SHWE DAEHAN MOTORS Co., Ltd.
Environmental and Social Impact Assessment (ESIA) Report

Resource and Environment Myanmar Co., Ltd

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DECLARATIONS

DECLARATION - EIA Experts

Resource & Environment Myanmar Co., Ltd. (REM); a local environmental consultant firm, conducted environmental impact assessment and prepared EIA report for "Shwe Daehan Motors Company Limited" in compliance with EIA Procedure (December 2015) and other relevant laws/rules and formally submitted to the Environmental Conservation Department (ECD) for final approval.

We do state, to the best of our knowledge at the time of report preparation, that

- To our knowledge, all information contained in this report is accurate and a truthful representation of all findings as relating to the project, and ;
- The EIA Report has been prepared in strict compliance with all applicable laws, rules regulations and procedure in force.

We also consulted to SDH to undertake that;

SDH in respect of the "Manufacturing, sales and after sales service of Motor Vehicles and Motorcycles" will at all times comply fully with (1) any and all commitments and obligations as set forth in the EIA Report which has been reviewed by Review Team, and (2) any and all plans and the various components thereof, including without limitation, impact avoidance, mitigation, and remediation measures, and with respect to such commitments, obligations, plans and measures related to the development, construction, commissioning, operation and maintenance of the project, and any circumstance in which work done or to be done, or services performed or to be performed, in connection with the project's development.

Signed: (Zaw Naing Oo) Date: 2-9-2022

Director

For: **Resource & Environment Myanmar Co., Ltd. (REM)**

SHWE DAEHAN MOTORS CO., LTD.

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Shwe Daehan Motors Co., Ltd. No..... Date.....

To:
Director General
Environmental Conservation Department
Ministry of Natural Resource and Environmental Conservation
Nay Pyi Taw, The Republic of the Union of Myanmar

Date: 27th May 2019

Subject: Commitment Letter for comply and follow the Environmental Management Plan that mentioned in the EIA report that prepared for the Project "Manufacturing, sales and after sales service of Motor Vehicles and Motorcycles"

Dear Sir,

We refer to the captioned EIA report, which has been prepared and finalized by Resource and Environment Myanmar Co., Ltd in compliance with EIA procedure (December 2015) and other relevant law/rules and formally submitted to the Environmental Conservation Department.

We believe, to the best of our knowledge at the time of writing, that;

- The EIA report is accurate and complete, and;
- The EIA report has been prepared in strict compliance with applicable laws, rules, regulations, and procedures in force.

We hereby undertake that;

Shwe Daehan Motors Co., Ltd. In respect of the "the Project of "Manufacturing, sales and after sales service of Motor Vehicles and Motorcycles" will at all times comply fully with (i) any and all commitments and obligations as set forth in the ESIA report which has been reviewed by Review Ream of MONREC, and (ii) any and all plans and the various components thereof, including without limitation, impacts avoidance, mitigation, and remediation measures, and with respect to both (i) and (ii), including but not limited to such commitments, obligations, plans and measures related to the construction, operation and decommission phase of the project.

During operation of the Project Shwe Daehan Motors Co., Ltd. will comply and follow the Environmental Management Plan that mentioned in the IRR report that prepared by Resource and Environment Myanmar Co., Ltd. Besides Shwe Daehan Motors Co., Ltd. will submit the Environmental Monitoring Report during operation of the Project to Environmental Conservation Department, Ministry of Natural Resource and Environmental Conservation.

With the regard,

Mr. Kim SunBal
Managing Director
Shwe Daehan Motors Co., Ltd.

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Appendix

Appendix 1 **Raw materials per Unit Consumption**

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Appendix 7 **CSR Type**

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Appendix 10 **Shwe Daehan MIC permits**

Appendix 11 **Water and Soil laboratory test result**

List of Abbreviation

BAT	Best Available Technology
ESIA	Environmental and Social Impact Assessment
MIC	Myanmar Investment Commission
MONREC	Ministry of Natural Resource and Environmental Conservation
WHO	World Health Organization
EHS	Health and Safety Guidelines
IFC	International Finance Cooperation
REM	Resource and Environment Myanmar
SEM	Sustainable Environment Myanmar
TOR	Terms of Reference
USD	United States Dollar
GIS	Global Information System
YCDC	Yangon City Development Committee
U.S. EPA	United States Environmental Protection Agency
GHGs	Greenhouse Gases
CIA	Cumulative impact assessment
EMP	Environmental Management Plan
CSR	Cooperate Social Responsibility Plan
PAP	Project Affected People.
GRM	Grievance Redress Mechanism

စီမံကိန်းအကျဉ်းချုပ်

နိဒါန်း

ဤအစီရင်ခံစာအား မော်တော်ကားနှင့်ဆိုင်ကယ် ထုတ်လုပ်ရေး၊ ရောင်းချရေး နှင့် နောက်ဆက်တွဲ ဝန်ဆောင်မှု လုပ်ငန်းဆိုင်ရာ ပတ်ဝန်းကျင် နှင့် လူမှုရေး ထိခိုက်မှု ဆန်းစစ်ခြင်း လေ့လာခြင်းအား အစီရင်ခံစာအား တင်ပြရန်ဆောင်ရွက်ခြင်း ဖြစ်ပါသည်။ သက်ရောက်မှုအား လေ့လာရာတွင် စီမံကိန်းကြောင့် ဖြစ်ပေါ်လာနိုင်သည့် ပတ်ဝန်းကျင်နှင့် လူမှုစီးပွားသက်ရောက်မှုများအား အခြေခံ၍ အကဲဖြတ်ဆောင်ရွက်ရန်ဖြစ်ပါသည်။ လုပ်ငန်းစဉ်၏ ရည်ရွယ်ချက်နှင့်အတူ စီမံကိန်းနှင့် ပက်သက်သည့် ခြုံငုံသုံးသပ်ချက်၊ ရည်ရွယ်ထားရှိသည့် လုပ်ငန်းစဉ်နှင့် စီ်မံကိန်း တည်နေရာအား ထည့်သွင်းတင်ပြထားရှိပါသည်။ ဆက်လက်၍ စီမံကိန်းဖွံ့ဖြိုးရေးလုပ်ငန်းနှင့် ဆက်စပ်လျက်ရှိသော ပတ်ဝန်းကျင်နှင့် လူမှုရေးဆိုင်ရာ အကြောင်းအချက်များနှင့် တကွ ထိခိုက် သက်ရောက်မှုများအား လျော့ချပေးနိုင်မည့် နည်းလမ်းများနှင့် စောင့်ကြပ်ကြည့်ရှု လေ့လာအကဲဖြတ်ခြင်း များဆောင်ရွက်ရန် စီမံကိန်းကာလ တစ်ခုလုံးတွင် ဆောင်ရွက်ရမည့် ပတ်ဝန်းကျင်နှင့် လူမှုရေးစီမံခန့်ခွဲမှုနှင့် စောင့်ကြပ်ကြည့်ရှုမည့် အစီအစဉ် (**Environmental and Social Management and Monitoring Plan)** တွင် ပါဝင်မည့်အကြောင်းအရာများနှင့် အတူ ထည့်သွင်းတင်ပြထားပါသည်။

မူဝါဒနှင့် အဖွဲ့အစည်း ကန့်သတ်ချက်

Shwe Daehan Motor ကုမ္ပဏီ၏ ပတ်ဝန်းကျင်နှင့် လူမှုရေး ထိခိုက်မှု ဆန်းစစ်ခြင်းအား မြန်မာနိုင်ငံတွင် လက်ရှိ ထုတ်ပြန်ထားရှိသည့် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဥပဒေ (၂၀၁၂)၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနည်းဥပဒေများ(၂၀၁၄)၊ ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း လုပ်ထုံးလုပ်နည်းနှင့် အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး (ထုတ်လွှင့်မှု)လမ်းညွှန်ချက်များ (၂၀၁၅) အရ လိုက်နာ ဆောင်ရွက်မည် ဖြစ်ပါသည်။ ထို့အပြင် နိုင်ငံတကာမှ လက်ခံထားရှိသော အလေ့အကျင့်များအား လေ့လာရန် အခြားဖြစ်နိုင်ချေရှိသည့် အကောင်းဆုံးနည်းလမ်းဖြစ်သော လူထုဟစ်တိုင်စနစ်အားလည်း လူထုအား ပူပေါင်းပါဝင်စေခြင်းနှင့် စီမံကိန်းနှင့်သက်ဆိုင်သူများ (ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ရာတွင် ဦးဆောင်ပါဝင်နိုင်မည် မြန်မာနိုင်ငံရှိ အစိုးရနှင့် အစိုးရမဟုတ်သော အဖွဲ့အစည်းများအပါအဝင်) နှင့် ဆွေးနွေးညှိနှိုင်းခြင်းများအား ဆောင်ရွက်သွားမည် ဖြစ်ပါသည်။

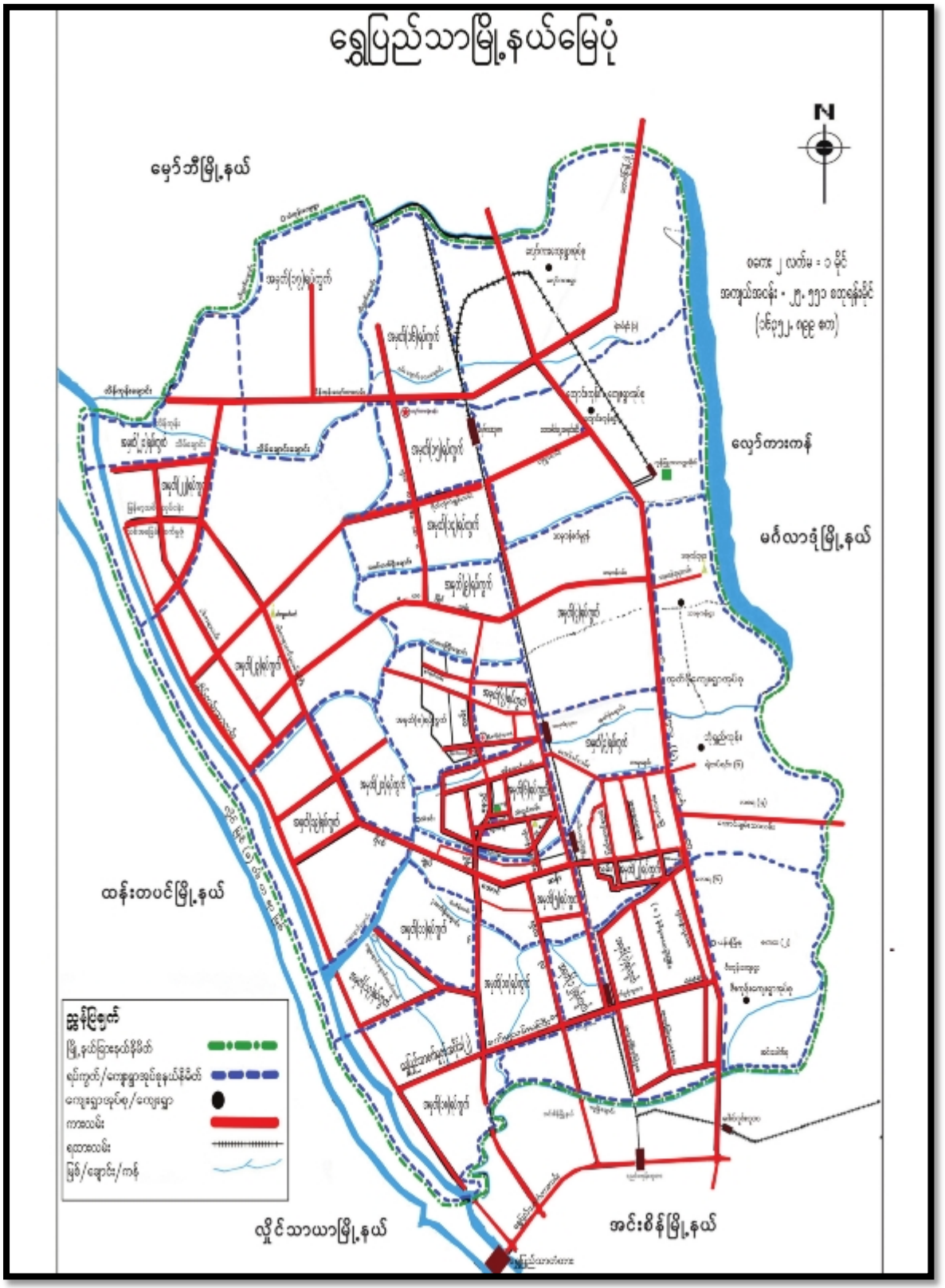
စီမံကိန်းအကြောင်းအရာဖော်ပြချက် နှင့် အခြားနည်းလမ်းများ

အဆိုပြုစီမံကိန်းဖြစ်သော မော်တော်ကားနှင့် ဆိုင်ကယ် ထုတ်လုပ်ရေး၊ ရောင်းချရေး နှင့် နောက်ဆက်တွဲ ဝန်ဆောင်မှုလုပ်ငန်း သည် ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်း လုပ်ထုံးလုပ်နည်းအရ ပတ်ဝန်းကျင် နှင့် လူမှုစီးပွား ထိခိုက်မှု ဆန်းစစ်ခြင်း လုပ်ဆောင်ရန် လိုအပ်ပါသည်။ စီမံကိန်းအား **Shwe Daehan Motor Co., Ltd** အမည်ဖြင့် အကောင်ထည်ဖော်ဆောင်ရွက်မည်ဖြစ်ပါသည်။

စီမံကိန်း တည်နေရာ နှင့် အနီးအနားဝန်းကျင်

အဆိုပြုစီမံကိန်းသည် ရွှေပြည်သာမြို့နယ်တွင် တည်ရှိပါသည်။ ရွှေပြည်သာ မြို့နယ်သည် ရန်ကုန်မြို့ အနောက်မြောက်ဘက်တွင် တည်ရှိသည်။ မြို့နယ်တွင် (၅) ရပ်ကွက် နှင့် ကျေးရွာ (၅) ခုရှိပြီး မြောက်ဘက်တွင် ထန်းတပင်မြို့နယ်၊ အရှေ့ဘက်တွင် မင်္ဂလာဒုံမြို့နယ်၊ အနောက်ဘက်တွင် ရန်ကုန်မြစ်၊ နှင့် တောင်ဘက်တွင် အင်းစိန်မြို့နယ်တို့နှင့် ထိစပ်လျက်ရှိသည်။ ရွှေပြည်မြို့နယ် နှင့် လှိုင်သာယာမြို့နယ်အား လှိုင်မြစ်ကခြားထားသည်။ ဗိုလ်ချုပ်အောင်ဆန်းလမ်း၊ ရန်ကုန်မြို့ပတ်ရထားသည် မြို့နယ်အား ဖြတ်သန်းစီးဆင်းသည်။ ဘုရင်နောင်လမ်း နှင့် အမှတ် (၃)

လမ်းမကြီးများ သည် ထင်ရှားသော လမ်းများဖြစ်သည်။



ပုံ (၁) ရေးပြည်သာမြို့နယ် မြေပုံ

ဆောက်လုပ်ရေးကာလ

သန့်စင်ခန်းများ	ဇူလိုင်လ				သြဂုတ်လ				စက်တင်ဘာလ				**အောက်တိုဘာလ**			
	1st week	2nd week	3rd week	4th week	1st week	2nd week	3rd week	4th week	1st week	2nd week	3rd week	4th week	1st week	2nd week	3rd week	4th week
သန့်စင်ခန်းများ																
ရုံးခန်းအဆောက်အအုံ																
Compressor Room																
Assembly Line																
Test Line																
Ware House																



GOOGLE MAP-2



ကုန်ကြမ်းစုဆောင်းခြင်း

ထုတ်လုပ်မှုအတွက် လိုအပ်သော အဓိကကုန်ကြမ်းများနှင့် တစ်ယူနစ်သုံးစွဲမှုအား နောက်ဆက်တွဲ ၁ တွင် ပူးတွဲပါရှိသည်။ ကုန်ကြမ်းအများစုကို ပြည်ပမှ တင်သွင်းမည်ဖြစ်သည်။

တပ်ဆင်ခြင်း အဆင့်ဆင့်

တပ်ဆင်ခြင်း လုပ်ငန်း အဆင့်ဆင့်တွင် အဓိကအားဖြင့် အဆင့် ၄ ဆင့်ပါဝင်သော ခရီးသည်တင်ကား၊ **SUV, Pick-up, Mini-bus, Truck** လုပ်ငန်းစဉ် များကိုအောက်တွင် ဖော်ပြထားပါသည်။

Inspection

Line Title	Process
Body	4
Engine/TM	5
Electric	4
Chassis	7
Trim	8
Total	28

Sub Body Line

Line Title	Process
Body Side LH/RH	8
Door FR/RR	12
Roof, Trunk Lid	10
Fender, Bumper	12
Total	42

Sub Assembly Line

Line Title		Process
Engine / TM	Mission Generator Start Motor Compressor Mounting Brkt Aircon Pipe	12
Door	Front LH Front RH Rear LH Rear RH Back Door	8
Seat	Frame Head-Rest Seat Cover Driver Seat Passenger Seat Rear Seat	9
Instrument Panel		5
Cargo	Front Left/Right Rear	5
Bumper		3
Truck Lid		2
F/R Axle		6
Brake Booster		2
Fuel Tank		3
Total		55

Assembly Line

Line Title		Process
Trim Line	Floor Mat Head Lining Center Console Door Seat Instrument Panel Gear Box	18
Chassis	Front Axle Rear Axle Tire Engine Brake Pipe Fuel Tank Shock Absorber Coil Spring Gear Linkage	13
Final Assem-bly	Front Bumper Head Lamp Grill Rear Combi Lamp Galvanized Steel DVD	12
Total		43

Test Line

Line Title	Process
Exhaust Test	1
Wheel Alignment	1
Wheel Angle	1
Speed Test	1
Brake Test	1
Weight Test	1
Horn Test	1
Headlight Test	1
Side Slip	1
Water Proof Test	1
Test Road	1
Total	11

အစားထိုး နိုင်သည့် နည်းလမ်းအား ခွဲခြမ်းစိတ်ဖြာခြင်း

အဆိုပြုထားသော စီမံကိန်းအပေါ် အဓိကထားသော စီမံကိန်းအခြားရွေးချယ်စရာများကို ခွဲခြမ်းစိတ်ဖြာခြင်းသည် စီမံကိန်း၏တည်နေရာ သို့မဟုတ် စီမံကိန်းရွေးချယ်မှုများနှင့် လုပ်ဆောင်ချက်ဆိုင်ရာ အခြားရွေးချယ်စရာများအပေါ် အခြေခံထားသည်။ အဆိုပြုထားသော စီမံကိန်းအတွက် ရိုးရှင်းသော အခြားရွေးချယ်စရာ နှစ်ခုရှိသည်။

i) စီမံကိန်းမလုပ်ဆောင်ခြင်း

ဆောက်လုပ်ရေး၊ လည်ပတ်မှုနှင့် ဖျက်သိမ်းရေး အဆင့်များနှင့် ပတ်သက်သည့် လုပ်ဆောင်မှုမျိုး

မရှိသည့်အတွက်ကြောင့် သဘာဝပတ်ဝန်းကျင်ကို ထိခိုက်မှု မရှိနိုင်ပါ။

ii) စီမံကိန်းလုပ်ဆောင်ခြင်း

၎ငင်းတို့တွင် စီမံကိန်းသဘောသဘာဝအတိုင်း တည်ဆောက်မှု၊ လည်ပတ်မှုနှင့် ဖျက်သိမ်းရေး လုပ်ငန်းများ ပါဝင်သည်။ စီမံကိန်းအနေဖြင့် အခြားရွေးချယ်စရာနည်းလမ်းအား စီမံကိန်းသည် သာဒူကံစက်မှုဇုံ၊ ရွှေပြည်သာမြို့နယ်မှာ တည်ရှိတာဖြစ်တဲ့အတွက်ကြောင့်၊ ၎င်းတို့၏ တည်နေရာ သို့မဟုတ် ဆိုက်အပေါ် အခြေခံ၍ အခြားရွေးချယ်စရာများကို စဉ်းစားရပါမည်။

ပတ်ဝန်းကျင် အကြောင်းအရာဖော်ပြချက်

ပတ်ဝန်းကျင်ဆိုင်ရာ သက်ရောက်မှု အကဲဖြတ်ရန်အတွက် **Shwe Daehan Motors Co.,ltd** ၏ရုပ်ပိုင်းဆိုင်ရာ အခြေခံလေ့လာမှုအား အား **Resource and Environment Myanmar Co., ltd** မှ ၁၅ နှင့် ၁၆ ဧန်နဝါရီလ ၂၀၁၉ တွင်လေ့လာခဲ့ပါသည်။ စီမံကိန်းသည် နံပါတ် ၆၉ နှင့် ၇၀၊ မဟူရာလမ်း၊ မြေတိုင်းရပ်ကွက် (သာဓုကန်စက်မှုဇုန်)၊ ရွှေပြည်သာမြို့နယ်တွင်တည်ရှိပါသည်။ အခြေံလေ့လာမှု အနေဖြင့် လေအရည်အသွေး၊ အသံဆူညံမှု နှင့် တုန်ခါမှု၊ မြေအောက်ရေအရည်အသွေး မြေနမူနာများ အားလေ့လာခဲ့ပါသည်။ အကျဉ်းချုပ် ရုပ်ပိုင်းဆိုင်ရာ လေ့လာမှု မှာအောက်ပါအတိုင်းဖြစ်ပါသည်။

ဇယား (၄-၁) အကျဉ်းချုပ် ရုပ်ပိုင်းဆိုင်ရာလေ့လာမှု

လေအရည်အသွေး	Parameter	1) Nitrogen dioxide, 2) CO, 3) particulate Matter PM10, 4) Particulate Matter PM 2.5, 5) Sulphur Dioxide, 6) Relative Humidity, 7) Temperature, 8) Wind Speed, and 9) Wind Direction
	ကာလ	၂၄ နာရီတစ်ၾကိမ်တိုင်းတာမှု
	နေရာ	Shwe Daehan Motors Co.,Ltd စက်ရုံအတွင်း, သာဓုကန် စက်မှုဇုန်
	တိုင်းတာသည့်	Haz Scanner EPAS
အသံဆူညံမှု	Parameter	LAeq (A-weighted loudness equivalent)
	ကာလ	၂၄ နာရီတစ်ၾကိမ်တိုင်းတာမှု
	နေရာ	Shwe Daehan Motors Co.,Ltd စက်ရုံအတွင်း, သာဓုကန် စက်မှုဇုန်
	တိုင်းတာသည့်	Sound Level Meter
တုန်ခါမှု	Parameter	Vibration (Lveq)
	ကာလ	တစ်နေရာတင်၍တစ်ၾကိမ်တိုင်းတာမှု
	နေရာ	Shwe Daehan Motors Co.,Ltd စက်ရုံအတွင်း, သာဓုကန် စက်မှုဇုန်
	တိုင်းတာသည့်	Rion Vibration meter
မြေအောက်ရေအရည်အသွေး	Parameter	1) Water temperature, 2) Air temperature, 3) pH, 4) Electrical Conductivity, and 5) Dissolved Oxygen, 6) Oxidation reduction potential, 7) Total dissolved solid, 8) Salinity
	ကာလ	တစ်နေရာတင်၍တစ်ၾကိမ်တိုင်းတာမှု
	နေရာ	Shwe Daehan Motors Co.,Ltd စက်ရုံအတွင်း, သာဓုကန် စက်မှုဇုန်
	တိုင်းတာသည့်	Hanna, Smartroll (multiparameter probe) and Hanna single probe
မြေအရည်အသွေး	Parameter	1) pH, 2) Arsenic, 3) Mercury, 4) Copper, 5) Lead, 6) Zinc, 7) Chromium, 8) Selenium, 9) Boron, 10) Fluoride, 11) Cadmium
	ကာလ	တစ်နေရာတင်၍တစ်ၾကိမ်တိုင်းတာမှု
	နေရာ	Shwe Daehan Motors Co.,Ltd စက်ရုံအတွင်း, သာဓုကန် စက်မှုဇုန်

	တိုင်းတာသည့်	Environmental soil sampling instrument (manual hand auger)



ပုံ ၄-၁ လေ၊ အသံဆူညံမှု၊ တုန်ခါမှု၊ ရေ နှင့်မြေ အရည်အသွေးတိုင်းတာမှုပြမြေပုံ

လေအရည်အသွေး တိုင်းတာမှုရလဒ်

ဇယား ၄-၁ လေအရည်အသွေး တိုင်းတာမှုရလဒ်

Sampling. No	Date	Time	CO	NO_2	NO	PM2.5	PM10	RH	SO2	Tmp C
	D.M.Y	hours	µg/m^3	µg/m^3	µg/m3	µg/m3	µg/m3	%	µg/m3	Deg. C
AQM	15th–16th January, 2019	24hours 1 hour	185.57	23.54	17.73	112.87	120.98	62.66	16.83	23.81
Myanmar National Environmental Quality (Emission) Guideline value			-	-	-	25	50	-	20	-

Source: Resource & Environment Myanmar Co., Ltd

ဆူညံသံတိုင်းတာမှုရလဒ်

ဇယား ၄-၂ ဆူညံသံ တိုင်းတာမှုရလဒ်

N-1	Noise 15th–16th January, 2019	
	Day time	Night time
Result	62	59
Environmental standard	70	70

Remark: Shaded area is lower than the standard.

တုန်ခါမှု တိုင်းတာခြင်းရလဒ်

၂၄ နာရီအတွက် အမှတ်တစ်ခုစီ၏ ပျမ်းမျှတုန်ခါမှုအဆင့်ရလဒ်များကို ဇယား ၄-၃ တွင် ဖော်ပြထားသည်။

ဇယား ၄-၃ တုန်ခါမှု တိုင်းတာခြင်းရလဒ်

Result	V-1		
	Daytime (7 am - 7 pm)	**Evening time (7 pm - 10 pm)**	**Night time (10 pm - 7 am)**
	37	29	24
Office, Commerical facilities, and factories Standard	70 dB	65 dB	65 dB

မြေအောက်ရေ အရည်အသွေးတိုင်းတာမှုရလဒ်

ဇယား ၄-၄ မြေအောက်ရေ အရည်အသွေးတိုင်းတာမှုရလဒ်

Sr.no	Parameter	Unit	GW-1	Guideline Value
	Location		16°59'35.0"N 96°05'01.0"E	
	Date/time		15.1.2019 10:54AM	
	Weather condition		Sunny	
	Transpency		Medium	
1	pH		6.76	6-9
2	ORP	MV	223	
3	Water Temperature	°C	27.77	<3[b]
4	Dissolved oxygen	mg/L	7.48	-
5	Conductivity	µs/cm	338	-
6	Total dissolved solid	ppm	220	-
7	Salinity	psu	0.16	-
8	Biological Oxygen Demand	mg/L	ND	50
9	Chemical Oxygen Demand	mg/L	ND	250
10	Total Suspended Solids	mg/L	9.8	10
11	Total Coliform	MPN/100ml	11,000	400
12	Oil and Grease	mg/L	ND	10
13	Free Cyanide	mg/l CN	ND	0.1
14	Total Cyanide	mg/l CN	ND	1
15	Total Nitrogen	mg/l N	0.57	10
16	Total Phosphorus	mg/l P	ND	2
17	Total Residual Chlorine	mg/l Cl_2	ND	0.2
18	Fluoride	mg/l F	0.27	20
19	Hexavalent Chromium	mg/l Cr	ND	0.1
20	Ammonia	mg/l NH_3	0.10	10
21	Phenols	mg/l	ND	0.5
22	Sulphide	mg/l	ND	1
23	Mercury	mg/l Hg	0.0002	0.01
24	Arsenic	mg/l As	0.0003	0.1
25	Selenium	mg/l Se	ND	0.1
26	Cadmium	mg/l Cd	ND	0.1
27	Total Chromium	mg/l Cr	ND	0.5
28	Copper	mg/l Cu	ND	0.5
29	Iron	mg/l Fe	165	3.5
30	Lead	mg/l Pb	ND	0.1
31	Nickel	mg/l Ni	ND	0.5
32	Silver	mg/l Ag	ND	0.5
33	Zinc	mg/l Zn	ND	2

ဇယား ၄-၅ မြေ အရည်အသွေးတိုင်းတာမှုရလဒ်

Unit- mg/kg

No.	Parameter	Results

		S-1
1	pH	ND
2	Arsenic (As)	1.84
3	Mercury (Hg)	ND
4	Copper (Cu)	4.77
5	Lead (Pb)	5.42
6	Zinc (Zn)	28.1
7	Chromium (Cr)	18.6
8	Selenium (Se)	ND
9	Boron (B)	8.05
10	Fluoride (F)	ND
11	Cadmium (Cd)	ND

၆၀ ပတ်ဝန်းကျင်

အခြေခံ လေ့လာမှု နယ်ပယ်များ နှင့် ရည်ရွယ်ချက်

- ဂေဟစနစ် လေ့လာမှု၏ အခြေခံ လေ့လာမှု နယ်ပယ်များ နှင့် ရည်ရွယ်ချက် မှာအောက်ပါအတိုင်းဖြစ်ပါသည်။
- ဂေဟစနစ်အပေါ် အခြေခံ၍ တိကျမှန်ကန် ပြည့်စုံသောအချက်အလက် ဖြစ်စေရန်
- အလားအလာရှိသော ဂေဟစနစ်သက်ရောက်မှု ဖော်ထုတ်ခြင်း နှင့် ကြိုတင်ခန့်မှန်းခြင်း
- သိသာထင်ရှားသော သက်ရောက်မှုများအား တွက်ချက်ခြင်း
- ထိရောက်မှုရှိသော လက်တွေ့ နှင့် အခြားနည်းလမ်းများ နှင့် လျော့ချရေး အစီအမံများ အကြံပြုနိုင်ရန်
- သင့်လျော်သော တိုင်းတာမှု စောင့်ကြပ်လေ့လာမှု များအားအကြံပြုနိုင်ရန်

လေ့လာသည့် နည်းစနစ်

ယင်းအခြေခံလေ့လာမှု အားအသုံးပြုသည့် နည်းလမ်းမှာ အောက်ပါအတိုင်းဖြစ်ပါသည်။

၁။ **Desktop survey**

၂။ ကွင်းဆင်းလေ့လာမှု

၃။ အင်တာဗျူးမေးမြန်းခြင်း

လေ့လာသည့် ဧရိယာပြမြေပုံမှာ အောက်ပါအတိုင်းဖြစ်ပါသည်။



ပုံ လေ့လာသည့် တည်နေရာပြမြေပုံ

လေ့လာမှုရလဒ်

အပင်မျိုးစိတ်

အဓိက ကျက်စားရာ နေရာ အမျိုးအစား အမည်အရ **hurb land, and Bush land area** စသည်နေရာများ တွေ့ရှိခဲ့သည်။

အကောင်များ

အကောင်မျိုးစိတ်တွင် ၅ မျိုးပါဝင်ပါသည်။ နို့တိုက်သတ္တဝါများ၊ ဒွက်၊ ပိုးမွှားများ **herpet** နှင့် ငါးတို့ဖြစ်ပါသည်။ လေ့လာသည့် အချိန်တွင် နို့တိုက်သတ္တဝါများ ၃မျိုး၊ တွားတွားနှင့် ကုန်းနေရေနေ ၅ မျိုး ဒွက်မျိုးစိတ် ၃၈၊ လိပ်ပြာ မျိုးစိတ် ၁၁ နှင့် **Dragonfly** မျိုးစိတ် နှင့် ငါး မျိုးစိတ် ၁၁ သည့်ဖြင့်တွေ့ရှိခဲ့ပါသည်။ လေ့လာခဲ့သည် ဧရိယာအတွင်းတွင် ခြိမ်းခြောက်ခံ ၄က်မျိုးစိတ် မတွေ့ရှိ ရှားပါး တွားတွားသတ္တဝါ မျိုးစိတ်တစ်ကောင်တွေ့ရှိခဲ့ပါသည်။ **IUCN Red list** အရ ခြိမ်းခြောက်ခံ ငါး၊ နို့တိုက်သတ္တဝါ၊ လိပ်ပြာ နှင့် **dragonfly** စသည်များမတွေ့ရှိခဲ့ပါ။ စီမံကိ်နး်ဧရိယာထဲမှ ၄က်အုပ်စု မျိုးစိတ် တွေ့ရှိခဲ့ပါသည်။

လူမှု ပတ်ဝန်းကျင်

လူမှု ပတ်ဝန်းကျင်ဆိုင်ရာအား လေ့လာရာတွင် ဒေသဆိုင်ရာ တည်ဆောက်မှု၊ ဒေသစီးပွားရေး အဆင့်၊ ဝင်ငွေ နှင့် ပညာရေး နှင့်အတူ ရွှေပြည်သာ မြို့နယ်ရှိ လူထုအဖွဲ့အစည်း နှင့်ပက်သက်သည့် ကိစ္စရပ်များကို အဓိကထားလေ့လာမည် ဖြစ်ပါသည်။

လူမှု ပတ်ဝန်းကျင်စစ်တမ်းလေ့လာမှုများအား ၁၆ နှင့် ၁၇ ဧန်နဝါရီ ၂၀၁၉ တွင် စီမံကိန်းမှ ၁ ကီလိုမီတာ အတွင်းတွင် ကောက်ယူခဲ့ပါသည်။ စုစုပေါင်း ၈၄ ယောက်အား အဓိက အားဖြင့် လက်ရှိ လူမှုစီးပွား အခြေအနေ နှင့် အဆိုပြုထားသော စီမံကိန်းအပေါ် အမြင်များစသည် ့ဖြင့် အပိုင်း နှစ်ပိုင်းခွဲ၍ တွေ့ဆုံ မေးမြန်းခဲ့ပါသည်။ စီမံကိ်နး်သည် စက်မှုဇုန်အတွင်းတွင် ရှိသောကြောင့် လူမှုစီးပွားအပေါ် သိသာထင်ရှားသော သက်ရောက်မှု

မရှိပါ။ ရပ်ကွက်အားလုံးသည် နည်းပညာနှင့် အလုပ်အကိုင် အခွင့်အလမ်းများတိုးပွားလာခြင်း မိသားစုဝင်ငွေတိုးလာမည်ဟု မျှော်လင့်ကြပါသည်။

အလားအလာရှိသော သဘာဝပတ်ဝန်းကျင် သက်ရောက်နိုင်မှု နှင့်လျော့ချမှုနည်းလမ်း

စီမံကိန်း၏ ဆောက်လုပ်ရေးကာလ၊ လည်ပတ်ကာလ နှင့် ဖျက်သိမ်းကာလတို့တွက် အဓိကသက်ရောက်မည် သက်ရောက်မှုများအား စီမံကိန်း၏ သဘောသဘာဝ ပတ်ဝန်းကျင် နှင့် မူဘောင်ကို အခြေခံပါသည်။ ဤအခန်းတွင် စီမံကိန်းလှုပ်ရှားမှုများ၏ ကောင်းကျိုး၊ ဆိုးကျိုးဆက်စပ်မှုများကို ဖော်ပြထားပါသည်။ စီမံကိန်း၏ သက်ရောက်မှု ဆန်းစစ်ရာတွင် ဆောက်လုပ်ရေးကာလ၊ လည်ပတ်ကာလ နှင့် ဖျက်သိမ်းကာလတို့အတွက် ခန့်မှန်းတွက်ချက်ထားပါသည်။

သက်ရောက်မှု အကဲဖြတ်နည်းလမ်း

လှုပ်ရှားမှုများ၏ သက်ရောက်မှုများအား **magnitude, duration, spatial and frequency of activities** စသည်ဖြင့် စီမံကိန်းအဆင့်တိုင်း နှင့် စီမံကိန်းလက္ခဏာ စသည့်ဖြင့်တွက်ချက်ထားပါသည်။ အဆိုပါ အကဲဖြတ်အရေအတွက် နှင့် အရည်အသွေး နှစ်ခုလုံးစသည့် သက်ရောက်မှုတိုင်းအရေးပါမှုကို ခြုံငုံ၍ ၅ မျိုးခွဲခြားထားပါသည်။

ဇယား (၂) သက်ရောက်မှု အကဲဖြတ်နည်းလမ်း

Parameter	Scale				
	1	2	3	4	5
Magnitude (M)	Insignificant	small and will have no effect on environment	Moderate and will result in minor changes on environment	High and will result in significant changes on environment	Very high and will result in permanent changes on environment
Duration (D)	0-1 year	2-5 year	6-15 year	Life of operation	Post Closure
Extent (E)	Limited to the site	Limited to the local area	Limited to the region	National	International
Probability (P)	Very improbable	Improbable	Probable	Highly probable	Definite

Then, the significant Point (SP) is calculated by the following formula.

Significant Point (SP) = (Magnitude + Duration + Extent) * Probability

Impact Significance: Based on calculated significant point, impact significance can be categorized as follows:

Explantation

Significant Point (SP) = (Magnitude + Duration + Extent) * Probability

Impact Significance

Significant Point (SP)	Impact Significance
<15	No impact (-)
15-29	Low impact (U)
30-44	Moderate significant (C)
45-59	High significant (B)
> 60	Very high significant (A)

(Source: International Association of Impact Assessment- IAIA, 2014, www.iaia.org)

ဇယား (၃) အလားအလာ ရှိသော သက်ရောက်မှု ဆန်းစစ်ချက်များ ရလဒ် (ဆောက်လုပ်ရေးကာလ)

သက်ရောက်မှုများ	အလားအလာရှိသော သက်ရောက်မှု					သိသာ ထင်ရှားသော သက်ရောက်မှု
	M	D	E	P	SP	
ရုပ်ပိုင်းဆိုင်ရာ အရင်းအမြစ်						
မြေတိုက်စားမှု	4	4	1	4	36	အလယ်အလတ်
အစိုင်အခဲစွန့်ပစ်မှု	4	3	1	4	32	အလယ်အလတ်
ဖုန်ထုတ်လွှတ်မှု	4	1	2	4	32	အလယ်အလတ်
အသံဆူညံမှု နှင့် တုန်ခါမှု	4	1	2	4	32	အလယ်အလတ်
အိတ်ဇောမှ ထုတ်လွှတ်မှု	4	1	2	4	32	အလယ်အလတ်
ရေလိုအပ်မှု	4	1	2	4	32	အလယ်အလတ်
ရေညစ်ညမ်းမှု	4	1	2	4	32	အလယ်အလတ်
ဇီဝအရင်းအမြစ်						
သစ်ပင်ပန်းမန်များ	4	3	2	4	36	အလယ်အလတ်
တိရိစ္ဆာန်များ	4	3	2	4	36	အလယ်အလတ်
လုပ်ငန်းခွင်ကျန်းမာရေး နှင့် လုံခြုံမှု						
ရုပ်ပိုင်းဆိုင်ရာ အန္တရာယ်များ	4	4	2	3	33	အလယ်အလတ်
အသံဆူညံမှု နှင့် တုန်ခါမှုအား ထိတွေ့မှု	4	3	2	3	27	အလယ်အလတ်
ကူးစက်ရောဂါများ	3	3	1	3	21	နိမ့်
လူမှုစီးပွားအရင်းအမြစ်များ						
မြေအသုံးချမှု	1	1	2	5	20	နိမ့်
ရေအသုံးချမှု	4	1	2	3	21	နိမ့်
လုံခြုံမှု	3	2	2	3	21	နိမ့်

ဇယား (၄) အလားအလာရှိသော သက်ရောက်မှု ဆန်းစစ်ချက်များ ရလဒ် (လည်ပတ်ကာလ)

သက်ရောက်မှုများ	အလားအလာရှိသော သက်ရောက်မှု					သိသာ ထင်ရှားသော သက်ရောက်မှု
	M	D	E	P	SP	
ရုပ်ပိုင်းဆိုင်ရာ အရင်းအမြစ်						
အမှုန်ထုတ်လွှတ်မှု	3	4	2	3	27	နိမ့်
အသံဆူညံမှု	3	4	2	3	27	နိမ့်
အန္တရာယ်ရှိသော ပစ္စည်းများ	3	4	2	3	24	နိမ့်
အစိုင်အခဲစွန့်ပစ်မှု	3	4	2	3	27	နိမ့်

စွမ်းအင်မြင့်မားစွာ သုံးစွဲမှု	4	4	2	3	30	အလယ်အလတ်
လုပ်ငန်းခွင်ကျန်းမာရေး နှင့် လုံခြုံမှု						
ဓာတုပစ္စည်းများ ထိတွေ့မှု	5	4	1	2	20	နိမ့်
အသံဆူညံမှု နှင့် တုန်ခါမှုအား ထိတွေ့မှု	5	4	1	3	30	အလယ်အလတ်
စက်ပစ္စည်းများ	5	4	1	3	30	အလယ်အလတ်
လူမှုစီးပွားအရင်းအမြစ်များ						
အလုပ်အကိုင် အခွင့်အလမ်းများ	1	3	2	2	18	နိမ့်
စီးပွားရေး အခွင့်အလမ်းများတိုးပွားလာမး	1	1	2	2	20	နိမ့်
တိုင်းပြည် အခွန်များတိုးပွားလာမှု	3	4	2	3	27	နိမ့်
လုံခြုံရေး တိုးတက်လာမှု	5	3	2	2	20	နိမ့်

ဇယား (၅) အလားအလာရှိသော သက်ရောက်မှု ဆန်းစစ်ချက်များ ရလဒ် (ဖျက်သိမ်းကာလ)

သက်ရောက်မှုများ	အလားအလာရှိသော သက်ရောက်မှု					သိသာ ထင်ရှားသော သက်ရောက်မှု
	M	D	E	P	SP	
ရုပ်ပိုင်းဆိုင်ရာ အရင်းအမြစ်						
အမှုန်ထွက်ရှိမှု	5	1	2	4	32	အလယ်အလတ်
အသံဆူညံမှု နှင့် တုန်ခါမှု	5	1	2	4	32	အလယ်အလတ်
အစိုင်အခဲစွန့်ပစ်မှု	5	1	2	5	40	အလယ်အလတ်
ရေညစ်ညမ်းမှု	3	1	2	4	24	နိမ့်
ဇီဝအရင်းအမြစ်များ						
အပင်	1	1	1	2	6	အလွန်နိမ့်
တိရိစ္ဆာန်များ	1	1	1	2	6	အလွန်နိမ့်
လုပ်ငန်းခွင် ကျန်းမာရေး နှင့် လုံခြုံမှု						
ရုပ်ပိုင်းဆိုင်ရာ ဘေးအန္တရာယ်	5	1	2	4	32	အလယ်အလတ်
လူမှုစီးပွားအရင်းအမြစ်များ						
ပြည်သူကျန်းမာရေး	5	1	2	3	24	နိမ့်
အသက်မွေးဝမ်းကျောင်းမှု	5	2	3	5	50	မြင့်

လျော့ချရေးနည်းလမ်းများ

ဇယား လည်ပတ်ကာလာ ပတ်ဝန်းကျင်ဆိုင်ရာ လျော့ချရေးနည်းလမ်းများ

သက်ရောက်မှု	လျော့ချရေးနည်းလမ်းများ
အမှုန်နှင့် မီးခိုးထုတ်လွှတ်မှု	✓ ကြိုတင်ပြင်ဆင်ထိန်းသိမ်းမှုစနစ်ကို ကျင့်သုံးရန်၊ ဆောက်လုပ်ရေး အချိန်ဇယားကို အကောင်းဆုံးဖြစ်အောင် ပြုပြင်ခြင်းဖြင့် ယာဉ်များလည်ပတ်နေသည့်အချိန်ကို လျော့ချရန် ၊ ✓ မခင်းထားသော လမ်းပေါ်တွင် ရေဖြန်းခြင်း ဖုန်မှုန့်ထိန်းချုပ်သည့် ကိရိယာများကို အသုံးပြုပါ။
အသံဆူညံမှု	✓ ပတ်ဝန်းကျင်အား ဆူညံသံများကို လျော့ပါးသက်သာစေရန် အလွှာနှစ်ထပ် ကာရံထားသင့်သည်။

	✓ ဆူညံသံခံကိရိယာများ၊ နားပလပ်များနှင့် နားကြပ်များကဲ့သို့သော PPE ကို ပေးဆောင်ပါ။ ✓ အသံအဆင့်သည် 85 dB(A) သည် 8 နာရီနှင့်အထက် ခံစားရစေလျှင် အင်ဂျင်အိတ်ဇောများနှင့် ကွန်ပရက်ဆာ အစိတ်အပိုင်းများတွင် သင့်လျော်သော mufflers များကို တပ်ဆင်ပါ။ ✓ ကွာဟမှုမရှိစေရန် အသံပိုင်းဆိုင်ရာ အတားအဆီးများကို တပ်ဆင်ပါ။ ✓ မြင့်မားသောဆူညံသံများနှင့် ထိတွေ့နေသော အလုပ်သမားများအတွက် အချိန်အခါအလိုက် ဆေးဘက်ဆိုင်ရာ အကြားအာရုံစစ်ဆေးမှုများ ပြုလုပ်ပါ။ ✓ တုန်ခါမှုကို ကာကွယ်သော အကာအရံများ သို့မဟုတ် စက်ကိရိယာများကို တပ်ဆင်ပါ။ ✓ ထိတွေ့မှုကြာချိန်နှင့် ထိတွေ့မှုအဆင့်များကို ကန့်သတ်ရန် စက်ကိရိယာထုတ်လုပ်သူများက ပံ့ပိုးပေးသော နေ့စဉ်ထိတွေ့ချိန်နှင့် အချက်အလက်များကို အခြေခံ၍ စစ်ဆေးသင့်သည်
ရေလိုအပ်မှု	✓ ရေကို သက်သာစေသော အဝတ်လျှော်စက်ကို အသုံးပြုပါ။ ✓ ရေချိုကို တတ်နိုင်သမျှ ထိန်းသိမ်းပါ။ ✓ ဥယျာဉ်စိုက်ပျိုးခြင်း သို့မဟုတ် ရှုခင်းများ နှင့် ရေချိုးခန်း များအတွက် သန့်စင်ထားသော ရေကို ပြန်လည်အသုံးပြုပါ။ ✓ ရေတွင်းအခြေအနေ အချက်အလက်ကို စောင့်ကြည့်ပါ (abstraction rate ၊ water level ၊ water quality စသည်တို့ပါဝင်သည်) ✓ အသုံးပြုမှုများကို စောင့်ကြည့်ရန် ရေသုံးစွဲမှု မှတ်တမ်းများကို ထိန်းသိမ်းပါ။
စွမ်းအင်သုံးစွဲမှု	✓ စိုထိုင်းဆနှင့် အပူချိန်ကို ထိန်းချုပ်ပေးသည့် လေ-ကိုင်တွယ်ကိရိယာသည်၊ စွမ်းအင်၏ ၂၅ ရာခိုင်နှုန်းအထိ သက်သာစေသည်။ ✓ စွမ်းဆောင်ရည်မြင့် အအေးခံစက်များ၊ နှင့် ✓ ရေကို အအေးခံ၍ အပူလဲလှယ်ကိရိယာများကို အသုံးပြုသည့် များမှ အပူကို ပြန်လည်ရယူခြင်းသည် ခေတ်မီစက်မှုလုပ်ငန်းသုံး အဆောက်အအုံကို ၎င်း၏လိုအပ်ချက်၏ ၄၀ ရာခိုင်နှုန်းအထိ သက်သာစေနိုင်သည်။ ✓ ဓာတ်ငွေ့ထုတ်လွှတ်မှု လျှော့ချခြင်းဆိုင်ရာ အဆင့်မြင့် နည်းပညာများသည် ပိုမိုကောင်းမွန်သော နှင့် စွမ်းအင်သုံးစွဲမှု နည်းပါးသော စက်ကိရိယာအသစ်များအတွက် အထောက်အကူဖြစ်သည်။
ရုပ်ပိုင်းဆိုင်ရာအန္တရာယ်များ	✓ အခန်းအားလုံး လေဝင်လေထွက်ကောင်းမွန်ကြောင်း သေချာပါစေ။ ✓ အရည်အသွေးကောင်းမွန်ပြီး ခွင့်ပြုထားသော ကုန်ကြမ်းများကို အသုံးပြုပါ။ ✓ နှစ်စဉ် ကျန်းမာရေး စစ်ဆေးပေးရမည်။ ✓ သင့်လျော်သော အမှိုက်စွန့်ပစ်ခြင်းဆိုင်ရာ အလေ့အကျင့်များ မွေးမြူပါ။ ✓ အီလက်ထရွန်းနစ်ပစ္စည်းများ၊ လျှပ်စစ်စနစ်နှင့်

	လောင်စာသိုလှောင်ရုံများကို ပုံမှန်စစ်ဆေးပြီး ပြုပြင်ထိန်းသိမ်းပါ။ ✓ လုပ်ငန်းခွင်ပတ်ဝန်းကျင်၊ ဘေးကင်းရေးနှင့် လုံခြုံရေးဆိုင်းဘုတ်များ၊ ဘေးကင်းရေးနှင့် လုံခြုံရေးစံနှုန်းများနှင့် အရေးပေါ်တုံ့ပြန်မှုဆိုင်ရာ လုပ်ထုံးလုပ်နည်းများကို နားလည်ရန် အလုပ်သမားအားလုံးအတွက် လုပ်ငန်းခွင်ဘေးကင်းရေးနှင့် လုံခြုံရေးသင်တန်းများ ပို့ချပေးခြင်း၊ ✓ စက်ရုံအလုပ်သမားအားလုံးအတွက် တစ်ကိုယ်ရေကာကွယ်ရေးပစ္စည်း (PPE) ပေးကာ အလုပ်သမားများအားလုံး အလုပ်ခွင်တွင် PPE (အဖုံးများ၊ ဖုန်မှုန့်များ၊ ဘေးကင်းရေးဖန်သားပြင်၊ လက်အိတ်၊ နားပလပ်၊ ခါးစည်းနှင့် လုံခြုံရေးဖိနပ်များကို လိုအပ်သလို အသုံးပြုရန်) သေချာစေပါ။
ဘေးအန္တရာယ်ရှိသော ပစ္စည်းများ	✓ ယိုစိမ့်မှုကို သိရှိနိုင်စေရန် ဓာတုပစ္စည်းများ သိုလှောင်သည့်နေရာကို ပုံမှန်စစ်ဆေးသင့်သည်။ ✓ အန္တရာယ်ရှိသော ပစ္စည်းများသယ်ဆောင်သည့် လုပ်ငန်းကို တွဲဖက်ပစ္စည်းများဖြင့် တည်ဆောက်ထားသင့်ပြီး လုံလောက်သောပုံပိုးမှု၊ သိသာထင်ရှားသော တံဆိပ်တပ်ပြီး အရည်အသွေးမြင့် ပစ္စည်းများဖြင့် တပ်ဆင်သင့်သည်။ ✓ ပိုက်များကို မီတာ 30' အမြင့်ဆုံးတိုင်းတွင် အမှတ်နိမ့်၊ မြင့်မားသော အပေါက်များနှင့် အဆို့ရှင်များဖြင့် ဒီဇိုင်းထုတ်သင့်သည်။ ✓ စွန့်ပစ်အမှိုက်ပုံးများကို အသုံးပြုသင့်သည်။
မီးဘေးအန္တရာယ်	✓ အသံနှင့်အမြင်အာရုံမီးအချက်ပေးစနစ်၊ ✓ မီးသတ်ဆေးဘူးများ၊ စီမံကိန်း၏အဓိကနေရာများတွင် ဖျန်းသော ပစ္စည်းများ အပါအဝင် မီးငြိမ်းသတ်ကိရိယာအသစ်များ တပ်ဆင်ခြင်းနှင့် ပုံမှန်စစ်ဆေးခြင်းနှင့် ပြုပြင်ထိန်းသိမ်းခြင်းများ၊ ✓ အလုပ်သမားအားလုံးအတွက် မီးငြိမ်းသတ် သင်တန်းနှင့် ပုံမှန် မီးငြိမ်းသတ် လေ့ကျင့်မှုများ ပြုလုပ်ပါ။ ✓ မီးဘေးအန္တရာယ်ကင်းရှင်းရေးမူဝါဒကို ရေးဆွဲပြီး အကောင်အထည် ဖော်ပါ။ ✓ ပုံသေနှင့် သယ်ဆောင်ရလွယ်ကူသော မီးသတ်ပစ္စည်းများကို ဒီဇိုင်းဆွဲပြီး တပ်ဆင်ပါ။ ✓ စက်ရုံပိတ်သည့်လုပ်ငန်းစဉ်ကို မှတ်တမ်းတင်ထားပါ။ ✓ ဂျင်နရေတာများကဲ့သို့ စက်ယန္တရားများအားလုံးတွင် လည်ပတ်မှု လမ်းညွှန်ချက်များကို ပေးဆောင်ပါ။ ✓ မီးလောင်ကျွမ်းနိုင်သော အရင်းအမြစ်များနှင့် ဓာတ်တိုးဆန့်ကျင် ပစ္စည်းများ ဝေးဝေးတွင် သိမ်းဆည်းပါ။ ✓ သဘာဝအတိုင်း သို့မဟုတ် passive ကြမ်းပြင်နှင့် မျက်နှာကျက်အဆင့် လေဝင်လေထွက်နှင့် ပေါက်ကွဲလေဝင်လေထွက်ရှိရမည်။ ✓ မီးငြိမ်းသတ်ကိရိယာများနှင့် ကိုယ်တိုင်ပိတ်တံခါးများ ထားရှိပါ။

ဇယား ဖျက်သိမ်းကာလာ ပတ်ဝန်းကျင်ဆိုင်ရာ လျော့ချရေးနည်းလမ်းများ

သက်ရောက်မှု	လျော့ချရေးနည်းလမ်းများ
စွန့်ပစ်အစိုင်အခဲ	✓ ပြန်အသုံးပြုခြင်းနှင့် ပြန်လည်အသုံးပြုခြင်းကို အားပေးရန်အတွက် အမှိုက်များကို ခွဲထုတ်ပါ။ ✓ စည်းကမ်းနှင့်အညီ အမှိုက်စွန့်ပစ်ပါ။
အရည်အညစ်အကြေး	✓ အရည်စွန့်ပစ်ပစ္စည်းပမာဏကို လျော့ချရန် ရေကို သတိရှိရှိသုံးပါ။ ✓ အနီးနားရှိ မြေအောက်နှင့် ရေမျက်နှာပြင် ညစ်ညမ်းမှုကို ကာကွယ်ရန် ဖြိုဖျက်စဉ်အတွင်း မိလ္လာစနစ် ကောင်းမွန်စွာ အလုပ်လုပ်ကြောင်း သေချာစေရန်၊ ✓ ပတ်ဝန်းကျင်နှင့် မြေအောက်ရေများ ညစ်ညမ်းစေသော ညစ်ညမ်းမှုမှ ကာကွယ်ရန် မိလ္လာစနစ်အား စနစ်တကျ ဖြုံချရန်
အသံဆူညံမှု	✓ နေ့အချိန်အတွင်း ဆူညံသောလှုပ်ရှားမှုများကို အချိန်ဇယားဖြင့်လုပ်ဆောင်ပါ။ ✓ ဓာတ်ငွေ့ထုတ်လွှတ်မှုကို လျှော့ချရန် စက်ယန္တရားများကို ကောင်းမွန်စွာ ထိန်းသိမ်းထားရန်
ဖုန်မှုန့်	✓ ထိခိုက်လွယ်သောနေရာများတွင် ဖုန်မှုန့်အတားအဆီးများတပ်ဆင်ပါ။ ✓ ဖုန်မှုန့်များကို ကာကွယ်ရန်အတွက် သင့်လျော်သော PPE အသုံးပြုမှုကို ပံ့ပိုးပေးခြင်း၊
လူထုကျန်းမာရေး	✓ နံရံများကို မူလမြေပြင်ပုံစံနှင့် တတ်နိုင်သမျှနီးအောင် ပြန်လည်ပြုပြင်ပါ။ ✓ စက်ရုံပိတ်ပြီးနောက် တူးဖော်မှုအားလုံးကို ပြန်လည်ဖြည့်ရမည်။ ✓ အလွတ် ဧရိယာအားလုံးကို သင့်လျော်သော မြက်ပင်များ သို့မဟုတ် အခြားသော အပင်များဖြင့် စိုက်ပျိုးသင့်သည်။
နေထိုင်မှု ဘဝပုံစံ	✓ ဖွံ့ဖြိုးတိုးတက်မှုနှင့် ပတ်သက်သော ထိခိုက်မှုရှိသော သက်ဆိုင်ရာ အားလုံးကို စောစော အသိပေးချက်ပေးရမည်။ ✓ အဆိုပြုထားသော စက်ရုံအဆောက်အအုံများနှင့် အခြားစက်ရုံများကို ဖျက်သိမ်းခြင်းမပြုမီ လူထုကို အကြောင်းကြားရမည်။ ✓ အလုပ်အကိုင်ဥပဒေနှင့်အညီ အလုပ်ထုတ်ပယ်ခြင်း ဆိုင်ရာ လုပ်ငန်းစဉ်များကို ဆောင်ရွက်ရမည်။.

ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု နှင့် စောင့်ကြပ်မှု အစီအစဉ်

ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု ၏ လိုအပ်သော လျော့ချရေး နှင့် တာဝန်များအား **ESIA** အဓိက တွေ့ရှိချက်ကို ဦးစားပေးတွက်ချက်ထားပါသည်။ ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု စီမံကိန်းမှ ရရှိသည့် အချက်အလက်များ များဖြင့် ပြင်ဆင်ပါသည်။ စီမံကိန်းအကောင်အထည်ဖော်မည့် အစီအစဉ်အား ထည့်သွင်းစဉ်စားထားပြီး အလားအလာရှိသော ပတ်ဝန်းကျင် ကိုသက်ရောက်မှု လျော့ချရန်ှ နှင့် ကျန်းမာရေး နှင့် ဘေးကင်းလုံခြုံမှုများအား ဆောက်လုပ်ရေးအဆင့်၊ လည်ပတ်ကာလနှင့် ဖျက်သိမ်းကာလ စသည့်ဖြင့် ထည့်သွင်းစဉ်းစားထားပါသည်။ **EMP** အားအကောင်အထည်ဖော် ဆောင်ရွက်ရာတွင် အချိန်ဇယားအား သတင်းအချက်အလက်များ အသစ် သို့ အခြေအနေများပြောင်းလဲသည့် အချိန်တိုင်တွင် ပြင်ဆင်ရန် နှင့် မြင့်တင်ရန်လိုအပ်ပါသည်။

EMP တွင် အဓိကအားဖြင့် ၆ ခုပါဝင်ပါသည်။

1) Monitoring Plan
2) Mitigation Plan
3) Safety and security Plan
4) Emergency response plan
5) Cooperate Social Responsibility (CSR) Plan စသည်တို့ဖြစ်ပါသည်။

ဇယား (၆) သဘာဝပတ်ဝန်းကျင် နှင့် လူမှုစီးပွား သက်ရောက်မှုအား တိုင်းတာမည့် အစီအစဉ်

အဆင့်	ပါဝင်သည်များ	Parameter	သတ်မှတ်ထားသည့် အတိုင်းအတာ	တိုင်းတာမည့် နည်းလမ်း	တိုင်းတာမည့် နေရာ	တိုင်းတာမည့် အကြိမ်	သက်ဆိုင်သည့် ပုဂ္ဂိုလ်
လည်ပတ်ကာလ	သဘာဝပတ်ဝန်းကျင် သက်ရောက်မှု						
	လေ အရည်အသွေး	TSP, PM10, CO, CO_2, NO_2	ကန့်သတ်ထားသည့် အတိုင်းအတာ	ppm, µg/m^3	စက်ရုံအတွင်း	တစ်နှစ် ၂ ကြိမ်	Contractor/ HSE Manager
	ရေ အရည်အသွေး	Drinking Water Parameter (WHO)	ကန့်သတ်ထားသည့် အတိုင်းအတာ	As per WHO Guidelines	တွင်းရေ	လစဉ်	Contractor/ HSE Manager
		Ground Water Parameter (WHO)			တွင်းရေ	တစ်နှစ် ၂ ကြိမ်	Contractor/ HSE Manager
	ရေ အရည်အသွေး	စွန့်ပစ်မည့်နေရာ		Cu. m/s	တွင်းရေ	လစဉ်	Contractor/ HSE Manager
	ဆူညံမှု	Noise level on dB(A) scale	ကန့်သတ်ထားသည့် အတိုင်းအတာ	dB	ထိခိုက်လွယ်သည့်နေရာ	တစ်နှစ် ၂ ကြိမ်	Contractor/ HSE Manager
	စွန့်ပစ်ရေများ တိုးလာမှု	Wastewater effluent Parameter (WHO)	ကန့်သတ်ထားသည့် အတိုင်းအတာ	As per WHO Guidelines	စွန့်ပစ်ရေထွက်သည့် ်နေရာ၊ ရေသန့် အရင်းအမြစ်၊ အနီးနား ရေများ	အပတ်စဉ်	Contractor/ HSE Manager
	အစိုင်အခဲစွန့်ပစ်မှု	အမှိုက်၊ ပလပ်စတစ်၊ စာရွက်များ၊ အိမ်သုံးစွန့်ပစ်ပစ္စည်းများ၊ မီးဖိုခော်သုံးစွန့်ပစ်	ထွက်ရှိသည့် အစိုင်အခဲ အရေအတွက်	kg	စွန့်ပစ်မည့်နေရာ	အပတ်စဉ်	Contractor/ HSE Manager

		စဘည့ မ်ား					
	လူမူစီးပွား သက်ရောက်မူ						
	မတော်တဆ ထိခိုက်မူ	အလုပ်သမားများအတွက် ဘေးကင်းလုံခြုံရေး သင်တန်းများ၊ မတော်တဆ ထိခိုက်မူ မှတ်တမ်းများ၊	မတော်တဆ ထိခိုက်မူ ကင်းရှင်းရေး	ဘေးကင်း လုံခြုံရေး တိုင်းတာမူများ	စီမံကိန်းဧရိယာ	သုံးလတစ်ကြိမ်	Shwe Daehan Co.,Ltd
ဖ်က့သိမ့းကာလ	**သဘာဝပတ့ဝနှးက်ငှ သက့ရောက့မူ**						
	လေ အရည်အသွေး	TSP, PM10, CO, CO_2, NO_2	ကန့်သတ်ထားသည့် အတိုင်းအတာ		စက်ရုံအတွင်း	လစဉ်	Shwe Daehan Co.,Ltd
	ရေ အရည်အသွေး	Drinking Water Parameter (WHO)/ Surface Water Parameter (WHO)	ကန့်သတ်ထားသည့် အတိုင်းအတာ	As per WHO Guidelines	စွန့်ပစ်ရေထွက်သည် ့နေရာ၊ ရေသန့် အရင်းအမြစ်၊ အနီးနား ရေများ	လစဉ်	Shwe Daehan Co.,Ltd
	ဆူညံမူ	ဆူညံမူ အတိုငှးအတာ	ကန့်သတ်ထားသည့် အတိုင်းအတာ	dB	ထိခိုက်လွယ်သည့်နေရာ	နေ့စဉ်	Shwe Daehan Co.,Ltd
	စွန့်ပစ်ရေများ တိုးလာမူ	TSS, COD, BOD, DO, pH, oil, phenol	ကန့်သတ်ထားသည့် အတိုင်းအတာ	Mg/L	စွန့်ပစ်ရေထွက်သည် ့နေရာ၊ ရေသန့် အရင်းအမြစ်၊ အနီးနား ရေများ	လစဉ်	Shwe Daehan Co.,Ltd
	အပင်များ	အပင်ပြန်လည်စိုက်ပျိုးခြင်း၊ တူညီသော မျိုးစိတ်များ၊ ဆုံးရုံးထား အပင်အရေအတွက်	-	clusters	အခန်းများ အတွက် သစ်ပင်ရှင်းလင်းသည့် နေရာများ	လစဉ်	Shwe Daehan Co.,Ltd

	အစိုင်အခဲစွန့်ပစ်မှု	ဖြိုဖျက်ထားသော အမှိုက်ကွန်ကရစ်၊ သတ္တု၊ သစ်သားစများ၊ ဖန်များ၊သုတ်ဆေးများ၊ ကော်များ	ထွက်ရှိသည့် အစိုင်အခဲ အရေအတွက်	kg	စွန့်ပစ်သည့်နေရာ	အပတ်စဉ်	Shwe Daehan Co.,Ltd
	လူမှုစီးပွား သက်ရောက်မှု						
	လူမှုစီးပွား အမြင်များ	အလုပ်ခန့်ခြင်း၊ ဒေသစီးပွားရေး နှင့် ကျား၊မ ကိစ္စများ	ကန့်သတ်ထားသည့် အတိုင်းအတာ	နှမှုနှာ	စီမံကိန်းတစ်ခုလုံး	နေ့စဉ်	Shwe Daehan Co.,Ltd

ဘေးကင်းရေးနှင့် လုံခြုံရေးစီမံချက်

ဤဘေးကင်းရေးနှင့် လုံခြုံရေးစီမံချက်သည် စက်ရုံတည်ဆောက်မှုအဆင့်နှင့် လုပ်ငန်းလည်ပတ်မှုအဆင့်အတွင်း အကောင်အထည်ဖော်ရန် ရည်ရွယ်ပါသည်။ ၎င်းသည် စက်ရုံအလုပ်သမားများအတွက် အမြင့်ဆုံးသော လုပ်ငန်းခွင်ကျန်းမာရေးနှင့် ဘေးကင်းရေး)OHS) ပေးရန် ရည်ရွယ်သည်။ ၎င်းသည် ဖြစ်နိုင်ချေရှိသော အရေးပေါ်အခြေအနေများနှင့် ဘေးလွတ်ရာသို့ ရွှေ့ပြောင်းရန်နှင့် အရေးပေါ်အသုံးပြုမှုအတွက် လုပ်ထုံးလုပ်နည်းများကိုလည်း ထည့်သွင်းစဉ်းစားသည်။

အရေးပေါ်တုံ့ပြန်ရေးအစီအစဉ်

အရေးပေါ်အစီအစဉ်ရေးဆွဲခြင်း၏ ရည်ရွယ်ချက်မှာ လုပ်ငန်းခွင်တွင် ဖြစ်ပေါ်သည့် အရေးပေါ်အခြေအနေများ၏ အကျိုးသက်ရောက်မှုများကို လျှော့ချရန်ဖြစ်သည်။ အရေးပေါ်အခြေအနေတွင် ပေါက်ကွဲခြင်း၊ မီးလောင်ကျွမ်းခြင်း၊ အန္တရာယ်ရှိသော တုံ့ပြန်မှု သို့မဟုတ် မီးလောင်လွယ်သော၊ အဆိပ်သင့်သော သို့မဟုတ် အဆိပ်ဓာတ်ငွေ့များနှင့် အခိုးအငွေ့များ ဆင့်ကဲဖြစ်ပေါ်ခြင်း သို့မဟုတ် အန္တရာယ်ရှိသော ဓာတုပစ္စည်းများ ယိုစိမ့်ထွက်ပြေးခြင်း၊ ယိုစိမ့်ခြင်း သို့မဟုတ် ယိုစိမ့်ခြင်းတို့ ပါဝင်နိုင်သည်။

Corporate Social Responsibility (CSR) အစီအစဉ်

အဆိုပြုထားသော ပရောဂျက်ကို အကောင်အထည်ဖော်ခြင်းသည် ရပ်ရွာ၏နေ့စဉ်လူနေမှုဘဝအပေါ် အနုတ်လက္ခဏာနှင့် အပြုသဘောဆောင်သော အကျိုးသက်ရောက်မှုများ နှစ်ခုစလုံးကို ဖြစ်ပေါ်စေမည်မှာ အမှန်ပင်ဖြစ်သည်။ ဤအစီအစဉ်၏ ရည်ရွယ်ချက်မှာ ဝန်ထမ်းများနှင့် ၎င်းတို့၏ မိသားစုဝင်များ ပိုမိုကောင်းမွန်သော အသိုက်အဝန်းအတွက် လူမှုဖူလုံရေးရရှိစေရန်ဖြစ်သည်။
စက်ရုံလည်ပတ်သည့်နှစ်မှစတင်၍ နှစ်စဉ်အမြတ်ငွေ၏ 2% ကို Corporate Social Responsibility (CSR) အစီအစဉ်အတွက် ခွဲဝေပေးမည်ဖြစ်ကြောင်း MIC သို့ တင်ပြထားသည့် အဆိုပြုသူ၏စာတမ်းတွင် ဖော်ပြထားသည်။ သို့သော်လည်း ကုမ္ပဏီသည် စီမံကိန်း၏ပထမနှစ်တွင် ၎င်းတို့၏ ပထမနှစ်အသားတင်အမြတ်အပေါ်အခြေခံ၍ CSR အစီအစဉ်ကို အကောင်အထည်ဖော်သင့်သည်။

လူထုတွေ့ဆုံဆွေးနွေးခြင်း နှင့် စီမံကိန်းအားကြော်ငြာခြင်း

ပတ်ဝန်းကျင် နှင့် လူမှုဆိုင်ရာ သက်ရောက်မှု ဆန်းစစ်ခြင်း လုပ်ငန်းအရ ပြည်သူများပါဝင်သည့် စီမံကိန်းဆိုင်ရာ အစည်းအဝေး ရပ်ရွာတိုင်ပင် ဆွေးနွေးပွဲတွင် မူဝါဒရေးဆွဲခြင်း နှင့် အကောင်အထည်ဖော်ရေးအတွက် ဒေသခံများ ပါဝင်ကြရမည် ဖြစ်ပါသည်။ အထူးသဖြင့် လူထုတိုင်ပင်ဆွေးနွေးရေးရည်မှန်းချက်အရ ဖွံ့ဖြိုးတိုးတက်မှုဆိုင်ရာ လှုပ်ရှားမှုများကို အကောင်အထည်ဖော်နိုင်ရန် ဆွေးနွေးမှု ဖိုရမ်များ ကိုပူးပေါင်းဆောင်ရွက်ရန် ခိုင်မာသော စနစ်ဖန်တီးနိုင်ရန်ဖြစ်ပါသည်။ အဆိုပြု စီမံကိန်းများအတွက် အများပြည်သူများပါဝင်မှု နှင့် ဆွေးနွေးတိုင်ပင်မှုပွဲ အား ဒီဇင်ဘာ ၁၄၊ ၂၀၁၈ ခုနှစ်တွင် (နယ်ပယ်တိုင်းတာသတ်မှတ်ခြင်း) အဆင့်တွင် ပထမအကြိမ် ကျင်းပ၍ စက်ရုံပတ်ဝန်းကျင် သက်ဆိုင်သူများ မျှော်လင့်သည့် ဆိုးကျိုးသက်ရောက်မှု အပေါ် အမြင်များကို စုဆောင်းခဲ့ပါသည်။

Table 7.3–1 Summary data of PCM

အခြေခံအချက်အလက်များ			
စီမံကိန်း	Shwe Daehan Motors Co.,Ltd Manufacturing, Sales and sales Services of motor vehicles and motor vehicles		
ရုံး/အဖွဲ့အစည်း	သာဓုကန်စက်မှုဇုန် , Shwe Daehan Factory	တိုင်း/ပြည်နယ်	ရန်ကုန်
ခရိုင်	မြောက်ပိုင်းခရိုင်	မြို့နယ်	ရွှေပြည်သာ
ရည်ရွယ်ချက်	ESIA ၏ နယ်ပယ်တိုင်းတာသတ်မှတ်ခြင်း လေ့လာမှုအတွက် အား စီမံကိန်း၏ လုပ်ဆောင်မှုများအကြောင်း ရှင်းပြရန်နှင့် အများပြည်သူအကြံပြုချက်၊ အကြံဉာဏ်နှင့် မှတ်ချက်များရရှိရန် လူထုတွေ့ဆုံ ဆွေးနွေးပွဲ အစည်းအဝေး ကျင်းပခြင်း ဖြစ်ပါသည်။		
နေ့စွဲ	၁၄ ရက် ဒီဇင်ဘာလ ၂၀၁၈		
အချိန်	၉း၃၀- ၁၁း၃၀		
တက်ရောက်သူများ	Governmental (8) Officer (9) Public (22) Total (31)		

Table 7.4-1 Summary data of PCM

အခြေခံအချက်အလက်များ			
စီမံကိန်း	Shwe Daehan Motors Co.,Ltd Manufacturing, Sales and sales Services of motor vehicles and motor vehicles		
ရုံး/အဖွဲ့အစည်း	သာဓုကန်စက်မှုဇုန် , Shwe Daehan Factory	တိုင်း/ပြည်နယ်	ရန်ကုန်
ခရိုင်	မြောက်ပိုင်းခရိုင်	မြို့နယ်	ရွှေပြည်သာ
ရည်ရွယ်ချက်	Holding Public Consultation Meeting for ESIA to explain about the result of the		

	survey activities and to have public's suggestion, advice and comments
နေ့စွဲ	၁၄ ဩဂုတ်လ ၂၀၁၉
အချိန်	၉း၀၀ -၁၁း၀၀
တက်ရောက်သူများ	Governmental (10) Public (13) Total (23)

နိဂုံး

ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း အစီရင်ခံစာအတွက် ဆောင်ရွက်ရမည့် လုပ်ငန်းတာဝန်များကို နယ်ပယ်အတိုင်းအတာ သတ်မှတ်ချက် ရလဒ်များပေါ်မူတည်၍ ပြင်ဆင်ထားပါသည်။ ဆောင်ရွက်ရမည့် လုပ်ငန်းတာဝန်များကို ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်လုပ်နည်း များနှင့်အညီ သာမက မြန်မာနိုင်ငံတွင် ပြဋ္ဌာန်းထားသော အခြားဥပဒေများ၊ အသုံးပြုနိုင်သည့် သက်ဆိုင်ရာ စံချိန်စံညွှန်းများ၊ လမ်းညွှန်များ၏ လိုအပ်ချက်နှင့်အတူ ကျွမ်းကျင်ပိုင်နိုင်စွာ ဆောင်ရွက်သွားမည် ဖြစ်ပါသည်။

INTRODUCTION

The purpose of this report is to identify the Environmental and Social Impact Assessment (ESIA) for the proposed "Manufacturing, sales and after sales service of Motor Vehicles and Motorcycles" Project. The survey has been determined through consideration of the baseline environmental and socioeconomic conditions of the construction site and surrounding areas and likely environmental and social impacts of the proposed project development. In order to aid this process, this report provides a brief overview of the project area and the proposed development, accompanied by a location plan. Following this, the report provides an overview of the likely environmental and social issues associated with the proposed development, together with details of environmental and social impact assessment methodology proposed for the specialized technical assessments. The report concludes by outlining the matrix of the projected environmental and social impacts and required mitigation measures with monitoring and evaluation framework as well as grievance redress mechanism that are to be established and applied along the entire project cycles in the framework of the environmental and social management and monitoring plan (ESMMP).

POLICY AND REGULATORY FRAMEWORK

The Environmental and Social Impact Assessment - ESIA will be prepared for Shwe Deahan Motors Co., Ltd in due compliance with the environmental legal systems in Myanmar, mainly the Environmental Conservation Law (2012), the Environmental Conservation Rules (2014), EIA Procedure and Environmental Quality Standard (Emission) (2015). Best Available Technology (BAT), socioeconomic impacts of the proposed project, as well as participation and consultation of the stakeholders (including related government and non-government organizations in Myanmar are to be duly considered in conducting ESIA).

PROJECT DESCRIPTION AND ALTERNATIVE

The proposed project, titled "Manufacturing, sales and after sales service of Motor Vehicles and Motorcycles" is required a full environmental and social impact assessments (ESIA) according to the Myanmar law. Shwe Daehan Motors Co., Ltd. (hereafter referred to as the "Project Proponent") is planning to develop a factory for manufacturing, sales and after sales service of Motor Vehicles and Motorcycles in Myanmar (hereinafter referred to as "the Project").

Factory Location and Surrounding Area

The proposed factory is located at the Shwepyithar Township. Shwepyithar Township is located in the northwestern part of Yangon, Myanmar. The township comprises fifteen wards and five village tracts, and shares borders with Htantabin Township to the north, Mingaladon Township to the east, the Yangon River to the west, and Insein Township to the south. Hlaing River separates Shwepyithar and Hlaingtharyar. Bogyoke Aungsan Road, Bayint Naung Road, No.3, Highway etc are the most popular roads in the town. The Yangon Circular Railway passes through the township.

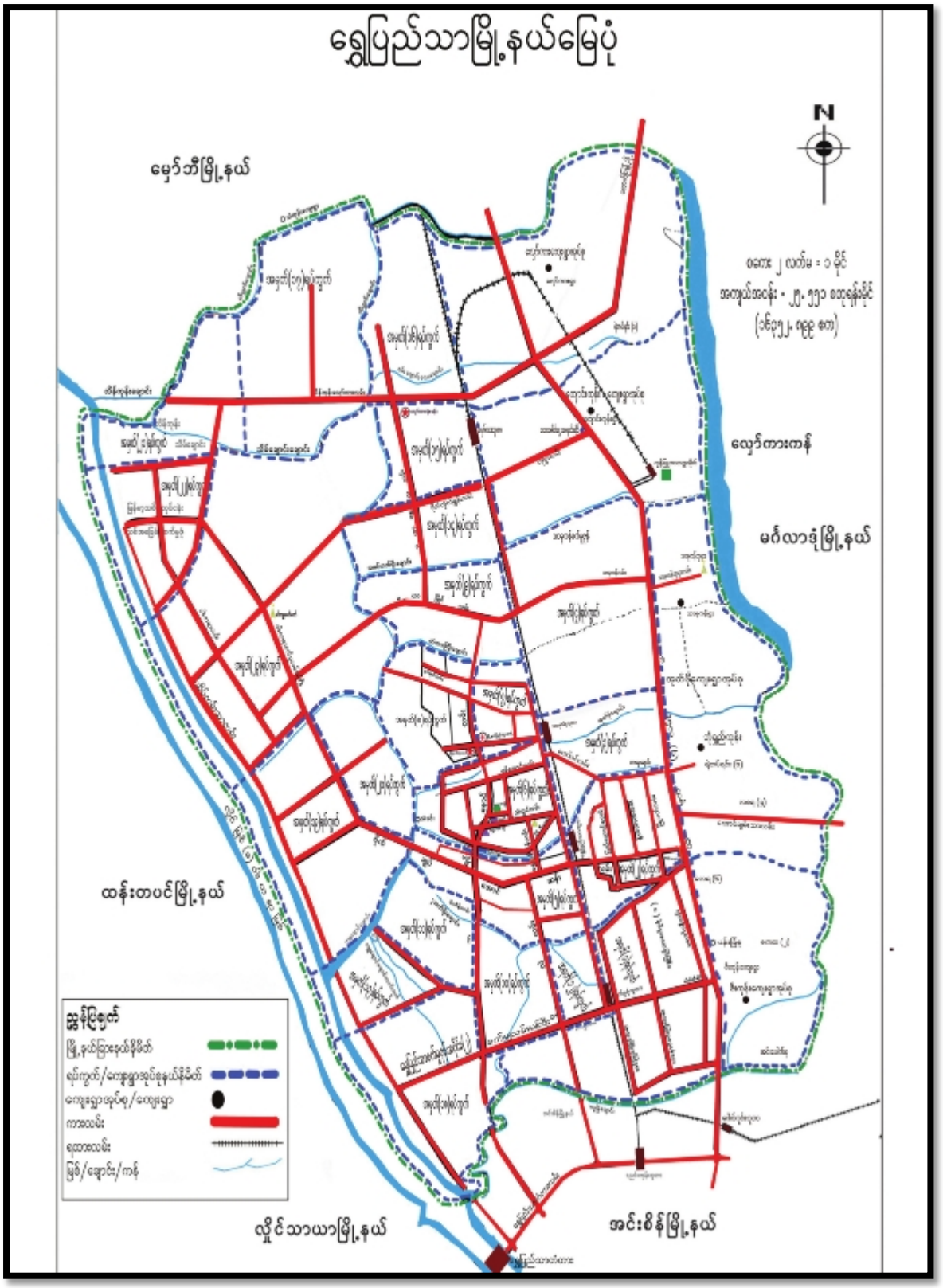


Figure 1 Map of Shwepyitar Township

Construction Schedule

Description	**July**				**August**				**September**				**October**			
	1st week	2nd week	3rd week	4th week	1st week	2nd week	3rd week	4th week	1st week	2nd week	3rd week	4th week	1st week	2nd week	3rd week	4th week
New Toilets																
Office Building construction																
Compressor Room																
Assembly Line																
Test Line																
Ware House																





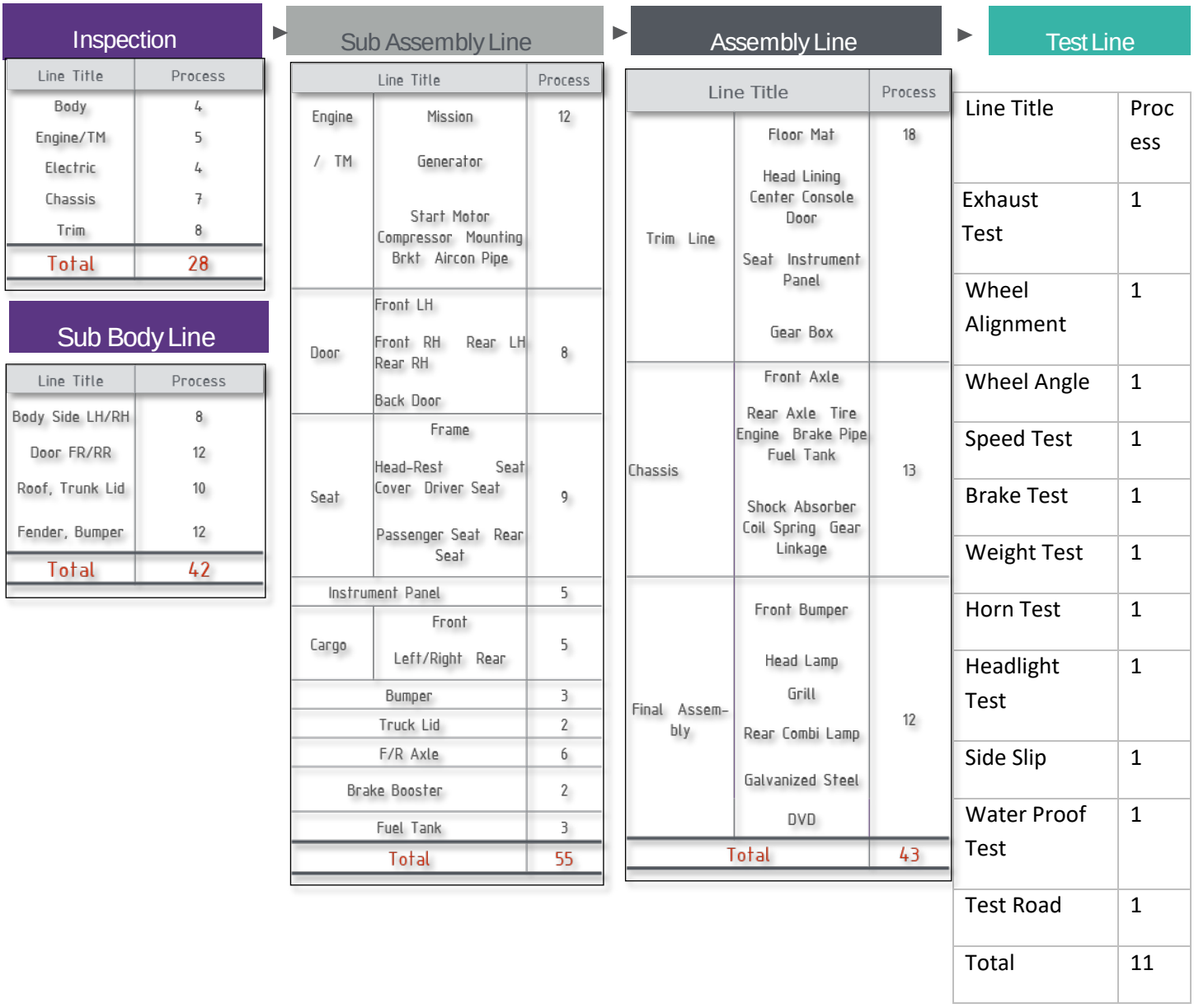
Figure 2 Factory Layouts

Collection of Raw Materials

Major raw materials and per unit consumption required for production are attached in Appendix 1. Most of the raw materials will be imported from overseas.

Overall Production Process

There are generally four main line for production of Passenger Car, SUV, Pick-up, Mini-bus, Truck and the detailed process is shown in below.



Line Title	Process
Body	4
Engine/TM	5
Electric	4
Chassis	7
Trim	8
Total	28

Line Title	Process
Body Side LH/RH	8
Door FR/RR	12
Roof, Trunk Lid	10
Fender, Bumper	12
Total	42

Line Title		Process
Engine / TM	Mission Generator Start Motor Compressor Mounting Brkt Aircon Pipe	12
Door	Front LH Front RH Rear LH Rear RH Back Door	8
Seat	Frame Head-Rest Seat Cover Driver Seat Passenger Seat Rear Seat	9
Instrument Panel		5
Cargo	Front Left/Right Rear	5
Bumper		3
Truck Lid		2
F/R Axle		6
Brake Booster		2
Fuel Tank		3
Total		55

Line Title		Process
Trim Line	Floor Mat Head Lining Center Console Door Seat Instrument Panel Gear Box	18
Chassis	Front Axle Rear Axle Tire Engine Brake Pipe Fuel Tank Shock Absorber Coil Spring Gear Linkage	13
Final Assem-bly	Front Bumper Head Lamp Grill Rear Combi Lamp Galvanized Steel DVD	12
Total		43

Line Title	Process
Exhaust Test	1
Wheel Alignment	1
Wheel Angle	1
Speed Test	1
Brake Test	1
Weight Test	1
Horn Test	1
Headlight Test	1
Side Slip	1
Water Proof Test	1
Test Road	1
Total	11

Alternative Analysis

The analysis of the project alternatives focused on the proposed project is based on the project's location or site alternatives and activity alternatives. There are two simple alternatives for the proposed project.

i) Without Project

There is no activity related to construction, operation and decommissioning phases and as a result, there will be no impact to the environment.

ii) With Project

These include construction, operation and decommissioning activities of the project lifecycle. In the case of "with project alternatives, the proposed project is located in the

Thar Du Kan Industrial Zone, Shwe Pyi Thar Township and so there have to consider the alternatives based on their location or site.

DESCRIBTION OF THE ENVIRONMENT

Environmental Baseline Survey

The physical baseline survey for environmental impact assessment was surveyed at Shwe Daehan Motors Co., Ltd by Resource and Environment Myanmar Co., Ltd on 15th to 16th January 2019. The project site is located No. 69 and 70, Ma Hu Yar Street, Myay Taing Quarter No. 50 (Thar Du Kan Industrial Zone), Shwe Pyi Thar Township, Yangon, Myanmar. Our team were collected the one air quality, noise and vibration and then one groundwater quality and soil quality. The summary of physical environmental survey is shown in Table 1.

Table 1 Summary of physical baseline survey

Air Quality & Meteorology	Parameter	1) Nitrogen dioxide, 2) CO, 3) particulate Matter PM10, 4) Particulate Matter PM 2.5, 5) Sulphur Dioxide, 6) Relative Humidity, 7) Temperature, 8) Wind Speed, and 9) Wind Direction
	Period	One points for one time within one day (24hours)
	Location	In the compound of Shwe Daehan Motors Co.,Ltd, Thar Du Kan Industrial Zone
	Instrument	Haz Scanner EPAS
Noise Level	Parameter	LAeq (A-weighted loudness equivalent)
	Period	One time at one location within one day
	Location	In the compound of Shwe Daehan Motors Co.,Ltd, Thar Du Kan Industrial Zone
	Instrument	Sound Level Meter
Vibration	Parameter	Vibration (Lveq)
	Period	One time at one location within one day
	Location	In the compound of Shwe Daehan Motors Co.,Ltd, Thar Du Kan Industrial Zone
	Instrument	Rion Vibration meter
Ground water Quality	Parameter	1) Water temperature, 2) Air temperature, 3) pH, 4) Electrical Conductivity, and 5) Dissolved Oxygen, 6) Oxidation reduction potential, 7) Total dissolved solid, 8) Salinity
	Period	One time at one location
	Location	In the compound of Shwe Daehan Motors Co.,Ltd, Thar Du Kan Industrial Zone
	Instrument	Hanna, Smartroll (multiparameter probe) and Hanna single probe
Soil	Parameter	1) pH, 2) Arsenic, 3) Mercury, 4) Copper, 5) Lead, 6) Zinc, 7) Chromium, 8) Selenium, 9) Boron, 10) Fluoride, 11) Cadmium
	Period	One time at one location
	Location	In front of Shwe Daehan Motors Co.,Ltd, Thar Du Kan Industrial Zone
	Instrument	Environmental soil sampling instrument (manual hand auger)



Figure 5 Location map of air, noise, vibration, and water and soil quality survey

Air quality Survey Result

Table 2 Ambient air quality

Sampling. No	Date	Time	CO	NO_2	NO	PM2.5	PM10	RH	SO2	TmpC
	D.M.Y	**hours**	µg/m^3	µg/m^3	µg/m3	µg/m3	µg/m3	**%**	µg/m3	**Deg. C**
AQM	15th–16th January, 2019	24hours 1 hour	185.57	23.54	17.73	112.87	120.98	62.66	16.83	23.81
Myanmar National Environmental Quality (Emission) Guideline value			-	-	-	25	50	-	20	-

Source: Resource & Environment Myanmar Co., Ltd

Noise Survey Result

Table 3 A-weighted loudness Equivalent (LAeq) Level

N-1	**Noise 15th–16th January, 2019**	
	Day time	Night time
Result	62	59
Environmental standard	70	70

Remark: Shaded area is lower than the standard.

Vibration

Survey Result

Average vibration level results of one point for 24hours are presented in table 4-3.

Table 4 Daily average vibration level results (dB)

Result	V-1		
	Daytime (7 am - 7 pm)	**Evening time (7 pm - 10 pm)**	**Night time (10 pm - 7 am)**
	37	29	24
Office, Commerical facilities, and factories Standard	70 dB	65 dB	65 dB

Groundwater quality results

Table 5 Groundwater quality results

Sr.no	Parameter	Unit	GW-1	Guideline Value
	Location		16°59'35.0"N 96°05'01.0"E	
	Date/time		15.1.2019 10:54AM	
	Weather condition		Sunny	
	Transpency		Medium	
1	pH		6.76	6-9
2	ORP	MV	223	
3	Water Temperature	°C	27.77	<3[b]
4	Dissolved oxygen	mg/L	7.48	-
5	Conductivity	µs/cm	338	-
6	Total dissolved solid	ppm	220	-
7	Salinity	psu	0.16	-
8	Biological Oxygen Demand	mg/L	ND	50
9	Chemical Oxygen Demand	mg/L	ND	250
10	Total Suspended Solids	mg/L	9.8	10
11	Total Coliform	MPN/100ml	11,000	400
12	Oil and Grease	mg/L	ND	10
13	Free Cyanide	mg/l CN	ND	0.1
14	Total Cyanide	mg/l CN	ND	1
15	Total Nitrogen	mg/l N	0.57	10
16	Total Phosphorus	mg/l P	ND	2
17	Total Residual Chlorine	mg/l Cl_2	ND	0.2
18	Fluoride	mg/l F	0.27	20
19	Hexavalent Chromium	mg/l Cr	ND	0.1
20	Ammonia	mg/l NH_3	0.10	10
21	Phenols	mg/l	ND	0.5
22	Sulphide	mg/l	ND	1
23	Mercury	mg/l Hg	0.0002	0.01
24	Arsenic	mg/l As	0.0003	0.1
25	Selenium	mg/l Se	ND	0.1
26	Cadmium	mg/l Cd	ND	0.1
27	Total Chromium	mg/l Cr	ND	0.5
28	Copper	mg/l Cu	ND	0.5
29	Iron	mg/l Fe	165	3.5
30	Lead	mg/l Pb	ND	0.1
31	Nickel	mg/l Ni	ND	0.5
32	Silver	mg/l Ag	ND	0.5
33	Zinc	mg/l Zn	ND	2

Table 6 Laboratory results of soil quality

Unit- mg/kg

No.	Parameter	Results
		S-1
1	pH	ND
2	Arsenic (As)	1.84
3	Mercury (Hg)	ND
4	Copper (Cu)	4.77
5	Lead (Pb)	5.42
6	Zinc (Zn)	28.1
7	Chromium (Cr)	18.6
8	Selenium (Se)	ND
9	Boron (B)	8.05
10	Fluoride (F)	ND
11	Cadmium (Cd)	ND

Biological Environment

Scope and Purpose of the baseline study

The scope and purpose of the ecological baseline study are:

- To provide comprehensive and accurate information on the ecological baseline;
- To identify and predict potential ecological impacts;
- To evaluate the significance of the impacts identified;
- To recommend effective and practicable alternatives and mitigation measures; and
- To recommend the need for and the scope of an appropriate monitoring and audit programme.

Methodology

The methodologies used in the baseline study were discussed below.

(i) Desktop Survey

(ii) Field Observation

(iii) Interview survey

Survey Area

The location of the survey area was shown in figure 2 and the pin points in the figure were the survey points.



Figure 6 Location of survey area

Survey Result

Flora

There are two major habitat types were observed namely Shurb land, and Bush land area. There were 50 plant species identified in the survey area.

Fauna

The wildlife groups of the survey area consist of 5 groups of animals: mammals, birds, insects, Herpet and Fish. During the survey period, 3 species of Mammals, 5 species of Reptiles and Amphibian, 30 species of Birds, 11 species of Butterflies, 1 species of Dragonfly and 11 species of Fish were recorded in and around the Project area. In this survey area, no threatened of bird species recorded and one vulnerable species of reptile were also recorded as according to the IUCN Global Threatened Status (2018). There were no globally threatened species of Fish, Mammal, butterfly and dragonfly according to the IUCN Red List of threatened species (2018). There was one endemic species of birds in project area.

Social Environment

The study on socio-economic characteristics focused on demographic structure, local economic activities status, income level and education as well as other related issues of local communities living in ShwePyiThar Townships in the Yangon city.

Socio economic baseline data were carried out in 16th and 17th January, 2019 at the nearest residential areas which are approximately within 1 km of the proposed site. Total 84 people were interviewed by dividing two themes; their current socio-economic conditions and their opinions upon the proposed project. It was found that there would be no significant negative impact on the social and religious infrastructures of local residents as the proposed site is within the industrial zone.

Regarding to the income, most respondents from all wards are positively expecting that the proposed project would increase their family income throughout employing them as well as technology and opportunities of work.

KEY POTENTIAL ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Introduction

Assessment of key environmental impacts of the project construction, operation and decommissioning is based on the nature and scope of the project and information on the environment. This chapter outlines the potential positive and negative impacts that will be associated with the project activities. The impacts are predicted by categorizing the activities to be carried out during construction, operation and decommissioning phases.

Methodology for the Impact Assessment

The assessment of each impact is based on consideration of the magnitude, duration, spatial and frequency of activities which are going to be carried out during each phase of the project as well as on characteristics of the project site. The assessment is both quantitative and qualitative and the significance of each impact is classified into 5 categories overall.

Table 7 Impact assessment parameters and its scale

Parameter	Scale				
	1	**2**	**3**	**4**	**5**
Magnitude (M)	Insignificant	small and will have no effect on environment	Moderate and will result in minor changes on environment	High and will result in significant changes on environment	Very high and will result in permanent changes on environment
Duration (D)	0-1 year	2-5 year	6-15 year	Life of operation	Post Closure
Extent (E)	Limited to the site	Limited to the local area	Limited to the region	National	International
Probability (P)	Very improbable	Improbable	Probable	Highly probable	Definite

Then, the significant Point (SP) is calculated by the following formula.

Significant Point (SP) = (Magnitude + Duration + Extent) * Probability

Impact Significance: Based on calculated significant point, impact significance can be categorized as follows:

Explantation

Significant Point (SP) = (Magnitude + Duration + Extent) * Probability

Impact Significance

Significant Point (SP)	Impact Significance
<15	No impact (-)
15-29	Low impact (U)
30-44	Moderate significant (C)
45-59	High significant (B)
> 60	Very high significant (A)

(Source: International Association of Impact Assessment- IAIA, 2014, www.iaia.org)

Table 8 Analysis Potential Impacts during the Construction Phase

Impacts	Significance of potential impacts					Impact Significant
	M	D	E	P	SP	
Physical Resources						
Soil erosion	4	4	1	4	36	Moderate
Solid waste generation and disposal	4	3	1	4	32	Moderate
Dust Generation	4	1	2	4	32	Moderate
Noise and vibration	4	1	2	4	32	Moderate
Exhaust emission	4	1	2	4	32	Moderate
Water Demand	4	1	2	4	32	Moderate
Water Pollution	4	1	2	4	32	Moderate
Biological Resources						
Flora	4	3	2	4	36	Moderate
Fauna	4	3	2	4	36	Moderate
Occupational Health and Safety						
Physical hazards	4	4	2	3	33	Moderate
Exposure to noise and vibration	4	3	2	3	27	Moderate
Communicable Diseases	3	3	1	3	21	Low
Socio-economic Resources						
Land Utilization	1	1	2	5	20	Low
Water Utilization	4	1	2	3	21	Low
Safety	3	2	2	3	21	Low

Table 9 Analysis Potential Impacts during Operation Phase

Environmental Impacts	Significance of potential environmental impacts					Impact Significant
	M	D	E	P	SP	
Physical Resources						
Dust Emission	3	4	2	3	27	Low
Noise	3	4	2	3	27	Low
Hazardous	3	4	2	3	24	Low
Solid waste generation	3	4	2	3	27	Low
High Energy Consumption	4	4	2	3	30	Moderate
Occupational Health and Safety						
Chemical Exposure	5	4	1	2	20	Low
Noise and Vibration	5	4	1	3	30	Moderate
Machinery	5	4	1	3	30	Moderate
Socio-economic Resources						
Employment Opportunities	1	3	2	2	18	Low
Increased Business Opportunities	1	1	2	2	20	Low
Revenue to National and Local Governments	3	4	2	3	27	Low
Improved Security	5	3	2	2	20	Low

Table 10 Analysis Potential Impacts during decommissioning phase

Environmental Impacts	Significance of potential environmental impacts					Impact Significant
	M	D	E	P	SP	
Physical Resources						
Dust Emission	5	1	2	4	32	Moderate
Noise and Vibration	5	1	2	4	32	Moderate
Solid waste generation	5	1	2	5	40	Moderate
Water Pollution	3	1	2	4	24	Low
Biological Resources						
Flora	1	1	1	2	6	Very Low
Fauna	1	1	1	2	6	Very Low
Occupational Health and Safety						
Physical Hazards	5	1	2	4	32	Moderate
Socio-economic Resources						
Public Health	5	1	2	3	24	Low
Livelihood	5	2	3	5	50	High

Mitigation Measurement

Table 11 Environmental Mitigation Measures for Operation Phase

Impact	Mitigation Measures
Dust and exhaust emission	✓ Apply preventive maintenance system, optimizing construction schedule to minimize time that vehicles are in operation, apply dust control measures such as water spraying on the unpaved road, etc.
Noise	✓ Buffer double layer sound-proof walling to mitigate the noise to the surrounding environment ✓ Provide PPE such as noise defenders, ear plugs and ear muffs ✓ Install suitable mufflers on engine exhausts and compressor components when the equivalent sound level over 8 hours reaches 85 dB(A) ✓ Install acoustic barriers without gaps ✓ Perform periodic medical hearing checks for workers exposed to high noise levels ✓ Install vibration dampening pads or devices ✓ Limit the duration of exposure and exposure levels should be checked on the basis of daily exposure time and data provided by equipment manufacturers
Water Demand	✓ Use water-efficient washer ✓ Conserve fresh water as much as possible ✓ Reuse treated water for gardening or landscaping and washrooms purposes ✓ Monitor borehole status data (includes abstraction rate, water level, water quality, etc.) ✓ Maintain water consumption records to monitor the usages
High Energy Consumption	✓ Air-handling equipment that controls humidity and temperature, allowing up to 25 percent of energy saved; ✓ High-efficiency chillers; and

	✓ Recovering heat from water condensers that use heat exchangers may allow a modern industrial facility to save up to 40 percent of its needs. ✓ Advanced technologies in emissions abatement also provide new equipment with enhanced abatement efficiency and lower energy consumption.
Physical Hazards	✓ Ensure all rooms are well ventilated (e.g., using exhaust fans/ventilators) ✓ Ensure use of quality and approved raw materials ✓ Provide annual health check ✓ Develop proper waste disposal practices ✓ Check and regular maintenance of electronic equipment, electrical system and fuel storage facilities ✓ Provide on-site safety and security training for all workers to understand working environment, safety and security signs, safety and security standards and emergency response procedures ✓ Provide Personal Protective Equipment (PPE) to all factory workers, and ensure all workers use PPE properly at work site (coveralls, dust mask, safety glass, glove, ear plug, apron and safety shoes as necessary)
Hazardous Waste	✓ Process chemicals storage areas should be regularly checked to identify leaks; ✓ Pipework carrying hazardous materials should be constructed of compatible materials and should be sufficiently supported, clearly labeled and installed with high-quality joints. Piping should also be designed with low point drains, high point vents and isolation valves every 30 meters' maximum; ✓ Waste spill containment trays should be used.
Fire Hazards	✓ Install new firefighting equipment including audio and visual fire alarm system, fire extinguishers, spill kits at key areas of the site, and regular check-up and maintenance ✓ Organize firefighting training and regular fire drills for all workers ✓ Design and implement fire safety policy. ✓ Design and install fixed and portable fire equipment. ✓ Establish a documented plant shut down procedure. ✓ Provide operation instructions on all the machinery like generators. ✓ Store flammables away from ignition sources and oxidizing materials. ✓ Have natural or passive floor and ceiling level ventilation and explosion venting. ✓ Provide fire extinguishing devices and self-closing doors

Table 12 Environmental Mitigation Measures for negative impact encountered in decommissioning activities

Impact	Mitigation Measures
Solid Waste	✓ Segregate waste to encourage reuse and recycling ✓ Dispose of solid waste in compliance with regulations
Liquid Waste	✓ Use water prudently to reduce liquid waste volume ✓ Ensure sewage system is functional during demolition, to prevent pollution of nearby underground and surface water sources ✓ Demolish the sewage system properly to prevent pollution by contents into the environment and ground water.
Noise	✓ Schedule noisy activities during the day time period

	✓ Ensure machinery is well maintained to reduce emitted
Dust	✓ Set up dust barriers at the sensitive areas ✓ Provide and enforce the appropriate use of PPE against dust
Public Health	✓ Rehabilitate any walls to as near as possible to the original ground layout. ✓ All excavations should be filled up after the plant closure. ✓ All open areas should be planted with suitable grasses or other vegetation
Livelihood	✓ Provide earlier notice to all affected parties concerning the development ✓ Residence to be notified prior to any decommissioning of the proposed factory buildings and any other facility on site ✓ Carry out dismissal procedures in line with the Employment Act.

ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN

This Environmental Management Plan (EMP) has been developed to assist in prioritizing the key findings of the ESIA, suggesting necessary mitigation actions and allocation of responsibilities. The EMP is prepared with project knowledge and information available to date. A schedule for the project implementation is also to be drawn that takes into consideration all potential impacts that could be mitigated to reduce risks to the environment, health and safety during three phases: construction phase, operation phase and demolition phase. During the implementation of the EMP, due to incomprehensible reasons the schedule may need to amend and updated whenever new information is received or site conditions change.

There are six main sections in this EMP plan:

1) Monitoring Plan
2) Mitigation Plan
3) Safety and security Plan
4) Emergency response plan
5) Cooperate Social Responsibility (CSR) Plan

Table 13 Environmental and Social Monitoring Plan

Phase	Component	Parameter	Target Level	Measurement Method	Area to be monitored	Monitoring Frequency	Responsible Person
Operation Phase	**Environmental Impacts**						
	Air Quality	TSP, PM10, CO, CO_2, NO_2	Nation Emission Quality Guidelines	ppm, µg/m^3	Project areas	Twice a year	Contractor/ Shwe Daehan Co. Ltd
	Water Quality	Drinking Water Parameter (WHO) Color, pH, DO, TDS, TSS, COD, BOD_5, temperature	Nation Emission Quality Guidelines	As per WHO Guidelines	Tube wells	Monthly	Contractor/ Shwe Daehan Co. Ltd
		Ground Water Parameter (NEQG) Color, pH, DO, TDS, TSS, COD, BOD_5, temperature, flow rate, electrical conductivity, total coliform, total nitrogen, total phosphorous, turbidity, copper (Cu), zinc (Zn), iron (Fe)			Tube wells	Twice a year	Contractor/ Shwe Daehan Co. Ltd
	Water Quantity	Water level	Discharge rate	Cu. m/s	Tube wells	Monthly	Contractor/ Shwe Daehan Co. Ltd

	Noise	Noise level on dB(A) scale	Nation Emission Quality Guidelines	dB	Sensitive spots	Twice a year	Contractor/ Shwe Daehan Co. Ltd
	Increased wastewater effluent	Wastewater effluent Parameter (WHO)	Nation Emission Quality Guidelines	As per WHO Guidelines	Effluent outlets; local drinking water supply sources; nearest water bodies	Weekly	Contractor Shwe Daehan Co. Ltd
	Solid waste	Sludge, plastic, paper, domestic refuse, kitchen waste, slag	Volume of solid waste	kg	Disposal sites	Weekly	Contractor/ Shwe Daehan Co. Ltd
	Socio-economic Impacts						
	Accidents	Safety training for workers, accident reports, community consultations	Zero accident cases	Number of safety measures provided	Project area	Quarterly	Contractor/ Shwe Daehan Co. Ltd
	Occupational Health and Safety	Conducting OHS training stipulated in international guidelines such as EHS Guidelines of IFC	Proper maintenance of PPE and the instruction of proper use	Number of safety measures provided	Project area	Quarterly	Contractor/ Shwe Daehan Co. Ltd
Others	Global Warming	Impact in the increase of GHGs by vehicle traffic operation of tenants in the operation phase	Proper maintenance of traffic	Installation of emission control techniques	Entire site	Monthly	Contractor/ Shwe Daehan Co. Ltd
Decommission-ing	**Environmental Impacts**						

Phase	Air Quality	TSP, PM10, CO, CO_2, NO_2	Nation Emission Quality Guidelines		At factory compound	Monthly	Contractor/ Shwe Daehan Co. Ltd
	Water Quality	Drinking Water Parameter (WHO)/ Color, pH, DO, TDS, TSS, COD, BOD_5, temperature Surface Water Parameter (NEQG) Color, pH, DO, TDS, TSS, COD, BOD_5, temperature, flow rate, electrical conductivity, total coliform, total nitrogen, total phosphorous, turbidity, copper (Cu), zinc (Zn), iron (Fe)	Nation Emission Quality Guidelines	As per WHO Guidelines	Effluent outlets; local drinking water supply sources; nearest water bodies	Monthly	Contractor/ Shwe Daehan Co. Ltd
	Noise	Noise level	Nation Emission Quality Guidelines	dB	Sensitive spots	Daily	Contractor/ Shwe Daehan Co. Ltd
	Wastewater	TSS, COD, BOD, DO, pH, oil, phenol	Nation Emission Quality Guidelines	Mg/L	Effluent outlets; local drinking water supply sources; nearest water bodies	Monthly	Contractor/ Shwe Daehan Co. Ltd

	Vegetation	Replanting vegetation/replacing the same indigenous species and number of trees lost	-	clusters	Where vegetation was cleared to create room for development	Monthly	Contractor/ Shwe Daehan Co. Ltd
	Solid waste	Demolition debris including concrete, metal, drywall, wood, glass, paints, adhesives, sealants and fasteners	Volume of solid waste	kg	Disposal sites	Weekly	Contractor/ Shwe Daehan Co. Ltd
	Socio-economic Impacts						
	Socio-economics aspects	Employment, local economy, gender issues etc	Within standard limit levels	Samples	Entire site	Daily	Contractor/ Shwe Daehan Co. Ltd
	Occupational Health and Safety	Potential impacts during decommissioning include: exposure to physical hazards from the use of equipment; trips and fall hazards rock falls/slides in steep areas and exposure to dust and noise	Proper maintenance of PPE and the instruction of proper use	Number of safety measures provided	Project area	Quarterly	Contractor/ Shwe Daehan Co. Ltd

Safety and Security Plan

This safety and security plan is intended to implement during the construction phase and operation phase of the factory. It aims to provide maximum Occupational Health and Safety (OHS) for factory workers. It also considers possible emergency situations and evacuation and clean up procedures for emergency uses.

Emergency Response Plan

The purpose of emergency planning is to minimize the effects of an emergency that occurs at a workplace. An emergency may involve an explosion, fire, harmful reaction or the evolution of flammable, corrosive or toxic gases and vapors or an escape, spillage or leak of a hazardous chemical.

Corporate Social Responsibility (CSR) Plan

It is the truth that the implementation of the proposed project would generate both negative and positive impact on the community's daily life. The objective of this plan is to ensure social well-being of the employees and their family members for better community. It is stated in the document of the proponent, submitted to MIC that 2% of the profit will be allocated for Corporate Social Responsibility (CSR) program every year starting by the year of factory running. However, the company should implement CSR program based on their first year net profit at the very first year of the project.

PUBLIC CONSULTATION AND DISCLOSURE

As part of the EIA study, the scoping study of proposed project is engaged with a number of the stakeholders at the national, regional and township level during the scoping consultation. In fulfillment of the public consultation and disclosure obligation, a stakeholder meeting was held on 14th December 2018 in ShwePyiThar Township with participation of 34 attendees including local stakeholders, and government officers. In this Stakeholder Meeting, outline of project activities with both positive and negative impacts of the project were presented. Robust discussions were made amongst a range of stakeholders including local communities.

Table 14 Summary data of PCM

Basic Details			
Project	Shwe Daehan Motors Co.,Ltd Manufacturing, Sales and sales Services of motor vehicles and motor vehicles		
Office/ Department/ Organization	Thar Du Kan Industrial Zone, Shwe Daehan Factory	Region/State	Yangon Region
District	North District	Township	Shwe Pyi Thar
Objectives	Holding Public Consultation Meeting for Scoping Study of ESIA to explain about the project's activities and to have public's suggestion, advice and comments		
Date	14th, December,2018		
Time	9:30 AM to 11;30 PM		
Attendee	Governmental (8) Officer (9) Public (22) Total (31)		

Public Consultation Meeting (PCM) at the EIA stage

Public consultations with the stakeholders were held on 14th August 2019. The meeting dates, group of agencies, and number of participants are given in Table 7.4-1. Minutes of meeting and list of participants in each meeting are shown in Appendix 8.

Table 15 Summary data of PCM

Basic Details			
Project	Shwe Daehan Motors Co.,Ltd Manufacturing, Sales and sales Services of motor vehicles and motor vehicles		
Office/ Department/ Organization	Thar Du Kan Industrial Zone, Shwe Daehan Factory	Region/State	Yangon Region
District	North District	Township	Shwe Pyi Thar
Objectives	Holding Public Consultation Meeting for ESIA to explain about the result of the survey activities and to have public's suggestion, advice and comments		
Date	14th, August,2019		
Time	9:00 AM to 12:00 PM		
Attendee	Governmental (10) Public (13)		

	Total (23)

Summary of Comments from PCMs at the EIA Stage

The following topics and concerns have been discussed and collected during the meetings:

- Summit to the EIA report to the ECD
- Follow the monitoring plan
- Plantation at the factory
- For the CSR, suggest that upgrade the No 4. Ward Street to the concrete street, support materials for the school and library.
- Store chemical systematically.
- To be good water flow near surrounding factory compound.

CONCLUSITONS

Based on the scoping results, Terms of Reference (TOR) has been prepared for the ESIA Report. It will be undertaken in a professional manner, in accordance with EIA Procedure as well as other Myanmar Legislation and applicable standards/requirements along with any applicable guidelines.

Chapter1 Context of the Project

1.1 Introduction

The purpose of environmental and social impact assessment (ESIA) is to seek approval for the proposed project "Manufacturing, sales and after sales service of Motor Vehicles and Motorcycles" and to provide baseline information upon which subsequent environmental audits shall be based in line with the Environmental Law, Environmental Rules, Environmental Impact Assessment procedure and related guidelines of Myanmar policy which is being committed to ensure the environmental and social sustainability.

1.2 Project Background

Shwe Daehan Motors Co., Ltd. (hereafter referred to as the "Project Proponent") is planning to develop a factory for manufacturing, sales and after sales service of Motor Vehicles and Motorcycles in Myanmar (hereinafter referred to as "the Project").

This report is to initiate the required EIA process in compliance with Myanmar's Environmental Impact Assessment Procedure (2015) which includes preparation of Terms of Reference for the EIA report and any applicable guidelines issued or adopted by Ministry of Natural Resources and Environmental Conservation (MONREC).

So that the proposed Project requires the ESIA Study to be conducted and submitted to the Ministry of Natural Resources and Environmental Conservation (MONREC). In addition, an Environmental Social Management Plan (ESMP) will also be submitted as part of the ESIA Study.

Objectives of Environmental Impact Assessment

All development activities have resulted more or less negative or positive impacts. The study was done with the purpose of the following objectives:

The overall objective of the study is ***"To create sustainable social and economic development of the project at the local, regional and national level through the effective conservation of the environment".***

In line with that objective the project is focused on:

• Review and discuss legal frameworks related to the project by studying on existing environmental resources- physical, biological and socio-economics

• Make public dissemination and consultation to gather comments, concerns, and recommendations of the people, local authorities and relevant governing bodies

• Identify potential environmental impacts caused by the project's activities and consider appropriate mitigation measures to avoid, minimize, restore and then to develop an Environmental Management Plan for the project owner to implement and for relevant governing bodies to monitor, and finally make a joint conclusion about environmental impacts on the project and to raise necessary recommendations.

1.3 Project Area

The proposed project area is Thar Du kan Industrial Zone, Shwe Pyi Thar Township, Yangon Region, the Republic of the Union of Myanmar.

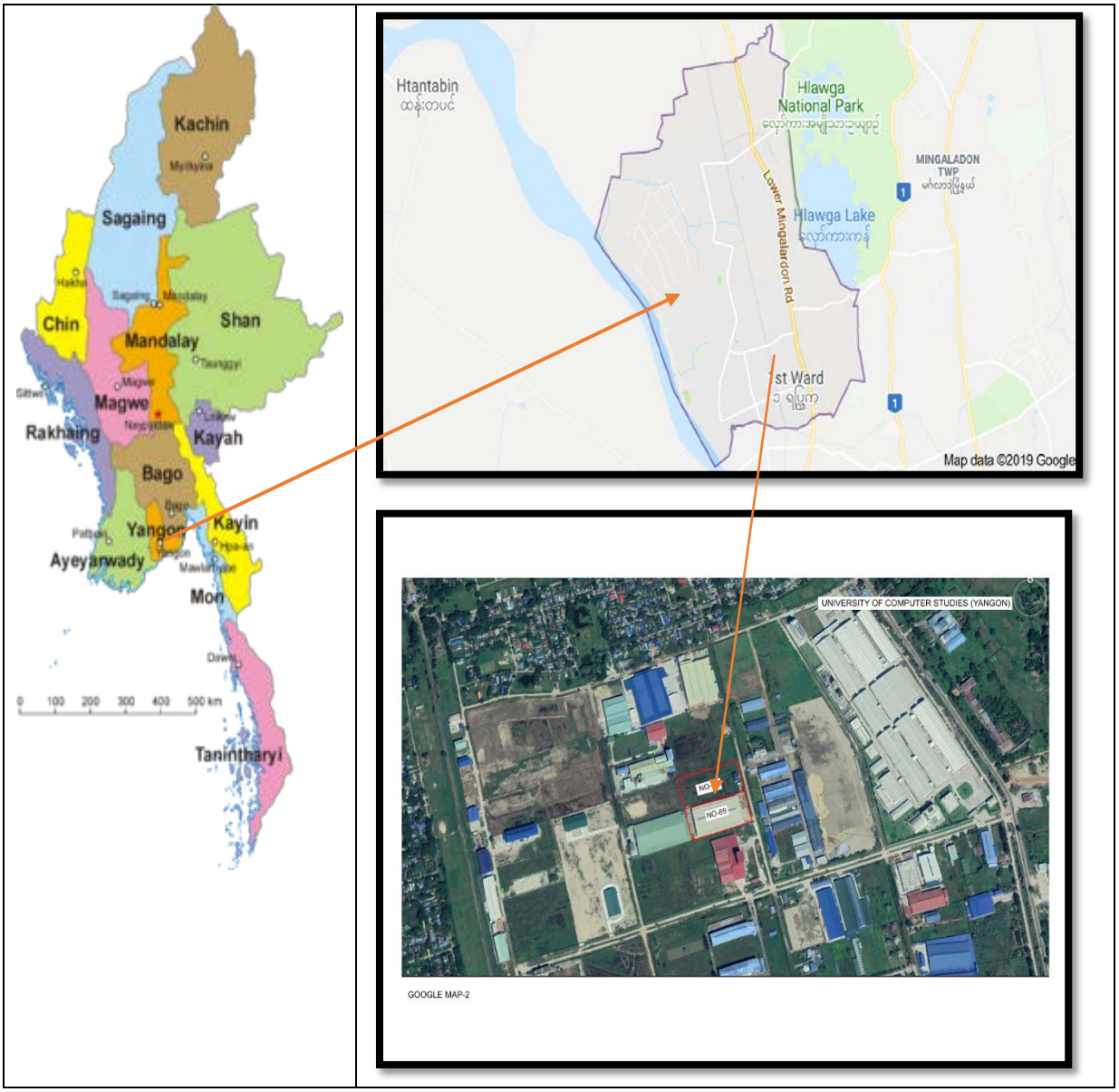


Figure 1.3-1 Map of the location of project area

1.4 Outline of the Project and Project Components

Objectives of the Project

The purpose of the project is to increase Myanmar's export business and generate foreign exchange earnings. In collaboration with the Ministry of Industry, it plans to export locally-made cars and motorcycles to neighboring countries in the future. By establishing this business, we will be able to reduce the import of motor vehicles and motorcycles in one way or another and increase the growth of domestic production instead of import. Access to advanced technology; Job opportunities for Myanmar citizens, especially in Shwepyithar Township, Yangon Region for Supporting economic development.

Shwe Daehan Motors Co., Ltd. will operate as a 100% foreign investment in Plot “No.69 and 70, Ma Hu Yar Street, Myay Taing Quarter No.50 (Thar Du Kan Industrial Zone), Shwe Pyi Thar Township, Yangon Region, the Republic of the Union of Myanmar, with land area of 3.185 Acres and 3.186 Acres respectively and total land area is 6.371 Acres. was leased and the necessary buildings were constructed to “manufacture vehicles and motorcycles; Sales After-sales service” will be provided.

Project Proponents

The proponent for proposed project is Shwe Daehan Motors Co., Ltd Manufacturing, Sales and After Sales Service Co., Ltd. The company is a 100% Foreign-Invested company. The major objective of the company is Manufacturing, Sales and After Sales Service of Motor Vehicles and Motorcycles**.** Upon setting up of our business, there will be many benefits such as increasing local production and replacing the importing of Motor Vehicles and Motorcycles, transferring technical know-how and creating may job opportunities for Myanmar citizens especially in Shwe Pyi Thar Township, Yangon.

The following table shows the project proponent information.

Name of the proponent	**Shwe Daehan Motors Co., Ltd.**
Company registration Number by DICA(if any):	No. 105645805
Contact Person	Mr. KIM HYUN
Representative Person	Mr. YOU SIYOUB
Address	No. 69 and 70, Ma Hu Yar Street, Myay Taing Quarter No. 50 (Thar Du Kan Industrial Zone), Shwe Pyi Thar Township, Yangon, Myanmar
Telephone (office):	+95-1- 522546-7
Fax:	+95-1-522801
E-mail address:	mm.hyun.kim@gmail.com

1.5 Implementation Organization for Environmental Impact Assessment

Leading Organization - Resource & Environment Myanmar Co., Ltd. (REM)

REM is located in the city of Yangon, Myanmar. As a leading resources and environment consulting firm, REM has as its members the current or former faculty members of Yangon University and they are specialized in environment, society and earth resources management and other related subjects. Its predecessor was a research team founded in 1998 in University of Yangon, the team members were ecologists, social economists, geologists, doctors, economists, and data management staff. In 2003, an environmental impact assessment team was established; the team members are retired and current professors and scientists who have strong interest in environmental and resource management.

After five years of cooperation in several projects with the scientists from various subjects of University of Yangon (such as environmental data collection, oilfield development evaluation, construction of offshore oil and gas production base, beach resorts and onshore gas pipelines, etc.), the Resource and Environment Myanmar was registered in 2008 under the current laws and regulations in Myanmar, REM provide systematic services for a variety of major infrastructure projects under the request.

So far REM has conducted environmental impact assessment, social and health impact evaluation for private sector or government-led projects. In addition, the company also delivers geotechnical engineering, geological and hydrogeological surveys, and soil investigations, geological hazard assessments (potential landslide risk figure, seismic hazard assessment, and flood risk map).

REM currently has nine research groups, including ecology, plants, soil and water, social investigation, cultural heritage, public health, risk, information management and atmospheric research, a total of 33 experts and has passed ISO9001:2008 No. 686750 certified laboratory's assistance.

	Resource & Environment Myanmar Co., Ltd.
Address	No. 702 B, Delta Plaza, Shwegonedaing Road, Bahan, Yangon.
Telephone	959-73013448
Facsimile	01-552901
Email	service@enviromyanmar.net
Registration/License	Certificate for Transitional Consultant Registration No. 0002
Contact Person	Mr. Thura Aung
Designation	General Manager

Secondary Organization – Sustainable Environment Myanmar Co., Ltd. (SEM)

	Sustainable Environment Myanmar Co., Ltd. (SEM)
Address	B 503, Delta Plaza, Shwegondaing Road, Bahan, Yangon
Tel	+959 261328891
Email	services@sustainablemyanmar.com
Contact person	Mr. Than Oo, General Manager
Website	www.sustainablemyanmar.com

Sustainable Environment Myanmar Company Ltd. (SEM) is one of the subsidiary company of Resource and Environment Myanmar Company Ltd. (REM). REM provides services for Environmental, Social and Health Impact Assessment of development projects of private and government enterprises. We have also extended our services to geotechnical engineering, geological and hydrogeological investigation, land surveying, geo-hazard assessment including potential landslide hazard mapping, deterministic and probabilistic earthquake hazard assessment and flood hazard mapping.

Sustainable Environment Myanmar Co., Ltd. has the resources and capability to handle environmental management issues as per the provisions of the Environmental Conservation Law, 2012. Environmental work includes the following:

1. Environmental Audit (regarding ongoing projects)

2. Environmental Impact Assessments (regarding new projects)

3. Environmental & Social Management Plan

For the present, the following members participated in preparation of IEE report.

The consultant teams of REM for the proposed project are as follows:

No.	Name	Position	Area of expertise
1.	U Zaw Naing Oo	Director/ Principal Consultant	ESIA / ESMMP
2.	U Thura Aung	General Manager	Geology and Soil, Physical
3.	U Ngwe Moe	Senior Consultant	Risk Assessment and Hazard Management
4.	Daw Phyoe Khaing Zar Wint	Consultant	ESIA / ESMMP
5.	U Thet Naing Aung	Senior Consultant	Ecology and Biodiversity
6	Daw Swe Watt Hmon	Consultant (Fauna)	Fauna and Flora
7.	Daw Myat Thet Khaing	Consultant	Aquatic
	Daw Phyu Phyu Shein	Senior Consultant	Socio Economy, Facilitation of Meeting
8.	Daw Nang Thazin Oo	Consultant	Socio Economy
9.	Daw May Zune Oo	Legal Expert	Law
10.	Daw Ei Ei Win Myat	Legal Expert	Law
11.	U Nay Min Aung	Physical	Environmental Quality
12.	Daw Thandar Htun	Physical	Environmental Quality
13.	U Kyaw Bala	Physical	Environmental Quality

1.6 Overall Schedule of Environmental Impact Assessment

The Environmental Impact Assessment Procedure (No.616/2015) (hereinafter referred to as "EIA Procedure"), which was issued by the Ministry of Environmental Conservation and Forestry (MOECAF) (predecessor of Ministry of Natural Resource and Environmental Conservation (MONREC)) on 29 December 2015 defines the detailed legal process regarding EIA procedures including preparation of EIA/IEE report, environmental management plan (EMP), public involvement, approval of EIA/IEE report by MOECAF, and monitoring process in accordance with the EIA report. In this EIA Procedure, "vehicle manufacturing plants" project is requested to conduct full EIA study. Therefore, the project proponent has conducted EIA based on the EIA Procedure.

This ESIA tasks that are to be conducted jointly by REM and the SEM ESIA Team is scheduled to be complete within 6 months of time since the commencement, with the following three steps.

The first step is to establish overall EIA implementation plan through preliminary survey and submit the Project Proposal as required by Myanmar EIA Procedure (Screening stage). The second step is to investigate a scoping (including stakeholder analysis) and submit scoping and TOR to MONREC for its review and approval. The first round of public consultation is carried out at this stage in order to disclose project information and seek public consultation. Once TOR for EIA for the proposed Project is approved by MONREC, the Team investigate and draft and submit ESIA report to the Project Proponent. This is the third stage. This stage also includes the second round of public consultation activities including project information disclosure through direct consultation with the key local stakeholders including affected communities.

While the last stage of the EIA procedure include the Project Proponent's submission of the EIA to MONREC-ECD for review and final approval.

Table 1.6-1 ESIA Implementation Schedule

Step	Main task	2018				2019							
		November		December		January		February		March		April	
1	Establishing evaluation plan through preliminary survey												

	Project proposal Submission												
2	Scoping investigation (Stakeholder Analysis)												
	Information disclosure &public consultation (1st)												
	Scoping and TOR writing and submission												
	Scoping and TOR confirmation (MONREC)												
3	ESIA investigation												
	Information disclosure &public consultation (2nd)												
	Drafting ESIA report												
4	ESIA Report Review and Approval (MONREC)												

Chapter 2 Legal and Administrative Framework

2.1 Introduction

The proposed project is planning to develop a factory for manufacturing, sales and after sales service of Motor Vehicles and Motorcycles in Myanmar (hereinafter referred to as "the Project"). Shwe Daehan Motors Co., Ltd. should comply with the legal frameworks; existing national laws, rules and regulations of the Republic of the Union of Myanmar presented in below. This chapter describes and discusses the involvement of laws and acts related to the implementation of the project and the assessment of environment impacts of this project. The Environmental Conservation Law (2012) is the main governing law and reformed into **Ministry of Natural Resource and Environmental Conservation** (MONREC) is the prime governing body of the law enforcement. The others include the constitution (2008), national environmental policy (1994), environmental conservation rules and regulations (2014) to abide by for the formulation of environmental management plan.

2.2 Myanmar Legislation and Institutions Concerning Environment

Introduction

Myanmar has some legislation and regulation relating to natural environmental aspects since before its independence. The Forest Act and the Burma Wildlife Protection Act, for example, have been enacted respectively in 1902 and 1936 for the sustainability of the forest produces. Amended versions of such earlier acts and newly promulgated ones are herein briefly outlined to give a perspective on the existing legal and administrative framework concerning the environmental affairs in Myanmar.

Institutional Setting of the National Level

In Myanmar, ministries get involved sector ally in legislation and administration of environment-related laws and acts depending on the technical nature of respective ministry and relevant environmental aspects. The principal ministries implementing and administering such enacted laws and regulations on behalf of the government are, namely, Ministry of Natural Resources and Environmental Conservation, Ministry of Religious Affairs and Culture, Ministry of Agriculture, Livestock and Irrigation, Ministry of Health and Sport, Ministry of Hotel and Tourism. They issued orders, directives and notifications as may be necessary.

Key Agencies for EIA

The leading Ministries in-charge of environmental and social considerations are Environmental Conservation Department of the Ministry of Natural Resources and Environmental Conservation (MONREC), that was reorganized Ministry of Environmental Conservation and Forestry (MOECAF) in April 2016.

2.3 Fundamental Laws and Regulations Related to Environmental and Social Considerations

The fundamental laws and regulations related to the environmental and social considerations and health in Myanmar, major international agreements and treaties that the Myanmar government has ratified related to the environmental and social are shown in Table 2.3-1.

Table 2.3-1 Fundamental Laws and Regulations Related to Environmental and Social Considerations and Health in Myanmar

No.	Laws and Regulations
Environmental Framework	
1	The National Environment Policy (1994)
2	The Environmental Conservation Law (2012)
3	The Environmental Conservation Rule (2014)
Water Environment	
4	The Underground Water Act (1930)
5	The Territorial Sea and Maritime Zone Law (1977)
6	The Law on Aquaculture (1989)
7	The Conservation of Water Resources and Rivers Law (2006)
8	The Conservation of Water Resources and River Rules (2013)
Forestry/Biodiversity	
9	The Forest Law (2018)
10	The Protection of Wildlife and Wild Plants and Conservation of Natural Areas Law (2018)
EIA/Environmental Standards	
11	EIA Procedures (December 2015)
12	National Environmental Quality (Emission) Guidelines (December 2015)
Land Use	
13	The Land Acquisition Act (1894)
14	The Farmland Law (2012)
15	The Farmland Rules (2012)
16	The Vacant, Fallow and Virgin Lands Management Law (2012), Amendment in 2018
17	The Vacant, Fallow and Virgin Lands Management Rules (2012)
Heritage	
18	The Protection of Preservation of Cultural Heritage Region Law (1998), Amendment in 2009
19	The Heritage Goods Protection Law (2015)
Public Health	
20	The Public Health Law (1972)
21	The Prevention and Control of Communicable Diseases Law (1995, revised in 2011)
Industrial Law	
22	The Explosive Act (1884)
23	The Explosive Substances Act (2018)
24	The Marine Fisheries Law (1990) (Amending,1993)
25	The Freshwater Fisheries Law (1991), 1993
26	The Prevention of Hazard from Chemicals and Related Substances Law (2013)
27	The Business for Ozone Depleting Substances: Notification No.37/2014
Working Environment	
28	The Worker's Compensation Act (1923), 1951, Amendment in 2005
29	The Payment of Wages Act (1936), 2016
30	The Factory Act (1951)
31	The Shops and Establishment Act (1951)
32	The Leave and Holiday Act (1951, partially revised in 2014)
33	The Social Security Law (2012)

34	The Labour Organization Rule (2012)
35	The Labour Dispute Settlement Law (2012), Amendment in 2014
36	The Employment and Skill Development Law (2013)
37	The Minimum Wage Law/Rules (2013)
Infrastructure/Economic Development	
38	The Investment Law (2016)
39	The Export and Import Law (2012)
40	The Electricity Law (2014)
41	Petroleum and Petroleum Product Law (2017) (Section 8 (A)(C)(D)(E)(F)(M), 13)

2.4 The Constitutional of the Union of Myanmar (2008)

The Constitution of the Union of Myanmar is the supreme law of the country and has provisions regarding the protection of the environment in Myanmar. Articles in the Constitution relevant to environmental protection are Articles 37, 42 and 390. They are quoted below:

Article 37

(a) The Union is the ultimate owner of all lands and all-natural resources above and below the ground, above and beneath the water and in the atmosphere in the Union;

(b) The Union shall enact necessary law to supervise extraction and utilization of State-owned natural resources by economics forces;

Article 45

The Union shall protect and conserve natural environment.

Article 390

Every citizen has the duty to assist the Union in carrying out the following matters:

(a) preservation and safeguarding of cultural heritage;
(b) environmental conservation;
(c) striving for development of human resources and
(d) protection and preservation of public property

These three Articles in the Constitution provide a basis for legalizing and institutionalizing environmental health impact assessment and social impact assessment.

2.5 The Environmental Conservation Law

The Pyidaungsu Hluttaw enacted this law by Law No. 9 of 2012 on the date of 30th March, 2012. The legal mechanism for ESHIA has been addressed in this law. This law was enacted with the objectives of:

a. To enable to implement the Myanmar National Environmental Policy;

b. To enable to lay down the basic principles and give guidance for systematic integration of the matters of environmental conservation in the sustainable development process;

c. To enable to emerge a healthy and clean environment and to enable to conserve natural and cultural heritage for the benefit of present and future generations;

d. To reclaim ecosystems as may be possible which are starting to degenerate and disappear;

e. To enable to manage and implement for decrease and loss of natural resources and for enabling the sustainable use beneficially;

f. To enable to implement for promoting public awareness and cooperation in educational for dissemination of environmental perception;

g. To enable to promote international, regional and bilateral cooperation in the matters of environmental conservation;

h. To enable to cooperate with Government Departments, Government Organizations, International Organizations, non-government organizations and individuals in matters of environmental conservation.

The following articles are particularly relevant to ESHIA requirements and this project:

Article 7 of chapter 4 mentions the need for SIA and ESIA for any project operated by the government or organizations or individuals.

The duties and powers relating to the environmental conservation of the Ministry are as follows:

a) To specify categories and classes of hazardous wastes generated from the production and use of chemicals or other hazardous substances in carrying out industry, agriculture, mineral production, sanitation and other activities;

b) To prescribe categories of hazardous substances that may affect significantly at present or in the long run on the environment;

c) To promote and carry out the establishment of necessary factories and stations for the treatment of solid wastes, effluents and emissions which contain toxic and hazardous substances;

d) To prescribe the terms and conditions relating to effluent treatment in industrial estates and other necessary places and buildings and emissions of machines, vehicles and mechanisms;

e) To lay down and carry out a system of ESIA and SIA as to whether or not a project or activity to be undertaken by any Government department, organization or person may cause a significant impact on the environment;

To manage to cause the polluter to compensate for environmental impact, cause to contribute fund by the organizations which obtain benefit from the natural environmental service system, cause to contribute a part of the benefit from the businesses which explore, trade and use the natural resources in environmental conservation works.

Also, in this law, Article 14 and Article 15 are related with waste disposal in accordance with environmental standards:

14. A person causing a point source of pollution shall treat, emit drainage and deposit the substances which cause pollution in the environment in accord with stipulated environmental quality standards.

15. The owner or occupier of any business, material or place which causes a point source of pollution shall install or use an on-site facility or controlling equipment in order to monitor, control manage, reduce or eliminate environmental pollution. If it is impracticable, it shall be arranged to dispose the wastes in accord with environmentally sound methods.

16. A person or organization operating business in the industrial estate or business in the SEZ or category of business stipulated by the Ministry:

a) is responsible to carry out by contributing the stipulated cash or kind in the relevant combined scheme for the environmental conservation including the management and treatment of waste;

b) is responsible to carry out by contributing the stipulated cash or kind in the relevant combined scheme for the environmental conservation including the management and treatment of waste;

c) shall contribute the stipulated users' charge s or management fees for the environmental conservation according to the relevant industrial estate, SEZ and business organization

d) shall comply with the directives issued for environmental conservation according to the relevant industrial estate, SEZ or business.″

2.6 Environmental Conservation Rules

The Ministry of Environmental Conservation and Forestry, in exercise of power conferred under sub-section (a) of section 42 of the Environmental Conservation Law, issues this rule by No.50 of 2014 on the date of 5th June, 2014.

In the Environmental Conservation Rules, concerning Environmental Impact Assessment, it has been stated as**:**

a) **Rule 51**: The Ministry shall assign duty to the Department for enabling to adopt and carry out the environmental impact assessment system.
b) **Rule 52**: The Ministry shall determine the categories of plan, business or activity which shall carry out environmental impact assessment
c) **Rule 53**: The Ministry shall to scrutinize whether or not it is necessary to conduct environmental impact assessment, determine the proposed plans, businesses or activities which do not include in stipulation under rule 52
d) **Rule 56**: The person who carries out any project, business or activity shall arrange and carry out for conducting the environmental impact assessment for any project, business or activity by a qualified third person or organization accepted by the Ministry.
e) **Rule 58**: The Ministry shall form the Environmental Impact Assessment Report Review Body with the experts from the relevant Government departments, Government organizations.
f) **Rule 61**: The Ministry may approve and reply on the ESIA report or IEE or EMP with the guidance of the Committee
    a. **Rule 69**: (i) Any person shall not emit, cause to emit, dispose, cause to dispose, pile and cause to pile, by any means, the pollutants and the hazardous waste or hazardous material stipulated by notification under the Law and any of these rules at any place which may affect the public directly or indirectly.

    (ii) Any person shall not carry out to damage the ecosystem and the natural environment which is changing due to such system, except for carrying out with the permission of the Ministry for the interest of the people.

The following are summaries of the key laws related to the natural and social environment in Myanmar that will likely be relevant to the Project.

