



Submittal Transmittal BP08 Structure Package No: 03 30 00-0007-0 Date:

Mercy Northwest Arkansas Inpatient Tower Addition
 Project # 003882.000

Tel: Fax:

Transmitted To:
David Londagin
 Bates and Associates Architects
 225 South Meramec
 Suite 832T
 Clayton, MO 63105
 Phone: 417-865-2065

Status Draft
Date Due

Description
 BP08 Level 2-7 Studrails

Notes
 Level 2 has already been submitted, so please approve levels 3-8 for this submittal.

Item #	Type	Description	Spec Sec	Sub Sec	Rev	Status
1033	Shop Drawings	BP08 Level 2-7 Studrails	S2 20 08		0	Received

Transmitted By: Paul Allen

Copies To

Company

Contact



Submittal Approval Page
By Submittal Item

Mercy Northwest Arkansas Inpatient Tower Addition
Project # 003882.000

BP08 Structure Package No: 03 30 00-0007-0
Tel: Fax:

Preparer Approval				MBC Approval							
Spec Section	Sub Section	Item No	Revision								
S2 20 08		1,033	0	A. Approved as noted for Architectural Review	<input checked="" type="checkbox"/>						
	BP08 Level 2-7 Studrails			B. Revise & Resubmit	<input type="checkbox"/>						
				C. Rejected	<input type="checkbox"/>						
Approved for Submission				<p>This review is for general conformance with Plans and Specifications only. Any deviations from same not clearly noted by the Preparer have not been reviewed. Review shall not constitute a complete check of detailed dimensions or count or serve to relieve the Preparer of contractual responsibility for any error or deviation from contract requirements.</p>							
By: Paul Allen				By: _____ Date: _____							
McCarthy Building Companies, Inc.				Submittal Package No: 03 30 00-0007-0 BP08 Level 2-7 Studrails							
Bates and Associates Architects Approval				Engineer Approval							
225 South Meramec Suite 832T Clayton, MO 63105				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><input type="checkbox"/> Reviewed</td> <td style="width: 50%;"><input checked="" type="checkbox"/> Check notes and Correct as needed</td> </tr> <tr> <td><input type="checkbox"/> Reject, Resubmit</td> <td><input type="checkbox"/> Revise and Resubmit</td> </tr> <tr> <td></td> <td><input type="checkbox"/> Submit Specified Item</td> </tr> </table> <p>This review is only for general conformance with the design concept as given in the Contract Documents. Corrections or comments made on the shop drawings during this review do not relieve the Contractor from compliance with the requirements of the Contract Documents. Review notes do not apply to accuracy or completeness of details on the drawings such as but not limited to quantities, dimensions, weights, gauges, processes, voltages, capacities or part numbers. Review of a specific item shall not include review of an assembly of which the item is a component. The Contractor is responsible for contract conformance including, but not limited to dimensions, part numbers, design, design details, quantities, information that pertains to the fabrication processes and to the means, methods, techniques, sequences and procedures of fabrication. The Contractor is to specifically identify in writing and resubmit this drawing if Contractor has deviated from contract specifications and has not heretofore both annotated and specifically identified said deviations in writing on the drawing.</p> <p style="text-align: right;">Toth & Associates, Inc.</p> <p style="text-align: right;">Date <u>8/1/2017</u></p> <p>By <u>KDH</u></p>		<input type="checkbox"/> Reviewed	<input checked="" type="checkbox"/> Check notes and Correct as needed	<input type="checkbox"/> Reject, Resubmit	<input type="checkbox"/> Revise and Resubmit		<input type="checkbox"/> Submit Specified Item
<input type="checkbox"/> Reviewed	<input checked="" type="checkbox"/> Check notes and Correct as needed										
<input type="checkbox"/> Reject, Resubmit	<input type="checkbox"/> Revise and Resubmit										
	<input type="checkbox"/> Submit Specified Item										



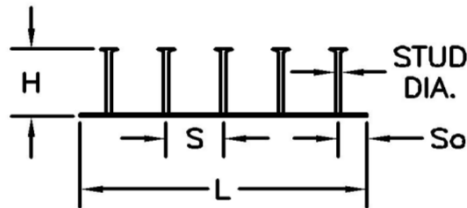
Decon Studrail Inc.
 11 Professional Village
 Beaufort, SC 29907

Toll Free: (800) 975-6990
 Ph: (843) 525-1860
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 Email: tony@decon.ca
www.deconusa.com

PAGE: 1 of 6
 DATE: July 21, 2017
 TO: McCarthy Building Companies, Inc.
 ATTN: Adam Lampe
 PHONE: (417) 597-9591
 FAX:
 EMAIL: ALampe@McCarthy.com

I am sending the Studrail® Placement Drawings for the MNWA CMP Hospital Bed Tower in Rogers, AR. These placement drawings were determined from Structural Drawings dated June 22, 2017. The structural engineer who designed this project should review these placement drawings. The engineer approved placement drawings will determine final manufactured quantities and pricing. Please have the purchase order reflect these approved quantities.

The Studrails® will be color coded using spray paint on one end for easy identification on-site. The colors and quantities of Studrails® are shown in the table below.



