OJSC “PRIMORSKIY ZAVOD”

Shipbuilding Project

Presentation material for the Seminar on Korean-Russia cooperation in shipbuilding

(Seoul, 30 May 2012)

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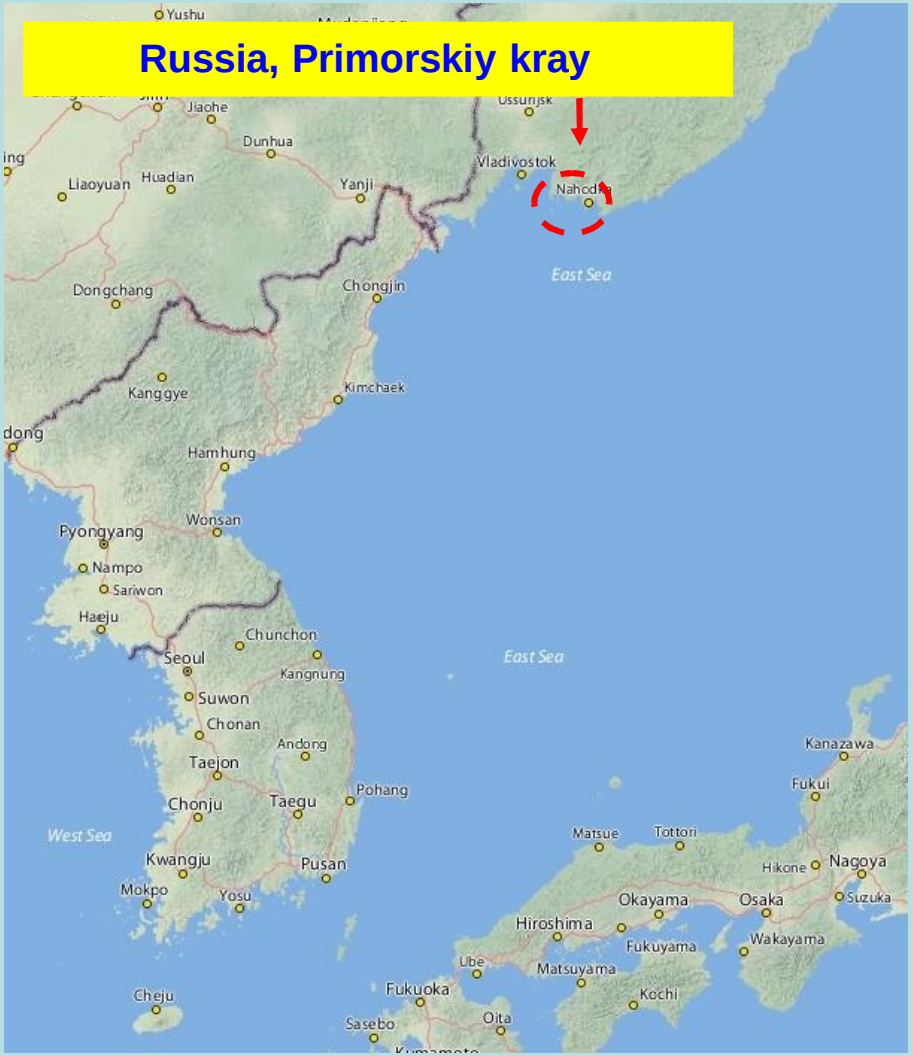
1. General information about shipbuilding project

OJSC “PRIMORSKIY ZAVOD”

1.1 Location



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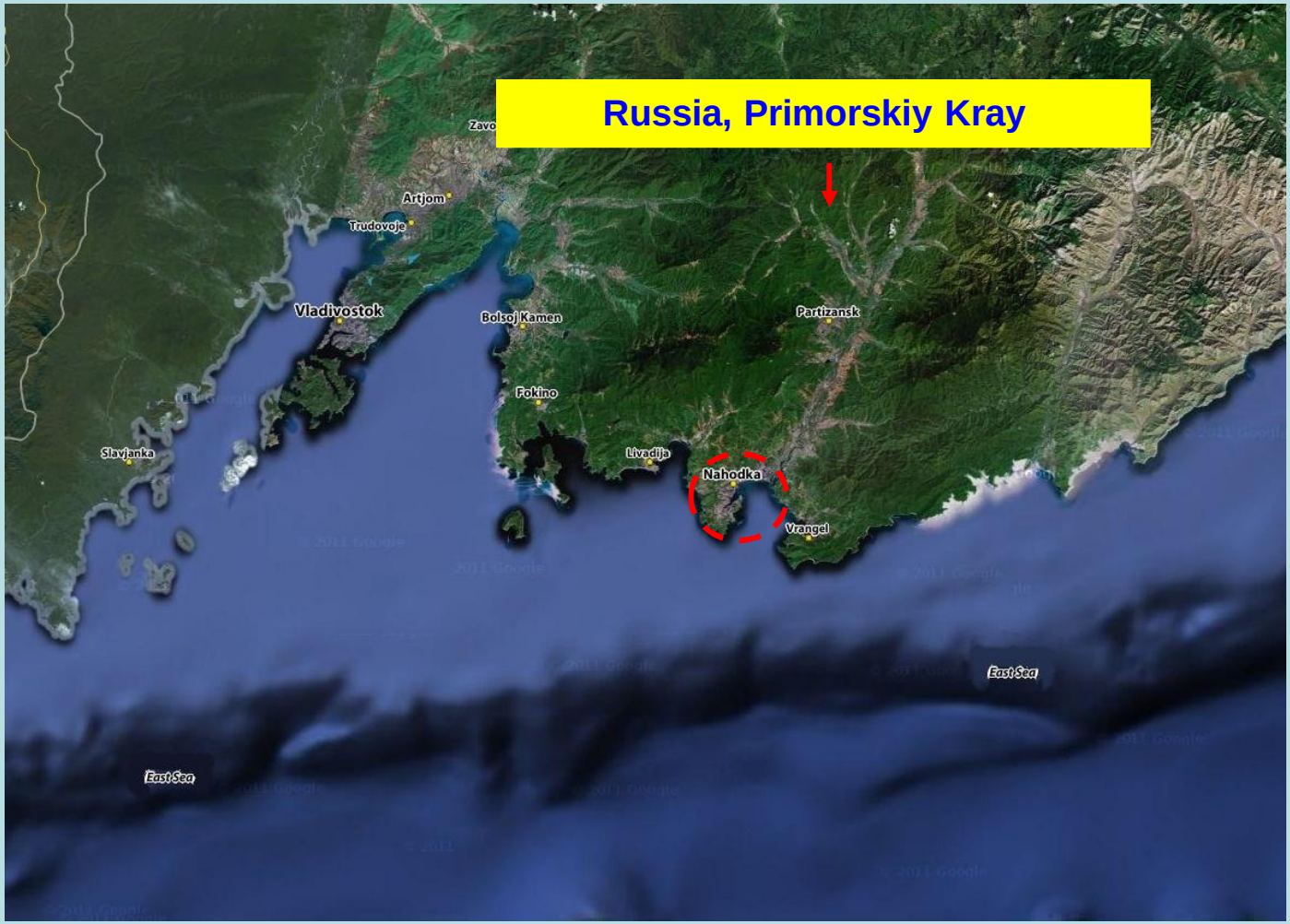

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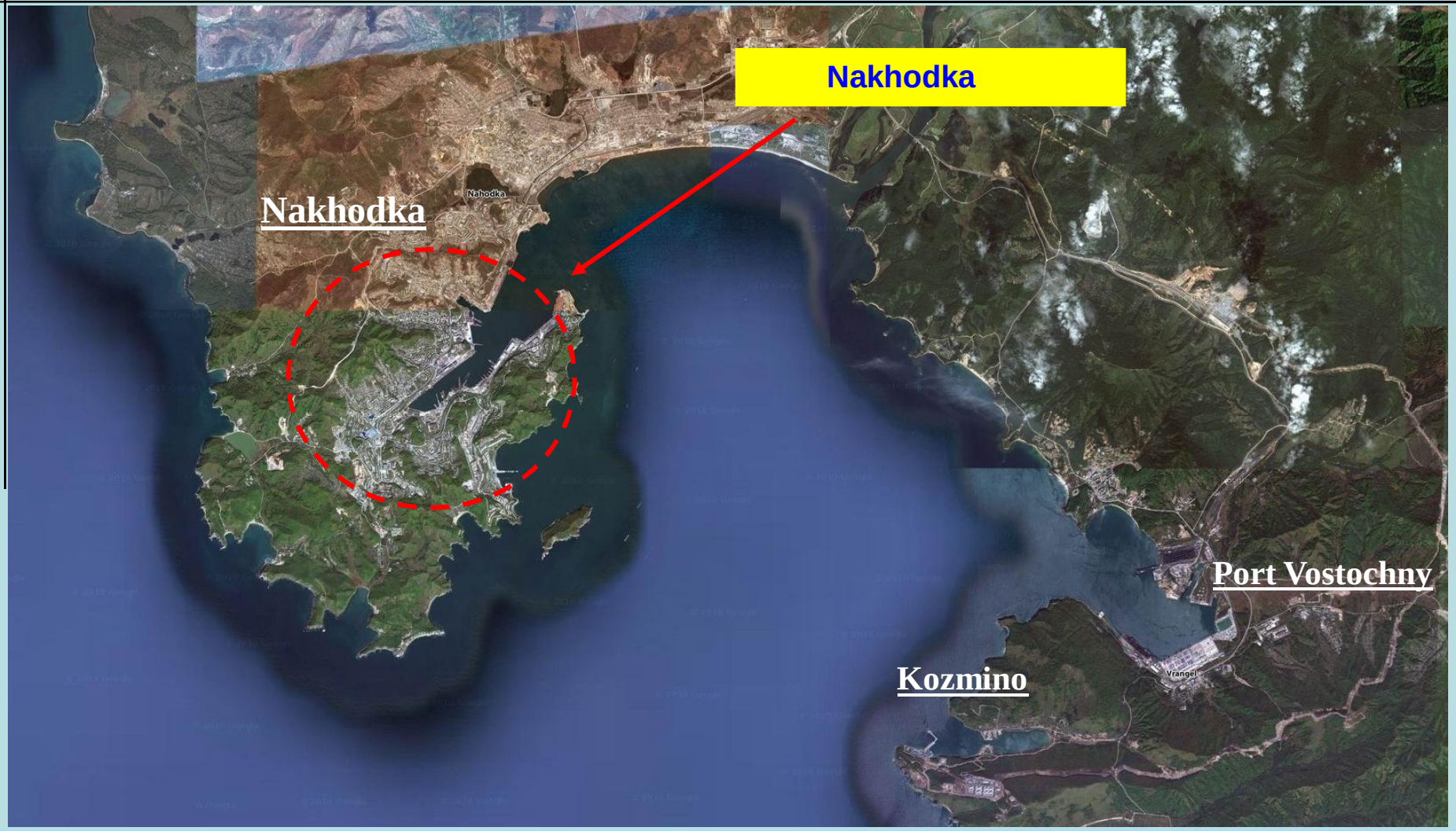

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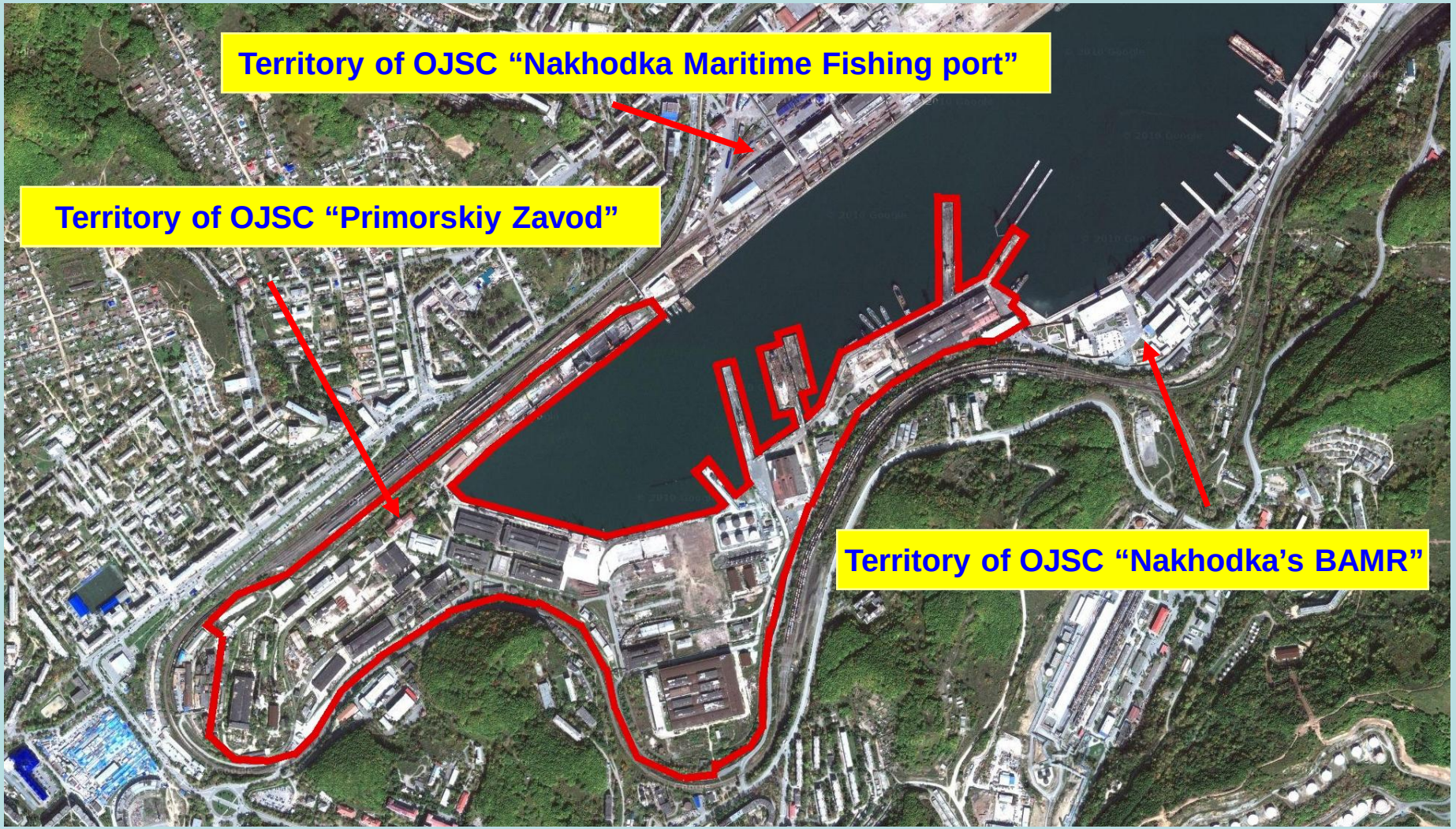

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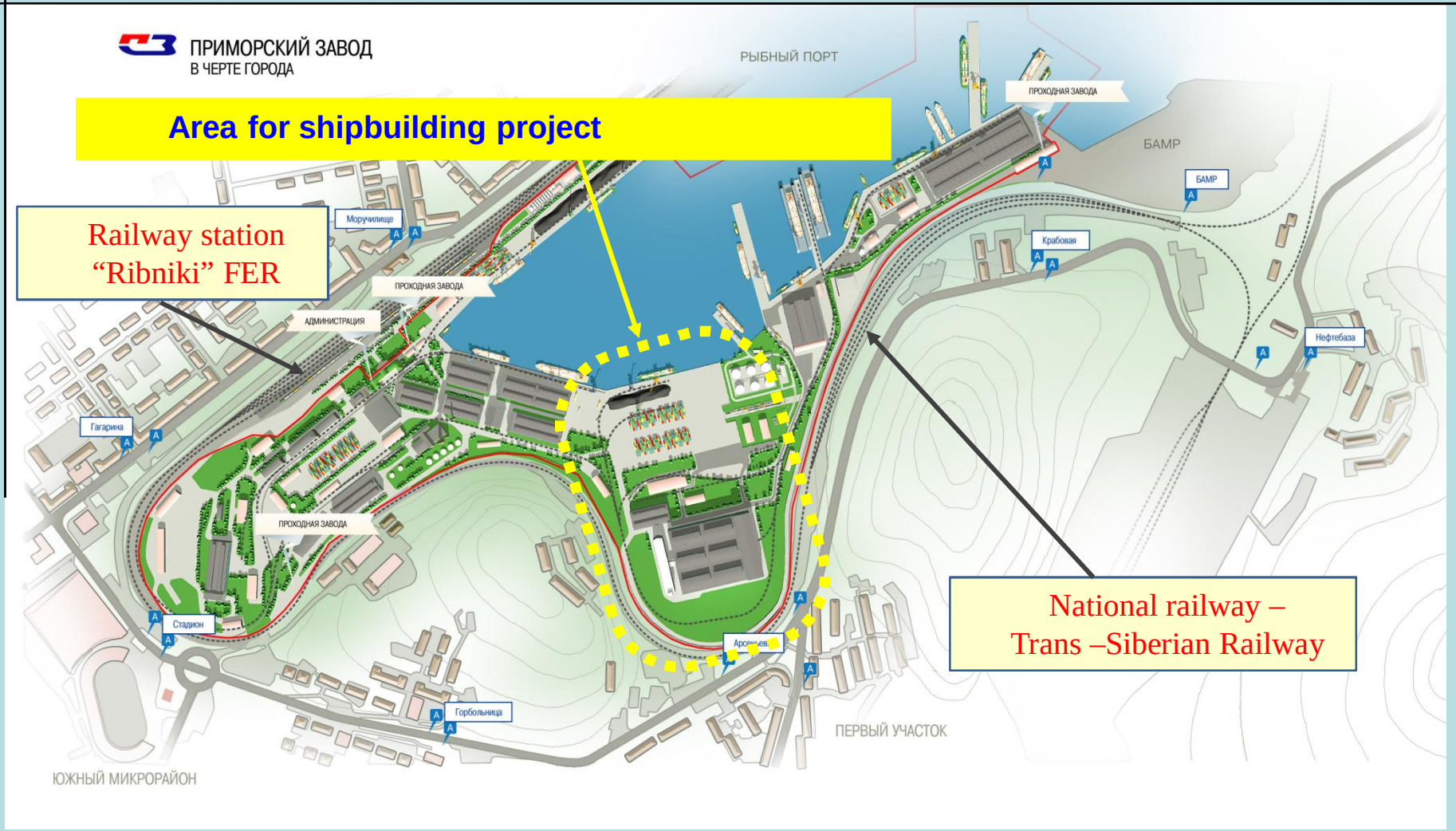


1. General information about shipbuilding project

OJSC “PRIMORSKIY ZAVOD”

1.1 Location

Area for shipbuilding project

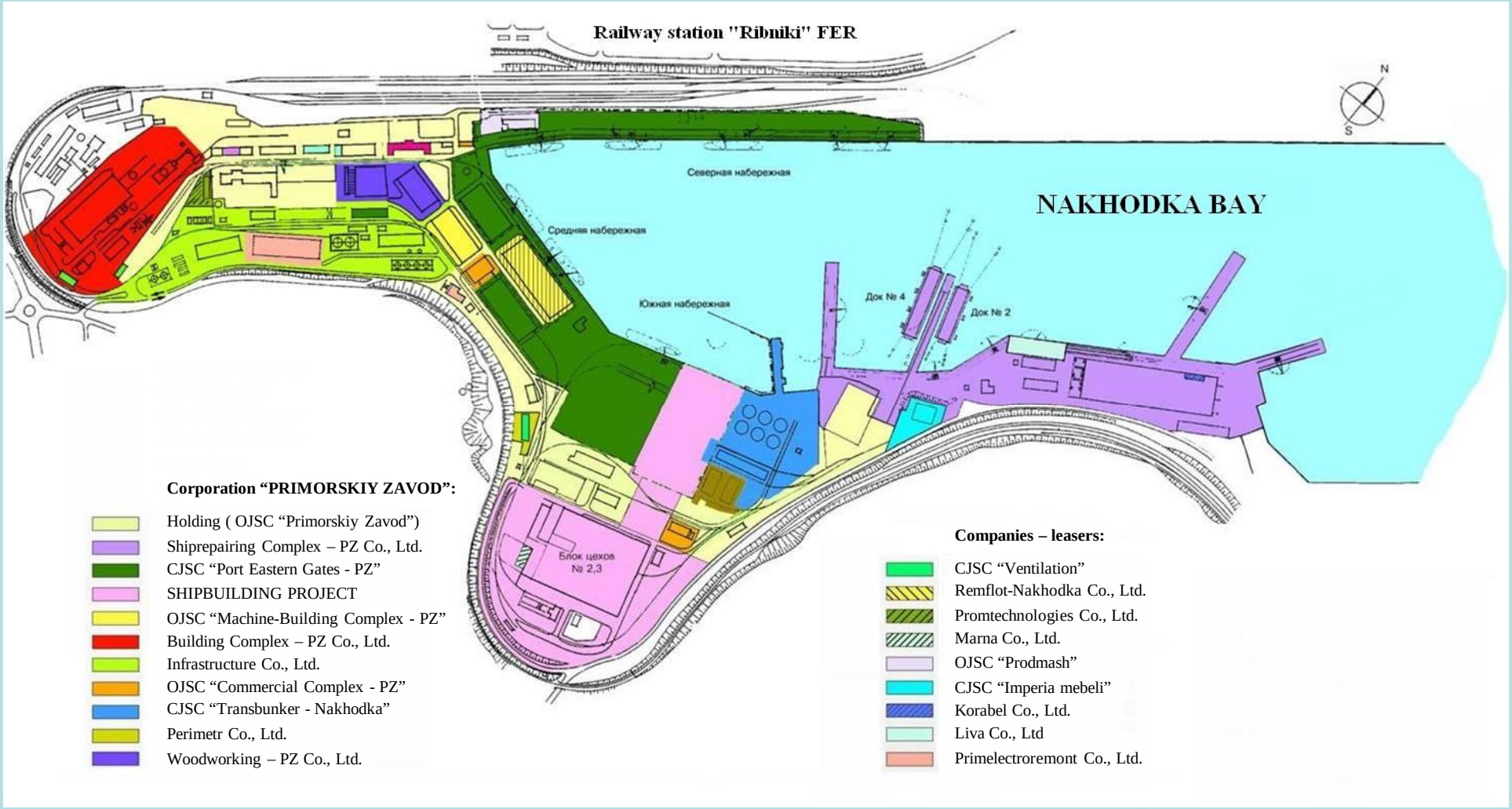
1.2 General information about shipbuilding project

1.2.1 Information about OJSC “Primorskiy Zavod”

Company Name	**OJSC “Primorskiy Zavod”**
Address	Sudoremontnaya str. 23, Nakhodka, Primorskiy Kray, Russia, 692903
Date of Foundation	01 October 1957
Fields of Business	Management of daughter companies, business fields of which are: - Shiprepairing (from 80 to 110 ships/year with dock’s weight up to 8000 tons); - Port business (handling up to 600’000 tons of cargoes per year); - Providing with infrastructure services (cold water, hot water, steam, sewerage, electricity, factory’s laboratory, ecology, secure, admission regime, motor, railway and port logistics). Management of “other’s” companies-leasers (approximately 25 different companies)
General Description	Total area 63 hectares; Total length of berths 4004 m.; Area of production buildings 74 000 sq.m.; Depths at the berths from 6.5 to 10.5 m.; Total length if internal railways 11.8 km.; Portal cranes with capacity up to 40 tons 28 items; Floating docks with lifting capacity 5900 и 8500 tons 2 items; Other equipment more than 400 items.

