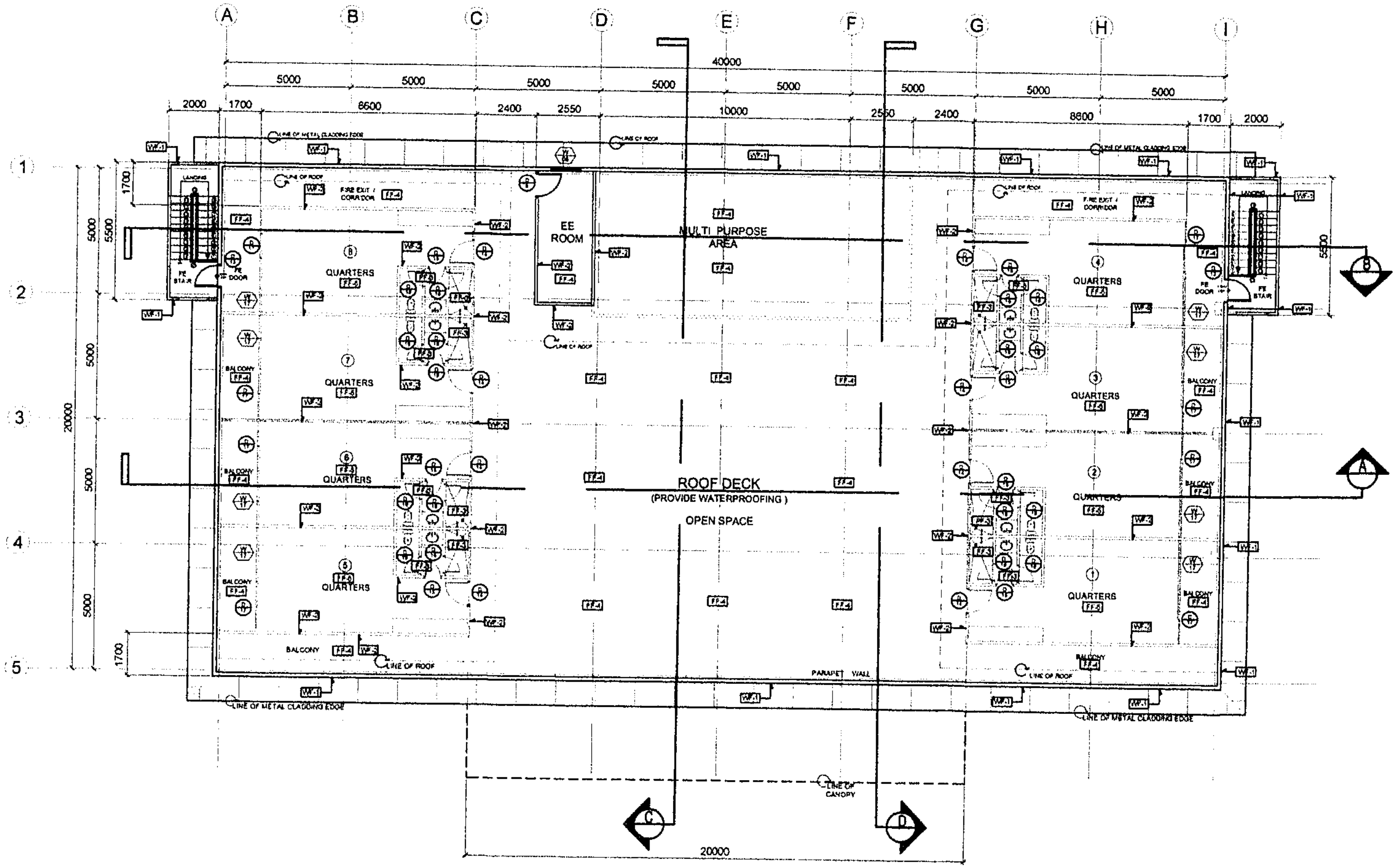
WALL FINISHES

WF-1	PLAIN CEMENT PLASTER PAINTED FINISH
WF-2	WALL PAINTED FINISH (SEE APPROVED SAMPLE)
WF-3	10MM CLEAR TEMPERED GLASS (BY OTHERS)
WF-4	300MM X 600MM GLAZED WALL TILES (HEIGHT 1.80 M)

FLOOR FINISHES

FF-1	600 MM X 600 MM NON SKID TILES (COLOR: *PORCELAIN WHITE*)
FF-2	PLAIN CEMENT FINISH IN EPOXY PRIMER (COLOR: *GRAY*)
FF-3	300MM X 300MM NON SKID TILES (DESIGN AND COLOR AS PER APPROVED)
FF-4	STAMP CONCRETE/CONC FINISH
FF-5	300MM X 300MM VINYL TILES (COLOR AND DESIGN AS PER APPROVED)

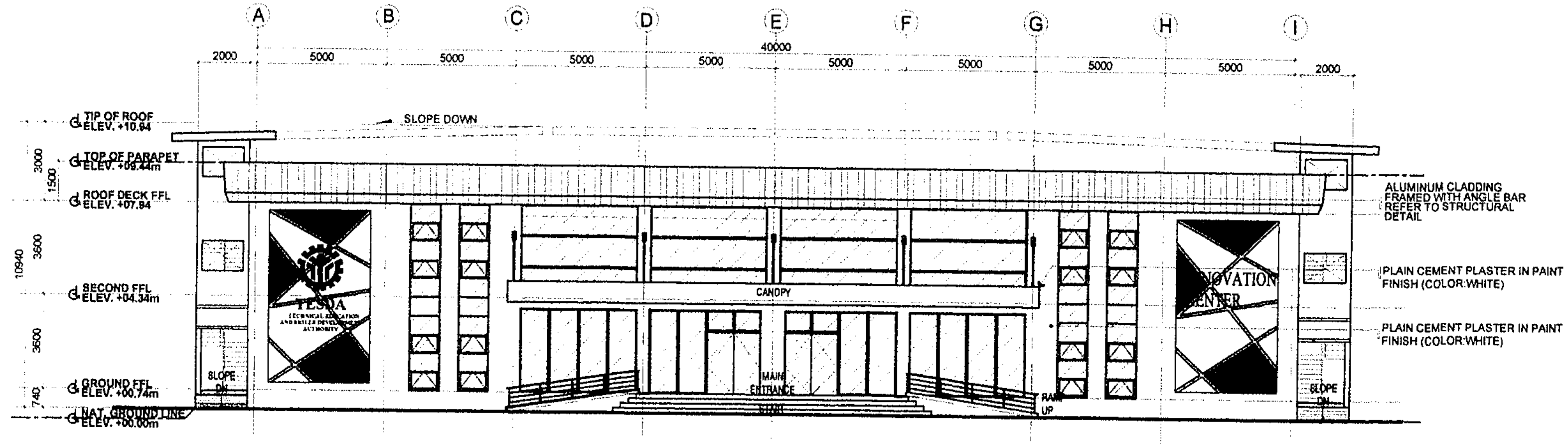


TESDA INNOVATION CENTER-DAVAO

(A) ROOF DECK FINISHES PLAN

SCALE 1:200MTS

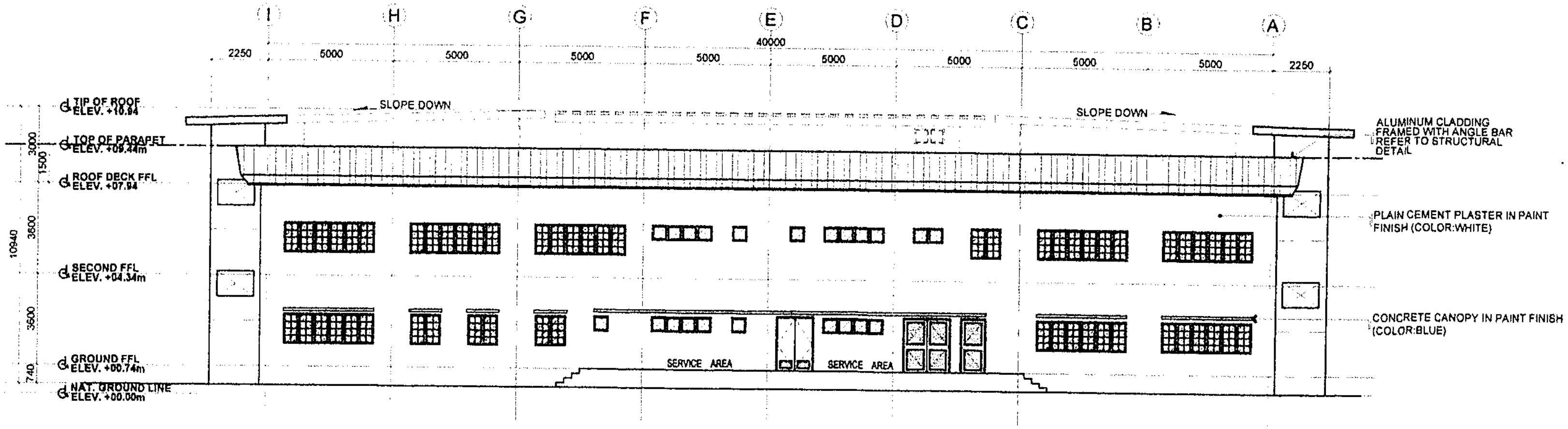
TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVID B. BUNGALLON, EXECUTIVE DIRECTOR, NITESD	RECOMMENDING APPROVAL: DIR. JULIET O. OROZCO, DIRECTOR IV, AS, CHIEF OF STAFF, OOG, DIRECTOR IN-CHARGE, SPU	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD, CSEE, DIRECTOR GENERAL, TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - DAVAO	[illegible]	CADD BY: MARIA LOURDES F. DE RAMOS, CAD OPERATOR, SPU-OOG	PREPARED BY: ARCH. CARLOS D. MANANQUIL, ARCHITECT CONSULTANT	REVIEWED BY: ARCH. RUNIEL A. MENDOZA, ARCHITECT, SPU-OOG	SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, SPU-OOG	SHEET CONTENTS: AS SHOWN	SHEET NO. A- 10



TESDA INNOVATION CENTER- DAVAO

A FRONT ELEVATION

SCALE 1:200MTS



TESDA INNOVATION CENTER- DAVAO

A REAR ELEVATION

SCALE 1:200 MTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY

CONCURRED BY: DIR. DAVID B. BUNGALLON, EXECUTIVE DIRECTOR, NITESD

RECOMMENDING APPROVAL: DIR. JULIET B. OROZCO, DIRECTOR IV, AS, CHIEF OF STAFF, ODG, DIRECTOR-IN-CHARGE, SPU

APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL, TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY

PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - DAVAO

CADD BY: MARIA LOURDES F. DE RAMOS, CAD OPERATOR, SPU-ODG

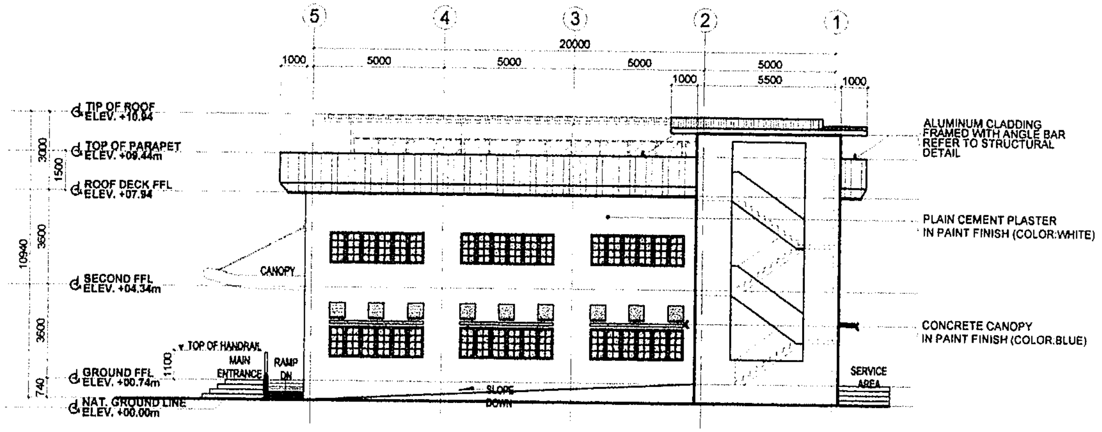
PREPARED BY: ARCH. CARLOS D. MANANQUIL, ARCHITECT CONSULTANT

REVIEWED BY: ARCH. RONIEL A. MENDOZA, ARCHITECT, SPU-ODG

SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, SPU-ODG

SHEET CONTENTS: AS SHOWN

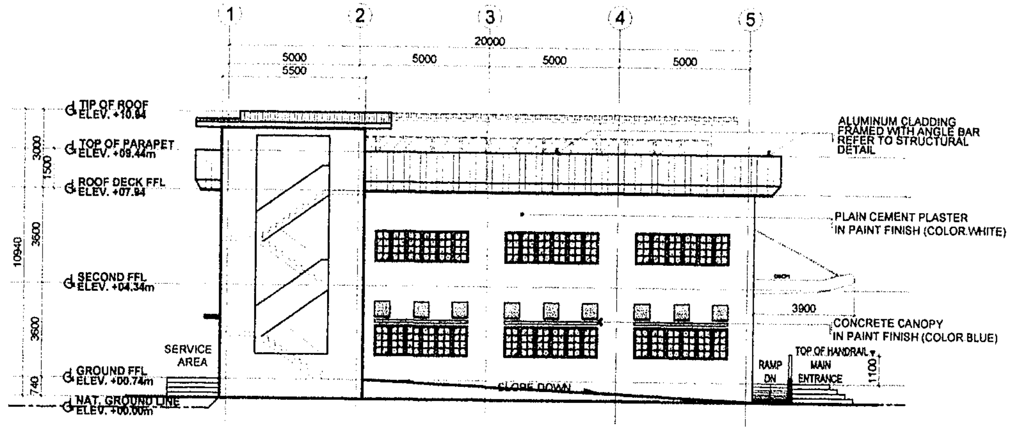
SHEET NO. A-11



TESDA INNOVATION CENTER-DAVAO

A RIGHT SIDE ELEVATION

SCALE 1:200MTS

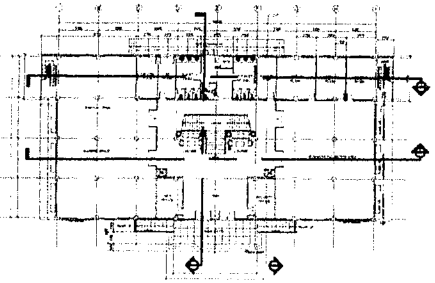


TESDA INNOVATION CENTER-DAVAO

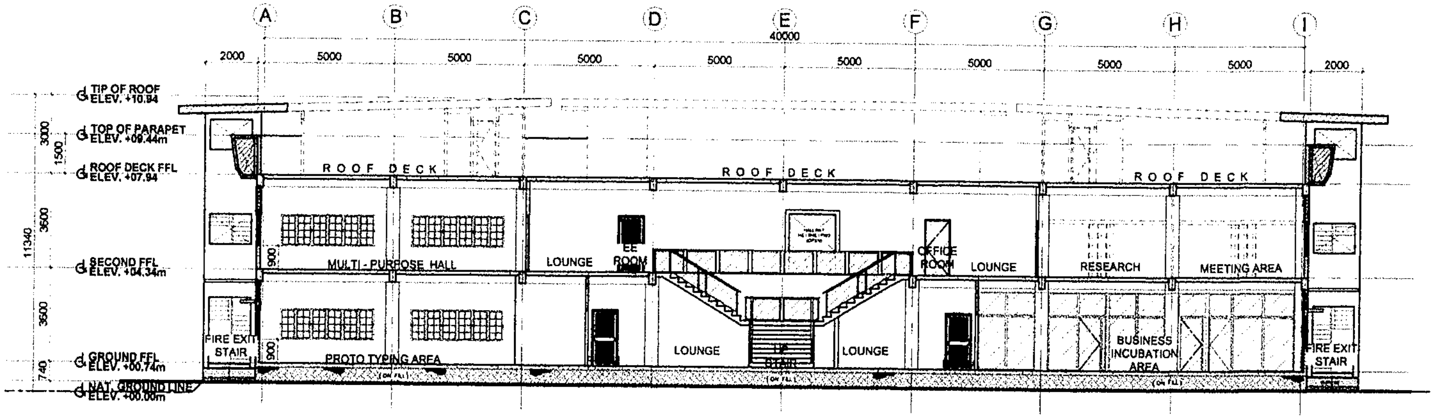
A LEFT SIDE ELEVATION

SCALE 1:200 MTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PROJECT TITLE:	CADD BY:	PREPARED BY:	REVIEWED BY:	SUBMITTED BY:	SHEET CONTENTS:	SHEET NO.
	DIR. DAVID B. BUNGALLON EXECUTIVE DIRECTOR, NITESD	DIR. JANET D. OROZCO DIRECTOR IV AS CHIEF OF STAFF, ODG DIRECTOR-IN-CHARGE, SPU	SEC. ISIDRO S. LAPEÑA, PHD, CSEE DIRECTOR GENERAL TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROPOSED TESDA INNOVATION CENTER - DAVAO	MARIA LOURDES F. DE RAMOS CAD OPERATOR, SPU-ODG	ARCH. CARLOS D. MANANQUIL ARCHITECT CONSULTANT	ARCH. KUMEL A. MENDOZA ARCHITECT, SPU-ODG	ENGR. ROY LOUIE P. MINGARACAL HEAD, SPU-ODG	AS SHOWN	A-12



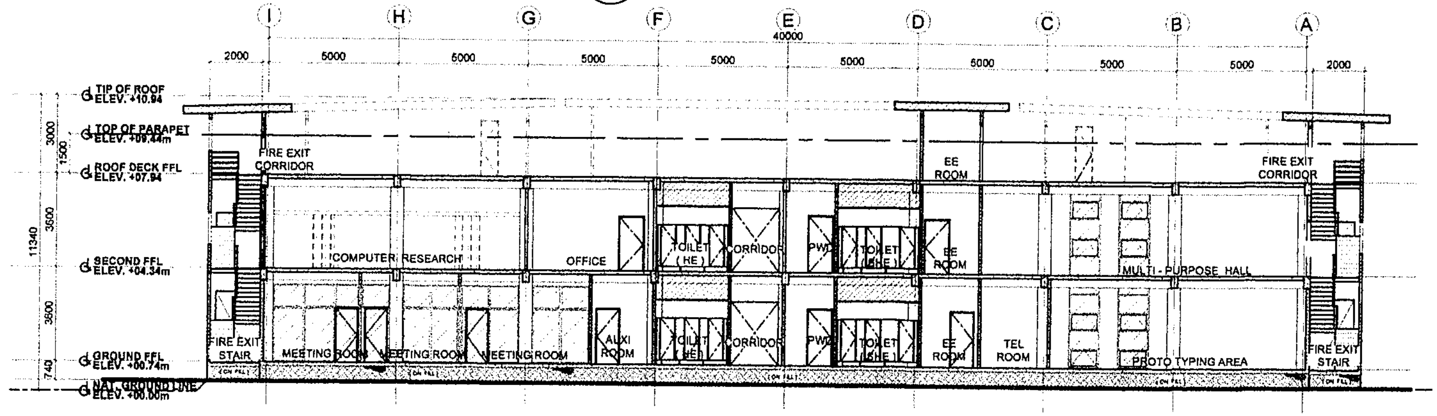
KEY PLAN



TESDA INNOVATION CENTER- DAVAO

(A) LONGITUDINAL SECTION - A

SCALE 1:200 MTS



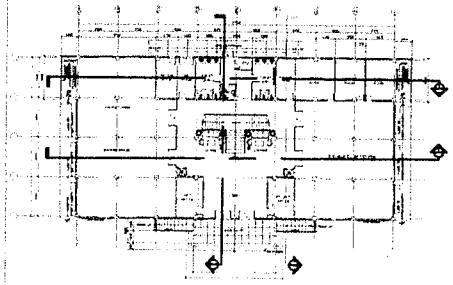
TESDA INNOVATION CENTER-DAVAO

(A) LONGITUDINAL SECTION - B

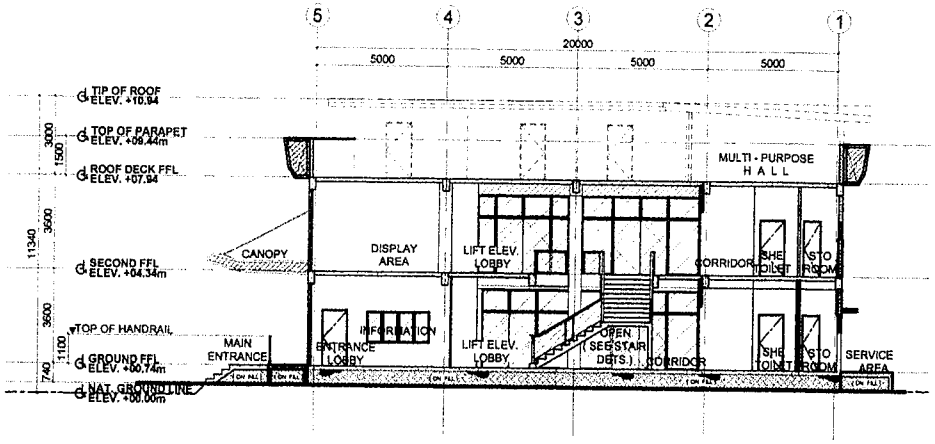
SCALE 1:200MTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY

CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PROJECT TITLE:		CADD BY:	PREPARED BY:	REVIEWED BY:	SUBMITTED BY:	SHEET CONTENTS:	SHEET NO.
DIR. DAVID B. BURGALLON EXECUTIVE DIRECTOR, NITESD	DIR. JULIUS C. OROZCO DIRECTOR IV, AB CHIEF OF STAFF, ODG DIRECTOR-IN-CHARGE, SPU	SEC. ISIDRO S. LAPEÑA, PHD., CSEE DIRECTOR GENERAL TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROPOSED TESDA INNOVATION CENTER - DAVAO		MARIA LOURDES F. DE RAMOS CAD OPERATOR, SPU-ODG	ARCH. CARLOS D. MANANQUIL ARCHITECT CONSULTANT	ARCH. KUNIEL A. MENDOZA ARCHITECT, SPU-ODG	ENGR. ROY LOUIE P. MINGARACAL HEAD, SPU-ODG	AS SHOWN	A-13



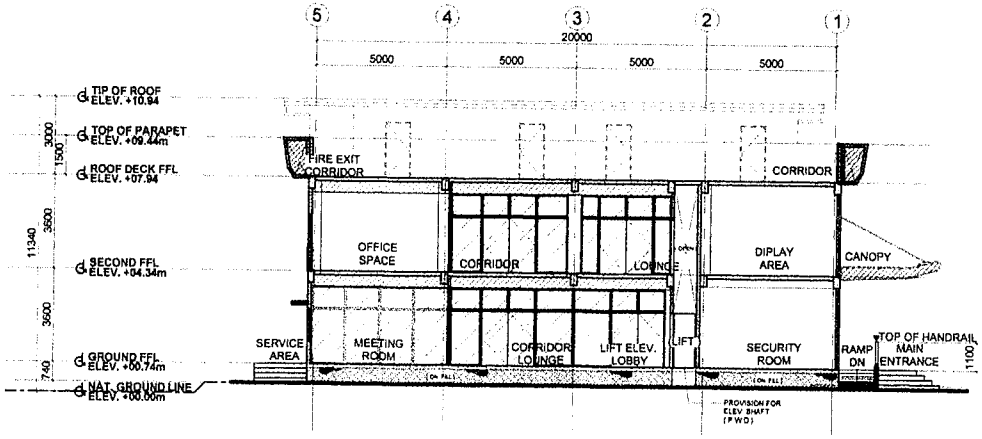
KEY PLAN



TESDA INNOVATION CENTER - DAVAO

A CROSS SECTION - C

SCALE 1:200 MTS



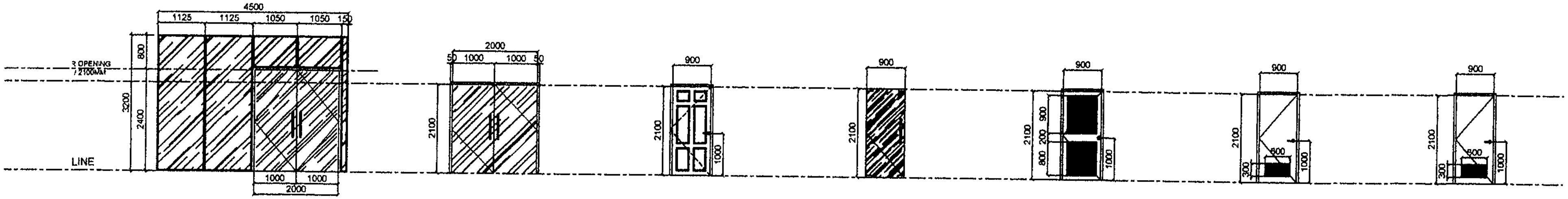
TESDA INNOVATION CENTER- DAVAO

A CROSS SECTION - D

SCALE 1:200MTS

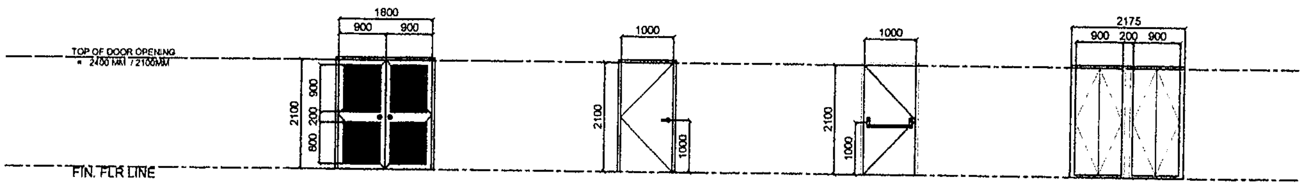
TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY

CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PROJECT TITLE:	CADD BY:	PREPARED BY:	REVIEWED BY:	SUBMITTED BY:	SHEET CONTENTS:	SHEET NO.
DIR. DAVID D. BUNGALLON EXECUTIVE DIRECTOR, NITESD	DIR. JULIET O. OROZCO DIRECTOR III, AS CHIEF OF STAFF, ODG DIRECTOR-IN-CHARGE, SPU	SEC. ISIDRO S. LAPEÑA, PHD, CSEE DIRECTOR GENERAL TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROPOSED TESDA INNOVATION CENTER - DAVAO	MARIA LOURDES F. DE RAMOS AD OPERATOR, SPU-ODG	ARCH. CARLOS D. MANANQUIL ARCHITECT CONSULTANT	ARCH. RUNIEL A. MENDOZA ARCHITECT, SPU-ODG	ENGR. ROY LOUIE P. MINGARACAL HEAD, SPU-ODG	AS SHOWN	A-14



SCHEDULE	D 01	SCHEDULE	D 02	SCHEDULE	D 03	SCHEDULE	D 04
LOCATION	MAIN ENTRY	LOCATION	MAKERS SPACE, PROTO TYPING, BUSINESS INCUBATION AREA, MULTI-PURPOSE HALL, RESEARCH, MEETING AREA, LEARNING ACTIVITY	LOCATION	INFORMATION ROOM, SECURITY ROOM	LOCATION	GF - MEETING ROOM (3) 2F - OFFICE OFFICE (1)
DIMENSION		DIMENSION	2000mm X 2100mm	DIMENSION	900mm X 2100mm	DIMENSION	900mm X 2100mm
DESCRIPTION	DOUBLE SWING GLASS DOOR FRAMED W/ METAL FITTINGS TWO LEAF, W/ RIM MORTISE LOCK SET AND GLASS DOOR D-HANDLE	DESCRIPTION	DOUBLE SLIDING DOOR,12mm THK GLASS (COLOR: TESDA BLUE) METAL FITTINGS FOR HINGES AND D-TYPE HANDLE 600mm LENGTH AND MORTISE LOCK SET	DESCRIPTION	DOUBLE SWING LEAF PANEL DOOR, TYP. HINGED DOOR ON 50 X 150mm WOOD JAMB/ FRAME W/ LEVER TYPE HANDLE & LOCK SET	DESCRIPTION	SINGLE SWING GLASS DOOR FRAMED W/ METAL FITTINGS SINGLE LEAF, W/ RIM/ MORTISE LOCK SET AND GLASS DOOR D-HANDLE
NO OF SET	2 SETS	NO OF SET	8 SETS	NO OF SET.	2 SETS	NO OF SET	4 SETS

SCHEDULE	D 05	SCHEDULE	D 06	SCHEDULE	D 07
LOCATION	G/F - EE ROOM (1), AUXILIARY ROOM (1) 2/F - EE ROOM (1) RD - EE ROOM (1)	LOCATION.	G/F & 2/F - PWD TOILET	LOCATION.	G/F (3) & 2/F (3) MALE AND FEMALE TOILET, STORAGE
DIMENSION	900mm X 2100mm	DIMENSION	900mm X 2100mm	DIMENSION	900mm X 2100mm
DESCRIPTION	SINGLE SWING PANEL LOUVERED DOOR W/ TYP. HINGED DOOR ON 50 X 150mm METAL JAMB FRAME W/ KEYED PRIVACY KNOB TYPE LOCK SETS	DESCRIPTION	SINGLE SWING uPVC FLUSH DOOR TYP. HINGED DOOR ON 50 X 150mm PVC JAMB/FRAME WITH LEVER TYPE HANDLE & LOCK SET	DESCRIPTION	SINGLE SWING uPVC FLUSH DOOR TYP. HINGED DOOR ON 50 X 150mm PVC JAMB/FRAME WITH LEVER TYPE HANDLE & LOCK SET
NO OF SET	4 SETS	NO OF SET.	2 SETS	NO OF SET	6 SETS



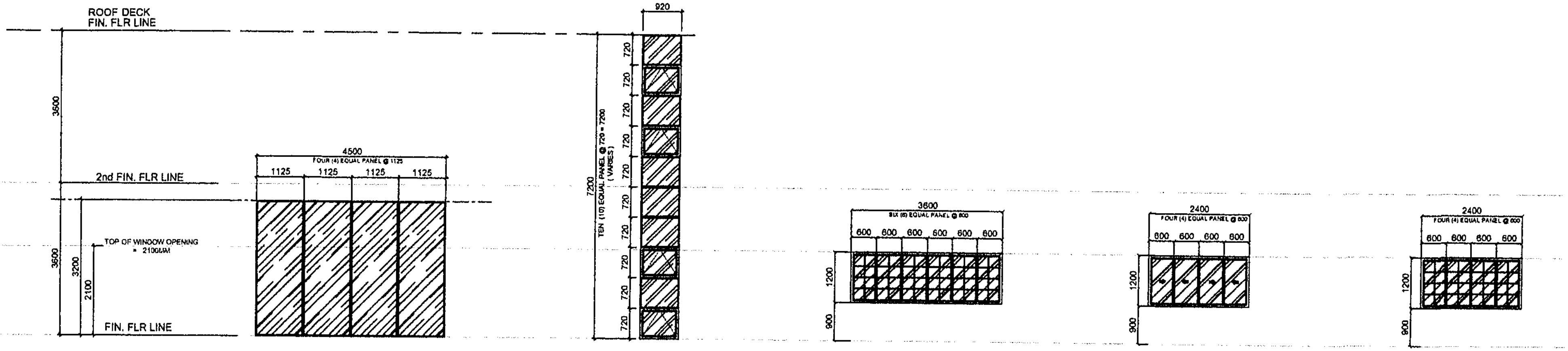
SCHEDULE	D 09	SCHEDULE	D 10	SCHEDULE	D 11	SCHEDULE	D 12
LOCATION	G/F - ELECTRICAL ROOM (BACK DOOR)	LOCATION.	G/F - TELCOM CCTV ROOM (BACK DOOR)	LOCATION	2/F - FIRE EXIT (2) RDF - FIRE EXIT (2)	LOCATION	2/F - STORAGE @ DISPLAY AREA
DIMENSION	900mm X 2100mm	DIMENSION	1000mm X 2100mm	DIMENSION	1000mm X 2100mm	DIMENSION	1000mm X 2100mm
DESCRIPTION	SINGLE SWING PANEL LOUVERED DOOR W/ TYP HINGED DOOR ON 50 X 150mm METAL JAMB FRAME W/ KEYED PRIVACY KNOB TYPE LOCK SETS	DESCRIPTION	HOLLOW CORE METAL FLUSH TYPE SWINGING DOOR. PROVIDE W/ COMPLETE HARDWARE	DESCRIPTION	SINGLE SWING PRE-FABRICATED STEEL DOOR TYP. HINGED DOOR ON 50 X 150mm METAL JAMB W/ INTUMESCENT STRIP COLD SMOKE SEAL; W/ PANIC DOOR BAR	DESCRIPTION	
NO OF SET	3 SETS	NO OF SET.	1 SET	NO OF SET	4 SETS	NO OF SET	2 SETS

TESDA INNOVATION CENTER - DAVAO

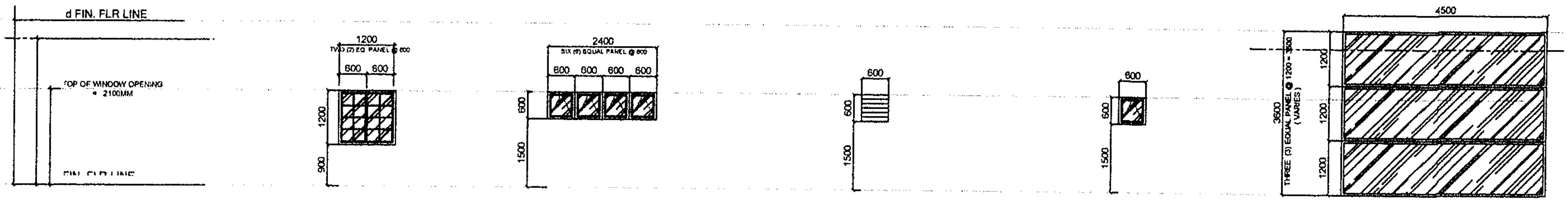
(A) SCHEDULE OF DOORS

SCALE 1:100MTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PROJECT TITLE:	CADD BY:	PREPARED BY:	REVIEWED BY:	SUBMITTED BY:	SHEET CONTENTS:	SHEET NO.
	DIR. DAVID B. BUNGALLON EXECUTIVE DIRECTOR, NITESD	DIR. JULIET O. OROZCO DIRECTOR IV, AS CHIEF OF STAFF, ODG DIRECTOR-IN-CHARGE, SPU	SEC. ISIDRO S. LAPEÑA, PHD., CSEE DIRECTOR GENERAL TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROPOSED TESDA INNOVATION CENTER - DAVAO	MARIA LOURDES F. DE RAMOS CAD OPERATOR, SPU-ODG	ARCH. CARLOS D. MANANQUIL ARCHITECT CONSULTANT	ARCH. KUNIEL A. MENDOZA ARCHITECT, SPU-ODG	ENGR. ROY LOUIE P. MINGARACAL HEAD, SPU-ODG	AS SHOWN	A-15