COLOR	SIZE		So	STUD SPACING	STUD DIA.	# OF STUDS	QTY
	H	L					
Yellow	10 1/2	x 24 1/2"	4 7/8"	7 3/8"	1/2	3	756
White	10 1/2	x 31 7/8"	4 7/8"	7 3/8"	1/2	4	564
Green	10 1/2	x 39 1/4"	4 7/8"	7 3/8"	1/2	5	132
Red	10 1/2	x 36 3/4"	4 7/8"	6 3/4"	1/2	5	24
Orange	10 1/2	x 53 5/8"	4 7/8"	4 7/8"	1/2	10	36
Blue	10 1/2	x 48 3/4"	4 7/8"	4 7/8"	1/2	9	36
Brown	10 1/2	x 52 1/4"	4 7/8"	4 1/4"	1/2	11	12

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If you have any questions, please do not hesitate to contact me.

Yours Sincerely,
 DECON®

Tony Behrens



DECON

a JORDAHL company

SPECIFICATION OF DECON[®] STUDRAILS[®]

The shear studs used in the fabrication of Studrails[®] are Low Carbon Steel, C1015 to C1018 in accordance with ASTM-A108. The strength and ductility requirements are:

Yield strength: 51,000 psi minimum (350 MPa)
Tensile strength: 65,000 psi minimum (450 MPa)
Elongation in 2 in.: 20% minimum
Reduction of Area: 50% minimum

The rails used in Studrails[®] are Low Carbon Steel Type 44W with the following strength and ductility requirements:

Yield strength: 44,000 psi minimum (300 MPa)
Tensile strength: 65,000 psi minimum (450 MPa)
Elongation in 8 in.: 20% minimum

The studs are welded in accordance with American Welding Society (AWS) D1.1 and CSA Standard W59 as certified by the Canadian Welding Bureau.

The overall height of the Studrail[®] is dependent on the slab thickness and the required concrete cover. The area of the stud head should be 10 times the stem area. The base rail profile should be as shown in ASTM A1044.

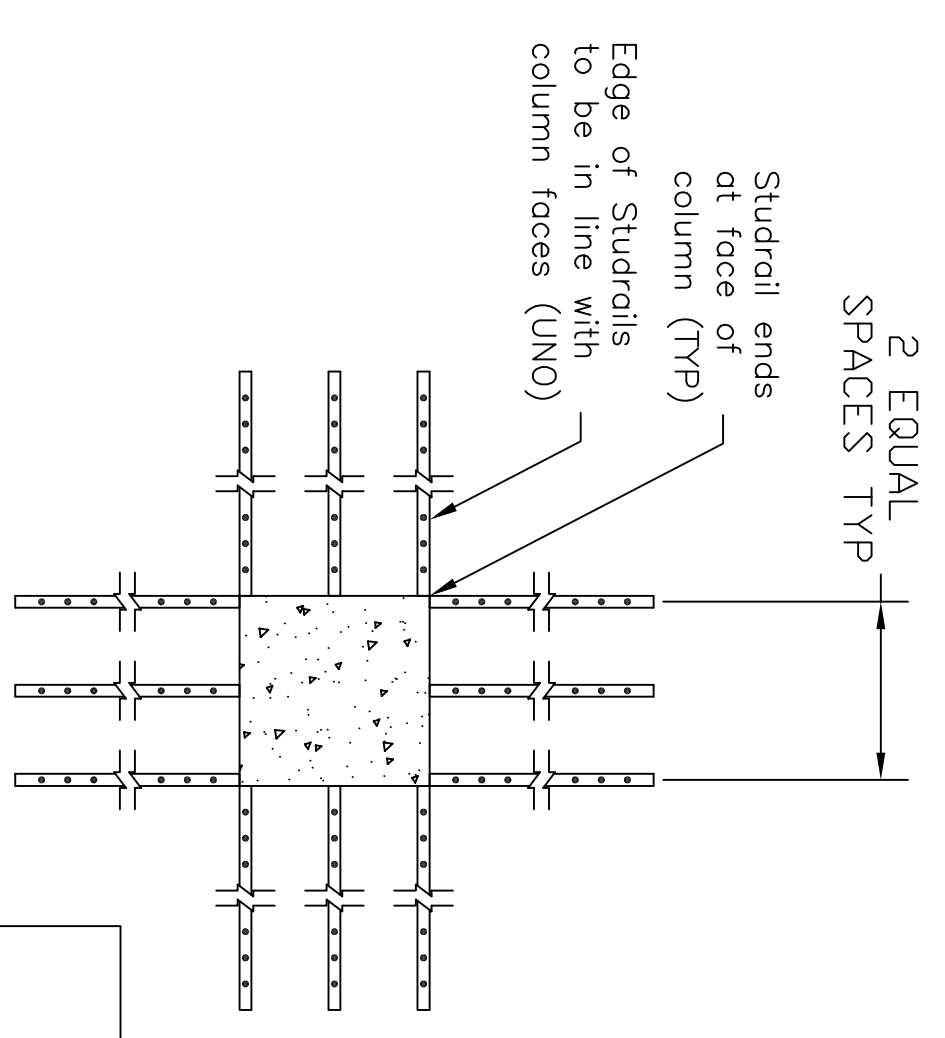
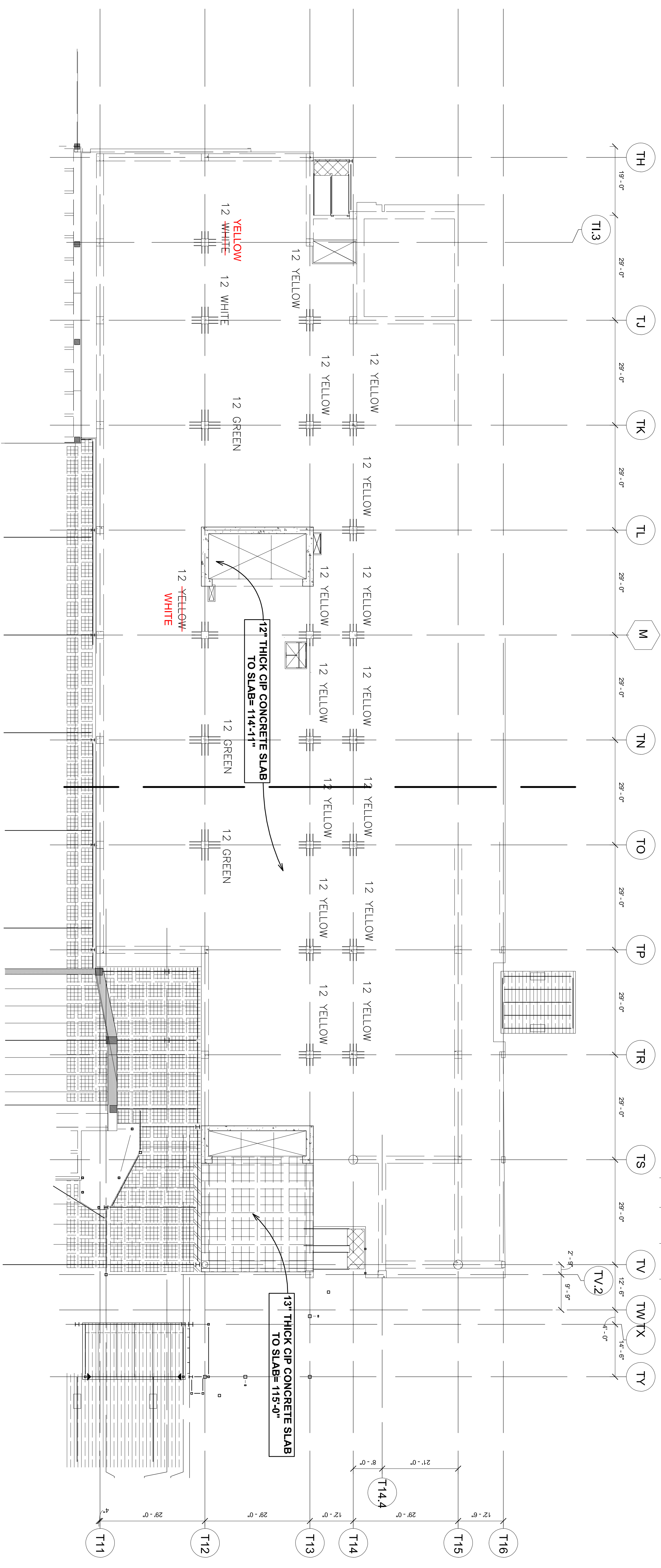
Studrails[®] should be specified in the project documents under “Section 3200 – Concrete Reinforcement”. The engineer should use wording similar to the following:

