



GENERAL NOTES

- 1- ALL WORK MUST MEET THE STANDARDS OF THE 2015 INTERNATIONAL BUILDING CODE- THE STATE OF NEW JERSEY EDITION AND 2015 AMENDMENTS AND THE STATE OF NEW JERSEY DEPARTMENT OF COMMUNITY AFFAIRS REHABILITATION SUBCODE 5:23-6.
- DO NOT SCALE DRAWINGS. DRAWINGS ARE FOR GENERAL PURPOSES ONLY. NO MEASUREMENTS SHALL BE SCALED OFF DRAWINGS. ALL MEASUREMENTS SHALL BE VERIFIED IN FIELD. 2-
- CONNOR ARCHITECTURE ACCEPTS NO RESPONSIBILITY FOR UNAUTHORIZED REPRODUCTION OR UNAUTHORIZED USE OF THIS DOCUMENT. 3-
- DUE TO THE NATURE OF THE WORK THE CONTRACTOR SHALL VERIFY EXISTING DIMENSIONS AND REPORT TO THE ARCHITECT ANY DIMENSIONAL CHANGES. FAILURE TO COMPLY WILL NOT ALLOW FOR ANY 4-CHANGES BY THE CONTRACTOR.
- INFORMATION REGARDING THE PROJECT CONDITIONS HAVE BEEN TAKEN FROM FIELD OBSERVATIONS. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS BEFORE COMPLETION OF BID STAGE, INCLUDING 5-ABOVE CEILING, BELOW SLAB, WALL COMPOSITION AND UTILITIES, AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES BETWEEN PLANS, SPECS, AND EXISTING CONDITIONS.
- 6-ITEM.
- SEE SPECIFICATIONS AND DRAWINGS FOR OTHER OWNER SUPPLIED/ CONTRACTOR INSTALLED ITEMS. 7-
- ALL MATERIALS USED FOR THE CONSTRUCTION OF THIS PROJECT, WHETHER BUILDING MATERIALS OR APPURTENANCES, SHALL BE NON-ASBESTOS CONTAINING MATERIALS. 8-
- 9-ALL SHOP DRAWINGS (MILLWORK, STEEL, SIGNAGE, ETC.) TO BE SUBMITTED TO ARCHITECT FOR APPROVAL. ALL SAMPLES (FLOORING, PAINT, STAINLESS STEEL, WALLCOVERING, LAMINATE, & SOLID SURFACE
- 10- CONTRACTOR MUST COORDINATE WITH OWNER ON ALL ACTIVITIES, INCLUDING UTILITIES SHUT DOWN OR MODIFIED. WORK MUST NOT INTERFERE WITH EXISTING SMOKE DETECTORS, AND ALARMS.
- 11- RAMAPO COLLEGE AND THE ARCHITECT SHALL OBTAIN ANY BUILDING PERMIT REQUIRED. RAMAPO COLLEGE TO PAY FEES ASSOCIATED WITH ALL REVIEWS AND PERMITS.

