

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

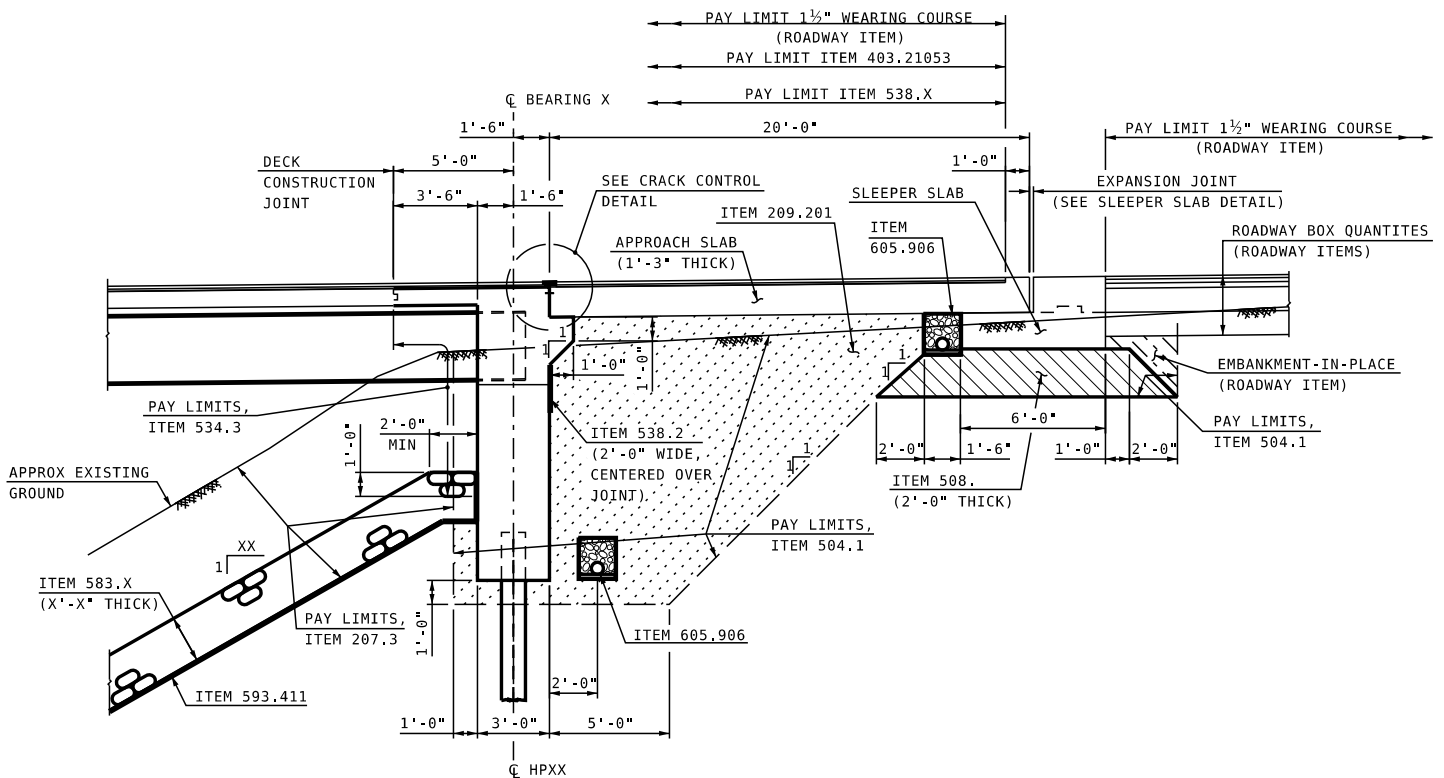


BUREAU OF BRIDGE DESIGN



DESCRIPTION: **SUBSTRUCTURE DETAILS -
TYP INTEGRAL ABUTMENT SECTION**

DATE REVISED:
4/4/2018



TYPICAL INTEGRAL ABUTMENT SECTION

**MODIFY TO
FIT PROJECT**

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

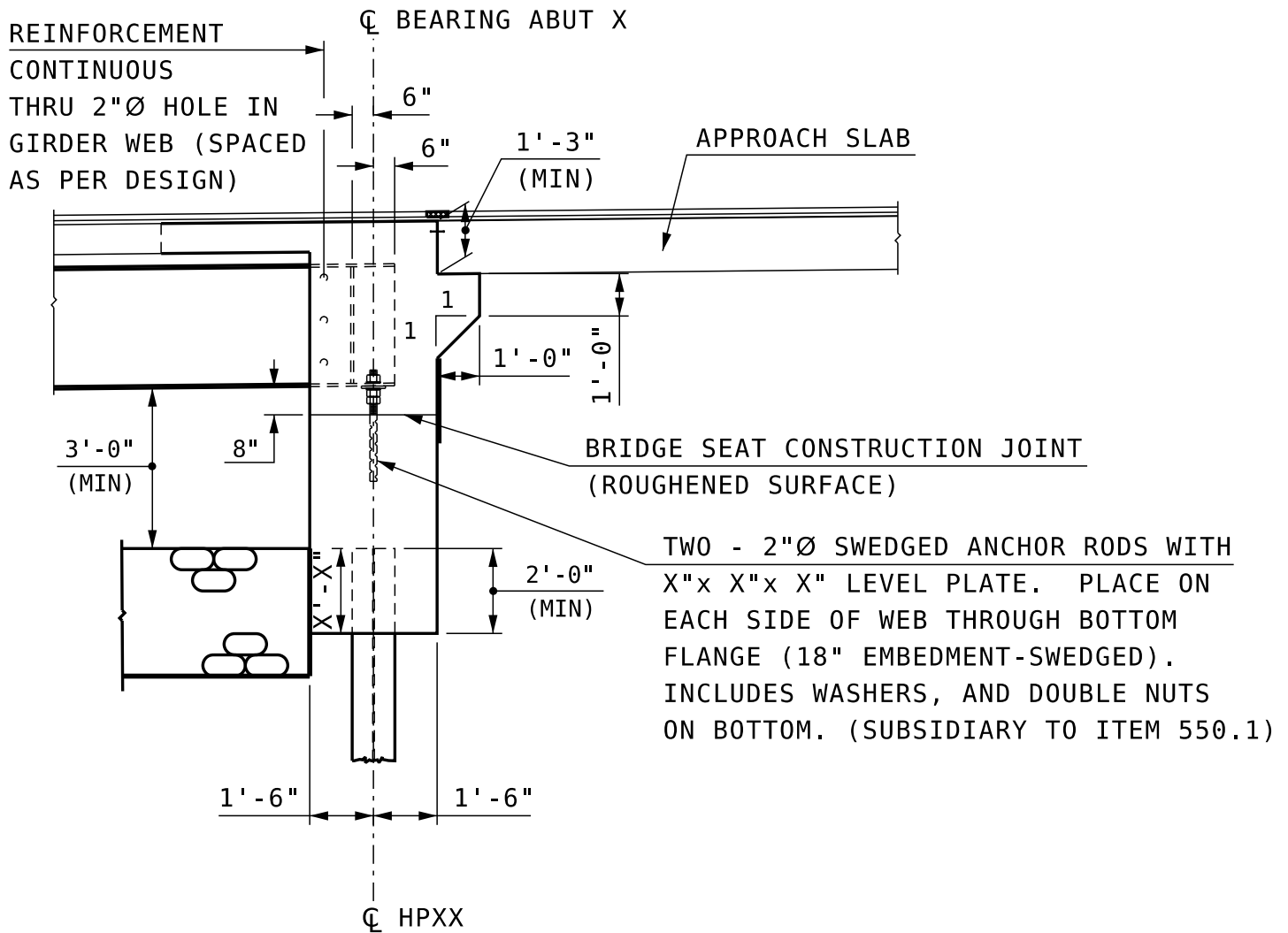


BUREAU OF BRIDGE DESIGN



DESCRIPTION: SUBSTRUCTURE DETAILS -
TYPICAL INTEGRAL ABUTMENT SECTION