Shear Reinforcement at the slab column connection as shown on the drawings and details, shall be Studrails[®] as manufactured by Decon[®] and detailed in ICC ESR-2494. The complete and finished Studrail[®] shall be ICC ES evaluated and welding has to take place in an ICC ES audited facility. Studrails[®] shall conform to the latest update of ASTM A1044.

***Decon[®] USA Inc.
Sonoma, CA
866-DECON-US***

***Decon[®] USA Inc.
Beaufort, SC
800-975-6990***

***Decon[®] Canada.
Brampton, ON
800-36-DECON***



LEVEL 2-3

COLOR	SIZE	So	STUD SPACING	STUD DIA.	# OF STUDS	TOTAL
Yellow	H 10 1/2 x 24 1/2"	4 7/8"	7 3/8"	1/2"	3	360
White	10 1/2 x 31 7/8"	4 7/8"	7 3/8"	1/2"	4	48
Green	10 1/2 x 39 1/4"	4 7/8"	7 3/8"	1/2"	5	72
						480
						240
						240

CHAIR ATTACHMENT
(CLIP STYLE CHAIR)
2" AND 3" DIAMETER STUDS

NOTE: QUANTITY OF CHAIRS SHIPPED REFLECTS REQUIRED QUANTITIES PER LENGTH OF RAIL.

Length of rail	No. chairs
0 - 19'	2
20 - 39'	3
40 - 59'	4
60 - 79'	5
80'+	6

- Studrails must be vertical.
- Position chairs Z, minimum from rail ends.
- Use additional chairs on rail ends.
- Use additional chairs on rail ends (See table).
- Position chair top over base rail.
- Use 4d-6d common nails.
- Insert rail through hole in chair top.
- Nail all chairs tightly.

WARNING: STUDRAILS MUST BE INSTALLED WITH THE STUDS VERTICAL AND PLACING THE CONCRETE.

STUDRAILS' EDGE OF FLAT BAR SHOULD BE PLACED 2" MINIMUM FROM SLAB EDGES OR CHANGE IN SLAB THICKNESS TO MAINTAIN ADEQUATE COVER.

