



Project Summary Steelhead Trout Submersible Offshore Farm

Blue Water Fisheries, LLC (BWF), in conjunction with Innovasea Systems, Inc. of Boston, Massachusetts, is working to permit, develop and operate a commercial aquaculture farm (Farm) to raise *Oncorhynchus mykiss* (steelhead trout) and *Cyclopterus lumpus* (lumpfish) off the coast of New Hampshire in waters with federal jurisdiction.

The Farm will acquire diploid, all female, trout eggs from Trout Lodge or Riverance hatcheries on the west coast of the United States. The eggs are certified disease free before shipping to the Farm's New Hampshire land based freshwater hatchery. The eggs will be hatched and reared in the Farm's freshwater hatchery for six to eight months before being acclimatized to saltwater and transferred to the offshore SeaStation net pens once the fry achieve a mean size of 200g. The fry will then be grown out for an additional ten to twelve months at which point they will be harvested for land based processing and sale.

A small number of lumpfish will be hatched and raised in the same hatchery as part of a University of New Hampshire research project on the use of lumpfish as a natural way to maintain healthier ocean raised fish stocks.

The Farm will utilize Innovasea's SeaStation 14,500 m³ submersible fish pens in a 2x10 mooring grid configuration. When fully built out, the Farm will consist of two 2x10 grids of submersible SeaStation fish pens. Further, the Farm will be constructed on a phased schedule thereby assuring the stability and integrity of each phase before installing subsequent phases. The accompanying drawings show the nominal overall design for

a 2x10 grid as well as the typical components that make up the system. Attachment One. The drawings and component listed will be modified once the engineering has been completed based on the chosen site's characteristics.

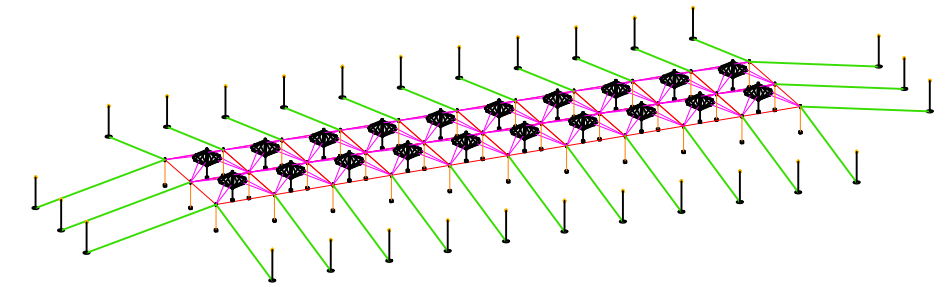
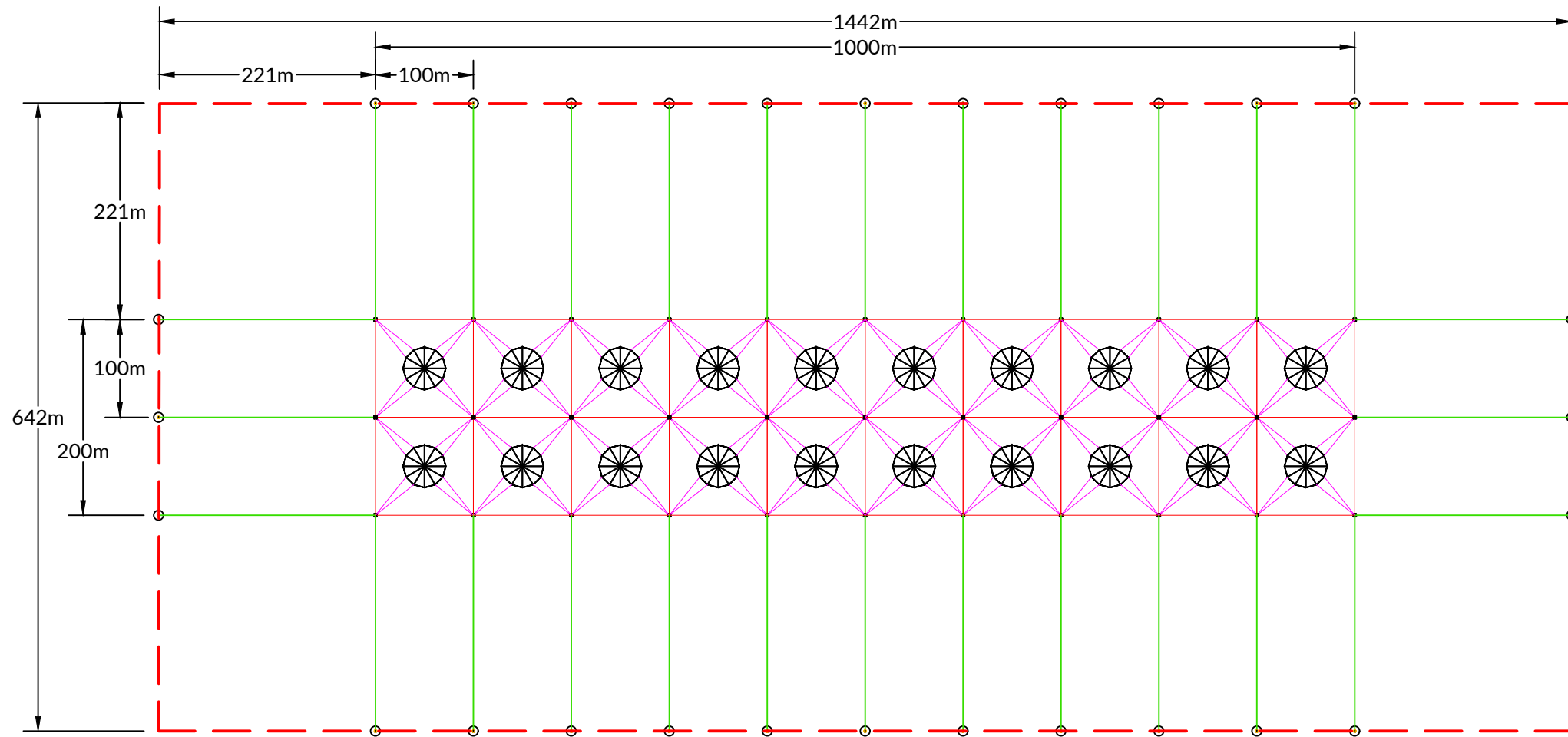
The Farm's preliminary details are as follows:

Volume of each SeaStation pen:	14,500 m ³
Dimensions of one SeaStation pen cell:	100 m x 100 m
Height of a SeaStation pen:	30.6 m
Diameter of a SeaStation pen:	45.6 m
Area of 2x10 grid:	229 acres
Dimensions of 2x10 grid:	1,442 m x 642 m
Nominal water depth of farm site:	60 to 80 m
Nominal Anchor Scope:	5:1
Full Production from a 2x10 Grid:	6,400 tons of steelhead trout annually
Full Production with two operational grids:	12,800 tons of steelhead trout annually

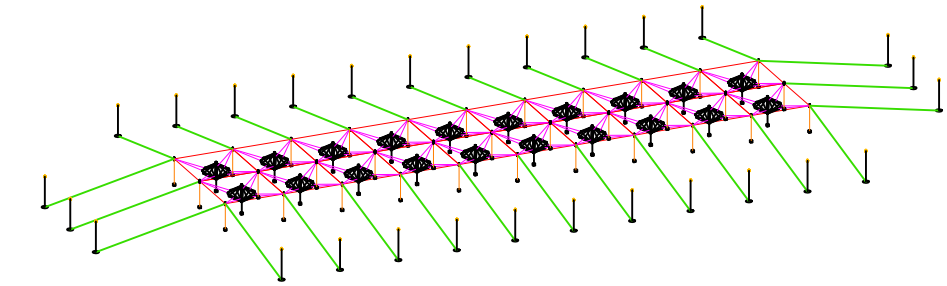
Attachment One

Innovasea's SeaStation Nominal Layout Plan 2x10 Grid

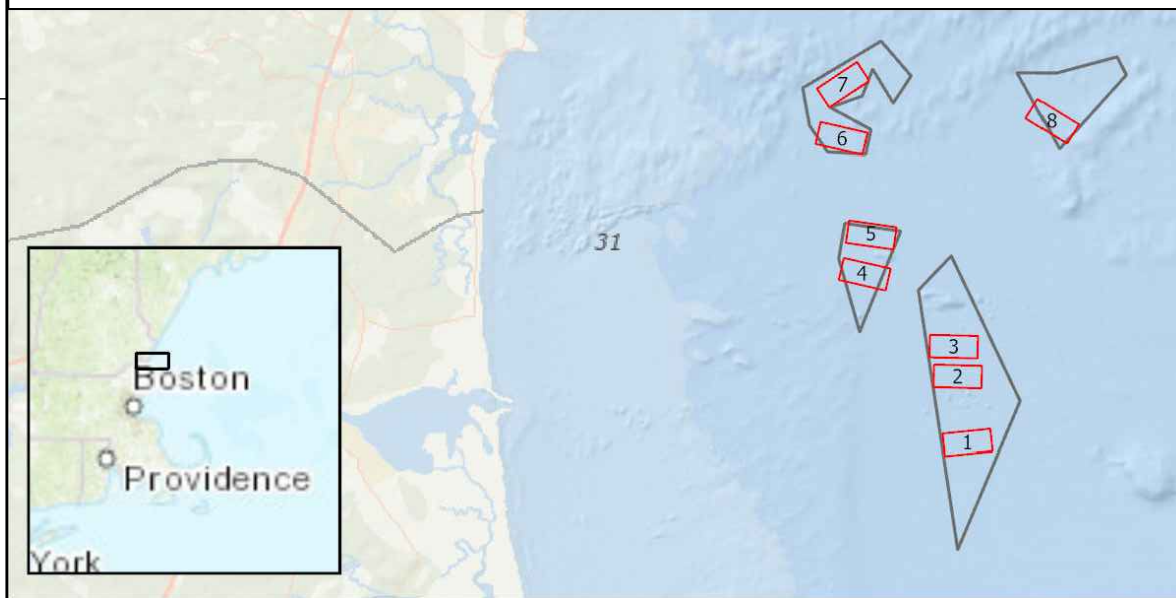
REVISIONS			
REV	ECO	DESCRIPTION	DATE
A	-	INITIAL DRAWING	10/03/2019
B	10233	REVISED FROM 2X6 GRID	09/16/2020



Surfaced Position



Submerged Position



Legend

Grid located less than 10nm from New Hampshire shore

Mooring Grid System Area: 925,764 m²
(229 Acres)

Mooring Grid Dimensions: 642m X 1,442m

Anchor Scope: 5:1

Cell Size: 100m X 100m


Approximate Water Depth: 60m to 80m

The information contained on this drawing is preliminary and conceptual in nature and should not be relied upon for engineering purposes. Once the site has been selected and approved by the regulatory agencies, detailed engineering drawings of the submersible fish farm system will be completed and will be available.