SCHEDULE	W 01	SCHEDULE	W 02	SCHEDULE	W 03	SCHEDULE	W 04	SCHEDULE	W 05
LOCATION	FACADE	LOCATION	FACADE	LOCATION	G/F - PROTOTYPING, MAKERS SPACE, BUSINESS INCUBATION AREA 2/F - MULTI PURPOSE HALL, OFFICE, COMPUTER RESEARCH, MEETING AREA, LEARNING ACTIVITY	LOCATION	G/F - INFORMATION ROOM SECURITY ROOM	LOCATION	MEETING ROOM
DIMENSION	4500MM X 3200MM	DIMENSION	4500MM X 3200MM	DIMENSION	3600MM X 1200MM	DIMENSION	2400MM X 1200MM	DIMENSION	2400MM X 1200MM
DESCRIPTION	FRAMELESS-FIXED TYPE WINDOW WITH 12mm THICK TOUGHENED OR TEMPERED GLASS (COLOR: TESDA BLUE)	DESCRIPTION	FRAMELESS-FIXED TYPE WINDOW WITH 12mm THICK TOUGHENED OR TEMPERED GLASS (COLOR: TESDA BLUE) AND AWNING WINDOW TYPE W/ 1/4" THK GLASS ANALOK FRAME AND JAMB W/ COMPLETE FITTINGS AND ACCESORIES	DESCRIPTION	CASEMENT WINDOW W/ ¼" THK GLASS ANALOK FRAME & JAMB (COLOR TESDA BLUE_ W/ COMPLETE FITTINGS & ACCESORIES	DESCRIPTION	SLIDING WINDOW W/ ¼" THK GLASS ANALOK FRAME & JAMB (COLOR: TESDA BLUE_ W/ COMPLETE FITTINGS & ACCESORIES	DESCRIPTION	CASEMENT WINDOW W/ ¼" THK GLASS ANALOK FRAME & JAMB (COLOR: TESDA BLUE_ W/ COMPLETE FITTINGS & ACCESORIES
NO OF SET	2 SETS	NO OF SET	4 SETS	NO OF SET	19 SETS	NO OF SET.	2 SETS	NO OF SET	2 SETS



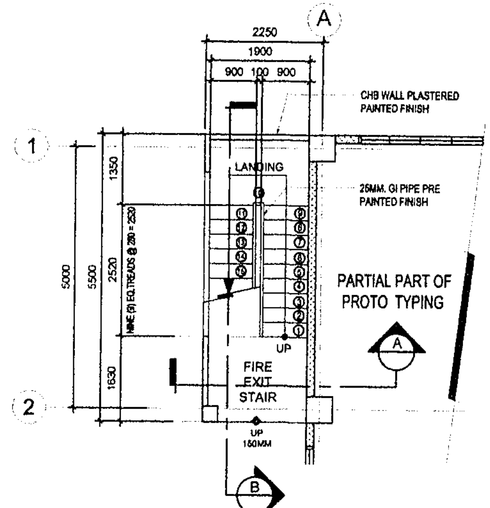
	W 06	SCHEDULE	W 07	SCHEDULE	W 08	SCHEDULE	W 09	SCHEDULE	W 10
	- MEETING ROOM (3) - MULTI PURPOSE HALL	LOCATION	G/F - MALE & FEMALE TOILET 2/F - MALE & FEMALE TOILET	LOCATION	G/F - AUX ROOM 2/F - EE ROOM	LOCATION	G/F - STORAGE 2/F - STORAGE	LOCATION	FACADE
	...MM X 1200MM	DIMENSION	2400MM X 600MM	DIMENSION	600mm x 600mm	DIMENSION	600mm x 600mm	DIMENSION	4500mm x 3600mm
	...EMENT WINDOW W/ ¼" THK GLASS ANALOK FRAME & ...B (COLOR: TESDA BLUE_ W/ COMPLETE FITTINGS & ...ESORIES	DESCRIPTION	AWNING TYPE W/ ¼" THK GLASS ANALOK FRAME & JAMB (COLOR: TESDA BLUE) W/ COMPLETE FITTINGS & ACCESORIES	DESCRIPTION	PVC LOUVER PANEL (COLOR: BLACK) W/ uPVC 50mm X 150mm JAMB	DESCRIPTION	AWNING TYPE W/ ¼" THK GLASS ANALOK FRAME & JAMB (COLOR: TESDA BLUE) W/ COMPLETE FITTINGS & ACCESORIES	DESCRIPTION	FRAMELESS-FIXED TYPE WINDOW WITH 12mm THICK TOUGHENED OR TEMPERED GLASS (COLOR: TESDA BLUE)
	...SETS	NO OF SET	4 SETS	NO OF SET	3 SETS	NO OF SET.	2 SETS	NO OF SET	4 SETS

TESDA INNOVATION CENTER - DAVAO

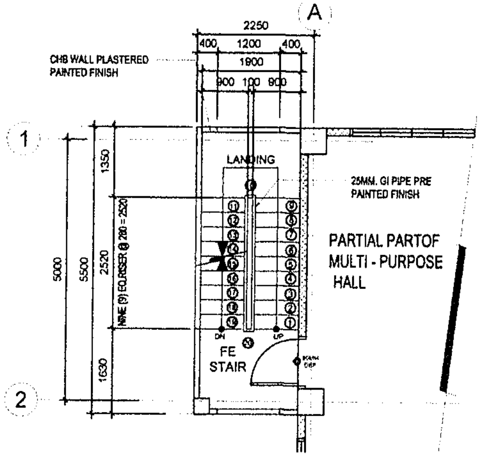
(A) SCHEDULE OF WINDOWS

SCALE 1:100MTS

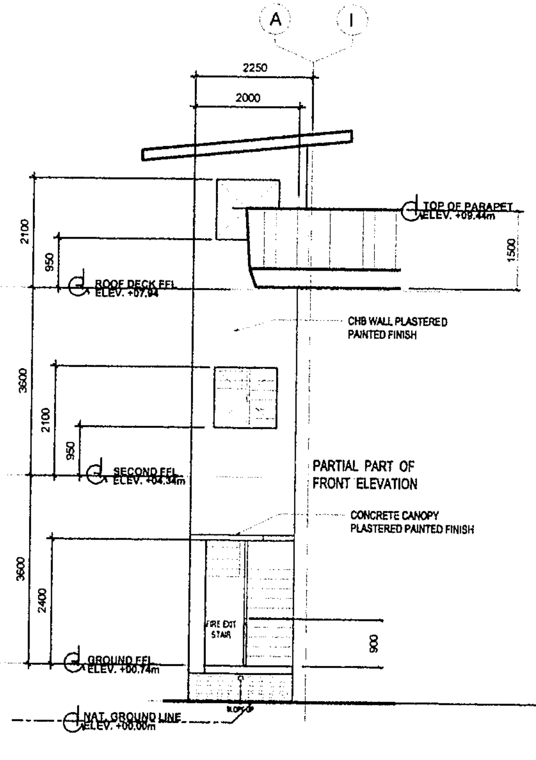
TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PROJECT TITLE:	CADD BY:	PREPARED BY:	REVIEWED BY:	SUBMITTED BY:	SHEET CONTENTS:	SHEET NO.
	DIR. DAVID B. BUNGALLON EXECUTIVE DIRECTOR, NITESD	DIR. J[illegible] O. OROZCO DIRECTOR IV, AS CHIEF OF STAFF, ODG DIRECTOR-IN-CHARGE, SPU	SEC. ISIDRO S. LAPEÑA, PHD., CSEE DIRECTOR GENERAL TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROPOSED TESDA INNOVATION CENTER - DAVAO	MARIA LOURDES F. DE RAMOS CAD OPERATOR, SPU-ODG	ARCH. CARLOS D. MANANQUIL ARCHITECT CONSULTANT	ARCH. RUNIEL A. MENDOZA ARCHITECT, SPU-ODG	ENGR. ROY LOUIE P. MINGARACAL HEAD, SPU-ODG	AS SHOWN	A-16



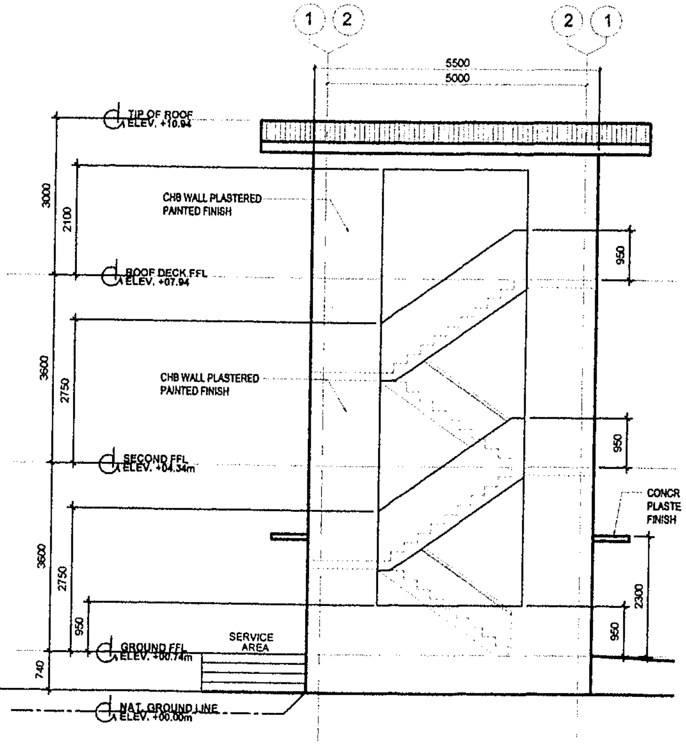
FE GROUND FLOOR
DETAILED PLAN



FE SECOND FLOOR
DETAILED PLAN



FIRE EXIT STAIR - 3 / GRID A / I
DET.FRONT ELEVATION



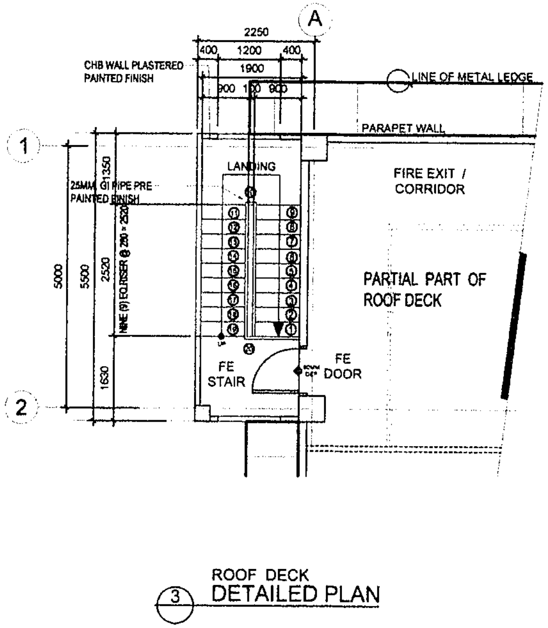
FIRE EXIT STAIR - 3
LEFT / RIGHT SIDE ELEVATION

TESDA INNOVATION CENTER - DAVAO

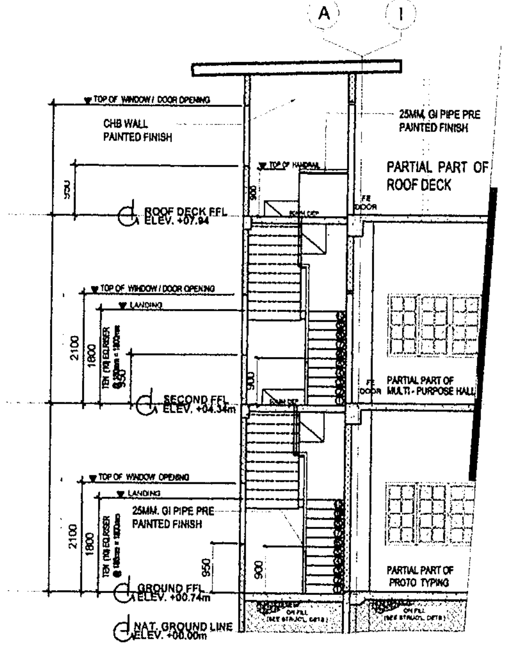
FIRE EXIT STAIR DETAILS

SCALE 1:100MTS

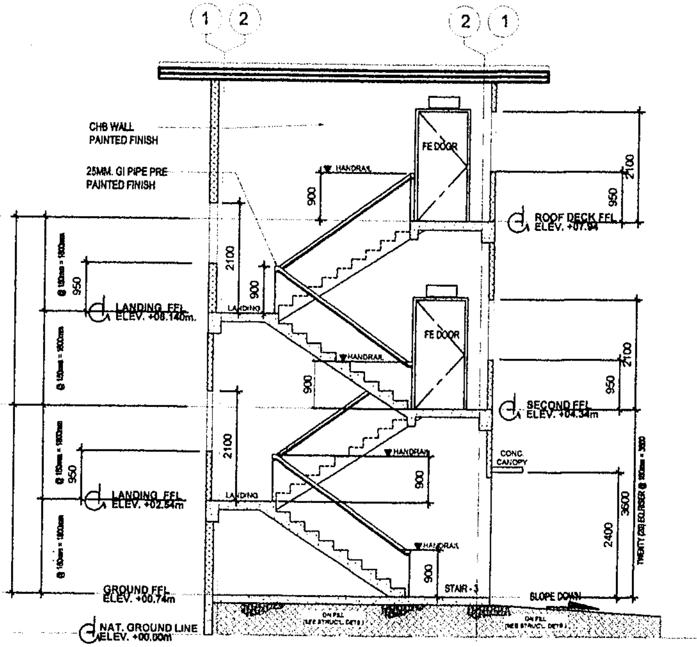
TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVID B. BUNGALLON, EXECUTIVE DIRECTOR, NITESD	RECOMMENDING APPROVAL: DIR. JANET C. OROZCO, DIRECTOR IV, AS, CHIEF OF STAFF, ODG, DIRECTOR-IN-CHARGE, SPU	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD, CSEE, DIRECTOR GENERAL, TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - DAVAO		CADD BY: MARIA LOURDES F. DE RAMOS, CAD OPERATOR, SPU-ODG	PREPARED BY: ARCH. CARLOS D. MANANQUIL, ARCHITECT CONSULTANT	REVIEWED BY: ARCH. RUNIEL A. MENDOZA, ARCHITECT, SPU-ODG	SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, SPU-ODG	SHEET CONTENTS: AS SHOWN	SHEET NO. A-17



ROOF DECK
3 DETAILED PLAN



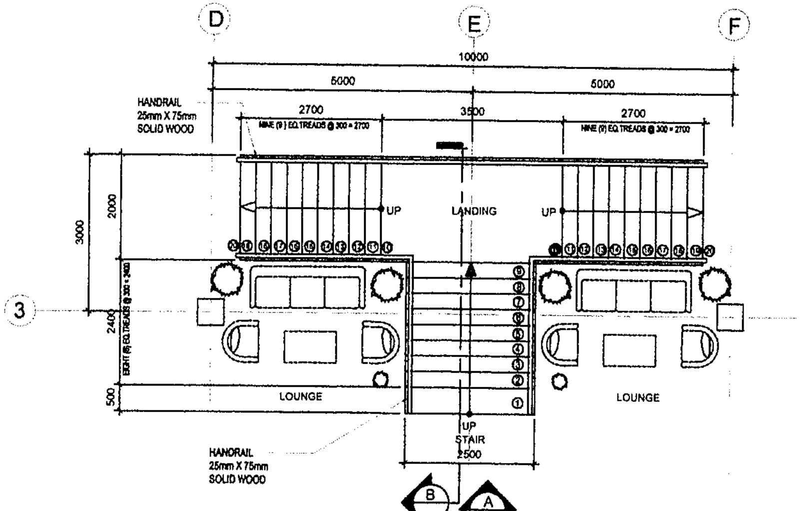
FIRE EXIT STAIR - 3
A DETAILED SECTION - A



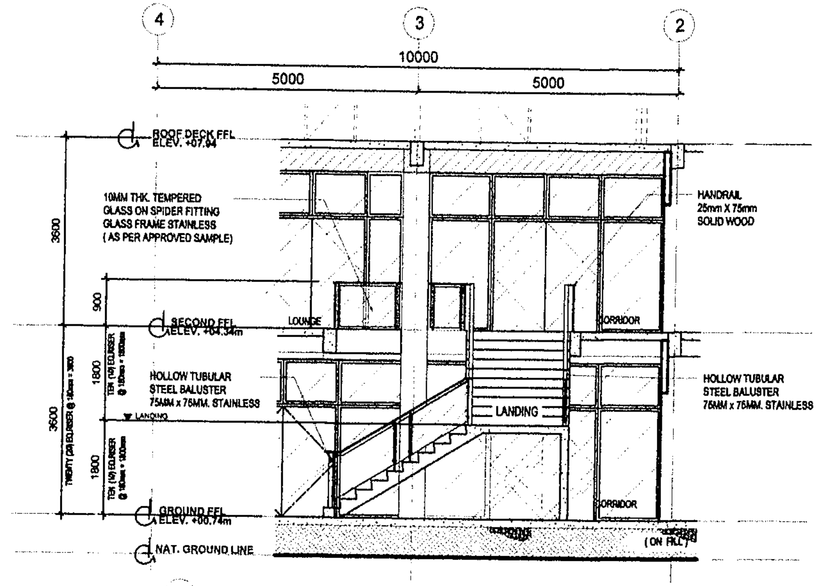
FIRE EXIT STAIR - 3
A DETAILED SECTION - A

TESDA INNOVATION CENTER - DAVAO
A FIRE EXIT STAIR DETAILS
SCALE 1:100MTS

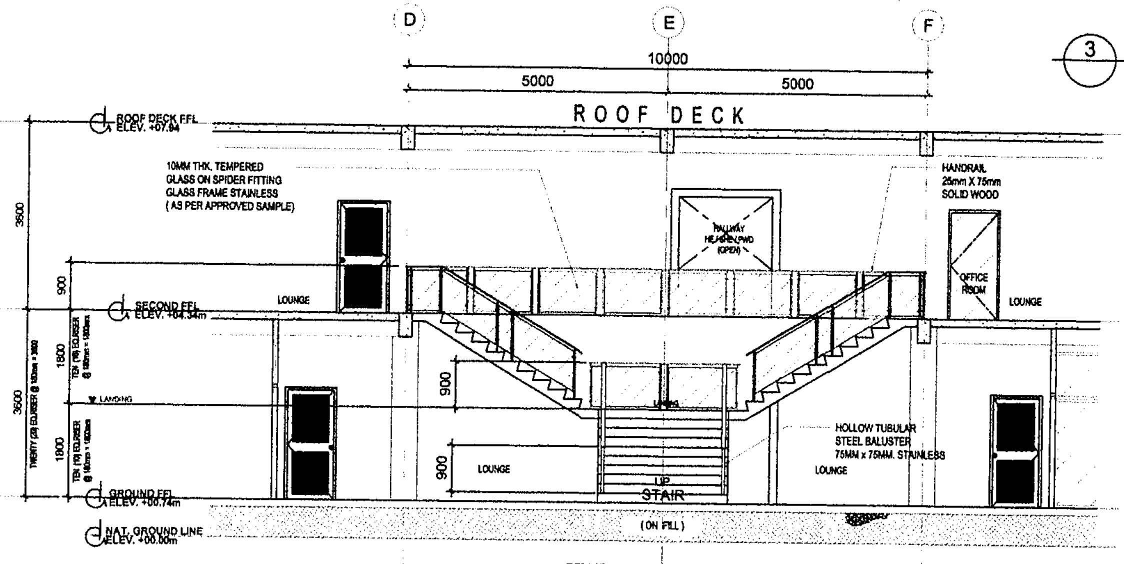
TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVID B. BUNGALLON, EXECUTIVE DIRECTOR, NITESD	RECOMMENDING APPROVAL: DIR. JULIUS O. OROZCO, DIRECTOR IV, OAS, CHIEF OF STAFF, ODG, DIRECTOR-IN-CHARGE, SPU	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD, CSEE, DIRECTOR GENERAL, TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - DAVAO		CADD BY: MARIA LOURDES T. DE RAMOS, CAD OPERATOR, SPU-ODG	PREPARED BY: ARCH. CARLOS D. MANANQUIL, ARCHITECT CONSULTANT	REVIEWED BY: ARCH. RUNIEL A. MENDOZA, ARCHITECT, SPU-ODG	SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, SPU-ODG	SHEET CONTENTS: AS SHOWN	SHEET NO. A-18



1 STAIR 1 LOBBY - LOUNGE
GROUND TO SECOND FLOOR DET. PLAN



3 STAIR 1 LOBBY - LOUNGE
DETAILED SECTION - B



2 STAIR 1 LOBBY - LOUNGE
DETAILED SECTION - A

TESDA INNOVATION CENTER - DAVAO
A MAIN STAIR - 1 DETAILS
SCALE 1:100MTS

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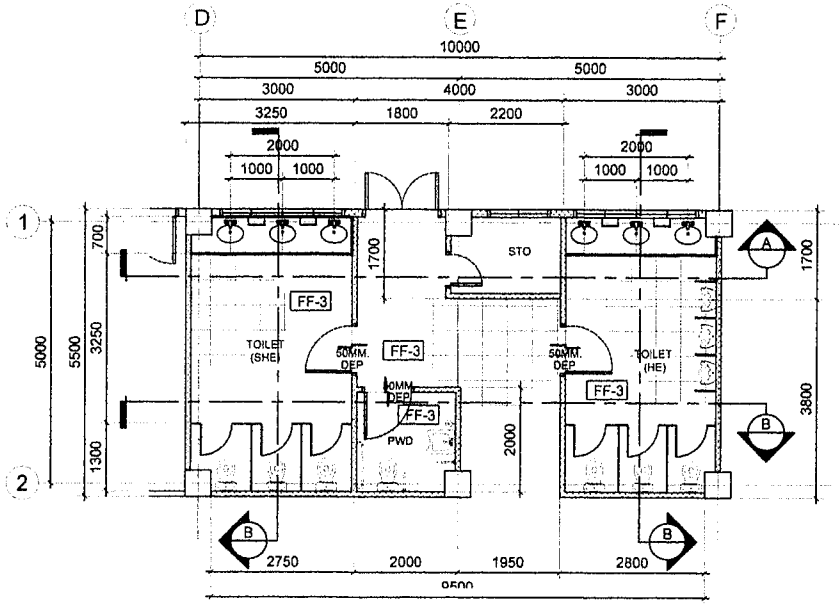
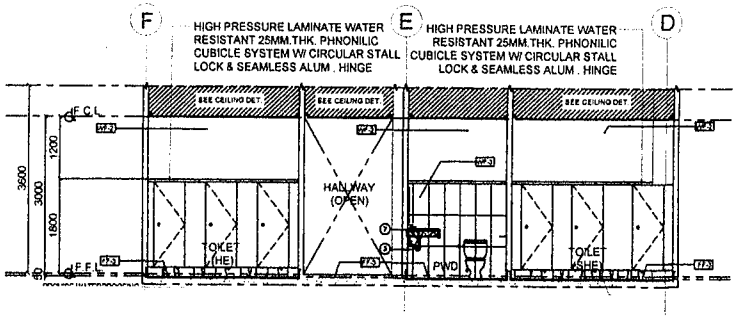
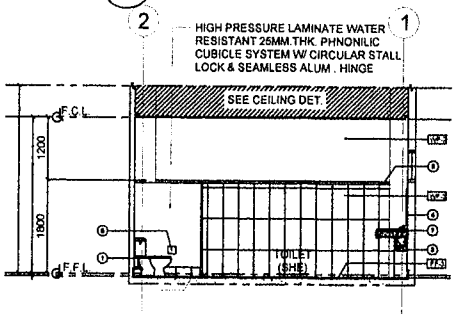


1 TYPICAL HE / SHE & PWD TOILETS
GROUND - SECOND FLOOR DETAIL PLAN

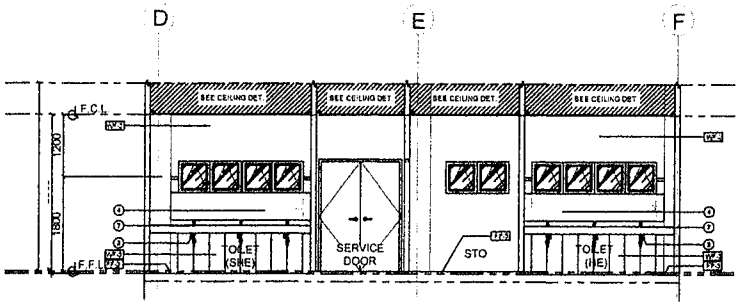


B G/F - 2F TYP. HE / SHE / PWD.
DETAILED SECTION-B

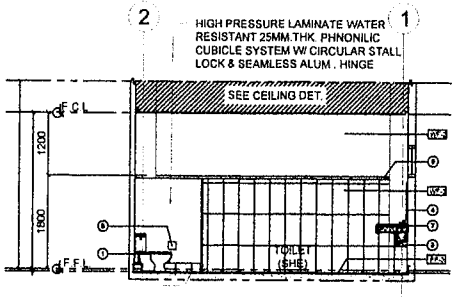


C G/F - 2F TYP. HE / SHE / PWD.
DETAILED SECTION-C

TOILET LEGENDS:
① TANK TYPE WATER CLOSET
② URINAL
③ LAVATORY
④ MIRROR
⑤ TISSUE HOLDER
⑥ CONTINUOUS HEADER FRAME, HPL PHENOLIC (COLOR: BROWN)
⑦ COUNTER TOP SYNTHETIC GRANITE
⑧ SOAP HOLDER
⑨ SHOWER HEAD
⑩ SHOWER VALVE
⑪ FAUCET
FF-3 — FLOOR TILE 300 X 300 NON SKID
WF-2 — PAINTED WALL FINISH
WF-3 — WALL TILES (1.8 M HEIGHT) 300 X 600 GLAZED



A G/F - 2F TYP. HE / SHE / STO. RM.
DETAILED SECTION - A



D G/F - 2F TYP. HE / SHE / PWD.
DETAILED SECTION-D

TESDA INNOVATION CENTER - DAVAO

A TYPICAL HE /SHE & PWD TOILET DETAILS

SCALE 1:100MTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PROJECT TITLE:	CADD BY:	PREPARED BY:	REVIEWED BY:	SUBMITTED BY:	SHEET CONTENTS:	SHEET NO.
	DIR. DAVID S. BUNDALIAN, EXECUTIVE DIRECTOR I/TESD	DIR. JUANITO OROZCO, DIRECTOR IV, AS CHIEF OF STAFF, OOG, DIRECTOR-IN-CHARGE, SPU	SEC. ISIDRO S. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL, TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROPOSED TESDA INNOVATION CENTER - DAVAO	MARIA LOURDES F. DE RAMOS, CAD OPERATOR, SPU-OOG	ARCH. CARLOS D. MANANQUIL, ARCHITECT CONSULTANT	ARCH. RUNIELA MENDOZA, ARCHITECT, SPU-OOG	ENGR. ROY LOUIE P. MINGARACAL, HEAD, SPU-OOG	AS SHOWN	A-20

STRUCTURAL DESIGN NOTES, STANDARD DRAWINGS & SPECIFICATIONS

A. GENERAL NOTES:

1. THE STRUCTURAL DRAWING SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS WITH ALL OTHER DISCIPLINES AND THE SPECIFICATIONS. THE CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF OTHER TRADES AS TO SLEEVES, CHASES, HANGERS, ANCHORS, HOLES AND OTHER ITEMS TO BE PLACED OR SET IN THE STRUCTURAL WORKS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS DURING THE WORK. THE ENGINEER WILL NOT ADVISE ON NOR ISSUE DIRECTIONS AS TO PLAN AND PROGRAMS.
3. THE STRUCTURAL DRAWINGS HEREIN REPRESENT THE FINISHED STRUCTURE. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACINGS REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL ALL STRUCTURAL WORKS AND CONNECTIONS HAVE BEEN COMPLETED. THE INVESTIGATION DESIGN, SAFETY, ADEQUACY AND INSPECTION OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
4. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE METHODS, TECHNIQUES, AND SEQUENCES OF THE CONTRACTOR.
5. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO THE APPROVAL OF THE ENGINEER.
6. ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH THE SUPPLIER'S INSTRUCTIONS AND REQUIREMENTS.
7. LOADING APPLIED TO THE STRUCTURE DURING THE PROCESS OF CONSTRUCTION SHALL NOT EXCEED THE SAFE LOAD-CARRYING CAPACITY OF THE STRUCTURAL MEMBERS. THE LIVE LOADINGS USED IN THE DESIGN OF THIS STRUCTURE ARE INDICATED IN THE "DESIGN CRITERIA NOTES". DO NOT APPLY ANY CONSTRUCTION LOADS UNTIL STRUCTURAL FRAMING IS PROPERLY CONNECTED TOGETHER AND UNTIL ALL TEMPORARY BRACINGS ARE IN PLACE.
8. SHOP DRAWINGS AND OTHER ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE GENERAL CONTRACTOR BEFORE SUBMITTAL. THE ENGINEER'S REVIEW IS TO BE CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE RELEVANT CONTRACT DOCUMENTS. THE ENGINEER'S REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW, CHECK AND COORDINATE THE SHOP DRAWING PRIOR TO SUBMISSION. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF THE SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, DIMENSIONS, ETC..
9. SUBMIT SHOP DRAWINGS IN THE FORM OF TWO BLUELINE PRINTS. IN NO CASE SHALL REPRODUCTION OF THE CONTRACT DRAWINGS BE USED AS SHOP DRAWINGS. AS A MINIMUM, SUBMIT THE FOLLOWING ITEMS FOR REVIEW:
   A. REINFORCING STEEL SHOP DRAWINGS.
   B. STRUCTURAL STEEL SHOP DRAWINGS.
   OTHER SUBMITTALS MAY BE REQUIRED IN ACCORDANCE WITH THE "SCHEDULE OF SPECIAL INSPECTIONS"OR THE SEPARATE NOTES CONTAINED HEREIN.
10. IN THE INTERPRETATION OF THESE DRAWINGS, INDICATED DIMENSIONS SHALL GOVERN AND DISTANCES
    OR SIZES SHALL NOT BE SCALED FOR CONSTRUCTION PURPOSES.
11. ALL REINFORCED CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH THE ACI-318-08 BUILDING CODE, AND ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS (LATEST EDITION) IN SO FAR AS THEY DO NOT CONFLICT WITH THE LOCAL BUILDING CODE REQUIREMENTS.
12. ALL SLABS, BEAMS, GIRDERS AND OTHER STRUCTURAL ELEMENTS WHICH ARE NOT INDICATED, DETAILED, DESIGNATED OR INADVERTENTLY OMITTED BUT ARE NECESSARY TO BE COORDINATED WITH ARCHITECTURAL AND OTHER ALLIED ENGINEERING PLANS AS WELL AS TO COMPLETE THE STRUCTURAL WORKS IN ACCORDANCE WITH THE INTENT OF THE PLANS AND SPECIFICATIONS SHALL BE BROUGHT UP DURING PRE-BID/MEETINGS/NEGOTIATIONS. IT IS UNDERSTOOD THAT THE CONTRACTOR HAS PROVIDED AND INCLUDED ALL THESE ITEMS IN THEIR BID.

B. NOTES ON CONCRETE MIXES AND PLACING

1. CONCRETE SHALL BE DEPOSITED IN ITS FINAL POSITION WITHOUT SEGREGATION, RE-HANDLING OR FLOWING. PLACING SHALL BE DONE PREFERRABLY WITH BUGGIES, BUCKETS OR WHEEL BARROWS. NO CHUTES WILL BE ALLOWED EXCEPT TO TRANSFER CONCRETE FROM HOPPERS TO BUGGIES WHEEL BORROWS OR BUCKETS, IN WHICH CASE, THEY SHALL NOT EXCEED SIX THOUSAND (6000mm) IN AGGREGATE LENGTH.
2. NO DEPOSITING OF CONCRETE SHALL BE ALLOWED WITHOUT THE USE OF VIBRATORS UNLESS AUTHORIZED IN WRITING BY THE STRUCTURAL ENGINEER AND ONLY FOR UNUSUAL CONDITIONS WHERE VIBRATION IS EXTREMELY DIFFICULT TO ACCOMPLISH.

C. NOTES ON STRUCTURAL STEEL

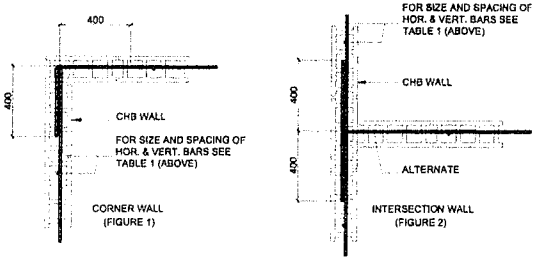
1. ALL STRUCTURAL STEEL SHALL CONFORM TO THE 2005 13TH EDITION OF "MANUAL OF STEEL CONSTRUCTION" & "AISC 360-10 SPECIFICATION OF STRUCTURAL STEEL BUILDINGS"OF THE AISC.
2. ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 USING E70XX ELECTRODES. UNLESS OTHERWISE NOTED, PROVIDE CONT. MIN. SIZED FILLET WELDS PER AISC REQUIREMENTS. ALL FILLER MATERIAL SHALL HAVE A MINIMUM YIELD STRENGTH OF 70 KSI.
3. UNLESS OTHERWISE NOTED, ALL STRUCTURAL STEEL PERMANENTLY EXPOSED TO VIEW SHALL BE SHOP PAINTED WITH TWO COAT OF RED OXIDE PAINT.
4. THE STRUCTURAL STEEL ERECTOR SHALL PROVIDE ALL TEMPORARY GUYING AND BRACING (SEE GENERAL STRUCTURAL NOTES).