11 Professional Village Circle
Beaufort, S.C. 29907
Tel: (800) 975-6990 www.DeconUSA.com

DECON
a JORDAHL company

DO NOT SCALE THIS DRAWING

Author: **MINWVA CMP**
Date: **MAY 22/17**

Checker: **ROGERS, AR**
Date: **JUL 21/17**

Rev. # _____ Date _____

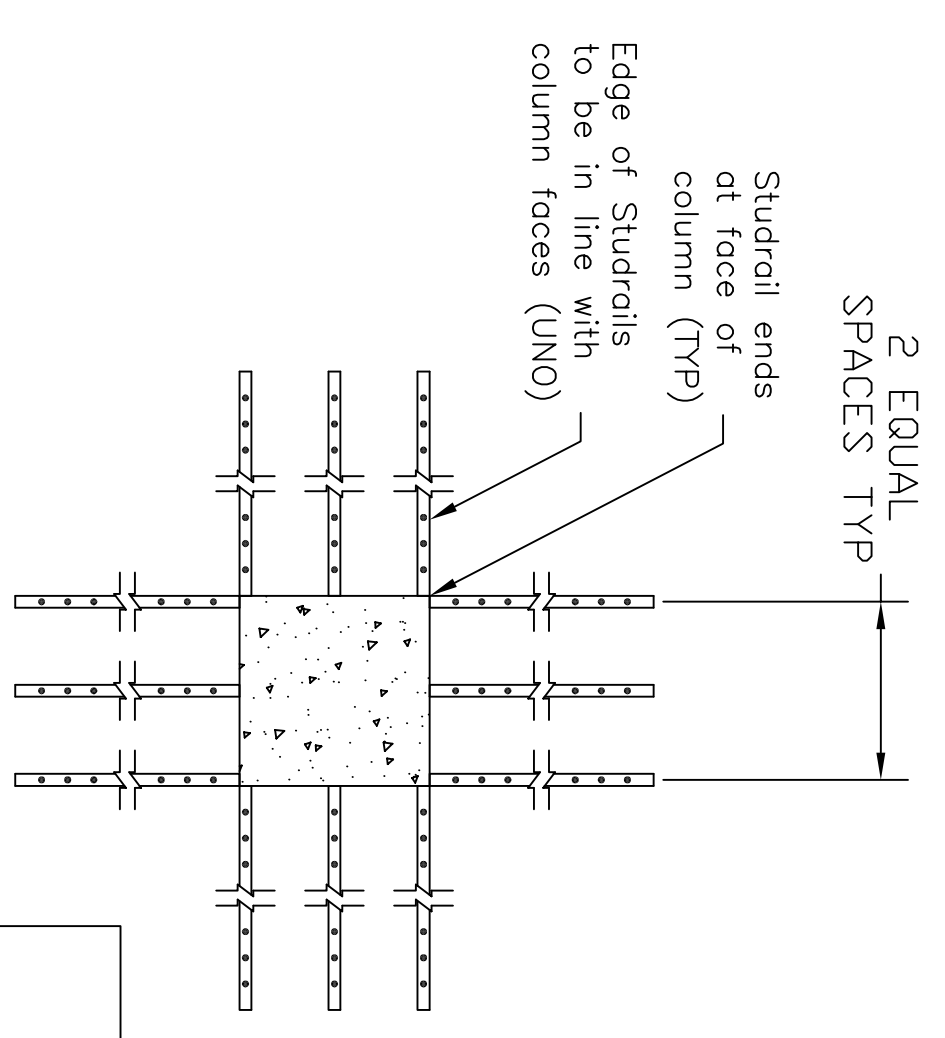
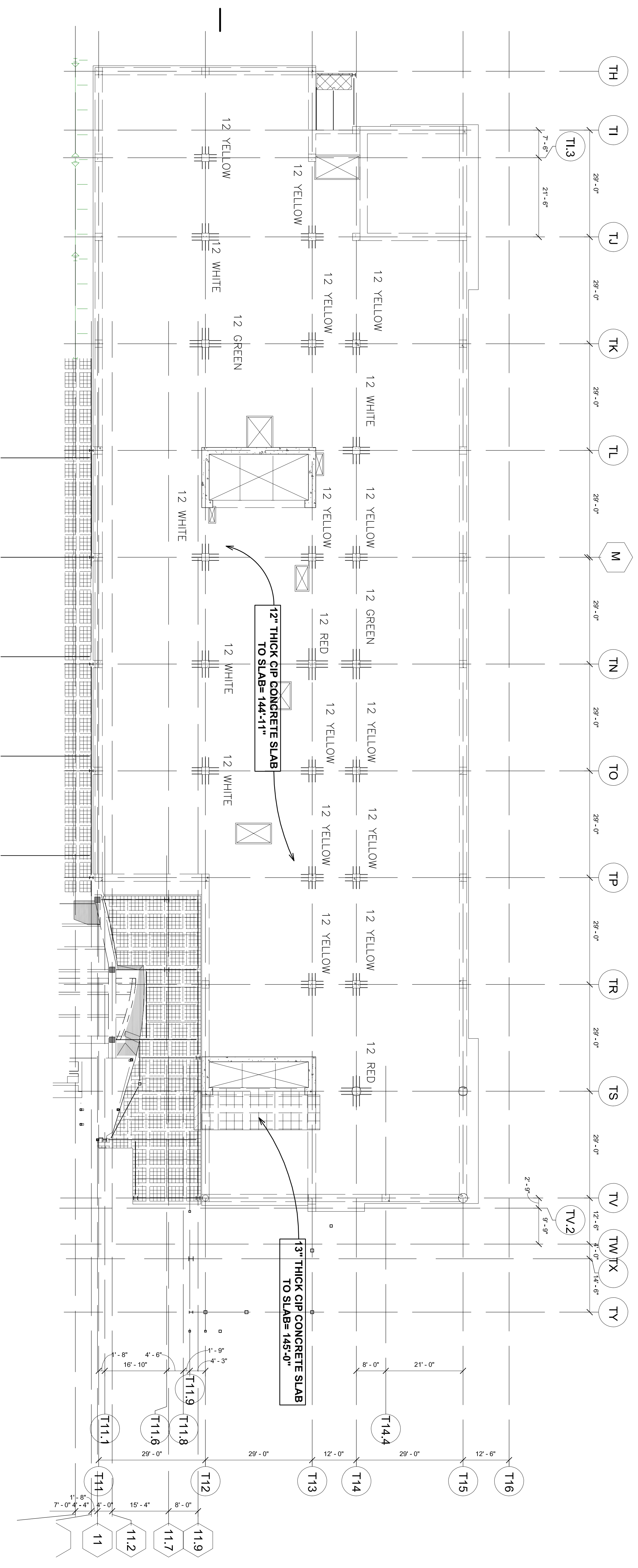
Rev. # _____ Date _____

