COVER PAGE AND DECLARATION

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Specialisation:	operation management
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1.1 Introduction

This is a proposed construction project management plan for Aspire International corporation company which it is a multinational corporation based in Sweden for Establishing new pharmacy and village market building (a pharmacy and a convenience store), Our proposal Project Management plan will include all construction important items as project time frame , project budget, team work members, quality control, Quantity survey and also Risk mitigation and control ways, there are some project information will be considered on our project management plan as follow: (Project Management Institute, 2017)

- Project Total Area will on 600 Sq meter, the land of project is vacant land and it has a source of water and electricity.
- Aspire Company has many departments will be related with this project as Sales, IT, Stores engineering, maintenance, financial, procurement and supply chain department.
- ALL Project Shop Drawing will establish by external engineering consultant based on many required which will explain it on our plan later.
- A working Team will be Appointed to implement the project to can meet our targets (Scope) on plan frame time with same Plan budget.
- Aspire Engineering Department will responsible for project Activities inspection and controlling the activities quality.

All plans remain flexible and agile, we are monitoring the project actives & control with modifying on plan to meet all plan items on time. it is our strategy and movements according to the project need.

1.2 Project Initiating

The main important thing in any Project management plan is the largest amount of correct information that enables team work to complete all activities on tile with required quality and also lessons learned from same pervious project. (Passenheim, April 2009)

1.2.1 Relevant stakeholders' meetings.

Facilitated Workshops is one of the best strategic analytical tools to collect all required information which help Design team and PM to accurately carryout their tasks.

1.2.1.2 stakeholders' meetings with our services provider.

the Relevant Stakeholders meetings is one of the best strategic analytical tools to collect all required information which help Design team and PM to accurately carryout their tasks.
The time frame of Design drawing is 22 work day based on all Stakeholders required & Specs, And also, shall have them approved in final stage of drawing.

1.2.1.3 A kick-off Meeting with all construction procurement teams.

Construction team meeting is best way to determine every member's scope & time frame & direct cost of them scopes. (Argyris, 1990)
At first, we should determine the site team work & reported to whom as below Pic 1:

Aspire Pharmacy and Village Market building			
operation & procurement team			
Name of Stakeholder	Role	Department	reported to
Jamis June	electrical Eng.	operation	PM
Sally Jady	Mechanical Eng.	operation	PM
Ibrahim Shad	Arch Eng.	operation	PM
Harvey Saai	Civil Eng.	operation	PM
Jamie Dab	IT Eng.	Services	PM
Hussain Ibrahim	procurement Eng.	Procurement	procurement manager/PM
Annmar Rock	Safety Eng.	Safety	Safety /PM
Hakim Vari	Accountant	Financial	Financial /PM
Noopur Aldeen	Electrical Forman	operation	ELC Eng
Shoad Mali	mechanical Forman	operation	MECH Eng
Allam Fathi	ARCH Forman	operation	Arch Eng.
Rafik Catface	Civil Forman	operation	Civil Eng.
Shark an Khorshid	Document Control	operation	PM
Arfak Saddened	Site supervisor	operation	PM

At Second, every member on Site team work should determine the time frame for every activity scope & manpower required as per pic2 and discuss it with PM and approved by him:

Aspire Pharmacy and Village Market building				
Name of Stakeholder	Role			
Harvey said	Civil Eng.			
Activity	(Activity Duration/ Op/pes)	T. Manpower	Equipment	material required
Soil Termite				
Polyethylene				
Blinding Concrete				
Waterproofing				
Secrete layer				

For approved activities time frame, we shall use PERT Calculations for more accuracy in our Baseline as per below equation:

Estimated activity duration =

(Optimistic estimate + 4Xmost likely estimate+ pessimistic estimate) / 6

At third, Perpare table for daily Manpower Rate in every Department to help PM to calculate every activity budget based on procurement manpower list and same city projects reference.

At fourth, For Equipment, we decided to buy or rent the equipment based on number of days & initial equipment cost as per below equation.

Daily rent rate X number of Rent Day = Buy equipment cost + daily running cost X Number of work day

By above equation we will know which number of days rent & Buy be the same c

1.3 Project Budget Estimation

After collecting all the accurate information from Relevant Stakeholders, checking and correcting it, then we start calculating the expected costs of the project, and it consists of the following : (Graham & Englund, 1997) (james, 2006)

1.3.1 Direct Cost

Direct costs will be based on each activity on the basis of costs for resources, materials, petty cash, and equipment, and they will be according to the below table and it will be related to estimation duration and activity Quantity.

