



PROPOSED TESDA

INNOVATION CENTER - ISAT











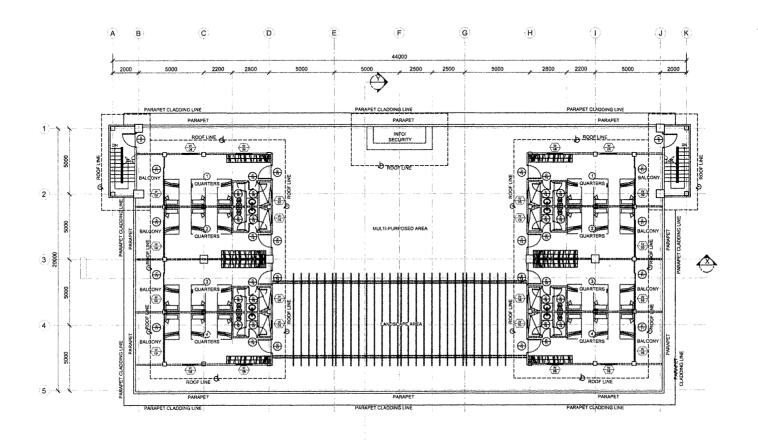
























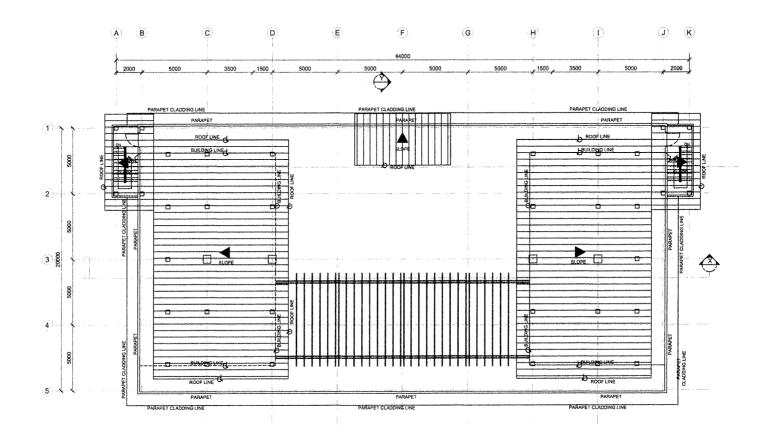
PROJECT TITLE:





















