

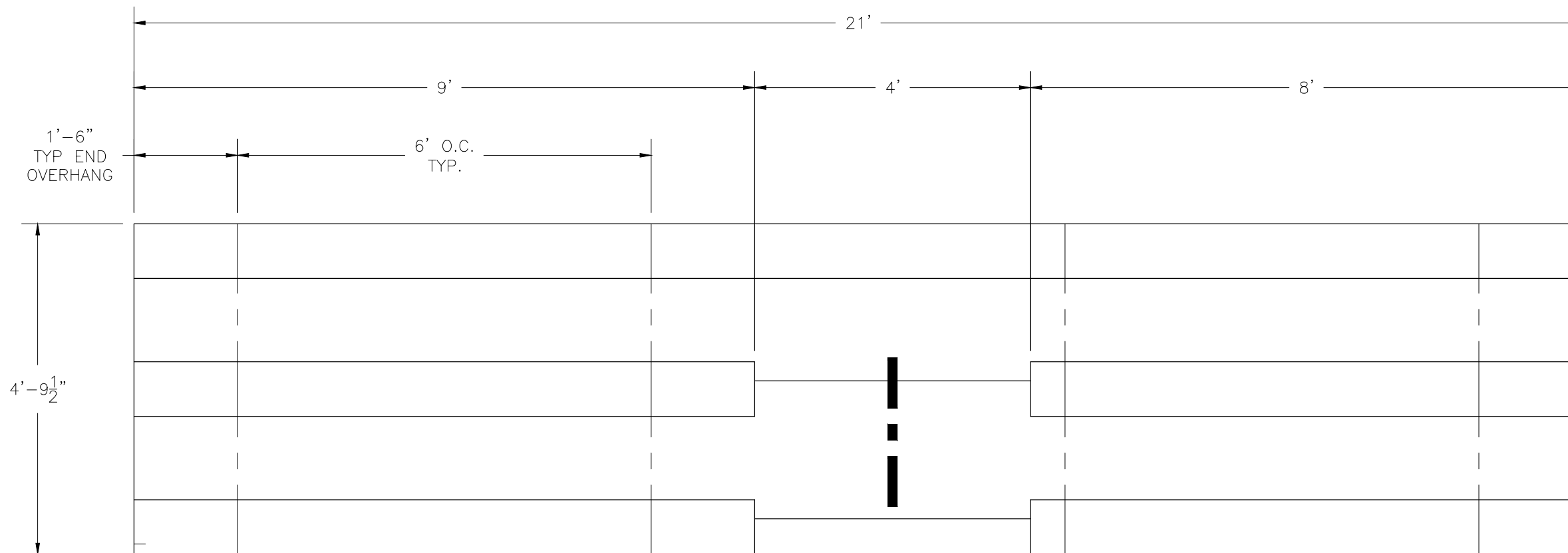
***NB-0321ADLX***

***NON- ELEVATED ALUMINUM 3 ROW x 21'-0" BLEACHER***

**National Recreation Systems, Inc.**

**5120 INVESTMENT DRIVE - FORT WAYNE, IN 46808**

CS.1	- COVER SHEET
TD.1	- BLEACHER SEATING PLAN
FP.1	- FOUNDATION PLAN
AP.1	- ANCHORING PLAN
BA.1	- BLEACHER ASSEMBLY
VA.1	- VERTICAL AISLE ASSEMBLY
PF.1	- PLANK & FRAMING PLAN
BR.1	- BRACE ASSEMBLY
DS.1	- DETAIL SHEET

