GENERAL NOTES

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS ON SITE AND NOTIFY THE ARCHITECT OR OWNER REPRESENTATIVE OF ANY DISCREPANCIES WITH THE CONSTRUCTION DOCUMENTS BEFORE BIDDING. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN.
2. THESE GENERAL NOTES SUPPLEMENT THE PROJECT SPECIFICATIONS. REFER TO THE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
4. THE CONTRACTOR SHALL INFORM THE ARCHITECT/ENGINEER IN WRITING OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY OF SUCH DEVIATION BY THE PROFESSIONAL OF RECORD REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC., UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE PROFESSIONAL OF RECORD OF SUCH DEVIATION AT THE TIME OF SUBMISSION, AND THE PROFESSIONAL OF RECORD HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.
5. ALL MATERIAL, METHODS OF INSTALLATION AND FINISHING OF CONSTRUCTION SYSTEMS (PARTITIONS, CEILINGS, DOORS, FRAMES AND FLOOR ETC.) SHALL CONFORM THE MANUFACTURER'S SPECIFICATIONS AND INSTALLATION INSTRUCTIONS FOR THE EXPECTED USE.
6. CONTRACTORS SHALL MAKE PROVISIONS UPON CONTRACT AWARD TO ORDER FROM SUPPLIERS ALL ITEMS SPECIFIED IN CONSTRUCTION DOCUMENTS AND THAT ARE NOT IN STOCK IN PUERTO RICO IN ORDER TO AVOID DELAYS OR CHANGES IN THE SPECIFIED PRODUCTS AND MATERIALS.
7. IN CASE OF DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS, ERROR, OMISSION OR DISCREPANCIES IN ANY DRAWING. CONTRACTOR SHALL NOTIFY THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
8. CONTRACTOR SHALL MAKE PROVISIONS SO THAT THE OPERATIONS WITHIN BUILDING OR SITE ARE NOT INTERRUPTED IN ANY WAY DURING CONSTRUCTION. WORK MUST BE COORDINATED BETWEEN THE CONTRACTOR AND OWNER REPRESENTATIVE BEFORE CONSTRUCTION BEGINS AND DURING ACTUAL CONSTRUCTION. CONTRACTOR IS ADVISED THAT THE BUILDING WILL BE OCCUPIED AND IN USE DURING THE CONSTRUCTION PERIOD, WHEN APPLICABLE.
9. REVIEW AND APPROVAL OF CONSTRUCTION WORK, ITEMS, AND PRODUCTS SUBMITTED DO NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS OR OMISSIONS WHICH MAY EXIST IN THE PERFORMED WORK.
5. NO OPENINGS, OTHER THAN THOSE SHOWN ON THESE DRAWINGS, SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER.
6. NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER.
7. DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALES SHOWN ON DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS.
8. ALL CUTTING OF EXISTING CONCRETE, MASONRY OR PAVEMENT SHALL BE MADE USING BLADE SAW WITH CARBORUNDUM DISK.
9. CONTRACTOR SHALL PROTECT EXISTING FURNITURE AND EQUIPMENT FROM SPLASHING DURING PAINTING. ANY SPLASHING OR DRIPPING PAINT MUST BE REMOVED BY CONTRACTOR, WHEN APPLICABLE.
10. CONTRACTOR SHALL VERIFY ON SITE ALL EXISTING CONDITIONS AND INFORM THE ARCHITECT OR OWNER REPRESENTATIVE ANY DEVIATIONS FROM DRAWINGS PRIOR TO EXECUTING ANY DEMOLITION WORK.
11. CONTRACTOR SHALL TAKE MAXIMUM PRECAUTIONS IN ORDER TO PREVENT DAMAGE TO EQUIPMENT OR ADJACENT PROPERTY AND AVOID INJURIES PERSONNEL AND PEOPLE.
12. CONTRACTOR SHALL REPLACE AND/OR REPAIR PAVEMENT, STRUCTURES OR EQUIPMENT DETERIORATED OR DAMAGED IN ANY WAY BY THE CONSTRUCTION PROCESS WHETHER OR NOT SPECIFICALLY STATED IN THE DRAWINGS.
13. CONTRACTOR SHALL NOTIFY OF ANY STRUCTURAL DEFICIENCIES BEFORE PROCEEDING WITH A GIVEN CONSTRUCTION.
14. CONTRACTOR SHALL PROVIDE ALL ELECTRICAL, MECHANICAL, AND OTHER CONNECTIONS AS REQUIRED FOR ALL ITEMS SPECIFIED OR CALLED FOR TO BE RELOCATED WHETHER SPECIFICALLY MENTIONED NOT IN THE DRAWINGS.
15. CONTRACTOR MUST BE AWARE AND INFORMED ABOUT GOVERNMENTAL AGENCIES REGULATIONS, PERMITS AND REQUIREMENTS CONCERNING THE WORK TO BE PERFORMED.
16. CONTRACTOR AND HIS SUBCONTRACTORS SHALL TURN THE PROJECT OVER TO OWNER, FREE FROM ALL CONSTRUCTION DEBRIS.
17. CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY UNFORESEEN JOB CONDITIONS WHICH MIGHT AFFECT PROJECT COSTS. EXTRA WORK AND/OR COSTS MUST BE APPROVED IN WRITING PRIOR TO CONSTRUCTION OF SUCH WORK.
18. IT IS UNDERSTOOD THAT WHILE NOT EVERY DETAIL OF THE WORK IS SHOWN ON THE DRAWINGS OR SPECIFICATIONS, THE WORK INCLUDES ITEMS INFERABLE FROM THE CONTRACTOR'S DOCUMENTS. THE OWNER SHALL NOT BE HELD RESPONSIBLE FOR THE ABSENCE OF ANY DETAIL THE CONTRACTOR MAY REQUIRE FOR ANY CONSTRUCTION WHICH MAY BE FOUND NECESSARY AS THE WORK PROGRESSES. IF ANY ITEM OR SYSTEM IS EITHER SHOWN OR SPECIFIED. ALL MATERIALS AND EQUIPMENT NORMALLY FURNISHED WITH SUCH ITEMS OR SYSTEMS AND/OR NEEDED TO MAKE A COMPLETE OPERATION INSTALLATION, SHALL BE PROVIDED WHETHER MENTIONED OR NOT, OMITTING ONLY SUCH PARTS AS ARE SPECIFICALLY EXCEPTED.
19. CONTRACTOR TO COORDINATE WITH ALL DISCIPLINES FOR ALL LOCATIONS OF 3/4." PLYWOOD BACKING BEHIND GYP BD. BETWEEN METAL STUDS FOR WALL ATTACHMENTS, IE. ALL EXTERIOR LUMBER SHALL BE PRESSURE TREATED.

