



REPUBLIC OF THE PHILIPPINES  
**DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS**  
NATIONAL CAPITAL REGION  
LAS PIÑAS-MUNTINLUPA DISTRICT ENGINEERING OFFICE  
2nd STREET, PORT AREA, MANILA

C.Y. 2025 PROJECT  
DETAILED ENGINEERING DESIGN PLAN FOR

**CONSTRUCTION OF RAINWATER COLLECTION  
SYSTEM (RWCS), LAS PIÑAS AND MUNTINLUPA  
CITY**

SUBMITTED:

---

**MARIANNE KRISCEL JEAN D. SAGA-OC**  
CHIEF PLANNING AND DESIGN SECTION  
DATE:

RECOMMENDED:

---

**MARIA CRISTINA E. TACARDON**  
ASSISTANT DISTRICT ENGINEER  
DATE:

APPROVED:

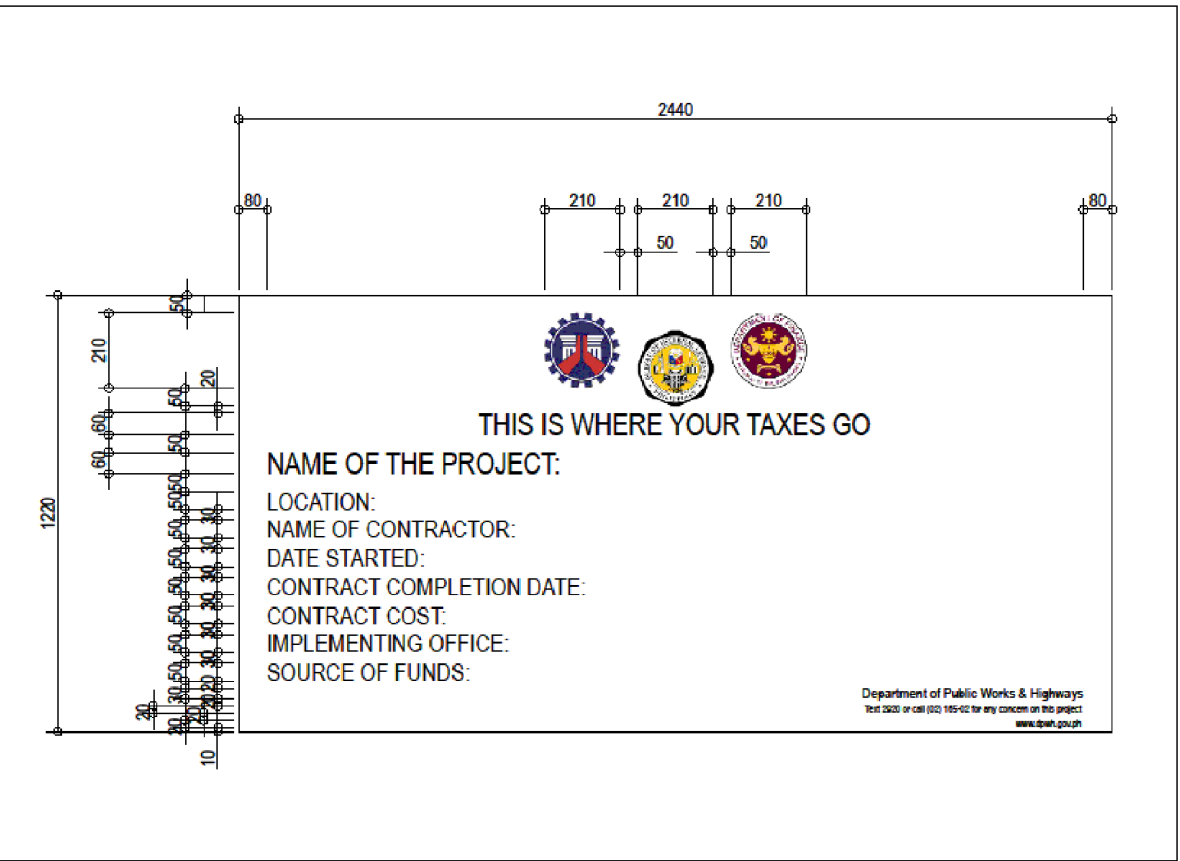
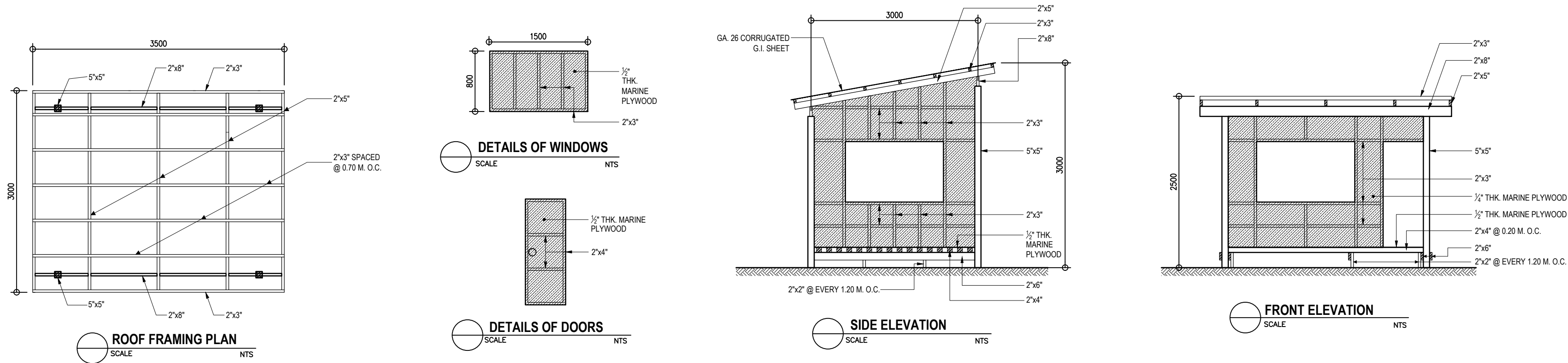
---

