BRB-0321ALRS

NON ELEVATED ALUMINUM 3 ROW x 21'-0" LOW RISE BLEACHER w/ ROYAL BLUE SEATING

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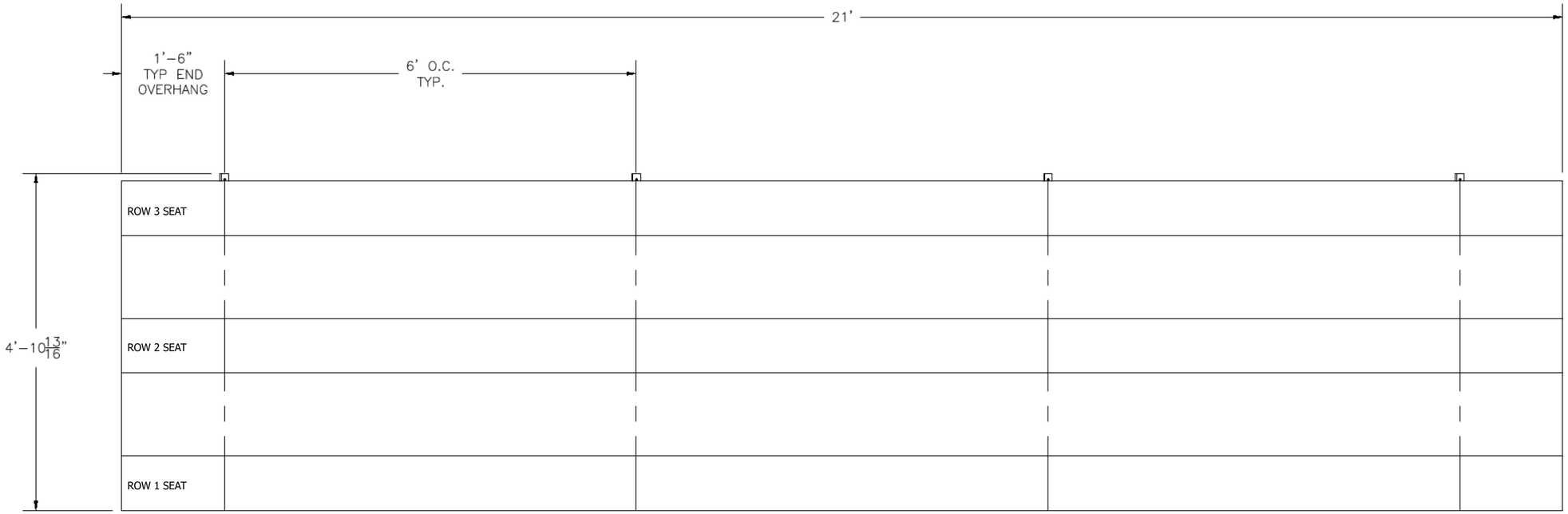
PROJECT: BRB-0321ALRS				
DESCRIPTION: NON–ELEV. 3 ROW 21'–0" COVER SHEET				
DRAWN BY: BLH	DATE: 12/5/18	REVISION: 0	SCALE: N.T.S.	SHEET NUMBER: CS.1



SECTION LENGTH	GROSS SEATS	ACTUAL SEATS	NO. OF ROWS	NET SEATS
21	14.00	14.00	3	42
			NET SEATS	42
			WHEELCHAIR SPACES	0
			TOTAL NET SEATING CAPACITY (BASED ON 18" PER SEAT)	42

