REPUBLIC OF THE PHILIPPINES

DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

BUREAU OF DESIGN

BUILDINGS DIVISION

BONIFACIO DRIVE PORT AREA, MANILA

PROJECT TITLE:

PROPOSED

STANDARD MULTI-PURPOSE/ EVACUATION CENTER

(OPTION 2)

(FOR WIND VELOCITY OF 270KPH & EXPOSURE B)

SUBMITTED:

10/18/2019

JOSEPHINE P. ISTURIS

CHIEF, BUILDINGS DIVISION, BUREAU OF DESIGN

RECOMMENDING APPROVAL:

ARISTARCO M. DOROY

OFFICER-IN-CHARGE, BUREAU OF DESIGN

OCT 21 2019

APPROVED:

EMIL K. SADAIN, CESO I

UNDERSECRETARY

FOR UPMO OPERATIONS & TECHNICAL SERVICES, DPWH

CONCURRED:

JAMES PATRICK R. BONDOC

VICE PRESIDENT

CORPORATE SOCIAL RESPONSIBILITY

BD-19-BRN-4082

REPUBLIC OF THE PHILIPPINES
OFFICE OF THE MUNICIPAL
ENGINEER / BUILDING OFFICIAL

DISTRICT / CITY / MUNICIPALITY

LAND USE AND ZONING

LINE AND GRADE

ARCHITECTURAL

STRUCTURAL

SANITARY/ PLUMBING

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SHEET CONTENTS:
LONGITUDINAL SECTION
CROSS SECTION
BAY SECTION - 1
SCHEDULE OF FINISHES

ARCHITECTURAL CONCEPT:
ARCHITECTURAL SECTION
CADD: **GINO PAOLO L. VILLANUEVA**
ARCHITECT II
CHECKED: **FRANCIS G. SERRANO**
ARCHITECT IV

SUBMITTED:
JOSEPHINE P. ISTURIS
CHIEF, BUILDINGS DIVISION

RECOMMENDING APPROVAL:
SEE COVER SHEET FOR SIGNATURE
ARISTARCO M. DOROY
OFFICER-IN-CHARGE
BUREAU OF DESIGN
OCT 23 2019

APPROVED:
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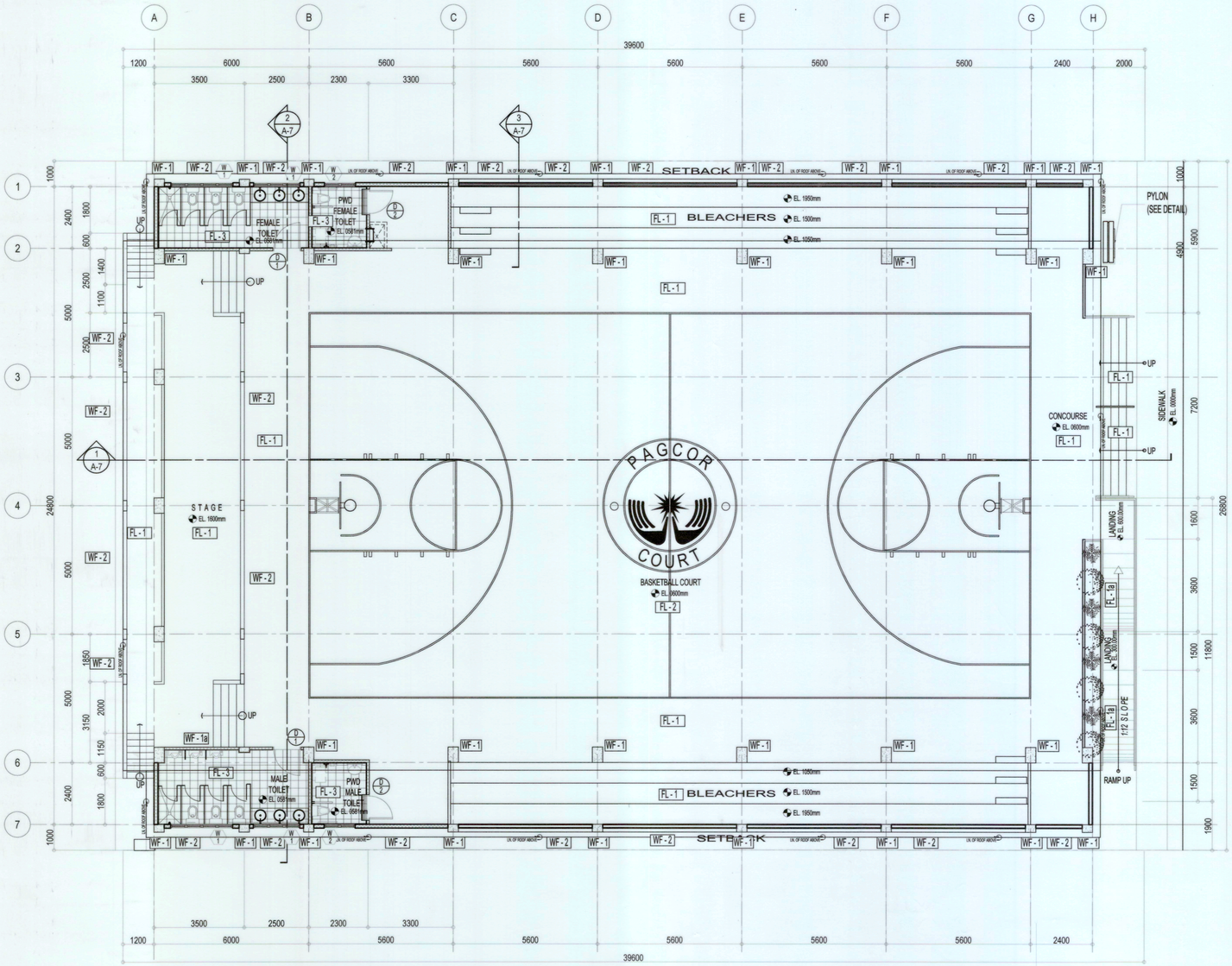
EMIL K. SADAIN, CESO I
UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

CONCURRED:
SEE COVER SHEET FOR SIGNATURE AND APPROVAL
JAMES PATRICK R. BONDOC
VICE PRESIDENT
CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD B

SHEET NO.: A-1 12 30

BD-19-BRN-4882



1 / A-2 **GROUND FLOOR PLAN** (OPTION 2)
SCALE 1:100 MTS.

SCHEDULE OF FINISHES

WALL FINISH	DESCRIPTION
WF - 1	PLAIN CEMENT PLASTER PAINTED FINISH W/ 50mm X 50mm HORIZONTAL GROOVE LINES SPACED @ 300mm O.C. (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
WF - 2	10/150mmTHK. CHB WALL W/ PLAIN CEMENT PLASTER FINISH (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
WF - 3	300mm X 300mm VITRIFIED WALL TILES (SIZE OR COLOR FOR APPROVAL OF END-USER), TYPICAL ON ALL TOILET WALLS
WF - 4	ALUMINUM METAL CLADDING (REFER TO MANUFACTURER'S SPECIFICATION)
FLOOR FINISH	**DESCRIPTION**
FL - 1	NON-SKID PLAIN CEMENT FINISH
FL - 1a	NON-SKID PLAIN CEMENT FINISH W/ 6mm HORIZONTAL GROOVE LINES (SEE RAMP DETAILS)
FL - 2	PLAIN CEMENT FINISH W/ FLOOR HARDENER MARKING SIDELINE / BASELINE PAINTED FINISH (SUBMIT SAMPLE FOR END-USERS APPROVAL)
FL - 3	300mm X 300mm UNGLAZED CERAMIC FLOOR TILES (SIZE AND COLOR FOR APPROVAL BY THE END-USER)
FL - 4	CANOPY/ R.C. GUTTER/ ROOF DECK (PROVIDE INTEGRATED WATER-PROOFING MEMBRANE)
HANDRAIL	**DESCRIPTION**
HR - 1	50mm Ø STAINLESS STEEL PIPE HANDRAIL (1 @ 900mm HIGH, 1 @ 700mm HIGH FROM THE RAMP FLOOR LINE) FULLY WELDED ON 50mm Ø STAINLESS STEEL VERTICAL RAILING SUPPORT SPACED @ 600mm O.C.)
HR - 2	50mm Ø G.I. PIPE HANDRAIL, FULLY WELDED IN 50mmØ STAINLESS STEEL VERT. RAIL SUPPORT EMBEDDED IN 100mm X 900mm HIGH PARAPET WALL
GRAB BAR	**DESCRIPTION**
GB - 1	38mm Ø STAINLESS STEEL L-TYPE GRAB BAR (SUBMIT SAMPLES FOR ARCHITECT'S APPROVAL)
GB - 2	38mm Ø STAINLESS STEEL FLIP UP, PULL-DOWN GRAB BAR (SUBMIT SAMPLES FOR ARCHITECT'S APPROVAL)
FACIAL MIRROR	**DESCRIPTION**
FM - 1	3mm THK. FACIAL MIRROR IN 50mm X 50mm VERT. AND HOR. WOODEN FRAME
FM - 2	3mm THK. TILTED FACIAL MIRROR
CEILING FINISH	**DESCRIPTION**
CF - 1	4.5mm THK. MOISTURE-RESISTANT FIBER CEMENT BOARD, PAINTED FINISH (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
CF - 2	EXPOSED R.C./ UNDERSLAB/ BEAM SOFFIT/ ROOF TRUSSES, PAINTED FINISH (PROVIDE PRIMER FOR ROOF TRUSSES)
REMARKS (CEILING FINISH)	
	ON 0.8mm THK. X 19mm X 50mm X 5000mm METAL DOUBLE FURRING CHANNEL @ 400mm O.C. BOTHWAYS W/ 0.8mm THK. X12mm X38mm X5000mm METAL CARRYING CHANNEL @ 600mm O.C. BOTHWAYS & ROD JOINER(HANGER/SUPPORT) @ 600mm O.C. BOTHWAYS *(TYPICAL ON ALL ROOMS)*
TOILET PARTITION	**DESCRIPTION**
TP - 1	25mm THK. LAMINATED PHENOLIC PARTITION BD. (SUBMIT SAMPLES FOR END-USER'S APPROVAL)
ROOFING	**DESCRIPTION**
RF - 1	0.50mm THK. (BASE METAL THICKNESS) PRE-PAINTED RIB-TYPE ROOFING SHEET (LONG SPAN) PROVIDE 6mm THK. BUBBLE-TYPE FLEXIBLE THERMAL ROOFING INSULATION W/ 2-SIDED ALUMINUM FOIL
NOTES:	
	- REFER TO STRUCTURAL FOR SIZES OF BEAMS - HINGED SEAT SHALL BE MADE OF SELF DRAINING AND NON-SLIP MATERIAL (PWD TOILETS) - TELEPHONE-TYPE SHOWER W/ AT LEAST 1500m LENGTH SHALL BE USED IN ALL PWD TOILETS

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SHEET CONTENTS:
GROUND FLOOR PLAN (OPTION 2)
SCHEDULE OF FINISHES

ARCHITECTURAL CONCEPT:
ARCHITECTURAL SECTION
CADD: GINO PAOLO L. VILLANUEVA
ARCHITECT II
CHECKED: FRANCIS G. SERRANO
ARCHITECT IV

SUBMITTED:
JOSEPHINE P. ISTURIS
CHIEF, BUILDINGS DIVISION

RECOMMENDING APPROVAL:
SEE COVER SHEET FOR SIGNATURE
ARISTARCO M. DOROY
OFFICER-IN-CHARGE
BUREAU OF DESIGN
OCT 23 2019

APPROVED:
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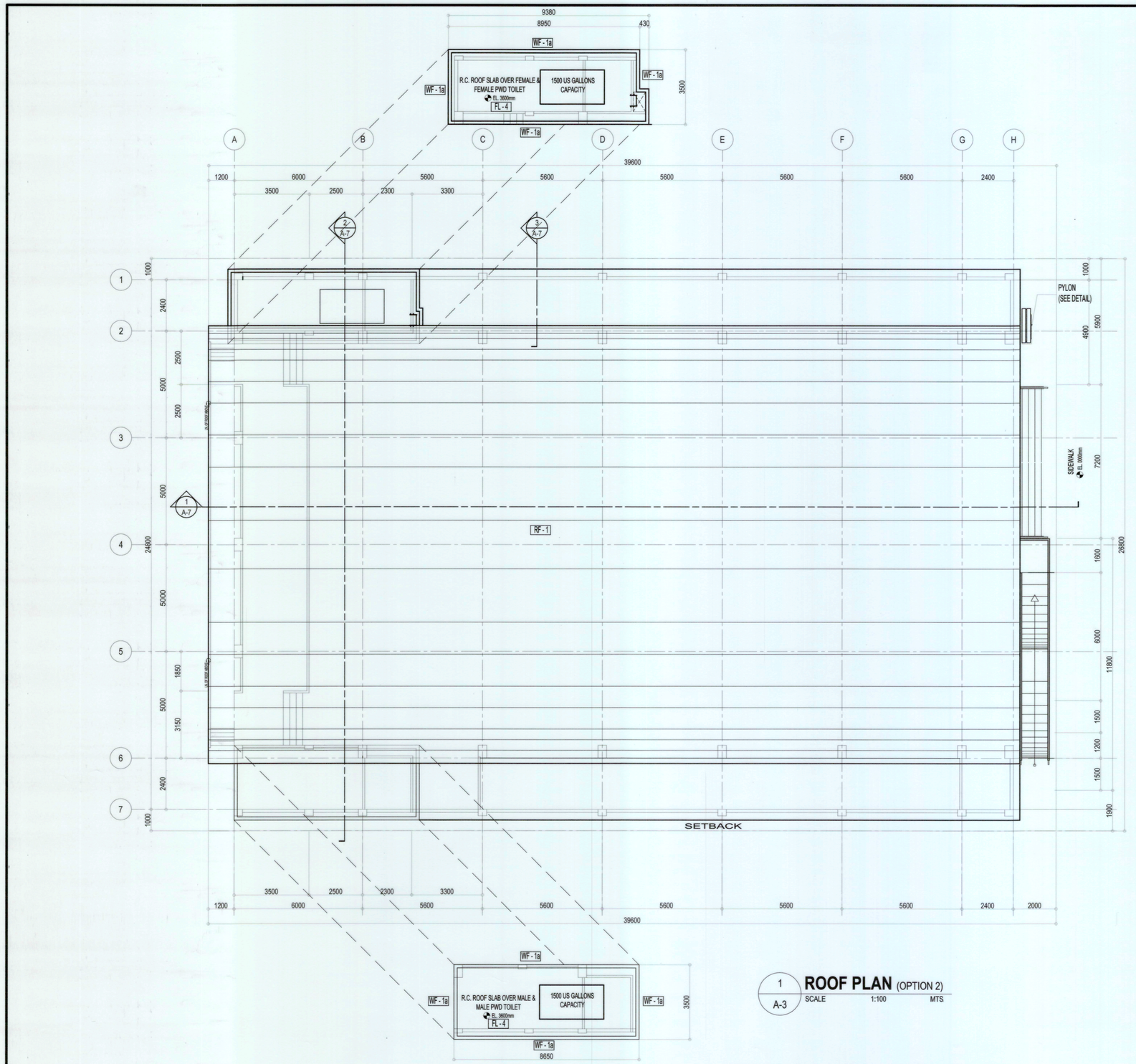
EMIL K. SADAIN, CESO I
UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

CONCURRED:
SEE COVER SHEET FOR SIGNATURE AND APPROVAL
JAMES PATRICK R. BONDOC
VICE PRESIDENT
CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD B
SHEET NO.: A-2 12 30



1 / A-3 **ROOF PLAN** (OPTION 2)
SCALE 1:100 MTS

SCHEDULE OF FINISHES

WALL FINISH	DESCRIPTION
WF - 1	PLAIN CEMENT PLASTER PAINTED FINISH W/ 50mm X 50mm HORIZONTAL GROOVE LINES SPACED @ 300mm O.C. (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
WF - 2	10/150mmTHK. CHB WALL W/ PLAIN CEMENT PLASTER FINISH (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
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FL - 1a	NON-SKID PLAIN CEMENT FINISH W/ 6mm HORIZONTAL GROOVE LINES (SEE RAMP DETAILS)
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FACIAL MIRROR	**DESCRIPTION**
FM - 1	3mm THK. FACIAL MIRROR IN 50mm X 50mm VERT. AND HOR. WOODEN FRAME
FM - 2	3mm THK. TILTED FACIAL MIRROR
CEILING FINISH	**DESCRIPTION**
CF - 1	4.5mm THK. MOISTURE-RESISTANT FIBER CEMENT BOARD, PAINTED FINISH (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
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ON 0.8mm THK. X 19mm X 50mm X 5000mm METAL DOUBLE FURRING CHANNEL @ 400mm O.C. BOTHWAYS W/ 0.8mm THK. X12mm X38mm X5000mm METAL CARRYING CHANNEL @ 600mm O.C. BOTHWAYS & ROD JOINER(HANGER/SUPPORT) @ 600mm O.C. BOTHWAYS *(TYPICAL ON ALL ROOMS)*	
TOILET PARTITION	**DESCRIPTION**
TP - 1	25mm THK. LAMINATED PHENOLIC PARTITION BD. (SUBMIT SAMPLES FOR END-USER'S APPROVAL)
ROOFING	**DESCRIPTION**
RF - 1	0.50mm THK. (BASE METAL THICKNESS) PRE-PAINTED RIB-TYPE ROOFING SHEET (LONG SPAN) PROVIDE 6mm THK. BUBBLE-TYPE FLEXIBLE THERMAL ROOFING INSULATION W/ 2-SIDED ALUMINUM FOIL
NOTES:	
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SHEET CONTENTS:
ROOF PLAN (OPTION 2)
SCHEDULE OF FINISHES

ARCHITECTURAL CONCEPT:
ARCHITECTURAL SECTION
CADD:
GINO PAOLO L. VILLANUEVA
ARCHITECT II
CHECKED:
FRANCIS G. SERRANO
ARCHITECT IV

SUBMITTED:
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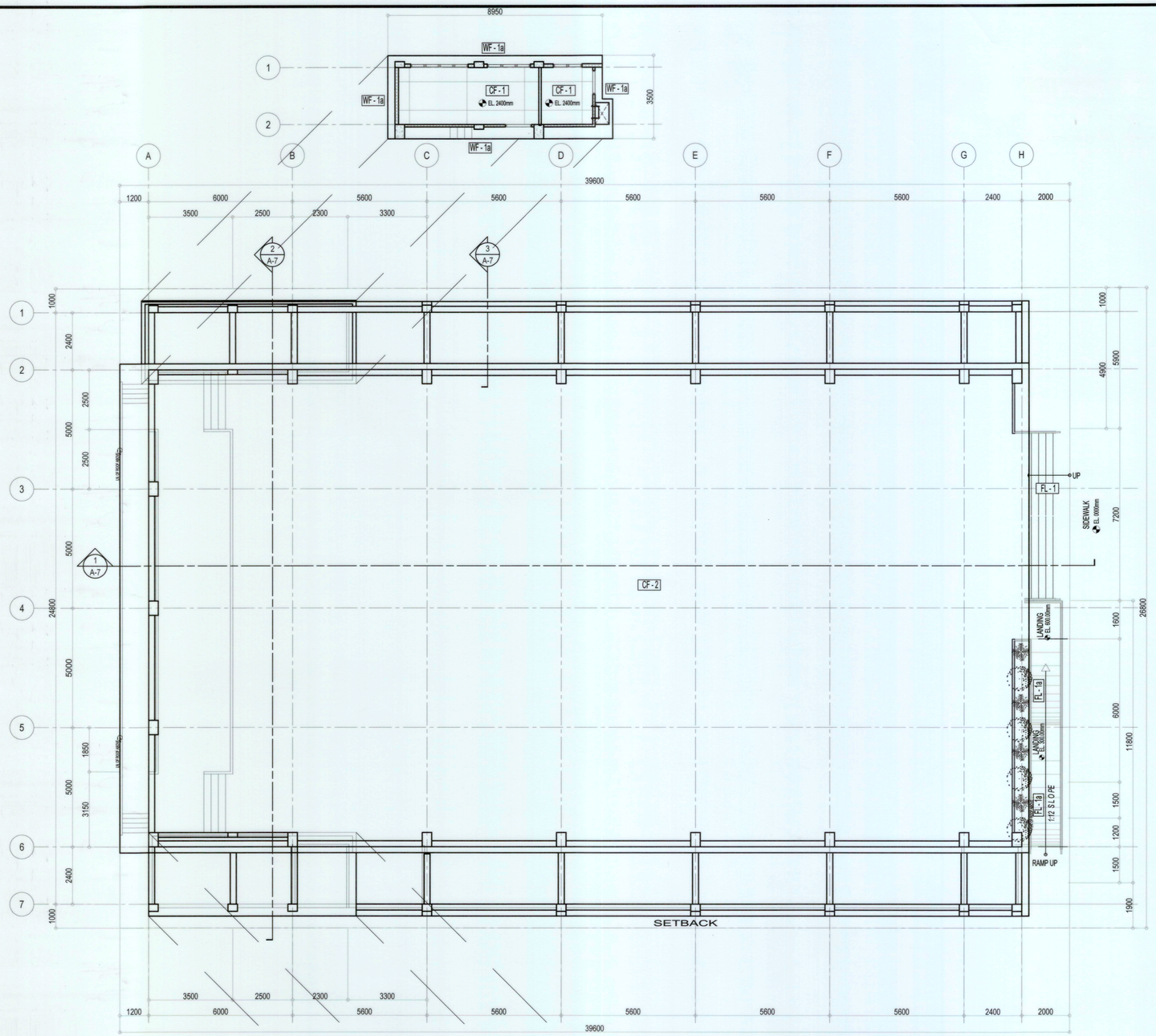

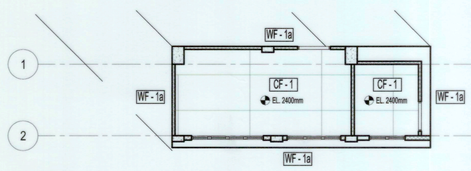

1 / A-4 **REFLECTED CEILING PLAN @ GROUND FLOOR** (OPTION 2)

SCALE 1:100 MTS.

SCHEDULE OF FINISHES

WALL FINISH	DESCRIPTION
WF - 1	PLAIN CEMENT PLASTER PAINTED FINISH W/ 50mm X 50mm HORIZONTAL GROOVE LINES SPACED @ 300mm O.C. (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
WF - 2	10'150mmTHK. CHB WALL W/ PLAIN CEMENT PLASTER FINISH (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
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CEILING FINISH	**DESCRIPTION**
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TOILET PARTITION	**DESCRIPTION**
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ROOFING	**DESCRIPTION**
RF - 1	0.50mm THK. (BASE METAL THICKNESS) PRE-PAINTED RIB-TYPE ROOFING SHEET (LONG SPAN) PROVIDE 6mm THK. BUBBLE-TYPE FLEXIBLE THERMAL ROOFING INSULATION W/ 2-SIDED ALUMINUM FOIL
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ARCHITECTURAL CONCEPT:
ARCHITECTURAL SECTION
CADD:
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ARCHITECT II
CHECKED:
FRANCIS G. SERRANO
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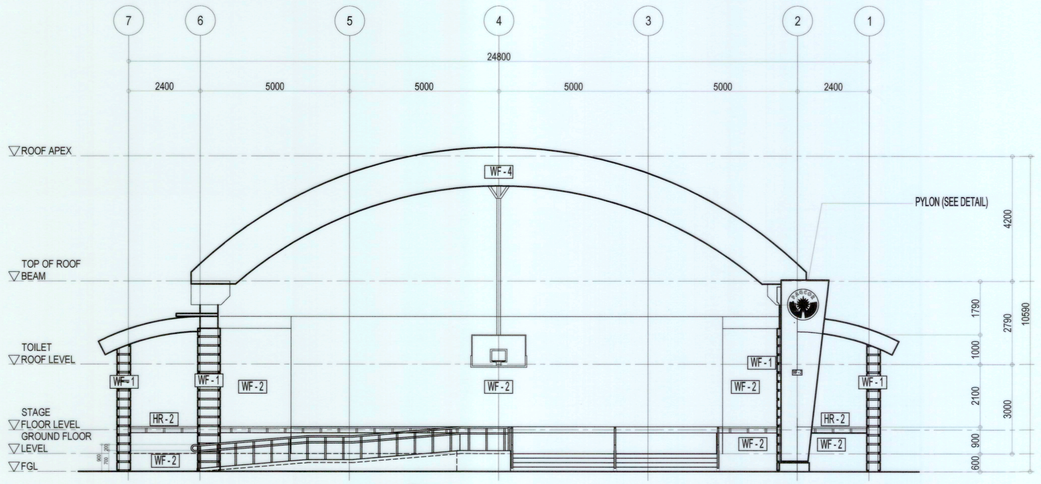
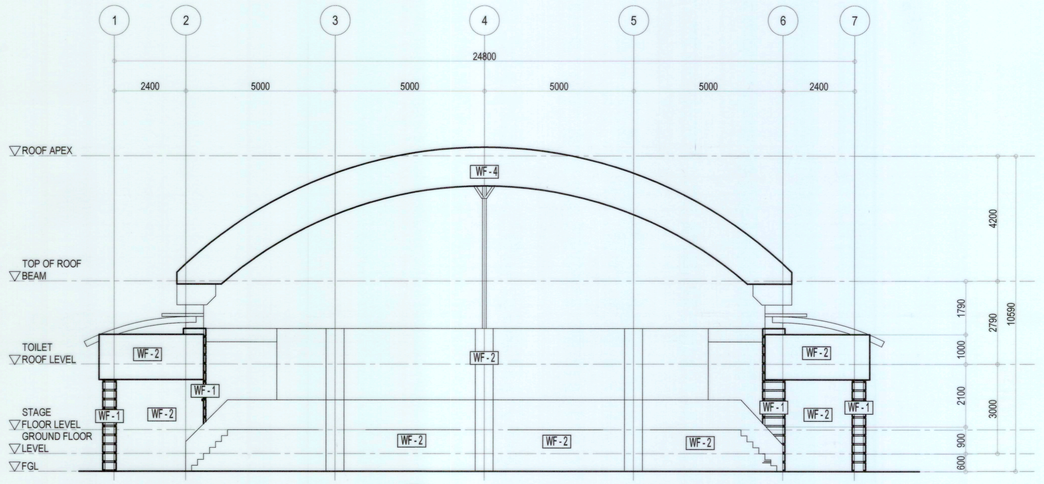
VICE PRESIDENT
CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD / B

SHEET NO.: A-4 / 12 / 30



1 / A-5 **FRONT ELEVATION**
SCALE 1:100 MTS.



2 / A-5 **REAR ELEVATION**
SCALE 1:100 MTS.

SCHEDULE OF FINISHES

WALL FINISH	DESCRIPTION
WF-1	PLAIN CEMENT PLASTER PAINTED FINISH W/ 50mm X 50mm HORIZONTAL GROOVE LINES SPACED @ 300mm O.C. (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
WF-2	10/150mmTHK. CHB WALL W/ PLAIN CEMENT PLASTER FINISH (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
WF-3	300mm X 300mm VITRIFIED WALL TILES (SIZE OR COLOR FOR APPROVAL OF END-USER), TYPICAL ON ALL TOILET WALLS
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FLOOR FINISH	**DESCRIPTION**
FL-1	NON-SKID PLAIN CEMENT FINISH
FL-1a	NON-SKID PLAIN CEMENT FINISH W/ 6mm HORIZONTAL GROOVE LINES (SEE RAMP DETAILS)
FL-2	PLAIN CEMENT FINISH W/ FLOOR HARDENER MARKING SIDELINE / BASELINE PAINTED FINISH (SUBMIT SAMPLE FOR END-USERS APPROVAL)
FL-3	300mm X 300mm UNGLAZED CERAMIC FLOOR TILES (SIZE AND COLOR FOR APPROVAL BY THE END-USER)
FL-4	CANOPY/ R.C. GUTTER/ ROOF DECK (PROVIDE INTEGRATED WATER-PROOFING MEMBRANE)
HANDRAIL	**DESCRIPTION**
HR-1	50mm Ø STAINLESS STEEL PIPE HANDRAIL (1 @ 900mm HIGH, 1 @ 700mm HIGH FROM THE RAMP FLOOR LINE) FULLY WELDED ON 50mm Ø STAINLESS STEEL VERTICAL RAILING SUPPORT SPACED @ 600mm O.C.)
HR-2	50mm Ø G.I. PIPE HANDRAIL, FULLY WELDED IN 50mmØ STAINLESS STEEL VERT. RAIL SUPPORT EMBEDDED IN 100mm X 900mm HIGH PARAPET WALL
GRAB BAR	**DESCRIPTION**
GB-1	38mm Ø STAINLESS STEEL L-TYPE GRAB BAR (SUBMIT SAMPLES FOR ARCHITECT'S APPROVAL)
GB-2	38mm Ø STAINLESS STEEL FLIP UP, PULL-DOWN GRAB BAR (SUBMIT SAMPLES FOR ARCHITECT'S APPROVAL)
FACIAL MIRROR	**DESCRIPTION**
FM-1	3mm THK. FACIAL MIRROR IN 50mm X 50mm VERT. AND HOR. WOODEN FRAME
FM-2	3mm THK. TILTED FACIAL MIRROR
CEILING FINISH	**DESCRIPTION**
CF-1	4.5mm THK. MOISTURE-RESISTANT FIBER CEMENT BOARD, PAINTED FINISH (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
CF-2	EXPOSED R.C./ UNDERSLAB/ BEAM SOFFIT/ ROOF TRUSSES, PAINTED FINISH (PROVIDE PRIMER FOR ROOF TRUSSES)
REMARKS (CEILING FINISH)	
ON 0.8mm THK. X 19mm X 50mm X 5000mm METAL DOUBLE FURRING CHANNEL @ 400mm O.C. BOTHWAYS W/ 0.8mm THK. X12mm X38mm X5000mm METAL CARRYING CHANNEL @ 600mm O.C. BOTHWAYS & ROD JOINER(HANGER/SUPPORT) @ 600mm O.C. BOTHWAYS *(TYPICAL ON ALL ROOMS)*	
TOILET PARTITION	**DESCRIPTION**
TP-1	25mm THK. LAMINATED PHENOLIC PARTITION BD. (SUBMIT SAMPLES FOR END-USER'S APPROVAL)
ROOFING	**DESCRIPTION**
RF-1	0.50mm THK. (BASE METAL THICKNESS) PRE-PAINTED RIB-TYPE ROOFING SHEET (LONG SPAN) PROVIDE 6mm THK. BUBBLE-TYPE FLEXIBLE THERMAL ROOFING INSULATION W/ 2-SIDED ALUMINUM FOIL
NOTES:	
	- REFER TO STRUCTURAL FOR SIZES OF BEAMS - HINGED SEAT SHALL BE MADE OF SELF DRAINING AND NON-SLIP MATERIAL (PWD TOILETS) - TELEPHONE-TYPE SHOWER W/ AT LEAST 1500m LENGTH SHALL BE USED IN ALL PWD TOILETS

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
BUREAU OF DESIGN
BUILDINGS DIVISION
BONIFACIO DRIVE PORT AREA, MANILA

PROJECT AND LOCATION:
PROPOSED:
STANDARD PAGCOR MULTI-PURPOSE/ EVACUATION CENTER
(OPTION 2)
(FOR WIND VELOCITY OF 270KPH)

SHEET CONTENTS:
FRONT ELEVATION
REAR ELEVATION
SCHEDULE OF FINISHES

ARCHITECTURAL CONCEPT:
ARCHITECTURAL SECTION
CADD:
GINO PAOLO L. VILLANUEVA
ARCHITECT II
CHECKED:
FRANCIS G. SERRANO
ARCHITECT IV

SUBMITTED:
JOSEPHINE P. ISTURIS
CHIEF, BUILDINGS DIVISION

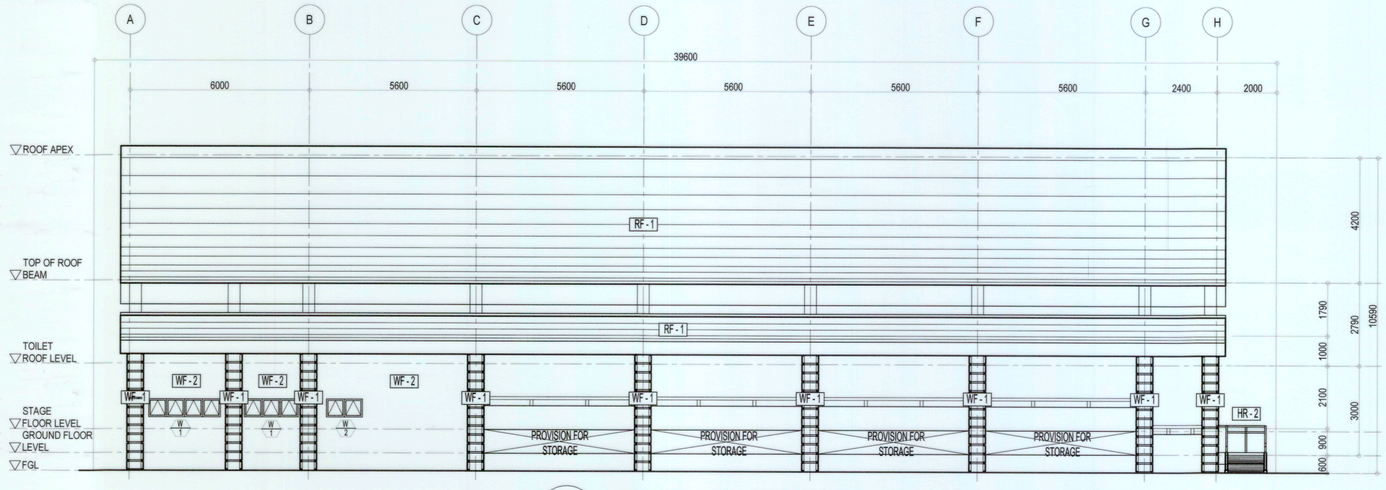
RECOMMENDING APPROVAL:
SEE COVER SHEET FOR SIGNATURE
ARISTARCO M. DOROY
OFFICER-IN-CHARGE
BUREAU OF DESIGN
OCT 23 2019

APPROVED:
SEE COVER SHEET FOR SIGNATURE
EMIL K. SADAIN, CESO I
UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

CONCURRED:
SEE COVER SHEET FOR SIGNATURE AND APPROVAL
JAMES PATRICK R. BONDOC
VICE PRESIDENT
CORPORATE SOCIAL RESPONSIBILITY

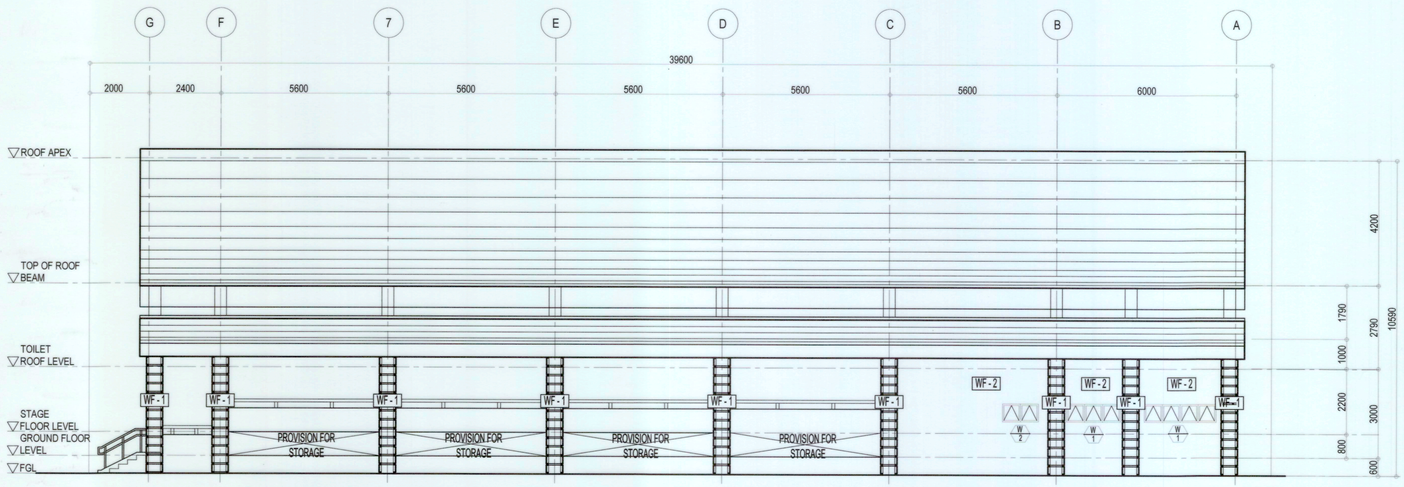
SET NO.: BOD / B

SHEET NO.: A-5 / 12 | 30



1 / A-6 **LEFT-SIDE ELEVATION**

SCALE 1:100 MTS.



