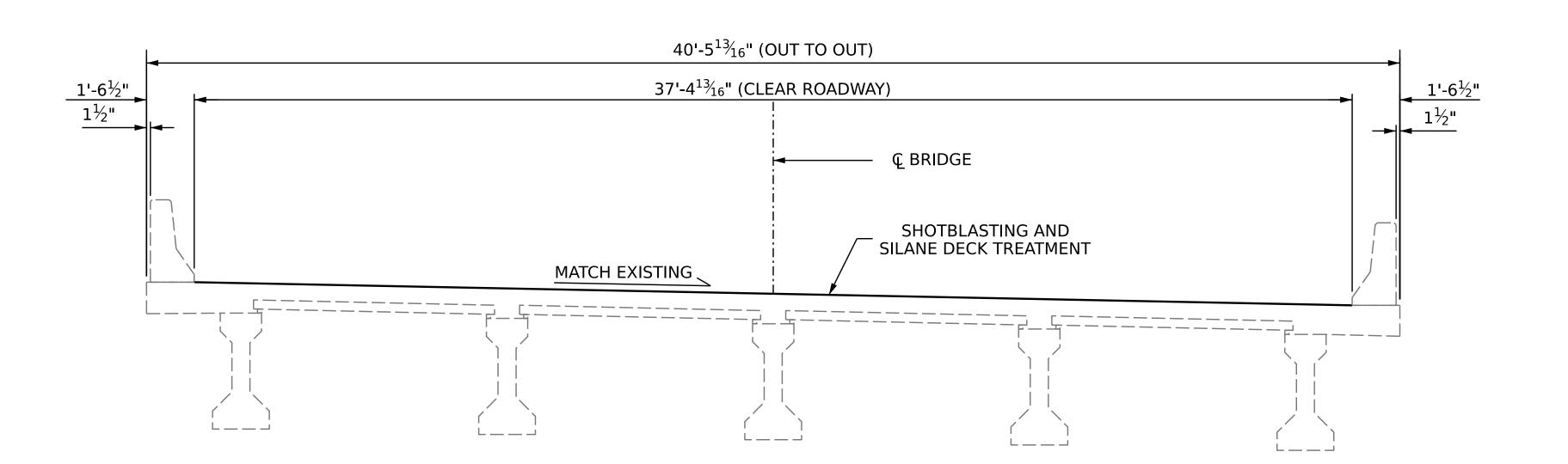
NOTES - PROFILE INFORMATION IS TAKEN FROM ORIGINAL PLANS AND INSPECTION REPORT DATED 06/21/2021. - BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS. SPAN A SPAN B SPAN C SPAN D EXP. END BENT 1 BENT 1 BENT 3 BENT 2 END BENT 2 SECTION ALONG & BRIDGE **APPROACH** APPROACH SLAB — SLAB € BENT 1 — © BENT 2 TO US 117 TO SR 1606 FILL FACE @ END BENT 2 € BRIDGE — 104°-24'-9" (TAN. TO CURVE) 104°-15'-29" (TAN. TO CURVE) -- 104°-14'-42**"** - 104°-21'-54" -104°-31'-34**"** (TAN. TO CURVE) (TAN. TO CURVE) (TAN. TO CURVE) FILL FACE @ END BENT 1 **HI-0006** PROJECT NO. ___ WILSON COUNTY $48'-1\frac{3}{8}$ " ALONG ARC (SPAN A) $64'-7^{11}/_{16}$ " ALONG ARC (SPAN B) $67'-9\frac{7}{16}$ " ALONG ARC (SPAN C) $58'-2\frac{7}{8}$ " ALONG ARC (SPAN D) 970251 BRIDGE NO. ___ 238'-9³/₈" ALONG ARC (FILL FACE TO FILL FACE) MILE POST - 139.2 SCOPE OF WORK STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION **PLAN** RALEIGH - PREPARE BRIDGE DECK BY SHOTBLASTING METHODS. I HEREBY CERTIFY THAT THIS STRUCTURE WAS REHABILITATED SEAL 030024 GENERAL DRAWING ACCORDING TO THESE PLANS OR AS NOTED HEREIN. (FOOTINGS, COLUMNS & PILES NOT SEAL 29441 - PLACE SILANE DECK TREATMENT. SHOWN IN PLAN VIEW FOR CLARITY) FOR BRIDGE ON US 264 BYPASS EASTBOUND OVER CSX RAILROAD AND SR 1612 BETWEEN US 117 AND SR 1606 CINEER AND GOODS OF COMMENTS - DEMOLISH EXISTING BRIDGE DECK JOINTS. Aster Abralia - RECONSTRUCT BRIDGE JOINTS WITH ELASTOMERIC CONCRETE AND INSTALL BACKER ROD AND POURABLE SILICONE JOINT SEALANT. RESIDENT ENGINEER DATE 07/12/2022 07/12/2022 SHEET NO. REVISIONS __DATE: 2/2022 __DATE: 6/2022 G. AYES S6-1 NO. BY: DATE: DATE: DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED DRAWN BY : A. G. ABRAHA TOTAL SHEETS CHECKED BY : _ _ DATE : _____ DESIGN ENGINEER OF RECORD: _

7/11/2022 S:\DPG1\Division4\HI-0006\Plans\970251\406_001_HI-0006_SMU_GD_S6-1_970251.dgn aabraha



TYPICAL SECTION

(EXISTING)



TYPICAL SECTION

(PROPOSED)

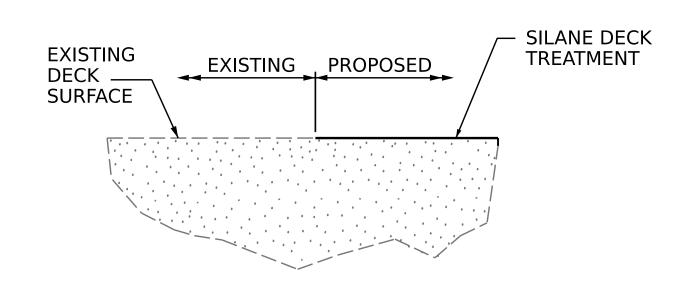
G. AYES A. G. ABRAHA __ DATE : 2/2022 __ DATE : 6/2022 __ DATE : _____ DRAWN BY : CHECKED BY : __ DESIGN ENGINEER OF RECORD: _

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NOTES

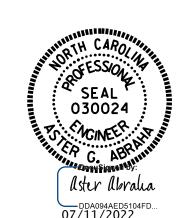
SEE TRAFFIC PLANS FOR LANE WIDTH, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF SURFACE PREPARATION AND SILANE DECK TREATMENT.

PROTECT TRAFFIC FROM REBOUND, DUST, OVERSPRAY, AND CONSTRUCTION ACTIVITIES. PROVIDE APPROPRIATE SHIELDING, AS REQUIRED AND/OR DIRECTED BY THE ENGINEER.



SILANE DECK TREATMENT DETAIL

PROJECT NO. HI-0006 WILSON COUNTY 970251 BRIDGE NO. ____



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE

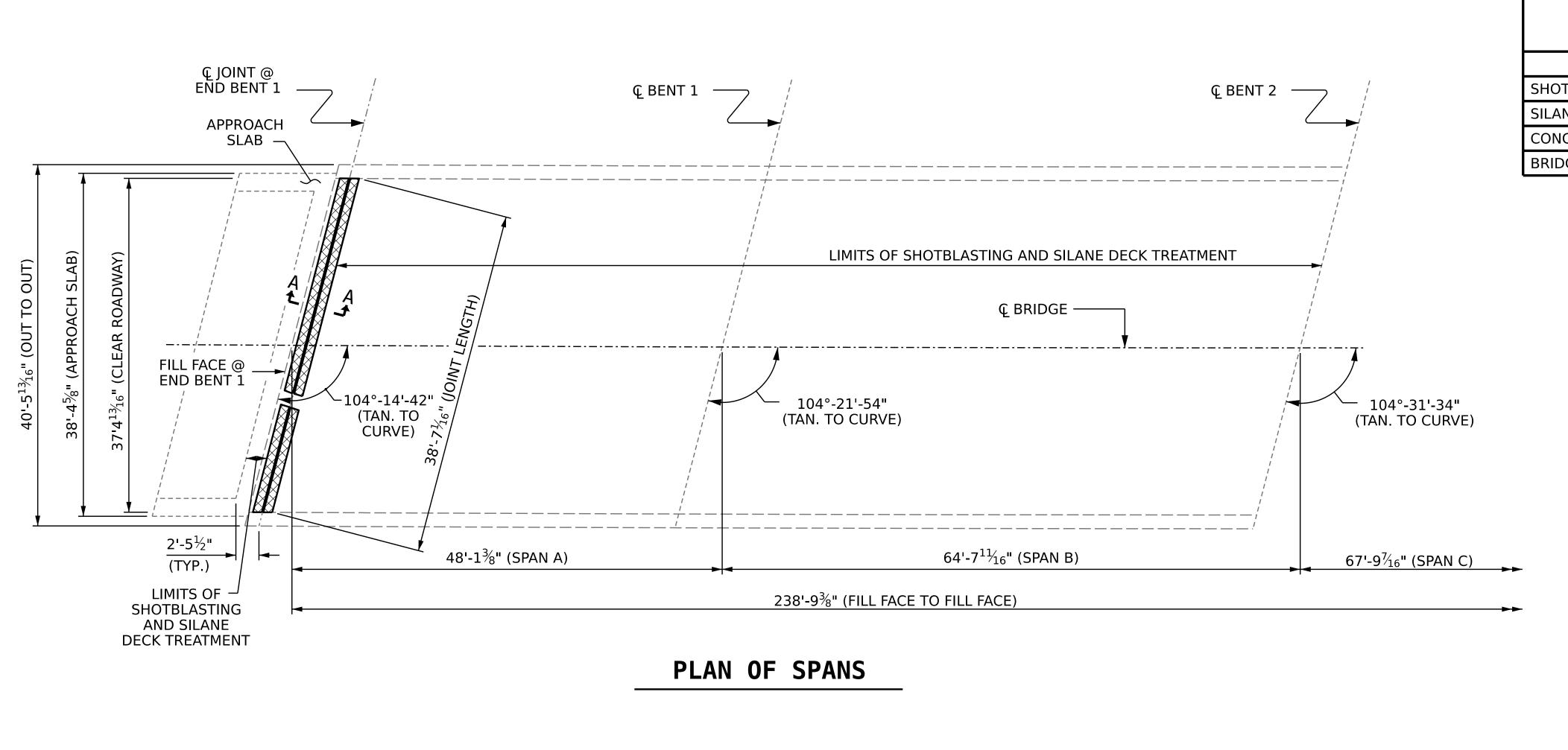
TYPICAL SECTION AND SILANE DECK TREATMENT DETAILS

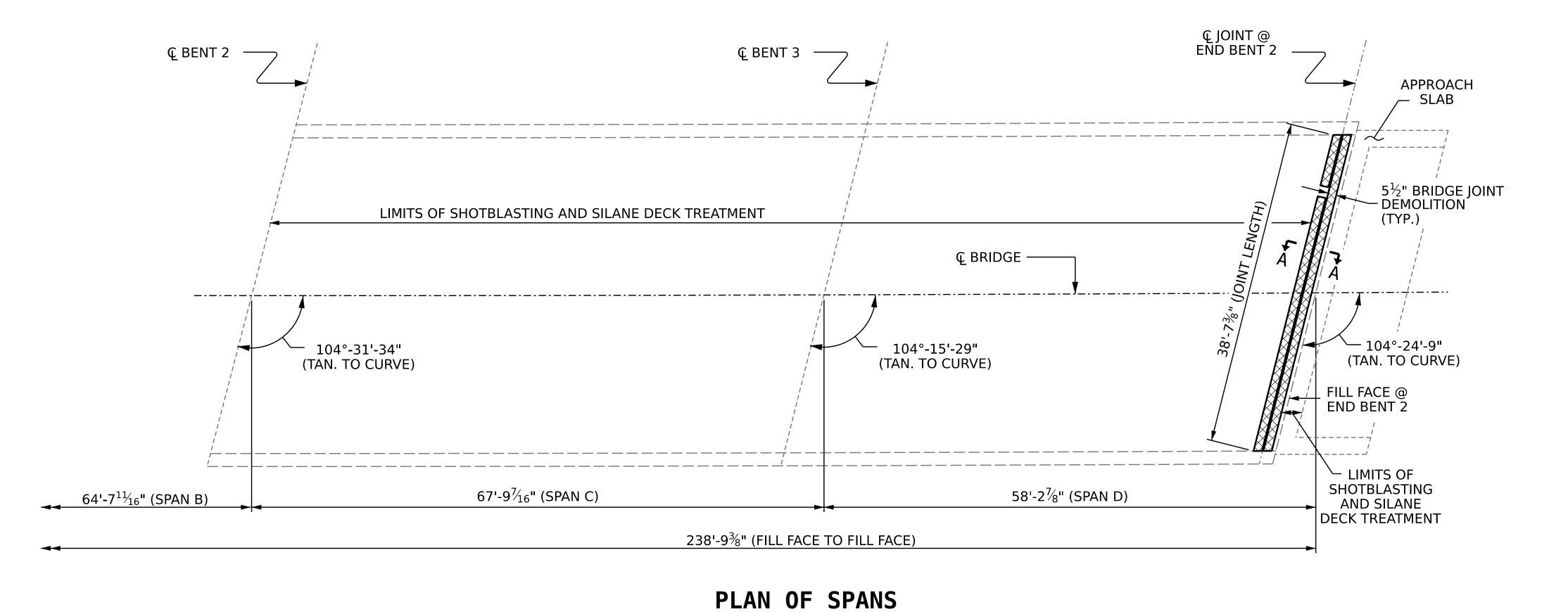
SHEET NO.

S6-2

TOTAL SHEETS

REVISIONS NO. BY: DATE: DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED





SUMMARY OF QUANTITIES FOR DECK AND APPROACH SLAB

	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	995.9 SY	
SILANE DECK TREATMENT	995.9 SY	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0 SF	
BRIDGE JOINT DEMOLITION	70.8 SY	

NOTES

- REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN IN DRAWINGS ARE DEEMED NECESSARY BY ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITES ENTERED INTO THE SUMMARY OF QUANTITIES TABLE.
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- FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.
- FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.
- FOR SECTION A-A, SEE JOINT REPAIR DETAILS SHEET S6-4.

REPAIR KEY

- SHOTBLASTING AND SILANE DECK TREATMENT

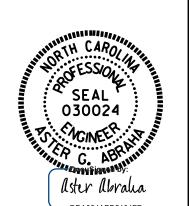
- CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT



- BRIDGE JOINT DEMOLITION

PROJECT NO. HI-0006 WILSON COUNTY 970251

BRIDGE NO. ____



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

SILANE DECK TREATMENT

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS S6-3 NO. BY: DATE:

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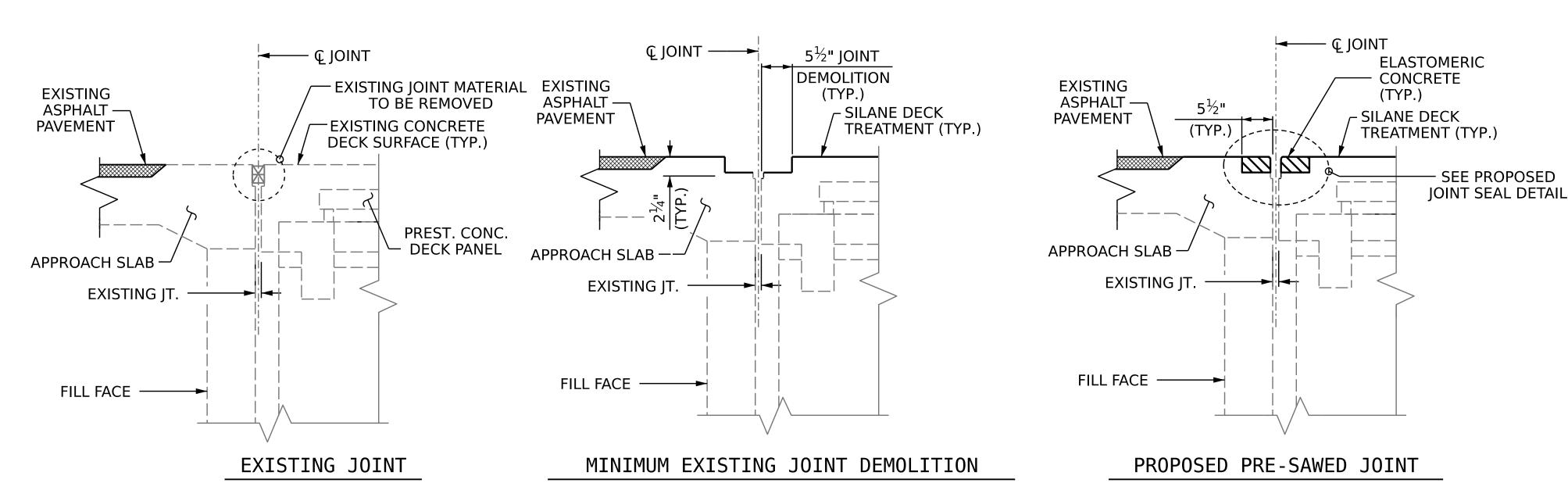
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G. AYES

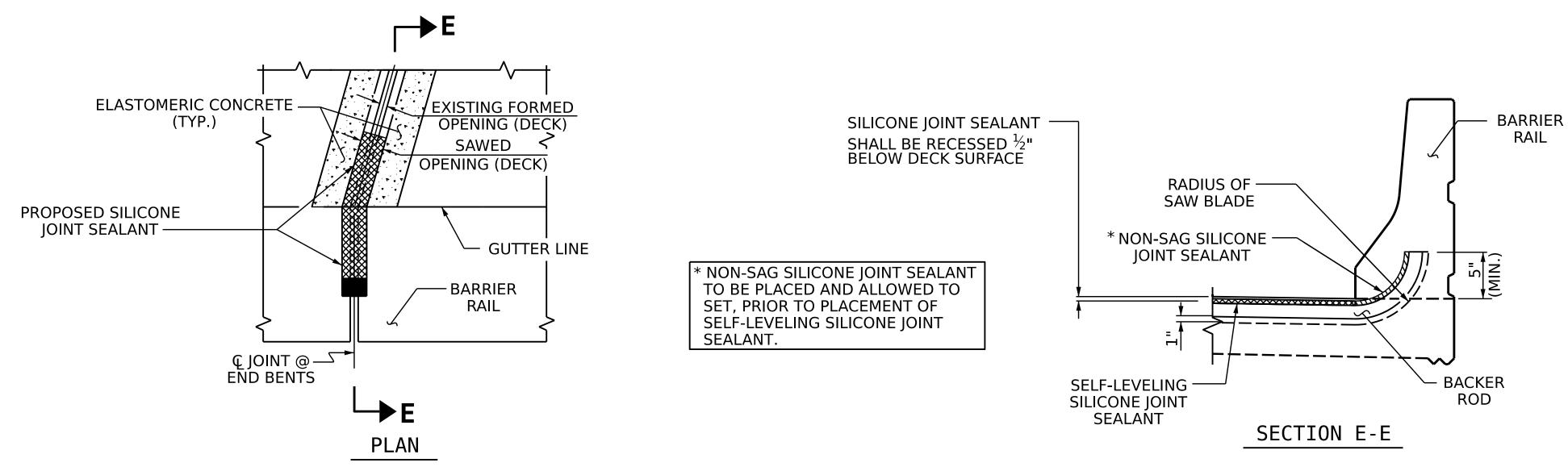
A. G. ABRAHA

DRAWN BY :

DESIGN ENGINEER OF RECORD: _



SUMMARY OF	QUANTI	ΓIES
	ESTIMATE	ACTUAL
ELASTOMERIC CONCRETE FOR PRESERVATION	13.3 CF	
POURABLE SILICONE JOINT SEALANT	77.2 LF	



NOTES

FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE SILANE DECK TREATMENT IS COMPLETE.

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FOR POURABLE SILICONE JOINT SEALANT, SEE SPECIAL PROVISIONS.

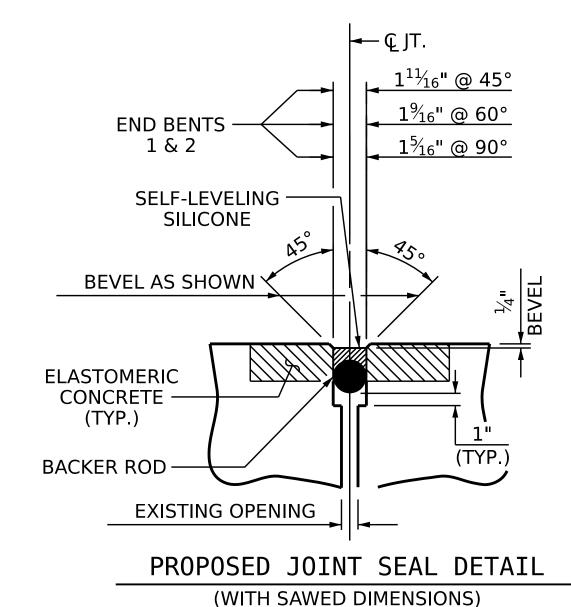
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FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.



PROJECT NO. HI-0006

WILSON COUNTY

BRIDGE NO. 970251

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STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

JOINT REPAIR DETAILS

REVISIONS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED 2

JOINT DETAIL AT BARRIER RAIL

DRAWN BY: G. AYES DATE: 6/2022 CHECKED BY: A. G. ABRAHA DATE: 6/2022

DATE : _

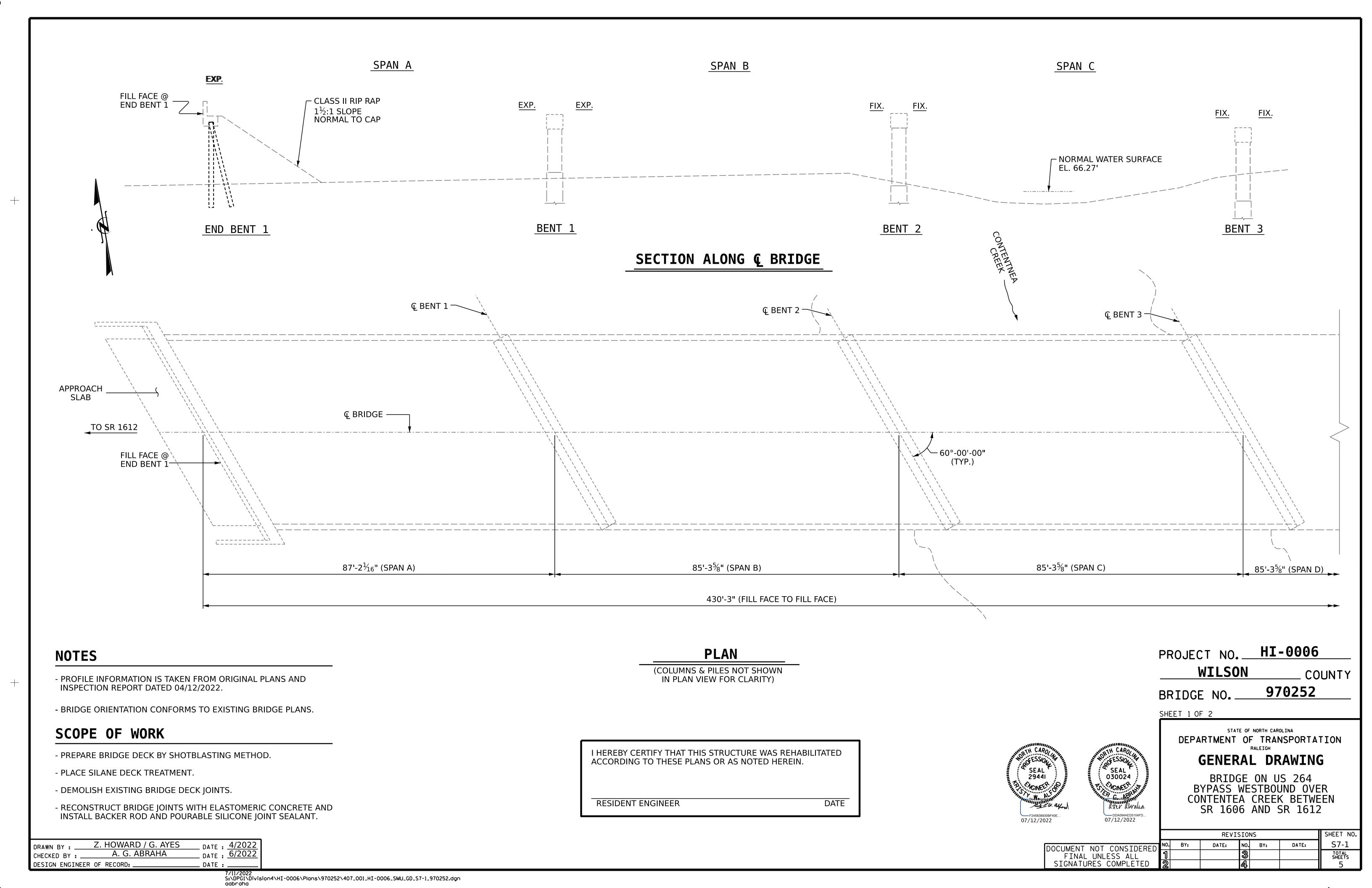
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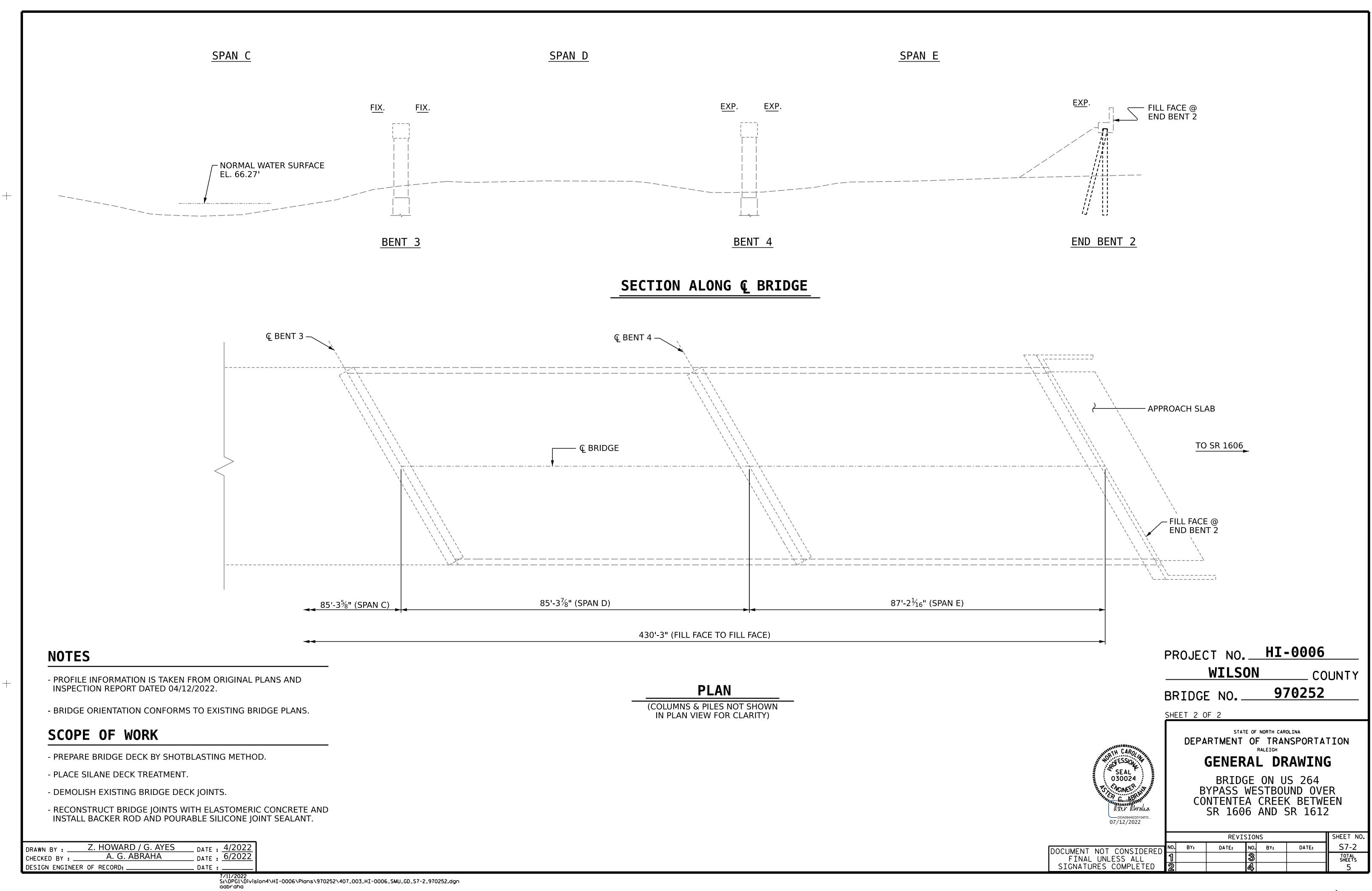
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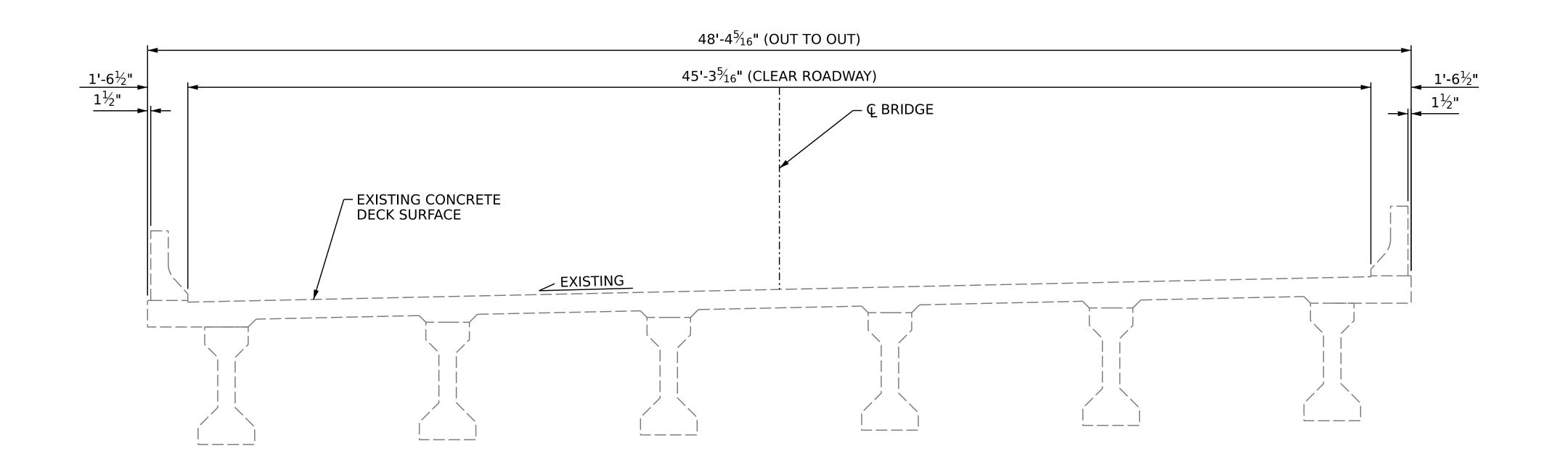
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S6-4

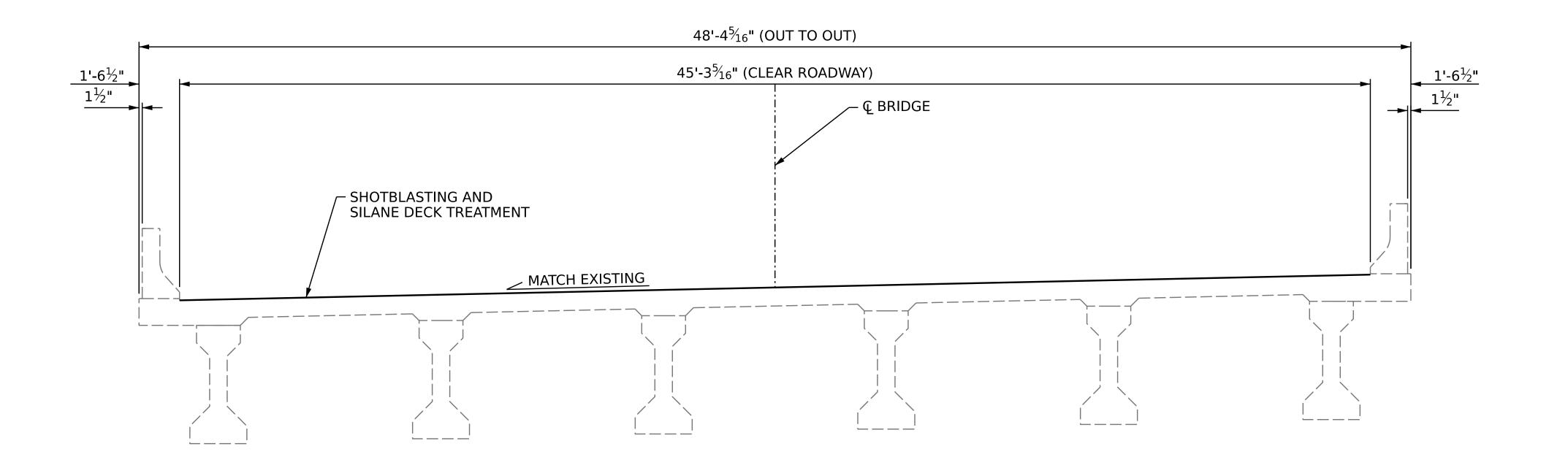
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TYPICAL SECTION (EXISTING)



TYPICAL SECTION (PROPOSED)

DRAWN BY: Z. HOWARD / G. AYES

CHECKED BY: A. G. ABRAHA

DATE: 4/2022

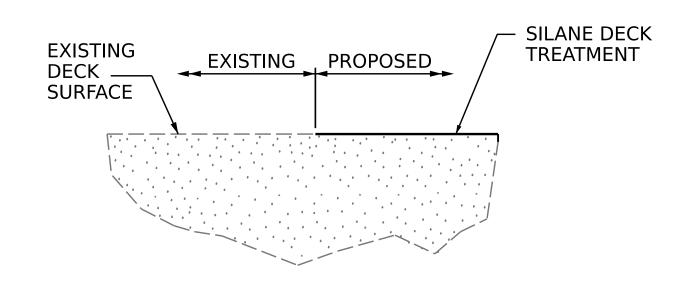
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DESIGN ENGINEER OF RECORD: DATE:

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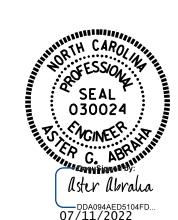
SEE TRAFFIC PLANS FOR LANE WIDTH, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF SURFACE PREPARATION AND SILANE DECK TREATMENT.

PROTECT TRAFFIC FROM REBOUND, DUST, OVERSPRAY, AND CONSTRUCTION ACTIVITIES. PROVIDE APPROPRIATE SHIELDING, AS REQUIRED AND/OR DIRECTED BY THE ENGINEER.



