DRAWING INDEX

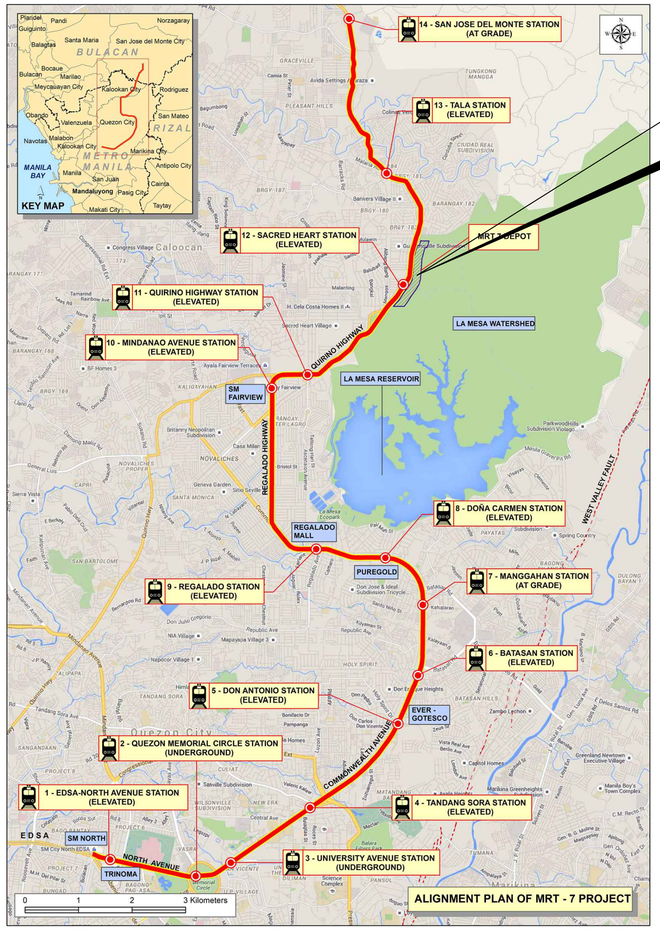
SHEET NO.	SHEET CONTENTS
GENERAL DRAWINGS	
D-DEP-IE-13000	GENERAL NOTES, DRAWING INDEX, LEGEND & SYMBOLS, LOCATION AND VICINITY MAP
D-DEP-IE-13001	OVERALL ELECTRONICS SITE DEVELOPMENT PLAN
SITE DEVELOPMENT PLAN	
D-DEP-IE-13002	ELECTRONICS SITE DEVELOPMENT PLAN LAYOUT PART A
D-DEP-IE-13003	ELECTRONICS SITE DEVELOPMENT PLAN LAYOUT PART B
D-DEP-IE-13004	ELECTRONICS SITE DEVELOPMENT PLAN LAYOUT PART C
SCHEMATIC DIAGRAM	
D-DEP-IE-13005	OVERALL SITE DEVELOPMENT CONDUIT AND HANDHOLE SCHEMATIC DIAGRAM
D-DEP-IE-13006	OVERALL SITE DEVELOPMENT FIRE DETECTION AND ALARM SYSTEM CABLING SCHEMATIC DIAGRAM
D-DEP-IE-13007	OVERALL SITE DEVELOPMENT SECURITY MANAGEMENT SYSTEM CABLING SCHEMATIC DIAGRAM
D-DEP-IE-13008	OVERALL SITE DEVELOPMENT EQUIPMENT MONITORING AND CONTROL SYSTEM CABLING SCHEMATIC DIAGRAM
D-DEP-IE-13009A	OVERALL SITE DEVELOPMENT FIRE DETECTION AND ALARM SYSTEM SCHEMATIC DIAGRAM–PART A
D-DEP-IE-13009B	OVERALL SITE DEVELOPMENT FIRE DETECTION AND ALARM SYSTEM SCHEMATIC DIAGRAM–PART B
D-DEP-IE-13009C	OVERALL SITE DEVELOPMENT FIRE DETECTION AND ALARM SYSTEM SCHEMATIC DIAGRAM–PART C
D-DEP-IE-13009D	OVERALL SITE DEVELOPMENT FIRE DETECTION AND ALARM SYSTEM SCHEMATIC DIAGRAM–PART D
D-DEP-IE-13009E	OVERALL SITE DEVELOPMENT FIRE DETECTION AND ALARM SYSTEM SCHEMATIC DIAGRAM–PART E
D-DEP-IE-13010A	OVERALL SITE DEVELOPMENT SECURITY MANAGEMENT SYSTEM SCHEMATIC DIAGRAM–PART A
D-DEP-IE-13010B	OVERALL SITE DEVELOPMENT SECURITY MANAGEMENT SYSTEM SCHEMATIC DIAGRAM–PART B
D-DEP-IE-13010C	OVERALL SITE DEVELOPMENT SECURITY MANAGEMENT SYSTEM SCHEMATIC DIAGRAM–PART C
D-DEP-IE-13010D	OVERALL SITE DEVELOPMENT SECURITY MANAGEMENT SYSTEM SCHEMATIC DIAGRAM–PART D
D-DEP-IE-13011A	OVERALL SITE DEVELOPMENT EQUIPMENT MONITORING AND CONTROL SYSTEM SCHEMATIC DIAGRAM – PART A
D-DEP-IE-13011B	OVERALL SITE DEVELOPMENT EQUIPMENT MONITORING AND CONTROL SYSTEM SCHEMATIC DIAGRAM – PART B
MISCELLANEOUS DETAILS	
D-DEP-IE-13012	MISCELLANEOUS DETAILS 1
D-DEP-IE-13013	MISCELLANEOUS DETAILS 2
D-DEP-IE-13014	MISCELLANEOUS DETAILS 3
D-DEP-IE-13015	MISCELLANEOUS DETAILS 4
D-DEP-IE-13016	MISCELLANEOUS DETAILS 5
D-DEP-IE-13017	MISCELLANEOUS DETAILS 6
D-DEP-IE-13018	MISCELLANEOUS DETAILS 7
D-DEP-IE-13019	MISCELLANEOUS DETAILS 8
D-DEP-IE-13020	MISCELLANEOUS DETAILS 9
D-DEP-IE-13021	MISCELLANEOUS DETAILS 10
D-DEP-IE-13022	MISCELLANEOUS DETAILS 11
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D-DEP-IE-13026	MISCELLANEOUS DETAILS 15
D-DEP-IE-13027	MISCELLANEOUS DETAILS 16
D-DEP-IE-13028	MISCELLANEOUS DETAILS 17
D-DEP-IE-13029	MISCELLANEOUS DETAILS 18
D-DEP-IE-13030	MISCELLANEOUS DETAILS 19

GENERAL NOTES:

1. FIRE ALARM CONTROL PANEL (FACP) SHALL BE INTERFACED VIA COMMUNICATION SYSTEM OF ROTEM
2. CONTRACTOR TO ENSURE CONDUITS ARE FILLED UP TO A MAXIMUM OF 40% ONLY IN COMPLIANCE WITH NEC.
3. THE PURPOSE OF THIS SCHEMATIC IS TO PROVIDE A GENERAL CONCEPT AND PRINCIPLE OF THE PROPOSED FIRE DETECTION AND ALARM SYSTEM.
4. THE QUANTITY AND LOCATION OF DEVICES ARE INDICATIVE ONLY. REFER TO FLOOR PLAN LAYOUT FOR FINAL LOCATION AND QUANTITY.
5. FIRE DETECTION AND ALARM SYSTEM SHALL BE PROVIDED WITH A MINIMUM OF 24 HOURS BACK–UP TIME FOR STAND BY AND 5 MINUTES BACK–UP TIME FOR FULL LOAD OPERATION (OR ALARM MODE).
6. CONTRACTOR TO QUALIFY QUANTITY OF FACP BASED ON MANUFACTURER RESPECTIVE SYSTEM CAPACITY.
7. CONTRACTOR TO PROVIDE AT LEAST 1 SPARE SLC ON EACH FACP.
8. FACP AT FCC SHALL BE EQUIPPED WITH VOICE EVAC.
9. ALL WATER FLOW SWITCHES AND SUPERVISORY SWITCHES SHALL BE PROVIDED WITH ADDRESSABLE INPUT MODULE AND CONNECTED TO FDAS. REFER TO FIRE PROTECTION LAYOUT FOR THE EXACT LOCATION AND QUANTITY.
10. CONTRACTOR SHALL FURNISH AND INSTALL THE COMPLETE SYSTEM TO INCLUDE WIRES, CABLES, ACCESSORIES, RELAYS AND SOFTWARE PROGRAMMING AS DEEMED NECESSARY FOR THE SUCCESSFUL OPERATION OF THE SYSTEM.
11. FDAS AND ACS/SMS SHALL BE PROVIDED WITH INDEPENDENT WORKSTATION COMPUTER AND SERVER.
12. FDAS AND ACS CENTRALIZED WORKSTATION COMPUTERS SHALL BE INSTALLED IN THE OPERATION CONTROL CENTER (OCC).
13. SHIELDED TWISTED PAIR (STP) CABLE SHALL BE SIZED ACCORDINGLY BY THE CONTRACTOR. MINIMUM CABLE SIZE FOR SITE DEVELOPMENT INSTALLATION IS AWG NO. 14.
14. CONTRACTOR TO PROVIDE SEPARATE CONDUIT FOR INCOMING AND RETURN CABLE (CLASS A WIRING).
15. FIRE PROTECTION CONTRACTOR TO PROVIDE WATER LEVEL SENSOR. REFER TO FIRE PROTECTION LAYOUT.
16. CONTRACTOR TO PROVIDED INTERFACE MODULES FOR EACH MECHANICAL AND FIRE PRO EQUIPMENTS. REFER TO MECHANICAL & FIRE PRO LAYOUT FOR THE EXACT QUANTITY AND LOCATION OF THEIR EQUIPMENT.
17. CONTRACTOR TO PROVIDE FIRE PROOFING & WATER PROOFING SEALANT IN EVERY WALL & FLOOR PENETRATION.
18. ACCESS GATHERING PANEL (AGP) SHALL BE INTERFACED INTO ROTEM NETWORK COMMUNICATION SYSTEM.
19. CONTRACTOR TO ENSURE CONDUITS ARE FILLED UP TO A MAXIMUM OF 40% ONLY IN COMPLIANCE WITH NEC.

LEGEND & SYMBOLS

SYMBOLS	DESCRIPTION OF ITEM
OVERALL ELECTRONICS SYSTEM	
▣	COMMUNICATIONS HAND HOLE
⊠	TELCO PEDESTAL
--------	CONDUIT (IN CONCRETE ENCASEMENT)



1 VICINITY MAP
D-DEP-IE-13000 SCALE NTS

2 LOCATION MAP
D-DEP-IE-13000 SCALE NTS

SMC MRT 7

- [✓] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer I- Electronics Services
Date : May 27, 2025

PROJECT TITLE:	THE MRT 7 PROJECT
SHEET CONTENTS:	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES GENERAL NOTES, DRAWING INDEX, LEGEND & SYMBOLS, LOCATION AND VICINITY MAP
SHEET NO.	1 OF 39
LOCATION:	QUEZON CITY- SAN JOSE DEL MONTE BULACAN
DWG. NO:	D-DEP-IE-13000
REV. NO.	B

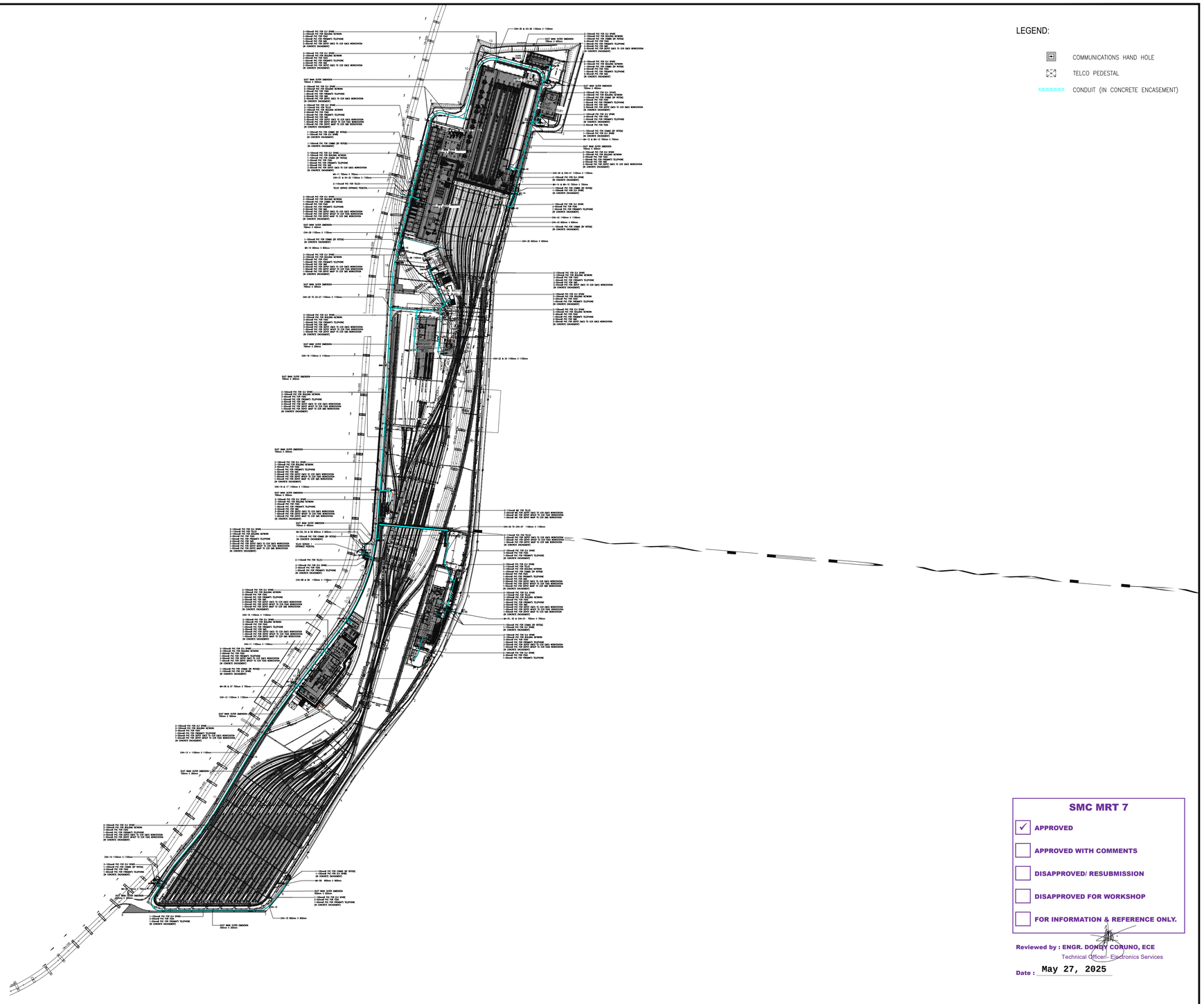
DESIGN CONTRACTOR: PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862 IAPOA NO.:
PTR NO.: 10466465 DATE: 03 JAN. 2025
PLACE: MAKATI CITY T.I.N. NO.: 157-691-905

CONCESSIONAIRE: SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR: REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
			RE	PM	PD	SURVEY	GRP.SUPV.
B	25MAY15	ISSUED FOR CONSTRUCTION	ORIGINATOR			CLIENT	
A	25APR02	ISSUED FOR CONSTRUCTION					
8	23NOV09	ISSUED FOR APPROVAL					
7	23OCT06	ISSUED FOR APPROVAL					
6	23JUN20	ISSUED FOR APPROVAL					

REVISION HISTORY



SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services

Date : May 27, 2025

1
1:3000

OVER ALL ELECTRONICS SITE DEVELOPMENT PLAN

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES OVER ALL ELECTRONICS SITE DEVELOPMENT PLAN	2 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13001	A

DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

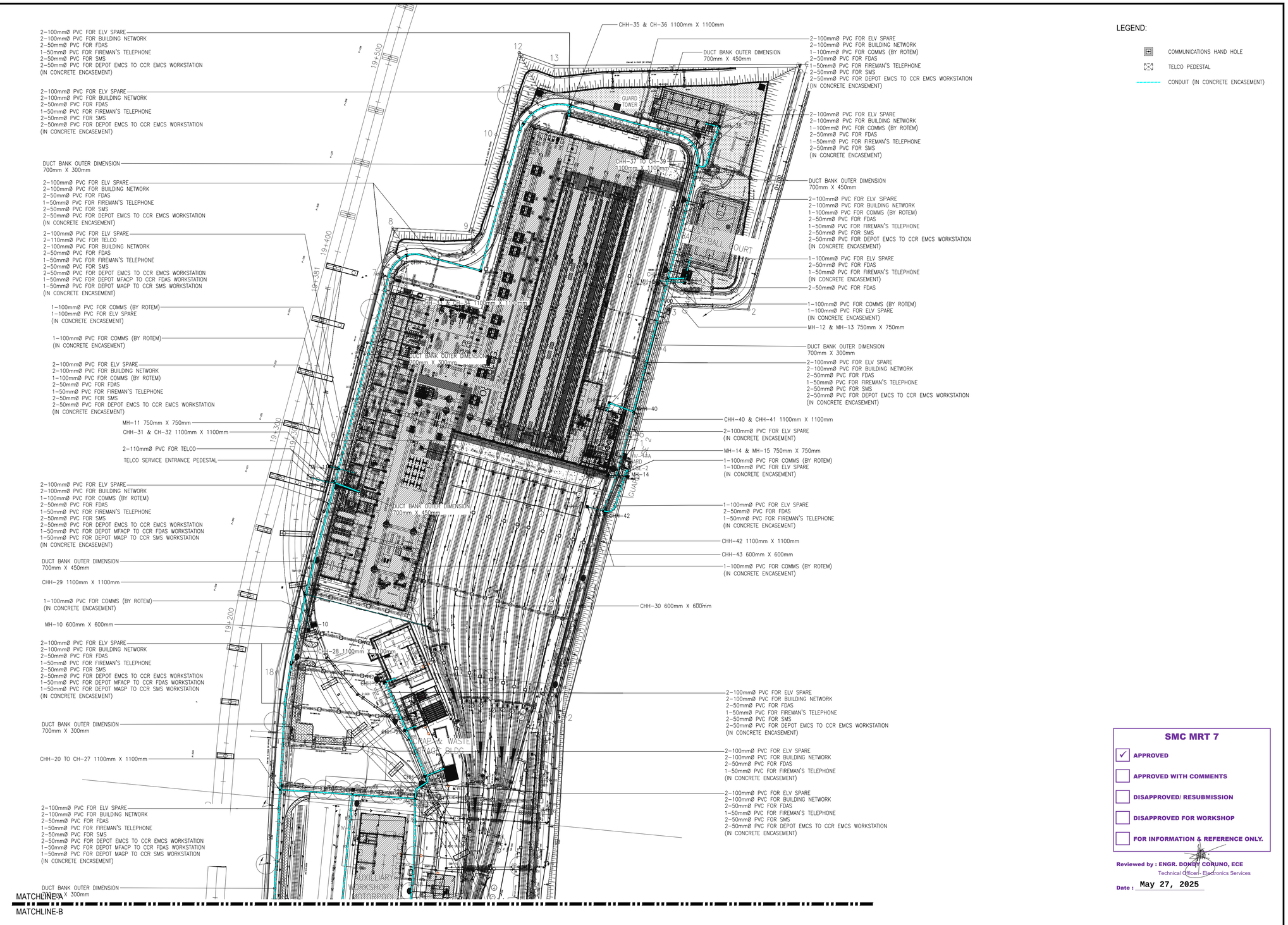
CONCESSIONAIRE:
MRT7 SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	PM CHECKED	PD CHECKED	SURVEY REVIEWED	GRP.SUPV. CHECKED
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13	24FEB08	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		
12	24JAN12	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		

ORIGINATOR | CLIENT

REVISION HISTORY



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ELECTRONICS SITE DEVELOPMENT PLAN LAYOUT PART A

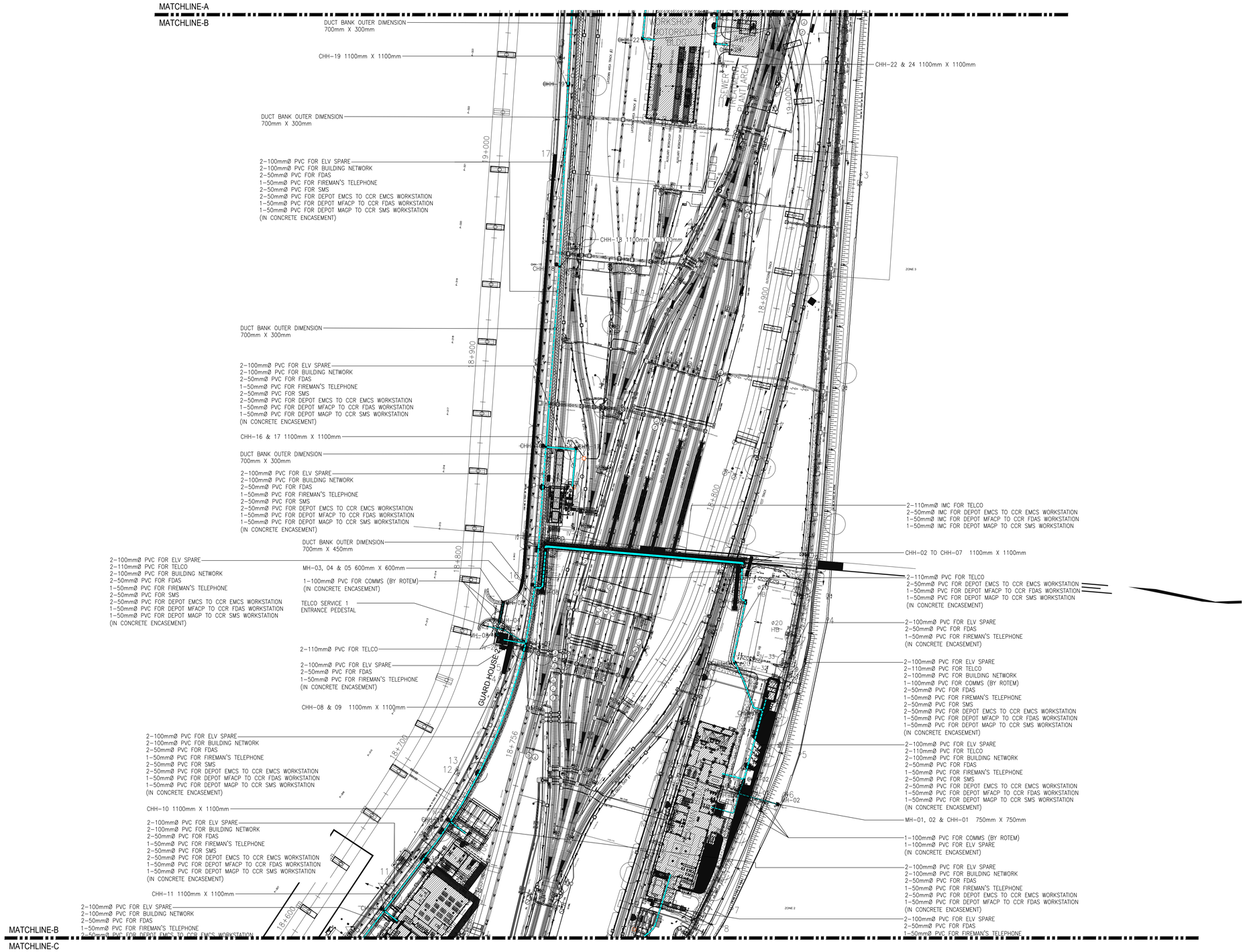
PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.	DESIGN CONTRACTOR:	CONCESSIONAIRE:	GRANTOR:
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES ELECTRONICS SITE DEVELOPMENT PLAN LAYOUT PART A	3 OF 39	PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT ERWIN V. JUNASA PROFESSIONAL ELECTRONICS ENGINEER PRC NO.: 862 PTR NO.: 10466465 PLACE: MAKATI CITY IAPOA NO.: DATE: 03 JAN. 2025 T.I.N. NO.: 157-691-905	MRT 7 SMC MASS RAIL TRANSIT 7 INC. HYUNG-WOOK KIM PROJECT DIRECTOR	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF TRANSPORTATION RECOMMENDING APPROVAL: JORJETTE B. AQUINO PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS APPROVED: JEREMY S. REGINO UNDERSECRETARY FOR RAILWAYS
LOCATION:	DWG. NO:	REV. NO.			
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13002	A			

REV	DATE	MARK / DESCRIPTION	DRAWN BY	PM	PD	SURVEY	GRP.SUPV.
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12	24JAN12	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		
11	23DEC13	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		
			CHECKED	CHECKED	CHECKED	REVIEWED	CHECKED
			ORIGINATOR			CLIENT	

REVISION HISTORY

MATCHLINE-A

MATCHLINE-B



MATCHLINE-B

MATCHLINE-C

LEGEND:

- COMMUNICATIONS HAND HOLE
- TELCO PEDESTAL
- CONDUIT (IN CONCRETE ENCASEMENT)

SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025

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ELECTRONICS SITE DEVELOPMENT PLAN LAYOUT PART B

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES ELECTRONICS SITE DEVELOPMENT PLAN LAYOUT PART B	4 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13003	A

DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

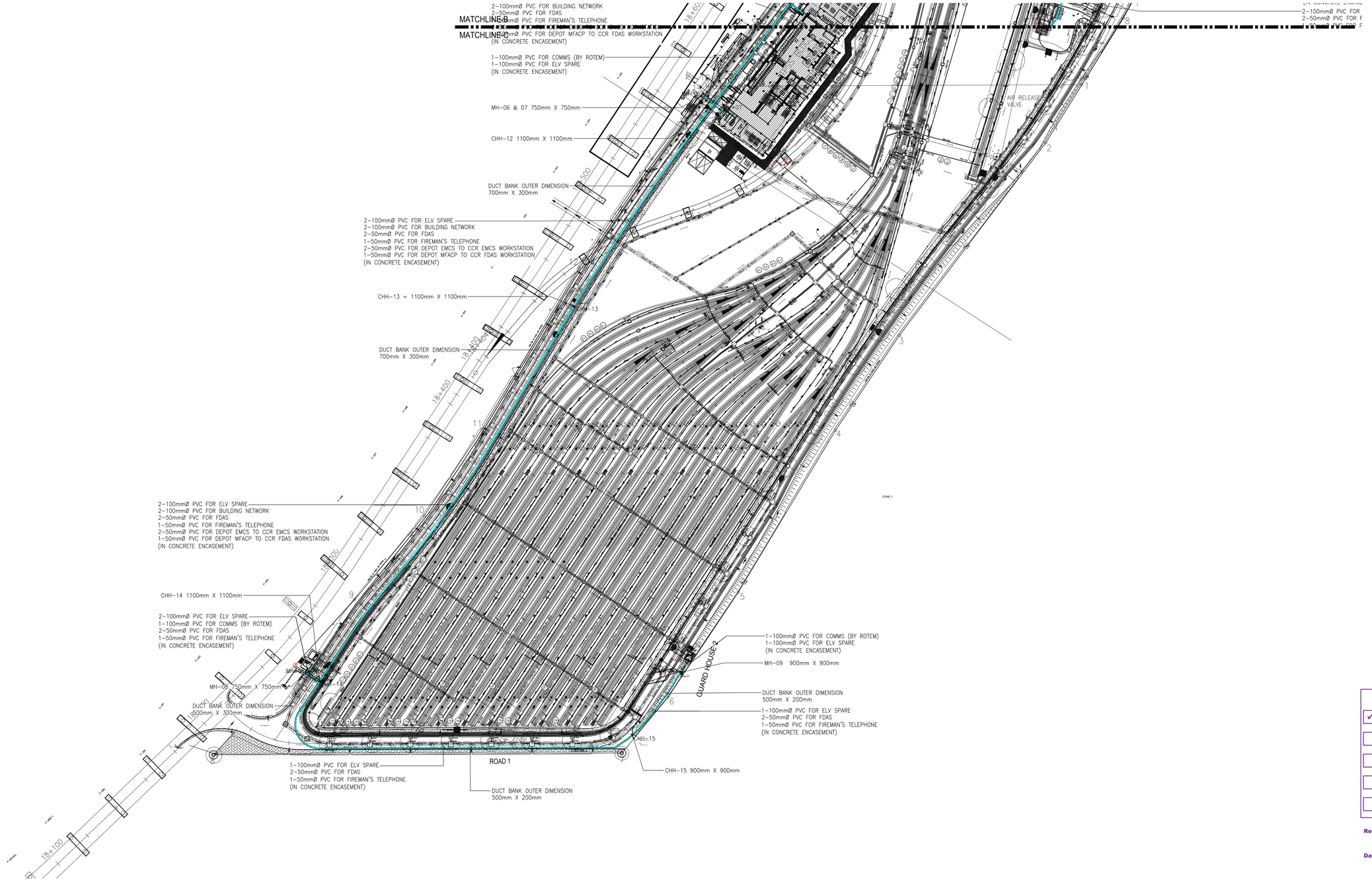
GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION					
14	24SEP13	ISSUED FOR APPROVAL					
13	24JUL12	ISSUED FOR APPROVAL					
12	24JAN12	ISSUED FOR APPROVAL					
11	23DEC13	ISSUED FOR APPROVAL					

BE | PM | PD | SURVEY | GRP.SUPV.
ORIGINATOR | CLIENT
REVISION HISTORY

LEGEND:

- COMMUNICATIONS HAND HOLE
- TELCO PEDESTAL
- CONDUIT (IN CONCRETE ENCASEMENT)



SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer I - Electronics Services

Date : May 27, 2025

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ELECTRONICS SITE DEVELOPMENT PLAN LAYOUT PART C

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES ELECTRONICS SITE DEVELOPMENT PLAN LAYOUT PART C	5 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13004	A

DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEIN-HARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862 IAPOA NO.:
PTR NO.: 10466465 DATE: 03 JAN. 2025
PLACE: MAKATI CITY T.I.N. NO.: 157-691-905

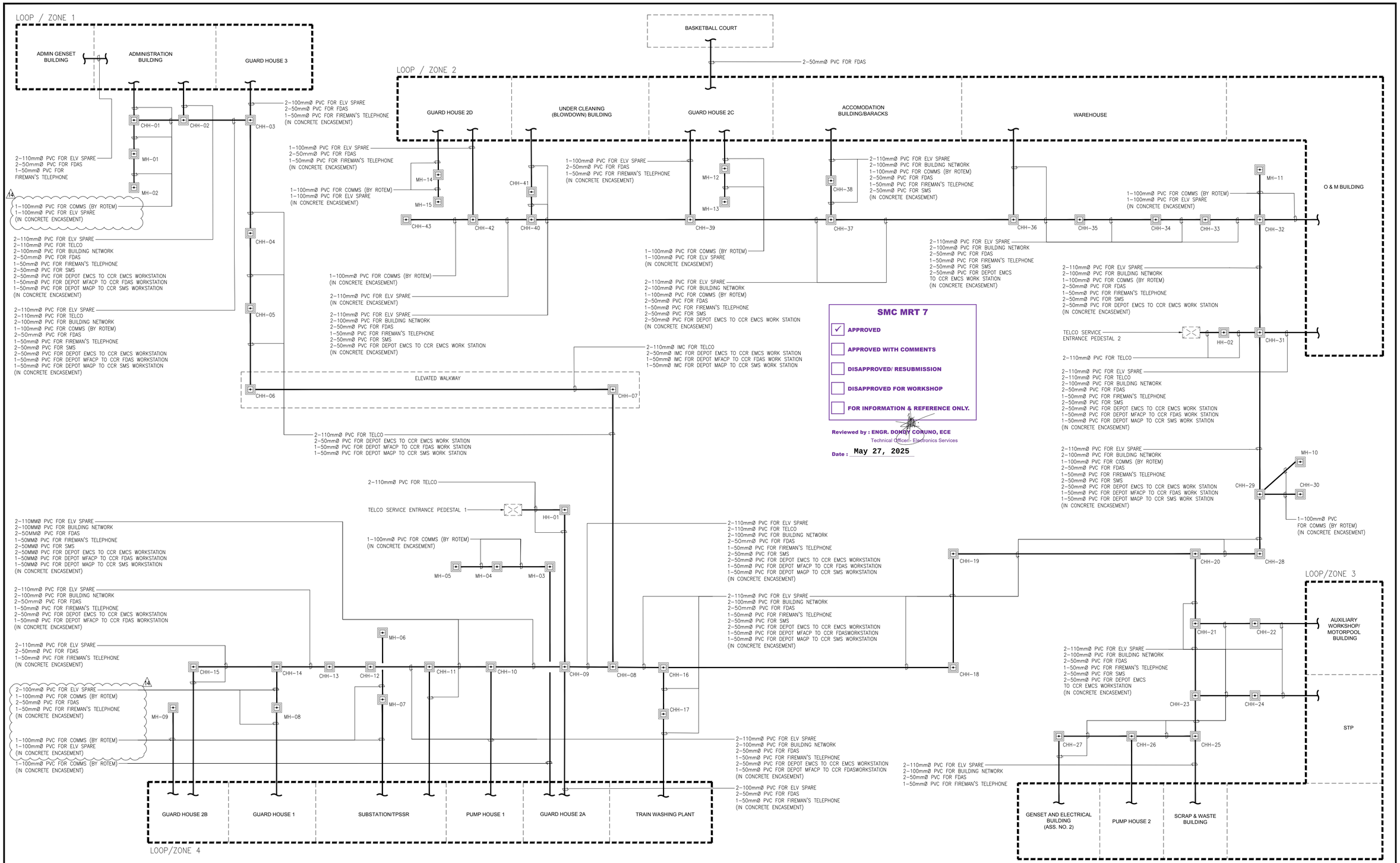
CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	BE DRAWN BY	PM CHECKED	PD CHECKED	SURVEY REVIEWED	GRP.SUPV. CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION	EVJ	MSM	EVJ		
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13	24JUL12	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		
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REVISION HISTORY



SMC MRT 7

- ☑ APPROVED
- ☐ APPROVED WITH COMMENTS
- ☐ DISAPPROVED/ RESUBMISSION
- ☐ DISAPPROVED FOR WORKSHOP
- ☐ FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services

Date : May 27, 2025

1
NTS

OVERALL SITE DEVELOPMENT CONDUIT AND HANDHOLE SCHEMATIC DIAGRAM

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.	DESIGN CONTRACTOR:	CONCESSIONAIRE:	GRANTOR:
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES OVERALL SITE DEVELOPMENT CONDUIT AND HANDHOLE SCHEMATIC DIAGRAM	6 OF 39	PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT ERWIN V. JUNASA PROFESSIONAL ELECTRONICS ENGINEER PRC NO.: 862 PTR NO.: 10466465 PLACE: MAKATI CITY IAPOA NO.: DATE: 03 JAN. 2025 T.I.N. NO.: 157-691-905	MRT 7 SMC MASS RAIL TRANSIT 7 INC. SMC INFRASTRUCTURE SMC MASS RAIL TRANSIT 7 INC. HYUNG-WOOK KIM PROJECT DIRECTOR	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF TRANSPORTATION RECOMMENDING APPROVAL: JORJETTE B. AQUINO PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS APPROVED: JEREMY S. REGINO UNDERSECRETARY FOR RAILWAYS
LOCATION:	DWG. NO:	REV. NO.			
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13005	A			

REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
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11	23DEC13	ISSUED FOR APPROVAL	[illegible]	MSM	ECV		
			BC	FM	PD	SURVEY	GRP.SUPV.
			ORIGINATOR			CLIENT	

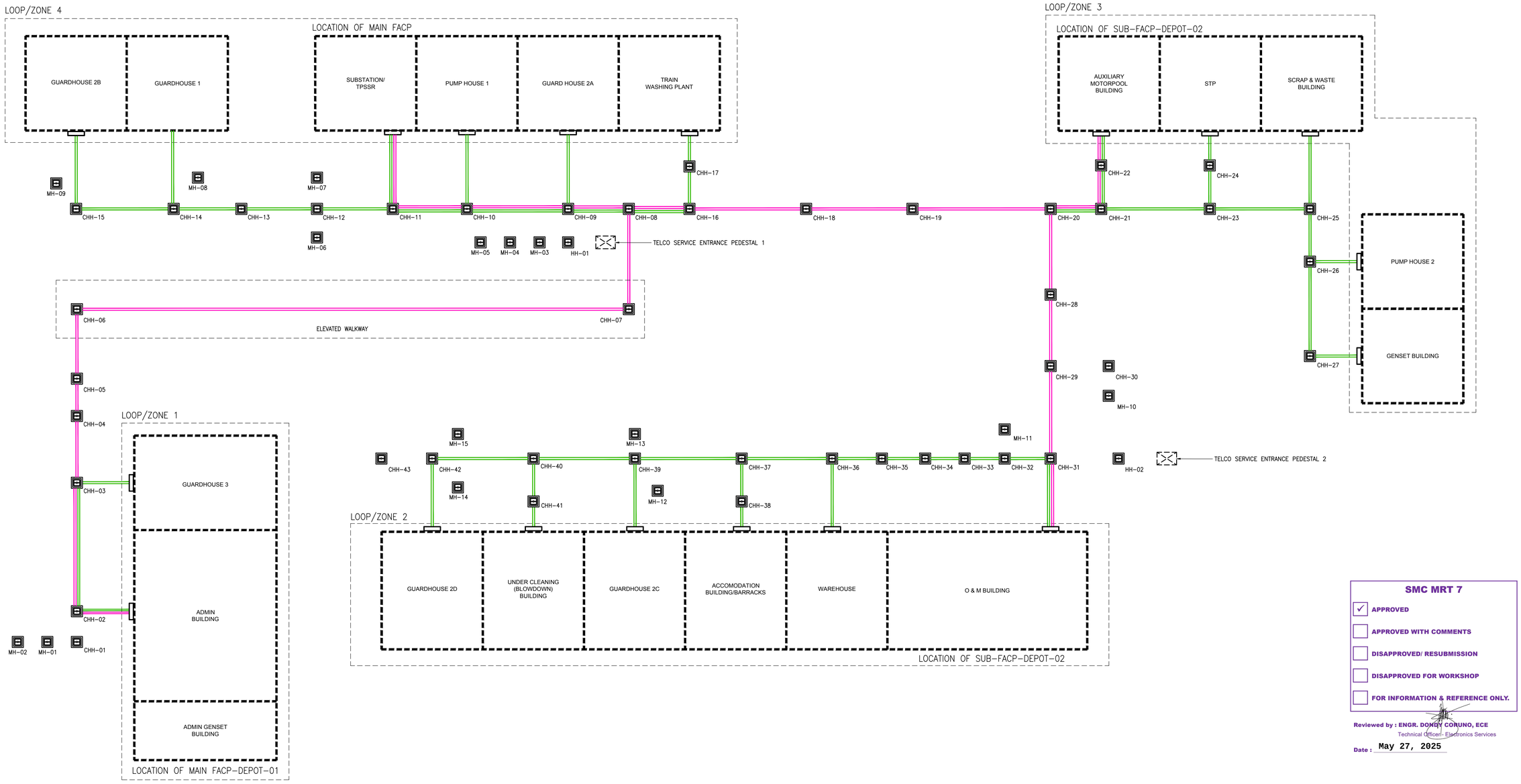
REVISION HISTORY

NOTES:

1. ALL INTER-BUILDING CONNECTIONS TO THE SUB-FACPS (LOOP/ZONES 1, 2 & 3) AND LOOP/ZONE 4 HAVE INCOMING & OUTGOING CONNECTION.
2. SHIELDED TWISTED PAIR (STP) CABLE SHALL BE SIZED ACCORDINGLY BY THE CONTRACTOR. MINIMUM CABLE SIZE AWG NO. 14.