**ISABELO C. BALEROS**  
DISTRICT ENGINEER  
DATE:





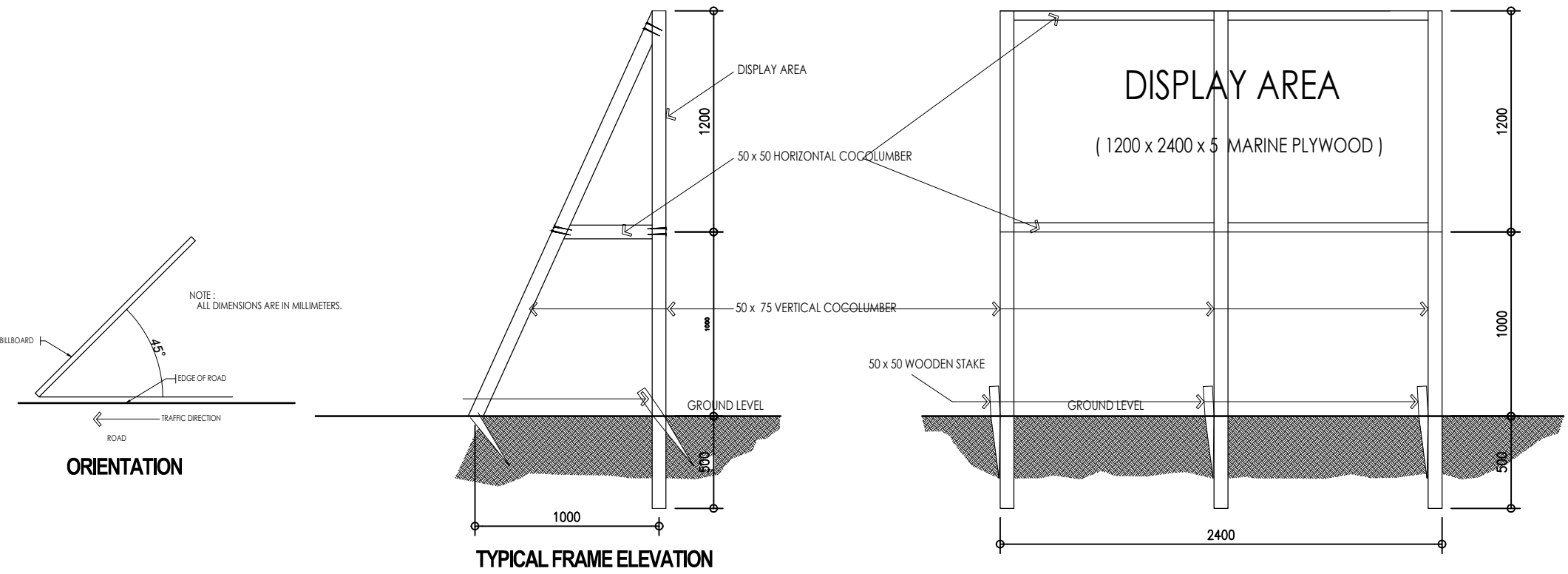




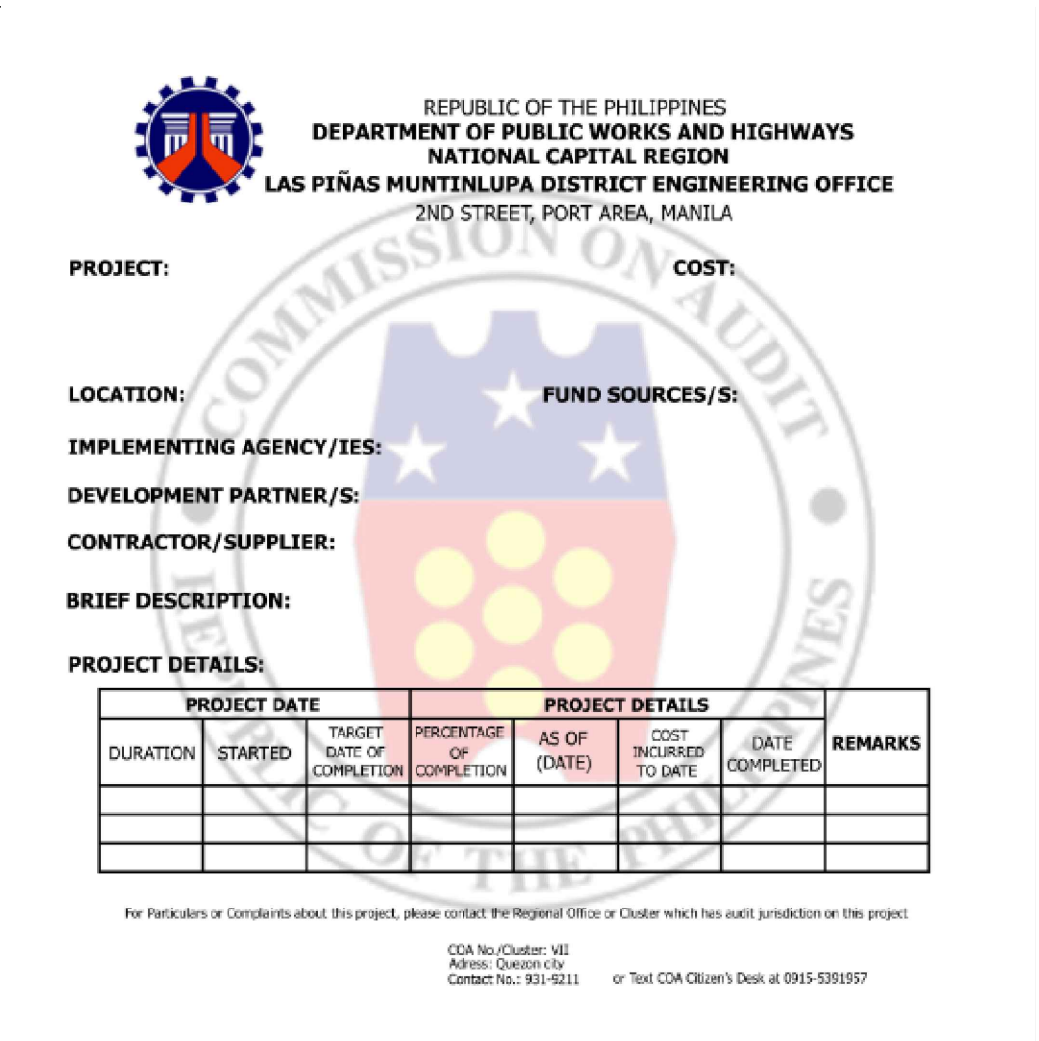
FIELD OFFICE

NOTES:

- TANK SHOULD BE FIRM, FLAT & ON STABLE PLATFORM IN ACCORDANCE WITH MANUFACTURING RECOMMENDATIONS. TANK BASE MUST BE SUFFICIENT TO SUPPORT WEIGHT OF THE TANK WHEN FULL.
- 100% OF ROOF AREA SHALL DRAIN TO THE TANK
- IT IS RECOMMENDED TO CONNECT THE FOLLOWING HOUSEHOLD FIXTURES TO THE RAINWATER TANK SUPPLY.
  - ALL OUTDOOR TAPS
  - ALL TOILETS
  - WASHING MACHINE (COLD TAP)
- ALL PLUMBING WORKS SHALL BE UNDERTAKEN AT A LICENSED PLUMBER WITH THE CONSENT OF THE MANUFACTURER & IN ACCORDANCE WITH ALL STANDARDS, CODES & REGULATIONS.
- TANK & PUMPS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S REQUIREMENT.
- ANNUAL RAINFALL = 4464.9 (ACCORDING TO THE HIGHEST CLIMATOLOGICAL NORMAL RECORDED BY THE PHILIPPINE ATMOSPHERIC, GEOPHYSICAL AND

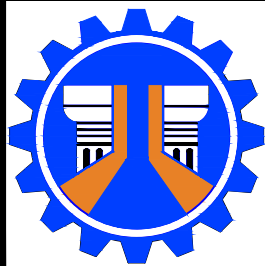


BILLBOARD FRAME DETAIL



NOTE: Tarpaulin, white, 8 ft. x 8 ft  
Resolution : 70dpi  
Font : Helvetica  
Font Size : Main Information - 3"  
Sub-Information - 1"  
Font Color : Black