Environmental Policy (1994)

The law is to achieve harmony and balance between socio-economic, natural resources and environment through the integration of environmental considerations into the development process enhancing the quality of the life of all its citizens.

National Land Use Policy (2016)

a) To promote sustainable land use management and protection of cultural heritage areas, environment, and natural resources for the interest of all people in the country;

b) To strengthen land tenure security for the livelihood's improvement and food security of all people in both urban and rural areas of the country;

c) To recognize and protect customary land tenure rights and procedures of the ethnic nationalities;

d) To develop transparent, fair, affordable and independent dispute resolution mechanisms in accordance with rule of law;

e) To promote people centered development in land resources and accountable land use administration in order to support the equitable economic development of the country;

f) To develop a National Land Law in order to implement the above objectives of National Land Use Policy.

2.7 Environmental Framework

Water Environment

The Conservation of Water Resources and Rivers Law (2006)

The aims of this law are as follows: (a) to conserve and protect the water resources and river system for the beneficial utilization of the public; (b) to enable smooth and safe waterways navigation along rivers and creeks; (c) to contribute to the development of the state economy through improving water resources and river system; and (d) to protect environmental impact.

However, this law is under the jurisdiction of the Ministry of Transport. This law focuses on transportation safety and its development. However, it lacks actual numerical criterion for natural environment.

Underground Water Act (1930)

The underground water act enacted on the date of 21st June in 1930 whereas it is expedient to conserve and protect underground sources of water supply in the Union of Burma. This act prohibits sinking of a tube for the purpose of obtaining underground water except under and in accordance with the terms of a license granted by the water officer. Township Officer or sub-divisional officer had power to close a license tube after exercising jurisdiction over the local area concerned and the expense of such closure shall be recoverable from the owner of the tube as if it were an arrear of land-revenue.

Forestry/Biodiversity

The Protection of Wildlife and Wild Plants and Conservation of Natural Areas Law (2018)

The objectives of this law are to implement the Government policy for wildlife protection and natural areas conservation, to carry out in accordance with the relevant International Conventions, to protect endangered species of wildlife and their natural habitats, to contribute for the development of research on natural science, and to protect wildlife by the establishment of zoological/botanical gardens. It prescribes the formation of the committee for protection of wildlife and natural areas with its function and duties and the determination of natural areas and endangered species of wild animal which are to be protected.

The Protection of Wildlife and Natural Areas Law, 1994

The State Law and Order Restoration Council had enacted the Protection of wildlife and Natural Areas Law on 8th June, 1994.

The objectives of this Law are as follows:

a) to implement the Government policy for wildlife protection;
b) to implement the Government policy for natural areas conservation;
c) to carry out in accordance with the International Conventions acceded by the State in respect of the protection and conservation of wildlife, ecosystems and migratory birds;
d) to protect endangered species of wildlife and their natural habitats.

Land Use

The Land Acquisition Act (1894)

The Land Acquisition Act (1894) serves as the fundamental law for land acquisition in Myanmar that sets out the procedure of land acquisition and compensation. The act further outlines relevant procedures, including notice periods, procedures for objections to acquisition (Article 5), method of valuation of land, process for taking possession of land (Article 16 and 17), court processes and appeals (Article 18 and 24), procedures for the temporary occupation of land (Article 35), and the acquisition of land for companies (Article 38). The act requires that compensation 'at market value' is provided to those from whom the land is acquired (Article 23).

The Farmland Law and Rules (2012)

The law determines the land use rights of farmland and the granting of land use rights to eligible farmers. It allows the right to sell, mortgage, lease, exchange, and give either whole or part of the right to use the farmland. The law determines the formation as well as the roles/responsibilities of farmland administrative bodies at various levels. The Farmland Law and Rules determine procedures such as the application for farmland registration and obtaining land use certificates, application of transfer of farmlands for other purposes, and indemnities and compensation.

Heritage

The Protection and Preservation of Cultural Heritage Regions Law, 1998

The State Peace and Development Council Law enacted this law by Law No. 9/ 98 on the date of 10th September, 1998. The Ministry of Culture may, with the approval of the Government issue

notification for the protection of cultural heritage areas are categorized as following kinds of zones/ region:

a) ancient monumental zone;

b) ancient site zone.

Objectives:

a) to implement the protection and preservation policy with respect to perpetuation of cultural heritage that has existed for many years;
b) to protect and preserve the cultural heritage regions and the cultural heritage therein so as not to deteriorate due to natural disaster or man-made destruction;
c) to uplift hereditary pride and to cause dynamism of patriotic spirit of citizens by protecting and preserving the cultural heritage regions;
d) to promote public awareness and will as to the high value of the protection and preservation of the cultural heritage regions;
e) to protect the cultural heritage regions from destruction;
f) to carry out protection and preservation of the cultural heritage regions in conformity with the International Convention approved by the State.

The Protection and Preservation of Ancient Buildings 2015

Purpose; To implement the protection and preservation policy with respect to perpetuation of cultural heritage that has existed for many years, to protect and preserve the cultural heritage regions and the cultural heritage therein so as not to deteriorate due to natural disaster or man-made destruction, to promote public awareness and will as to the high value of the protection and preservation of the cultural heritage regions, to protect the cultural heritage regions from destruction;

Public Health

The Public Health Law (1972)

The Union Revolutionary Council enacted this law by No 1/1972 on the date of 12th January, 1972. It is concerning with protection of people's health by controlling the quality and cleanliness of food, drugs, environmental sanitation, epidemic diseases and regulation of private clinics. This law established with the objectives of:

- to create a more healthful environment
- to provide the facilities and trained professionals to prevent and treat disease,
- to educate people to protect themselves
- to improve their conditions

Section-2:

This section covered communicable disease prevention and environmental sanitation to protect public health and to enhance public health not only by prohibiting harmful activities or conditions, but also by providing preventive and rehabilitative services to advance the health of the people. Regarding environmental sanitation, it is included that

a. limited control of the disposal of human and other wastes
b. concerns for water purity and the hygiene of housing
c. limited interest in food and milk sanitation,
d. incipient school health controls, and very little else.

The recently enacted rules require ESIA study for large projects according to the rules of the Ministry of Environmental Conservation and Forestry. Although the law does not specifically define legislation for ESIAs, the following investments are prohibited under this law:

a. Business which can affect the traditional culture Business which can affect the traditional culture and customs of the national races within the Union;
b. Business which can affect public's environment, causing noise in the residing area;
c. Business which can affect public health;
d. Business which can cause damage to the natural environment and ecosystem;
e. Business which can affect the land and marine animals, trees, flowers, crops, antique heritage, resources;
f. Business which can bring the hazardous or poisonous waste into the Union;
g. The factory which produce or the business which use hazardous chemicals under international agreements

The Prevention and Control of Communicable Diseases Law (1995, revised in 2011)

This law describes functions and responsibilities of health personnel and citizens in relation to prevention and control of communicable diseases. It also describes measures to be taken in relation to environmental sanitation, reporting and control of outbreaks of epidemics and penalties for those failing to comply. The law also authorizes the Ministry of Health to issue rules and procedures when necessary with approval of the government.

Occupational Safety and Health Law (2019) (Section 17,19,21,23,26,27,28,29,34,36,38(A) (B) (C), 49)

The law stipulates that the employers or entrepreneurs shall be responsible to improve the productivity and health of workers by preventing the occurrence of occupational accidents and diseases by:

- providing the sufficient number of personal protective clothing, materials and facilities prescribed and approved by the department on free of charge basis and cause workers to wear them while working, and a clinic, appoint the registered doctors and nurses and provide medicines and supporting equipment.
- prescribing the precautionary plans for emergency and occupational safety and health instructions, danger signs, notices, posters and signage for directions in accordance with stipulations.
- arranging to prevent any persons in the workplace from occupational safety and health risks occurred due to materials, machines or wastes used in the workplace or process.

Natural Disaster Management Law 2013

Pyidaungsu Hluttaw enacted this Law by No.21/2013,31th July ,2013.

The objectives of this Law are as follows:

a. To implement natural disaster management programmes systematically and expeditiously in order to reduce disaster risks;

b. To form the National Committee and Local Bodies in order to implement natural disaster management programmes systematically and expeditiously;

c. To coordinate with national and international government departments and organizations, social organizations, other non-government 3 organizations or international organizations and regional organizations in carrying out natural disaster management activities;

d. To conserve and restore the environment affected by natural disasters; (e) to provide health, education, social and livelihood programmes in order to bring about better living conditions for victims.

Law Related to Fire Force (2015) (Section 25)

The Law was enacted to prevent the fire, to provide the precautionary material and apparatuses, if the fire caused in the project area to be defeated because the project is business in which electricity and any inflammable materials such as petroleum are used. So, the project owner has to institute the specific fire service in line with the law.

Industrial Law

The Private Industrial Enterprise Law (1990)

The State Law and Order Restoration Council enacted this law by Law No.22/90 on 26th November, 1990.According to this law, all private industrial enterprises shall avoid or reduce the use of polluting technology. The Supervisory Body supervises and inspects the enterprise to ensure the following:

-No health threats from the industrial enterprise to the nearby residence;
-No fire threats or hazards;
-No source of nuisance or pollution originating from the enterprise;
-No occupational hazard to the workers and
-Compliance with the existing law.

Industrial Policy 2016

Purpose; To utilize modernized and advanced techniques of agriculture as the base and to simultaneously to up an Industrialized Nation; to accelerate the Nation's Economy by making unremitting efforts for the development of Micro, Small and Medium Enterprises (SMEs); to create job opportunities and improve the GDP per Capital Income by encouraging the development of Human Resources; To reduce the level of poverty by producing value-added product in rural areas; to create sustainable industrial development by adopting effective utilization of natural resources and raw materials; to increase the involvement of the industrial sector (energy, mining, manufacturing and processing, power and construction) to GDP from 33% (2013-2014) to 37% (230-2031) by the fiscal year of 230-2031.

The Factories Act, 1951, Amendment in 2016

This act contains the provisions for chemicals management and storage. Some chemicals are likely to require permits. It also requires all factories to have proper pollution control measures such as air pollution, sewage and wastewater treatment system.

The Explosive Act (1884)

The Explosive Act stipulates the prohibitions on production, possession and use of explosives without permission.

The Explosive Substances Act (1908)

The Explosive Substance Act stipulates the prohibitions on production, possession and use of explosives without permission

Prevention of Hazard from Chemical and Related Substances Law

The Pyidaungsu Hluttaw enacted this law by Law No. 28 of 2013 on the date of 26th August, 2013. This law was enacted with the objectives of:

a. To protect from being damaged the natural environment resources and being hazardous any living beings by chemical and related substances;

b. To supervise systematically in performing the chemical and related substances business with permission for being safety;

c. To perform the system of obtaining information and to perform widely educative and research for using the chemical and related substance systematically;

d. To perform the sustainable development for the occupational safety, health and environmental conservation.

Regarding to the chemical management and storage, currently, regulations governing chemicals management are divided between various Acts, mostly dating from colonial times; hence the legislation is in many respects related to the British framework. The Factory Act and the Public Health Act contain the provisions for chemicals management and storage. Some chemicals are likely to require permits.

Prevention of Hazard from Chemical and Related Substances Law (2013)

The law stipulates that the project proponent shall abide and perform in accordance with the related environmental laws not to impact and damage to the environment in operating the chemical and related substances business, and shall put the insurance in accordance with the prescriptive stipulations to be able to pay the compensation, if the impact and damage is occurred on the human being and animals or the environment in respect of the chemical and related substances businesses.

Prevention of Hazard from Chemical and Related Substances Rules

The Pyidaungsu Hluttaw enacted this rules by Notification No. 85 of 2015-2016 on the date of 12th January, 2016.

The Ministry of Industry, in exercising the power conferred under sub-section (a) of Section 47 of the Prevention of Hazard from Chemical and Related Substances Law, hereby issues the following rules with the approval of the Union Government.

Prevention from Danger of Chemical and Associated Materials Law (2013)

The main objective of the law is to prevent from damaging the environmental resources and from endangering the lively creatures due to the chemical and associated materials.

The Control of Smoking and Consumption of Tobacco Product Law, 2016

- This Law aims to protect from the danger which affects public health adversely by creating tobacco-free environment and to up lift the health, economy, and social standard of the public through consumption of tobacco product. [section 3]
- The responsible person shall arrange the written statements that state non-smoking area in the area prescribed places. [section9(a)]
- Smoking area shall be arranged the written statements that show specific places for smoking area in non-smoking area provided in section 7. [section 9 (b)]
- No one shall smoke in no- smoking area. [section 9 (c)]
- No-smoking area are prescribed and smoking, burning, carrying, holding are liable to a fine. [section 7+17]

Working Environment

The Workmen's Compensation Act, 1951, Amendment in 2005

It stipulates that employer is required to make payments to employees who become injured or who die in any accidents arising during and in consequence of their employment. Such compensation also must be made for disease which arises as a direct consequence of employment, such as carpal tunnel syndrome.

The Minimum Wage Law (2013)

The law was replaced the 1949 Minimum Wage Act. The Law provides a framework for minimum wage determination, the presidential office establishing a tripartite minimum wage committee shall decide minimum wage with industrial variation base on a survey on living costs of workers possibly every two years. This also stipulates equal payment.

The Payment of Wages Act (1936)

The Payment of Wage Act defines the payment obligation to the workers employed in the factories or railway administration. It stipulates the method of payment stating that the payment should be made in cash on a regular payday, and allows legal action against delayed payment or un-agreeable deduction.

The Shops and Establishment Act (1951)

It stipulates the payment of wage, work hours, holidays at shops and commercial establishment.

The Leave and Holidays Act (1951, partially revised in 2014)

This act has been used as the basic framework for leaves and holidays for workers with minor amendment in 2006 and 2014. This defines the public holidays that every employee shall be granted with full payment. It also defines the rules of leaves for workers including medical leave, earned leave and maternity leave.

The Social Security Law, 2012 and The Social Security Rules, 2014

- The objective is benefit for sickness, maternity, death, employment injury, invalidity benefit, superannuation benefit by: giving medical treatment, providing cash benefit or granting a right to residency. [section 3]
- All establishments shall contribute to the social security fund from the salary of insured workers as follows:
  (a) Health and social care fund 2% from employer, 2% from employee
  (b) Injury fund 1% from employer
  (c) The accepted maximum salary per month to quality for participation in the social security fund is currently set at 300,000 kyats.
- Kinds of social security funds are:
  (a) Health and social care fund
  (b) Family assistance fund
  (c) Injury fund
  (d) Invalidity benefit, superannuation benefit, and survivor's benefit fund
  (e) Unemployment benefit fund
  (f) Other social security fund (e.g. hosing plan)

For medical treatment and cash benefit for sickness;

- Beneficiaries have the right to take medical treatment at the permitted hospital or clinic for a period up to 26 weeds. [section 22 (a)]
- When the insured persona/beneficiary is retired, 50% payment of medical treatments is entitled if social security contributions have been paid for more than 180 months. [section 29]
- Beneficiaries have the right to enjoy 60 percent of average wages, calculated against the most recent four-month working period, as a cash benefit, during a period of illness up to maximum 26 weeks. [section 23]

For maternity benefits; [section 25, 26, and 27]

(a) Beneficiaries are allowed to be taken if the prior working period of an employee has been a minimum of one year and if three have been paid social security contributions by the worker for a minimum of six months.
(b) Maternity leave may total six weeks before confinement and eight weeks after confinement, up to 14 weeks in total.
(c) An additional four weeks are allowed for maternity leave if twins have been delivered
(d) UP to a maximum of six weeks' total leave is allowed to be taken in cases of miscarriage
(e) Full wages may be taken for prenatal examination at the rate one day per time and up to a maximum of seven times
(f) 70% of average wages of previous can be taken as maternity leave compensation before the birth
(g) An additional 50% of wages which can be taken once the child is born (additional 75% for twins, 100% for triplets). Hence, 120% of average wages will be administered for the eight weeks of maternity leave which may be taken after birth
(h) Has the right to take leave for medical treatment for their child up until one year after birth

(i) A father is entitled to take up to 15-days unpaid leave for infant care upon confinement of his wife

For funeral expenses

- If a Social Security insured person passes away, his or her beneficiary is entitled to receive five times their average month's wage. This is determined as the average wage of the last four working months of the deceased person.
- The obligations of employers are:
  (a) To inform immediately to the Social Security Office when an injury has happened to an employee. [section 54 (a)]
  (b) To register their business in the Social Security Office within 30 days from the day of first business operations. [Rules]
  (c) To register every newly appointed employee with the Social Security Office. [Rules]
- The employer who registered in accordance with the Social Security Law has the right to be exempted from the Workmen's Compensation Act.

The labor Organization Law, 2011 and The Labor Organization Rules, 2012

Description

As to the preamble of this law, the objectives are:

- To protect the rights of the workers in accordance with section 24 of the Constitution
- To promote good relations between the employer and the worker
- To enable to workers to form and carry out the labor organizations systematically and independently.

Rights and Responsibilities of the Labor Organization

- The labor organizations shall have the right to carry out freely in drawing up their constitution and rules, in electing their representatives, in organizing their administration and activities or formulating their programs
- The Labor organizations have the right to negotiate and settle with the employer if the workers are unable to obtain enjoy the rights of the workers contained in the labor laws and to submit demands to submit demands to the employer and claim in accord with the relevant law if the agreement cannot be reached
- The labor organization has the right to demand the relevant employer to re-appoint a worker if such worker if such worker is dismissed by the employer and if there is cause to that the reasons of such dismissal were based on labor organization membership or activities, or were not in conformity with the labor laws
- The labor organization has the right to send representatives to the Conciliation Body in settling a dispute between the employer and the worker
- In discussions with the Government between the employer and complaining workers, the representatives of the labor organization also have the right to participate and discuss
- Have the right to participate in solving the collective bargaining of the workers
- Shall carry out peacefully the holding of meetings, strikes and the carrying out any other collective activities
- Shall assist in making agreements between the employer and the workers. [section17 to 23]

Duties of Employer

The employer shall:

- Recognize the labor organizations
- Allow the member of executive assigned by the labor organization to perform their duty not exceeding two days per month
- Shall assist as much a possible if the labor organizations request help which is in the interest of the factory's workers. [section 29 to 31]

Prohibitions

No employer shall

- Lock-out any service without the permission of relevant conciliation body
- Lock-out any work during the settlement of dispute period
- Carry out an illegal lock-out, dismiss a worker for his membership in a labour organization or for the exercise of organizational actives or participating in a strike. [section 43+44]
- No worker shall
  (a) Go on strike without informing in advance the relevant employer or the relevant conciliation body
  (b) Go on strike during the settlement of dispute period
  (c) Go on an illegal strike [section 45 + 46]

The Settlement of Labor Disputes Law, 2012

AS to the preamble of this law, the objectives are;

- To safeguard the rights of workers
- To promote a good relationship between employer and workers and creating a peaceful workplace
- To obtain the rights fairly, rightfully and quickly by settling disputes between employer and worker justly,

Forming Workplace Coordinating Committee

The employer shall, in an establishment which has 30 employees and above and if there is a labor organization,

- Allow 2 nominated workers for each labor organization
- Assign employer representatives who are the same number as the representatives of the workers
  If there is no labor organization,
- Organize election of 2representatives of the worker
- Appoint 2 representatives of the employer

The term of such committees is one year.

Settlement of Dispute

- A party, employer or worker, may complain to the conciliation body.
- If he is not satisfied with the conciliation of Conciliation Body, may apply to the court, [section 23]
- The Conciliation Body shall refer the collective dispute which does not reach settlement to the relevant Arbitration Body, [section 25]

- No pay shall be barred to proceed with the right to institute criminal or civil proceedings in respect of such dispute during conciliation or arbitration. [section 52]
- As a strike suspends the employment agreement temporarily, the employer shall not be liable to pay salary or allowance during such period to the workers who go on strike. [section 54]

Law on the Protection of the Rights of Ethnic Nationalities (2012) (Section 5)

The Law prescribed that the project proponent shall disclose to the resident ethnic nationalities about the project fully.

Infrastructure/ Economic Development

Myanmar Investment Law (2016)

The Pyidaungsu Hluttaw was enacted this Law by No. 40/2016, 18, October ,2016.

The objectives of this Law are as follows:

(a) to develop responsible investment businesses which do not cause harm to the natural environment and the social environment for the interest of the Union and its citizens;

(b) to protect the investors and their investment businesses in accordance with the law;

(c) to create job opportunities for the people;

(d) to develop human resources;

(e) to develop high functioning production, service, and trading sectors.

(f) to develop technology, agriculture, livestock and industrial sectors;

(g) to develop various professional fields including infrastructure around the Union;

(h) to enable the citizens to be able to work alongside with the international community;

(i) to develop businesses and investment businesses that meet international standards.

Section 65

The Investor shall pay effective compensation for loss incurred to the victim, if there are damage to the natural environment and socioeconomic losses caused by logging or extraction of natural resources which are not related to the scope of the permissible investment, except from carrying out the activities required to conduct investment in a permit or an endorsement and shall take in advance permit or endorsement of the Commission for the investments which need to obtain prior approval under the Environmental Conservation Law and the procedures of environmental impact assessment, before undertaking the assessment, and shall submit the situation of environmental and social impact assessment to the Commission along the period of activities of the investments which obtained permit or endorsement of the Commission.

Myanmar Insurance Law (1993) (Section 15, 16)

The Law stated that the project will compensate for all the general damages to the environment and injuries to public to ensure the needed insurances such as making insurance for the project owned

vehicles and injured person.

The Export and Import Law (2012)

In 2012, the Export and Import Law was enacted and the Control of Imports and Exports Act (1947) were abolished. It aims to implement the economic principles of the State successfully, to lay down the policies to export and import that support the development of the State; and that are to be in conformity with the international trade standards.

The Electricity Law (2014)

The objectives of this law are:

(a) Systematically manage electricity-related work in the country in order to better satisfy the country's need for electric power;

(b) To develop the electric power sector of the country in order to contribute to the implementation of present policies of the government of the Republic of the Union of Myanmar relating to economic, social and environmental conservation and development;

(c) To further encourage mid-and small-scale generation and distribution of electric power in the regions and the states to supplement large-scale power generation and distribution which is to be managed by the Union;

(d) To enable the wider use of electric power in a safe way in the urban and rural areas in the whole country;

(e) To ensure that electricity-related work in the country is performed in accordance with the stipulated standards and norms;

(f) To develop modern electrical technology and to increase the number of electrical technicians and professionals;

(g) To promote standards, norms and quality of electrical appliances;

(h) To control and supervise electricity-related work in conformity with the policies of the state;

(i) To prevent in advance the occurrence of electrical hazards and to implement effective penalties and specific rules in order to prevent losses to the public and the state when electricity-related work is performed;

(j) To increase foreign and local investments in electricity-related work;

(k)To write and promulgate equitable, transparent and reasonable rules and regulations for fixing electric power rates which are economically viable and sufficient to cover the investment costs;

(l) To respect, and comply with, the international conventions on environmental conservation which were approved and signed by the Union.

Petroleum and Petroleum Product Law (2017) (Section 8 (A)(C)(D)(E)(F)(M), 13)

The Ministry shall perform the following tasks with regard to petroleum and any types of petroleum products.

Issuance of licenses for the refinery, transportation, transportation with pipelines, distribution, testing, and analyzing;

Issuance of separate or combined licenses for the operation of more than one business;

Specifying the procedures and terms for refinery, transportation, transportation with pipelines, distribution, testing, and analyzing;

Specifying the procedures and terms for the safe operation of petroleum and petroleum products businesses by exporters, recipients, transporters, and keepers;

Specifying the standard quality of containers used for transportation and the procedures and terms for pipelines;

Specifying and prohibiting the ratios and quantity of harmful chemicals in petroleum and petroleum products which are not included in the restrictions under a law in force, and minerals in petroleum and petroleum products which can cause harm to engines;

Inspection, according to the procedures, of the transportation, transit, testing, distribution and refinery.

A danger warning sign shall be displayed in the shape of easily visible words or signs on a pipeline which is used for the transportation of petroleum or petroleum products.

Myanmar Fire Brigade Law (2015)

The Pyidaungsu Hluttaw enacted this law by Law No. 11/ 2015 on the date of 17th March, 2015 with the objectives of:

a. To prevent public goods, private goods, cultural heritage and public lives and properties not to be damaged by fire hazard and other natural disasters
b. To train fire force members after establishing the fire force
c. To put out fire, protect, rescue when fire hazard, other natural disasters, epidemic or any immediately caused hazard occur,
d. To perform education and extension wisely to be participated by people when some disasters happen,
e. To participate if it is needed in national security, public peace, development, law and order

Section-8 Fire Safety Procedures

Rule 15 Each level of fire security force-

a. is to perform according to the procedures of fire safety pronounced by the central
b. is to educate and extend people to be participated in fire safety procedures
c. is to supervise to be participated by all relevant fire security members according to the procedures when fire hazard, other natural disaster, epidemic or other immediately caused hazard occurred
d. is to post fire safety precaution teams with synthesis of relevant administrative organization

Rule 17 Before the relevant government department, organization giving permission the following cases, fire force department have to inspect and regard is to be fire safety matter;

a. Construction of three stories and more, compound housing, market, public building,
b. Servicing hotel, motel, and guest house,
c. Construction of industry, factory, deport, and store,

d. Fire apprehensive work or work using explosive materials,
e. Importing, production and selling fire safety tools,
f. Transportation services using vehicle, rail, airplane, jet, ship, motorboat, boat,

Rule18 The relevant government department and organization will take over the attitude of the fire force department for fire safety in planning on implementation of civil and village, urban and rural development, projects for industrial zone and commercial zones.

Rule 19 The relevant permit able person will take over the attitude of the relevant fire staff officer to permit celebrations of exhibition, competition, delectation, religious festival, or fire apprehensive work for fire safety in public area.

Rule 20 In case of fire exploration, the relevant fire officer in charge, one relevant member of fire security, firefighter or one member of sub-fire brigade can perform to extinguish fire and the following rights

a. Cutting out electricity,
b. Blocking and cutting out oil and gas pipelines,
c. Clearing of roads for fire-engine to entrance and exit easily,
d. Entrancing to the interior of the house, hall, and building to effectively extinguish a fire,
e. Dismantling to the house, hall and building within fire accessible parameter,
f. Blocking of other pipelines to get water and more efficient water from any place, any well, any pond
g. Usage of any vehicle for extinguishing a fire

Rule 25 According to the instruction of the fire force department, industry, workshop, bus terminal, airport, jetty, hotel, motel, guesthouse, compound building, market, department, organization or any owner or manager of fire apprehensive work;

a. Don’t default to organize sub-fire brigade.
b. Don’t default to keep in fire safety tools

2.8 Yangon City Development Law (2018)

In 28 June 2018, the Yangon City Development Law formally established the present incarnation of YCDC, delegating wide responsibilities to this body, including city planning, land administration, tax collection, and development. The Committee’s duties stipulated in this law related to the proposed project can be summarized as below:

1) Control and implementation of lands within the limits of the City of Yangon Municipality
2) Inspection and permission of construction of buildings
3) Conservation of the cultural heritage buildings
4) Construction and maintenance of drainage for discharge of waste water
5) Management of groundwater drilling, extraction and distribution
6) Systematic collection and disposal of solid waste and management if required
7) Protection of air, water and soil pollution from factory, vehicles, traffic and man made to investigate impact on public health and make audit and action coordination with relevant government organization

2.9 Standardization Law (2014)

The Standardization Law is enacted by Pyidaungsu Hluttaw, Law on 3th, July, 2014.
Purpose; To enable standardization. To enable to procurement of service ability import goods, to increase products of manufacture organization and their process. To enable to protect of Consumers and users are not debase standardizations of export import goods, healthy, safety and disasters with grantee. To enable to promote products and their process, services and related of environmental conservation. To enable to protect from an inefficient product, distribution import goods of the environmental pollution. To enable to support establishment from International free trade regions and trade technique barriers.

2.10 Motor Vehicle Law 2015

Section 34; The administration department has to make rules and set standard requirements for environmental conservation and safety in connection with the import, manufacturing, equipping, repair and maintenance of motor vehicles.

Section 35; An applicant wishing to operate a business associated with manufacturing, selling, equipping or maintaining motor vehicles or to operate a private business for inspecting motor vehicles has to apply for a business license to the administration department with everything to show that he or she fulfills there querulents. To enable to facilitate technique transfer and technical inventions were use of standardization for Myanmar economic and social development with equal of Myanmar national development plan.

Section 50; No one is allowed: (a) To operate a business of manufacturing, selling or equipping motor vehicles without a business license. (b) To operate a business of maintaining or repairing motor vehicles without a business license.

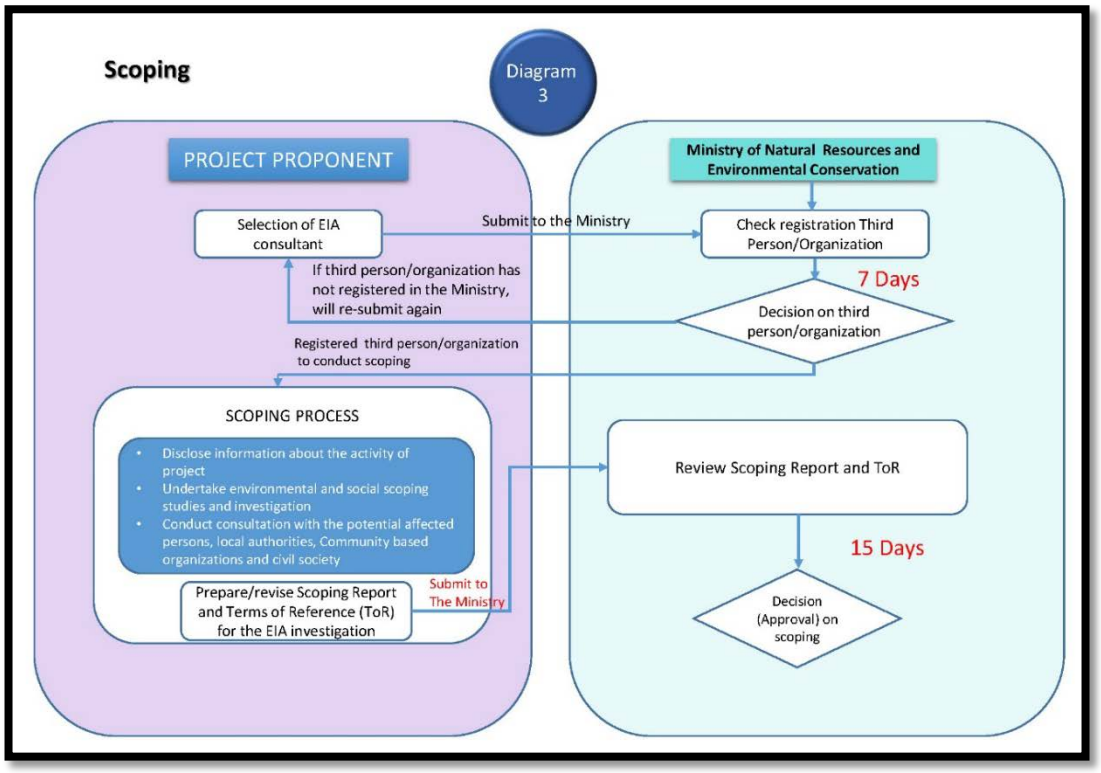
Section 52; No one is allowed to operate a private business of inspecting motor vehicles without a business license.

2.11 The Highways Law (2000)

Purpose; to cause easier communication and transportation among states and divisions by constructing the highways and to strengthen national solidarity and friendship and to cause all-round development in all regions and areas in economic and social sectors; to give support in implementing the duty for security and convenience in road and communication and quickness in flow of commodities; to give support in the modernization and development of the State by constructing highways within the State

2.12 Environmental Impact Assessment

The project proponent shall prepare a scoping report and TOR for the EIA investigations and submit the completed Scoping Report and TOR to the MONREC for review and approval. The Scoping process is shown in the following Figure.



Source: Envi

Figure 2.12-1 EIA scoping process

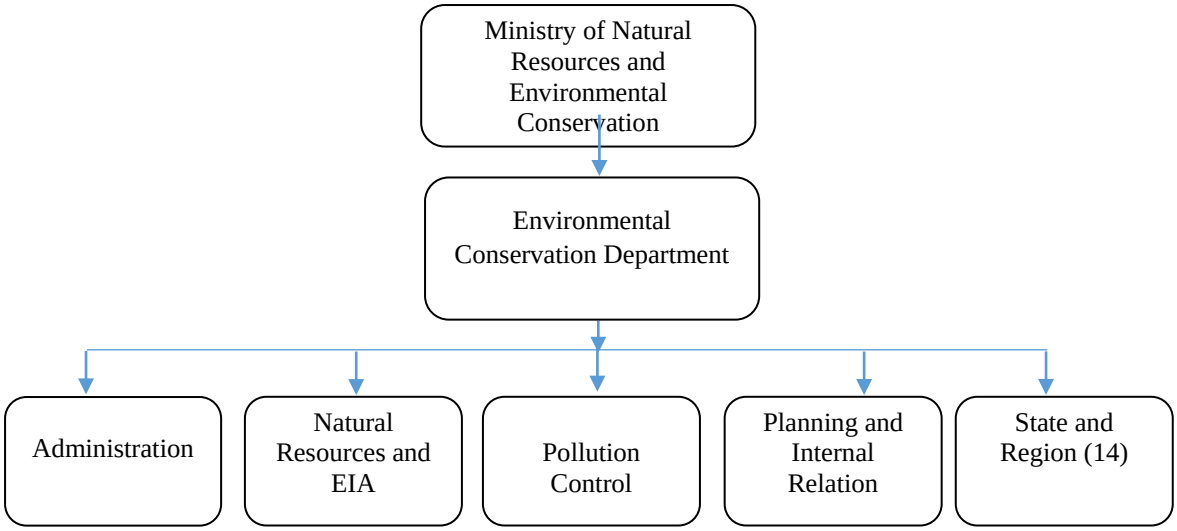
2.12.1 Institutional Framework on Environmental Management

2.12.2 Ministry of Natural Resources and Environmental Conservation (MONREC)

The government body with primary responsibility for ensuring and promoting soundness of the environment in Myanmar is MONREC although other Related Ministries such as the Ministry of Transportation and Communications also share certain level of responsibility. MONREC was reformed in April 2016 from the Ministry of Environmental Conservation and Forestry to be the focal point and coordinating agency for environmental management. While ECL (2012) and ECR (2014) do not specify the role of MONREC, responsibility of its predecessor (i.e. Ministry of Environmental Conservation and Forestry (MOECAF)) is stipulated in the Forest Policy (1995) as: forest land management; environmental protection; timber extraction; and forest policy in Myanmar. Since then, there has been only one modification to the structure of the Ministry, which is addition of ECD established in October 2012 based on Environmental Conservation Law. ECD is the department responsible for managing the EIA process in Myanmar. The role of MONREC in environmental conservation can therefore be considered greater than before.

The "Ministry of Natural Resources and Environmental Conservation (MONREC)" which was founded by the merger between former "Ministry of Environmental Conservation and Forest (MOECAF)", and former "Ministry of Mines (MOM)" when the new Myanmar Government was launched in 2016, is the nodal governmental body of Myanmar for taking on administration of Environmental Management and Environmental Impact Assessment (EIA) procedures in Myanmar.

The Environmental Conservation Department (ECD) of the MONREC is to take responsibility for the environmental conservation and management as well as EIA procedure in Myanmar which consists of five sub-divisions as shown in Figure 2.12-2-1.



Source: Environmental Conservation Department

Figure 2.12-2-1 Myanmar National Environmental Conservation organization chart

2.12.4 Environmental Impact Assessment (2015)

The EIA procedure, issued on 29th December 2015, defines the requirements for the EIA and states that: "An EIA investigation shall consider all biological, physical, social, economic, health, cultural and visual-components of the environment, together with all pertinent legal matters relating to the environment (including land use, resources use, and ownership of land rights to land and other resources) that may be affected by the Project during all project phases including pre-construction, construction, operation, decommissioning, closure, and post-closure; and shall identify and assess all Adverse impacts and risks that potentially could arise from the project.

Article 7 – This Procedure does not address specific matters in relation to resettlement. Projects involving resettlement shall additionally comply with separate procedures issued by responsible ministries, and in the absence of such procedures all such Projects shall adhere to international best practice on Involuntary Resettlement."

Three different steps are foreseen for the EIA process which is described in the following sections:

- screening phase;
- scoping phase; and
- EIA Investigation and Report Preparation

2.12.3 Environmental Quality Standards

The Ministry may stipulate the following environmental quality standards (Article 10 in Chapter 6) suitable surface water quality standards in the usage in rivers, streams, canals, springs, marshes, swamps, lakes, reservoirs and other inland water sources of the public;

- water quality standards for coastal and estuarine areas;
- underground water quality standards;

- atmospheric quality standards;
- noise and vibration standards;
- emissions standards;
- effluent standards;
- solid wastes standards;
- other environmental quality standards

National Environmental Quality (Emission) Guidelines (2015)

MONREC formulated the National Environmental Quality (Emission) Guidelines (NEQG) in coordination with ADB in December 2015. The NEQG determines the guideline values for general emission such as air emissions, wastewater, noise levels, odor, and those for sector-specific emission such as emission from forestry, agribusiness/food production, chemicals, oil and gas, infrastructure.

2.13 Myanmar's Commitment to International Agreements on Environmental Issues

On the other hand, the National Commission for Environmental Affairs (NCEA), formed under the Ministry of Foreign Affairs in 1990, has played a role as a central/focal coordinating body for environmental matters, particularly adopting national policies on environment until 2011.

Table 2.13-1 Myanmar's Commitment to International Agreements on Environmental Issues

No.	*International Environmental Conventions/ Protocols/ Agreements*	*Date of Signature*	*Date of Ratification*	*Date of Member*	*Cabinet Approval Date*
1	Plant Protection Agreement for the South-East Asia and the Pacific Region, Rome, 1956		4-11-1959 (Adherence)	4-11-1959	
2	United Nations Framework Convention on Climate Change, New York, 1992 (UNFCCC)	11/6/1992	25-11-1994 (Ratification)		41/94 9-11-94
3	Convention on Biological Diversity, Rio de Janeiro, 1992	11/6/1992	25-11-1994 (Ratification)		41/94 9-11-94
4	Vienna Convention for the Protection of the Ozone Layer, Vienna, 1985		24-11-1993 (Ratification)	22-2-1994	46/93
5	Montreal Protocol on Substances that Deplete the Ozone Layer, Montreal, 1987		24-11-1993 (Ratification)	22-2-1994	46/93
6	London Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer, London, 1990		24-11-1993 (Ratification)	22-2-1994	46/93
7	The Convention for the Protection of the World Culture and Natural Heritage, Paris, 1972		29-4-1994 (Acceptance)		6/94 9-2-94
8	Convention on International Trade in Endangered Species of Wild Fauna and Flora, Washington, D.C., 1973; and this convention as amended in Bonn, Germany,1979 (CITES)		13-6-1997 (Accession)	11-9-1997	17/97 30-4-97
9	ASEAN Agreement on the	16/10/1997			

	Conservation of Nature and Nature Resources, Kuala Lumpur, 1985				
10	Catagena Protocol on Biosafety, Cartagena, 2000	11/5/2001			13/2001 22-3-01
11	ASEAN Agreement on Transboundary Haze Pollution	10/6/2002	13-3-2003 (Ratification)		7/2003 27-2-03
12	Stockholm Convention on Persistent Organic Pollutants (POPs), 2001		18-4-2004 (Accession)	18-7-2004	14/2004 1-4-04

2.14 Quantitative Target Levels for Consideration of Surrounding Environment

According to the Environmental Conservation Law, MONREC published the National Emission Guidelines for environmental quality in December 2015. The ambient air quality, Water Runoff, effluent and sanitary discharges, wastewater quality and noise standards is shown in Table:

1) Air Emission

Projects with significant sources of air emissions, and potential for significant impacts to ambient air quality, should prevent or minimize impacts by ensuring that: (i) emissions do not result in pollutant concentrations that reach or exceed ambient quality guidelines and standards, or in their absence the current World Health Organization (WHO) Air Quality Guidelines; and (ii) emissions do not contribute a significant portion to the attainment of relevant ambient air quality guidelines or standards (i.e. not exceeding 25 percent of the applicable air quality standards) to allow additional, future sustainable development in the same airshed (Source:National Environmental Quality (Emission) Guidelines, 2015.

Table 2.14-1 Ambient air quality standard

Parameter	Averaging Period	Guideline Value µg/m^3
Nitrogen dioxide	1-year 1-hour	40 200
Ozone	8-hour daily maximum	100
Particulate matter PM_{10}	1-year 1-hour	20 50
Particulate matter $PM_{2.5}$	1-year 1-hour	10 25
Sulfur dioxide	14-hour 10- minute	20 500

[a] Particulate matter 10 micrometers or less in diameter
[b] Particulate matter 2.5 micrometers or less in diameter
Source:National Environmental Quality (Emission) Guidelines, 2015

2) Wastewater

This guideline applies to projects that have either direct or indirect discharge of process wastewater, wastewater from utility operations or storm water to the environment. It is also applicable to industrial discharges to sanitary sewers that discharge to the environment without any treatment. Process wastewater may include contaminated wastewater from utility operations, storm water, and sanitary sewage. Projects with the potential to generate process wastewater, sanitary (domestic) sewage, or

storm water should incorporate the necessary precautions to avoid, minimize, and control adverse impacts to human health, safety or the environment.

Table 2.14-2 Water quality standard for water runoff, effluent and sanitary discharges,

Parameter	Unit	Guideline Value
Biological oxygen demand	mg/l	50
Ammonia	mg/l	10
Arsenic	mg/l	0.1
Cadmium	mg/l	0.1
Chemical oxygen demand	mg/l	250
Chlorine (total residual)	mg/l	0.2
Chromium (hexavalent)	mg/l	0.1
Chromium (total)	mg/l	0.5
Copper	mg/l	0.5
Cyanide (free)	mg/l	0.1
Cyanide (total)	mg/l	1
Fluoride	mg/l	20
Heavy metals (total)	mg/l	10
Iron	mg/l	3.5
Lead	mg/l	0.1
Mercury	mg/l	0.01
Nickel	mg/l	0.5
Oil and grease	mg/l	10
pH	S.U	6-9
Phenols	mg/l	0.5
Selenium	mg/l	0.1
Silver	mg/l	0.5
Sulphide	mg/l	1
Temperature increase	°C	<3
Total coli form bacteria	100ml	400
Total phosphorus	mg/l	2
Total suspended solids	mg/l	50
Zinc	mg/l	2

[a] Standard unit
[b] at the edge of a scientifically established mixing zone which takes into account ambient water quality, receiving water use, potential receptors and assimilative capacity; when the zone is not defined, use 100 meters from the point of discharge

Note ; [3] Pollution prevention and abatement handbook. 1998. Toward cleaner production. World Bank Group in collaboration with United Nations Environment Programme and the United Nations Industrial Development Organization.
Source:National Environmental Quality (Emission) Guidelines, 2015

Table 2.14-3 Water quality standard for site runoff and wastewater discharges (Construction Phase)

Parameter	Unit	Guideline Value
Biological oxygen demand	mg/l	30
Chemical oxygen demand	mg/l	125
Oil and grease	mg/l	10
pH	S.U	6-9
Total coli form bacteria	100ml	400
Total nitrogen	mg/l	10
Total phosphorus	mg/l	2
Total suspended solids	mg/l	50

3) Noise Level

Noise prevention and mitigation measures should be applied where predicted or measured noise impacts from a project facility or operations exceed the applicable noise level guideline at the most sensitive point of reception. Noise impacts should not exceed the levels presented below, or result in a maximum increase in background levels of three decibles at the nearest receptor location off-site.

Table 2.14-4 Target noise level

Receptor	One Hour LAeq (dBA)	
	Daytime 07:00-22:00	Nighttime 07:00-22:00
Residential, institutional, education	55	45
Industrial, commercial	70	70

2.15 Social and Health Standards for the Project

IFC EHS Guidelines

The EHS Guidelines1 by IFC is technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP), as defined in IFC's Performance Standard 3: Resource Efficiency and Pollution Prevention. The EHS Guidelines contain the performance levels and measures that are normally acceptable to IFC and that are generally considered to be achievable in new facilities at reasonable costs by existing technology.

There are two kinds of guidelines, General EHS Guidelines and Industry Sector Guidelines. The General EHS Guidelines contain information on cross-cutting environmental, health, and safety issues potentially applicable to all industry sectors in the following section: (1) Environment, (2) Occupational Health and Safety, (3) Community Health and Safety, and (4) Construction and Decommissioning. Table 2.5-1 shows the contents of the section of Community Health and Safety.

Table 2.15-1 Community Health and Safety in IFC EHS Guidelines

Contents	Brief Description

Water Quality And Availability	Drinking water sources should at all times be protected so that they meet or exceed applicable national acceptability standards or in their absence the current edition of WHO Guidelines for Drinking-Water Quality. Project activities should not compromise the availability of water for personal hygiene needs and should take account of potential future increases in demand. The overall target should be the availability of 100 liters per person per day.
Structural Safety of Project Infrastructure	Reduction of potential hazards is best accomplished during the design phase when the structural design, layout and site modifications can be adapted more easily. The following issues should be considered and incorporated as appropriate into the planning, siting, and design phases of a project: 1) inclusion of buffer strips or other methods of physical separation around project sites to protect the public from major hazards associated with hazardous materials incidents or process failure, 2) incorporation of siting and safety engineering criteria to prevent failures due to natural risks posed by earthquakes, tsunamis, wind, flooding, landslides and fire, and 3) application of locally regulated or internationally recognized building codes.
Life and Fire Safety (L&FS)	All new buildings accessible to the public should be designed, constructed, and operated in full compliance with local building codes, local fire department regulations, local legal/insurance requirements, and in accordance with an internationally accepted life and fire safety (L&FS) standard. Sponsors should prepare a Life and Fire Safety Master Plan identifying major fire risks, applicable codes, standards and regulations, and mitigation measures.
Traffic Safety	Traffic safety should be promoted by all project personnel during displacement to and from the workplace, and during operation of project equipment on private or public roads. Prevention and control of traffic related injuries and fatalities should include the adoption of safety measures that are protective of project workers and of road users, including those who are most vulnerable to road traffic accidents.
Transport of Hazardous Materials	Projects should have procedures in place that ensure compliance with local laws and international requirements applicable to the transport of hazardous materials.
Disease Prevention	Recommended interventions against the communicable diseases at the project level include 1) providing surveillance and active screening and treatment of workers, 2) preventing illness among workers in local communities by undertaking health awareness and education initiatives, training health workers in disease treatment and conducting immunization programs for workers, and 3) providing treatment through standard case management in on-site or community health care facilities.
Emergency Preparedness and Response	All projects should have an Emergency Preparedness and Response Plan that is commensurate with the risks of the facility and that includes the following basic elements: 1) Administration (policy, purpose, distribution, definitions, etc), 2) Organization of emergency areas (command centers, medical stations, etc), 3) Roles and responsibilities, 4) Communication systems, 5) Emergency response procedures, 6) Emergency resources, 7) Training and updating, 8) Checklists (role and action list and equipment checklist), and 9) Business Continuity and Contingency.

Source: IFC, Environmental, Health, and Safety (EHS) Guidelines, General EHS Guidelines: Community Health and Safety (April 30, 2007)

2.16 Company's commitment for environmental protection

Shwe Daehan Motors Co., Ltd., being a prestigious company based on its work throughout, agrees to follows existing rules and regulations concerning environment both on social and natural aspect, in Myanmar, and to appreciate international best practices to be a sustainable business of the company and the development of the people in the environ of the project.

The following paragraph is presented the company's commitment for the social welfare facilities and environmental protection.

"Shwe Daehan Motors Co., Ltd.," will be formed under Myanmar Investment Law, shall be carried out in respect of social welfare facilities scheme for the employees, labors and staffs who operates in respective sectors, as we wish to carry out the following scheme.

- The company will provide the private transportation bus for the employees, labors and staffs without charge.
- The company will arrange the refreshment and overtime fee, for the nightshift and overtime employees, labors and staffs according to the Myanmar Labor Law.
- The company will provide the first aid and rest room for the injured person.
- The company are willing to give necessary treatments at social welfare clinic if personal injury is caused to a workman by accident arising from the factory area. Social Welfare Budget will be saved and collected from the employers, employees, staffs and labors.

For the environmental protection, the company will be formed under Myanmar Investment Law, shall responsible to have environmental protection program with the following policies:

- The company will comply with all applicable national and international environmental legislation and other subscribed requirement which related to manufacturing activities and products
- The company will identify, monitor and continually improve recognized environmental impacts.
- The company will prevent any industrial waste, water and land pollution and sustain natural resources
- The company will develop environmental competence to all levels of employees.
- The company will collaborate with stakeholders on all environmental matters.

The company commitment for social welfare facilities for employees and environmental protection are attached.

Chapter 3 Project Description and Alternatives

3.1 Project Description

The proposed project is the construction of a factory for manufacturing, sales and after sales service of Motor Vehicles and Motorcycles in Thar Du Kan Industrial Zone, Shwe Pyi Thar Township, Yangon Region, and the Republic of the Union of Myanmar. Regarding from Ministry of Transportation and Communications for the submission of proposal,

- The company will follow ASEAN Motor Vehicle Requirement Standard for production;
- The company will be produced "Left Hand Drive" Motor Vehicles;
- The company will take the certificate for Brand and Type of Vehicles for produced products and will show the complete specification for all products;
- The company will distribute the products which have passed the testing at Test Lane in Vehicle Testing Workshop to the market.

Based on information from the proponent, and the consultant's knowledge and experience with projects of this nature, the project is expected to undertake in three phases with the following activities:

1) Construction Phase
2) Operation Phase, and
3) Decommission Phase.

3.2 Area of Impact

Direct Impact Area is the areas where the near surrounding area (near proposed project site) and human society/communities in the project site and adjacent locations are likely to be affected negatively due to the land acquisition, loss of properties (structures, residential and commercial etc.). In this project, there is no direct impact.

Indirect Impact Area is the area where the ecosystem (flora and fauna etc.). The indirect areas in Shwepyithar Township include the areas that are within the radius of 1 km form proposed project site. This covers in the four quarter No14 Ward, BoneShaeKonem, Kyaungkone and No.4 Ward.



3.3 Investment Plan

Shwe Daehan Motors Co., Ltd had submitted the investment proposal for Manufacturing, Sales and After Sales Service Co., Ltd plan to the Myanmar Investment Commission (MIC).The proponent is submitting the business proposal to do business activities of Manufacturing, Sales and After Sales Service of Motor Vehicles and Motorcycles "with foreign full investment at Plot "No.69 and 70, Ma Hu Yar Street, Myay Taing Quarter No.50 (Thar Du Kan Industrial Zone), Shwe Pyi Thar Township, Yangon Region, the Republic of the Union of Myanmar, with land area of 3.185 Acres and 3.186 Acres respectively and total land area is 6.371 Acres. Raw materials and machinery will be imported from overseas for the production of 12 types of Motor Vehicles which consists of 9 types of Hyundai Motor Company brand and 3 types pf DAEHAN brand and 3 types of KR brand Motorcycles in Myanmar with advanced technologies and plan to sell and distribute 100% of produced products in local market. In order to increase country's export earnings, plan to export them to neighboring countries in collaboration with Ministry of Industry in future and will submit to MIC again when developed this plan. The project proponent will also provide after sales service.

The company has the authorized capital of USD 100,000,000.00 for 50 years Grant land and the initial investment is USD 9,823,000.00 which will be invested in cash. The required machinery and equipment, furniture, motor vehicles, supporting materials and spare parts will be purchased with this invested money. The proponent will also spend the cash for Car Showroom and Construction cost. The whole initial capital investment amount USD 9,823,000.00 is shown below will be invested in cash within investment construction period or investment preparatory period 2 Years.

Table 3.3-1 Investment Plan of Shwe Daehan Motors Co., Ltd

No.	Types of Investment and Invested Company	Contributed Share Amount	Invested Amount (US$)
1	In Cash amount to be contributed form "KALAO HOLDING (HM) SINGAPORE PTE LTD"	982,299	9,822,990.00

2	In Cash amount to be brought in form “Mr. JANG WOOJIN”	1	10.00
	Total Investment Amount (US$)	**982,300**	**9,823,000.000**

Table 3.3-2 Detailed Investment Plan Shwe Daehan Motors Co., Ltd

No.	Particulars	Year 0 (USD)
1	Value of Machinery and Equipment List	3,714,858.08
2	Value of Furniture and Fixture List	698,146.64
3	Value of Motor Vehicle List	1,805,574.00
4	Value of Supporting Materials and Spare Parts List	101,702.06
5	Car Showroom Development Cost	410,000.00
6	Value of Construction Cost	3,092,719.22

3.3.1 Project Benefits

Upon setting up of their business, there will be many benefits such as increasing local production and replacing the importing of Motor Vehicles and Motorcycles, transferring technical know-how and creating many job opportunities for Myanmar citizens especially in Shwe Pyi Thar Township, Yangon. According to the employment statement mentioned in the proposal, the proponent will mainly hire the local citizens for the positions of directors, managers, technicians and general workers, etc. for the production of proposed business activities. Therefore, 1003 local people will have job opportunities in the first year and employment will increase to 2067 of local people by Year 30 according to the estimation in proposal calculation. Total of 7 foreign employees will be recruited in first year and number will increase to 9 by Year 30 based on the requirement of proposed business activities. The project proponent will also request the approval form MIC to expand their business after a couple of years and Myanmar citizens will have more job opportunities once MIC approved our business expansion. Moreover, country revenue will increase by tax collections including corporate income tax from employees.

3.4 Factory Location and Surrounding Area

Shwepyithar Township is located in the northwestern part of Yangon, Myanmar. The township comprises fifteen wards and five village tracts, and shares borders with Htantabin Township to the north, Mingaladon Township to the east, the Yangon River to the west, and Insein Township to the south. Hlaing River separates Shwepyithar and Hlaingtharyar townships. BogyokeAungsan Road, BayintNaung Road, No.3, Highway,etc are the most popular roads in the township. The Yangon Circular Railway passes through the township.

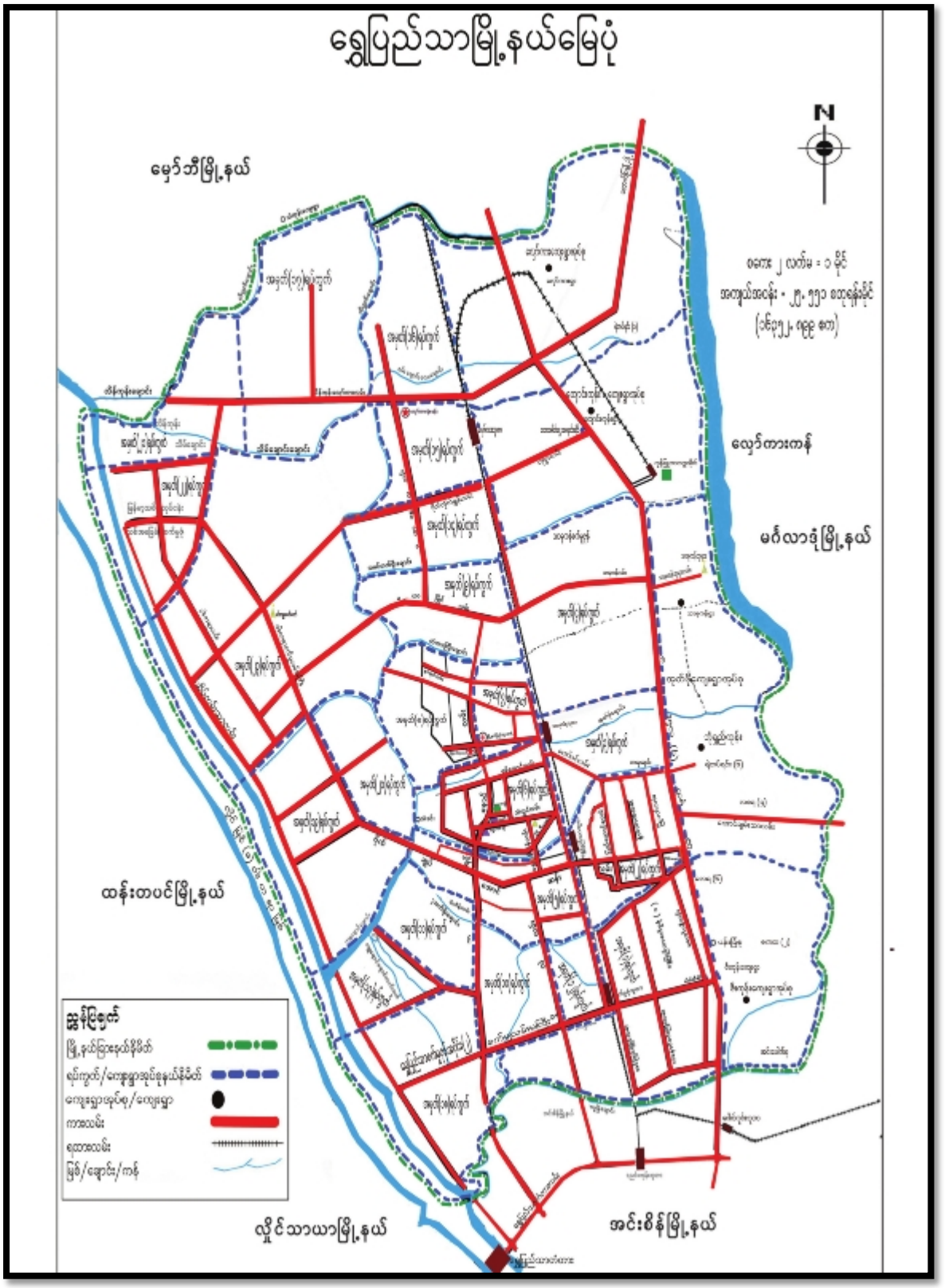


Figure 3.4-1 Township Map of Shwe Pyi Thar

Surrounding Area

The proposed is located at Plot “No.69 and 70, Ma Hu Yar Street, MyayTaing Quarter No.50 (Thar Du Kan Industrial Zone), ShwePyi Thar Township, Yangon Region, the Republic of the Union of Myanmar, with land area of 3.185 Acres and 3.186 Acres respectively and total land area is 6.371 Acres. The surrounding area are occupied other factories. “Khaing Khaing Group” Co., ltd is in front of the proposed factory. As nearest neighbors are also factory both side of the project. There is no residential surrounding of the project. The land plot has a rectangular shape defined by the following coordinates:

i) 16°59'41.09"N/ 96°5'5.41"E
ii) 16°59'36.36"N/ 96° 5'6.60"E
iii) 16°59'34.82"N/96° 5'1.08"E
iv) 16°59'39.55"N /96° 4'59.53"E

The location of the project area is shown in figure respectively.



GOOGLE MAP-2



Figure 3.4-2 Surrounding Area Condition

3.5 Collection of Raw Materials

Major raw materials and per unit consumption required for production are attached in Appendix 1. Most of the raw materials will be imported from overseas.

3.6 Construction Process

The design of the project has been executed with due consideration of the existing topography of the proposed project site. In addition, measures have taken to ensure that the existing land mass, strata and vegetation is least disturbed during construction of the project. In general, the design of the project will optimize the use of best available technology to prevent or minimize potentially significant environmental impacts associated with the project and to incorporate efficient operational controls together with trained staffs, to ensure high level business and environmental performances as well as solid and wastewater management systems. The technology used in the design and construction of the building will be based on international standards. The building will be constructed as per the respective architectural and structural engineer's details as provided for building plan. Basically, the building structure will consist of concrete appropriately reinforced with metal.

There will be adequate provision for safety measures within the building including facilities such as water and carbon dioxide fire extinguishers. The building will be provided with facilities for drainage for storm water from the roof through peripheral drainage systems into the plant drainage system. Drainage pipes will be of the PVC type and will be laid under the building. The building will be connected to the septic sewerage system for discharge of sewerage emanating from the project's operational activities. The wastewater effluent from processing will be disposed through the treatment system with an objective of purifying and recycling the wastewater into the proponent's landscaped site.

The building will have adequate natural ventilation through provision of permanent vents in all habitable rooms, adequate natural and artificial light.

Construction Schedule

Description	**July**				**August**				**September**				**October**			
	1st week	2nd week	3rd week	4th week	1st week	2nd week	3rd week	4th week	1st week	2nd week	3rd week	4th week	1st week	2nd week	3rd week	4th week
New Toilets																
Office Building construction																
Compressor Room																
Assembly Line																
Test Line																
Ware House																

Infrastructure Requirement

Major infrastructures include main office, canteen, warehouse office, compressor room, transformer, and utility and generator room. There are three main buildings will be constructed one story for MC Factory Building (30m x 80m) and one story of two buildings for canteen (30m x 9m) total area of (2,940) sqm. The proposed plant layout of the project, including the additional infrastructure is attached in Appendix 2.


Building
Write a description for your map.
Legend
Feature 1
Social
Untitled Path
Security Gate
Office
Warehouse
Shower Test
Generator Room
Factroy
Test Line Building
Parking
Compressor Room
Water Tank and Pump Room
Google Earth
Image © 2019 DigitalGlobe
N
200 ft

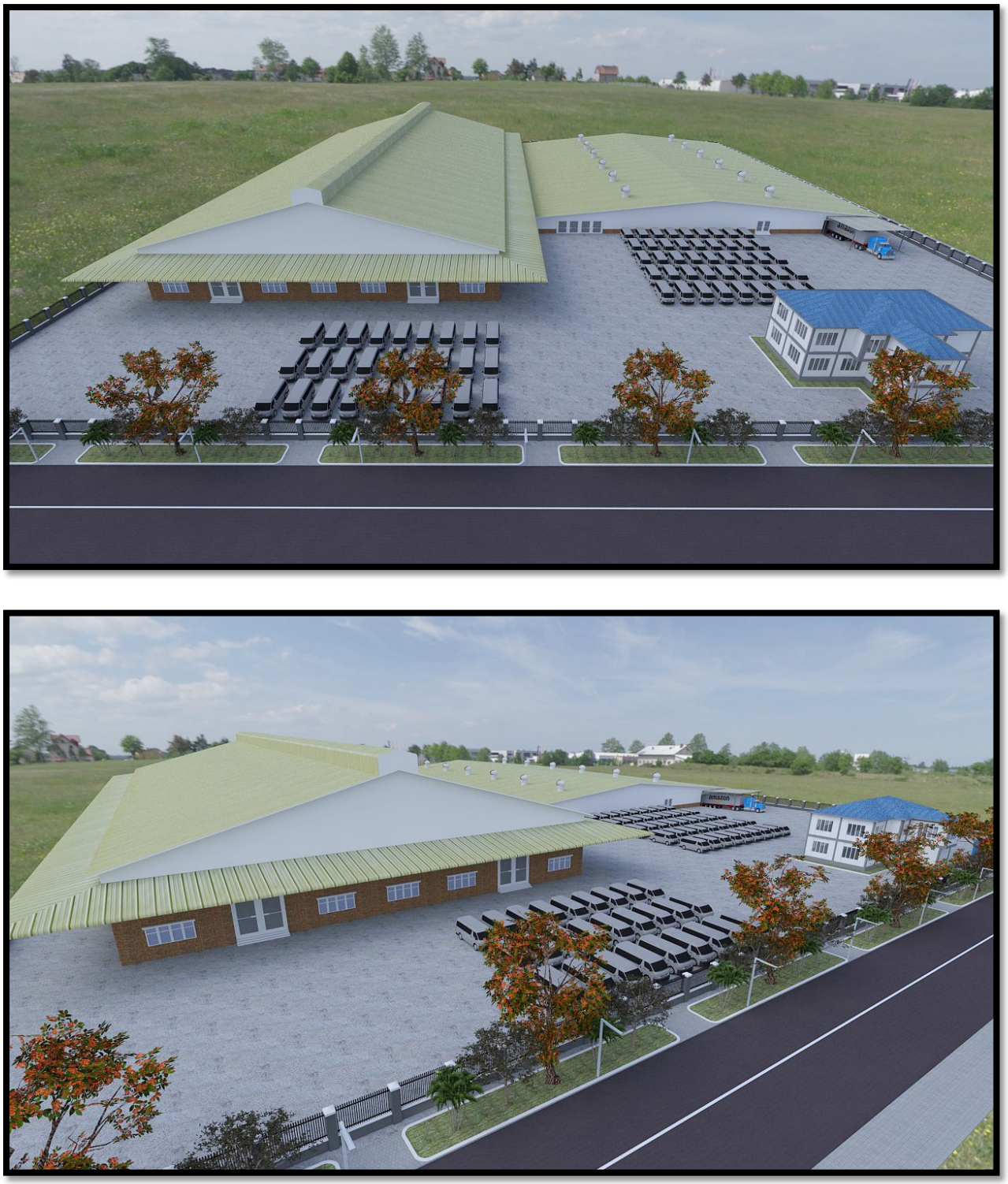


Figure 3.6-1 Factory Layouts



Figure 3.6-2 the office at which the proposed factory to be constructed

At present, both administration office, assembly room and warehouse had been built. For transportation of products within the factory, forklifts will be used. Existing administrative office and warehouse and other facilities are shown in figure 3.6-3.



Office



Dock for container



Internal Compressor Room



Dock for container



Factory Production Area



Warehouse (Canteen)



Generator



Parking Area



Security House in Gate 1



Security House in Gate 2



Test Line Building



Improvement Areas



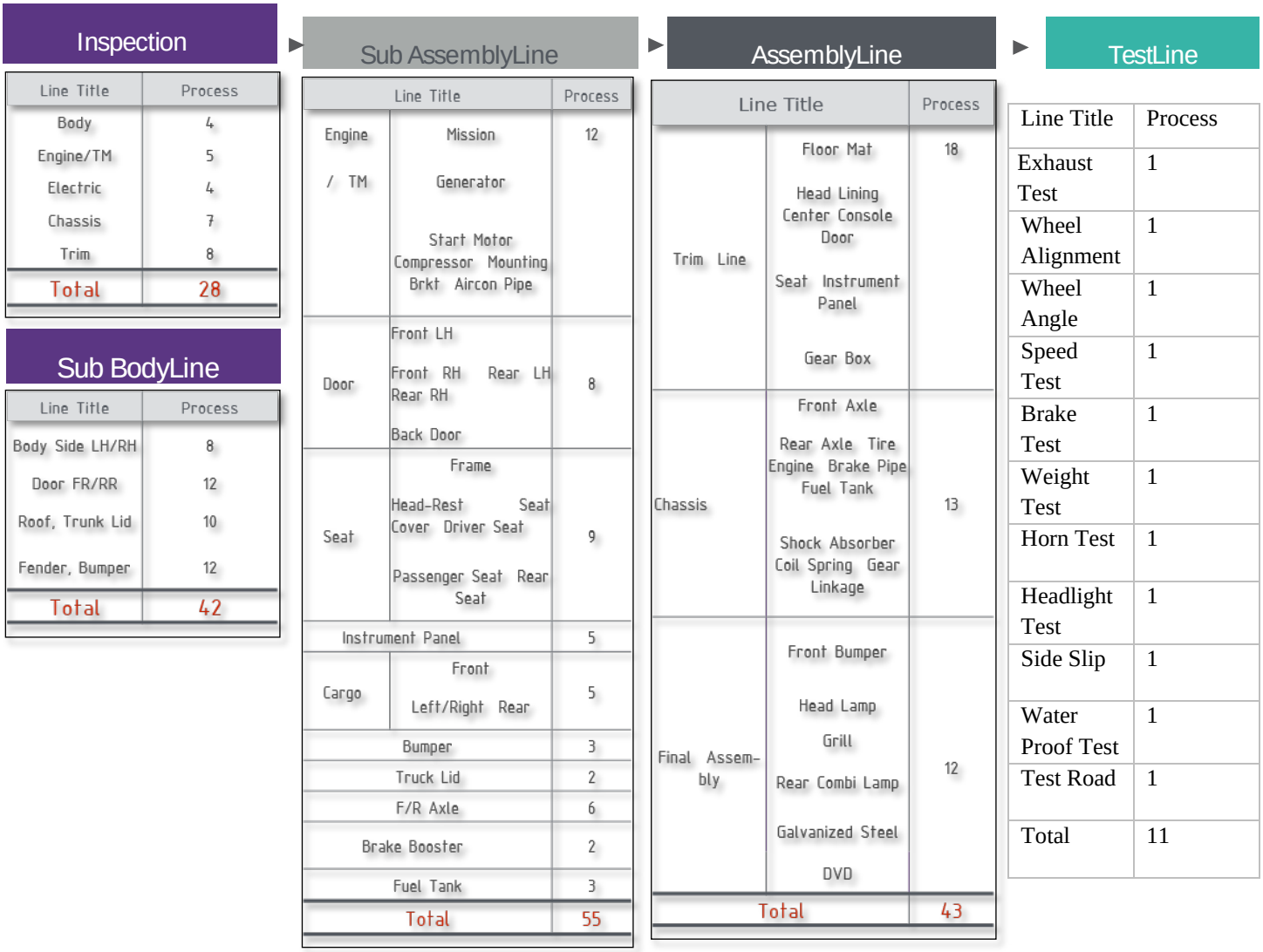


Toilets in Factory **Transformer**

Figure 3.6-3 Existing condition of the project

3.7 Overall Production Process

There are generally four main line for production of Passenger Car, SUV, Pick-up, Mini-bus, Truck and the detailed process is shown in below.



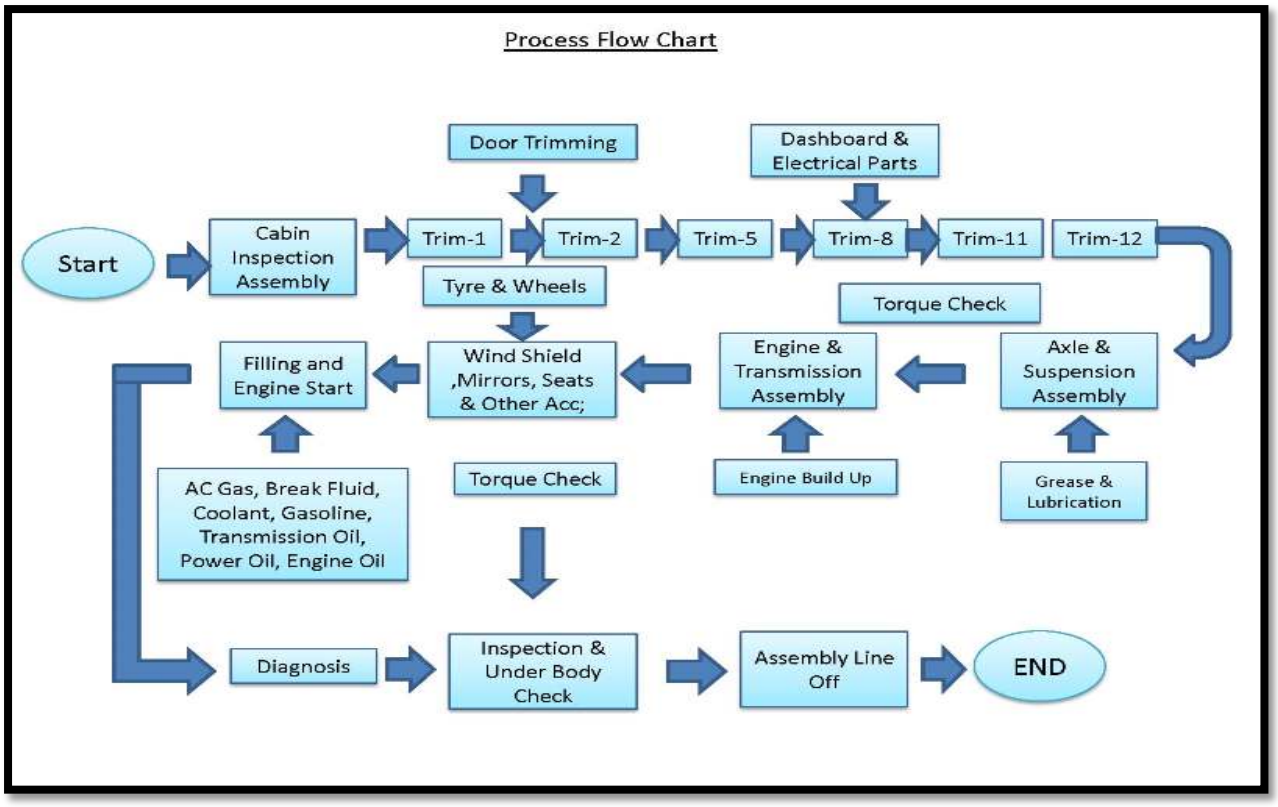
Line Title	Process
Body	4
Engine/TM	5
Electric	4
Chassis	7
Trim	8
Total	28

Line Title	Process
Body Side LH/RH	8
Door FR/RR	12
Roof, Trunk Lid	10
Fender, Bumper	12
Total	42

Line Title		Process
Engine / TM	Mission Generator Start Motor Compressor Mounting Brkt Aircon Pipe	12
Door	Front LH Front RH Rear LH Rear RH Back Door	8
Seat	Frame Head-Rest Seat Cover Driver Seat Passenger Seat Rear Seat	9
Instrument Panel		5
Cargo	Front Left/Right Rear	5
Bumper		3
Truck Lid		2
F/R Axle		6
Brake Booster		2
Fuel Tank		3
Total		55

Line Title		Process
Trim Line	Floor Mat Head Lining Center Console Door Seat Instrument Panel Gear Box	18
Chassis	Front Axle Rear Axle Tire Engine Brake Pipe Fuel Tank Shock Absorber Coil Spring Gear Linkage	13
Final Assem-bly	Front Bumper Head Lamp Grill Rear Combi Lamp Galvanized Steel DVD	12
Total		43

Line Title	Process
Exhaust Test	1
Wheel Alignment	1
Wheel Angle	1
Speed Test	1
Brake Test	1
Weight Test	1
Horn Test	1
Headlight Test	1
Side Slip	1
Water Proof Test	1
Test Road	1
Total	11



LVMC Holdings Product



LVMC Holdings Product Lineup

				
Yotta 80	**Deliroad-W**	**Deliroad-A**	**Raon100**	**DD110**
1670*1010*655 (mm)	1805*695*1072 (mm)	1900*685*1115 (mm)	1905*665*1100 (mm)	1870*665*1040 (mm)
4-stroke Single Cylinder	Single Cylinder, 4-stroke	Single Cylinder, 4-stroke	Single Cylinder, 4-stroke	Single Cylinder, 4-stroke
				
Megajet 125	**BEAVER –V**	**GV-125S**	**Exiv 250 N**	**Exiv 250R**
2030*760*1280 (mm)	1900*685*1115 (mm)	2062*752*1000 (mm)	1937*1055*800 (mm)	1937*1100*700 (mm)
Single Cylinder, 4-stroke	Single Cylinder, 4-stroke	SOHC 6 Valves 60° V-2 Cylinder	DOHC 4 Valves Single Cylinder	DOHC 4 Valves Single Cylinder
				
Comet 250 RC	**Mirage 250**	**Aquila Pro**	**Comet 650 RC**	**DELIROAD-E** (Electric Scooter)
2075*670*1145 (mm)	2294*875*1130 (mm)	2352*847*1155 (mm)	2075*670*1145 (mm)	1900*685*1115 (mm)
DOHC 8 Valve 75° V-2 Cylinder	DOHC 8 Valve 75° V-2 Cylinder	DOHC 8 Valve 90° V-2 Cylinder	DOHC 8 Valve 90° V-2 Cylinder	Lithium-ion Battery

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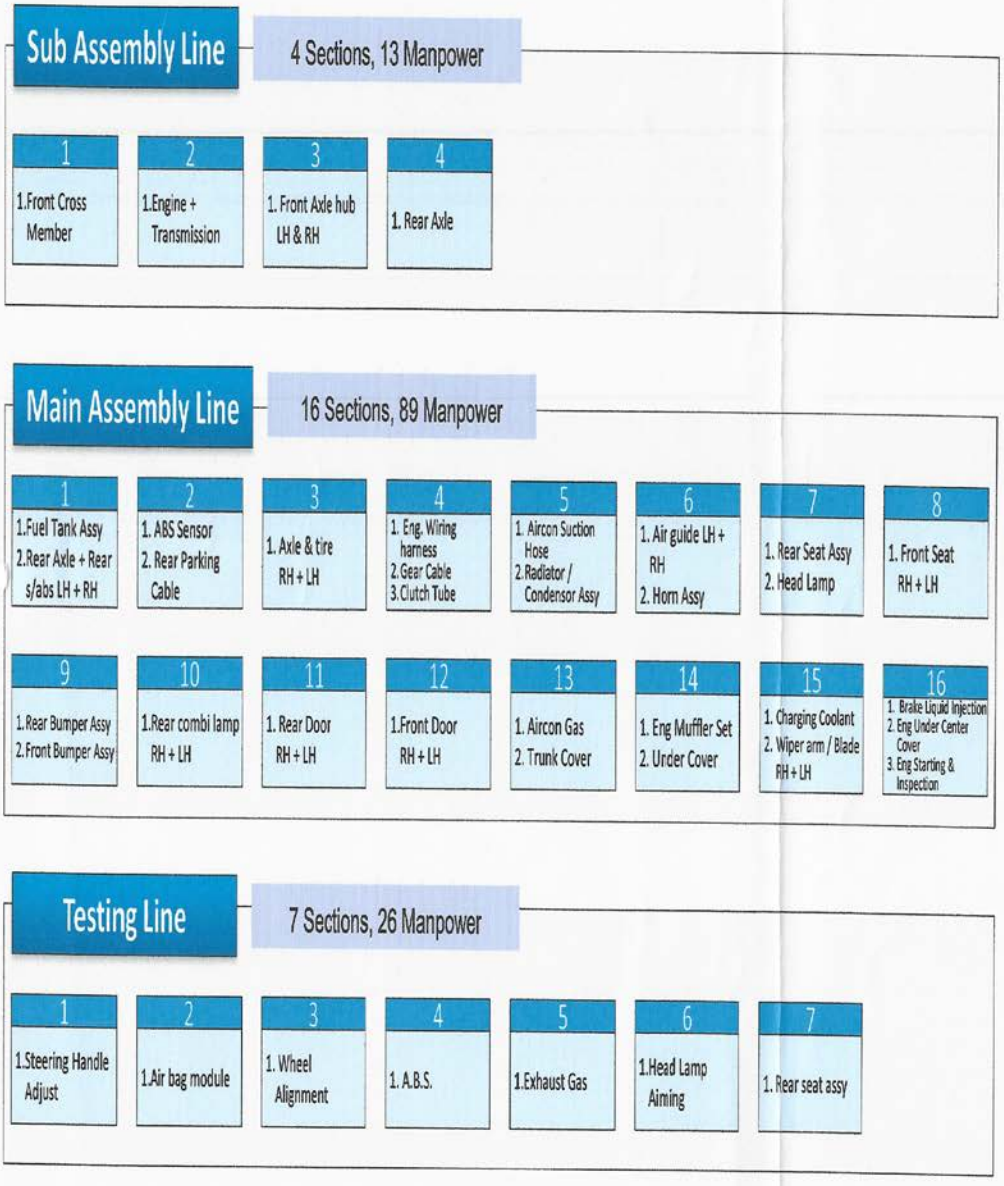
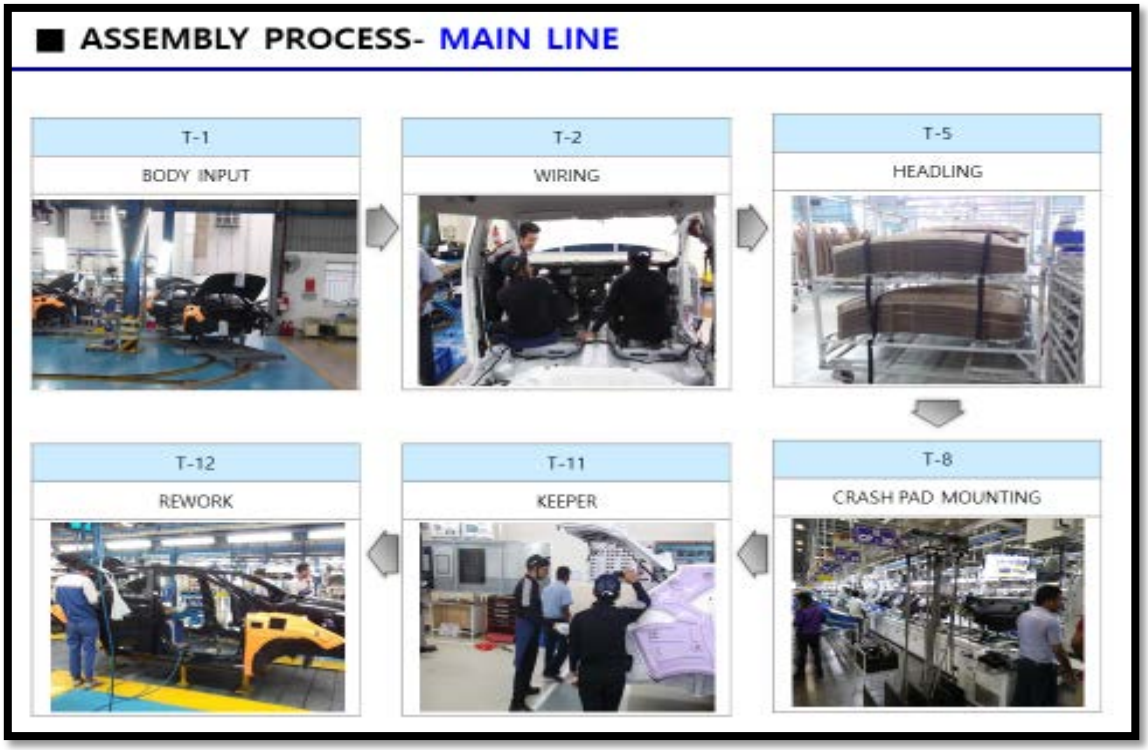
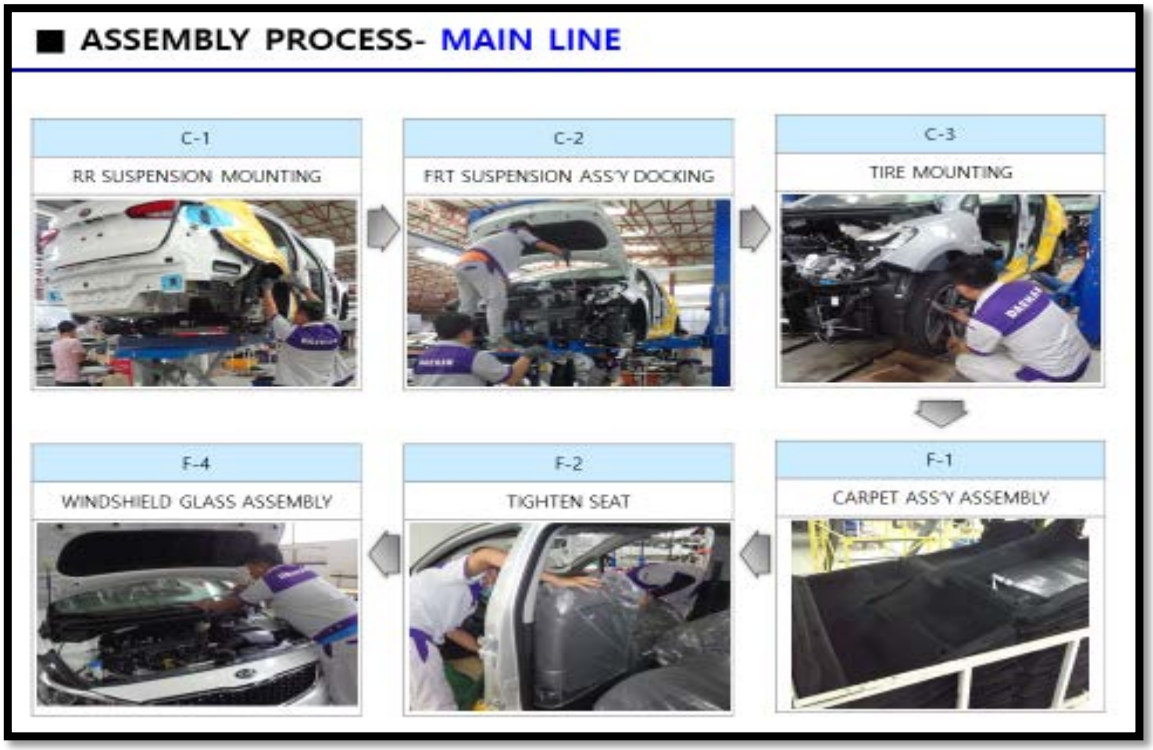
Manufacturing Process Map (Automobile)



Assembly Process





■ ASSEMBLY PROCESS- MAIN LINE

F-5

FRONT BUMPER



F-7

DOOR ON



F-8

FILL OIL



■ ASSEMBLY PROCESS- SUB LINE

C/PAD SUB



ENGINE SUB



RR SUSPENSION SUB



TIRE SUB



FEM SUB



DOOR SUB



■ CRASH PAD SUB STATION

CRASH PAD ASS'Y SUB





■ REAR SUSPENSION SUB STATION

REAR SUSPENSION MODULE ASS'Y SUB





FEM SUB STATION

FRONT END MODULE SUB





DOOR SUB STATION

FRT, RR DOOR ASS'Y SUB





TIRE SUB STATION

TIRE + DISC ASS'Y





ENGINE SUB STATION

Front Axle Hub





■ ENGINE SUB STATION

FRT Cross Member & Eng / TM



■ C-2 STATION

Eng mount the body & Jack control + Cross member







C-3 STATION

Assembly front axle & hub (LH&RH)	Front Tire (LH&RH) & Rear tire (LH&RH)
	

F-1 STATION

Steeling Handle & Input Key	
	
	

14

F-1 STATION

Eng Wiring harness/ Eng Ground Wiring	Clutch tube & Gear cable (MT)
	

F-1 STATION

ECU	Battery tray
 	 

F-1 STATION

Eng. Junction box cable



F-1 STATION

Air con suction hose & Condenser Assy



Radiator Assy



F-2 STATION

Battery assy





F-2 STATION

Air cleaner assy





F-2 STATION

Air guide	Horn & Hand Parking Cable Assembly
	 

F-2 STATION

Center console - UB (Rio)


F-2 STATION

Rear seat assy





F-2 STATION

Front seat LH&RH





F-7 STATION

Front Door





F-5 STATION

Front head lamp







F-5 STATION

Front bumper assy & Air duct intake " A "	Rear bumper assy
	

F-5 STATION

Rear combination lamp RH	
	

F-5 STATION

Eng Muffler set	Mud guard
	

F-7 STATION

Rear Door	
	

F-8 STATION

A/C gas charging



F-8 STATION

Spare tire & Trunk lid center cover





TRIM-TRANSVERSE RR





F-8 STATION

Cowl top cover



F-8 STATION

Wiper arm / Blade



F-8 STATION

Fuel injection



F-8 STATION

BRAKE INJECTION



F-8 STATION

BRAKE LIQUID INJECTION	UNDER BODY CHECK / UNDER COVER
	

WHEEL ALIGNMENT STATION

DRIVE A CAR ON THE LIFE & SET THE SENSOR	WHEEL ALIGNMENT
	

■ WHEEL ALIGNMENT STATION

MODULE ASSY-STRG WHEEL	DIAGNOSIS FOR VEHICLES BY SCANNER
	

■ TEST LINE

BRAKE TEST	SPEED TEST
 	 

■ TEST LINE

LAMP TEST / ADJUST HEAD LAMP



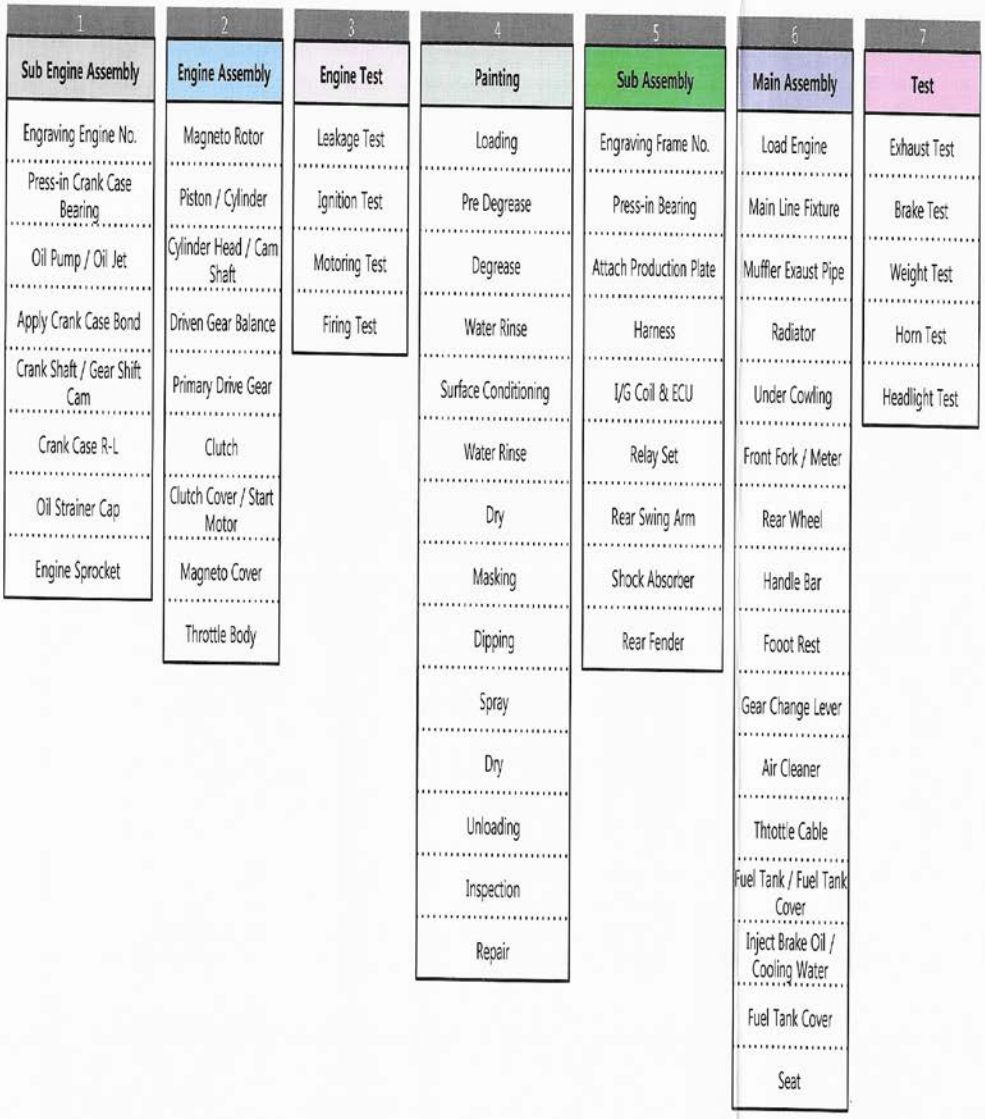






Production Process

KR Motor Cycle



Manufacturing Process Map (Motorcycle)

Frame Welding



Pre-welding



Robot Welding



Main Welding

23

Manufacturing Process Map (Motorcycle)

Press & Welding



Pressing



Roll Forming



Seam Welding



Leakage Test

24

Manufacturing Process Map (Motorcycle)

Painting & Polishing



Loading & Dust Removing



Plastic Painting



Taping

25

Manufacturing Process Map (Motorcycle)

Painting & Polishing



Polishing before Painting



Painting



Polishing after Painting



Fuel Tank Assembly

26

Manufacturing Process Map (Motorcycle)

Crank Case & Crank Shaft Manufacturing



Crank Case



Crank Shaft



Cleaning

27

Manufacturing Process Map (Motorcycle)

Engine Assembly



Cylinder Sub-Assembly



Engine Assembly



Engine Leakage Test



General Test

28

Manufacturing Process Map (Motorcycle)

Parts Sub-assembly (1/2)



Swing Arm Sub-assembly



Muffler Sub-assembly



Head Lamp Sub-assembly



Wheel Sub-assembly

Manufacturing Process Map (Motorcycle)

Parts Sub-assembly (2/2)



Fork Sub-assembly



Break Pedal Sub-assembly



Handle Bar Sub-assembly

Manufacturing Process Map (Motorcycle)

Main Assembly (1/2)



Frame Number Marking



Engine Loading



Main Assembly

31

Manufacturing Process Map (Motorcycle)

Main Assembly {2/2}



Registration



Inspection



Modification



Readyfor Distribution

32

3.8 Decommissioning Process

Decommissioning is the term used to describe all the stages involved in the closure and rehabilitation of the project. The process can generally be categorized into 3 key phases as follows:

- Pre-decommissioning activities: includes the detailed planning (development of the decommissioning plan) and approval procedures;
- Decommissioning activities: removal of machinery & equipment and demolition, decommissioning of facilities, turbines and infrastructure, decontaminated land assessment and rehabilitation; and
- Post-decommissioning activities: site survey, close-out report and field monitoring as necessary.

Decommissioning Phase of the Project

At present, there is no plans or schedule for decommissioning of the proposed Project. It is no longer economical to continue operation, the plant is rendered redundant and/or no longer required for various reasons. As the development process of the site is yet to fully begin, detailed decommissioning plans have not yet been formulated.

3.9 Resource Implications

The potential resource implications the project may have impacts on the environment would be energy consumption as production needs huge amount of electricity. This section identifies the likely resources required to undertake the proposed works and the subsequent implications of resource consumption.

3.9.1 Water

Source

It is expected that raw water to meet the demand would be extracted from deep well bore holes within the site boundary.

Water Requirements

For the proposed project, the proponent mentioned that in the very first year water for product would use 320 m^3, for cleaning and utility would use 2700 m^3 of annual water. The expected annual water requirement is shown in Table 3.9.1-1

Table 3.9.1-1 Water Requirement

Particulars	A/U	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10-30
Type		Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
Water for product	m3	320	6,106	7,768	10,010	12,590	15,112	53,436	62,802	72948	84,348
Cleaning water	m3	2700	3000	3500	4000	4500	5000	5500	6000	6500	7000
Utility water	m3	2700	3000	3500	4000	4500	5000	5500	6000	6500	7000

3.9.2 Electricity Consumption

The proposed development would result in increased electricity consumption. The site would need approximately 3000 kWh per day. The main sources for electricity are National Grid Line and standby generators.

Table 3.9.2-1 Water Requirement

Particulars	A/U	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10-30
Type		**Qty**	**Qty**	**Qty**	**Qty**	**Qty**	**Qty**	**Qty**	**Qty**	**Qty**	**Qty**
Electricity	kWh	1,171,800	1,506,600	1,674,000	1,841,400	2,008,800	2,176,200	2,511,000	2,845,800	3,180,600	3,348,000

3.9.3 Fuel Consumption

The detailed annual fuel consumption for proposed project is shown in Table 3.9.3-1.

Table 3.9.3-1 The detailed annual fuel consumption for proposed project

Particulars	A/U	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10-30
Type		**Qty**	**Qty**	**Qty**	**Qty**	**Qty**	**Qty**	**Qty**	**Qty**	**Qty**	**Qty**
Petrol for Vehicle (production)	Gallon	2,800	31,520	39,560	49,800	62,000	74,240	87,440	102,80	120,120	138,720
Diesel for Vehicle (production)	Gallon	3,600	15,600	22,800	30,400	36,800	42,000	46,800	52,000	57,200	63,600
Diesel for generator	Gallon	2,000	3000	4000	5,000	6,000	7,000	8,000	9,000	10,000	11,000
Petrol for Vehicle (operation)	Gallon	2,000	3000	4000	5,000	7,000	9,000	11,000	14,000	17,000	20,000

Manpower Requirement

This factory has a plan to hire local and foreign technicians and also engineer, general workers to assembly for motor cars. There is no plan for dormitory for the employee. At present, the manpower requirement of the factory was 89 persons.

3.10 Waste Management

i) Domestic Wastewater Management

Sewage generated from the premises will be discharged into septic sewer system while storm water from the project area will be directly channeled into the drainage system. Waste water from sanitation facilities will be disposed by connection to the sewer network to be constructed on site with a connection to a septic tank. The septic tank will be discharged by a licensed mobile exhauster (YCDC) on site once full.

(ii) Solid Waste Management

The proponent is taking care of office waste and waste by placing the dustbins not only at the administrative area but at the warehouse for temporarily holding waste within the premises before final collection will be collected by YCDC weekly and also disposed to the damped site recommended by YCDC. The wasted generated from operation are selling to third person company attached in appendix 3 and the detailed generated wastes per months are below:

Steel and iron- 7552 Viss/per

Paper – 3460 Viss/per
Plastic 310 Viss/month

Security

Security personnel are being employed to ensure security operations around the premise.

Landscaping

The sites will be landscaped after construction, by planting ornamental tree species available locally. This will include establishment of flower gardens and grass lawns to improve the visual quality of the site

3.11 Alternative Analysis

The analysis of the project alternatives focused on the proposed project is based on the project's location or site alternatives and activity alternatives. There are two simple alternatives for the proposed project.

i) Without Project

There is no activity related to construction, operation and decommissioning phases and as a result, there will be no impact to the environment.

ii) With Project

These include construction, operation and decommissioning activities of the project lifecycle. In the case of "with project alternatives, the proposed project is located in the Thar Du Kan Industrial Zone, Shwe Pyi Thar Township and so there have to consider the alternatives based on their location or site.

Location or site Alternatives

There is only one practical alternative at the proposed project site due to manufacturing of motor vehicles and motor cycles operation during construction and operation phase. The project location is considered as "Zero option / only option" because proposed location has been located in the industrial zone in Thar Du Kan Industrial Zone, Shwe Pyi Thar.

The positive impacts are anticipated as vegetation clearance and extract will be avoided, there will be no destruction of natural habits in the project area during the site preparation and operation phase. No Rehabilitation or Relocation is required for Project and the project free form any encumbrance, so no adverse social impact is envisaged. The negative impacts are anticipated. However, the project alternative shall be compared as the scenarios of "Action" and "No Action" options shown in below.

Table 3.9-1 Analysis of the Alternatives: 'Action' vs, 'No action' Scenarios

Expected Impacts	'Action' Scenario (of the Proposed Project)	'No action' (Status quo) Scenario	Remarks
Environ-mental	● Temporary negative influences on the environment are expected to occur by execution of a project such as: ● Dust generation, noise pollution, and some damages to the ecosystem during construction and operation	● Short-term environmental changes such as clearance of some small plant species do not occur if the project is not to take place.	These are temporary effects and expected to be stabilized at the operational stage once the construction is completed. During the project construction period, the

	periods are expected to occur.		effective EMP need to be set in place to minimize the environmental impacts to avoid the disposal of soil from dredging activities and disposal of some construction wastes nearby.
Social	● The project can facilitate the job opportunities for the improvement of local people along with the project operation in terms of supporting	● No disturbance in livelihood of the community near the project area during construction and no job opportunity for local people	The overall social welfare of the adjacent communities in "No Action" Scenario is expected to be lesser than the "Action" scenario in mid- and long-term.
Economic	●No person can be directly affected by the project activities. ● Increased efficiency and economic gains due to industry	● No disturbance of livelihood of the community near the project area during construction ● No economic profits for local community	By establishing this business, we will be able to reduce the import of motor vehicles and motorcycles in one way or another and increase the growth of domestic production instead of import. Expected negative economic impacts on the affected communities during construction could be minimized or offset through effective impact management.

Chapter 4 Description of the Environment

Setting the Study Limit

Due to the content on Section 3.6.1 of the 2014 Myanmar EIA Guidelines, the limit of study area should be identified related to all project–related activities and all the important features of the study area with an appropriate map to the size of the project.

In the EIA study, it is necessary to establish baseline information on the environment and socio-economic setting of an area which could receive directly and indirectly impacts from the project construction and operation. The baseline information serves two purposes:

Firstly, it is used in conjunction with the information on the project, for identification of potential impacts of the project and assessment of their significance, and

Secondly, it serves as the benchmark for evaluating environmental and social management performance of the project construction and operation.

As the EIA procedure does not define the extent of the area for EIA study, the EIA study area for this project is roughly defined to be the area within a 1 km radius of the center of the proposed site. This study area would be large enough to cope with most potential environmental and social impact issues of the project construction and operation. This chapter describes environmental and socio-economic settings of the study area based on latest available secondary information and primary information collected from field surveys.



Figure 4-1 Project Study Area

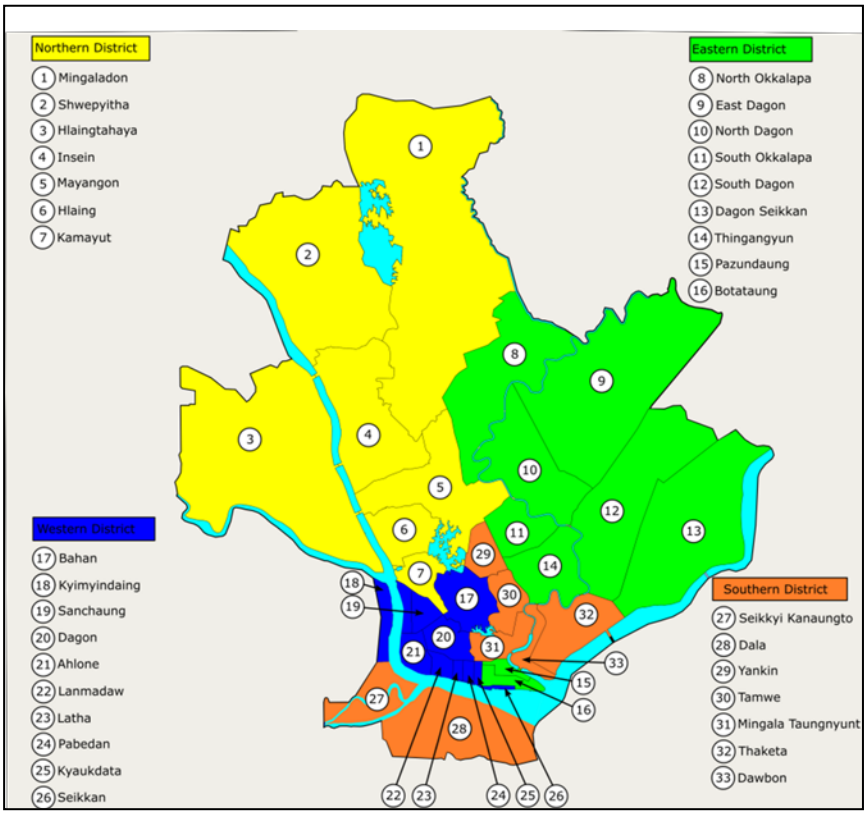
4.1 Natural Environment

4.1.1 Topographic and Geological Condition

Myanmar sits in the northwest of the Indochina Peninsula. It has bordering Thailand and Laos to the east, China to the north, India and Bangladesh to the west. Myanmar is geopolitically critical as its location, being in the middle of the line between India and China, is a connecting point between Southeast Asia and

South Asia, as well as the Pacific and the Indian. Myanmar is situated between 10° and 29° N latitude and 92° and 101° E longitude with an area of 676,577 km^2, extends 936 km from the east to west and 2,051 km from north to south. Topographically, Myanmar can be roughly divided into three parts: the western hills region, the central valley region, and the eastern hills region. The general profile of the country rises from the sea level along the southern coasts to the snow-capped mountains towering with a highest elevation of around 6,000 m in the northern tip of the country near the China border.

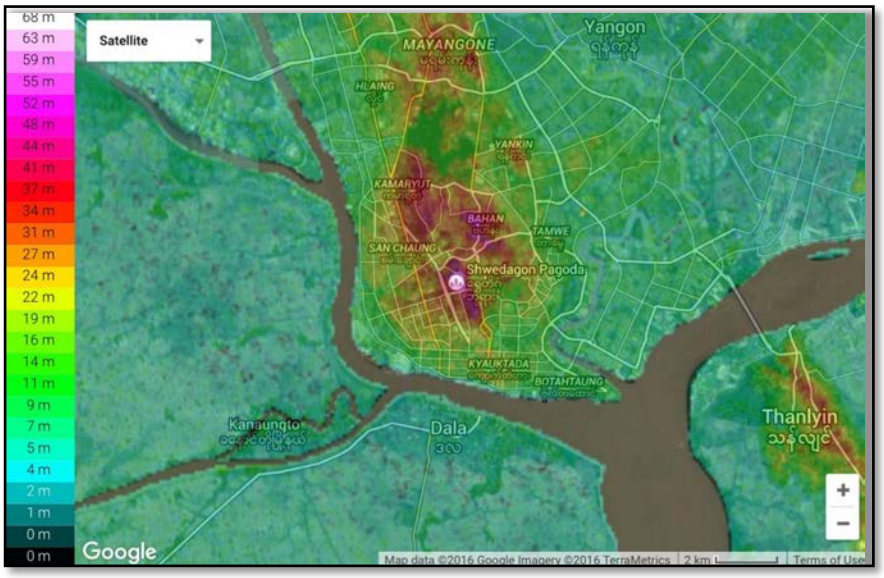
The City of Yangon lies along the Yangon River between around 17°06' and 16°35'N latitude and between 95°58' and 96°24' longitude, east of the Ayeyarwaddy River delta. Yangon City is located 34km upstream from the mouth of Yangon River. The city is divided into four districts. The districts combined have a total of 33 townships including Shwe Pyi Thar Townships.



(Source: YCDC)

Figure 4.1-1 Yangon administrative districts

Topography: As shown in figure 4.2, Yangon City has low hills, which are long and narrow spur of Pegu Yoma hill range in the central area running in the N-S direction with an average height of 30m and degenerates gradually into delta plains in eastwards and westwards.



(Source: Google Map)

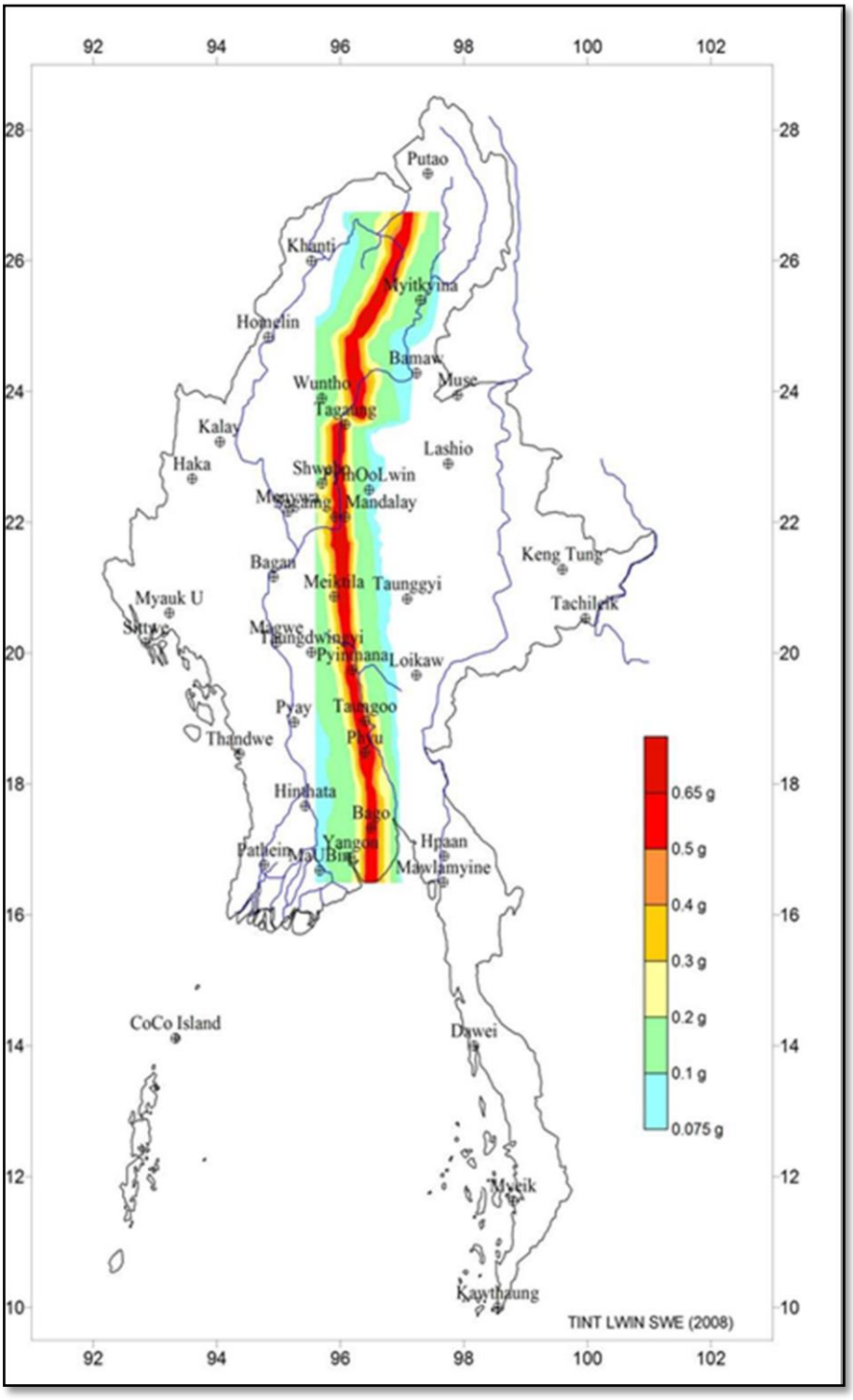
Figure 4.1-2 Topographic map of Yangon

The proposed project area is located in Shwe Pyi Thar Township which is situated in northwestern part of Yangon City and shares borders with Mingalardon Township and Hlwaga Lake in the east, Htabin township, Hlaing River (Wartayar River) in the west, Hmawbi Township in the north and Insein Township in the south. The proposed project site is situated in industrial zone and its topography is mainly flat land on which some factories are being built.

4.1.2 Geology and Soil

Tectonics

There is the Andaman Trench in Bengal Bay, west of Myanmar, in which the Indian Plate is moving northward and sub ducting underneath the Burma Plate from west to east. Sagaing Fault, boundary between Burma Plate and Sunda Plate, is located eastern of Myanmar, which tends to cause large-scale earthquakes in Yangon Area. The historic records near Yangon city also say there may be once in every 60 to 80 while 25 to 40 years' interval near Mandalay region. However, forecasting earthquake is unavailable for the study area as it is in the well-equipped and technologically developed institutions, which are lack in Myanmar at present.



(Source: Tint Lwin Swe, 2008)

Figure 4.1-3 Earthquake hazard along the Sagaing Fault

4.1.3 Geomorphological and Soil Conditions

Most of Yangon area consists of fluvial flood plain, which is associated with the area, lies in the delta of the Ayeyarwaddy River and along Yangon, Hlaing and Bago rivers and Nga Moeyeik Creek. The Yangon River is about 40 km long (25miles), and flows from southern Myanmar as an outlet of the Ayeyarwady River into the Ayeyarwaddy delta. The Yangon River drains the Pegu Mountains; both the Yangon and the Pathein

rivers enter the Ayeyarwaddy at the delta.

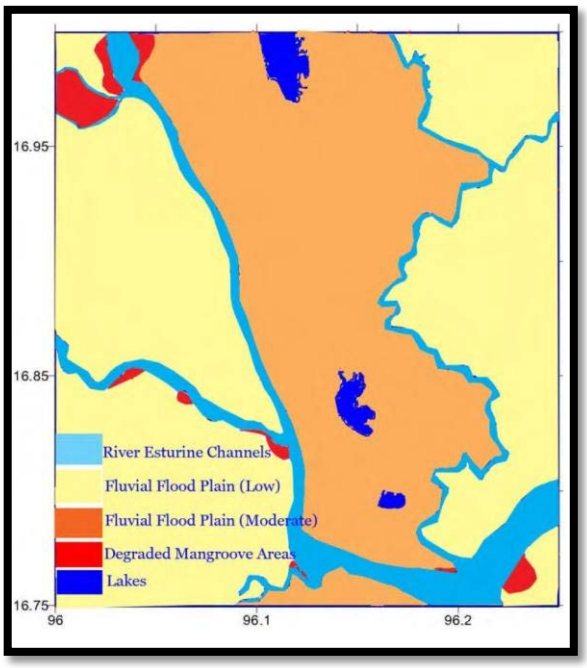


Figure 4.1-4 Geomorphological map of Yangon

(Source: Remote Sensing Department, Mandalay Technological University, Myanmar)

The rivers transfer and deposit sediments, and form soils which can be classified and described below. Figure 4.1.3-2 presents the soil distribution in Yangon. There are several soil types in Yangon Region, as show in the Figure 4.1.3-2 (1) meadow soils and meadow alluvial soils, (2) Clay and clay swampy soils, (3) Swampy soils, (4) lateritic soils, (5) Yellow brown forest soils, (6) Dune forest and beach sand, (7) Mangrove forest soils, (8) Saline swampy meadow and gray soils. Of them, mostly found soil types in the Project area are (1) meadow soils and meadow alluvial soils, and (2) lateritic soils.

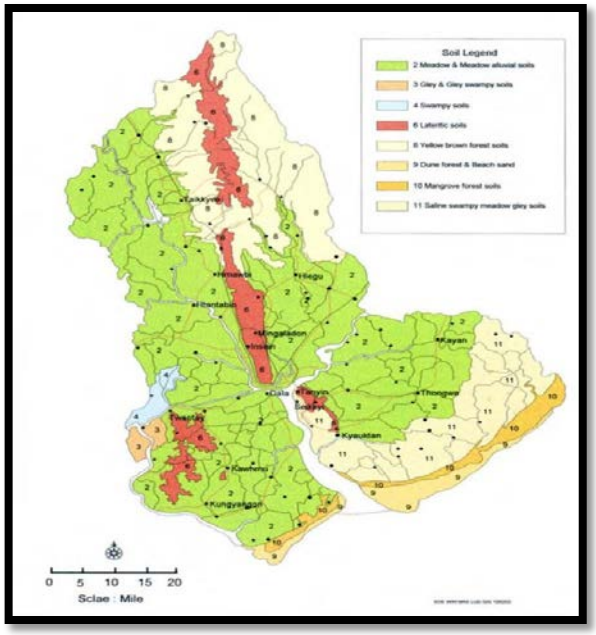


Figure 4.1-5 Soil map of Yangon

(Source: Remote Sensing Department, Mandalay Technological University, Myanmar)

4.2 Climate

Myanmar can generally be described as hilly and mountainous because most parts of the country are situated on high lands. Myanmar is drained by many river systems and most are flowing from the north to the south. The main rivers are Ayeyarwaddy, Thanlwin, Chindwin and Sittaung. Myanmar typically features a tropical monsoon climate. The climate in some parts of the country, however, is locally modified by topography. In most parts of Myanmar, there are three well defined seasons: the rainy season (mid-May to October), the cold season (November to January) and the hot season (February to mid-May). Nonetheless, the rainfall patterns and temperature distributions are quite diverse throughout the country. The coastal regions receive more than 5000 mm of annual rainfall whereas the central part of Myanmar has an annual rainfall of less than 1000 mm. In addition, the average highest temperature in the central region during the hot season of March and April rises to above 43.3°C while in the northern mountainous parts of the country, it is about 36°C and on the eastern Shan plateau, it is between 29.4°C and 35°C.

Yangon Region has a tropical Monsoon climate under the Köppen climate classification system. It features a lengthy rainy season from May through October where a substantial amount of rainfall is received and a dry season from November through April, where little rainfall is seen. It is primarily due to the heavy precipitation received during the rainy season that Yangon falls under the tropical monsoon climate category.

General climate of the project area is significantly influenced by south-west monsoon. The south-west monsoon originates from Indian Ocean and Andaman Sea around middle May and passes through the south peninsula, bringing with itself moisture laden winds and causing heavy rain and humidity during the rainy season.

Table shows the yearly data from 2009 to 2022 of Mingalardon data from World Weather Online.

Table 4.2-1 Historical Weather on 13 th July over the years

Year	Max	Min	Wind	Rain	Humidity	Cloud	Pressure
2009	31°C	25°C	9 km/h (S)	32.2 mm	91 %	67 %	1000 mb
2010	32°C	26°C	7 km/h (WSW)	11.6 mm	85 %	44 %	1006 mb
2011	31°C	26°C	11 km/h (S)	18.8 mm	82 %	60 %	1004 mb
2012	31°C	27°C	10 km/h (SW)	30.7 mm	82 %	49 %	1005 mb
2013	31°C	26°C	8 km/h (W)	5.5 mm	80 %	47 %	1006 mb
2014	27°C	26°C	8 km/h (SSW)	22.9 mm	90 %	67 %	1004 mb
2015	32°C	27°C	16 km/h (WSW)	6.6 mm	80 %	37 %	1003 mb
2016	31°C	26°C	12 km/h (SW)	19.7 mm	87 %	64 %	1005 mb
2017	32°C	26°C	10 km/h (S)	14.9 mm	78 %	57 %	1006 mb
2018	29°C	26°C	16 km/h (SW)	47.0 mm	85 %	52 %	1002 mb
2019	29°C	26°C	13 km/h (WSW)	17.9 mm	85 %	54 %	1009 mb
2020	28°C	25°C	8 km/h (SE)	32.4 mm	88 %	78 %	1007 mb
2021	31°C	26°C	10 km/h (SSE)	5.6 mm	78 %	59 %	1007 mb
2022	32°C	26°C	10 km/h (SSE)	19.0 mm	80 %	78 %	999 mb

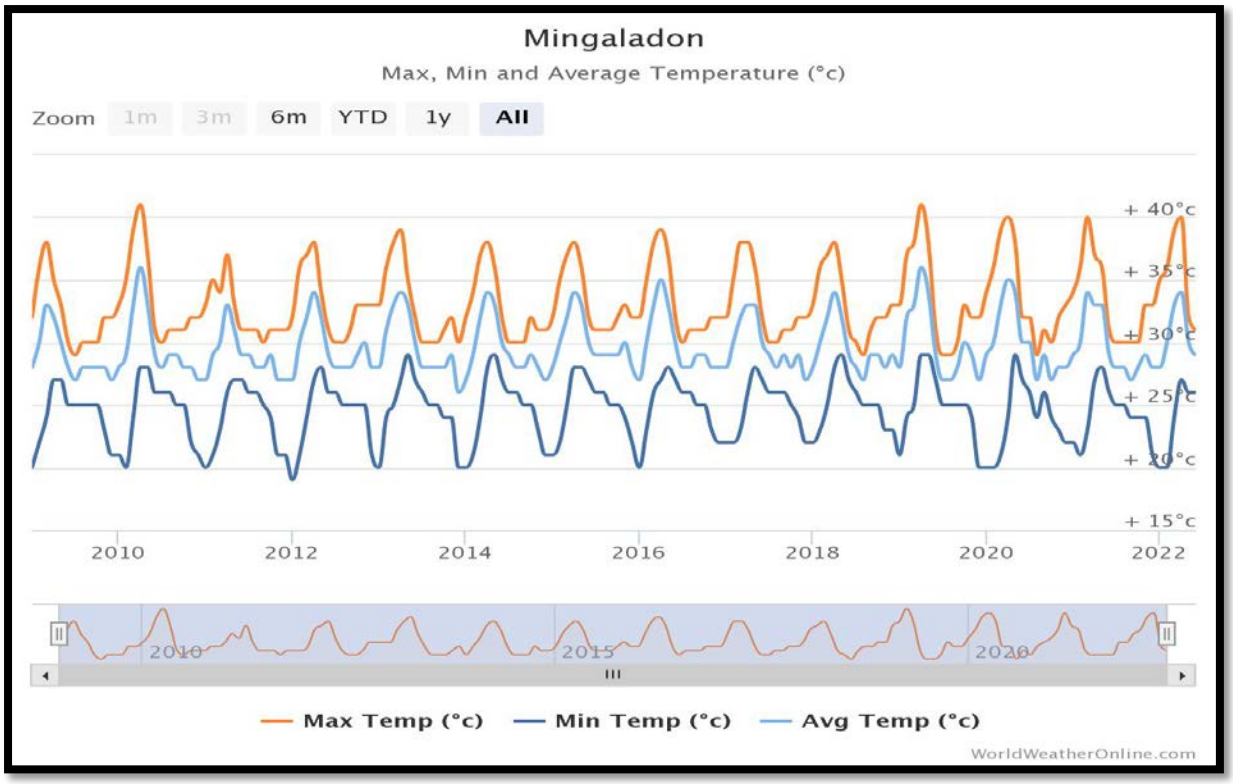


Figure 4.2-1 Max, Min and Average Temperature of Mingalardon (2010-2022)

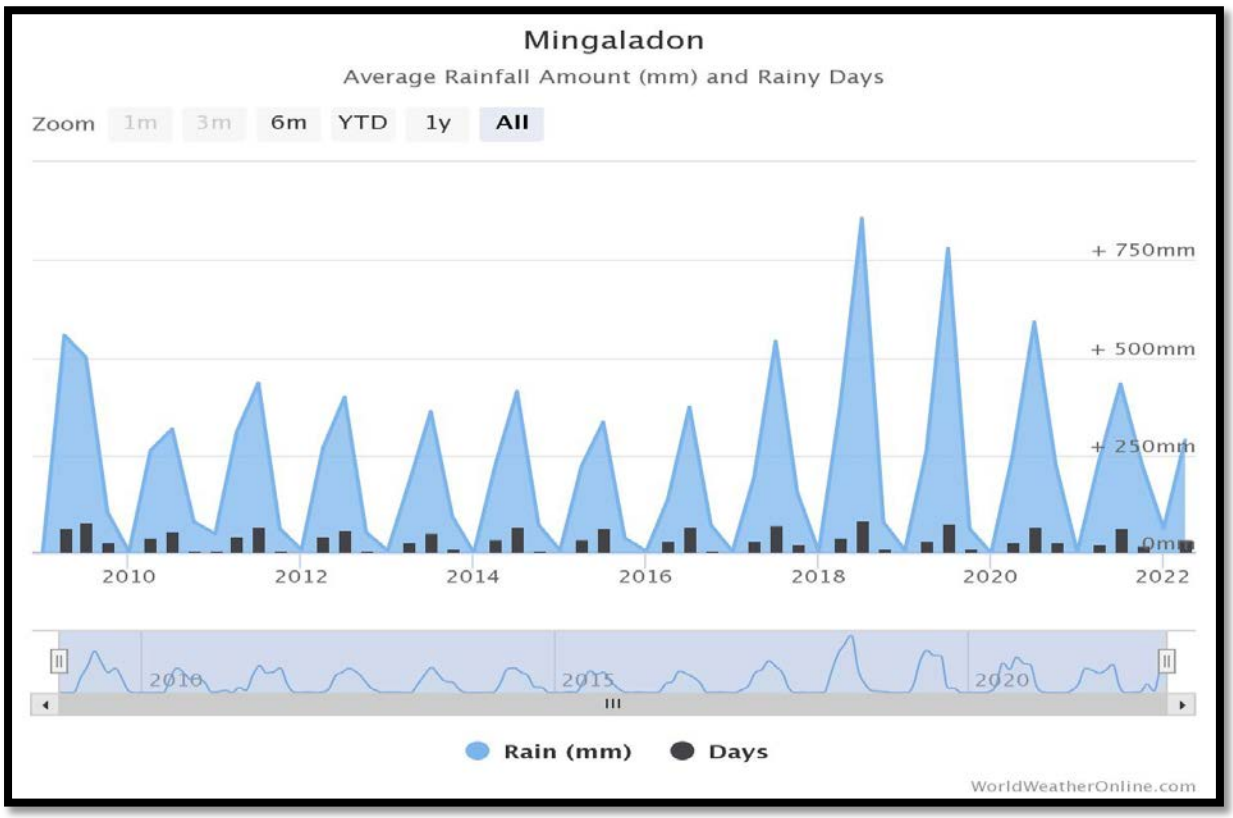


Figure 4.2-2 Average Rainfall of Mingalardon (2010-2022)

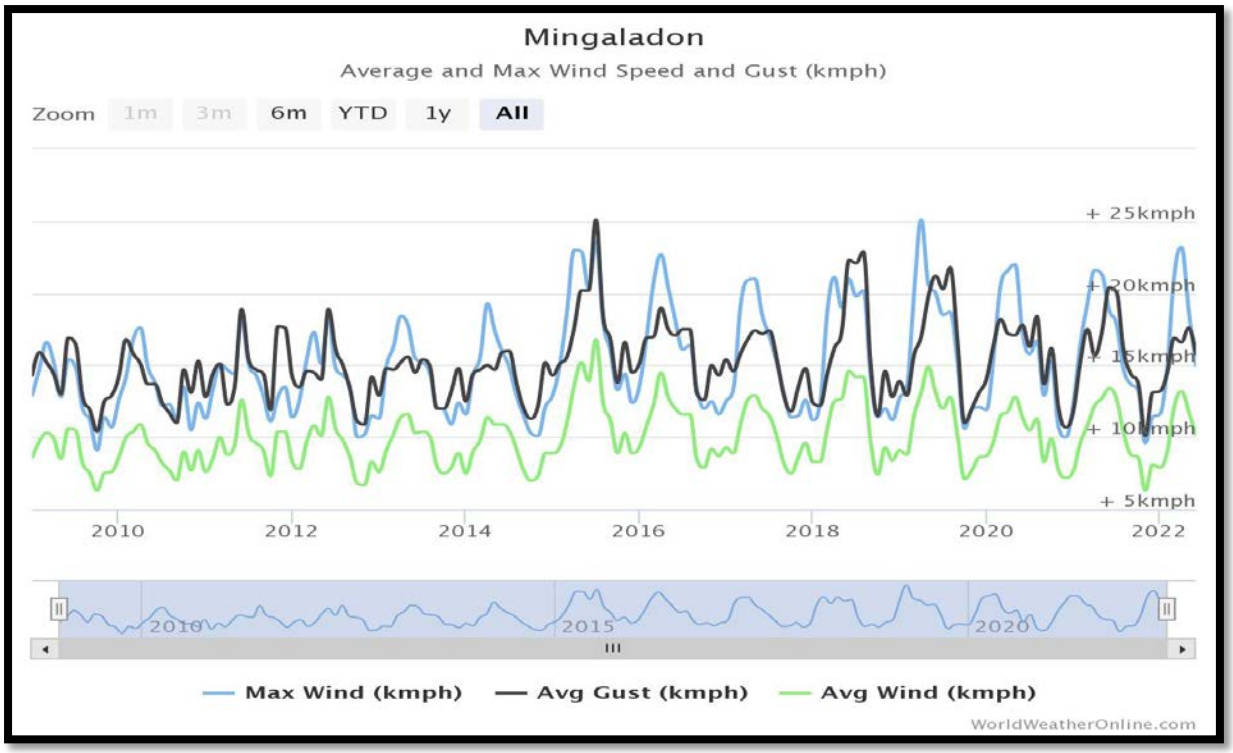


Figure 4.2-3 Average and Max Wind Speed of Mingalardon (2010-2022)

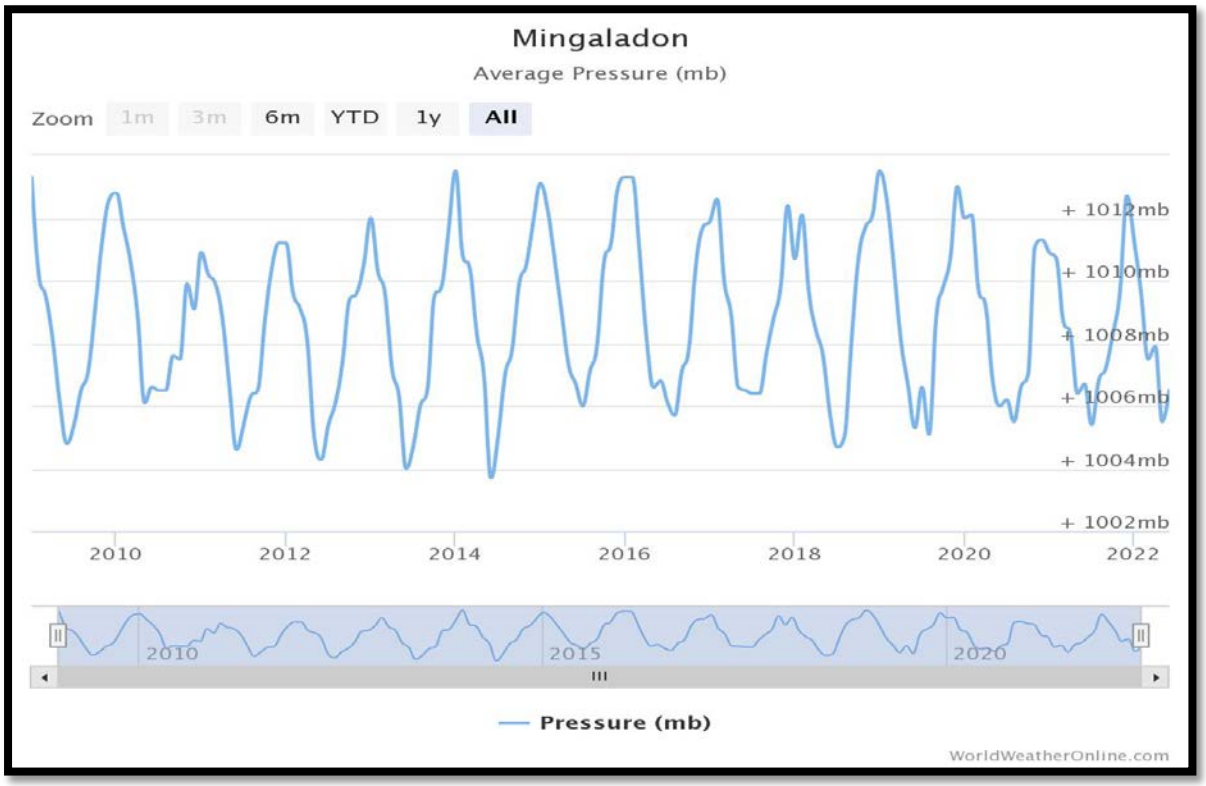


Figure 4.2-4 Average Pressure of Mingalardon (2010-2022)

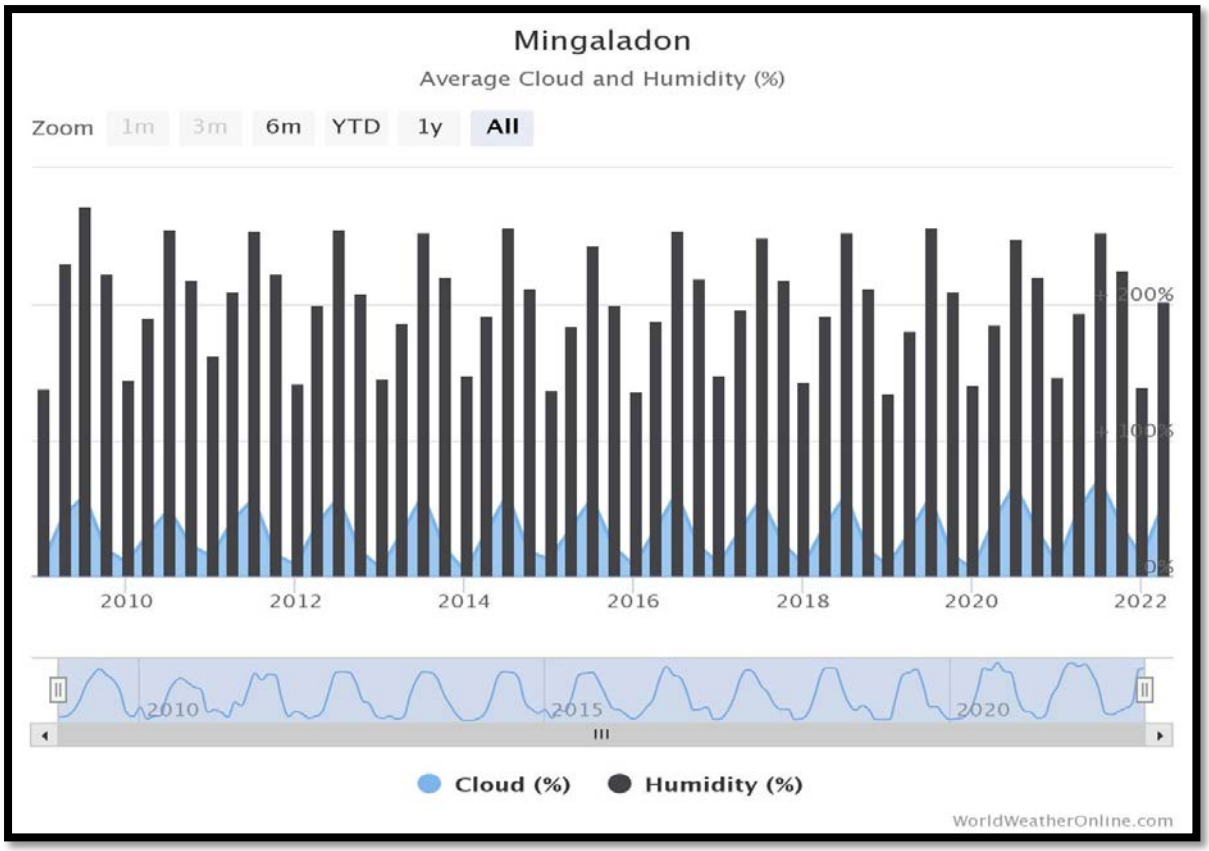


Figure 4.2-5 Average Cloud and Humidity of Mingalardon (2010-2022)

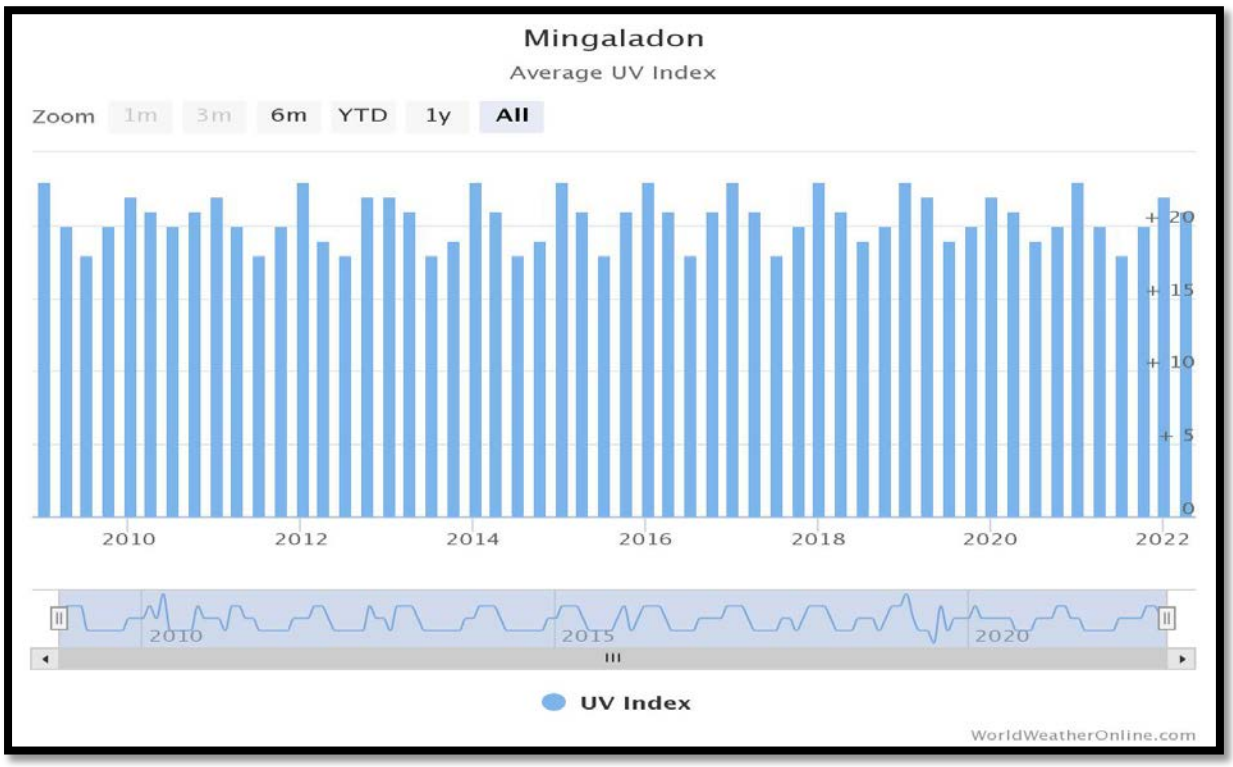


Figure 4.2-6 Average UV Index of Mingalardon (2010-2022)

(Source: World Weather Online)

4.3 Environmental Baseline Survey

The physical baseline survey for environmental impact assessment was surveyed at Shwe Daehan Motors Co., Ltd by Resource and Environment Myanmar Co., Ltd on 15th to 16th January 2019. The project site is located No. 69 and 70, Ma Hu Yar Street, Myay Taing Quarter No. 50 (Thar Du Kan Industrial Zone), Shwe Pyi Thar Township, Yangon, Myanmar. Our team were collected the one air quality, noise and vibration and then one groundwater quality and soil quality. The summary of physical environmental survey is shown in Table 4.3-1.