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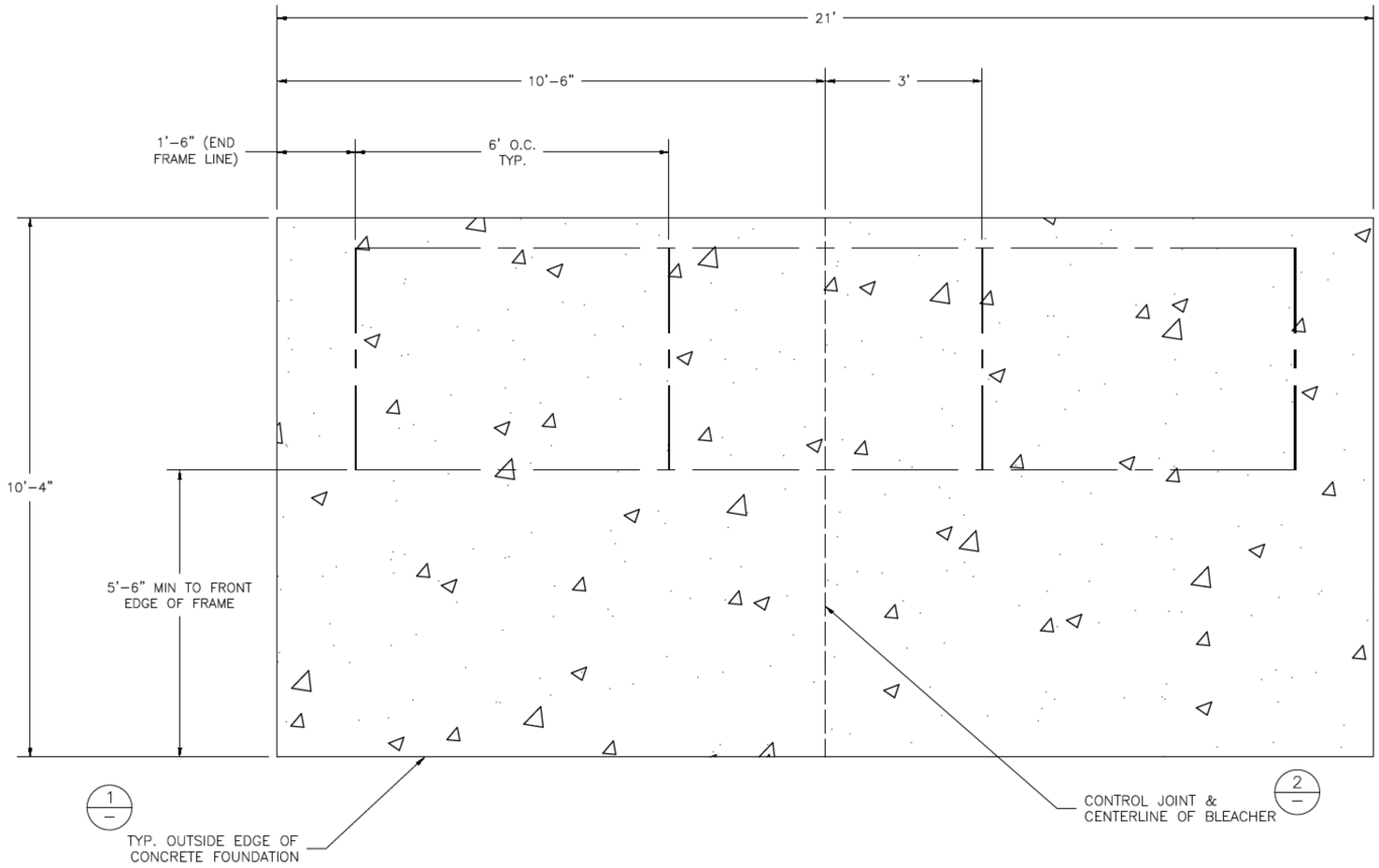
PROJECT	BRB-0321ALRS			
DESCRIPTION:	NON–ELEV. 3 ROW 21'–0" SEATING PLAN			
DRAWN BY: BLH	DATE: 12/5/18	REVISION: 0	SCALE: N.T.S.	SHEET NUMBER: TD.1



CONCRETE FOUNDATION SPECIFICATIONS

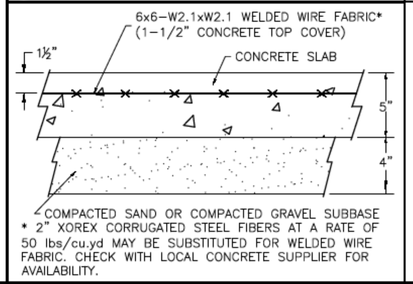
SCOPE:
Foundation construction is not part of NATIONAL RECREATION SYSTEMS, INC's., scope of work unless noted otherwise in the contract documents. The OWNER shall review the foundation design with local code authorities and coordinate with NRS, Inc.