SILANE DECK TREATMENT DETAIL

PROJECT NO. HI-0006
WILSON COUNTY
BRIDGE NO. 970252



STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUPERSTRUCTURE

TYPICAL SECTION AND SILANE DECK TREATMENT DETAILS

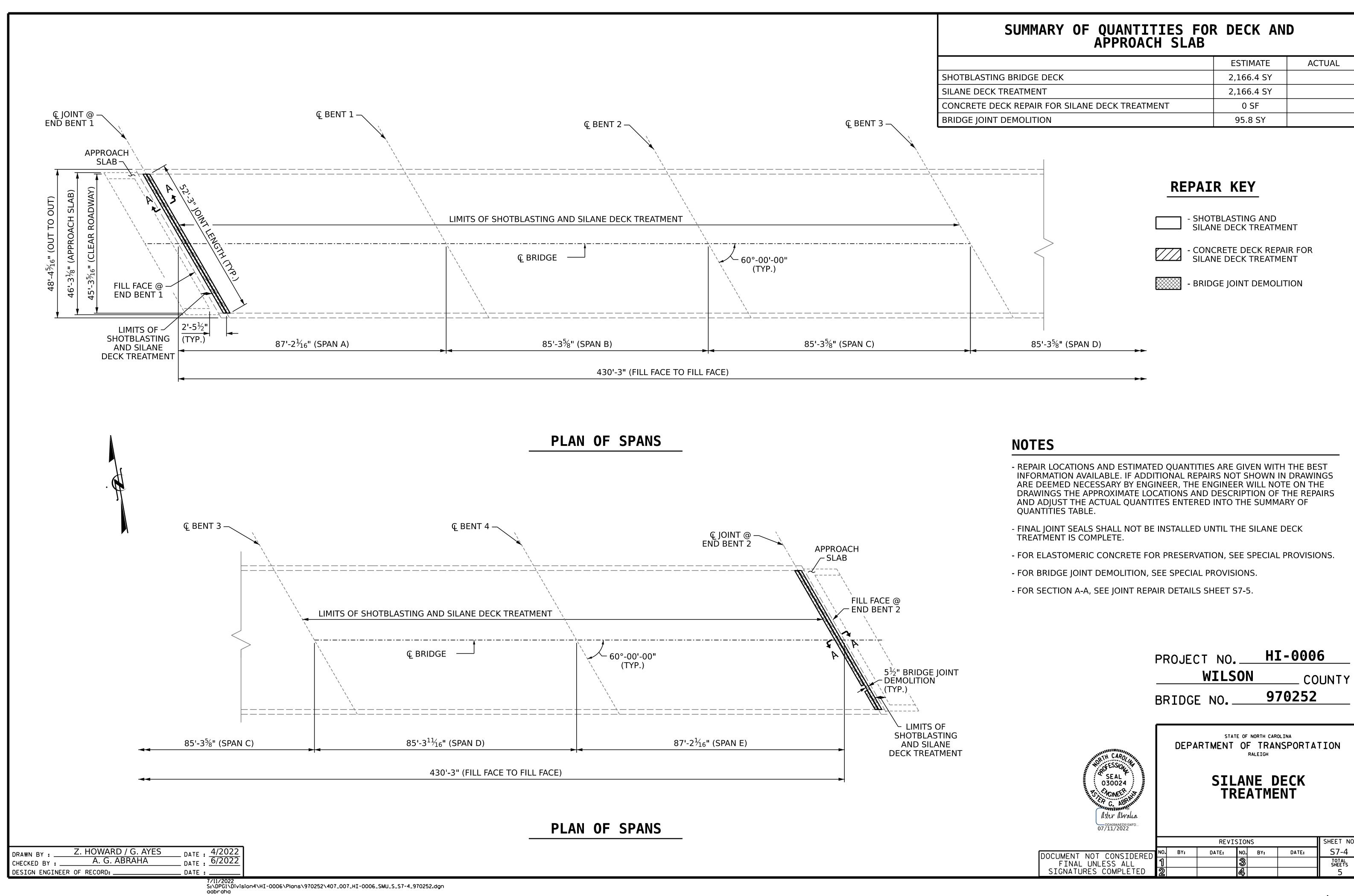
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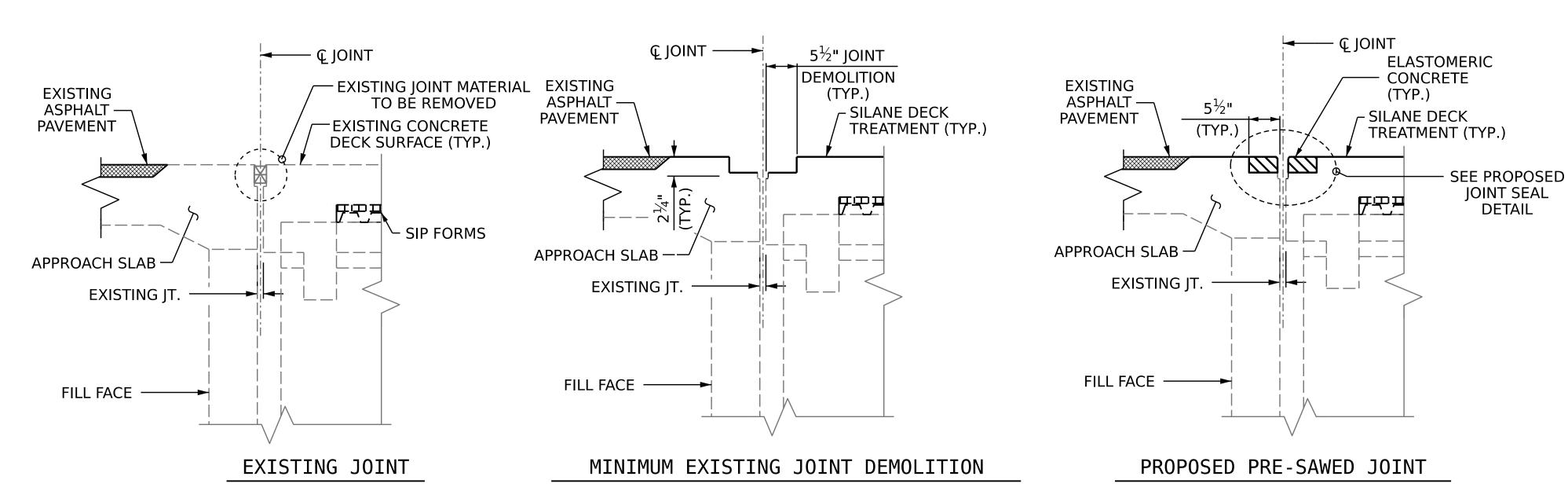
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TOTAL SHEETS 5

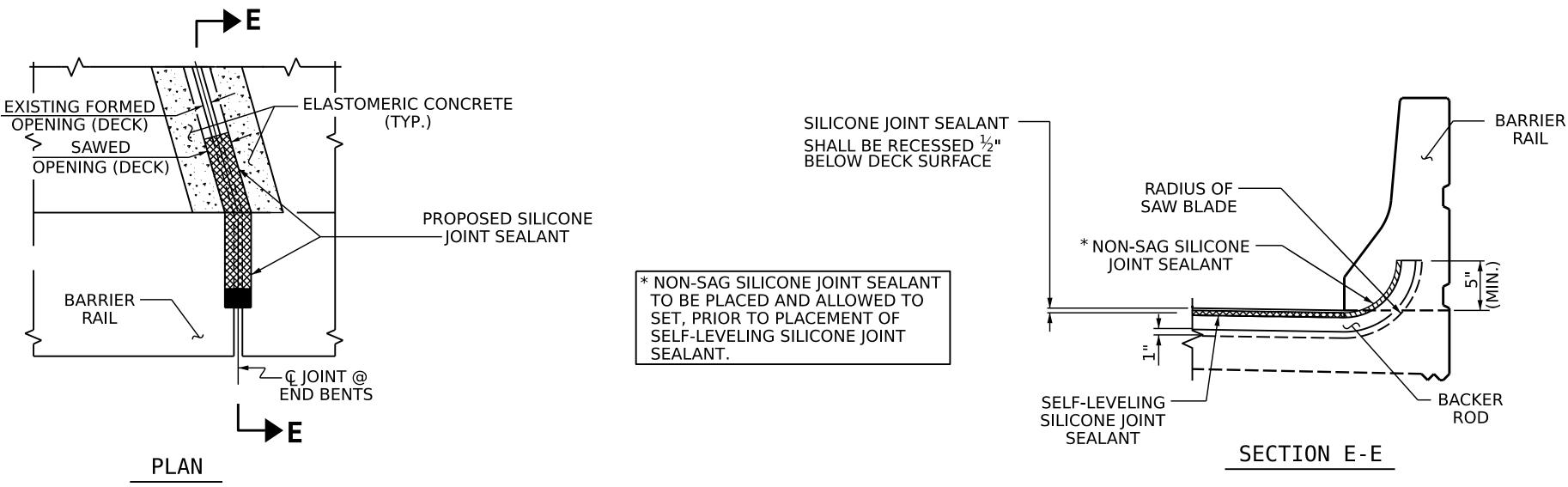
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SUMMARY OF	QUANTI	ΓIES
	ESTIMATE	ACTUAL
ELASTOMERIC CONCRETE FOR PRESERVATION	18.0 CF	
POURABLE SILICONE JOINT SEALANT	104.5 LF	



NOTES

FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE SILANE DECK TREATMENT IS COMPLETE.

CONTRACTOR SHALL FIELD VERIFY THE EXISTING FORMED OPENING PRIOR TO OBTAINING JOINT MATERIAL. IF ACTUAL JOINT OPENINGS VARIES FROM THE OPENING INDICATED IN DETAIL MORE THAN 1/4" NOTIFY ENGINEER. REVISION TO THE JOINT SEAL SIZE MAY BE NECESSARY.

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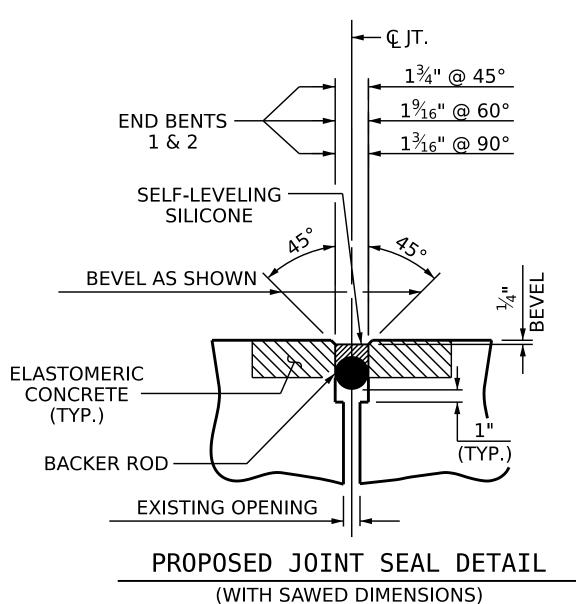
QUANTITIES SHOWN IN THE ELASTOMERIC CONCRETE FOR PRESERVATION TABLE ARE BASED ON THE MINIMUM JOINT DEMOLITION SHOWN.

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FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.



PROJECT NO. HI-0006

WILSON COUNTY

BRIDGE NO. __

970252



STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

JOINT REPAIR DETAILS

DOCUMENT NOT CONSIDERED 1 1 SIGNATURES COMPLETED 2

REVISIONS

SHEET NO S7-5

STOTAL SHEETS

SHEET NO S7-5

TOTAL SHEETS

STOTAL SHEETS

STOTAL SHEETS

STOTAL SHEETS

STOTAL SHEETS

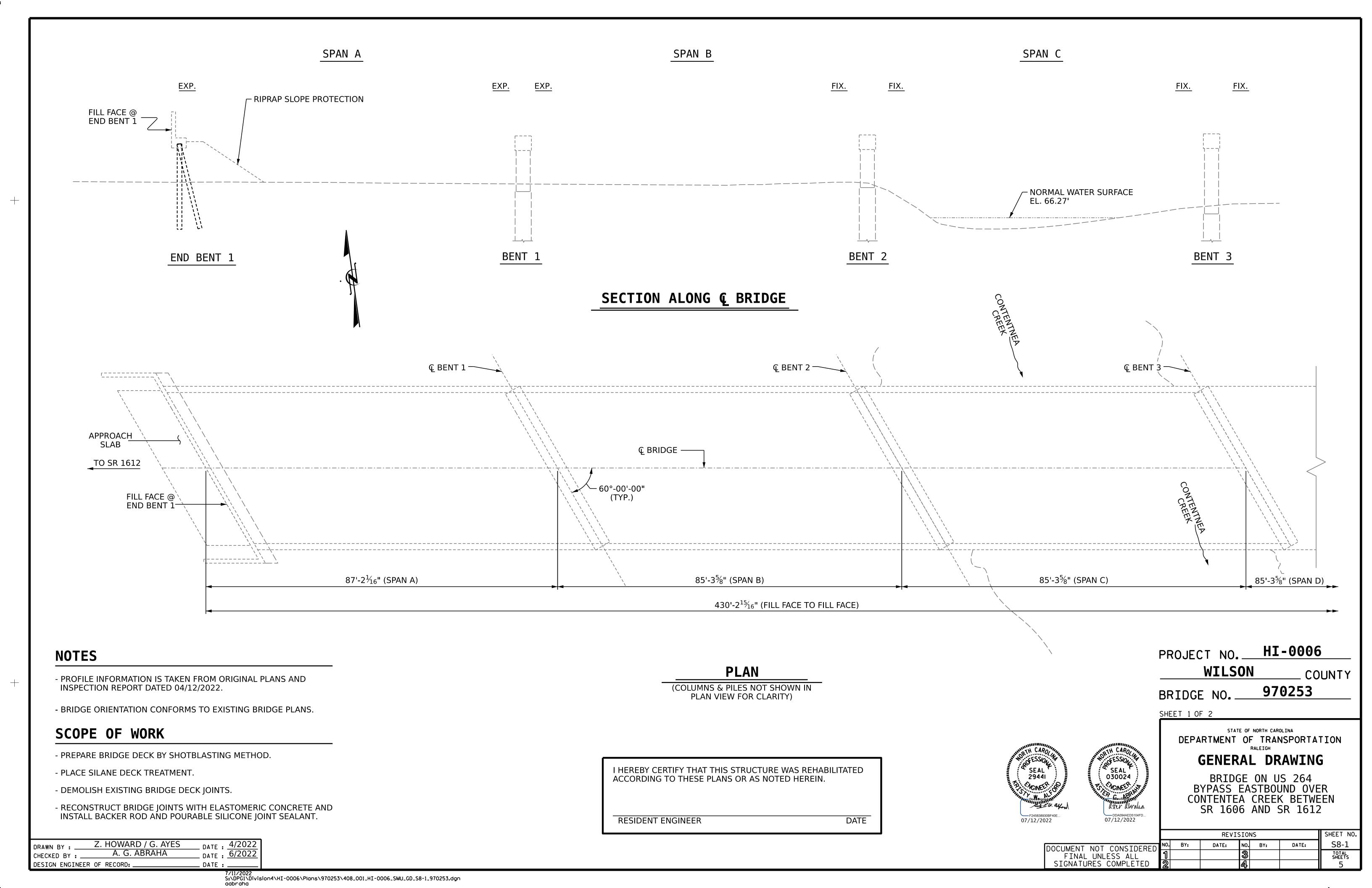
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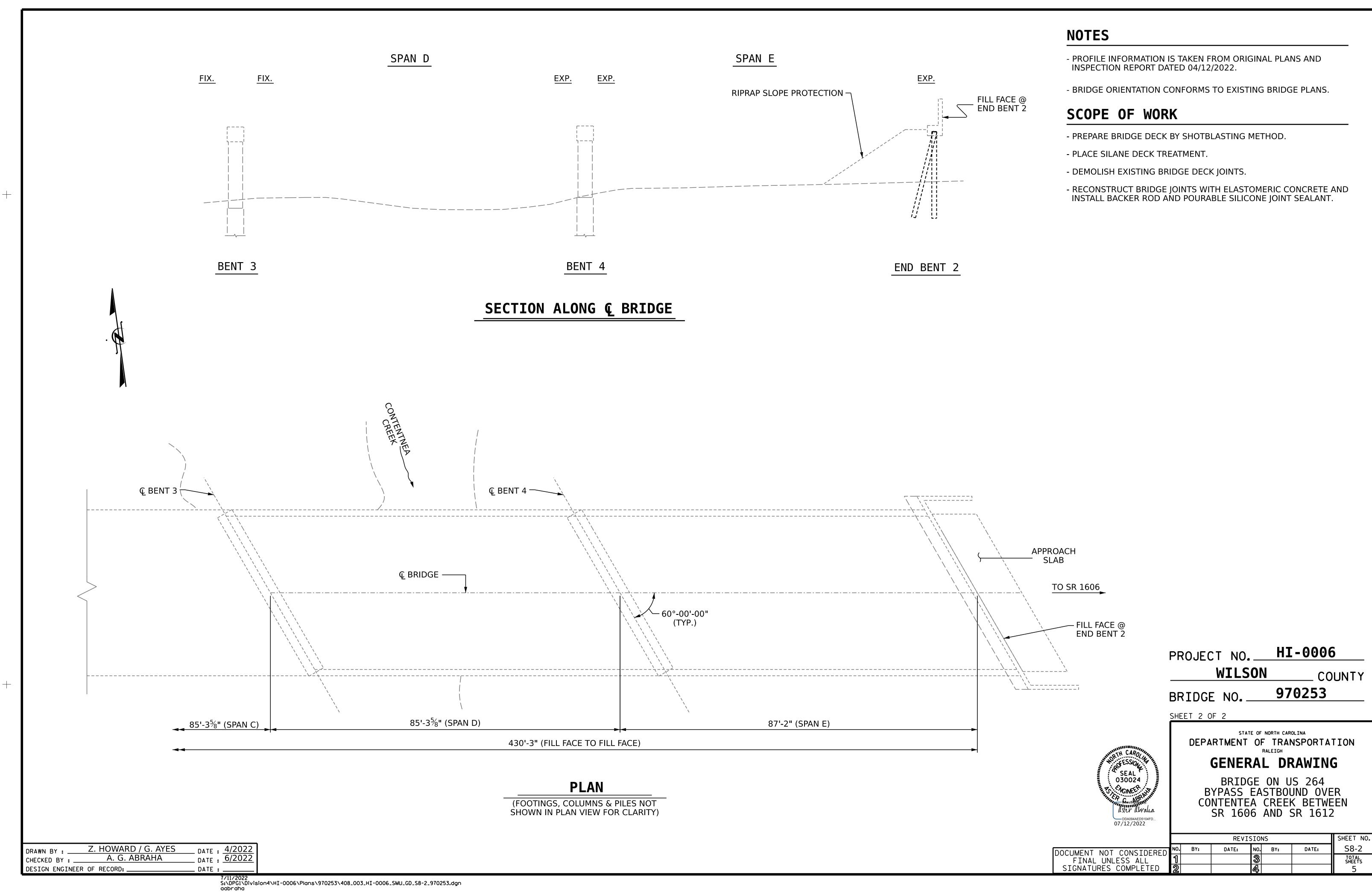
DRAWN BY: G. AYES

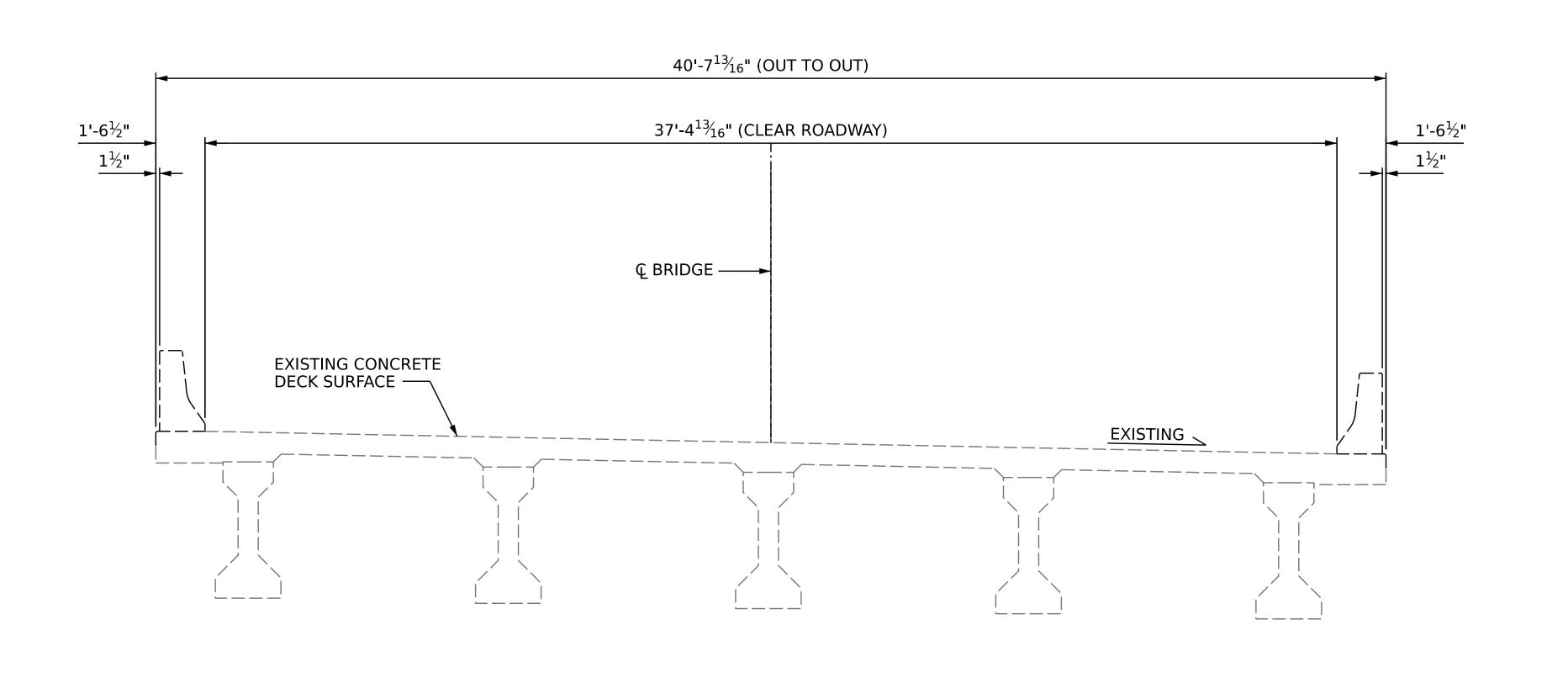
CHECKED BY: A. G. ABRAHA

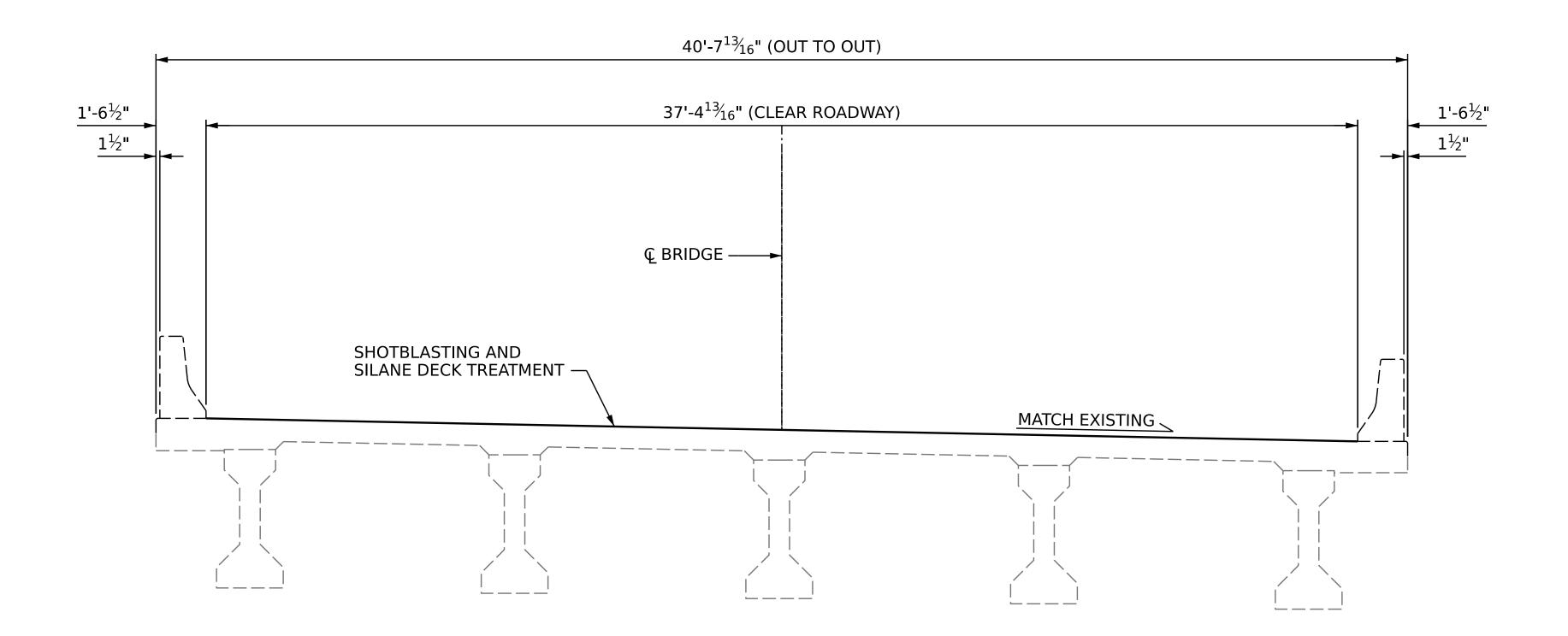
DATE: 6/2022

DESIGN ENGINEER OF RECORD: DATE: --









TYPICAL SECTION

(EXISTING)

TYPICAL SECTION (PROPOSED)

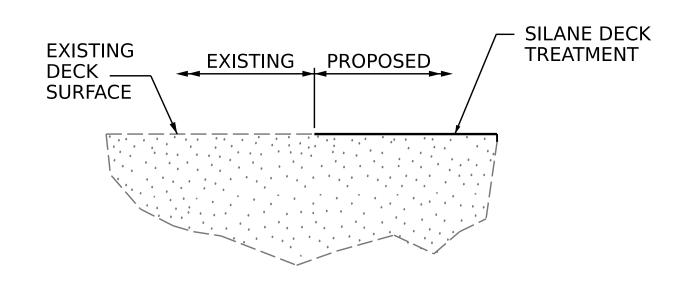
Z. HOWARD / G. AYES A. G. ABRAHA _ DATE : 4/2022 _ DATE : 6/2022 DESIGN ENGINEER OF RECORD:

7/11/2022 S:\DPG1\Division4\HI-0006\Plans\970253\408_005_HI-0006_SMU_TS_S8-3_970253.dgn aabraha

NOTES

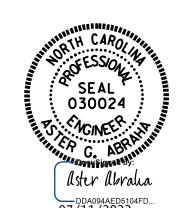
SEE TRAFFIC PLANS FOR LANE WIDTH, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF SURFACE PREPARATION AND SILANE DECK TREATMENT.

PROTECT TRAFFIC FROM REBOUND, DUST, OVERSPRAY, AND CONSTRUCTION ACTIVITIES. PROVIDE APPROPRIATE SHIELDING, AS REQUIRED AND/OR DIRECTED BY THE ENGINEER.



SILANE DECK TREATMENT DETAIL

PROJECT NO. HI-0006 WILSON COUNTY 970253 BRIDGE NO. ____



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
RALEIGH

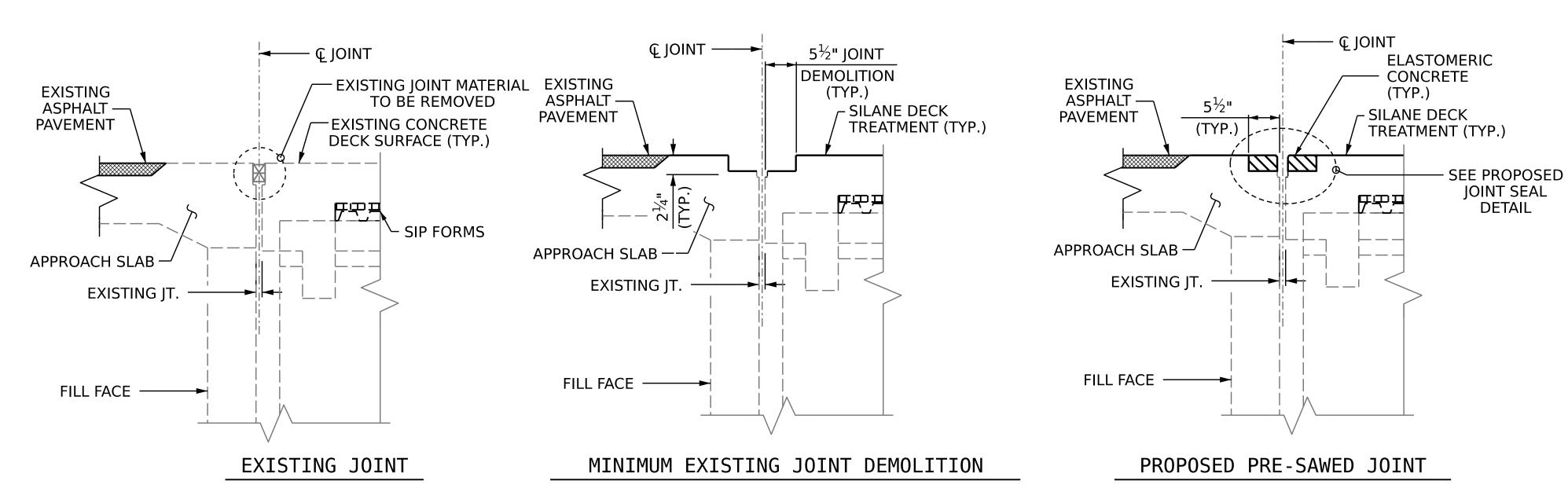
SUPERSTRUCTURE

TYPICAL SECTION
AND SILANE DECK
TREATMENT DETAILS

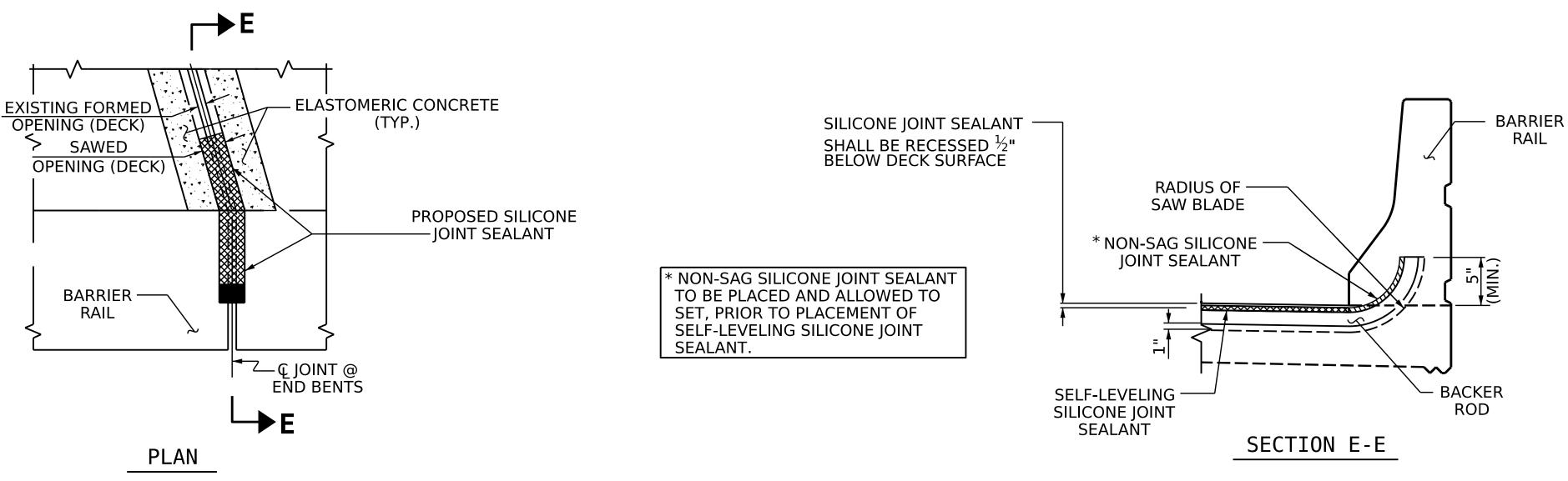
		REVISIONS					SHEET N
OCUMENT NOT CONSIDERED	NO.	BY:	DATE:	NO.	BY:	DATE:	S8-3
FINAL UNLESS ALL	1			3			TOTAL SHEETS
SIGNATURES COMPLETED	2			4			5

SUMMARY OF QUANTITIES FOR DECK AND APPROACH SLAB **ESTIMATE** ACTUAL SHOTBLASTING BRIDGE DECK 1,790.6 SY SILANE DECK TREATMENT 1,790.6 SY © JOINT @ END BENT 1 CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT 0 SF BRIDGE JOINT DEMOLITION 79.2 SY € BENT 1 — **APPROACH** € BENT 3 — REPAIR KEY - SHOTBLASTING AND LIMITS OF SHOTBLASTING AND SILANE DECK TREATMENT SILANE DECK TREATMENT - CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT Ç BRIDGE ─ **-∕**~ 60°-00'-00" (TYP.) FILL FACE @ **BRIDGE JOINT DEMOLITION** END BENT 1 | (TYP.) LIMITS OF ~ SHOTBLASTING 87'-2¹⁄₁₆" (SPAN A) 85'-3⁵/₈" (SPAN B) 85'-3⁵/₈" (SPAN C) 85'-3⁵/₈" (SPAN D) AND SILANE **DECK TREATMENT** 430'-3" (FILL FACE TO FILL FACE) PLAN OF SPANS **NOTES** - REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN IN DRAWINGS **APPROACH** ARE DEEMED NECESSARY BY ENGINEER, THE ENGINEER WILL NOTE ON THE SLAB DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITES ENTERED INTO THE SUMMARY OF QUANTITIES TABLE. € BENT 3 — © JOINT @ — \ END BENT 2 € BENT 4 — - FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE SILANE DECK TREATMENT IS COMPLETE. - FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS. - FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS. - FOR SECTION A-A, SEE JOINT REPAIR DETAILS SHEET S8-5. LIMITS OF SHOTBLASTING AND SILANE DECK TREATMENT 5½" BRIDGE JOINT DEMOLITION <u> ር</u> BRIDGE ^{∕_} 60°-00'-00" (TYP.) - FILL FACE @ END BENT 2 PROJECT NO. HI-0006 WILSON _ COUNTY 970253 BRIDGE NO. ____ └ LIMITS OF SHOTBLASTING AND SILANE DECK TREATMENT STATE OF NORTH CAROLINA 85'-3⁵/₈" (SPAN D) 87'-2¹/₁₆" (SPAN E) 85'-3⁵/₈" (SPAN C) DEPARTMENT OF TRANSPORTATION 430'-3" (FILL FACE TO FILL FACE) SILANE DECK TREATMENT PLAN OF SPANS SHEET NO. REVISIONS Z. HOWARD / G. AYES __ DATE : <u>4/2022</u> __ DATE : <u>6/2022</u> DATE: BY: DRAWN BY DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED A. G. ABRAHA CHECKED BY : _ DESIGN ENGINEER OF RECORD: 7/11/2022 S:\DPG1\Division4\HI-0006\Plans\970253\408_007_HI-0006_SMU_S_S8-4_970253.dgn aabraha

S8-4



SUMMARY OF	QUANTI	ΓIES
	ESTIMATE	ACTUAL
ELASTOMERIC CONCRETE FOR PRESERVATION	14.9 CF	
POURABLE SILICONE JOINT SEALANT	86.4 LF	



NOTES

FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE SILANE DECK TREATMENT IS COMPLETE.

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING FORMED OPENING PRIOR TO OBTAINING JOINT MATERIAL. IF ACTUAL JOINT OPENINGS VARIES FROM THE OPENING INDICATED IN DETAIL MORE THAN $\frac{1}{4}$ " NOTIFY ENGINEER. REVISION TO THE JOINT SEAL SIZE MAY BE NECESSARY.

THE MANUFACTURER IS TO PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE BACKER ROD FOR THE SIZE OF THE OPENING ON THE PLANS AND ACCOMMODATE THE MINIMUM EXPANSION SHOWN ON THE PLANS.

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO DROP ANY MATERIAL BELOW THE BRIDGE WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL. ANY MATERIAL THAT FALLS BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT. IF THE ENGINEER DETERMINES THAT THE PROTECTIVE DEVICES ARE NOT ADEQUATE OR NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

UNLESS NOTED OTHERWISE RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.

ALL EXPOSED ENDS OF CUT BARS SHALL BE COATED WITH EPOXY PRIOR TO THE NEW JOINT MATERIAL INSTALLATION.

THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF SAWING THE JOINT.

POURABLE SILICONE JOINT SEALANT AND BACKER ROD SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATION.

THE INSTALLATION OF JOINT SEAL SHALL BE WATERTIGHT.

DURING JOINT INSTALLATION PROCEDURE, THE JOINT AND SURROUNDING AREA SHALL BE KEPT CLEAN AND FREE OF DEBRIS.

FOR POURABLE SILICONE JOINT SEALANT, SEE SPECIAL PROVISIONS.

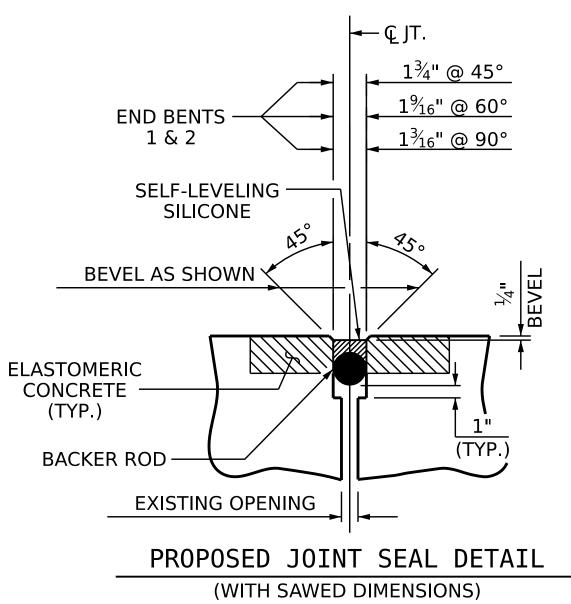
QUANTITIES SHOWN IN THE ELASTOMERIC CONCRETE FOR PRESERVATION TABLE ARE BASED ON THE MINIMUM JOINT DEMOLITION SHOWN.

FOR EXCAVATION BELOW THE BOTTOM OF THE PLANNED JOINT DEMOLITION, CONCRETE FOR DECK REPAIR SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT BOTTOM OF THE PROPOSED ELASTOMERIC CONCRETE FOR PRESERVATION HEADERS SHOWN.

FINAL SURFACE OF THE JOINT DEMOLITION AREA PRIOR TO PLACEMENT OF CONCRETE REPAIR MATERIAL OR ELASTOMERIC CONCRETE SHOULD BE REASONABLY FLAT AND LEVEL. ENGINEER SHALL DETERMINE THE ACCEPTABILITY OF THE SURFACE PRIOR TO PLACEMENT OF REPAIR CONCRETE OR ELASTOMERIC CONCRETE.