Table 4.3-1 Summary of physical baseline survey

Air Quality & Meteorology	Parameter	1) Nitrogen dioxide, 2) CO, 3) particulate Matter PM10, 4) Particulate Matter PM 2.5, 5) Sulphur Dioxide, 6) Relative Humidity, 7) Temperature, 8) Wind Speed, and 9) Wind Direction
	Period	One points for one time within one day (24hours)
	Location	In the compound of Shwe Daehan Motors Co.,Ltd, Thar Du Kan Industrial Zone
	Instrument	Haz Scanner EPAS
Noise Level	Parameter	LAeq (A-weighted loudness equivalent)
	Period	One time at one location within one day
	Location	In the compound of Shwe Daehan Motors Co.,Ltd, Thar Du Kan Industrial Zone
	Instrument	Sound Level Meter
Vibration	Parameter	Vibration (Lveq)
	Period	One time at one location within one day
	Location	In the compound of Shwe Daehan Motors Co.,Ltd, Thar Du Kan Industrial Zone
	Instrument	Rion Vibration meter
Ground water Quality	Parameter	1) Water temperature, 2) Air temperature, 3) pH, 4) Electrical Conductivity, and 5) Dissolved Oxygen, 6) Oxidation reduction potential, 7) Total dissolved solid, 8) Salinity
	Period	One time at one location
	Location	In the compound of Shwe Daehan Motors Co.,Ltd, Thar Du Kan Industrial Zone
	Instrument	Hanna, Smartroll (multiparameter probe) and Hanna single probe
Soil	Parameter	1) pH, 2) Arsenic, 3) Mercury, 4) Copper, 5) Lead, 6) Zinc, 7) Chromium, 8) Selenium, 9) Boron, 10) Fluoride, 11) Cadmium
	Period	One time at one location
	Location	In front of Shwe Daehan Motors Co.,Ltd, Thar Du Kan Industrial Zone
	Instrument	Environmental soil sampling instrument (manual hand auger)



Figure 4.3-1 Location map of air, noise, vibration, and water and soil quality survey

4.3.1 Air Quality

Survey Item

Parameters for air quality survey were determined by referring environmental quality standard for air in national emission guideline. Myanmar National Environmental Quality (Emission) Guidelines were announced on 29th December, 2015 and guideline values for air pollution level are shown in Table 4.3-2. In this chapter, the existing environmental condition of ambient quality was followed under this guideline.

Table 4.3-2 Myanmar National Environmental Quality Guideline values for survey parameters of air quality

No	Parameter	Averaging Period	Guideline Value	Units
1.	Nitrogen dioxide	1-hour	200	µg/m3
2.	Carbon monoxide	-	-	µg/m3
3.	Particulate matter PM_{10} [a]	24-hours	50	µg/m3
4.	Particulate matter $PM_{2.5}$ [b]	24-hours	25	µg/m3
5.	Sulphur dioxide	24-hour	20	µg/m3
6.	Temperature	-	-	°C
7.	Relative Humidity	-	-	%

Remark: PM_{10} [a] = Particulate matter 10 micrometers or less in diameter
$PM_{2.5}$ [b] = Particulate matter 2.5 micrometers or less in diameter

Summary of sampling points

The detail of the location of air quality monitoring point is shown below.

Table 4.3-3 Summary of air quality sampling station

Sampling Point	Coordinates	Description of Sampling Point

AQM	16°59'39.3"N 96°05'05.5"E	In the compound of Shwe Daehan Motors Co.,Ltd located in Thar Du Kan Industrial Zone, Shwe Pyi Thar Township, Yangon

Survey Period

Air quality monitoring was conducted 24 hours during 15th–16th January, 2019. The measurement duration is shown in the following table.

Table 4.3-4 Sampling duration for air quality survey

Sampling Point	Period
AQM	**15th–16th January, 2019**

Source: Resource & Environment Myanmar Co., Ltd.

Survey Method

Sampling and analysis of ambient air pollutants was conducted by referring to the recommendation of United States Environmental Protection Agency (U.S. EPA). The Haz-Scanner Environmental Perimeter Air Station (EPAS) was used to collect ambient air monitoring data. The characteristics of the instrument are:

- Portable direct reading
- Configure up to 14 simultaneous air measurements including U.S. EPA criteria air pollutants
- Standard configuration measures PM2.5, PM10 or TSP particulates, CO, NO, NO_2, SO_2, temperature, and relative humidity
- Wind parameters are also measured by Haz-scanner EPAS and the required data are analyzed by using the WRPLOT View of AERMOD View (ver. 7.0) in which calm wind is defined below 0.5 m/s.

Table 4.3-5 Sampling and analysis method for air quality

No.	Parameter	Analysis Method
1	Sulfur dioxide (SO_2)	**On site reading**
2	Carbon monoxide (CO)	**On site reading**
3	Nitrogen dioxides (NO_2)	**On site reading**
4	Particle matter 2.5 (PM 2.5)	**On site reading**
5	Particle matter 10 (PM10)	**On site reading**
6	Nitric Oxide	**On site reading**
7	Relative Humidity	**On site reading**
8	Temperature	**On site reading**
9	Wind Speed	**On site reading**
10	**Wind Direction**	**On site reading**

Source: Resource &Environment Myanmar Co., Ltd.

Monitoring Instrument for Air Quality

No.	Instrument	Brand & Model	Measurement/ Parameter	

1.	Environmental Perimeter Air Monitoring System	HAZ-SCANNER EPAS	CO, NO_2, NO, SO_2, PM (2.5), PM (10), VOCS, Relative Humidity, Temperature, Wind Speed, Wind Direction	 

Site description of air quality

AQM was measured in the compound of Shwe Daehan Motors Co.,Ltd which is located in Thar Du Kan Industrial Zone, Shwe Pyi Thar Township, Yangon and it lies about 11.07 meters at west of Ma Hu Yar Road. It situated about 50 meters of electric power generator and 20 meters of water pump generator. Air quality station is surrounded by residential buildings of Shwe Daehan Motors Co.,Ltd. AQM was setup near car parking and test driving the cars. It is possible that pollution source is emitted from human activities. The unusual noise may be come out from generator and traffic activity by cars and lorry in 24 hours. The activities of AQM are shown in Figure 4.3-2.





Figure 4.3-2 Survey activities at air quality station

Survey Result

Average value of ambient gaseous levels at Shwe Daehan Motors Co.,Ltd for one day is presented in following Table 4.3-6. CO and NO_x values are not specified in National Environmental (Emission) guideline. SO_2 is lower than the referred standard. $PM_{2.5}$ and PM_{10} concentration occurs very higher than the standard. So, it generally means the area had high volume of particulates sources at the area. Because AQM was setup near car parking and test driving the cars.

Table 4.3-6 Ambient air quality

Sampling. No	Date	Time	CO	NO_2	NO	PM2.5	PM10	RH	SO2	TmpC
	D.M.Y	**hours**	µg/m^3	µg/m^3	µg/m3	µg/m3	µg/m3	**%**	µg/m3	**Deg. C**
AQM	15th–16th January, 2019	24hours	185.57		17.73	112.87	120.98	62.66	16.83	23.81
		1 hour		23.54						
Myanmar National Environmental Quality (Emission) Guideline value			-	-	-	25	50	-	20	-

Source: Resource & Environment Myanmar Co., Ltd

4.3.2 Wind Speed and Direction

According to the wind rose diagram, average wind speed of air quality station is 0.58m/s. Prevailing wind direction of air quality station is blowing from south, southwest and northwest direction. Wind rose diagram of air quality station is shown in figure 4.3-3.

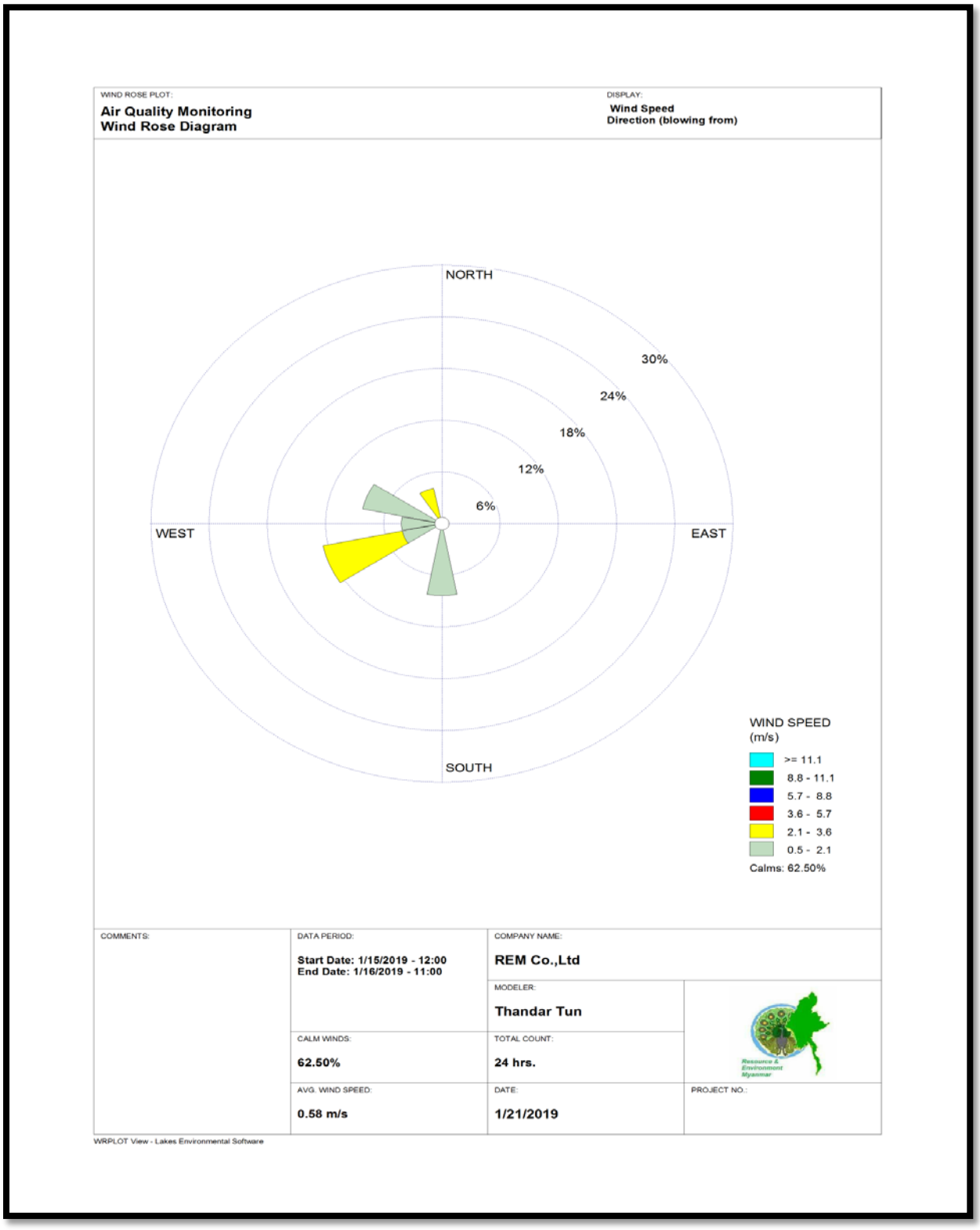


Figure 4.3-3 Wind speed and direction diagram of Shwe Daehan Motors Co.,Ltd

4.3.3 Noise Level

Survey Item

Myanmar National Environmental Quality (Emission) Guidelines were announced on 29th December, 2015 and guideline value for noise level is as shown in Table 4.3-7. The applied standard is highlighted in the Table 4.3-7

Table 4.3-7 Guideline Value of Noise Level

No.	Parameter	Unit	Environmental Standard (Myanmar)		
			Category	Day time 7:00-22:00	**Night time 22:00-7:00**
1	A-weighted loudness equivalent (L_{Aeq})	dB	Residential, educational, institutional	55	**45**
			Industrial, commercial	**70**	**70**

Source: National Environmental Quality (Emission) Guidelines, 2015

Remark: a LAeq = Equivalent continuous sound level in decibels

Survey Location

The location of noise quality monitoring point is as same as the air quality monitoring point. The detail of sampling point is described as Table 4.3-8

Table 4.3-8 Survey location of noise level

Sampling Point	Coordinates	Description of Sampling Point
Noise	16°59'39.3"N 96°05'05.5"E	In the compound of Shwe Daehan Motors Co.,Ltd located in Thar Du Kan Industrial Zone, Shwe Pyi Thar Township, Yangon

Survey Period

Noise level survey was conducted on 24 hours consecutively. The measurement duration was as shown in Table 4.3-9.

Table 4.3-9 Sampling Duration for Noise Level Survey

Point	Period
Noise	15th–16th January, 2019

Source: Resource & Environment Myanmar Co., Ltd.

Survey Method

Measurement of environmental sound level was conducted by referring to the recommendation of International Organization for Standardization (ISO), i.e. ISO 1996-1:2003 and ISO 1996-2:2007. The instrumentation used for noise quality survey is shown in the following Table 4.3-10. Noise meter was set up to record the log as ten minutes' intervals during an hour for one consecutive day**.**

Table 4.3-10 Instrumentation for noise survey

Instrumentation	Description
Sound level meter	**Sound level meter with SD Card, Model SL-4023SD**

Source: Resource and Environment Myanmar Co., Ltd.



Figure 4.3-4 Lutron sound level meter

Survey Result

Noise level (LAeq) was presented in Table 4.3-11. The noise level within the 24 hours found lower than the noise quality of Myanmar National Environmental Quality (Emission) guideline as shown in Table 4.3-11.

One day L_{Aeq} was calculated by using the following array formula in the excel sheet. This formula is firstly used for hourly L_{Aeq} and then for the 24 hours L_{Aeq}.

10*LOG10 (AVERGAE (10^ ((RANGE)/10)))

As the monitoring is conducted for the industrial areas, the results are compared with "Industrial, Commercial" environment.

By means of the calculated results, LA_{eq} result is lower than the applied standard during the survey period Measurement of environmental sound level was conducted by referring to the recommendation of Myanmar National emission guideline 29th December, 2015.

Table 4.3-11 A-weighted loudness Equivalent (LAeq) Level

N-1	**Noise 15th–16th January, 2019**	
	Day time	Night time
Result	62	59
Environmental standard	70	70

Remark: Shaded area is lower than the standard.

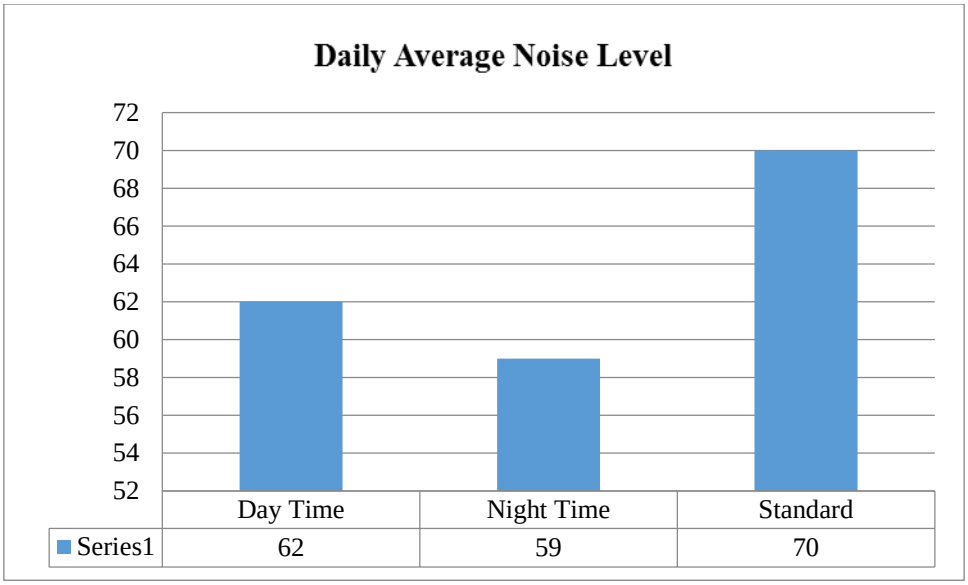


Figure 4.3-5 Daily average noise level

Table 4.3-12 Hourly LAeq value in noise station

Time	Result
7:00-8:00	64
8:00-9:00	66
9:00-10:00	64
10:00-11:00	59
11:00-12:00	59
12:00-13:00	65
13:00-14:00	67
14:00-15:00	64
15:00-16:00	62
16:00-17:00	60
17:00-18:00	60
18:00-19:00	62
19:00-20:00	63
20:00-21:00	60
21:00-22:00	59
22:00-23:00	59
23:00-24:00	57
24:00-01:00	58
01:00-02:00	59
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03:00-04:00	58
04:00-05:00	58
05:00-06:00	67
06:00-07:00	59

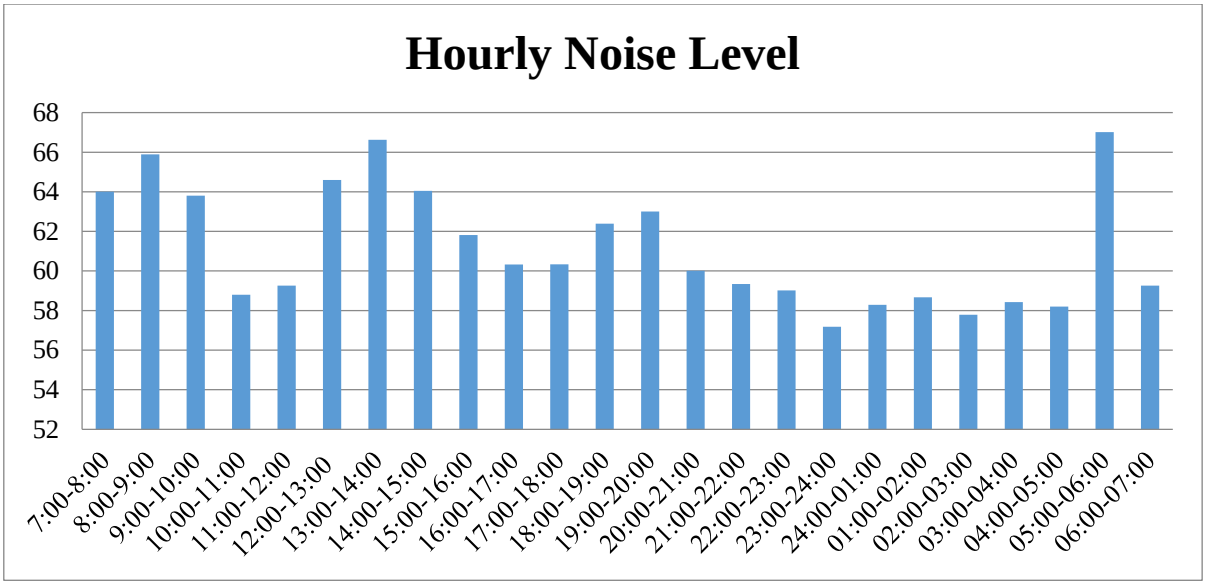

Figure 4.3-6 Hourly noise level

4.3.4 Vibration

As there is no vibration standard to receptors in Myanmar, the target vibration level at operation phase shall be set based on the standards in Thilawa SEZ. Applied target vibration level is highlighted and shown in Table 4.3-13.

Table 4.3-13 Guideline Value of Vibration Level

No.	Parameter	Unit				
			Category	**Day time (7am – 7pm)**	**Evening time (7pm – 10pm)**	Night time (10pm – 7am)
1	Vibration Level	dB	Residential houses and monastery	65	60	**60**
			Office, commercial facilities, and factories	**70**	**65**	**65**

Note: Evaluation point is at the boundary of the building of receptors for EIA of Zone B and at the boundary of SEZ and tenant's property.

1: Target vibration level set in the EIA report for Class A

2: Target vibration level set in the IR-A for tenants in the industrial area

Source: The EIA Report for Thilawa SEZ Development Project (Class A) (September 2013), summarized by the EIA Study Team

Survey Location

The location of vibration level survey is shown in Table 4.3-14 and Figure 4.3-1. The detail of sampling point is described as below.

Table 4.3-14 Survey location of vibration level

Sampling Point	Coordinates	Description of Sampling Point
Vibration	16°59'40.7"N 96°05'04.8"E	Near the main gate of factory located in Thar Du Kan Industrial Zone, Shwe Pyi Thar Township, Yangon

Survey Period

Vibration level survey was conducted on 24 hours consecutively. The measurement duration was as shown in Table 4.3-14.

Table 4.3-14 Survey duration for vibration level

Point	Period
V-1	15th–16th January, 2019

Source: Resource & Environment Myanmar Co., Ltd.

Survey Method

The instrumentation used for vibration level is shown in the following Table 4.3-15. Vibration meter was set up to continuously record the defined measurement time**.**

Table 4.3-15 Instrumentation for vibration survey

Instrumentation	Description
Vibration meter	Rion VM55 with SD Card

Source: Resource and Environment Myanmar Co., Ltd.



Figure 4.3-7 Rion Vibration Level Meter

Survey Result

Average vibration level results of one point for 24hours are presented in table 4.3-16 and figure 4.3-8.

Table 4.3-16 Daily average vibration level results (dB)

Result	V-1		
	Daytime (7 am - 7 pm)	**Evening time (7 pm - 10 pm)**	**Night time (10 pm - 7 am)**
	37	29	24
Office, Commerical facilities, and factories Standard	70 dB	65 dB	65 dB

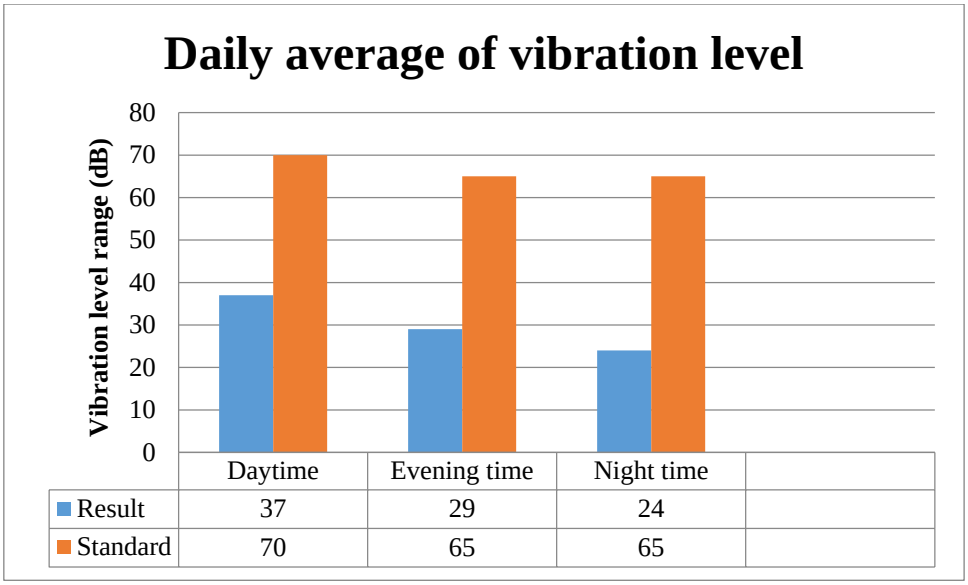

Figure 4.3-8 Daily average of vibration level

Table 4.3-17 Hourly Lveq value in vibration survey

Time	Result
07:00-08:00	28
08:00-09:00	35
09:00-10:00	34
10:00-11:00	34
11:00-12:00	35
12:00-13:00	36
13:00-14:00	36
14:00-15:00	41
15:00-16:00	45
16:00-17:00	43
17:00-18:00	37
18:00-19:00	34
19:00-20:00	30
20:00-21:00	27
21:00-22:00	29
22:00-23:00	26
23:00-24:00	26
24:00-01:00	26
01:00-02:00	24
02:00-03:00	23
03:00-04:00	23
04:00-05:00	24
05:00-06:00	24
06:00-07:00	24

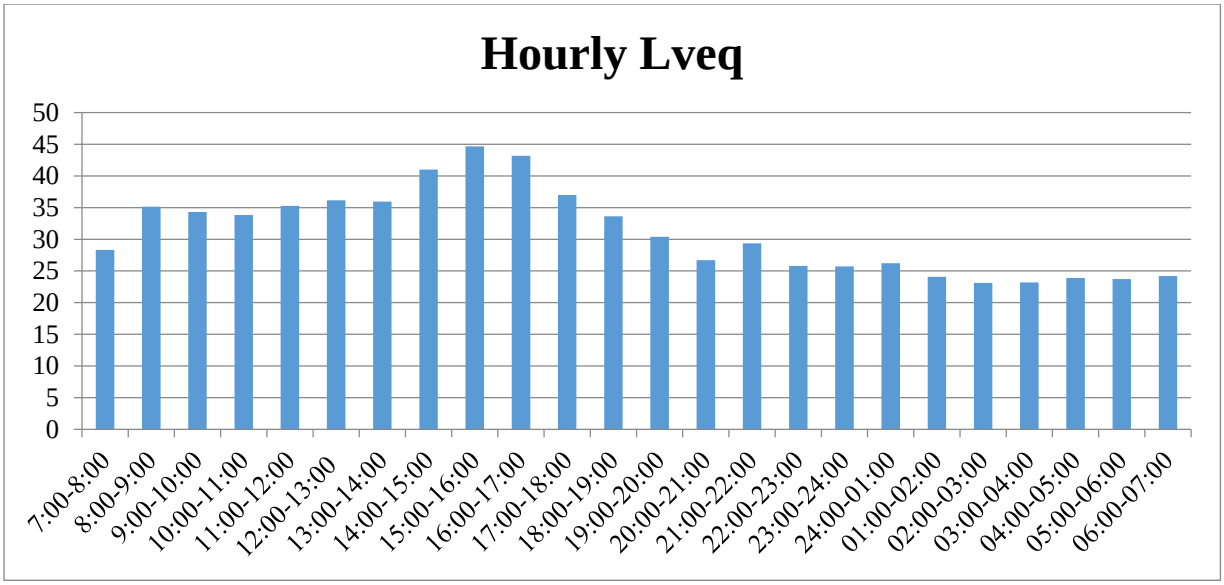

Figure 4.3-9 Hourly Lveq results of vibration survey

4.3.5 Groundwater Quality

In this project, one groundwater quality was sampled in the compound of Shwe Daehan Motors Co., Ltd. Detail description of survey point is shown in below. In this sector, standard of groundwater quality was referred by National Environmental Quality (Emission) Guideline.

Survey Item

Parameters for groundwater quality survey are determined so as to cover the parameters of existing environmental standards. There are thirty-three parameters analyzed in this project. They are pH, ORP, DO, EC, TDS, Salinity, water temperature, Biological oxygen demand, chemical oxygen demand, Total Suspended Solids, total coliform, oil and grease, Free Cyanide, Total Cyanide, Total Nitrogen, Total Phosphorus, Total Residual Chlorine, Fluoride, Hexavalent Chromium, Ammonia, Phenols, Sulphide, Heavy Metals (Arsenic, Selenium, Cadmium, Total Chromium, Copper, Iron, Lead, Nickel, Silver, Zinc) and Mercury. The following parameters will be measured and analyzed insitu as well as laboratory.

Table 4.3-18 Guideline value for groundwater quality

No.	Parameter	unit	Guideline Value
1	Temperature	°C	<3[b]
2	pH	S.U.[a]	6-9
3	ORP	mv	-
4	DO	mg/l	-
5	EC	µs	-
6	TDS	mg/l	-
7	Salinity	psu	-
8	BOD	mg/l	50
9	COD	mg/l	250
10	Oil &Grease	mg/l	10
11	TCB	100ml	400
12	TSS	mg/l	50
13	Free Cyanide	mg/l	0.1
14	Total Cyanide	mg/l	1
15	Total Nitrogen	mg/l	10
16	Total Phosphorus	mg/l	2

17	Total Residual Chlorine	mg/l	0.2
18	Fluoride	mg/l	20
19	Hexavalent Chromium	mg/l	0.1
20	Ammonia	mg/l	10
21	Phenols	mg/l	0.5
22	Sulphide	mg/l	1
23	Mercury	mg/l	0.01
24	Arsenic	mg/l	0.1
25	Selenium	mg/l	0.1
26	Cadmium	mg/l	0.1
27	Total Chromium	mg/l	0.5
28	Copper	mg/l	0.5
29	Iron	mg/l	3.5
30	Lead	mg/l	0.1
31	Nickel	mg/l	0.5
32	Silver	mg/l	0.5
33	Zinc	mg/l	2

Survey Locations

The locations of groundwater sample and survey is shown in Table 4.3-19 and Figure 4.3-10. The detail of sampling point is described as below.

Table 4.3-19 Sampling and survey points of groundwater quality survey

Category	Sampling Point	Coordinates	Description of Sampling Point
Groundwater	GW- 1	16°59'35.0"N 96°05'01.0"E	In the compound of Shwe Daehan Motors Co.,Ltd, Thar Du Kan Industrial Zone, Shwe Pyi Thar Township, Yangon

Survey Period

The sampling and measuring of the groundwater were conducted on 15th January, 2019.

Survey Method

Groundwater samples were taken by Alpha horizontal water sampler and collected in plastic and sterilized glass sample containers. All sampling was in strict accordance with recognized standard procedures. The parameters as pH, temperature, dissolved oxygen (DO), electrical conductivity (EC), and total dissolved solid, Oxidation Reduction Potential, Salinity were measured at site concurrently with sample collection and. According to the Laboratory standard, some samples were preserved using the chemicals. All samples were kept in iced boxes and were transported to the laboratory within 24 hours.

Table 4.3-20 Field equipment for groundwater quality survey

No.	Equipment	Manufacturer	Originate Country	Model/Serial No.
1	Multi Parameters for water quality (water checker)	HORIBA	Japan	Model – U52G SN – G2YBAJWD
2	pH meter	HANNA	USA	HI 9829

Table 4.3-21 Insitu water quality measuring instruments

Equipment	Manufacturer	Originate Country	Model

Multiparameter for water quality (water checker)	HORIBA	Japan	U-52G 
pH meter	HANNA	USA	HI 9829 

Site description of groundwater quality

GW-1was surveyed at the west corner of factory which is located in the compound of Shwe Daehan Motors Co.,Ltd, Thar Du Kan Industrial Zone, Shwe Pyi Thar Township and Yangon. GW-1 was sampling from the storage water tank using for car washing. The salinity of water is 0.16 psu. The survey activities of GW-1 are shown in Figure 4.3.10.



Figure 4.3-10 Groundwater quality survey at GW- 1

Table 4.3-22 Groundwater quality results

Sr.no	Parameter	Unit	GW-1	Guideline Value
	Location		16°59'35.0"N 96°05'01.0"E	
	Date/time		15.1.2019 10:54AM	
	Weather condition		Sunny	
	Transpency		Medium	
1	pH		6.76	6-9

2	ORP	MV	223	
3	Water Temperature	°C	27.77	<3[b]
4	Dissolved oxygen	mg/L	7.48	-
5	Conductivity	µs/cm	338	-
6	Total dissolved solid	ppm	220	-
7	Salinity	psu	0.16	-
8	Biological Oxygen Demand	mg/L	ND	50
9	Chemical Oxygen Demand	mg/L	ND	250
10	Total Suspended Solids	mg/L	9.8	10
11	Total Coliform	MPN/100ml	11,000	400
12	Oil and Grease	mg/L	ND	10
13	Free Cyanide	mg/l CN	ND	0.1
14	Total Cyanide	mg/l CN	ND	1
15	Total Nitrogen	mg/l N	0.57	10
16	Total Phosphorus	mg/l P	ND	2
17	Total Residual Chlorine	mg/l Cl_2	ND	0.2
18	Fluoride	mg/l F	0.27	20
19	Hexavalent Chromium	mg/l Cr	ND	0.1
20	Ammonia	mg/l NH_3	0.10	10
21	Phenols	mg/l	ND	0.5
22	Sulphide	mg/l	ND	1
23	Mercury	mg/l Hg	0.0002	0.01
24	Arsenic	mg/l As	0.0003	0.1
25	Selenium	mg/l Se	ND	0.1
26	Cadmium	mg/l Cd	ND	0.1
27	Total Chromium	mg/l Cr	ND	0.5
28	Copper	mg/l Cu	ND	0.5
29	Iron	mg/l Fe	165	3.5
30	Lead	mg/l Pb	ND	0.1
31	Nickel	mg/l Ni	ND	0.5
32	Silver	mg/l Ag	ND	0.5
33	Zinc	mg/l Zn	ND	2

4.3.6 Soil

Survey Item

Parameters for soil quality survey are determined so as to cover the parameters of existing available environmental standards. Soil sample was taken by the manual hand auger. Eleven parameters were analyzed. The analysis parameters are pH, arsenic, boron, cadmium, chromium, copper, fluoride lead, zinc, mercury and selenium.

Survey Locations

The location of soil sample and survey is shown in Table 4.3-23. The detail of sampling point is described as below.

Table 4.3-23 Sampling and survey point of surface soil quality survey

Category	Sampling Point	Coordinates	Description of Sampling Point
Soil sampling	S-1	16°59'40.12"N 96°05'5.59"E	In front of Shwe Daehan Motors Co.,Ltd located in Thar Du Kan Industrial Zone, Shwe Pyi Thar Township, Yangon

Survey Method

In the course of survey, sampling procedure, sample preservation and sample analysis recommended in standard operating procedure of U.S. EPA (SOP-2013, SOP2016, and SOP 2003) were referred. In

soil sampling, the standard agricultural sampler (Soil Auger) was applied. The sampler is a stainless steel tube that is sharpened on one end and fitted with a long, T-shaped handle. This tube is approximately three inches inside diameter. In order to refrain from contamination, about 0~20 cm of top soil were removed by the sampler before sampling. Then sample was taken and collected in cleaned plastic bag. Chemical preservation of samples was not applied because it is generally not recommended by standard method. Samples were cooled in an ice box which temperature was under 4°C. Samples were protected from sunlight to minimize any potential reaction. Field equipment used on site is also shown in the table.

Table 4.3-24 Field Equipment for Soil Quality Survey

No.	Equipment	Originate Country	Model
1	Manual Hand Auger (for soil sampling)	USA	AMS

Survey Period

The soil quality survey was conducted on 15th January, 2019.

Site description of soil quality

S-1 was collected besides the Ma Hu Yar Road which located in front of Shwe Daehan Motors Co.,Ltd, Thar Du Kan Industrial Zone, Shwe Pyi Thar Township and Yangon. The soil sample was taken from 20cm to 40 cm depth. The soil nature is brown color. The location of S-1 is shown in Figure 4.3-11.



Figure 4.3-11 Survey activity of S-1

Survey result

The analysis parameters for soil quality were tested to the United Analysis and Engineering Consultant (UAE Thailand). The survey result shown in Table 4.3-25.

Table 4.3-25 Laboratory results of soil quality

Unit- mg/kg

No.	Parameter	Results
		S-1
1	pH	ND
2	Arsenic (As)	1.84
3	Mercury (Hg)	ND
4	Copper (Cu)	4.77

5	Lead (Pb)	5.42
6	Zinc (Zn)	28.1
7	Chromium (Cr)	18.6
8	Selenium (Se)	ND
9	Boron (B)	8.05
10	Fluoride (F)	ND
11	Cadmium (Cd)	ND

ND- None Detected

4.4 Biological Environment

4.4.1 Scope and Purpose of the baseline study

The scope and purpose of the ecological baseline study are:

- To provide comprehensive and accurate information on the ecological baseline;
- To identify and predict potential ecological impacts;
- To evaluate the significance of the impacts identified;
- To recommend effective and practicable alternatives and mitigation measures; and
- To recommend the need for and the scope of an appropriate monitoring and audit programme.

4.4.2 Site Reconnaissance

A targeted site reconnaissance was conducted from 9th to 12nd December, 2018 to ground-truth information gathered and supplements it with site observations, data and photographs. The site reconnaissance targeted the following specific ecological objectives:

• To name, describe and map vegetation communities and habitats present within the Project Area at a suitable scale, using existing community nomenclature where possible;

• To identify, describe and map other ecologically sensitive areas within the Project Area such as springs, watercourses and other water bodies;

• To the extent possible within the survey time frame and season, determine if species of conservation significance known or predicted likely to be present in the Study Area are actually present within the Project Area;

• To identify opportunities for future ecological monitoring and enhancement within the framework of the proposed project.

4.4.3 Methodology

The methodologies used in the baseline study were discussed below.

(i) Desktop Survey

Publicly available sources of information were analyzed to build an outline of known and likely ecological values for the Study Area. Aerial imagery was used to build a more complete spatial understanding of the pattern of vegetation communities and human uses on the site, and to map access routes and internal tracks. In addition, ecologists with experience of the Study Area were consulted where possible to obtain information about species known to be present or previously recorded from the site, and other ecological values considered by them to be relevant.

(ii) Field Observation

(1) Flora

A Global Positioning System was used to navigate and mark coordinates between sample plots around

the study area. Field observation was conducted in and around the project area. During the field survey period, plotless sampling method was used. Plotless sampling methods are based on the random selection of points within a particular survey area. In addition, all trees, shrubs, herbs and cultivated crops were recorded and listed. Identification of plants and animal species was conducted with assistances of skilled local people. The identified species and families were translated to scientific name with assistance of a checklist of trees, shrubs, herbs and climbers of Myanmar.

(2) Fauna

(i) Birds

Random point count and direct count method was used for the bird survey and took the photograph of birds. Birds were observed with binocular and camera as long as in the field for identified aided with field guided book for (Craig Robson 2011). Species identification observed number of bird's habitat utilization, were examined. Nocturnal birds were observed when it becomes dusk. Point count and direct count opportunistic methods were used to census the species richness and point counting was used to get the relative measure of bird abundance.

(ii) Mammal

Mammal surveys was very rare and the chance for encounter was exceedingly low no systematic trancet line, and points were designated. The survey work mainly involved prowling stealthily in the forest looking for mammals. Day time survey was good for small tree dwelling mammals and photographs were taken whenever possible.

The survey method also involved searching for evidences such as new or fresh scats, foot prints, Scratches, tracks and trail etc. Scats and foot prints are specific and so the animal could be identified quite correctly based on these two evidences.

Another main work gathering information from villagers. That was simply gathering secondary data, and looking for recently acquired trophies (horns), leather and other body parts of the wild animals.

(iii) Herpeto-fauna

The survey was mainly involved walking and visual inspection. No traps or snare were used. The study involved the morphometric character: size, shape, pattern of spots, stripes, color, bodies weight and body length. Herpeto-fauna surveys were conducted through direct observation and active searching in all major representative habitat types along survey transects and in potential hiding places such as among leaf litter, inside holes and under stones and logs within the Study Area. Auditory detection of species-specific calls was also used to survey frogs and toads. During the surveys, all reptiles and amphibians sighted and heard will be recorded.

(iv) Butterflies and Odonata

Butterflies and Odonata of different habitats within the study area were surveyed using point count method subject to the on-site conditions. Butterflies species and odonata species were collected by aerial net along the trail to collected species for identifying and then release off. Some Butterflies cannot identify in field so that we took photo and identify the species with reference book.

(v) Aquatic

Interviewed with local fisherman from the study area were conducted during the collection of the specimen. Fishermen were interviewed with regard to fishery process including kinds of gear used, number of fishing time per day, target species. The fishing gears are trap, hook and line and gill nets. The water body of the irrigation canal was studied for aquatic fauna. The fishes were collected with the help of the fishermen during the survey period. Traps were also used to get various types of fish

like surface dwellers and bottom dwellers. The fishes were photographed soon after the collection and measurements were also taken for key characteristics. Indirect observation at a market and interview with fishermen about kind and quality of fishery product.

(iii) Interview survey

In addition to the field observation, secondary data was also surveyed by interviewing from local residents and literature reviewing. In the interview survey, the surveyor visited the residents in and around the survey area and interviewed the name of plants and animals existing in and around the area. Also, the past situation of flora and fauna, and the change on biodiversity and ecosystem in the area was interviewed for examination.



Figure 4.4-1 Interview survey with local people

4 Survey Area

The location of the survey area was shown in figure 4.4-2 and the pin points in the figure were the survey points.



Figure 4.4-2 Location of survey area

5 Survey Result

(1) Flora

Habitat

In and around the Area of proposed project area, two major habitat types were observed namely (1) Shrub land, (2) Bush land area.



Figure 4.4-3 Sceneries of the survey area

Habitat Map

To obtain the habitat map and land use map, there was combination between field observation and secondary image from Google Earth and generate it applying in GIS software. At first, the field observations were performed for habitat survey at site collecting the data with the Garmin GPS and upload it in ArcGIS. On the other hand, the Google image was visually digitized based on the primary field survey. Finally, the habitat map and land use map were analyzed based on both of field survey and secondary image data using the ArcGIS software and Google Earth software.

Sources & Tools

- Google Earth Images
- ArcGIS 10.4
- Garmin GPS etrex 30
- Field survey

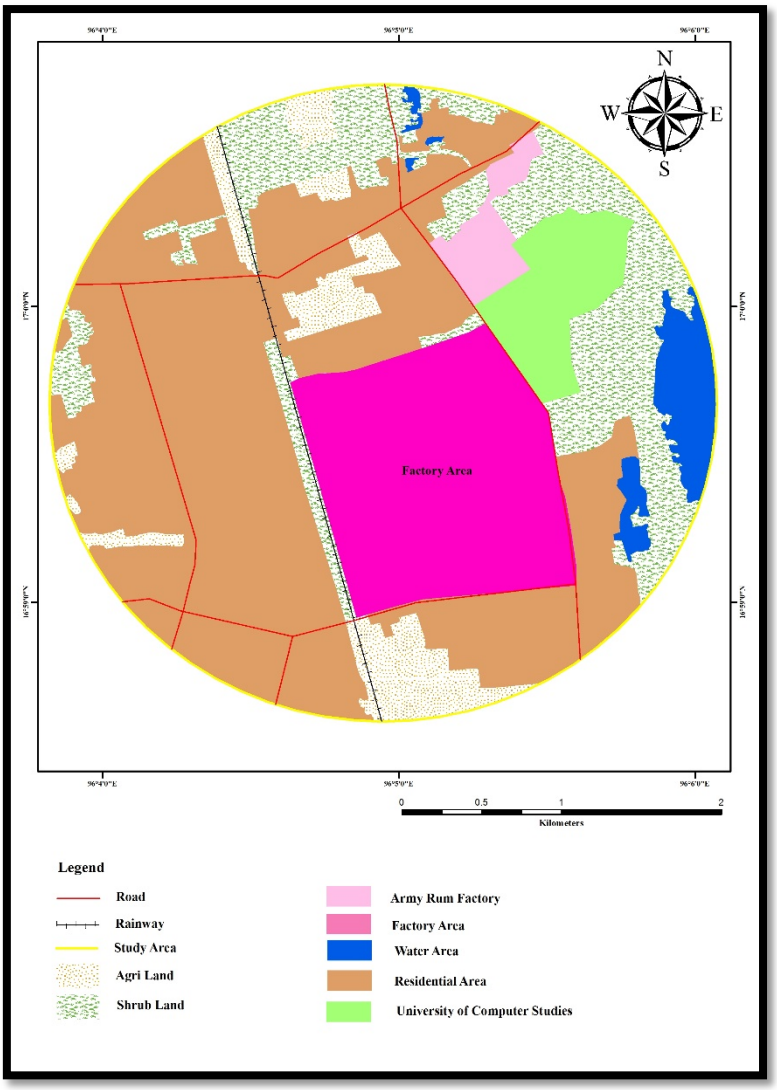

Figure 4.4- 4 Habitat map of the survey area

Vegetation Communities

The Project Area lies within the Developed area. Along the Developed area plantation with clusters of bamboo are found. At the same elevation due to the information with shallow vegetation no big trees are found, only shrubs and bushes are existed.

Table 4.4-1: Vegetation Community Description

Community name	Land form	Description
Shrub Land	Occurs in moist low-lying areas and along a narrow zone adjacent to streams.	**Shrub land habitats contain thickets of shrubs and young trees mixed with scattered grasses and wildflowers.**
Bushland	**Land which is disturbed but still retains a predominance of the original floristic and structure.**	**Bushland provides a number of ecosystem services including the protection of water quality, stopping erosion, acting as a windbreak, and trapping nutrients. Bushland is prone to bushfires. This presents a challenge to authorities as infrastructure and habitations encroach into bushland areas.**

(4) Survey Result

There were 50 plant species identified in the survey area. List of identified plant species in the

proposed survey area was presented in Table 4.4-2.

Table 4.4-2 List of plant species recorded in survey area

No.	Family Name	Scientific Name	Common Name	Habitat	Distribution	IUCN	Remark
1	Anacardiaceae	*Mangifera indica*	Thayet	T	Wide	NE	
2	Asteraceae	*Chromolaena odorata*	Bizat	S	Wide	NE	
3	Caesalpiniaceae	*Bauhinia acuminata*	Swe-daw	ST	Wide	LC	
4	Amaranthaceae	*Aerva javanica*	On-hnye	H	Magway, Mandalay, Sagaing, Shan, Yangon	NE	
5	Moraceae	*Ficus obtusifolia*	Nyaung-gyat	T	Wide	NE	
6	Bignoniaceae	*Oroxylum indica*	Kyaung-sha	T	Wide	NE	
7	Steruliaceae	*Scaphium scaphigerum*	Mohbin	T	Mon, Taninthayi	NE	
8	Poaceae	*Bambusa bambos*	Kyakat-wa	B	Reported from Myanmar	NE	
9	Fabaceae	*Sesbania grandiflora*	Paukpan-byu	ST	Cultivated	NE	
10	Mimosaceae	*Leucaena leucocephala*	Bawsagaing	T	Mandalay, Sagaing, Yangon	NE	
11	Meliaceae	*Azadirachta indica*	Tama	T	Wide	NE	
12	Mimosaceae	*Acacia auriculiformis*	Malaysia-padauk	ST	Cultivated	LC	
13	Solanaceae	*Physalis minima*	Bauk-pin	H	Bago, Taninthayi, Yangon	NE	
14	Caesalpinaceae	*Caesalpinia pulcherrima*	Seinban-gale	ST	Cultivated	NE	
15	Rhamnaceae	*Ziziphus jujuba*	Zi	T	Cultivated	NE	
16	Caesalpiniaceae	*Tamarindus indica*	Magyi	T	Cultivated	NE	
17	Combretaceae	*Terminalia catappa*	Banda	T	Cultivated	NE	
18	Mimosaceae	*Mimosa rubicaulis*	Biat-hti-ka-yone	H	Yangon	NE	
19	Moringaceae	*Moringa aleifera*	Dantalon	T	Cultivated	NE	
20	Fabaceae	*Pterocarpus macrocarpus*	Padauk	T	Bago, Mandalay, Sagaing, Taninthayi	NE	
21	Arecaceae	*Cocas nucifera*	Ohn	T	Cultivated	NE	
22	Caesalpiniaceae	*Senna siamea*	Mazali	T	Reported from Myanmar	NE	
23	Moraceae	*Artocarpus heterophyllus*	Peinne	T	Cultivated	NE	
24	Mimosaceae	*Albizia lebbek*	Kokko	T	Reported from Myanmar	NE	
25	Lythraceae	*Lagerstromia speciosa*	Pyinma	T	Reported from Myanmar	NE	
26	Sapotaceae	*Manikara hexandra*	Khayay	T	Cultivated	NE	
27	Tiliaceae	*Microcos paniculata*	Mya-yar	ST	Ayeyarwady, Bago, Mandalay, Mon, Taninthayi	NE	
28	Caesalpiniaceae	*Cassia fistula*	Ngu	T	Wide	NE	
29	Araceae	*Areca catechu*	Kunthi-pin	ST	Cultivated	NE	
30	Musaceae	*Musa sapientum*	Nget-pyaw	H	Cultivated	NE	
31	Convolvulaceae	*Ipomoea aquatica*	Ye-kazun	Cl/Cr	Wide	NE	
32	Poaceae	*Cynodon dactylon*	Mye-sa	G	Wide	NE	

33	Nyctaginaceae	*Bougainvillea spectabilis*	Sekku-pan	Cl/Cr	Cultivated	NE	
34	Moraceae	*Ficus religiosa*	Bawdi-nyaung	T	Cultivated	NE	
35	Vitaceae	*Cayratia trifolia*	Taw-sabyit	Cl/Cr	Bago, Mandalay, Yangon, Unknown	NE	
36	Moraceae	*Ficus glomerata*	Ye-thapan	T	Bago, Kachin, Mandalay, Yangon	NE	
37	Euphorbiaceae	*Fluegga virosa*	Chin ya	ST	Wide	NE	
38	Rutaceae	*Limonia acidissima*	Thi	T	Magway, Mandalay	NE	
39	Combretaceae	*Terminalia crenulata*	Htauk-kyant	T	Bago, Mandalay, Rakhine, Sagaing, Yangon	NE	
40	Fabaceae	*Indigofera linifolia*	Than-manaing-kyauk-manaing	S	Wide	LC	
41	Fabaceae	*Crotalaria orixensis*	Taw-pikesan	S	Magway, Mandalay, Sagaing	NE	
42	Apocynaceae	*Tabernaemontana divaricata*	Zalat	S	Cultivated	NE	
43	Caesalpinaceae	*Delonix rigia*	Sein-ban gyi	T	Cultivated	NE	
44	Mimosaceae	*Acacia pennata*	Suyit	Cl/Cr	Reported from Myanmar	LC	
45	Euphorbiaceae	*Jatropha pungens*	Kyetsu	S	Magway, Mandalay	NE	
46	Solanaceae	*Solanum indicum*	Khayan-kazaw	S	Bago, Mandalay, Shan, Yangon	NE	
47	Fabaceae	*Butea frondosa*	Pauk	T	Reported from Myanmar	NE	
48	Malvaceae	*Urena* lobata	Wetchi-pane	S	Bago, Chin, Mandalay, Taninthayi, Yangon	NE	
49	Malvaceae	*Hibiscus panduriformis*	Taw-yon-padi	S	Yangon	NE	
50	Amaranthaceae	*Alternanthera sessilis*	Pazun-sar	H	Yangon	LC	

NE = Not Evaluated
LC = Least Concerned

5 Fauna

(1) Habitat

The wildlife groups of the survey area consist of 5 groups of animals: mammals, birds, insects, Herpet and Fish. Fauna species habitat was found in small pools at the lower elevation, foot hill and low plain, some herpect were found in houses and trees. Habitat Map of project area was already shown in Figure 4.4-4 and Sceneries of the Survey Area are shown in Figure 4.4-3.

(2) Survey Result

During the survey period, 3 species of Mammals, 5 species of Reptiles and Amphibian, 30 species of Birds, 11 species of Butterflies, 1 species of Dragonfly and 11 species of Fish were recorded in and around the Project area. In this survey area, no threatened of bird species recorded and one vulnerable species of reptile were also recorded as according to the IUCN Global Threatened Status (2018). There were no globally threatened species of Fish, Mammal, butterfly and dragonfly according to the IUCN Red List of threatened species (2018). There was one endemic species of birds in project area.

(i) Birds

A total of 30 bird species were recorded during the survey period. A part from the species family, Accipitridae, Black kite (*Milvus migrans*) and Oriental honey buzzard (*Pernis ptilorhynchus*) were

predator bird species also noted as forest birds. Family, Ciconiidae, Asian Openbill (*Anastomus oscitans*) and Family, Alcedinidae, White-throated Kingfisher (*Halcyon smyrnensis*) were wet land bird species also notes as water birds. Common Myna (*Acridotheres tristis*), Rock pegion (*Columba livia*) and Spotted Dove (*Streptopelia chinensis*) are invasive species in the country of Myanmar. A part from the species family the family of Pycnontidae, Ayeyarwady Bulbul (*Pyconotus blanfordi*) are found near the survey site and they are endemic species in Myanmar. Member of the family Cisticiolidae, Plain prinia (*Prinia flaxiventris*) are common species found at the study area. A part from the species Family Dicruridae, Black Drongo (*Dicrurus macrocercus*) are common species in Myanmar.

Table 4.4-3 List of the bird species recorded in project site area.

No	Scientific Name	Common Name(s)	Family	IUCN Status
1	*Milvus migrans*	Black kite	Accipitridae	Least concern
2	*Pernis ptilorhynchus*	Oriental honey buzzard	Accipitridae	Least concern
3	*Anastomus oscitans*	Asian Openbill	Ciconiidae	Least concern
4	*Megalaima haemacephala*	Coppersmith Barbet	Ramphastidae	Least concern
5	*Coracias benghalensis*	Indian Roller	Coraciidae	Least concern
6	*Halcyon smyrnensis*	White-throated Kingfisher	Alcedinidae	Least concern
7	*Merops orientalis*	Little green bee-eater	Meropidae	Least concern
8	*Centropus sinensis*	Greater Coucal	Cuculidae	Least concern
9	*Cypsiurus balasiensis*	Asian Palm-Swift	Apodidae	Least concern
10	*Streptopelia chinensis*	Spotted Dove	Columbidae	Least concern
11	*Streptopelia tranquebarica*	Red collared Dove	Columbidae	Least concern
12	*Columba livia*	Rock Pigeon	Columbidae	Least concern
13	*Lanius cristatus*	Brown Shrike	Laniidae	Least concern
14	*Corvus splendens*	House Crow	Corvidae	Least concern
15	*Aegithina tiphia*	Common Iora	Aegithininae	Least concern
16	*Dicrurus macrocercus*	Black Drongo	Dicruridae	Least concern
17	*Copsychus saularis*	Oriental Magpie-robin	Muscicapidae	Least concern
18	*Pyconotus cafer*	Red-vented Bulbul	Pycnonotidae	Least concern
19	*Pycnonotus jocosus*	Red-whiskered Bulbul	Pycnonotidae	Least concern
20	*Pyconotus blanfordi*	Ayeyarwady Bulbul	Pycnonotidae	Least concern/ Endemic
21	*Acridotheres tristis*	Common Myna	Sturnidae	Least concern
22	*Acridotheres fuscus*	Jungle Myna	Sturnidae	Least concern
23	*Saxicola caprata*	Pied Bushchat	Muscicapidae	Least concern
24	*Saxicola maurus*	Siberian stonechat	Muscicapidae	Not evaluated
25	*Prinia flaxiventris*	Plain prinia	Cisticiolidae	Least concern
26	*Cinnyris jugularis*	Olive-backed Sunbird	Nectarriniidae	Least concern
27	*Passer domesticus*	House sparrow	Passeridae	Least concern
28	*Passer montanus*	Eurasian tree sparrow	Passeridae	Least concern
29	*Orthotomus sutorius*	Common Tailorbird	Sylviidae	Least concern
30	*Lonchura punctulata*	Scaly-breasted Munia	Estrildidae	Least concern



White-throated Kingfisher (*Halcyon smyrnensis*)



Common Myna (*Acridotheres tristis*)



Brown Shrike (*Lanius cristatus*)



Black Drongo (*Dicrurus macrocercus*)



Red collared Dove (*Streptopelia tranquebarica*)



Scaly-breasted Munia (*Lonchura punctulata*)

Figure 4.4-6 Image of bird species recorded in project area

(ii) Mammalogy

During the survey period, a total of 3 mammal species belonging to 3 genera were recorded through observation and interviewed in the project area. According to the Villagers, the following the mammal species of recognized conservation interest were found within the forest habitat of the study area.

These are Small Indian Civet, Common Palm Civet and Leopard Cat was interviewed survey from local people. They were two species of Civet, One Species of Cat. All species are interview information from local people. According to the IUCN red list (2018-2) there was no threatened species, and no endemic species in this area.

Table 4.4-4 List of Mammal Species recorded in project area

No.	Common Name	Scientific Name	Family Name	Observation /Status	IUCN Status
1	Leopard Cat	*Prionailurus bengalensis*	Felidae	Interviewed	LC
2	Common palm Civet	*Paradoxurus hermaphroditus*	Viverridae	Interviewed	LC
3	Small Indian Civet	*Viverricula indica*	Viverridae	Interviewed	LC

LC = Least concerned



Leopard Cat (*Prionailurus bengalensis*)



Small Indian Civet (*Viverricula indica*)

Figure 4.4-7 Image of mammal species recorded in the project area

(iii) Herpetology

During the herpeto fauna survey, (5) reptiles' species were recorded within the Study Area through interviewed and observation. There are 2 species were observed and 3 species were interviewed from local people in survey area. These included 4 snakes and 1 species of Gecko. The families of snake were species in families Colubridae and one species in families Viperidae and one species in families Elapidae and one species in families Pythonide one species in families Gekkonidae,

According to the IUCN Red List of threatened species (2018), these areas was found one threatened species in vulnerable (VU), these are Burmese python (*Python bivittatus*). Local people were found in survey area. There was no endemic species in this survey area.

Table 4-4-5 List of Herpetology Species recorded in project area

No.	Common Name	Scientific Name	Family Name	Observation /Status	IUCN Status
1	Monocled Cobra	*Naja kaouthia*	Elapidae	observed	LC
2	Russell's Viber	*Daboia russelii*	Viperidae	interviewed	LC
3	Chequered Keelback Water Snake	*Xenochrophis piscator*	Colubridae	interviewed	NE
4	Asian House Gecko	*Hemidactylus frenatus*	Gekkonidae	observed	LC
5	Burmese Python	*Python bivittatus*	Pythonidae	interviewed	VU

LC = Least Concern
NE = Not Evaluate
VU = Vulnerable



Monocled Cobra (*Naja kaouthia*)



Asian House Gecko (*Hemidactylus frenatus*)

Figure 4.4-8 Image of Herpetology Species recorded in project area

(3). Burmese python (*Python bivittatus*)



Figure 4.4-9 Burmese Python (Python bivittatus)

Table 4.4-6 Assessment of Burmese python

Taxonomy

Kingdom	**Phylum**	**Class**	**Order**	**Family**
Animalia	Chordata	Reptilia	Squamata	Pythonidae

Scientific Name:	*Python bivittatus*
Species Authority:	Kuhl, 1820

Common Name(s): English – Burmese Python	
Synonym(s):	*Python molurus* ssp. *bivittatus* Kuhl, 1820
Taxonomic Notes:	*Python bivittatus* was recently recognized as a full species (Jacobs *et al.* 2009), having previously been considered a subspecies of *P. molurus*. The subspecies *P. b. progschai* has been erected to describe populations from Sulawesi (Jacobs *et al.* 2009).

Assessment Information

Red List Category & Criteria:	Vulnerable A2acd ver 3.1
Year Published:	2012
Date Assessed:	2011-09-02
Assessor(s):	Stuart, B., Nguyen, T.Q., Thy, N., Grismer, L., Chan-Ard, T., Iskandar, D., Golynsky, E. & Lau, M.W.N.
Reviewer(s):	Auliya, M. & Bowles, P.

Justification:
The Burmese Python is a widely distributed species found throughout Southeast Asia, with evidence of extensive and widespread population declines. Neither generation length nor the scale of declines throughout this snake's global range are well-known, however, it has been listed as Critically Endangered in two major areas within its range due to localized declines greater than 80% over a ten-year period, and exhibits apparently high but unquantified rates of decline throughout its distribution. This snake is conservatively estimated to have declined by at least 30% over the past ten years across its global range as a result of over-harvesting for a variety of uses, to some extent compounded by the effects of habitat loss, and with the drivers of this decline not having ceased. It is therefore listed as Vulnerable.

Geographic Range

Range Description:	This species occurs from India, where it has a very disjunct distribution and is known from only two small, isolated areas in the northeast, through Nepal to Indonesia and China (including Hainan). It is absent from Peninsular Malaysia, with a southern limit to its distribution in mainland Asia of Surat Thani in Thailand (M. Auliya and T. Chan-ard pers. comm. September 2011). This snake is absent from Borneo and Sumatra; Borneo has traditionally been included (erroneously) in the species' distribution based on a record of skins from a port in East Kalimantan (M. Auliya pers. comm. September 2011). In Indonesia it has only been confirmed from Java, Nusa Barung, Bali, Sumbawa, and possibly also Lombok, as well as in south Sulawesi (M. Auliya September 2011). It is absent from the Nicobar and Andaman Islands. Whitaker and Captain (2004) report it from Nepal and Bangladesh. As Python molurus, the species has been reported from between 10 and 4,050m asl. The species is also introduced and established in the wild in southern Florida, USA via the pet trade (Snow et al. 2007), where it has had detrimental impacts on native fauna, and has recently been blamed for localized declines of up to 99% in encounter rates of several common native mammal species since 2000 in some parts of the Everglades National Park, as well as the apparent loss of introduced rabbits and foxes from these sites (Dorcas et al. 2012).
Countries occurrence:	Native: Bangladesh; Cambodia; China (Fujian, Guangdong, Guangxi, Hainan, Sichuan, Yunnan); Hong Kong; India (Arunachal Pradesh); Indonesia (Bali, Jawa, Sulawesi); Lao People's Democratic Republic; Myanmar; Nepal; Thailand; Viet Nam Introduced: Singapore; United States (Florida)
Range Map:	Click here to open the map viewer and explore range.

Population

Population:	This species has declined across its native range through harvesting for the skin, traditional medicine and pet trade, as well as habitat degradation. Zug *et al.* (2011) stated that pythons are rare in Myanmar. It is reported to be rare in Cambodia, Lao PDR and Viet Nnam (Q.T. Nguyen and T. Neang pers. comm. August

	2011). The Vietnam Red Data Book estimates a decline in this species of more than 80% over 10 years in this country (Dang *et al.* 2007). This snake is now very rare in mainland China, as it is heavily exploited for food and skins, with population declines estimated at 90% over ten years (Wang and Xie 2009), although it remains common in Hong Kong where it is a protected species. No population data is available for this species in any part of its Indonesian range (M. Auliya pers. comm. September 2011), however, it is now very rare in Indonesia, and is difficult for even traders to find (M. Auliya and D. Iskandar pers. comm. September 2011). It is common in Thailand, where its protected status is well-enforced (T. Chan-ard pers. comm. August 2011). Although rates of decline are not available for many areas of this snake's range, the observation that it is declining throughout its native range and the scale of declines reported from China and Viet Nam justify a conservative estimate of population declines over the past 10 years in excess of 30%, and potentially close to or exceeding 50% over the preceding ten years, with declines ongoing due to heavy exploitation and, to a lesser degree, habitat loss.
Current Population Trend:	Decreasing

Habitat and Ecology [top]

Habitat and Ecology:	The Burmese Python is mostly found in forested areas, including mangrove forests and rainforests, but is also found in grasslands, marshes, streams and rivers, including the Tonle Sap wetland in Cambodia. It is found in wet rocky areas near streams and pools, large rotting logs, large burrows, caves, crevices and old and ruined structures. It has been found inside villages, outside houses, in Cambodia (T. Neang pers. comm. August 2011). It is a good climber and an expert swimmer. It is more nocturnal than diurnal. It feeds on small to large mammals, birds, reptiles and amphibians, preferring to mostly feed on mammals. Breeding occurs in India between December to February after which larger females lay between 80-100 eggs in the months of March and June (Daniel 2002, Whitaker and Captain 2004). Gestation in captivity lasts four months, and eggs have an incubation period of 60 days (Reed and Rodda 2009). In common with almost all snakes, the species reproduces sexually. Exceptionally, however, a female in captivity isolated from males produced viable eggs in five consecutive years; genetic evidence confirmed that the offspring were genetically identical to the mother, making the Burmese Python the only boid snake known to exhibit parthenogenesis (Groot et al.2003). The snake is unusually cold-tolerant for a python, including subtropical areas of China within its native range, and hibernates to survive the winter (B. Stuart and M. Auliya pers. comm. August 2011). Observations from Indonesia suggest that this species prefers more arid environments than the Reticulated Python (Broghammerus reticulatus), with which it is sympatric through most of its range. This ecological niche partitioning allows the two species to exist in syntopy, although the Burmese Python is the rarer of the two around human habitations (M. Auliya pers. comm. September 2011). Captive animals reach sexual maturity at 2-3 years of age with a regular food source (Reed and Rodda 2009), with males maturing earlier than females; generation length in the wild is unknown, but is expected to be at least as long and likely longer. The introduced population in Florida thrives in the wet habitat of the Everglades.
Systems:	Terrestrial
Continuing decline in area, extent and/or quality of habitat:	Yes
Generation Length (years):	10-15

Use and Trade

Use and Trade:	This large constrictor is harvested for food, skin for use in the leather industry, medicinal purposes, and the pet trade. It is known to be used in snake wine in Viet Nam, but in small numbers, with 13 individuals recorded in one recent study (Somaweera and Somaweera 2010). The species is commercially bred in Viet Nam and China, however, production systems vary and Vietnamese operations are reliant on breeding wild-caught individuals, while Chinese systems also breed

	subsequent captive generations and so are not reliant on a regular wild source (M. Auliya pers. comm. March 2012). Trade in this species is illegal in much of its range due to national protection, however, the species is illegally imported into China and source populations for this trade cannot be traced (M. Lau pers. comm. September 2011). The species is kept by collectors and as pets in much of its range (M. Auliya pers. comm. September 2011). Despite public concerns about the introduction of pythons to the Florida Everglades and their low commercial value, thousands are still imported into the United States from Viet Nam as pets (M. Auliya pers. comm. September 2011). The species is also still imported to Europe. China has recently developed a market for low-quality snake skins, largely supplied from west Malaysia, and pythons may also be supplied for this trade.

Threats

Major Threat(s):	This species is under threat due to illegal trade; in China it has been heavily impacted by overexploitation for food and skins, the latter for use both in leather and in traditional musical instruments such as Erheen, Sanxian and hand drums (CITES 2011) and Vietnamese populations are under pressure from a combination of use in food and leather production, export to supply the pet trade, and consumption in snake wine. Similar pressures are presumed to account for the rarity of this species throughout the remainder of its range, for which no quantitative data is available. The subspecies *P. b. progschai*, which has a restricted range in southern Sulawesi, is of some interest in the commercial international pet trade, and may be vulnerable to exploitation, the type specimen having been recorded in a trader's collection (M. Auliya pers. comm. September 2011, Jacobs *et al.* 2009). Despite its designation as a protected species in this country, populations in China exhibit no evidence of recovery, and illegal harvesting is ongoing (M. Lau pers. comm. September 2011). Habitat degradation through slash and burn agriculture in upland areas (Q.T. Nguyen pers. comm. August 2011) may pose a risk by eliminating this snake's prey and making it more vulnerable to exploitation by humans (T. Neang pers. comm. August 2011). Ironically, this is an invasive species that is firmly established in southern Florida, USA, and poses a threat to the ecosystem there by consuming native wildlife (Snow *et al.*2007, Dorcas *et al.* 2012).

Conservation Actions

Conservation Actions:	Curbing harvesting of this species throughout its range is needed if populations are to persist outside Thailand. The biology of the species is being extensively studied in its introduced range in southern Florida (e.g. Snow *et al.* 2007, Dorcas *et al.* 2011, Dorcas*et al.* 2012) due to probable negative impacts on the ecosystem and fear by the U.S. public, and more is now known about the species in its introduced range than its native range. More research is required on native populations throughout its range, including those in Indonesia, China, Viet Nam and Cambodia, particularly to establish the effects of trade on this python (Q.T. Nguyen pers. comm. August 2011). It is listed on CITES Appendix II. It is a protected species in Viet Nam, China, Thailand and Indonesia, and is known from protected areas (Q.T. Nguyen, M. Lau and M. Auliya pers. comm. September 2011). It is listed as Critically Endangered in the Vietnam Red Data Book (Dang *et al.*2007) and in the Chinese national Red List (Wang and Xie 2009).

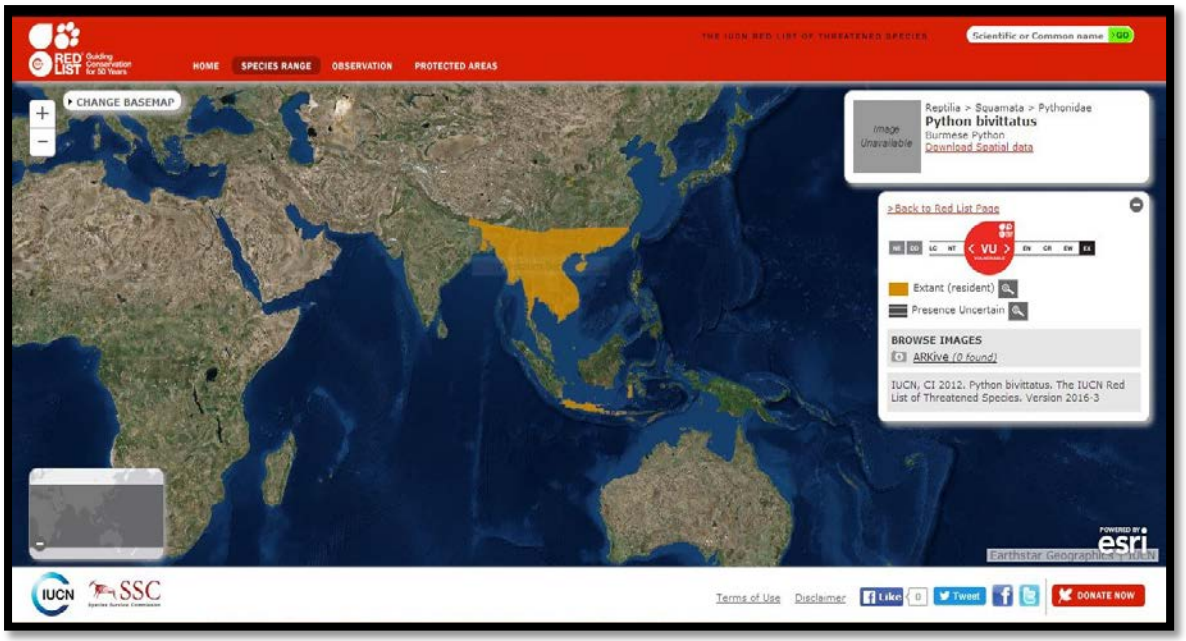

Figure 4.4-10 Range map for Burmese python (*Python bivittatus*)

(iv)Butterfly

A total of 11 species of butterfly belonging to 2 families and 10genus were recorded. Most butterfly are found along the trail.6 species of Nymphalidae, and 5 species of Pieridae. According the IUCN Red List (2018-2), *Euploea core* was listed as least concern and other species were not under any major threatened.

Table 4.4-7 List of Butterfly species recorded in project area

No.	Family Name	Scientific Name	Common Name	IUCN List
1	Pieridae	*Catopsilia pyranthe*	Mottled Emigrant	NE
2	Pieridae	*Ixias pyrene*	Yellow orange-tip	NE
3	Pieridae	*Appias olferna*	Striped Albatross	NE
4	Pieridae	*Eurema hecabe*	Common Grass Yellow	NE
5	Pieridae	*Eurema blanda*	Three-spot grass yellow	NE
6	Nymphalidae	*Danaus genutia*	Common Tiger	NE
7	Nymphalidae	*Acraea violae*	Tawny Coster	NE
8	Nymphalidae	*Cethosia cyane*	Leopard Lacewing	NE
9	Nymphalidae	*Euploea core*	Common crow	LC
10	Nymphalidae	*Neptis hylas*	Common sailor	NE
11	Nymphalidae	*Junonia iphita*	Grey Pansy	NE

NE=Not Evaluated
LC=Least Concerned



Neptis hylas (Common Sailor)



Danaus genutia (Common Tiger)



Euploea core (Common Crow)



Acraea violae (Tawny Coster)

Figure 4.4-11 Image of Butterfly species recorded in project area

(v) Dragonfly

Only one species of dragonflies is observed from the study area. Species of dragonfly are family Libellulidae. There are no endangered species (IUCN red list 2016-3.1) present at the project site.

Table 4.4-8 List of dragonfly species recorded in projected area

No.	Family Name	Scientific Name	Common Name	IUCN List
1	Libellulidae	*Bradinopyga geminata*	Granite Ghost	LC

LC=Least Concerned



Bradinopyga geminata (Granite Ghost)

Figure 4.4-12 Image of dragonfly species recorded in project area.

(vi) Fish

Field surveys and interviews with local people who lived near the study area were conducted during the collection of the specimens. Fishing activities are mostly traditional method. A total of 11species distributed 7 Family were identified and recorded from near the project the area. The most occurrence species are *Notopterus notopterus, Trichogaster pectotalis* in the study area. The dominant Family is Cyprinidae. According to the IUCN Red List of threatened species, all species were least concerned and not evaluated.

Table 4.4-9 List of fish species recorded in project area.

No	Family	Species	Common Name	IUCN
1	Notopteridae	*Notopterus notopterus*	Grey feather-back	LC
2	Clupeidae	*Gudusia variegate*	Burmese River shad	LC
3	Cyprinidae	*Cirrhinus mrigala*	Mrigal	LC
4	Cyprinidae	*Catla catla*	Catla	LC
5	Cyprinidae	*Puntius Chola*	Chola barb	LC
6	Cyprinidae	*Labeo rohita*	Rohu	LC
7	Bagridae	*Mystus cavasius*	Gangetic mystus	LC
8	Gobiidae	*Glossogobius giuris*	Tank goby	Not list
9	Cichidae http://www.catalogueoflife.org/col/browse/tree/id/d0e00b2114d51ae048336b847ed0ce1d	*Oreochromis spp*	Talipa	LC
10	Belontiidae	*Colisa labiosa*	Stripled gourami	LC
11	Belontiidae	*Trichogaster pectotalis*	Snakeskin gourami	LC

NE = Not Evaluated
LC = Least Concerned
NT = Near Threatened



Figure 4.4-13 Image of Fish species recorded in project area

Conclusion

A total of 50 plant species, 3 species of Mammals, 5 species of Reptiles and Amphibian, 30 species of Birds, 11 species of Butterflies, 1 species of Dragonfly and 11 species of fish were recorded in and around the Project area during the survey period. In this survey, IUCN Status of most fauna species were recorded as Least Concern (LC) and Vulnerable (VU) according to IUCN Red List of Globally Threatened Species (2018-2). During the survey period, species of herpetofauna, dragonfly, snail and mammal were observed fewer than bird, butterfly and fish species.

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4.5 Socio- Economic Environment

Township Boundaries and Populations

ShwePyitThar Township lies between North Latitude 16° 16’ and 17’ 6’ and East Longitude 96° 4’ and 96° 4’. The area from east to west is 3142 square miles and from south to north is 8.2 miles. The proposed project area is located in Shwe Pyi Thar Township which is situated in northwestern part of Yangon City and shares borders with Mingalardon Township and Hlwaga Lake in the east, Htabin township, Hlaing River (Wartayar River) in the west, Hmawbi Township in the north and Insein Township in the south. The proposed project site is situated in industrial zone and its topography is mainly flat land on which some factories are being built.

In the east of the ShwePyiThar Township is paddle watershed, west of the hills and the forest reserves to gradually lower plains elegant flat land are occurring. The eastern hills flow form rainwater flow through the 11 creeks and passes through the west of the Hlaing River (Wartayar).

Table 4.9.1-1 ShwePyiThar Township Area

No.	Township	Township Area	Town	Town area (square mile)
1	ShwePyiThar	25.76	ShwePyiTar	9.25

Source: General Administrative Department, ShwePyiThar Township

Household

The household and population of Shwepyithar Township as of March 2017 is as follow:

Table 4.9.1-2 The household of ShwePyiThar Township

No.	Description	House	Household (Family)	Ward	Village Tract	Village
1	Urban	44475	48441	23	-	-
2	Rural	7955	8768	-	4	5
	Total	**52430**	**57209**	**23**	**4**	**5**

Source: General Administrative Department, ShwePyiThar Township

Table 4.9.1-3 The Demographic composition by Age Group and Sex of ShwePyiThar Township

No.	Description	Above 18			Under 18			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Urban	78154	89908	168062	31725	33061	64786	109879	122969	232848
2	Rural	14081	15965	30046	5375	5452	10827	19456	21417	40873
	Total	92235	105873	198108	37100	38513	75613	129335	144386	273721

Source: General Administrative Department, ShwePyiThar Township

Climate

ShwePyiThar have fair weather and the highest temperature of 38° and a minimum temperature of 30°. Yearly rainfall and temperature caused as described below.

Table 4.9.1-4 Yearly Rainfall and Temperature of ShwePyiThar Township

No.	Year	Rainfall		Temperature	
		Rainy Day	Total Rainfall	Summer	Winter
				Highest	Lowest
1	2013	107	87.78	34	30
2	2014	103	70.88	34	30
3	2015	106	84.91	34	30
4	2016	107	87.78	37	30

5	2017	116	85.89	38	30

Ethnicity

The races residing in ShwePyiThar Township as of March, 2017 is shown in Table 4.3.1-3. About 94 percent of the people who live in these townships are Burma, and a few numbers are other races.

Table 4.9.1-5 The Ethnicity of ShwePyiThar Township (as of April 2017)

No.	Race	Residential Population	Township Population	Township population%
1	Kachin	375	273721	0.14%
2	Kayar	76	273721	0.03%
3	Kayin	5324	273721	1.95%
4	Chin	1392	273721	0.51%
5	Mon	1655	273721	0.61%
6	Burma	256917	273721	93.86
7	Rakhine	5743	273721	2.10%
8	Shan	514	273721	0.19%
	Total	271996	273721	99.37%

Source: General Administrative Department, ShwePyiThar Township

Religion

The different kind of religion present in ShwePyiThar Township is shown in the following table. More than 90% of the people living in the township are Buddhists. There are also Christians, Muslims and Hindu believers.

Table 4.9.1-6 The Religion of ShwePyiThar Township

No.	Township	Buddhist	Christian	Hindi	Islam	Other	Total
1	***Shwepyithar***	*258467*	*7072*	*2716*	*5266*	*200*	*273721*

Source: General Administrative Department ShwePyiThar Township

4.9.2 Industries and Economic Activities of Shwepyithar Township

Economic Status

Shwepyithar Township is located in Norther Yangon region and is an economically developing township. Township local people tend to operate mainly in factories. Sheweyithar Township can access other region by road, waterway and also good transportation. The main township products are consumer goods and exported to most other parts of the country. Shwepyithar Township is mainly imported products from the market.

Table 4.9.2-1 The Economic status of ShwePyiThar Township

No.	Name of Township	No. of Industrial	No. of factories	No. of Workshops	No. of Small scale/ domestic enterprises	Total
1	***Shwepyithar***	*4*	*220*	*0*	*282*	*296*

Source: General Administrative Department ShwePyiThar Township

Occupational Status

According to the Township General Administration Department Offices, the occupational status of the targeted townships is shown in Table 4.9.2-2.

Table 4.9.2-2 The Occupational status of ShwePyiThar Township

No	No. of workable person	No. of employed person	No. of Unemployed person	% of Unemployed person

	134909	114893	20016	14.85%

Source: General Administrative Department ShwePyiThar Township

Table 4.5.2-3 The Livelihood of ShwePyiThar Township

No.	Government Staff	Service	Agricultural	Livestock	Sales	Machinery	Fisheries	Causal	Other	Total
1	1846	25664	993	3448	21627	779	54	41413	19069	114893

Source: General Administrative Department, ShwePyiThar Township

Income Status

Based on the secondary data received from the related GAD offices, the income of the person of a year from 2015 to 2017 could be identified as follow Table 4.9.2-4.

Table 4.9.2-4 The average individual annual income status of ShwePyiThar Township (Per Capita GDP)

No.	2014-15	2015-16	2016-17
1	1783773	1688.712	-

Source: General Administrative Department, ShwePyiThar Township

Social Infrastructures

Information on socio-economic infrastructures, such as banks, markets, hotels, lodging houses etc are collected much as possible for the township. Table 4.5.2-5 shows the number of different economic activities for township.

Table 4.9.2-5 The Socioeconomic Infrastructure of ShwePyiThar Township

No.	Name of Township	Hotel	Lodging House	Beach/Recreation Zone	Bank	Market	News & Media Printing House	Hospital	Clinic
	Shwepyithar	0	1	0	5	9	285	3	0

Source: General Administrative Department, ShwePyiThar Township

Table 4.9.2-6 The Status of the education facilities in ShwePyiThar Township

No	Name of Township	No. of University/ College	No. of High School	No. of Middle School	No. of Primary School	No. of Pre School	Monastery Education School
1	**Shwepyithar**	1	4	1	43	1	12

Source: General Administrative Department, ShwePyiThar Township

Table 4.9.2-7 The Religious Building of ShwePyiThar Township

No.	Pagoda	Statue	Temples	Monastery	Convent School	Chapels
1	3	3	-	178	30	27

Source: General Administrative Department, ShwePyiThar Township

Health facilities

Table 4.9.2-8 Health facilities at ShwePyiThar Township

No.	Name of Hospital	Government/Private	Total no. of bedstead

1	Township Hospital	Government	25

Source: General Administrative Department, ShwePyiThar Township

The most common diseases in the Shwepyithar Township are shown in Table 4.5.2-9.

Table 4.9.2-9 Most Common Diseases at ShwePyiThar Township

No	**Type of Diseases**									
1	**Malaria**		**Diarrhea**		**TB**		**Dysentery**		**Hepatic**	
	Suffer	**Death**	**Suffer**	**Death**	**Suffer**	**Death**	**Suffer**	**Death**	**Suffer**	**Death**
	-	-	62	-	162	-	75	-	-	-

Source: General Administrative Department, ShwePyiThar Township

4.5.3 Transportation of ShwePyiThar Township

Highway

Table 4.9.3-1 Highway facilities at ShwePyiThar Township

No.	**No. of YBS**	**Within Township**		**Mile**
		From	**To**	
1	39	Hlawgar	Mawtin	84
2	40	Lainkone	Takinmya Park	55
3	42	Lainkone	Thanlyin	90
4	44	Hlawgar	Hlagu	28
5	65	15 Ward	Botahtaung	45
6	69	17 Ward	Dagon Ayeyar Highway Hlaing Thar Yar	32
7	72	War Ta Yar	Western University	45
8	73	17 Ward	Htauk kyant	55
9	74	19 Ward	Shwedagon Pagoda	42
10	77	Hlwgartarsone	Hlagu	35
	10		**Hlwaga**	**511**

Table 4.9.3-2 Waterway facilities at ShwePyiThar Township

No.	**Name of Waterway**	**Within Township**		**Mile**	**Jetty**
		From	**To**		
1	1	18 Ward	Wartayar	4.2	1

4.5.1 Objective of the Study

The objective of the socio-economic resources is to assess the information related with the socio-economic resources condition of the people living in and near the project area. This information is useful for analyzing the potential impacts caused by the project's activities, and then, based on these impacts actions will be taken to mitigate or reduce the potential impacts, if the negative impacts occur.

4.5.2 Methodology of the Study

Data Collection and Observation in the Field

The ESIA team visited stakeholders for participatory facilitation through quantitative and qualitative study, focus group discussions and other participatory exercise as follows:

• In-depth interviews with key informants utilizing review instruments such as open-ended and closed-ended questionnaires for the collection of both qualitative and quantitative data

• Review activities conducted in the field and initial analysis of findings and feedback to key project staffs

• Data analysis (using appropriate methods for data analysis) data entry, data cleaning, data processing, recording, feedback to key project staffs

a. **Secondary Data Collection:** Baseline data from the regional government, academics and existing report, etc., were collected. The secondary data sources included reports, field documents, monographs, information leaflets/booklets, manuals, written order and instruction, statement of the government organization.
b. **Primary data Collection:** Primary data collection through direct observation, interview, individual/target group consultation for socio-economic resources (demography/residence), economic status (by age, sex, education, occupation, ethnical group and income, expenditure, loan and indebtedness, land ownership, infrastructure, public health and civilization).

The social survey was participatory in nature and made use of focus groups. The survey tools and methodology used was developed by the ESIA team. The stakeholders were farmers, livestock owners, small business, village general administration body and village tract general administrative body. It is aimed at receiving public recommendations and feed backs upon the development of the proposed project.

4.5.3 Methodology of the determination of sample size

Social survey team selected the adjacent four residential areas and also survey in factory compound in ShwePyiThar Township. Total 84 households were selected by stratified random sampling method. R-1 represents No.14 Ward village wherein interview was made to total 11 households. R-2 represents BoneShaeKone village, R-3 represents KyaungKone, R-4 is No.4 Ward and the final R-5 is the people who works in the ShweDaehan factory.



4.5.4 Demographic Profile

ShwePyiThar Township lies between North Latitude 16° 16’ and 17’ 6’ and East Longitude 96° 4’ and 96° 4’. The area from east to west is 3142 square miles and from south to north is 8.2 miles. The proposed project area is located in Shwe Pyi Thar Township which is situated in northwestern part of Yangon City and shares borders with Mingalardon Township and Hlwaga Lake in the east, Htabin township, Hlaing River (Wartayar River) in the west, Hmawbi Township in the north and Insein Township in the south. The proposed project site is situated in industrial zone and its topography is mainly flat land on which some factories are being built.

In the east of the ShwePyiThar Township is paddle watershed, west of the hills and the forest reserves to gradually lower plains elegant flat land are occurring. The eastern hills flow form rainwater flow through the 11 creeks and passes through the west of the Hlaing River (Wartayar).

Gender

The data from figure presents the distribution of respondents by gender. The survey finding shows that about 90% of respondents were male, respectively found in R-3 and at R-4 are female about 6 respondents among total 84 respondents. It can be summarized as respondents’ gender ratio is influence by male between male and female in total.

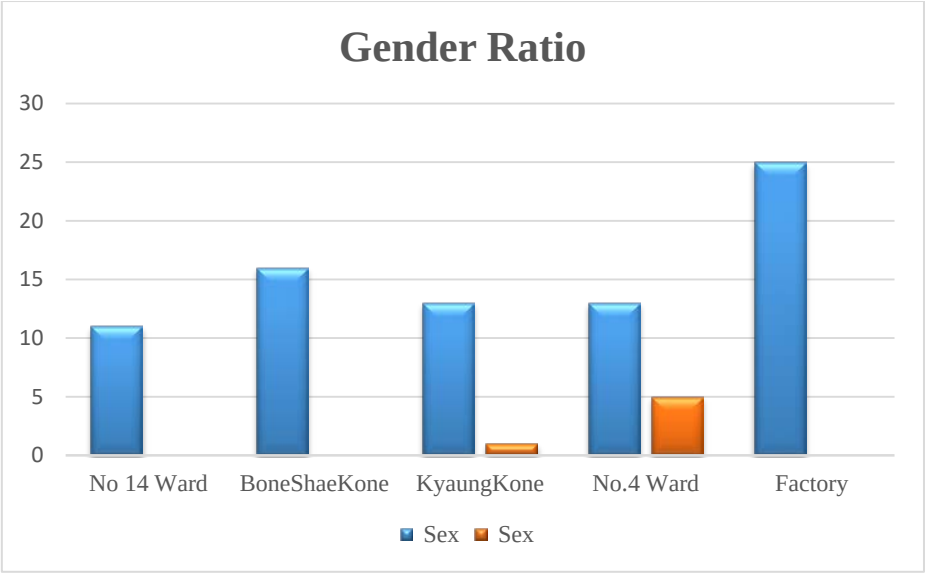


Figure 4.5-1 Distribution of respondents by gender

Age

Age group of respondents are presented by four groups with the youngest age is about 20 years and the oldest age is about 65 years old. According to the collected data, it can be clearly seen that most of the respondents are within the working age with full experiences and skills at both R-1, R-2, R-3, R4 and R5. The largest number of respondents is between 20-34 years by 36%. The second largest number of respondents according to the data is 50-64 years 27% and 24% and 13% of the other two age group respectively.

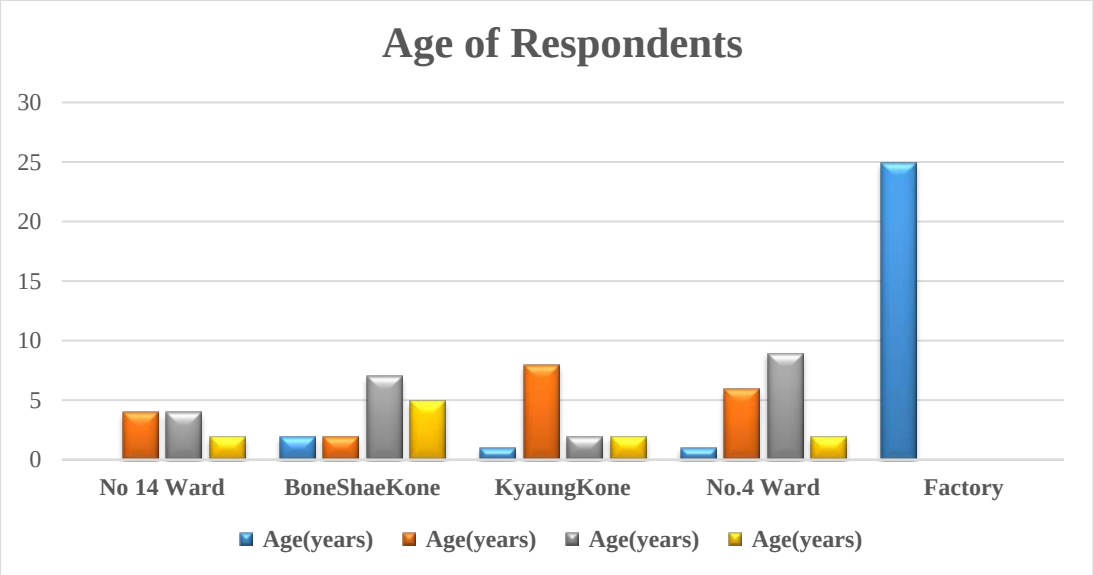


Figure 4.5-2 Distribution of respondents age

Household size

Total household numbers at respective study area were collected by classifying three groups;1) 0-2 persons; 2) 3-5 persons;3) 6-8 persons. It was observed that total of 11 household fall into no.1 group out of 84 respondents, 46 household fall into no.2 and 37 household on no.3 groups respectively.

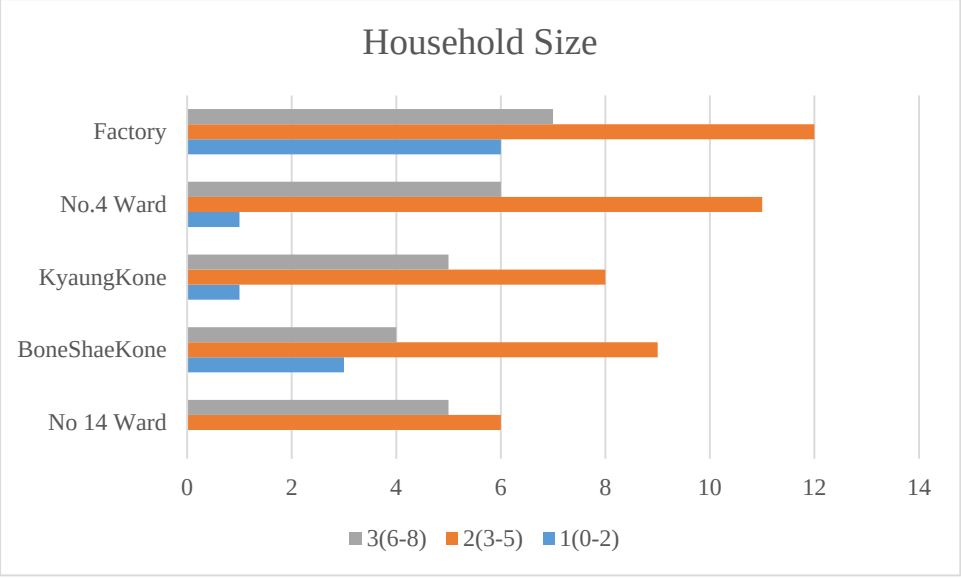


Figure 4.5-3 Distribution of Household Size

4.5.5 Economic Profile

Income Sources

The main sources of livelihood of respondents are formal employments with the government and industries, selling goods. The distribution income sources are fairly by various sectors as shown in figure 4.4.-4. Among various sectors, working at the nearby factories stands at the largest income source for the respondents by 33% because of the industrial zone followed by shopkeeper with 16%. Nearly about 10% of respondents are working administrator and few percent of the respondent are Taxi driver. Out of all, 10% of the respondents are dependents.

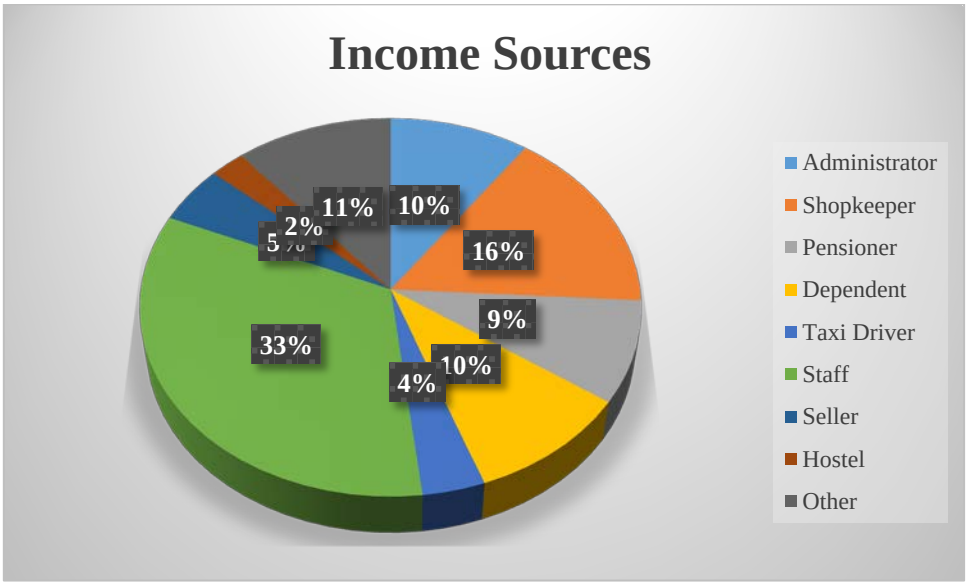


Figure 4.5-6 Distribution of Income Sources

Daily Income

Daily income of respondents had been grouped into four categories based on the lowest income from total household sampled with the purpose of establishing the baseline income amount to figure out socio-economic impact from proposed factory. Total 84 people responded this question.

Overall, it was observed that 25 % of the total respondents can be specified as highest class (ranging from 700000-100000 MMK) and 44% are specified as the middle class (ranging from 400000-600000) the other 3 % are living on the monthly income (below 100000 MMK) meanwhile the remaining 12% earns ranging from 12000- 20000 MMK according to the income data. Most of those high earner gets money by running small own business such as renting house and selling.

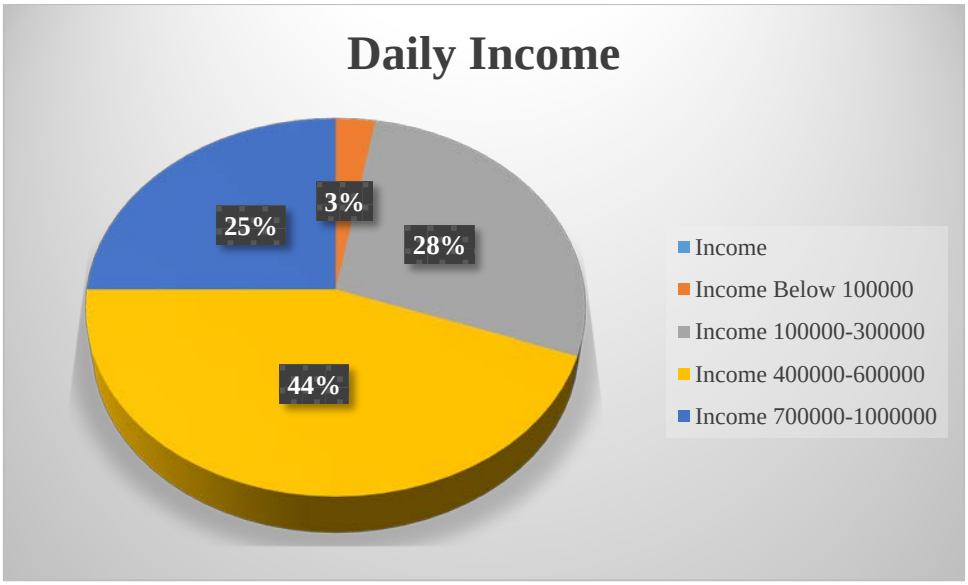


Figure 4.5-7 Distribution of Income

4.5.6 Health Profile

Good health is considered a pre-requisite for socio economic development of any country since healthy population is capable of participating in economic, social and political development.

(1) Available Health Facilities

As stated in the GAD report (2017), there are one hospital, two rural health care centres operating under government by 4 doctors and 13 nurses with 14 private health care centres for the whole township area. In case of hospitalization, the available health facility is Insein Hospital and the clinic nearby.

Infrastructure

ShwePyiThar township is one of the most accessible area as Bogyoke Aungsan Road, Bayint Naung Road and No-3 Highway Road are the most popular Road in the town. Therefore, the survey team collected the data regarding transportation facilities within the study area. It was observed that nearly 90% of total respondents are using bus which indicates that the potential for accident risks will be low while traffic flow within the study area becomes high.

(2) Water sources and usage

Overall, the majority of households surveyed used municipal water following by other sources from tube well.

Energy Source

All of the households in the project are rely on the national grid line.

Opinions of Respondents

As public consultation is useful for gathering environmental historical data, understanding likely impacts, determining community and individual preferences and sustainable mitigation plans, respondents were asked their opinion upon potential negative and positive impacts caused by the

developing of proposed project. Participation is a process through which different stakeholders influence and share their views regarding development initiatives and the decisions and resources that affect them, herein, the detail of respondents' opinions and historical environmental events are presented.

Socio economic baseline data were carried out in 16th and 17th January, 2019 at the nearest residential areas which are approximately within 1 km of the proposed site. Total 84 people were interviewed by dividing two themes; their current socio-economic conditions and their opinions upon the proposed project. It was found that there would be no significant negative impact on the social and religious infrastructures of local residents as the proposed site is within the industrial zone.
Regarding to the income, most respondents from all wards are positively expecting that the proposed project would increase their family income throughout employing them as well as technology and opportunities of work.
In addition, the history of environmental pollution relating to air emission, noise and wastewater discharge were asked. It has been noted that there is no chemical hazard or unpleasant smell form current surface water bodies within the study area. Unexpectedly, it has been found that the environmental knowledge of local responded are relating to their background education level.
Regarding to the opinion of respondents upon the project for local and regional development, almost 100% of the respondents showed positive opinion in the aspect of the job opportunities and improve technology.

Summary
Socio economic baseline data were carried out in 16th and 17th January, 2019 at the nearest residential areas which are approximately within 1 km of the proposed site. Total 84 people were interviewed by dividing two themes; their current socio-economic conditions and their opinions upon the proposed project. It was found that there would be no significant negative impact on the social and religious infrastructures of local residents as the proposed site is within the industrial zone.

4.6 Emergency Risk

(1) Natural Hazard

The "Hazard Profile of Myanmar" prepared by the five government ministries and department of Myanmar and four non-governmental agencies in July 2009 describes the nine types of disasters in Myanmar, as follows: 1) Cyclone, 2) Drought/Dry Zone, 3) Earthquake, 4) Fire, 5) Flood, 6) Forest Fire, 7) Landslide, 8) Storm, and 9) Tsunami. Among these, some notable natural hazards are described below.

(2) Flood

Flood in Greater Yangon can be classified into three types: i) river flood; ii) localized flood inundation in urban areas due to the combination of factors such as cloudburst, poor infiltration rate, poor drainage infrastructure (possibly due to climate, heat island phenomenon); and in rural areas due to decrepit dams, dikes and levees, and iii) flood due to cyclone and storm surge.

Past major flood events from 1997 to 2007 are described in the "Hazard Profile of Myanmar", but there are only a few flood events recorded in and around Greater Yangon as shown in Table 4.6-1.

Table 4.6-1 Flood events recorded in and around Greater Yangon

Location	Date	No. of Affected	Affected Population	Deaths	Remark

		Households			
Kayan Township	7 June 1997	1,189	5,878	0	North part of the region
Hta/16 Ward, Shwe Pyi Thar Township	8 September 2002	886	4,541	0	Along the left bank of the Hlaing River in Greater Yangon

Large-scale floods rarely happen since the area is protected due to the construction of banks along the Yangon River and Bago River.

(3) Cyclone

Cyclones that originate from the Bay of Bengal generally move westward to India and then turn toward Bangladesh and Myanmar. Severe cyclones tend to occur either during the pre-monsoon season from April to May or the post-monsoon season from October to November.

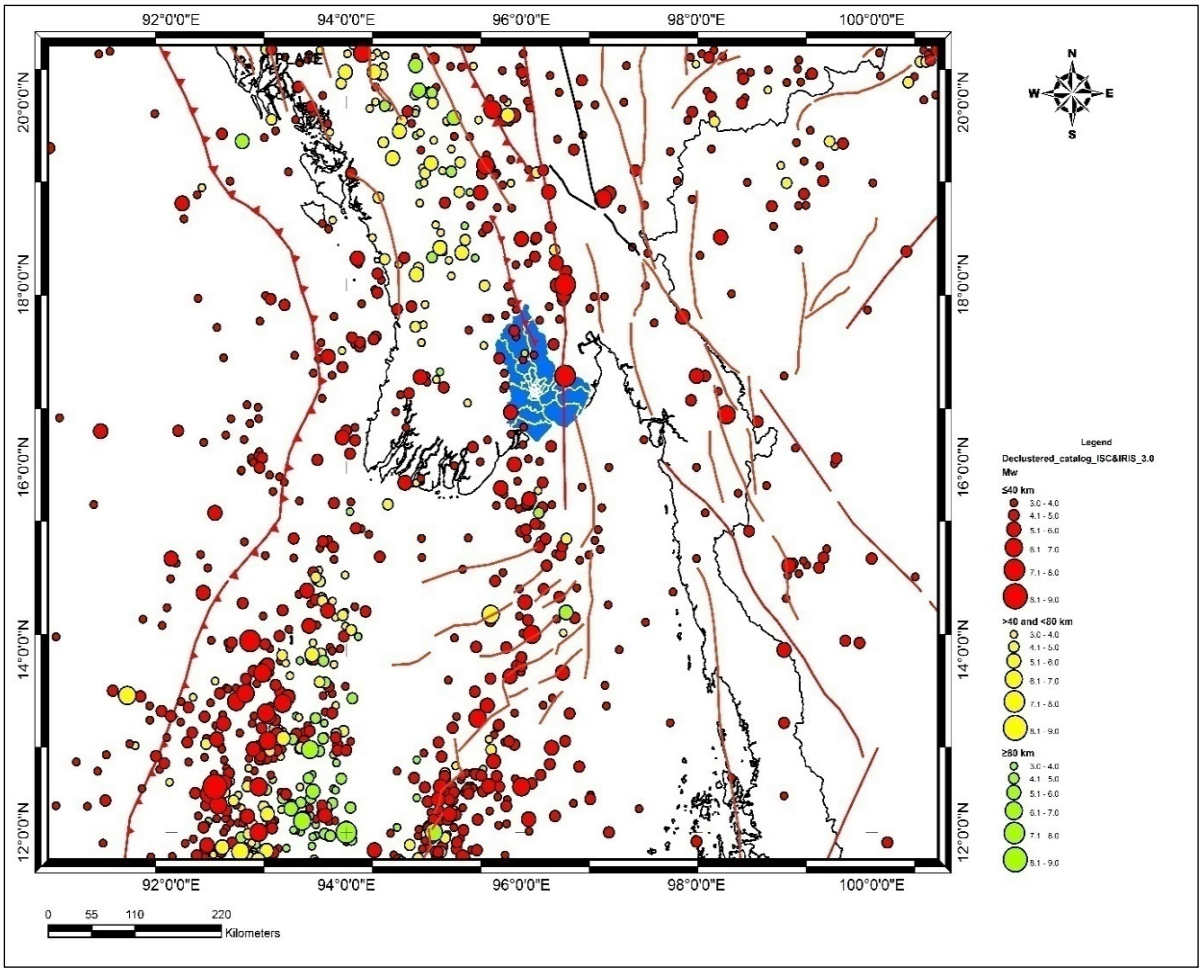
Cyclones have three destructive force, namelt: i) storm surge, ii) heavy rainfall, and iii) strong winds. According to the "Hazard Profile of Myanmar." 1,248 tropical storms formed in the Bay of Bengal during the period from 1887 to 2005, of which 80 storms (6.4% of the total) hit Myanmar's coast. In total, 12 cyclones caused severe damage in Myanmar mainly due to the accompanying storm surge, and the highest death or missing tool was at 138,373 caused by Cyclone Nargis in May 2008.

Cyclone Nargis also hit Greater Yangon and floodwater spread on a number of townships around Yangon City. Most of the inundated areas during Cyclone Nargis were the Dala, Twantay, Htantabin, and Hlegu areas.

(4) Earthquake

In the Bay of Bengal, west of Myanmar, there is the Andaman Trench, where the Indian Plate is moving northward and subducting underneath the Burma Plate from west to east. In east Myanmar, there is the Sagaing Fault, which is the boundary between the Burma Plate and Sunda Plate. Hence, a magnitude 7.0+ earthquake has occurred more than 16 times, and six earthquakes of around magnitude 7.0 hit the cities along the Sagaing Fault such as Yangon, Bago and Mandalay from 1930 to 1956. Significantly, Yangon experienced six huge earthquakes around the 1930s.

Based on the seismicity and the records of the previous considerably high magnitude earthquakes, Yangon Region can be assumed as low to medium seismicity region. Some of the large earthquakes that caused the considerable damages to some buildings and some casualties in and around Yangon Region can be recognized in the past records, e.g. the magnitude 7.3, earthquake that struck on May 5, 1930 and December 3, 1930 earthquake with the same magnitude. The former earthquake, well-known Bago earthquake, caused 50 deaths and great damages in Yangon while 500 casualties were resulted in Bago. The other significant earthquakes are Yangon earthquakes of September 10, 1927 and December 17, 1927. These events also resulted in a certain amount of damage in Yangon. All of these events and their consequences, and the rapid growth of population and various sorts of structures alarm to conduct the seismic hazard analysis for this region and the seismic hazard assessment was therefore performed applying the probabilistic way (Figure 4.6-1).

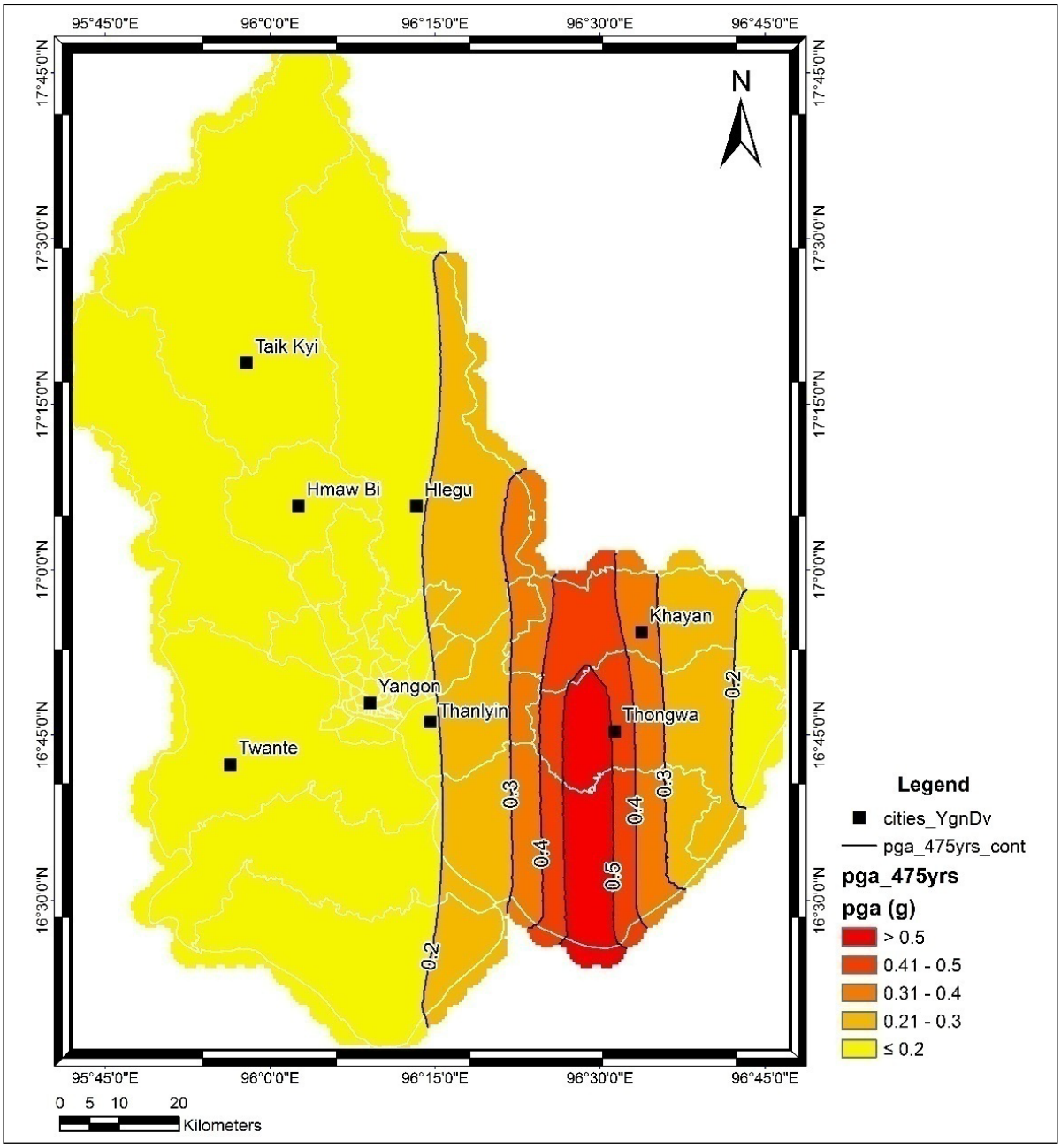


Note: Blue colour shows the Yangon Region.

Figure 4.6-1: The Seismicity of Myanmar (Data Source – ISC earthquake catalog, 2009)

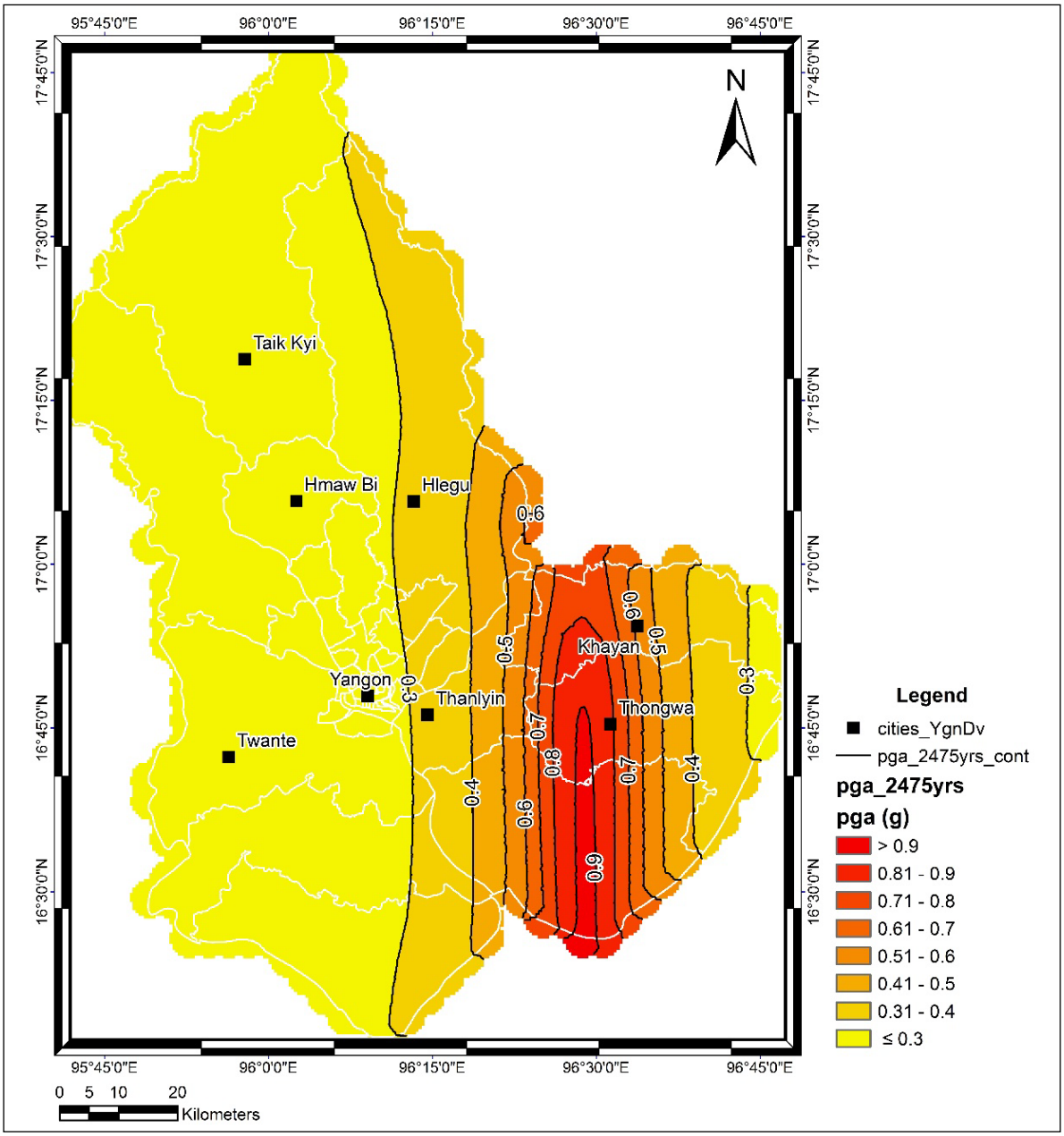
The seismic hazard maps (peak ground acceleration (PGA) at the periods of 0.2s and 1.0s in rock condition) for Yangon Region are depicted in Figure 4.6-2 and Figure 4.6-3. The PGA map predictable in 10% probability of exceedance in 50 years is illustrated in Figure 4.6-2. In this recurrence interval, the maximum seismic hazard zone comprises the eastern portion of Yangon Region with value of > 0.5g, while the minimum hazard areas are in western portion and the eastern margin with the value of < 0.2 g.

The probabilistic seismic hazard map of PGA for 2% probability of exceedance in 50 years is shown in Figure 4.6-2. The maximum PGA is > 0.9g which also comprises of the eastern portion of Yangon Region as in the hazard distribution of 10% probability of exceedance in 50 years, especially along the areas lie along the Sagaing Fault. The minimum seismic hazard zones can be observed in the western part of the Yangon Region with PGA value of < 0.2g, whereas the Project area is also situated.



Source: Probabilistic seismic hazard map of Yangon Region, Myo Thant, 2012ASEAN Engineering Journal, vol.3 no., 2.

Figure 4.6-2: Probabilistic Seismic Hazard (PGA) Map of Yangon Region with 10% Probability of Exceedance in 50 Years



Source: Probabilistic Seismic Hazard Map of Yangon Region, Myo Thant, 2012 ASEAN Engineering Journal, vol.3 no., 2.

Figure 4.6-3: Probabilistic Seismic Hazard (PGA) Map of Yangon Region with 2% Probability of Exceedance in 50 Years

Chapter 5 Environmental and Social Impact Assessment

5.1 Introduction

Assessment of key environmental impacts of the project construction, operation and decommissioning is based on the nature and scope of the project and information on the environment. This chapter outlines the potential positive and negative impacts that will be associated with the project activities. The impacts are predicted by categorizing the activities to be carried out during construction, operation and decommissioning phases.

5.2 Objective of the study

Assessments aim to develop a proper management plan to eliminate or reduce adverse impacts and to augment positive impacts by predicting the consequences of the project development. Therefore, this chapter highlights significant impacts which will be induced by the project.

5.3 Methodology for the Impact Assessment

The assessment of each impact is based on consideration of the magnitude, duration, spatial and frequency of activities which are going to be carried out during each phase of the project as well as on characteristics of the project site. The assessment is both quantitative and qualitative and the significance of each impact is classified into 5 categories overall. The following methodology will be applied to assess the environmental and social impacts of the project mainly on air, water, land, biodiversity, human beings and society. Each source of impact has been assessed by four parameters, magnitude, duration, extent and probability, and each assessment point has 5 scales as illustrated in the Table below:

TABLE 5.3-1 IMPACT ASSESSMENT PARAMETERS AND ITS SCALE

Parameter	Scale				
	1	**2**	**3**	**4**	**5**
Magnitude (M)	Insignificant	small and will have no effect on environment	Moderate and will result in minor changes on environment	High and will result in significant changes on environment	Very high and will result in permanent changes on environment
Duration (D)	0-1 year	2-5 year	6-15 year	Life of operation	Post Closure
Extent (E)	Limited to the site	Limited to the local area	Limited to the region	National	International
Probability (P)	Very improbable	Improbable	Probable	Highly probable	Definite

(Source: International Association of Impact Assessment-IAIA, 2014,www.iaia.org)

Then, the significant Point (SP) is calculated by the following formula.

Significant Point (SP) = (Magnitude + Duration + Extent) * Probability

Impact Significance: Based on calculated significant point, impact significance can be categorized as follows:

Explantation

Significant Point (SP) = (Magnitude + Duration + Extent) * Probability

Impact Significance

Significant Point (SP)	Impact Significance
<15	No impact (-)
15-29	Low impact (U)
30-44	Moderate significant (C)
45-59	High significant (B)
> 60	Very high significant (A)

(Source: International Association of Impact Assessment-IAIA, 2014, www.iaia.org)

5.4 Identification of Environmental Impacts

5.4.1 Negative Impacts of Construction Activities

The construction activities involve civil works, mechanical works and electrical works. All three types of works will be the largest in scope and magnitude in the construction of onsite facilities. In addition to these core construction works, there will also be landscaping works and minor civil works. During the construction period, the construction contractor will erect temporary facilities such as worker camps, office buildings, fence, equipment shed, water supply, drainage, oil storage, canteen, toilets, etc. The preparatory works would include land clearing and leveling, land filling to raise the elevation of the project. The following impacts are expected to be occurred during the construction phase.

5.4.1.1 Natural Environment

(a) Soil Erosion and Increase Sediments

Once project implementation begins, there will be some impacts on the soil leading to erosion effects. Clearance of land and excavation works will lead to increased soil erosion that may cause impact to soil system and its quality at the project site and release of sediments into the drainage systems and the adjacent run off path especially during the rainy season. Uncontrolled soil erosion can have adverse effects on the local water bodies**.** Thus, the appropriate and timely control measures will arrest and minimize soil loss and siltation as well as the sedimentation along the gentle slope and water courses. The measures should be affected immediately after subsequent construction activities to prevent extended exposure to the agents of erosion and as per the management plan and monitoring recommendations.

(b) Waste Generation

Significant quantities of waste will be generated at the site during construction of the buildings and related infrastructures. Environmental impacts resulting from concrete batching plant operations, use of blinding cement on roadways, wash-out during construction, poor integrity of shuttering. Discharge to water bodies and pH impact on peat land (where relevant) should be avoided. Such waste will consist of metal cuttings, rejected materials, surplus materials, excavated materials, paper bags, empty cartons, empty paint and solvent containers and broken glass among others. Such solid waste materials can be injurious to the environment through blockage of drainage systems, choking of water bodies and negative impacts on human and animal health. This may be highlighted by the fact that some of the waste materials contain hazardous substances such as paints, cement, adhesives and cleaning solvents, while some of the waste materials including metal cuttings and plastic containers are non-biodegradable and can have long-term and cumulative effects on the environment. Poor waste management may lead to health effects, anesthetic appearance of the place and even

increase project cost. Collection and disposal of the solid waste will be done by a licensed waste collector for disposal off site.

(c) Dust Generation

During construction, the project will generate substantial quantities of dust at the construction site and its surroundings. The sources of the dust emissions will include excavation and leveling works, and to a small extent, transport vehicles delivering building materials. Emission of large quantities of dust may lead to significant impacts on construction workers and the local residents, which is likely to be accentuated during dry weather conditions.

(d) Noise and Vibration

The short-term impact of noise and vibration are likely to be found at this phase. They are inherently temporary in duration, but sometimes may have longer lasting effects. The construction works, delivery of building materials by heavy trucks and the use of machinery/equipment including metal grinders and concrete mixers may contribute high levels of noise and vibration within the construction site and surrounding area. Elevated noise levels within the site can affect project workers and the nearby residents, passers-by and other persons in within the vicinity of the project site.

(e) Exhaust Emissions

The trucks are used to transport various building materials from their sources to the project site will contribute to increase in emissions of CO_2, NO_x and fine particulates along the way as a result of diesel combustion. Such emissions can lead to several environmental impacts including global warming and health impacts. Because large quantities of building materials are required, some of which are sourced outside, such emissions may affect a wider geographical area. The impacts of such emissions can be greater in areas especially where the materials are sourced as a result of frequent vehicle turning and slow vehicle movement in the loading and offloading areas during construction period.

(f) Water Use

During the construction period, water supply will be required for cementing the structures in the foundation and concrete columns of which the steel structure will be erected from and during construction of the control room /offices and residential units. Hence, large quantities of water will be abstract from the premises borehole. Water usage can be increased due to the construction workers and new comers. Excessive water use may negatively impact on the water source and its sustainability.

(h) Water Pollution

During construction, wastewater will be disposed off- site with the use of temporary toilet facilities to be used by the workers and visitors of the construction site. In addition to that water pollution may occur if discharge of solid waste and liquid waste from the temporary settlement of construction workers are not properly handled and managed.

5.4.1.2 Biological Resources

(a) Flora

During the survey period, there were two major habitat types were observed namely (1) Shrub land, (2) Bush land area at the proposed site. Nonetheless, clearing of existing vegetation may leads to loss of present habitats. The loss of the habitats during the construction period is expected to have indirect impacts on the surrounding habitat areas and associated biota. Plants confined to existing area will be eliminated and associated animals will be reduced. In addition, the habitats within the project area will be subjected for temporary or indirect damaging or even destruction by activities such as site clearance, site formation, excavation, and land transportation of spoil. Uncontrolled discharges of wastewater to downstream may cause adverse impacts to stream ecology and health. In addition, construction earthworks for roads (to project site) and foundation laying (for industry facilities) will release dust particles into the ambient air. When a lot of dust settles on the leaves, it is bound to have negative effects on flora as it covers leaf stomata thus reducing their photosynthetic activity.

(b) Fauna

During construction period, many species of fauna depend on comprises of grass and small patches of bamboo and other shrub and herb in these study area as their habitats. The vegetation also supports good shelter for many wildlife species. Some places in the construction area are likely to be lost due to direct and indirect construction activities for resident animals. Animals can run away by the noise of construction machines and equipment. The habitats of fauna can be moved being shocked because of human impacts by labors of the factory during construction period. The construction works and the movement of spoil along haul roads are expected to create total suspended particulates and respirable suspended particulates problems which can affect the habitats nearby. They can cause vegetation damage, which in turn, have secondary effects on associated fauna, such as insects and birds. The impacts are classified and their range varies in space and time. The intensity of theses impacts (negative and positive) is classified according to the following criteria:

- ❒ Reduction of the species diversity
- ❒ Loss of habitats

According to the survey results, no threatened of bird species recorded and one vulnerable species of reptile were also recorded as according to the IUCN Global Threatened Status (2018). There were no globally threatened species of Fish, Mammal, butterfly and dragonfly according to the IUCN Red List of threatened species (2018). There was one endemic species of birds in project area.

5.4.1.3 Onsite Occupational Health and Safety

(a) Physical Hazards

Because of the intensive engineering and construction activities including erection and fastening of roofing materials, metal grinding and cutting, concrete work, steel erection and welding among others, construction workers will be exposed to risks of accidents and injuries. Such injuries can result from accidental falls from high elevations, injuries from hand tools and construction equipment cuts from sharp edges of metal sheets and collapse of building sections among others.

(b) Exposure to Noise and Vibration

Normal construction noise and vibrations typical to those of construction works will be generated at the project site during this phase. This noise impact is expected to be negative in the long and short-term. The major sources of noises and vibration will be construction equipment vehicles and workers. Elevated noise and vibration levels within the site are averse to the health and safety of the project workers, the residents, passers-by and, other persons and animals within the vicinity of the project site. The major receptors exposed to the noise are expected to be at a minimum and will include mainly the construction workers.

(c) Communicable Diseases

The project will attract new people to the project area and this can lead to several repercussions leading to the spread of HIV/AIDS and/or other sexually transmitted diseases (STDs). Influx of new people to the project area especially construction workers can affect the number of new cases of HIV, because they often interfere with an otherwise stable situation but the contrary can also happen where the newcomers find themselves at higher risk. Another health concern during construction is diarrhea due to the poor sanitation facilities.

(d) Risk of Fire

Risk of fire would increase due to the construction works and laborer camp. However, it would be limited because the proponent will regulate and apply the "building construction and fire safety" in the project area. According to this rule, investors shall apply for a Fire Safety Certificate to the Construction Section through the front of the project before construction.

5.4.1.4 Socio-Economic Resources

(a) Land Utilization

As the residential houses are situated far away from the factory, the impacts from construction activities will not affect on those people. As the factory is planned to construct in the industrial zone, disputes for land utilization of the local people are negligible.

(b) Water Utilization of Local Community

As factory will use water from boreholes at this phase, the impacts on quantity of nearby water courses are likely to be small. However, the factory requires assuring not to affect the hydrology pattern of nearby tube wells and water use of the local people.

(c) Safety

During the construction phase traffic will be busy by transporting construction materials to the site. In such a case, it is probable that accidents may occur due to carelessness. However, the possibility is very rare as the premise is far from residential areas.

5.4.2 Positive Environmental and Social Impacts of Construction Activities

(a) Creation of Employment Opportunities

Several employment opportunities will be created for construction workers during the construction and operation phases of the project. This will be a significant impact since unemployment is currently quite high in the area and the country at large.

(b) Provision of Market for supply of Building Materials

The project will require supply of large quantities of building materials most of which will be sourced locally. This provides a market for building material suppliers such as quarrying companies, hardware shops and individuals with such materials.

(c) Increased Business Opportunities

The larger number of project staff required will provide ready market for various goods and services, leading to several business opportunities for small-scale traders such as food vendors around the construction site.

Assessment summary

Hence, the possible sources of negative impacts during the construction phase and its significance are presented as follows:

Table 5.4-1 Analysis Potential Impacts During the Construction Phase

Impacts	Significance of potential impacts					Impact Significant
	M	D	E	P	SP	
Physical Resources						
Soil erosion	4	4	1	4	36	Moderate
Solid waste generation and disposal	4	3	1	4	32	Moderate
Dust Generation	4	1	2	4	32	Moderate
Noise and vibration	4	1	2	4	32	Moderate
Exhaust emission	4	1	2	4	32	Moderate
Water Demand	4	1	2	4	32	Moderate
Water Pollution	4	1	2	4	32	Moderate
Biological Resources						
Flora	4	3	2	4	36	Moderate
Fauna	4	3	2	4	36	Moderate
Occupational Health and Safety						
Physical hazards	4	4	2	3	33	Moderate
Exposure to noise and vibration	4	3	2	3	27	Moderate
Communicable Diseases	3	3	1	3	21	Low
Socio-economic Resources						
Land Utilization	1	1	2	5	20	Low
Water Utilization	4	1	2	3	21	Low
Safety	3	2	2	3	21	Low

Environmental Mitigation Measures for Negative Impacts Encountered During Construction Phase

TABLE 5.4-2 ENVIRONMENTAL MITIGATION MEASURES FOR CONSTRUCTION PHASE

Impacts	Mitigation Measures
Soil Erosion	✓ Plan proper site clearing or disturbance of the natural vegetation ✓ Contour and minimize length and steepness of slopes ✓ Re-vegetate areas promptly ✓ Design channels and ditches for post-construction flows ✓ Provide lining for steep channel and slopes ✓ Reuse excavated materials in backfilling the trenches or landscaping activities ✓ Use of settlement ponds, silt fences, and water treatment ✓ Reduce washing away of soils and other loose materials by designing proper drainage for wastewater
Non-hazardous material waste generation	✓ Use recycled or refurbished construction materials where possible ✓ Use durable, long-lasting materials ✓ Store and reuse concrete, asphalt and other waste aggregate on site as fill ✓ Store in containerized compartments to reduce fugitive emissions and pollutants from contaminating the environment especially the water bodies ✓ Encourage waste segregation at the source ✓ Domestic related solid waste should be stored temporarily in refuse bins or liner bags before being disposed to identified waste dumping sites in the project area
Noise and Vibration	✓ Use noise control devices, such as temporary noise barriers for impact and blasting activities, and exhaust muffling devices for combustion engines. ✓ Avoid or minimize project transportation through community areas ✓ Keep in good condition of all construction machinery
Exhaust emission	✓ Plan transportation of materials to ensure excessive consumption of fossils fuels (diesel, petrol). ✓ Limit traffic movement within the earmarked project areas ✓ Restrict burning of materials at the project site
Dust emission	✓ Carry out excavation works and traffic routes on site by sprinkling with water regularly to reduce amount of dust generated by the construction trucks ✓ Ensure smooth traffic flow along Industrial Zone Road ✓ Reduce the number of trips done or the number of vehicles on the road by planning the transportation of material properly
Water Use	✓ Storm/Rainwater harvesting and use ✓ Use of localized recirculation systems ✓ Use of dry process technologies ✓ Reuse the cleaning water as much as possible ✓ Record water consumption to monitor the usage and reduce water wastae ✓ Put in place water storage facilities to store water
Water Pollution	✓ Supply workers with proper sanitary facilities which can be in the form of exhaustible mobile toilets ✓ Prevent direct sanitary wastewater discharge into nearby surface water bodies ✓ Prohibit strictly kitchen waste and domestic waste disposing to the nearby stream ✓ Wastewater from concrete batching and aggregate screening should be discharged into nearby sedimentation pools and clean water re-used ✓ A specific area for washing of cement trucks and equipment should be identified and should not be near in water bodies ✓ All equipment must be fueled at properly designed fueling stations
Hazardous material	✓ Provide adequate secondary containment for fuel storage tanks and for the temporary storage of other fluids such as lubricating oils and hydraulic fluids

waste generation	✓ Train workers on the correct transfer and handling of fuels and chemicals
Changes in land form	✓ Ensure there is selective clearing of the vegetation this allows future re-growth and regeneration ✓ Monitor regeneration of natural vegetation as well as the appearance/spread of invasive or opportunistic species within the disturbed areas
Flora and Fauna	✓ Ensure minimal disruption of wild fauna's natural movement, territoriality, and other ecological processes by selective clearing of vegetation ✓ Use indigenous and native species for re-vegetation for trees and shrubs ✓ Monitor waste from the industry and assign responsible person to perform proper waste segregation and disposal.
Physical hazards	✓ Train all the workers for first aid ✓ Clean up excessive waste debris and liquid spills regularly ✓ Use slip retardant footwear ✓ Use control zones and safety monitoring systems ✓ Use a designated and restricted waste disposal area ✓ Maintain clear traffic ways to avoid driving of heavy equipment over loose scrap ✓ Wear appropriate PPE, such as safety glasses with side shields, face shields, hard hats, and safety shoes ✓ Plan and segregate the location of vehicle traffic, machine operation, and walking areas ✓ Control vehicle speed ✓ Use checked and well-maintained devices
Exposure to noise and vibration	✓ Conduct periodic noise measuring and monitoring to determine levels and extent of harmful noise ✓ Clearly label the high noise areas ✓ Provide PPE (hearing protection) to persons operating within or visit identified high noise areas
Communicable diseases	✓ Develop HIV/AIDS awareness programs or initiatives to target the construction workers ✓ Review construction activities to integrate with the HIV/AIDS campaigns ✓ Provide clean water for sanitation to construction workers ✓ Provide sufficient number of toilets to workers ✓ Monitor regular domestic waste disposing to the designated disposal area

5.4.3 Negative Environmental Impacts of Operation Activities

(a) Air emissions

There is no majority of emissions to air generated during motor vehicle assembly, because of the assemble parts which are painted to be imported. But during test driving within the compound, minor amount of PM, and some gaseous will be anticipated.

Normally, motor vehicle assembly generates indirect greenhouse gas emissions through the use of its final products, and specifically through the combustion of fossil fuels. The transport of products by road can also be a significant issue and generate GHG emissions through traffic congestion. Dust created in the process can be inhaled and cause respiratory diseases including asthma in employees. Dust, vented fumes, smog caused by particulates, and odours can be a nuisance to neighboring residential communities and industrial activities.

(b) Noise

During the operation phase, there will be a certain level of noise in the factory which may cause disturbance to the people working in the factory and may give long-term hearing damage to those workers. Sources of noise can be defined as exhaust pumps, pneumatic pumps, air conveyor and machines. However, machines to be used are modern brands, designed to reduce noise impact. However, noise generation is only within the site boundary and hence, its impact is minimal on the surrounding areas.

(c) Hazardous materials

Hazardous chemicals and process gases may be used in the assembly process of motor vehicles. Hazardous assembly process of motor vehicles. Hazardous properties relating to these substances are many and varied and include flammability, combustion potential. Chemicals with such properties should be labelled with the appropriate internationally recognized hazard symbol. Some chemicals may only possess a hazard potential if they have the opportunity to react with other compounds. Inadequate control or accidental release of hazardous substances on site or in transit may result in significant environmental impacts in relation to soil, groundwater and surface water contamination and occupational health and safety.

(d) Solid wastes

Solid wastes may arise from several sources during assembly and the majority of wastes by volume result from packaging reusable or disposable. Reusable packaging covers metal racks, bins and containers and disposal packaging covers wood pallets, cardboard, and plastic. Improperly disposed of waste can lead to pollution and ground contamination.

Other solid wastes include;

- Additional wastes arise form general operations, cleaning and maintenance and the disposal of faulty equipment and parts.
- Improperly disposed of waste can lead to pollution and ground contamination.

(e) Energy consumption

Motor vehicle assembly plants use energy throughout the plants for many different end-uses. The main energy types used on-site are electricity, steam, gas and compressed air. Some forms of energy production are damaging to the environment, such as production of carbon dioxide form fossil fuel combustion.

Because of there are many thermal processes handling is highly mechanized, assembly plants involve significant energy use, which demands optimal energy consumption. The use of specialized equipment, which combines improved performance efficiency and energy efficiency should be implemented.

5.4.3.1 Occupational Health and Safety

(a) Noise and Vibration

Vehicle assembly plants can be noisy work places due to the high level of use of machinery. Transport of products by road may also generate noise. Those at risk include machine operators and those working nearby, e.g maintenance staff, cleaners, and forklift truck drivers. Noise may reach levels that are hazardous to health. Noise, particularly during unsocial hours, may cause annoyance or disruption of local communities.

(b) Rotating and Moving Equipment

Injury or death can occur form being trapped, entangled, or struck by machinery parts due to unexpected starting or equipment or unobvious movement during operations:

Recommended protective measures include:

- Designing machines to eliminate trap hazards and ensuring that extremities are kept out of harm's way under normal operating conditions.
- Turning off, disconnecting, isolating and de-energizing machinery with exposed or guarded moving parts, in which energy can be stored (e.g. compressed air, electrical components) during servicing or maintenance.
- Designing and installing equipment, where feasible to enable routine service, such as lubrication, without removal of the guarding devices or mechanisms.

(d) Electrical

Exposed or faulty electrical devices, such as circuit breakers, panels, cables, cords and hand tools, can pose a serious risk to workers. Overhead wires can be struck by metal devices, such as poles or ladders and by vehicles with metal booms. Vehicles or grounded metal objects brought into close proximity with overhead wires can result in arcing between the wires and the object, without actual contact.

Recommended actions include:

- Marking all energized electrical devices and lines with warning signs
- Checking all electrical cords, cables and hand power tools for frayed or exposed cords and following manufacturer recommendations for maximum permitted operating voltage of the portable hand tools.
- Appropriate labeling of service rooms hosing high voltage equipment and where entry is controlled or prohibited.
- Conducting detailed identification and marking of all buried electrical wiring prior to any excavation work

(e) Eye Hazards

Solid particles from a wide variety of industrial operations, and a liquid chemical spray may strike a worker in the eye causing an eye injury or permanent blindness.

Recommended measures include:

- Use of machine guards or splash shields and face and eye protection devices, such as safety glasses with side shields, goggles, and a full-face shield.
- Provisions should be made for persons who have to wear prescription glasses either through the use over glasses or prescription hardened glasses.