Aspire Pharmacy and Village Market building - Direct Cost

Activity Name	Total Manpower	Duration	T. Man Power Cost (€)	Material cost (€)	Equipment cost (€)
Design Drawing & complete project Quantity survey by Aurora – Construction Consultancy		22	50000		
Project Sign Board	4.00	2	260	3000	
Site Temporary Fence	18.00	3	1170	16500	865
Temporary Offices/Facilities Removal & Site Cleaning	12.00	6	780	5000	500
Construction Waste Management and Disposal	6.00	6	390		2500
Site Preparation Works (surveying work + civil work)	2.00	3	130	200	
Excavation & Disposal- Building + remove excavation result)	12.00	12	780	8100	6000
Soil Termite Control-	2.00	1	130	250	600
Microns Polyethylene Vapor Barrier Under Blinding Concrete-	2.00	1	130	255	
Blinding Concrete Works-	5.00	1	325	9000	
Waterproofing Membrane & Protection Screed- (water proof subcontractor per meter)	6.00	4	390	3000	
secrete layer concrete	4.00	1	260	4500	
R.C Works for Raft Foundation-	180.00	6	11,700.0	58,500.0	
Damp Proofing Membrane & Board Protection-	3.00	1	195.0	290.0	

Backfilling Up to MEP Works Level	8.00	4	520.0	2,800.0	800.0
MEP Works Under SOG	6.00	4	260.0	3,500.0	
Backfilling & leveling Under SOG	8.00	4	520.0	6,250.0	800.0
micron Polyethylene Vapor Barrier Under SOG	3.00	1	195.0	870.0	
R.C Works for Slabe on Grade	18.00	2	1,170.0	17,400.0	200.0
Steel Fixing for Columns & Formwork for Columns, Shear & Core Walls	48.00	12	3,120.0	9,600.0	280.0
Concrete Casting for Columns, Shear & Core Walls	15.00	1	975.0		280.0
D-shuttering for Columns, Shear & Core Walls	26.00	12	1,690.0		
Formwork for Slabs & Stairs - GF	96.00	14	6,240.0	28,500.0	
Steel Fixing for Slabs & Stairs- GF	91.00	12	5,915.0	116,964.0	
Concrete Casting for Slabs & Stairs- GF	26.00	1	1,690.0	48,500.0	
D-shuttering for slab & stair	80.00	6	5,200.0		
R.C Works for Columns- Low Parapet- PH	22.00	4	1,430.0	2,500.0	
R.C Works for Coping Beams- Low Parapet- PH	30.00	6	1,950.0	12,600.0	
Internal Block Walls-GF	400.00	12	26,000.0	49,400.0	
external block - GF	28.00	7	1,820.0	5,500.0	
Plaster Walls- GF	60.00	12	3,900.0	7,116.9	
Painting Walls-GF	45.00	12	2,925.0	12,810.4	
Marble floor - GF & Toilet wall marble	109.00	6	7,085.0	27,000.0	
Marble Skirting- GF	21.00	4	1,365.0	1,100.0	
Aluminum Double Glazed Doors & Hardware- GF	12.00	6	780.0	38,500.0	
Steel Doors & Hardware- GF	8.00	4	520.0	3,200.0	
Staircase Handrail & Balustrade- GF	10.00	4	650.0	20,300.0	1,900.0
Gypsum Board Ceiling- GF	48.00	12	3,120.0	31,185.0	6,500.0
Wood Gray Marble Slab Walls/Lobby- GF	25.00	6	1,625.0	45,800.0	
Concrete Mid Ramp Buffer- GF (external work)	16.00	6	1,040.0	1,400.0	
Concrete Interlock Flooring- GF (external work)	20.00	6	1,300.0	21,200.0	
Aluminum Automatic Roll Up Gates- GF	10.00	6	650.0	45,000.0	1,500.0
Glass Partitions- GF	30.00	12	1,950.0	35,900.0	
Handicap Ramp- GF	8.00	2	520.0	2,600.0	500.0
Vertical Steel Louver Buffer Strip	8.00	3	520.0	2,500.0	
Electrical first fix activity	60.00	10	3,900.0	8,600.0	1,200.0
RGS/EMT Conduit Installation-	60.00	10	3,900.0	10,800.0	580.0
LV Wiring/Cabling-	20.00	5	1,300.0	13,900.0	350.0
Electrical Panels & Termination	6.00	3	390.0	9,500.0	
Sockets/Wiring Devices	18.00	3	1,170.0	5,800.0	

