

Hub and Spoke model for domestic marketing of aqua products in Andhra Pradesh

Department of Fisheries, Government of Andhra Pradesh

5 July 2021



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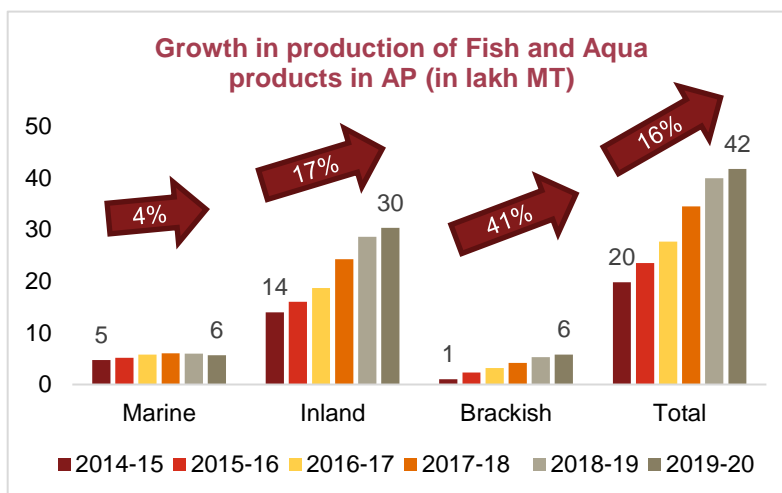
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1. Context

Andhra Pradesh Government has constantly supported the fish value chain across the State of AP for developing fisheries sector. Today, Andhra Pradesh is the highest producer of fish in the country. However, despite having highest production in the country, the per capita consumption in the State is comparatively low. The domestic consumption volume was found to be limited when compared to the export volume and trade volume to other states.

Lack of timely availability of live fish, fresh fish and fresh shrimp at preferred locations for domestic consumption is one of the critical factors behind low per capita consumption of aqua products in the State. The emerging markets in nearby cities and rural areas has tremendous potential and capacity to absorb these fish and aqua products as a result of the changing food habits of urban and rural population.



- *State's total production has increased at 16% CAGR from 20 lakh MT to 42 lakh MT in last 5 years (2014-15 to 2019-20)¹*
- *Production of inland fisheries has increased from 14 lakh MT to 30 lakh MT in last 5 years (2014-15 to 2019-20)*
- *The contribution of fisheries sector to State GSDP is 8.67 % with Gross Value Addition of Rs.50,660 Crores in 2019-20*
- *The Sector along with its ancillary industries have been providing employment to about 19 lakh population*
- *Out of the total production of the state only 37.55% is consumed within the state of AP*

In view of the same the State of Andhra Pradesh has launched a dedicated programme for development of fish and aqua product value chain to enhance the per capita consumption of fish in the State. The primary objective of the programme is to enhance the domestic consumption. The model will augment per capita domestic consumption of fish by ensuring easy access to live, fresh, frozen fish and aqua products along with marinated and processed products to the end consumers.

The fish supply chain in AP is commonly dependent upon unorganized players, so the fish farmers and fishermen are heavily dependent upon the local aggregators and traders to sell their produce or catch. This supply chain model lacks standardization in terms of quality and have low price realization at primary sale of aqua products. Hence there is a need to create a well-structured fish value chain in AP where large number of farmers/fishers can avail a guaranteed market and remunerative price.

¹ Sources of production related data: Department of Fisheries, AP

With this stated objective, a well-structure Hub & Spoke model has been developed to cater quality aqua products to the households across AP. In this context, establishment of the Aqua Hubs will be key intervention to meet the State's need under fisheries sector. Aqua Hubs will play the most critical role in the entire value chain and will operate as an aggregation point. It will aggregate different types of products from multiple pre-registered sources and will supply to the registered retail outlets within a defined geography. At the same time these hubs will conduct multiple activities such as, processing, quality check. These hubs will be responsible for seamless supply of products to the retail outlets as per the demand.

2. About the Hub and Spoke Model

Aqua Hubs will be developed in all 13 districts and total 60 such Aqua Hubs have been planned across AP. These Hubs will be operated by Aqua Farming Societies (AFS). Department of Fisheries, Andhra Pradesh have already promoted AFS in different locations in the state. These AFSs or newly promoted AFS will own and run these Aqua Hubs. Department of Fisheries have engaged a team of professionals and field staffs for the strengthening and capacity building of these AFSs. AFS will develop and manage Aqua Hubs and will be responsible for sourcing aqua products including live fish and fresh fish/shrimps and other aqua products such as crab etc. AFS can engage individual staffs to operate the hub in a professional manner and as per the industry standards.

Backward linkage:

A strong backward linkage is getting organized for uninterrupted supply of quality aqua products to the hubs. FFPOs (Fish Farmer producer Organisation), individual fish farmers and fishermen, private players and processors will be registered by the hubs respectively. These producers/processors will supply the fish as per pre-defined quality standards and the quality will be checked at multiple points.

Role of Aqua Hub:

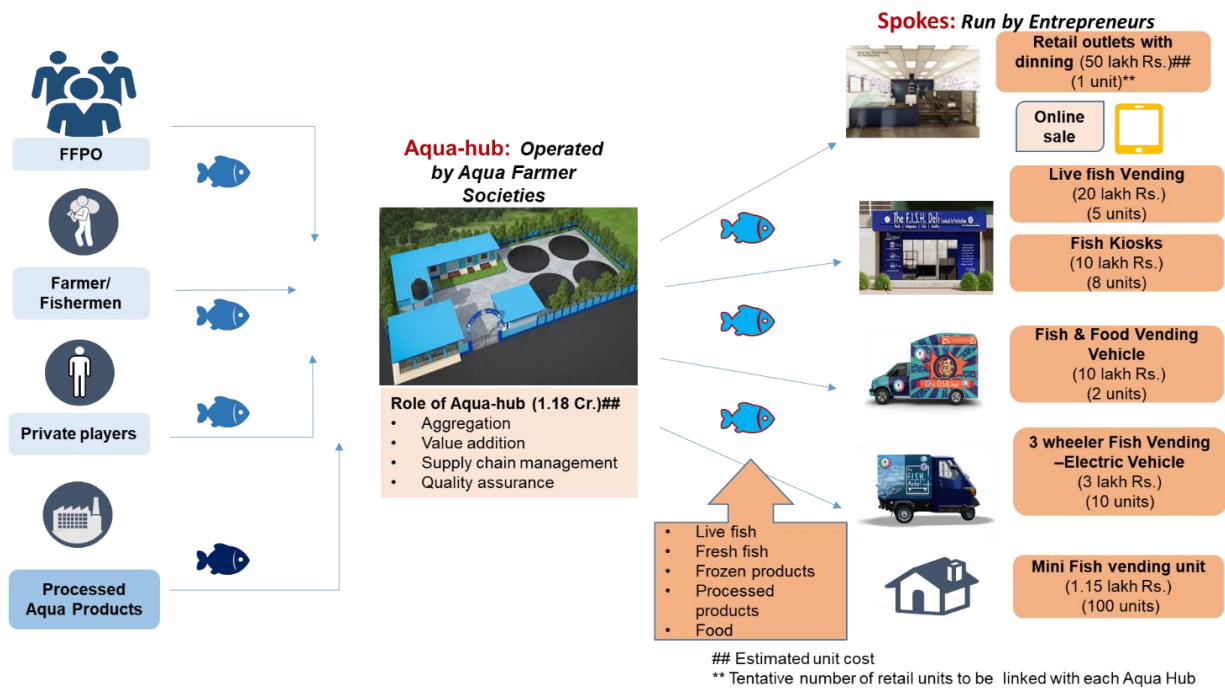
The Aqua hubs will deliver multiple services such as:

- Aggregation of fish and aqua products
- Processing and value addition of fish and aqua products
- Supply chain management from producer to end consumer
- Quality assurance of the fish and other products

Forward Linkage through the Spokes (retail outlets):

A chain of retail units will be developed in this programme and process has already been initiated. Stationary and mobile fish vending outlets will cater aqua products in the urban, semi-urban and rural areas of AP. The well-structured retail chain includes container and brick & mortar based vending units, Container fish kiosks, Fish vending vehicles cum fish food trucks etc. to meet the demand of different kind of customers. Aqua hubs will supply the fish and other aqua products to the retail Vending Centers, Fish Kiosks, Fish vending vehicles cum Food truck, Mini fish vending units etc. This market demand of these more than 8000 retail outlets will ensure the viability of the hubs. The Aqua Hub will be commonly established at urban and semi urban location across the 13 districts of AP. And the six types of retail outlets will be operating within 25-30 km (approximately) radius of these Hubs.

The diagram below represents the Hub and Spoke model and the number of retail units linked with one Aqua hub. However, number of retail units may increase based on local demand on case to case basis.



3. Brief about the Components of Aqua Hub and Spoke

Aqua Hub:

Component 1: Aqua Hub	
Brief of operation	Infrastructure and key Items
<ul style="list-style-type: none"> Hub acts as an aggregation/Processing point Sorting & Pre-processing, Processing, Marination activities will be conducted 	<ul style="list-style-type: none"> Total site Area: 1000 Sqm, Plinth Area: 403 Sqm 2 chilled rooms (Approx. 11.21 Sqm & 18.73 Sqm) and a cold room (Approx. 10.5 Sqm) Flake ice machine, Cold room, Chilled rooms, Live tank, RO Plant, sorting tables, Working tables, Computer, Rotomolded crates etc.

Retail units:

Component 2: Value Added Retail Unit	
Brief of operation	Infrastructure and key Items
<ul style="list-style-type: none"> Shop with dinning facility Unit will serve cooked fish/aqua food items and showcase all aqua products like Live/fresh fish, marinated and value-added products etc. Online orders will also be accepted 	<ul style="list-style-type: none"> Two different models will be developed as per demand of the beneficiaries and both the models will have similar equipment in it. <ul style="list-style-type: none"> Brick & Mortar- fabrication, painting, plumbing, electrification etc. will be done in the existing Brick and Mortar structure provided by the beneficiary. Equipment will be integrated in this structure. Porta cabin: A porta cabin will be modified/fabricated as per pre-defined specification and equipment will be integrated in this structure. Live fish tank, Fresh fish display unit, Vertical Chiller, Gas fryer, Stove with griddle plate, Flake ice machine, RO system, Dining Tables & Chairs, Cutting table
Component 3: Live Fish Vending Centre	
Brief of operation	Infrastructure and key Items
<ul style="list-style-type: none"> Retail sale of live fish, fresh fish & shrimp, marinated products, value added products and cooked fish/aqua products (Acts as a takeaway) Online orders will also be accepted 	<ul style="list-style-type: none"> Two different models will be developed as per demand of the beneficiaries and both the models will have similar equipment in it. <ul style="list-style-type: none"> Brick & Mortar- fabrication, painting, plumbing, electrification etc. will be done in the existing Brick and Mortar structure provided by the beneficiary. Equipment will be integrated in this structure. Porta cabin: A porta cabin will be modified/fabricated as per pre-defined specification and equipment will be integrated in this structure.

	<ul style="list-style-type: none"> Live fish tank, Fresh fish display unit, Vertical display unit, Vertical Chiller, Gas fryer, Stove with griddle plate, RO system, Flake ice machine, Cutting table
Component 4: Fish Kiosks	
Brief of operation	Infrastructure and key Items
<ul style="list-style-type: none"> Retail sale of live fish, fresh fish & shrimp, marinated products, value added products and cooked products (Acts as a takeaway with limited items) Brick & Mortar (Structure will be provided by the beneficiary)/Porta cabin options will be offered to beneficiaries. 	<ul style="list-style-type: none"> Two different models will be developed as per demand of the beneficiaries and both the models will have similar equipment in it. <ul style="list-style-type: none"> Brick & Mortar- fabrication, painting, plumbing, electrification etc. will be done in the existing Brick and Mortar structure provided by the beneficiary. Equipment will be integrated in this structure. Porta cabin: A porta cabin will be modified/fabricated as per pre-defined specification and equipment will be integrated in this structure. Live fish tank, Fresh fish display unit, Vertical Chiller, Gas fryer, Stove with griddle plate, RO system, Cutting table
Component 5: Fish & food Vending vehicle	
Brief of operation	Vehicle and key equipment
<ul style="list-style-type: none"> Mobile food court vehicle and retail sale of live/Fresh fish & Value added products Serve snacks, instant cooking foods and showcasing value added and marinated ready to cook products 	<ul style="list-style-type: none"> 4 wheeler vehicle of payload 1000- 1300 kg. Live fish tank, Fresh fish & Value added products display unit, Gas fryer, Gas Griddle plate, Preparation/ Cutting table, Rotomolded crates
Component 6: 3-Wheeler Fish Vending Cart (Electric Vehicle)	
Brief of operation	Vehicle and key equipment
<ul style="list-style-type: none"> Street vending unit for fresh/ live fish, shrimp, marinated aqua products 	<ul style="list-style-type: none"> Customized 3 Wheeler Electric Vehicle with min 500 kg + payload capacity Live fish tank, cutting table, Rotomolded crates, Weighing machine
Component 7: Mini Fish Retail Units	
Brief of operation	Infrastructure and key Items
<ul style="list-style-type: none"> Retail sale of live & fresh fish and marinated aqua products along with a few cooked products (Snacks) 	<ul style="list-style-type: none"> Fabrication, painting, plumbing, electrification etc. will be done in the existing structure provided by the beneficiary. Equipment will be integrated in this structure. Live fish tank, Gas fryer, Preparation & Cutting table, Rotomolded crates

Component wise number of units and estimated costs are mentioned in the table below².

Component No.	Name of the infrastructure	Tentative number of units across AP**	Estimated unit cost (in INR) (Excluding GST)	Estimated unit cost (in INR) (including GST @16%) ##
Component 1	Aqua Hub	60	1,32,93,381	1,54,20,322
Component 2	Value added retail unit (Brick and Mortar)	20	38,84,477	45,05,993
	Value added retail unit (Porta Cabin)	5	43,53,377	50,49,917
Component 3	Live Fish vending unit (Brick and Mortar)	165	17,74,161	20,58,027
	Live Fish vending unit (Porta Cabin)	95	20,70,619	24,01,918
Component 4	Fish Kiosk (Brick and Mortar)	420	8,81,726	10,22,802
	Fish Kiosk (Porta Cabin)	140	9,83,675	11,41,063
Component 5	Fish and food vending vehicle	140	8,62,069	10,00,000
Component 6	3-Wheeler Fish Vending Cart (EV)	475	2,58,621	3,00,000
Component 7	Mini-Retail Units	6000	1,23,153	1,42,857

** The number of units are tentative and may change depending on factors such as demand from beneficiaries, project requirement etc.

The mentioned costs are estimated costs only which includes **GST @16%**. Hence, final costing may vary as per applicable GST. These estimated costs are excluding brand promotion cost, Infrastructure quality audit cost, Retail marketing cost (applicable for Aqua Hub only) and call centre maintenance charges. The costs will vary depending on the final price discovery through RPF/EOI and applicable GST on different items of each component.

These Hubs and Spokes will be developed by the identified and appointed agencies by the Department of Fisheries, AP. Work order of the units will be issued time to time in different slots to the agencies as per project requirement and demand of the beneficiaries. Beneficiary will be responsible to procure/arrange all the necessary permission/approval from competent authorities and land clearance document etc. as required with necessary assistance/guidance from respective DFO (District Fishery Officer). Beneficiary will submit all necessary documents to the respective DFO and then work order for any such units will be issued.

Quality Control agency will be engaged by the Department of Fisheries, AP for quality verification of development/construction work and certification of each unit.

² Department of Fisheries, AP

4. Detail of each components with item specification and layouts³

4.1. Aqua Hub

Equipment/Accessories:

No	Accessories/Equipment	Dimensions	Unit	Qty
1	Air Curtain	1200 MM	Nos	2
2	Air Curtain	900 MM	Nos	4
3	PVC Strip Curtain:		Sq. ft	135.63
4	Sorting Table	2400 X 1500 X 900	Nos	1
5	Working table With Sinks (SS 304)	2400 X 1500 X 900	Nos	1
6	Working table With Sinks (SS 304)	2400 X 1200 X 900 mm	Nos	2
7	SS Sink With Foot Tap (Ss 304)	475x425x250	Nos	2
8	Finished Material Holding Table (Ss 304)	900L x 600W x 900H	Nos	3
9	SS Sink With Long Arm	475x425x250	Nos	4
10	Chopping blocks (Blue Colour - Poly Carbonate)	600L x 600 W x 50 mm	Nos	12
11	100 Kg Weighing Machine:		Nos	2
12	SS Trolleys - (SS 304)	28"X28"X30"	Nos	4
13	GUM Boots Stand (SS 304)	LXBXH:3'X1'X4'	Nos	2
14	Slippers stand (SS 304)	LxBxH: 3'x1'x2'	Nos	2
15	SS 304 Shovel		Nos	2
16	Power wash High Pressure Cleaner		Nos	3
17	SS 304 Ice scoopers		Nos	5
18	Meshed PVC Crate (Capacity- 20-25 Kgs)	CrateJali(540x360x300 mm)	Nos	30
19	PVC Crates (Capacity- 20-25 Kgs)	Solid Crate(540x360x300mm)	Nos	30
20	Waste bin with lid	40 Ltr	Nos	12
21	Working table (Plywood Table)	1200mm x900mm (Standard working table)	Nos	6
22	Back Mesh Medium Back Chair		Nos	6
23	13-inch Laptop computer		Nos	1
24	Laser jet printer		Nos	1
25	Electric Fly Catcher		Nos	7
26	Standard Fire Extinguisher - Water based		Nos	4
27	Standard Fire Extinguisher - Co2 type		Nos	4
28	Cutting Equipment (1 Heavy Cutting knife, 2 descenders, 1 filleting knife, 1 scissors)		Set	6
29	Electric Hand dryers		Nos	4
30	Auto soap dispenser (SS 304)		Nos	4
31	Chilled room racking (SS 304).	900X450X1800	Nos	8
32	Injection moulded plastic pallets: Capacity- 75 Kgs		Nos	10
33	Live fish holding tanks: 3.6 meter diameter		Nos	1
34	Dip net		Nos	1
35	Cover net		Nos	1
36	1 HP Ring blower		Nos	1
37	Aeration accessories		Set	1
38	Double Chamber SS 304 grade vaccum machine		Nos	1
39	Rotomould ice boxes: capacity: 100 Ltrs		Nos	150

³ Source: Department of Fisheries, AP

Cold & Chilled Rooms with equipment, AHU, RO System and CCTV:

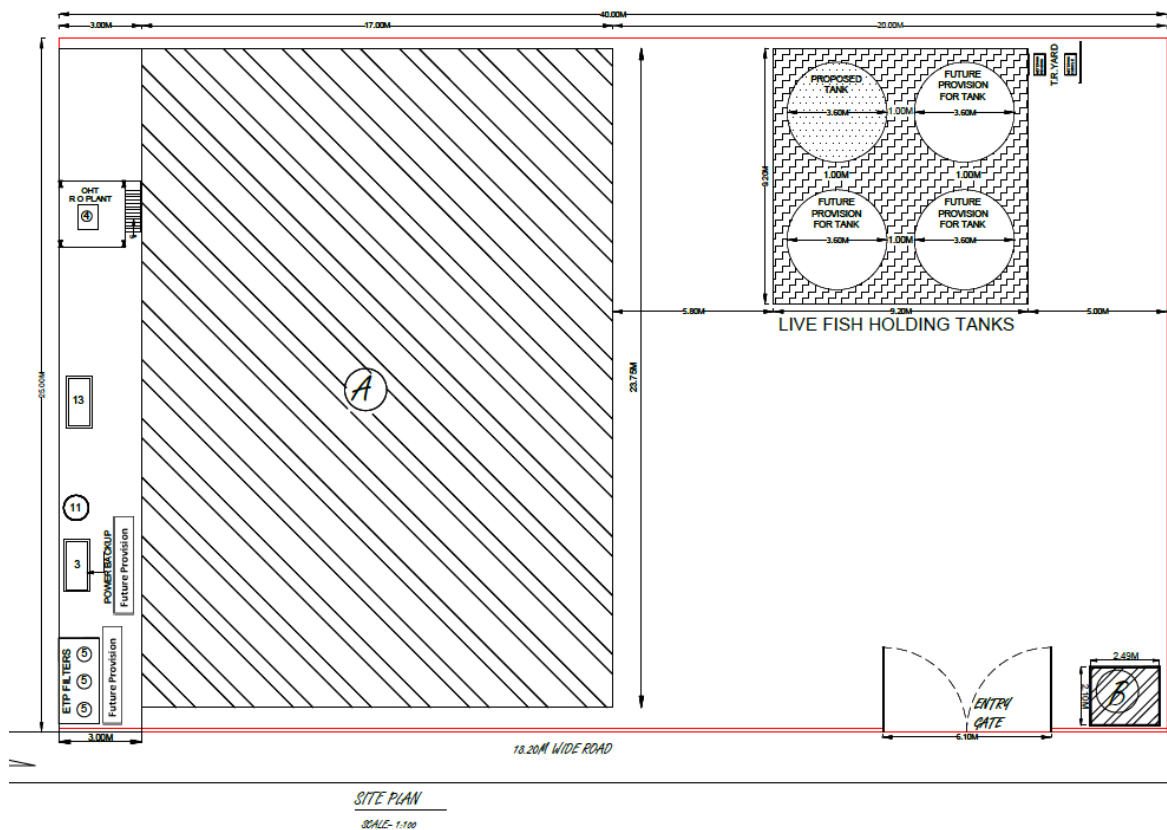
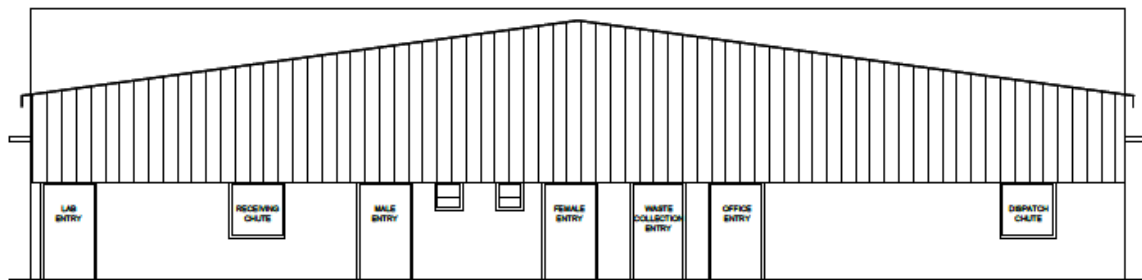
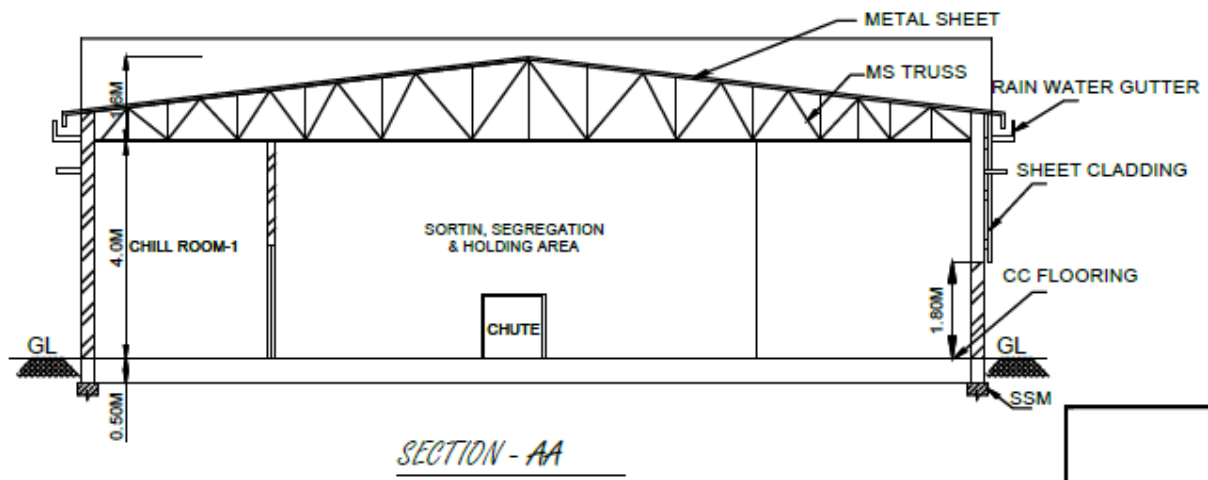
S No	Description	Dimensions	Unit	Qty
1	Ice Flake Machine (2.5 to 3T per day)		Nos	1
2	Chilled room	3.96 x 2.83 x 2.44 Mtr	Nos	1
3	Chilled room – 2	3.96 x 4.75 x 2.44 Mtr	Nos	1
4	Cold Room	2.40 x 2.80 x 2.44 M (Ht)	Nos	1
5	AHU Suitable for 8 TR for Processing Area		Nos	2
6	Condensing Unit with Scroll compressor & Electric Panel, Brackets/Frame, Ducting and installation		Nos	2
11	RO Configuration Capacity: 2000 Ltr / hr		Nos	1
12	CCTV Cameras & System			