Summary of Recommended Personal Protective Equipment According to Hazards

Objective	Workplace Hazards	Hazards Suggested PPE
Eye and face protection	Flying particles, molten metal, liquid chemicals, gases or vapours,	Safety glasses with side- shields, protective shades, etc.

	light radiation.	
Head protection	Falling objects, inadequate height clearance, and overhead power cords.	Plastic helmets with top and side impact protection.
Hearing protection	Noise, ultra-sound.	Hearing protectors (ear plugs or ear muffs).
Foot protection	Falling or rolling objects, pointed objects. Corrosive or hot liquids.	Safety shoes or boots for protection against moving & falling objects, liquids and chemicals.
Hand protection	Hazardous materials, cuts or lacerations, vibrations, extreme temperatures.	Gloves made of rubber or synthetic materials (Neoprene), leather, steel, insulating materials, etc.
Respiratory protection	Dust, fogs, fumes, mists, gases, smokes, vapours.	Facemasks with appropriate filters for dust removal and air purification (chemicals, mists, vapours and gases). Single or multi-gas personal monitors, if available.
	Oxygen deficiency	Portable or supplied air (fixed lines). On-site rescue equipment.
Body/leg protection	Extreme temperatures, hazardous materials, biological agents, cutting and laceration.	Insulating clothing, body suits, aprons etc. of appropriate materials.

(f) Chemical Hazards

Chemical hazards represent potential for illness or injury due to single acute exposure pr chronic repetitive exposure to toxic, corrosive, sensitizing or oxidative substances. They also represent a risk of uncontrolled reaction, including the risk of fire and explosion, if incompatible chemicals are inadvertently mixed. Chemical hazards can most effectively be prevented through a hierarchical approach that includes:

- Replacement of the hazardous substance with a less hazardous substitute
- Implementation of engineering and administrative control measures to avoid or minimize the release of hazardous substances into the work environment keeping the level of exposure below internationally established or recognized limits
- Keeping the number of employees exposed, or likely to become exposed, to a minimum

(g) Machinery

Moving parts of machinery can result in entanglement and entrapment. Particular attention should be paid to the following situations:

Handling sheet or strip metal.

- Handling of small pieces of metal with sharp edges during work at presses.
- Accidental contact with scrap metal, banding, principally during cleaning and disposal.
- Contact with machinery blades, cutters or tools during use and when fitting, removing, cleaning or storing.
- Slips, trips and falls

- These are primarily caused by uneven surfaces, inappropriate footwear poor lighting, weather conditions, trailing cables and pipe work, especially during unblocking, maintenance and cleaning activities.
- The main environmental impacts related to car manufacturing include:

(g) Energy consumption and climate change

Energy is used throughout the processes involved in vehicle production. Energy consumption is often associated with emissions of greenhouse gases (GHGs), which lead to global warming and climate change. GHGs primarily consist of carbon dioxide (CO2), nitrous oxide (N2O) and methane (CH4).

(h) Potential releases of hazardous or polluting fluids

During operation, new vehicles are filled with various fluids (including fuels, lubricants, refrigerants etc). some of which could be harmful to the environment. In addition, various production processes require fluids for operation including the use of lubricants and cooling fluids.

Primarily, measures to minimize the use of hazardous fluids will be investigated. Potential options include:

- Introduction of processes requiring lower levels of emulsions or cooling lubricants.
- Biodegradable hydraulic oils may be used wherever possible or economically reasonable.

(d) Risk of Fire

Risk of fore would increase due to the economic activities of the tenants and population growth I and arounf the project area. To minimize the impact, proponent follow the rule and internal regulation for the industrial area of Zone will be applied and obligate tenants to install appropriate security and safety system for their operations. The tenants shall install and maintain an effective fire alarm system and firefighting system for each building and implement emergency drill with reference to the rule and regulation.

5.4.4 Positive Environmental Impacts of Operational Activities

(a) Employment Opportunities

Increase in employment opportunities along with development of socio-economic activities would be achieved in the area through employment of 1003 direct employment opportunities at the factory and secondary project components such as managers, cleaners, security, waste collectors and technicians, suppliers and contractors.

(b) Increased Business Opportunities

As development of the project area as industrial zone shall attract business to the area such as service providers in the area including financial institutions and medical facilities, during operation of the factory, increased in economic activities is highly anticipated due to the influx of persons working that attract to the variety of small business enterprises including cafes, fruit vendors, and petty traders, among others.

(c) Revenue to National and Local Governments

Through payment of relevant taxes, rates and fees to the government and local authority, the project will contribute towards the national and local revenue earnings.

(d) Improved Security

Security will be ensured around the premise through distribution of suitable security light and presence of 24-hour security guards. This will lead to improvement in the general security in the surrounding area. A security wall will be constructed all around the premises to ensure maximum security.

Assessment summary

Hence, the possible sources of negative impacts during the operation phase and its significance are presented as follows:

Table 5.4-3 Analysis Potential Impacts during Operation Phase

Environmental Impacts	Significance of potential environmental impacts					Impact Significant
	M	D	E	P	SP	
Physical Resources						
Dust Emission	3	4	2	3	27	Low
Noise	3	4	2	3	27	Low
Hazardous	3	4	2	3	24	Low
Solid waste generation	3	4	1	3	24	Low
High Energy Consumption	4	4	2	3	30	Moderate
Occupational Health and Safety						
Chemical Exposure	4	4	1	3	27	Low
Noise and Vibration	4	4	1	3	27	Moderate
Machinery	5	4	1	3	30	Moderate
Socio-economic Resources						
Employment Opportunities	4	4	2	5	50	High
Increased Business Opportunities	4	4	2	5	50	High
Revenue to National and Local Governments	3	4	3	4	36	Moderate
Improved Security	5	4	1	3	30	Moderate

Table 5.4-4 Environmental Mitigation Measures for Operation Phase

Impact	Mitigation Measures
Dust and exhaust emission	✓ Apply preventive maintenance system, optimizing construction schedule to minimize time that vehicles are in operation, apply dust control measures such as water spraying on the unpaved road, etc.
Noise	✓ Buffer double layer sound-proof walling to mitigate the noise to the surrounding environment ✓ Provide PPE such as noise defenders, ear plugs and ear muffs
Water Demand	✓ Use water-efficient washer ✓ Conserve fresh water as much as possible ✓ Reuse treated water for gardening or landscaping and washrooms purposes

	✓ Monitor borehole status data (includes abstraction rate, water level, water quality, etc.) ✓ Maintain water consumption records to monitor the usages
High Energy Consumption	✓ Air-handling equipment that controls humidity and temperature, allowing up to 25 percent of energy saved; ✓ High-efficiency chillers; and ✓ Recovering heat from water condensers that use heat exchangers may allow a modern industrial facility to save up to 40 percent of its needs. ✓ Advanced technologies in emissions abatement also provide new equipment with enhanced abatement efficiency and lower energy consumption.
Physical Hazards	✓ Ensure all rooms are well ventilated (e.g., using exhaust fans/ventilators) ✓ Ensure use of quality and approved raw materials ✓ Provide annual health check ✓ Develop proper waste disposal practices ✓ Check and regular maintenance of electronic equipment, electrical system and fuel storage facilities ✓ Provide on-site safety and security training for all workers to understand working environment, safety and security signs, safety and security standards and emergency response procedures ✓ Provide Personal Protective Equipment (PPE) to all factory workers, and ensure all workers use PPE properly at work site (coveralls, dust mask, safety glass, glove, ear plug, apron and safety shoes as necessary)
Hazardous Waste	✓ Process chemicals storage areas should be regularly checked to identify leaks; ✓ Pipework carrying hazardous materials should be constructed of compatible materials and should be sufficiently supported, clearly labeled and installed with high-quality joints. Piping should also be designed with low point drains; high point vents and isolation valves every 30 meters' maximum; ✓ Waste spill containment trays should be used.
Noise	✓ Install suitable mufflers on engine exhausts and compressor components when the equivalent sound level over 8 hours reaches 85 dB(A) ✓ Install acoustic barriers without gaps ✓ Perform periodic medical hearing checks for workers exposed to high noise levels ✓ Install vibration dampening pads or devices ✓ Limit the duration of exposure and exposure levels should be checked on the basis of daily exposure time and data provided by equipment manufacturers
Fire Hazards	✓ Install new firefighting equipment including audio and visual fire alarm system, fire extinguishers, spill kits at key areas of the site, and regular check-up and maintenance ✓ Organize firefighting training and regular fire drills for all workers ✓ Design and implement fire safety policy. ✓ Design and install fixed and portable fire equipment. ✓ Establish a documented plant shut down procedure. ✓ Provide operation instructions on all the machinery like generators. ✓ Store flammables away from ignition sources and oxidizing materials. ✓ Have natural or passive floor and ceiling level ventilation and explosion venting. ✓ Provide fire extinguishing devices and self-closing doors

5.4.5 Negative Environmental Impacts of Decommissioning

In the event that the property development will be shut down, the primary activity is expected to be demolition and rehabilitation of the site. The following impacts could be associated with decommissioning activities.

5.4.5.1 Physical Resources

(a) Solid Waste

Demolition of the project buildings and related infrastructure will result in large quantities of solid waste. The waste will consist of demolition debris including concrete, metal, drywall, wood, glass, paints, adhesives, sealants and fasteners. Although demolition waste is generally considered as less harmful to the environment since they are composed of inert materials, there is growing evidence that large quantities of such waste may lead to release of certain hazardous chemicals into the soil environment.

(b) Dust Emission

Large quantities of dust will generate during the demolition works. This will affect demolition staff as well as the neighboring residents.

(c) Noise and Vibration

Activities likely to produce noise during this phase include cutting and demolition of structures. The demolition works will lead to significant deterioration of the acoustic environment within the project site and the surrounding environs.

(d) Water Pollution

The water quality of the nearby streams can be affected due to solid waste and waste water drained from the factory and also solid waste can damage soil quality if not properly handled. In addition, even the generally non-toxic chemicals such as chlorides, sodium, sulphate and ammonia, which may be released as result of leaching of demolition waste, are known to lead to degradation of groundwater quality.

5.4.5.2 Biological Resources

General non-toxic chemicals which may be released as result of leaching of demolition waste can interfere the aquatic life cycle of nearby water courses if those chemicals leached into the surface water courses.

5.4.5.3 Occupational Health and Safety

(a) Physical Hazards

Accidents such as falling objects, open pits, sharp objects lying around, and dust may all be a health risk to construction workers. Risk of accidents and incidents will be heightened during the activities as construction workers will be in direct contact with heavy machinery and equipment. Health, safety and security are important aspects through all the stages of the proposed project.

(b) Risk of Fire

Risk of fire would be generated during the closing work such as demolition of facilities and removal of tenants in the industrial area. However, mitigation measures that will be applied during the construction phase will alis be applied during the closing phase to minimize the impact.

5.4.5.4 Socio Economic Resources

(a) Public Health

If the domestic wastewater from demolition site is not properly disposed into nearby surface water body, health of workers and residents from downstream area will be adversely affected due to water pollution Moreover, persons or animals may fall into excavated pit/excavated pits/drainage channels leading to loss of life or injury.

(b) Livelihood

Furthermore, local people have high potential to lose the jobs and affect their income also, if the project closure.

5.4.6 Positive Environmental Impacts of Decommissioning Activities

(a) Rehabilitation

Upon decommissioning the project, rehabilitation of the project site will be carried out to restore the site to its original status. This will include replacement of topsoil and re-vegetation that will lead to improved visual quality of the area.

(b) Employment Opportunities

Several employment opportunities will be created for demolition staff though this will be short term.

Table 5.4-5 Analysis Potential Impacts during decommissioning phase

Environmental Impacts	Significance of potential environmental impacts					Impact Significant
	M	D	E	P	SP	
Physical Resources						
Dust Emission	4	1	1	4	24	Low
Noise and Vibration	5	1	1	5	35	Moderate
Solid waste generation	5	1	1	5	35	Moderate
Water Pollution	3	1	1	4	20	Low
Biological Resources						
Flora	1	1	1	2	6	Very Low
Fauna	1	1	1	2	6	Very Low
Occupational Health and Safety						
Physical Hazards	2	1	1	3	12	Very Low
Socio-economic Resources						
Public Health	2	1	1	3	12	Very Low
Livelihood	2	5	1	5	40	Moderate

Table 5.4-6 Environmental Mitigation Measures for negative impact encountered in decommissioning activities

Impact	Mitigation Measures
Solid Waste	✓ Segregate waste to encourage reuse and recycling ✓ Dispose of solid waste in compliance with regulations

Liquid Waste	✓ Use water prudently to reduce liquid waste volume ✓ Ensure sewage system is functional during demolition, to prevent pollution of nearby underground and surface water sources ✓ Demolish the sewage system properly to prevent pollution by contents into the environment and ground water.
Noise	✓ Schedule noisy activities during the day time period ✓ Ensure machinery is well maintained to reduce emitted
Dust	✓ Set up dust barriers at the sensitive areas ✓ Provide and enforce the appropriate use of PPE against dust
Public Health	✓ Rehabilitate any depressions/walls to as near as possible to the original ground layout. ✓ All excavations should be filled up after the plant closure. ✓ All open areas should be planted with suitable grasses or other vegetation
Livelihood	✓ Provide earlier notice to all affected parties concerning the development ✓ Residence to be notified prior to any decommissioning of the proposed factory buildings and any other facility on site ✓ Carry out dismissal procedures in line with the Employment Act.
Physical Hazards	✓ Provide first aid kit onsite ✓ Provide earmuffs, helmet, dust masks, goggles, safety shoes and different types of gloves according to specific works ✓ Ensure all equipment is safely stored in its respective storage areas after use ✓ Ensure all workers vacate the premises before closure on a daily basis

5.5 Residual Impact Assessment

No.	Project Activities	Negative Environmental and Social Impacts	Residual Impact			
			Very Low	Low	Moderate	High
1	**Construction Phase**					
	The main activities of the project in this phase include: ➢ Land clearing to construct roads /offices/factory in the factory premises. ➢ Construction of office buildings ➢ Construction of production and other related buildings and facilities	Dust emissions		Δ		
		Noise and Vibration		Δ		
		Exhaust Emission	Δ			
		Vegetation clearing		Δ		
		Soil erosion		Δ		
		Solid waste generation and disposal		Δ		
		Water demand	Δ			
		Water pollution	Δ			
		Flora		Δ		
		Fauna		Δ		
		Physical hazards		Δ		
		Exposure to noise and vibration		Δ		
		Communicable diseases	Δ			
		Residents	Δ			
		Land Utilization	Δ			
		Water Utilization	Δ			
		Safety	Δ			
2	Operation Phase					
	The main activities of the project in this phase include: - Subassemblies and other equipment - The exterior trim, interior trim and electrical and electronic componnts	Dust emissions	Δ			
		Noise and Vibration		Δ		
		Exhaust Emission				
		Solid waste generation and disposal	Δ			
		Chemical waste disposal	Δ			
		Oil spill from fuel storage and vehicles	Δ			
		Water demand		Δ		
		Water pollution	Δ			
		Increased wastewater sewage		Δ		
		High energy consumption				Δ
		Flora	Δ			

		Fauna		Δ		
		Physical hazards		Δ		
		Exposure to noise and vibration	Δ			
		Fire Hazard		Δ		
		Exposure to chemical material	Δ			
		Residents	Δ			
		Land Utilization	Δ			
		Water Utilization	Δ			
		Safety	Δ			
3	**Decommissioning Phase**					
	The main activities of the project in this phase include: • Demolotion of factory • Demolotion of buildings • Rehabilitation of the site to the original state	Noise and vibration		Δ		
		Dust emission		Δ		
		Water pollution	Δ			
		Solid waste generation		Δ		
		Physical hazards		Δ		
		Public health	Δ			
		Livelihood			Δ	

5.6 Cumulative Impact Assessment

Cumulative impact assessment (CIA) is an approach to environmental impact assessment (EIA) that aims to consider the effects of multiple actions or impacts on the environment. As described in Chapter 3, the project has been developed in Thardukan Industrial Zone. According to the General Township Administration data, there are 48 factories in the zone.

So, the cumulative impacts will be assessed for the prediction and leverage for the proposed project activities by the following projects within the project area.

The cumulative impacts should be assessed as the successive, incremental and/or combine effects arising from the project together with other existing and/or future projects, other development activities within a defined spatial and temporal framework in two aspects:

i) the surrounding natural and social environments
ii) on the project itself
Thus, a section on CIA (Cumulative Impact Assessment) will be prepared in the following structures:

Methodology and Approach: Rapid Cumulative Impact Assessment (RCIA)

Full-fledged CIA requires a multi-party coordination of data collection and assessment efforts including the (local, responsible) government unit as a key agent in order to assess collective and time-consuming assessment of key environmental and social impacts of a range of projects in the past, present and in the near future in the broader areas of influence beyond an area of direct influence of a particular project. Thus, it is beyond the scope of an EIA assessor of an EIA study team[1].

Cumulative Impact Assessment

- Brief descriptions and maps of relevant existing and future private and public projects and developments
- Identification and assessment of the potential cumulative impacts on the components in the surrounding environment and the Project's contribution to such impacts
- Determination of the leverage and influence that the Project may have over the significant and project-related cumulative impacts
- Description of measures to mitigate the Project's contribution to the cumulative impacts

Cumulative impacts on VECs will be assessed as follows:

- Identification of VECs and Boundaries
- Relevant Existing and Future Private and Public Project Development
- Assessment of Cumulative Impacts on VECs
- Design of the Management Strategies: Measures to Mitigate the Project's Contribution to the Cumulative Impacts

[1] For more details of the definition of CIA and its commonly accepted methodology, see for example, "IFC Good Practice Handbook: Cumulative Impact Assessment and Management: Guidance for the Private Sector in Emerging Markets" (2013, available at:https://www.ifc.org/wps/wcm/connect/3aebf50041c11f8383ba8700caa2aa08/IFC_GoodPracticeHandbook_CumulativeImpactAssessment.pdf?MOD=AJPERES)

In the assessment of the Project, the following environmental items were identified that should be considered the cumulative impacts of the other projects within Thardukan Industrial Zone.

1. Air Quality
2. Water Quality
3. Waste
4. Noise and Vibration
5. Community Health and Safety

Table summarizes the basic concept of Cumulative Impact Assessment of each item.

Table 5.7-1 Environmental Items of Cumulative Impact Assessment

	Environmental Item	Basic Concept of Cumulative Impact Assessment
1.	Air Quality	The tenants in the industrial, because of their operation, traffic volume will be increased cumulatively in and around the project. Therefore, impact on air quality generated from this traffic increased by operation should be assessed. In this assessment, NO2 and CO2 concentration was selected to be estimated due to vehicle traffic increased by surrounding projects.
2.	Water Quality	In the project, drainage water from the project area will run through the drainage ditch and will be discharged to Hlawga Lake and a part of logistic, residence and commercial area will be discharging the drainage water. Therefore, cumulative impact should be assessed on water quality of Hlawga Lake.
3.	Waste	When the number of tenants is going to increase their operation, amount of industrial and business-related waste generated form the all of the factories will proportionately be increased. Therefore, it is needed to evaluate impact of generated industrial and business-related waste on terms of receiving capacity of the final disposal site located in zone.
4.	Noise and Vibration	All the tenants in the industrial, logistic and commercial areas, the traffic volume increased in and around the zone. Therefore, impact of noise and vibration increased by vehicle traffic generated form operation of the factories should be estimated.
5.	Community Health and Safety	Community safety might be influenced by the increase of traffic volume in and around the zone caused by the operation of the projects.

CHAPTER 7 PUBLIC CONSULTATION AND INFORMATION DISCLOSURE

7.1 Purpose and Objectives

The objective of this task is to conduct project disclosure and public consultation in order to obtain the suggestions/ concerns for developing the appropriate ESIA Study and Environmental and social Management Plan, while ensuring to inform the key stakeholders including the affected communities and the public of the project in a timely manner. In this way, the proposed project could obtain social acceptance by the public and the other stakeholders, which will ensure smooth implementation of the project ahead.

More specifically, PCM (Public Consultation Meeting) conducted as a part of the Scoping Stage and EIA investigation of this Project has three objectives:

(i) Inform the stakeholders about the Project, its potential positive and negative environmental and social impacts related to the project implementation, and preliminary mitigation measures to minimize environmental and social impacts;

(ii) Seek views and opinions of the stakeholders on the Project, anticipated impacts and according mitigation measures; and;

(iii) Ensure participation of and partnership with the key stakeholders through which identify major concerns and suggested/agreed solutions jointly for effective environmental and social management of the proposed project. The feedbacks need to be duly reflected in the ESIA and the ESMP, of which the final output need to be disclosed to the stakeholders in a timely manner.

7.2 Procedural Requirements and Summary of the Activities Taken

Public consultation and information disclosure will be conducted incompliance with the EIA Procedure of Myanmar (2015). The Procedure requires two rounds of public consultation and information disclosure activities by the project proponent in the course of the EIA process: First during the scoping stage and the second round during the EIA preparation stage.

Once the EIA report is completed and submitted by the project propone to MONREC a review and approving body of the EIA, another round of the public information disclosure session is required in coordination with the local government (YRG) and other GADs.

Relevant provisions of the EIA Procedure (2015) on the public consultation and information disclosure are quoted in the left column of the table below: the right column indicates the actual activities carried out by the project proponent with the EIA Study Team's technical support for the proposed project.

All the listed activities were carefully documented and recorded. The details of each of the activities are presented in the following Sections as well as their respective annexes.

7.3 Approach and Methodology

There are 23 wards in Shwepyitar Township and, concerned stakeholders were identified based on the project scope and activities. The public consultation meeting (PCM) was held within a week after receiving permission from Yangon Region Government.

The date, time and venue were selected in terms of availability of Government Authorities, Administrative Department and representative local people in and around the Project area and the meeting room capacity of the building, based on the discussion with General Administration Department (GAD) of ShwePyiTar Township, and Thar Du Kan Industrial Zone Committee.

The attendance persons are from other factories, interest persons, and some of the people who work in factory are also local people from ShwePyiThar Township.

Table 7.3-1 Methods of Implementing Public Consultation Meeting

Invitation	In person, phone Communication
Follow up	By telephone to each invitee (before 1 or 2 days of meeting)
Presentation	Using Projectors for power point presentation and power point handouts
Suggestion/ Feedback	Giving suggestion during the meeting or writing in the feedback forms

Conduct of Public Consultation

The presentation materials such as power point handouts, writing materials, attendance sheets and feedback forms etc. were prepared and the presentation was conducted in Myanmar (Burmese) language. The opinions and questions from the participants were received in the question-and-answer session. Additionally, feedback forms were provided to the participants so that those who are hesitant to speak out in public could share their views and comments. Moreover, assistant staffs were available to fill out the form in case the participant needs help in writing/reading.

The public consultation meeting was conducted with the following meeting agenda:

Agenda 1: Announcement of the opening ceremony

Agenda 2: Introductory speech by Representative from project

Agenda 3: Presentation of environmental and social impact assessment by Dr. Lai Lai Win

(Environmental Consultant from REM)

Agenda 4: Question and Answer Sessions & receive Feedbacks from the audience

Agenda 5: Announcement of the closing ceremony

Disclosure

The Project proponent prepared the invitation letter of the meeting in Myanmar language and announced to the invitees, who are people from wards, and relevant governmental organizations, and anyone who are interested. Basically, information on the PCM was announced to the invitees one week in advance before the meeting by sending invitation letters to the respective invitees.

Stage	Myanmar EIA Procedure (2015)	Activities carried out for the Proposed Project
I. Scoping paper preparation stage	"Article 50. As part of the Scoping, the Project Proponent shall ensure that the following public consultation and participation process is carried out: a) disclose information about the proposed Project to the public and civil society through posting on the Project and local media, including by means of the prominent posting of legible sign boards and advertising boards at the Project site which are visible to the public;	1) Consultation meetings at (14 Dec 2018 and 14 August 2019) 2) Announcement posters at the public places (including factory, Township General Administration Departments (Shwe Pyi Thar Township) and Shwepyithar Zone Committee
II.ESIA investigation stage	"Article 61. As part of the EIA investigations, the Project Proponent shall undertake the following consultation process: timely disclosure of all relevant information about the proposed Project to the public and civil society through the website(s) of the Project or Project Proponent, at public places such as on sign boards at the Project site visible to the public, and provide appropriate and timely explanations in press conferences and media interviews;	Public Consultation meeting with the relevant ministries and government agencies including: MONREC-ECD (14 August 2019) Household perception survey conducted against total 84 households in between 16 January and 17 January 2019, mainly asking the following: -Degree of project awareness - The sources of information - Expected benefits and adverse impacts of the project - Further comments, opinions, and suggestions
III. After submission of EIA Report to ECD	"Article 65. Not later than fifteen (15) days after submission of the EIA Report to the Department, the Project Proponent shall disclose the EIA Report to civil society, PAPs, local communities and other concerned stakeholders: (i) by means of national media (i.e. newspapers); (ii) the website(s) of the Project or Project Proponent; (iii) at public meeting places (e.g. libraries, community halls); and (iv) at the offices of the Project Proponent."	This process will take place in the future once the EIA report is completed and submitted to the MONREC-ECD.

(Source: IAIA training material on Public Involvement)

7.3 Public Consultation Meeting (PCM) for scoping stage

[Approach]

The following approach to PCM preparation and implementation for both scoping and EIA investigation stage was adopted:

- The meeting was organized with assistance of the Township Administration Department in identifying participants to be invited, in making arrangements for the meeting venue, and in issuing the invitations.

- Representatives of the Project Proponent (Shwe Daehan Co.,ltd) and the Consultant (EIA Study Team) jointly conducted the meetings. The Project Proponent's representatives were responsible for briefing on Project information including Project development plan, and answering questions from the meeting or clarifying points raised in the meeting regarding the Project development plan. The Consultant was responsible for providing information on the EIA, and clarifications on issues related to impacts of the Project. The two parties worked as a Project team.

- The meeting provided an open forum for the participants to express their concerns, offers their views and suggestions, and raise questions or points that they needed response from the project team. The project team responded to their concerns, views and suggestions as appropriate.

For the public consultation meetings, first meeting was held in the factory compound. The project proponent prepared the invitation letter together with the notice of the meeting in Myanmar language and announced to the invitees, who are relevant governmental organizations, non-governmental organizations (NGOs), residential and anyone who are interested.
Basically, information on the meeting was announced to the invitees one week in advance before the meeting by sending invitation letters to the respective invitees.
The invitation letter with the notice and list of invitees as attachments are enclosed in Appendix 4. The presentation and handouts were prepared and explained in Myanmar language. The opinions form the participants were received in the question-and-answer session. Additionally, feedback forms were provided to the participants so that those who are hesitant to speak out in public could share their views and comments. The presentation material and handouts and sample of feedback form are shown in Appendix 4.



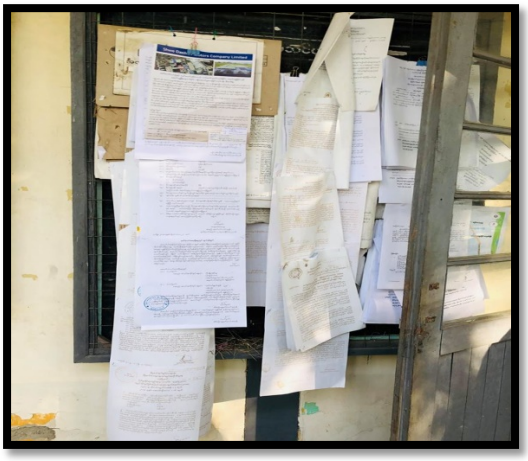






Figure 7.3-1 Pictures of Notice Displayed (PCM at the Scoping Stage)

Table 7.3-1 Summary data of PCM

Basic Details			
Project	Shwe Daehan Motors Co.,Ltd Manufacturing, Sales and sales Services of motor vehicles and motor vehicles		
Office/ Department/ Organization	Thar Du Kan Industrial Zone, Shwe Daehan Factory	Region/State	Yangon Region
District	North District	Township	Shwe Pyi Thar
Objectives	Holding Public Consultation Meeting for Scoping Study of ESIA to explain about the project's activities and to have public's suggestion, advice and comments		
Date	14th, December,2018		
Time	9:30 AM to 11;30 PM		
Attendee	Governmental (8) Officer (9) Public (22) Total (31)		

7.3-1 Meeting Minutes of Public Consultation

Shwe Daehan factory of Automobile and Motorcycle Manufacturing, sales and installation service for the discussion with the public and focus of environmental impact assessment and Social Impact assessment (Scoping)
Question- Daw New Ni Aye (Assistant Director, Planning Department) There is foreign worker in the factory so I want to know how to manage for this worker? **Answer- U Aye Min Than Manager (Shwe Daehan)** Currently, the factory was invested by Korea and manage by 7 managers section by section. (4 Myanmar and 3 Korea in technical)
(2) U Aung Thu Kyaw -Deputy Director, (Department of Environmental Conservation) Question- How to collect the seasonal data? The department will review the data and the report. It has positive also negative. This is the chance for the local people so please ask the question whatever all of you want to know. **Answer** - Daw Lai Lai Win (REM) Air pollution can cause in summer so we will collect at this time. The data of dry and wet is different. So, air pollution only can cause in dry season but because of the factory there is no impact.
Question- U Aung Hlaing Myint (Committee Member, Thar Du Kan Zone Development Committee) Currently, I use Hyundai car, so I would like to know the production process of car? **Answer- U Aye Min Than Manager (Shwe Daehan)** The project proponent explained the production process with the power point.

7.3-2 Attendance List

No	Name	Position	Department	Phone Number
1	U Aung Thu Kyaw	Deputy Director	Department of Environmental Conservation	09 250155727
2	U That Lwin Oo	Staff Officer	Department of Environmental Conservation	09 428120440
3	Mg Aung Aung	QC /Electric		09 429118232
4	U Toe Myint Aung	Technician		09 971371619
5	U Zin Min Htike	Executive		09 402707616
6	U Pyae Phyo Aung	QC/Staff		09 777706782
7	Daw Su Hnin Aye	QC / Executive		09 770168304
8	U That Naing Tun	QC / Staff		09 788749710
9	Daw That Wai Hnin	Staff Officer	Department of Environmental Conservation (Yangon)	09 969827668
10	Daw Yu Yu Phyo	Deputy Officer	Department of Environmental Conservation (NYGN)	09 951088421
11	Oh Yong Seok	Deputy General Manager	IKLM	09 429682314
12	U Kyaw Shine	Technician		09 968352521
13	U Kyaw That	Technician		09 420201867
14	Ko Kyaw Zin Moe	Technician		09 420201867
15	Ko Than Zaw	Technician		09 256286286
16	Ko Aung Phyo Kyaw	Staff		09 261201885
17	Ko Khine Myat Kyaw	Assistant Executive	Bagan Royal Star Co, Ltd	09 798199403
18	U Zaw Lin Tun	Production	Hlawgar	09 761994483
19	U Kyee Nyo	Peon Incharge	Management Committee, Thar Du Kan	09 450024884
20	U Aung Hlaing Myint	Committee Member	Thar Du Kan Zone Development Committee	
21	U Win Ne	Deputy Peon Incharge	Management Committee, Thar Du Kan	09 781503877
22	Dr.U San Lin	Dy-TMO	Shwe Pyi Thar Hospital	09 420009957
23	U Nyunt Win	Administrator	Department of Development Affairs	09 977275131
24	Daw New Ni Aye	Assistant Director	Planning Depertment	09 420174500
25	Daw Aye Aye than	Deputy Staff Officer	Department of Labour Welfare	09 420158566
26	U Moe Kyaw Oo	Deputy Township Educational Officer	TEO Office	09 420311313
27	U Soe Thiha Zaw	Production		
28	U Ye Tun	Production		
29	U Wai Phyo Aung	Production		
30	U Ye Min Aung	Production		
31	U Than Htay	Production	Manager	09 973865453






14/12/2018


14/12/2018


14/12/2018


14/12/2018


14/12/2018


14/12/2018


14/12/2018


14/12/2018





Figure 6.5.1-2 Pictures of Public Consultation Meeting

7.4 Public Consultation Meeting (PCM) at the EIA stage

Public consultations with the stakeholders were held on 14th August 2019. The meeting dates, group of agencies, and number of participants are given in Table 7.4-1. Minutes of meeting and list of participants in each meeting are shown in Appendix 8.

Table 7.4-1 Summary data of PCM

Basic Details			
Project	Shwe Daehan Motors Co.,Ltd Manufacturing, Sales and sales Services of motor vehicles and motor vehicles		
Office/ Department/ Organization	Thar Du Kan Industrial Zone, Shwe Daehan Factory	Region/State	Yangon Region
District	North District	Township	Shwe Pyi Thar
Objectives	Holding Public Consultation Meeting for ESIA to explain about the result of the survey activities and to have public's suggestion, advice and comments		
Date	14th, August,2019		
Time	9:00 AM to 12:00 PM		
Attendee	Governmental (10) Public (13) Total (23)		

7.5 Summarized Outcomes of PCMs at the EIA Stage

PCMs were organized on 14th August 2019 at the Shwe Daehan Motors Factory of Thar Du Kan Industrial Zone. In the consultation meeting, after the explanation on the project plan, the expected key environmental and social benefits and major positive and negative environmental and social impacts on the draft EIA results were explained. In addition, findings of the EIA study and further schedule of the EIA were presented to the participants. All the meeting was ended with the question and answer session.


14/08/2019


14/08/2019


14/08/2019


14/08/2019


14/08/2019


14/08/2019


14/08/2019


14/08/2019

Attendees

No	Name	Organization	Quarter	Contacts No
1	U Aung Ko Thin	Driver	Thar Du Kan	09 762929044
2	U Zin Min Htway	Part & Inventory staff	Thar Du Kan	09 979938649
3	U Nyain Chan Aung	Part & Inventory staff	Thar Du Kan	09 455648692
4	May Mon Aung	Part & Inventory staff	Thar Du Kan	09 681127223
5	U Win Tun Win			09 979884528
6	U Kaung Htat wai		Shwe Pyi Thar	09 783022191
7	U Han Win Zaw		Shwe Pyi Thar	09 694136523
8	U San Win Aung		Waryar Latt	09 683992635
9	U Sat Paing Aung		Waryar Latt	09 762451662
10	U That Naing Phyo		Waryar Latt	09 683992635
11	U Myo Nyi Nyi shaine		Shwe Pyi Thar	09 695154233
12	U Than Htike Soe		Shwe Pyi Thar	09 977049649
13	U Aung Ko Htike			09 43153763
14	U Min Ye Zaw	Staff Officer of Labour Department		09 448544748
15	Daw Shwe Yi Wint War Soe	ECD		09 764555989
16	Daw Thin Thin Su	ECD		09 799699855
17	U Thain Htike Soe	Member of YCDC (2)		09 260161599
18	U Kyaw Naing Aung	Assistant Administrator YCDC		09977275224
19	Dr.U San Lin	Deputy Public Health		09 42009957
20	Daw Ei Ei Mon	Deputy Staff officer		09 424452754
21	U Aung Thu Kyaw	DD. (MIC – CSO)		09 250155729
22	U Myo Min Aung	Deputy Staff officer		09 795202243
23	U Myo Win Nyunt	Administrator		09 5007303

7.6 Summary of Comments from PCMs at the EIA Stage

The following topics and concerns have been discussed and collected during the meetings:

- Summit to the EIA report to the ECD
- Follow the monitoring plan
- Plantation at the factory
- For the CSR, suggest that upgrade the No 4. Ward Street to the concrete street, support materials for the school and library.
- Store chemical systematically.
- To be good water flow near surrounding factory compound.

7.7 Summary of comments from feedback form

There are five comment forms received form the participants at the PCM. The major comments and opinions written in the collected feedback forms are summarized in Table below.

Table 7.7-1 Major Comments from Feedback Forms

No.	Major Comment	Comment From
1	Employees should have a medical check at every 6 months. Find a way to reduce the noise A natural disaster should be planned in advance. Work should be done to achieve full labor rights	
2	It is recommended that chemicals be packaged separately for separate storage area. It is necessary to clean the drainage canals around the factory regularly to make the water flow well.	U Thein Htike City Development Committee
3	I would like to request please upgrade road for No.4 ward and provide school facilities, School Playground and library for BEPS No.8 at Nawarat Road.	U Myo Win Nyunt No. 4 Ward Administrator
4	If the officials of the factory make the local people living in the villages around the factory aware of the environmental damage caused by the establishment of the factory, the people living around the factory will be able to let the public know about the existence of the factory and whether or not the factory has caused any damage to the environment.	U Myo Min Aung General Administrator (Shwe Pyi Thar)

Recommendations

• Public consultation activities should be conducted throughout all the stages of the project.

•Monitoring by the project proponent and external agents should include both regular and ad-hoc consultations and discussions with diverse stakeholders of the project, in order to supervise environmental and social performance and to manage unexpected impacts.

•Installation of comment boxes at GAD offices of each township could be a good means of collecting opinions, concerns, and feedback from local communities, with timely delivery to the project proponent, the local government (YRG).

7.8 Public Disclosure Plan Methodology and Special Consideration

Announcement Method

- Public disclosure will be announced in the public consultation meetings
- The EIA report will be available on the factory websites (www.hyundaimotor.com.mm)

Disclosure Place

- Factory site
- General Tract Office, Shwepyithar Township
- Thardukdan Zone Committee
- Other places based on the requst from the project-affected people

Disclosure Period

- Operation period

During the operation period, public consultation will be held if any concern from local people is raised. The following GRM will be used to consult with local people during the operation period.

7.9 Grievance Redress Mechanism

In accordance with the ECD requirement, the proponent shall establish and maintain a grievance redress mechanism to receive and facilitate resolution of affected people's concerns and grievances about the borrower's environmental and social performance at project level. The grievances redress mechanism should be scaled to the risk and impacts of the project. It should address affected people's concerns and complaints shortly, using an understandable and transparent process that is gender responsive, culturally appropriate, and readily accessible to most of the segments of the affected people.

Grievance Redress System is an effective instrument to tackle the various complaints receiving from the PAP and community in such a way that elevate the process of finding solution to reach the satisfaction and mutual agreement in a timely fashion and transparent manner. The framework for grievance redress mechanism for the projects has been established to address the complaints and concerns that must be raised by PAP about project activities or performance during the construction and operation period. That shall act as a tool for execution within a set time period, purpose and detail out a systematic process against several documents. The construction site- specific procedure shall be developed for receiving complaints, logging in the GRM logbook for recording and registering purpose, investigation, analysis and responding to the PAP.

Grievance Focal Person (GFP): Grievance focal person shall be appointed by Project Management Unit of the Project Implementing Entity to implement the GRS procedure effectively. The nominated person for role should have sound and broad experience within the social region and acting within such a role previous. The roles shall function as the primary resources for interface on issues relevant to RAP. He will receive the complaints in verbal or with letter from the PAP through site construction team or village head or PAP himself. The complaint shall be recorded and registered accordingly and deliver the message to Site Grievance Redress Team promptly.

Site Grievance Redress Team (SGRT): Site based grievance redress team shall be established and headed by client site manager, comprised of a contractor's and Sub-contractors' representatives and authorities concerns in local and township level. SGRT will review the any complaint and concerns and find a solution to ease the degree of complaints, which will be agreed and accepted by the PAP. SGRT shall address the issue within (14) days. In this stage, many issues shall be resolved as locally as possible. If the case is not addressed to the satisfaction of the PAP who lodged a grievance within the given time frame, SGRT shall proceed to submit the issue to Grievance Redress Committee for further review.

Grievance Management Committee (GMC): GMC is the highest authority to make final decision within projects specific Grievance Redress System on the received issues, which SGRT cannot sort it out alone. GMC headed by Senior Official of project with the members of relevant government bodies.

Unresolved Issue: If the case is still not resolved by GMC, PAP can proceed through juridical system such as appealing on court for final resolution starting from township level jurisdiction.

Shwe Daehan Motors Co.,Ltd

Manufacturing, Sales and sales Services of motor vehicles and motor vehicles

စီမံကိန်းဆိုင်ရာအချက်အလက်များနှင့် သဘာဝပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်လေ့လာမှုများအား ရှင်းလင်းတင်ပြခြင်း နှင့်

လူထုထွေ့ထုံထွေးနှေးမွဲ



ဩဂုတ်လ (၁၄) ရက် ၂၀၁၉ ခုနှစ်



စီမံကိန်းရည်ရွယ်ချက်

- ရွှေဒယ်ဟန်မော်တော်(စ်)ကုမ္ပဏီလီမိတက်သည် ရာနှုန်းပြည့်နိုင်ငံခြားရင်းနှီးမှုအနေဖြင့် ဆောင်ရွက်မည်ဖြစ်ပါသည်။
- ရန်ကုန်တိုင်းဒေသကြီး၊ ရွှေပြည်သာမြို့နယ်၊ မြေတိုင်းရပ်ကွက်အမှတ် ၅၀ (သာဓုကန်စက်မှုဇုန်)၊ မဟူရာလမ်း၊ မြေကွက်အမှတ် -၆၉၏ ၃.၁၈၅ ဧက ရှိသော မြေနေရာကို ဌားရမ်းကာ လိုအပ်သော အဆောက်အဦးများ တည်ဆောက်လျက် "မော်တော်ယာဉ် နှင့် မော်တော်ဆိုင်ကယ်များထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်း၊ ရောင်းချပြီး နောက်ပိုင်း ဝန်ဆောင်မှုပေးခြင်း" လုပ်ငန်းများကို ဆောင်ရွက်မည်ဖြစ်ပါသည်။

ရရှိနိုင်သော အကျိုးကျေးဇူးများ

- မြန်မာနိုင်ငံ၏ ပြည်ပပို့ကုန်လုပ်ငန်းများတိုးတက်ပြီး နိုင်ငံခြားဝင်ငွေများရရှိနိုင်စေခြင်း၊
- စက်မှုဝန်ကြီးဌာနနှင့်ပူးပေါင်း၍ အနာဂတ်ကာလတွင် မြန်မာပြည်တွင်းထုတ် မော်တော်ကားများနှင့် မော်တော်ဆိုင်ကယ်များအား အိမ်နီးချင်းနိုင်ငံများသို့ တင်ပို့ရောင်းချနိုင်ရန် စီစဉ်ထားရှိခြင်း၊
- ဤလုပ်ငန်း တည်ထောင်ဆောင်ရွက်ခြင်းအားဖြင့် ပြည်ပမှ မော်တော်ယာဉ်နှင့်မော်တော်ဆိုင်ကယ်တင်သွင်းခြင်းအား တစ်ဖက်တစ်လမ်းမှလျော့ချနိုင်၍ သွင်းကုန်အစားထိုး ပြည်တွင်းထုတ်လုပ်မှုတိုးတက်ခြင်းကိုဖြစ်ပေါ်စေခြင်း၊
- အဆင့်မြင့်နည်းပညာများ စီးဝင်ရရှိနိုင်ခြင်း၊
- မြန်မာနိုင်ငံသားများ အထူးသဖြင့် ရန်ကုန်တိုင်းဒေသကြီး ရွှေပြည်သာမြို့နယ်အတွက် အလုပ်အကိုင် အခွင့်အလမ်းများ ရရှိစေနိုင်ခြင်းနှင့်
- စီးပွားရေးဖွံ့ဖြိုးမှုကို အထောက်အကူဖြစ်စေခြင်း

စီမံကိန်းဆိုင်ရာအချက်အလက်များ

- ဆက်သွယ်ရေး ဝန်ကြီးဌာန၏ အောက်ဖော်ပြပါ သဘောထားပြန်ကြားချက်များအား လိုက်နာမည်ဖြစ်ပါသည်။
- ASEAN motor vehicle requirement အား လိုက်နာကျင့်သုံးကာ ထုတ်လုပ်မည် ဖြစ်ပါသည်။
- လက်ဝဲဘက်စတီယာရင် ယာဉ်မောင်းစနစ် (Left-hand drive) ယာဉ်များသာ ထုတ်လုပ်မည်ဖြစ်ပါသည်။
- ထုတ်လုပ်မည့် မော်တော်ယာဉ်များ၏ အမျိုးအမည် နှင့် အမျိုးအစားများအတွက် ပုံစံအတည်ပြု သတ်မှတ်ချက် ရရှိအောင်ဆောင်ရွက်ပြီး မော်တော်ယာဉ် နှင့် ပတ်သက်သည့် specification များပြည့်စုံစွာ ဖော်ပြပါမည်။
- မော်တော်ယာဉ်စမ်းသပ်စစ်ဆေးသည့် အလုပ်ရုံ (vehicle testing workshop) ရှိ test lane ဖြင့် ကြံ့ခိုင်မှုစစ်ဆေးပြီး အောင်မြင်သည့်ယာဉ်များသာ ဈေးကွက်အတွင်းသို့ ဖြန့်ဖြူးရောင်းချမည်ဖြစ်ပါသည်။

စီမံကိန်းဆိုင်ရာအချက်အလက်များ

- ဆက်သွယ်ရေး ဝန်ကြီးဌာန၏ အောက်ဖော်ပြပါ သဘောထားပြန်ကြားချက်များအား လိုက်နာမည်ဖြစ်ပါသည်။
- ASEAN motor vehicle requirement အား လိုက်နာကျင့်သုံးကာ ထုတ်လုပ်မည် ဖြစ်ပါသည်။
- လက်ဝဲဘက်စတီယာရင် ယာဉ်မောင်းစနစ် (Left-hand drive) ယာဉ်များသာ ထုတ်လုပ်မည်ဖြစ်ပါသည်။
- ထုတ်လုပ်မည့် မော်တော်ယာဉ်များ၏ အမျိုးအမည် နှင့် အမျိုးအစားများအတွက် ပုံစံအတည်ပြု သတ်မှတ်ချက် ရရှိအောင်ဆောင်ရွက်ပြီး မော်တော်ယာဉ် နှင့် ပတ်သက်သည့် specification များပြည့်စုံစွာ ဖော်ပြပါမည်။
- မော်တော်ယာဉ်စမ်းသပ်စစ်ဆေးသည့် အလုပ်ရုံ (vehicle testing workshop) ရှိ test lane ဖြင့် ကြံ့ခိုင်မှုစစ်ဆေးပြီး အောင်မြင်သည့်ယာဉ်များသာ ဈေးကွက်အတွင်းသို့ ဖြန့်ဖြူးရောင်းချမည်ဖြစ်ပါသည်။

စီမံကိန်း တည်နေရာပြ မြေပုံ



Myanmar Business



Total Area	Factory Area	Capacity	SOP
25,000 ㎡	25,000 ㎡	20,000 units/year	DEC 2018 (E)

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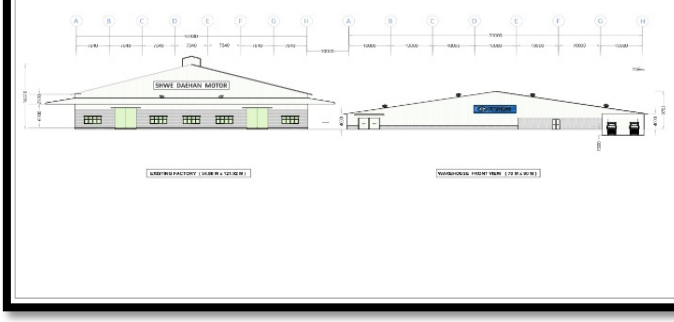


Passenger Car, SUV, Pick-up, Mini-bus, Truck (လုပ်ငန်းကဏ္ဍဆိုင်ရာ)

Inspection

Line Title	Process
Body	4
Engine/TM	5
Electric	4
Chassis	7
Trim	8
Total	28

Sub Body Line

Line Title	Process
Body Side LH/RH	8
Door FR/RR	12
Roof, Trunk Lid	10
Fender, Bumper	12
Total	42

Sub Assembly Line

	Line Title	Process
Engine / TM	Mission	12
	Generator	
	Start Motor	
	Compressor	
	Mounting Bkt	
	Aircon Pipe	
Door	Front LH	8
	Front RH Rear LH Rear RH	
	Back Door	
Seat	Frame	9
	Head Rest	
	Seat Cover	
	Driver Seat	
	Passenger Seat	
	Rear Seat	
Instrument Panel		5
Cargo	Front	6
	Left/Right Rear	
Bumper		3
Truck Lid		2
F/R Axle		6
Brake Booster		2
Fuel Tank		3
Total		55

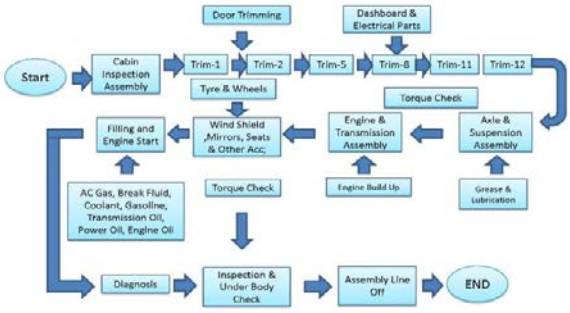
Assembly Line

	Line Title	Process
Trim Line	Floor Mat	18
	Head Lining	
	Center Console	
	Door Seal	
	Instrument Panel	
	Gear Box	
Chassis	Front Axle	13
	Rear Axle	
	Tow Eyelet	
	Brake Pipe	
	Fuel Tank	
	Shock Absorber	
	Coil Spring	
	Gear Linkage	
Final Assembly	Front Bumper	12
	Head Lamp	
	Grill	
	Rear Combi Lamp	
	Galvanized Steel	
	DVD	

Test Line

Line Title	Process
Exhaust Test	1
Wheel Alignment	1
Wheel Angle	1
Speed Test	1
Brake Test	1
Weight Test	1
Horn Test	1
Headlight Test	1
Side Slip	1
Water Proof Test	1
Test Road	1
Total	11

Process Flow Chart







[Image : CKD Factory in Laos]

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Vehicle Assembly (မော်တော်ယာဉ် တပ်ဆင်ခြင်း)





[Image : CKD Factory in Laos]



ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်လေ့လာခြင်းအား ရှင်းလင်းတင်ပြခြင်း

ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာရည်ရွယ်ချက်

- စီမံကိန်း ဆောင်ရွက်မှုကြောင့် သဘာဝပတ်ဝန်းကျင် နှင့် လူမှုပတ်ဝန်းကျင်အပေါ် အဓိက သက်ရောက် နိုင်သည့် ထိခိုက်နိုင်ဖွယ်ရာများကို ဖော်ထုတ်ခြင်း နှင့် သက်ရောက်နိုင်မှု အဆင့်သတ်မှတ်ခြင်း။
- လုပ်ငန်းခွင်နှင့် ဆက်စပ်ပတ်ဝန်းကျင် ပေါ်သက်ရောက်မှု များကို လျော့ချပေးနိုင်သည့် ထိရောက်သော စီမံခန့်ခွဲမှုများ၊ အစီအစဉ်များ၊ နည်းလမ်းများ ကိုအကြံပြုပေးခြင်း။
- စီမံကိန်း၏ သက်ရောက်နိုင်မှုများ လျော့ပါးစေရန်နှင့် ကင်းပေးစေရန် စောင့်ကြပ်ကြည့်ရှုရသည့် အစီအစဉ်များကို ကြိုတင် ပြင်ဆင်ပြီး အကောင်အထည် ဖော်ဆောင်ရွက်ခြင်း။

ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ငန်းအဆင့်ဆင့်



ဒေသလူထုဆွေးနွေးပွဲ (နောက်ဆုံး အဆင့်) တွင် ပါဝင်သောလုပ်ငန်းစဉ်များ

၁။ စီမံကိန်းဆိုင်ရာအချက်အလက်များထုတ်ဖော်ဆွေးနွေးတင်ပြခြင်း။
၂။ ပတ်ဝန်းကျင်ဆိုင်ရာနှင့်လူမှုရေးဆိုင်ရာဆန်းစစ်လေ့လာတွေ့ရှိချက်များအား ရှင်းလင်းတင်ပြခြင်း
၃။ စီမံကိန်းနှင့်သက်ဆိုင်သူများ၊ ရပ်ရွာ အခြေပြု လူမှု အဖွဲ့အစည်းများ၊ ဒေသဆိုင်ရာလူထုနှင့် အုပ်ချုပ်ရေးအဖွဲ့များ၊ သက်ဆိုင်ရာဌာနများနှင့် တွေ့ဆုံညှိနှိုင်းမှုများဆောင်ရွက်ခြင်း။

ဖြစ်ပေါ်လာနိုင်သည့် ပတ်ဝန်းကျင်အပေါ် ထိခိုက်သက်ရောက်မှုများ

အမျိုးအစား	လေ့လာခဲ့သည့်ကိစ္စရပ်များ	လေ့လာဆန်းစစ်ခြင်းနည်းလမ်းများ
ပတ်ဝန်းကျင်ညစ်ညမ်းမှု	✦ လေအရည်အသွေး။ ✦ ရေအရည်အသွေး။ ✦ မြေထုညစ်ညမ်းမှု။ ✦ ဝွန့်ပစ်ပစ္စည်။ ✦ ဆူညံသံ နှင့် တုန်ခါမှု။ ✦ မြေကျံကျမှု။ ✦ ဆိုးရွားသောအနံ့အသက်များထွက်ရှိမှု။	✦ လေထုအရည်အသွေးတိုင်းတာမှုများ (ဖုန်ပါဝင်မှု၊ တက်ငွေ့ပါဝင်မှု) ✦ မြေအောက်ရေ နမူနာ ကောက်ယူခြင်း။ ✦ မြေနမူနာ ကောက်ယူခြင်းနှင့်စစ်ဆေးခြင်း။ ✦ သက်ဆိုင်ရာ တာဝန်ရှိသူများ နှင့် မေးမြန်းဆွေးနွေးခြင်း။ ✦ ယာဉ်သွားလာမှုများ နှင့်ဆူညံသံများအား လေ့လာဆန်းစစ်ခြင်း။ ✦ စီမံကိန်းနှင့်သက်ဆိုင်သူများနှင့် တွေ့ဆုံပွဲများ ပြုလုပ်ခြင်း။ ✦ ပြဋ္ဌာန်းထားသောဥပဒေ နည်းဥပဒေများနှင့် ညီညွတ်ခြင်း ရှိ/မရှိ ပြန်လည် သုံးသပ်ခြင်း။

ဖြစ်ပေါ်လာနိုင်သည့် ပတ်ဝန်းကျင်အပေါ် ထိခိုက်သက်ရောက်မှုများ

အမျိုးအစား	လေ့လာခဲ့သည့် ကိစ္စရပ်များ	လေ့လာဆန်းစစ်ခြင်းနည်းလမ်းများ
လူမှုပတ်ဝန်းကျင်	✦ ဒေသခံဆင်းရဲနွမ်းပါးသူများအပေါ် အကျိုးသက်ရောက်မှုများ။ ✦ ဒေသခံများ၏သဘောထားအမြင်များနှင့် ပတ်သက်သည့် ကိစ္စရပ်များ။ ✦ လူနေမှုဘဝနှင့်အသက်မွေးဝမ်းကျောင်း ကိစ္စရပ်များ။ ✦ လက်ရှိ လူနေမှုအဆောက်အအုံနှင့် ဝန်ဆောင်မှုများ။ ✦ ကျန်းမာရေးနှင့် ဘေးကင်းလုံမြို့ရေးဆိုင်ရာ ကိစ္စရပ်များ။ ✦ ယဉ်ကျေးမှု အမွေအနစ်များ။ ✦ ဥယျာဉ်/ပန်းမာန်များ။ ✦ အမြင်အာရုံပသာဒ ✦ ကျန်းမာရေးဆိုင်ရာအခြေခံအချက်အလက်	✦ ဒေသဆိုင်ရာ အချက်အလက်များအားကိုးကား သုံးသပ်ခြင်း။ ✦ လူမှု စစ်တမ်းများနှင့် လူမှုစီးပွား ဆိုင်ရာ အချက်အလက်များအား ပြန်လည် သုံးသပ်ခြင်း။ ✦ အလုပ်သမားဥပဒေများအား ပြန်လည်သုံးသပ်ခြင်းနှင့် လက်ရှိကျင့်သုံး လျက်ရှိသော အလုပ်အကိုင်ခန့်ထားမှု နည်းလမ်းများ။ ✦ ဒေသခံပြည်သူများနှင့် တွေ့ဆုံ ဆွေးနွေးခြင်း။ ✦ ကျွမ်းကျင်ပညာရှင်များနှင့် တွေ့ဆုံမေးမြန်းခြင်း။ ✦ သက်ဆိုင်ရာ အစိုးရဌာနများမှ အချက်အလက် အကုအညီရယူခြင်း။ ✦ နမူနာကောက်ယူလေ့လာခြင်း။

အခြေခံ ပတ်ဝန်းကျင် ကွင်းဆင်းလေ့လာခြင်း

ရုပ်ပိုင်းဆိုင်ရာလေ့လာမှု အကျဉ်းချုပ်

တုန်ခါမှု	Parameter	Vibration (Lveq)
	ကာလ	တစ်နေ့ရာတွင် တစ်ကြိမ်တိုင်းတာမှု
	နေရာ	Shwe Daehan Motors Co.,Ltd စက်ရုံအတွင်း, သာဓုကန် စက်မှုဇုန်
	တိုင်းတာသည့် ကိရိယာ	Rion Vibration meter
မြေအောက်ရေ အရည်အသွေး	Parameter	1) Water temperature, 2) Air temperature, 3) pH, 4) Electrical Conductivity, and 5) Dissolved Oxygen, 6) Oxidation reduction potential, 7) Total dissolved solid, 8) Salinity
	ကာလ	တစ်နေ့ရာတွင် တစ်ကြိမ်တိုင်းတာမှု
	နေရာ	Shwe Daehan Motors Co.,Ltd စက်ရုံအတွင်း, သာဓုကန် စက်မှုဇုန်
	တိုင်းတာသည့် ကိရိယာ	Hanna, Smartroll (multiparameter probe) and Hanna single probe
မြေ အရည်အသွေး	Parameter	1) pH, 2) Arsenic, 3) Mercury, 4) Copper, 5) Lead, 6) Zinc, 7) Chromium, 8) Selenium, 9) Boron, 10) Fluoride, 11) Cadmium
	ကာလ	တစ်နေ့ရာတွင် တစ်ကြိမ်တိုင်းတာမှု
	နေရာ	Shwe Daehan Motors Co.,Ltd စက်ရုံအတွင်း, သာဓုကန် စက်မှုဇုန်
	တိုင်းတာသည့် ကိရိယာ	Environmental soil sampling instrument (manual hand auger)

အခြေခံ ပတ်ဝန်းကျင် ကွင်းဆင်းလေ့လာခြင်း တည်နေရာပြ မြေပုံ



အခြေခံ ပတ်ဝန်းကျင် ကွင်းဆင်းလေ့လာခြင်း

ရုပ်ပိုင်းဆိုင်ရာလေ့လာမှု အကျဉ်းချုပ်

လေအရည်အသွေး	Parameter	1) Nitrogen dioxide, 2) CO, 3) particulate Matter PM10, 4) Particulate Matter PM 2.5, 5) Sulphur Dioxide, 6) Relative Humidity, 7) Temperature, 8) Wind Speed, and 9) Wind Direction
	ကာလ	၂၄ နာရီတစ်ကြိမ်တိုင်းတာမှု
	နေရာ	Shwe Daehan Motors Co.,Ltd စက်ရုံအတွင်း, သာဓုကန် စက်မှုဇုန်
	တိုင်းတာသည့် ကိရိယာ	Haz Scanner EPAS
အသံဆူညံမှု	Parameter	LAeq (A-weighted loudness equivalent)
	ကာလ	၂၄ နာရီတစ်ကြိမ်တိုင်းတာမှု
	နေရာ	Shwe Daehan Motors Co.,Ltd စက်ရုံအတွင်း, သာဓုကန် စက်မှုဇုန်
	တိုင်းတာသည့် ကိရိယာ	Sound Level Meter

ဖြစ်ပေါ်လာနိုင်သည့် ပတ်ဝန်းကျင်အပေါ် ထိခိုက်သက်ရောက်မှုများ

အမျိုးအစား	လေ့လာခဲ့သည့် ကိစ္စရပ်များ	လေ့လာဆန်းစစ်ခြင်းနည်းလမ်းများ
အပင်နှင့်ဇီဝမျိုးစိတ်မျိုးကွဲများ	✦ ကာကွယ်ထိန်းသိမ်းထားသည့် မျိုးစိတ်မျိုးကွဲများ တည်ရှိမှု။ ✦ ဂေဟာစနစ်ပုံစံ။	✦ အပင်နှင့် သတ္တဝါများအားကွင်းဆင်းစစ်တမ်း ကောက်ယူ လေ့လာခြင်း။ ✦ သက်ဆိုင်ရာ ဥပဒေ ပြဋ္ဌာန်းချက်များ နှင့် သက်ဆိုင်ရာမြေပုံများအား ကိုးကားခြင်း။ ✦ သက်ဆိုင်ရာအစိုးရဌာနများမှအချက်အလက်များရယူခြင်း။

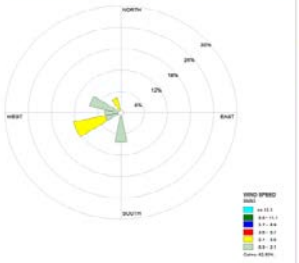
လေအရည်အသွေး





နမူနာကောက်ယူသည့် ပို့ဆောင်မှတ်	AQM
GPS အမှတ်	16°59'39.3"N 96°05'05.5"E
နမူနာကောက်သူသည့်နေရာ	ရန်ကုန်တိုင်းဒေသကြီး၊ ဒဂုံမြို့သစ် မြို့နယ်၊ သာစုကန်စက်မှုရုံ၊ ရွှေဒယ်ပန်း စက်ရုံဝင်းအတွင်း
အသုံးပြုသည့် စက်	Environmental Perimeter Air Station, Haz Scanner
တိုင်းတာသည့် ဖါတ်မွှေ့၊ ညစ်ညမ်းမှု နှင့် အခြားအစားများ	PM10, PM2.5, SO2, NO, NO2, CO, VOC, Temperature, Humidity, Wind Speed and Direction
ရလဒ်ကသုံးသပ်သည့်နည်းနစ်	Onsite Reading

လေအရည်အသွေးစစ်တမ်း ကောက်ယူနေစဉ်ကာလ မှတ်တမ်းတင်ရရှိသော ဆန်းစစ်ချက်ရလာဒ်များ



Pollutants	Averaging Time	Unit	Concentration	NEQG Value
PM10	24-hr	µg/m³	120.98	50
PM2.5	24-hr	µg/m³	112.87	25
SO2	24-hr	µg/m³	16.83	20
NO	24-hr	µg/m³	17.73	-
NO2	24-hr	µg/m³	9.98	200 (1-hr) 40 (1-yr)
CO	24-hr	µg/m³	185.57	-
Temperature	24-hr	°C	23.81	-
Humidity	24-hr	%	62.66	-

မျှော်မှန်းပေးပို့ထားသည့်အချက်အလက်	အနောက်၊ အနောက်တောင်နှင့် တောင်ဘက်မှ များဆောအရှိန် တိုက်ဆော်ထားသည်။
ပျှမ်းမှု ပေးပို့ထားသည့် နှုန်း	၁.၅၈ m/s
ပျှမ်းမှု ပေးပို့ပြီးသက်မှု	၆၂.၅၄%
မှတ်တမ်းတင်သည့်ကာလ	၁၅ ဇ၊ ၂၀၁၉ မှ ၁၆၊ ဇ၊ ၂၀၁၉ (၂၄နာရီ)
မှတ်တမ်းတင်သူ	သမ္မာတရိန်း REM

အသံနှင့် တုန်ခါမှု

	ဆူညံသံ	တုန်ခါမှု
နမူနာကောက်ယူသည့် ပို့ဆောင်ခဲ့တာ	N-1	V-1
GPS အမှတ်	16°59'39.3"N 96°05'05.5"E	16°59'40.7"N 96°05'04.8"E
နမူနာကောက်သူသည့်နေရာ	ရွှေဒယ်ပန်း စက်ရုံဝင်းအတွင်း	ရွှေဒယ်ပန်း စက်ရုံ ပင်ပတ်အနီး

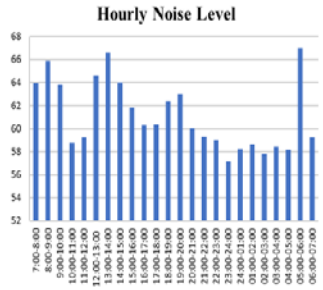


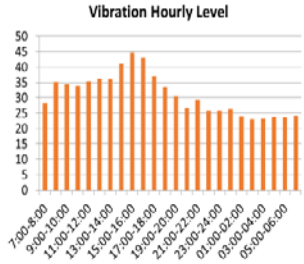


N-1	Noise 15th- 16th January, 2019	
	Day time	Night time
Result	62	59
Industrial standard	70	70

V-1			
Result	Daytime (7 am - 7 pm)	Evening time (7 pm - 10 pm)	Night time (10 pm - 7 am)
	37	29	24
Office, Commerical facilities, and factories Standard	70 dB	65 dB	65 dB

အသံနှင့် တုန်ခါမှု





မြေအောက်ရေအရည်အသွေး

နမူနာကောက်ယူသည့် ပို့ဆောင်တာ	GW- 1
GPS အမှတ်	16°59'35.0"N 96°05'01.0"E
နမူနာကောက်သူသည့်နေရာ	သာစုကန်စက်မှုရုံ၊ ရွှေဒယ်ပန် စက်ရုံဝင်းအတွင်း။

လက်တွေ့ကွင်းဆင်းရာတွင် အသုံးပြုခဲ့သော စက်ပစ္စည်းများ







မြေအောက်ရေ အရည်အသွေး ဆန်းစစ်ချက် ရလာဒ်များ



မြေအရည်အသွေး

နမူနာကောက်ယူသည့် ပို့ဆောင်တာ	S-1
GPS အမှတ်	16°59'40.12"N 96°05'5.59"E
နမူနာကောက်သူသည့် နေရာ	သာစုကန်စက်မှုရုံ၊ ရွှေဒယ်ပန် စက်ရုံအရှေ့၊
အသုံးပြုခဲ့သောပစ္စည်း	Manual Hand Auger



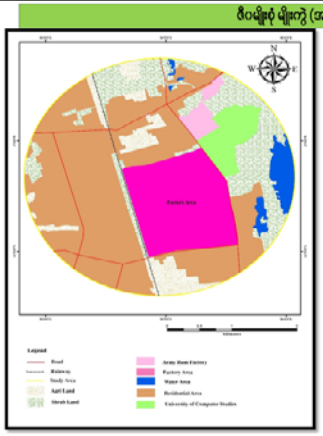


No.	Parameter	Results
		S-1
1	pH	ND
2	Arsenic (As)	1.84
3	Mercury (Hg)	ND
4	Copper (Cu)	4.77
5	Lead (Pb)	5.42
6	Zinc (Zn)	28.1
7	Chromium (Cr)	18.6
8	Selenium (Se)	ND
9	Boron (B)	8.05
10	Fluoride (F)	ND
11	Cadmium (Cd)	ND

ဇီဝမျိုးစုံ မျိုးကွဲ (အပင် နှင့် သတ္တဝါ)



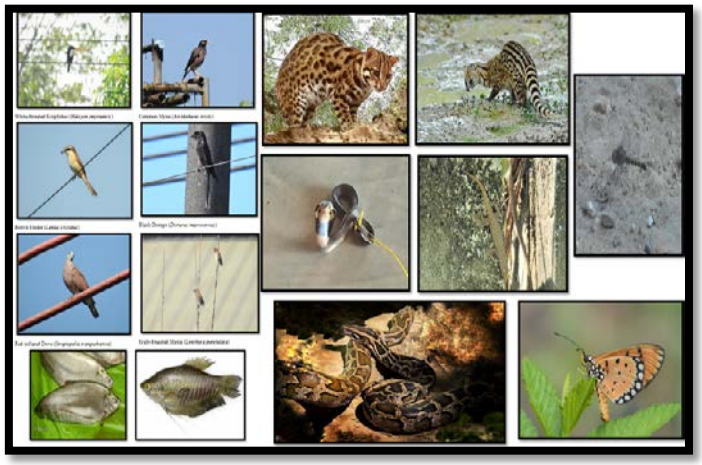
ဇီဝမျိုးစုံ မျိုးကွဲ (အပင် နှင့် သတ္တဝါ)



စစ်တမ်းကောက်ယူနေစဉ်ကာလအတွင်း အောက်ဖော်ပြပါ အပင်နှင့် သတ္တဝါမျိုးစိတ်များကို မှတ်တမ်းတင်ခဲ့ပါသည်။

အပင်/သတ္တဝါမျိုးစိတ်အမည်	အရေအတွက်
အပင်	၅၁
နို့တိုက်သတ္တဝါ	၃
ကုန်းနေနေရေနှင့် နှစ် ကွားသွားသတ္တဝါ	၅
ငှက်	၃၀
လိပ်ပြာ	၁၁
ပုစဉ်းဆင်ကဲ့	၁
ငါး	၁၁

ဂုဒ်းတွေ့ရှိရသော မျိုးစိတ်များထဲတွင် IUCN Red List of Globally Threatened Species (2018-2) သတ်မှတ်ချက် များအရ Least Concern (LC) နှင့် Vulnerable (VU) မျိုးစိတ်များကို မှတ်တမ်းတင်ခဲ့ပါသည်။



လူမှု ပတ်ဝန်းကျင် လေ့လာခြင်း

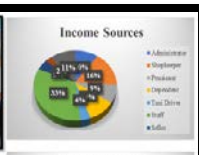
- လူမှု ပတ်ဝန်းကျင်ဆိုင်ရာအား လေ့လာရာတွင် ဒေသဆိုင်ရာ ဘည်ဆောက်မှု၊ ဒေသဓိဌာနေး အဆင့်၊ ဝင်ငွေ နှင့် ပညာရေး နှင့်အတူ ရွေ့ပြည်သာ မြို့နယ်ရှိ လုထုအခွဲ့အရည်း နှင့်ပက်သက်သည့် ကိစ္စရပ်များကို အဓိကထားလေ့လာခဲ့ပါသည်။
- လူမှုပတ်ဝန်းကျင်စစ်တမ်းလေ့လာမှုများအား ၁၆ နှင့် ၁၇ ဇန်နဝါရီ ၂၀၁၉ တွင် စီမံကိန်းမှ ၁ ကီလိုမီတာ အတွင်းတွင် ကောက်ယူခဲ့ပါသည်။ စုစုပေါင်း ၈၄ ယောက်အား အဓိက အားဖြင့် လက်ရှိ လူမှုစီးပွား အခြေအနေနှင့် အဆိုပြုထားသော စီမံကိန်းအပေါ် အမြင်များစသည့် ဖြင့် အဓိပ်ဒါန်ဝိုင်းခဲ့၍ တွေ့ဆုံ မေးမြန်းခဲ့ပါသည်။
- စီမံကိန်းသည် ဝက်မုခန်အတွင်းတွင် ရှိသောကြောင့် လူမှုစီးပွားအပေါ် သိသာထင်ရှားသော သက်ရောက်မှု မရှိပါ။ ရပ်ကွက်အားလုံးသည် နည်းပညာနှင့် အလုပ်အကိုင် အခွင့်အလမ်းများကိုးပွားလာခြင်း ဝိသောဆုဝင်ငွေတိုးလာမည်ဟု မျှော်လင့်ကြပါသည်။
- လူမှုပတ်ဝန်းကျင်စစ်တမ်းကောက်ယူခဲ့သော ရွာများမှာ-

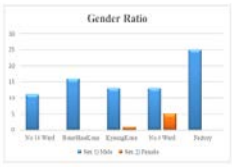
R-1 - အမှတ် (၁၄) ရပ်ကွက်
R-2 - ဗိုလ်ချွေကုန်း
R-3 - ကျောင်းကုန်း
R-4 - အမှတ် (၄)ရပ်ကွက်
R-5 - ရွှေသပ်ဟန် စက်ရုံမှ ဂန်ထမ်းများ

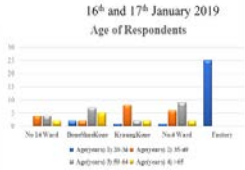
Socioeconomic Conditions













သက်ရောက်မှုအကဲဖြတ်နည်းလမ်း

Parameter	Scale				
	1	2	3	4	5
Magnitude (M)	Insignificant	small and will have no effect on environment	Moderate and will result in minor changes on environment	High and will result in significant changes on environment	Very high and will result in permanent changes on environment
Duration (D)	0-1 year	2-5 year	6-15 year	Life of operation	Post Closure
Extent (E)	Limited to the site	Limited to the local area	Limited to the region	National	International
Probability (P)	Very improbable	Improbable	Probable	Highly probable	Definite

Explantation

Significant Point (SP) = (Magnitude + Duration + Extent) * Probability

Significant Point (SP)	Impact Significance
<15	No impact (-)
15-29	Low impact (L)
30-44	Moderate significant (I)
45-59	High significant (B)
> 60	Very high significant (A)

သက်ရောက်မှုများ	အလားအလာရှိသော သက်ရောက်မှု					သိသာ ထင်ရှားသော သက်ရောက်မှု
	M	D	E	P	SP	
ရုပ်ပိုင်းဆိုင်ရာ အရင်းအမြစ်						
မြေထိုက်စားမှု	3	2	1	3	21	နိမ့်
အင်တာဒွန်ရှင်းမှု	4	2	1	4	28	နိမ့်
မှုန်ထုလွှင်မှု	4	2	2	4	32	အလယ်အလတ်
အသံထုလွှင်မှု နှင့် တုန်ခါမှု	4	2	2	4	32	အလယ်အလတ်
အိတ်ဇက်မှု ထုတ်လွှတ်မှု	4	2	2	4	32	အလယ်အလတ်
ရေဒုဒ်ထုလွှင်မှု	4	2	2	4	32	အလယ်အလတ်
ရေသုံးစွဲမှု	4	2	2	4	32	အလယ်အလတ်
ဇီဝအရင်းအမြစ်						
သစ်ပင်ပန်းမန်းများ	4	2	2	4	32	အလယ်အလတ်
တိရိစ္ဆာန်များ	2	2	2	5	30	အလယ်အလတ်
လူမှုစီးပွားရေးအခြေအနေနှင့် လုံခြုံမှု						
ရပ်ဝန်းဆိုင်ရာ အချုပ်ပါများ	3	2	2	3	21	နိမ့်
အသံထုလွှင်မှုအား ထိတွေ့မှု	4	2	2	4	32	အလယ်အလတ်
ကျန်းစာရေးမှုများ	1	2	1	3	12	မရှိ
လူမှုစီးပွားရေးဆိုင်ရာအခြေအနေများ						
မြေအသုံးချမှု	2	2	1	5	25	နိမ့်
ဓလေ့ဝံးထုံးမှု	4	2	1	5	35	အလယ်အလတ်
လုံခြုံမှု	2	2	2	3	18	နိမ့်

သက်ရောက်မှုများအား magnitude, duration, spatial and frequency of activities စသည်တွင် စီမံကိန်းအဆင့်တိုင်း နှင့် စီမံကိန်းလက္ခဏာ စသည်တွင် တွက်ချက်ထားပါသည်။ အဆိုပါ အကဲဖြတ် အခြေခံတွက် နှင့် အခွင့်အလမ်းနှင့် နစ်နာဖိစေသည့် သက်ရောက်မှုတိုင်းအခေရပါမှာ ပြုဋ္ဌ ၅ မျိုးခွဲခြားထားပါသည်။

သက်ရောက်မှု ဆန်းစစ်ချက်များ ရလဒ် (လည်ပတ်ကာလ)

သက်ရောက်မှုများ	အလားအလာရှိသော သက်ရောက်မှု					သိသာ ထင်ရှားသော သက်ရောက်မှု
	M	D	E	P	SP	
ရုပ်ပိုင်းဆိုင်ရာ အရင်းအမြစ်						
အမှုန်ထုလွှင်မှု	3	4	2	3	27	နိမ့်
အသံထုလွှင်မှု	3	4	2	3	27	နိမ့်
အန္တရာယ်ရှိသော ပစ္စည်းများ	4	4	2	3	30	အလယ်အလတ်
အပိုင်းဆစ်မှုနိမ့်မှု	3	4	1	3	24	နိမ့်
ရုပ်ဆင်ပြောင်းမှုများ ဘုံစွဲမှု	4	4	2	3	30	အလယ်အလတ်
လုပ်ငန်းခွင်ကျန်းမာရေးနှင့် လုံခြုံမှု						
မလာမည်မှားး ထိတွေ့မှု	4	4	1	3	27	နိမ့်
အသံထုလွှင်မှု နှင့် တုန်ခါမှုအား ထိတွေ့မှု	4	4	1	3	27	နိမ့်
စက်ပစ္စည်းများ	5	4	1	3	30	အလယ်အလတ်
လူမှုစီးပွားဆင်းမြမ်းမှုများ						
အလုပ်အကိုင် အခွင့်အလမ်းများ	4	4	2	5	50	မြင့်မားး (+)
စီးပွားရေး အခွင့်အလမ်းများတိုးပွားလာမှု	4	4	2	5	50	မြင့်မားး (+)
ကိုင်စွဲသည် အသုံးများကိုးပွားလာမှု	3	4	3	4	36	အလယ်အလတ် (+)
လုံခြုံရေး တိုးတက်လာမှု	5	4	1	3	30	အလယ်အလတ် (+)

သက်ရောက်မှု ဆန်းစစ်ချက်များ ရလဒ် (ဖျက်သိမ်းကာလ)

သက်ရောက်မှုများ	အလားအလာရှိသော သက်ရောက်မှု					သိသာ ထင်ရှားသော သက်ရောက်မှု
	M	D	E	P	SP	
ရုပ်ပိုင်းဆိုင်ရာ အရင်းအမြစ်						
အမှုန်ထုလွှင်မှု	4	1	1	4	24	နိမ့်
အသံထုလွှင်မှု နှင့် တုန်ခါမှု	5	1	1	5	35	အလယ်အလတ်
အပိုင်းဆစ်မှုနိမ့်မှု	5	1	1	5	35	အလယ်အလတ်
ရေ ဒုဒ်ထုလွှင်မှု	3	1	1	4	20	နိမ့်
ဇီဝအရင်းအမြစ်						
အင်ပင်များ	1	1	1	2	6	မရှိ
တိရိစ္ဆာန်များ	1	1	1	2	6	မရှိ
လုပ်ငန်းခွင်ကျန်းမာရေးနှင့် လုံခြုံမှု						
ရပ်ဝန်းဆိုင်ရာ အချုပ်ပါများ	2	1	1	3	12	မရှိ
လူမှုစီးပွားဆင်းမြမ်းမှုများ						
အလုပ်အကိုင် အခွင့်အလမ်းများ	2	5	1	5	40	အလယ်အလတ်

စောင့်ကြပ်စစ်ဆေးမည့် အစီအရင်

No.	Items	Parameters
a	ရေအရည်အသွေး (မြစ်ဆောက်ဝင်ရေ အရည်အသွေး)	Color, pH, DO, TDS, TSS, COD, BOD, , temperature, flow rate, electrical conductivity, total coliform, total nitrogen, total phosphorous, turbidity, copper (Cu), zinc (Zn), iron (Fe)
b	ဂဂၢ အရည်အသွေး	PM_{10}, CO, SO_2, NO_x , TSPM, Noise level
c	မြေ အရည်အသွေး	မြန်မာ့မှုန်မှုန် မြန်မာ့သည် ရေနံ တဘုတ်ဝေ ပစ္စည်းများ အဝင်အထွက်
d	လုပ်ငန်းခွင် ဝေဘက်ငင်းမြို့ရေး	PPE, မီးသတ်ဆေးများ၊ စတေဖုသပါ စစ်ဆေးရေး တက်ယ်သည့်နည်းများနှင့်ရေး ဝိသေတီမှတ်ချက် ဆေးပေးခန်းများ
e	လူမှုဝိုင်းဝန်း အပြောင်းအရွေ့	ထိစေ့တိုးပွားလာမှု အလုပ်သမားကို အခွင့်အလမ်း စက်ရုံ သည်ရိုင်းခြင်းတွင် လူမှုအပြောင်းအလဲများ သွားလာမှု စစ်ဆေးချက်သတ်မှတ်ခြင်း

အမျိုး	အပြောင်းလဲမှုများ	Parameter	သတ်မှတ်ထားသည့် ရည်ကိုးစံနှုန်း	ကြီးကြပ်ရသည့် နည်းလမ်း	ကြီးကြပ်ရသည့် အချိန်	တာဝန်ယူဆောင်ရွက်သူ
လည်ပတ်ကာလ						
	ဂဂၢ အရည်အသွေး	TSP, PM10, CO, CO_2, NO_x	အမျိုးသားအဆင့် အတိုင်းအတာ	ဆက်လက်လေ့လာ	နှစ်စဉ်	Contractor/ HSE Manager
	သောက်သုံးရေး	Drinking Water Parameter (WHO)	အမျိုးသားအဆင့် အတိုင်းအတာ	No per WHO Guidelines	လုပ်ငန်း	Contractor/ HSE Manager
	မြေအောက်ရေ	Ground Water Parameter (WHO)		လုပ်ငန်း	နှစ်စဉ်	Contractor/ HSE Manager
	ရေ	Water level	မြန်မာ့ရေရာဇာ	Cu. m/s	လုပ်ငန်း	ကားဆရာ	Contractor/ HSE Manager
	ကျည်ဆံ	Noise level on dB(A) scale	အမျိုးသားအဆင့် အတိုင်းအတာ	dB	ကြိုးကိုးကွယ်ပုံ ကြိုးကိုးကွယ်ပုံ	ကုမ္ပဏီအကြီး	Contractor/ HSE Manager
	မြစ်ဆိုးရေများ ကြိုးကာမှု	Wastewater effluent Parameter (WHO)	အမျိုးသားအဆင့် အတိုင်းအတာ	as per WHO Guidelines	မြစ်ဆိုးရေများ ကြိုးကာမှု၊ ရေသုံး ရေသုံးမှုနှင့် အစီအစဉ်များ ပေးသွား	ကားဆရာ	Contractor/ HSE Manager
	အပြင်ဆန်းမှုများ	အမျိုးသား ပတ်ဝန်းကျင် ကာကွယ်ရေးဥပဒေ၊ ပတ်ဝန်းကျင် ထိခိုက်မှုနှင့် ကြီးကြပ်စီမံခန့်ခွဲမှု အစီအစဉ်များ၊ ပြည်သူ့ ကျန်းမာရေး	ပတ်ဝန်းကျင်ထိခိုက်မှုနှင့် ကြီးကြပ်စီမံခန့်ခွဲမှု အစီအစဉ်များ	No	မြစ်ဆိုးရေများ	အကောင်	Contractor/ HSE Manager
				လုပ်ငန်းခွင် ကျန်းမာရေး			
	ဆောက်လုပ်ရေး ကိစ္စရပ်များ	အလုပ်သမားများအတွက် ကျန်းမာရေးနှင့် ဘေးကင်းလုံခြုံရေး ဆင်းသက်ခြင်းများ အတိုက်အကာ ကိစ္စရပ်များ	ဆောက်လုပ်ရေး ကိစ္စရပ်များ	ဆောက်လုပ်ခြင်းများ ကိုးကွယ်ရေးများ	စီမံကိန်းစတင်ချိန်	ဆိုးသွမ်းမှု	Contractor/ HSE Manager

ကျောက်မီးသက်သာစေရေး နည်းလမ်းများ (စက်ရုံလည်ပတ်ခင်ကာလ)

သတ်ရောက်မှုများ	လျော့ပါးသက်သာစေရေး ဆောင်ရွက်မှုများ
လူနာတွဲခွဲခြင်းတာဝန်ယူခြင်း	ကားများပြေးဆွဲမှုအတွက်ယာဉ်မောင်းများ ၊ မြေဖားမောင်းသမားတို့ကို အရည်အချင်းပြည့်မီသော ကိုယ်ချင်းစာတတ်သော ကုသိမ်းသူတို့ ထိန်းချုပ်နိုင်သော ကုသိမ်းနိုင်မှုတို့ ဆောင်ရွက်ခြင်း
သုံးစွဲပုံအမျိုးမျိုး	ပြုလုပ်ထားခြင်း ဆေးရုံအဆင့်အတန်းအလိုက် ဝန်ထမ်းအရေအတွက်ကို သတ်မှတ်ခြင်း ဆေးကောက်ခံရေးကို ရုံး ၅ ရက်တစ်ကြိမ် ကောက်ခံခြင်း ဆေးပစ္စည်းများ ဝယ်ယူခြင်း
လျှပ်စစ်မီးပျံ့နှံ့ပုံမမှန်ခြင်း	အရှိန်မှန်ကို အပူချိန်ကို ထိန်းချုပ်နိုင်သော Air handling equipment များအား အသုံးပြုခြင်းဖြင့် လျှပ်စစ်ဓာတ်ပုံများကို ၂၄ % အထိ လျော့ချနိုင်ခြင်း ဆေးရုံအသုံးပြုမှုအားလုံး ဆေးဆေးဘောင်ကြိုးများကို အသုံးပြုခြင်း လျှပ်စစ်ဓာတ်ပုံအတွက် လာရောက်ပို့ဆောင်သူတို့ကို ဆက်သွယ်ခြင်းတာဝန်ကို ဆေးရုံဆိုင်ရာဝန်ထမ်းများအား ပေးအပ်ခြင်း
မျက်စိပြင်းထန်ပြာလဲခြင်းဆိုင်ရာ အန္တရာယ်များ	ဓာတ်ငွေ့ဆေးထုတ်ယက်ခြင်းနှင့်ပတ်သက်သော ဒီဇိုင်းဆွဲခြင်း (သန့်ကျားရေး ၊ ဗဟိုအေးပေးစက်) အပူပြန်ထားသည့် ဒီဇိုင်းများ ကျန်ခြင်းမရှိအောင် အသေချာစွဲခြင်း နှစ်ပေါင်း ကျန်းမာရေးစစ်ဆေးခြင်း ဆိုးဆေးခြင်း ခွဲစိတ်ကုသမှုအခန်းဆိုင်ရာ ဒီဇိုင်းများ ပြင်ဆင်ခြင်း ၊ ဆေးကုသမှုအခန်းများ ဆေးကုသမှုအခန်းများ ဆေးကုသမှုအခန်းများ ခွဲစိတ်ဆေးအခန်းများ ပြင်ဆင်ခြင်း သင့်လျော်သောအခန်းဆိုင်ရာ ဒီဇိုင်းပြင်ဆင်ခြင်းတို့ကို (ဆေးကုသမှုအခန်းများ ၊ ဆေးကုသမှုအခန်းများ) သတ်မှတ်ထားခြင်းတို့ကို ဆေးရုံပိုင်ဆိုင်သူများ ဆေးရုံအုပ်ချုပ်ရေးမှူးများ ဆေးရုံအုပ်ချုပ်ရေးမှူးများ ဆေးရုံအုပ်ချုပ်ရေးမှူး

အများပြည်သူနှင့် တိုင်ပင်ဆွေးနွေးခြင်းနှင့် အများပြည်သူသို့ ထုတ်ဖော်တင်ပြခြင်း

၂) EIA အစီရင်ခံစာ ပြင်ဆင်မှုနှိုက်ကာလအတွင်း (14th August 2019)

စီမံကိန်းအဆိုပြုသူသည် ဧရာက်ဇော်ပြပါ တိုင်ပင်ဆွေးနွေးမှုလုပ်ငန်းစဉ်ကို ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းအတွက် ဝိုစမ်း စစ်ဆေးခြင်း၏ အဓိကအပိုင်းအခြေ ဆောင်ရွက်ရမည်။

(က) အဆိုပြုစီမံကိန်း ယင်းဆိုးဝိုးဒေသာ်သက်ရောက်မှုများနှင့် သက်ဆိုင်သော သတင်းအချက်အလက်များကို အများပြည်သူနှင့် လူမှုအဖွဲ့အစည်းများသိရှိနိုင်စေရန် သက်ဆိုင်ရာဒေသနှင့် နိုင်ငံတိုင်းဒေသကြီးများမှ လည်းကောင်း၊ စီမံကိန်း သို့မဟုတ် စီမံကိန်းအဆိုပြုသူ၏ ဝက်ဘ်ဆိုဒ်မှလည်းကောင်း စာကြည့်တိုက်များ၊ ပြည်သူ့ဝန်းမများ၊ သတင်းစာကဲ့သို့သော မီဒီယာများမှ လည်းကောင်း၊ စီမံကိန်းရုပ်ပစ်ဒေသရှာတွင် အများရွေးသော အောင် ဆိုင်းတုတ်များ၊ ပိုက်ထုတ်လည်းကောင်း၊ အခြားသင့် လျော်သော နည်းလမ်းဖြင့်လည်းကောင်း သတင်းစာရွက်းလမ်းညွှန်များ ဝေ့ဖွဲ့ဆုံးဆွေးနွေးနိုးပြုလုပ်မှုလည်းကောင်းအရှိန်နှင့် တစ်ခြားပြီးတော်ထုတ်တင်ပြခြင်း

(ခ) စီမံကိန်းကြောင့် ထိခိုက်ခံစားရသူများ အုပ်ချုပ်ရေးအဖွဲ့အစည်းများ ရပ်ရွာအခြေ အဖွဲ့အစည်းများ လူမှုအဖွဲ့ အစည်းများ၊ပါဝင်သည့် အဖျိုးသားဒေသခံ ပန်းပြည်ထောက်ကောင်စီနယ်မြေ ဟိုးဒေသကြီး သို့မဟုတ် ပြည်နယ်အဆင့်နှင့် ဒေသအဆင့် တိုင်ပင်ဆွေးနွေးခွဲများ စီစဉ်ကျင်းပခြင်း

(ဂ) ဝန်ကြီးဌာန၊ သက်ဆိုင်ရာဝန်ကြီးဌာန၊ ဒေသဆိုင်ရာအစိုးရအဖွဲ့ စာရင်းကို အဓိကထင် သက်ဆိုင်သည့်အစိုးရအဖွဲ့ အစည်းများနှင့် ကိုင်းပင်ညှိနှိုင်းခြင်း

(ဃ) ဝန်ကြီးဌာနနှင့် သက်ဆိုင်သည့်အစိုးရများ၊ အဖွဲ့အစည်းများအတွက် ကွင်းဆင်းလေ့လာမှုအစီအစဉ်များ စီစဉ်ခြင်း။

၃) ဝန်ကြီးဌာနသို့ အစီရင်ခံစာ တင်သွင်းပြီးသည့်ကာလအတွင်း

စီမံကိန်းအဆိုပြုသူသည် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းအစီအရင်ခံစာကို ဦးစီးဌာနသို့ တင်သွင်းပြီး နောက် ၁၅ ရက်ထက်နောက်မကျစေဘဲ၊ ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း အစီရင်ခံစာကို လူမှုအဖွဲ့အစည်း၊ စီမံကိန်းကြောင့်ထိခိုက်ခံစားရသူများ၊ သက်ဆိုင်ရာအစိုးရ အဖွဲ့အစည်းများ၊ ဒေသခံလူမှုအဖွဲ့ အစည်းများနှင့် အခြားအကျိုးသက်ဆိုင်သူများသိရှိနိုင်ရန် သတင်းစာကဲ့သို့သော နိုင်ငံပိုင် မီဒီယာများမှ လည်းကောင်း၊ စီမံကိန်း သို့မဟုတ် စီမံကိန်း အဆိုပြုသူ၏ ဝက်ဘ်ဆိုဒ်မှလည်းကောင်း စာကြည့်တိုက်များ၊ ပြည်သူ့ဝန်းမများ စသည့် အများပြည်သူဆိုင်ရာနေရာများတွင်လည်းကောင်း စီမံကိန်းအဆိုပြုသူ၏ ရုံးဌာနများတွင် လည်းကောင်း ထုတ်ဖော်ကြော်ငြာရမည်။

ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်မှု အစီရင်ခံစာ

ပါဝင်မည့်အခန်းကဏ္ဍများ

- အစီရင်ခံစာအကျဉ်းချုပ်
- စီမံကိန်းနောက်ခံအချက်အလက်များ
- မူဝါဒဥပဒေဆိုင်ရာနှင့်အဖွဲ့အစည်းဆိုင်ရာမူဘောင်များ
- စီမံကိန်းအကြောင်းအရာဖော်ပြချက်နှင့်အခြားနည်းလမ်းရွေးချယ်ခြင်း
- အနီးပတ်ဝန်းကျင်ဆိုင်ရာနှင့် လူမှုရေးဆိုင်ရာ အကြောင်းအရာဖော်ပြချက်
- ပတ်ဝန်းကျင်အပေါ် သက်ရောက်မှုနှင့်ဘေးအန္တရာယ်ရှိမှုဆန်းစစ်ခြင်းနှင့်လျော့ချသောနည်းလမ်းများ
- ဃက်စပ်သက်မှောက်မှုဆန်းစစ်ခြင်း(ကျန်းမာရေးဆိုင်ရာမှု၊ ဘေးအန္တရာယ်ဖြစ်မပေါ်နိုင်မှု၊ စုပေါင်းသက်ရောက်မှု၊ ကြွင်းကျန်သက်ရောက်မှု)
- ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်
- အများပြည်သူနှင့်တိုင်ပင်ဆွေးနွေးခြင်းနှင့်သတင်းအချက်အလက်များထုတ်ဖော် တင်ပြခြင်း

အများပြည်သူနှင့် တိုင်ပင်ဆွေးနွေးခြင်းနှင့် အများပြည်သူသို့ ထုတ်ဖော်တင်ပြခြင်း (ပထမအကြိမ်)





အများပြည်သူနှင့် တိုင်ပင်ဆွေးနွေးခြင်းနှင့် အများပြည်သူသို့ ထုတ်ဖော်တင်ပြခြင်း (ပထမအကြိမ်)





တက်ရောက်လာကြသော စီမံကိန်းနှင့်သက်ဆိုင်သူများမှ စီမံကိန်းနှင့် ပတ်သက်၍ သိရှိလိုသည်များ မေးမြန်းခြင်း

Chapter 8 Conclusion and Recommendation

Conclusions

The purpose of this report is to identify the Environmental and Social Impact Assessment (ESIA) for the proposed “Shwe Daehan Motors Co., ltd” factory for manufacturing, sales and after sales service of Motor Vehicles and Motorcycles in Myanmar. The scope has been determined through consideration of the baseline environmental and social conditions of the construction site and surrounding area and likely environmental and social effects associated with the proposed development, together with details of the methodology proposed for the specialized technical assessments.

As ESIA investigation, the environmental quality, social and biodiversity surveys to meet with ESIA’s requirement will be developed for the management of the natural environment of the project and monitor implementation of the project impacts during construction and operation stages of the project. Based on this study on the scoping stage, Environmental Management and Monitoring Plan will be prepared by incorporating mitigation measures mentioned above together with the roles of implementing, responsible and supervising organizations for each negative impact during planning, construction, operation, decommissioning stages.

Recommendation

The proposed Shwe Daehan Motors Co., ltd” factory for manufacturing, sales and after sales service of Motor Vehicles and Motorcycles in Myanmar has been shown the that the project activities cannot generate significantly to the natural environment. However, the expected impacts could be controlled by the mitigation measurement by the investigation of ESIA study and it is also essential that proper Environmental Management and Monitoring Plan be develop and effectively implemented with due consideration of the impacts.

Finally, the manufacturing, sales and after sales service of Motor Vehicles and Motorcycles will be considered as one of the development projects for country. The project proponent will follow the public views, comments and recommendation.

PER UNIT CONSUMPTION – ACCENT

(REVISED VERSION)

Attachment - (VI)

REVISED PER UNIT CONSUMPTION
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Sr.No.	Particulars	A/U	Consumption
	ENGINE ASSY TRANSMISSION & CLUTCH SYSTEM		
1	HCI 1.4 K GEN(I2) UNL EURO 2 AT (HC-019)	EA	1
2	BOLT-FLANGE (CM-042)	EA	3
3	V-RIBBED BELT (HC-025)	EA	1
4	BOLT-FLANGE (CM-043)	EA	4
5	STARTER ASSY (HC-058)	EA	1
6	BOLT-FLANGE (CM-038)	EA	1
7	SENSOR-CRANKSHAFT POSITION (HC-064)	EA	1
8	BOLT-FLANGE (CM-036)	EA	2
9	NUT-FLANGE (CM-073)	EA	1
10	COMPUTER & BRKT ASSY (HC-063)	EA	1
11	BOLT-FLANGE (CM-044)	EA	2
12	BOLT-SPECIAL (CM-104)	EA	4
13	AUTO T/M & TQ/CONV ASSY (HC-065)	EA	1
14	BOLT-WASHER ASSY (CM-105)	EA	3
15	BRKT ROLL ROD SUPT (HC-066)	EA	1
	BODY AND CHASSIS GROUP		
16	SKD BIP- HCI 1.4 KAPPA AT (HC-114)	EA	1
	FRONT AND REAR AXLES		
17	NUT-LOCKING (CM-064)	EA	2
18	AXLE ASSY-FR,LH (HC-072)	EA	1
19	AXLE ASSY-FR,RH (HC-073)	EA	1
20	BOLT-FLANGE (HC-074)	EA	8
21	BEARING-RR HUB UNIT (HC-075)	EA	2
22	BOLT (CM-108)	EA	4
23	FLANGE NUT-SELF LOCKING (CM-112)	EA	6
24	STRUT COMPLETE-FR,LH (HC-079)	EA	1
25	STRUT COMPLETE-FR,RH (HC-080)	EA	1
26	BOLT-FLANGE (CM-041)	EA	4
27	STAB/BAR & BUSHING ASSY-FR (HC-083)	EA	1
28	LINK ASSY-STABILIZER (HC-084)	EA	2
29	CROSS MEMBER & LWR ARM COMPL (HC-119)	EA	1
30	AXLE COMPLETE-TORSION BEAM (HC-085)	EA	1
31	BUSH-TORSION BEAM AXLE (HC-086)	EA	2
32	SPRING ASSY-RR (HC-088)	EA	2
33	WASHER-SPRING (CM-083)	EA	4
34	BRAKE ASSY-FR,LH (HC-095)	EA	1
35	BRAKE ASSY-FR,RH (HC-096)	EA	1
36	BOLT (CM-123)	EA	4
37	M/SCREW-COUNTERSUNK HEAD (CM-052)	EA	2
38	DRUM-RR BRAKE (HC-099)	EA	2
39	BRAKE ASSY-RR,LH (HC-097)	EA	1
40	BRAKE ASSY-RR,RH (HC-098)	EA	1
41	BOLT-WASHER ASSY (CM-003)	EA	2
42	BOLT-HOSE CONNECTOR (CM-125)	EA	2
43	HOSE ASSY-FR BRAKE,LH (HC-103)	EA	1
44	HOSE ASSY-FR BRAKE,RH (HC-104)	EA	1
45	GASKET-EYE JOINT (CM-126)	EA	4
46	BOLT-WASHER ASSY (CM-005)	EA	2
47	HOSE ASSY-RR BRAKE,LH (HC-105)	EA	1
48	HOSE ASSY-RR BRAKE,RH (HC-106)	EA	1

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Sr.No.	Particulars	A/U	Consumption
49	BOLT-WASHER ASSY (CM-029)	EA	4
50	WHEEL SPEED SENSOR ASSY-FR,LH (HC-112)	EA	1
51	WHEEL SPEED SENSOR ASSY-FR,RH (HC-113)	EA	1
52	NUT-FLANGE (CM-076)	EA	2
53	CABLE ASSY-A.B.S EXTENSION,LH (HC-346)	EA	1
54	CABLE ASSY-A.B.S EXTENSION,RH (HC-347)	EA	1
55	BOLT-WASHER ASSY (HC-007)	EA	2
56	CABLE ASSY-PARKING BRAKE,LH (HC-110)	EA	1
57	CABLE ASSY-PARKING BRAKE,RH (HC-111)	EA	1
58	SHAFT ASSY-DRIVE,LH (HC-070)	EA	1
59	SHAFT ASSY-DRIVE,RH (HC-071)	EA	1
60	NUT (CM-107)	EA	2
	SUSPENSION GROUP		
61	NUT-FLANGE (CM-080)	EA	2
62	FLANGE NUT-SELF LOCKING (CM-112)	EA	2
63	COVER-INSULATOR DUST (CM-113)	EA	2
64	COVER-INSULATOR DUST (HC-081)	EA	2
65	BOLT (CM-116)	EA	2
66	NUT-WASHER ASSY (CM-127)	EA	2
67	SHOCK ABSORBER COMPLETE-RR (HC-087)	EA	2
68	BOLT-FLANGE (HC-082)	EA	4
69	BOLT-FLANGE (CM-114)	EA	2
70	BOLT (CM-115)	EA	2
	STEERING WHEEL		
71	STEERING WHEEL COMPLETE (HC-089)	EA	1
72	BOLT-STEERING WHEEL MTG (CM-117)	EA	1
73	BOLT (HC-092)	EA	1
74	NUT-FLANGE (CM-069)	EA	2
75	WASHER-PLAIN (CM-081)	EA	1
76	WASHER-SPRING (CM-082)	EA	1
77	COLUMN & JOINT ASSY-STRG (HC-090)	EA	1
78	BOLT (HC-091)	EA	1
79	BOLT-FLANGE (CM-035)	EA	3
80	NUT-SLOTTED (CM-062)	EA	2
81	GEAR ASSY-STEERING (HC-093)	EA	1
82	PROTECTOR-HEAT (HC-094)	EA	1
83	BOLT (CM-121)	EA	2
84	PIN-SPLIT (CM-122)	EA	2
	EXHAUST SYSTEM		
85	NUT LOCK (CM-063)	EA	4
86	MUFFLER ASSY-FR (HC-040)	EA	1
87	GASKET (CM-097)	EA	1
88	MUFFLER COMPLETE-CTR & RR (HC-041)	EA	1
89	GASKET (CM-098)	EA	1
90	NUT-WASHER ASSY (CM-068)	EA	13
91	PNL-HEAT PROTECTOR FR (HC-042)	EA	1
92	PNL-HEAT PROTECTOR CTR (HC-043)	EA	1
93	PNL-HEAT PROTECTOR RR (HC-044)	EA	1
	WHEELS & TYRES		
94	WHEEL-ALUMINUM (HC-076)	EA	5
95	VALVE-TIRE (CM-110)	EA	5

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Sr.No.	Particulars	A/U	Consumption
96	TIRE (HC-077)	EA	5
97	WEIGHT-WHEEL BALANCE (CM-109)	EA	9
98	NUT ASSY-HUB (CM-111)	EA	16
99	CAP ASSY-WHEEL HUB (HC-078)	EA	4
	SEAT ASSEMBLY		
100	SEAT ASSY-FR,LH (HC-319)	EA	1
101	SEAT ASSY-FR,RH (HC-320)	EA	1
102	CUSHION ASSY-RR SEAT,LH (HC-324)	EA	1
103	BACK ASSY-RR SEAT,LH (HC-325)	EA	1
104	BACK ASSY-RR SPLIT,RH (HC-326)	EA	1
105	BOLT-SEAT RAIL MTG (CM-175)	EA	8
106	BOLT-WASHER ASSY (CM-023)	EA	3
107	BOLT-FLANGE, TAPER (HC-011)	EA	8
108	PLUG (HC-017)	EA	8
109	BOLT-WASHER ASSY P/CLEAR (CM-174)	EA	2
110	COVER ASSY-HINGE,RH (HC-327)	EA	1
111	STRIKER ASSY-RR SEAT BACK (HC-328)	EA	2
112	HOOK ASSY-RR SEAT CUSHION (CM-176)	EA	2
113	HINGE ASSY-RR SEAT BACK CTR (HC-329)	EA	1
114	HINGE ASSY-RR S/BACK SIDE,LH (HC-330)	EA	2
115	BOLT-WASHER ASSY, TAPER (HC-006)	EA	2
116	BOLT-GUIDE, COATING (SELF-ALIGNMNET) (HC-018)	EA	2
117	S/BELT ASSY-FR P/TENSR 3PT,LH (HC-321)	EA	1
118	S/BELT ASSY-FR P/TENSR 3PT,RH (HC-322)	EA	1
119	HEIGHT ADJUSTER ASSY-FR (HC-323)	EA	2
120	S/BELT ASSY-2ND E.L.R 3PT,LH (HC-331)	EA	1
121	S/BELT ASSY-2ND E.L.R 3PT,RH (HC-332)	EA	1
122	DOUBLE BKL ASSY-2ND S/BELT,LH (HC-333)	EA	1
123	TONGUE BKL ASSY-2ND S/BELT,RH (HC-334)	EA	1
	TRIMMING PARTS, DASHBOARD, INSTRUMENT PANEL,		
124	CARRIER ASSY-FR END MODULE (HC-121)	EA	1
125	BOLT ASSY-WASHER (CM-128)	EA	12
126	INSULATOR-DASH PNL (HC-222)	EA	1
127	NUT-WASHER ASSY (CM-065)	EA	2
128	BEAM COMPLETE-FR BUMPER (HC-123)	EA	1
129	INSULATOR-FENDER,LH (HC-225)	EA	1
130	INSULATOR-FENDER,RH (HC-226)	EA	1
131	BOLT-WASHER ASSY (CM-018)	EA	10
132	BOLT-WASHER ASSY (CM-034)	EA	4
133	NUT-WASHER ASSY (CM-068)	EA	12
134	NUT-FLANGE (CM-071)	EA	4
135	PLUG (CM-086)	EA	8
136	PLUG (CM-087)	EA	4
137	PLUG (CM-088)	EA	4
138	PLUG (CM-089)	EA	12
139	PLUG (CM-090)	EA	2
140	BRKT-FOOTREST (HC-122)	EA	1
141	EXTN-COWL SIDE MTG,LH (HC-124)	EA	1
142	EXTN-COWL SIDE MTG,RH (HC-125)	EA	1
143	PLUG (HC-223)	EA	2
144	PLUG-WAX INJECTION (HC-224)	EA	2

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Sr.No.	Particulars	A/U	Consumption
145	PLUG-WAX INJECTION (CM-145)	EA	2
146	PLUG-FR SIDE MBR DRAIN (CM-146)	EA	2
147	PLUG ASSY-BODY & VALVE (CM-147)	EA	31
148	NUT-PLUG (CM-148)	EA	2
149	PAD-ANTINOISE (HC-228)	EA	4
150	PAD-ANTINOISE (CM-150)	EA	6
151	ANTI PAD-RR FLOOR FR,RH (CM-151)	EA	4
152	PAD-ANTINOISE,RH (CM-152)	EA	8
153	BOLT-DR SIDE HINGE MTG (CM-130)	EA	16
154	LATCH & ACTUATOR ASSY-FR DR,LH (HC-142)	EA	1
155	LATCH & ACTUATOR ASSY-FR DR,RH (HC-143)	EA	1
156	M/SCREW SEMS-TORX OVAL HEAD (CM-136)	EA	12
157	STRIKER ASSY-DR (HC-146)	EA	4
158	M/SCREW-TORX (CM-135)	EA	8
159	HDL-DR O/S,LH (HC-180)	EA	1
160	COVER-DR O/S HDL,LH (HC-182)	EA	1
161	PAD-DR O/S HDL FR,LH (HC-184)	EA	2
162	PAD-DR O/S HDL RR,LH (HC-185)	EA	2
163	BASE ASSY-FR DR O/S HDL,LH (HC-186)	EA	1
164	HDL-DR O/S,RH (HC-187)	EA	1
165	COVER-DR O/S HDL,RH (HC-189)	EA	2
166	PAD-DR O/S HDL FR,RH (HC-190)	EA	2
167	PAD-DR O/S HDL RR,RH (HC-191)	EA	2
168	BASE ASSY-FR DR O/S HDL,RH (HC-192)	EA	1
169	T/SCREW-FLANGE HEAD (CM-058)	EA	30
170	GROMMET-SCREW (CM-084)	EA	18
171	HDL ASSY-FR DR I/S,LH (HC-176)	EA	2
172	HOUSING ASSY-FR DR I/S HDL,LH (HC-177)	EA	1
173	HDL ASSY-FR DR I/S,RH (HC-178)	EA	2
174	HOUSING ASSY-FR DR I/S HDL,RH (HC-179)	EA	1
175	BOLT-WASHER ASSY (CM-008)	EA	14
176	BOLT-WASHER ASSY (CM-013)	EA	4
177	CHECKER ASSY-FR DR,LH (HC-128)	EA	1
178	CHECKER ASSY-FR DR,RH (HC-129)	EA	1
179	W/STRIP-FR DR BODY SIDE,LH (HC-153)	EA	1
180	W/STRIP-FR DR BODY SIDE,RH (HC-154)	EA	1
181	W/STRIP ASSY-FR DR SIDE,LH (HC-155)	EA	1
182	W/STRIP ASSY-FR DR SIDE,RH (HC-156)	EA	1
183	SEAL-FR DR TRIM,LH (HC-164)	EA	1
184	SEAL-FR DR TRIM,RH (HC-165)	EA	1
185	W/STRIP ASSY-FR DR BELT O/S,LH (HC-157)	EA	1
186	W/STRIP ASSY-FR DR BELT O/S,RH (HC-158)	EA	1
187	T/SCREW ASSY-NYLON WASHER (HC-161)	EA	4
188	W/STRIP-FR DR BELT I/S,LH (HC-159)	EA	1
189	W/STRIP-FR DR BELT I/S,RH (HC-160)	EA	1
190	PNL ASSY-FR DR TRIM COMPL,LH (HC-162)	EA	1
191	PNL ASSY-FR DR TRIM COMPL,RH (HC-163)	EA	1
192	SUPPORT-FR DR PULL HDL MTG,LH (CM-140)	EA	4
193	PLUG-HOLE (CM-141)	EA	4
194	COVER ASSY-FR DR QDRNT INR,LH (HC-315)	EA	1
195	COVER ASSY-FR DR QDRNT INR,RH (HC-316)	EA	1

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Sr.No.	Particulars	A/U	Consumption
196	BOLT-FLANGE (CM-037)	EA	8
197	GLASS ASSY-FR DR TINTED,LH (HC-168)	EA	1
198	GLASS ASSY-FR DR TINTED,RH (HC-169)	EA	1
199	NUT-FLANGE (CM-075)	EA	47
200	RUN ASSY-FR DR WINDOW GLASS,LH (HC-172)	EA	1
201	RUN ASSY-FR DR WINDOW GLASS,RH (HC-173)	EA	1
202	CHNL & RUN ASSY-FR DR RR,LH (HC-174)	EA	1
203	CHNL & RUN ASSY-FR DR RR,RH (HC-175)	EA	1
204	REG ASSY-FR DR PWR/WDW,LH (HC-166)	EA	1
205	REG ASSY-FR DR PWR/WDW,RH (HC-167)	EA	1
206	LATCH & ACTUATOR ASSY-RR DR,LH (HC-144)	EA	1
207	LATCH & ACTUATOR ASSY-RR DR,RH (HC-145)	EA	1
208	HDL-DR O/S,LH (HC-181)	EA	1
209	COVER-DR O/S HDL,LH (HC-183)	EA	1
210	HDL-DR O/S,RH (HC-188)	EA	1
211	BASE ASSY-RR DR O/S HDL,LH (HC-215)	EA	1
212	BASE ASSY-RR DR O/S HDL,RH (HC-216)	EA	1
213	HOUSING ASSY-RR DR I/S HDL,LH (HC-213)	EA	1
214	HOUSING ASSY-RR DR I/S HDL,RH (HC-214)	EA	1
215	CHECKER ASSY-RR DR,LH (HC-130)	EA	1
216	CHECKER ASSY-RR DR,RH (HC-131)	EA	1
217	W/STRIP-RR DR BODY SIDE,LH (HC-193)	EA	1
218	W/STRIP-RR DR BODY SIDE,RH (HC-194)	EA	1
219	W/STRIP ASSY-RR DR SIDE,LH (HC-195)	EA	1
220	W/STRIP ASSY-RR DR SIDE,RH (HC-196)	EA	1
221	SEAL-RR DR TRIM,LH (HC-203)	EA	1
222	SEAL-RR DR TRIM,RH (HC-204)	EA	1
223	W/STRIP ASSY-RR DR BELT O/S,LH (HC-197)	EA	1
224	W/STRIP ASSY-RR DR BELT O/S,RH (HC-198)	EA	1
225	T/SCREW-FLANGE HEAD (HC-004)	EA	6
226	MOULDING ASSY-RR DR DELTA,LH (HC-217)	EA	1
227	MOULDING ASSY-RR DR DELTA,RH (HC-218)	EA	1
228	W/STRIP-RR DR BELT I/S,LH (HC-199)	EA	1
229	W/STRIP-RR DR BELT I/S,RH (HC-200)	EA	1
230	PNL ASSY-RR DR TRIM COMPL,LH (HC-201)	EA	1
231	PNL ASSY-RR DR TRIM COMPL,RH (HC-202)	EA	1
232	COVER ASSY-RR DR DELTA INR,LH (HC-219)	EA	1
233	COVER ASSY-RR DR DELTA INR,RH (HC-220)	EA	1
234	GLASS ASSY-RR DR TINTED,LH (HC-207)	EA	1
235	GLASS ASSY-RR DR TINTED,RH (HC-208)	EA	1
236	RUN ASSY-RR DR WINDOW GLASS,LH (HC-209)	EA	1
237	RUN&CHNL ASSY-R/D DELTA LWR,LH (HC-210)	EA	1
238	RUN ASSY-RR DR WINDOW GLASS,RH (HC-211)	EA	1
239	RUN&CHNL ASSY-R/D DELTA LWR,RH (HC-212)	EA	1
240	REG ASSY-RR DR PWR/WDW,LH (HC-205)	EA	1
241	REG ASSY-RR DR PWR/WDW,RH (HC-206)	EA	1
242	INSULATION PAD ASSY-HOOD (HC-134)	EA	1
243	CAP-NUT (CM-129)	EA	2
244	ROD ASSY-HOOD STAY (HC-136)	EA	1
245	CABLE ASSY-HOOD LATCH RELEASE (HC-137)	EA	1
246	CLIP-HOOD LATCH RELEASE CABLE (CM-133)	EA	3

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Sr.No.	Particulars	A/U	Consumption
247	BOLT-WASHER ASSY (CM-009)	EA	18
248	LATCH ASSY-HOOD (HC-135)	EA	1
249	CABLE ASSY-HOOD LATCH RELEASE (HC-138)	EA	1
250	CLIP-2 PIECE (HC-015)	EA	9
251	TRIM-TRUNK LID (HC-149)	EA	1
252	PLUG-DRAIN HOLE (CM-138)	EA	3
253	W/STRIP-TRUNK LID (HC-312)	EA	1
254	BOLT-WASHER ASSY (CM-007)	EA	5
255	LATCH ASSY-TRUNK LID (HC-140)	EA	1
256	STRIKER ASSY-TRUNK LID (HC-139)	EA	1
257	BAR-TRUNK LID TORSION,LH (HC-126)	EA	1
258	BAR-TRUNK LID TORSION,RH (HC-127)	EA	1
259	HOLDER-T/LID TORSION BAR (HC-293)	EA	1
260	PAD-ANTINOISE (HC-229)	EA	2
261	CLIP-HOOD LATCH RELEASE CABLE (CM-132)	EA	4
262	CABLE ASSY-TRUNK LID REL,LH (HC-141)	EA	1
263	CATCH & CABLE ASSY-F/FILR DR (HC-148)	EA	1
264	HDL ASSY-F/F T/LID REL,LHD (CM-137)	EA	1
265	KEY SET (HC-151)	EA	1
266	LOCK ASSY-STEERING,ELECTRIC (HC-150)	EA	1
267	CLAMP-STRG & IGN LOCK (HC-152)	EA	1
268	BOLT-SAFETY LOCK (CM-139)	EA	2
269	ISOLATION PAD ASSY-DASH (HC-221)	EA	1
270	NUT-PLUG (CM-149)	EA	8
271	CARPET ASSY-FLOOR (HC-230)	EA	1
272	PLUG-TRIM MTG (HC-255)	EA	15
273	TRIM ASSY-RR PACKAGE TRAY (HC-261)	EA	1
274	RETAINER & WASHER ASSY (CM-164)	EA	11
275	TRIM ASSY-LUGGAGE SIDE,LH (HC-263)	EA	1
276	TRIM ASSY-LUGGAGE SIDE,RH (HC-264)	EA	1
277	CLIP-CANOE (HC-016)	EA	4
278	TRIM ASSY-RR TRANSVERSE (HC-265)	EA	1
279	TRIM ASSY-LUGGAGE PARTN SD,LH (HC-266)	EA	1
280	TRIM ASSY-LUGGAGE PARTN SD,RH (HC-267)	EA	1
281	RETN ASSY-BPR COVER MTG (CM-167)	EA	38
282	MAT ASSY-LUGGAGE COVERING (HC-262)	EA	1
283	M/SCREW-OVAL COUNTERSUNK HEA (CM-054)	EA	4
284	SUNVISOR ASSY,LH (HC-250)	EA	1
285	SUNVISOR ASSY,RH (HC-251)	EA	1
286	RETAINER-SUNVISOR ASSY (CM-160)	EA	2
287	COMPLETE ASSY-HEAD LINING (HC-252)	EA	1
288	HDL ASSY-ROOF ASSIST FR,RH (HC-259)	EA	2
289	HDL ASSY-ROOF ASSIST RR,LH (HC-260)	EA	1
290	PAD-ROOF NO.1 (HC-253)	EA	1
291	PAD-ROOF (HC-254)	EA	1
292	BRKT ASSY-ASSIST HDL MTG FR,RH (HC-256)	EA	1
293	BRKT ASSY-ASSIST HDL MTG RR,LH (HC-257)	EA	1
294	BRKT ASSY-ASSIST HDL MTG RR,RH (HC-258)	EA	1
295	TRIM ASSY-FR PILLAR,LH (HC-268)	EA	1
296	TRIM ASSY-FR PILLAR,RH (HC-269)	EA	1
297	TRIM ASSY-CTR PILLAR UPR,LH (HC-272)	EA	1

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Sr.No.	Particulars	A/U	Consumption
298	TRIM ASSY-CTR PILLAR LWR,LH (HC-273)	EA	1
299	TRIM ASSY-CTR PILLAR UPR,RH (HC-274)	EA	1
300	TRIM ASSY-CTR PILLAR LWR,RH (HC-275)	EA	1
301	TRIM ASSY-RR PILLAR,LH (HC-276)	EA	1
302	TRIM ASSY-RR PILLAR,RH (HC-277)	EA	1
303	TRIM ASSY-COWL SIDE,LH (HC-270)	EA	1
304	TRIM ASSY-COWL SIDE,RH (HC-271)	EA	1
305	TRIM ASSY-FR DR SCUFF,LH (HC-278)	EA	1
306	TRIM ASSY-FR DR SCUFF,RH (HC-280)	EA	1
307	TRIM ASSY-RR DR SCUFF,LH (HC-279)	EA	1
308	TRIM ASSY-RR DR SCUFF,RH (HC-281)	EA	1
309	TRIM ASSY-RR WHEEL HOUSE,LH (HC-282)	EA	1
310	TRIM ASSY-RR WHEEL HOUSE,RH (HC-283)	EA	1
311	BAR ASSY-COWL CROSS (HC-231)	EA	1
312	BOLT-WASHER ASSY (CM-019)	EA	17
313	BOLT-WASHER ASSY (HC-005)	EA	2
314	BOLT-WASHER ASSY (CM-153)	EA	2
315	BOLT-WASHER ASSY (HC-245)	EA	1
316	HOUSING ASSY-GLOVE BOX (HC-232)	EA	1
317	T/SCREW-FLANGE (CM-002)	EA	26
318	CRASH PAD MAIN ASSY (HC-240)	EA	1
319	TAPP`G SCREW-WITH PPF (CM-156)	EA	12
320	NOZZLE-SIDE DEFROSTER,LH (HC-397)	EA	1
321	NOZZLE-SIDE DEFROSTER,RH (HC-398)	EA	1
322	DUCT ASSY-SIDE AIR VENT,LH (HC-399)	EA	1
323	DUCT ASSY-SIDE AIR VENT,RH (HC-400)	EA	1
324	PNL ASSY-CRASH PAD CTR LWR (HC-244)	EA	1
325	PNL ASSY-CRASH PAD LWR,LH (HC-242)	EA	1
326	COVER ASSY-FUSE BOX (HC-243)	EA	1
327	COVER ASSY-C/PAD MAIN SD,RH (HC-246)	EA	1
328	COVER ASSY-C/PAD MAIN SD,LH (HC-247)	EA	1
329	PNL ASSY-CLUSTER FACIA (HC-248)	EA	1
330	SHROUD ASSY-STRG/COL LWR (HC-249)	EA	1
331	PNL ASSY-CTR FACIA (HC-241)	EA	1
332	BOLT-WASHER ASSY (CM-016)	EA	4
333	ASHTRAY ASSY-PORTABLE (CM-155)	EA	1
334	CONSOLE ASSY-FLOOR (HC-233)	EA	1
335	COVER-PARKING BRAKE (HC-234)	EA	1
336	MAT-RR CONSOLE TRAY (HC-238)	EA	1
337	NUT-FLANGE (CM-070)	EA	3
338	BRKT ASSY-CONSOLE RR MTG SUPT (HC-237)	EA	1
339	BEZEL ASSY-FLOOR CONSOLE FR (HC-236)	EA	1
340	PLUG ASSY-C/LIGHTER (CM-185)	EA	1
341	MAT-CONSOLE FR TRAY (HC-235)	EA	1
342	COVER ASSY-FLOOR CONSOLE UPR (HC-239)	EA	1
343	COMPLETE-C/PAD LWR SW (HC-362)	EA	1
344	NUT-WASHER ASSY (CM-067)	EA	3
345	HEATER COMPLETE ASSY (HC-389)	EA	1
346	DUCT-SHOWER,LH (HC-392)	EA	1
347	DUCT-SHOWER,RH (HC-394)	EA	1
348	DUCT ASSY-RR AIR VENT NO.1 (HC-388)	EA	1

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Sr.No.	Particulars	A/U	Consumption
349	T/SCREW-HEXAGON HEAD (CM-057)	EA	10
350	GROMMET ASSY-HEATER PIPE (CM-190)	EA	1
351	SEAL ASSY-EVAPORATOR PIPE (CM-192)	EA	1
352	HOSE ASSY-WATER INLET (HC-395)	EA	1
353	HOSE ASSY-WATER OUTLET (HC-396)	EA	1
354	GRILLE ASSY-AIR EXTRACTOR (HC-401)	EA	2
355	CONTROL ASSY-F.A.T.C HTR (HC-390)	EA	1
356	SNSR ASSY-S/PHOTO&A/LIGHT&LED (HC-391)	EA	1
357	AMBIENT TEMPERATURE SENSOR (HC-393)	EA	1
358	MODULE ASSY-DRIVER AIRBAG (HC-132)	EA	1
359	MODULE ASSY-PASSENGER AIRBAG (HC-133)	EA	1
360	GLASS ASSY-W/S TNTD VIN PLATE (HC-284)	EA	1
361	MOULDING ASSY-WINDSHIELD GLASS (HC-285)	EA	1
362	GLASS ASSY-RR WINDOW TNTD HTD (HC-308)	EA	1
363	MOULDING ASSY-RR WINDOW GLASS (HC-309)	EA	1
364	GARNISH ASSY-QUARTER FIXED,LH (HC-317)	EA	1
365	GARNISH ASSY-QUARTER FIXED,RH (HC-318)	EA	1
366	COVER & NOZZLE ASSY-COWL TOP (HC-286)	EA	1
367	COVER-COWL TOP SIDE,LH (HC-287)	EA	1
368	COVER-COWL TOP SIDE,RH (HC-288)	EA	1
369	RETAINER-COWL TOP COVER,MTG (CM-166)	EA	6
370	GARNISH ASSY-DELTA,LH (HC-289)	EA	1
371	GARNISH ASSY-DELTA,RH (HC-290)	EA	1
372	T/SCREW-FLANGE HEAD (CM-061)	EA	10
373	GUARD ASSY-FR WHEEL,LH (HC-300)	EA	1
374	GUARD ASSY-FR WHEEL,RH (HC-301)	EA	1
375	RETAINER (CM-168)	EA	4
376	BOLT ASSY-HEAD LAMP MTG (CM-178)	EA	2
377	GUARD ASSY-RR WHEEL,LH (HC-302)	EA	1
378	GUARD ASSY-RR WHEEL,RH (HC-303)	EA	1
379	GUARD ASSY-FR MUD,LH (HC-304)	EA	1
380	GUARD ASSY-FR MUD,RH (HC-305)	EA	1
381	GUARD ASSY-RR MUD,LH (HC-306)	EA	1
382	GUARD ASSY-RR MUD,RH (HC-307)	EA	1
383	MOLDING ASSY-ROOF,LH (HC-310)	EA	1
384	MOLDING ASSY-ROOF,RH (HC-311)	EA	1
385	EMBLEM-ACCENT (HC-291)	EA	1
386	SYMBOL MARK (HC-292)	EA	1
387	BOLT-WASHER ASSY (CM-017)	EA	6
388	T/SCREW-HEXAGON HEAD (CM-056)	EA	4
389	SCREW (CM-060)	EA	4
390	BUMPER ASSY-FR (HC-294)	EA	1
391	BRKT ASSY-FR BUMPER SIDE,LH (HC-295)	EA	1
392	BRKT ASSY-FR BUMPER SIDE,RH (HC-296)	EA	1
393	BOLT-WASHER ASSY (CM-024)	EA	4
394	TAPPING SCREW-STEP (CM-165)	EA	2
395	BUMPER ASSY-RR (HC-297)	EA	1
396	BRKT ASSY-RR BUMPER SD MTG,LH (HC-298)	EA	1
397	BRKT ASSY-RR BUMPER SD MTG,RH (HC-299)	EA	1
398	RETAINER ASSY (CM-191)	EA	2
399	RETAINER & WASHER ASSY (CM-169)	EA	2

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Sr.No.	Particulars	A/U	Consumption
400	SUPPORTER-RR L/PLATE (CM-173)	EA	2
401	MOTOR & LINK ASSY-W/SHLD WPR (HC-404)	EA	1
402	BOLT-WASHER ASSY (CM-193)	EA	2
403	WIPER BRKT-COWL FR (HC-405)	EA	1
404	NUT-WASHER ASSY (CM-194)	EA	2
405	ARM & BLADE ASSY-W/WPR D/SIDE (HC-406)	EA	1
406	CAP-WINDSHIELD WIPER ARM (CM-195)	EA	2
407	ARM & BLADE ASSY-W/WPR P/SIDE (HC-407)	EA	1
408	RESERVOIR & PUMP ASSY-W/WSHR (HC-408)	EA	1
409	CONN & HOSE ASSY-W/SHLD WSHR (HC-409)	EA	1
410	MIRROR ASSY-I/S RR VIEW (CM-158)	EA	1
411	COVER-I/S RR VIEW MIRROR (CM-159)	EA	1
412	BOLT-WASHER ASSY (CM-030)	EA	6
413	MIRROR ASSY-O/S RR VIEW,LH (HC-313)	EA	1
414	MIRROR ASSY-O/S RR VIEW,RH (HC-314)	EA	1
415	NEW ACCENT-AV (HC-410)	EA	1
416	FEEDER CABLE-ANTENNA MAIN NO.1 (HC-382)	EA	1
417	ANTENNA ASSY-ROOF (HC-380)	EA	1
418	POLE-COMBI ANT (HC-381)	EA	1
419	NUT-COMBINATION ANTENNA (CM-187)	EA	1
420	FEEDER CABLE-ANTENNA EXTN NO.1 (HC-383)	EA	1
421	MTG RIVET (CM-189)	EA	16
422	SPEAKER & PROTECTOR ASSY-DR (HC-384)	EA	4
423	NUT-FLANGE,PAINT CLEAR (HC-013)	EA	3
424	UNIT ASSY-AIRBAG CONTROL (HC-377)	EA	1
425	BOLT-FLANGE, TAPER (CM-051)	EA	2
426	SENSOR ASSY-A/TYPE CRASH (HC-378)	EA	2
427	FOB-SMART KEY (HC-373)	EA	2
428	UNIT ASSY-BODY CONTROL MODULE (HC-369)	EA	1
429	SWITCH ASSY-BUTTON START (HC-372)	EA	1
430	ANTENNA ASSY-SMART KEY (HC-370)	EA	2
431	UNIT ASSY-SMART KEY (HC-374)	EA	1
432	BOLT-WASHER ASSY (CM-026)	EA	1
433	HORN ASSY-BURGLAR ALARM (HC-387)	EA	1
434	BUZZER ASSY-PIEZO (HC-375)	EA	1
435	CAMERA & TRUNK LID HDL ASSY-RR (HC-376)	EA	1
436	HORN ASSY-LOW PITCHED DISK (HC-385)	EA	1
437	HORN ASSY-HIGH PITCHED DISK (HC-386)	EA	1
438	M/SCREW-WASHER ASSY (CM-053)	EA	2
439	SWITCH ASSY-MULTIFUNCTION (HC-363)	EA	1
440	CONNECTOR ASSY-STEERING ROLL (HC-364)	EA	1
441	COUNTER M/SCREW-EARTH BOLT (CM-177)	EA	4
442	SWITCH ASSY-DR (HC-365)	EA	4
443	CLUSTER ASSY-INSTRUMENT (HC-367)	EA	1
444	BATTERY ASSY-CMF45L (HC-059)	EA	1
445	BOLT-WASHER ASSY (CM-027)	EA	3
446	BOLT-WASHER ASSY (CM-028)	EA	1
447	TRAY ASSY-BATTERY (HC-061)	EA	1
448	CLAMP ASSY-BATTERY (CM-103)	EA	1
449	INSULATION PAD-BATTERY (HC-060)	EA	1
450	BOLT-FLANGE(F.T THREAD) (CM-047)	EA	1

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Sr.No.	Particulars	A/U	Consumption
451	SENSOR ASSY-BATTERY (HC-062)	EA	1
452	WIRING HARNESS-MAIN,LH (HC-335)	EA	1
453	BOLT-FLANGE(F.T THREAD) (CM-050)	EA	4
454	JUNCTION BLOCK ASSY-I.C.M (HC-349)	EA	1
455	WIRING HARNESS-FR (HC-336)	EA	1
456	BOLT-WASHER ASSY (CM-020)	EA	8
457	BOLT-WASHER ASSY (CM-021)	EA	12
458	BOLT-WASHER ASSY (CM-031)	EA	3
459	BOLT-FLANGE(F.T THREAD) (CM-048)	EA	10
460	BOLT-FLANGE(F.T THREAD) (HC-010)	EA	3
461	BRKT-WIRING MTG (HC-348)	EA	1
462	WIRING HARNESS-FLOOR (HC-337)	EA	1
463	PLUG DRAIN (CM-144)	EA	1
464	WIRING HARNESS-EARTH (HC-345)	EA	1
465	WIRING HARNESS-DR DRIVER SIDE (HC-338)	EA	1
466	WIRING HARNESS-DR P/SIDE (HC-339)	EA	1
467	WIRING HARNESS-RR DR,LH (HC-340)	EA	1
468	WIRING HARNESS-RR DR,RH (HC-341)	EA	1
469	NUT-FLANGE (CM-076)	EA	3
470	NUT-FLANGE (CM-077)	EA	5
471	WIRING HARNESS-BATTERY (HC-342)	EA	1
472	BOLT-FLANGE(F.T THREAD) (HC-009)	EA	1
473	WIRING HARNESS-ENGINE GROUND (HC-343)	EA	1
474	BOLT (CM-033)	EA	1
475	BOLT-FLANGE(F.T THREAD) (CM-049)	EA	1
476	WIRING HARNESS-T/M GROUND (HC-344)	EA	1
477	JUNCTION BLOCK-ENGINE ROOM (HC-350)	EA	1
478	JUNCTION BLOCK-INSTRUMENT PNL (HC-351)	EA	1
479	LAMP ASSY-HEAD,LH (HC-352)	EA	1
480	LAMP ASSY-HEAD,RH (HC-353)	EA	1
481	CLIP-HEAD LAMP MTG (HC-354)	EA	2
482	NUT-FLANGE (HC-147)	EA	4
483	FASTENER-T/GATE GLASS (CM-171)	EA	2
484	NUT-FLANGE (CM-172)	EA	2
485	LAMP ASSY-RR COMB O/S,LH (HC-355)	EA	1
486	LAMP ASSY-RR COMB O/S,RH (HC-356)	EA	1
487	LAMP ASSY-RR COMB I/S,LH (HC-357)	EA	1
488	LAMP ASSY-RR COMB I/S,RH (HC-358)	EA	1
489	NUT (CM-179)	EA	4
490	MT`G CLIP-RR COMBI (CM-180)	EA	2
491	LAMP ASSY-LICENSE PLATE,LH (HC-359)	EA	1
492	LAMP ASSY-LICENSE PLATE,RH (HC-360)	EA	1
493	LAMP ASSY-LUGGAGE & GLOVE (CM-182)	EA	1
494	T/SCREW-FLANGE HEAD (CM-001)	EA	2
495	GROMMET-SCREW (CM-085)	EA	2
496	LAMP ASSY-OVERHEAD CONSOLE (HC-361)	EA	1
497	LAMP ASSY-ROOM (CM-183)	EA	1
498	LABEL-TIRE PRESSURE (HC-001)	EA	1
499	O.V.M ASSY-JACK & HOOK (HC-002)	EA	1
500	TOOL SET (HC-003)	EA	1
501	CLAMP-SPARE TIRE (HC-120)	EA	1

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Sr.No.	Particulars	A/U	Consumption
502	NUT-FLANGE (HC-014)	EA	9
503	PIN-SNAP (CM-106)	EA	2
504	MASTER CYLINDER & BOOSTER ASSY (HC-100)	EA	1
505	PIN-ASSY (CM-124)	EA	1
506	HOSE ASSY-VACUUM (HC-108)	EA	1
507	NUT (CM-072)	EA	2
508	TUBE ASSY-ENGINE ROOM BRAKE (HC-101)	EA	1
509	TUBE ASSY-H/UNIT TO FR,RH (HC-102)	EA	1
510	BOLT-WASHER ASSY (CM-004)	EA	4
511	NUT-FLANGE (CM-078)	EA	2
512	A.B.S & BRKT ASSY (HC-107)	EA	1
513	BOLT-WASHER ASSY (CM-006)	EA	3
514	LEVER ASSY-PARKING BRAKE (HC-109)	EA	1
515	ANTI PAD-CTR FLOOR RR (HC-227)	EA	1
516	BOLT-FLANGE (CM-040)	EA	4
517	CAP ASSY-F/FILLER (HC-049)	EA	1
518	FUEL FILLER NECK COMPLETE (HC-050)	EA	1
519	BOLT-FUEL FILLER NECK (CM-100)	EA	4
520	LABEL-FUEL FILLER DR (CM-099)	EA	1
521	FUEL TANK COMPLETE (HC-051)	EA	1
522	COVER-FUEL PUMP A/S (HC-052)	EA	1
523	NUT-FLANGE LOCK (CM-101)	EA	2
524	BAND ASSY-FUEL TANK,LH (HC-053)	EA	1
525	BAND ASSY-FUEL TANK,RH (HC-054)	EA	1
526	CLAMP-FUEL TUBE (CM-102)	EA	1
527	NUT-WASHER ASSY (CM-066)	EA	2
528	TUBE ASSY-FUEL & BRAKE (HC-055)	EA	1
529	BOLT-WASHER ASSY (CM-014)	EA	2
530	NUT-FLANGE (CM-079)	EA	2
531	BRKT ASSY-ENGINE MTG (HC-020)	EA	1
532	BOLT & WASHER ASSY (CM-015)	EA	2
533	BRKT ASSY-TRANSMISSION MTG (HC-022)	EA	1
534	PACKING-TRANSMISSION MTG S/PNL (HC-023)	EA	1
535	BOLT-FLANGE (CM-092)	EA	2
536	NUT-FLANGE (CM-074)	EA	1
537	NUT-FLANGE(10) (CM-091)	EA	2
538	BRKT-ENGINE MTG SUPPORT (HC-021)	EA	1
539	BOLT (CM-094)	EA	1
540	BOLT-FLANGE (HC-008)	EA	2
541	BRKT ASSY-ROLL ROD (HC-024)	EA	1
542	BOLT (CM-093)	EA	1
543	PEDAL ASSY-ACCELERATOR (HC-056)	EA	1
544	BOLT-WASHER ASSY (CM-011)	EA	1
545	PEDAL ASSY-BRAKE (HC-057)	EA	1
546	BOLT-WASHER ASSY (CM-025)	EA	4
547	LEVER ASSY-AUTO TRANSMISSION (HC-067)	EA	1
548	CABLE ASSY-ATM (HC-069)	EA	1
549	KNOB & BOOT ASSY (HC-068)	EA	1
550	MODULE-COOLING (HC-026)	EA	1
551	GUARD-AIR,RH (HC-046)	EA	1
552	AIR GUARD-UPR (HC-047)	EA	1