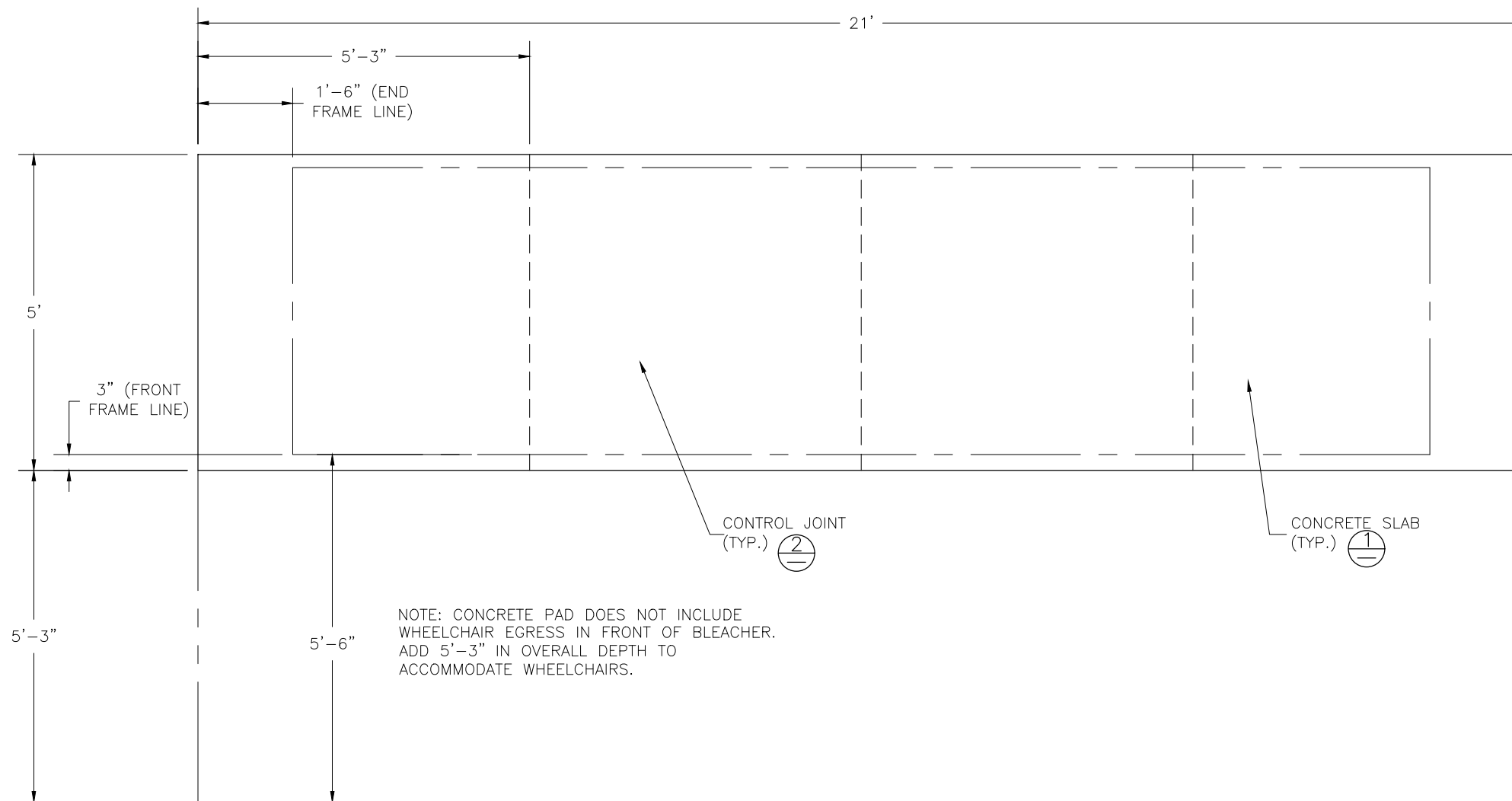


SECTION LENGTH	GROSS SEATS	ACTUAL SEATS	NO. OF ROWS	NET SEATS
21	14.00	14.00	1	14
9	6.00	6.00	2	12
8	5.33	5.00	2	10
<b>NET SEATS</b>				<b>36</b>
<b>WHEELCHAIR SPACES</b>				<b>0</b>
<b>TOTAL NET SEATING CAPACITY</b>				<b>36</b>
<b>(BASED ON 18" PER SEAT)</b>				

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**National Recreation Systems, Inc.**  
**5120 INVESTMENT DRIVE - FORT WAYNE, IN 46808**

SCALE: N.T.S.	APPROVED BY:	DRAWN BY: HG
DATE: 1/5/15		
TITLE: NON- ELEV. 3 ROW x 21'-0" BLEACHER SEATING PLAN		
BLEACHER MODEL #: NB-0321ADLX	DRAWING NUMBER: TD.1	



**CONCRETE FOUNDATION SPECIFICATIONS**

**SCOPE:**

Foundation construction is not part of National Recreation Systems, Inc.'s (NRS) scope of work unless noted otherwise in the contract documents. The owner shall review the foundation design with the local code authorities, and coordinate with NRS.

**FOUNDATION DESIGN & ANCHORS:**

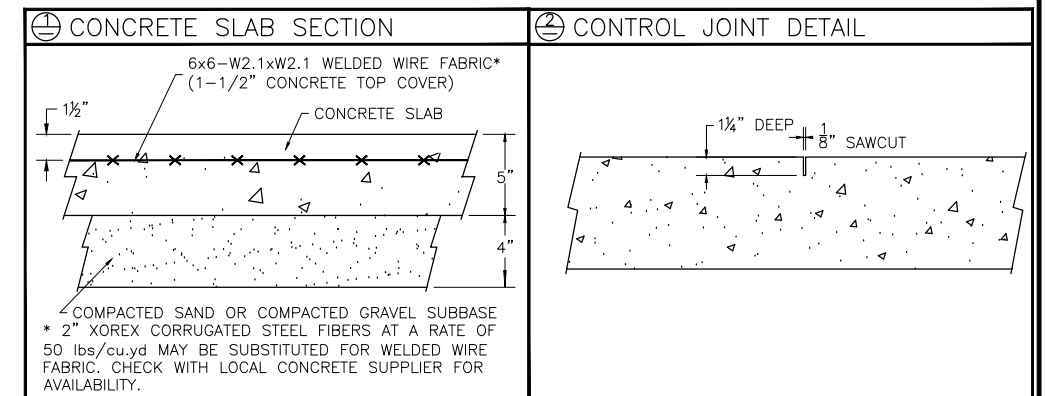
- 1) The foundation designs are based on the following:
  - a. Minimum presumed soil bearing 1000 psf.
  - b. Bleacher frame dead and live load 700 lbs./ft.
  - c. Bleacher frame wind uplift load 250 lbs./ft.
- 2) Unless otherwise noted on the drawings the bleacher frames shall be attached to the concrete with 3/8" dia. x 3" wedge type expansion anchors. 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 have a minimum 28-day strength of  $F_c=3000$  psi.
- 3) A 1/4" bituminous expansion joint material shall be placed between strip and slab foundations when adjacent to each other.
- 4) The depressions in the top of the foundations between high spots shall not exceed 5/16" below a 10-foot long straightedge. The 10-foot straightedge method used to measure foundation flatness shall be in accordance with Section of ACI 302.1R-04 "Guide for Concrete Floor and Slab Construction".

