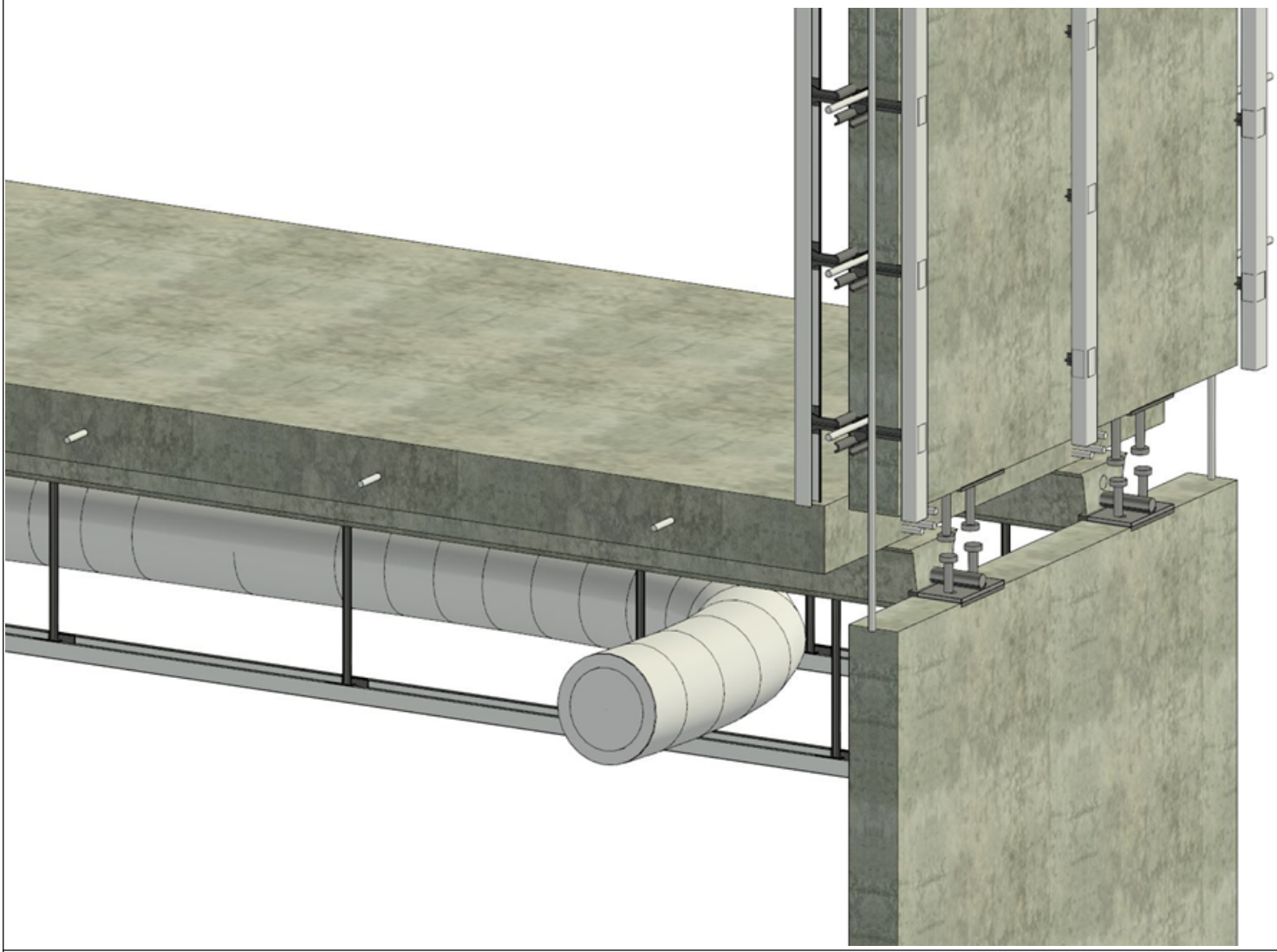
CLIMATE-DECK™
24' SPAN



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CLIMATE-DECK™
24' SPAN

(2) @ 18" x 48" x 144"