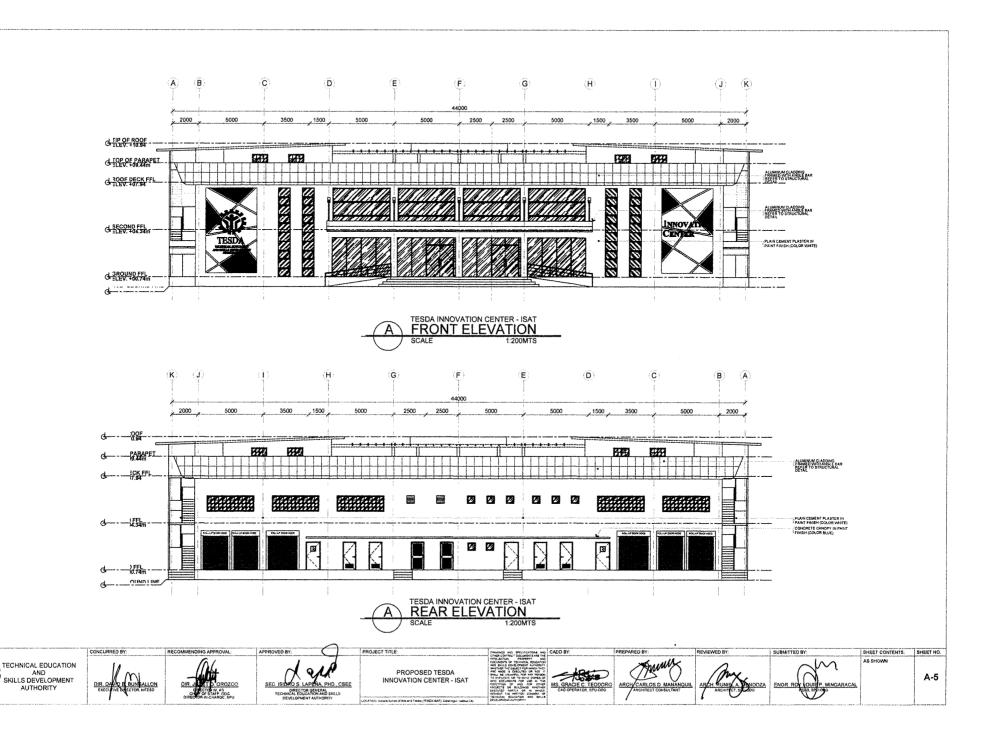


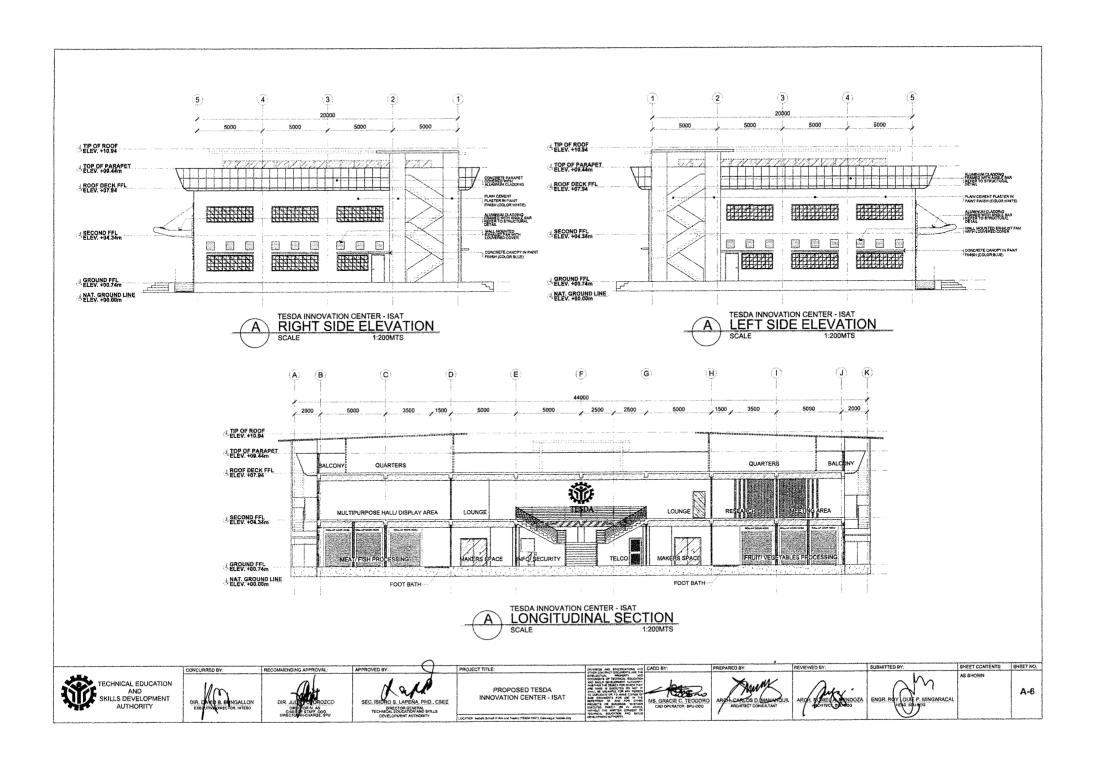


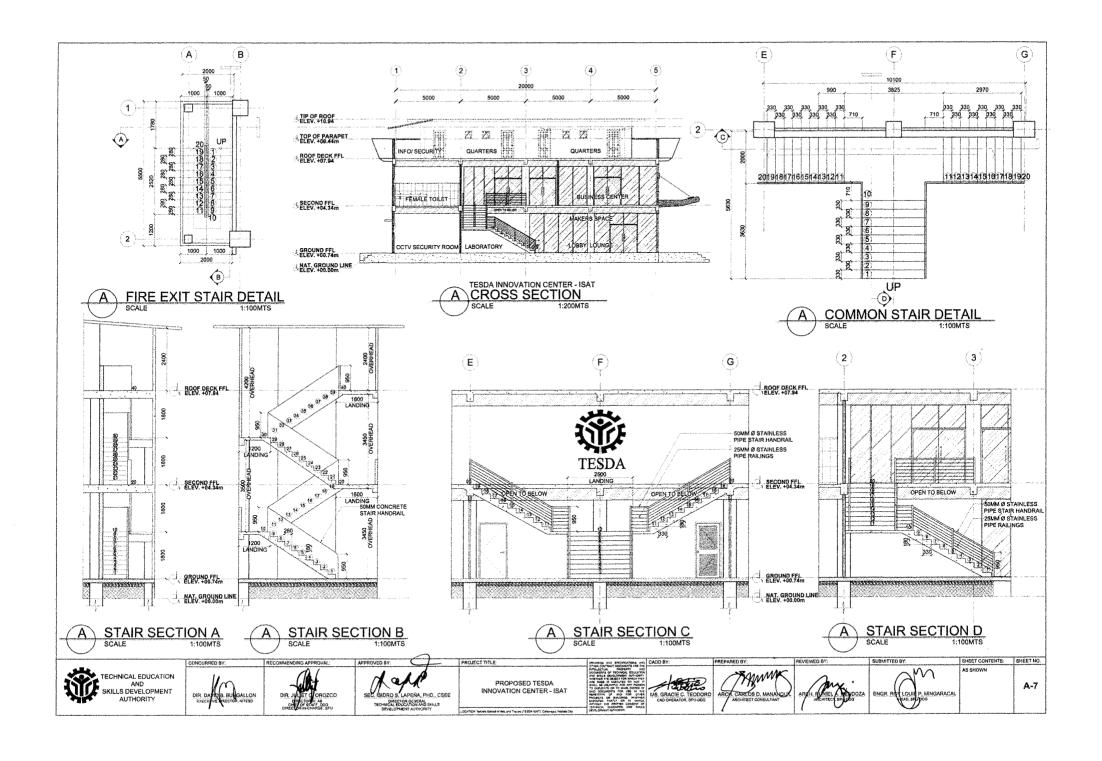




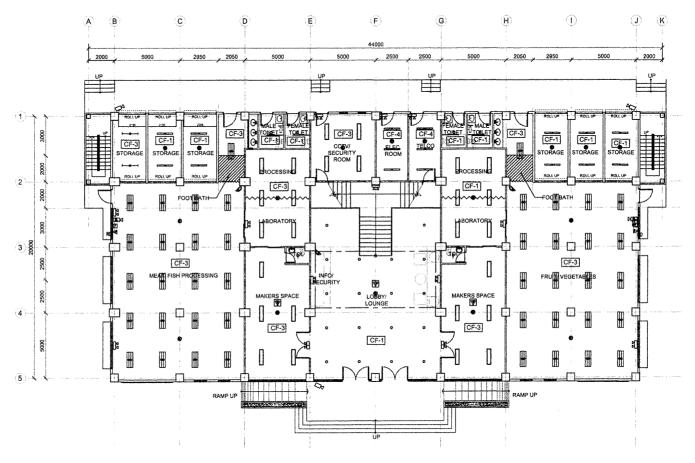








LEGENDS AND SYMBO	.s
•	RECESSED MOUNTED, 13W LED DOWNLIGHT
•	SURFACE MOUNTED, 13W LED DOWNLIGHT
珔	WALL MOUNTED, 13W LED DOWNLIGHT
	SURFACE MOUNTED, 1200mm, 20W WEATHERPROOF LED FLUORESCENT LIGHT
	SURFACE MOUNTED, 1200mm, 20W LED FLUORESCENT LIGHT
	2x20W, 300mmx1200mm, CEILING RECESSED FLUORESCENT LIGHTING FIXTURE
	2x20W, 300mmx1200mm, DUST TIGHT FLUORESCENT LIGHTING FIXTURE
(EXT)	BW EXIT LIGHT WITH 2HRS BATTERY PACK
뽄	TWIN-HEAD EMERGENCY LIGHTING WITH 2HRS BATTERY PACK
•S	1 GANG, SINGLE POLE SINGLE THROW SWITCH, 15A, 23OV
2 S	2 GANG, SINGLE POLE SINGLE THROW SWITCH, 15A, 23OV
38	3 GANG, SINGLE POLE SINGLE THROW SWITCH, 15A, 23OV
●RU/RD	RISER UP/DOWN
Ø	JUNCTION BOX (CONCEALED LIGHTING PROVISION/TAPPING POINT)
CF-1	4.546/ THK. HARDIFLEX LITE WITH METAL DOUBLE FURRING CHANNEL (NAILER) 12mm x 38 mm x 5m X 0.80mm THK. 400mm Q.O.
CF-2	12mm THK. ACOUSTIC BOARD WITH METAL DOUBLE FURRING CHANNEL (NALER) 12mm X 38mm X 5m X 0.80mm THK. © 400mm O.C.
CF-3	PAINTED OPEN CEILING/ EXPOSE SLAB
CF-4	OPEN CEILING/SLAB

