AREA LOCATION PLAN







)	FOUNDATION PLAN
	ROOF FRAMING PLAN
)	SECTIONS
	SECTIONS
2	SECTIONS
)	PIERS AND BASEPLATES
)	STANDARD NOTES
	STANDARD DETAILS

G-001	CODECON
A-001	WALL & DC
A-002	WINDOW II
AD-100	DEMOLITIO
ID-100	INTERIOR D
ID-200	DEMOLITIO
A-100	FLOOR PLA
A-101	FLOOR PLA
A-150	PLAN DETA
A-170	ROOF PLAN
A-171	ROOF DETA
A-200	EXTERIOR E
A-201	building s
A-300	WALL SECTI
A-301	WALL SECTI
A-302	WALL SECTI
A-800	3 DIMENSIC







ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE UNLESS SPECIFIED OTHERWISE FOR A LONGER PERIOD OF TIME ON A CERTAIN

FOUNDATION SCHEDULE					
TYPE	LENGTH	WIDTH	THICKNESS	BOTTOM REINFORCEMENT	
F2.5x4.0	4'-0"	2'-6"	1'-0"	#5 BARS @ 8" o/c EA WAY	
F2.5x4.5	4'-6"	2'-6"	1'-0"	#5 BARS @ 8" o/c EA WAY	
F3.0	3'-0"	3'-0"	1'-0"	(3) #5 BARS EA WAY	
F4.0	4'-0"	4'-0"	1'-0"	(6) #5 BARS EA WAY	
F4.5	4'-6"	4'-6"	1'-0"	(6) #5 BARS EA WAY	
F5.0	5'-0"	5'-0"	1'-2"	(6) #5 BARS EA WAY	
F5.5	5'-6"	5'-6"	1'-2"	(6) #5 BARS EA WAY	
F6.0	6'-0"	6'-0"	1'-2"	(6) #5 BARS EA WAY	
F4.5x6.0	6'-0"	4'-6"	1'-4"	#6 BARS @ 12" o/c EA WAY	
F4.5x9.0	9'-0"	4'-6"	1'-8"	#6 BARS @ 12" o/c EAY WAY	

























CRUSHED STONE	FOUNDATION NOTES
1. PRIOR TO PLACING CRUSHED STONE, ALL ORGANIC MATERIAL, TOPSOIL, DEBRIS AND ANY OTHER DELETERIOUS MATERIAL SHALL BE REMOVED.	1. ALL STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SITE, ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS AND THE SPECIFICATIONS.
2. CRUSHED STONE SHALL BE AN APPROVED MATERIAL MEETING THE REQUIREMENTS OF THE FOLLOWING TABLE:	2. ALL CONCRETE WORK SHALL COMPLY WITH THE LATEST RECOMMENDATIONS AND SPECIFICATIONS OF THE AMERICAN CONCRETE INSTITUTE (ACI) AND THE LOCAL
SIEVE DESIGNATION <u>% PASSING</u> 1 3/4" 100 1 1/2" 80 - 100	ACI 211.1 RECOMMENDED PRACTICE FOR SELECTING PROPORTIONS FOR
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	ACI 212 GUIDE FOR USE OF ADMIXTURES IN CONCRETE – COMMITTEE REPORT ACI 214 RECOMMENDED PRACTICE FOR EVALUATION OF COMPRESSION
3. THE MATERIAL SHALL BE PLACED IN MAXIMUM 12" LIFTS AND	ACI 214 RECOMMENDED FRACTICE FOR EVALUATION OF COMPRESSION RESULTS OF FIELD CONCRETE ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS ACI 302 RECOMMENDED PRACTICE FOR CONCRETE FLOOR AND SLAB
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, FROM A	ACI 302 RECOMMENDED TRACINE TOR CONCRETE TEOR AND SEAB CONSTRUCTION ACI 304 GUIDE FOR MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE
THE PROPOSED CRUSHED STONE. THE PROCEDURE SHALL BE REPEATED UNTIL A MATERIAL MEETING THE ABOVE REQUIREMENTS IS PROVIDED.	ACI 305 RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING ACI 306 RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING ACI 308 RECOMMENDED PRACTICE FOR CURING CONCRETE
	ACI 309 RECOMMENDED PRACTICE FOR CONSOLIDATION OF CONCRETE ACI 315 MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCEI
COLD WEATHER CONSTRUCTION PROCEDURES	ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE ACI 347 RECOMMENDED PRACTICE FOR CONCRETE FORMWORK
1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTINUOUSLY	3. ALL CONCRETE SHALL BE NORMAL WEIGHT HAVING A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI PSI AT 28 DAYS WITH THE FOLLOWING REQUIREMENTS
FROM DAMAGE DUE TO COLD TEMPERATURES UNTIL THE BUILDING HAS BEEN TURNED OVER TO THE OWNER. THIS SHALL INCLUDE TEMPORARY	PORTLAND CEMENT — ASTM C150, TYPE I/II. Aggregate — Astm C33, 1" maximum size for structural concret
 IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE ANY DAMAGED OR DEFECTIVE WORK. IN A MANNER APPROVED BY 	SLABS-ON-GRADE) 3/8" MAXIMUM SIZE FOR STAIR FILL AND 1 1/2" I SIZE FOR FOOTINGS. USE 1 1/2" AGGREGATE FOR ALL SLABS-ON-GR
THE ENGINEER. 3. ALL PROTECTIVE AND CORRECTIVE WORK SHALL BE AT THE EXPENSE OF	WATER - POTABLE WITH A MAXIMUM WATER CEMENT RATIO OF 0.50. SLUMP - 3" TO 5".