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Sr.No.	Particulars	A/U	Consumption
553	GUARD-AIR,LH (HC-048)	EA	1
554	BOLT-WASHER ASSY (CM-022)	EA	2
555	FILLER NECK & HOSE ASSY-RAD (HC-027)	EA	1
556	CLAMP ASSY-HOSE (HC-028)	EA	2
557	HOSE-RADIATOR LWR (HC-032)	EA	1
558	BRKT ASSY-RADIATOR UPR MTG (HC-029)	EA	2
559	INSULATOR-RADIATOR LWR MTG (HC-030)	EA	2
560	LABEL-CAUTION (CM-095)	EA	1
561	HOSE-RADIATOR INLET (HC-031)	EA	1
562	HOSE ASSY-OIL COOLER (HC-033)	EA	1
563	HOSE ASSY-OIL COOLER (HC-034)	EA	1
564	PNL ASSY-UNDER COVER (HC-045)	EA	1
565	BOLT-FLANGE (CM-039)	EA	2
566	BOLT-FLANGE (HC-012)	EA	4
567	AIR CONDITIONER ASSY (HC-402)	EA	1
568	COMPRESSOR ASSY (HC-403)	EA	1
569	CLEANER COMPLETE-AIR (HC-035)	EA	1
570	BOLT-WASHER ASSY (CM-096)	EA	5
571	DUCT A ASSY-AIR (HC-036)	EA	1
572	DUCT ASSY-EXTENSION (HC-038)	EA	1
573	SHIELD-AIR INTAKE (HC-037)	EA	1
574	SHIELD ASSY-HEAT (HC-039)	EA	1
575	BRKT-I/C-UPPER (HC-411)	EA	1
576	INSULATOR-I/C MTG (HC-412)	EA	1
577	CLAMP ASSY-HOSE (HC-413	EA	1
	DOOR GROUP		
578	SKD BIP- HCI FRONT DOOR LH (HC-115)	EA	1
579	SKD BIP- HCI FRONT DOOR RH (HC-116)	EA	1
580	SKD BIP- HCI REAR DOOR LH (HC-117)	EA	1
581	SKD BIP- HCI REAR DOOR RH (HC-118)	EA	1

ATTACHMENT (8)

PER UNIT CONSUMPTION

(II) Tucson

Sr. No.	Particulars	A/U	Consumption
	ENGINE ASSY TRANSMISSION & CLUTCH SYSTEM		
1	ENGINE ASSY & ATA	SET	1
2	BRACKET ASSY-TRANSMISSION MTG	SET	1
3	BRACKET ASSY-ENGINE MTG	SET	1
4	BRACKET ASSY-ROLL ROD	SET	1
5	RADIATOR ASSY	SET	1
6	INSULATOR-RADIATOR MTG LWR	SET	1
7	BRACKET ASSY-RADIATOR MTG UPR	SET	1
8	HOSE ASSY-RADIATOR UPR	SET	1
9	HOSE ASSY-RADIATOR LWR	SET	1
10	RESERVOIR ASSY- RADIATOR	SET	1
11	GUARD-AIR	SET	1
12	CLEANER ASSY-AIR	SET	1
13	SENSOR ASSY-AIR FLOW	SET	1
14	HOSE ASSY-AIR INTAKE	SET	1
15	DUCT ASSY-AIR	SET	1
16	ELECTRONIC CONTROL UNIT	SET	1
17	PANEL ASSY-UNDER COVER	SET	1
18	INTERCOOLER	SET	1
19	INTERCOOLER HOSE A	SET	1
20	INTERCOOLER HOSE B	SET	1
21	FILLER NECK & HOSE ASSY	SET	1
22	TANK ASSY-FUEL	SET	1
23	BAND ASSY-FUEL TANK RH	SET	1
24	BAND ASSY-FUEL TANK LH	SET	1
25	BATTERY ASSY	SET	1
26	INSULATION PAD-BATTERY	SET	1
27	TRAY ASSY-BATTERY	SET	1
28	BRACKET-BATTERY	SET	1
29	TUBE & HOSE ASSY	SET	1
30	HOSE ASSY-ATA OIL COOLING	SET	1
	BODY AND CHASSIS GROUP		
31	BODY ASSY	SET	1
	FRONT AND REAR AXLES		
32	KNUCKLE-FRONT AXLE LH	SET	1
33	KNUCKLE-FRONT AXLE RH	SET	1
34	CARRIER ASSY-REAR AXLE LH	SET	1
35	CARRIER ASSY-REAR AXLE RH	SET	1
36	CARRIER ASSY-DIFFERENTIAL	SET	1
37	SHAFT ASSY-PROPELLER	SET	1
38	SHAFT ASSY-DRIVE LH	SET	1
39	SHAFT ASSY-DRIVE RH	SET	1
40	BEARING BRACKET & SHAFT ASSY	SET	1
41	SHAFT ASSY-DRIVE RR	SET	1
	SUSPENSION GROUP		
42	CROSSMEMBER COMPL	SET	1
43	LINK ASSY-FRONT STABILIZER LH	SET	1
44	LINK ASSY-FRONT STABILIZER RH	SET	1
45	LINK ASSY-REAR STABILIZER LH	SET	1
46	LINK ASSY-REAR STABILIZER RH	SET	1
47	STAY	SET	1
48	CROSSMEMBER-RR	SET	1
49	SHOCK ABSORBER ASSY-REAR	SET	1
50	SPRING-RR	SET	1
	STEERING WHEEL		
51	WHEEL ASSY-STEERING	SET	1

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(II) Tucson

Sr. No.	Particulars	A/U	Consumption
52	MODULE ASSY-STRG WHEEL AIR BAG	SET	1
53	COLUMN ASSY-UPPER	SET	1
54	JOINT ASSY-STRG	SET	1
	EXHAUST SYSTEM		
55	MUFFLER ASSY-FRONT	SET	1
56	MUFFLER ASSY-CENTER	SET	1
57	MUFFLER ASSY-REAR	SET	1
58	CONVERTER ASSY-WARM UP CATALYTIC	SET	1
	WHEELS & TYRES		
59	WHEEL ASSY-ALUMINIUM	SET	1
60	CAP ASSY-WHEEL HUB	SET	1
61	CLAMP-SPARE TIRE	SET	1
	SEAT ASSY		
62	FRONT SEAT ASSY LH	SET	1
63	FRONT SEAT ASSY RH	SET	1
64	2ND SEAT ASSY LH	SET	1
65	2ND SEAT ASSY RH	SET	1
66	2ND SEAT ASSY CENTER	SET	1
	TRIMMING PARTS, DASHBOARD, INSTRUMENT PANEL, WINDSHIELDS, WIRE HARNESS AND OTHER ACCESSORIES		
67	FR BUMPER ASSY	SET	1
68	BEAM COMPLETE-FR BUMPER	SET	1
69	BEAM-RR BUMPER	SET	1
70	RR BUMPER ASSY	SET	1
71	LAMP ASSY-HEAD LH	SET	1
72	LAMP ASSY-HEAD RH	SET	1
73	LAMP ASSY-REAR COMBINATION LH	SET	1
74	LAMP ASSY-REAR COMBINATION RH	SET	1
75	LAMP ASSY-REAR COMB INSIDE LH	SET	1
76	LAMP ASSY-REAR COMB INSIDE RH	SET	1
77	GUARD ASSY-FRONT WHEEL LH	SET	1
78	GUARD ASSY-FRONT WHEEL RH	SET	1
79	GUARD ASSY-REAR WHEEL LH	SET	1
80	GUARD ASSY-REAR WHEEL RH	SET	1
81	GUARD ASSY-FRONT WHEEL MUD LH	SET	1
82	GUARD ASSY-FRONT WHEEL MUD RH	SET	1
83	GUARD ASSY-REAR WHEEL MUD LH	SET	1
84	GUARD ASSY-REAR WHEEL MUD RH	SET	1
85	CARRIER ASSY-FRONT END MODULE	SET	1
86	WIRING ASSY-CONTROL	SET	1
87	WIRING ASSY-FRT	SET	1
88	HORN ASSY-LOW PITCH	SET	1
89	HORN ASSY-HIGH PITCH	SET	1
90	ARM ASSY-W/SHLD WPR(DRIVER)	SET	1
91	ARM ASSY-W/SHLD WPR(PASSENGER)	SET	1
92	ARM ASSY-RR WIPER	SET	1
93	RESERVOIR & PUMP ASSY-WASHER	SET	1
94	MIRROR ASSY-OUTSIDE RR VIEW LH	SET	1
95	MIRROR ASSY-OUTSIDE RR VIEW RH	SET	1
96	COVER ASSY-FR DR QDRNT INR LH	SET	1
97	COVER ASSY-FR DR QDRNT INR RH	SET	1
98	JACK AND TOOLS	SET	1
99	MANUAL SET	SET	1
100	SUPPORT ASSY-FUEL TUBE	SET	1
101	TUBE-FUEL FEED	SET	1
102	TUBE-FILTER TO ENG	SET	1

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(II) Tucson

Sr. No.	Particulars	A/U	Consumption
103	TUBE-FUEL RETURN	SET	1
104	F/BLOCK & HOSE ASSY	SET	1
105	FILTER ASSY-FUEL	SET	1
106	TUBE-CONNECTOR TO RR LH	SET	1
107	TUBE-CONNECTOR TO RR RH	SET	1
108	PEDAL ASSY-ACCELERATOR	SET	1
109	PEDAL ASSY-BRAKE	SET	1
110	LEVER ASSY-GEAR SHIFT	SET	1
111	CABLE ASSY-AUTO TRANSMISSION	SET	1
112	CURTAIN AIR BAG MODULE LH	SET	1
113	CURTAIN AIR BAG MODULE RH	SET	1
114	BOOSTER ASSY-BRAKE	SET	1
115	TUBE-M/CYL TO H/UNIT SEC	SET	1
116	TUBE ASSY-BRAKE	SET	1
117	TUBE-H/MODULE TO FR RH	SET	1
118	TUBE-H/MODULE TO CONNECTOR LH	SET	1
119	TUBE-H/MODULE TO CONNECTOR RH	SET	1
120	TUBE-H/MODULE TO FR LH	SET	1
121	TUBE-M/CYL TO H/UNIT PRI	SET	1
122	HOSE-BRAKE FRONT LH	SET	1
123	HOSE-BRAKE FRONT RH	SET	1
124	HOSE-REAR WHEEL LH	SET	1
125	HOSE-REAR WHEEL RH	SET	1
126	ABS ASSY	SET	1
127	SENSOR ASSY-ABS FRONT WHEEL LH	SET	1
128	SENSOR ASSY-ABS FRONT WHEEL RH	SET	1
129	SENSOR ASSY-ABS REAL WHEEL LH	SET	1
130	SENSOR ASSY-ABS REAL WHEEL RH	SET	1
131	PEDAL ASSY-PARKING BRAKE	SET	1
132	CABLE ASSY-PARKING BRAKE LH	SET	1
133	CABLE ASSY-PARKING BRAKE RH	SET	1
134	PAD-HOOD INSULATING	SET	1
135	LATCH ASSY-HOOD	SET	1
136	CABLE ASSY-HOOD LATCH RELEASE	SET	1
137	POWER LATCH ASSY-PWR T/GATE	SET	1
138	TRIM ASSY-TAIL GATE SIDE LH	SET	1
139	TRIM ASSY-TAIL GATE SIDE RH	SET	1
140	PANEL ASSY-TAIL GATE TRIM	SET	1
141	TRIM ASSY-TAIL GATE UPR	SET	1
142	GATE ASSY-POWER TAIL LH	SET	1
143	POWER TAIL GATE ASSY RH	SET	1
144	W/STRIP ASSY-T/GATE A/PINCH LH	SET	1
145	W/STRIP ASSY-T/GATE A/PINCH RH	SET	1
146	W/STRIP-TAIL GATE OPNG	SET	1
147	CONT MODULE ASSY-PWR T/GATE LH	SET	1
148	KEY & CYLINDER SET-LOCK	SET	1
149	PAD ASSY-ISOLATION DASH PANEL	SET	1
150	ISO PAD ASSY-COWL INR LWR PNL	SET	1
151	PAD ASSY-ANTINOISE	SET	1
152	PAD ASSY-FRONT TUNNEL	SET	1
153	PAD ASSY-REAR TUNNEL	SET	1
154	PAD ASSY-REAR WHEEL HOUSE LH	SET	1
155	PAD ASSY-REAR WHEEL HOUSE RH	SET	1
156	CARPET ASSY-FRONT FLOOR	SET	1
157	CARPET ASSY-REAR FLOOR	SET	1
158	CONSOLE ASSY-FLOOR	SET	1

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(II) Tucson

Sr. No.	Particulars	A/U	Consumption
159	COVER-CONSOLE SIDE LH	SET	1
160	COVER-CONSOLE SIDE RH	SET	1
161	COVER ASSY-CONSOLE UPR	SET	1
162	ARMREST ASSY-CONSOLE	SET	1
163	COVER ASSY-CONSOLE RR	SET	1
164	CRASH PAD ASSY-MAIN	SET	1
165	PANEL ASSY-LOWER CRASH PAD LH	SET	1
166	PANEL ASSY-CRASH PAD P/SIDE	SET	1
167	COVER ASSY-C/PAD SIDE LH	SET	1
168	COVER ASSY-C/PAD SIDE RH	SET	1
169	SHROUD-STEERING COLUMN LWR	SET	1
170	SUNVISOR ASSY LH	SET	1
171	SUNVISOR ASSY RH	SET	1
172	HANDLE ASSY-ROOF ASSIST REAR LH	SET	1
173	HANDLE ASSY-ROOF ASSIST FRONT RH	SET	1
174	HEADLINING ASSY	SET	1
175	FEEDER CABLE-ANTENNA	SET	1
176	TRIM ASSY-LUGGAGE SIDE LH	SET	1
177	TRIM ASSY-LUGGAGE SIDE RH	SET	1
178	NET ASSY-LUGGAGE	SET	1
179	BOARD ASSY-LUGGAGE	SET	1
180	SCREEN ASSY-CARGO	SET	1
181	TRIM ASSY-RR TRANSVERSE	SET	1
182	TRIM ASSY-FR PILLAR LH	SET	1
183	TRIM ASSY-FRT DR STEP LH	SET	1
184	TRIM ASSY-FRT DR STEP RH	SET	1
185	TRIM ASSY-FR PILLAR RH	SET	1
186	TRIM ASSY-COWL SIDE LH	SET	1
187	TRIM ASSY-COWL SIDE RH	SET	1
188	TRIM ASSY-CTR PILLAR UPR LH	SET	1
189	TRIM ASSY-CTR PILLAR UPR RH	SET	1
190	TRIM ASSY-CTR PILLAR LWR LH	SET	1
191	TRIM ASSY-CTR PILLAR LWR RH	SET	1
192	TRIM ASSY-RR PILLAR LH	SET	1
193	TRIM ASSY-RR PILLAR RH	SET	1
194	TRIM ASSY-FR DR SCUFF LH	SET	1
195	TRIM ASSY-FR DR SCUFF RH	SET	1
196	TRIM ASSY-RR DR SCUFF LH	SET	1
197	TRIM ASSY-RR DR SCUFF RH	SET	1
198	TRIM ASSY-RR DR STEP LH	SET	1
199	TRIM ASSY-RR DR STEP RH	SET	1
200	GLASS ASSY-WINDSHIELD	SET	1
201	MOULDING-WINDSHIELD GLASS	SET	1
202	COVER ASSY-COWL TOP	SET	1
203	GARNISH ASSY-DELTA LH	SET	1
204	GARNISH ASSY-DELTA RH	SET	1
205	GLASS ASSY-TAIL GATE	SET	1
206	SPOILER ASSY-RR	SET	1
207	RACK ASSY-ROOF LH	SET	1
208	RACK ASSY-ROOF RH	SET	1
209	MOULDING-BACK PANEL	SET	1
210	GARNISH ASSY-FRT DR SIDE LH	SET	1
211	GARNISH ASSY-FR DR SIDE RH	SET	1
212	GARNISH ASSY-RR DR SIDE LH	SET	1
213	GARNISH ASSY-RR DR SIDE RH	SET	1
214	GARNISH ASSY-QTR SIDE LH	SET	1

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Sr. No.	Particulars	A/U	Consumption
215	GARNISH ASSY-QTR SIDE RH	SET	1
216	MOULDING ASSY-SIDE SILL LH	SET	1
217	MOULDING ASSY-SIDE SILL RH	SET	1
218	GARNISH ASSY-FNDR SIDE LH	SET	1
219	GARNISH ASSY-FNDR SIDE RH	SET	1
220	GLASS & MOULDING ASSY-QUARTER FIXED LH	SET	1
221	GLASS & MOULDING ASSY-QUARTER FIXED RH	SET	1
222	S/BELT ASSY-FR LH	SET	1
223	S/BELT ASSY-FR RH	SET	1
224	S/BELT ASSY-RR CTR	SET	1
225	S/BELT ASSY-RR LH	SET	1
226	S/BELT ASSY-RR RH	SET	1
227	BUCKLE ASSY-RR S/BELT LH	SET	1
228	BUCKLE ASSY-RR S/BELT CTR	SET	1
229	BUCKLE ASSY-RR S/BELT RH	SET	1
230	WIRING ASSY-FLOOR	SET	1
231	WIRING ASSY-BATTERY	SET	1
232	WIRING ASSY-BATTERY NEG	SET	1
233	WIRING ASSY-ENG GROUND	SET	1
234	WIRING ASSY-T/M GND	SET	1
235	WIRING ASSY-TAIL GATE	SET	1
236	LAMP ASSY-ROOM	SET	1
237	LAMP ASSY-OVERHEAD CONSOLE	SET	1
238	LAMP ASSY-VANITY LH	SET	1
239	LAMP ASSY-VANITY RH	SET	1
240	ANTENNA ASSY-ROOF	SET	1
241	FEEDER CABLE-ANTENNA MAIN NO.1	SET	1
242	MOTOR & PUMP ASSY-W/SHLD WASHER	SET	1
243	MOTOR & LINKAGE ASSY-REAR WPR	SET	1
244	HOSE ASSY-REAR WASHER	SET	1
245	DUCT ASSY-RR VENT	SET	1
246	DUCT-REAR HEATING LH	SET	1
247	DUCT-REAR HEATING RR LH	SET	1
248	DUCT-REAR HEATING RR RH	SET	1
249	DUCT-REAR HEATING RH	SET	1
250	GRILLE ASSY-AIR EXTRACTOR	SET	1
251	HOSE-DISCHARGE	SET	1
252	TUBE ASSY-SUCTION & LIQUID	SET	1
253	CHECKER ASSY-FRONT DOOR LH	SET	1
254	CHECKER ASSY-FRONT DOOR RH	SET	1
255	GRIP-FRONT DOOR OUTSIDE LH	SET	1
256	GRIP-FRONT DOOR OUTSIDE RH	SET	1
257	CHECKER ASSY-REAR DOOR LH	SET	1
258	CHECKER ASSY-REAR DOOR RH	SET	1
259	GRIP-REAR DOOR OUTSIDE LH	SET	1
260	GRIP-REAR DOOR OUTSIDE RH	SET	1
261	HOUSING-FUEL FILLER DR	SET	1
262	CATCH & CABLE ASSY-FUEL FILLER DOOR	SET	1
263	W/STRIP-FR DR BODY SIDE LH	SET	1
264	W/STRIP-FR DR BODY SIDE RH	SET	1
265	W/STRIP ASSY-FR DR SIDE LH	SET	1
266	W/STRIP ASSY-FR DR SIDE RH	SET	1
267	W/STRIP ASSY-FR DR BELT O/S LH	SET	1
268	W/STRIP ASSY-FR DR BELT O/S RH	SET	1
269	W/STRIP-FR DR BELT I/S LH	SET	1
270	W/STRIP-FR DR BELT I/S RH	SET	1

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(II) Tucson

Sr. No.	Particulars	A/U	Consumption
271	PANEL ASSY-FRONT DOOR TRIM RH	SET	1
272	PANEL ASSY-FRONT DOOR TRIM LH	SET	1
273	LATCH ASSY-FRONT DOOR LH	SET	1
274	LATCH ASSY-FRONT DOOR RH	SET	1
275	GLASS ASSY-FRONT DOOR LH	SET	1
276	GLASS ASSY-FRONT DOOR RH	SET	1
277	MOTOR ASSY-FRONT POWER WDW LH	SET	1
278	MOTOR ASSY-FRONT POWER WDW RH	SET	1
279	PANEL ASSY-FRONT DR MODULE LH	SET	1
280	PANEL ASSY-FRONT DR MODULE RH	SET	1
281	RUN ASSY-FR DR WDO GLASS LH	SET	1
282	RUN ASSY-FR DR WDO GLASS RH	SET	1
283	BASE ASSY-FR DR O/S HANDLE LH	SET	1
284	BASE ASSY-FR DR O/S HANDLE RH	SET	1
285	W/STRIP-RR DR BODY SIDE LH	SET	1
286	W/STRIP-RR DR BODY SIDE RH	SET	1
287	W/STRIP ASSY-RR DR SIDE LH	SET	1
288	W/STRIP ASSY-RR DR SIDE RH	SET	1
289	W/STRIP ASSY-RR DR BELT O/S LH	SET	1
290	W/STRIP ASSY-RR DR BELT O/S RH	SET	1
291	W/STRIP-RR DR BELT I/S LH	SET	1
292	W/STRIP-RR DR BELT I/S RH	SET	1
293	MOULDING ASSY-RR DR DELTA LH	SET	1
294	MOULDING ASSY-RR DR DELTA RH	SET	1
295	PANEL ASSY-REAR DOOR TRIM LH	SET	1
296	PANEL ASSY-REAR DOOR TRIM RH	SET	1
297	COVER ASSY-RR DR DELTA INR LH	SET	1
298	COVER ASSY-RR DR DELTA INR RH	SET	1
299	LATCH ASSY-REAR DOOR LH	SET	1
300	LATCH ASSY-REAR DOOR RH	SET	1
301	GLASS ASSY-REAR DOOR LH	SET	1
302	GLASS ASSY-REAR DOOR RH	SET	1
303	PANEL ASSY-REAR DOOR MODULE LH	SET	1
304	PANEL ASSY-REAR DOOR MODULE RH	SET	1
305	RUN-RR DR WINDOW GLASS LH	SET	1
306	RUN-RR DR WINDOW GLASS RH	SET	1
307	BASE ASSY-RR DR O/S HDL LH	SET	1
308	BASE ASSY-RR DR O/S HDL RH	SET	1
309	MOTOR ASSY-REAR DR PWR REG LH	SET	1
310	MOTOR ASSY-POWER WDO REG RR RH	SET	1
311	WIRING ASSY-RR DR LH	SET	1
312	WIRING ASSY-RR DR RH	SET	1
313	WIRING ASSY-FR DR(DRIVER)	SET	1
314	WIRING ASSY-FR DR(PASS)	SET	1
315	SPEAKER ASSY-DR	SET	1
	DOOR GROUP		
316	PANEL ASSY-FRONT DOOR LH	SET	1
317	PANEL ASSY-FRONT DOOR RH	SET	1
318	PANEL ASSY-REAR DOOR LH	SET	1
319	PANEL ASSY-REAR DOOR RH	SET	1

PER UNIT CONSUMPTION – CRETA

(REVISED VERSION)

REVISED PER UNIT CONSUMPTION

(III) Creta

Sr.No.	Particulars	A/U	Consumption
	ENGINE ASSY TRANSMISSION & CLUTCH SYSTEM		
1	BOLT-SELF ALIGNMENT (GS-011)	EA	2
2	BOLT-FLANGE (GS-014)	EA	3
3	ACOUSTIC SHIELD ASSY-OIL PAN (GS-028)	EA	1
4	V-RIBBED BELT (GS-035)	EA	1
5	BOLT-WASHER ASSY (CM-010)	EA	2
6	BRKT-I/C MTG (GS-054)	EA	1
7	INTERCOOLER ASSY (GS-055)	EA	1
8	BOLT-WASHER ASSY (GS-005)	EA	2
9	PIPE ASSY-I/C INLET (GS-053)	EA	1
10	COVER ASSY-ENGINE (GS-063)	EA	1
11	STARTER ASSY (GS-075)	EA	1
12	BOLT-FLANGE (GS-076)	EA	2
13	BOLT-FLANGE (CM-036)	EA	3
14	CRANKSHAFT POSITION SENSOR (GS-083)	EA	1
15	NUT-FLANGE (CM-073)	EA	1
16	COMPUTER & BRKT ASSY (GS-082)	EA	1
17	BOLT-FLANGE (CM-042)	EA	1
18	BOLT-FLANGE (CM-044)	EA	1
19	BOLT-FLANGE (GS-015)	EA	2
20	BOLT-SPECIAL (CM-104)	EA	6
21	AUTO T/M & TQ/CONV ASSY (POWER TECH) (GS-085)	EA	1
22	BOLT-WASHER ASSY (GS-084)	EA	3
23	BRKT-ROLL ROD,SUPT (GS-086)	EA	1
24	GCI PE E2 AT U2 1.6L DSL ENGINE (GS-457)	EA	1
	BODY AND CHASSIS GROUP		
25	SKD BIP- GS PE 1.6 DIESEL AT (GS-134)	EA	1
	FRONT AND REAR AXLES		
26	NUT-LOCKING (CM-064)	EA	2
27	AXLE ASSY-FR,LH (GS-092)	EA	1
28	AXLE ASSY-FR,RH (GS-093)	EA	1
29	HUB & BEARING ASSY-RR (GS-094)	EA	2
30	BOLT-WASHER ASSY (GS-095)	EA	8
31	BOLT-FLANGE (GS-102)	EA	4
32	STRUT COMPLETE-FR,LH (GS-100)	EA	1
33	STRUT COMPLETE-FR,RH (GS-101)	EA	1
34	FLANGE-NUT (GS-140)	EA	4
35	BOLT-FLANGE (CM-041)	EA	2
36	NUT-FLANGE (GS-023)	EA	2
37	FLANGE NUT-SELF LOCKING (CM-112)	EA	2
38	STABILIZER BAR ASSY-FR (GS-103)	EA	1
39	LINK ASSY-FR STABILIZER (GS-104)	EA	2
40	CROSS MEMBER & LWR ARM COMPL (GS-139)	EA	1
41	TORSION BEAM AXLE COMPLETE (GS-105)	EA	1
42	SPRING ASSY-RR (GS-108)	EA	2
43	WASHER-SPRING (CM-083)	EA	4
44	BRAKE ASSY-FR,LH (GS-115)	EA	1
45	BRAKE ASSY-FR,RH (GS-116)	EA	1
46	BOLT (CM-123)	EA	4
47	M/SCREW-COUNTERSUNK HEAD (CM-052)	EA	4
48	DRUM-RR BRAKE (GS-119)	EA	2
49	BRAKE ASSY-RR WHEEL,LH (GS-117)	EA	1
50	BRAKE ASSY-RR WHEEL,RH (GS-118)	EA	1

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Sr.No.	Particulars	A/U	Consumption
51	BOLT-WASHER ASSY (CM-003)	EA	2
52	BOLT-HOSE CONNECTOR (CM-125)	EA	2
53	HOSE ASSY-FR BRAKE,LH (GS-124)	EA	1
54	HOSE ASSY-FR BRAKE,RH (GS-125)	EA	1
55	GASKET-EYE JOINT (CM-126)	EA	4
56	BOLT-WASHER ASSY (GS-004)	EA	2
57	HOSE ASSY-RR BRAKE,LH (GS-126)	EA	1
58	HOSE ASSY-RR BRAKE,RH (GS-127)	EA	1
59	BOLT-WASHER ASSY (CM-029)	EA	4
60	WHEEL SENSOR ASSY-A.B.S FR,LH (GS-413)	EA	1
61	WHEEL SENSOR-FR,RH (GS-414)	EA	1
62	CABLE ASSY-A.B.S EXTENSION,LH (GS-386)	EA	1
63	CABLE ASSY-A.B.S EXTENSION,RH (GS-387)	EA	1
64	NUT-FLANGE (CM-076)	EA	2
65	CABLE ASSY-PARKING BRAKE,LH (GS-132)	EA	1
66	CABLE ASSY-PARKING BRAKE,RH (GS-133)	EA	1
67	BOLT-FLANGE (CM-045)	EA	2
68	BRKT ASSY-ROLL ROD (GS-034)	EA	1
69	SHAFT ASSY-DRIVE,LH (GS-090)	EA	1
70	SHAFT ASSY-DRIVE,RH (GS-091)	EA	1
71	NUT (CM-107)	EA	2
	SUSPENSION GROUP		
72	BOLT-FLANGE (GS-013)	EA	2
73	NUT (GS-033)	EA	6
74	FLANGE NUT-SELF LOCKING (CM-112)	EA	2
75	BOLT (CM-116)	EA	2
76	NUT-WASHER ASSY (CM-127)	EA	2
77	SHOCK ABSORBER COMPLETE-RR,LH (GS-107)	EA	2
78	BOLT-FLANGE (CM-114)	EA	2
79	BOLT (GS-106)	EA	2
80	BOLT-SEMS (GS-109)	EA	4
	STEERING WHEEL		
81	STEERING WHEEL COMPLETE (GS-110)	EA	1
82	BOLT-STEERING WHEEL MTG (CM-117)	EA	1
83	BOLT (CM-119)	EA	1
84	NUT-FLANGE (CM-069)	EA	2
85	WASHER-PLAIN (CM-081)	EA	1
86	WASHER-SPRING (CM-082)	EA	1
87	COLUMN & JOINT ASSY-STRG (GS-111)	EA	1
88	BOLT (CM-118)	EA	1
89	BOLT-FLANGE (CM-035)	EA	2
90	NUT-SLOTTED (CM-062)	EA	2
91	GEAR&LINKAGE ASSY-STEERING (GS-112)	EA	1
92	HEAT PROTECTOR ASSY-P/STRG (CM-120)	EA	1
93	BOLT (GS-114)	EA	2
94	PIN-SPLIT (CM-122)	EA	2
	EXHAUST SYSTEM		
95	NUT LOCK (CM-063)	EA	6
96	MUFFLER ASSY-FR (GS-056)	EA	1
97	GASKET (CM-098)	EA	2
98	MUFFLER ASSY-CTR (GS-057)	EA	1
99	MUFFLER ASSY-RR (GS-058)	EA	1
100	GASKET (CM-097)	EA	1

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Sr.No.	Particulars	A/U	Consumption
101	NUT-WASHER ASSY (CM-068)	EA	10
102	PNL-HEAT PROTECTOR FR (GS-059)	EA	1
103	PNL-HEAT PROTECTOR RR (GS-060)	EA	1
	WHEELS & TYRES		
104	WHEEL ASSY-STEEL (GS-096)	EA	1
105	WHEEL-ALUMINUM (GS-097)	EA	4
106	VALVE-TIRE (CM-110)	EA	5
107	TIRE (GS-098)	EA	5
108	WEIGHT-WHEEL BALANCE (CM-109)	EA	9
109	NUT ASSY-HUB (CM-111)	EA	20
110	CAP ASSY-WHEEL HUB (GS-099)	EA	4
	SEAT ASSEMBLY		
111	SEAT ASSY-FR,LH (GS-352)	EA	1
112	SEAT ASSY-FR,RH (GS-353)	EA	1
113	CUSH ASSY-RR SEAT (GS-359)	EA	1
114	BACK ASSY-RR SEAT,LH (GS-360)	EA	1
115	BACK ASSY-RR SEAT,RH (GS-361)	EA	1
116	BOLT-WASHER ASSY (GS-010)	EA	8
117	BOLT-WASHER ASSY (GS-007)	EA	4
118	BOLT-WASHER ASSY (CM-023)	EA	10
119	NUT-FLANGE (GS-024)	EA	2
120	BOLT-WASHER ASSY P/CLEAR (CM-174)	EA	1
121	COVER ASSY-HINGE,RH (GS-362)	EA	1
122	HOOK ASSY-RR SEAT CUSHION (CM-176)	EA	2
123	HINGE ASSY-RR SEAT BACK CTR (GS-363)	EA	1
124	BRKT ASSY-RR SEAT LWR SIDE,LH (GS-364)	EA	1
125	BRKT ASSY-RR SEAT LWR SIDE,RH (GS-365)	EA	1
126	STRIKER ASSY-RR SEAT BACK,LH (GS-366)	EA	1
127	STRIKER ASSY-RR SEAT BACK,RH (GS-367)	EA	1
128	BOLT-S/BELT ANCHOR MTG (GS-354)	EA	2
129	SEAT BELT ASSY-FR P/T 3PT,LH (GS-355)	EA	1
130	SEAT BELT ASSY-FR P/T 3PT,RH (GS-356)	EA	1
131	HEIGHT ADJUSTER ASSY-FR S/BELT (GS-358)	EA	2
132	BOLT-WASHER ASSY (CM-007)	EA	2
133	SEAT BELT ASSY-RR ELR 3PT,LH (GS-368)	EA	1
134	SEAT BELT ASSY-RR ELR 3PT,RH (GS-369)	EA	1
135	BUCKLE ASSY-RR SEAT BELT,LH (GS-370)	EA	1
136	DOUBLE BUCKLE ASSY-RR S/BELT (GS-371)	EA	1
	TRIMMING PARTS, DASHBOARD, INSTRUMENT PANEL, WINDSHIELDS, WIRE HARNESS AND OTHER ACCESSORIES		
137	NUT-FLANGE (CM-070)	EA	6
138	TCU & BRKT ASSY (GS-412)	EA	1
139	BOLT-WASHER ASSY (GS-006)	EA	2
140	BOLT-WASHER ASSY (CM-020)	EA	7
141	CARRIER ASSY-FR END MODULE (GS-142)	EA	1
142	BRKT-HEAD LAMP MTG (GS-143)	EA	2
143	BRKT ASSY-BUMPER MTG,LH (GS-144)	EA	2
144	CLIP-HOOD STAY ROD (GS-154)	EA	1
145	BOLT ASSY-WASHER (CM-128)	EA	8
146	INSULATOR-DASH (GS-237)	EA	1
147	INSULATOR-FENDER,LH (GS-238)	EA	1
148	INSULATOR-FENDER,RH (GS-239)	EA	1
149	BOLT-WASHER ASSY (CM-011)	EA	5
150	NUT-FLANGE (CM-078)	EA	16

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Sr.No.	Particulars	A/U	Consumption
151	PLUG (CM-086)	EA	7
152	PLUG (CM-087)	EA	8
153	PLUG (CM-088)	EA	4
154	PLUG (CM-089)	EA	28
155	PLUG (CM-090)	EA	2
156	EXTN-COWL SIDE MTG,LH (GS-145)	EA	1
157	EXTN-COWL SIDE MTG,RH (GS-146)	EA	1
158	PLUG-WAX INJECTION (CM-145)	EA	6
159	PLUG-FR SIDE MBR DRAIN (CM-146)	EA	5
160	PLUG ASSY-BODY & VALVE (CM-147)	EA	14
161	PLUG-DRAIN HOLE (GS-240)	EA	2
162	NUT-PLUG (CM-148)	EA	2
163	PLUG-DRAIN HOLE (GS-241)	EA	2
164	PAD-ANTINOISE (GS-242)	EA	2
165	PAD-ANTINOISE (CM-150)	EA	2
166	ANTI PAD-RR FLOOR FR,RH (CM-151)	EA	8
167	PAD-ANTINOISE,LH (GS-243)	EA	1
168	PAD-ANTINOISE,RH (CM-152)	EA	10
169	PAD-ANTIONISE,RH (GS-244)	EA	1
170	TAPE-HOLE (GS-245)	EA	2
171	RETN ASSY-BPR COVER MTG (CM-167)	EA	57
172	BOLT-DR SIDE HINGE MTG (CM-130)	EA	16
173	LATCH & ACTUATOR ASSY-FR DR,LH (GS-160)	EA	1
174	LATCH & ACTR ASSY-FR DR,RH (GS-161)	EA	1
175	M/SCREW SEMS-TORX OVAL HEAD (CM-136)	EA	12
176	STRIKER ASSY-DR (GS-162)	EA	4
177	M/SCREW-TORX (CM-135)	EA	10
178	HDL ASSY-FR DR O/S,LH (GS-199)	EA	1
179	PAD-DR O/S HDL FR,LH (GS-200)	EA	1
180	PAD-DR O/S HDL GRIP (GS-201)	EA	1
181	BASE ASSY-FR DR O/S HDL,LH (GS-202)	EA	1
182	HDL ASSY-FR DR O/S,RH (GS-203)	EA	1
183	PAD-DR O/S HDL FR,RH (GS-204)	EA	1
184	PAD-DR O/S HDL RR,RH (GS-205)	EA	1
185	BASE ASSY-FR DR O/S HDL,RH (GS-206)	EA	1
186	BOLT-WASHER ASSY (CM-008)	EA	12
187	BOLT-WASHER ASSY (CM-013)	EA	4
188	CHECKER ASSY-FR DR,LH (GS-147)	EA	1
189	CHECKER ASSY-FR DR,RH (GS-148)	EA	1
190	W/STRIP-FR DR BODY SIDE,LH (GS-177)	EA	1
191	W/STRIP-FR DR BODY SIDE,RH (GS-178)	EA	1
192	W/STRIP ASSY-FR DR SIDE,LH (GS-179)	EA	1
193	W/STRIP ASSY-FR DR SIDE,RH (GS-180)	EA	1
194	PLUG-HOLE (CM-141)	EA	2
195	SEAL-FR DR TRIM,LH (GS-187)	EA	1
196	SEAL-FR DR TRIM,RH (GS-188)	EA	1
197	TAPE-RR DR TOOLG HOLE (CM-142)	EA	6
198	W/STRIP ASSY-FR DR BELT O/S,LH (GS-181)	EA	1
199	W/STRIP ASSY-FR DR BELT O/S,RH (GS-182)	EA	1
200	GROMMET-SCREW (CM-084)	EA	12
201	W/STRIP-FR DR BELT I/S,LH (GS-183)	EA	1
202	W/STRIP-FR DR BELT I/S,RH (GS-184)	EA	1
203	PNL ASSY-FR DR TRIM COMPL,LH (GS-185)	EA	1

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Sr.No.	Particulars	A/U	Consumption
204	PNL ASSY-FR DR TRIM COMPL,RH (GS-186)	EA	1
205	CAP-FR DR I/S,LH (GS-197)	EA	1
206	CAP-FR DR I/S,RH (GS-198)	EA	1
207	SUPPORT-FR DR PULL HDL MTG,LH (GS-207)	EA	2
208	COVER ASSY-FR DR QDRNT INR,LH (GS-338)	EA	1
209	COVER ASSY-FR DR QDRNT INR,RH (GS-339)	EA	1
210	BOLT-FLANGE (CM-037)	EA	8
211	GLASS & HOLDER ASSY-FR DR,LH (GS-191)	EA	1
212	GLASS & HOLDER ASSY-FR DR,RH (GS-192)	EA	1
213	NUT-FLANGE (CM-075)	EA	40
214	RUN ASSY-FR DR WDW GLASS,LH (GS-193)	EA	1
215	RUN ASSY-FR DR WDW GLASS,RH (GS-194)	EA	1
216	CHANNEL ASSY-FR DR LWR,LH (GS-195)	EA	1
217	CHANNEL ASSY-FR DR LWR,RH (GS-196)	EA	1
218	REGULATOR ASSY-DR SAF/WDW,LH (GS-189)	EA	1
219	REG ASSY-FR DR PWR/WDW,RH (GS-190)	EA	1
220	LATCH & ACTUATOR ASSY-RR DR,LH (GS-163)	EA	1
221	LATCH & ACTUATOR ASSY-RR DR,RH (GS-164)	EA	1
222	HDL ASSY-RR DR O/S,LH (GS-228)	EA	1
223	PAD-DR O/S HDL RR,LH (GS-229)	EA	1
224	PAD-RR DR O/S HDL RR,LH (GS-230)	EA	1
225	BASE ASSY-RR DR O/S HDL,LH (GS-231)	EA	1
226	HDL ASSY-RR DR O/S,RH (GS-232)	EA	1
227	PAD-DR O/S HDL RR,RH (GS-233)	EA	1
228	PAD-RR DR O/S HDL RR,RH (GS-234)	EA	1
229	BASE ASSY-RR DR O/S HDL,RH (GS-235)	EA	1
230	CHECKER ASSY-RR DR,LH (GS-149)	EA	1
231	CHECKER ASSY-RR DR,RH (GS-150)	EA	1
232	W/STRIP-RR DR BODY SIDE,LH (GS-208)	EA	1
233	W/STRIP-RR DR BODY SIDE,RH (GS-209)	EA	1
234	W/STRIP ASSY-RR DR SIDE,LH (GS-210)	EA	1
235	W/STRIP ASSY-RR DR SIDE,RH (GS-211)	EA	1
236	SEAL-RR DR TRIM,LH (GS-218)	EA	1
237	SEAL-RR DR TRIM,RH (GS-219)	EA	1
238	W/STRIP ASSY-RR DR BELT O/S,LH (GS-212)	EA	1
239	W/STRIP ASSY-RR DR BELT O/S,RH (GS-213)	EA	1
240	T/SCREW-FLANGE HEAD (CM-058)	EA	26
241	SUPPORT-FR DR PULL HDL MTG,LH (CM-140)	EA	2
242	W/STRIP-RR DR BELT I/S,LH (GS-214)	EA	1
243	W/STRIP-RR DR BELT I/S,RH (GS-215)	EA	1
244	PNL ASSY-RR DR TRIM COMPL,LH (GS-216)	EA	1
245	PNL ASSY-RR DR TRIM COMPL,RH (GS-217)	EA	1
246	GLASS&GRIP ASSY-RR DR TNTD,LH (GS-222)	EA	1
247	GLASS & GRIP ASSY-RR DR,RH (GS-223)	EA	1
248	BOLT-FLANGE (CM-046)	EA	2
249	M/SCREW CONE POINT (CM-143)	EA	2
250	CHANNEL ASSY-RR DR DIV,LH (GS-224)	EA	1
251	CHANNEL ASSY-RR DR DIV,RH (GS-225)	EA	1
252	RUN & F/GLASS ASSY-R/DR WDW,LH (GS-226)	EA	1
253	RUN & F/GLASS ASSY-R/DR WDW,RH (GS-227)	EA	1
254	REGULATOR ASSY-RR DR P/WDW,LH (GS-220)	EA	1
255	REGULATOR ASSY-RR DR P/WDW,RH (GS-221)	EA	1
256	BUMPER ASSY-HOOD STOP (GS-308)	EA	2

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Sr.No.	Particulars	A/U	Consumption
257	FR STRIP ASSY-HOOD (GS-309)	EA	1
258	T/SCREW-PAN HEAD (CM-055)	EA	2
259	BASE ASSY-HOOD LATCH REL,LH (CM-131)	EA	1
260	HDL-HOOD RELEASE,LH (GS-155)	EA	1
261	CABLE ASSY-HOOD LATCH RELEASE (GS-156)	EA	1
262	CLIP-HOOD LATCH RELEASE CABLE (CM-132)	EA	3
263	GROMMET-SCREW (CM-134)	EA	2
264	BOLT-WASHER ASSY (CM-009)	EA	25
265	LATCH ASSY-HOOD (GS-151)	EA	1
266	CABLE ASSY-HOOD LATCH RELEASE (GS-157)	EA	1
267	CAP-NUT (CM-129)	EA	2
268	ROD ASSY-HOOD STAY (GS-153)	EA	1
269	T/SCREW-FLANGE HEAD (GS-021)	EA	2
270	GROMMET-TAPPING SCREW (GS-027)	EA	2
271	PLUG-DRAIN HOLE (CM-138)	EA	3
272	PNL ASSY-TAILGATE TRIM (GS-170)	EA	1
273	HDL-TAILGATE PULL (GS-171)	EA	1
274	W/STRIP-TAILGATE (GS-334)	EA	1
275	M/SCREW-TORX (GS-165)	EA	4
276	BUMPER-TAILGATE SIDE GUIDE (GS-168)	EA	2
277	BUMPER-TAILGATE BODY SIDE GDE (GS-169)	EA	2
278	BOLT-FLANGE (GS-012)	EA	2
279	LATCH ASSY-TAILGATE (GS-159)	EA	1
280	STRIKER ASSY-TAIL GATE (GS-158)	EA	1
281	BALL JOINT-HOOD LIFTER (GS-152)	EA	2
282	LIFTER ASSY-TAILGATE,LH (GS-172)	EA	1
283	LIFTER ASSY-TAILGATE,RH (GS-173)	EA	1
284	CATCH & CABLE ASSY-F/FLR DR (GS-167)	EA	1
285	BOLT-WASHER ASSY (CM-007)	EA	1
286	HDL ASSY-FUEL FILLER DR REL (GS-166)	EA	1
287	KEY SET (GS-174)	EA	1
288	BODY & SW ASSY-STRG & IGN LOCK (GS-175)	EA	1
289	CLAMP-STRG & IGN LOCK (GS-176)	EA	1
290	BOLT-SAFETY LOCK (CM-139)	EA	2
291	ISOLATION PAD ASSY-DASH (GS-236)	EA	1
292	NUT-PLUG (CM-149)	EA	2
293	CARPET ASSY-FLOOR (GS-246)	EA	1
294	PLUG-TRIM MTG (GS-272)	EA	4
295	RETAINER & WASHER ASSY (CM-164)	EA	10
296	TRIM ASSY-LUGGAGE SIDE,LH (GS-274)	EA	1
297	TRIM ASSY-LUGGAGE SIDE,RH (GS-275)	EA	1
298	NET ASSY-LUGGAGE FLR (GS-277)	EA	1
299	TRIM ASSY-RR TRANSVERSE (GS-276)	EA	1
300	TRIM ASSY-C/SHELF CTR (GS-296)	EA	1
301	HANGER-C/SHELF CTR (GS-297)	EA	2
302	BOARD ASSY-LUGGAGE (GS-273)	EA	1
303	M/SCREW-OVAL COUNTERSUNK HEA (CM-054)	EA	4
304	SUNVISOR ASSY,LH (GS-268)	EA	1
305	SUNVISOR ASSY,RH (GS-269)	EA	1
306	RETAINER-SUNVISOR ASSY (CM-160)	EA	2
307	HEAD LINING COMPLETE ASSY (GS-270)	EA	1
308	WIRING HARNESS-ROOF (GS-381)	EA	1
309	HDL ASSY-ROOF ASSIST FR,RH (CM-161)	EA	1

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Sr.No.	Particulars	A/U	Consumption
310	HDL ASSY-ROOF ASSIST RR,LH (CM-162)	EA	1
311	HDL ASSY-ROOF ASSIST RR,RH (CM-163)	EA	1
312	PAD-ROOF (GS-271)	EA	1
313	TRIM ASSY-FR PILLR,LH (GS-278)	EA	1
314	TRIM ASSY-FR PILLAR,RH (GS-279)	EA	1
315	TRIM ASSY-CTR PILLAR UPR,LH (GS-282)	EA	1
316	TRIM ASSY-CTR PILLAR LWR,LH (GS-283)	EA	1
317	TRIM ASSY-CTR PILLAR UPR,RH (GS-284)	EA	1
318	TRIM ASSY-CTR PILLAR LWR,RH (GS-285)	EA	1
319	BOLT-WASHER ASSY (GS-003)	EA	4
320	TRIM ASSY-RR PILLAR,LH (GS-286)	EA	1
321	TRIM ASSY-RR PILLAR,RH (GS-287)	EA	1
322	TRIM ASSY-COWL SIDE,LH (GS-280)	EA	1
323	TRIM ASSY-COWL SIDE,RH (GS-281)	EA	1
324	TRIM ASSY-FR DR SCUFF,LH (GS-288)	EA	1
325	TRIM ASSY-FR DR SCUFF,RH (GS-292)	EA	1
326	TRIM ASSY-RR DR SCUFF,LH (GS-290)	EA	1
327	TRIM ASSY-RR DR SCUFF,RH (GS-294)	EA	1
328	TRIM ASSY-FR DR STEP,LH (GS-289)	EA	1
329	TRIM ASSY-RR DR STEP,LH (GS-291)	EA	1
330	TRIM ASSY-FR DR STEP,RH (GS-293)	EA	1
331	TRIM ASSY-RR DR STEP,RH (GS-295)	EA	1
332	BAR ASSY-COWL CROSS (GS-247)	EA	1
333	HOUSING ASSY-GLOVE BOX (GS-248)	EA	1
334	BOLT-WASHER ASSY (CM-019)	EA	14
335	CRASH PAD MAIN ASSY (GS-257)	EA	1
336	TAPP`G SCREW-WITH PPF (CM-156)	EA	13
337	T/SCREW-FLANGE (CM-002)	EA	35
338	PIN-GLOVE BOX (GS-249)	EA	2
339	PNL ASSY-CRASH PAD CTR LWR (GS-262)	EA	1
340	PNL ASSY-CRASH PAD DRIVER SIDE (GS-258)	EA	1
341	BOLT-WASHER ASSY (CM-016)	EA	6
342	BOLT-WASHER ASSY (GS-009)	EA	10
343	BOLT ASSY-C/CROSS MT`G (CM-154)	EA	2
344	PNL ASSY-LWR CRASH PAD,LH (GS-260)	EA	1
345	COVER ASSY-FUSE BOX (GS-261)	EA	1
346	COVER ASSY-C/PAD MAIN SD,RH (GS-263)	EA	1
347	COVER ASSY-C/PAD MAIN SD,LH (GS-264)	EA	1
348	DUCT ASSY-SIDE A/VENT,LH (GS-437)	EA	1
349	DUCT ASSY-SIDE A/VENT,RH (GS-438)	EA	1
350	CONN ASSY-HTR & A/VENT DUCT (GS-436)	EA	1
351	PNL ASSY-CTR CLUSTER FACIA (GS-265)	EA	1
352	SHROUD ASSY-STRG/COL LWR (GS-266)	EA	1
353	PNL ASSY-CTR FACIA (GS-259)	EA	1
354	ASHTRAY ASSY-PORTABLE (CM-155)	EA	1
355	CONSOLE ASSY-FLOOR (GS-251)	EA	1
356	COVER-PARKING BRAKE (GS-252)	EA	1
357	MAT-CONSOLE FR TRAY (GS-253)	EA	1
358	BRKT ASSY-FLOOR CONSLOE RR MTG (GS-256)	EA	1
359	BEZEL ASSY-FLOOR CONSOLE FR (GS-254)	EA	1
360	PLUG ASSY-C/LIGHTER (CM-185)	EA	1
361	COVER ASSY-CONSOLE UPR (GS-255)	EA	1
362	TAPPING SCREW (CM-157)	EA	2

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Sr.No.	Particulars	A/U	Consumption
363	CLOCK ASSY-DIGITAL (GS-408)	EA	1
364	COMPLETE-C/PAD LWR SW (GS-403)	EA	1
365	NUT-WASHER ASSY (CM-067)	EA	3
366	HEATER COMPLETE ASSY (GS-428)	EA	1
367	DUCT-SHOWER,LH (GS-431)	EA	1
368	SHOWER DUCT,RH (GS-433)	EA	1
369	DUCT ASSY-RR AIR VENT NO.1 (GS-427)	EA	1
370	T/SCREW-HEXAGON HEAD (CM-057)	EA	10
371	NUT-WASHER ASSY (CM-068)	EA	18
372	SEAL ASSY-EVAPORATOR PIPE (CM-192)	EA	1
373	GROMMET ASSY-HEATER PIPE (CM-190)	EA	1
374	HOSE ASSY-WATER INLET (GS-434)	EA	1
375	HOSE ASSY-WATER OUTLET (GS-435)	EA	1
376	GRILLE ASSY-AIR EXTRACTOR (GS-439)	EA	1
377	GRILLE ASSY-AIR EXTRACTOR (GS-440)	EA	1
378	CONTROL ASSY-ROTARY HEATER (GS-429)	EA	1
379	SENSOR ASSY-AUTO LIGHT (GS-430)	EA	1
380	A.T.S ASSY (GS-432)	EA	1
381	DRIVER AIR BAG MODULE ASSY (GS-113)	EA	1
382	PASSENGER AIR BAG MODULE ASSY (GS-250)	EA	1
383	GLASS ASSY-W/S TNTD S/B (GS-298)	EA	1
384	MLDG-W/S GLASS UPR (GS-299)	EA	1
385	GLASS ASSY-TAILGATE TN HTD WPR (GS-325)	EA	1
386	GARNISH ASSY-QUARTER FIXED,LH (GS-350)	EA	1
387	GARNISH ASSY-QUARTER FIXED,RH (GS-351)	EA	1
388	COVER ASSY-COWL TOP (GS-300)	EA	1
389	RETAINER-COWL TOP COVER,MTG (CM-166)	EA	4
390	T/SCREW-HEXAGON HEAD (GS-018)	EA	4
391	GARNISH ASSY-A PILLAR,LH (GS-301)	EA	1
392	GARNISH ASSY-A PILLAR,RH (GS-302)	EA	1
393	BRKT-CLIP MTG,LH (GS-303)	EA	1
394	BRKT-CLIP MTG,RH (GS-304)	EA	1
395	RETAINER & WASHER ASSY (CM-170)	EA	8
396	T/SCREW-FLANGE HEAD (CM-061)	EA	12
397	GUARD ASSY-FR WHEEL,LH (GS-317)	EA	1
398	GUARD ASSY-FR WHEEL,RH (GS-318)	EA	1
399	T/SCREW-HEXAGON HEAD (GS-019)	EA	2
400	GUARD ASSY-RR WHEEL,LH (GS-319)	EA	1
401	GUARD ASSY-RR WHEEL,RH (GS-320)	EA	1
402	GUARD ASSY-FR MUD,LH (GS-321)	EA	1
403	GUARD ASSY-FR MUD,RH (GS-322)	EA	1
404	GUARD ASSY-RR MUD,LH (GS-323)	EA	1
405	GUARD ASSY-RR MUD,RH (GS-324)	EA	1
406	MOLDING ASSY-ROOF,LH (GS-326)	EA	1
407	MOLDING ASSY-ROOF,RH (GS-327)	EA	1
408	MOULDING ASSY-ROOF CTR RR,LH (GS-328)	EA	1
409	MOULDING ASSY-ROOF CTR RR,RH (GS-331)	EA	1
410	RETAINER (CM-168)	EA	4
411	MOULDING ASSY-SIDE SILL,LH (GS-348)	EA	1
412	MOULDING ASSY-SIDE SILL,RH (GS-349)	EA	1
413	GARNISH ASSY-FNDR SIDE,LH (GS-340)	EA	1
414	GARNISH ASSY-FNDR SIDE,RH (GS-341)	EA	1
415	GARNISH ASSY-FR DR SIDE,LH (GS-342)	EA	1

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Sr.No.	Particulars	A/U	Consumption
416	GARNISH ASSY-FR DR SIDE,RH (GS-343)	EA	1
417	GARNISH ASSY-RR DR SIDE,LH (GS-344)	EA	1
418	GARNISH ASSY-RR DR SIDE,RH (GS-345)	EA	1
419	GARNISH ASSY-QUARTER SIDE,LH (GS-346)	EA	1
420	GARNISH ASSY-QUARTER SIDE,RH (GS-347)	EA	1
421	NUT-WASHER ASSY (GS-022)	EA	4
422	GARNISH ASSY-TAILGATE (GS-335)	EA	1
423	EMBLEM-CRETA (GS-305)	EA	1
424	EMBLEM-1.6D (GS-306)	EA	1
425	SYMBOL MARK (GS-307)	EA	1
426	BOLT-WASHER ASSY (CM-021)	EA	18
427	T/SCREW-HEXAGON HEAD (CM-056)	EA	4
428	SCREW (CM-060)	EA	4
429	BUMPER ASSY-FR (GS-310)	EA	1
430	BRKT ASSY-FR BUMPER SIDE,LH (GS-311)	EA	1
431	BRKT ASSY-FR BUMPER SIDE,RH (GS-312)	EA	1
432	NUT-WASHER ASSY (CM-065)	EA	2
433	BEAM ASSY-FR BUMPER (GS-313)	EA	1
434	BOLT-WASHER ASSY (CM-024)	EA	4
435	T/SCREW-FLANGE HEAD (CM-059)	EA	2
436	BUMPER ASSY-RR (GS-314)	EA	1
437	BRKT ASSY-RR BUMPER SIDE,LH (GS-315)	EA	1
438	BRKT ASSY-RR BUMPER SIDE,RH (GS-316)	EA	1
439	RETAINER ASSY (CM-191)	EA	2
440	RETAINER & WASHER ASSY (CM-169)	EA	2
441	SUPPORTER-RR L/PLATE (CM-173)	EA	2
442	COVER ASSY-ROOF RACK FR,LH (GS-329)	EA	1
443	COVER ASSY-ROOF RACK FR,RH (GS-330)	EA	1
444	RACK ASSY-ROOF,LH (GS-332)	EA	1
445	RACK ASSY-ROOF,RH (GS-333)	EA	1
446	MOTOR & LINK ASSY-W/SHLD WPR (GS-444)	EA	1
447	BOLT-WASHER ASSY (CM-193)	EA	2
448	NUT-WASHER ASSY (CM-194)	EA	2
449	ARM & BLADE ASSY-W/WPR D/SIDE (GS-445)	EA	1
450	CAP-WINDSHIELD WIPER ARM (CM-195)	EA	2
451	ARM & BLADE ASSY-W/WPR P/SIDE (GS-446)	EA	1
452	BOLT-WASHER ASSY (CM-017)	EA	4
453	RSVR & PUMP ASSY-W/S RR WASHER (GS-447)	EA	1
454	CONNECTOR & HOSE ASSY-W/WASHER (GS-448)	EA	1
455	MOTOR & LINKAGE ASSY-RR WIPER (GS-449)	EA	1
456	NUT-WASHER ASSY (CM-066)	EA	1
457	ARM & BLADE ASSY-RR WIPER (GS-450)	EA	1
458	GROMMET ASSY-RR WASHER HOSE (GS-451)	EA	1
459	HOSE ASSY-RR WASHER (GS-452)	EA	1
460	HOSE ASSY-RR WASHER NO.2 (GS-453)	EA	1
461	HOSE ASSY-RR WASHER (GS-454)	EA	1
462	MIRROR ASSY-I/S RR VIEW (GS-267)	EA	1
463	COVER-I/S RR VIEW MIRROR (CM-159)	EA	1
464	MIRROR ASSY-O/S RR VIEW,LH (GS-336)	EA	1
465	MIRROR ASSY-O/S RR VIEW,RH (GS-337)	EA	1
466	CRETA-AV (GS-456)	EA	1
467	FEEDER CABLE-ANTENNA MAIN NO.1 (GS-421)	EA	1
468	ANTENNA-ROOF RADIO (GS-420)	EA	1

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Sr.No.	Particulars	A/U	Consumption
469	NUT-COMBINATION ANTENNA (CM-187)	EA	1
470	FEEDER CABLE-ANTENNA EXTN NO.1 (GS-422)	EA	1
471	POLE-ROOF ANTENNA (CM-188)	EA	1
472	MTG RIVET (CM-189)	EA	16
473	SPEAKER & PROTECTOR ASSY-DR (GS-423)	EA	4
474	BOLT-FLANGE(F.T THREAD) (GS-017)	EA	3
475	UNIT ASSY-AIRBAG CONTROL (GS-417)	EA	1
476	BOLT-FLANGE, TAPER (CM-051)	EA	2
477	SENSOR ASSY-FR SIDE IMPACT (CM-186)	EA	2
478	UNIT ASSY-B.C.M & RECEIVER (GS-409)	EA	1
479	UNIT ASSY-IMMOBILIZER (GS-410)	EA	1
480	BOLT-WASHER ASSY (CM-026)	EA	1
481	HORN ASSY-BURGLAR ALARM (GS-426)	EA	1
482	HORN ASSY-LOW PITCHED (GS-424)	EA	1
483	HORN ASSY-HIGH PITCHED (GS-425)	EA	1
484	M/SCREW-WASHER ASSY (CM-053)	EA	2
485	SWITCH ASSY-MULTIFUNCTION (GS-404)	EA	1
486	CONTACT ASSY-CLOCK SPRING (GS-405)	EA	1
487	PAD-LID SWITCH (GS-400)	EA	1
488	SWITCH ASSY-HOOD (GS-406)	EA	1
489	CLUSTER ASSY-INSTRUMENT (GS-407)	EA	1
490	BATTERY ASSY-MF68L OPENABLE (GS-077)	EA	1
491	BOLT-WASHER ASSY (CM-027)	EA	4
492	BOLT-WASHER ASSY (CM-028)	EA	1
493	TRAY ASSY-BATTERY (GS-079)	EA	1
494	CLAMP ASSY-BATTERY (GS-080)	EA	1
495	INSULATION PAD-BATTERY (GS-078)	EA	1
496	BOLT-FLANGE(F.T THREAD) (CM-047)	EA	1
497	SENSOR ASSY-BATTERY (GS-081)	EA	1
498	WIRING HARNESS-MAIN (GS-372)	EA	1
499	BOLT-FLANGE(F.T THREAD) (CM-050)	EA	4
500	BOLT-FLANGE(F.T THREAD) (GS-016)	EA	9
501	BOLT-FLANGE(F.T THREAD) (CM-048)	EA	6
502	NUT-FLANGE (GS-025)	EA	1
503	WIRING HARNESS-FLOOR (GS-373)	EA	1
504	WIRING HARNESS-DR DRIVER SIDE (GS-374)	EA	1
505	WIRING HARNESS-DR P/SIDE (GS-375)	EA	1
506	WIRING HARNESS-RR DR,LH (GS-376)	EA	1
507	WIRING HARNESS-RR DR,RH (GS-377)	EA	1
508	WIRING HARNESS-FR (GS-380)	EA	1
509	BOLT-WASHER ASSY (GS-008)	EA	4
510	NUT-FLANGE (CM-076)	EA	2
511	NUT-FLANGE (CM-077)	EA	10
512	WIRING HARNESS-BATTERY (GS-383)	EA	1
513	BRKT-WIRING MTG (GS-388)	EA	1
514	BOLT (CM-032)	EA	1
515	BOLT-FLANGE(F.T THREAD) (CM-049)	EA	2
516	WIRING HARNESS-ENGINE GROUND (GS-384)	EA	1
517	BOLT (CM-033)	EA	1
518	WIRING HARNESS-T/M GROUND (GS-385)	EA	1
519	WIRING HARNESS-F.E.M (GS-382)	EA	1
520	WIRING HARNESS-TAILGATE (GS-378)	EA	1
521	WIRING HARNESS-TAILGATE EXTN (GS-379)	EA	1

REVISED PER UNIT CONSUMPTION

(III) Creta

Sr.No.	Particulars	A/U	Consumption
522	UPR COVER-JUNCTION BLOCK (GS-390)	EA	1
523	JUNCTION BOX ASSY-SMART (GS-389)	EA	1
524	LAMP ASSY-HEAD,LH (GS-391)	EA	1
525	LAMP ASSY-HEAD,RH (GS-392)	EA	1
526	T/SCREW-FLANGE HEAD (GS-020)	EA	4
527	NUT-FLANGE (CM-172)	EA	11
528	LAMP ASSY-RR COMB O/S,LH (GS-393)	EA	1
529	LAMP ASSY-RR COMB O/S,RH (GS-394)	EA	1
530	LAMP ASSY-RR COMB I/S,LH (GS-395)	EA	1
531	LAMP ASSY-RR COMB I/S,RH (GS-396)	EA	1
532	FLANGE-RR COMBINATION LAMP,LH (GS-397)	EA	1
533	FLANGE-RR COMBINATION LAMP,RH (GS-398)	EA	1
534	MT`G CLIP-RR COMBI (CM-180)	EA	2
535	FASTENER,B (GS-455)	EA	4
536	LICENSE PLATE LAMP ASSY (CM-181)	EA	2
537	HIGH MOUNTED STOP LAMP ASSY (GS-399)	EA	1
538	COVER-HIGH MOUNTED STOP LAMP (GS-401)	EA	1
539	T/SCREW-FLANGE HEAD (CM-001)	EA	4
540	GROMMET-SCREW (CM-085)	EA	4
541	LAMP ASSY-OVERHEAD CONSOLE (GS-402)	EA	1
542	LAMP ASSY-ROOM (CM-183)	EA	1
543	LABEL-TIRE PRESSURE (GS-001)	EA	1
544	O.V.M ASSY-JACK & HOOK (GS-002)	EA	1
545	CLAMP-SPARE TIRE (GS-141)	EA	1
546	PIN-SNAP (CM-106)	EA	2
547	MASTER CYLINDER & BOOSTER ASSY (GS-120)	EA	1
548	PIN-ASSY (CM-124)	EA	1
549	HOSE ASSY-VACUUM (GS-130)	EA	1
550	NUT (CM-072)	EA	2
551	TUBE ASSY-ENGINE ROOM BRAKE (GS-121)	EA	1
552	TUBE-HYDRAULIC UNIT FR,RH (GS-122)	EA	1
553	CLIP (GS-128)	EA	1
554	BOLT-WASHER ASSY (CM-004)	EA	2
555	CLIP-BRAKE HOSE (GS-123)	EA	2
556	ABS & BRKT ASSY (GS-129)	EA	1
557	BOLT-WASHER ASSY (CM-006)	EA	4
558	LEVER ASSY-PARKING BRAKE (GS-131)	EA	1
559	BOLT-WASHER ASSY (CM-012)	EA	6
560	CAP ASSY-F/FILLER (GS-064)	EA	1
561	FILLER NECK & HOSE ASSY (GS-065)	EA	1
562	BOLT-FUEL FILLER NECK (CM-100)	EA	4
563	LABEL-DIESEL (GS-066)	EA	1
564	FUEL TANK COMPLETE (GS-067)	EA	1
565	NUT-FLANGE LOCK (CM-101)	EA	2
566	BAND ASSY-FUEL TANK,LH (GS-068)	EA	1
567	BAND ASSY-FUEL TANK,RH (GS-069)	EA	1
568	CLAMP-FUEL TUBE (GS-071)	EA	1
569	COVER-FUEL PUMP A/S (CM-184)	EA	1
570	TUBE ASSY-FUEL & BRAKE (GS-070)	EA	1
571	COMPLETE-FUEL FILTER (GS-072)	EA	1
572	BOLT-WASHER ASSY (CM-014)	EA	2
573	NUT-FLANGE (CM-079)	EA	2
574	BRKT ASSY-ENGINE MTG (GS-029)	EA	1

REVISED PER UNIT CONSUMPTION

(III) Creta

Sr.No.	Particulars	A/U	Consumption
575	BOLT & WASHER ASSY (CM-015)	EA	2
576	BRKT ASSY-TRANSMISSION MTG (GS-031)	EA	1
577	PACKING-TRANSMISSION MTG S/PNL (GS-032)	EA	1
578	BOLT-FLANGE (CM-092)	EA	2
579	NUT-FLANGE (GS-026)	EA	2
580	NUT-FLANGE(10) (CM-091)	EA	2
581	BRKT-ENGINE MTG SUPPORT (GS-030)	EA	1
582	BOLT (CM-094)	EA	1
583	BOLT (CM-093)	EA	1
584	ACCELERATOR PEDAL MODULE (GS-073)	EA	1
585	PEDAL ASSY-BRAKE (GS-074)	EA	1
586	BOLT-WASHER ASSY (CM-025)	EA	4
587	LEVER ASSY-AUTO TRANSMISSION (GS-087)	EA	1
588	CABLE ASSY-ATM (GS-089)	EA	1
589	KNOB & BOOT ASSY (GS-088)	EA	1
590	MODULE-COOLING (GS-036)	EA	1
591	LABEL-CAUTION (CM-095)	EA	1
592	BOLT-WASHER ASSY (CM-022)	EA	3
593	FILLER NECK ASSY (GS-037)	EA	1
594	HOSE ASSY-RADIATOR UPR (GS-040)	EA	1
595	HOSE ASSY-RADIATOR LWR (GS-041)	EA	1
596	RESERVOIR ASSY-RADIATOR (GS-044)	EA	1
597	BRKT ASSY-RADIATOR UPR MTG (GS-038)	EA	2
598	INSULATOR-RADIATOR LWR MTG (GS-039)	EA	2
599	AIR GUARD (GS-062)	EA	1
600	CLIP-HOSE (GS-045)	EA	1
601	HOSE ASSY-OIL COOLER (GS-042)	EA	1
602	HOSE ASSY-OIL COOLER (GS-043)	EA	1
603	PNL ASSY-UNDER COVER (GS-061)	EA	1
604	BOLT-FLANGE (CM-039)	EA	2
605	AIR CONDITIONER ASSY (GS-441)	EA	1
606	COMPRESSOR ASSY (GS-442)	EA	1
607	BOLT-COMPRESSOR MT"G (GS-443)	EA	4
608	CLEANER COMPLETE-AIR (GS-046)	EA	1
609	HOSE ASSY-AIR INTAKE (GS-047)	EA	1
610	BOLT-WASHER ASSY (CM-096)	EA	6
611	DUCT A ASSY-AIR (GS-049)	EA	1
612	DUCT ASSY-EXTENSION (GS-052)	EA	1
613	SHIELD-AIR INTAKE (GS-050)	EA	1
614	SHIELD-AIR INTAKE (GS-051)	EA	1
	DOOR GROUP		
615	SKD BIP- GS FRONT DOOR LH (GS-135)	EA	1
616	SKD BIP- GS FRONT DOOR RH (GS-136)	EA	1
617	SKD BIP- GS REAR DOOR LH (GS-137)	EA	1
618	SKD BIP- GS REAR DOOR RH (GS-138)	EA	1

PER UNIT CONSUMPTION – GRAND i10

(REVISED VERSION)

REVISED PER UNIT CONSUMPTION

(IV) Grand i10

Sr.No.	Particulars	A/U	Consumption
	ENGINE ASSY TRANSMISSION & CLUTCH SYSTEM		
1	BOLT-FLANGE (CM-042)	EA	3
2	GAUGE ASSY-OIL LEVEL (BA-800)	EA	1
3	CAP-TOOLING HOLE (BA-025)	EA	1
4	V-RIBBED BELT (BA-031)	EA	1
5	BOLT-FLANGE (CM-043)	EA	3
6	STARTER ASSY (BA-062)	EA	1
7	BOLT-FLANGE (CM-038)	EA	1
8	SENSOR-CRANKSHAFT POSITION (BA-067)	EA	1
9	BOLT-WASHER ASSY (CM-034)	EA	2
10	NUT-FLANGE (BA-022)	EA	1
11	COMPUTER & BRKT ASSY (BA-066)	EA	1
12	BOLT-FLANGE (BA-013)	EA	1
13	BOLT-FLANGE (BA-014)	EA	2
14	BOLT-SPECIAL (CM-104)	EA	3
15	AUTO T/M & TQ/CONV ASSY (BA-069)	EA	1
16	BOLT-WASHER ASSY (CM-105)	EA	3
17	BRKT-ROLL ROD SUPT (BA-070)	EA	1
18	BA PE 1.25 GEN EU2 AT ENGINE ASSY (BA-422)	EA	1
	BODY AND CHASSIS GROUP		
19	SKD BIP- BA PE 4DR 1.2 KAPPA AT (BA-119)	EA	1
	FRONT AND REAR AXLES		
20	AXLE ASSY-FR,LH (BA-079)	EA	1
21	AXLE ASSY-FR,RH (BA-080)	EA	1
22	BOLT (BA-081)	EA	2
23	FLANGE NUT-SELF LOCKING (BA-089)	EA	2
24	BOLT-FLANGE (BA-015)	EA	8
25	HUB ASSY-RR (BA-082)	EA	2
26	BOLT (CM-108)	EA	4
27	FLANGE NUT-SELF LOCKING (CM-112)	EA	4
28	STRUT COMPLETE-FR,LH (BA-086)	EA	1
29	STRUT COMPLETE-FR,RH (BA-087)	EA	1
30	BOLT-FLANGE (CM-041)	EA	4
31	NUT-WASHER ASSY (BA-021)	EA	2
32	STAB/BAR & BUSHING ASSY-FR (BA-090)	EA	1
33	LINK ASSY-STABILIZER,LH (BA-091)	EA	1
34	LINK ASSY-STABILIZER BAR,RH (BA-092)	EA	1
35	CROSS MEMBER & LWR ARM COMPL (BA-124)	EA	1
36	TORSION BEAM AXLE COMPLETE (BA-093)	EA	1
37	SPRING ASSY-RR (BA-096)	EA	2
38	WASHER-SPRING (CM-083)	EA	4
39	BRAKE ASSY-FR WHEEL,LH (BA-103)	EA	1
40	BRAKE ASSY-FR WHEEL,RH (BA-104)	EA	1
41	BOLT (CM-123)	EA	4
42	M/SCREW-COUNTERSUNK HEAD (CM-052)	EA	2
43	DRUM-RR BRAKE (BA-107)	EA	2
44	SPACER (BA-094)	EA	2
45	BRAKE ASSY-RR WHEEL,LH (BA-105)	EA	1
46	BRAKE ASSY-RR WHEEL,RH (BA-106)	EA	1
47	BOLT-HOSE CONNECTOR (CM-125)	EA	2
48	HOSE ASSY-FR BRAKE,LH (BA-110)	EA	1
49	HOSE ASSY-FR BRAKE,RH (BA-111)	EA	1
50	GASKET-EYE JOINT (CM-126)	EA	4
51	BOLT-WASHER ASSY (CM-005)	EA	2
52	HOSE ASSY-RR BRAKE (BA-112)	EA	1
53	HOSE ASSY-RR BRAKE,RH (BA-113)	EA	1

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(IV) Grand i10

Sr.No.	Particulars	A/U	Consumption
54	BOLT-WASHER ASSY (CM-029)	EA	4
55	WHEEL SENSOR-A.B.S FR,LH (BA-389)	EA	1
56	WHEEL SENSOR-FR,RH (BA-390)	EA	1
57	NUT-FLANGE (CM-076)	EA	4
58	WHEEL SENSOR-A.B.S RR,LH (BA-391)	EA	1
59	WHEEL SENSOR-RR,RH (BA-392)	EA	1
60	CABLE ASSY-PARKING BRAKE,LH (BA-117)	EA	1
61	CABLE ASSY-PARKING BRAKE,RH (BA-118)	EA	1
62	SHAFT ASSY-DRIVE,LH (BA-075)	EA	1
63	SHAFT ASSY-DRIVE,RH (BA-076)	EA	1
64	NUT (CM-107)	EA	2
	SUSPENSION GROUP		
65	NUT-WASHER ASSY (BA-021)	EA	2
66	NUT-FLANGE (CM-080)	EA	2
67	COVER-INSULATOR DUST (CM-113)	EA	2
68	COVER-INSULATOR DUST (BA-088)	EA	2
69	BOLT ASSY-BODY (BA-125)	EA	2
70	NUT-WASHER ASSY (CM-127)	EA	2
71	SHOCK ABSORBER COMPLETE-RR (BA-095)	EA	2
72	BOLT-FLANGE (CM-114)	EA	2
73	BOLT (CM-115)	EA	2
74	CAP (BA-097)	EA	2
	STEERING WHEEL		
75	NUT (BA-020)	EA	1
76	WASHER-SPRING (BA-023)	EA	1
77	STEERING WHEEL ASSY (BA-098)	EA	1
78	BOLT-MODULE MTG (BA-099)	EA	2
79	BOLT (CM-119)	EA	1
80	NUT-FLANGE (CM-069)	EA	2
81	WASHER-PLAIN (CM-081)	EA	1
82	WASHER-SPRING (CM-082)	EA	1
83	COLUMN & UNIV/JNT ASSY-STRG (BA-100)	EA	1
84	BOLT (CM-118)	EA	1
85	BOLT-FLANGE (CM-035)	EA	2
86	NUT-SLOTTED (CM-062)	EA	2
87	GEAR ASSY-STEERING (BA-101)	EA	1
88	HEAT PROTECTOR ASSY-P/STRG (CM-120)	EA	1
89	BOLT (CM-121)	EA	2
90	PIN-SPLIT (CM-122)	EA	2
	EXHAUST SYSTEM		
91	NUT LOCK (CM-063)	EA	2
92	MUFFLER ASSY-FR (BA-045)	EA	1
93	CLAMP-CVS (BA-046)	EA	1
94	MUFFLER ASSY-RR (BA-047)	EA	1
95	GASKET (CM-097)	EA	1
96	NUT-WASHER ASSY (CM-068)	EA	10
97	PNL-HEAT PROTECTOR FR (BA-048)	EA	1
98	PNL-HEAT PROTECTOR RR (BA-049)	EA	1
	WHEELS & TYRES		
99	WHEEL-ALUMINUM (BA-083)	EA	5
100	VALVE-TIRE (CM-110)	EA	5
101	TIRE (BA-084)	EA	5
102	WEIGHT-WHEEL BALANCE (CM-109)	EA	9
103	NUT ASSY-HUB (CM-111)	EA	16
104	CAP ASSY-WHEEL HUB (BA-085)	EA	4

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(IV) Grand i10

Sr.No.	Particulars	A/U	Consumption
	SEAT ASSEMBLY		
105	SEAT ASSY-FR,LH (BA-331)	EA	1
106	SEAT ASSY-FR,RH (BA-332)	EA	1
107	CUSH ASSY-RR SEAT (BA-336)	EA	1
108	BACK ASSY-RR SEAT (BA-337)	EA	1
109	BOLT-WASHER ASSY (CM-023)	EA	4
110	BOLT-SEAT RAIL MTG (CM-175)	EA	8
111	HOOK ASSY-RR SEAT CUSHION (CM-176)	EA	2
112	BOLT-WASHER ASSY (CM-007)	EA	2
113	SEAT BELT ASSY-FR P/T 3PT,LH (BA-333)	EA	1
114	SEAT BELT ASSY-FR P/T 3PT,RH (BA-334)	EA	1
115	HEIGHT ADJUSTER ASSY-FR S/BELT (BA-335)	EA	2
116	SEAT BELT ASSY-RR ELR 3PT,LH (BA-338)	EA	1
117	BOLT-S/BELT ANCHOR MTG (BA-339)	EA	2
118	SEAT BELT ASSY-RR ELR 3PT,RH (BA-340)	EA	1
119	DOUBLE BUCKLE ASSY-RR S/BELT (BA-341)	EA	1
120	DOUBLE BUCKLE ASSY-RR S/BELT (BA-342)	EA	1
121	CARRIER ASSY-FR END MODULE (BA-127)	EA	1
	TRIMMING PARTS, DASHBOARD, INSTRUMENT PANEL, WINDSHIELDS, WIRE HARNESS AND OTHER ACCESSORIES		
122	BOLT-WASHER ASSY (CM-024)	EA	12
123	INSULATOR-DASH (BA-225)	EA	1
124	INSULATOR-FENDER,LH (BA-227)	EA	1
125	INSULATOR-FENDER,RH (BA-228)	EA	1
126	COVER ASSY-COWL UNDER (BA-130)	EA	1
127	BOLT-WASHER ASSY (CM-010)	EA	8
128	BOLT-WASHER ASSY (BA-004)	EA	4
129	NUT-FLANGE (CM-071)	EA	4
130	PLUG (CM-086)	EA	6
131	PLUG (CM-087)	EA	3
132	PLUG (CM-088)	EA	2
133	PLUG (CM-089)	EA	5
134	PLUG (CM-090)	EA	2
135	GUSSET-FR PILLAR INR,LH (BA-128)	EA	1
136	GUSSET-FR PILLAR INR,RH (BA-129)	EA	1
137	PLUG DRAIN (CM-144)	EA	2
138	PLUG-WAX INJECTION (CM-145)	EA	6
139	PLUG-WAX INJECTION (BA-226)	EA	2
140	PLUG-FR SIDE MBR DRAIN (CM-146)	EA	5
141	PLUG ASSY-BODY & VALVE (CM-147)	EA	28
142	PLUG ASSY-BODY & VALVE (BA-229)	EA	2
143	NUT-PLUG (CM-149)	EA	10
144	PAD-ANTINOISE (BA-230)	EA	2
145	PAD-ANTINOISE (CM-150)	EA	6
146	ANTI PAD-RR FLOOR FR,RH (CM-151)	EA	10
147	PAD-ANTINOISE,RH (CM-152)	EA	17
148	RETN ASSY-BPR COVER MTG (CM-167)	EA	43
149	BOLT-DR SIDE HINGE MTG (CM-130)	EA	16
150	LATCH & ACTUATOR ASSY-FR DR,LH (BA-148)	EA	1
151	LATCH & ACTR ASSY-FR DR,RH (BA-149)	EA	1
152	M/SCREW SEMS-TORX OVAL HEAD (CM-136)	EA	12
153	STRIKER ASSY-DR (BA-150)	EA	4
154	M/SCREW-TORX (CM-135)	EA	8
155	BOLT-WASHER ASSY (BA-009)	EA	4
156	HDL-DR O/S,LH (BA-183)	EA	1
157	COVER-DR O/S HDL,LH (BA-184)	EA	1

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(IV) Grand i10

Sr.No.	Particulars	A/U	Consumption
158	PAD-DR O/S HDL FR,LH (BA-186)	EA	2
159	PAD-DR O/S HDL RR,LH (BA-187)	EA	2
160	BASE ASSY-DR O/S HDL,LH (BA-189)	EA	1
161	HDL-DR O/S,RH (BA-191)	EA	1
162	COVER-DR O/S HDL,RH (BA-192)	EA	2
163	PAD-DR O/S HDL FR,RH (BA-193)	EA	2
164	PAD-DR O/S HDL RR,RH (BA-194)	EA	2
165	BASE ASSY-DR O/S HDL,RH (BA-196)	EA	1
166	T/SCREW-FLANGE HEAD (CM-058)	EA	29
167	GROMMET-SCREW (CM-084)	EA	18
168	HDL ASSY-FR DR I/S,LH (BA-178)	EA	1
169	HOUSING ASSY-FR DR I/S HDL,LH (BA-179)	EA	1
170	HDL ASSY-FR DR I/S,RH (BA-180)	EA	1
171	HOUSING ASSY-FR DR I/S HDL,RH (BA-181)	EA	1
172	BOLT-WASHER ASSY (CM-008)	EA	12
173	BOLT-WASHER ASSY (CM-013)	EA	4
174	CHECKER ASSY-FR DR,LH (BA-134)	EA	1
175	CHECKER ASSY-FR DR,RH (BA-135)	EA	1
176	W/STRIP-FR DR BODY SIDE,LH (BA-158)	EA	1
177	W/STRIP-FR DR BODY SIDE,RH (BA-159)	EA	1
178	COVER-FR DR FRAME CORNER,LH (BA-166)	EA	1
179	COVER-FR DR FRAME CORNER,RH (BA-167)	EA	1
180	W/STRIP ASSY-FR DR SIDE,LH (BA-160)	EA	1
181	W/STRIP ASSY-FR DR SIDE,RH (BA-161)	EA	1
182	SEAL-FR DR TRIM,LH (BA-170)	EA	1
183	SEAL-FR DR TRIM,RH (BA-171)	EA	1
184	W/STRIP ASSY-FR DR BELT O/S,LH (BA-162)	EA	1
185	W/STRIP ASSY-FR DR BELT O/S,RH (BA-163)	EA	1
186	W/STRIP-FR DR BELT I/S,LH (BA-164)	EA	1
187	W/STRIP-FR DR BELT I/S,RH (BA-165)	EA	1
188	PNL ASSY-FR DR TRIM COMPL,LH (BA-168)	EA	1
189	PNL ASSY-FR DR TRIM COMPL,RH (BA-169)	EA	1
190	SUPPORT-FR DR PULL HDL MTG,LH (BA-197)	EA	4
191	COVER ASSY-DR QUADRANT INR,LH (BA-325)	EA	1
192	COVER ASSY-DR QUADRANT INR,RH (BA-326)	EA	1
193	BOLT-FLANGE (CM-037)	EA	4
194	GLASS ASSY-FR DR TINTED,LH (BA-174)	EA	1
195	GLASS ASSY-FR DR TINTED,RH (BA-175)	EA	1
196	RUN ASSY-FR DR WDW GLASS,LH (BA-176)	EA	1
197	RUN ASSY-FR DR WDW GLASS,RH (BA-177)	EA	1
198	NUT-FLANGE (CM-075)	EA	48
199	REGULATOR ASSY-FR DR P/WDW,LH (BA-172)	EA	1
200	REGULATOR ASSY-FR DR P/WDW,RH (BA-173)	EA	1
201	CLIP-DR ROD HOLDING (BA-151)	EA	2
202	LATCH & ACTR ASSY-RR DR,LH (BA-152)	EA	1
203	LATCH & ACTR ASSY-RR DR,RH (BA-153)	EA	1
204	HDL-DR O/S,LH (BA-182)	EA	1
205	COVER-DR O/S HDL,LH (BA-185)	EA	1
206	BASE ASSY-DR O/S HDL,LH (BA-188)	EA	1
207	HDL-DR O/S,RH (BA-190)	EA	1
208	BASE ASSY-DR O/S HDL,RH (BA-195)	EA	1
209	HDL ASSY-RR DR I/S,LH (BA-220)	EA	1
210	HOUSING ASSY-RR DR I/S HDL,LH (BA-221)	EA	1
211	HDL ASSY-RR DR I/S,RH (BA-222)	EA	1
212	HOUSING ASSY-RR DR I/S HDL,RH (BA-223)	EA	1
213	CHECKER ASSY-RR DR,LH (BA-136)	EA	1

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Sr.No.	Particulars	A/U	Consumption
214	CHECKER ASSY-RR DR,RH (BA-137)	EA	1
215	W/STRIP-RR DR BODY SIDE,LH (BA-198)	EA	1
216	W/STRIP-RR DR BODY SIDE,RH (BA-199)	EA	1
217	COVER-RR DR FRAME CORNER,LH (BA-206)	EA	1
218	COVER-RR DR FRAME CORNER,RH (BA-207)	EA	1
219	W/STRIP ASSY-RR DR SIDE,LH (BA-200)	EA	1
220	W/STRIP ASSY-RR DR SIDE,RH (BA-201)	EA	1
221	SEAL-RR DR TRIM,LH (BA-210)	EA	1
222	SEAL-RR DR TRIM,RH (BA-211)	EA	1
223	TAPE-RR DR TOOLG HOLE (CM-142)	EA	2
224	W/STRIP ASSY-RR DR BELT O/S,LH (BA-202)	EA	1
225	W/STRIP ASSY-RR DR BELT O/S,RH (BA-203)	EA	1
226	W/STRIP-RR DR BELT I/S,LH (BA-204)	EA	1
227	W/STRIP-RR DR BELT I/S,RH (BA-205)	EA	1
228	PNL ASSY-RR DR TRIM COMPL,LH (BA-208)	EA	1
229	PNL ASSY-RR DR TRIM COMPL,RH (BA-209)	EA	1
230	GLASS ASSY-RR DR TINTED,LH (BA-214)	EA	1
231	GLASS ASSY-RR DR TINTED,RH (BA-215)	EA	1
232	BOLT-FLANGE (CM-046)	EA	4
233	M/SCREW CONE POINT (CM-143)	EA	2
234	CHANNEL ASSY-RR DR DIV,LH (BA-216)	EA	1
235	CHANNEL ASSY-RR DR DIV,RH (BA-217)	EA	1
236	RUN & F/GLASS ASSY-R/DR WDW,LH (BA-218)	EA	1
237	RUN & F/GLASS ASSY-R/DR WDW,RH (BA-219)	EA	1
238	REGULATOR ASSY-RR DR P/WDW,LH (BA-212)	EA	1
239	REGULATOR ASSY-RR DR P/WDW,RH (BA-213)	EA	1
240	ROD ASSY-HOOD STAY (BA-139)	EA	1
241	GROMMET-HOOD STAY ROD MTG (BA-140)	EA	1
242	CLIP-HOOD STAY ROD (BA-141)	EA	1
243	T/SCREW-PAN HEAD (CM-055)	EA	2
244	BASE ASSY-HOOD LATCH REL,LH (CM-131)	EA	1
245	HDL-HOOD RELEASE,LH (BA-142)	EA	1
246	CABLE ASSY-HOOD LATCH RELEASE (BA-143)	EA	1
247	CLIP-HOOD LATCH RELEASE CABLE (CM-133)	EA	7
248	GROMMET-SCREW (CM-134)	EA	2
249	BOLT-WASHER ASSY (CM-009)	EA	17
250	LATCH ASSY-HOOD (BA-138)	EA	1
251	CABLE ASSY-HOOD LATCH RELEASE (BA-144)	EA	1
252	PLUG-DRAIN HOLE (CM-138)	EA	3
253	W/STRIP-TRUNK LID (BA-320)	EA	1
254	BOLT-WASHER ASSY (CM-030)	EA	4
255	LATCH ASSY-TRUNK LID (BA-146)	EA	1
256	BOLT-WASHER ASSY (CM-007)	EA	3
257	STRIKER ASSY-TRUNK LID (BA-145)	EA	1
258	BAR-TRUNK LID TORSION,LH (BA-132)	EA	1
259	BAR-TRUNK LID TORSION,RH (BA-133)	EA	1
260	HOLDER-T/LID TORSION BAR (BA-297)	EA	1
261	SPRING-FUEL FILLER HINGE (BA-131)	EA	1
262	BPR-F/FILLER DR O/SLAM (BA-322)	EA	2
263	CABLE ASSY-TRUNK LID REL,LH (BA-147)	EA	1
264	CATCH & CABLE ASSY-F/FLR DR (BA-154)	EA	1
265	HDL ASSY-F/F T/LID REL,LHD (CM-137)	EA	1
266	KEY SET (BA-156)	EA	1
267	LOCK ASSY-STEERING,ELECTRIC (BA-155)	EA	1
268	CLAMP-STRG & IGN LOCK (BA-157)	EA	1
269	BOLT-SAFETY LOCK (CM-139)	EA	2

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(IV) Grand i10

Sr.No.	Particulars	A/U	Consumption
270	ISOLATION PAD ASSY-DASH PNL (BA-224)	EA	1
271	CARPET ASSY-FLOOR (BA-233)	EA	1
272	PLUG-TRIM MTG (BA-261)	EA	20
273	TRIM ASSY-RR PACKAGE TRAY (BA-265)	EA	1
274	RETAINER & WASHER ASSY (CM-164)	EA	9
275	TRIM ASSY-LUGGAGE SIDE,LH (BA-268)	EA	1
276	TRIM ASSY-LUGGAGE SIDE,RH (BA-269)	EA	1
277	TRIM ASSY-RR TRANSVERSE (BA-270)	EA	1
278	TRIM ASSY-PARTITION CTR (BA-267)	EA	1
279	MAT ASSY-LUGGAGE COVERING (BA-266)	EA	1
280	M/SCREW-OVAL COUNTERSUNK HEA (CM-054)	EA	4
281	SUNVISOR ASSY,LH (BA-257)	EA	1
282	SUNVISOR ASSY,RH (BA-258)	EA	1
283	RETAINER-SUNVISOR ASSY (BA-259)	EA	2
284	HEAD LINING COMPLETE ASSY (BA-260)	EA	1
285	HDL ASSY-ROOF ASSIST FR,RH (CM-161)	EA	1
286	HDL ASSY-ROOF ASSIST RR,LH (CM-162)	EA	1
287	HDL ASSY-ROOF ASSIST RR,RH (CM-163)	EA	1
288	BOLT-WASHER ASSY (CM-018)	EA	6
289	BRKT ASSY-ASSIST HDL MTG FR,RH (BA-262)	EA	1
290	BRKT ASSY-ASSIST HDL MTG RR,LH (BA-263)	EA	1
291	BRKT ASSY-ASSIST HDL MTG RR,RH (BA-264)	EA	1
292	TRIM ASSY-FR PILLR,LH (BA-271)	EA	1
293	TRIM ASSY-FR PILLAR,RH (BA-272)	EA	1
294	TRIM ASSY-CTR PILLAR UPR,LH (BA-275)	EA	1
295	TRIM-CTR PILLAR LWR,LH (BA-276)	EA	1
296	TRIM ASSY-CTR PILLAR UPR,RH (BA-277)	EA	1
297	TRIM-CTR PILLAR LWR,RH (BA-278)	EA	1
298	TRIM ASSY-RR PILLAR UPR,LH (BA-279)	EA	1
299	TRIM ASSY-RR PILLAR,RH (BA-280)	EA	1
300	TRIM ASSY-COWL SIDE,LH (BA-273)	EA	1
301	TRIM ASSY-COWL SIDE,RH (BA-274)	EA	1
302	TRIM ASSY-FR DR SCUFF,LH (BA-281)	EA	1
303	TRIM ASSY-FR DR SCUFF,RH (BA-283)	EA	1
304	TRIM ASSY-RR DR SCUFF,LH (BA-282)	EA	1
305	TRIM ASSY-RR DR SCUFF,RH (BA-284)	EA	1
306	TRIM ASSY-RR WHEEL HOUSE,LH (BA-285)	EA	1
307	TRIM ASSY-RR WHEEL HOUSE,RH (BA-286)	EA	1
308	BAR ASSY-COWL CROSS (BA-234)	EA	1
309	BOLT-WASHER ASSY (BA-005)	EA	2
310	BOLT-WASHER ASSY (CM-019)	EA	14
311	BOLT-WASHER ASSY (CM-153)	EA	2
312	BOLT ASSY-C/CROSS MT`G (CM-154)	EA	2
313	T/SCREW-FLANGE (CM-002)	EA	35
314	HOUSING ASSY-GLOVE BOX (BA-235)	EA	1
315	UPR COVER ASSY-GLOVE BOX (BA-237)	EA	1
316	CRASH PAD MAIN ASSY (BA-245)	EA	1
317	NOZZLE-SIDE DEFROSTER,LH (BA-409)	EA	1
318	NOZZLE-SIDE DEFROSTER,RH (BA-410)	EA	1
319	GARNISH ASSY-CRASH PAD CTR (BA-252)	EA	1
320	GARNISH ASSY-CRASH PAD,LH (BA-253)	EA	1
321	PNL ASSY-CRASH PAD LWR,LH (BA-249)	EA	1
322	COVER ASSY-FUSE BOX (BA-250)	EA	1
323	COVER ASSY-CRASH PAD SIDE,LH (BA-246)	EA	1
324	COVER ASSY-CRASH PAD SIDE,RH (BA-247)	EA	1
325	TAPP`G SCREW-WITH PPF (CM-156)	EA	13

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Sr.No.	Particulars	A/U	Consumption
326	CONN ASSY-HTR & A/VENT DUCT (BA-411)	EA	1
327	PNL ASSY-CLUSTER FACIA (BA-254)	EA	1
328	SHROUD ASSY-STRG/COL LWR (BA-255)	EA	1
329	SHROUD-STEERING COLUMN UPR (BA-256)	EA	1
330	PNL ASSY-CTR FACIA (BA-248)	EA	1
331	BOLT-WASHER ASSY (CM-016)	EA	3
332	NUT-FLANGE (CM-070)	EA	1
333	ASHTRAY ASSY-PORTABLE (CM-155)	EA	1
334	COVER-PARKING BRAKE (BA-238)	EA	1
335	MAT-CUP HOLDER (BA-239)	EA	1
336	CONSOLE ASSY-FLOOR (BA-240)	EA	1
337	COVER ASSY-FR CONSOLE,LH (BA-241)	EA	1
338	COVER ASSY-FR CONSOLE,RH (BA-242)	EA	1
339	MAT-RR CONSOLE TRAY (BA-243)	EA	1
340	TRAY-CRASH PAD LWR (BA-251)	EA	1
341	SOCKET ASSY-CIGAR LIGHTER (BA-380)	EA	1
342	JACK ASSY-AUXILIARY & U.S.B (BA-396)	EA	1
343	COVER ASSY-CONSOLE UPR (BA-244)	EA	1
344	COVER-BLANKING,LH (BA-376)	EA	1
345	COVER-BLANKING,RH (BA-377)	EA	1
346	SWITCH ASSY-HAZARD WARNING (BA-378)	EA	1
347	PLUG ASSY-C/LIGHTER (CM-185)	EA	1
348	NUT-WASHER ASSY (CM-067)	EA	3
349	HEATER COMPLETE ASSY (BA-403)	EA	1
350	T/SCREW-HEXAGON HEAD (CM-057)	EA	10
351	NUT-WASHER ASSY (CM-068)	EA	6
352	GROMMET ASSY-HEATER PIPE (BA-408)	EA	1
353	SEAL ASSY-EVAPORATOR PIPE(A/C) (BA-414)	EA	1
354	HOSE ASSY-WATER INLET (BA-406)	EA	1
355	HOSE ASSY-WATER OUTLET (BA-407)	EA	1
356	GRILLE ASSY-AIR EXTRACTOR (BA-412)	EA	2
357	CONTROL ASSY-ROTARY HEATER (BA-404)	EA	1
358	COVER-A/LIGHT & PHOTO SENSOR (BA-405)	EA	1
359	DRIVER AIR BAG MODULE ASSY (BA-102)	EA	1
360	PASSENGER AIR BAG MODULE ASSY (BA-236)	EA	1
361	GLASS ASSY-W/S TNTD S/B (BA-287)	EA	1
362	MOULDING ASSY-WINDSHIELD GLASS (BA-288)	EA	1
363	GLASS ASSY-RR WINDOW TNTD HTD (BA-315)	EA	1
364	MOULDING-RR WINDOW GLASS (BA-317)	EA	1
365	COVER & NOZZLE ASSY-COWL TOP (BA-289)	EA	1
366	COVER ASSY-COWL TOP SIDE,LH (BA-290)	EA	1
367	RETAINER-COWL TOP COVER,MTG (CM-166)	EA	4
368	COVER ASSY-COWL TOP SIDE,RH (BA-291)	EA	1
369	GARNISH ASSY-DELTA,LH (BA-292)	EA	1
370	GARNISH ASSY-DELTA,RH (BA-293)	EA	1
371	T/SCREW-FLANGE HEAD (CM-061)	EA	12
372	GUARD ASSY-FR WHEEL,LH (BA-307)	EA	1
373	GUARD ASSY-FR WHEEL,RH (BA-308)	EA	1
374	RETAINER (CM-168)	EA	6
375	BOLT ASSY-HEAD LAMP MTG (CM-178)	EA	2
376	T/SCREW-HEXAGON HEAD (CM-056)	EA	6
377	GUARD-RR WHEEL,LH (BA-309)	EA	1
378	GUARD-RR WHEEL,RH (BA-310)	EA	1
379	GUARD-FR MUD,LH (BA-311)	EA	1
380	GUARD ASSY-FR MUD,RH (BA-312)	EA	1
381	GUARD ASSY-RR MUD,LH (BA-313)	EA	1

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Sr.No.	Particulars	A/U	Consumption
382	GUARD ASSY-RR MUD,RH (BA-314)	EA	1
383	MOULDING ASSY-ROOF,LH (BA-318)	EA	1
384	MOULDING ASSY-ROOF,RH (BA-319)	EA	1
385	MOULDING ASSY-W/LINE FR DR,LH (BA-327)	EA	1
386	MOULDING ASSY-W/LINE FR DR,RH (BA-328)	EA	1
387	MOULDING ASSY-W/LINE RR DR,LH (BA-329)	EA	1
388	MOULDING ASSY-W/LINE RR DR,RH (BA-330)	EA	1
389	NUT-FLANGE (CM-172)	EA	6
390	GARNISH ASSY-TRUNK LID (BA-321)	EA	1
391	EMBLEM-GRAND I10 (BA-294)	EA	1
392	SYMBOL MARK (BA-295)	EA	1
393	BOLT-WASHER ASSY (CM-021)	EA	17
394	T/SCREW-FLANGE HEAD (CM-059)	EA	6
395	COVER ASSY-FR BUMPER (BA-298)	EA	1
396	BRKT ASSY-FR BUMPER SIDE,LH (BA-299)	EA	1
397	BRKT ASSY-FR BUMPER SIDE,RH (BA-300)	EA	1
398	NUT-WASHER ASSY (CM-065)	EA	2
399	RAIL ASSY-FR BUMPER (BA-303)	EA	1
400	T/SCREW-HEXAGON HEAD (BA-018)	EA	4
401	COVER-RADIATOR GRILLE UPR (BA-296)	EA	1
402	BRKT ASSY-FR BUMPER SD UPR,LH (BA-301)	EA	1
403	BRKT ASSY-FR BUMPER SD UPR,RH (BA-302)	EA	1
404	TAPPING SCREW-STEP (CM-165)	EA	2
405	COVER ASSY-RR BUMPER (BA-304)	EA	1
406	BRKT ASSY-RR BUMPER SIDE,LH (BA-305)	EA	1
407	BRKT ASSY-RR BUMPER SIDE,RH (BA-306)	EA	1
408	RETAINER ASSY (CM-191)	EA	2
409	RETAINER & WASHER ASSY (CM-169)	EA	2
410	SUPPORTER-RR L/PLATE (CM-173)	EA	2
411	MOTOR & LINK ASSY-W/SHLD WPR (BA-416)	EA	1
412	BOLT-WASHER ASSY (CM-193)	EA	2
413	NUT-WASHER ASSY (CM-194)	EA	2
414	ARM & BLADE ASSY-W/WPR D/SIDE (BA-417)	EA	1
415	CAP-WINDSHIELD WIPER ARM (CM-195)	EA	2
416	ARM & BLADE ASSY-W/WPR P/SIDE (BA-418)	EA	1
417	BOLT-WASHER ASSY (CM-017)	EA	2
418	RESERVOIR & PUMP ASSY-W/WASHER (BA-419)	EA	1
419	GROMMET-WASHER HOSE (BA-420)	EA	1
420	MIRROR ASSY-I/S RR VIEW (CM-158)	EA	1
421	COVER-I/S RR VIEW MIRROR (CM-159)	EA	1
422	MIRROR ASSY-O/S RR VIEW,LH (BA-323)	EA	1
423	MIRROR ASSY-O/S RR VIEW,RH (BA-324)	EA	1
424	GRAND-I10-AV (BA-421)	EA	1
425	FEEDER CABLE-ANTENNA MAIN NO.1 (BA-398)	EA	1
426	ANTENNA ASSY-ROOF (BA-397)	EA	1
427	NUT-COMBINATION ANTENNA (CM-187)	EA	1
428	FEEDER CABLE-ANTENNA EXTN NO.1 (BA-399)	EA	1
429	POLE-ROOF ANTENNA (CM-188)	EA	1
430	MTG RIVET (CM-189)	EA	12
431	SPEAKER & PROTECTOR ASSY-DR (BA-400)	EA	4
432	BOLT-FLANGE(F.T THREAD) (BA-017)	EA	3
433	UNIT ASSY-A/BAG CONTROL (BA-395)	EA	1
434	SENSOR ASSY-FR SIDE IMPACT (CM-186)	EA	2
435	FOB-SMART KEY (BA-387)	EA	2
436	UNIT ASSY-B.C.M (BA-382)	EA	1
437	UNIT ASSY-SMART KEY (BA-388)	EA	1

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Sr.No.	Particulars	A/U	Consumption
438	TAPPING SCREW (CM-157)	EA	3
439	SWITCH ASSY-BUTTON START (BA-386)	EA	1
440	ANTENNA ASSY-SMART KEY (BA-383)	EA	1
441	ANTENNA ASSY-SMART KEY (BA-385)	EA	1
442	BOLT-WASHER ASSY (CM-031)	EA	1
443	HORN ASSY-BURGLAR ALARM (BA-402)	EA	1
444	BUZZER ASSY-PIEZO (BA-393)	EA	1
445	HORN ASSY-LOW PITCHED DISK (BA-401)	EA	1
446	M/SCREW-WASHER ASSY (CM-053)	EA	2
447	SWITCH ASSY-LIGHTING (BA-372)	EA	1
448	SWITCH ASSY-WIPER & WASHER (BA-373)	EA	1
449	CONTACT ASSY-CLOCK SPRING (BA-374)	EA	1
450	COUNTER M/SCREW-EARTH BOLT (CM-177)	EA	4
451	SWITCH ASSY-DR (BA-375)	EA	4
452	CLUSTER ASSY-INSTRUMENT (BA-379)	EA	1
453	BATTERY ASSY-MF40L OPENABLE (BA-063)	EA	1
454	BOLT-WASHER ASSY (BA-008)	EA	3
455	BOLT-WASHER ASSY (CM-028)	EA	1
456	TRAY ASSY-BATTERY (BA-064)	EA	1
457	CLAMP ASSY-BATTERY (CM-103)	EA	1
458	BOLT-FLANGE(F.T THREAD) (CM-047)	EA	1
459	SENSOR ASSY-BATTERY (BA-065)	EA	1
460	WIRING HARNESS-MAIN (BA-343)	EA	1
461	BOLT-FLANGE(F.T THREAD) (CM-050)	EA	4
462	BOX ASSY-I.C.M RELAY (BA-357)	EA	1
463	WIRING HARNESS-FR (BA-344)	EA	1
464	BOLT-WASHER ASSY (CM-020)	EA	5
465	BOLT-FLANGE (FT THREAD) (BA-016)	EA	7
466	BOLT-FLANGE(F.T THREAD) (CM-048)	EA	6
467	BOLT-FLANGE(F.T THREAD) (CM-049)	EA	2
468	NUT-FLANGE (CM-077)	EA	6
469	UPR COVER-ENGINE ROOM J/BLK (BA-358)	EA	1
470	ELECTRONIC MODULE-STOP SIGNAL (BA-381)	EA	1
471	WIRING HARNESS-FLOOR (BA-345)	EA	1
472	PAD-ANTINOISE (BA-231)	EA	2
473	PAD-ANTINOISE,RH (BA-232)	EA	2
474	WIRING HARNESS-DR DRIVER SIDE (BA-346)	EA	1
475	WIRING HARNESS-DR P/SIDE (BA-347)	EA	1
476	WIRING HARNESS-RR DR LH (BA-348)	EA	1
477	WIRING HARNESS-RR DR (BA-349)	EA	1
478	WIRING HARNESS-BATTERY (BA-350)	EA	1
479	WIRING HARNESS-ENGINE GROUND (BA-351)	EA	1
480	WIRING HARNESS-T/M GROUND (BA-352)	EA	1
481	BOLT-WASHER ASSY (CM-012)	EA	1
482	BOLT-WASHER ASSY (BA-006)	EA	2
483	BOLT (CM-032)	EA	1
484	BOLT (CM-033)	EA	2
485	NUT-FLANGE (CM-076)	EA	2
486	BRKT-WIRING MTG (BA-353)	EA	1
487	BRKT-WIRING MTG (BA-354)	EA	1
488	BRKT-WIRING MTG (BA-355)	EA	1
489	BRKT-ENGINE BLOCK (BA-356)	EA	1
490	JUNCTION BOX ASSY-HIGH VOLTAGE (BA-359)	EA	1
491	BOLT-WASHER ASSY (CM-022)	EA	6
492	HEAD LAMP ASSY,LH (BA-360)	EA	1
493	HEAD LAMP ASSY,RH (BA-361)	EA	1

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Sr.No.	Particulars	A/U	Consumption
494	LAMP ASSY-SIDE REPEATER,LH (BA-362)	EA	1
495	LAMP ASSY-SIDE REPEATER,RH (BA-363)	EA	1
496	T/SCREW-FLANGE HEAD (BA-019)	EA	4
497	RETAINER & WASHER ASSY (CM-170)	EA	4
498	FASTENER-T/GATE GLASS (CM-171)	EA	2
499	FASTENER-T/GATE GLASS (BA-316)	EA	2
500	LAMP ASSY-RR COMB O/S,LH (BA-364)	EA	1
501	LAMP ASSY-RR COMB O/S,RH (BA-365)	EA	1
502	LAMP ASSY-RR COMB I/S,LH (BA-366)	EA	1
503	LAMP ASSY-RR COMB I/S,RH (BA-367)	EA	1
504	NUT (CM-179)	EA	4
505	MT`G CLIP-RR COMBI (CM-180)	EA	2
506	LICENSE PLATE LAMP ASSY (CM-181)	EA	2
507	LAMP ASSY-LUGGAGE & GLOVE (CM-182)	EA	1
508	BOLT-FLANGE (BA-011)	EA	2
509	HIGH MOUNTED STOP LAMP ASSY (BA-368)	EA	1
510	T/SCREW-FLANGE HEAD (CM-001)	EA	4
511	GROMMET-SCREW (CM-085)	EA	2
512	BRKT ASSY-ROOM LAMP (BA-369)	EA	1
513	LAMP ASSY-ROOM (BA-370)	EA	1
514	LAMP ASSY-ROOM (BA-371)	EA	1
515	LABEL-TIRE PRESSURE (BA-001)	EA	1
516	JACK ASSY (BA-002)	EA	1
517	TOOL SET (BA-003)	EA	1
518	CLAMP ASSY-SPARE (BA-126)	EA	1
519	NUT-FLANGE (CM-078)	EA	11
520	PIN-SNAP (CM-106)	EA	1
521	MASTER CYLINDER & BOOSTER ASSY (BA-108)	EA	1
522	PIN-ASSY (CM-124)	EA	1
523	HOSE ASSY-VACUUM (BA-115)	EA	1
524	NUT (CM-072)	EA	1
525	TUBE ASSY-ENGINE ROOM BRAKE (BA-109)	EA	1
526	BOLT-WASHER ASSY (CM-004)	EA	4
527	BOLT-WASHER ASSY (BA-007)	EA	1
528	ABS & BRKT ASSY (BA-114)	EA	1
529	BOLT-WASHER ASSY (CM-006)	EA	3
530	LEVER ASSY-PARKING BRAKE (BA-116)	EA	1
531	BOLT-FLANGE (CM-040)	EA	5
532	CAP ASSY-F/FILLER (BA-054)	EA	1
533	FILLER NECK & HOSE ASSY (BA-055)	EA	1
534	BOLT-FUEL FILLER NECK (CM-100)	EA	4
535	LABEL-FUEL FILLER DR (CM-099)	EA	1
536	FUEL TANK COMPLETE (BA-056)	EA	1
537	NUT-FLANGE LOCK (CM-101)	EA	2
538	BAND ASSY-FUEL TANK (BA-057)	EA	1
539	BAND ASSY-FUEL TANK,RH (BA-058)	EA	1
540	CLAMP-FUEL TUBE (CM-102)	EA	1
541	COVER-FUEL PUMP A/S (CM-184)	EA	1
542	NUT-WASHER ASSY (CM-066)	EA	2
543	TUBE ASSY-FUEL & BRAKE (BA-059)	EA	1
544	BOLT-WASHER ASSY (CM-014)	EA	2
545	NUT-FLANGE (CM-079)	EA	2
546	BRKT ASSY-ENGINE MTG (BA-026)	EA	1
547	BOLT & WASHER ASSY (CM-015)	EA	2
548	BRKT ASSY-TRANSMISSION MTG (BA-028)	EA	1
549	PACKING-TRANSMISSION MTG S/PNL (BA-029)	EA	1

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Sr.No.	Particulars	A/U	Consumption
550	BOLT-FLANGE (CM-092)	EA	2
551	NUT-FLANGE (CM-074)	EA	1
552	NUT-FLANGE(10) (CM-091)	EA	2
553	BRKT-SUPT ENG MTG (BA-027)	EA	1
554	BOLT (CM-094)	EA	1
555	BOLT-FLANGE (CM-045)	EA	2
556	BRKT ASSY-ROLL ROD (BA-030)	EA	1
557	BOLT (CM-093)	EA	1
558	BOLT-FLANGE (BA-012)	EA	2
559	HEAT PROTECTOR (BA-077)	EA	1
560	BOLT-WASHER ASSY (BA-010)	EA	4
561	BRKT-AIR GUIDE (BA-078)	EA	1
562	ACCELERATOR PEDAL MODULE (BA-060)	EA	1
563	BOLT-WASHER ASSY (CM-011)	EA	2
564	PEDAL ASSY-BRAKE (BA-061)	EA	1
565	BOLT-WASHER ASSY (CM-025)	EA	4
566	LEVER ASSY-AUTO TRANSMISSION (BA-071)	EA	1
567	CABLE ASSY-AUTO TRANSMISSION (BA-074)	EA	1
568	PIN-SNAP (BA-068)	EA	1
569	CABLE ASSY-SHIFT LOCK (BA-073)	EA	1
570	KNOB & BOOT ASSY (BA-072)	EA	1
571	STRAP (BA-024)	EA	1
572	COOLING MODULE (BA-032)	EA	1
573	BRKT ASSY-RADIATOR UPR MTG (BA-034)	EA	2
574	INSULATOR-RADIATOR LWR MTG (BA-035)	EA	2
575	LABEL-CAUTION (BA-036)	EA	1
576	HOSE ASSY-OIL COOLER (BA-039)	EA	1
577	HOSE ASSY-OIL COOLER (BA-040)	EA	1
578	AIR GUARD,LH (BA-053)	EA	1
579	FILLER NECK & HOSE ASSY-RAD (BA-033)	EA	1
580	HOSE ASSY-RADIATOR LWR (BA-038)	EA	1
581	TANK ASSY-RADIATOR RESERVOIR (BA-041)	EA	1
582	HOSE ASSY-RADIATOR UPR (BA-037)	EA	1
583	PNL-UNDER COVER FR (BA-050)	EA	1
584	PNL-SIDE COVER,RH (BA-051)	EA	1
585	PNL-SIDE COVER,LH (BA-052)	EA	1
586	BOLT-FLANGE (CM-039)	EA	2
587	AIR CONDITIONER ASSY (BA-413)	EA	1
588	HEAT COVER-EXPANSION VALVE (BA-415)	EA	1
589	CLEANER COMPLETE-AIR (BA-042)	EA	1
590	BRKT B-AIR CLEANER MTG (BA-043)	EA	1
591	BRKT-AIR CLEANER MTG (BA-044)	EA	1
592	BOLT-WASHER ASSY (CM-096)	EA	1
	DOOR GROUP		
593	SKD BIP- BA FRONT DOOR LH (BA-120)	EA	1
594	SKD BIP- BA FRONT DOOR RH (BA-121)	EA	1
595	SKD BIP- BA REAR DOOR LH (BA-122)	EA	1
596	SKD BIP- BA REAR DOOR RH (BA-123)	EA	1

ATTACHMENT (11)

PER UNIT CONSUMPTION

(V) Santa Fe

Sr. No.	Particulars	A/U	Consumption
	ENGINE ASSY TRANSMISSION & CLUTCH SYSTEM		
1	ENGINE ASSY & ATA	SET	1
2	BRACKET ASSY-TRANSMISSION MTG	SET	1
3	BRACKET ASSY-ENGINE MTG	SET	1
4	BRACKET ASSY-ROLL ROD	SET	1
5	BRACKET-ROLL	SET	1
6	RADIATOR ASSY	SET	1
7	INSULATOR-RADIATOR MTG LWR	SET	1
8	BRACKET ASSY-RADIATOR MTG UPR	SET	1
9	HOSE ASSY-RADIATOR UPR	SET	1
10	HOSE ASSY-RADIATOR LWR	SET	1
11	RESERVOIR ASSY- RADIATOR	SET	1
12	GUARD-AIR	SET	1
13	CLEANER ASSY-AIR	SET	1
14	SENSOR ASSY-AIR FLOW	SET	1
15	HOSE ASSY-AIR INTAKE	SET	1
16	DUCT ASSY-AIR	SET	1
17	ELECTRONIC CONTROL UNIT	SET	1
18	PANEL ASSY-UNDER COVER	SET	1
19	PANEL-SIDE COVER RH	SET	1
20	PANEL-SIDE COVER LH	SET	1
21	INTERCOOLER	SET	1
22	INTERCOOLER HOSE A	SET	1
23	INTERCOOLER HOSE B	SET	1
24	FILLER NECK & HOSE ASSY	SET	1
25	TANK ASSY-FUEL	SET	1
26	BAND ASSY-FUEL TANK RH	SET	1
27	BAND ASSY-FUEL TANK LH	SET	1
28	BATTERY ASSY	SET	1
29	INSULATION PAD-BATTERY	SET	1
30	TRAY ASSY-BATTERY	SET	1
31	BRACKET-BATTERY	SET	1
32	TUBE & HOSE ASSY	SET	1
33	HOSE ASSY-ATA OIL COOLING	SET	1
	BODY AND CHASSIS GROUP		
34	BODY ASSY	SET	1
	FRONT AND REAR AXLES		
35	KNUCKLE-FRONT AXLE LH	SET	1
36	KNUCKLE-FRONT AXLE RH	SET	1
37	CARRIER ASSY-REAR AXLE LH	SET	1
38	CARRIER ASSY-REAR AXLE RH	SET	1
39	CARRIER ASSY-DIFFERENTIAL	SET	1
40	SHAFT ASSY-PROPELLER	SET	1
41	SHAFT ASSY-DRIVE LH	SET	1
42	SHAFT ASSY-DRIVE RH	SET	1
43	BEARING BRACKET & SHAFT ASSY	SET	1
44	SHAFT ASSY-DRIVE RR	SET	1
	SUSPENSION GROUP		
45	CROSSMEMBER COMPL	SET	1
46	LINK ASSY-FRONT STABILIZER LH	SET	1
47	LINK ASSY-FRONT STABILIZER RH	SET	1
48	LINK ASSY-REAR STABILIZER LH	SET	1
49	LINK ASSY-REAR STABILIZER RH	SET	1
50	STAY	SET	1
51	CROSSMEMBER-RR	SET	1
52	SHOCK ABSORBER ASSY-REAR	SET	1
53	SPRING-RR	SET	1
	STEERING WHEEL		
54	WHEEL ASSY-STEERING	SET	1
55	MODULE ASSY-STRG WHEEL AIR BAG	SET	1
56	COLUMN ASSY-UPPER	SET	1
57	JOINT ASSY-STRG	SET	1
	EXHAUST SYSTEM		
58	MUFFLER ASSY-FRONT	SET	1

PER UNIT CONSUMPTION

(V) Santa Fe

Sr. No.	Particulars	A/U	Consumption
59	MUFFLER ASSY-CENTER	SET	1
60	MUFFLER ASSY-REAR	SET	1
61	CONVERTER ASSY-WARM UP CATALYTIC	SET	1
	WHEELS & TYRES		
62	WHEEL ASSY-ALUMINIUM	SET	1
63	CAP ASSY-WHEEL HUB	SET	1
64	CLAMP-SPARE TIRE	SET	1
	SEAT ASSY		
65	FRONT SEAT ASSY LH	SET	1
66	FRONT SEAT ASSY RH	SET	1
67	2ND SEAT ASSY LH	SET	1
68	2ND SEAT ASSY RH	SET	1
69	2ND SEAT ASSY CENTER	SET	1
70	3RD SEAT ASSY RH	SET	1
71	3RD SEAT ASSY LH	SET	1
	TRIMMING PARTS, DASHBOARD, INSTRUMENT PANEL, WINDSHIELDS, WIRE HARNESS AND OTHER ACCESSORIES		
72	FR BUMPER ASSY	SET	1
73	BEAM COMPLETE-FR BUMPER	SET	1
74	BEAM-RR BUMPER	SET	1
75	RR BUMPER ASSY	SET	1
76	LAMP ASSY-HEAD LH	SET	1
77	LAMP ASSY-HEAD RH	SET	1
78	LAMP ASSY-REAR COMBINATION LH	SET	1
79	LAMP ASSY-REAR COMBINATION RH	SET	1
80	LAMP ASSY-REAR COMB INSIDE LH	SET	1
81	LAMP ASSY-REAR COMB INSIDE RH	SET	1
82	GUARD ASSY-FRONT WHEEL LH	SET	1
83	GUARD ASSY-FRONT WHEEL RH	SET	1
84	GUARD ASSY-REAR WHEEL LH	SET	1
85	GUARD ASSY-REAR WHEEL RH	SET	1
86	GUARD ASSY-FRONT WHEEL MUD LH	SET	1
87	GUARD ASSY-FRONT WHEEL MUD RH	SET	1
88	GUARD ASSY-REAR WHEEL MUD LH	SET	1
89	GUARD ASSY-REAR WHEEL MUD RH	SET	1
90	CARRIER ASSY-FRONT END MODULE	SET	1
91	WIRING ASSY-CONTROL	SET	1
92	WIRING ASSY-FRT	SET	1
93	HORN ASSY-LOW PITCH	SET	1
94	HORN ASSY-HIGH PITCH	SET	1
95	ARM ASSY-W/SHLD WPR(DRIVER)	SET	1
96	ARM ASSY-W/SHLD WPR(PASSENGER)	SET	1
97	ARM ASSY-RR WIPER	SET	1
98	RESERVOIR & PUMP ASSY-WASHER	SET	1
99	MIRROR ASSY-OUTSIDE RR VIEW LH	SET	1
100	MIRROR ASSY-OUTSIDE RR VIEW RH	SET	1
101	COVER ASSY-FR DR QDRNT INR LH	SET	1
102	COVER ASSY-FR DR QDRNT INR RH	SET	1
103	JACK AND TOOLS	SET	1
104	MANUAL SET	SET	1
105	TUBE-FUEL FEED	SET	1
106	TUBE-FUEL RETURN	SET	1
107	TUBE ASSY-FEED	SET	1
108	HOSE-FILTER TO ENG	SET	1
109	TUBE-FILTER TO ENG	SET	1
110	FILTER ASSY-FUEL	SET	1
111	TUBE-CONNECTOR TO RR LH	SET	1
112	TUBE-CONNECTOR TO RR RH	SET	1
113	PEDAL ASSY-ACCELERATOR	SET	1
114	PEDAL ASSY-BRAKE	SET	1
115	LEVER ASSY-ATM	SET	1
116	CABLE ASSY-AUTO TRANSMISSION	SET	1
117	CURTAIN AIR BAG MODULE LH	SET	1
118	CURTAIN AIR BAG MODULE RH	SET	1

PER UNIT CONSUMPTION

(V) Santa Fe

Sr. No.	Particulars	A/U	Consumption
119	BOOSTER ASSY-BRAKE	SET	1
120	TUBE-M/CYL TO H/UNIT SEC	SET	1
121	TUBE-H/MODULE TO FR RH	SET	1
122	TUBE-H/MODULE TO CONNECTOR LH	SET	1
123	TUBE-H/MODULE TO CONNECTOR RH	SET	1
124	TUBE ASSY-M/CYL TO FRT LH	SET	1
125	TUBE-M/CYL TO H/UNIT PRI	SET	1
126	HOSE-BRAKE FRONT LH	SET	1
127	HOSE-BRAKE FRONT RH	SET	1
128	HOSE-BRAKE REAR LH	SET	1
129	HOSE-REAR WHEEL RH	SET	1
130	ABS ASSY	SET	1
131	SENSOR ASSY-ABS FRONT WHEEL LH	SET	1
132	SENSOR ASSY-ABS FRONT WHEEL RH	SET	1
133	SENSOR ASSY-ABS REAL WHEEL LH	SET	1
134	SENSOR ASSY-ABS REAL WHEEL RH	SET	1
135	PARKING BRAKE ASSY-ELECTRONIC	SET	1
136	PAD-HOOD INSULATING	SET	1
137	LATCH ASSY-HOOD	SET	1
138	LIFTER-HOOD	SET	1
139	CABLE ASSY-HOOD LATCH RELEASE	SET	1
140	HOUSING-FUEL FILLER DR	SET	1
141	OPENER ASSY-FUEL FILLER DOOR	SET	1
142	TRIM ASSY-TAIL GATE FRAME SIDE LH	SET	1
143	TRIM ASSY-TAIL GATE FRAME SIDE RH	SET	1
144	PANEL ASSY-TAIL GATE TRIM	SET	1
145	TRIM ASSY-TAIL GATE UPR	SET	1
146	LIFTER ASSY-TAIL GATE	SET	1
147	W/STRIP-TAIL GATE OPNG	SET	1
148	KEY & CYLINDER SET-LOCK	SET	1
149	ANTI PAD ASSY	SET	1
150	PAD ASSY-ISOLATION DASH PANEL	SET	1
151	ISO PAD ASSY-COWL INR LWR PNL	SET	1
152	COVER-UNDER CTR FLR OTR LH	SET	1
153	COVER-UNDER CTR FLR OTR RH	SET	1
154	PAD ASSY-FRONT TUNNEL	SET	1
155	CARPET ASSY-FLOOR	SET	1
156	CARPET ASSY-REAR FLOOR	SET	1
157	CONSOLE-FR	SET	1
158	COVER-CONSOLE UPR	SET	1
159	GARNISH-CONSOLE UPR FRT LH	SET	1
160	GARNISH-CONSOLE UPR FRT RH	SET	1
161	GARNISH-CONSOLE UPR RR LH	SET	1
162	GARNISH-CONSOLE UPR RR RH	SET	1
163	ARMREST ASSY-CONSOLE	SET	1
164	CONSOLE-RR	SET	1
165	COVER ASSY-CONSOLE RR	SET	1
166	COVER ASSY-CONSOLE EXTN LH	SET	1
167	COVER ASSY-CONSOLE EXTN RH	SET	1
168	CRASH PAD ASSY-MAIN	SET	1
169	PANEL ASSY-CRASH PAD LOWER LH	SET	1
170	COVER ASSY-C/PAD MAIN SIDE LH	SET	1
171	COVER ASSY-C/PAD MAIN SIDE RH	SET	1
172	SHROUD-STEERING COLUMN UPR	SET	1
173	SHROUD-STEERING COLUMN LWR	SET	1
174	COVER ASSY-UNDER RH	SET	1
175	SUNVISOR ASSY LH	SET	1
176	SUNVISOR ASSY RH	SET	1
177	HANDLE ASSY-ROOF ASSIST REAR RH	SET	1
178	HANDLE ASSY-ROOF ASSIST FRONT RH	SET	1
179	HEADLINING ASSY	SET	1
180	LAMP ASSY-LUGGAGE COMPARTMENT	SET	1
181	LAMP ASSY-ROOM	SET	1
182	LAMP ASSY-OVERHEAD CONSOLE	SET	1

PER UNIT CONSUMPTION

(V) Santa Fe

Sr. No.	Particulars	A/U	Consumption
183	LAMP ASSY-VANITY LH	SET	1
184	LAMP ASSY-VANITY RH	SET	1
185	FEEDER CABLE-ANTENNA FLR NO.1	SET	1
186	MAT ASSY-LUGGAGE COVERING	SET	1
187	TRIM ASSY-LUGGAGE SIDE LH	SET	1
188	LUGGAGE ASSY-CENTER BOX	SET	1
189	TRIM ASSY-LUGGAGE SIDE RH	SET	1
190	TRIM ASSY-RR TRANSVERSE	SET	1
191	TRIM ASSY-FR PILLAR LH	SET	1
192	TRIM ASSY-FR PILLAR RH	SET	1
193	TRIM-COWL SIDE LH	SET	1
194	TRIM-COWL SIDE RH	SET	1
195	TRIM ASSY-CTR PILLAR UPR LH	SET	1
196	TRIM ASSY-CTR PILLAR UPR RH	SET	1
197	TRIM ASSY-CTR PILLAR LWR LH	SET	1
198	TRIM ASSY-CTR PILLAR LWR RH	SET	1
199	TRIM ASSY-RR PILLAR LH	SET	1
200	TRIM ASSY-RR PILLAR RH	SET	1
201	TRIM ASSY-FR DR SCUFF LH	SET	1
202	TRIM ASSY-FR DR SCUFF RH	SET	1
203	TRIM-FR STEP PLATE LH	SET	1
204	TRIM-FR STEP PLATE RH	SET	1
205	TRIM-RR DR SCUFF LH	SET	1
206	TRIM-RR DR SCUFF RH	SET	1
207	TRIM-RR STEP PLATE LH	SET	1
208	TRIM-RR STEP PLATE RH	SET	1
209	GLASS ASSY-WINDSHIELD	SET	1
210	MOULDING-WINDSHIELD UPR	SET	1
211	MOULDING ASSY-W/SHLD SIDE LH	SET	1
212	MOULDING ASSY-W/SHLD SIDE RH	SET	1
213	COVER ASSY-COWL TOP	SET	1
214	GARNISH ASSY-DELTA LH	SET	1
215	GARNISH ASSY-DELTA RH	SET	1
216	GLASS-TAIL GATE	SET	1
217	RACK ASSY-ROOF LH	SET	1
218	RACK ASSY-ROOF RH	SET	1
219	SPOILER-RR	SET	1
220	GARNISH-TAIL GATE	SET	1
221	GARNISH ASSY-FNDR SIDE LH	SET	1
222	GARNISH ASSY-FNDR SIDE RH	SET	1
223	GARNISH ASSY-FRT DR SIDE LH	SET	1
224	GARNISH ASSY-FR DR SIDE RH	SET	1
225	GARNISH ASSY-RR DR SIDE LH	SET	1
226	GARNISH ASSY-RR DR SIDE RH	SET	1
227	GARNISH ASSY-QTR SIDE LH	SET	1
228	GARNISH ASSY-QTR SIDE RH	SET	1
229	MOULDING ASSY-SIDE SILL LH	SET	1
230	MOULDING ASSY-SIDE SILL RH	SET	1
231	GLASS & MOULDING ASSY-QUARTER FIXED LH	SET	1
232	GLASS & MOULDING ASSY-QUARTER FIXED RH	SET	1
233	S/BELT ASSY-FR LH	SET	1
234	S/BELT ASSY-FR RH	SET	1
235	S/BELT ASSY-2ND LH	SET	1
236	S/BELT ASSY-3RD LH	SET	1
237	S/BELT ASSY-2ND RH	SET	1
238	S/BELT ASSY-2ND CTR	SET	1
239	S/BELT ASSY-3RD RH	SET	1
240	2ND SEAT BUCKLE LH	SET	1
241	2ND SEAT BUCKLE RH	SET	1
242	BUCKLE ASSY-RR S/BELT CTR	SET	1
243	3RD SEAT BUCKLE LH	SET	1
244	WIRING ASSY-FLOOR	SET	1
245	WIRING ASSY-BATTERY	SET	1
246	WIRING ASSY-ENG GROUND	SET	1

PER UNIT CONSUMPTION

(V) Santa Fe

Sr. No.	Particulars	A/U	Consumption
247	WIRING ASSY-T/M GND	SET	1
248	WIRING ASSY-TAIL GATE	SET	1
249	MODULE ASSY-AIR BAG CONTROL	SET	1
250	ANTENNA ASSY-ROOF	SET	1
251	CABLE-TV ANTENNA FEEDER	SET	1
252	MOTOR & LINKAGE ASSY-REAR WPR	SET	1
253	DUCT ASSY-RR VENT	SET	1
254	DUCT ASSY-REAR A/VENT NO.3	SET	1
255	DUCT ASSY-REAR A/VENT NO.2	SET	1
256	DUCT-REAR HEATING LH	SET	1
257	DUCT-REAR HEATING RR LH	SET	1
258	DUCT-REAR HEATING RR RH	SET	1
259	DUCT-REAR HEATING RH	SET	1
260	HOSE & TUBE ASSY	SET	1
261	HOSE-DISCHARGE	SET	1
262	PIPE ASSY-SUCTION & LIQUID	SET	1
263	RR HTR & A/CON UNIT	SET	1
264	DUCT ASSY-REAR A/C NO.1 RH	SET	1
265	DUCT ASSY-REAR A/C LH NO.1	SET	1
266	DUCT ASSY-REAR A/C LH NO.2	SET	1
267	CHECKER ASSY-FRONT DOOR LH	SET	1
268	CHECKER ASSY-FRONT DOOR RH	SET	1
269	HANDLE ASSY-DOOR OUTSIDE	SET	1
270	HANDLE ASSY-DOOR OUTSIDE RH	SET	1
271	CHECKER ASSY-REAR DOOR LH	SET	1
272	CHECKER ASSY-REAR DOOR RH	SET	1
273	HANDLE-REAR DOOR OUTSIDE LH	SET	1
274	HANDLE-REAR DOOR OUTSIDE RH	SET	1
275	W/STRIP-FR DR BODY SIDE LH	SET	1
276	W/STRIP-DR BODY SIDE RH	SET	1
277	W/STRIP ASSY-FR DR SIDE LH	SET	1
278	W/STRIP ASSY-FR DR SIDE RH	SET	1
279	W/STRIP-DR OPNG UPR LH	SET	1
280	W/STRIP-DR OPNG UPR RH	SET	1
281	W/STRIP ASSY-FR DR BELT O/S LH	SET	1
282	W/STRIP ASSY-FR DR BELT O/S RH	SET	1
283	GARNISH ASSY-DR FRAME LH	SET	1
284	GARNISH ASSY-DR FRAME RH	SET	1
285	MOULDING ASSY-FRT DR FRAME LH	SET	1
286	MOULDING ASSY-FRT DR FRAME RH	SET	1
287	W/STRIP-FR DR BELT I/S LH	SET	1
288	W/STRIP-FR DR BELT I/S RH	SET	1
289	PANEL ASSY-FRONT DOOR TRIM RH	SET	1
290	PANEL ASSY-FRONT DOOR TRIM LH	SET	1
291	HANDLE ASSY-FR DOOR INSIDE LH	SET	1
292	HANDLE ASSY-FR DOOR INSIDE RH	SET	1
293	LATCH ASSY-FRONT DOOR LH	SET	1
294	LATCH ASSY-FRONT DOOR RH	SET	1
295	GLASS ASSY-FRONT DOOR LH	SET	1
296	GLASS ASSY-FRONT DOOR RH	SET	1
297	MOTOR ASSY-FRONT POWER WDW LH	SET	1
298	MOTOR ASSY-FRONT POWER WDW RH	SET	1
299	PANEL ASSY-FRONT DR MODULE LH	SET	1
300	PANEL ASSY-FRONT DR MODULE RH	SET	1
301	RUN ASSY-FR DR WDO GLASS LH	SET	1
302	RUN ASSY-FR DR WDO GLASS RH	SET	1
303	BASE ASSY-FR DR O/S HANDLE LH	SET	1
304	BASE ASSY-FR DR O/S HANDLE RH	SET	1
305	W/STRIP-RR DR BODY SIDE LH	SET	1
306	W/STRIP-RR DR BODY SIDE RH	SET	1
307	W/STRIP ASSY-RR DR SIDE LH	SET	1
308	W/STRIP ASSY-RR DR SIDE RH	SET	1
309	W/STRIP ASSY-RR DR UPR LH	SET	1
310	W/STRIP ASSY-RR DR UPR RH	SET	1

ATTACHMENT (11)(E)

PER UNIT CONSUMPTION

(V) Santa Fe

Sr. No.	Particulars	A/U	Consumption
311	W/STRIP ASSY-RR DR BELT O/S LH	SET	1
312	W/STRIP ASSY-RR DR BELT O/S RH	SET	1
313	GARNISH ASSY-RR DR FR FRAME LH	SET	1
314	GARNISH ASSY-RR DR FR FRAME RH	SET	1
315	GARNISH ASSY-RR DR RR FRAME LH	SET	1
316	GARNISH ASSY-RR DR RR FRAME RH	SET	1
317	MOULDING ASSY-RR DR FRAME LH	SET	1
318	MOULDING ASSY-RR DR FRAME RH	SET	1
319	HANDLE ASSY-RR DOOR INSIDE LH	SET	1
320	HANDLE ASSY-RR DOOR INSIDE RH	SET	1
321	W/STRIP-RR DR BELT I/S LH	SET	1
322	W/STRIP-RR DR BELT I/S RH	SET	1
323	PANEL ASSY-REAR DOOR TRIM LH	SET	1
324	PANEL ASSY-REAR DOOR TRIM RH	SET	1
325	CURTAIN-REAR DR LH	SET	1
326	CURTAIN-REAR DR RH	SET	1
327	COVER ASSY-RR DR DELTA INR LH	SET	1
328	COVER ASSY-RR DR DELTA INR RH	SET	1
329	LATCH ASSY-REAR DOOR LH	SET	1
330	LATCH ASSY-REAR DOOR RH	SET	1
331	GLASS ASSY-REAR DOOR LH	SET	1
332	GLASS ASSY-REAR DOOR RH	SET	1
333	PANEL ASSY-REAR DOOR MODULE LH	SET	1
334	PANEL ASSY-REAR DOOR MODULE RH	SET	1
335	RUN-RR DR WINDOW GLASS LH	SET	1
336	RUN-RR DR WINDOW GLASS RH	SET	1
337	BASE ASSY-RR DR O/S HDL LH	SET	1
338	BASE ASSY-RR DR O/S HDL RH	SET	1
339	MOTOR ASSY-REAR DR PWR REG LH	SET	1
340	MOTOR ASSY-REAR DR PWR REG RH	SET	1
341	WIRING ASSY-RR DR LH	SET	1
342	WIRING ASSY-RR DR RH	SET	1
343	WIRING ASSY-FR DR(DRIVER)	SET	1
344	WIRING ASSY-FR DR(PASS)	SET	1
345	SPEAKER & PROTECTOR ASSY- DR	SET	1
	DOOR GROUP		
346	PANEL ASSY-FRONT DOOR LH	SET	1
347	PANEL ASSY-FRONT DOOR RH	SET	1
348	PANEL ASSY-REAR DOOR LH	SET	1
349	PANEL ASSY-REAR DOOR RH	SET	1