LEGEND:

- #14 AWG SHIELDED TWISTED PAIR CABLE (FIRE RESISTIVE)
- 1-2 CORE (OS2) SINGLE-MODE FIBER OPTIC CABLE
- COMMUNICATIONS HANDHOLE
- FIRE ALARM TERMINAL BOX



SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025

1
NTS

OVERALL SITE DEVELOPMENT FIRE DETECTION AND ALARM SYSTEM CABLING SCHEMATIC DIAGRAM

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES OVERALL SITE DEVELOPMENT FIRE DETECTION AND ALARM SYSTEM CABLING SCHEMATIC DIAGRAM	7 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13006	B

DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

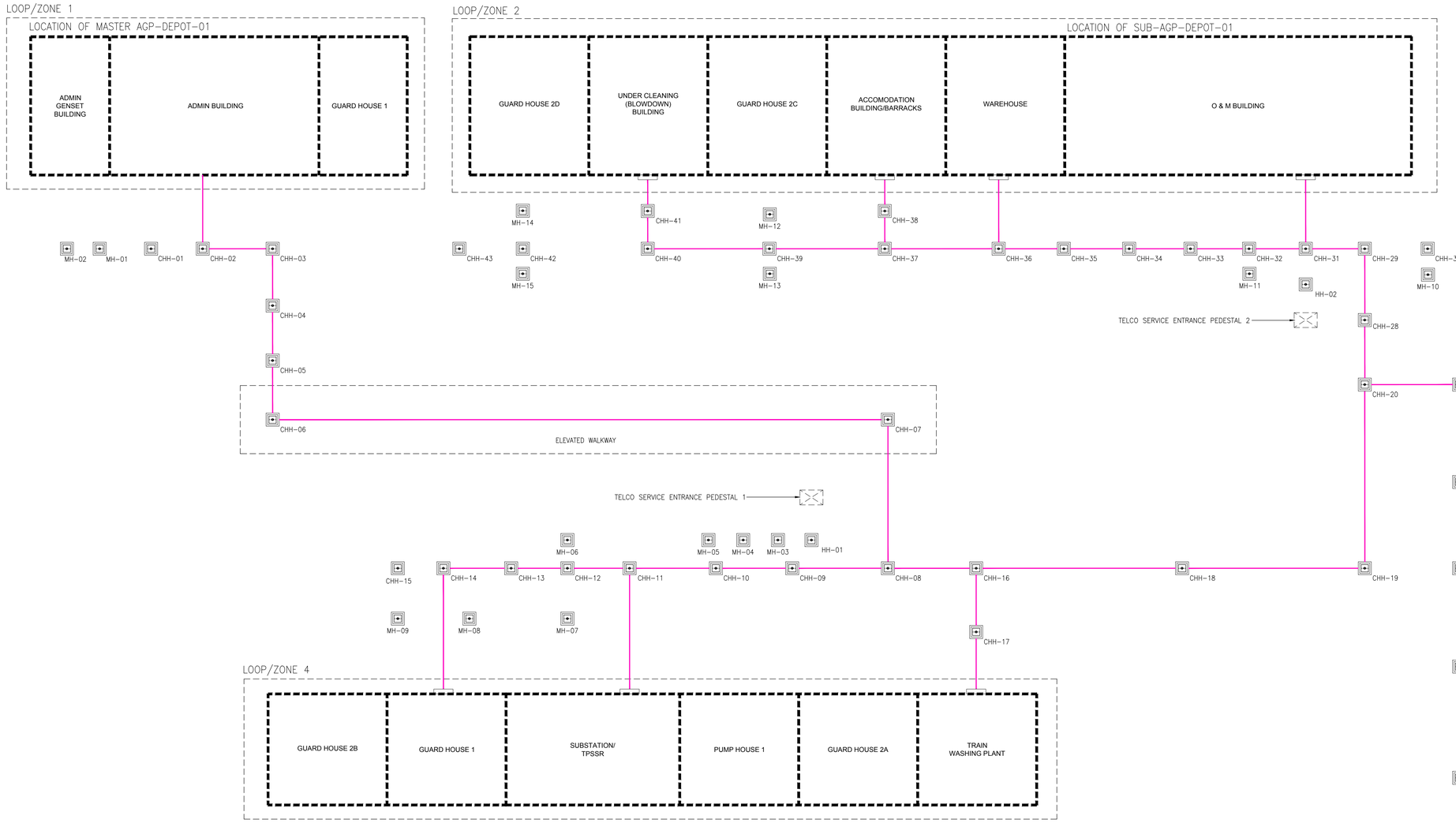
GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
			BE	PM	PD	SURVEY	GRP.SUPV.
			ORIGINATOR			CLIENT	
B	25MAY15	ISSUED FOR CONSTRUCTION	RAC	MSM	EVJ		
A	25APR02	ISSUED FOR CONSTRUCTION	RAC	MSM	EVJ		
4	24JUL12	ISSUED FOR APPROVAL	RAC	MSM	EVJ		
3	24JAN12	ISSUED FOR APPROVAL	RAC	MSM	EVJ		
2	23DEC13	ISSUED FOR APPROVAL	RAC	MSM	EVJ		

REVISION HISTORY

LEGEND:

- #18 AWG SHIELDED TWISTED PAIR CABLE
- 1–2 CORE (OS2) SINGLE–MODE FIBER OPTIC CABLE
- COMMUNICATIONS HANDHOLE
- TERMINAL BOX



SMC MRT 7

- ✓ APPROVED
- ☐ APPROVED WITH COMMENTS
- ☐ DISAPPROVED/ RESUBMISSION
- ☐ DISAPPROVED FOR WORKSHOP
- ☐ FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DOMDY CORUNO, ECE
Technical Officer I- Electronics Services

Date : May 27, 2025

1 NTS

OVERALL SITE DEVELOPMENT SECURITY MANAGEMENT SYSTEM CABLING SCHEMATIC DIAGRAM

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES OVERALL SITE DEVELOPMENT SECURITY MANAGEMENT SYSTEM CABLING SCHEMATIC DIAGRAM	8 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY– SAN JOSE DEL MONTE BULACAN	D–DEP–IE–13007	A

DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157–691–905

CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
SMC MASS RAIL TRANSIT 7 INC.
HYUNG–WOOK KIM
PROJECT DIRECTOR

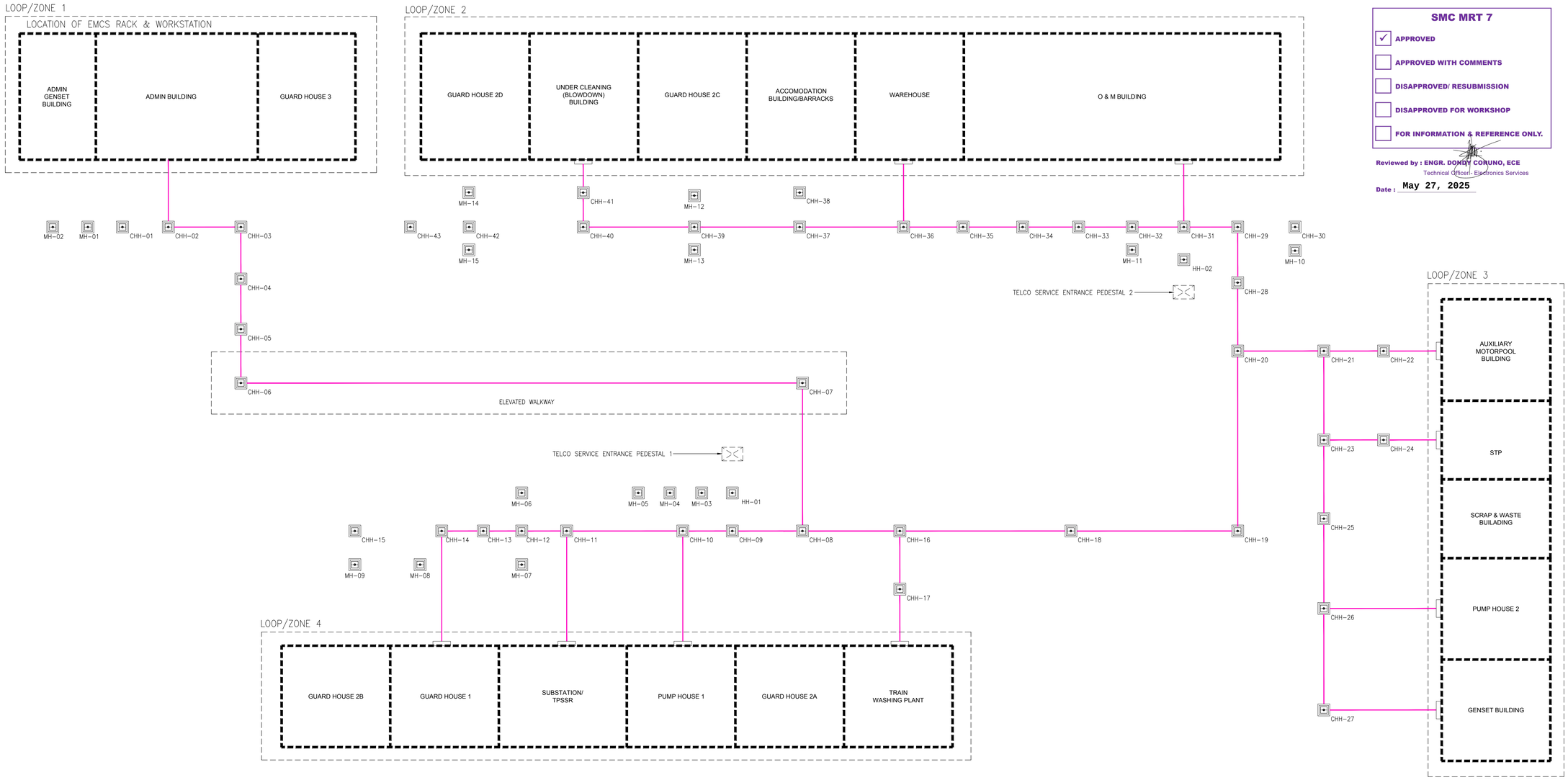
GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	PM CHECKED	PD CHECKED	SURVEY REVIEWED	GRP.SUPV. CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION	[illegible]	VGM	EVJ		
4	24JUL12	ISSUED FOR APPROVAL	[illegible]	VGM	EVJ		
3	24JAN12	ISSUED FOR APPROVAL	[illegible]	VGM	EVJ		
2	23DEC13	ISSUED FOR APPROVAL	[illegible]	VGM	EVJ		
1	23NOV09	ISSUED FOR APPROVAL	[illegible]	VGM	EVJ		
			ORIGINATOR			CLIENT	

REVISION HISTORY

LEGEND:

- #18 AWG SHIELDED TWISTED PAIR CABLE
- 1–2 CORE (OS2) SINGLE–MODE FIBER OPTIC CABLE
- COMMUNICATIONS HANDHOLE
- TERMINAL BOX



SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DOMDY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025

1

NTS

OVERALL SITE DEVELOPMENT EQUIPMENT MONITORING AND CONTROL SYSTEM CABLING SCHEMATIC DIAGRAM

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES OVERALL SITE DEVELOPMENT EQUIPMENT MONITORING AND CONTROL SYSTEM CABLING SCHEMATIC DIAGRAM	9 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY– SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13008	A

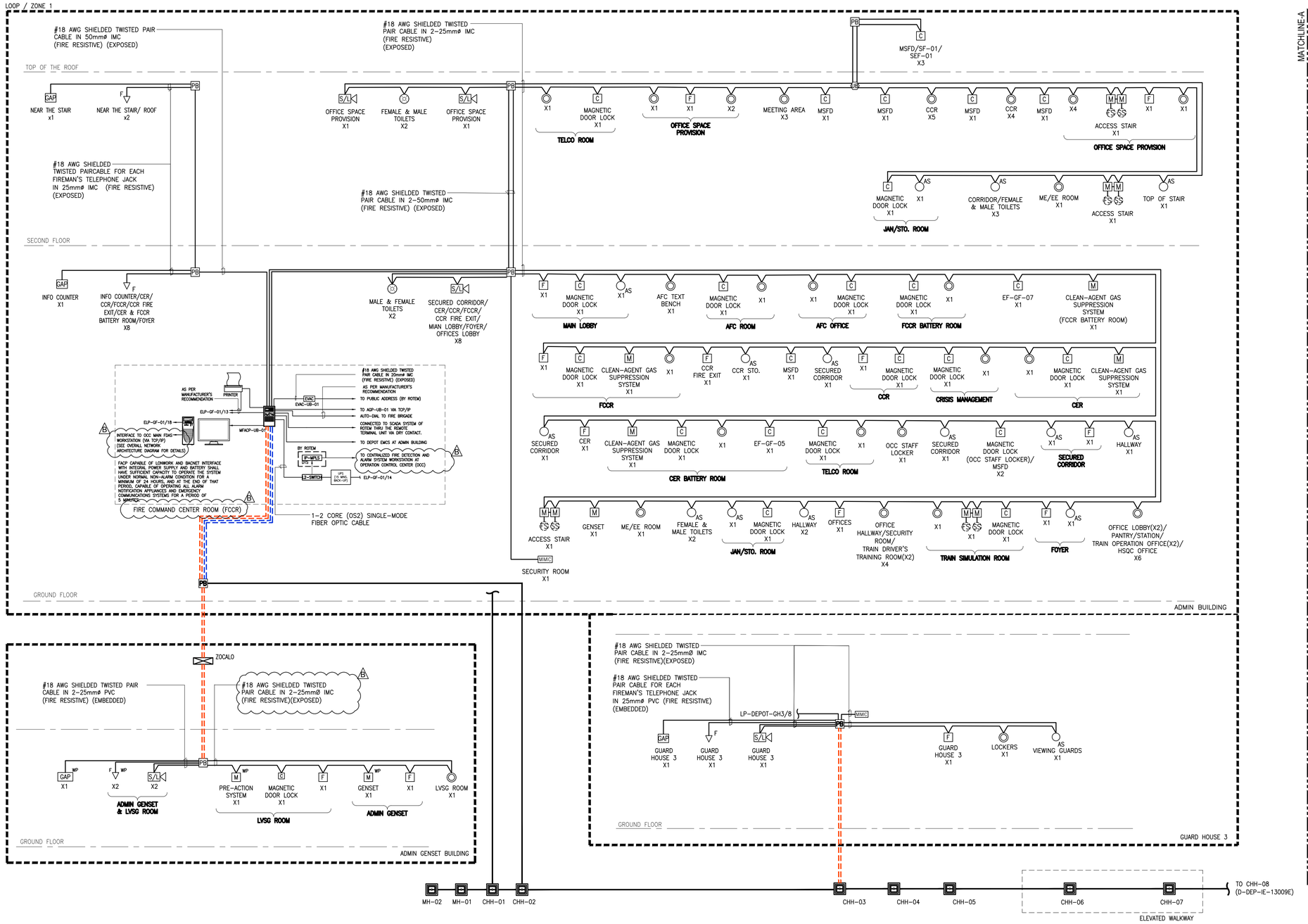
DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157–691–905

CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
SMC MASS RAIL TRANSIT 7 INC.
HYUNG–WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION	[illegible]	VGM	EVJ		
4	24JUL12	ISSUED FOR APPROVAL	[illegible]	VGM	EVJ		
3	24JAN12	ISSUED FOR APPROVAL	[illegible]	VGM	EVJ		
2	23DEC13	ISSUED FOR APPROVAL	[illegible]	VGM	EVJ		
1	23NOV09	ISSUED FOR APPROVAL	[illegible]	VGM	EVJ		
			RB	PM	PD	SURVEY	GRP.SUPV.
			ORIGINATOR			CLIENT	

REVISION HISTORY



MATCHLINE-A
MATCHLINE-B

NOTES:

1. THE PRIMARY POWER SUPPLIED TO THE FIRE ALARM PANEL AND HENCE TO THE ENTIRE SYSTEM, SHALL BE FROM A DEDICATED AND EXCLUSIVE BRANCH CIRCUIT. THE SECONDARY POWER SUPPLY SHALL HAVE SUFFICIENT CAPACITYTO OPPARATE THE SYSTEM UNDER NORMAL NON-ALARM CONDITION FOR A MINIMUM OF 24 HOURS, AND AT THE END OF THAT PERIOD, CAPABLE OF OPERATING ALL ALARM NOTIFICATION APPLIANCES AND EMERGENCY COMMUNICATIONS SYSTEM FOR A PERIOD OF 30 MINUTES.
2. ENSURE THAT THE FIRE ALARM CONTROL PANEL SHALL HAVE A PROVISION OF AUXILIARY CONTACTS FOR INTERFACING TO THE FIRE SPRINKLER PANEL AND OTHER ASSOCIATED WORKS. WATER FLOW SWITCHES AND TAMPER SWITCHES SHALL BE PROPERLY CONNECTED TO THE FACP FOR PROPER MONITORING.
3. SMOKE BEAM DETECTOR LOCATION IS INDICATIVE ONLY. ADJUSTMENTS SHALL BE MADE DURING ACTUAL INSTALLATION IN ORDER TO HAVE PROPER FUNCTION.
4. SMOKE BEAM DETECTOR SENSITIVITY SHALL BE ADJUSTED PROPERLY IN ACCORDANCE WITH THE AREA COVERAGE SUCH THAT IT WILL NOT PROVIDE FALSE ALARM. PROPER SENSITIVITY SHAL BE DONE DURING TESTING AND COMMISSIONING UNTIL SUCH TIME THAT THE DEVICE SHALL BE FUCTIONING US EXPECTATION PRIOR TO HAND-OVER.
5. CABLING WORK(INCLUDING MATERIAL) BETWEEN FACP AND EPS SHALL BE CARRIED OUT BY CIVIL CONTRACTOR.
6. CABLING WORK(INCLUDING MATERIAL) BETWEEN EVAC AND PUBLIC ADDRESS SHALL BE CARRIED OUT BY CIVIL CONTRACTOR.

LEGEND & SYMBOLS:

C	ADDRESSABLE CONTROL MODULE
F	ADDRESSABLE MANUAL PULL STATION
M	ADDRESSABLE MONITOR MODULE
AS	ADDRESSABLE SMOKE DETECTOR
EVAC	EVACUATION PANEL
F	FIREMAN'S TELEPHONE JACK
S/L	FIRE ALARM HORN WITH STROBE LIGHT
	OPTICAL-ADDRESSABLE SMOKE-HEAT DETECTOR
PB	PULLBOX (250mm(L) x 250mm(W) x 150mm(D))
SS	SUPERVISORY SWITCH
FS	FLOW SWITCH
UB	UTILITY BOX
	COMMUNICATION HANDHOLE
IP-MPLS	INTERNET PROTOCOL-MULTIPROTOCOL LABEL SWITCH
L2-SWITCH	LAYER 2 SWITCH
	#18 AWG SHIELDED TWISTED PAIR CABLE INSIDE 2-25MMø IMC
	1-2 CORE (OS2) SINGLE-MODE FIBER OPTIC CABLE IN 50mmø PVC (BURIED)
	#14 AWG SHIELDED TWISTED PAIR CABLE INSIDE 2-25mmø IMC (FIRE RESISTIVE) (BURIED)
	FIRE ALARM SOUNDER WITH STROBE LIGHT (CEILING MOUNTED)
GAP	GRAPHICAL ANNUNCIATOR PANEL
MIMIC	MIMIC PANEL

ABBREVIATION:

AGP	ACCESS GATHERING PANEL
AWG	AMERICAN WIRE GAUGE
CAT6	CATEGORY 6
ELP	ELECTRICAL LOAD PANEL
FACP	FIRE ALARM CONTROL PANEL
IMC	INTERMEDIATE METALLIC CONDUIT
SF	SUPPLY FAN
TCP/IP	TRANSMISSION CONTROL PROTOCOL/ INTERNET PROTOCOL
STP	SHIELDED TWISTED PAIR

SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services

Date : May 27, 2025

1
NTS

OVERALL SITE DEVELOPMENT FIRE DETECTION AND ALARM SYSTEM SCHEMATIC DIAGRAM-PART A

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES OVERALL SITE DEVELOPMENT FIRE DETECTION AND ALARM SYSTEM SCHEMATIC DIAGRAM-PART A	10 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13009A	B

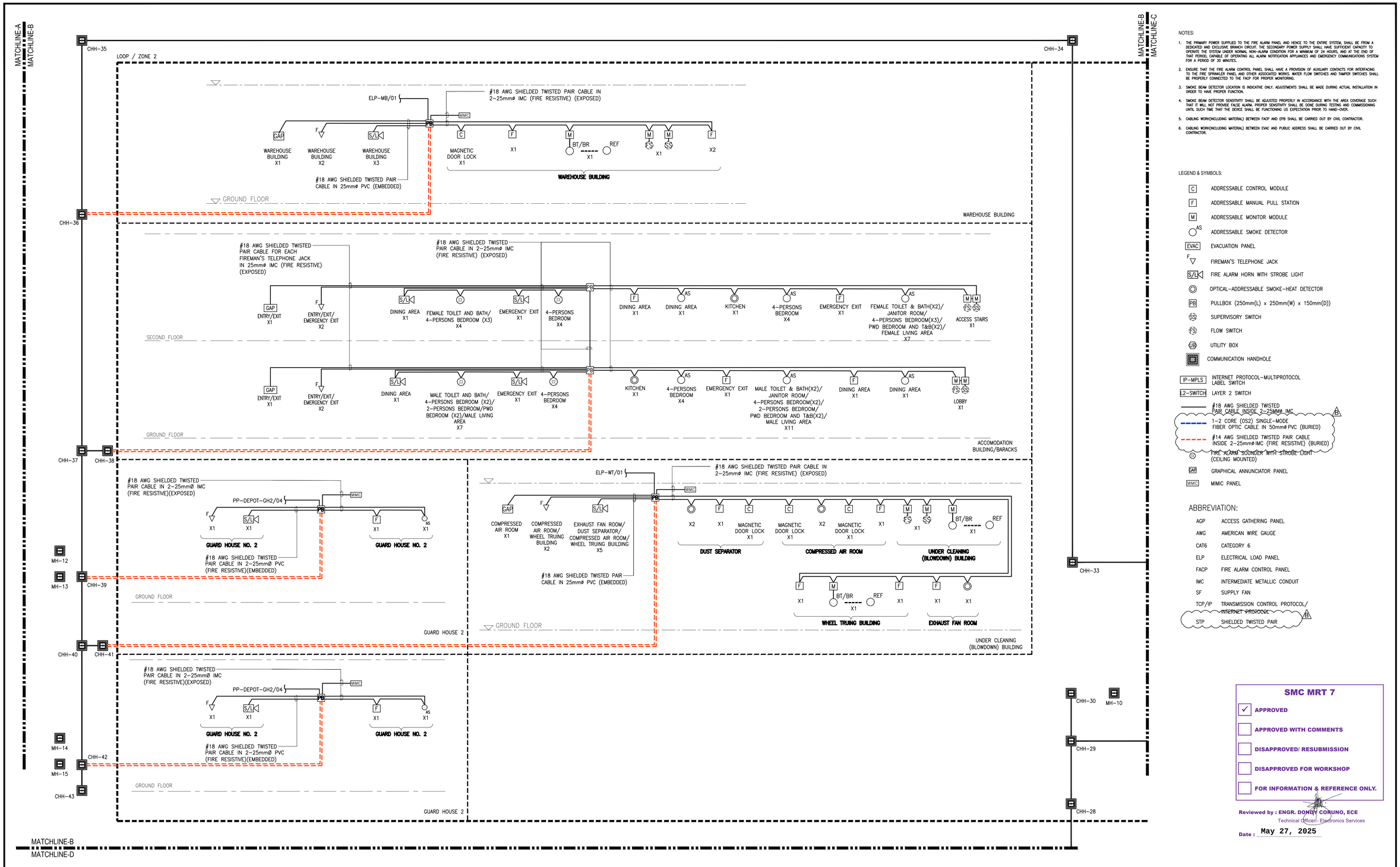
DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS — In association with MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	SURVEY REVIEWED	GRP SUPV. CHECKED
B	25MAY15	ISSUED FOR CONSTRUCTION	RAC	MSM	EVJ		
A	25APR02	ISSUED FOR CONSTRUCTION	RAC	MSM	EVJ		
14	24JUL12	ISSUED FOR APPROVAL	RAC	MSM	EVJ		
13	24FEB08	ISSUED FOR APPROVAL	RAC	MSM	EVJ		
12	24JAN12	ISSUED FOR APPROVAL	RAC	MSM	EVJ		
			BE	PM	PD	SURVEY	GRP SUPV.
			ORIGINATOR			CLIENT	

REVISION HISTORY



NOTES:

1. THE PRIMARY POWER SUPPLIED TO THE FIRE ALARM PANEL AND HENCE TO THE ENTIRE SYSTEM, SHALL BE FROM A DEDICATED AND EXCLUSIVE BRANCH CIRCUIT. THE SECONDARY POWER SUPPLY SHALL HAVE SUFFICIENT CAPACITY TO OPERATE THE SYSTEM UNDER NORMAL NON-ALARM CONDITION FOR A MINIMUM OF 24 HOURS, AND AT THE END OF THAT PERIOD, CAPABLE OF OPERATING ALL ALARM NOTIFICATION APPLIANCES AND EMERGENCY COMMUNICATIONS SYSTEM FOR A PERIOD OF 30 MINUTES.
2. ENSURE THAT THE FIRE ALARM CONTROL PANEL SHALL HAVE A PROVISION OF AUXILIARY CONTACTS FOR INTERFACING TO THE FIRE SPRINKLER PANEL AND OTHER ASSOCIATED WORKS. WATER FLOW SWITCHES AND TAMPER SWITCHES SHALL BE PROPERLY CONNECTED TO THE FACP FOR PROPER MONITORING.
3. SMOKE BEAM DETECTOR LOCATION IS INDICATIVE ONLY. ADJUSTMENTS SHALL BE MADE DURING ACTUAL INSTALLATION IN ORDER TO HAVE PROPER FUNCTION.
4. SMOKE BEAM DETECTOR SENSITIVITY SHALL BE ADJUSTED PROPERLY IN ACCORDANCE WITH THE AREA COVERAGE SUCH THAT IT WILL NOT PROVIDE FALSE ALARM. PROPER SENSITIVITY SHALL BE DONE DURING TESTING AND COMMISSIONING UNTIL SUCH TIME THAT THE DEVICE SHALL BE FUNCTIONING US EXPECTATION PRIOR TO HAND-OVER.
5. CABLING WORK(INCLUDING MATERIAL) BETWEEN FACP AND EPB SHALL BE CARRIED OUT BY CIVIL CONTRACTOR.
6. CABLING WORK(INCLUDING MATERIAL) BETWEEN EVAC AND PUBLIC ADDRESS SHALL BE CARRIED OUT BY CIVIL CONTRACTOR.

LEGEND & SYMBOLS:

C	ADDRESSABLE CONTROL MODULE
F	ADDRESSABLE MANUAL PULL STATION
M	ADDRESSABLE MONITOR MODULE
AS	ADDRESSABLE SMOKE DETECTOR
EVAC	EVACUATION PANEL
F	FIREMAN'S TELEPHONE JACK
S/L	FIRE ALARM HORN WITH STROBE LIGHT
	OPTICAL-ADDRESSABLE SMOKE-HEAT DETECTOR
PB	PULLBOX (250mm(L) x 250mm(W) x 150mm(D))
SS	SUPERVISORY SWITCH
FS	FLOW SWITCH
UB	UTILITY BOX
	COMMUNICATION HANDHOLE
IP-MPLS	INTERNET PROTOCOL-MULTIPROTOCOL LABEL SWITCH
L2-SWITCH	LAYER 2 SWITCH
	#18 AWG SHIELDED TWISTED PAIR CABLE INSIDE 2-25MMø IMC
	1-2 CORE (OS2) SINGLE-MODE FIBER OPTIC CABLE IN 50mmø PVC (BURIED)
	#14 AWG SHIELDED TWISTED PAIR CABLE INSIDE 2-25mmø IMC (FIRE RESISTIVE) (BURIED)
S	FIRE ALARM SOUNDER WITH STROBE LIGHT (CEILING MOUNTED)
GAP	GRAPHICAL ANNUNCIATOR PANEL
MMC	MIMIC PANEL

ABBREVIATION:

AGP	ACCESS GATHERING PANEL
AWG	AMERICAN WIRE GAUGE
CAT6	CATEGORY 6
ELP	ELECTRICAL LOAD PANEL
FACP	FIRE ALARM CONTROL PANEL
IMC	INTERMEDIATE METALLIC CONDUIT
SF	SUPPLY FAN
TCP/IP	TRANSMISSION CONTROL PROTOCOL/ INTERNET PROTOCOL
STP	SHIELDED TWISTED PAIR

SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025

1

NTS

OVERALL SITE DEVELOPMENT FIRE DETECTION AND ALARM SYSTEM SCHEMATIC DIAGRAM-PART B

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES OVERALL SITE DEVELOPMENT FIRE DETECTION AND ALARM SYSTEM SCHEMATIC DIAGRAM-PART B	11 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13009B	B

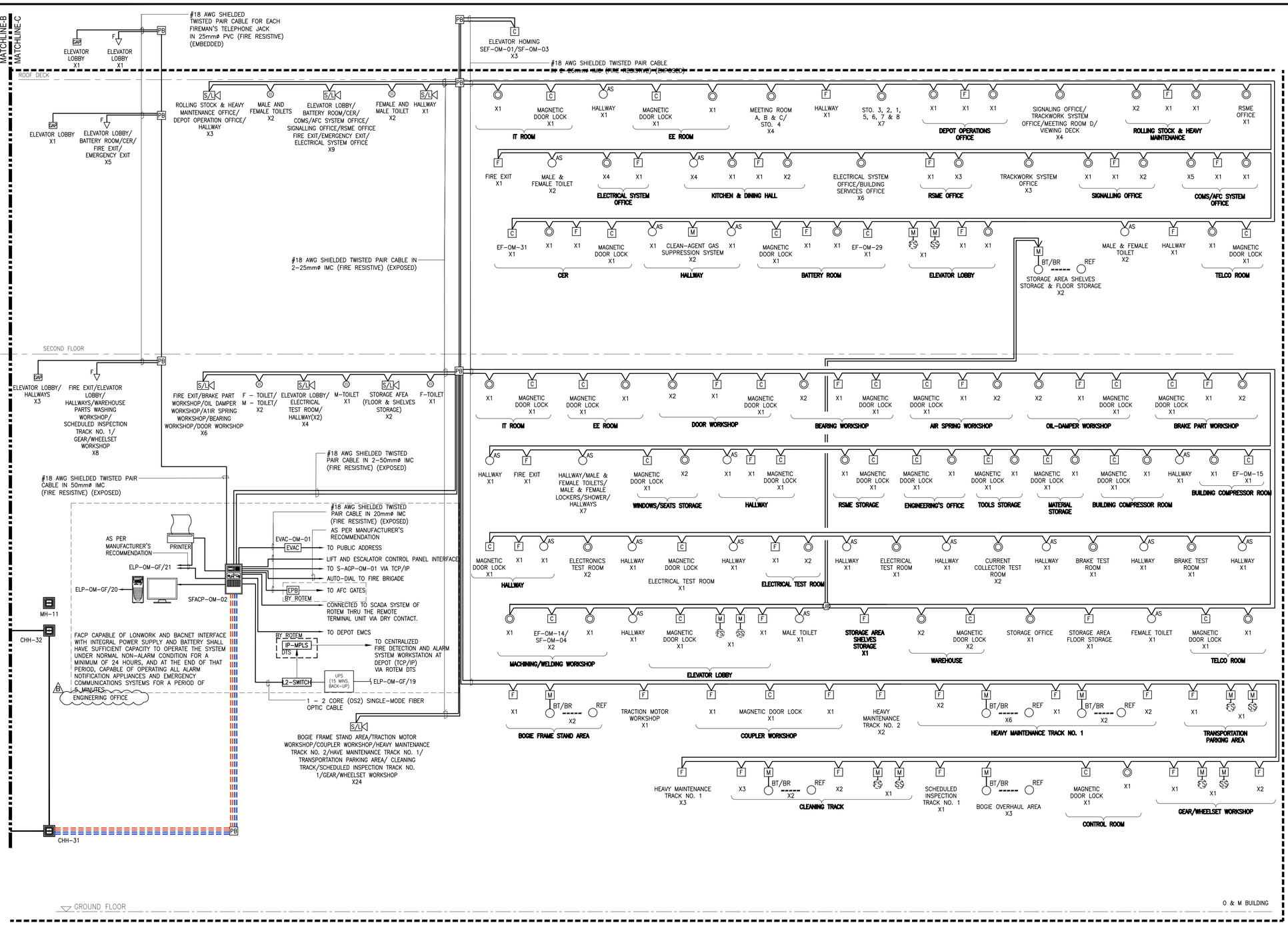
DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS — In association with MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
B	25MAY15	ISSUED FOR CONSTRUCTION	RAC	MSM	EVJ		
A	25APR02	ISSUED FOR CONSTRUCTION	RAC	MSM	EVJ		
14	24JUL12	ISSUED FOR APPROVAL	RAC	MSM	EVJ		
13	24FEB08	ISSUED FOR APPROVAL	RAC	MSM	EVJ		
12	24JAN12	ISSUED FOR APPROVAL	RAC	MSM	EVJ		
			IBE	PM	PD	SURVEY	GRP.SUPV.
			ORIGINATOR			CLIENT	

REVISION HISTORY



NOTES:

1. THE PRIMARY POWER SUPPLIED TO THE FIRE ALARM PANEL AND HENCE TO THE ENTIRE SYSTEM, SHALL BE FROM A DEDICATED AND EXCLUSIVE BRANCH CIRCUIT. THE SECONDARY POWER SUPPLY SHALL HAVE SUFFICIENT CAPACITYTO OPPARATE THE SYSTEM UNDER NORMAL NON–ALARM CONDITION FOR A MINIMUM OF 24 HOURS, AND AT THE END OF THAT PERIOD, CAPABLE OF OPERATING ALL ALARM NOTIFICATION APPLIANCES AND EMERGENCY COMMUNICATIONS SYSTEM FOR A PERIOD OF 30 MINUTES.
2. ENSURE THAT THE FIRE ALARM CONTROL PANEL SHALL HAVE A PROVISION OF AUXILIARY CONTACTS FOR INTERFACING TO THE FIRE SPRINKLER PANEL AND OTHER ASSOCIATED WORKS. WATER FLOW SWITCHES AND TAMPER SWITCHES SHALL BE PROPERLY CONNECTED TO THE FACP FOR PROPER MONITORING.
3. SMOKE BEAM DETECTOR LOCATION IS INDICATIVE ONLY. ADJUSTMENTS SHALL BE MADE DURING ACTUAL INSTALLATION IN ORDER TO HAVE PROPER FUNCTION.
4. SMOKE BEAM DETECTOR SENSITIVITY SHALL BE ADJUSTED PROPERLY IN ACCORDANCE WITH THE AREA COVERAGE SUCH THAT IT WILL NOT PROVIDE FALSE ALARM. PROPER SENSITIVITY SHAL BE DONE DURING TESTING AND COMMISSIONING UNTIL SUCH TIME THAT THE DEVICE SHALL BE FUCTIONING US EXPECTATION PRIOR TO HAND–OVER.
5. CABLING WORK(INCLUDING MATERIAL) BETWEEN FACP AND EPS SHALL BE CARRIED OUT BY CIVIL CONTRACTOR.
6. CABLING WORK(INCLUDING MATERIAL) BETWEEN EVAC AND PUBLIC ADDRESS SHALL BE CARRIED OUT BY CIVIL CONTRACTOR.

LEGEND & SYMBOLS:

C	ADDRESSABLE CONTROL MODULE
F	ADDRESSABLE MANUAL PULL STATION
M	ADDRESSABLE MONITOR MODULE
AS	ADDRESSABLE SMOKE DETECTOR
EVAC	EVACUATION PANEL
F	FIREMAN'S TELEPHONE JACK
S/L	FIRE ALARM HORN WITH STROBE LIGHT
	OPTICAL–ADDRESSABLE SMOKE–HEAT DETECTOR
PB	PULLBOX (250mm(L) x 250mm(W) x 150mm(D))
SS	SUPERVISORY SWITCH
FS	FLOW SWITCH
UB	UTILITY BOX
	COMMUNICATION HANDHOLE
IP–MPLS	INTERNET PROTOCOL–MULTIPROTOCOL LABEL SWITCH
L2–SWITCH	LAYER 2 SWITCH
	#18 AWG SHIELDED TWISTED PAIR CABLE INSIDE 2–25MMø IMC
	1–2 CORE (OS2) SINGLE–MODE FIBER OPTIC CABLE IN 50mmø PVC (BURIED)
	#14 AWG SHIELDED TWISTED PAIR CABLE INSIDE 2–25mmø IMC (FIRE RESISTIVE) (BURIED)
S/L	FIRE ALARM SOUNDER WITH STROBE LIGHT (CEILING MOUNTED)
EAP	GRAPHICAL ANNUNCIATOR PANEL
MIMIC	MIMIC PANEL

ABBREVIATION:

AGP	ACCESS GATHERING PANEL
AWG	AMERICAN WIRE GAUGE
CAT6	CATEGORY 6
ELP	ELECTRICAL LOAD PANEL
FACP	FIRE ALARM CONTROL PANEL
IMC	INTERMEDIATE METALLIC CONDUIT
SF	SUPPLY FAN
TCP/IP	TRANSMISSION CONTROL PROTOCOL/ INTERNET PROTOCOL
STP	SHIELDED TWISTED PAIR

SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025

1
NTS

OVERALL SITE DEVELOPMENT FIRE DETECTION AND ALARM SYSTEM SCHEMATIC DIAGRAM-PART C

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES OVERALL SITE DEVELOPMENT FIRE DETECTION AND ALARM SYSTEM SCHEMATIC DIAGRAM–PART C	12 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY– SAN JOSE DEL MONTE BULACAN	D–DEP–IE–13009C	B

DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS — In association with MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157–691–905

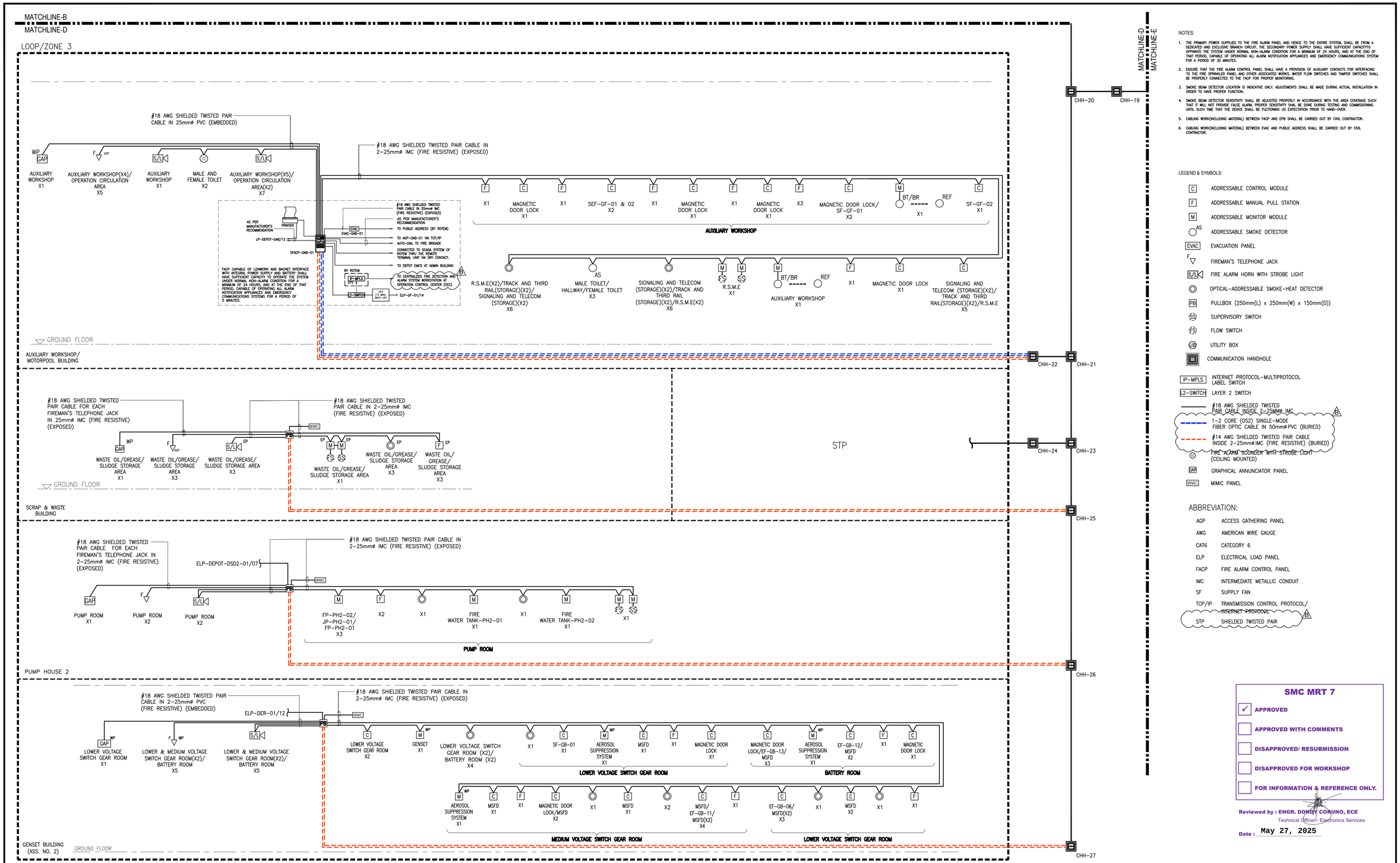
CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
HYUNG–WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	PM CHECKED	SURVEY REVIEWED	GRP.SUPV. CHECKED
B	25MAY15	ISSUED FOR CONSTRUCTION	RAC	MSM	EVJ		
A	25APR02	ISSUED FOR CONSTRUCTION	RAC	MSM	EVJ		
13	24FEB08	ISSUED FOR APPROVAL	RAC	MSM	EVJ		
12	24JAN12	ISSUED FOR APPROVAL	RAC	MSM	EVJ		
11	23DEC13	ISSUED FOR APPROVAL	RAC	MSM	EVJ		

ORIGINATOR: IBE (DRAWN BY) | PM (CHECKED) | PD (CHECKED) | SURVEY (REVIEWED) | GRP.SUPV. (CHECKED)
CLIENT

REVISION HISTORY



NOTES:

1. THE PRIMARY POWER SUPPLIED TO THE FIRE ALARM PANEL AND HENCE TO THE ENTIRE SYSTEM, SHALL BE FROM A DEDICATED AND EXCLUSIVE BRANCH CIRCUIT. THE SECONDARY POWER SUPPLY SHALL HAVE SUFFICIENT CAPACITYTO OPPARATE THE SYSTEM UNDER NORMAL NON-ALARM CONDITION FOR A MINIMUM OF 24 HOURS, AND AT THE END OF THAT PERIOD, CAPABLE OF OPERATING ALL ALARM NOTIFICATION APPLIANCES AND EMERGENCY COMMUNICATIONS SYSTEM FOR A PERIOD OF 30 MINUTES.
2. ENSURE THAT THE FIRE ALARM CONTROL PANEL SHALL HAVE A PROVISION OF AUXILIARY CONTACTS FOR INTERFACING TO THE FIRE SPRINKLER PANEL AND OTHER ASSOCIATED WORKS. WATER FLOW SWITCHES AND TAMPER SWITCHES SHALL BE PROPERLY CONNECTED TO THE FACP FOR PROPER MONITORING.
3. SMOKE BEAM DETECTOR LOCATION IS INDICATIVE ONLY. ADJUSTMENTS SHALL BE MADE DURING ACTUAL INSTALLATION IN ORDER TO HAVE PROPER FUNCTION.
4. SMOKE BEAM DETECTOR SENSITIVITY SHALL BE ADJUSTED PROPERLY IN ACCORDANCE WITH THE AREA COVERAGE SUCH THAT IT WILL NOT PROVIDE FALSE ALARM. PROPER SENSITIVITY SHAL BE DONE DURING TESTING AND COMMISSIONING UNTIL SUCH TIME THAT THE DEVICE SHALL BE FUCTIONING US EXPECTATION PRIOR TO HAND-OVER.
5. CABLING WORK(INCLUDING MATERIAL) BETWEEN FACP AND EPB SHALL BE CARRIED OUT BY CIVIL CONTRACTOR.
6. CABLING WORK(INCLUDING MATERIAL) BETWEEN EVAC AND PUBLIC ADDRESS SHALL BE CARRIED OUT BY CIVIL CONTRACTOR.