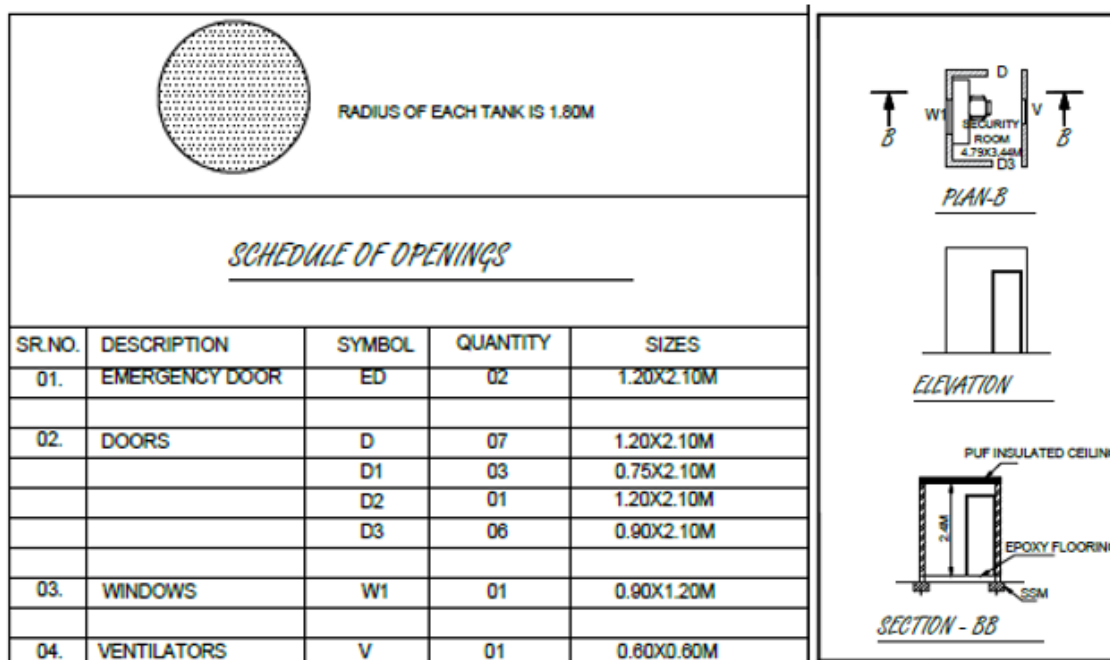
Other Works covered in the Scope:

S No	Particulars
1.	Site filling & open area development
2.	Main building Raft
3.	Electrical items, works along with 100 KW Transformer & installation as per the layout
4.	Aqua hub PUF panel works + With steel framing and roofing (PEB)
5.	Plumbing and sanitary items & installation as per layout
6.	Sump/Wastewater Treatment Tank
7.	Septic tank
8.	Bore Well with Motor
9.	Overhead water tank
10.	Link Meshed compound wall three sides & Front end brick wall and gate
11.	Design and Branding Works

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5 July 2021





SCHEDULE OF MACHINERIES		
SI No	Description	Qty
2	ICE PLANT MC	1
4	R O PLANT	1
6	BORE WELL	1
7	AIR CURTAIN	6
8	COLD ROOM	1
9	CHILL ROOM	2
13	AHU (Air Handling Unit)	1

AREA STATEMENT			
	TOTAL SITE AREA	=	7000.00 Sqm
(a)	TOTAL PLINTH AREA	=	403.00 Sqm
(b)	TOTAL BUILT UP AREA	=	408.22 Sqm
(c)	TOTAL OPEN AREA	=	591.78 Sqm
(d)	No of BUILDINGS	=	02
INDEX TO SITE PLAN, AREA STATEMENT			
PLAN	NAME OF THE BUILDING	FLOOR	AREA IN Sqm
A	HUB & OFFICE	GROUND	403.00
B	SECURITY ROOM	GROUND	5.22
TOTAL			408.22

4.2. Value added unit in Brick and Mortar structure (with dining facility)

Equipment/Accessories:

S No	Accessories/Equipment	Dimensions	Unit	Qty
1	Retail store checkout counter table	900 X 600 X 1150 mm	Nos	1
2	Fish Filleting table with waste hole	1800 X 600 X 900mm	Nos	1
3	Overhead wall mounted shelf	900x300x200mm	Nos	2
4	Waste Bin without lid	40 ltrs	Nos	1
5	Chopping blocks (Blue colour - poly carbonate)	600 X 600 X50mm	Nos	2
6	Fish serve over counter (Display counter)	2100 X 900 X 1250 mm	Nos	1
7	Fish display unit	1200 X 750 X1250	Nos	1
8	Powder coated supermarket display rack	900 X 600 X 1800 mm	Nos	1
9	Ss sink with long arm	475x425x250 mm	Nos	2
10	Service counter table	900 X 600 X 900 mm	Nos	1
11	Preparation counter	900 X 600 X 900 mm	Nos	1
12	Cafe table	900W x 900D x 750H mm	Nos	4
13	Stackable chairs		Nos	16
14	Online counter table	450 X 600 X 900 mm	Nos	1
15	Packing table	900 X 600 X 900 mm	Nos	1
16	Live fish tank of FRP (Fibre Reinforced Plastic)	1800 (Each tank Capacity)	Nos	2
17	Landing net rod		Nos	1
18	Aerator Air Pump		Nos	2
19	Multideck Vertical Chiller (Capacity 400 litres)	685x 710 x 2057 mm	Nos	1
20	Chilled Cold Room (with PUF Panels insulation for Walls)	5ft x 10ft x 8ft	Nos	1
21	Chilled room Racking	900X450X1800mm	Nos	3
22	RO system (100 LPH)		Nos	1
23	RO water storage tank (500L)	L1389xW998xH439mm	Nos	1
24	Dome oven	L570xW484 xH380 mm	Nos	1
25	Double pan gas fryer (16 Ltrs)	450x650x850 mm	Nos	1
26	Stove with griddle plate	900 X 600 X 863mm	Nos	1
27	Exhaust hood	2100x900x500mm	Nos	1
28	GI ducting		Sq. ft	50
29	Co axial exhaust fan		Nos	1
30	Tabletop weighing machine	30 Kg	Nos	1
31	Bluetooth printer		Nos	1
32	Rotomould ice boxes	100 Ltr	Nos	10
33	Waste Bin with lid	40 Ltr	Nos	2
34	Industrial weighing scale	100 Kg	Nos	1
35	Pre rinse wash unit		Nos	1
36	Flake ice machine with refrigeration unit and accessories (0.3 TPD)	300 Kg/24 HRS	Nos	1
37	Air curtain		Nos	2
38	TV Display Over the display counter and Over kitchen display counter		Nos	2
39	Electric Insect Killer Machine		Nos	2
40	20-30watt LED flood light for external lighting.	Nos	Nos	10
41	Spotlight- White Body Spot Track Light	Nos	Nos	8
42	PVC crates (Capacity- 20-25 Kgs)	Solid Crate (540x360x300mm)	Nos	20
43	Fire extinguisher (5 kg)		Nos	1
44	Fire extinguisher (1kg)		Nos	4

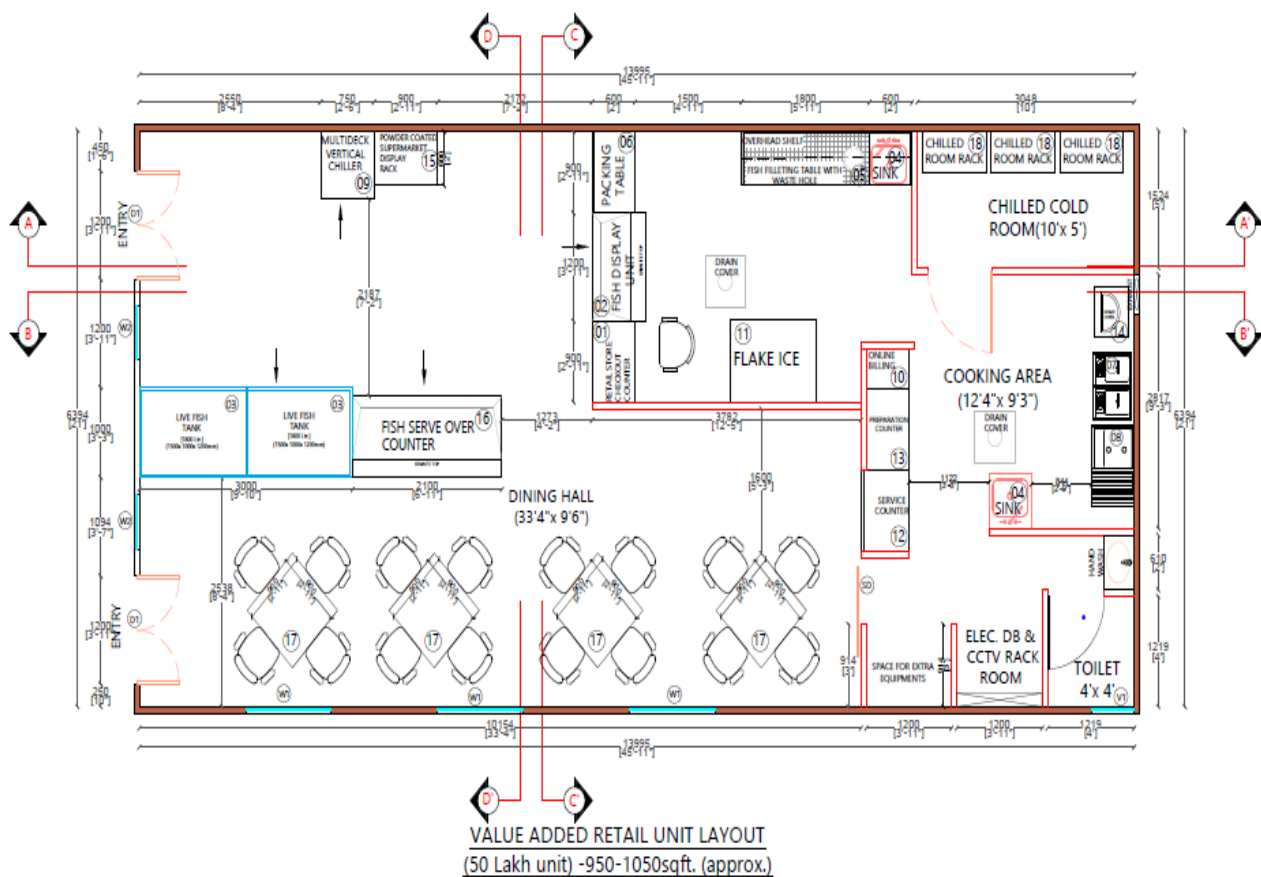
Air Conditioner, Inverter & CCTV Equipment:

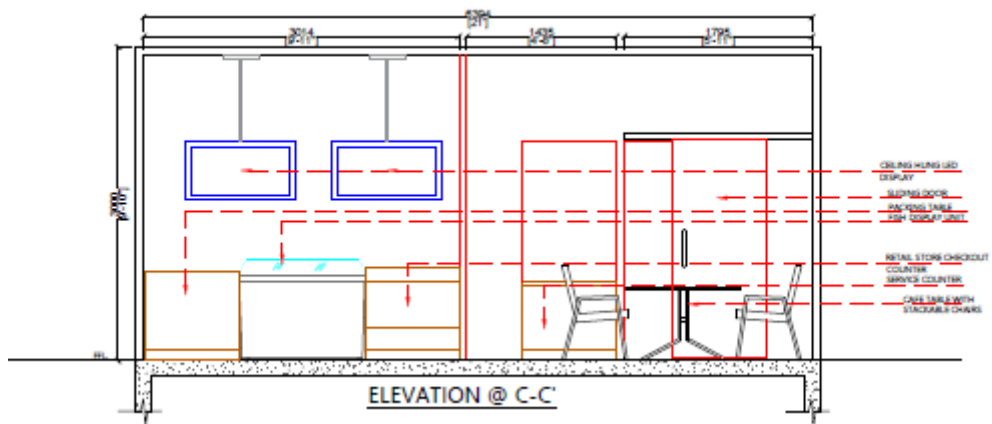
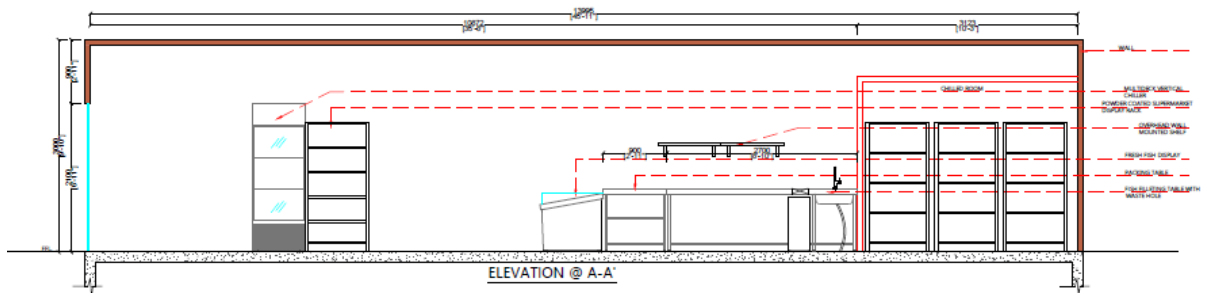
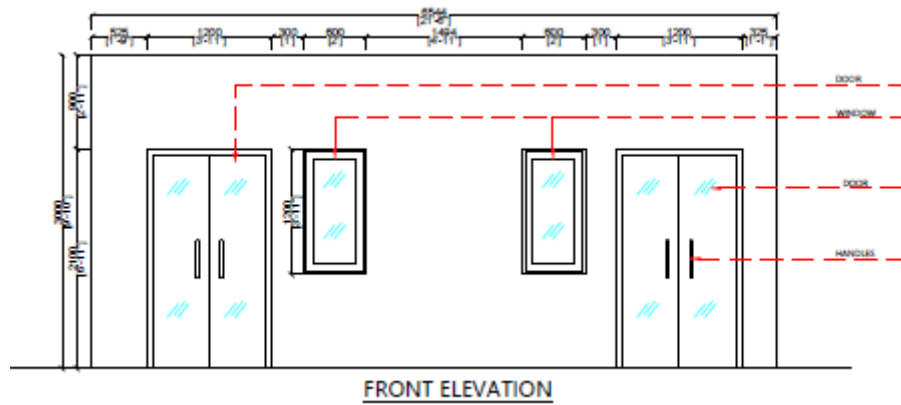
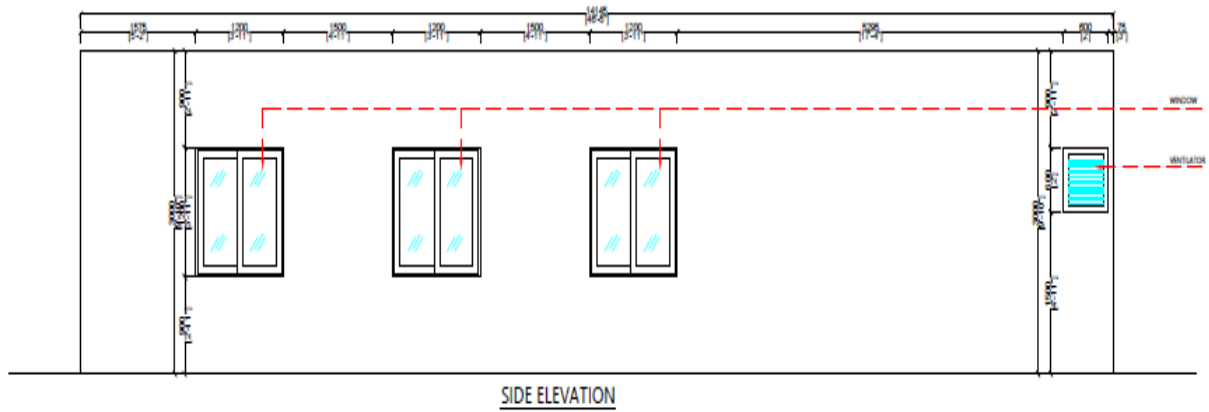
S No	Description	Dimensions	Unit	Qty
1	Split AC unit		Nos	3
2	3.5 KVA Inverter		Nos	1
3	CCTV system			

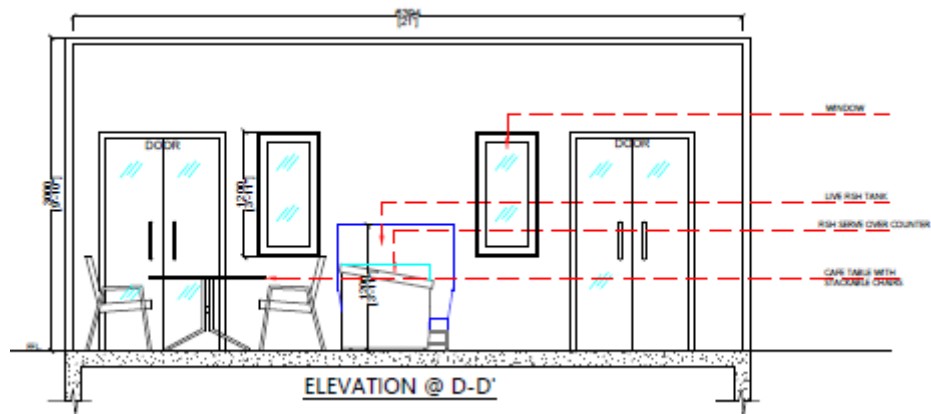
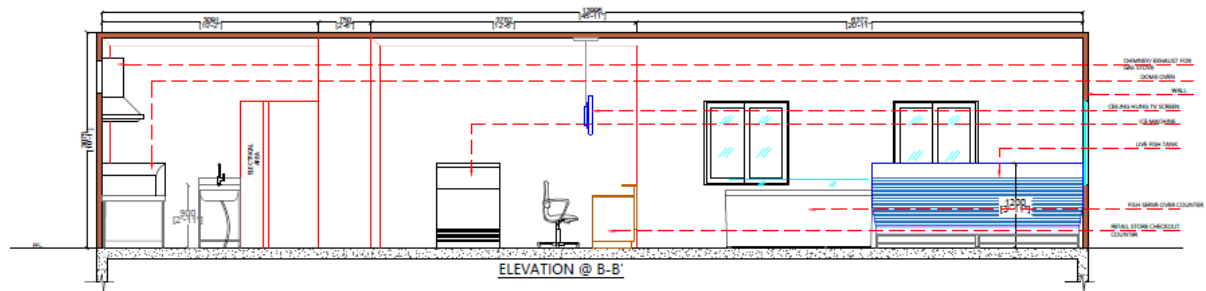
Other Works:

S No	Description	Dimensions	Unit	Qty
1	Electrical & plumbing works required as per the layout			Lump Sum
2	Shop Landscaping, beautification civil works (false ceiling, flooring, wall dadoing, painting in necessary areas and glass work etc.)			Lump Sum
3	Design and Branding work			Lump Sum

Layout:







SCHEDULE OF OPENINGS		
DESCRIPTION	SYMBOL	SIZE
DOOR	D1	1.20x2.10M
SLIDING DOOR	SD	0.90x2.10M
VENTILATOR	V	0.80x0.80M
WINDOW 01	W1	1.20x1.20M
WINDOW 02	W2	0.80x1.20M
SCHEDULE OF FURNITURE/ PRODUCTS		
SL NO	DESCRIPTION	QTY
1	RETAIL STORE CHECKOUT COUNTER	01
2	FRESH FISH DISPLAY	01
3	LIVE FISH TANK (1800ltr. each)	02
4	S.S. SINK WITH LONG ARM	02
5	FISH FILLETING TABLE WITH WASTE HOLE	01
6	PACKING TABLE	01
7	DOUBLE PAN GAS FRYER	01
8	STOVE WITH GRIDDLE PLATE	01
9	MULTIDECK VERTICAL CHILLER	01
10	ONLINE BILLING	01
11	ICE MACHINE	01
12	SERVICE COUNTER	01
13	PREPARATION COUNTER	01
14	DOME OVEN	01
15	DISPLAY RACK	01
16	FISH SERVE OVER COUNTER	01
17	CAFE TABLE WITH STACKABLE CHAIRS	04
18	CHILLED ROOM RACK	03

4.3. Value added unit in Porta Cabin (with dining facility)

Equipment/Accessories:

S No	Accessories/Equipment	Dimensions	Unit	Qty
1	Retail store checkout counter table	900 X 600 X 1150 mm	Nos	1
2	Fish Filleting table with waste hole	1800 X 600 X 900mm	Nos	1
3	Over head wall mounted shelf	900x300x200mm	Nos	2
4	Waste Bin without lid	40 ltrs	Nos	1
5	Chopping blocks (Blue colour - poly carbonate)	600 X 600 X50mm	Nos	2
6	Fish serve over counter (Display counter)	2100 X 900 X 1250 mm	Nos	1
7	Fish display unit	1200 X 750 X1250	Nos	1
8	Powder coated supermarket display rack	900 X 600 X 1800 mm	Nos	1
9	Ss sink with long arm	475x425x250 mm	Nos	2
10	Service counter table	900 X 600 X 900 mm	Nos	1
11	Preparation counter	900 X 600 X 900 mm	Nos	1
12	Cafe table	900W x 900D x 750H mm	Nos	4
13	Stackable chairs		Nos	16
14	Online counter table	450 X 600 X 900 mm	Nos	1
15	Packing table	900 X 600 X 900 mm	Nos	1
16	Live fish tank of FRP (Fibre Reinforced Plastic)	1800 (Each tank Capacity)	Nos	2
17	Landing net rod		Nos	1
18	Aerator Air Pump		Nos	2
19	Multideck Vertical Chiller (Capacity 400 litres)	685x 710 x 2057 mm	Nos	1
20	Chilled Cold Room (with PUF Panels insulation for Walls)	5ft x 10ft x 8ft	Nos	1
21	Chilled room Racking	900X450X1800mm	Nos	3
22	RO system (100 LPH)		Nos	1
23	RO water storage tank (500L)	L1389xW998xH439mm	Nos	1
24	Dome oven	L570xW484 xH380 mm	Nos	1
25	Double pan gas fryer (16 Ltrs)	450x650x850 mm	Nos	1
26	Stove with griddle plate	900 X 600 X 863mm	Nos	1
27	Exhaust hood	2100x900x500mm	Nos	1
28	GI ducting		Sq. ft	50
29	Co axial exhaust fan		Nos	1
30	Tabletop weighing machine	30 Kg	Nos	1
31	Bluetooth printer		Nos	1
32	Rotomould ice boxes	100 Ltr	Nos	10
33	Waste Bin with lid	40 Ltr	Nos	2
34	Industrial weighing scale	100 Kg	Nos	1
35	Pre rinse wash unit		Nos	1
36	Flake ice machine with refrigeration unit and accessories (0.3 TPD)	300 Kg/24 HRS	Nos	1
37	Air curtain		Nos	2
38	TV Display Over the display counter and Over kitchen display counter		Nos	2
39	Electric Insect Killer Machine		Nos	2
40	20-30watt LED flood light for external lighting.	Nos	Nos	10
41	Spotlight- White Body Spot Track Light	Nos	Nos	8
42	PVC crates (Capacity- 20-25 Kgs)	Solid Crate(540x360x300mm)	Nos	20
43	Fire extinguisher (5 kg)		Nos	1
44	Fire extinguisher (1kg)		Nos	4

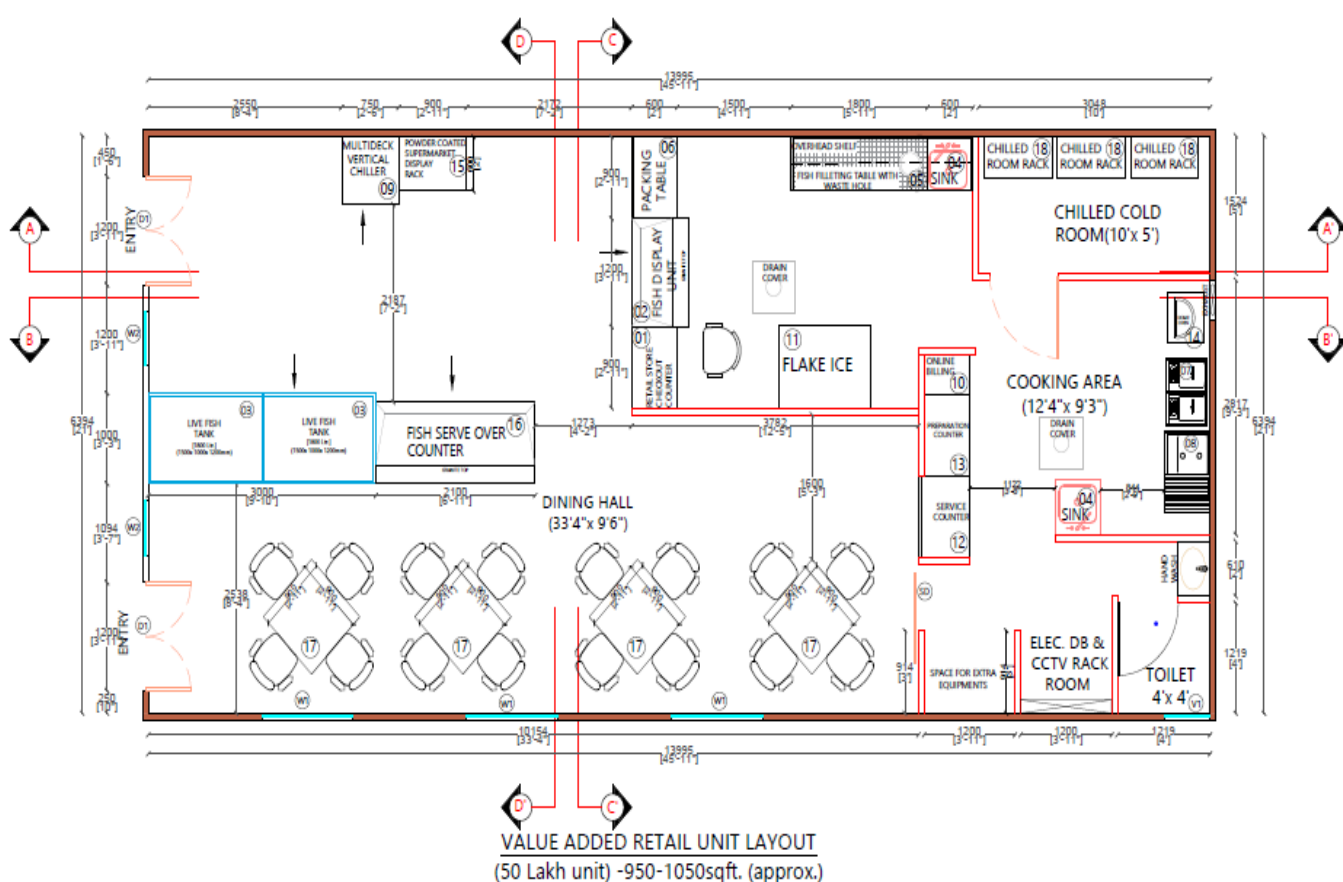
Air Conditioner, Inverter & CCTV Equipment:

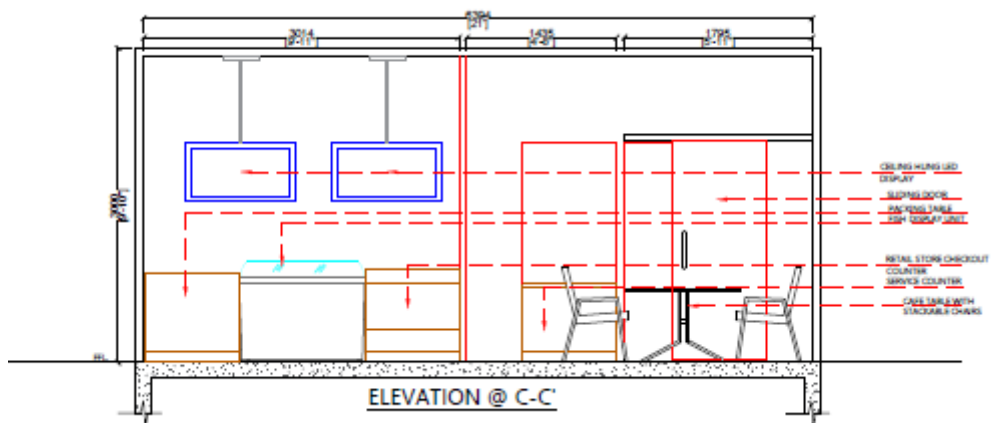
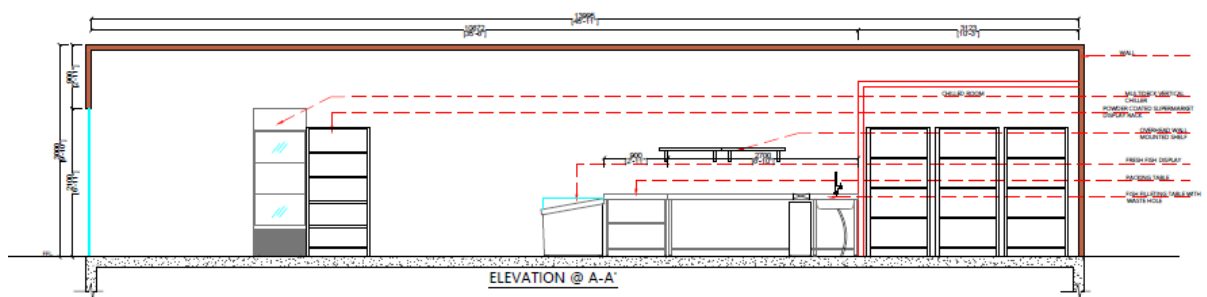
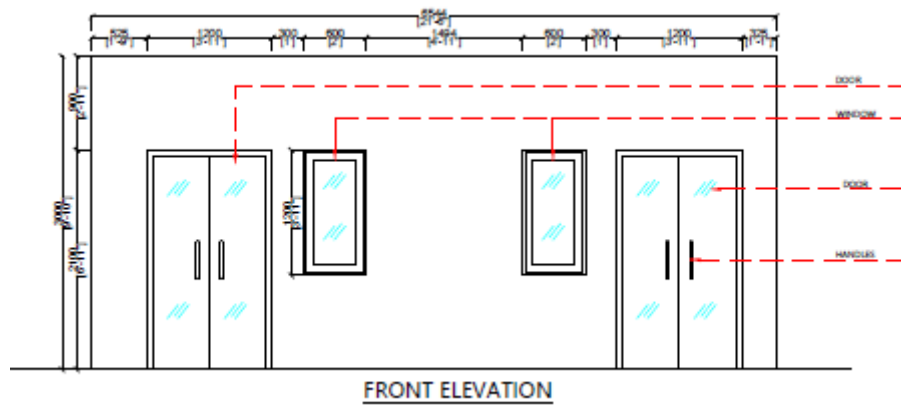
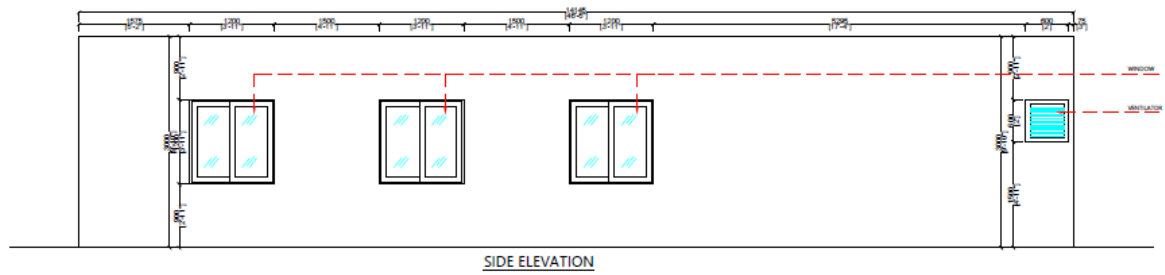
S No	Description	Dimensions	Unit	Qty
1	Split AC unit		Nos	3
2	3.5 KVA Inverter		Nos	1
3	CCTV system			

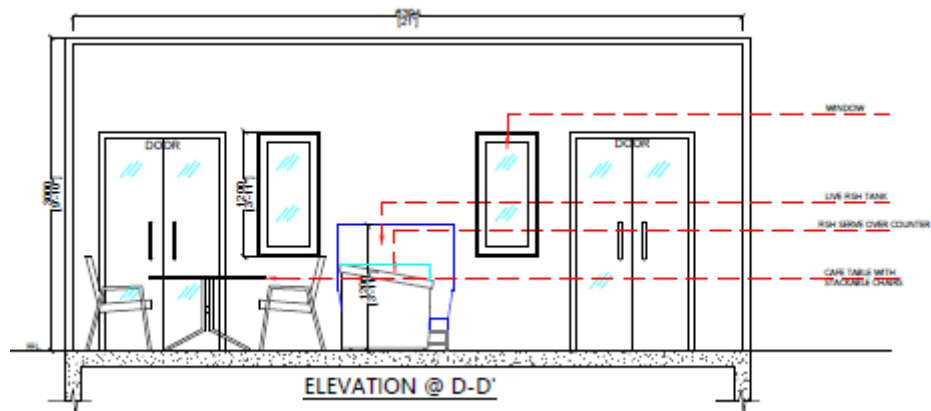
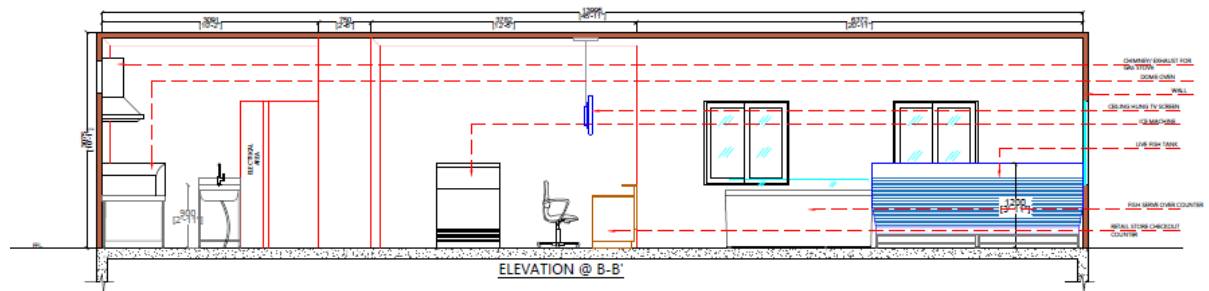
Porta Cabin & Other Works:

S No	Description	Dimensions	Unit	Qty
1	MS Fabricated office Cabin -Porta Cabin with all Electrical switch sockets		Sq. ft	966
2	Civil, Electrical & Plumbing works required as per the layout			Lump Sum
3	Landscaping			Lump Sum
4	Design and Branding works			Lump Sum

Layout:







SCHEDULE OF OPENINGS		
DESCRIPTION	SYMBOL	SIZE
DOOR	D1	1.20x2.10M
SLIDING DOOR	SD	0.90x2.10M
VENTILATOR	V	0.80x0.80M
WINDOW 01	W1	1.20x1.20M
WINDOW 02	W2	0.80x1.20M
SCHEDULE OF FURNITURE/ PRODUCTS		
SL NO	DESCRIPTION	QTY
1	RETAIL STORE CHECKOUT COUNTER	01
2	FRESH FISH DISPLAY	01
3	LIVE FISH TANK (1800ltr. each)	02
4	S.S. SINK WITH LONG ARM	02
5	FISH FILLETING TABLE WITH WASTE HOLE	01
6	PACKING TABLE	01
7	DOUBLE PAN GAS FRYER	01
8	STOVE WITH GRIDDLE PLATE	01
9	MULTIDECK VERTICAL CHILLER	01
10	ONLINE BILLING	01
11	ICE MACHINE	01
12	SERVICE COUNTER	01
13	PREPARATION COUNTER	01
14	DOME OVEN	01
15	DISPLAY RACK	01
16	FISH SERVE OVER COUNTER	01
17	CAFE TABLE WITH STACKABLE CHAIRS	04
18	CHILLED ROOM RACK	03

4.4. Live fish vending center in Brick & Mortar structure

Equipment/Accessories:

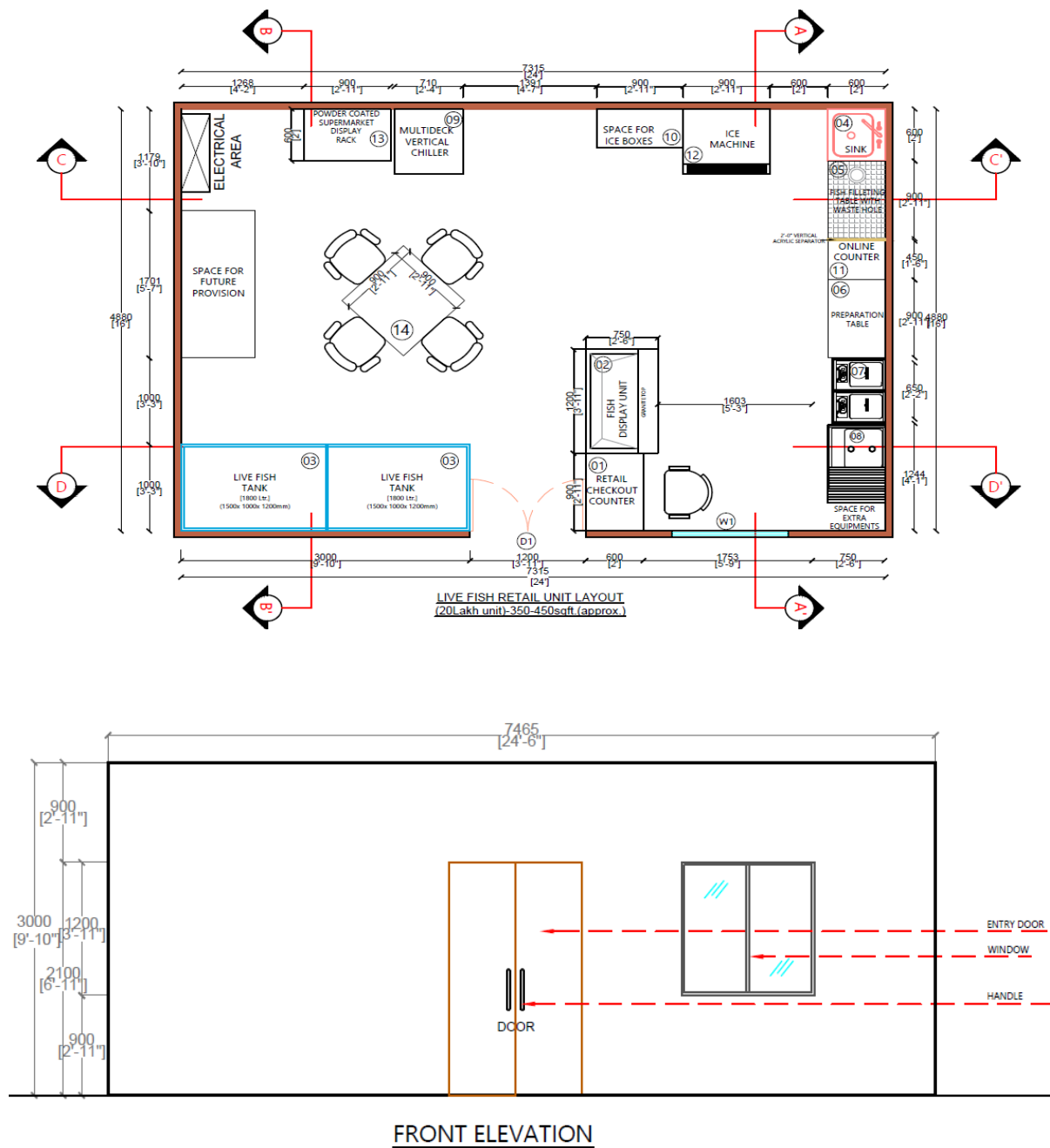
S No	Accessories/Equipment	Dimensions	Unit	Qty
1	Fish Display Unit	1200 X 750 X1250 mm	Nos	1
2	Retail Store Checkout Counter Table	900 X 600 X 1150mm	Nos	1
3	Fish Filleting Table with waste hole	900 X 600 X 900mm	Nos	1
4	Preparation table	900 X 600 X 900mm	Nos	1
5	Over head wall mounted shelf	900 x 300 x 200mm	Nos	1
6	Waste Bin without lid	40 ltrs	Nos	1
7	Chopping blocks	600 X 600 X50mm	Nos	1
8	SS sink with long arm	475x425X 250mm	Nos	1
9	Cafe table	900W x 900D x 750Hmm	Nos	1
10	Stackable chair		Nos	4
11	Online counter	450 X 600 X 900 mm	Nos	1
12	Live fish tank - FRP (Fibre Reinforced Plastic)	1800 ltrs (Each tank capacity)	Nos	2
13	Landing net rod		Nos	1
14	Aerator air pump		Nos	2
15	Multideck vertical chiller (Capacity 400 litres)	685x 710 x 2057 mm	Nos	1
16	Powder Coated Supermarket Display Rack	900 X 600 X 1800	Nos	1
17	RO system (50 LPH)	50 lit / Hour	Nos	1
18	RO water storage tank (500 L)	L1389xW998xH439mm	Nos	1
19	Double pan gas fryer (16 L)	450x650x850 mm	Nos	1
20	Stove with griddle plate	900 X 600 X 863 mm	Nos	1
21	Tabletop weighing machine	30 kg	Nos	1
22	Bluetooth printer		Nos	1
23	Rotomould ice boxes (Capacity: 100 L)	100 Ltr	Nos	7
24	Waste Bin with lid	40 Ltr	Nos	2
25	Flake ice machine with refrigeration unit and accessories (0.3 TPD)	300 Kg/24 Hrs	Nos	1
26	Air curtain		Nos	1
27	TV Display Over the display counter and Over kitchen display counter		Nos	1
28	Electric Insect Killer Machine		Nos	1
29	LED flood light for external lighting		Nos	6
30	Spotlight- White Body Spot Track Light		Nos	4
31	Butchery and fillet Knife (1 of each)		Nos	2
32	Fire extinguisher (5kg)		Nos	1
33	Fire extinguisher (1 kg)		Nos	2