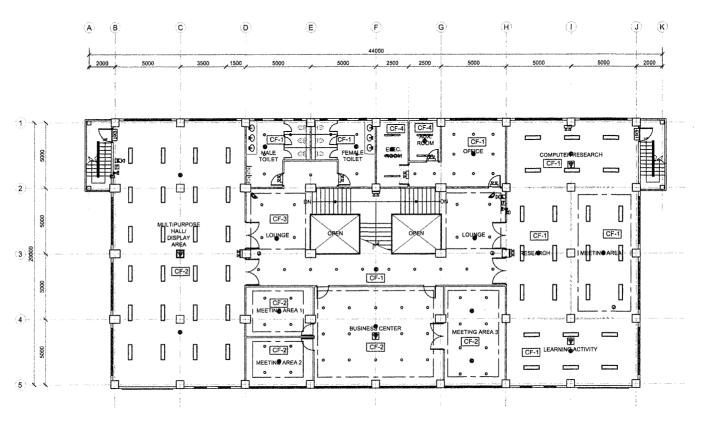






AS SHOWN A-8

LEGENDS AND SYMBO	LS
0	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
EXT	8W EXIT LIGHT WITH 2HRS BATTERY PACK
뾷	TWIN-HEAD EMERGENCY LIGHTING WITH 2HRS BATTERY PACK
,\$	1 GANG, SINGLE POLE SINGLE THROW SWITCH, 15A, 230V
28	2 GANG, SINGLE POLE SINGLE THROW SWITCH, 15A, 23OV
38	3 GANG, SINGLE POLE SINGLE THROW SWITCH, 15A, 23OV
●RU/RD	RISER UP/DOWN
Ø	JUNCTION BOX (CONCEALED LIGHTING PROVISION/TAPPING POINT)
CF-1	4.5MM THK. HANDRUSK LITE WITH METAL DOUBLE FURRING CHANNEL (NARER) 12mm x 38 mm x 5m X 0.80mm THK. 400mm 0.C.
CF-2	12mm THK. ACOUSTIC BOARD WITH METAL DOUBLE FURRISH CHANNEL (NAKER) 12mm X 38mm X 5m X 0.80mm THK. @ 400mm O.C.
CF-3	PAINTED OPEN CEILING/ EXPOSE SLAB
CF-4	OPEN CEILING/SLAB

















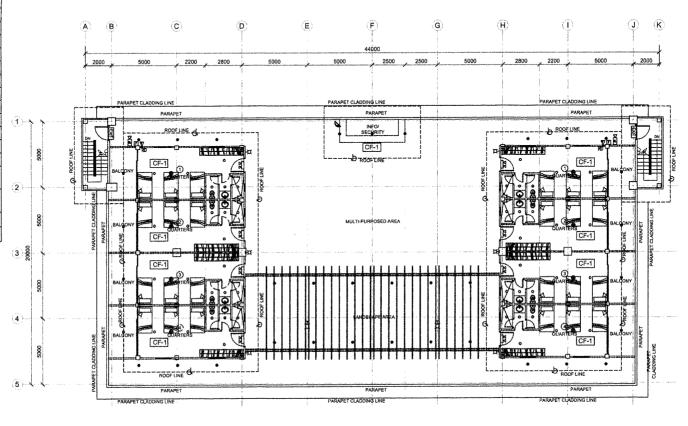








LEGENDS AND SYMBOL	S		
0	RECESSED MOUNTED, 13W LED DOWNLIGHT		
•	SURFACE MOUNTED, 13W LED DOWNLIGHT		
Ā	WALL MOUNTED, 13W LED DOWNLIGHT		
	SURFACE MOUNTED, 1200mm, 20W WEATHERPROOF LED FLUORESCENT LIGHT		
CERTIFIC	SURFACE MOUNTED, 1200mm, 20W LED FLUORESCENT LIGHT		
	2x20W, 300mmx1200mm, CEILING RECESSED FLUORESCENT LIGHTING FIXTURE		
	2x20W, 300mmx1200mm, DUST TIGHT FLUORESCENT LIGHTING FIXTURE		
EXT	OW EXIT LIGHT WITH 2HRS BATTERY PACK		
쯔	TWIN-HEAD EMERGENCY LIGHTING WITH 2HRS BATTERY PACK		
,s	1 GANG, SINGLE POLE SINGLE THROW SWITCH, 15A, 230Y		
25	2 GANG, SINGLE POLE SINGLE THROW SWITCH, 15A, 23OV		
3S	3 GANG, SINGLE POLE SINGLE THROW SWITCH, 15A, 230V		
◆RU/RD	RISER UP/DOWN		
Ø	JUNCTION BOX (CONCEALED LIGHTING PROVISION/TAPPING POINT)		
CF-1	4.55M THK. HARDIFLEX LITE WITH METAL DOUBLE FURRING CHANNEL. (NAVLER) 12mm x 38 mm x 5m X 0.80mm THK. 400mm 0.C.		
CF-2	12mm THK. ACCUSTIC BOARD WITH METAL DOUBLE FURRING CHANNEL (NALER) 12mm X 38mm X 5m X D.80mm THK, © 400mm O.C.		
CF-3	PAINTED OPEN CEILING/ EXPOSE SLAB		
CF-4	OPEN CELLING/SLAB		















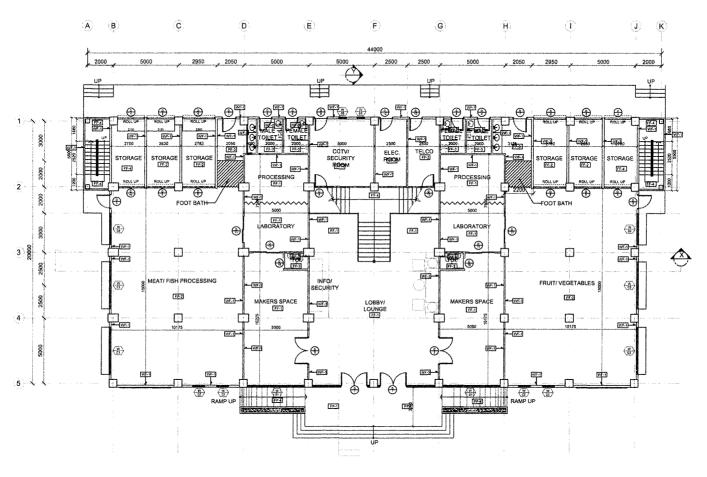




















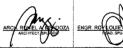


PROPOSED TESDA INNOVATION CENTER - ISAT

PROJECT TITLE:







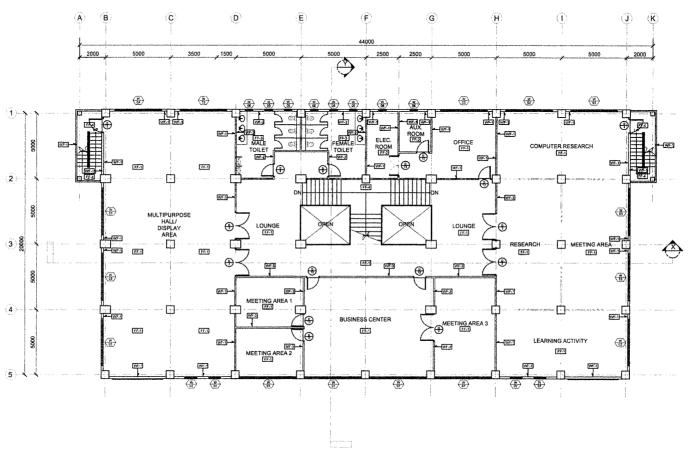


SUBMITTED BY:

A-11

SHEET CONTENTS: SHEET NO.