2 / A-6 **RIGHT-SIDE ELEVATION**

SCALE 1:100 MTS.

SCHEDULE OF FINISHES

WALL FINISH	DESCRIPTION
WF - 1	PLAIN CEMENT PLASTER PAINTED FINISH W/ 50mm X 50mm HORIZONTAL GROOVE LINES SPACED @ 300mm O.C. (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
WF - 2	10/150mmTHK. CHB WALL W/ PLAIN CEMENT PLASTER FINISH (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
WF - 3	300mm X 300mm VITRIFIED WALL TILES (SIZE OR COLOR FOR APPROVAL OF END-USER), TYPICAL ON ALL TOILET WALLS
WF - 4	ALUMINUM METAL CLADDING (REFER TO MANUFACTURER'S SPECIFICATION)
FLOOR FINISH	**DESCRIPTION**
FL - 1	NON-SKID PLAIN CEMENT FINISH
FL - 1a	NON-SKID PLAIN CEMENT FINISH W/ 6mm HORIZONTAL GROOVE LINES (SEE RAMP DETAILS)
FL - 2	PLAIN CEMENT FINISH W/ FLOOR HARDENER MARKING SIDELINE / BASELINE PAINTED FINISH (SUBMIT SAMPLE FOR END-USERS APPROVAL)
FL - 3	300mm X 300mm UNGLAZED CERAMIC FLOOR TILES (SIZE AND COLOR FOR APPROVAL BY THE END-USER)
FL - 4	CANOPY/ R.C. GUTTER/ ROOF DECK (PROVIDE INTEGRATED WATER-PROOFING MEMBRANE)
HANDRAIL	**DESCRIPTION**
HR - 1	50mm Ø STAINLESS STEEL PIPE HANDRAIL (1 @ 900mm HIGH, 1 @ 700mm HIGH FROM THE RAMP FLOOR LINE) FULLY WELDED ON 50mm Ø STAINLESS STEEL VERTICAL RAILING SUPPORT SPACED @ 600mm O.C.)
HR - 2	50mm Ø G.I. PIPE HANDRAIL, FULLY WELDED IN 50mmØ STAINLESS STEEL VERT. RAIL SUPPORT EMBEDDED IN 100mm X 900mm HIGH PARAPET WALL
GRAB BAR	**DESCRIPTION**
GB - 1	38mm Ø STAINLESS STEEL L-TYPE GRAB BAR (SUBMIT SAMPLES FOR ARCHITECT'S APPROVAL)
GB - 2	38mm Ø STAINLESS STEEL FLIP UP, PULL-DOWN GRAB BAR (SUBMIT SAMPLES FOR ARCHITECT'S APPROVAL)
FACIAL MIRROR	**DESCRIPTION**
FM - 1	3mm THK. FACIAL MIRROR IN 50mm X 50mm VERT. AND HOR. WOODEN FRAME
FM - 2	3mm THK. TILTED FACIAL MIRROR
CEILING FINISH	**DESCRIPTION**
CF - 1	4.5mm THK. MOISTURE-RESISTANT FIBER CEMENT BOARD, PAINTED FINISH (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
CF - 2	EXPOSED R.C./ UNDERSLAB/ BEAM SOFFIT/ ROOF TRUSSES, PAINTED FINISH (PROVIDE PRIMER FOR ROOF TRUSSES)
REMARKS (CEILING FINISH)	
ON 0.8mm THK. X 19mm X 50mm X 5000mm METAL DOUBLE FURRING CHANNEL @ 400mm O.C. BOTHWAYS W/ 0.8mm THK. X12mm X38mm X5000mm METAL CARRYING CHANNEL @ 600mm O.C. BOTHWAYS & ROD JOINER(HANGER/SUPPORT) @ 600mm O.C. BOTHWAYS *(TYPICAL ON ALL ROOMS)*	
TOILET PARTITION	**DESCRIPTION**
TP - 1	25mm THK. LAMINATED PHENOLIC PARTITION BD. (SUBMIT SAMPLES FOR END-USER'S APPROVAL)
ROOFING	**DESCRIPTION**
RF - 1	0.50mm THK. (BASE METAL THICKNESS) PRE-PAINTED RIB-TYPE ROOFING SHEET (LONG SPAN) PROVIDE 6mm THK. BUBBLE-TYPE FLEXIBLE THERMAL ROOFING INSULATION W/ 2-SIDED ALUMINUM FOIL
NOTES:	
	- REFER TO STRUCTURAL FOR SIZES OF BEAMS - HINGED SEAT SHALL BE MADE OF SELF DRAINING AND NON-SLIP MATERIAL (PWD TOILETS) - TELEPHONE-TYPE SHOWER W/ AT LEAST 1500m LENGTH SHALL BE USED IN ALL PWD TOILETS

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(OPTION 2)
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SHEET CONTENTS:
LEFT-SIDE ELEVATION
RIGHT-SIDE ELEVATION
SCHEDULE OF FINISHES

ARCHITECTURAL CONCEPT:
ARCHITECTURAL SECTION
CADD: **GINO PAOLO L. VILLANUEVA**
ARCHITECT II
CHECKED: **FRANCIS G. SERRANO**
ARCHITECT IV

SUBMITTED:
JOSEPHINE P. ISTURIS
CHIEF, BUILDINGS DIVISION

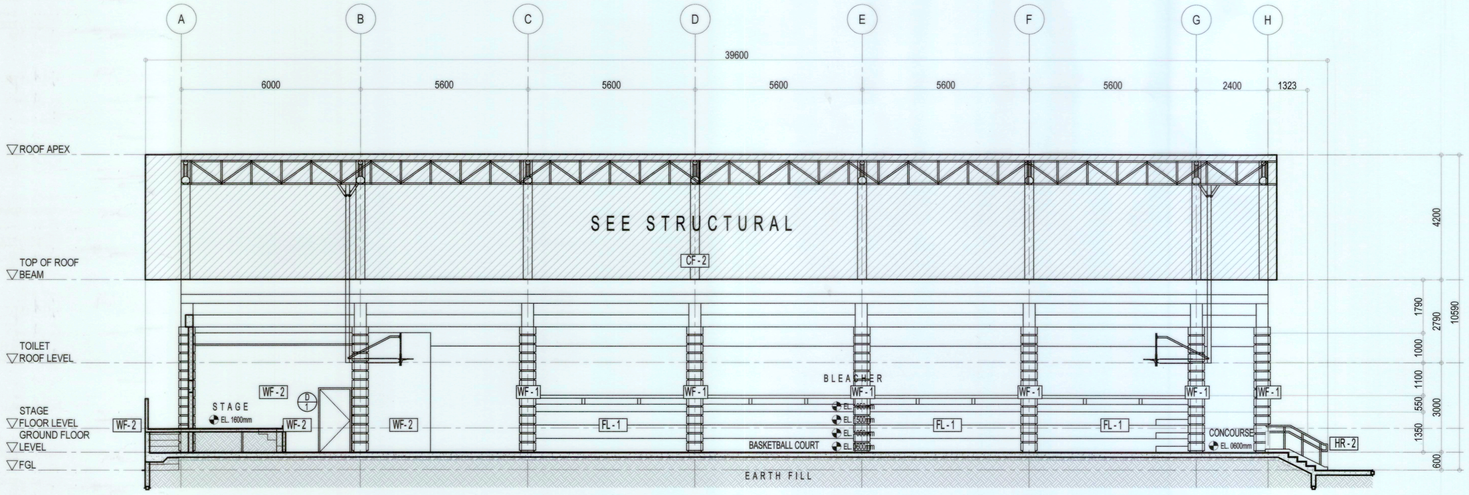
RECOMMENDING APPROVAL:
SEE COVER SHEET FOR SIGNATURE
ARISTARCO M. DOROY
OFFICER-IN-CHARGE
BUREAU OF DESIGN
OCT 23 2019

APPROVED:
SEE COVER SHEET FOR SIGNATURE
EMIL K. SADAIN, CESO I
UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

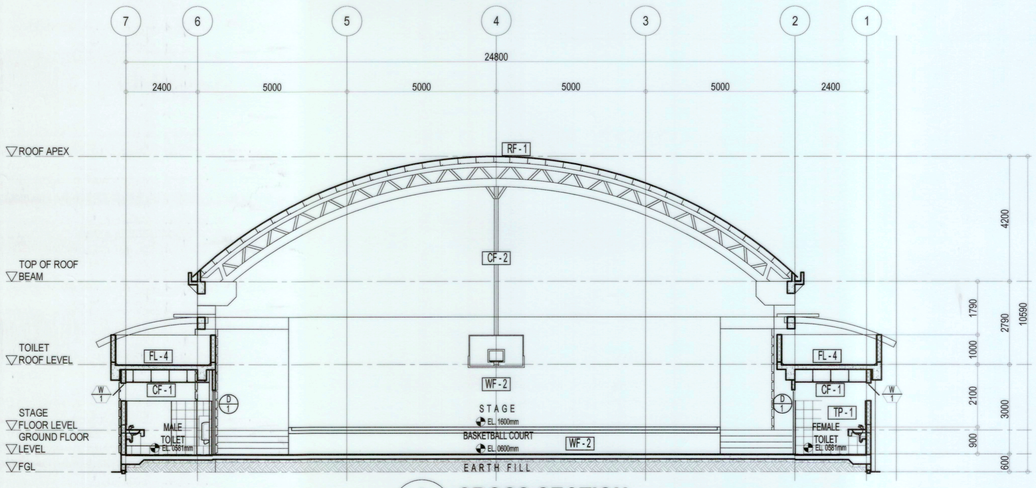
CONCURRED:
SEE COVER SHEET FOR SIGNATURE AND APPROVAL
JAMES PATRICK R. BONDOC
VICE PRESIDENT
CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD B

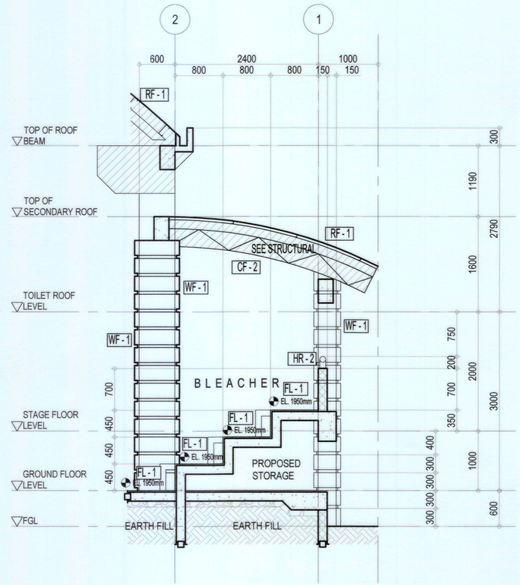
SHEET NO.: A-6 (12 | 30)



1 / A-7 **LONGITUDINAL SECTION**
SCALE 1:100 MTS.



2 / A-7 **CROSS SECTION**
SCALE 1:100 MTS.



3 / A-7 **BAY SECTION - 1**
SCALE 1:50 MTS.

SCHEDULE OF FINISHES

WALL FINISH	DESCRIPTION
WF-1	PLAIN CEMENT PLASTER PAINTED FINISH W/ 50mm X 50mm HORIZONTAL GROOVE LINES SPACED @ 300mm O.C. (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
WF-2	10/150mmTHK. CHB WALL W/ PLAIN CEMENT PLASTER FINISH (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
WF-3	300mm X 300mm VITRIFIED WALL TILES (SIZE OR COLOR FOR APPROVAL OF END-USER), TYPICAL ON ALL TOILET WALLS
WF-4	ALUMINUM METAL CLADDING (REFER TO MANUFACTURER'S SPECIFICATION)
FLOOR FINISH	**DESCRIPTION**
FL-1	NON-SKID PLAIN CEMENT FINISH
FL-1a	NON-SKID PLAIN CEMENT FINISH W/ 6mm HORIZONTAL GROOVE LINES (SEE RAMP DETAILS)
FL-2	PLAIN CEMENT FINISH W/ FLOOR HARDENER MARKING SIDELINE / BASELINE PAINTED FINISH (SUBMIT SAMPLE FOR END-USERS APPROVAL)
FL-3	300mm X 300mm UNGLAZED CERAMIC FLOOR TILES (SIZE AND COLOR FOR APPROVAL BY THE END-USER)
FL-4	CANOPY/ R.C. GUTTER/ ROOF DECK (PROVIDE INTEGRATED WATER-PROOFING MEMBRANE)
HANDRAIL	**DESCRIPTION**
HR-1	50mm Ø STAINLESS STEEL PIPE HANDRAIL (1 @ 900mm HIGH, 1 @ 700mm HIGH FROM THE RAMP FLOOR LINE) FULLY WELDED ON 50mm Ø STAINLESS STEEL VERTICAL RAILING SUPPORT SPACED @ 600mm O.C.)
HR-2	50mm Ø G.I. PIPE HANDRAIL, FULLY WELDED IN 50mmØ STAINLESS STEEL VERT. RAIL SUPPORT EMBEDDED IN 100mm X 900mm HIGH PARAPET WALL
GRAB BAR	**DESCRIPTION**
GB-1	38mm Ø STAINLESS STEEL L-TYPE GRAB BAR (SUBMIT SAMPLES FOR ARCHITECT'S APPROVAL)
GB-2	38mm Ø STAINLESS STEEL FLIP UP, PULL-DOWN GRAB BAR (SUBMIT SAMPLES FOR ARCHITECT'S APPROVAL)
FACIAL MIRROR	**DESCRIPTION**
FM-1	3mm THK. FACIAL MIRROR IN 50mm X 50mm VERT. AND HOR. WOODEN FRAME
FM-2	3mm THK. TILTED FACIAL MIRROR
CEILING FINISH	**DESCRIPTION**
CF-1	4.5mm THK. MOISTURE-RESISTANT FIBER CEMENT BOARD, PAINTED FINISH (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
CF-2	EXPOSED R.C./ UNDERSLAB/ BEAM SOFFIT/ ROOF TRUSSES, PAINTED FINISH (PROVIDE PRIMER FOR ROOF TRUSSES)
REMARKS (CEILING FINISH)	
ON 0.8mm THK. X 19mm X 50mm X 5000mm METAL DOUBLE FURRING CHANNEL @ 400mm O.C. BOTHWAYS W/ 0.8mm THK. X12mm X38mm X5000mm METAL CARRYING CHANNEL @ 600mm O.C. BOTHWAYS & ROD JOINER(HANGER/SUPPORT) @ 600mm O.C. BOTHWAYS *(TYPICAL ON ALL ROOMS)*	
TOILET PARTITION	**DESCRIPTION**
TP-1	25mm THK. LAMINATED PHENOLIC PARTITION BD. (SUBMIT SAMPLES FOR END-USER'S APPROVAL)
ROOFING	**DESCRIPTION**
RF-1	0.50mm THK. (BASE METAL THICKNESS) PRE-PAINTED RIB-TYPE ROOFING SHEET (LONG SPAN) PROVIDE 6mm THK. BUBBLE-TYPE FLEXIBLE THERMAL ROOFING INSULATION W/ 2-SIDED ALUMINUM FOIL
NOTES:	
	- REFER TO STRUCTURAL FOR SIZES OF BEAMS - HINGED SEAT SHALL BE MADE OF SELF DRAINING AND NON-SLIP MATERIAL (PWD TOILETS) - TELEPHONE-TYPE SHOWER W/ AT LEAST 1500m LENGTH SHALL BE USED IN ALL PWD TOILETS

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
BUREAU OF DESIGN
BUILDINGS DIVISION
BONIFACIO DRIVE PORT AREA, MANILA

PROJECT AND LOCATION:
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STANDARD PAGCOR MULTI-PURPOSE/ EVACUATION CENTER
(OPTION 2)
(FOR WIND VELOCITY OF 270KPH)

SHEET CONTENTS:
LONGITUDINAL SECTION
CROSS SECTION
BAY SECTION - 1
SCHEDULE OF FINISHES

ARCHITECTURAL CONCEPT:
ARCHITECTURAL SECTION
CADD:
GINO PAOLO L. VILLANUEVA
ARCHITECT II
CHECKED:
FRANCIS G. SERRANO
ARCHITECT IV

SUBMITTED:
JOSEPHINE P. ISTURIS
CHIEF, BUILDINGS DIVISION

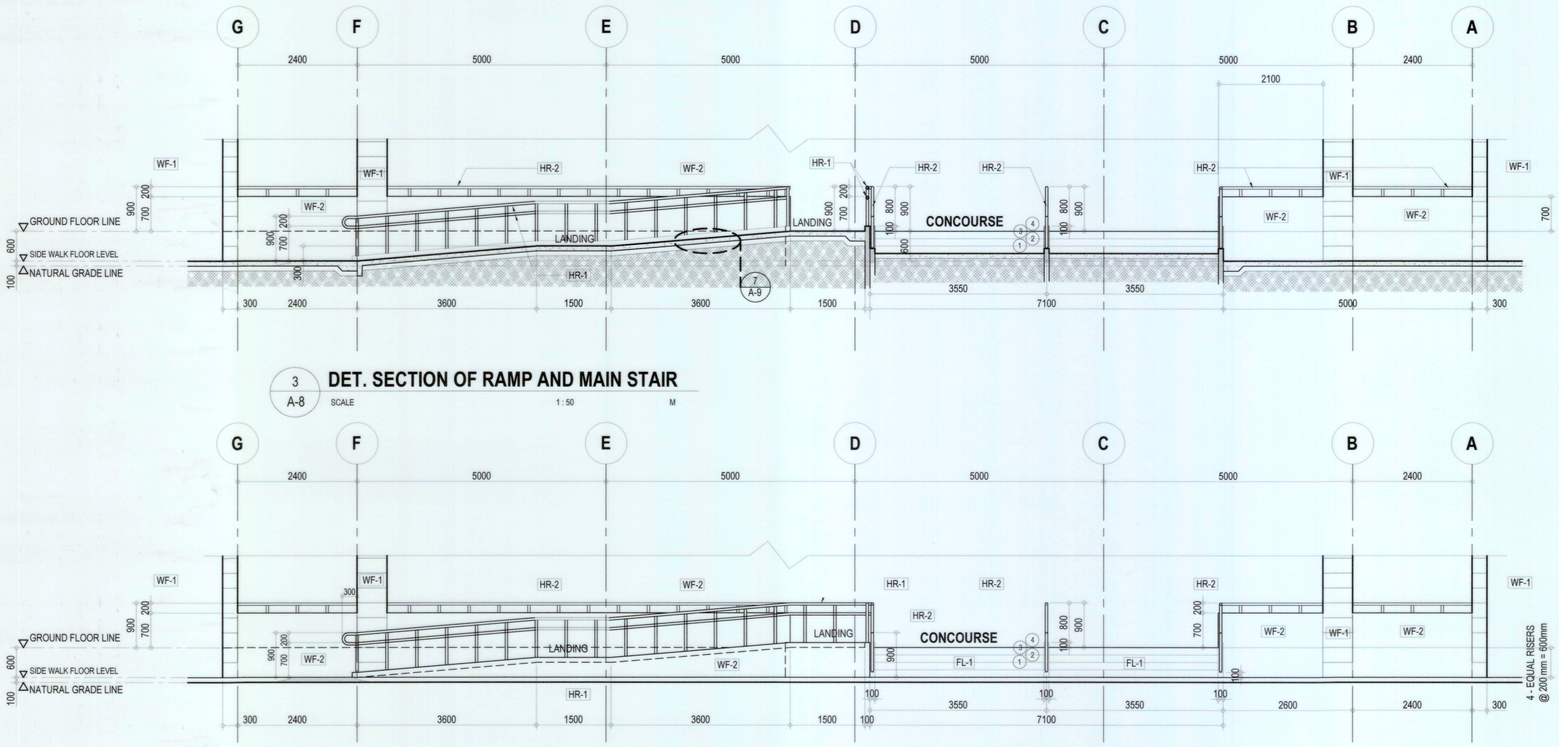
RECOMMENDING APPROVAL:
SEE COVER SHEET FOR SIGNATURE
ARISTARCO M. DOROY
OFFICER-IN-CHARGE
BUREAU OF DESIGN
OCT 23 2019

APPROVED:
SEE COVER SHEET FOR SIGNATURE
EMIL K. SADAIN, CESO I
UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

CONCURRED:
SEE COVER SHEET FOR SIGNATURE AND APPROVAL
JAMES PATRICK R. BONDOC
VICE PRESIDENT
CORPORATE SOCIAL RESPONSIBILITY

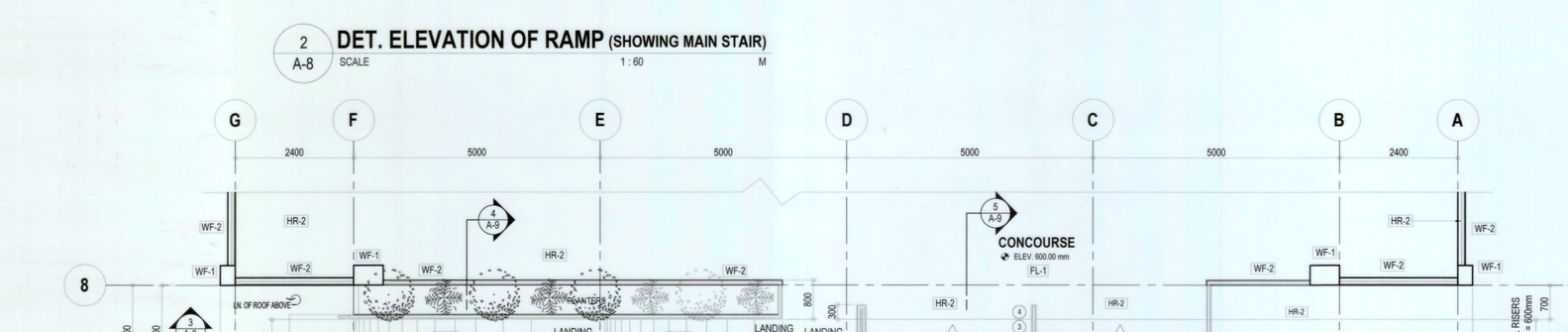
SET NO.: BOD / B

SHEET NO.: A-7 / 12 30



3 A-8 **DET. SECTION OF RAMP AND MAIN STAIR**

SCALE 1 : 50 M



2 A-8 **DET. ELEVATION OF RAMP (SHOWING MAIN STAIR)**

SCALE 1 : 60 M

1 A-8 **DET. PLAN OF RAMP (SHOWING MAIN STAIR)**

SCALE 1 : 60 M

SCHEDULE OF FINISHES

WALL FINISH	DESCRIPTION
WF-1	PLAIN CEMENT PLASTER PAINTED FINISH W/ 50mmX50mm HORIZONTAL GROOVE LINES SPACED @ 300mm O.C. (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
WF-2	100mmTHK. CHB INTERIOR WALL WITH PLAIN CEMENT PLASTER FINISH (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
WF-3	300mm X 300mm VITRIFIED WALL TILES FINISH (SIZE OR COLOR FOR APPROVAL OF END-USER), *TYPICAL ON ALL TOILET WALLS*
FLOOR FINISH	**DESCRIPTION**
FL-1	PLAIN CEMENT PLASTER (NON-SKID) FINISH WITH FLOOR HARDENER (SUBMIT SAMPLE FOR END-USERS APPROVAL)
FL-1a	NON-SKID PLAIN CEMENT FINISH W/ 6mm HORIZONTAL GROOVE LINES (SEE RAMP DETAILS)
FL-2	PLAIN CEMENT FINISH W/ FLOOR HARDENER MARKING SIDELINE / BASELINE PAINTED FINISH (SUBMIT SAMPLE FOR END-USERS APPROVAL)
FL-3	300mm X 300mm UNGLAZED CERAMIC FLOOR TILES (SIZE AND COLOR FOR APPROVAL BY THE END-USER)
FL-4	CANOPY/ R.C. GUTTER/ ROOF DECK (PROVIDE INTEGRATED WATER-PROOFING MEMBRANE)
HANDRAIL	**DESCRIPTION**
HR-1	50mm Ø STAINLESS STEEL PIPE HANDRAIL (1 @ 900mm HIGH, 1 @ 700mm HIGH FROM RAMP FLOOR FINISH/ STAIR FLOOR FINISH) FULLY WELDED ON 50mmØ STAINLESS STEEL VERTICAL RAILING SUPPORT SPACED @ 600 mm O.C.
HR-2	50mm Ø STAINLESS STEEL PIPE HANDRAIL, FULLY WELDED ON 50mmØ STAINLESS STEEL VERTICAL RAIL SUPPORT AND EMBEDDED IN 100/150mm CHB WALL RAILING
GRAB BAR	**DESCRIPTION**
GB-1	38mm Ø STAINLESS STEEL L-TYPE GRAB BAR (SUBMIT SAMPLES FOR ARCHITECT'S APPROVAL)
GB-2	38mm Ø STAINLESS STEEL FLIP UP, PULL-DOWN GRAB BAR (SUBMIT SAMPLES FOR ARCHITECT'S APPROVAL)
FACIAL MIRROR	**DESCRIPTION**
FM-1	3mm THK. FACIAL MIRROR IN 50mm X 50mm VERT. AND HOR. WOODEN FRAME
FM-2	3mm THK. TILTED FACIAL MIRROR
CEILING FINISH	**DESCRIPTION**
CF-1	4.5mm THK. MOISTURE-RESISTANT FIBER CEMENT BOARD, PAINTED FINISH (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
CF-2	EXPOSED R.C./ UNDERSLAB/ BEAM SOFFIT/ ROOF TRUSSES, PAINTED FINISH (PROVIDE PRIMER FOR ROOF TRUSSES)
REMARKS (CEILING FINISH)	
ON 0.8mm THK. X 19mm X 50mm X 5000mm METAL DOUBLE FURRING CHANNEL @ 400mm O.C. BOTHWAYS W/ 0.8mm THK. X12mm X38mm X5000mm METAL CARRYING CHANNEL @ 600mm O.C. BOTHWAYS & ROD JOINER(HANGER/SUPPORT) @ 600mm O.C. BOTHWAYS *(TYPICAL ON ALL ROOMS)*	
TOILET PARTITION	**DESCRIPTION**
TP-1	25mm THK. LAMINATED PHENOLIC PARTITION BD. (SUBMIT SAMPLES FOR END-USER'S APPROVAL)
ROOFING	**DESCRIPTION**
RF-1	0.50mm THK. (BASE METAL THICKNESS) PRE-PAINTED RIB-TYPE ROOFING SHEET (LONG SPAN) PROVIDE 6mm THK. BUBBLE-TYPE FLEXIBLE THERMAL ROOFING INSULATION W/ 2-SIDED ALUMINUM FOIL
NOTES:	
	- IT IS THE RESPONSIBILITY OF THE PROJECT ENGINEER, IF HE DEEMS ITS NECESSARY TO REQUIRE THE CONTRACTOR TO SUBMIT FOR APPROVAL THE CONSTRUCTION DRAWING ON SPECIFIC ITEM OF WORK PRIOR TO ITS IMPLEMENTATION - REFER TO STRUCTURAL FOR SIZES OF BEAMS - HINGED SEAT SHALL BE MADE OF SELF DRAINING AND NON-SLIP MATERIAL (PWD TOILETS) - TELEPHONE-TYPE SHOWER W/ AT LEAST 1500m LENGTH SHALL BE USED IN ALL PWD TOILETS

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SHEET CONTENTS:
DET. PLAN OF RAMP (SHOWING MAIN STAIR)
DET. ELEVATION OF RAMP (SHOWING MAIN STAIR)
DET. SECTION OF RAMP AND MAIN STAIR
SCHEDULE OF FINISHES

ARCHITECTURAL CONCEPT:
ARCHITECTURAL SECTION
CADD:
GINO PAOLO L. VILLANUEVA
ARCHITECT II
CHECKED:
FRANCIS G. SERRANO
ARCHITECT IV

SUBMITTED:
JOSEPHINE P. ISTURIS
CHIEF, BUILDINGS DIVISION

RECOMMENDING APPROVAL:
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EMIL K. SADAIN, CESO I
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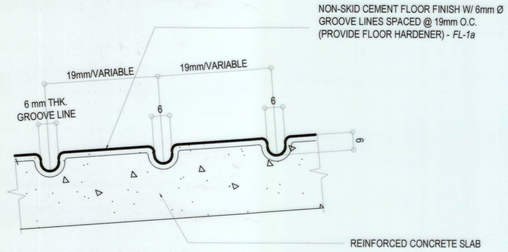
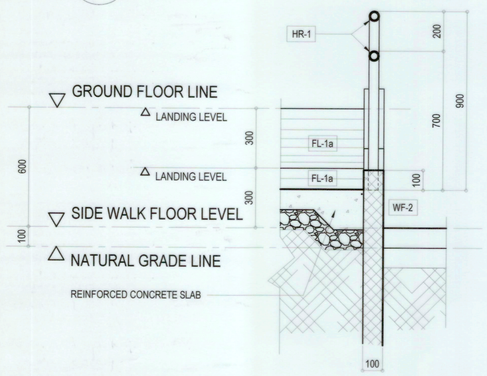
CONCURRED:
SEE COVER SHEET FOR SIGNATURE AND APPROVAL
JAMES PATRICK R. BONDOC
VICE PRESIDENT
CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD / B

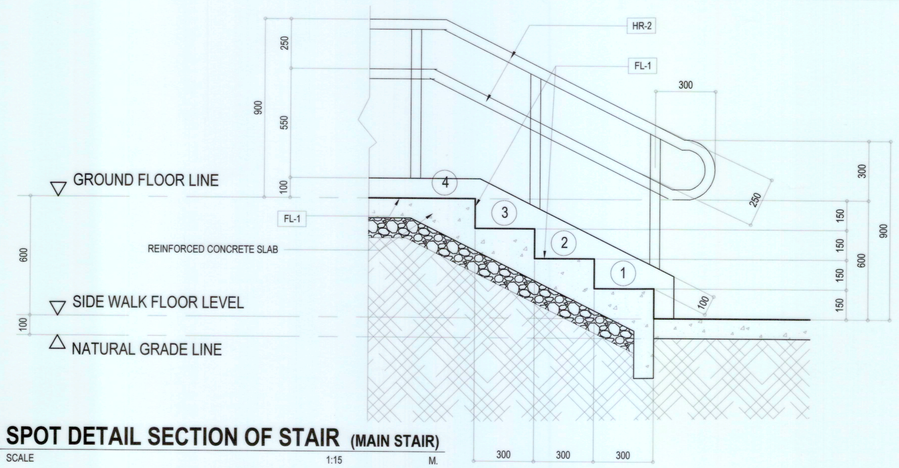
SHEET NO.: A-8 / 12 30



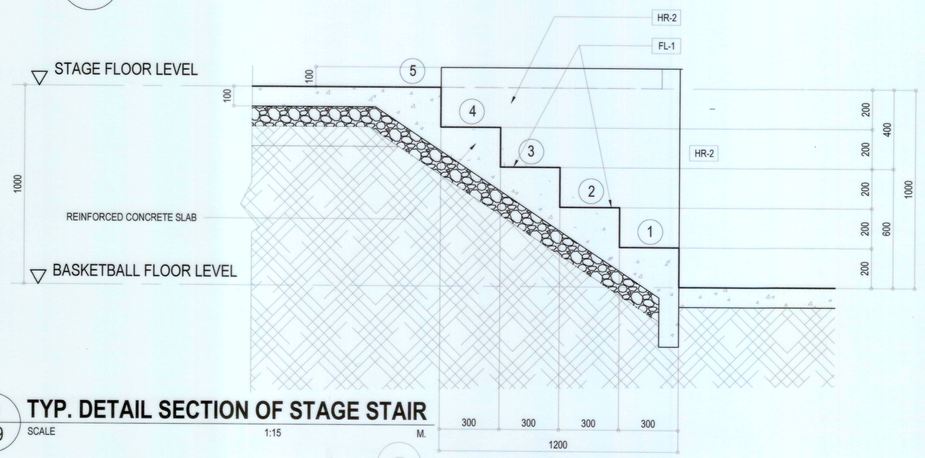
7 A-9 **SPOT DETAIL (RAMP FLOORING)**
SCALE 1 : 10 M.



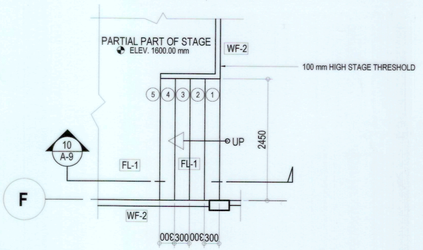
6 A-9 **DETAIL SECTION OF RAMP RAILINGS**
SCALE 1:15 M.



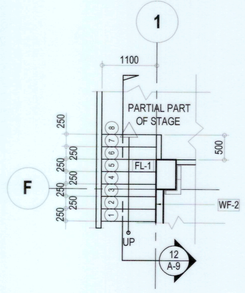
8 A-9 **SPOT DETAIL SECTION OF STAIR (MAIN STAIR)**
SCALE 1:15 M.