**CONCRETE SLAB SPECIFICATIONS:**

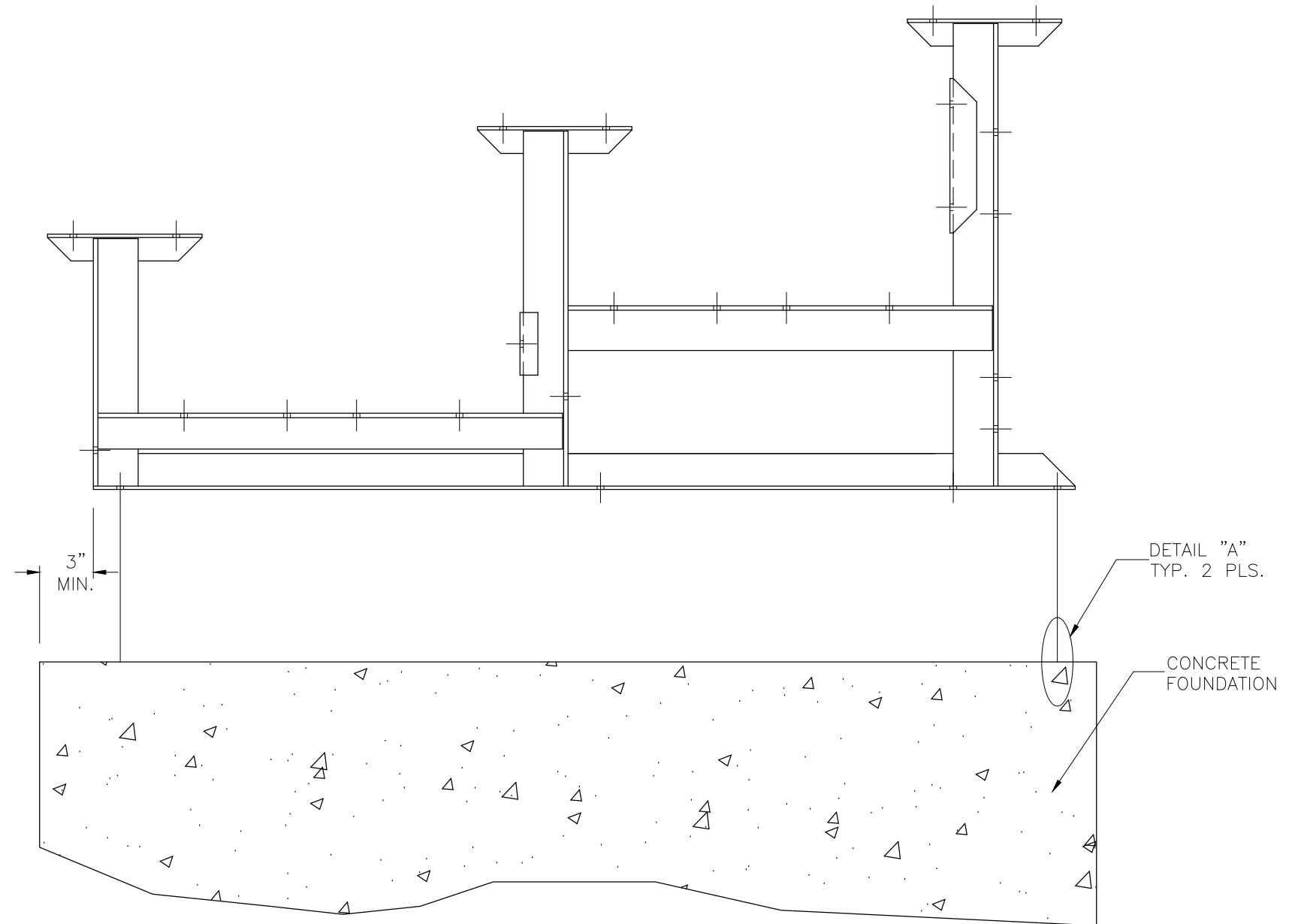
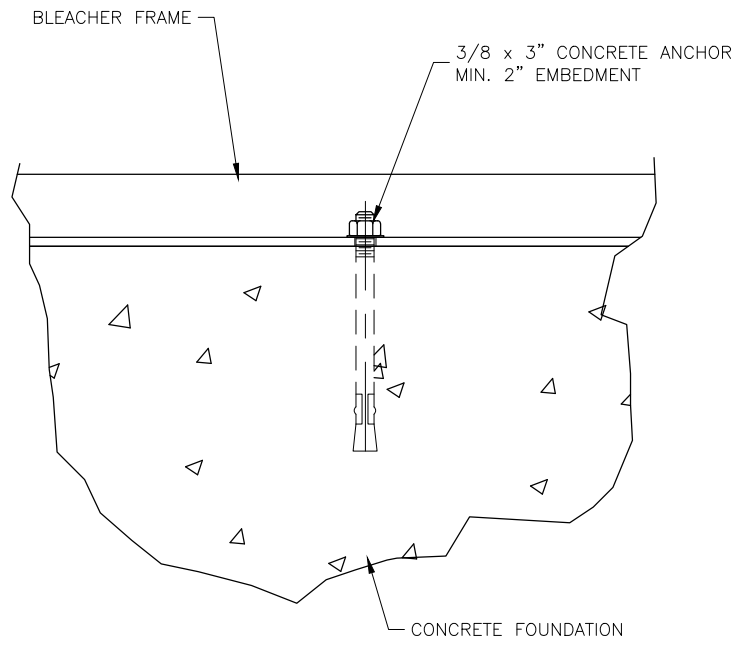
- 1) Concrete slab shall have a minimum thickness of 5" (NRS, Inc. recommends, and some areas may require 6" thickness) and placed on 4" of compacted gravel or compacted sand sub-base.
- 2) NRS, Inc. recommends that the concrete slab be reinforced with 6x6-W2.1xW2.1 welded wire fabric at 1 1/2" concrete cover from the top. In lieu of welded wire fabric, 2" XOREX by Ribbon Technology Corporation or equal corrugated steel fibers applied at a rate of 50-lbs./Cubic Yard may be used. Nylon or polypropylene fiber are not recommended.
- 3) Crack control joints shall be sawed into slab to form approximate square patterns. The maximum spacing for control joints shall not exceed 12'-6", unless shown otherwise on this drawing. 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.
- 4) 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".