1.2 General information about shipbuilding project

1.2.1 Information about OJSC “Primorskiy Zavod”



1.2 General information about shipbuilding project

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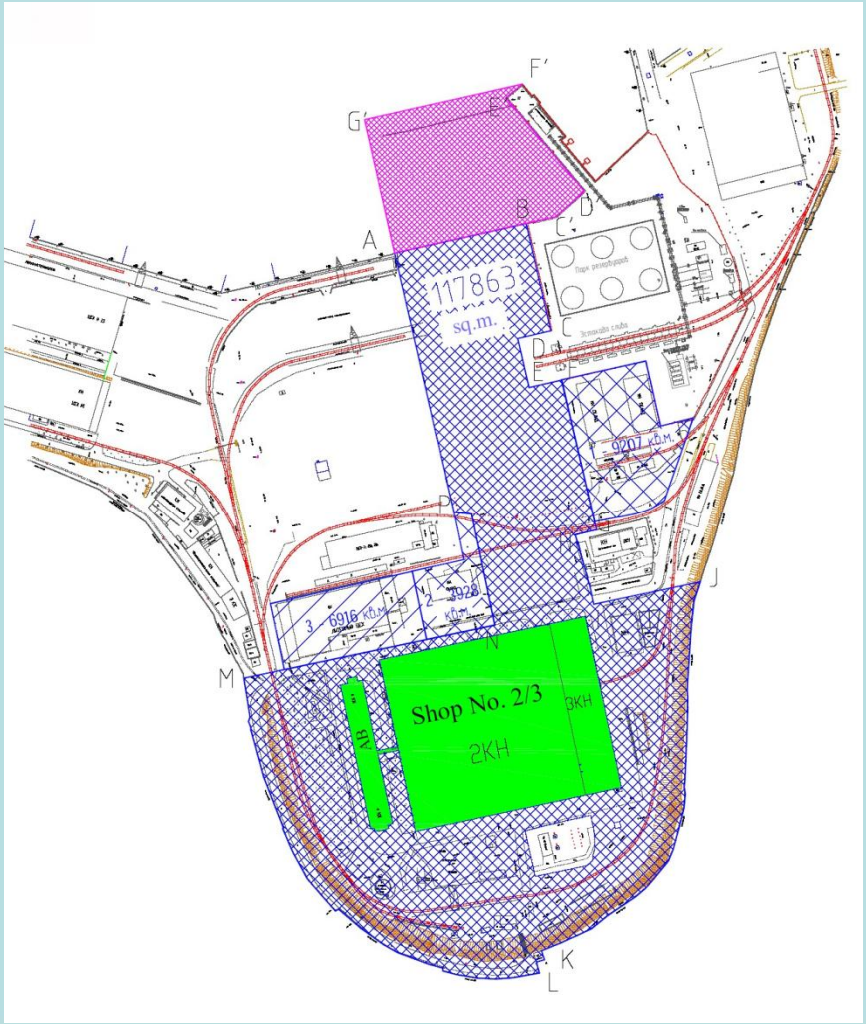


- ground area for Shipbuilding project, 11.8 hectares;

- additional ground area which can be received by filling with ground old shiprepairing slipway and creation new area ABCDEF’G’, approximately 1.8 hectares;

Shop - existent machine shop with 7 bays, total area = 25 200 m2;

AB - existent administrative building, 4 floors, total area = 8 500 m2.

1.2 General information about shipbuilding project

1.2.2 Information about shipbuilding project

Business Area	Building of high-effective fishing vessels/ Ship modernization/ Heavy steel works
Necessary ground area – local investment	Phase 1: approximately 120,000 m2 Phase 2: approximately 160,000 м2
Capacity	Phase 1: **18,000 tons of steel works annually (length of vessel up to 110 m.)** = 18 vessels x 1,000 tons (length up to 65 m.) - STERKODER type or = 6 vessels x 3,000 tons (length up to 105 m.) - BATM type Phase 2: **36,000 tons steel works annually (length of vessels up to 130 m.)** = 36 vessels x 1,000 tons (length up to 65 m.) - STERKODER type or = 12 vessels x 3,000 tons (length up to 105 m.) - BATM type
Manpower Plan	Phase 1: 850 persons (including subcontractors) Phase 2: 1,200 persons (including subcontractors)
Investment Plan – external investment	Phase 1: approximately USD 12,700,000 Phase 2: approximately USD 22,400,000

1.2 General information about shipbuilding project

1.2.3 Possible General Project Schedule (Phase 1)

Category		YEAR	2012			2013				2014
		QTR	2nd QTR	3rd QTR	4th QTR	1st QTR	2nd QTR	3rd QTR	4th QTR	1st QTR
		MONTHS	April May June	July Aug Sept	Oct Nov Dec	Jan Feb March	April May June	July Aug Sept	Oct Nov Dec	Jan Feb March
Shipyard organization	Establishment									
	Employment		Management				Workman			
Shipyard construction	Shipyard Design & Engineering		Conceptual engineering & consulting							
						Civil Engineering				
						Structure Design & Engineering				
				Facilities Design & Engineering						
	Procurement						Procurement			
	Construction Works						Construction works			
Shipbuilding order, Design & Procurement	Shipbuilding Order			Marketing & order works						
	Shipdesign					Basic Design				
							Detailed & Production Design			
	Procurement for Shipbuilding						Equipment & Materials			
Shipbuilding	Shipbuilding (1st)						S/C	K/L	L/C	D/L
	Shipbuilding (2nd)							S/C K/L	L/C	D/L

1.3 Infrastructure

1.3.1 General Infrastructure

Logistics	**Ideal location** for logistics of International & Domestics materials and complete sets for shipbuilding: A. International ports (JSC "Vostochniy Port", JSC "Nakhodka Maritime Fishing Port", JSC "Port Eastern Gates - PZ"); B. Well organized road network around the PZ area; C. Railway system (railway station "Rybniki"): connected with Trans-Siberian Railroad (TSR); D. Internal railroad system: 11.8 km.
Utilities	**Available with every necessary utility:** Heating, Electricity, Fresh Water, Sewerage System, Gas , etc.
Manpower	**Available with a number well-experienced workman** within Nakhodka area & neighbor cities: Management, Welders and Fitters.

1.3 Infrastructure

1.3.2 Affiliated works (potential subcontractors)

1.4 Environmental Conditions

Geography	Nakhodka is one of the most eastern large cities in Russia, located on the Nakhodka Bay of East Sea, around 9000 km from Moscow and about 85 km east of Vladivostok. Distances from Nakhodka Port (nautical miles) to ports: Busan – 508; Ulsan – 470; Mokpo – 727; Incheon – 863
Climate	Moderate for shipbuilding A. Precipitation (rainfall): 740 mm (63% in July to September) B. Humidity: 70 % C. Temperature: -13ºC (9ºF) ~ +17ºC (63ºF) (average temperatures)
Water depth at berths	Good for Shipbuilding: about 9 m
Height of tides	Best for Shipbuilding: Less than 0.4 m
Storm/ Typhoon	Ignorable

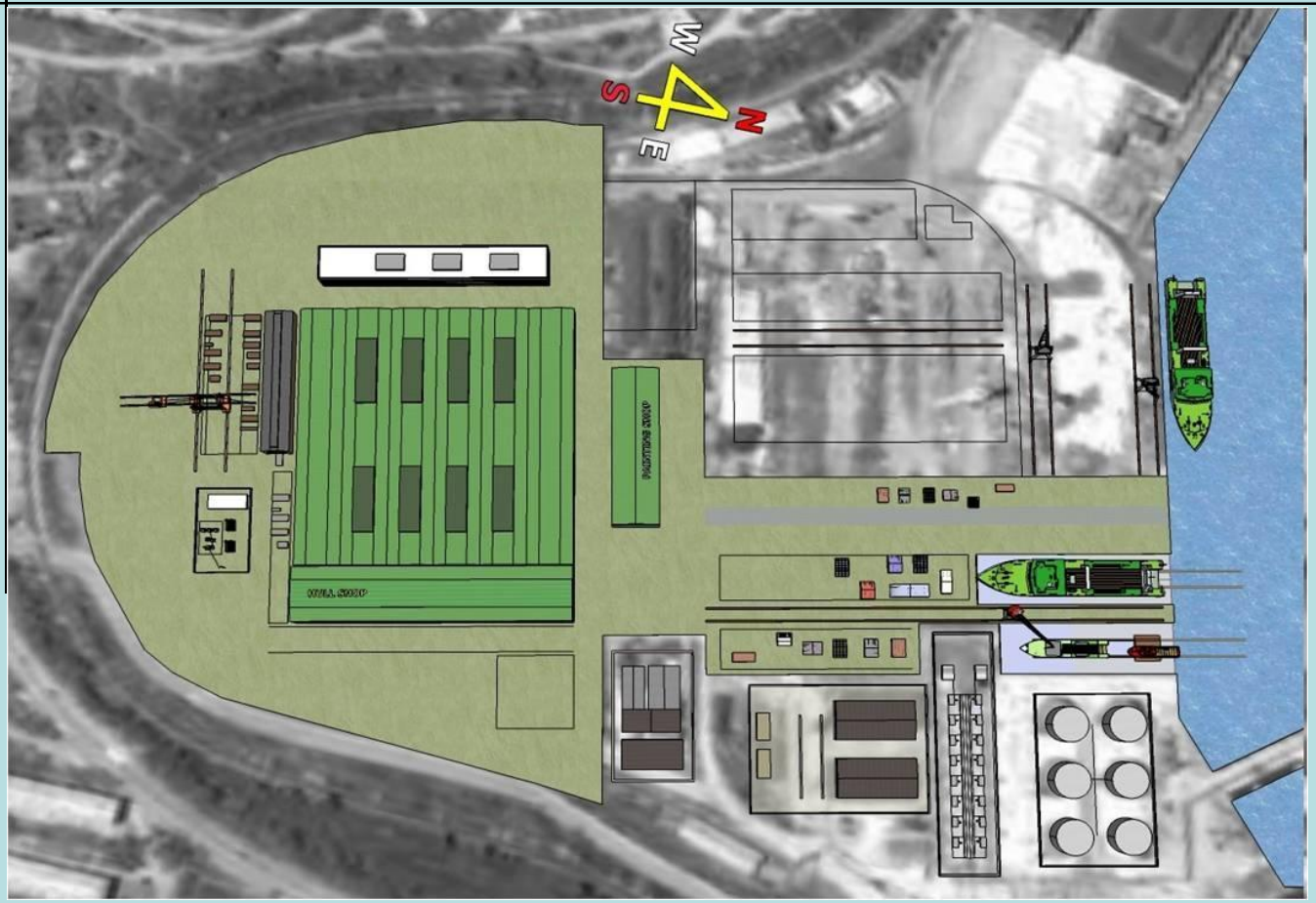
2. Initial Plan for Preparation of the Shipyard

2.1 Possible Schedule for Shipyard preparation

Category		YEAR	2012			2013				2014
		QTR	2nd QTR	3rd QTR	4th QTR	1st QTR	2nd QTR	3rd QTR	4th QTR	1st QTR
		MONTHS	April May June	July Aug Sept	Oct Nov Dec	Jan Feb March	April May June	July Aug Sept	Oct Nov Dec	Jan Feb March
Shipyard organization	Establishment									
	Employment		Management					Workman		
Shipyard construction	Shipyard Design & Engineering		Conceptual engineering & consulting							
						Civil Engineering				
						Structure Design & Engineering				
				Facilities Design & Engineering						
	Procurement					Procurement				
	Construction Works						Construction works			