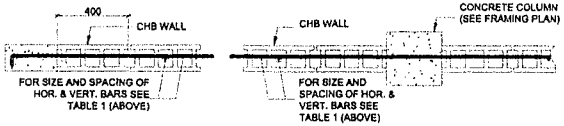
D. NOTES ON MASONRY WALLS

1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND SPECIFICATIONS OF THE NATIONAL CONCRETE MASONRY ASSOCIATION AND UNIFORM BUILDING CODE.
2. CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 GRADE N.
3. MORTAR AND GROUT FOR ALL REINFORCED MASONRY SHALL CONFORM TO ASTM 270-TYPE M AND SHALL HAVE A MINIMUM 28-DAYS STANDARD CYLINDER COMPRESSIVE STRENGTH OF 21 MPa (3000 PSI).
4. ALL MASONRY WALLS SHALL BE REINFORCED ACCORDING TO THE FOLLOWING SCHEDULE OF CONCRETE HOLLOW BLOCK REINFORCEMENT UNLESS OTHERWISE INDICATED IN THE PLANS.
5. ALL CELLS CONTAINING REINFORCING BARS OR INSERTS SHALL BE SOLIDLY FILLED WITH CONCRETE GROUT.
6. FOR TYPICAL CONNECTION DETAILS ON MASONRY UNITS, REFER TABLE-1 & FIGURES 1,2,3 & 4.

TABLE - 1 : SCHEDULE OF CONCRETE HOLLOW BLOCK REINFORCEMENT

THICKNESS mm	REINFORCEMENT		NOTES
	HORIZONTAL	VERTICAL	
100	10mmØ @ 600mm O.C.	10mmØ @ 600mm O.C.	A. MINIMUM LAP SLICES = 40Ø B. PROVIDE 1-12mmØ VERTICAL BAR @ CORNERS, INTERSECTIONS, END OF WALLS, AND EACH SIDE OF OPENING. C. WHERE CHB WALLS ADJOIN COLUMNS RC BEAMS & WALLS, DOWELS WITH THE SAME SIZE AS VERTICAL OR HORIZONTAL REINFORCEMENT SHALL BE PROVIDED. D. LINTEL BEAMS SHALL BEAR AT LEAST 18 INCHES (400 mm) ON EACH SIDE OF MASONRY WALL OPENING.
150	12mmØ @ 600mm O.C.	12mmØ @ 600mm O.C.	





END WALL (FIGURE 3)

INTERSECTING COLUMN AND CHB WALL (FIGURE 4)

TYPICAL CONNECTION DETAILS OF CONCRETE MASONRY UNITS AT COLUMN AND/OR WALLS

E. NOTES ON SLAB-ON-GRADE

1. THE SOIL SUBGRADE AND FILL LAYERS BELOW ALL SLAB ON GRADE, PAVING AND PIT SHALL BE MECHANICALLY COMPACTED IN LAYERS, TO THE MIN. OF 95% OF THE MODIFIED UNIFORM BUILDING CODE.
2. ALL SLABS-ON-GRADE SHALL BE PROVIDED WITH A MIN. OF 75mm THK. GRAVEL BEDDING OR UNLESS NOTED.
3. UNLESS OTHERWISE NOTED, ALL BEDDED SLABS SHALL BE REINFORCED WITH 12mm BARS AT 300mm O.C. EACHWAY AT THE CENTER OF SLAB.
4. IN ORDER TO AVOID CONCRETE SHRINKAGE CRACKING, PLACE SLAB IN ALTERNATING LANE (OR CHECKBOARD) PATTERN. THE MAX. LENGTH OF SLAB CAST IN ANY ONE CONTINUOUS POUR IS RECOMMENDED TO BE LESS THAN 100 FEET. THE MAX. SPACING OF JOINTS SHALL BE 25' (7.8m).
5. SEE THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF DEPRESSED SLAB AREAS AND DRAINS, SLOPE SLAB TO DRAINS WHERE SHOWN.

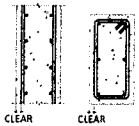
F. NOTES ON FOUNDATIONS

1. ALL FOUNDATION CONCRETE SHALL OBTAIN A 28 DAYS COMPRESSIVE STRENGTH. ALL CONCRETE TO BE PERMANENTLY EXPOSED TO WEATHER SHALL BE AIR ENTRAINED TO 5% (+ 1%) WITH AN ADMIXTURE THAT CONFORMS TO ASTM C-260.
2. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60.
3. UNBALANCED BACKFILLING SHALL BE DONE AGAINST FOUNDATION WALLS ARE SECURELY BRACED AGAINST OVERTURNING, EITHER BY TEMPORARY BRACING OR BY PERMANENT CONSTRUCTION.
4. PRIOR TO COMMENCING ANY FOUNDATION WORK, COORDINATE WORK WITH ANY EXISTING UTILITIES. FOUNDATIONS SHALL BE LOWERED WHERE REQUIRED TO AVOID UTILITIES.
5. UNLESS OTHERWISE NOTED, THE CENTERLINES OF COLUMN FOUNDATIONS SHALL BE LOCATED ON COLUMN CENTERLINES.
6. ALL RETAINING WALLS SHALL HAVE AT LEAST 12" OF FREE-DRAINING GRANULAR BACKFILL, AT FULL HEIGHT OF WALL. PROVIDE CONTROL JOINTS IN RETAINING WALLS AT APPROXIMATELY EQUAL INTERVALS NOT TO EXCEED 25 FT. NOR 3 TIMES THE WALL HEIGHT. PROVIDE EXPANSION JOINTS AT EVERY FOURTH CONTROL JOINT, UNLESS OTHERWISE INDICATED.
7. ALLOWABLE SOIL BEARING CAPACITY AS PER BY DEVELOPER.

G. CONCRETE PROTECTION COVER FOR REINFORCEMENT

CONCRETE COVER FOR REINFORCEMENT SHALL BE MEASURED FROM THE CONCRETE SURFACE TO THE OUTERMOST SURFACE OF THE STEEL SURFACE OF THE STEEL, i.e TO THE OUTER EDGE OF STIRRUPS, TIES OR SPIRALS ENCLOSING MAIN BAR TO THE OUTERMOST LAYER OF BARS IF MORE THAN ONE LAYER IS USED WITHOUT STIRRUPS OR TIES. THE FF. MIN. CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT.

	MIN. COVER IN mm
a) PERMANENTLY EXPOSED TO EARTH : CONCRETE IN CONTACT WITH EARTH INCLUDING PROTECTED WITH WATERPROOFING.	75
b) MEMBRANE OR BITUMASTIC COATING :	
16mmØ AND SMALLER	40
OTHER BARS	50
COLUMNS TIES	50
GRADE BEAMS	50
SLAB ON GRADE (FROM TOP SURFACE)	50
c) CONCRETE NOT IN CONTACT WITH GROUND :	
SLABS	20
SHEAR WALLS	40
BEAMS AND COLUMNS	40
OTHER BARS	20



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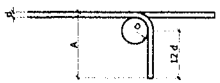
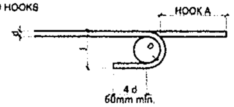
STRUCTURAL DESIGN NOTES, STANDARD DRAWINGS & SPECIFICATIONS

H. STANDARD REINFORCEMENT DETAILS

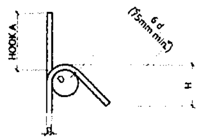
STANDARD HOOKS





90° HOOKS
D=6d for d=8 mm. through d=25 mm.
D=8d for d=28 mm., d=32 mm. & d=36 mm.
D=10d for d=42 mm., & d=47 mm.
D=Finished bend diameters

180° HOOKS
D=6d for d=8 mm. through d=25 mm.
D=8d for d=28 mm., d=32 mm. & d=36 mm.
D=10d for d=42 mm., & d=47 mm.



135° HOOKS
D=6d for d=8 mm. through d=25 mm
D=8d for d=28 mm., d=32 mm. & d=36 mm.
D=10d for d=42 mm., & d=47 mm.

STANDARD END HOOK DIMENSIONS

BAR SIZE (mm)	D(mm.)	180° HOOKS		90° HOOKS	135° HOOKS	
		A (mm.)	J (mm.)	A (mm.)	A (mm.)	H (mm.)
8	50	105	65	130		
10	60	125	80	155	110	05
12	80	155	100	200	115	80
16	95	180	130	250	140	95
20	120	220	165	325	205	115
25	165	275	205	425	270	155
28	240	375	300	475		
32	275	425	335	550		

BASIC DEVELOPMENT LENGTH, Ldb

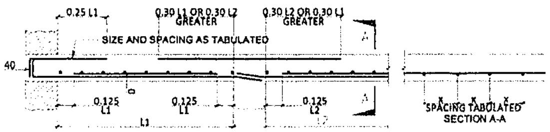
MINIMUM DEVELOPMENT AND SPLICE LENGTHS (mm)

BAR SIZE (mm)	TENSION: DEV'T LENGTH Ld	TENSION: HOOK DEV'T LENGTH Ldh	TENSION: CLASS A SPLICE	TENSION: CLASS B SPLICE	TOP BAR (MIN. OF 300mm CONCRETE CAST BELOW): DEV'T. LENGTH	TOP BAR: CLASS A SPLICE	TOP BAR: CLASS B SPLICE	COMPRESSION: DEV'T LENGTH	COMPRESSION: COMPRES-SION SPLICE
Ø10	350	200	300	375	500	375	500	200	375
Ø12	400	225	350	450	575	450	575	250	450
Ø16	550	300	475	600	775	600	775	300	600
Ø20	675	375	675	900	1200	900	1200	400	720
Ø25	1170	475	1170	1375	1375	1375	1775	500	000
Ø28	1350	525	1350	1700	1700	1700	2225	550	1000
Ø32	1750	600	1750	1950	1950	1950	2000	825	1150
SKETCH		STD 90° OR 180° HOOK							
REMARKS	MADE FOR BOT END ANCHO- BARS OF SLABS AND BEAMS		WHERE STRESS IN BARS < 0.5fy & BARS SPLICED ARE 50% OR LESS	WHERE STRESS IN BARS > 0.5fy OR & % OF BAR SPLICE > 50%		WHERE STRESS IN BARS < 0.5fy & BARS SPLICED ARE 50% OR LESS	WHERE STRESS IN BARS > 0.5fy OR & % OF BAR SPLICE > 50%	HOOKS NOT USED	

- TOP BAR IS DEFINED AS HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 300 mm FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE REINFORCEMENT.
- FOR EPOXY-COATED BAR, THE TENSILE DEVELOPMENT LENGTH AND LAP SPLICE LENGTH SHOWN IN THE TABLE SHALL BE INCREASED BY 20%.

NOTES:

1. WELDED WIRE FABRIC MESH SHOULD BE LAPPED OVER ADJACENT SHEETS BY 300 MM.
2. BARS SHALL BE SPLICED ONLY WHERE INDICATED, EXCEPT THAT BARS INDICATED CONTINUOUS MAY BE SPLICED AT CONTRACTOR CONVENIENCE. WHERE SPLICE LOCATIONS FOR CONTINUOUS BARS, ARE NOTED, THOSE BARS SHALL BE TENSION SPLICED.



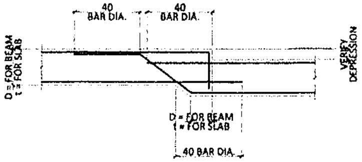
(FIGURE 5)
REINFORCEMENT OF ONE-WAY SLABS WITH THREE OR MORE SPANS

3. USE COMPRESS LAP SPLICE FOR COLUMN TO ISOLATED FOOTING JUNCTION NOT CONNECTED WITH GRADE BEAMS.FOR COLUMN TO ISOLATED FOOTING, WALL FOOTINGS, SHEAR JUNCTION CONNECTED WITH GRADE BEAMS, COMBINED FOOTINGS, RETAINING WALL FOOTINGS AND MAT FOUNDATIONS, TENSION LAP SPLICE SHALL BE USED.

4. ALL REINFORCING STEEL SHALL BE SECURELY HELD IN PROPER POSITION WHILE POURING CONCRETE CHAIRS, TIES, SPACERS, ADDITIONAL BARS AND STIRRUPS SHALL BE PROVIDED BY THE CONTRACTOR TO FURNISH SUPPORT FOR ALL REINFORCING STEEL.

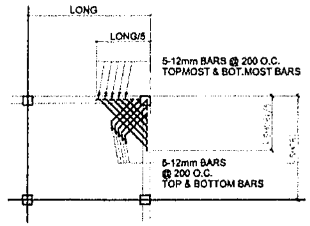
I. NOTES ON CONCRETE SLABS

1. ALL SLAB REINFORCEMENTS SHALL HAVE A MINIMUM CLEAR DISTANCE OF 20mm FROM THE BOTTOM AND FROM THE TOP OF SLABS.
2. UNLESS OTHERWISE DETAILED, FOR CONTINUOUS SLABS WITH THE MAIN REINFORCEMENT RUNNING IN ONE DIRECTION, REINFORCING BARS SHALL BE UP, EXTENDED OR CUT AS FOLLOWS:
3. IF SLABS ARE REINFORCED BOTHWAYS, BARS ALONG THE SHORTER SPAN SHALL BE PLACED BELOW THOSE ALONG THE LONG SPAN AT THE CENTER OF THE SLAB AND BE PLACED OVER THE LONGER SPAN BARS ON AREAS NEAR THE SUPPORTS. THE SPACING OF THE BARS AT THE COLUMN STRIPS SHALL BE APPROXIMATELY ONE AND ONE-HALF (1-1/2) TIMES THAT IN THE MIDDLE STRIPS BUT NO CASE GREATER THAN TWO AND ONE-HALF (2-1/2) TIMES THE SLAB THICKNESS OR 450mm.
4. TEMPERATURE BARS FOR SLABS SHALL BE GENERALLY PLACED NEAR THE FACE IN TENSION AND SHALL NOT BE LESS THAN .0025 BxT.
5. UNLESS OTHERWISE NOTED, DROP SLABS SHALL BE PROVIDED WITH ADDITIONAL REINFORCEMENT AT THE LOCATION OF DROP AS SHOWN IN FIGURE 7.

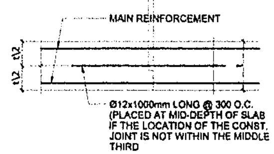


TYPICAL BEAM/SLAB CHANGE SOFFIT DETAIL
(FIGURE 7)

6. PROVIDE EXTRA REINFORCEMENT FOR CORNER SLAB (TWO ADJACENT DISCONTINUOUS EDGES) AS SHOWN BELOW AND AT ENDS AND CORNERS OF SHEAR WALL (SEE FIG. 8)
7. SEE MECHANICAL, PLUMBING, ELECTRICAL AND FIRE PROTECTION DRAWINGS FOR ALL SUSPENDED AND EMBEDDED PIPING, CONDUITS, DUCTWORKS, EQUIPMENT, ETC.
8. UNLESS OTHERWISE NOTED, EMBEDDED CONDUITS SHALL BE RUN GENERALLY AT MID-BAY AND PARALLEL CONDUITS SHALL BE AT THREE DIAMETERS ON CENTER. CONDUIT SIZE NOT EXCEED 1/4 OF THE SLAB THICKNESS AND SHALL BE LOCATED AT MID THICKNESS OF THE SLAB.



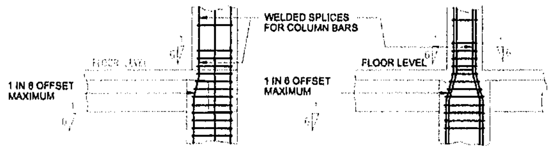
FOR SUSPENDED SLAB
TYPICAL CORNER SLAB DETAIL
(FIGURE 6)



SUSPENDED SLAB CONSTRUCTION
JOINT DETAIL

J. NOTES ON COLUMNS

1. WHERE COLUMNS CHANGE IN SIZE, VERTICAL REINFORCEMENTS SHALL BE OFFSET AT A SLOPE NOT MORE THAN 1 IN 6. PROVIDE TRANSVERSE REINFORCEMENT AS PER ITEM E BELOW FOR JOINTS WITH BAR OFFSETS. (AS SHOWN FIGURE 9)



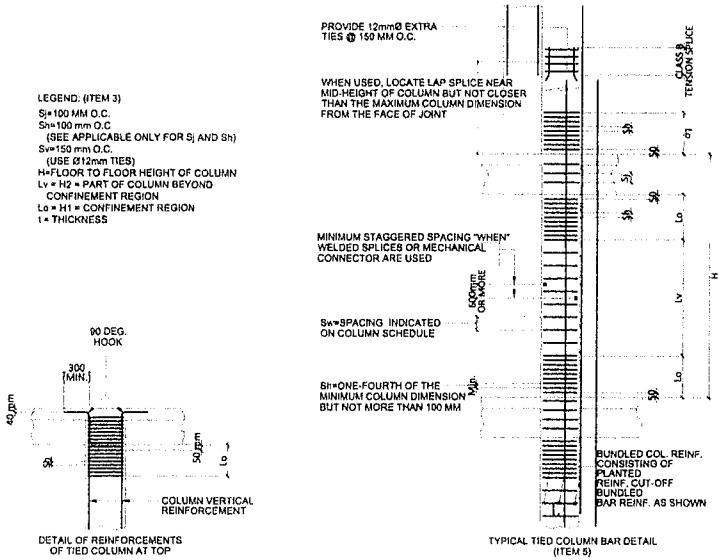
TYPICAL SPLICE & OFFSET DETAIL OF COLUMN BARS
(FIGURE 9)

2. LAP SPLICES, WHEN REQUIRED, ARE PERMITTED ONLY WITHIN THE CENTER HALF OF THE COLUMN LENGTH AND SHALL BE PROPORTIONED AS TENSION SPLICES. IN NO CASE SHALL THE LAP SPLICE BE LOCATED CLOSER THAN A DISTANCE EQUAL TO THE MAXIMUM COLUMN DIMENSION FROM THE FACE OF THE BEAM-COLUMN JOINT. PROVIDE EXTRA TRANSVERSE REINFORCEMENT OF THE SAME SIZE AND ARRANGEMENT INDICATED IN THE COLUMN SCHEDULE SPACED AT MOST ONE-FOURTH THE MIN. COLUMN SECTION DIMENSION THROUGHOUT THE LENGTH OF THE SPLICE OR 100 mm.

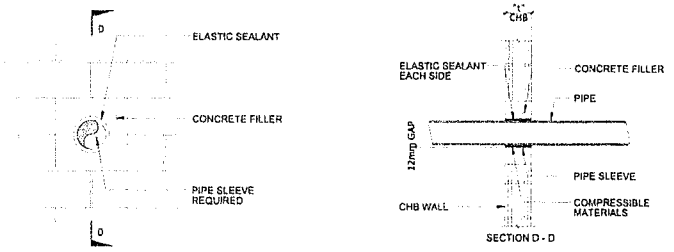
3. FOR ALL TIED COLUMNS, PROVIDE TRANSVERSE REINFORCEMENT OF THE SAME SIZE AND ARRANGEMENT INDICATED IN THE COLUMN SECTION SCHEDULE AND SPACED NO GREATER THAN ONE-QUARTER THE THE MINIMUM COLUMN SECTION DIMENSION NOR 100mm, OVER A DISTANCE FROM EACH JOINT FACE OF NOT LESS THAN THE LARGER OF THE MAX. COLUMN SECTION DIMENSION, OR ONE-SIXTH OF THE CLEAR HEIGHT OF THE COLUMN OR 450mm.

4. BEAM-COLUMN JOINTS SHALL BE PROVIDED WITH TRANSVERSE REINFORCEMENT SPACED AT TWICE THAT REQUIRED BY ITEM 3 WHEN THERE ARE BEAMS HAVING WIDTHS AT LEAST ONE-HALF THE COLUMN WIDTH AND DEPTHS NOT LESS THAN THREE-QUARTERS OF THE DEEPEST BEAM THAT FRAME DEEPEST BEAM THAT FRAME INTO FOUR SIDES OF THE COLUMN. FOR ALL OTHER CONDITIONS PROVIDE SAME AS REQUIRED IN ITEM 5.

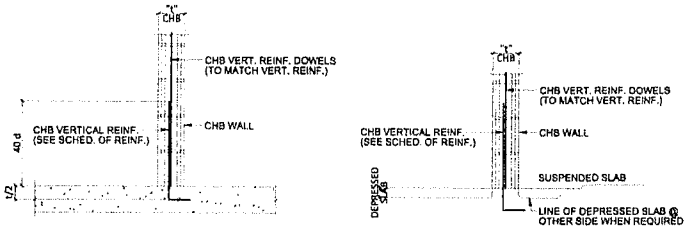
STRUCTURAL DESIGN NOTES, STANDARD DRAWINGS & SPECIFICATIONS



TYPICAL RECTANGULAR TIED COLUMN REINFORCEMENT DETAIL (FIGURE 10)

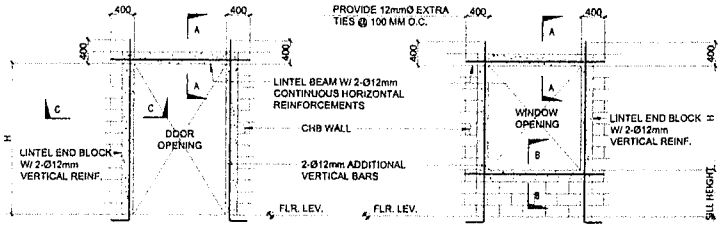


PIPE SLEEVE THRU WALL



WALL BASE REINFORCING AT FLAT FLOOR

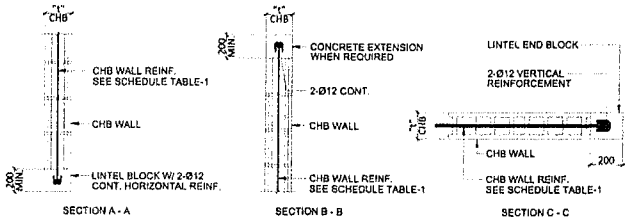
WALL BASE REINFORCING AT FLOOR W/ DEPRESSION



DOOR OPENING ELEVATION

WINDOW OPENING ELEVATION

NOTE: OMIT EXTRA REINF. FOR OPENING LESS THAN 200MM VERT & 400MM HOR.



SECTION A - A

SECTION B - B

SECTION C - C

OTHER MASONRY DETAILS

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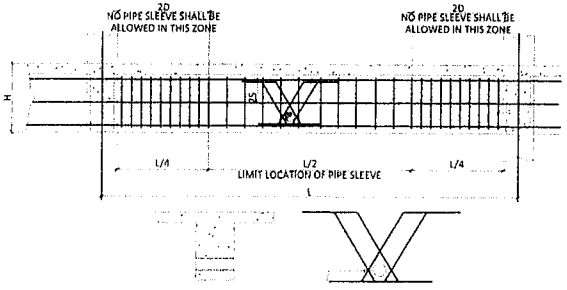
STRUCTURAL DESIGN NOTES, STANDARD DRAWINGS & SPECIFICATIONS

K. NOTES ON BEAMS AND GIRDERS

1. UNLESS OTHERWISE NOTED IN PLANS OR SPECIFICATIONS, CAMBER ALL BEAMS AT LEAST 6mm FOR EVERY 4500mm OF SPAN EXCEPT FOR CANTILEVERS FOR WHICH THE CAMBER SHALL BE AS NOTED IN THE PLANS OR AS ORDERED BY THE STRUCTURAL ENGINEERB BUT IN NO CASE LESS THAN 19mm FOR EVERY 3000mm OF FREE SPAN.
2. IF THERE ARE TWO OR MORE LAYERS OF LONGITUDINAL REINFORCING BARS IN A BEAM OR GIRDER, USE SEPARATORS OF A SIZE NOT LESS THAN 25mm BARS SPACED ABOUT 900mm ON CENTER. IN NO CASE SHALL THERE BE LESS THAN TWO (2) SEPARATORS BETWEEN LAYERS OF BARS.
3. LONGITUDINAL REINFORCING BARS SHALL BE PLACED SYMMETRICALLY ABOUT THE VERTICAL CENTER LINE OF THE BEAM OR GIRDER SECTION WHERE POSSIBLE WITH UPPER LAYER BARS PLACED DIRECTLY ABOVE THOSE IN THE BOTTOM LAYER.
4. BEAM REINFORCING BARS BOTH TOP AND BOTTOM, TERMINATING IN A WALL, SHALL EXTEND AT THE MOST 50mm FROM THE FAR FACE OF THE WALL AND SHALL TERMINATE IN A STANDARD 90° HOOK.
5. LONGITUDINAL REINFORCEMENT OF GIRDERS, BOTH TOP AND BOTTOM, TERMINATED IN A COLUMN SHALL BE EXTENDED TO THE FAR FACE OF THE CONFINED CONCRETE CORE OF THE COLUMN AND TERMINATED BY A STANDARD 90° HOOK.
6. GENERALLY, NO LAP SPLICE SHALL BE PERMITTED ON BEAMS AND GIRDERS AT POINT WHERE CRITICAL BENDING STRESSES OCCUR. IN ADDITION, FOR GIRDERS, NO LAP SPLICE SHALL BE LOCATED WITHIN THE JOINTS OR WITHIN A DISTANCE EQUAL TO TWICE THE MEMBER DEPTH FROM THE FACE OF THE JOINT.
7. PROVIDE LAP SPLICES IN GIRDERS WITH HOOP REINFORCEMENT OVER THE LENGTH OF THE LAPPED BARS SPACED NO FARTHER THAN ONE-FOURTH THE NOMINAL DEPTH, OR 100mm.
8. SEE MECHANICAL, PLUMBING, ELECTRICAL AND FIRE PROTECTION DRAWINGS FOR ALL SUSPENDED AND EMBEDDED PIPING, CONDUITS, DUCTWORKS, EQUIPMENTS, ETC.
9. PIPE AND DUCT SLEEVES SHALL BE LOCATED WITHIN THE REGION BOUNDED BY ONE-FOURTH OF CLEAR SPAN LENGTH FROM THE SUPPORTS. (SEE FIGURE 11)

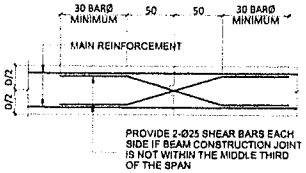


USE 20mmØ BARS FOR BEAM WIDTH OF 250mm OR THICKER AND 16mmØ BARS FOR BEAM WIDTH OF 200mm OR LESS (EACH FACE)

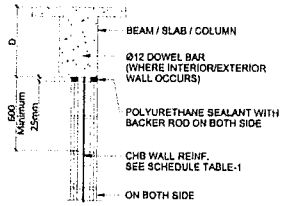
TYPICAL PIPE SLEEVE DETAILS (FIGURE 11)

NOTES:

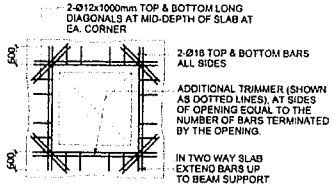
1. SEEK STRUCTL ENGINEER'S APPROVAL FOR PIPE SLEEVES W/ DIAMETERS BIGGER THAN THE MAXIMUM STIPULATED.
2. PIPE SLEEVES SHALL BE LOCATED WITHIN TENSION ZONES OF BEAM.



BEAM CONSTRUCTION JOINT DETAIL



WALL SUPPORT AT BOTTOM OF BEAM/SLAB/COLUMN



SLAB OPENING DETAIL

NOTE:

1. PROVIDE THESE ADDITIONAL BARS FOR ALL OPENINGS PLUS BARS (SHOWN AS DOTTED LINES) PARALLEL TO SIDE OF OPENING EQUAL TO THE NUMBER OF INTERRUPTED BARS BY THE OPENING.
2. SEE ARCHITECTURAL & MECHANICAL PLANS FOR SLAB OPENING LOCATION.
3. OMIT TRIMMER BARS WHERE OPENING IS FRAMED

L. DESIGN CRITERIA

DESIGN LOADS

1. DEAD LOADS
   - a. CEILING ..... 0.10 kPa
   - b. CONCRETE ..... 0.023 kPa/mm
   - c. FLOOR FINISH ..... 1.53 kPa
   - d. INTERIOR PARTITIONS ..... 1.0 kPa
   - e. UTILITIES ..... 0.25 kPa

2. LIVE LOADS
   - a. CORRIDORS ..... 4.80 kPa
   - b. REST ROOMS ..... 4.80 kPa
   - c. LIGHT STORAGE ..... 6.00 kPa
   - d. STAIRWAYS ..... 4.80 kPa
   - e. ROODECK ..... 4.80 kPa
   - f. ROOMS ..... 2.40 kPa

3. SEISMIC LOADS

   SEISMIC PROBABILITY FOR ZONE IV
   V = ZIW/RT BASED ON 2015 NSCP

4. DESIGN STRESSES

   a. CONCRETE

   1. UNLESS OTHERWISE INDICATED IN PLANS OR NOTED IN THE SPECIFICATIONS THE MINIMUM28-DAYS CYLINDER COMPRESSIVE STRENGTH OF CONCRETE f'c, SHALL BE AS FOLLOWS:
      - 1.1 FOR COLUMN/BEAMS ..... 27.60 Mpa (4,000 psi)
      - 1.2 FOR SUSPENDED SLAB ..... 27.60 Mpa (4,000 psi)
      - 1.3 FOR FOOTINGS ..... 27.60 Mpa (4,000 psi)
      - 1.4 FOR WALL FOOTINGS ..... 20.70 Mpa (3,000 psi)
      - 1.5 FOR SLAB-ON-GRADE/FILL, PARAPET WALLS, GUTTERS AND OTHER STRUCTURAL ELEMENTS ..... 20.70 Mpa (3,000 psi)
      - 1.6 fm - MASONRY ..... 5.18 MPa (750 psi)

   b. REINFORCING STEEL BARS

   1. ALL REINFORCING STEEL BARS SHALL BE NEW BILLET, HOT ROLLED, WELDABLE, DEFORMED BARS CONFORMING TO THE SPECIFICATIONS OF PNS 49: 1986 (ASTM 615) WHOSE GRADE IS SHOWN ON TABLE 2.