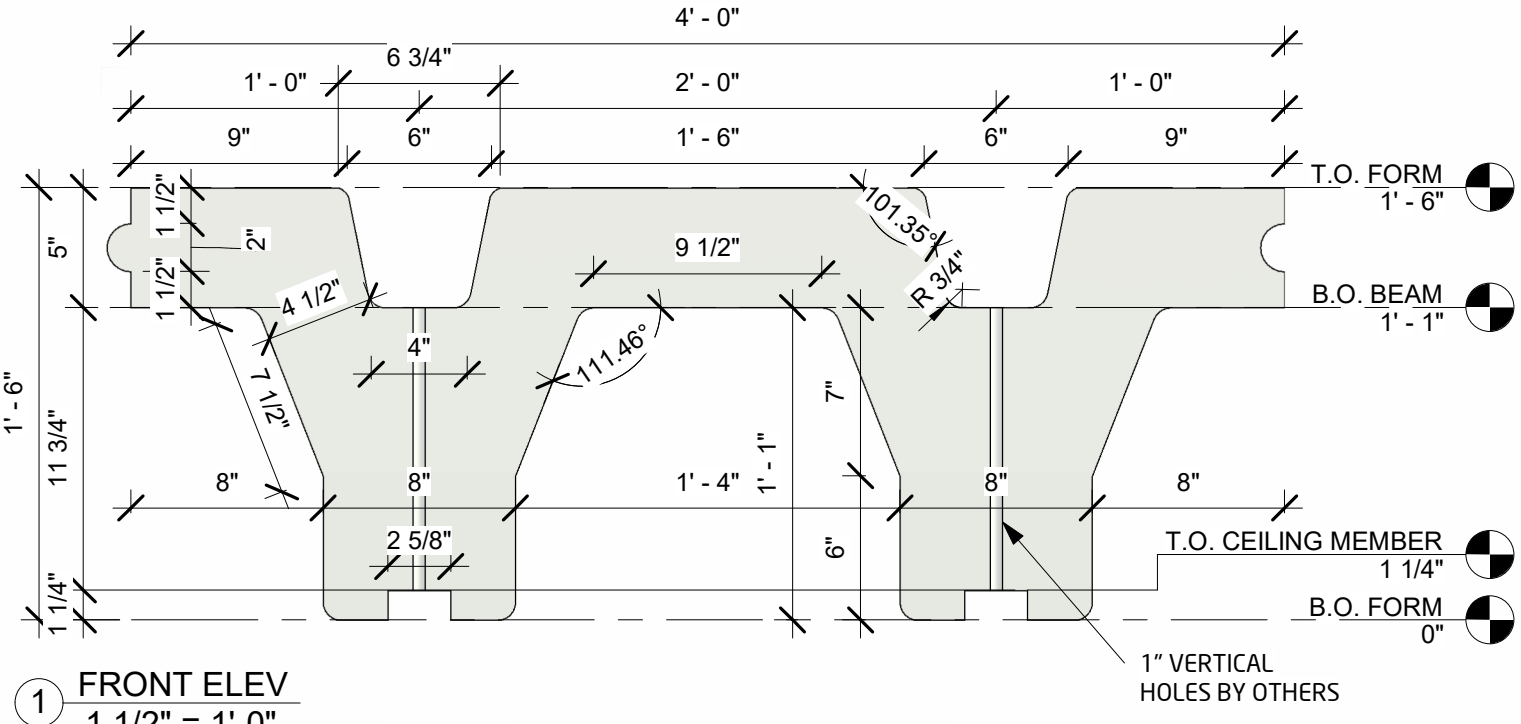
COVER SHEET

Project number	CD1848144
Date	TODAY
Drawn by	Author
Checked by	Checker

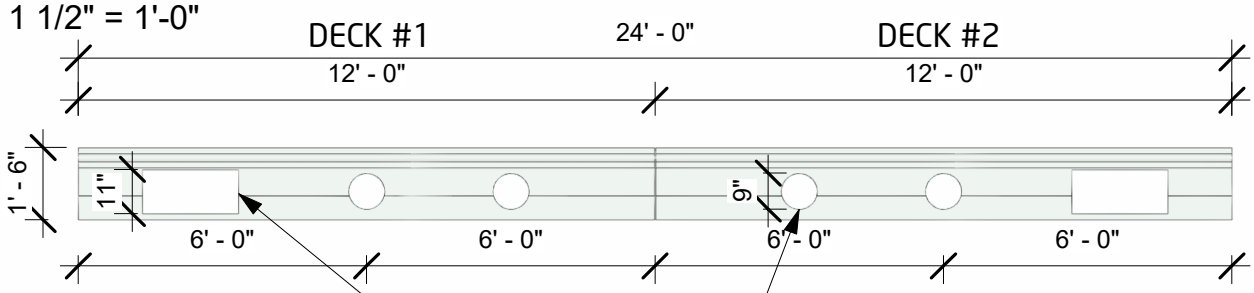
A1.0

Scale

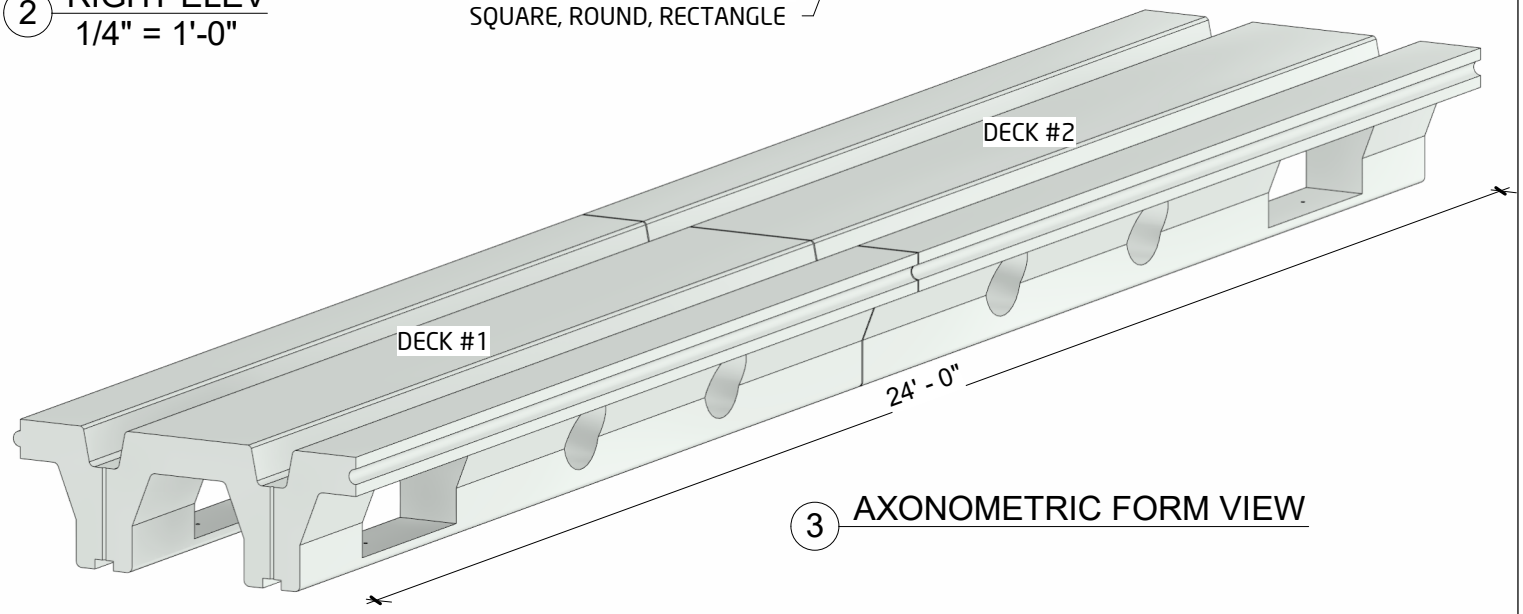
11/29/2023 4:22:32 PM



1 FRONT ELEV
1 1/2" = 1'-0"



2 RIGHT ELEV
1/4" = 1'-0"



3 AXONOMETRIC FORM VIEW

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CLIMATE-DECK™
24' SPAN

(2) @ 18" x 48" x 144"