WALL FIN	ISHES		
WF-1	PLAIN CEMENT PLASTER IN PAINT FINISH		
WF-2	300MM X 600MM GLAZED WALL TILES (HEIGHT 1.80 M)		
WF-3	10MM CLEAR TEMPERED GLASS COSTUME SIZE		
FLOOR FI	NISHES		
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)		











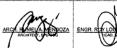




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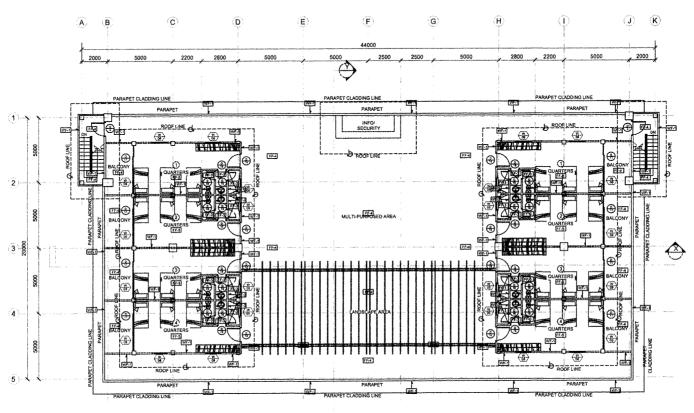