DATE REVISED:
12/5/2018



TYPICAL INTEGRAL ABUTMENT SECTION

MODIFY TO
FIT PROJECT

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

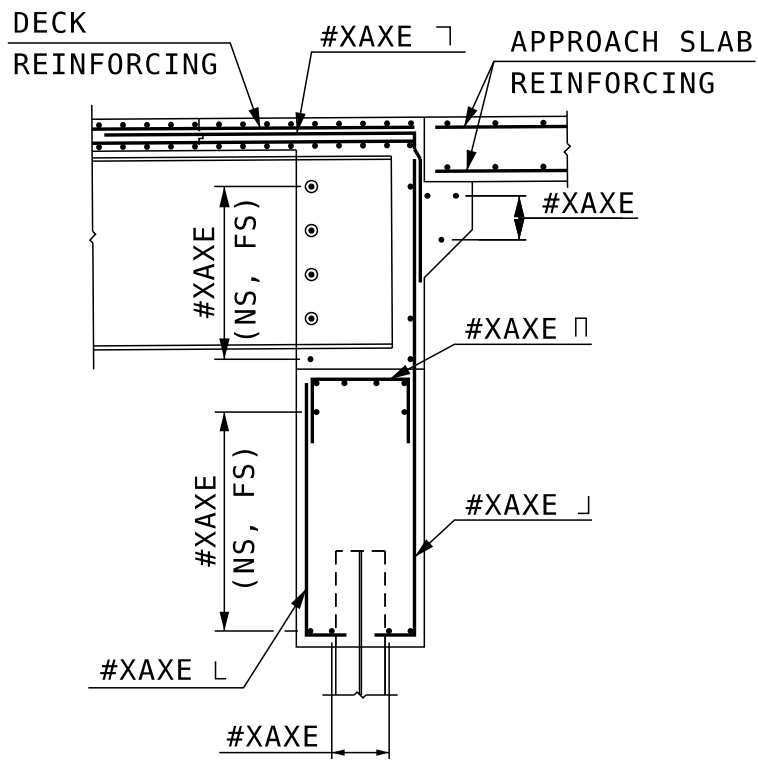


BUREAU OF BRIDGE DESIGN



DESCRIPTION: SUBSTRUCTURE DETAILS -
TYPICAL INTEGRAL ABUTMENT REINFORCING SECTION

DATE REVISED:
4/4/2018



SECTION AT GIRDERS

MODIFY TO
FIT PROJECT

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

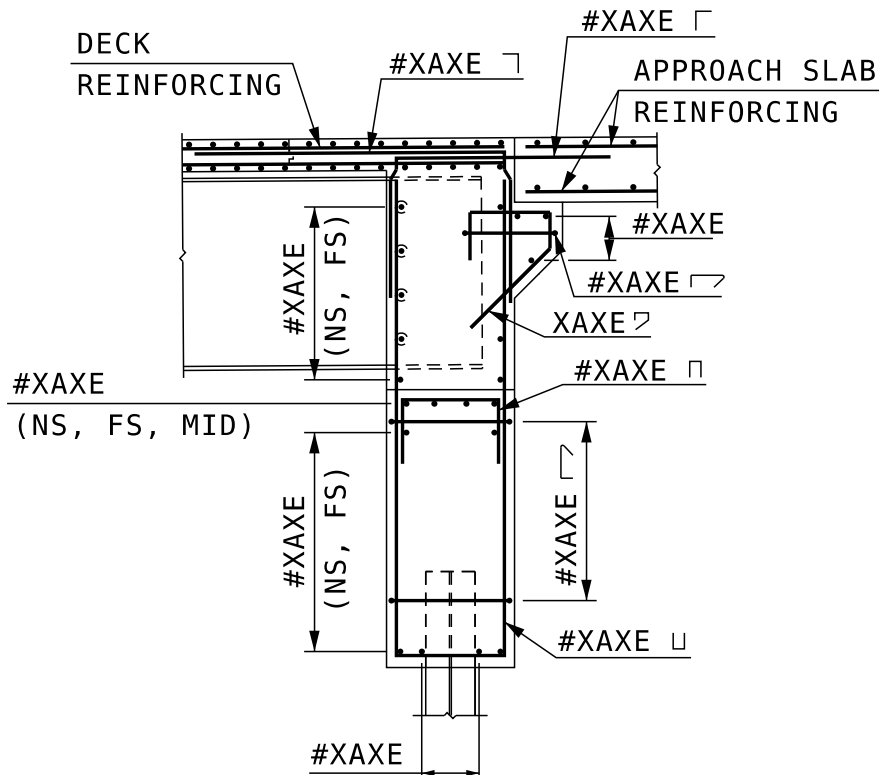


BUREAU OF BRIDGE DESIGN