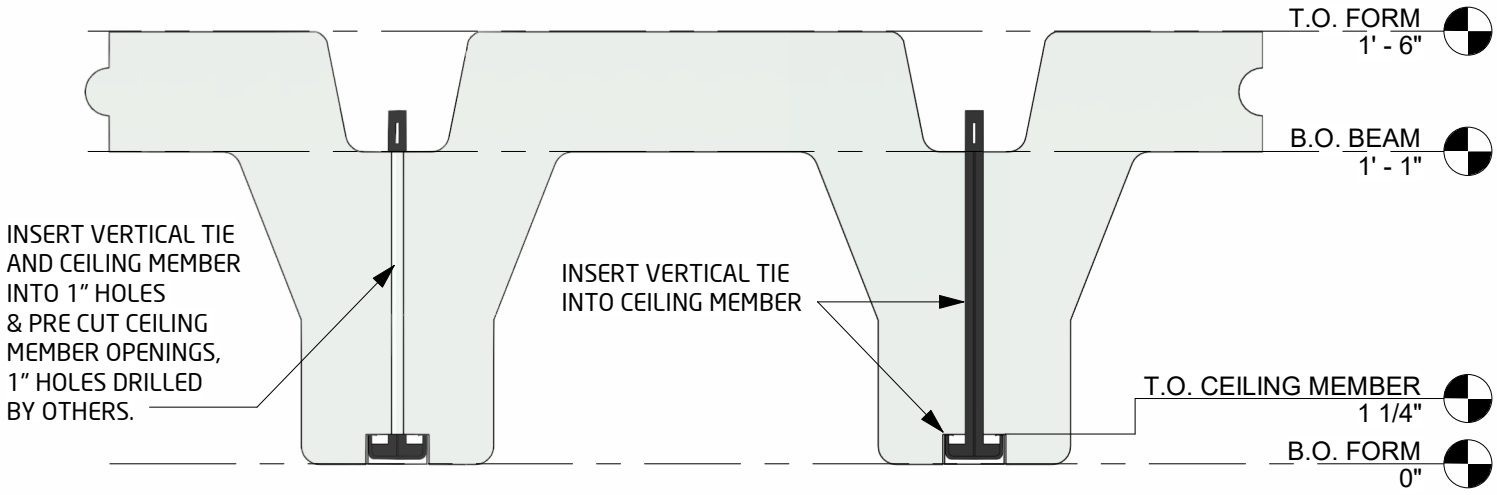
CLIMATE-DECK™ 24' SPAN

Project number	CD1848144
Date	TODAY
Drawn by	AJ
Checked by	AJ

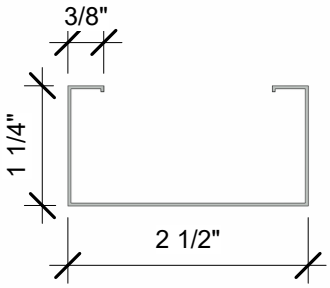
D1.0

Scale As indicated

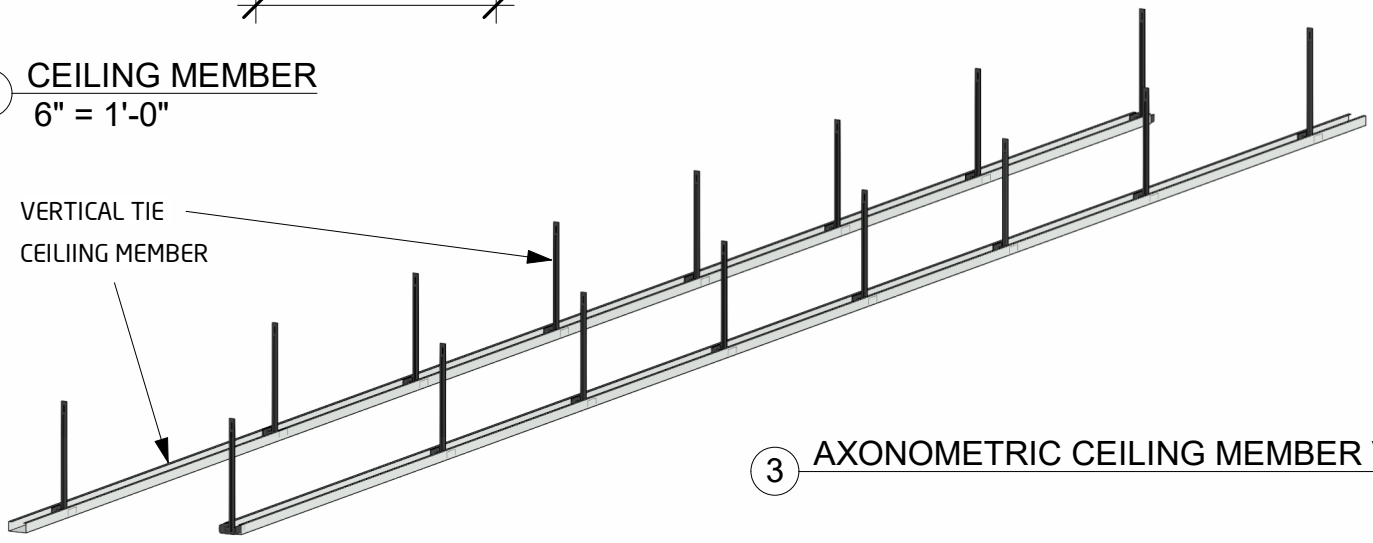
5/29/2023 8:43:23 PM



1 CEILING MEMBER CROSS SECTION
1 1/2" = 1'-0"



2 CEILING MEMBER
6" = 1'-0"



3 AXONOMETRIC CEILING MEMBER VIEW

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CLIMATE-DECK™
24' SPAN

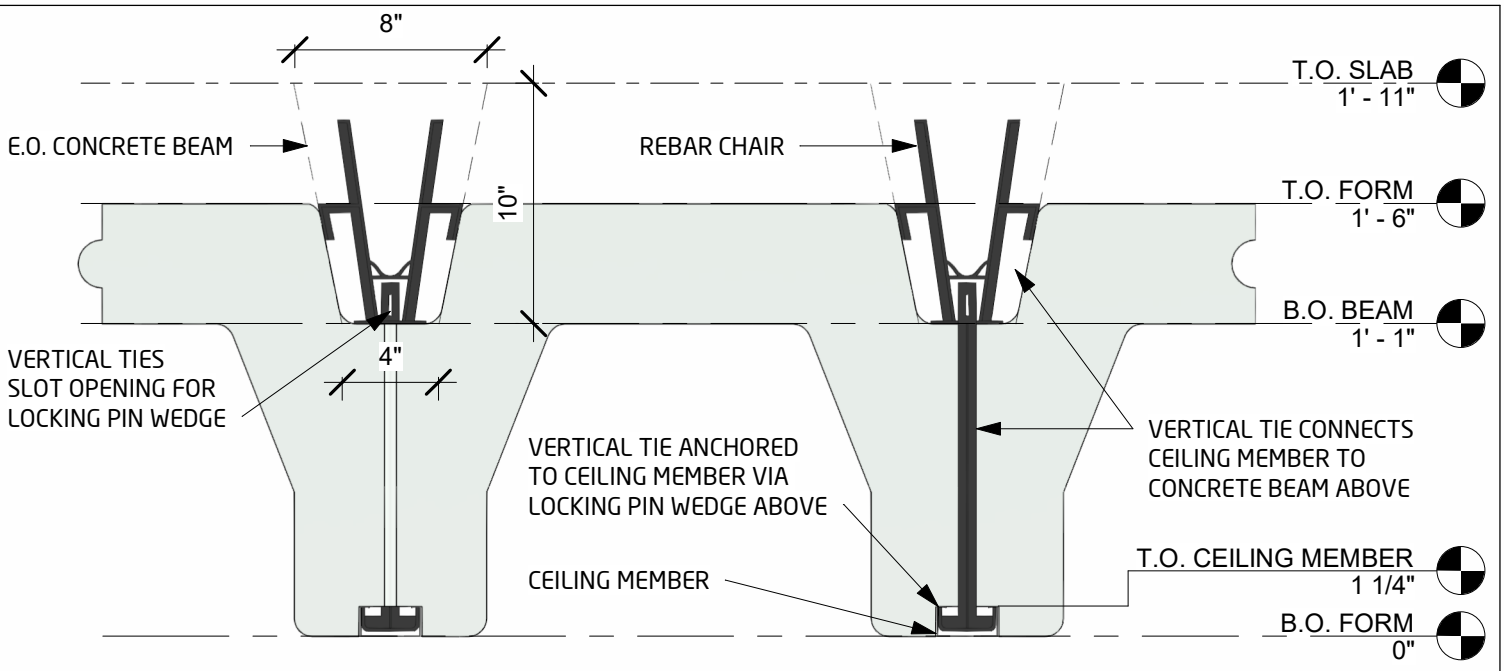
(2) @ 18" x 48" x 144"

CEILING CONNECTION

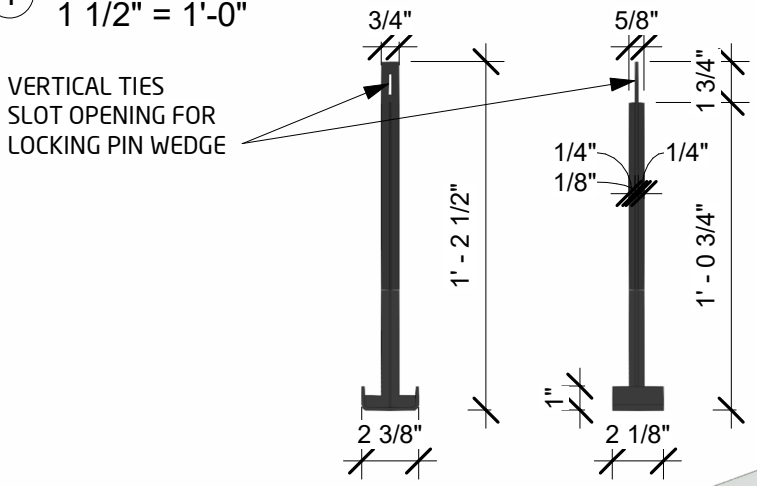
Project number	CD1848144
Date	TODAY
Drawn by	Author
Checked by	Checker

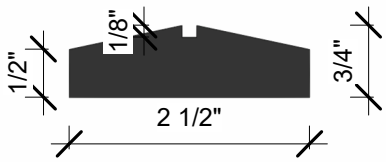
D2.0

Scale As indicated



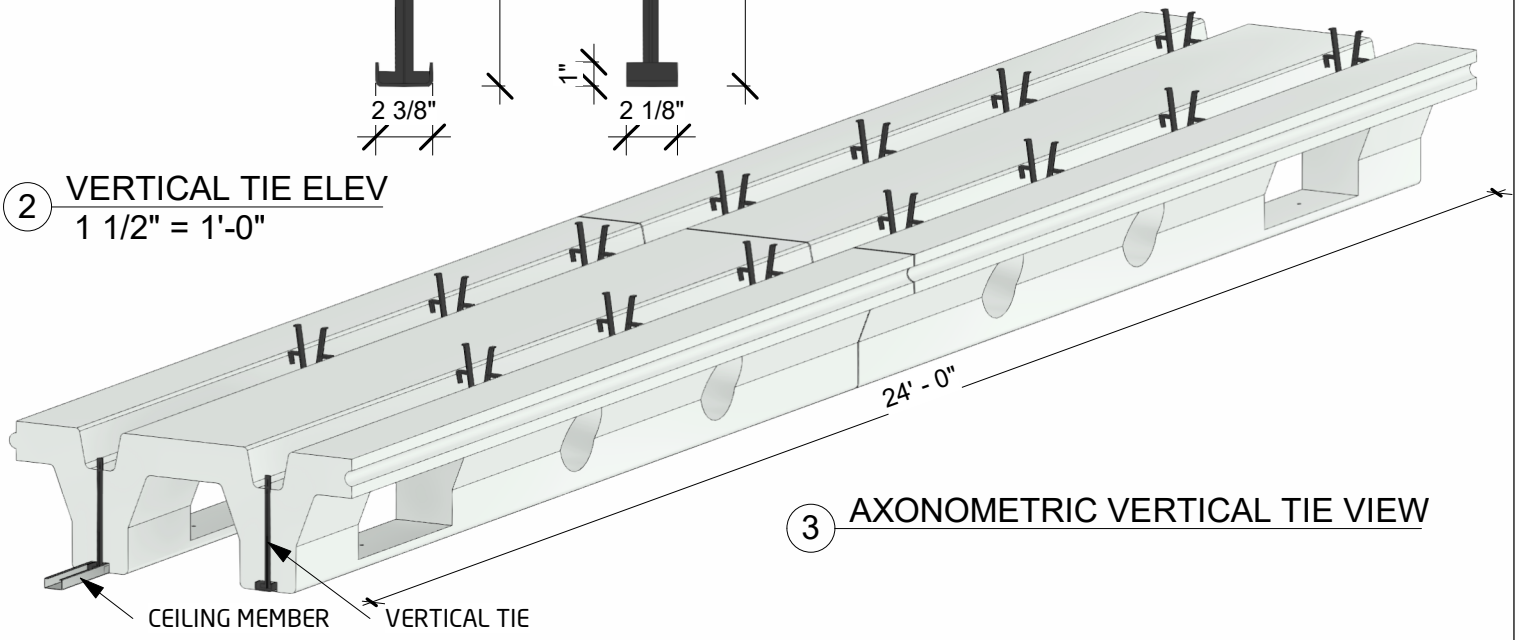
1 VERTICAL TIE CROSS SECTION
1 1/2" = 1'-0"