Installation of Lighting Fixtures and all system third fix	42.00	10	2,730.0	69,800.0	
Data Telecom Wiring/Cabling-	6.00	3	390.0	8,600.0	
DT System Components/Racks Installation & Connection-	10.00	3	650.0	19,500.0	
Public Address Wiring/Cabling	20.00	10	1,300.0	3,500.0	
CCTV System Components/Racks Installation & Connection	8.00	4	520.0	12,800.0	
Fire Alarm Wiring/Cabling	8.00	4	520.0	2,500.0	
Lighting Protection/Grounding System Components, Installation & Connection	8.00	4	520.0	22,000.0	
HVAC Piping & Accessories-	12.00	4	780.0	3,500.0	
DX Fan Coil Unit (FCU)-	2.00	15	975.0	103,000.0	
Ventilation Fans-	12.00	3	780.0	25,800.0	
water supply first fix	45.00	10	2,925.0	6,800.0	2,200.0
GRP Roof Water Storage Tank	29.00	8	1,885.0	31,500.0	
Water Supply Test	6.00	1	390.0	5,900.0	
Electric Water Heaters	8.00	2	520.0	6,500.0	
Drainage Piping & Fittings	20.00	10	1,300.0	7,500.0	
Drainage Pipe Test	4.00	3	260.0	3,500.0	
Sanitary Fixtures & Taps	18.00	5	1,170.0	35,800.0	
Fire Pump installation	28.00	6	1,820.0	139,500.0	
Fire Fighting Piping, Droppers & Fittings	112.00	10	7,280.0	46,800.0	
Fire Fighting Pipe Testing	19.00	6	1,235.0	2,950.0	
FHCs/Extinguisher Fixing	25.00	6	1,625.0	8,500.0	1,850.0
Sprinkler Fixing	18.00	4	1,170.0	5,400.0	
FCU & Duct Connection- GF	64.00	16	4,160.0	5,000	

Total	**2,279.00**	**450**	**198,850**	**1,339,841**	**29,405**

Total Direct Cost for Activities		**1,562,096**

1.3.2 Indirect Cost

Indirect costs will be based on Site Time Work & head office team, they are recruited by Human Resources on the basis of costs for resources, petty cash and offices tools, they will be according to the below table.

item	Monthly rate	No. of months	Total
Site Team Work	21,500	7	150,000
Head office cost %	9,600	8	76,800
Petty cash	3,000	7	21,000
Tools	1000	7	7000
			254,800

1.3.3 Quality Cost

Quality costs will be based on contracting with consulting company that inspect all site activity to maintain the quality (Part time), contractual clause any technical fault caused by the consultant company bears all its repairs cost, it will be according to the below table.

item	Monthly rate	No. of months	Total
Drawing Review	10,000	1	10,000
Site inspection	8,700	7	60,900
IT supervision cost	1000	7	10,000
Total			80,900

1.3.4 Total Project Budget

Total project budget will be collecting as per below tables included Risk & contingence cost.

Item	Direct cost	Contingence & Risk Cost	Total item Cost
Direct Cost	1,562,096	78,104	1,640,200
Indirect Cost	254,800	33,600	288,400
Quality Cost	80,900	8,900	89,800
			2,081,400

Regarding to above table total required budget included Contingence & Risk Cost

In 2,081,400 euro, with increase of 81,400 euros over the project budget (with increase of 4%)

You can find all details in above cost tables for additional funds request.

1.4 Project Time Schedule

Regarding to all project Activities and every Activity duration and determine the critical path, the start date will be 1 NOV, 2022 and End Date will be on 9 July, 2023 as below following pictures 1,2,3,4: (James, 2008)

Aspire Pharmacy and Village Market building - Time Schedule

Activity Name	Start	Finish	UOM	Quantity	Productivity Rate (Unit/Day)	Duration
Design Drawing & complete project Quantity survey by Aurora – Construction Consultancy	1-Nov-2022	1-Dec-2022	LS	1.00	0.05	22
Project Sign Board	1-Nov-2022	3-Nov-2022	m2	12.00	3.00	2
Site Temporary Fence	3-Nov-2022	8-Nov-2022	LM	110.00	36.60	3
Temporary Offices/Facilities Removal & Site Cleaning	3-Nov-2022	11-Nov-2022	LS	1.00	0.25	6
Construction Waste Management and Disposal	1-Nov-2022	8-Nov-2022	LS	1.00	0.25	6
Site Preparation Works (surveying work + civil work)	8-Nov-2022	11-Nov-2022	LS	1.00	0.33	3
Excavation & Disposal-Building + remove excavation result)	11-Nov-2022	28-Nov-2022	M3	1,800.00	150.00	12
Soil Termite Control-	28-Nov-2022	29-Nov-2022	m2	600.00	600.00	1
micron Polyethylene Vapor Barrier Under Blinding Concrete-	29-Nov-2022	30-Nov-2022	m2	600.00	600.00	1
Blinding Concrete Works-	1-Dec-2022	2-Dec-2022	m3	60.00	60.00	1
Waterproofing Membrane & Protection Screed-(water proof subcontractor per meter)	2-Dec-2022	8-Dec-2022	m2	600.00	152.00	4
secrete layer concrete	8-Dec-2022	9-Dec-2022	m3	30.00	30.00	1