   TABLE-2 : REINFORCING STEEL BARS

GRADE	BAR DIAMETER
GRADE 413.82 (fy = 60 ksi)	16Ø mm & above MAIN STR'L BARS
GRADE 275.86 (fy = 40 ksi)	12Ø mm & below TIES & HOOPS

   2. THE SUPPLEMENTARY REQUIREMENTS OF WELDABLE DEFORMED REINFORCING BARS SHALL BE AS FOLLOWS:
      - 2.1 THE MAXIMUM YIELD STRENGTH OF WELDABLE BARS = 540 MPa.
      - 2.2 THE TENSILE STRENGTH SHALL NOT BE LESS THAN 1.25 TIMES THE ACTUAL YIELD STRENGTH.

   c. STRUCTURAL STEEL

   1. UNLESS OTHERWISE NOTED, ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE FOLLOWING ASTM SPECIFICATIONS.

MEMBER	ASTM	MIN. STRENGTH
STRUCTURAL TUBING	A 500 (GRADE B)	36 KSI
STEEL PIPE	A 53 (TYPE E, GR. B)	35 KSI
OTHER ROLED PLATES/SHAPES	A 36	36 KSI
CONNECTION BOLTS	A 325	105 KSI
ANCHOR BOLTS	A 325	105 KSI
THREADED RODS	A 36	36 KSI
NONSHRINK GROUT	C 1107	8000 PSI

STRUCTURAL ELEMENT DESIGNATION

ALT.	ALTERNATE	CS	COLUMN STRIP
B.W.	BOTH WAYS	CU. M.	CUBIC METER
2B-1	BEAM MARK	d_b	BAR DIAMETER
BB / B	BOTTOM BAR	DIA. or Ø	DIAMETER
BM	BOTTOM MOST BAR	E.F.	EACH FACE
C-1	COLUMN MARK	E.W.	EACH WAY
CB-1	CANTILEVER BEAM/CORBEL	E.A	EACH
CHB	CONCRETE HOLLOW BLOCK	EQ.	EQUAL
C.O.C.	CENTER ON CENTER	ISO. JT.	ISOLATION JOINT
COL.	COLUMN	kN	KILONEWTON
CONC.	CONCRETE	kPA	KILOPASCAL
CONT.	CONTINOUS	Kai	KIPS PER SQUARE INCH

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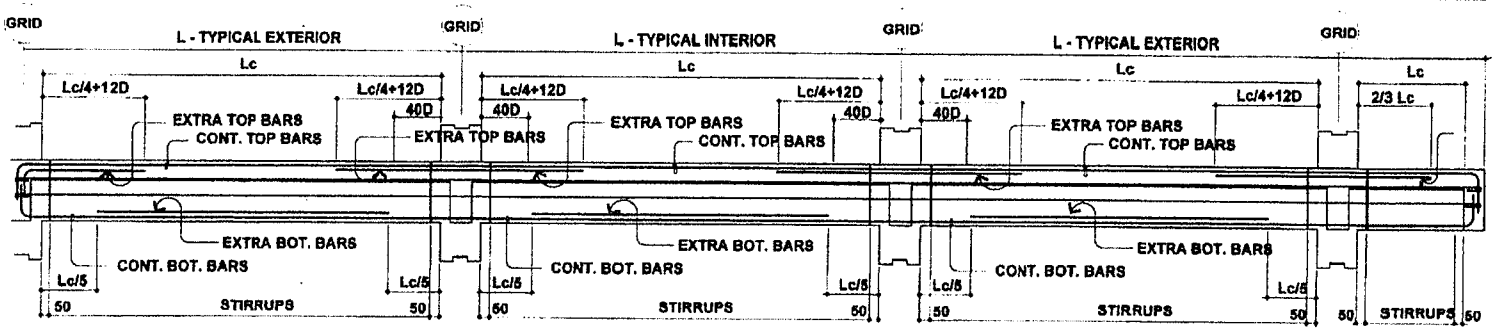
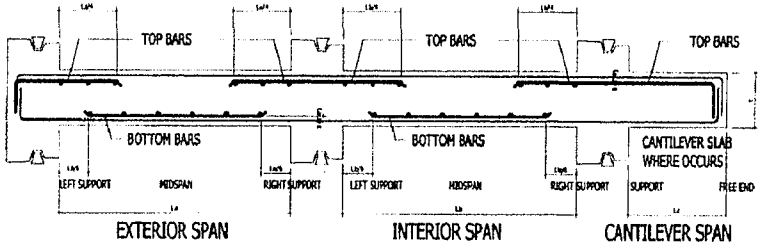


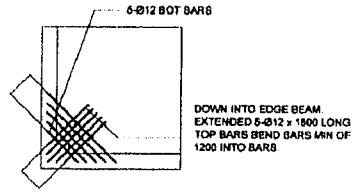
TYPICAL BEAM SECTION

SCALE: NTS

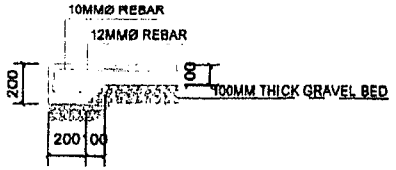


TYPICAL RC SLAB REINFORCEMENT

SCALE: NTS



TYPICAL CORNER SLAB DETAIL



CORNER SLAB SECTION DETAIL

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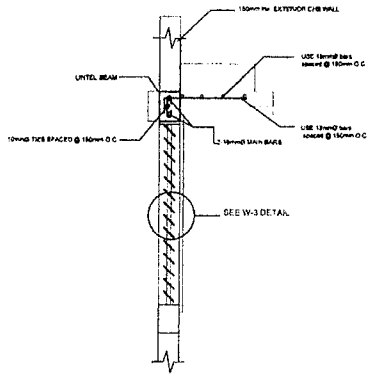

CANOPY ABOVE WINDOW

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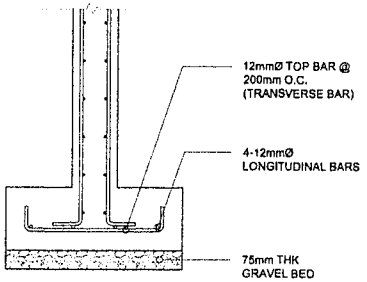

STAIR COLUMN DETAIL

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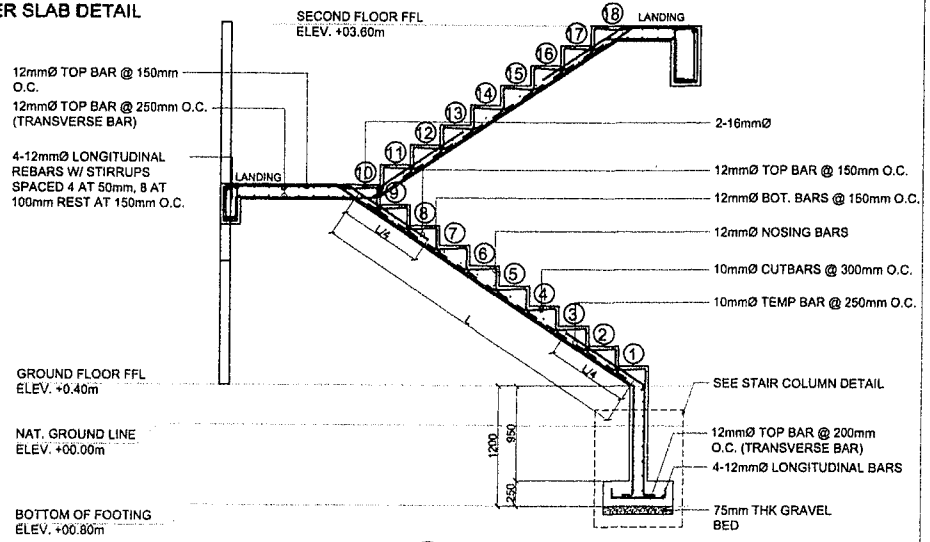

TYPICAL DETAIL OF STAIR

SCALE: NTS

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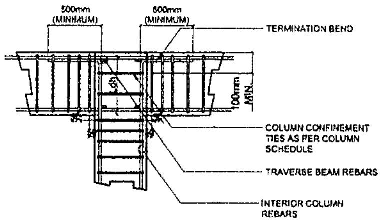
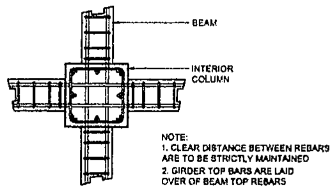
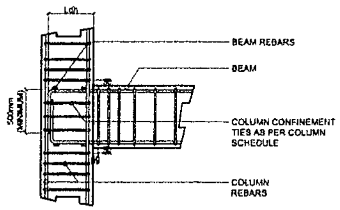


INTERIOR COLUMN TERMINATION BEND
SCALE: NTS



TYPICAL PLAN OF BEAM GIRDER COLUMN JOINT
SCALE: NTS



BEAM REBAR TERMINATION BEND
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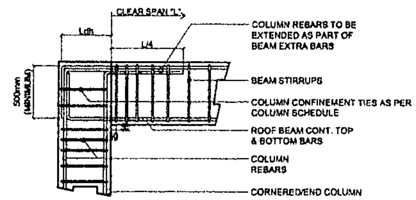
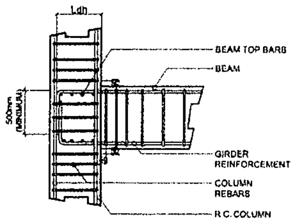
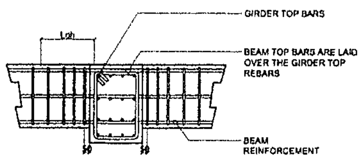


CORNER / EXTERIOR TERMINATION END
SCALE: NTS



AT COLUMN INTERSECTION



AT GIRDER SPAN

TYPICAL BEAM AND GIRDER REBAR LAY-OUT
SCALE: NTS

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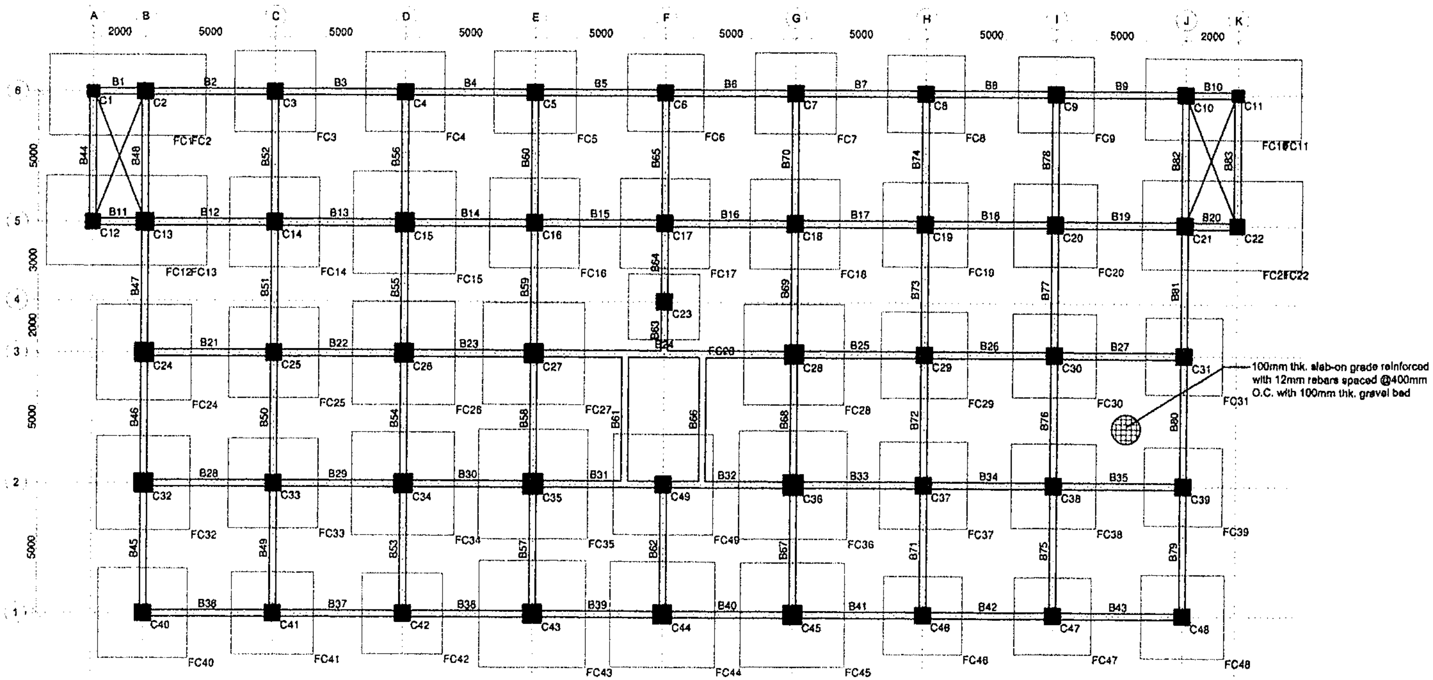
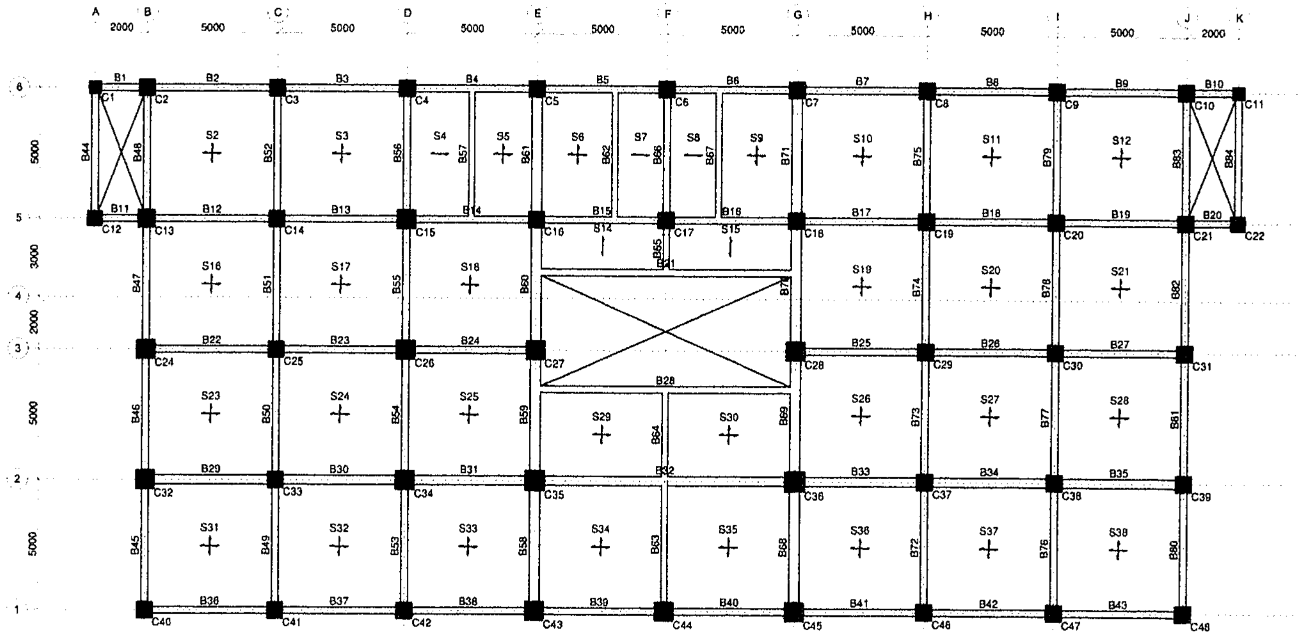
	DIR. DAVID B. BUNGALLON EXECUTIVE DIRECTOR, NITESD	DIR. J[illegible] O. OROZCO DIRECTOR IV AS CHIEF OF STAFF OFFICE OF THE DIRECTOR GENERAL	SEC. ISIDRO S. LAPEÑA, PHD., CSEE DIRECTOR GENERAL	PROPOSED TESDA INNOVATION CENTER - DAVAO LOCATION: [illegible]	[illegible]	ENGR. [illegible] G. DELA TORRE CIVIL ENGINEER, SPU-ODG	ENGR. FRANCISCO B. NARAG, JR. CIVIL ENGINEER, TESDA - ISAT	ENGR. ROY LOUIE P. MINGARACAL HEAD, SPU-ODG	INTERIOR COLUMN TERMINATION BEND TYPICAL PLAN OF BEAM GIRDER COLUMN JOINT BEAM REBAR TERMINATION BEND TYPICAL BEAM AND GIRDER REBAR LAY-OUT CORNER / EXTERIOR TERMINATION END	S-6



FOUNDATION PLAN

SCALE: 1:200 MTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVID B. BUNGALLON, EXECUTIVE DIRECTOR, NITESD	RECOMMENDING APPROVAL: DIR. JULIUS O. OROZCO, DIRECTOR IV AS, CHIEF OF STAFF, OFFICE OF THE DIRECTOR GENERAL	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - DAVAO	PREPARED BY: ENGR. ENRIQUE O. DELA TORRE, CIVIL ENGINEER, SPU-DOG	REVIEWED AS TO PLAN: ENGR. FRANCISCO B. NARAG, JR., CIVIL ENGINEER, TESDA - ISAT	SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, SPU-DOG	SHEET CONTENTS: FOOTING SCHEDULE	SHEET NO. S-7



SECOND FLOOR FRAMING PLAN

SCALE: 1:200 MTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY

CONCURRED BY: DIR. DAVID B. BUNGALLON, EXECUTIVE DIRECTOR, NITESD

RECOMMENDING APPROVAL: DIR. JULIET O. OROZCO, DIRECTOR IV - AS, CHIEF OF STAFF, OFFICE OF THE DIRECTOR GENERAL

APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL

PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - DAVAO

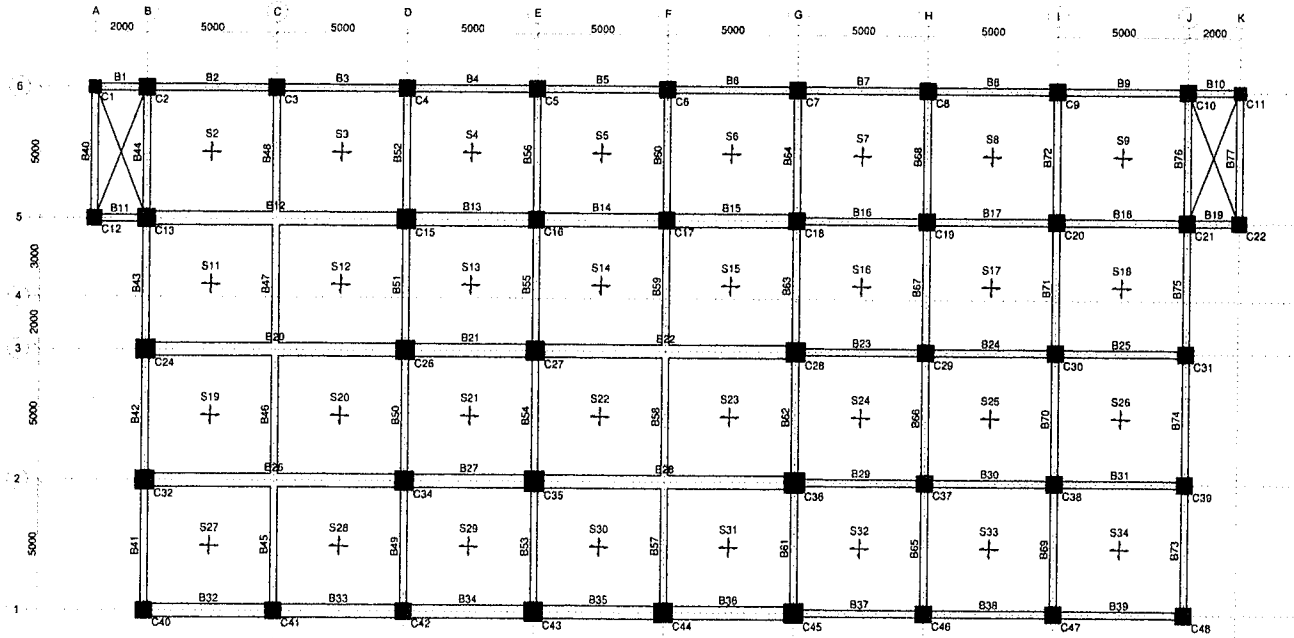
PREPARED BY: ENGR. ENRIQUE G. DELA TORRE, CIVIL ENGINEER, SPU-OOG

REVIEWED AS TO PLAN: ENGR. FRANCISCO B. NARAG, JR., CIVIL ENGINEER, TESDA - ISAT

SUBMITTED BY: ENGR. ROY LOUIS P. MINGARACAL, HEAD, SPU-OOG

SHEET CONTENTS: SECOND FLOOR FRAMING PLAN

SHEET NO. S-8



ROOF DECK FLOOR FRAMING PLAN

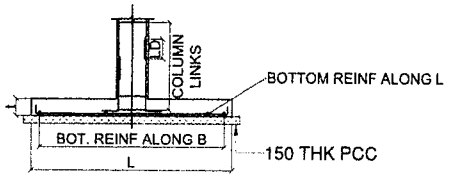
SCALE: 1:200 MTS

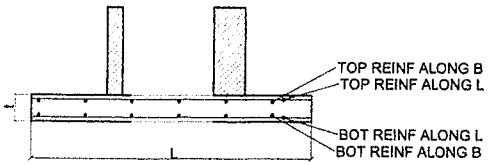
TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVID S. BUNGALLON, EXECUTIVE DIRECTOR, ISTEESD	RECOMMENDING APPROVAL: DIR. JUANITO O. DROZCO, DIRECTOR IV AND CHIEF OF STAFF, OFFICE OF THE DIRECTOR GENERAL	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - DAVAO	DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY AND SHALL BE USED FOR AUTHORITY ARE MADE IS EXECUTED OR NOT. IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR PURPOSES ANOTHER EXECUTED PARTLY OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY.	PREPARED BY: ENGR. ENRIQUE O. DELA TORRE, CIVIL ENGINEER, GPU-DDG	REVIEWED AS TO PLAN: ENGR. FRANCISCO B. NARAG, JR., CIVIL ENGINEER, TESDA - ISAT	SUBMITTED BY: ENGR. ROY LOUIE P. MINGARAÇAL, HEAD, GPU-DDG	SHEET CONTENTS: ROOF DECK FLOOR FRAMING PLAN	SHEET NO. S-9

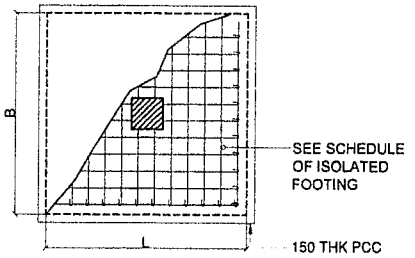
FOOTING SCHEDULE (C28:Fy415)

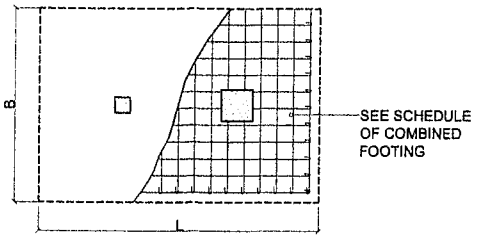
FOOTING NUMBERS	COLUMN NUMBERS	FOOTING TYPE	FOOTING DIMENSION			FOOTING REINFORCEMENT			
						BOTTOM		TOP	
			L	B	D1	ALONG B	ALONG L	ALONG B	ALONG L
FC1 - FC2	C1- C2	Combined	5300	3800	350	Ø16@240 O.C.	Ø16@240 O.C.	Ø16@240 O.C.	Ø16@240 O.C.
FC3	C3	Pad	2800	2800	300	Ø16@200 O.C.	Ø16@275 O.C.	-	-
FC4	C4	Pad	2750	2750	300	Ø16@225 O.C.	Ø16@275 O.C.	-	-
FC5	C5	Pad	2850	2850	300	Ø16@200 O.C.	Ø16@275 O.C.	-	-
FC6	C6	Pad	2850	2850	300	Ø16@250 O.C.	Ø16@275 O.C.	-	-
FC7	C7	Pad	2800	2800	300	Ø16@225 O.C.	Ø16@300 O.C.	-	-
FC8	C8	Pad	2850	2850	300	Ø16@275 O.C.	Ø16@300 O.C.	-	-
FC9	C9	Pad	2600	2600	300	Ø16@275 O.C.	Ø16@300 O.C.	-	-
FC10 - FC11	C10 - C11	Combined	5300	3800	350	Ø16@240 O.C.	Ø16@240 O.C.	Ø16@240 O.C.	Ø16@240 O.C.
FC12 - FC13	C12 - C13	Combined	6650	5150	350	Ø16@250 O.C.	Ø16@150 O.C.	Ø16@200 O.C.	Ø16@200 O.C.
FC14	C14	Pad	3150	3150	300	Ø16@250 O.C.	Ø16@300 O.C.	-	-
FC15	C15	Pad	3650	3650	325	Ø16@125 O.C.	Ø16@150 O.C.	-	-
FC16	C16	Pad	3150	3150	300	Ø16@150 O.C.	Ø16@175 O.C.	-	-
FC17	C17	Pad	3150	3150	300	Ø16@175 O.C.	Ø16@175 O.C.	-	-
FC18	C18	Pad	3150	3150	300	Ø16@150 O.C.	Ø16@175 O.C.	-	-
FC19	C19	Pad	2950	2950	300	Ø16@175 O.C.	Ø16@200 O.C.	-	-
FC20	C20	Pad	2900	2900	300	Ø16@200 O.C.	Ø16@225 O.C.	-	-
FC21 - FC22	C21 - C22	Combined	6650	5150	350	Ø16@250 O.C.	Ø16@150 O.C.	Ø16@200 O.C.	Ø16@200 O.C.
FC23	C23	Pad	2400	2400	300	Ø16@100 O.C.	Ø16@100 O.C.	-	-
FC24	C24	Pad	3350	3350	300	Ø16@125 O.C.	Ø16@175 O.C.	-	-
FC25	C25	Pad	3150	3150	300	Ø16@250 O.C.	Ø16@300 O.C.	-	-
FC26	C26	Pad	3650	3650	325	Ø16@125 O.C.	Ø16@150 O.C.	-	-
FC27	C27	Pad	3600	3600	300	Ø16@100 O.C.	Ø16@125 O.C.	-	-
FC28	C28	Pad	3550	3550	300	Ø16@125 O.C.	Ø16@125 O.C.	-	-
FC29	C29	Pad	3000	3000	300	Ø16@175 O.C.	Ø16@200 O.C.	-	-
FC30	C30	Pad	2900	2900	300	Ø16@200 O.C.	Ø16@225 O.C.	-	-
FC31	C31	Pad	2650	2650	300	Ø16@275 O.C.	Ø16@275 O.C.	-	-
FC32	C32	Pad	3300	3300	300	Ø16@125 O.C.	Ø16@150 O.C.	-	-
FC33	C33	Pad	3150	3150	300	Ø16@250 O.C.	Ø16@300 O.C.	-	-
FC34	C34	Pad	3650	3650	325	Ø16@125 O.C.	Ø16@125 O.C.	-	-
FC35	C35	Pad	3900	3900	325	Ø16@100 O.C.	Ø16@125 O.C.	-	-
FC36	C36	Pad	3850	3850	325	Ø16@100 O.C.	Ø16@125 O.C.	-	-
FC37	C37	Pad	3050	3050	300	Ø16@175 O.C.	Ø16@200 O.C.	-	-
FC38	C38	Pad	2950	2950	300	Ø16@200 O.C.	Ø16@225 O.C.	-	-
FC39	C39	Pad	2700	2700	300	Ø16@275 O.C.	Ø16@250 O.C.	-	-
FC40	C40	Pad	3150	3150	300	Ø16@275 O.C.	Ø16@300 O.C.	-	-
FC41	C41	Pad	2650	2850	300	Ø16@200 O.C.	Ø16@250 O.C.	-	-
FC42	C42	Pad	2800	2800	300	Ø16@225 O.C.	Ø16@275 O.C.	-	-
FC43	C43	Pad	3000	3800	300	Ø16@150 O.C.	Ø16@200 O.C.	-	-
FC44	C44	Pad	3750	3750	300	Ø16@175 O.C.	Ø16@175 O.C.	-	-
FC45	C45	Pad	3700	3700	300	Ø16@150 O.C.	Ø16@200 O.C.	-	-
FC46	C46	Pad	2700	2700	300	Ø16@250 O.C.	Ø16@275 O.C.	-	-
FC47	C47	Pad	2650	2650	300	Ø16@275 O.C.	Ø16@275 O.C.	-	-
FC48	C48	Pad	2900	2900	300	Ø16@300 O.C.	Ø16@300 O.C.	-	-
FC49	C49	Pad	3550	3550	300	Ø16@150 O.C.	Ø16@150 O.C.	-	-

FOOTING SCHEDULE
SCALE: NTS





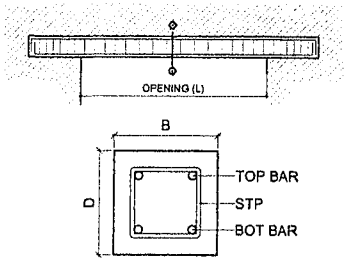




ISOLATED FOOTING DETAIL
SCALE: 1:100MTS

COMBINED FOOTING DETAIL
SCALE: 1:100MTS

OPENING (L)	DIMENSION	REINFORCEMENT		
		TOP	BOTTOM	STIRRUPS
UP TO 1200 mm	200 / 150	2-10mm	2-10mm	8mmØ @ 180mm O.C.
UP TO 1200 mm (115mm THK WALL)	100 / 150	2-10mm	2-10mm	8mmØ @ 150mm O.C.
1300 mm TO 1650mm	200 / 150	2-10mm	3-10mm	8mmØ @ 180mm O.C.
1800 mm TO 2100mm	200 / 200	2-10mm	3-12mm	8mmØ @ 180mm O.C.
2250 mm TO 2700mm	200 / 250	2-10mm	2-16mm	8mmØ @ 200mm O.C.
MAIN CANOPY LB-1	SEE LB-1 AT BEAM SCHEDULE (2F)			



TYPICAL LINTEL BEAM DETAIL
SCALE: 1:50MTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DANILO P. BUNDALLON, EXECUTIVE DIRECTOR, NITESD	RECOMMENDING APPROVAL: DIR. JULIETO O. BROZCO, DIRECTOR IV AS CHIEF OF STAFF, OFFICE OF THE DIRECTOR GENERAL	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - DAVAO	DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY AND SHALL BE USED FOR ANY WORK AND MADE IN EXECUTING ON, NOT IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF ANY DOCUMENTS FOR USE IN THE ERECTION OF AND FOR OTHER PROJECTS OR BUILDINGS WHETHER EXECUTED PARTLY OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PREPARED BY: ENGR. ENRIQUE G. DELA TORRE, CIVIL ENGINEER, SPU-DDG	REVIEWED AS TO PLAN: ENGR. FRANCISCO B. NARAG, JR., CIVIL ENGINEER, TESDA - IBAT	SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, SPU-DDG	SHEET CONTENTS: FOOTING SCHEDULE, ISOLATED FOOTING DETAIL, COMBINED FOOTING DETAIL, TYPICAL LINTEL BEAM DETAIL	SHEET NO. S-10

	C1, C11	C2	C3, C5, C16, C18, C21, C41	C4, C7, C38, C42	C6, C8, C9, C17, C19, C20, C29, C30, C31, C37, C39, C40, C46, C47, C48	C10	C12, C22	C13	C14, C25, C33	C15, C26, C27, C28, C32, C34
7.4 M TO 9.2 M	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 450 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 600 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 600 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 600 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 600 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 600 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 550 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 650 MM		C28 : Fy415 , COVER = 40mm CONFINING ZONE = 700 MM
Z1 MAIN LINK	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125		Ø10 @ 125
Z1 OTHERS	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125		Ø10 @ 125
Z2 LINKS	Ø10 @ 225	Ø10 @ 250	Ø10 @ 250	Ø10 @ 250	Ø10 @ 250	Ø10 @ 250	Ø10 @ 250	Ø10 @ 250		Ø10 @ 250
Section	450 x 450	600 x 600	600 x 600	600 x 600	600 x 600	600 x 600	550 x 550	650 x 650		700 x 700
Bars	●Ø16 12-Ø16	●Ø16 20-Ø16	●Ø16 20-Ø16	●Ø16 20-Ø16	●Ø16 20-Ø16	●Ø16 20-Ø16	●Ø16 16-Ø16	●Ø20 ●Ø16 12-Ø20 + 12-Ø16		●Ø20 ●Ø16 4-Ø20 + 20-Ø16
3.8 M TO 5.6 M	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 450 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 600 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 600 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 600 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 600 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 600 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 550 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 650 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 600 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 700 MM
Z1 MAIN LINK	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125
Z1 OTHERS	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125
Z2 LINKS	Ø10 @ 175	Ø10 @ 150	Ø10 @ 250	Ø10 @ 250	Ø10 @ 250	Ø10 @ 150	Ø10 @ 250	Ø10 @ 250	Ø10 @ 250	Ø10 @ 250
Section	450 x 450	600 x 600	600 x 600	600 x 600	600 x 600	600 x 600	550 x 550	650 x 650	600 x 600	700 x 700
Bars	●Ø16 12-Ø16	●Ø16 20-Ø16	●Ø16 20-Ø16	●Ø16 20-Ø16	●Ø16 20-Ø16	●Ø16 20-Ø16	●Ø16 16-Ø16	●Ø16 24-Ø16	●Ø16 20-Ø16	●Ø20 ●Ø16 4-Ø20 + 20-Ø16
0 M TO 2 M	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 450 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 600 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 600 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 600 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 600 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 600 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 550 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 650 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 600 MM	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 700 MM
Z1 MAIN LINK	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125
Z1 OTHERS	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125	Ø10 @ 125
Z2 LINKS	Ø10 @ 200	Ø10 @ 150	Ø10 @ 175	Ø10 @ 200	Ø10 @ 175	Ø10 @ 175	Ø10 @ 225	Ø10 @ 175	Ø10 @ 225	Ø10 @ 150
Section	450 x 450	600 x 600	600 x 600	600 x 600	600 x 600	600 x 600	550 x 550	650 x 650	600 x 600	700 x 700
Bars	●Ø16 12-Ø16	●Ø16 20-Ø16	●Ø16 20-Ø16	●Ø16 20-Ø16	●Ø16 20-Ø16	●Ø16 20-Ø16	●Ø16 16-Ø16	●Ø16 24-Ø16	●Ø16 20-Ø16	●Ø20 ●Ø16 4-Ø20 + 20-Ø16
COLUMN MARKED	C1, C11	C2	C3, C5, C16, C18, C21, C41	C4, C7, C38, C42	C6, C8, C9, C17, C19, C20, C29, C30, C31, C37, C39, C40, C46, C47, C48	C10	C12, C22	C13	C14, C25, C33	C15, C26, C27, C28, C32, C34

COLUMN AND WALL SCHEDULE
(SCALE 1:25)

NOTES:

1. BE = BOUNDARY ELEMENT AS PER ACI 318M - 2011. PROVIDE CONFINING REINFORCEMENT ACROSS ENTIRE HEIGHT OF WALL IN THE BOUNDARY ELEMENT
2. Z1 = SPECIAL CONFINING ZONE AS PER ACI 318M - 2011, Z2 = REMAINING ZONES AS PER ACI 318M - 2011

COLUMN SCHEDULE

SCALE: NTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY

CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PROJECT TITLE:	PREPARED BY:	REVIEWED AS TO PLAN:	SUBMITTED BY:	SHEET CONTENTS:	SHEET NO.
DIR. DAVID B. BUNGALLON, EXECUTIVE DIRECTOR, NITESD	DIR. JULIET C. OROZCO, DIRECTOR V - AS, CHIEF OF STAFF, OFFICE OF THE DIRECTOR GENERAL	SEC. ISIDRO S. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL	PROPOSED TESDA INNOVATION CENTER - DAVAO	ENGR. ENRIQUE G. DELA TORRE, CIVIL ENGINEER, BPU-ODG	ENGR. FRANCISCO B. NARAG, JR., CIVIL ENGINEER, TESDA - ISAT	ENGR. ROY LOUIE P. MINGARAÇAL, HEAD, BPU-ODG	COLUMN SCHEDULE	S-11

Level	C23	C24	C35, C36	C43, C44, C45	C49
7.4 M TO 9.2 M		C28 : Fy415 , COVER = 40mm CONFINING ZONE = 700 MM Z1 MAIN LINK: Ø10 @ 125 Z1 OTHERS: Ø10 @ 125 Z2 LINKS: Ø10 @ 250 700 x 700, ●Ø20 ●Ø16 12-Ø20 + 12-Ø16	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 750 MM Z1 MAIN LINK: Ø10 @ 125 Z1 OTHERS: Ø10 @ 125 Z2 LINKS: Ø10 @ 250 750 x 750, ●Ø16 28-Ø16	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 700 MM Z1 MAIN LINK: Ø10 @ 125 Z1 OTHERS: Ø10 @ 125 Z2 LINKS: Ø10 @ 250 700 x 700, ●Ø20 ●Ø16 4-Ø20 + 20-Ø16	
3.8 M TO 5.6 M		C28 : Fy415 , COVER = 40mm CONFINING ZONE = 700 MM Z1 MAIN LINK: Ø10 @ 125 Z1 OTHERS: Ø10 @ 125 Z2 LINKS: Ø10 @ 250 700 x 700, ●Ø20 ●Ø16 4-Ø20 + 20-Ø16	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 750 MM Z1 MAIN LINK: Ø10 @ 125 Z1 OTHERS: Ø10 @ 123 Z2 LINKS: Ø10 @ 250 750 x 750, ●Ø16 28-Ø16	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 700 MM Z1 MAIN LINK: Ø10 @ 125 Z1 OTHERS: Ø10 @ 125 Z2 LINKS: Ø10 @ 250 700 x 700, ●Ø20 ●Ø16 4-Ø20 + 20-Ø16	
0 M TO 2 M	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 600 MM Z1 MAIN LINK: Ø10 @ 125 Z1 OTHERS: Ø10 @ 125 Z2 LINKS: Ø10 @ 250 600 x 600, ●Ø16 20-Ø16	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 700 MM Z1 MAIN LINK: Ø10 @ 125 Z1 OTHERS: Ø10 @ 125 Z2 LINKS: Ø10 @ 175 700 x 700, ●Ø20 ●Ø16 4-Ø20 + 20-Ø16	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 750 MM Z1 MAIN LINK: Ø10 @ 125 Z1 OTHERS: Ø10 @ 125 Z2 LINKS: Ø10 @ 150 750 x 750, ●Ø16 28-Ø16	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 700 MM Z1 MAIN LINK: Ø10 @ 125 Z1 OTHERS: Ø10 @ 125 Z2 LINKS: Ø10 @ 175 700 x 700, ●Ø20 ●Ø16 4-Ø20 + 20-Ø16	C28 : Fy415 , COVER = 40mm CONFINING ZONE = 600 MM Z1 MAIN LINK: Ø10 @ 125 Z1 OTHERS: Ø10 @ 125 Z2 LINKS: Ø10 @ 250 600 x 600, ●Ø16 20-Ø16
COLUMN MARKED	C23	C24	C35, C36	C43, C44, C45	C49