DESCRIPTION: SUBSTRUCTURE DETAILS -
TYPICAL INTEGRAL ABUTMENT REINFORCING SECTION

DATE REVISED:
4/4/2018



SECTION BETWEEN GIRDERS

MODIFY TO
FIT PROJECT

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

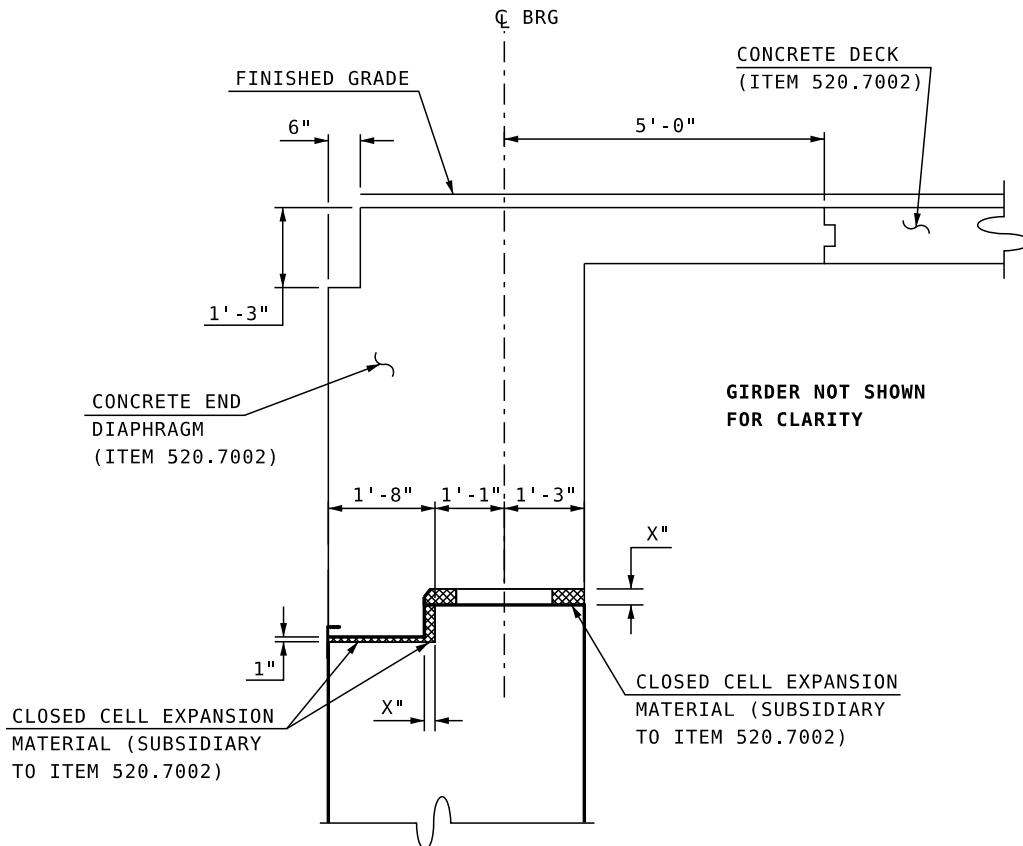


BUREAU OF BRIDGE DESIGN



DESCRIPTION: SUBSTRUCTURE DETAILS -
TYPICAL SEMI-INTEGRAL DIAPHRAGM SECTION

DATE REVISED:
7/31/2023



TYPICAL SEMI-INTEGRAL SECTION AT GIRDER

MODIFY TO
FIT PROJECT