SHEET CONTENTS: SHEET NO. AS SHOWN







PROPOSED TESDA





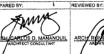


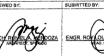




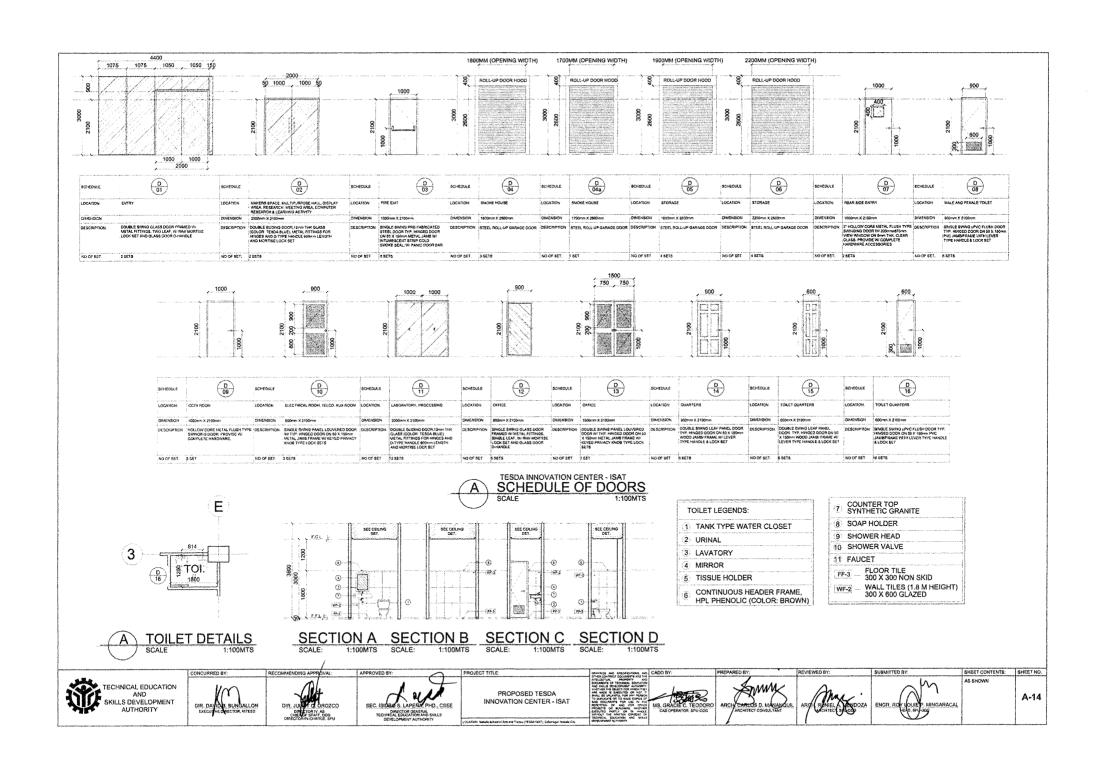


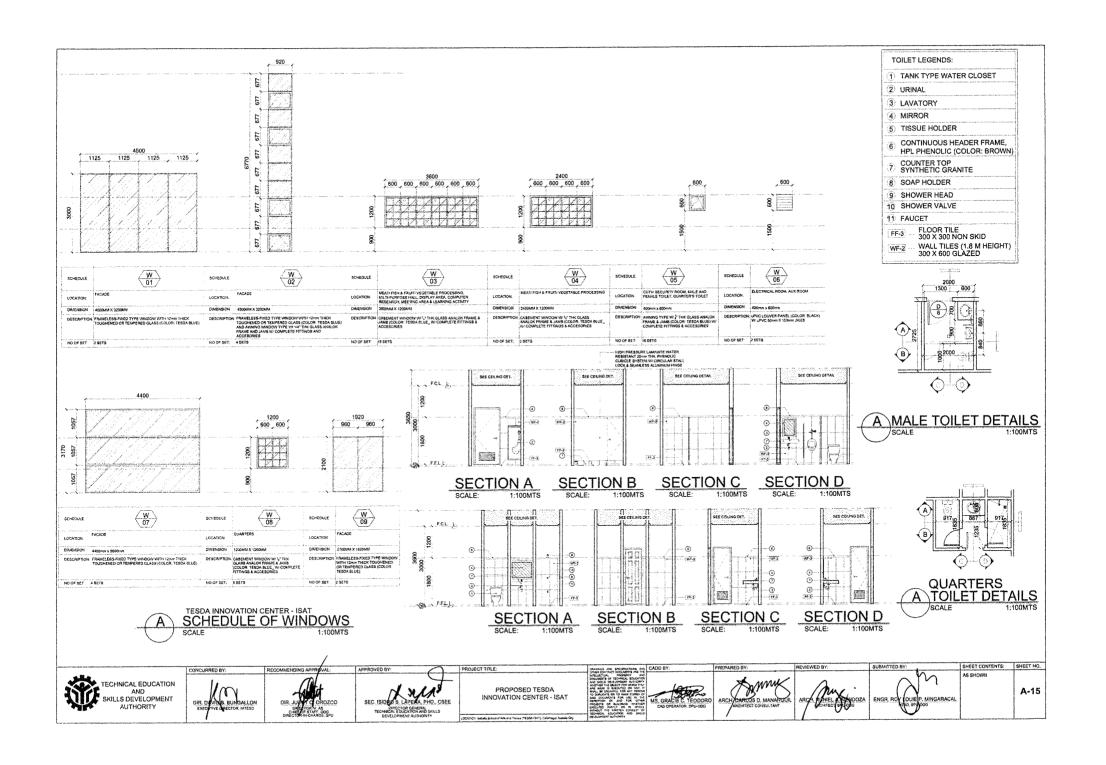


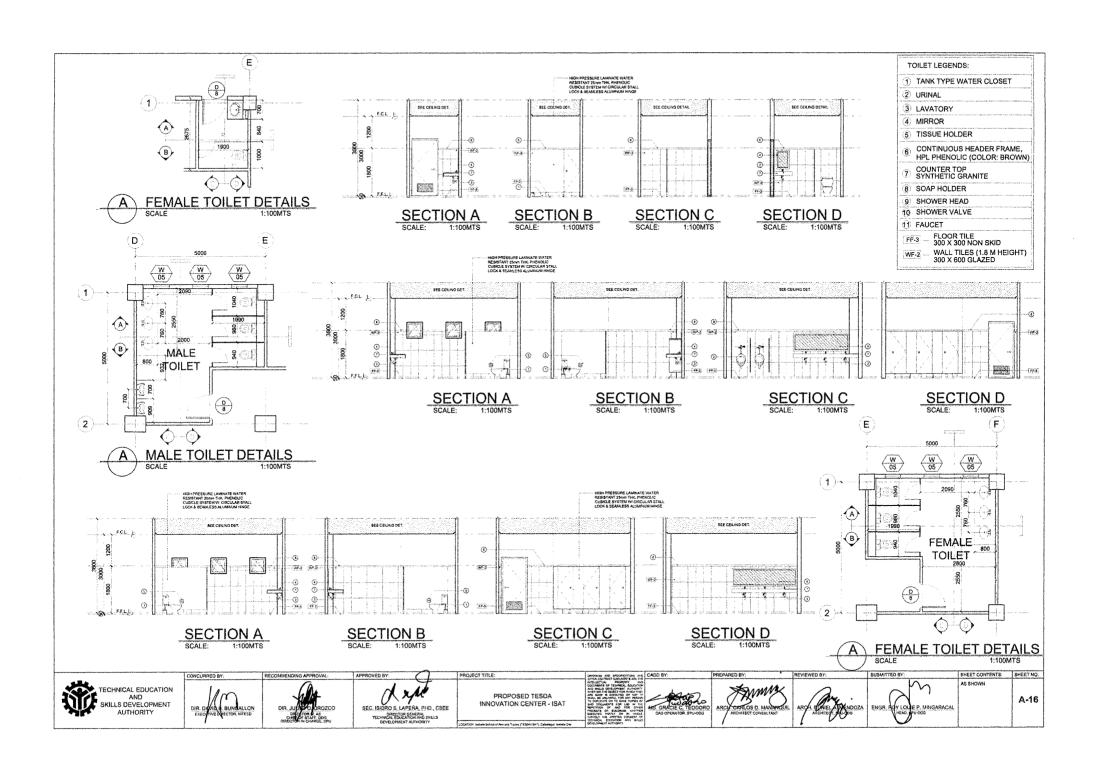




SHEET CONTENTS: SHEET NO.







STRUCTURAL DESIGN NOTES. STANDARD DRAWINGS & SPECIFICATIONS

A GENERAL NOTES:

- 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 TEASE 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 DIRECTION
- 3. THE STRUCTURAL DRAWINGS HEREIN REPRESENT THE FINISHED STRUCTURE THE CONTRACTOR THE STRUCTURAL DRAWINGS HEREIN REPRESENT THE FINISHED STRUCTURE. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY PRACHIOS REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNIT. ALL STRUCTURAL WORKS AND CONNECTIONS HAVE BEEN COMPLETED. THE INVESTIGATION DESIGN, SAFETY, ADEQUACY AND INSPECTION OF ERECTION BRACHING, SHORING, TEMPORARY SUPPORTS ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 4. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE METHODS, TECHNIQUES, AND SEQUENCES
- DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT
- 6. ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD FRECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUEACTURING DELIVER HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH THE SUPPLIER'S INSTRUCTIONS AND
- 7. LOADING APPLIED TO THE STRUCTURE DURING THE PROCESS OF CONSTRUCTION SHALL NOT COMMING APPLIED TO THE STRUCT USE DURING THE PROCESS OF COURT SHOULD SHALL NOT EXCRED 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 SHOD DRAWINGS AND OTHER ITEMS CHALL BE SHOUNTED TO THE ENGINEER FOR DEVICES PRODUCT SHOP DEPARAMENTS AND OTHER THEMS SHALL BE DEVITED IN THE ENGINEER FOR REVIEW PY TO FABRICATION. ALL SHOP DRAWINGS SHALL BE REVIEW BY THE GENERAL CONTRACTOR BEFORE SUBMITTAL. THE ENGINEERS REVIEW IT TO BE CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE RELEVANT CONTRACT DOCUMENTS. THE CONCEPT AND GENERAL COMPLIANCE WITH THE RELEVANT CONTRACT DOCUMENTS. THE ENGINEER'S REVIEW DOES NOT RELEVE 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,
- 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; REINFORCING STEEL SHOP DRAWINGS
 - STRUCTURAL STEEL SHOP DRAWING
- 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 OR SIZES SHALL NOT BE SCALED FOR CONSTRUCTION PURPOSES.
- 11. ALL REINFORCED CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH THE ACLISTAGE BUILDING CODE, AND ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH ASC SPECIFICATIONS (LATEST EDITION) IN SO FAR AS THEY DO NOT CONFLICT WITH THE LOCAL BUILDING CODE REQUIREMENTS.
- 12. ALL SLARS REAMS, GIRDERS AND OTHER STRUCTURAL FLEMENTS WHICH ARE NOT INDICATED ALL SUABS, BEAMS, GRIDENS AND OTHER STRUCTURAL ELEMENTS WHICH ARE NOT INDICATED, DETAILED, DESIGNATED OR INDOVERTENTLY OMITTED BUT ARE RECESSARY TO BE COORDINATED WITH ARCHITECTURAL AND OTHER ALLED 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-BIDMEETINGSINEGOTIATIONS, IT IS UNDERSTOOD THAT THE CONTRACTOR HAS PROVIDED AND INCLUDED ALL THESE ITEMS IN THEIR BID.

B. NOTES ON CONCRETE MIXES AND PLACING

- CONCRETE SHALL BE DEPOSITED IN ITS FINAL POSITION WITHOUT SEGREGATION DE HANDLING OR FLOWING, PLACING SHALL BE DONE PREFERRABLY WITH BUGGES, 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 (6000000) IN AGGREGATE LENGTH
- 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

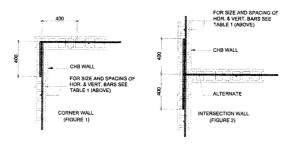
- ALL STRUCTURAL STEEL SHALL CONFORM TO THE 2005 19TH EDITION OF "MANUAL OF STEEL CONSTRUCTION" & "AISC 260-10 SPECIFICATION OF STRUCTURAL STEEL BUILDINGS" OF THE J.
- 2. ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 USING F70XX FLECTRODES. LINESS ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D.1. USING ETXXX ELECTRODES. UNLESS OTHERWISE NOTED. PROVIDE CONT. MIN. SIZEO FILET WELDS SPER AISC REQUIREMENTS. ALL FILLER MATERIAL SHALL HAVE A MINIMUM YIELD STRENGTH OF 70 KSI.
 UNLESS OTHERWISE NOTED. ALL STRUCTURAL STEEL PERMANENTLY EXPOSED TO VIEW SHALL BE SHOP PAINTED WITH TWO COAT OF RED OXIDE PAINT.
- THE STRUCTURAL STEEL ERECTOR SHALL PROVIDE ALL TEMPORARY GUYING AND BRACING (SEE GENERAL STRUCTURAL NOTES