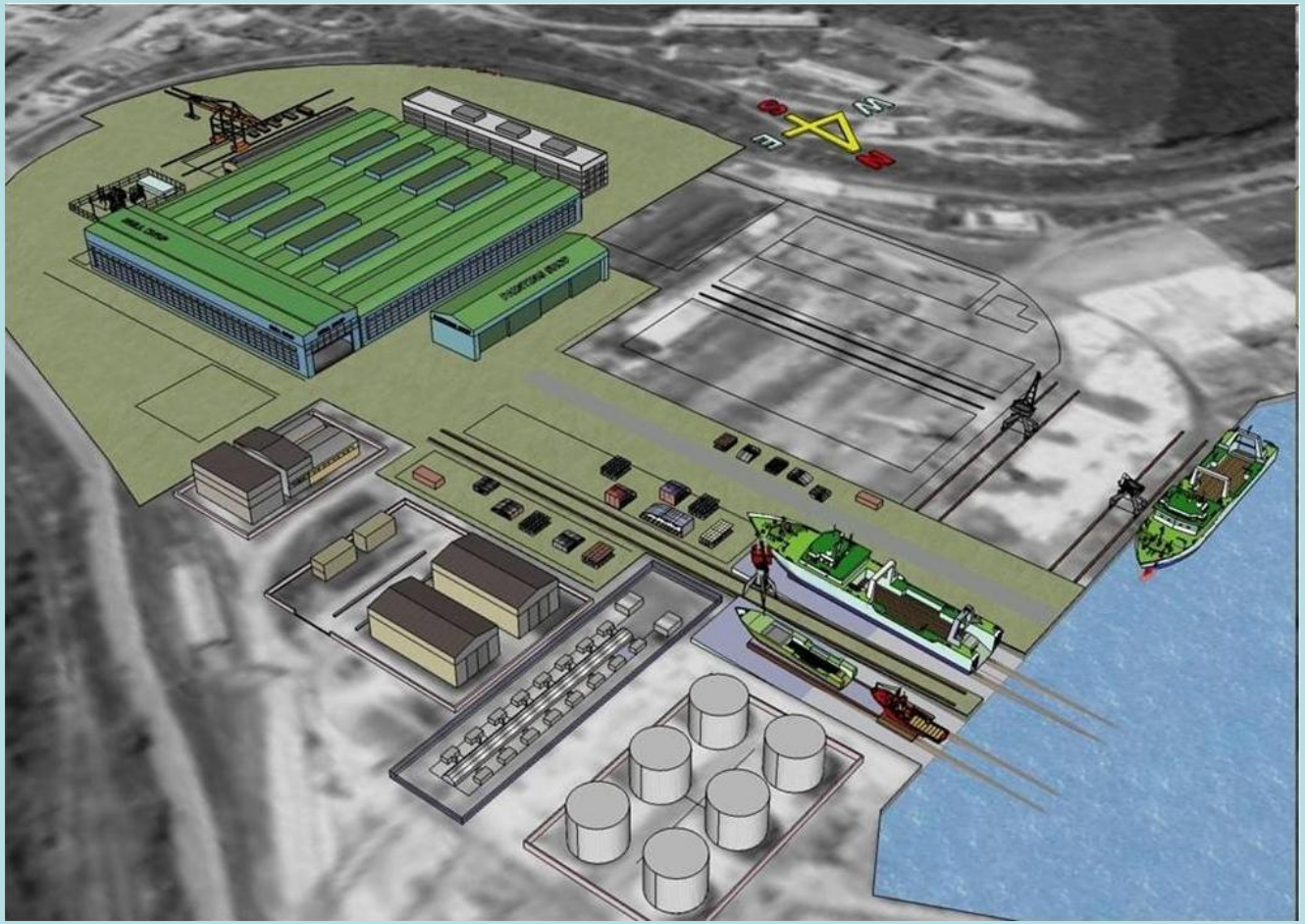
2.2 Shipyard Layout

2.2.1 Shipyard Layout- Phase 1 (1/2)



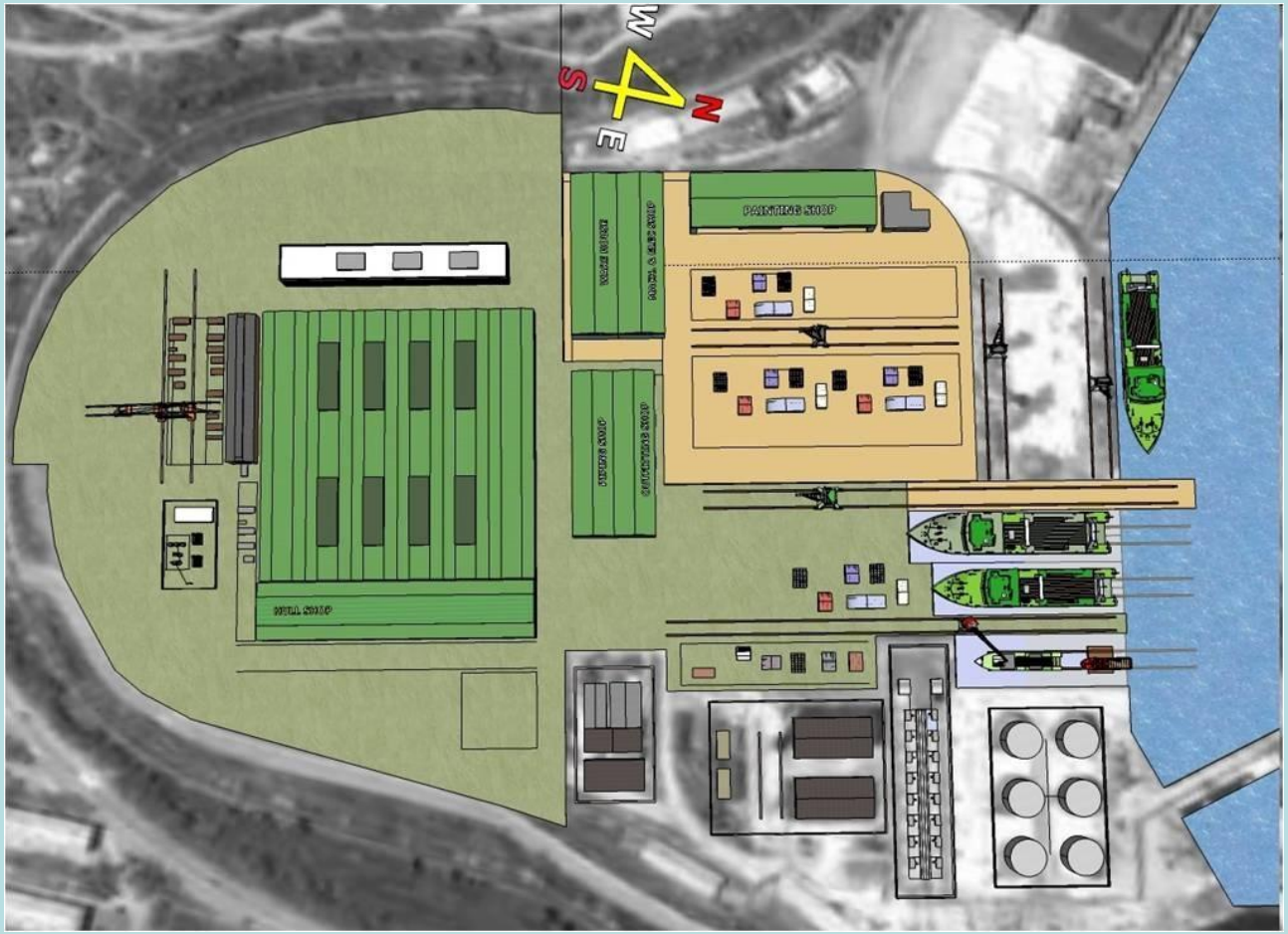
2.2 Shipyard Layout

2.2.1 Shipyard Layout- Phase 1 (2/2)



2.2 Shipyard Layout

2.2.2 Shipyard Layout- Phase 2 (1/2)

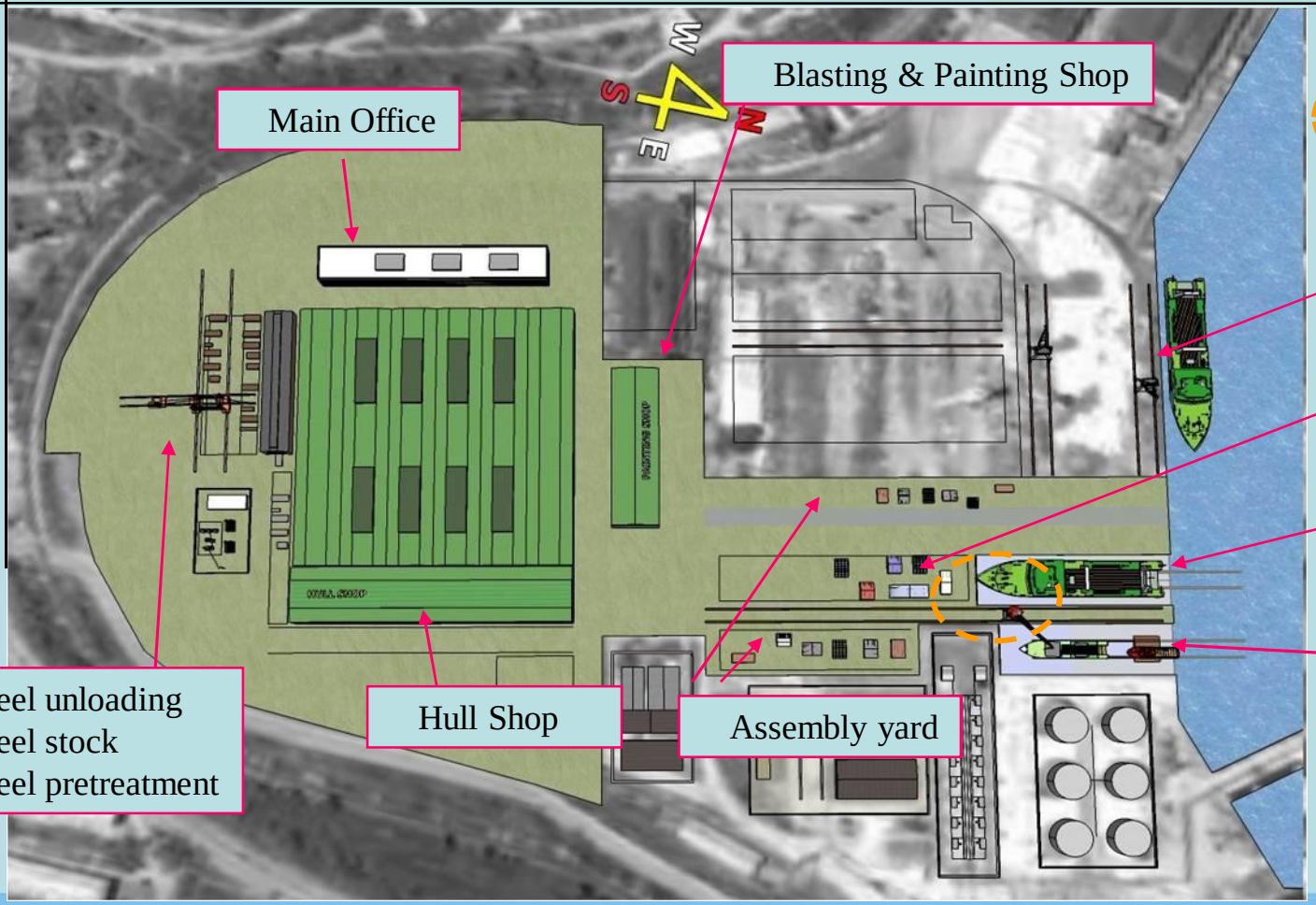


2.2 Shipyard Layout

2.2.2 Shipyard Layout- Phase 2 (2/2)

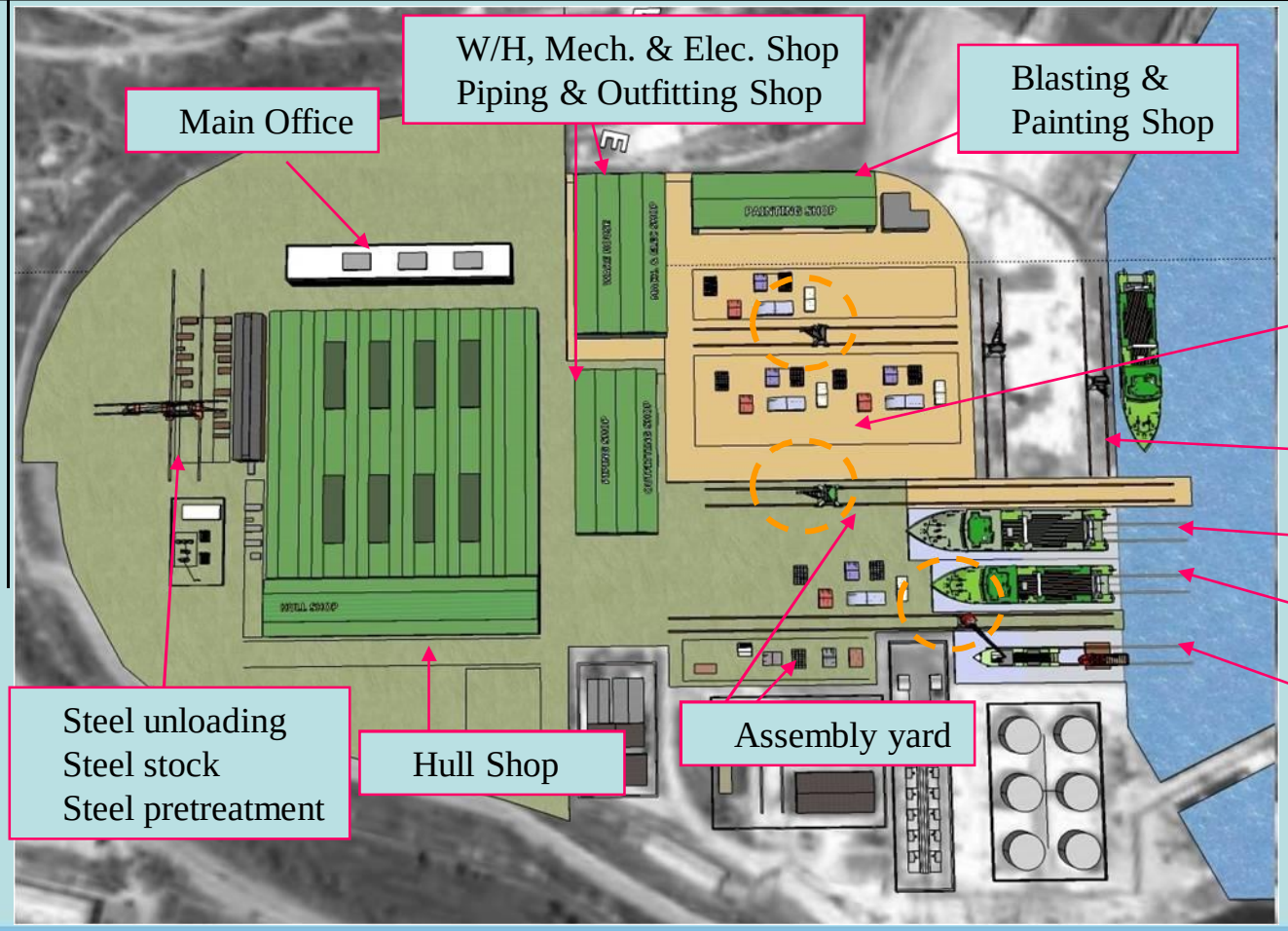
2.3 Initial Facility Arrangement

2.3.1 Facility Arrangement – Phase 1



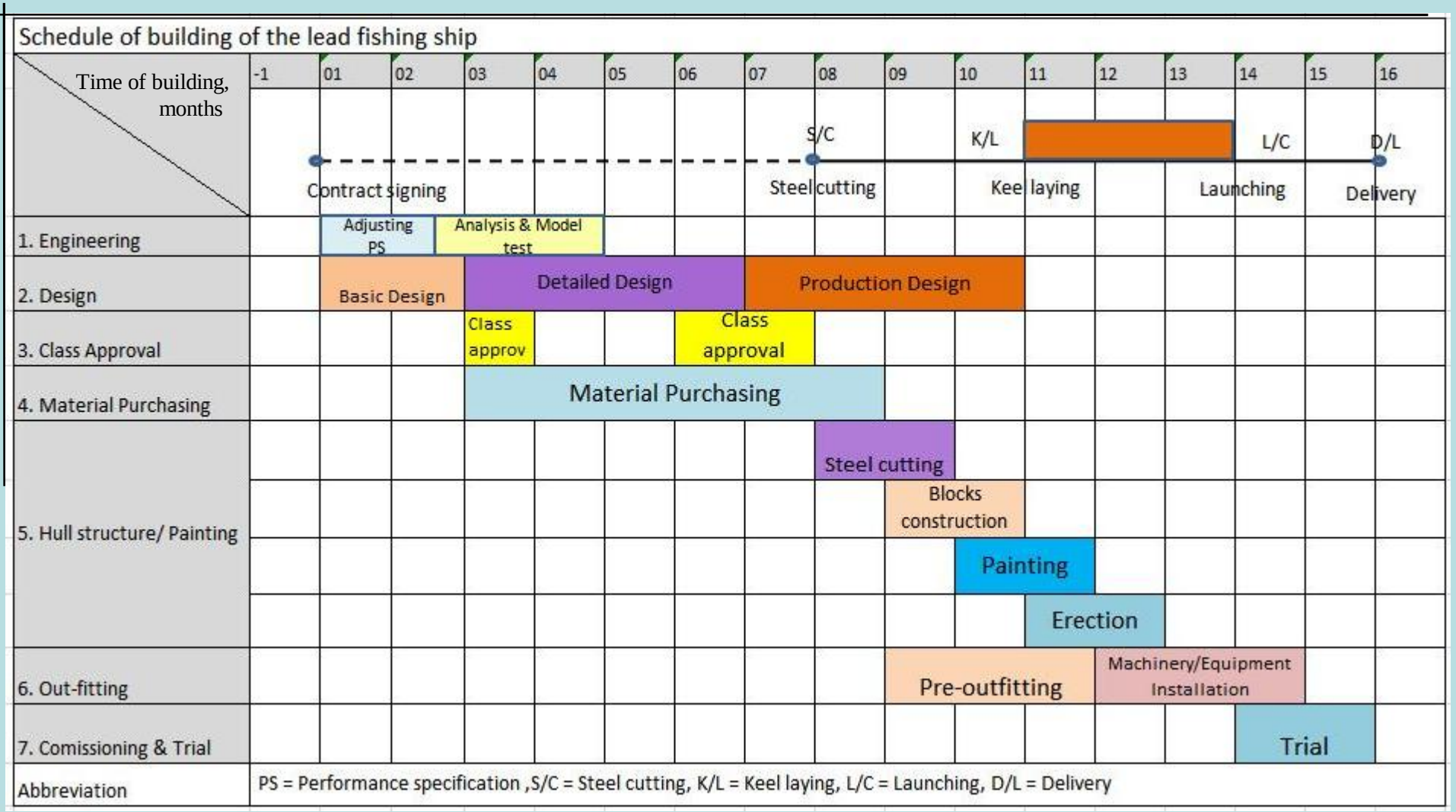
2.3 Initial Facility Arrangement

2.3.1 Facility Arrangement – Phase 2

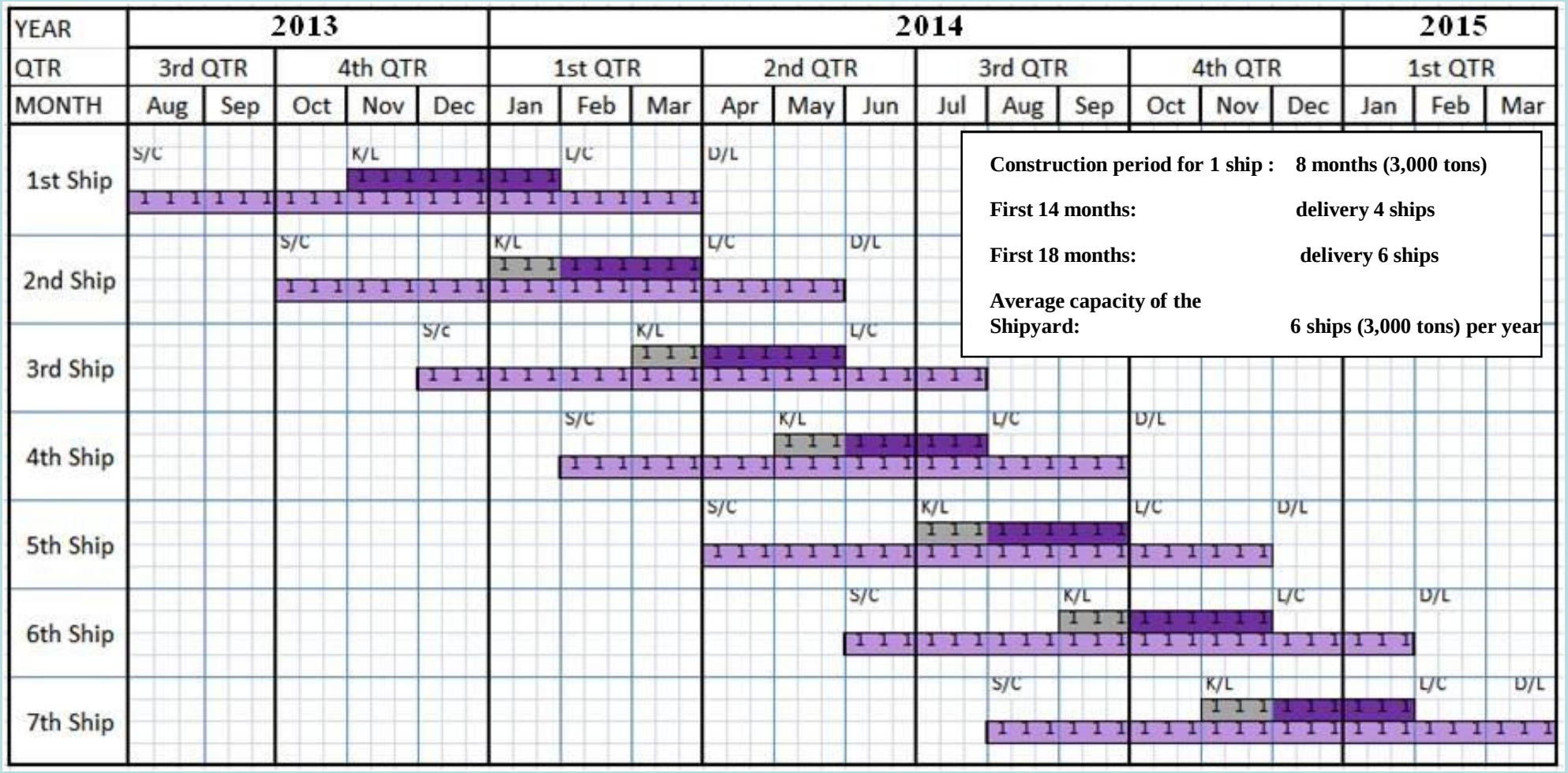


3. Initial Plan for Shipbuilding

3.1 General Schedule for Shipbuilding (Phase 1)



3.1 General Schedule for Shipbuilding (Phase 1)



Construction period for 1 ship : **8 months (3,000 tons)**

First 14 months: **delivery 4 ships**

First 18 months: **delivery 6 ships**

Average capacity of the Shipyard: **6 ships (3,000 tons) per year**

3.2 Design, Material & Production Plan

International consortium of design offices is created for realization of the shipbuilding project with members:

- ***from Russian part:***

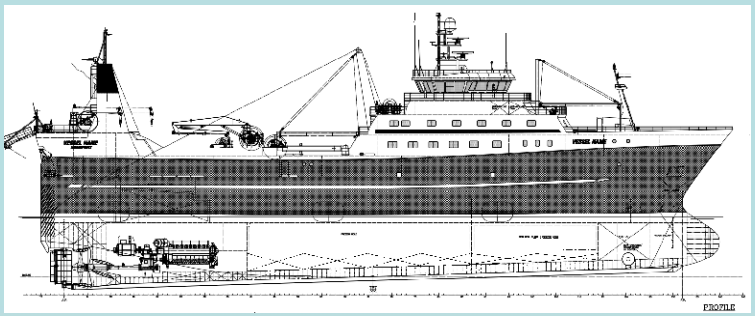
  - CJSC «Marine Engineering Company» (Vladivostok); CJSC «Russian Pelagic Research Company» (Vladivostok).

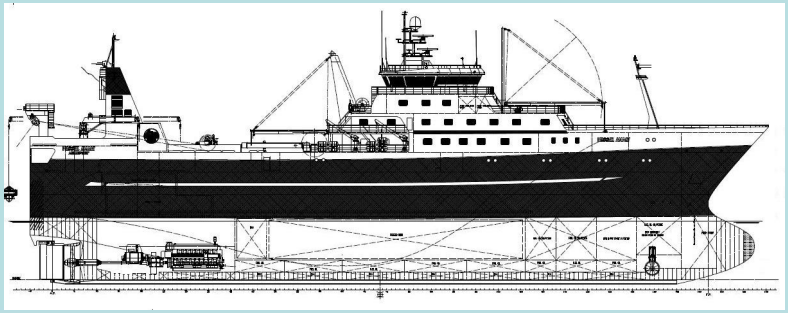
- ***From Korean part:***

  - Mastek Heavy Industries Co., Ltd.(Busan); Sung Chan Engineering Co., Ltd. (Mokpo).

Goal: *integration of intellectual, technological and organizational efforts of Russian and Korean designers for joint development of fishing vessels designs with length 27, 50, 65 and 81 meters and other.*

Result for today: *there has been worked out line of designs of perspective fishing vessels with length 27, 34, 50, 65 and 81 m. and others.*





3.2 Design, Material & Production Plan

3.2.1 Design Plan

Until shipyard designers are fully organized and well trained, design shall be carried our by a qualified team of designer’s consortium so as the ships shall be built as per the modernized ship design patterns and advanced shipbuilding methods to make sure for ship’s safety, quality and performance to the satisfaction of the ship-owners.