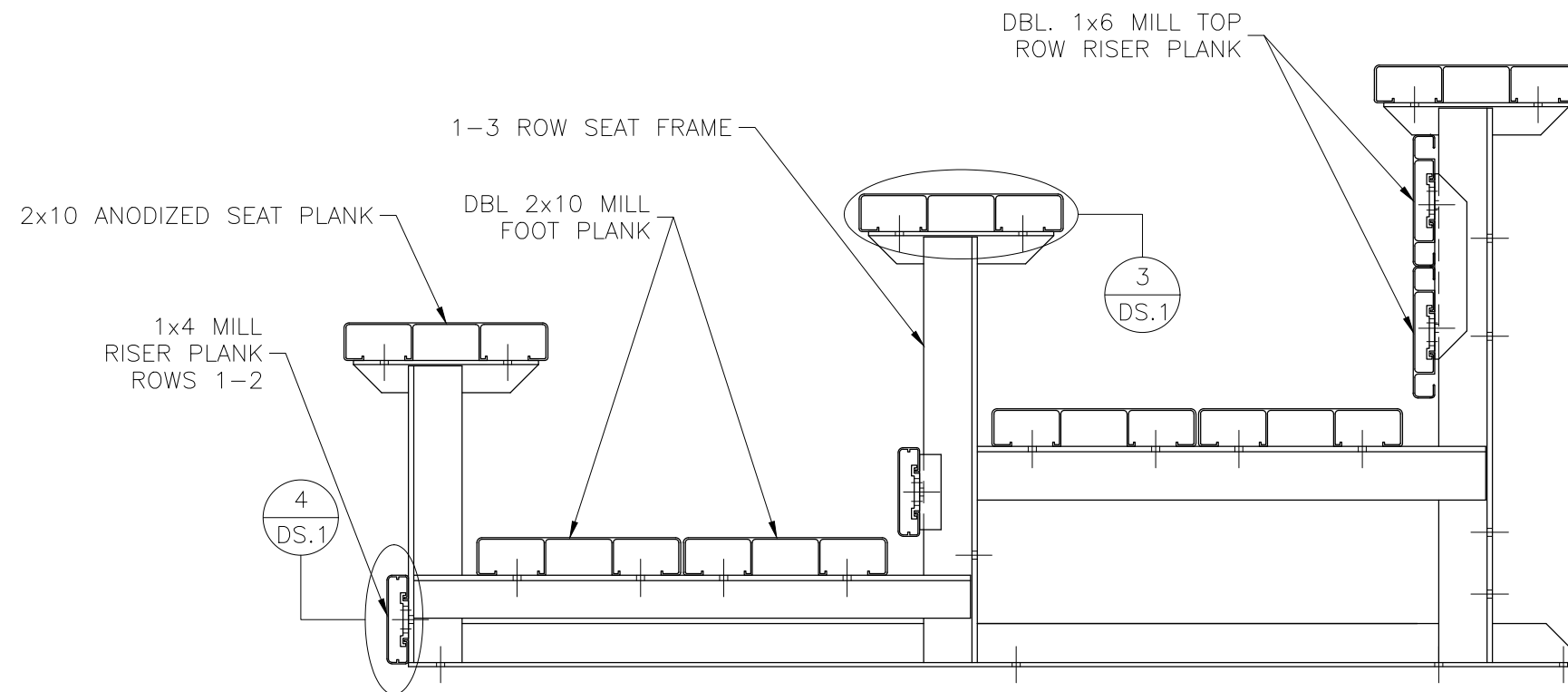
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<b>National Recreation Systems, Inc.</b>		
5120 INVESTMENT DRIVE - FORT WAYNE, IN 46808		
SCALE: N.T.S.	APPROVED BY:	DRAWN BY: HG
DATE: 1/5/15		
TITLE: NON- ELEV. 3 ROW x 21'-0" FOUNDATION PLAN		
BLEACHER MODEL #: NB-0321ADLX	DRAWING NUMBER: FP.1	

**DETAIL "A" - CONC. ANCHOR ATTACHMENT**



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			SCALE: N.T.S.	APPROVED BY:
DATE: 1/5/15		TITLE: ANCHORING PLAN		
BLEACHER MODEL #:	NB-0321ADLX	DRAWING NUMBER:		AP.1