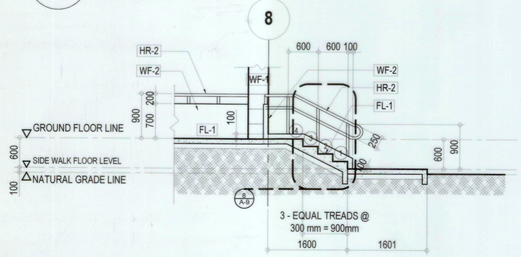
10 A-9 **TYP. DETAIL SECTION OF STAGE STAIR**
SCALE 1:15 M.



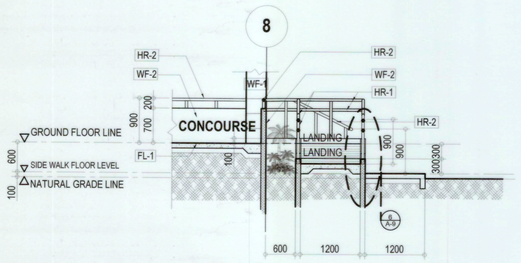
9 A-9 **TYP. DETAIL PLAN OF STAGE STAIR**
SCALE 1 : 60 M



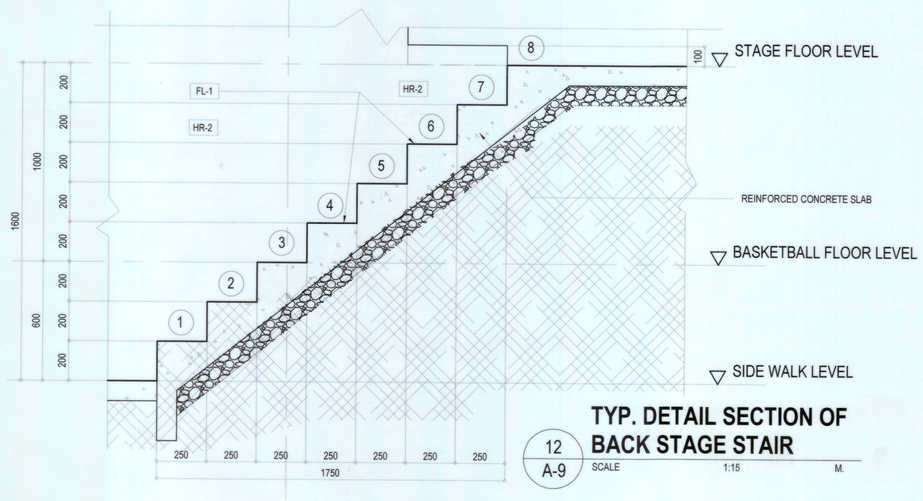
11 A-9 **TYP. DETAIL PLAN OF BACK STAGE STAIR**
SCALE 1 : 60 M



5 A-9 **DET. SECTION OF MAIN STAIR**
SCALE 1 : 60 M



4 A-9 **DET. SECTION OF RAMP**
SCALE 1 : 60 M



12 A-9 **TYP. DETAIL SECTION OF BACK STAGE STAIR**
SCALE 1:15 M.

SCHEDULE OF FINISHES

WALL FINISH	DESCRIPTION
WF - 1	PLAIN CEMENT PLASTER PAINTED FINISH W/ 50mmX50mm HORIIZONTAL GROOVE LINES SPACED @ 300mm O.C. (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
WF - 2	100mmTHK. CHB INTERIOR WALL WITH PLAIN CEMENT PLASTER FINISH (SUBMIT PAINT SWATCHES FOR END-USER'S APPROVAL)
WF - 3	300mm X 300mm VITRIFIED WALL TILES FINISH (SIZE OR COLOR FOR APPROVAL OF END-USER), *TYPICAL ON ALL TOILET WALLS*
FLOOR FINISH	**DESCRIPTION**
FL - 1	PLAIN CEMENT PLASTER (NON-SKID) FINISH WITH FLOOR HARDENER (SUBMIT SAMPLE FOR END-USERS APPROVAL)
FL - 1a	NON-SKID PLAIN CEMENT FINISH W/ 6mm HORIZONTAL GROOVE LINES (SEE RAMP DETAILS)
FL - 2	PLAIN CEMENT FINISH W/ FLOOR HARDENER MARKING SIDELINE / BASELINE PAINTED FINISH (SUBMIT SAMPLE FOR END-USERS APPROVAL)
FL - 3	300mm X 300mm UNGLAZED CERAMIC FLOOR TILES (SIZE AND COLOR FOR APPROVAL BY THE END-USER)
FL - 4	CANOPY/ R.C. GUTTER/ ROOF DECK (PROVIDE INTEGRATED WATER-PROOFING MEMBRANE)
HANDRAIL	**DESCRIPTION**
HR - 1	50mm Ø STAINLESS STEEL PIPE HANDRAIL (1 @ 900mm HIGH, 1 @ 700mm HIGH FROM RAMP FLOOR FINISH) FULLY WELDED ON 50mmØ STAINLESS STEEL VERTICAL RAILING SUPPORT SPACED @ 600 mm O.C.
HR - 2	50mm Ø STAINLESS STEEL PIPE HANDRAIL, FULLY WELDED ON 50mmØ STAINLESS STEEL VERTICAL RAIL SUPPORT AND EMBEDDED IN 100/150mm CHB WALL RAILING

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BUREAU OF DESIGN
BUILDINGS DIVISION
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PROJECT AND LOCATION:
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STANDARD PAGCOR MULTI-PURPOSE/ EVACUATION CENTER
(OPTION 2)
(FOR WIND VELOCITY OF 270KPH)

SHEET CONTENTS:
DETAIL SECTIONS OF RAMP
DETAIL SECTIONS OF RAMP RAILING
SPOT DETAIL SECTION OF RAMP FLOORING
TYP. DETAIL PLAN OF STAGESTAIR
TYP. DETAIL SECTION OF STAGE STAIR
TYP. DETAIL PLAN OF BACK STAGE STAIR
TYP. DETAIL SECTION OF BACK STAGE STAIR

ARCHITECTURAL CONCEPT:
ARCHITECTURAL SECTION
CADD:
GINO PAOLO L. VILLANUEVA
ARCHITECT II
CHECKED:
FRANCIS G. SERRANO
ARCHITECT IV

SUBMITTED:
JOSEPHINE P. ISTURIS
CHIEF, BUILDINGS DIVISION

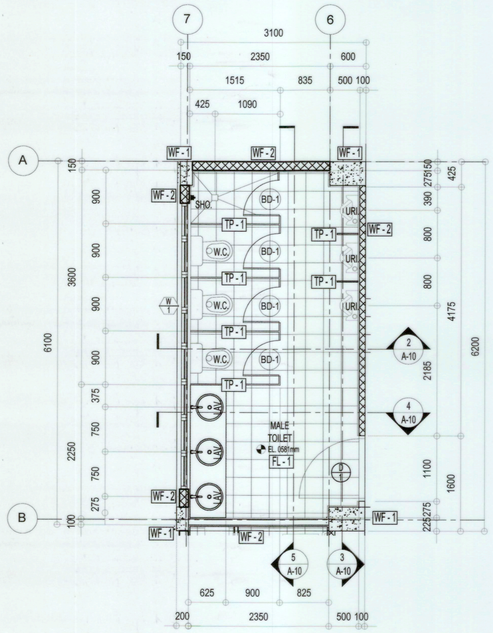
RECOMMENDING APPROVAL:
SEE COVER SHEET FOR SIGNATURE
ARISTARCO M. DOROY
OFFICER-IN-CHARGE
BUREAU OF DESIGN
OCT 23 2019

APPROVED:
SEE COVER SHEET FOR SIGNATURE
EMIL K. SADAIN, CESO I
UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

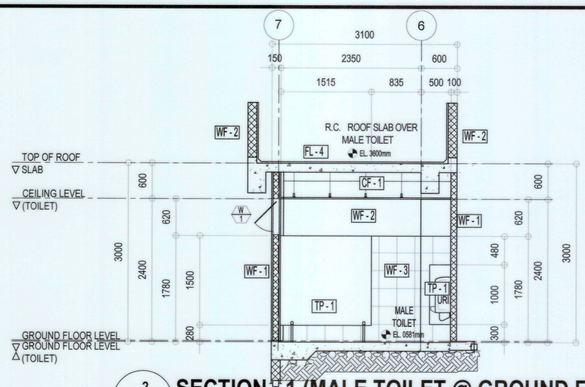
CONCURRED:
SEE COVER SHEET FOR SIGNATURE AND APPROVAL
JAMES PATRICK R. BONDOC
VICE PRESIDENT
CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD / B

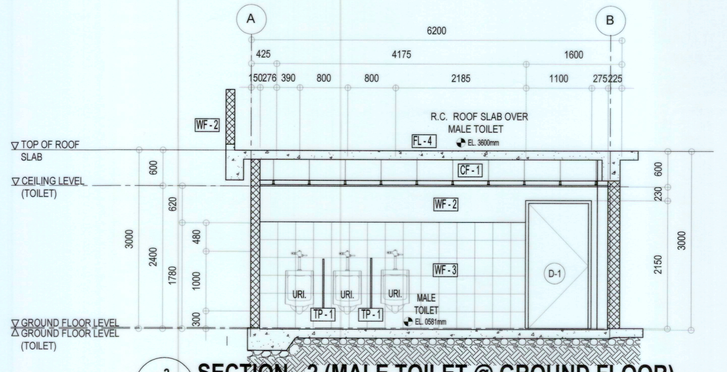
SHEET NO.: A-9 / 12 | 30



1 A-10 **DET. PLAN OF MALE TOILET @ GROUND FLOOR**
SCALE 1:50m



2 A-10 **SECTION - 1 (MALE TOILET @ GROUND FLOOR)**
SCALE 1:50m



3 A-10 **SECTION - 2 (MALE TOILET @ GROUND FLOOR)**
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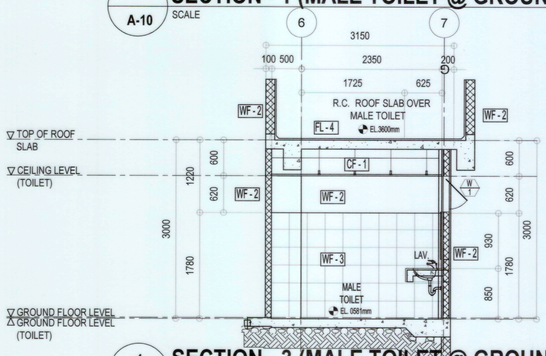
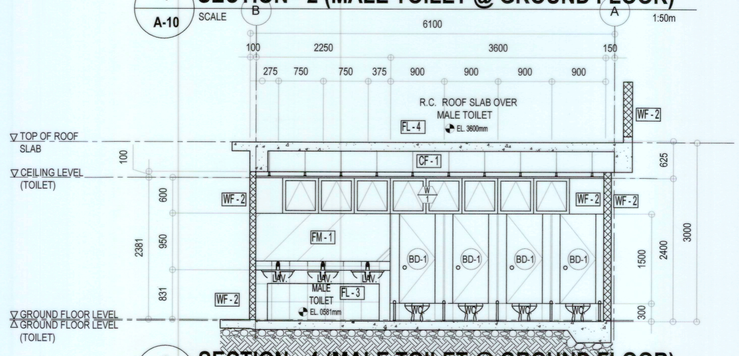
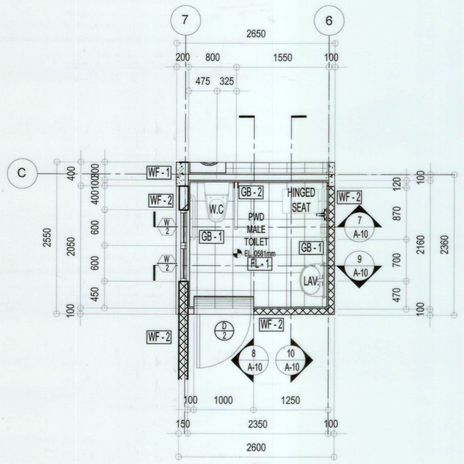


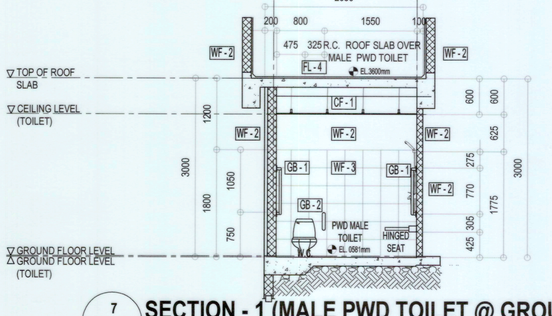
4 A-10 **SECTION - 3 (MALE TOILET @ GROUND FLOOR)**
SCALE 1:50m



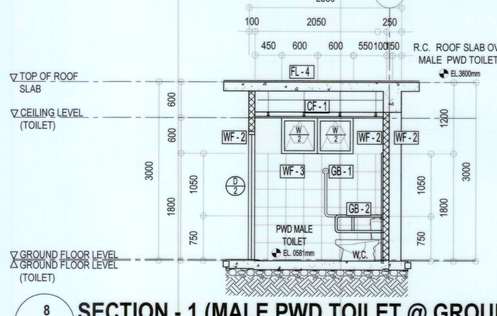
5 A-10 **SECTION - 4 (MALE TOILET @ GROUND FLOOR)**
SCALE 1:50m



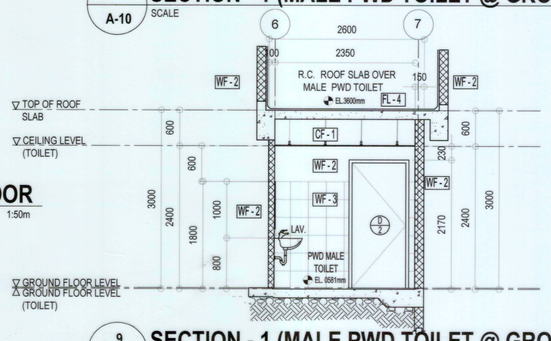
6 A-10 **DET. PLAN OF PWD MALE TOILET @ GROUND FLOOR**
SCALE 1:50m



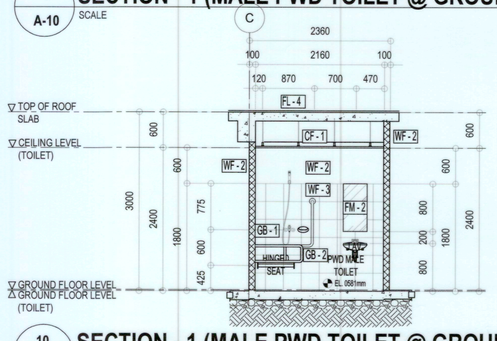
7 A-10 **SECTION - 1 (MALE PWD TOILET @ GROUND FLOOR)**
SCALE 1:50m



8 A-10 **SECTION - 1 (MALE PWD TOILET @ GROUND FLOOR)**
SCALE 1:50m



9 A-10 **SECTION - 1 (MALE PWD TOILET @ GROUND FLOOR)**
SCALE 1:50m



10 A-10 **SECTION - 1 (MALE PWD TOILET @ GROUND FLOOR)**
SCALE 1:50m

REPUBLIC OF THE PHILIPPINES
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STANDARD PAGCOR MULTI-PURPOSE/ EVACUATION CENTER
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SHEET CONTENTS:
DET. PLAN & SECTIONS OF MALE TOILET @ GROUND FLOOR
DET. PLAN & SECTIONS OF MALE PWD TOILET @ GROUND FLOOR
SCHEDULE OF FINISHES

ARCHITECTURAL CONCEPT:
ARCHITECTURAL SECTION
CADD:
JANE PAOLA P. GONZALES
ARCHITECT II
CHECKED:
FRANCIS G. SERRANO
ARCHITECT IV

SUBMITTED:
JOSEPHINE P. ISTURIS
CHIEF, BUILDINGS DIVISION

RECOMMENDING APPROVAL:
SEE COVER SHEET FOR SIGNATURE
ARISTARCO M. DOROY
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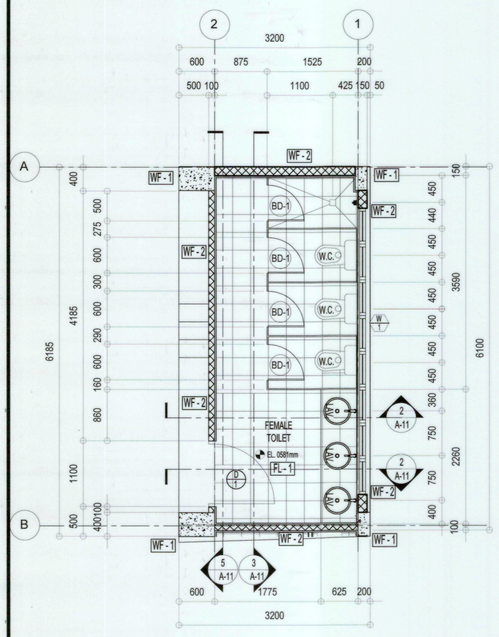
BUREAU OF DESIGN
OCT 23 2019

APPROVED:
SEE COVER SHEET FOR SIGNATURE
EMIL K. SADAIN, CESO I
UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

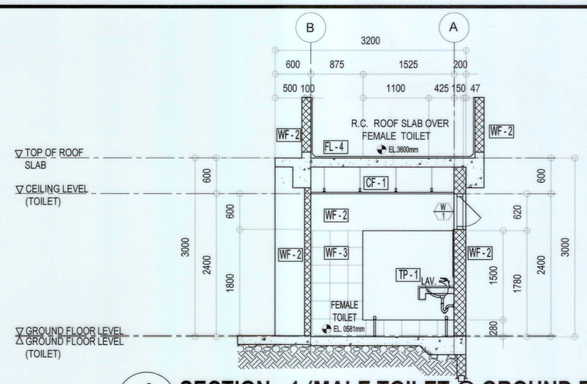
CONCURRED:
SEE COVER SHEET FOR SIGNATURE AND APPROVAL
JAMES PATRICK R. BONDOC
VICE PRESIDENT
CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD B

SHEET NO.: A-10 12 30



1 A-11 **DET. PLAN OF MALE TOILET @ GROUND FLOOR**
SCALE 1:50m



2 A-11 **SECTION - 1 (MALE TOILET @ GROUND FLOOR)**
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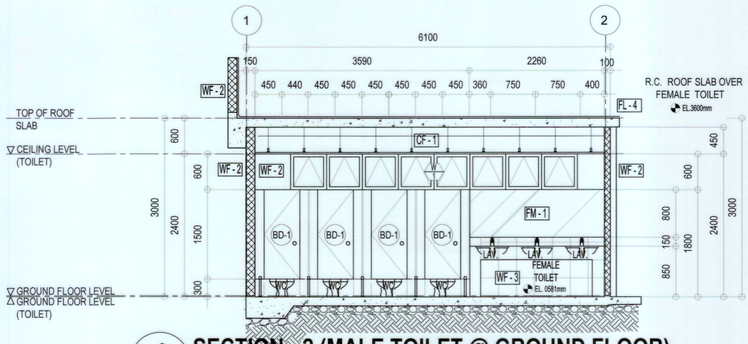

3 A-11 **SECTION - 2 (MALE TOILET @ GROUND FLOOR)**
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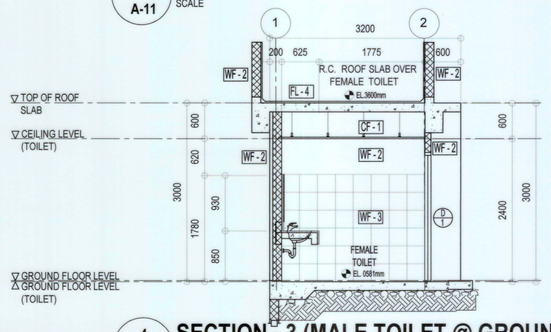

4 A-11 **SECTION - 3 (MALE TOILET @ GROUND FLOOR)**
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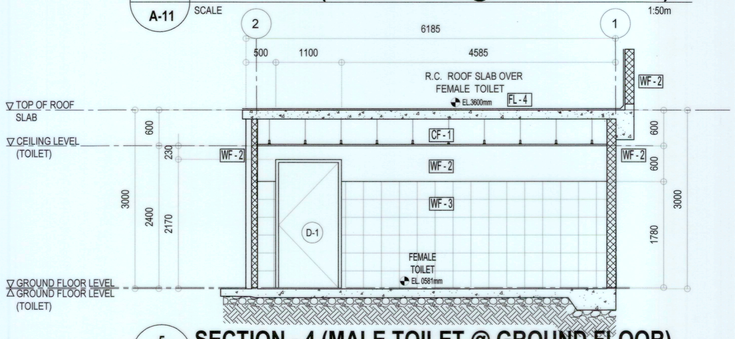

5 A-11 **SECTION - 4 (MALE TOILET @ GROUND FLOOR)**
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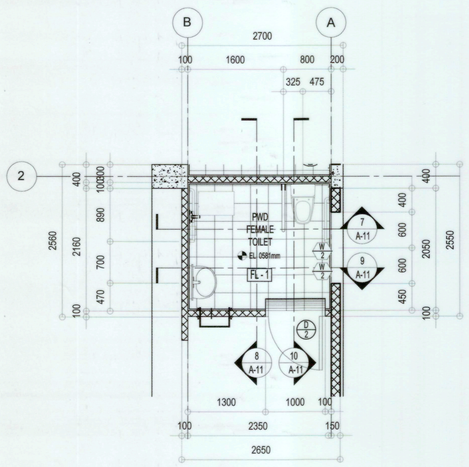

6 A-10 **DET. PLAN OF PWD MALE TOILET @ GROUND FLOOR**
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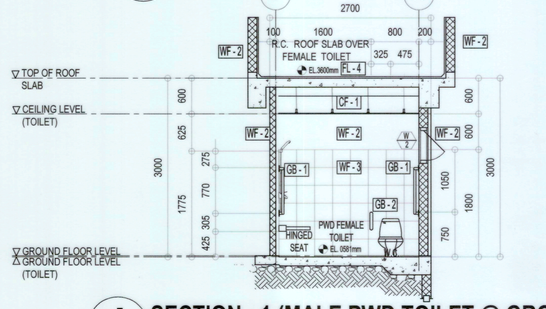
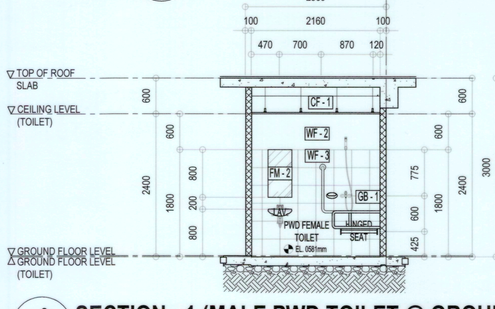
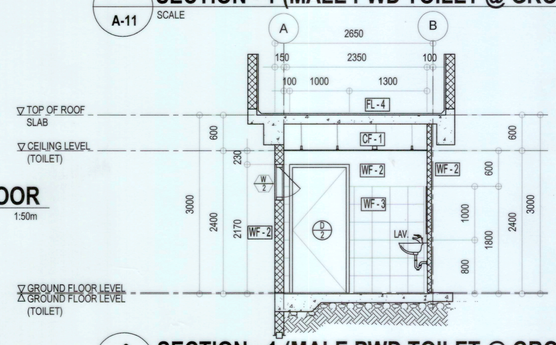


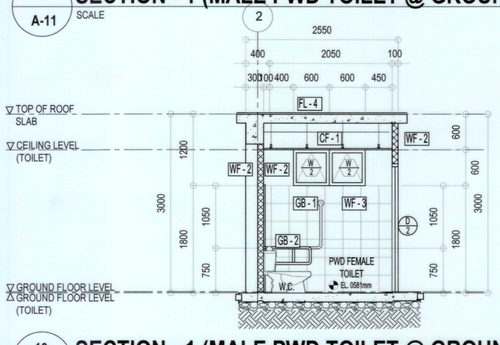
7 A-11 **SECTION - 1 (MALE PWD TOILET @ GROUND FLOOR)**
SCALE 1:50m



8 A-11 **SECTION - 1 (MALE PWD TOILET @ GROUND FLOOR)**
SCALE 1:50m



9 A-11 **SECTION - 1 (MALE PWD TOILET @ GROUND FLOOR)**
SCALE 1:50m



10 A-11 **SECTION - 1 (MALE PWD TOILET @ GROUND FLOOR)**
SCALE 1:50m

REPUBLIC OF THE PHILIPPINES
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STANDARD PAGCOR MULTI-PURPOSE/ EVACUATION CENTER
(OPTION 2)
(FOR WIND VELOCITY OF 270KPH)

SHEET CONTENTS:
DET. PLAN & SECTIONS OF FEMALE TOILET @ GROUND FLOOR
DET. PLAN & SECTIONS OF FEMALE PWD TOILET @ GROUND FLOOR
SCHEDULE OF FINISHES

ARCHITECTURAL CONCEPT:
ARCHITECTURAL SECTION
CADD:
JANE RAQUEL P. GONZALES
ARCHITECT II
CHECKED:
FRANCIS G. SERRANO
ARCHITECT IV

SUBMITTED:
JOSEPHINE P. ISTURIS
CHIEF, BUILDINGS DIVISION

RECOMMENDING APPROVAL:
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ARISTARCO M. DOROY
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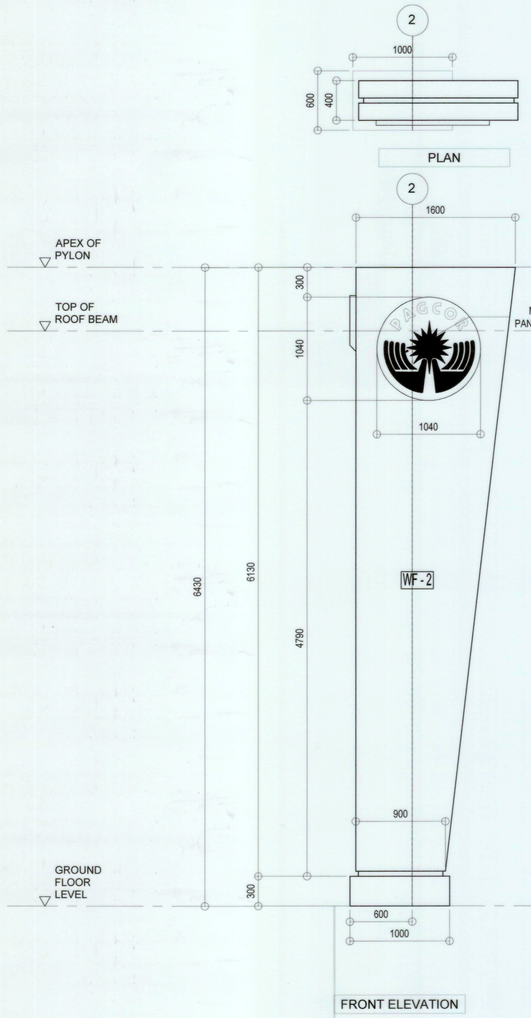
BUREAU OF DESIGN
OCT 23 2019

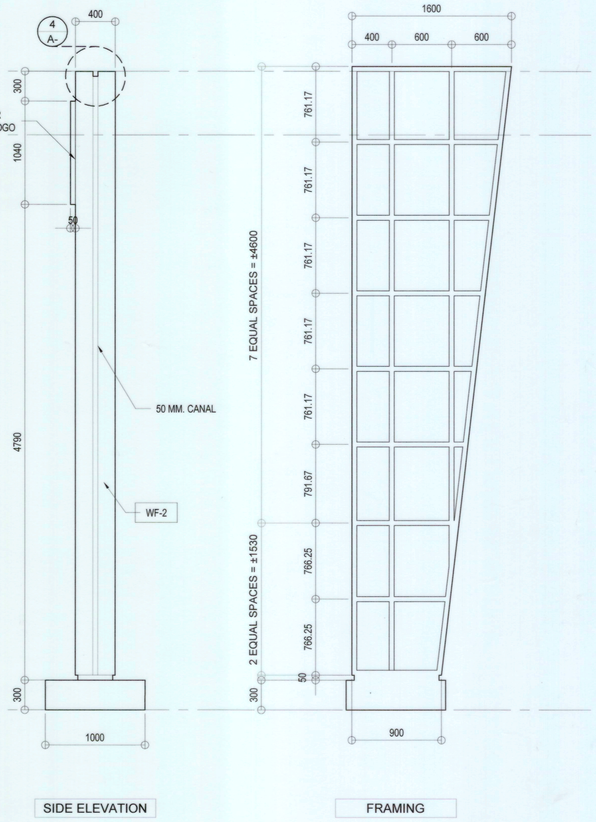
APPROVED:
SEE COVER SHEET FOR SIGNATURE
EMIL K. SADAIN, CESO I
UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

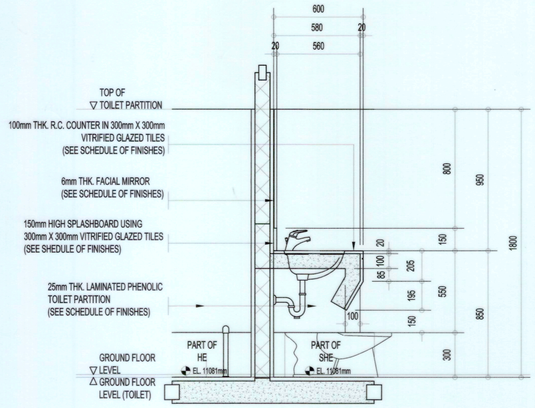
CONCURRED:
SEE COVER SHEET FOR SIGNATURE AND APPROVAL
JAMES PATRICK R. BONDOC
VICE PRESIDENT
CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD B

SHEET NO.: A-11 12 30

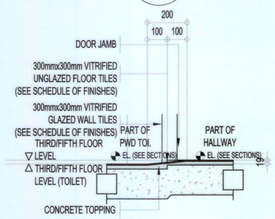






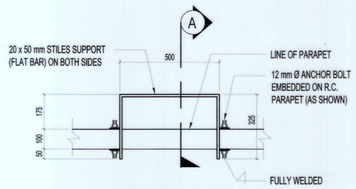
BLOW-UP DETAIL
R.C. COUNTERTOP

4 / A-12 SCALE 1:20 MTS.

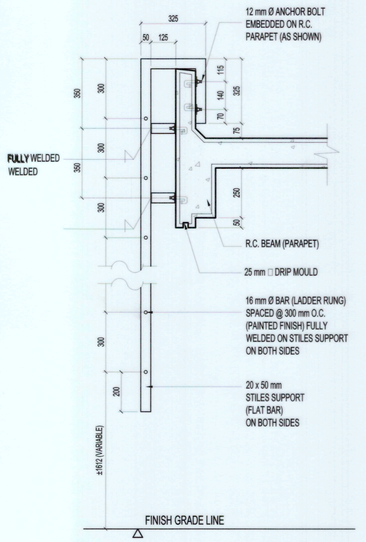


BLOW-UP DETAIL
TOILET RAMP

5 / A-12 SCALE 1:15 MTS.



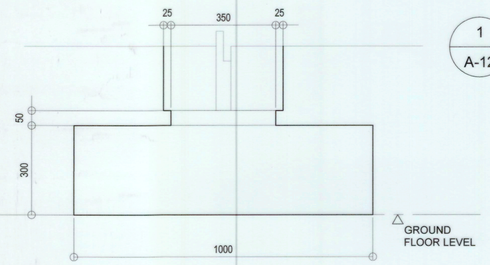
DETAIL PLAN



DETAIL SECTION THRU-A

DETAIL OF LADDER RUNG

7 / A-12 SCALE 1:10 MTS.

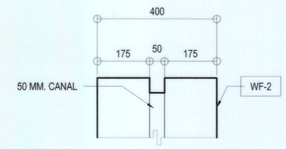


DETAIL OF PYLON

1 / A-12 SCALE 1:30 MTS.

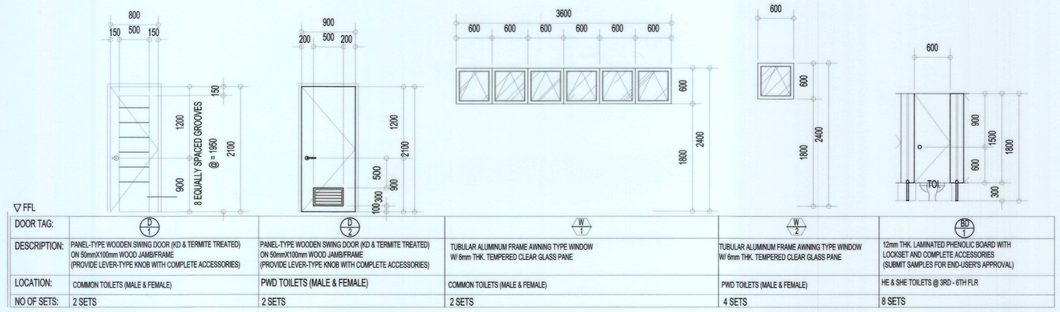
DETAIL OF PYLON BASE

2 / A-12 SCALE 1:10 MTS.



SPOT DETAIL

3 / A-12 SCALE 1:10 MTS.



DOOR TAG:	D/1	D/2	W/1	W/2	BD/1
DESCRIPTION:	PANEL-TYPE WOODEN SWING DOOR (KD & TERMITE TREATED) ON 50mmX100mm WOOD JAMB/FRAME (PROVIDE LEVER-TYPE KNOB WITH COMPLETE ACCESSORIES)	PANEL-TYPE WOODEN SWING DOOR (KD & TERMITE TREATED) ON 50mmX100mm WOOD JAMB/FRAME (PROVIDE LEVER-TYPE KNOB WITH COMPLETE ACCESSORIES)	TUBULAR ALUMINUM FRAME AWNING TYPE WINDOW W/ 6mm THK. TEMPERED CLEAR GLASS PANE	TUBULAR ALUMINUM FRAME AWNING TYPE WINDOW W/ 6mm THK. TEMPERED CLEAR GLASS PANE	12mm THK. LAMINATED PHENOLIC BOARD WITH LOCKSET AND COMPLETE ACCESSORIES (SUBMIT SAMPLES FOR END-USER'S APPROVAL)
LOCATION:	COMMON TOILETS (MALE & FEMALE)	PWD TOILETS (MALE & FEMALE)	COMMON TOILETS (MALE & FEMALE)	PWD TOILETS (MALE & FEMALE)	HE & SHE TOILETS @ 3RD - 6TH FLR
NO OF SETS:	2 SETS	2 SETS	2 SETS	4 SETS	8 SETS

SCHEDULE OF DOORS & WINDOWS

8 / A-12 SCALE 1:50 MTS.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
BUREAU OF DESIGN
BUILDINGS DIVISION
BONIFACIO DRIVE PORT AREA, MANILA

PROJECT AND LOCATION:
PROPOSED:
STANDARD PAGCOR MULTI-PURPOSE/ EVACUATION CENTER
(OPTION 2)
(FOR WIND VELOCITY OF 270 KPH)

SHEET CONTENTS:
DETAIL OF PYLON
DETAIL OF PYLON BASE
SPOT DETAIL
BLOW-UP DET. OF SOLID SURFACE COUNTERTOP
BLOW-UP DET. OF TOILET RAMP
BLOW-UP DET. OF SHADOW GAP
DET. PLAN OF LADDER RUNG
SCHEDULE OF DOORS AND WINDOWS

ARCHITECTURAL CONCEPT: ARCHITECTURAL SECTION
CADD: JANE PAOLA P. GONZALES, ARCHITECT II
CHECKED: FRANCIS G. SERRANO, ARCHITECT IV

SUBMITTED: JOSEPHINE P. ISTURIS, CHIEF, BUILDINGS DIVISION

RECOMMENDING APPROVAL: SEE COVER SHEET FOR SIGNATURE, ARISTARCO M. DOROY, OFFICER-IN-CHARGE BUREAU OF DESIGN, OCT 23 2019

APPROVED: SEE COVER SHEET FOR SIGNATURE, EMIL K. SADAIN, CESO I, UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

CONCURRED: SEE COVER SHEET FOR SIGNATURE AND APPROVAL, JAMES PATRICK R. BONDOC, VICE PRESIDENT CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD / B

SHEET NO.: A-12 / 13 / 30

GENERAL NOTES:

1.0 GENERAL :

1.1 ALL DIMENSIONS ARE SHOWN IN MILLIMETERS, ELEVATIONS ARE IN METERS, UNLESS NOTED OTHERWISE.

1.2 THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE, AND SHALL NOTIFY THE ENGINEER OF DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND INFORMATION SHOWN ON THE DRAWINGS BEFORE PROCEEDING WITH THE WORK. THIS SHALL INCLUDE THE LOCATION AND DIMENSIONS OF GROOVES, REGLETS, SLEEVES, CURBS, OPENINGS, EMBEDDED OR ATTACHED ITEMS, ETC. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING PLANS. ALL FIGURED DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS, DRAWINGS.