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION



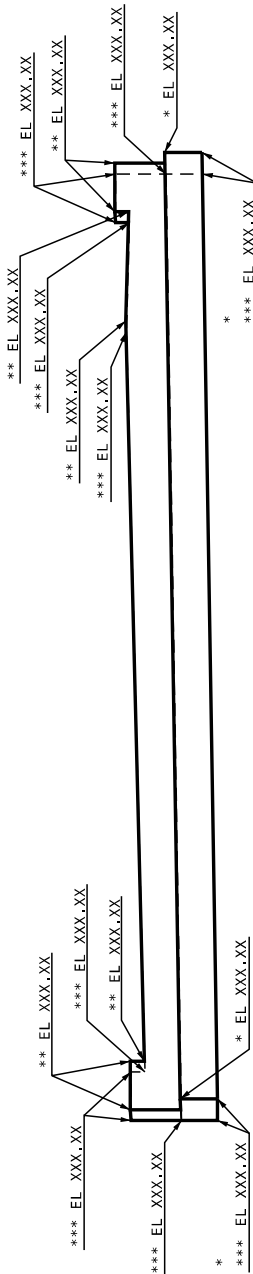
BUREAU OF BRIDGE DESIGN



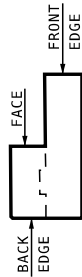
DESCRIPTION: SUBSTRUCTURE DETAILS -
SLEEPER SLAB ELEVATION

DATE REVISED:
4/4/2018

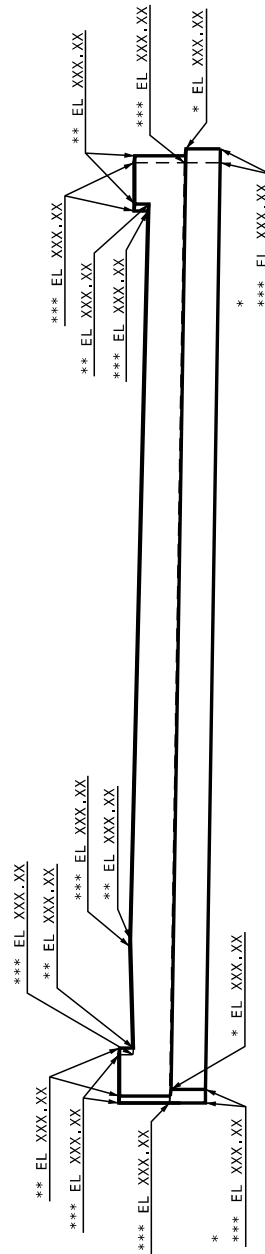
MODIFY TO
FIT PROJECT



SOUTH SLEEPER SLAB ELEVATION



* = ELEVATION GIVEN AT SLEEPER SLAB FRONT EDGE
 ** = ELEVATION GIVEN AT SLEEPER SLAB FACE
 *** = ELEVATION GIVEN AT SLEEPER SLAB BACK EDGE