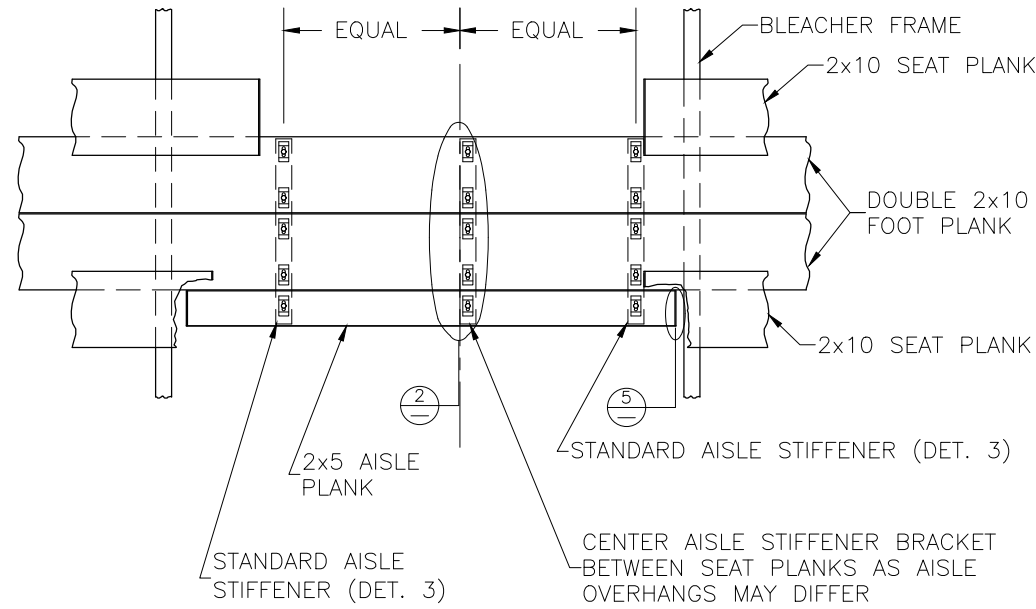


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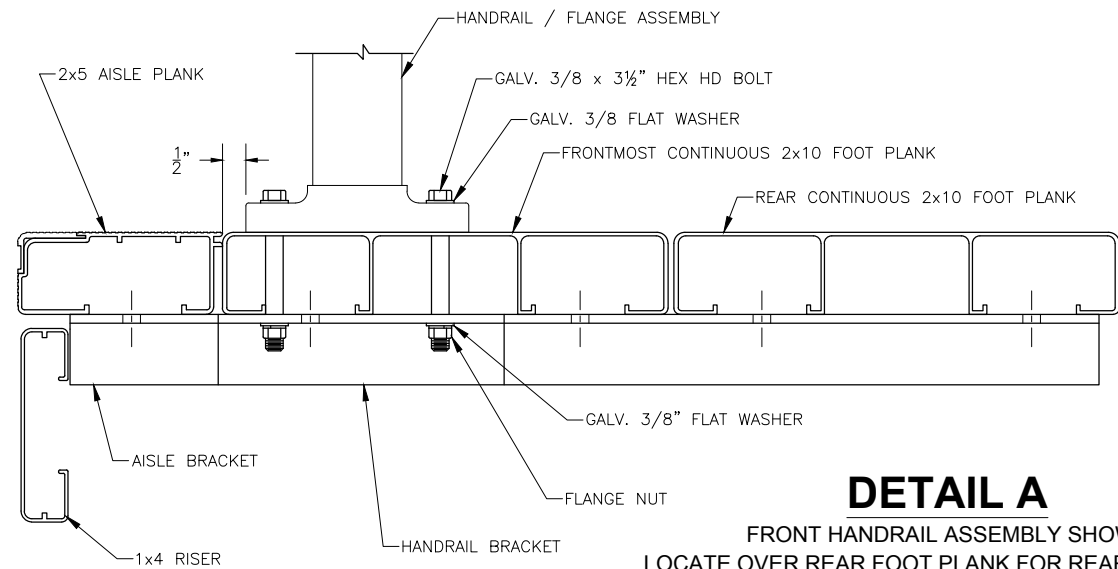
**National Recreation Systems, Inc.**  
**5120 INVESTMENT DRIVE - FORT WAYNE, IN 46808**

SCALE: N.T.S.	APPROVED BY:	DRAWN BY: HG
DATE: 1/5/15		
TITLE: BLEACHER ASSEMBLY		
BLEACHER MODEL #: NB-0321ADLX	DRAWING NUMBER: BA.1	