ATTACHMENT (12)

PER UNIT CONSUMPTION

(VI) Sonata

Sr. No.	Particulars	A/U	Consumption
	ENGINE ASSY TRANSMISSION & CLUTCH SYSTEM		
1	ENGINE ASSY & ATA	SET	1
2	BRACKET ASSY-TRANSMISSION MTG	SET	1
3	BRACKET ASSY-ENGINE MTG	SET	1
4	BRACKET ASSY-ROLL ROD	SET	1
5	RADIATOR ASSY	SET	1
6	INSULATOR-RADIATOR MTG LWR	SET	1
7	BRACKET ASSY-RADIATOR MTG UPR	SET	1
8	HOSE ASSY-RADIATOR UPR	SET	1
9	HOSE ASSY-RADIATOR LWR	SET	1
10	RESERVOIR ASSY- RADIATOR	SET	1
11	GUARD-AIR	SET	1
12	CLEANER ASSY-AIR	SET	1
13	HOSE ASSY-AIR INTAKE	SET	1
14	DUCT ASSY-AIR	SET	1
15	ELECTRONIC CONTROL UNIT	SET	1
16	PANEL ASSY-UNDER COVER	SET	1
17	COVER ASSY-ENGINE UNDER	SET	1
18	FILLER NECK & HOSE ASSY	SET	1
19	TANK ASSY-FUEL	SET	1
20	BAND ASSY-FUEL TANK RH	SET	1
21	BAND ASSY-FUEL TANK LH	SET	1
22	BATTERY ASSY	SET	1
23	INSULATION PAD-BATTERY	SET	1
24	TRAY ASSY-BATTERY	SET	1
25	BRACKET-BATTERY	SET	1
26	TUBE & HOSE ASSY	SET	1
27	HOSE ASSY-ATA OIL COOLING	SET	1
	BODY AND CHASSIS GROUP		
28	BODY ASSY	SET	1
	FRONT AND REAR AXLES		
29	KNUCKLE-FRONT AXLE LH	SET	1
30	KNUCKLE-FRONT AXLE RH	SET	1
31	CARRIER ASSY-REAR AXLE LH	SET	1
32	CARRIER ASSY-REAR AXLE RH	SET	1
33	SHAFT ASSY-DRIVE LH	SET	1
34	SHAFT ASSY-DRIVE RH	SET	1
	SUSPENSION GROUP		
35	CROSSMEMBER COMPL	SET	1
36	LINK ASSY-FRONT STABILIZER LH	SET	1
37	LINK ASSY-FRONT STABILIZER RH	SET	1
38	LINK ASSY-REAR STABILIZER LH	SET	1
39	LINK ASSY-REAR STABILIZER RH	SET	1
40	STAY	SET	1
41	CROSSMEMBER-RR	SET	1
42	SHOCK ABSORBER ASSY-REAR	SET	1
43	SPRING-RR	SET	1
	STEERING WHEEL		
44	WHEEL ASSY-STEERING	SET	1
45	MODULE ASSY-STRG WHEEL AIR BAG	SET	1
46	COLUMN ASSY-UPPER	SET	1
47	JOINT ASSY-STRG	SET	1
	EXHAUST SYSTEM		
48	MUFFLER ASSY-FRONT	SET	1
49	MUFFLER ASSY-CENTER	SET	1
50	MUFFLER ASSY-REAR	SET	1

PER UNIT CONSUMPTION

(VI) Sonata

Sr. No.	Particulars	A/U	Consumption
51	CONVERTER ASSY-WARM UP CATALYTIC	SET	1
	WHEELS & TYRES		
52	WHEEL ASSY-ALUMINIUM	SET	1
53	CAP ASSY-WHEEL HUB	SET	1
54	CLAMP-SPARE TIRE	SET	1
	SEAT ASSY		
55	FRONT SEAT ASSY LH	SET	1
56	FRONT SEAT ASSY RH	SET	1
57	CUSHION ASSY-RR SEAT	SET	1
58	BACK ASSY-RR SEAT LH	SET	1
59	BACK ASSY-RR SEAT SIDE LH	SET	1
60	BACK ASSY-RR SEAT RH	SET	1
61	BACK ASSY-RR SEAT SIDE RH	SET	1
	TRIMMING PARTS, DASHBOARD, INSTRUMENT PANEL, WINDSHIELDS, WIRE HARNESS AND OTHER ACCESSORIES		
62	FR BUMPER ASSY	SET	1
63	BEAM COMPLETE-FR BUMPER	SET	1
64	BEAM-RR BUMPER	SET	1
65	RR BUMPER ASSY	SET	1
66	LAMP ASSY-HEAD LH	SET	1
67	LAMP ASSY-HEAD RH	SET	1
68	LAMP ASSY-REAR COMBINATION LH	SET	1
69	LAMP ASSY-REAR COMBINATION RH	SET	1
70	LAMP ASSY-REAR COMB INSIDE LH	SET	1
71	LAMP ASSY-REAR COMB INSIDE RH	SET	1
72	GUARD ASSY-FRONT WHEEL LH	SET	1
73	GUARD ASSY-FRONT WHEEL RH	SET	1
74	GUARD ASSY-REAR WHEEL LH	SET	1
75	GUARD ASSY-REAR WHEEL RH	SET	1
76	GUARD ASSY-FRONT WHEEL MUD LH	SET	1
77	GUARD ASSY-FRONT WHEEL MUD RH	SET	1
78	GUARD ASSY-REAR WHEEL MUD LH	SET	1
79	GUARD ASSY-REAR WHEEL MUD RH	SET	1
80	CARRIER ASSY-FRONT END MODULE	SET	1
81	WIRING ASSY-CONTROL	SET	1
82	WIRING ASSY-FRT	SET	1
83	HORN ASSY-LOW PITCH	SET	1
84	HORN ASSY-HIGH PITCH	SET	1
85	ARM ASSY-W/SHLD WPR(DRIVER)	SET	1
86	ARM ASSY-W/SHLD WPR(PASSENGER)	SET	1
87	RESERVOIR & PUMP ASSY-WASHER	SET	1
88	MIRROR ASSY-OUTSIDE RR VIEW LH	SET	1
89	MIRROR ASSY-OUTSIDE RR VIEW RH	SET	1
90	COVER ASSY-FR DR QDRNT INR LH	SET	1
91	COVER ASSY-FR DR QDRNT INR RH	SET	1
92	JACK AND TOOLS	SET	1
93	MANUAL SET	SET	1
94	TUBE-FUEL FEED	SET	1
95	PROTECTOR-FUEL	SET	1
96	TUBE-FUEL VAPOR	SET	1
97	TUBE-CONNECTOR TO RR LH	SET	1
98	TUBE-CONNECTOR TO RR RH	SET	1
99	PEDAL ASSY-ACCELERATOR	SET	1
100	PEDAL ASSY-BRAKE	SET	1
101	LEVER ASSY-ATM	SET	1
102	CABLE ASSY-ATM LEVER	SET	1

PER UNIT CONSUMPTION

(VI) Sonata

Sr. No.	Particulars	A/U	Consumption
103	CURTAIN AIR BAG MODULE LH	SET	1
104	CURTAIN AIR BAG MODULE RH	SET	1
105	BOOSTER ASSY-BRAKE	SET	1
106	TUBE-H/MODULE TO FR RH	SET	1
107	TUBE-H/MODULE TO CONNECTOR LH	SET	1
108	TUBE-H/MODULE TO CONNECTOR RH	SET	1
109	TUBE-H/MODULE TO FR LH	SET	1
110	TUBE-M/CYL TO H/UNIT PRI	SET	1
111	TUBE-M/CYL TO CONN(SEC)	SET	1
112	HOSE-BRAKE FRONT LH	SET	1
113	HOSE-BRAKE FRONT RH	SET	1
114	HOSE-BRAKE REAR LH	SET	1
115	HOSE-REAR WHEEL RH	SET	1
116	ABS ASSY	SET	1
117	SENSOR ASSY-FR ABS.LH	SET	1
118	SENSOR ASSY-FR ABS.RH	SET	1
119	CABLE ASSY-ABS.EXT LH	SET	1
120	CABLE ASSY-ABS.EXT RH	SET	1
121	PEDAL & CABLE ASSY-PARKING BRAKE	SET	1
122	CABLE ASSY-PARKING BRAKE LH	SET	1
123	CABLE ASSY-PARKING BRAKE RH	SET	1
124	PAD-HOOD INSULATING	SET	1
125	LATCH ASSY-HOOD	SET	1
126	LIFTER-HOOD LH	SET	1
127	LIFTER-HOOD RH	SET	1
128	CABLE ASSY-HOOD LATCH RELEASE	SET	1
129	TRIM ASSY-TRUNK LID	SET	1
130	WEATHER STRIP-TRUNK LID	SET	1
131	DOOR ASSY-FUEL FILLER	SET	1
132	OPENER ASSY-FUEL FILLER DOOR	SET	1
133	KEY & CYLINDER SET-LOCK	SET	1
134	UNDER COVER ASSY-FLOOR FR LH	SET	1
135	UNDER COVER ASSY-FLOOR RR LH	SET	1
136	PAD ASSY-ISOLATION DASH PANEL	SET	1
137	UNDER COVER ASSY-FLOOR FR RH	SET	1
138	UNDER COVER ASSY-FLOOR RR RH	SET	1
139	PAD ASSY-FRONT TUNNEL	SET	1
140	CARPET ASSY-FLOOR	SET	1
141	CONSOLE ASSY-FLOOR RR	SET	1
142	COVER-CONSOLE SIDE LH	SET	1
143	COVER-CONSOLE SIDE RH	SET	1
144	TRAY ASSY-FLOOR CONSOLE	SET	1
145	COVER ASSY-CONSOLE UPR	SET	1
146	ARMREST ASSY-CONSOLE	SET	1
147	COVER ASSY-RR CONSOLE	SET	1
148	ANTENNA ASSY-SMARTKEY	SET	1
149	DUCT ASSY-RR VENT NO.2 LH	SET	1
150	CRASH PAD ASSY-MAIN	SET	1
151	PANEL ASSY-CRASH PAD LOWER LH	SET	1
152	COVER-C/PAD CTR LWR LH	SET	1
153	COVER-C/PAD CTR LWR RH	SET	1
154	COVER ASSY-C/PAD MAIN SIDE LH	SET	1
155	COVER ASSY-C/PAD MAIN SIDE RH	SET	1
156	SHROUD-STEERING COLUMN UPR	SET	1
157	SHROUD-STEERING COLUMN LWR	SET	1
158	SUNVISOR ASSY LH	SET	1

PER UNIT CONSUMPTION

(VI) Sonata

Sr. No.	Particulars	A/U	Consumption
159	SUNVISOR ASSY RH	SET	1
160	HANDLE ASSY-ROOF ASSIST RH	SET	1
161	HANDLE ASSY-ROOF ASSIST REAR LH	SET	1
162	HEADLINING ASSY	SET	1
163	LAMP ASSY-OVERHEAD CONSOLE	SET	1
164	FEEDER CABLE-ANTENNA	SET	1
165	TRIM ASSY-PACKAGE TRAY RR	SET	1
166	TRIM ASSY-PACKAGE TRAY FR	SET	1
167	SUNSHADE ASSY-RR	SET	1
168	MAT ASSY-LUGGAGE COVERING	SET	1
169	TRIM ASSY-LUGGAGE SIDE LH	SET	1
170	TRIM ASSY-LUGGAGE SIDE RH	SET	1
171	TRIM-PARTITION SIDE LH	SET	1
172	TRIM-PARTITION SIDE RH	SET	1
173	TRIM ASSY-RR TRANSVERSE	SET	1
174	TRIM ASSY-FR PILLAR LH	SET	1
175	TRIM ASSY-FR PILLAR RH	SET	1
176	TRIM ASSY-COWL SIDE LH	SET	1
177	TRIM ASSY-COWL SIDE RH	SET	1
178	TRIM ASSY-CTR PILLAR UPR LH	SET	1
179	TRIM ASSY-CTR PILLAR UPR RH	SET	1
180	TRIM ASSY-CTR PILLAR LWR LH	SET	1
181	TRIM ASSY-CTR PILLAR LWR RH	SET	1
182	TRIM ASSY-RR PILLAR LH	SET	1
183	TRIM ASSY-RR PILLAR RH	SET	1
184	TRIM ASSY-FR DR SCUFF LH	SET	1
185	TRIM ASSY-FR DR SCUFF RH	SET	1
186	TRIM-FR STEP PLATE LH	SET	1
187	TRIM-FR STEP PLATE RH	SET	1
188	TRIM ASSY-RR DR SCUFF LH	SET	1
189	TRIM ASSY-RR DR SCUFF RH	SET	1
190	TRIM-RR STEP PLATE LH	SET	1
191	TRIM-RR STEP PLATE RH	SET	1
192	GLASS ASSY-WINDSHIELD	SET	1
193	MOULDING-WINDSHIELD UPR	SET	1
194	MOULDING-W/SHLD GLASS SIDE RH	SET	1
195	MOULDING-W/SHLD GLASS SIDE LH	SET	1
196	COVER ASSY-COWL TOP	SET	1
197	GARNISH ASSY-DELTA LH	SET	1
198	GARNISH ASSY-DELTA RH	SET	1
199	GLASS ASSY-REAR WINDOW	SET	1
200	MOULDING-REAR WINDOW GLASS	SET	1
201	MOULDING ASSY-ROOF LH	SET	1
202	MOULDING ASSY-ROOF RH	SET	1
203	MOULDING ASSY-BACK PANEL	SET	1
204	MOULDING ASSY-SIDE SILL LH	SET	1
205	MOULDING ASSY-SIDE SILL RH	SET	1
206	GARNISH ASSY-FENDER LH	SET	1
207	GARNISH ASSY-FENDER RH	SET	1
208	GLASS & MOULDING ASSY-QUARTER FIXED LH	SET	1
209	GLASS & MOULDING ASSY-QUARTER FIXED RH	SET	1
210	S/BELT ASSY-FR LH	SET	1
211	S/BELT ASSY-FR RH	SET	1
212	S/BELT ASSY-RR CTR	SET	1
213	S/BELT ASSY-RR LH	SET	1
214	S/BELT ASSY-RR RH	SET	1

PER UNIT CONSUMPTION

(VI) Sonata

Sr. No.	Particulars	A/U	Consumption
215	BUCKLE ASSY-RR S/BELT LH	SET	1
216	BUCKLE ASSY-RR S/BELT RH	SET	1
217	WIRING ASSY-FLOOR	SET	1
218	WIRING ASSY-BATTERY	SET	1
219	WIRING ASSY-EARTH	SET	1
220	WIRING ASSY-ENG GROUND	SET	1
221	LAMP ASSY-ROOM	SET	1
222	DUCT ASSY-RR VENT	SET	1
223	COVER ASSY-UNDER RH	SET	1
224	DUCT-REAR HEATING LH	SET	1
225	DUCT-REAR HEATING RH	SET	1
226	GRILLE ASSY-AIR EXTRACTOR LH	SET	1
227	GRILLE ASSY-AIR EXTRACTOR RH	SET	1
228	HOSE-DISCHARGE	SET	1
229	TUBE ASSY-SUCTION & LIQUID	SET	1
230	CHECKER ASSY-FRONT DOOR LH	SET	1
231	CHECKER ASSY-FRONT DOOR RH	SET	1
232	HANDLE ASSY-FR DOOR OUTSIDE LH	SET	1
233	BASE ASSY-FR DR O/S HANDLE LH	SET	1
234	HANDLE ASSY-FR DOOR OUTSIDE RH	SET	1
235	BASE ASSY-FR DR O/S HANDLE RH	SET	1
236	CHECKER ASSY-REAR DOOR LH	SET	1
237	CHECKER ASSY-REAR DOOR RH	SET	1
238	HANDLE ASSY-RR DOOR OUTSIDE LH	SET	1
239	HANDLE ASSY-RR DOOR OUTSIDE RH	SET	1
240	BASE ASSY-RR DR O/S HDL LH	SET	1
241	BASE ASSY-RR DR O/S HDL RH	SET	1
242	W/STRIP-FR DR BODY SIDE LH	SET	1
243	W/STRIP-FR DR BODY SIDE RH	SET	1
244	W/STRIP ASSY-FR DR SIDE LH	SET	1
245	W/STRIP ASSY-FR DR SIDE RH	SET	1
246	W/STRIP ASSY-FR DR BELT O/S LH	SET	1
247	W/STRIP ASSY-FR DR BELT O/S RH	SET	1
248	GARNISH ASSY-DR FRAME LH	SET	1
249	GARNISH ASSY-DR FRAME RH	SET	1
250	MOULDING ASSY-FRT DR FRAME LH	SET	1
251	MOULDING ASSY-FRT DR FRAME RH	SET	1
252	W/STRIP-FR DR BELT I/S LH	SET	1
253	W/STRIP-FR DR BELT I/S RH	SET	1
254	PANEL ASSY-FRONT DOOR TRIM RH	SET	1
255	PANEL ASSY-FRONT DOOR TRIM LH	SET	1
256	LATCH ASSY-FRONT DOOR LH	SET	1
257	LATCH ASSY-FRONT DOOR RH	SET	1
258	GLASS ASSY-FRONT DOOR LH	SET	1
259	GLASS ASSY-FRONT DOOR RH	SET	1
260	MOTOR ASSY-FRONT POWER WDW LH	SET	1
261	MOTOR ASSY-FRONT POWER WDW RH	SET	1
262	PANEL ASSY-FRONT DR MODULE LH	SET	1
263	PANEL ASSY-FRONT DR MODULE RH	SET	1
264	BRACKET-FR O/S HANDLE SUPPORT LH	SET	1
265	BRACKET-FR O/S HANDLE SUPPORT RH	SET	1
266	RUN ASSY-FR DR WDO GLASS LH	SET	1
267	RUN ASSY-FR DR WDO GLASS RH	SET	1
268	W/STRIP-RR DR BODY SIDE LH	SET	1
269	W/STRIP-RR DR BODY SIDE RH	SET	1
270	W/STRIP ASSY-RR DR SIDE LH	SET	1

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(VI) Sonata

Sr. No.	Particulars	A/U	Consumption
271	W/STRIP ASSY-RR DR SIDE RH	SET	1
272	W/STRIP ASSY-RR DR BELT O/S LH	SET	1
273	W/STRIP ASSY-RR DR BELT O/S RH	SET	1
274	GARNISH ASSY-RR DR FR FRAME LH	SET	1
275	GARNISH ASSY-RR DR FR FRAME RH	SET	1
276	GARNISH ASSY-RR DR RR FRAME LH	SET	1
277	GARNISH ASSY-RR DR RR FRAME RH	SET	1
278	MOULDING ASSY-RR DR FRAME LH	SET	1
279	MOULDING ASSY-RR DR FRAME RH	SET	1
280	W/STRIP-RR DR BELT I/S LH	SET	1
281	W/STRIP-RR DR BELT I/S RH	SET	1
282	PANEL ASSY-REAR DOOR TRIM LH	SET	1
283	PANEL ASSY-REAR DOOR TRIM RH	SET	1
284	CURTAIN-REAR DR LH	SET	1
285	CURTAIN-REAR DR RH	SET	1
286	COVER ASSY-RR DR DELTA INR LH	SET	1
287	COVER ASSY-RR DR DELTA INR RH	SET	1
288	LATCH ASSY-REAR DOOR LH	SET	1
289	LATCH ASSY-REAR DOOR RH	SET	1
290	MOTOR ASSY-RR POWER WDW LH	SET	1
291	MOTOR ASSY-RR POWER WDW RH	SET	1
292	GLASS ASSY-REAR DOOR LH	SET	1
293	GLASS ASSY-REAR DOOR RH	SET	1
294	PANEL ASSY-REAR DOOR MODULE LH	SET	1
295	PANEL ASSY-REAR DOOR MODULE RH	SET	1
296	RETAINER-RR DR LATCH LH	SET	1
297	RETAINER-RR DR LATCH RH	SET	1
298	RUN-RR DR WINDOW GLASS LH	SET	1
299	RUN-RR DR WINDOW GLASS RH	SET	1
300	MOTOR ASSY-POWER WDO REG RR LH	SET	1
301	MOTOR ASSY-POWER WDO REG RR RH	SET	1
302	WIRING ASSY-RR DR LH	SET	1
303	WIRING ASSY-RR DR RH	SET	1
304	WIRING ASSY-FR DR(DRIVER)	SET	1
305	WIRING ASSY-FR DR(PASS)	SET	1
306	SPEAKER & PROTECTOR ASSY-DR	SET	1
	DOOR GROUP		
307	PANEL ASSY-FRONT DOOR LH	SET	1
308	PANEL ASSY-FRONT DOOR RH	SET	1
309	PANEL ASSY-REAR DOOR LH	SET	1
310	PANEL ASSY-REAR DOOR RH	SET	1

ATTACHMENT (13)

PER UNIT CONSUMPTION

(VII) Elantra

Sr. No.	Particulars	A/U	Consumption
	ENGINE ASSY TRANSMISSION & CLUTCH SYSTEM		
1	ENGINE ASSY & ATA	SET	1
2	BRACKET ASSY-TRANSMISSION MTG	SET	1
3	BRACKET ASSY-ENGINE MTG	SET	1
4	BRACKET ASSY-ROLL ROD	SET	1
5	RADIATOR ASSY	SET	1
6	INSULATOR-RADIATOR MTG LWR	SET	1
7	BRACKET ASSY-RADIATOR MTG UPR	SET	1
8	HOSE ASSY-RADIATOR UPR	SET	1
9	HOSE ASSY-RADIATOR LWR	SET	1
10	RESERVOIR ASSY- RADIATOR	SET	1
11	GUARD-AIR	SET	1
12	CLEANER ASSY-AIR	SET	1
13	HOSE ASSY-AIR INTAKE	SET	1
14	DUCT ASSY-AIR	SET	1
15	ELECTRONIC CONTROL UNIT	SET	1
16	PANEL ASSY-UNDER COVER	SET	1
17	PANEL-SIDE COVER RH	SET	1
18	FILLER NECK & HOSE ASSY	SET	1
19	TANK ASSY-FUEL	SET	1
20	BAND ASSY-FUEL TANK RH	SET	1
21	BAND ASSY-FUEL TANK LH	SET	1
22	BATTERY ASSY	SET	1
23	INSULATION PAD-BATTERY	SET	1
24	TRAY ASSY-BATTERY	SET	1
25	BRACKET-BATTERY	SET	1
26	TUBE & HOSE ASSY	SET	1
27	HOSE ASSY-ATA OIL COOLING	SET	1
	BODY AND CHASSIS GROUP		
28	BODY ASSY	SET	1
	FRONT AND REAR AXLES		
29	KNUCKLE-FRONT AXLE LH	SET	1
30	KNUCKLE-FRONT AXLE RH	SET	1
31	SHAFT ASSY-DRIVE LH	SET	1
32	SHAFT ASSY-DRIVE RH	SET	1
33	TORSION AXLE COMPLETE	SET	1
	SUSPENSION GROUP		
34	CROSSMEMBER COMPL	SET	1
35	LINK ASSY-FRONT STABILIZER LH	SET	1
36	LINK ASSY-FRONT STABILIZER RH	SET	1
37	STAY	SET	1
38	SHOCK ABSORBER ASSY-REAR	SET	1
39	SPRING-RR	SET	1
	STEERING WHEEL		
40	WHEEL ASSY-STEERING	SET	1
41	MODULE ASSY-STRG WHEEL AIR BAG	SET	1
42	COLUMN ASSY-UPPER	SET	1
43	JOINT ASSY-STRG	SET	1
	EXHAUST SYSTEM		
44	MUFFLER ASSY-FRONT	SET	1
45	MUFFLER ASSY-CENTER	SET	1
46	MUFFLER ASSY-REAR	SET	1
	WHEELS & TYRES		
47	WHEEL ASSY-ALUMINIUM	SET	1
48	CAP ASSY-WHEEL HUB	SET	1
49	CLAMP-SPARE TIRE	SET	1
	SEAT ASSY		
50	FRONT SEAT ASSY LH	SET	1
51	FRONT SEAT ASSY RH	SET	1
52	CUSHION ASSY-RR SEAT	SET	1
53	BACK ASSY-RR SEAT LH	SET	1
54	BACK ASSY-RR SEAT RH	SET	1

PER UNIT CONSUMPTION

(VII) Elantra

Sr. No.	Particulars	A/U	Consumption
	TRIMMING PARTS, DASHBOARD, INSTRUMENT PANEL, WINDSHIELDS, WIRE HARNESS AND OTHER ACCESSORIES		
55	FR BUMPER ASSY	SET	1
56	BEAM COMPLETE-FR BUMPER	SET	1
57	BEAM-RR BUMPER	SET	1
58	RR BUMPER ASSY	SET	1
59	LAMP ASSY-HEAD LH	SET	1
60	LAMP ASSY-HEAD RH	SET	1
61	LAMP ASSY-REAR COMBINATION LH	SET	1
62	LAMP ASSY-REAR COMBINATION RH	SET	1
63	LAMP ASSY-REAR COMB INSIDE LH	SET	1
64	LAMP ASSY-REAR COMB INSIDE RH	SET	1
65	GUARD ASSY-FRONT WHEEL LH	SET	1
66	GUARD ASSY-FRONT WHEEL RH	SET	1
67	GUARD ASSY-REAR WHEEL LH	SET	1
68	GUARD ASSY-REAR WHEEL RH	SET	1
69	GUARD ASSY-FRONT WHEEL MUD LH	SET	1
70	GUARD ASSY-FRONT WHEEL MUD RH	SET	1
71	GUARD ASSY-REAR WHEEL MUD LH	SET	1
72	GUARD ASSY-REAR WHEEL MUD RH	SET	1
73	CARRIER ASSY-FRONT END MODULE	SET	1
74	WIRING ASSY-CONTROL	SET	1
75	WIRING ASSY-FRT	SET	1
76	HORN ASSY-LOW PITCH	SET	1
77	ARM ASSY-W/SHLD WPR(DRIVER)	SET	1
78	ARM ASSY-W/SHLD WPR(PASSENGER)	SET	1
79	RESERVOIR & PUMP ASSY-WASHER	SET	1
80	MIRROR ASSY-OUTSIDE RR VIEW LH	SET	1
81	MIRROR ASSY-OUTSIDE RR VIEW RH	SET	1
82	COVER ASSY-FR DR QDRNT INR LH	SET	1
83	COVER ASSY-FR DR QDRNT INR RH	SET	1
84	JACK AND TOOLS	SET	1
85	MANUAL SET	SET	1
86	LEVER ASSY-ATM	SET	1
87	CABLE ASSY-ATM LEVER	SET	1
88	PAD-HOOD INSULATING	SET	1
89	LATCH ASSY-HOOD	SET	1
90	HANDLE ASSY-HOOD LATCH RELEASE	SET	1
91	CABLE ASSY-HOOD LATCH RELEASE	SET	1
92	LATCH ASSY-TRUNK LID	SET	1
93	TRIM ASSY-TRUNK LID	SET	1
94	WEATHER STRIP-TRUNK LID	SET	1
95	DOOR ASSY-FUEL FILLER	SET	1
96	CABLE ASSY-T/LID RELEASE	SET	1
97	CATCH & CABLE ASSY-FUEL FILLER DOOR	SET	1
98	KEY & CYLINDER SET-LOCK	SET	1
99	W/STRIP-RR DR BODY SIDE LH	SET	1
100	W/STRIP-RR DR BODY SIDE RH	SET	1
101	W/STRIP ASSY-RR DR SIDE LH	SET	1
102	W/STRIP ASSY-RR DR SIDE RH	SET	1
103	W/STRIP ASSY-RR DR BELT O/S LH	SET	1
104	W/STRIP ASSY-RR DR BELT O/S RH	SET	1
105	W/STRIP-RR DR BELT I/S LH	SET	1
106	W/STRIP-RR DR BELT I/S RH	SET	1
107	CARPET ASSY-FLOOR	SET	1
108	CONSOLE ASSY-FLOOR	SET	1
109	COVER ASSY-FR CONSOLE SIDE LH	SET	1
110	COVER ASSY-FR CONSOLE SIDE RH	SET	1
111	TRAY ASSY-FLOOR CONSOLE	SET	1
112	GARNISH-CONSOLE RR	SET	1
113	COVER ASSY-CONSOLE UPR	SET	1
114	ANTENNA ASSY-SMARTKEY	SET	1
115	DUCT ASSY-REAR A/VENT NO.2	SET	1
116	CRASH PAD ASSY-MAIN	SET	1

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Sr. No.	Particulars	A/U	Consumption
117	PANEL ASSY-C/PAD UPR DRIVER SIDE	SET	1
118	PANEL ASSY-CRASH PAD LWR REINF	SET	1
119	PANEL ASSY-LOWER CRASH PAD LH	SET	1
120	PANEL ASSY-LOWER CRASH PAD RH	SET	1
121	COVER ASSY-C/PAD SIDE LH	SET	1
122	COVER ASSY-C/PAD SIDE RH	SET	1
123	SHROUD-STEERING COLUMN LWR	SET	1
124	SUNVISOR ASSY LH	SET	1
125	SUNVISOR ASSY RH	SET	1
126	HANDLE ASSY-ROOF ASSIST REAR LH	SET	1
127	HANDLE ASSY-ROOF ASSIST FRONT RH	SET	1
128	HEADLINING ASSY	SET	1
129	WIRING ASSY-ROOF	SET	1
130	TRIM ASSY-PACKAGE TRAY	SET	1
131	MAT ASSY-LUGGAGE COVERING	SET	1
132	TRIM ASSY-LUGGAGE SIDE LH	SET	1
133	TRIM ASSY-LUGGAGE SIDE RH	SET	1
134	TRIM-TRANSVERSE RR	SET	1
135	NET ASSY-LUGGAGE	SET	1
136	TRIM-PARTITION SIDE LH	SET	1
137	TRIM-PARTITION SIDE RH	SET	1
138	TRIM ASSY-FR PILLAR LH	SET	1
139	TRIM ASSY-FR PILLAR RH	SET	1
140	TRIM ASSY-COWL SIDE LH	SET	1
141	TRIM ASSY-COWL SIDE RH	SET	1
142	TRIM ASSY-CTR PILLAR UPR LH	SET	1
143	TRIM ASSY-CTR PILLAR UPR RH	SET	1
144	TRIM ASSY-CTR PILLAR LWR LH	SET	1
145	TRIM ASSY-CTR PILLAR LWR RH	SET	1
146	TRIM ASSY-RR PILLAR LH	SET	1
147	TRIM ASSY-RR PILLAR RH	SET	1
148	TRIM ASSY-FR DR SCUFF LH	SET	1
149	TRIM ASSY-FR DR SCUFF RH	SET	1
150	TRIM ASSY-RR DR SCUFF LH	SET	1
151	TRIM ASSY-RR DR SCUFF RH	SET	1
152	TRIM ASSY-RR WHEEL HOUSE LH	SET	1
153	TRIM-FR DR STEP LH	SET	1
154	TRIM-FR DR STEP RH	SET	1
155	TRIM-RR DR STEP LH	SET	1
156	TRIM-RR DR STEP RH	SET	1
157	TRIM ASSY-RR WHEEL HOUSE RH	SET	1
158	GLASS ASSY-WINDSHIELD	SET	1
159	COVER ASSY-COWL TOP	SET	1
160	COVER ASSY-COWL TOP SIDE LH	SET	1
161	COVER ASSY-COWL TOP SIDE RH	SET	1
162	GARNISH ASSY-DELTA LH	SET	1
163	GARNISH ASSY-DELTA RH	SET	1
164	GLASS ASSY-REAR WINDOW	SET	1
165	MOULDING ASSY-ROOF LH	SET	1
166	MOULDING ASSY-ROOF RH	SET	1
167	S/BELT ASSY-FR LH	SET	1
168	S/BELT ASSY-FR RH	SET	1
169	S/BELT ASSY-RR LH	SET	1
170	S/BELT ASSY-RR RH	SET	1
171	BUCKLE ASSY-RR S/BELT LH	SET	1
172	BUCKLE ASSY-RR S/BELT RH	SET	1
173	WIRING ASSY-FLOOR	SET	1
174	WIRING ASSY-FEM	SET	1
175	WIRING ASSY-BATTERY NEG	SET	1
176	WIRING ASSY-ENG GROUND	SET	1
177	WIRING ASSY-T/M GND	SET	1
178	LAMP ASSY-ROOM	SET	1
179	LAMP ASSY-OVERHEAD CONSOLE	SET	1
180	LAMP ASSY-VANITY LH	SET	1

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Sr. No.	Particulars	A/U	Consumption
181	LAMP ASSY-VANITY RH	SET	1
182	SWITCH ASSY-DR	SET	1
183	FEEDER CABLE-ANTENNA MAIN NO.1	SET	1
184	COIL & CAPACITOR	SET	1
185	SPEAKER ASSY-DR	SET	1
186	DUCT ASSY-RR VENT	SET	1
187	DUCT-REAR HEATING LH	SET	1
188	DUCT-REAR HEATING RR LH	SET	1
189	DUCT-REAR HEATING RR RH	SET	1
190	DUCT-REAR HEATING RH	SET	1
191	GRILLE ASSY-AIR EXTRACTOR LH	SET	1
192	GRILLE ASSY-AIR EXTRACTOR RH	SET	1
193	HOSE-DISCHARGE	SET	1
194	TUBE ASSY-SUCTION & LIQUID	SET	1
195	CHECKER ASSY-FRONT DOOR LH	SET	1
196	CHECKER ASSY-FRONT DOOR RH	SET	1
197	HANDLE ASSY-DOOR OUTSIDE FR LH	SET	1
198	HANDLE ASSY-DOOR OUTSIDE FR RH	SET	1
199	CHECKER ASSY-REAR DOOR LH	SET	1
200	CHECKER ASSY-REAR DOOR RH	SET	1
201	HANDLE ASSY-DOOR OUTSIDE RR LH	SET	1
202	HANDLE ASSY-DOOR OUTSIDE RR RH	SET	1
203	W/STRIP-FR DR BODY SIDE LH	SET	1
204	W/STRIP-FR DR BODY SIDE RH	SET	1
205	W/STRIP ASSY-FR DR SIDE LH	SET	1
206	W/STRIP ASSY-FR DR SIDE RH	SET	1
207	W/STRIP ASSY-FR DR BELT O/S LH	SET	1
208	W/STRIP ASSY-FR DR BELT O/S RH	SET	1
209	W/STRIP-FR DR BELT I/S LH	SET	1
210	W/STRIP-FR DR BELT I/S RH	SET	1
211	PANEL ASSY-FRONT DOOR TRIM RH	SET	1
212	PANEL ASSY-FRONT DOOR TRIM LH	SET	1
213	HANDLE ASSY-DOOR INSIDE LH	SET	1
214	HANDLE ASSY-DOOR INSIDE RH	SET	1
215	LATCH ASSY-FRONT DOOR LH	SET	1
216	LATCH ASSY-FRONT DOOR RH	SET	1
217	GLASS ASSY-FRONT DOOR LH	SET	1
218	GLASS ASSY-FRONT DOOR RH	SET	1
219	PANEL ASSY-FRONT DR MODULE LH	SET	1
220	PANEL ASSY-FRONT DR MODULE RH	SET	1
221	RUN ASSY-FR DR WDO GLASS LH	SET	1
222	RUN ASSY-FR DR WDO GLASS RH	SET	1
223	BASE ASSY-FR DR O/S HANDLE FR LH	SET	1
224	BASE ASSY-FR DR O/S HANDLE FR RH	SET	1
225	PANEL ASSY-REAR DOOR TRIM LH	SET	1
226	PANEL ASSY-REAR DOOR TRIM RH	SET	1
227	COVER ASSY-RR DR DELTA INR LH	SET	1
228	COVER ASSY-RR DR DELTA INR RH	SET	1
229	LATCH ASSY-REAR DOOR LH	SET	1
230	LATCH ASSY-REAR DOOR RH	SET	1
231	BASE ASSY-FR DR O/S HANDLE RR LH	SET	1
232	BASE ASSY-FR DR O/S HANDLE RR RH	SET	1
233	GLASS ASSY-REAR DOOR LH	SET	1
234	GLASS-REAR DOOR FIXED LH	SET	1
235	GLASS ASSY-REAR DOOR RH	SET	1
236	GLASS-REAR DOOR FIXED RH	SET	1
237	PANEL ASSY-REAR DOOR MODULE LH	SET	1
238	PANEL ASSY-REAR DOOR MODULE RH	SET	1
239	RUN ASSY-RR DR WDO GLASS LH	SET	1
240	RUN ASSY-RR DR WDO GLASS RH	SET	1
241	RUN-RR DR RR CHANNEL	SET	1
242	WIRING ASSY-RR DR LH	SET	1
243	WIRING ASSY-RR DR RH	SET	1
244	WIRING ASSY-FR DR(DRIVER)	SET	1

PER UNIT CONSUMPTION

(VII) Elantra

Sr. No.	Particulars	A/U	Consumption
245	WIRING ASSY-FR DR(PASS)	SET	1
246	TUBE-FUEL FEED	SET	1
247	TUBE-FUEL VAPOR	SET	1
248	TUBE-CONNECTOR TO REAR LH	SET	1
249	TUBE-CONNECTOR TO RR RH	SET	1
250	PEDAL ASSY-ACCELERATOR	SET	1
251	PEDAL ASSY-BRAKE	SET	1
252	CURTAIN AIR BAG MODULE LH	SET	1
253	CURTAIN AIR BAG MODULE RH	SET	1
254	BOOSTER ASSY-BRAKE	SET	1
255	TUBE-M/CYL TO H/UNIT SEC	SET	1
256	TUBE-H/MODULE TO FR RH	SET	1
257	TUBE-CONNECTOR LH	SET	1
258	TUBE-CONNECTOR RH	SET	1
259	TUBE-H/MODULE TO FR LH	SET	1
260	TUBE-M/CYL TO H/UNIT PRI	SET	1
261	HOSE-BRAKE FRONT LH	SET	1
262	HOSE-BRAKE FRONT RH	SET	1
263	HOSE-REAR WHEEL LH	SET	1
264	HOSE-REAR WHEEL RH	SET	1
265	ABS ASSY	SET	1
266	LEVER ASSY-PARKING BRAKE	SET	1
267	CABLE ASSY-PARKNG BRAKE	SET	1
	DOOR GROUP		
268	PANEL ASSY-FRONT DOOR LH	SET	1
269	PANEL ASSY-FRONT DOOR RH	SET	1
270	PANEL ASSY-REAR DOOR LH	SET	1
271	PANEL ASSY-REAR DOOR RH	SET	1

ATTACHMENT (14)

PER UNIT CONSUMPTION

(VIII) Azera

Sr. No.	Particulars	A/U	Consumption
	ENGINE ASSY TRANSMISSION & CLUTCH SYSTEM		
1	ENGINE ASSY & ATA	SET	1
2	BRACKET ASSY-TRANSMISSION MTG	SET	1
3	BRACKET ASSY-ENGINE MTG	SET	1
4	BRACKET ASSY-ROLL ROD	SET	1
5	RADIATOR ASSY	SET	1
6	INSULATOR-RADIATOR MTG LWR	SET	1
7	BRACKET ASSY-RADIATOR MTG UPR	SET	1
8	HOSE ASSY-RADIATOR UPR	SET	1
9	HOSE ASSY-RADIATOR LWR	SET	1
10	RESERVOIR ASSY-RADIATOR	SET	1
11	GUARD-AIR	SET	1
12	CLEANER ASSY-AIR	SET	1
13	HOSE ASSY-AIR INTAKE	SET	1
14	DUCT ASSY-AIR	SET	1
15	ELECTRONIC CONTROL UNIT	SET	1
16	PANEL ASSY-UNDER COVER	SET	1
17	PANEL-SIDE COVER RH	SET	1
18	PANEL-SIDE COVER LH	SET	1
19	FILLER NECK-HOSE ASSY	SET	1
20	TANK ASSY-FUEL	SET	1
21	BAND ASSY-FUEL TANK RH	SET	1
22	BAND ASSY-FUEL TANK LH	SET	1
23	BATTERY ASSY	SET	1
24	INSULATION PAD-BATTERY	SET	1
25	TRAY ASSY-BATTERY	SET	1
26	BRACKET-BATTERY	SET	1
27	TUBE & HOSE ASSY	SET	1
28	HOSE ASSY-ATA OIL COOLING	SET	1
	BODY AND CHASSIS GROUP		
29	BODY ASSY	SET	1
	FRONT AND REAR AXLES		
30	KNUCKLE-FRONT AXLE LH	SET	1
31	KNUCKLE-FRONT AXLE RH	SET	1
32	CARRIER ASSY-REAR AXLE LH	SET	1
33	CARRIER ASSY-REAR AXLE RH	SET	1
34	SHAFT ASSY-DRIVE LH	SET	1
35	SHAFT ASSY-DRIVE RH	SET	1
	SUSPENSION GROUP		
36	CROSSMEMBER COMPL	SET	1
37	LINK ASSY-FRONT STABILIZER LH	SET	1
38	LINK ASSY-FRONT STABILIZER RH	SET	1
39	LINK ASSY-REAR STABILIZER LH	SET	1
40	LINK ASSY-REAR STABILIZER RH	SET	1
41	STAY	SET	1
42	CROSSMEMBER-RR	SET	1
43	SHOCK ABSORBER ASSY-REAR	SET	1
44	SPRING-RR	SET	1
	STEERING WHEEL		
45	WHEEL ASSY-STEERING	SET	1
46	MODULE ASSY-STRG WHEEL AIR BAG	SET	1
47	COLUMN ASSY-UPPER	SET	1
48	JOINT ASSY-STRG	SET	1
	EXHAUST SYSTEM		
49	MUFFLER ASSY-FRONT	SET	1
50	MUFFLER ASSY-CENTER	SET	1
51	MUFFLER ASSY-REAR	SET	1
52	CONVERTER ASSY-WARM UP CATALYTIC	SET	1
	WHEELS & TYRES		
53	WHEEL ASSY-ALUMINIUM	SET	1
54	CAP ASSY-WHEEL HUB	SET	1
55	CLAMP-SPARE TIRE	SET	1
	SEAT ASSY		
56	FRONT SEAT ASSY LH	SET	1

PER UNIT CONSUMPTION

(VIII) Azera

Sr. No.	Particulars	A/U	Consumption
57	FRONT SEAT ASSY RH	SET	1
58	CUSHION ASSY-RR SEAT	SET	1
59	BACK ASSY-RR SEAT LH	SET	1
60	BACK ASSY-RR SEAT SIDE LH	SET	1
61	BACK ASSY-RR SEAT RH	SET	1
62	BACK ASSY-RR SEAT SIDE RH	SET	1
	TRIMMING PARTS, DASHBOARD, INSTRUMENT PANEL, WINDSHIELDS, WIRE HARNESS AND OTHER ACCESSORIES		
63	FR BUMPER ASSY	SET	1
64	BEAM COMPLETE-FR BUMPER	SET	1
65	BEAM-RR BUMPER	SET	1
66	RR BUMPER ASSY	SET	1
67	LAMP ASSY-HEAD LH	SET	1
68	LAMP ASSY-HEAD RH	SET	1
69	LAMP ASSY-REAR COMBINATION CTR	SET	1
70	LAMP ASSY-REAR COMBINATION LH	SET	1
71	LAMP ASSY-REAR COMBINATION RH	SET	1
72	GUARD ASSY-FRONT WHEEL LH	SET	1
73	GUARD ASSY-FRONT WHEEL RH	SET	1
74	GUARD ASSY-REAR WHEEL LH	SET	1
75	GUARD ASSY-REAR WHEEL RH	SET	1
76	GUARD ASSY-FRONT WHEEL MUD LH	SET	1
77	GUARD ASSY-FRONT WHEEL MUD RH	SET	1
78	GUARD ASSY-REAR WHEEL MUD LH	SET	1
79	GUARD ASSY-REAR WHEEL MUD RH	SET	1
80	CARRIER ASSY-FRONT END MODULE	SET	1
81	WIRING ASSY-CONTROL	SET	1
82	WIRING ASSY-FRT	SET	1
83	HORN ASSY-LOW PITCH	SET	1
84	HORN ASSY-HIGH PITCH	SET	1
85	ARM ASSY-W/SHLD WPR(DRIVER)	SET	1
86	ARM ASSY-W/SHLD WPR(PASSENGER)	SET	1
87	RESERVOIR & PUMP ASSY-WASHER	SET	1
88	MIRROR ASSY-OUTSIDE RR VIEW LH	SET	1
89	MIRROR ASSY-OUTSIDE RR VIEW RH	SET	1
90	COVER ASSY-FR DR QDRNT INR LH	SET	1
91	COVER ASSY-FR DR QDRNT INR RH	SET	1
92	JACK AND TOOLS	SET	1
93	MANUAL SET	SET	1
94	TUBE-FUEL FEED	SET	1
95	TUBE-FUEL VAPOR	SET	1
96	TRIM ASSY-LUGG PARTITION	SET	1
97	PEDAL ASSY-ACCELERATOR	SET	1
98	PEDAL ASSY-BRAKE	SET	1
99	PROTECTOR-FUEL	SET	1
100	TUBE-CONNECTOR TO RR LH	SET	1
101	TUBE-CONNECTOR TO RR RH	SET	1
102	LEVER ASSY-ATM	SET	1
103	CABLE ASSY-AUTO TRANSMISSION	SET	1
104	CURTAIN AIR BAG MODULE LH	SET	1
105	CURTAIN AIR BAG MODULE RH	SET	1
106	RESERVOIR ASSY-POWER STEERING	SET	1
107	HOSE ASSY-POWER STEERING OIL PRESSURE	SET	1
108	TUBE & HOSE ASSY-RETURN	SET	1
109	TUBE ASSY-OIL COOLER	SET	1
110	BOOSTER ASSY-BRAKE	SET	1
111	TUBE-M/CYL TO H/UNIT SEC	SET	1
112	TUBE-H/MODULE TO FR RH	SET	1
113	TUBE-H/MODULE TO CONNECTOR LH	SET	1
114	TUBE-H/MODULE TO CONNECTOR RH	SET	1
115	TUBE-H/MODULE TO FR LH	SET	1
116	TUBE-M/CYL TO H/UNIT PRI	SET	1
117	HOSE-BRAKE FRONT LH	SET	1

PER UNIT CONSUMPTION

(VIII) Azera

Sr. No.	Particulars	A/U	Consumption
118	HOSE-BRAKE FRONT RH	SET	1
119	TUBE-PCV TO CONNECTOR RR LH	SET	1
120	TUBE-PCV TO CONNECTOR RR RH	SET	1
121	HOSE-BRAKE REAR LH	SET	1
122	HOSE-REAR WHEEL RH	SET	1
123	ABS ASSY	SET	1
124	SENSOR ASSY-FR ABS.LH	SET	1
125	SENSOR ASSY-FR ABS.RH	SET	1
126	YAW RATE & GRAVITY SENSOR+BRKT ASSY	SET	1
127	SENSOR ASSY-ABS REAL WHEEL LH	SET	1
128	SENSOR ASSY-ABS REAL WHEEL RH	SET	1
129	PARKING BRAKE ASSY-ELECTRONIC	SET	1
130	PAD-HOOD INSULATING	SET	1
131	LATCH ASSY-HOOD	SET	1
132	LIFTER-HOOD LH	SET	1
133	LIFTER-HOOD RH	SET	1
134	CABLE ASSY-HOOD LATCH RELEASE	SET	1
135	LATCH ASSY-TRUNK LID	SET	1
136	TRIM T/LID	SET	1
137	WEATHER STRIP-TRUNK LID	SET	1
138	DOOR ASSY-FUEL FILLER	SET	1
139	OPENER ASSY-FUEL FILLER DOOR	SET	1
140	PANORAMA ROOF ASSY	SET	1
141	KEY & CYLINDER SET-LOCK	SET	1
142	UNDER COVER ASSY RH	SET	1
143	UNDER COVER ASSY LH	SET	1
144	PAD ASSY-ISOLATION DASH PANEL	SET	1
145	UNDER COVER-RR.LH	SET	1
146	UNDER COVER-RR RH	SET	1
147	PAD ASSY-REAR WHL HSE INNER LH	SET	1
148	PAD ASSY-REAR WHL HSE INNER RH	SET	1
149	PAD-FRONT CENTER TUNNEL LH	SET	1
150	PAD-FRONT CENTER TUNNEL RH	SET	1
151	CARPET ASSY-FLOOR	SET	1
152	CONSOLE ASSY-FLOOR RR	SET	1
153	CONSOLE ASSY-FR	SET	1
154	TRAY-FLOOR CONSOLE	SET	1
155	COVER ASSY-CONSOLE UPR	SET	1
156	ARMREST ASSY-CONSOLE	SET	1
157	COVER ASSY-CONSOLE RR	SET	1
158	GARNISH-C/PAD LH	SET	1
159	GARNISH-C/PAD RH	SET	1
160	DUCT ASSY-REAR A/VENT NO.1	SET	1
161	DUCT ASSY-REAR A/VENT NO.2	SET	1
162	COVER ASSY-UNDER LH	SET	1
163	CRASH PAD ASSY-MAIN	SET	1
164	COVER ASSY-C/PAD MAIN SIDE LH	SET	1
165	COVER ASSY-C/PAD MAIN SIDE RH	SET	1
166	SHROUD-STEERING COLUMN UPR	SET	1
167	SHROUD-STEERING COLUMN LWR	SET	1
168	MODULE ASSY-KNEE AIR BAG	SET	1
169	COVER ASSY-UNDER RH	SET	1
170	DUCT ASSY-CTR AIR VENT LH	SET	1
171	DUCT ASSY-CTR AIR VENT RH	SET	1
172	SUNVISOR ASSY LH	SET	1
173	SUNVISOR ASSY RH	SET	1
174	HANDLE ASSY-ROOF ASSIST REAR LH	SET	1
175	HANDLE ASSY-ROOF ASSIST FRONT RH	SET	1
176	HEADLINING ASSY	SET	1
177	LAMP ASSY-VANITY	SET	1
178	FEEDER CABLE-ANTENNA FLR NO.1	SET	1
179	TRIM ASSY-PACKAGE TRAY	SET	1
180	TRIM ASSY-PACKAGE TRAY RR	SET	1
181	SUNSHADE ASSY-RR	SET	1

PER UNIT CONSUMPTION

(VIII) Azera

Sr. No.	Particulars	A/U	Consumption
182	FRAME ASSY-PARTITION UPR	SET	1
183	TRIM ASSY-LUGGAGE SIDE LH	SET	1
184	TRIM ASSY-LUGGAGE SIDE RH	SET	1
185	TRIM-TRANSVERSE RR	SET	1
186	NET ASSY-LUGGAGE FLOOR	SET	1
187	TRIM ASSY-FR PILLAR LH	SET	1
188	TRIM ASSY-FR PILLAR RH	SET	1
189	TRIM-COWL SIDE LH	SET	1
190	TRIM ASSY-COWL SIDE RH	SET	1
191	TRIM ASSY-CTR PILLAR UPR LH	SET	1
192	TRIM ASSY-CTR PILLAR LWR LH	SET	1
193	TRIM ASSY-CTR PILLAR UPR RH	SET	1
194	TRIM ASSY-CTR PILLAR LWR RH	SET	1
195	TRIM ASSY-RR PILLAR LH	SET	1
196	TRIM ASSY-RR PILLAR RH	SET	1
197	TRIM ASSY-FR DR SCUFF LH	SET	1
198	TRIM ASSY-FR DR SCUFF RH	SET	1
199	TRIM-FR STEP PLATE LH	SET	1
200	TRIM-FR STEP PLATE RH	SET	1
201	TRIM ASSY-RR DR SCUFF LH	SET	1
202	TRIM ASSY-RR DR SCUFF RH	SET	1
203	TRIM-RR STEP PLATE LH	SET	1
204	TRIM-RR STEP PLATE RH	SET	1
205	GLASS ASSY-WINDSHIELD	SET	1
206	MOULDING-WINDSHIELD GLASS	SET	1
207	MOULDING-W/SHLD GLASS SIDE RH	SET	1
208	MOULDING-W/SHLD GLASS SIDE LH	SET	1
209	BRACKET-W/S MLDG MTG LH	SET	1
210	BRACKET-W/S MLDG MTG RH	SET	1
211	COVER ASSY-COWL TOP	SET	1
212	GARNISH ASSY-DELTA LH	SET	1
213	GARNISH ASSY-DELTA RH	SET	1
214	GLASS ASSY-REAR WINDOW	SET	1
215	MOULDING-REAR WDO GLASS LWR	SET	1
216	MOULDING ASSY-ROOF LH	SET	1
217	MOULDING ASSY-ROOF RH	SET	1
218	MOULDING ASSY-W/LINE FRT DR LH	SET	1
219	MOULDING ASSY-W/LINE FRT DR RH	SET	1
220	MOULDING ASSY-W/LINE RR DR LH	SET	1
221	MOULDING ASSY-W/LINE RR DR RH	SET	1
222	MOULDING ASSY-SIDE SILL LH	SET	1
223	MOULDING ASSY-SIDE SILL RH	SET	1
224	GARNISH ASSY-FENDER LH	SET	1
225	GARNISH ASSY-FENDER RH	SET	1
226	GLASS ASSY-QUARTER FIXED LH	SET	1
227	GLASS ASSY-QUARTER FIXED RH	SET	1
228	S/BELT ASSY-FR LH	SET	1
229	S/BELT ASSY-FR RH	SET	1
230	S/BELT ASSY-RR CTR	SET	1
231	S/BELT ASSY-RR LH	SET	1
232	S/BELT ASSY-RR RH	SET	1
233	BUCKLE ASSY-RR S/BELT LH	SET	1
234	BUCKLE ASSY-RR S/BELT RH	SET	1
235	WIRING ASSY-FLOOR	SET	1
236	WIRING ASSY-ENG GROUND	SET	1
237	WIRING ASSY-T/M GROUND	SET	1
238	WIRING ASSY-BATT(+)	SET	1
239	LAMP ASSY-HMS	SET	1
240	LAMP ASSY-OVERHEAD CONSOLE	SET	1
241	LAMP ASSY-REAR PERSONAL	SET	1
242	AMP ASSY-GLASS ANTENNA LH	SET	1
243	AMP ASSY-GLASS ANTENNA RH	SET	1
244	DUCT-REAR HEATING LH	SET	1
245	DUCT-REAR HEATING RH	SET	1

PER UNIT CONSUMPTION

(VIII) Azera

Sr. No.	Particulars	A/U	Consumption
246	GRILLE ASSY-AIR EXTRACTOR	SET	1
247	HOSE-DISCHARGE	SET	1
248	TUBE ASSY-SUCTION & LIQUID	SET	1
249	CHECKER ASSY-FRONT DOOR LH	SET	1
250	W/STRIP-FR DR BODY SIDE LH	SET	1
251	W/STRIP-FR DR BODY SIDE RH	SET	1
252	CHECKER ASSY-FRONT DOOR RH	SET	1
253	HANDLE ASSY-FR DOOR OUTSIDE LH	SET	1
254	BASE ASSY-FR DR O/S HANDLE LH	SET	1
255	HANDLE ASSY-FR DOOR OUTSIDE RH	SET	1
256	BASE ASSY-FR DR O/S HANDLE RH	SET	1
257	CHECKER ASSY-REAR DOOR LH	SET	1
258	CHECKER ASSY-REAR DOOR RH	SET	1
259	HANDLE ASSY-RR DOOR OUTSIDE LH	SET	1
260	HANDLE ASSY-RR DOOR OUTSIDE RH	SET	1
261	BASE ASSY-RR DR O/S HDL LH	SET	1
262	BASE ASSY-RR DR O/S HDL RH	SET	1
263	W/STRIP ASSY-FR DR SIDE LH	SET	1
264	W/STRIP ASSY-FR DR SIDE RH	SET	1
265	W/STRIP-DR OPNG UPR LH	SET	1
266	W/STRIP-DR OPNG UPR RH	SET	1
267	W/STRIP ASSY-FR DR BELT O/S LH	SET	1
268	W/STRIP ASSY-FR DR BELT O/S RH	SET	1
269	GARNISH ASSY-DR FRAME LH	SET	1
270	GARNISH ASSY-DR FRAME RH	SET	1
271	MOULDING ASSY-FRT DR FRAME LH	SET	1
272	MOULDING ASSY-FRT DR FRAME RH	SET	1
273	PANEL ASSY-FRONT DOOR TRIM RH	SET	1
274	PANEL ASSY-FRONT DOOR TRIM LH	SET	1
275	COVER ASSY-FR DR FRAME INR LH	SET	1
276	COVER ASSY-FR DR FRAME INR RH	SET	1
277	LATCH ASSY-FRONT DOOR LH	SET	1
278	LATCH ASSY-FRONT DOOR RH	SET	1
279	GLASS-FRONT DOOR WINDOW LH	SET	1
280	GLASS-FRONT DOOR WINDOW RH	SET	1
281	MOTOR ASSY-FRONT POWER WDW LH	SET	1
282	MOTOR ASSY-FRONT POWER WDW RH	SET	1
283	PANEL ASSY-FRONT DR MODULE LH	SET	1
284	PANEL ASSY-FRONT DR MODULE RH	SET	1
285	BRACKET-FR O/S HANDLE SUPPORT LH	SET	1
286	BRACKET-FR O/S HANDLE SUPPORT RH	SET	1
287	RUN ASSY-FR DR WDO GLASS LH	SET	1
288	RUN ASSY-FR DR WDO GLASS RH	SET	1
289	W/STRIP-RR DR BODY SIDE LH	SET	1
290	W/STRIP-RR DR BODY SIDE RH	SET	1
291	W/STRIP ASSY-RR DR SIDE LH	SET	1
292	W/STRIP ASSY-RR DR SIDE RH	SET	1
293	W/STRIP ASSY-RR DR UPR LH	SET	1
294	W/STRIP ASSY-RR DR UPR RH	SET	1
295	W/STRIP ASSY-RR DR BELT O/S LH	SET	1
296	W/STRIP ASSY-RR DR BELT O/S RH	SET	1
297	GARNISH ASSY-RR DR FRAME LH	SET	1
298	GARNISH ASSY-RR DR FRAME RH	SET	1
299	GARNISH ASSY-RR DR RR FRAME LH	SET	1
300	GARNISH ASSY-RR DR RR FRAME RH	SET	1
301	MOULDING ASSY-RR DR FRAME LH	SET	1
302	MOULDING ASSY-RR DR FRAME RH	SET	1
303	PANEL ASSY-REAR DOOR TRIM LH	SET	1
304	PANEL ASSY-REAR DOOR TRIM RH	SET	1
305	CURTAIN-REAR DR LH	SET	1
306	CURTAIN-REAR DR RH	SET	1
307	COVER ASSY-RR DR DELTA INR LH	SET	1
308	COVER ASSY-RR DR DELTA INR RH	SET	1
309	LATCH ASSY-REAR DOOR LH	SET	1

PER UNIT CONSUMPTION

(VIII) Azera

Sr. No.	Particulars	A/U	Consumption
310	LATCH ASSY-REAR DOOR RH	SET	1
311	GLASS-REAR DOOR WINDOW LH	SET	1
312	GLASS-REAR DOOR WINDOW RH	SET	1
313	PANEL ASSY-REAR DOOR MODULE LH	SET	1
314	PANEL ASSY-REAR DOOR MODULE RH	SET	1
315	BRACKET-RR O/S HANDLE SUPPORT LH	SET	1
316	BRACKET-RR O/S HANDLE SUPPORT RH	SET	1
317	RUN-RR DR WINDOW GLASS LH	SET	1
318	RUN-RR DR WINDOW GLASS RH	SET	1
319	MOTOR ASSY-POWER WDO REG RR LH	SET	1
320	MOTOR ASSY-POWER WDO REG RR RH	SET	1
321	WIRING ASSY-RR DR LH	SET	1
322	WIRING ASSY-RR DR RH	SET	1
323	WIRING ASSY-FR DR(DRIVER)	SET	1
324	WIRING ASSY-FR DR(PASS)	SET	1
325	SWITCH ASSY-DR	SET	1
326	SPEAKER & PROTECTOR ASSY-RR DOOR	SET	1
	DOOR GROUP		
327	PANEL ASSY-FRONT DOOR LH	SET	1
328	PANEL ASSY-FRONT DOOR RH	SET	1
329	PANEL ASSY-REAR DOOR LH	SET	1
330	PANEL ASSY-REAR DOOR RH	SET	1

ATTACHMENT (15)

PER UNIT CONSUMPTION

(IX) H100

Sr. No.	Particulars	A/U	Consumption
	ENGINE ASSY TRANSMISSION & CLUTCH SYSTEM		
1	ENGINE ASSY-SUB	SET	1
2	HOSE ASSY-RADIATOR LWR	SET	1
3	RADIATOR ASSY	SET	1
4	HOSE-RADIATOR	SET	1
5	BLOWER ASSY-CONDERSER	SET	1
6	CONDENSER ASSY-COOLER	SET	1
7	RESERVOIR & HOSE ASSY	SET	1
8	COOLER ASSY-ENG OIL	SET	1
9	HOSE-AIR INTAKE	SET	1
10	DUCT ASSY-AIR	SET	1
11	BODY-AIR CLEANER	SET	1
12	CONTROL MODULE	SET	1
13	BATTERY ASSY	SET	1
	BODY AND CHASSIS GROUP		
14	BODY-CABIN	SET	1
15	DECK ASSY-REAR	SET	1
16	GUARD-REAR WHEEL	SET	1
17	CARRIER ASSY-SPARE WHEEL	SET	1
18	RUBBER ASSY-SHIELD	SET	1
19	MIRROR ASSY-OUTSIDE RR VIEW	SET	1
20	COVER-FR BUMPER	SET	1
21	RAIL ASSY-FR BUMPER	SET	1
22	GUARD ASSY-FRONT WHEEL	SET	1
23	GUARD ASSY-FRONT WHEEL MUD	SET	1
24	COVER-STEP FRT	SET	1
25	LAMP ASSY-HEAD LH	SET	1
26	LAMP ASSY-HEAD RH	SET	1
27	LAMP ASSY-FRONT FOG	SET	1
28	LAMP ASSY-REAR COMBINATION	SET	1
	FRONT AND REAR AXLES		
29	FRAME ASSY	SET	1
30	REAR AXLE ASSY	SET	1
31	KNUCKLE-FRONT AXLE LH	SET	1
32	KNUCKLE-FRONT AXLE RH	SET	1
33	SHAFT ASSY-REAR PROPELLER	SET	1
34	CROSSMEMBER ASSY-FRT SUSPENSION	SET	1
	SUSPENSION GROUP		
35	BAR-FR SUSPENSION TORSION LH	SET	1
36	BAR-FR SUSPENSION TORSION RH	SET	1
37	ARM COMPLETE-UPR LH	SET	1
38	ARM COMPLETE-UPR RH	SET	1
39	ARM COMPLETE-LWR LH	SET	1
40	ARM COMPLETE-LWR RH	SET	1
41	BAR ASSY-FR STABILIZER	SET	1
42	SHOCK ABSORBER ASSY-FRONT	SET	1
43	SPRING ASSY-RR SUSP LEAF	SET	1
44	STOPPER-BUMPER RR	SET	1
45	SHOCK ABSORBER ASSY-REAR	SET	1
	STEERING WHEEL		
46	WHEEL ASSY-STEERING	SET	1
47	UPR COVER & HORN ASSY STEERING	SET	1
48	COLUMN & SHAFT ASSY-STEERING	SET	1
49	SHAFT ASSY-INTERMEDIATE	SET	1
50	GEAR ASSY-BEVEL	SET	1
51	GEAR & LINKAGE ASSY-P/S	SET	1
	EXHAUST SYSTEM		
52	PIPE-EXHAUST FRT	SET	1
53	PIPE-EXHAUST CTR	SET	1
54	PIPE-TAIL W/MUFFLER	SET	1
	WHEELS & TYRES		
55	REAR WHEEL & TIRE	SET	1
56	FRONT WHEEL & TIRE	SET	1

ATTACHMENT (15)(A)

PER UNIT CONSUMPTION

(IX) H100

Sr. No.	Particulars	A/U	Consumption
	SEAT ASSY		
57	FR SEAT PASSENGER	SET	1
58	FR SEAT DRIVER	SET	1
	TRIMMING PARTS, DASHBOARD, INSTRUMENT PANEL, WINDSHIELDS, WIRE HARNESS AND OTHER ACCESSORIES		
59	HOSE-FUEL FILLER	SET	1
60	NECK ASSY-FUEL FILLER	SET	1
61	TANK ASSY-FUEL	SET	1
62	STRAP ASSY-FUEL TANK	SET	1
63	FILTER ASSY-DIESEL	SET	1
64	TUBE & HOSE ASSY-PRESSURE	SET	1
65	TUBE-RETURN	SET	1
66	RESERVOIR ASSY-POWER STEERING	SET	1
67	INSULATOR-FRT	SET	1
68	INSULATOR-RR	SET	1
69	LATCH ASSY-HOOD	SET	1
70	HANDLE ASSY-HOOD LATCH RELEASE	SET	1
71	CABLE ASSY-HOOD LATCH RELEASE	SET	1
72	W/STRIP-HOOD	SET	1
73	CHECKER ASSY-FRONT DOOR	SET	1
74	LATCH & ACTUATOR ASSY-FRT DR	SET	1
75	HANDLE ASSY-FRONT DOOR	SET	1
76	KEY & CYLINDER SET-LOCK	SET	1
77	W/STRIP-FR DR BODY SIDE	SET	1
78	W/STRIP ASSY-FR DR SIDE	SET	1
79	W/STRIP-FR DR BELT O/S	SET	1
80	W/STRIP-FR DR TRIM LWR	SET	1
81	PEDAL ASSY-ACCELERATOR	SET	1
82	CABLE ASSY-IDLE CONTROL	SET	1
83	PANEL COMPL-FRONT DOOR TRIM	SET	1
84	REGULATOR ASSY-FR DR WDO	SET	1
85	GLASS ASSY-FRONT DOOR	SET	1
86	RUN ASSY-FR DR WDO GLASS	SET	1
87	CHANNEL ASSY-FRONT DOOR REAR	SET	1
88	PAD ASSY-ISOLATION DASH PANEL	SET	1
89	PAD-ANTINOISE	SET	1
90	CARPET ASSY-FLOOR	SET	1
91	MAT ASSY-CAB FLOOR RR	SET	1
92	CONSOLE-FR	SET	1
93	COVER ASSY-PARKING BRAKE	SET	1
94	HANDLE ASSY-ROOF ASSIST FRONT	SET	1
95	TRIM ASSY-LUGGAGE SIDE	SET	1
96	TRIM ASSY-FR PILLAR	SET	1
97	TRIM ASSY-COWL SIDE	SET	1
98	TRIM ASSY-RR PILLAR	SET	1
99	TRIM ASSY-BACK PANEL	SET	1
100	TRIM ASSY-FR DR SCUFF	SET	1
101	CRASH PAD ASSY-MAIN	SET	1
102	SUNVISOR ASSY	SET	1
103	HEADLINING ASSY	SET	1
104	WIRING ASSY-ROOF	SET	1
105	GLASS ASSY-WINDSHIELD	SET	1
106	GLASS & MOULDING ASSY-SIDE	SET	1
107	GLASS-REAR WINDOW	SET	1
108	MIRROR ASSY-REAR VIEW INSIDE	SET	1
109	WIRING ASSY-MAIN	SET	1
110	WIRING ASSY-ENGINE	SET	1
111	WIRING ASSY-FR DR(DRIVER)	SET	1
112	WIRING ASSY-FR DR(PASS)	SET	1
113	WIRING ASSY-BATTERY (+)	SET	1
114	WIRING ASSY-BATTERY (-)	SET	1
115	WIRING ASSY-EARTH	SET	1
116	PANEL-UNDER COVER ENGINE	SET	1
117	PNL-SIDE COVER T/M	SET	1

PER UNIT CONSUMPTION

(IX) H100

Sr. No.	Particulars	A/U	Consumption
118	LAMP ASSY-OVERHEAD CONSOLE	SET	1
119	MULTIFUNCTION SWITCH	SET	1
120	ANTENNA ASSY-RADIO	SET	1
121	SPEAKER & PROTECTOR ASSY-DOOR	SET	1
122	HORN ASSY-LOW PITCH	SET	1
123	MOTOR ASSY-WINDSHIELD WIPER LH	SET	1
124	LINKAGE ASSY-WINDSHIELD WIPER	SET	1
125	ARM ASSY-W/SHLD WPR(DRIVER)	SET	1
126	RESERVOIR ASSY-W/SHLD WASHER	SET	1
127	HOSE-DISCHARGE	SET	1
128	BOOSTER & BRAKE MASTER	SET	1
129	LEVER ASSY-PARKING BRAKE	SET	1
130	CABLE ASSY-PARKING BRAKE	SET	1
131	LEVER ASSY-SHIFT	SET	1
132	CABLE ASSY-MTA LEVER	SET	1
133	CYLINDER ASSY-CLUTCH MASTER	SET	1
134	CYLINDER & HOSE ASSY	SET	1
135	OVM TOOL	SET	1
136	BOX ASSY-TOOL	SET	1
137	VALVE ASSY-LSP	SET	1
138	TUBE-CLUTCH	SET	1
139	BOX-BATTERY	SET	1
140	S/BELT ASSY-FR LH	SET	1
141	S/BELT ASSY-FR RH	SET	1
	DOOR GROUP		
142	PANEL ASSY-FRONT DOOR LH	SET	1
143	PANEL ASSY-FRONT DOOR RH	SET	1

ATTACHMENT (16)

PER UNIT CONSUMPTION

(X) Prime

Sr. No.	Particulars	A/U	Consumption
	ENGINE ASSY TRANSMISSION & CLUTCH SYSTEM		
1	ENGINE ASSY	SET	1
2	TRANSMISSION ACCESSORIES ASSY	SET	1
3	CLUTCH MASTER CYLINDER	SET	1
4	CLUTCH SLAVE CYLINDER	SET	1
5	CLUTCH HOSE	SET	1
6	INLET PIPE OF OIL COOLER	SET	1
7	OIL COOLER OIL-RETURN PIPE	SET	1
8	OIL-RETURN HOSE UNIT ASSY	SET	1
9	AIR FILTER ASSY	SET	1
10	INTAKE HOSE	SET	1
11	BATTERY MOUNTING PRESS PANEL ASSY	SET	1
12	BASE SEAT OF BATTERY	SET	1
13	BATTERY 90AH FL	SET	1
14	ECU	SET	1
15	HEATING PIPE Ⅱ (HEATER VALVE- ENGINE)	SET	1
16	CLUTCH HOSE BRACKET	SET	1
17	FUEL TANK	SET	1
18	RADIATOR ASSY	SET	1
19	FIXING BRACKET OF LOWER PRESURE HOSE	SET	1
20	RADIATOR DAMPING PAD (UPPER)	SET	1
21	RADIATOR DAMPING PAD (LOWER)	SET	1
22	OIL FILLER ASSY	SET	1
23	SPEEDOMETER SENSOR	SET	1
24	OIL PAN ASSY	SET	1
25	TRANSMISSION BRACKET ASSY	SET	1
26	4PK BELT 880	SET	1
27	HIGH PRESSURE HOSE （COMPRESSOR TO CONDENSER）	SET	1
28	HIGH PRESSURE HOSE （CONDENSER TO EVAPORATOR）	SET	1
29	LOWER PRESURE HOSE (COMPRESSOR--EVAPORATOR TUBE Ⅰ)	SET	1
30	LOWER PRESURE HOSE (COMPRESSOR--EVAPORATOR TUBE Ⅱ)	SET	1
31	COMPRESSOR ASSY	SET	1
32	POWER STEERING BELT	SET	1
33	RADIATOR WATER INLET PIPE	SET	1
34	WATER OUTLET PIPE OF WATERTANK	SET	1
35	OUTLET CONNECTING PIPE OF ENGINE	SET	1
36	INTAKE CONNECTING PIPE OF ENGINE	SET	1
37	COMPRESSOR DRIVE PULLEY	SET	1
38	AIR INLET ADAPTER OF INTER COOLER ASSY	SET	1
39	AIR INLET HOSE OF INTER COOLER	SET	1
40	AIR INLET CONNECTING HOSE OF INTER COOLER	SET	1
41	AIR OUTLET HOSE OF INTER COOLER	SET	1
42	AIR OUTLET CONNECTING HOSE OF INTER COOLER	SET	1
43	STARTER MOTER	SET	1
44	INTERCOOLER ASSY	SET	1
45	OIL COOLER	SET	1
46	AC CONDENSOR	SET	1
	BODY AND CHASSIS GROUP		
47	CABIN ASSY	SET	1
48	ENGINE HOOD	SET	1
49	CARGO ASSY	SET	1
50	FRONT BUMPER ASSY	SET	1
51	REAR BUMPER ASSY	SET	1
52	FRAME ASSY	SET	1
	FRONT AND REAR AXLES		
53	REAR AXLE WITH ACCESSORIES ASSY	SET	1
54	REAR AXLE CABLE ASSY LH	SET	1
55	REAR AXLE CABLE ASSY RH	SET	1
56	BALL-AND-CAGE AXLE SHAFT LH	SET	1
57	BALL-AND-CAGE AXLE SHAFT RH	SET	1
58	MAIN REDUCER OF FRONT AXLE	SET	1
59	FRONT BRAKE LH	SET	1
60	FRONT BRAKE RH	SET	1

ATTACHMENT (16)(A)

PER UNIT CONSUMPTION

(X) Prime

Sr. No.	Particulars	A/U	Consumption
	SUSPENSION GROUP		
61	UPPER CROSS ARM ASSY LH	SET	1
62	LOWER CROSS ARM ASSY LH	SET	1
63	UPPER CROSS ARM ASSY RH	SET	1
64	LOWER CROSS ARM ASSY RH	SET	1
65	ENGINE INSULATOR ASSY LH	SET	1
66	FRONT SHOCK ABSORBER ASSY	SET	1
67	FRONT STABILIZER BAR	SET	1
68	BRACKET OF STABILIZER BAR	SET	1
69	REAR PLATE SPRING ASSY	SET	1
70	REAR SHOCK ABSORBER	SET	1
	STEERING WHEEL		
71	STEERING WHEEL ASSY	SET	1
72	STEERING GEAR	SET	1
73	STEERING IDLER ARM	SET	1
74	UNDER THE STEERING COLUMN SHAFT	SET	1
75	STEERING ROD ASSY WITH ACCESSORIES	SET	1
76	STEERING ROD ASSY	SET	1
77	REAR STEERING COLUMN ASSY	SET	1
78	FRONT STEERING COLUMN ASSY	SET	1
79	STEERING SHAFT ASSY	SET	1
	EXHAUST SYSTEM		
80	REAR EXHAUST PIPE WITH MUFFLER ASSY	SET	1
81	MIDDLE SECTION OF EXHAUST PIPE	SET	1
82	EXHAUST GAS CONNECTING PIPE	SET	1
83	FRONT SECTION OF EXHAUST PIPE	SET	1
84	PIPER-EXHAUST	SET	1
	WHEELS & TYRES		
85	ALUMINIUM ALLOY WHEEL RIM	SET	1
86	WHEEL TRIM COVER	SET	1
87	FRONT WHEEL TRIM COVER	SET	1
88	REAR WHEEL COVER LH	SET	1
89	REAR WHEEL COVER RH	SET	1
90	TYRE	SET	1
	SEAT ASSY		
91	DRIVER SEAT ASSY	SET	1
92	PASSENGER SEAT ASSY	SET	1
93	REAR SEAT	SET	1
	TRIMMING PARTS, DASHBOARD, INSTRUMENT PANEL, WINDSHIELDS, WIRE HARNESS AND OTHER ACCESSORIES		
94	SIDE VIEW MIRROR R	SET	1
95	SIDE VIEW MIRROR L	SET	1
96	FRONT COMBINATION LAMP/R	SET	1
97	FRONT COMBINATION LAMP/L	SET	1
98	REAR COMBINATION LAMP/R	SET	1
99	REAR COMBINATION LAMP/L	SET	1
100	FOG LAMP/R	SET	1
101	FOG LAMP/L	SET	1
102	GRILL ASSY	SET	1
103	VACCUM HOSE 3×140	SET	1
104	VACCUM HOSE 3×300	SET	1
105	OIL INLET HOSE ASSEMBLE UNIT	SET	1
106	OIL SUPPLY HOSE	SET	1
107	OIL RETURN HOSE	SET	1
108	OIL WATER SEPARATOR	SET	1
109	FRAME HARNESS ASSY	SET	1
110	FRONT FENDER OF REAR WHEEL LH	SET	1
111	FRONT FENDER OF REAR WHEEL RH	SET	1
112	FRONT MUDGUARD MOUNTING BRACKET OF REAR WHEEL LH	SET	1
113	FRONT MUDGUARD MOUNTING BRACKET OF REAR WHEEL RH	SET	1
114	FRONT MUDGUARD RUBBER PAD OF REAR WHEEL	SET	1
115	DUST COVER OF GEAR LEVER	SET	1
116	PRESSING PLATE OF DUST COVER OF GEAR LEVER	SET	1

ATTACHMENT (16)(B)

PER UNIT CONSUMPTION

(X) Prime

Sr. No.	Particulars	A/U	Consumption
117	4WL WIRE HARNESS	SET	1
118	EMERGENCY WARNING LAMP SWITCH	SET	1
119	CENTER CONSOLE FACEPLATE	SET	1
120	FOOT REST PADEL	SET	1
121	SPONGE SEAL OF RADIATOR	SET	1
122	MOUNTING BRACKET OF CARGO GUARDRAIL LH	SET	1
123	MOUNTING BRACKET OF CARGO GUARDRAIL RH	SET	1
124	MOUNTING BRACKET COVER OF CARGO GUARDRAIL LH	SET	1
125	MOUNTING BRACKET COVER OF CARGO GUARDRAIL RH	SET	1
126	RUBBER GASKET OF CARGO GUARDRAIL LH	SET	1
127	RUBBER GASKET OF CARGO GUARDRAIL RH	SET	1
128	LEVER OF CENTRAL HAND BRAKE ASSY	SET	1
129	REAR BRAKE HOSE	SET	1
130	TEE-JOINT OF REAR BRAKE TO OIL PIPE OF WHEEL RH	SET	1
131	TEE-JOINT OF REAR BRAKE TO OIL PIPE OF WHEEL LH	SET	1
132	CENTRAL HAND BRAKE ASSY	SET	1
133	DUSTPROOF BOX	SET	1
134	POSITIVE FUSE BOX OF BATTERY	SET	1
135	REAR CONSOLE BODY	SET	1
136	GEAR LEVER TRIM HOOD ASSY	SET	1
137	VACCUM SOLENOID VALVE ASSY	SET	1
138	FLYWHEEL COVER	SET	1
139	SEALING GASKET (DOUBLE HOLES)	SET	1
140	BALL OF SHIFT LEVEL	SET	1
141	MUDGUARD-CHASSIS	SET	1
142	HIGH PRESSURE OIL TUBE ASSY	SET	1
143	OIL RETURN ASSY-STEERING	SET	1
144	OIL INLET HOSE	SET	1
145	POWER STEERING OIL CUP	SET	1
146	ENGINE COMPARTMENT WIRE HARNESS	SET	1
147	HEATING PIPE(WATER VALVE-WARM BLOWER)	SET	1
148	HEATING PIPE(ENGINE-HEATER VALVE)	SET	1
149	HEATING PIPE(ENGINE)	SET	1
150	SIDE STEP FRONT BRACKET LH	SET	1
151	SIDE STEP FRONT BRACKET RH	SET	1
152	SIDE STEP BRACKET	SET	1
153	ENGINE WIREHARNESS	SET	1
154	RUBBER ADAPTER OF OIL FILLER PIPE	SET	1
155	EXHAUSTING RUBBER ADAPTER OF FUEL TANK	SET	1
156	FUEL FILLER CAP	SET	1
157	CABLE FOR FUEL FILLER COVER	SET	1
158	OVERFLOW PIPE	SET	1
159	MOUND LAYER OF CARPET	SET	1
160	REAR FENDER LH	SET	1
161	REAR FENDER RH	SET	1
162	FR FLOOR HEAT INSULATION	SET	1
163	LF FLOOR HEAT INSULATION	SET	1
164	RR FLOOR HEAT INSULATION	SET	1
165	FILLER SWITCH COVER	SET	1
166	CARPET	SET	1
167	FRONT CONSOLE BODY	SET	1
168	CENTER CONSOLE BASEPLATE	SET	1
169	REAR CONSOLE FACEPLATE ASSY	SET	1
170	4WD SWITCH PLUG	SET	1
171	FL PILLAR LOWER TRIM	SET	1
172	FR PILLAR LOWER TRIM	SET	1
173	MID PILLAR LOWER TRIM LH	SET	1
174	MID PILLAR LOWER TRIM RH	SET	1
175	PILLAR LOWER TRIM RL	SET	1
176	PILLAR LOWER TRIM RR	SET	1
177	REAR WALL PANEL	SET	1
178	FRONT DOORSILL ASSY LH	SET	1
179	FRONT DOORSILL ASSY RH	SET	1
180	REAR DOORSILL ASSY LH	SET	1

ATTACHMENT (16)(C)

PER UNIT CONSUMPTION

(X) Prime

Sr. No.	Particulars	A/U	Consumption
181	REAR DOORSILL ASSY RH	SET	1
182	REAR TOW HOOK	SET	1
183	CIGARETTE LIGHTER	SET	1
184	POWER OUTLET	SET	1
185	PLUG OF POWER OUTLET	SET	1
186	ELECTRICAL A/C CONTROLLER	SET	1
187	SEALING GASKET	SET	1
188	NEGATIVE HARNESS	SET	1
189	POWER DEVIDER SWITCH	SET	1
190	FRONT FLOOR HEAT INSULATION	SET	1
191	FRONT WHEEL SPEED SENSOR LH	SET	1
192	FRONT WHEEL SPEED SENSOR RH	SET	1
193	REAR WHEEL SPEED SENSOR LH	SET	1
194	REAR WHEEL SPEED SENSOR RH	SET	1
195	HUB REDUCTOR CLUTCH	SET	1
196	ACCELERATION SENSOR	SET	1
197	REAR HOOK-UPPER	SET	1
198	REAR HOOK-LOWER	SET	1
199	CONNECTING ROD ASSY 300*3	SET	1
200	CARGO MOUNTING BLOCK	SET	1
201	WIND SHIELD-FAN	SET	1
202	OIL PIPE JOINT	SET	1
203	FRONT FENDER LH	SET	1
204	FRONT FENDER RH	SET	1
205	POWER DIVIDER	SET	1
206	VALVE	SET	1
207	GROUNDING WIRE HARNESS ASSY	SET	1
208	MOUNTING BLOCK OF BODY (SMALL)	SET	1
209	MOUNTING BLOCK OF BODY (BIG)	SET	1
210	HEATING VALVE ASSY	SET	1
211	FRONT WHEEL COVER BUCKLE	SET	1
212	FRONT BRAKE HOSE	SET	1
213	VENT VALVE	SET	1
214	VENT PIPE (FUEL FILLER TO CHECK VALVE)	SET	1
215	TORSION BAR SPRING LH	SET	1
216	TORSION BAR SPRING RH	SET	1
217	REAR BUSHING-LEAF SPRING	SET	1
218	WELDED ADJUSTING ARM ASSY LH	SET	1
219	WELDED ADJUSTING ARM ASSY RH	SET	1
220	NYLON SHEATH-ADJUSTING ARM	SET	1
221	SPARE TIRE LIFTER ASSY	SET	1
222	FAN BLADE	SET	1
223	EGR CONTROLLER	SET	1
224	POWER STEERING PUMP	SET	1
225	DVD	SET	1
226	CAMERA	SET	1
227	CABIN REAR REFLECTOR	SET	1
228	HIGH POSITION BRAKE LAMP ASSY	SET	1
229	FRONT DOOR TRIM PANEL BODY ASSY RH	SET	1
230	REAR DOOR TRIM PANEL BODY ASSY RH	SET	1
231	FRONT DOOR TRIM PANEL BODY ASSY LH	SET	1
232	REAR DOOR TRIM PANEL BODY ASSY LH	SET	1
233	FRONT DOOR GLASS RH	SET	1
234	FRONT DOOR GLASS LH	SET	1
235	REAR DOOR GLASS RH	SET	1
236	REAR DOOR GLASS LH	SET	1
237	FRONT WINDOWSHIELD GLASS	SET	1
238	DECORATIVE STRIP OF FRONT WINDSHIELD LEFT	SET	1
239	DECORATIVE STRIP OF FRONT WINDSHIELD RIGHT	SET	1
240	UPPER DECORATIVE STRIP OF FRONT WINDSHIELD	SET	1
241	SPEAKER ASSY	SET	1
242	REAR DOOR SPEAKER	SET	1
243	FRONT CHROME GUARD OF ENGINE HOOD	SET	1
244	FRONT OUTSIDE HANDLE RH	SET	1

PER UNIT CONSUMPTION

(X) Prime

Sr. No.	Particulars	A/U	Consumption
245	FRONT OUTSIDE HANDLE LH	SET	1
246	REAR DOOR OUTSIDE HANDLE RH	SET	1
247	REAR DOOR OUTSIDE HANDLE LH	SET	1
248	FRONT DOOR POWER WINDOW LIFTER RH	SET	1
249	FRONT DOOR POWER WINDOW LIFTER LH	SET	1
250	REAR DOOR POWER WINDOW LIFTER RH	SET	1
251	REAR DOOR POWER WINDOW LIFTER LH	SET	1
252	FRONT DOOR LOCK ASSY RH	SET	1
253	REAR DOOR LOCK ASSY RH	SET	1
254	ENGINE HOOD INSULATION	SET	1
255	MID PILLAR ASSY RH	SET	1
256	REAR PILLAR ASSY RH	SET	1
257	REAR PILLAR ASSY LH	SET	1
258	A PILLAR ASSY RH	SET	1
259	A PILLAR ASSY LH	SET	1
260	WIPER ARM ASSY	SET	1
261	WIPER CONNECTING ROD ASSY	SET	1
262	OVERFLOW TANK	SET	1
263	VACUUM TANK ASSY	SET	1
264	INSTRUMENT PANEL BODY	SET	1
265	INSTRUMENT ASSY	SET	1
266	DASHBOARD CROSS BEAM	SET	1
267	CABIN WIRE HARNESS	SET	1
268	SOUND INSULATION GASKET OF FRONT WALL	SET	1
269	SOUND INSULATION OF DASHBOARD	SET	1
270	CELIING ASSY	SET	1
271	FRONT DOME LAMP ASSY	SET	1
272	REAR DOME LAMP ASSY	SET	1
273	COMBINATION SWITCH ASSY	SET	1
274	UPPER/LOWER COVER OF COMBINATION SWITCH	SET	1
275	CABIN REAR GLASS	SET	1
276	BRAKE PEDAL ASSY	SET	1
277	CLUTCH PEDAL ASSY	SET	1
278	ACCELERATION PEDAL ASSY	SET	1
279	ACCELERATION CABLE ASSY	SET	1
280	WASHING POT	SET	1
281	WIPER MOTOR ASSY	SET	1
282	SUN SHIELD LH	SET	1
283	SUN SHIELD RH	SET	1
284	SAFETY BELT	SET	1
285	SECOND SEAT TWO-POINTS SAFETY BELT	SET	1
286	SAFETY LOCK ASSY	SET	1
287	SAFETY ALTITUDE	SET	1
288	ROOF HANDLE	SET	1
289	BRAKE BOOSTER DEVICE ASSY	SET	1
290	BLOWER ASSY	SET	1
291	EVAPORATOR ASSY	SET	1
292	HEATER ASSY	SET	1
293	WHEEL HOUSING INNER COVER LH	SET	1
294	WHEEL HOUSING INNER COVER RH	SET	1
295	WHEEL HOUSING INNER COVER FIXING CLIP	SET	1
296	FRONT WHEEL HOUSING	SET	1
297	FRONT WHEEL HOUSING FIXING BUCKLE	SET	1
298	INNER REAR-VIEW MIRROR ASSY	SET	1
299	ANTENNA ASSY	SET	1
300	HOOD LOCK ASSY	SET	1
301	AIR STRUT ASSY OF HOOD	SET	1
302	ENGINE HOOD LOCK CABLE	SET	1
303	FRONT VENTILATION WINDOW COVER PLATE ASSY	SET	1
304	REAR DOOR U TYPE STRIP	SET	1
305	FRONT DOOR U TYPE STRIP	SET	1
306	REAR WATER CHANNEL	SET	1
307	FRONT DOOR SEALING STRIP	SET	1
308	REAR DOOR SEALING STRIP	SET	1

PER UNIT CONSUMPTION

(X) Prime

Sr. No.	Particulars	A/U	Consumption
309	FRONT DOOR RUBBER GROOVE	SET	1
310	FRONT INNER WEATHER STRIP	SET	1
311	REAR DOOR OUTSIDE WEATHER STRIP	SET	1
312	ROOF RUBBER MOLDING	SET	1
313	CUSHION BLOCK UPPER	SET	1
314	CUSHION BLOCK LOWER	SET	1
315	CUSHION SEAT Ⅰ	SET	1
316	RUBBER GASKET	SET	1
317	CUSHION SEAT Ⅱ	SET	1
318	RUBBER BUSHING	SET	1
319	INNER CUSHION	SET	1
320	OUTER CUSHION	SET	1
321	DUSTPROOF COVER Ⅰ	SET	1
	DOOR GROUP		
322	DOOR FL	SET	1
323	DOOR FR	SET	1
324	DOOR RR	SET	1
325	DOOR RL	SET	1

ATTACHMENT (17)

PER UNIT CONSUMPTION

(XI) Megatron

Sr. No.	Particulars	A/U	Consumption
	ENGINE ASSY TRANSMISSION & CLUTCH SYSTEM		
1	ENGINE ASSY	SET	1
2	ECU ASSY	SET	1
3	RIBBED BELT	SET	1
4	AIR FLOW SENSOR	SET	1
5	ENGINE ASSY SUSPENSION LH BRACKET	SET	1
6	ENGINE ASSY SUSPENSION RH BRACKET	SET	1
7	ENGINE MOUNTING ASSY	SET	1
8	CONDENSER ASSY	SET	1
9	RADIATOR ASSY	SET	1
10	RADIATOR FAN ASSY	SET	1
11	UPPER COVER BOARD-RADIATOR FENCE	SET	1
12	THE RADIATOR CAP SEAL	SET	1
13	ENGINE COVER	SET	1
14	RADIATOR WATER HOSE INLET	SET	1
15	TRANSMISSION ASSY	SET	1
16	CLUTCH SPLIT PUMP ASSY	SET	1
17	CLUTCH HOSE ASSY	SET	1
	BODY AND CHASSIS GROUP		
18	CAB ASSY	SET	1
19	CARGO ASSY	SET	1
20	COVER CARD OF GLOVE BOX	SET	1
21	CHASSIS FRAME ASSY	SET	1
22	FRONT BUMPER ASSY	SET	1
23	REAR BUMPER ASSY	SET	1
	FRONT AND REAR AXLES		
24	LOWER LIMITING BLOCK ASSY	SET	1
25	FRONT MAIN REDUCER WITH ELECTRIC CLUTCH ASSY	SET	1
26	FRONT AXLE CLUTCH MOTOR HARNESS ASSY	SET	1
27	ELECTRIC CLUTCH HEAT PIPE	SET	1
28	STEERING KNUCKLE WITH BRAKE ASSY LH	SET	1
29	STEERING KNUCKLE WITH BRAKE ASSY RH	SET	1
30	LEFT FRONT BRAKE TUBE ASSY	SET	1
31	RIGHT FRONT BRAKE TUBE ASSY	SET	1
32	REAR AXLE WITH BRAKE ASSY	SET	1
33	MOTION ASSY	SET	1
34	PROPELLER SHAFT ASSY	SET	1
35	FRONT PROPELLER SHAFT ASSY	SET	1
36	FRONT AXLE ASSY	SET	1
	SUSPENSION GROUP		
37	REAR SHOCK ABSORBER ASSY	SET	1
38	UPPER ARM ASSY LH	SET	1
39	UPPER ARM ASSY RH	SET	1
40	LEFT LOWER ARM ASSY	SET	1
41	RIGHT LOWER ARM ASSY	SET	1
42	REAR LEAF SPRING ASSY	SET	1
43	LEAF SPRING HOLD DOWN ASSY	SET	1
44	LIMIT STOP ASSY-REAR SUSPENSION	SET	1
45	REAR LEAF SPRING RUBBER BUSH	SET	1
46	REAR LEAF SPRING WITH EAR PIN ASSY	SET	1
47	LEAF SPRING BUSHING HANGING EARS	SET	1
48	FRONT STABILITY BAR ASSY	SET	1
49	FRONT STABILITY BAR CONNECTING ROD ASSY	SET	1
50	TRANSVERSE STABILITY ROD BUSHING	SET	1
51	TRANSMISSION SUSPENSION CUSHION ASSY	SET	1
52	FRONT SUSPENSION ASSY	SET	1
53	CENTRAL SUSPENSION ASSY	SET	1
54	BODY MIDDLE MOUNTING BRACKET	SET	1
55	MIDDLE MOUNTING BODY PAD	SET	1
	STEERING WHEEL		
56	STEERING WHEEL ASSY	SET	1
57	AIR-BAG ASSY	SET	1
58	POWER STEERING	SET	1
59	STEERING GEAR CONNECTING SHAFT ASSY	SET	1

ATTACHMENT (17)(A)

PER UNIT CONSUMPTION

(XI) Megatron

Sr. No.	Particulars	A/U	Consumption
	EXHAUST SYSTEM		
60	FRONT EXHAUST PIPE ASSY	SET	1
61	MIDDLE EXHAUST PIPE ASSY	SET	1
62	REAR SILENCER ASSY	SET	1
63	FRONT EXHAUST PIPE ASSY 2	SET	1
	WHEELS & TYRES		
64	WHEEL ASSY ALUMINUM	SET	1
65	WHEEL ASSY STEEL	SET	1
66	TIRE ASSY	SET	1
67	TPMS SENCER ASSY	SET	1
	SEAT ASSY		
68	FRONT ROW SEAT LEFT	SET	1
69	SECOND ROW SEAT	SET	1
70	FRONT ROW SEAT RIGHT	SET	1
	TRIMMING PARTS, DASHBOARD, INSTRUMENT PANEL, WINDSHIELDS, WIRE HARNESS AND OTHER ACCESSORIES		
71	REARVIEW MIRROR ASSY LEFT	SET	1
72	REARVIEW MIRROR ASSY RIGHT	SET	1
73	INNER MIRROR ASSY	SET	1
74	SUN VISOR ASSY-DRIVER	SET	1
75	SUN VISOR ASSY-FRONT PASSENGER	SET	1
76	ENGINE HOOD FRONT SEALANT	SET	1
77	SOUND INSULATION WING	SET	1
78	REAR VENTILATION WINDOW ASSY	SET	1
79	LOCK CORE MOUNTING HOLE COVER	SET	1
80	ENGINE HOOD LOCK ASSY	SET	1
81	FIXING BUTTON-DRAW CABLE-FUEL TANK DOOR LOCK	SET	1
82	ENGINE HOOD	SET	1
83	HEAT INSULATOR-EMGINE HOOD	SET	1
84	COUPLING BUTTON-INSULATION HEAT FELT-ENGINE COVER	SET	1
85	LEFT SUPPORT ROD OF ENGINE HOOD	SET	1
86	RIGHT SUPPORT ROD OF ENGINE HOOD	SET	1
87	ENGINE HOOD SIDE BUFFER BLOCK	SET	1
88	BATTERY ASSY	SET	1
89	CABLE ASSY-BATTERY POSITIVE (+)	SET	1
90	CHASSIS WIRING HARNESS ASSY	SET	1
91	CABLE ASSY-BATTERY NEGATIVE (-)	SET	1
92	ENGINE HARNESS ASSY	SET	1
93	ENGINE WITH IRON WIRE	SET	1
94	ENGINE ROOM WIRING HARNESS ASSY	SET	1
95	LEFT COMBINED FRONT LAMP	SET	1
96	RIGHT COMBINED FRONT LAMP	SET	1
97	RIGHT TAIL LAMP ASSY	SET	1
98	LEFT TAIL LAMP ASSY	SET	1
99	CRANKCASE BLEED PIPE	SET	1
100	COMPRESSOR ASSY	SET	1
101	POWER STEERING PUMP	SET	1
102	FUEL TANK ASSY	SET	1
103	FUEL PUMP-BRACKET ASSY	SET	1
104	FUEL TANK FRONT SLING	SET	1
105	FUEL TANK REAR SLING	SET	1
106	REAR BRAKE TUBE-PIPE ASSY	SET	1
107	FUEL FILLER COVER ASSY	SET	1
108	ABS SPEED SENSOR FOR REAR WHEEL ASSY	SET	1
109	FOUR WAY ASSY	SET	1
110	FUEL PROOF HOSE	SET	1
111	FUEL INLET PIPE ASSY	SET	1
112	FUEL RETURN PIPE ASSY	SET	1
113	POWER STEERING HIGH PRESSURE TUBING ASSY	SET	1
114	OIL RETURN PIPE-POWER STEERING	SET	1
115	CUP CONNECTED TO THE OIL PUMP PIPE	SET	1
116	ABS WITH FRONT WHEEL SPEED SENSOR ASSY LH	SET	1
117	ABS WITH FRONT WHEEL SPEED SENSOR ASSY RH	SET	1
118	REGULATOR ASSY-SPARE TYRE	SET	1

PER UNIT CONSUMPTION

(XI) Megatron

Sr. No.	Particulars	A/U	Consumption
119	FUEL OIL PRIMARY FILTER ASSY	SET	1
120	FUEL FILLER ASSY	SET	1
121	FUEL FILLER HOSE-FUEL TANK	SET	1
122	AIR RETURN HOSE-FUEL TANK FILLER	SET	1
123	OUTLET WATER HOSE-RADIATOR	SET	1
124	LOW-PRESSURE HOSE ASSY	SET	1
125	HIGH-PRESSURE HOSE ASSY	SET	1
126	"VIN" IDENTIFY RUBBING MODULUS	SET	1
127	TRIANGLE CAUTION CARD ASSY	SET	1
128	TURBOCHARGER AIR INLET PIPE ASSY	SET	1
129	INTERCOOLER AIR OUTLET CONNECTING HOSE	SET	1
130	ENGINE LOWER GUARD	SET	1
131	HUB DECORATION COVER	SET	1
132	BATTERY BASE	SET	1
133	TRACK TOOL SUPPLIER	SET	1
134	FRONT WHEEL MUDGUARD LH	SET	1
135	FRONT WHEEL MUDGUARD RH	SET	1
136	MUDGUARD BOARD-LEFT REAR WHEEL	SET	1
137	MUDGUARD BOARD-RIGHT REAR WHEEL	SET	1
138	LEFT REAR WHEELARCH	SET	1
139	RIGHT REAR WHEELARCH	SET	1
140	FRONT CAMERA ASSY	SET	1
141	EXHAUST HARD PIPE ASSY-FLUID RESERVOIR	SET	1
142	FOOT PEDAL ASSY LH	SET	1
143	FOOT PEDAL ASSY RH	SET	1
144	RADIATOR SHELL ASSY	SET	1
145	ADHESIVE PASTE 25	SET	1
146	CARGO PLASTIC COVER	SET	1
147	CONTAINER REAR DOOR PROTECTIVE COVER	SET	1
148	CONTAINER REAR DOOR UPPER PROTECTIVE COVER	SET	1
149	CONTAINER REAR DOOR PROTECTIVE COVER RUBBER STRIP	SET	1
150	PLASTIC WALL COVER	SET	1
151	FAIR WATER FIN LH	SET	1
152	FAIR WATER FIN RH	SET	1
153	COPYBOOK	SET	1
154	INSTRUMENT PANEL ASSY	SET	1
155	VENTILATION HOLE LH	SET	1
156	VENTILATION HOLE RH	SET	1
157	CENTRAL CONTROL PANEL ASSY	SET	1
158	CENTRAL WIND LEFT OUTLET	SET	1
159	CENTRAL WIND RIGHT OUTLET	SET	1
160	FIXING BRACKE-FUEL FILTER	SET	1
161	FUEL FILTER ASSY	SET	1
162	ACCELERATOR PEDAL ASSY	SET	1
163	AIR FILTER ASSY	SET	1
164	INTERCOOLER ASSY	SET	1
165	FLUID RESERVOIR ASSY	SET	1
166	CLUTCH PEDAL ASSY	SET	1
167	CLUTCH MAIN PUMP ASSY	SET	1
168	CLUTCH MASTER CYLINDER CONNECTING PIPE ASSY	SET	1
169	CLUTCH MAIN PUMP HOSE	SET	1
170	CLUTCH OPERATION OIL PIPE ASSY	SET	1
171	TRANSMISSION CONTROL CABLE ASSY	SET	1
172	HANDBALL ASSY	SET	1
173	CONTROL MECHANISM ASSY	SET	1
174	4WD-ECU ASSY	SET	1
175	STEERING COLUMN ASSY	SET	1
176	POWER STEERING OIL CUP ASSY	SET	1
177	POWER STEERING SHAFT LOWER BODY ASSY	SET	1
178	BRAKE PEDAL ASSY	SET	1
179	VACUUM BOOSTER WITH BRAKE MASTER CYLINDER ASSY	SET	1
180	VACUUM BOOSTER	SET	1
181	CONNECTING PIPE 1	SET	1
182	CONNECTING HOSE	SET	1

ATTACHMENT (17)(C)

PER UNIT CONSUMPTION

(XI) Megatron

Sr. No.	Particulars	A/U	Consumption
183	ABS STENT	SET	1
184	ABS FUNCTION MODULE	SET	1
185	ACCELERATER SENSOR	SET	1
186	FRONT BRAKE OIL PIPE ASSY RH	SET	1
187	LEFT FRONT BRAKE PIPE	SET	1
188	PARKING BRAKE CONTROL ASSY	SET	1
189	REAR BRAKE ASSY MANIPULATION	SET	1
190	TPMS CONTROLLER ASSY	SET	1
191	RADAR SENSOR ASSY	SET	1
192	REVERSING RADAR SENSOR BUSHING	SET	1
193	FRONT COLLISION AVOIDANCE RADAR SENSOR BUSHING	SET	1
194	DOOR WINDOW CONTROLLER ASSY	SET	1
195	BCM ASSY	SET	1
196	ANGLE SENSOR ASSY	SET	1
197	COMBINATION LAMP SWITCH	SET	1
198	COMBINATION SWITCH COVER ASSY	SET	1
199	COMBINED SWITCH COVER LOWER CAP	SET	1
200	IGNITION SWITCH ASSY	SET	1
201	CIGARETTE LIGHTER ASSY	SET	1
202	HANDRAILS SWITCH ASSY	SET	1
203	LOCK CORES WHOLE VEHICLE	SET	1
204	MAIN KEY	SET	1
205	WINDOW SWITCH POWER ASSY	SET	1
206	CIGAR LIGHTER TYPE SOCKET ASSY	SET	1
207	SUBWOOFER ASSY	SET	1
208	HIGH VOICE HORN ASSY	SET	1
209	BEAM ADJUSTER	SET	1
210	MULTI FUNCTION SWITCH ASSY	SET	1
211	POWER BESIDE REARVIEW MIRROR SWITCH ASSY	SET	1
212	COMBINATION INSTRUMENT ASSY	SET	1
213	TEMPERATURE SENSOR-INSIDE AND OUTSIDE OF VEHICLE	SET	1
214	TERRALORD SIGN	SET	1
215	LEFT SIGN	SET	1
216	RIGHT SIGN	SET	1
217	RIGHT AFTER THE FILM SIDE DOOR	SET	1
218	LEFT AFTER THE FILM SIDE DOOR	SET	1
219	LEFT COLUMN IN THE FILM	SET	1
220	RIGHT COLUMN IN THE FILM	SET	1
221	RIGHT FRONT DOOR FILM	SET	1
222	LEFT FRONT DOOR FILM	SET	1
223	WIRE HARNESS ASSY-FRONT DOOR LH	SET	1
224	WIRE HARNESS ASSY-FRONT DOOR RH	SET	1
225	ROOF WIRING HARNESS ASSY	SET	1
226	REAR DEFROST WIRE HARNESS ASSY	SET	1
227	WIRE HARNESS ASSY-REAR DOOR	SET	1
228	FRONT CAMERA WIRING HARNESS ASSY	SET	1
229	INSTRUMENT PANEL HARNESS ASSY	SET	1
230	AIRBAG HARNESS	SET	1
231	VISUAL SYSTEM WIRING HARNESS ASSY	SET	1
232	CONDITIONING WIRING HARNESS ASSY	SET	1
233	TRANSMISSION WIRING HARNESS ASSY	SET	1
234	4WD WIRING	SET	1
235	BRAKE LAMP SWITCH ASSY	SET	1
236	HIGH MOUNTED STOP LAMP ASSY	SET	1
237	DOME LIGHT ASSY	SET	1
238	READING LAMP ASSY	SET	1
239	CENTER CONSOLE ASSY	SET	1
240	LEFT BAFFLE	SET	1
241	LOWER STORAGE BOX ASSY OF CENTRAL CONTROL DESK	SET	1
242	CENTRAL BOX FRONT RIGHT COVER	SET	1
243	CENTRAL STORAGE BOX PAD	SET	1
244	HAND BRAKE COVER PLATE ASSY	SET	1
245	GEAR COVER ASSY	SET	1
246	MIDDLE CONTROL DESK BOTTOM STORAGE BOX RUBBER PAD	SET	1

PER UNIT CONSUMPTION

(XI) Megatron

Sr. No.	Particulars	A/U	Consumption
247	CENTRAL BOX REAR BRACKET	SET	1
248	CENTRAL FRONT LEFT COVER BOX	SET	1
249	LOWER RIGHT BAFFLE	SET	1
250	CYLINDER ASSY	SET	1
251	GLOVE BOX TRIM ASSY	SET	1
252	MOLDING CARPET KD ASSY	SET	1
253	FOOTREST BLOCK	SET	1
254	CARPET BLOCK LEFT	SET	1
255	FRONT WINDSHIELD ASSY	SET	1
256	REAR WINDSHIELD GLASS ASSY	SET	1
257	GARNISH STRIP-REAR WINDSHIELD	SET	1
258	FRONT SCRUBBER FLUID RESERVOIR ASSY	SET	1
259	FRONT SCRUBBER HOSE ASSY	SET	1
260	FRONT SCRUBBER NOZZLE ASSY	SET	1
261	WIPER MOTOR WITH CONNECTING ROD ASSY	SET	1
262	WIPER PATCH FRONT WIPER LH	SET	1
263	WIPER ARM LEFT FRONT	SET	1
264	WIPER ARM RIGHT FRONT	SET	1
265	WIPER PATCH FRONT WIPER RH	SET	1
266	FRONT COVER PLATE SEALING STRIP ASSY	SET	1
267	FRONT BAFFLE SHOCK PADS	SET	1
268	THE FRONT OF THE CABIN ON THE CUSHION	SET	1
269	FRONT SHOCK PAD	SET	1
270	BEFORE THE THERMAL INSULATION FELT CARD BUCKLE	SET	1
271	FIXING BUTTON-HEAT FELT-ENGINE HOOD	SET	1
272	DAMPING PAD ON FRONT BAFFLE PLATE	SET	1
273	COVER PLATE LEFT TRIM PANEL ASSY	SET	1
274	COVER PLATE RIGHT TRIM PANEL ASSY	SET	1
275	UPPER COVER PANEL ASSY-FRONT PANEL	SET	1
276	GLOVE-BOX ASSY	SET	1
277	RIGHT BLOW AIR DUCT	SET	1
278	INSTRUMENT PANEL MIDDLE LEFT	SET	1
279	INSTRUMENT PANEL MIDDLE RIGHT	SET	1
280	INSTRUMENT PANEL LEFT LOWER STORAGE BOX ASSY	SET	1
281	DASHBOARD RIGHT TRIM ASSY	SET	1
282	DASHBOARD LEFT TRIM ASSY	SET	1
283	CLUSTER INSTRUMENT COVER ASSY	SET	1
284	INSTRUMENT REINFORCE MEMBER	SET	1
285	PIPE BEAM BRACKET LEFT UNDER	SET	1
286	PIPE BEAM BRACKET RIGHT UNDER	SET	1
287	CENTRAL DUCT COVER PLATE	SET	1
288	LEFT BLOW AIR DUCT ASSY	SET	1
289	LEFT LOWER COVER ASSY	SET	1
290	LEFT A POLE PLAQUE	SET	1
291	TRIM PANEL B POST UPPER RH	SET	1
292	REAR SIDE TRIM PANEL ASSY	SET	1
293	LOWER INNER TRIM PANEL C PILLAR RH	SET	1
294	LOWER INNER TRIM PANEL C PILLAR LH	SET	1
295	UPPER TRIM PANEL C PILLAR RH	SET	1
296	UPPER TRIM PANEL C PILLAR LH	SET	1
297	LOWER INNER TRIM PANEL B PILLAR RH	SET	1
298	LOWER INNER TRIM PANEL B PILLAR LH	SET	1
299	TRIM PANEL B POST UPPER LH	SET	1
300	RIGHT A POLE PLAQUE	SET	1
301	LOWER INSIDE TRIM PANEL A PILLAR RH	SET	1
302	LOWER INSIDE TRIM PANEL A PILLAR LH	SET	1
303	OIL BOX DOOR LOCK PULL ASSY	SET	1
304	DOORSILL FRONT DOOR LH	SET	1
305	DOORSILL FRONT DOOR RH	SET	1
306	DOORSILL LEFT REAR SIDE DOOR	SET	1
307	DOORSILL RIGHT REAR SIDE DOOR	SET	1
308	FENDER FRONT WHEEL LH	SET	1
309	LEFT FRONT WHEEL HANGING BRACKET	SET	1
310	MUD-GUARD RUBBER FLAKE-INNER SIDE-FRONT WHEEL LH 1	SET	1

PER UNIT CONSUMPTION

(XI) Megatron

Sr. No.	Particulars	A/U	Consumption
311	MUD-GUARD RUBBER FLAKE-INNER SIDE-FRONT WHEEL LH 2	SET	1
312	MUD-GUARD RUBBER FLAKE-INNER SIDE-FRONT WHEEL RH 2	SET	1
313	LEFT FRONT WHEEL ARC BRACKET	SET	1
314	FRONT WHEELARCH RH	SET	1
315	FENDER, FRONT WHEEL,RH	SET	1
316	FRONT WHEELARCH LH	SET	1
317	ROOF PANEL INTERNAL PROTECTION SURFACE ASSY	SET	1
318	ROOF PANEL HEAT INSULATION	SET	1
319	ROOF HANDLE	SET	1
320	CAR HANDLE	SET	1
321	DECORATE PIECE ROOF LH	SET	1
322	DECORATE PIECE ROOF RH	SET	1
323	SAFETY BELT ASSY	SET	1
324	SAFETY BELT RETRACTOR ASSY	SET	1
325	SECOND ROW SEAT BELT DUAL LATCH ASSY	SET	1
326	SECOND ROW MIDDLE SEAT BELT STRAP AND LATCH ASSY	SET	1
327	INSERT LOCK ASSY-FRONT ROW SEAT BELT RH	SET	1
328	HIGHT ADJUSTER-SAFE BELT-FRONT SEAT	SET	1
329	INSERT LOCK ASSY-FRONT ROW SEAT BELT LH	SET	1
330	TRIM PANEL FRONT DOOR LH	SET	1
331	TRIM PANEL FRONT DOOR RH	SET	1
332	TRIM PANEL REAR DOOR RH	SET	1
333	INSIDE TRIANGLE ASSY FRONT DOOR RH	SET	1
334	WATER-PROOF PLASTIC MOLD REAR SIDE DOOR	SET	1
335	WATER-PROOF PLASTIC MOLD FRONT SIDE DOOR	SET	1
336	INSIDE TRIANGLE ASSY FRONT DOOR LH	SET	1
337	TRIM PANEL REAR DOOR LH	SET	1
338	AIR-BAG ASSY	SET	1
339	AIR-BAG ECU	SET	1
340	TIMEPIECE SPRING	SET	1
341	GLASS-FRONT WINDOW LH	SET	1
342	GLASS-FRONT WINDOW RH	SET	1
343	REAR DOOR GLASS ASSY RH	SET	1
344	REAR DOOR GLASS ASSY LH	SET	1
345	LIFTER ASSY-FRONT DOOR LH	SET	1
346	POWER LIFTER ASSY- REAR DOOR RH	SET	1
347	POWER LIFTER ASSY- REAR DOOR LH	SET	1
348	LIFTER ASSY-FRONT DOOR RH	SET	1
349	DOOR LOCK RING	SET	1
350	LEFT FRONT DOOR HANDLE ASSY	SET	1
351	LOCK CORE PULL ROD-FRONT DOOR LH	SET	1
352	LEFT FRONT DOOR HANDLE CABLE ASSY	SET	1
353	LEFT FRONT DOOR HANDLE SEAT	SET	1
354	SIDE DOOR HANDLE	SET	1
355	LOCK CORE ASSY-FRONT DOOR LH	SET	1
356	FRONT DOOR LOCK ASSY LH	SET	1
357	FRONT DOOR LOCK ASSY RH	SET	1
358	RIGHT SIDE DOOR HANDLE ASSY	SET	1
359	REAR LOCKING BODY ASSY RH	SET	1
360	LEFT REAR DOOR HANDLE CABLE ASSY	SET	1
361	LEFT REAR SIDE DOOR HANDLE ASSY	SET	1
362	REAR LOCKING BODY ASSY LH	SET	1
363	RIGHT FRONT DOOR HANDLE CABLE ASSY	SET	1
364	RIGHT FRONT DOOR HANDLE SEAT	SET	1
365	FRONT RIGHT SIDE DOOR HANDLE ASSY	SET	1
366	RIGHT REAR DOOR HANDLE CABLE ASSY	SET	1
367	LEFT FRONT DOOR GLASS AFTER RAIL ASSY	SET	1
368	RIGHT FRONT DOOR GLASS AFTER RAIL ASSY	SET	1
369	GLASS REAR LOWER GUIDE RAIL ASSY-REAR DOOR LH	SET	1
370	GLASS REAR LOWER GUIDE RAIL ASSY-REAR DOOR RH	SET	1
371	SEALING STRIP-FRONT DOOR WINDOW LH	SET	1
372	GLASS SEALING STRIP-REAR DOOR RH	SET	1
373	GLASS SEALING STRIP-REAR DOOR LH	SET	1
374	SEALING STRIP-FRONT DOOR WINDOW RH	SET	1

PER UNIT CONSUMPTION

(XI) Megatron

Sr. No.	Particulars	A/U	Consumption
375	U RUBBER STRIP-FRONT DOOR CASE LH	SET	1
376	U-SHAPED RUBBER STRIP-REAR DOOR CASE LH	SET	1
377	SEALING STRIP ASSY-FRONT DOOR LH	SET	1
378	RIGHT FRONT WIPER BLADE SIDE DOOR	SET	1
379	LEFT FRONT WIPER BLADE SIDE DOOR	SET	1
380	EXTERNAL WIPING RUBBER STRIP ASSY-REAR DOOR RH	SET	1
381	EXTERNAL WIPING RUBBER STRIP ASSY-REAR DOOR LH	SET	1
382	OUTER WIPING RUBBER STRIP ASSY-FRONT DOOR RH	SET	1
383	OUTER WIPING RUBBER STRIP ASSY-FRONT DOOR LH	SET	1
384	SEALING STRIP ASSY-REAR DOOR RH	SET	1
385	SEALING STRIP ASSY-REAR DOOR LH	SET	1
386	SEALING STRIP ASSY-FRONT DOOR RH	SET	1
387	INTERNAL WIPING RUBBER STRIP-REAR RH	SET	1
388	INTERNAL WIPING RUBBER STRIP-REAR LH	SET	1
389	U-SHAPED RUBBER STRIP-REAR DOOR CASE RH	SET	1
390	U RUBBER STRIP- FRONT DOOR CASE RH	SET	1
391	LIMITER ASSY-FRONT DOOR	SET	1
392	LIMITER ASSY-REAR SIDE DOOR	SET	1
393	CASSETTE PLAYER BODY	SET	1
394	WOOF LOUD HAILER ASSY	SET	1
395	ANTENNA FEEDER TWO ASSY	SET	1
396	ANTENNA ASSY	SET	1
397	TREBLE LOUDSPEAKER ASSY RH	SET	1
398	TREBLE LOUDSPEAKER ASSY LH	SET	1
399	GPS CARD	SET	1
400	CASSETTE PLAYER PANEL	SET	1
401	USB INTERFACE	SET	1
402	USB PATCH CORD	SET	1
403	GPS ANTENNA	SET	1
404	RETRACTABLE SCREEN MACHINE	SET	1
405	AVM CONTROLLER ASSY	SET	1
406	AIR CONDITIONER CONTROLLER ASSY-INSIDE OF VEHICLE	SET	1
407	DILATION VALVE ASSY	SET	1
408	HIGH-PRESSURE HOSE ASSY	SET	1
409	OUTLET PROTECT SLEEVE-HOT WATER PIPE	SET	1
410	AIR CONDITIONER CONTROLLER ASSY	SET	1
411	PULL WIRE ASSY-ENGINE HOOD LOCK	SET	1
412	3M STICK	SET	1
413	FIXING SQUARE BUTTON-DOOR PANEL	SET	1
414	ELASTIC INSERTION PIECE	SET	1
415	STEEL STRIP SPRING COLLAR	SET	1
	DOOR GROUP		
416	WELDING ASSY-FRONT DOOR LH	SET	1
417	WELDING ASSY-FRONT DOOR RH	SET	1
418	REAR DOOR WELD ASSY LH	SET	1
419	REAR DOOR WELD ASSY RH	SET	1

ATTACHMENT (18)

PER UNIT CONSUMPTION

(XII) Tera-190

Sr. No.	Particulars	A/U	Consumption
	ENGINE ASSY TRANSMISSION & CLUTCH SYSTEM		
1	ENGINE ASSY	SET	1
2	DIESEL FILTER TO ENGINE OIL PIPELINE	SET	1
3	HARNESS FIXING CLAMP	SET	1
4	RUBBER RETAINER	SET	1
5	OIL RETURN PIPE	SET	1
6	PIPELINE FROM FUEL TANK TO DIESEL FILTER	SET	1
7	FUEL TANK ASSY	SET	1
8	FUEL TANK STRAP WELDING	SET	1
9	FUEL TANK GIRDLE BAND	SET	1
10	FUEL TANK BRACKET	SET	1
11	SOLENOID VALVE	SET	1
12	ENGINE SUPPORT	SET	1
13	FAN BLADE	SET	1
14	FAN CLUTCH RELEASE	SET	1
15	A/C PULLY	SET	1
16	CLUTCH PUMP	SET	1
17	OIL COOLING PIPE ASSY 1	SET	1
18	OIL COOLING PIPE ASSY 2	SET	1
19	A/C COMPRESSOR	SET	1
20	COMPRESSOR BRACKET	SET	1
21	STEERING PUMP	SET	1
22	STATER MOTOR	SET	1
23	ENGINE WATER INLET HOSE	SET	1
24	RADIATOR ASSY	SET	1
25	RADIATOR SUPPORT SOFT MAT	SET	1
26	ENGINE WATER OUTLET HOSE	SET	1
27	DIESEL FILTER ASSY	SET	1
28	HIGH MOUNT INTAKE TUBE ASSY	SET	1
29	ENGINE AIR-INLET RUBBER PIPE	SET	1
30	AIR FILTER INLET RUBBER PIPE	SET	1
31	A-TYPE WORM DRIVE HOSE HOOP	SET	1
32	AIR FILTER PLUG ALARM LAMP SWITCH	SET	1
33	TRANSMISSION ASSY	SET	1
34	TRANSMISSION HANGING SUPPORTER	SET	1
35	RIGHT BRACKET	SET	1
36	LEFT BRACKET	SET	1
37	HEATER WATER HOSE ASSY	SET	1
38	COMPRESSOR BELT	SET	1
39	AC CONDENSOR	SET	1
40	TENSION MECHANISM	SET	1
41	VEHICLE RIBBED BELT	SET	1
	BODY AND CHASSIS GROUP		
42	FRONT PLATE ASSY	SET	1
43	LEFT SIDE PLATE ASSY	SET	1
44	RIGHT SIDE PLATE ASSY	SET	1
45	FLOOR PLATE ASSY	SET	1
46	REAR PLATE ASSY	SET	1
47	LEFT BLOCK EAR WELDING	SET	1
48	LICENSE PLATE	SET	1
49	LEFT FRONT MUDGUARD	SET	1
50	LEFT REAR MUDGUARD	SET	1
51	LEFT PROTECTION ASSY-CAR	SET	1
52	REAR PROTECTION ASSY-CAR	SET	1
53	REAR PROTECTION ASSY	SET	1
54	CABIN WELDING ASSY	SET	1
55	FRONT GRILLE BODY	SET	1
56	FRONT BUMPER ASSY	SET	1
57	LEFT FRONT WHEEL REAR MUDGUARD ASSY	SET	1
58	RIGHT FRONT WHEEL REAR MUDGUARD ASSY	SET	1
59	LEFT FRONT LOWER MUDGUARD	SET	1
60	RIGHT FRONT LOWER MUDGUARD	SET	1
	FRONT AND REAR AXLES		
61	FRAME ASSY	SET	1

PER UNIT CONSUMPTION

(XII) Tera-190

Sr. No.	Particulars	A/U	Consumption
62	INTERMEDIATE DRIVE SHAFT ASSY	SET	1
63	REAR DRIVE SHAFT ASSY	SET	1
64	REAR AXLE ASSY	SET	1
65	FRONT AXLE ASSY	SET	1
	SUSPENSION GROUP		
66	FRONT LEAF SPRING ASSY	SET	1
67	FRONT SHOCK ABSORBER ASSY	SET	1
68	REAR LEAF SPRING ASSY	SET	1
69	PLATE SPRING PLATE	SET	1
70	REAR SPRING U-BOLT	SET	1
71	REAR SHOCK ABSORBER ASSY	SET	1
72	REAR SPRING FIXED PLATE	SET	1
	STEERING WHEEL		
73	STEERING GEAR AND ROCKER ARM ASSY	SET	1
74	LOW-PRESSURE STEEL PIPE ASSY	SET	1
75	OIL SUCTION HOSE ASSY	SET	1
76	OIL PUMP INLET STEEL PIPE ASSY	SET	1
77	LOW PRESSURE HOSE ASSY	SET	1
78	HIGH PRESSURE HOSE ASSY	SET	1
79	LOW PRESSURE RUBBER HOSE ASSY	SET	1
80	STEERING HIGH AND LOW PRESSURE PIPE ASSY	SET	1
81	STEERING OIL TANK ASSY	SET	1
82	STEERING WHEEL ASSY	SET	1
83	STEERING CONTROL MECHANISM ASSY	SET	1
84	STEERING DRIVE SHAFT ASSY	SET	1
85	PLASTIC FASTENING BELT	SET	1
	EXHAUST SYSTEM		
86	EXHAUST PIPE WELDING	SET	1
87	MUFFLER ASSY	SET	1
	WHEELS & TYRES		
88	FRONT TIRE	SET	1
89	REAR TIRE	SET	1
90	RIM ASSY FRONT	SET	1
91	RIM ASSY REAR	SET	1
92	VALVE NOZZLE CONNECTING PIPE	SET	1
	SEAT ASSY		
93	DRIVER SEAT ASSY	SET	1
94	FRONT PASSENGER SEAT ASSY	SET	1
	TRIMMING PARTS, DASHBOARD, INSTRUMENT PANEL, WINDSHIELDS, WIRE HARNESS AND OTHER ACCESSORIES		
95	RADIATOR SUPPORT PULL BAR	SET	1
96	OIL COOLER ASSY	SET	1
97	COOLING RESERVOIR TANK	SET	1
98	COOLING RESERVOIR TANK CONNECTION HOSE	SET	1
99	VACUUM STEEL PIPE ASSY	SET	1
100	FORMING VACUUM HOSE ASSY	SET	1
101	VACUUM PIPE	SET	1
102	REAR CROSS BEAM HOLE RING	SET	1
103	AXIS PIN	SET	1
104	MANUAL BRAKE CABLE ASSY	SET	1
105	PARKING BRAKE HANDLE ASSY	SET	1
106	ACCELERATOR CABLE ASSY	SET	1
107	CLUTCH SLAVE CYLINDER OIL PIPE ASSY	SET	1
108	CLAVE CYLINDER CONNECTING HOSE	SET	1
109	LOCKING PLATE	SET	1
110	BRACKET-FLEXIBLE SHAFT	SET	1
111	GEAR-SELECT FLEXIBLE SHAFT ASSY	SET	1
112	GEARSHIFT FLEXIBLE SHAFT ASSY	SET	1
113	PRESSURE PLATE OF FLEXIBLE SHAFT SEALING GASKET	SET	1
114	FLEXIBLE SHAFT SEALING GASKET	SET	1
115	FRONT VARIABLE SPEED CONTROL MECHANISM ASSY	SET	1
116	HANDLE BALL ASSY	SET	1
117	BRAKE OIL PIPE ASSY (SIX-WAY TO LOAD SENSING VALVE)	SET	1

PER UNIT CONSUMPTION

(XII) Tera-190

Sr. No.	Particulars	A/U	Consumption
118	HYDRAULIC BRAKE HARD TUBE ASSY (REAR AXLE LEFT PIPE)	SET	1
119	HYDRAULIC BRAKE HARD TUBE ASSY (REAR AXLE RIGHT PIPE)	SET	1
120	HYDRAULIC LOAD SENSING PROPORTIONING VALVE ASSY	SET	1
121	BRAKE OIL PIPE TEE JOINT	SET	1
122	BRAKE HOSE ASSY	SET	1
123	BRAKE HOSE BRACKET	SET	1
124	LOAD SENSING VALVE OIL OUTLET PIPE ASSY	SET	1
125	LOAD SENSING VALVE BRACKET ASSY	SET	1
126	SIX-WAY ASSY	SET	1
127	LEFT FRONT BRAKE PIPE	SET	1
128	SIX-WAY PIPE MASTER CYLINDER ASSY	SET	1
129	BATTERY SHIELD	SET	1
130	BATTERY BRACKET ASSY	SET	1
131	TOOL KIT ASSY	SET	1
132	GROUND WIRE (BATTERY-FRAME)	SET	1
133	FUSIBLE WIRE	SET	1
134	TAIL LAMP WIRING HARNESS	SET	1
135	FIXED HARNESS BRACKET	SET	1
136	ENGINE GROUND WIRE	SET	1
137	FRAME HARNESS ASSY	SET	1
138	POWER SUPPLY WIRE LOOP	SET	1
139	POWER SUPPLY WIRE ASSY	SET	1
140	RELAY MOUNTING BRACKET	SET	1
141	START RELAY	SET	1
142	WOOFER	SET	1
143	REAR FOG LAMP SWITCH ASSY	SET	1
144	DRIVER DOOR CONTROL SWITCH ASSY	SET	1
145	COMBINATION SWITCH	SET	1
146	FOG LAMP WIRING HARNESS	SET	1
147	SINGLE-ROW DOME LAMP WIRING HARNESS	SET	1
148	CROSS-RECESSED PAN-HEAD SCREW, SPRING WASHER AND PLAIN WASHER ASSY	SET	1
149	ECU WIRING HARNESS THROUGH HOLE PLUG COVER	SET	1
150	BODY MAIN WIRING HARNESS ASSY	SET	1
151	LEFT FRONT DOOR WIRING HARNESS ASSY	SET	1
152	RIGHT FRONT DOOR WIRING HARNESS ASSY	SET	1
153	LEFT FRONT FASTENER ASSY	SET	1
154	RIGHT FRONT FASTENER ASSY	SET	1
155	LEFT TURN SIGNAL LAMP ASSY	SET	1
156	RIGHT TURN SIGNAL LAMP ASSY	SET	1
157	FRONT DOME LAMP	SET	1
158	RIGHT FRONT FOG LAMP ASSY	SET	1
159	LEFT FRONT FOG LAMP ASSY	SET	1
160	LEFT FRONT COMBINATION LAMP ASSY	SET	1
161	RIGHT FRONT COMBINATION LAMP ASSY	SET	1
162	LEFT TAIL LAMP ASSY	SET	1
163	RIGHT TAIL LAMP ASSY	SET	1
164	REAR LICENSE PLATE LAMP ASSY	SET	1
165	COMBINATION INSTRUMENT ASSY	SET	1
166	CROSS RECESSED PAN HEAD TAPPING SCREW AND PLAIN WASHER ASSY	SET	1
167	FUEL SENSOR	SET	1
168	JACK	SET	1
169	TRIANGLE WARNING SIGN ASSY	SET	1
170	TOOL BAG	SET	1
171	BODY FIXING CUSHION ASSY	SET	1
172	FRONT MARK	SET	1
173	"TERA-190" SIGN	SET	1
174	LOWER HEAT INSULATION PAD OF ENGINE HOOD	SET	1
175	PARKING BRAKING SHIELD ASSY	SET	1
176	STEERING COLUMN SHIELD	SET	1
177	VARIABLE SPEED CONTROL SHIELD ASSY	SET	1
178	DRIVER FOOTREST PEDAL ASSY	SET	1
179	ENGINE SHIELD BRACKET	SET	1
180	SWITCH PANEL	SET	1
181	FRONT WINDSHIELD (LAMINATED)	SET	1

ATTACHMENT (18)(C)

PER UNIT CONSUMPTION

(XII) Tera-190

Sr. No.	Particulars	A/U	Consumption
182	WASHING CAN ASSY	SET	1
183	RIGHT WIPER BLADE ASSY	SET	1
184	LEFT WIPER BLADE ASSY	SET	1
185	FRONT WIPER MOTOR AND CONNECTING ROD DEVICE	SET	1
186	FRONT WALL LEFT TRIM	SET	1
187	FRONT WALL RIGHT TRIM	SET	1
188	UPPER TRIM CLIP INSTALLATION	SET	1
189	BUMPER GUIDE POST INSTALLATION	SET	1
190	CROSS-RECESSED PAN-HEAD SCREW AND PLAIN WASHER ASSY	SET	1
191	BUCKLE SEAT	SET	1
192	BUCKLE SEAT-FRONT GRILLE	SET	1
193	INSTRUMENT PANEL ASSY	SET	1
194	INTERNAL SURFACE COVER FASTENING CLIP	SET	1
195	PASSENGER ARMREST	SET	1
196	BOARDING HANDLE	SET	1
197	SEALING STRIP ASSY OF LEFT FRONT DOOR FRAME	SET	1
198	SEALING STRIP ASSY OF RIGHT FRONT DOOR FRAME	SET	1
199	REAR WINDOW GLASS	SET	1
200	SUNROOF LIFTER ASSY	SET	1
201	SUNROOF SEALING STRIP ASSY	SET	1
202	LEFT FRONT DOOR INTERIOR TRIM PANEL ASSY	SET	1
203	RIGHT FRONT DOOR INTERIOR TRIM PANEL ASSY	SET	1
204	LEFT FRONT DOOR EXTERIOR DECORATIVE ADHESIVE STRIP ASSY	SET	1
205	LEFT FRONT DOOR GLASS FRAME PLASTIC COVER	SET	1
206	RIGHT FRONT DOOR EXTERIOR DECORATIVE ADHESIVE STRIP ASSY	SET	1
207	RIGHT FRONT DOOR GLASS FRAME PLASTIC COVER	SET	1
208	LEFT DOOR LARGE ARMREST	SET	1
209	RIGHT DOOR LARGE ARMREST	SET	1
210	LEFT FRONT DOOR REARVIEW MIRROR INNER COVER	SET	1
211	RIGHT FRONT DOOR REARVIEW MIRROR INNER COVER	SET	1
212	FRONT DOOR FRONT STRIP ASSY	SET	1
213	LEFT FRONT DOOR FRONT UPPER TRIM STRIP ASSY	SET	1
214	FRONT UPPER DECORATIVE STRIP ASSY OF RIGHT FRONT DOOR	SET	1
215	LEFT FRONT DOOR LOCK ASSY	SET	1
216	RIGHT FRONT DOOR LOCK ASSY	SET	1
217	SPEAKER ASSY	SET	1
218	ANTENNA ASSY	SET	1
219	HEATING PIPE CLAMP3	SET	1
220	A/C ASSY	SET	1
221	COMPRESSOR WIRING HARNESS FIXING BRACKET	SET	1
222	LEFT EXTERIOR REARVIEW MIRROR ASSY	SET	1
223	RIGHT EXTERIOR REARVIEW MIRROR ASSY	SET	1
224	INTERIOR MIRROR ASSY	SET	1
225	LEFT SUN VISOR ASSY	SET	1
226	RIGHT SUN VISOR ASSY	SET	1
227	ENGINE LEFT MUDGUARD	SET	1
228	ENGINE RIGHT MUDGUARD	SET	1
229	LEFT FRONT PEDAL PAD ASSY	SET	1
230	RIGHT FRONT PEDAL PAD ASSY	SET	1
231	SPARE TIRE TIGHTENER ASSY	SET	1
232	BATTERY ASSY	SET	1
	DOOR GROUP		
233	FRONT DOOR ADJUESTING ASSY LH	SET	1
234	FRONT DOOR ADJUESTING ASSY RH	SET	1

ATTACHMENT (19)

PER UNIT CONSUMPTION

(XIII) Romeo

Sr. No.	Particulars	A/U	Consumption
	ENGINE ASSY TRANSMISSION & CLUTCH SYSTEM		
1	CRANKCASE ASSY	SET	1
2	CRANKCASE COVER L	SET	1
3	PULLEY ASSY DRIVEN	SET	1
4	MOVABLE DRIVE PULLEY ASSY	SET	1
5	SHOE SET BRAKE	SET	1
6	ARM BRAKE FR	SET	1
7	CAM BRAKE FR	SET	1
8	MAIN STAND BRACKET	SET	1
9	CABLE HOLDER	SET	1
10	FUEL PIPE HOLDER	SET	1
11	WASHER	SET	1
12	BELT	SET	1
13	BOLT	SET	1
14	SCREW	SET	1
15	LOCATING STUD	SET	1
16	RUBBER	SET	1
17	SPRING	SET	1
18	COVER GASKET	SET	1
19	PIPE CLIP	SET	1
20	INLET PIPE COMP	SET	1
21	TUBE BREATHER	SET	1
22	GEAR COMP STARTER IDLE	SET	1
23	KICK STARTER ASSY	SET	1
24	ARM ASSY KICK STARTER	SET	1
25	SHROUD COVER FL	SET	1
26	FILTER SHROUD F	SET	1
27	SHROUD A	SET	1
28	SHROUD B	SET	1
29	COVER COMP FAN	SET	1
30	FAN COOLING	SET	1
31	CARBURETER	SET	1
32	AIR CLEANER	SET	1
33	CHOKE PLUG	SET	1
	BODY		
34	FRAME	SET	1
35	MAIN STAND	SET	1
36	HANGER COMP ENGINE	SET	1
37	RUBBER	SET	1
38	BUSH	SET	1
39	REAR FENDER	SET	1
40	SIDE STAND COMP	SET	1
41	BOLT, SIDE STAND MOUNTING	SET	1
42	BRACKET	SET	1
43	PEDAL BRACKET L	SET	1
44	PEDAL BRACKET R	SET	1
45	REAR HANDLE COVER	SET	1
46	FRONT HANDLE COVER	SET	1
47	METER COVER	SET	1
48	FRONT SHIELD	SET	1
49	FRONT PANEL	SET	1
50	FRONT FENDER	SET	1
51	LEG SHIELD UP	SET	1
52	LEG SHIELD DOWN	SET	1
53	INSPECT COVER	SET	1
54	FENDER FRAME FR	SET	1
55	UNDER COVER	SET	1
56	RIGHT SIDE COVER	SET	1
57	LEFT SIDE COVER	SET	1
58	COVER BATTERY	SET	1
59	FLOOR	SET	1
60	CENTER COVER	SET	1
61	LUGGAGE BOX	SET	1
62	COVER RR	SET	1
63	COVER RL	SET	1
64	REAR CENTER COVER	SET	1