LEGEND & SYMBOLS:

- C — ADDRESSABLE CONTROL MODULE
- F — ADDRESSABLE MANUAL PULL STATION
- M — ADDRESSABLE MONITOR MODULE
- AS — ADDRESSABLE SMOKE DETECTOR
- EVAC — EVACUATION PANEL
- F — FIREMAN'S TELEPHONE JACK
- S/L — FIRE ALARM HORN WITH STROBE LIGHT
- OPTICAL-ADDRESSABLE SMOKE-HEAT DETECTOR
- PB — PULLBOX (250mm(L) x 250mm(W) x 150mm(D))
- SS — SUPERVISORY SWITCH
- FS — FLOW SWITCH
- UB — UTILITY BOX
- COMMUNICATION HANDHOLE
- IP-MPLS — INTERNET PROTOCOL-MULTIPROTOCOL LABEL SWITCH
- L2-SWITCH — LAYER 2 SWITCH
- #18 AWG SHIELDED TWISTED PAIR CABLE INSIDE 2-25MMø IMC
- 1-2 CORE (OS2) SINGLE-MODE FIBER OPTIC CABLE IN 50mmø PVC (BURIED)
- #14 AWG SHIELDED TWISTED PAIR CABLE INSIDE 2-25mmø IMC (FIRE RESISTIVE) (BURIED)
- FIRE ALARM SOUNDER WITH STROBE LIGHT (CEILING MOUNTED)
- GAP — GRAPHICAL ANNUNCIATOR PANEL
- MIMIC — MIMIC PANEL

ABBREVIATION:

AGP	ACCESS GATHERING PANEL
AWG	AMERICAN WIRE GAUGE
CAT6	CATEGORY 6
ELP	ELECTRICAL LOAD PANEL
FACP	FIRE ALARM CONTROL PANEL
IMC	INTERMEDIATE METALLIC CONDUIT
SF	SUPPLY FAN
TCP/IP	TRANSMISSION CONTROL PROTOCOL/ INTERNET PROTOCOL
STP	SHIELDED TWISTED PAIR

SMC MRT 7

- ☑ APPROVED
- ☐ APPROVED WITH COMMENTS
- ☐ DISAPPROVED/ RESUBMISSION
- ☐ DISAPPROVED FOR WORKSHOP
- ☐ FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025

1 NTS

OVERALL SITE DEVELOPMENT FIRE DETECTION AND ALARM SYSTEM SCHEMATIC DIAGRAM-PART D

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES OVERALL SITE DEVELOPMENT FIRE DETECTION AND ALARM SYSTEM SCHEMATIC DIAGRAM-PART D	13 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13009D	B

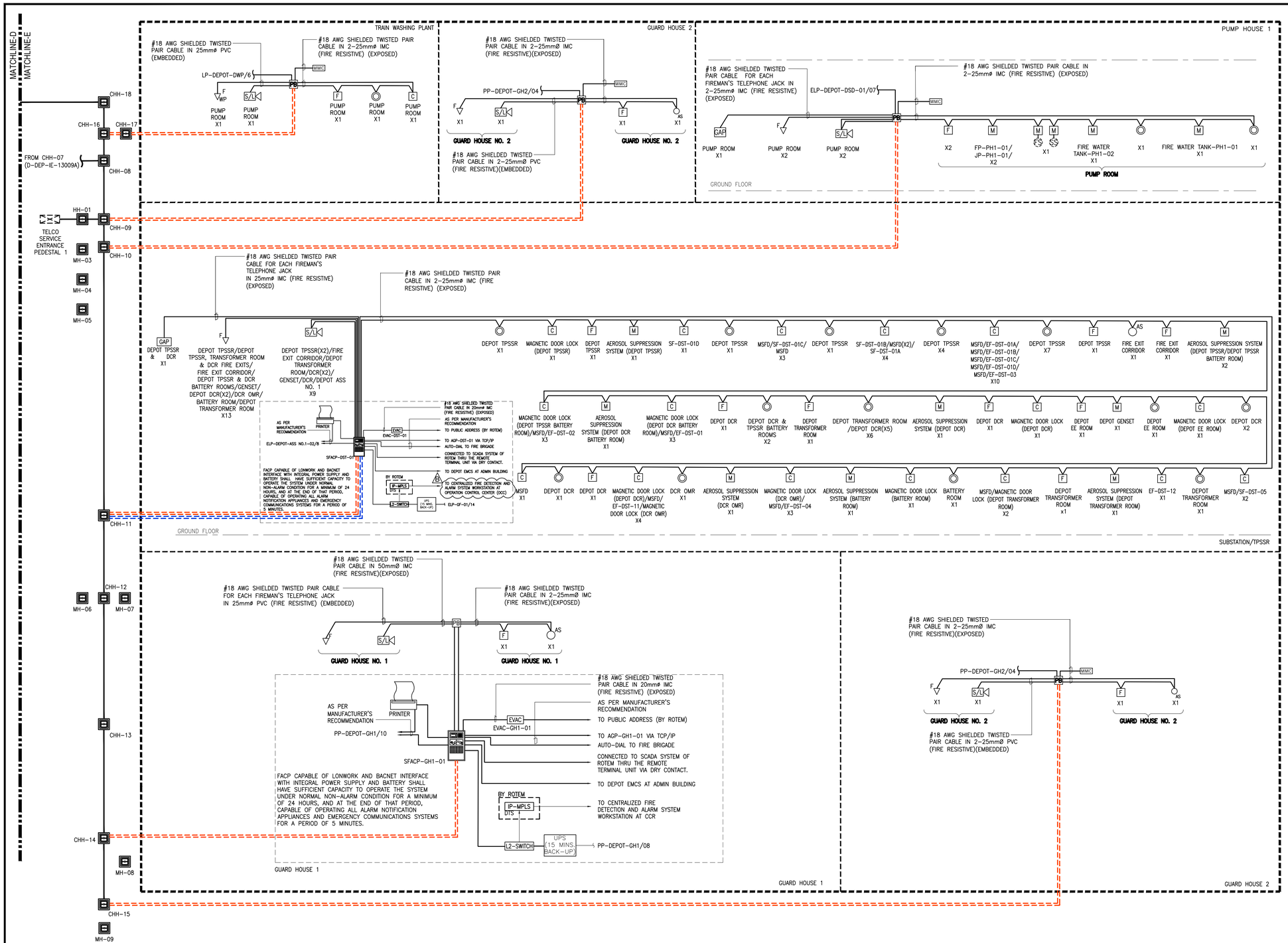
DESIGN CONTRACTOR: PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE: MRT 7 SMC MASS RAIL TRANSIT 7 INC. — SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR: REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
B	25MAY15	ISSUED FOR CONSTRUCTION	RAC	MSM	EVJ		
A	25APR02	ISSUED FOR CONSTRUCTION	RAC	MSM	EVJ		
14	24JUL12	ISSUED FOR APPROVAL	RAC	MSM	EVJ		
13	24FEB08	ISSUED FOR APPROVAL	RAC	MSM	EVJ		
12	24JAN12	ISSUED FOR APPROVAL	RAC	MSM	EVJ		
			IBC	PM	PD	SURVEY	GRP.SUPV.
			ORIGINATOR			CLIENT	

REVISION HISTORY



NOTES:

1. THE PRIMARY POWER SUPPLIED TO THE FIRE ALARM PANEL AND HENCE TO THE ENTIRE SYSTEM, SHALL BE FROM A DEDICATED AND EXCLUSIVE BRANCH CIRCUIT. THE SECONDARY POWER SUPPLY SHALL HAVE SUFFICIENT CAPACITYTO OPPARATE THE SYSTEM UNDER NORMAL NON-ALARM CONDITION FOR A MINIMUM OF 24 HOURS, AND AT THE END OF THAT PERIOD, CAPABLE OF OPERATING ALL ALARM NOTIFICATION APPLIANCES AND EMERGENCY COMMUNICATIONS SYSTEM FOR A PERIOD OF 30 MINUTES.
2. ENSURE THAT THE FIRE ALARM CONTROL PANEL SHALL HAVE A PROVISION OF AUXILIARY CONTACTS FOR INTERFACING TO THE FIRE SPRINKLER PANEL AND OTHER ASSOCIATED WORKS. WATER FLOW SWITCHES AND TAMPER SWITCHES SHALL BE PROPERLY CONNECTED TO THE FACP FOR PROPER MONITORING.
3. SMOKE BEAM DETECTOR LOCATION IS INDICATIVE ONLY. ADJUSTMENTS SHALL BE MADE DURING ACTUAL INSTALLATION IN ORDER TO HAVE PROPER FUNCTION.
4. SMOKE BEAM DETECTOR SENSITIVITY SHALL BE ADJUSTED PROPERLY IN ACCORDANCE WITH THE AREA COVERAGE SUCH THAT IT WILL NOT PROVIDE FALSE ALARM. PROPER SENSITIVITY SHAL BE DONE DURING TESTING AND COMMISSIONING UNTIL SUCH TIME THAT THE DEVICE SHALL BE FUCTIONING US EXPECTATION PRIOR TO HAND-OVER.
5. CABLING WORK(INCLUDING MATERIAL) BETWEEN FACP AND EPS SHALL BE CARRIED OUT BY CIVIL CONTRACTOR.
6. CABLING WORK(INCLUDING MATERIAL) BETWEEN EVAC AND PUBLIC ADDRESS SHALL BE CARRIED OUT BY CIVIL CONTRACTOR.

LEGEND & SYMBOLS:

C	ADDRESSABLE CONTROL MODULE
F	ADDRESSABLE MANUAL PULL STATION
M	ADDRESSABLE MONITOR MODULE
AS	ADDRESSABLE SMOKE DETECTOR
EVAC	EVACUATION PANEL
F	FIREMAN'S TELEPHONE JACK
S/L	FIRE ALARM HORN WITH STROBE LIGHT
	OPTICAL-ADDRESSABLE SMOKE-HEAT DETECTOR
PB	PULLBOX (250mm(L) x 250mm(W) x 150mm(D))
SS	SUPERVISORY SWITCH
FS	FLOW SWITCH
UB	UTILITY BOX
	COMMUNICATION HANDHOLE
IP-MPLS	INTERNET PROTOCOL-MULTIPROTOCOL LABEL SWITCH
L2-SWITCH	LAYER 2 SWITCH
	#18 AWG SHIELDED TWISTED PAIR CABLE INSIDE 2-25MMø IMC
	1-2 CORE (OS2) SINGLE-MODE FIBER OPTIC CABLE IN 50mmø PVC (BURIED)
	#14 AWG SHIELDED TWISTED PAIR CABLE INSIDE 2-25mmø IMC (FIRE RESISTIVE) (BURIED)
S	FIRE ALARM SOUNDER WITH STROBE LIGHT (CEILING MOUNTED)
GAP	GRAPHICAL ANNUNCIATOR PANEL
MIMIC	MIMIC PANEL

ABBREVIATION:

AGP	ACCESS GATHERING PANEL
AWG	AMERICAN WIRE GAUGE
CAT6	CATEGORY 6
ELP	ELECTRICAL LOAD PANEL
FACP	FIRE ALARM CONTROL PANEL
IMC	INTERMEDIATE METALLIC CONDUIT
SF	SUPPLY FAN
TCP/IP	TRANSMISSION CONTROL PROTOCOL/ INTERNET PROTOCOL
STP	SHIELDED TWISTED PAIR

SMC MRT 7

- [✓] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025

1
NTS

OVERALL SITE DEVELOPMENT FIRE DETECTION AND ALARM SYSTEM SCHEMATIC DIAGRAM-PART E

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES OVERALL SITE DEVELOPMENT FIRE DETECTION AND ALARM SYSTEM SCHEMATIC DIAGRAM-PART E	14 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13009E	B

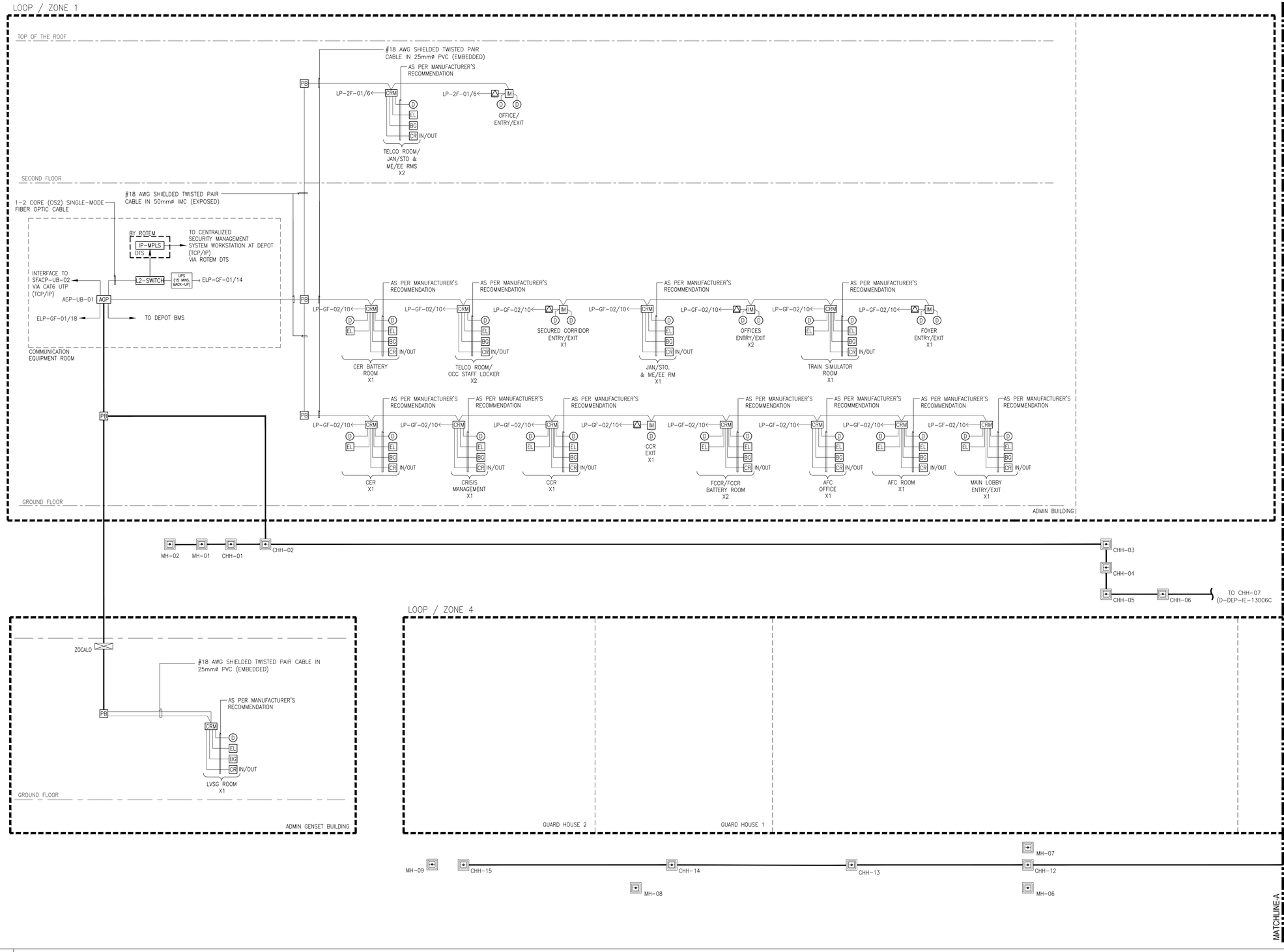
DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS — In association with MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	PD CHECKED	SURVEY REVIEWED	GRP.SUPV. CHECKED
B	25MAY15	ISSUED FOR CONSTRUCTION	RAC	MSM	EVJ		
A	25APR02	ISSUED FOR CONSTRUCTION	RAC	MSM	EVJ		
14	24JUL12	ISSUED FOR APPROVAL	RAC	MSM	EVJ		
13	24FEB08	ISSUED FOR APPROVAL	RAC	MSM	EVJ		
12	24JAN12	ISSUED FOR APPROVAL	RAC	MSM	EVJ		
			BE	PM	PD	SURVEY	GRP.SUPV.
			ORIGINATOR			CLIENT	

REVISION HISTORY



NOTE:

1. ACCESS GATHERING PANEL (AGP) SHALL BE INTERFACED INTO ROTEM NETWORK COMMUNICATION SYSTEM.
2. CONTRACTOR TO ENSURE CONDUITS ARE FILLED UP TO A MAXIMUM OF 40% ONLY IN COMPLIANCE WITH NEC.
3. CABLING WORK(INCLUDING MATERIAL) BETWEEN L2 SWITCH AND IP-MPLS SHALL BE CARRIED OUT BY CIVIL CONTRACTOR.

SYMBOLS:

AGP	ACCESS GATHERING PANEL
B	BREAK GLASS
R	CARD READER
RM	CARD READER MODULE
D	DOOR CONTACT
A	DOOR ALARM
M	ELECTROMAGNETIC DOOR LOCK
IM	INPUT MODULE
SD	SINGLE DOOR
DD	DOUBLE DOOR

ABBREVIATION:

AWG	AMERICAN WIRE GAUGE
AGP	ACCESS GATHERING PANEL
CAT6	CATEGORY 6
ELP	ELECTRICAL LOAD PANEL
IMC	INTERMEDIATE METALLIC CONDUIT
RFID	RADIO FREQUNCY IDENTIFICATION
TCP/IP	TRANSMISSION CONTROL PROTOCOL/ INTERNET PROTOCOL
STP	SHIELDED TWISTED PAIR

SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025

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NTS

OVERALL SITE DEVELOPMENT SECURITY MANAGEMENT SYSTEM SCHEMATIC DIAGRAM-PART A

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES OVERALL SITE DEVELOPMENT SECURITY MANAGEMENT SYSTEM SCHEMATIC DIAGRAM-PART A	15 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13010A	B

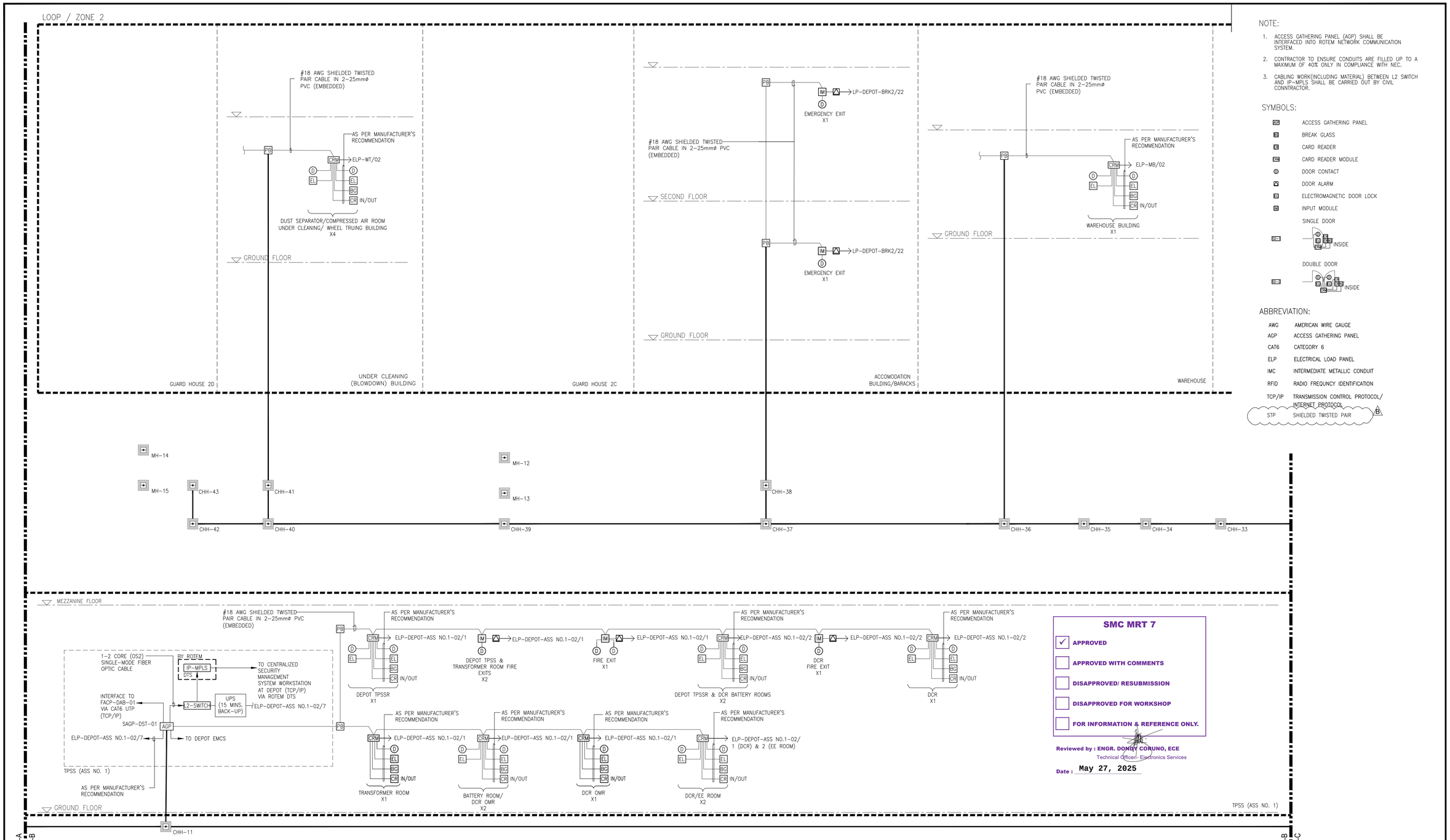
DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	PD CHECKED	SURVEY REVIEWED	GRP.SUPV. CHECKED
B	25MAY15	ISSUED FOR CONSTRUCTION	EVJ	MSM	EVJ		
A	25APR02	ISSUED FOR CONSTRUCTION	EVJ	MSM	EVJ		
13	24FEB08	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		
12	24JAN12	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		
11	23DEC13	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		
			ORIGINATOR			CLIENT	

REVISION HISTORY



NOTE:

1. ACCESS GATHERING PANEL (AGP) SHALL BE INTERFACED INTO ROTEM NETWORK COMMUNICATION SYSTEM.
2. CONTRACTOR TO ENSURE CONDUITS ARE FILLED UP TO A MAXIMUM OF 40% ONLY IN COMPLIANCE WITH NEC.
3. CABLING WORK(INCLUDING MATERIAL) BETWEEN L2 SWITCH AND IP-MPLS SHALL BE CARRIED OUT BY CIVIL CONTRACTOR.

SYMBOLS:

AGP	ACCESS GATHERING PANEL
PB	BREAK GLASS
CR	CARD READER
CRM	CARD READER MODULE
D	DOOR CONTACT
DA	DOOR ALARM
EL	ELECTROMAGNETIC DOOR LOCK
IM	INPUT MODULE
SDC	SINGLE DOOR (D, CR, EL, BG, CRM — INSIDE)
DDC	DOUBLE DOOR (D, CR, EL, BG, CRM — INSIDE)

ABBREVIATION:

AWG	AMERICAN WIRE GAUGE
AGP	ACCESS GATHERING PANEL
CAT6	CATEGORY 6
ELP	ELECTRICAL LOAD PANEL
IMC	INTERMEDIATE METALLIC CONDUIT
RFID	RADIO FREQUNCY IDENTIFICATION
TCP/IP	TRANSMISSION CONTROL PROTOCOL/ INTERNET PROTOCOL
STP	SHIELDED TWISTED PAIR

SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025

1
NTS

OVERALL SITE DEVELOPMENT SECURITY MANAGEMENT SYSTEM SCHEMATIC DIAGRAM-PART B

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES OVERALL SITE DEVELOPMENT SECURITY MANAGEMENT SYSTEM SCHEMATIC DIAGRAM-PART B	16 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13010B	B

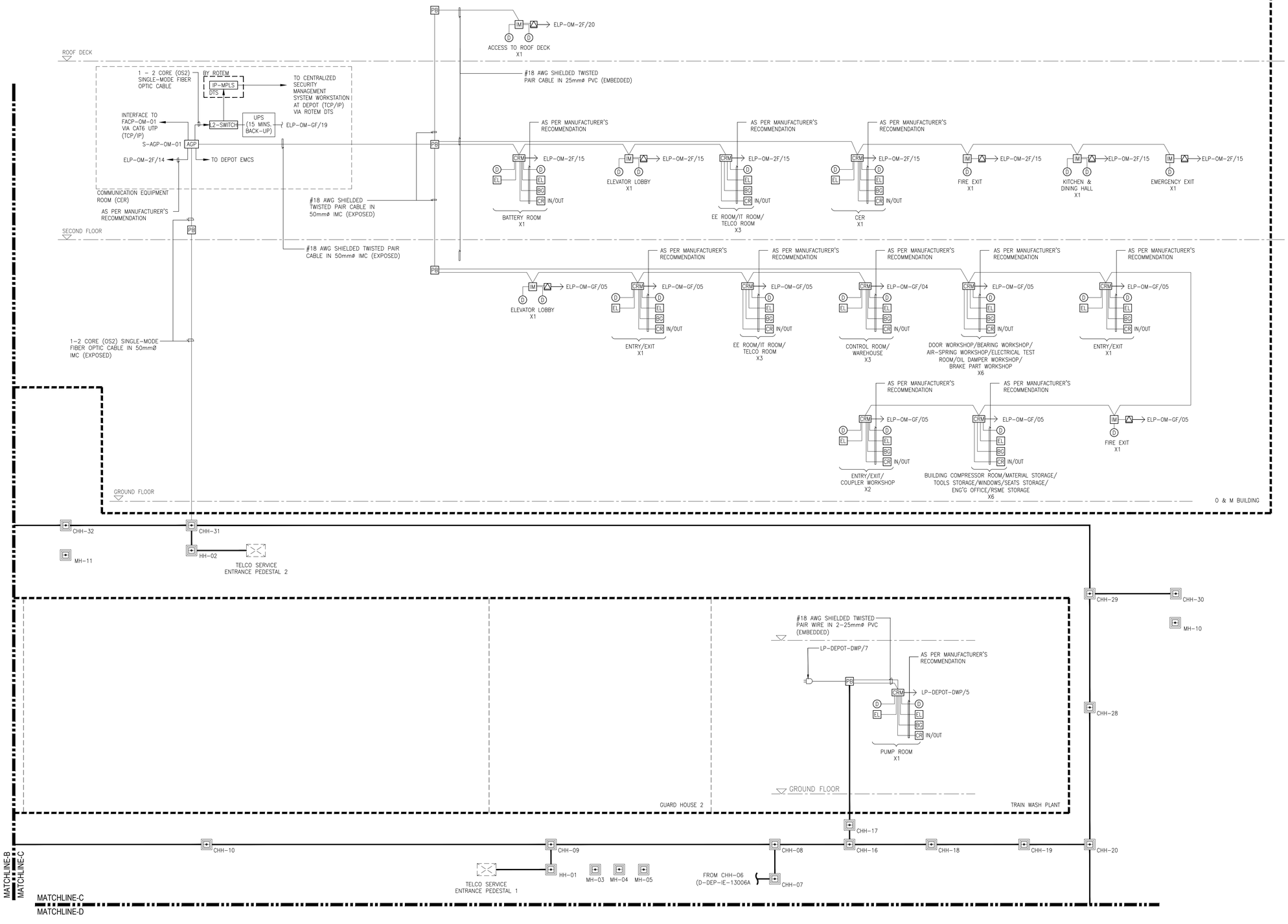
DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS — In association with MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE:
SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
B	25MAY15	ISSUED FOR CONSTRUCTION					
A	25APR02	ISSUED FOR CONSTRUCTION					
14	24JUL12	ISSUED FOR APPROVAL					
13	24FEB08	ISSUED FOR APPROVAL					
12	24JAN12	ISSUED FOR APPROVAL					
			ORIGINATOR				CLIENT

REVISION HISTORY



NOTE:

1. ACCESS GATHERING PANEL (AGP) SHALL BE INTERFACED INTO ROTEM NETWORK COMMUNICATION SYSTEM.
2. CONTRACTOR TO ENSURE CONDUITS ARE FILLED UP TO A MAXIMUM OF 40% ONLY IN COMPLIANCE WITH NEC.
3. CABLING WORK(INCLUDING MATERIAL) BETWEEN L2 SWITCH AND IP-MPLS SHALL BE CARRIED OUT BY CIVIL CONTRACTOR.

SYMBOLS:

AGP	ACCESS GATHERING PANEL
B	BREAK GLASS
R	CARD READER
CRM	CARD READER MODULE
D	DOOR CONTACT
A	DOOR ALARM
EL	ELECTROMAGNETIC DOOR LOCK
IM	INPUT MODULE
	SINGLE DOOR
	DOUBLE DOOR

ABBREVIATION:

AWG	AMERICAN WIRE GAUGE
AGP	ACCESS GATHERING PANEL
CAT6	CATEGORY 6
ELP	ELECTRICAL LOAD PANEL
IMC	INTERMEDIATE METALLIC CONDUIT
RFID	RADIO FREQUNCY IDENTIFICATION
TCP/IP	TRANSMISSION CONTROL PROTOCOL/ INTERNET PROTOCOL
STP	SHIELDED TWISTED PAIR

SMC MRT 7

- [✓] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025

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NTS

OVERALL SITE DEVELOPMENT SECURITY MANAGEMENT SYSTEM SCHEMATIC DIAGRAM-PART C

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES OVERALL SITE DEVELOPMENT SECURITY MANAGEMENT SYSTEM SCHEMATIC DIAGRAM-PART C	17 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13010C	B

DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

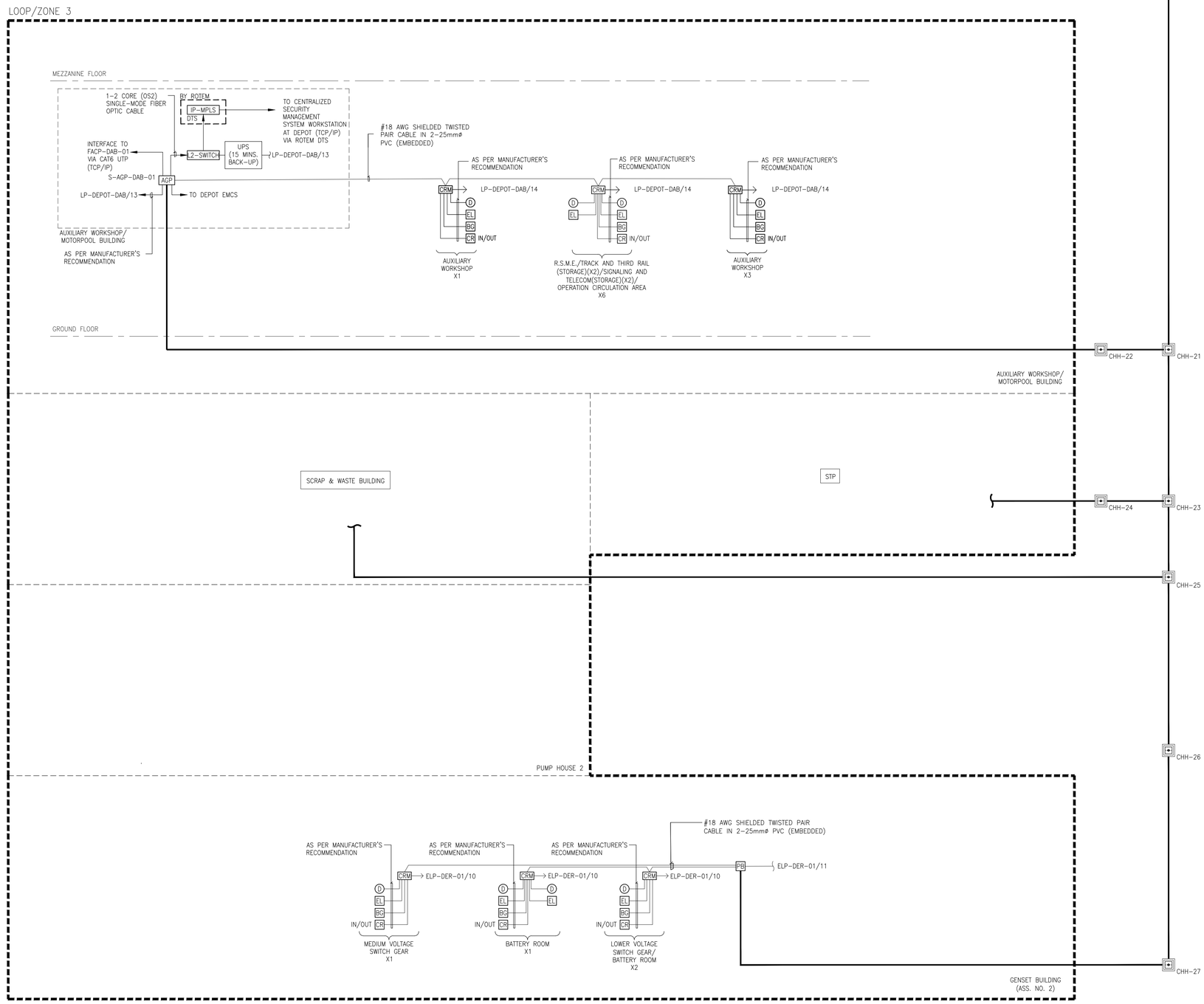
GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
			ORIGINATOR			CLIENT	
B	25MAY15	ISSUED FOR CONSTRUCTION					
A	25APR02	ISSUED FOR CONSTRUCTION					
13	24FEB08	ISSUED FOR APPROVAL					
12	24JAN12	ISSUED FOR APPROVAL					
11	23DEC13	ISSUED FOR APPROVAL					

REVISION HISTORY

MATCHLINE-C

MATCHLINE-D

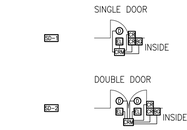


NOTE:

1. ACCESS GATHERING PANEL (AGP) SHALL BE INTERFACED INTO ROTEM NETWORK COMMUNICATION SYSTEM.
2. CONTRACTOR TO ENSURE CONDUITS ARE FILLED UP TO A MAXIMUM OF 40% ONLY IN COMPLIANCE WITH NEC.
3. CABLING WORK(INCLUDING MATERIAL) BETWEEN L2 SWITCH AND IP-MPLS SHALL BE CARRIED OUT BY CIVIL CONNTRACTOR.

SYMBOLS:

AGP	ACCESS GATHERING PANEL
B	BREAK GLASS
R	CARD READER
RM	CARD READER MODULE
D	DOOR CONTACT
A	DOOR ALARM
EL	ELECTROMAGNETIC DOOR LOCK
IM	INPUT MODULE
SD	SINGLE DOOR
DD	DOUBLE DOOR



ABBREVIATION:

AWG	AMERICAN WIRE GAUGE
AGP	ACCESS GATHERING PANEL
CAT6	CATEGORY 6
ELP	ELECTRICAL LOAD PANEL
IMC	INTERMEDIATE METALLIC CONDUIT
RFID	RADIO FREQUNCY IDENTIFICATION
TCP/IP	TRANSMISSION CONTROL PROTOCOL/ INTERNET PROTOCOL
STP	SHIELDED TWISTED PAIR

SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services

Date : May 27, 2025

1

NTS

OVERALL SITE DEVELOPMENT SECURITY MANAGEMENT SYSTEM SCHEMATIC DIAGRAM-PART D

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES OVERALL SITE DEVELOPMENT SECURITY MANAGEMENT SYSTEM SCHEMATIC DIAGRAM-PART D	18 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13010D	B

DESIGN CONTRACTOR: PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT

ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER

PRC NO.: 862 IAPOA NO.:
PTR NO.: 10466465 DATE: 03 JAN. 2025
PLACE: MAKATI CITY T.I.N. NO.: 157-691-905

CONCESSIONAIRE: SMC MASS RAIL TRANSIT 7 INC.

HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR: REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION

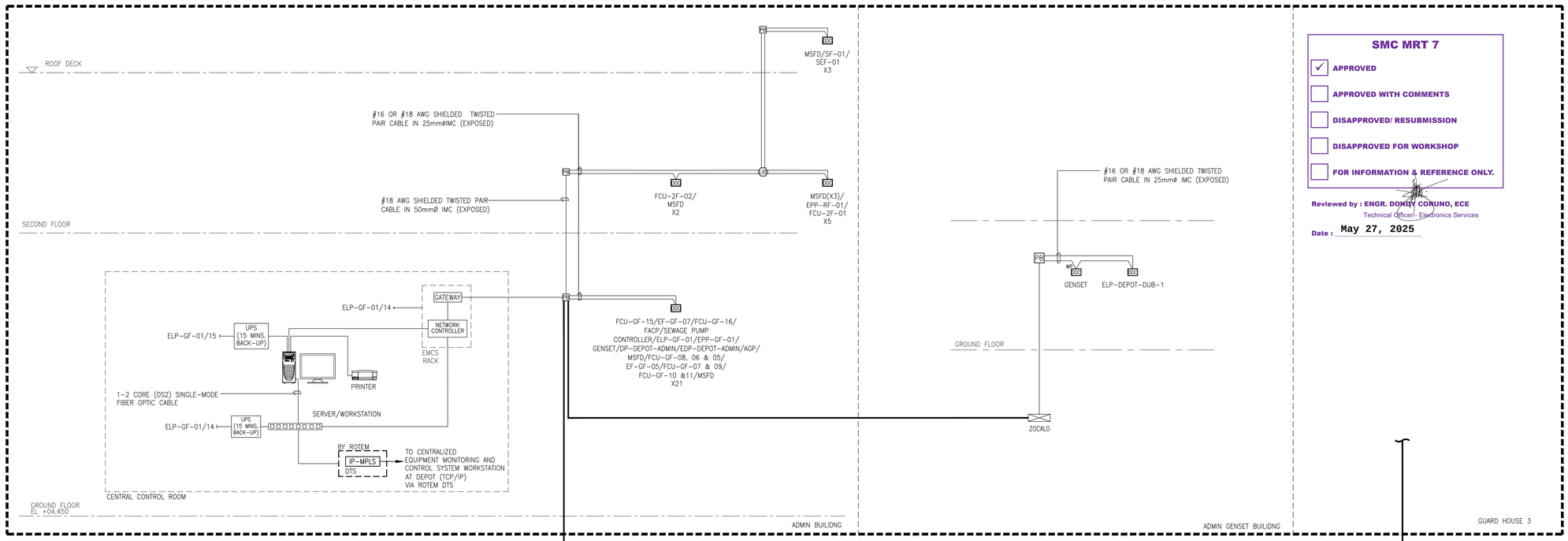
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS

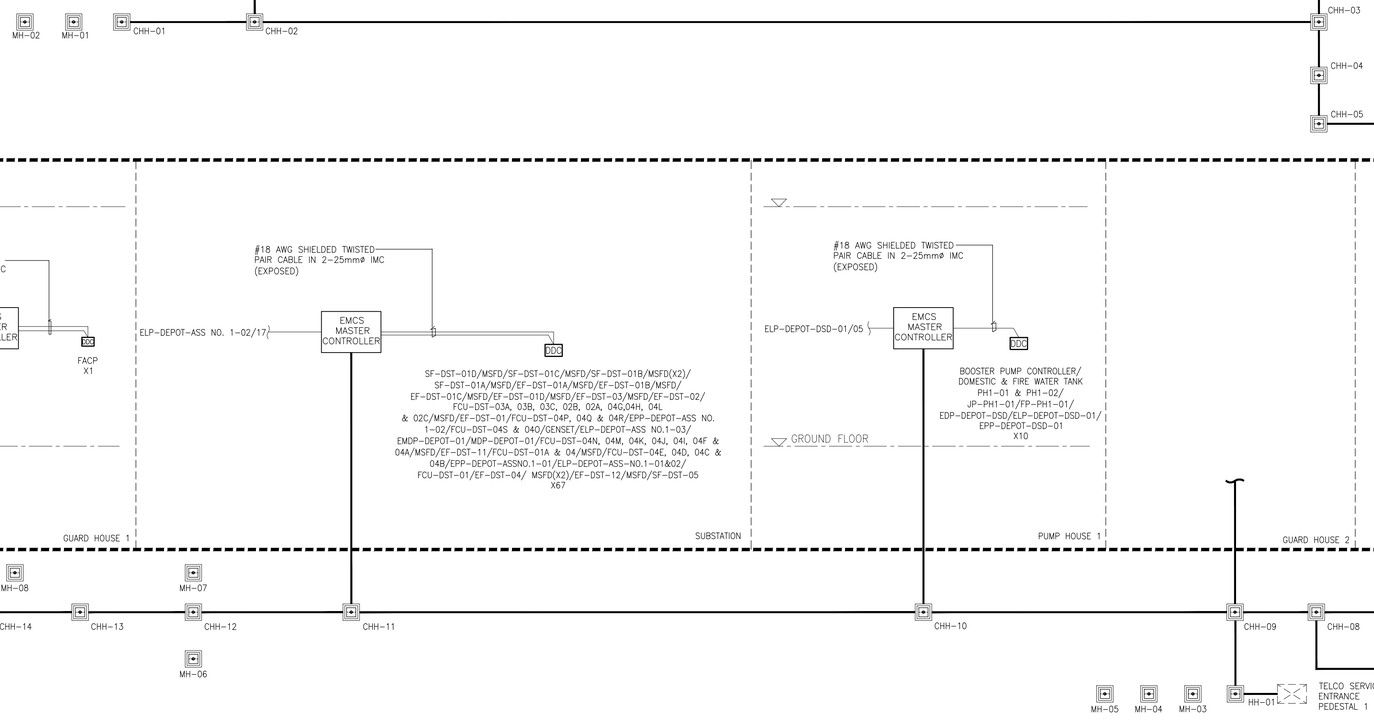
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
B	25MAY15	ISSUED FOR CONSTRUCTION	EVJ	VGM	EVJ		
A	25APR02	ISSUED FOR CONSTRUCTION	EVJ	VGM	EVJ		
14	24JUL12	ISSUED FOR APPROVAL	EVJ	VGM	EVJ		
13	24FEB08	ISSUED FOR APPROVAL	EVJ	VGM	EVJ		
12	24JAN12	ISSUED FOR APPROVAL	EVJ	VGM	EVJ		
			BE	PM	PD	SURVEY	GRP.SUPV.
			ORIGINATOR			CLIENT	

REVISION HISTORY

LOOP / ZONE 1





SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025

NOTE:

1. THE PURPOSE OF THIS SCHEMATIC IS TO PROVIDE GENERAL CONCEPT AND PRINCIPLE OF THE EQUIPMENT MONITORING AND CONTROL SYSTEM.
2. EQUIPMENT AND DEVICES REFLECTED ON PLANS ARE INDICATIVE ONLY. CONTRACTOR TO FURNISH THE WHOLE SYSTEM TO INCLUDE ALL CABLES, DEVICES, ACCESSORIES, SOFTWARE PROGRAMMING AS MAY DEEM NECESSARY FOR A COMPLETE AND SUCCESSFUL OPERATION OF THE SYSTEM.
3. FRONT END/HEADEND SHALL BE ABLE TO ACCOMODATE FUTURE FIT-OUT REQUIREMENTS.
4. SYSTEM PROTOCOLS SHALL BE CAPABLE OF BOTH BACNET AND LONWORKS.
5. CABLING WORK (INCLUDING MATERIAL) BETWEEN L2 SWITCH AND IP-MPLS SHALL BE CARRIED OUT BY CIVIL CONTRACTOR.