R.C Works for Raft Foundation-	12-Dec-2022	21-Dec-2022	m3	360.00	60.00	6
Damp Proofing Membrane & Board Protection-	23-Dec-2022	24-Dec-2022	m2	660.00	660.00	1
Backfilling Up to MEP Works Level	26-Dec-2022	30-Dec-2022	M3	493.67	123.42	4
MEP Works Under SOG	30-Dec-2022	5-Jan-2023	Item	1.00	0.25	4
Backfilling & leveling Under SOG	5-Jan-2023	11-Jan-2023	M3	493.67	123.42	4
micron Polyethylene Vapor Barrier Under SOG	11-Jan-2023	12-Jan-2023	m2	600.00	600.00	1
R.C Works for Slabe on Grade	12-Jan-2023	16-Jan-2023	m3	60.00	30.00	2
Steel Fixing for Columns & Formwork for Columns, Shear & Core Walls	16-Jan-2023	31-Jan-2023	m3	24.00	2.00	12
Concrete Casting for Columns, Shear & Core Walls	31-Jan-2023	1-Feb-2023	m3	24.00	24.00	1
D-shuttering for Columns, Shear & Core Walls	1-Feb-2023	4-Feb-2023	LS	1.00	0.33	12
Formwork for Slabs & Stairs - GF	4-Feb-2023	23-Feb-2023	m2	620.00	44.28	14
Steel Fixing for Slabs & Stairs- GF	23-Feb-2023	10-Mar-2023	kg	30,780.00	2,565.00	12
Concrete Casting for Slabs & Stairs- GF	13-Mar-2023	13-Mar-2023	m3	171.00	171.00	1
D-shuttering for slab & stair	27-Mar-2023	4-Apr-2023	m2	620.00	103.30	6
R.C Works for Columns- Low Parapet- PH	14-Mar-2023	20-Mar-2023	m3	5.00	1.00	4
R.C Works for Coping Beams- Low Parapet- PH	20-Mar-2023	30-Mar-2023	m3	28.00	4.66	6
Internal Block Walls-GF	4-Apr-2023	18-Apr-2023	m2	950.00	79.16	12
external block - GF	18-Apr-2023	26-Apr-2023	m2	106.40	15.20	7
Plaster Walls- GF	21-Apr-2023	8-May-2023	m2	1,423.38	118.60	12
Painting Walls-GF	12-May-2023	27-May-2023	m2	1,423.38	118.50	12
Marble floor - GF & Toilet wall marble	27-May-2023	3-Jun-2023	m2	600.00	100.00	6
Marble Skirting- GF	3-Jun-2023	9-Jun-2023	lm	110.00	27.50	4

Aluminum Double Glazed Doors & Hardware- GF	9-Jun-2023	17-Jun-2023	no	11.00	1.83	6
Steel Doors & Hardware- GF	17-Jun-2023	25-Jun-2023	set	4.00	1.00	4
Staircase Handrail & Balustrade- GF	11-Jun-2023	15-Jun-2023	lm	7.00	1.75	4
Gypsum Board Ceiling- GF	19-Jun-2023	3-Jul-2023	m2	567.88	8.00	12
Wood Gray Marble Slab Walls/Lobby- GF	3-Jul-2023	11-Jul-2023	m2	37.00	6.10	6
Concrete Mid Ramp Buffer- GF (external work)	22-May-2023	30-May-2023	m2	28.00	4.66	6
Concrete Interlock Flooring- GF (external work)	30-May-2023	7-Jun-2023	m2	28.00	4.66	6
Aluminum Automatic Roll Up Gates- GF	7-Jun-2023	12-Jun-2023	set	2.00	0.50	6
Glass Partitions- GF	7-Jun-2023	21-Jun-2023	set	5.00	0.41	12
Handicap Ramp- GF	9-Jun-2023	12-Jun-2023	LM	12.6	6.30	2
Vertical Steel Louver Buffer Strip	14-Jun-2023	18-Jun-2023	set	1.00	0.30	3
Electrical first fix activity	18-Apr-2023	28-Apr-2023	LS	1.00	0.10	10
RGS/EMT Conduit Installation-	18-Apr-2023	28-Apr-2023	LS	1.00	0.10	10
LV Wiring/Cabling-	8-May-2023	12-May-2023	LM	1.00	0.20	5
Electrical Panels & Termination	3-Jun-2023	6-Jun-2023	LS	1.00	0.33	3
Sockets/Wiring Devices	3-Jun-2023	6-Jun-2023	LS	1.00	0.33	3
Installation of Lighting Fixtures and all system third fix	3-Jul-2023	9-Jul-2023	LS	1.00	0.16	10
Data Telecom Wiring/Cabling-	6-Jun-2023	9-Jun-2023	LS	1.00	0.33	3
DT System Components/Racks Installation & Connection-	12-Jun-2023	15-Jun-2023	LS	1.00	0.33	3
Public Address Wiring/Cabling	18-Apr-2023	28-Apr-2023	LS	1.00	0.10	10
CCTV System Components/Racks Installation & Connection	6-Jun-2023	12-Jun-2023	LS	1.00	0.25	4
Fire Alarm Wiring/Cabling	8-May-2023	12-May-2023	LS	1.00	0.25	4