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

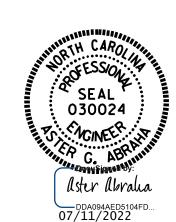


PROJECT NO. HI-0006

WILSON COUNTY

BRIDGE NO. ____

970253



STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

JOINT REPAIR DETAILS

REVISIONS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED 2

REVISIONS

NO. BY: DATE: NO. BY: DATE: S8-5

3

TOTAL SHEETS

5

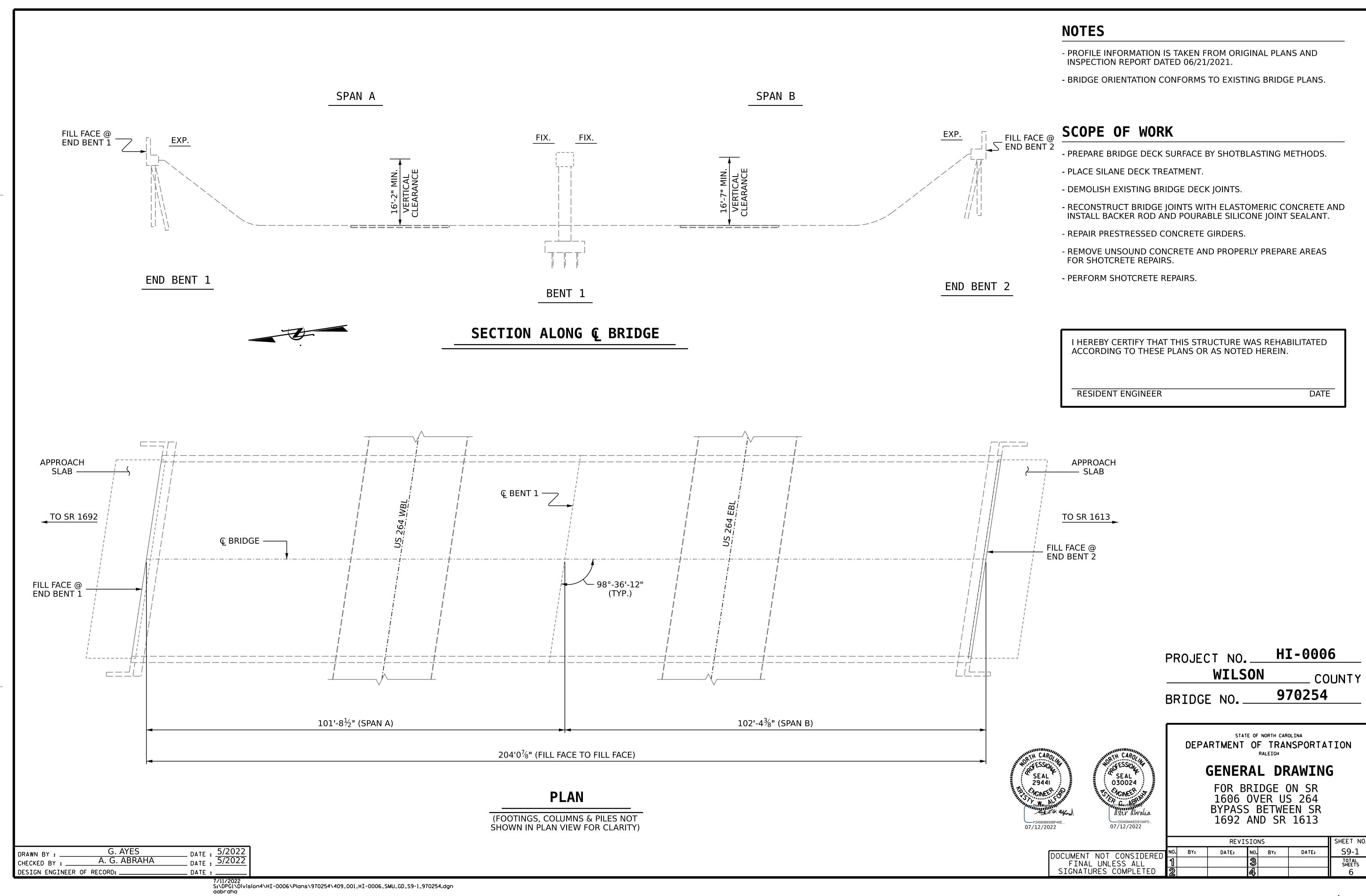
JOINT DETAIL AT BARRIER RAIL

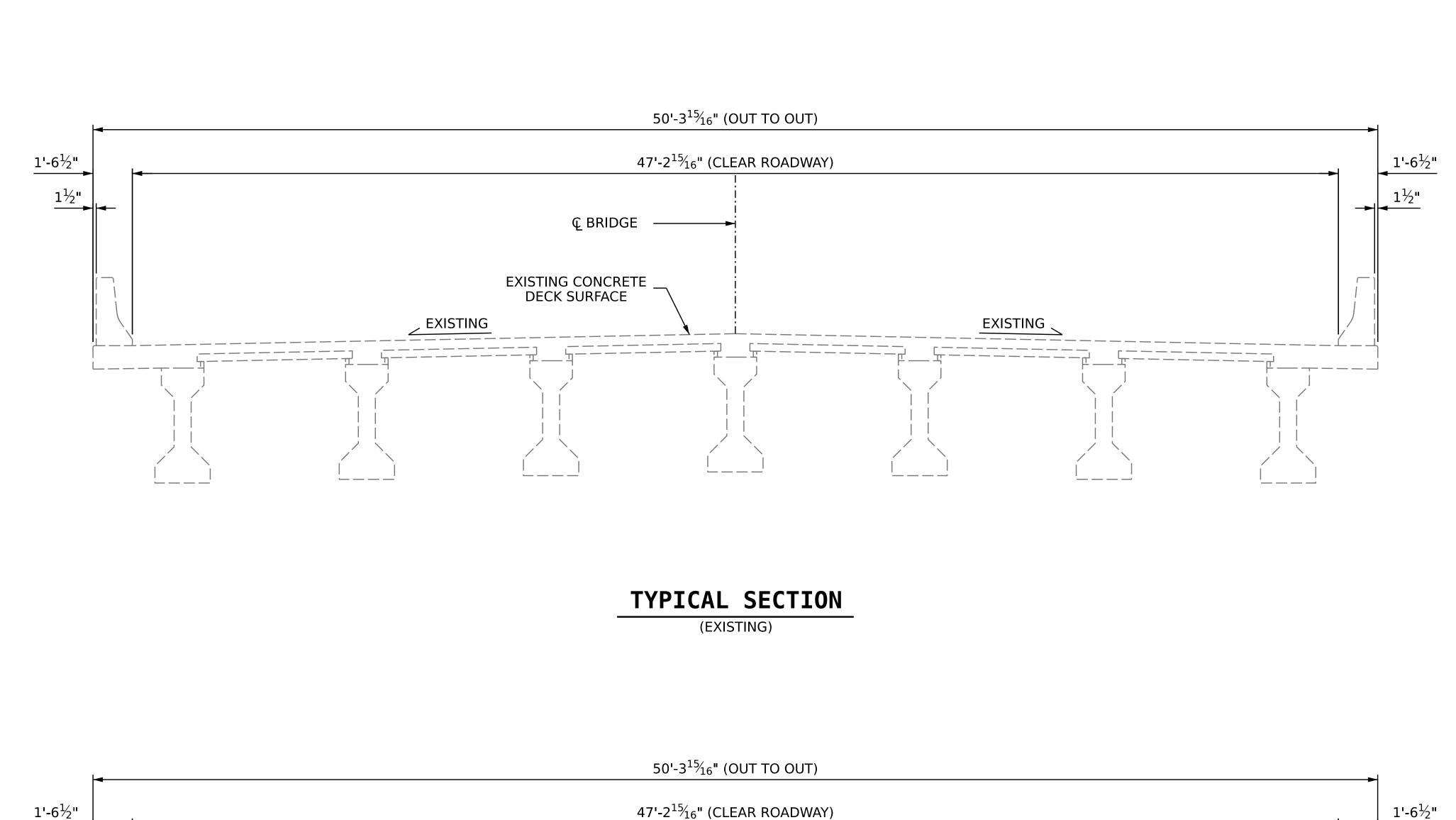
DRAWN BY : G. AYES DATE : 6/2022
CHECKED BY : A. G. ABRAHA DATE : 6/2022

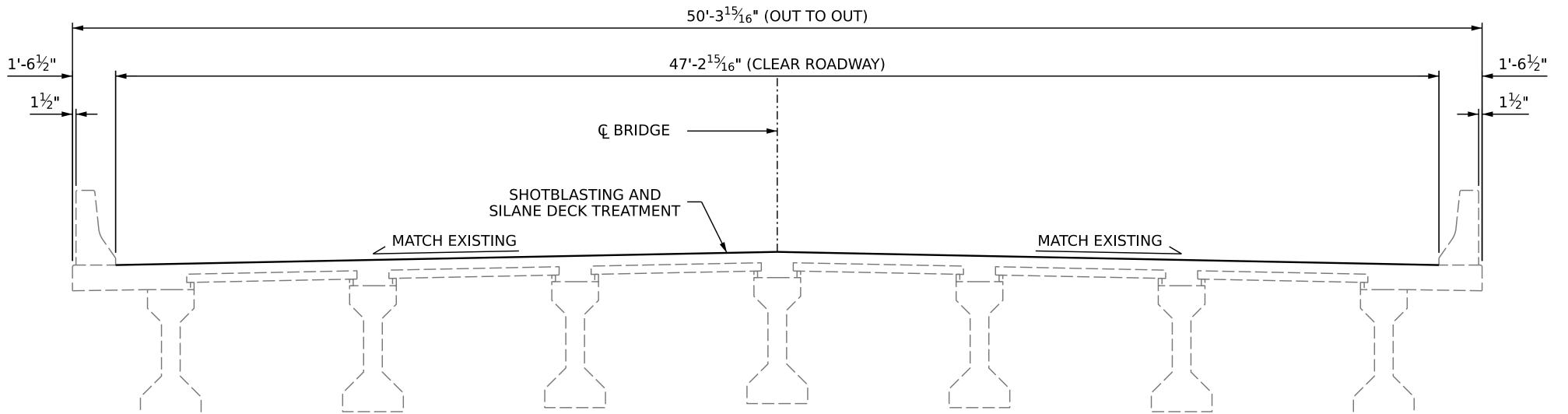
DESIGN ENGINEER OF RECORD: _

DATE : ______

7/11/2022 S:\DPG1\Division4\HI-0006\Plans\970253\408_009_HI-0006_SMU_JT_S8-5_970253.dgn







TYPICAL SECTION (PROPOSED)

C AVES 5/2022

DRAWN BY: G. AYES

CHECKED BY: A. G. ABRAHA

DATE: 5/2022

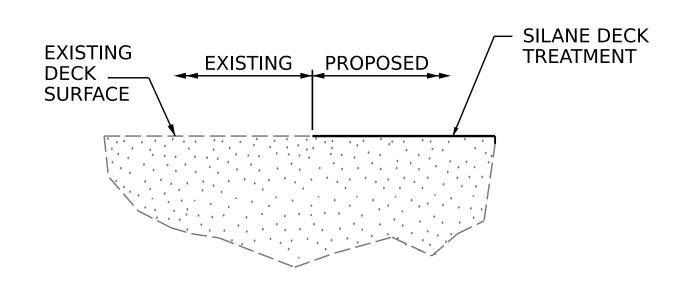
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7/11/2022 S:\DPG1\Division4\HI-0006\Plans\970254\409_003_HI-0006_SMU_TS_S9-2_970254.dgn aabraha

NOTES

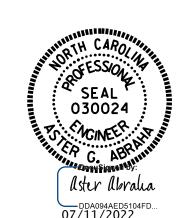
SEE TRAFFIC PLANS FOR LANE WIDTH, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF SURFACE PREPARATION AND SILANE DECK TREATMENT.

PROTECT TRAFFIC FROM REBOUND, DUST, OVERSPRAY, AND CONSTRUCTION ACTIVITIES. PROVIDE APPROPRIATE SHIELDING, AS REQUIRED AND/OR DIRECTED BY THE ENGINEER.



SILANE DECK TREATMENT DETAIL

PROJECT NO. HI-0006
WILSON COUNTY
BRIDGE NO. 970254



STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUPERSTRUCTURE

TYPICAL SECTION AND SILANE DECK TREATMENT DETAILS

SHEET NO.

S9-2

TOTAL SHEETS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED 2

SUMMARY OF QUANTITIES FOR DECK AND APPROACH SLABS **REPAIR KEY NOTES ESTIMATE** - REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN IN DRAWINGS SHOTBLASTING BRIDGE DECK 1,075.5 SY ARE DEEMED NECESSARY BY ENGINEER, THE ENGINEER WILL NOTE ON THE - SHOTBLASTING AND SILANE DECK TREATMENT 1,075.5 SY DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS SILANE DECK TREATMENT AND ADJUST THE ACTUAL QUANTITES ENTERED INTO THE SUMMARY OF QUANTITIES TABLE. CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT BRIDGE JOINT DEMOLITION 87.6 SF - CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT - FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE SILANE DECK TREATMENT IS COMPLETE. - FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS. - BRIDGE JOINT DEMOLITION - FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS. - FOR SECTION A-A, SEE JOINT REPAIR DETAILS SHEET S9-6. APPROACH SLAB — 5½" BRIDGE JOINT - DEMOLITION (TYP.) © BRIDGE — FILL FACE @ 98°-36'-12" END BENT 1 (TYP.) LIMITS OF SHOTBLASTING AND SILANE DECK TREATMENT $\frac{2'-5\frac{1}{2}"}{(TYP.)}$ 101'-8½" (SPAN A) 102'-4³/₈" (SPAN B) LIMITS OF — SHOTBLASTING AND SILANE **DECK TREATMENT** 204'-0%" (FILL FACE TO FILL FACE) PROJECT NO. HI-0006 PLAN OF SPANS WILSON BRIDGE NO. ____ STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION SILANE DECK TREATMENT REVISIONS G. AYES A. G. ABRAHA DATE: DRAWN BY : DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED _ DATE : 5/2022 CHECKED BY : .

ACTUAL

APPROACH

— SLAB

END BENT 2

LIMITS OF

SHOTBLASTING AND SILANE - DECK TREATMENT

COUNTY

SHEET NO.

S9-3

970254

NO. BY:

0 SF

DESIGN ENGINEER OF RECORD:

REPAIR KEY

DIAPHRAGM REPAIR

PRESTRESSED CONCRETE GIRDER REPAIR

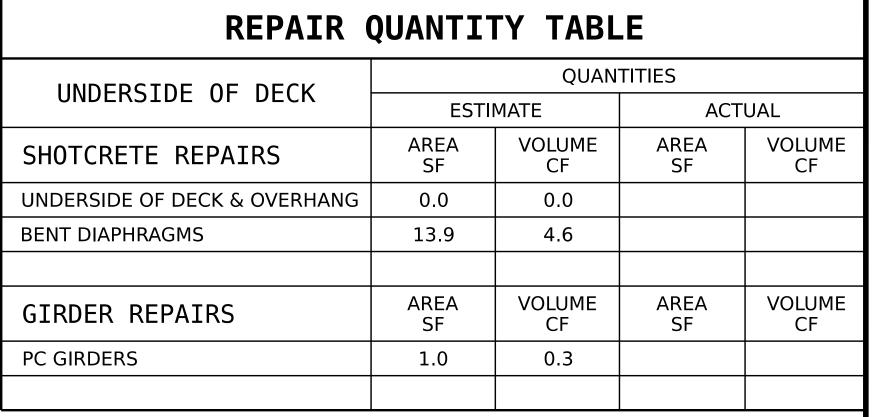
NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

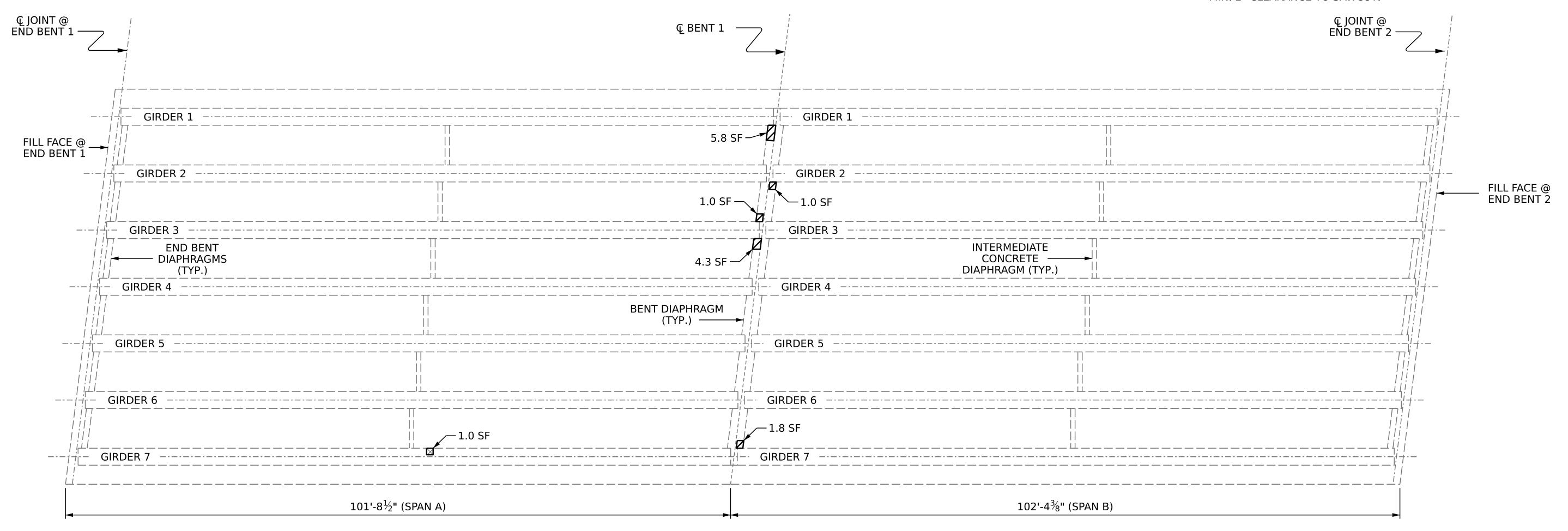
CONTRACTOR SHALL SAWCUT TO A NOMINAL DEPTH OF $\frac{1}{2}$ " BUT REINFORCING STEEL SHALL NOT BE DAMAGED. CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT WILL NOT DAMAGE EXISTING REINFORCING STEEL.

FOR CONCRETE GIRDER AND DIAPHRAGM REPAIR DETAILS, SEE PRESTRESSED CONCRETE GIRDER AND DIAPHRAGM REPAIR DETAILS SHEET S9-5.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.



VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, 1" BEHIND REBAR AND MIN. 2" CLEARANCE TO SAWCUT.

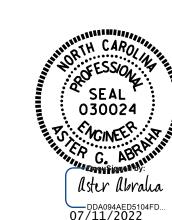


PROJECT NO. HI-0006

WILSON COUNTY

BRIDGE NO. 970254

PLAN OF SPANS - UNDERSIDE REPAIRS



STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUPERSTRUCTURE CONCRETE REPAIRS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS					SHEET NO.
BY:	DATE:	NO.	BY:	DATE:	S9-4
		3			TOTAL SHEETS
		<u> </u>			l 6

DRAWN BY:

G. AYES

DATE: 5/2022

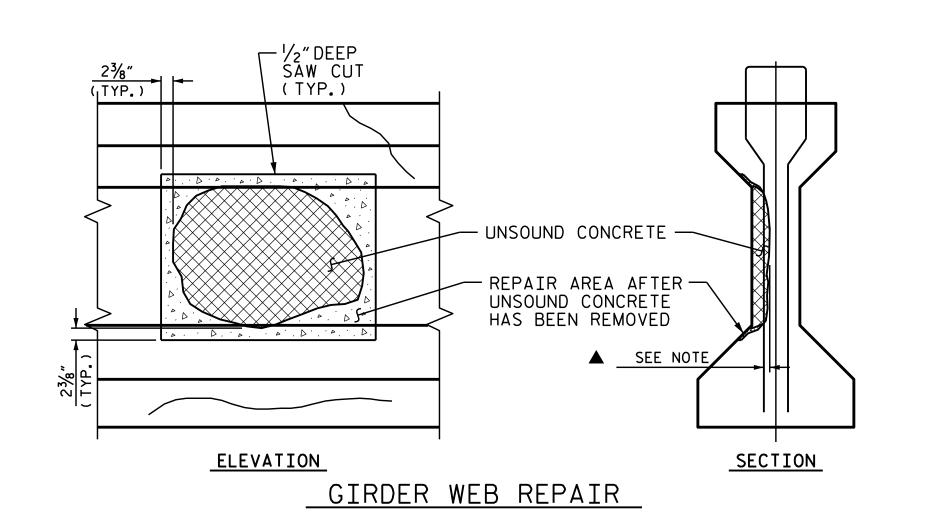
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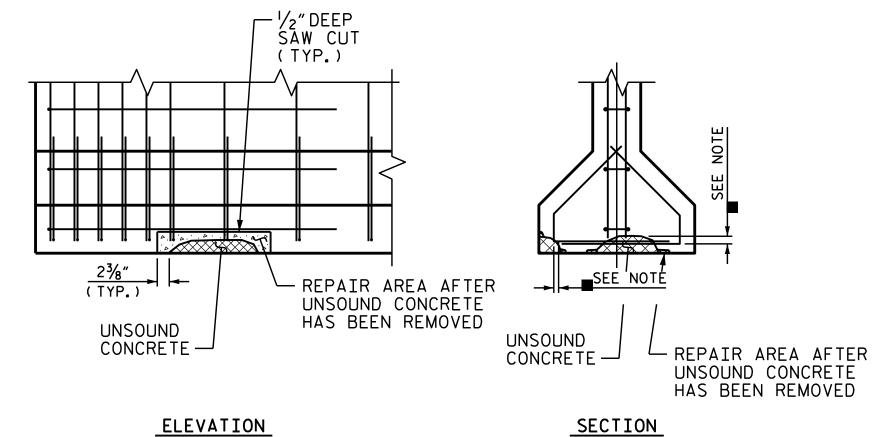
A. G. ABRAHA

DESIGN ENGINEER OF RECORD:

DATE:

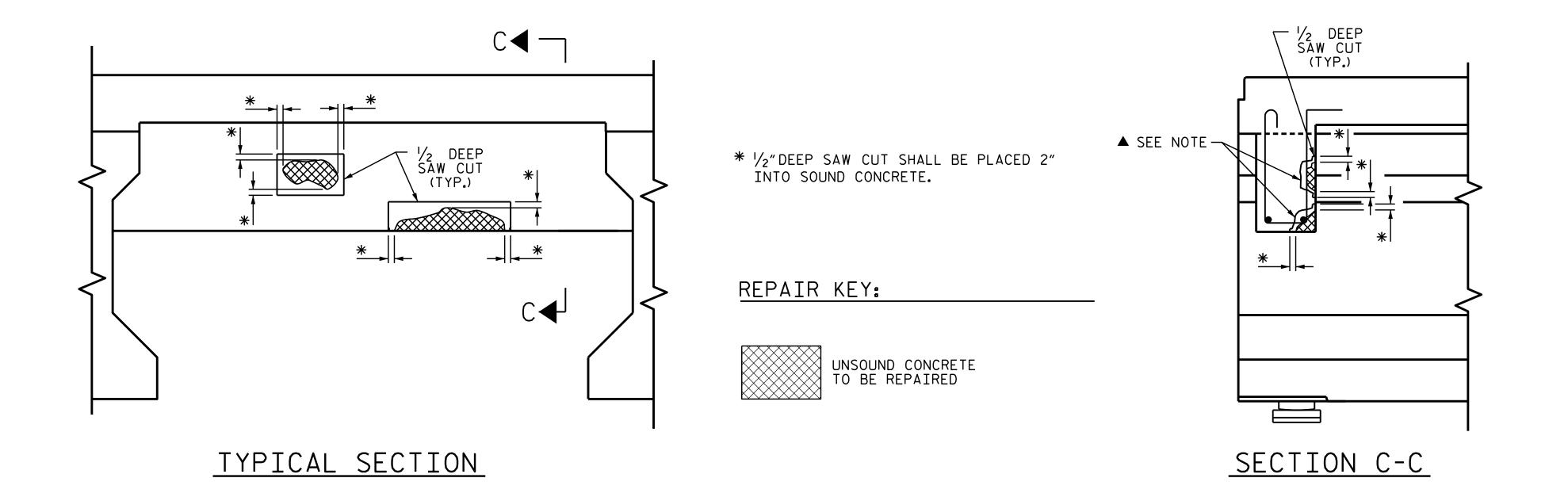
7/11/2022 S:\DPG1\Division4\HI-0006\Plans\970254\409_007_HI-0006_SMU_G*_S9-4_970254.dgn aabraha





GIRDER FLANGE REPAIR

PRESTRESSED GIRDER REPAIR



BENT DIAPHRAGM REPAIR DETAIL

(EXAMPLE DETAILS ONLY.ACTUAL REBAR SIZE & LOCATION MAY VARY)

NOTES:

PREPACKAGED MATERIAL IS REQUIRED.

CONSULT WITH THE ENGINEER TO DETERMINE PRELOADING REQUIREMENTS WHEN REPAIR IS WITHIN THE CENTER REGION OF THE BEAM (0.25L TO 0.75L).

FOR REPAIRS OVER TRAFFIC AND SHALLOW REPAIRS THAT DO NOT ENGAGE REINFORCEMENT, ANCHOR PATCH MATERIAL USING 1/4" GALVANIZED BOLTS, EPOXY ANCHORED WITH 2"EMBEDMENT. PLACE BOLTS IN A 6"GRID. USE A LATEX OR EPOXY PATCH MATERIAL FOR IMPROVED BOND. USE EXTREME CARE TO NOT DAMAGE STRANDS.

FOR PRESTRESSED CONCRETE GIRDER REPAIRS, SEE SPECIAL PROVISIONS.

PRESTRESSED GIRDER REPAIR SEQUENCE:

- SOUND CONCRETE TO DETERMINE EXTENTS OF REPAIR LOCATION.
- 2. REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL. SAW CUT AROUND REPAIR AREA TO A MINIMUM DEPTH OF $\frac{1}{2}$ ".
- 3. REMOVE CONCRETE WITHIN SAW CUT AREA TO MINIMUM $\frac{1}{2}$ DEPTH. IF CONCRETE IS DAMAGED BEYOND THE ORIGINAL SAW CUT, A NEW SAW CUT IS REQUIRED.
- 4. ▲ IF MORE THAN HALF THE CIRCUMFERENCE OF A REINFORCING BAR IS EXPOSED DURING THIS PROCESS, REMOVE ADDITIONAL CONCRETE TO 1" BEHIND THE BAR. THIS DOES NOT APPLY TO PRESTRESSED STRANDS.
- 5. ALL UNSOUND CONCRETE MUST BE REMOVED, HOWEVER, PRESTRESSED STRANDS SHOULD NOT BE DISTURBED UNLESS ABSOLUTELY NECESSARY. USE EXTREME CARE TO NOT DAMAGE STRANDS.
- CLEAN ALL EXPOSED REINFORCING BARS AND PRESTRESSED STRANDS IN ACCORDANCE WITH THE REPAIRS TO PRESTRESSED CONCRETE GIRDERS SPECIAL PROVISION. FOR BARS WITH MORE THAN 10% SECTION LOSS, SPLICE AND SECURELY TIE SUPPLEMENTAL REINFORCING BARS AS NEEDED. NOTE AND PROVIDE DETAILED DOCUMENTATION, INCLUDING LOCATION AND SEVERITY, OF ALL DAMAGE TO PRESTRESSED STRANDS THAT EXCEEDS 10% SECTION LOSS. IF FIVE OR MORE STRANDS ARE DAMAGED, NOTIFY THE ENGINEER PRIOR TO PLACEMENT OF REPAIR MATERIAL.
- . REMOVE ALL LOOSE OR WEAKENED MATERIAL THEN CLEAN THE REPAIR AREA OF DIRT, GREASE, OIL, AND FOREIGN MATTER.
- PREPARE SURFACE AND PLACE APPROVED REPAIR MATERIAL ACCORDING TO PRESTRESSED CONCRETE GIRDER REPAIRS SPECIAL PROVISION.

 MAXIMUM AGGREGATE SIZE FOR REPAIR MATERIAL SHALL NOT EXCEED 3
 THE MINIMUM REPAIR DEPTH.

PROJECT NO. HI-0006

WILSON COUNTY
BRIDGE NO. 970254

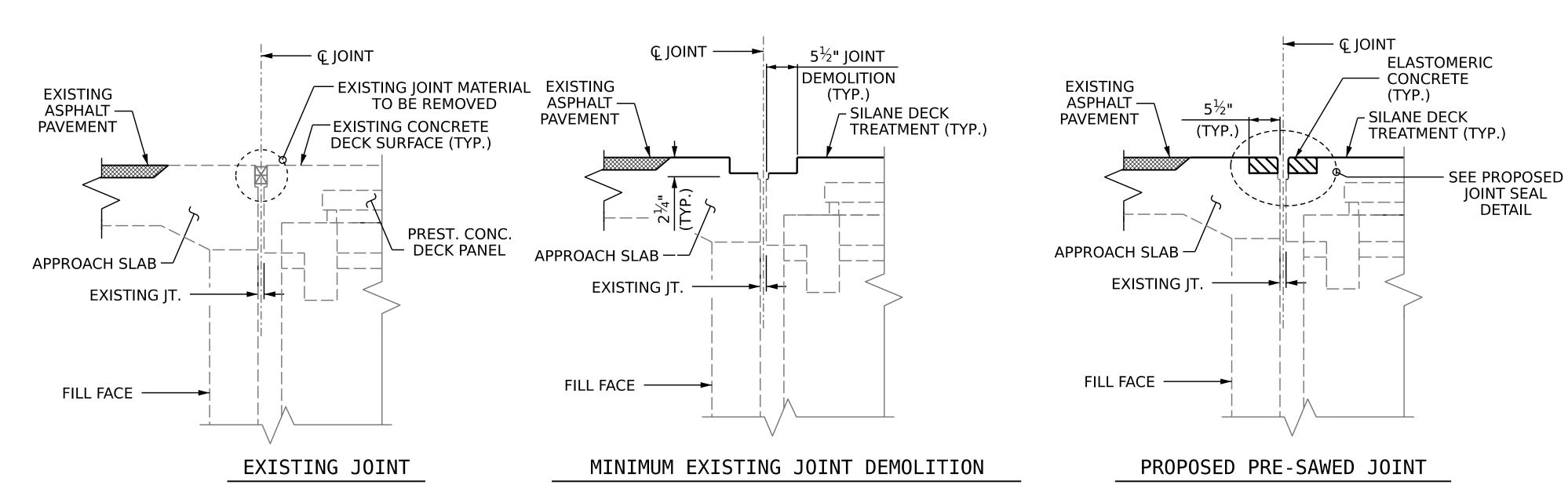


DEPARTMENT OF TRANSPORTATION
RALEIGH

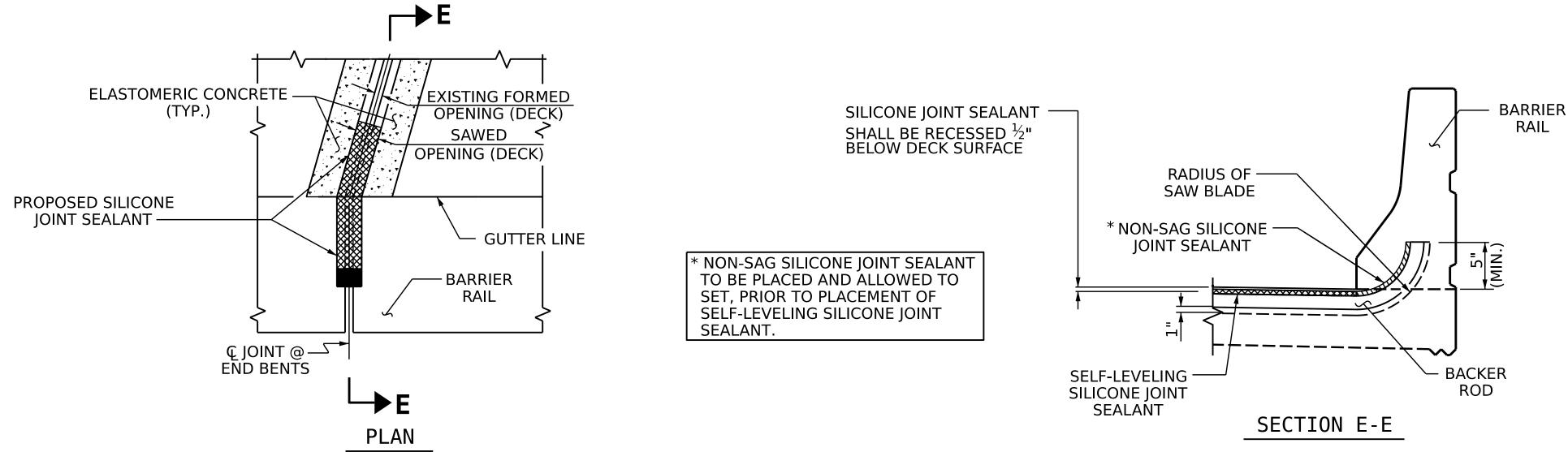
PRESTRESSED CONCRETE GIRDER AND DIAPHRAGM REPAIR DETAILS

		REVISIONS					SHEET NO.
DOCUMENT NOT CONSIDERED	NO.	BY:	DATE:	NO.	BY:	DATE:	S9-5
FINAL UNLESS ALL	1			3			TOTAL SHEETS
SIGNATURES COMPLETED	2			4			6

ASSEMBLED BY: G. AYES DATE: 5/2022
CHECKED BY: A. G. ABRAHA DATE: 5/2022
DRAWN BY: NAP 08/18
CHECKED BY:



SUMMARY OF	QUANTI	ΓIES
	ESTIMATE	ACTUAL
ELASTOMERIC CONCRETE FOR PRESERVATION	16.4 CF	
POURABLE SILICONE JOINT SEALANT	95.6 LF	



JOINT DETAIL AT BARRIER RAIL

DATE : 5/2022 G. AYES DRAWN BY : DATE: 5/2022 A. G. ABRAHA CHECKED BY : . DATE : ______ DESIGN ENGINEER OF RECORD: _

7/11/2022 S:\DPG1\Division4\HI-0006\Plans\970254\409_011_HI-0006_SMU_JT_S9-6_970254.dgn

NOTES

FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE SILANE DECK TREATMENT IS COMPLETE.

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING FORMED OPENING PRIOR TO OBTAINING JOINT MATERIAL. IF ACTUAL JOINT OPENINGS VARIES FROM THE OPENING INDICATED IN DETAIL MORE THAN 1/4" NOTIFY ENGINEER. REVISION TO THE JOINT SEAL SIZE MAY BE NECESSARY.

THE MANUFACTURER IS TO PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE BACKER ROD FOR THE SIZE OF THE OPENING ON THE PLANS AND ACCOMMODATE THE MINIMUM EXPANSION SHOWN ON THE PLANS.

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO DROP ANY MATERIAL BELOW THE BRIDGE WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL. ANY MATERIAL THAT FALLS BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT. IF THE ENGINEER DETERMINES THAT THE PROTECTIVE DEVICES ARE NOT ADEQUATE OR NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

UNLESS NOTED OTHERWISE RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.

ALL EXPOSED ENDS OF CUT BARS SHALL BE COATED WITH EPOXY PRIOR TO THE NEW JOINT MATERIAL INSTALLATION.

THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF SAWING THE JOINT.

POURABLE SILICONE JOINT SEALANT AND BACKER ROD SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATION.

THE INSTALLATION OF JOINT SEAL SHALL BE WATERTIGHT.

DURING JOINT INSTALLATION PROCEDURE, THE JOINT AND SURROUNDING AREA SHALL BE KEPT CLEAN AND FREE OF DEBRIS.

FOR POURABLE SILICONE JOINT SEALANT, SEE SPECIAL PROVISIONS.

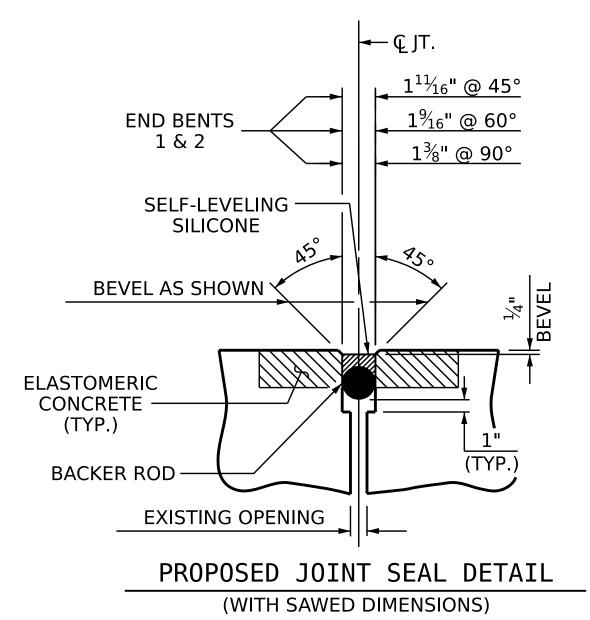
QUANTITIES SHOWN IN THE ELASTOMERIC CONCRETE FOR PRESERVATION TABLE ARE BASED ON THE MINIMUM JOINT DEMOLITION SHOWN.

FOR EXCAVATION BELOW THE BOTTOM OF THE PLANNED JOINT DEMOLITION, CONCRETE FOR DECK REPAIR SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT BOTTOM OF THE PROPOSED ELASTOMERIC CONCRETE FOR PRESERVATION HEADERS SHOWN.

FINAL SURFACE OF THE JOINT DEMOLITION AREA PRIOR TO PLACEMENT OF CONCRETE REPAIR MATERIAL OR ELASTOMERIC CONCRETE SHOULD BE REASONABLY FLAT AND LEVEL. ENGINEER SHALL DETERMINE THE ACCEPTABILITY OF THE SURFACE PRIOR TO PLACEMENT OF REPAIR CONCRETE OR ELASTOMERIC CONCRETE.