FOUNDATION DESIGN & ANCHORS:
1) The foundation designs are based on the following:
   a) Minimum presumed soil bearing of 1000 psf.
   b) Bleacher frame dead and live load of 700 lbs./ft.
   c) Bleacher frame wind uplift of 250 lbs./ft.
2) Unless otherwise specified on the drawings the bleacher frames shall be attached to concrete with a $^{3}/_{8}$" dia. x 3" wedge type expansion anchor. The anchors shall be embedded a minimum of 2" into the concrete.

CONCRETE SPECIFICATIONS:
1) All concrete construction shall be in accordance with ***ACI 318.08.***
2) All concrete shall be air-entrained using an air entraining admixtruing meeting ***ASTM C620***. Total air content: 5%-7% per ***ASTM C173***.
3) All concrete shall have a minimum 28-day strength of Fc=3000psi. Concrete shall have air-entrainment
4) A $^{1}/_{4}$" bituminous expansion joint material shall be placed between strip and slab foundations when adjacent to each other.
5) The depressions in the top of the foundations between high spots shall not exceed $^{5}/_{16}$" below 10-foot long straightedge. The 10-foot straightedge method used to measure foundation flatness shall be in accordance with ***ACI 302.1R-04*** *"Guide for Concrete Floor and Slab Construction".*

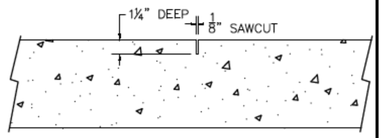
CONCRETE SLAB RECOMMENDED SPECIFICATIONS:
1) Concrete slab shall have a minimum thickness of 5" (some areas may require 6") and placed on 4" of compacted gravel or compacted sub base.
2) NRS. INC., recommends that the concrete slab be reinforced with 6x6-W2.1xW2.1 welded wire fabric at $1^{1}/_{2}$" concrete cover from the top. In lieu of welded wire fabric, steel fiber substitution requires OWNER approval and his understanding of potential maintenance issues.
3) Contractor may substitute blended fiber reinforcing, provided the blend consists of multifilament polypropylene fibers and cold drawn steel wire fibers. Novamesh 950 or approved equivalent, applied at a dosage rate of 5lb/CY unless specified otherwise or a different recommendation is made by the manufacturer.
4) Crack control joints shall be sawed into slab to form approximate square patterns. The maximum spacing for control joints shall not exceed 13'-6", UNLESS INDICATED OTHERWISE. The bleacher frames shall not be set on control joints. The designer shall contact NRS to coordinate joint spacing requirements with the specific bleacher design.
5) The slab may be sloped a maximum of 1/8 inch per foot for drainage. The maximum overall out of level slope for the slab perpendicular to the seats (front to rear) shall not exceed 2" and parallel to the seats (end to end) shall not exceed 4".

1 CONCRETE SLAB SECTION



* 2" XOREX CORRUGATED STEEL FIBERS AT A RATE OF 50 lbs/cu.yd MAY BE SUBSTITUTED FOR WELDED WIRE FABRIC. CHECK WITH LOCAL CONCRETE SUPPLIER FOR AVAILABILITY.