	NAME	DATE
DRAWN BY	CZS	09/16/2020
CHECKED BY	TKS	09/16/2020

UNLESS OTHERWISE SPECIFIED:
ALL UNITS IN METERS

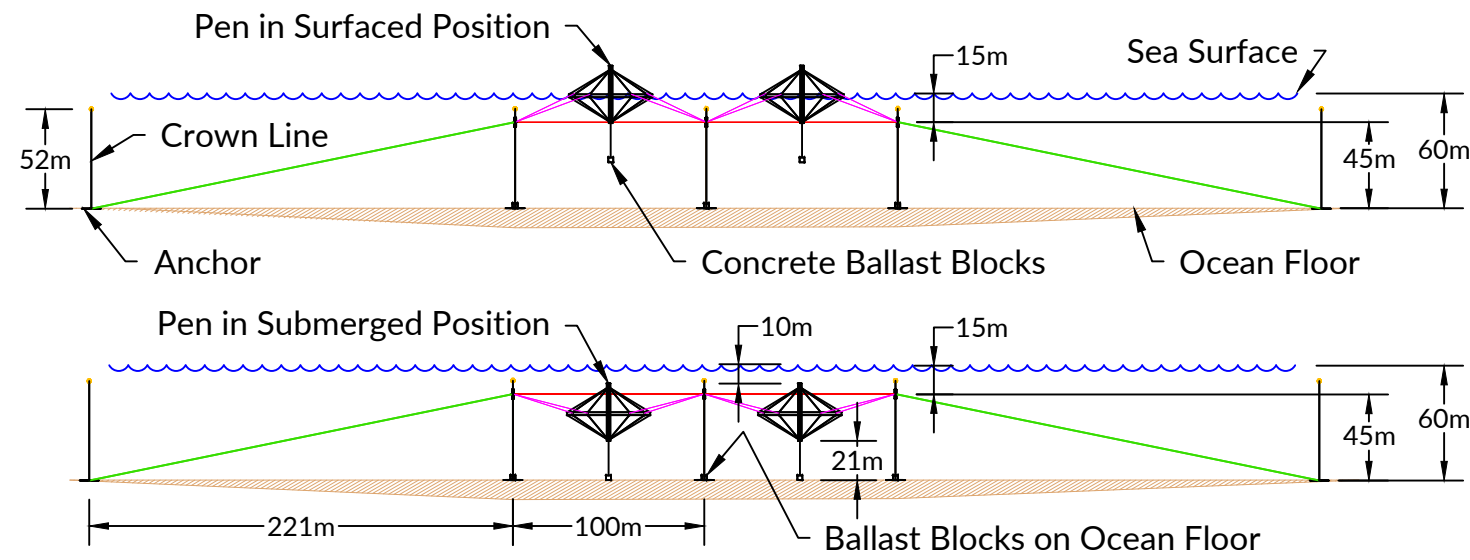
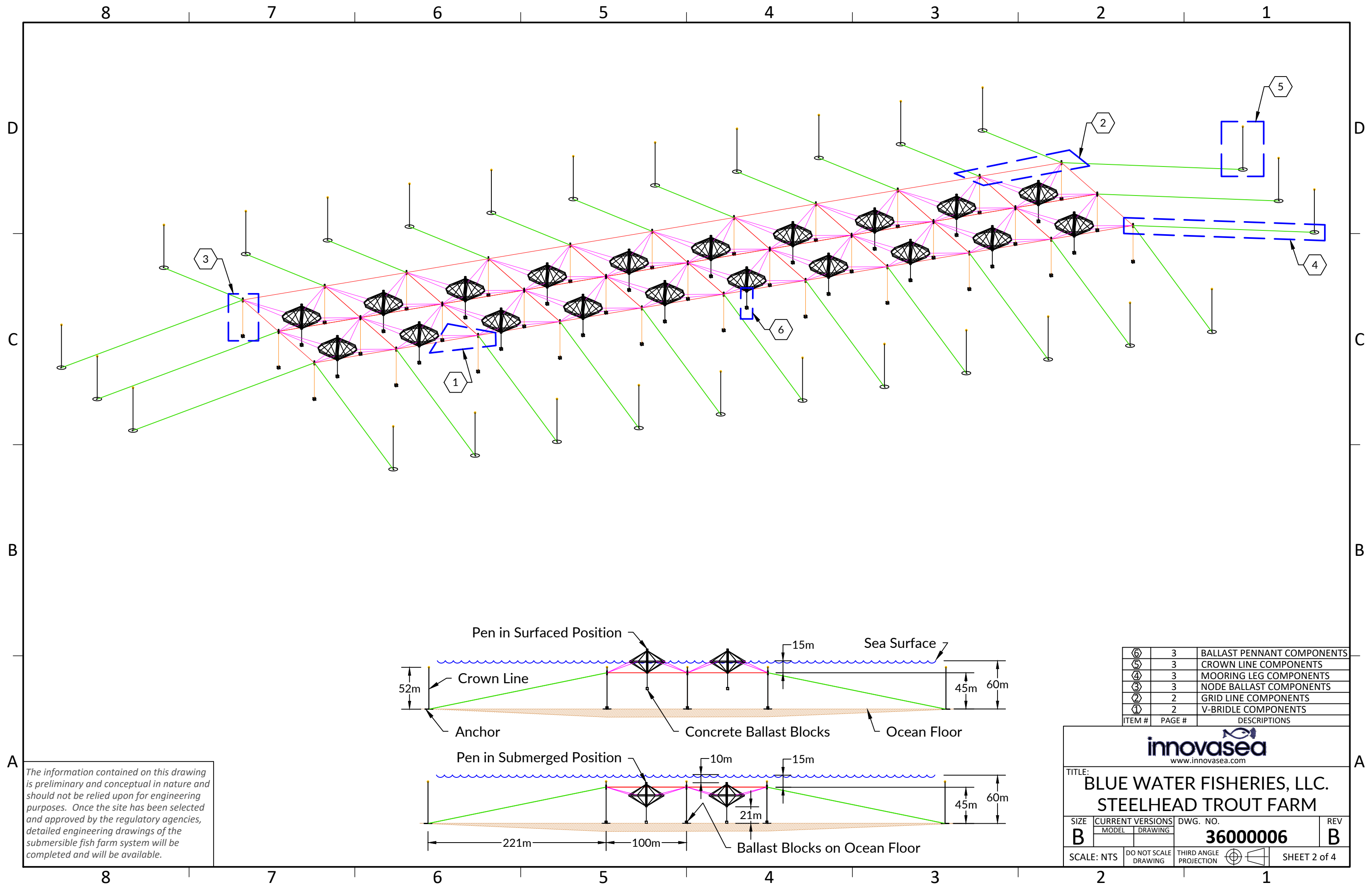
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TITLE:
**BLUE WATER FISHERIES, LLC.
STEELHEAD TROUT FARM**