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.



HI-0006 PROJECT NO. ___ WILSON

970254 BRIDGE NO. __

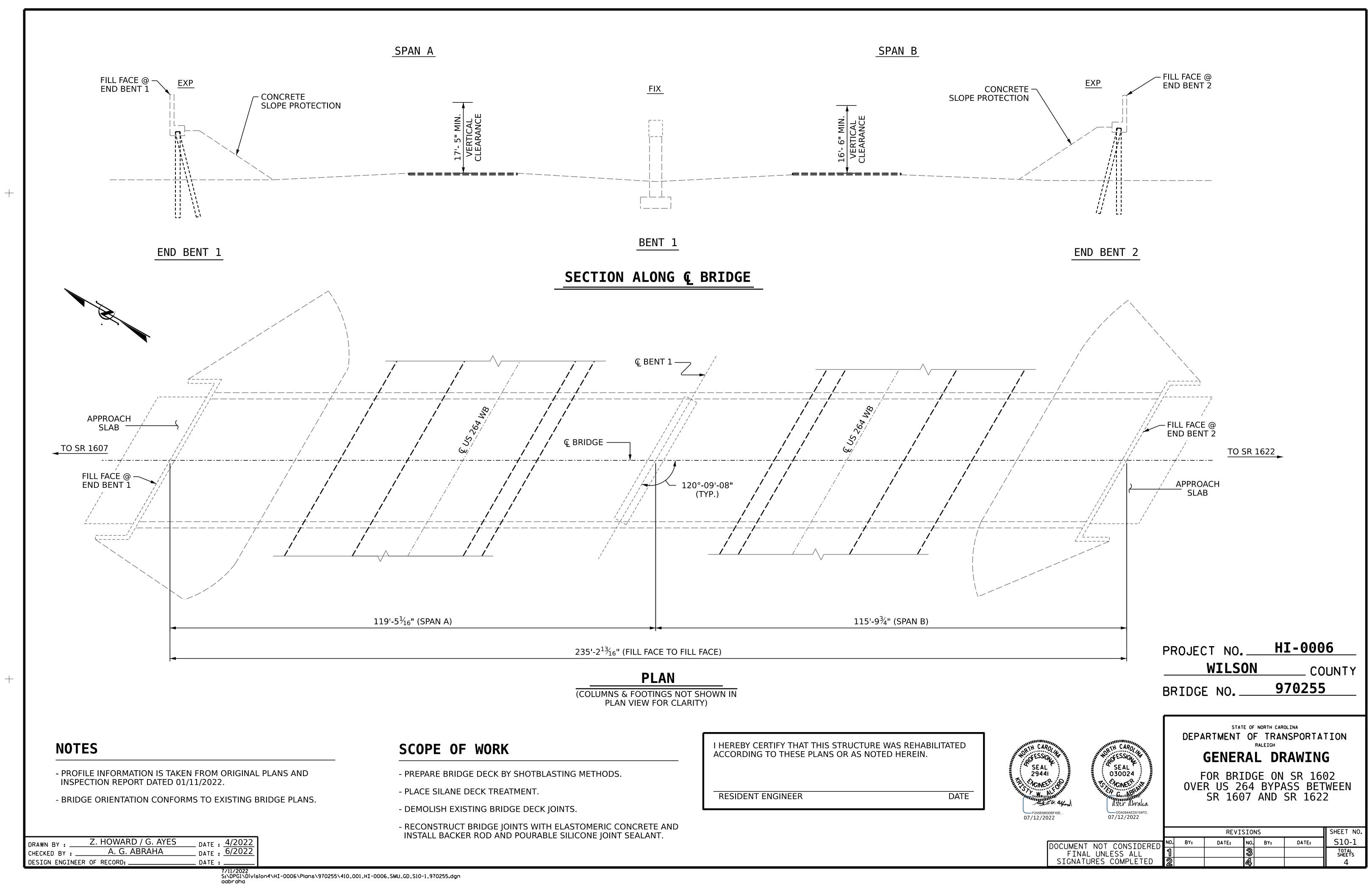
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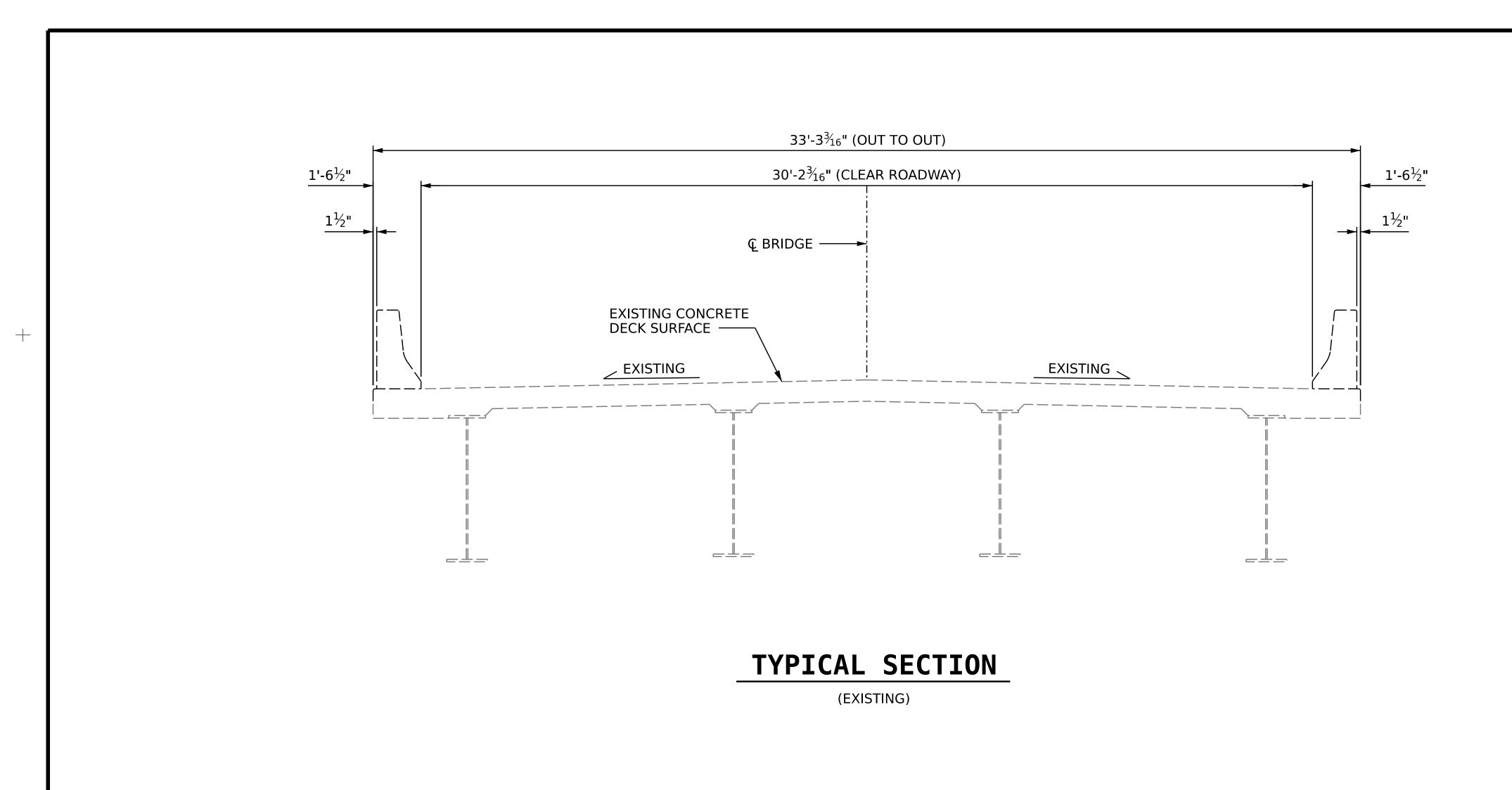
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

COUNTY

JOINT REPAIR **DETAILS**

SHEET NO REVISIONS S9-6 NO. BY: DATE: DATE: DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED TOTAL SHEETS





33'-3³/_{16"} (CLEAR ROADWAY)

1'-6¹/₂"

1¹/_{2"}

SHOTBLASTING AND SILANE
DECK TREATMENT

MATCH EXISTING

MATCH EXISTING

MATCH EXISTING

TYPICAL SECTION

(PROPOSED)

DRAWN BY: Z. HOWARD / G. AYES

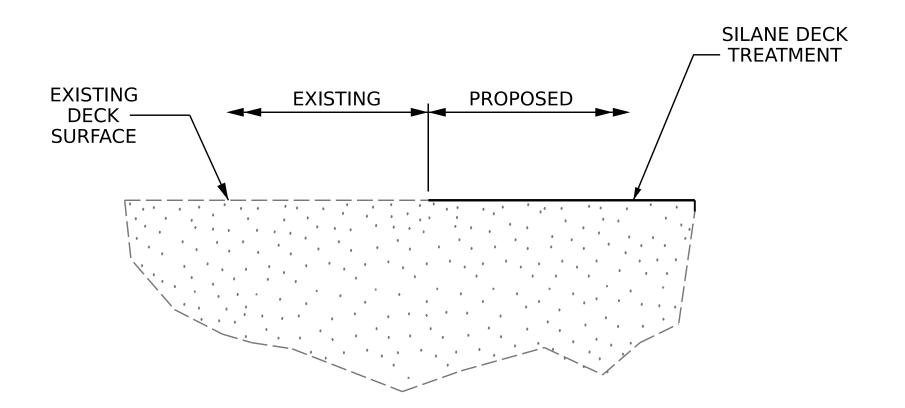
CHECKED BY: A. G. ABRAHA

DESIGN ENGINEER OF RECORD: DATE:

NOTES

SEE TRAFFIC PLANS FOR LANE WIDTH, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF SURFACE PREPARATION AND SILANE DECK TREATMENT.

PROTECT TRAFFIC FROM REBOUND, DUST, OVERSPRAY, AND CONSTRUCTION ACTIVITIES. PROVIDE APPROPRIATE SHIELDING, AS REQUIRED AND/OR DIRECTED BY ENGINEER.

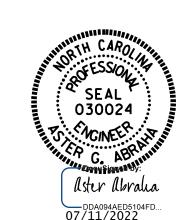


SILANE DECK TREATMENT DETAIL

PROJECT NO. HI-0006

WILSON COUNTY

BRIDGE NO. 970255



STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

PALETCH

SUPERSTRUCTURE

TYPICAL SECTION AND SILANE DECK TREATMENT DETAILS

REVISIONS SHEET NO.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED 2 4 4

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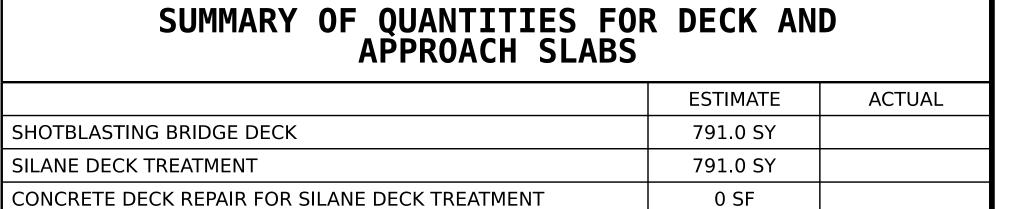
APPROACH SLAB ¬ FILL FACE @ -END BENT 1 $\frac{2'-5\frac{1}{2}"}{(TYP.)/}$ LIMITS OF ^{_/} SHOTBLASTING AND SILANE DECK TREATMENT

NOTES

- REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN IN DRAWINGS ARE DEEMED NECESSARY BY ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITES ENTERED INTO THE SUMMARY OF QUANTITIES TABLE.
- FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE SILANE DECK TREATMENT IS COMPLETE.

- FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

- FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.
- FOR SECTION A-A, SEE JOINT REPAIR DETAILS SHEET S10-4.



64.0 SF

BRIDGE JOINT DEMOLITION

CONT 6

THE PART OF THE PART OF SHOTBLASTING AND SHARE DECK TARAMENT

THE PART OF THE PART

PLAN OF SPANS

PROJECT NO. HI-0006

WILSON COUNTY

BRIDGE NO. 970255

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STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION
RALEIGH

SILANE DECK TREATMENT

REVISIONS SHEET NO.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED 2 4 4

DRAWN BY: G. AYES

CHECKED BY: A. G. ABRAHA

DATE: 6/2022

DESIGN ENGINEER OF RECORD: DATE:

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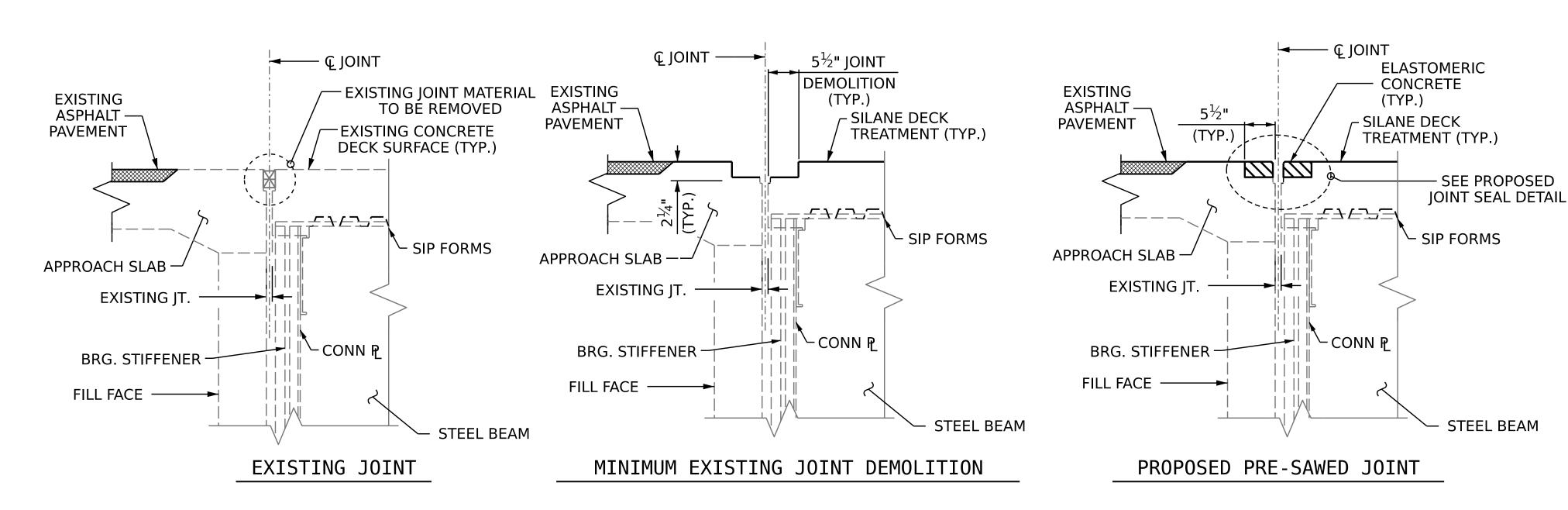
REPAIR KEY

- SHOTBLASTING AND

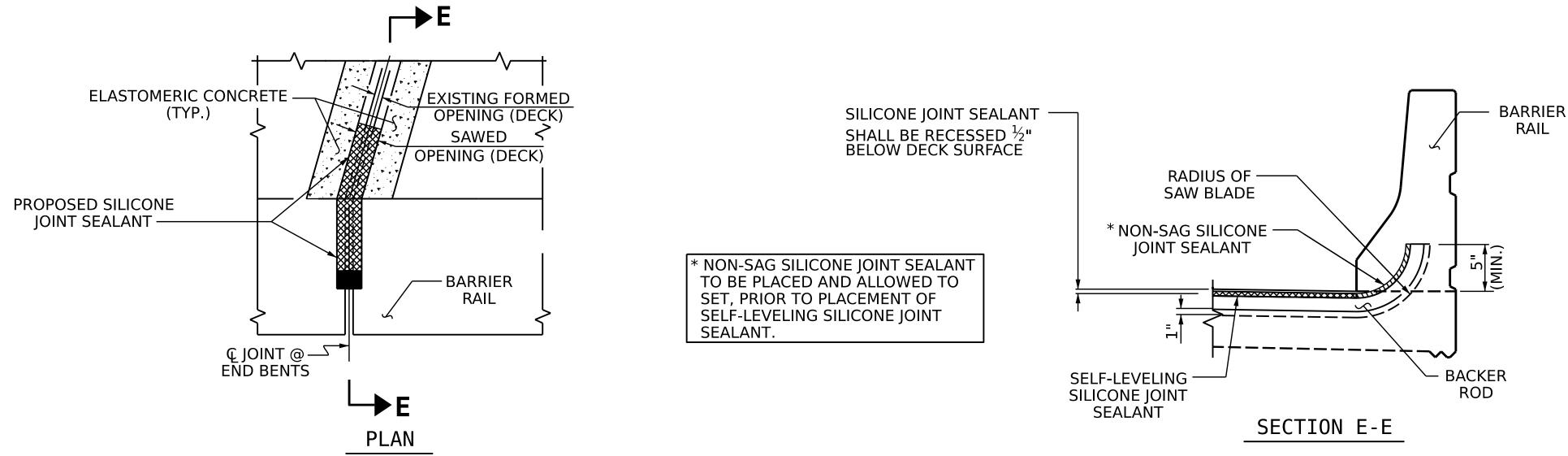
SILANE DECK TREATMENT

- CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT

- BRIDGE JOINT DEMOLITION



SUMMARY OF	QUANTI	ΓIES
	ESTIMATE	ACTUAL
ELASTOMERIC CONCRETE FOR PRESERVATION	12.0 CF	
POURABLE SILICONE JOINT SEALANT	69.8 LF	



NOTES

FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE SILANE DECK TREATMENT IS COMPLETE.

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING FORMED OPENING PRIOR TO OBTAINING JOINT MATERIAL. IF ACTUAL JOINT OPENINGS VARIES FROM THE OPENING INDICATED IN DETAIL MORE THAN 1/4" NOTIFY ENGINEER, REVISION TO THE IOINT SEAL SIZE MAY BE NECESSARY.

THE MANUFACTURER IS TO PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE BACKER ROD FOR THE SIZE OF THE OPENING ON THE PLANS AND ACCOMMODATE THE MINIMUM EXPANSION SHOWN ON THE PLANS.

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO DROP ANY MATERIAL BELOW THE BRIDGE WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL. ANY MATERIAL THAT FALLS BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT. IF THE ENGINEER DETERMINES THAT THE PROTECTIVE DEVICES ARE NOT ADEQUATE OR NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

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THE INSTALLATION OF JOINT SEAL SHALL BE WATERTIGHT.

DURING JOINT INSTALLATION PROCEDURE, THE JOINT AND SURROUNDING AREA SHALL BE KEPT CLEAN AND FREE OF DEBRIS.

FOR POURABLE SILICONE JOINT SEALANT, SEE SPECIAL PROVISIONS.

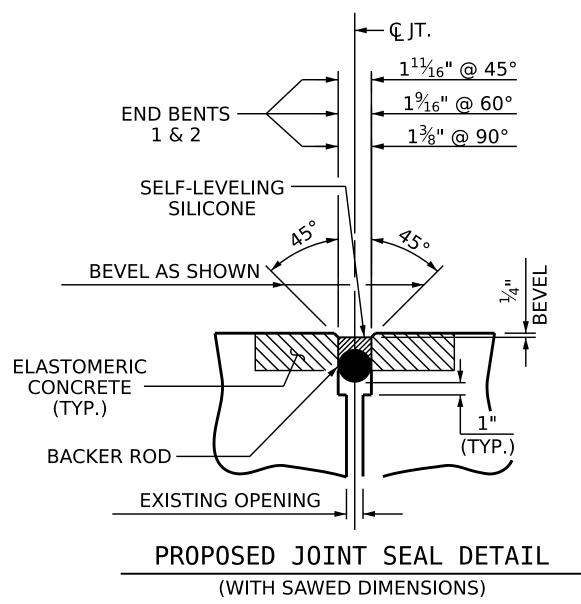
QUANTITIES SHOWN IN THE ELASTOMERIC CONCRETE FOR PRESERVATION TABLE ARE BASED ON THE MINIMUM JOINT DEMOLITION SHOWN.

FOR EXCAVATION BELOW THE BOTTOM OF THE PLANNED JOINT DEMOLITION, CONCRETE FOR DECK REPAIR SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT BOTTOM OF THE PROPOSED ELASTOMERIC CONCRETE FOR PRESERVATION HEADERS SHOWN.

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FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.



HI-0006 PROJECT NO. ____ WILSON COUNTY

BRIDGE NO. ___

970255



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

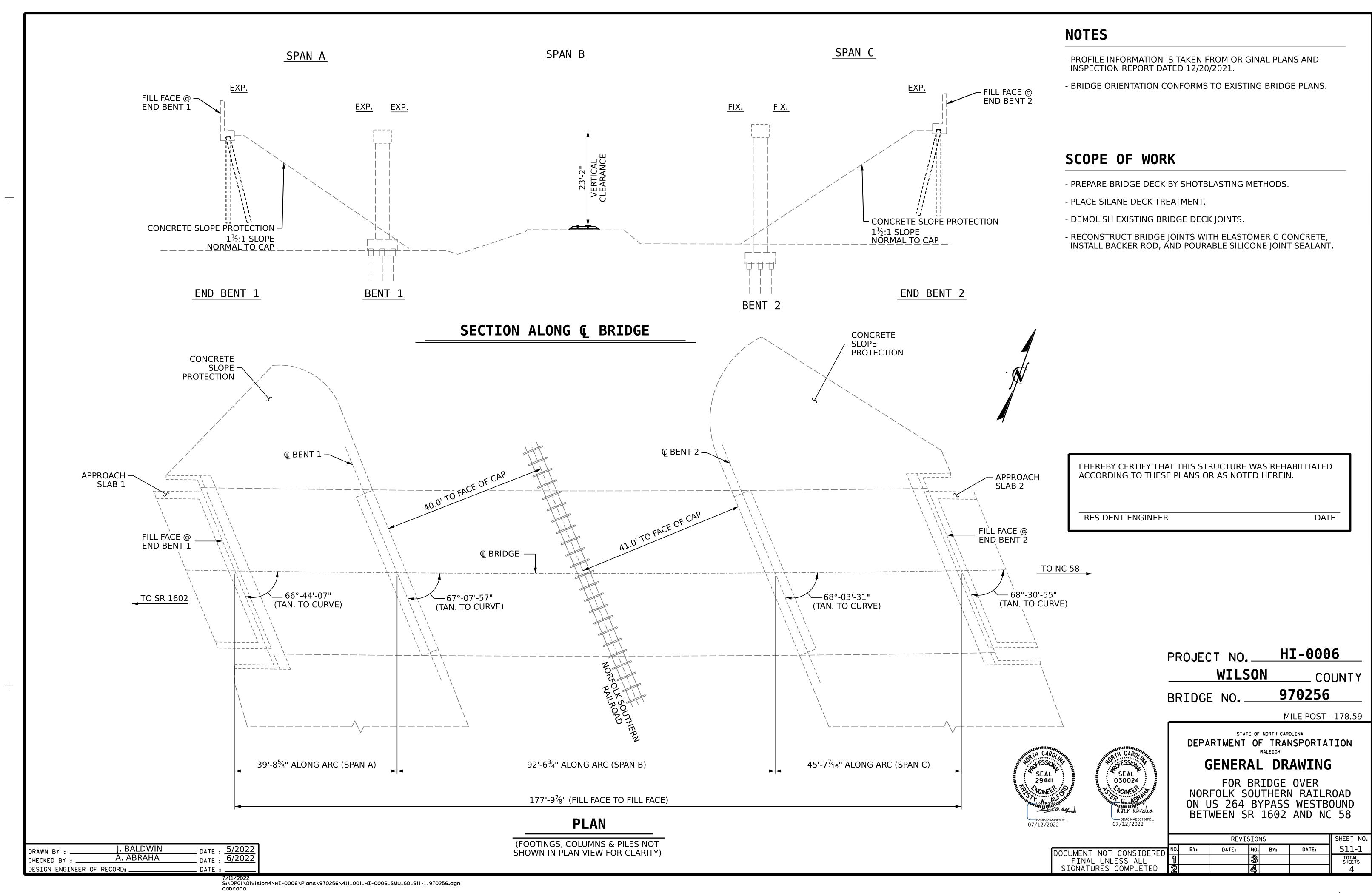
> JOINT REPAIR **DETAILS**

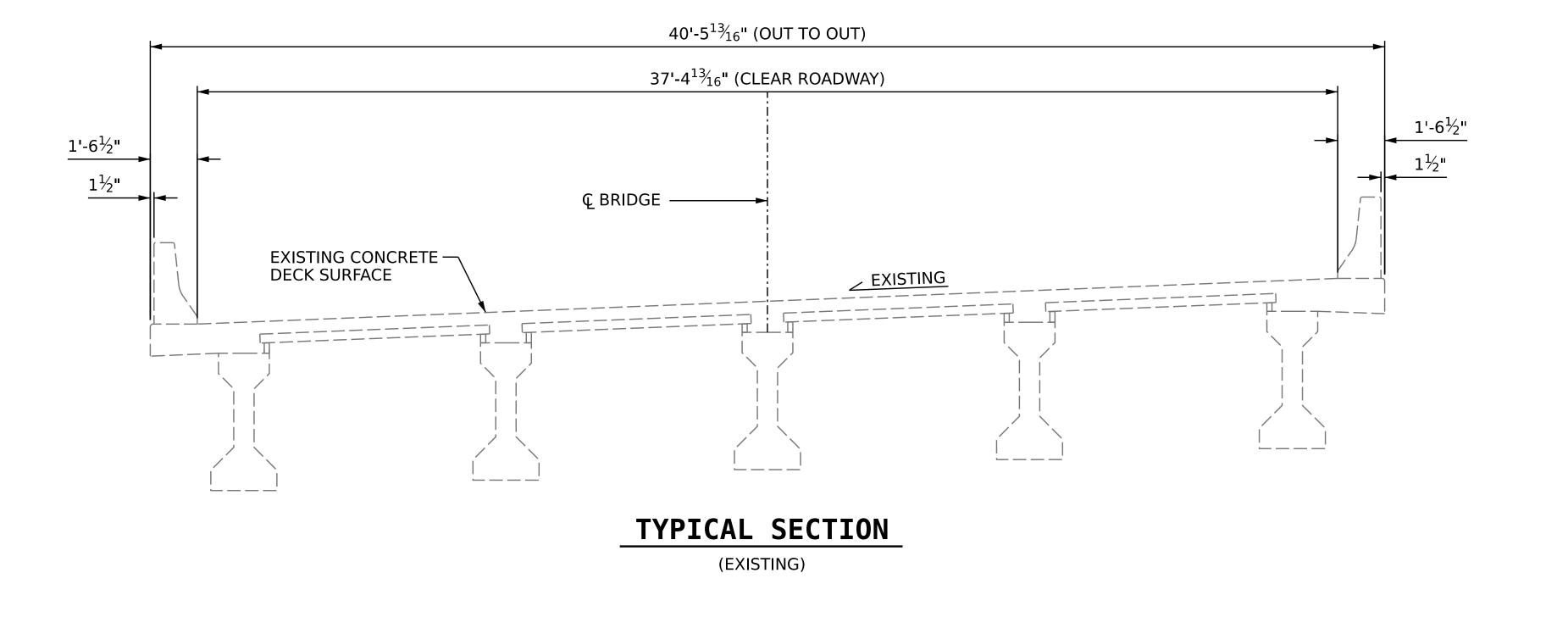
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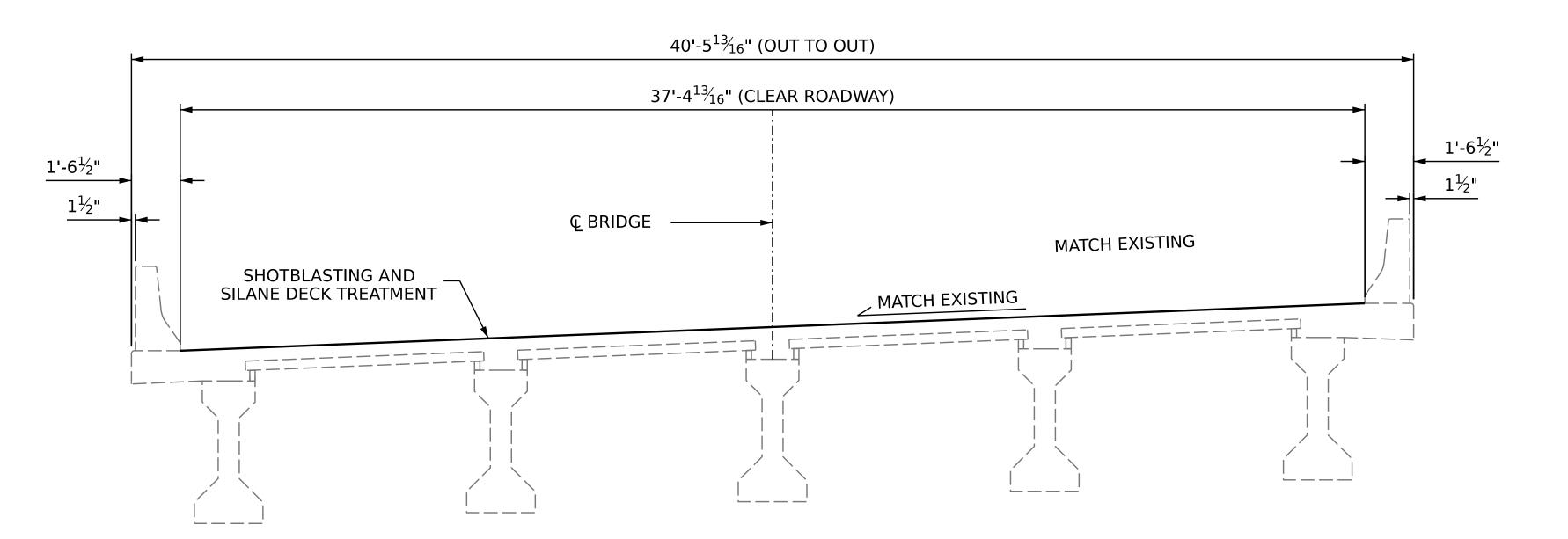
JOINT DETAIL AT BARRIER RAIL

G. AYES 6/2022 DRAWN BY : 6/2022 A. G. ABRAHA DATE : CHECKED BY : . DATE : ______ DESIGN ENGINEER OF RECORD: _

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TYPICAL SECTION

(PROPOSED)

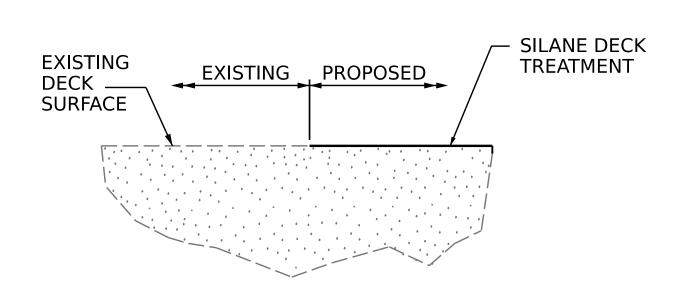
J. BALDWIN A. ABRAHA _ DATE : 06/2022 _ DATE : 06/2022 DRAWN BY : CHECKED BY : __ DESIGN ENGINEER OF RECORD: _

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NOTES

SEE TRAFFIC PLANS FOR LANE WIDTH, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF SURFACE PREPARATION AND SILANE DECK TREATMENT.

PROTECT TRAFFIC FROM REBOUND, DUST, OVERSPRAY, AND CONSTRUCTION ACTIVITIES. PROVIDE APPROPRIATE SHIELDING, AS REQUIRED AND/OR DIRECTED BY ENGINEER.



SILANE DECK TREATMENT DETAIL

PROJECT NO. HI-0006 **WILSON** _ COUNTY BRIDGE NO. 970256

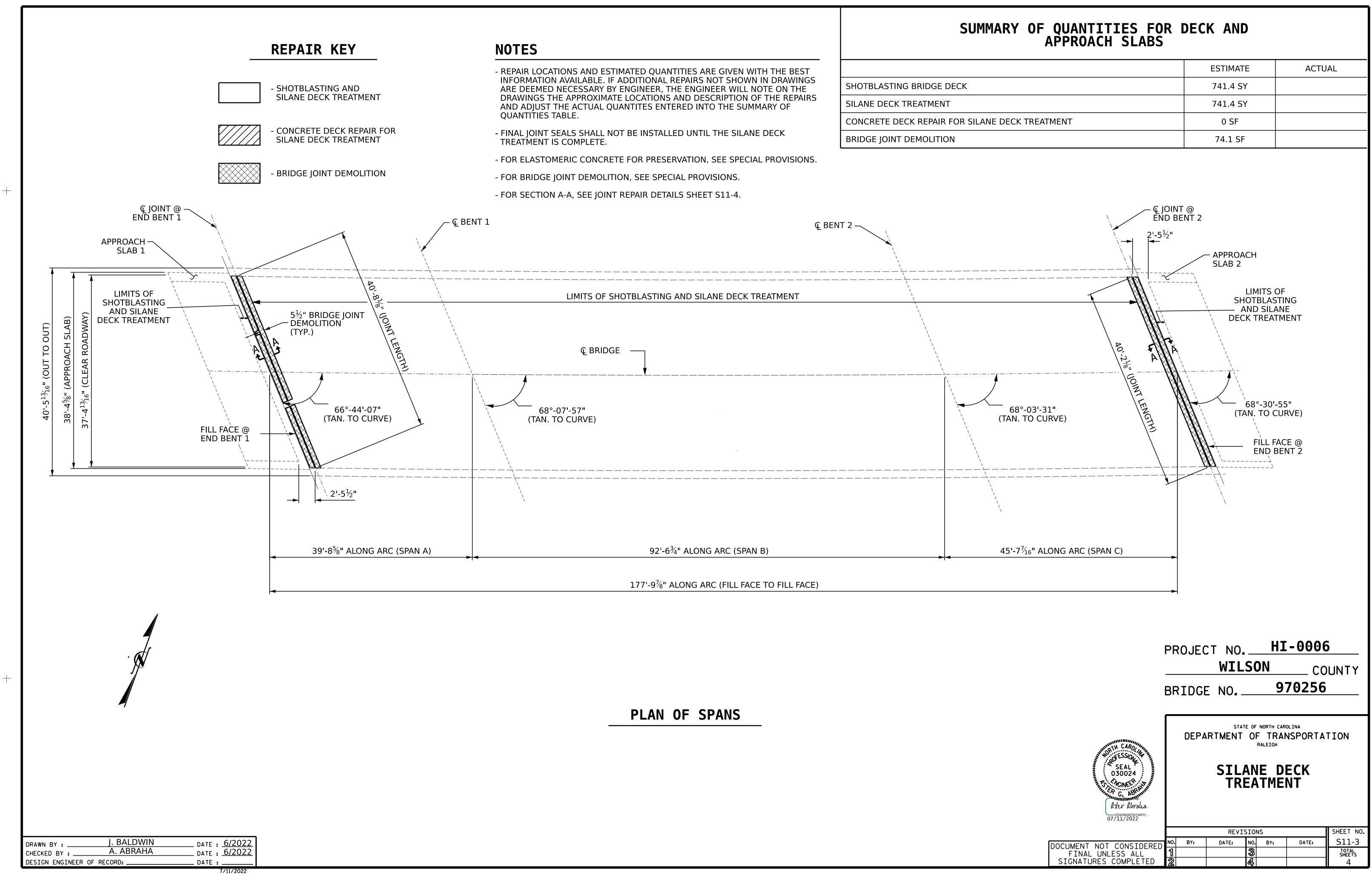


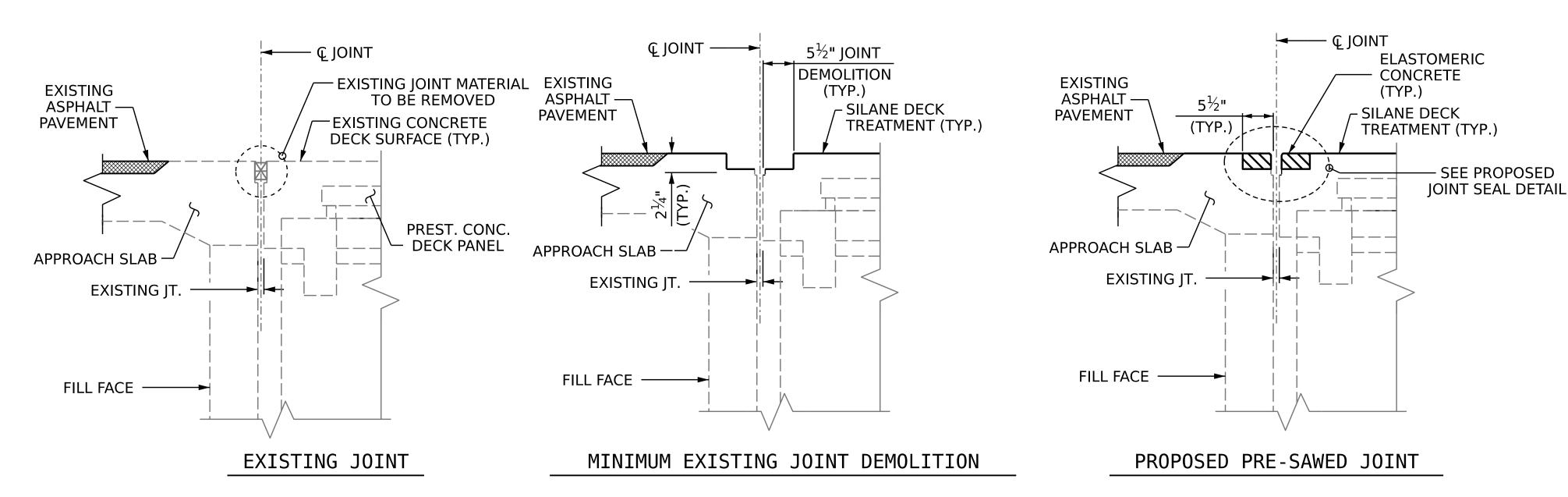
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE

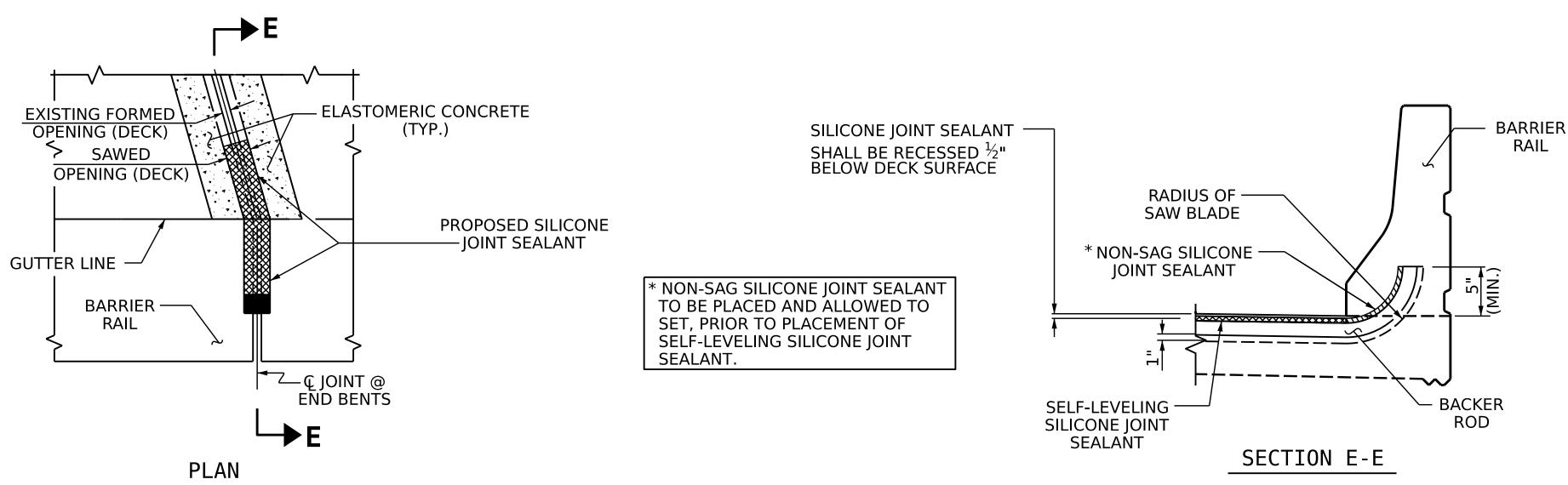
TYPICAL SECTION
AND SILANE DECK
TREATMENT DETAILS

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SUMMARY OF QUANTITIES		
	ESTIMATE	ACTUAL
ELASTOMERIC CONCRETE FOR PRESERVATION	13.9 CF	
POURABLE SILICONE JOINT SEALANT	80.9 LF	



JOINT DETAIL AT BARRIER RAIL

NOTES

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QUANTITIES SHOWN IN THE ELASTOMERIC CONCRETE FOR PRESERVATION TABLE ARE BASED ON THE MINIMUM JOINT DEMOLITION SHOWN.