LEGEND:

- COMMUNICATIONS HAND HOLE
- TELCO PEDESTAL
- CONDUIT (IN CONCRETE ENCASEMENT)
- PB 250mm(H)x250mm(W)x150mm(D)
- DDC DIRECT DIGITAL CONTROLLER
- HLI HIGH LEVEL INTERFACE

ABBREVIATION:

UPS	UNINTERRUPTABLE POWER SUPPLY
AWG	AMERICAN WIRE GAUGE
BP	BOOSTER PUMP
FCU	FAN-COILED UNIT
FP	FIRE PUMP
JP	JOCKEY PUMP
MSFD	MOTORIZED SMOKE AND FIRE DAMPER
SEF	SMOKE EXTRACTION FAN
SF	SUPPLY FAN

1
NTS

OVERALL SITE DEVELOPMENT EQUIPMENT MONITORING AND CONTROL SYSTEM SCHEMATIC DIAGRAM - PART A

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES OVERALL SITE DEVELOPMENT EQUIPMENT MONITORING AND CONTROL SYSTEM SCHEMATIC DIAGRAM – PART A	19 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13011A	A

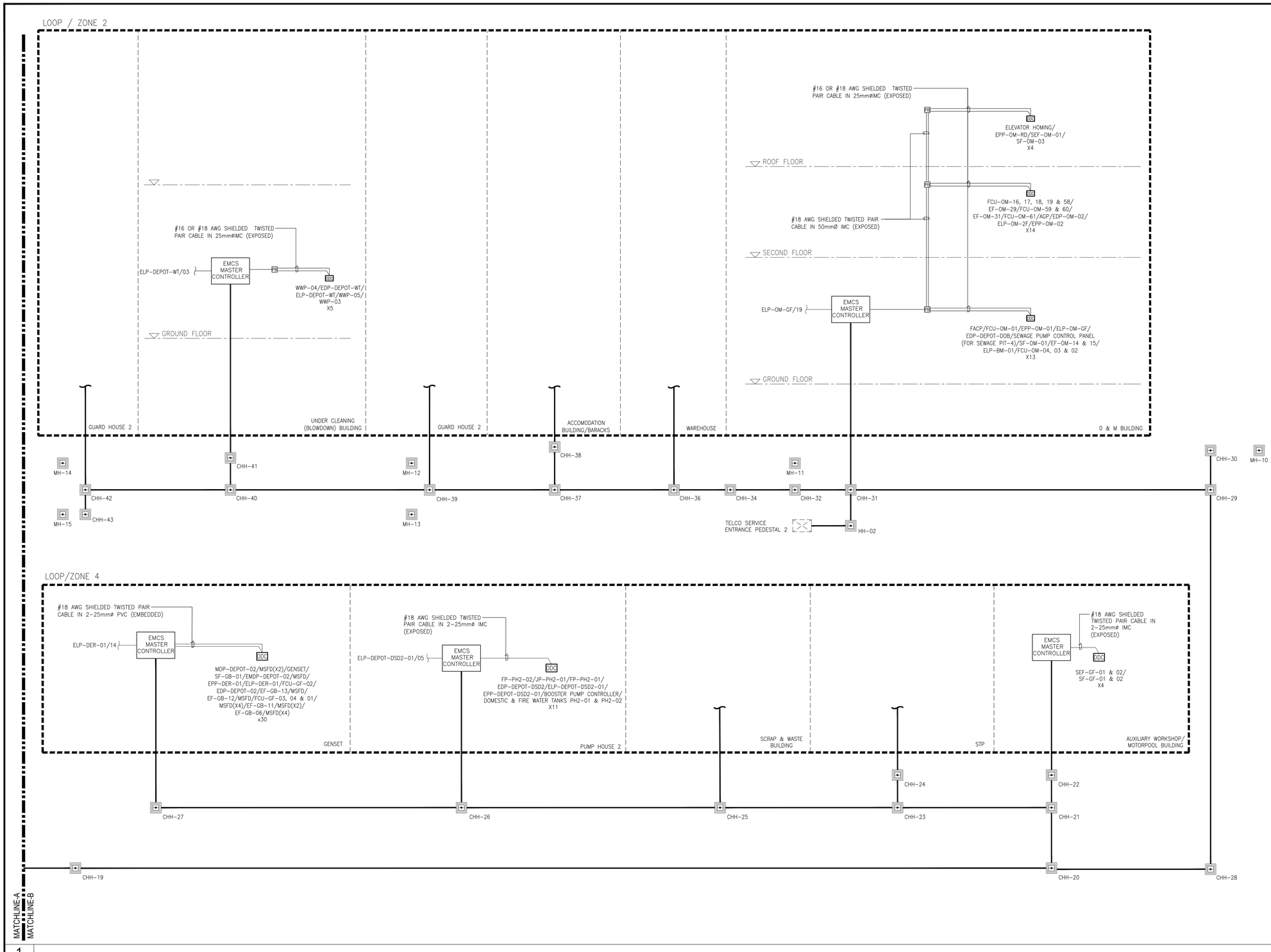
DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEIN-HARDT
ERMN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION	EJY BAC	MSM	EVJ		
13	24JUL12	ISSUED FOR APPROVAL	EJY BAC	MSM	EVJ		
12	24FEB08	ISSUED FOR APPROVAL	EJY BAC	MSM	EVJ		
11	24JAN12	ISSUED FOR APPROVAL	EJY BAC	MSM	EVJ		
10	23DEC13	ISSUED FOR APPROVAL	BC	PM	PD	SURVEY	GRP.SUPV.
			ORIGINATOR			CLIENT	

REVISION HISTORY



NOTE:

1. THE PURPOSE OF THIS SCHEMATIC IS TO PROVIDE GENERAL CONCEPT AND PRINCIPLE OF THE EQUIPMENT MONITORING AND CONTROL SYSTEM.
2. EQUIPMENT AND DEVICES REFLECTED ON PLANS ARE INDICATIVE ONLY. CONTRACTOR TO FURNISH THE WHOLE SYSTEM TO INCLUDE ALL CABLES, DEVICES, ACCESSORIES, SOFTWARE PROGRAMMING AS MAY DEEM NECESSARY FOR A COMPLETE AND SUCCESSFUL OPERATION OF THE SYSTEM.
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SF	SUPPLY FAN

SMC MRT 7

- ☑ APPROVED
- ☐ APPROVED WITH COMMENTS
- ☐ DISAPPROVED/ RESUBMISSION
- ☐ DISAPPROVED FOR WORKSHOP
- ☐ FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025

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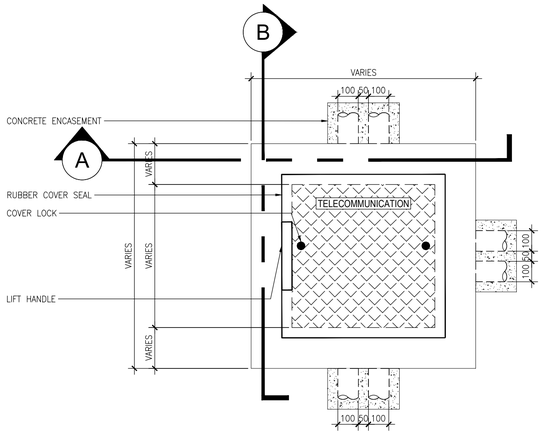
OVERALL SITE DEVELOPMENT EQUIPMENT MONITORING AND CONTROL SYSTEM SCHEMATIC DIAGRAM - PART B

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.	DESIGN CONTRACTOR:	CONCESSIONAIRE:	GRANTOR:
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES OVERALL SITE DEVELOPMENT EQUIPMENT MONITORING AND CONTROL SYSTEM SCHEMATIC DIAGRAM- PART B	20 OF 39	PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT ERWIN V. JUNASA PROFESSIONAL ELECTRONICS ENGINEER PRC NO.: 862 PTR NO.: 10466465 PLACE: MAKATI CITY IAPOA NO.: DATE: 03 JAN. 2025 T.I.N. NO.: 157-691-905	MRT 7 SMC MASS RAIL TRANSIT 7 INC. SMC MASS RAIL TRANSIT 7 INC. HYUNG-WOOK KIM PROJECT DIRECTOR	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF TRANSPORTATION RECOMMENDING APPROVAL: JORJETTE B. AQUINO PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS APPROVED: JEREMY S. REGINO UNDERSECRETARY FOR RAILWAYS
LOCATION: QUEZON CITY- SAN JOSE DEL MONTE BULACAN	DWG. NO: D-DEP-IE-13011B	REV. NO. A			

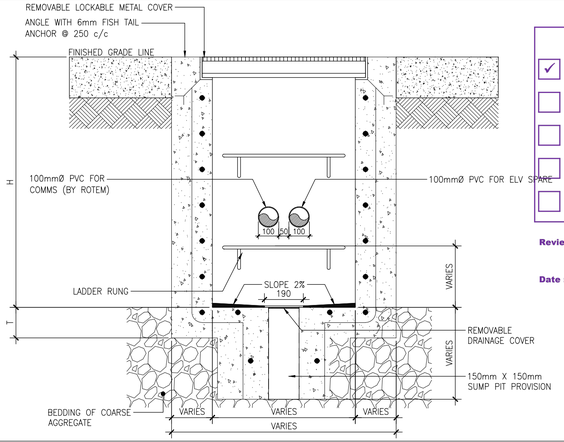
REV	DATE	MARK / DESCRIPTION	BE DRAWN BY	PM CHECKED	PD CHECKED	SURVEY REVIEWED	GRP.SUPV. CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION	EVJ	MSM	EVJ		
13	24JUL12	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		
12	24FEB08	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		
11	24JAN12	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		
10	23DEC13	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		

ORIGINATOR | CLIENT

REVISION HISTORY



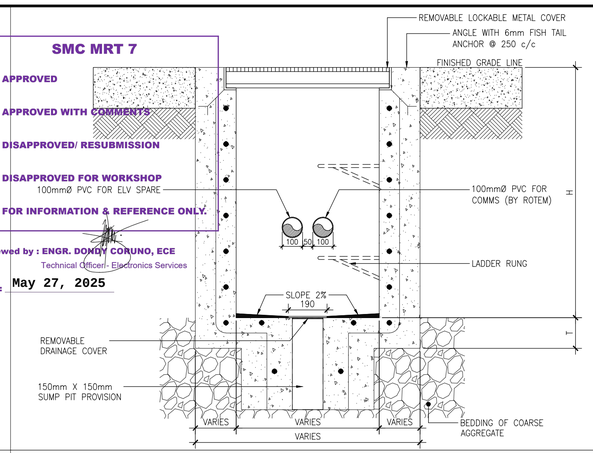
1 MANHOLE DETAIL (CHH-01)
D-DEP-IE-13012 NTS



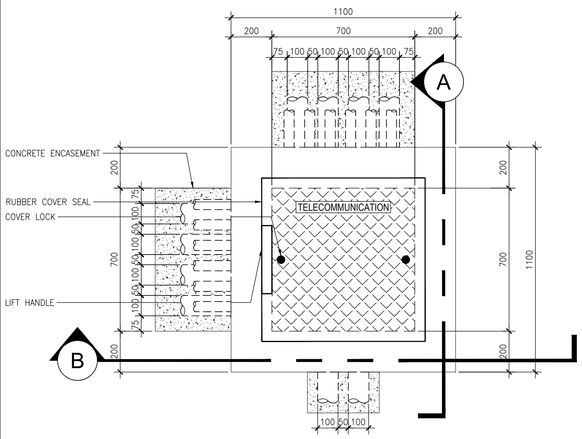
1.A SECTION DETAIL A (CHH-01)
D-DEP-IE-13012 NTS

SMC MRT 7
- ✓ APPROVED
- APPROVED WITH COMMENTS
- DISAPPROVED/ RESUBMISSION
- DISAPPROVED FOR WORKSHOP
- FOR INFORMATION & REFERENCE ONLY.

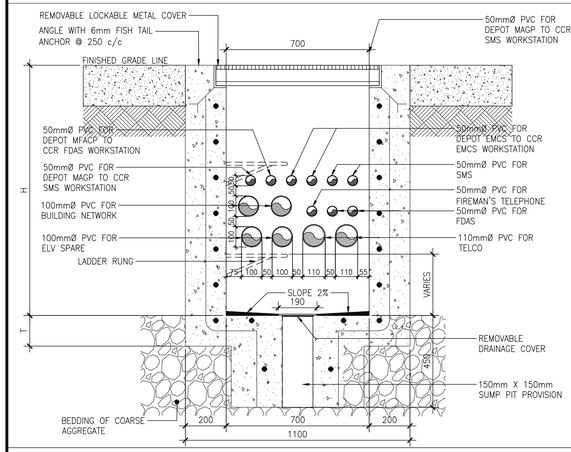
Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025



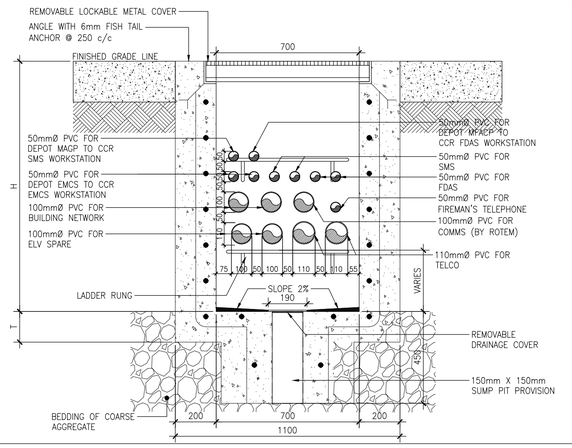
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D-DEP-IE-13012 NTS



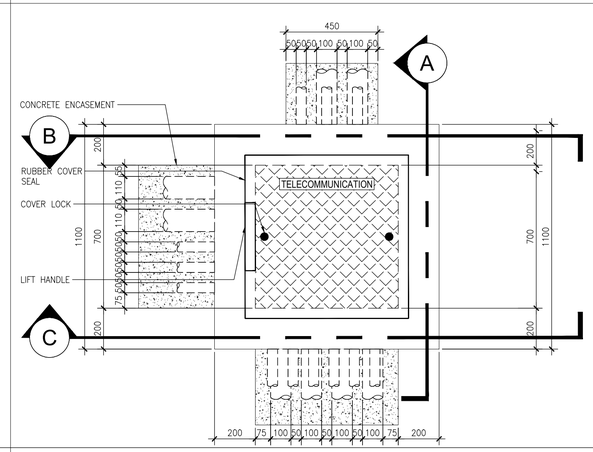
2 MANHOLE DETAIL (CHH-02)
D-DEP-IE-13012 NTS



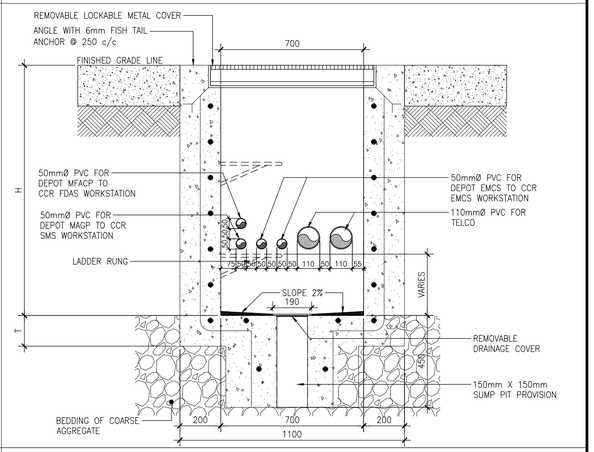
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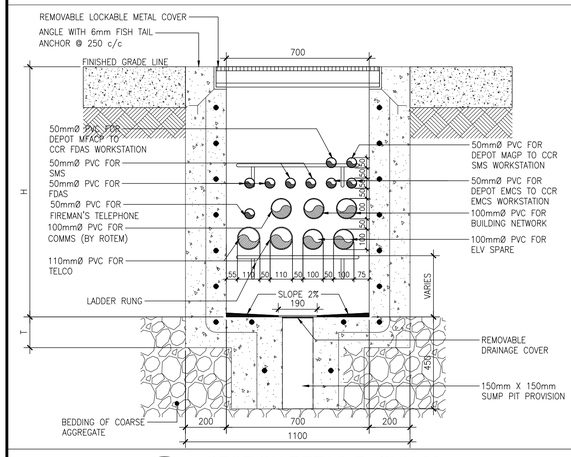
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D-DEP-IE-13012 NTS



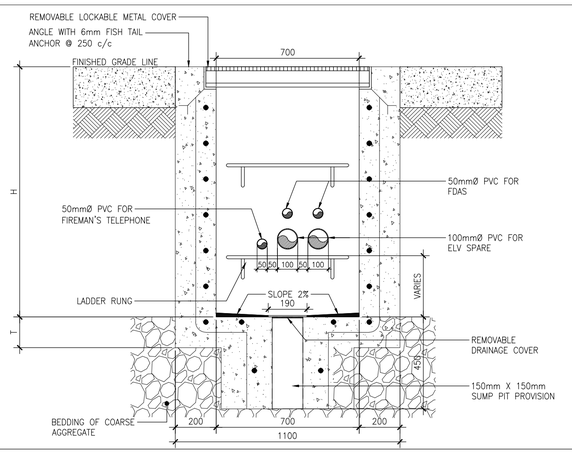
3 MANHOLE DETAIL (CHH-03)
D-DEP-IE-13012 NTS



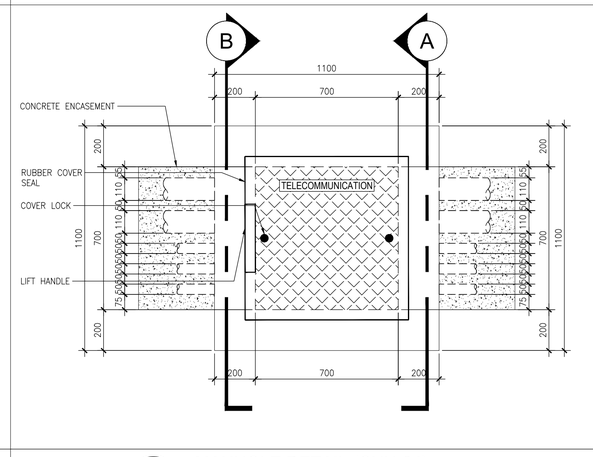
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D-DEP-IE-13012 NTS



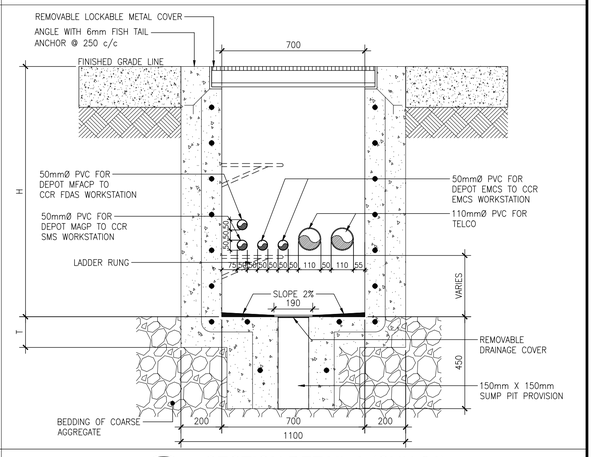
3.B SECTION DETAIL B (CHH-03)
D-DEP-IE-13012 NTS



3.C SECTION DETAIL C (CHH-03)
D-DEP-IE-13012 NTS



4 MANHOLE DETAIL (CHH-04)
D-DEP-IE-13012 NTS



4.A SECTION DETAIL A (CHH-04)
D-DEP-IE-13012 NTS

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES MISCELLANEOUS DETAILS 1	21 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13012	A

DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

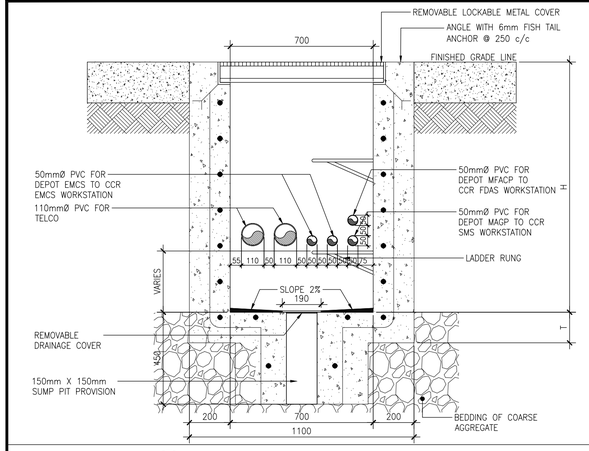
CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
SMC INFRASTRUCTURE
SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
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APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

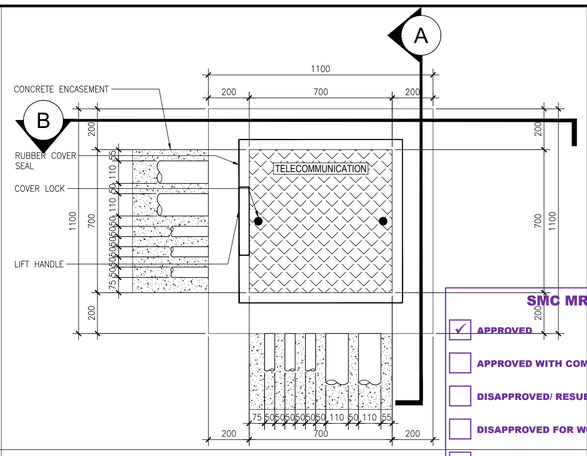
REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION	EVJ	MSM	EVJ		
10	24SEP13	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		
9	24JUL12	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		
8	23DEC13	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		
7	23NOV09	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		

			SURVEY	GRP.SUPV.
		PM	PD	
ORIGINATOR			CLIENT	

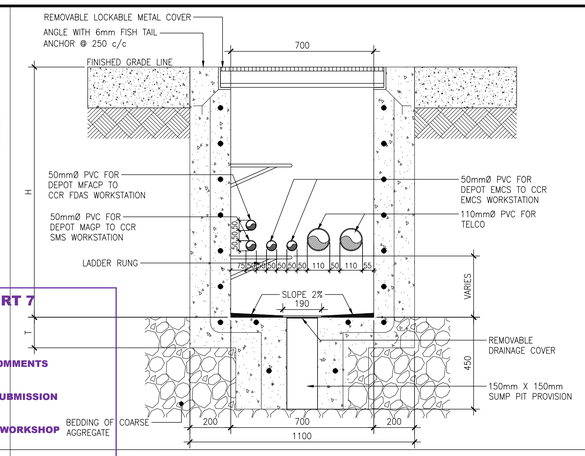
REVISION HISTORY



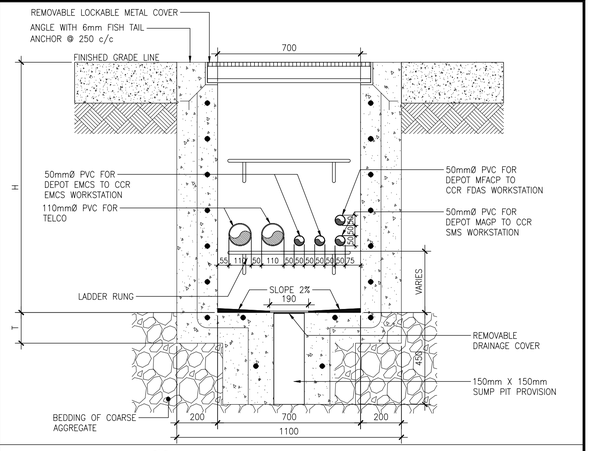
4.B SECTION DETAIL B (CHH-04)
D-DEP-IE-13013 NTS



5 MANHOLE DETAIL (CHH-05)
D-DEP-IE-13013 NTS



5.A SECTION DETAIL A (CHH-05)
D-DEP-IE-13013 NTS

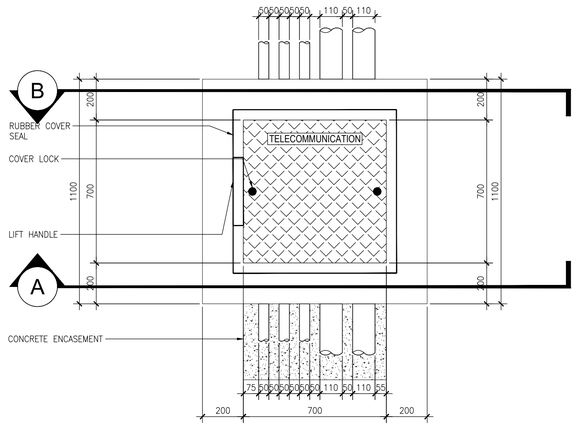


5.B SECTION DETAIL B (CHH-05)
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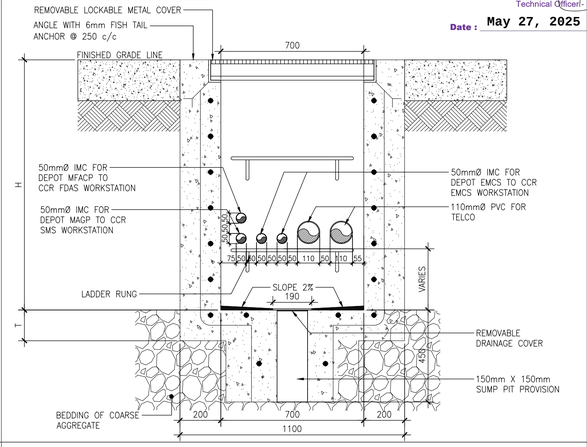
SMC MRT 7

- ✓ APPROVED
- APPROVED WITH COMMENTS
- DISAPPROVED/ RESUBMISSION
- DISAPPROVED FOR WORKSHOP
- FOR INFORMATION & REFERENCE ONLY.

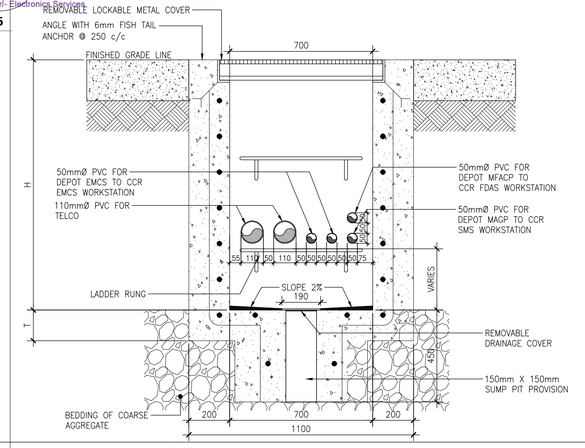
Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025



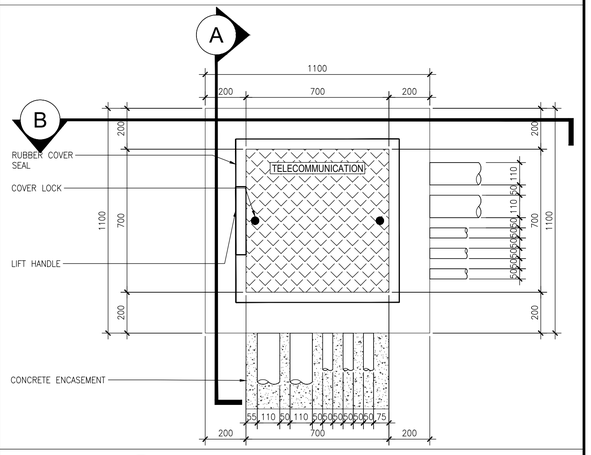
6 MANHOLE DETAIL (CHH-06)
D-DEP-IE-13013 NTS



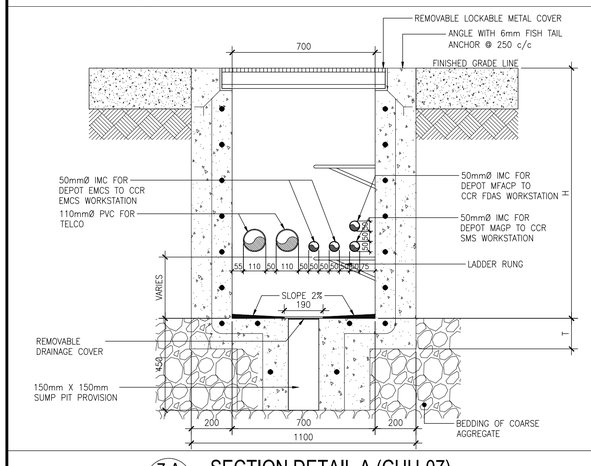
6.A SECTION DETAIL A (CHH-06)
D-DEP-IE-13013 NTS



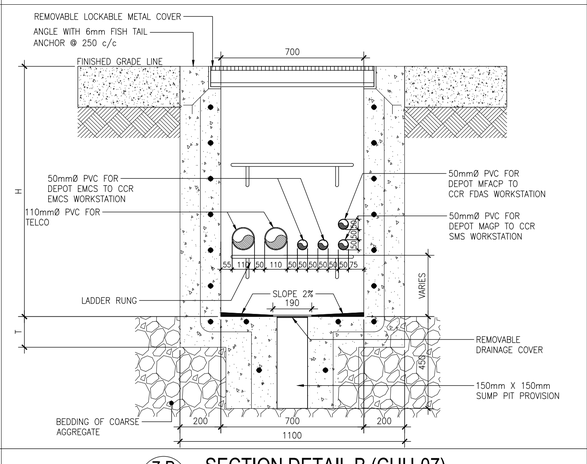
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D-DEP-IE-13013 NTS



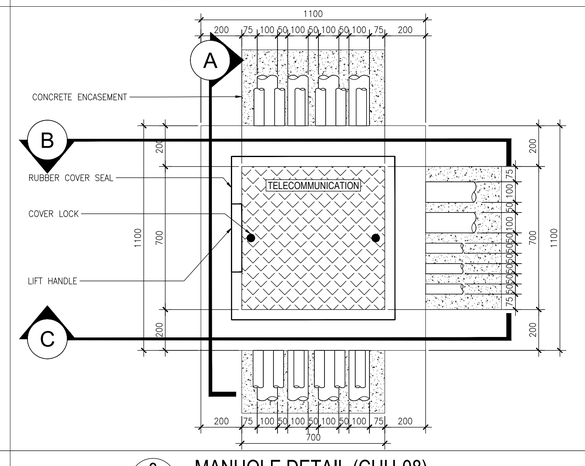
7 MANHOLE DETAIL (CHH-07)
D-DEP-IE-13013 NTS



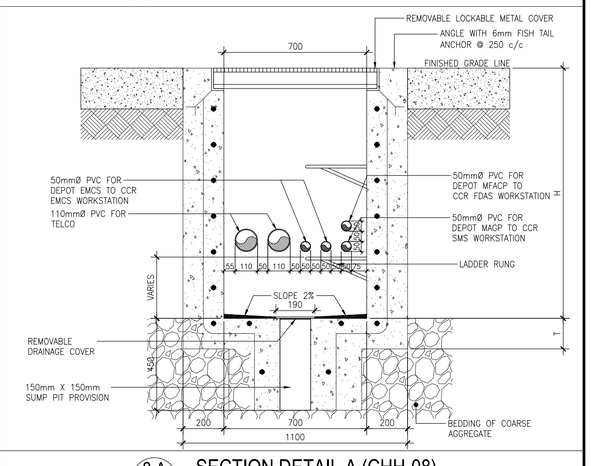
7.A SECTION DETAIL A (CHH-07)
D-DEP-IE-13013 NTS



7.B SECTION DETAIL B (CHH-07)
D-DEP-IE-13013 NTS



8 MANHOLE DETAIL (CHH-08)
D-DEP-IE-13013 NTS

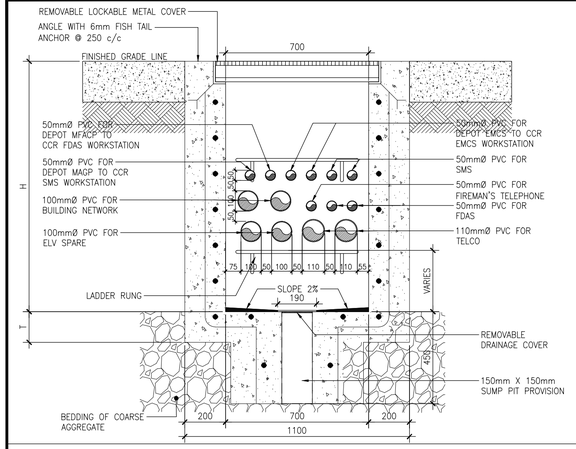


8.A SECTION DETAIL A (CHH-08)
D-DEP-IE-13013 NTS

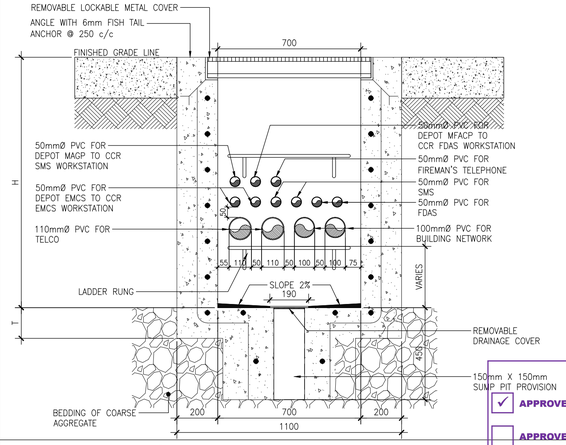
PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.	DESIGN CONTRACTOR:	CONCESSIONAIRE:	GRANTOR:
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES MISCELLANEOUS DETAILS 2	22 OF 39	PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT ERWIN V. JUNASA PROFESSIONAL ELECTRONICS ENGINEER PRC NO.: 862 PTR NO.: 10466465 PLACE: MAKATI CITY IAPOA NO.: DATE: 03 JAN. 2025 T.I.N. NO.: 157-691-905	MRT 7 SMC MASS RAIL TRANSIT 7 INC. SMC MASS RAIL TRANSIT 7 INC. SMC INFRASTRUCTURE SMC MASS RAIL TRANSIT 7 INC. HYUNG-WOOK KIM PROJECT DIRECTOR	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF TRANSPORTATION RECOMMENDING APPROVAL: JORJETTE B. AQUINO PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS APPROVED: JEREMY S. REGINO UNDERSECRETARY FOR RAILWAYS
LOCATION: QUEZON CITY- SAN JOSE DEL MONTE BULACAN	DWG. NO: D-DEP-IE-13013	REV. NO. A			

REV	DATE	MARK / DESCRIPTION	DRAWN BY	PM	PD	SURVEY	GRP.SUPV.
A	25APR02	ISSUED FOR CONSTRUCTION	[illegible]	MGM	EVU		
10	24JUL12	ISSUED FOR APPROVAL	[illegible]	MGM	EVU		
9	24JAN12	ISSUED FOR APPROVAL	[illegible]	MGM	EVU		
8	23DEC13	ISSUED FOR APPROVAL	[illegible]	MGM	EVU		
7	23NOV09	ISSUED FOR APPROVAL	[illegible]	MGM	EVU		
			CHECKED	CHECKED	CHECKED	REVIEWED	CHECKED
			ORIGINATOR			CLIENT	

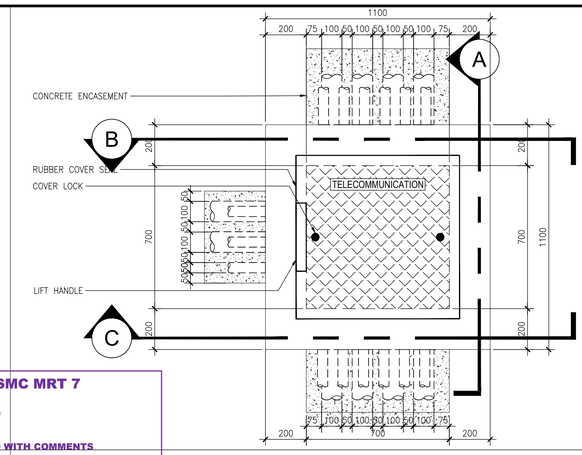
REVISION HISTORY



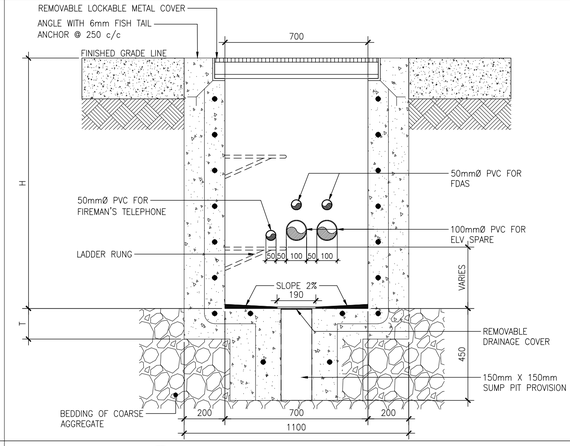
8.B SECTION DETAIL B (CHH-08)
D-DEP-IE-13014 NTS



8.C SECTION DETAIL C (CHH-08)
D-DEP-IE-13014 NTS



9 MANHOLE DETAIL (CHH-09)
D-DEP-IE-13014 NTS

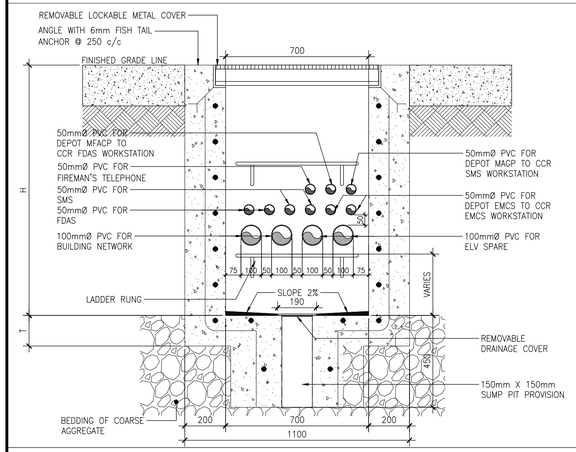


9.A SECTION DETAIL A (CHH-09)
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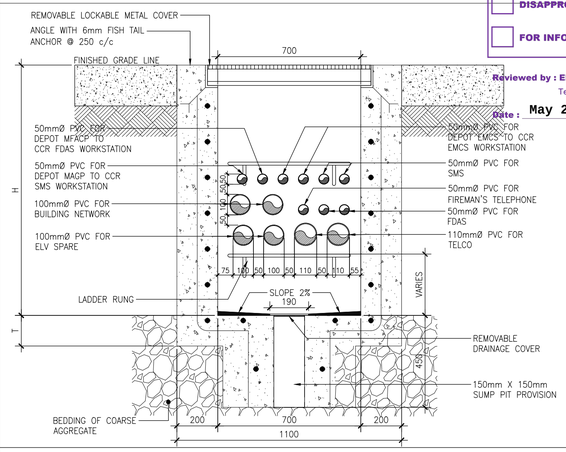
SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