SIZE B	CURRENT VERSIONS MODEL DRAWING	DWG. NO. 36000006	REV B
SCALE: NTS	DO NOT SCALE DRAWING	THIRD ANGLE PROJECTION	SHEET 1 of 4



ITEM #	PAGE #	DESCRIPTIONS
⑥	3	BALLAST PENNANT COMPONENTS
⑤	3	CROWN LINE COMPONENTS
④	3	MOORING LEG COMPONENTS
③	3	NODE BALLAST COMPONENTS
②	2	GRID LINE COMPONENTS
①	2	V-BRIDLE COMPONENTS

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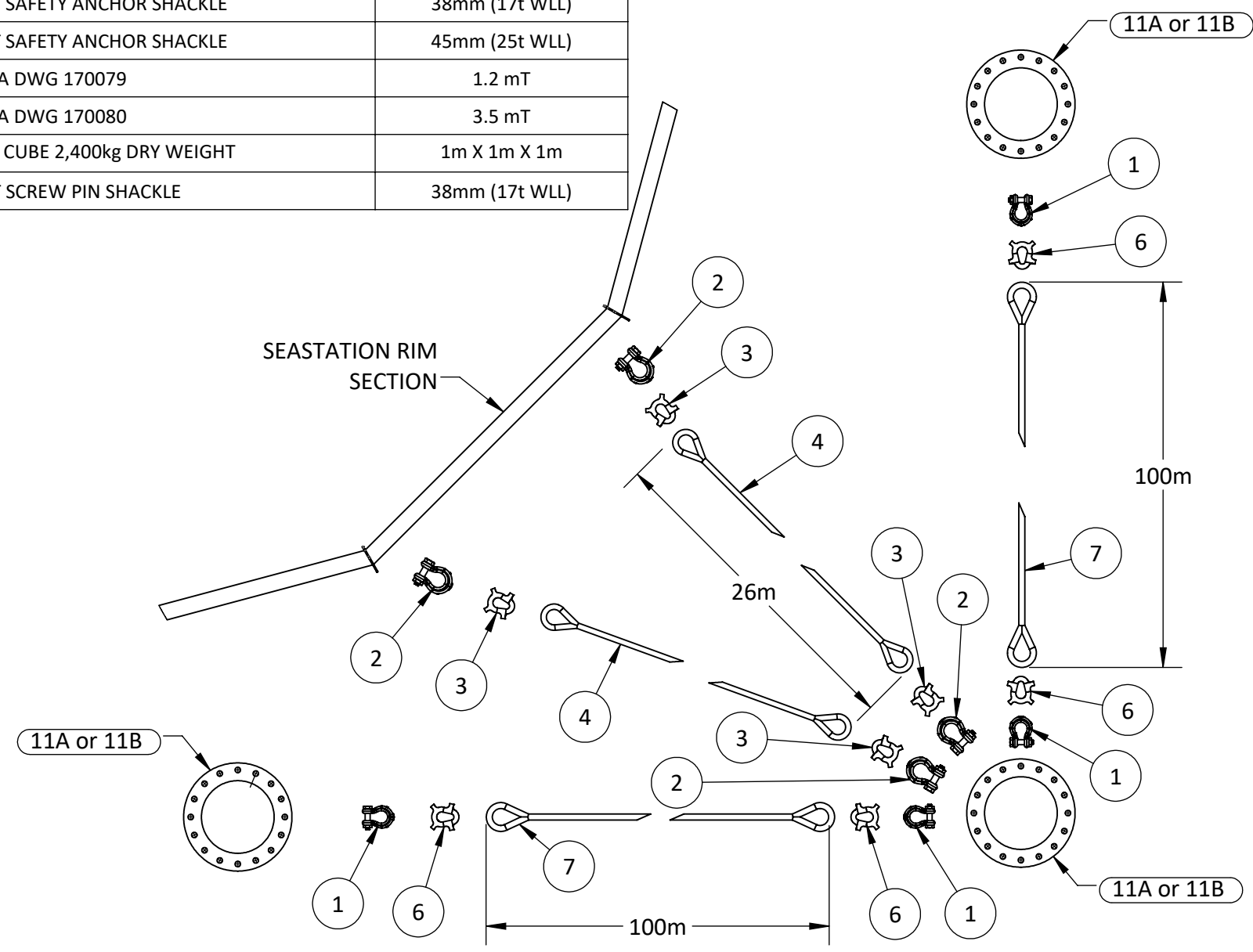
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SCALE: NTS DO NOT SCALE DRAWING		THIRD ANGLE PROJECTION	SHEET 2 of 4