1.3 SECTIONS OR DETAILS. SPECIFIC NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.

1.4 THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURES. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION UNLESS SO STATED. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEASURES TO PROTECT THE STRUCTURES, ADJACENT PROPERTIES, WORKMEN AND OTHER PERSONS DURING ALL PHASES OF CONSTRUCTION.

1.5 THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND / OR THE ENGINEER OF ANY CONDITION WHICH IN HIS OPINION MIGHT ENDANGER THE STABILITY OF THE STRUCTURES OR CAUSE DISTRESS IN THE STRUCTURES.

1.6 CONSTRUCTION MATERIALS SHALL NOT BE STORED ON POURED FLOORS. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE SUB-CONTRACTORS ARE INFORMED AND DO NOT VIOLATE THIS IMPORTANT REQUIREMENT.

1.7 THE CONTRACTOR SHALL PROVIDE TEMPORARY ERECTION BRACINGS AND SHORINGS FOR ALL THE STRUCTURAL MEMBERS AS REQUIRED FOR STRUCTURE STABILITY DURING ALL PHASES OF CONSTRUCTION.

1.8 THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO ENSURE THE PROPER ALIGNMENT OF THE STRUCTURES DURING AND AFTER THE INSTALLATION OF ALL STRUCTURAL AND FINISH MATERIALS.
JOB UNLESS OTHERWISE SHOWN ON THE DRAWINGS.

2.0 STANDARDS AND REFERENCES :

THE FOLLOWING SHALL GOVERN THE DESIGN, FABRICATION AND CONSTRUCTION OF THE PROJECT :

2.1 AMERICAN CONCRETE INSTITUTE (ACI PUBLICATIONS) :
ACI 318-2002 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
ACI 315-80 MANUAL OF STANDARD PRACTICE FOR DETAILS AND DETAILING OF CONCRETE REINFORCEMENT.

2.2 AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) PUBLICATION:
MANUAL OF STEEL CONSTRUCTION, NINTH EDITION.

2.3 AMERICAN WELDING SOCIETY (AWS) PUBLICATION D.1.1-2000.

2.4 AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM)

2.5 NATIONAL STRUCTURAL CODE OF THE PHILIPPINES (NSCP) VOL. 1, SEVENTH EDITION 2015

2.6 ASSOCIATION OF STRUCTURAL ENGINEERS OF THE PHILIPPINES (ASEP) HANDBOOK OF STRUCTURAL STEEL SHAPES AND SECTIONS, 1987

2.7 UNIFORM BUILDING CODE (UBC), VOL. 2 1997 EDITION

3.0 DESIGN CRITERIA :

3.1 DESIGN LOADS (DL) :

3.1.1 CONCRETE	24.00	kN/m^3
3.1.2 STEEL	77.00	kN/m^3
3.1.3 SOIL	16.00	kN/m^3
3.1.4 ROOFING, PURLINS & INSULATION	0.20	kPa
3.1.5 CEILING	0.24	kPa
3.1.6 FLOOR FINISH	1.00	kPa
3.1.7 100MM THK. CHB WALL	2.10	kPa
3.1.8 150MM THK. CHB WALL	2.73	kPa

3.2 LIVE LOADS (LL) :

3.2.1 ROOF	0.60	kPa

3.3 WIND LOAD (WL)

THE WIND LOAD ON STRUCTURE AND BUILDING SHALL BE CALCULATED, BASED ON NATIONAL STRUCTURAL CODE OF THE PHILIPPINES, CONSIDERING BASIC WIND SPEED (3 SECOND GUST SPEED) EQUALS TO 94.44 M/SEC.

BASIC WIND SPEED , V	=	270 kM/hour
OCCUPANCY CATEGORY	=	I
EXPOSURE CATEGORY	=	B
VELOCITY PRESSURE AT HEIGHT 'Z', qz	=	$0.613K_zK_{zt}K_dV^2$ $(N/^2)$; V in m/s

WHERE, V IN KM/HOUR
Kzt = TOPOGRAPHIC FACTOR = 1.00
K_z = EXPOSURE COEFFICIENTS = $2.01(z/z_g)^{2/a}$
z_g = GRADIENT HEIGHT = 457M AND a = 5
AND, QZ = 0.9683 X Z0.174 IN KN/M^2

THIS VELOCITY PRESSURE SHALL BE USED ALONG WITH FORCE COEFFICIENTS TO CALCULATE WIND LOAD ON SPECIFIC STRUCTURE.

3.4 SEISMIC LOAD , E

SEISMIC LOADS FOR BUILDING STRUCTURES ARE CALCULATED BASED ON THE FOLLOWING:

$E = \rho Eh + Ev$

$Em = \Omega_o Eh$

WHERE:

E = EARTHQUAKE LOAD ON THE STRUCTURE

Eh = THE EARTHQUAKE LOAD DUE TO THE BASE SHEAR, V, OR THE DESIGN LATERAL FORCE Fp.

Em = THE ESTIMATED MAXIMUM EARTHQUAKE FORCE THAT CAN BE DEVELOPED IN THE STRUCTURE.

Ev = THE LOAD EFFECT RESULTING FROM THE VERTICAL COMPONENT OF THE EARTHQUAKE GROUND MOTION AND IS EQUAL TO AN ADDITIONAL OF 0.5 Ca I D TO THE DEAD LOAD EFFECT. D, FOR STRENGTH DESIGN, AND MAY BE TAKEN AS ZERO FOR ALLOWABLE STRESS DESIGN.

Ω_o = THE SEISMIC FORCE AMPLIFICATION FACTOR THAT IS REQUIRED TO ACCOUNT FOR STRUCTURAL OVERSTRENGTH.

ρ = RELIABILITY/REDUNDANCY FACTOR WHICH SHALL NOT BE TAKEN LESS THAN 1.0 AND GREATER THAN 1.5, IS GIVEN BY THE FOLLOWING FORMULA:

$$\rho = \frac{2 \quad 6.1}{r_{max}\sqrt{A_B}}$$

WHERE:

rmax = THE MAXIMUM ELEMENT-STORY SHEAR RATIO. FOR A GIVEN DIRECTION OF LOADING, THE ELEMENT-STORY SHEAR RATIO IS THE RATIO OF THE DESIGN OF STORY SHEAR IN THE HEAVILY LOADED SINGLE ELEMENT DIVIDED BY THE TOTAL DESIGN STORY SHEAR.

FOR MOMENT FRAMES, IT SHALL BE TAKEN AS THE MAXIMUM OF THE SUM OF THE SHEARS IN ANY TWO ADJACENT COLUMNS IN A MOMENT FRAME BAY DIVIDED BY THE STORY SHEAR. FOR COLUMNS COMMON TO TWO BAYS, 70 PERCENT OF THE SHEAR IN THAT COLUMN MAY BE USED IN THE COLUMN SHEAR SUMMATION.

A_B = THE GROUND FLOOR AREA OF THE STRUCTURE.

EARTHQUAKE BASE SHEAR, (V)

THE TOTAL DESIGN BASE SHEAR IN A GIVEN DIRECTION SHALL BE DETERMINED FROM THE FOLLOWING FORMULA:

$$V = \frac{Cv\ I}{R\ T}\ (W)$$

AND NEED NOT EXCEED THE FOLLOWING:

$$V = \frac{2.5\ Ca\ I}{R}\ (W)$$

BUT SHALL NOT BE LESS THAN THE FOLLOWING:

$V = 0.11\ Ca\ I\ W$

IN ADDITION FOR SEISMIC ZONE 4, THE TOTAL BASE SHALL ALSO BE NOT LESS THAN THE FOLLOWING:

$$V = \frac{8.5\ Z\ Nv\ I}{R}\ (W)$$

WHERE:

SEISMIC ZONE FACTOR,	Z = 0.40
IMPORTANCE FACTOR	I = 1.5
GLOBAL DUCTILITY CAPACITY (SMRF)	R = 8.5
SEISMIC FORCE OVERSTRENGTH FACTOR	Ω_o = 2.8
SEISMIC SOURCE TYPE	= A
NEAR - SOURCE FACTOR, Nv	= 2.0
NEAR - SOURCE TYPE, Na	= 1.5

4.0 MATERIALS

4.1NORMAL WEIGHT CONCRETE :

4.1.1 CONCRETE USED IN THIS WORK SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH @ 28 DAYS AS FOLLOWS :

COLUMNS, BEAMS & FOOTINGS	fc' = 28MPa (4,000 PSI)
FOOTING TIE BEAMS	fc' = 28MPa (4,000 PSI)
SLAB ON GRADE	fc' = 17.5MPa (2,500 PSI)

4.1.2 ALL CONCRETE SHALL BE DEPOSITED, VIBRATED AND CURED IN ACCORDANCE WITH ACI STANDARD 318-95

4.1.3 MINIMUM CONCRETE COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS:
A. FOOTINGS & BOT. OF FOOTING TIE BEAM = 75MM (CAST AGAINST EARTH)
C. BEAMS AND COLUMNS = 40MM (TO STIRUPS AND TIES)
D. SLABS AND WALLS = 20MM (CAST AGAINST FORMS)

4.1.4 BEFORE CONCRETE IS POURED, CHECK WITH ALL TRADES TO ENSURE PROPER PLACEMENT OF ALL OPENINGS, SLEEVES, CURB1S, CONDUITS, ETC. RELATIVE TO THE WORK.

4.1.5 WHEN CONCRETE WILL BE EXPOSED TO EXTERNAL SOURCES OF CHLORIDES IN SERVICES, SUCH AS DEICING SALTS, BRACKISH WATER, SEAWATER OR SPRAY FROM THESE SOURCES, CONCRETE MUST BE PROPORTIONED TO SATISFY THE SPECIAL EXPOSURE REQUIREMENTS OF ACI 318-95.

4.1.6 ALL CONCRETE SHALL BE KEPT MOIST FOR A MINIMUM OF 7 CONSECUTIVE DAYS IMMEDIATELY AFTER POURING BY THE USE OF WET BURLAP.

4.2 REINFORCING BARS :

4.2.1 UNLESS OTHERWISE SPECIFIED ON PLANS, REINFORCING BARS SHALL BE DEFORMED WITH A MINIMUM YIELD STRENGTH:
16MMø AND ABOVE: fy = 414 MPa (60000 PSI).
BELOW 16MMø: fy = 275 MPa (40000 PSI).

4.2.2 ALL REINFORCING BARS SHALL BE CLEANED OF RUST, GREASE OR OTHER MATERIALS WHICH TEND TO IMPAIR BOND.

4.2.3 ALL REINFORCING BARS SHALL BE ACCURATELY AND SECURELY PLACED BEFORE POURING CONCRETE OR APPLYING MORTAR OR GROUT.

4.2.4 LAPPED SPLICES SHALL BE STAGGERED WHERE POSSIBLE.

4.2.5 UNLESS INDICATED OTHERWISE, SPLICING OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH ACI- 318-2002.

4.2.6 UNLESS SHOWN OTHERWISE ON PLANS, SPLICES SHALL BE AS FOLLOWS :

A. BEAMS AND FOOTING TIE BEAMS : TOP AND BOTTOM BARS SHALL NOT BE SPLICED WITHIN THE COLUMN OR WITHIN A DISTANCE OF TWICE THE MEMBER DEPTH FROM THE FACE OF THE COLUMN ; AT LEAST TWO EXTRA STIRRUP - TIES SHALL BE PROVIDED AT ALL SPLICES. THE SPLICE LENGTH SHALL NOT BE LESS THAN THE LENGTH IN ITEM 4.2.9 BELOW.

B. COLUMNS : SPLICES WHEN PERMITTED SHALL BE MADE WITHIN THE CENTER HALF OF COLUMN HEIGHT, AND LAP SPLICE SHALL NOT BE LESS THAN 40 BAR DIAMETERS. THE USE OF APPROVED MECHANICAL DEVICES MAY BE PERMITTED PROVIDED THAT NOT MORE THAN ALTERNATE BARS ARE SPLICED AT ANY LEVEL AND THE MINIMUM VERTICAL DISTANCE BETWEEN TWO ADJACENT BAR SPLICES SHALL BE 600MM.

C. CMU WALLS : VERTICAL BARS SHALL BE SPLICED AT THE TOP OF WALL FOOTING OR TIE BEAM AND AT THE BOTTOM OF RC LINTEL BEAM OR BEAMS. SPLICE LENGTHS SHALL BE 600MM MIN.

4.2.7 UNLESS INDICATED OTHERWISE ALL BEAMS TERMINATING AT THE COLUMN SHALL HAVE TOP AND BOTTOM BARS EXTENDING TO THE FAR FACE OF THE COLUMN, TERMINATING IN A STANDARD 90° HOOK LENGTH OF ANCHORAGE NOT LESS THAN 600MM.

4.2.8 SHOP DRAWINGS FOR BENDING AND CUTTING OF REINFORCEMENT SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEER PRIOR TO FABRICATION.

4.2.9 SPLICE LENGTH OF REINFORCING BARS SHALL BE AS SHOWN IN THE TABLE BELOW.

4.3 STRUCTURAL STEEL/ANCHOR BOLTS/BOLTS/WELDS & WELDMENTS, BASE PLATE, GUSSET PLATE, SAG ROD AND CROSS TIES.

4.3.1 ALL STRUCTURAL STEEL SHALL HAVE A MINIMUM YIELD STRENGTH, Fy = 248 MPa (36 KSI) AND SHALL CONFORM TO ASTM A 36 SPECIFICATIONS.

4.3.2 ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC SPECIFICATIONS (9TH EDITION) AND CODE OF STANDARD PRACTICE AS AMENDED TO DATE.

4.3.3 ALL COLD FORMED STEEL SHALL HAVE A MINIMUM STRENGTH, Fy = 230 MPa (33 KSI)

4.3.4 THE CONTRACTOR/FABRICATOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL OF THE IMPLEMENTING OFFICE PRIOR TO FABRICATION/ ERECTION OF ALL STEEL WORKS.

4.3.5 ALL SHOP AND FIELD WELDING SHALL BE IN ACCORDANCE WITH AWS D.1.1-2000 AND PERFORMED BY QUALIFIED WELDERS.

4.3.6 UNLESS INDICATED OTHERWISE, WELDING ELECTRODES SHALL BE E70XX, MINIMUM THICKNESS OF WELD SHALL BE 3MM.

4.3.7 UNLESS OTHERWISE INDICATED ALL ANCHOR BOLTS SHALL CONFORM TO ASTM A307 SPECIFICATIONS.

4.3.8 BOLTS FOR MEMBER CONNECTIONS SHALL BE HIGH STRENGTH BOLTS, CONFORMING TO ASTM A325 FRICTION TYPE WITH WASHERS.

4.4 CONCRETE MASONRY UNITS (CMU)

4.4.1 CMU USED IN THESE WORKS SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH @ 28 DAYS AS FOLLOWS :
100MM THICK NON-LOAD BEARING CMU, f'm = 2.4 MPa (350 PSI)
150MM THICK NON-LOAD BEARING CMU, f'm = 2.4 MPa (350 PSI)

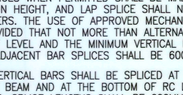
4.4.2 ALL CELLS SHALL BE SOLIDLY FILLED WITH GROUT. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 13.80 MPa (2000 PSI) @ 28 DAYS.

4.4.3 UNLESS INDICATED OTHERWISE, CMU REINFORCEMENT SHALL BE 10MMø HOR. BARS @ 600 AND 10MMø VERT. BARS @ 400.

4.4.4 ALL WALLS SHALL BE CONSTRUCTED IN CONVENTIONAL RUNNING BOND UNLESS NOTED OTHERWISE.

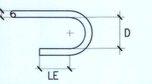
4.4.5 GROUT MASONRY IN 2.4M MAXIMUM LIFTS. REINFORCING SHALL BE SECURED AGAINTS DISPLACEMENT PRIOR TO GROUTING BY WIRE POSITIONERS AT INTERVALS NOT EXCEEDING 200 BAR DIAMETERS NOR 3M.

4.4.6 IF WORK IS STOPPED ONE (1) HOUR OR LONGER, PROVIDE HORIZONTAL CONSTRUCTION JOINTS BY STOPPING THE GROUT 50MM BELOW THE TOP OF THE BLOCK.



BAR DIAMETER Dbar	MINIMUM BEND RADIUS R	EXTENSION LE
10ø TO 25ø	3Dbar	12Dbar
28ø TO 36ø	4Dbar	12Dbar

90 DEG STANDARD HOOK FOR NONSTIRRUP REINFORCEMENT



BAR DIAMETER Dbar	MINIMUM BEND DIAMETER D	EXTENSION LE
10ø TO 25ø	6Dbar	4Dbar >60
28ø TO 36ø	8Dbar	4Dbar >60

180 DEG STANDARD HOOK FOR NONSTIRRUP REINFORCEMENT

5.0 CONSTRUCTION JOINTS:

5.1 CONSTRUCTION JOINTS NOT INDICATED ON PLANS SHALL BE MADE SO AS TO LEAST IMPAIR THE STRENGTH OF THE STRUCTURE AND SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.

5.2 UNLESS SHOWN OTHERWISE, SLAB ON GRADE SHALL HAVE CONTROL JOINTS @ 6.00M MAXIMUM CENTER TO CENTER.

6.0 NOTES ON BEAMS AND GIRDERS

6.1 UNLESS OTHERWISE NOTED IN PLANS OR SPECIFICATIONS, CAMBER ALL BEAMS AND GIRDERS AT LEAST 0.006M FOR EVERY 4.50M OF SPAN EXCEPT CANTILEVERS FOR WHICH THE CAMBERS SHALL BE AS NOTED IN THE PLANS OR AS ORDERED BY THE DESIGNERS. BUT IN NO CASE LESS THAN .019M FOR EVERY 3.00M OF FREE SPAN.

6.2 IF THERE ARE TWO OR MORE LAYERS OF REINFORCING BARS , USE SEPARATORS OF SIZE NOT LESS THAN 25MM BARS SPACED ABOUT 1.00M ON CENTER AND PLACED DIAGONALLY. IN NO CASE SHALL THERE BE LESS TWO (2) SEPARATORS BETWEEN LAYERS OF BARS.

6.3 WHEN A BEAM CROSSES A GIRDER, REST BEAM BARS ON TOP OF GIRDER BARS. REINFORCING BARS SHALL BE SYMMETRICAL ABOUT THE CENTER LINE WHENEVER POSSIBLE. UPPER LAYER SHALL BE PLACED DIRECTLY ABOVE THOSE IN THE BOTTOM LAYER. SPACING OF BARS IN LAYER SHALL NOT BE LESS THAN 0.025M NOR ONE BAR DIAMETER.

6.4 GENERALLY, NO SPLICE SHALL BE PERMITTED ON BEAM AT POINT WHERE CRITICAL BENDING STRESSES OCCUR. WELDED SPLICES SHALL DEVELOP IN TENSION AT LEAST 125% OF THE SPECIFIED STRENGTH OF THE BAR, NOT MORE THAN 50% OF THE BARS AT ANY ONE SECTION SHALL BE ALLOWED TO BE SPLICED THEREIN.

6.5 FOR BAR TERMINATIONS OF TOP BARS AT SUPPORT AND MIDSPAN BARS, CUT-OFF ONLY TWO BARS AT EVERY 0.3M INTERVAL (UNLESS REQUIRED IN SPECIFICATIONS, OR NOTED OTHERWISE.)

7.0 FOUNDATIONS :

7.1 FOOTINGS WERE DESIGNED USING AN ALLOWABLE SOIL BEARING CAPACITY OF 96.0 KPa (2,000 PSF) AT DEPTHS INDICATED IN THE DRAWING.

7.2 WHERE LOOSE/SOFT MATERIAL IS ENCOUNTERED AT DEPTH OF FOOTING/FOUNDATION INDICATED, EXCAVATE TO FIRM LAYER AND REPLACE LOOSE/SOFT MATERIALS UNDERNEATH THE FOOTING WITHIN THE FOOTING AREA PLUS 1/2 DEPTH OF SOIL MATERIAL ON ALL SIDES WITH SELECTED BACKFILL. COMPACT SELECTED BACKFILL TO 95% MAXIMUM DRY DENSITY (ASTM D1557).

7.3 NO FOOTINGS SHALL REST ON FILL . PROVIDE 100MM THK WELL COMPACTED GRAVEL BASE COURSE IN ALL COLUMN FOOTINGS, UNLESS OTHERWISE STATED.

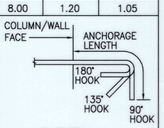
7.4 FILL/BACKFILL SHALL BE PLACED IN 200 MM LAYERS AND EACH LAYER SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY BEFORE SUBSEQUENT LAYERS ARE TO BE LAID.

7.5 FOUNDATION DESIGN MAY VARY ON ACTUAL GEOTECHNICAL REPORT CONDUCTED ON SITE AND CONFIRMATORY BOREHOLE MUST BE DONE BEFORE START OF CONSTRUCTION. IF THE ACTUAL SOIL CONDITION IS FOUND NOT ACCORDANCE WITH THE ASSUMED SOIL BEARING CAPACITY, NOTIFY THE DESIGNER FOR PROPER REVISION OF THE FOUNDATION DESIGN.

LAP SPLICE & ANCHORAGE LENGTH TABLE

BAR DIAMETER (mm)	ANCHORAGE LENGTH (m)	STANDARD HOOK (m)			LAP SPLICE (m)				UNIT WEIGHT (Kg/m)	MIN. LAP SPLICE LENGTH OF COL. REINF. INDIVIDUAL BARS	
					TENSION BAR		COMP. BAR				
		90°	180°	135°	TOP BAR	OTHERS	TOP BAR	OTHERS		W/ TIES	W/ SPIRAL
10	0.50	0.15	0.13	0.10	0.42	0.30	0.42	0.30	0.617	0.30	0.30
12	0.50	0.20	0.15	0.12	0.42	0.30	0.42	0.30	0.889	0.30	0.30
16	0.60	0.25	0.18	0.14	0.73	0.52	0.87	0.62	1.580	0.52	0.47
20	0.60	0.30	0.20	0.20	0.91	0.65	1.10	0.78	2.469	0.65	0.58
25	0.68	0.40	0.28	0.26	1.15	0.82	1.40	1.00	3.858	0.80	0.73
28	0.86	0.48	0.38	–	1.45	1.03	1.53	1.09	4.840	0.90	0.82
32	1.12	0.56	0.43	–	1.90	1.35	1.74	1.24	6.327	1.03	0.93
36	1.43	0.61	0.48	–	2.40	1.70	2.00	1.40	8.00	1.20	1.05

NOTES:
2.
3. ACI SECTION 12.4 STATES THAT DEVELOPMENT LENGTH OF INDIVIDUAL BARS W/IN A BUNDLE, IN TENSION OR COMPRESSION, SHALL BE THAT FOR THE INDIVIDUAL BAR, INCREASED 20% FOR THREE BAR BUNDLE, AND 33% FOR FOUR BAR BUNDLE.
4. FOR COLUMNS, AT ANY LEVEL NO MORE THAN ALTERNATE BARS SHOULD BE SPLICED. NOT MORE THAN 33% OF THE BARS SHALL BE SPLICED W/IN THE REQUIRED LAP LENGTH. MINIMUM DISTANCE BETWEEN TWO ADJACENT BAR SPLICES SHALL BE 600MM.
TOP BARS ARE HORIZONTAL BARS W/ MORE THAN 300MM DEPTH OF CONCRETE CAST BELOW THE REINFORCEMENT.
AS MUCH AS POSSIBLE, SPLICES SUBJECTED TO TENSILE STRESSES ARE DISCOURAGE, THESE SHOULD BE AVOIDED OR PROVIDED W/ STANDARD HOOKS.



DETAIL

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
BUREAU OF DESIGN
BUILDINGS DIVISION
BONIFACIO DRIVE PORT AREA, MANILA

PROJECT AND LOCATION:
PROPOSED:
STANDARD PAGCOR MULTI-PURPOSE EVACUATION CENTER (OPTION 2)
(FOR WIND VELOCITY OF 270 KPH)

SHEET CONTENTS:
DESIGN CRITERIA
CONSTRUCTION NOTES

DESIGNED: **STRUCTURAL SECTION**
CADD: **STRUCTURAL SECTION**
CHECKED: **KATHRINE ANNE C. MACOY** ENGINEER IV

SUBMITTED: **JOSEPHINE P. ISTURIS** CHIEF, BUILDINGS DIVISION

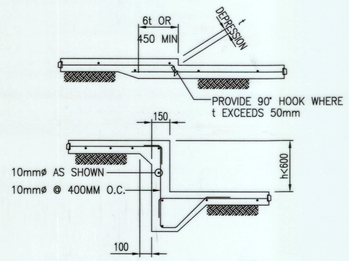
RECOMMENDING APPROVAL: *SEE COVER SHEET FOR SIGNATURE* **ARISTARCO M. DOROY** OFFICER-IN-CHARGE BUREAU OF DESIGN OCT 23 2019

APPROVED: *SEE COVER SHEET FOR SIGNATURE* **EMIL K. SADAIN, CESO I** UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

CONCURRED: *SEE COVER SHEET FOR SIGNATURE AND APPROVAL* **JAMES PATRICK R. BONDOC** VICE PRESIDENT CORPORATE SOCIAL RESPONSIBILITY

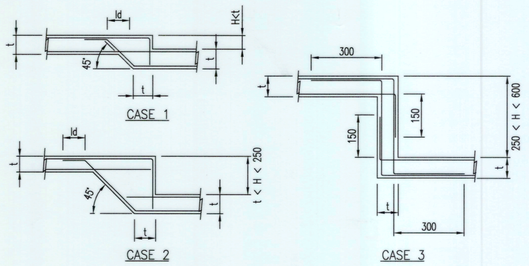
SET NO.: BOD / B

SHEET NO.: S-1 / 7 | 30



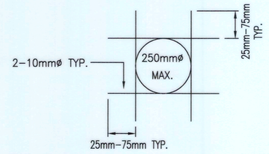
1 S-2 DEPRESSED SLAB & SLAB EDGE DETAILS

SCALE NTS



2 S-2 TYP. REBAR DETAIL OF DEPRESSED/ SUSPENDED SLAB FOR DIFF. ELEV.

SCALE NTS

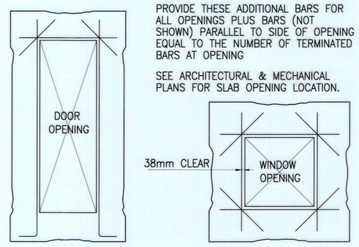


NOTE:

1. REINF. TO BE SAME BAR SIZE AND SPACING AS ADJACENT REINF. BARS ON SLABS.
2. FOR CLOSURE SLABS AT OPENINGS AND BLOCKS OUT, REBARS TO BE THE SAME SIZE, AND 2/3 THE SPACING OF BARS AS ADJACENT SLABS.

3 S-2 TYP. PIPE SLEEVE OPENING FOR SLABS

SCALE NTS

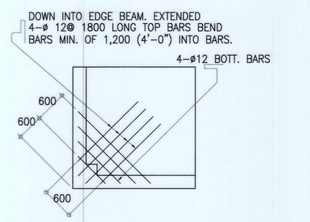


NOTE:
PROVIDE THESE ADDITIONAL BARS FOR ALL OPENINGS PLUS BARS (NOT SHOWN) PARALLEL TO SIDE OF OPENING EQUAL TO THE NUMBER OF TERMINATED BARS AT OPENING

SEE ARCHITECTURAL & MECHANICAL PLANS FOR SLAB OPENING LOCATION.

4 S-2 TYP. EXTERIOR WDW. & DOOR OPENING

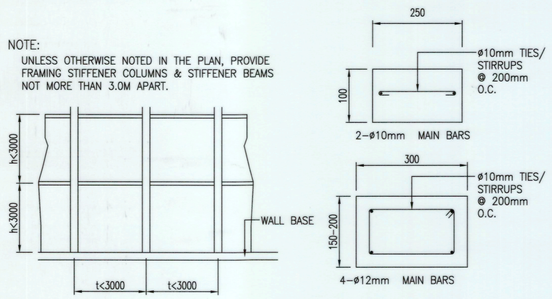
SCALE NTS



5 S-2 TYP. CORNER SLAB DETAIL

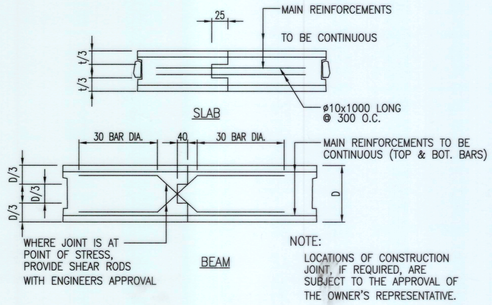
SCALE NTS

NOTE:
UNLESS OTHERWISE NOTED IN THE PLAN, PROVIDE FRAMING STIFFENER COLUMNS & STIFFENER BEAMS NOT MORE THAN 3.0M APART.



6 S-2 TYPICAL DETAIL OF STIFFENER BEAMS & COLUMNS

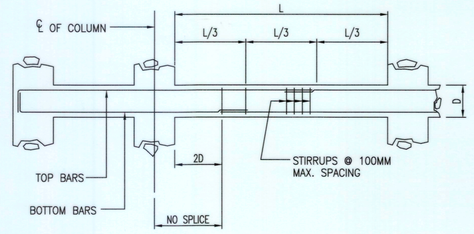
SCALE NTS



NOTE:
LOCATIONS OF CONSTRUCTION JOINT, IF REQUIRED, ARE SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE.

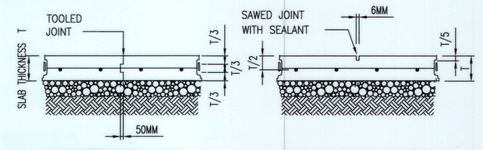
7 S-2 TYPICAL SLAB & BEAM CONSTRUCTION JOINT DET.