4 LOCKING PIN WEDGE
6" = 1'-0"

2 VERTICAL TIE ELEV
1 1/2" = 1'-0"



3 AXONOMETRIC VERTICAL TIE VIEW

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24' SPAN

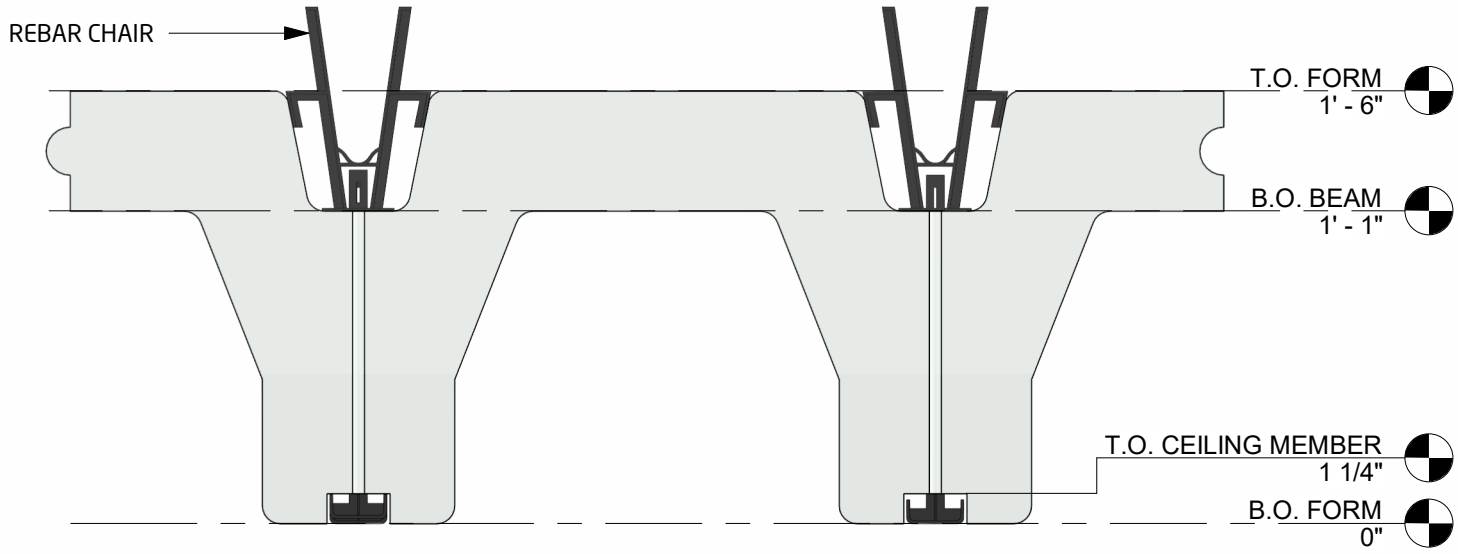
(2) @ 18" x 48" x 144"

VERTICAL TIE & WEDGE

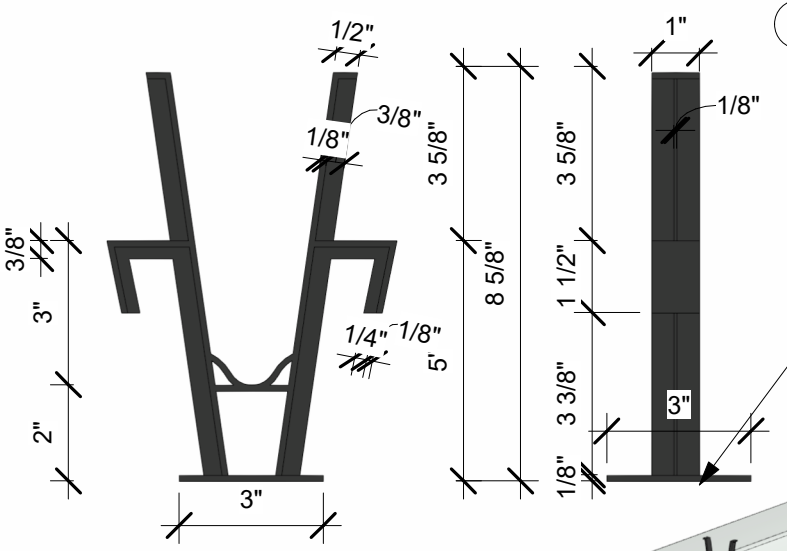
Project number	CD1848144
Date	TODAY
Drawn by	Author
Checked by	Checker