NORTH SLEEPER SLAB ELEVATION

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

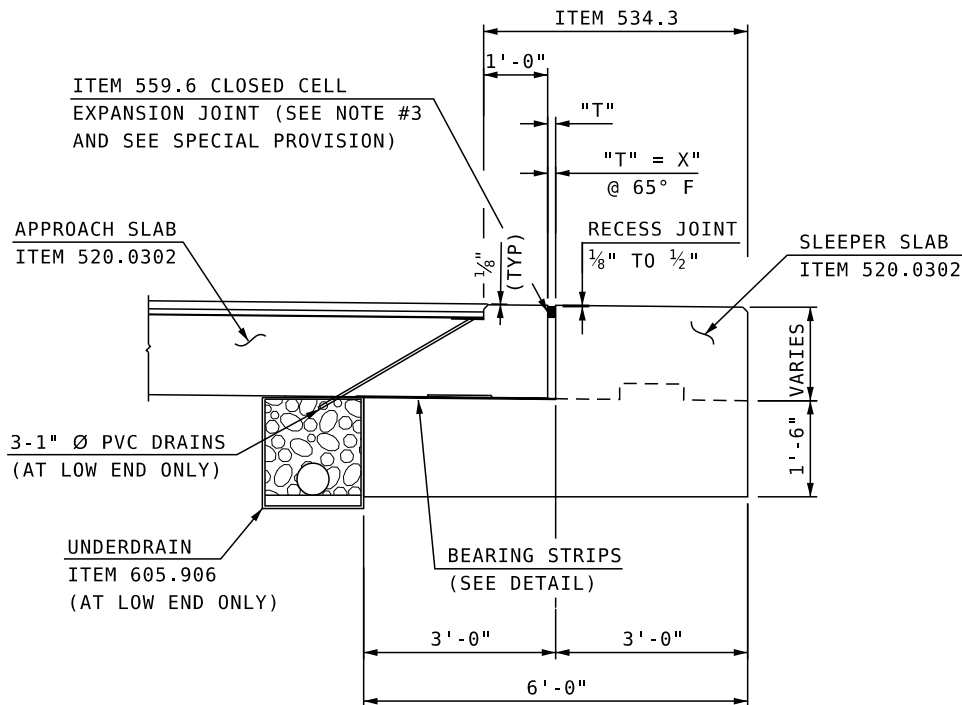


BUREAU OF BRIDGE DESIGN



DESCRIPTION: **SUBSTRUCTURE DETAILS -
SLEEPER SLAB DETAIL CLOSED CELL EXP JT**

DATE REVISED:
7/31/2023



**MODIFY TO
FIT PROJECT**

TEMP (°F)	"T" (INCH)
20	XX
35	XX
50	XX
65	XX
80	XX
95	XX

SLEEPER SLAB DETAIL FOR CLOSED CELL EXPANSION JOINT (ITEM 559.6)

SLEEPER SLAB CLOSED CELL EXPANSION JOINT NOTES

1. ITEM 559.6, PREFORMED CLOSED CELL EXPANSION JOINT SYSTEM (F), INCLUDES CLOSED CELL EXPANSION MATERIAL AND JOINT ADHESIVE AS NOTED IN THE SPECIAL PROVISION.
2. MINIMUM WIDTH "T" FOR INSTALLATION = XX" (APPROX. 65°F OR LESS).
3. THE CONTRACTOR SHALL USE CLOSED CELL *WABO EVAZOTE UV, EV X.XXXX BY WATSON BOWMAN ACME OR PLY-SEAL XE BEIGE #X.X BY POLYSET CO.* THE CLOSED CELL EXPANSION MATERIAL HAS BEEN DESIGNED TO STAY IN COMPRESSION. THIS DESIGN INCLUDES MOVEMENT DUE TO TEMPERATURE, SKEW, SHRINKAGE, AND MINIMUM INSTALLATION.
4. VALUES IN THE TEMPERATURE ADJUSTMENT TABLE ARE FOR ADJUSTING THE EXPANSION JOINT ASSEMBLY IMMEDIATELY PRIOR TO POURING THE CONCRETE BLOCKOUTS.
5. THE JOINT OPENING "T" MAY BE FORMED WITH OTHER CLOSED CELL EXPANSION MATERIAL NOTED ON THE QPL UNDER ITEM 559E. THE MATERIAL LISTED ON THE QPL IS DIFFERENT THAN ITEM 559.6. IF THE MATERIAL LISTED ON THE QPL IS USED FOR FORMING, THE MATERIAL CAN STAY IN THE JOINT HOWEVER, THE THICKNESS OF THE FORM MATERIAL MUST BE THE DIMENSION "T" OF THE JOINT OPENING FOR THE AMBIENT TEMPERATURE AT THE TIME OF THE CONCRETE POUR.
6. DO NOT USE EXTRUDED POLYSTYRENE (XPS) RIGID FOAM NOTED ON THE QPL UNDER ITEM 520 M. FOR FORMING THE JOINT OPENING "T" UNLESS IT CAN BE COMPLETELY REMOVED FROM THE JOINT OPENING. THIS MATERIAL DOES NOT COMPRESS AND EXPAND.