COA BILLBOARD



REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
NATIONAL CAPITAL REGION  
LAS PIÑAS-MUNTINLUPA DISTRICT ENGINEERING OFFICE  
2nd STREET, PORT AREA, MANILA

PROJECT AND LOCATION:

CONSTRUCTION OF RAINWATER  
COLLECTION SYSTEM (RWCS),  
LAS PIÑAS AND MUNTINLUPA  
CITY

SHEET CONTENT:

FIELD OFFICE  
DPWH BILLBOARD  
COA BILLBOARD  
BILLBOARD FRAME  
DETAIL  
GENERAL NOTES

DRAFTED:

FRANCIS SIEGFRED C. LAMBINO  
ENGINEER II

PREPARED:

FRANCIS SIEGFRED C. LAMBINO  
ENGINEER II

CHECKED BY:

DARIUS M. MERCADO  
ENGINEER II

DATE:

SUBMITTED:

MARIANNE KRISCEL JEAN D. SAGA-OC  
CHIEF, PLANNING & DESIGN SECTION

DATE:

RECOMMENDED:

MARIA CRISTINA E. TACARDON  
ASSISTANT DISTRICT ENGINEER

DATE:

APPROVED:

ISABELO C. BALEROS  
DISTRICT ENGINEER

DATE:

SET NO.

A  
2

SHEET NO.

2  
5





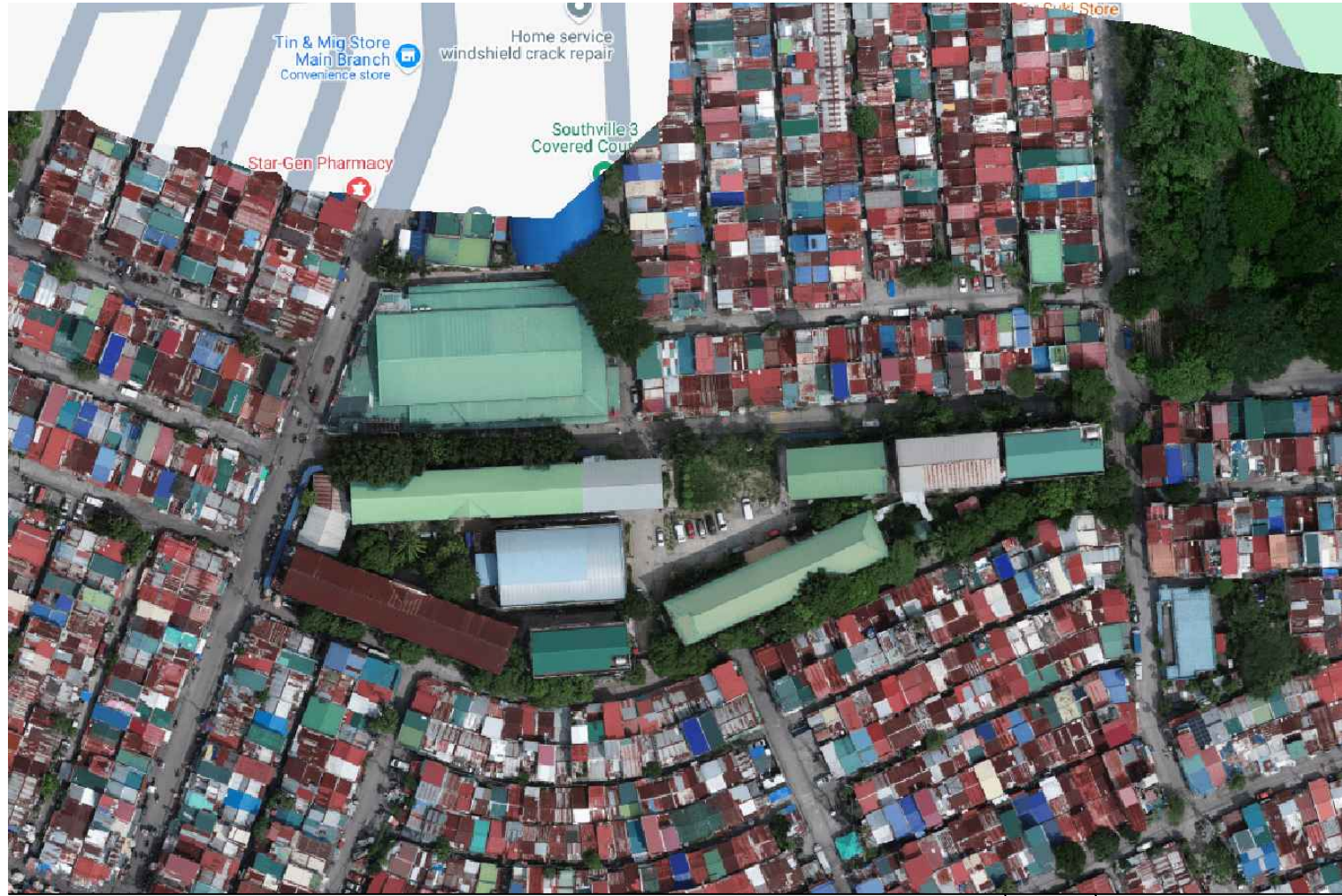
SITE DEVELOPMENT PLAN  
MUNTINLUPA NATIONAL HIGH SCHOOL (MAIN)