Lighting Protection/Grounding System Components, Installation & Connection	11-Jun-2023	15-Jun-2023	ls	1.00	0.25	4
HVAC Piping & Accessories-	11-Jun-2023	16-Jun-2023	lm	4.00	1.00	4
DX Fan Coil Unit (FCU)-	15-May-2023	20-May-2023	unit	0.80	3.00	15
Ventilation Fans-	15-May-2023	18-May-2023	unit	5.00	1.30	3
water supply first fix	18-Apr-2023	28-Apr-2023	LS	1.00	0.10	10
GRP Roof Water Storage Tank	28-May-2023	31-May-2023	LS	1.00	0.33	8
Water Supply Test	6-Jun-2023	9-Jun-2023	LS	1.00	0.33	1
Electric Water Heaters	12-Jun-2023	14-Jun-2023	no	5.00	2.50	2
Drainage Piping & Fittings	18-Apr-2023	28-Apr-2023	LS	1.00	0.10	10
Drainage Pipe Test	6-Jun-2023	9-Jun-2023	LS	1.00	0.30	3
Sanitary Fixtures & Taps	12-Jun-2023	17-Jun-2023	LS	1.00	0.20	5
Fire Pump installation	10-Jul-2023	16-Apr-2023	set	1.00	0.16	6
Fire Fighting Piping, Droppers & Fittings	18-Apr-2023	28-Apr-2023	LS	1.00	0.10	10
Fire Fighting Pipe Testing	30-Apr-2023	6-May-2023	set	1.00	0.16	6
FHCs/Extinguisher Fixing	25-Jun-2023	30-Jun-2023	LS	1.00	0.16	6
Sprinkler Fixing	3-Jul-2023	7-Jul-2023	LS	1.00	0.25	4
FCU & Duct Connection-GF	10-Jun-2023	28-Jun-2023	unit	4.00	0.25	16

1.5 Risk analysis

Construction is a risky business. Every construction project is unique and brings its own challenges and opportunities. Identifying and managing construction project risks can be difficult, but not impossible with careful planning and execution. When a risk materializes, it can sabotage the project and cause it to fail, which is why construction risk management is so important. To avoid disaster, you must be able to properly assess, control and monitor risks once they have been identified. Risk is not always negative. The ability to effectively identify and manage risk can increase profits, build relationships with clients that lead to more projects, and expand your business into new markets and territories. (szmanski, 2017)

1.5.1 Identify of Project Risks with Direct control action

Now that we've discussed some common risks of construction projects, it's time to identify risks that are unique to your project. This should be done as early as possible, preferably in the pre-construction phase of the project.

- Safety hazards that lead to worker accidents and injuries (controlled by our Safety Team).
- Managing change orders (control by Technical Department).
- Incomplete drawings and poorly defined scope (already transfer risk to subcontractor controlled by our Technical Department as per our Time schedule).
- Unknown site conditions (monitor & control by in an innovative way that combines risk control in the costs of materials, materials or equipment in the following paragraphs).
- Poorly written contracts (Reviewing contracts through the specialized consultant, the procurement department and the project manager. The contract must be signed after reviewing the three parties and them approval).
- Unexpected increases in material costs (covering in Contingence & Risk Cost)
- Labor shortages (Transferring the risk to a labor rental company and having an alternative through the purchasing department of our company).
- Damage or theft to equipment and tools (covering with two ways our create application & Contingence & Risk Cost).
- Issues with subcontractors and suppliers (One of the responsibilities of the procurement department is to provide more than one subcontractor for each activity or equipment's).
- Availability of building materials (As usual, all projects are approved for each material by more than 3 suppliers of the same quality and securing long-term materials according to the schedule and meetings with the Operations Department).

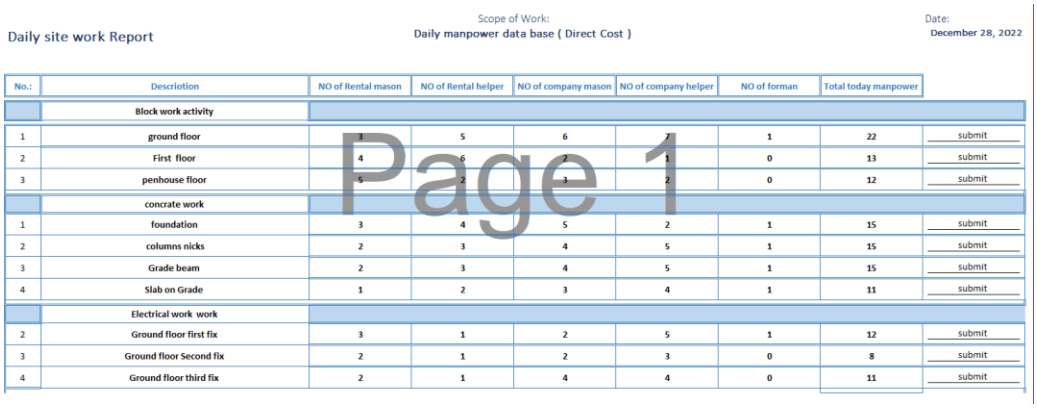
- Poor project management (Management files that combine more than one administrative element will be reviewed below to maintain a reduction in risks in costs, schedule, and labor, follow-up site management on a daily basis, and rapid intervention to reduce losses in resources and time). (empire, 2015)