2 CONTROL JOINT DETAIL



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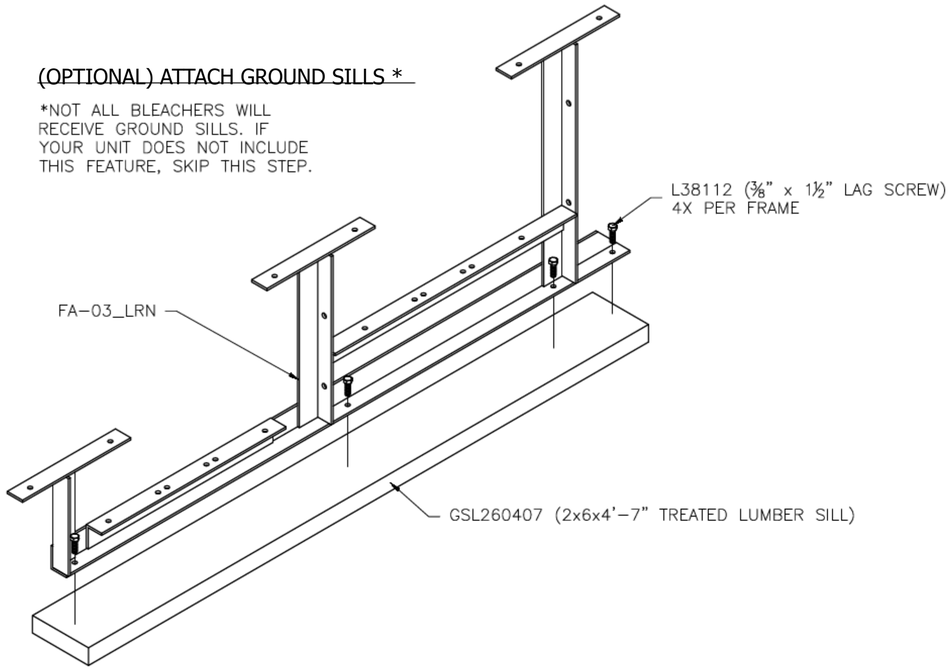
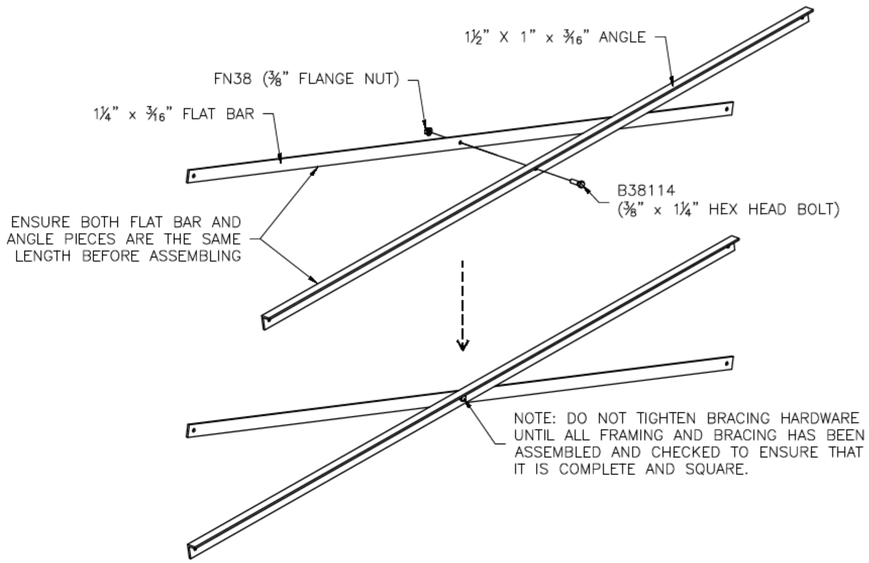
PROJECT	BRB-0321ALRS				
DESCRIPTION:	NON-ELEV. 3 ROW 21'-0" FOUNDATION PLAN				
DRAWN BY: BLH	DATE: 12/5/18	REVISION: 0	SCALE: N.T.S.	SHEET NUMBER: FP.1	