Scale: **AS SHOWN**

Sheet: **AS HB / AS HB**

Project: **LEVEL 2-3 STUDRAIL LAYOUT**

Revision: **DEC40427**

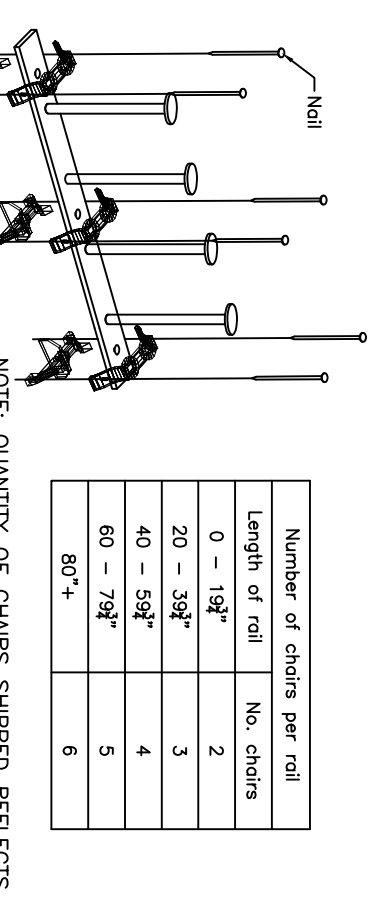


LEVEL 4

COLOR	H	SIZE	L	So	STUD SPACING	STUD DIA.	# OF STUDS	QTY
Yellow	10 1/2	X	24 1/2"	4 7/8"	7 3/8"	1/2	3	144
White	10 1/2	X	31 7/8"	4 7/8"	7 3/8"	1/2	4	60
Green	10 1/2	X	39 1/4"	4 7/8"	7 3/8"	1/2	5	24
Red	10 1/2	X	36 3/4"	4 7/8"	6 3/4"	1/2	5	24

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CHAIR ATTACHMENT
(CLIP STYLE CHAIR)
2" AND 3" DIAMETER STUDS



- Studrails must be vertical.
- Studrails must be placed at column corners UNO.
- Position chairs 2" minimum from rail ends.
- Use additional chairs on equally spaced (See table).
- Use additional chairs on each rail.
- Position chair top over base rail.
- Use 4d-6d common nails.
- Insert rail through hole in chair top.
- Nail all chairs tightly.