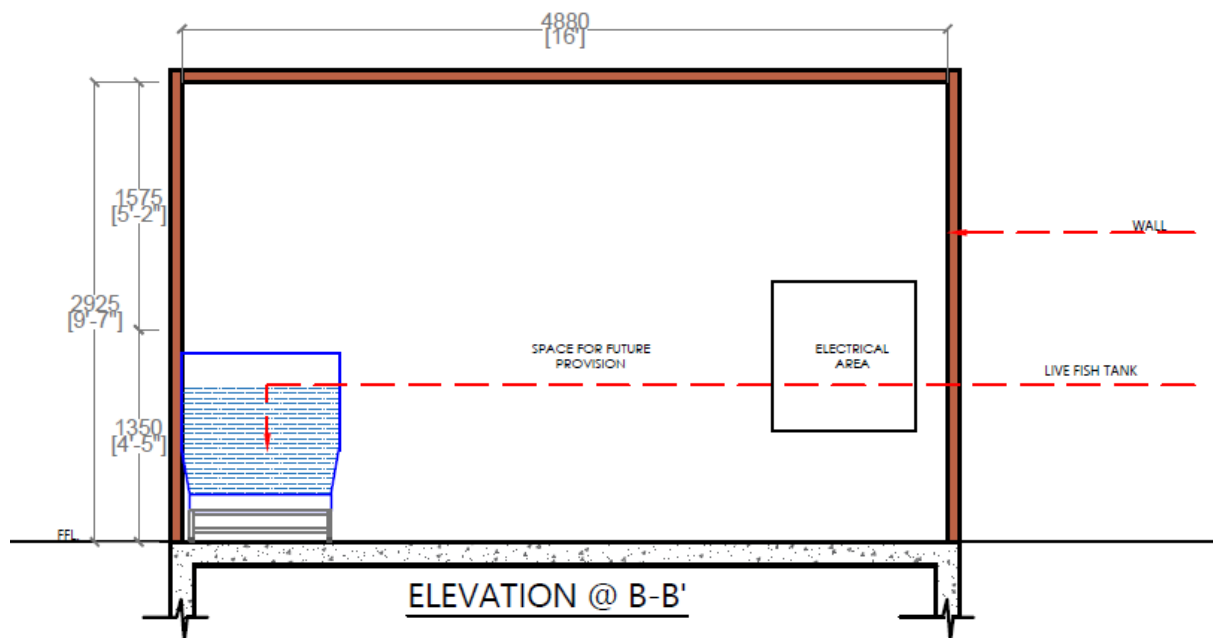
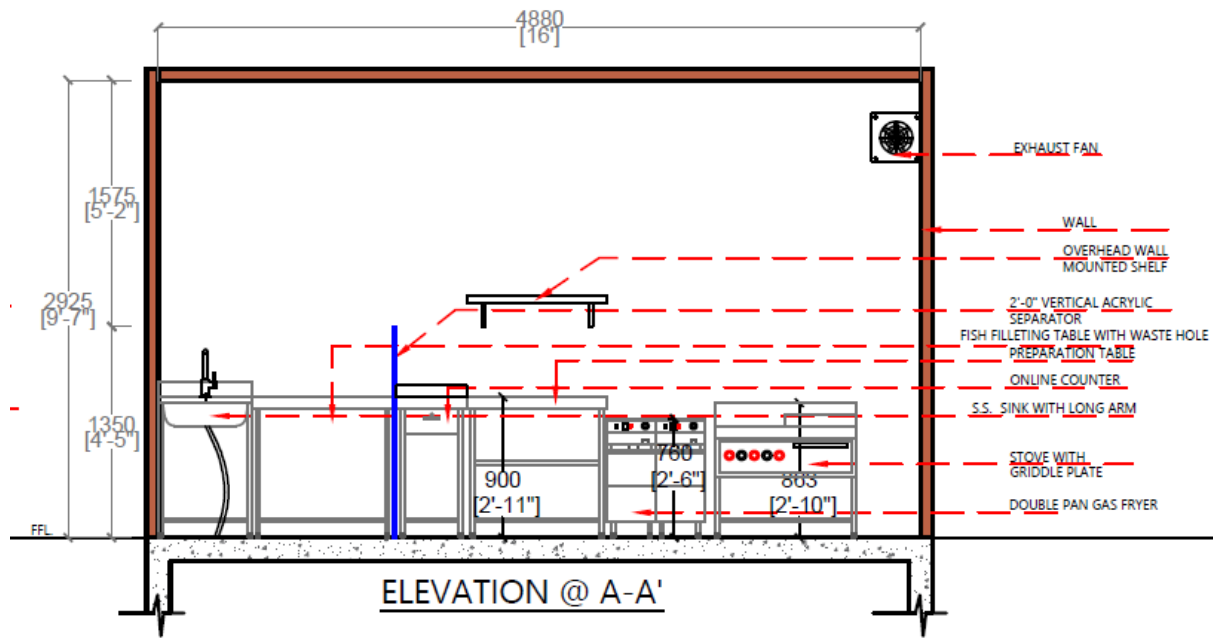
S No	Description	Dimensions	Unit	Qty
1	Split AC unit		Nos	2
2	1.5 KVA Inverter		Nos	1
3	CCTV system			

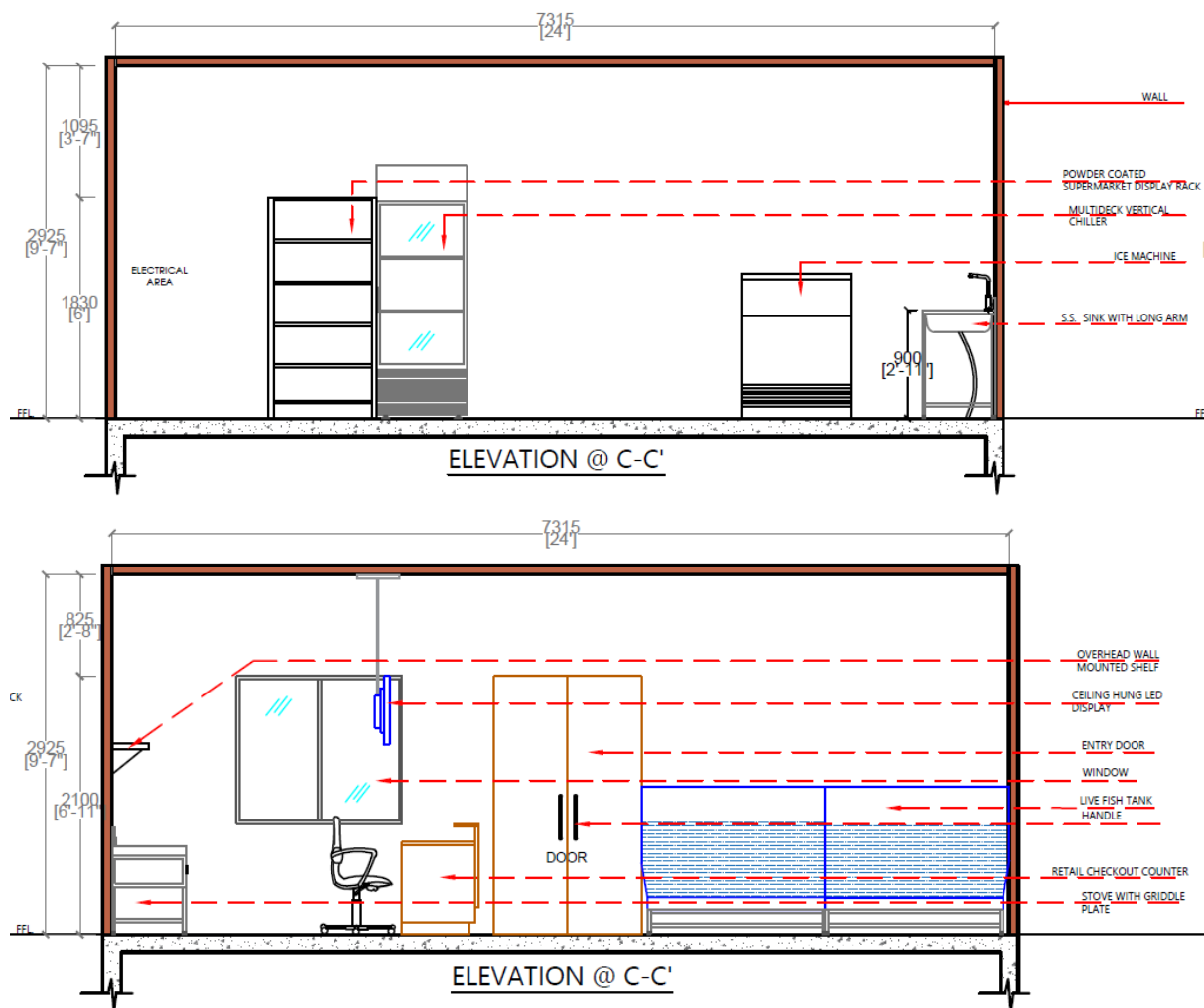
Other Works:

S No	Description	Dimen sions	Unit	Qty
1	All the electrical & plumbing works required as per the layout			Lump Sum
2	Shop Landscaping, beautification civil works (false ceiling, flooring, wall dadoing, painting in necessary areas and glass work etc.)			Lump Sum
3	Design& Branding works			Lump Sum

Layout:







SCHEDULE OF OPENINGS		
DESCRIPTION	SYMBOL	SIZE
DOOR	D1	1.20x2.10M
WINDOW	W1	1.20x1.20M
SCHEDULE OF FURNITURE/ PRODUCTS		
SL NO	DESCRIPTION	QTY
1	RETAIL CHECKOUT COUNTER	01
2	FISH DISPLAY UNIT	01
3	LIVE FISH TANK (1800 Ltr. each)	02
4	S.S. SINK WITH LONG ARM	01
5	FISH FILLETING TABLE WITH WASTE HOLE	01
6	PREPARATION TABLE	01
7	DOUBLE PAN GAS FRYER	01
8	STOVE WITH GRIDDLE PLATE	01
9	MULTIDECK VERTICAL CHILLER	01
10	SPACE FOR ICE BOXES	01
11	ONLINE BILLING	01
12	ICE MACHINE	01
13	POWDER COATED SUPERMARKET DISPLAY RACK	01
14	CAFE TABLE & STACKABLE CHAIRS(SET OF 4)	01

4.5. Live fish vending center in porta Cabin

Equipment/Accessories:

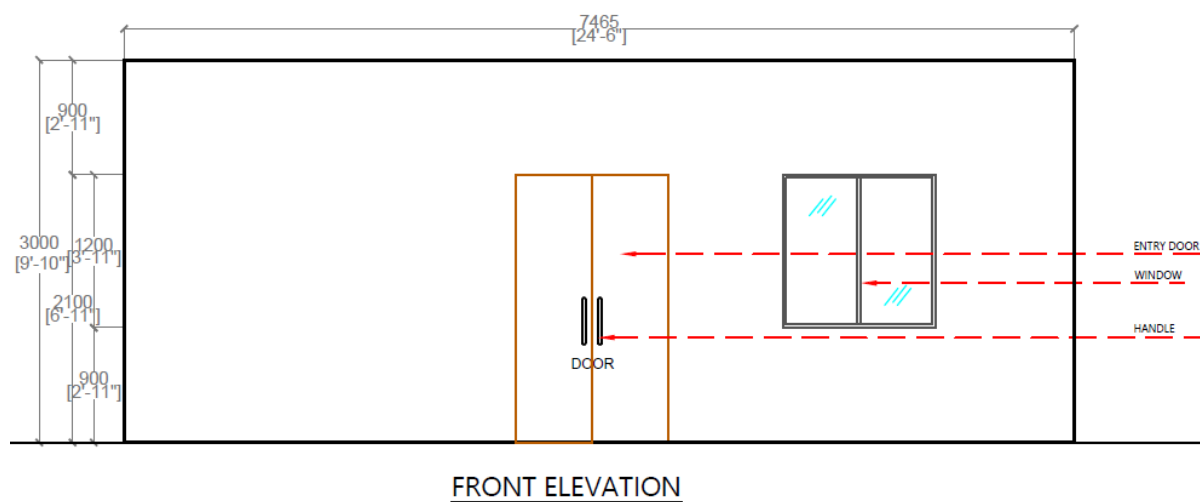
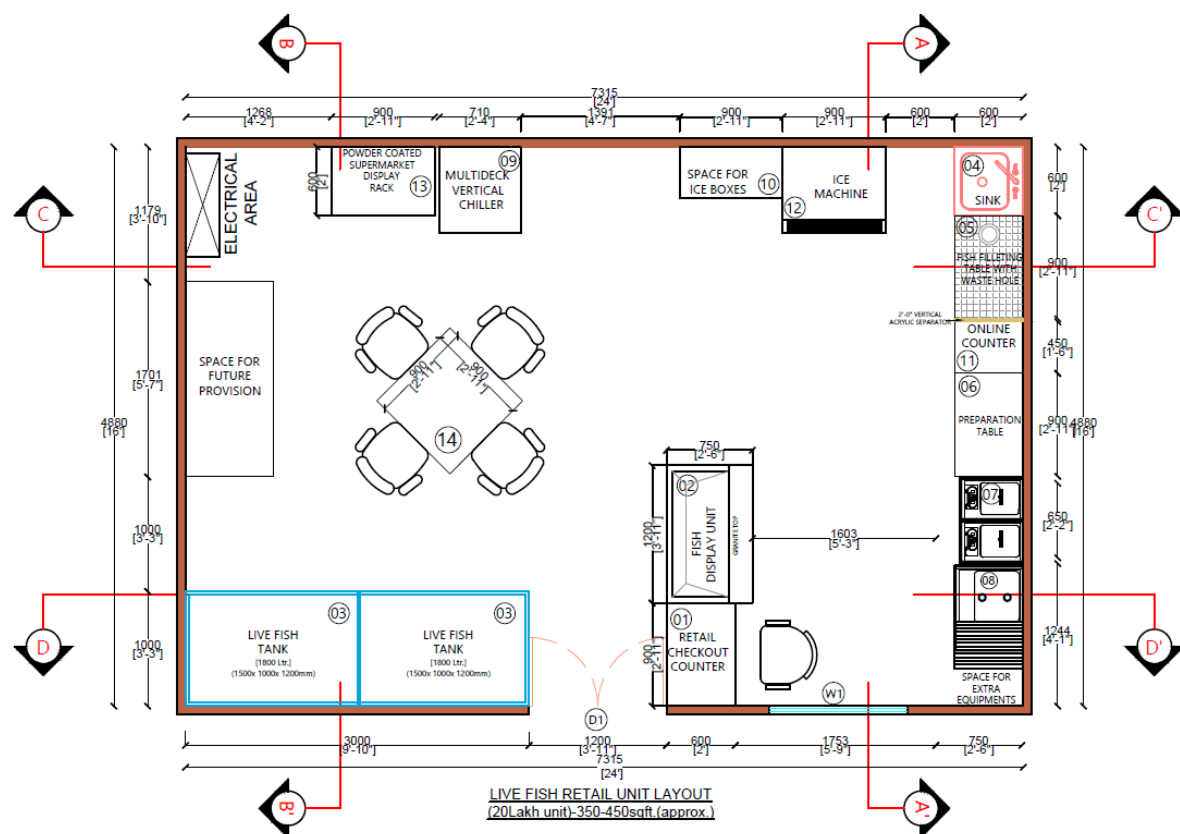
S No	Accessories/Equipment	Dimensions	Unit	Qty
1	Fish Display Unit	1200 X 750 X 1250 mm	Nos	1
2	Retail Store Checkout Counter Table	900 X 600 X 1150mm	Nos	1
3	Fish Filleting Table with waste hole	900 X 600 X 900mm	Nos	1
4	Preparation table	900 X 600 X 900mm	Nos	1
5	Over head wall mounted shelf	900 x 300 x 200mm	Nos	1
6	Waste Bin without lid	40 ltrs	Nos	1
7	Chopping blocks	600 X 600 X 50mm	Nos	1
8	SS sink with long arm	475x425X 250mm	Nos	1
9	Cafe table	900W x 900D x 750Hmm	Nos	1
10	Stackable chair		Nos	4
11	Online counter	450 X 600 X 900 mm	Nos	1
12	Live fish tank - FRP (Fibre Reinforced Plastic)	1800 ltrs (Each tank capacity)	Nos	2
13	Landing net rod		Nos	1
14	Aerator air pump		Nos	2
15	Multideck vertical chiller (Capacity 400 litres)	685x 710 x 2057 mm	Nos	1
16	Powder Coated Supermarket Display Rack	900 X 600 X 1800	Nos	1
17	RO system (50 LPH)	50 lit / Hour	Nos	1
18	RO water storage tank (500 L)	L1389xW998xH439mm	Nos	1
19	Double pan gas fryer (16 L)	450x650x850 mm	Nos	1
20	Stove with griddle plate	900 X 600 X 863 mm	Nos	1
21	Tabletop weighing machine	30 kg	Nos	1
22	Bluetooth printer		Nos	1
23	Rotomould ice boxes (Capacity: 100 L)	100 Ltr	Nos	7
24	Waste Bin with lid	40 Ltr	Nos	2
25	Flake ice machine with refrigeration unit and accessories (0.3 TPD)	300 Kg/24 Hrs	Nos	1
26	Air curtain		Nos	1
27	TV Display Over the display counter and Over kitchen display counter		Nos	1
28	Electric Insect Killer Machine		Nos	1
29	LED flood light for external lighting		Nos	6
30	Spotlight- White Body Spot Track Light		Nos	4
31	Butchery and fillet Knife (1 of each)		Nos	2
32	Fire extinguisher (5kg)		Nos	1
33	Fire extinguisher (1 kg)		Nos	2

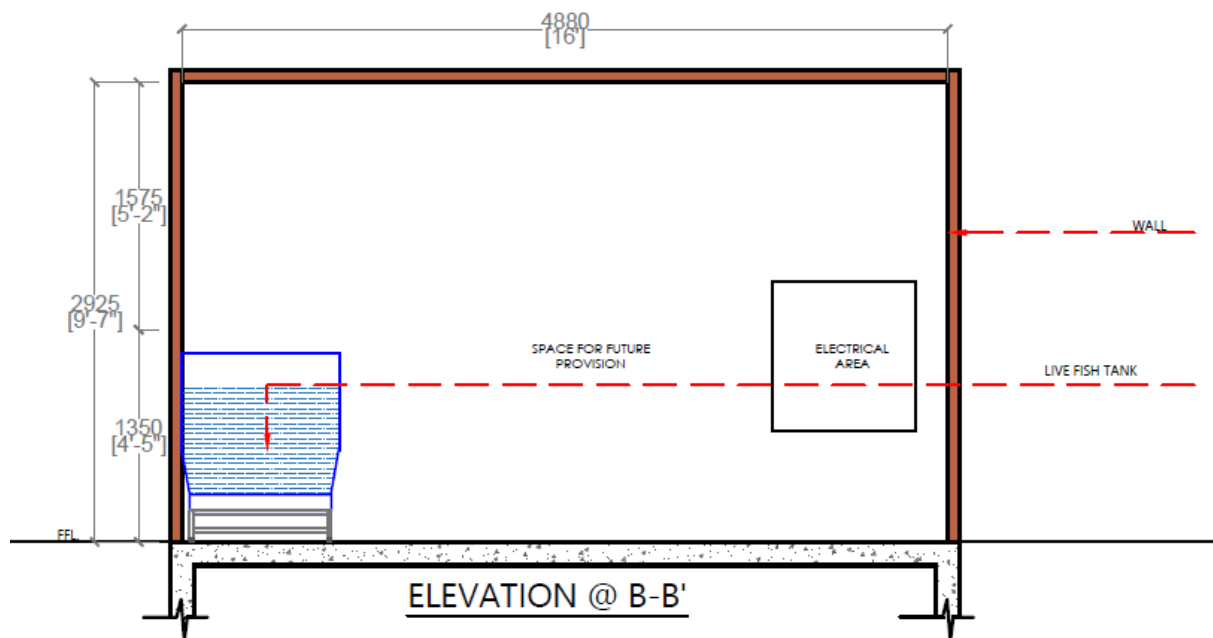
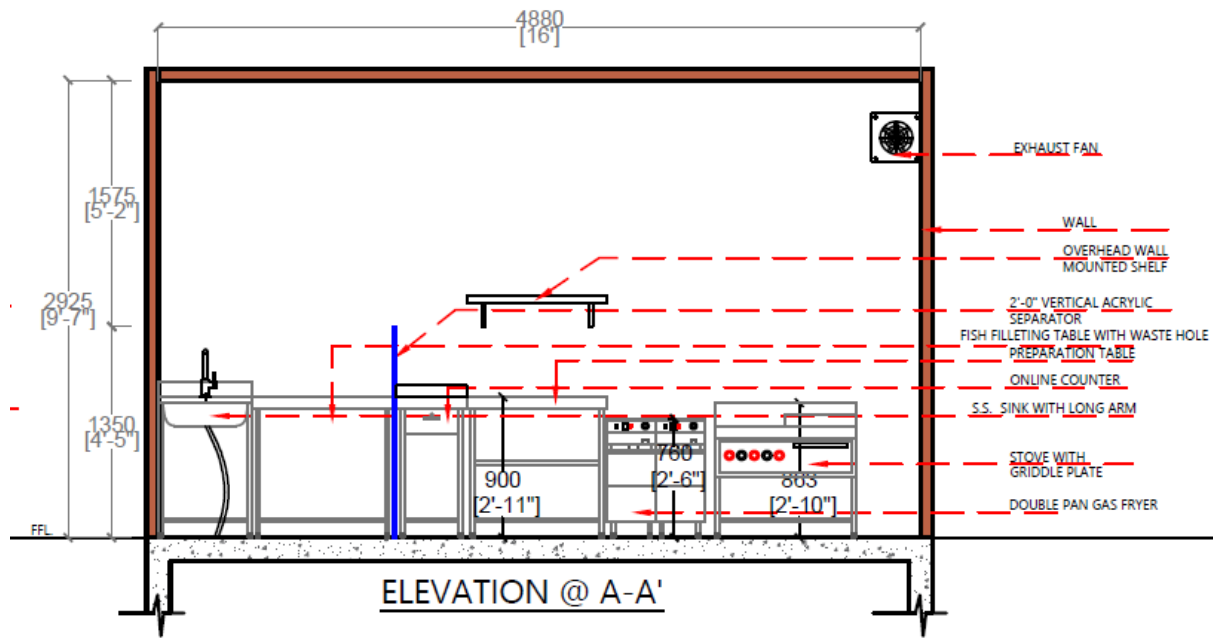
S No	Description	Dimensions	Unit	Qty
1	Split AC unit		Nos	2
2	1.5 KVA Inverter		Nos	1
3	CCTV system			