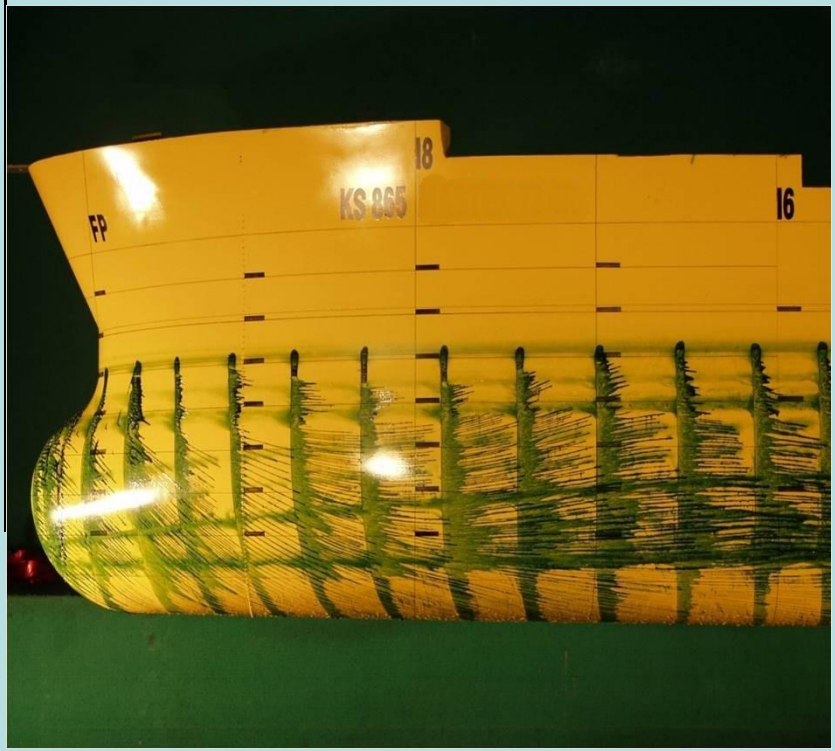
A. Basic & Detailed Design (including Class Approval Design)

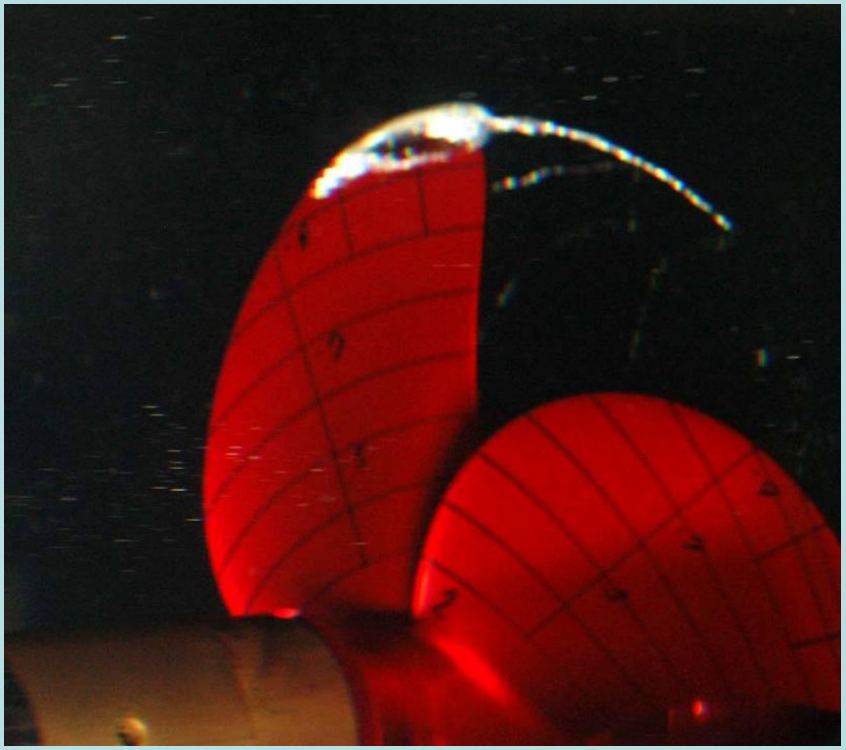
- Hull form Study & Model Tank test
- Propeller Design (S/W: WAVIS)
- Naval Architects (Basic Calculation & Plans) by NAPA system
- Hull Basic & Structure Design (PATRAN & NASSTRAN system)
- Hull Outfitting (CADRA/ AutoCAD for 2D & TRIBON for 3D)
- Machinery (AutoCAD for 2D & TRIBON for 3D)
- E/R & Hull Piping (AutoCAD for 2D & TRIBON for 3D)
- Accommodation (AutoCAD for 2D & TRIBON for 3D)
- Electric (AutoCAD for 2D & TRIBON for 3D)
- Paint (AutoCAD)

3.2 Design, Material & Production Plan

3.2.1 Design Plan

Model Tank Test (Model) & Propeller Tunnel Test (Cavitation Test)





3.2 Design, Material & Production Plan

3.2.1 Design Plan

B. Production Design (All by 3D Design: S/W – TRIBON)

- Optimized Block Division
- Hull Block DWGs (NC cutting tape & Detailed Assembly DWGs)
- Hull Outfitting
- Machinery Outfitting
- E/R & Hull Piping (Arrangement & Installation, Piece & Support)
- Accommodation (incl. Pipe & Duct)
- Electric
- Module Unit Drawings as per requirements
- Paint & Shop Engineering

3.2 Design, Material & Production Plan

3.2.2 Material supply Plan

A. Material-Take-Off

As per the design process, precise Purchase Order Specification (POS) for equipment and Purchase Order Requisition (POR) shall be issued in connection with the shipbuilding schedule.
Especially Production Design by 3D (TRIBON) creates precise Material-Take-Off so as the quantity is precise and the missing or excessive part is minimized.

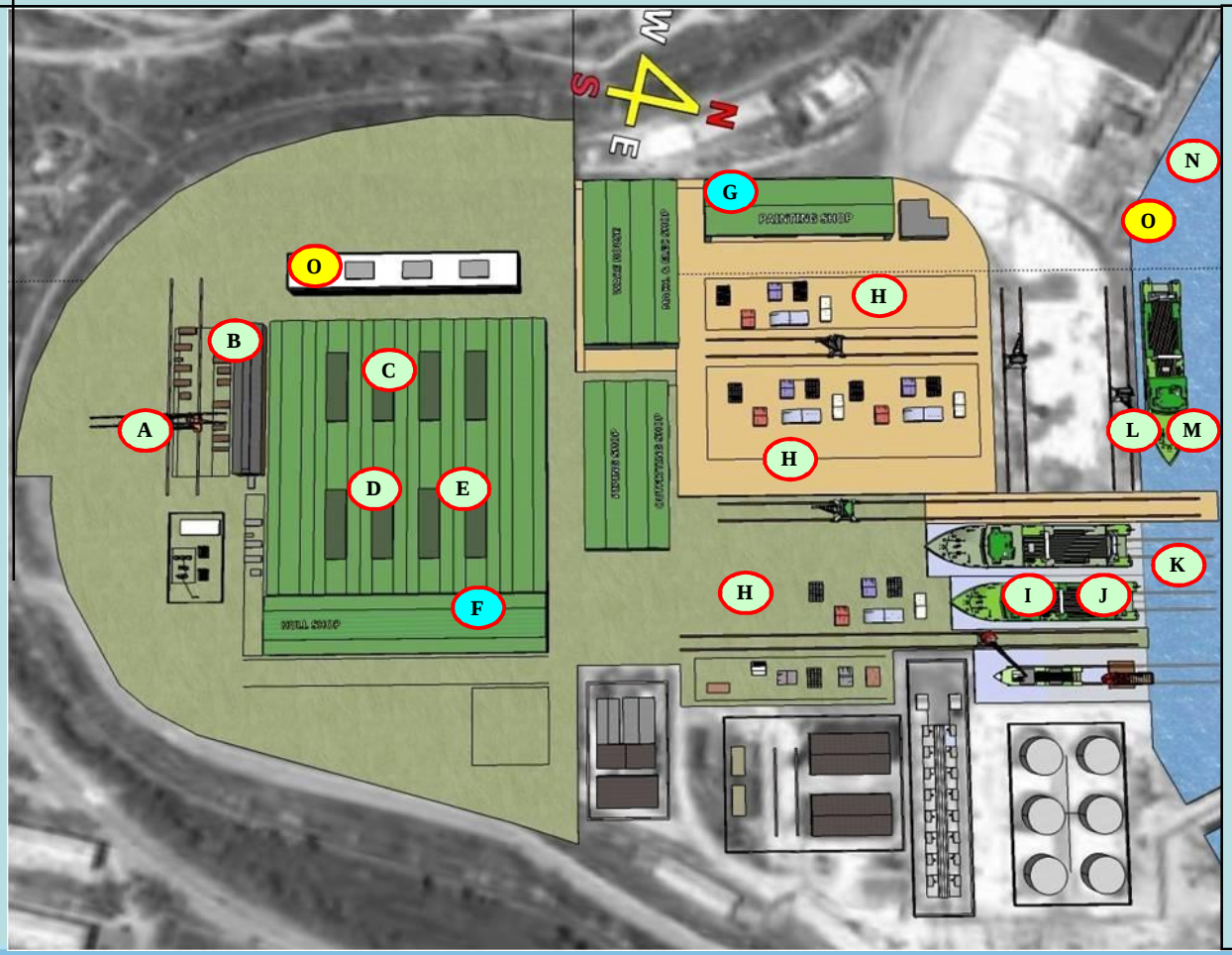
B. Procurement

In consideration of the quality, price, delivery time and world-wide service availability, procurement shall be carried our through the following ways:

Steel Plate & Profile	Mainly Russian local suppliers Some grades from Korean/ Chinese /Japanese and others suppliers
Major equipment	World-wide manufactures as per the suitability Russian/ Korean/ Taiwanese /European/ Japanese
Bulk materials	Russian/ Korean
Standardized components	To be manufactured by Shipyard (or subcontractors at the area of “Primorskiy Zavod”) Some supplies from other Russian/Korean manufacturers

3.3 Work flow

3.3.1 General scheme of work flow in Shipyard (Phase 2 case)



A – Steel unloading

B – Steel pretreatment

C – Steel cutting (S/C)

D – Sub-assembly

E – Assembly

F – Pre-outfitting

G – Blasting & Painting

H – Pre-Erection (PE)

I – Erection start (Keel laying: K/L)

J – Works at berth slot

K – Launching (L/C)

L – Outfitting works at berth

M – On-board test & mooring trial

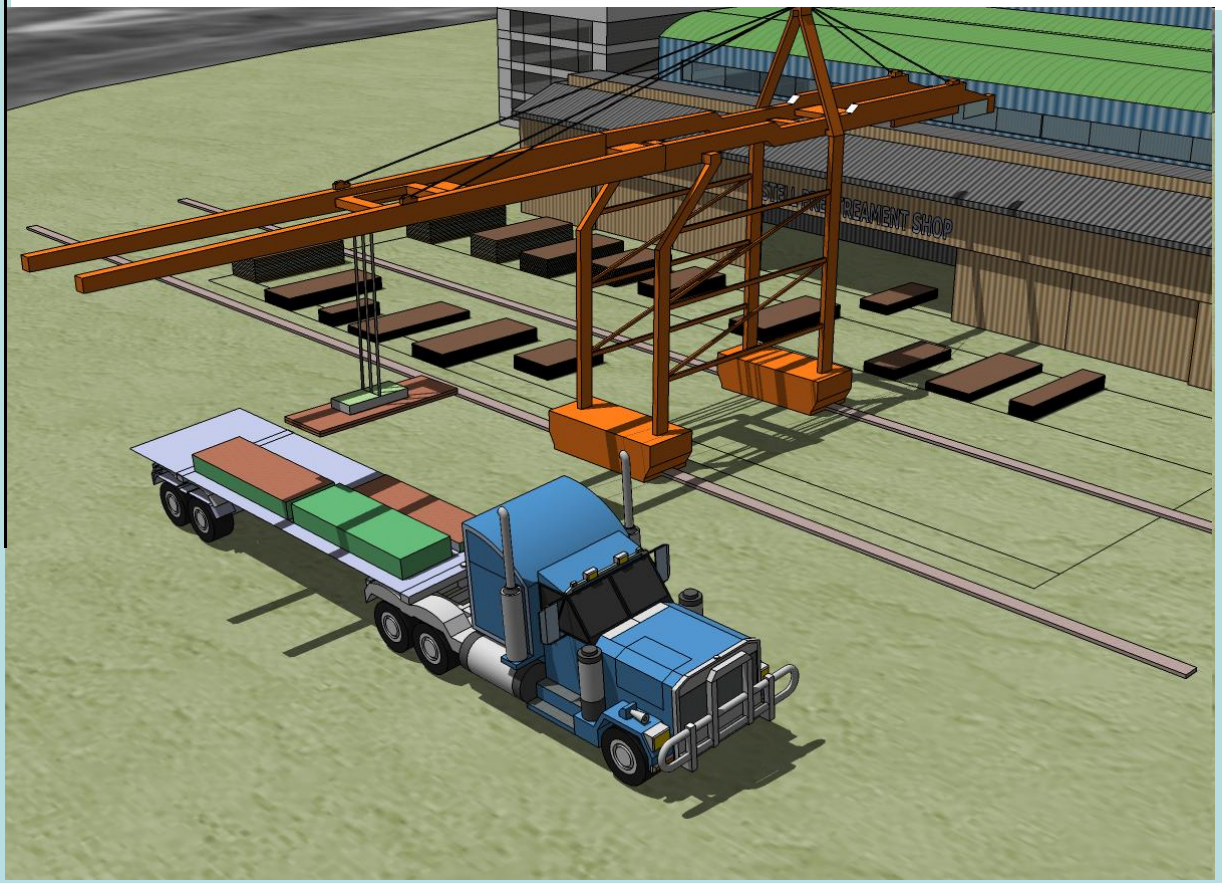
N – Sea trial

O – Delivery to the Ship-owner (D/L)

3.3 Work flow

3.3.2 Details of Work flow

A. Steel unloading



Transportation of steel plates & profiles by sea, Rail way or Road.

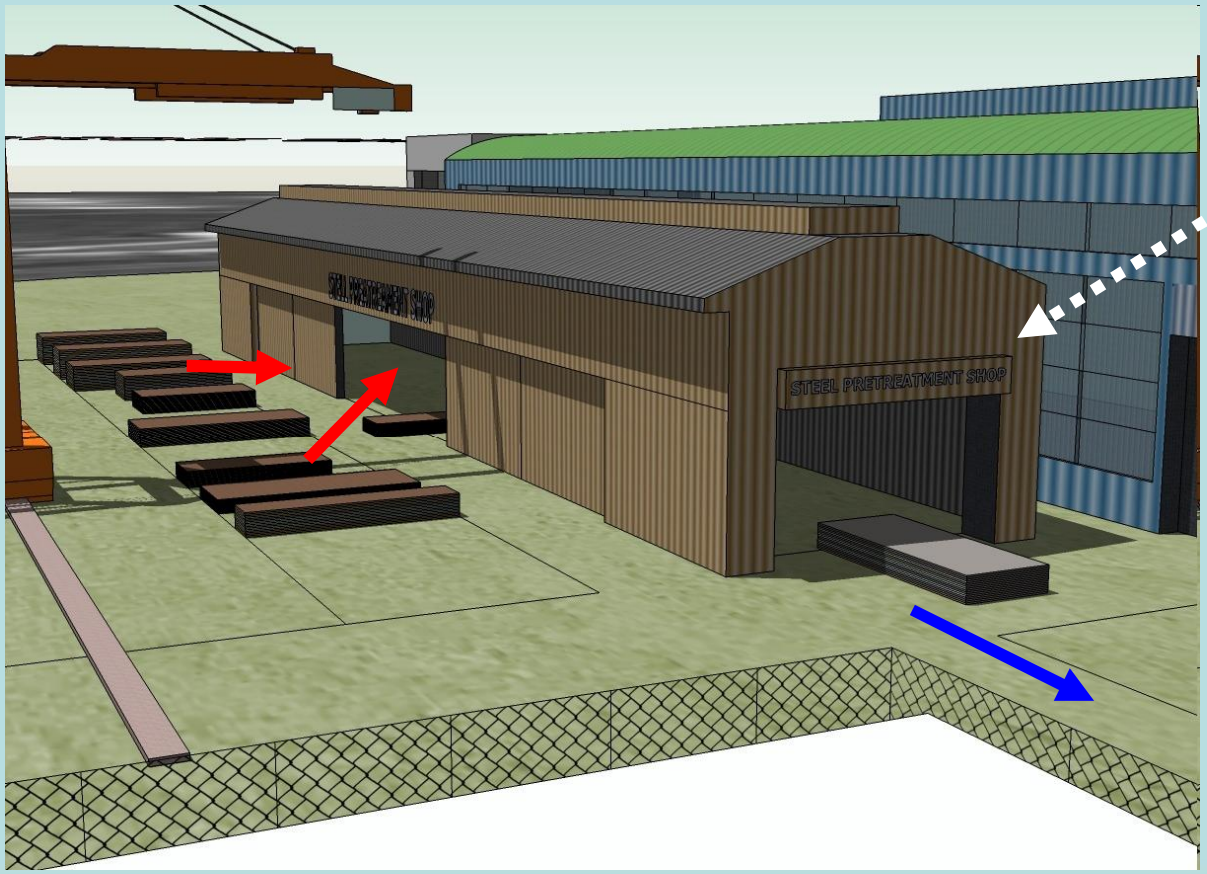
20 ton Electro-Magnetic Bridge Type Crane (BTC) can handle steel plates & profiles easily & safely.

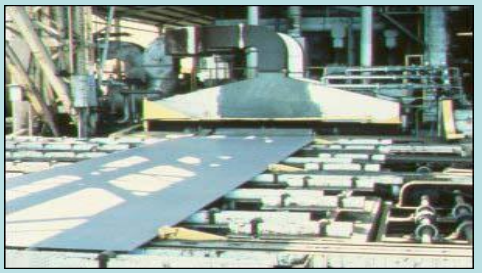
Enough of steel stock area is prepared.

3.3 Work flow

3.3.2 Details of Work flow

B. Steel pretreatment(Blasting & Shop-primer painting)





Raw steel materials shall be pretreated by grit-blasting and then painted with shop-primer to prevent rust during the steel works.

Modernized facility for steel pretreatment shall be prepared.

3.3 Work flow

3.3.2 Details of Work flow

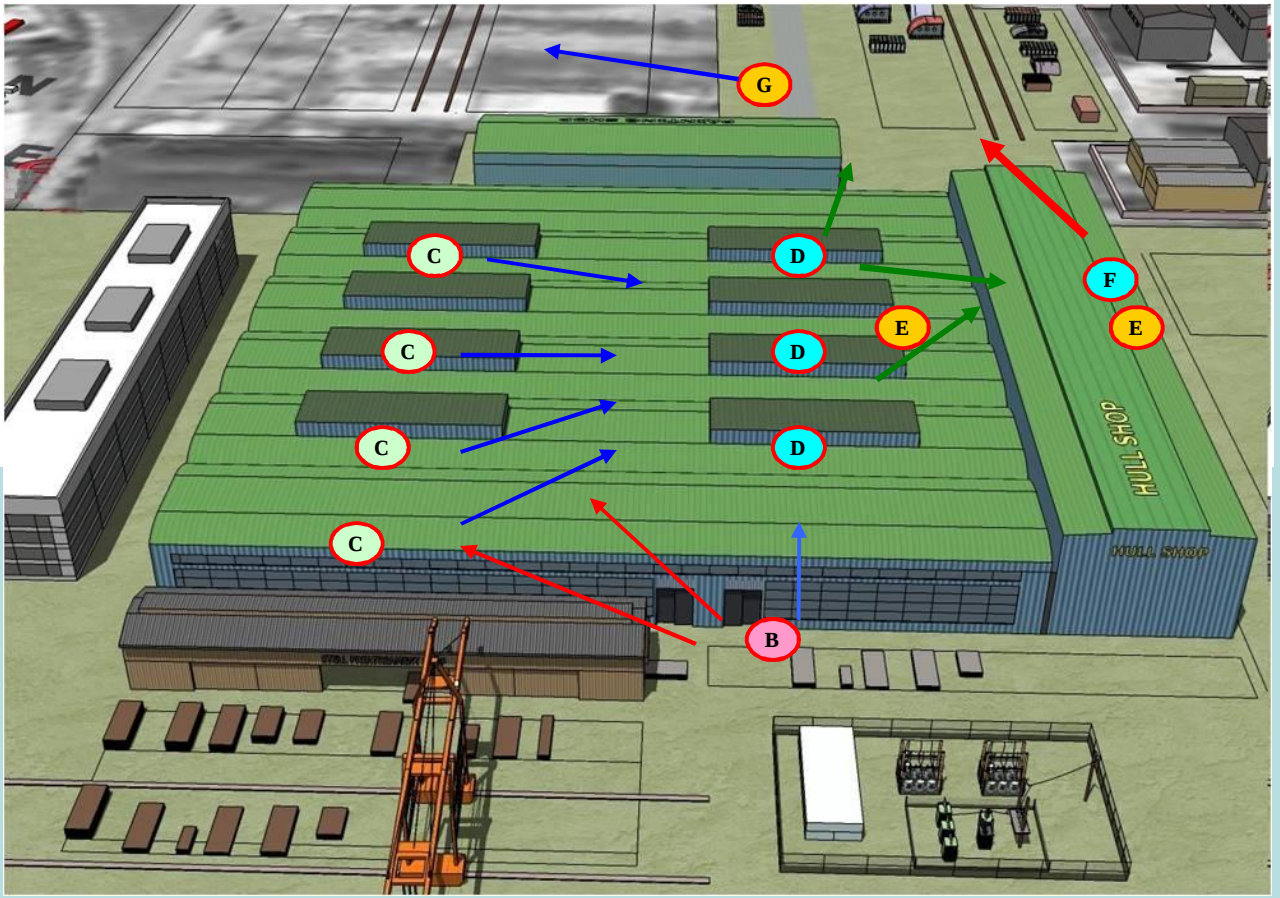
C. Steel cutting (S/C)