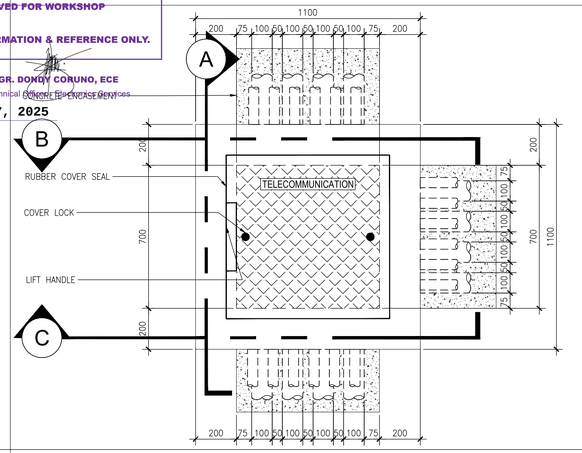
Reviewed by : ENGR. DONDON CORUNO, ECE
Technical Division, Engineering Services
Date : May 27, 2025



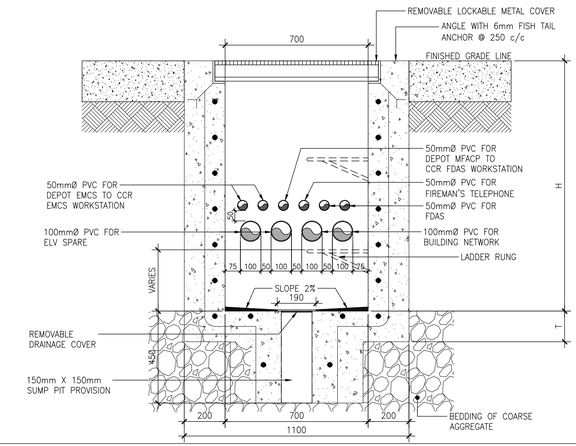
9.B SECTION DETAIL B (CHH-09)
D-DEP-IE-13014 NTS



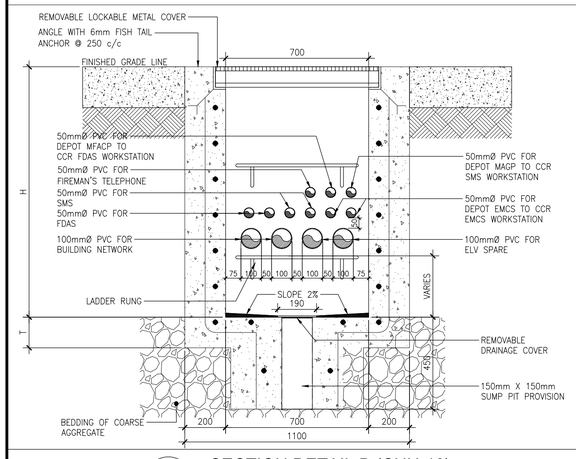
9.C SECTION DETAIL C (CHH-09)
D-DEP-IE-13014 NTS



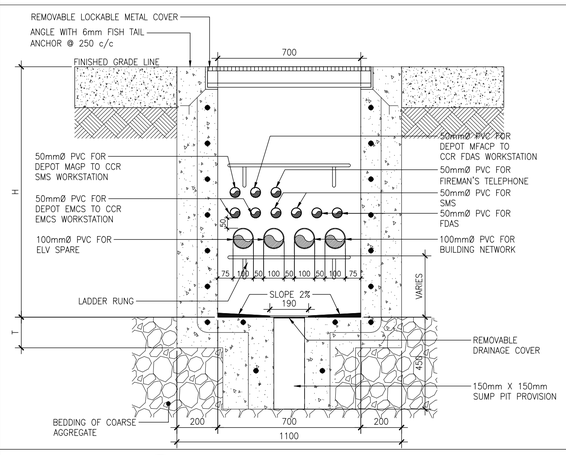
10 MANHOLE DETAIL (CHH-10)
D-DEP-IE-13015 NTS



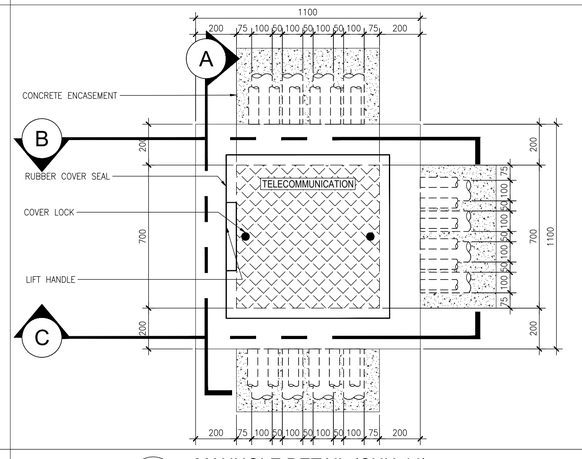
10.A SECTION DETAIL A (CHH-10)
D-DEP-IE-13014 NTS



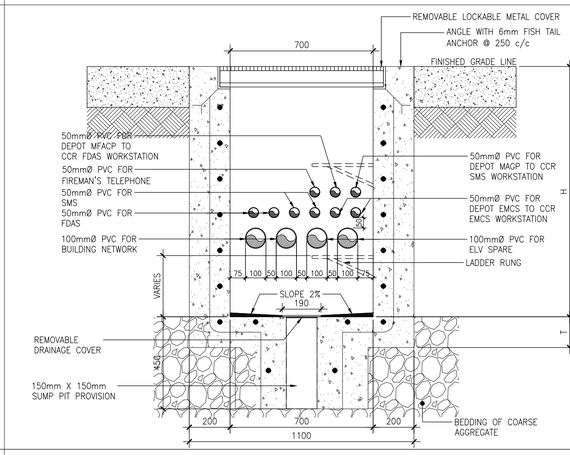
10.B SECTION DETAIL B (CHH-10)
D-DEP-IE-13014 NTS



10.C SECTION DETAIL C (CHH-10)
D-DEP-IE-13014 NTS



11 MANHOLE DETAIL (CHH-11)
D-DEP-IE-13014 NTS



11.A SECTION DETAIL A (CHH-11)
D-DEP-IE-13014 NTS

PROJECT TITLE:	THE MRT 7 PROJECT
LOCATION:	QUEZON CITY- SAN JOSE DEL MONTE BULACAN
SHEET CONTENTS:	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES MISCELLANEOUS DETAILS 3
DWG. NO:	D-DEP-IE-13014
SHEET NO.	23 OF 39
REV. NO.	A

DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS — In association with MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

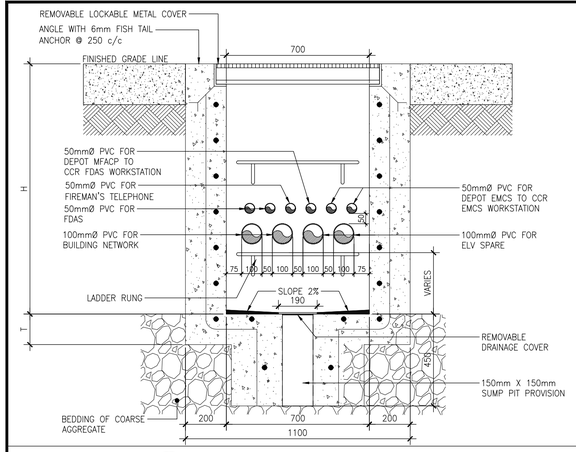
CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION
A	25APR02	ISSUED FOR CONSTRUCTION
11	24SEP13	ISSUED FOR APPROVAL
10	24JUL12	ISSUED FOR APPROVAL
9	24JAN12	ISSUED FOR APPROVAL
8	23DEC13	ISSUED FOR APPROVAL

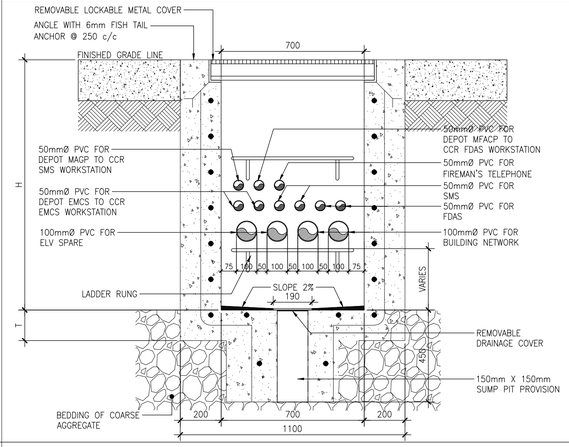
DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
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ORIGINATOR			CLIENT	

REVISION HISTORY



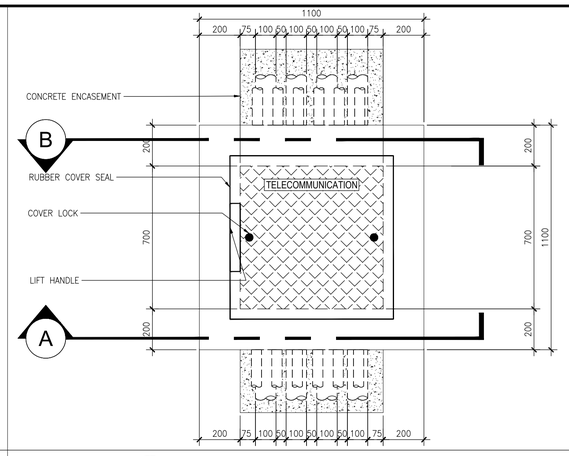
11.B SECTION DETAIL B (CHH-11)

D-DEP-IE-13015 NTS



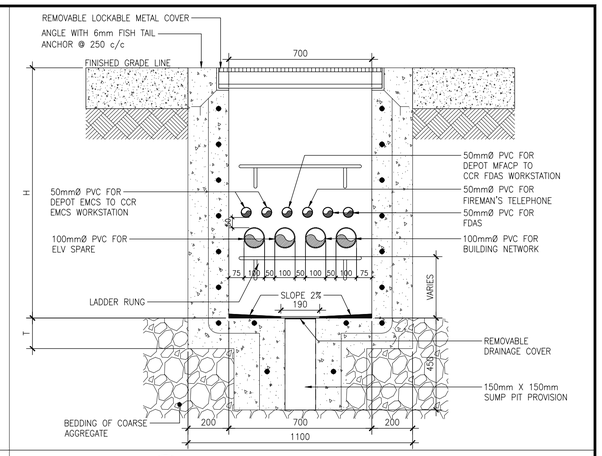
11.C SECTION DETAIL C (CHH-11)

D-DEP-IE-13015 NTS



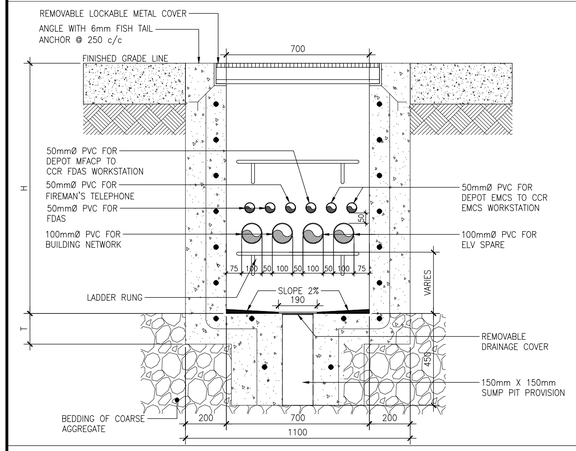
12 MANHOLE DETAIL (CHH-12)

D-DEP-IE-15 NTS



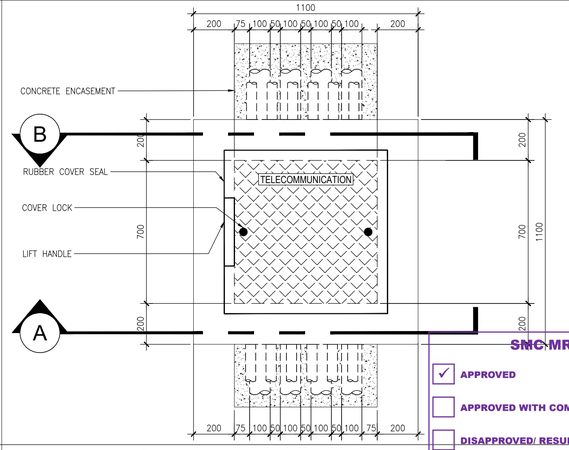
12.A SECTION DETAIL A (CHH-12)

D-DEP-IE-13015 NTS



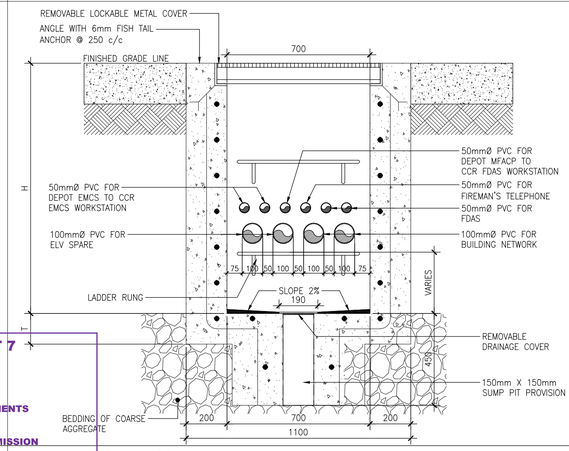
12.B SECTION DETAIL B (CHH-12)

D-DEP-IE-13015 NTS



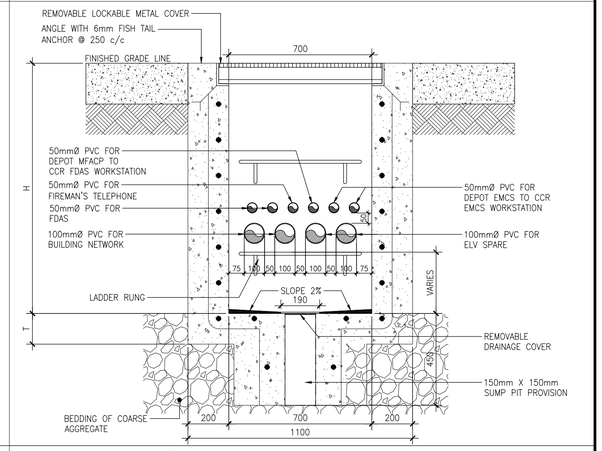
13 MANHOLE DETAIL (CHH-13)

D-DEP-IE-15 NTS



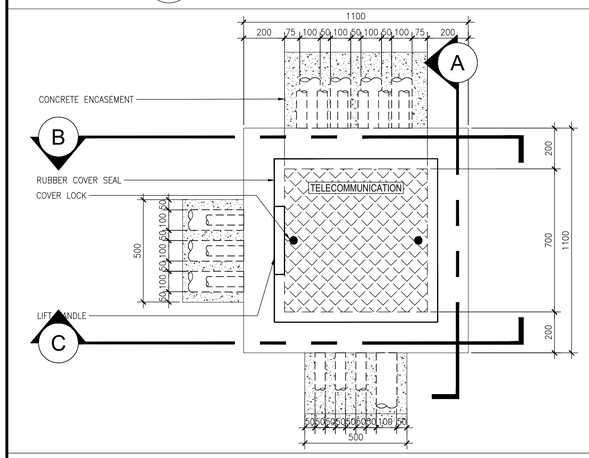
13.A SECTION DETAIL A (CHH-13)

D-DEP-IE-13015 NTS



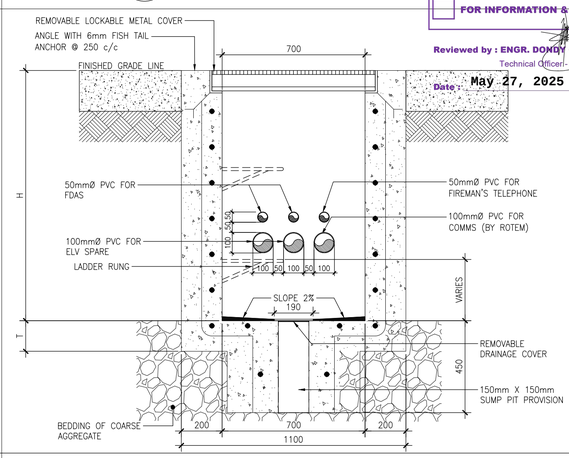
13.B SECTION DETAIL B (CHH-13)

D-DEP-IE-13015 NTS



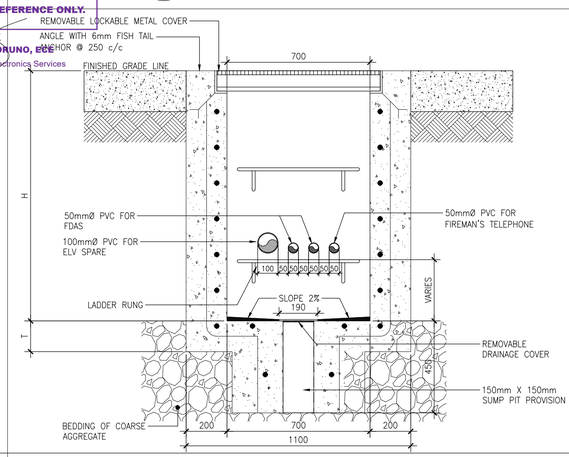
14 MANHOLE DETAIL (CHH-14)

D-DEP-IE-13015 NTS



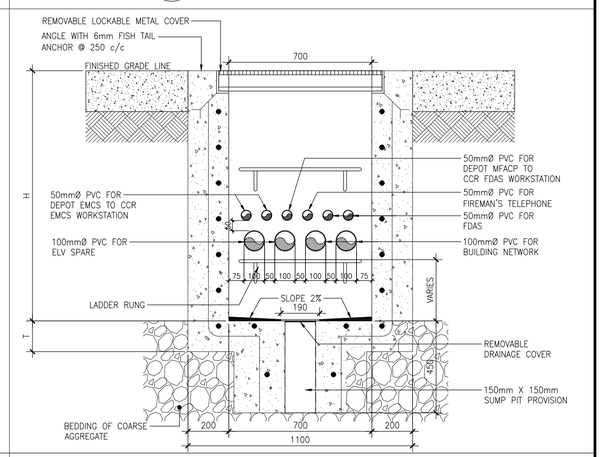
14.A SECTION DETAIL A (CHH-14)

D-DEP-IE-13015 NTS



14.B SECTION DETAIL B (CHH-14)

D-DEP-IE-13015 NTS



14.C SECTION DETAIL C (CHH-14)

D-DEP-IE-13015 NTS

SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer - Electronics Services
Date : May 27, 2025

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES MISCELLANEOUS DETAILS 4	24 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13015	A

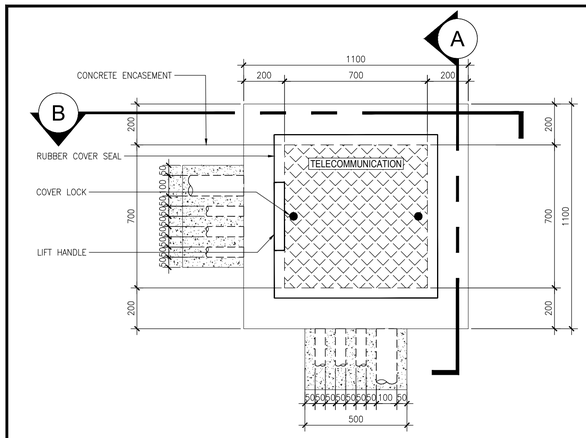
DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS — In association with MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC. — SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

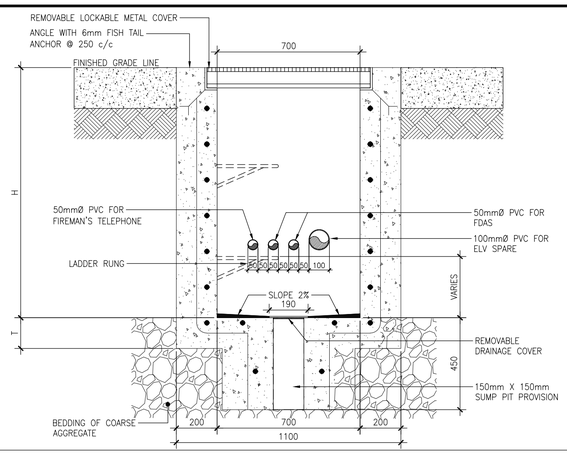
GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	BE	PM	PD	SURVEY	GRP.SUPV.
A	25APR02	ISSUED FOR CONSTRUCTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
10	24SEP13	ISSUED FOR APPROVAL		ORIGINATOR		CLIENT	
9	24JUL12	ISSUED FOR APPROVAL					
8	23DEC13	ISSUED FOR APPROVAL					
7	23NOV09	ISSUED FOR APPROVAL					

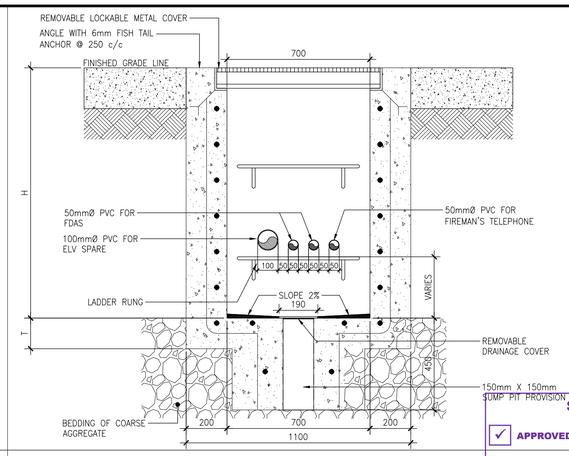
REVISION HISTORY



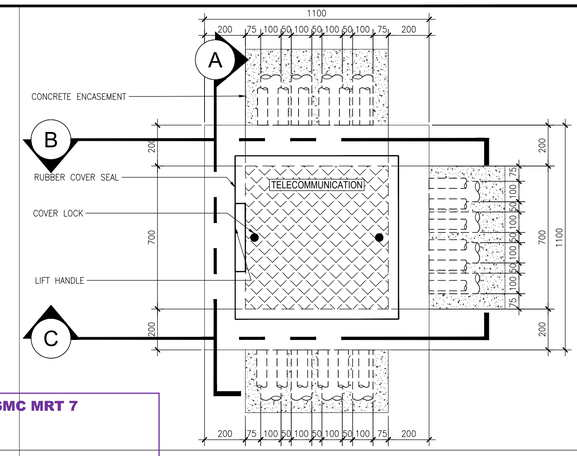
15 MANHOLE DETAIL (CHH-15)
D-DEP-IE-13016 NTS



15.A SECTION DETAIL A (CHH-15)
D-DEP-IE-13016 NTS



15.B SECTION DETAIL B (CHH-15)
D-DEP-IE-13016 NTS

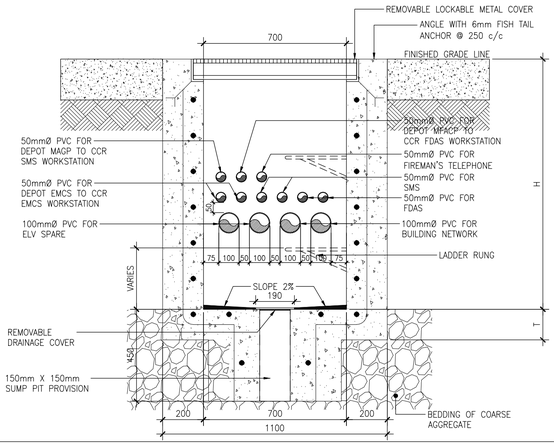


16 MANHOLE DETAIL (CHH-16)
D-DEP-IE-13016 NTS

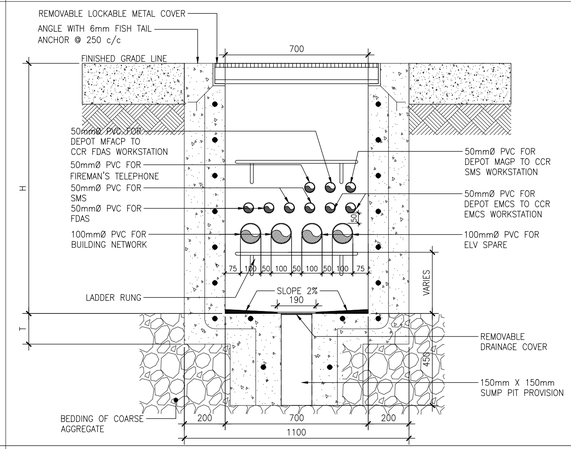
SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

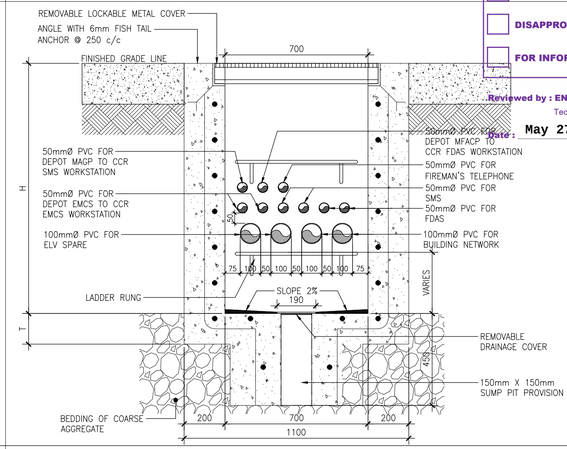
Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025



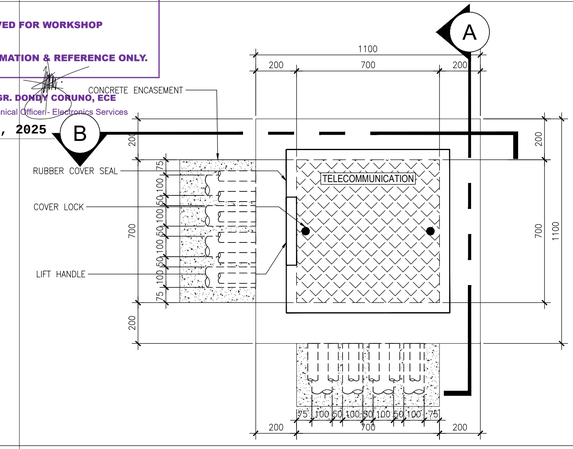
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D-DEP-IE-13016 NTS



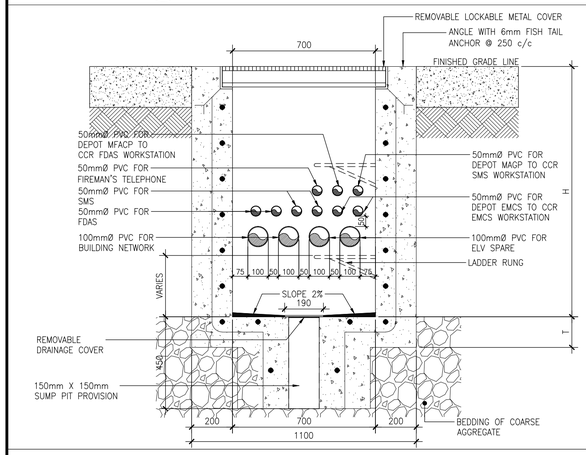
16.B SECTION DETAIL B (CHH-16)
D-DEP-IE-13016 NTS



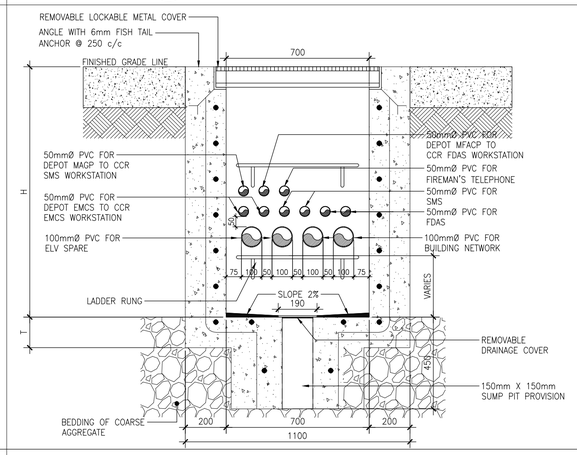
16.C SECTION DETAIL C (CHH-16)
D-DEP-IE-13016 NTS



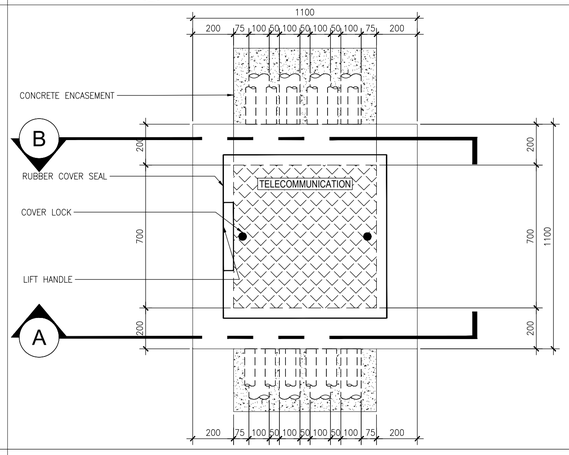
17 MANHOLE DETAIL (CHH-17)
D-DEP-IE-13016 NTS



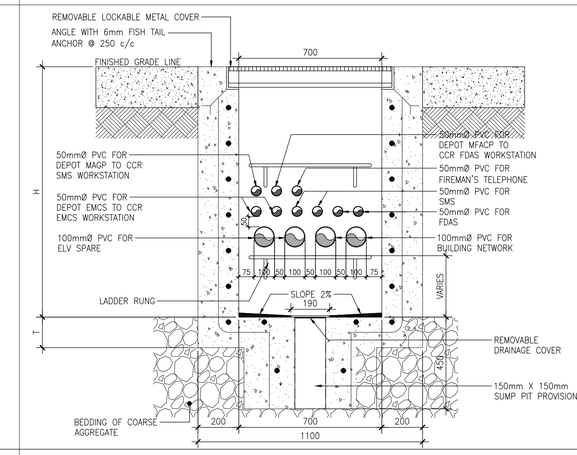
17.A SECTION DETAIL A (CHH-17)
D-DEP-IE-13016 NTS



17.B SECTION DETAIL B (CHH-17)
D-DEP-IE-13017 NTS



18 MANHOLE DETAIL (CHH-18)
D-DEP-IE-13016 NTS



18.A SECTION DETAIL A (CHH-18)
D-DEP-IE-13016 NTS

PROJECT TITLE:	THE MRT 7 PROJECT
LOCATION:	QUEZON CITY- SAN JOSE DEL MONTE BULACAN
SHEET CONTENTS:	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES MISCELLANEOUS DETAILS 5
DWG. NO:	D-DEP-IE-13016
SHEET NO.	25 OF 39
REV. NO.	A

DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS — In association with — MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
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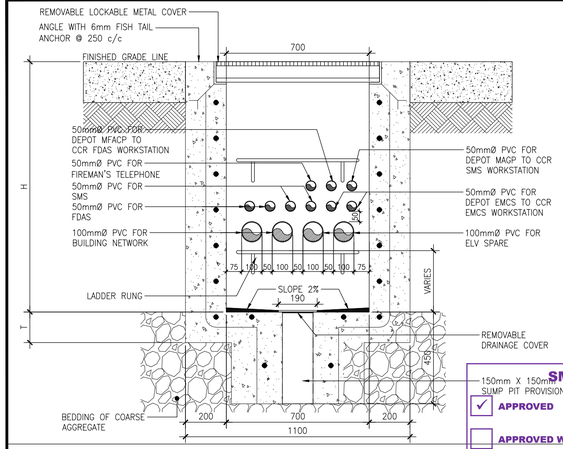
CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	PM CHECKED	PD CHECKED	SURVEY REVIEWED	GRP.SUPV. CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION	EVJ	MSM	EVJ		
9	24JUL12	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		
8	23DEC13	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		
7	23NOV09	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		
6	23OCT06	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		

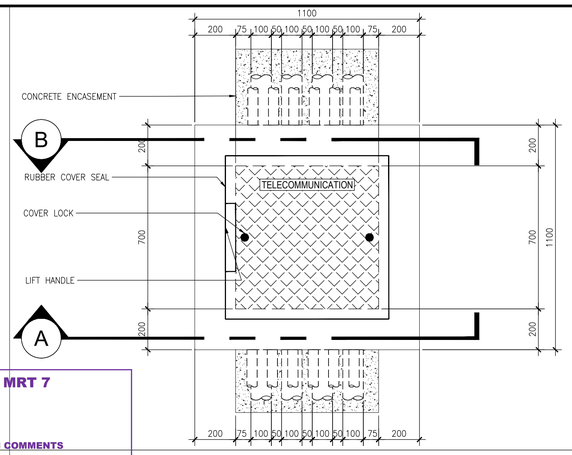
ORIGINATOR | CLIENT

REVISION HISTORY



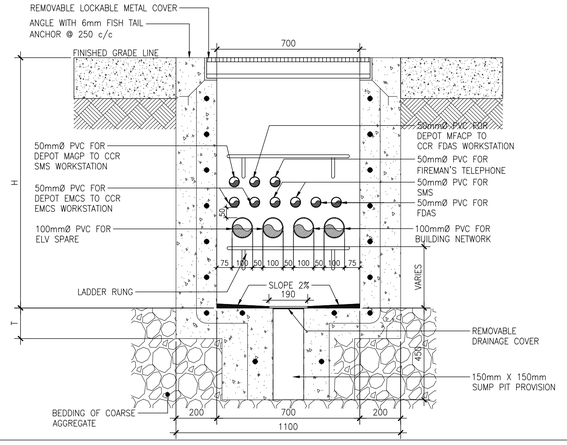
18.B SECTION DETAIL B (CHH-18)

D-DEP-IE-13017 NTS



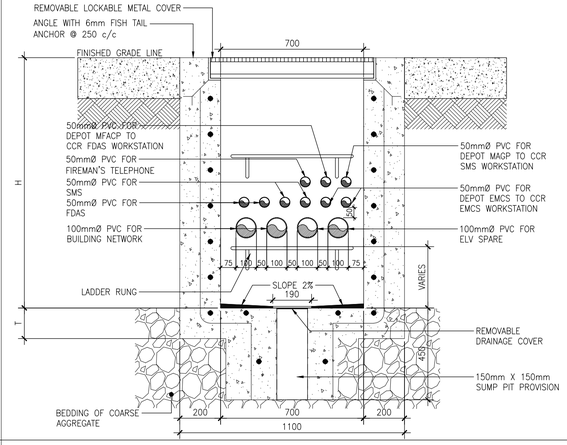
19 MANHOLE DETAIL (CHH-19)

D-DEP-IE-13017 NTS



19.A SECTION DETAIL A (CHH-19)

D-DEP-IE-13017 NTS



19.B SECTION DETAIL B (CHH-19)

D-DEP-IE-13017 NTS

SMC MRT 7

✓ APPROVED

APPROVED WITH COMMENTS

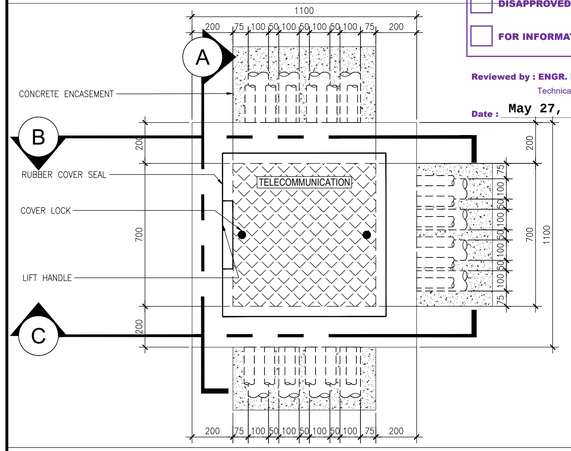
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DISAPPROVED FOR WORKSHOP

FOR INFORMATION & REFERENCE ONLY.

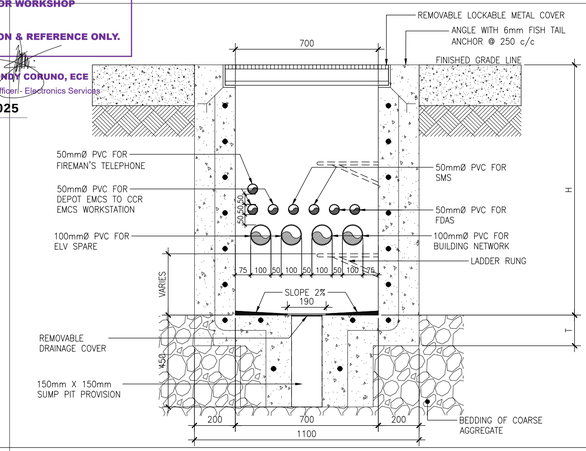
Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services

Date : May 27, 2025



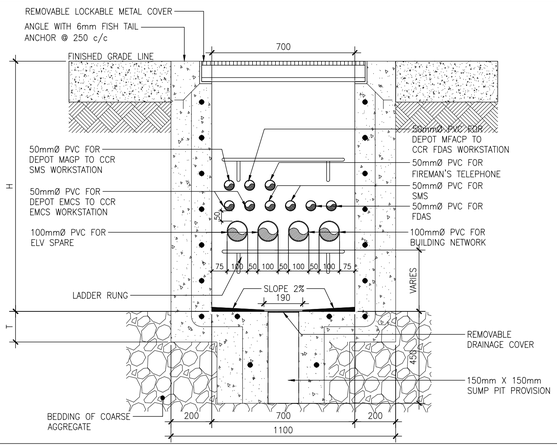
20 MANHOLE DETAIL (CHH-20)

D-DEP-IE-13017 NTS



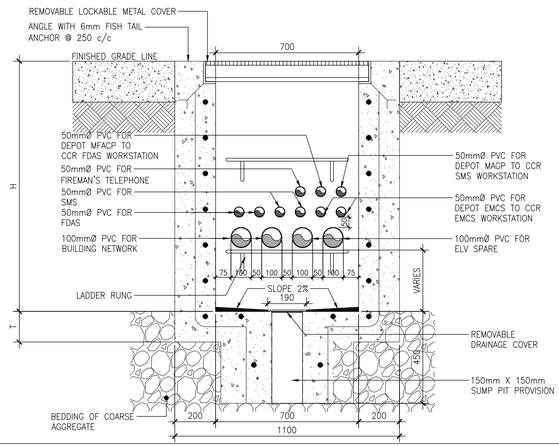
20.A SECTION DETAIL A (CHH-20)

D-DEP-IE-13017 NTS



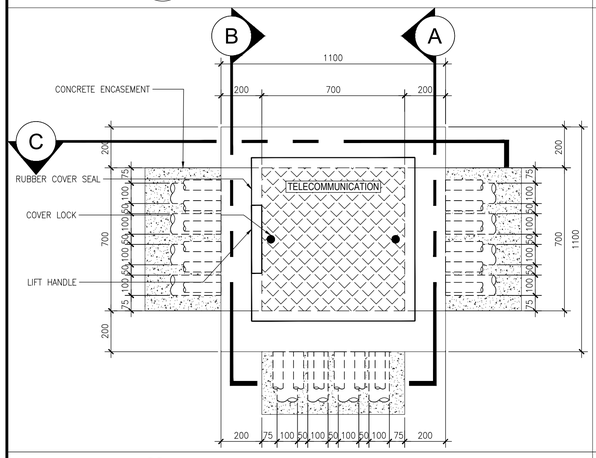
20.B SECTION DETAIL B (CHH-20)

D-DEP-IE-13017 NTS



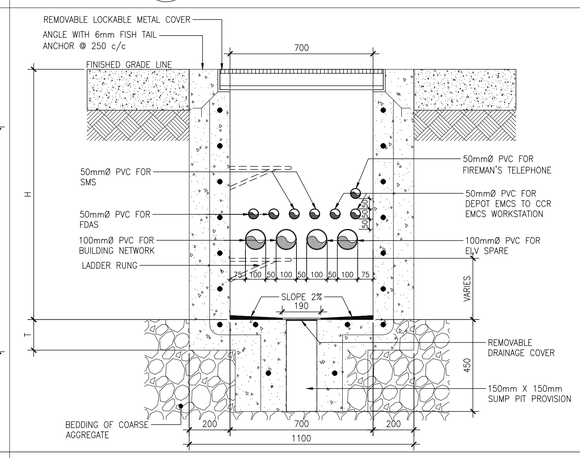
20.C SECTION DETAIL C (CHH-20)

D-DEP-IE-13017 NTS



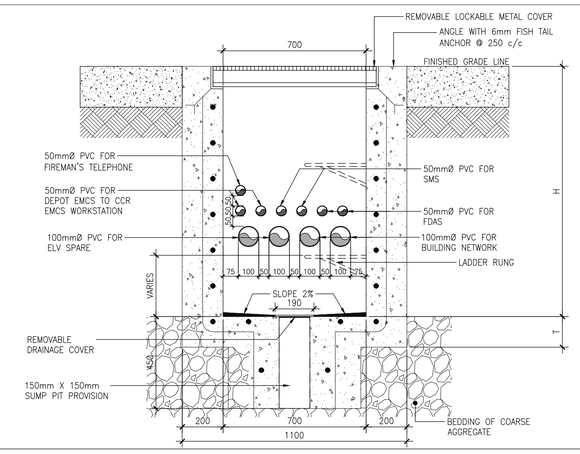
21 MANHOLE DETAIL (CHH-21)

D-DEP-IE-13017 NTS



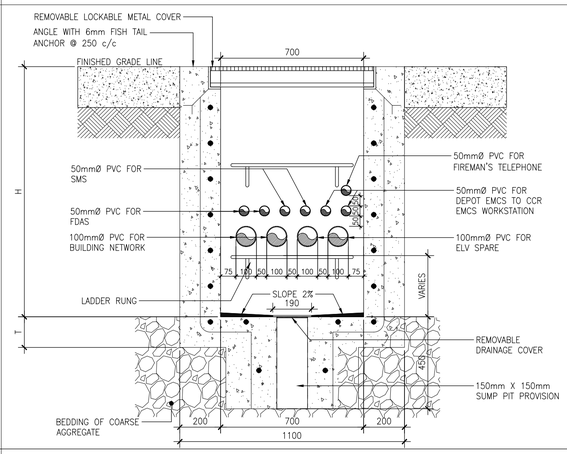
21.A SECTION DETAIL A (CHH-21)

D-DEP-IE-13017 NTS



21.B SECTION DETAIL B (CHH-21)

D-DEP-IE-13017 NTS



21.C SECTION DETAIL C (CHH-21)

D-DEP-IE-13017 NTS

PROJECT TITLE:	THE MRT 7 PROJECT
LOCATION:	QUEZON CITY- SAN JOSE DEL MONTE BULACAN
SHEET CONTENTS:	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES MISCELLANEOUS DETAILS 6
DWG. NO:	D-DEP-IE-13017
SHEET NO.	26 OF 39
REV. NO.	A

DESIGN CONTRACTOR:

PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT

ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER

PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE:

MRT 7 SMC MASS RAIL TRANSIT 7 INC. SMC INFRASTRUCTURE

SMC MASS RAIL TRANSIT 7 INC.

HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION

RECOMMENDING APPROVAL:

JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS

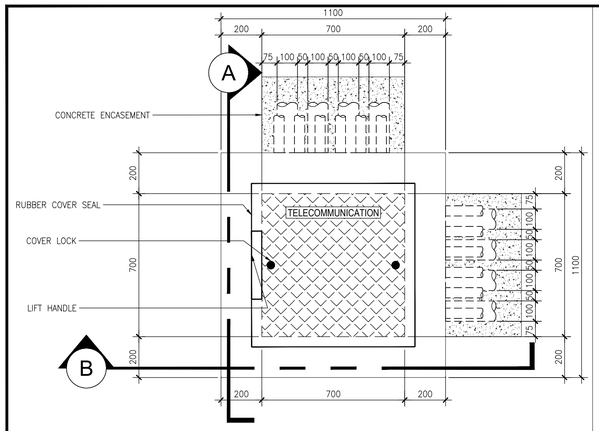
APPROVED:

JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

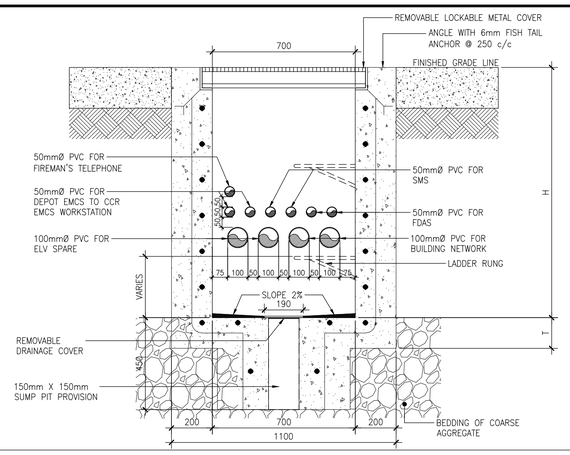
REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION	EVJ	MSM	EVJ		
9	24JUL12	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		
8	23DEC13	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		
7	23NOV09	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		
6	23OCT06	ISSUED FOR APPROVAL	EVJ	MSM	EVJ		

			SURVEY	GRP.SUPV.
		PM	PD	
ORIGINATOR			CLIENT	

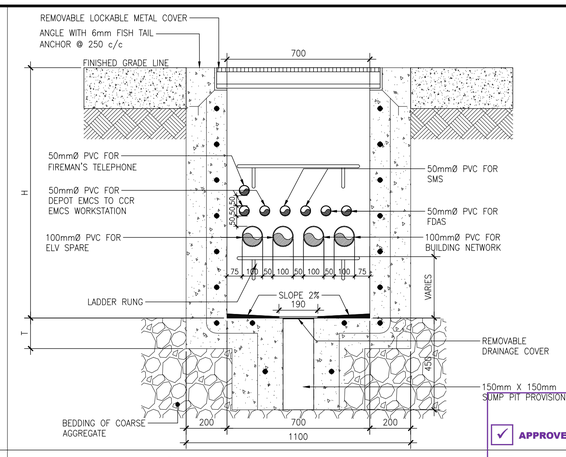
REVISION HISTORY



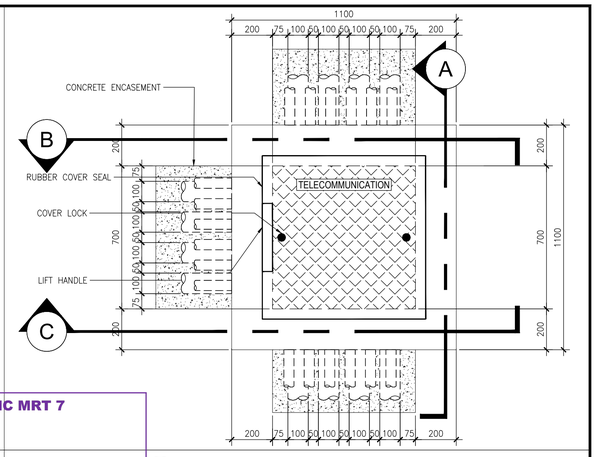
22 MANHOLE DETAIL (CHH-22)
D-DEP-IE-13018 NTS



22.A SECTION DETAIL A (CHH-22)
D-DEP-IE-13018 NTS



22.B SECTION DETAIL B (CHH-22)
D-DEP-IE-13018 NTS

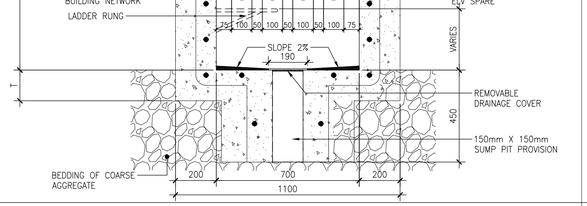


23 MANHOLE DETAIL (CHH-23)
D-DEP-IE-13018 NTS

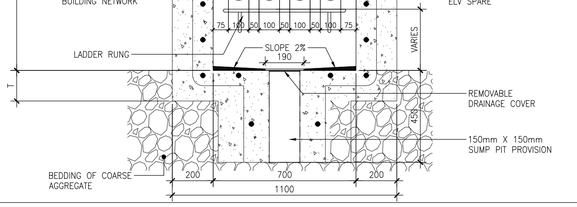
SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED, RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

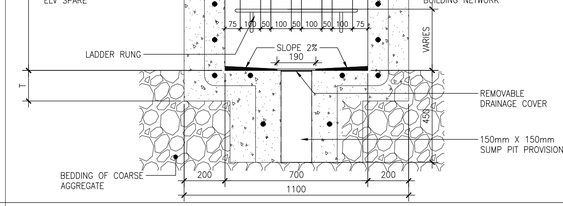
Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Engineering
Date : May 27, 2025



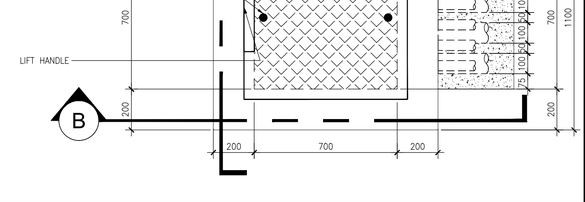
23.A SECTION DETAIL A (CHH-23)
D-DEP-IE-13018 NTS



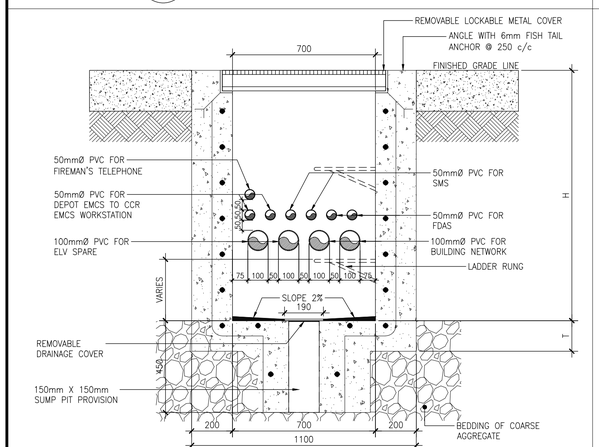
23.B SECTION DETAIL B (CHH-23)
D-DEP-IE-13018 NTS



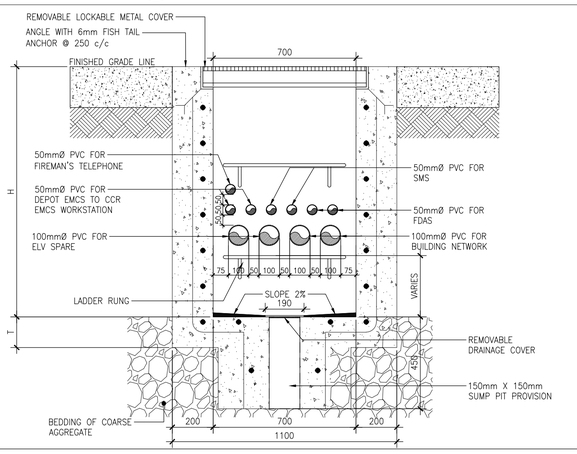
23.C SECTION DETAIL C (CHH-23)
D-DEP-IE-13018 NTS



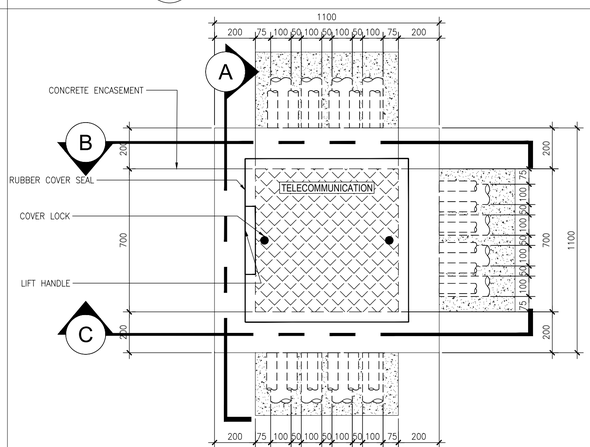
24 MANHOLE DETAIL (CHH-24)
D-DEP-IE-13018 NTS



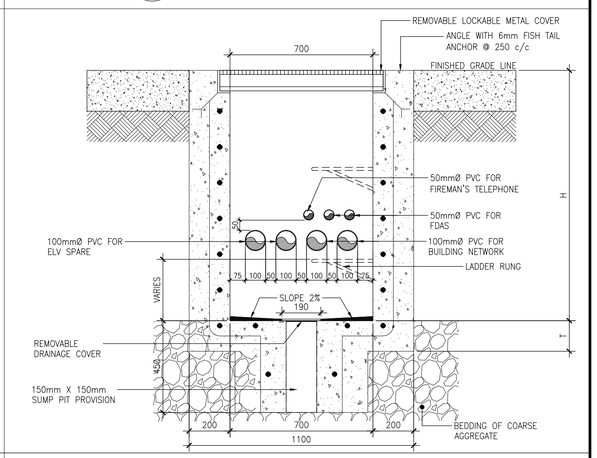
24.A SECTION DETAIL A (CHH-24)
D-DEP-IE-13018 NTS



24.B SECTION DETAIL B (CHH-24)
D-DEP-IE-13018 NTS



25 MANHOLE DETAIL (CHH-25)
D-DEP-IE-13018 NTS



25.A SECTION DETAIL A (CHH-25)
D-DEP-IE-13018 NTS

PROJECT TITLE:	THE MRT 7 PROJECT
LOCATION:	QUEZON CITY- SAN JOSE DEL MONTE BULACAN
SHEET CONTENTS:	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES MISCELLANEOUS DETAILS 7
DWG. NO:	D-DEP-IE-13018
SHEET NO.	27 OF 39
REV. NO.	A

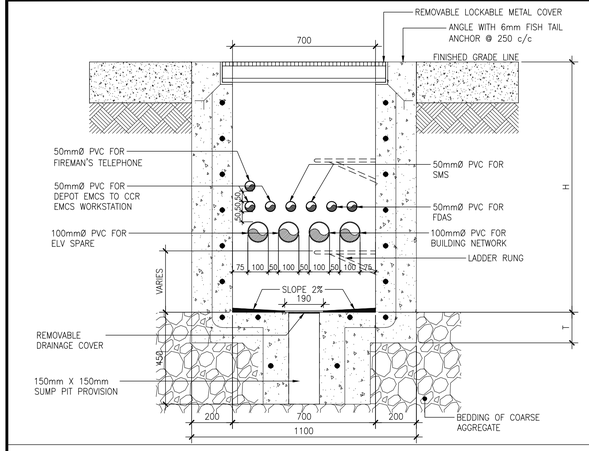
DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC. INFRASTRUCTURE
SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

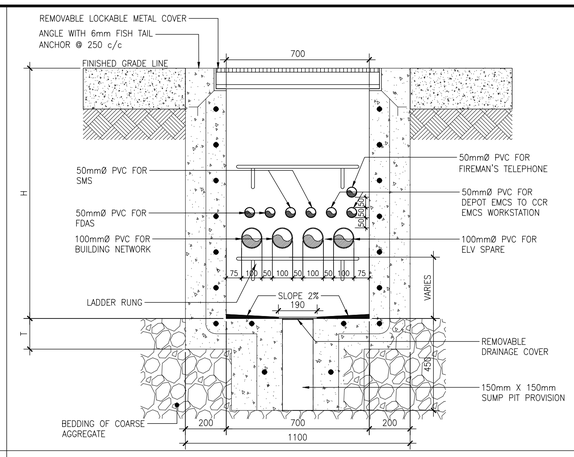
REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION	EVJ	MGM	EVJ		
9	24JUL12	ISSUED FOR APPROVAL	EVJ	MGM	EVJ		
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7	23NOV09	ISSUED FOR APPROVAL	EVJ	MGM	EVJ		
6	23OCT06	ISSUED FOR APPROVAL	EVJ	MGM	EVJ		
			BE	PM	PD	SURVEY	GRP.SUPV.
			ORIGINATOR			CLIENT	

REVISION HISTORY



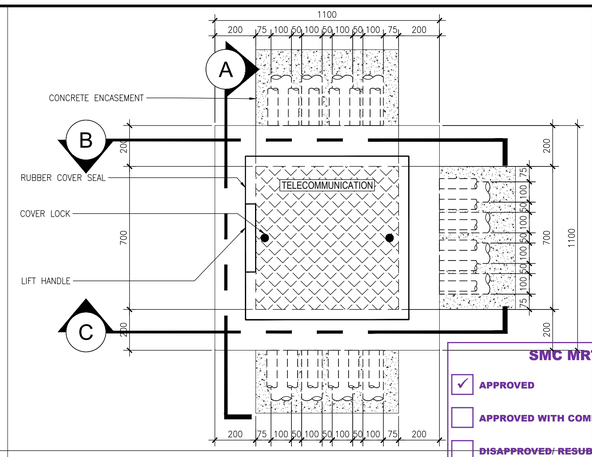
25.B SECTION DETAIL B (CHH-25)

D-DEP-IE-13019 NTS



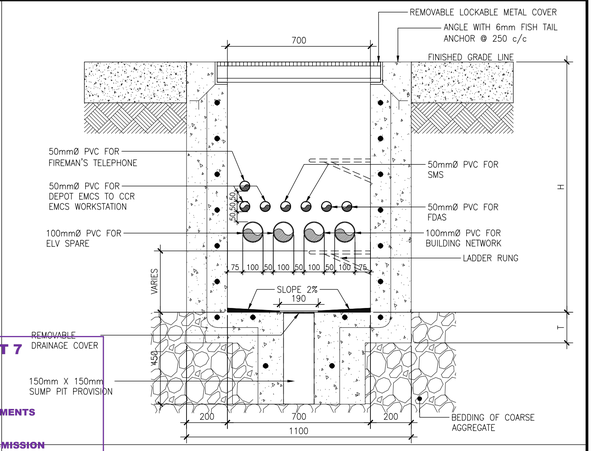
25.C SECTION DETAIL C (CHH-25)

D-DEP-IE-13019 NTS



26 MANHOLE DETAIL (CHH-26)

D-DEP-IE-13019 NTS



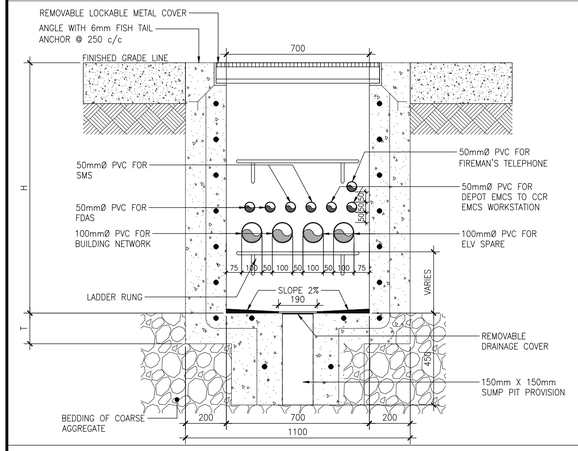
26.A SECTION DETAIL A (CHH-26)

D-DEP-IE-13019 NTS

SMC MRT 7

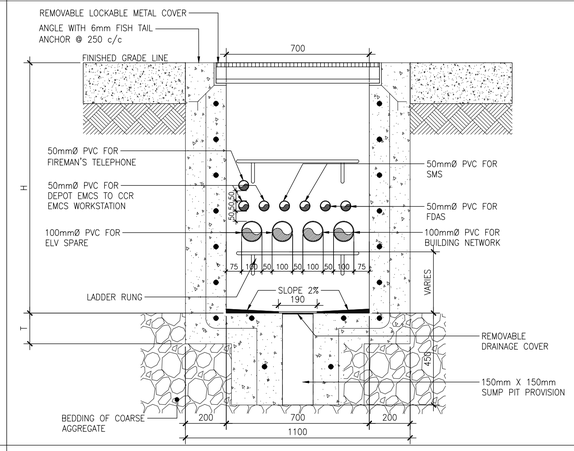
- ✓ APPROVED
- APPROVED WITH COMMENTS
- ~~DISAPPROVED/ RESUBMISSION~~
- DISAPPROVED FOR WORKSHOP
- FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer I- Electronics Services
Date : May 27, 2025



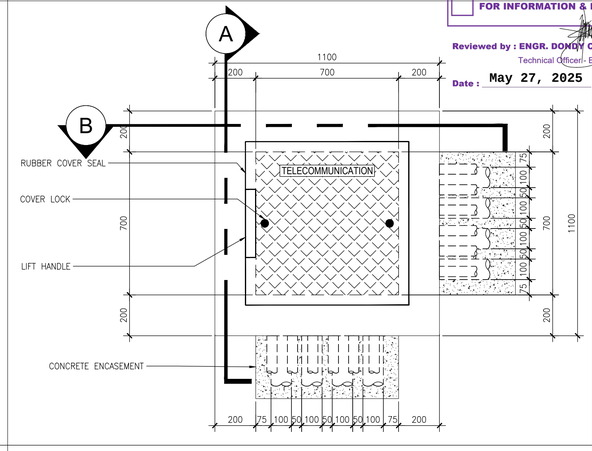
26.B SECTION DETAIL B (CHH-26)

D-DEP-IE-13019 NTS



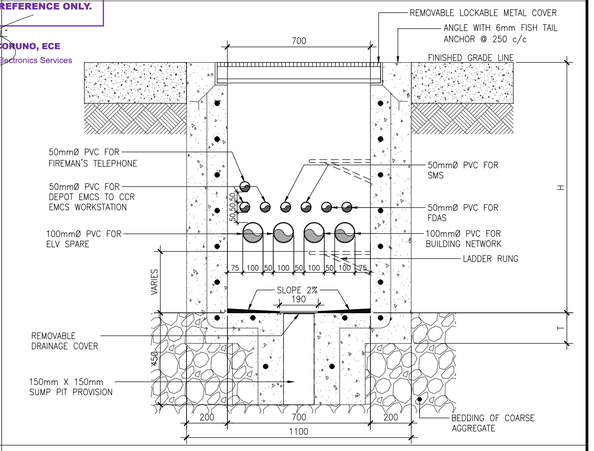
26.C SECTION DETAIL C (CHH-26)

D-DEP-IE-13019 NTS



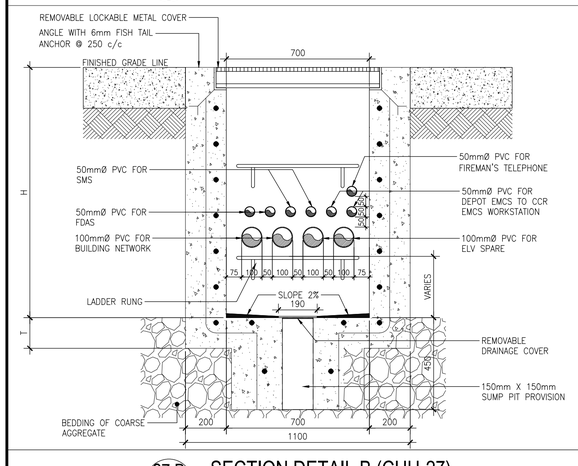
27 MANHOLE DETAIL (CHH-27)

D-DEP-IE-13019 NTS



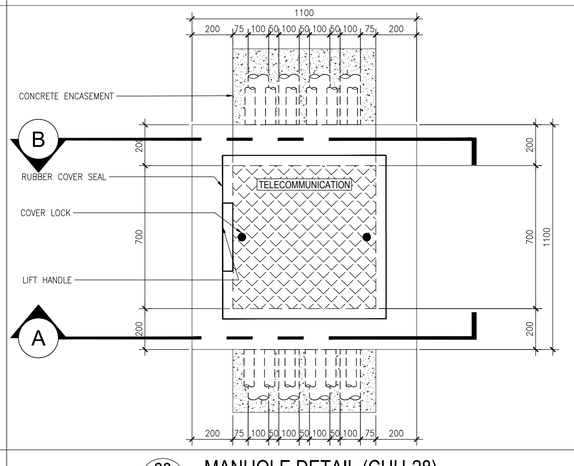
27.A SECTION DETAIL A (CHH-27)

D-DEP-IE-13019 NTS



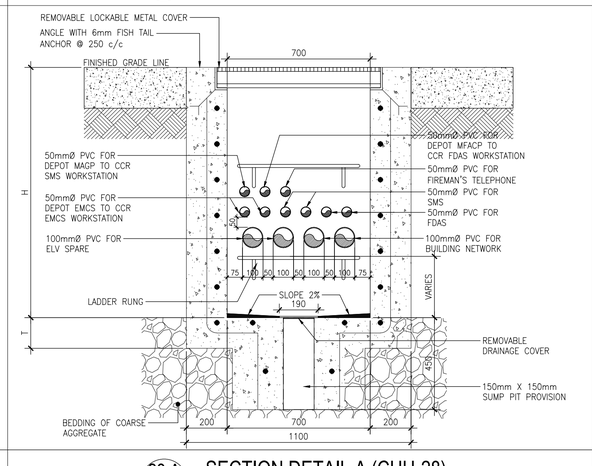
27.B SECTION DETAIL B (CHH-27)

D-DEP-IE-13019 NTS



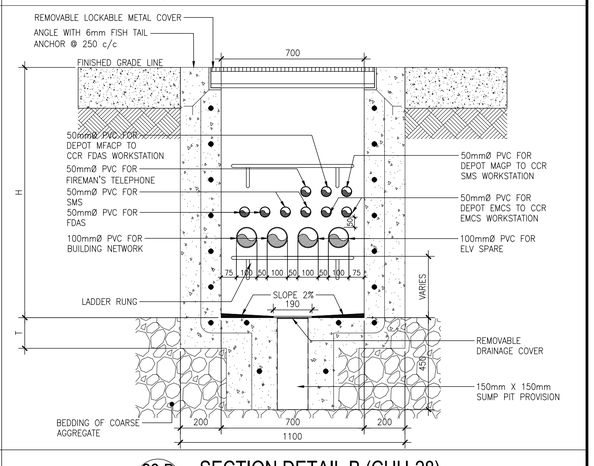
28 MANHOLE DETAIL (CHH-28)

D-DEP-IE-13019 NTS



28.A SECTION DETAIL A (CHH-28)

D-DEP-IE-13019 NTS



28.B SECTION DETAIL B (CHH-28)

D-DEP-IE-13019 NTS

PROJECT TITLE:	THE MRT 7 PROJECT
LOCATION:	QUEZON CITY- SAN JOSE DEL MONTE BULACAN
SHEET CONTENTS:	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES MISCELLANEOUS DETAILS 8
DWG. NO:	D-DEP-IE-13019
SHEET NO.	28 OF 39
REV. NO.	A

DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS — In association with MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
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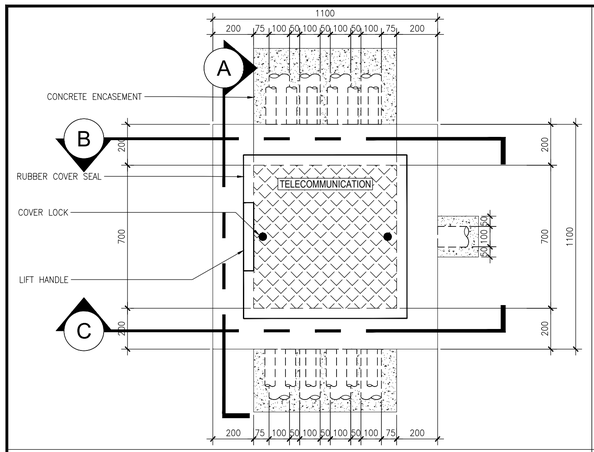
CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

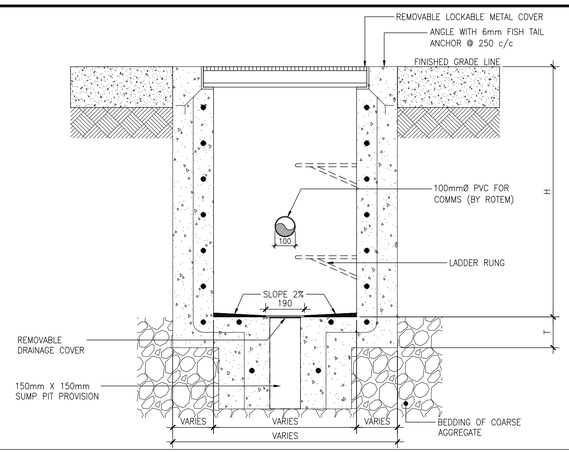
REV	DATE	MARK / DESCRIPTION	BE DRAWN BY	PM CHECKED	PD CHECKED	SURVEY REVIEWED	GRP.SUPV. CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION	EJ FAC	MGM	EVJ		
9	24JUL12	ISSUED FOR APPROVAL	EJ FAC	MGM	EVJ		
8	23DEC13	ISSUED FOR APPROVAL	EJ FAC	MGM	EVJ		
7	23NOV09	ISSUED FOR APPROVAL	EJ FAC	MGM	EVJ		
6	23OCT06	ISSUED FOR APPROVAL	EJ FAC	MGM	EVJ		

ORIGINATOR | CLIENT

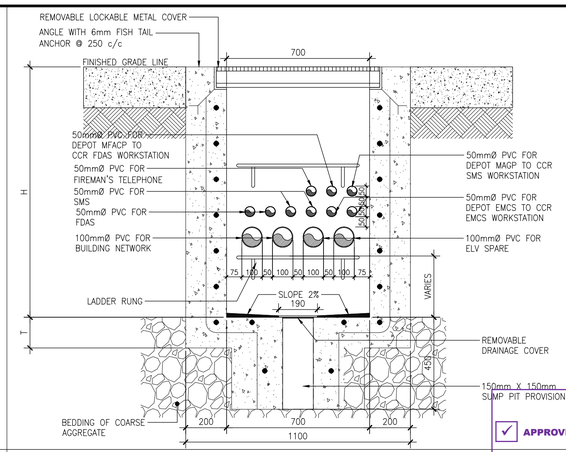
REVISION HISTORY



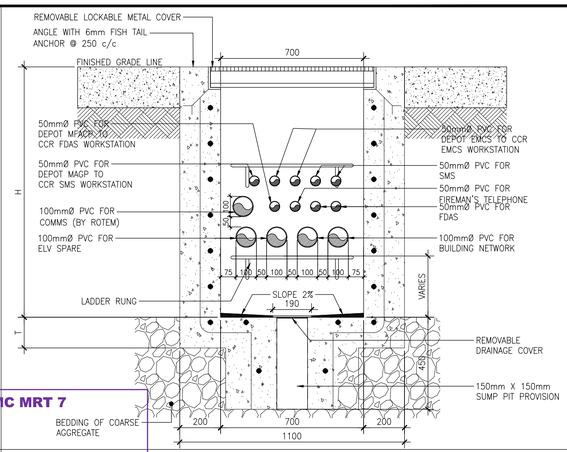
29 MANHOLE DETAIL (CHH-29)
D-DEP-IE-13020 NTS



29.A SECTION DETAIL A (CHH-29)
D-DEP-IE-13020 NTS



29.B SECTION DETAIL B (CHH-29)
D-DEP-IE-13020 NTS

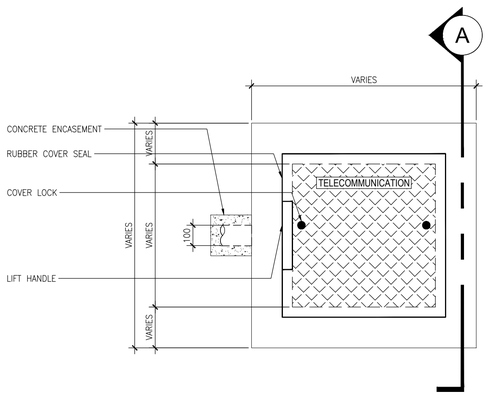


29.C SECTION DETAIL C (CHH-29)
D-DEP-IE-13020 NTS

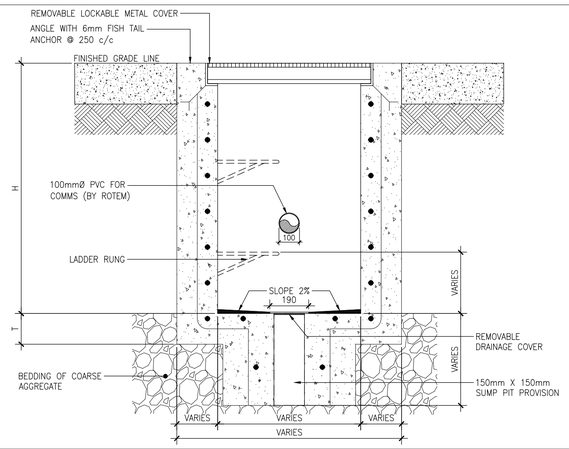
SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

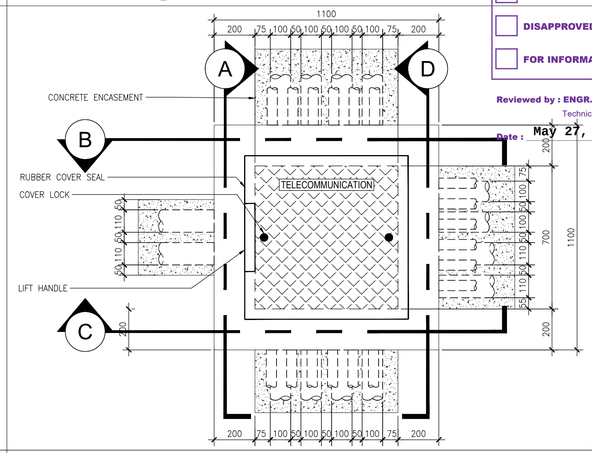
Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer - Electronics Services
Date : May 27, 2025



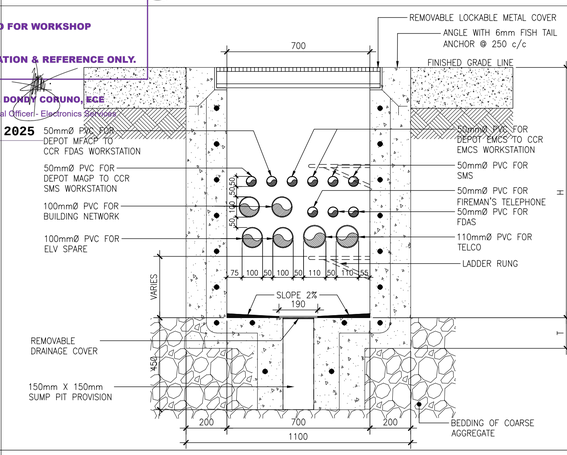
30 MANHOLE DETAIL (CHH-30)
D-DEP-IE-13020 NTS



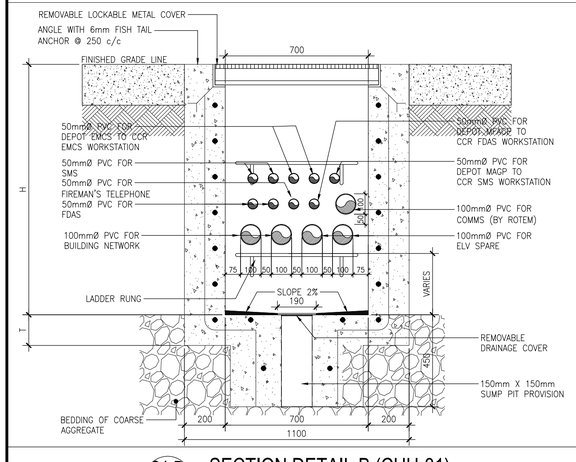
30.A SECTION DETAIL A (CHH-30)
D-DEP-IE-13020 NTS



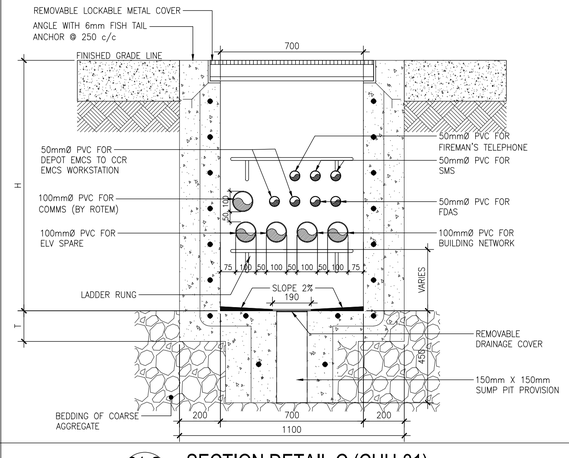
31 MANHOLE DETAIL (CHH-31)
D-DEP-IE-13020 NTS



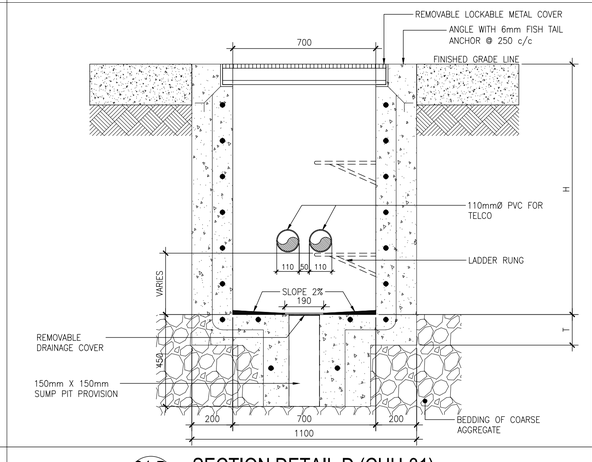
31.A SECTION DETAIL A (CHH-31)
D-DEP-IE-13020 NTS



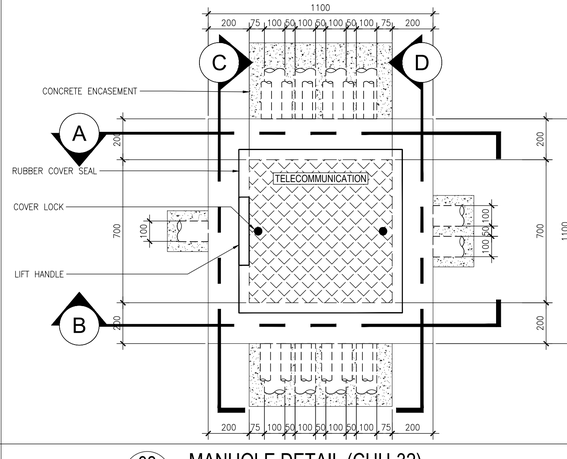
31.B SECTION DETAIL B (CHH-31)
D-DEP-IE-13020 NTS



31.C SECTION DETAIL C (CHH-31)
D-DEP-IE-13020 NTS



31.D SECTION DETAIL D (CHH-31)
D-DEP-IE-13020 NTS



32 MANHOLE DETAIL (CHH-32)
D-DEP-IE-13020 NTS

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES MISCELLANEOUS DETAILS 9	29 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13020	A

DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

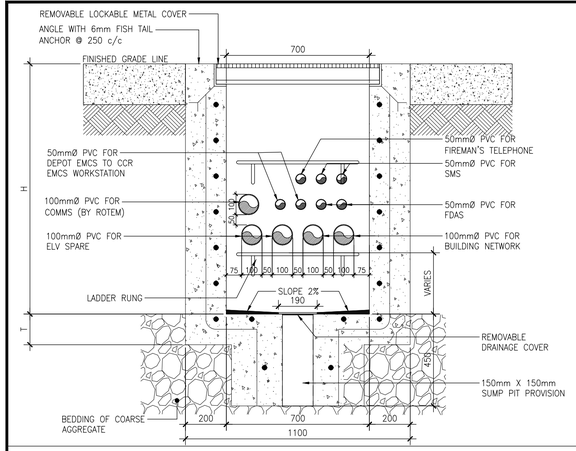
CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION	[illegible]	MSM	EVJ		
9	24JUL12	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		
8	23DEC13	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		
7	23NOV09	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		
6	23OCT06	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		

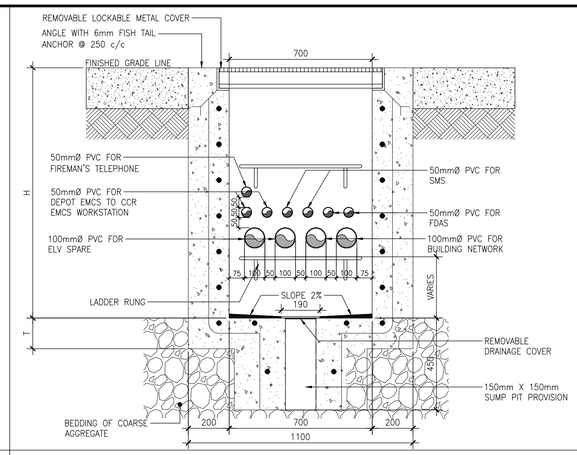
ORIGINATOR | CLIENT

REVISION HISTORY



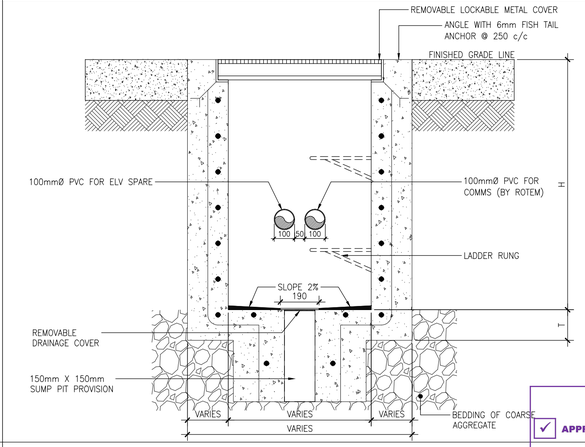
32.A SECTION DETAIL A (CHH-32)

D-DEP-IE-13021 NTS



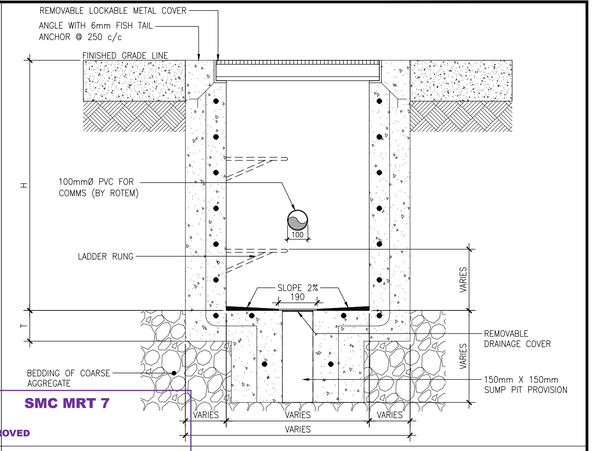
32.B SECTION DETAIL B (CHH-32)

D-DEP-IE-13021 NTS



32.C SECTION DETAIL C (CHH-32)

D-DEP-IE-13021 NTS



32.D SECTION DETAIL D (CHH-32)