D3.0

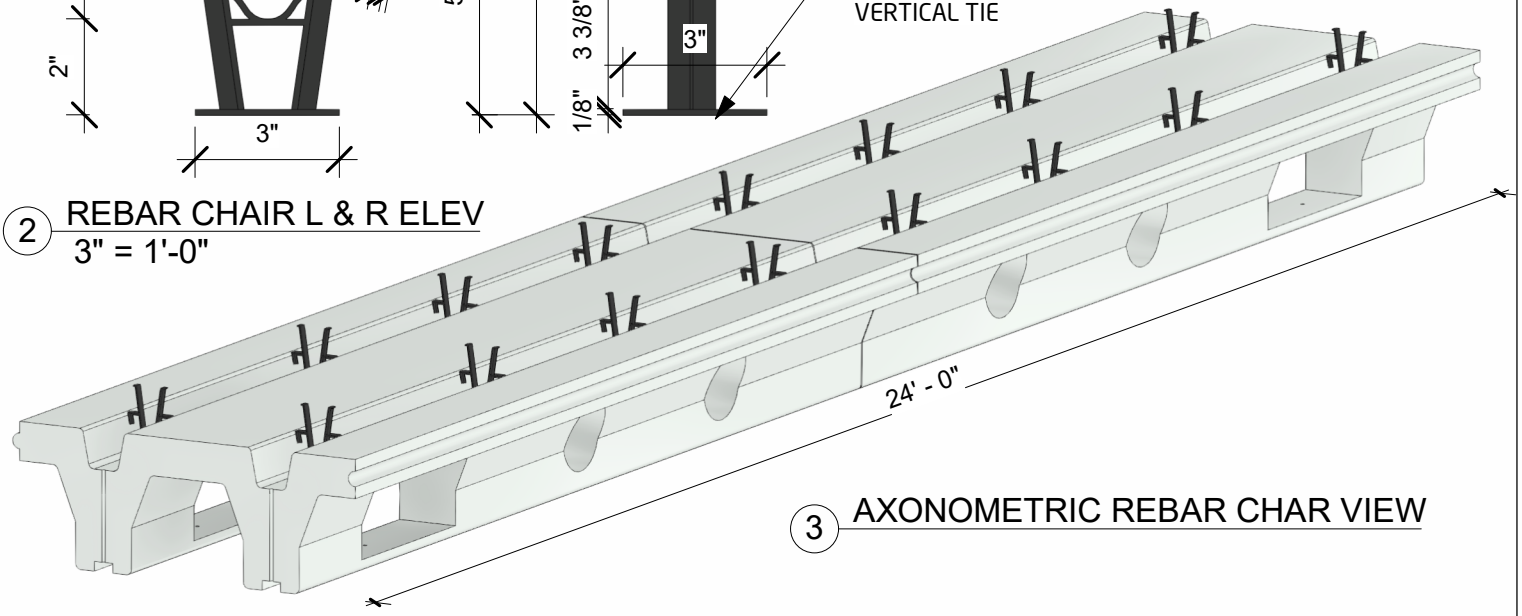
Scale As indicated



1 REBAR CHAIR CROSS SECTION
1 1/2" = 1'-0"



2 REBAR CHAIR L & R ELEV
3" = 1'-0"



3 AXONOMETRIC REBAR CHAR VIEW

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CLIMATE-DECK™
24' SPAN

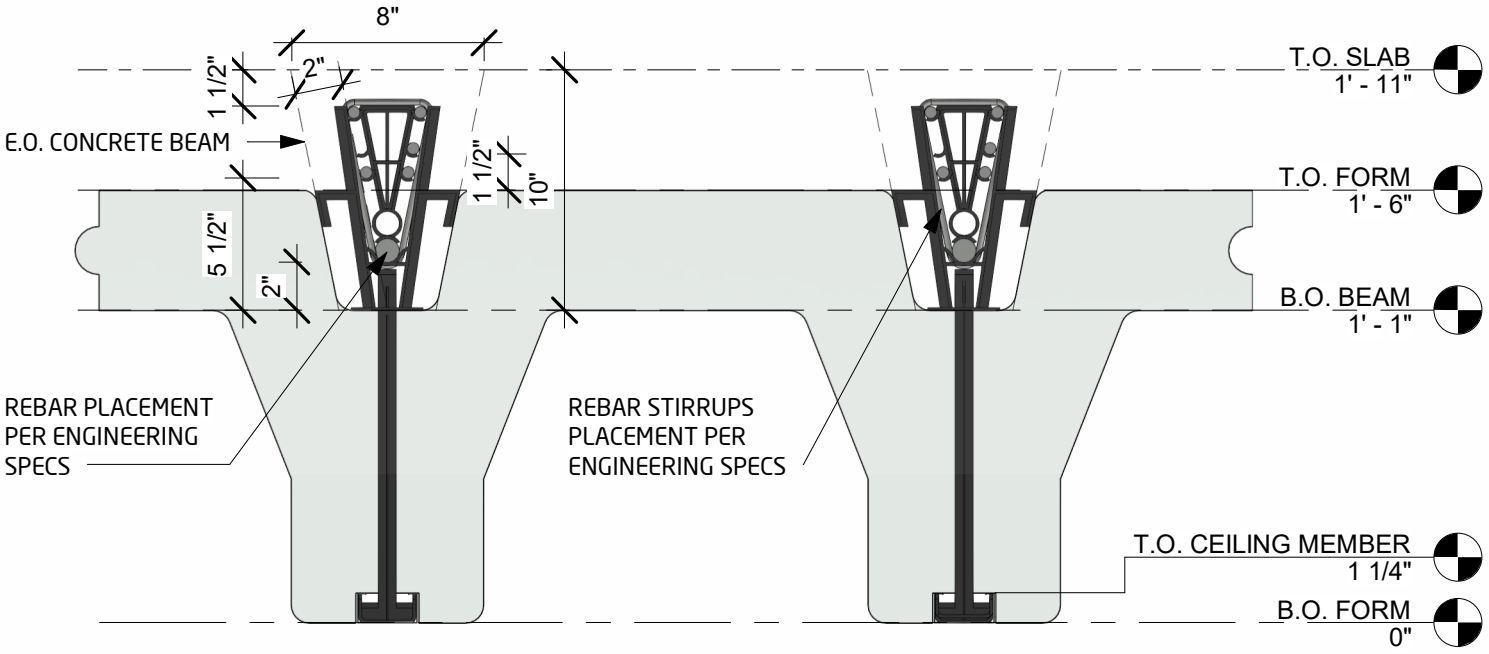
(2) @ 18" x 48" x 144"

REBAR CHAIR

Project number	CD1848144
Date	TODAY
Drawn by	Author
Checked by	Checker

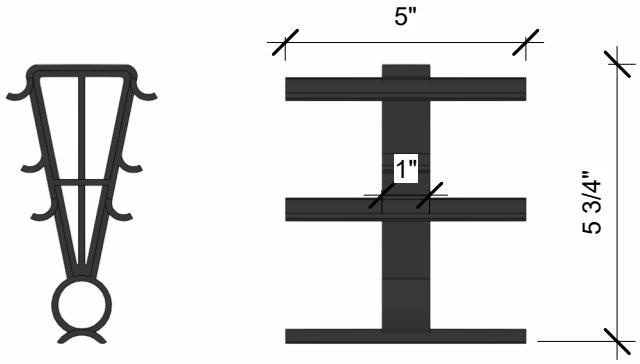
D4.0

Scale As indicated



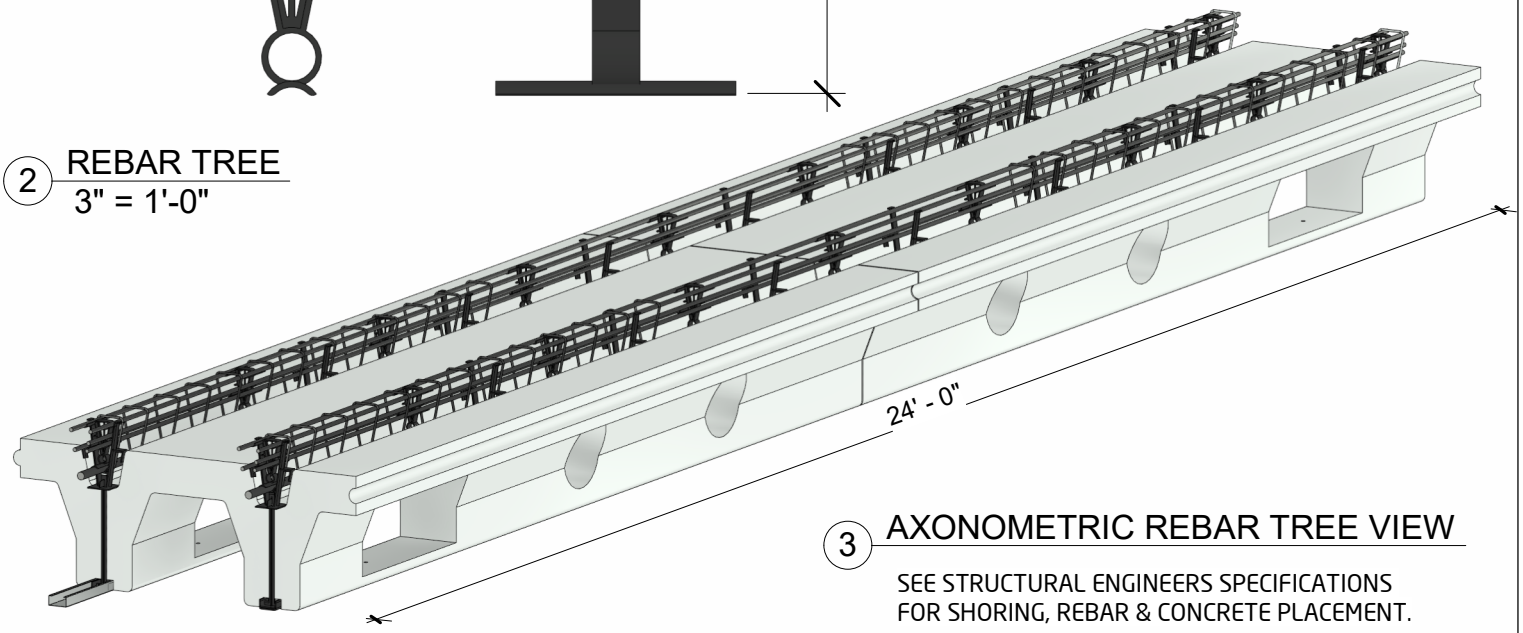
1 REBAR TREE CROSS SECTION

1 1/2" = 1'-0"



2 REBAR TREE

3" = 1'-0"



3 AXONOMETRIC REBAR TREE VIEW

SEE STRUCTURAL ENGINEERS SPECIFICATIONS FOR SHORING, REBAR & CONCRETE PLACEMENT.

