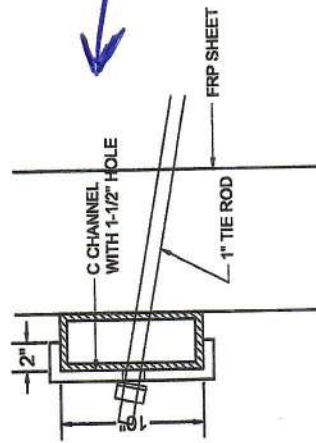


TYPICAL BULKHEAD/WALE CONFIGURATION

SCALE: 1"=10'



SECTION AT TIE ROD

SCALE: 3"=1'

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Fiberglass Seawall Waler

**4X10 FRP WALE
SHOP DRAWING**

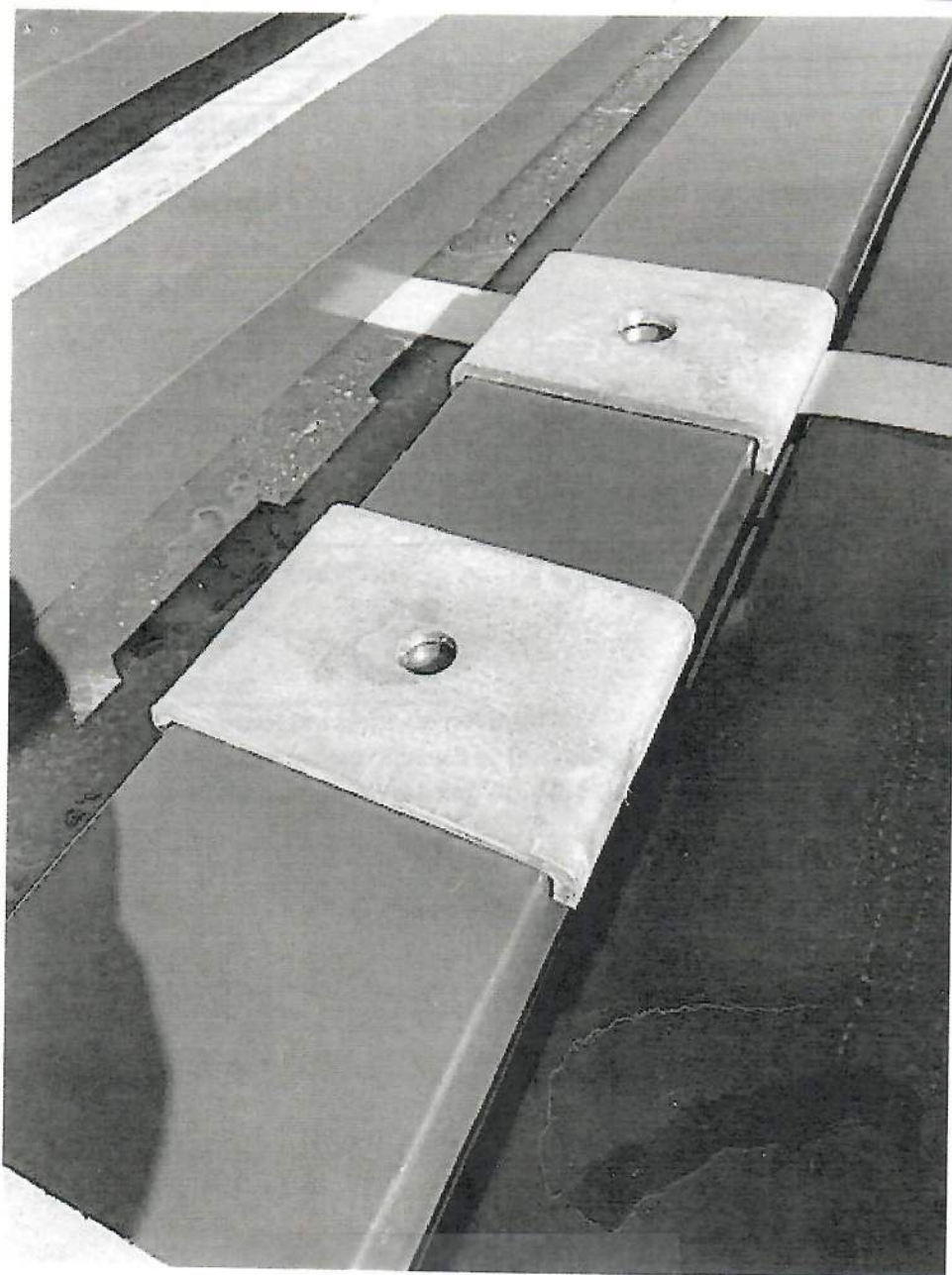
LEE COMPOSITES, INC.