SCALE NTS



8 S-2 TYP. SPLICE DETAILS FOR BEAMS FRAMING INTO COLUMN

SCALE NTS



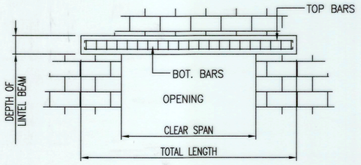
NOTE:

1. CONTROL JOINTS CAN BE EITHER CONSTRUCTION JOINTS OR WEAKENED PLANE JOINTS.

9 S-2 CONTROL JOINTS FOR SLAB-ON GRADE

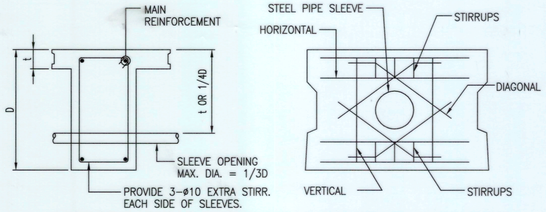
SCALE NTS

LINTEL IN BLOCK WALLS (SAME THICKNESS AS CMU)						
CLEAR SPAN L mm	TOTAL LENGTH mm	MIN. fc' Mpa	HEIGHT OF LINTEL BEAM (mm)	REINFORCEMENT		STIRRUPS
				BOTTOM	TOP	
1200	1800	13.8	200	2–ø10mm	2–ø10mm	ø10mm @ 200
1500	2100	13.8	225	2–ø12mm	2–ø12mm	ø10mm @ 200
1800	2400	13.8	250	2–ø16mm	2–ø16mm	ø10mm @ 200
2100	2700	17.2	250	2–ø16mm	2–ø16mm	ø10mm @ 200
2400	3000	17.2	300	2–ø16mm	2–ø16mm	ø10mm @ 200
2700	3300	17.2	300	2–ø16mm	2–ø16mm	ø10mm @ 200
3000	3800	17.2	350	3–ø16mm	2–ø16mm	ø10mm @ 200
3300	4100	17.2	400	3–ø16mm	2–ø16mm	ø10mm @ 200
3600	4400	17.2	450	4–ø16mm	2–ø16mm	ø10mm @ 200



10 S-2 REINF. CONCRETE LINTEL BEAM IN CHB WALLS

SCALE NTS

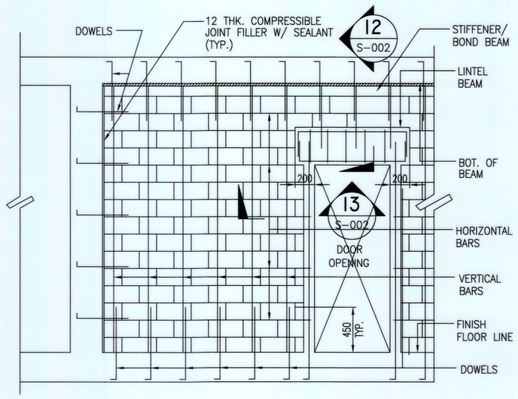


REINFORCING BAR FOR SLEEEVE

OPENING DIAMETER	REINFORCING BARS		HORIZONTAL	STIRRUP
	DIAGONAL	VERTICAL		
ø≤100	2–ø12	2–ø12		
150ø≤100	2–ø16	2–ø16	2–ø16	ø12–ø50
200ø≤150	2–ø20	2–ø16	2–ø16	ø12–ø50

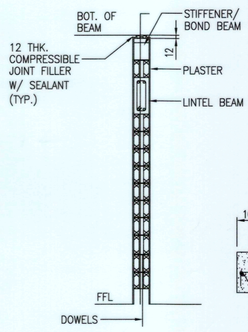
9 S-2 TYPICAL DETAIL FOR SLEEVES THRU CONCRETE BEAM

SCALE NTS



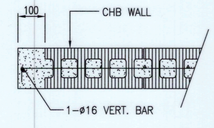
10 S-2 TYPICAL CHB WALL ELEVATION

SCALE NTS



11 S-2 SECTION

SCALE NTS



12 S-2 SECTION

SCALE NTS

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
BUREAU OF DESIGN
BUILDINGS DIVISION
BONIFACIO DRIVE PORT AREA, MANILA

PROJECT AND LOCATION:
PROPOSED:
STANDARD PAGCOR MULTI-PURPOSE EVACUATION CENTER
(OPTION 2)
(FOR WIND VELOCITY OF 270 KPH)

SHEET CONTENTS:
CONSTRUCTION DETAILS

DESIGNED: **STRUCTURAL SECTION**
CADD: **STRUCTURAL SECTION**
CHECKED: **KATHRINE ANNE C. MACOY**
ENGINEER IV

SUBMITTED:
JOSEPHINE P. ISTURIS
CHIEF, BUILDINGS DIVISION

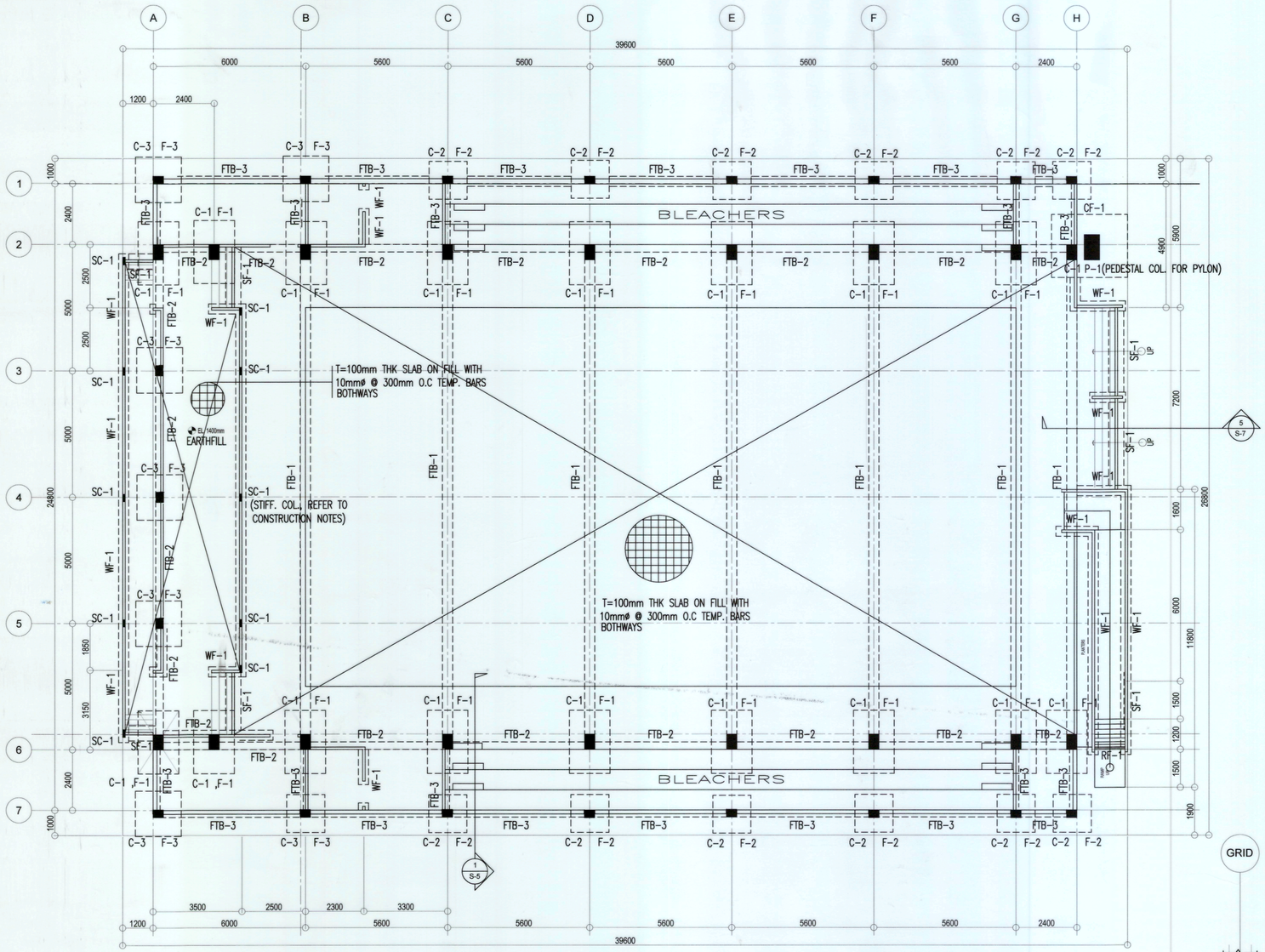
RECOMMENDING APPROVAL:
SEE COVER SHEET FOR SIGNATURE
ARISTARCO M. DOROY
OFFICER-IN-CHARGE
BUREAU OF DESIGN
OCT 23 2019

APPROVED:
SEE COVER SHEET FOR SIGNATURE
EMIL K. SADAIN, CESO I
UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

CONCURRED:
SEE COVER SHEET FOR SIGNATURE AND APPROVAL
JAMES PATRICK R. BONDOC
VICE PRESIDENT
CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD B

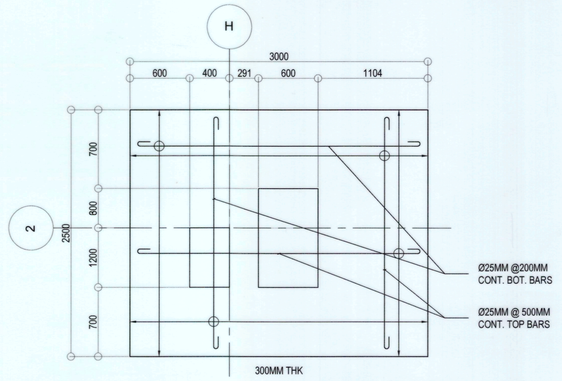
SHEET NO.: S-2 7 30



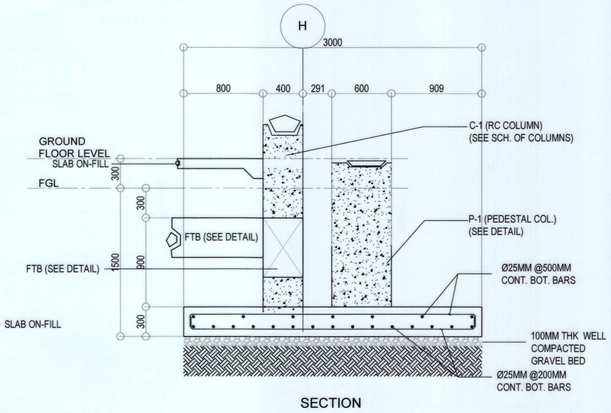
1 S-3 **FOUNDATION PLAN**
SCALE 1:100 MTS.

SCHEDULE OF COLUMNS

FLOOR LEVEL	COLUMN MARK/SECTION		
	C-1	C-2	C-3
FROM FOOTING TO ROOF BEAM	600 × 400	400 × 350	400 × 400
SIZE (mm)	400 X 600	350 X 400	400 X 400
VERT. REINF.	14–25mmø	8–25mmø	10–25mmø
TIES SIZES & SPACING	10MMø 1@50,5@100, REST @ 150mm O.C. (4 TIES/SET)	10MMø 1@50,5@100, REST @ 150mm O.C. (3 TIES/SET)	10MMø 1@50,5@100, REST @ 150mm O.C. (3 TIES/SET)
REMARKS	GYMNASIUM	BLEACHER	TOILET WITH W.TANK/ BACK STAGE



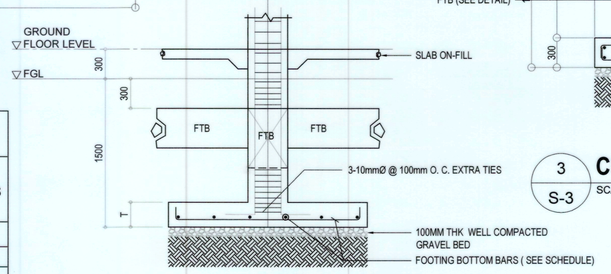
PLAN



SECTION

3 S-3 **COMBINED FOOTING DETAIL (CF-1)**
SCALE 1:30 MTS.

GRID



2 S-3 **REFERENCE FOOTING DETAIL**
SCALE 1:30 MTS.

SCHEDULE OF FOOTINGS

MARK	DIMENSION (m)			REINFORCEMENTS		D (mm)	LOCATION	REMARKS
	W	L	t (mm)	BOTT. BARS	TOP BARS			
F-1	1600	2500	300	6-25mmø B.W.	6-25mmø B.W.	1500	GYMNASIUM	ISOLATED FTG
F-2	1200	1200	300	8-20mmø B.W.	8-20mmø B.W.	1500	BLEACHER	ISOLATED FTG
F-3	1400	1400	350	10-20mmø B.W.	10-20mmø B.W.	1500	CR/WATER TANK	ISOLATED FTG
CF-1	2500	3000	300	SEE DETAIL 3 S-3		1500	PYLON	COMBINED FTG.

SCHEDULE OF FTB (FTG. TIE BEAM)

MARK	DIMENSION (mm)		LONGITUDINAL REINFORCEMENTS				REMARKS
	B (BREADTH)	D (DEPTH)	AT SUPPORT		AT MIDSPAN		
			TOP BARS	BOTT. BARS	TOP BARS	BOTT. BARS	
FTB-1	400	600	5-28mmØ	5-28mmØ	5-28mmØ	5-28mmØ	
FTB-2	250	400	3-25mmØ	3-25mmØ	3-25mmØ	3-25mmØ	
FTB-3	250	500	4-20mmØ	4-20mmØ	4-20mmØ	4-20mmØ	

TYPICAL STIRRUPS FOR FTB :
USE : 10mmØ STIRR, 1@50, 5 @ 100, 3 @ 150, REST @ 200mm O.C.

NOTE:
IN CASE THE ACTUAL SITE LOCATION/CONDITION IS FOUND NOT IN ACCORDANCE WITH THE ASSUMED MAXIMUM WIND VELOCITY OF 270 KPH, SEISMIC SOURCE WITHIN 2 km AND SOIL BEARING CAPACITY OF 96 kPa, THE STRUCTURAL PLAN SHALL BE REVISED ACCORDINGLY.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
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BUILDINGS DIVISION
BONIFACIO DRIVE PORT AREA, MANILA

PROJECT AND LOCATION:
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STANDARD PAGCOR MULTI-PURPOSE EVACUATION CENTER
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SHEET CONTENTS:
FOUNDATION PLAN
SCHEDULE OF COLUMNS
SCHEDULE OF FOOTING TIE BEAM
SCHEDULE OF FOOTINGS
REFERENCE FOOTING DETAIL

DESIGNED: **STRUCTURAL SECTION**
CADD: **H.D. ESTABILLO JR. & J.F.L. CARANDANG** ENGINEER II
CHECKED: **KATHRINE ANNE C. MACOY** ENGINEER IV

SUBMITTED:
JOSEPHINE P. ISTURIS
CHIEF, BUILDINGS DIVISION

RECOMMENDING APPROVAL:
SEE COVER SHEET FOR SIGNATURE
ARISTARCO M. DOROY
OFFICER-IN-CHARGE
BUREAU OF DESIGN OCT 23 2019

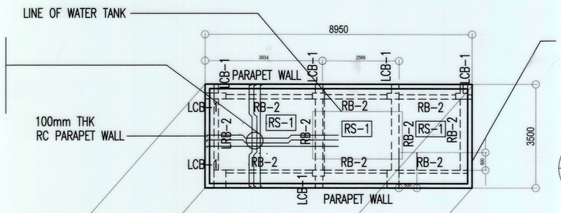
APPROVED:
SEE COVER SHEET FOR SIGNATURE
EMIL K. SADAIN, CESO I
UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

CONCURRED:
SEE COVER SHEET FOR SIGNATURE AND APPROVAL
JAMES PATRICK R. BONDOC
VICE PRESIDENT
CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD B

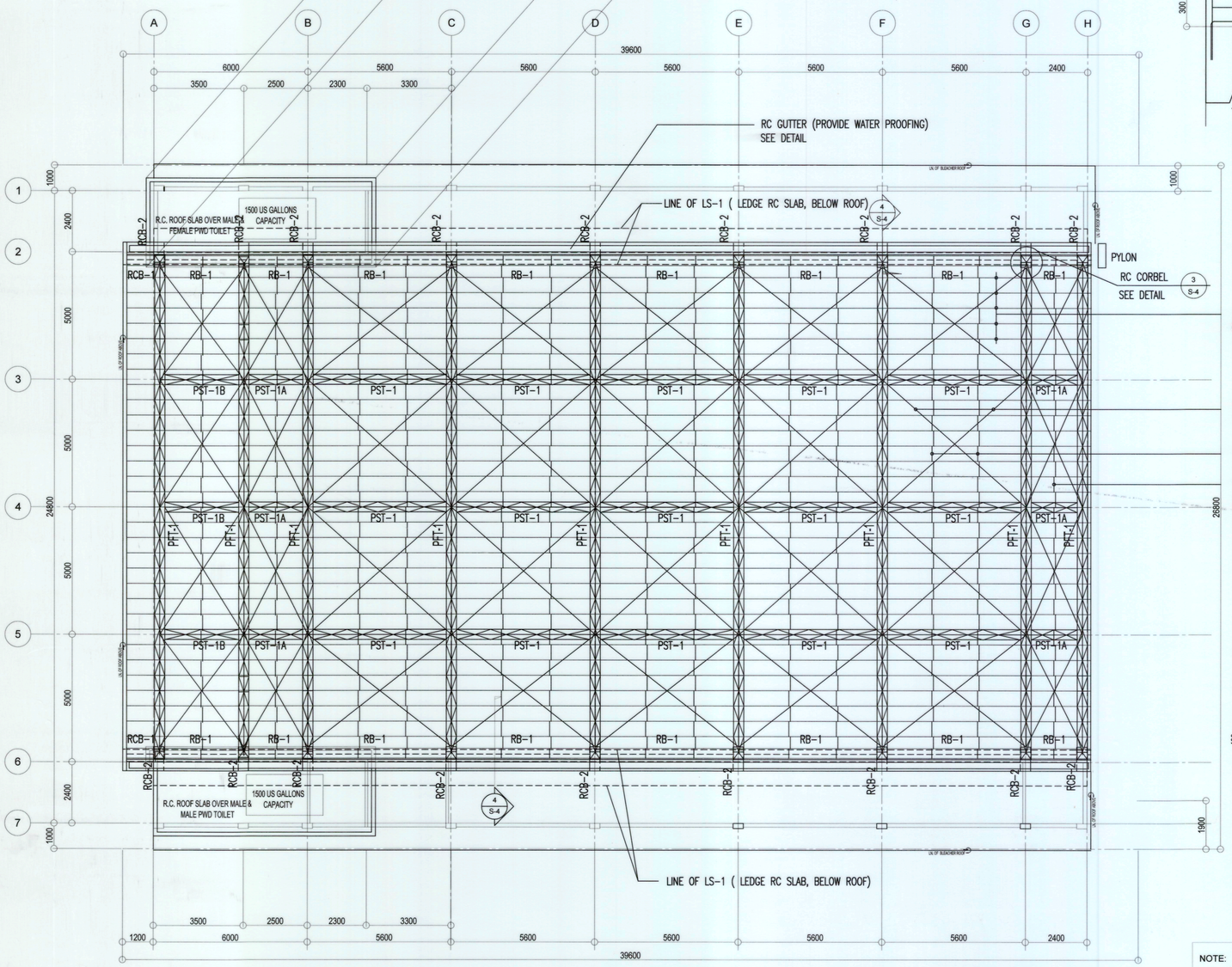
SHEET NO.: S-3 7 30

T=125mm THK R.C. SLAB
WITH TOPPING AND WATERPROOFING
SS/LS : 12mmø BARS @ 120mm O.C.
BENT UP BARS 2 OUT OF 3 @ L/4.
SS/LS : PROVIDE 12mmø ADDTIONAL TOP BARS @ 240mm O.C. @ DISCONTINUOUS EDGE.



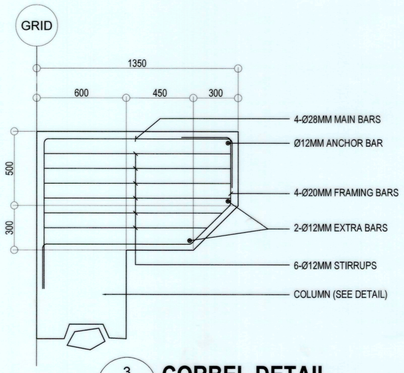
TOILET ROOF SLAB FRAMING PLAN (TYP. MALE AND FEMALE TOILET)

2 / S-4 SCALE 1:100 MTS.



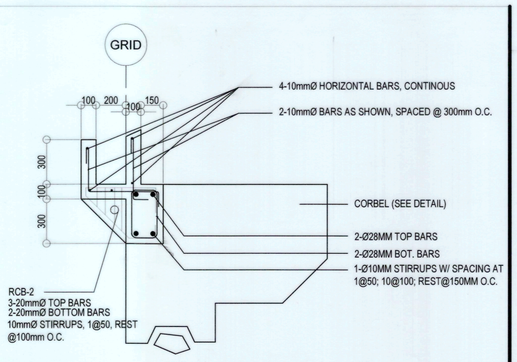
ROOF FRAMING PLAN

1 / S-4 SCALE 1:100 MTS.



CORBEL DETAIL

3 / S-4 SCALE 1:20 MTS.

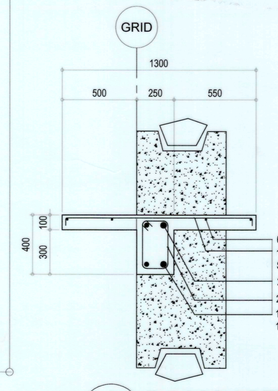


RB-1/RCB-2/RC GUTTER DETAIL

4 / S-4 SCALE 1:20 MTS.

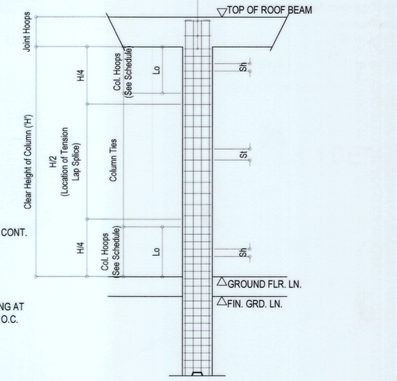
JOINT HOOPS MUST BE SPACED AT "2Sh" FOR THE DEPTH OF THE SHALLOWEST BEAM WHEN BEAMS WITH WIDTH > $\frac{3}{4}$ TIMES THE WIDTH OF THE COLUMN FRAME INTO THE FOUR SIDES OF A COLUMN. FOR ALL OTHER CONDITIONS, USE HOOPS SPACED AT "Sh" ON CENTER.

NOTES:
- Sh = HOOP AND SUPPLEMENTARY CROSSTIE SPACING NOT TO EXCEED Bs/4 OR 100mm.
- St = COLUMN TIE SPACING, NOT TO EXCEED 16db OF VERTICALS, 48db OF TIES, Bs OR 150mm, WHICHEVER IS LESSER
- Bs = SMALLER DIMENSION OF COLUMN CROSS SECTION
- Lo = LARGEST COLUMN DIMENSION, $\frac{1}{6}$ OF CLEAR HEIGHT OR 450mm, WHICHEVER IS GREATER
- H = CLEAR HEIGHT OF COLUMN



B-1 / CS-1 DETAIL

5 / S-4 SCALE 1:20 MTS.



TYPICAL COLUMN DETAIL

6 / S-4 SCALE N.T.S.

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REPUBLIC OF THE PHILIPPINES
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BUREAU OF DESIGN
BUILDINGS DIVISION
BONIFACIO DRIVE PORT AREA, MANILA

PROJECT AND LOCATION:
PROPOSED:
STANDARD PAGCOR MULTI-PURPOSE EVACUATION CENTER
(OPTION 2)
(FOR WIND VELOCITY OF 270 KPH)

SHEET CONTENTS:
ROOF FRAMING PLAN
LEDGE/SLAB BEAM DETAIL
CORBEL DETAIL
TOILET ROOF DETAIL
ROOF BEAM DETAIL
TYPICAL COLUMN DETAIL

DESIGNED: **STRUCTURAL SECTION**
CADD: **H.D. ESTABILLO JR.** & **J.F.L. CARANDANG** ENGINEER II
CHECKED: **KATHRINE ANNE C. MACOY** ENGINEER IV

SUBMITTED:
JOSEPHINE P. ISTURIS
CHIEF, BUILDINGS DIVISION

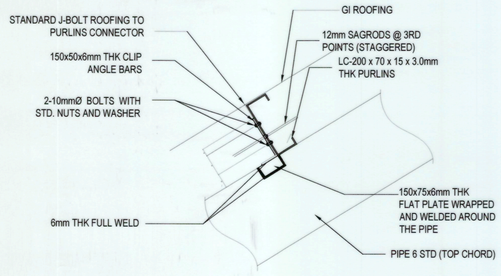
RECOMMENDING APPROVAL:
SEE COVER SHEET FOR SIGNATURE
ARISTARCO M. DOROY
OFFICER-IN-CHARGE
BUREAU OF DESIGN
OCT 23 2019

APPROVED:
SEE COVER SHEET FOR SIGNATURE
EMIL K. SADAIN, CESO I
UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

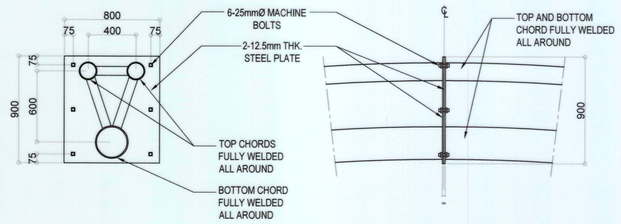
CONCURRED:
SEE COVER SHEET FOR SIGNATURE AND APPROVAL
JAMES PATRICK R. BONDOC
VICE PRESIDENT
CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD / B

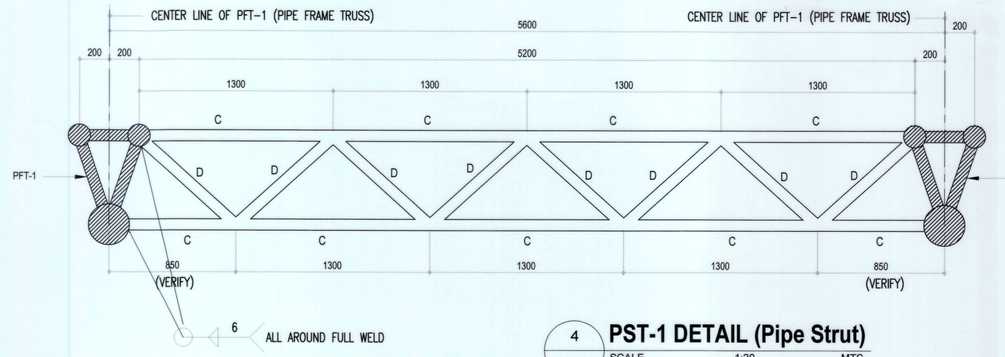
SHEET NO.: S-4 / 7 / 30



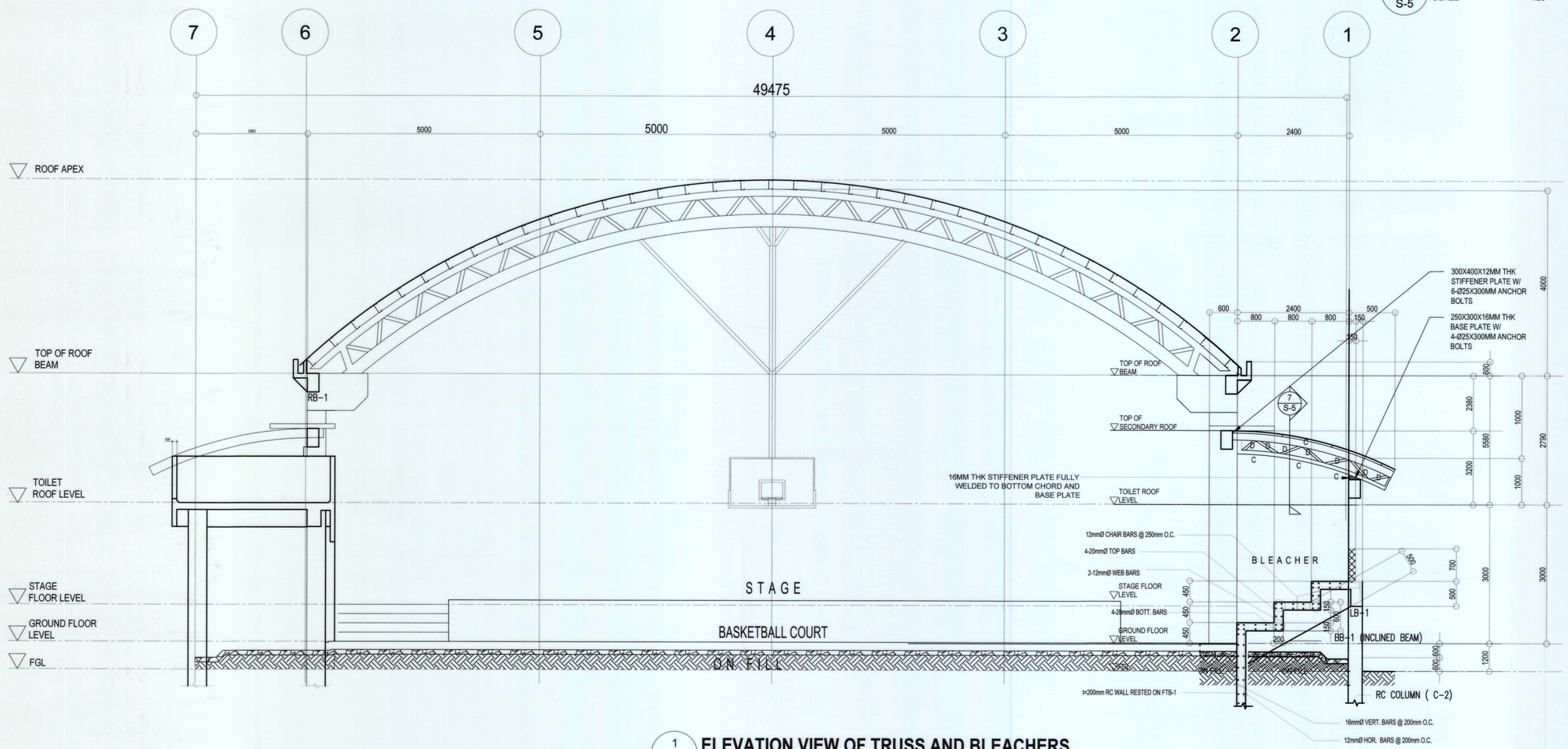
2 S-5 **PURLIN TO TRUSS CONNECTION DETAIL**
SCALE 1:10 MTS.



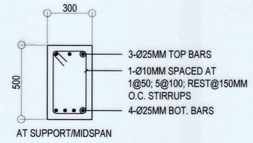
3 S-5 **TRUSS SPLICING DETAIL (TYP)**
SCALE 1:25 MTS.



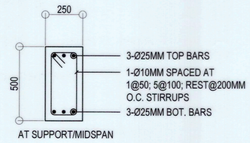
4 S-5 **PST-1 DETAIL (Pipe Strut)**
SCALE 1:20 MTS.



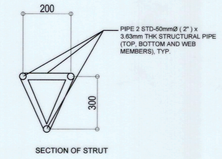
1 S-5 **ELEVATION VIEW OF TRUSS AND BLEACHERS**
SCALE 1:100 MTS.



5 S-5 **BB-1 DETAIL**
SCALE 1:20 MTS.



6 S-5 **LB-1 DETAIL**
SCALE 1:20 MTS.



7 S-5 **TRUSS OVER BLEACHERS SECTION**
SCALE N.T.S.

NOTE:
IN CASE THE ACTUAL SITE LOCATION/CONDITION IS FOUND NOT IN ACCORDANCE WITH THE ASSUMED MAXIMUM WIND VELOCITY OF 270 KPH, SEISMIC SOURCE WITHIN 2 km AND SOIL BEARING CAPACITY OF 96 kPa, THE STRUCTURAL PLAN SHALL BE REVISED ACCORDINGLY.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
BUREAU OF DESIGN
BUILDINGS DIVISION
BONIFACIO DRIVE PORT AREA, MANILA

PROJECT AND LOCATION:
PROPOSED:
STANDARD PAGCOR MULTI-PURPOSE EVACUATION CENTER
(OPTION 2)
(FOR WIND VELOCITY OF 270 KPH)

SHEET CONTENTS:
ELEVATION VIEW OF TRUSS AND BLEACHERS
PURLIN TO TRUSS CONNECTION DETAIL
TRUSS SPLICING DETAIL (TYP.)
PST-1 DETAIL
BB-1 & LB-1 DETAILS
TRUSS OVER BLEACHERS SECTION

DESIGNED: **STRUCTURAL SECTION**
CADD: **H.D. ESTABILLO JR. & J.F.L. CARANDANG** ENGINEER II
CHECKED: **KATHRINE ANNE C. MACOY** ENGINEER IV

SUBMITTED:
JOSEPHINE P. ISTURIS
CHIEF, BUILDINGS DIVISION

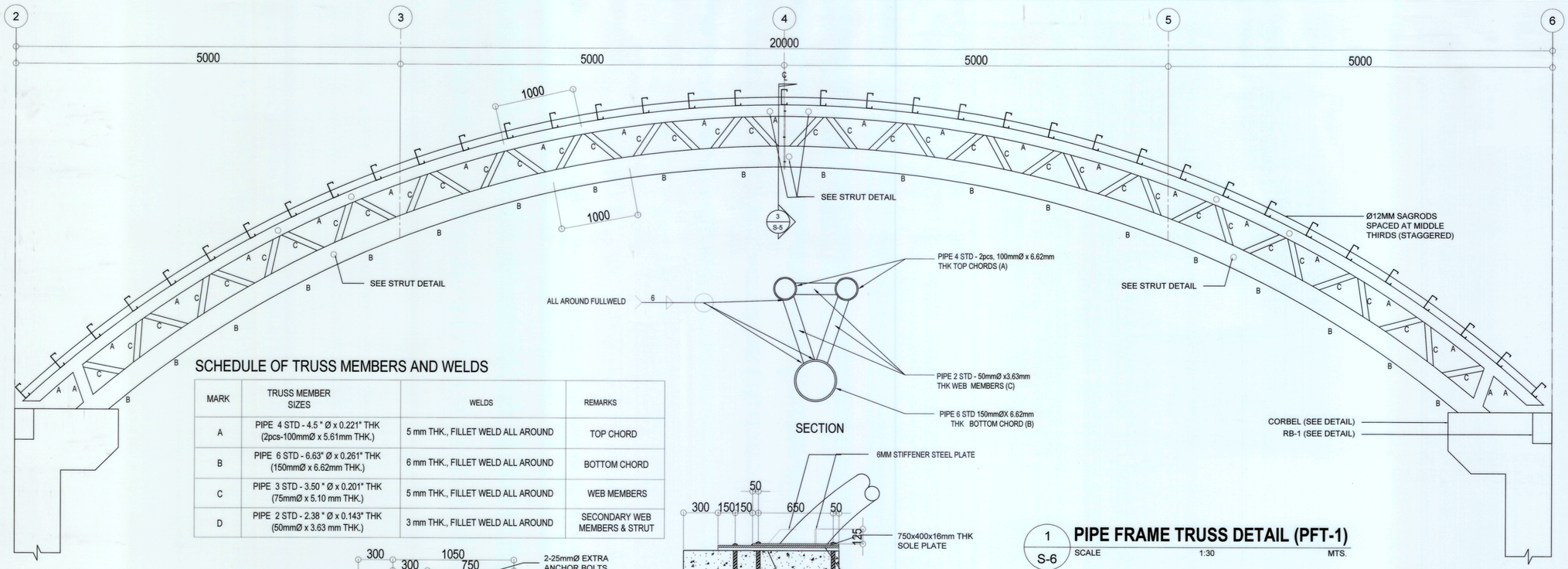
RECOMMENDING APPROVAL:
SEE COVER SHEET FOR SIGNATURE
ARISTARCO M. DOROY
OFFICER-IN-CHARGE
BUREAU OF DESIGN OCT 23 2019

APPROVED:
SEE COVER SHEET FOR SIGNATURE
EMIL K. SADAIN, CESO I
UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

CONCURRED:
SEE COVER SHEET FOR SIGNATURE AND APPROVAL
JAMES PATRICK R. BONDOC
VICE PRESIDENT
CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD B

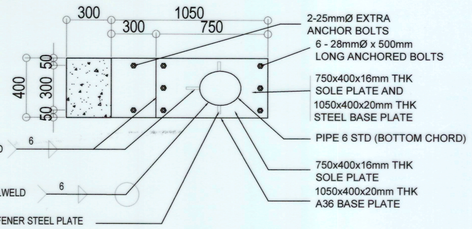
SHEET NO.: S-5 7 30

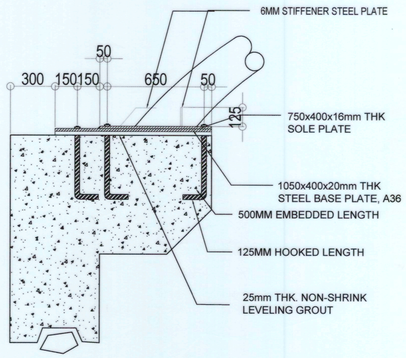


SECTION

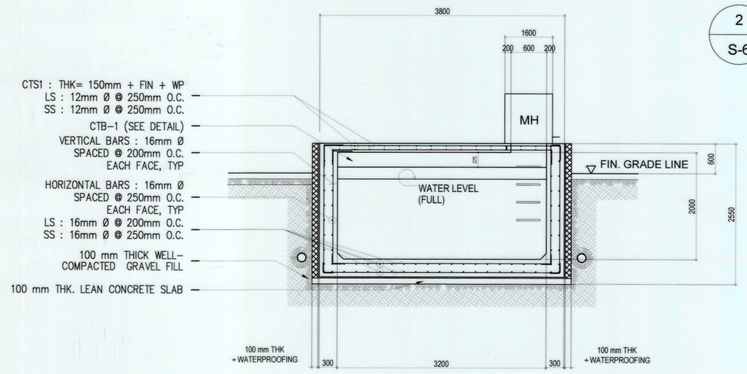
SCHEDULE OF TRUSS MEMBERS AND WELDS

MARK	TRUSS MEMBER SIZES	WELDS	REMARKS
A	PIPE 4 STD - 4.5 " Ø x 0.221" THK (2pcs-100mmØ x 5.61mm THK.)	5 mm THK., FILLET WELD ALL AROUND	TOP CHORD
B	PIPE 6 STD - 6.63" Ø x 0.261" THK (150mmØ x 6.62mm THK.)	6 mm THK., FILLET WELD ALL AROUND	BOTTOM CHORD
C	PIPE 3 STD - 3.50 " Ø x 0.201" THK (75mmØ x 5.10 mm THK.)	5 mm THK., FILLET WELD ALL AROUND	WEB MEMBERS
D	PIPE 2 STD - 2.38 " Ø x 0.143" THK (50mmØ x 3.63 mm THK.)	3 mm THK., FILLET WELD ALL AROUND	SECONDARY WEB MEMBERS & STRUT

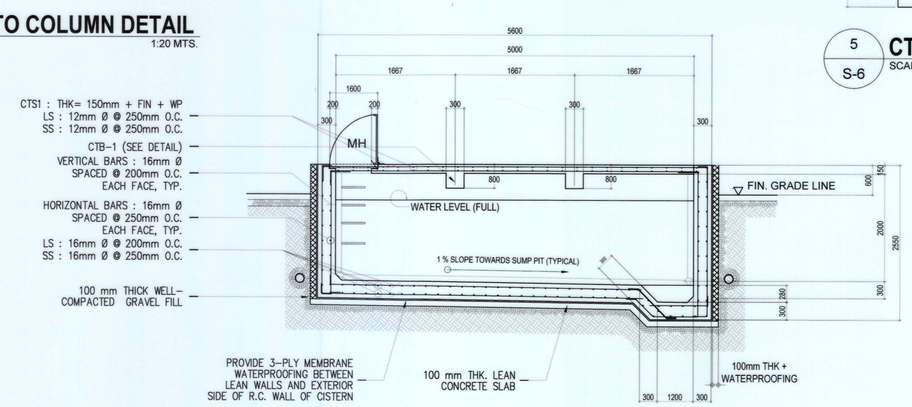




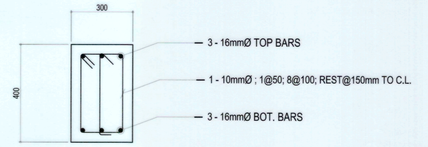
2 / S-6 **BASE PLATE TO COLUMN DETAIL**
SCALE 1:20 MTS.