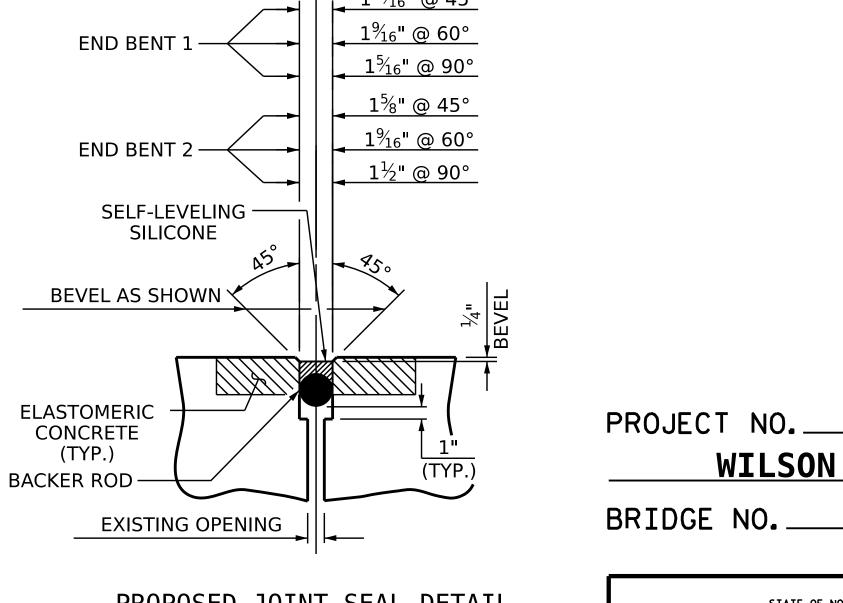
FOR EXCAVATION BELOW THE BOTTOM OF THE PLANNED JOINT DEMOLITION, CONCRETE FOR DECK REPAIR SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT BOTTOM OF THE PROPOSED ELASTOMERIC CONCRETE FOR PRESERVATION HEADERS SHOWN.

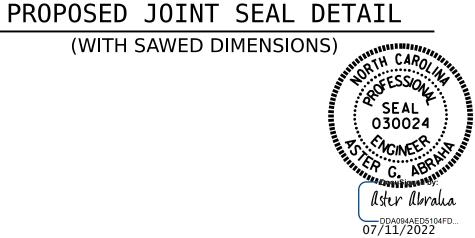
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FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

← Ç JT.





STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

JOINT REPAIR DETAILS

HI-0006

970256

COUNTY

REVISIONS

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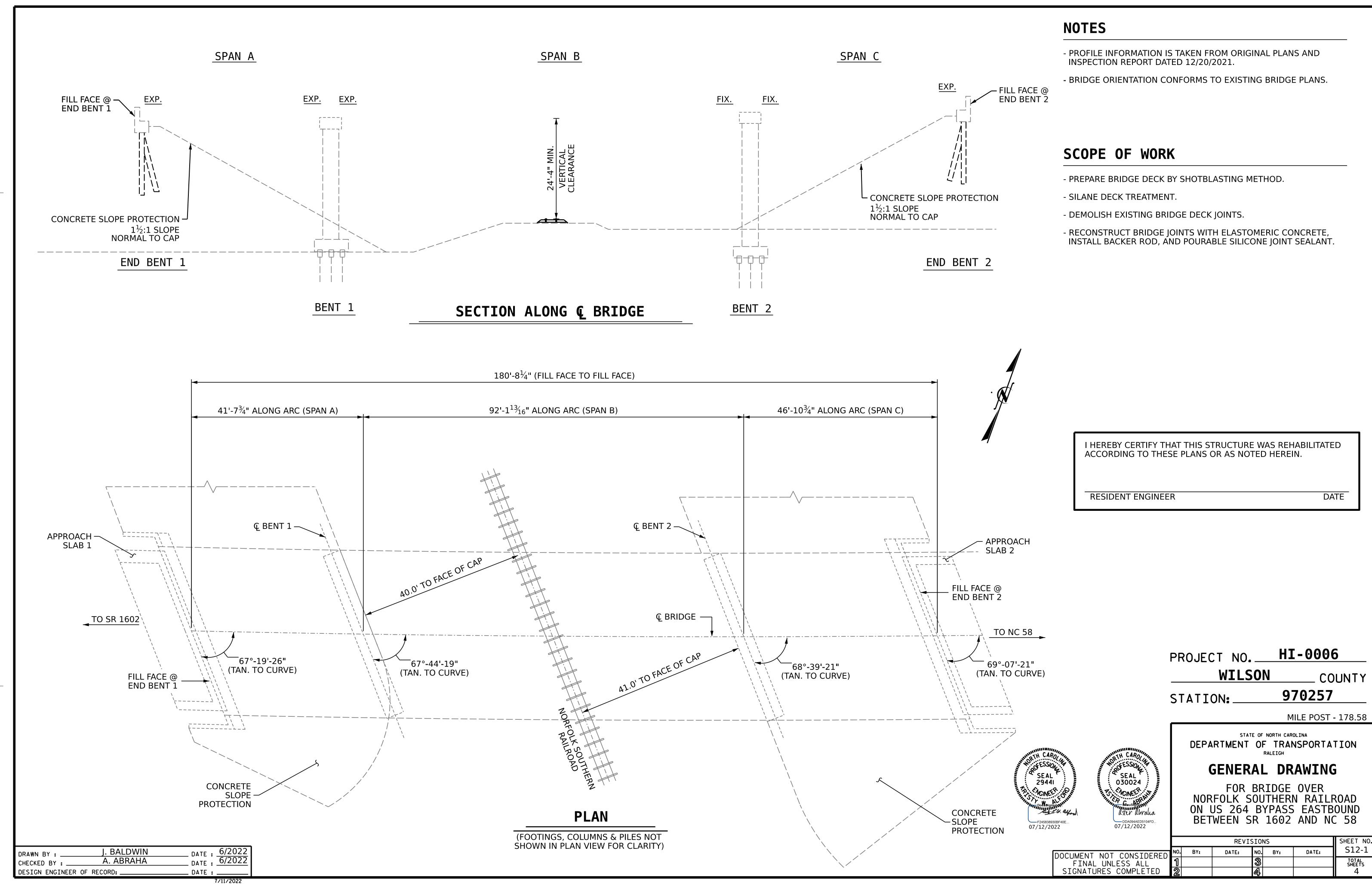
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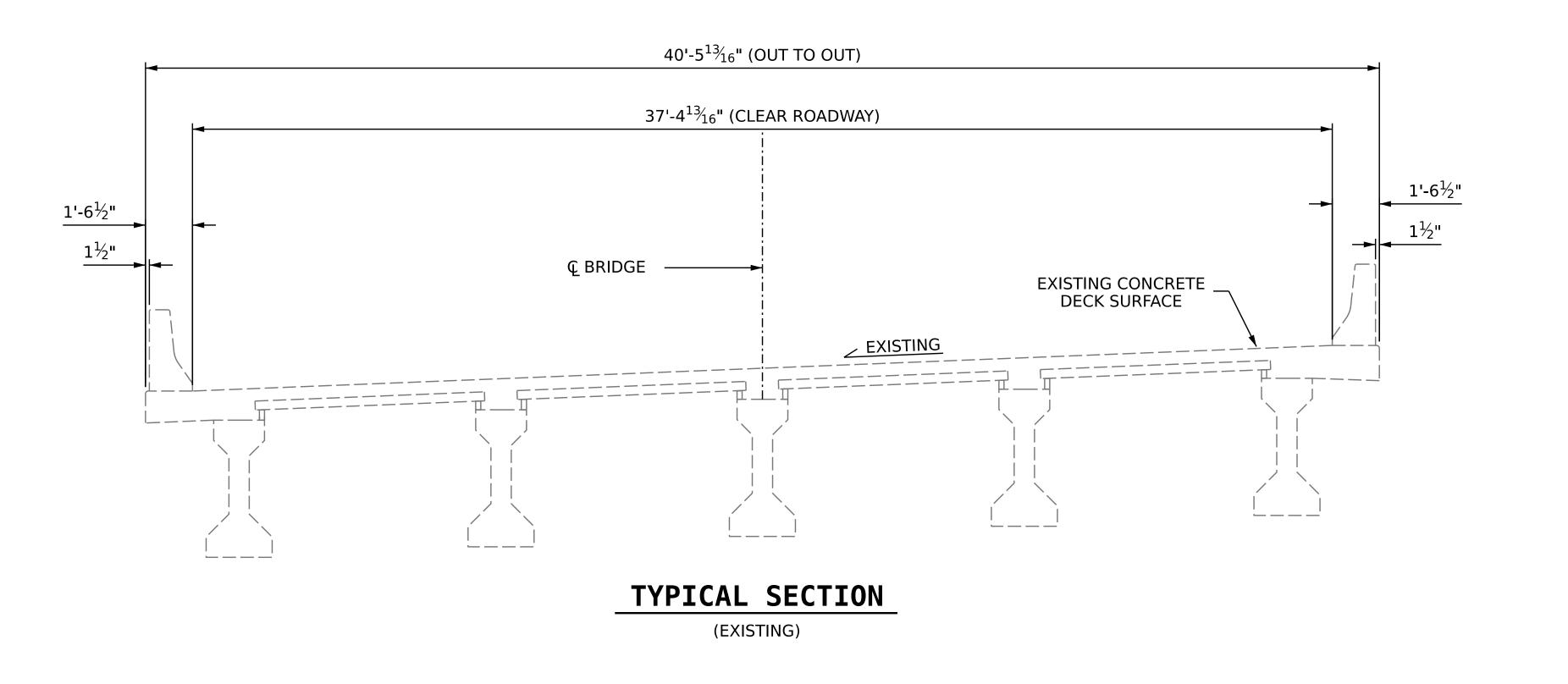
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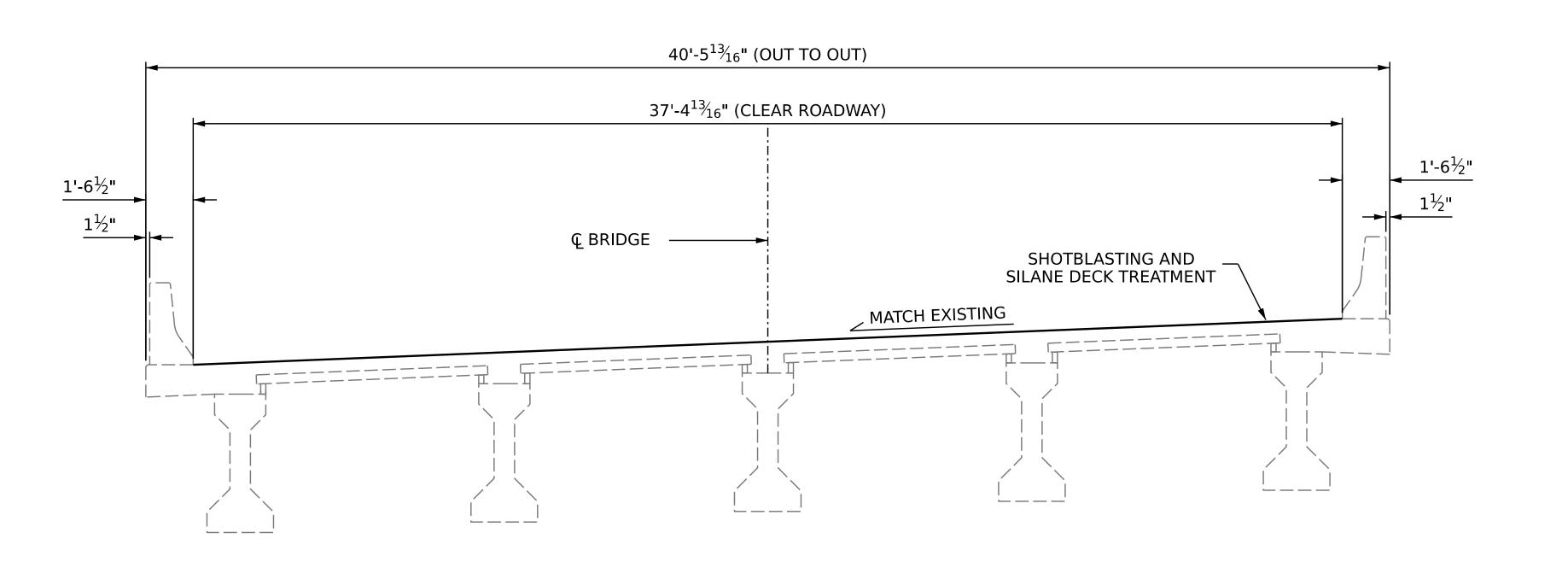
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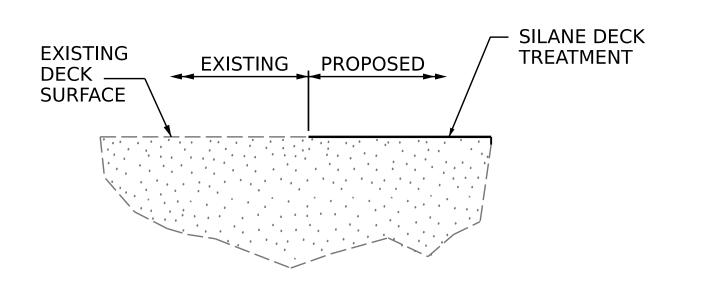
TYPICAL SECTION

(PROPOSED)

NOTES

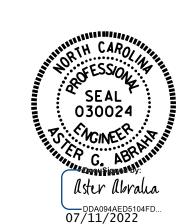
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PROTECT TRAFFIC FROM REBOUND, DUST, OVERSPRAY, AND CONSTRUCTION ACTIVITIES. PROVIDE APPROPRIATE SHIELDING, AS REQUIRED AND/OR DIRECTED BY ENGINEER.



SILANE DECK TREATMENT DETAIL

PROJECT NO. HI-0006
WILSON COUNTY
BRIDGE NO. 970257



STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE

TYPICAL SECTION AND SILANE DECK TREATMENT DETAILS

REVISIONSSHEET NO.DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETEDNO.BY:DATE:NO.BY:DATE:S12-213TOTAL SHEETS244

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J. BALDWIN A. ABRAHA

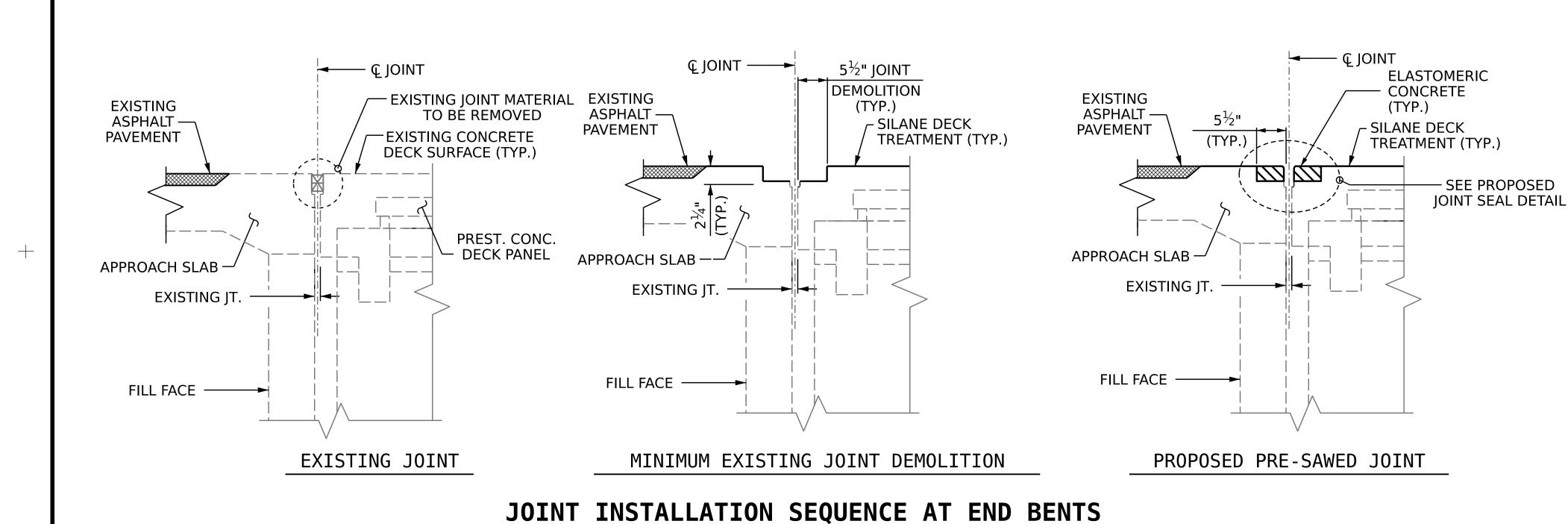
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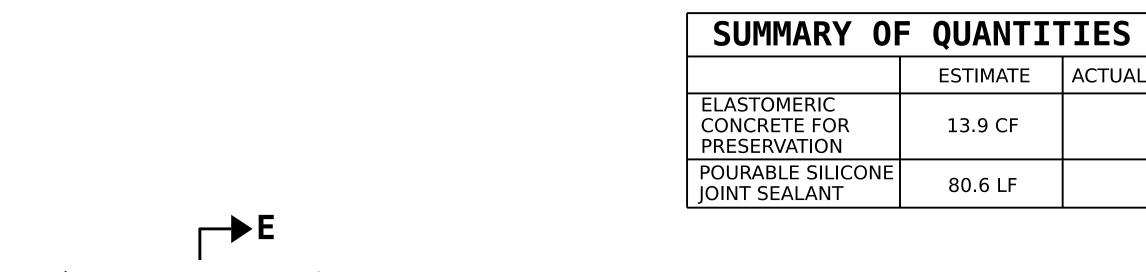
DESIGN ENGINEER OF RECORD: _

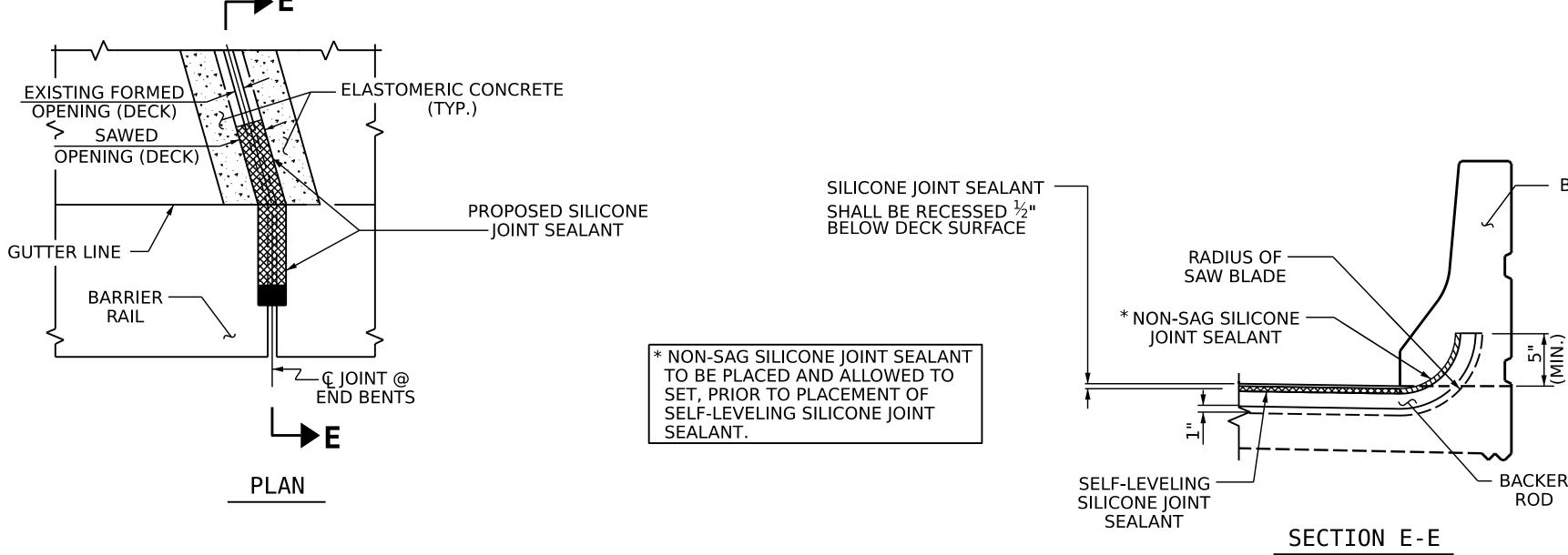
_ DATE : 06/2022 _ DATE : 06/2022

SUMMARY OF QUANTITIES FOR DECK AND APPROACH SLABS REPAIR KEY **NOTES ESTIMATE** - REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN IN DRAWINGS ARE DEEMED NECESSARY BY ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITES ENTERED INTO THE SUMMARY OF ACTUAL 753.7 SY SHOTBLASTING BRIDGE DECK - SHOTBLASTING AND SILANE DECK TREATMENT SILANE DECK TREATMENT 753.7 SY QUANTITIES TABLE. CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT 0 SF - CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT - FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE SILANE DECK TREATMENT IS COMPLETE. 73.9 SF BRIDGE JOINT DEMOLITION FOR SECTION A-A, SEE SHEET S11-3. - FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS. - BRIDGE JOINT DEMOLITION - FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS. - FOR SECTION A-A, SEE JOINT REPAIR DETAILS SHEET S12-4. - Q JOINT @ END BENT 2 © JOINT @ · END BENT 1 **Q** BENT 1 ¢ BENT 2 — 2'-5½" LIMITS OF LIMITS OF SHOTBLASTING SHOTBLASTING - AND SILANE $5\frac{1}{2}$ " BRIDGE JOINT – DEMOLITION AND SILANE DECK TREATMENT 38'-4%" (APPROACH SLAB) **DECK TREATMENT** (TYP.) FILL FACE @ Ç BRIDGE ─ END BENT 2 - 67°-19'-26**"** 67°-44'-19" 69°-07'-21" · 68°-39'-21" (TAN. TO CURVE) (TAN. TO CURVE) (TAN. TO CURVE) (TAN. TO CURVE) FILL FACE @ END BENT 1 LIMITS OF SHOTBLASTING AND SILANE DECK TREATMENT APPROACH SLAB 2 APPROACH — SLAB 1 92'-1¹³/₁₆" ALONG ARC (SPAN B) $46'-10\frac{3}{4}$ " ALONG ARC (SPAN C) $41'-7\frac{3}{4}$ " ALONG ARC (SPAN A) $180'-8\frac{3}{8}$ " ALONG ARC (FILL FACE TO FILL FACE) PROJECT NO. HI-0006 WILSON _ COUNTY BRIDGE NO. 970257 PLAN OF SPANS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION SILANE DECK TREATMENT SHEET NO. REVISIONS S12-3 J. BALDWIN _ DATE : <u>6/2022</u> NO. BY: DATE: DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED DRAWN BY : A. ABRAHA DATE : 6/2022 TOTAL SHEETS CHECKED BY : __ DESIGN ENGINEER OF RECORD: _



SECTION A-A





JOINT DETAIL AT BARRIER RAIL

DATE : 5/2022 J. BALDWIN DRAWN BY : DATE: 5/2022 A. ABRAHA CHECKED BY : . DESIGN ENGINEER OF RECORD: _ DATE : _

NOTES

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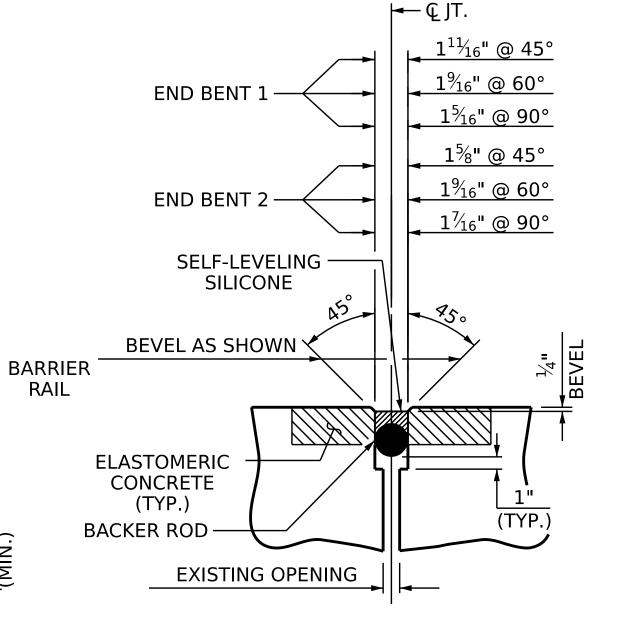
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FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.



RAIL

PROPOSED JOINT SEAL DETAIL

(WITH SAWED DIMENSIONS)

970257 BRIDGE NO. ____ STATE OF NORTH CAROLINA

WILSON

PROJECT NO. ___

HI-0006

COUNTY

JOINT REPAIR

DETAILS

DEPARTMENT OF TRANSPORTATION

RALEIGH

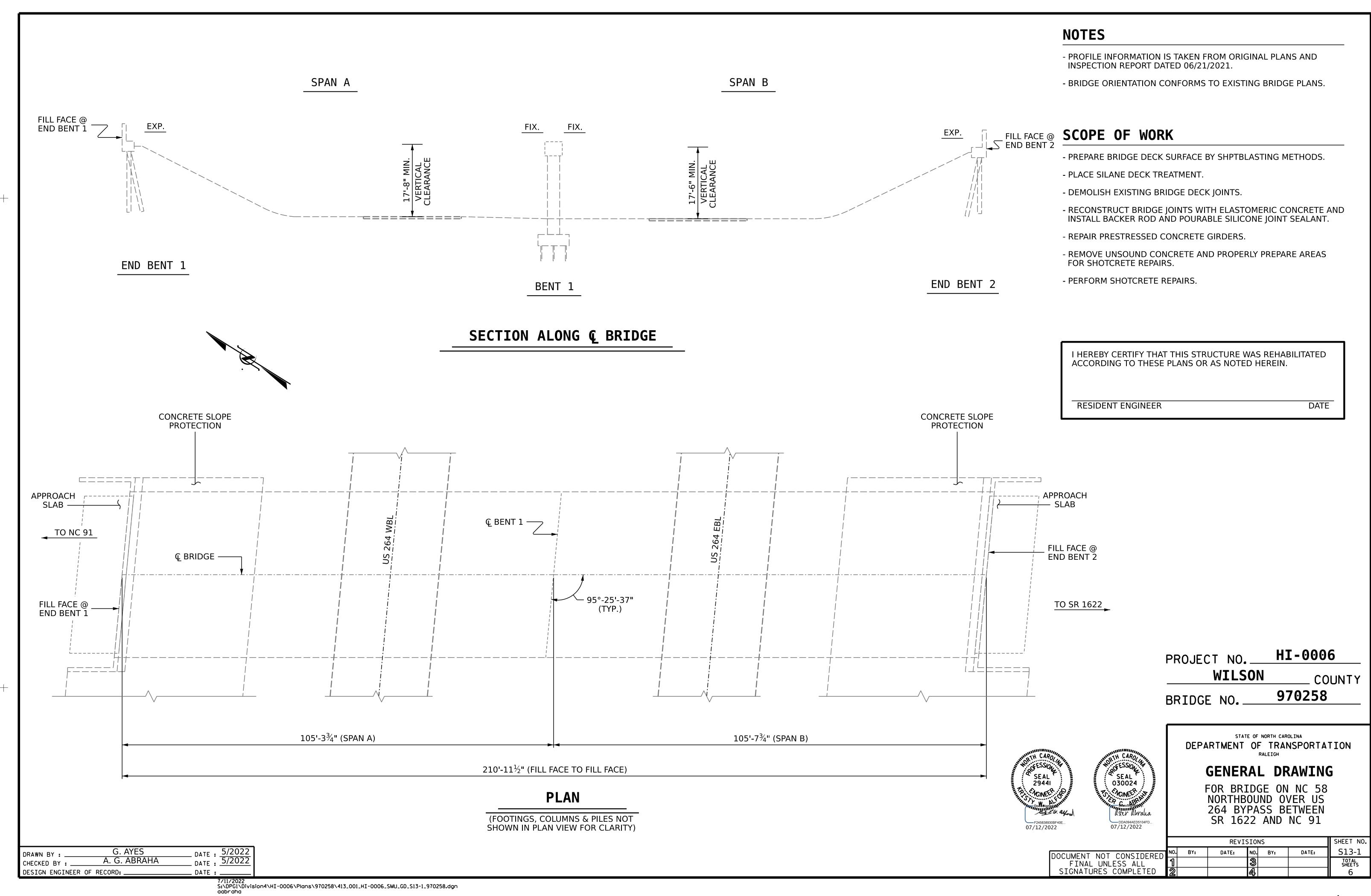
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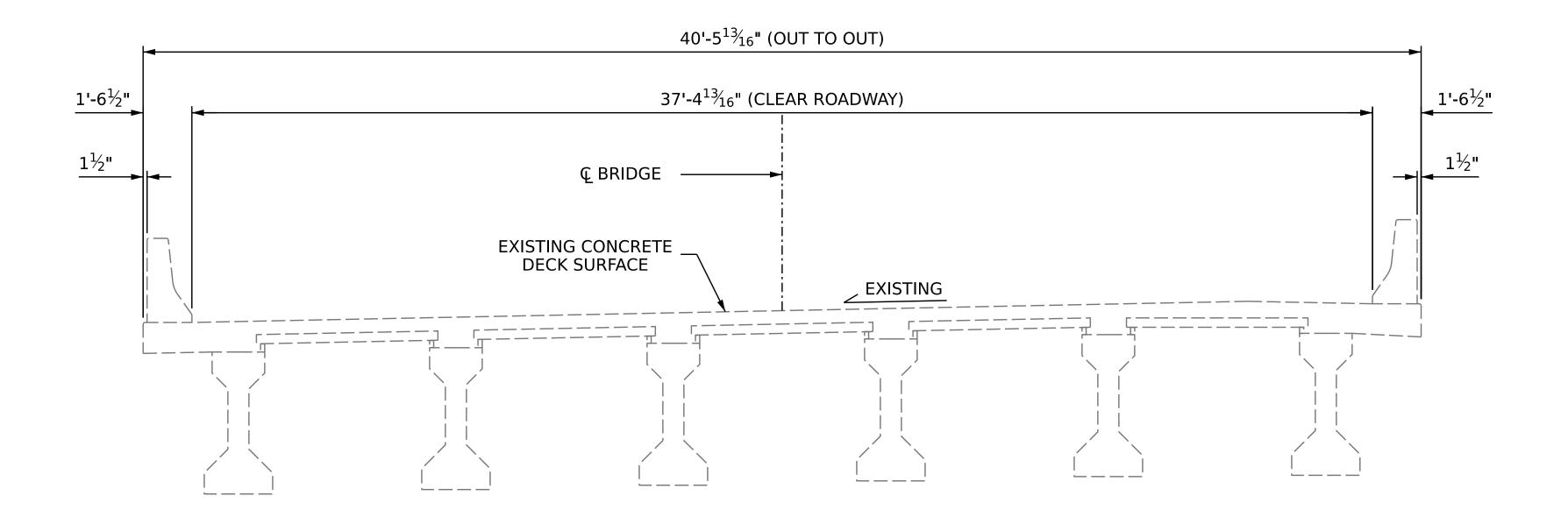
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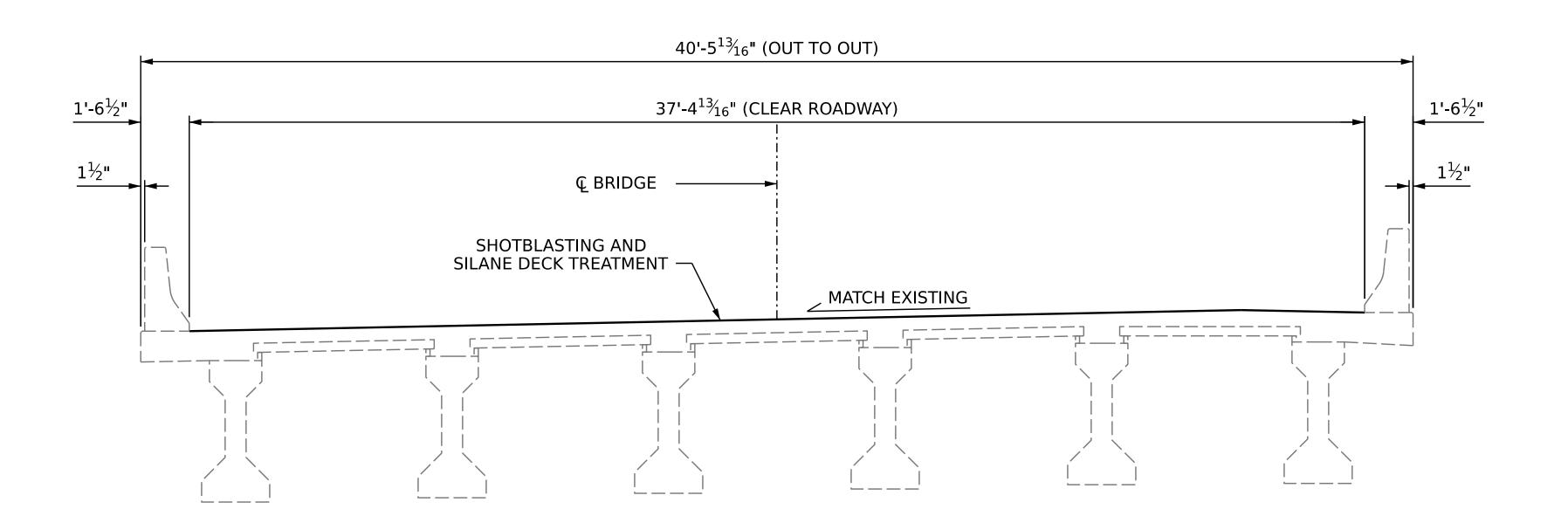
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TYPICAL SECTION

(EXISTING)



TYPICAL SECTION

(PROPOSED)

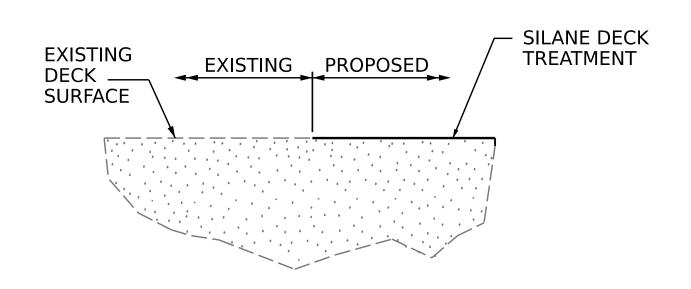
G. AYES A. G. ABRAHA DATE: 5/2022 DATE: 5/2022 DRAWN BY : DESIGN ENGINEER OF RECORD: _

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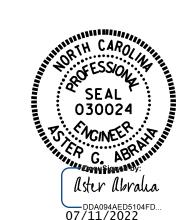
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SILANE DECK TREATMENT DETAIL

PROJECT NO. HI-0006 **WILSON** COUNTY 970258 BRIDGE NO. ____

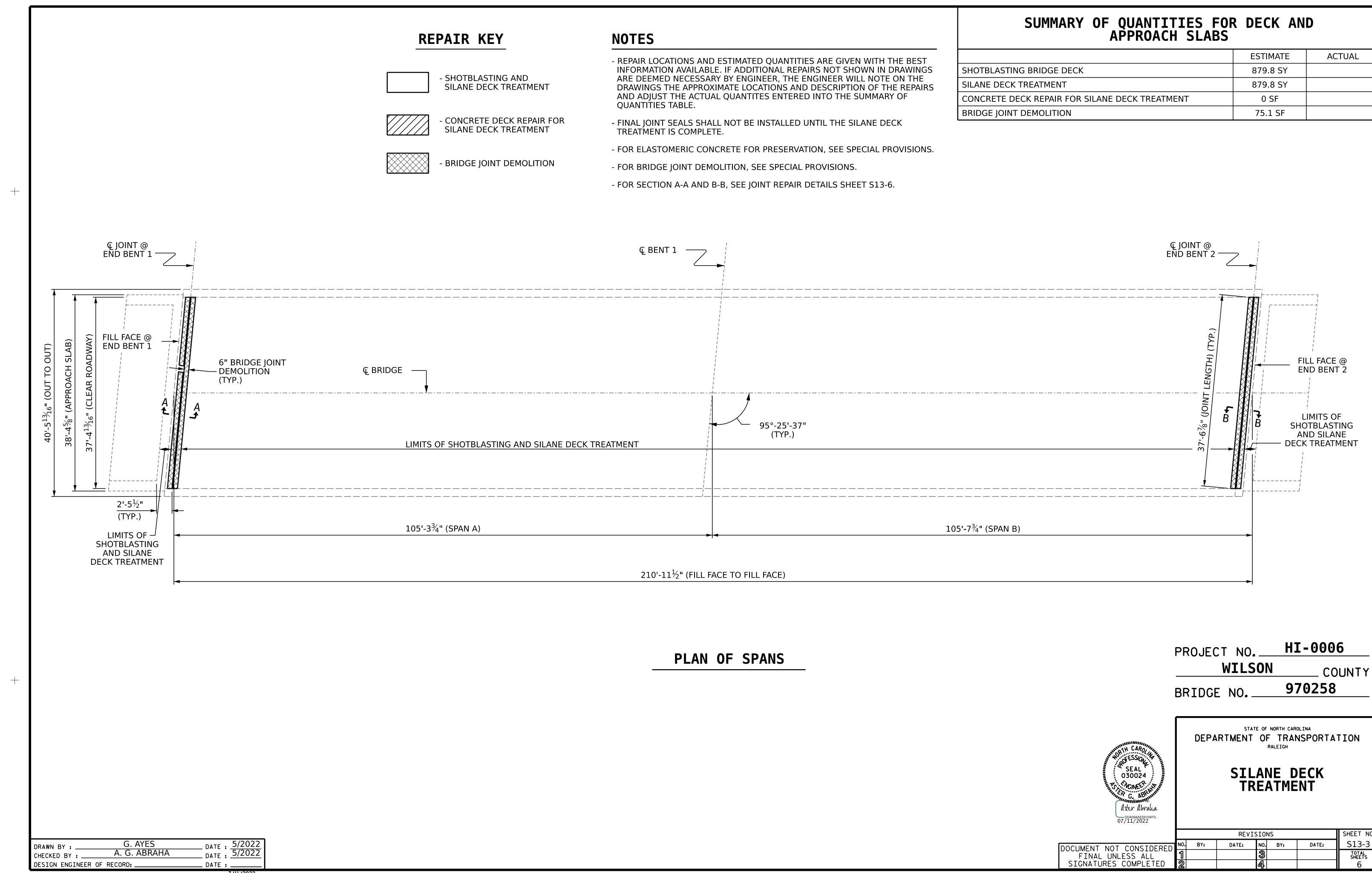


STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE

TYPICAL SECTION AND SILANE DECK TREATMENT DETAILS

	REVISIONS						SHEET N
DOCUMENT NOT CONSIDERED	NO.	BY:	DATE:	NO.	BY:	DATE:	S13-2
FINAL UNLESS ALL	1			3			TOTAL SHEETS
SIGNATURES COMPLETED	2			4			6



ACTUAL

SHEET NO.

