

CONT
WP

SHEET

STRIP SEAL EXPANSION JOINT ASSEMBLY FOR PARAPET WALLS

METRIC
DIMENSIONS ARE IN METRES AND/OR
MILLIMETRES UNLESS OTHERWISE SHOWN
DRAWING NOT TO BE SCALED
100mm ON ORIGINAL DRAWING

LIMITS OF LOCAL WIDENING WHEN REQUIRED
(BASED ON SKEW AND 'H'). FOR DETAILS SEE
DECK DRAWING(S), PARAPET WALL DRAWING(S)
AND ABUTMENT DRAWING(S). (TYP)

NOTES TO DESIGNER:

IF DRAINAGE SYSTEM FOR EXPANSION JOINTS IS REQUIRED,
THE DESIGNER SHALL USE STANDARD DRAWINGS SS113-16
AND SS113-14, INSTEAD OF THIS STANDARD.
FOR SKEWED BRIDGES, A PLAN AND PROFILE OF THE
EXPANSION JOINT(S) SHALL BE DETAILED ON THIS DRAWING,
SHOWING CROSSFALLS, BREAKPOINTS AND RELEVANT
DIMENSIONS.
DEPENDING ON THE BRIDGE SKEW 'Ψ' AND THE REQUIRED
HEIGHT OF UPTURN 'H', THE WIDTH OF
BRIDGE DECK SHALL BE WIDENED LOCALLY BEYOND THE
STANDARD 50 mm PROJECTION BY THE AMOUNT SHOWN IN
THE FOLLOWING TABLE:

SKEW	REQ'D LOCAL DECK WIDENING (mm)			
	H (mm)	0	100	180
0° ≤ Ψ ≤ 5°	0	0	100	
Ψ > 5°	0	90	190	

THIS LOCAL WIDENING SHALL TYPICALLY EXTEND VERTICALLY
TO 300 mm ABOVE TOP OF CONCRETE PROJECTION, AND
LONGITUDINALLY TO THE LIMITS OF BLOCKOUT IN BARRIER
WALL. SEE DASHED LIMITS ON PLAN AND SECTIONS. THIS
DETAIL SHALL ALSO BE SHOWN ON THE DECK, BARRIER
WALL AND ABUTMENT DRAWINGS.

4. REQUIRED HEIGHT OF UPTURN, H (mm):

CROSSFALL SLOPE	DECK WITH CROWN		DECK WITHOUT CROWN	
	WITHOUT SIDEWALK	WITH SIDEWALK	WITHOUT SIDEWALK	WITH SIDEWALK
≤ 2%	100	100	100	0
> 2%	180	180	180	0
> 0%	100	100	100	100

- WHEN THE CROSSFALL SLOPES AT THE TWO ABUTMENTS
ARE NOT IDENTICAL, TWO VALUES OF 'H' SHALL BE GIVEN
AT EACH SIDE OF DECK.
- WHERE REQUIRED, THE DESIGNER SHALL NOTE ON THE
ASSEMBLY DRAWING WHETHER THE SEAL HAS TO BE
TURNED UP TO AVOID CONFLICT WITH UTILITY DUCTS ON
STRUCTURE REHABILITATIONS.
- THE 'NOTES TO DESIGNER' SHALL BE DELETED FROM THIS
DRAWING PRIOR TO ISSUING OF CONTRACT.

NOTES:

- EXPANSION JOINT SHALL BE IN ACCORDANCE WITH THE DESIGNATED SOURCES FOR MATERIALS
LIST DSM 9.40, TYPE "___". DETAILS SHOWN FOR OTHER TYPES ARE NOT APPLICABLE.
- EXPANSION JOINT ASSEMBLY CONSTRUCTION AND MATERIAL SHALL BE ACCORDING TO
OPSS 920 AND OPSS 1210, AND AS SPECIFIED IN THE CONTRACT DOCUMENTS.
- STEEL PLATE 10mm THICK UNLESS OTHERWISE NOTED.
- JOINT ASSEMBLIES SHALL BE COMPLETELY SHOP ASSEMBLED (EXCEPT FOR SEALS) AND PRESET
TO DIMENSION 'J' FOR 15°C AND ADJUSTED IN THE FIELD TO SUIT INSTALLATION TEMPERATURE.
- JOINT ASSEMBLY INSTALLATION TEMPERATURE SHALL BE TAKEN AS MEAN SHADE AIR
TEMPERATURE AT STRUCTURE PRIOR TO JOINT INSTALLATION AS FOLLOWS:
- FOR CONCRETE STRUCTURES - 48 HOURS
- FOR STEEL STRUCTURES - 24 HOURS
- FIELD SPLICES IN JOINT ASSEMBLY ARE ONLY PERMITTED AT STAGED CONSTRUCTION, AND/OR
AS SHOWN ON THE CONTRACT DRAWINGS.
- IF THE JOINT ARMOURING FOR A SKEWED STRUCTURE IS SPLICED AT A CROWN, THE SPLICE
SHALL BE DETAILED PARALLEL TO THE CENTRELINE OF THE TRAFFIC LANE.
- SETTING ANGLES SHALL BE FLAME CUT ACCORDING TO OPSS 920, BUT IN NO CASE PRIOR
TO CONCRETE REACHING INITIAL SET.
- AFTER CURING OF THE CONCRETE HAS BEEN COMPLETED, THE SETTING DEVICES MAY BE
REMOVED. THE VOIDS UNDER THE ARMOURING ANGLE AND NOSING ANGLE SHALL THEN BE
PRESSURE INJECTED.
- PREFORMED SEALS SHALL HAVE MINIMUM THICKNESS OF 5mm OR AS PER DSM.
- ALL STEEL RETAINER SURFACES COMING IN CONTACT WITH PREFORMED SEAL SHALL BE CLEANED
PRIOR TO INSTALLATION OF THE SEAL.
- PREFORMED SEALS SHALL BE INSTALLED AFTER JOINT ASSEMBLY HAS BEEN CAST IN PLACE,
STYROFOAM OR FILLER BETWEEN DECK AND BALLAST WALL REMOVED, AND EXPANSION GAP
CLEARED OF ANY DEBRIS.
- FOR POST-TENSIONED CONCRETE BRIDGES, JOINT ASSEMBLY SHALL NOT BE INSTALLED UNTIL
AT LEAST ___ DAYS AFTER COMPLETION OF POST-TENSIONING OPERATIONS.
- RAISED MEDIANS ON STRUCTURES SHALL BE PROVIDED WITH SLIDING PLATES. PLATE THICKNESS
AND ANCHORAGES SHALL CONFORM TO SIDEWALK DETAILS, AND SHALL ACCOMMODATE
INSTALLATION OF SEALS.
- FOR SKEWED STRUCTURE, WORKING DRAWINGS SHALL BE DETAILED TO SUIT GEOMETRY OF
STRUCTURE.
- ALL JOINT ANCHORAGES SHALL BE DETAILED ON WORKING DRAWINGS PERPENDICULAR TO THE
EXPANSION JOINT ON BOTH THE DECK SIDE AND THE ABUTMENT SIDE EXCEPT AS FOLLOWS.
STRUCTURES SKEWED FROM OVER 15° AND UP TO 45° SHALL HAVE ANCHORAGES DETAILED 30°
OFFSET FROM THE PERPENDICULAR TO THE EXPANSION JOINT ON THE DECK SIDE.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING SS113-12 OR SS113-13 AND
MTOB 3950.2000.
- LEGEND: [] DENOTES FASTENER SIZE IN INCHES.