2 / S-6 **TRANSVERSE SECTION OF CISTERN**
SCALE N.T.S.



2 / S-6 **LONGITUDINAL SECTION OF CISTERN**
SCALE N.T.S



5 / S-6 **CTB-1 DETAIL**
SCALE N.T.S.

1 / S-6 **PIPE FRAME TRUSS DETAIL (PFT-1)**
SCALE 1:30 MTS.

NOTE:
IN CASE THE ACTUAL SITE LOCATION/CONDITION IS FOUND NOT IN ACCORDANCE WITH THE ASSUMED MAXIMUM WIND VELOCITY OF 270 KPH, SEISMIC SOURCE WITHIN 2 km AND SOIL BEARING CAPACITY OF 96 kPa, THE STRUCTURAL PLAN SHALL BE REVISED ACCORDINGLY.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
BUREAU OF DESIGN
BUILDINGS DIVISION
BONIFACIO DRIVE PORT AREA, MANILA

PROJECT AND LOCATION:
PROPOSED:
STANDARD PAGCOR MULTI-PURPOSE EVACUATION CENTER
(OPTION 2)
(FOR WIND VELOCITY OF 270 KPH)

SHEET CONTENTS:
PIPE FRAME TRUSS DETAIL
BASE PLATE TO COLUMN DETAIL
CISTERN TANK DETAIL

DESIGNED: **STRUCTURAL SECTION**
CADD: **J.F.L. CARANDANG & J.S. SORIANO** ENGINEER II
CHECKED: **KATHRINE ANNE C. MACOY** ENGINEER IV

SUBMITTED:
JOSEPHINE P. ISTURIS
CHIEF, BUILDINGS DIVISION

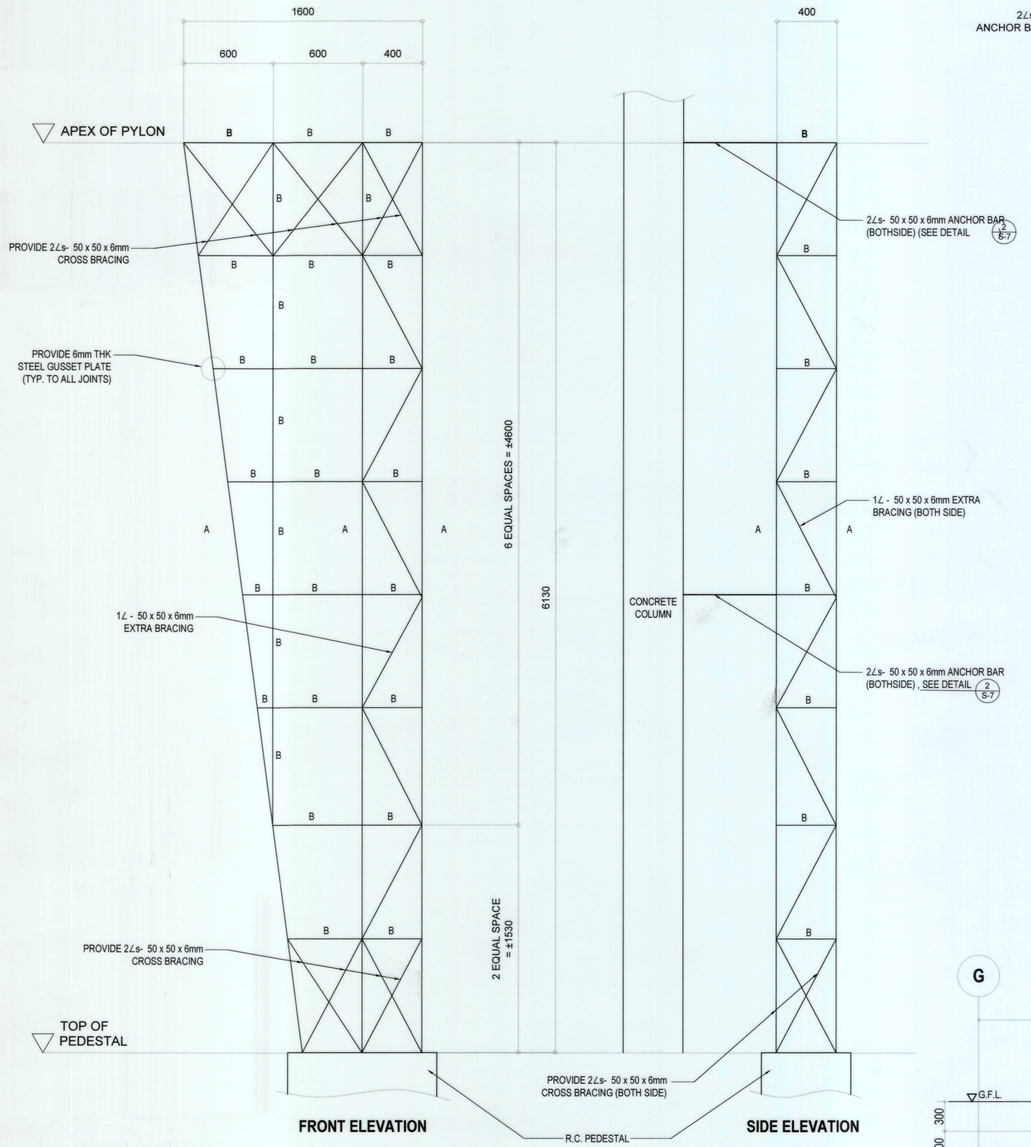
RECOMMENDING APPROVAL:
SEE COVER SHEET FOR SIGNATURE
ARISTARCO M. DOROY
OFFICER-IN-CHARGE
BUREAU OF DESIGN
OCT 23 2019

APPROVED:
SEE COVER SHEET FOR SIGNATURE
EMIL K. SADAIN, CESO I
UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

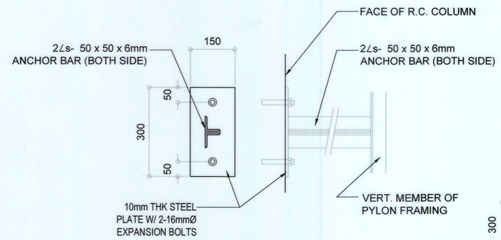
CONCURRED:
SEE COVER SHEET FOR SIGNATURE AND APPROVAL
JAMES PATRICK R. BONDOC
VICE PRESIDENT
CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD B

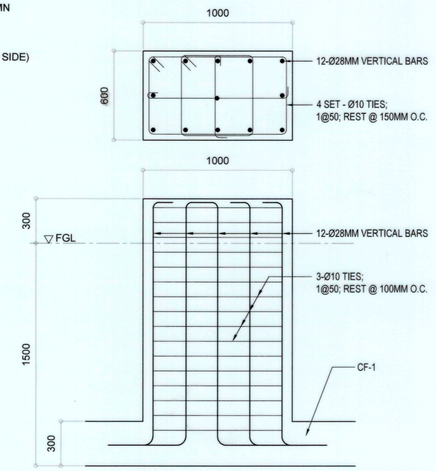
SHEET NO.: S-6 7 30



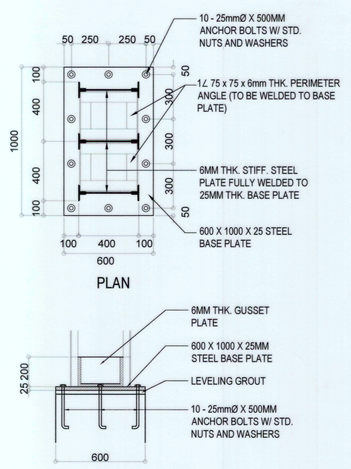
1 / S-7 **PYLON FRAMING DETAIL**
SCALE 1:20 MTS.



2 / S-7 **DETAIL OF ANCHOR BAR**
SCALE 1:10 MTS.



3 / S-7 **PEDESTAL DETAIL**
SCALE 1:20 MTS.

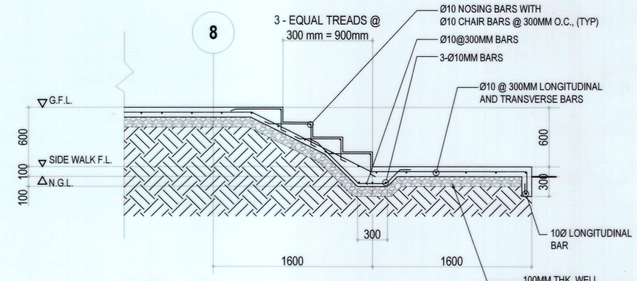


4 / S-7 **PYLON TO PEDESTAL CONNECTION DETAIL**
SCALE 1:20 MTS.

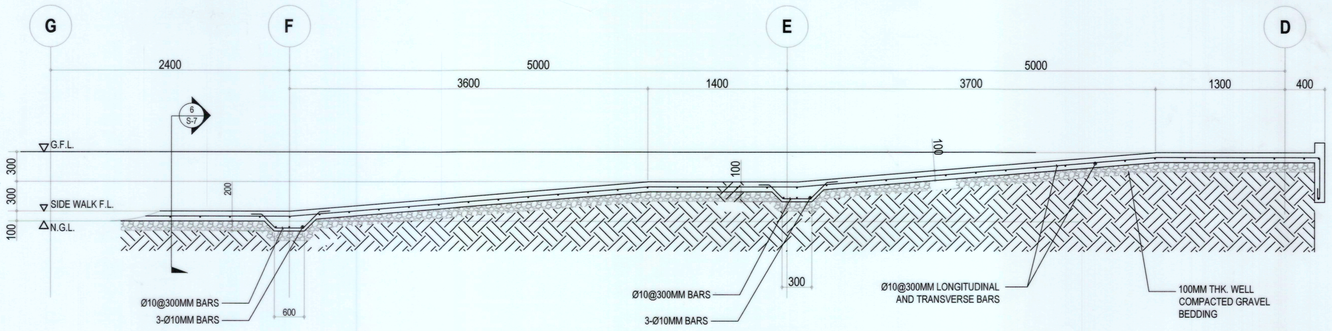
SCHEDULE OF MEMBERS AND WELDS

MARK	TRUSS MEMBER SIZES	WELD				REMARKS
		THICKNESS	LENGTH (mm)			
			L_1	L_2	L_3	
A	2∠s - 50mm X 50mm X 6mm VERTICAL MEMBERS (2∠s - 2" X 2" X $\frac{1}{4}$")	4mm	FULL WELD (TO GUSSET PLATE)			(FILLET WELD)
B	1∠ - 50mm X 50mm X 6mm HORIZONTAL MEMBERS (1∠ - 2" X 2" X $\frac{1}{4}$")	4mm	-DO-			(FILLET WELD)

8



5 / S-7 **TYP. STAIR ON-FILL DETAIL**
SCALE 1:30 MTS.



6 / S-7 **DETAIL ELEVATION OF RAMP**
SCALE 1:60 MTS.

NOTE:
IN CASE THE ACTUAL SITE LOCATION/CONDITION IS FOUND NOT IN ACCORDANCE WITH THE ASSUMED MAXIMUM WIND VELOCITY OF 270 KPH, SEISMIC SOURCE WITHIN 2 km AND SOIL BEARING CAPACITY OF 96 kPa, THE STRUCTURAL PLAN SHALL BE REVISED ACCORDINGLY.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
BUREAU OF DESIGN
BUILDINGS DIVISION
BONIFACIO DRIVE PORT AREA, MANILA

PROJECT AND LOCATION:
PROPOSED:
STANDARD PAGCOR MULTI-PURPOSE EVACUATION CENTER (OPTION 2)
(FOR WIND VELOCITY OF 270 KPH)

SHEET CONTENTS:
PYLON FRAMING PLAN
PEDESTAL DETAIL
PYLON TO PEDESTAL CONNECTION DETAIL
SCHEDULE OF TRUSS MEMBERS
TYP. STAIR ON-FILL DETAIL
DET. ELEVATION OF RAMP

DESIGNED: **STRUCTURAL SECTION**
CADD: **K.A.C. MACOY & J.F.L. CARANDANG** ENGINEER IV & ENGINEER II
CHECKED: **KATHRINE ANNE C. MACOY** ENGINEER IV

SUBMITTED: **JOSEPHINE P. ISTURIS** CHIEF, BUILDINGS DIVISION

RECOMMENDING APPROVAL: *SEE COVER SHEET FOR SIGNATURE* **ARISTARCO M. DOROY** OFFICER-IN-CHARGE BUREAU OF DESIGN OCT 23 2019

APPROVED: *SEE COVER SHEET FOR SIGNATURE* **EMIL K. SADAIN, CESO I** UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

CONCURRED: *SEE COVER SHEET FOR SIGNATURE AND APPROVAL* **JAMES PATRICK R. BONDOC** VICE PRESIDENT CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD B

SHEET NO.: S-7 7 30

GENERAL NOTES

ALL ELECTRICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE (PEC), EXISTING APPLICABLE LAWS, ORDINANCES, REQUIREMENTS, RULES AND REGULATION OF THE THE LOCAL GOVERNMENT AND LOCAL POWER COMPANY.

THE TYPE OF SERVICE POWER SHALL BE SINGLE-PHASE, TWO(2)-WIRE, 230VOLTS, 60Hz., AC.

UNLESS OTHERWISE INDICATED ON THE PLANS, ALL WIRING IN STANDARD GALVANIZED RIGID STEEL CONDUIT (RSC). RUN EMBEDDED INSIDE THE CONCRETE AND HOLLOW BLOCKS STRUCTURES, SLABS, COLUMNS AND/OR RUN CONCEALED BETWEEN DOUBLE WALL WOODEN PARTITIONS OR INSIDE THE CEILING SPACES WHERE THE USE OF CONCEALED WIRING IS IMPRACTICABLE, SURFACE METAL MOULDING WIRING MAY BE USED.

ALL LIGHTING CIRCUIT HOMERUNS AND CONVENIENCE OUTLETS SHALL BE WIRED WITH NOT LESS THAN 3.5mm², THHN/TW IN SIZE. ALL 20 AMPERE CIRCUIT HOMERUNS WITH MORE THAN 30 METERS IN LENGTH SHALL BE WIRED WITH 5.5mm² THHN/TW. LIKEWISE, ALL ELECTRICAL WIRES SHALL BE COLOR - CODED.

THE MINIMUM SIZE OF WIRE AND CONDUIT TO BE USED SHALL BE 2.0mm² THHN / TW AND 15mm NOMINAL DIAMETER, RESPECTIVELY.

WHEREVER REQUIRED AND NECESSARY, JUNCTION BOXES OR PULL BOXES SHALL BE INSTALLED AT INCONSPICUOUS LOCATIONS ALTHOUGH SUCH BOXES ARE NOT SHOWN ON THE PLANS NOR MENTIONED IN THE SPECIFICATIONS.

ALL NON-CURRENT CARRYING METAL PARTS/ENCLOSURES OF ELECTRICAL EQUIPMENT AND OVERCURRENT DEVICES SHALL BE PROPERLY GROUNDED IN ACCORDANCE WITH ARTICLE 2.50 OF THE PHILIPPINE ELECTRICAL CODE PART 1, 2009 EDITION.

THE ELECTRICAL SYSTEM SHALL HAVE A GROUND RESISTANCE NOT EXCEEDING 5 OHMS.

STANDARD TYPE OF ACCESSORIES, SPLICING DEVICES, TERMINATIONS AND OTHER APPURTENANCES FOR THE ENTIRE ELECTRICAL INSTALLATION SHALL BE USED.

ALL MATERIALS TO BE USED AND INSTALLED SHALL BE BRAND NEW AND OF THE APPROVED TYPE FOR THE LOCATION AND PURPOSE.

THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF SERVICE ENTRANCE FOR CONNECTION TO POWER COMPANY SERVICE POINT.

UNDERGROUND CONDUIT SHALL BE BURIED A MINIMUM OF 600mm BELOW FINISHED GRADE LINE AND SHALL BE ENCASED IN 20.69 MPa CONCRETE AT A MINIMUM 76mm THICKNESS ALL AROUND.

ALL ELECTRICAL WORKS SHALL BE DONE UNDER THE DIRECT AND IMMEDIATE SUPERVISION OF A DULY REGISTERED PROFESSIONAL ELECTRICAL ENGINEER.

ELECTRICAL SYMBOLS

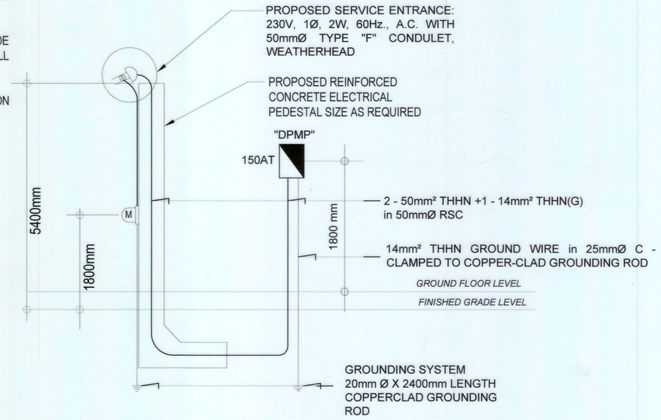
- CEILING LIGHT OUTLET
- SUSPENDED LIGHT OUTLET
- WALL SURFACE LIGHT OUTLET

(SEE SCHEDULE OF LIGHTING FIXTURES AND LAMPS)

- ELECTRICAL RISER
- S — SINGLE POLE WALL SWITCH, (10AMPS, 250VOLTS) "EF"- EXHAUST FAN SWITCH
- S² — 2 SINGLE-POLE WALL SWITCHES ON ONE SWITCH PLATE, (10AMPS, 250VOLTS)
- S³ — 3 SINGLE-POLE WALL SWITCHES ON ONE SWITCH PLATE (WITH THREE SET OF S 10AMPS, 250VOLTS)
- WP — DUPLEX CONVENIENCE OUTLET, GROUNDING TYPE (20 AMPS, 250VOLTS) "WP" DENOTES WEATHERPROOF
- "SB" — SWITCH BANK (WITH THREE SET - S² & ONE SET - S³. EACH RATED AT 10AMPS, 250VOLTS)
- "EF" — SINGLE CONVENIENCE OUTLET (15AMPS, 250VOLTS), "EF"- DENOTES EXHAUST FAN
- "DPMP" — DISTRIBUTION PANEL
- PB — PULLBOX
- UNDERGROUND OR UNDERFLOOR CONDUIT / CABLE RUN
- CONCEALED OR EMBEDDED CONDUIT RUN
- CIRCUIT HOMERUN
- GROUNDING SYSTEM
- HH — HANDHOLE (550mm x 550mm x 450mm DEEP)
- SERVICE ENTRANCE WITH CONDULET
- (M) — ELECTRIC SERVICE METER

SWITCH BANK DETAIL

- SA • SD • S²HIJ
- SB • SE • S²KLM
- SC • S²FG



ELECTRICAL RISER DIAGRAM

NOT TO SCALE

SCHEDULE OF LIGHTING FIXTURES AND LAMPS:

SYMBOL	DESCRIPTION	INSTALLATION / MOUNTING
	ONE (1)- 28WATTS, 230VOLTS, 60Hz., FLUORESCENT LIGHTING FIXTURE, BOX TYPE	SURFACE CEILING MOUNTED
	TWO (2)- 28WATTS, 230VOLTS,60Hz., FLUORESCENT LIGHTING FIXTURE.1200mm X 300mm MODULE/ HOUSING WITH LOW BRIGHTNESS ALUMINUM LOUVRE	RECESSED CEILING MOUNTED
	ONE (1)-250W METAL HALLIDE, 230V, HIGH BAY LIGHTING FIXTURE OR APPROVED EQUAL	SUSPENDED 0.5 M BELOW CEILING LINE
	ONE (1)-500W METAL HALLIDE, 230V, HIGH BAY LIGHTING FIXTURE OR APPROVED EQUAL	SUSPENDED 0.5 M BELOW CEILING LINE
	ONE - 400WATTS, METAL HALIDE LAMP WITH FLOOD LIGHT HOUSING SUBMIT SAMPLE CATALOGUE FOR ELECTRICAL ENGINEER'S APPROVAL	WALL SURFACE MOUNTED

NOTE:
ALL FLUORESCENT LIGHTING FIXTURES SHALL BE EQUIPPED WITH A HIGH POWER FACTOR WITH STARTER TYPE BALLAST COMPLETE WITH ALL NECESSARY ACCESSORIES, WIRED AND READY FOR USE.

SCHEDULE OF LOADS AND COMPUTATION

PANEL: "DPMP"

CKT. NO.	LOAD DESCRIPTION	VA PER CKT	VOLTS	BRANCH BREAKER RATING AF	P	AT	SIZES OF HOMERUN (WIRES AND CONDUIT)
1	LIGHT OUTLETS	1875	230	50	2	20	2 -3.5 mm² THHN + 1- 3.5mm² TW(G) in15mmØ C.
2	LIGHT OUTLETS	1875	230	50	2	20	2 -3.5 mm² THHN + 1- 3.5mm² TW(G) in15mmØ C.
3	LIGHT OUTLETS	1875	230	50	2	20	2 -3.5 mm² THHN + 1- 3.5mm² TW(G) in15mmØ C.
4	LIGHT OUTLETS	1875	230	50	2	20	2 -3.5 mm² THHN + 1- 3.5mm² TW(G) in15mmØ C.
5	LIGHT OUTLETS	1875	230	50	2	20	2 -3.5 mm² THHN + 1- 3.5mm² TW(G) in15mmØ C.
6	LIGHT OUTLETS	1200	230	50	2	20	2 -3.5 mm² THHN + 1- 3.5mm² TW(G) in15mmØ C.
7	LIGHT OUTLETS	3000	230	50	2	30	2 -5.5 mm² THHN + 1- 5.5mm² TW(G) in15mmØ C.
8	LIGHT OUTLETS	3000	230	50	2	30	2 -5.5 mm² THHN + 1- 5.5mm² TW(G) in15mmØ C.
9	SPARE	3000	230	50	2	30	———
10	LIGHT OUTLETS	1700	230	50	2	20	2 -3.5 mm² THHN + 1- 3.5mm² TW(G) in15mmØ C.
11	LIGHT OUTLETS	1700	230	50	2	20	2 -3.5 mm² THHN + 1- 3.5mm² TW(G) in15mmØ C.
12	CONVENIENCE OUTLET	1260	230	50	2	20	2 -3.5 mm² THHN + 1- 3.5mm² TW(G) in15mmØ C.
13	SPARE (PULLBOX)	1500	230	50	2	20	———
14	SPARE (PULLBOX)	1500	230	50	2	20	———
15	1.5HP.1Ø, 230V. PUMP MOTOR	2300	230	50	2	30	2 -5.5 mm² THHN + 1- 5.5mm² TW(G) in15mmØ C.
16	SPARE	1500	230	50	2	20	———
TOTAL CONNECTED LOADS		31395	MAIN ACB: 225AF, 3P, 240 V, 150AT, 25kAIC				

I_L @ 90% D.F. = $\left(\frac{31395}{230}\right)$(0.90 D.F) + 0.25 (10) = 125.95 AMPS.
USE : 2 - 50mm² THHN + 1 - 14mm² THHN (G) in 50mm Ø RSC.
(125.95A / 150 A)

REPUBLIC OF THE PHILIPPINES
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BUREAU OF DESIGN
BUILDINGS DIVISION
BONIFACIO DRIVE PORT AREA, MANILA

PROJECT AND LOCATION:
PROPOSED:
STANDARD PAGCOR MULTI-PURPOSE EVACUATION CENTER
(OPTION 2)
(FOR WIND VELOCITY OF 270KPH)

SHEET CONTENTS:
GENERAL NOTES
ELECTRICAL SYMBOLS
SCHEDULE OF LIGHTING FIXTURES & LAMPS
SCHEDULE OF LOADS & COMPUTATIONS
ELECTRICAL RISER DIAGRAM

DESIGNED BY: **VINCENT A. BERAN** ENGINEER III
CADD: **ALEXIS Z. EBACUADO** ENGINEER III
CHECKED: **ERIBERTO B. SIOSON** ENGINEER IV

SUBMITTED: **JOSEPHINE P. ISTURIS** CHIEF, BUILDINGS DIVISION

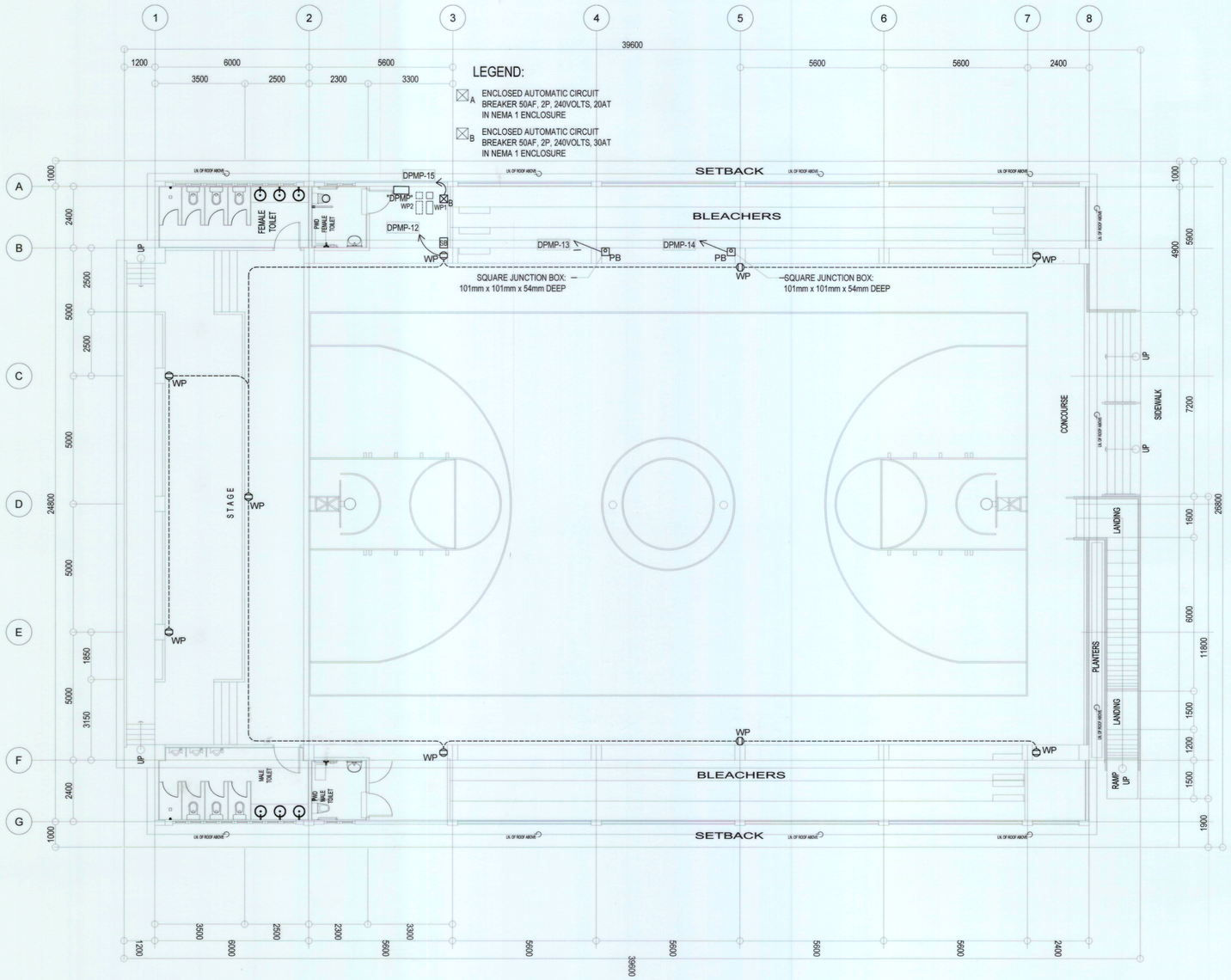
RECOMMENDING APPROVAL: *SEE COVER SHEET FOR SIGNATURE* **ARISTARCO M. DOROY** OFFICER-IN-CHARGE BUREAU OF DESIGN OCT 23 2019

APPROVED: *SEE COVER SHEET FOR SIGNATURE* **EMIL K. SADAIN, CESO I** UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

CONCURRED: *SEE COVER SHEET FOR SIGNATURE AND APPROVAL* **JAMES PATRICK R. BONDOC** VICE PRESIDENT CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD B

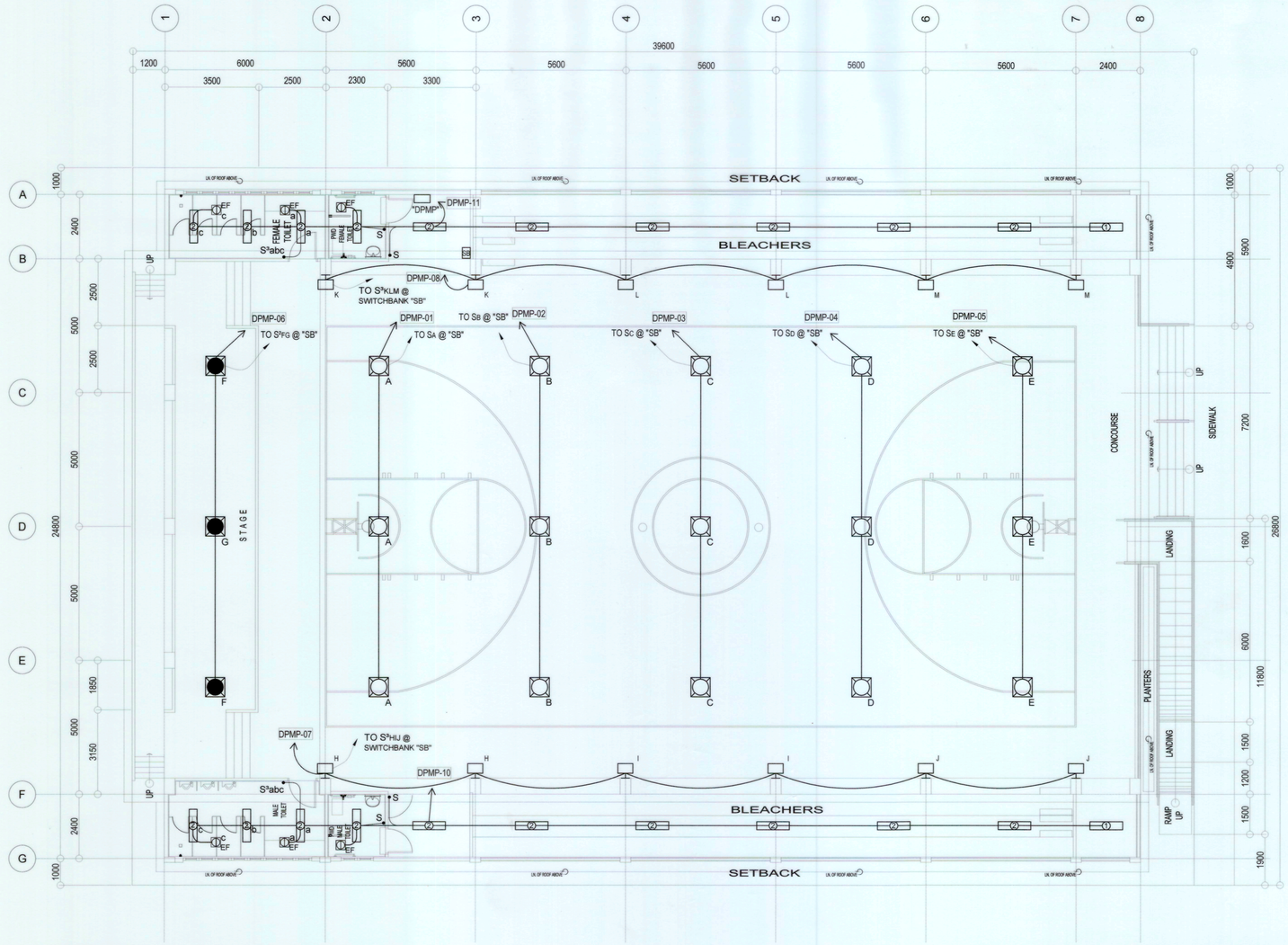
SHEET NO.: E-3 (3 | 30)