S13-3

REPAIR KEY

DIAPHRAGM REPAIR

PRESTRESSED CONCRETE GIRDER REPAIR

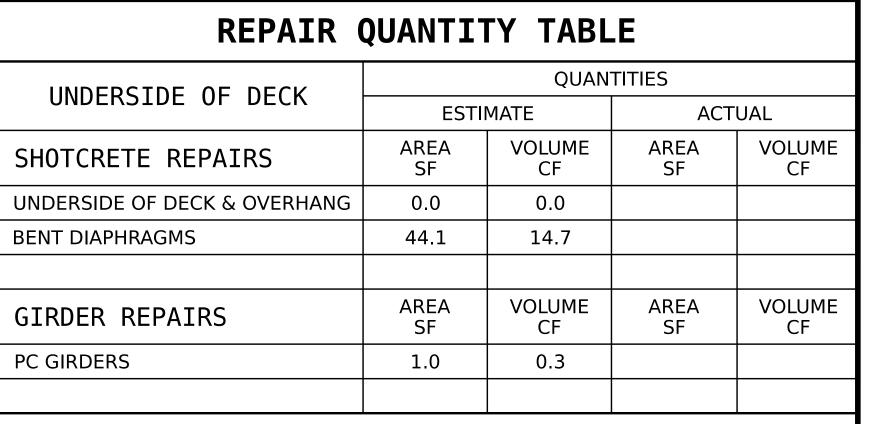
NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

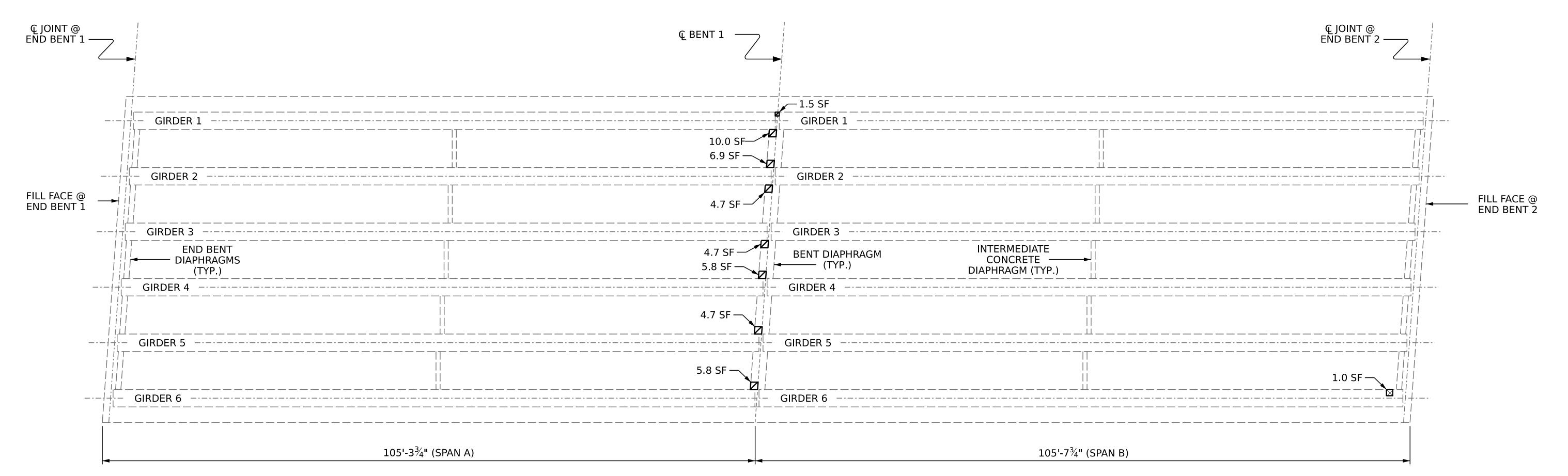
CONTRACTOR SHALL SAWCUT TO A NOMINAL DEPTH OF $\frac{1}{2}$ " BUT REINFORCING STEEL SHALL NOT BE DAMAGED. CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT WILL NOT DAMAGE EXISTING REINFORCING STEEL

FOR CONCRETE GIRDER AND DIAPHRAGM REPAIR DETAILS, SEE PRESTRESSED CONCRETE GIRDER AND DIAPHRAGM REPAIR DETAILS SHEET S13-5.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.



VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, 1" BEHIND REBAR AND MIN. 2" CLEARANCE TO SAWCUT.



PROJECT NO. HI-0006 WILSON COUNTY 970258 BRIDGE NO. ____

PLAN OF SPANS - UNDERSIDE REPAIRS



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

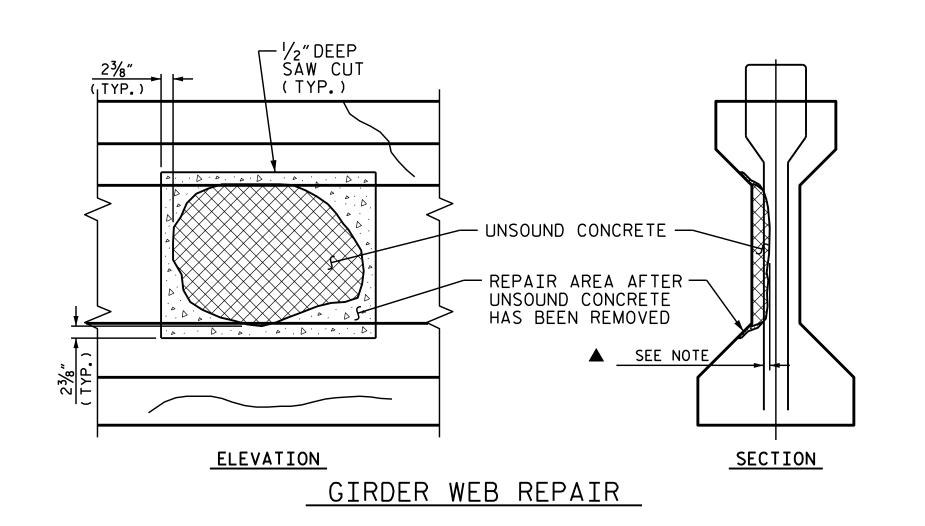
SUPERSTRUCTURE CONCRETE REPAIRS

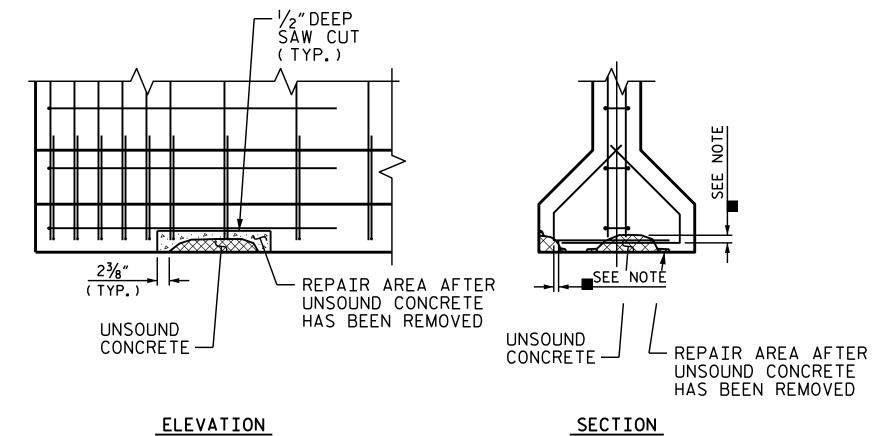
REVISIONS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

G. AYES DRAWN BY A. G. ABRAHA DESIGN ENGINEER OF RECORD:

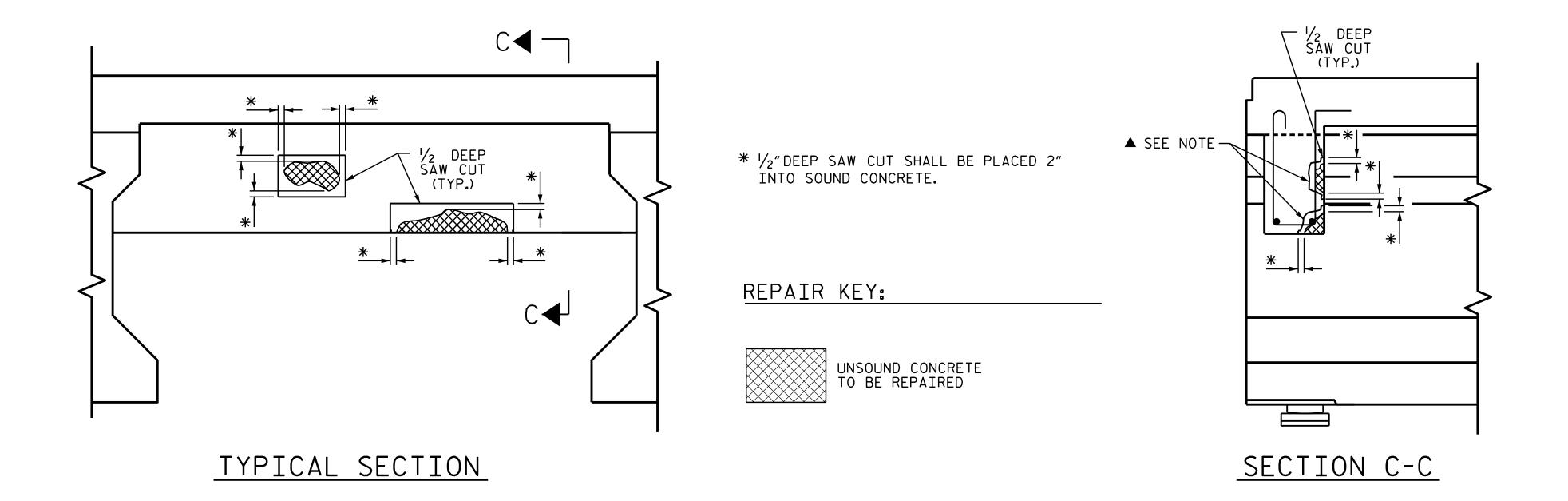
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GIRDER FLANGE REPAIR

PRESTRESSED GIRDER REPAIR



BENT DIAPHRAGM REPAIR DETAIL

(EXAMPLE DETAILS ONLY.ACTUAL REBAR SIZE & LOCATION MAY VARY)

NOTES:

PREPACKAGED MATERIAL IS REQUIRED.

CONSULT WITH THE ENGINEER TO DETERMINE PRELOADING REQUIREMENTS WHEN REPAIR IS WITHIN THE CENTER REGION OF THE BEAM (0.25L TO 0.75L).

FOR REPAIRS OVER TRAFFIC AND SHALLOW REPAIRS THAT DO NOT ENGAGE REINFORCEMENT, ANCHOR PATCH MATERIAL USING 1/4" GALVANIZED BOLTS, EPOXY ANCHORED WITH 2"EMBEDMENT. PLACE BOLTS IN A 6"GRID. USE A LATEX OR EPOXY PATCH MATERIAL FOR IMPROVED BOND. USE EXTREME CARE TO NOT DAMAGE STRANDS.

FOR PRESTRESSED CONCRETE GIRDER REPAIRS, SEE SPECIAL PROVISIONS.

PRESTRESSED GIRDER REPAIR SEQUENCE:

- SOUND CONCRETE TO DETERMINE EXTENTS OF REPAIR LOCATION.
- 2. REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL. SAW CUT AROUND REPAIR AREA TO A MINIMUM DEPTH OF $\frac{1}{2}$ ".
- 3. REMOVE CONCRETE WITHIN SAW CUT AREA TO MINIMUM $\frac{1}{2}$ DEPTH. IF CONCRETE IS DAMAGED BEYOND THE ORIGINAL SAW CUT, A NEW SAW CUT IS REQUIRED.
- 4. ▲ IF MORE THAN HALF THE CIRCUMFERENCE OF A REINFORCING BAR IS EXPOSED DURING THIS PROCESS, REMOVE ADDITIONAL CONCRETE TO 1" BEHIND THE BAR. THIS DOES NOT APPLY TO PRESTRESSED STRANDS.
- 5. ALL UNSOUND CONCRETE MUST BE REMOVED, HOWEVER, PRESTRESSED STRANDS SHOULD NOT BE DISTURBED UNLESS ABSOLUTELY NECESSARY. USE EXTREME CARE TO NOT DAMAGE STRANDS.
- 6. CLEAN ALL EXPOSED REINFORCING BARS AND PRESTRESSED STRANDS IN ACCORDANCE WITH THE REPAIRS TO PRESTRESSED CONCRETE GIRDERS SPECIAL PROVISION. FOR BARS WITH MORE THAN 10% SECTION LOSS, SPLICE AND SECURELY TIE SUPPLEMENTAL REINFORCING BARS AS NEEDED. NOTE AND PROVIDE DETAILED DOCUMENTATION, INCLUDING LOCATION AND SEVERITY, OF ALL DAMAGE TO PRESTRESSED STRANDS THAT EXCEEDS 10% SECTION LOSS. IF FIVE OR MORE STRANDS ARE DAMAGED, NOTIFY THE ENGINEER PRIOR TO PLACEMENT OF REPAIR MATERIAL.
- . REMOVE ALL LOOSE OR WEAKENED MATERIAL THEN CLEAN THE REPAIR AREA OF DIRT, GREASE, OIL, AND FOREIGN MATTER.
- PREPARE SURFACE AND PLACE APPROVED REPAIR MATERIAL ACCORDING TO PRESTRESSED CONCRETE GIRDER REPAIRS SPECIAL PROVISION.

 MAXIMUM AGGREGATE SIZE FOR REPAIR MATERIAL SHALL NOT EXCEED 3
 THE MINIMUM REPAIR DEPTH.

PROJECT NO. HI-0006

WILSON COUNTY
BRIDGE NO. 970258

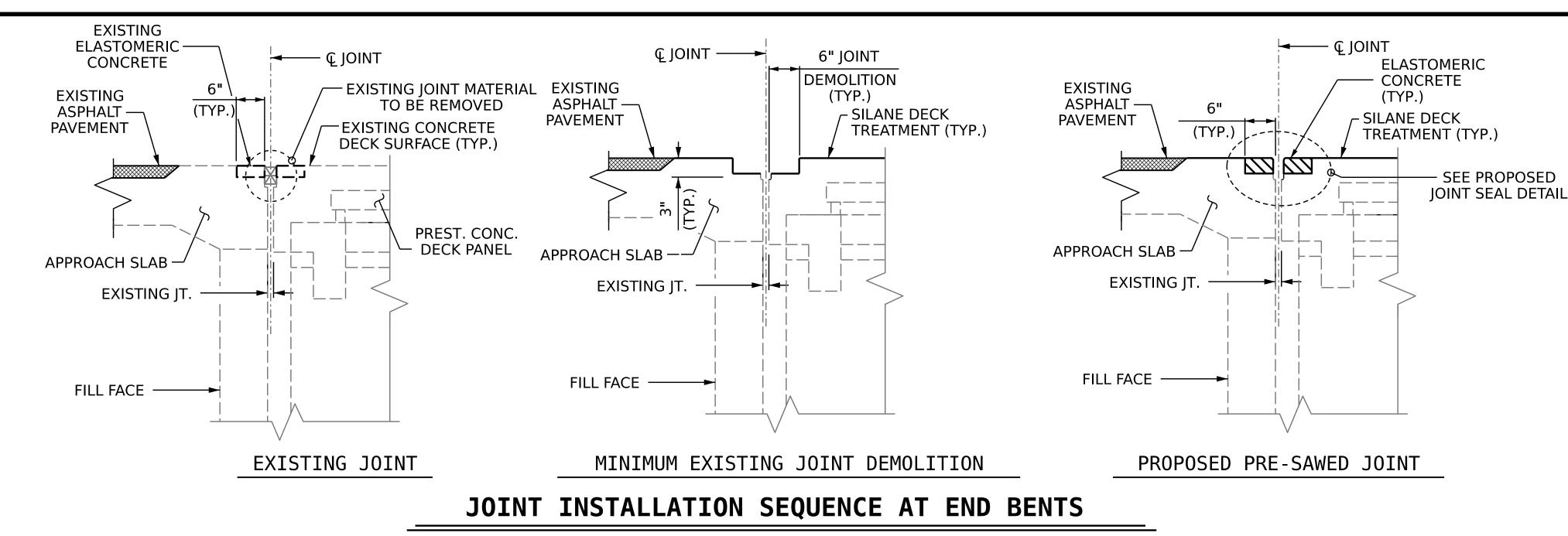


DEPARTMENT OF TRANSPORTATION
RALEIGH

PRESTRESSED CONCRETE GIRDER AND DIAPHRAGM REPAIR DETAILS

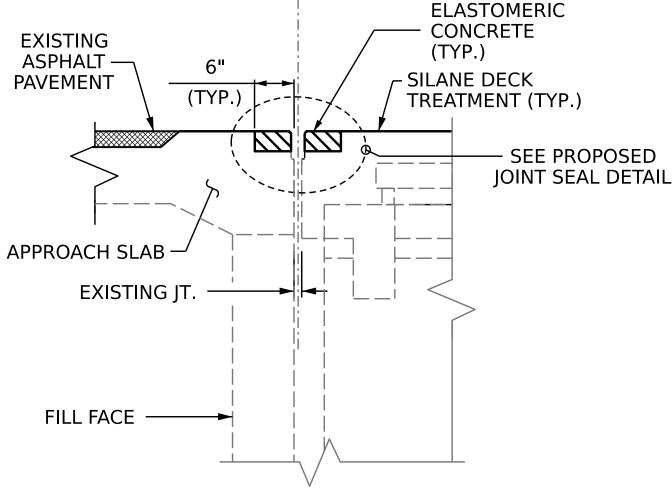
		REVISIONS					SHEET NO.
DOCUMENT NOT CONSIDERED	NO.	BY:	DATE:	NO.	BY:	DATE:	S13-5
FINAL UNLESS ALL	1			3			TOTAL SHEETS
SIGNATURES COMPLETED	2			4			6

ASSEMBLED BY: G. AYES DATE: 5/2022
CHECKED BY: A. G. ABRAHA DATE: 5/2022
DRAWN BY: NAP 08/18
CHECKED BY:



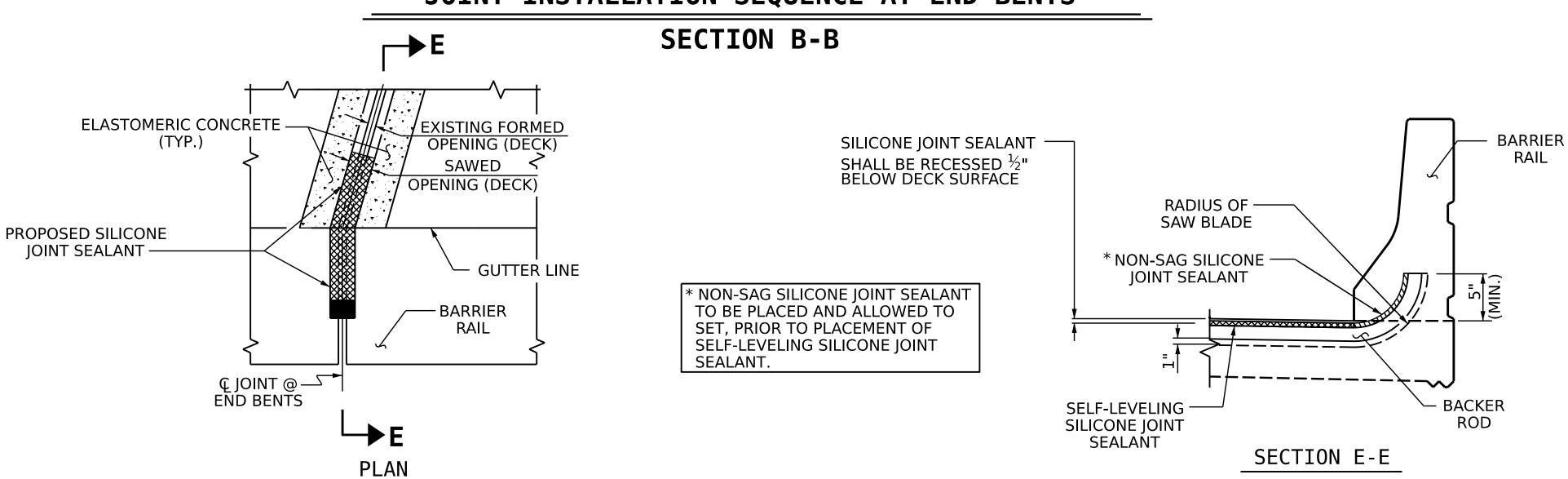
SECTION A-A EXISTING ELASTOMERIC-C JOINT € JOINT — 6" JOINT ← Ç JOINT CONCRETE DEMOLITION - EXISTING JOINT MATERIAL EXISTING **EXISTING** (TYP.) ASPHALT -ASPHALT —

EXISTING TO BE REMOVED ASPHALT -SILANE DECK **PAVEMENT** EXISTING CONCRETE **PAVEMENT** TREATMENT (TYP.) **DECK SURFACE (TYP.)** PREST. CONC. **DECK PANEL** APPROACH SLAB -APPROACH SLAB EXISTING JT. EXISTING JT. FILL FACE -EXISTING JOINT MINIMUM EXISTING JOINT DEMOLITION



PROPOSED PRE-SAWED JOINT

JOINT INSTALLATION SEQUENCE AT END BENTS



NOTES

FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE SILANE DECK TREATMENT IS COMPLETE.

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING FORMED OPENING PRIOR TO OBTAINING JOINT MATERIAL IF ACTUAL JOINT OPENINGS VARIES FROM THE OPENING INDICATED IN DETAIL MORE THAN 1/4" NOTIFY ENGINEER. REVISION TO THE JOINT SEAL SIZE MAY BE NECESSARY.

THE MANUFACTURER IS TO PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE BACKER ROD FOR THE SIZE OF THE OPENING ON THE PLANS AND ACCOMMODATE THE MINIMUM EXPANSION SHOWN ON THE PLANS.

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO DROP ANY MATERIAL BELOW THE BRIDGE WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL. ANY MATERIAL THAT FALLS BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT. IF THE ENGINEER DETERMINES THAT THE PROTECTIVE DEVICES ARE NOT ADEQUATE OR NOT BEING EMPLOYED. THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

UNLESS NOTED OTHERWISE RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.

ALL EXPOSED ENDS OF CUT BARS SHALL BE COATED WITH EPOXY PRIOR TO THE NEW JOINT MATERIAL INSTALLATION.

THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF SAWING THE JOINT.

POURABLE SILICONE JOINT SEALANT AND BACKER ROD SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATION.

THE INSTALLATION OF JOINT SEAL SHALL BE WATERTIGHT.

DURING JOINT INSTALLATION PROCEDURE, THE JOINT AND SURROUNDING AREA SHALL BE KEPT CLEAN AND FREE OF DEBRIS.

FOR POURABLE SILICONE JOINT SEALANT, SEE SPECIAL PROVISIONS.

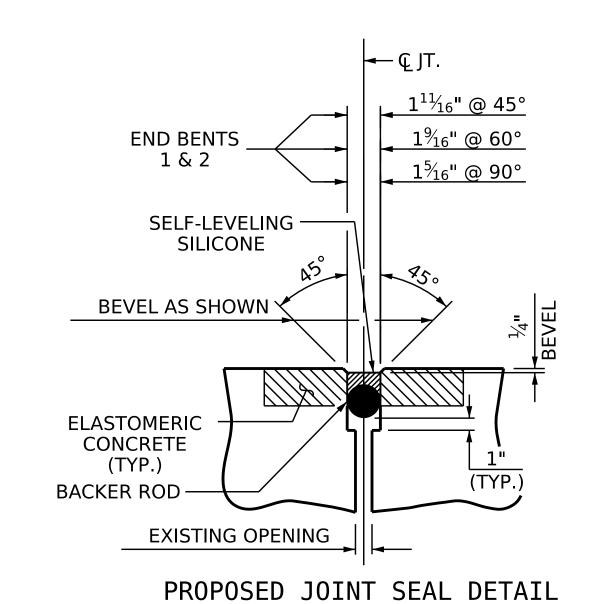
QUANTITIES SHOWN IN THE ELASTOMERIC CONCRETE FOR PRESERVATION TABLE ARE BASED ON THE MINIMUM JOINT DEMOLITION SHOWN.

FOR EXCAVATION BELOW THE BOTTOM OF THE PLANNED JOINT DEMOLITION, CONCRETE FOR DECK REPAIR SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT BOTTOM OF THE PROPOSED ELASTOMERIC CONCRETE FOR PRESERVATION HEADERS SHOWN.

FINAL SURFACE OF THE JOINT DEMOLITION AREA PRIOR TO PLACEMENT OF CONCRETE REPAIR MATERIAL OR ELASTOMERIC CONCRETE SHOULD BE REASONABLY FLAT AND LEVEL. ENGINEER SHALL DETERMINE THE ACCEPTABILITY OF THE SURFACE PRIOR TO PLACEMENT OF REPAIR CONCRETE OR ELASTOMERIC CONCRETE.

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.



(WITH SAWED DIMENSIONS)

SUMMARY O	F QUANTIT	QUANTITIES		
	ESTIMATE	ACTUAL		
ELASTOMERIC CONCRETE FOR PRESERVATION	18.8 CF			
POURABLE SILICONE JOINT SEALANT	75.2 LF			

PROJECT NO. HI-0006 WILSON COUNTY

970258 BRIDGE NO. __

SEAL * 030024

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

> JOINT REPAIR **DETAILS**

REVISIONS S13-6 NO. BY: DATE: DATE: DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED TOTAL SHEETS

JOINT DETAIL AT BARRIER RAIL

7/11/2022 S:\DPG1\Division4\HI-0006\Plans\970258\413_011_HI-0006_SMU_JT_S01_S13-6_970258.dgn

G. AYES

A. G. ABRAHA

DRAWN BY :

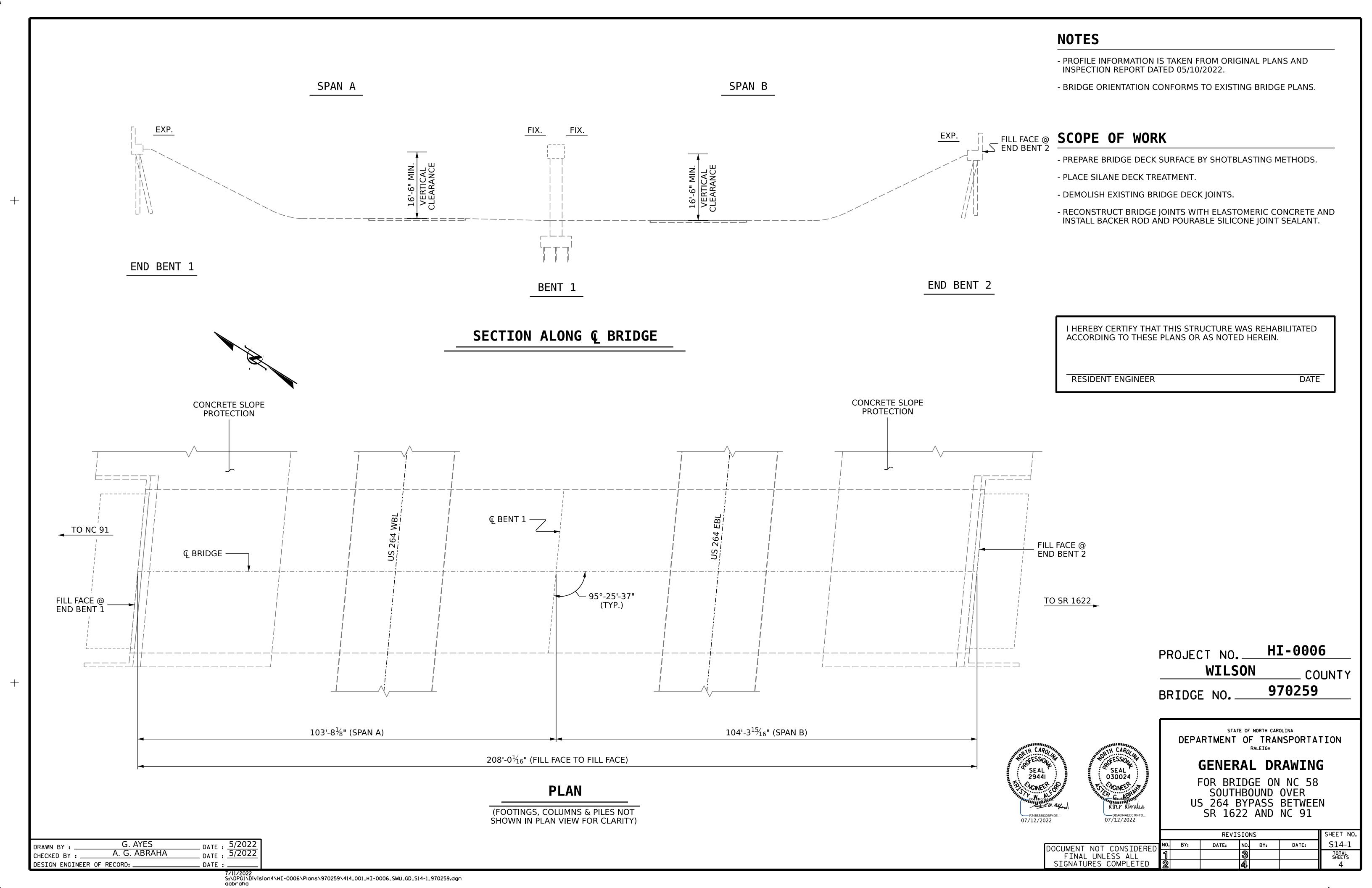
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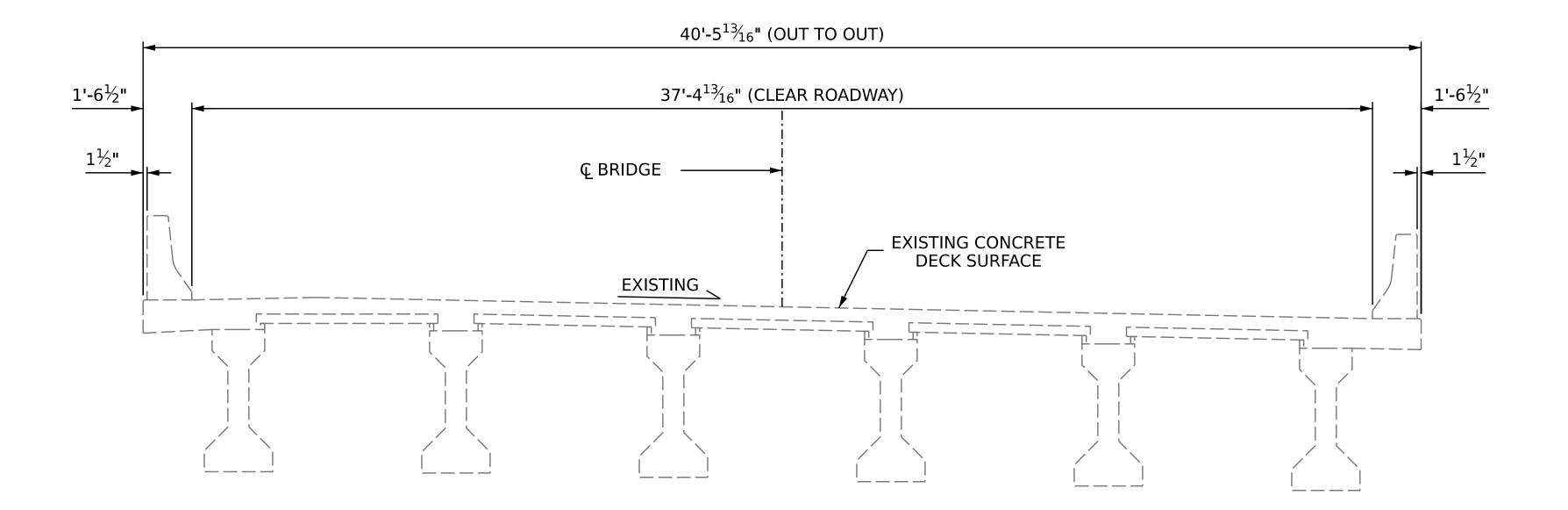
DESIGN ENGINEER OF RECORD: _

5/2022

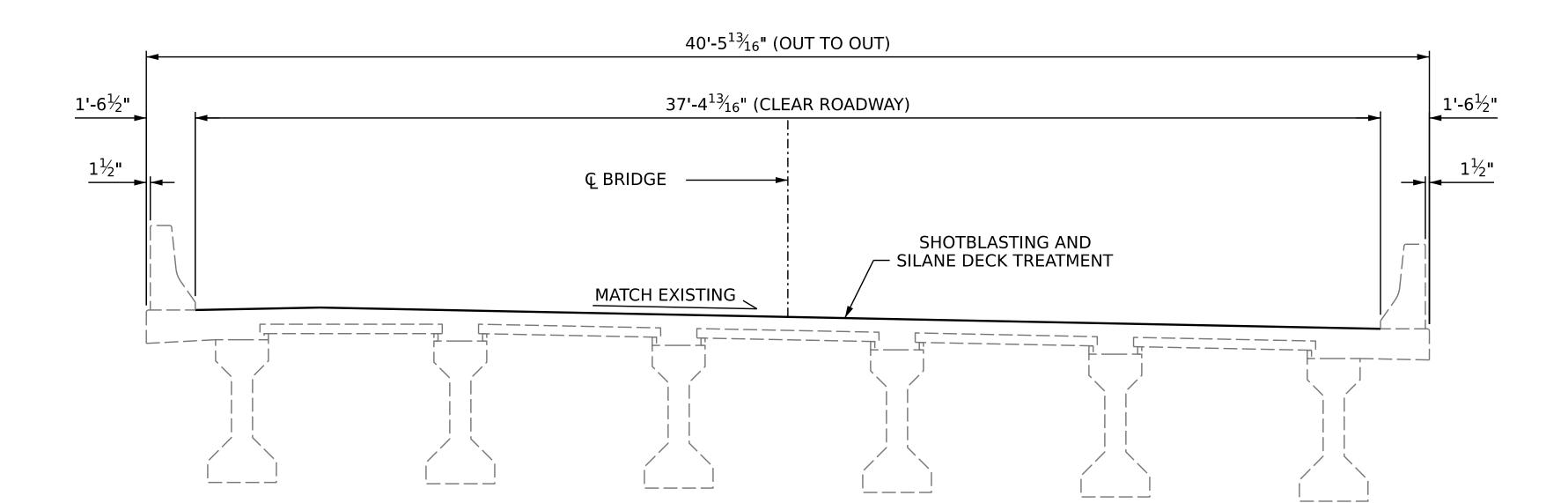
5/2022

DATE :





TYPICAL SECTION (EXISTING)



TYPICAL SECTION

(PROPOSED)

DRAWN BY: G. AYES

CHECKED BY: A. G. ABRAHA

DATE: 5/2022

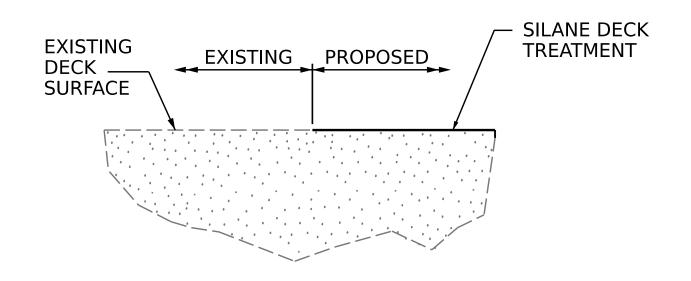
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7/11/2022 S:\DPG1\Division4\HI-0006\Plans\970259\414_003_HI-0006_SMU_TS_S14-2_970259.dgn aabraha

NOTES

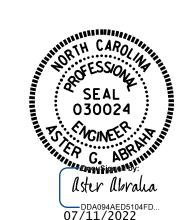
SEE TRAFFIC PLANS FOR LANE WIDTH, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF SURFACE PREPARATION AND SILANE DECK TREATMENT.