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

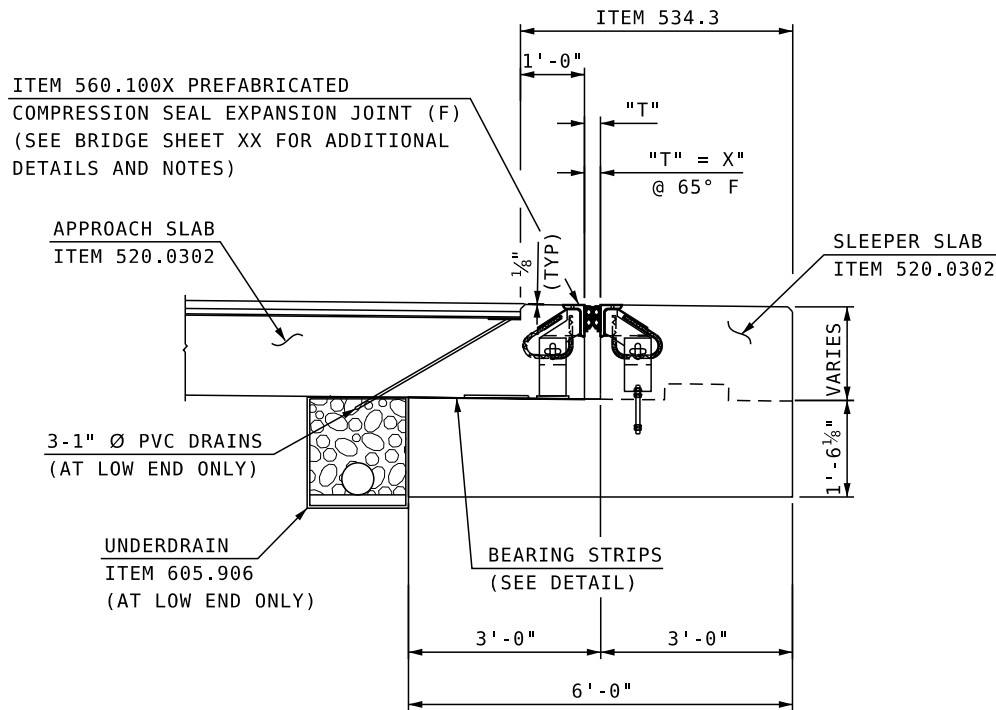


BUREAU OF BRIDGE DESIGN



DESCRIPTION: **SUBSTRUCTURE DETAILS -
SLEEPER SLAB DETAIL COMPRESSION SEAL EXP JT**

DATE REVISED:
7/31/2023



TEMP (°F)	"T" (INCH)
20	XX
35	XX
50	XX
65	XX
80	XX
95	XX

SLEEPER SLAB DETAIL FOR COMPRESSION SEAL EXPANSION JOINT (ITEM 560.100X)

MODIFY TO
FIT PROJECT

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION



BUREAU OF BRIDGE DESIGN



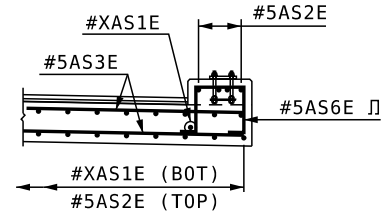
DESCRIPTION: **SUBSTRUCTURE DETAILS -
TYPICAL APPROACH & SLEEPER SLAB REINF. SECTION**