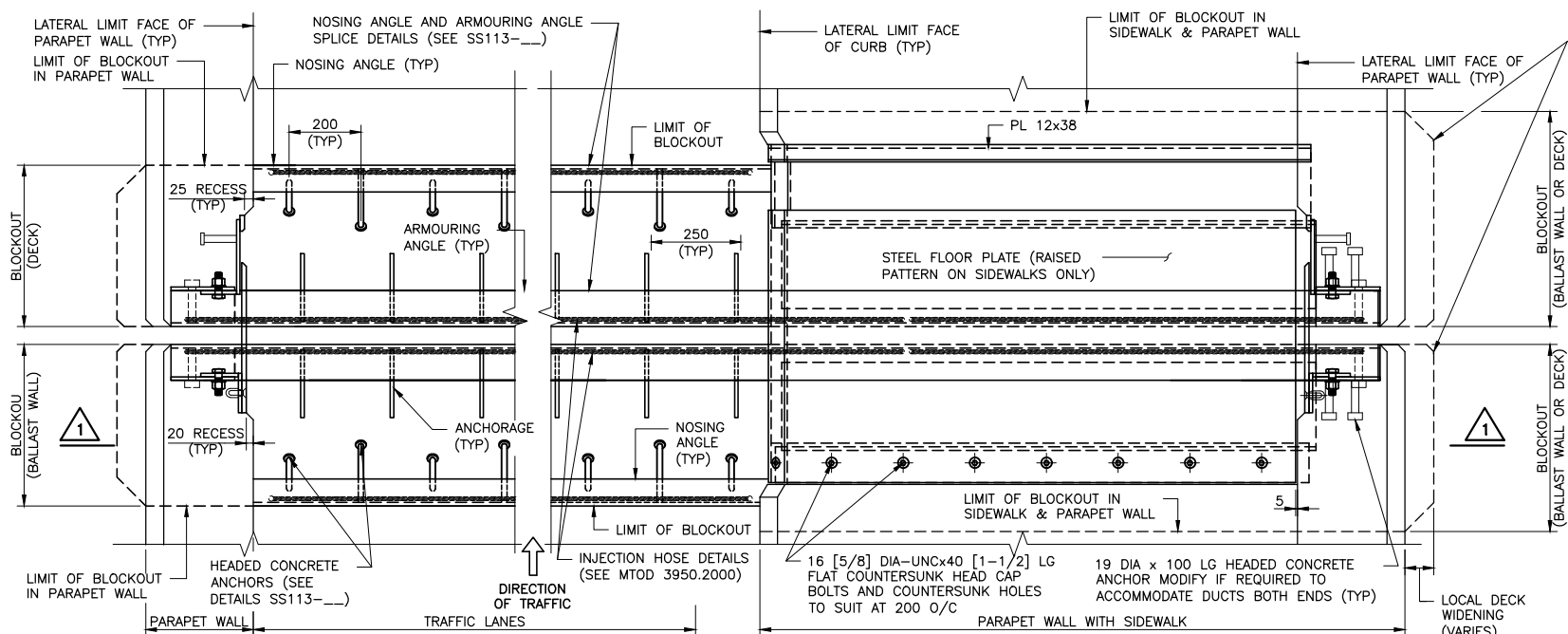
ADDITIONAL NOTES FOR BOLTS:

- 19 [3/4] DIAMETER BOLTS SHALL BE IN ACCORDANCE WITH WITH ASTM F3125/F3125M. BOLTS
SHALL BE GRADE A325. ALL BOLTS USED IN 25 DIA. x 50 LONG SLOTTED HOLES SHALL BE
INSTALLED WITH OVERSIZE WASHERS.
- 16 [5/8] DIAMETER FLAT COUNTERSUNK HEAD CAP BOLTS SHALL BE IN ACCORDANCE WITH
ASTM F835.
- CLAMPING BAR BOLTS FOR TYPE 'A' JOINTS SHALL BE 19 [3/4] DIAMETER HEX HEAD BOLTS IN
ACCORDANCE WITH ASTM F3125/F3125M. CLAMPING BAR BOLTS SHALL BE TENSIONED TO
125kN.
- ALL BOLTS SHALL BE INSTALLED USING MOLY50 LUBRICANT.
- ALL BOLTS SHALL BE TENSIONED USING THE TURN-OF-NUT TIGHTENING METHOD IN
ACCORDANCE WITH CAN/CSA S6-19.

REFER TO 1.1.8 IN THE STRUCTURAL MANUAL FOR
PROFESSIONAL ENGINEER STAMPING REQUIREMENTS.

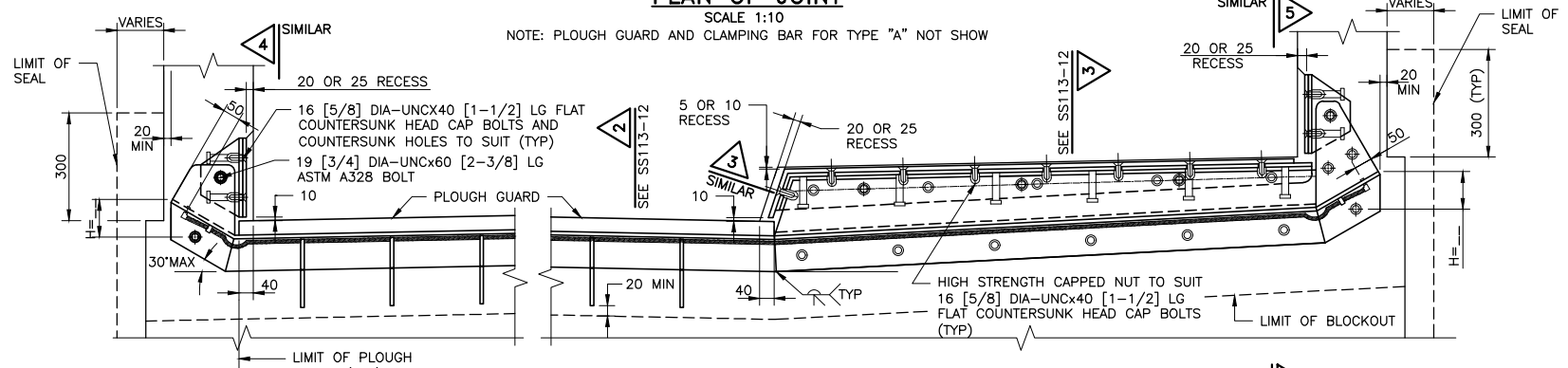
STANDARD DRAWING
APRIL 2022
SS113-15
STRIP SEAL EXPANSION JOINT ASSEMBLY
FOR PARAPET WALLS