COLUMN AND WALL SCHEDULE

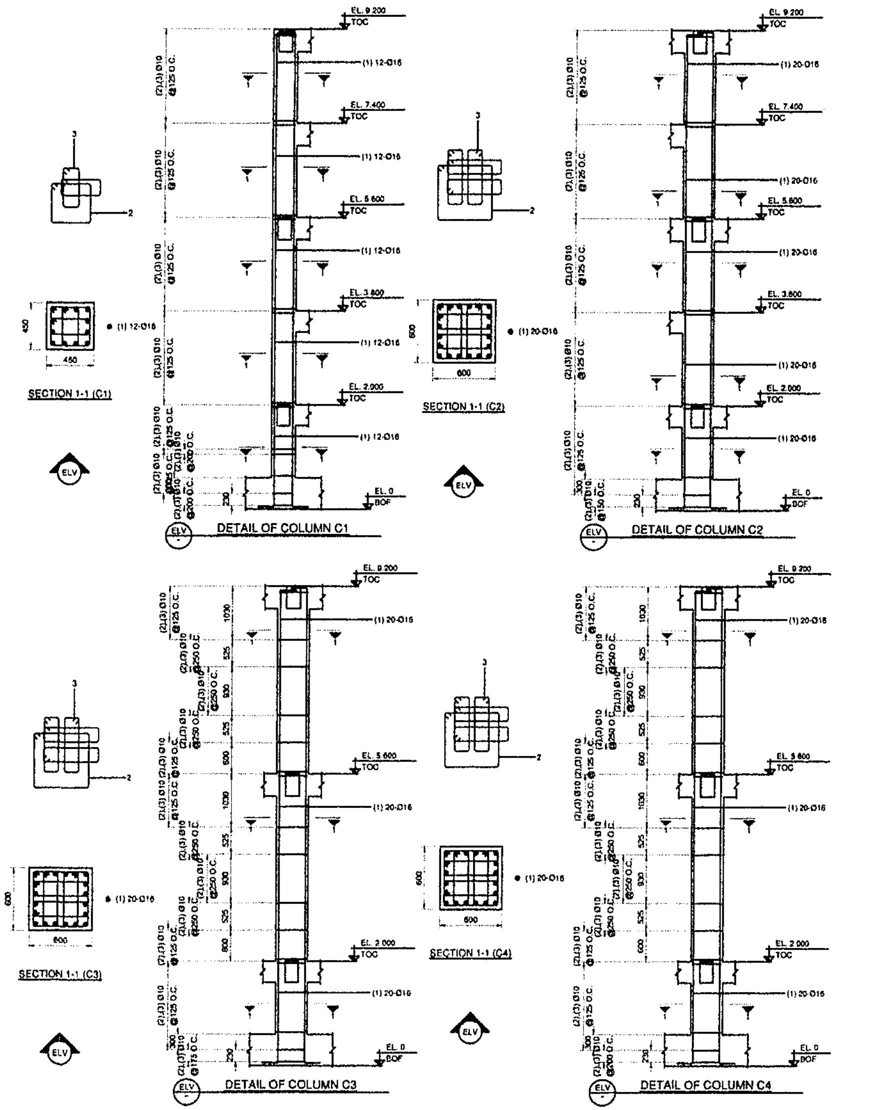
(SCALE 1:25)

NOTES:

1. BE = BOUNDARY ELEMENT AS PER ACI 318M - 2011. PROVIDE CONFINING REINFORCEMENT ACROSS ENTIRE HEIGHT OF WALL IN THE BOUNDARY ELEMENT
2. Z1 = SPECIAL CONFINING ZONE AS PER ACI 318M - 2011, Z2 = REMAINING ZONES AS PER ACI 318M - 2011

COLUMN SCHEDULE

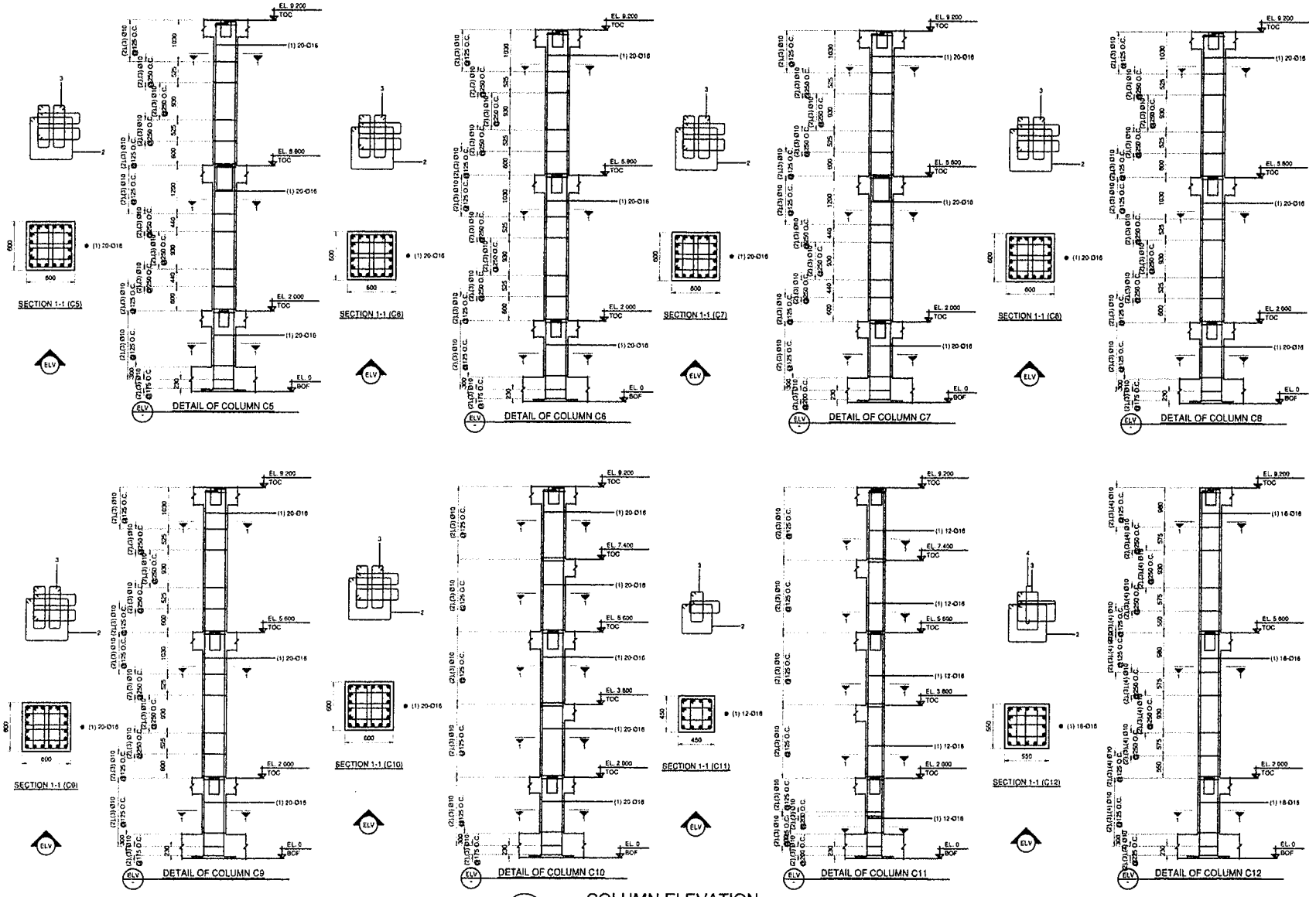
SCALE: NTS



COLUMN ELEVATION

SCALE: 1:200 MTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVID B. BUNGALLON, EXECUTIVE DIRECTOR, NITESD	RECOMMENDING APPROVAL: DIR. JU[illegible] OROZCO, DIRECTOR IV, AS, CHIEF OF STAFF, OFFICE OF THE DIRECTOR GENERAL	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - DAVAO		PREPARED BY: ENGR. ENRIQUE G. DELA TORRE, CIVIL ENGINEER, BPU-ODG	REVIEWED AS TO PLAN: ENGR. FRANCISCO B. NARAG, JR., CIVIL ENGINEER, TESDA - ISAT	SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, BPU-ODG	SHEET CONTENTS: COLUMN SCHEDULE COLUMN ELEVATION	SHEET NO. S-12

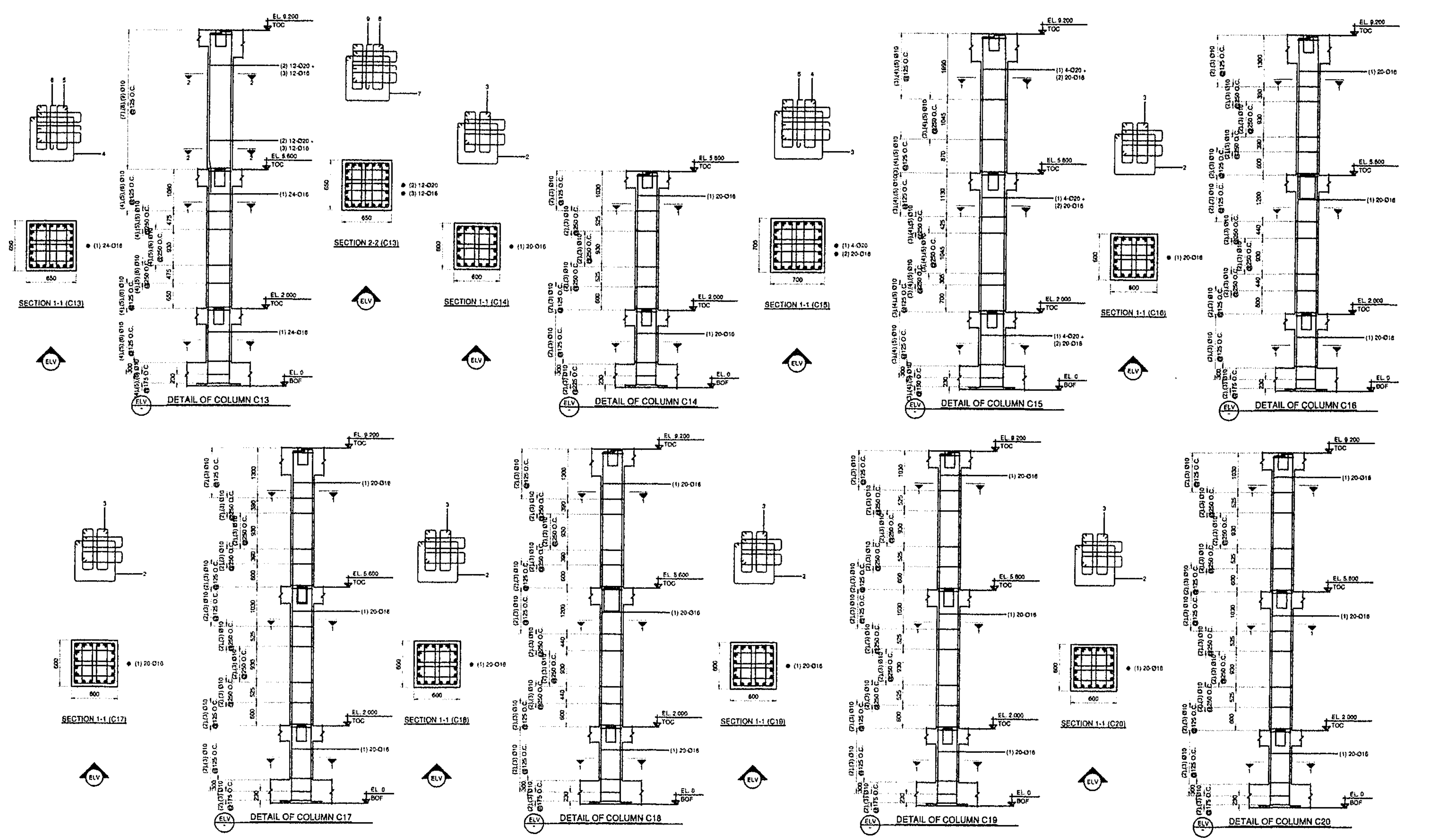


COLUMN ELEVATION

SCALE: 1:200 MTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY

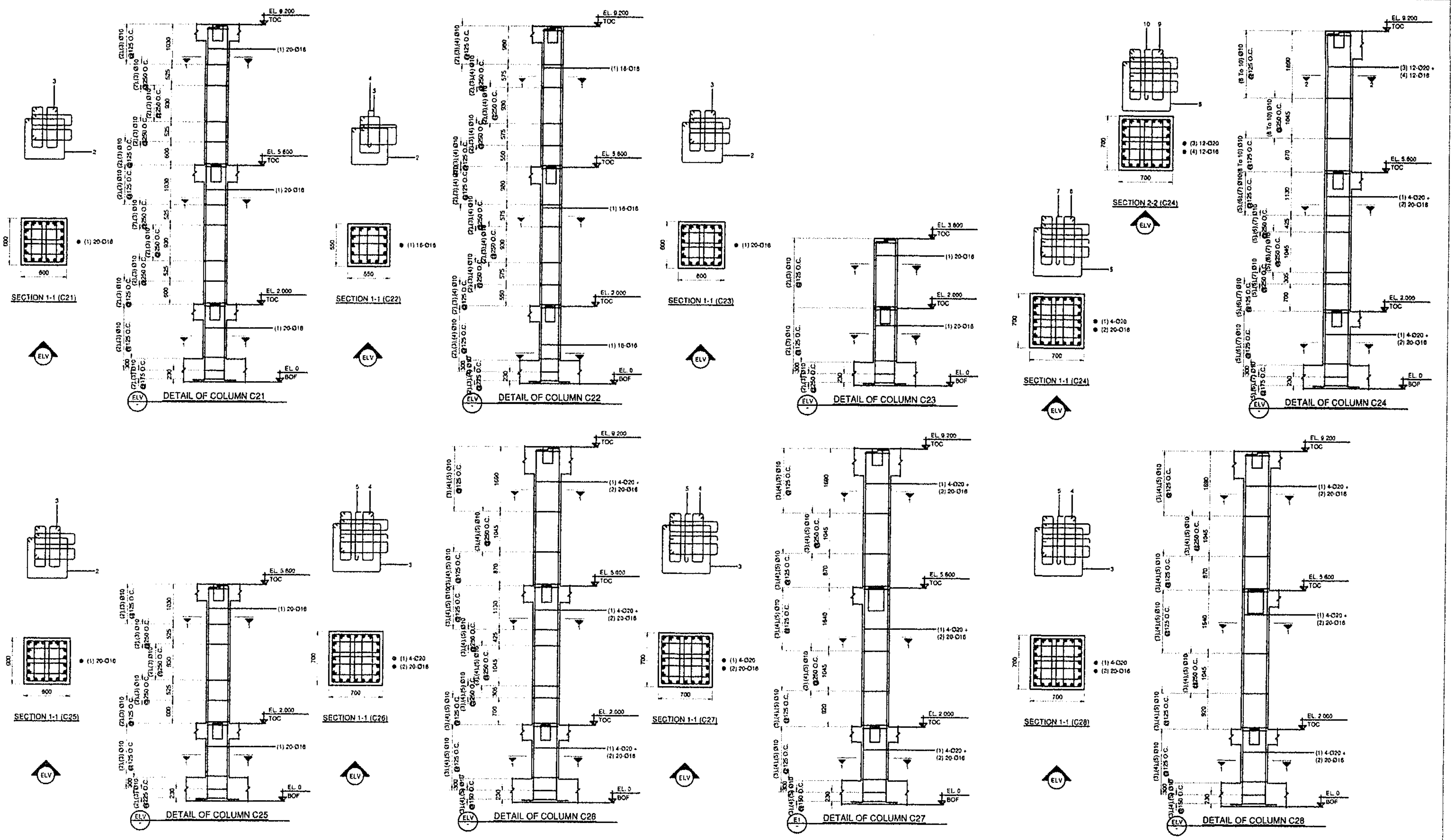
CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PROJECT TITLE:	PREPARED BY:	REVIEWED AS TO PLAN:	SUBMITTED BY:	SHEET CONTENTS:	SHEET NO.
DIR. DAVID V. BUNGALLON EXECUTIVE DIRECTOR, NTESD	DIR. JULIUS CESAR POZOCO DIRECTOR III AS CHIEF OF STAFF OFFICE OF THE DIRECTOR GENERAL	SEC. ISIDRO S. CAPELA, PHD, CSEE DIRECTOR GENERAL	PROPOSED TESDA INNOVATION CENTER - DAVAO	ENGR. ENRIQUE G. DELA TORRE CIVIL ENGINEER, BPU-OOG	ENGR. FRANCISCO B. NARAG, JR. CIVIL ENGINEER, TESDA - ISAT	ENGR. ROY LOUIE P. MINGARACAL HEAD, BPU-OOG	COLUMN ELEVATION	S-13



COLUMN ELEVATION

SCALE: 1:200 MTS

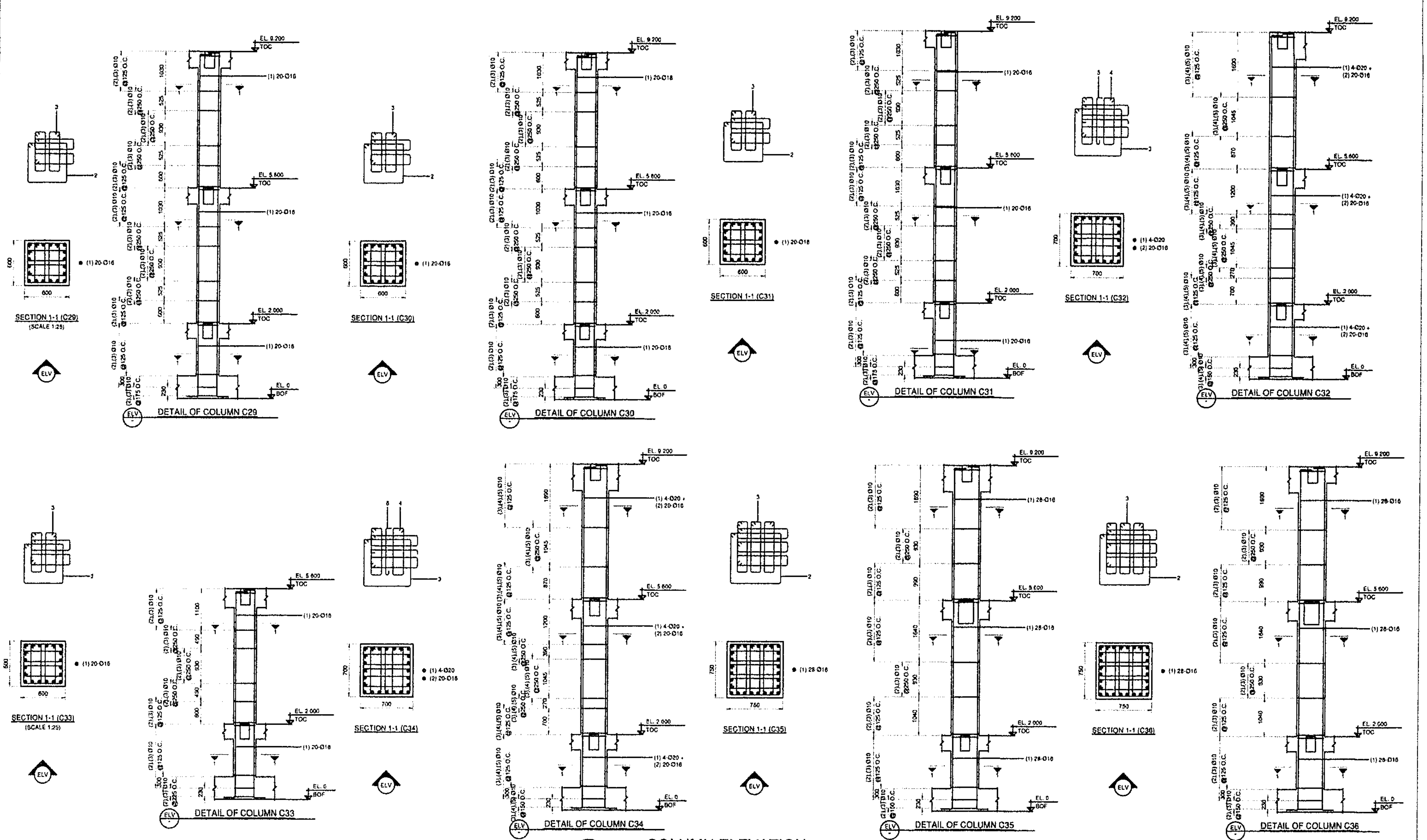
TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PROJECT TITLE:		PREPARED BY:	REVIEWED AS TO PLAN:	SUBMITTED BY:	SHEET CONTENTS:	SHEET NO.
	DIR. DAVID B. BUNGALLON EXECUTIVE DIRECTOR, NITESD	DIR. JULIUS [illegible] OROZCO DIRECTOR IV AS CHIEF OF STAFF OFFICE OF THE DIRECTOR GENERAL	SEC. ISIDRO S. LAPEÑA, PHD., CSEE DIRECTOR GENERAL	PROPOSED TESDA INNOVATION CENTER - DAVAO	[illegible]	ENGR. ENRIQUE G. DELA TORRE CIVIL ENGINEER, SPU-OOG	ENGR. FRANCISCO B. NARAG, JR. CIVIL ENGINEER, TESDA - ISAT	ENGR. ROY LOUIE P. MINGARACAL HEAD, SPU-OOG	COLUMN ELEVATION	S-14



COLUMN ELEVATION

SCALE: 1:200 MTS

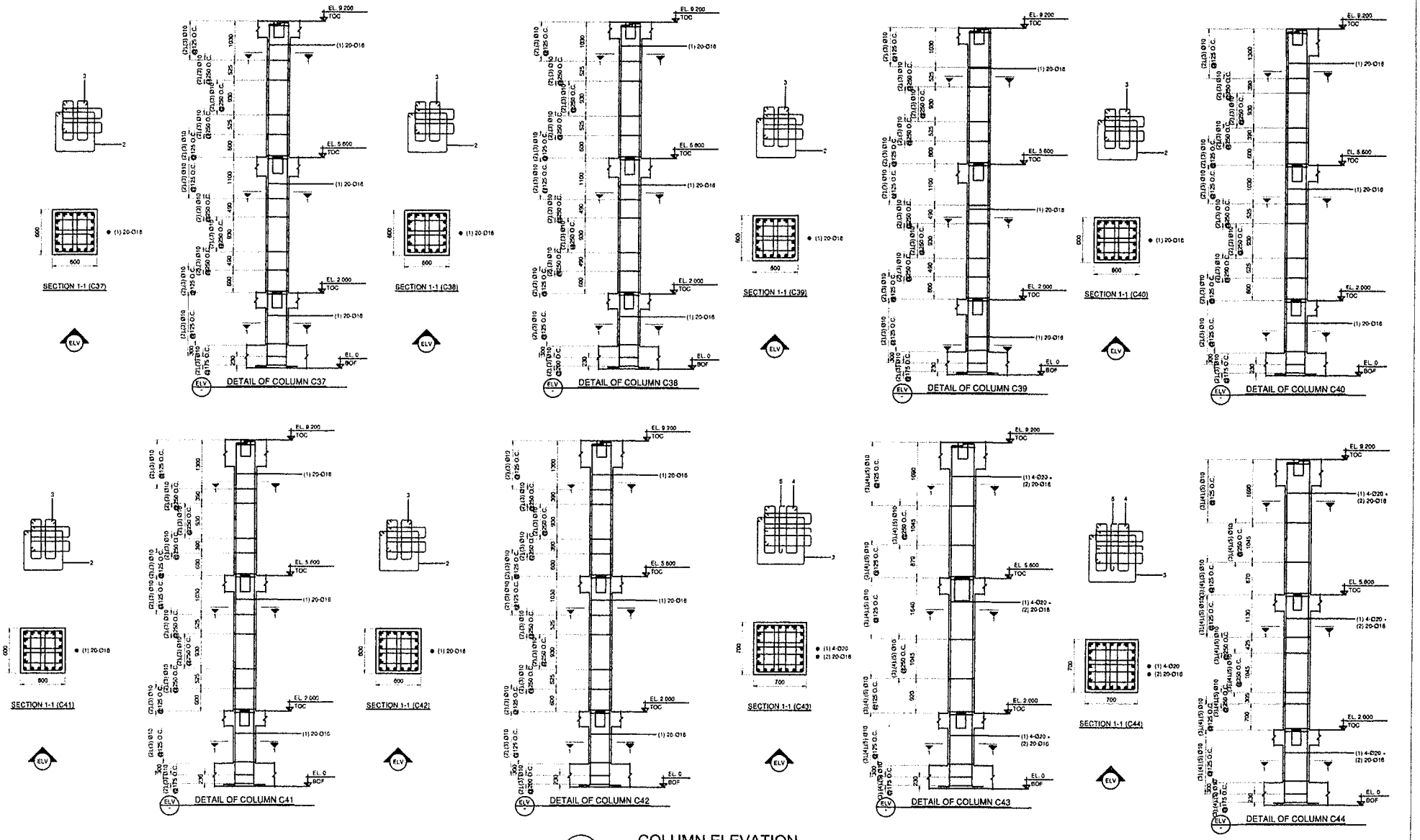
TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVID B. BUNGALLON, EXECUTIVE DIRECTOR, NITESD	RECOMMENDING APPROVAL: DIR. JUAN ... OROZCO, DIRECTOR IV - AS, CHIEF OF STAFF, OFFICE OF THE DIRECTOR GENERAL	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - DAVAO		PREPARED BY: ENGR. ENRIQUE G. DELA TORRE, CIVIL ENGINEER, SPU-ODG	REVIEWED AS TO PLAN: ENGR. FRANCISCO B. NARAG, JR., CIVIL ENGINEER, TESDA - ISAT	SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, SPU-ODG	SHEET CONTENTS: COLUMN ELEVATION — SHEET NO. S-15



COLUMN ELEVATION

SCALE: 1:200 MTS

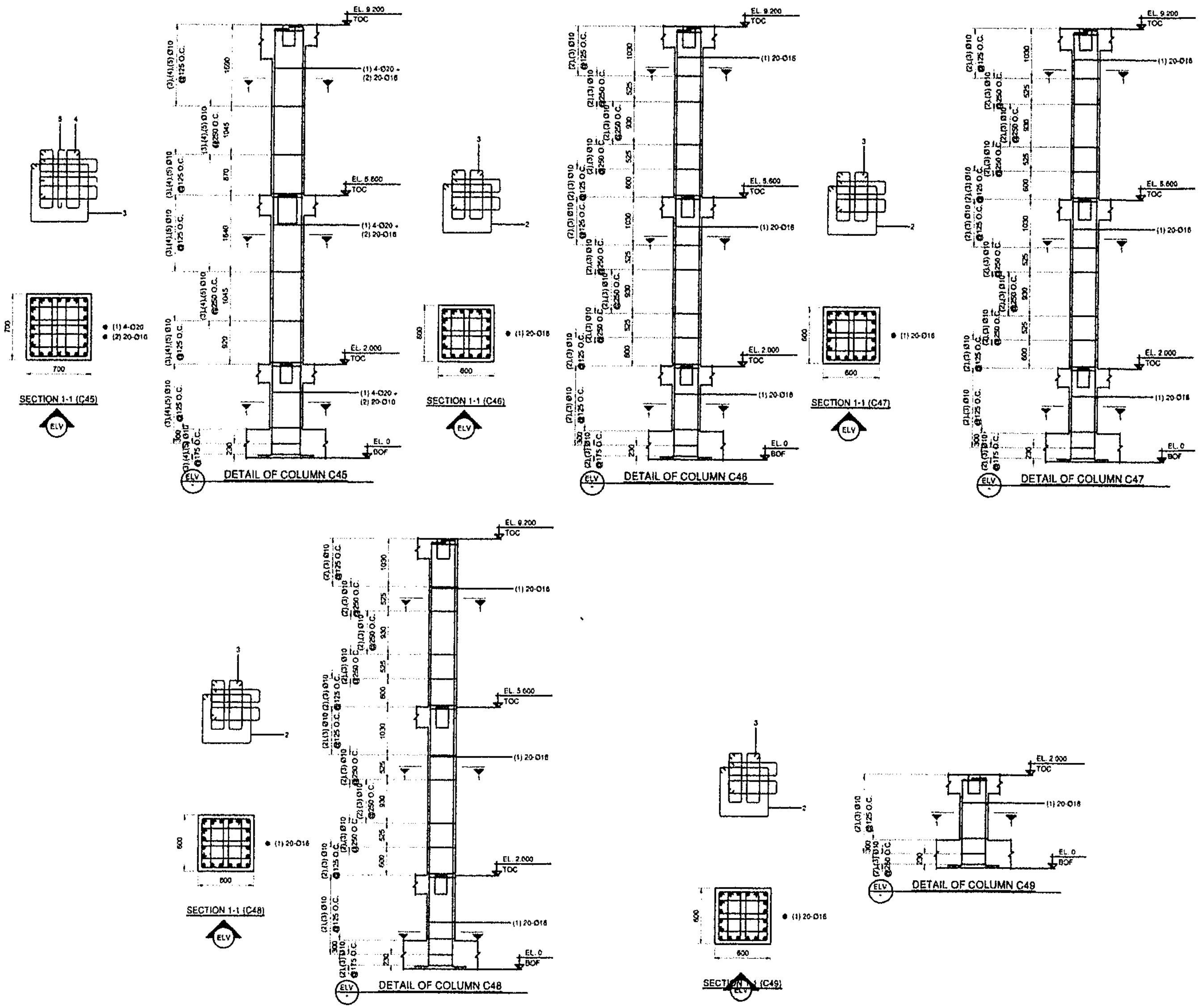
TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PROJECT TITLE:		PREPARED BY:	REVIEWED AS TO PLAN:	SUBMITTED BY:	SHEET CONTENTS:	SHEET NO.
	DIR. DAVID B. BUNGALLON EXECUTIVE DIRECTOR, NITESD	DIR. JUNEY C. OROZCO DIRECTOR IV - AS CHIEF OF STAFF OFFICE OF THE DIRECTOR GENERAL	SEC. ISIDRO S. LAPEÑA, PHD., CSEE DIRECTOR GENERAL	PROPOSED TESDA INNOVATION CENTER - DAVAO	DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY ...	ENGR. ENRIQUE G. DELA TORRE CIVIL ENGINEER, SPU-ODG	ENGR. FRANCISCO B. NARAG, JR. CIVIL ENGINEER, TESDA - ISAT	ENGR. ROY LOUIE P. MINGARACAL HEAD, SPU-ODG	COLUMN ELEVATION	S-16



COLUMN ELEVATION

SCALE: 1:200 MTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVIDE BUNGALLON, EXECUTIVE DIRECTOR IV-TESD	RECOMMENDING APPROVAL: DIR. JAIME D. OROZCO, DIRECTOR IV - AS, CHIEF OF STAFF, OFFICE OF THE DIRECTOR GENERAL	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - DAVAO	PREPARED BY: ENGR. ENRICO O. DELA TORRE, CIVIL ENGINEER, SPU-OOD	REVIEWED AS TO PLAN: ENGR. FRANCISCO B. NARAG, JR., CIVIL ENGINEER, TESDA - ISAT	SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, SPU-OOD	SHEET CONTENTS: COLUMN ELEVATION	SHEET NO. S-17



COLUMN ELEVATION

SCALE: 1:200 MTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVID B. BUNGALLON, EXECUTIVE DIRECTOR, NITESD	RECOMMENDING APPROVAL: DIR. JU[illegible] OROZCO, DIRECTOR IV, AS, CHIEF OF STAFF, OFFICE OF THE DIRECTOR GENERAL	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - DAVAO		PREPARED BY: ENGR. ENRIQUE G. DELA TORRE, CIVIL ENGINEER, SPU-DDO	REVIEWED AS TO PLAN: ENGR. FRANCISCO B. NARAG, JR., CIVIL ENGINEER, TESDA-ISAT	SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, SPU-DDO	SHEET CONTENTS: COLUMN ELEVATION	SHEET NO. S-18

BEAM SCHEDULE (C28:Fy415) (LEVEL: 2 m)