(OPTIONAL) ATTACH GROUND SILLS *

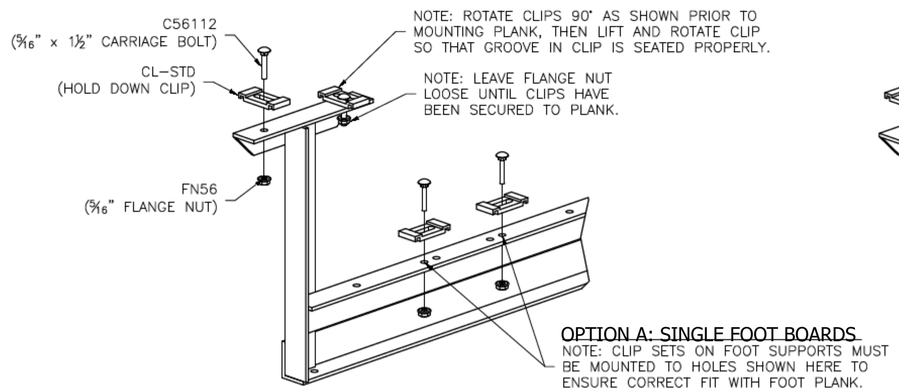
*NOT ALL BLEACHERS WILL RECEIVE GROUND SILLS. IF YOUR UNIT DOES NOT INCLUDE THIS FEATURE, SKIP THIS STEP.



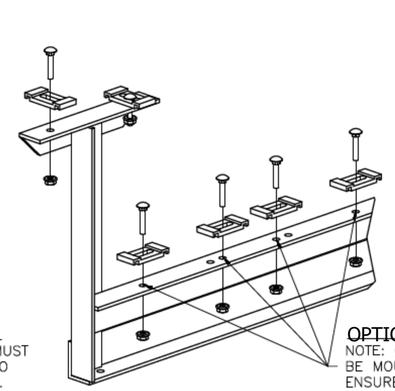
PRE-ASSEMBLE X-BRACE PAIR(S)



ONCE FRAMING IS COMPLETE, PRE-ASSEMBLE CLIP SETS ON BLEACHER FRAMES



OPTION A: SINGLE FOOT BOARDS
NOTE: CLIP SETS ON FOOT SUPPORTS MUST BE MOUNTED TO HOLES SHOWN HERE TO ENSURE CORRECT FIT WITH FOOT PLANK.



OPTION B: DOUBLE FOOT BOARDS
NOTE: CLIP SETS ON FOOT SUPPORTS MUST BE MOUNTED TO HOLES SHOWN HERE TO ENSURE CORRECT FIT WITH FOOT PLANK.

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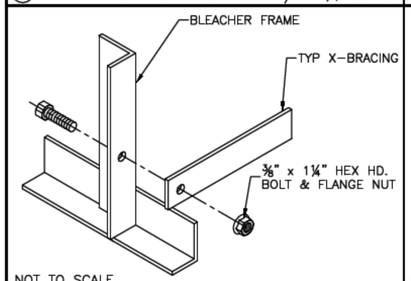
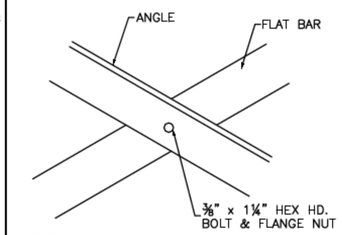
PROJECT: BRB-0321ALRS				
DESCRIPTION: NON–ELEV. 3 ROW 21'–0" BLEACHER PREP				
DRAWN BY: BLH	DATE: 12/5/18	REVISION: 0	SCALE: N.T.S.	SHEET NUMBER: BA.1