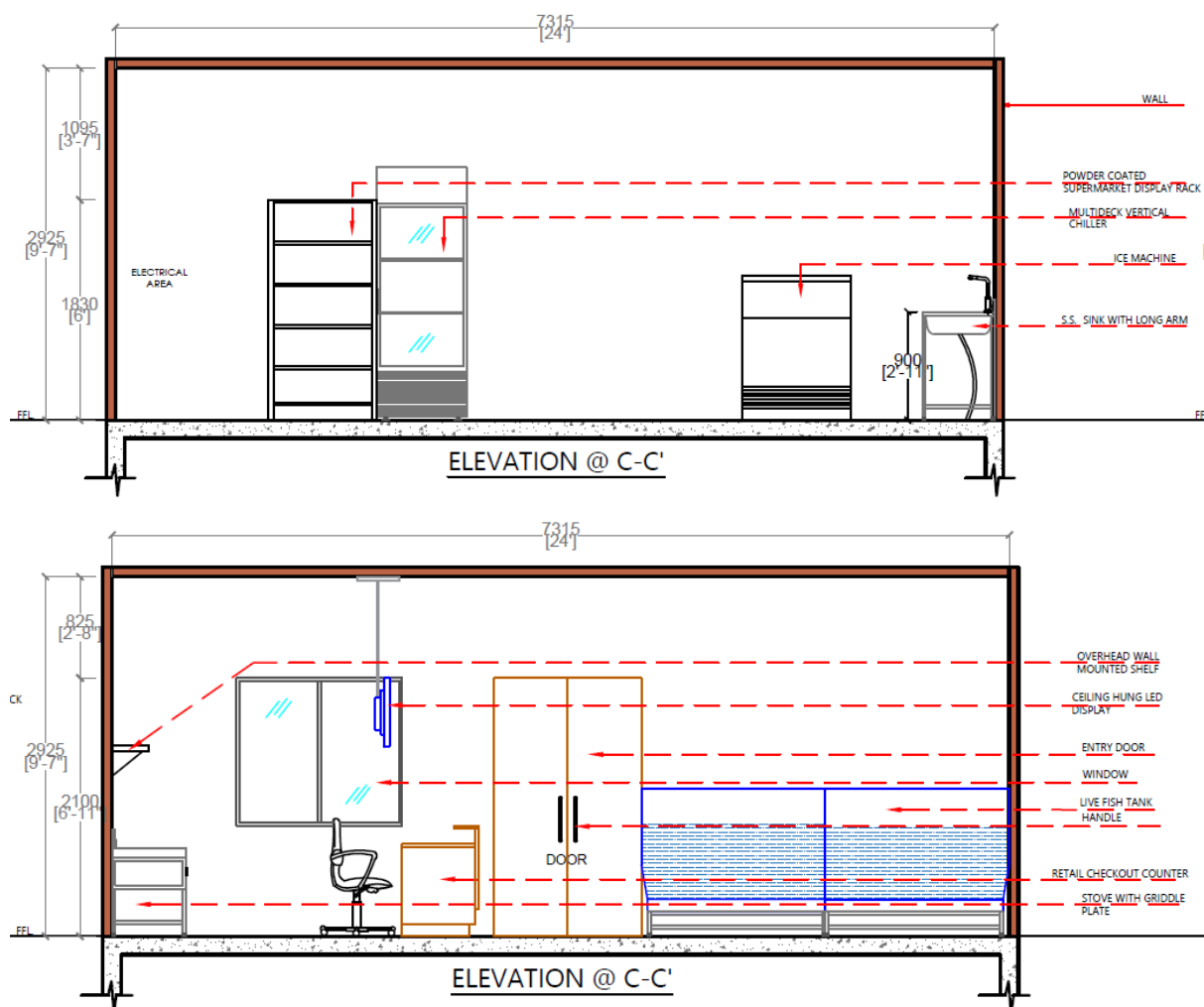
Other Works:

S No	Description	Dimensions	Unit	Qty
1	MS Fabricated office Cabin -Porta Cabin with all Electrical switch sockets		Sq. ft	384
2	All the electrical & plumbing works required as per the layout			Lump Sum
3	Landscaping			Lump Sum
4	Design& Branding works			Lump Sum

Layout:







SCHEDULE OF OPENINGS		
DESCRIPTION	SYMBOL	SIZE
DOOR	D1	1.20x2.10M
WINDOW	W1	1.20x1.20M
SCHEDULE OF FURNITURE/ PRODUCTS		
SL NO	DESCRIPTION	QTY
1	RETAIL CHECKOUT COUNTER	01
2	FISH DISPLAY UNIT	01
3	LIVE FISH TANK (1800 Ltr. each)	02
4	S.S. SINK WITH LONG ARM	01
5	FISH FILLETING TABLE WITH WASTE HOLE	01
6	PREPARATION TABLE	01
7	DOUBLE PAN GAS FRYER	01
8	STOVE WITH GRIDDLE PLATE	01
9	MULTIDECK VERTICAL CHILLER	01
10	SPACE FOR ICE BOXES	01
11	ONLINE BILLING	01
12	ICE MACHINE	01
13	POWDER COATED SUPERMARKET DISPLAY RACK	01
14	CAFE TABLE & STACKABLE CHAIRS(SET OF 4)	01

4.6. Fish Kiosk in Brick and Mortar structure

Equipment/Accessories:

S No	Accessories/Equipment	Dimensions	Unit	Qty
1	Retail Store Checkout Counter Table	900 X 600 X 1150mm	Nos	1
2	Fish Filleting Table with waste hole	900 X 600 X 900 mm	Nos	1
3	Preparation table	900 X 600 X 900 mm	Nos	1
4	Overhead wall mounted shelf	900x300x200 mm	Nos	1
5	Waste Bin without lid	40 ltrs	Nos	1
6	Chopping blocks (Blue Colour)	600 X 600 X50mm	Nos	1
7	Fish display unit	1050 X 750 X 1250mm	Nos	1
8	SS Sink wall mounted (With Long Arm)	600 X 600 X 250 mm	Nos	1
9	Live fish tank – FRP (Fibre Reinforced plastic)	1200 (Each tank Capacity)	Nos	2
10	Landing net rod		Nos	1
11	Aerator air pump		Nos	2
12	Multideck vertical chiller (Capacity 400 litres)	685x 710 x 2057mm	Nos	1
13	Powder Coated Supermarket Display Rack	900 X 600 X 1800mm	Nos	1
14	Double pan gas fryer (16 L)	450x650x850mm	Nos	1
15	Stove with griddle plate	900 X 600 X 863 mm	Nos	1
16	Tabletop weighing machine	30 Kg	Nos	1
17	Bluetooth printer		Nos	1
18	Rotomould ice boxes (100 L)	100 Ltr	Nos	4
19	Waste bin with lid	40 Ltr	Nos	2
20	TV Display Over the display counter and Over kitchen display counter		Nos	1
21	Electric Insect Killer Machine		Nos	1
22	LED flood light for external lighting		Nos	4
23	Spotlight- White Body Spot Track Light		Nos	2
24	Fire extinguisher (5 kg)		Nos	1
25	Fire extinguisher (1 kg)		Nos	1
26	Butchery and fillet Knife (1 of each)		Nos	2

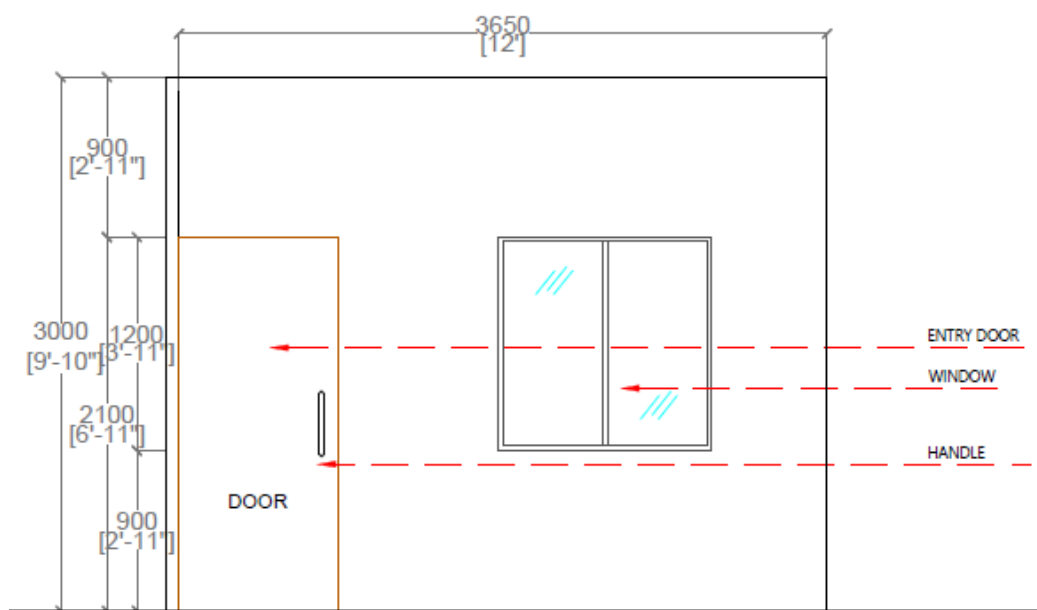
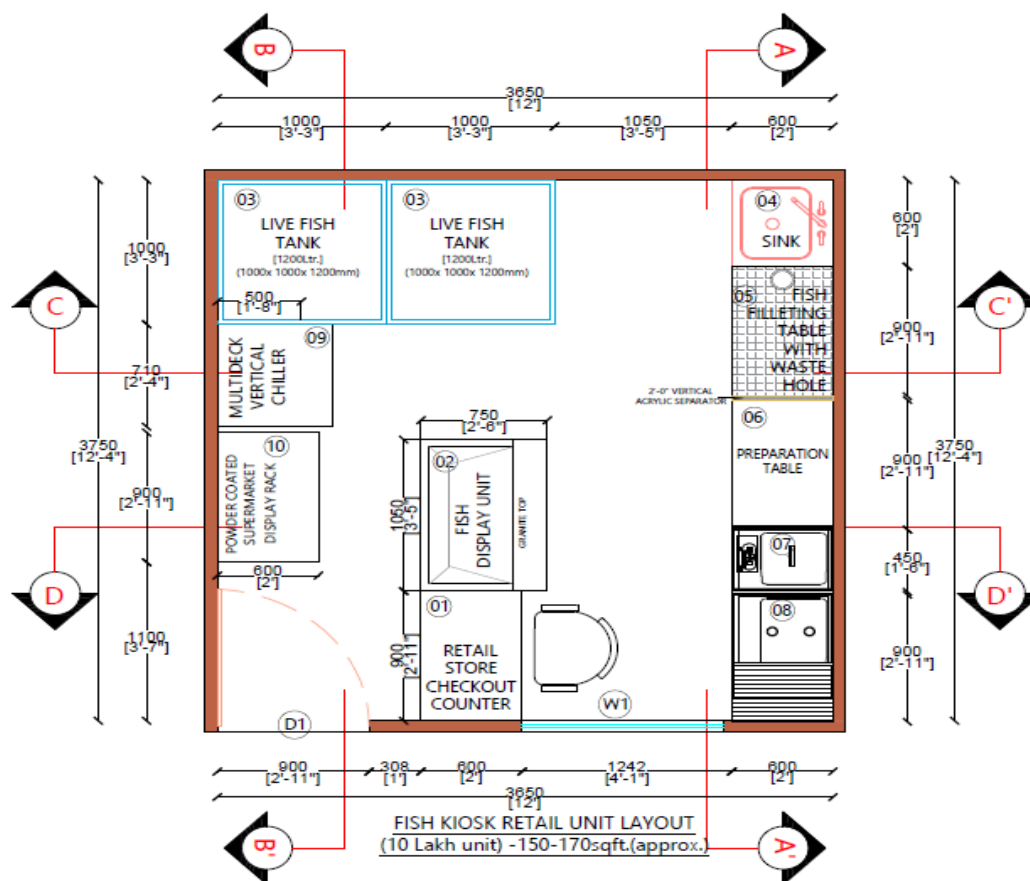
Air Conditioner, Inverter & CCTV Equipment:

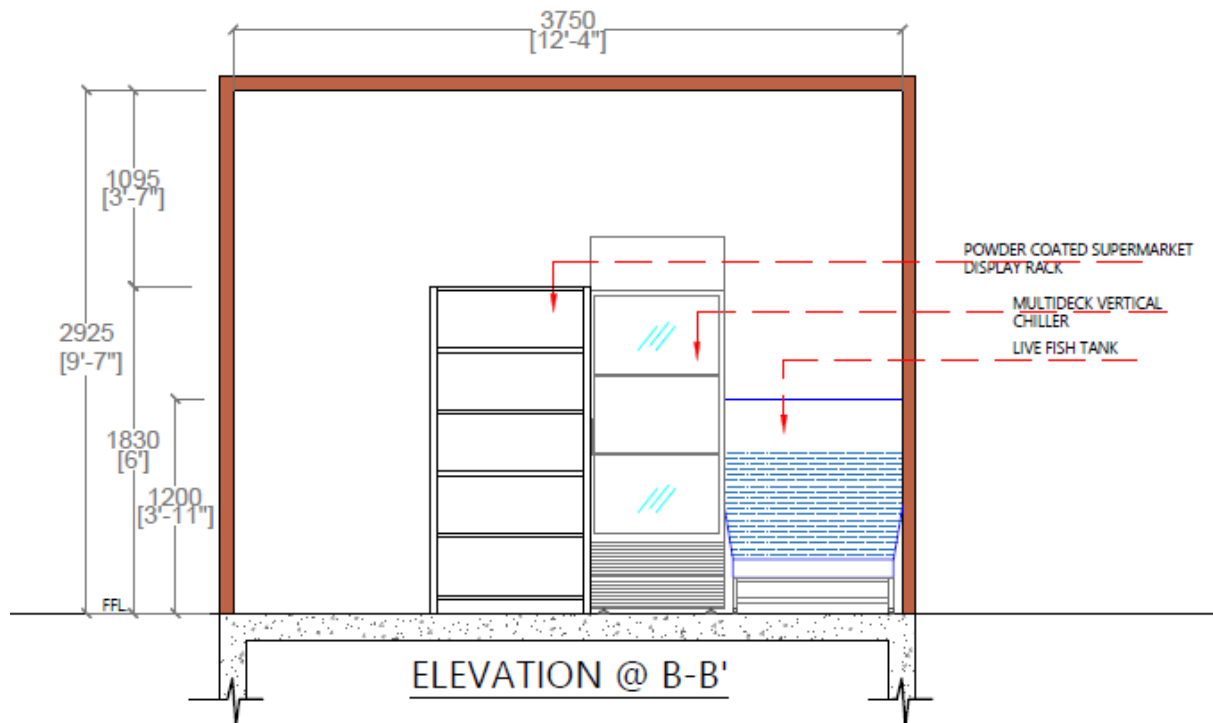
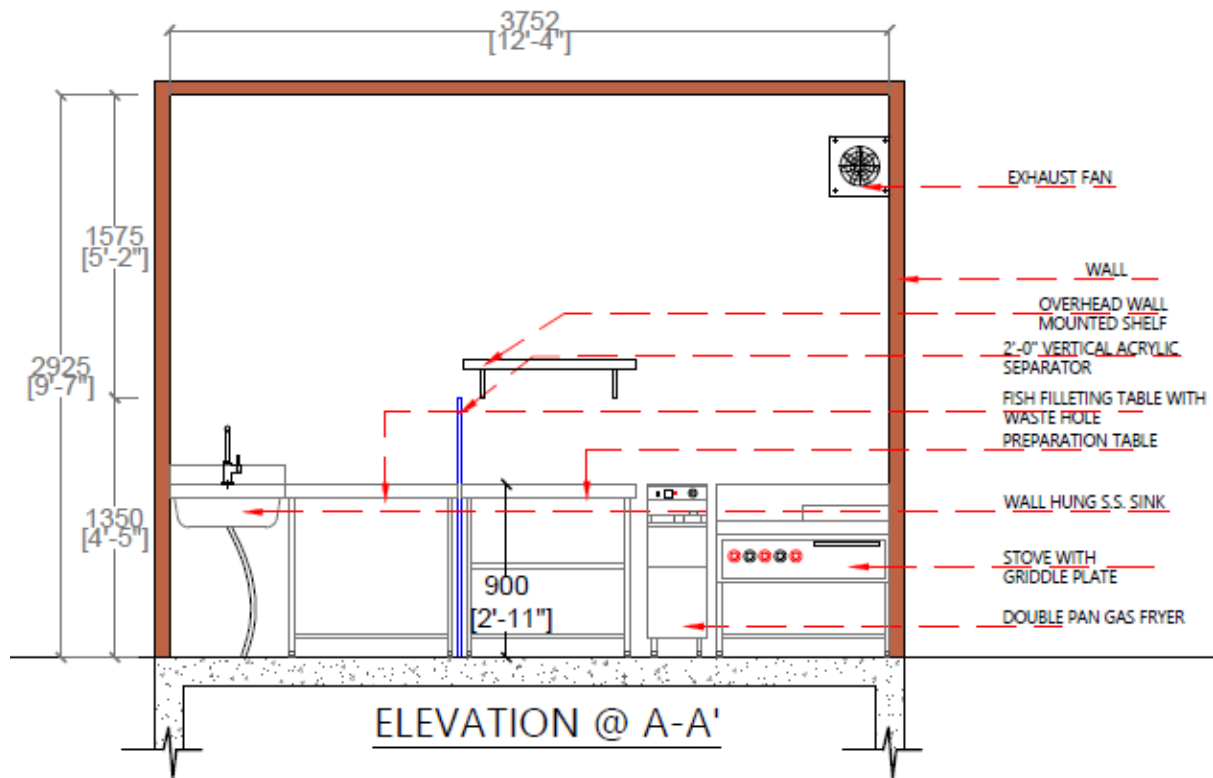
S No	Description	Dimensions	Unit	Qty
1	Split AC unit		Nos	1
2	1.5 KVA Inverter		Nos	1

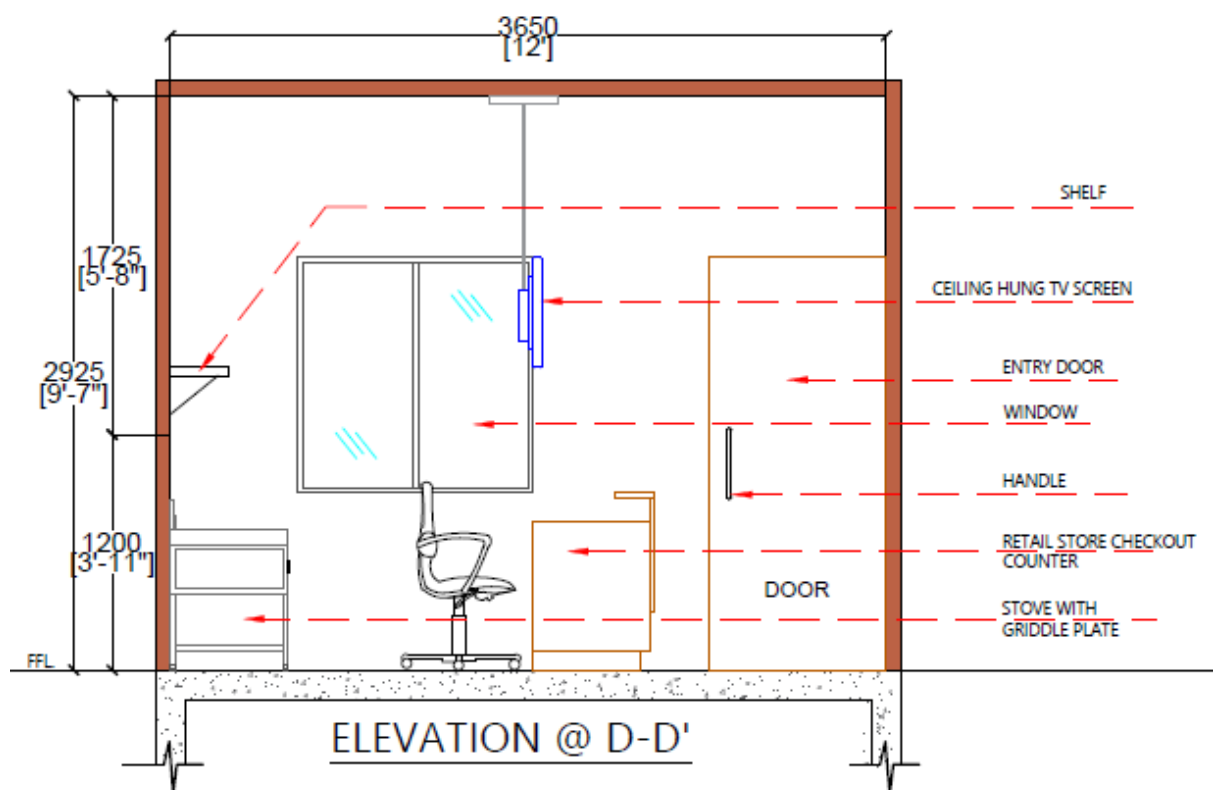
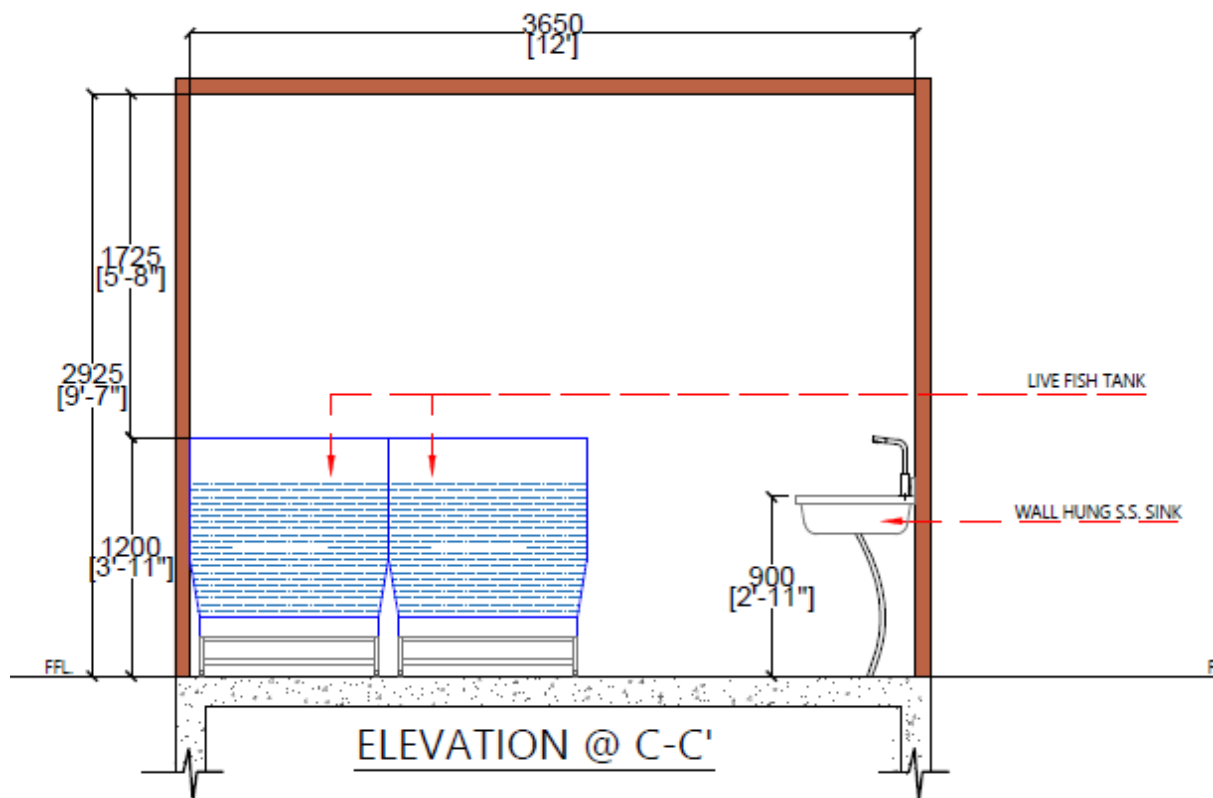
Other Works:

S No	Description	Dimensions	Unit	Qty
1	Electrical & plumbing works required as per the layout			Lump Sum
2	Design& Branding works			Lump Sum
3	Shop Land scaping, beautification civil works (false ceiling, flooring, wall dado, painting in necessary areas and glass work etc.)			Lump Sum

Layout:







<i>SCHEDULE OF OPENINGS</i>		
DESCRIPTION	SYMBOL	SIZE
DOOR	D1	0.90x2.10M
WINDOW	W1	1.20x1.20M
<i>SCHEDULE OF FURNITURE/ PRODUCTS</i>		
SL NO	DESCRIPTION	QTY
1	RETAIL STORE CHECKOUT COUNTER	01
2	FISH DISPLAY UNIT	01
3	LIVE FISH TANK (1200 Ltr. each)	02
4	S.S. SINK	01
5	FISH FILLETING TABLE WITH WASTE HOLE	01
6	PREPARATION TABLE	01
7	DOUBLE PAN GAS FRYER	01
8	STOVE WITH GRIDDLE PLATE	01
9	MULTIDECK VERTICAL CHILLER	01
10	POWDER COATED SUPERMARKET DISPLAY RACK	01

4.7. Fish Kiosk in Porta cabin

Equipment/Accessories:

S No	Accessories/Equipment	Dimensions	Unit	Qty
1	Retail Store Checkout Counter Table	900 X 600 X 1150mm	Nos	1
2	Fish Filleting Table with waste hole	900 X 600 X 900 mm	Nos	1
3	Preparation table	900 X 600 X 900 mm	Nos	1
4	Over head wall mounted shelf	900x300x200 mm	Nos	1
5	Waste Bin without lid	40 ltrs	Nos	1
6	Chopping blocks (Blue Colour)	600 X 600 X50mm	Nos	1
7	Fish display unit	1050 X 750 X 1250mm	Nos	1
8	SS Sink wall mounted (With Long Arm)	600 X 600 X 250 mm	Nos	1
9	Live fish tank – FRP (Fibre Reinforced plastic)	1200 (Each tank Capacity)	Nos	2
10	Landing net rod		Nos	1
11	Aerator air pump		Nos	2
12	Multideck vertical chiller (Capacity 400 litres)	685x 710 x 2057mm	Nos	1
13	Powder Coated Supermarket Display Rack	900 X 600 X 1800mm	Nos	1
14	Double pan gas fryer (16 L)	450x650x850mm	Nos	1
15	Stove with griddle plate	900 X 600 X 863 mm	Nos	1
16	Tabletop weighing machine	30 Kg	Nos	1
17	Bluetooth printer		Nos	1
18	Rotomould ice boxes (100 L)	100 Ltr	Nos	4
19	Waste bin with lid	40 Ltr	Nos	2
20	TV Display Over the display counter and Over kitchen display counter		Nos	1
21	Electric Insect Killer Machine		Nos	1
22	LED flood light for external lighting		Nos	4
23	Spotlight- White Body Spot Track Light		Nos	2
24	Fire extinguisher (5 kg)		Nos	1
25	Fire extinguisher (1 kg)		Nos	1
26	Butchery and fillet Knife (1 of each)		Nos	2

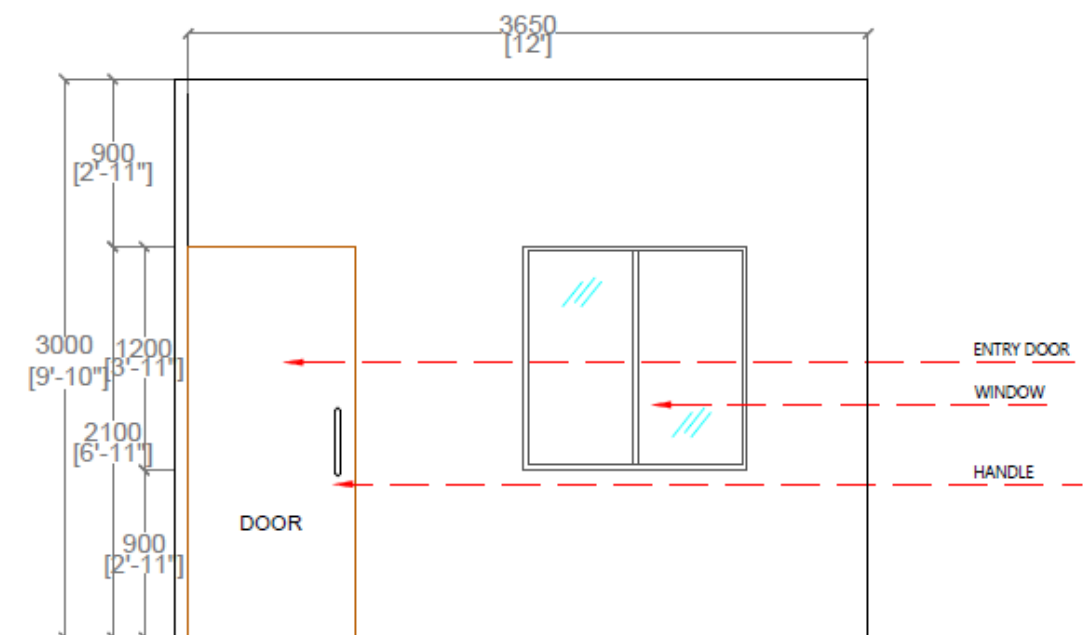
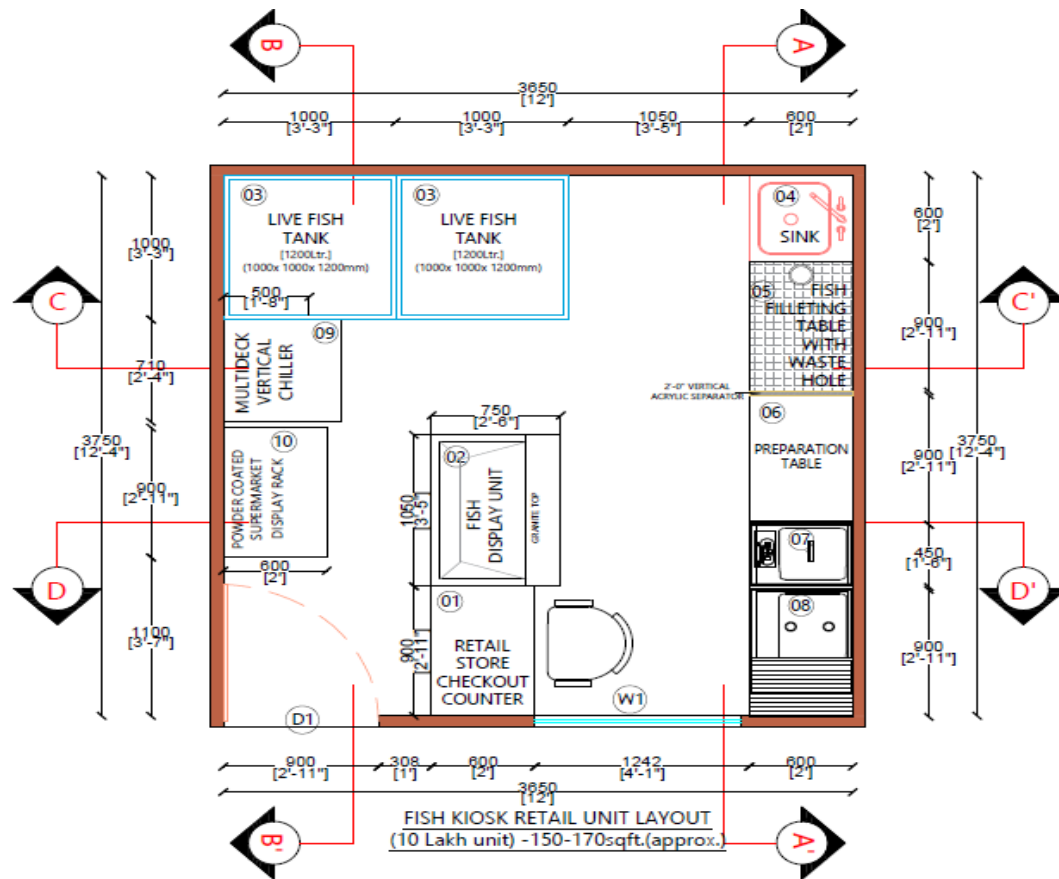
Air Conditioner, Inverter & CCTV Equipment:

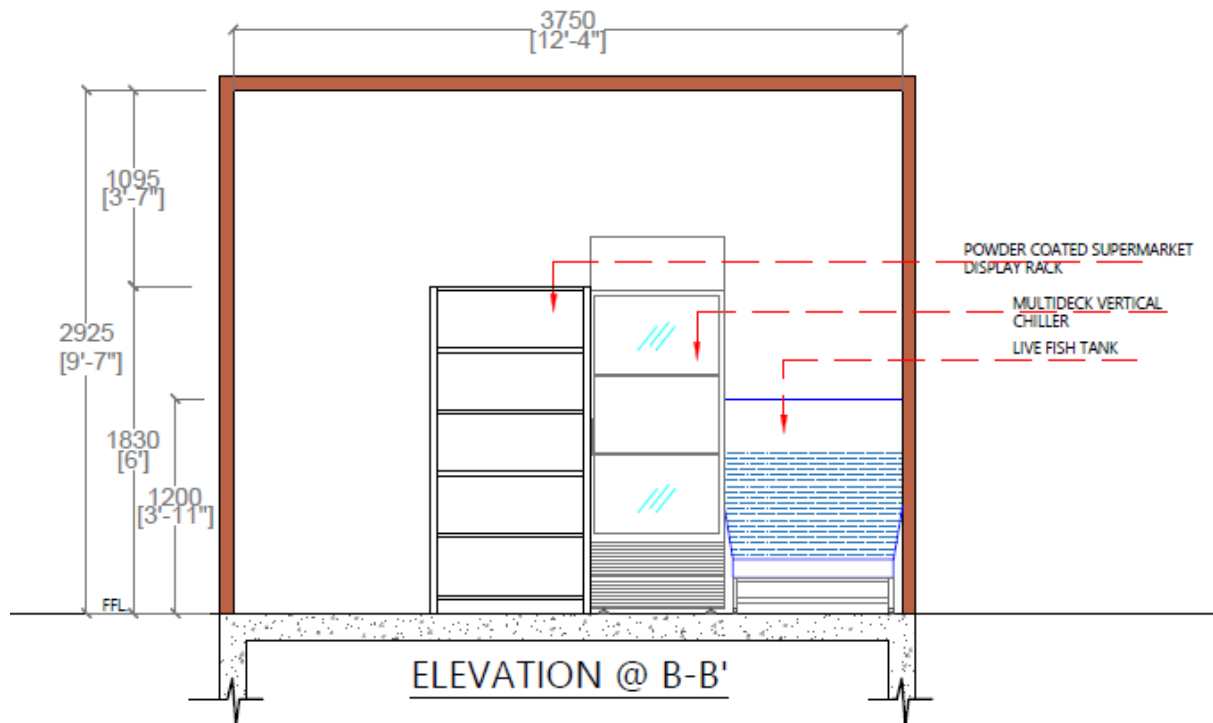
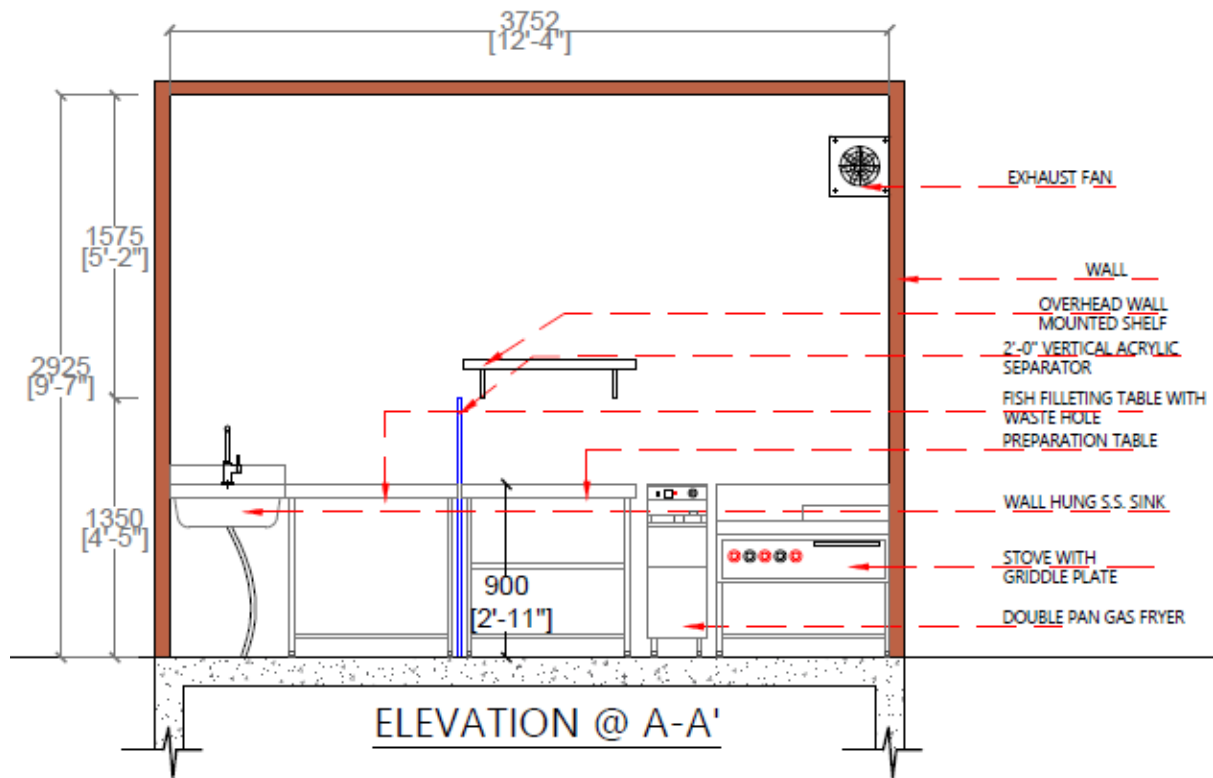
S No	Description	Dimensions	Unit	Qty
1	Split AC unit		Nos	1
2	1.5 KVA Inverter		Nos	1

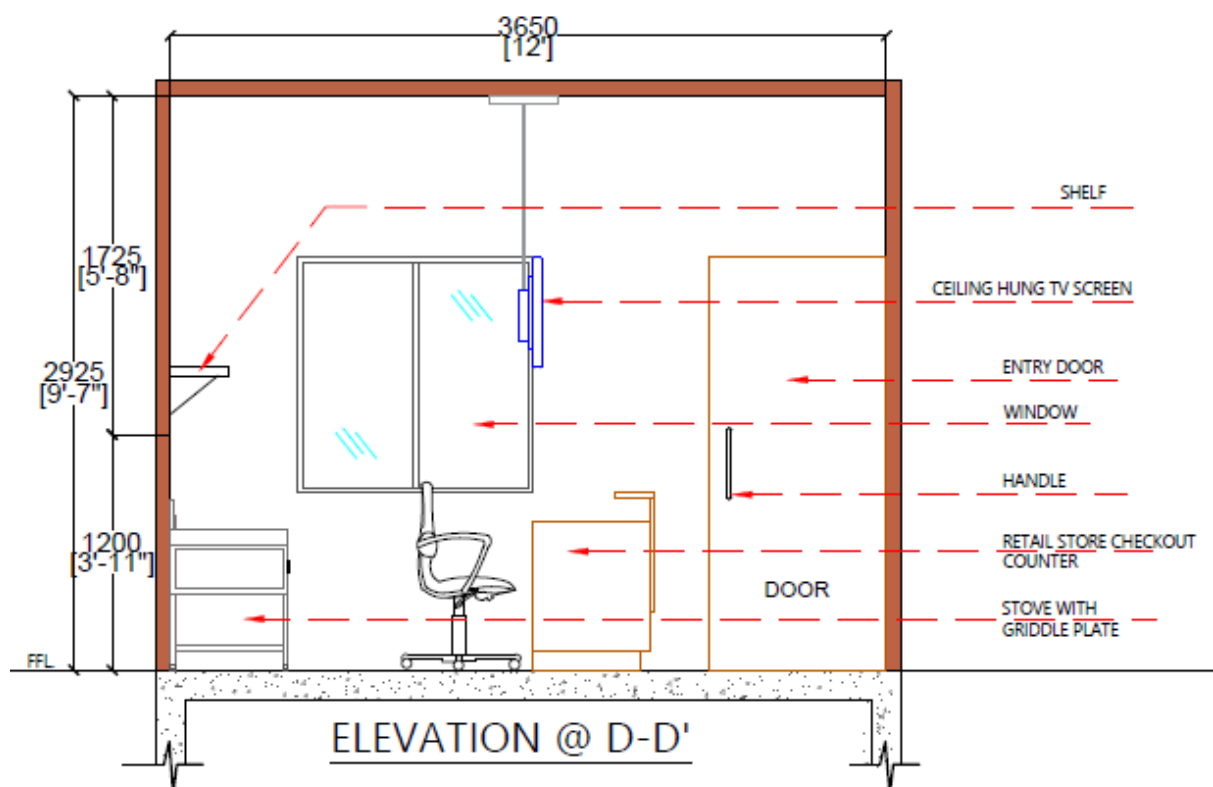
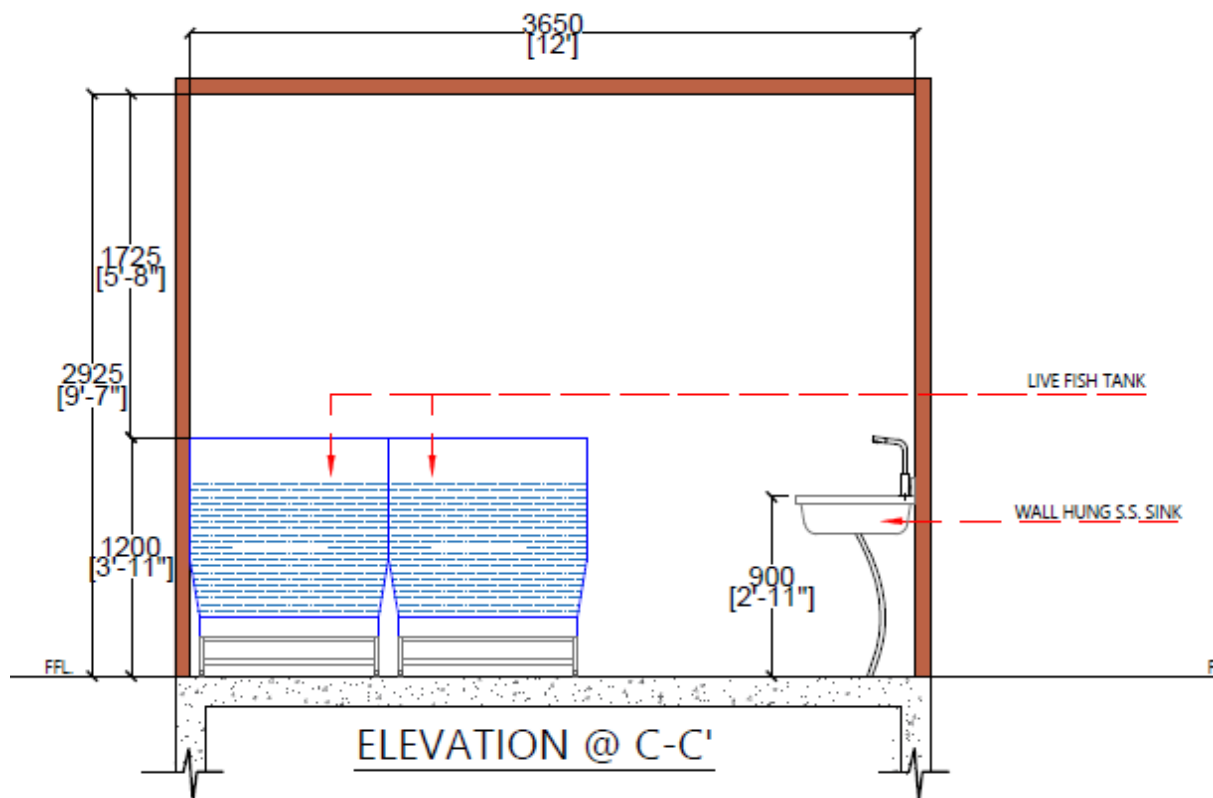
Other Works:

S No	Description	Dimensions	Unit	Qty
1	MS Fabricated office Cabin -Porta Cabin with all Electrical switch sockets		Sq. ft	148.8
2	Civil, Electrical & plumbing works required as per the layout			Lump Sum
3	Landscaping			Lump Sum
4	Design & Branding works			Lump Sum

Layout:







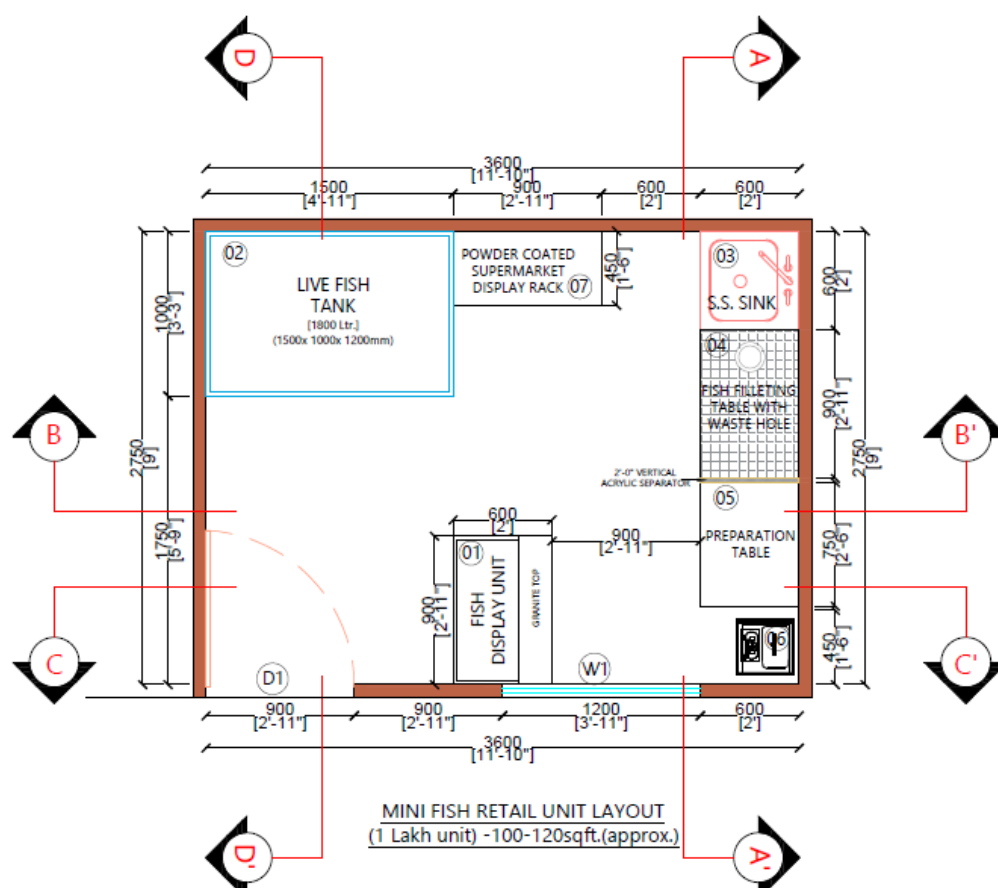
<i>SCHEDULE OF OPENINGS</i>		
DESCRIPTION	SYMBOL	SIZE
DOOR	D1	0.90x2.10M
WINDOW	W1	1.20x1.20M
<i>SCHEDULE OF FURNITURE/ PRODUCTS</i>		
SL NO	DESCRIPTION	QTY
1	RETAIL STORE CHECKOUT COUNTER	01
2	FISH DISPLAY UNIT	01
3	LIVE FISH TANK (1200 Ltr. each)	02
4	S.S. SINK	01
5	FISH FILLETING TABLE WITH WASTE HOLE	01
6	PREPARATION TABLE	01
7	DOUBLE PAN GAS FRYER	01
8	STOVE WITH GRIDDLE PLATE	01
9	MULTIDECK VERTICAL CHILLER	01
10	POWDER COATED SUPERMARKET DISPLAY RACK	01