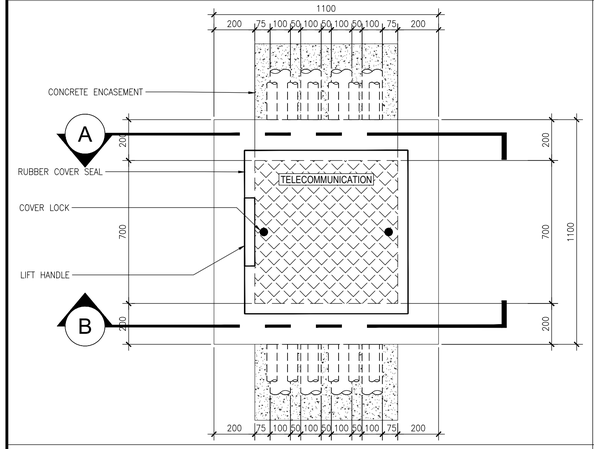
D-DEP-IE-13021 NTS

SMC MRT 7

- ☑ **APPROVED**
- ☐ **APPROVED WITH COMMENTS**
- ☐ **DISAPPROVED/ RESUBMISSION**
- ☐ **DISAPPROVED FOR WORKSHOP**
- ☐ **FOR INFORMATION & REFERENCE ONLY.**

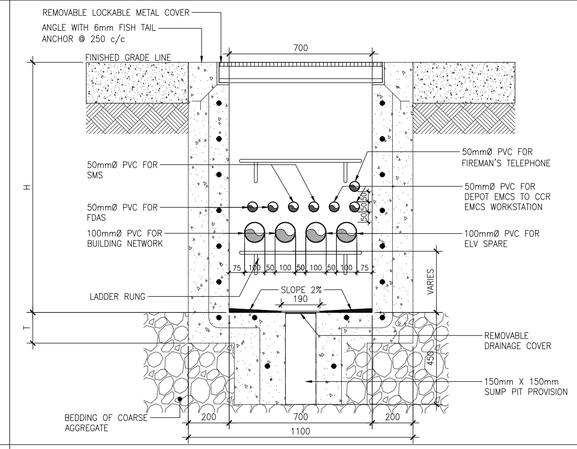
Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services

Date : May 27, 2025



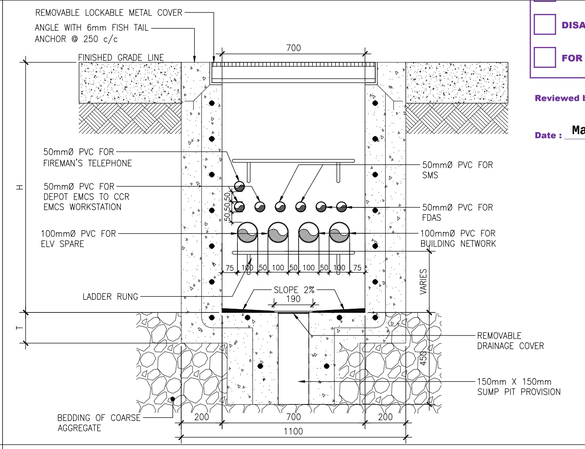
33 MANHOLE DETAIL (CHH-33)

D-DEP-IE-13021 NTS



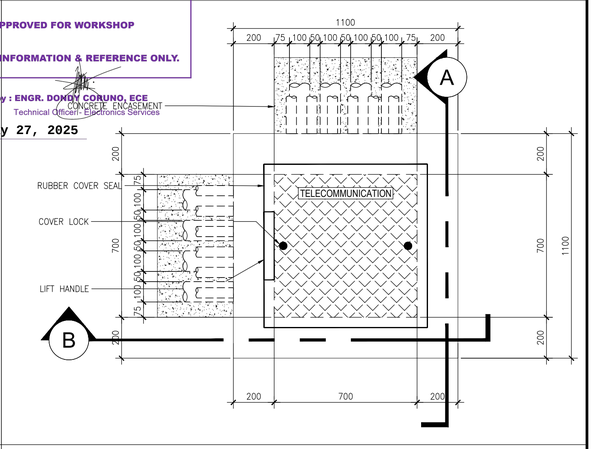
33.A SECTION DETAIL A (CHH-33)

D-DEP-IE-13021 NTS



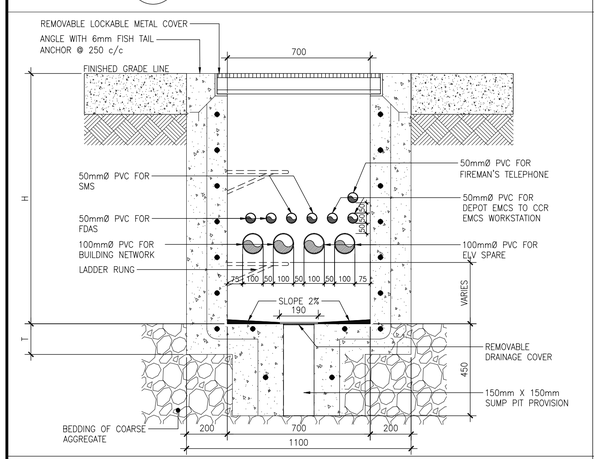
33.B SECTION DETAIL B (CHH-33)

D-DEP-IE-13021 NTS



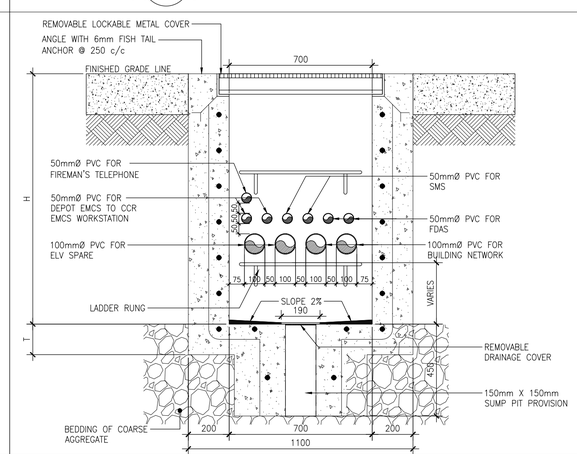
34 MANHOLE DETAIL (CHH-34)

D-DEP-IE-13021 NTS



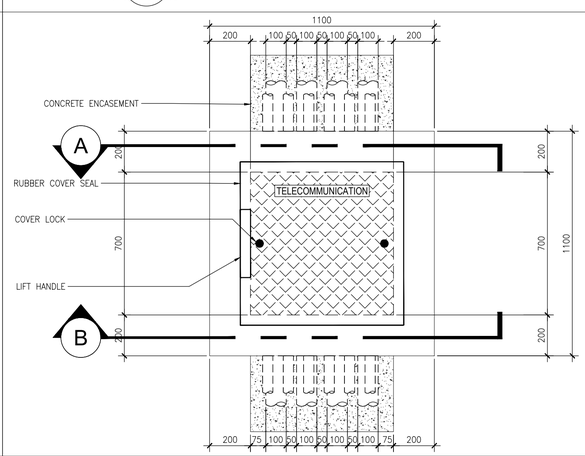
34.A SECTION DETAIL A (CHH-34)

D-DEP-IE-13021 NTS



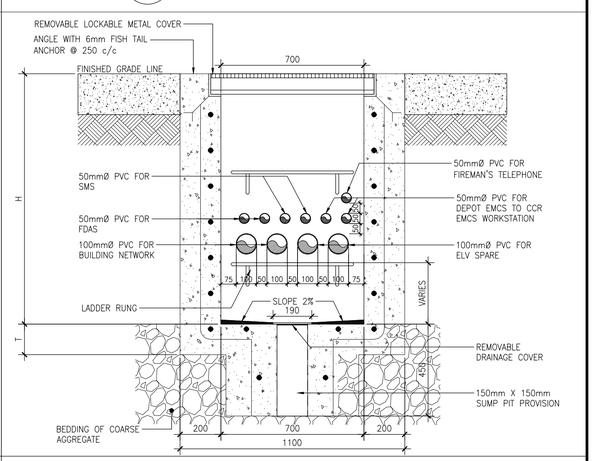
34.B SECTION DETAIL B (CHH-34)

D-DEP-IE-13021 NTS



35 MANHOLE DETAIL (CHH-35)

D-DEP-IE-13021 NTS



35.A SECTION DETAIL A (CHH-35)

D-DEP-IE-13021 NTS

PROJECT TITLE:	**THE MRT 7 PROJECT**
LOCATION:	QUEZON CITY- SAN JOSE DEL MONTE BULACAN
SHEET CONTENTS:	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES MISCELLANEOUS DETAILS 10
DWG. NO:	D-DEP-IE-13021
SHEET NO.	30 OF 39
REV. NO.	A

DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS — In association with — MEINHARDT

ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER

PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.

HYUNG-WOOK KIM
PROJECT DIRECTOR

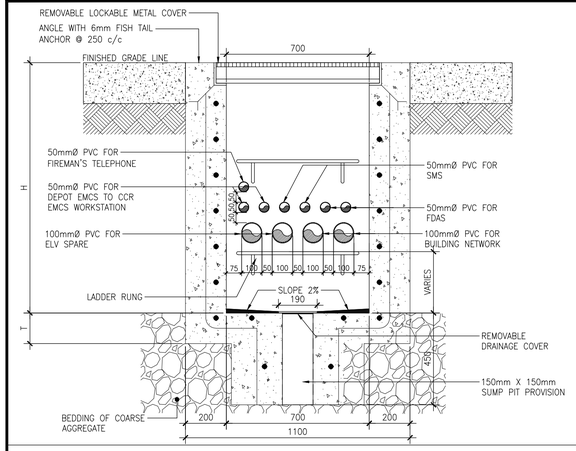
GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION

RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS

APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

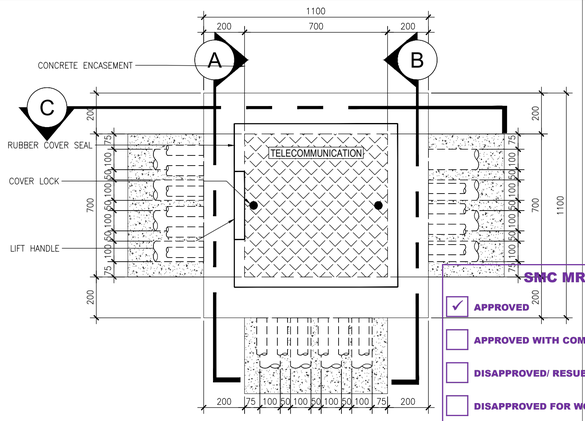
REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION	[illegible]	MSM	EVJ		
9	24JUL12	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		
8	23DEC13	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		
7	23NOV09	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		
6	23OCT06	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		
			RE	PM	PD	SURVEY	GRP.SUPV.
			ORIGINATOR			CLIENT	

REVISION HISTORY



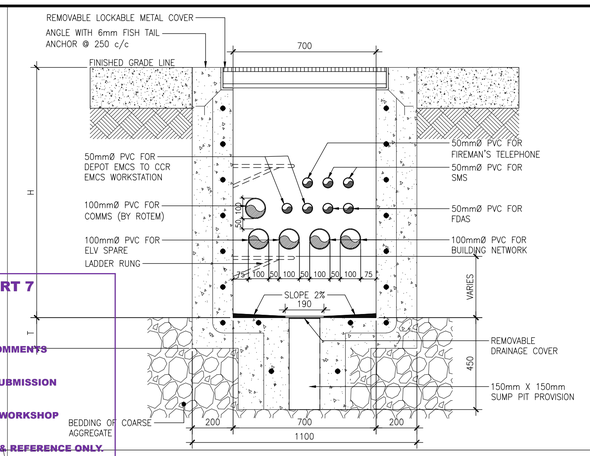
35.B SECTION DETAIL B (CHH-35)

D-DEP-IE-13022 NTS



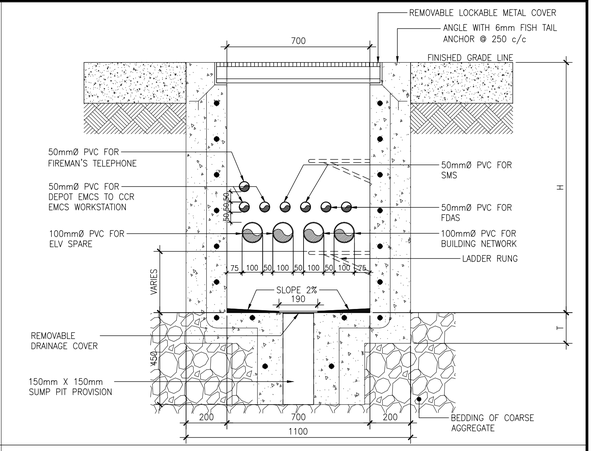
36 MANHOLE DETAIL (CHH-36)

D-DEP-IE-13022 NTS



36.A SECTION DETAIL A (CHH-36)

D-DEP-IE-13022 NTS



36.B SECTION DETAIL B (CHH-36)

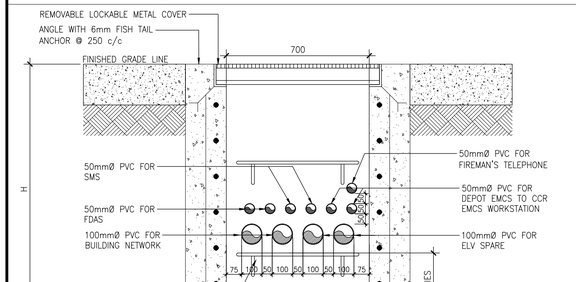
D-DEP-IE-13022 NTS

SNC MRT 7

- ✓ APPROVED
- APPROVED WITH COMMENTS
- DISAPPROVED/ RESUBMISSION
- DISAPPROVED FOR WORKSHOP
- FOR INFORMATION & REFERENCE ONLY.

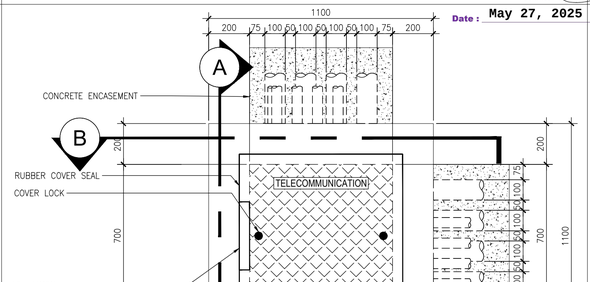
Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services

Date : May 27, 2025



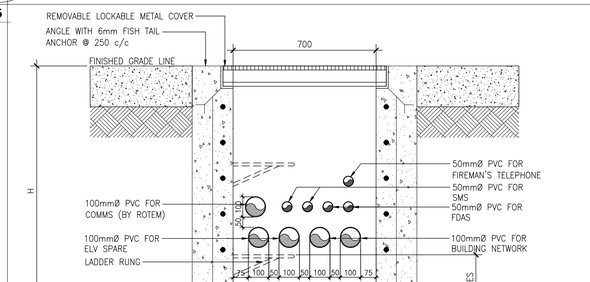
36.C SECTION DETAIL C (CHH-36)

D-DEP-IE-13022 NTS



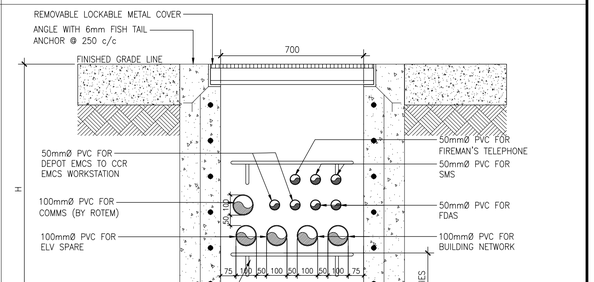
37 MANHOLE DETAIL (CHH-37)

D-DEP-IE-13022 NTS



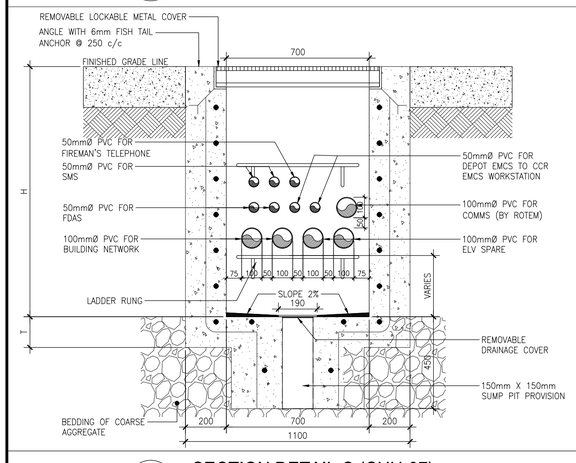
37.A SECTION DETAIL A (CHH-37)

D-DEP-IE-13022 NTS



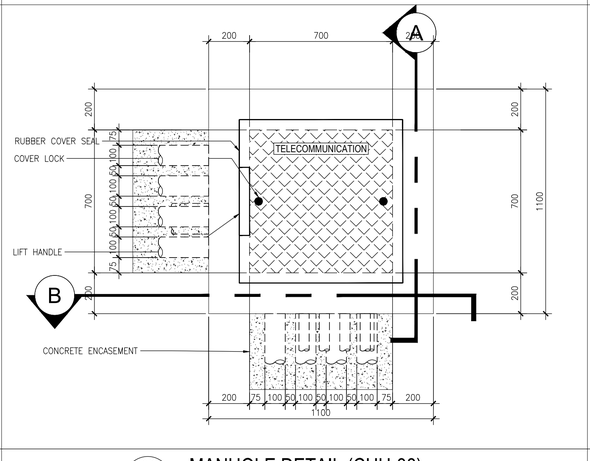
37.B SECTION DETAIL B (CHH-37)

D-DEP-IE-13022 NTS



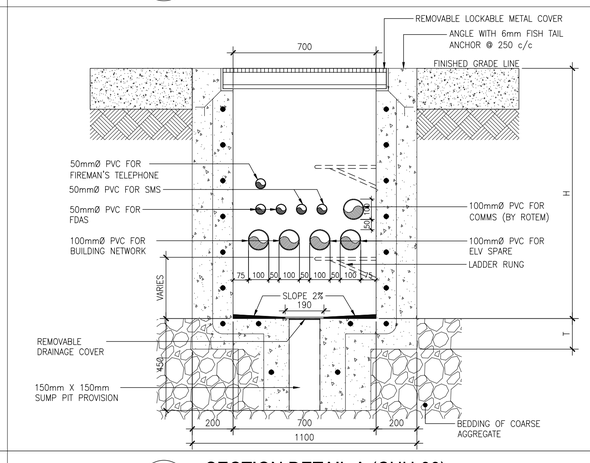
37.C SECTION DETAIL C (CHH-37)

D-DEP-IE-13022 NTS



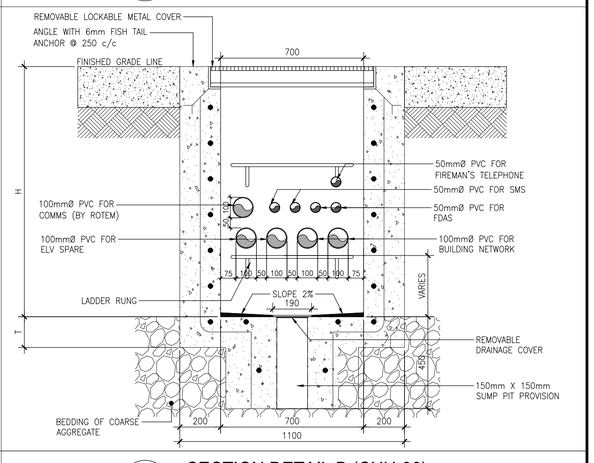
38 MANHOLE DETAIL (CHH-38)

D-DEP-IE-13022 NTS



38.A SECTION DETAIL A (CHH-38)

D-DEP-IE-13022 NTS



38.B SECTION DETAIL B (CHH-38)

D-DEP-IE-13022 NTS

PROJECT TITLE:	THE MRT 7 PROJECT
LOCATION:	QUEZON CITY- SAN JOSE DEL MONTE BULACAN
SHEET CONTENTS:	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES MISCELLANEOUS DETAILS 11
DWG. NO:	D-DEP-IE-13022
SHEET NO.	31 OF 39
REV. NO.	A

DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
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PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
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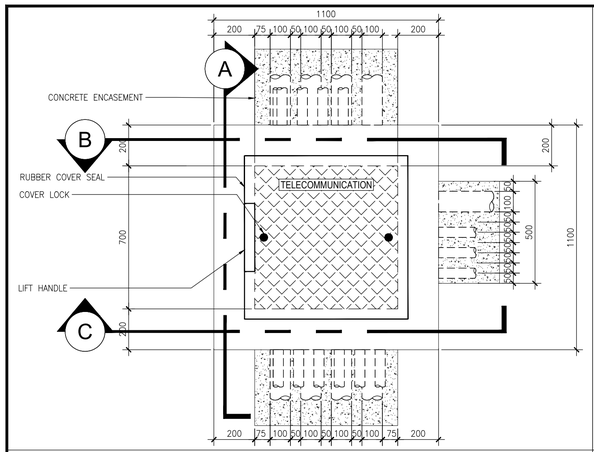
CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
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UNDERSECRETARY FOR RAILWAYS

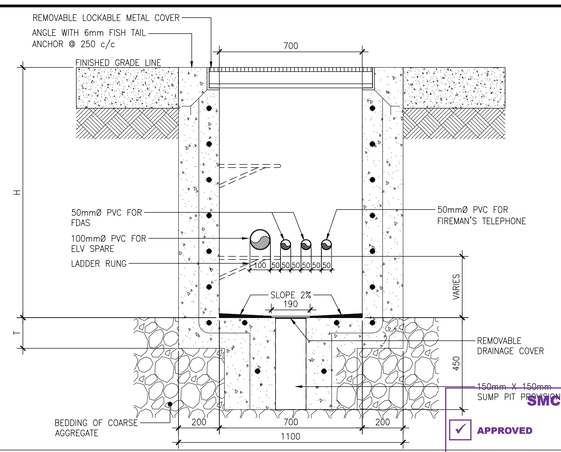
REV	DATE	MARK / DESCRIPTION	DRAWN BY	PM CHECKED	PD CHECKED	SURVEY REVIEWED	GRP.SUPV. CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION	[illegible]	MGM	EVJ		
9	24JUL12	ISSUED FOR APPROVAL	[illegible]	MGM	EVJ		
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7	23NOV09	ISSUED FOR APPROVAL	[illegible]	MGM	EVJ		
6	23OCT06	ISSUED FOR APPROVAL	[illegible]	MGM	EVJ		

ORIGINATOR | CLIENT

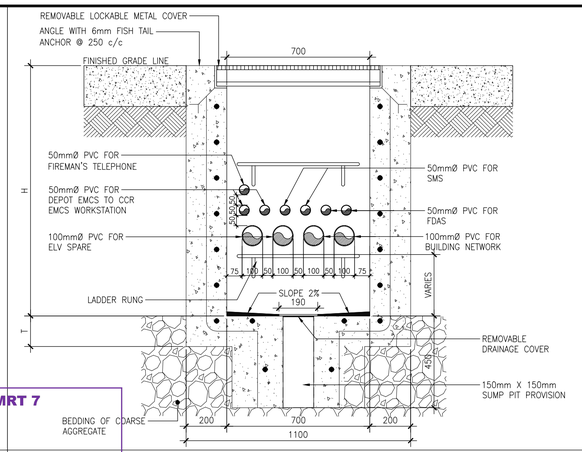
REVISION HISTORY



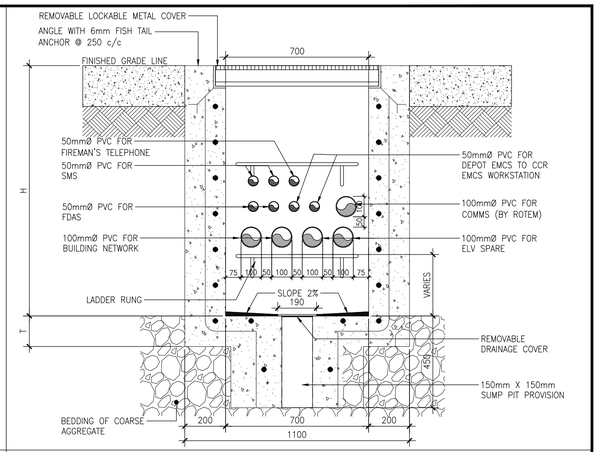
39 MANHOLE DETAIL (CHH-39)
D-DEP-IE-13023 NTS



39.A SECTION DETAIL A (CHH-39)
D-DEP-IE-13023 NTS



39.B SECTION DETAIL B (CHH-39)
D-DEP-IE-13023 NTS



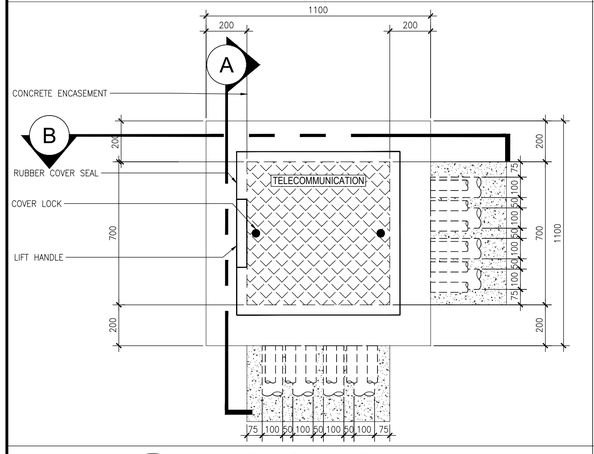
39.C SECTION DETAIL C (CHH-39)
D-DEP-IE-13023 NTS

40 MANHOLE DETAIL (CHH-40)
D-DEP-IE-13023 NTS

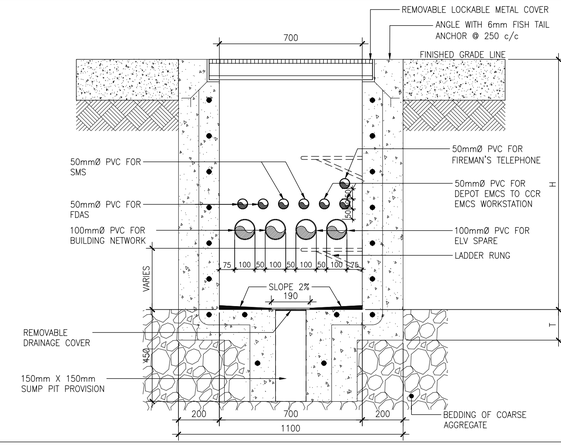
40.A SECTION DETAIL A (CHH-40)
D-DEP-IE-13023 NTS

40.B SECTION DETAIL B (CHH-40)
D-DEP-IE-13024 NTS

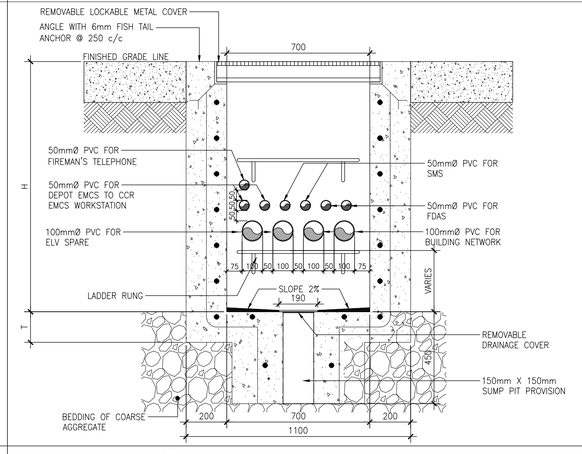
40.C SECTION DETAIL C (CHH-40)
D-DEP-IE-13023 NTS



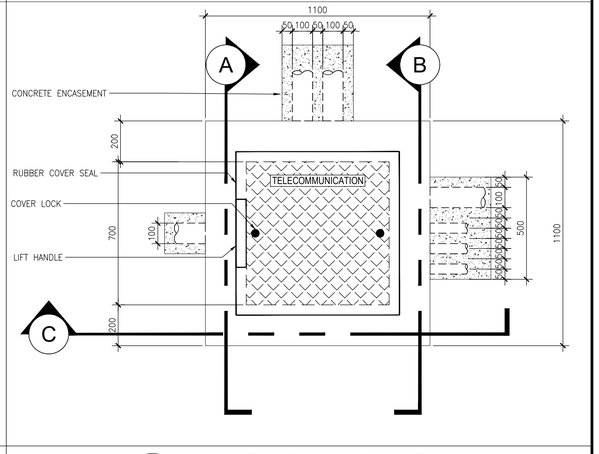
41 MANHOLE DETAIL (CHH-41)
D-DEP-IE-13023 NTS



41.A SECTION DETAIL A (CHH-41)
D-DEP-IE-13023 NTS



41.B SECTION DETAIL B (CHH-41)
D-DEP-IE-13023 NTS



42 MANHOLE DETAIL (CHH-42)
D-DEP-IE-13023 NTS

SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES MISCELLANEOUS DETAILS 12	32 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13023	A

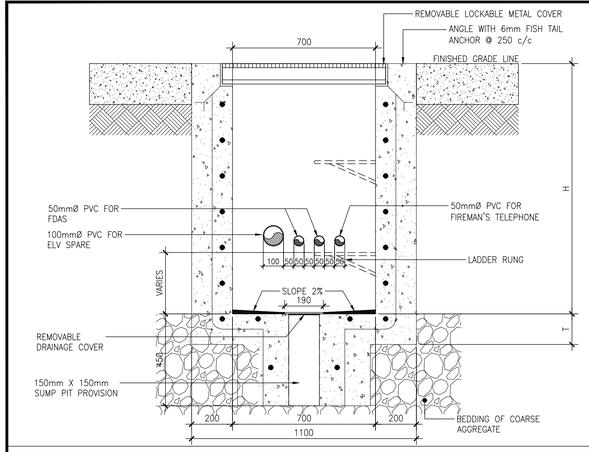
DESIGN CONTRACTOR:
PKII PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862 IAPOA NO.:
PTR NO.: 10466465 DATE: 03 JAN. 2025
PLACE: MAKATI CITY T.I.N. NO.: 157-691-905

CONCESSIONAIRE:
MRT7 SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

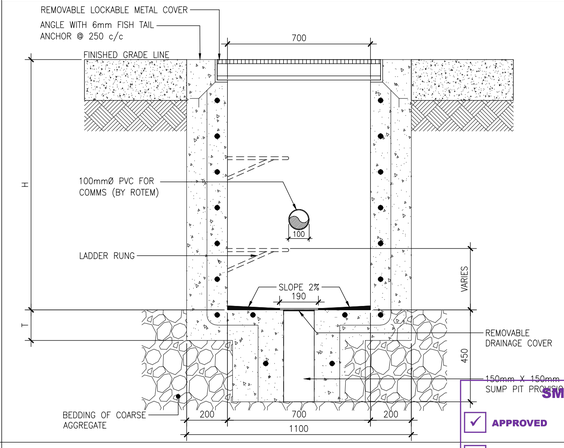
REV	DATE	MARK / DESCRIPTION	BE	PM	PD	SURVEY	GRP.SUPV.
			DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION	[illegible]	MGM	EVJ		
9	24JUL12	ISSUED FOR APPROVAL	[illegible]	MGM	EVJ		
8	23DEC13	ISSUED FOR APPROVAL	[illegible]	MGM	EVJ		
7	23NOV09	ISSUED FOR APPROVAL	[illegible]	MGM	EVJ		
6	23OCT06	ISSUED FOR APPROVAL	[illegible]	MGM	EVJ		
			ORIGINATOR			CLIENT	

REVISION HISTORY



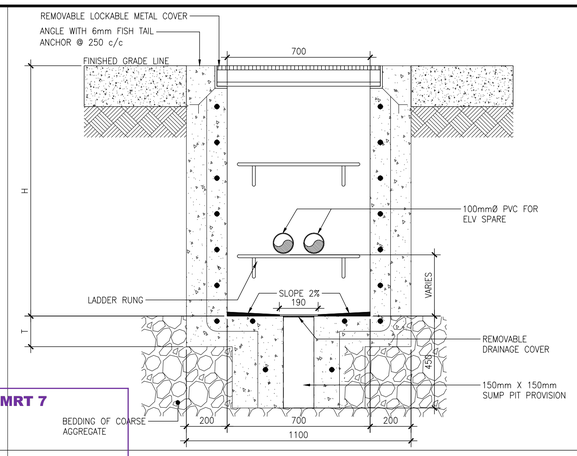
42.A SECTION DETAIL A (CHH-42)

D-DEP-IE-13023 NTS



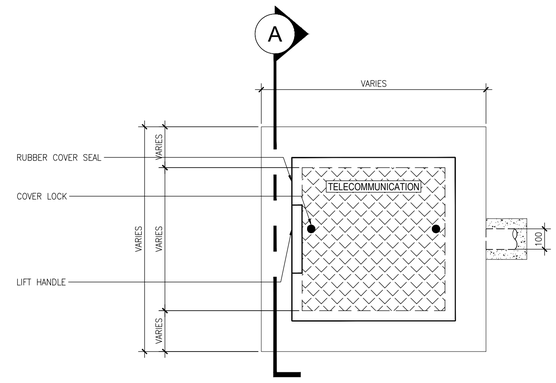
42.B SECTION DETAIL B (CHH-42)

D-DEP-IE-13023 NTS



42.C SECTION DETAIL C (CHH-42)

D-DEP-IE-13024 NTS



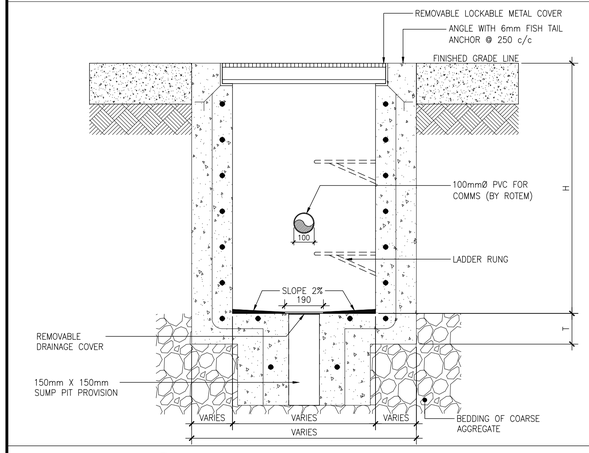
43 MANHOLE DETAIL (CHH-43)

D-DEP-IE-13024 NTS

SMC MRT 7

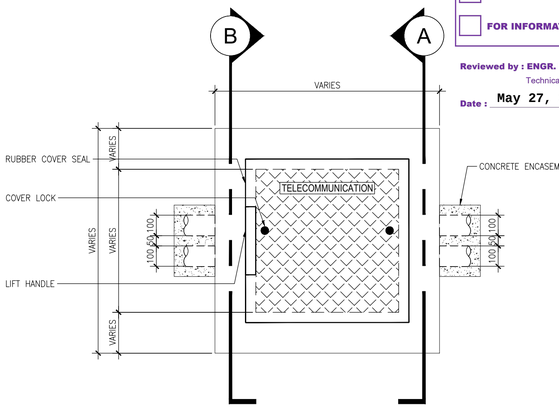
- ☑ **APPROVED**
- ☐ **APPROVED WITH COMMENTS**
- ☐ **DISAPPROVED/ RESUBMISSION**
- ☐ **DISAPPROVED FOR WORKSHOP**
- ☐ **FOR INFORMATION & REFERENCE ONLY.**

Reviewed by : ENGR. DONBY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025



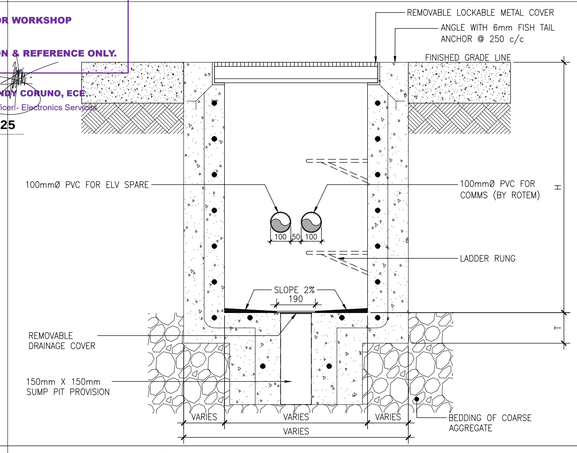
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D-DEP-IE-13024 NTS



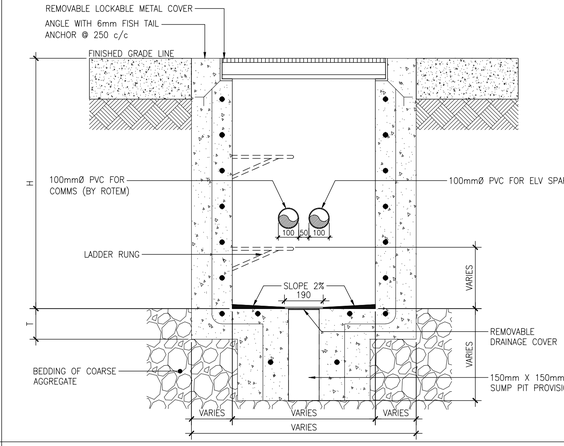
44 MANHOLE DETAIL (MH-01)

D-DEP-IE-13024 NTS



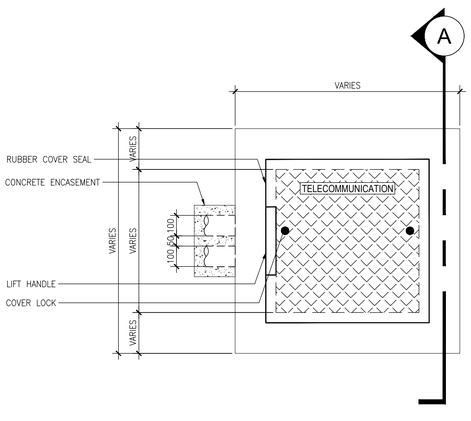
44.A SECTION DETAIL A (MH-01)

D-DEP-IE-13024 NTS



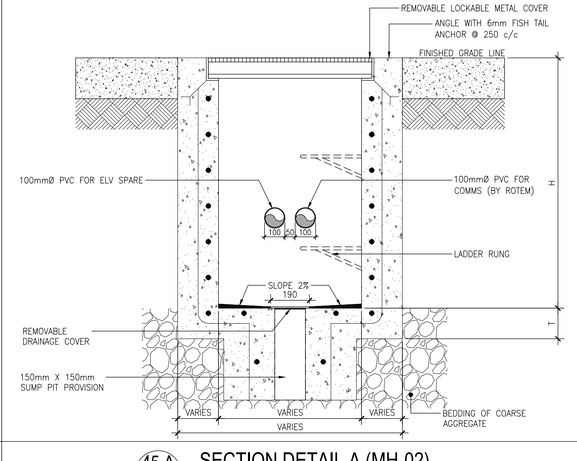
44.B SECTION DETAIL B (MH-01)

D-DEP-IE-13024 NTS



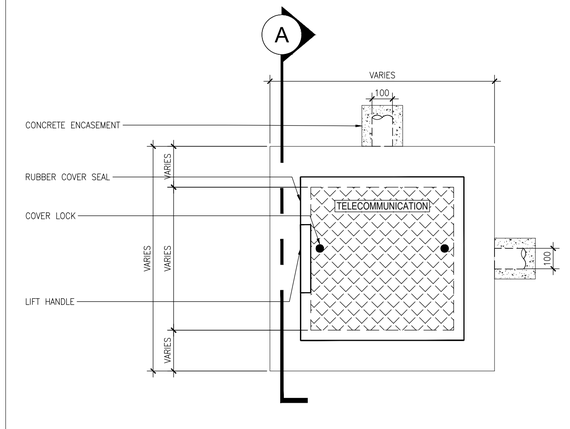
45 MANHOLE DETAIL (MH-02)

D-DEP-IE-13024 NTS



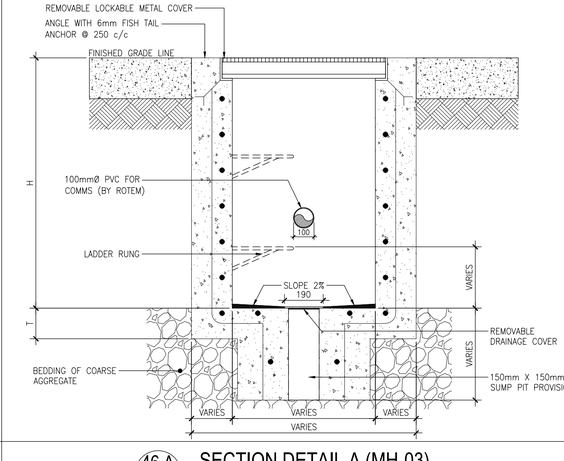
45.A SECTION DETAIL A (MH-02)

D-DEP-IE-13024 NTS



46 MANHOLE DETAIL (MH-03)

D-DEP-IE-13024 NTS



46.A SECTION DETAIL A (MH-03)

D-DEP-IE-13024 NTS

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES MISCELLANEOUS DETAILS 13	33 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13024	A

DESIGN CONTRACTOR:

PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT

ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER

PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE:

MRT 7 SMC MASS RAIL TRANSIT 7 INC.

SMC MASS RAIL TRANSIT 7 INC.

HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION

RECOMMENDING APPROVAL:

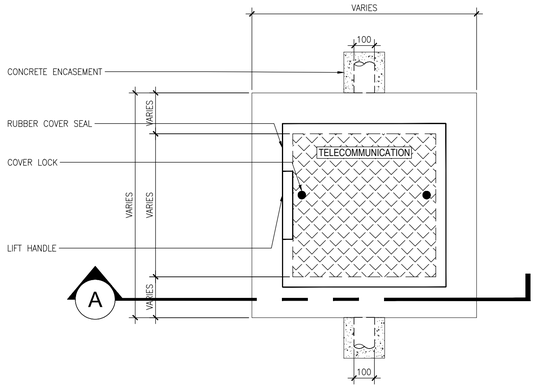
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS

APPROVED:

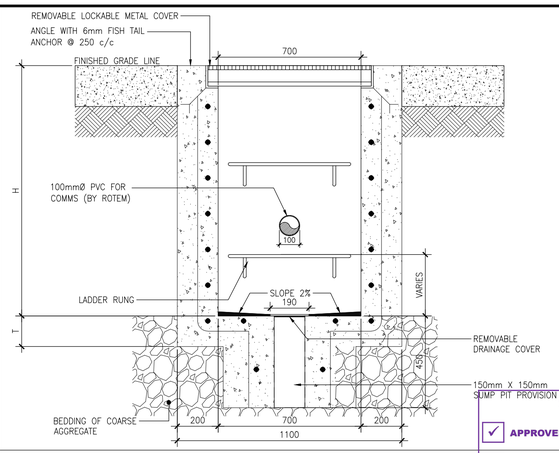
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION	[illegible]	MSM	EVJ		
10	24SEP13	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		
9	24JUL12	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		
8	23DEC13	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		
7	23NOV09	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		
			BC	PM	PD	SURVEY	GRP.SUPV.
			ORIGINATOR			CLIENT	

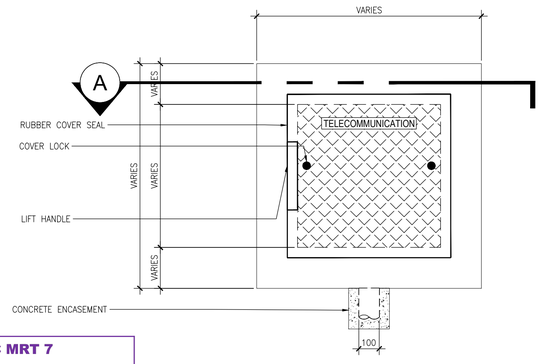
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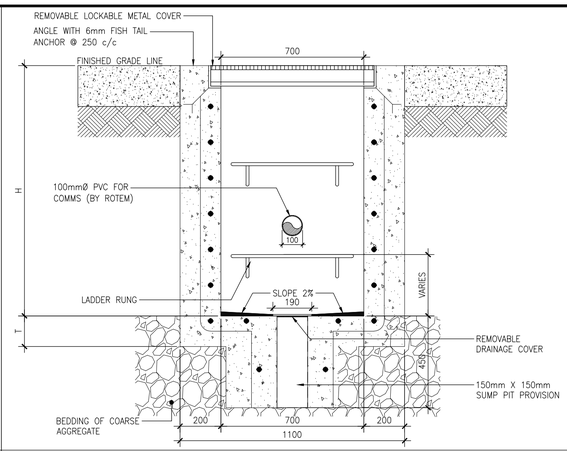
47 MANHOLE DETAIL (MH-04)
D-DEP-IE-13024 NTS



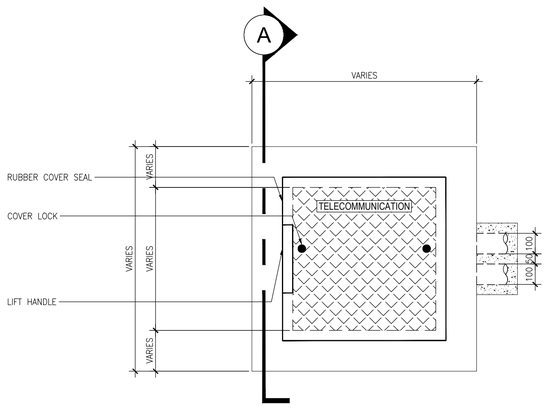
47.A SECTION DETAIL A (MH-04)
D-DEP-IE-13024 NTS



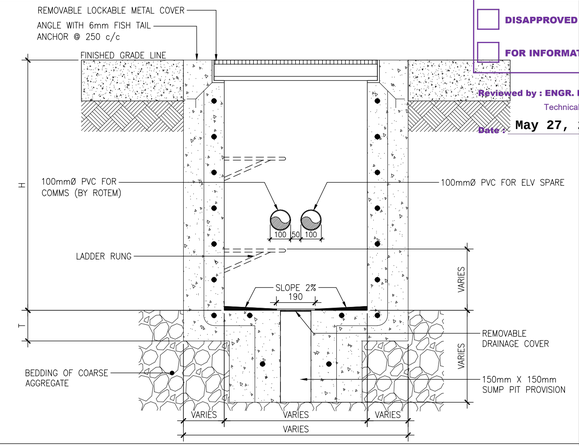
48 MANHOLE DETAIL (MH-05)
D-DEP-IE-13025 NTS



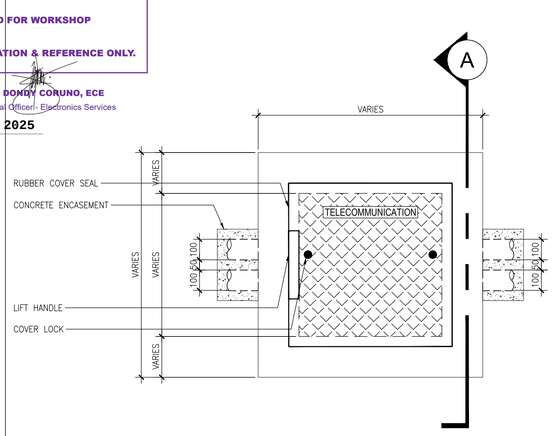
48.A SECTION DETAIL A (MH-05)
D-DEP-IE-13025 NTS



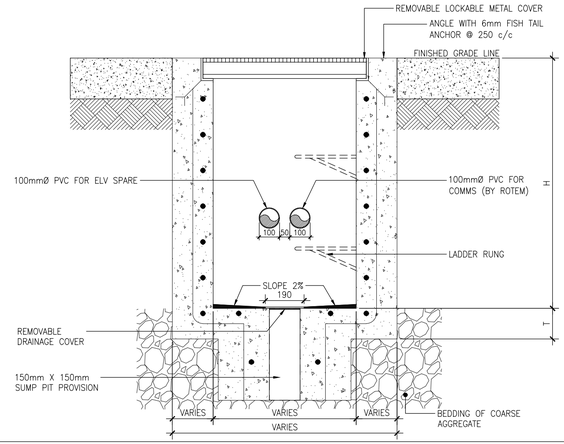
49 MANHOLE DETAIL (MH-06)
D-DEP-IE-13025 NTS



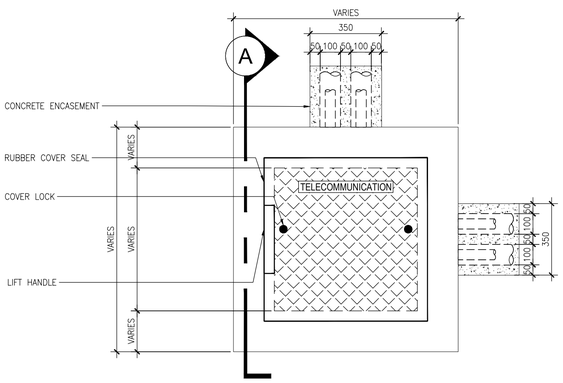
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D-DEP-IE-13025 NTS



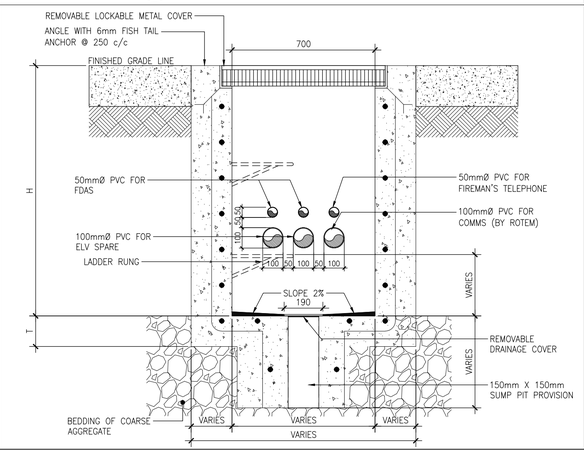
50 MANHOLE DETAIL (MH-07)
D-DEP-IE-13025 NTS



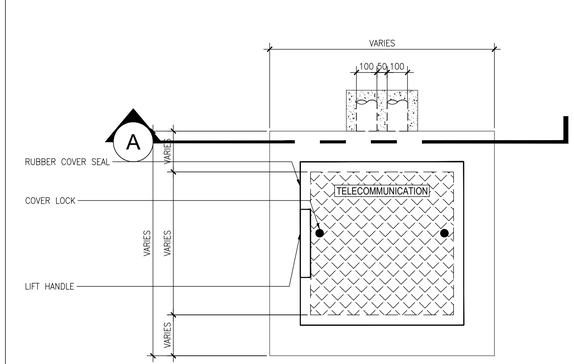
50.A SECTION DETAIL A (MH-07)
D-DEP-IE-13025 NTS



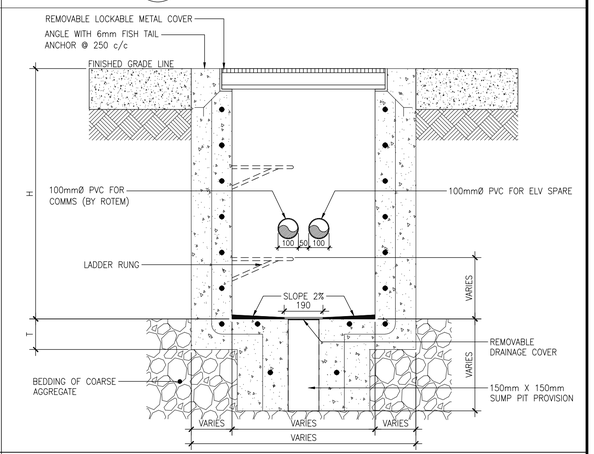
51 MANHOLE DETAIL (MH-08)
D-DEP-IE-13025 NTS



51.A SECTION DETAIL A (MH-08)
D-DEP-IE-13025 NTS



52 MANHOLE DETAIL (MH-09)
D-DEP-IE-13025 NTS



52.A SECTION DETAIL A (MH-09)
D-DEP-IE-13025 NTS

SMC MRT 7

- ☑ APPROVED
- ☐ APPROVED WITH COMMENTS
- ☐ DISAPPROVED, RESUBMISSION
- ☐ DISAPPROVED FOR WORKSHOP
- ☐ FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES MISCELLANEOUS DETAILS 14	34 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13025	A

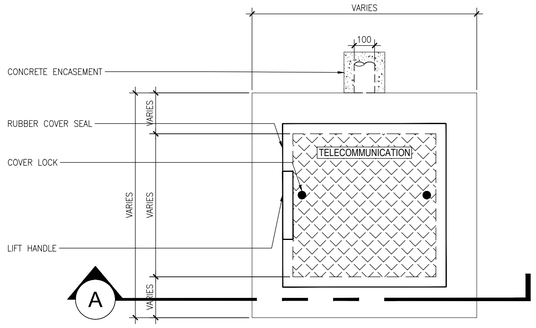
DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
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CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC. SMC INFRASTRUCTURE
SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

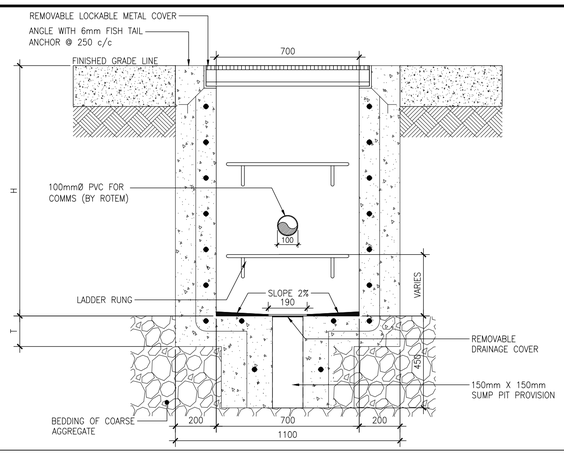
GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	PM	PD	SURVEY	GRP SUPV.
A	25APR02	ISSUED FOR CONSTRUCTION	[illegible]	MSM	EVJ		
11	24SEP13	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		
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8	23DEC13	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		
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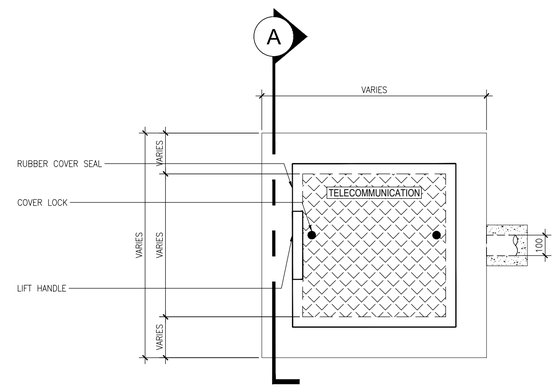
REVISION HISTORY



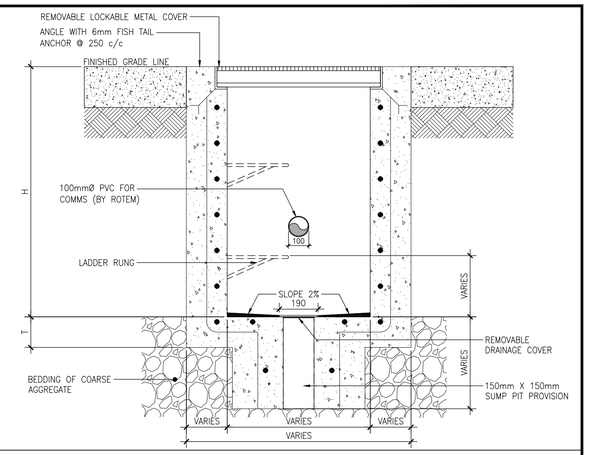
53 MANHOLE DETAIL (MH-10)
D-DEP-IE-13025 NTS



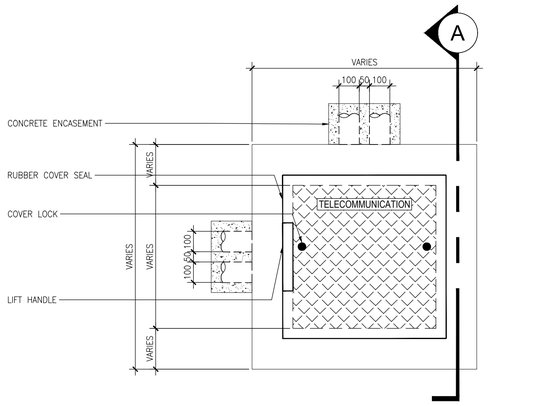
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D-DEP-IE-13025 NTS



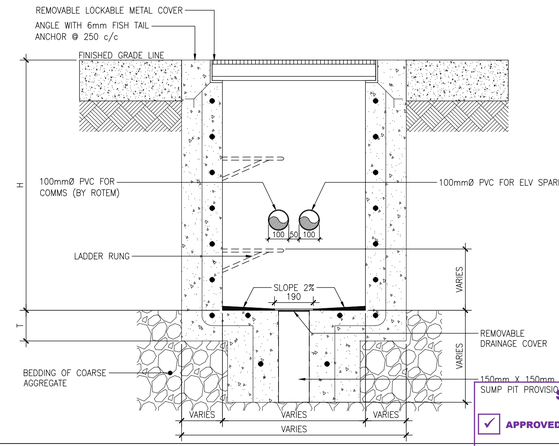
54 MANHOLE DETAIL (MH-11)
D-DEP-IE-13026 NTS



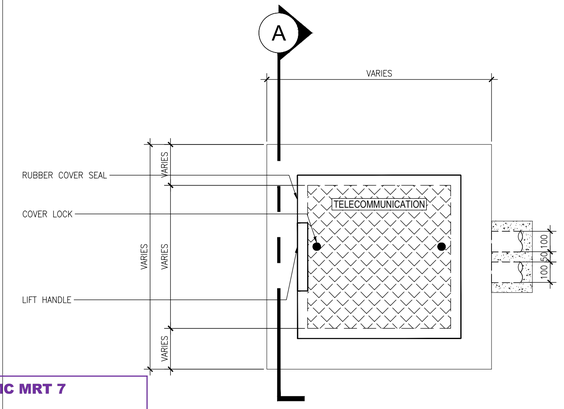
54.A SECTION DETAIL A (MH-11)
D-DEP-IE-13026 NTS



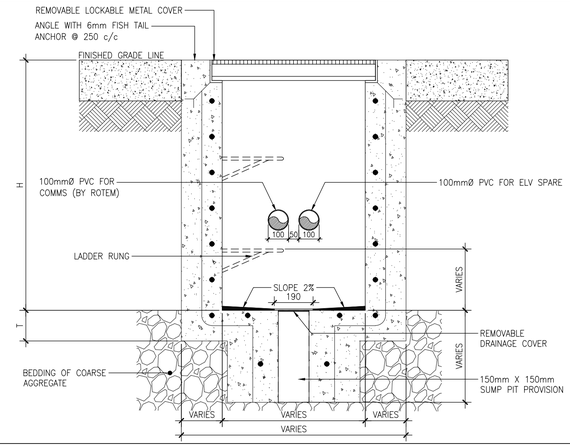
55 MANHOLE DETAIL (MH-12)
D-DEP-IE-13026 NTS



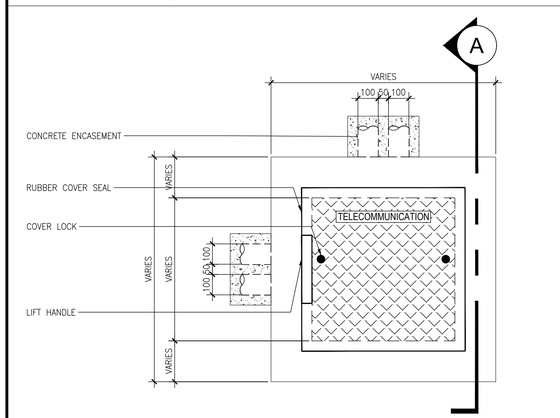
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D-DEP-IE-13026 NTS



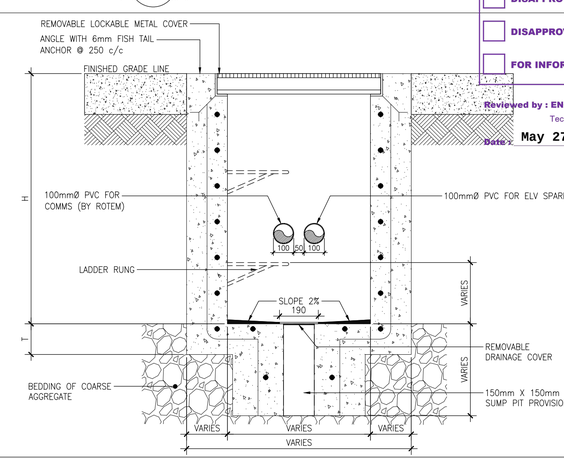
56 MANHOLE DETAIL (MH-13)
D-DEP-IE-13026 NTS



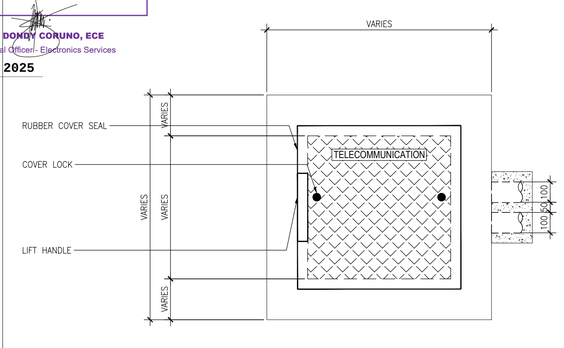
56.A SECTION DETAIL A (MH-13)
D-DEP-IE-13026 NTS



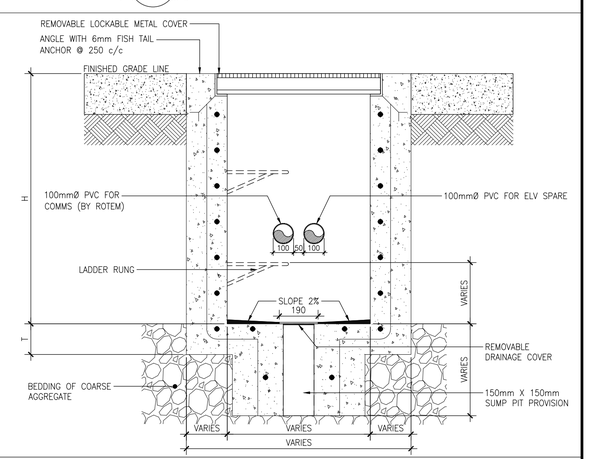
57 MANHOLE DETAIL (MH-14)
D-DEP-IE-13026 NTS



57.A SECTION DETAIL A (MH-14)
D-DEP-IE-13026 NTS



58 MANHOLE DETAIL (MH-15)
D-DEP-IE-13026 NTS



58.A SECTION DETAIL A (MH-15)
D-DEP-IE-13026 NTS

SMC MRT 7
APPROVED
APPROVED WITH COMMENTS
DISAPPROVED/ RESUBMISSION
DISAPPROVED FOR WORKSHOP
FOR INFORMATION & REFERENCE ONLY.
Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES MISCELLANEOUS DETAILS 15	35 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13026	A

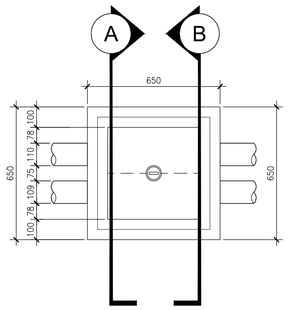
DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

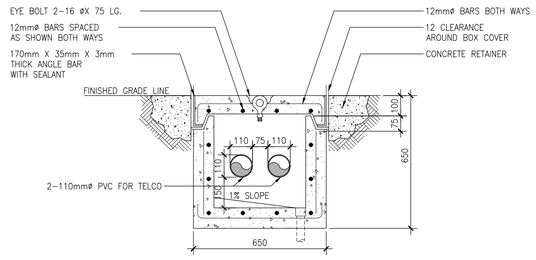
GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	PM	PD	SURVEY	DRP.SUPV.
A	25APR02	ISSUED FOR CONSTRUCTION	[illegible]	MSM	EVJ		
11	24SEP13	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		
10	24JUL12	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		
9	24JAN12	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		
8	23DEC13	ISSUED FOR APPROVAL	[illegible]	MSM	EVJ		
			CHECKED	CHECKED	CHECKED	REVIEWED	CHECKED
			ORIGINATOR			CLIENT	

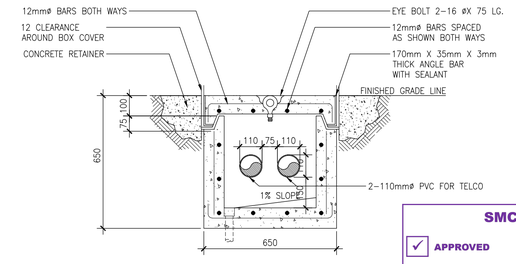
REVISION HISTORY



60 HANDHOLE DETAIL (HH-01)
D-DEP-IE-13027 NTS



60.A SECTION DETAIL A (HH-01)
D-DEP-IE-13027 NTS



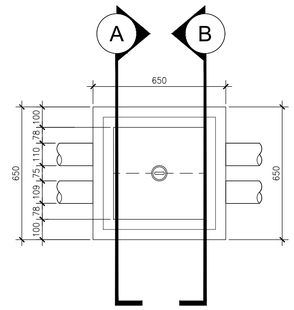
60.B SECTION DETAIL B (HH-01)
D-DEP-IE-13027 NTS

SMC MRT 7

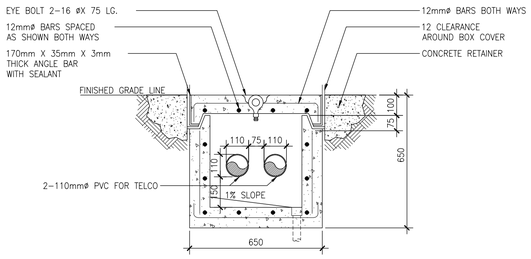
- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services

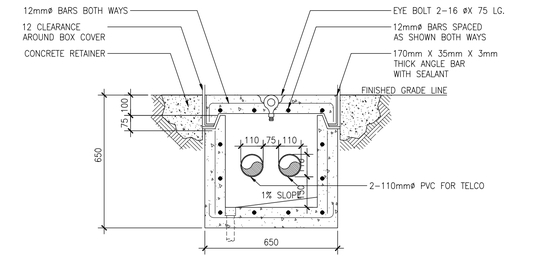
Date : May 27, 2025



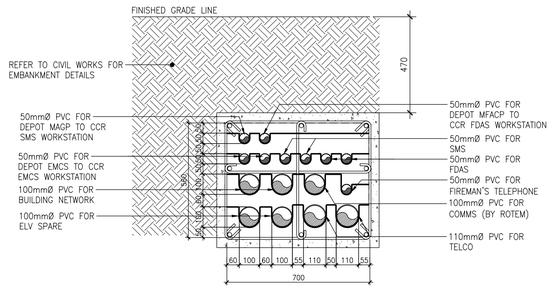
61 HANDHOLE DETAIL (HH-02)
D-DEP-IE-13027 NTS



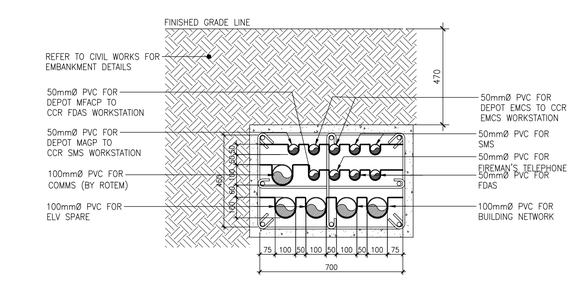
61A SECTION DETAIL A (HH-02)
D-DEP-IE-13027 NTS



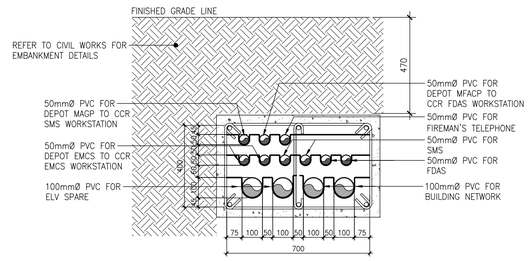
61.B SECTION DETAIL B (HH-02)
D-DEP-IE-13027 NTS



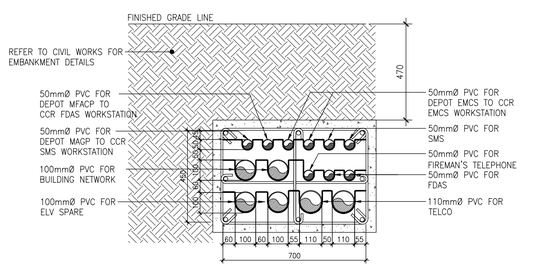
62 DUCT BANK DETAILS 1
D-DEP-IE-13027 NTS



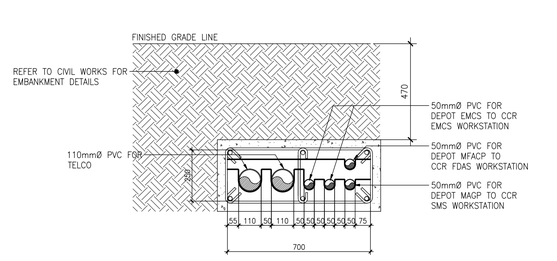
63 DUCT BANK DETAILS 2
D-DEP-IE-13027 NTS



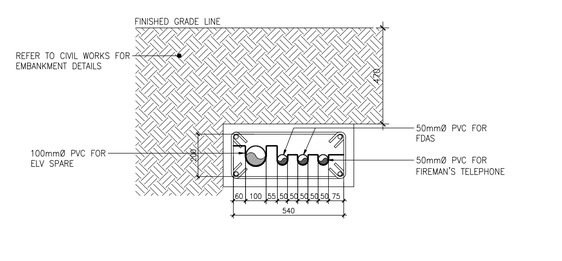
64 DUCT BANK DETAILS 3
D-DEP-IE-13027 NTS



65 DUCT BANK DETAILS 4
D-DEP-IE-13027 NTS



66 DUCT BANK DETAILS 5
D-DEP-IE-13027 NTS



67 DUCT BANK DETAILS 6
D-DEP-IE-13027 NTS

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES MISCELLANEOUS DETAILS 16	36 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13027	A

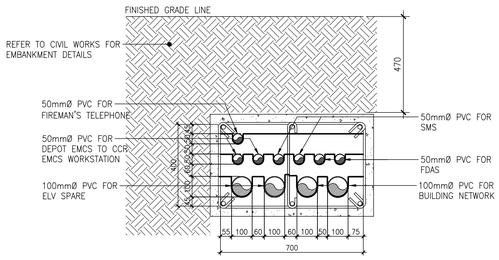
DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

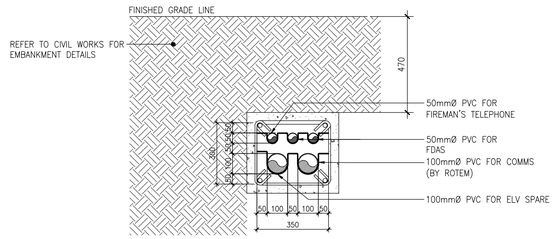
REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION	EVJ	MGM	EVJ		
10	24JUL12	ISSUED FOR APPROVAL	EVJ	MGM	EVJ		
9	24JAN12	ISSUED FOR APPROVAL	EVJ	MGM	EVJ		
8	23DEC13	ISSUED FOR APPROVAL	EVJ	MGM	EVJ		
7	23NOV09	ISSUED FOR APPROVAL	EVJ	MGM	EVJ		
			BE	PM	PD	SURVEY	GRP.SUPV.
			ORIGINATOR			CLIENT	

REVISION HISTORY



68 DUCT BANK DETAILS 7

D-DEP-IE-13028 NTS



69 DUCT BANK DETAILS 8

D-DEP-IE-13028 NTS

SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services

Date : May 27, 2025

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES MISCELLANEOUS DETAILS 17	37 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13028	A

DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEIN-HARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

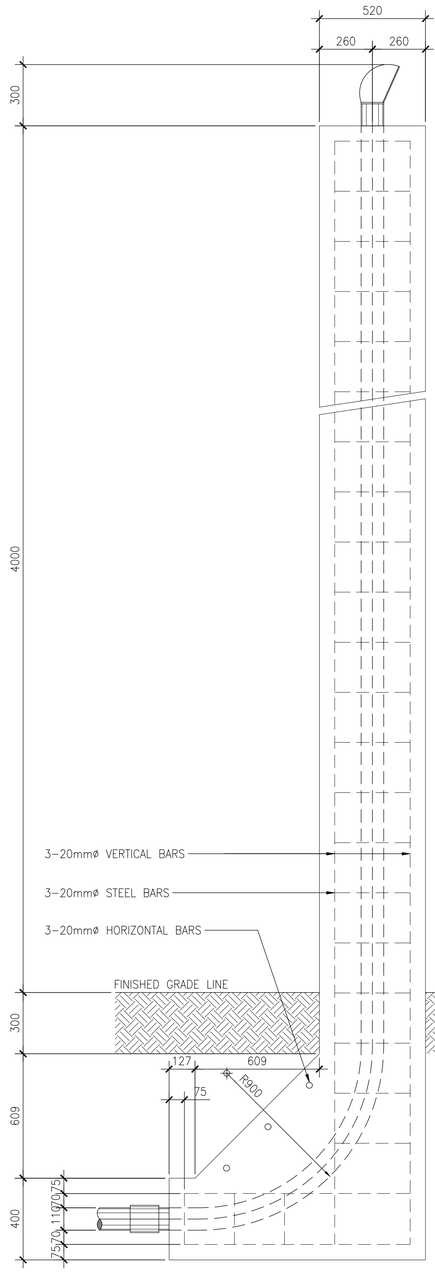
GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	BY	CHECKED	CHECKED	REVIEWED	CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION	[illegible]	VSM	EVJ		
10	24JUL12	ISSUED FOR APPROVAL	[illegible]	VSM	EVJ		
9	24JAN12	ISSUED FOR APPROVAL	[illegible]	VSM	EVJ		
8	23DEC13	ISSUED FOR APPROVAL	[illegible]	VSM	EVJ		
7	23NOV09	ISSUED FOR APPROVAL	[illegible]	VSM	EVJ		
			DRAWN BY	PM CHECKED	PD CHECKED	SURVEY REVIEWED	GRP.SUPV. CHECKED
			ORIGINATOR			CLIENT	

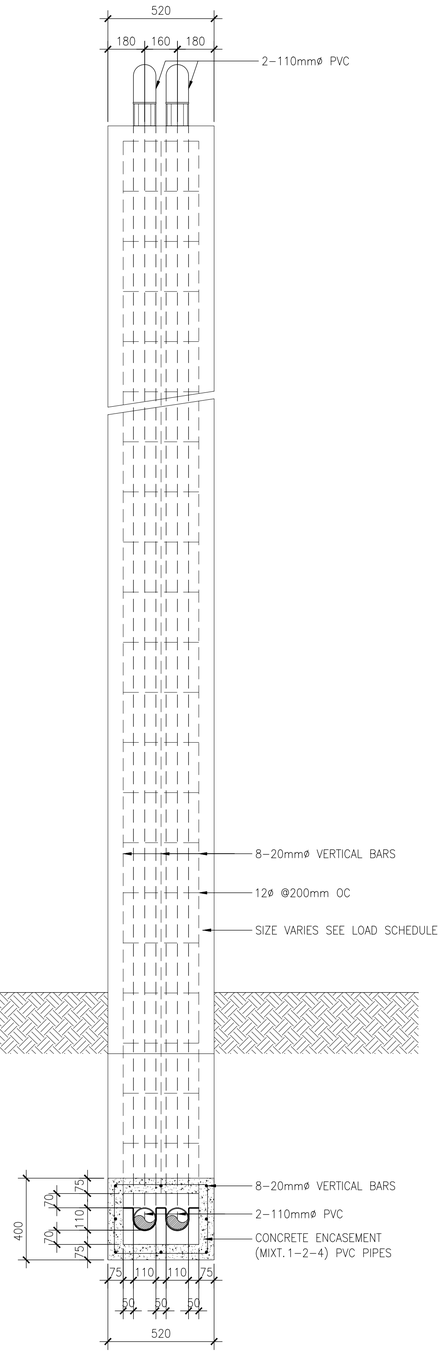
REVISION HISTORY



SECTION



SIDE ELEVATION



FRONT ELEVATION

SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer I- Electronics Services
Date : May 27, 2025

1
NTS

TELCO SERVICE ENTRANCE/CONCRETE PEDESTAL DETAILS

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES MISCELLANEOUS DETAILS 18	38 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY– SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13029	A

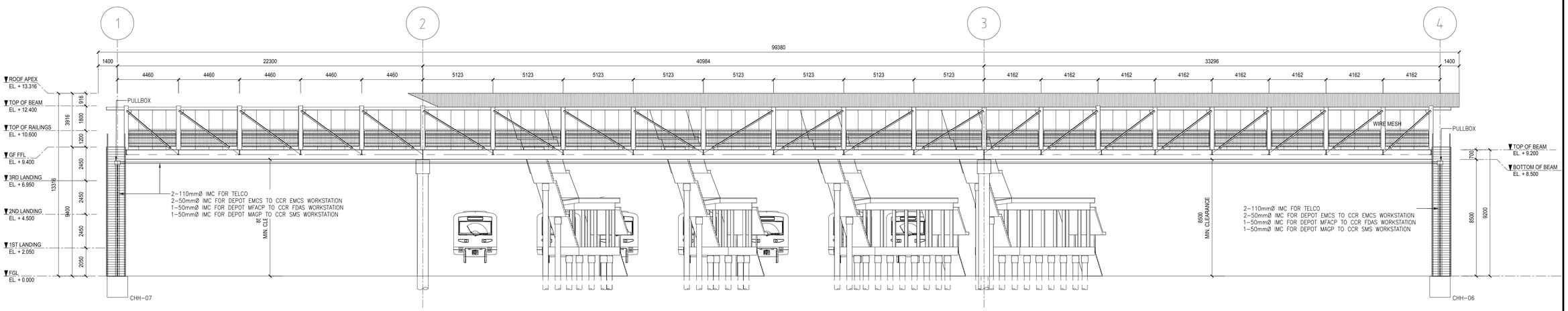
DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

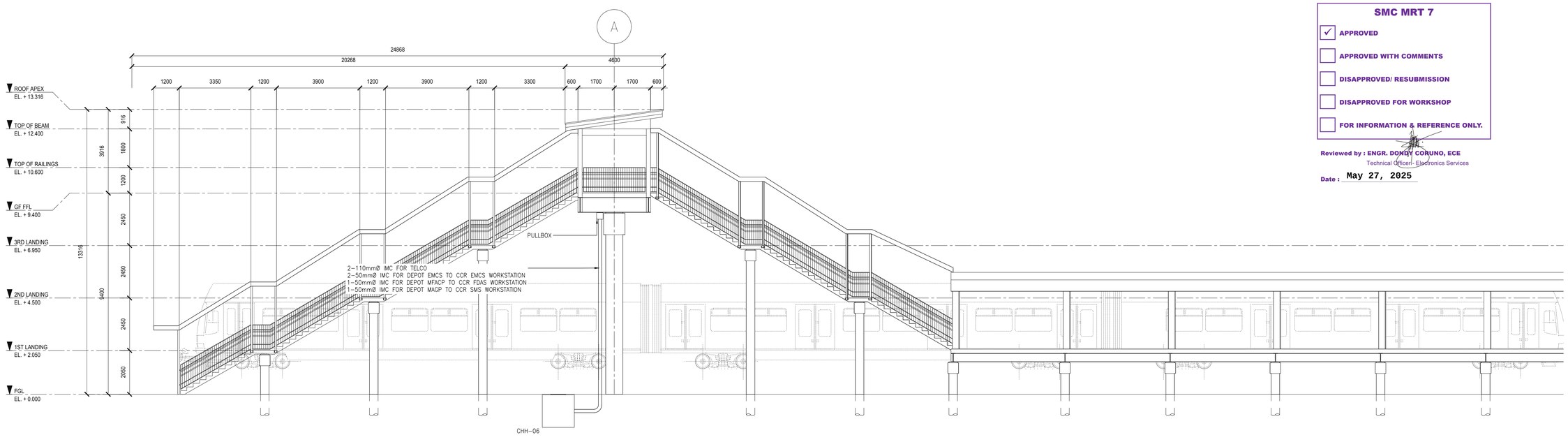
REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION	EVJ/RAC/...	MSM	...ECU		
2	22OCT10	ISSUED FOR APPROVAL	EVJ/RAC/...	MSM	...ECU		
1	22JUN03	ISSUED FOR APPROVAL	EVJ/RAC/...	MSM	...ECU		
0	22APR27	ISSUED FOR APPROVAL	EVJ/RAC/...	MSM	...ECU		
			RE	PM	PD	SURVEY	GRP.SUPV.
			ORIGINATOR			CLIENT	

REVISION HISTORY



1
150

FRONT ELEVATION- PEDESTRIAN WALKWAY



SMC MRT 7

- [x] APPROVED
- [ ] APPROVED WITH COMMENTS
- [ ] DISAPPROVED/ RESUBMISSION
- [ ] DISAPPROVED FOR WORKSHOP
- [ ] FOR INFORMATION & REFERENCE ONLY.

Reviewed by : ENGR. DONDY CORUNO, ECE
Technical Officer- Electronics Services
Date : May 27, 2025

2
100

RIGHT SIDE ELEVATION- PEDESTRIAN WALKWAY

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
THE MRT 7 PROJECT	SITE DEVELOPMENT PLAN ELECTRONICS SERVICES MISCELLANEOUS DETAILS 19	39 OF 39
LOCATION:	DWG. NO:	REV. NO.
QUEZON CITY- SAN JOSE DEL MONTE BULACAN	D-DEP-IE-13030	A

DESIGN CONTRACTOR:
PHILKOEI INTERNATIONAL, INC. CONSULTANTS • PLANNERS • ENGINEERS *In association with* MEINHARDT
ERWIN V. JUNASA
PROFESSIONAL ELECTRONICS ENGINEER
PRC NO.: 862
PTR NO.: 10466465
PLACE: MAKATI CITY
IAPOA NO.:
DATE: 03 JAN. 2025
T.I.N. NO.: 157-691-905

CONCESSIONAIRE:
MRT 7 SMC MASS RAIL TRANSIT 7 INC.
SMC MASS RAIL TRANSIT 7 INC.
HYUNG-WOOK KIM
PROJECT DIRECTOR

GRANTOR:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
RECOMMENDING APPROVAL:
JORJETTE B. AQUINO
PROJECT MANAGER/ ASSISTANT SECRETARY FOR RAILWAYS
APPROVED:
JEREMY S. REGINO
UNDERSECRETARY FOR RAILWAYS

REV	DATE	MARK / DESCRIPTION	DRAWN BY	CHECKED	CHECKED	REVIEWED	CHECKED
A	25APR02	ISSUED FOR CONSTRUCTION					
3	24MAR27	ISSUED FOR APPROVAL					
2	23NOV09	ISSUED FOR APPROVAL					
1	23OCT06	ISSUED FOR APPROVAL					
0	23JUN20	ISSUED FOR APPROVAL					
			BE	PM	PD	SURVEY	GRP.SUPV.
			ORIGINATOR			CLIENT	

REVISION HISTORY