1 TYP X-BRACE CONN. W/ 1¼ BOLT



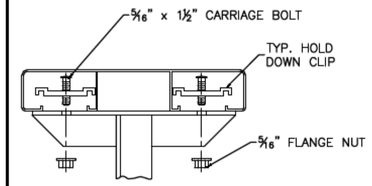
NOT TO SCALE

2 TYP X-BRACE CONN. W/ 1¼ BOLT



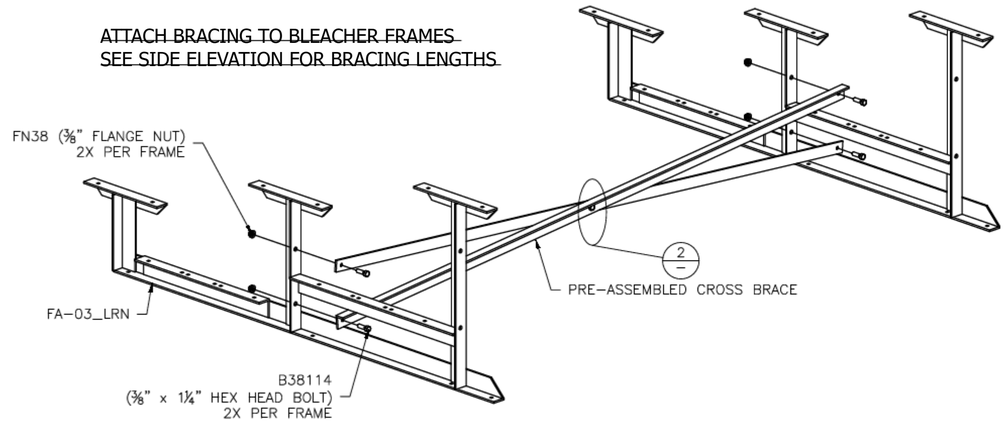
NOT TO SCALE

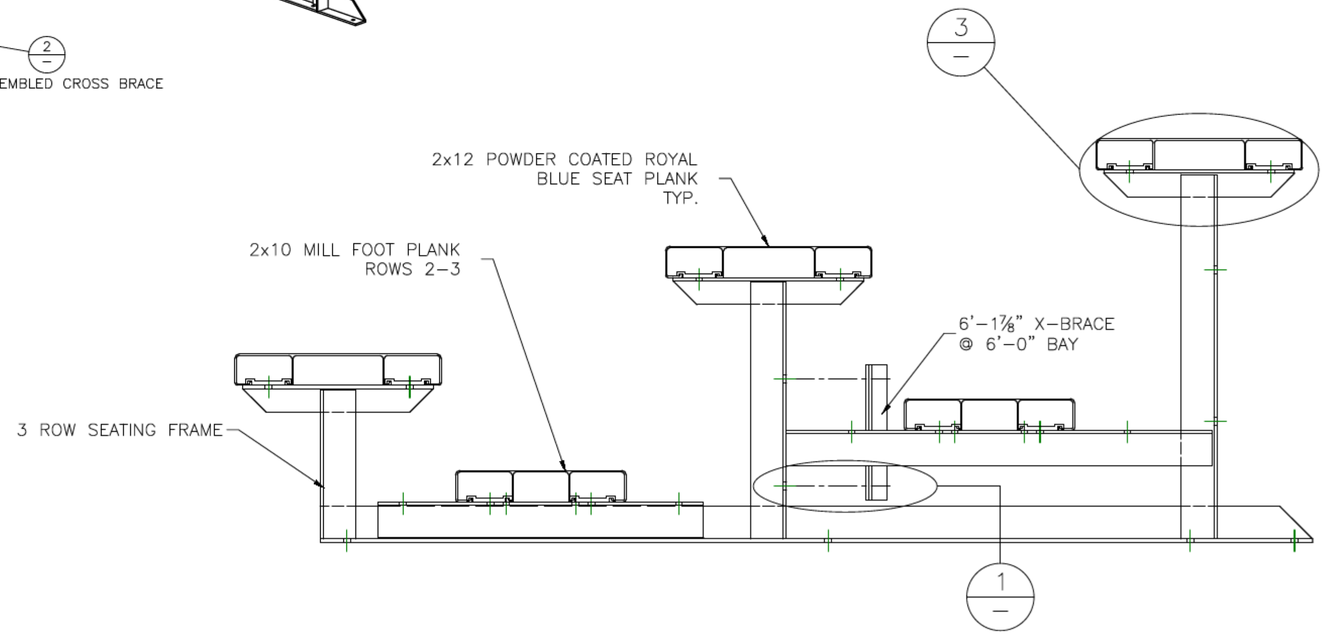
3 TYP 2x12 PLANK ATTACHMENT



NOT TO SCALE

ATTACH BRACING TO BLEACHER FRAMES
SEE SIDE ELEVATION FOR BRACING LENGTHS