THE CONTRACTOR.	ADMIXTURES — USE AIR ENTRAINING AGENT CONFORMING TO ASTM C260 4—6% TOTAL AIR. USE WATER REDUCING AGENT CONFORMING TO ASTM IN ALL CONCRETE
	DESIGN MIX – SUBMIT A CURRENT (MAXIMUM 18 MONTHS OLD) DESIGN THE EXACT SAME MIX TO BE USED ON THE PROJECT WITH 28 DAY
	COMPRESSIVE STRENGTH TESTS, TO THE ENGINEER FOR REVIEW PRIOR T STARTING CONSTRUCTION.
SAFETY AND PROTECTION	 ALL REINFORCING STEEL SHALL COMPLY WITH ASTM A615, GRADE 60 (ASTM A GRADE 400) EXCEPT AS OTHERWISE NOTED.
PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF, AND SHALL PROVIDE THE NECESSARY PROTECTION TO PREVENT DAMAGE IN JURY OF LOSS TO	 LAP ALL BARS 40 DIAMETERS MINIMUM AT SPLICES UNLESS INDICATED OTHERW ON THE DRAWINGS. TOP BARS TO BE SPLICED AT MIDSPAN AND BOTTOM BAI SUPPORTS.
1. ALL EMPLOYEES ON THE WORK AND OTHER PERSONS WHO MAY BE AFFECTED THEREBY.	6. REINFORCEMENT SHALL BE SECURELY TIED IN ITS PROPER PLACE BEFORE AND DURING POURING OPERATIONS USING APPROVED CHAIRS AND SPACERS AS REC
2. ALL THE WORK AND ALL MATERIALS OR EQUIPMENT TO BE INCORPORATED THEREIN, WHETHER IN STORAGE ON OR OFF, THE SITE, AND	NO BARS SHALL BE CUT OR OMITTED IN THE FIELD WITHOUT THE APPROVAL (ENGINEER. USE PLASTIC TIPPED ACCESSORIES IN CONCRETE EXPOSED TO WEATHER, WATER OR VIEW.