BEAM NUMBERS	SIZE B	SIZE D	BOTTOM REINFORCEMENT LEFT	BOTTOM REINFORCEMENT MID SPAN	BOTTOM REINFORCEMENT RIGHT	TOP REINFORCEMENT LEFT	TOP REINFORCEMENT MID SPAN	TOP REINFORCEMENT RIGHT	SHEAR STIRRUPS LEFT	SHEAR STIRRUPS MID SPAN	SHEAR STIRRUPS RIGHT	SFR
B1,B10	250	400	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	12-2L-Ø10@75 O.C.	2-2L-Ø10@125 O.C.	12-2L-Ø10@75 O.C.	-
B2,B3,B4,B5,B6,B7 ,B9,B36,B37,B42 ,B43,B48,B50,B51 ,B71,B72,B73,B74 ,B76,B79,B80,B82	250	400	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	12-2L-Ø10@75 O.C.	22-2L-Ø10@125 O.C.	12-2L-Ø10@75 O.C.	-
B8,B21,B22,B26 ,B27,B28,B29,B33 ,B34,B35,B49,B52 ,B60,B62,B70,B75 ,B77,B78,B81	250	400	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	12-2L-Ø10@75 O.C.	18-2L-Ø10@150 O.C.	12-2L-Ø10@75 O.C.	-
B11,B20	250	400	2-Ø16	2-Ø16	2-Ø16	3-Ø16	3-Ø16	3-Ø16	12-2L-Ø10@75 O.C.	1-2L-Ø10@125 O.C.	12-2L-Ø10@75 O.C.	-
B12,B19	250	400	2-Ø16	2-Ø16	2-Ø16	3-Ø16	3-Ø16	3-Ø16	12-2L-Ø10@75 O.C.	18-2L-Ø10@150 O.C.	12-2L-Ø10@75 O.C.	-
B13,B14	250	400	2-Ø16	2-Ø16	2-Ø16	3-Ø16	3-Ø16	3-Ø16	12-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	12-2L-Ø10@75 O.C.	-
B15,B16,B17,B18 ,B65	250	400	2-Ø16	2-Ø16	2-Ø16	3-Ø16	3-Ø16	3-Ø16	12-2L-Ø10@75 O.C.	22-2L-Ø10@125 O.C.	12-2L-Ø10@75 O.C.	-
B23,B25,B38,B39 ,B40,B41,B45,B46 ,B47,B53,B54,B55 ,B56,B57,B58,B59 ,B67,B68,B69	250	400	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	12-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	12-2L-Ø10@75 O.C.	-
B24	250	400	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	12-2L-Ø10@75 O.C.	81-2L-Ø10@125 O.C.	12-2L-Ø10@75 O.C.	-
B30	250	400	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	12-2L-Ø10@75 O.C.	17-2L-Ø10@150 O.C.	12-2L-Ø10@75 O.C.	-
B31,B32	250	400	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	12-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	12-2L-Ø10@75 O.C.	1-#16EF
B44,B63	250	400	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	12-2L-Ø10@75 O.C.	23-2L-Ø10@125 O.C.	12-2L-Ø10@75 O.C.	-
B61,B66	250	400	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	14-2L-Ø10@125 O.C.	12-2L-Ø10@125 O.C.	14-2L-Ø10@125 O.C.	-
B83	250	400	2-Ø16	2-Ø16	2-Ø16	3-Ø16	3-Ø16	3-Ø16	5-2L-Ø10@150 O.C.	3-2L-Ø10@150 O.C.	5-2L-Ø10@150 O.C.	-
B84	250	400	2-Ø16	2-Ø16	2-Ø16	3-Ø16	3-Ø16	3-Ø16	12-2L-Ø10@75 O.C.	6-2L-Ø10@125 O.C.	12-2L-Ø10@75 O.C.	-

BEAM SCHEDULE (C28:Fy415) (LEVEL: 5.6 m)

BEAM NUMBERS	SIZE B	SIZE D	BOTTOM REINFORCEMENT LEFT	BOTTOM REINFORCEMENT MID SPAN	BOTTOM REINFORCEMENT RIGHT	TOP REINFORCEMENT LEFT	TOP REINFORCEMENT MID SPAN	TOP REINFORCEMENT RIGHT	SHEAR STIRRUPS LEFT	SHEAR STIRRUPS MID SPAN	SHEAR STIRRUPS RIGHT	SFR
B1	260	430	3-Ø16	2-Ø16	3-Ø16	3-Ø16	3-Ø16	3-Ø20	11-2L-Ø10@75 O.C.	-	11-2L-Ø10@75 O.C.	-
B2	260	430	2-Ø16	2-Ø16	3-Ø16	3-Ø20	3-Ø16	3-Ø25	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B3,B36,B45	260	430	2-Ø16	2-Ø16	3-Ø16	3-Ø25	3-Ø16	3-Ø25	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B4,B5	260	430	2-Ø16	3-Ø16 + 2-Ø16	3-Ø16	3-Ø25	3-Ø16	3-Ø25	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B6	260	430	3-Ø16	3-Ø16 + 2-Ø16	3-Ø16	3-Ø25	3-Ø16	3-Ø25	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B7,B26,B38	260	430	3-Ø16	2-Ø16	3-Ø16	3-Ø25	3-Ø16	3-Ø20	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B8,B27	260	430	2-Ø16	2-Ø16	3-Ø16	3-Ø20	3-Ø16	3-Ø20	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B9,B41,B42,B43	260	430	3-Ø16	2-Ø16	3-Ø16	3-Ø20	3-Ø16	3-Ø20	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B10	260	430	3-Ø16	2-Ø16	3-Ø16	3-Ø20	3-Ø16	3-Ø16	11-2L-Ø10@75 O.C.	-	11-2L-Ø10@75 O.C.	-
B11	260	430	3-Ø16	2-Ø16	3-Ø16 + 2-Ø16	2-Ø25	2-Ø20	2-Ø20 + 2-Ø20	5-2L-Ø10@125 O.C.	3-2L-Ø10@125 O.C.	5-2L-Ø10@125 O.C.	-
B12	260	430	3-Ø16 + 2-Ø16	3-Ø16	3-Ø16 + 2-Ø16	2-Ø20 + 2-Ø20	2-Ø16	2-Ø20 + 2-Ø20	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B13	260	430	2-Ø16	3-Ø16	3-Ø16 + 2-Ø16	2-Ø20 + 2-Ø20	2-Ø16	2-Ø25 + 2-Ø20	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B14	260	430	2-Ø16	3-Ø16 + 2-Ø16	3-Ø16 + 2-Ø16	2-Ø25 + 2-Ø20	2-Ø16	2-Ø25 + 2-Ø20	13-2L-Ø10@75 O.C.	26-2L-Ø10@100 O.C.	13-2L-Ø10@75 O.C.	-
B15	260	430	3-Ø16 + 2-Ø16	3-Ø16 + 2-Ø16	3-Ø16 + 2-Ø16	2-Ø25 + 2-Ø20	2-Ø16	2-Ø25 + 2-Ø20	13-2L-Ø10@75 O.C.	26-2L-Ø10@100 O.C.	13-2L-Ø10@75 O.C.	-
B16	260	430	3-Ø16 + 2-Ø16	3-Ø16 + 2-Ø16	3-Ø16 + 2-Ø16	2-Ø25 + 2-Ø20	2-Ø16	2-Ø25 + 2-Ø16	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B17,B50	260	430	3-Ø16 + 2-Ø16	3-Ø16	3-Ø16 + 2-Ø16	2-Ø25 + 2-Ø16	2-Ø16	2-Ø20 + 2-Ø20	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B18	260	430	3-Ø16 + 2-Ø16	2-Ø16	3-Ø16	2-Ø20 + 2-Ø20	2-Ø16	2-Ø25	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B19,B76,B77,B79 ,B83	260	430	3-Ø16	2-Ø16	3-Ø16	2-Ø25	2-Ø16	2-Ø25	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B20	260	430	3-Ø16	2-Ø16	3-Ø16	2-Ø25	2-Ø25	2-Ø25	5-2L-Ø10@125 O.C.	3-2L-Ø10@125 O.C.	5-2L-Ø10@125 O.C.	-

BEAM SCHEDULE
SCALE: NTS

SLAB SCHEDULE (C21 : FY275) (LEVEL : 5.6 M)

SLAB MARKED	SLAB THICKNESS	BOTTOM REINFORCEMENT ALONG SHORT SPAN FULL LENGTH	BOTTOM REINFORCEMENT ALONG LONG SPAN FULL LENGTH	TOP REINFORCEMENT OVER LONG SUPPORT CONTINUOUS SUPPORT	TOP REINFORCEMENT OVER LONG SUPPORT END SUPPORT	TOP REINFORCEMENT OVER SHORT SUPPORT CONTINUOUS SUPPORT	TOP REINFORCEMENT OVER SHORT SUPPORT END SUPPORT	DISTRIBUTION
S2, S12, S31 S38	150	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 200 O.C.	Ø12 @ 225 O.C.	Ø12 @ 175 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.
S3, S10, S11 S33, S34, S35 S36	150	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	---	Ø12 @ 175 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.
S4, S7, S8, S14 S15	150	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	---	---	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.
S5, S6, S9	150	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	---	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.
S16, S18, S19 S21, S23, S28	150	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 200 O.C.	Ø12 @ 225 O.C.	Ø12 @ 200 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.
S17, S20, S25 S26	150	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	---	Ø12 @ 200 O.C.	---	Ø12 @ 225 O.C.
S24, S27	150	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 200 O.C.	---	Ø12 @ 200 O.C.	---	Ø12 @ 225 O.C.
S29, S30	150	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.
S32, S37	150	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 200 O.C.	---	Ø12 @ 175 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.

SLAB SCHEDULE (C21 : FY275) (LEVEL : 9.2 M)

SLAB MARKED	SLAB THICKNESS	BOTTOM REINFORCEMENT ALONG SHORT SPAN FULL LENGTH	BOTTOM REINFORCEMENT ALONG LONG SPAN FULL LENGTH	TOP REINFORCEMENT OVER LONG SUPPORT CONTINUOUS SUPPORT	TOP REINFORCEMENT OVER LONG SUPPORT END SUPPORT	TOP REINFORCEMENT OVER SHORT SUPPORT CONTINUOUS SUPPORT	TOP REINFORCEMENT OVER SHORT SUPPORT END SUPPORT	DISTRIBUTION
S2, S18, S26 S27	150	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 200 O.C.	Ø12 @ 225 O.C.	Ø12 @ 200 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.
S3, S4, S5, S6 S28, S29, S30 S31	150	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 200 O.C.	---	Ø12 @ 200 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.
S7, S8, S32 S33	150	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	---	Ø12 @ 175 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.
S9, S34	150	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 200 O.C.	Ø12 @ 225 O.C.	Ø12 @ 175 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.
S11, S19	150	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 200 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.
S12, S13, S14 S15, S20, S21 S22, S23	150	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 200 O.C.	---	Ø12 @ 225 O.C.	---	Ø12 @ 225 O.C.
S16, S17, S24 S25	150	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	Ø12 @ 225 O.C.	---	Ø12 @ 200 O.C.	---	Ø12 @ 225 O.C.

SLAB SCHEDULE
SCALE: NTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVID B. BUNGALLON, EXECUTIVE DIRECTOR, NITESD	RECOMMENDING APPROVAL: DIR. JULIET O. OROZCO, DIRECTOR IV - AS, CHIEF OF STAFF, OFFICE OF THE DIRECTOR GENERAL	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - DAVAO	PREPARED BY: ENGR. ENRIQUE G. DELA TORRE, CIVIL ENGINEER, SPU-DOG	REVIEWED AS TO PLAN: ENGR. FRANCISCO B. NARAG, JR., CIVIL ENGINEER, TESDA - ISAT	SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, SPU-DOG	SHEET CONTENTS: BEAM SCHEDULE SLAB SCHEDULE	SHEET NO. S-19

BEAM SCHEDULE (C28:Fy415) (LEVEL: 5.6 m)

BEAM NUMBERS	SIZE		BOTTOM REINFORCEMENT			TOP REINFORCEMENT			SHEAR STIRRUPS			SFR
	B	D	LEFT	MID SPAN	RIGHT	LEFT	MID SPAN	RIGHT	LEFT	MID SPAN	RIGHT	-
B21	260	430	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø16	20-2L-Ø10@175 O.C.	18-2L-Ø10@175 O.C.	20-2L-Ø10@175 O.C.	-
B22	260	430	3-Ø16	3-Ø16	3-Ø16	3-Ø25	3-Ø16	3-Ø25	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B23,B25	260	430	2-Ø16	3-Ø16	3-Ø16	3-Ø25	3-Ø16	3-Ø25	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B24	260	430	3-Ø16	3-Ø16	3-Ø16	3-Ø25	3-Ø16	3-Ø25	13-2L-Ø10@75 O.C.	20-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B28	260	430	2-Ø16	3-Ø16 + 3-Ø16	2-Ø16	3-Ø25	3-Ø16	3-Ø25	20-2L-Ø10@175 O.C.	18-2L-Ø10@175 O.C.	20-2L-Ø10@175 O.C.	-
B29	350	500	4-Ø16	4-Ø16	4-Ø16	4-Ø20	4-Ø16	4-Ø20	15-2L-Ø10@75 O.C.	15-2L-Ø10@150 O.C.	15-2L-Ø10@75 O.C.	-
B30	350	500	4-Ø16	4-Ø16	4-Ø16	4-Ø20	4-Ø16	4-Ø25	15-2L-Ø10@75 O.C.	15-2L-Ø10@150 O.C.	15-2L-Ø10@75 O.C.	-
B31	350	500	3-Ø16	3-Ø16	5-Ø16 + 5-Ø16	4-Ø25	4-Ø16	4-Ø25 + 4-Ø25	15-2L-Ø12@75 O.C.	12-2L-Ø12@175 O.C.	15-2L-Ø12@75 O.C.	-
B32	350	500	4-Ø20	4-Ø20 + 4-Ø20	4-Ø20 + 4-Ø20	4-Ø25 + 4-Ø25	4-Ø16	4-Ø25 + 4-Ø25	11-4L-Ø10@100 O.C.	48-4L-Ø10@150 O.C.	11-4L-Ø10@100 O.C.	-
B33	350	500	5-Ø16 + 5-Ø16	3-Ø16	5-Ø16	4-Ø25 + 4-Ø25	4-Ø16	4-Ø20	15-2L-Ø12@75 O.C.	13-2L-Ø12@175 O.C.	15-2L-Ø12@75 O.C.	-
B34	350	500	4-Ø16	4-Ø16	4-Ø16	4-Ø20	4-Ø16	4-Ø20	15-2L-Ø10@75 O.C.	13-2L-Ø10@175 O.C.	15-2L-Ø10@75 O.C.	-
B35	350	500	3-Ø16	3-Ø16	3-Ø16	4-Ø20	4-Ø16	4-Ø20	15-2L-Ø10@75 O.C.	13-2L-Ø10@175 O.C.	15-2L-Ø10@75 O.C.	-
B37,B48,B66	260	430	3-Ø16	2-Ø16	3-Ø16	3-Ø25	3-Ø16	3-Ø25	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B39,B40	260	430	3-Ø16	2-Ø16	3-Ø16	3-Ø20	3-Ø16	3-Ø20	13-2L-Ø10@75 O.C.	20-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B44	260	430	3-Ø16	2-Ø16	2-Ø16	2-Ø20	2-Ø16	2-Ø20	13-2L-Ø10@75 O.C.	22-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B46	260	430	2-Ø16	2-Ø16	3-Ø16	3-Ø25	3-Ø16	3-Ø25	13-2L-Ø10@75 O.C.	20-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B47	260	430	3-Ø16	2-Ø16	3-Ø16	3-Ø25	3-Ø16	3-Ø25	13-2L-Ø10@75 O.C.	20-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B49,B73,B74	260	430	3-Ø16 + 2-Ø16	3-Ø16	3-Ø16 + 2-Ø16	2-Ø25 + 2-Ø16	2-Ø16	2-Ø25 + 2-Ø16	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B51,B72	260	430	2-Ø16	3-Ø16	3-Ø16 + 2-Ø16	2-Ø20 + 2-Ø20	2-Ø16	2-Ø25 + 2-Ø16	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B52	260	430	2-Ø16	3-Ø16	3-Ø16 + 2-Ø16	2-Ø25 + 2-Ø16	2-Ø16	2-Ø25 + 2-Ø16	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B53	260	430	2-Ø16	3-Ø16	3-Ø16 + 2-Ø16	2-Ø25 + 2-Ø20	2-Ø16	2-Ø25 + 2-Ø20	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B54	260	430	2-Ø16	3-Ø16	3-Ø16 + 2-Ø16	2-Ø25 + 2-Ø20	2-Ø16	2-Ø25 + 2-Ø20	13-2L-Ø10@75 O.C.	20-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B55	260	430	3-Ø16 + 2-Ø16	3-Ø16	3-Ø16 + 2-Ø16	2-Ø25 + 2-Ø20	2-Ø16	2-Ø25 + 2-Ø20	13-2L-Ø10@75 O.C.	20-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B56	260	430	3-Ø16 + 2-Ø16	2-Ø16	3-Ø16 + 2-Ø16	2-Ø25 + 2-Ø20	2-Ø16	2-Ø20 + 2-Ø20	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B57,B62,B67	220	400	2-Ø20 + 2-Ø20	2-Ø20 + 2-Ø20	2-Ø20 + 2-Ø20	2-Ø16	2-Ø16	2-Ø16	17-2L-Ø10@100 O.C.	15-2L-Ø10@100 O.C.	17-2L-Ø10@100 O.C.	-
B58	400	600	3-Ø20	3-Ø20	3-Ø20	4-Ø25	4-Ø16	4-Ø25	17-2L-Ø10@75 O.C.	12-2L-Ø10@150 O.C.	17-2L-Ø10@75 O.C.	-
B59	400	600	4-Ø20	4-Ø20	4-Ø20	4-Ø25	4-Ø16	4-Ø20 + 4-Ø16	13-4L-Ø10@100 O.C.	18-4L-Ø10@100 O.C.	17-4L-Ø10@75 O.C.	3-#16EF
B60	400	600	4-Ø20	4-Ø20	4-Ø20	4-Ø20 + 4-Ø16	4-Ø16	4-Ø25	17-2L-Ø10@75 O.C.	25-2L-Ø10@75 O.C.	17-2L-Ø10@75 O.C.	2-#16EF
B61	400	600	3-Ø20	3-Ø20	3-Ø20	4-Ø25	4-Ø16	4-Ø25	17-2L-Ø10@75 O.C.	13-2L-Ø10@150 O.C.	17-2L-Ø10@75 O.C.	-
B63	220	400	3-Ø16	3-Ø16 + 2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø20	16-2L-Ø10@100 O.C.	14-2L-Ø10@100 O.C.	16-2L-Ø10@100 O.C.	-
B64	220	400	2-Ø16	2-Ø16	2-Ø16	2-Ø25	2-Ø16	2-Ø16	9-2L-Ø10@150 O.C.	7-2L-Ø10@150 O.C.	9-2L-Ø10@150 O.C.	-
B65	220	400	2-Ø16	2-Ø16	2-Ø16	2-Ø16	2-Ø20 + 2-Ø20	2-Ø25 + 2-Ø25	7-2L-Ø10@100 O.C.	5-2L-Ø10@100 O.C.	7-2L-Ø10@100 O.C.	-
B68	400	600	5-Ø16	5-Ø16	5-Ø16	4-Ø25	4-Ø16	4-Ø25	17-2L-Ø10@75 O.C.	12-2L-Ø10@150 O.C.	17-2L-Ø10@75 O.C.	-
B69	400	600	5-Ø16	5-Ø16	5-Ø16	4-Ø25	4-Ø16	4-Ø25	17-4L-Ø10@75 O.C.	18-4L-Ø10@100 O.C.	17-4L-Ø10@75 O.C.	3-#16EF
B70	400	600	5-Ø16	5-Ø16	5-Ø16	4-Ø25	4-Ø16	4-Ø25	17-2L-Ø10@75 O.C.	19-2L-Ø10@100 O.C.	17-2L-Ø10@75 O.C.	2-#16EF
B71	400	600	4-Ø16	4-Ø16	4-Ø16	4-Ø25	4-Ø16	4-Ø25	17-2L-Ø10@75 O.C.	13-2L-Ø10@150 O.C.	17-2L-Ø10@75 O.C.	-
B75	260	430	3-Ø16 + 2-Ø16	2-Ø16	3-Ø16	2-Ø25 + 2-Ø16	2-Ø16	2-Ø25	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B78,B80,B81,B82	260	430	2-Ø16	2-Ø16	3-Ø16	2-Ø25	2-Ø16	2-Ø25	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B84	260	430	2-Ø16	2-Ø16	2-Ø16	3-Ø16	3-Ø16	3-Ø16	13-2L-Ø10@75 O.C.	22-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-

BEAM SCHEDULE

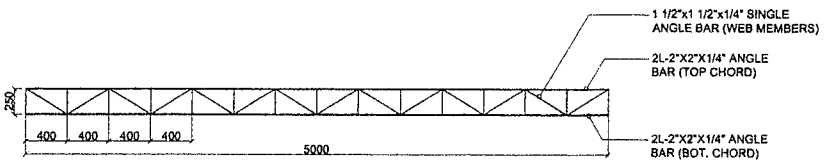
SCALE: NTS

BEAM SCHEDULE (C28:Fy415) (LEVEL: 9.2 m)

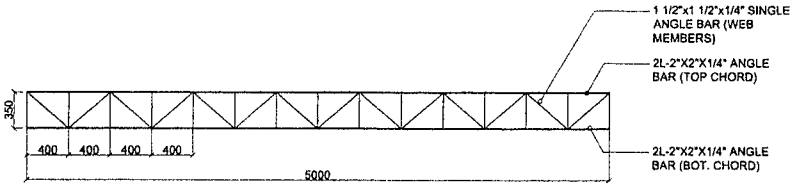
BEAM NUMBERS	SIZE		BOTTOM REINFORCEMENT			TOP REINFORCEMENT			SHEAR STIRRUPS			SFR
	B	D	LEFT	MID SPAN	RIGHT	LEFT	MID SPAN	RIGHT	LEFT	MID SPAN	RIGHT	
B1	260	430	2-Ø16	2-Ø16	3-Ø16	2-Ø20	2-Ø20	2-Ø25	11-2L-Ø10@75 O.C.	-	11-2L-Ø10@75 O.C.	-
B2,B4,B5,B6,B7,B8,B37,B38,B41,B73,B74,B75	260	430	2-Ø16	2-Ø16	3-Ø16	2-Ø25	2-Ø16	2-Ø25	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B3,B9,B39,B44,B76	260	430	3-Ø16	2-Ø16	3-Ø16	2-Ø25	2-Ø16	2-Ø25	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B10	260	430	3-Ø16	2-Ø16	2-Ø16	2-Ø25	2-Ø20	2-Ø20	11-2L-Ø10@75 O.C.	-	11-2L-Ø10@75 O.C.	-
B11	260	430	3-Ø16	2-Ø16	2-Ø16	2-Ø20	2-Ø20	2-Ø25	5-2L-Ø10@125 O.C.	3-2L-Ø10@125 O.C.	5-2L-Ø10@125 O.C.	-
B12	500	700	3-Ø20	5-Ø20 + 5-Ø16	5-Ø20 + 2-Ø16	5-Ø25 + 4-Ø16	5-Ø16	5-Ø25 + 4-Ø20	20-2L-Ø12@75 O.C.	65-2L-Ø12@100 O.C.	20-2L-Ø12@75 O.C.	3-#16EF
B13	500	700	8-Ø16 + 4-Ø16	4-Ø16	4-Ø16	5-Ø25 + 4-Ø20	5-Ø16	5-Ø20	20-4L-Ø10@75 O.C.	6-4L-Ø10@250 O.C.	20-4L-Ø10@75 O.C.	-
B14	500	700	4-Ø16	4-Ø16	4-Ø16	5-Ø20	5-Ø16	5-Ø20	20-2L-Ø10@75 O.C.	7-2L-Ø10@225 O.C.	20-2L-Ø10@75 O.C.	-
B15	500	700	4-Ø16	4-Ø16	4-Ø16	5-Ø20	5-Ø16	5-Ø20	20-2L-Ø10@75 O.C.	7-2L-Ø10@200 O.C.	20-2L-Ø10@75 O.C.	-
B16,B17,B30,B65,B67	260	430	2-Ø16	3-Ø16	3-Ø16	3-Ø25	3-Ø16	3-Ø25	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B18,B66,B68,B70,B72	260	430	3-Ø16	3-Ø16	3-Ø16	3-Ø25	3-Ø16	3-Ø25	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B19	260	430	2-Ø16	2-Ø16	3-Ø16	3-Ø25	3-Ø16	3-Ø16	5-2L-Ø10@125 O.C.	3-2L-Ø10@125 O.C.	5-2L-Ø10@125 O.C.	-
B20	500	700	3-Ø20	5-Ø20 + 4-Ø20	5-Ø20 + 2-Ø20	5-Ø25 + 4-Ø20	5-Ø16	5-Ø25 + 5-Ø20	20-2L-Ø12@75 O.C.	64-2L-Ø12@100 O.C.	20-2L-Ø12@75 O.C.	-
B21	500	700	8-Ø16 + 8-Ø16	4-Ø16	4-Ø16	5-Ø25 + 5-Ø20	8-Ø16	5-Ø25 + 5-Ø16	20-4L-Ø10@75 O.C.	5-4L-Ø10@250 O.C.	20-4L-Ø10@75 O.C.	-
B22	500	700	5-Ø20 + 2-Ø16	5-Ø20 + 5-Ø16	5-Ø20 + 2-Ø16	5-Ø25 + 5-Ø16	5-Ø16	5-Ø25 + 5-Ø16	20-4L-Ø10@75 O.C.	51-4L-Ø10@125 O.C.	20-4L-Ø10@75 O.C.	3-#16EF
B23	260	430	3-Ø16 + 2-Ø16	3-Ø16	3-Ø16	2-Ø20 + 2-Ø20	2-Ø16	2-Ø20 + 2-Ø20	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B24	260	430	2-Ø16	3-Ø16	3-Ø16 + 2-Ø16	2-Ø20 + 2-Ø20	2-Ø16	2-Ø20 + 2-Ø20	13-2L-Ø10@75 O.C.	17-2L-Ø10@150 O.C.	13-2L-Ø10@75 O.C.	-
B25	260	430	3-Ø16 + 2-Ø16	3-Ø16	3-Ø16 + 2-Ø16	2-Ø20 + 2-Ø20	2-Ø16	2-Ø20 + 2-Ø20	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B26	500	700	4-Ø16	6-Ø16 + 6-Ø16	6-Ø16 + 4-Ø16	5-Ø25 + 5-Ø16	5-Ø16	5-Ø25 + 5-Ø16	20-4L-Ø10@75 O.C.	51-4L-Ø10@125 O.C.	20-4L-Ø10@75 O.C.	3-#16EF
B27	500	700	4-Ø16	4-Ø16	6-Ø16 + 4-Ø16	5-Ø25 + 5-Ø16	5-Ø16	5-Ø25 + 4-Ø20	20-4L-Ø10@75 O.C.	5-4L-Ø10@250 O.C.	20-4L-Ø10@75 O.C.	-
B28	500	700	4-Ø16	6-Ø16 + 6-Ø16	6-Ø16 + 4-Ø16	5-Ø25 + 4-Ø20	5-Ø16	5-Ø25 + 4-Ø20	20-4L-Ø10@75 O.C.	51-4L-Ø10@125 O.C.	20-4L-Ø10@75 O.C.	3-#16EF
B29	260	430	3-Ø16	3-Ø16	3-Ø16	3-Ø25	3-Ø16	3-Ø25	13-2L-Ø10@75 O.C.	20-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B31	260	430	3-Ø16	3-Ø16	3-Ø16	3-Ø25	3-Ø16	3-Ø25	13-2L-Ø10@75 O.C.	17-2L-Ø10@150 O.C.	13-2L-Ø10@75 O.C.	-
B32,B33,B34	500	700	4-Ø16	4-Ø16	4-Ø16	6-Ø16	6-Ø16	6-Ø16	20-2L-Ø10@75 O.C.	6-2L-Ø10@250 O.C.	20-2L-Ø10@75 O.C.	-
B35	500	700	4-Ø16	4-Ø16	4-Ø16	6-Ø16	6-Ø16	6-Ø16	20-2L-Ø10@75 O.C.	6-2L-Ø10@225 O.C.	20-2L-Ø10@75 O.C.	-
B36	500	700	5-Ø16	5-Ø16	5-Ø16	6-Ø16	6-Ø16	6-Ø16	20-2L-Ø10@75 O.C.	7-2L-Ø10@200 O.C.	20-2L-Ø10@75 O.C.	-
B40,B77	260	430	2-Ø16	2-Ø16	2-Ø16	3-Ø16	3-Ø16	3-Ø16	13-2L-Ø10@75 O.C.	22-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B42	260	430	2-Ø16	2-Ø16	3-Ø16	2-Ø25	2-Ø16	2-Ø25	13-2L-Ø10@75 O.C.	20-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B43	260	430	3-Ø16	2-Ø16	3-Ø16	2-Ø25	2-Ø16	2-Ø25	13-2L-Ø10@75 O.C.	20-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B45	260	430	2-Ø16	3-Ø16	2-Ø16	2-Ø25 + 2-Ø25	2-Ø16	2-Ø25	13-2L-Ø10@125 O.C.	11-2L-Ø10@125 O.C.	13-2L-Ø10@125 O.C.	-
B46	260	430	2-Ø16	3-Ø16 + 2-Ø16	2-Ø16	2-Ø25	2-Ø16	2-Ø20 + 2-Ø20	13-2L-Ø10@125 O.C.	11-2L-Ø10@125 O.C.	14-2L-Ø10@125 O.C.	-
B47	260	430	2-Ø16	3-Ø16 + 2-Ø16	2-Ø16	2-Ø20 + 2-Ø20	2-Ø16	2-Ø25	13-2L-Ø10@125 O.C.	11-2L-Ø10@125 O.C.	14-2L-Ø10@125 O.C.	-
B48,B59	260	430	2-Ø16	3-Ø16	2-Ø16	2-Ø25	2-Ø16	2-Ø25 + 2-Ø25	13-2L-Ø10@125 O.C.	11-2L-Ø10@125 O.C.	13-2L-Ø10@125 O.C.	-
B49,B55,B63	260	430	2-Ø16	3-Ø16	3-Ø16 + 2-Ø16	2-Ø25 + 2-Ø16	2-Ø16	2-Ø25 + 2-Ø16	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B50,B54,B62	260	430	3-Ø16 + 2-Ø16	3-Ø16	3-Ø16 + 2-Ø16	2-Ø25 + 2-Ø16	2-Ø16	2-Ø25 + 2-Ø16	13-2L-Ø10@75 O.C.	20-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B51,B53	260	430	2-Ø16	3-Ø16	3-Ø16 + 2-Ø16	2-Ø25 + 2-Ø16	2-Ø16	2-Ø25 + 2-Ø16	13-2L-Ø10@75 O.C.	20-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B52,B56	260	430	3-Ø16 + 2-Ø16	3-Ø16	3-Ø16 + 2-Ø16	2-Ø25 + 2-Ø16	2-Ø16	2-Ø25 + 2-Ø16	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B57	260	430	2-Ø16	3-Ø16	2-Ø16	2-Ø25 + 2-Ø25	2-Ø16	2-Ø25	13-2L-Ø10@125 O.C.	6-2L-Ø10@175 O.C.	13-2L-Ø10@125 O.C.	-
B58	260	430	2-Ø16	3-Ø16 + 2-Ø16	2-Ø16	2-Ø25	2-Ø16	2-Ø25	13-2L-Ø10@125 O.C.	11-2L-Ø10@125 O.C.	14-2L-Ø10@125 O.C.	-
B60	260	430	3-Ø16 + 2-Ø16	3-Ø16	3-Ø16 + 2-Ø16	2-Ø25 + 2-Ø25	2-Ø16	2-Ø20 + 2-Ø20	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B61	260	430	2-Ø16	3-Ø16	3-Ø16 + 2-Ø16	2-Ø20 + 2-Ø20	2-Ø16	2-Ø25 + 2-Ø16	13-2L-Ø10@75 O.C.	20-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B64	260	430	3-Ø16 + 2-Ø16	3-Ø16	3-Ø16 + 2-Ø16	2-Ø25 + 2-Ø16	2-Ø16	2-Ø20 + 2-Ø20	13-2L-Ø10@75 O.C.	21-2L-Ø10@125 O.C.	13-2L-Ø10@75 O.C.	-
B69,B71	260	430	2-Ø16	3-Ø16	3-Ø16	3-Ø25	3-Ø16	3-Ø25	13-2L-Ø10@75 O.C.	17-2L-Ø10@150 O.C.	13-2L-Ø10@75 O.C.	-

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY

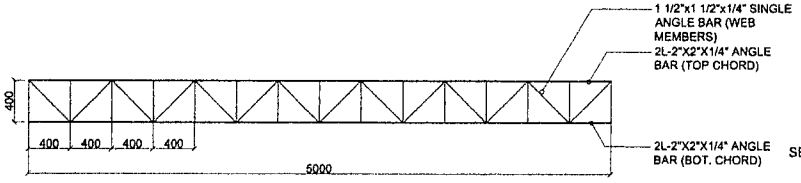
CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PROJECT TITLE:	PREPARED BY:	REVIEWED AS TO PLAN:	SUBMITTED BY:	SHEET CONTENTS:	SHEET NO.
DIR. DAVID [illegible] BUNGALLON EXECUTIVE DIRECTOR, NITESD	DIR. JU[illegible] OROZCO DIRECTOR IV - AS CHIEF OF STAFF OFFICE OF THE DIRECTOR GENERAL	SEC. ISIDRO S. LAPEÑA, PHD., CSEE DIRECTOR GENERAL	PROPOSED TESDA INNOVATION CENTER - DAVAO	ENGR. ENRIQUE [illegible] DELA TORRE CIVIL ENGINEER, BPU-ODG	ENGR. FRANCISCO B. NARAG, JR. CIVIL ENGINEER, TESDA - ISAT	ENGR. ROY LOUIE [illegible]. MINGARACAL HEAD, BPU-ODG	BEAM SCHEDULE	S-20