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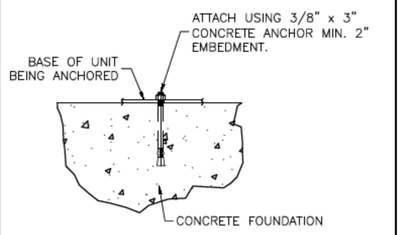
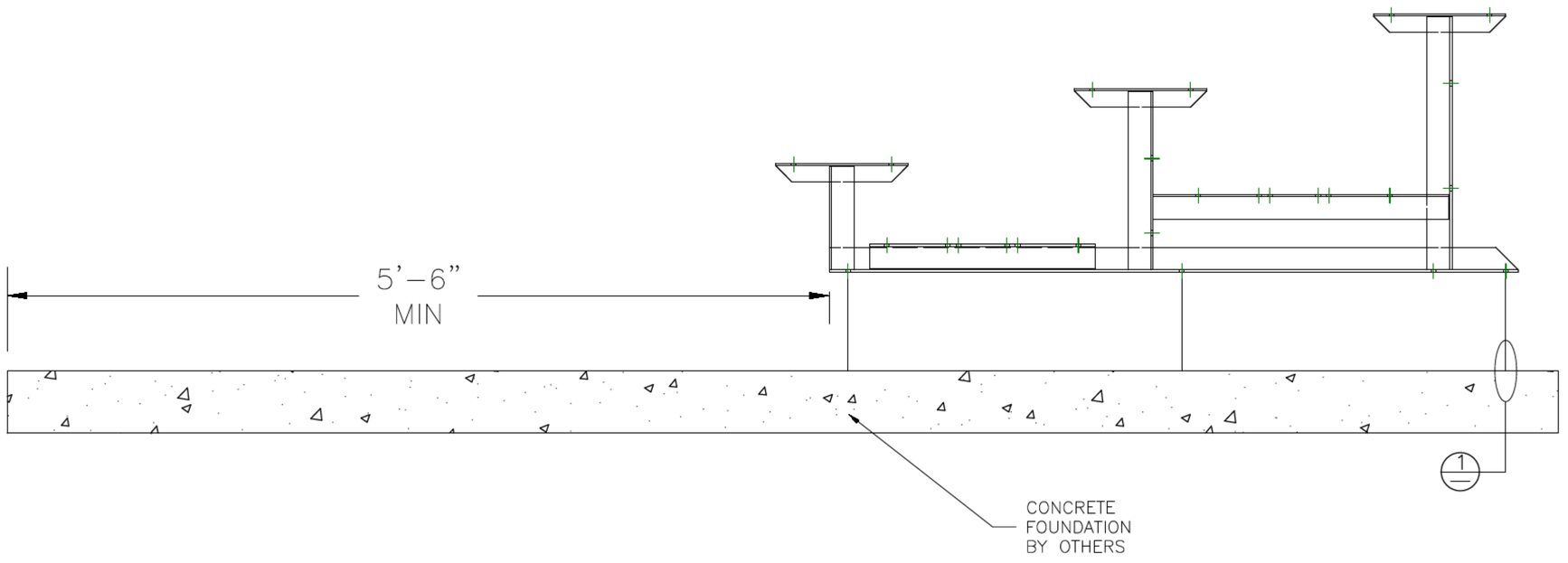
PROJECT	BRB-0321ALRS				
DESCRIPTION:	NON-ELEV. 3 ROW BLEACHER FRAME ASSEMBLY				
DRAWN BY: BLH	DATE: 12/5/18	REVISION: 0	SCALE: N.T.S.	SHEET NUMBER: BA.2	

(OPT)WEDGE ANCHOR DETAIL – 3"