3. OTHER PROPERTY AT THE SITE OR ADJACENT THERETO, INCLUDING TREES, SHRUBS, LAWNS, WALKS, PAVEMENTS, ROADWAYS, STRUCTURES AND UTILITIES NOT DESIGNATED FOR REMOVAL, RELOCATION OR REPLACEMENT IN THE COURSE OF CONSTRUCTION.	7. WHERE CONTINUOUS BARS ARE CALLED FOR, INDICATED OR REQUIRED, THEY SI BE RUN CONTINUOUSLY AROUND CORNERS, DOWELED INTO INTERSECTING WALL LAPPED AT NECESSARY SPLICES WITH SPLICES STAGGERED WHEREVER POSSIBL
CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE STANDARDS (SPECIFICALLY INCLUDING OSHA, AND ANY OTHER STATE ADOPTED OSHA PROGRAM), LAWS, ORDINANCES, RULES, REGULATIONS AND ORDERS	8. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:
PROTECT THEM FROM DAMAGE, INJURY OR LOSS; AND SHALL ERECT AND MAINTAIN ALL NECESSARY SAFEGUARDS FOR SUCH SAFETY AND PROTECTION. CONTRACTOR SHALL NOTIFY OWNERS OF ADJACENT PROPERTY AND UTULTIES WHEN EXECUTION OF THE WORK MAY AFFECT THEM	CONCRETE CAST AGAINST EARTH 3' FORMED CONCRETE EXPOSED TO EARTH OR WEATHER
CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIRS AND OTHER COSTS ARISING FROM ANY DAMAGE AT THE SITE OR ADJACENT THERETO.	#5 (16) AND SMALLER 1 1/2 #6 (#19) AND LARGER 2 CONCRETE NOT EXPOSED TO EARTH OR WEATHER
CONTRACTOR'S DUTIES AND RESPONSIBILITIES FOR THE SAFETY AND PROTECTION OF THE WORK SHALL CONTINUE UNTIL SUCH TIME AS ALL THE WORK IS COMPLETED.	SLABS, WALLS AND JOISTS 3/4" BEAMS AND COLUMNS 1 1/
	9. THE CONCRETE CONTRACTOR SHALL INSTALL (OR GIVE OTHER TRADES AMPLE OPPORTUNITY TO INSTALL) ALL ANCHORS, BOLTS, PLATE, NAILERS, SLOTS, CHASES, PIPE SLEEVES, ETC., AS REQUIRED BY OTHER TRADES. THE CONTRA SHALL VERIES ALL DIMENSIONS REFORE SETTING SCREEDS AND FORMS
SAND FILL UNDER SLABS	10. FOOTINGS SHALL REST ON SUITABLE UNDISTURBED SOIL OR COMPACTED GRANU FILL HAVING A MINIMUM BEARING CAPACITY OF 4000 PSF. ELEVATIONS OF
1. SAND FILL SHALL BE AN APPROVED, WELL GRADED BANK RUN SAND MEETING THE	BOTTOM OF FOOTINGS ARE SHOWN ON PLANS, BUT ARE SUBJECT TO REVISION WHEN TRUE SOIL CONDITIONS ARE EXPOSED BY EXCAVA THE ENGINEER SHALL BE NOTIFIED PROMPTLY OF ANY WEAK STRATA,
REQUIREMENTS OF THE FOLLOWING TABLE: <u>SIEVE DESIGNATION</u> <u>% PASSING</u>	WATER CONDITIONS OR OTHER POOR BEARING CONDITIONS. SEE GEOTECHNICAL DATED 11–17–2015 BY SOR CONSULTING ENGINEERS FOR COMPLETE FOUNDAT PREPARATION AND DEWATERING REQUIREMENTS.
3/8 100 NO. 4 80-95 NO. 10 50-90 NO. 40 20-50	11. FOOTING EXCAVATIONS SHALL BE DONE IN SUCH A MANNER AS TO DRAIN AWA SURFACE AND GROUND WATER. EXCAVATION EQUIPMENT AND PROCEDURES SH
NO. 200 NO. 200 2 THE MATERIAL SHALL BE PLACED IN MAXIMUM 8" LIFTS AND COMPACTED TO 95%	12. UNLESS OTHERWISE NOTED, ALL FOOTINGS, PILES, CAISSONS AND PIERS SHALL
OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-1557, MODIFIED PROCTOR.	13. FOUNDATION WALLS SHALL BE POURED IN ALTERNATE LENGTHS, EACH POUR N EXCEED APPROXIMATELY 30 FEET IN ANY DIRECTION.
3. THE OWNER WILL TAKE DENSITY TESTS ON THE COMPACTED FILL. DENSITY TESTS SHALL BE DONE ON EACH LIFT AT THE RATE OF ONE TEST FOR EVERY 1000 SQUARE FEET OF COMPACTED FILL. IF THE MATERIAL TESTS LESS	CONSTRUCTION JOINTS SHALL BE PLACED AT POINTS OF MINIMUM SHEAR. NO HORIZONTAL JOINTS SHALL BE PERMITTED EXCEPT AS SHOWN ON PLANS.