PER UNIT CONSUMPTION

(XIII) Romeo

Sr. No.	Particulars	A/U	Consumption
65	FENDER RR	SET	1
66	HOOK HELMET	SET	1
67	FUEL TANK UNDER COVER	SET	1
68	BRACKET LICENSE PLATE LIGHT	SET	1
69	CAP	SET	1
70	SCREW COVER	SET	1
71	BOLT	SET	1
72	SCREW	SET	1
73	SPRING NUT	SET	1
	AXLES		
74	BOLT	SET	1
75	BUSH	SET	1
76	SCREW	SET	1
77	DISC BRAKE ASSY FR	SET	1
78	BRAKE DISC	SET	1
79	CABLE BRAKE RR	SET	1
	SUSPENSION GROUP		
80	CUSHION RUBBER	SET	1
81	FRONT FORK ASSY-ALUMINUM BARREL	SET	1
82	FRONT FORK ASSY-HANDLE	SET	1
83	FRONT FORK ASSY-CAP	SET	1
84	FRONT FORK ASSY-SPRING	SET	1
85	FRONT FORK ASSY-CYLINDER ROD	SET	1
86	FRONT FORK ASSY-DAMPING OIL	SET	1
87	SCREW	SET	1
88	WASHER	SET	1
89	REAR FORK ASSY-ALUMINUM BARREL	SET	1
90	REAR FORK ASSY-SPRING	SET	1
91	REAR FORK ASSY	SET	1
	STEERING		
92	HANDLE COMP	SET	1
93	COLLAR	SET	1
94	UNDER BRACKET COMP	SET	1
95	BALL RACE COMP-DUSTBAND	SET	1
96	BALL RACE COMP-GASKET	SET	1
97	BALL RACE COMP-LOWER PLATE	SET	1
98	BALL RACE COMP-DOWN	SET	1
99	BALL RACE COMP-LOWER BRACKET	SET	1
100	BALL RACE COMP-UP PLATE	SET	1
101	BALL RACE COMP-UP	SET	1
102	BALL RACE COMP-UP BRACKET	SET	1
103	SCREW AND COVER	SET	1
104	SCREW	SET	1
105	THROTTLE PEDESTAL	SET	1
106	TRANSFER POST	SET	1
107	GRIP L	SET	1
108	GRIP R	SET	1
109	BALANCE BLOCK ASSY	SET	1
110	BOLT	SET	1
	EXHAUST		
111	MUFFLER COVER	SET	1
112	MUFFLER	SET	1
113	GROMMET-EXHAUST PIPE	SET	1
114	BOLT	SET	1
115	SCREW	SET	1
116	WASHER	SET	1
	WHEELS & TYRES		
117	TIRE	SET	1
118	TIRE INNER	SET	1
119	FRONT WHEEL	SET	1
120	REAR WHEEL	SET	1
121	SCREW	SET	1
	SEAT		
122	SEAT CATCH COMP	SET	1
123	SEAT CABLE	SET	1
124	SEAT ASSY-SEAT COVER	SET	1

PER UNIT CONSUMPTION

(XIII) Romeo

Sr. No.	Particulars	A/U	Consumption
125	SEAT ASSY-SEAT SPONGE	SET	1
126	SEAT ASSY-SEAT MOTHERBOARD	SET	1
127	SEAT ASSY-SEAT BRACKET	SET	1
128	SEAT ASSY-SEAT LATCH HOOK	SET	1
129	SEAT ASSY-WEBBING	SET	1
130	SEAT ASSY-SEAT RUBBER	SET	1
131	SEAT ASSY-FILM	SET	1
132	SEAT ASSY-NAIL	SET	1
133	SEAT ASSY-BUSH	SET	1
134	SEAT ASSY-GLAND STRIP	SET	1
135	SCREW	SET	1
	TRIMMING		
136	FUEL PIPE HOLDER	SET	1
137	STOPBOARD	SET	1
138	IGNITION COIL ASSY	SET	1
139	CDI	SET	1
140	STARTER RELAY COMP	SET	1
141	REGULATOR COMP	SET	1
142	THROTTLE CABLE	SET	1
143	HORN	SET	1
144	BALL RACE COMP FLOOR CLIP	SET	1
145	PEDAL LR	SET	1
146	PEDAL RR	SET	1
147	CABLE HOLDER	SET	1
148	RUBBER	SET	1
149	BRACKET	SET	1
150	SPEEDOMETER GEAR COMP	SET	1
151	SPEEDOMETER CABLE COMP	SET	1
152	REARVIEW MIRROR L	SET	1
153	FUEL TANK	SET	1
154	SENDER UNIT	SET	1
155	FUEL TANK CAP	SET	1
156	FUEL COCK ASSY	SET	1
157	FUEL HOSE	SET	1
158	CLIP	SET	1
159	FUEL FILTER ASSY	SET	1
160	HEADLIGHT	SET	1
161	HEADLIGHT CABLE	SET	1
162	BULB HS1	SET	1
163	BULB W5W	SET	1
164	TAILLIGHT	SET	1
165	TAILLIGHT CABLE	SET	1
166	BULB	SET	1
167	LICENSE PLATE LIGHT	SET	1
168	WIRE HARNESS ASSY	SET	1
169	DEPUTY WIRE HARNESS	SET	1
170	SPEEDOMETER	SET	1
171	FLASHER	SET	1
172	SWITCH UNIT-DIMMER	SET	1
173	SWITCH UNIT-LIGHTING	SET	1
174	SWITCH UNIT-STARTER	SET	1
175	SWITCH UNIT-HORN	SET	1
176	SWITCH UNIT-WINKER	SET	1
177	LOCK ASSY	SET	1
178	BATTERY	SET	1
179	REAR REVERBERATOR	SET	1
180	STICKER	SET	1
181	MIRROR	SET	1
182	TOOL	SET	1
183	HANDLE HOLDER	SET	1
184	SCREW	SET	1
185	BOLT	SET	1
186	WASHER	SET	1
187	BAND	SET	1

ATTACHMENT (20)

PER UNIT CONSUMPTION

(XIV) Juliet

Sr. No.	Particulars	A/U	Consumption
	ENGINE		
1	CRANKCASE ASSY	SET	1
2	CRANKCASE COVER L	SET	1
3	PULLEY ASSY DRIVEN	SET	1
4	MOVABLE DRIVE PULLEY ASSY	SET	1
5	SHOE SET BRAKE	SET	1
6	ARM BRAKE FR	SET	1
7	CAM BRAKE FR	SET	1
8	MAIN STAND BRACKET	SET	1
9	CABLE HOLDER	SET	1
10	FUEL PIPE HOLDER	SET	1
11	WASHER	SET	1
12	BELT	SET	1
13	BOLT	SET	1
14	SCREW	SET	1
15	LOCATING STUD	SET	1
16	RUBBER	SET	1
17	SPRING	SET	1
18	COVER GASKET	SET	1
19	PIPE CLIP	SET	1
20	INLET PIPE COMP	SET	1
21	TUBE BREATHER	SET	1
22	GEAR COMP STARTER IDLE	SET	1
23	KICK STARTER ASSY	SET	1
24	ARM ASSY. KICK STARTER	SET	1
25	SHROUD COVER FL	SET	1
26	FILTER SHROUD F	SET	1
27	SHROUD A	SET	1
28	SHROUD B	SET	1
29	COVER COMP FAN	SET	1
30	FAN COOLING	SET	1
31	CARBURETER	SET	1
32	AIR CLEANER	SET	1
33	CHOKE PLUG	SET	1
	BODY		
34	FRAME	SET	1
35	MAIN STAND	SET	1
36	RUBBER	SET	1
37	SPRING	SET	1
38	HANGER COMP ENGINE	SET	1
39	BUSH	SET	1
40	REAR FENDER	SET	1
41	SIDE STAND COMP	SET	1
42	BOLT-SIDE STAND MOUNTING	SET	1
43	BRACKET	SET	1
44	PEDAL BRACKET L	SET	1
45	PEDAL BRACKET R	SET	1
46	REAR HANDLE COVER	SET	1
47	FRONT HANDLE COVER	SET	1
48	FRONT SHIELD	SET	1
49	FRONT PANEL	SET	1
50	LEG SHIELD UP	SET	1
51	LEG SHIELD DOWN	SET	1
52	FENDER FRAME FR	SET	1
53	UNDER COVER	SET	1
54	LEFT SIDE COVER	SET	1
55	COVER,BATTERY	SET	1
56	LUGGAGE BOX	SET	1
57	CENTER COVER	SET	1
58	COVER LR	SET	1
59	REAR CENTER COVER	SET	1
60	HOOK-HELMET	SET	1
61	FUEL TANK UNDER COVER	SET	1
62	CAP	SET	1

ATTACHMENT (20)(A)

PER UNIT CONSUMPTION

(XIV) Juliet

Sr. No.	Particulars	A/U	Consumption
63	SCREW COVER	SET	1
64	BOLT	SET	1
65	CLIP NUT M6	SET	1
66	SPRING NUT 4.2	SET	1
67	SCREW	SET	1
	AXLES		
68	BUSH	SET	1
69	SCREW	SET	1
70	BOLT	SET	1
71	FRONT DISC BRAKE ASSY	SET	1
72	BRAKE DISC	SET	1
73	CABLE BRAKE RR	SET	1
	SUSPENSION		
74	CUSHION RUBBER	SET	1
75	FRONT FORK ASSY-ALUMINUM BARREL	SET	1
76	FRONT FORK ASSY-HANDLE	SET	1
77	FRONT FORK ASSY-CAP	SET	1
78	FRONT FORK ASSY-SPRING	SET	1
79	FRONT FORK ASSY-CYLINDER ROD	SET	1
80	FRONT FORK ASSY-DAMPING OIL	SET	1
81	SCREW	SET	1
82	WASHER	SET	1
83	REAR FORK ASSY-ALUMINUM BARREL	SET	1
84	REAR FORK ASSY-SPRING	SET	1
85	REAR FORK ASSY	SET	1
	STEERING		
86	HANDLE COMP	SET	1
87	COLLAR	SET	1
88	UNDER BRACKET COMP	SET	1
89	BALL RACE COMP-DUSTBAND	SET	1
90	BALL RACE COMP-GASKET	SET	1
91	BALL RACE COMP-LOWER PLATE	SET	1
92	BALL RACE COMP-DOWN (BALL SET STEERING)	SET	1
93	BALL RACE COMP-LOWER BRACKET	SET	1
94	BALL RACE COMP-UP PLATE (BALL SET STEERING)	SET	1
95	BALL RACE COMP-UP (RACE STEERING TOP CONE)	SET	1
96	BALL RACE COMP-UP BRACKET (THREAD COMP STEERING HEAD TOP)	SET	1
97	SCREW AND COVER (NUT STEERING STEM LOCK)	SET	1
98	SCREW	SET	1
99	THROTTLE PEDESTAL	SET	1
100	TRANSFER POST	SET	1
101	GRIP L	SET	1
102	GRIP R	SET	1
103	BALANCE BLOCK ASSY	SET	1
104	BOLT	SET	1
	EXHAUST		
105	MUFFLER COVER	SET	1
106	MUFFLER	SET	1
107	GROMMET-EXHAUST PIPE	SET	1
108	BOLT	SET	1
109	SCREW	SET	1
110	WASHER	SET	1
	WHEELS & TYRES		
111	TIRE	SET	1
112	TIRE INNER	SET	1
113	FRONT WHEEL	SET	1
114	REAR WHEEL	SET	1
115	SCREW	SET	1
	SEAT ASSY		
116	SEAT CATCH COMP	SET	1
117	SEAT CABLE	SET	1
118	SEAT ASSY-SEAT COVER	SET	1
119	SEAT ASSY-SEAT SPONGE	SET	1
120	SEAT ASSY-SEAT MOTHERBOARD	SET	1

ATTACHMENT (20)(B)

PER UNIT CONSUMPTION

(XIV) Juliet

Sr. No.	Particulars	A/U	Consumption
121	SEAT ASSY-SEAT BRACKET	SET	1
122	SEAT ASSY-SEAT LATCH HOOK	SET	1
123	SEAT ASSY-WEBBING	SET	1
124	SEAT ASSY-SEAT RUBBER	SET	1
125	SEAT ASSY-FILM	SET	1
126	SEAT ASSY-NAIL	SET	1
127	SEAT ASSY-BUSH	SET	1
128	SEAT ASSY-GLAND STRIP	SET	1
129	SCREW	SET	1
	TRIMMING		
130	FUEL PIPE HOLDER	SET	1
131	STOPBOARD	SET	1
132	IGNITION COIL ASSY	SET	1
133	CDI	SET	1
134	STARTER RELAY COMP	SET	1
135	REGULATOR COMP	SET	1
136	THROTTLE CABLE	SET	1
137	HORN	SET	1
138	BALL RACE COMP-FLOOR CLIP	SET	1
139	PEDAL LR	SET	1
140	PEDAL RR	SET	1
141	CABLE HOLDER	SET	1
142	RUBBER BATTERY	SET	1
143	SPEEDOMETER GEAR COMP	SET	1
144	SPEEDOMETER CABLE COMP	SET	1
145	REARVIEW MIRROR L	SET	1
146	FUEL TANK	SET	1
147	SENDER UNIT	SET	1
148	FUEL TANK CAP	SET	1
149	FUEL COCK ASSY	SET	1
150	FUEL HOSE	SET	1
151	CLIP	SET	1
152	FUEL FILTER ASSY	SET	1
153	HEADLIGHT CABLE	SET	1
154	HEADLIGHT	SET	1
155	BULB HS1	SET	1
156	FRONT POSITION LIGHT	SET	1
157	TAILLIGHT	SET	1
158	TAILLIGHT CABLE	SET	1
159	BULB P21/5W	SET	1
160	BULB R10W	SET	1
161	FRONT TURN LEFT LIGHT	SET	1
162	FRONT TURN LEFT LIGHT CABLE	SET	1
163	FRONT TURN RIGHT LIGHT	SET	1
164	FRONT TURN RIGHT LIGHT CABLE	SET	1
165	LICENSE PLATE LIGHT	SET	1
166	WIRE HARNESS ASSY	SET	1
167	DEPUTY WIRE HARNESS	SET	1
168	SPEEDOMETER	SET	1
169	FLASHER	SET	1
170	SWITCH UNIT-DIMMER	SET	1
171	SWITCH UNIT-LIGHTING	SET	1
172	SWITCH UNIT-STARTER	SET	1
173	SWITCH UNIT-HORN	SET	1
174	SWITCH UNIT-WINKER	SET	1
175	LOCK ASSY	SET	1
176	BATTERY	SET	1
177	REAR REVERBERATOR	SET	1
178	WARNING STICKER	SET	1
179	AIR CLEANER STICKER	SET	1
180	TIRE INNER WARNING STICKER	SET	1
181	REARVIEW MIRROR R	SET	1
182	TOOL	SET	1
183	HANDLE HOLDER	SET	1

PER UNIT CONSUMPTION

(XIV) Juliet

Sr. No.	Particulars	A/U	Consumption
184	SCREW	SET	1
185	BOLT	SET	1
186	WASHER	SET	1
187	BAND	SET	1
188	STICKER	SET	1
189	METER COVER	SET	1
190	FRONT FENDER	SET	1
191	INSPECT COVER	SET	1
192	RIGHT SIDE COVER	SET	1
193	FLOOR	SET	1
194	COVER RR	SET	1
195	FENDER RR	SET	1
196	CAP	SET	1

ATTACHMENT (21)

PER UNIT CONSUMPTION

(XV) K-pop

Sr. No.	Particulars	A/U	Consumption
	ENGINE		
1	COVER COMP CRANK CASE R	SET	1
2	HEAD COMP CYLINDER	SET	1
3	PISTON	SET	1
4	MAIN COMP CRANK CASE L	SET	1
5	MAIN COMP CRANK CASE R	SET	1
6	CYLINDER BLOCK	SET	1
7	GEAR TERMINAL	SET	1
8	CRANK CASE COVER FL	SET	1
9	PROTECTOR COVER CRANK CASE R	SET	1
10	CRANK CASE COVER RL	SET	1
11	CAP	SET	1
12	COVER CYLINDER HEAD	SET	1
13	PRIMARY CLUTCH	SET	1
14	CLUTCH ASSY	SET	1
15	PLATE OIL SEPARATOR 1	SET	1
16	WASHER LOCK	SET	1
17	WASHER B SPLINE 17MM	SET	1
18	SET RING 17MM	SET	1
19	NUT B LOCK 14MM	SET	1
20	NUT LOCK 14MM	SET	1
21	WASHER B LOCK	SET	1
22	COLLAR	SET	1
23	BEARING	SET	1
24	SPINDLE SUITE	SET	1
25	VICE SHAFT SLEEVE PIECE	SET	1
26	GEAR SHAFT DRUM SPINDLE	SET	1
27	STARTER	SET	1
28	SPRING KICK STARTER	SET	1
29	RETAINER KICK SPRING	SET	1
30	CIRCLIP	SET	1
31	PEDAL GEAR CHANGE	SET	1
32	BOLT HEX	SET	1
33	ARM KICK STARTER	SET	1
34	PLATE OIL SEPARATOR 2	SET	1
35	PIN PISTON	SET	1
36	ROLL CAM CHAIN TENSIONER	SET	1
37	ROLLER CAM CHAIN TENSIONER	SET	1
38	ROLLER COMP CAM CHAIN GUIDE	SET	1
39	TIMING DRIVEN WHEEL	SET	1
40	TIMING CHAIN	SET	1
41	CHAIN START	SET	1
42	OIL GAUGE	SET	1
43	ROD COMP TENSIONER PUSH	SET	1
44	ARM COMP CAM CHAIN TENSIONER	SET	1
45	SPRING	SET	1
46	TUBE BREATHER	SET	1
47	STEEL CABLE BAFFLE RING	SET	1
48	SPRING GEARSHIFT DRUM STOPPER	SET	1
49	PLATE PROTECT CHAIN	SET	1
50	PLATE GUIDE CHAIN	SET	1
51	SCREEN OIL FILTER	SET	1
52	SEALING RING	SET	1
53	OIL PUMP ASSY	SET	1
54	DRIVING SPROCKET	SET	1
55	CHECK PLATE	SET	1
56	SPINDLE COMP GEARSHIFT	SET	1
57	SPROCKET START CLUTCH	SET	1
58	INTAKE PIPE	SET	1
59	BREATHER PIPE	SET	1
60	SHIFTING CAM COMBINATION	SET	1
61	LEVER COMP CLUTCH	SET	1
62	CRANKCASE COMP	SET	1
63	GASKET CRANKCAGE	SET	1

PER UNIT CONSUMPTION

(XV) K-pop

Sr. No.	Particulars	A/U	Consumption
64	GASKET CRANKCAGE COVER	SET	1
65	GASKET CYLINDER HEAD COVER	SET	1
66	GASKET CARBURETOR	SET	1
67	BOLT A-STUD	SET	1
68	CLAMPER-A.C GENERATOR CORD	SET	1
69	CLAMPER CORD	SET	1
70	FIX PLATE	SET	1
71	PLATE SET CHAIN	SET	1
72	WASHER SPACER	SET	1
73	RUBBER INSERT	SET	1
74	BOLT KNOCK 5X12	SET	1
75	PIN	SET	1
76	PIN CAM CHAIN GUIDE ROLLER	SET	1
77	SEALING GASKET	SET	1
78	BOLT	SET	1
79	SEALING PLUG	SET	1
80	CROSS RECESSED PAN HEAD SCREW	SET	1
81	SOCKET HEAD CAP SCREW	SET	1
82	CROSS RECESSED COUNTERSUNK HEAD SCREW	SET	1
83	NUT HEX M8	SET	1
84	NUT HEX M7	SET	1
85	WASHER SPACER 7MM	SET	1
86	DOWEL PIN	SET	1
87	OIL GAUGE SEALING RING	SET	1
88	CLAMPER HIGH TENSION WIRE	SET	1
89	CLAMPER TUBE	SET	1
90	SPARKLE	SET	1
91	OIL SEAL	SET	1
92	CRANKSHAFT COMP	SET	1
93	STARTING MOTOR	SET	1
94	MAGNETIC MOTOR	SET	1
95	CLEANER ASSY AIR	SET	1
96	CARBURETOR	SET	1
	BODY		
97	BODY COMP FRAME	SET	1
98	STAY TOP COVER FR	SET	1
99	REAR MUDGUARD BRACKET	SET	1
100	NUMBER PLATE LAMP BRACKET	SET	1
101	HALF MOON HANGING BOARD	SET	1
102	HEADLIGHT HOUSING	SET	1
103	COVER METER RR	SET	1
104	FRONT PANEL	SET	1
105	FENDER CENTER FRONT	SET	1
106	FENDER CENTER REAR	SET	1
107	SHIELD L LEG	SET	1
108	SHIELD R LEG	SET	1
109	COVER FRONT CENTER	SET	1
110	COVER REAR CENTER	SET	1
111	COVER BODY L	SET	1
112	COVER BODY R	SET	1
113	COVER BODY BELOW L	SET	1
114	COVER BODY BELOW R	SET	1
115	TAIL COVER	SET	1
116	FENDER RR	SET	1
117	CLOSE STOOL	SET	1
118	COVER BATTERY	SET	1
119	SEDIMENT COVER	SET	1
120	OIL-BOX SHIELD	SET	1
121	BAR COMP STEP	SET	1
122	MAIN STATION	SET	1
123	OBLIQUE FOOT	SET	1
124	PUNCH BOLT	SET	1
125	NUT	SET	1
126	RETURN SPRING	SET	1

PER UNIT CONSUMPTION

(XV) K-pop

Sr. No.	Particulars	A/U	Consumption
127	FLAT FORK	SET	1
128	MAIN STATION FRAME RETURN SPRING	SET	1
129	SWITCH SPRING	SET	1
130	REAR BRAKE RETURN SPRING	SET	1
131	MAIN STATION FRAME ADHESIVE	SET	1
132	BOLT	SET	1
133	SCREW	SET	1
	AXLES		
134	SPROCKET WHEEL	SET	1
135	BOLT	SET	1
136	SEAL SET FORK FR	SET	1
137	BOLT LOCK	SET	1
138	PANEL COMP BRAKE RR	SET	1
139	SHOE SET BRAKE	SET	1
140	ARM BRAKE RR	SET	1
141	CAM BRAKE RR	SET	1
142	SPRING	SET	1
143	DUST SEAL	SET	1
144	INDICATOR BRAKE FR	SET	1
145	NUT	SET	1
146	WASHER	SET	1
147	BRAKE PUMP-UPPER	SET	1
148	BRAKE PUMP-BELOW	SET	1
149	BRAKE MOUNTING SEAT	SET	1
150	FRONT BRAKE LEVER	SET	1
151	SWITCH	SET	1
152	OIL TUB	SET	1
153	TUBING MOUNTING CLAMP	SET	1
154	OIL PIPE CLAMP	SET	1
155	DISC BRAKE FR	SET	1
156	SHAFT BRAKE PIVOT RR	SET	1
157	AXLE WHEEL FR	SET	1
158	AXLE WHEEL RR	SET	1
159	BOLT SWINGARM PIVOT	SET	1
160	COLLAR FR WHEEL SIDE R	SET	1
161	COLLAR RR BRAKE PANEL SIDE L	SET	1
162	COLLAR RR BRAKE PANEL SIDE R	SET	1
163	ADJUSTER, CHAIN	SET	1
164	REAR BRAKE PEDAL	SET	1
165	REAR BRAKE TIE ROD	SET	1
166	PACKING CASE RUBBER SLEEVE	SET	1
167	PACKING, DRIVE CHAIN CASE	SET	1
168	CHAIN BOX	SET	1
169	CHAIN	SET	1
	SUSPENSION GROUP		
170	SPRING FORK FR	SET	1
171	PIPE COMP FORK FR	SET	1
172	SPRING	SET	1
173	CASE L BOTTOM FR	SET	1
174	DUST SEAL	SET	1
175	SCREW CAP	SET	1
176	SEAL SET FORK FR	SET	1
177	PIPE SEAT	SET	1
178	CASE R BOTTOM FR	SET	1
179	SPRING FORK RR	SET	1
180	RUBBER	SET	1
181	RESISTANCE DEVICE	SET	1
182	MOUNTING SEAT	SET	1
183	PISTON	SET	1
184	GLUE	SET	1
185	RUBBER PAD	SET	1
186	NUT	SET	1
	STEERING		
187	DIRECTIONAL COLUMN EXPANSION PAD	SET	1

ATTACHMENT (21)(C)

PER UNIT CONSUMPTION

(XV) K-pop

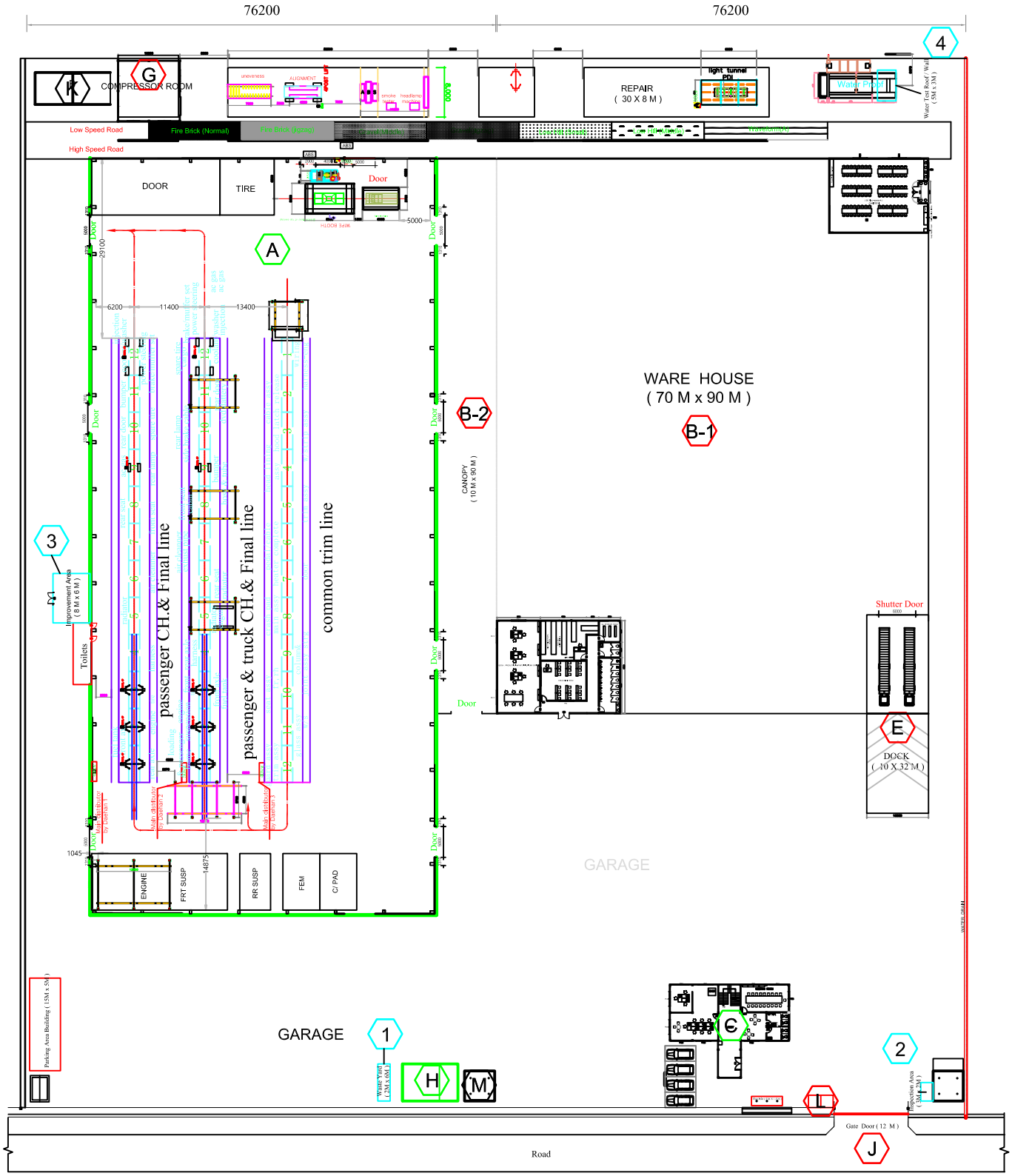
Sr. No.	Particulars	A/U	Consumption
188	GRIP COMP THROTTLE	SET	1
189	GRIP HANDLE L	SET	1
190	WEIGHT B, STEERING HANDLE	SET	1
191	RACE-STEERING TOP BALL	SET	1
192	RACE-STEERING BOTTOM BALL	SET	1
193	RACE-STEERING TOP CONE	SET	1
194	RACE-STEERING BOTTOM CONE	SET	1
195	UPPER BEARING ASSY	SET	1
196	LOWER BEARING ASSY	SET	1
197	DIRECTIONAL COLUMN RISER COMBINATION	SET	1
198	LOCK NUT	SET	1
199	ADJUSTING NUT	SET	1
200	LIMIT CARD PAD	SET	1
201	DUST PAD	SET	1
202	DUST SEAL-STEERING HEAD	SET	1
203	HANDLE PIPE	SET	1
	EXHAUST SYSTEM		
204	MUFFLER ASSY	SET	1
205	NUT	SET	1
	WHEELS & TYRES		
206	HUB SUB ASSY FR	SET	1
207	HUB SUB ASSY RR	SET	1
208	BUFFER BODY	SET	1
209	FRONT RIM 1	SET	1
210	FRONT SPOKE 36 PCS 10 X 184	SET	1
211	REAR RIM 1	SET	1
212	REAR SPOKE 36 PCS 10 X 161	SET	1
213	FRONT TIRE 60/95-17	SET	1
214	FRONT TIRE TUBE 2	SET	1
215	REAR TIRE 70*90-17	SET	1
216	REAR TIRE TUBE 2	SET	1
	SEAT		
217	SEAT LOCK	SET	1
218	RUBBER	SET	1
219	SEAT LEATHER	SET	1
220	SEAT FOAM	SET	1
221	SEAT BOTTOM	SET	1
222	RUBBER SEAL	SET	1
223	CUSHION	SET	1
224	LOCK CATCH	SET	1
225	NUT	SET	1
226	HINGE	SET	1
	TRIMMING		
227	IGNITER (CDI)	SET	1
228	VOLTAGE REGULATOR RECTIFIER	SET	1
229	RELAY COMP-WINKER	SET	1
230	IGNITION COIL	SET	1
231	RELAY COMP STARTER	SET	1
232	HORN COMP	SET	1
233	TANK COMP FUEL	SET	1
234	BRACKET	SET	1
235	CLAMP	SET	1
236	LEG SHIELD	SET	1
237	RAIL GRAB RR	SET	1
238	WIRE HARNESS	SET	1
239	MIRROR COMP L	SET	1
240	MIRROR COMP R	SET	1
241	SWITCH HEADLIGHT	SET	1
242	SWITCH STARTER	SET	1
243	SWITCH WINKER	SET	1
244	SWITCH DIMMER	SET	1
245	SWITCH HORN	SET	1
246	SWITCH CHOKE	SET	1
247	SWITCH HANDLE	SET	1

ATTACHMENT (21)(D)

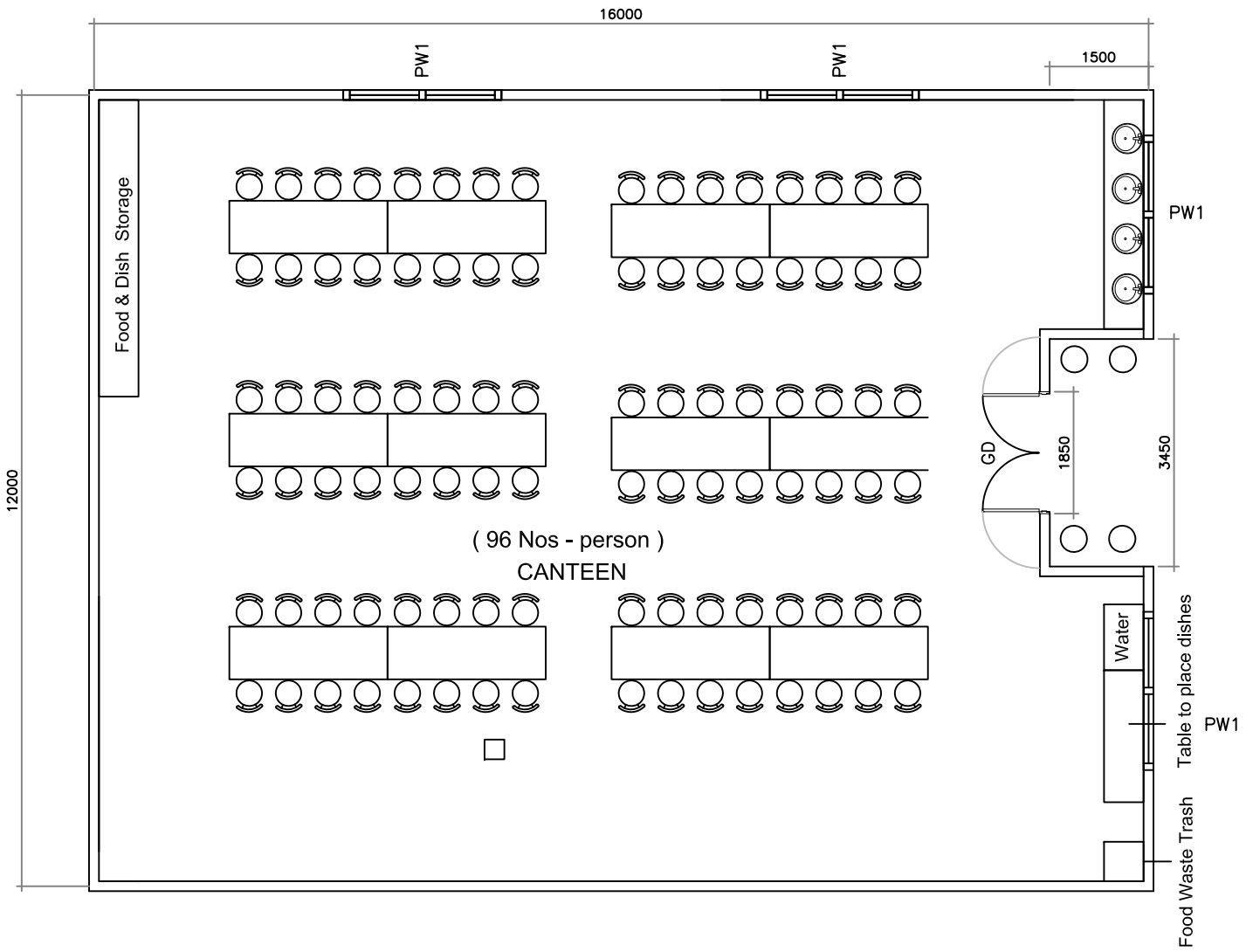
PER UNIT CONSUMPTION

(XV) K-pop

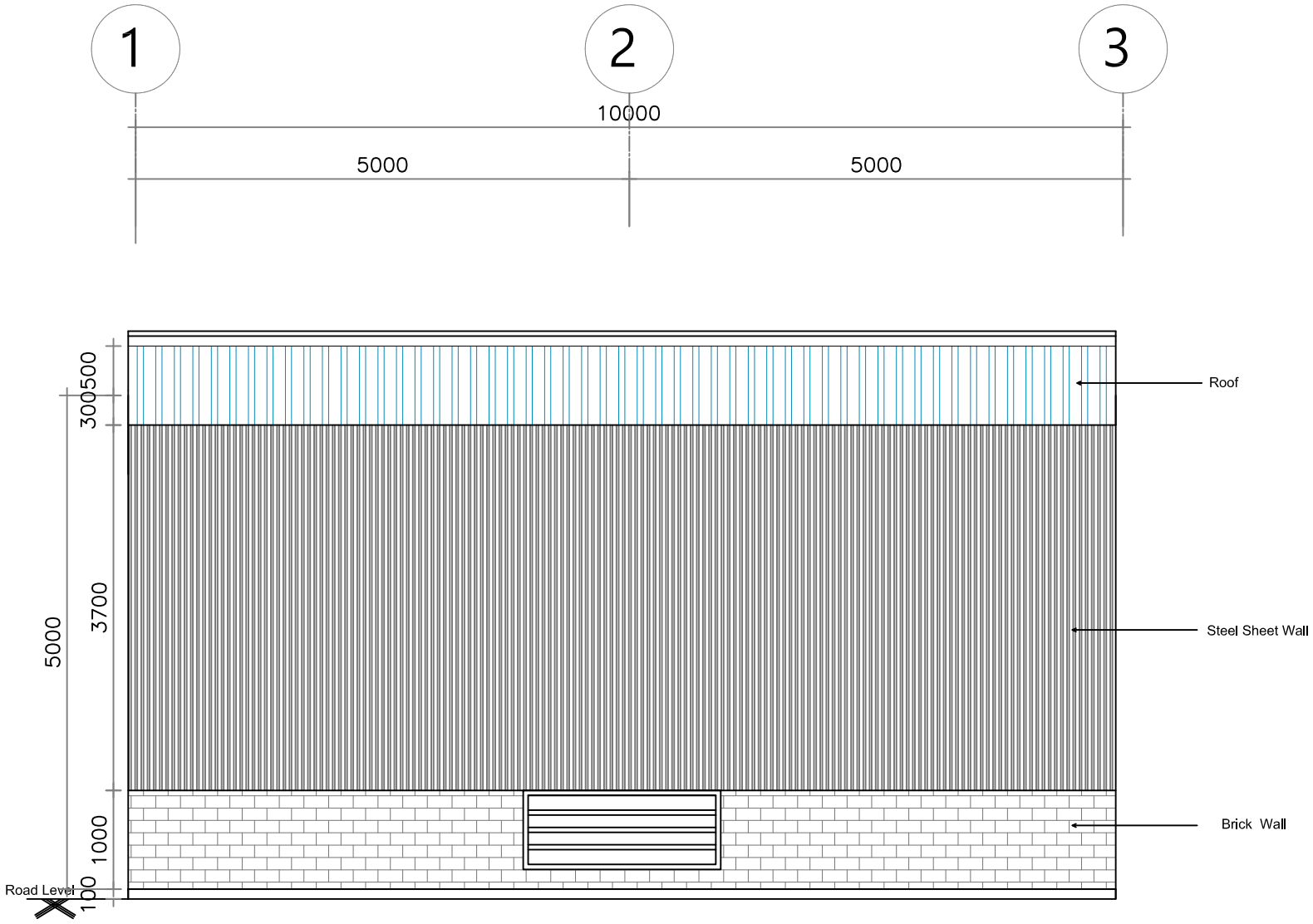
Sr. No.	Particulars	A/U	Consumption
248	BUTTERFLY WASHER	SET	1
249	OILER SEAT	SET	1
250	SHELL	SET	1
251	SOCKET COMP HEADLIGHT	SET	1
252	BULB-HEADLIGHT	SET	1
253	BULB-WINKER	SET	1
254	STEERING LIGHT HARNESS L	SET	1
255	STEERING LIGHT BULB	SET	1
256	STEERING LIGHT HARNESS R	SET	1
257	TAIL-LIGHT HOUSING	SET	1
258	REAR WINKER LENS L	SET	1
259	REAR WINKER LENS R	SET	1
260	COVER-TAIL LIGHT	SET	1
261	BULB-TAIL LIGHT	SET	1
262	BULB WINKER LIGHT	SET	1
263	REFLECTOR	SET	1
264	LICENSE PLATE LAMP ASSY	SET	1
265	DECORATION FRONT PLATE	SET	1
266	LOCK SUITE	SET	1
267	SPEEDOMETER	SET	1
268	PISTON	SET	1
269	HOLDER PILLION STEP RL	SET	1
270	RUBBER STEP	SET	1
271	PIN	SET	1
272	PLATE PILLION STEP	SET	1
273	BAR PILLION STEP L	SET	1
274	HOLDER PILLION STEP RR	SET	1
275	RUBBER	SET	1
276	BAR PILLION STEP R	SET	1
277	THROTTLE CABLE	SET	1
278	DAMPER CABLE	SET	1
279	CABLE COMP-SPEEDOMETER	SET	1
280	BATTERY	SET	1
281	BASKET	SET	1
282	METER	SET	1
283	TOOL SET	SET	1
284	SENSOR ASSY	SET	1
285	COMPOSITE TUBING	SET	1
286	TUBING RETAINING RING	SET	1
287	CABLE TIES	SET	1
288	SCREW	SET	1
289	BOLT	SET	1
290	WASHER	SET	1
291	NUT	SET	1
292	CLIP	SET	1
293	COLLAR	SET	1
294	FUEL FILTER	SET	1
295	STICKER	SET	1



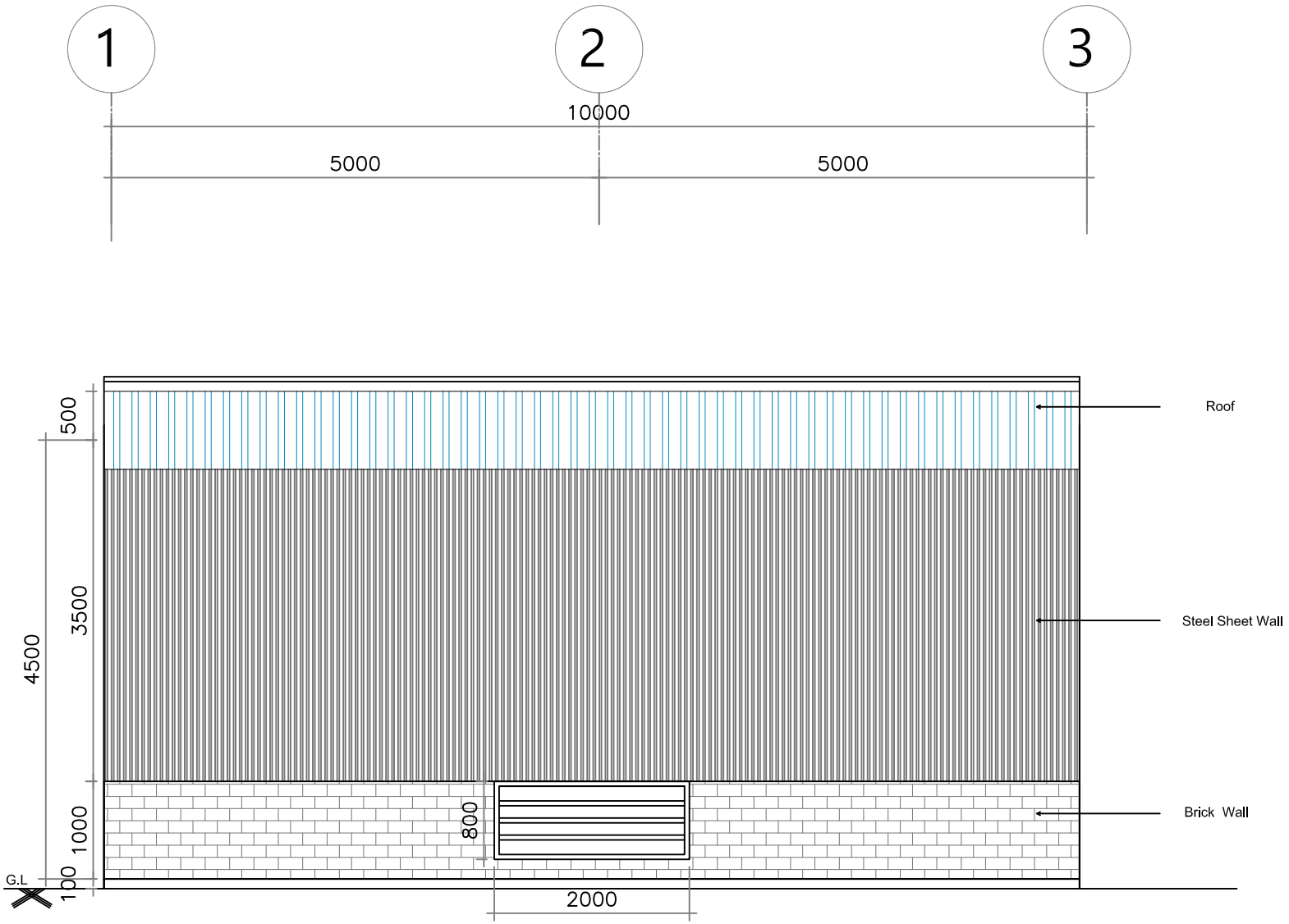
SKD FACTORY LAYOUT



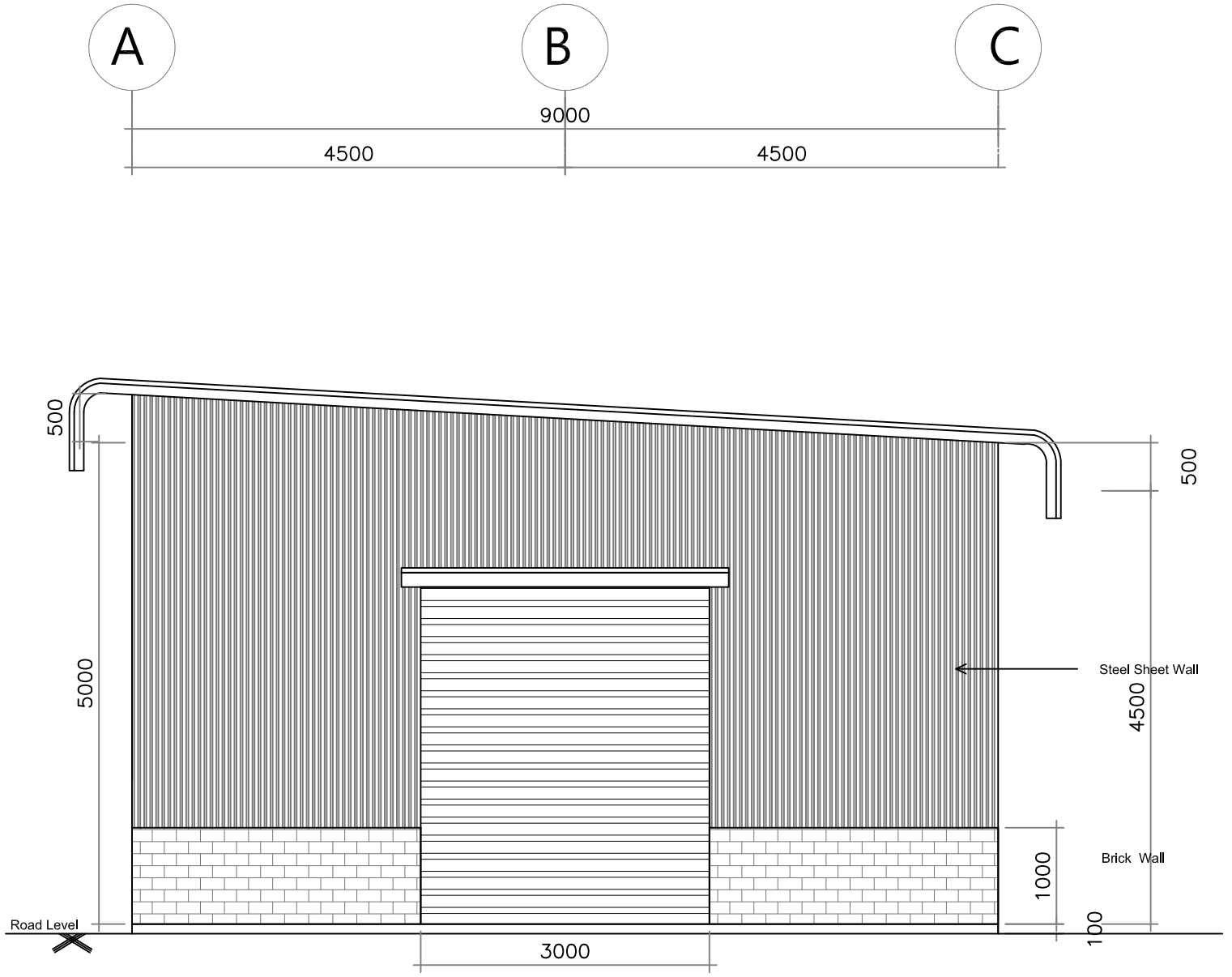
CANTEEN FLOOR PLAN



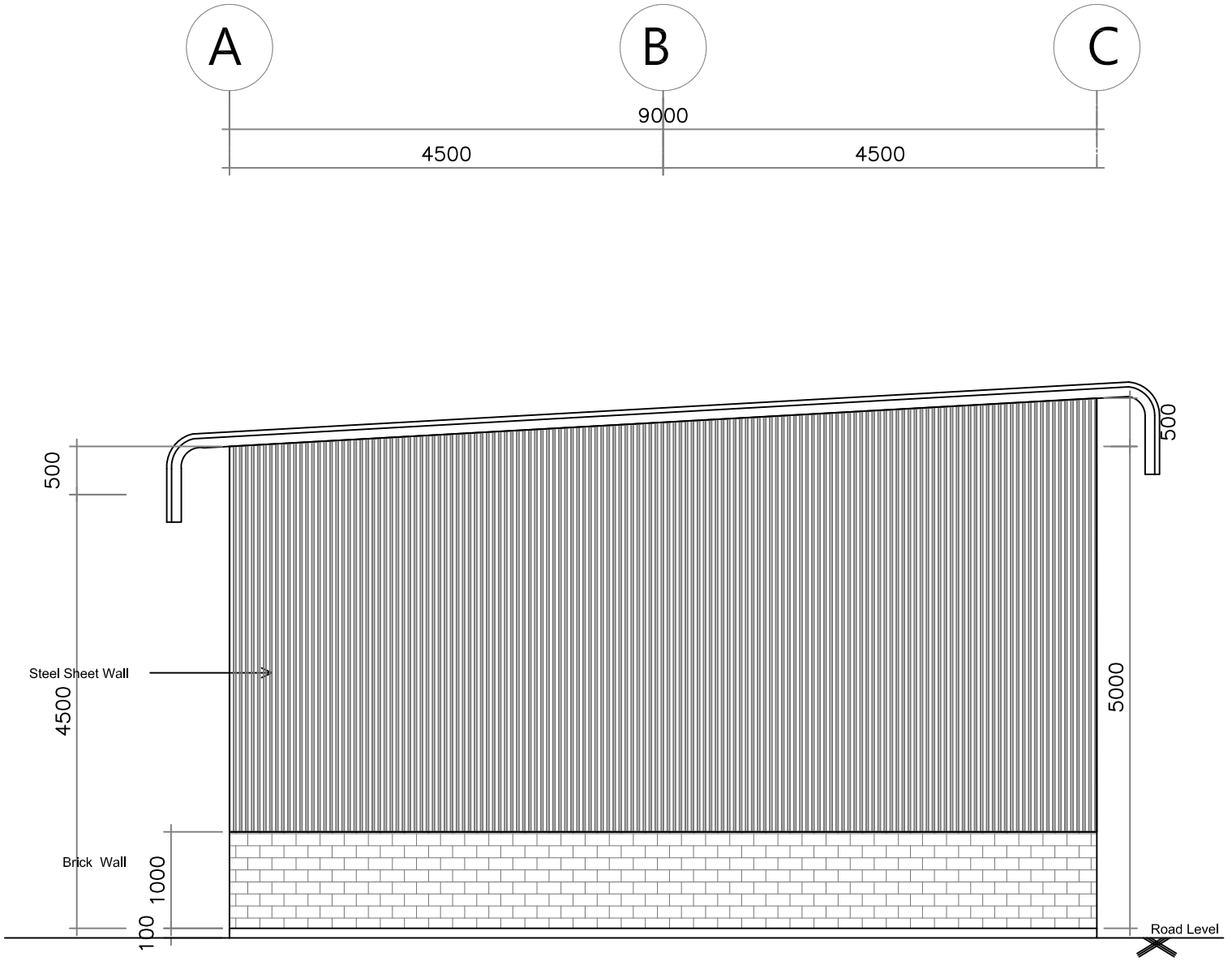
COMPRESSOR ROOM FRONT ELEVATION



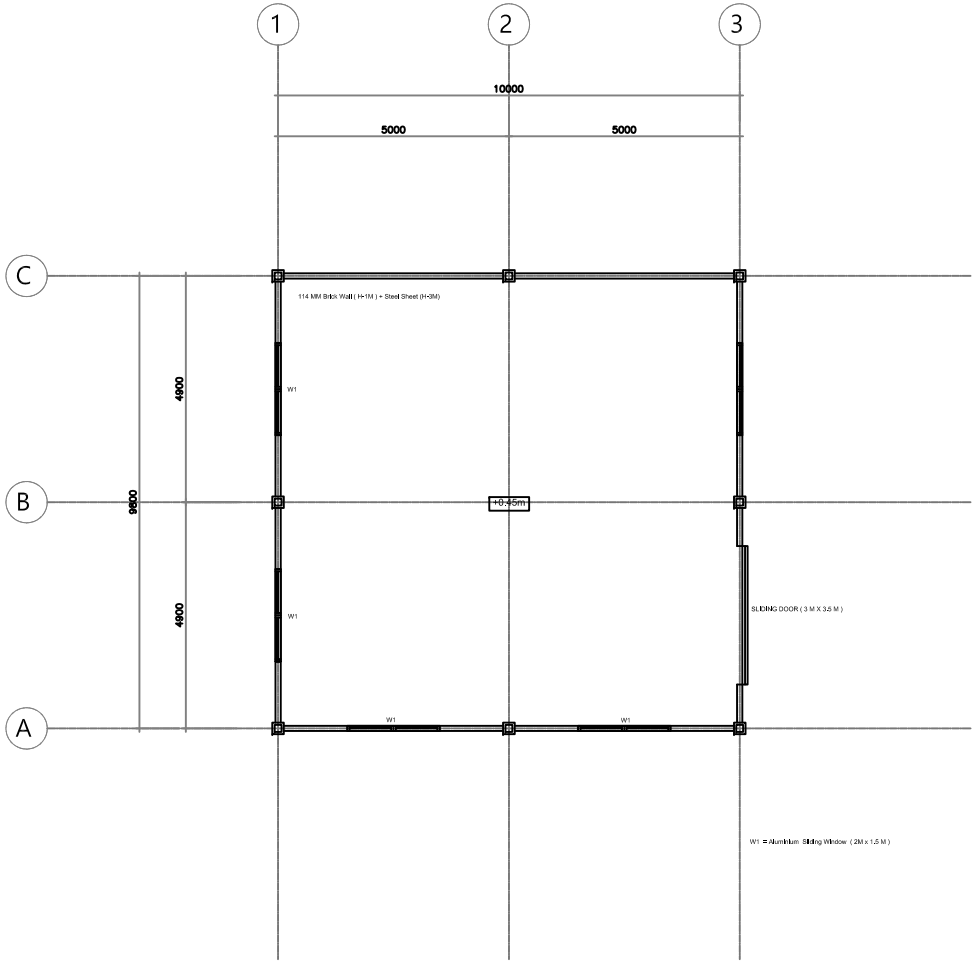
COMPRESSOR ROOM BACK ELEVATION



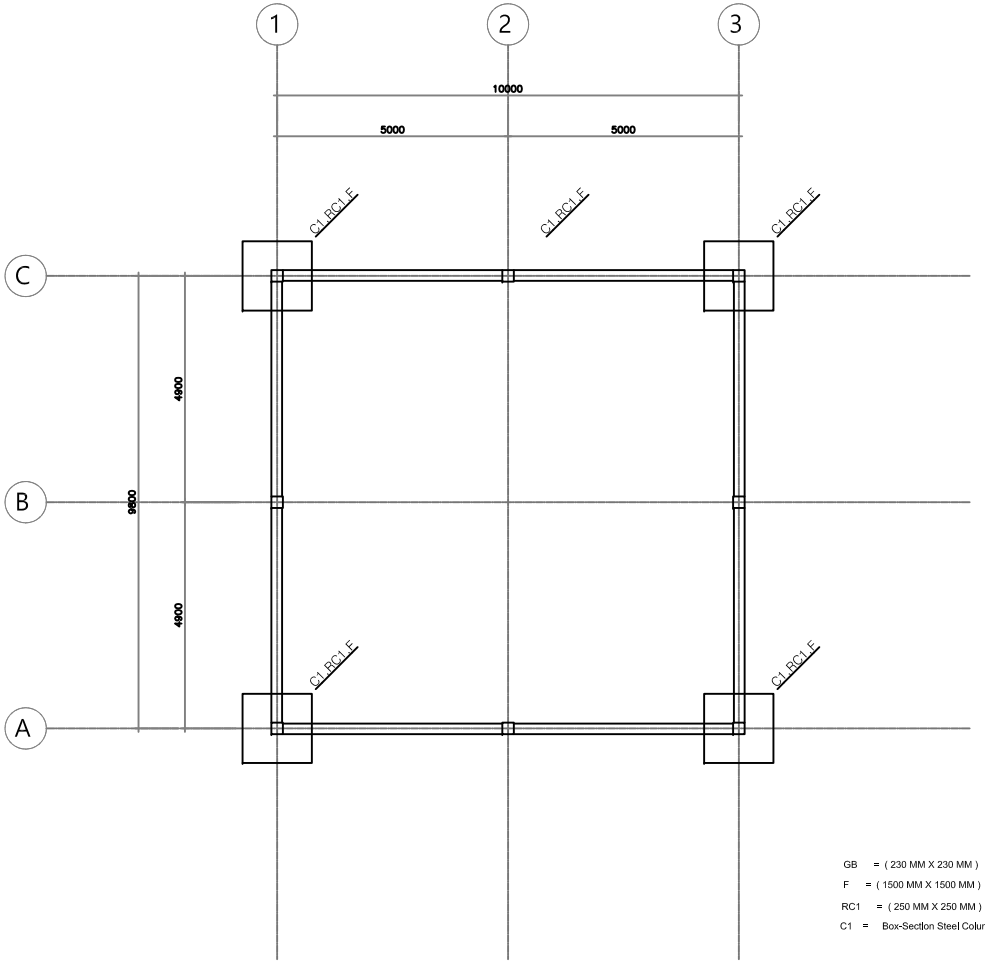
COMPRESSOR ROOM LEFT-SIDE ELEVATION



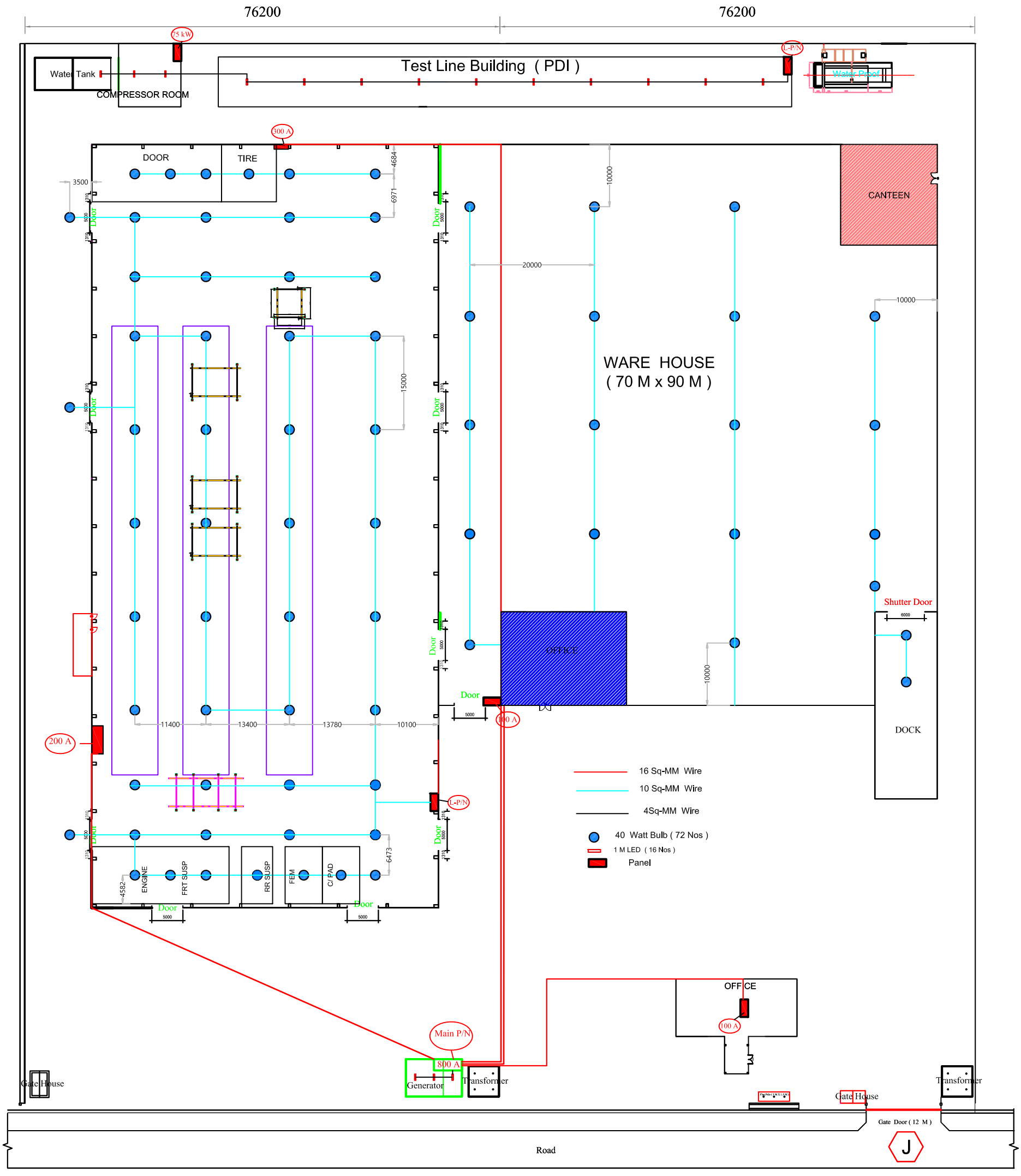
COMPRESSOR ROOM RIGHT-SIDE ELEVATION



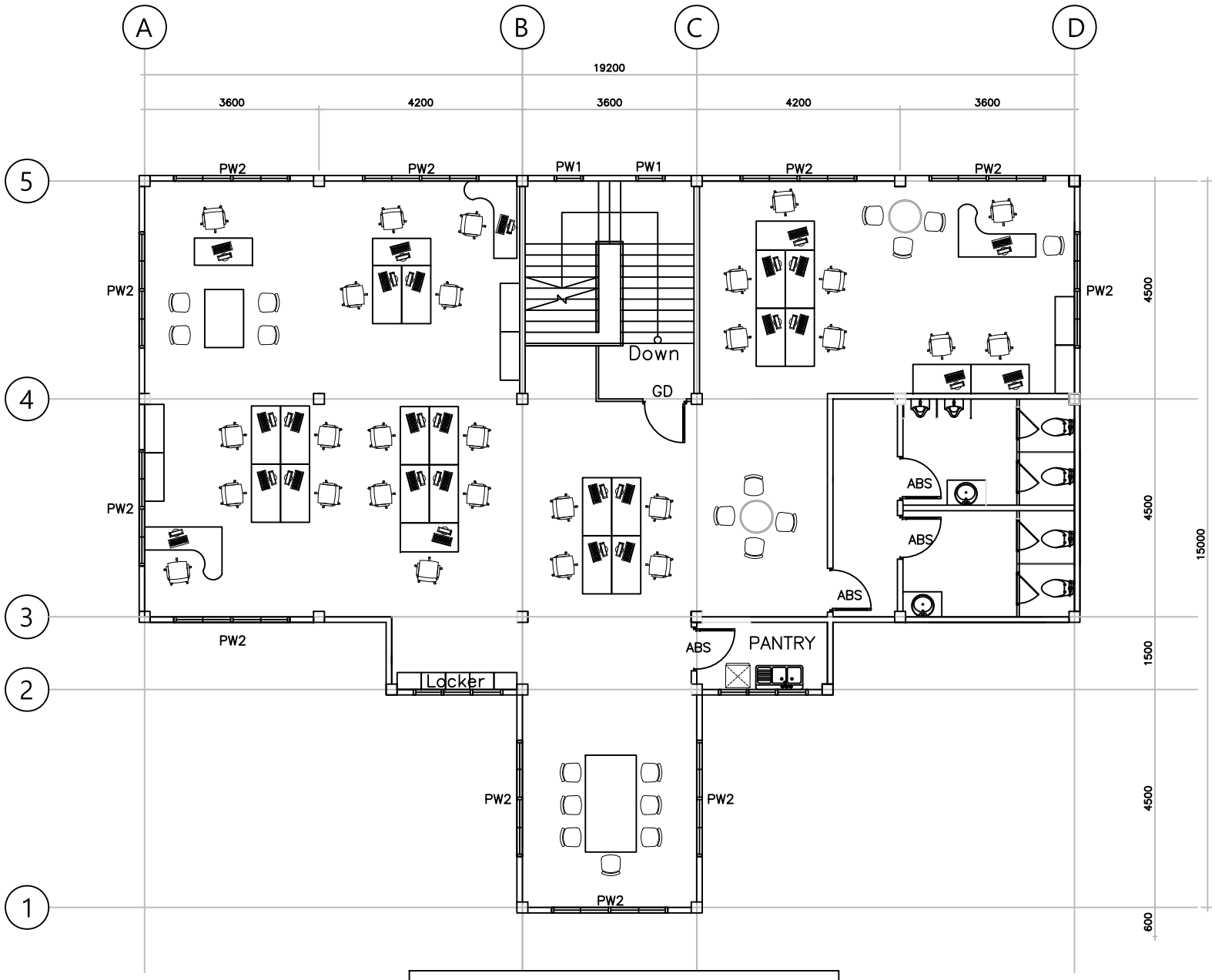
COMPRESSOR ROOM GROUND FLOOR PLAN



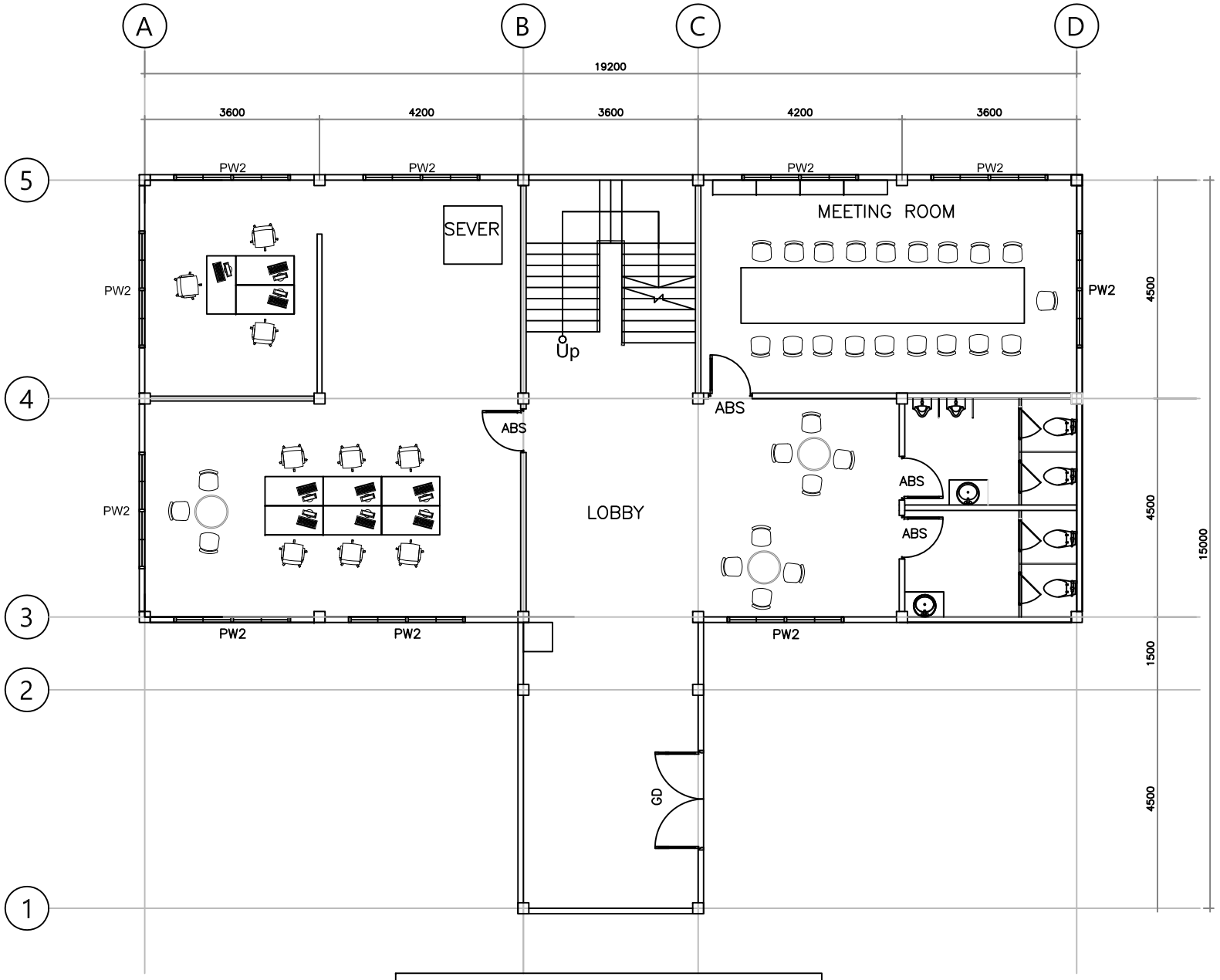
COMPRESSOR ROOM FOUNDATION PLAN



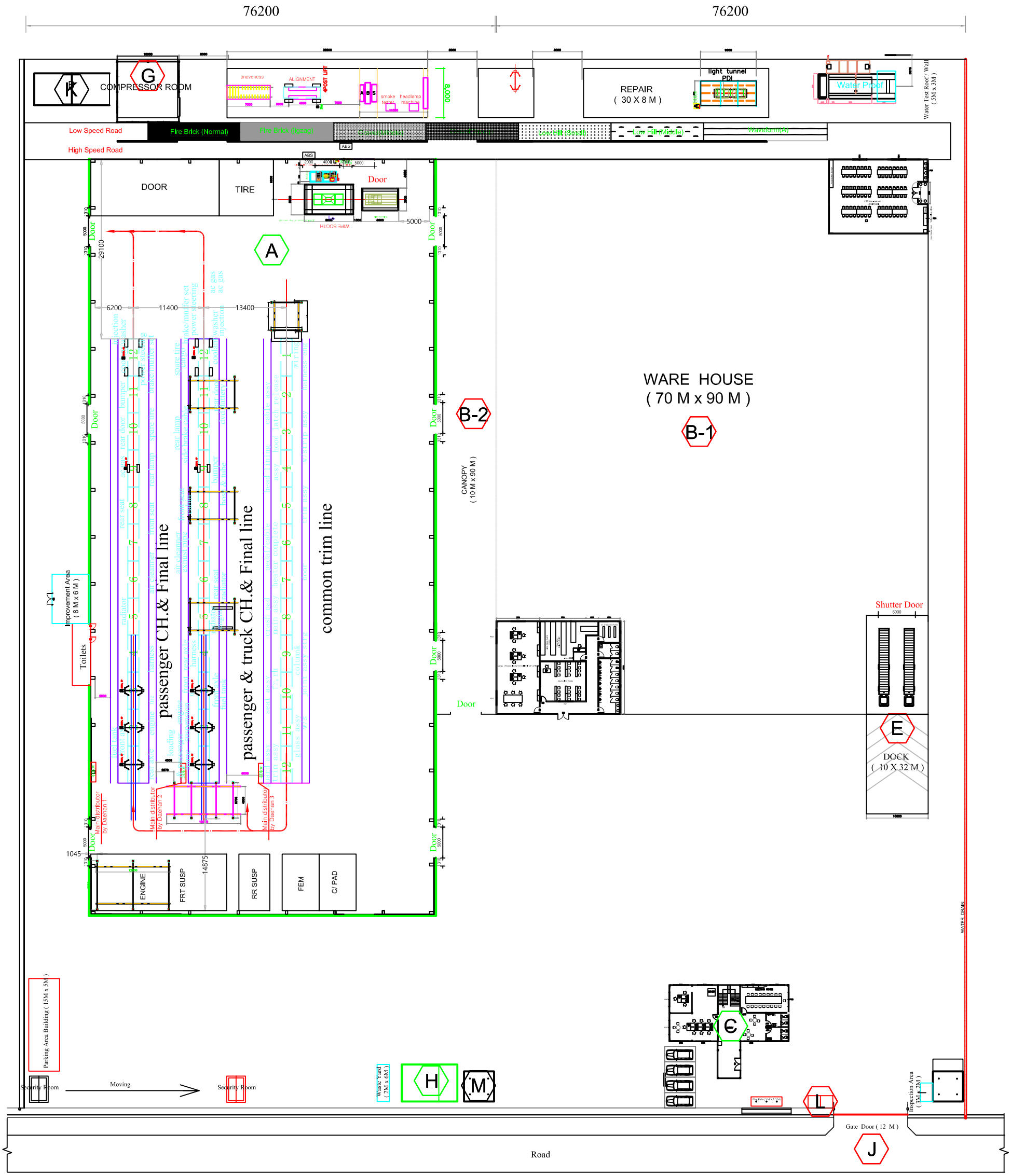
BUILDING ELECTRIC LAYOUT



OFFICE FIRST FLOOR PLAN



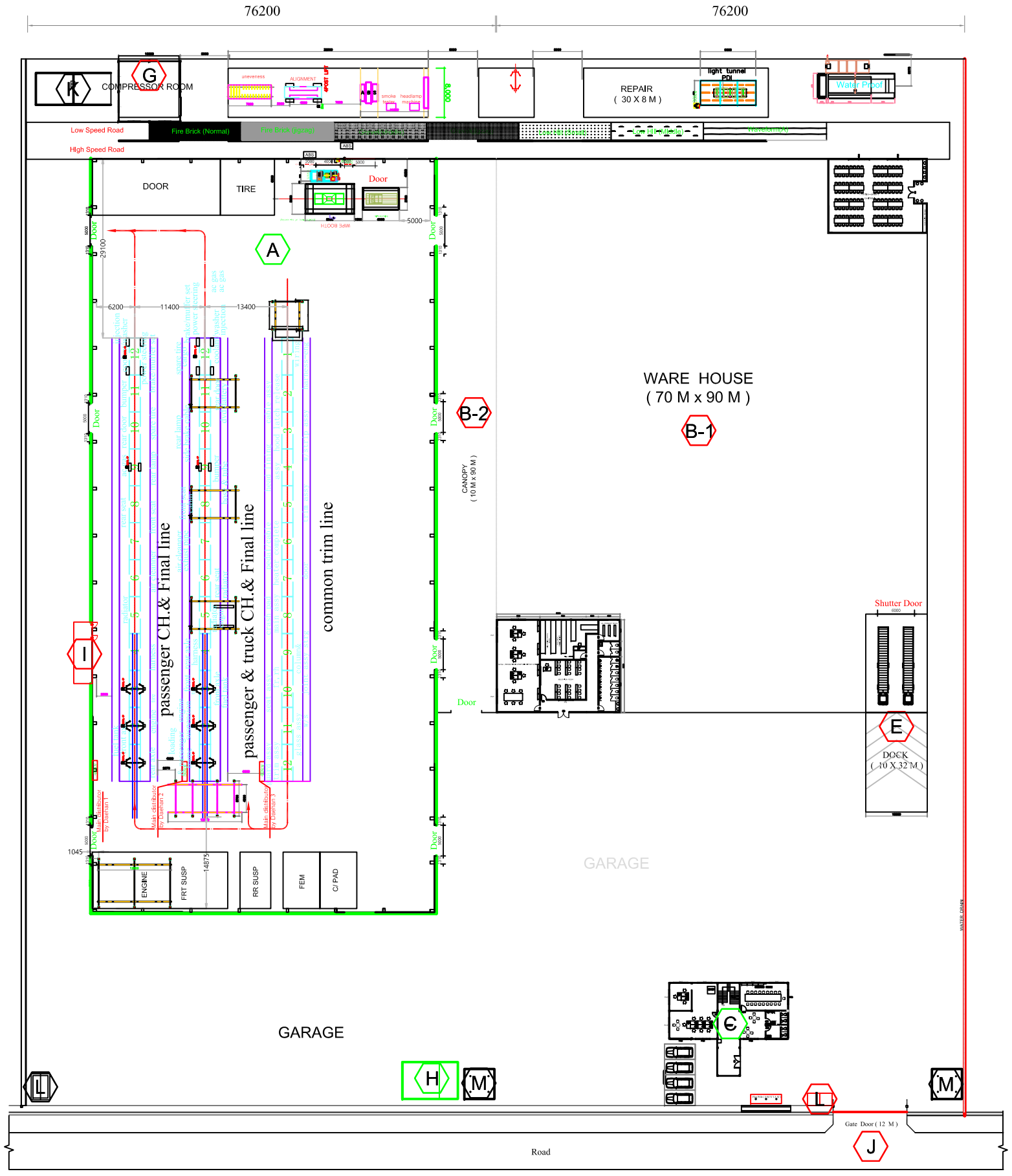
OFFICE GROUND FLOOR PLAN



SECURITY ROOM MOVING LOCATION LAYOUT

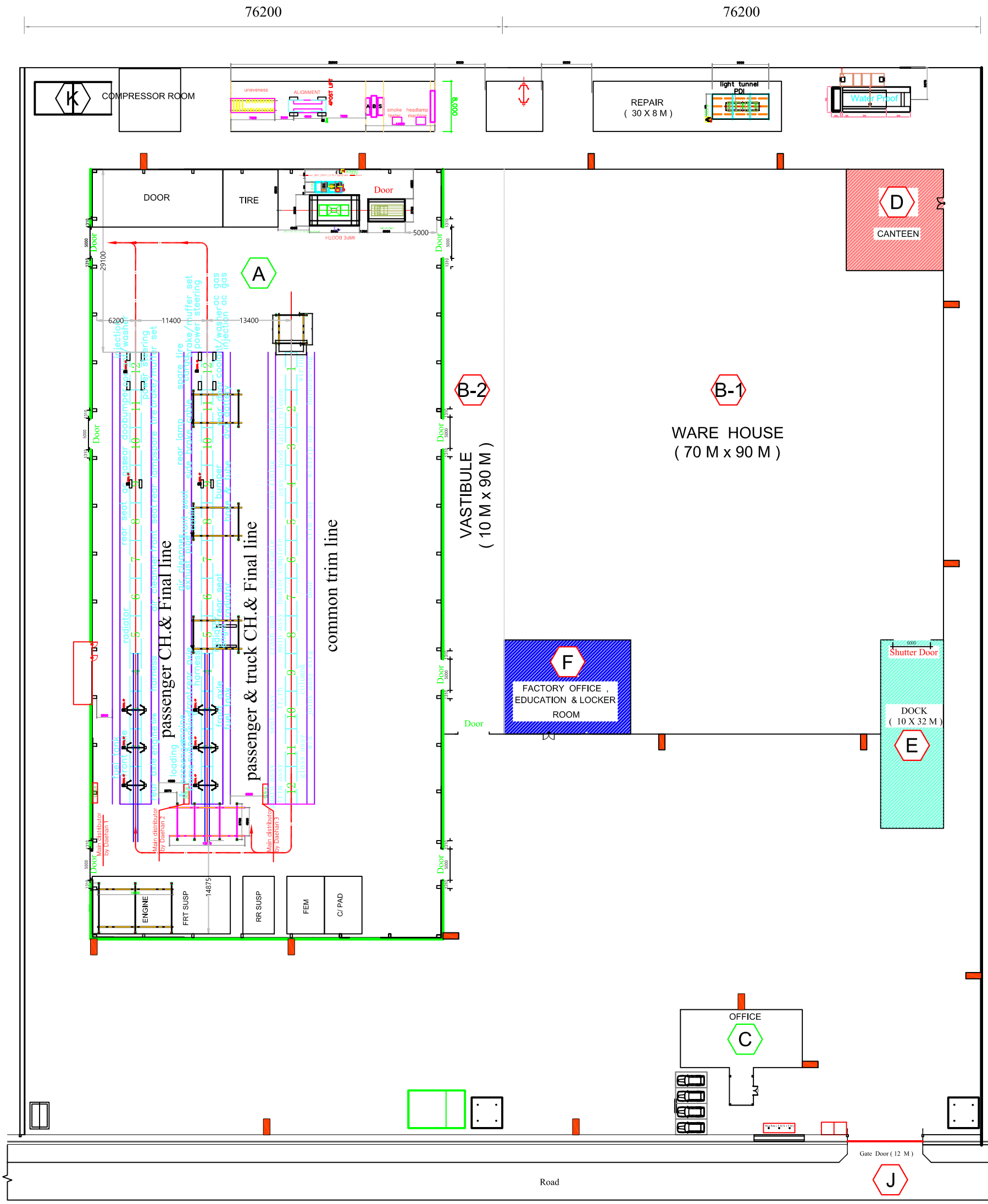
AFTER

A	FACTORY (54.88 M X 121.92 M)	- 6691 Sq-M
B-1	WARE HOUSE (70 M X 90 M)	- 6,300 Sq- M
B-2	VESTIBULE (JOINT WITH BUILDING A) (10M X 90M)	- 900 Sq- M
C	OFFICE (19.2 M X 9 M) (Finishing Work)	- 453.6 Sq- M
D	CANTEEN (12 M X 16 M)	- 180 Sq- M
E	DOCK (32 M X 10 M)	- 320 Sq- M
F	FACTORY OFFICE , EDUCATION & LOCKER ROOM (20 M X 15 M)	- 300 Sq- M
G	COMPRESSOR ROOM (9.8 M X 10 M)	- 98 Sq- M
H	UTILITY & GENERATOR ROOM (6 M x 9 M)	- 54 Sq- M
I	TOILETS ROOM (8 M X 3 M)	- 24 Sq- M
J	GATE DOOR (12 M)	
K	OVERHEAD TANK, GROUND TANK (12.19 M x 5.18 M)	- 63 Sq- M
L + L	GATE HOUSE (4 M X 3 M) + GATE HOUSE (4 M X 2 M)	- 20 Sq- M
M	TRANSFORMER (2 Nos) (5 M X 5 M)	- 50 Sq- M
	TEST ROAD (6 M X 150 M)	- 900 Sq- M

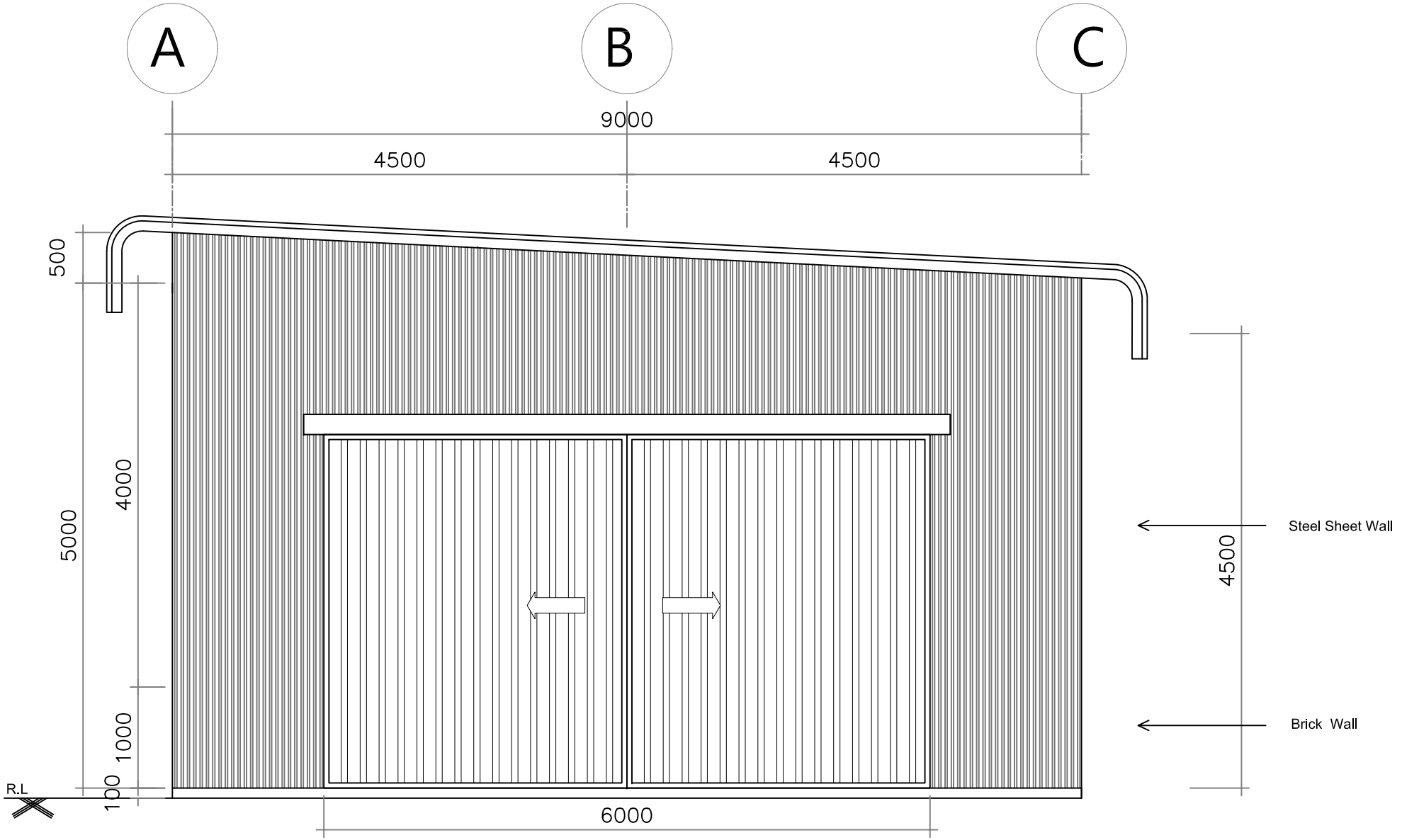


SKD FACTORY LAYOUT

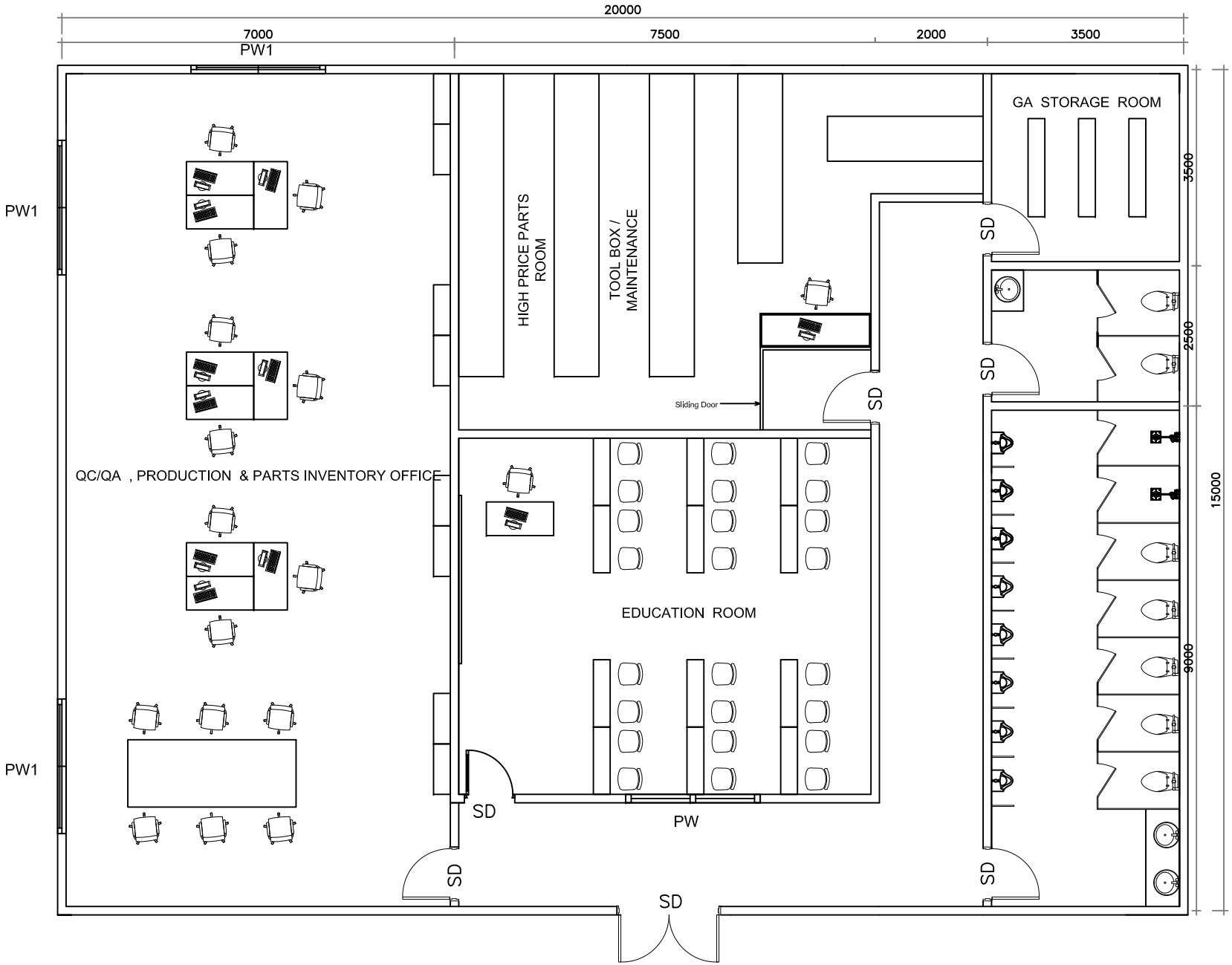
Street Lamp 16 Nos



STREET LAMP LAYOUT



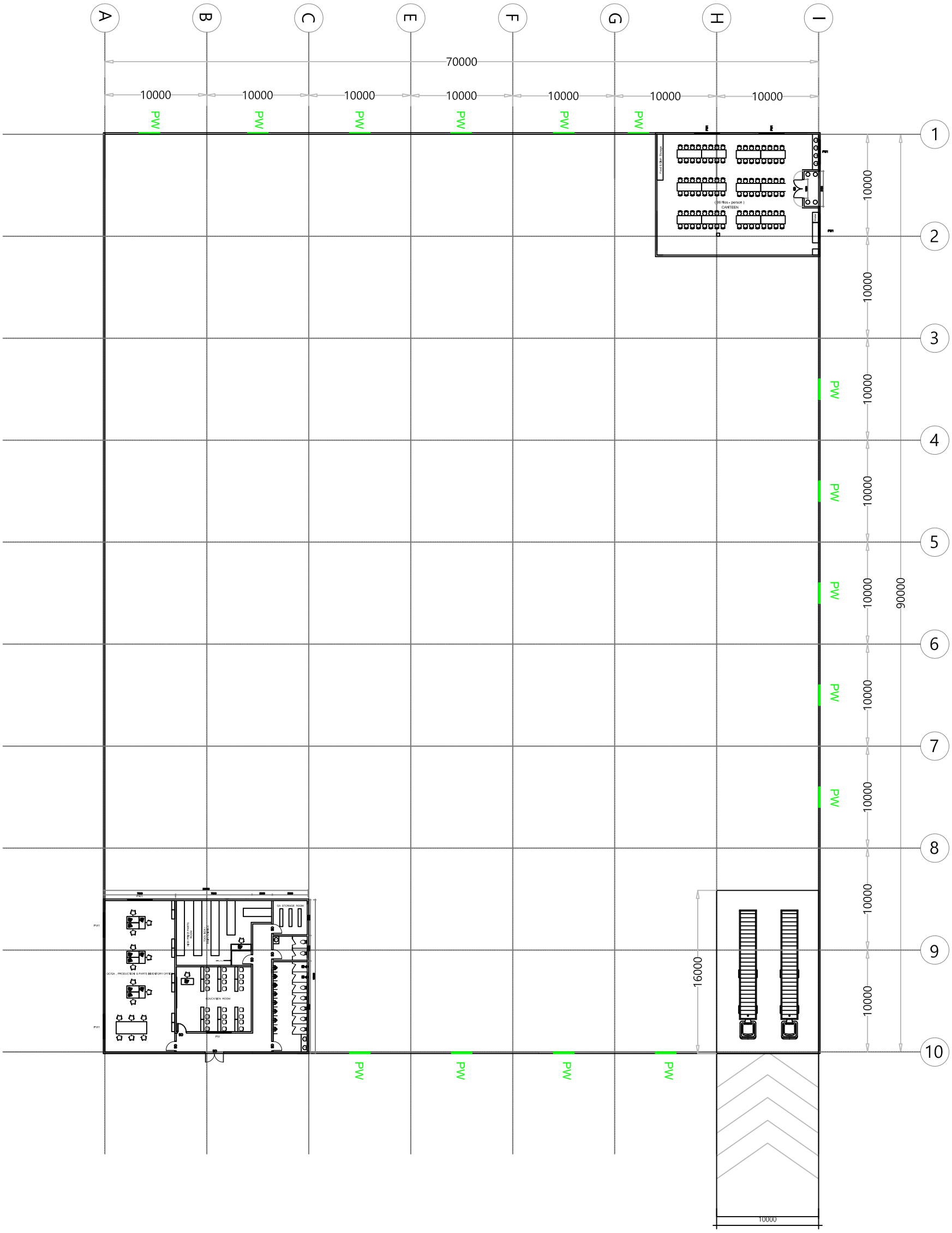
PDI SIDE ELEVATION



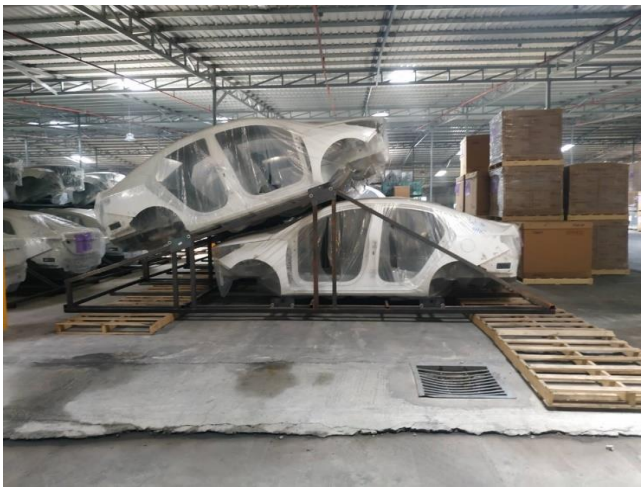
PW 1 - (2 .4 M x 1.8 M)

FACTORY OFFICE, LOCKER & EDUCATION ROOM GROUND FLOOR PLAN

AFTER



WAREHOUSE (70M X 90M) GROUND FLOOR PLAN





အထက်ပါပုံတွင် ပါဝင်သည့် သံဖရိန် ၊ စက္ကူကတ်ထူပုံး ၊ သစ်သား pallets ၊ ပလတ်စတစ်အိတ်တို့ကို သံရောင်းဝယ်ရေး၊ သစ်သားရောင်းဝယ်ရေးနှင့် ပလတ်စတစ်အိတ် အရောင်းအဝယ်လုပ်သည့်ကုမ္ပဏီသို့ အားလုံးပြန်ရောင်းပါသည်၊

Purchaser Company Name - Sonamu Engineering Company
Building No. 26, Room No.(103) , Htee Hlaing Shin Villa,
Hlaing Thar Yar Township, Yangon.
09-75351197, 09-750309746, Email. ja080922@gmail.com

စွန့်ပစ်ပစ္စည်းများကို စုဆောင်း သိုလှောင်ခြင်း မရှိပဲ ဝယ်ယူသည့်ကုမ္ပဏီမှနေ့စဉ်လာရောက်သိမ်းယူပါသည်။







အရောင်းအဝယ်လုပ်သည့်ကုမ္ပဏီမှ စွန့်ပစ်ပစ္စည်းများကို သယ်ယူနေပုံ

ဖိတ်ကြားလွှာ

Shwe Daehan Motors Co., Ltd.

မော်တော်ယာဉ်နှင့်မော်တော်ဆိုင်ကယ် တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့် ရောင်းချပြီးနောက်ပိုင်း ဝန်ဆောင်မှုပေးခြင်းလုပ်ငန်း စီမံကိန်းနှင့် ပတ်သက်သော ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း အစီအရင်ခံစာ (နယ်ပယ်အတိုင်းအတာသတ်မှတ်ခြင်းအဆင့်) အတွက်လိုအပ်သော စီမံကိန်းနှင့်သက်ဆိုင်သူများနှင့် တွေ့ဆုံဆွေးနွေးခြင်း (Stakeholder Meeting) အခမ်းအနား

Shwe Daehan Motors Co., Ltd သည်မော်တော်ယာဉ်နှင့်မော်တော်ဆိုင်ကယ် တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့် ရောင်းချပြီးနောက်ပိုင်း ဝန်ဆောင်မှုပေးခြင်းလုပ်ငန်း စက်ရုံကို သာဓုကန်စက်မှုဇုံအတွင်းရှိ မြေကွက်အမှတ် (၆၉-၇၀)၊ မဟူရာလမ်း၊ မြေတိုင်းရပ်ကွက်အမှတ်-၅၀ တွင်တည်ဆောက်လျက်ရှိပါသည်။ အဆိုပါစီမံကိန်း နှင့် ပတ်သက်သော ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း အစီရင်ခံစာကို **Resource and Environment Myanmar Co., Ltd. (REM)** နှင့် တွဲဖက်လုပ်ဆောင်လျက်ရှိပါသည်။ သို့ဖြစ်ပါ၍ ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းအစီရင်ခံစာ (နယ်ပယ်အတိုင်းတာသတ်မှတ်ခြင်းအဆင့်) အတွက်လိုအပ်သော စီမံကိန်းနှင့် သက်ဆိုင်သူများအား တွေ့ဆုံဆွေးနွေးခြင်း (Stakeholder Meeting) အခမ်းအနားများကို အောက်ဖော်ပြပါ အစီအစဉ်အတိုင်း ဆောင်ရွက်မည် ဖြစ်ပါသဖြင့် တက်ရောက်ဆွေးနွေးပေးပါရန် လေးစားစွာ ဖိတ်ကြားအပ်ပါသည်။

ရက်စွဲ။ ။၂၀၁၈ခုနှစ် ဒီဇင်ဘာလ(၁၄)ရက်၊ သောကြာနေ့
အချိန်။ ။ နံနက် (၉း၀၀)နာရီ မှ (၁၁း၀၀) နာရီထိ
နေရာ။ ။ အမှတ် ၆၉-၇၀၊ မြေတိုင်းရပ်ကွက်အမှတ်-၅၀ မဟူရာလမ်း၊ သာဓုကန်စက်မှုဇုန်၊ ရွှေပြည်သာမြို့နယ်

ဖိတ်ကြားလွှာ

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Shwe Daehan Motors Company Limited





မော်တော်ယာဉ်နှင့် မော်တော်ဆိုင်ကယ် တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်း နှင့် ရောင်းချပြီးနောက်ပိုင်း ဝန်ဆောင်မှုပေးခြင်းလုပ်ငန်း စီမံကိန်း

ရွှေဒယ်ဟန် မော်တာကုမ္ပဏီလီမိတက်သည် နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှု ၁၀၀ ရာခိုင်နှုန်း ဖြင့် မော်တော်ကားနှင့်မော်တော်ဆိုင်ကယ် တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်း နှင့်ရောင်းချပြီးနောက်ပိုင်းဝန်ဆောင်မှုပေးခြင်းလုပ်ငန်းများ လုပ်ဆောင်ရန်အတွက် မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင်မှ ထုတ်လုပ်မှုလုပ်ငန်း ခွင့်ပြုမိန့်ရယူခဲ့ပါသည်။

တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်း နှင့်ရောင်းချပြီး နောက်ပိုင်း ဝန်ဆောင်မှုပေးခြင်း လုပ်ငန်း စက်ရုံကို ရွှေပြည်သာမြို့ နယ်၊ သာဓုကန်စက်မှုဇုန်အတွင်းရှိ မြေကွက်အမှတ် ၆၉-၇၀၊ မဟူရာလမ်း၊ မြေတိုင်းရပ်ကွက်အမှတ် ၅၀ တွင် တည်ဆောက်လျက်ရှိပါသည်။ စုစုပေါင်း မြေဧရိယာအကျယ်အဝန်းမှာ ၆.၃၇ ဧက ကျယ်ဝန်းပါသည်။

Resource and Environment Myanmar Co., Ltd. မှ စီမံကိန်းရေရှည် ဖွံ့ဖြိုးတိုးတက်ရန် အတွက် သဘာဝပတ်ဝန်းကျင်နှင့် လူမှုရေးရာ ထိခိုက်မှုဆန်းစစ်ခြင်း လုပ်ငန်းကို လုပ်ဆောင်ပေးလျက် ရှိပါသည်။

ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်လေ့လာခြင်း၏ရည်ရွယ်ချက်မှာ စီမံကိန်းဆောင် ရွက်ချက်များကြောင့် ဖြစ်ပေါ်လာနိုင်သော ဇီဝ၊ ရုပ်ပိုင်းဆိုင်ရာနှင့် လူမှုစီးပွားရေး ဆိုင်ရာ ပတ်ဝန်းကျင်အပေါ် သက်ရောက်မှုများကို လေ့လာဆန်းစစ်ရန်နှင့် ထိခိုက်မှုများ လျော့ချရန်အတွက် ဆောင်ရွက်နိုင်မည့် နည်လမ်းများ ရှာဖွေဖော်ထုတ်ရန်ဖြစ်ပြီး ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ် နှင့် စောင့်ကြပ်ကြည့်ရှုရေးအစီအစဉ်ကို ရေးဆွဲရန် ဖြစ်ပါသည်။

ရည်ရွယ်ချက်-

ယခုစီမံကိန်းသည် စီးပွားရေးတိုးတက်မှု ကိုအခြေခံ၍ ဒေသအတွင်း ထုတ်လုပ်မှုများတိုးတက်ခြင်း နှင့် မော်တော်ယာဉ်နှင့် မော်တော်ဆိုင်ကယ်များတင်သွင်းခြင်း အစားထိုးနည်းပညာ၊ အတတ်ပညာ ဆိုင်ရာကျွမ်းကျင်မှု ရရှိစေရန် သာမကပဲ အထူးအားဖြင့်ရွှေပြည်သာမြို့နယ်တွင် ဒေသခံများအလုပ်အကိုင် အခွင့်အလမ်းများစွာ ရရှိခြင်း စသည့်ဖြင့် အကျိုးခံစားခွင့်များရရှိမည်ဖြစ်ပါသည်။

ပတ်ဝန်းကျင် ထိခိုက်မှု ဆန်းစစ်လေ့လာခြင်းအစီရင်ခံစာအတွက်လိုအပ်သော နယ်ပယ်တိုင်းတာသတ်မှတ်ခြင်း အစီရင်ခံစာအားအများပြည်သူ နှင့်တွေ့ဆုံဆွေးနွေးခြင်း အစည်းအဝေးကျင်းပပြီးချိန်တွင် အောက်ဖော်ပြပါ နေရာများတွင် အကြံပြုချက်များ ရယူနိုင်ရန် (၂) ပတ်ကြာ ထားရှိမည်ဖြစ်ပါသည်။

နေရာ (၁) ရွှေပြည်သာစက်မှုဇုန် အုပ်ချုပ်ရေးကော်မတီ၊ သာဓုကန်စက်မှုဇုန်
ဖုန်း- ၀၁ ၆၁၂၅၆၂

နေရာ (၂) ရွှေပြည်သာ မြို့နယ်အုပ်ချုပ်ရေးမှူးရုံး

နေရာ (၃) စီမံကိန်း အကောင်အထည်ဖော်မည့် (စက်ရုံ) နေရာ

ဆက်သွယ်ရန်-
ဒေါ်သန္တာစိုး (တာဝန်ခံအင်ဂျင်နီယာ)
ဖုန်းနံပါတ် – ၀၉ ၄၀၀၄၀၈၇၈၈
လိပ်စာ – မြေအကွက် အမှတ် ၆၉-၇၀၊ မဟူရာလမ်း၊ သာဓုကန်စက်မှုဇုန်၊ ရွှေပြည်သာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး

Shwe Daehan Motors Co.,Ltd

Manufacturing, Sales and sales Services of motor vehicles and motor vehicles

စီမံကိန်းဆိုင်ရာအချက်အလက်များနှင့် သဘာဝပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်လေ့လာမှုအား ရင်းလင်းဖော်ပြခြင်း

အများပြည်သူနှင့် ကိုင်ပင်းဆွေးနွေးမှုများနှင့် အများပြည်သူသို့ ထုတ်ဖော်တင်ပြခြင်း

(နယ်ပယ်တိုင်ဆောင်ထမ်းရွက်ခြင်း)



ဒီဇင်ဘာလ (၁၄) ရက် ၂၀၁၈ ခုနှစ်

စီမံကိန်းရည်ရွယ်ချက်

❖ ရွှေဒယ်ဟန်မော်တော်(ဝ)ကုမ္ပဏီ၏လိမ်ဘက်သည် ရာနှုန်းပြည့်နိုင်ငံခြားရင်းနှီးမှုအနေဖြင့် ဆောင်ရွက်မည်ဖြစ်ပါသည်။

❖ ရန်ကုန်တိုင်းဒေသကြီး၊ ရွှေပြည်သာမြို့နယ်၊ မြေတိုင်းရပ်ကွက်အမှတ် ၅၀ (သာဇနဇင်္ဂမုန်း)၊ ပေဒုရာလမ်း၊ မြေကွက်အမှတ် ၆၀၏ ၃.၁၀၅ ဧက ရှိသော မြေနေရာကို ဌာနရမ်းကား လိုအပ်သော အဆောက်အဦများ တည်ဆောက်လျက် "မော်တော်ယာဉ် နှင့် မော်တော်ဆိုင်ကယ်များထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်း၊ ရောင်းချပြီး နောက်ပိုင်း ဝန်ဆောင်မှုပေးခြင်း" လုပ်ငန်းများကို ဆောင်ရွက်မည်ဖြစ်ပါသည်။

ရရှိနိုင်သော အကျိုးကျေးဇူးများ

- မြန်မာနိုင်ငံ၏ ပြည်ပရို့ကုန်လုပ်ငန်းများတိုးတက်ပြီး နိုင်ငံခြားဆင်ဂျေများရရှိနိုင်စေခြင်း
- စက်မှုမဟာဗျူဟာနှင့်ပုံးပေါင်း၍ အနာဂတ်ကာလတွင် မြန်မာပြည်တွင်းထုတ် မော်တော်ကားများနှင့် မော်တော်ဆိုင်ကယ်များအား အိမ်နီးချင်းနိုင်ငံများသို့ တင်ပို့ ရောင်းချနိုင်ရန် ဖိစီးထားရှိခြင်း၊
- ဤလုပ်ငန်း တည်ဆောင်ဆောင်ရွက်ခြင်းအားဖြင့် ပြည်ပမှ မော်တော်ယာဉ်နှင့်မော်တော်ဆိုင်ကယ်တင်သွင်းခြင်းအား တစ်ဖက်တစ်လမ်းမှလျော့နှိုင်၍ သွင်းကုန်အစားထိုး ပြည်တွင်းထုတ်လုပ်မှုတိုးတက်ခြင်းကိုဖြစ်ပေါ်စေခြင်း၊
- အဆင့်မြင့်နည်းပညာများ ဖီဝင်လိုရှိခြင်း၊
- မြန်မာနိုင်ငံသားများ အထူးသဖြင့် ရန်ကုန်တိုင်းဒေသကြီး ရွှေပြည်သာမြို့နယ်အတွက် အလုပ်အကိုင် အခွင့်အလမ်းများ ရရှိစေနိုင်ခြင်းနှင့်
- စီးပွားရေးမြို့မြှုပ်ကို အထောက်အကူဖြစ်စေခြင်း

စီမံကိန်းဆိုင်ရာအချက်အလက်များ

➢ ဆက်သွယ်ရေး၊ ဝန်ကြီးဌာန၏ အောက်ဇော်မြေပါ သဘောထားမြန်ကြားချက်များအား လိုက်နာမည်ဖြစ်ပါသည်။

➢ ASEAN motor vehicle requirement အား လိုက်နာကျင့်သုံးကာ ထုတ်လုပ်မည် ဖြစ်ပါသည်။

➢ လက်ဝဲဘက်စတီယာရင် ယာဉ်မောင်းစနစ် (Left-hand drive) ယာဉ်များသာ ထုတ်လုပ်မည်ဖြစ်ပါသည်။

➢ ထုတ်လုပ်မည့် မော်တော်ယာဉ်များ၏ အမျိုးအမည်၊ နှင့် အမျိုးအစားများအတွက် ပုံစံအတည်ပြု သတ်မှတ်ချက် ရရှိအောင်ဆောင်ရွက်ပြီး မော်တော်ယာဉ် နှင့် ပတ်သက်သည့် specification များပြည့်ပုံရှာ ဖော်ပြပါမည်။

➢ မော်တော်ယာဉ်စမ်းသပ်စစ်ဆေးသည့် အလုပ်ရုံ (vehicle testing workshop) ရှိ test lane ခြင်း ကြီ့နိုင်မှုစစ်ဆေးခြင်း အောင်မြင်သည့်ယာဉ်များသာ ဈေးကွက်အတွင်းသို့ ဖြန့်ဖြူးရောင်းချခွင့်ပြုပါသည်။

စီမံကိန်းဆိုင်ရာအချက်အလက်များ

❖ ကုန်ကြမ်းပစ္စည်းများ နှင့် စက်များအား ပြည်ပမှတင်သွင်းလျှက် အဆင့်မြင့်နည်းပညာများ အသုံးပြုပြီး -

✓ Hyundai motor company တံဆိပ်ဖြင့် ၉ မျိုး နှင့်
✓ Daehan တံဆိပ်ဖြင့် ၃ မျိုး (စုစုပေါင်း မော်တော်ယာဉ် ၁၂ မျိုး) နှင့်
✓ KR တံဆိပ် မော်တော်ဆိုင်ကယ် ၃ မျိုးကို အားထုတ်လုပ်မည်ဖြစ်ပါသည်။

❖ ထုတ်လုပ်ရရှိသည့် ပစ္စည်းများ၏ ၁၀၀ ရာခိုင်နှုန်းကို ပြည်တွင်းတွင် ဖြန့်ဖြူးရောင်းချသွားရန် လက်ရှိတွင် ရည်မှန်းထားပါသည်။

❖ မြန်မာနိုင်ငံသားဝန်ထမ်း ၁၀၀၃ ဦးခန့် မှ တစ်နှစ်ထက်တစ်နှစ် ဝန်ထမ်းခန့် အပ်မှုတိုးတက်လာကာ နှစ် ၃၀ ပြောက်တွင် မြန်မာနိုင်ငံသားဝန်ထမ်း ၂၀၆၇ ဦးအထိ အလုပ်အကိုင်များရရှိမည် ဖြစ်ပါသည်။

စီမံကိန်းတည်နေရာပြ မြေပုံ



စီမံကိန်းဆောက်လုပ်မည့် ပုံစံ

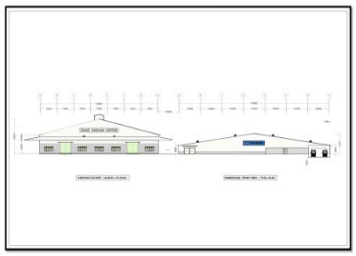


Myanmar Business



Total Area	Factory Area	Capacity	SOP
25,000 ㎡	25,000 ㎡	20,000 units/year	DEC 2018 (E)

စီမံကိန်းဆောက်လုပ်မည့် ပုံစံ (အရှေ့)



လက်ရှိစီမံကိန်းအခြေအနေ

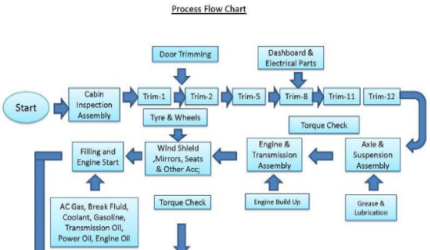
Myanmar Business



လက်ရှိစီမံကိန်းအခြေအနေ











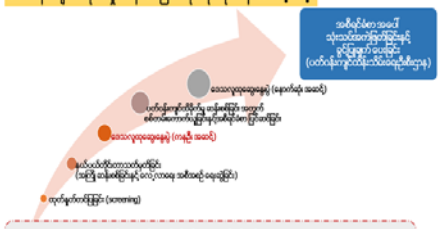


ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်လေ့လာခြင်းအား ရှင်းလင်းတင်ပြခြင်း

ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာရည်ရွယ်ချက်

- စီမံကိန်းဆောင်ရွက်မှုကြောင့် သဘာဝပတ်ဝန်းကျင် နှင့် လူမှုပတ်ဝန်းကျင်အပေါ် အဓိကသက်ရောက်နိုင်သည့်ထိခိုက်နိုင်ခွယ်ရာများကိုဖော်ထုတ်ခြင်းနှင့် သက်ရောက်နိုင်မှုအဆင့်သတ်မှတ်ခြင်း။
- လုပ်ငန်းခွင်နှင့်ဆက်စပ်ပတ်ဝန်းကျင်အပေါ် သက်ရောက်မှုများကို လျော့ချပေးနိုင်သည့်ထိရောက်သော စီမံခန့်ခွဲမှုများ၊ အစီအစဉ်များ နည်းလမ်းများ ကိုအကြံပြုပေးခြင်း။
- စီမံကိန်းတွင် သက်ရောက်နိုင်မှုများလျော့ပါးစေရန်နှင့် ကင်းဝေးစေရန်စောင့်ကြပ်ကြည့်ရှုရသည့် အစီအစဉ်များကို ကြိုတင် ပြင်ဆင်ပြီး အကောင်အထည်ဖော်ဆောင်ရွက်ခြင်း။

ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ငန်းအဆင့်ဆင့်



ဒေသလူထုထွေထွေနွေ့ (ကန့်သတ်ဆင့်) တွင် ပါဝင်သောလုပ်ငန်းစဉ်များ

၁။ စီမံကိန်းဆိုင်ရာအချက်အလက်များထုတ်ဖော်ဆွေးနွေးတင်ခြင်း။
၂။ ပတ်ဝန်းကျင်ဆိုင်ရာဆန်းစစ်ခြင်းလုပ်ငန်းစဉ်အတွက် ဦးဆောင်ဆေးယူများတောင့်ထုတ်ခြင်း။
၃။ စီမံကိန်းကြောင့်ထိခိုက်နိုင်သူများ၊ ဒုံလွှာ အခြေခံ လူမှု အဖွဲ့အစည်းများ၊ ဒေသဆိုင်ရာလူထုမှ ကိုယ်စားလှယ်များနှင့် တွေ့ဆုံဆွေးနွေးတိုင်ပင်ခြင်း။

ဖြစ်ပေါ်လာနိုင်သည့် ပတ်ဝန်းကျင်အပေါ် ထိခိုက်သက်ရောက်မှုများ

အမျိုးအစား	လေ့လာရမည့်ကိစ္စရပ်များ	လေ့လာဆန်းစစ်ခြင်းနည်းလမ်းများ
ပတ်ဝန်းကျင်ဘဝပြမှု	• လေအရည်အသွေး • ဆေးရည်အသွေး • မှုန့်ပစ်မှုန်း • ဆိုးရွားသောဆူညံသံ • ယိုယွင်းခြင်းမှု • ဆည်ပဲ့ နှင့် တုန်ခါမှု • ပဲမြို့ကျွေးမှု • ထိရှလွယ်သောဒေသသက်များထွက်ရှိမှု	• လေထုအရည်အသွေးထိခိုက်ကောင်းမှုများ (ဂုန်းပါးပြီး၊ တာဝေးပြီး) • ဆိုးရွားသောဆူညံသံ • ဆိုးရွားသောဆူညံသံ • ဆိုးရွားသောဆူညံသံ • သက်ဆိုင်ရာ တာဝန်ရှိသူများ နှင့် ပေါ်ပေါက်လာမှုနှုန်းခြင်း • စီမံကိန်းနှင့်သက်ဆိုင်သူများနှင့် တွေ့ဆုံခဲ့မှု၊ မြင်ကွင်းခြင်း • ယာဉ်သွားလာမှုများ နှင့်ဆူညံသံများအား လေ့လာဆန်းစစ်ခြင်း • တည်ဆောက်လုပ်ဆောင်ရမည့်များအား အထည်ပြုဝေခြင်း • ပြောင်းလဲလာနေသောဘဝ နည်းဥပဒေများနှင့် ညီညွတ်ခြင်း ရှိမရှိ ပြန်လည် သုံးသပ်ခြင်း

ဖြစ်ပေါ်လာနိုင်သည့် ပတ်ဝန်းကျင်အပေါ် ထိခိုက်သက်ရောက်မှုများ

အမျိုးအစား	လေ့လာရမည့်ကိစ္စရပ်များ	လေ့လာဆန်းစစ်ခြင်းနည်းလမ်းများ
အပင်နှင့်ဝိုလ်ဖွံ့ဖိုးမှုများ	• ကာကွယ်ထိန်းသိမ်းထားသည့် မျိုးစိတ်မျိုးကွဲများ တည်ရှိမှု • ဂေဟစနစ်ဝံ့ပံ့	• အပင်နှင့် သတ္တဝါများအားကွင်းဆင်စစ်တမ်း ကောက်ယူ လေ့လာခြင်း • သက်ဆိုင်ရာ ဥပဒေ ပြောင်းချက်များ နှင့် သက်ဆိုင်ရာမဟာဗျူဟာများ ကိုကားခြင်း • သက်ဆိုင်ရာအစိုးရဌာနများအနေဖြင့်က လက်ခံချေးယူခြင်း

ဖြစ်ပေါ်လာနိုင်သည့် ပတ်ဝန်းကျင်အပေါ် ထိခိုက်သက်ရောက်မှုများ

အမျိုးအစား	လေ့လာရမည့်ကိစ္စရပ်များ	လေ့လာဆန်းစစ်ခြင်းနည်းလမ်းများ
လူမှုတန်းကျင်	• ဒေသဖံ့ဝင်းရွှမ်းစီးပွားများအပေါ် အကျိုးသက်ရောက်မှုများ • ဒေသပံ့များအားသောကထားအဖြင့်များနှင့် ပတ်သက်သည့် ကိစ္စရပ်များ • လုပ်ခန့်ထားနှင့်အသက်မွေးမဝမ်းကျောင်းကိစ္စရပ်များ • ဒေသတွင်း ပမြောသုံးရေး နှင့် အသုံးအဖြစ်များသုံးစွဲမှု • ဝေစုမြိုင်မှုနှုန်းသုံးစွဲမှု ၊ • လက်ရှိ လုပ်ငန်းတဝောက်ကအဖုံနှင့် ပန်ဆောင်မှုများ • ကျန်းမာရေးနှင့် ဘေးကင်းလုံခြုံရေးဆိုင်ရာ ကိစ္စရပ်များ • ယဉ်ကျေးမှု အမွေအနှစ်များ • ဥယျာဉ်/ပန်းခန်းများ • အခြေခံအဝန်းဝဘာ • ကျန်းမာရေးဆိုင်ရာအခြေအနေအကြားလေထ်	• ဒေသဆိုင်အချက်အလက်များအားကိုးကား သုံးသပ်ခြင်း • လူမှု စံတန်းများနှင့် လူမှုစီးပွား ဆိုင်ရာ အချက်အလက်များအား ပြန်လည် သုံးသပ်ခြင်း • အလုပ်သမားဥပဒေများအား ပြန်လည်သုံးသပ်ခြင်းနှင့် လက်ရှိကျင့်သုံး လျက်ရှိသော အလုပ်အကိုင်ဝန် ထားမှု နည်းလမ်းများ • အသစ်ခြင်းသူများနှင့် တွေ့ဆုံ ဆွေးနွေးခြင်း • သဘာဝအရင်းမြစ် အသုံးချမှု အခြေအနေများကို ကွင်းဆင်းလေ့လာ သုံးသပ်ခြင်း • ကျွမ်းကျင်ပညာရှင်များနှင့် တွေ့ဆုံဝေမျှခြင်း • သက်ဆိုင်ရာ အစိုးရဌာနများမှ အချက်အလက် အလုပ်ထုတ်ယူခြင်း • နမူနာကောက်ယူလေ့လာခြင်း

သက်ရောက်မှု အကဲဖြတ်အဆင့်များ

✓A+: သိသာထင်ရှားသော ကောင်းကျိုး
✓B+: ကောင်းကျိုးအနည်းငယ်
✓A-: သိသာထင်ရှားသော ဆိုးကျိုး
✓B-: ဆိုးကျိုးအနည်းငယ်
✓C: သက်ရောက်မှု မသိသာသော (လျစ်လျူရှုနိုင်သော) ဆိုးကျိုး
✓D: ဆိုးကျိုးမရှိသော

ပတ်ဝန်းကျင်နှင့် လူမှုစီးပွားဘဝအပေါ်တွင် အကျိုးသက်ရောက်မှု အဆင့်သတ်မှတ်ချက်များ

အကြောင်းအရာ	ဆန်းစစ်သည့် အချက်	တုတ်များမှု PC/CD	OP	CLP	သက်ရောက်မှု အဆင့်သတ်မှတ်ချက်
ဥပဒေဆိုင်ရာ	လေထု အရည်အသွေး	B-	B-	B-	CD/CLP: ဆောက်လုပ်ရေးကိုယ်နေ့ကာများ နှင့်ဖက်ဆက်ပတ်သက်များကြောင့် လေထုညစ်ညမ်းနိုင်သည်။ OP: ယင်းထက်ကာဆင်းဆင်းခြင်းမှ ရောက်ရှိရာထုတ်ကုန် နှင့် ဖွန့်ဝေရည်မှန်းကောက်ကျွမ်းခြင်းမှ တစ်ဆင့်ဆက်ဆွေ့များထုတ်လုပ်နိုင်သည်။ ထုတ်ကုန်များ သယ်ပို့ခြင်းမှ လုပ်သည့် ယင်းထက်ပတ်များမှ ထုတ်လုပ်ဝေဘာ တက်ရမှုများမှ လေထုညစ်ညမ်းမှု ဖြစ်ပေါ်နိုင်သည်။
	ဆေးရည် အသွေး	B-	B-	B-	CD/CLP: ပမြဲနေလည်းမှုနှင့်ခြင်း လုပ်ငန်းမှ စီးဆင်းလာသော ရွှံ့ဆေးရောင်းကြောင့် ဆေးရည်အသွေး ပေါ်သက်ရောက်မှုဖြစ်နိုင်သည်။ OP: ဘေမန်းအဆောဆေးအရ ယင်းထက်ပတ်ဝင်ထက်ခြင်း နှင့် ပိတ္တာဝိတ်များမှ ဝေးကို ထုတ်လုပ်မှုများရရှိမှ
	အပိုးအခဲ ဖွန့်ဝေမှု ဥပ်	B-	B-	B-	CD: ဆောက်လုပ်ရေးလုပ်ငန်း နှင့် အလုပ်သမားများမှ ဖွန့်ဝေရည်မှန်းများထုတ်ရှိနိုင်သည်။ OP: ယင်းထက်ကာဆင်းဆင်းခြင်း ဖွန့်ဝေရည်မှန်းများကြောင့်ရှိနိုင်သည်။ CLP: အဆောက်အဆုံ ပြီးစီးခြင်းလုပ်ငန်းနှင့် အလုပ်သမားများမှ ဖွန့်ဝေရည်များ ထွက်ရှိနိုင်သည်။

ပတ်ဝန်းကျင်နှင့် လူမှုစီးပွားဘဝအပေါ်တွင် အကျိုးသက်ရောက်မှု အဆင့်သတ်မှတ်ချက်များ

အကြောင်းအရာ	ဆန်းစစ်သည့် အရာ	တွက်ချက်မှု			အကဲဖြတ်မှု အကြောင်းရှင်းချက်
		PC/CO	OP	CLP	
	ဖြည့်စည်းအသွေး	B-	D	B-	CO: ဖြည့်စွက်ခြင်း ပုံစံပျက်ခြင်းလုပ်ငန်းများကြောင့် မြေထိုက်တိုက်စားမှုဖြစ်ပေါ်နိုင်သည်။
	ဆူည့်မှု နှင့် တုန်ခါမှု	B-	B-	B-	CO/CLP: ဓောက်လုပ်ဆေးပြင်နှင့် ဓောက်လုပ်ဆေးယာဉ်များ ကြောင့် ယာယီဆူည့်မှု တုန်ခါမှုများဖြစ်ပေါ်နိုင်သည်။ OP: စက်ယန္တရားများပြင်ဆင်ခြင်းကြောင့် ဆူည့်မှု တုန်ခါမှုများဖြစ်ပေါ်နိုင်သည်။
	မြေမြိုမှု	D	D	D	CO: ဓောက်လုပ်ဆေးလုပ်ငန်းတွင် မြေဓောက်ဆေးဆုံးရှုံးမှုဖြစ်စေသောကြောင့် သက်ဆောက်မှုမဖြစ်ပေါ်။ OP/CLP: လည်ပတ်ခြင်း/ရက်သိမ်းခြင်းတွင် မြေမြိုမှုဖြစ်ပေါ်နိုင်ပေ။
	စိုထွားသော အန့်	D	D	D	CO/ OP /CLP: စိုထွားသော အန့်ဖြစ်ပေါ်စေသည့် ကိန္နရာမရှိပေ။

ပတ်ဝန်းကျင်နှင့် လူမှုစီးပွားဘဝအပေါ်တွင် အကျိုးသက်ရောက်မှု အဆင့်သတ်မှတ်ချက်များ

အကြောင်းအရာ	ဆန်းစစ်သည့် အရာ	တွက်ချက်မှု			အကဲဖြတ်မှု အကြောင်းရှင်းချက်
		PC/CO	OP	CLP	
သဘာဝတန်းဘွဲ့	ဒေသဆိုင်ရာသဘာဝ ဝန်းကျင်	D	D	D	အန္တရာယ်ကင်းရှင်းရေးအတွက် ဓောက်လုပ်ဆေးပြင်ဆင်ခြင်းကြောင့် ဒေသခံပြည်သူများ၏ ကျန်းမာရေးနှင့် ဘေးကင်းလုံခြုံမှုကို ထိခိုက်နိုင်သည်။
	သစ်ပင်ခွံ၏ နှင့် ဓောက်ခဲ	C	C	C	ဓောက်လုပ်ဆေးပြင်ဆင်ခြင်းကြောင့် သစ်ပင်ခွံ၏ ခွံခိုင်မာမှုနှိုင်းယှဉ်ခံနိုင်ရည်ကို ဓောက်ခဲများ ထိခိုက်နိုင်သည်။
	မြေမျက်နှာသွင်ပြင် နှင့် လှုပ်ခတ	D	D	D	CO/CLP: ကြိမ်ဖန်တုတ် ဆူခြင်းဓောက ဖြစ်ပေါ်များသည့် နိုင်ငံခြားက ကျွမ်းကျင်သူ ဓောက်လုပ်ဆေးပြင်ဆင်ခြင်းကြောင့် ထိခိုက်မှု ရှိနိုင်ပါ။ OP: မြေမျက်နှာသွင်ပြင် နှင့် လှုပ်ခတမှု ထိခိုက်နိုင်သည့် လုပ်ဆောင်ချက်များမပါပါ။

ပတ်ဝန်းကျင်နှင့် လူမှုစီးပွားဘဝအပေါ်တွင် အကျိုးသက်ရောက်မှု အဆင့်သတ်မှတ်ချက်များ

အကြောင်းအရာ	ဆန်းစစ်သည့် အရာ	တွက်ချက်မှု			အကဲဖြတ်မှု အကြောင်းရှင်းချက်
		PC/CO	OP	CLP	
လူမှုဝတ်ဓလေ့	ဆန္ဒမဲထသောဒေသ ဖြည့်စွမ်း	D	D	D	ဆန္ဒမဲထသောဒေသ ဖြည့်စွမ်းမှုများ မဖော်ပါ။
	မနယ်ပိုမှ နှင့် အသက်မွေးဓလေ့	A+	A+	A+	အစိုးရဆိုင်ဓော အလုပ်သမားများ အလုပ်အမှုဆောင်များကိုများလာနိုင်ပြီး စီးပွားရေးကောင်းမွန်လာပြုခြင်းသည်။
	အာနည်းချက်ရှိသူများ	B+	B+	B+	စီမံကိန်းကြောင့် ထိခိုက်မှုမရှိနိုင်ပါ။ အခြားတစ်ဖက်တွင်လည်း အလုပ်အကိုင်နှင့် စီးပွားရေးအခွင့်အလမ်းများကိုမြှင့်လာပေးခြင်းသည်။
	အကျိုးစီပွားထိခိုက်မှု ပြဿနာ	D	D	D	အကျိုးစီပွားပြဿနာ များခြင်းမရှိနိုင်ပါ။
	ယဉ်ကျေးမှုအမွေအနှစ်	D	D	D	ယဉ်ကျေးမှုအမွေအနှစ်အာဏာထိခိုက်စေမှုများ လုပ်ငန်းတွင်မပါဝင်ပေ။

ပတ်ဝန်းကျင်နှင့် လူမှုစီးပွားဘဝအပေါ်တွင် အကျိုးသက်ရောက်မှု အဆင့်သတ်မှတ်ချက်များ

အကြောင်းအရာ	ဆန်းစစ်သည့် အရာ	တွက်ချက်မှု			အကဲဖြတ်မှု အကြောင်းရှင်းချက်
		PC/CO	OP	CLP	
	Hiv ကပ်ဘေးကဲ့သို့ ကူးစက်နှုန်းပျံ့	B-	B-	B-	CO/CLP: စီမံကိန်းဓဒေသတွင် အလုပ်သမားများလာရောက်ကြွင့် ကူးစက်ရောဂါ အန္တရာယ်များလာနိုင်ပါသည်။ OP: စီမံကိန်းမီသား နှင့် စီမံကိန်းဝင်းအတွင်းတွင် အလုပ်သမားများအတွက် ကျွမ်းကျင်ဓောက်လုပ်သူများကိုသာ ရွေးချယ်ခန့်ထားသင့်ပါသည်။
	လုပ်ငန်းခွင် ကျန်းမာရေး နှင့် ဘေးကင်းလုံခြုံရေး	B-	B-	B-	CO/CLP: အလုပ်သမားများ၏ အခြေခံအရေး အပေါ် ပုကာလိုသို့ သက်ဆောက်များ ဖြစ်ပါသည်။ OP: ရေးသိုင်းဘာအလုပ်သမားများ၏ အခြေခံအရေး အပေါ် ပုကာလိုသို့ သက်ဆောက်များ ဖြစ်ပါသည်။
	ရပ်ရွာကျန်းမာရေးနှင့် ဘေးကင်းလုံခြုံရေး	B-	B-	B-	CO/CLP: ဓောက်လုပ်ရေးတလုံသားများ ဝေါဟာရယဉ်များကိုလာပါခြင်းနှင့် ဓောက်လုပ်ရေးကိုယ်ရည်များ လည်ပတ်မှုကြောင့် ရပ်ရွာကျန်းမာရေးနှင့် ဘေးကင်းလုံခြုံရေးအပေါ် သက်ရောက်မှုရှိနိုင်သည်။
	တာဝရုပ်ပင်များအပေါ်ပြု မှု	D	B-	D	CO/CLP: ဓောက်လုပ်ရေးကာသုင် တာဝရုပ်ပင်များ အသုံးပြု မှုရှိ၏ OP: လည်ပတ်သောကာလတွင် အနည်းငယ်သော တာဝရုပ်ပင်များအသုံးပြု မှုရှိနိုင်သည်။

အများပြည်သူနှင့် တိုင်ပင်ဆွေးနွေးခြင်းနှင့် အများပြည်သူသို့ ထုတ်ဖော်တင်ပြခြင်း

ပတ်ဝန်းကျင်နှင့် လူမှုစီးပွားဘဝအပေါ်တွင် အကျိုးသက်ရောက်မှု အဆင့်သတ်မှတ်ချက်များ

အကြောင်းအရာ	ဆန်းစစ်သည့် အရာ	တွက်ချက်မှု			အကဲဖြတ်မှု အကြောင်းရှင်းချက်
		PC/CO	OP	CLP	
အလုပ်သမ် အွေးရာပယ်	စီးဘေးနများ	B-	B-	B-	CO/CLP: ဓောက်လုပ်ရေးလုပ်ငန်း တိုးမြှင့်လာများကြောင့် စီးဘေးအန္တရာယ် ဖြစ်ပေါ်နိုင်သည်။ OP: စီးဘေးရေပုံငွေများများကြောင့် စီးဘေးအန္တရာယ် ဖြစ်ပေါ်နိုင်သည်။
	ဝေလွှင်	B-	B-	B-	CO/CLP: ဝေလွှင်ဖြစ်ပေါ်လွှင် အဓောက်အဦများ ပြိုကျနိုင်သော အလားအလာရှိသည်။ OP: ဝေလွှင်ဖြစ်ပေါ်လွှင် အဓောက်အဦများ ပြိုကျနိုင်သော အလားအလာရှိသည်။
အခြား	ကျွက်ပြုန်းနေလာမှု	B-	B-	B-	CO: ဓောက်လုပ်ရေးတော်လှည်းများ နှင့် မော်တော်ကားများထုတ်သော တော်ရွေ့များကြောင့် ကျွက်ကြီ ပုန်းလာများမှာ ဖြစ်ပေါ်နိုင်သည်။ OP: အလုပ်သမားများနေထိုင်ရာကြောင့် ကျွက်ကြီ ပုန်းလာမှုများ ဖြစ်ပေါ်နိုင်သည်။ CLP: ပြီးစီးသည့် စက်ယန္တရား နှင့် မော်တော်ကားများထုတ်သော တော်ရွေ့များကြောင့် ကျွက်ကြီ ပုန်းလာမှုများ ဖြစ်ပေါ်နိုင်သည်။

အများပြည်သူနှင့် တိုင်ပင်ဆွေးနွေးခြင်းနှင့် အများပြည်သူသို့ ထုတ်ဖော်တင်ပြခြင်း

အများပြည်သူနှင့် တိုင်ပင်ဆွေးနွေးခြင်းနှင့် အများပြည်သူသို့ ထုတ်ဖော်တင်ပြခြင်း

✓အများပြည်သူနှင့် တိုင်ပင်ဆွေးနွေးခြင်းနှင့် အများပြည်သူသို့ ထုတ်ဖော်တင်ပြခြင်းအား ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်ခြင်း လုပ်ထုံးလုပ်နည်း (၂၀၁၅) အရ ဆောင်ရွက်ခြင်းဖြစ်ပါသည်။

၁) နယ်ပယ်တိုင်းတာသတ်မှတ်သည့် ကာလအတွင်း

စီမံကိန်းဆိုင်ရာသည် နယ်ပယ်အတိုင်းတာသတ်မှတ်ခြင်း၏ အစီအစဉ်အဓိကအချို့ အများပြည်သူနှင့် တိုင်ပင်ဆွေးနွေးခြင်းနှင့် အများပြည်သူမှ သဘောထားသံသယများကို ဖြေရှင်းပေးခြင်းတို့သာ ဖြစ်ပေါ်ပါသည်။

(က) အထိခိုက်ဆုံးသည့် စီမံကိန်းဆိုင်ရာ သဘင်အဆက်ဆက်လာများကို အများပြည်သူနှင့် လူမှုအဖွဲ့အစည်းများအား သိမြင်နိုင်ရန် စီမံကိန်း ဘို့မတွက် စီမံကိန်းဆောင်ရွက်ချက်၊ ဝက်ဘ်ဆိုက်တွင် တင်ပြခြင်းနှင့် စီမံကိန်းဒေသရောများတွင် အများပြည်သူပြခြင်းတွေ့နိုင်သည့် ဆိုင်းဘုတ်များနှင့် ခရကြေးသင်္ကေတများ ထင်ရှားစွာစိုက်ထူခြင်း အပါအဝင် ပြည်တွင်းမီဒီယာများမှ ထုတ်ဝေခြင်း။

(ခ) ဒေသလဲလှယ်အဖွဲ့အစည်းများ၊ စီမံကိန်းကြောင့် အဓိက ထိခိုက်ခံစားရမည်ဟုမှုန်း ဒေသဆိုင်ရာအုပ်ချုပ်ရေးအဖွဲ့အစည်းများ၊ ရပ်ရွာအဖွဲ့ပြုအဖွဲ့အစည်းများ၊ လူမှုအဖွဲ့အစည်းများနှင့် လိုအပ်သည့် တိုင်ပင်ဆွေးနွေးခွဲများကို ပရိုက်ဇာများမှ အကြိမ်ကြိမ်ထားသည့်အတိုင်း စီမံကိန်း လုပ်ငန်း သဘာဝဓာတ်ပတ်ဝန်းကျင်များ၊ ဓလေ့ ဆိုးဓလေ့ခန်းများ (အင်တာဗျူးများကို အမျိန်းမျိုးတစ်မျိုးမြည်ပြီးမှုလုပ်ဆောင်ခြင်း။

၁) EIA အစီရင်ခံစာ ပြင်ဆင်ဆဲနိုင်ကာလအတွင်း

စီမံကိန်းဆိုင်ရာသည် ဓောက်ခဲ့ပြီ တိုင်ပင်ဆွေးနွေးလုပ်ငန်းစဉ်ကို ပတ်ဝန်းကျင်ထိခိုက်မှုများနှင့်ပတ်သက်သော အစီအစဉ်အဆင့်ဆင့် ဆောင်ရွက်ရမည်။