2 / E-2 **POWER LAYOUT PLAN**

SCALE 1:100MTS

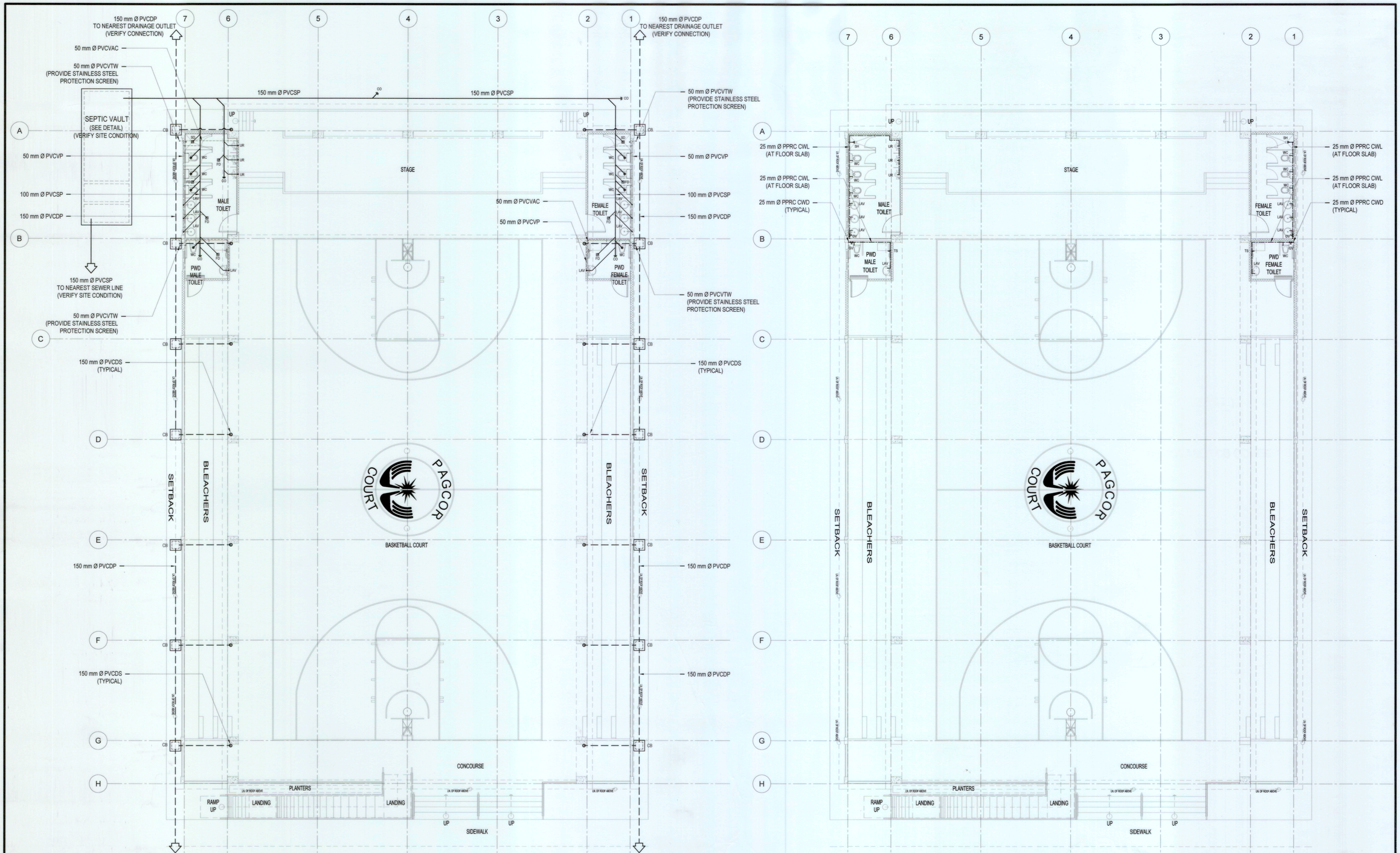
REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS **BUREAU OF DESIGN** BUILDINGS DIVISION BONIFACIO DRIVE PORT AREA, MANILA	PROJECT AND LOCATION: PROPOSED: **STANDARD PAGCOR MULTI-PURPOSE EVACUATION CENTER** (OPTION 2) **(FOR WIND VELOCITY OF 270KPH)**	SHEET CONTENTS: POWER LAYOUT PLAN	DESIGNED BY: **VINCENT A. BERAN** ENGINEER III CADD: **SHIELA C. BONDOC** ENGINEERING ASSISTANT CHECKED: **ERIBERTO B. SIOSON** ENGINEER IV	SUBMITTED: **JOSEPHINE P. ISTURIS** CHIEF, BUILDINGS DIVISION	RECOMMENDING APPROVAL: *SEE COVER SHEET FOR SIGNATURE* **ARISTARCO M. DOROY** OFFICER-IN-CHARGE BUREAU OF DESIGN OCT 29 2019	APPROVED: *SEE COVER SHEET FOR SIGNATURE* **EMIL K. SADAIN, CESO I** UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS	CONCURRED: *SEE COVER SHEET FOR SIGNATURE AND APPROVAL* **JAMES PATRICK R. BONDOC** VICE PRESIDENT CORPORATE SOCIAL RESPONSIBILITY	SET NO.: BOD B	SHEET NO.: E-2 3 30



1 / E-1 **LIGHTING LAYOUT PLAN**

SCALE 1:100MTS

REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS **BUREAU OF DESIGN** BUILDINGS DIVISION BONIFACIO DRIVE PORT AREA, MANILA	PROJECT AND LOCATION: PROPOSED: **STANDARD PAGCOR MULTI-PURPOSE EVACUATION CENTER** (OPTION 2) (FOR WIND VELOCITY OF 270KPH)	SHEET CONTENTS: LIGHTING LAYOUT PLAN	DESIGNED BY: **VINCENT A. BERAN** ENGINEER III CADD: **ALEXIS Z. EBACUADO** ENGINEER II CHECKED: **ERIBERTO B. SIOSON** ENGINEER IV	SUBMITTED: **JOSEPHINE P. ISTURIS** CHIEF, BUILDINGS DIVISION	RECOMMENDING APPROVAL: *SEE COVER SHEET FOR SIGNATURE* **ARISTARCO M. DOROY** OFFICER-IN-CHARGE BUREAU OF DESIGN OCT 23 2019	APPROVED: *SEE COVER SHEET FOR SIGNATURE* **EMIL K. SADAIN, CESO I** UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS	CONCURRED: *SEE COVER SHEET FOR SIGNATURE AND APPROVAL* **JAMES PATRICK R. BONDOC** VICE PRESIDENT CORPORATE SOCIAL RESPONSIBILITY	SET NO.: BOD B	SHEET NO.: E-1 3 30



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
BUREAU OF DESIGN
BUILDINGS DIVISION
BONIFACIO DRIVE PORT AREA, MANILA

PROJECT AND LOCATION:
PROPOSED:
STANDARD PAGCOR MULTI-PURPOSE/ EVACUATION CENTER
(OPTION 2)
(FOR WIND VELOCITY OF 270KPH)

SHEET CONTENTS:
GROUND FLOOR PLAN
- SEWER AND DRAINAGE LAYOUT
- WATER LINE LAYOUT

DESIGNED BY: **REUBEN C. RAMOS** ENGINEER II
CADD BY: **REUBEN C. RAMOS** ENGINEER II
CHECKED: **FRANCIS G. SERRANO** ARCHITECT IV

SUBMITTED:
JOSEPHINE P. ISTURIS
CHIEF, BUILDINGS DIVISION

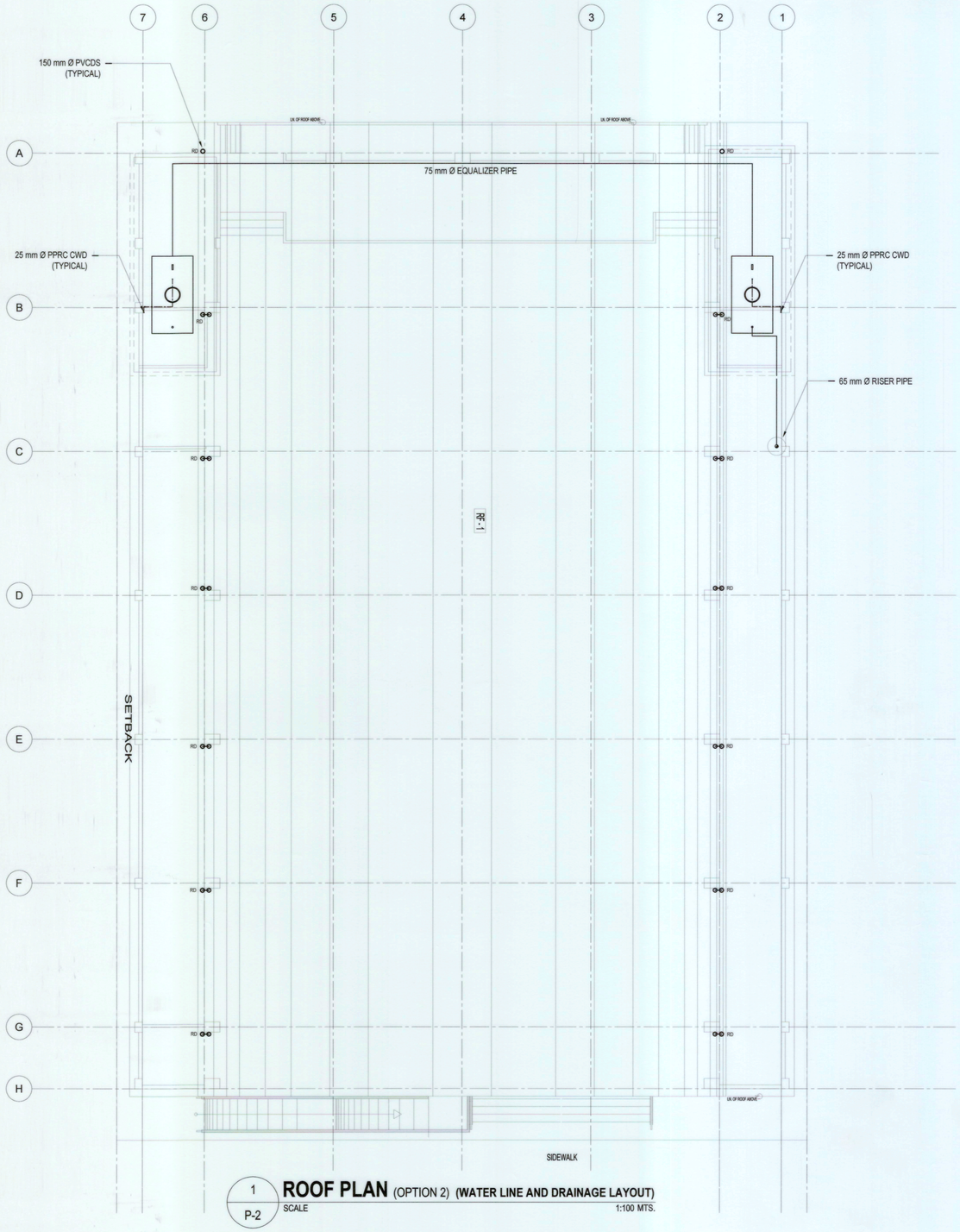
RECOMMENDING APPROVAL:
SEE COVER SHEET FOR SIGNATURE
ARISTARCO M. DOROY
OFFICER-IN-CHARGE
BUREAU OF DESIGN OCT 23 2019

APPROVED:
SEE COVER SHEET FOR SIGNATURE
EMIL K. SADAIN, CESO I
UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

CONCURRED:
SEE COVER SHEET FOR SIGNATURE AND APPROVAL
JAMES PATRICK R. BONDOC
VICE PRESIDENT
CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD B

SHEET NO.: P-1 6 30

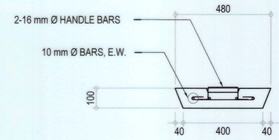


1 P-2 **ROOF PLAN** (OPTION 2) **(WATER LINE AND DRAINAGE LAYOUT)**

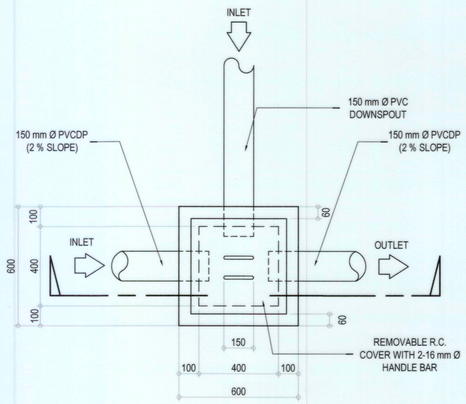
SCALE 1:100 MTS.

PLUMBING LEGEND:

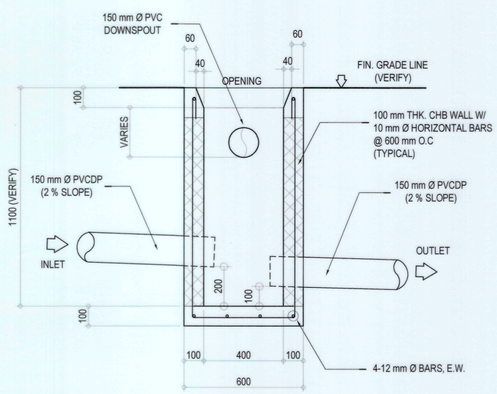
CO	CLEAN-OUT
FD	FLOOR DRAIN
GI CWL	GALVANIZED IRON COLD WATER LINE (SCHED.40)
GI CWR	GALVANIZED IRON COLD WATER RISER (SCHED.40)
GV	GATE VALVE
MH	MANHOLE
LAV	LAVATORY
PPRC CWL	POLYPROPYLENE RANDOM COPOLYMER COLD WATER LINE, TYPE 3, PN 16
PPRC CWD	POLYPROPYLENE RANDOM COPOLYMER DOWNFEED, TYPE 3, PN 16
PVCDP	POLYVINYL CHLORIDE DRAIN PIPE (SERIES 1000)
PVCDS	POLYVINYL CHLORIDE DOWNSPOUT
PVCSP	POLYVINYL CHLORIDE SOIL PIPE (SERIES 1000)
PVCSS	POLYVINYL CHLORIDE SOIL STACK (SERIES 1000)
PVCVP	POLYVINYL CHLORIDE VENT PIPE (SERIES 600)
PVCVS	POLYVINYL CHLORIDE VENT STACK
PVCVAC	POLYVINYL CHLORIDE VENT ACROSS CEILING (SERIES 600)
PVCVTR	POLYVINYL CHLORIDE VENT THROUGH ROOF (SERIES 1000)
PVCVTW	POLYVINYL CHLORIDE VENT THROUGH WALL (SERIES 600)
PVCWP	POLYVINYL CHLORIDE WASTE PIPE (SERIES 1000)
RD	ROOF DRAIN
SD	SHOWER DRAIN
SH	SHOWER HEAD
UR	URINAL
WC	WATER CLOSET



REMOVABLE CB COVER



DETAIL PLAN



DETAIL SECTION

2 P-2 **DETAIL OF CATCH BASIN (CB)**

SCALE NTS.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
BUREAU OF DESIGN
BUILDINGS DIVISION
BONIFACIO DRIVE PORT AREA, MANILA

PROJECT AND LOCATION:
PROPOSED:
STANDARD PAGCOR MULTI-PURPOSE/ EVACUATION CENTER
(OPTION 2)
(FOR WIND VELOCITY OF 270KPH)

SHEET CONTENTS:
ROOF PLAN
- WATER LINE AND DRAINAGE LAYOUT
DETAIL OF CATCH BASIN
PLUMBING LEGEND

DESIGNED BY: **REUBEN C. RAMOS** ENGINEER II
CADD BY: **REUBEN C. RAMOS** ENGINEER II
CHECKED: **FRANCIS G. SERRANO** ARCHITECT IV

SUBMITTED:
JOSEPHINE P. ISTURIS
CHIEF, BUILDINGS DIVISION

RECOMMENDING APPROVAL:
SEE COVER SHEET FOR SIGNATURE
ARISTARCO M. DOROY
OFFICER-IN-CHARGE
BUREAU OF DESIGN
OCT 23 2019

APPROVED:
SEE COVER SHEET FOR SIGNATURE
EMIL K. SADAIN, CESO I
UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

CONCURRED:
SEE COVER SHEET FOR SIGNATURE AND APPROVAL
JAMES PATRICK R. BONDOC
VICE PRESIDENT
CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD B

SHEET NO.: P-2 | 6 | 30

PLUMBING NOTES:

1. GRADES OF HORIZONTAL PIPING
   RUN ALL HORIZONTAL PIPINGS IN PERFECT ALIGNMENT AND AT A FORM GRADE OF NOT LESS THAN TWO PERCENT (2%).

2. CHANGE IN DIRECTION
   ALL CHANGE IN DIRECTION SHALL BE MADE BY APPROPRIATE USE OF FORTY FIVE DEGREES (45°) WYES, LONGSWEEP QUARTER BEND, SIX-EIGHT OR SIXTEENTH BENDS. WHEN THE CHANGE OF FLOW IS FROM HORIZONTAL TO VERTICAL, 1/8 BEND COMBINATION MAYBE USED ON VERTICAL STACKS AND SHORT QUARTER BENDS MAYBE USED ON WASTE LINE. TEE AND CROSSES MAYBE USED IN VENT PIPES.

3. PROHIBITED FITTINGS
   NO DOUBLE HUB OR TEE BRANCH SHALL BE USED ON HORIZONTAL WASTE LINES. THE DRILLINGS AND TAPPINGS OF HOUSE DRAIN, WASTE OR VENT PIPES AND USE OF SADDLE HUB AND BEND ARE PROHIBITED.

4. SLEEVES
   PROVIDE PIPE SLEEVES AT WALLS, COLUMNS OR SLABS ONE SIZE BIGGER THAN THE ACTUAL SIZE PASSING THROUGH THE WALLS, COLUMNS OR UNDER SLAB TO PROTECT PIPE FROM BREAKAGE.

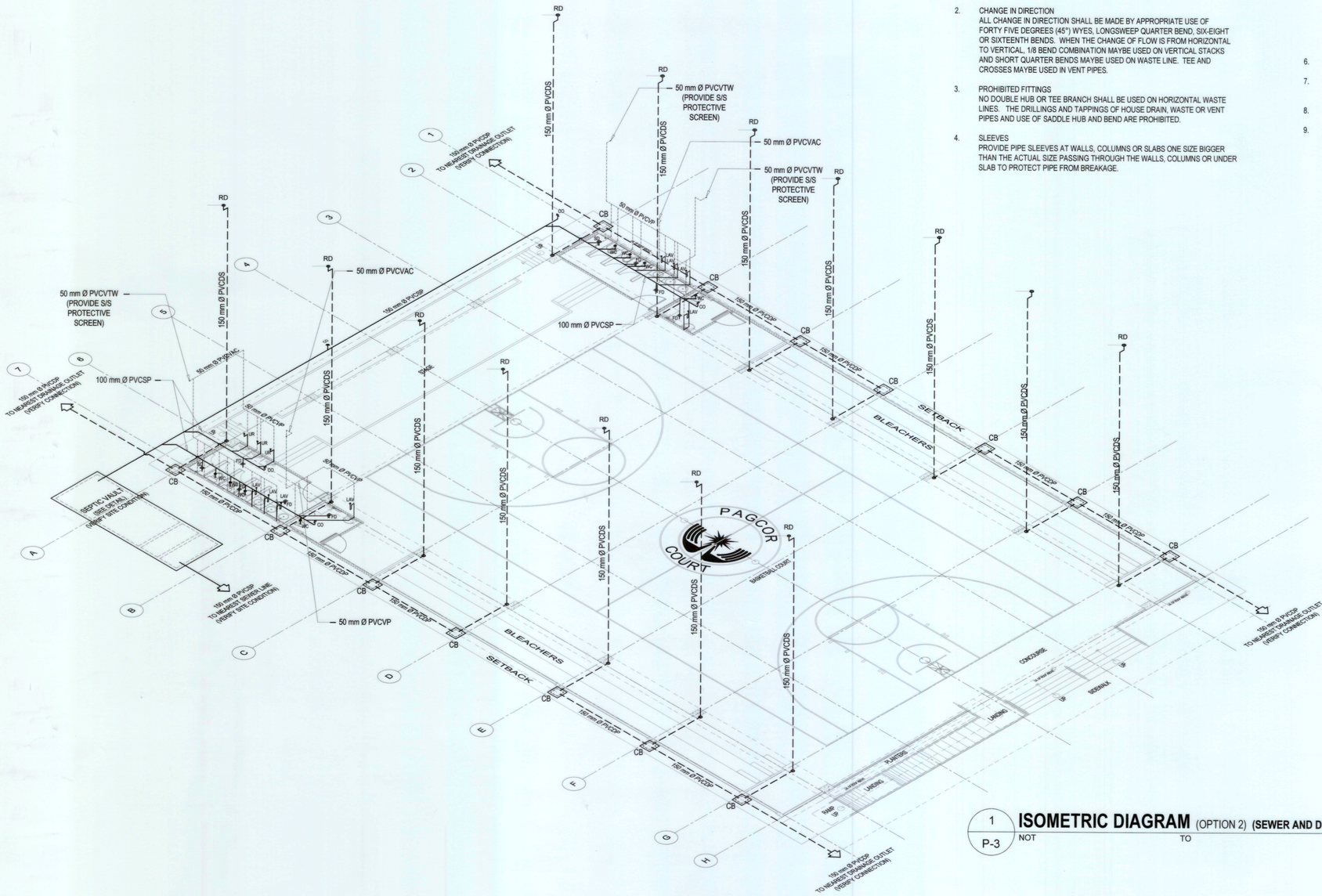
5. PIPE CLEAN-OUTS
   PIPE CLEAN-OUTS ARE REQUIRED UNDER THE FOLLOWING CONDITIONS:
   a. EVERY CHANGE IN HORIZONTAL DIRECTIONS EXCEEDING TWENTY-TWO AND ONE-HALF DEGREES (22 1/2°).
   b. ONE AND ONE-HALF METERS (1.50 m) INSIDE THE PROPERTY LINE BEFORE THE HOUSE DRAINAGE CONNECTION.
   c. EVERY FIFTEEN METERS (15.00 m) IN HORIZONTAL RUN OF PIPES.
   d. AT THE END OF ANY HORIZONTAL PIPE LINES.

6. THE DIGESTION CHAMBER OF SEPTIC VAULT MUST BE WATERPROOFED.

7. NOT LESS THAN 300 mm OF AIR SPACE MUST BE LEFT BETWEEN THE TOP OF THE SEWAGE AND THE UNDER PART OF THE VAULT ROOF SLAB.

8. NO SEPTIC VAULT MUST BE CONSTRUCTED UNDER THE BUILDING.

9. ALL PLUMBING WORKS SHALL BE DONE BY A LICENSED MASTER PLUMBER AND A LICENSED PLUMBING CONTRACTOR.



1 / P-3 **ISOMETRIC DIAGRAM** (OPTION 2) **(SEWER AND DRAINAGE LAYOUT)**
NOT TO SCALE

REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS **BUREAU OF DESIGN** BUILDINGS DIVISION BONIFACIO DRIVE PORT AREA, MANILA	PROJECT AND LOCATION: PROPOSED: **STANDARD PAGCOR MULTI-PURPOSE/ EVACUATION CENTER** (OPTION 2) (FOR WIND VELOCITY OF 270KPH)	SHEET CONTENTS: ISOMETRIC DIAGRAM - SEWER AND DRAINAGE LAYOUT PLUMBING NOTES	DESIGNED BY: **REUBEN C. RAMOS** ENGINEER II CADD BY: **GLAISA B. DIMAANO-TUSCANO** ARCHITECT II CHECKED: **FRANCIS G. SERRANO** ARCHITECT IV	SUBMITTED: **JOSEPHINE P. ISTURIS** CHIEF, BUILDINGS DIVISION	RECOMMENDING APPROVAL: *SEE COVER SHEET FOR SIGNATURE* **ARISTARCO M. DOROY** OFFICER-IN-CHARGE BUREAU OF DESIGN OCT 23 2019	APPROVED: *SEE COVER SHEET FOR SIGNATURE* **EMIL K. SADAIN, CESO I** UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS	CONCURRED: *SEE COVER SHEET FOR SIGNATURE AND APPROVAL* **JAMES PATRICK R. BONDOC** VICE PRESIDENT CORPORATE SOCIAL RESPONSIBILITY	SET NO.: BOD B	SHEET NO.: P-3 6 30

PLUMBING NOTES:

1. GRADES OF HORIZONTAL PIPING
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2. CHANGE IN DIRECTION
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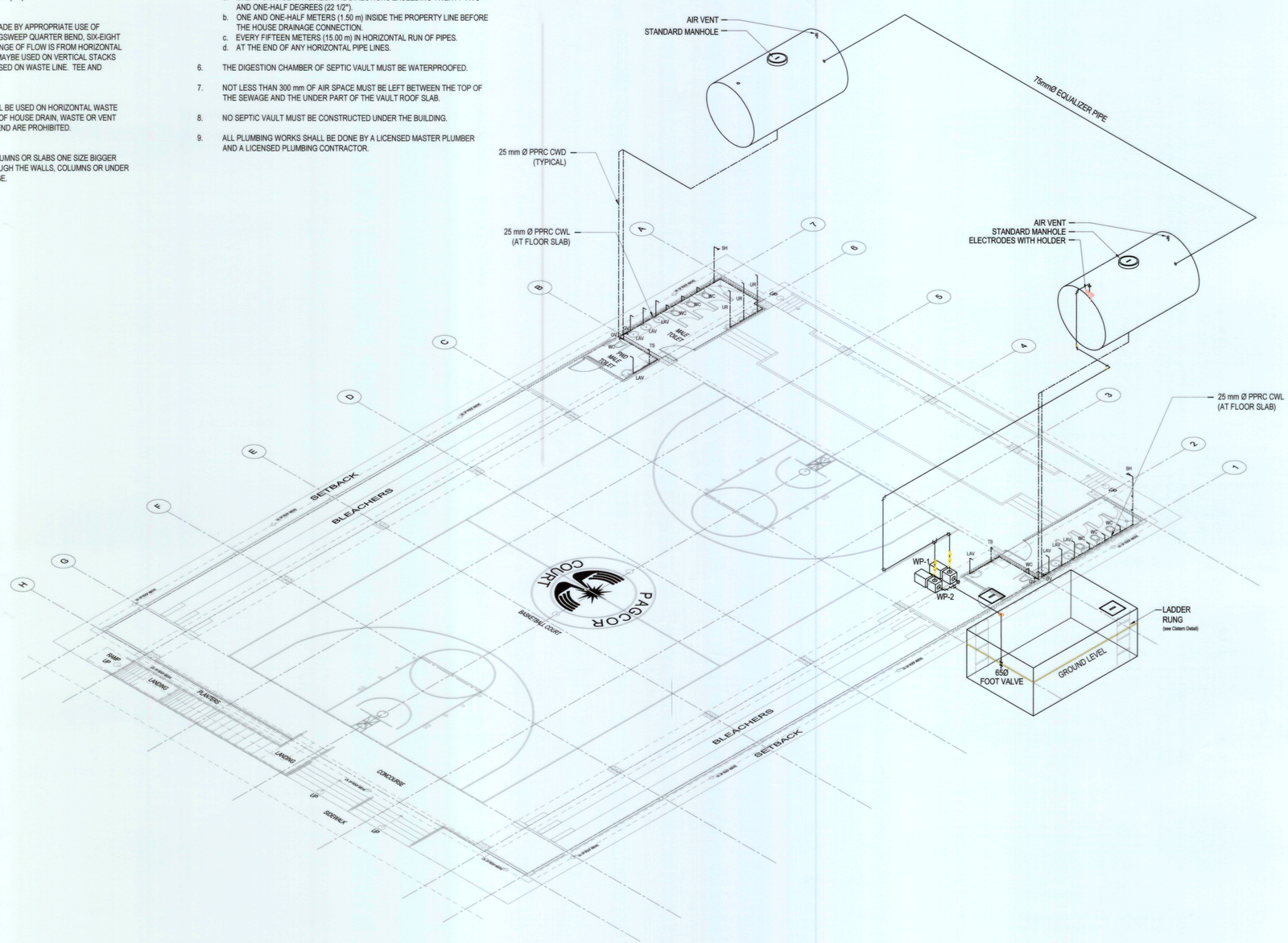
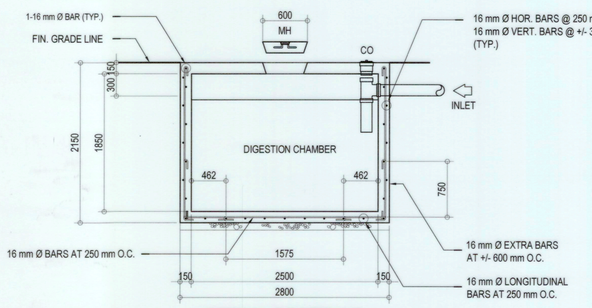
9. ALL PLUMBING WORKS SHALL BE DONE BY A LICENSED MASTER PLUMBER AND A LICENSED PLUMBING CONTRACTOR.

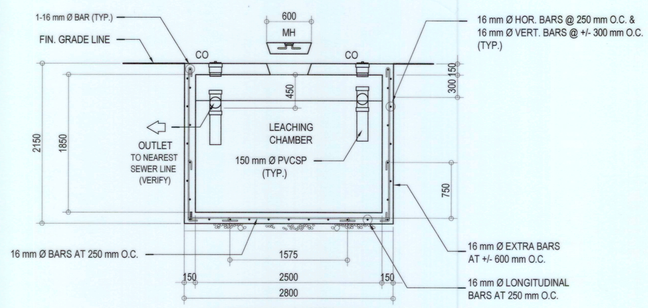


1 / P-4 **ISOMETRIC DIAGRAM** (OPTION 2) **(WATER LINE LAYOUT)**
NOT TO SCALE

REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS **BUREAU OF DESIGN** BUILDINGS DIVISION BONIFACIO DRIVE PORT AREA, MANILA	PROJECT AND LOCATION: PROPOSED: **STANDARD PAGCOR MULTI-PURPOSE/ EVACUATION CENTER** **(OPTION 2)** **(FOR WIND VELOCITY OF 270KPH)**	SHEET CONTENTS: ISOMETRIC DIAGRAM - WATER LINE LAYOUT PLUMBING NOTES	DESIGNED BY: **REUBEN C. RAMOS** ENGINEER II CADD BY: **GLAISA B. DIMAANO-TUSCANO** ARCHITECT II CHECKED: **FRANCIS G. SERRANO** ARCHITECT IV	SUBMITTED: **JOSEPHINE P. ISTURIS** CHIEF, BUILDINGS DIVISION	RECOMMENDING APPROVAL: *SEE COVER SHEET FOR SIGNATURE* **ARISTARCO M. DOROY** OFFICER-IN-CHARGE BUREAU OF DESIGN OCT 23 2018	APPROVED: *SEE COVER SHEET FOR SIGNATURE* **EMIL K. SADAIN, CESO I** UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS	CONCURRED: *SEE COVER SHEET FOR SIGNATURE AND APPROVAL* **JAMES PATRICK R. BONDOC** VICE PRESIDENT CORPORATE SOCIAL RESPONSIBILITY	SET NO.: BOD B	SHEET NO.: P-4 6 | 30



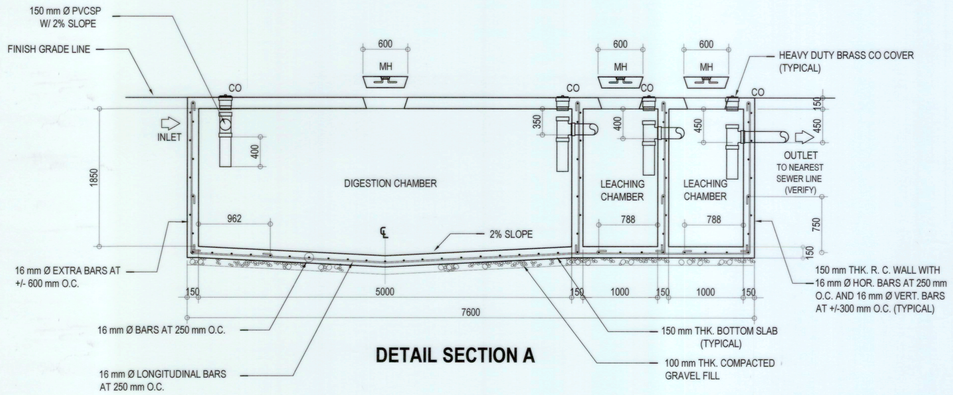
DETAIL SECTION B



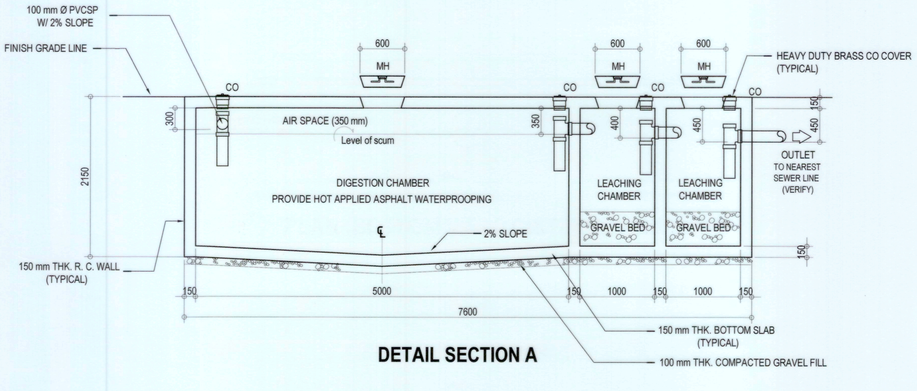
DETAIL SECTION C

SCHEDULE OF TOP SLAB REINFORCEMENT

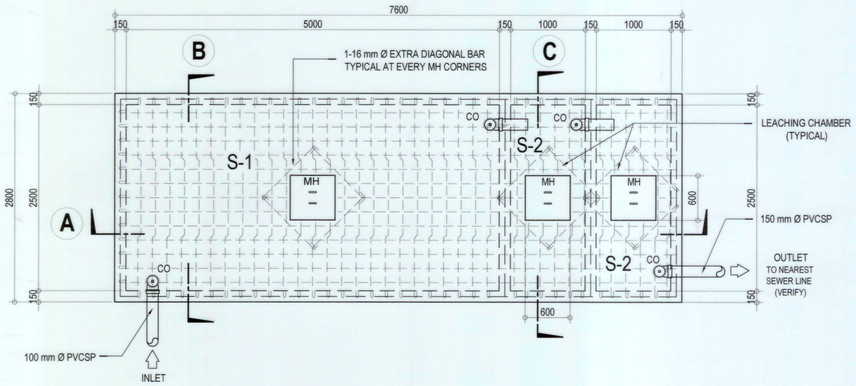
MARK	TOP SLAB	
	SHORT DIRECTION	LONG DIRECTION
S - 1	16 mm Ø BARS @ 195 mm O. C. BENT-UP 2 OUT OF 3 @ L/4 FROM FACE OF SUPPORT	16 mm Ø BARS @ 190 mm O. C. TEMPERATURE BARS
S - 2	16 mm Ø BARS @ 225 mm ON CENTER	16 mm Ø BARS @ 190 mm ON CENTER