PROTECT TRAFFIC FROM REBOUND, DUST, OVERSPRAY, AND CONSTRUCTION ACTIVITIES. PROVIDE APPROPRIATE SHIELDING, AS REQUIRED AND/OR DIRECTED BY THE ENGINEER.



SILANE DECK TREATMENT DETAIL

PROJECT NO. HI-0006
WILSON COUNTY
BRIDGE NO. 970259



STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE

TYPICAL SECTION AND SILANE DECK TREATMENT DETAILS

			REV	ISION	S		SHEET N
DOCUMENT NOT CONSIDERED	NO.	BY:	DATE:	NO.	BY:	DATE:	S14-2
FINAL UNLESS ALL	1			3			TOTAL SHEETS
SIGNATURES COMPLETED	2			4			4

NOTES REPAIR KEY - REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN IN DRAWINGS - SHOTBLASTING AND ARE DEEMED NECESSARY BY ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS SILANE DECK TREATMENT AND ADJUST THE ACTUAL QUANTITES ENTERED INTO THE SUMMARY OF QUANTITIES TABLE. BRIDGE JOINT DEMOLITION - CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT - FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE SILANE DECK TREATMENT IS COMPLETE. - FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS. - BRIDGE JOINT DEMOLITION - FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS. - FOR SECTION A-A, SEE JOINT REPAIR DETAILS SHEET S14-4. FILL FACE @ END BENT 1 $37'-4^1\%_{16}$ " (CLEAR ROADWAY) 38'-4½" (APPROACH SLAB) 5½" BRIDGE JOINT ⊕ BRIDGE - DEMOLITION 95°-25'-37" (TYP.) LIMITS OF SHOTBLASTING AND SILANE DECK TREATMENT 104'-3¹⁵/₁₆" (SPAN B) 103'-8¹/₈" (SPAN A) LIMITS OF $^{igstyle J}$ SHOTBLASTING AND SILANE DECK TREATMENT $208'-0\frac{1}{16}$ " (FILL FACE TO FILL FACE) PLAN OF SPANS G. AYES A. G. ABRAHA DATE: 5/2022 DATE: 5/2022 DRAWN BY : CHECKED BY : __

	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	872.2 SY	
SILANE DECK TREATMENT	872.2 SY	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0 SF	
BRIDGE JOINT DEMOLITION	68.9 SF	

PROJECT NO. HI-0006

WILSON COUNTY

2'-5½" (TYP.)

FILL FACE @ END BENT 2

LIMITS OF

SHOTBLASTING

AND SILANE - DECK TREATMENT

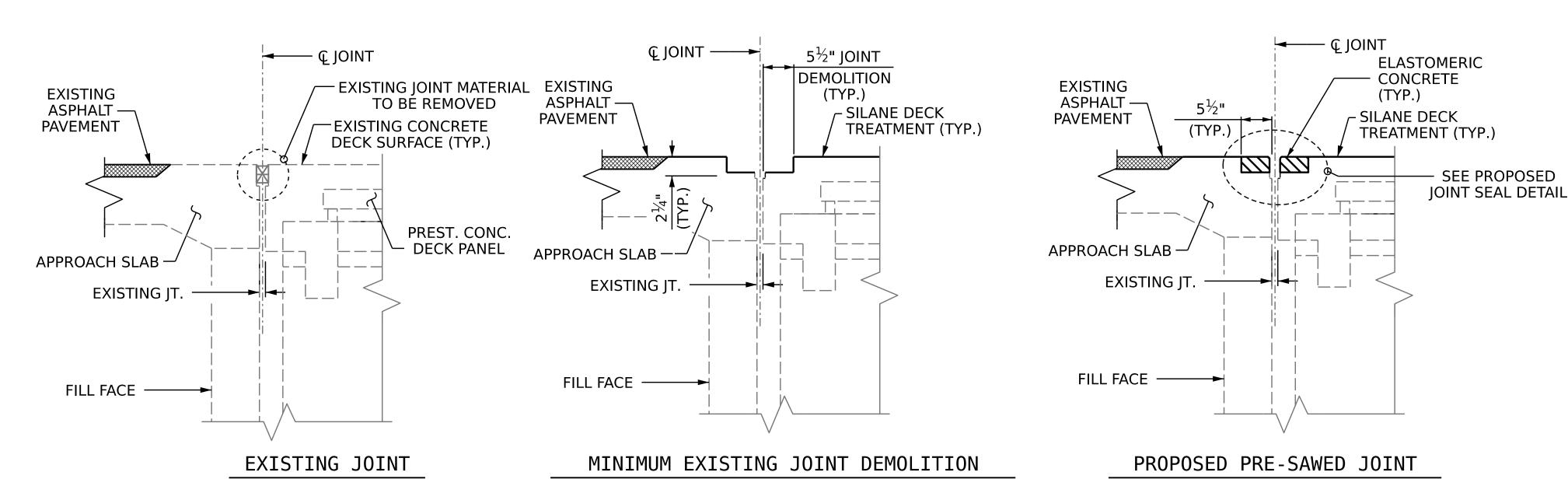
970259 BRIDGE NO. ____

> STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

> > SILANE DECK TREATMENT

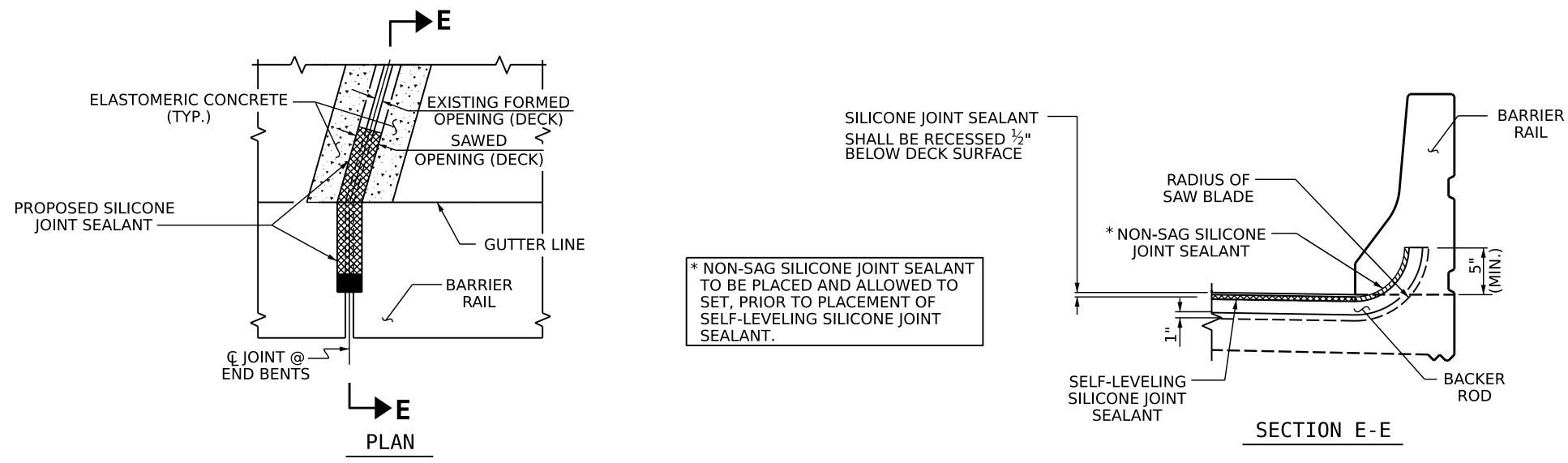
REVISIONS SHEET NO. S14-3 NO. BY: DATE: DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DESIGN ENGINEER OF RECORD:



JOINT INSTALLATION SEQUENCE AT END BENTS **SECTION A-A**

SUMMARY OF	QUANTITIES			
	ESTIMATE	ACTUAL		
ELASTOMERIC CONCRETE FOR PRESERVATION	12.9 CF			
POURABLE SILICONE JOINT SEALANT	75.2 LF			



JOINT DETAIL AT BARRIER RAIL

DATE : 5/2022 G. AYES DRAWN BY : DATE: 5/2022 A. G. ABRAHA CHECKED BY : . DATE : ______ DESIGN ENGINEER OF RECORD: .

7/11/2022 S:\DPG1\Division4\HI-0006\Plans\970259\414_007_HI-0006_SMU_JT_S14-4_970259.dgn aabraha

NOTES

FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE SILANE DECK TREATMENT IS COMPLETE.

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING FORMED OPENING PRIOR TO OBTAINING JOINT MATERIAL. IF ACTUAL JOINT OPENINGS VARIES FROM THE OPENING INDICATED IN DETAIL MORE THAN 1/4" NOTIFY ENGINEER, REVISION TO THE IOINT SEAL SIZE MAY BE NECESSARY.

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UNLESS NOTED OTHERWISE RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.

ALL EXPOSED ENDS OF CUT BARS SHALL BE COATED WITH EPOXY PRIOR TO THE NEW JOINT MATERIAL INSTALLATION.

THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF SAWING THE JOINT.

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THE INSTALLATION OF JOINT SEAL SHALL BE WATERTIGHT.

DURING JOINT INSTALLATION PROCEDURE, THE JOINT AND SURROUNDING AREA SHALL BE KEPT CLEAN AND FREE OF DEBRIS.

FOR POURABLE SILICONE JOINT SEALANT, SEE SPECIAL PROVISIONS.

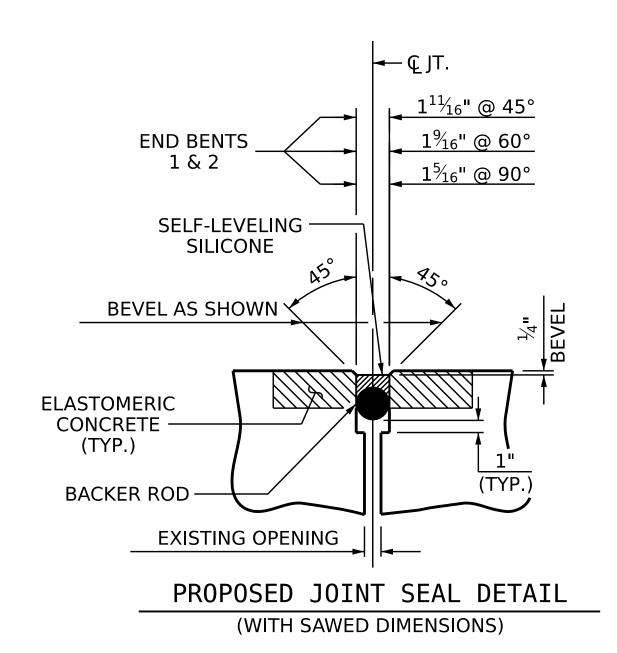
QUANTITIES SHOWN IN THE ELASTOMERIC CONCRETE FOR PRESERVATION TABLE ARE BASED ON THE MINIMUM JOINT DEMOLITION SHOWN.

FOR EXCAVATION BELOW THE BOTTOM OF THE PLANNED JOINT DEMOLITION, CONCRETE FOR DECK REPAIR SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT BOTTOM OF THE PROPOSED ELASTOMERIC CONCRETE FOR PRESERVATION HEADERS SHOWN.

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FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.



HI-0006 PROJECT NO. ___ WILSON COUNTY

970259 BRIDGE NO. _

SEAL 030024 07/11/2022

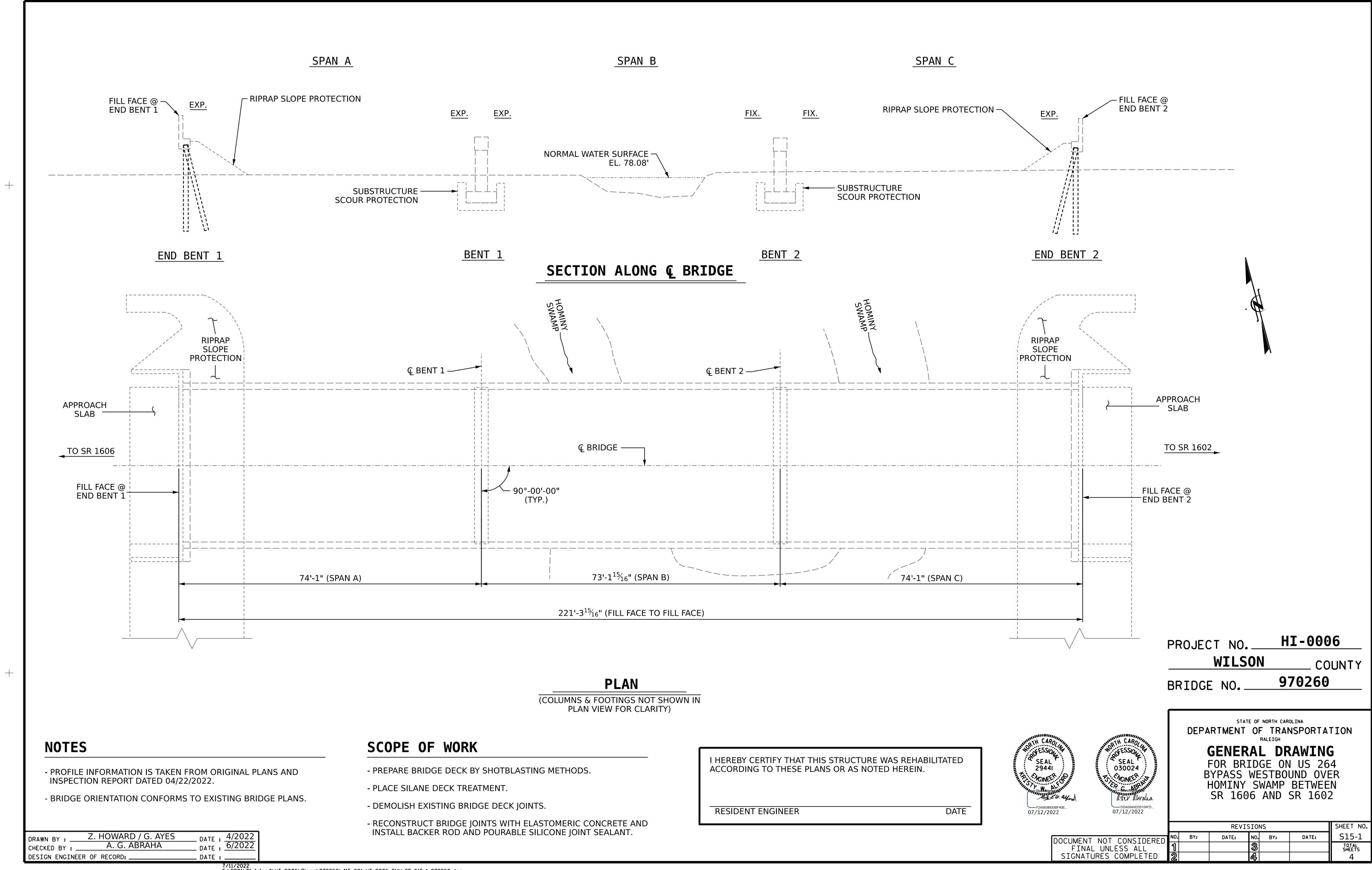
JOINT REPAIR

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

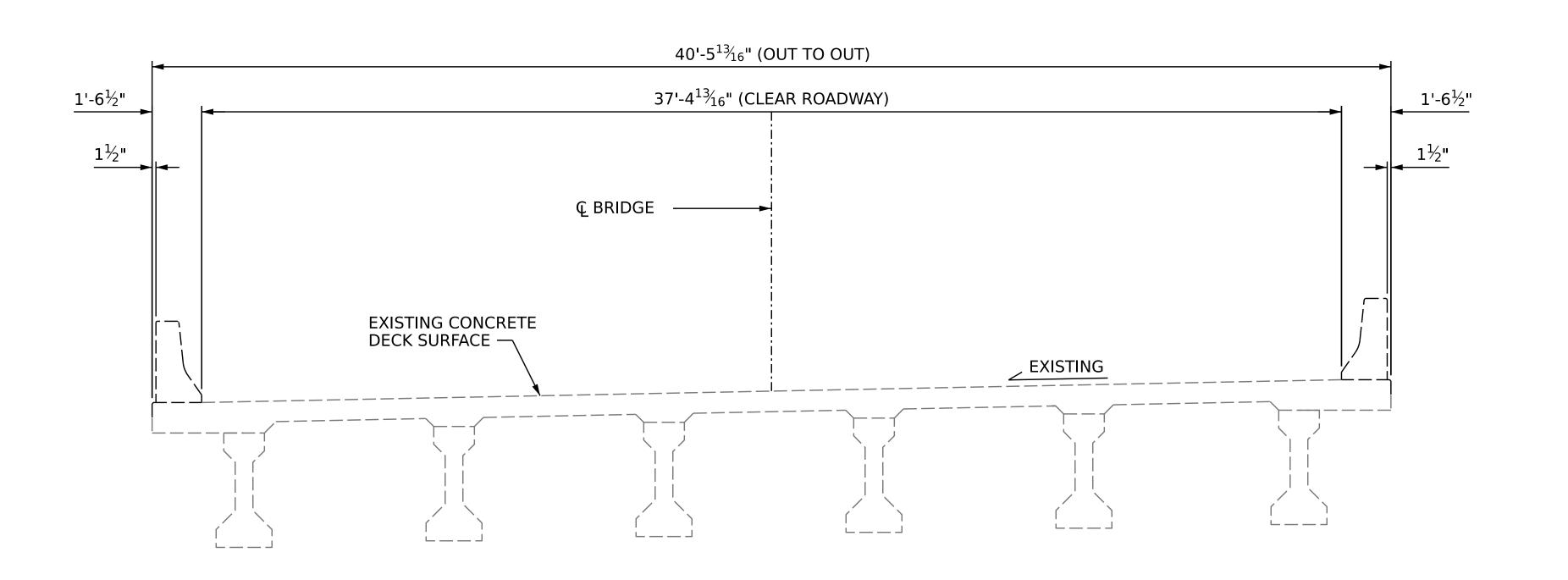
RALEIGH

DETAILS

SHEET NO REVISIONS S14-4 NO. BY: DATE: DATE: DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED TOTAL SHEETS

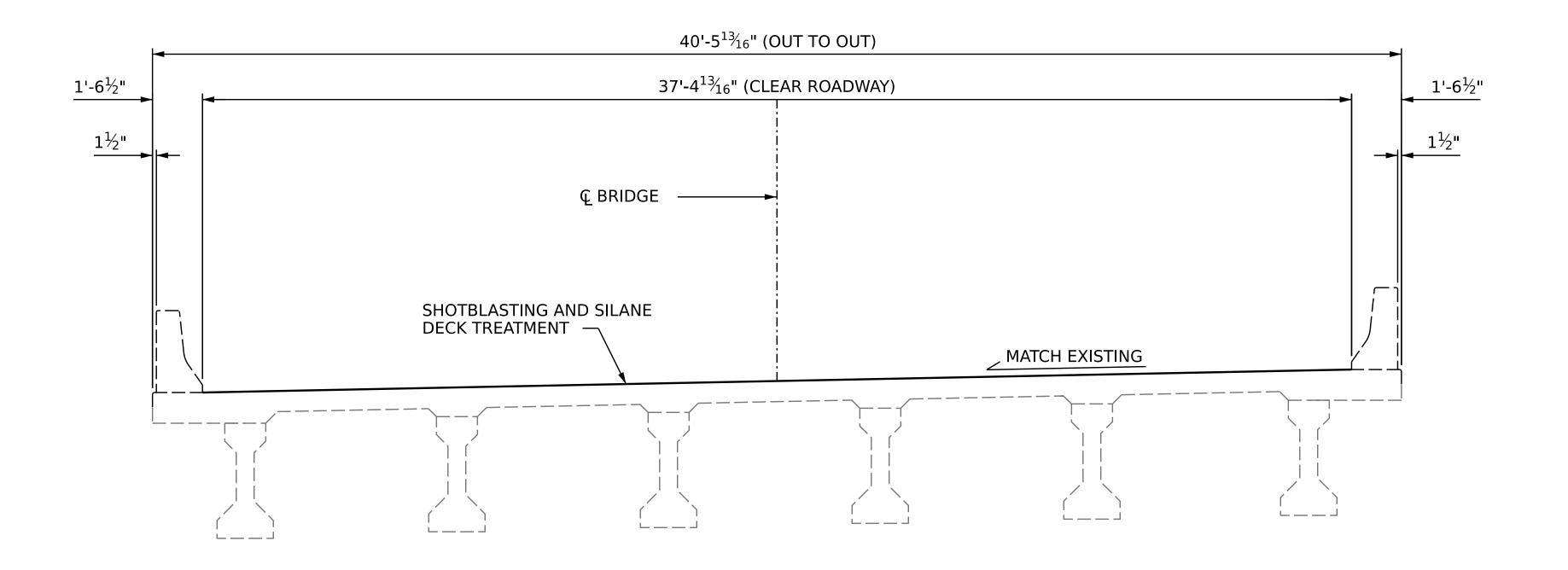


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TYPICAL SECTION

(EXISTING)



TYPICAL SECTION

(PROPOSED)

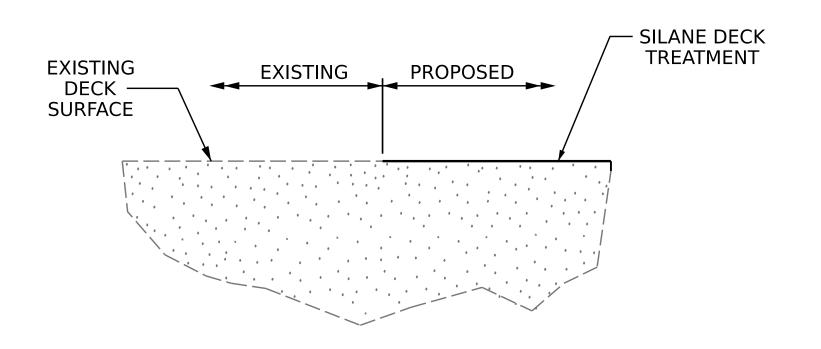
_ DATE : 4/2022 _ DATE : 6/2022 Z. HOWARD / G. AYES DRAWN BY : A. G. ABRAHA CHECKED BY : ___ DESIGN ENGINEER OF RECORD:

7/11/2022 S:\DPG1\Division4\HI-0006\Plans\970260\415_003_HI0006_SMU_TS_S15-2_970260.dgn aabraha

NOTES

SEE TRAFFIC PLANS FOR LANE WIDTH, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF SURFACE PREPARATION AND SILANE DECK TREATMENT.

PROTECT TRAFFIC FROM REBOUND, DUST, OVERSPRAY, AND CONSTRUCTION ACTIVITIES. PROVIDE APPROPRIATE SHIELDING, AS REQUIRED AND/OR DIRECTED BY ENGINEER.



SILANE DECK TREATMENT DETAIL

HI-0006 PROJECT NO.___ **WILSON** COUNTY

970260

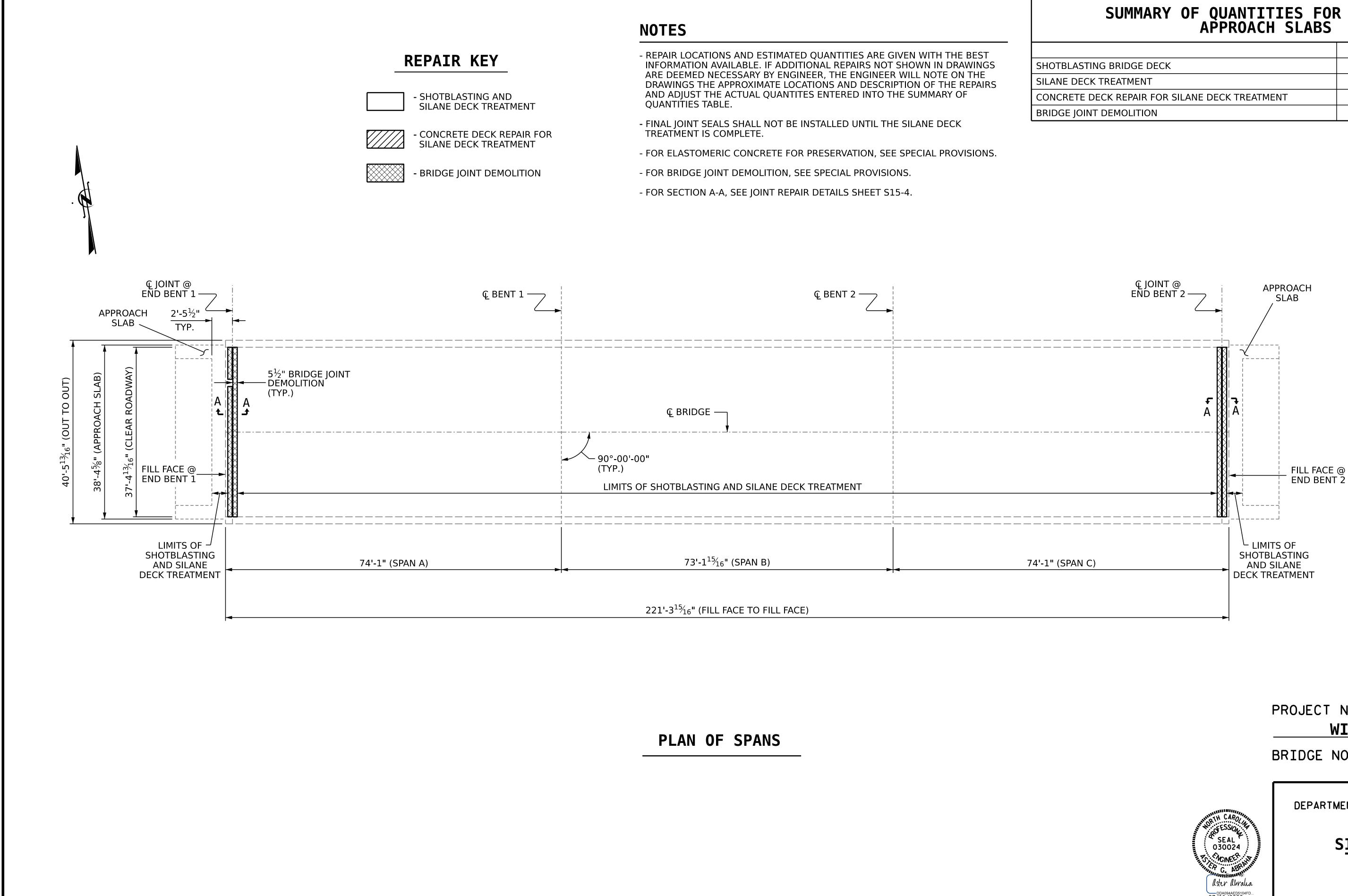
BRIDGE NO.____

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE

TYPICAL SECTION AND SILANE DECK TREATMENT DETAILS

SHEET NO. REVISIONS S15-2 DATE: NO. BY: DATE: DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED TOTAL SHEETS



SUMMARY OF QUANTITIES FOR DECK AND APPROACH SLABS

	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	923.6 SY	
SILANE DECK TREATMENT	923.6 SY	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0 SF	
BRIDGE JOINT DEMOLITION	68.6 SF	

HI-0006 PROJECT NO.____

WILSON

970260 BRIDGE NO. ____

> STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

COUNTY

SILANE DECK TREATMENT

REVISIONS SHEET NO. NO. BY: S15-3 DATE: DATE: DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED TOTAL SHEETS

__ DATE : 6/2022 __ DATE : 6/2022

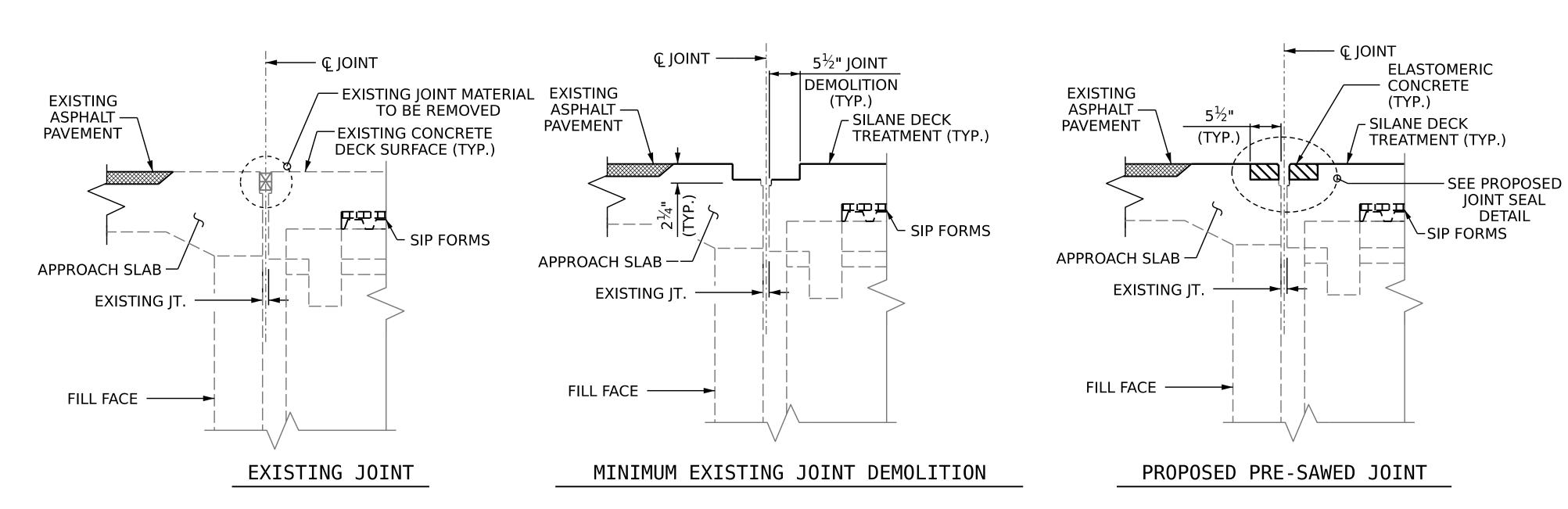
G. AYES

A. G. ABRAHA

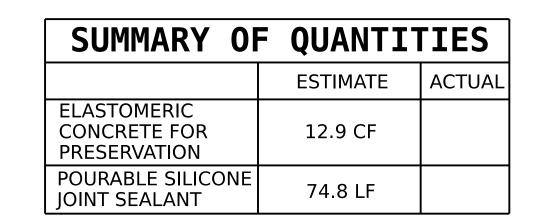
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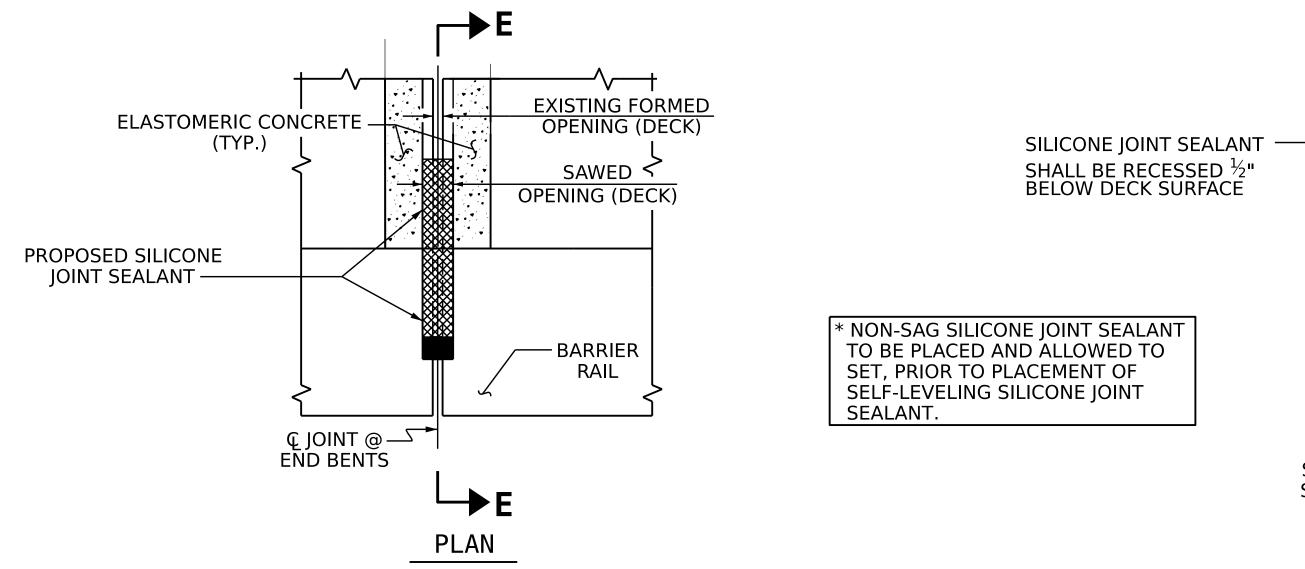
CHECKED BY : __

DESIGN ENGINEER OF RECORD:



JOINT INSTALLATION SEQUENCE AT END BENTS SECTION A-A





RADIUS OF SAW BLADE

*NON-SAG SILICONE
JOINT SEALANT

SELF-LEVELING
SILICONE JOINT
SEALANT

SECTION E-E

NOTES

PROVIDED.

INSTALLATION.

RECOMMENDATION.

FREE OF DEBRIS.

END BENT 1

END BENT 2

BEVEL AS SHOWN

ELASTOMERIC

(TYP.)

BACKER ROD

CONCRETE -

SELF-LEVELING -SILICONE

EXISTING OPENING

PROPOSED JOINT SEAL DETAIL

(WITH SAWED DIMENSIONS)

MINIMUM JOINT DEMOLITION SHOWN.

FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE SILANE DECK TREATMENT IS COMPLETE.

ENGINEER. REVISION TO THE JOINT SEAL SIZE MAY BE NECESSARY.

THE INSTALLATION OF JOINT SEAL SHALL BE WATERTIGHT.