STRUT-03

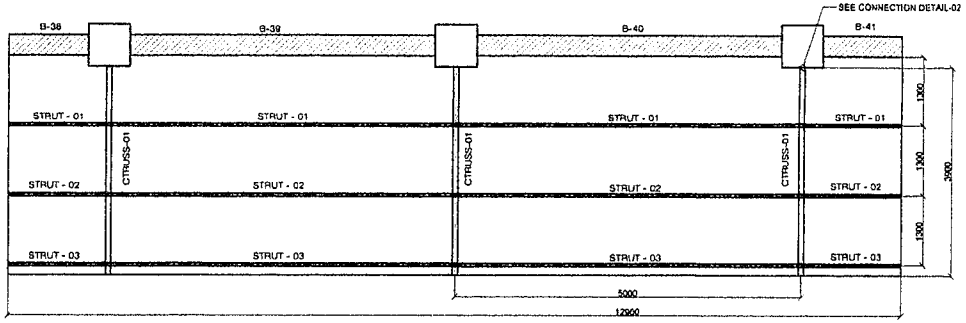


STRUT-02

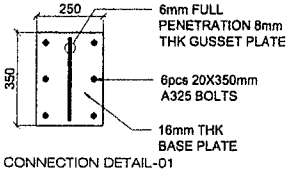


STRUT-01

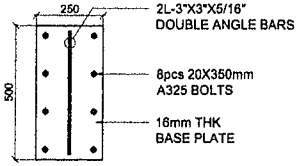
STRUT DETAIL
SCALE: NTS



CANOPY PLAN
SCALE: NTS



CONNECTION DETAIL-01



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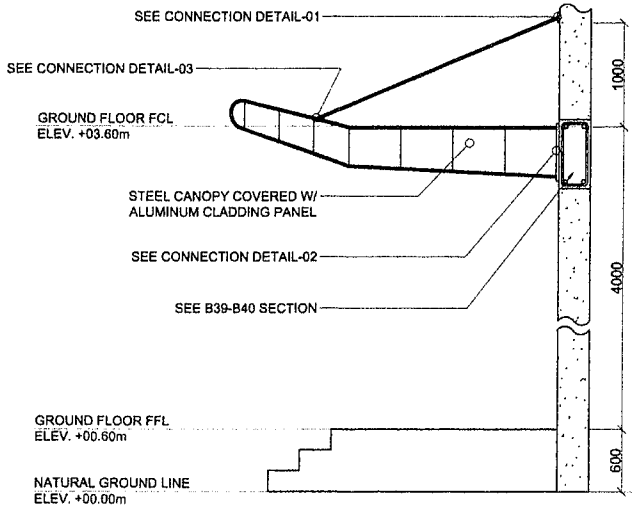
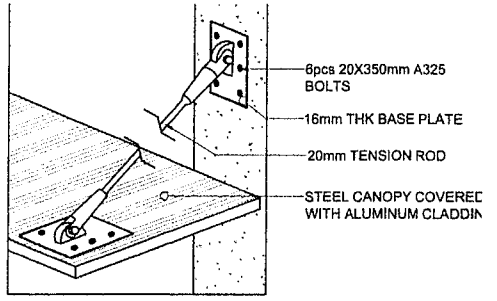
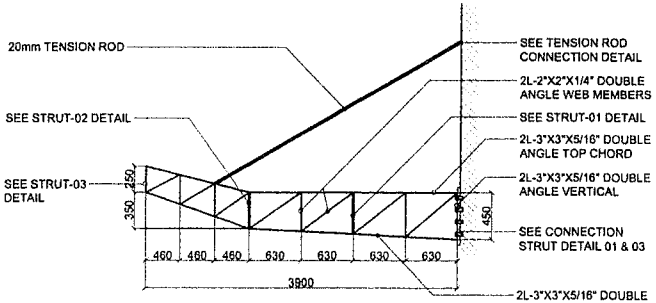


CANOPY ELEVATION / SECTION DETAIL
SCALE: NTS



CONNECTION DETAIL-03

CONNECTION DETAIL
SCALE: NTS



C-TRUSS DETAIL
SCALE: NTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PROJECT TITLE:	PREPARED BY:	REVIEWED AS TO PLAN:	SUBMITTED BY:	SHEET CONTENTS:	SHEET NO.
	DIR. DAVID B. BUNGALLON EXECUTIVE DIRECTOR, NITESO	DIR. JUANITO G. OROZCO DIRECTOR IV - AS CHIEF OF STAFF OFFICE OF THE DIRECTOR GENERAL	SEC. ISIDRO S. LAPEÑA, PHD., CSEE DIRECTOR GENERAL	PROPOSED TESDA INNOVATION CENTER - DAVAO	ENGR. ENRIQUE G. DELA TORRE CIVIL ENGINEER, EPU-DDG	ENGR. FRANCISCO B. NARAG, JR. CIVIL ENGINEER, TESDA - ISAT	ENGR. ROY LOUIE P. MINGARACAL HEAD, EPU-DDG	STRUT DETAIL C-TRUSS DETAIL CANOPY ELEVATION / SECTION DETAIL CONNECTION DETAIL CANOPY PLAN	S-21

GENERAL NOTES AND SPECIFICATIONS

1. ALL ELECTRICAL WORKS TO BE UNDERTAKEN HERE IN SHALL BE DONE IN ACCORDANCE WITH THE PROVISION OF THE LATEST APPROVED EDITION OF THE PHILIPPINE ELECTRICAL CODE, THE LAWS,THE EXISTING ORDINANCES, RULES AND REGULATIONS OF CITY ENGINEER'S OFFICE, THE BUILDING ADMINISTRATION OFFICE AND INDUSTRIAL SAFETY AS WELL AS THE REQUIREMENTS OF THE UTILITY COMPANY.
2. ALL MATERIALS AND REQUIREMENTS TO BE USED HEREIN SHALL BE NEW AND OF THE APPROVED TYPE FOR ITS LOCATION AND PURPOSE.
3. NO OF BRANCH CIRCUIT WIRING IN LIGHTING AND POWER SHALL HAVE A LOAD MORE THAN 80% OF ITS RATING.
4. LIGHT CONTROL SWITCHES SHALL BE RATED 16 AMPERES, 230 Vac.
5. UNLESS OTHERWISE SPECIFIED PULLBOXES OR JUNCTION BOXES SHALL BE PROVIDED WHENEVER REQUIRED AND NECESSARY. ALTHOUGH SUCH BOXES ARE NOT INDICATED ON PLANS.
6. FOR EACH SPARE CIRCUIT IN PANELBOARD, PROVIDE AN EMPTY CONDUIT 20mm(¾") DIA. TERMINATING TO A COVERED SQUARED BOX.
7. ALL EQUIPMENT AND/NON CURRENT CARRYING METAL FRAME, SHALL BE PROVIDED WITH ADEQUATE AND EFFECTIVE GROUNDING SYSTEM.
8. STANDARD TYPE OF ACCESSORIES, SPLICING DEVICES, TERMINATION AND OTHER APPURTENANCES SHALL BE USED FOR THE ENTIRE ELECTRICAL INSTALLATION.
9. POWER SUPPLY SHALL BE 400 VOLTS, 3ø, 4 WIRE PLUS GROUND, 60 HERTZ.
10. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE DONE UNDER THE DIRECT SUPERVISION OF A DULY LICENSED AND REGISTERED ELECTRICAL ENGINEER OR MASTER ELECTRICIAN
11. UNLESS OTHERWISE INDICATED, MOUNTING HEIGHTS SHALL BE AS FOLLOWS:

    A. PANELBOARDS...1.80m CENTER OF ENCLOSURE
    B. CONVENIENCE OUTLET..............................0.3m CENTER OF THE BOX
    C. SWITCH OUTLET.......................................1.30m CENTER OF THE BOX
    D. CATV OUTLET..0.30m CENTER OF THE BOX
    E. GFCI COUNTERTOP...................................030m FROM TOP OF LAVATORY
    F. COUNTERTOP OUTLET...............................0.30m FROM TOP OF KITCHEN SINK
    G. TEL./DATA OUTLET...................................0.30m CENTER OF THE BOX

12. THE JOB SHALL BE EXECUTED IN THE MOST THROUGH PROMPT AND WORKMAN LIKE MANNER, EMPLOYING STANDARD TOOLS, EQUIPMENT, METHODS AND GOOD ENGINEERING PRACTICES. THE JOB SHALL BE DONE COMPLETE IN ALL ASPECTS AS REQUIRED IN PLANS AND SPECIFICATIONS AND READY FOR OPERATION.
13. ADDITIONAL MATERIALS SPECIFICATIONS:

    A. CONDUIT......................................"PANASONIC","MC GILL","SMARTUBE" OR APPROVED EQUAL.
    B. WIRES AND CABELS................."PHELPS DODGE","PHILFLEX","DURAFLEX OR APPROVED EQUAL
    C. CIRCUIT BREAKER BOARD..........."ABB","GE","SCHNEIDER ELECTRIC" BOLT-ON TYPE OR APPROVED EQUAL
    D. WIRING DEVICES........................."PANASONIC","LEVITON","SCHNEIDER ELECTRIC" OR APPROVED EQUAL

14. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE PROPER IDENTIFICATION AND LABELING OF ALL CIRCUIT BREAKER. EACH PANEL WILL BE APPROVED WITH A TYPEWRITTEN CIRCUIT DIRECTORY.
15. WIRES SHALL BE COLOR CODED:

    THREE PHASE
    LINE 1.........RED
    LINE 2.........YELLOW
    LINE 3.........BLUE
    NEUTRAL......WHITE
    GROUND.......GREEN

16. NO REVISION IN DESIGN SHALL BE DONE WITHOUT THE PRIOR KNOWLEDGE AND APPROVAL OF THE DESIGNER AND THE OWNER. ANY SUCH REVISION DONE WITHOUT THE APPROVAL SHALL CAUSE RESPONSIBILITY OF THE DESIGNER TO CEASED A WHOLE.
17. ALL WEATHER-EXPOSED INSTALLATIONS SHALL USE WEATHERPROOF TYPE MATERIALS, ESPECIALLY WEATHERPROOF CONVENIENCE OUTLET, CAST-BOXES, JUNCTION BOXES SUBMIT SAMPLE FOR APPROVAL.

ABBREVIATIONS

CO	CONVENIENCE OUTLET
MM	MILLIMETER
EF	EXHAUST FAN
FCU	FAN COIL UNIT
ACCU	AIR-COOLED CONDENSING UNIT
ECB	ENCLOSED CIRCUIT BREAKER
MCB	MINIATURE CIRCUIT BREAKER
TX	TRANSFORMER
ATS	AUTOMATIC TRANSFER SWITCH
A, AMP	AMPERE
AF	AMPERE FRAME
AT	AMPERE TRIP
IMC	INTERMEDIATE METALLIC CONDUIT
J	JUNCTION BOX
kAIC	KILOAMPERE INTERRUPTING CAPACITY
kVA	KILOVOLT-AMPERE
kWHR	KILOWATT-HOUR
kW	KILOWATT
kV	KILOVOLT
LA	LIGHTNING ARRESTER
LV	LOW VOLTAGE
3P	THREE POLE
UPVC	UNPLASTICIZED POLYVINYL CHLORIDE
V	VOLT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
C.L.	CONNECTED LOAD
ø	DIAMETER
DIST	DISTRIBUTION
DF	DEMAND FACTOR
DL	DEMAND LOAD
DP	DOUBLE POLE
ENCL	ENCLOSURE, ENCLOSED
G, GND	GROUND
HZ	HERTZ
M	METER
MTD	MOUNTED
MTG	MOUNTING
MCB	MAIN CIRCUIT BREAKER
MCCB	MOLDED CASE CIRCUIT BREAKER
MSB	MAIN SWITCH BOARD
NO./ #	NUMBER
P	POLE
PH	PHASE
PVC	POLYVINYL CHLORIDE
IMC	INTERMEDIATE METALLIC CONDUIT
THWN	MOISTURE & HEAT RESISTANT THERMOPLASTIC
TYP	TYPICAL
TW	MOISTURE RESISTANT THERMOPLASTIC
LVSG	LOW VOLTAGE SWITCH GEAR
SP	SYNCRONIZING PANEL
EE	ELECTRICAL EQUIPMENT
PP	POWER PANEL
LP	LIGHTNING PANEL
DP	DISTRIBUTION PANEL
DS	DISCONNECT SWITCH
RD	RISER DOWN
RU	RISER UP
PFC	POWER FACTOR CONTROLLER
PFI	POWER FACTOR INDICATOR
AHU	AIR HANDLING UNIT

LIGHTING LEGENDS AND SYMBOLS

	RECESSED MOUNTED, 13W LED DOWNLIGHT
	WALL MOUNTED, 13W LED DOWNLIGHT
	SURFACE MOUNTED, 1200mm, 20W LED FLUORESCENT LIGHT
	2x20W, 300mmx1200mm, CEILING RECESSED FLUORESCENT LIGHTING FIXTURE
	WALL MOUNTED, ELEVATOR SHAFT LIGHTING FIXTURE
	SUSPENDED 200W HIGH BAY LUMINAIRE
EXIT	8W EXIT LIGHT WITH 2HRS BATTERY PACK
	CONCEALED LIGHTING
E	INDICATION FOR LUMINAIRES WITH 2HRS BATTERY PACK
S	1 GANG, SINGLE POLESINGLE THROW SWITCH, 15A, 230V
2S	2 GANG, SINGLE POLESINGLE THROW SWITCH, 15A, 230V
3S	3 GANG, SINGLE POLESINGLE THROW SWITCH, 15A, 230V
• RU/RD	RISER UP/DOWN
	JUNCTION BOX (CONCEALED LIGHTING PROVISION/TAPPING POINT)

POWER LEGENDS AND SYMBOLS

	DUPLEX CONVENIENCE OUTLET
	FLOOR MOUNTED CONVENIENCE OUTLET
	SIMPLEX CONVENIENCE OUTLET
HD	HAND DRYER PROVISION
	SPECIAL PURPOSE OUTLET
	JUNCTION BOX
	DISCONNECT SWITCH
	ENCLOSED CIRCUIT BREAKER
	DISTRIBUTION PANEL
	PANELBOARD
	GROUND BAR
	GROUND ROD WITH TESTING PIT
	GROUND ROD
• RU/RD	RISER UP/DOWN
	EARLY STREAMER EMISSION LIGHTNING PROTECTION

AUXILIARY SYSTEMS LEGEND AND SYMBOL

	DOME-TYPE, IP-BASED CCTV CAMERA
	IP BASED CAMERA, FIXED TYPE, WEATHER PROOF
	VOICE/DATA OUTLET
	FLOOR MOUNTED VOICE/DATA OUTLET
	INPUT MODULE
	GROUND BAR
	SMOKE DETECTOR
	HEAT DETECTOR
	STROBE LIGHT WITH SOUNDER
	MANUAL PULL STATION
	FIREMAN'S TELEPHONE JACK
	FIRE ALARM CONTROL PANEL
• RU/RD	RISER UP/DOWN

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY

CONCURRED BY: DIR. DAVID B. BUGALLON, EXECUTIVE DIRECTOR, NITESD

RECOMMENDING APPROVAL: DIR. JU[illegible] O. OROZCO, DIRECTOR IV, AS, CHIEF OF STAFF, ODG, DIRECTOR-IN-CHARGE, SPU

APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL, TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY

PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - DAVAO

LOCATION: BRGY. BUDBOD DAVAO CITY

PREPARED BY: ENGR. [illegible] ADRIAN C. SANTOS, ELECTRICAL ENGINEER, SPU-ODG

REVIEWED AND SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, SPU-ODG

SHEET CONTENTS: GENERAL NOTES LEGENDS AND SYMBOLS

SHEET NO. E0-00

PANEL NAME: MDP-GF
FED FROM: UTILITY COMPANY
SYSTEM: 400VAC,3ø, 4W+G, 60Hz

LOCATION: ELECTRICAL ROOM
MOUNTING: WALL MOUNTED
ENCLOSURE: NEMA 1

CKT NO.	DESCRIPTION	CONN. LOAD	DEMAND FACTOR	DEMAND LOAD	VOLT	AMP 3Ø	AMP AN	AMP BN	AMP CN	CIRCUIT BREAKER AT	CB AF	CB POLE	CB kAIC	CB TYPE	CABLE SIZE PHASE	CABLE SIZE GROUND	CONDUIT SIZE	CONDUIT TYPE
1	PP-3F-MECH	72,213	0.76	54,764	230	89.9	5.2	19.3	18.7	100	100	3	18	MCCB	4 - 30mm2 THWN	1 - 8.0mm2 TW	32	IMC
2	PP-TELCO	5,888	1.00	5,864	230	0.0	1.0	21.7	2.8	100	100	3	18	MCCB	4 - 30mm2 THWN	1 - 8.0mm2 TW	32	IMC
3	PP-GF-CA	25,212	0.80	20,127	230	0.0	42.3	43.7	23.6	70	100	3	18	MCCB	4 - 22mm2 THWN	1 - 8.0mm2 TW	32	IMC
4	PP-3F-DORM	10,018	0.75	7,554	230	0.0	18.5	12.5	12.5	50	100	3	18	MCCB	4 - 14mm2 THWN	1 - 8.0mm2 TW	25	IMC
5	SPARE									50	100	3	18	MCCB				
6	SPARE									50	100	3	18	MCCB				
7	SPARE									50	100	3	18	MCCB				
8	SPARE									50	100	3	18	MCCB				
										MAIN CIRCUIT BREAKER						MAIN FEEDER		
	TOTAL CONNECTED LOAD	113,330	0.78	88,308	230	0.00	60.84	56.22	36.11	200	225	3	22	MCCB	4 -100mm2 THWN	1 - 22mm2 TW	75	PVC

DEMAND FACTOR: 0.78
DEMAND LOAD: 88308 VA
TOTAL CURRENT: 127.47 AMPS

200 AT 225 AF 3 POLE, 400V
PHASE: 4 -100mm2 THWN
GROUND: 1 - 22mm2 TW
CONDUIT: 75 mm ø PVC CONDUIT

PANEL NAME: PP-GF-CA
FED FROM: MDP-GF
SYSTEM: 400VAC, 3ø, 4W+G, 60Hz

LOCATION: ELECTRICAL ROOM
MOUNTING: WALL MOUNTED
ENCLOSURE: NEMA 1

CKT NO.	DESCRIPTION	CONN. LOAD	DEMAND FACTOR	DEMAND LOAD	VOLT	AMP 3Ø	AMP AN	AMP BN	AMP CN	CIRCUIT BREAKER AT	CB AF	CB POLE	CB kAIC	CB TYPE	CABLE SIZE PHASE	CABLE SIZE GROUND	CONDUIT SIZE	CONDUIT TYPE
1	LIGHTING	1,507	0.90	1,356	230		6.55			20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
2	LIGHTING	1,328	0.90	1,195	230		5.77			20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
3	LIGHTING	1,280	0.90	1,152	230			5.57		20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
4	LIGHTING	2,491	0.90	2,242	230			10.83		20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
5	FAÇADE LIGHTING	286	0.90	257	230				1.24	20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
6	CONVENIENCE OUTLET	1,620	0.70	1,134	230				7.04	20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
7	CONVENIENCE OUTLET	1,080	0.70	756	230		4.70			20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
8	CONVENIENCE OUTLET	1,440	0.70	1,008	230		6.26			20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
9	CONVENIENCE OUTLET	1,440	0.70	1,008	230			6.26		20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
10	CONVENIENCE OUTLET	1,080	0.70	756	230			4.70		20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
11	CONVENIENCE OUTLET	1,620	0.70	1,134	230				7.04	20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
12	CONVENIENCE OUTLET	900	0.70	630	230				3.91	20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
13	CONVENIENCE OUTLET	1,440	0.70	1,008	230		6.26			20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
14	CONVENIENCE OUTLET	1,440	0.70	1,008	230		6.26			20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
15	CONVENIENCE OUTLET	1,260	0.70	882	230			5.48		20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
16	HAND DRYER	500	0.80	400	230			2.17		20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
17	HAND DRYER	500	0.80	400	230				2.17	20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
18	HAND DRYER	500	0.80	400	230				2.17	20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
19	HAND DRYER	500	0.80	400	230		2.17			20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
20	FACP PROVISION	1,000	1.00	1,000	230		4.35			20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
21	NVR PROVISION	1,000	1.00	1,000	230			4.35		20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
22	IDF PROVISION	1,000	1.00	1,000	230			4.35		20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
23	SPARE									20	100	1	10	MCCB				
24	SPARE									20	100	1	10	MCCB				
25	SPARE									30	100	1	10	MCB				
26	SPARE									30	100	1	10	MCB				
										MAIN CIRCUIT BREAKER						MAIN FEEDER		
	TOTAL CONNECTED LOAD	25,212	0.80	20,127	230	0.00	42.33	43.70	23.59	70	100	3	18	MCCB	4 - 22mm2 THWN	1 - 8.0mm2 TW	32	IMC

DEMAND FACTOR: 0.80
DEMAND LOAD: 20127 VA
TOTAL CURRENT: 29.05 AMPS

70 AT 100 AF 3 POLE, 400V
PHASE: 4 - 22mm2 THWN
GROUND: 1 - 8.0mm2 TW
CONDUIT: 32 mm ø IMC CONDUIT

PANEL NAME: PP-3F-LIFT
FED FROM: MDP-GF
SYSTEM: 400VAC, 3ø, 4W+G, 60Hz

LOCATION: FRUITS & VEGETABLES
MOUNTING: WALL MOUNTED
ENCLOSURE: NEMA 1

CKT NO.	DESCRIPTION	CONN. LOAD	DEMAND FACTOR	DEMAND LOAD	VOLT	AMP 3Ø	AMP AN	AMP BN	AMP CN	CIRCUIT BREAKER AT	CB AF	CB POLE	CB kAIC	CB TYPE	CABLE SIZE PHASE	CABLE SIZE GROUND	CONDUIT SIZE	CONDUIT TYPE
1	PE-01		1.00		230					40	100	3	10	MCCB				
2	PE-01 CONTROLLER	10,000	1.00	10,000	230	14				40	100	3	10	MCCB	4 - 5.5mm2 THWN	1 - 5.5mm2 TW	25	PVC
3	LIGHTING		1.00		230					20	100	1	10	MCB				
4	SPARE		1.00		230					20	100	1	10	MCB				
5	PE-02		1.00		230					40	100	3	10	MCCB				
6	PE-02 CONTROLLER	10,000	1.00	10,000	230	14				40	100	3	10	MCCB	4 - 5.5mm2 THWN	1 - 5.5mm2 TW	25	PVC
7	LIGHTING		1.00		230					20	100	1	10	MCB				
8	SPARE									20	100	1	10	MCB				
9	SPARE									20	100	1	10	MCB				
10	SPARE									20	100	1	10	MCB				
										MAIN CIRCUIT BREAKER						MAIN FEEDER		
	TOTAL CONNECTED LOAD	20,000	1.00	20,000	230	28.87	0.00	0.00	0.00	70	100	3	18	MCCB	4 - 22mm2 THWN	1 - 8.0mm2 TW	32	IMC

DEMAND FACTOR: 1.00
DEMAND LOAD: 20000 VA
TOTAL CURRENT: 28.87 AMPS

70 AT 100 AF 3 POLE, 400V
PHASE: 4 - 22mm2 THWN
GROUND: 1 - 8.0mm2 TW
CONDUIT: 32 mm ø IMC CONDUIT

PANEL NAME: PP-3F-MECH
FED FROM: MDP-GF
SYSTEM: 400VAC, 3ø, 4W+G, 60Hz

LOCATION: MEAT & FISH
MOUNTING: WALL MOUNTED
ENCLOSURE: NEMA 1

CKT NO.	DESCRIPTION	CONN. LOAD	DEMAND FACTOR	DEMAND LOAD	VOLT	AMP 3Ø	AMP AN	AMP BN	AMP CN	CIRCUIT BREAKER AT	CB AF	CB POLE	CB kAIC	CB TYPE	CABLE SIZE PHASE	CABLE SIZE GROUND	CONDUIT SIZE	CONDUIT TYPE
1	PP-3F-LIFT	20,000	1.00	20,000	230	29				70	100	3	18	MCCB	4 - 22mm2 THWN	1 - 8.0mm2 TW	32	IMC
2	SPARE		1.00	0	230	0				70	100	3	18	MCCB	4 - 22mm2 THWN	1 - 8.0mm2 TW	32	IMC
3	ACCU-03	7,044	0.70	4,931	230	10				30	100	1	10	MCCB	4 - 5.5mm2 THWN	1 - 5.5mm2 TW	25	IMC
4	ACCU-03	7,044	0.70	4,931	230	10				30	100	1	10	MCCB	4 - 5.5mm2 THWN	1 - 5.5mm2 TW	25	IMC
5	ACCU-04	7,044	0.70	4,931	230	10				30	100	1	10	MCCB	4 - 5.5mm2 THWN	1 - 5.5mm2 TW	25	IMC
6	ACCU-04	7,044	0.70	4,931	230	10				30	100	1	10	MCCB	4 - 5.5mm2 THWN	1 - 5.5mm2 TW	25	IMC
7	ACCU-04	7,044	0.70	4,931	230	10				30	100	1	10	MCCB	4 - 5.5mm2 THWN	1 - 5.5mm2 TW	25	IMC
8	ACCU-04	7,044	0.70	4,931	230	10				30	100	1	10	MCCB	4 - 5.5mm2 THWN	1 - 5.5mm2 TW	25	IMC
9	ACCU-02	1,550	0.70	1,085	230			6.74		20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	IMC
10	ACCU-02	1,550	0.70	1,085	230			6.74		20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	IMC
11	ACCU-02	1,550	0.70	1,085	230				6.74	20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	IMC
12	ACCU-02	1,550	0.70	1,085	230				6.74	20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	IMC
13	FCU PROVISION	600	0.70	420			2.61			20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
14	FCU PROVISION	600	0.70	420			2.61			20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
15	FCU PROVISION	750	0.70					3.26		20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
16	FCU PROVISION	600	0.70					2.61		20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
17	FCU PROVISION	600	0.70						2.61	20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
18	FCU PROVISION	600	0.70						2.61	20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
19	SPARE									20	100	1	10	MCB				
20	SPARE									20	100	1	10	MCB				
21	SPARE									20	100	3	10	MCCB				
22	SPARE									20	100	3	10	MCCB				
23	SPARE									30	100	3	10	MCCB				
24	SPARE									30	100	3	10	MCCB				
										MAIN CIRCUIT BREAKER						MAIN FEEDER		
	TOTAL CONNECTED LOAD	72,219	0.76	54,764	230	89.87	5.22	19.35	18.70	100	100	3	18	MCCB	4 - 30mm2 THWN	1 - 8.0mm2 TW	32	IMC

DEMAND FACTOR: 0.76
DEMAND LOAD: 54764 VA
TOTAL CURRENT: 79.05 AMPS

100 AT 100 AF 3 POLE, 400V
PHASE: 4 - 30mm2 THWN
GROUND: 1 - 8.0mm2 TW
CONDUIT: 32 mm ø IMC CONDUIT

PANEL NAME: PP-3F-DORM
FED FROM: MDP-GF
SYSTEM: 400VAC, 3ø, 4W+G, 60Hz

LOCATION: HALLWAY
MOUNTING: WALL MOUNTED
ENCLOSURE: NEMA 1

CKT NO.	DESCRIPTION	CONN. LOAD	DEMAND FACTOR	DEMAND LOAD	VOLT	AMP 3Ø	AMP AN	AMP BN	AMP CN	CIRCUIT BREAKER AT	CB AF	CB POLE	CB kAIC	CB TYPE	CABLE SIZE PHASE	CABLE SIZE GROUND	CONDUIT SIZE	CONDUIT TYPE
1	LIGHTING	1,268	0.90	1,141	230		5.51			20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
2	CONVENIENCE LAYOUT	1,440	0.90	1,296	230		6.26			20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
3	CONVENIENCE LAYOUT	1,440	0.70	1,008	230			6.26		20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
4	CONVENIENCE LAYOUT	1,440	0.70	1,008	230			6.26		20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
5	CONVENIENCE LAYOUT	1,440	0.70	1,008	230				6.26	20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
6	CONVENIENCE LAYOUT	1,440	0.70	1,008	230				6.26	20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
7	ACCU-02	1,550	0.70	1,085	230		6.74			20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
8	SPARE									20	100	1	10	MCB				
9	SPARE									20	100	1	10	MCB				
10	SPARE									20	100	1	10	MCB				
										MAIN CIRCUIT BREAKER						MAIN FEEDER		
	TOTAL CONNECTED LOAD	10,018	0.75	7,554	230		18.51	12.52	12.52	50	100	3	18	MCCB	4 - 14mm2 THWN	1 - 8.0mm2 TW	25	IMC

DEMAND FACTOR: 0.75
DEMAND LOAD: 7554 VA
TOTAL CURRENT: 10.90 AMPS

50 AT 100 AF 3 POLE, 400V
PHASE: 4 - 14mm2 THWN
GROUND: 1 - 8.0mm2 TW
CONDUIT: 25 mm ø IMC CONDUIT

PANEL NAME: PP-TELCO
FED FROM: MDP-GF
SYSTEM: 400VAC, 3ø, 4W+G, 60Hz

LOCATION: TELCO ROOM
MOUNTING: WALL MOUNTED
ENCLOSURE: NEMA 1

CKT NO.	DESCRIPTION	CONN LOAD	DEMAND FACTOR	DEMAND LOAD	VOLT	AMP 3Ø	AMP AN	AMP BN	AMP CN	CIRCUIT BREAKER AT	CB AF	CB POLE	CB kAIC	CB TYPE	CABLE SIZE PHASE	CABLE SIZE GROUND	CONDUIT SIZE	CONDUIT TYPE
1	LIGHTING + CO	240	0.90	216	230		1.04			20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
2	SPARE									20	100	1	10	MCB				
3	IT EQUIPMENT	5,000	1.00	5,000	230			21.74		70	100	1	10	MCB	2 - 5.5mm2 THWN	1 - 5.5mm2 TW	25	PVC
4	SPARE									70	100	1	10	MCB				
5	ACCU-GF-01 (DUTY)	648	1.00	648	230				2.82	20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
6	ACCU-GF-01 (STANDBY)	648	1.00	648	230				2.82	20	100	1	10	MCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC
7	SPARE									20	100	1	10	MCB				
8	SPARE									20	100	1	10	MCB				
										MAIN CIRCUIT BREAKER						MAIN FEEDER		
	TOTAL CONNECTED LOAD	5,888	1.00	5,864	230		1.04	21.74	2.82	100	100	3	18	MCCB	4 - 30mm2 THWN	1 - 8.0mm2 TW	32	IMC

DEMAND FACTOR: 1.00
DEMAND LOAD: 5864 VA
TOTAL CURRENT: 25.49 AMPS

100 AT 100 AF 3 POLE, 400V
PHASE: 4 - 30mm2 THWN
GROUND: 1 - 8.0mm2 TW
CONDUIT: 32 mm ø IMC CONDUIT

LOAD SCHEDULE

SCALE: NTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY

CONCURRED BY:
DIR. DAVID B. BUNGALLON
EXECUTIVE DIRECTOR, NITESD

RECOMMENDING APPROVAL:
DIR. JANET D. OROZCO
DIRECTOR IV, AS
CHIEF OF STAFF, OOG
DIRECTOR-IN-CHARGE, SPU

APPROVED BY:
SEC. ISIDRO S. LAPEÑA, PHD., CSEE
DIRECTOR GENERAL
TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY

PROJECT TITLE:
PROPOSED TESDA INNOVATION CENTER - DAVAO
LOCATION: BASY BUGOSO DAVAO CITY

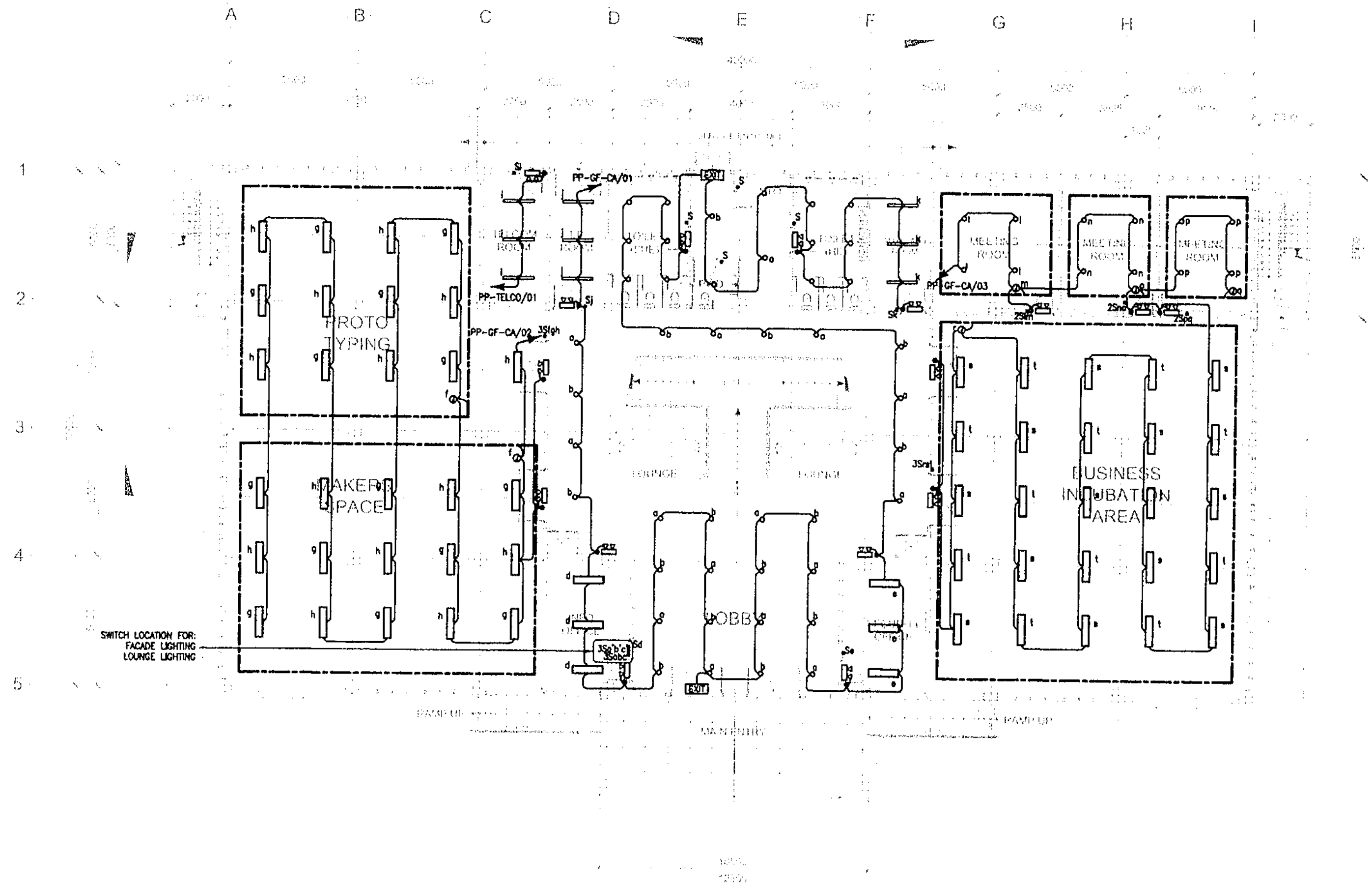
PREPARED BY:
ENGR. JOHN ADRIAN C. SANTOS
ELECTRICAL ENGINEER, SPU-OOG

REVIEWED AND SUBMITTED BY:
ENGR. ROY LOUIE P. MINGARACAL
HEAD, SPU-OOG

SHEET CONTENTS: LOAD SCHEDULE

SHEET NO. E0-01

LEGENDS AND SYMBOLS	
○	RECESSED MOUNTED, 13W LED DOWNLIGHT
●	SURFACE MOUNTED, 13W LED DOWNLIGHT
(wall symbol)	WALL MOUNTED, 13W LED DOWNLIGHT
(symbol)	SURFACE MOUNTED, 1200mm, 20W WEATHERPROOF LED FLUORESCENT LIGHT
(symbol)	SURFACE MOUNTED, 1200mm, 20W LED FLUORESCENT LIGHT
(symbol)	2x20W, 300mmx1200mm, CEILING RECESSED FLUORESCENT LIGHTING FIXTURE
(symbol)	2x20W, 300mmx1200mm, DUST TIGHT FLUORESCENT LIGHTING FIXTURE
EXIT	8W EXIT LIGHT WITH 2HRS BATTERY PACK
(symbol)	TWIN-HEAD EMERGENCY LIGHTING WITH 2HRS BATTERY PACK
S	1 GANG, SINGLE POLE SINGLE THROW SWITCH, 15A, 230V
2S	2 GANG, SINGLE POLE SINGLE THROW SWITCH, 15A, 230V
3S	3 GANG, SINGLE POLE SINGLE THROW SWITCH, 15A, 230V
RU/RD	RISER UP/DOWN
(symbol)	JUNCTION BOX (CONCEALED LIGHTING PROVISION/TAPPING POINT)