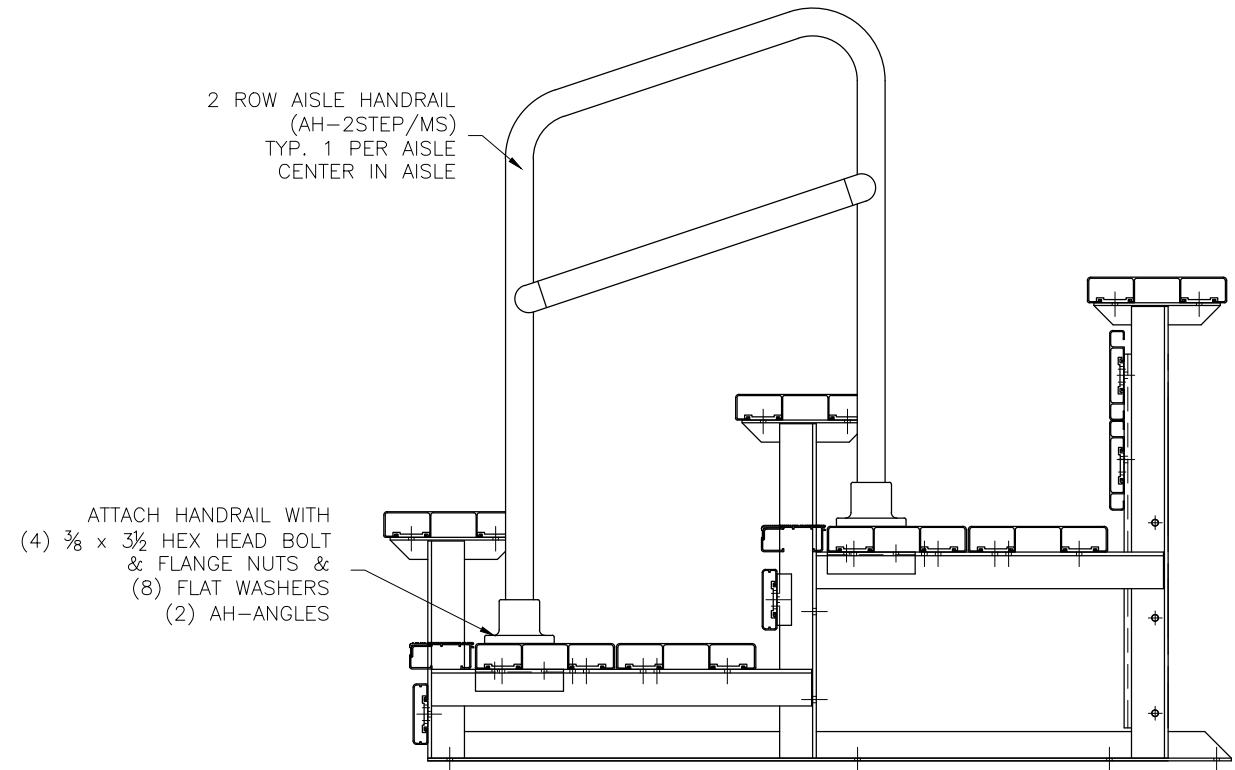
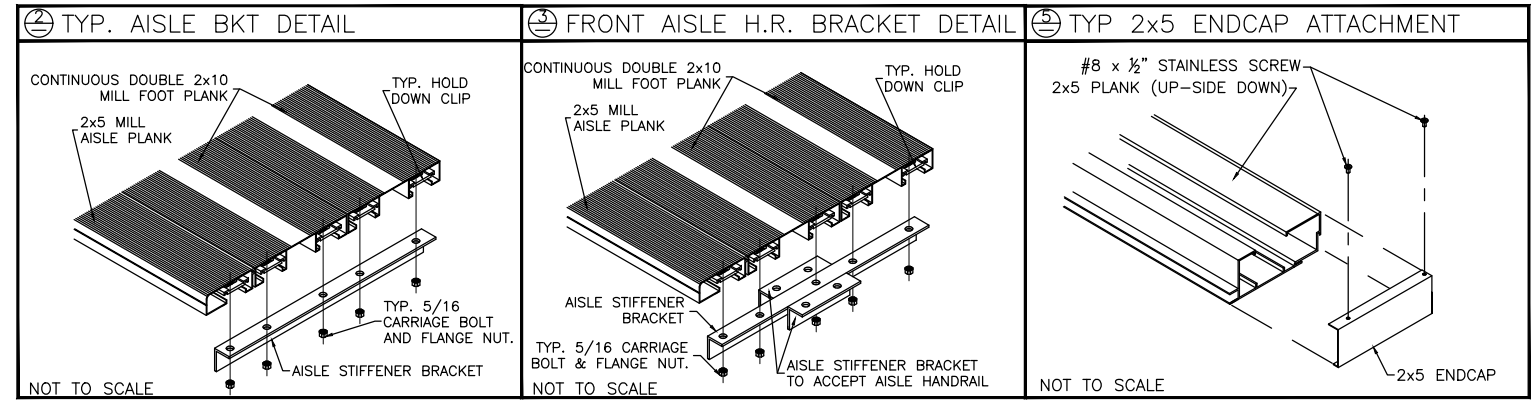
**DETAIL "A" - CONCRETE ANCHOR ATTACHMENT**



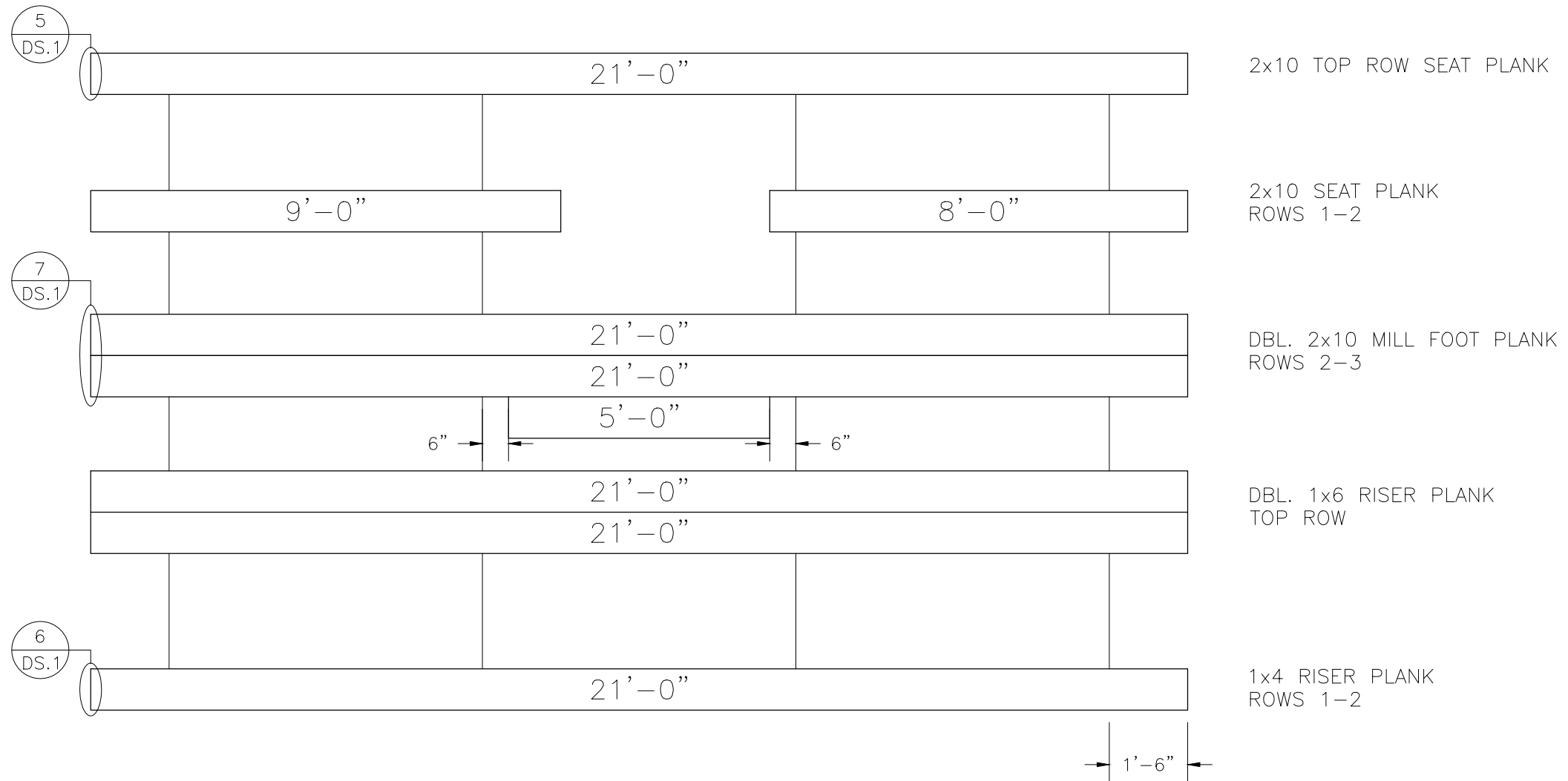
ALIGN EDGE OF FLANGE APPROX. 1/2" FROM THE LEADING EDGE OF THE FRONTMOST CONTINUOUS 2x10 FOOT PLANK (NOT THE 2x5 AISLE STEP PLANK). SLIGHTLY ADJUST FLANGE LOCATION, IF NECESSARY, SO THAT THE BOLT HOLE IS NOT DRILLED INTO A VERTICAL LEG OF THE PLANK. DRILL  $\phi 7/16$ " HOLES (FOR 3/8" BOLT). ASSEMBLE AS SHOWN USING GALV. STEEL BOLTS, FLAT WASHERS, AND FLANGE NUTS.