D. Sub-assembly

E. Assembly

F. Pre-outfitting

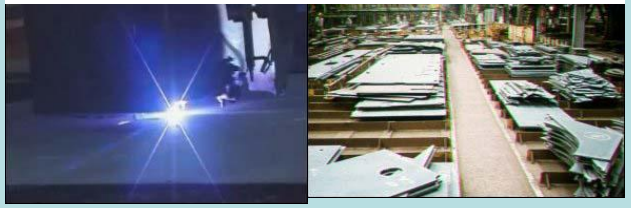
G. Blasting & Painting



3.3 Work flow

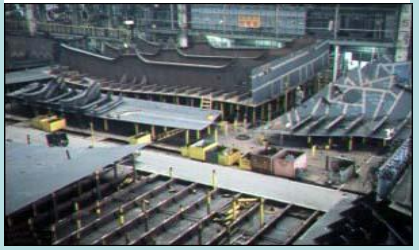
3.3.2 Details of Work flow

C. Steel cutting (S/C)



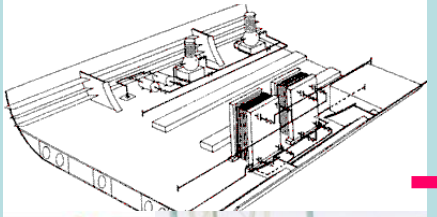
D. Sub-assembly

Flat panel line



Curved panel line

E. Pre-outfitting

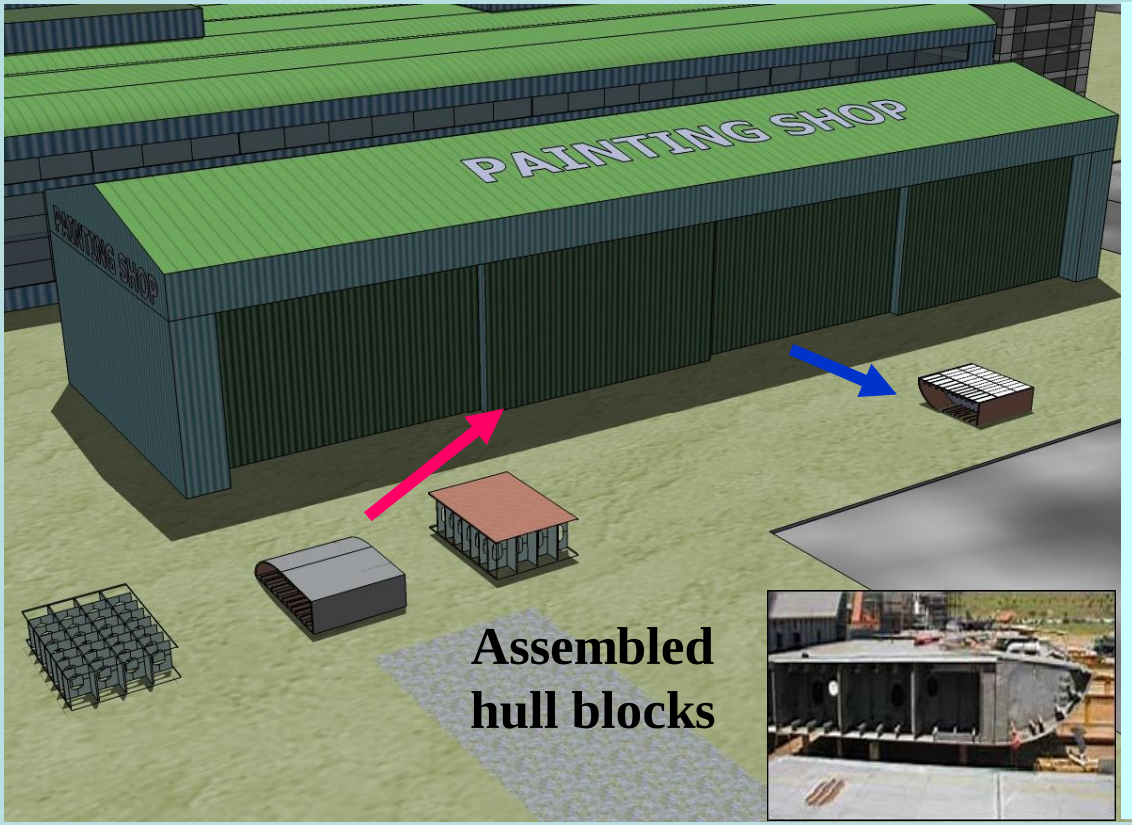


D. Assembly

3.3 Work flow

3.3.2 Details of Work flow

G. Blasting & Painting

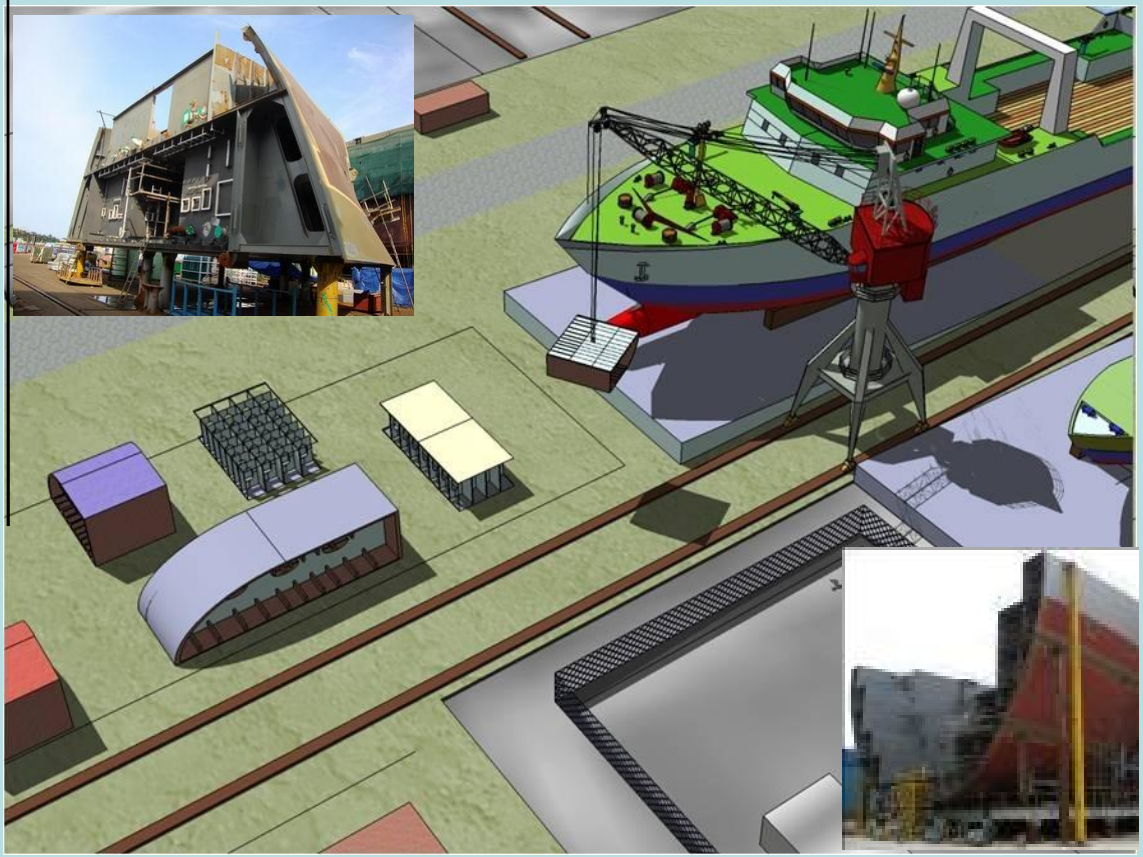


Assembled hull blocks shall be painted after blasting and then pre-erected up to the capacity of the main crane to minimize works at erection area.

3.3 Work flow

3.3.2 Details of Work flow

H. Pre-Erection



Pre-erection enables workers to do block-joint works and outfitting works very easily in short time as the works are carried out at ground level with full support of crane.

Almost of Major equipments and outfitting items are installed at Preerection stage from Assembly stage.

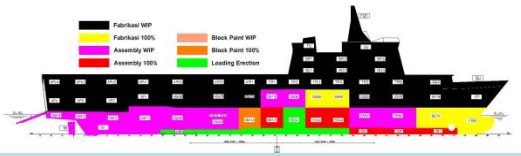
A shot (grit)-blasting and painting facility shall be prepared.

3.3 Work flow

3.3.2 Details of Work flow

I. Erection start (Keel Laying: K/L)

J. Works at berth-slot



Pre-erected hull blocks shall be erected at erection area.

Remaining works at berth-slot (slipway) shall be carried out before launching:

- **Remaining outfitting works**
- **Installation works for equipment**
- **Electric works**
- **Interior & Exterior**

3.3 Work flow

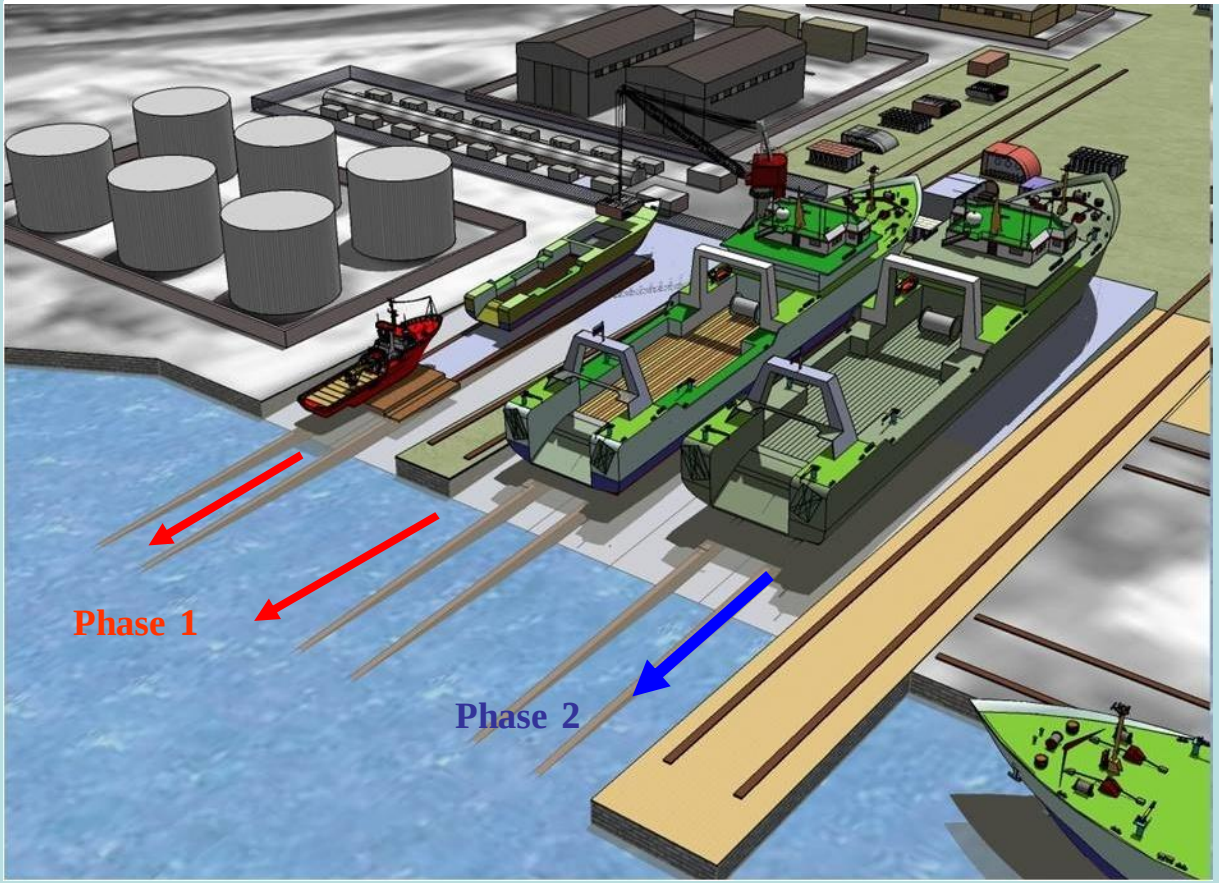
3.3.2 Details of Work flow

J. Works at berth-slot

3.3 Work flow

3.3.2 Details of Work flow

K. Launching



Phase 1:

LOA 25 ~ 110 m.
(weight of steel up to 3000 tons)

Phase 2:

LOA up to 130 m.
(weight of steel up to 5000 tons)

3.3 Work flow

3.3.2 Details of Work flow

L. Outfitting works at berth

M. On-board test & mooring trial

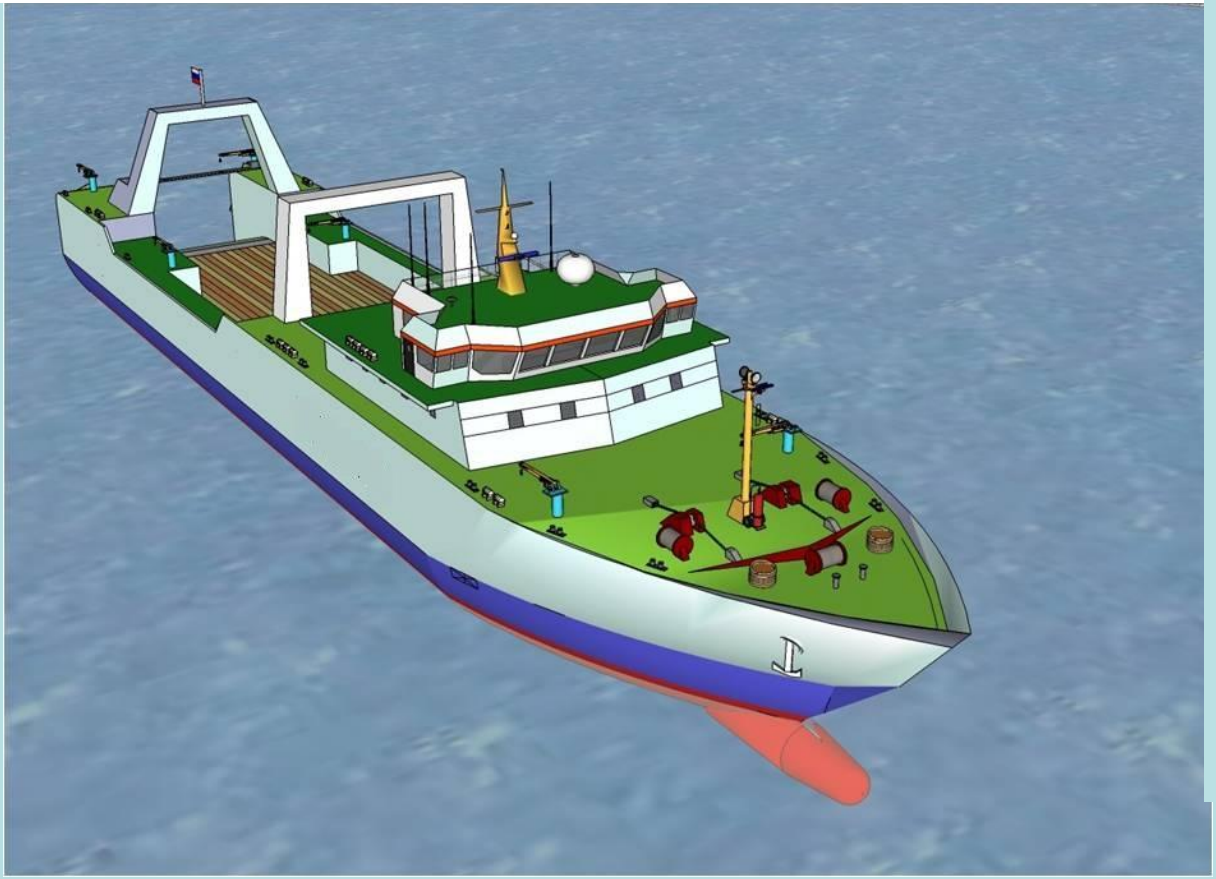
All remaining works shall be completed at berth.

On-board test and mooring trial shall be performed at attendance of maker’s commissioning engineers, class surveyors and ship-owner’s inspectors.

3.3 Work flow

3.3.2 Details of Work flow

N. Sea-trial



Sea-trial for test of all parts and ship’s performance at attendance of maker’s commissioning engineers, class surveyors and shipowner’s inspectors.

After sea-trial, comments from the class and the owner shall be rectified and any errors or malfunction shall be corrected.

3.3 Work flow

3.3.2 Details of Work flow

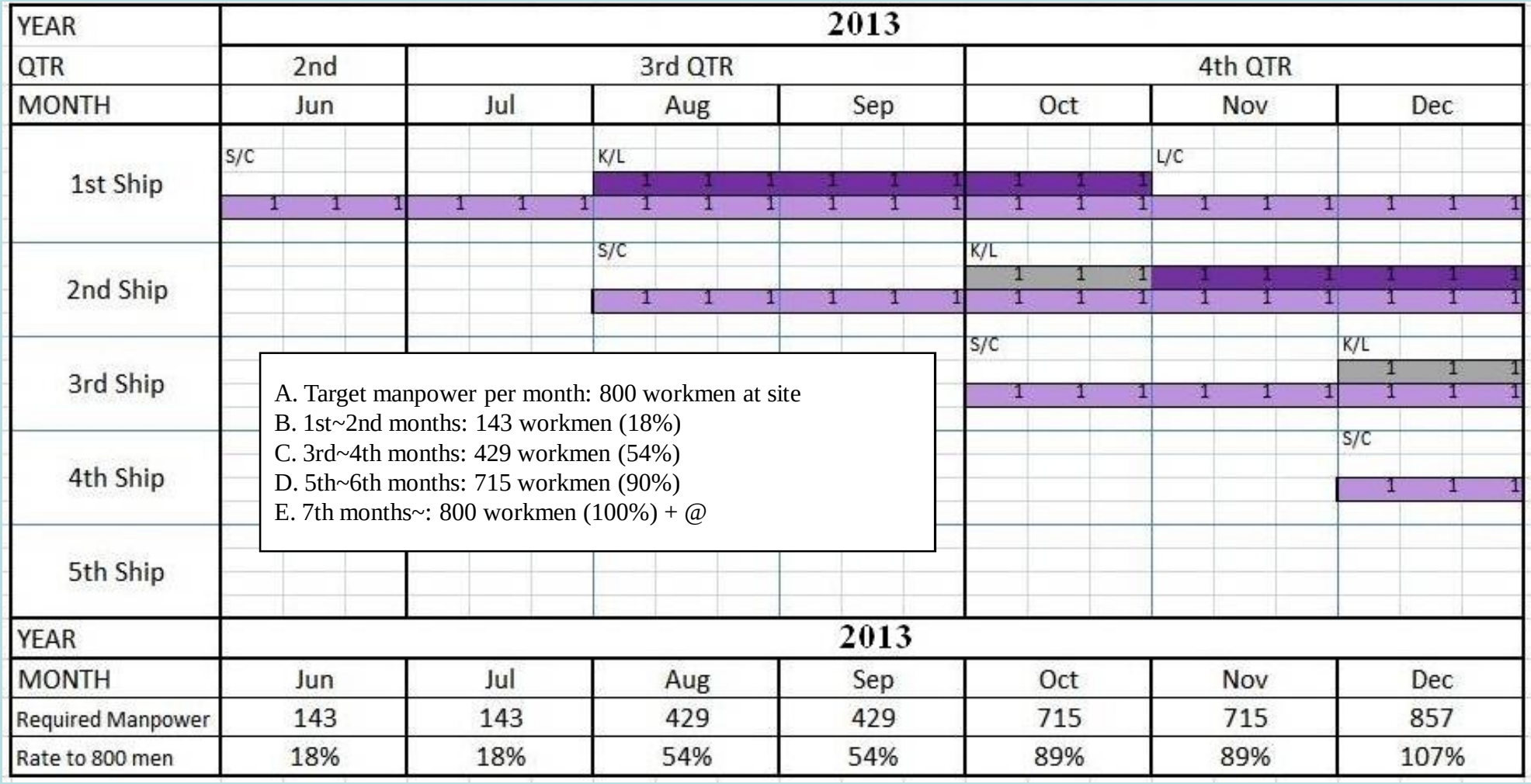
O. Delivery to the Ship-owner

Finally, the ship shall be delivered to the owner in Nakhodka

and

be in operation.