THAN 95%, CORRECTIVE ACTION AND ADDITIONAL TESTING WILL BE REQUIRED. THE ADDITIONAL TESTING AND CORRECTIVE ACTION WILL BE PAID FOR BY THE CONTRACTOR.	14. SLABS AND BEAMS SHALL BE POURED MONOLITHICALLY EXCEPT WHERE OTHERW SHOWN AND SHALL BE FINISHED AS INDICATED IN THE SPECIFICATIONS (ON T PLANS). CONSTRUCTION JOINTS IN FRAMED SLABS SHALL BE LOCATED SO TH
4. MATERIALS SHALL BE PLACED IN SUCH A WAY AS NOT TO DAMAGE CONCRETE FOUNDATIONS AND ESPECIALLY THE VAPOR BARRIER.	EACH INDIVIDUAL POUR DOES NOT EXCEED 750 SQUARE FEET IN AREA NOR 3 ANY DIRECTION. SLABS SHALL BE POURED IN ALTERNATE PANELS.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, FROM A TESTING FIRM APPROVED BY THE ENGINEER, A SIEVE ANALYSIS AND A LABORATORY	15. CONTRACTOR SHALL REPAIR, AT HIS EXPENSE, ALL CONCRETE SLAB DEFECTS S AS CURLING OR CRACKING. GRINDING, PATCHING, ETC. REPAIR PROCEDURES SHALL BE APPROVED BY THE ENGINEER PRIOR TO STARTING WORK.
MOISTURE-DENSITY CURVE FOR THE PROPOSED SAND FILL. THE PROCEDURE SHALL BE REPEATED UNTIL A MATERIAL MEETING THE SPECIFICATIONS IS PROVIDED.	16. CHAMFER EDGES OF EXPOSED BEAMS AND COLUMNS.
	BETWEEN 50 DEG.F AND 90 DEG.F. RAPID DRYING MUST BE PREVENTED.
	 A) HORIZONTAL SURFACES SHALL BE KEPT CONTINUOUSLY MOIST FOR A MIN OF SEVEN DAYS.
DESIGN LOADS (ASCE 7-10)	B) VERTICAL SURFACES SHALL RECEIVE 2 COATS (ONE AT TIME OF STRIPPI AND ANOTHER 3 DAYS LATER) OF AN APPROVED NON-TOXIC CURING COMPARENT AND ANOTHER 3 DAYS LATER) OF AN APPROVED NON-TOXIC CURING COMPARENT AND ANOTHER 3 DAYS LATER) OF AN APPROVED NON-TOXIC CURING COMPARENT AND ANOTHER 3 DAYS LATER) OF AN APPROVED NON-TOXIC CURING COMPARENT AND ANOTHER 3 DAYS LATER) OF AN APPROVED NON-TOXIC CURING COMPARENT AND ANOTHER 3 DAYS LATER) OF AN APPROVED NON-TOXIC CURING COMPARENT AND ANOTHER 3 DAYS LATER) OF AN APPROVED NON-TOXIC CURING COMPARENT AND ANOTHER 3 DAYS LATER) OF AN APPROVED NON-TOXIC CURING COMPARENT AND ANOTHER 3 DAYS LATER) OF AN APPROVED NON-TOXIC CURING COMPARENT AND ANOTHER 3 DAYS LATER) OF AN APPROVED NON-TOXIC CURING COMPARENT AND ANOTHER 3 DAYS LATER) AND ANOTHER AND ANOTHER AND ANOTHER AND ANOTHER 3 DAYS LATER) OF AN APPROVED NON-TOXIC CURING COMPARENT AND ANOTHER AND ANOTHER 3 DAYS LATER) OF AN APPROVED NON-TOXIC CURING COMPARENT AND ANOTHER ANOTHER ANOTHER AND ANOTHER AND ANOTHER AND ANOTHER AND ANOTHER ANOTHER ANOTHER AND ANOTHER ANOTHER AND ANOTHER AN
ROOF LOAD	19. ALL FOUNDATION WALLS SHALL BE ADEQUATELY BRACED TO WITHSTAND EARTH CONSTRUCTION LOAD PRESSURES. WALLS MUST BE AT LEAST SEVEN DAYS OF BEFORE BACKFILLING.