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ITEM #	DESCRIPTION	SPECIFICATION	SIZE
1	SHACKLE - MOORING/GRID	VAN BEEST SAFETY ANCHOR SHACKLE	57mm (42.5t WLL)
2	SHACKLE - V-BRIDLE	VAN BEEST SAFETY ANCHOR SHACKLE	38mm (17t WLL)
3	LINE THIMBLE - V-BRIDLE	NEWCO TYPE EARED	No. 6-7
4	BRIDLE LINE	8 BRAID BLUE STEEL 500kg MINIMUM TENSION	44mm
5	LINE THIMBLE - CROWN/NODE	NEWCO TYPE EARED	No. 6-7
6	LINE THIMBLE - MOORING/GRID	NEWCO TYPE EARED	No. 8
7	GRID LINE (TYP)	SUPERTEC - 8 STRAND 3mt MINIMUM TENSION	64mm
8	NBPL LINE	SUPERTEC - 8 STRAND 1-3mt MINIMUM TENSION	52mm
9	NBPL CHAIN	STUDLINK CHAIN	38mm
10A	SHACKLE - CROWN/1.2 NODE	VAN BEEST SAFETY ANCHOR SHACKLE	38mm (17t WLL)
10B	SHACKLE - CROWN/3.5 NODE	VAN BEEST SAFETY ANCHOR SHACKLE	45mm (25t WLL)
11A	1.2 NODE BUOY	INNOVASEA DWG 170079	1.2 mT
11B	3.5 NODE BUOY	INNOVASEA DWG 170080	3.5 mT
12	NODE BALLAST BLOCK	CONCRETE CUBE 2,400kg DRY WEIGHT	1m X 1m X 1m
13	SHACKLE - NODE BALLAST	VAN BEEST SCREW PIN SHACKLE	38mm (17t WLL)