P. O. Box 130363

The Woodlands, Texas 77393-0363

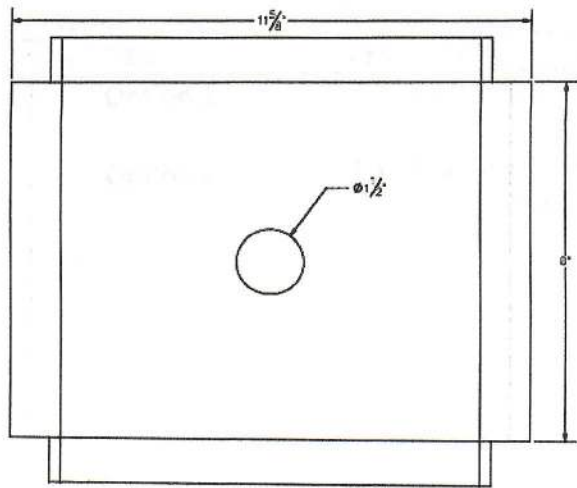
(O) 281-376-6146 (M) 281-782-2477

Email: boblee@leecomposites.com

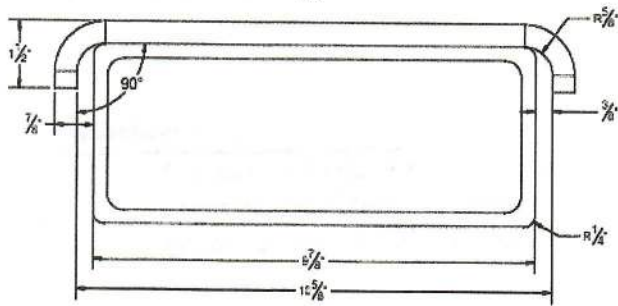


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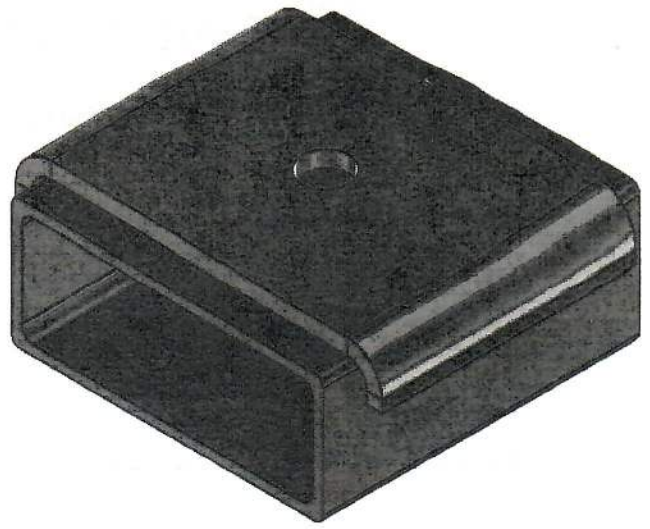
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TOP