SITE



SITE DEVELOPMENT PLAN  
PEDRO E. DIAZ HIGH SCHOOL

SITE



SITE DEVELOPMENT PLAN  
POBLACION ELEMENTARY SCHOOL

SITE



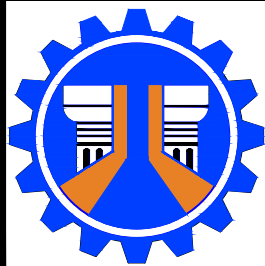
SITE

SITE DEVELOPMENT PLAN  
POBLACION NATIONAL HIGH SCHOOL



SITE DEVELOPMENT PLAN  
TUNASAN ELEMENTARY SCHOOL

SITE



REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
NATIONAL CAPITAL REGION  
LAS PIÑAS-MUNTINLUPA DISTRICT ENGINEERING OFFICE  
2nd STREET, PORT AREA, MANILA

PROJECT AND LOCATION:

CONSTRUCTION OF RAINWATER  
COLLECTION SYSTEM (RWCS),  
LAS PIÑAS AND MUNTINLUPA  
CITY

SHEET CONTENT:

SITE  
DEVELOPMENT PLAN

DRAFTED:

FRANCIS SIEGFRED C. LAMBINO  
ENGINEER II

PREPARED:

FRANCIS SIEGFRED C. LAMBINO  
ENGINEER II

CHECKED BY:

DARIUS M. MERCADO

ENGINEER II

DATE:

SUBMITTED:

MARIANNE KRISCEL JEAN D. SAGA-OC

CHIEF, PLANNING & DESIGN SECTION

DATE:

RECOMMENDED:

MARIA CRISTINA E. TACARDON

ASSISTANT DISTRICT ENGINEER

DATE:

APPROVED:

ISABELO C. BALEROS

DISTRICT ENGINEER

DATE:

SET NO.

A  
3

SHEET NO.