CAST-IN-PLACE REINFORCED CONCRETE NOTES

1. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PRODUCE CORRECTLY ALIGNED CONCRETE MEMBERS.
2. CONCRETE MIX PARAMETERS ARE:

   MIN. COMPRESSIVE STRENGTH AT 28 DAYS f'c = 4,000 PSI (W/C =.55)
   MAXIMUM SLUMP PERMITTED = 3 IN (SLABS AND WALLS).
   MAXIMUM SLUMP PERMITTED = 4 IN (BEAMS AND COLUMNS).
   MAXIMUM COARSE SIZE AGGREGATE = 3/4 IN.
   FOR AUGER CAST PILES MIN. F'c=5,000 PSI (W/C = .45)
3. CONCRETE SHALL BE NON-AIR ENTRAINED. AIR CONTENT SHALL BE BETWEEN 0 AND 3.5 PERCENT.
4. CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR REVIEW WELL IN ADVANCE OF CONCRETE PLACEMENT. CONCRETE MIX DESIGN SHALL INCLUDE ALL STRENGTH DATA NECESSARY TO SHOW COMPLIANCE WITH THE PROJECT SPECIFICATIONS FOR EITHER THE TRIAL BATCH OR FIELD EXPERIENCE METHOD AND SHALL BE CERTIFIED BY A REGISTERED LICENSED ENGINEER. PHYSICAL TESTS RESULTS FOR COARSE AND FINE AGGREGATES SHALL ALSO BE SUBMITTED CERTIFIED BY A REGISTERED ENGINEER.
5. MINIMUM CONCRETE COVER, UNLESS NOTED OTHERWISE: 3 IN.
6. ALL REINFORCING SHALL BE DETAILED, FABRICATED AND PLACED, IN ACCORDANCE WITH ACI DETAILING MANUAL (SP-66) AND THE MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION BY THE CRSI. DEVELOPMENT LENGTHS AND REBAR SPLICES SHALL MEET ACI-318 REQUIREMENTS.
7. ALL REINFORCING SHALL BE SUPPORTED IN FORMS USING STEEL CHAIRS, SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WIRED TOGETHER, IN ACCORDANCE WITH CRSI MANUAL OF STANDARD PRACTICE.
8. NO DEFECTIVE CONCRETE SHALL BE CORRECTED OR COVERED WITH MORTAR, PLASTER ETC. WITHOUT THE INSPECTORS' APPROVAL.
9. CONCRETE WORK SHALL BE SUBJECT TO QUALITY ASSURANCE TESTING AND INSPECTIONS.
10. ALL SYMBOLS AND STRESSES AS WELL AS CONCRETE WORK SHALL CONFORM TO THE STANDARD OF THE LATEST VERSION OF THE ACI BUILDING CODE.
11. ALL BOLTS SHALL BE WELL SECURED AND IN PLACE BEFORE CONCRETE IS POURED.
12. PLACEMENT OF CONCRETE SHALL CONFORM TO ACI STANDARD 304 AND PROJECT SPECIFICATIONS.
13. ALL CAST IN PLACE REINFORCED CONCRETE STRUCTURAL MEMBERS SHALL BE PROPERLY CURED IN ACCORDANCE WITH THE LATEST VERSION OF THE ACI CODE, CHAPTER V AND ACI 308.
14. ALL LAPPING, BENDING AND PLACING OR REINFORCEMENT SHALL BE DONE IN ACCORDANCE WITH THE LATEST VERSION OF THE ACI BUILDING CODE.
15. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.