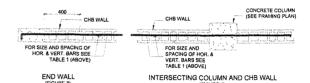
D. NOTES ON MASONRY WALLS

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND SPECIFICATIONS OF THE NATIONAL CONCRETE MASONRY ASSOCIATION
- 2. CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM COLORADE N
- 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 MPD 3500D 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
- 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	REINFORCEMENT		NOTES			
mm	HORIZONTAL	VERTICAL	Notes			
100	10mmØ @ 600mm O.C.	10mmØ @ 600mm O.C.	A MINIMUM LAP SLICES = 4000 B. PROVIDE 1-12mm0 VERTICAL BAR (\$ CORNERS, INTERSECTIONS, END OF WALLS, AND EACH SIDE OF OPENING.			
150	12mmව തൂ 600mm O.C.	12mmØ @ 600mm O.C.	C. WHERE CHB WALLS ADJOIN COLUMNS RC BEAMS A WALLS, DOWELS WITH THE SAME SIZE AS VERTICAL OR HORIZONTAL REINFORCEMENT SHALL BE PROVIDED. D. INTEL BEAMS SHALL BEAR AT LEAST 16 INCHES (400 mm) ON EACH SIDE OF MASONRY WALL OPENING.			





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

E. NOTES ON SLAB-ON-GRADE

- THE SOIL SURGRADE AND FILL LAYERS RELOW ALL SLAB ON CRADE DAVING AND DIT SHALL BE MECHANICALLY COMPACTED IN LAYERS, TO THE MIN. OF 85% OF THE MODIFIED
- SHALL BE MECHANICALLY COMPACTED IN LAYERS, TO THE MIN. OF 55% OF THE MODIFIED UNIFORM BUILDING CODE.
 ALL SLABS-ON-GRADE SHALL BE PROVIDED WITH A MIN. OF 75mm THK. GRAYEL BEDDING OR UNLESS NOTED.
- ON UNLESS NOTED.

 UNLESS OTHERWISE NOTED, ALL BEDDED SLABS SHALL BE REINFORCED WITH 12mm.
- ARREAT SOFTENTIALE MOTEUL ALL BEDDED SCABS SHALL BE NEINFORCED WITH 12mm BARB AT 300mm O.C. EACHWAY AT THE CENTER OF SLAB, PLACE SLAB IN ALTERNATING IN ORDER TO AVOID CONCRETE SHRINKAGE CRACKING, PLACE SLAB IN ALTERNATING LANE (OR OHECKBOARD) ATTERN. 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).

 SEE THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF DEPRESSED SLAB
 AREAS AND DRAINS, SLOPE SLAB TO DRAINS WHERE SHOWN.

F. NOTES ON FOUNDATIONS

- 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
- 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
- ALL RETAINING WALLS SHALL HAVE AT LEAST 12" OF FREE-DRAINING GRANDLAR BACKELL, 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.
- ALLOWABLE SOIL BEARING CAPACITY AS PER BY DEVELOPER

G. CONCRETE PROTECTION COVER FOR REINFORCEMENT

CONCRETE COVER FOR REINFORCEMENT SHALL BE MEASURED FROM THE CONCRETE GUVER FOR REINFORCEMENT SHALL BE MEASURED FROM THE CONCRETE SURFACE TO THE OUTER BOSE OF STIRRUPS, TIES OR SPIRALS OF THE STEEL, IS TO THE OUTER BOSE OF STIRRUPS, TIES OR SPIRALS ENCLOSING MAIN BAR TO THE OUTERMOST LAYER OF BARS IF MORE THAN ON 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. b) MEMBRANE OR BITUMASTIC COATING 18mm@ AND SMALLER OTHER BARS COLUMNS TIES GRADE BEAMS SLAB ON GRADE (FROM TOP SURFACE) c) CONCRETE NOT IN CONTACT WITH GROUND : SHEAR WALLS BEAMS AND COLUMNS OTHER BARS











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REVIEWED AS TO PLAN ENGR. FRANCISCO B. NARAG, JR.

ENGR

SUBMITTED BY

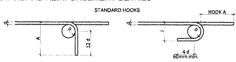
GENERAL NOTES

SHEET CONTENTS

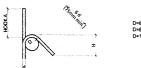
SHEET NO. S-1

STRUCTURAL DESIGN NOTES, STANDARD DRAWINGS & SPECIFICATIONS

H STANDARD REINFORCEMENT DETAILS



90° HOOKS Dand for dan mm through da25 mm D=8d for d=28 mm. d=32 mm. & d=36 mm Da 104 for da42 com 8 d-47 mm D=Finished bend diameters



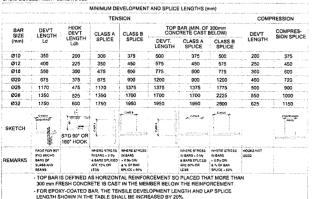
180° HOOKS D=6d for d=8 mm, through d=25 mm, D=8d for d=28 mm, d=32 mm, & d=36 mm De10d for du42 mm. E dir47 mm.

1364 HOOKS D=6d for d=8 mm. through d=25 mm.
D=8d for d=28 mm., d=32 mm. & d=36 mm Dat0d for da42 mm 8 da47 mm

STANDARD FND HOOK DIMENSIONS

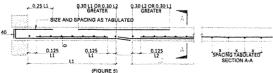
BAR SIZE (mm)	D(mm.)	180° HOOKS		90° HOOKS	135* HOOKS		
	- Opposit	A (mm.)		A (mm.)	A (mm.)	H (mm.)	
8	50	105	65	130	e compression of references		
10	60	125	80	155	110	65	
12	80	155	100	200	115	80	
16	95	180	130	250	140	95	
20	120	220	165	325	205	115	
25	155	275	205	425	270	155	
28	240	375	300	475		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

BASIC DEVELOPMENT LENGTH LAN



NOTES:

- 1 WELDED WIDE SARRIC MESH SHOULD BE LAPRED OVER AD INCENT SUBSTS BY 200 MIN
- 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.



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

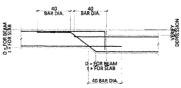
4. ALL REINFORCING STEEL SHALL BE SECURELY HELD IN PROPER POSITION WHILE POURING CONCRETE CHAIRS, TIES, SPACERS, ADDITIONAL BARS AND STIRRUPS SHALL BE PROVIDED BY THE CONTRACTOR TO FURNISH SUPPORT FOR

I. NOTES ON CONCRETE SLABS

- 1. ALL SLAB REINFORCEMENTS SHALL HAVE A MINIMUM CLEAR DISTANCE OF
- 1. ALL SLAB REINFORCEMENTS SHALL HAVE A IMMINUM CLEAR DISTANCE OF 20mm FROM THE BOTTOM AND FROM THE TOP OF SLABS WITH THE MAIN REINFORCEMENT RUNNING IN ONE DIRECTION, REINFORCING BARS SHALL BE UP, EXTENDED OR CUT AS FOLLOWS:
- IE SI ARR ARE DEINEADACH BATHWAYS BARS ALANG THE SHARTED SHAN IF SLABS ARE REINFORCED BOTHWAYS, BARS ALONG THE SHORTER SPAN SHALL BE PLACED BELOW THOSE ALONG THE LONGER SPAN THE CENTER OF THE SLAB AND BE PLACED OVER THE LONGER SPAN BARS ON AREA FLAR 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)
- MIDDLE STRIPS BUT NO CASE GREATER THAN TWO AND ONE-HALF (2-1/2)
 TIMES THE SLAB THICKNESS OR 450mm.