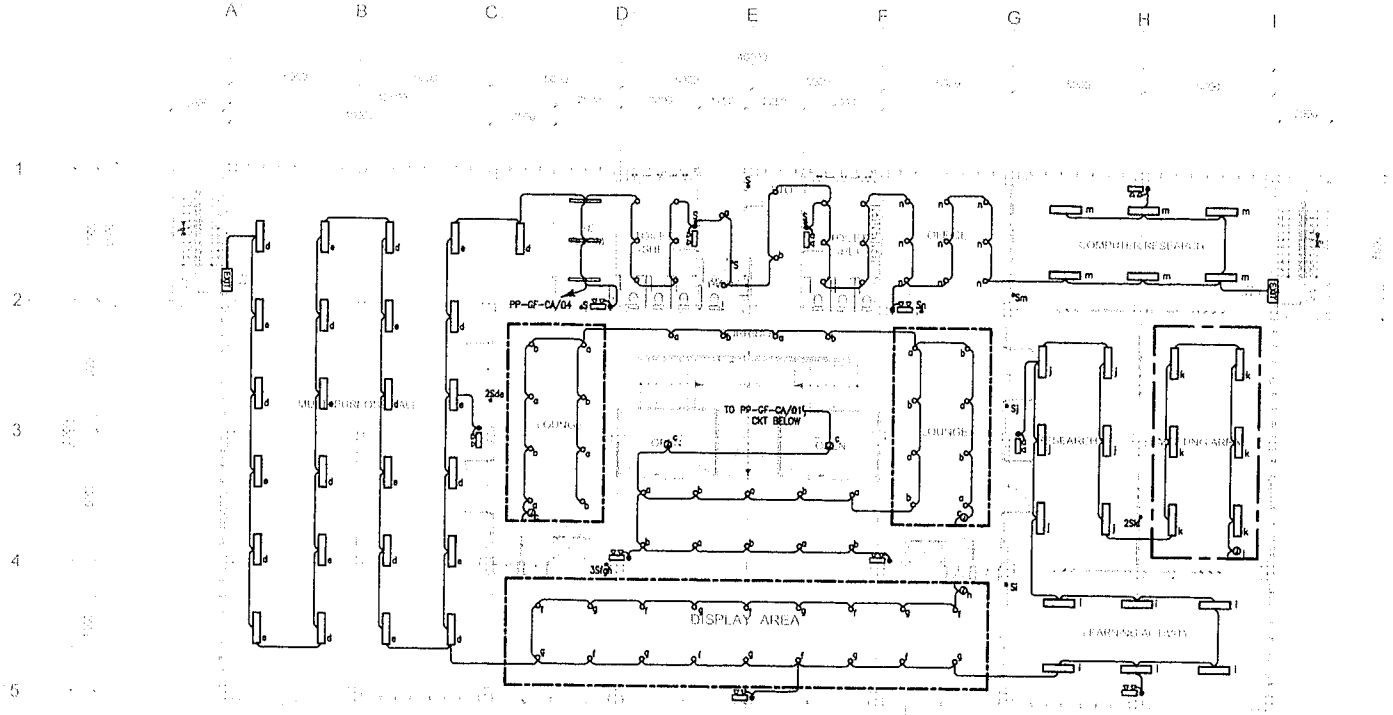
TESDA INNOVATION CENTER - DAVAO

GROUND FLOOR LIGHTING LAYOUT

SCALE: 1: 200 mm

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PROJECT TITLE:		PREPARED BY:	REVIEWED AND SUBMITTED BY:	SHEET CONTENTS:	SHEET NO.
	DIR. DAVID B. BUNGALLON EXECUTIVE DIRECTOR, NITESD	DIR. JULIUS O. OROZCO DIRECTOR IV, AS CHIEF OF STAFF, ODG DIRECTOR-IN-CHARGE, SPU	SEC. ISIDRO S. LAPEÑA, PHD., CSEE DIRECTOR GENERAL TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROPOSED TESDA INNOVATION CENTER - DAVAO LOCATION: BRGY. BUDBUD, DAVAO CITY	DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS WHETHER EXECUTED PARTLY OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	ENGR. JOHN ADRIAN C. SANTOS ELECTRICAL ENGINEER, SPU-ODG	ENGR. ROY LOUIE P. MINGARACAL HEAD, SPU-ODG	GROUND FLOOR LIGHTING LAYOUT	E1-01

LEGENDS AND SYMBOLS	
○	RECESSED MOUNTED, 13W LED DOWNLIGHT
●	SURFACE MOUNTED, 13W LED DOWNLIGHT
	WALL MOUNTED, 13W LED DOWNLIGHT
	SURFACE MOUNTED, 1200mm, 20W WEATHERPROOF LED FLUORESCENT LIGHT
	SURFACE MOUNTED, 1200mm, 20W LED FLUORESCENT LIGHT
	2x20W, 300mmx1200mm, CEILING RECESSED FLUORESCENT LIGHTING FIXTURE
	2x20W, 300mmx1200mm, DUST TIGHT FLUORESCENT LIGHTING FIXTURE
EXIT	8W EXIT LIGHT WITH 2HRS BATTERY PACK
	TWIN-HEAD EMERGENCY LIGHTING WITH 2HRS BATTERY PACK
S	1 GANG, SINGLE POLE SINGLE THROW SWITCH, 15A, 230V
2S	2 GANG, SINGLE POLE SINGLE THROW SWITCH, 15A, 230V
3S	3 GANG, SINGLE POLE SINGLE THROW SWITCH, 15A, 230V
RU/RD	RISER UP/DOWN
	JUNCTION BOX (CONCEALED LIGHTING PROVISION/TAPPING POINT)



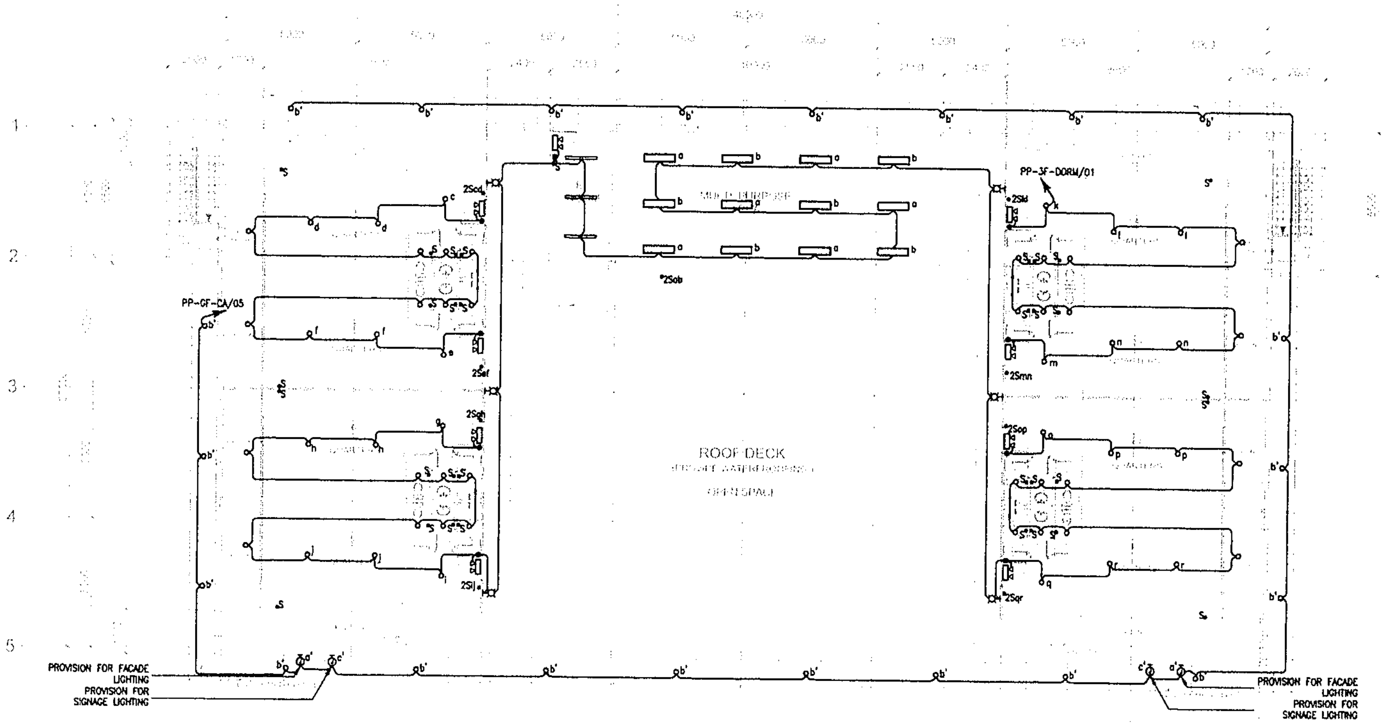
TESDA INNOVATION CENTER - DAVAO

SECOND FLOOR LIGHTING LAYOUT

SCALE: 1: 200 mm

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVID S. BUNDALLON, EXECUTIVE DIRECTOR, IVTESD	RECOMMENDING APPROVAL: DIR. JULIET C. OROZCO, DIRECTOR II, AS CHIEF OF STAFF, ODG, DIRECTOR IN-CHARGE, SPU	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL, TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - DAVAO, LOCATION: BRGY. BUDIONG, DAVAO CITY	DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY (TESDA) - DEVELOPMENT AUTHORITY AND SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE ERECTION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PREPARED BY: ENGR. JOHN ADRIAN C. SANTOS, ELECTRICAL ENGINEER, SPU-ODG	REVIEWED AND SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, PHEAD, SPU-ODG	SHEET CONTENTS: SECOND FLOOR LIGHTING LAYOUT	SHEET NO. E1-02

LEGENDS AND SYMBOLS	
○	RECESSED MOUNTED, 13W LED DOWNLIGHT
●	SURFACE MOUNTED, 13W LED DOWNLIGHT
[symbol]	WALL MOUNTED, 13W LED DOWNLIGHT
[symbol]	SURFACE MOUNTED, 1200mm, 20W WEATHERPROOF LED FLUORESCENT LIGHT
[symbol]	SURFACE MOUNTED, 1200mm, 20W LED FLUORESCENT LIGHT
[symbol]	2x20W, 300mmx1200mm, CEILING RECESSED FLUORESCENT LIGHTING FIXTURE
[symbol]	2x20W, 300mmx1200mm, DUST TIGHT FLUORESCENT LIGHTING FIXTURE
EXIT	8W EXIT LIGHT WITH 2HRS BATTERY PACK
[symbol]	TWIN-HEAD EMERGENCY LIGHTING WITH 2HRS BATTERY PACK
S	1 GANG, SINGLE POLE SINGLE THROW SWITCH, 15A, 230V
2S	2 GANG, SINGLE POLE SINGLE THROW SWITCH, 15A, 230V
3S	3 GANG, SINGLE POLE SINGLE THROW SWITCH, 15A, 230V
●RU/RD	RISER UP/DOWN
⦶	JUNCTION BOX (CONCEALED LIGHTING PROVISION/TAPPING POINT)



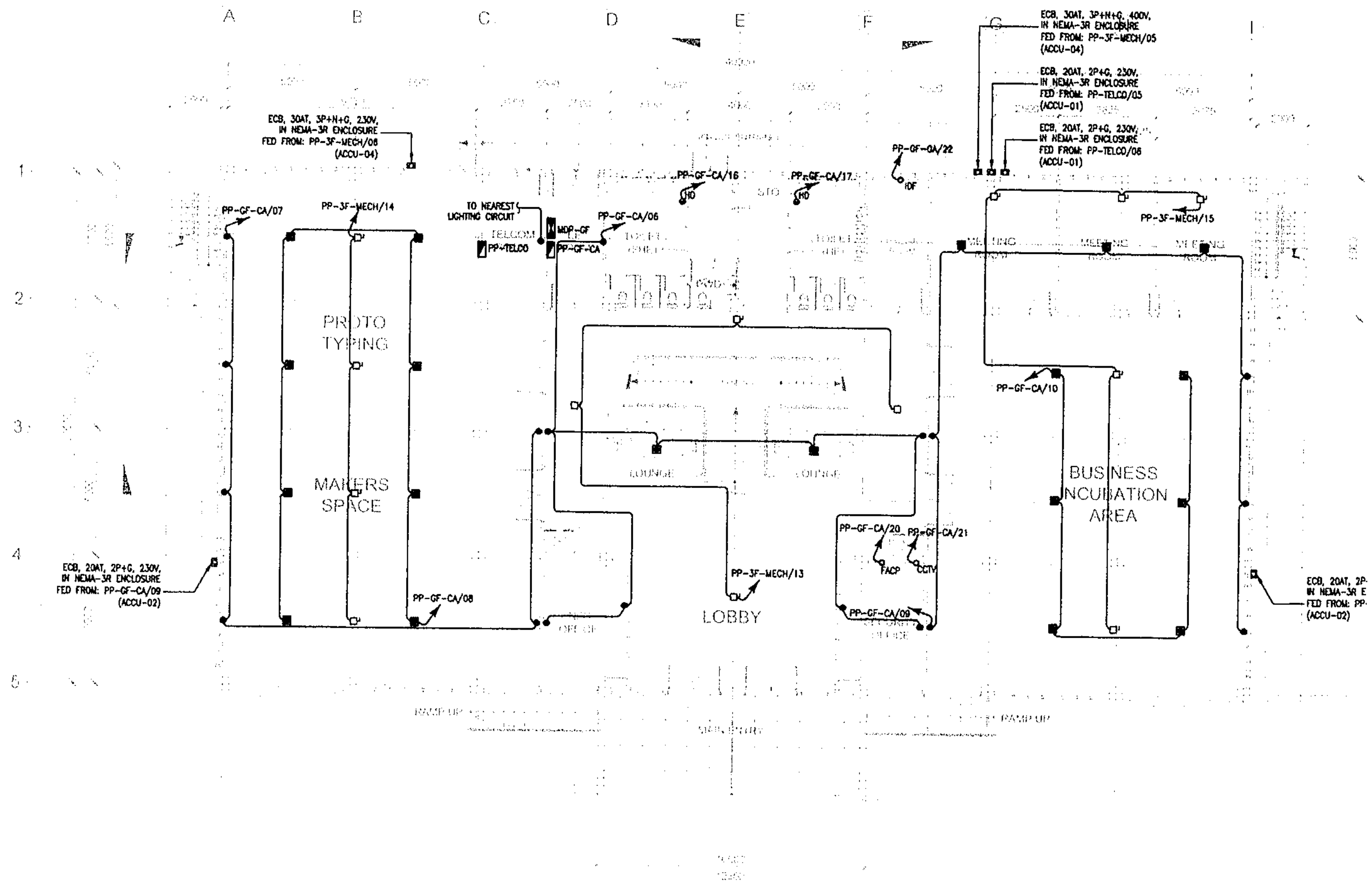
TESDA INNOVATION CENTER - DAVAO

THIRD FLOOR LIGHTING LAYOUT

SCALE: 1: 200 mm

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVID D. BUNGALLON, EXECUTIVE DIRECTOR, NITESD	RECOMMENDING APPROVAL: DIR. JULIET O. OROZCO, DIRECTOR IV, AS, CHIEF OF STAFF, OOG, DIRECTOR-IN-CHARGE, SPU	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD, CSEE, DIRECTOR GENERAL, TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - DAVAO	PREPARED BY: ENGR. JOHN ADRIAN C. SANTOS, ELECTRICAL ENGINEER, SPU-OOG	REVIEWED AND SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, SPU-OOG	SHEET CONTENTS: THIRD FLOOR LIGHTING LAYOUT	SHEET NO. E1-03

LEGENDS AND SYMBOLS	
⊕	DUPLEX CONVENIENCE OUTLET
⊞	FLOOR MOUNTED CONVENIENCE OUTLET
Φ	SIMPLEX CONVENIENCE OUTLET
Φ HD	HAND DRYER PROVISION
⊖	SPECIAL PURPOSE OUTLET
Ⓙ	JUNCTION BOX
□	DISCONNECT SWITCH
⊡	ENCLOSED CIRCUIT BREAKER
▬	DISTRIBUTION PANEL
◩	PANELBOARD
┬┬	GROUND BAR
▣	GROUND ROD WITH TESTING PIT
◉	GROUND ROD
• RU/RD	RISER UP/DOWN
←●→	EARLY STREAMER EMISSION LIGHTNING PROTECTION



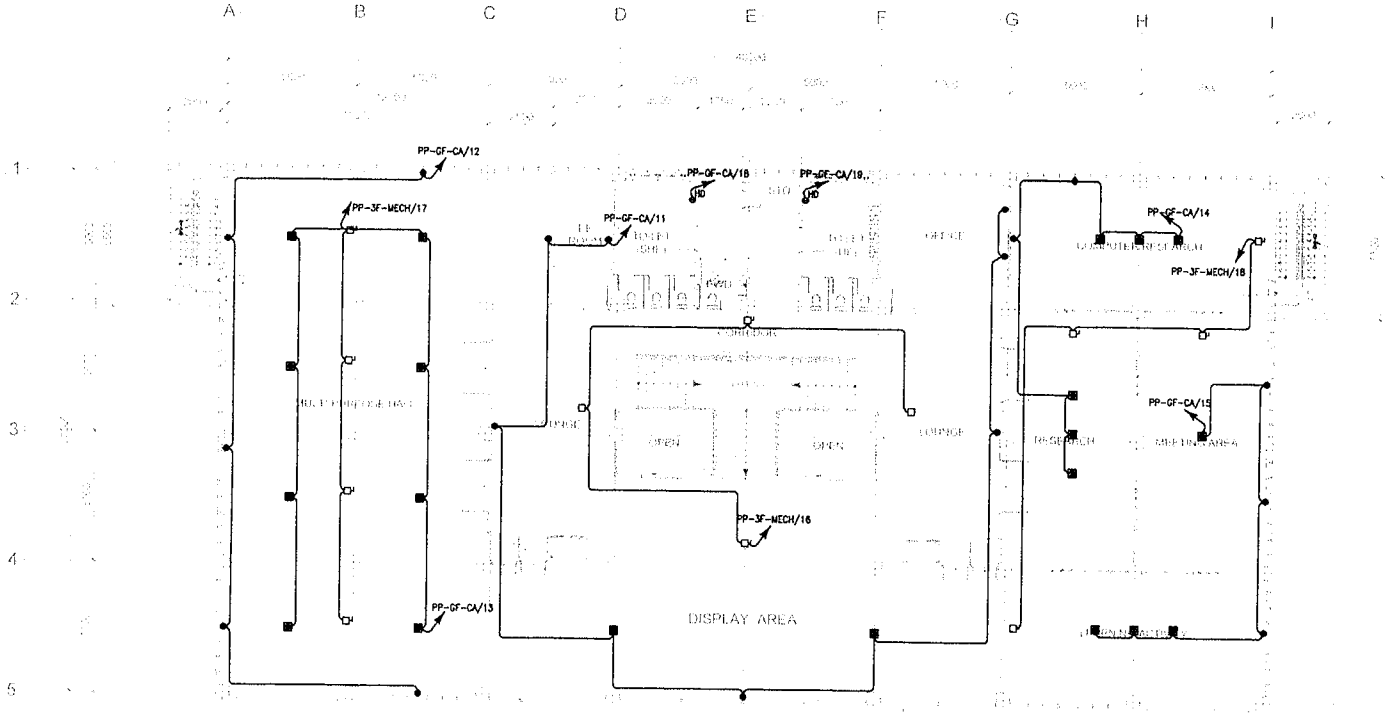
TESDA INNOVATION CENTER - DAVAO

GROUND FLOOR POWER LAYOUT

SCALE: 1: 200 mm

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PROJECT TITLE:		PREPARED BY:	REVIEWED AND SUBMITTED BY:	SHEET CONTENTS:	SHEET NO.
	DIR. DAMIAS BUNGALLON EXECUTIVE DIRECTOR, NITESD	DIR. JULIET OROZCO DIRECTOR V, AS CHIEF OF STAFF, OOG DIRECTOR-IN-CHARGE, SPU	SEC. ISIDRO S. LAPEÑA, PHD, CSEE DIRECTOR GENERAL TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROPOSED TESDA INNOVATION CENTER - DAVAO		ENGR. JOHN ADRIAN E. SANTOS ELECTRICAL ENGINEER, SPU-OOG	ENGR. ROY LOUIE P. MINGARACAL HEAD, SPU-OOG	GROUND FLOOR POWER LAYOUT	E2-01

LEGENDS AND SYMBOLS	
⊕	DUPLEX CONVENIENCE OUTLET
⊞	FLOOR MOUNTED CONVENIENCE OUTLET
⊕	SIMPLEX CONVENIENCE OUTLET
⊕ HD	HAND DRYER PROVISION
⊙	SPECIAL PURPOSE OUTLET
ⓙ	JUNCTION BOX
▭	DISCONNECT SWITCH
▭	ENCLOSED CIRCUIT BREAKER
▬	DISTRIBUTION PANEL
▬	PANELBOARD
⊤	GROUND BAR
▣	GROUND ROD WITH TESTING PIT
◉	GROUND ROD
● RU/RD	RISER UP/DOWN
⟷	EARLY STREAMER EMISSION LIGHTNING PROTECTION



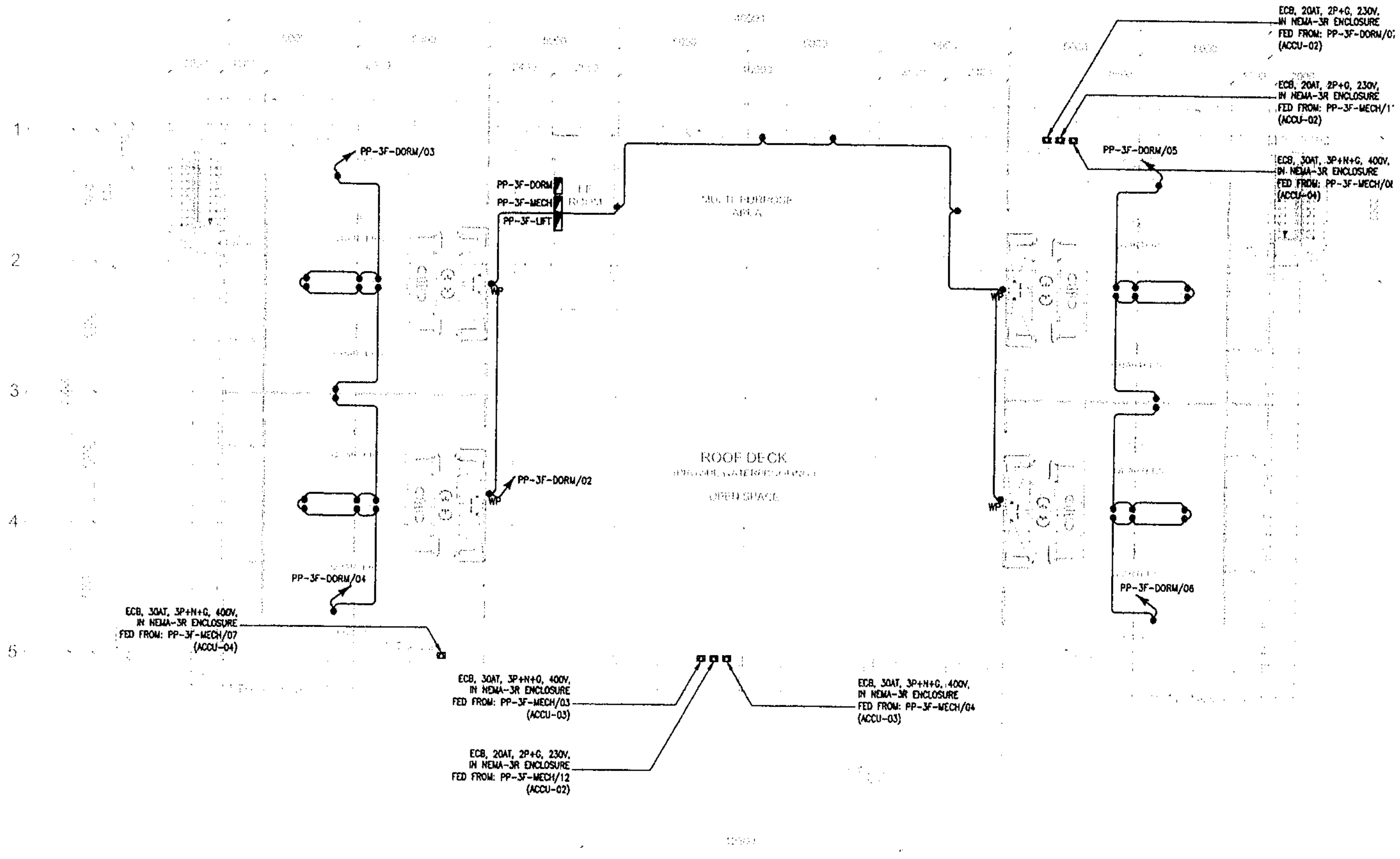
TESDA INNOVATION CENTER - DAVAO

SECOND FLOOR POWER LAYOUT

SCALE: 1: 200 mm

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DANILO B. BUNGALLON, EXECUTIVE DIRECTOR, NITESO	RECOMMENDING APPROVAL: DIR. JULIET O. ROZCO, DIRECTOR IV, OIC-CHIEF STAFF, ODG, DIRECTOR-IN-CHARGE, SPU	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD , CSEE, DIRECTOR GENERAL, TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - DAVAO, LOCATION: BRGY. BUDIAO, DAVAO CITY	DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY (TESDA) AND SHALL NOT BE USED BY ANY PERSON OR ENTITY FOR ANY PURPOSE OTHER THAN THAT SPECIFICALLY INTENDED BY TESDA. THEY SHALL BE UNLAWFUL TO USE OR REPRODUCE TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE EXPANSION OF AND FOR OTHER PROJECTS OR BUILDINGS WHETHER EXECUTED PARTLY OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PREPARED BY: ENGR. JOHN ADRIAN C. SANTOS, ELECTRICAL ENGINEER, SPU-ODG	REVIEWED AND SUBMITTED BY: ENGR. ROY LOUIS P. MINGARACAL, AREAD, SPU-ODG	SHEET CONTENTS: SECOND FLOOR POWER LAYOUT	SHEET NO. E2-02

LEGENDS AND SYMBOLS	
Φ	DUPLEX CONVENIENCE OUTLET
⊞	FLOOR MOUNTED CONVENIENCE OUTLET
Φ	SIMPLEX CONVENIENCE OUTLET
ΦHD	HAND DRYER PROVISION
⊘	SPECIAL PURPOSE OUTLET
Ⓙ	JUNCTION BOX
◻	DISCONNECT SWITCH
▣	ENCLOSED CIRCUIT BREAKER
■	DISTRIBUTION PANEL
◩	PANELBOARD
⊤	GROUND BAR
▣	GROUND ROD WITH TESTING PIT
◉	GROUND ROD
•RU/RD	RISER UP/DOWN
←●→	EARLY STREAMER EMISSION LIGHTNING PROTECTION

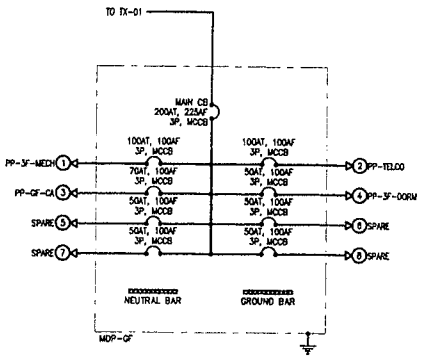


TESDA INNOVATION CENTER - DAVAO

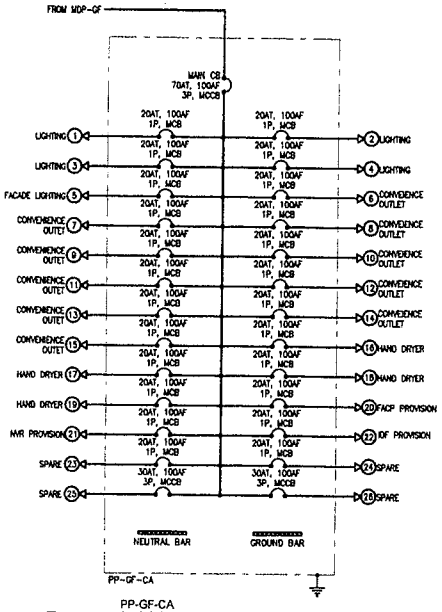
THIRD FLOOR POWER LAYOUT

SCALE: 1: 200 mm

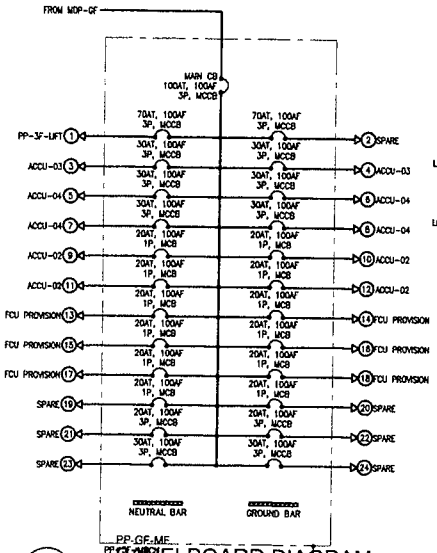
TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PROJECT TITLE:		PREPARED BY:	REVIEWED AND SUBMITTED BY:	SHEET CONTENTS:	SHEET NO.
	DIR. DAVID B. BUNGALLON EXECUTIVE DIRECTOR, NITESD	DIR. JU[illegible] O. [illegible]ROZCO DIRECTOR N[illegible]AS CHIEF OF STAFF, ODG DIRECTOR-IN-CHARGE, SPU	SEC. ISIDRO S. LAPEÑA, PHD., CSEE DIRECTOR GENERAL TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROPOSED TESDA INNOVATION CENTER - DAVAO LOCATION BRGY. BUDBOD DAVAO CITY	DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS WHETHER EXECUTED PARTLY OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	ENGR. JOHN ADRIAN C. SANTOS ELECTRICAL ENGINEER, SPU-ODG	ENGR. ROY LOUIE P. MINGARACAL HEAD, SPU-ODG	THIRD FLOOR POWER LAYOUT	E2-03



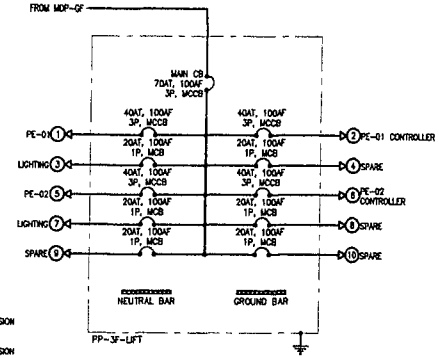
MDP-GFA
PANELBOARD DIAGRAM
SCALE: NTS



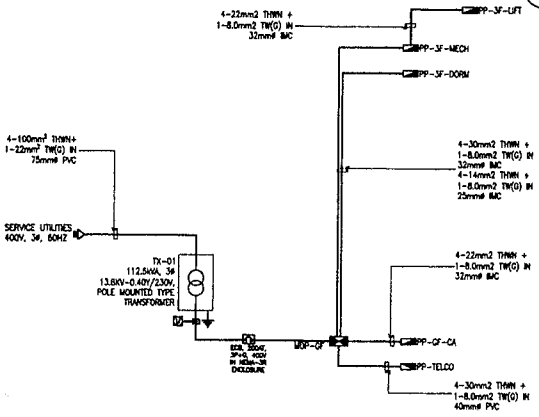
PP-GF-CA
PANELBOARD DIAGRAM
SCALE: NTS



PANELBOARD DIAGRAM
SCALE: NTS



PP-GF-FV
PANELBOARD DIAGRAM
SCALE: NTS



POWER SINGLE LINE DIAGRAM
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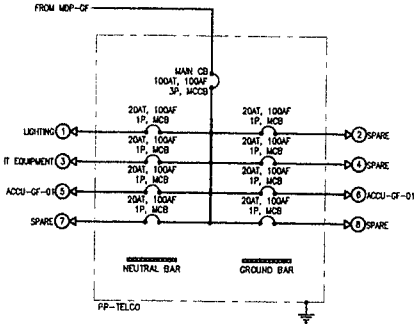
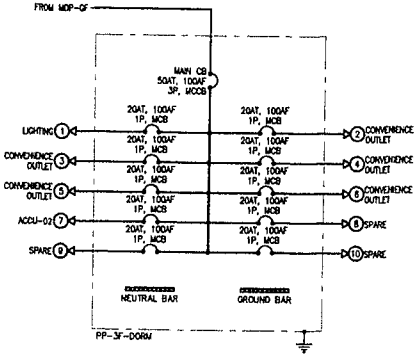


PP-TELCO
PANELBOARD DIAGRAM
SCALE: NTS



PP-2F-DORM
PANELBOARD DIAGRAM
SCALE: NTS

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