REVISIONS		DATE		BY		DESCRIPTION	
DESIGN	CHK	CODE	-	LOAD	-	DATE	
DRAWN	CHK	SITE	-		-	DWG	

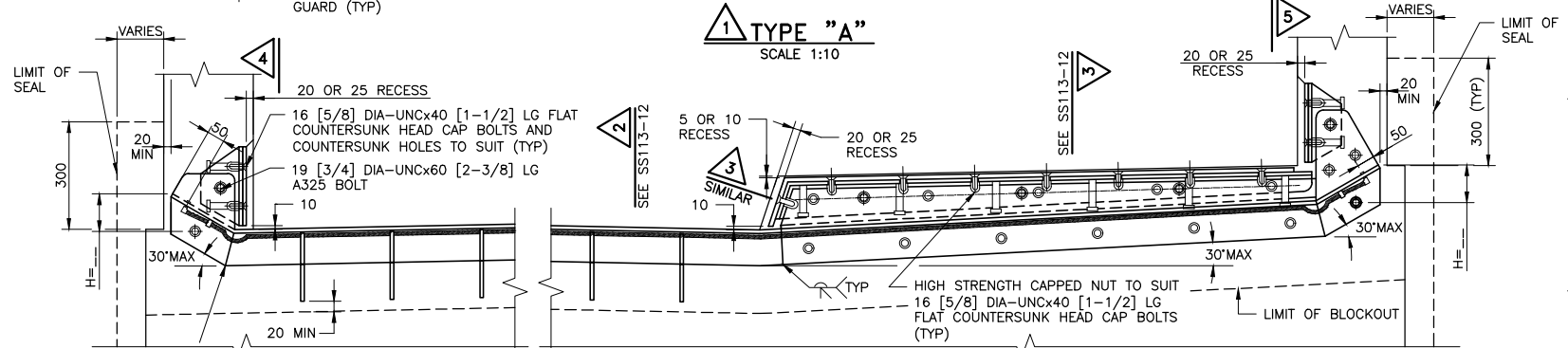


PLAN OF JOINT
SCALE 1:10

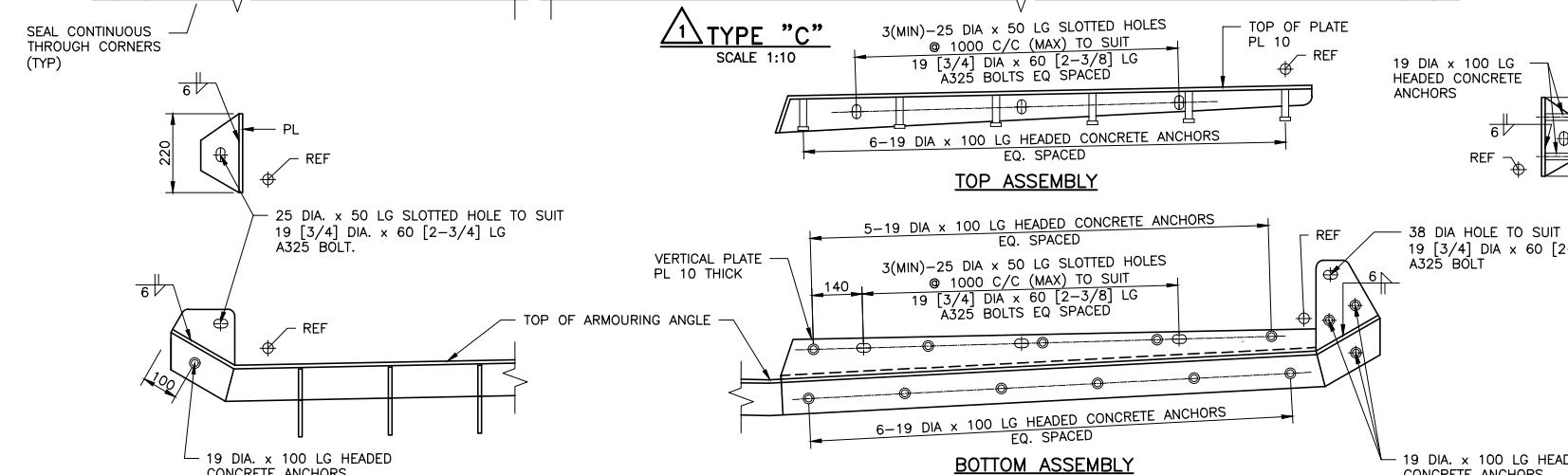
NOTE: PLOUGH GUARD AND CLAMPING BAR FOR TYPE "A" NOT SHOWN



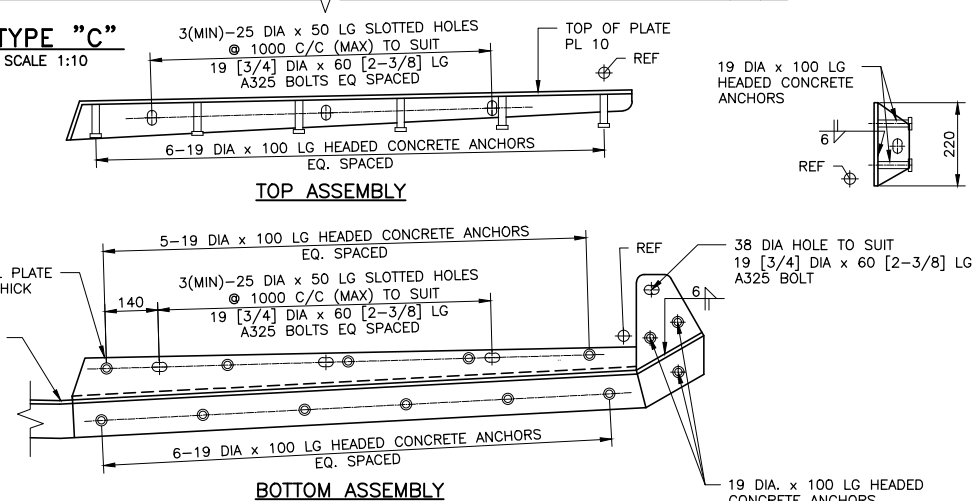
TYPE "A"
SCALE 1:10