FRONT

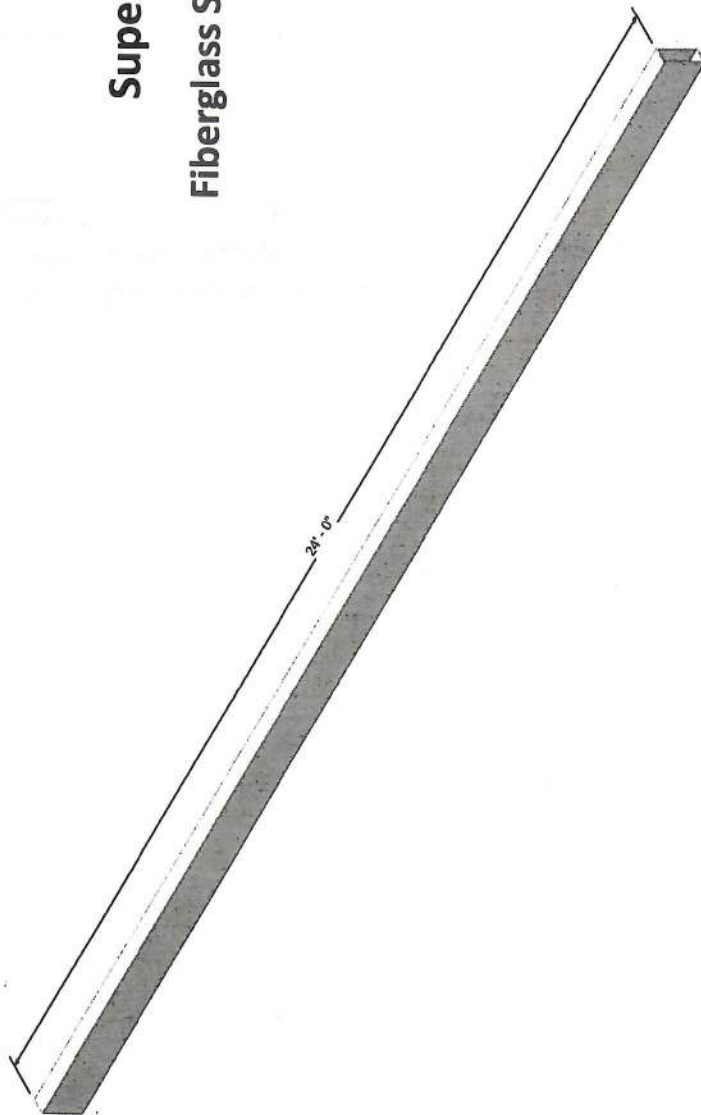


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NOTES:
 1) 4"x10" MEMBERS x 24'-0" LONG
 COLOR: DARK GREY

SuperBeam™
 Fiberglass Seawall Water



ISOMETRIC VIEW

PROJECT STATUS:
 ISSUED FOR APPROVAL

DESIGN	DATE DRAWN	EMC	DATE
SCALE	SHEET	CHECKED	DATE
PROJECT NUMBER	A3	DRAWING NUMBER	REV
		S100	

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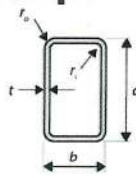
Email: boblee@leecomposites.com

Client's Acceptance:

Name:.....
 Date:..... Signature:.....
Please sign and date this "I" and return to the design office of this firm for manufacturing of the product. This is not a contract. The client's signature and date on this form do not constitute an acceptance of the product. The client's signature and date on this form do not constitute an acceptance of the product. The client's signature and date on this form do not constitute an acceptance of the product.

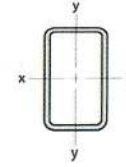
Rev.	Description	Date	Drawn
1			
2			
3			
4			
5			

RECTANGULAR HOLLOW SECTION



DIMENSIONS AND SECTION PROPERTIES

Fibre Reinforced Polymer (FRP)



SECTIONAL PROPERTIES

PRODUCT CODE	DIMENSIONS							SECTION PROPERTIES								
	Depth	Width	Thick.	Outside Corner Radius	Inside Corner Radius	Mass	External Surface Area	Cross Section Area	About x-axis			About y-axis			Torsion Constant	Torsion Modulus
	d	b	t	r _o	r _i	per m	per m	A _g	I _x	Z _x	r _x	I _y	Z _y	r _y	J	C
WGN-R5000	10	4	5/16	13/64	5/16	7.34	2.27	8.3	98.3	20.0	3.4	22.4	11.4	1.6	79.1	19.5

MECHANICAL PROPERTIES

PROPERTY	RESULT	UOM	STANDARD
Tensile Strength – Longitudinal	88.5	ksi	ISO 527-4
Tensile Modulus of Elasticity – Longitudinal	5264.9	ksi	
Poissons Ratio - Longitudinal	0.28	-	
Tensile Strength – Transverse	8	ksi	ISO 527-4
Tensile Modulus of Elasticity – Transverse	1566.4	ksi	
Poissons Ratio - Transverse	0.09	-	
Compressive Strength – Longitudinal	70.3	ksi	ASTM D6641
Compressive Modulus of Elasticity – Longitudinal	4829.8	ksi	
Compressive Strength – Transverse	17.4	ksi	ASTM D6641
Compressive Modulus of Elasticity – Transverse	1682.4	ksi	
In-Plane Shear Strength – Longitudinal	12.2	ksi	ASTM D7078
In-Plane Shear Modulus of Elasticity – Longitudinal	620.8	ksi	
Interlaminar Shear Strength	6.4	ksi	ASTM D2344

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