3  
5





SITE DEVELOPMENT PLAN  
LAS PIÑAS CITY NATIONAL  
SENIOR HIGH SCHOOL  
TALON DOS CAMPUS

SITE



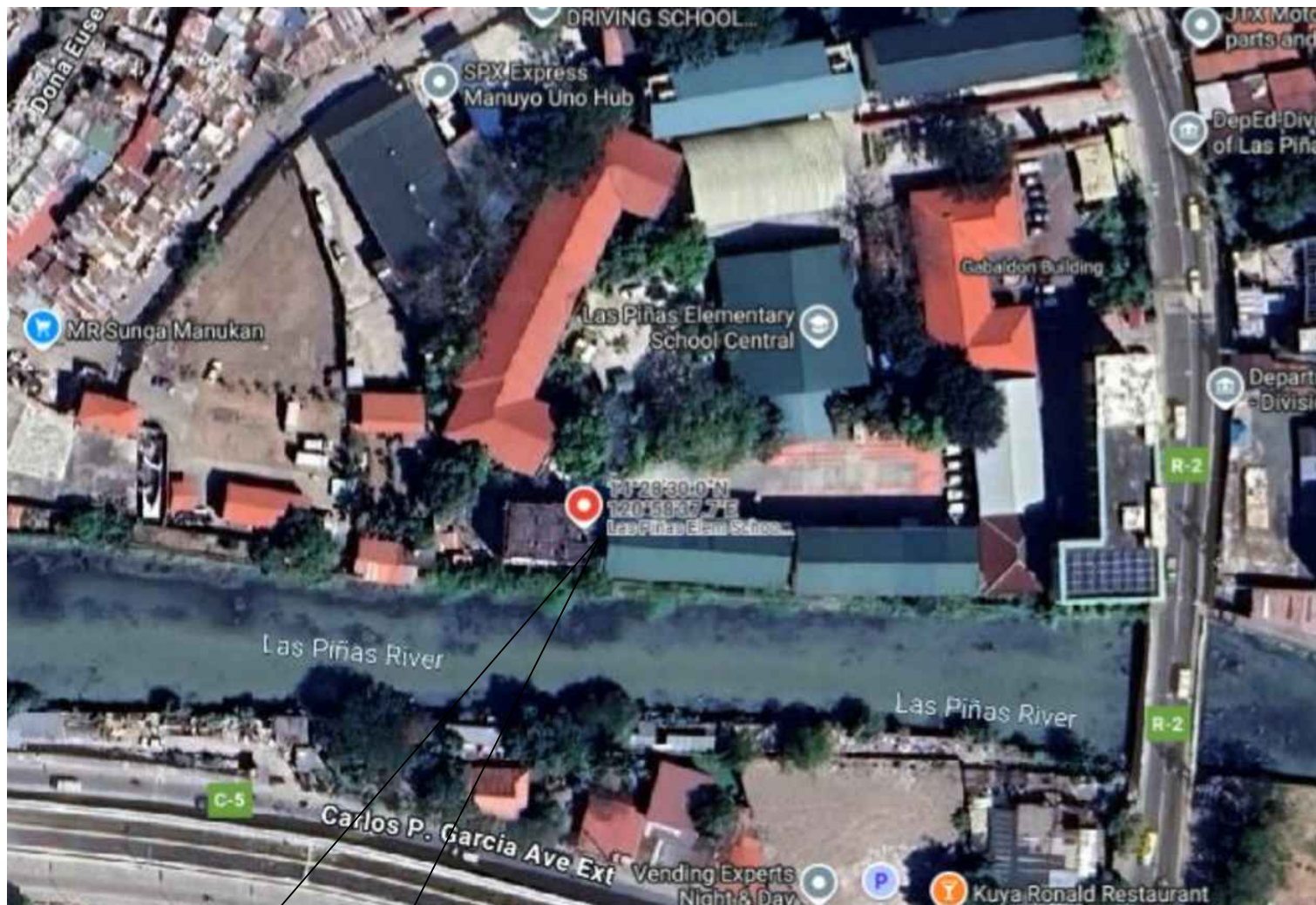
SITE DEVELOPMENT PLAN  
LAS PIÑAS CITY NATIONAL  
SCIENCE HIGH SCHOOL

SITE



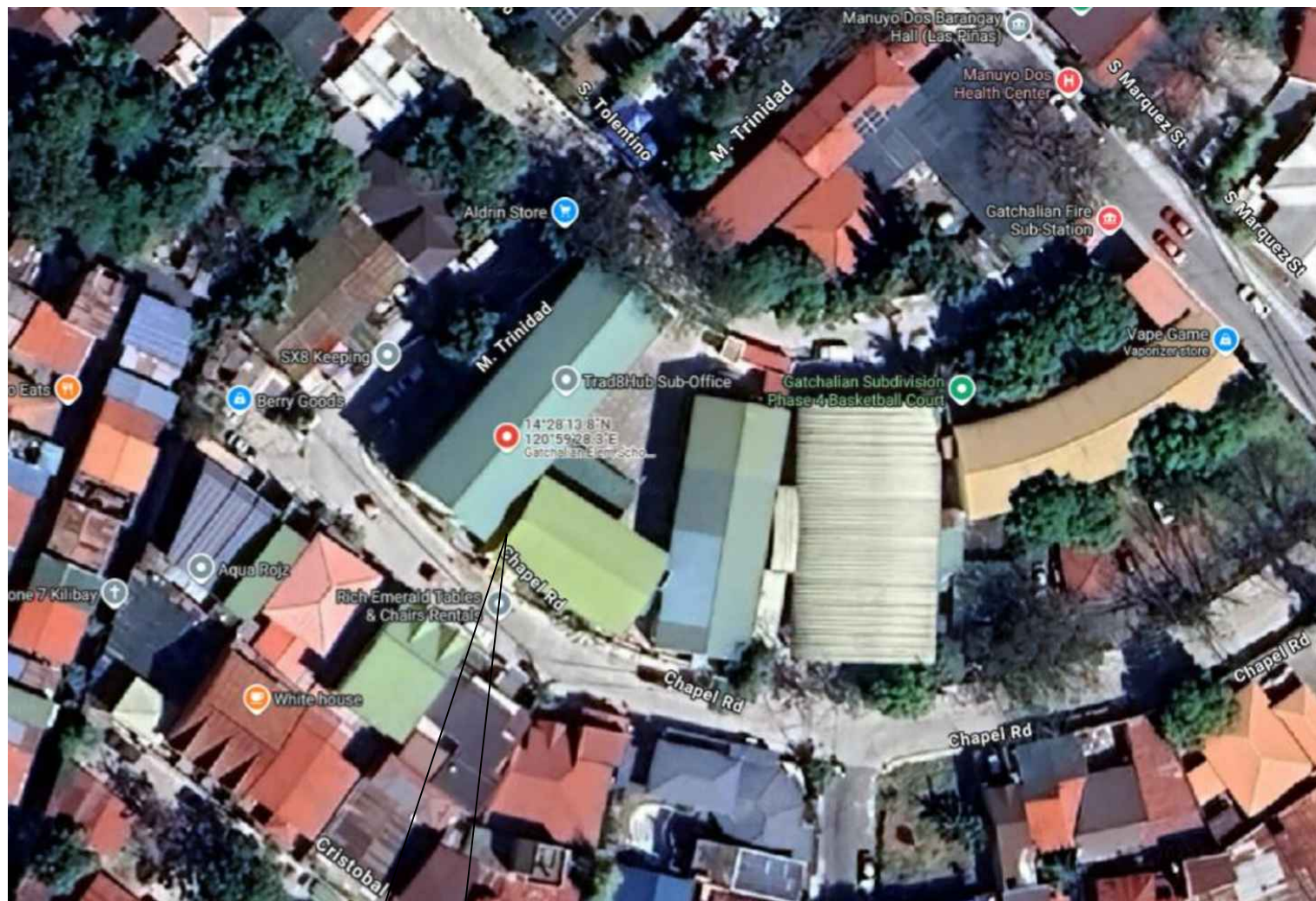
SITE DEVELOPMENT PLAN  
MOONWALK ELEMENTARY SCHOOL

SITE



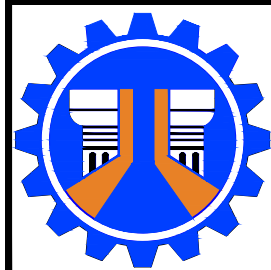
SITE DEVELOPMENT PLAN  
LAS PIÑAS ELEMENTARY SCHOOL CENTRAL

SITE



SITE DEVELOPMENT PLAN  
GONZALO GATCHALIAN ELEMENTARY SCHOOL

SITE



REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
NATIONAL CAPITAL REGION  
LAS PIÑAS-MUNTINLUPA DISTRICT ENGINEERING OFFICE  
2nd STREET, PORT AREA, MANILA

PROJECT AND LOCATION:

CONSTRUCTION OF RAINWATER  
COLLECTION SYSTEM (RWCS),  
LAS PIÑAS AND MUNTINLUPA  
CITY

SHEET CONTENT:

SITE  
DEVELOPMENT PLAN

DRAFTED:

FRANCIS SIEGFRED C. LAMBINO  
ENGINEER II

PREPARED:

FRANCIS SIEGFRED C. LAMBINO  
ENGINEER II

CHECKED BY:

DARIUS M. MERCADO  
ENGINEER II

DATE:

SUBMITTED:

MARIANNE KRISCHEL JEAN D. SAGA-OC  
CHIEF, PLANNING & DESIGN SECTION

DATE:

RECOMMENDED:

MARIA CRISTINA E. TACARDON  
ASSISTANT DISTRICT ENGINEER

DATE:

APPROVED:

ISABELO C. BALEROS  
DISTRICT ENGINEER

DATE:

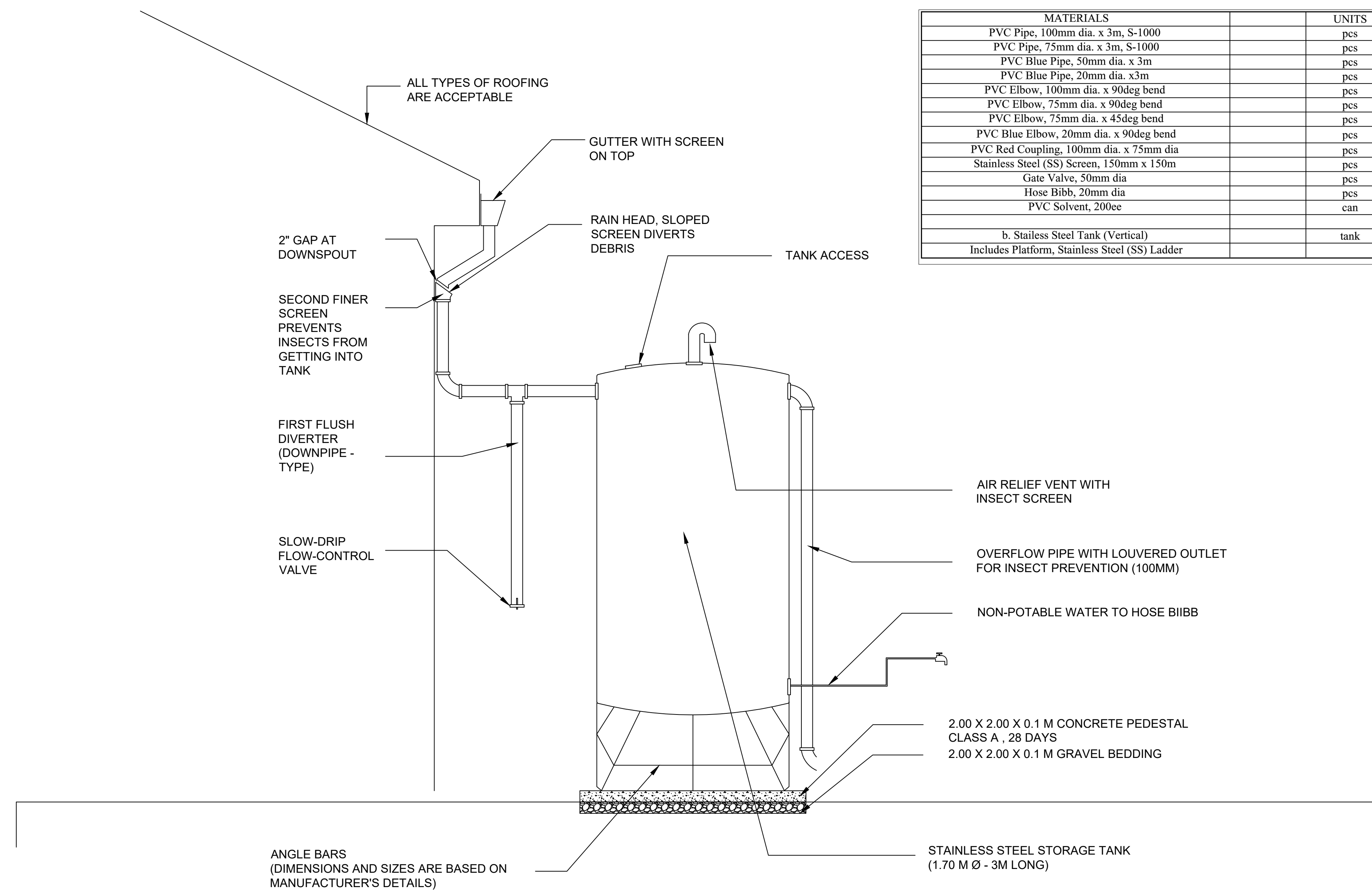
SET NO.

A  
4

SHEET NO.

4  
5



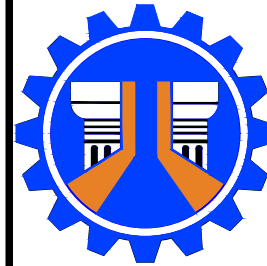


MATERIALS		UNITS	TOTAL QTY.
PVC Pipe, 100mm dia. x 3m, S-1000		pcs	30.00
PVC Pipe, 75mm dia. x 3m, S-1000		pcs	30.00
PVC Blue Pipe, 50mm dia. x 3m		pcs	30.00
PVC Blue Pipe, 20mm dia. x3m		pcs	30.00
PVC Elbow, 100mm dia. x 90deg bend		pcs	18.00
PVC Elbow, 75mm dia. x 90deg bend		pcs	18.00
PVC Elbow, 75mm dia. x 45deg bend		pcs	19.00
PVC Blue Elbow, 20mm dia. x 90deg bend		pcs	20.00
PVC Red Coupling, 100mm dia. x 75mm dia		pcs	20.00
Stainless Steel (SS) Screen, 150mm x 150m		pcs	20.00
Gate Valve, 50mm dia		pcs	20.00
Hose Bibb, 20mm dia		pcs	10.00
PVC Solvent, 200ee		can	10.00
b. Stainless Steel Tank (Vertical)		tank	10.00
Includes Platform, Stainless Steel (SS) Ladder			

STAINLESS STEEL VERTICAL RAINWATER TANK

SCALE :

1:15M



REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
NATIONAL CAPITAL REGION  
LAS PIÑAS-MUNTINLUPA DISTRICT ENGINEERING OFFICE  
2nd STREET, PORT AREA , MANILA

PROJECT AND LOCATION:

CONSTRUCTION OF RAINWATER  
COLLECTION SYSTEM (RWCS),  
LAS PIÑAS AND MUNTINLUPA  
CITY

SHEET CONTENT:

DETAILS OF RAINWATER  
TANK

DRAFTED:

FRANCIS SIEGFRED C. LAMBINO  
ENGINEER II

PREPARED:

FRANCIS SIEGFRED C. LAMBINO  
ENGINEER II

CHECKED BY:

DARIUS M. MERCADO  
ENGINEER II

DATE:

SUBMITTED:

MARIANNE KRISCEL JEAN D. SAGA-OC  
CHIEF, PLANNING & DESIGN SECTION

DATE:

RECOMMENDED:

MARIA CRISTINA E. TACARDON  
ASSISTANT DISTRICT ENGINEER

DATE:

APPROVED:

ISABELO C. BALEROS  
DISTRICT ENGINEER

DATE:

SET NO.

A  
5

SHEET NO.

5  
5