DATE REVISED:
7/31/2023

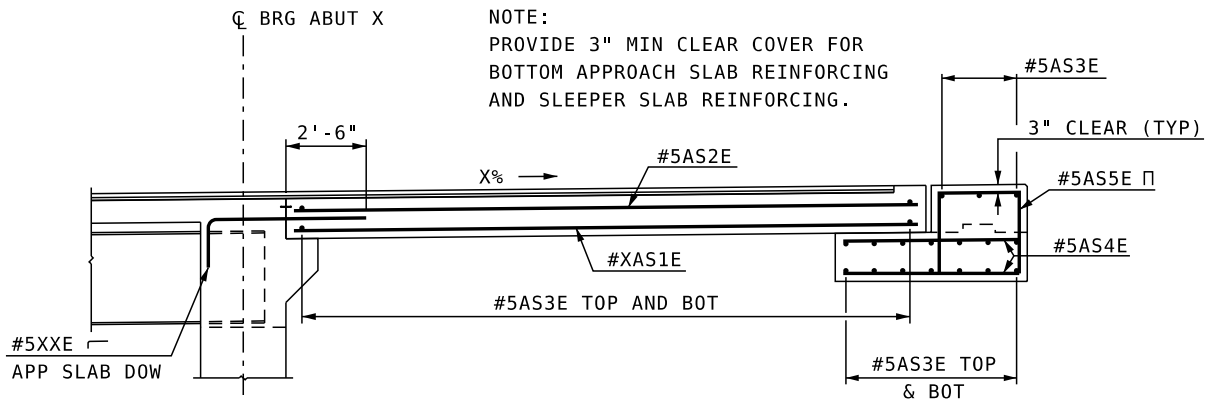
**MODIFY TO
FIT PROJECT**

APPROACH AND SLEEPER SLABS NOTES

1. APPROACH SLABS SHALL BE POURED FULL WIDTH AFTER THE CONCRETE DECK HAS BEEN CONSTRUCTED.
2. CONCRETE FOR APPROACH SLABS AND SLEEPER SLABS SHALL BE PAID FOR UNDER ITEM 520.0302, CONCRETE CLASS AA, APPROACH SLABS (QC/QA) (F).
3. 3-1" Ø PVC DRAINS SHALL BE INSTALLED (AT THE LOW END ONLY, BOTH CURB LINES) IN A 1/2" DEPRESSION. SET PIPES TO DRAIN INTO THE UNDERDRAIN BELOW THE APPROACH SLAB.
4. UNDERDRAINS SHALL MEET THE REQUIREMENTS OF SECTION 605. UNDERDRAINS SHALL BE PERFORATED, PLACED ON A PREPARED SURFACE WITH THE PERFORATIONS FACING DOWN, AND ON A MINIMUM SLOPE OF 2%. UNDERDRAIN SHALL BE CONTINUOUS ALONG THE FULL WIDTH OF THE SLEEPER SLAB. PIPE INVERTS SHALL EXTEND A MINIMUM OF 3" BEYOND THE TOP SURFACE OF THE STONE SLOPE. WITNESS MARKERS SHALL BE PLACED AT THE OUTLET OF EACH DRAIN PIPE.
5. ITEM 534.3, WATER REPELLENT (SILANE-SILOXANE), SHALL BE APPLIED TO THE EXPOSED CONCRETE ON THE TOP OF THE SLEEPER SLAB AND THE APPROACH SLAB ARMOR.



CURB SECTION



TYP APPROACH AND SLEEPER SLAB REINFORCEMENT

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION



BUREAU OF BRIDGE DESIGN

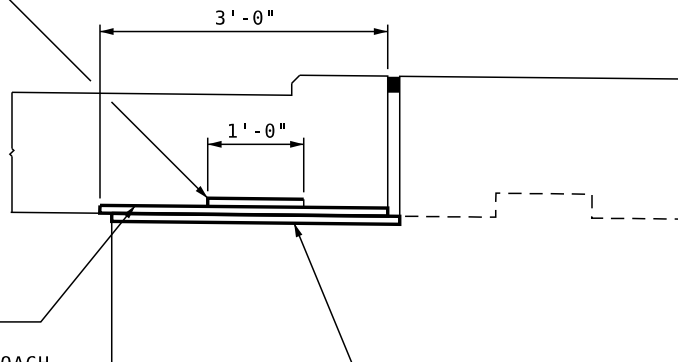


DESCRIPTION: **SUBSTRUCTURE DETAILS -
SLEEPER SLAB BEARING STRIP DETAIL**

DATE REVISED:
7/31/2023

APPROACH SLAB STRIP:
BOND RUBBER BACKED SIDE OF A 1'-0"
WIDE STRIP TO TOP OF THE APPROACH
SLAB STRIP FOR THE FULL LENGTH OF
THE APPROACH SLAB STRIP.

APPROACH SLAB STRIP:
EMBED 3'-0" WIDE SECTION
(RUBBER SIDE UP) INTO APPROACH
SLAB FOR THE ENTIRE WIDTH.



BEARING STRIPS
(RUBBER BACKED UHMW-PE, 1/4" THICK MIN 3/8" MAX)
(SEE QUALIFIED PRODUCTS LIST, SECTION 520
FOR MATERIALS & BONDING AGENT) (ALL COSTS
SUBSIDIARY TO ITEM 520.0302)

SLEEPER SLAB STRIP:
GRIND TOP OF SLEEPER SLAB TO A SMOOTH FLAT SURFACE
AND BOND RUBBER BACKED SIDE OF 3'-0" WIDE SECTION
TO TOP OF SLEEPER SLAB FOR THE ENTIRE LENGTH.