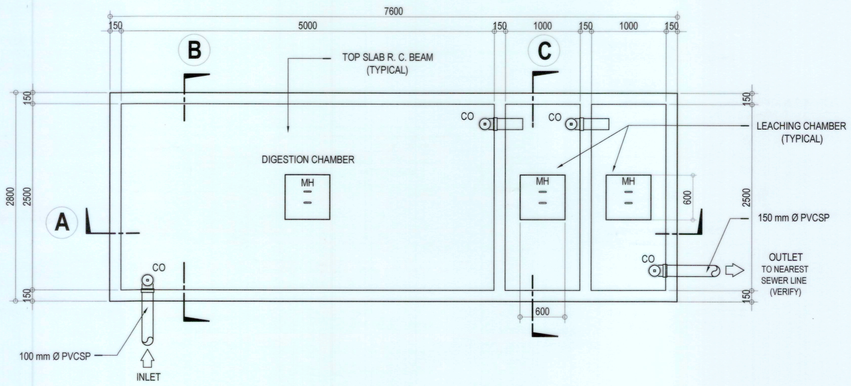
DETAIL SECTION A



DETAIL SECTION A



DETAIL PLAN (TOP SLAB)



DETAIL PLAN (TOP SLAB)

1 P-5 **DETAIL OF SEPTIC VAULT (with REINFORCING BARS)**
SCALE 1:40 m

2 P-5 **DETAIL OF SEPTIC VAULT**
SCALE 1:40 m

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
BUREAU OF DESIGN
BUILDINGS DIVISION
BONIFACIO DRIVE PORT AREA, MANILA

PROJECT AND LOCATION:
PROPOSED:
STANDARD PAGCOR MULTI-PURPOSE/ EVACUATION CENTER
(OPTION 2)
(FOR WIND VELOCITY OF 270KPH)

SHEET CONTENTS:
DETAIL OF SEPTIC VAULT
SCHEDULE OF TOP SLAB REINFORCEMENT

DESIGNED BY: **R. C. RAMOS / A. G. TAÑEDO** ENGINEER II ENGINEER II
CADD BY: **R. C. RAMOS / A. G. TAÑEDO** ENGINEER II ENGINEER II
CHECKED: **F. G. SERRANO / K.A. C. MACOY** ARCHITECT IV ENGINEER IV

SUBMITTED:
JOSEPHINE P. ISTURIS
CHIEF, BUILDINGS DIVISION

RECOMMENDING APPROVAL:
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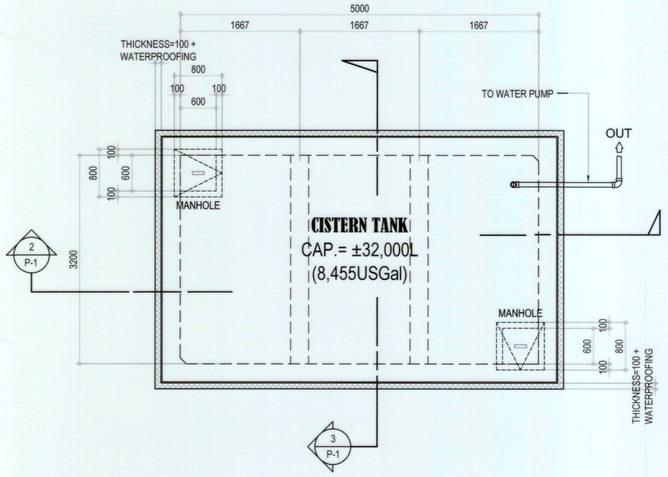
ARISTARCO M. DOROY
OFFICER-IN-CHARGE
BUREAU OF DESIGN
OCT 23 2019

APPROVED:
SEE COVER SHEET FOR SIGNATURE
EMIL K. SADAIN, CESO I
UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

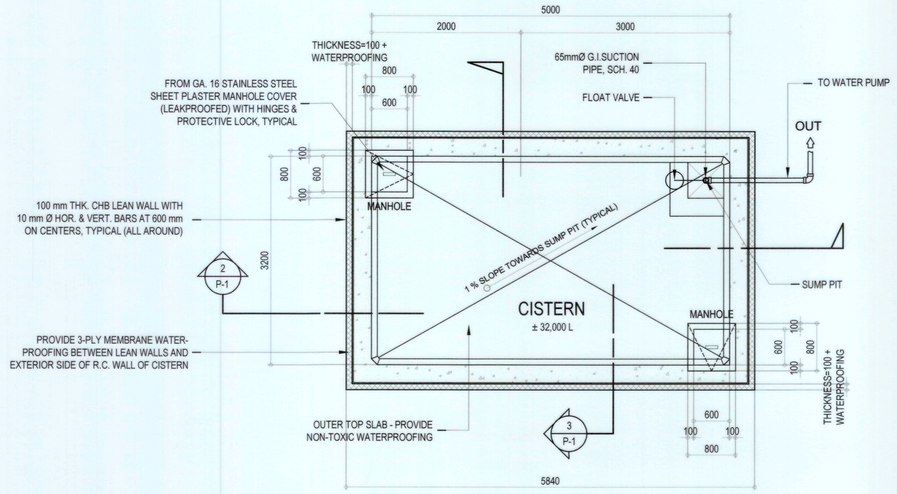
CONCURRED:
SEE COVER SHEET FOR SIGNATURE AND APPROVAL
JAMES PATRICK R. BONDOC
VICE PRESIDENT
CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD B
SHEET NO.: P-5 6 30



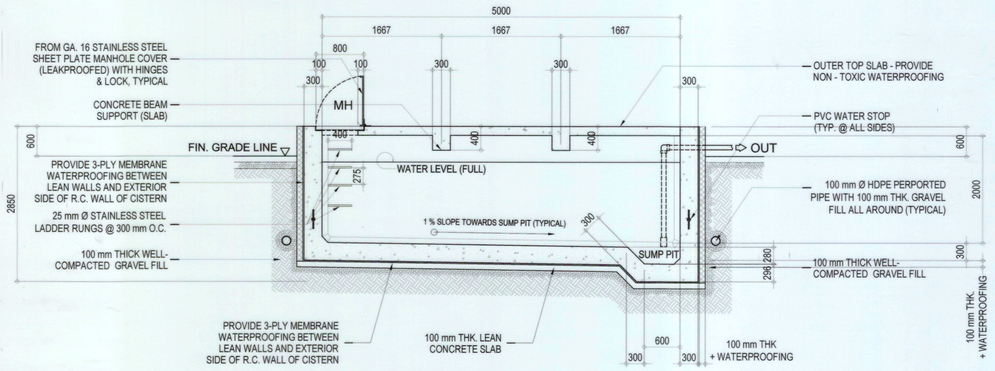
1 P-6 **PLAN (TOP VIEW) CISTERN TANK**

SCALE NTS.



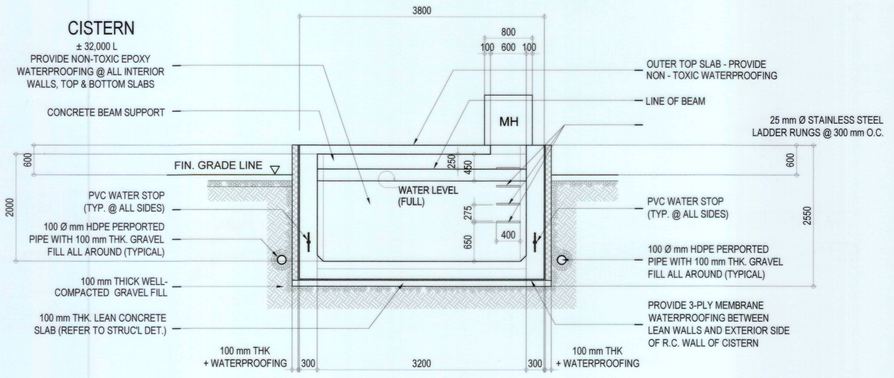
2 P-6 **PLAN (BOTTOM VIEW) CISTERN TANK**

SCALE NTS.



3 P-6 **LONGITUDINAL SECTION OF CISTERN**

SCALE NTS.

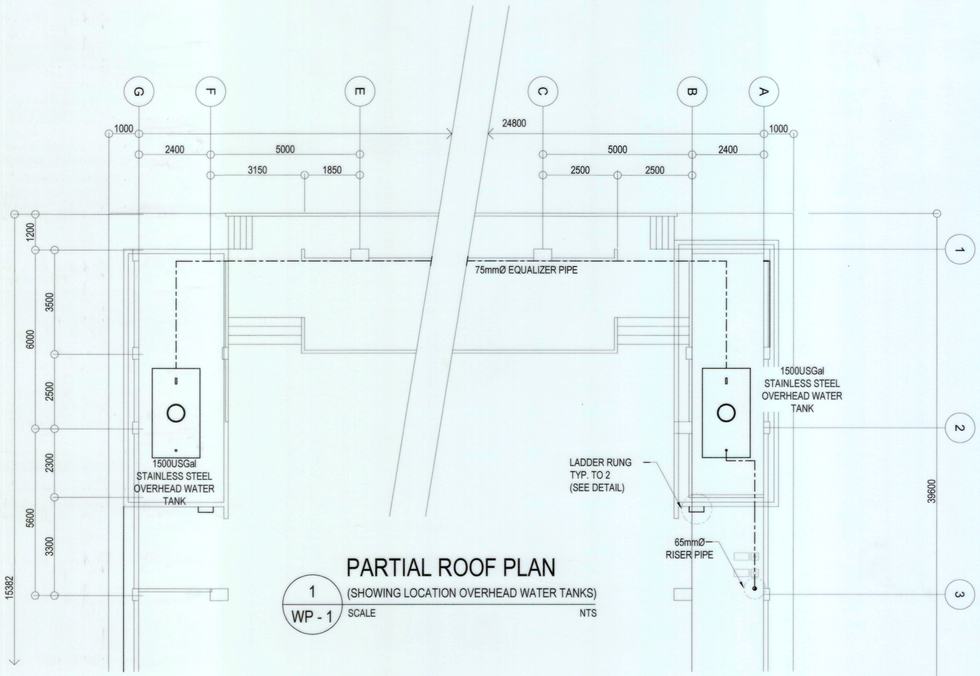


4 P-6 **TRANSVERSE SECTION OF CISTERN**

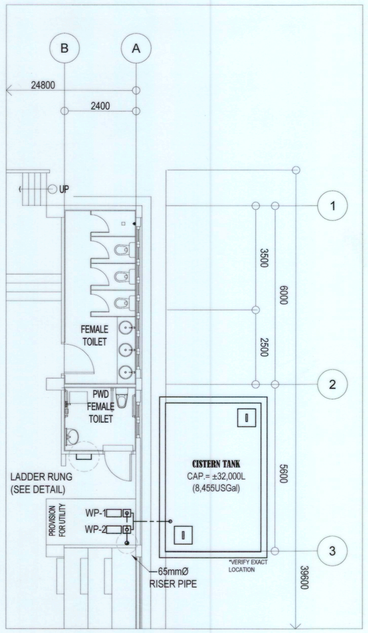
SCALE NTS.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
BUREAU OF DESIGN
BUILDINGS DIVISION
BONIFACIO DRIVE PORT AREA, MANILA

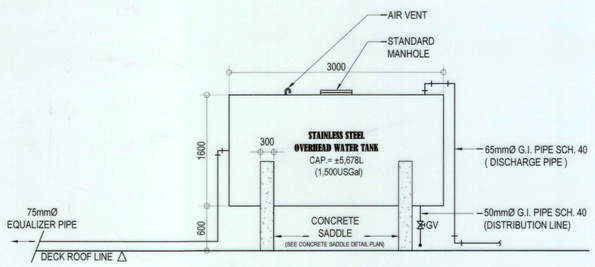
PROJECT AND LOCATION:	PROPOSED: **STANDARD PAGCOR MULTI-PURPOSE/ EVACUATION CENTER** (OPTION 2) (FOR WIND VELOCITY OF 270KPH)
SHEET CONTENTS:	DETAIL OF CISTERN TANK
DESIGNED BY:	**REUBEN C. RAMOS** ENGINEER II
CADD BY:	**SHEILA C. BONDOC** ENGINEERING ASSISTANT
CHECKED:	**FRANCIS G. SERRANO** ARCHITECT IV
SUBMITTED:	**JOSEPHINE P. ISTURIS** CHIEF, BUILDINGS DIVISION
RECOMMENDING APPROVAL:	*SEE COVER SHEET FOR SIGNATURE* **ARISTARCO M. DOROY** OFFICER-IN-CHARGE BUREAU OF DESIGN OCT 23 2019
APPROVED:	*SEE COVER SHEET FOR SIGNATURE* **EMIL K. SADAIN, CESO I** UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS
CONCURRED:	*SEE COVER SHEET FOR SIGNATURE AND APPROVAL* **JAMES PATRICK R. BONDOC** VICE PRESIDENT CORPORATE SOCIAL RESPONSIBILITY
SET NO.:	BOD B
SHEET NO.:	P-6 6 30



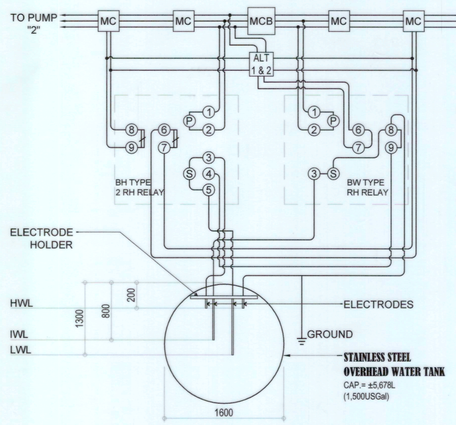
1 / WP - 1 PARTIAL ROOF PLAN
(SHOWING LOCATION OVERHEAD WATER TANKS)
SCALE NTS



2 / WP - 1 PARTIAL GROUND FLOOR PLAN
(SHOWING PARTIAL LOCATION OF CISTERN AND WATER PUMPS)
SCALE NTS



3 / WP - 1 ELEVATION PLAN FOR OVERHEAD WATER TANK
SCALE NTS



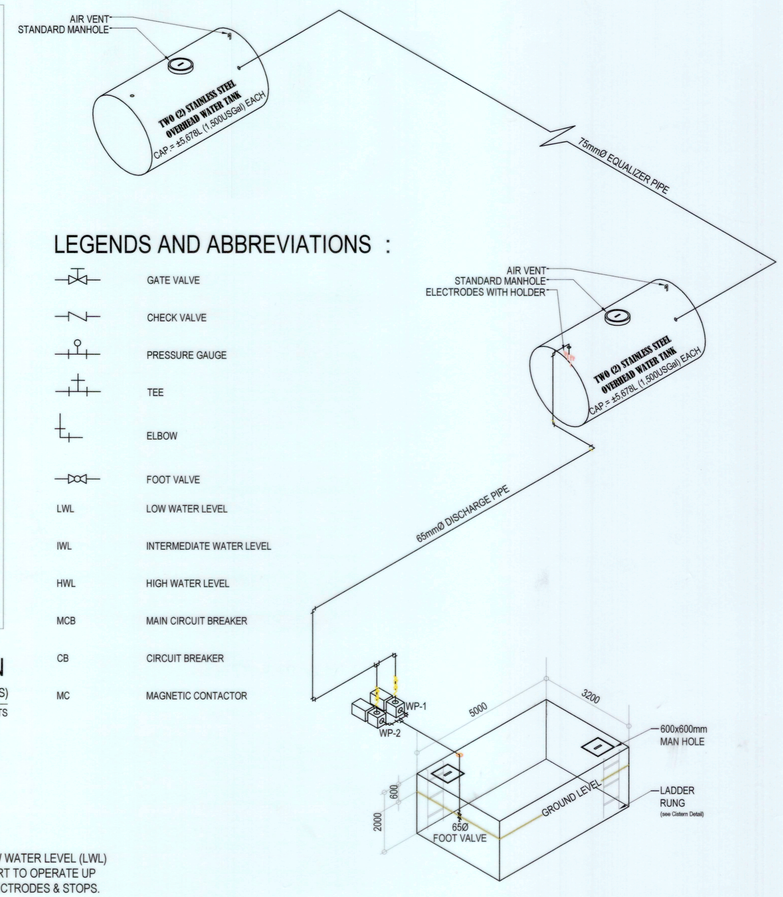
4 / WP - 1 SCHEMATIC DIAGRAM OF WATER LEVEL CONTROL
SCALE NTS

OPERATION :

1. WATER LEVEL BELOW LOW WATER LEVEL (LWL) ELECTRODE, PUMPS "1" & "2" START TO OPERATE UP TO HIGH WATER LEVEL (HWL) ELECTRODES & STOPS.

2. WATER LEVEL BELOW INTERMEDIATE WATER LEVEL (IWL) ELECTRODE EITHER PUMP "1" OR "2" OPERATES AS INDICATED BY ALTERNATOR & RELAY RH, FURTHER DRAIN OF WATER BELOW LOW WATER LEVEL (LWL) ELECTRODE WILL START PUMP "1" & "2" AS INDICATED BY RELAY 2RH.

3. ALTERNATOR ALTERNATE THE OPERATION OF PUMPS "1" & "2" AT SPECIFIC TIME SCHEDULE OF OPERATION.



LEGENDS AND ABBREVIATIONS :

	GATE VALVE
	CHECK VALVE
	PRESSURE GAUGE
	TEE
	ELBOW
	FOOT VALVE
LWL	LOW WATER LEVEL
IWL	INTERMEDIATE WATER LEVEL
HWL	HIGH WATER LEVEL
MCB	MAIN CIRCUIT BREAKER
CB	CIRCUIT BREAKER
MC	MAGNETIC CONTACTOR

5 / WP - 1 ISOMETRIC DIAGRAM OF WATER PUMPING SYSTEM
SCALE NTS

SCHEDULE OF EQUIPMENT

WATER PUMP

DESIGNATION	QTY.	CAPACITY Liters per min. (gpm)	TYPE	TDH Meters (ft.)	MOTOR RATING					REMARKS
					RPM	kW (Hp)	VOLTS	PHASE	HERTZ	
WP	2	227 (60)	END - SUCTION CENTRIFUGAL	10 (32.8)	3500	1.12 (1.5)	230	SINGLE	60	BRAND NEW AND OF THE APPROVED TYPE, COMPLETE WITH STANDARD ACCESSORIES,READY FOR SERVICE

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PROJECT AND LOCATION:
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STANDARD PAGCOR MULTI-PURPOSE/ EVACUATION CENTER
(OPTION 2)
(FOR WIND VELOCITY OF 270KPH)

SHEET CONTENTS:
WATER PUMPING SYSTEM DETAILS

DESIGNED BY: **BENJAMIN R. GALMAK** ENGINEER II
CADD: **BENJAMIN R. GALMAK** ENGINEER II
CHECKED: **CORNELIO T. EVANGELISTA JR. 4** ENGINEER VI

SUBMITTED:
JOSEPHINE P. ISTURIS
CHIEF, BUILDINGS DIVISION I

RECOMMENDING APPROVAL:
SEE COVER SHEET FOR SIGNATURE
ARISTARCO M. DOROY
OFFICER-IN-CHARGE
BUREAU OF DESIGN
OCT 23 2019

APPROVED:
SEE COVER SHEET FOR SIGNATURE
EMIL K. SADAIN
UNDERSECRETARY FOR TECHNICAL SERVICES AND UPMO OPERATIONS

CONCURRED:
SEE COVER SHEET FOR SIGNATURE AND APPROVAL
JAMES PATRICK R. BONDOC
VICE PRESIDENT
CORPORATE SOCIAL RESPONSIBILITY

SET NO.: BOD / B

SHEET NO.: WP-1 / 1 30

SUMMARY OF QUANTITIES AND SCOPE OF WORK

SCOPE OF WORK	UNIT	QUANTITY
A. ARCHITECTURAL WORKS		
I. FINISHES		
A. FLOOR FINISHES:		
1. (FL-1) NON - SKID PLAIN CEMENT FLOOR FINISH (PROVIDE FLOOR HARDINER)	m²	487
2. (FL-1A) NON-SKID PLAIN CEMENT FLOOR FINISH WITH 6MM HORIZONTAL GROOVE LINES	m²	13.5
3. (FL-2) PLAIN CEMENT FLOOR FINISH WITH FLOOR HARDINER, MARKING SIDELINE/BASELINE PAINTED FINISH	m²	420
4. (FL-3) 300 X 300MM UNGLAZED CERAMIC FLOORTILES	m²	44
5. (FL-4) CANOPY/RC GUTTER ROOF DECK , PROVIDE INTEGRATED WATERPROOFING MEMBRANE	m²	107
B. WALL FINISHES:		
1. 50 X 50MM HOR. GROOVE LINES SPACED @ 0.30M O.C. IN PLAIN CEMENT PLATER FINISH	m²	125
2. PLAIN CEMENT PLASTER FINISH	m²	694
3. 300 X300MM VITRIFIED WALL TILES	m²	90
4. ALUMINUM CLADDING	m²	75
II. CEILING		
1. (CF-1) 4.5MM THK. MOISTURE RESISTANT FIBER CEMENT CEILING BOARD	m²	44
2. (CF-2) EXPOSED RC/UNDERSLAB BEAM SOFFIT	m²	234
III. ROOFING		
1. 0.50MM THK. (BASE METAL), PRE-PAINTED RIB-TYPE ROOFING SHT. (LONG SPAN), PROVIDE 6MM THK. BUBBLE TYPE FLEXIBLE THERMAL ROOFING INSULATION WITH 2-SIDED ALUMINUM FOIL	m²	1,062
IV. DOORS/ WINDOWS		
1. REFER TO SCHEDULE OF DOORS /WINDOWS FOR THE DESCRIPTION AND QUANTITIES.	lot	1
V. PAINTING WORKS		
1. PAINTING ON CONCRETE SURFACE	m²	1,053
2. PAINTING ON FIBER CEMENT CEILING BOARD	m²	44
3. PAINTING ON WOOD DOORS	m²	15
VI. MISCELLANEOUS ITEMS		
1. PVC TOILET PARTITION	m²	40
2. (HR-1) 50MMM DIA. SS PIPE HANDRAIL ON 50MM SS PIPE VERTICAL RAILING SUPPORT	lin. m	20
3. (HR-2) 50MM SS PIPE HANDRAIL ON 50MM SS VERTICAL RAIL SUPPORT	lin. m	20
4. (GB-1) 38MM DIA. SS L-TYPE GRAB BAR	set	2
5. (GB-2) 38MM DIA. SS FLIP UP, PULL DOWN GRAB BAR	set	2

SCOPE OF WORK	UNIT	QUANTITY
B. ELECTRICAL WORKS		
I. PANELBOARDS		
1. DISTRIBUTION PANELBOARD "DP"		
MAIN CIRCUIT BREAKER RATING:	set	1
225 AF, 150AT, 2P, 240V BOLT-ON TYPE CIRCUIT BREAKER IN NEMA-1 ENCLOSURE		
BRANCHES:		
12 - 50 AF, 20 AT, 2P, 240 V		
4 - 50 AF, 30 AT, 2P, 240 V		
II. WIRES AND CABLES		
1. 3.5mm² THHN (150m/roll)	rolls	12
2. 5.5mm² THHN (150m/roll)	rolls	3
3. 14mm² THHN (150m/roll)	mts	30
4. 50mm² THHN (150m/roll)	mts	60
III. SWITCHES AND RECEPTACLES		
1. SWITCHBANK	set	1
5 - SINGLE POLE WALL SWITCH IN ONE SWITCH PLATE, 10AMP., 250V.		
1 - TWO (2) SINGLE POLE WALL SWITCH IN ONE SWITCH PLATE, 10AMP., 250V.		
2 - THREE (3) SINGLE POLE WALL SWITCH IN ONE SWITCH PLATE, 10AMP., 250V.		
2. SINGLE CONVENIENCE OUTLET, GROUNDING TYPE 20AMP., 250V.WEATHER PROOF	sets	6
3. DUPLEX CONVENIENCE OUTLET, GROUNDING TYPE 20AMP., 250V.WEATHER PROOF	sets	9
5. SINGLE POLE WALL SWITCH IN ONE SWITCH PLATE, 10AMP., 250V.	sets	4
6. THREE (3) SINGLE POLE WALL SWITCH IN ONE SWITCH PLATE, 10AMP., 250V.	sets	2
7. EXHAUST FAN	sets	6
8. ELECTRICAL TAPE	rolls	5
9. RUBBER TAPE	rolls	2
10. MASKING TAPE	roll	1
IV. LIGHTING FIXTURES AND LAMPS		
1. ONE (1)- 28 WATTS, 230VOLTS, 60Hz., FLUORESCENT LIGHTING FIXTURE, BOX TYPE	sets	2
2. TWO (2)- 28 WATTS, 230VOLTS,60Hz., FLUORESCENT LIGHTING FIXTURE.1200mm X 300mm MODULE/ HOUSING WITH LOW BRIGHTNESS ALUMINUM LOUVRE	sets	20
3. ONE (1)-250W METAL HALLIDE, 230V, HIGH BAY LIGHTING FIXTURE OR APPROVED EQUAL	sets	3
4. ONE (1)-500W METAL HALLIDE, 230V, HIGH BAY LIGHTING FIXTURE OR APPROVED EQUAL	sets	15

SCOPE OF WORK	UNIT	QUANTITY
5. ONE - 400WATTS, METAL HALIDE LAMP WITH FLOOD LIGHT HOUSING SUBMIT SAMPLE CATALOGUE FOR ELECTRICAL ENGINEER'S APPROVAL	sets	12
V. CONDUITS AND FITTINGS		
1. 15MMØ RSC X 3 M	length	250
2. 50MMØ RSC X 3 M	length	10
3. 15MMØ FLEXIBLE METAL CONDUIT	mts	30
4. MICA TUBE	mts	10
5. METAL OCTAGONAL/JUNCTION BOX 102MM X 102MM X 54 MM DEEP WITH PLATE COVER	pcs	65
6. METAL UTILITY BOX 50MM X 102MM X 54MM DEEP	pcs	25
7. PULLBOX	pcs	4
8. COPPERCLAD GROUNDING ROD, 20MMØ X 2400MM	pcs	2
9. 50MMØ X 90° TYPE "F" CONDULET	pc	1
10. G.I. WIRE	kg	2
11. CONSUMABLES	lot	1
C. PLUMBING WORKS		
I. SEWER AND VENT LINES		
1. 150 MM Ø PVC PIPE	pcs	15
2. 100 MM Ø PVC PIPE	pcs	10
3. 50 MM Ø PVC PIPE	pcs	35
4. 100 MM 1/8 BEND	pcs	3
5. 50 MM 1/8 BEND	pcs	5
6. 150 MM CLEAN OUT COVER	pcs	5
7. 100 MM CLEAN OUT COVER	pcs	5
8. 150 MM X 150 MM SINGLE BRANCH 45° (WYE)	pcs	5
9. 150 MM X 100 MM SINGLE BRANCH 45° (WYE)	pcs	5
10. 100 MM X 100 MM SINGLE BRANCH 45° (WYE)	pcs	10
11. 100 MM X 50 MM SINGLE BRANCH 45° (WYE)	pcs	25
12. 50 MM X 50 MM SINGLE BRANCH 45° (TEE)	pcs	30
13. 50 MM ¼ BEND	pcs	55
II. DRAINAGE LINES		
1. 150 MM Ø PVC PIPE	pcs	50

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STANDARD PAGCOR MULTI-PURPOSE/ EVACUATION CENTER
(OPTION 2)
(FOR WIND VELOCITY OF 270KPH)

SHEET CONTENTS:
SUMMARY OF QUANTITIES AND SCOPE OF WORK

ARCHITECTURAL CONCEPT:
BUILDINGS DIVISION
CADD: J.V.GONZALES/R.MIRAFLORES
ARCHITECTURAL ENGINEERING ASSISTANT
CHECKED:
FRANCIS G. SERRANO
ARCHITECT IV

SUBMITTED:
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SET NO.: BOD B
SHEET NO.: BOQ-1 3 3

SUMMARY OF QUANTITIES AND SCOPE OF WORK

SCOPE OF WORK	UNIT	QUANTITY
2. DOME-TYPE ROOF DRAIN W/ STRAINER	pcs	14
3. 50 MM Ø 90° PVC ELBOW	pcs	18
III. WATER LINES		
1. 25 MM Ø PPRC PIPE	pcs	30
2. 25 MM 90° ELBOW	pcs	20
3. 25 MM 90° THREADED ELBOW	pcs	8
4. 25 MM 90° THREADED TEE	pcs	25
IV. FIXTURES AND ACCESSORIES		
1. WATER CLOSET W/ FITTINGS & ACCESSORIES	sets	8
2. URINAL W/ FITTINGS & ACCESSORIES	sets	3
3. FLOOR DRAIN STRAINER (COMFORT ROOMS)	sets	12
4. LAVATORY WITH P.TRAP & ACCESSORIES	sets	8
5. STAINLESS STEEL MESH SCREEN PROTECTION	sets	3
6. GATE VALVE	sets	5
7. SHOWER W/ FITTINGS & ACCESSORIES	sets	4
V. CATCH BASIN		
1. CB	unit	14
VI. SEPTIC VAULT		
1. SEPTIC VAULT	unit	1
VII. CISTERN		
1. CISTERN	unit	1
D. MECHANICAL WORKS		
A. WATER PUMPING SYSTEM:		
1. 1.5HP END-SUCTION CENTRIFUGAL WATER PUMP (WP) WITH FLOW CAPACITY OF 80GPM AND TDH OF 10M.	set	2
2. ELEVATED STAINLESS STEEL TANK (1,500USGAL) 3MM THICKNESS, ELECTRODES, VALVES, PIPES AND FITTINGS AND CONNECTIONS,HEADERS FABRICATIONS OF STEEL WORKS	set	2
3. 75MMØ G.I. PIPE SCH.40 (EQUALIZER PIPE)	m	40
4. 65MMØ G.I. PIPE SCH.40 (DISCHARGE PIPE LINE)	m	15
5. VALVES, FITTINGS AND ALL NECESSARY ACCESSORIES	l.s.	1
6. HANGERS AND SUPPORT	l.s.	1
7. ELECTRICAL WORKS FOR PUMPS FROM MAIN BREAKER	l.s.	1
8. MISCELLANEOUS AND CONSUMABLES	l.s.	1
9. TESTING AND COMMISIONING	l.s.	1
E. STRUCTURAL WORKS		
I. EARTHWORKS:		
1. STRUCTURE EXCAVATION	m3	235
2. GRAVEL FILL	m3	132
3. EMBANKMENT (FROM STRUCTURE EXCAVATION)	m3	125
4. EMBANKMENT (FROM BORROW)	m3	1,807
5. BACKFILL(FROM STRUCTURE EXCAVATION)	m3	169
II. TERMITE CONTROL WORKS		
1. SOIL POISONING	m2	1,965
III. CONCRETE WORKS		
A. CONCRETE		
1. 28 MPA/4,000PSI (BEAMS,COLUMNS,FOOTINGS)	m3	555
2. 17 MPA/2500PSI (SLAB ON FILL)	m3	108
B. REINFORCING BARS		
1. 275 MPA/40,000PSI (FOR BAR < 16MMØ)	kg	49,964
2. 414 MPA/60,000PSI (FOR BAR 16MMØ AND GREATER)	kg	56,147
C. FORMWORKS (FULL CONTACT AREA/1-USE)	m2	2,755
IV. ROOF FRAMING AND ROOFING		
A. ROOF FRAMING		
1. MAIN TRUSS		
1.1 PIPE 6 STD 150mmØ X 6.62MM THK	l.m	208
1.2 PIPE 4 STD - 100MMØ X 5.61MM THK	l.m	416
1.3 PIPE 3 STD - 75MMØ X 5.10MM THK	l.m	643
2. STRUT		
2.1 PIPE 3 STD - 75MMØ X 5.10MM THK	l.m	604
2.2 PIPE 2 STD - 50MMØ X 3.63MM THK	l.m	641
3. TRUSS ACCESSORIES		
3.1 STEEL PLATE 800 X 900 MM	kgs	382
3.2 MACHINE BOLTS 25MM Ø	pcs	162
3.3 C-PURLINS 70X200X15X3MM THK	kgs	12,251
3.4 CLIP ANGLE BARS 150X50X6MM THK	kgs	4,332
3.5 SAGROD 12MM Ø	kgs	2,605
3.6 CROSS BRACE WITH TURNBUCKLE 20MM	lim	486
3.7 CORBEL SOLE PLATE 400 X 750 X 16MM	kgs	712
3.8 CORBEL BASE PLATE 400 X 1050 X 25MM	kgs	1,558
3.9 LEVELING GROUT 25MM THK	cum	1
3.10 LONG ANCHORED BOLTS 32MM Ø X 400MM	pcs	76
3.11 ANCHOR BOLTS 28MM X 500L	pcs	216
3.12 ANCHOR BOLTS 25MM X 500L	pcs	72
3.13 STIFFENER PLATE 6MM THK	kgs	27
4. PURLIN TO TRUSS MACHINE BOLT CONNECTION		
4.1 MACHINE BOLTS 10MM Ø	pcs	700
4.2 STIFFENER PLATE 6MM THK	kgs	494
4.3 FLAT PLATE 150 X 75 X 6MM	kgs	741
5. PURLIN TO PEDESTAL CONNECTION		
5.1 STEEL PLATE 6MM	kgs	6
5.2 BASE PLATE 6MM	kgs	30
5.3 LEVELING GROUT 25MM THK	cum	1
5.4 ANCHOR BOLTS W/ STD NUTS & WASHERS 25MMØ X 500MM	pcs	11
5.5 ANGLE BAR 1∠-75 X 75 X 6MM THK	kgs	27
6. PYLON ITEMS		
6.1 ANGLE BAR 50MM X 50MM X 6MM	kgs	1,490
6.2 STEEL PLATE 150MM X 300MM X 10MM	kgs	2
6.3 EXPANSION BOLT 16MMØ X L = 100MM	pcs	4
7. BLEACHERS		
7.1 MAIN ITEMS		
a. GI PIPE 2"Ø X 6MM THK SCHD 40	lim	283
b. C-PURLINS 200X75X25X3.0MM THK W/ CLIP ANGLE	kgs	2,462
c. STEEL PLATE 300X400X12MM THK	kgs	14

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SET NO.: BOD B
SHEET NO.: BOQ-2 3 3

SUMMARY OF QUANTITIES AND SCOPE OF WORK

SCOPE OF WORK	UNIT	QUANTITY	SCOPE OF WORK	UNIT	QUANTITY	SCOPE OF WORK	UNIT	QUANTITY
7.2 TRUSS TO PURLIN								
a. ANCHOR BOLTS 25MM X 300L	pcs	72						
b. STEEL PLATE 400 X 1050MM	kgs	47						
c. ANCHOR BOLTS 28MM X 500L	pcs	72						
d. ANCHOR BOLTS 25MM X 500L	pcs	72						
e. STIFFENER PLATE	kgs	81						
7.3 BEAM TO TRUSS CONNECTION								
a. MACHINE BOLTS 10MMØ	pcs	48						
b. STIFFENER PLATE 6MM THK	kgs	28						
c. FLAT PLATE 150X75X6MM THK	kgs	6						

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SHEET NO.: BOQ-3 / 3 3