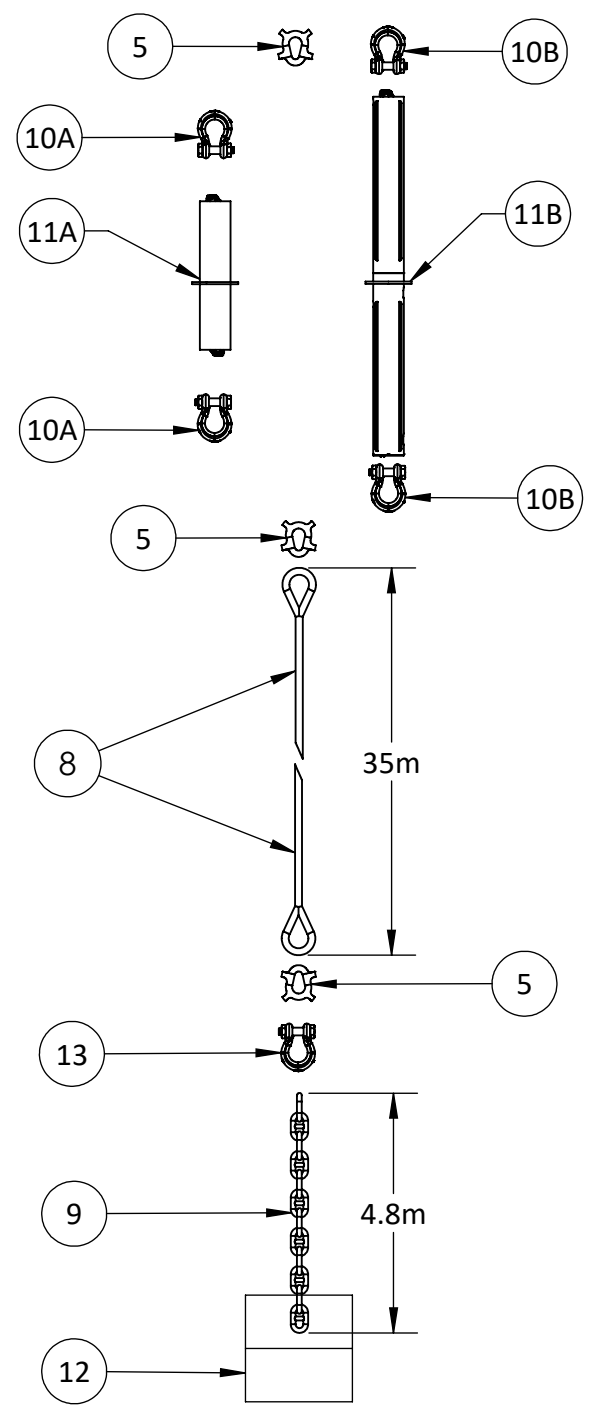
① V-BRIDLE COMPONENTS



② GRID LINE COMPONENTS

SHACKLE CONN. TO NODE PLATE
EITHER 1.2 MT OR 3.5 MT NODE BUOY

③ NODE BALLAST PENNANT LINE (NBPL) COMPONENTS