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CLIMATE-DECK™
24' SPAN

(2) @ 18" x 48" x 144"

REBAR TREE

Project number	CD1848144
Date	TODAY
Drawn by	Author
Checked by	Checker

D5.0

Scale As indicated

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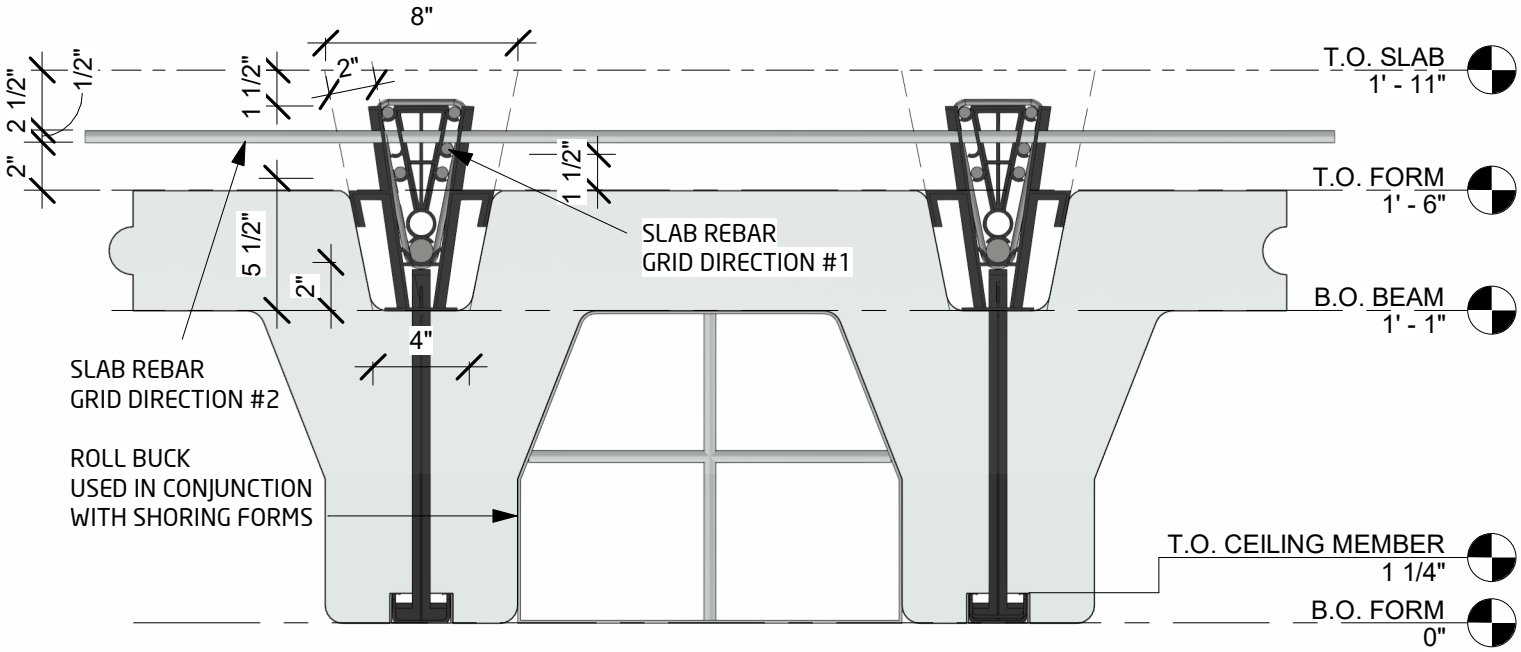
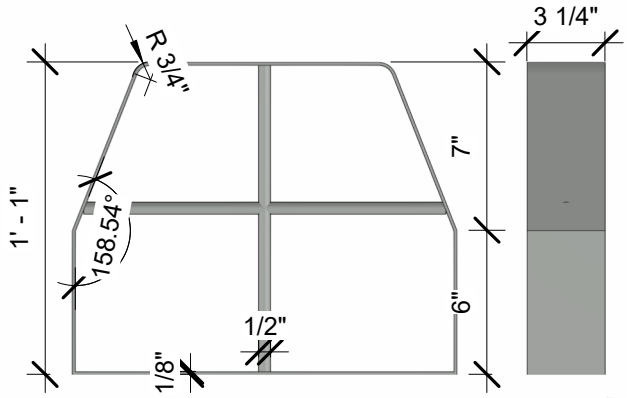


1 ROLL BUCK & SLAB REBAR CROSS SECTION

1 1/2" = 1'-0"



2 ROLL BUCK

1 1/2" = 1'-0"

3 AXONOMETRIC ROLL BUCK & REBAR

SEE STRUCTURAL ENGINEERS SPECIFICATIONS
FOR SHORING, REBAR & CONCRETE PLACEMENT.

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24' SPAN

(2) @ 18" x 48" x 144"

ROLL BUCK & SLAB REBAR

Project number	CD1848144
Date	TODAY
Drawn by	Author
Checked by	Checker

D6.0

Scale 1 1/2" = 1'-0"

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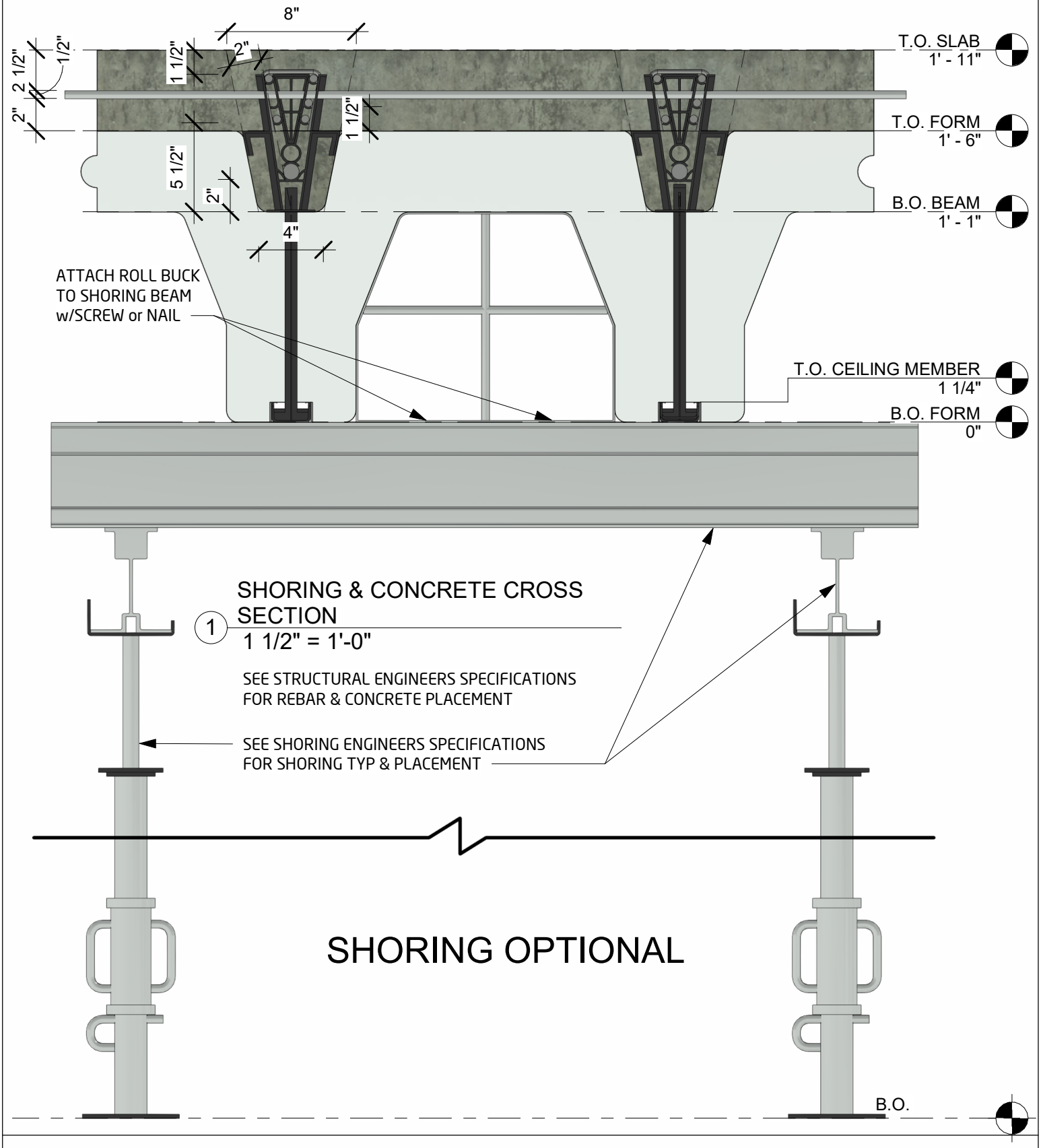