REFERENCES

DESIGN, FABRICATION & CONSTRUCTION WORK SHALL COMPLY WITH THE REQUIREMENTS AND PROVISIONS OF THE FOLLOWING CODES AND SPECIFICATIONS THEIR COMMENTARIES AND THE STANDARDS REFERENCED THEREIN:

1. AMERICAN CONCRETE INSTITUTE (ACI)
2. INTERNATIONAL BUILDING CODE, 2018 (IBC)
3. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
4. CONCRETE REINFORCING STEEL INSTITUTE (CRSI)
5. AMERICAN WELDING SOCIETY (AWS)
6. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)
7. STEEL DECK INSTITUTE (SDI)
8. STEEL JOIST INSTITUTE (SJI)

DESIGN LOADS

1. DEAD LOADS — FLOORS 37 PSF; ROOF 64 PSF
2. LIVE LOADS — FLOORS 125 PSF; LOADING DOCK 250 PSF; ROOF 64 PSF
3. WIND LOADS
   AS PER ASCE-7 10(IBC 2018) DESIGN WIND SPEED IS 160 MPH, EXPOSURE B, STRUCTURAL CATEGORY I.
4. SEISMIC LOADS
   AS PER H-18-8, ASCE-7 10 (IBC 2018)
   FOR SAN JUAN, PR Ss = 98%, S1 = 39%
   SEISMICITY = HIGH

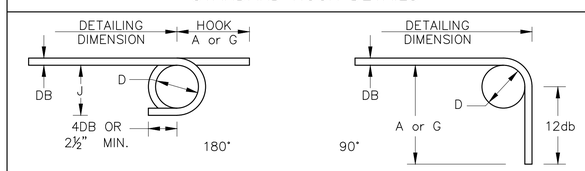
CLASS B LAP SPLICE LENGTH TO BE USED FOR BEAMS, COLUMS AND FOUNDATIONS

	F'C (PSI)	NO. 6 AND SMALLER BARS	NO.7 AND LARGER BARS
CLEAR SPACING OF BARS BEING DEVELOPED OR NOT LESS THAN DB CLEAR COVER NOT LESS THAN DB, AND BEAM STIRRUPS OR COLUMNS TIES THROUGHOUT LD NOT LESS THAT CODE MINIMUM; OR CLEAR SPACING OF BARS BE IN DEVELOPED OR SPLICED NOT LESS THAN 2 DB AND CLEAR COVER NO LESS THAN DB.	3,000	58db	72db
	4,000	50db	61db
	5,000	45db	55db
	6,000	41db	51db
	8,000	36db	45db
	10,000	32db	39db
OTHER CASES	3,000	86db	107db
	4,000	75db	93db
	5,000	67db	84db
	6,000	60db	76db
	8,000	52db	65db
	10,000	47db	59db

NOTE:

1. ALL LAP SPLICES SHALL BE CONSIDERED CASE B UNLESS OTHERWISE NOTED.
2. FOR CLASS A LAP SPLICES DIVIDE THE VALUES GIVEN ON TABLE BY 1.3.
3. REBAR DEVELOPMENT LENGTH IS EQUIVALENT TO VALUES IN TABLE DIVIDED BY 1.3
4. FOR WALLS, USE DEVELOPMENT LENGTH AS SPLICE LENGTH.

STANDARD HOOK DETAILS



RECOMMENDED END HOOKS , ALL GRADES

BAR SIDE	D	180° HOOKS A or G	180° HOOKS J	90° HOOKS A or G
#3	2½"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3¾"	7"	5"	10"
#6	4½"	8"	6"	1'-0"
#7	5¼"	10"	7"	1'-2"
#8	6"	11"	8"	1'-4"
#9	9½"	1'-3"	11¾"	1'-7"
#10	10¾"	1'-5"	1'-1¼"	1'-10"
#11	12"	1'-7"	1'-2¾"	2'-0"
#14	19¼"	2'-3"	1'-9¾"	2'-7"
#18	24"	3'-0"	2'-4½"	3'-5"

STANDARD HOOK TENSION DEVELOPMENT LENGTH

BAR SIZE ENGLISH UNIT	BAR SIZE METRIC UNIT	3,000	4,000	5,000
#3	#10	8.2	7.1	6.4
#4	#13	11.0	9.5	8.5
#5	#16	13.7	11.9	10.6
#6	#19	16.4	14.2	12.7
#7	#22	19.2	16.6	14.8
#8	#25	21.9	19.0	17.0
#9	#29	24.7	21.4	19.1
#10	#32	27.8	24.1	21.6
#11	#36	30.9	26.8	23.9
#14	#43	37.1	32.1	28.7
#18	#57	49.4	42.8	38.3

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PROFESSIONAL SEAL:

PROJECT

WORLD PLAZA - RELOCALIZACIÓN COMPACTADORA DE BASURA

SAN JUAN
Puerto Rico

REVISIONS

Rev	Date	Description
0	01 MAR 23	NEW DRAWING

File Name: .
Scale: AS SHOWN Date: FEB 2023

DRAWING TITLE

SITE IMPROVEMENTS GENERAL NOTES

DRAWING NO.

SI-4