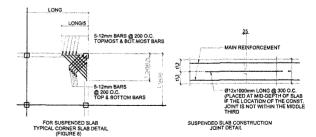
 4. TEMPERATURE BARS FOR SLABS SHALL BE GENERALLY PLACED NEAR THE
 FACE IN TENSION AND SHALL NOT BE LESS THAN 0025 BXT.

 5. UNLESS OTHERWISE NOTED, DROP SLABS SHALL BE PROVIDED WITH
- ADDITIONAL REINFORCEMENT AT THE LOCATION OF DROP AS SHOWN IN



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.
- 8. UNLESS OTHERWISE NOTED, EMBEDDED CONDUITS SHALL BE RUN GENERALLY AT MID-BAY. AND PARALLEL CONDUITS SHALL BE AT THREE DIAMETERS ON CENTER, CONDUIT SUE NOT EXCEED 14 OF THE SLAB THICKNESS AND SHALL RELOCATED AT MID THICKNESS OF THE SLAB



J. NOTES ON COLUMNS

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 OFFSET'S, AS SHOWN FIGURE 9)



TYPICAL SPLICE & OFFSET DETAIL OF COLUMN BARS

- 2. LAP SPLICES WHEN BECLIBED, ARE DEBNITTED ONLY WITHIN THE CENTER HALF OF THE COLLIMN . AP SHUCES, WHEN REQUIRED, ARE PREMITED 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 DIMERSION 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 DIMERSION THROUGHOUT THE LENGTH OF THE SPLICE OF 100 min.
- 3. FOR ALL TIED COLLIMIS, PROVIDE TRANSVERSE REINFORCEMENT OF THE SAME SIZE AND ARRANGEMENT MOICATED IN THE COLLIMIS RESTOR OBDEROUGH AND SPACED NO GREATER THAN ONE-COLARTER THE THE MINIMUM COLLIMIS SECTION DIMENSION NOR TOOMIN, OVER A DISTANCE FROM EACH JOINT FACE OF NOT LESS THAN THE LARGER OF THE MAX, COLLIMIS SECTION DIMENSION, OR NOR-SIXTH OF THE CLOSE. HEIGHT OF THE COLUMN OF ASSESSED
- 4. BEAM-COLUMN JOINTS SHALL BE PROVIDED WITH TRANSVERSE REINFORCEMENT SPACED AT TMICE 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 IDEEPEST BEAM THAT FRAME INTO FOUR SIDES OF THE COLUMN. FOR ALL OTHER CONDITIONS PROVIDE SAME AS









PROPOSED TESDA INNOVATION CENTER - ISAT

PROJECT TITLE:



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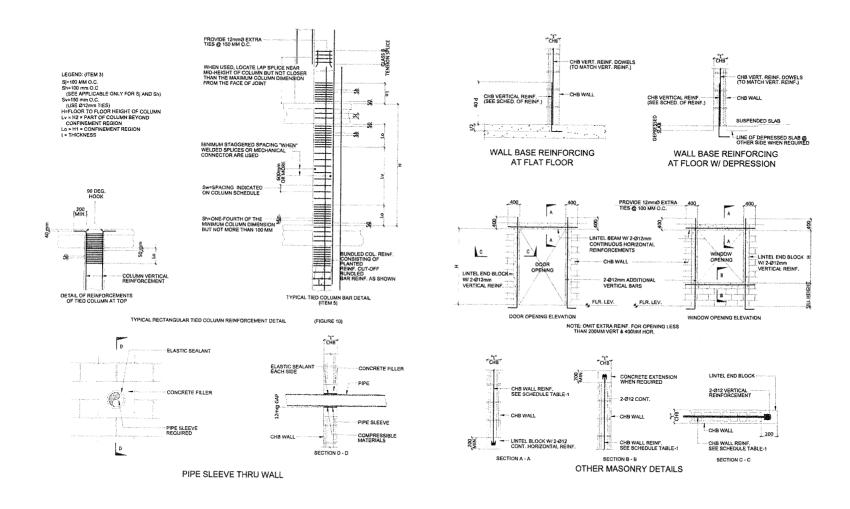
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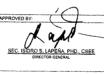
STRUCTURAL DESIGN NOTES, STANDARD DRAWINGS & SPECIFICATIONS

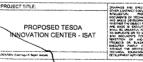
















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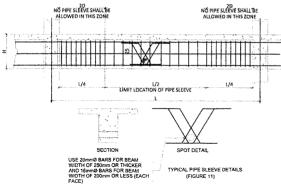
GENERAL NOTES

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STRUCTURAL DESIGN NOTES. STANDARD DRAWINGS & SPECIFICATIONS

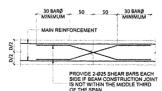
K. NOTES ON BEAMS AND GIRDERS

- 1 LINESS OTHERWISE NOTED IN PLANS OF SPECIFICATIONS, CAMBER ALL BEAUS AT LEAST 5000 COD ONLESS OTHERWISE FOR LEW PLOUS ON SPECIFICATIONS, OWNERS ALL BEAUS AT LEAST SMITH 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 ENGINEERS BUT IN NO CASE LESS THAN 19mm FOR EVERY 3000m OF FREE SPAN.
- 2. If THERE ARE TWO OR MORE LAYERS OF LONGITUDINAL REINFORCING BARS IN A REAM OR GIRDER LISE THE HERE ARE TWO OR MORE LAYERS OF LUNGITODINAL REINFORCING BARS IN A BEAM OR GIRDER, L 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 REAM OR GIRDER SECTION WHERE POSSIBLE WITH LIPPER 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. GORE 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 SPILICES IN GIRDERS WITH HOOP REINFORCEMENT OVER THE LENGTH OF THE LAPPED BARS SPACED NO FARTHER THAN ONE-FOURTH THE NOMINAL DEPTH, OR 100
- SEE MECHANICAL, PLUMBING, ELECTRICAL AND FIRE PROTECTION DRAWINGS FOR ALL SUSPENDED AND EMBEDDED PIPING. CONDUITS. DUCTWORKS. EQUIPMENTS. ETC.
- PIPE AND DUCT SLEEVES SHALL BE LOCATED WITHIN THE REGION BOUNDED BY ONE-FOURTH OF CLEAR SPAN LENGTH FROM THE SUPPORTS, (SEE FIGURE 11)

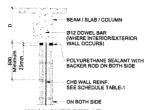


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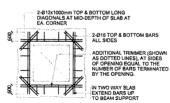
- 1. SEEK STRUCT'L ENGINEER'S APPROVAL FOR PIPE SLEEVES W/ DIAMETERS BIGGER THAN THE MAXIMUM STIPULATED.
- PIPE SLEEVES SHALL BE LOCATED WITHIN TENSION ZONES OF BEAM.