(က) အထိခိုက်ခံစီမံကိန်း ပတ်ဝန်းကျင်ဆိုင်ရာသက်ဆောက်မှုများနှင့် သက်ဆိုင်သော သဘင်အဆက်အစက်များကို အများပြည်သူနှင့် လူမှုအဖွဲ့အစည်းများ၏ သက်ဆိုင်ရာအဖွဲ့ အစည်းများနှင့် သက်ဆိုင်ရာအုပ်ချုပ်ရေးအဖွဲ့ အစည်းများသို့ စီမံကိန်း ဘို့မတွက် စီမံကိန်းဆိုင်ရာများ ရေးသားတင်ပြခြင်း၊ စီမံကိန်း ဘို့မတွက် စီမံကိန်းဆိုင်ရာများ ဝက်ဘ်ဆိုက်တွင် တင်ပြခြင်း၊ ဒေသခံပြည်သူများ ဖတ်ရှုနိုင်ရန် ပုံနှိပ်စာအုပ်များ ဖြန့်ဝေခြင်း၊ ဒေသခံ

၃) ဝန်ကြီးဌာနသို့ အစီရင်ခံစာ တင်သွင်းပြီးသည့်ကာလအတွင်း

စီမံကိန်းအဆိုပြုသူသည် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းအစီအရင်ခံစာကို ဦးစီးဌာနသို့ တင်သွင်းပြီး နောက် ၁၅ ရက်ထက်နောက်မကျစေဘဲ ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း အစီရင်ခံစာကို လူမှုအဖွဲ့အစည်း၊ စီမံကိန်းကြောင့်ထိခိုက်ခံစားရသူများ၊ သက်ဆိုင်ရာအစိုးရအဖွဲ့အစည်းများ၊ ဒေသခံလူမှုအဖွဲ့ အစည်းများနှင့် အခြားအကျိုးသက်ဆိုင်သူများသိရှိနိုင်ရန် သတင်းစာကဲ့သို့သော နိုင်ငံပိုင် မီဒီယာများမှ လည်းကောင်း၊ စီမံကိန်း သို့မဟုတ် စီမံကိန်းအဆိုပြုသူ၏ ဝက်ဘ်ဆိုဒ်မှလည်းကောင်း စာကြည့်တိုက်များ၊ ပြည်သူ့ဝန်းမများ စသည့် အများပြည်သူဆိုင်ရာနေရာများတွင်လည်းကောင်း စီမံကိန်းအဆိုပြုသူ၏ ရုံးဌာနများတွင် လည်းကောင်း ထုတ်ဖော်ကြော်ငြာရမည်။

EIA အကောင်အထည်ဖော်မည့် အစီအစဉ် (လျှာထားချက်)

1) ဇန်နဝါရီ ပထမ နှင့် ဒုတိယအပတ် - အခြေခံ သဘာဝပတ်ဝန်းကျင် နှင့် လူမှုပတ်ဝန်းကျင် စစ်တမ်းကောက်ယူခြင်း

2) ဇန်နဝါရီ နောက်ဆုံးအပတ် - နယ်ပယ်တိုင်းတာသတ်မှတ်ခြင်း အစီရင်ခံစာအား ဝန်ကြီးဌာနသို့ တင်ပြခြင်း

3) ဖေဖော်ဝါရီလ - ဝန်ကြီးဌာနမှ ဆုံးဖြတ်မှုများရယူခြင်း

4) ဖေဖော်ဝါရီလ - EIA အစီရင်ခံစာ မူကြမ်းပြင်ဆင်ခြင်း

5) မတ်လ - ဒုတိယအကြိမ် လူထုတွေ့ဆုံဆွေးနွေးခြင်း

6) ဧပြီလ - EIA အစီရင်ခံစာအား ဝန်ကြီးဌာနသို့ တင်ပြခြင်း

ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်မှု အစီရင်ခံစာ

ပါဝင်မည့်အခန်းကဏ္ဍများ

- ❑ အစီရင်ခံစာအကျဉ်းချုပ်
- ❑ စီမံကိန်းနောက်ခံအချက်အလက်များ
- ❑ မူဝါဒဥပဒေဆိုင်ရာနှင့်အဖွဲ့အစည်းဆိုင်ရာမူဘောင်များ
- ❑ စီမံကိန်းအကြောင်းအရာတော်ပြချက်နှင့်အခြားနည်းလမ်းရွေးချယ်ခြင်း
- ❑ အနီးပတ်ဝန်းကျင်ဆိုင်ရာနှင့် လူမှုရေးဆိုင်ရာ အကြောင်းအရာတော်ပြချက်
- ❑ ပတ်ဝန်းကျင်အပေါ် သက်ရောက်မှုနှင့်ဘေးအန္တရာယ်ရှိမှုဆန်းစစ်ခြင်းနှင့်လျော့ချသောနည်းလမ်းများ
- ❑ ဆက်စပ်သက်ရောက်မှုဆန်းစစ်ခြင်း(ကျန်းမာရေးထိခိုက်မှု ဘေးအန္တရာယ်ဖြစ်ပေါ် နိုင်မှု စုပေါင်းသက်ရောက်မှု၊ ကြွင်းကျန်သက်ရောက်မှု)
- ❑ ပတ်ဝန်းကျင်မံခန့်ခွဲမှုအစီအစဉ်
- ❑ အများပြည်သူနှင့်တိုင်ပင်ဆွေးနွေးခြင်းနှင့်သတင်းအချက်အလက်များထုတ်ဖော် တင်ပြခြင်း

အများပြည်သူနှင့် တိုင်ပင်ဆွေးနွေးခြင်းနှင့် အများပြည်သူသို့ ထုတ်ဖော်တင်ပြခြင်း





အများပြည်သူနှင့် တိုင်ပင်ဆွေးနွေးခြင်းနှင့် အများပြည်သူသို့ ထုတ်ဖော်တင်ပြခြင်း





တက်ရောက်လာကြသော စီမံကိန်းနှင့်သက်ဆိုင်သူများမှ စီမံကိန်းနှင့် ပတ်သက်၍ သိရှိလိုသည်များ မေးမြန်းခြင်း

Basic Details			
Project	Shwe Daehan Motors Co.,Ltd Manufacturing, Sales and sales Services of motor vehicles and motor vehicles		
Office/ Department/ Organization	Thar Du Kan Industrial Zone, Shwe Daehan Factory	Region/State	Yangon Region
District	North District	Township	Shwe Pyi Thar
Objectives	Holding Public Consultation Meeting for Scoping Study of ESIA to explain about the project's activities and to have public's suggestion, advice and comments		
Date	14th, December,2018		
Time	9:30 AM to 11;30 PM		
Attendee	Governmental (8) Officer (9) Public (22) Total (31)		

Attendance List

No	Name	Position	Department	Phone Number
1	U Aung Thu Kyaw	Deputy Director	Department of Environmental Conservation	09 250155727
2	U That Lwin Oo	Staff Officer	Department of Environmental Conservation	09 428120440
3	Mg Aung Aung	QC /Electric		09 429118232
4	U Toe Myint Aung	Technician		09 971371619
5	U Zin Min Htike	Executive		09 402707616
6	U Pyae Phyo Aung	QC/Staff		09 777706782
7	Daw Su Hnin Aye	QC / Executive		09 770168304
8	U That Naing Tun	QC / Staff		09 788749710
9	Daw That Wai Hnin	Staff Officer	Department of Environmental Conservation (Yangon)	09 969827668
10	Daw Yu Yu Phyo	Deputy Officer	Department of Environmental Conservation (NYGN)	09 951088421
11	Oh Yong Seok	Deputy General Manager	IKLM	09 429682314
12	U Kyaw Shine	Technician		09 968352521
13	U Kyaw That	Technician		09 420201867
14	Ko Kyaw Zin Moe	Technician		09 420201867
15	Ko Than Zaw	Technician		09 256286286
16	Ko aung Phyo Kyaw	Staff		09 261201885
17	Ko Khine Myat Kyaw	Assistant Executive	Bagan Royal Star Co, Ltd	09 798199403
18	U Zaw Lin Tun	Production	Hlawgar	09 761994483
19	U Kyee Nyo	Peon Incharge	Management Committee, Thar Du Kan	09 450024884
20	U Aung Hlaing Myint	Committee Member	Thar Du Kan Zone Development Committee	
21	U Win Ne	Deputy Peon Incharge	Management Committee, Thar Du Kan	09 781503877
22	Dr.U San Lin	Dy-TMO	Shwe Pyi Thar Hospital	09 420009957
23	U Nyunt Win	Administrator	Department of Development Affairs	09 977275131
24	Daw New Ni Aye	Assistant Director	Planning Depertment	09 420174500
25	Daw Aye Aye than	Deputy Staff Officer	Department of Labour Welfare	09 420158566
26	U Moe Kyaw Oo	Deputy Township Educational Officer	TEO Office	09 420311313
27	U Soe Thiha Zaw	Production		
28	U Ye Tun	Production		
29	U Wai Phyo Aung	Production		
30	U Ye Min Aung	Production		
31	U Than Htay	Production	Manager	09 973865453


HYUNDAI
DAEWOO
14/12/2018


14/12/2018


14/12/2018


14/12/2018


14/12/2018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14/12/2018


14/12/2018


14/12/2018


14/12/2018

Meeting Minutes of Public Consultation

Shwe Daehan factory of Automobile and Motorcycle Manufacturing, sales and installation service for the discussion with the public and Focus of environmental impact assessment and Social Impact assessment (Scoping)
(1) Daw New Ni Aye (Assistant Director, Planning Department) **I want to know if you plant in Myanmar as well as Foreign workers. There are foreign workers, how do you manage?** **U Aye Min Than Manager (Shwe Daehan)** **The current, have to manage workers the plant manager (7), they are Myanmar manager (4) and Korean manager (3). Korea Technology Transfer Manager to Korean manager (3).**
(2) U Aung Thu Kyaw (Deputy Director, (Department of Environmental Conservation) **How to pick a full week Seasonal data collection job?** **Elders discovered in the Department, depending on factors, as there is good for actual research. There are also side effects. The teacher can ask what the locals want to know about no region. This is your chance. Meetings and asked what I would like to know because this to me twice. She said the public meeting is the most transparent.** **Dr, Lei Lei Win Principle Consultant (REM)** **When data collection is the dry season and the wet season is different. Shwe Daehan Company is a 10-year-old mainly on reviewing the impact of air, rain, air pollution is not possible in the summer.**
(3) U Aung Hlaing Myint (Committee Member, Thar Du Kan Zone Development Committee) **Now we present a Hyundai car, So I want to know production, explain me, please?** **U Aye Min Than Manager (Shwe Daehan)** **There is a factory line 3 line. Manufacture is begins in 4 processes. Fit on the Road Test. SKT 2 system will be located here is a set of components.**

အကြံပြုလွှာ

အများပြည်သူနှင့်တွေ့ဆုံဆွေးနွေးပွဲ

မော်တော်ယာဉ်နှင့်မော်တော်ဆိုင်ကယ်တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့်ဝန်ဆောင်မှုပေးခြင်းလုပ်ငန်းစီမံကိန်း

ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း (နယ်ပယ်အတိုင်းအတာသတ်မှတ်ခြင်းအဆင့်)

ရက်စွဲ - ၂၀၁၈ခုနှစ်၊ ဒီဇင်ဘာလ(၁၄)ရက်

နေရာ - သာဓုကန်စက်မှုဇုန်၊ ရွှေပြည်သာမြို့နယ်

အကြံပြုချက်များအားအောက်တွင်ဖော်ပြပေးပါရန်။ လူကြီးမင်း၏အကြံပြုချက်အားလှိုက်လှဲစွာကြိုဆိုပါသည်။		
အမည်		လူကြီးမင်း၏အမည်အားမဖော်ပြလိုပါက ချန်လှပ်ထားနိုင်ပါသည်။
ဆက်သွယ်ရန်ဖုန်း		
လိပ်စာ/ဌာန		

Noise pollution (ဆူညံသံ) ကြောင့်နား (အကြားအာဂုံ) ချို့တဲ့မှု၊ စိတ်ကျရောဂါဖစ်မှုတွေကို သတိချပ်သင့်ပါသည်။ ဝန်ထမ်းများ၏ ကူးစက်ရောဂါအတွက် (? ဆောက်လတစ်ခါ / တစ်နှစ်တစ်ခါ) လွှေးစစ်ခြင်းကို ပြည်သူဆေးဂုံတွင် စစ်ဆေးသင့်ပါသည်။ စက်ဂုံဝန်ထမ်းဆရာဝန်၊ ဆရာမများခန့်ထားသင့်ပါတယ်။

အကြံပြုလွှာ

အများပြည်သူနှင့်တွေ့ဆုံဆွေးနွေးပွဲ

မော်တော်ယာဉ်နှင့်မော်တော်ဆိုင်ကယ်တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့်ဝန်ဆောင်မှုပေးခြင်းလုပ်ငန်းစီမံကိန်း

ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း (နယ်ပယ်အတိုင်းအတာသတ်မှတ်ခြင်းအဆင့်)

ရက်စွဲ - ၂၀၁၈ခုနှစ်၊ ဒီဇင်ဘာလ(၁၄)ရက်

နေရာ - သာဓုကန်စက်မှုဇုန်၊ ရွှေပြည်သာမြို့နယ်

အကြံပြုချက်များအားအောက်တွင်ဖော်ပြပေးပါရန်။ လူကြီးမင်း၏အကြံပြုချက်အားလှိုက်လှဲစွာကြိုဆိုပါသည်။		
အမည်	ဦးမိုးကျော်ဦး	လူကြီးမင်း၏အမည်အားမဖော်ပြလိုပါက ချန်လှပ်ထားနိုင်ပါသည်။
ဆက်သွယ်ရန်ဖုန်း	09420311313	
လိပ်စာ/ဌာန	မြို့နယ်မညာ ရေးမှူးရုံး၊ ရွှေပြည်သာ	

စက်ရုံးမည်မတ်ထောဘဲ၊ ကျောင်းထားသူများအား၊
လာရောက်လေ့လာခွင့်ရှိစေလိုပါသည်။

မော်တော်ယာဉ်နှင့်မော်တော်ဆိုင်ကယ်တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့်ဝန်ဆောင်မှုပေးခြင်းလုပ်ငန်းစီမံကိန်း
ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း (နယ်ပယ်အတိုင်းအတာသတ်မှတ်ခြင်းအဆင့်)
အများပြည်သူနှင့်တွေ့ဆုံဆွေးနွေးပွဲ

၂၀၁၈ခုနှစ်၊ ဒီဇင်ဘာလ(၁၄)ရက် သာဓုကန်စက်မှုဇုန်၊ ရွှေပြည်သာမြို့နယ်

စဉ်	အမည်	အလုပ်အကိုင်/ရာထူး	လိပ်စာ/ဌာန	ဆက်သွယ်ရန်ဖုန်း	လက်မှတ်
	[illegible]	[illegible] /	ECD.	09-250155729	[illegible]
	[illegible]	SO	ECD	09 428120440	[illegible]
	[illegible]	QC (electric)	QA/QC	09.429118232	[illegible]
	U Tbe Myint Aung.	Technician	QA/QC	09-971371619	[illegible] 14/12/18.
	U Zin Minn Htike	Executive	QA	09.402707616.	[illegible] 14/12/18
	U. Pyae Phyo Aung.	QA Staff	QA	09-777706782.	[illegible] .14.12.18.
	Daw Su Hnin Aye	QC / Executive	QA/QC	09.770168304	[illegible]
	U Thet Naing Tun	QC staff	QC	09-799749710	[illegible]

မော်တော်ယာဉ်နှင့်မော်တော်ဆိုင်ကယ်တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့်ဝန်ဆောင်မှုပေးခြင်းလုပ်ငန်းစီမံကိန်း
ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း (နယ်ပယ်အတိုင်းအတာသတ်မှတ်ခြင်းအဆင့်)
အများပြည်သူနှင့်တွေ့ဆုံဆွေးနွေးပွဲ

၂၀၁၈ခုနှစ်၊ ဒီဇင်ဘာလ(၁၄)ရက် သာဓုကန်စက်မှုဇုန်၊ ရွှေပြည်သာမြို့နယ်

စဉ်	အမည်	အလုပ်အကိုင်/ရာထူး	လိပ်စာ/ဌာန	ဆက်သွယ်ရန်ဖုန်း	လက်မှတ်
၁	မှိုင်းဇာချမ်း-ဝင်း	ကယ်ကြိုကျင်းဖူး	ဇရပ်ကွင်း	၀၉ ၇၇၇ ၃၂၅ ၁၃၁	
၂	ဒေါ်ဥမ်းဦးစေး	ဝ/ထ ညောင်ပွဲ	မြေခဲ မိဂုံ	၀၅၄၂၀၁၇၄၅၀၀	
၃	ဒေါ်စောဝေးဝေး-၁၀၄်	ရံ-ဦး-စီ	ကျွဲတွဲကုန်သွယ်ရေး	၀၅-၅၂၀၁၅၈၅-၆၆	
၄	ဦးမိုးကျော်ဦး	ဒု/ပညာရေးမှူး	TEO ရုံး	၀၅.၄၂၀၃၁၁၃၁၃	
၅	ဦးဇင်းသီဟထက်	ထောက်ခံပြင်ဆင်			
၆	ဦးဂျံထွန်း	〃			
၇	ဦးဆင်ဖြူးအောင်	〃			
၈	ဦးစံမြင့်ဝေအောင်	〃			
၉	ဦးသိန်းဒွေး	manager	〃	၀၉၇၃၉၄၁၄၅၃	

မော်တော်ယာဉ်နှင့်မော်တော်ဆိုင်ကယ်တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့်ဝန်ဆောင်မှုပေးခြင်းလုပ်ငန်းစီမံကိန်း
ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း (နယ်ပယ်အတိုင်းအတာသတ်မှတ်ခြင်းအဆင့်)
အများပြည်သူနှင့်တွေ့ဆုံဆွေးနွေးပွဲ

၂၀၁၈ခုနှစ်၊ ဒီဇင်ဘာလ(၁၄)ရက် သာဓုကန်စက်မှုဇုန်၊ ရွှေပြည်သာမြို့နယ်

စဉ်	အမည်	အလုပ်အကိုင်/ရာထူး	လိပ်စာ/ဌာန	ဆက်သွယ်ရန်ဖုန်း	လက်မှတ်
	ဦးကောင်းထွန်	ထုတ်လုပ်ဝန်ထမ်	ကျောက်ကာ	၀၅၇၆၁၀၁၉၄၄၈၃	
	၁။ ကိုကိုဆိုင်	ဒုတိယဥက္ကဋ္ဌ	ဒီဇယ်အင်ဂျင်စက်ထုတ်လုပ်ရေး	၀၅၂၅၀၆ ၂၄၅၆၄	
	၂။ ဒေါ်ခင်ရီဝင်းမြင့်	စက်မှုဝန်ထမ်းဝင်	သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေး		
	၃။ ဝင်းနိုင်	ဌာနမှူးအရာရှိ	ဒီဇယ်အင်ဂျင်စက်ထုတ်လုပ်ရေး	၀၅၂၅၁၀ ၃၄၇၇	
	Dr ဦးဝင်းလင်း	Dy - TMO	SPT Hospital	၀၅၂၀၀၀၉၉၅၇	

မော်တော်ယာဉ်နှင့်မော်တော်ဆိုင်ကယ်တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့်ဝန်ဆောင်မှုပေးခြင်းလုပ်ငန်းစီမံကိန်း
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အများပြည်သူနှင့်တွေ့ဆုံဆွေးနွေးပွဲ

၂၀၁၈ခုနှစ်၊ ဒီဇင်ဘာလ(၁၄)ရက် သာဓုကန်စက်မှုဇုန်၊ ရွှေပြည်သာမြို့နယ်

စဉ်	အမည်	အလုပ်အကိုင်/ရာထူး	လိပ်စာ/ဌာန	ဆက်သွယ်ရန်ဖုန်း	လက်မှတ်
၁	ဒေါ်သက်လေးခြင်း	ဦးစီးဝရာဂြီ	ECD, Yangon	09 969827668	[signature]
၂	ဒေါ်ယုယုဖြိုး	အုတိယဦးစီးမှူး	ECD, NYGN	09951088421	[signature]
၃	Oh Yong Seok	Deputy General manager	IKLM	09429682374	[signature]
၄	U Kyaw Shein	Techanician	QA / QC	09 968352521	[signature]
၅	U Kyaw That	Techinican	QA / QC	09-420201867	[signature]
၆	Kyaw Zin Moe	Technicial	QA/QC	09-781602257	[signature]
7	Than Zaw	Techanician	QA / QC	09-256286286	[signature]
8.	Aung Phyo Kyaw	Staff	QA / QC	09-261201885	[signature]
9.	Kaung Myat Kyaw	As. Ex/Bagan Royal star Co,Ltd.	မြလမ်း၊ ဘာဂုကန်	09-798199403	[signature]

အကြံပြုလွှာ

အများပြည်သူနှင့်တွေ့ဆုံဆွေးနွေးပွဲ

မော်တော်ယာဉ်နှင့်မော်တော်ဆိုင်ကယ်တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့်ဝန်ဆောင်မှုပေးခြင်းလုပ်ငန်းစီမံကိန်း ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း (နယ်ပယ်အတိုင်းအတာသတ်မှတ်ခြင်းအဆင့်)

ရက်စွဲ - ၂၀၁၈ခုနှစ်၊ ဒီဇင်ဘာလ(၁၄)ရက်

နေရာ - သာဓုကန်စက်မှုဇုန်၊ ရွှေပြည်သာမြို့နယ်

အကြံပြုချက်များအားအောက်တွင်ဖော်ပြပေးပါရန်။ လူကြီးမင်း၏အကြံပြုချက်အားလိုက်လဲစွာကြိုဆိုပါသည်။		
အမည်		လူကြီးမင်း၏အမည်အားမဖော်ပြလိုပါက ချန်လှပ်ထားနိုင်ပါသည်။
ဆက်သွယ်ရန်ဖုန်း		
လိပ်စာ/ဌာန		

Processing Diagram

Production Line-up

HYUNDAI MOTOR CAR



Accent



Tucson



Creta



Grand i10



Santa Fe



Sonata



Elantra



Azera



H100

DAEHAN



Prime



Megatron



Tera-190

KR MOTORS



Romeo



Juliet



K-pop

Production Process

Hyundai Motor Car

1
Inspection
Body
Engine / TM
Electric
Chassis
Trim

2	
Sub Assembly Line	
Engine / TM	Mission
	Generator
	Start Motor
	Compressor
	Mounting Brkt
	Aircon Pipe
Door	Front LH
	Front RH
	Rear LH
	Rear RH
	Back Door
Seat	
Instrument Panel	
Trunk Lid	
Bumper	
F/R Axle	
Brake Booster	
Fuel Tank	

3	
Assembly Line	
Trim Line	Floor Mat
	Head Lining
	Center Consol
	Door
	Seat
	Instrument Panel
	Gear Box
Chassis	Front Axle
	Rear Axle
	Tire
	Engine
	Brake Pipe
	Fuel Tank
	Shock Absorbor
	Coil Spring
	Gear Linkage
Final Assembly	Front Bumper
	Head Lamp
	Grill
	Rear Combi Lamp
	Lubricant/Gas

4
Test Line
Exhaust Test
Wheel Alignment
Wheel Angle
Speed Test
Brake Test
Weight Test
Horn Test
Headlight Test
Side Slip
Water Proof Test
Test Road

Production Process

DAEHAN

1
Inspection
Engraving Engine No.
Press-in Crank Case Bearing
Oil Pump / Oil Jet
Apply Crank Case Bond
Crank Shaft / Gear Shift Cam
Crank Case R-L
Oil Strainer Cap
Engine Sprocket

2	
Sub Assembly Line	
Engine / TM	Mission
	Generator
	Start Motor
	Compressor
	Mounting Bracket
	Aircon Pipe
Door	
Cabin Sub	Floor Mat
	Head Lining
	Center Consol
	Instrument Panel
Seat	
Instrument panel	
Tire	
Cargo	
Bumper	
F/R axle	
Brake booster	
Fuel Tank	

3	
Assembly Line	
Chassis (Frame)	Front Axle
	Rear Axle
	Suspension
	Engine
	Gear Box
	Fuel tank
	Exhaust pipe
	Cabin
	Cargo
	Brake Pipe
	Tire
	Front Bumper
	Rear Bumper
	Rear Combi Lamp
	Cargo liner
	DVD
	Lubricant/Gas

4
Test Line
Exhaust Test
Wheel Alignment
Wheel angle
Speed Test
Brake Test
Weight Test
Horn Test
Headlight Test
Side Slip
Water Proof Test
Test Road

Production Process

KR Motor Cycle

1	2	3	4	5	6	7
Sub Engine Assembly	**Engine Assembly**	**Engine Test**	**Painting**	**Sub Assembly**	**Main Assembly**	**Test**
Engraving Engine No.	Magneto Rotor	Leakage Test	Loading	Engraving Frame No.	Load Engine	Exhaust Test
Press-in Crank Case Bearing	Piston / Cylinder	Ignition Test	Pre Degrease	Press-in Bearing	Main Line Fixture	Brake Test
Oil Pump / Oil Jet	Cylinder Head / Cam Shaft	Motoring Test	Degrease	Attach Production Plate	Muffler Exaust Pipe	Weight Test
Apply Crank Case Bond	Driven Gear Balance	Firing Test	Water Rinse	Harness	Radiator	Horn Test
Crank Shaft / Gear Shift Cam	Primary Drive Gear		Surface Conditioning	I/G Coil & ECU	Under Cowling	Headlight Test
Crank Case R-L	Clutch		Water Rinse	Relay Set	Front Fork / Meter	
Oil Strainer Cap	Clutch Cover / Start Motor		Dry	Rear Swing Arm	Rear Wheel	
Engine Sprocket	Magneto Cover		Masking	Shock Absorber	Handle Bar	
	Throttle Body		Dipping	Rear Fender	Fooot Rest	
			Spray		Gear Change Lever	
			Dry		Air Cleaner	
			Unloading		Thtottle Cable	
			Inspection		Fuel Tank / Fuel Tank Cover	
			Repair		Inject Brake Oil / Cooling Water	
					Fuel Tank Cover	
					Seat	

Manufacturing Process Map (Automobile)

Sub Assembly Line

4 Sections, 13 Manpower

1	2	3	4
1.Front Cross Member	1.Engine + Transmission	1. Front Axle hub LH & RH	1. Rear Axle

Main Assembly Line

16 Sections, 89 Manpower

1	2	3	4	5	6	7	8
1.Fuel Tank Assy 2.Rear Axle + Rear s/abs LH + RH	1. ABS Sensor 2. Rear Parking Cable	1. Axle & tire RH + LH	1. Eng. Wiring harness 2.Gear Cable 3.Clutch Tube	1. Aircon Suction Hose 2.Radiator / Condensor Assy	1. Air guide LH + RH 2. Horn Assy	1. Rear Seat Assy 2. Head Lamp	1. Front Seat RH + LH

9	10	11	12	13	14	15	16
1.Rear Bumper Assy 2.Front Bumper Assy	1.Rear combi lamp RH + LH	1. Rear Door RH + LH	1.Front Door RH + LH	1. Aircon Gas 2. Trunk Cover	1. Eng Muffler Set 2. Under Cover	1. Charging Coolant 2. Wiper arm / Blade RH + LH	1. Brake Liquid Injection 2. Eng Under Center Cover 3. Eng Starting & Inspection

Testing Line

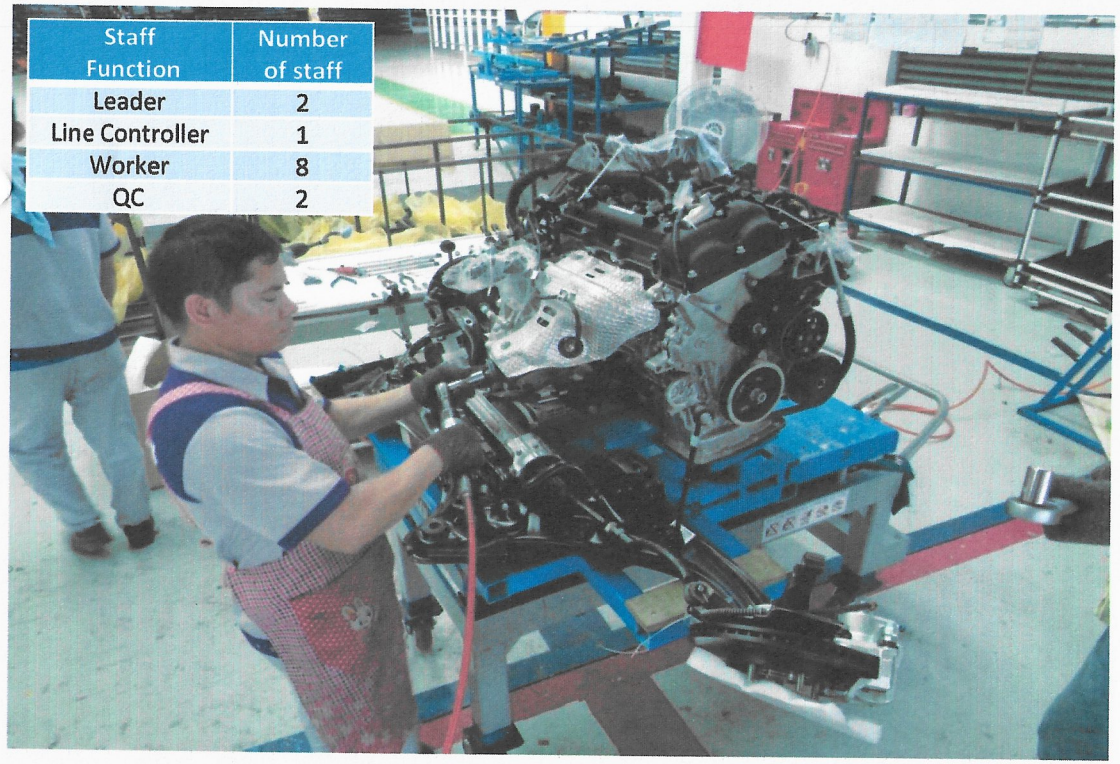
7 Sections, 26 Manpower

1	2	3	4	5	6	7
1.Steering Handle Adjust	1.Air bag module	1. Wheel Alignment	1. A.B.S.	1.Exhaust Gas	1.Head Lamp Aiming	1. Rear seat assy

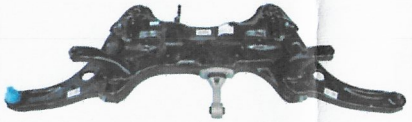
Manufacturing Process Map (Automobile)

Sub Assembly Line

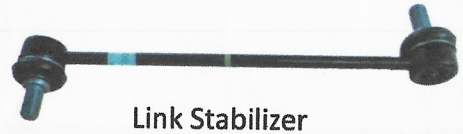
1	2	3	4
1.Front Cross Member	1.Engine + Transmission	1. Front Axle hub LH & RH	1. Rear Axle



Staff Function	Number of staff
Leader	2
Line Controller	1
Worker	8
QC	2



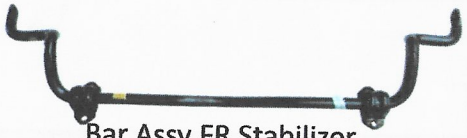
Cross Member



Link Stabilizer



Cross Member



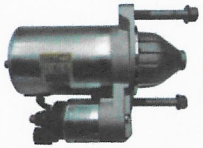
Bar Assy FR Stabilizer



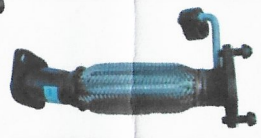
Shaft Assy Drive RH



Shaft Assy Drive LH



Starter Motor



Muffler Assy



Heat Protect Assy



FRT Axle RH

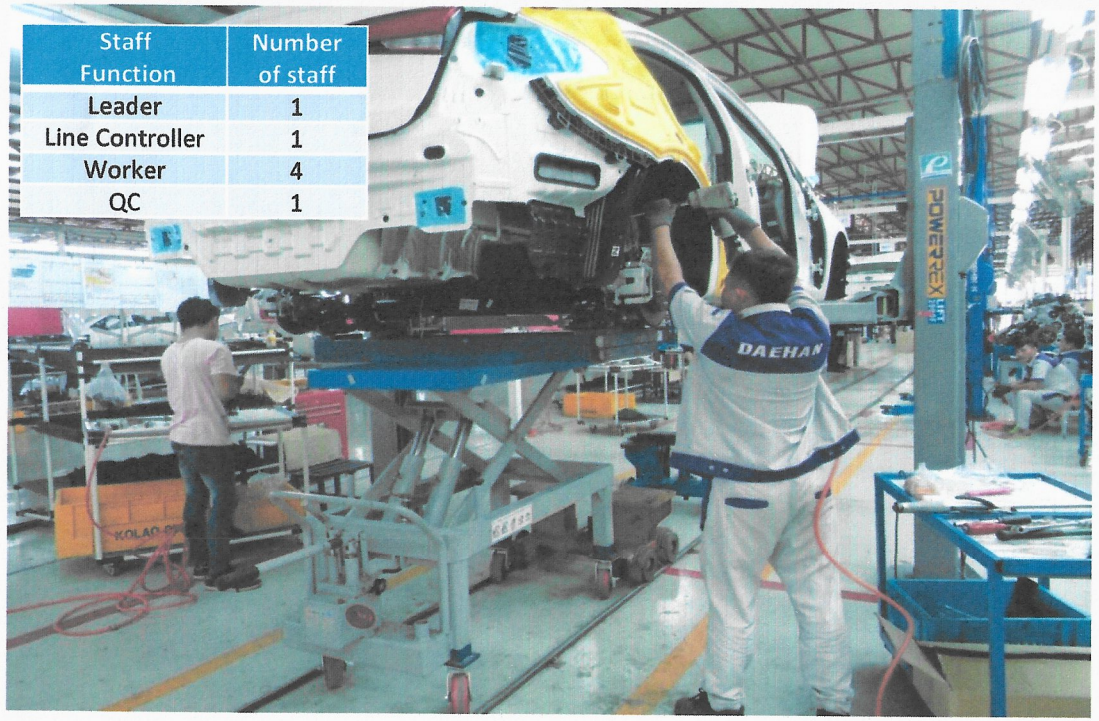
Manufacturing Process Map (Automobile)

Main Assembly Line

1	2	3	4	5	6	7	8
1.Fuel Tank Assy 2.Rear Axle + Rear s/abs LH + RH	1. ABS Sensor 2. Rear Parking Cable	1. Axle & tire RH + LH	1. Eng. Wiring harness 2. Gear Cable 3. Clutch Tube	1. Aircon Suction Hose 2. Radiator / Condensor Assy	1. Air guide LH + RH 2. Horn Assy	1. Rear Seat Assy 2. Head Lamp	1. Front Seat RH + LH

9	10	11	12	13	14	15	16
1.Rear Bumper Assy 2.Front Bumper Assy	1.Rear combi lamp RH + LH	1. Rear Door RH + LH	1.Front Door RH + LH	1. Aircon Gas 2. Trunk Cover	1. Eng Muffler Set 2. Under Cover	1. Charging Coolant 2. Wiper arm / Blade RH + LH	1. Brake Liquid Injection 2. Eng Under Center Cover 3. Eng Starting & Inspection

Staff Function	Number of staff
Leader	1
Line Controller	1
Worker	4
QC	1

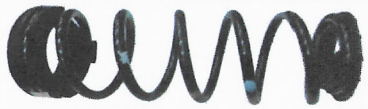




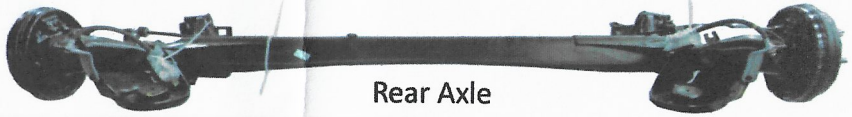
Band Assy



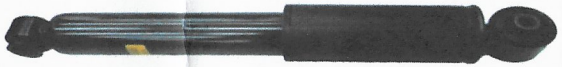
Fuel Tank



Spring RR



Rear Axle



Rear Shock upseber

Manufacturing Process Map (Automobile)

Main Assembly Line

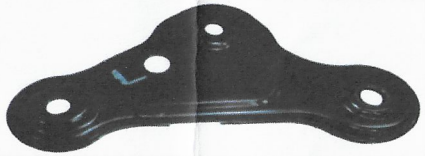
1	2	3	4	5	6	7	8
1.Fuel Tank Assy 2.Rear Axle + Rear s/abs LH + RH	1. ABS Sensor 2. Rear Parking Cable	1. Axle & tire RH + LH	1. Eng. Wiring harness 2. Gear Cable 3. Clutch Tube	1. Aircon Suction Hose 2. Radiator / Condensor Assy	1. Air guide LH + RH 2. Horn Assy	1. Rear Seat Assy 2. Head Lamp	1. Front Seat RH + LH

9	10	11	12	13	14	15	16
1.Rear Bumper Assy 2.Front Bumper Assy	1.Rear combi lamp RH + LH	1. Rear Door RH + LH	1.Front Door RH + LH	1. Aircon Gas 2. Trunk Cover	1. Eng Muffler Set 2. Under Cover	1. Charging Coolant 2. Wiper arm / Blade RH + LH	1. Brake Liquid Injection 2. Eng Under Center Cover 3. Eng Starting & Inspection

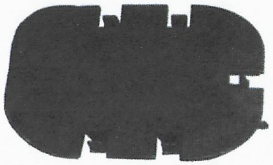




Engine SUB Complete



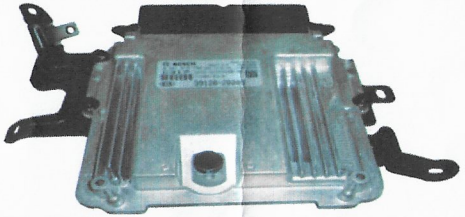
CROSSMEMBER COMPL Bracket



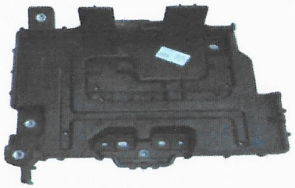
Cover side transmission



Staff Function	Number of staff
Leader	1
Line Controller	1
Worker	4
QC	1



ECU



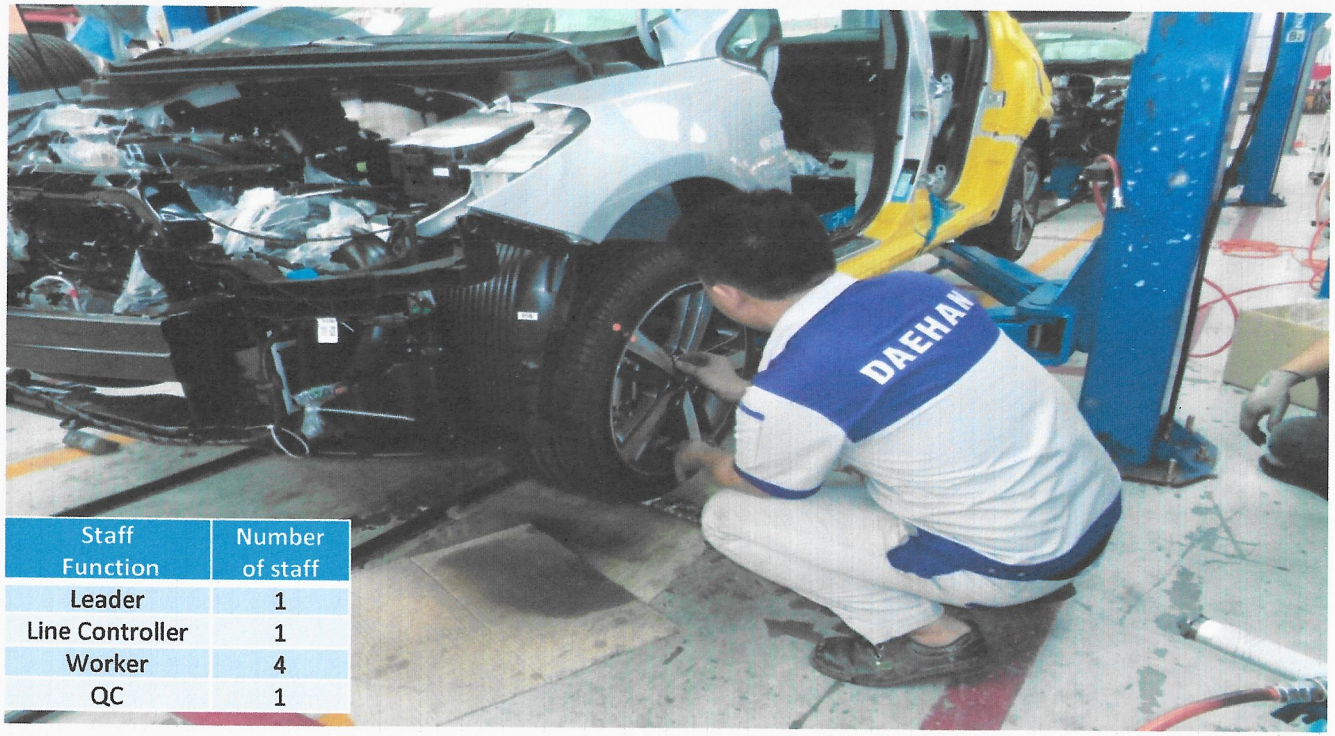
TRAY ASSY-BATTERY

Manufacturing Process Map (Automobile)

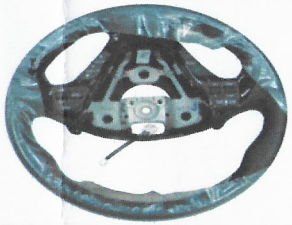
Main Assembly Line

1	2	3	4	5	6	7	8
1.Fuel Tank Assy 2.Rear Axle + Rear s/abs LH + RH	1. ABS Sensor 2. Rear Parking Cable	1. Axle & tire RH + LH	1. Eng. Wiring harness 2. Gear Cable 3. Clutch Tube	1. Aircon Suction Hose 2. Radiator / Condensor Assy	1. Air guide LH + RH 2. Horn Assy	1. Rear Seat Assy 2. Head Lamp	1. Front Seat RH + LH

9	10	11	12	13	14	15	16
1.Rear Bumper Assy 2.Front Bumper Assy	1.Rear combi lamp RH + LH	1. Rear Door RH + LH	1.Front Door RH + LH	1. Aircon Gas 2. Trunk Cover	1. Eng Muffler Set 2. Under Cover	1. Charging Coolant 2. Wiper arm / Blade RH + LH	1. Brake Liquid Injection 2. Eng Under Center Cover 3. Eng Starting & Inspection



Staff Function	Number of staff
Leader	1
Line Controller	1
Worker	4
QC	1



WHEEL ASSY-STEERING



Key



TIRE & WHEEL ASSY

Manufacturing Process Map (Automobile)

Main Assembly Line

1	2	3	4	5	6	7	8
1.Fuel Tank Assy 2.Rear Axle + Rear s/abs LH + RH	1. ABS Sensor 2. Rear Parking Cable	1. Axle & tire RH + LH	1. Eng. Wiring harness 2.Gear Cable 3.Clutch Tube	1. Aircon Suction Hose 2.Radiator / Condensor Assy	1. Air guide LH + RH 2. Horn Assy	1. Rear Seat Assy 2. Head Lamp	1. Front Seat RH + LH
9	**10**	**11**	**12**	**13**	**14**	**15**	**16**
1.Rear Bumper Assy 2.Front Bumper Assy	1.Rear combi lamp RH + LH	1. Rear Door RH + LH	1.Front Door RH + LH	1. Aircon Gas 2. Trunk Cover	1. Eng Muffler Set 2. Under Cover	1. Charging Coolant 2. Wiper arm / Blade RH + LH	1. Brake Liquid Injection 2. Eng Under Center Cover 3. Eng Starting & Inspection





Staff Function	Number of staff
Leader	1
Line Controller	1
Worker	5
QC	1



Cover Center

Manufacturing Process Map (Automobile)

Main Assembly Line

1	2	3	4	5	6	7	8
1.Fuel Tank Assy 2.Rear Axle + Rear s/abs LH + RH	1. ABS Sensor 2. Rear Parking Cable	1. Axle & tire RH + LH	1. Eng. Wiring harness 2.Gear Cable 3.Clutch Tube	1. Aircon Suction Hose 2.Radiator / Condensor Assy	1. Air guide LH + RH 2. Horn Assy	1. Rear Seat Assy 2. Head Lamp	1. Front Seat RH + LH

9	10	11	12	13	14	15	16
1.Rear Bumper Assy 2.Front Bumper Assy	1.Rear combi lamp RH + LH	1. Rear Door RH + LH	1.Front Door RH + LH	1. Aircon Gas 2. Trunk Cover	1. Eng Muffler Set 2. Under Cover	1. Charging Coolant 2. Wiper arm / Blade RH + LH	1. Brake Liquid Injection 2. Eng Under Center Cover 3. Eng Starting & Inspection





Staff Function	Number of staff
Leader	1
Line Controller	1
Worker	4
QC	1



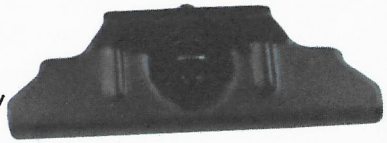
RADIATOR ASSY



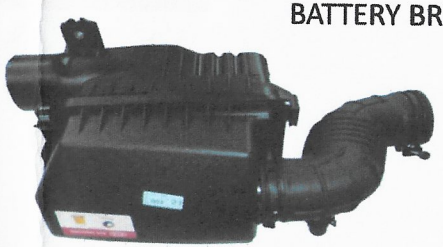
CRAMP



INSULATION PAD-BATTERY



BATTERY BRACKET



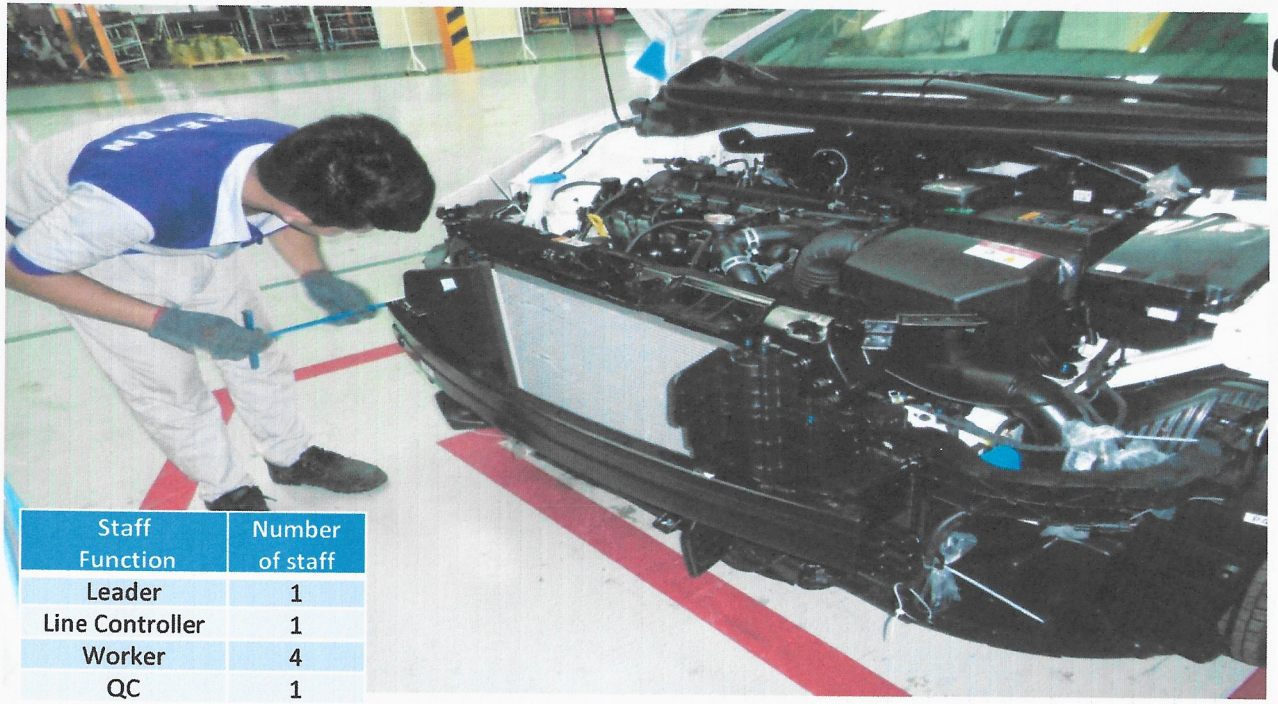
CLEANER ASSY-AIR

Manufacturing Process Map (Automobile)

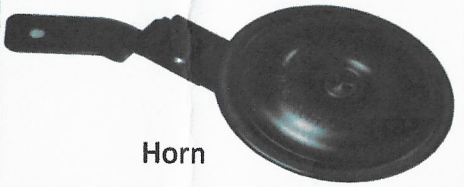
Main Assembly Line

1	2	3	4	5	6	7	8
1.Fuel Tank Assy 2.Rear Axle + Rear s/abs LH + RH	1. ABS Sensor 2. Rear Parking Cable	1. Axle & tire RH + LH	1. Eng. Wiring harness 2.Gear Cable 3.Clutch Tube	1. Aircon Suction Hose 2.Radiator / Condensor Assy	1. Air guide LH + RH 2. Horn Assy	1. Rear Seat Assy 2. Head Lamp	1. Front Seat RH + LH

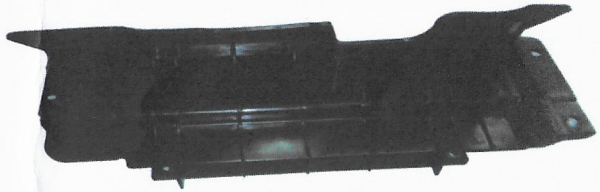
9	10	11	12	13	14	15	16
1.Rear Bumper Assy 2.Front Bumper Assy	1.Rear combi lamp RH + LH	1. Rear Door RH + LH	1.Front Door RH + LH	1. Aircon Gas 2. Trunk Cover	1. Eng Muffler Set 2. Under Cover	1. Charging Coolant 2. Wiper arm / Blade RH + LH	1. Brake Liquid Injection 2. Eng Under Center Cover 3. Eng Starting & Inspection



Staff Function	Number of staff
Leader	1
Line Controller	1
Worker	4
QC	1



Horn



GUARD-AIR, LH



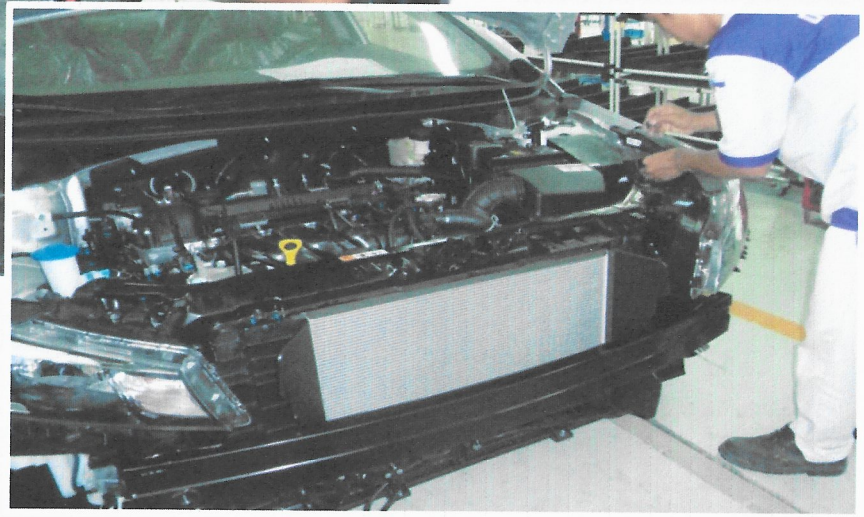
GUARD-AIR, RH

Manufacturing Process Map (Automobile)

Main Assembly Line

1	2	3	4	5	6	7	8
1.Fuel Tank Assy 2.Rear Axle + Rear s/abs LH + RH	1. ABS Sensor 2. Rear Parking Cable	1. Axle & tire RH + LH	1. Eng. Wiring harness 2.Gear Cable 3.Clutch Tube	1. Aircon Suction Hose 2.Radiator / Condensor Assy	1. Air guide LH + RH 2. Horn Assy	1. Rear Seat Assy 2. Head Lamp	1. Front Seat RH + LH
9	**10**	**11**	**12**	**13**	**14**	**15**	**16**
1.Rear Bumper Assy 2.Front Bumper Assy	1.Rear combi lamp RH + LH	1. Rear Door RH + LH	1.Front Door RH + LH	1. Aircon Gas 2. Trunk Cover	1. Eng Muffler Set 2. Under Cover	1. Charging Coolant 2. Wiper arm / Blade RH + LH	1. Brake Liquid Injection 2. Eng Under Center Cover 3. Eng Starting & Inspection



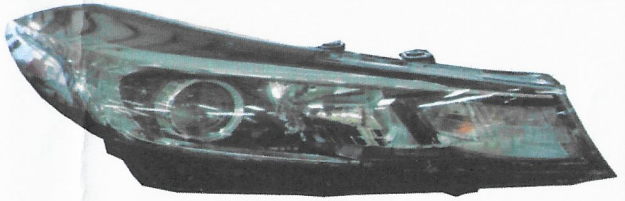


Staff Function	Number of staff
Leader	1
Line Controller	1
Worker	2
QC	1



FRT HEAD REST RH-LH

CUSHION ASSY-RR SEAT



Head lamp

Manufacturing Process Map (Automobile)

Main Assembly Line

1	2	3	4	5	6	7	8
1.Fuel Tank Assy 2.Rear Axle + Rear s/abs LH + RH	1. ABS Sensor 2. Rear Parking Cable	1. Axle & tire RH + LH	1. Eng. Wiring harness 2.Gear Cable 3.Clutch Tube	1. Aircon Suction Hose 2.Radiator / Condensor Assy	1. Air guide LH + RH 2. Horn Assy	1. Rear Seat Assy 2. Head Lamp	1. Front Seat RH + LH

9	10	11	12	13	14	15	16
1.Rear Bumper Assy 2.Front Bumper Assy	1.Rear combi lamp RH + LH	1. Rear Door RH + LH	1.Front Door RH + LH	1. Aircon Gas 2. Trunk Cover	1. Eng Muffler Set 2. Under Cover	1. Charging Coolant 2. Wiper arm / Blade RH + LH	1. Brake Liquid Injection 2. Eng Under Center Cover 3. Eng Starting & Inspection



Staff Function	Number of staff
Leader	1
Line Controller	1
Worker	2
QC	1



Seat FRT

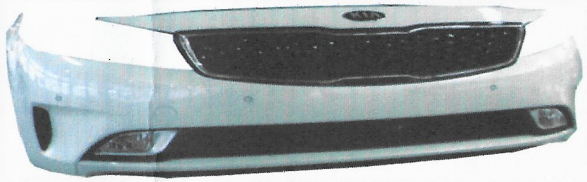
Manufacturing Process Map (Automobile)

Main Assembly Line

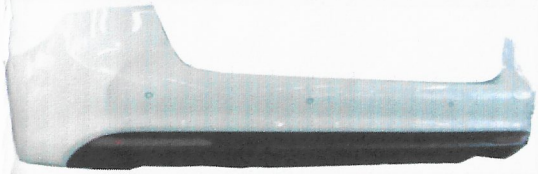
1	2	3	4	5	6	7	8
1.Fuel Tank Assy 2.Rear Axle + Rear s/abs LH + RH	1. ABS Sensor 2. Rear Parking Cable	1. Axle & tire RH + LH	1. Eng. Wiring harness 2. Gear Cable 3. Clutch Tube	1. Aircon Suction Hose 2. Radiator / Condensor Assy	1. Air guide LH + RH 2. Horn Assy	1. Rear Seat Assy 2. Head Lamp	1. Front Seat RH + LH
9	**10**	**11**	**12**	**13**	**14**	**15**	**16**
1.Rear Bumper Assy 2.Front Bumper Assy	1.Rear combi lamp RH + LH	1. Rear Door RH + LH	1.Front Door RH + LH	1. Aircon Gas 2. Trunk Cover	1. Eng Muffler Set 2. Under Cover	1. Charging Coolant 2. Wiper arm / Blade RH + LH	1. Brake Liquid Injection 2. Eng Under Center Cover 3. Eng Starting & Inspection



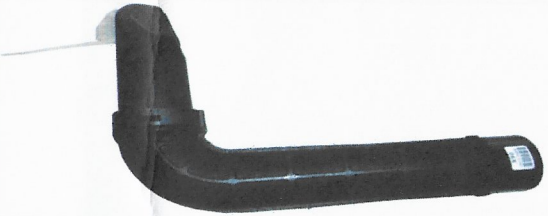
Staff Function	Number of staff
Leader	1
Line Controller	1
Worker	2
QC	1



FRT - Bumper



RR-Bumper



DUCT-AIR

Manufacturing Process Map (Automobile)

Main Assembly Line

1	2	3	4	5	6	7	8
1.Fuel Tank Assy 2.Rear Axle + Rear s/abs LH + RH	1. ABS Sensor 2. Rear Parking Cable	1. Axle & tire RH + LH	1. Eng. Wiring harness 2. Gear Cable 3. Clutch Tube	1. Aircon Suction Hose 2. Radiator / Condensor Assy	1. Air guide LH + RH 2. Horn Assy	1. Rear Seat Assy 2. Head Lamp	1. Front Seat RH + LH

9	10	11	12	13	14	15	16
1.Rear Bumper Assy 2.Front Bumper Assy	1.Rear combi lamp RH + LH	1. Rear Door RH + LH	1.Front Door RH + LH	1. Aircon Gas 2. Trunk Cover	1. Eng Muffler Set 2. Under Cover	1. Charging Coolant 2. Wiper arm / Blade RH + LH	1. Brake Liquid Injection 2. Eng Under Center Cover 3. Eng Starting & Inspection



Staff Function	Number of staff
Leader	1
Line Controller	1
Worker	1
QC	1



LAMP ASSY-RR COMB O/S RH

Manufacturing Process Map (Automobile)

Main Assembly Line

1	2	3	4	5	6	7	8
1.Fuel Tank Assy 2.Rear Axle + Rear s/abs LH + RH	1. ABS Sensor 2. Rear Parking Cable	1. Axle & tire RH + LH	1. Eng. Wiring harness 2. Gear Cable 3. Clutch Tube	1. Aircon Suction Hose 2. Radiator / Condensor Assy	1. Air guide LH + RH 2. Horn Assy	1. Rear Seat Assy 2. Head Lamp	1. Front Seat RH + LH

9	10	11	12	13	14	15	16
1.Rear Bumper Assy 2.Front Bumper Assy	1.Rear combi lamp RH + LH	1. Rear Door RH + LH	1.Front Door RH + LH	1. Aircon Gas 2. Trunk Cover	1. Eng Muffler Set 2. Under Cover	1. Charging Coolant 2. Wiper arm / Blade RH + LH	1. Brake Liquid Injection 2. Eng Under Center Cover 3. Eng Starting & Inspection



Staff Function	Number of staff
Leader	1
Line Controller	1
Worker	1
QC	1



DOOR PANEL RR RH -LH ASSY

Manufacturing Process Map (Automobile)

Main Assembly Line

1	2	3	4	5	6	7	8
1.Fuel Tank Assy 2.Rear Axle + Rear s/abs LH + RH	1. ABS Sensor 2. Rear Parking Cable	1. Axle & tire RH + LH	1. Eng. Wiring harness 2. Gear Cable 3. Clutch Tube	1. Aircon Suction Hose 2. Radiator / Condensor Assy	1. Air guide LH + RH 2. Horn Assy	1. Rear Seat Assy 2. Head Lamp	1. Front Seat RH + LH

9	10	11	12	13	14	15	16
1.Rear Bumper Assy 2.Front Bumper Assy	1.Rear combi lamp RH + LH	1. Rear Door RH + LH	1.Front Door RH + LH	1. Aircon Gas 2. Trunk Cover	1. Eng Muffler Set 2. Under Cover	1. Charging Coolant 2. Wiper arm / Blade RH + LH	1. Brake Liquid Injection 2. Eng Under Center Cover 3. Eng Starting & Inspection



Staff Function	Number of staff
Leader	1
Line Controller	1
Worker	1
QC	1



MIRROR ASSY-OS RR VIEW,RH -LH

DOOR PANEL FRt RH-LH ASSY

Manufacturing Process Map (Automobile)

Main Assembly Line

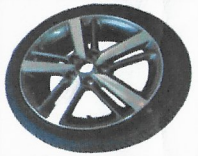
1	2	3	4	5	6	7	8
1.Fuel Tank Assy 2.Rear Axle + Rear s/abs LH + RH	1. ABS Sensor 2. Rear Parking Cable	1. Axle & tire RH + LH	1. Eng. Wiring harness 2. Gear Cable 3. Clutch Tube	1. Aircon Suction Hose 2. Radiator / Condensor Assy	1. Air guide LH + RH 2. Horn Assy	1. Rear Seat Assy 2. Head Lamp	1. Front Seat RH + LH

9	10	11	12	13	14	15	16
1.Rear Bumper Assy 2.Front Bumper Assy	1.Rear combi lamp RH + LH	1. Rear Door RH + LH	1.Front Door RH + LH	1. Aircon Gas 2. Trunk Cover	1. Eng Muffler Set 2. Under Cover	1. Charging Coolant 2. Wiper arm / Blade RH + LH	1. Brake Liquid Injection 2. Eng Under Center Cover 3. Eng Starting & Inspection

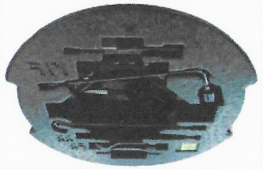




Staff Function	Number of staff
Leader	1
Line Controller	1
Worker	1
QC	1



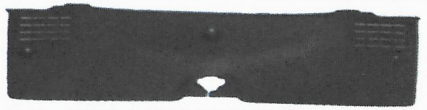
SPARE TIRE



TOOLS SET



BOARD ASSY Y-LUGGAGE



TRIM-TRANSVERSE RR

Manufacturing Process Map (Automobile)

Main Assembly Line

1	2	3	4	5	6	7	8
1.Fuel Tank Assy 2.Rear Axle + Rear s/abs LH + RH	1. ABS Sensor 2. Rear Parking Cable	1. Axle & tire RH + LH	1. Eng. Wiring harness 2.Gear Cable 3.Clutch Tube	1. Aircon Suction Hose 2.Radiator / Condensor Assy	1. Air guide LH + RH 2. Horn Assy	1. Rear Seat Assy 2. Head Lamp	1. Front Seat RH + LH

9	10	11	12	13	14	15	16
1.Rear Bumper Assy 2.Front Bumper Assy	1.Rear combi lamp RH + LH	1. Rear Door RH + LH	1.Front Door RH + LH	1. Aircon Gas 2. Trunk Cover	1. Eng Muffler Set 2. Under Cover	1. Charging Coolant 2. Wiper arm / Blade RH + LH	1. Brake Liquid Injection 2. Eng Under Center Cover 3. Eng Starting & Inspection



Staff Function	Number of staff
Leader	1
Line Controller	1
Worker	2
QC	1



PIPE-EXHAUST CTR



MUFFLER ASSY-MAIN



PANEL-ASSY UNDER COVER FRT, LH - RH



GUARD ASSY FRT-RR WHEEL MUD RH - LH



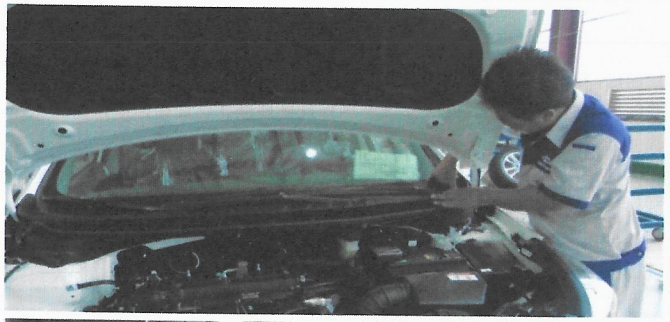
RR - UNDER COVER

Manufacturing Process Map (Automobile)

Main Assembly Line

1	2	3	4	5	6	7	8
1.Fuel Tank Assy 2.Rear Axle + Rear s/abs LH + RH	1. ABS Sensor 2. Rear Parking Cable	1. Axle & tire RH + LH	1. Eng. Wiring harness 2. Gear Cable 3. Clutch Tube	1. Aircon Suction Hose 2. Radiator / Condensor Assy	1. Air guide LH + RH 2. Horn Assy	1. Rear Seat Assy 2. Head Lamp	1. Front Seat RH + LH

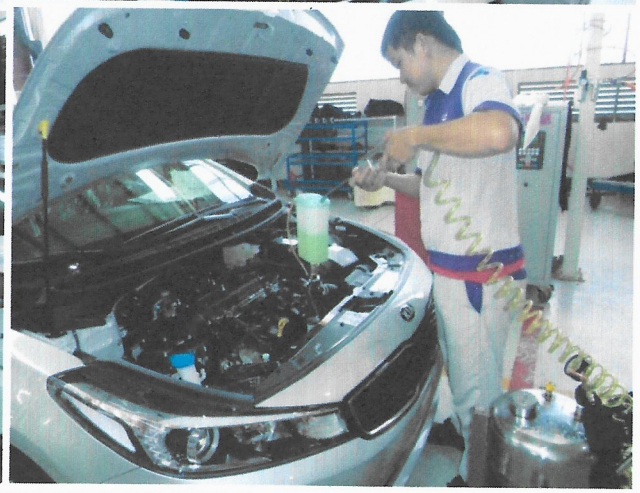
9	10	11	12	13	14	15	16
1.Rear Bumper Assy 2.Front Bumper Assy	1.Rear combi lamp RH + LH	1. Rear Door RH + LH	1.Front Door RH + LH	1. Aircon Gas 2. Trunk Cover	1. Eng Muffler Set 2. Under Cover	1. Charging Coolant 2. Wiper arm / Blade RH + LH	1. Brake Liquid Injection 2. Eng Under Center Cover 3. Eng Starting & Inspection

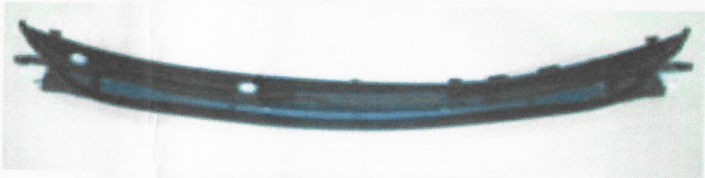




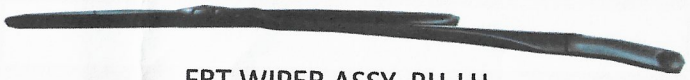


Staff Function	Number of staff
Leader	1
Line Controller	1
Worker	2
QC	1



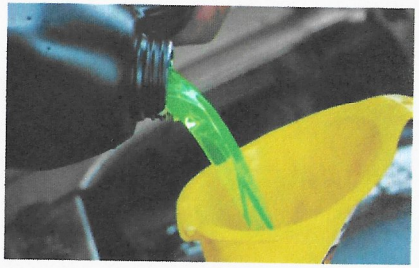


COVER-ASSY COWL TOP



FRT WIPER ASSY RH-LH

Coolant Charging

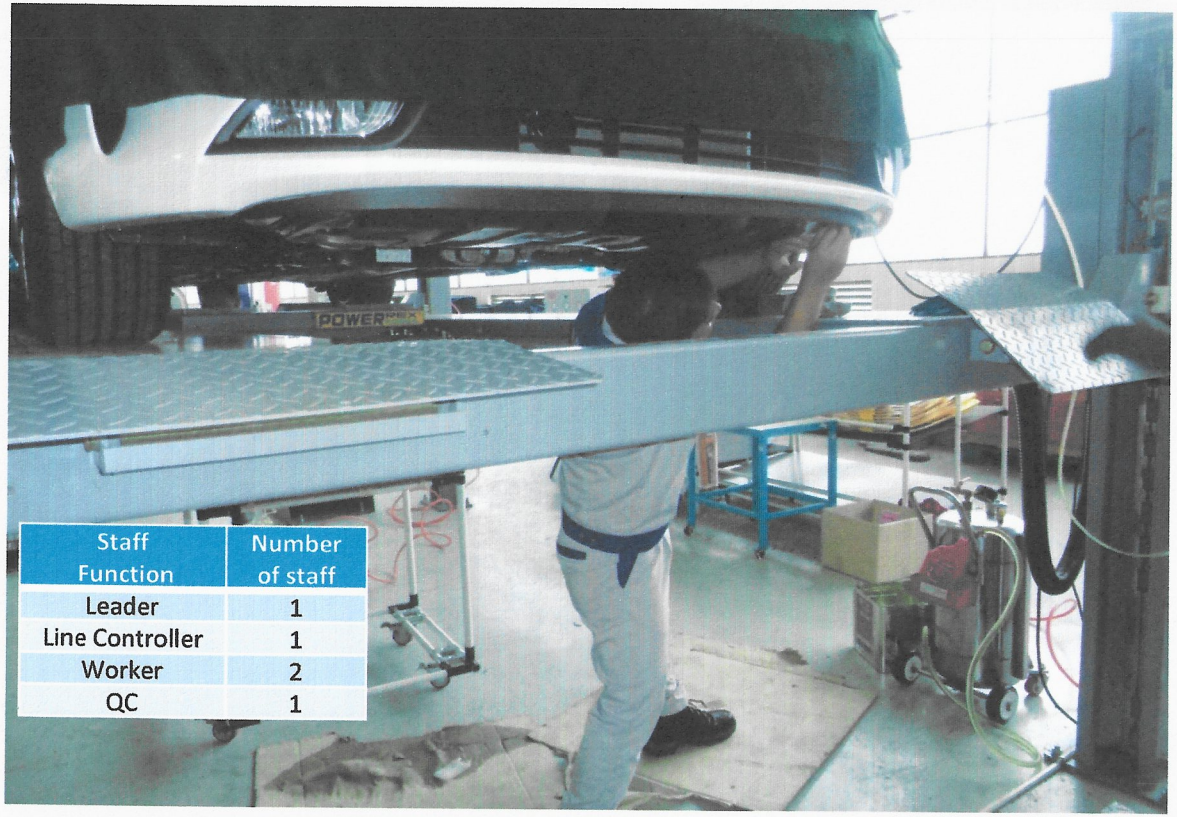


Manufacturing Process Map (Automobile)

Main Assembly Line

1	2	3	4	5	6	7	8
1.Fuel Tank Assy 2.Rear Axle + Rear s/abs LH + RH	1. ABS Sensor 2. Rear Parking Cable	1. Axle & tire RH + LH	1. Eng. Wiring harness 2. Gear Cable 3. Clutch Tube	1. Aircon Suction Hose 2. Radiator / Condensor Assy	1. Air guide LH + RH 2. Horn Assy	1. Rear Seat Assy 2. Head Lamp	1. Front Seat RH + LH

9	10	11	12	13	14	15	16
1.Rear Bumper Assy 2.Front Bumper Assy	1.Rear combi lamp RH + LH	1. Rear Door RH + LH	1.Front Door RH + LH	1. Aircon Gas 2. Trunk Cover	1. Eng Muffler Set 2. Under Cover	1. Charging Coolant 2. Wiper arm / Blade RH + LH	1. Brake Liquid Injection 2. Eng Under Center Cover 3. Eng Starting & Inspection



Staff Function	Number of staff
Leader	1
Line Controller	1
Worker	2
QC	1



Engine Cover



Under Cover

Manufacturing Process Map (Automobile)

Test Line

1/2/3/4





Manufacturing Process Map (Automobile)

Test Line

1/2/3/4





Manufacturing Process Map (Automobile)

Test Line

1/2/3/4





Manufacturing Process Map (Automobile)

Test Line

1/2/3/4







Manufacturing Process Map (Motorcycle)

Frame Welding



Pre-welding



Robot Welding



Main Welding

Manufacturing Process Map (Motorcycle)

Press & Welding



Pressing



Roll Forming



Seam Welding



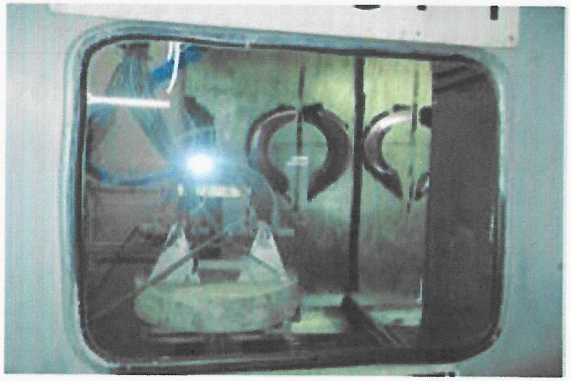
Leakage Test

Manufacturing Process Map (Motorcycle)

Painting & Polishing



Loading & Dust Removing



Plastic Painting



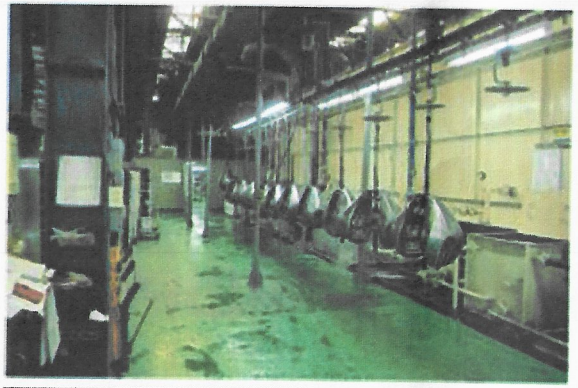
Taping

Manufacturing Process Map (Motorcycle)

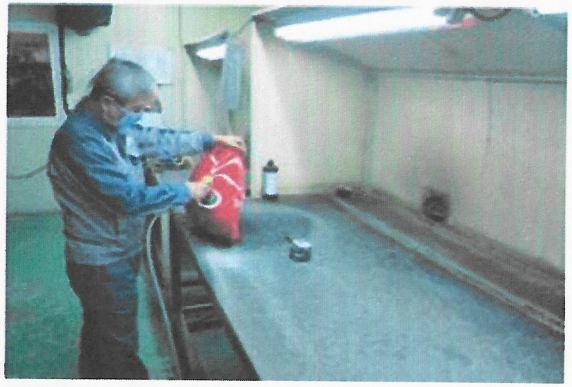
Painting & Polishing



Polishing before Painting



Painting



Polishing after Painting



Fuel Tank Assembly

Manufacturing Process Map (Motorcycle)

Crank Case & Crank Shaft Manufacturing



Crank Case



Crank Shaft



Cleaning

Manufacturing Process Map (Motorcycle)

Engine Assembly



Cylinder Sub-Assembly



Engine Assembly



Engine Leakage Test



General Test

Manufacturing Process Map (Motorcycle)

Parts Sub-assembly (1/2)



Swing Arm Sub-assembly



Muffler Sub-assembly



Head Lamp Sub-assembly



Wheel Sub-assembly

Manufacturing Process Map (Motorcycle)

Parts Sub-assembly (2/2)



Fork Sub-assembly



Break Pedal Sub-assembly



Handle Bar Sub-assembly

Manufacturing Process Map (Motorcycle)

Main Assembly (1/2)



Frame Number Marking



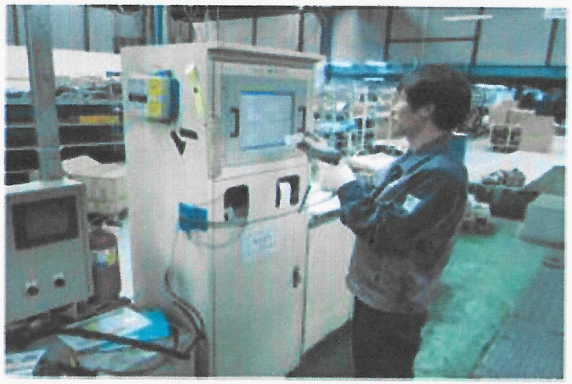
Engine Loading



Main Assembly

Manufacturing Process Map (Motorcycle)

Main Assembly (2/2)



Registration



Inspection



Modification



Ready for Distribution

Shwe Daehan Co., Ltd မှ မော်တော်ယာဉ်နှင့် မော်တော်ဆိုင်ကယ် တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့် ဝန်ဆောင်မူပေးခြင်း လုပ်ငန်း နှင့် ပတ်သက်သော စီမံကိန်းဆိုင်ရာ အချက်အလက်များနှင့် သဘာဝပတ်ဝန်းကျင် ထိခိုက်မူ ဆန်းစစ်လေ့လာမူအား ရှင်းလင်းတင်ပြခြင်း အခမ်းအနား

ရက်စွဲ။ ။ ၁၄ ရက်၊ ဩဂုတ်လ၊ ၂၀၁၉

စဉ်	အမည်	အလုပ်အကိုင်	ရပ်ကွက်	ဖုန်းနံပါတ်	လက်မှတ်
1.	ဦးအောင်ကိုသင်း	ယာဉ်မောင်း	သာဓုကန်	09 762929044	[signature]
2	ဇင်မင်းထွေး	Part & Inventory Staff	"	09-979938649	[signature]
3.	ဖြိုးမြတ်အောင်	"	"	09-455648092	[signature]
4.	မေမွန်အောင်	Parts & Inventory	သာဓုကန်	09-681127223	[signature] 14.8.2019
	ဝင်းထွန်ဝင်း			09979884728	[signature]
	ကောင်းသက်ဝေ		ရွှေပြည်သာ	09783012191	[signature]
	မာန်မင်းဇော်		ရွှေပြည်သာ	09699136523	[signature]
	ဝန်းဝင်းအောင်		ဝါယာလတ်	09683992635	[signature]
	သက်ပိုင်အောင်		ဝါယာလတ်	09761451662	[signature]
	သက်နိုင်ဖြိုး		ဝါယာလတ်	09683992635	[signature]
	မျိုးညီညီရိန်း		ရွှေပြည်သာ	09-695154233	[signature]
	သန်းထိုက်ရီး		ရွှေပြည်သာ	09977049649	[signature]
	အောင်ကိုထိုက်			09-43153763	

Shwe Daehan Co., Ltd မှ မော်တော်ယာဉ်နှင့် မော်တော်ဆိုင်ကယ် တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့် ဝန်ဆောင်မူပေးခြင်း လုပ်ငန်း နှင့် ပတ်သက်သော စီမံကိန်းဆိုင်ရာ အချက်အလက်များနှင့် သဘာဝပတ်ဝန်းကျင် ထိခိုက်မူ ဆန်းစစ်လေ့လာမူအား ရှင်းလင်းတင်ပြခြင်း အခမ်းအနား

ရက်စွဲ။ ။ ၁၄ ရက်၊ ဩဂုတ်လ၊ ၂၀၁၉

စဉ်	အမည်	ဌာန/ အဖွဲ့အစည်း	ဖုန်းနံပါတ်	လက်မှတ်
၁	[illegible]	[illegible]	09448544748	[illegible]
၂	[illegible]	ECD.	09-764555989	[illegible]
၃	[illegible]	ECD	09-799699855	[illegible] 14.8.19
၄	[illegible]	[illegible]	09-260161599	[illegible]
၅	[illegible]	[illegible]	09-977275224	[illegible]
၆	Dr [illegible]	[illegible]	09420009957	[illegible]
၇	[illegible]	[illegible]	09424452754	[illegible]
၈	[illegible]	DD. (MIC - [illegible])	09250155729	[illegible]
၉	[illegible]	[illegible]	09-795202243	[illegible]
၁၀	[illegible]	[illegible]	09-5007303	[illegible]

အကြံပြုလွှာ

အများပြည်သူနှင့် တွေ့ဆုံဆွေးနွေးခြင်း

မော်တော်ယာဉ်နှင့် မော်တော်ဆိုင်ကယ်တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့်ဝန်ဆောင်မှုပေးခြင်း လုပ်ငန်း

စီမံကိန်းဆိုင်ရာအချက်အလက်များနှင့် သဘာဝပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်လေ့လာမှုအား ရှင်းလင်းတင်ပြခြင်း

နေ့စွဲ- ၂၀၁၉၊ ဩဂုတ်လ (၁၄) ရက်

နေရာ - သာဓုကန်စက်မှုဇုန်၊ ရွှေပြည်သာမြို့နယ်

အကြံပြုချက်များအားအောက်တွင်ဖော်ပြပေးပါရန်။ လူကြီးမင်း၏အကြံပြုချက်အားလိုက်လဲစွာကြိုဆိုပါသည်။		
အမည်	ဒေါ်အေးရတနာထွန်းဦး	လူကြီးမင်း၏အမည်အားမဖော်ပြလိုပါက ချန်လှပ်ထားနိုင်ပါသည်။
ဆက်သွယ်ရန်ဖုန်း	၀၉-၇၆၄၄၄၄၄၄၅	
နေရပ်/ဌာန	ECD, Yangon.	

- EIA အစီရင်ခံစာ ရေးဆွဲပြီးပါက ECD သို့ အစီရင်ခံတင်ပြသွားရန်။
- Monitoring ပါ အဆက်မပြတ် ဆက်ခိုင်း၊ စနစ်ကျအောင်လုပ်သွားရန်။
- ပြေစာရှာဖွေရေး၊ ကိုင်းကာ မူကြမ်း ကာဗင်းခုစ ၊ Ph. ပါဝင်ရသည်ကို ဆွေးရုံသာဖြင့် ၁၀၀%ဝန်းကျင်ရှိသူများ၊ စည်ပင်ကဲ့သို့ အသွင်တော်၊ အရေးပါအောင် လုပ်သွားရန်။
- EIA stage study လုပ်တာ၊ အရည်အသွေး ဒီလို ဒေတာတစ်၊ ယူနစ် အရေအတွက်၊ အားလုံးသင့်။
- ရေ ၊ လေ ၊ ပြေ ကိုင်းကာခြင်းကို၊ စက်ရုံဝင်း အတွင်းအကိုင်းကာထား သည်ကိုရော့၊ outdoor အရေခဲ့ ကိုင်းကာပြီး ကိုင်းကာ သူက်များ၊ ကို ရေးပြသင့်။
- စွန့်ပစ် ပစ္စည်း စီမံခန့်ခွဲမှု အကြောင်းကို အကောင်းဆိုက်ရေးပြပေးရန်။ (စွန့်ပစ်ရေ၊ ...)
- biodiversity study လုပ်ထားတာ တွေ့ရပြီး ဘယ်မျိုး၊ ဝိတ်ကာ မျိုးဘဲ၊ ငှက်ဟာ ရှိကြောင်း၊ စာရွက်ရေး သင့်။
- Design stage မှာ၊ အများပြည်သူနှစ် အသွင်းအထွက် များကို ရေးပြပေးရန်၊ ရုံကာခဲတွေ အရေ - အကောင်ကို အရေးပါအောင် ရွက်ပေး၊ မလဲ၊ ဆိုတာ ၊ ဘယ်လောက် အောင် ရွက်ပြီးပြီလဲ၊ ရေးပြပေးရန်။
- Production process details ခဲ့ အသုံးပြု မည့် စနစ်များ၊ ကို ရေးပြပေးရန်။
- ရုံကိုင်းကာ မူကြမ်း၊ ဆိုင်းခိုင်ခဲ့ lab မှာ၊ ကိုင်းကာကြမ်းသို့ ရုံပြီး၊ နှင်း၊ lab ကို၊ ကာဗင်း၊ ခိုင်မာ မူစသာ ဖြင့် ရေးပြပေးရန်။
- EIA study လုပ်သူ များ၏ ကဖွဲ့စည်း ၊ ကျွမ်းကျင် မူ ရှိသော များ၊ ကို ရေးပြသွားရန်။
- ကာကိုင်းတဲ့ ခက် ၊ အသံ ကိုင်းကာ စသော များ၏ Calibration Certificate များ ရေးပြသွားရန်။
- စက်ရုံ ပတ်ဝန်းကျင် ဒီဂရီလုံး ဆို ပြေစာ ၊ သက်ဆိုင်ရာဌာန ကောင်းကွက် သွားရန်။
-

အကြံပြုလွှာ

အများပြည်သူနှင့် တွေ့ဆုံဆွေးနွေးခြင်း

မော်တော်ယာဉ်နှင့် မော်တော်ဆိုင်ကယ်တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့်ဝန်ဆောင်မူပေးခြင်း လုပ်ငန်း

စီမံကိန်းဆိုင်ရာအချက်အလက်များနှင့် သဘာဝပတ်ဝန်းကျင်ထိခိုက်မူဆန်းစစ်လေ့လာမူအား ရှင်းလင်းတင်ပြခြင်း

နေ့စွဲ- ၂၀၁၉၊ ဩဂုတ်လ (၁၄) ရက်

နေရာ - သာဓုကန်စက်မှုဇုန်၊ ရွှေပြည်သာမြို့နယ်

အကြံပြုချက်များအားအောက်တွင်ဖော်ပြပေးပါရန်။ လူကြီးမင်း၏အကြံပြုချက်အားလှိုက်လှဲစွာကြိုဆိုပါသည်။		
အမည်	ဦး မျိုးမင်းအောင်	လူကြီးမင်း၏အမည်အားမဖော်ပြလိုပါက ချန်လှပ်ထားနိုင်ပါသည်။
ဆက်သွယ်ရန်ဖုန်း	09-795202243	
နေရပ်/ဌာန	တွေ/အုပ် (ရွှေပြည်သာ)	

- စက်ရုံ ပတ်ဝန်းကျင်ရှိ ရပ်ကွက် / ကျေးရွာများတွင်နေထိုင်ကြသည့် အေသာ ပြည်သူများအား စက်ရုံ တည်ထောင်လုပ်ကိုင်မှု ကြောင့် သဘာဝပတ်ဝန်းကျင်ထိခိုက်မှု အခြေအနေကို ကျယ်ကျယ်ပြန့်ပြန့် သိရှိစေရေး စက်ရုံ တာဝန်ရှိသူများမှ ဆောင်ရွက်ပေးပါက စက်ရုံ ပတ်ဝန်းကျင်နေ ပြည်သူများမှ စက်ရုံ တည်ရှိနေမှု နှင့် စက်ရုံ ကြောင့် သဘာဝ ပတ်ဝန်းကျင်ထိခိုက်မှု ရှိ/မရှိကို ပြည်သူများ သိရှိစေနိုင်မည် ဖြစ်ပါသည်။

- စက်ရုံ တည်ထောင်လုပ်ကိုင်မှု နှင့် ဆောင်ရွက်နေမှု လုပ်ငန်းများ၊ စက်ရုံ လမ်းညွှန်များကို ရွှေပြည်သာမြို့နယ်အတွင်းရှိ ဌာနဆိုင်ရာများ၊ ရပ်ကွက်နှင့် ကျေးရွာအုပ်စု အုပ်ချုပ်ရေးမှူးများ၊ အမှဲ့အထည်းများ ကျယ်ကျယ်ပြန့်ပြန့် သိရှိနိုင်စေရေး အတွက် စက်ရုံ တာဝန်ရှိသူများမှ အေသအာကာပိုင်အမှဲ့များ၊ အုပ်ချုပ်ရေးအမှဲ့များနှင့် ပေါင်းစပ်ရှာ မိတ်ဆက် ဆောင်ရွက်မှုများကို ဆောင်ရွက်ပါက မြို့နယ်နေ ပြည်သူများမှ စက်ရုံ တည်ရှိနေမှုကို သိရှိနိုင်မည် ဖြစ်ပါသည်။

အကြံပြုလွှာ

အများပြည်သူနှင့် တွေ့ဆုံဆွေးနွေးခြင်း

မော်တော်ယာဉ်နှင့် မော်တော်ဆိုင်ကယ်တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့်ဝန်ဆောင်မှုပေးခြင်း လုပ်ငန်း

စီမံကိန်းဆိုင်ရာအချက်အလက်များနှင့် သဘာဝပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်လေ့လာမှုအား ရှင်းလင်းတင်ပြခြင်း

နေ့စွဲ- ၂၀၁၉၊ ဩဂုတ်လ (၁၄) ရက်

နေရာ - သာဓုကန်စက်မှုဇုန်၊ ရွှေပြည်သာမြို့နယ်

အကြံပြုချက်များအားအောက်တွင်ဖော်ပြပေးပါရန်။ လူကြီးမင်း၏အကြံပြုချက်အားလိုက်လဲစွာကြိုဆိုပါသည်။		
အမည်	မြင့်မြတ်ဝင်းဒေဗျာ	လူကြီးမင်း၏အမည်အားမဖော်ပြလိုပါက ချန်လှပ်ထားနိုင်ပါသည်။
ဆက်သွယ်ရန်ဖုန်း	09500730 3	
နေရပ်/ဌာန	ကုမ္ပဏီ အုပ်ချုပ်ရေးမှူး	

CSR နှင့်ပါတ်သက်၍ အမှတ်(၄)ကုမ္ပဏီသည် ရွှေပြည်သာဒေသခံပြည်သူများ
အတွက် ဘာတွေလုပ်ပေးနိုင်မလဲ ဆိုတာကို အမှတ်(၄)ကုမ္ပဏီက
ပြည်သူများအနေနဲ့ အကြံပြုတာမျိုးတွေ ရှိသလား၊ ဒီလို ကုမ္ပဏီလာပြီး
တင်ပေးပါ၊ နှင့် သာဓုကန်စက်မှုဇုန်ရှိ စက်ရုံများက ဝန်ထမ်းများကို
(၈) နာရီတိုးမှုပေး သားလောင်းသားလောင်းများအတွက် သင်တန်းကျပ်ပေးပါ၊ နှင့်
လောင်းအားကစားကွင်းတို့ ရေနွေးငွေးသောက်ရေ ပန်းခြံများများ၊ စာကြည့်တိုက်အာ
ကုန် ထောက်ပံ့ပါရန် အကြံပေးလိုပါသည်ခင်ဗျာ

အကြံပြုလွှာ

အများပြည်သူနှင့် တွေ့ဆုံဆွေးနွေးခြင်း

မော်တော်ယာဉ်နှင့် မော်တော်ဆိုင်ကယ်တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့်ဝန်ဆောင်မှုပေးခြင်း လုပ်ငန်း စီမံကိန်းဆိုင်ရာအချက်အလက်များနှင့် သဘာဝပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်လေ့လာမှုအား ရှင်းလင်းတင်ပြခြင်း

နေ့စွဲ- ၂၀၁၉၊ သြဂုတ်လ (၁၄) ရက်

နေရာ - သာဓုကန်စက်မှုဇုန်၊ ရွှေပြည်သာမြို့နယ်

အကြံပြုချက်များအားအောက်တွင်ဖော်ပြပေးပါရန်။ လူကြီးမင်း၏အကြံပြုချက်အားလိုက်လဲစွာကြိုဆိုပါသည်။		
အမည်	မြင့်သိန်းထိုက်	လူကြီးမင်း၏အမည်အားမဖော်ပြလိုပါက ချန်လှပ်ထားနိုင်ပါသည်။
ဆက်သွယ်ရန်ဖုန်း	09- 260 161 599	
နေရပ်/ဌာန	မြို့နယ်စည်ပင်ကော်မတီ	

၁။ ရေထိုးသန့်စင်စက် တပ်ဆင်သင့်ပါသည်။

၂။ အမှတ် (၁၀) လမ်းနှင့် အမှတ် (၁၅) လမ်းကွက် ကြီး ကျဉ်းသွင်းကို ကိုယ်စားပြုပြီး ကိုယ့်ပါတ်ဝန်းကျင် စစ်တမ်းကောက်ယူသင့်ပါသည်။

၃။ ခါတိုးပေး ပတ္တမြားများ အကူ တစ်ချို့ မြို့ အိမ်မြောင်းထဲလျှောင်း ပစ်၊ လမ်းခင်းစွာ ထုတ်ပြီး လွှဲ အသုံးပြုပါသည်။

၄။ တစ်ရုံ ပတ်လည်ကျို ရေလှိုင် ပြောင်းများ အား ထုတ်ပြီး ရေလာ ကောင်းမွန် ဒေသခံ အဝါ အား လျော်ကြေး အဖြစ်ခြင်း ၁ ဦး ကို အဖြစ်ခြင်း များပြုလုပ် ပေးသင့်ပါသည်။

အကြံပြုလွှာ

အများပြည်သူနှင့် တွေ့ဆုံဆွေးနွေးခြင်း

မော်တော်ယာဉ်နှင့် မော်တော်ဆိုင်ကယ်တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့်ဝန်ဆောင်မူပေးခြင်း လုပ်ငန်း

စီမံကိန်းဆိုင်ရာအချက်အလက်များနှင့် သဘာဝပတ်ဝန်းကျင်ထိခိုက်မူဆန်းစစ်လေ့လာမူအား ရှင်းလင်းတင်ပြခြင်း

နေ့စွဲ- ၂၀၁၉၊ ဩဂုတ်လ (၁၄) ရက်

နေရာ - သာဓုကန်စက်မူဇုန်၊ ရွှေပြည်သာမြို့နယ်

အကြံပြုချက်များအားအောက်တွင်ဖော်ပြပေးပါရန်။ လူကြီးမင်း၏အကြံပြုချက်အားလှိုက်လှဲစွာကြိုဆိုပါသည်။		
အမည်		လူကြီးမင်း၏အမည်အားမဖော်ပြလိုပါက ချန်လှပ်ထားနိုင်ပါသည်။
ဆက်သွယ်ရန်ဖုန်း		
နေရပ်/ဌာန		

~~[illegible]~~ ဝန်ထမ်းများကို ကျန်းမာ

ရေး စစ်ဆေးမှု ဒေလတစ်ကြိမ် လုပ်သင့်ပါသည်။

ဆူညံသံများကို လျှော့နည်းအောင် နည်းလမ်း

ကြံသင့်ပါသည်။ သဘာဝပတ်ဝန်းကျင်ထိခိုက်

မှုကင်စီမံကိန်းတွက်တားသင့်ပါသည်။ အလုပ်သမားအွင့်

အရေး အပြည့်အဝရေးအောင် အောင်ရွက်သင့်ပါသည်။

အကြံပြုလွှာ

အများပြည်သူနှင့် တွေ့ဆုံဆွေးနွေးခြင်း

မော်တော်ယာဉ်နှင့် မော်တော်ဆိုင်ကယ်တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့်ဝန်ဆောင်မှုပေးခြင်း လုပ်ငန်း

စီမံကိန်းဆိုင်ရာအချက်အလက်များနှင့် သဘာဝပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်လေ့လာမှုအား ရှင်းလင်းတင်ပြခြင်း

နေ့စွဲ- ၂၀၁၉၊ ဩဂုတ်လ (၁၄) ရက်

နေရာ - သာဓုကန်စက်မှုဇုန်၊ ရွှေပြည်သာမြို့နယ်

အကြံပြုချက်များအားအောက်တွင်ဖော်ပြပေးပါရန်။ လူကြီးမင်း၏အကြံပြုချက်အားလှိုက်လှဲစွာကြိုဆိုပါသည်။		
အမည်		လူကြီးမင်း၏အမည်အားမဖော်ပြလိုပါက ချန်လှပ်ထားနိုင်ပါသည်။
ဆက်သွယ်ရန်ဖုန်း		
နေရပ်/ဌာန		

~~[illegible]~~ ဝန်ထမ်းများကို ကျန်းမာ

ရေး စစ်ဆေးမှု ဖြေလတစ်ကြိမ် လုပ်သင့်ပါသည်။

ဆူညံသံများကို လျှော့နည်းအောင် နည်းလမ်း

ကြံသင့်ပါသည်။ သဘာဝ အေးမှုရယ် မေတွက်

ကို တင်စီမံကိန်းတွက် တားသင့်ပါသည်။ အလုပ်သမားအွင့်

အရေး အပြည့်အဝ ရေးအောင် ဆောင်ရွက်သင့်ပါသည်။

အကြံပြုလွှာ

အများပြည်သူနှင့် တွေ့ဆုံဆွေးနွေးခြင်း

မော်တော်ယာဉ်နှင့် မော်တော်ဆိုင်ကယ်တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့်ဝန်ဆောင်မှုပေးခြင်း လုပ်ငန်း

စီမံကိန်းဆိုင်ရာအချက်အလက်များနှင့် သဘာဝပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်လေ့လာမှုအား ရှင်းလင်းတင်ပြခြင်း

နေ့စွဲ- ၂၀၁၉၊ ဩဂုတ်လ (၁၄) ရက်

နေရာ - သာဓုကန်စက်မှုဇုန်၊ ဒွေပြည်သာမြို့နယ်

အကြံပြုချက်များအားအောက်တွင်ဖော်ပြပေးပါရန်။ လူကြီးမင်း၏အကြံပြုချက်အားလိုက်လဲစွာကြိုဆိုပါသည်။		
အမည်	မြင့်သိန်းထိုက်	လူကြီးမင်း၏အမည်အားမဖော်ပြလိုပါက ချန်လှပ်ထားနိုင်ပါသည်။
ဆက်သွယ်ရန်ဖုန်း	09- 260 161 599	
နေရပ်/ဌာန	မြို့နယ်ဆေးဝါးခန်းမှ ဆရာဝန်။	

၁။ ။ ရေဆိုးသန့်စင်စက် တပ်ဆင်သင့်ပါသည်။

၂။ အမှတ် (၁၀) လမ်းနှင့် အမှတ် (၁၅) လမ်းကြား ဆည်ကာဝန်းကျင် စစ်တမ်းဧရိယာ ပါသည်။

၃။ ခါတိုးပေး ပစ္စည်းများ အား တစ်ချို့ခြင်း သီးခြား သိုလှောင်ရုံ ၂ လုံးခြံစွာ ထုတ်ပို့ ရန် အကြံပြုပါသည်။

၄။ စက်ရုံ ပတ်လည် ဘို ရေဆင်း ခြောင်းများ အား ရေစီး ဝင်လာကောင်းမွန်အောင် အခါအား လျော်စွာ အမှိုက် ဆယ်ခြင်း ၂ ကြိမ် ဆယ်ခြင်း များ ပြုလုပ် ရန် အကြံပြုပါသည်။

အကြံပြုလွှာ

အများပြည်သူနှင့် တွေ့ဆုံဆွေးနွေးခြင်း

မော်တော်ယာဉ်နှင့် မော်တော်ဆိုင်ကယ်တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့်ဝန်ဆောင်မှုပေးခြင်း လုပ်ငန်း

စီမံကိန်းဆိုင်ရာအချက်အလက်များနှင့် သဘာဝပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်လေ့လာမှုအား ရှင်းလင်းတင်ပြခြင်း

နေ့စွဲ- ၂၀၁၉၊ ဩဂုတ်လ (၁၄) ရက်

နေရာ - သာဓုကန်စက်မှုဇုန်၊ ရွှေပြည်သာမြို့နယ်

အကြံပြုချက်များအားအောက်တွင်ဖော်ပြပေးပါရန်။ လူကြီးမင်း၏အကြံပြုချက်အားလိုက်လဲစွာကြိုဆိုပါသည်။		
အမည်	ဦးအိုးဝင်းဌေး	လူကြီးမင်း၏အမည်အားမဖော်ပြလိုပါက ချန်လှပ်ထားနိုင်ပါသည်။
ဆက်သွယ်ရန်ဖုန်း	09500730 3	
နေရပ်/ဌာန	(၄)ကွက် အုပ်ချုပ်ရေးမှူး	

CSR နှင့်ပါတ်သက်၍ အမှတ်(၄)ကွက်က ရွှေပြည်သာမြို့နယ် သာဓုကန်အုပ်ချုပ်ရေးမှူးရုံးရှိ ရွှေပြည်ဒေသခံများ ဆောင်ရွက်နေသော အမှတ်(၄)ကွက်က ပြည်သူများအတွက် အများပြည်သူအသုံးပြုနိုင်သော အဆောက်အအုံများ တည်ဆောက်ရန် နှင့် သာဓုကန်စက်မှုဇုန်ရှိ စက်ရုံများတွင် ဒေသခံလူငယ်များကို ဦးစားပေးခန့်ထားရန် အကြံပြုတင်ပြလိုပါသည်။ အဆိုပါအကြံပြုချက်များကို (က) ဆောင်ရွက်ပေးသင့်ပါသည်။ (ခ) ဆောင်ရွက်ပေးသင့်ပါသော်လည်း အချို့အကြောင်းအရာများကြောင့် ဆောင်ရွက်ပေးနိုင်မည်မဟုတ်ပါ။ (ဂ) ဆောင်ရွက်ပေးသင့်ပါသော်လည်း အခြားအကြောင်းအရာများကြောင့် ဆောင်ရွက်ပေးနိုင်မည်မဟုတ်ပါ။ (ဃ) အကြံပြုချက်မရှိပါ။

အကြံပြုလွှာ

အများပြည်သူနှင့် တွေ့ဆုံဆွေးနွေးခြင်း

မော်တော်ယာဉ်နှင့် မော်တော်ဆိုင်ကယ်တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့်ဝန်ဆောင်မှုပေးခြင်း လုပ်ငန်း

စီမံကိန်းဆိုင်ရာအချက်အလက်များနှင့် သဘာဝပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်လေ့လာမှုအား ရှင်းလင်းတင်ပြခြင်း

နေ့စွဲ- ၂၀၁၉၊ ဩဂုတ်လ (၁၄) ရက်

နေရာ - သာခုကန်စက်မှုဇုန်၊ ရွှေပြည်သာမြို့နယ်

အကြံပြုချက်များအားအောက်တွင်ဖော်ပြပေးပါရန်။ လူကြီးမင်း၏အကြံပြုချက်အားလိုက်လဲစွာကြိုဆိုပါသည်။		
အမည်	မြို့မြို့မင်းအောင်	လူကြီးမင်း၏အမည်အားမဖော်ပြလိုပါက ချန်လှပ်ထားနိုင်ပါသည်။
ဆက်သွယ်ရန်ဖုန်း	၀၅-7952072243	
နေရပ်/ဌာန	ထွေ/အုပ် (ရွှေပြည်သာ)	

- စက်ရုံ၏ ပတ်ဝန်းကျင်ဂို ရာပ်ကွက် / ကျေးရွာများ၊ အဝင်နေထိုင်ကြသည့် ဒေသခံပြည်သူများအား စက်ရုံ၏ အသုံးဆောင်ကုပ်ကိုင်မှု ကြောင့် သဘာဝပတ်ဝန်းကျင်ထိခိုက်မှု အာရုံခံမှုရှိ ကို ကျယ်ကျယ်ပြန့်ပြန့် သိရှိစေရေး၊ စက်ရုံ၏ တာဝန်ရှိသူများ၊ မှ ဆောင်ရွက်ပေးပါ က စက်ရုံ၏ ပတ်ဝန်းကျင်နေ ပြည်သူများ၊ မှ စက်ရုံ၏ တည်ရှိရာနေမှု နှင့် စက်ရုံ၏ကြောင့် သဘာဝ ပတ်ဝန်းကျင် ထိခိုက်မှု ရှိ/မရှိ ကို ပြည်သူများ သိရှိစေနိုင်မည် ဖြစ်ပါသည်။

- စက်ရုံ၏ တည်ရှိ ထောင်ကုပ်ကိုင်မှု နှင့် ဆောင်ရွက်ရေးမှု လုပ်ငန်းများ / စက်ရုံ၏ သမား၊ အလုပ်သမားများ၊ ရာပ်ကွက်နှင့် ကျေးရွာများမှ အသုံးပြုရေး မှုန်းများ၊ အာမခံ၊ အာဇာနည်များ ကျယ်ကျယ်ပြန့်ပြန့် သိရှိနိုင်စေရေး၊ အကြောင် စက်ရုံ၏ တာဝန်ရှိသူများ မှ ဒေသအာဏာပိုင်အာမခံ၊ များ၊ အုပ်ချုပ်ရေးအာမခံ၊ များနှင့် ပေါင်းစပ်၍ မိခင်အစ် ရောဂါဆေးရုံများ၊ များ ကို ဆောင်ရွက်ပါက ပြည်နယ်ရှိ ပြည်သူများ၊ မှ စက်ရုံ၏ တည်ရှိ ရာများကို သိရှိနိုင်မည် ဖြစ်ပါသည်။

အကြံပြုလွှာ

အများပြည်သူနှင့် တွေ့ဆုံဆွေးနွေးခြင်း

မော်တော်ယာဉ်နှင့် မော်တော်ဆိုင်ကယ်တပ်ဆင်ထုတ်လုပ်ခြင်း၊ ရောင်းချခြင်းနှင့်ဝန်ဆောင်မှုပေးခြင်း လုပ်ငန်း

စီမံကိန်းဆိုင်ရာအချက်အလက်များနှင့် သဘာဝပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်လေ့လာမှုအား ရှင်းလင်းတင်ပြခြင်း

နေ့စွဲ- ၂၀၁၉၊ ဩဂုတ်လ (၁၄) ရက်

နေရာ - သာဓုကန်စက်မှုဇုန်၊ ရွှေပြည်သာမြို့နယ်

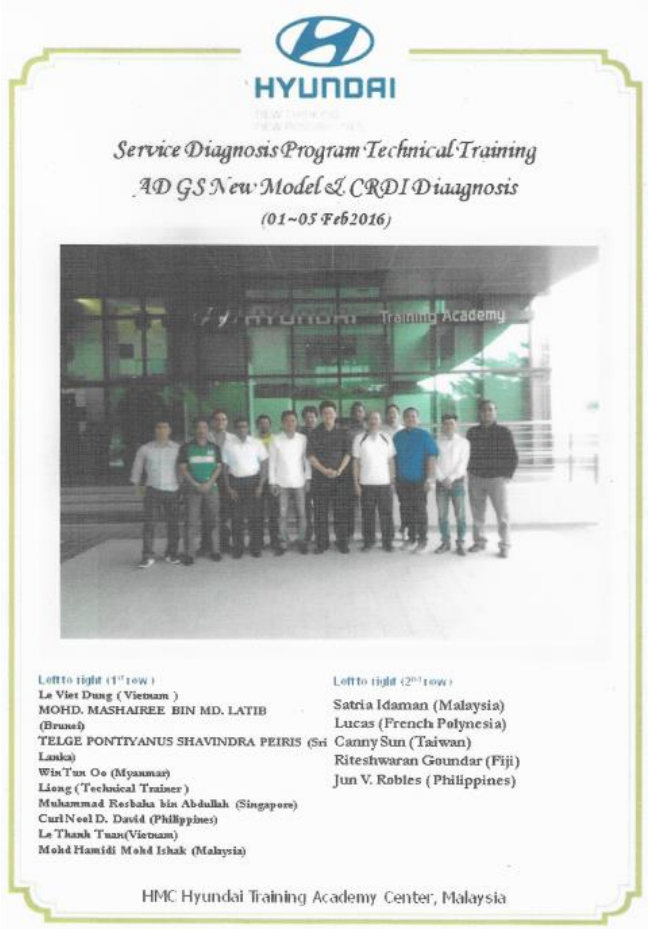
အကြံပြုချက်များအားအောက်တွင်ဖော်ပြပေးပါရန်။ လူကြီးမင်း၏အကြံပြုချက်အားလိုက်လဲစွာကြိုဆိုပါသည်။		
အမည်	ခေါ်ရွှေဂျုတ်ထော်ဆို့	လူကြီးမင်း၏အမည်အားမဖော်ပြလိုပါက ချန်လှပ်ထားနိုင်ပါသည်။
ဆက်သွယ်ရန်ဖုန်း	၀၅-၂၆၄၄၄၄၄၄၅၅	
နေရပ်/ဌာန	ECD, ရေကျော်တာ	

- EIA အစီရင်ခံစာ ရေးသွဲပြီးပါစာ. ECD ဘို့ အစီရင်ခံစာ တင်ပြသွားရန်။
- monitoring ပါ အချက်များ၊ ဂဟိုင်း၊ ရေစီးကြောအောင်ရှင်းသွားရန်.
- ပြေးကျွဲတောရေး အိုင်းကာ မူလ အခြေအနေ ၊ Pb, ပါဝင်မှုသည်ကို ဆွေးနွေးတဲ့အခါ ဘယ်လိုလုပ်ဆောင်ခဲ့သူများ၊ အသိဉာဏ်ဆောင်ရွက်ပုံများ၊ အကျိုးကျေးဇူးများ၊ အဆိုပြုထားသော ရွှေတူးမှုနည်းလမ်းများ၊ အကျိုးပျက်စေနိုင်သော အန္တရာယ်များ ရှင်းလင်းတင်ပြသွားရန်။
- EIA stage study လုပ်တာ. အရည်အသွေး ဒီလို အခြေအနေ, ပမာဏ အခြေအနေ. ဘာလုပ်သင့်။
- ရေ ၊ ရေ ၊ ပြေးကျွဲအိုင်းကာဖြစ်နေကို. ဝန်းကျင်ပိုင်း ဂဟေးဘေးအိုင်းကာများ သည်လိုမျိုးတွေ့ရ၊ outdoor အရေးခဲ့ တိုင်းကာပြီး အိုင်းကာ ချက်များ၊ ကို ဖော်ပြသင့်။
- ဘို့ဟာ ပစ္စည်း ဒီဇိုင်းဆိုင်ရာ မူကို အသေးစိတ်ရေးပြသွားရန်။ (ဆိုပါတော့ရေ၊ ...)
- biodiversity study လုပ်ထားတာ တွေ့ရပြီး ဘယ်မျိုး၊ ဝါဒ်ကာ မျိုးဘူး၊ အမှတ်ပေး ရှိတယ်ဆိုတာ ဖော်ပြသင့်။
- ဒီတော်ရေ့ stage မှာ. ဘယ်လောက်ရှိသည်ဆိုတဲ့ အသေးစိတ် ချက်များကို ဖော်ပြသွားရန်၊ ရှာဖွေတွေ့ရှိ - အတွေ့ကို အရေးယူ ဆောင်ရွက်သွားသလား၊ မသွားဘူးဆိုတာ ၊ အတွေ့ကို ဆောင်ရွက်ပြီးပြီလဲ - ဖော်ပြသွားရန်၊
- Production process details ခဲ့ အသေးစိတ် အစီအမံများ၊ ကို ဖော်ပြသွားရန်။
- ဆောင်ရွက်တာ ပုံများ၊ ဆိုင်ခဲ့ ပုံများ၊ ကို ဖော်ပြသွားရန်။

CSR Type	Program	Contents
○ Specialized Education Support	 Establish Job Training Center	▪ 5 Stories Building (1.5 acres) construction ▪ Capacity : 200~300 people
	 Offer Auto-Engineering Training Curriculum	▪ Modern training facilities Issue license certificate ▪ Overseas job opportunities
		▪ Curriculum will be included Advanced Technology, Car Diagnosis and Trouble Shooting Etc.

▪ The consortium conducts construction of the building, installation of training equipment, provision of training materials and operation of curriculum

- Employee Technical Training



HYUNDAI

Service Diagnosis Program Technical Training

AD GS New Model & CRDI Diagnosis

(01~05 Feb 2016)

Left to right (1st row)
Le Viet Dung (Vietnam)
MOHD. MASHAIREE BIN MD. LATIB (Brunei)
TELGE PONTIYANUS SHAVINDRA PEIRIS (Sri Lanka)
Win Tun Oo (Myanmar)
Liong (Technical Trainer)
Muhammad Rosbaka bin Abdullah (Singapore)
Carl Noel D. David (Philippines)
Le Thanh Tuan(Vietnam)
Mohd Hamidi Mohd Ishak (Malaysia)

Left to right (2nd row)
Satria Idaman (Malaysia)
Lucas (French Polynesia)
Canny Sun (Taiwan)
Riteshwaran Goundar (Fiji)
Jun V. Robles (Philippines)

HMC Hyundai Training Academy Center, Malaysia



Certificate No. : HTA16-ADGSNM-FEB0105

HYUNDAI

CERTIFICATE

Hyundai Training Academy

This is to Certify that

Mr. Win Tun Oo

HAS COMPLETED HYUNDAI TRAINING PROGRAM

International KLM Co.,Ltd

Course : 2016 GS(Creta) & AD (Elantra) New Model Technical Training & CRDI Diagnosis

Period : 2016.02.01~02.05

Place : HTA Malaysia

Certified by
Ngoi Chee Hien
Manager – HTA Training Group
Asia & Pacific Regional Headquarters
Hyundai Motor Company



Certificate No : HTA14-MYANVT-SEP0105-04

HYUNDAI

NEW THINKING. NEW POSSIBILITIES.

CERTIFICATE

Hyundai Training Academy

THIS IS TO CERTIFY THAT

Mr. Zaw Htike

HAS COMPLETED HYUNDAI TRAINING PROGRAM

FORTUNE KOLAO INT. MOTORS CO, LTD

COURSE : Diesel CRDI Technical Training

PERIOD : 2014.09.01 ~ 09.05

PLACE : Yangon, Myanmar Training Centre

Certified by
Ngoi Chee Hien
Manager – HTA Training Group
Asia & Pacific Regional Headquarters
Hyundai Motor Company



R&D Center

"Promote Local Industry"
(Part Localization)



Training & Service Center

"Secure Skilled Labor Force"



Painting Waste Water Disposal

"Be Eco-Friendly Company"

အလုပ်သမား၊ လူဝင်မှုကြီးကြပ်ရေးနှင့်ပြည်သူ့အင်အားဝန်ကြီးဌာန

မူရင်း

လူမှုဗူလုံရေးအဖွဲ့ (ရှမ်း)

061517

ပြေစာအမှတ်-၁

	6.2.49	

အမှတ်စဉ် ၁၈၁

Shwe Dachan

ရက်စွဲ ၁၅/၇/၂၂

ထံမှ လက်ခံရရှိပါသည်။

ငွေပေါင်း ငွေသား/ချက် ကျပ် [illegible]

လက်ခံရရှိသည့်ကိစ္စ [illegible]

လက်ထောက်ငွေကိုင်စာရေး
လူမှုဗူလုံရေးအဖွဲ့

ဦးစီးအရာရှိ
လူမှုဗူလုံရေးအဖွဲ့

မှတ်ချက် ၊ ၊ ဤပြေစာသည် အဖွဲ့မှ အရာ ရှိလက်မှတ်မပါလျှင် အတည်မဖြစ်ပါ။

QUESTION FOR SOCIAL IMPACT ASSESSMENT

Daehan Motors Project

No. …… Date of interview……..Name of interviewee……

Part A Interviewee information (ဖြေဆိုသူ၏အချက်အလက်များ)

A.1. Sex (ကျား/မ)

1) Male (ကျား) 2) Female (မ)

A.2. Age(years) (အသက် / နှစ်)

1) 20-34 (၂၀ နှစ်-၃၄နှစ်) 2) 35-49 (၃၅ နှစ်-၄၉နှစ်) 3)50-64 (၅၀ နှစ်-၆၄နှစ်) 4) >65 (၆၅နှစ် အထက်)

A.3.Religion (ဘာသာ)

1) Buddhism (ဗုဒ္ဓ) 2) Christian (ခရစ်ယာန်) 3) Others(please specify) (အခြား)

A.4. Marital status (အိမ်ထောင်ရှိ/ မရှိ)

1) Single (အိမ်ထောင်မရှိ) 2) Married (အိမ်ထောင်ရှိ)

3) Windowed(မုဆိုးမ) 4) Divorced (ကွာရှင်းထားသူ)

A.5. Level of education (ပညာအရည်အချင်း)

1) No Schooling (ကျောင်းမတက်ဘူးသူ) 2) Primary school (မူလတန်း) 3) Middle school school (အလယ်တန်း)

4) Hight (အထက်တန်းကျောင်း) 5) Bachelor Degree (ဘွဲ့.ရ) 6) University Student (တက္ကသိုလ် ကျောင်းသား)

7) Monastic (ဘုန်းကြီးကျောင်း)

A.6. Occupation (အလုပ်အကိုင်)

……

……

……

Part B Household Information (အိမ်ထောင်စုအချက် အလက်များ)

B.1. Please give us some brief information about your family :

Member in your household now ( ) ကျား၊ ( ) မ ..... ပေါင်း

(ယခုလက်ရှိမိသားစုအရေအတွက်)

2.Number of Employers(အလုပ်လုပ်သူအရေအတွက်) ..... ဦး

B.2. Now, what type of living standards is your household in? (သင့်အိမ်ထောင်စု၏ လူနေမှု.အဆင့်)

1. Poor(ဆင်းရဲ) 2. Normal (အလယ်အလတ်) 3. Well-off (ချမ်းသာ)

B.3. Please let me know your household income sources per month or year?

အိမ်ထောင်စု၏ ဝင်ငွေ တစ်နှစ်/ တစ်လ

----------Source ----------Kyats

B.4. Please inform your household monthly expenses?(လစဉ် ကုန်ကျငွေ)

No	Expenses(ကုန်ကျငွေ)	Monthly expenses (ကုန်ကျငွေ)
1	Food/catering(အစားအသောက်)	
2	Electricity (လျှပ်စစ်မီး)	
3	Water (ရေ)	
4	Donation (အလှူ)	
5	General (အထွေထွေ)	

B.5. What is your household house ownership: (အိမ် ပိုင်ဆိုင်မှု)

1. Owned (အိမ်ပိုင်) 2. Rented (အိမ်ငှား) 3. Factory (စက်ရုံ)

B.6. If your HH owns the house, what is its type? (အိမ်အမျိုးအစား)

Concrete (တိုက်)	
Semi-concrete (တိုက်ခံ)	
Wood (သစ်သား)	
Hut (တဲ)	

B.7. Which asset below your HH owns: (အိမ်ထောင်စုပိုင်ဆိုင်မှု.)

Asset	No	Asset	No
1.Car (ကား)		7.Electricity generator (မီးစက်)	
2.Rowed Boat(လှေ)		8.Television (တီဗွီ)	
3.Electric fan(လျှပ်စစ်ပန်ကာ)		9.DVD player(ဒီဗွီဒီ)	
4.Homephone(အိမ်ဖုန်း)		10.Fridge (ရေခဲသေတ္တာ)	
5.Mobile phone(ဟန်းဖုန်း)		11.Washing Machine(အဝတ်လျှော်စက်)	
6.Sewing Machine(အပ်ချုပ်စက်)			

Part C Transportation/Movement information(လမ်းပန်းဆက်သွယ်ရေးအချက်အလက်များ)

C.1 How often do you use this alignment to downtown? မြို့.ထဲ

Every day (နေ.စဉ်)	
Sometime per week (တစ်ပတ်တစ်ကြိမ်)	
Sometime per month (တစ်လတစ်ကြိမ်)	
Less than once per month (တစ်လတစ်ကြိမ်ထက်နည်း)	

C.2. Which purpose do your household members uses the alignment for?

Go to visit(အလည်သွားရန်)	
Go to work (အလုပ်သွားရန်)	
Go to markets(ဈေးဝယ်ထွက်ရန်)	
Go for business (စီးပွားရေးကိစ္စ)	
Go to school (ကျောင်းသွားရန်)	
Go health services, to other civil institutions (ကျန်းမာရေး၊လူမှုရေးကိစ္စ)	
Other (note down) (အခြား)	

C.3. Now, do the roads meet your demands? (ယခုလမ်းအသုံးပြုမှု.အဆင်ပြေမပြေ)

1. Yes (ပြေ) 2. No (မပြေ)

C.4. How is your transportation state in your community?

(လမ်းပန်းဆက်သွယ်ရေးအပေါ်ထင်မြင်ချက်)

1. Good (ကောင်း) 2. Normal (ပုံမှန်) 3.Bad(လမ်းဆိုး)

Part D Opinions upon the project (သဘောထားထင်မြင်ချက်)

D.1. Do you know this project?

1. Yes (ရှိ) 2. No (မရှိ)

If Yes မည်သည့်နေရာမှ သိသနည်း----------

D.2. Are you satisfied about the project?(ကျေနပ်မှုရှိ/မရှိ)

1. Yes (ရှိ) 2. No (မရှိ)

ရှိပါက ----------

မရှိပါက----------

D.3.Do you feel worried about environmental impact during operational phase of the project? (စီမံကိန်းနှင့် ပတ်သတ်သော ပတ်ဝန်းကျင်ဆိုင်ရာအကျိုးသက်ရောက်မှုအပေါ် စိုးရိမ်မှု) (ရေ၊လေ၊အသံဆူညံမှု)

1.No

2.Yes, specify----------

D.4.Do you feel worried about social impact during operational phase of the project? (စီမံကိန်းနှင့် ပါတ်သတ်သောလူမှုဆိုင်ရာအကျိုးသက်ရောက်မှုအပေါ်စိုးရိမ်မှု့)

1.No

2.Yes, specify _----------

D.5.Do you feel worried about health impact during operational phase of the project? (စီမံကိန်းနှင့် ပါတ်သတ်သောကျန်းမာရေးဆိုင်ရာအကျိုးသက်ရောက်မှု့အပေါ်စိုးရိမ်မှု့)

1.No

2.Yes, specify _----------

D.6. (စီမံကိန်းနှင့် ပါတ်သတ်ပြီးစိုရိမ် ပူပန်မှု့) 1. Yes (ရှိ) 2. No (မရှိ)

If Yes,ရှိပါက----------

အကြံပြုချက်----------

QUESTIONNAIRE FOR HEALTH IMPACT ASSESSMENT

I.Do your household have diseases previous 6 months?
သင်၏နေအိမ်တွင် လွန်ခဲ့သော(၆)လအတွင်းရောဂါဖြစ်ဘူးသူရှိပါသလား။ ရှိ/မရှိ

1. Yes(ရှိ) 2. No(မရှိ)

If Yes (What diseases)ရှိပါကမည်သည့်ရောဂါနည်း။----------

II.Where did you go treatment? မည်သည့်နေရာတွင် သွားရောက်ကုသသနည်း။

III.Which person did you meet treatment if you unhealthy? မကျန်းမာပါက
မည်သည့်နေရာ မည်သူနှင့် ပြသ ကုသပါသနည်း။

IV.Do your home have nearest place following treatment place?
သင်၏နေထိုင်ရာအရပ်နှင့် အနီးဆုံးတွင် အောက်ပါတို့.အနက်မှမည်သည့်နေရာရှိသနည်း။

1. GP (ပြင်ပဆေးခန်း) 2. Government Clinic (အစိုးရဆေးပေးခန်း)

3. Government Hospital(အစိုးရဆေးရုံ)

V.Have you use following behaviors? သင်သည် အောက်ပါတို့ကိုသုံးစွဲပါသလား။

1. Smooking (ဆေးလိပ်သောက်ခြင်း) 2. Betal (ဆေးပါသောကွမ်းယာစားခြင်း/ဆေးငုံခြင်း)

3. Dani/Anchol/Beer (ဓနိရည်/ထန်းရည်/ဘီယာ/အရက်သောက်သုံးခြင်း)

4. Yar Ba (စိတ်ကြွဆေး (ဥပမာ-ယာဘာ၊ ဆေးခြောက်))

VI. Where do you get domestic water? သုံးရေကိုမည်သည့်နေရာမှရရှိသနည်း။

VII. Where do you get drinking water? သောက်ရေကိုမည်သည့်နေရာမှရရှိသနည်း။

VIII. Which water where are you drinking? မည်သည့်ရေကိုသောက်သနည်း။

IX. How do you drink? မည်သို.သောက်သုံးသနည်း။

1.Natural water	2. Boiled Water	3. Pure Water
ရိုးရိုးရေ	ကျိုချက်ရေ	ရေသန.

X. Using Toilets အသုံးပြုသောအိမ်သာ

1. No (မရှိပါ) 2. Fly-proof (ယင်လုံ) 3. Open pit (ယင်မလုံ)

XI. How do you throw the waste? အမှိုက်များကိုမည်သို့စွန့်ပစ်သနည်း။

မည်သို့လုပ်ဆောင်သနည်း။

XII. Other suggestions အခြားပြောပြလိုသောအချက်များရှိပါကပြောပြပေးပါ။









Petrol Storage Area in Shwe Daehan Motors Co., Ltd.

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်
မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင်
ခွင့်ပြုမိန့်

ခွင့်ပြုမိန့်အမှတ် ၀၈၄/၂၀၁၈ ၂၀၁၈ ခုနှစ်၊ မေလ ၃၁ ရက်

မြန်မာနိုင်ငံနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင်သည် မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုဥပဒေ ဥပဒေပုဒ်မ ၂၅ ပုဒ်မခွဲ (ဂ) အရ ဤခွင့်ပြုမိန့်ကို ထုတ်ပေးလိုက်သည် -

(၁) ရင်းနှီးမြှုပ်နှံသူ/ ကမကထပြုသူအမည် MR.BAEK YOUNGCHUL

(၂) နိုင်ငံသား KOREAN

(၃) နေရပ်လိပ်စာ PRUGIO APT 104-2001, YOUNG DEUNGPO DONG, SEOUL, REPUBLIC OF KOREA

(၄) ပင်မအဖွဲ့အစည်းအမည်နှင့်လိပ်စာ KOLAO HOLDINGS(HM) SINGAPORE PTE. LTD., 80 ROBINSON ROAD, #02-00, SINGAPORE (068898)

(၅) ဖွဲ့စည်းရာအရပ် SINGAPORE

(၆) ရင်းနှီးမြှုပ်နှံသည့်လုပ်ငန်းအမျိုးအစား မော်တော်ယာဉ်နှင့် မော်တော်ဆိုင်ကယ်များ ထုတ်လုပ်ရောင်းချခြင်းနှင့်ရောင်းချပြီးနောက်ပိုင်းဝန်ဆောင်မှုပေးခြင်းလုပ်ငန်း

(၇) ရင်းနှီးမြှုပ်နှံသည့်အရပ်ဒေသ(များ) မြေကွက်အမှတ်-၆၉၊၇၀၊ မြေတိုင်းရပ်ကွက်အမှတ်-၅၀၊ သာဓုကန် စက်မှုဇုန်၊ ရွှေပြည်သာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး

(၈) နိုင်ငံခြားမတည်ငွေရင်းပမာဏ အမေရိကန်ဒေါ်လာ ၉.၈၂ သန်း

(၉) နိုင်ငံခြားမတည်ငွေရင်းယူဆောင်လာရမည့်ကာလ ခွင့်ပြုမိန့်ရရှိပြီးနေ့မှ ၂ နှစ်အတွင်း

(၁၀) စုစုပေါင်း မတည်ငွေရင်းပမာဏ(ကျပ်) အမေရိကန်ဒေါ်လာ ၉.၈၂ သန်းနှင့် ညီမျှသော မြန်မာကျပ်ငွေ

(၁၁) တည်ဆောက်မှုကာလ ၂ နှစ်

(၁၂) ရင်းနှီးမြှုပ်နှံမှုခွင့်ပြုသည့်သက်တမ်း ၅၀ နှစ်

(၁၃) ရင်းနှီးမြှုပ်နှံမှုပုံစံ ရာခိုင်နှုန်းပြည့်နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှု

(၁၄) မြန်မာနိုင်ငံတွင်ဖွဲ့စည်းမည့်ကုမ္ပဏီအမည် SHWE DAEHAN MOTORS CO., LTD.

ဒေါက်တာသန်းမြင့်
ဒုတိယဥက္ကဋ္ဌ
မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင်

United Analyst and Engineering Consultant Co., Ltd.
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ANALYSIS REPORT

PROJECT NAME : MANUFACTURING SALES AND AFTER SALES SERVICE OF MOTOR VECHICLES AND MOTORCYCLES
CUSTOMER NAME : SUSTAINABLE AND ENVIRONMENT MYANMAR CO., LTD.
ADDRESS : B702 DELTA PLAZA, SHWEGONDAING ROAD, BAHAN, YANGON, MYANMAR
CONTACT INFORMATION : TEL : +959 73013448 e-mail : thandartun@enviromyanmer.net
SAMPLING SOURCE : THAR DU KAN INDUSTRIAL ZONE, SHWE PYI THAR TOWNSHIP
SAMPLE TYPE : GROUNDWATER
SAMPLING DATE : JANUARY 15, 2019
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS CHOMTHANAN APHIPATPAPHA
RECEIVED DATE : JANUARY 21, 2019
ANALYTICAL DATE : JANUARY 21-28, 2019
REPORT NO. : 2019-U05736
WORK NO. : 2019-000481
ANALYSIS NO. : T19AA688-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			GW-1 T19AA688-0001	
TOTAL NITROGEN	mg/L N	PERSULPHATE METHOD (SM: 4500-N C)	0.57	0.1
AMMONIA	mg/L NH_3	PHENATE METHOD (SM: 4500-NH3 F)	0.10	0.05
CYANIDE	µg/L CN^-	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: 4500-CN^- C AND 4500-CN^- E)	ND	5
FLUORIDE	mg/L F^-	SPADNS METHOD (SM: 4500-F^- D)	0.27	0.02
PHENOLS	mg/L	DISTILLATION, 4-AMINOANTIPYRINE METHOD (SM: 5530 B AND 5530 C)	ND	0.005
RESIDUAL CHLORINE	mg/L Cl_2	IODOMETRIC METHOD I (SM: 4500-Cl B)	ND	0.1
SULPHIDE	mg/L	METHYLENE BLUE METHOD(SM: 4500-S^{2-} D)	ND	0.02
TOTAL PHOSPHORUS	mg/L P	PERSULPHATE DIGESTION AND ASCORBIC ACID METHOD (SM: 4500-P B AND 4500-P E)	ND	0.01
FREE CYANIDE	mg/L CN^-	ION SELECTIVE ELECTRODE METHOD (SM: 4500-CN^- F)	ND	0.05
METALS				
ARSENIC	mg/L As	HYDRIDE GENERATION AAS METHOD (SM: 3114 C)	0.0003	0.0003
CADMIUM	mg/L Cd	NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD (SM: 3030 E AND 3111 B)	ND	0.002
HEXAVALENT CHROMIUM	mg/L Cr^{6+}	COLOURIMETRIC METHOD (SM: 3500-Cr B)	ND	0.006
MERCURY	mg/L Hg	COLD VAPOUR AAS METHOD (SM: 3112 B)	0.0002	0.0002
SELENIUM	mg/L Se	HYDRIDE GENERATION AAS METHOD (SM: 3114 C)	ND	0.0005
COPPER	mg/L Cu	NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD (SM: 3030 E AND 3111 B)	ND	0.003
IRON	mg/L Fe	NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD (SM: 3030 E AND 3111 B)	1.65	0.010
LEAD	mg/L Pb	NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD (SM: 3030 E AND 3111 B)	ND	0.008

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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT GW-1 T19AA688-0001	DETECTION LIMIT
NICKEL	mg/L Ni	NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD (SM: 3030 E AND 3111 B)	ND	0.005
TOTAL CHROMIUM	mg/L Cr	NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD (SM: 3030 E AND 3111 B)	ND	0.010
ZINC	mg/L Zn	NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD (SM: 3030 E AND 3111 B)	ND	0.005
SILVER	mg/L Ag	NITRIC ACID-HYDROCHLORIC ACID DIGESTION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (SM : 3030 F AND 3120 B)	ND	0.003
SAMPLE CONDITION				
WATER'S COLOUR/TURBID			YELLOW/CLEAR	
SEDIMENT			YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23 rd EDITION, 2017.

ND : NON-DETECTABLE.

*United Analyst Engineering Consultant Co., Ltd is Sub-contractor of REM-UAE Laboratory and Consultant Co., Ltd

(MR BHUCHONK PANICHLERTUMPI)
TECHNICAL MANAGEMENT

FEBRUARY 2, 2019

(MISS BENJAWAN VIRIYOTHAI)
LABORATORY SUPERVISOR

FEBRUARY 2, 2019

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COMPANY LIMITED

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www.rem-uaeconsultant.com E-mail: contact@rem-uaeconsultant.com

ANALYSIS REPORT

PROJECT : MANUFACTURING SALES AND AFTER SALE SERVICE OF MOTOR VEHICLES AND MOTOCYCLES
CUSTOMER NAME : RESOURCE & ENVIRONMENT MYANMAR LTD. (REM)
ADDRESS : B-702 DELTA PLAZA, SHWEGONDAING ROAD, BAHAN, YANGON, MYANMAR. TEL. 959 7301 3448 FAX 951 55 29 01
SAMPLING SOURCE : GW-1
SAMPLE TYPE : GROUND WATER
SAMPLING DATE : JANUARY 15,2019
SAMPLING TIME : 10:54 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : RU
SUBMITTAL/ RECEIPT NO. : 5/1/2019
RECEIVED DATE : JANUARY 15, 2019
ANALYSIS DATE : JANUARY 15-FEBRUARY 4, 2019
ANALYSIS NO. : LAA006/2019
REPORT NO. : L00006/2019

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT GW-1 LAA006/2019	DETECTION LIMIT
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM : 5210 B AND 4500-O G)	ND	1.0
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM : 5220 C)	ND	25
SUSPENDED SOLIDS	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105°C (SM : 2540 D)	9.8	5.0
TOTAL COLIFORM BACTERIA	MPN/100 mL	MULTIPLE TUBE FERMENTATION TECHNIQUE (SM : 9221 B)	11,000	1.8
OIL AND GREASE	mg/L	PARTITION-GRAVIMETRIC METHOD (SM : 5520 B)	ND	3
SAMPLE CONDITION				
WATER'S COLOUR/TURBID			BROWN / TURBID	
SEDIMENT			BROWN	

SM : APHA/AWWA/WEF STANDARD METHOD FOR THE EXAMINATION OF WATER AND WASTEWATER, 23rd EDITION, 2017
ND : NON-DETECTABLE.

Toe Toe Hlaing
(MS TOE TOE HLAING)
LABORATORY HEAD
DATE FEBRUARY 14,2019

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ANALYSIS REPORT

PROJECT NAME : MANUFACTURING SALES AND AFTER SALES SERVICE OF MOTOR VECHICLES AND MOTORCYCLES
CUSTOMER NAME : SUSTAINABLE AND ENVIRONMENT MYANMAR CO., LTD.
ADDRESS : B702 DELTA PLAZA, SHWEGONDAING ROAD, BAHAN, YANGON, MYANMAR
CONTACT INFORMATION : TEL : +959 73013448 e-mail : thandartun@enviromyanmer.net
SAMPLING SOURCE : THAR DU KAN INDUSTRIAL ZONE, SHWE PYI THAR TOWNSHIP
SAMPLE TYPE : SOIL
SAMPLING DATE : JANUARY 15, 2019
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS CHOMTHANAN APHIPATPAPHA

RECEIVED DATE : JANUARY 21, 2019
ANALYTICAL DATE : JANUARY 21-30, 2019
REPORT NO. : 2019-U05737
WORK NO. : 2019-000481
ANALYSIS NO. : T19AA688-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT S-1 T19AA688-0002	DETECTION LIMIT
pH (1:1)	-	ELECTROMETRIC METHOD (U.S. EPA 2004:9045 D)	7.8 (25°C)	-
FLUORIDE	mg/kg	ION SELECTIVE ELECTRODE METHOD (U.S. EPA METHOD : 9214:1996)	ND	0.80
METALS				
ARSENIC (As)	mg/kg	ACID DIGESTION AND HYDRIDE GENERATION AAS METHOD (U.S.EPA 1996:3050 B AND 1992:7061 A)	1.84	0.100
CADMIUM (Cd)	mg/kg	ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD (U.S.EPA 1996:3050 B AND 2007:7000 B)	ND	0.300
MERCURY (Hg)	mg/kg	ACID DIGESTION AND COLD VAPOUR AAS METHOD (U.S.EPA 2007:7471 B)	ND	0.100
SELENIUM (Se)	mg/kg	ACID DIGESTION AND HYDRIDE GENERATION AAS METHOD (U.S.EPA 1996:3050 B AND 1992:7061 A)	ND	0.100
CHROMIUM (Cr)	mg/kg	ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD (U.S.EPA 1996:3050 B AND 2007:7000 B)	18.6	0.500
COPPER (Cu)	mg/kg	ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD (U.S.EPA 1996:3050 B AND 2007:7000 B)	4.77	0.300
BORON (B)	mg/kg	ACID DIGESTION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (U.S.EPA 1996:3050 B AND 2018:6010 D)	8.05	0.250
LEAD (Pb)	mg/kg	ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD (U.S.EPA 1996:3050 B AND 2007:7000 B)	5.42	1.55
ZINC (Zn)	mg/kg	ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD (U.S.EPA 1996:3050 B AND 2007:7000 B)	28.1	0.350
SAMPLE CONDITION			BROWN SOIL	

ND : NON-DETECTABLE.

*United Analyst Engineering Consultant Co., Ltd is Sub-contractor of REM-UAE Laboratory and Consultant Co., Ltd

(MR BHUCHONK PANICHLERTUMPI)
TECHNICAL MANAGEMENT
FEBRUARY 6, 2019

(MISS BENJAWAN VIRIYOTHAI)
LABORATORY SUPERVISOR
FEBRUARY 6, 2019

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