Rev. #	Rev. Date

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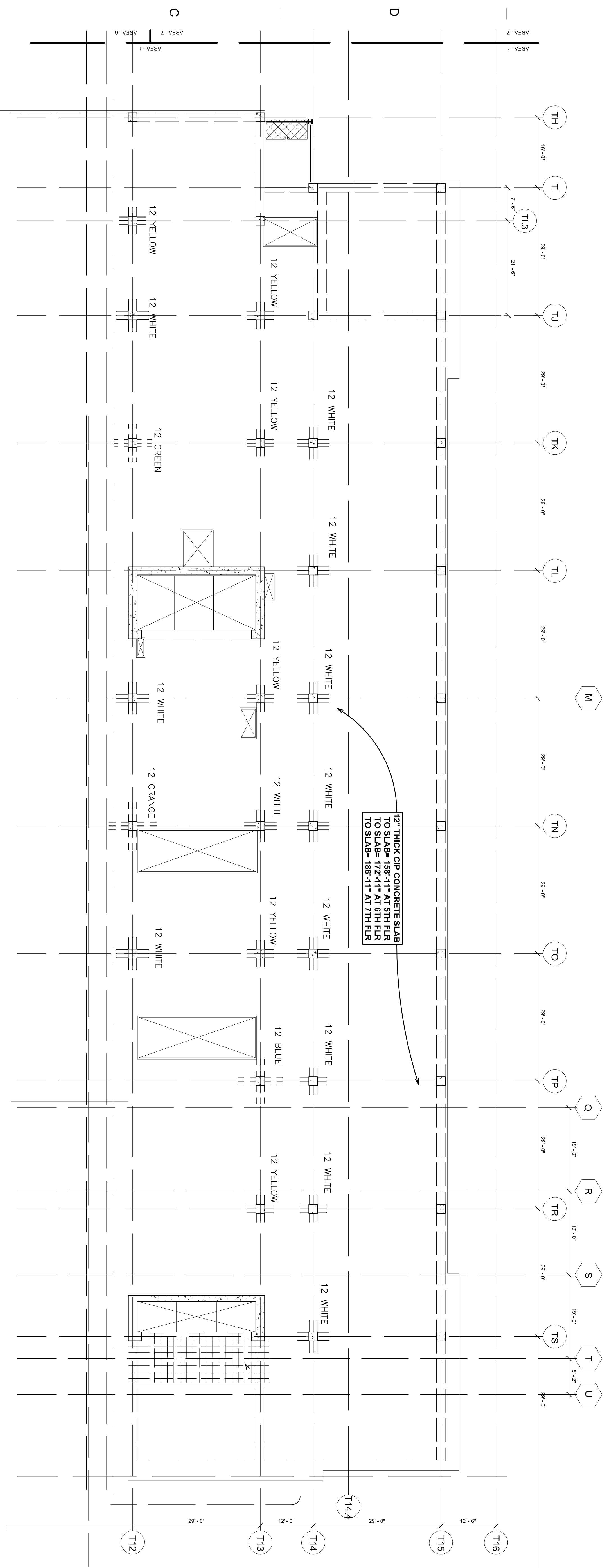
DO NOT SCALE THIS DRAWING

Author: **MINWVA CMP**
 Date: **MAY 22/17**
 Designer: **ROGERS**
 Checker: **AHB**
 Date: **JUL 21/17**

Scale: **LEVEL 4 STUDRAIL LAYOUT**

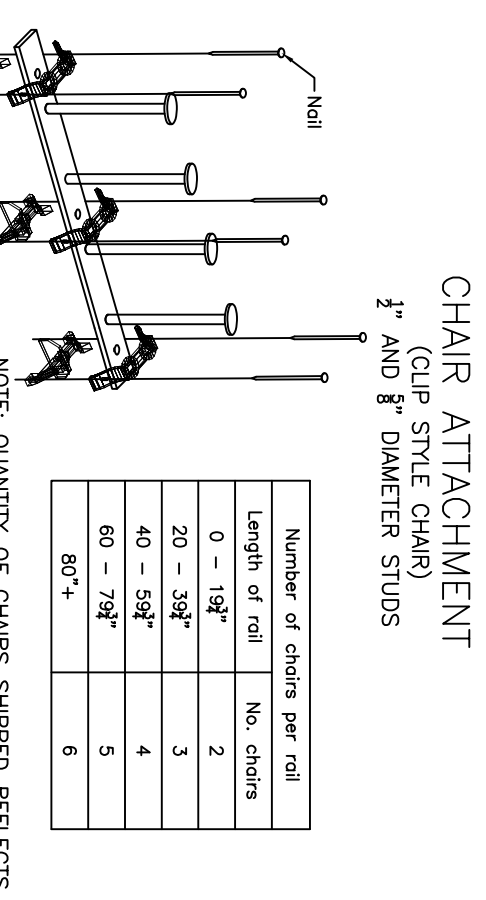
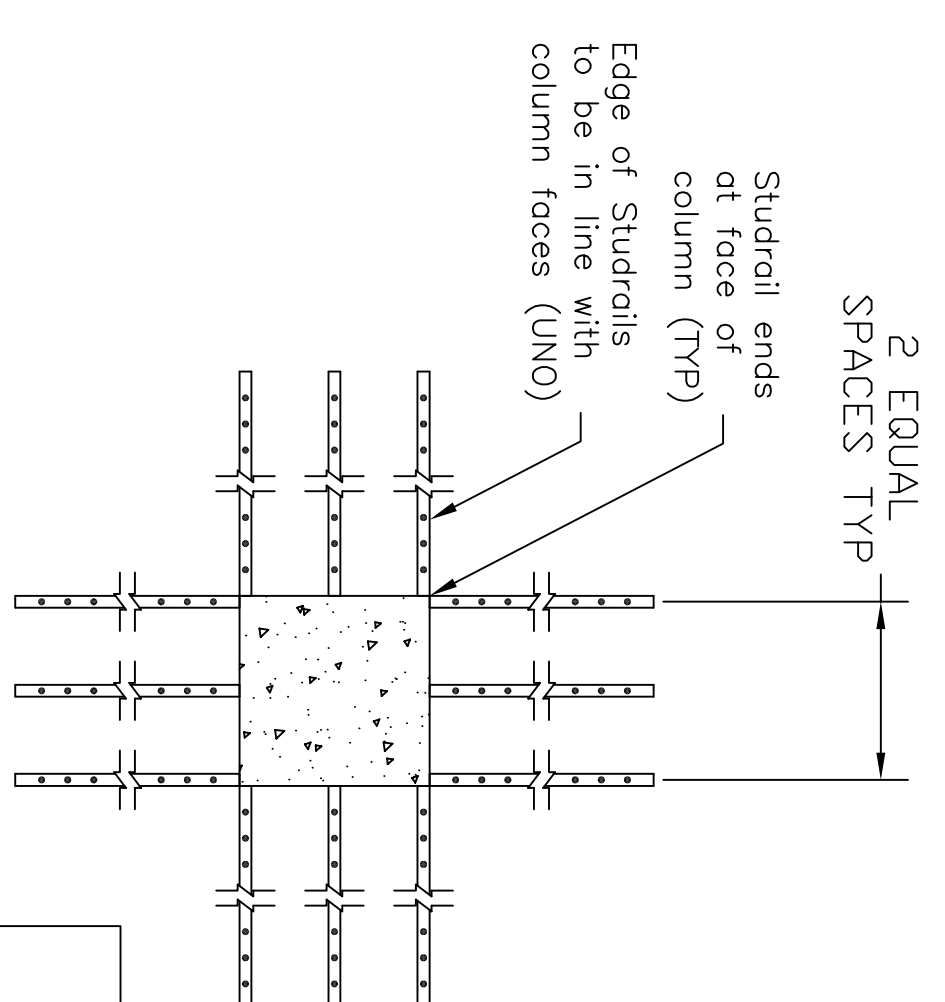
Project Reference: **DEC40428**