3.4 Manpower calculation (Phase 1)



YEAR	2013						
MONTH	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Required Manpower	143	143	429	429	715	715	857
Rate to 800 men	18%	18%	54%	54%	89%	89%	107%

4. Initial Calculation for Investment

4.1 Investment for Phase 1 & Phase 2

No.	Category	Phase 1	%	Phase 2	%
A	Design & Engineering	1,370,000	11%	1,630,000	7%
B	Civil Works	2,145,000	17%	1,702,000	8%
C	Workshop & Building	680,000	5%	4,930,000	22%
D	Equipment and Machinery	6,448,000	50%	12,160,000	54%
E	Initial Operation, Management & Miscellaneous costs	2,129,000	17%	2,042,000	9%
TOTAL		US$12,772,000	100%	US$22,464,000	100%

4.2 Details of Investment

A. DESIGN & ENGINEERING			PHASE 1		PHASE 2	
NO	ITEM		Qty	UNIT	Qty	UNIT
1	CONCEPTUAL ENGINEERING	CONCEPTUAL DESIGN & ENGINEERING	0.5	LOT	0.5	LOT
2	BASIC & DETAIL ENG.	CIVIL	0.5	LOT	0.5	LOT
3		ARCHITECTURE	0.4	LOT	0.6	LOT
4		FACILITY	0.4	LOT	0.6	LOT
SUB TOTAL			US$1,370,000		US$1,630,000	

B. CIVIL WORKS			PHASE 1		PHASE 2	
NO	ITEM		AREA	UNIT	AREA	UNIT
1	CIVIL WORKS	PAVEMENT	34,000	m2	37,000	m2
2		LEVELING & RECLAMATION	53,074	m3	48,444	m3
3		SLIPWAY AREA	2.0	LOT	1.2	LOT
SUB TOTAL			US$2,145,000		US$1,702,000	

4.2 Details of Investment

C. WORK SHOP AND BUILDING			PHASE 1		PHASE 2	
NO	ITEM		AREA(㎡)	UNIT	AREA(㎡)	UNIT
1	ARCHITECTURES	STEEL PRETREATMENT SHOP	1,200	㎡		㎡
2		WAREHOUSE MACHINERY & ELECTRIC SHOP		㎡	5,300	㎡
3		OUTFITTING SHOP PIPING SHOP		㎡	2,200	㎡
4		BLASTING & PAINTING SHOP	2,200	㎡	4,400	㎡
5		PRODUCTION CENTER(OFFICE) LUNCH ROOM		㎡	3,600	㎡
6		UTILITY CENTER		㎡		㎡
SUB TOTAL			US$680,000		US$4,930,000	

4.2 Details of Investment

<1/3>

D. EQUIPMENT AND MACHINERY			PHASE 1		PHASE 2	
NO	LOCATION	EQUIPMENT	Q'TY	UNIT	Q'TY	UNIT
1	STEEL STOCK	CRANE (20T BTC)	1	SET		SET
		CRANE (GANTRY)		SET	1	SET
2	PRE TREATMENT	CRANE	1	SET	1	SET
		SHOT BLAST & PRIMING FACILITY	1	SET	1	SET
3	CUTTING SHOP	CRANE (50T)		SET	2	SET
		CUTTING M/C (PLATE)		SET	1	SET
			1	SET	1	SET
				SET	1	SET
		PRESS		SET	1	SET
				SET	1	SET
				SET	1	SET
				SET	1	SET
4	ASS'Y YARD	CRANE		SET	1	SET
		SHELTER (WITH CRANE)		SET	1	SET
				SET	1	SET

4.2 Details of Investment

<2/3>

D. EQUIPMENT AND MACHINERY			PHASE 1		PHASE 2	
NO	LOCATION	EQUIPMENT	Q'TY	UNIT	Q'TY	UNIT
5	BLASTING AND PAINTING SHOP	BLASTING & PAINTING FACILITY	1	SET	1	SET
6	OUTFITTING & PIPING SHOP	CRANE		SET	1	SET
7	MACH &ELEC	CRANE		SET	1	SET
8	WAREHOUSE	CRANE		SET	1	SET
9	POWER STATION	MAIN SWITCH		SET	1	SET
		SUB SWITCH		SET	1	SET

4.2 Details of Investment

<3/3>

D. EQUIPMENT AND MACHINERY			PHASE 1		PHASE 2	
NO	LOCATION	EQUIPMENT	Q'TY	UNIT	Q'TY	UNIT
10	LAUNCHING FACILI	SLIPWAY	2	LOT	1.2	LOT
11	TRANSPORTATION	TRANSPORTER	0.2	LOT	0.4	LOT
		MOBILE CRANE	0.2	LOT		LOT
		FORK LIFTER	0.2	LOT	0.4	LOT
		CHERRY PICKER	0.2	LOT	0.4	LOT
12	AUX. EQUIPMENT	WELDING MACHINE TOOLS & JIGS ETC	0.2	LOT	0.6	LOT
13	GENERAL	PLANE JIG	0.4	LOT	0.4	LOT
		CRANE		SET	1	SET
			1	SET	1	SET
SUB TOTAL			US$6,448,000		US$12,160,000	

4.2 Details of Investment

E. Initial Operation, Management & Miscellaneous c			PHASE 1		PHASE 2	
NO	ITEM		Qty	UNIT	Qty	UNIT
1	Initial Operation, Management & Miscellaneous					
SUB TOTAL			US$2,129,000		US$2,042,000	

	PHASE 1	PHASE 1
* TOTAL BUDGETARY AMOUNT (A+B+C+D+E)	US$12,772,000	US$22,464,000

* TOTAL BUDGETARY AMOUNT (PHASE 1 & PHASE 2)	US$35,236,000

5. Development of shipbuilding project

5.1 Readiness to support development of Russian civil shipbuilding from the side of Republic of Korea on governmental level

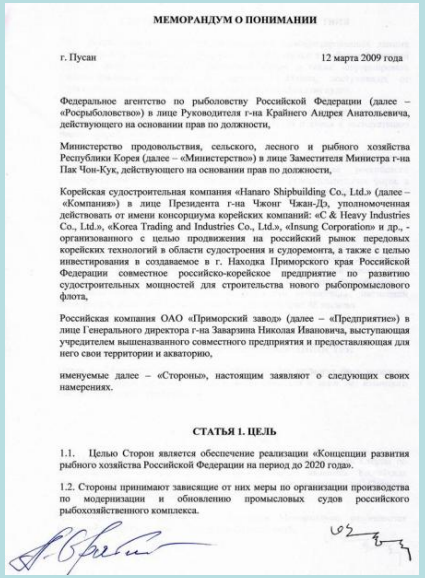
September 2008, Moscow :
Meeting of Presidents of Republic of Korea Mr. Lee M. B. and Russian Federation Mr. Medvedev D. A.

The beginning of new stage of approaching of political and economic interests of the parts.

Agreements about intensification and extension economic cooperation are reached on intergovernmental level in the following fields:
- power engineering and natural resources;
- industry and technologies;
- fishing and rational using water biological resources;
- development of investment;

And in particular,
- Development cooperation in the field of civil shipbuilding.

5.2 Support of the project from the side of governmental offices of Russia and Korea



МЕМОРАНДУМ О ПОНИМАНИИ

г. Пусан 12 марта 2009 года

Федеральное агентство по рыболовству Российской Федерации (далее – «Росрыболовство») в лице Руководителя г-на Крайнего Андрея Анатольевича, действующего на основании прав по должности,

Министерство продовольствия, сельского, лесного и рыбного хозяйства Республики Корея (далее – «Министерство») в лице Заместителя Министра г-на Пак Чон-Кук, действующего на основании прав по должности,

Корейская судостроительная компания «Hanaro Shipbuilding Co., Ltd.» (далее – «Компания») в лице Президента г-на Чжонг Чжин-Дэ, уполномоченная действовать от имени консорциума корейских компаний: «C & Heavy Industries Co., Ltd.», «Korea Trading and Industries Co., Ltd.», «Insung Corporation» и др., - организованного с целью продвижения на российский рынок передовых корейских технологий в области судостроения и судоремонта, а также с целью инвестирования в создаваемое в г. Находка Приморского края Российской Федерации совместное российско-корейское предприятие по развитию судостроительных мощностей для строительства нового рыбопромыслового флота,

Российская компания ОАО «Приморский завод» (далее – «Предприятие») в лице Генерального директора г-на Заварзина Николая Ивановича, выступающая учредителем вышеназванного совместного предприятия и предоставляющая для него свои территории и акваторию,

именуемые далее – «Стороны», настоящим заявляют о следующих своих намерениях.

СТАТЬЯ 1. ЦЕЛЬ

1.1. Целью Сторон является обеспечение реализации «Концепции развития рыбного хозяйства Российской Федерации на период до 2020 года».

1.2. Стороны принимают зависящие от них меры по организации производства по модернизации и обновлению промысловых судов российского рыбохозяйственного комплекса.

5.3. Все Стороны в подтверждение своего согласия со всеми пунктами данного Меморандума подписывают его в четырех экземплярах на русском, английском и корейском языках, скрепляют своими печатями и хранят по одному экземпляру у себя.

Росрыболовство:
Адрес: 107996, г. Москва, Рождественский бульвар, 12
Тел: 8-495-628-2679
Факс: 8-495-621-4283
А.А.Крайний
Руководитель
М.п.

Министерство:
Адрес: Government Complex Gwacheon, Jungang - dong, Gwacheon, Gueonggi - do, Korea
Тел: 8-10-82-2-503-7206
Факс: 8-10-82-2-503-6822
Ч.-К.Пак
Заместитель Министра
М.п.

Предприятие:
(ОАО «Приморский завод»)
Адрес: 692903, Приморский край, г. Находка, ул. Судоремонтная, 23
Тел: 8-4236-622520
Факс: 8-4336-675506
Н.И.Заварзин
Генеральный директор
М.п.

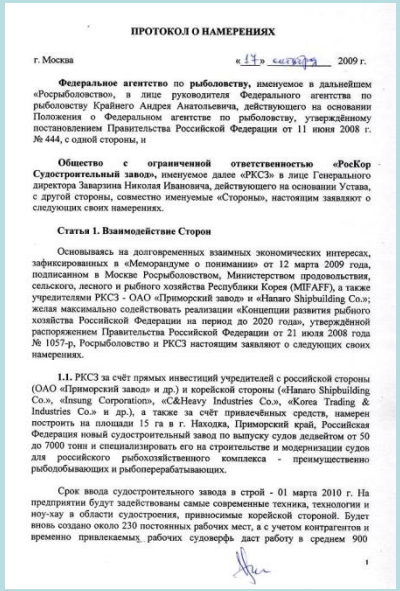
Компания:
(«Hanaro Shipbuilding Co.», Ltd.)
Адрес: Room 210, Daebul Bldg, 607-2, Nabulri, Samhoeub, Youngamgun, Jeonlanamdo, Korea
Тел: 8-10-82-61-461-0031
Факс: 8-10-82-61-461-0021
Ч.-Д.Чжонг
Президент
М.п.

Four-parts **Memorandum of Understanding** was signed on **March 12, 2009** in Busan between Russian Federal Fishing Agency (Rosribolovstvo), Korean MIFAFF and the initiators of ROSKOR Shipyard - OJSC “Primorskiy Zavod” and Korean consulting company Hanaro Shipbuilding Co., Ltd., for the following purposes:

- providing realization of “The Conception of fishery industry development of Russia for period up to 2020”;
- taking measures for investment and organization of new shipyard for building of new ships and modernization of old ships for Russian fishery industry on ground area and water area of JSC “Primorskiy Zavod” in Nakhodka.

Rosribolovstvo and MIFAFF showed their readiness to render support to ROSKOR-project during its realization in every ways.

5.3 Support from the direction of Rosribolovstvo



ПРОТОКОЛ О НАМЕРЕНИЯХ

г. Москва «17» сентября 2009 г.

Федеральное агентство по рыболовству, именуемое в дальнейшем «Росрыболовство», в лице руководителя Федерального агентства по рыболовству Крайнего Андрея Анатольевича, действующего на основании Положения о Федеральном агентстве по рыболовству, утверждённому постановлением Правительства Российской Федерации от 11 июня 2008 г. № 444, с одной стороны, и

Общество с ограниченной ответственностью «РосКор Судостроительный завод», именуемое далее «РКСЗ» в лице Генерального директора Заварзина Николая Ивановича, действующего на основании Устава, с другой стороны, совместно именуемые «Стороны», настоящим заявляют о следующих своих намерениях.

Статья 1. Взаимодействие Сторон

Основываясь на долговременных взаимных экономических интересах, зафиксированных в «Меморандуме о понимании» от 12 марта 2009 года, подписанном в Москве Росрыболовством, Министерством продовольствия, сельского, лесного и рыбного хозяйства Республики Корея (MIFAFF), а также учредителями РКСЗ - ОАО «Приморский завод» и «Hanaro Shipbuilding Co.»; желая максимально содействовать реализации «Концепции развития рыбного хозяйства Российской Федерации на период до 2020 года», утверждённой распоряжением Правительства Российской Федерации от 21 июля 2008 года № 1057-р, Росрыболовство и РКСЗ настоящим заявляют о следующих своих намерениях.

1.1. РКСЗ за счёт прямых инвестиций учредителей с российской стороны (ОАО «Приморский завод» и др.) и корейской стороны («Hanaro Shipbuilding Co.», «Insung Corporation», «C&Heavy Industries Co.», «Korea Trading & Industries Co.» и др.), а также за счёт привлечённых средств, намерен построить на площади 15 га в г. Находка, Приморский край, Российская Федерация новый судостроительный завод по выпуску судов дедвейтом от 50 до 7000 тонн и специализировать его на строительстве и модернизации судов для российского рыбохозяйственного комплекса - преимущественно рыбодобывающих и рыбоперерабатывающих.

Срок ввода судостроительного завода в строй - 01 марта 2010 г. На предприятии будут задействованы самые современные техника, технологии и ноу-хау в области судостроения, привносимые корейской стороной. Будет вновь создано около 230 постоянных рабочих мест, а с учетом контрагентов и временно привлекаемых рабочих судоверфь даст работу в среднем 900

Статья 5. Адреса и подписи Сторон

Федеральное агентство по рыболовству Адрес: 107996, г. Москва Рождественский бульвар, 12 Тел: 8 (495) 621 07 23 Факс: 8 (495) 628 72 90	ООО «РосКор судостроительный завод» Адрес: 692903, Приморский край, г. Находка, ул. Судоремонтная, 24 тел: 8 (4236) 62 25 20 факс: 8 (4236) 67 55 06
Руководитель Федерального агентства по рыболовству	Генеральный директор
_____ /А. А. Крайний/	_____ /Н. И. Заварзин/

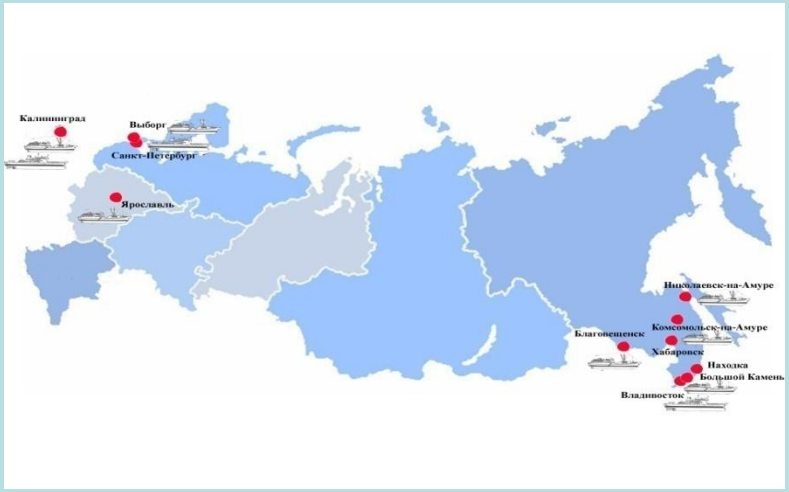
Protocol of Intentions was signed on **October 17, 2009** in Moscow between Rosribolovstvo and ROSKOR Shipbuilding Co., Ltd. about the following intentions of the parties:

- ROSKOR Shipbuilding Co., Ltd. for account of direct investment from Russian and Korean parts intends to build new shipyard at area of 14 hectares in Nakhodka for production of modern and effective fishing ships with DWT from 200 to 7000 tons;

- Rosribolovstvo, within the limits its authorities, develops and offers measures of state support and stimulation of fleet renew to Russian fishing companies which are interested in purchasing new;

- Rosribolovstvo assists to development and taking complex measures for state support of the shipyard.

5.4 Meeting on May 31, 2010 in Vladivostok



The meeting was dedicated to searching of ways for renewal of Russian Far East’s fishing fleet and was held under patronage of the Head of Russian Federal Fisheries Agency (ROSRIBOLOVSTVO) Mr. A.A. Krainy and governor of Primorskiy Kray Mr. S.M. Darkin.

The centers of shipbuilding in Russia, in which building new fishing fleet is possible in principle, were indicated as results of the meeting:

In the west of the state:

- JSC “Vyborg Shipyard”, Vyborg;
- JSC “Admiralty Shipyards”, Saint-Petersburg;
- JSC “Yantar Shipyard”, Kaliningrad;
- JSC “PO “Sevmash”, Severodvinsk;
- JSC “CS “Zvezdochka”, Severodvinsk;

In Far East:

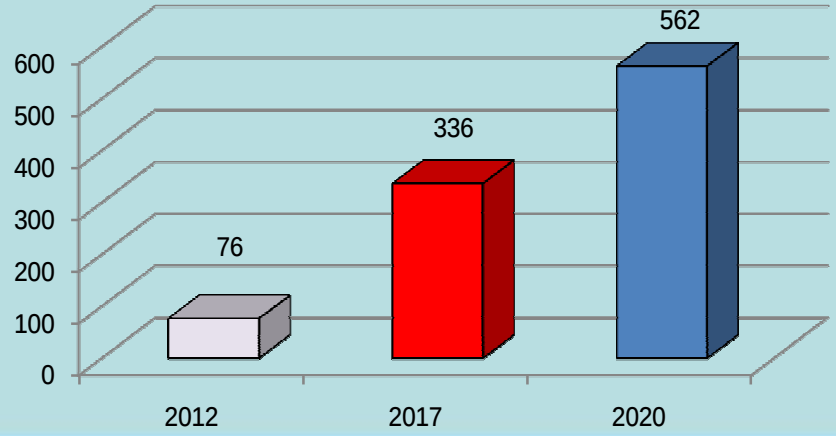
- JSC “FEZ “Zvezda”, B. Kamen;
- JSC “Amur Shipbuilding Plant”, Komsomolsk on Amur;
- JSC “Khabarovsk Shipbuilding Plant”, Khabarovsk;
- **ROSKOR Shipbuilding project, Nakhodka.**

5.4 Meeting on May 31, 2010 in Vladivostok

The following facts were informed in the report of the Head of ROSRIBOLOVSTVO Mr. Krainiy about age structure of Russian fishing fleet:

Group of ships	Total, units	By age groups, years			The ships, which are used more than normative term of exploitation	
		up to 10	from 10 to 20	more 20	units	%
1. Fish-catching fleet	**2067**	**102**	**513**	**1452**	**1677**	**81,1**
2. Fish-processing fleet	**23**	**0**	**15**	**8**	**8**	**34,3**
3. Transport refrigerators	**269**	**0**	**63**	**206**	**226**	**84**
Total, ships	**2359**	**102**	**591**	**1666**	**1903**	**80,7**

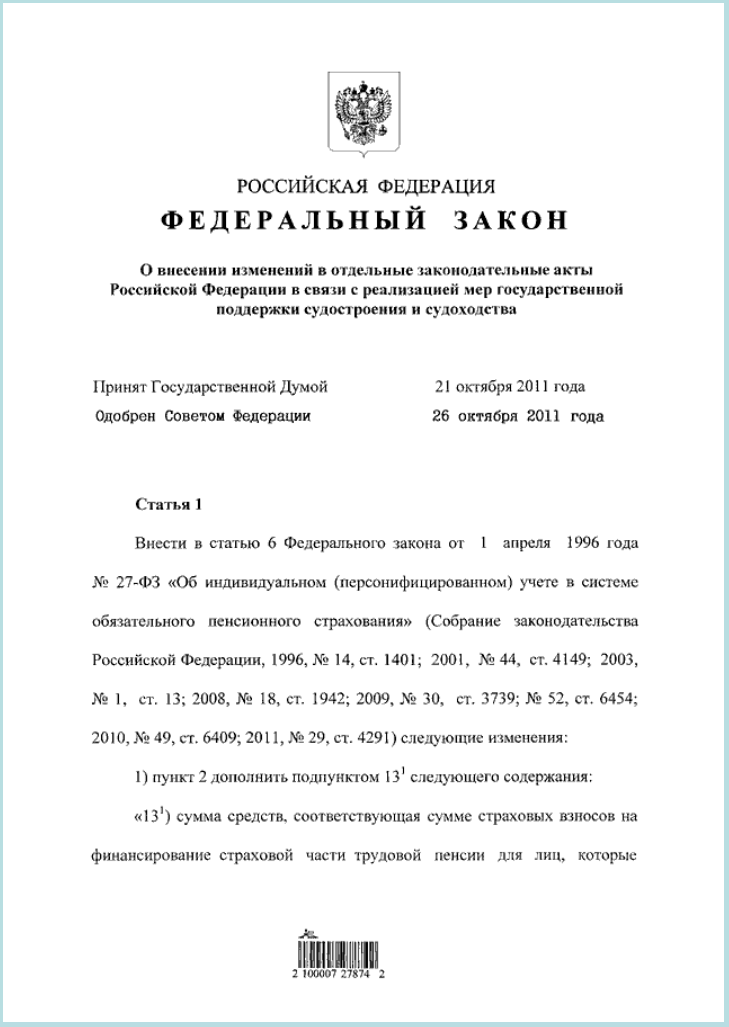
Russia’ demand for new fishing fleet (ships)



- more than 80 % ships of fishing fleet are used with excess of normative terms of exploitation;
- a great deal of fishing vessels will be amortized during nearest years;
- up to 562 ships till 2020 are to be put into operation to fishing fleet in order to save and increase existing volume of catches (according to estimations of Rosribolovstvo).