1.5.2 Monitoring & control system creating (mitigate the risk, cost control, quality control, manpower control, time frame, productivity control rate)

Using a strong point in our company, having a strong IT department and linking systems between all company and large servers' systems available, this system will be divided into several stages as following: (duarte & synder, 2006)

1.5.2.1 Activity daily input data

Site Document controller enters the daily information for each activity separately on our server's system, and this information includes the following: the number of Rental skilled and unskilled workers or subcontractor manpower's, the location of the activity, and the number of company workers participating in this activity after he submit every item, it will not able to any modified as below Pic.



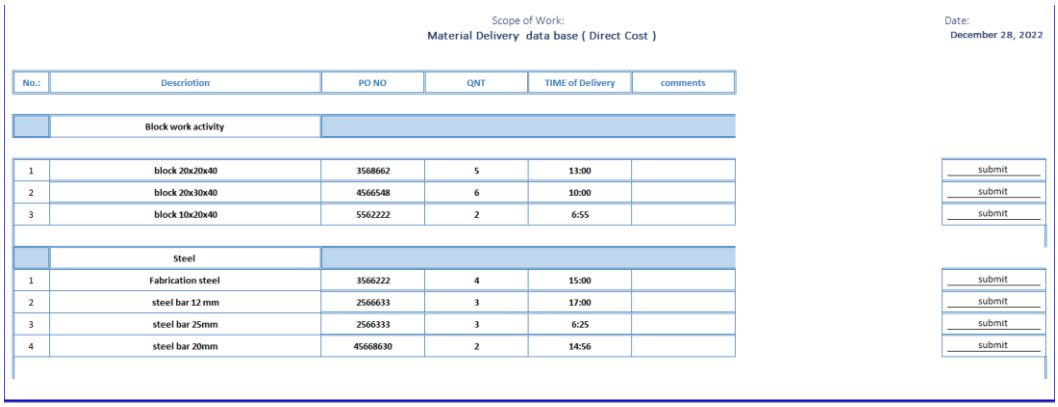
Daily site work Report

Scope of Work:
Daily manpower data base (Direct Cost)

Date:
December 28, 2022

No.:	Descriotion	NO of Rental mason	NO of Rental helper	NO of company mason	NO of company helper	NO of forman	Total today manpower	
	Block work activity							
1	ground floor	3	5	6	7	1	22	submit
2	First floor	4	6	2	1	0	13	submit
3	penhouse floor	5	2	3	2	0	12	submit
	concrate work							
1	foundation	3	4	5	2	1	15	submit
2	columns nicks	2	3	4	5	1	15	submit
3	Grade beam	2	3	4	5	1	15	submit
4	Slab on Grade	1	2	3	4	1	11	submit
	Electrical work work							
2	Ground floor first fix	3	1	2	5	1	12	submit
3	Ground floor Second fix	2	1	2	3	0	8	submit
4	Ground floor third fix	2	1	4	4	0	11	submit

And let check material form



Scope of Work:
Material Delivery data base (Direct Cost)

Date:
December 28, 2022

No.:	Descriotion	PO NO	QNT	TIME of Delivery	comments	
	Block work activity					
1	block 20x20x40	3568662	5	13:00		submit
2	block 20x30x40	4566548	6	10:00		submit
3	block 10x20x40	5562222	2	6:55		submit
	Steel					
1	Fabrication steel	3566222	4	15:00		submit
2	steel bar 12 mm	2566633	3	17:00		submit
3	steel bar 25mm	2566333	3	6:25		submit
4	steel bar 20mm	45668630	2	14:56		submit

1.5.2.2 Site supervisor confirm (Quality & quantity)

The file is transferred after uploading it through the document controller to the supervisors and Forman's according to each specialty by E-mail between 15:00 to 17:00 pm and confirms the quality of work and the number of workers and enters the quantities that have been completed as per below following PIC.