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CLIMATE-DECK™
24' SPAN

(2) @ 18" x 48" x 144"

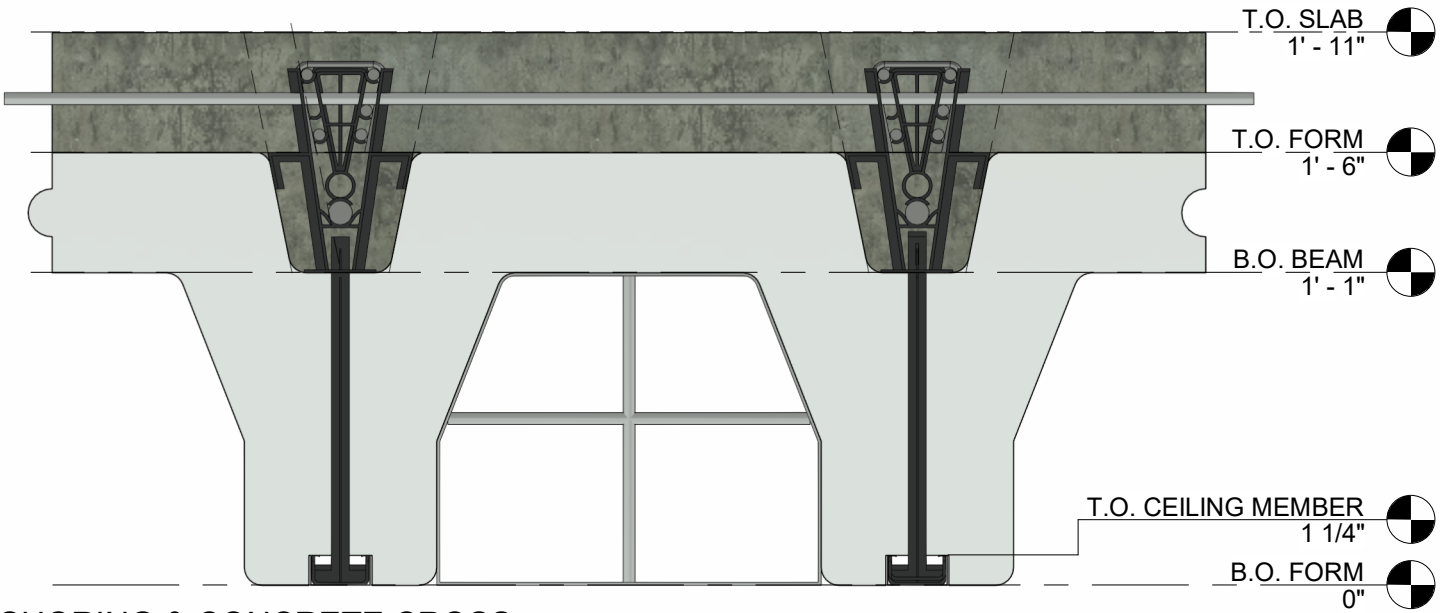
SHORING & CONCRETE

Project number	CD1848144
Date	TODAY
Drawn by	Author
Checked by	Checker

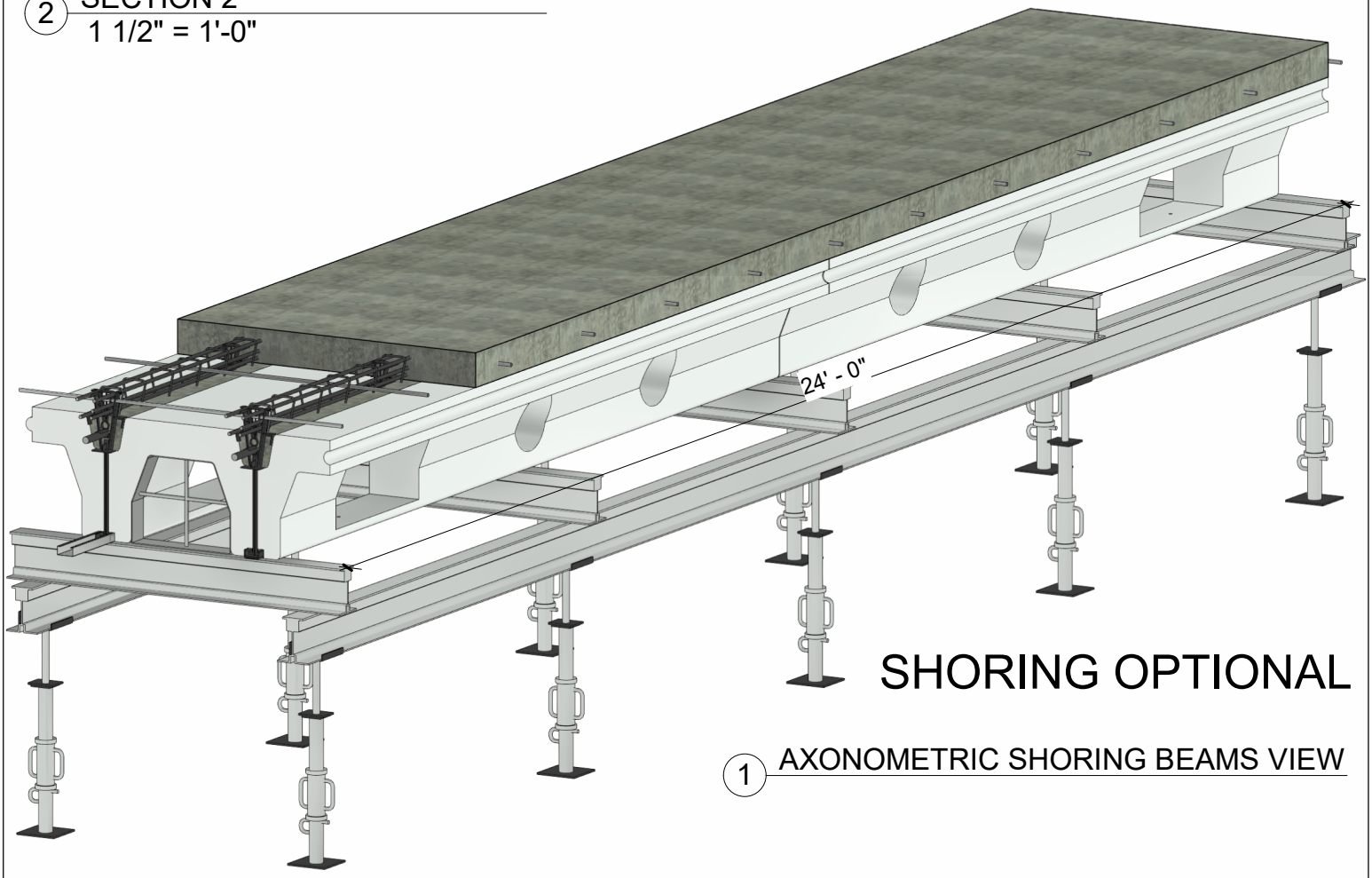
D7.0

Scale 1 1/2" = 1'-0"

5/29/2023 8:43:33 PM



2 SHORING & CONCRETE CROSS SECTION 2
1 1/2" = 1'-0"



SHORING OPTIONAL

1 AXONOMETRIC SHORING BEAMS VIEW

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24' SPAN

(2) @ 18" x 48" x 144"

SHORING & CONCRETE

Project number	CD1848144
Date	TODAY
Drawn by	Author
Checked by	Checker

D7.1

Scale 1 1/2" = 1'-0"