It is large potential market for the shipbuilding project!

5.5 Governmental support for development of shipbuilding in Russia



РОССИЙСКАЯ ФЕДЕРАЦИЯ

ФЕДЕРАЛЬНЫЙ ЗАКОН

О внесении изменений в отдельные законодательные акты Российской Федерации в связи с реализацией мер государственной поддержки судостроения и судоходства

Принят Государственной Думой 21 октября 2011 года

Одобрен Советом Федерации 26 октября 2011 года

Статья 1

Внести в статью 6 Федерального закона от 1 апреля 1996 года № 27-ФЗ «Об индивидуальном (персонифицированном) учете в системе обязательного пенсионного страхования» (Собрание законодательства Российской Федерации, 1996, № 14, ст. 1401; 2001, № 44, ст. 4149; 2003, № 1, ст. 13; 2008, № 18, ст. 1942; 2009, № 30, ст. 3739; № 52, ст. 6454; 2010, № 49, ст. 6409; 2011, № 29, ст. 4291) следующие изменения:

1) пункт 2 дополнить подпунктом 13^1 следующего содержания:

«13^1) сумма средств, соответствующая сумме страховых взносов на финансирование страховой части трудовой пенсии для лиц, которые

2 100007 27874 2

On November 07, 2011 there was passed the Law “About governmental support of shipbuilding and shipping in Russia”:

This law provides possibility to organize a special economic zone of industrial type (SEZ) on the base of our shipbuilding project. It is possible to get the following preferences in this case:

-customs regime of free customs zone (companies are free from payment customs duties and VAT during import of goods and complete sets for shipbuilding);

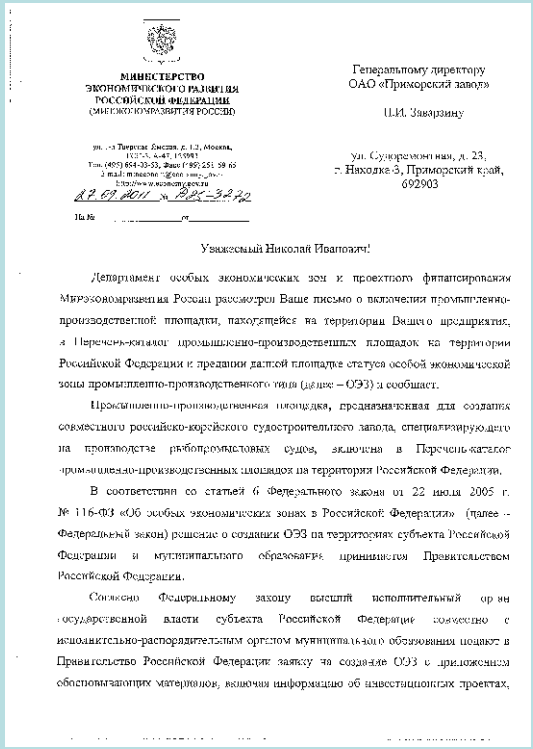
- tax for property is 0 % during 10 years;

- tax for land is 0% during 10 years;

- reduction of tax for profit up to 15.5%;

In present there is prepared complete set of documents for the shipbuilding project to apply in the Ministry of Economic Development of Russia to obtain status of SEZ.

5.5 Governmental support for development of shipbuilding in Russia



МИНИСТЕРСТВО
ЭКОНОМИЧЕСКОГО РАЗВИТИЯ
РОССИЙСКОЙ ФЕДЕРАЦИИ
(МИНЭКОНОМРАЗВИТИЯ РОССИИ)

Генеральному директору
ОАО «Приморский завод»

П.И. Завязину

ул. Суперинтендантская, д. 23,
г. Находка-3, Приморский край,
692903

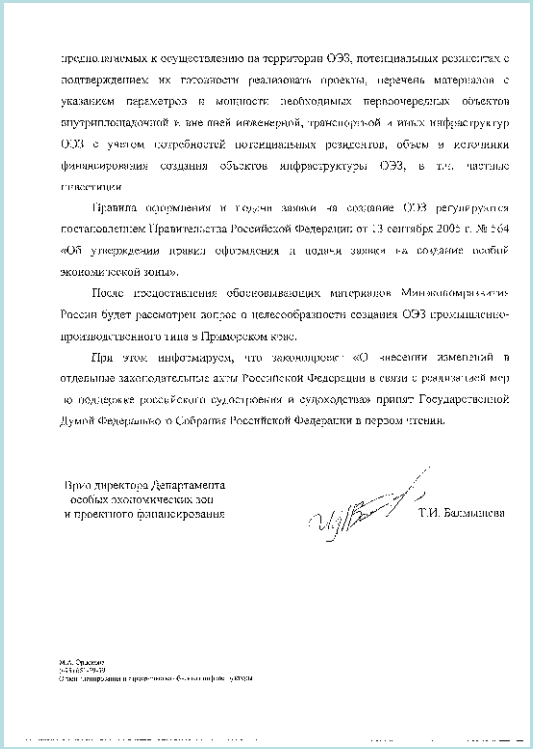
Уважаемый Николай Иванович!

Департамент особых экономических зон и проектного финансирования Минэкономразвития России рассмотрел Ваше письмо о включении промышленно-производственной площадки, находящейся на территории Вашего предприятия, в Перечень-каталог промышленно-производственных площадок на территории Российской Федерации и придании данной площадке статуса особой экономической зоны промышленно-производственного типа (далее – ОЭЗ) и сообщает.

Промышленно-производственная площадка, предназначенная для создания совместного российско-корейского судостроительного завода, специализирующего на производстве рыбопромысловых судов, включена в Перечень-каталог промышленно-производственных площадок на территории Российской Федерации.

В соответствии со статьей 6 Федерального закона от 22 июля 2005 г. № 116-ФЗ «Об особых экономических зонах в Российской Федерации» (далее – Федеральный закон) решение о создании ОЭЗ на территориях субъекта Российской Федерации и муниципального образования принимается Правительством Российской Федерации.

Согласно Федеральному закону высший исполнительный орган государственной власти субъекта Российской Федерации совместно с исполнительно-распорядительным органом муниципального образования подают в Правительство Российской Федерации заявку на создание ОЭЗ с приложением обосновывающих материалов, включая информацию об инвестиционных проектах,



предполагаемых к осуществлению на территории ОЭЗ, потенциальных резидентах с подтверждением их готовности реализовать проекты, перечень материалов с указанием параметров и мощности необходимых первоочередных объектов внутриплощадочной и вне пределов инженерной, транспортной и иных инфраструктур ОЭЗ с учетом потребностей потенциальных резидентов, объем и источники финансирования создания объектов инфраструктуры ОЭЗ, в т.ч. частные инвестиции.

Правила оформления и подачи заявки на создание ОЭЗ регулируются постановлением Правительства Российской Федерации от 13 сентября 2005 г. № 564 «Об утверждении правил оформления и подачи заявки на создание особой экономической зоны».

После предоставления обосновывающих материалов Минэкономразвития России будет рассмотрен вопрос о целесообразности создания ОЭЗ промышленно-производственного типа в Приморском крае.

При этом информируем, что законопроект «О внесении изменений в отдельные законодательные акты Российской Федерации в связи с реализацией мер по поддержке российского судостроения и судоходства» принят Государственной Думой Федерального Собрания Российской Федерации в первом чтении.

Врио директора Департамента
особых экономических зон
и проектного финансирования

Т.И. Багмашева

On September 27, 2011 the Shipbuilding project , which is specialized for building of fishing vessels, was included by Ministry of Economic Development of Russia to the List-Catalogue of perspective industrial-production areas on the territory of Russia.

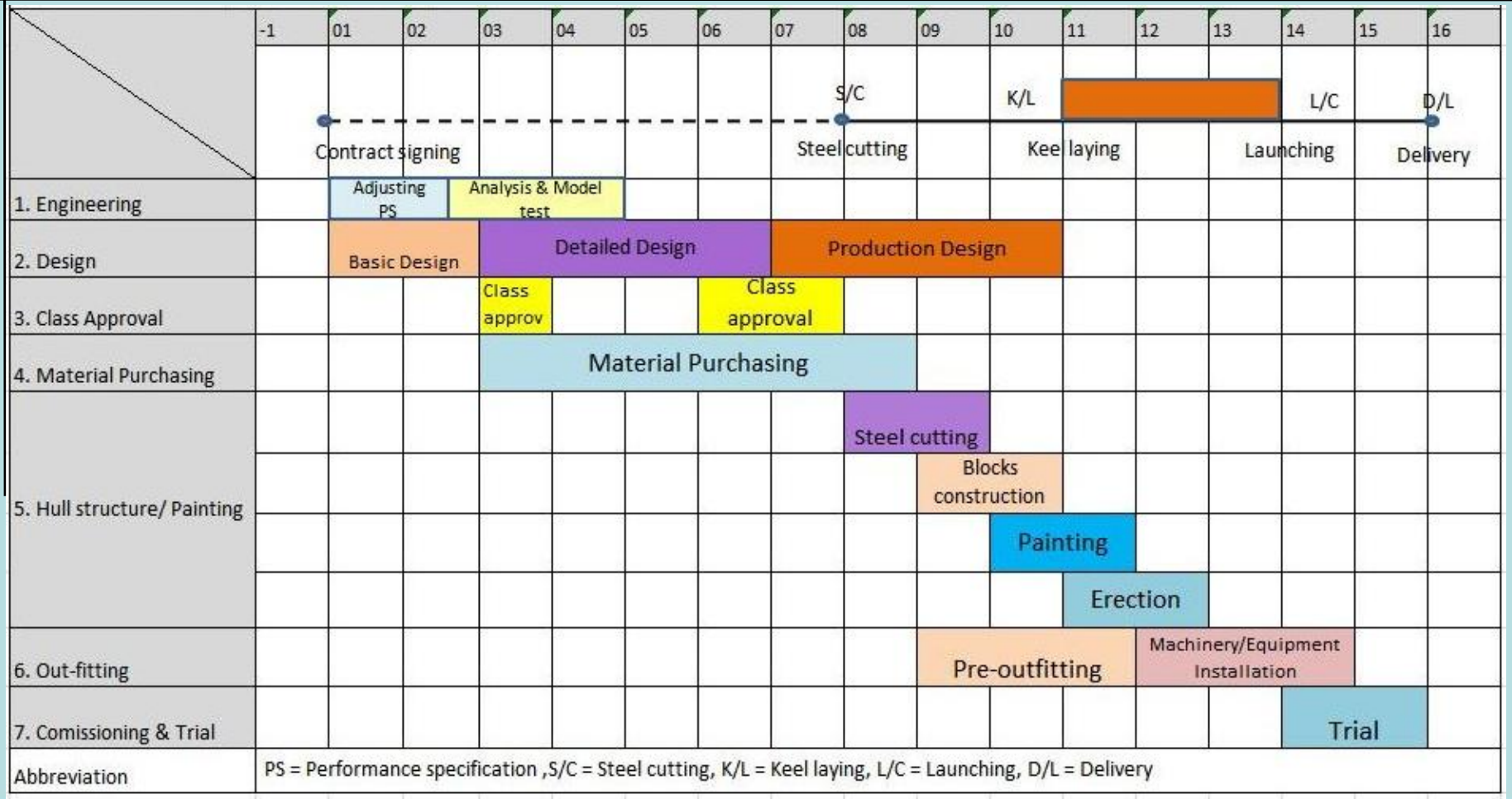
5.6 The credo of the shipbuilding project:

- to build ships only on basis of modern digital shipbuilding technologies and on basis of modern 3D-designs, worked out in internationally acknowledged CADs;
- to build new fleet on basis of wide inter-Russian and international cooperation during designing, manufacturing, supplying, outfitting and so forth on “All the best is from anywhere!” principle;
- to build ships on basis of three-four basic designs maximum;
- to organize efficient after-service of the built ships, including warranty service;
- take into consideration specific requests of every Customer to ship during its building by bringing necessary novelty to the design by strength of designers which work at the shipyard;
- to offer specifications for base designs for consideration and approval to Customer with maximal content of complete sets from Asian makers (including Russian) – with good quality and the best prices in the world;
- to agree unconditionally with wishes of Customer to change Asian complete sets in spec to design of new ship for similar European complete sets, that will bring to some increase of new ship price.