BEAM CONSTRUCTION JOINT DETAIL



WALL SUPPORT AT BOTTOM OF BEAM/SLAB/COLUMN



SLAB OPENING DETAIL

NOTE

PROJECT TITLE

- 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

2. LIVE LOADS
8. CORRIDORS 4.80 M b. REST ROOMS 1.92 M C. LIGHT STORAGE 6.00 M d. STAIRWAYS 4.80 M e. ROOFING 1.00 M f. ROOMS 1.90 M

DESIGNITOADS

4. DESIGN STRESSES a CONCRETE

V = 7IW/RT BASED ON 2010 NSCI

UNLESS OTHERWISE INDICATED IN PLANS OR NOTED IN THE SPECIFICATIONS THE MINIMUM28-DAYS CYLINDER COMPRESSIVE STRENGTH OF CONCRETE FG, SHALL BE AS EQ. LOWER.

FOLCOWS.	
1.1 FOR COLUMN/BEAMS	27.80 Mpa (4.000 p
1.2 FOR SUSPENDED SLAB	27.60 Mps (4,000 p
1.3 FOR FOOTINGS	27.60 Mpa (4,000 p
1.4 FOR WALL FOOTINGS	20.70 Mpa (3,000 p
1.5 FOR SLAB-ON-GRADE/FILL, PARAPET WALLS.	20.70 Mpg (3,000 p
GUTTERS AND OTHER STRUCTURAL ELEMENTS	
	6 10 14Dn / 750 not

PERMENDONING STEEL DADE

ALL REINFORCING STEEL BARS SHALL BE NEW BILLET, HOT ROLLED, WELDABLE.
DEFORMED BARS CONFORMING TO THE SPECIFICATIONS OF PNS 49: 1986 (ASTM 815)
WHOSE GRADE IS SHOWN ON TABLE 2.

TABLE-2 : REINFORCING STEEL BARS

	GRADE	BAR DIAMETER		
G	RADE 413.82 (fy = 60 ksl)	160 mm & above MAIN STR'L BARS		
G	RADE 275.88 (fy = 40 kgi)	120 mm & below TIES & HOOPS		

- 2. THE SUPPLEMENTARY REQUIREMENTS OF WEI DABLE DEFORMED REINFORCING BARS SHALL BE AS FOLLOWS
- 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

	MEMBER	ASTM	MIN. STRENGT		
STRU	JCTURAL TUBING	A 500 (GRADE B)	36 KSI		
STEE	L PIPE	A 53 (TYPE E. GR. B)	36 KSI		
OTH	ER ROLED PLATES/SHAPES	A 36	36 KSI		
CON	NECTION BOLTS	A 325	105 KSI		
ANCI	HOR BOLTS	A 325	105 KSI		
THRE	EADED RODS	A 36	36 KSI		
NON:	SHRINK GROUT	G 1107	6000 PSI		

STRUCTURAL ELEMENT DESIGNATION

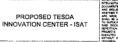
ALT.	18.00	ALTERNATE	CS		COLUMN STRIP
B.W.		BOTH WAYS	CU. M.		CUBIC METER
2B-1		BEAM MARK	d _b		BAR DIAMETER
5B/9		BOTTOM BAR	DIA. or Ø		DIAMETER
вм	1,00	BOTTOM MOST BAR	E.F.		EACH FACE
C-1	491	COLUMN MARK	E.W.		EACH WAY
CB-1	1400	CANTILEVER BEAM/CORBEL	E.A		EACH
CHB		CONCRETE HOLLOW BLOCK	EQ.		EQUAL
C.O.C.	•	CENTER ON CENTER	ISO, JT.		ISOLATION JOINT
COL.		COLUMN	kN		KILONEWTON
CONC.		CONCRETE	kPA	4.11	KILOPASCAL
CONT.		CONTINOUS	Kaj		KIPS PER SQUARE INCH











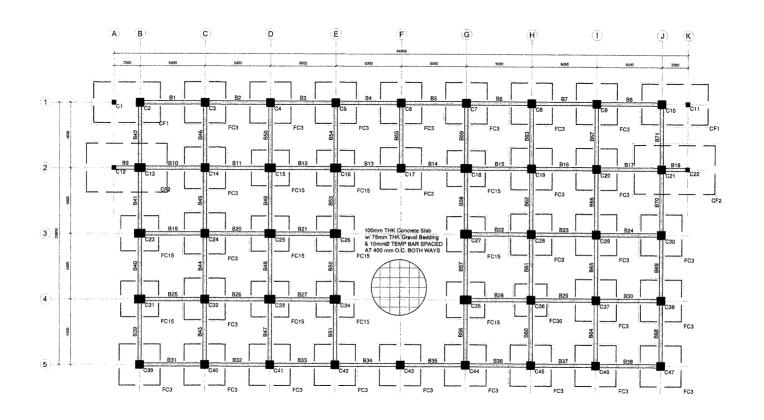




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SUBMITTED BY MINGARACAL

SHEET CONTENTS; SHEET NO. GENERAL NOTES S-4







DIR. DAVID I. BUNGALLON
EXECUTES NECTOR WIESD

DIR. JULIA S. PROZCO
DIR STAR
DIRECTE H-CHARGE. SPU

PPROVED BY:

SEC. ISIDRO S. LAPEÑA, PHD. CSEE
ORIECTOR GENERAL

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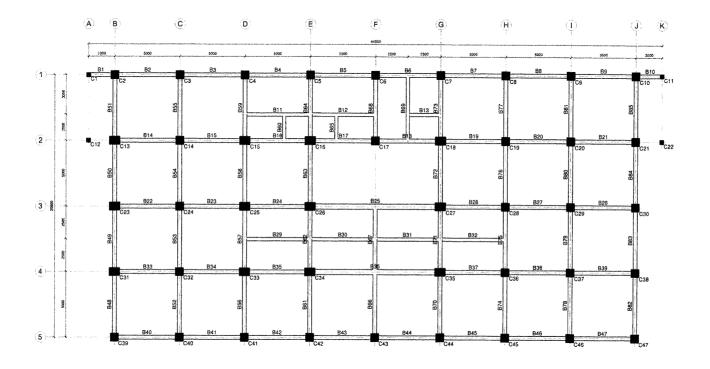
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DIR. DEMOB. BUNGALLON EXECUTIVE PRECTOR, MESSO DIR JULY C OROZCO
CRECTOR NA
DIRECTOR NA
DIRECTOR NA
DIRECTOR NA
DIRECTOR PLCHARGE, SPU

SEC. ISIDRO S. LAPERA PHD., CSEE DRECTOR GENERAL

PROJECT TITLE:

SCHOOL STATES AND STATES AND



ENGR. FRANCISCO B. NARAG, J CHYL ENGINEER TEGOLISAT

REVIEWED AS TO PLAN:

ENGR. ROY OUR P. MINGARACAL

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