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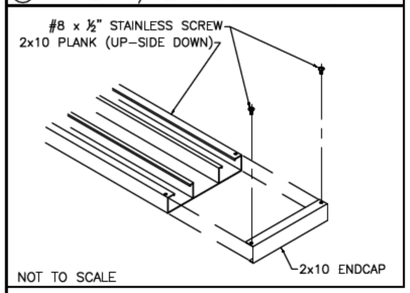
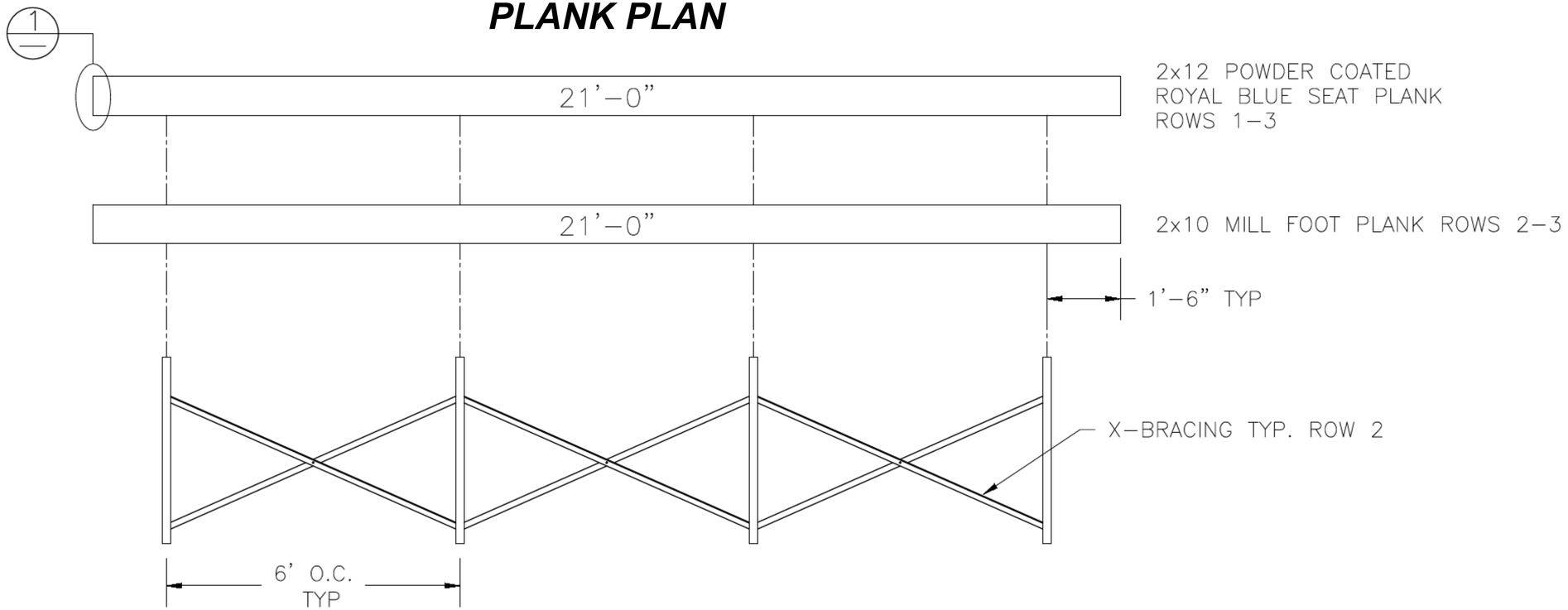
PROJECT	BRB-0321ALRS				
DESCRIPTION:	NON–ELEV. 3 ROW 21'–0" ANCHORING PLAN				
DRAWN BY: BLH	DATE: 12/5/18	REVISION: 0	SCALE: N.T.S.	SHEET NUMBER: AP.1	

TYP 2x10/12 ENDCAP ATTACHMENT



PLANK PLAN



FRAMING PLAN

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PROJECT	BRB-0321ALRS			
DESCRIPTION:	NON-ELEV. 3 ROW 21'-0" PLANK & FRAMING PLAN			
DRAWN BY: BLH	DATE: 12/5/18	REVISION: 0	SCALE: N.T.S.	SHEET NUMBER: PF.1