FOR POURABLE SILICONE JOINT SEALANT, SEE SPECIAL PROVISIONS.

ELASTOMERIC CONCRETE FOR PRESERVATION HEADERS SHOWN.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

1¾" @ 45°

1⁹/₁₆" @ 60°

1¼" @ 90°

1⁵⁄₈" @ 45°

1⁹/₁₆" @ 60°

1¾" @ 90°

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

IF ACTUAL JOINT OPENINGS VARIES FROM THE OPENING INDICATED IN DETAIL MORE THAN 1/4" NOTIFY

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING FORMED OPENING PRIOR TO OBTAINING JOINT MATERIAL.

THE MANUFACTURER IS TO PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE BACKER ROD FOR

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO DROP ANY MATERIAL BELOW

BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA

THE BRIDGE WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL. ANY MATERIAL THAT FALLS

ADEQUATE OR NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS

UNLESS NOTED OTHERWISE RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.

ALL EXPOSED ENDS OF CUT BARS SHALL BE COATED WITH EPOXY PRIOR TO THE NEW JOINT MATERIAL

POURABLE SILICONE IOINT SEALANT AND BACKER ROD SHALL BE INSTALLED AS PER MANUFACTURER'S

QUANTITIES SHOWN IN THE ELASTOMERIC CONCRETE FOR PRESERVATION TABLE ARE BASED ON THE

SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT BOTTOM OF THE PROPOSED

DURING JOINT INSTALLATION PROCEDURE, THE JOINT AND SURROUNDING AREA SHALL BE KEPT CLEAN AND

FOR EXCAVATION BELOW THE BOTTOM OF THE PLANNED JOINT DEMOLITION, CONCRETE FOR DECK REPAIR

FINAL SURFACE OF THE JOINT DEMOLITION AREA PRIOR TO PLACEMENT OF CONCRETE REPAIR MATERIAL OR ELASTOMERIC CONCRETE SHOULD BE REASONABLY FLAT AND LEVEL. ENGINEER SHALL DETERMINE THE ACCEPTABILITY OF THE SURFACE PRIOR TO PLACEMENT OF REPAIR CONCRETE OR ELASTOMERIC CONCRETE.

THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF SAWING THE JOINT.

COST TO THE DEPARTMENT. IF THE ENGINEER DETERMINES THAT THE PROTECTIVE DEVICES ARE NOT

THE SIZE OF THE OPENING ON THE PLANS AND ACCOMMODATE THE MINIMUM EXPANSION SHOWN ON THE PLANS.

PROJECT NO. HI-0006

WILSON COUNTY

BRIDGE NO. <u>970260</u>

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

JOINT REPAIR DETAILS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED 2

SEAL 030024

T CONSIDERED NO. BY: DATE: NO. BY: DATE: S15-4

SHEET NO. BY: DATE: S15-4

TOTAL SHEETS

JOINT DETAIL AT BARRIER RAIL

DRAWN BY: G. AYES

CHECKED BY: A. G. ABRAHA

DATE: 6/2022

DESIGN ENGINEER OF RECORD: DATE: --

7/11/2022 S:\DPG1\Division4\HI-0006\Plans\970260\415_007_HI-0006_SMU_JT_S01_970260.dgn

- FILL FACE @ END BENT 2 NORMAL WATER SURFACE – EL. 78.08' SUBSTRUCTURE SCOUR PROTECTION SUBSTRUCTURE SCOUR PROTECTION END BENT 2 END BENT 1 BENT 1 BENT 2

SECTION ALONG & BRIDGE RIPRAP SLOPE PROTECTION RIPRAP SLOPE PROTECTION APPROACH SLAB APPROACH SLAB TO SR 1602 Ç BRIDGE -TO SR 1606 FILL FACE @ END BENT 1 FILL FACE @ END BENT 2 (TYP.) **L**-----------73'-1¹⁵/₁₆" (SPAN B) 74'-1" (SPAN A) 74'-1" (SPAN C) $221'-3^{15}/_{16}$ " (FILL FACE TO FILL FACE)

HI-0006 PROJECT NO.____

WILSON COUNTY

970261 BRIDGE NO. ___

NOTES

- PROFILE INFORMATION IS TAKEN FROM ORIGINAL PLANS AND INSPECTION REPORT DATED 03/22/2022.

- BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.

SCOPE OF WORK

- PREPARE BRIDGE DECK BY SHOTBLASTING METHODS.
- SILANE DECK TREATMENT.
- DEMOLISH EXISTING BRIDGE DECK JOINTS.
- RECONSTRUCT BRIDGE JOINTS WITH ELASTOMERIC CONCRETE AND INSTALL BACKER ROD AND POURABLE SILICONE JOINT SEALANT.

I HEREBY CERTIFY THAT THIS STRUCTURE WAS REHABILITATED ACCORDING TO THESE PLANS OR AS NOTED HEREIN.

RESIDENT ENGINEER DATE





07/12/2022

GENERAL DRAWING

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

FOR BRIDGE ON US 264 BYPASS EASTBOUND OVER HOMINY SWAMP BETWEEN SR 1606 AND SR 1602

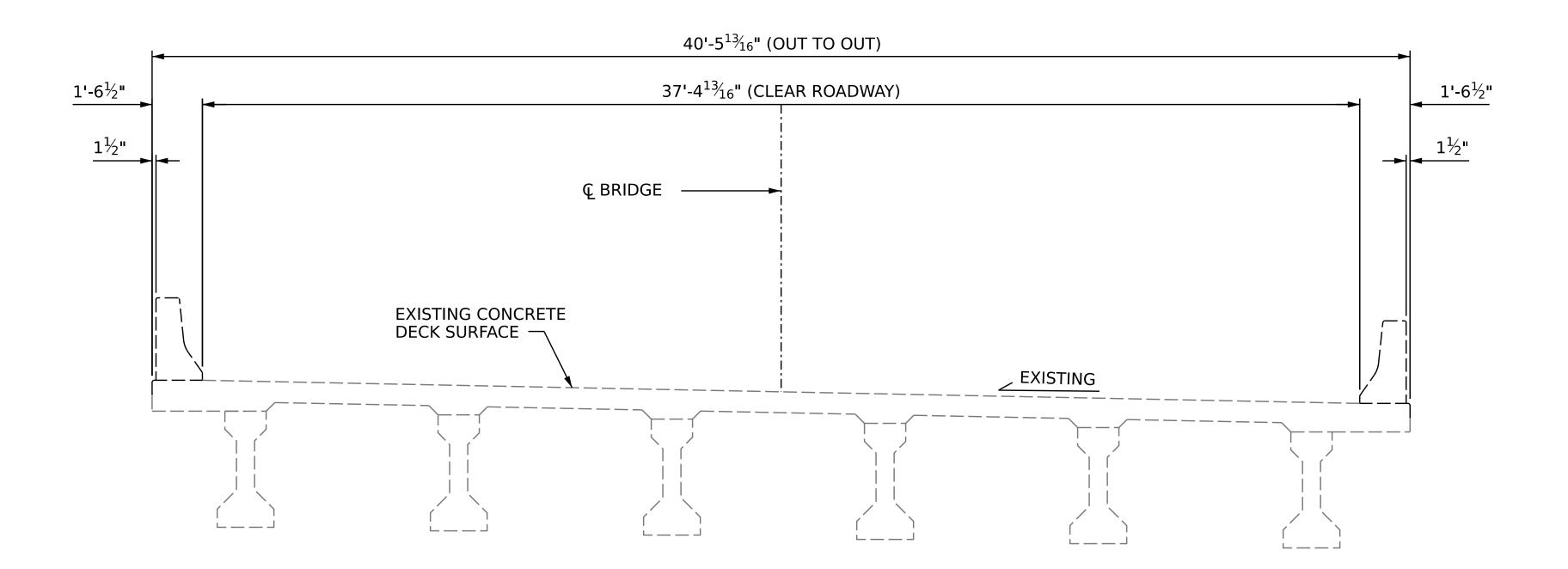
REVISIONS SHEET NO. S16-1 NO. BY: DATE: DATE: DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED TOTAL SHEETS

_ DATE : 4/2022 Z. HOWARD / G. AYES DRAWN BY : DATE: 6/2022 A. G. ABRAHA CHECKED BY : __ DESIGN ENGINEER OF RECORD:

7/11/2022 S:\DPG1\Division4\HI-0006\Plans\970261\416_001_HI-0006_SMU_GD_S16-1_970261.dgn aabraha

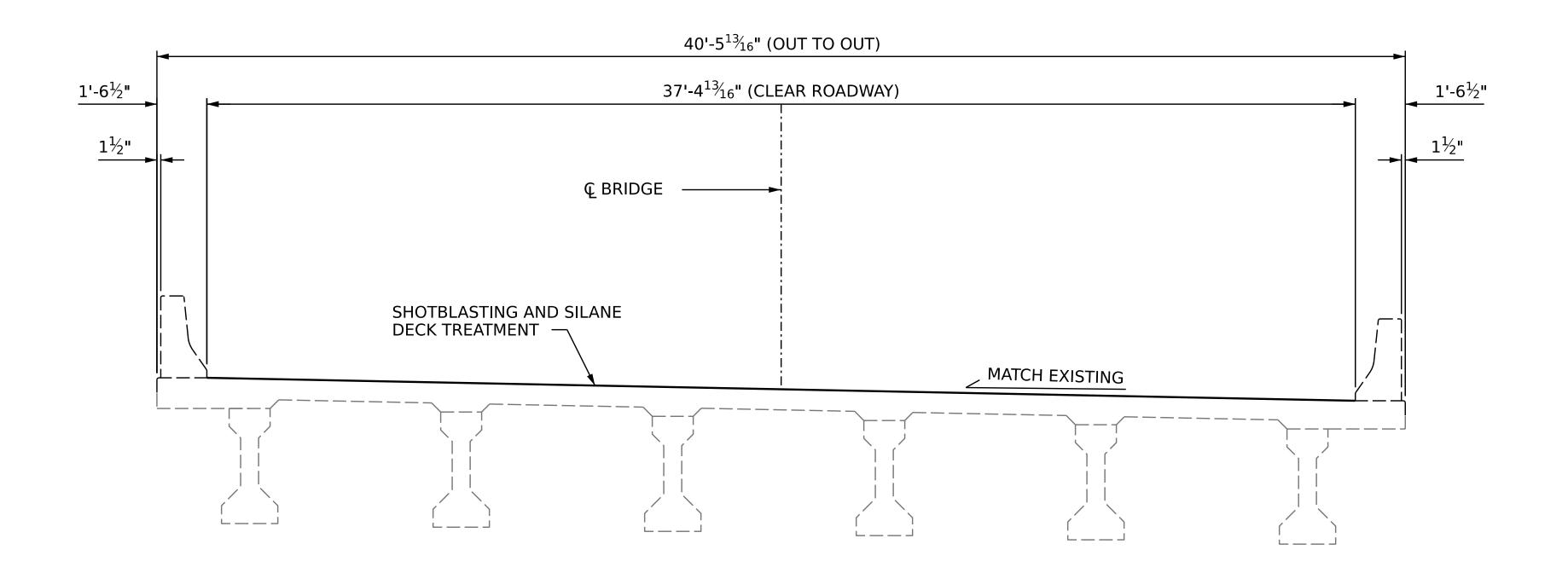
(COLUMNS & FOOTINGS NOT SHOWN IN PLAN VIEW FOR CLARITY)

PLAN



TYPICAL SECTION

(EXISTING)



TYPICAL SECTION

(PROPOSED)

DRAWN BY: Z. HOWARD / G. AYES

CHECKED BY: A. G. ABRAHA

DATE: 4/2022

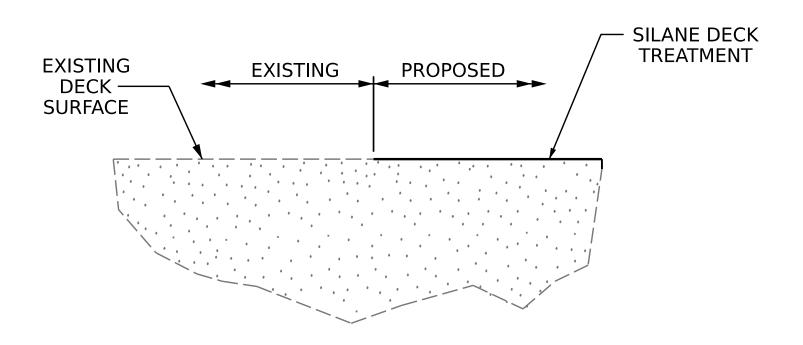
DESIGN ENGINEER OF RECORD: DATE:

7/11/2022 S:\DPG1\Division4\HI-0006\Plans\970261\416_003_HI-0006_SMU_TS_S16-2_970261.dgn aabraha

NOTES

SEE TRAFFIC PLANS FOR LANE WIDTH, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF SURFACE PREPARATION AND SILANE DECK TREATMENT.

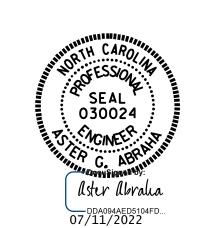
PROTECT TRAFFIC FROM REBOUND, DUST, OVERSPRAY, AND CONSTRUCTION ACTIVITIES. PROVIDE APPROPRIATE SHIELDING, AS REQUIRED AND/OR DIRECTED BY ENGINEER.



SILANE DECK TREATMENT DETAIL

PROJECT NO. HI-0006
WILSON COUNTY

BRIDGE NO. 970261



STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

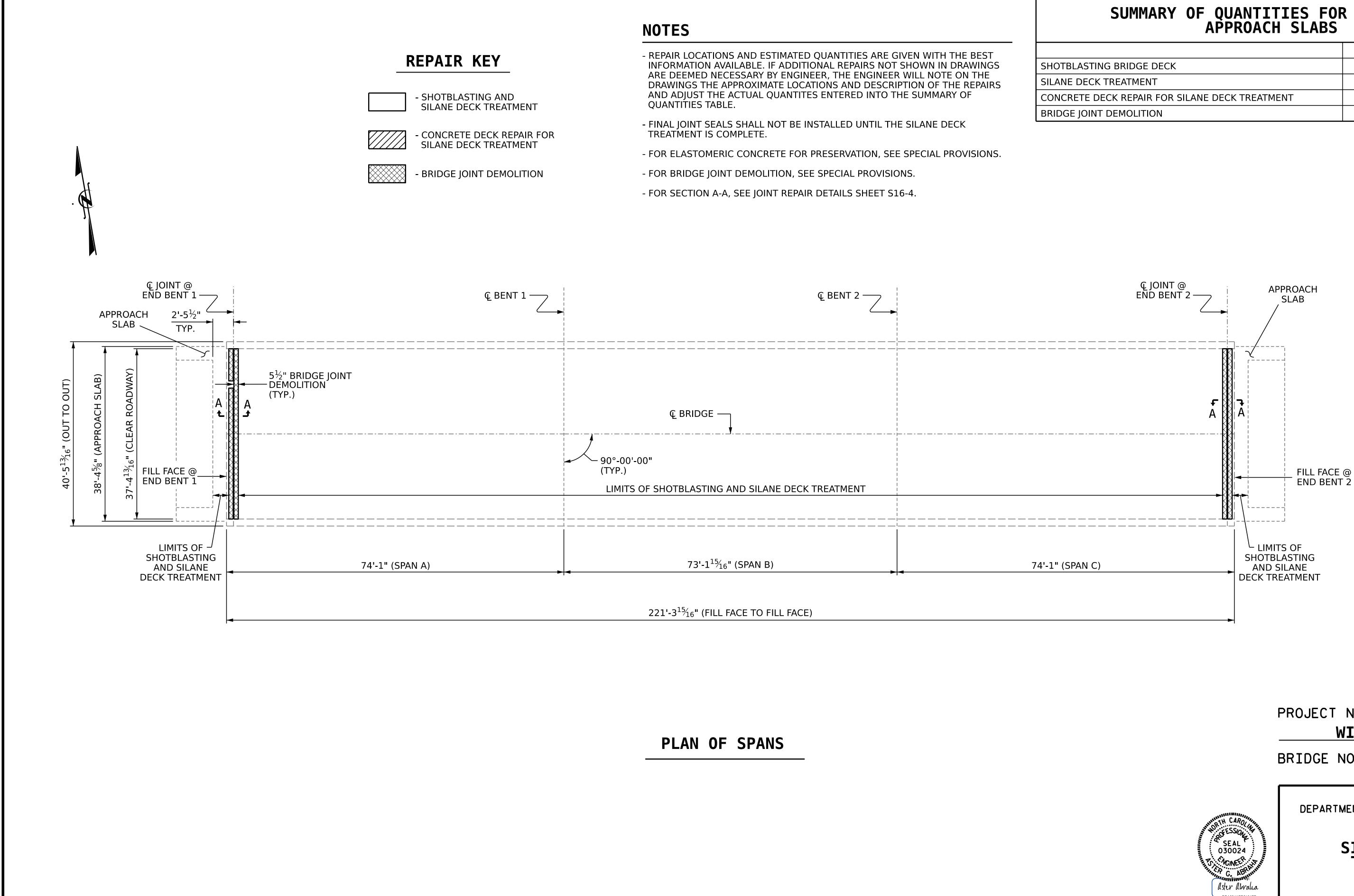
RALEIGH

SUPERSTRUCTURE

TYPICAL SECTION AND SILANE DECK TREATMENT DETAILS

REVISIONS SHEET NO.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED 2 4 4



SUMMARY OF QUANTITIES FOR DECK AND APPROACH SLABS

	ESTIMATE	ACTUAL
SHOTBLASTING BRIDGE DECK	923.6 SY	
SILANE DECK TREATMENT	923.6 SY	
CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT	0 SF	
BRIDGE JOINT DEMOLITION	68.6 SF	

HI-0006 PROJECT NO.____

WILSON

970261 BRIDGE NO. ____

COUNTY

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

SILANE DECK TREATMENT

REVISIONS SHEET NO. NO. BY: S16-3 DATE: DATE: DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED TOTAL SHEETS

7/11/2022 S:\DPG1\Division4\HI-0006\Plans\970261\416_005_HI-0006_SMU_S_S16-3_970261.dgn aabraha

__ DATE : 6/2022 __ DATE : 6/2022

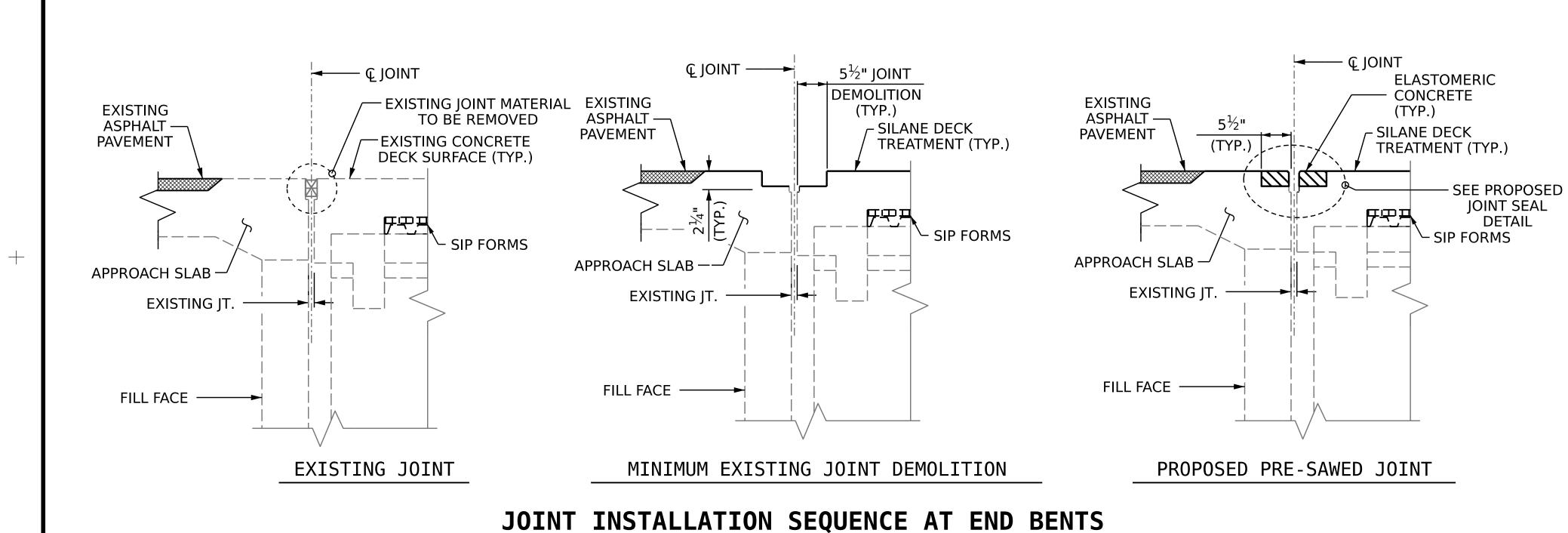
G. AYES

A. G. ABRAHA

DRAWN BY :

CHECKED BY : __

DESIGN ENGINEER OF RECORD:



SECTION A-A

ELASTOMERIC

CONCRETE FOR

PRESERVATION

JOINT SEALANT

POURABLE SILICONE

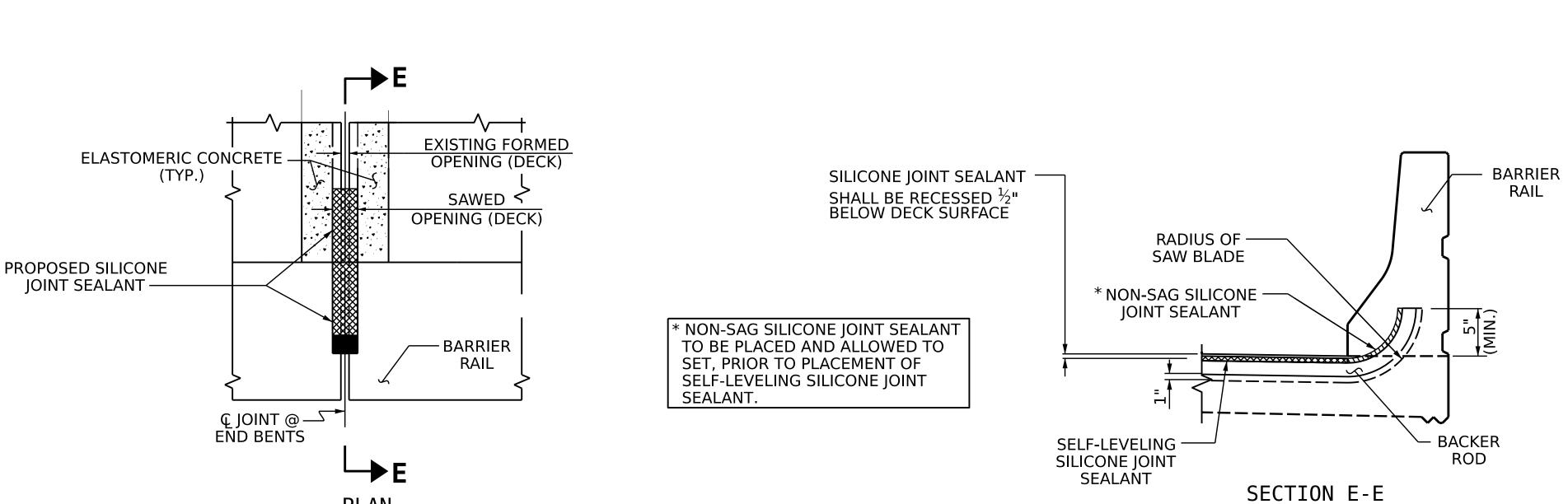
SUMMARY OF QUANTITIES

ESTIMATE

12.9 CF

74.8 LF

ACTUAL



NOTES

FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE SILANE DECK TREATMENT IS COMPLETE.

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING FORMED OPENING PRIOR TO OBTAINING JOINT MATERIAL. IF ACTUAL JOINT OPENINGS VARIES FROM THE OPENING INDICATED IN DETAIL MORE THAN $\frac{1}{4}$ " NOTIFY ENGINEER. REVISION TO THE JOINT SEAL SIZE MAY BE NECESSARY.

THE MANUFACTURER IS TO PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE BACKER ROD FOR THE SIZE OF THE OPENING ON THE PLANS AND ACCOMMODATE THE MINIMUM EXPANSION SHOWN ON THE PLANS.

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO DROP ANY MATERIAL BELOW THE BRIDGE WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL. ANY MATERIAL THAT FALLS BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT. IF THE ENGINEER DETERMINES THAT THE PROTECTIVE DEVICES ARE NOT ADEQUATE OR NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

UNLESS NOTED OTHERWISE RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.

ALL EXPOSED ENDS OF CUT BARS SHALL BE COATED WITH EPOXY PRIOR TO THE NEW JOINT MATERIAL INSTALLATION.

THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF SAWING THE JOINT.

POURABLE SILICONE JOINT SEALANT AND BACKER ROD SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATION.

THE INSTALLATION OF JOINT SEAL SHALL BE WATERTIGHT.

DURING JOINT INSTALLATION PROCEDURE, THE JOINT AND SURROUNDING AREA SHALL BE KEPT CLEAN AND FREE OF DEBRIS.

FOR POURABLE SILICONE JOINT SEALANT, SEE SPECIAL PROVISIONS.

QUANTITIES SHOWN IN THE ELASTOMERIC CONCRETE FOR PRESERVATION TABLE ARE BASED ON THE MINIMUM JOINT DEMOLITION SHOWN.

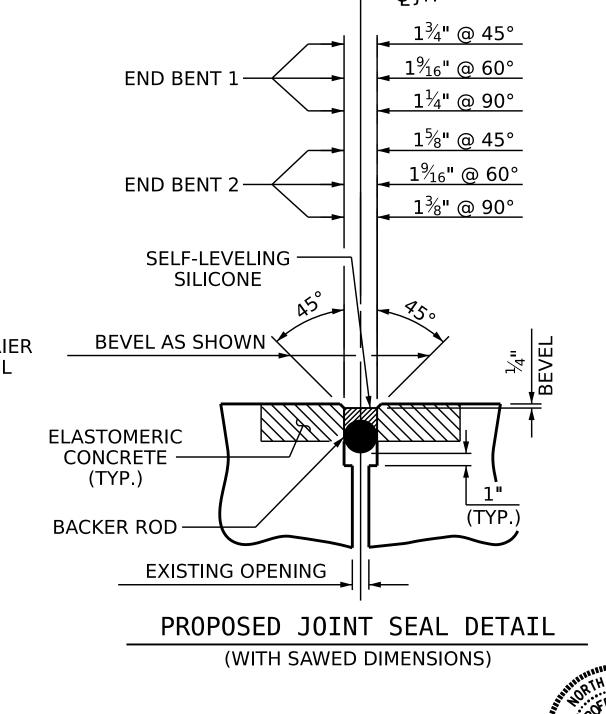
FOR EXCAVATION BELOW THE BOTTOM OF THE PLANNED JOINT DEMOLITION, CONCRETE FOR DECK REPAIR SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT BOTTOM OF THE PROPOSED ELASTOMERIC CONCRETE FOR PRESERVATION HEADERS SHOWN.

FINAL SURFACE OF THE JOINT DEMOLITION AREA PRIOR TO PLACEMENT OF CONCRETE REPAIR MATERIAL OR ELASTOMERIC CONCRETE SHOULD BE REASONABLY FLAT AND LEVEL. ENGINEER SHALL DETERMINE THE ACCEPTABILITY OF THE SURFACE PRIOR TO PLACEMENT OF REPAIR CONCRETE OR ELASTOMERIC CONCRETE.

SEAL 6

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.



PROJECT NO. HI-0006
WILSON COUNTY

BRIDGE NO. 970261

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

JOINT REPAIR DETAILS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED 2

JOINT DETAIL AT BARRIER RAIL

DRAWN BY:

G. AYES

CHECKED BY:

A. G. ABRAHA

DATE:

6/2022

DATE:

6/2022

DATE:

DA

7/11/2022 S:\DPG1\Division4\HI-0006\Plans\970261\416_007_HI-0006_SMU_JT_S16-4_970261.dgn

PLAN

STANDARD NOTES

DESIGN DATA:

SPECIFICATIONS - - - - - - - - - - - A.A.S.H.T.O. (CURRENT) LIVE LOAD ---- SEE PLANS IMPACT ALLOWANCE - - - - - - - - - SEE A.A.S.H.T.O. STRESS IN EXTREME FIBER OF STRUCTURAL STEEL - AASHTO M270 GRADE 36 - - 20,000 LBS. PER SQ. IN. - AASHTO M270 GRADE 50W - - 27,000 LBS.PER SQ.IN. - AASHTO M270 GRADE 50 - - 27,000 LBS. PER SQ. IN. REINFORCING STEEL IN TENSION - GRADE 60 - - - 24.000 LBS. PER SQ. IN. CONCRETE IN SHEAR -------- SEE A.A.S.H.T.O. STRUCTURAL TIMBER - TREATED OR UNTREATED EXTREME FIBER STRESS - - - 1,800 LBS. PER SQ. IN. COMPRESSION PERPENDICULAR TO GRAIN OF TIMBER ---- 375 LBS.PER SQ. IN. ---- 30 LBS.PER CU.FT. EQUIVALENT FLUID PRESSURE OF EARTH

MATERIAL AND WORKMANSHIP:

EXCEPT AS MAY OTHERWISE BE SPECIFIED ON PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2018 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE N. C. DEPARTMENT OF TRANSPORTATION.

(MINIMUM)

STEEL SHEET PILING FOR PERMANENT OR TEMPORARY APPLICATIONS SHALL BE HOT ROLLED.

CONCRETE:

UNLESS OTHERWISE REQUIRED ON PLANS, CLASS A CONCRETE SHALL BE USED FOR ALL PORTIONS OF ALL STRUCTURES WITH THE EXCEPTION THAT: CLASS AA CONCRETE SHALL BE USED IN BRIDGE SUPERSTRUCTURES, ABUTMENT BACKWALLS, AND APPROACH SLABS; AND CLASS B CONCRETE SHALL BE USED FOR SLOPE PROTECTION AND RIP RAP.

CONCRETE CHAMFERS:

UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXPOSED CORNERS ON STRUCTURES SHALL BE CHAMFERED 3/4" WITH THE FOLLOWING EXCEPTIONS: TOP CORNERS OF CURBS MAY BE ROUNDED TO 11/2" RADIUS WHICH IS BUILT INTO CURB FORMS; CORNERS OF TRANSVERSE FLOOR EXPANSION JOINTS SHALL BE ROUNDED WITH A 1/4" FINISHING TOOL UNLESS OTHERWISE REQUIRED ON PLANS; AND CORNERS OF EXPANSION JOINTS IN THE ROADWAY FACES AND TOPS OF CURBS AND SIDEWALKS SHALL BE ROUNDED TO A 1/4" RADIUS WITH A FINISHING STONE OR TOOL UNLESS OTHERWISE REQUIRED ON PLANS.

DOWELS:

DOWELS WHEN INDICATED ON PLANS AS FOR CULVERT EXTENSIONS, SHALL BE EMBEDDED AT LEAST 12" INTO THE OLD CONCRETE AND GROUTED INTO PLACE WITH 1:2 CEMENT MORTAR.

ALLOWANCE FOR DEAD LOAD DEFLECTION, SETTLEMENT, ETC. IN CASTING SUPERSTRUCTURES:

BRIDGES SHALL BE BUILT ON THE GRADE OR VERTICAL CURVE SHOWN ON PLANS. SLABS, CURBS AND PARAPETS SHALL CONFORM TO THE GRADE OR CURVE.

ALL DIMENSIONS WHICH ARE GIVEN IN SECTION AND ARE AFFECTED BY DEAD LOAD DEFLECTIONS ARE DIMENSIONS AT CENTER LINE OF BEARING UNLESS OTHERWISE NOTED ON PLANS. IN SETTING FORMS FOR STEEL BEAM BRIDGES AND PRESTRESSED CONCRETE GIRDER BRIDGES, ADJUSTMENTS SHALL BE MADE DUE TO THE DEAD LOAD DEFLECTIONS FOR THE ELEVATIONS SHOWN. WHERE BLOCKS ARE SHOWN OVER BEAMS FOR BUILDING UP TO THE SLAB, THE VERTICAL DIMENSIONS OF THE BLOCKS SHALL BE ADJUSTED BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTIONS, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER. WHERE BOTTOM OF SLAB IS IN LINE WITH BOTTOM OF TOP FLANGES, DEPTH OF SLAB BETWEEN BEARINGS SHALL BE ADJUSTED TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER.

IN SETTING FALSEWORK AND FORMS FOR REINFORCED CONCRETE SPANS, AN ALLOWANCE SHALL BE MADE FOR DEAD LOAD DEFLECTIONS, SETTLEMENT OF FALSEWORK, AND PERMANENT CAMBER WHICH SHALL BE PROVIDED FOR IN ADDITION TO THE ELEVATIONS SHOWN. AFTER REMOVAL OF THE FALSEWORK, THE FINISHED STRUCTURES SHALL CONFORM TO THE PROFILE AND ELEVATIONS SHOWN ON THE PLANS AND CONSTRUCTION ELEVATIONS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR FALSEWORK OR FORMS FOR BRIDGE SUPERSTRUCTURE AND ANY STRUCTURE OR PARTS OF A STRUCTURE AS NOTED ON THE PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION OF THE FALSEWORK OR FORMS IS STARTED.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE DEFORMED. DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO CENTERS OF BARS UNLESS OTHERWISE INDICATED IN THE PLANS. DIMENSIONS ON BAR DETAILS ARE TO CENTERS OF BARS OR ARE OUT TO OUT AS INDICATED ON PLANS.

WIRE BAR SUPPORTS SHALL BE PROVIDED FOR REINFORCING STEEL WHERE INDICATED ON THE PLANS. WHEN BAR SUPPORT PIECES ARE PLACED IN CONTINUOUS LINES, THEY SHALL BE SO PLACED THAT THE ENDS OF THE SUPPORTING WIRES SHALL BE LAPPED TO LOCK LEGS ON ADJOINING PIECES.

STRUCTURAL STEEL:

AT THE CONTRACTOR'S OPTION, HE MAY SUBSTITUTE $\frac{1}{8}$ " Ø SHEAR STUDS FOR THE $\frac{3}{4}$ " Ø STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - $\frac{1}{8}$ " Ø STUDS FOR 4 - $\frac{3}{4}$ " Ø STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF $\frac{1}{8}$ " Ø STUDS ALONG THE BEAM AS SHOWN FOR $\frac{3}{4}$ " Ø STUDS BASED ON THE RATIO OF 3 - $\frac{1}{8}$ " Ø STUDS FOR 4 - $\frac{3}{4}$ " Ø STUDS. STUDS OF THE LENGTH SPECIFIED ON THE PLANS MUST BE PROVIDED. THE MAXIMUM SPACING SHALL BE 2'-0".

EXCEPT AT THE INTERIOR SUPPORTS OF CONTINUOUS BEAMS WHERE THE COVER PLATE IS IN CONTACT WITH BEARING PLATE, THE CONTRACTOR MAY, AT HIS OPTION, SUBSTITUTE FOR THE COVER PLATES DESIGNATED ON THE PLANS COVER PLATES OF THE EQUIVALENT AREA PROVIDED THESE PLATES ARE AT LEAST \(\frac{1}{16} \) IN THICKNESS AND DO NOT EXCEED A WIDTH EQUAL TO THE FLANGE WIDTH LESS 2" OR A THICKNESS EQUAL TO 2 TIMES THE FLANGE THICKNESS. THE SIZE OF FILLET WELDS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ANSI/AASHTO/AWS "BRIDGE WELDING CODE". ELECTROSLAG WELDING WILL NOT BE PERMITTED.

WITH THE SOLE EXCEPTION OF EDGES AT SURFACES WHICH BEAR ON OTHER SURFACES, ALL SHARP EDGES AND ENDS OF SHAPES AND PLATES SHALL BE SLIGHTLY ROUNDED BY SUITABLE MEANS TO A RADIUS OF APPROXIMATELY 1/16 INCH OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

HANDRAILS AND POSTS:

METAL STANDARDS AND FACES OF THE CONCRETE END POSTS FOR THE METAL RAIL SHALL BE SET NORMAL TO THE GRADE OF THE CURB, UNLESS OTHERWISE SHOWN ON PLANS. THE METAL RAIL AND TOPS OF CONCRETE POSTS USED WITH THE ALUMINUM RAIL SHALL BE BUILT PARALLEL TO THE GRADE OF THE CURB.

METAL HANDRAILS SHALL BE IN ACCORDANCE WITH THE PLANS. RAILS SHALL BE AS MANUFACTURED FOR BRIDGE RAILING. CASTINGS SHALL BE OF A UNIFORM APPEARANCE. FINS AND OTHER DEFORMATIONS RESULTING FROM CASTING OR OTHERWISE SHALL BE REMOVED IN A MANNER SO THAT A UNIFORM COLORING OF THE COMPLETED CASTING SHALL BE OBTAINED. CASTINGS WITH DISCOLORATIONS OR OF NON-UNIFORM COLORING WILL NOT BE ACCEPTED. CERTIFIED MILL REPORTS ARE REQUIRED FOR METAL RAILS AND POSTS.

SPECIAL NOTES:

GENERALLY, IN CASE OF DISCREPANCY, THIS STANDARD SHEET OF NOTES SHALL GOVERN OVER THE SPECIFICATIONS, BUT THE REMAINDER OF THE PLANS SHALL GOVERN OVER NOTES HEREON, AND SPECIAL PROVISIONS SHALL GOVERN OVER ALL. SEE SPECIFICATIONS ARTICLE 105-4.

ENGLISH