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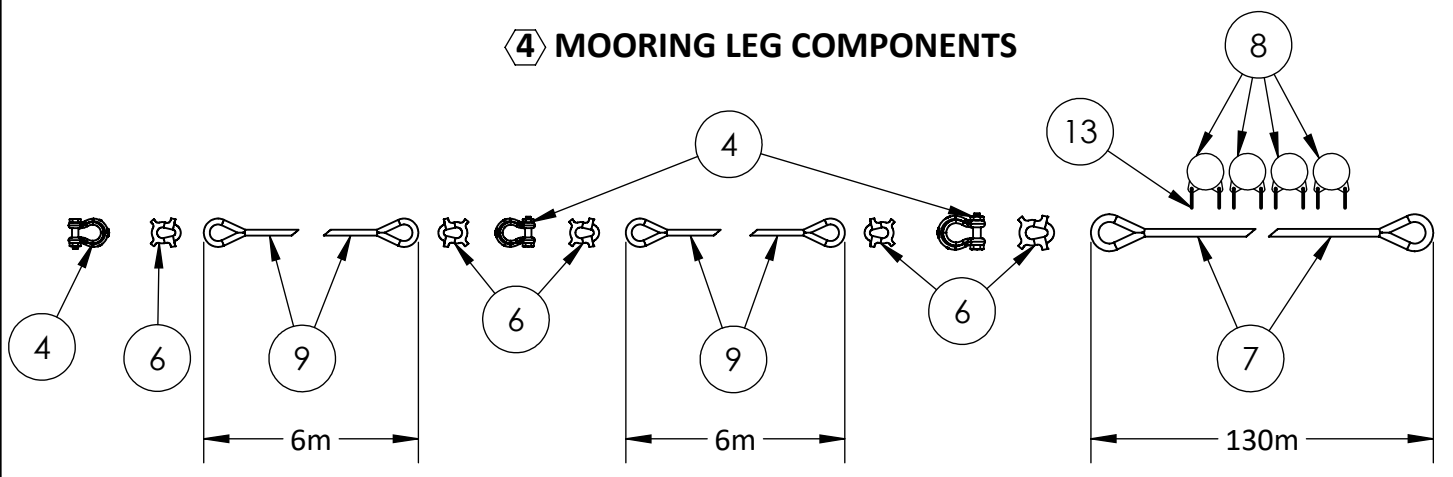
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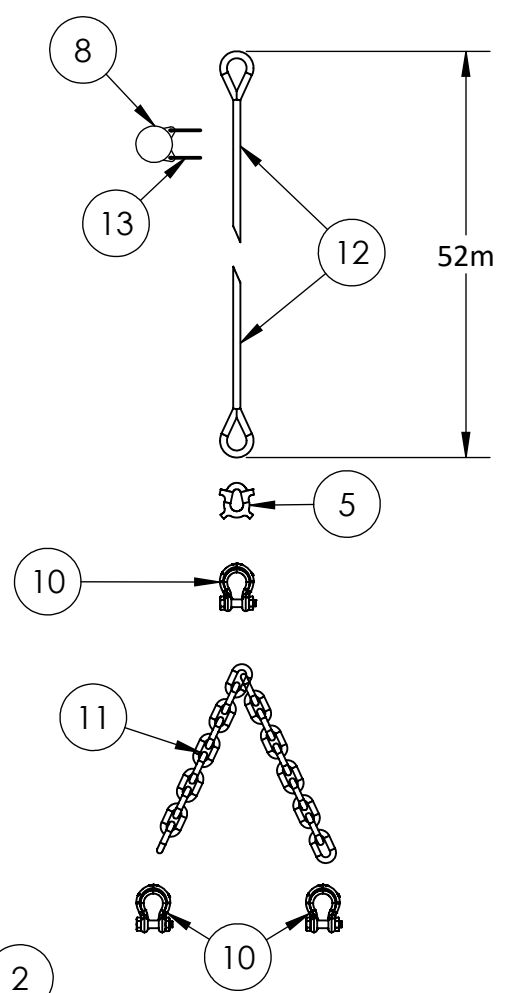
SCALE: NTS DO NOT SCALE DRAWING THIRD ANGLE PROJECTION SHEET 3 of 4