Scope of Work:
forman/ supervisor input data - productivity

Date:
December 28, 2022

No.:	Descriotion	Total daily Rental manpower	Total daily company manpower	unit	productivity	Approved QNT	
	palster work activity						
1	ground floor	8	13	SQ meter	80	80	submit
2	First floor	10	3	SQ meter	75	75	submit
3	penhouse floor	7	5	SQ meter	45	45	submit

1.5.2.3 Site engineer confirm (Quality & quantity& cost)

After determining the daily quantities and the number of manpower, we will start new stage, and We make the engineers assume their responsibility as the leader of each department for approved productivity, quality and item costs, to start the high monitoring & control stage and compare between site cost & item budget as per below following Form as below

Scope of Work:
engineers form - productivity / cost

Date:
December 28, 2022

No.:	Descriotion	Total daily Rental manpower	Total daily company manpower	Rental MP rate	Company MP rate	Total cost	Approved QNT	MP rate of SQ meter		budget rate of SQ meter	Cost realization ratior
	palster work activity										
1	ground floor	8	13	250	130	3690	80	46.125	submit	40	-6.13%
2	First floor	10	3	250	130	2890	75	38.53	submit	40	1.47%
3	penhouse floor	7	5	250	130	2400	53	45.28	submit	40	-5.28%

Pi

1.5.2.4 Site manager review for (Quantity, direct cost, quality)

After site engineer approved for Quantity & quality and cost, all data will transfer for site manager approval, he should inspect all this quality of this activity & quantity and discuss with site engineer, after site manager approval, system will automatic calculate all total approved quantity for every item or activity (previous until today) and cost and total cost of delivered material as below Pic.

Scope of Work: site manager approval

Date: December 29, 2022

No.:	Descriotion	28 DEC cost	28 DEC productivty	Total cost	total productivity	Total cost	budget rate of SQ meter	Cost realization ratio	Total material delivery cost	budget material cost for item
	palster work activity									
1	ground floor	3690	80	45850	1090	42.06422	40	-2.06%	48500	75800
	site manager approval	inspect & approved	inspect & approved							
2	First floor	2890	75	35800	860	41.62791	40	-1.63%	48500	76800
	site manager approval	inspect & approved	inspect & approved							
3	penhouse floor	2400	53	28500	610	46.72131	40	-6.72%	24500	4505
	site manager approval	inspect & approved	inspect & approved							

1.5.2.5 Dash Board Activity data

The dashboard will show all quantities, quality approval from supervisors, engineers, site manager, costs in terms of manpower or materials, and any details can be viewed by clicking on details showing all activity by days, this Dashboard will be shared with Project manager & top management and can easily discuss it with site manager or site engineers or procurement department or modified any wrong budget rate as below Pic.

Scope of Work: Dash - Board

Date: December 29, 2022

No.:	Descriotion	28 DEC cost	28 DEC productivty	Total cost	total productivity	Total cost	budget rate of SQ meter	Cost realization ratio	Total material delivery cost	budget material cost for item	Remaining in material budget
	palster work activity										
1	ground floor	3690	80	45850	1090	42.06422	40	-2.06%	48500	75800	27300
	approved by sharokhan , Salam , E. mostafa , E.rayan										Detail
	Lighting First Fix activity										
1	ground floor	1200	120	10650	950	11.21053	12	0.79%	8900	37500	28600
	approved by sharokhan ,Nour , E.harvey , E.rayan										Detail

1.6 Conclusion

Project Proposal for Establishing Aspire Pharmacy and Village Market building will be in time frame from 1 NOV, 2022 and End Date will be on 9 July, 2023 and Total Budget will be 2,081,400 euro with increase 81,400 euro due to many reasons were mentioned in above study with plan for quality control and cost control & risk management plan.

2 Introduction for high-speed railway project

We will start to study plans of Thailand to build a high-speed railway between Bangkok and Chiang Mai Northern Thailand and check the efficient of project.

During the next five years, Life Water seeks to achieve the following objectives for sustainable growth:

- Create awareness in urban and semi-urban communities emphasizing healthier lifestyle and position Tranquil Water as a safe, refreshing and convenient choice. From 20 to 50% by 2021 and a 10% increase every year.
- Retain Current Customers by adding two dedicated community managers by mid of Q4 2020 to better manage social media comments, clarifications and questions.
- Increase Brand Awareness via Increase social media impressions among the target audience by 30% by the end of this quarter.
- Increase current market share to from 5% to 15% by Q4 2021 with double-digit sustainable growth every year.
- Establish a partnership with 3 health-conscious influencers, one per quarter by Q1, Q2 and Q3 2021 ends and provide promotion coupons for their followers.
- Increase online sales conversion rates by 3% via increasing website traffic by posting 3 blogs weekly.

2.1 Project Analysis

The project of constructing the high-railway between the two cities will be analyzed from all financial sides, the time spent on the trip, the preference of visitors, and the number of annual trips let check Data on the cost of all Transport Options between Bangkok and Chiang Mai (both direction) as below following: (AMY, 2002)

	Time	Cost	Highlight
Plane	1 hour	from $50	Fast and comfortable journey
Train	13 hours	from $25	Comfortable sleeper beds
Bus	12 hours	from $15	Cheapest way to travel
Taxi	9 hours	from $300	Can make plenty of stops

2.1.1 The Annual trips between Bangkok to Chiang Mai

We share data on the number of trips in the Bangkok-Chiang Mai region in 2017 The corresponding air, bus and rail transport in 2018 is from the following airports Thailand (AOT), Department of Land Transport (DLT) and State Railway of Thailand (SRL), respectively as below graph.