SLEEPER SLAB BEARING STRIP DETAIL

NOT TO SCALE

MODIFY TO
FIT PROJECT

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

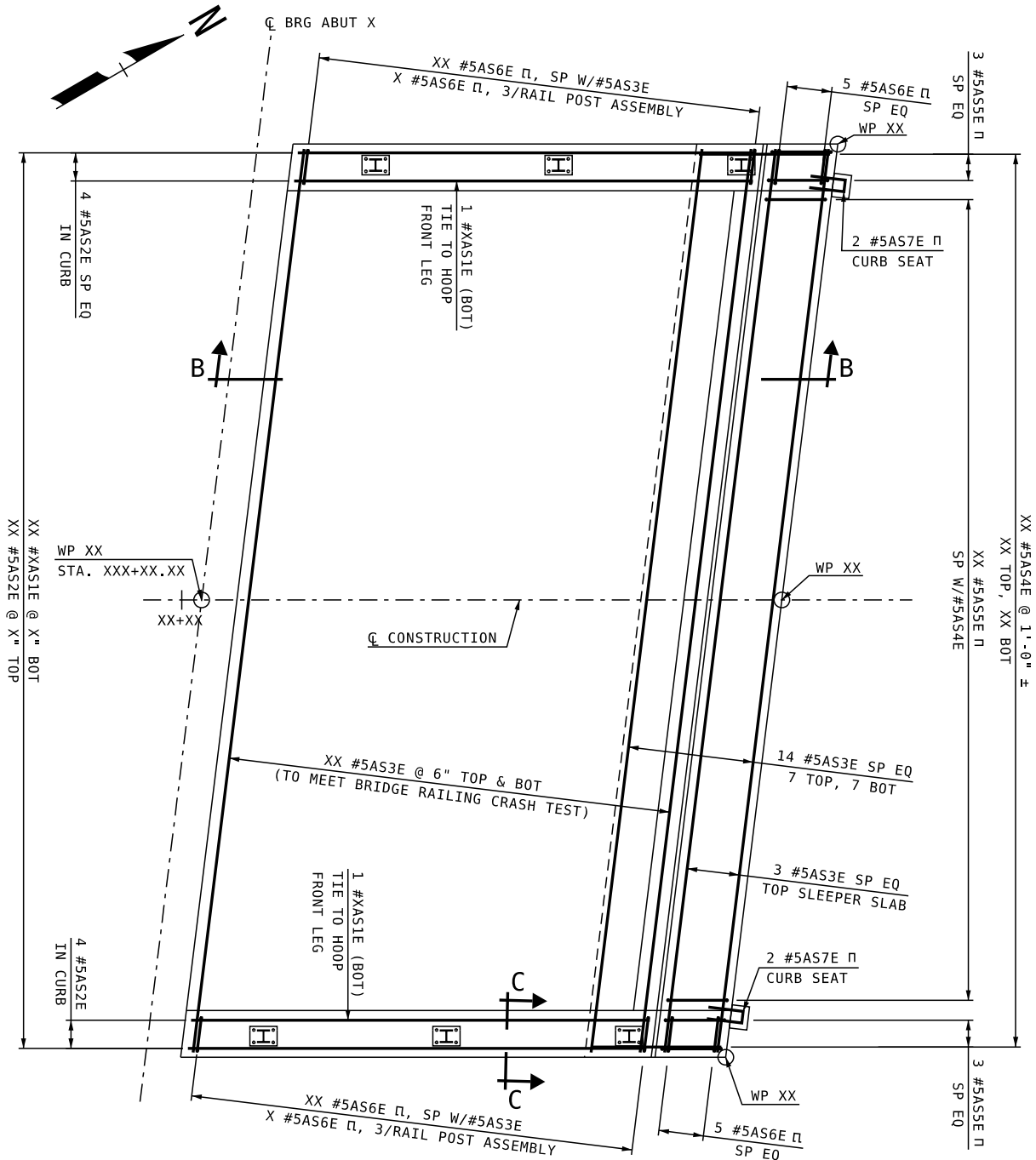


BUREAU OF BRIDGE DESIGN



DESCRIPTION: SUBSTRUCTURE DETAILS -
TYPICAL APPROACH AND SLEEPER SLAB REIN PLAN

DATE REVISED:
7/31/2023



AS = REBAR DESIGNATION FOR ABUT A
APPROACH SLAB AND SLEEPER SLAB

MODIFY TO FIT PROJECT

APPROACH AND SLEEPER SLAB REINFORCEMENT