ITEM #	DESCRIPTION	SPECIFICATION	SIZE
1	ANCHOR	STEVPRIS MK5 ANCHOR	2500 kg
2	ANCHOR SHACKLE	VAN BEEST SCREW PIN SHACKLE	57mm (42.5t WLL)
3	ANCHOR CHAIN	STUDLINK CHAIN	60mm
4	SHACKLE - MOORING/GRID	VAN BEEST SAFETY ANCHOR SHACKLE	57mm (42.5t WLL)
5	LINE THIMBLE - CROWN/NODE	NEWCO TYPE EARED	No. 6-7
6	LINE THIMBLE - MOORING/GRID	NEWCO TYPE EARED	No. 8
7	MOORING LINE	SUPERTEC - 8 STRAND 3mt MINIMUM TENSION	68mm
8	TRAWL FLOAT	NITCHIMO UBE EARED TRAWL FLOAT	547mm
9	TENSION LINE	SUPERTEC - 8 STRAND 3mt MINIMUM TENSION	68mm
10	SHACKLE - CROWN/NODE	VAN BEEST SAFETY ANCHOR SHACKLE	38mm (17t WLL)
11	CROWN LINE CHAIN	STUDLINK CHAIN - 6 LINKS	38mm
12	CROWN LINE	SUPERTEC - 8 STRAND 50kg MINIMUM TENSION	52mm
13	FLOAT LASHING LINE	#333 WHITE BRAID NYLON	5 lb
14	CONCRETE BALLAST BLOCK	4,350kg DRY WEIGHT	1m X 2m X 2m
15	BALLAST CHAIN	STUDLINK CHAIN	32mm
16	BALLAST SHACKLE	VAN BEEST SAFETY ANCHOR SHACKLE	38mm (17t WLL)
17	BALLAST PENNANT LINE	BLUE STEEL POLY 8-STRAND	44mm

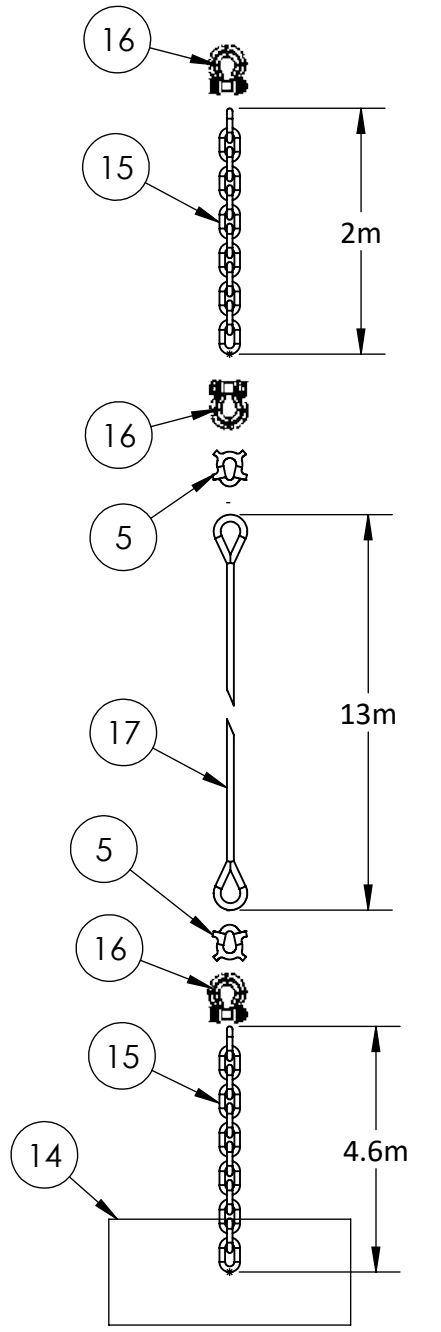
4 MOORING LEG COMPONENTS



5 CROWN LINE COMPONENTS



6 BALLAST PENNANT COMPONENTS



ANCHOR WILL OCCUPY 13m SQUARE OF SUBSTRATE

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SCALE: NTS DO NOT SCALE DRAWING THIRD ANGLE PROJECTION SHEET 4 of 4