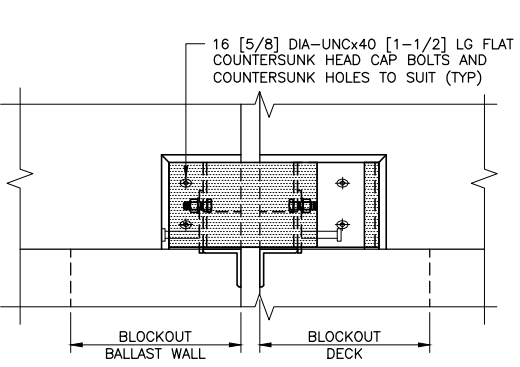
TYPE "C"
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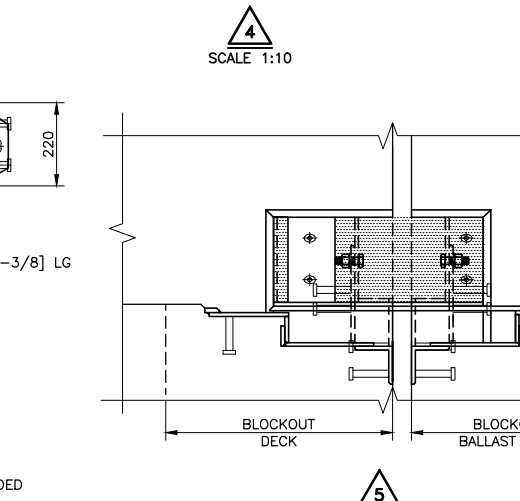
DETAIL OF ARMOURING WITHOUT SIDEWALK
SCALE 1:10



DETAIL OF ARMOURING AT SIDEWALK
SCALE 1:10



SCALE 1:10



SCALE 1:10

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