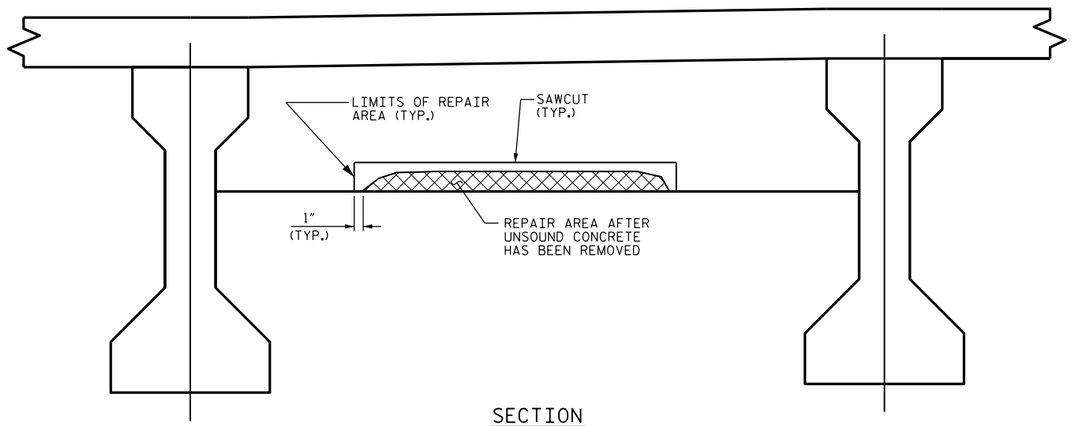



SECTION

## DIAPHRAGM REPAIR

| DIAPHRAGM REPAIR QUANTITIES | | | | |
|---|---|---|---|---|
| BENT | SPAN | BAY | CONCRETE REPAIRS | |
| | | | AREA SF | VOLUME CF |
| 1 | A | 1 | 4.3 | 2.0 |
| 2 | B | 1 | 1.5 | 0.7 |
| 2 | B | 2 | 1.5 | 0.7 |

## NOTES:

EXISTING REINFORCING STEEL LOCATIONS ARE FROM BEST INFORMATION AVAILABLE.

AROUND THE PERIMETER OF THE REPAIR AREA, AS INDICATED, THE CONTRACTOR SHALL SAW CUT TO A MINIMUM DEPTH OF ½" BUT REINFORCING STEEL AND PRESTRESSING STRANDS SHALL NOT BE DAMAGED.

THE CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAW CUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL AND PRESTRESSING STRANDS.

AFTER REMOVAL OF SOUND AND UNSOUND CONCRETE WITHIN THE SAWCUT AREA, TO A MINIMUM DEPTH OF ½", CLEAN AND REMOVE RUST FROM ALL REINFORCING STEEL AND PRESTRESSING STRANDS.

SHOTCRETE OR CONCRETE MAY BE USED FOR REPAIRS WITH THE APPROVAL OF THE ENGINEER.

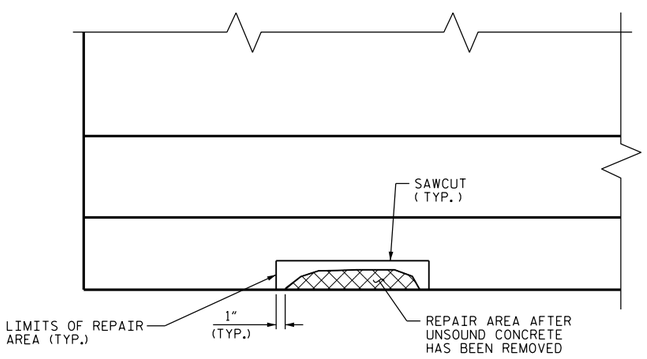
MAXIMUM AGGREGATE SIZE FOR REPAIR MATERIAL SHALL NOT EXCEED 2/3 THE MINIMUM REPAIR DEPTH.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

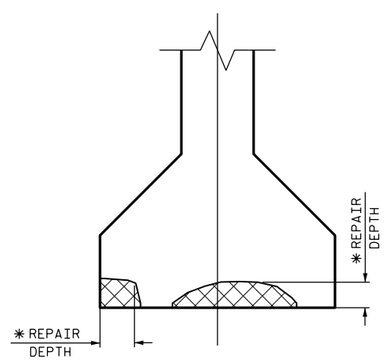
ALL CONCRETE REPAIRS SHALL BE TROWELED SMOOTH TO MATCH ORIGINAL SECTION DIMENSIONS.

## ✳ REPAIR DEPTH:

IF REMOVAL OF UNSOUND CONCRETE RESULTS IN EXPOSING MORE THAN HALF THE DEPTH OF A REINFORCING BAR OR PRESTRESSING STRAND, REMOVE ADDITIONAL CONCRETE TO 1" BEHIND THE BAR OR STRAND WITHOUT DAMAGE TO REINFORCING BAR OR PRESTRESSING STRAND. ALTERNATIVELY, AS DIRECTED BY THE ENGINEER, INSTALL ¼" DIAMETER X 3" LONG (MAX.) ADHESIVE ANCHORS OR STUDS IN REPAIR AREAS WITH MINIMUM DEPTH OF 1½" WITHOUT DAMAGE TO REINFORCING BAR OR PRESTRESSING STRAND.




ELEVATION




SECTION

## GIRDER FLANGE REPAIR

| GIRDER REPAIR QUANTITIES | | | | |
|---|---|---|---|---|
| BENT | SPAN | GIRDER | CONCRETE REPAIRS | |
| | | | AREA SF | VOLUME CF |
| 3 | C | 4 | 1.0 | 0.5 |
| 4 | D | 1 | 1.0 | 0.5 |

PROJECT NO. BP-5500H
JOHNSTON COUNTY
BRIDGE NO. 2

DocuSigned by:
William M. Clarke
1EB20097EAAF437...

4/10/15

NORTH CAROLINA PROFESSIONAL SEAL 40257 ENGINEER W. MATTHEW CLARKE

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DIAPHRAGM & GIRDER REPAIR DETAILS

| REVISIONS | | | | | | SHEET NO. |
|---|---|---|---|---|---|---|
| NO. | BY: | DATE: | NO. | BY: | DATE: | S-19 |
| 1 | | | 3 | | | TOTAL SHEETS |
| 2 | | | 4 | | | 33 |

| | | | |
|---|---|---|---|
| DRAWN BY : | D.J.RENCKENS | DATE : | 12/14 |
| CHECKED BY : | W.M. CLARKE | DATE : | 12/14 |

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