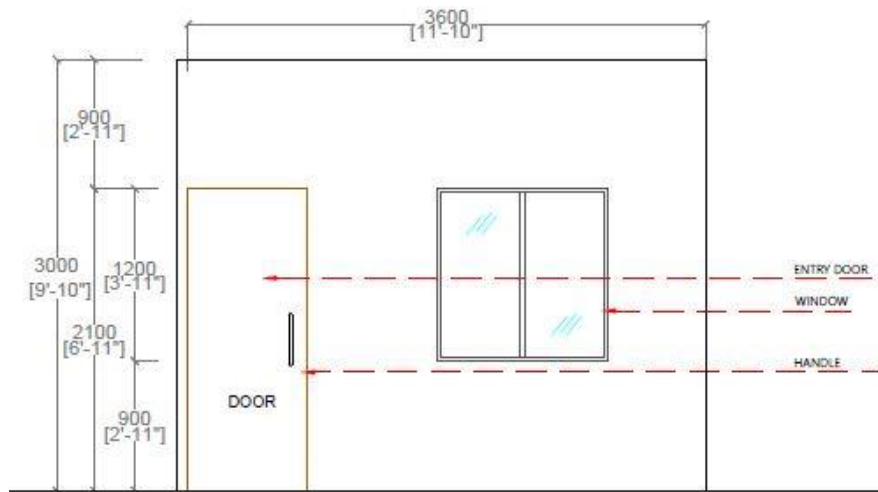
4.8. Mini fish retail outlet

Equipment & Accessories:

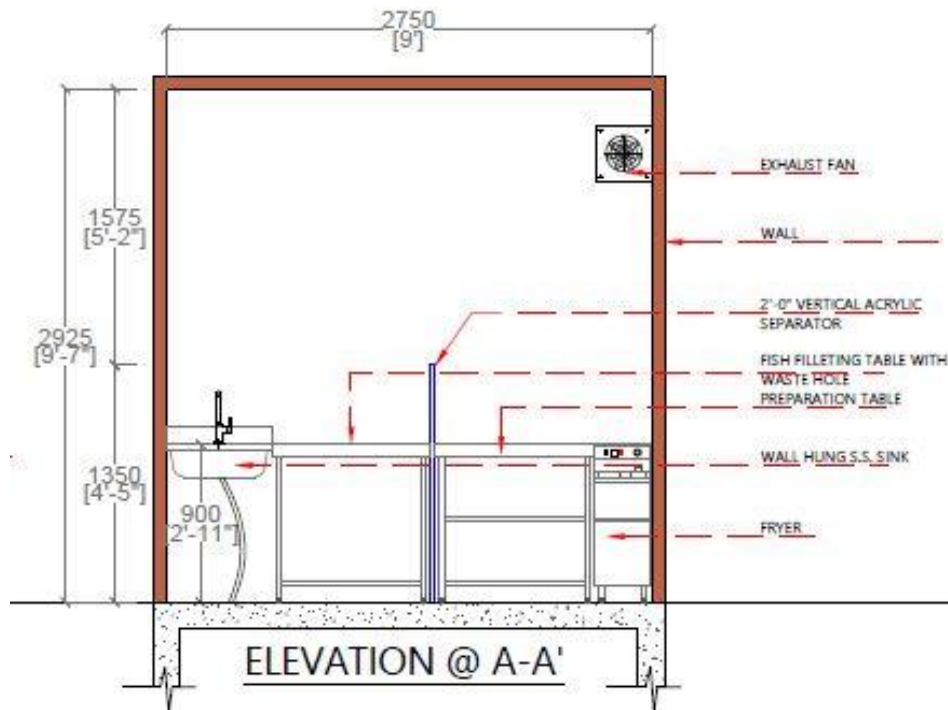
S No	Accessories	Dimensions	Unit	Qty
1	Fish Filleting Table with waste hole – SS 304	900 X 600 X 900 mm	Nos	1
2	Preparation table – SS 304	750 X 600 X 900 mm	Nos	1
3	Waste bin without lid	40 Ltrs	Nos	1
4	Cutting board	600 X 600 X10mm	Nos	1
5	Fish display unit	900X600X200 mm	Nos	1
6	SS Sink wall mounted (with long arm)	600 X 600 X 250 mm	Nos	1
7	Live fish tubs – FRP (Fibre Reinforced Plastic fish tubs)	1800 ltr	Nos	1
8	Landing net rod		Nos	1
9	Cover Net to cover live fish tubs.		Nos	1
10	Butchery and fillet Knife (1 of each)		Set	1
11	Bluetooth printer		Nos	1
12	Aerator air pump		Nos	1
13	Powder Coated Supermarket Display Rack	900X450x1800 mm	Nos	1
14	Single pan Gas fryer (9 L)	300x300x250 mm	Nos	1
15	Tabletop Weighing Machine	30 Kg	Nos	1
16	Rotomould Ice Boxes (100L)	100 LITRE	Nos	3
17	Designing and branding works			Lump Sum

Layout:

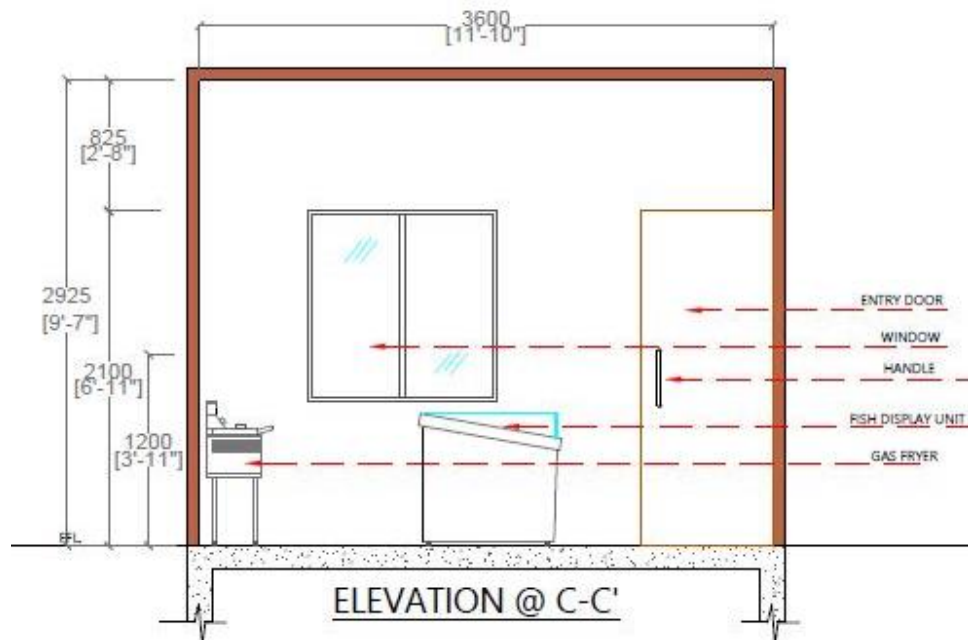
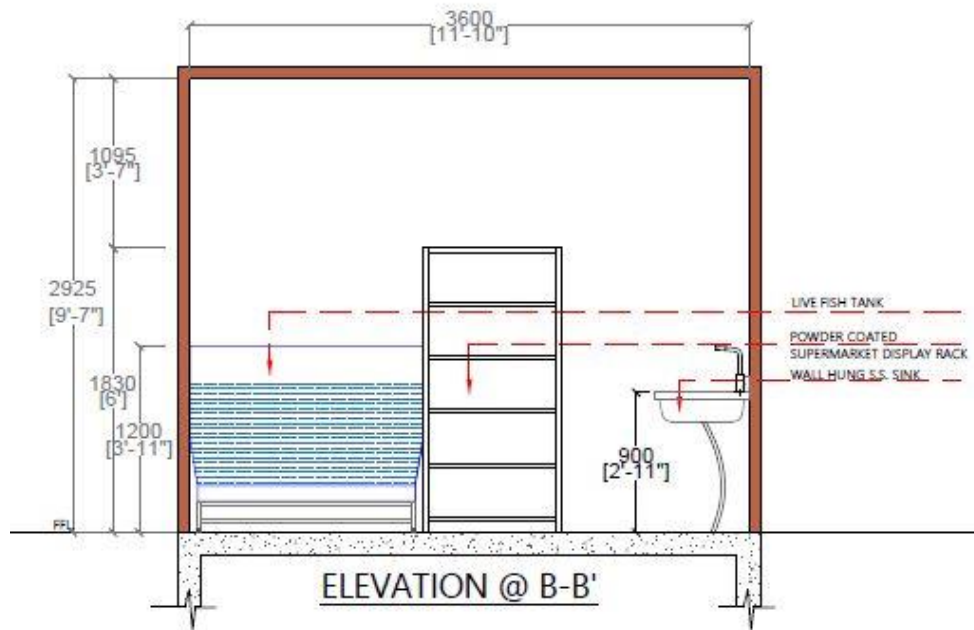


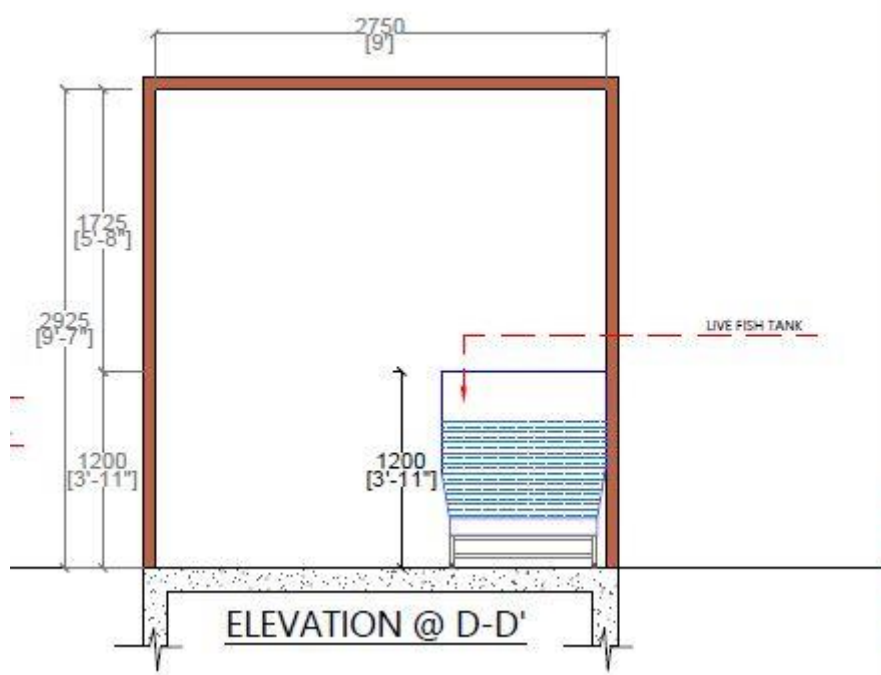


FRONT ELEVATION



ELEVATION @ A-A'





SCHEDULE OF OPENINGS		
DESCRIPTION	SYMBOL	SIZE
DOOR	D1	0.90x2.10M
WINDOW	W1	1.20x1.20M
SCHEDULE OF FURNITURE/ PRODUCTS		
SL NO	DESCRIPTION	QTY
1	FRESH FISH DISPLAY	01
2	LIVE FISH TANK(1800ltr.)	01
3	S.S. SINK	01
4	FISH FILLETING TABLE WITH WASTE HOLE	01
5	PREPARATION TABLE	01
6	GAS FRYER	01
7	POWDER COATED SUPERMARKET DISPLAY RACK	01

4.9. Fish Vending cum Food Cart (Modified 4-Wheeler Vehicle)

Technical Specification:

Vehicle should be delivered with all essential accessories as it will be registered under motor vehicle registration Act

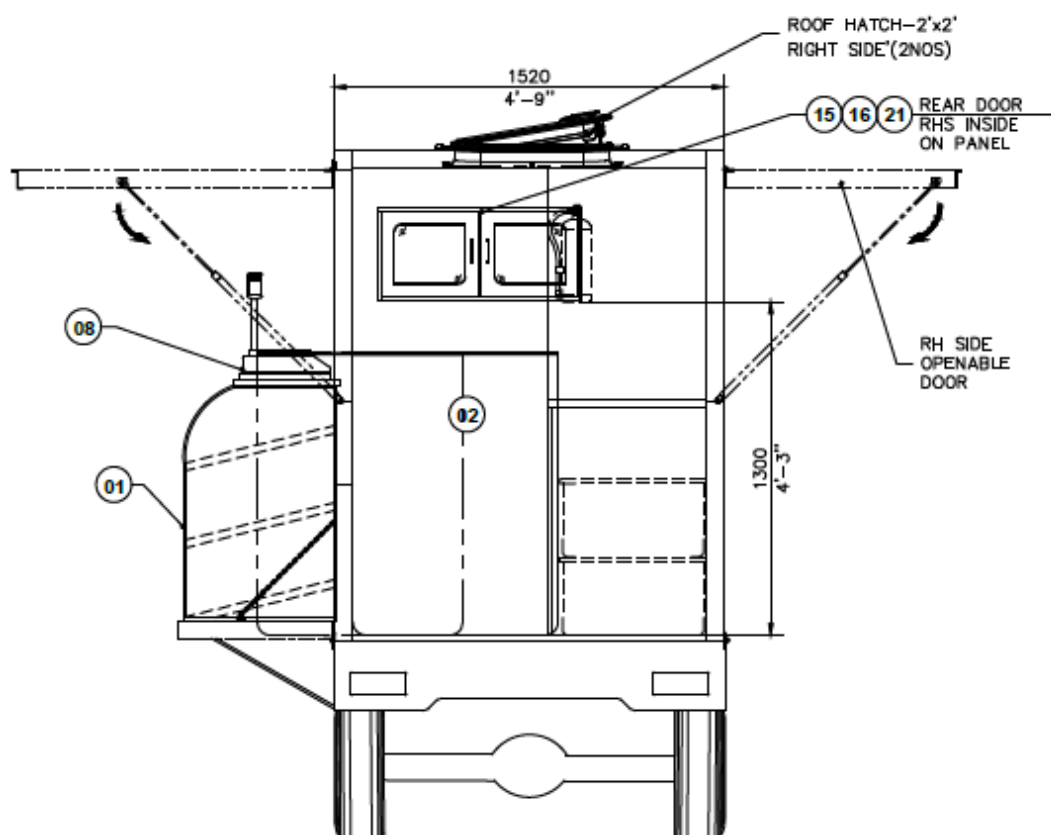
Vehicle Particulars	Specifications
Payload(kg)	1000 to 1300 kg
Load Body dimension (Minimum L*B) – GRP Container, which includes chassis length	8'6" x 4' 9"
Minimum Warranty period required	3 years
Length and width of the GRP Container Box	8'6" x 4' 9" (Minimum) The body building to be customized using outside GRP (Fire retardant ISO material) & Inside SS304 sheet with metallic joints & corners
Movement system for Display Units & Live tank	Movement system to move fish display units 2' (Fully) & Live tank 1' to outside while working (As shown in drawings)
Public Addressing system	Recording set, Mike and Speaker
Tracking system	GPS system
Branding	Branding of outer, Inner and all exposing areas should be done according to specifications provided by the Department

Body Building specifications:

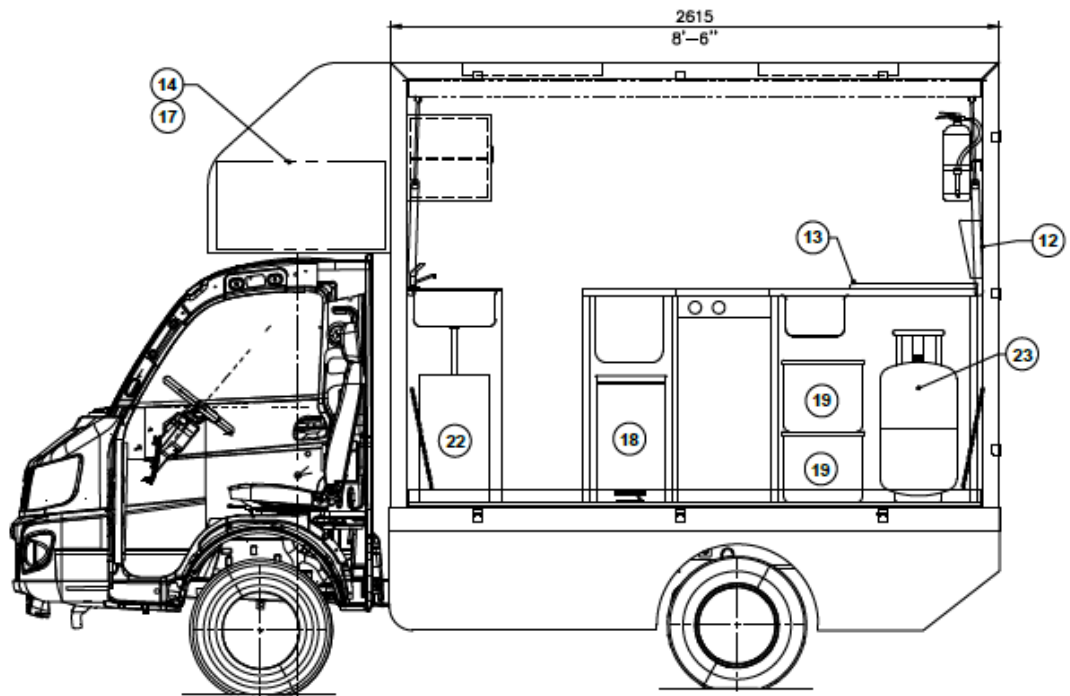
S.No	Accessories/Items	Units	Quantity	Size LxBxH (All in mm)
1	Fish display unit with trays	Nos	2	800x600x915 mm
2	Live Fish Tank - 304 SS Food Grade	Nos	1	800x600x1100 mm
3	Landing net rod	Nos	1	
4	Cover net	Nos	1	800 x 600 mm
5	Dip net	Nos	1	800 x 600 mm
6	Wash Sink with Tap & Hand shower	Nos	1	458 x 410 mm
7	Bluetooth Printer	Nos	1	
8	Pack Sealing Machine	Nos	1	
9	Weighing Machine 30 kgs capacity	Nos	1	
10	Deep fryer gas based (12 L)	Nos	1	600x400x915 mm
11	Gas based griddled plate	Nos	1	600x400x915 mm
12	Preparation Table	Nos	1	600x900x915 mm
13	Cutting Tools (8" Chef's Knife, 7" Vegetable chopping Knife, 6.5" Multi-purpose knife, 4.5" Delicate work knife, Scissors)	Set	1	
14	Cutting board - Polycarbonate board	Nos	1	600 x 545 mm
15	Water Tank (HDPE - 150 Ltr)	Nos	1	725x725x375 mm
16	CFL Bulbs (9 watts)	Nos	4	
17	Portable CFL UPS	Nos	4	
18	Water tap outside the vehicle	Nos	1	
19	Dust Bin with lid (50Ltrs)	Nos	2	
20	Rotomolded boxes with Drain (50L)	Nos	3	570 x 355 x 305mm
21	Liquid Waste Collecting Tank (50 Ltr Tank)	Nos	1	250 x 250 x 800 mm

22	Storage Rack with 2 portions	Nos	1	795 x350 x360 mm
23	Liquid waste water collection bin (50 L)	Nos	1	
24	Provision for Commercial Gas Cylinder	Nos	1	
25	Fire extinguisher (2kg)	Nos	1	
26	Branding with illuminating lighting (Full Body Exterior and Interior Branding as specified by the Department)		Lump Sum	

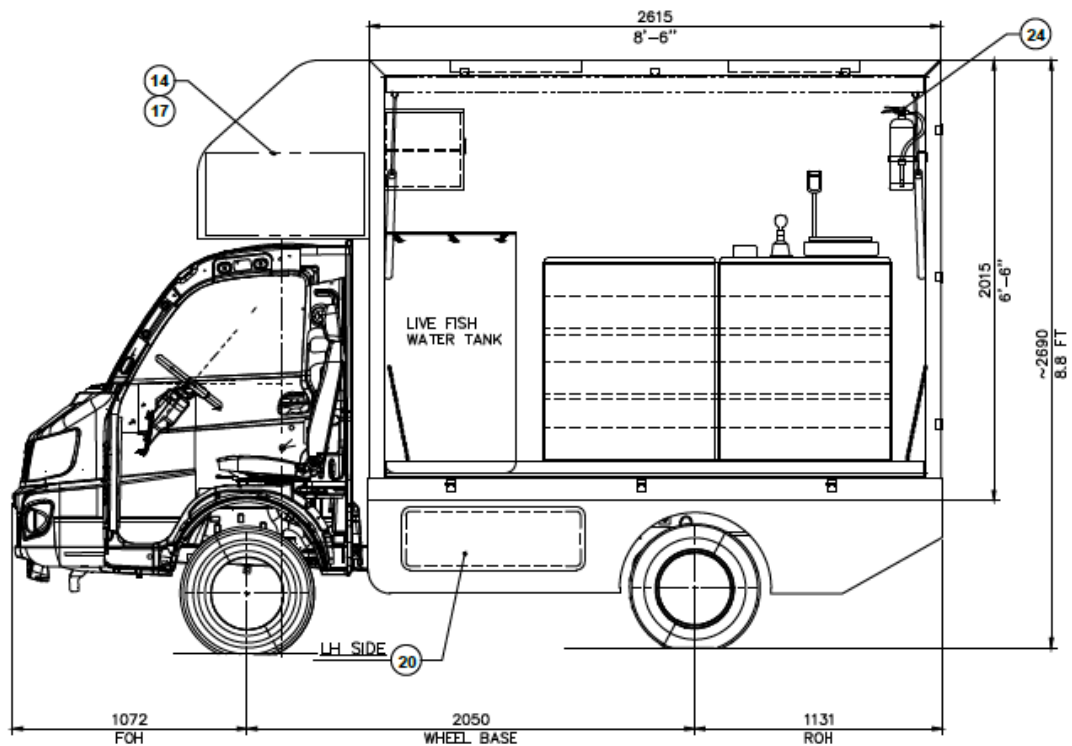
Lay out:



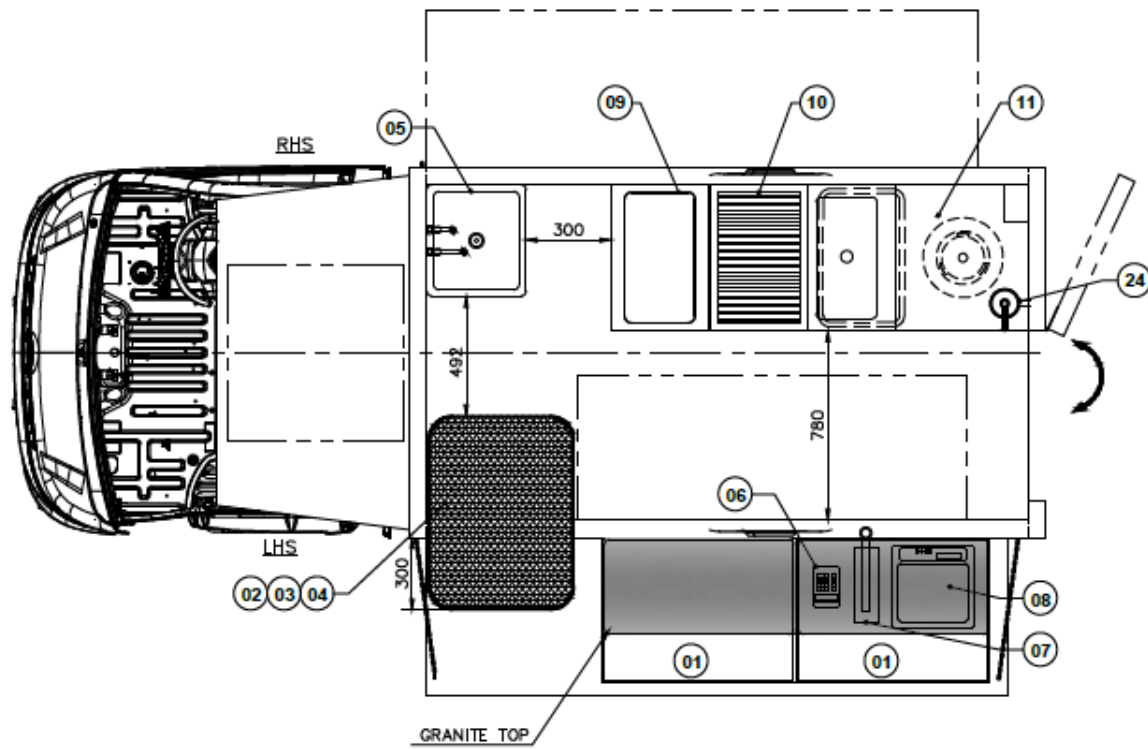
REAR VIEW
(REAR DOOR NOT SHOWN)



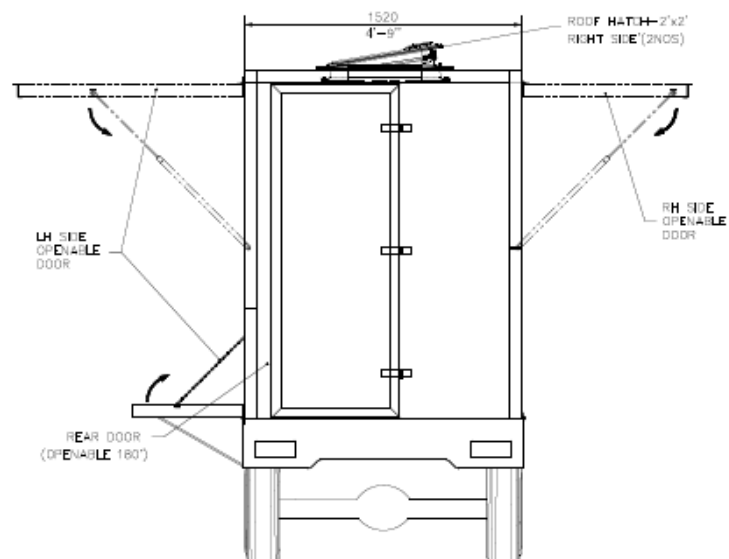
FRONT VIEW
SHOWING RH SIDE EQUIPMENTS



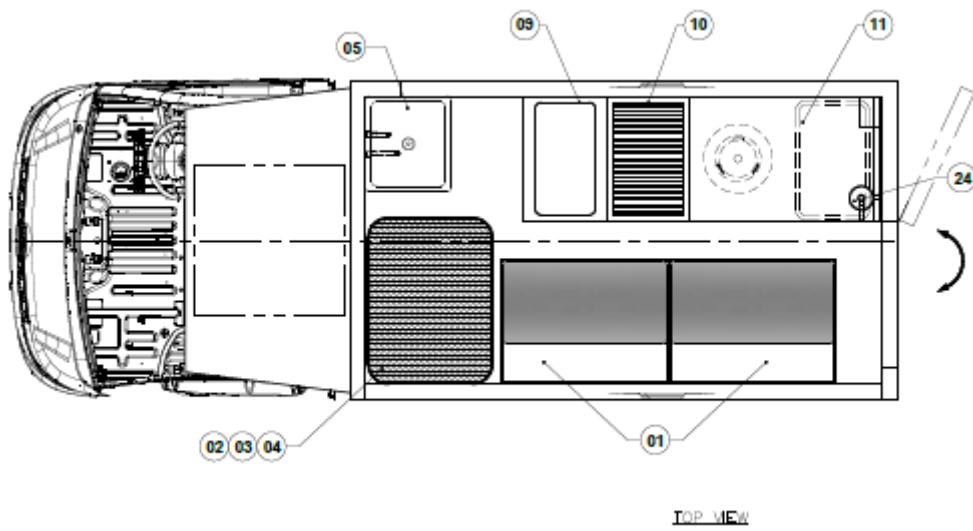
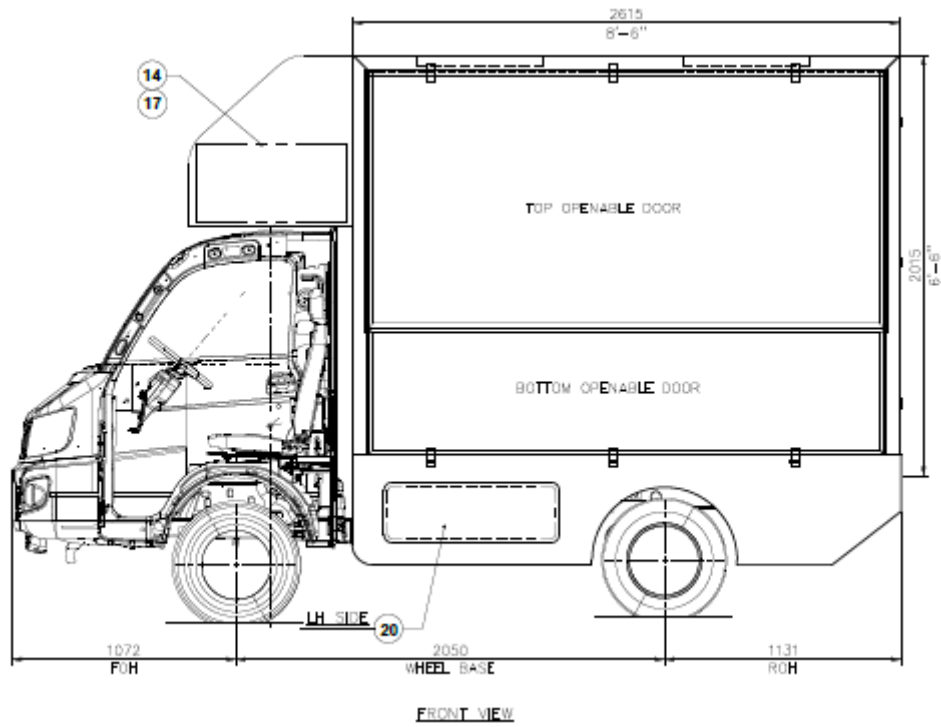
FRONT VIEW
SHOWING LH SIDE EQUIPMENTS



TOP VIEW



REAR VIEW



24	FIRE EXTINGUISHER - ABC TYPE	2 KG
23	COMMERCIAL GAS CYLINDER	19 KG
22	LIQUID WASTE WATER COLLECTION BIN	50 LITER STD
21	STORAGE BOX (LOOSE ITEMS)	795 x 350 x 380
20	CUSTOMIZED LIQUID WASTE WATER COLLECTING TANK	250 x 250 x 800
19	ICE BOX - (50 LITER)	570 x 355 x 305
18	DUST BIN WITH LID	50 LITER STD
17	WATER TAP WITH FITTINGS	STD
16	PORTABLE CFL UPS	12V, 7AH LITHIUM ION BATTERY, CFL HOLDER 90% RECHARGE IN 6 HRS STD
15	CFL BULB	9 W - STD
14	WATER TANK - 150 LITER	725 x 725 x 375
13	CUTTING BOARD - PLOY / HDPE	600 x 545
12	CUTTING TOOLS	8" CHEF KNIFE, 7" VEGETABLE CHOPPING KNIFE, 6.5" MULTIPURPOSE KNIFE, 4.5" DELICATE WORK KNIFE, SCISSORS
11	BUTCHER / PREPARATION TABLE	600 x 900 x 915
10	GRIDDLED PLATE - GAS BASED	600 x 400 x 915
09	DEEP FRYER - GAS BASED THERMOSTAT CONTROL AUTO CUTOFF TABLE TOP	600 x 400 x 915
08	WEIGHING MACHINE	30KG CAPACITY
07	PACK SEALING MACHINE	12" LENGTH
06	BLUE TOOTH PRINTER	3MM THERMAL , AUTO CUTTER
05	WASH SINK	458 x 410
04	COVER NET	MESH SIZE 2.5" 35 PLY
03	DIP NET	NYLON NET WITH 6 MM HDPE PERIPHERY ROPE
02	LIVE FISH WATER TANK (500 LITER)	800 x 800 x 1100
01	FISH DISPLAY UNIT WITH TRAY AND GRANITE ON TOP	800 x 800 x 915
SR	ITEM DESCRIPTION	SIZE

4.10. 3-Wheeler Fish Vending Cart (Modified Electric Vehicle)

Vehicle should be delivered with all essential accessories as it will be registered under motor vehicle registration Act

Sl. NO	Particulars	Specifications	Documents to be attached
<u>A</u>	Vehicle specifications	Vehicle should be Homologated with 3 Phase AC induction motor with Peak power of 8000 W. Batteries are to be of minimum 140 AH capacity.	Approval certificate as approved by ARAI/ICAT/CIRT/VRDE
1	Load Carrying Capacity	Minimum 500 KG payload	
42	Climbing Capacity	Minimum 7 Degrees	
<u>B</u>	Motor		
1	Motor Type	AC induction motor (or) BLDC Motor	
2	Motor Power	Minimum: Rated 3500 W, Peak Power 8000 W	
<u>C</u>	WARRANTIES		
1	Complete Vehicle (with Comprehensive insurance and maintenance)	1	Vehicle Manufacturer Certificate
2	Motor and Controller	1	Vehicle Manufacturer Certificate
3	Battery	3 years	Battery Manufacturer Undertaking
4	Battery Charging unit	Source Domestic 16 A, AC socket,,230 volts, through a specialized off board charger. Warranty-1 year	Battery Manufacturer Undertaking

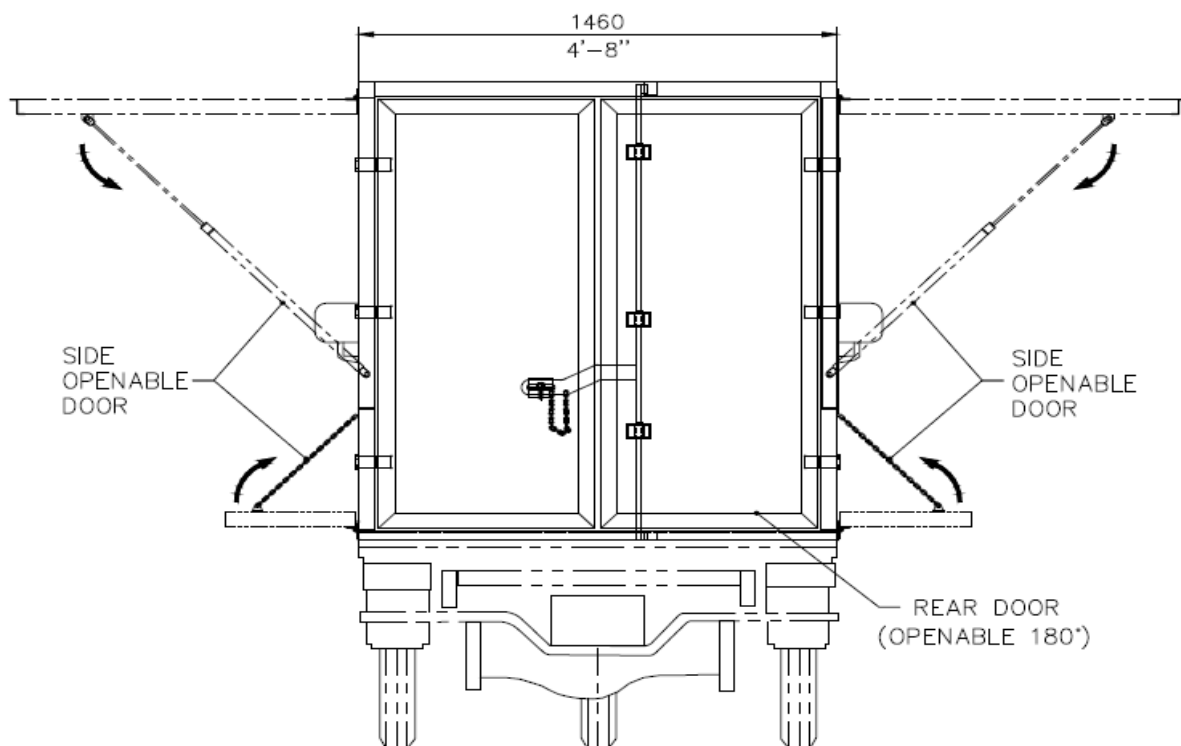
The battery should be standard Lithium iron phosphate with minimum 100ah capacity and 48V battery voltage not less than 97% with the charging cable and accessories. The battery should support minimum 70 kms with single charge and minimum warranty required period is for 3 years (or) **minimum 1200 cycles(or) 1 lac Kms.** whichever is earlier and also to provide the BMS, operating temperature between 0-55 degree C, if the battery was found faulted then the same needs to be replaced and the supplier has to provide the service center details in the proposal. Maximum Charging time for EVs: 6 hrs or less, authorized certificate/declaration needs to be provided by the agency as proof. Non-performance or performance below specified standards and low quality of vehicles and associated accessories may liable for removable from empanelment and the associated expense will be recovered from the agency.

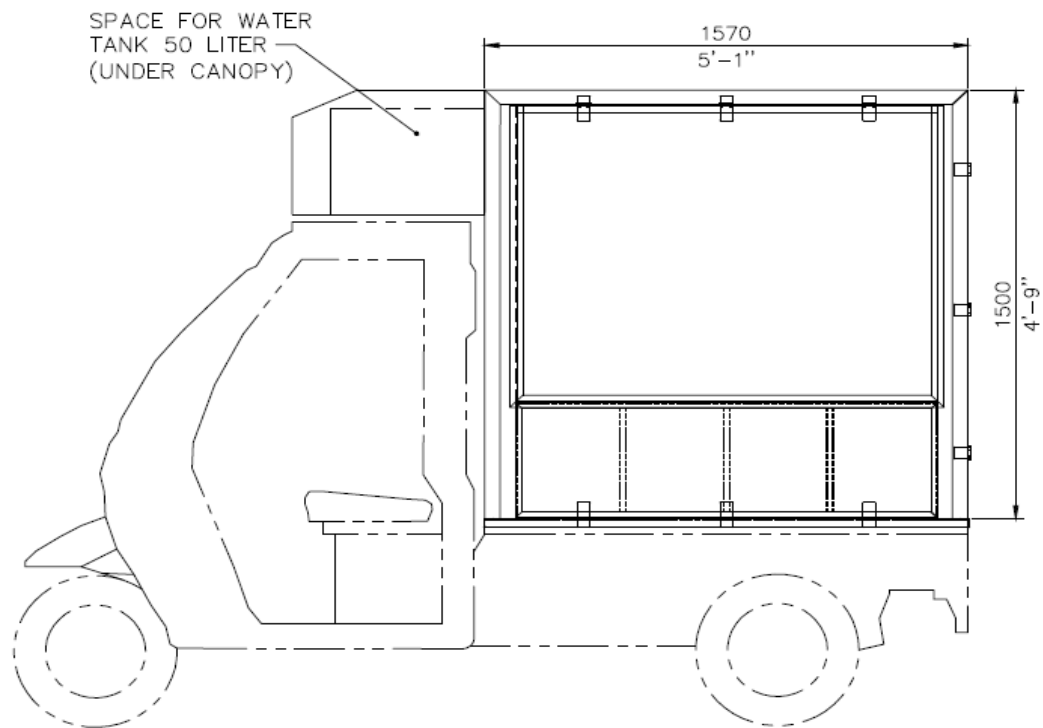
Body Building specifications:

	Particulars	Specifications
1	Outer wall panel	50 mm (Minimum) GRP sheets with quality PUF insulation
2	Inner wall Panels	Suitable SS-304 Pre-painted sheets
3	Dimensions of the GRP Container	5' x 4'9"x4'8"
4	PA system	Recording set, Microphone and Speaker
5	Tracking system	GPS system
6	Bluetooth Printer	Bluetooth Printer compatible with 3" bill rolling paper
7	Both the sides horizontally opening during business	Both the sides total open horizontally with hydraulic system towards upwards
8	Water tank (50 ltrs)	500 mmx300 mmx370 mm

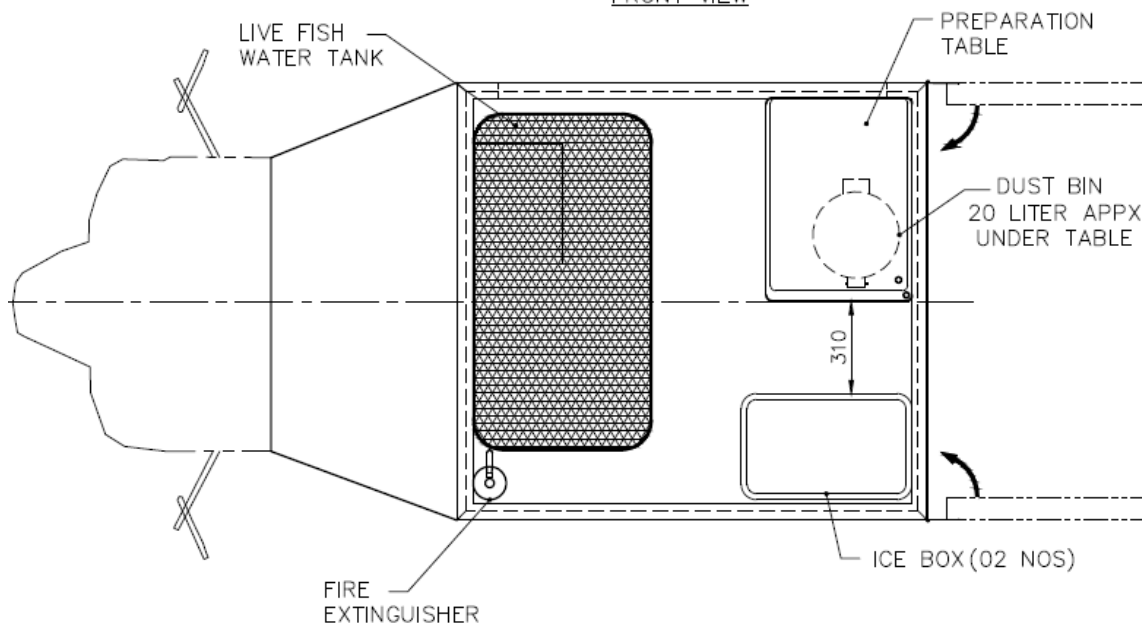
S.No	Accessories/Items	Size (LxBxH)	Units	Quantity
1	Weighing Machine with backup (30kg Capacity)		Nos	1
2	SS 304 Grade surface table with hole (Detachable)	680 mm x 490 mmx915 mm	Nos	1
3	Rotomolded boxes with Drain – 50 Ltr	570mmx355mmx305mm	Nos	2
4	Portable CFL UPS (12V ,7Ah)		Nos	2
5	Branding with illuminating lighting (Full Body Exterior, Interior Branding as specified by the Department)			Lump Sum
6	Dust Bin Standard – 20 Ltrs		Nos	2
7	Live Fish Water Tank (SS 304 grade tank)	1130mm x600 mm x915mm	Nos	
8	Dip Net	1200 mm x 600 mm	Nos	1
9	Cover net	1200 mm x 600 mm	Nos	1
10	Polycarbonate sheet (30 mm thickness)	645 mmx460 mmx 30 mm	Nos	1
11	Water Tank (HDPE - 50L)	500 mmx300 mmx 370 mm	Nos	1
12	CFL Bulbs (9 watts)		Nos	2
13	Water tap outside the vehicle		Nos	1
14	Fire extinguisher - ABC (2kg)		Nos	1

Lay out:





FRONT VIEW



TOP VIEW

WEIGHING MACHINE	30KG CAPACITY
DUSTBIN	20 LITER
CUTTING BOARD - POLYCARBONATE	645 x 460 x 30
PREPARATION TABLE	680 x 490 x 915
WATER TANK - 50 LITER	500 x 300 x 370
FIRE EXTINGUISHER	2 KG
STORAGE BOX (LOOSE ITEMS)	500 x 300 x 400
ICE BOX - (50 LITER)	570 x 355 x 305
LIVE FISH WATER TANK (620 LITER)	1130 x 600 x 915
ITEM DESCRIPTION	SIZE

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