5.7 Designing and building of a ship

5.7.1. Design and building of the lead ship beginning from the performance specification

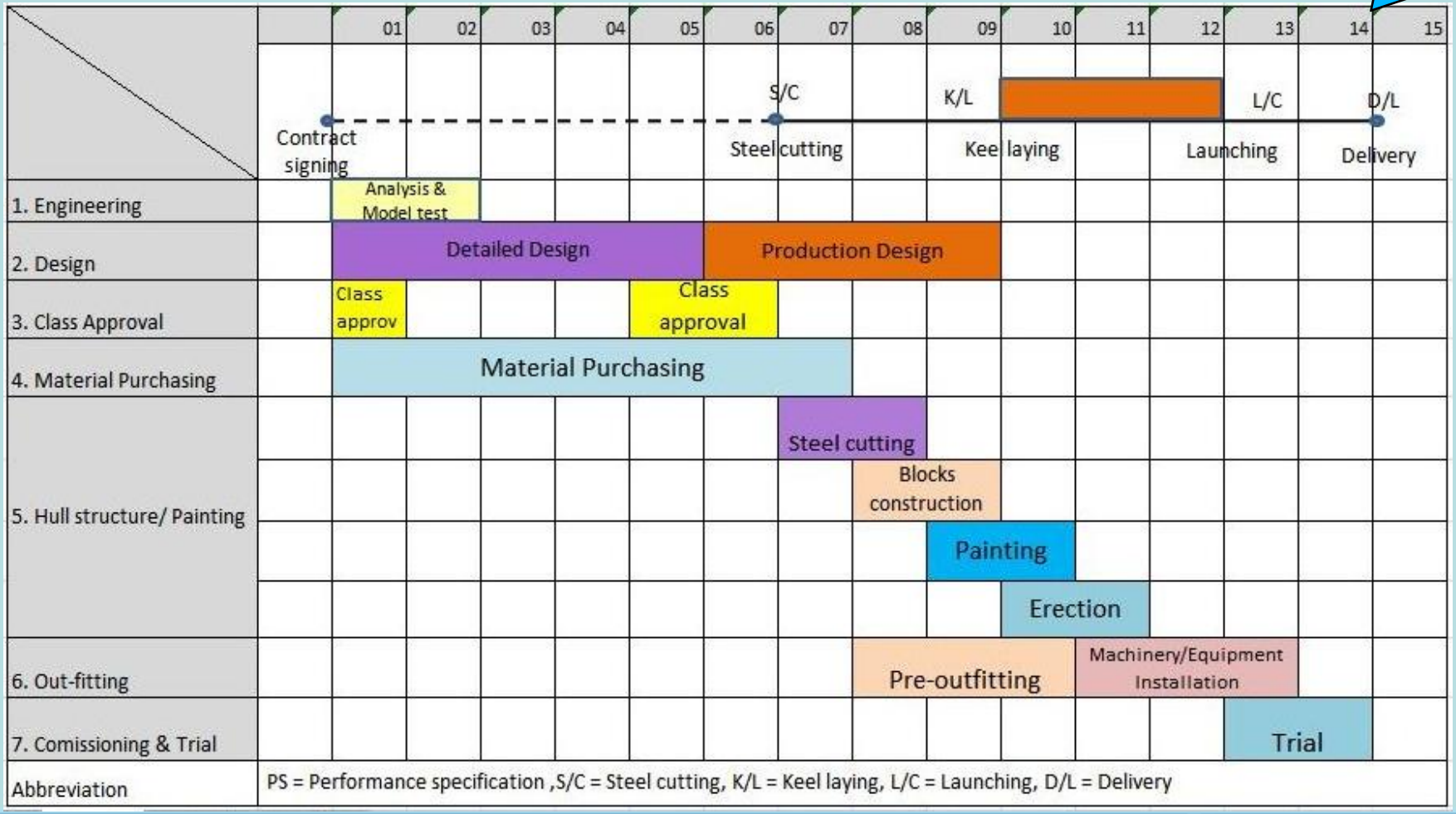
16 month



5.7 Designing and building of a ship

5.7.2. Design and building of the lead ship beginning from the conceptual design

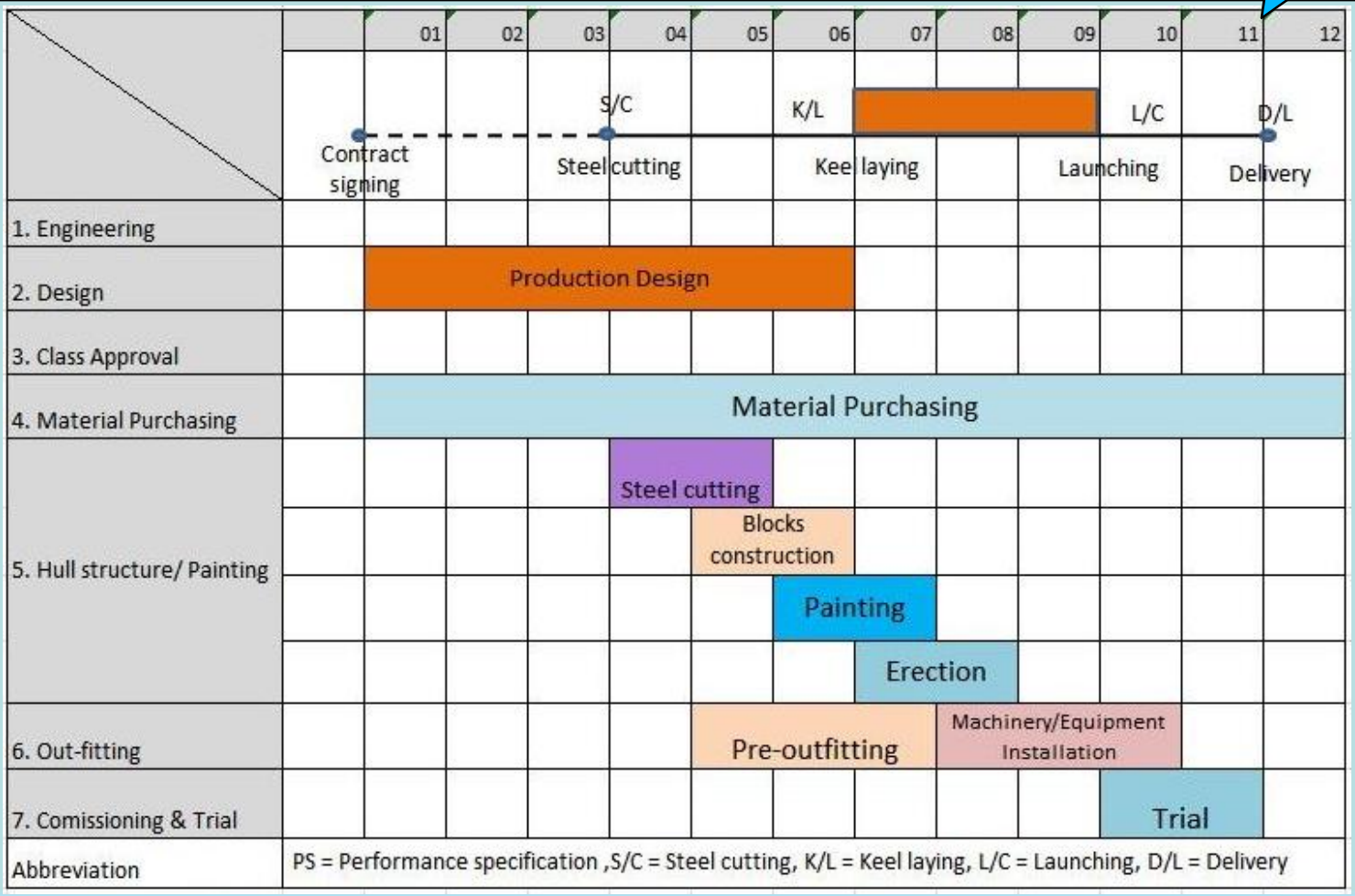
14 months



5.7 Designing and building of a ship

5.7.3. Design and building of the lead ship from series of ships by the existing design

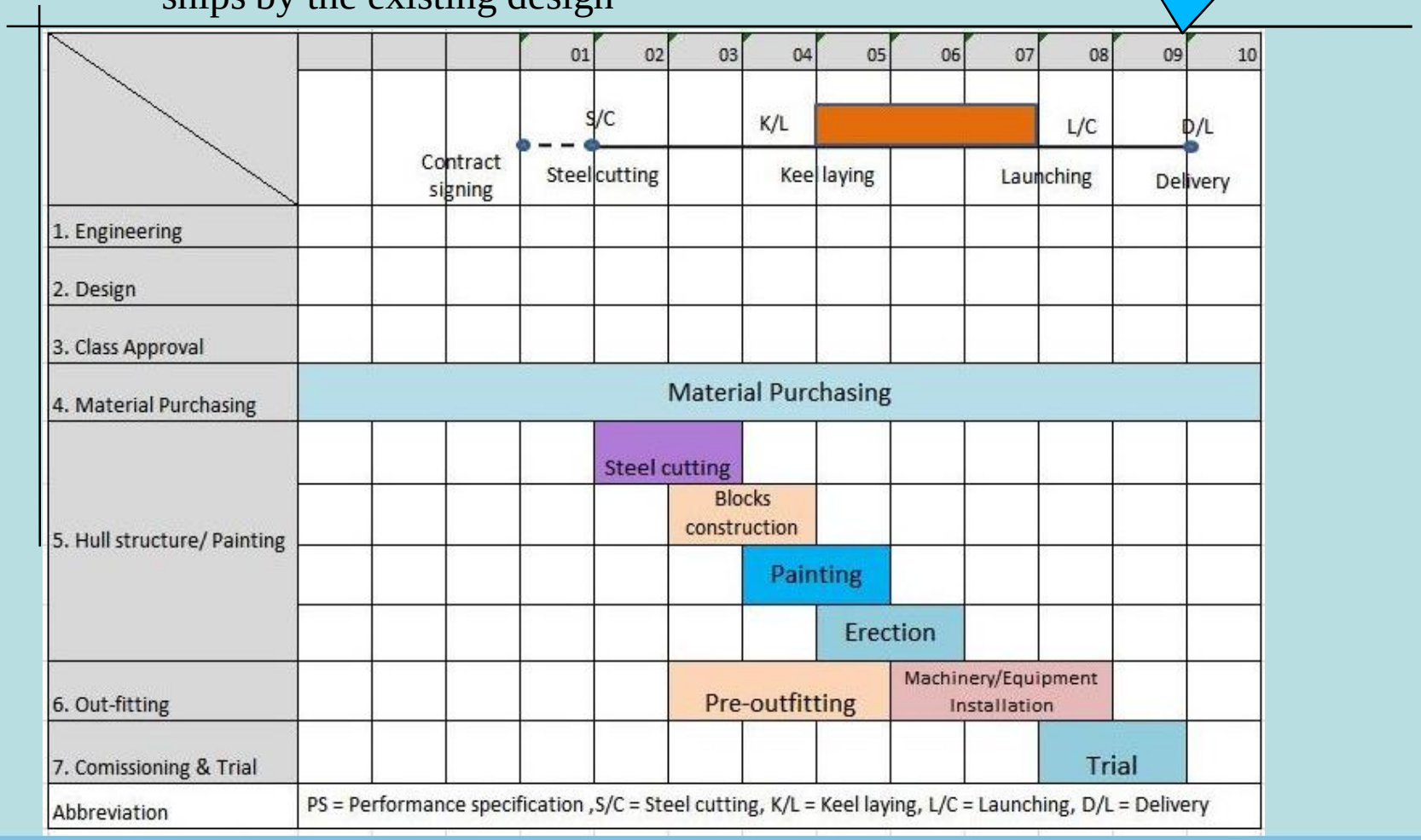
11 months



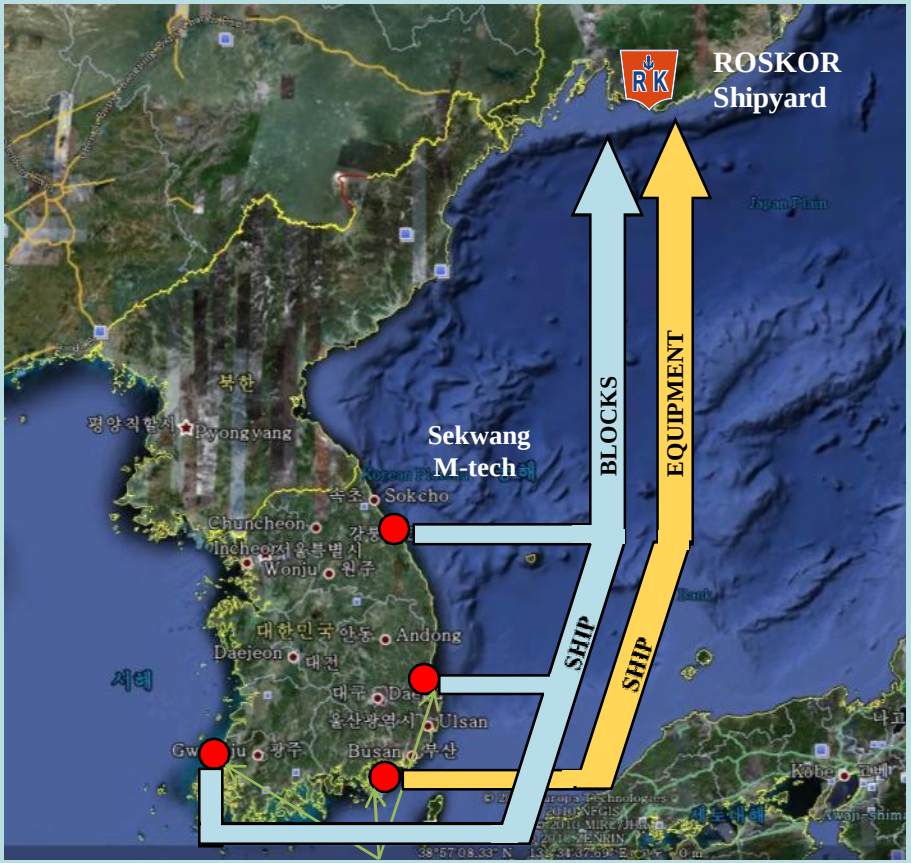
5.7 Designing and building of a ship

5.7.4. Design and building of a ship from series of 4-5 ships by the existing design

9 months



5.8.Blocks, ship equipment, materials and complete sets supply (2012 – 2014)



Three factories for ship’ blocks assembling
Sekwang Heavy Industries Co., Ltd.

During first one-two years of the Shipyard’s work it is planed to deliver ship’s blocks, ship’s equipment and complete sets from Korea.

Ship’s blocks will be delivered by specialized self-propelled barges directly to Shipyard’s berths and unloaded either by tower 150-tons crane or by module wheel car to the assembly yard of the Shipyard.

During next years increase part of hull works will be made in Nakhodka. But with the purpose of growth of production volume and reduction of cost of built ships, availability of international cooperation in ship’s blocks supplies can give interesting results.

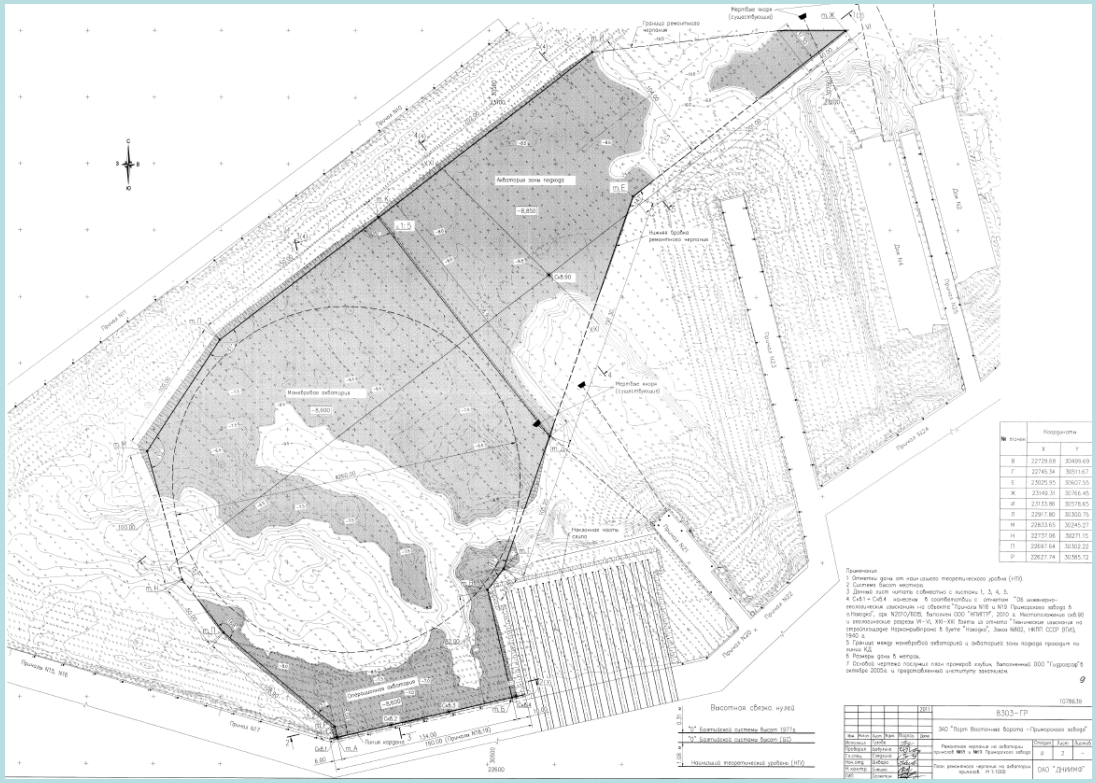
5.9 Technical reequipment of fitting-out berths of the project

Taking into account preliminary project of the shipyard, it is required available fitting-out berths which must allow to locate 4-5 vessels under building in different degree of fabrication, i.e. fitting-out berth with total length of 270-330 m. in order to realize annual production program for building of 15-17 middle vessels.

Berths No. 18 and No. 19 (total length of 146.3 m.) and also berths No. 16 and No. 17 (total length of 166.0 m.) are provided for fitting-out berth of the shipbuilding project.

By the end of 2011 Berths No. 18 and No. 19 had been reconstructed and as result there was obtained new berth with total length of 152 m. and design depth of 8.7 m.

5.10 Dredging of water area between berths No. 10 – No. 19



In 2011 there was worked out the project of repair dredging of Primorskiy Zavod’s water area by strength of design institute OJSC “FEMRI”. This project proposes excavation of 62 500 m3 of bottom.

On April 10, 2012 there was signed the contract with subcontractor for dredging works with help of crane vessel MAPLE and on April 25 dredging works started. By the end of July 2012 dredging works must be done and as result there will be possibility to receive vessels to the port with draft up to 8.7 m. and also launch built vessels with draft up to the foresaid value.

5.11 Creation of international consortium of design offices

International Consortium of design offices is created for the shipbuilding project with the following members:

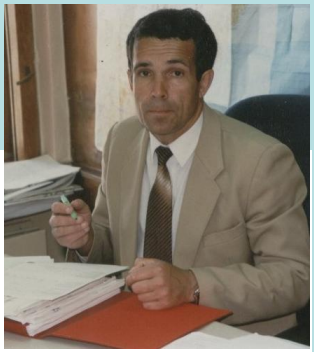
- *from Russian part - CJSC «Marine Engineering Company» , CJSC «Russian Pelagic Research Company» (Vladivostok);*
- *from Korean part - MASTEK Heavy Industries Co., Ltd.(Busan), Sung Chun Engineering Co., Ltd. (Mokpo)*

The Consortium organization goals are:

- working out conceptual, technical (detailed) designs of fishing ships, and also working out production designs of fishing ships for Shipyard conditions;
- achievement of world quality & speed of designing on account of combination of engineering experience and traditions of Russian designers with digital opportunities and high working capacity of Korean designers;
- working out designs in Russian and according to RS requirements;
- taking into account requests of Far-East fishing companies (Customers) to designing ships ;
- providing high-quality binding of production design to CNC-tools of the Shipyard and precision of details of hull’ processing and following their assembly to units, sections and blocks;
- providing authors supervision under a built ship and ship assembly from blocks without any problems.

5.11 Creation of international consortium of design offices

JCS “Marine Engineering Company”



Date of establishment : 2001

Head office – Vladivostok.

Employees : 43 peoples.

Chief – Mr. U. Ribalkin

Services:

- working out conceptual, technical designs and production design documentation for building new fishing ships according to RS Regulations;
- calculation and working out design documentation for repair, reequipment, modernization of ships hulls, ships facilities, machinery and equipment;
- complex studying and estimation of seagoing ability of ships (strength, stiffness, propulsion qualities, etc.);
- other engineering services.

JSC “Russian Pelagic Research Company”

Date of establishment : 2002

Head office – Vladivostok.

Employees : 12 peoples.

Chief – Mr. O. Bratukhin

Services:

- Economy audit of fishing companies; working out prospective business plans for them taking into account exploitation of new fishing ships; working out technical and economic requirements to new ships on basis of existing fishing quotas, areas of fishing, methods of fishing, seasonality and other;
- designing new fishing ships;
- reequipment and repair of fishing ships;
- design, research and engineering services.

5.11 Creation of international consortium of design offices

MASTEK Heavy Industries Co., Ltd.

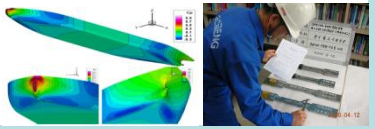
Date of establishment: 2001

Head office – Busan .

Employees: 80 peoples.

Services:

- full list of services from specification development to production design development for different types of ships : fishing ships, tankers, container ships, bulkers, special-purpose and passenger ships and also floating cranes and floating docks, off-shore platforms;
- shipyards designing, dry docks designing;
- inspection and author supervision under shipbuilding;
- consulting services.



Sung Chan Engineering Co., Ltd.

Date of establishment: 2002

Head office – Mokpo.

Employees : 15 peoples.

Services:

- working out of production documentation for shipyards on basis of prepared detailed (technical) designs including working out of numeric code for steel cutting for plasma cutting machines with computer control;
- designing and working out of production design documentation for ship outfitting (pipe systems, structure, equipment and machinery);
- designing electrical system of ship;
- consulting services.

5.12 Line of perspective designs of fishing ships which is promoted by the consortium

Base modification of 27 meters universal fishing vessel

Ship price: 4.4÷6.1 million USD

General characteristics of the ship:

LOA – 27.43 m.;
Width – 9.0 м.;

Refrigerates sea water tanks – 180 m3;
Fuel tank – 53,4 m3;
Fresh water tank – 26,3 m3;

Main engine: Caterpillar 3508 DITA, 1500 h.p.;
Diesel generator: Caterpillar 3408 DITA, 342 kW
Caterpillar 3406 DITA, 257 kW;
Maneuvering device: 2 x Brunvoll, 220 kW / 160 kW;

Deck equipment: DECK CRANES Triplex KN-16, 16 tons NET
STACKER: Triplex NK-1500;
Winch: 2 x RAPP Hydema TWS-2520CS, 16,3 тонн;
Spooling device: TRIPLEX 603-360-2 DAP
Pull 12 tons
Speed 70 m/min;
Fishpump: RAPP Hydema CP-2005 RH;
Vacuum pump: Optimar.

5.12 Line of prospective designs of fishing ships which is promoted by the consortium

50 meters trawler-freezer

Ship price: 17.0÷23.5 million USD

Stern trawler with slip for bottom and pelagic trawling with catch freezing (with or without fish preparation).

General characteristics of the ship:

LOA	– 50.20 m.;
Width	– 12.20 m.;

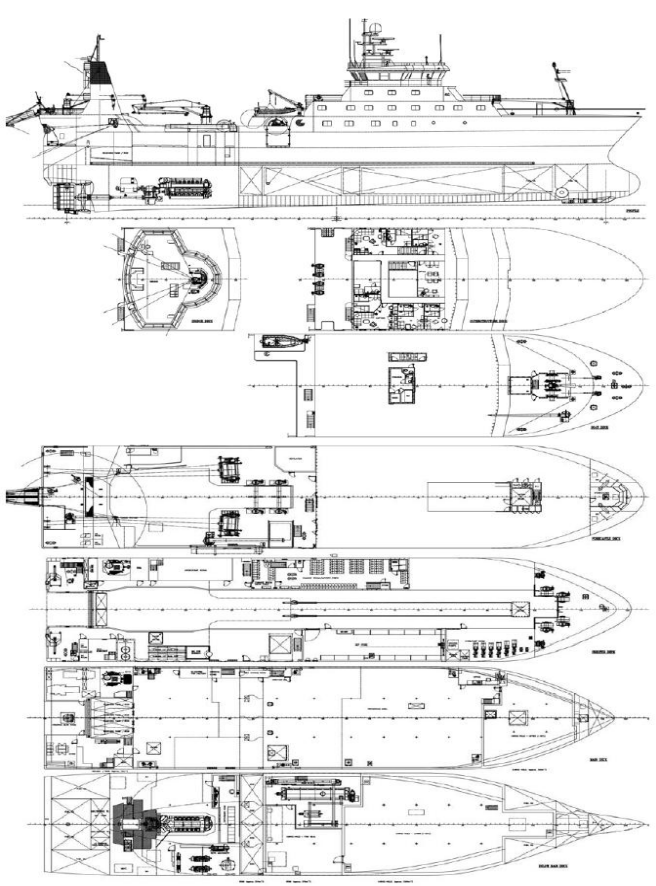
Hold for frozen production	– 410 m3;
Tweendeck for frozen production	– 180 m3;
Fuel tanks	– 370 m3;
Wresh water tank	– 36 m3;

Main machine: Diesel-reducer with power 2000÷2600kW
Controllable pitch propeller ø3,2m
Shaft generator ≈ 1 200 kW
Diesel generator ≈ 800 kW

Fishing equipment:
With hydraulic actuator of low pressure: Trawl winches 2 x 35 tons; Draw winches 4 x 13 tons; Netting drum 1 x 20 tons; Gilson winches 2 x 20 tons;
Freeze equipment: horizontal or vertical
Plate freezers with capacity till 80 tons/day.

5.12 Line of prospective designs of fishing ships which is promoted by the consortium

81 meter universal trawler-factory



Stern trawler, for fishing by pelagic and bottom trawls, with possibility to process till 400 tons fish per a day and production frozen filleted fish and/or beheaded and gutted fish and/or fish entire, caviar, with fish meal production, for storage and transporting of frozen production, catch receiving in the sea from fishing ships for further fish-processing and for unloading production in the sea.

General characteristics of the ship:

LOA:	81,0 m
Width:	17,0 m
RSW tank:	250 m^3
Total capacity of holds:	2600 m^3
without RSW tanks:	2850 m3
Fuel tank:	600 m^3
Fresh water tank:	50 m^3

Quantity of bunk places: 90 (with possibility to increase till 120 places)

Class of the ship: DNV 1A1 ICE 1B STERN TRAWLER – EO (HULL: ICE 1A):

- Area of navigation – unrestricted;
- Class of automation – without watching in engine room;

Propulsion system: complete delivery «MAN», «Wartsila», «ROLLS-ROYCE» or «MAK», including main engine, reducer, shaft generator, shaft pipe and controllable pitch propeller. Main engine: power 4500 kW at 750 rpm, with possibility to deliver 100% of power to propeller in any mode of ship operation. Heavy oil fuel.

Ship price: 34.0÷43.5 million USD.

5.13 Signing of Preliminary Contracts for designing and building of ships

As of today, in result of marketing work with fishing companies of Primorskiy, Khabarovskiy, Kamchatskiy regions and Sakhalin, Shipbuilding project has already signed Preliminary Contracts for designing and next building for 22 different ships from a few Customers:

27 m. ship	5 items	+	5 as option;
34 m. ship	8 items;		
50 m. trawler	4 items	+	1 as option;
65 m. trawler	3 items	+	1 as option;
89 m. trawler	2 items.		

The greatest our Customers for today are Far-East Fishing Company (Sakhalin), Fishing Kolkhoz of V. I. Lenin (Kamchatka), Kammag Co., Ltd. (Kamchatka), OJSC “TURNIF” (Primorye).

5.14 Search for Korean partner and investor for the project

We are searching among Korean companies for main Partner – company with long-term experience in shipbuilding, which could be the head of our joint venture and bring to Nakhodka newest equipment, technologies and management of shipbuilding and also attract to the project necessary external investments.

During last 4 years we are looking for cooperation, for example, with STX Offsore & Shipbuilding and its Vise-President Mr. W. G. Jang. At present time we carry on negotiations about cooperation with STX Europe and also with European shipyards affiliated with STX Europe.

We also look for other many Korean partners and investors for our project: companies-subcontractors; companies-suppliers of many complete sets for shipbuilding: equipment, machinery, systems, materials; companies-logistics and others.

Closest and widest cooperation in shipbuilding is one of main principles of our project.

Thank you for attention!

We invite all interested Korean companies for cooperation!

OJSC “PRIMORSKIY ZAVOD”

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