- In 2017 total 14.1 million trips, as 87 % favor Transport by private cars and plans.
- In 2018 total 14.5 million trips, as 89 % favor Transport by private cars and plans.

(Agrawal & Pravinvongvuth, 2021)

Mode	2017		2018		% Change
	Trips	%	Trips	%	
Car	6,328,370	44.90	6,593,214	45.31	4.19
Bus	1,227,336	8.71	1,134,416	7.80	−7.57
Rail	435,056	3.09	355,247	2.44	−18.34
Air	6,103,520	43.30	6,467,212	44.45	5.96
Total	14,094,282	100.00	14,550,089	100.00	3.23

- It was concluded from graph that 45 % prefer air travel for speed, as the journey does not exceed an hour and 30 minutes. Also, the other 45 % prefer privacy in taxis, which takes approximately 9 hours in the trip.

- So, the presence of a means such as the High-speed train that takes two and a half hours can be a competitive means to air transport, as the difference in time is not considered much, but the price of tickets in the High-speed train must be a competitive price in order to attract part of the air passengers.

2.1.2 Total income in 4 ways of transportation

We will see in the table below the average expenses on trips in every way. It is clear from it that the lowest income is for transportation by train, and the highest income for Plane and private cars.

	average cost /THB	NO. of Annual Trips	Total	
travel by plane	1727	6467212	11168.87512	million THB
travel with Bus	518.1	1134416	587.7409296	million THB
travel with Taxi	10362	6593214	68318.88347	million THB
travel with Train	863.5	335247	289.4857845	million THB

2.1.3 Total operation cost per year.

As per Japanese company which they will build high-speed railway with estimated cost 100 billion baht which we need to return back the cost of railway in 20 years (Capital recovery factor 0.06 %) and lifetime of it will be 35 consecutive years. (Campos, de Rus , & Barrón) (Almujibah & Preston, n.d.)

	annual cash back	Annual Infrastructure maintenance	annual Operation & maintenance cost	Yearly operation cost
annual cost of high-speed railway	5 billion baht	500 million baht	1 billion baht	3 billion baht
Total	8.5 billion baht			

As result of above table Minimum annual income to be consider it an effective project shall be more than 8.5 billion baht.

Based on ticket price 1200 baht , so this project to be effective ,they need to sell 7.1 million tickets on year & this is very hard due to the annual trip by train in 2018 less than 0.5 million trips .

2.2 Evaluation of the construction of high-speed railway

I believe that building ahigh-speed railway between Bangkok and Chiang Mai Northern Thailand under these conditions and data will not be of economic benefit, and I do not think that its construction will bring any rewarding return.

2.3 Additional ways for increase high-speed railway income

After the review study of the establishment of high-speed railway project and knowing the number of annual trips for each transportation way, we will review some suggestions to increase income, including the traditional way, and the way that affects the designs of the project in order to keep pace with the habits and nature of the targeted clients.

2.3.1 Renting places in high-speed railway stations for cafes, restaurants, tourism companies, and mobile companies, and this income will be an annual fixed income, and the rent will be in both stations Bangkok and Chiang Mai.

2.3.2 Installing display screens for advertisements inside trains and inside stations for a monthly or annual fee from interest companies in all fields.

2.3.3 Annual Renting the right of the trademark to some multinational companies on the body of trains.

2.3.4 Selling the audio broadcasting rights inside the trains to one of the private radio channels interested in these rights.

2.3.5 Making agreements with foreign tourism companies, while offering them great discounts to move from the capital Bangkok to the tourist city Chiang Mai , so that tourists can travel by high-speed train instead of flying, especially since the time spent on the train trip is two and a half hours, and the flight is an hour and a half, with a difference of only an hour from the flight & With showing how the train journey is enjoyable with enjoying the natural attractions during the trip and the services available on the train such as food, drinks, bathrooms and internet services , this idea aims to attract 2 million new passenger .

2.3.6 Making a marketing plan based on displaying the high-speed train service on international sites in booking flights and hotels, such as wego , Skyscanner , flyin ,booking , google flights , cheapoair , expedia , kayak and momondo with show the advantages of high-speed train trips this idea aims to attract 1 million new passenger .

2.3.7 A modification in the design of two or three carriages in each train so that it consists of private cabins that every cabin can accommodate from 4 to 6 people at price 9000 baht per cabins, where this idea targets tourists and families who use taxis and private drivers who prefer to have privacy in travel and also while enjoying the natural attractions on the trip, such as for cars, but in less time, and this can attract at least 2 million passengers yearly.

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