STUDRAILS' EDGE OF FLAT BAR SHOULD BE PLACED 2" MINIMUM FROM SLAB EDGES OR CHANGE IN SLAB THICKNESS TO MAINTAIN ADEQUATE COVER.



LEVEL 5-7

COLOR	H	SIZE	L	So	STUD SPACING	STUD DIA.	# OF STUDS	TOTAL	5	6	7
Yellow	10 1/2	X	24 1/2"	4 7/8"	7 3/8"	1/2	3	216	72	72	72
White	10 1/2	X	31 7/8"	4 7/8"	7 3/8"	1/2	4	432	144	144	144
Green	10 1/2	X	39 1/4"	4 7/8"	7 3/8"	1/2	5	36	12	12	12
Orange	10 1/2	X	53 5/8"	4 7/8"	4 7/8"	1/2	10	36	12	12	12
Blue	10 1/2	X	48 3/4"	4 7/8"	4 7/8"	1/2	9	36	12	12	12
								756	252	252	252



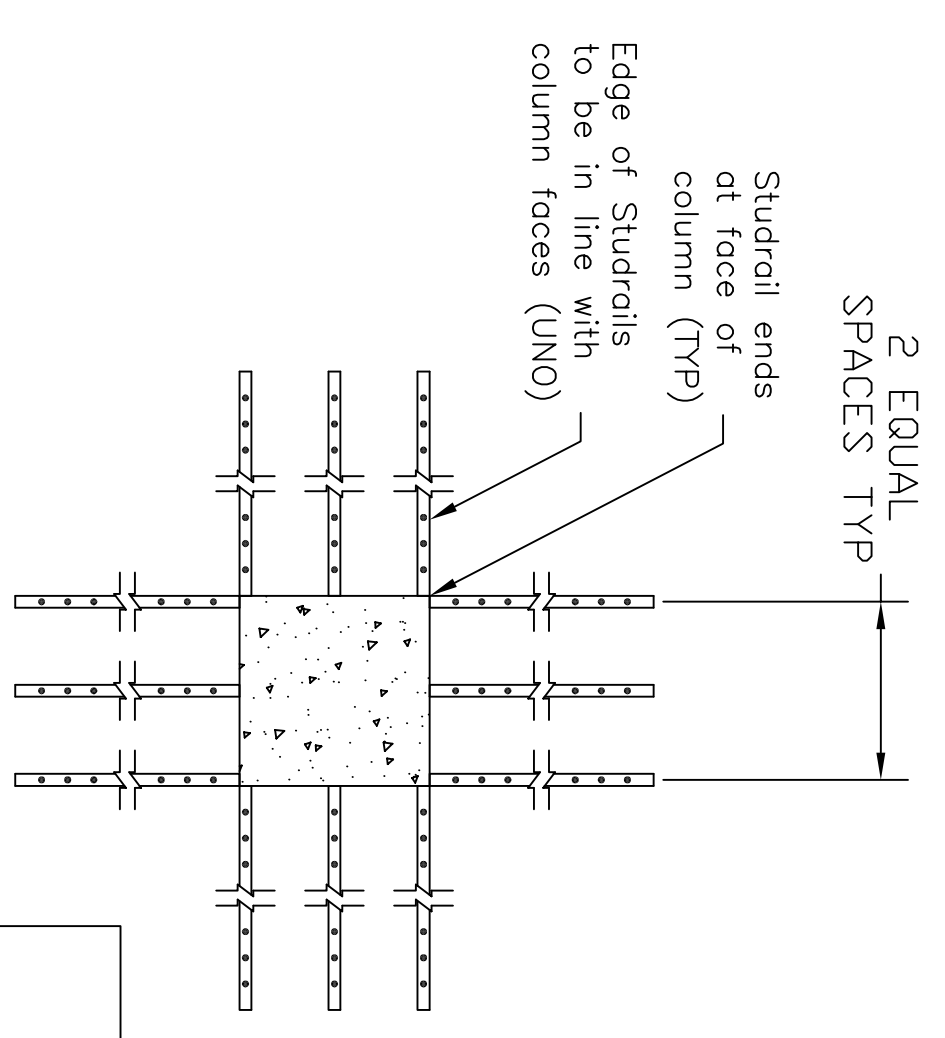
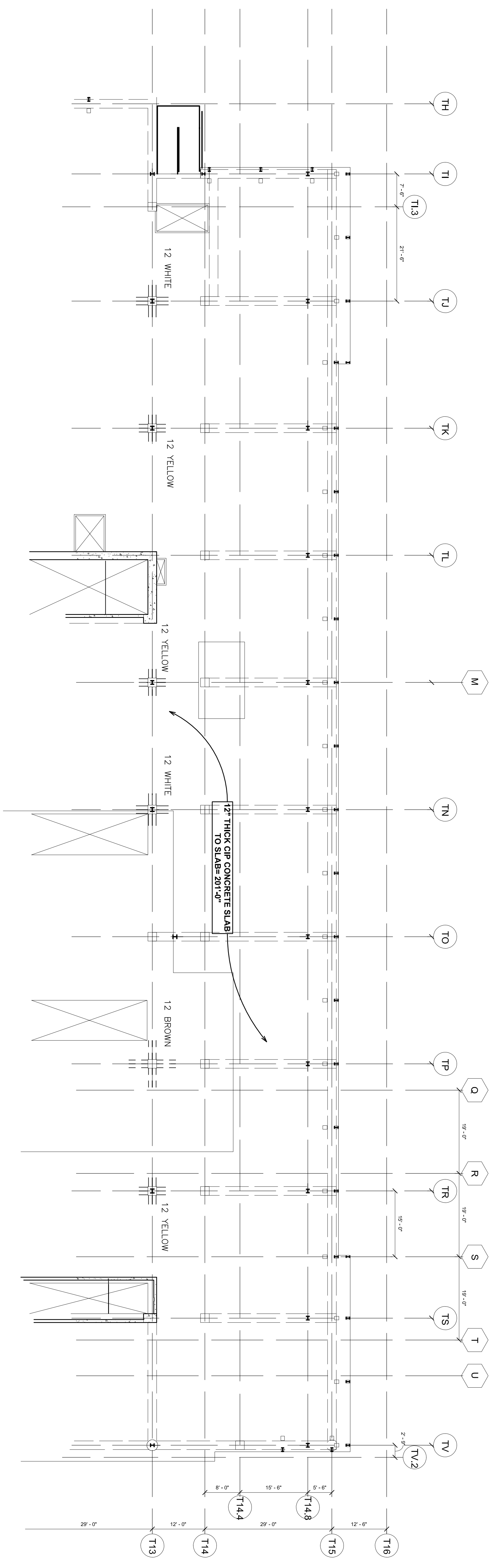
Length of rail	No. chairs
0 - 12"	2
20 - 32"	3
40 - 52"	4
60 - 72"	5
80"	6