**DETAIL A**  
FRONT HANDRAIL ASSEMBLY SHOWN  
LOCATE OVER REAR FOOT PLANK FOR REAR ASSEMBLY

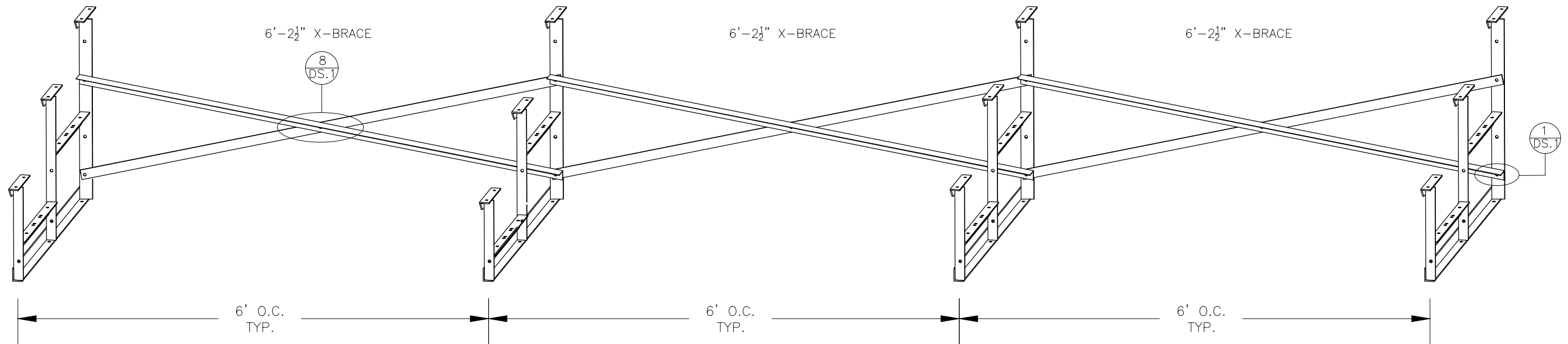


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<p><b>National Recreation Systems, Inc.</b> 5120 INVESTMENT DRIVE - FORT WAYNE, IN 46808</p>		
SCALE: N.T.S.	APPROVED BY:	DRAWN BY: HG
DATE: 1/5/15		
TITLE: 3 ROW VERTICAL AISLE		
BLEACHER MODEL #: NB-0321ADLX	DRAWING NUMBER: VA.1	



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	5120 INVESTMENT DRIVE - FORT WAYNE, IN 46808	
	SCALE: N.T.S.	APPROVED BY:
	DATE: 1/5/15	DRAWN BY: HG
TITLE: NON- ELEV. 3 ROW x 21'-0" PLANK & FRAMING PLAN		
BLEACHER MODEL #: NB-0321ADLX	DRAWING NUMBER: PF.1	

PRE-ASSEMBLE X-BRACE SETS. EACH SET CONSISTS OF ONE FLAT BAR AND ONE ANGLE. ONCE ASSEMBLED, THEY WILL BECOME AN "X". THEY BOLT TOGETHER WITH A  $\frac{3}{8}$ " X  $1\frac{1}{4}$ " HEX HEAD BOLT AND FLANGE NUT THRU THE CENTER HOLE. (SEE DETAIL 8 ON DETAIL SHEET).

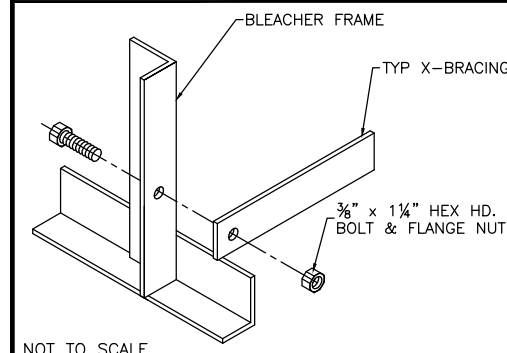


DETAIL IS TO DEPICT CROSS BRACING ATTACHMENT ONLY. FRAME DESIGN MAY VARY.