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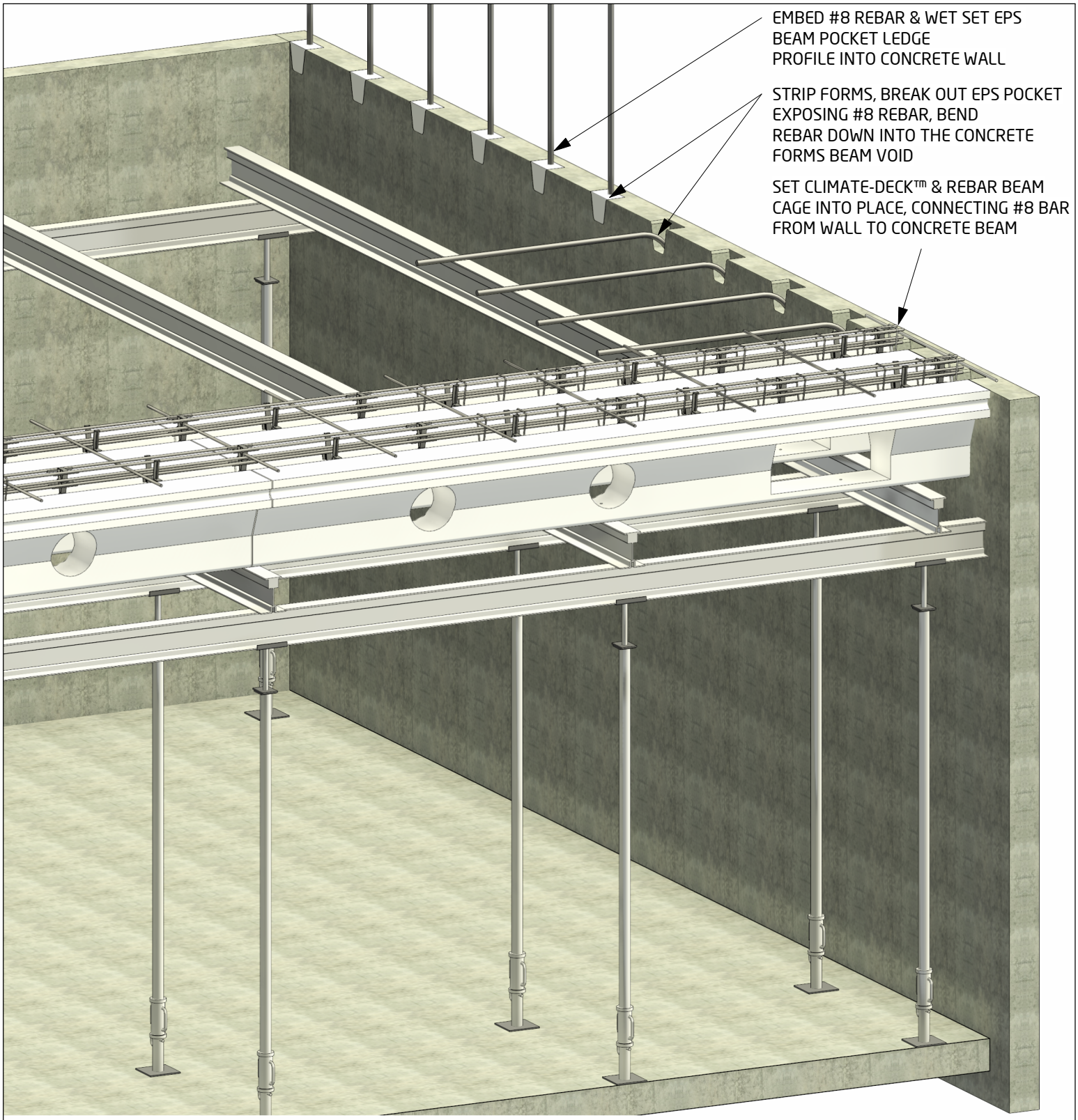

SHORING OPTIONAL

1 FLOOR TO WALL BEAM VIEW

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24' SPAN

(2) @ 18" x 48" x 144"

BEAM POCKET VIEW

Project number	CD1848144
Date	TODAY
Drawn by	AJ
Checked by	AJ

D8.0

Scale

5/30/2023 9:46:24 AM

Concrete Beam

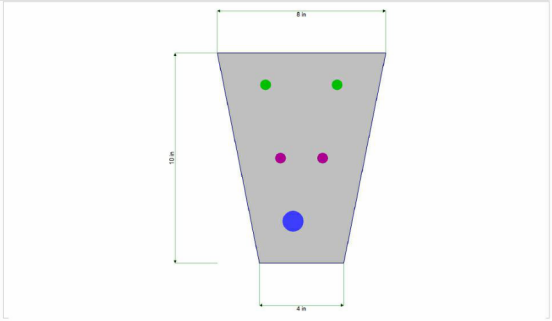
DESCRIPTION: typ 24' span

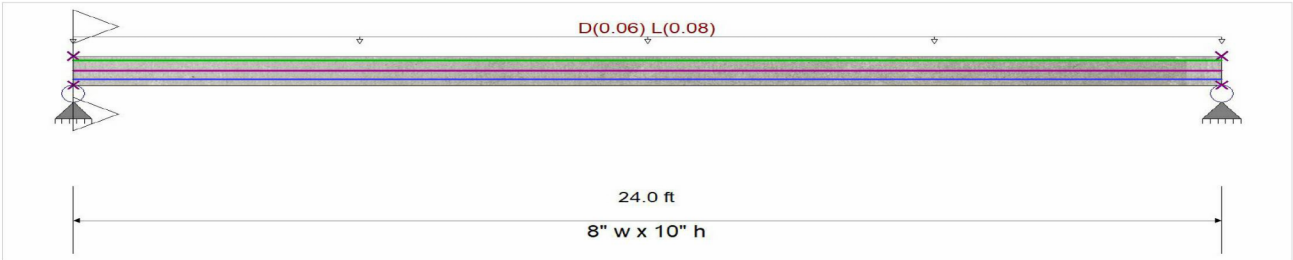
CODE REFERENCES

Calculations per ACI 318-14, IBC 2018, CBC 2019, ASCE 7-16
Load Combination Set : ASCE 7-16

Material Properties

f'c	=	3.0 ksi	ϕ Phi Values	Flexure :	0.90
fr = f'c^1/2 * 7.50	=	410.792 psi		Shear :	0.750
ψ Density	=	145.0 pcf	β_1	=	0.850
λ LtWt Factor	=	1.0			
Elastic Modulus	=	3,122.0 ksi	Fy - Stirrups		40.0 ksi
fy - Main Rebar	=	60.0 ksi	E - Stirrups	=	29,000.0 ksi
E - Main Rebar	=	29,000.0 ksi	Stirrup Bar Size #		3
			Number of Resisting Legs Per Stirrup =		2





Cross Section & Reinforcing Details

Trapezoidal Section, TopWidth = 8.0 in, Bottom Width = 4.0 in, Height = 10.0 in
Span #1 Reinforcing....
1-#8 at 2.0 in from Bottom, from 0.0 to 24.0 ft in this span
2-#4 at 5.0 in from Bottom, from 0.0 to 24.0 ft in this span
2-#4 at 1.50 in from Top, from 0.0 to 24.0 ft in this span

Beam self weight calculated and added to loads
Load for Span Number 1
Uniform Load : D = 0.030, L = 0.040 ksf, Tributary Width = 2.0 ft

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio =	0.670 : 1	
Section used for this span	Typical Section	
Mu : Applied	19.620 k-ft	
Mn * Phi : Allowable	29.303 k-ft	
Location of maximum on span	12.022 ft	
Span # where maximum occurs	Span # 1	

Maximum Deflection

Max Downward Transient Deflection	0.625 in	Ratio =	460 >=360
Max Upward Transient Deflection	0.000 in	Ratio =	0 <360.0
Max Downward Total Deflection	1.735 in	Ratio =	165 >=150
Max Upward Total Deflection	0.000 in	Ratio =	0 <150.0

Vertical Reactions

Support notation : Far left is #1

Load Combination	Support 1	Support 2
Overall MAXimum	2.405	2.405
Overall MINimum	0.867	0.867
+D+H	1.445	1.445
+D+L+H	2.405	2.405
+D+Lr+H	1.445	1.445
+D+S+H	1.445	1.445
+D+0.750Lr+0.750L+H	2.165	2.165
+D+0.750L+0.750S+H	2.165	2.165
+D+0.60W+H	1.445	1.445
+D+0.750Lr+0.750L+0.450W+H	2.165	2.165
+D+0.750L+0.750S+0.450W+H	2.165	2.165
+0.60D+0.60W+0.60H	0.867	0.867