STUDRAILS' EDGE OF FLAT BAR SHOULD BE PLACED 2" MINIMUM FROM SLAB EDGES OR CHANGE IN SLAB THICKNESS TO MAINTAIN ADEQUATE COVER.



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 Date Drawn: **JUL 21/17**
 Designation: **MINIWA CMP**
 Scale: **NOT TO SCALE**
 Designer: **ROGERS, ARR**
 Checker: **AHB/AHB**
 Approver: **ROGERS, ARR**
 Date: **MAY 22/17**
 Scale: **AS SHOWN**
 Project: **LEVELS 5-7 STUDRAIL LAYOUT**
 Drawing File Reference: **S2.50.08**
 Title: **DEC40429**



LEVEL 8

COLOR	H	SIZE	L	So	STUD SPACING	STUD DIA.	# OF STUDS	QTY
Yellow	10 1/2	X	24 1/2"	4 7/8"	7 3/8"	1/2	3	36
White	10 1/2	X	31 7/8"	4 7/8"	7 3/8"	1/2	4	24
Brown	10 1/2	X	52 1/4"	4 7/8"	4 1/4"	1/2	11	12

CHAIR ATTACHMENT
(CLIP STYLE CHAIR)
2" AND 3" DIAMETER STUDS

NOTE: QUANTITY OF CHAIRS SHIPPED REFLECTS REQUIRED QUANTITIES PER LENGTH OF RAIL.

Length of rail	No. chairs
0 - 12'	2
20 - 32'	3
40 - 52'	4
60 - 72'	5
80'+	6

• Studrails must be vertical.
• Position chairs Z minimum from rail ends.
• Use additional chairs on rail ends.
• Use 4d-6d common nails.
• Position chair top over base rail.
• Insert rail through hole in chair top.
• Nail all chairs tightly.

WARNING: STUDRAILS MUST BE INSTALLED WITH THE STUDS VERTICAL AND PLACING THE CONCRETE.

STUDRAILS' EDGE OF FLAT BAR SHOULD BE PLACED 2" MINIMUM FROM SLAB EDGES OR CHANGE IN SLAB THICKNESS TO MAINTAIN ADEQUATE COVER.

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DO NOT SCALE THIS DRAWING

Author: **MINWVA CMP**
 Date: **MAY 22/17**
 Title: **ROGERS ARR**

Checker: **AHB/AHB**
 Date: **JUL 21/17**
 Title: **LEVEL 8 STUDRAIL LAYOUT**

Scale: **AS SHOWN**

Proj. # **S2.80.08**

Rev. # **DEC40430**