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			5120 INVESTMENT DRIVE - FORT WAYNE, IN 46808	
SCALE: N.T.S.	APPROVED BY:	DRAWN BY: HG		
DATE: 1/5/15				
TITLE: NON- ELEV. 3 ROW x 21'-0" BRACE ASSEMBLY				
BLEACHER MODEL #: NB-0321ADLX			DRAWING NUMBER: BR.1	

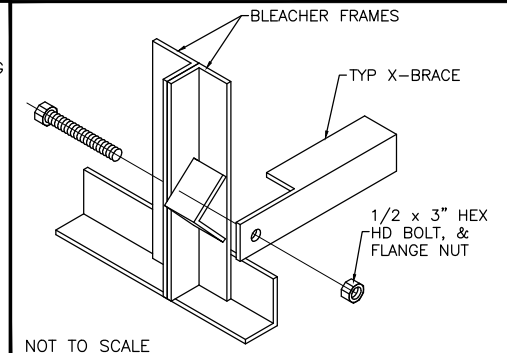


⊕ TYP X-BRACE CONN. W/ 1/4" BOLT



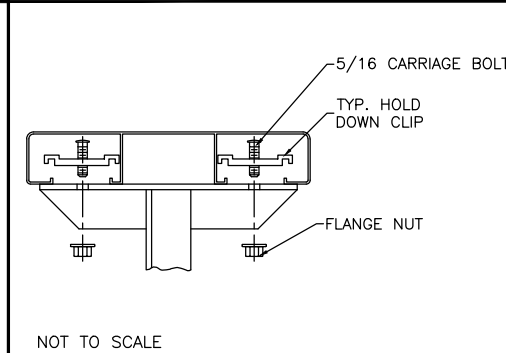
NOT TO SCALE

⊕ TYP X-BRACE CONN. w/3" BOLT



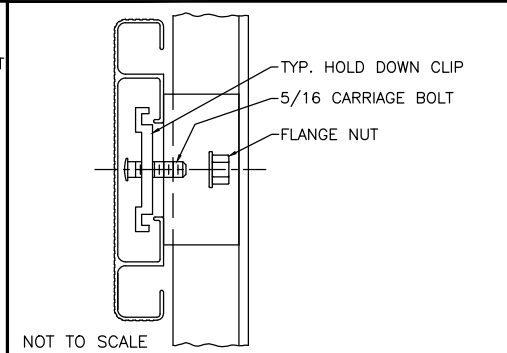
NOT TO SCALE

⊕ TYP 2x10 PLANK ATTACHMENT



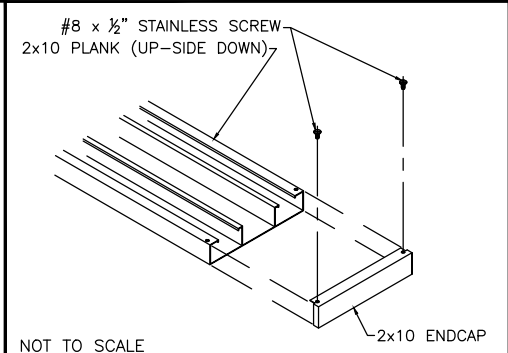
NOT TO SCALE

⊕ TYP 1x4/1x6 PLANK ATTACHMENT



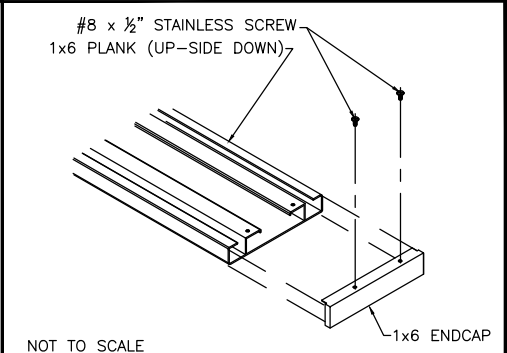
NOT TO SCALE

⊕ TYP 2x10 ENDCAP ATTACHMENT



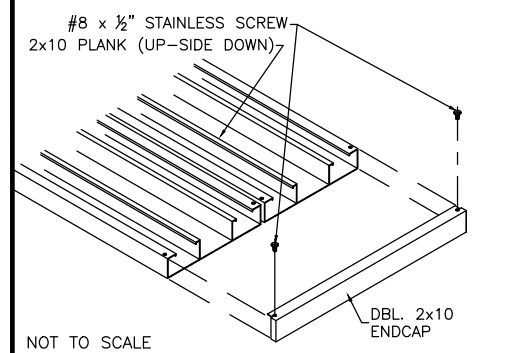
NOT TO SCALE

⊕ TYP 1x6 ENDCAP ATTACHMENT



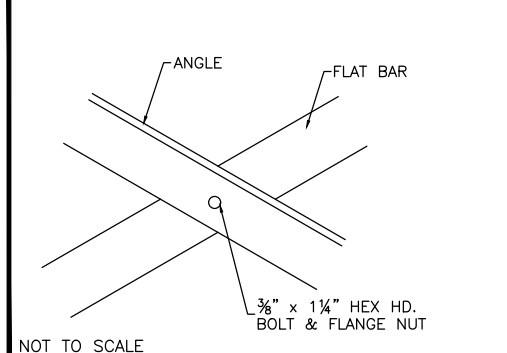
NOT TO SCALE

⊕ DBL. 2x10 ENDCAP ATTACHMENT



NOT TO SCALE

⊕ TYP X-BRACE CONN. W/ 1/4" BOLT



NOT TO SCALE

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**National Recreation Systems, Inc.**  
 5120 INVESTMENT DRIVE - FORT WAYNE, IN 46808

SCALE: N.T.S.	APPROVED BY:	DRAWN BY: HG
DATE: 1/5/15		
TITLE: DETAIL SHEETS		
BLEACHER MODEL #: NB-0321ADLX	DRAWING NUMBER: DS.1	