Pf = 24 PSF Ce = 1.0 I = 1.1	20. BACKFILLING AGAINST FOUNDATION WALLS SHALL BE DONE BY PLACING SIMULTANEOUS LEVEL LAYERS ON BOTH SIDES OF THE WALL SUCH THAT THE
Ct = 1.0 EARTHQUAKE LOAD	DIFFERENCE BEIWEEN ONE SIDE AND THE OTHER DOES NOT EXCEED 24 INCH
Ss = 0.264 g S1 = 0.072 g SDS = 0.211 g	 A) AN APPROVED MATERIAL FREE OF BOULDERS LARGER THAN 6", ORGANIC MATERIAL. TOPSOIL AND DEBRIS.
SDS = 0.211 g SD1 = 0.081 g SEISMIC USE GROUP = III $SEISMIC DESIGN CATEGORY = B$	 B) PLACE IN MAXIMUM 8" LIFTS AND COMPACT TO 90% MAXIMUM DENSITY OPTIMUM MOISTURE CONTENT AS DEFINED BY ASTM D-1557.
SITE CLASS = C SEISMIC RESISTING SYSTEM = MOMENT FRAMES ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE	22. CONTRACTOR TO DESIGN, FURNISH AND INSTALL ALL TEMPORARY SHEETING, SHORING AND BRACING NECESSARY TO SAFELY COMPLETE THE CONSTRUCTION.
DESIGN BASE SHEAR = 6.4k Cs = .088 R = 3	23. THE CONTRACTOR SHALL PROVIDE THE NECESSARY EQUIPMENT AND CONTINUOU DEWATER THE SITE TO FACILITATE CONSTRUCTION AND SAFE WORKING CONDITI
IE = 1.25 WIND LOAD	24. SHOP DRAWINGS PREPARED IN ACCORDANCE WITH ACI STANDARDS WILL BE REQUIRED FROM THE CONTRACTOR FOR
BASIC WIND SPEED = 130 MPH IW = 1.0 EXPOSURE = C	REINFORCING STEEL PRIOR TO CONSTRUCTION. THE REUSE, OR REPRODUCTION ANY PORTION OF THESE DOCUMENTS FOR USE AS SHOP DRAWINGS IS STRICTL PROHIBITED WITHOUT THE WRITTEN PERMISSION OF MCFARLAND-JOHNSON, INC
	25. THE OWNER WILL EMPLOY A QUALIFIED INDEPENDENT ENGINEERING TESTING FIRM TO PERFORM STANDARD FIELD TESTING OF THE CONCRETE WORK. CONCRETE SHALL BE TESTED FOR:
	A) COMPRESSIVE STRENGTH (4 CYLINDERS: ONE AT 7 DAYS, 2 AT 28 DAYS RETAIN ONE FOR 56 DAYS FOR TESTING IN THE EVENT THE 28 DAY RE
	DO NOT MEET SPECIFICATIONS.) TAKE ONE SET OF FOUR (4) CYLINDEF EACH PLACEMENT AND NOT LESS THAN ONE SET FOR EACH 50 CUBIC
	B) SLUMP (BEFORE AND AFTER PLASTICIZER IF USED).C) TEMPERATURE (AIR AND CONCRETE).

U) E) UNIT WEIGHT.

E LATEST RECOMMENDATIONS AND INSTITUTE (ACI) AND THE LOCAL	2. COMPLY WITH PROVISIONS AND STANDARDS, EXCEPT A. AISI "SPECIFICATION STRUCTURAL MEMBE
R SELECTING PROPORTIONS FOR NORMAL	B. SDI "DESIGN MANUA C. SDI "DIAPHRAGM DE D. FACTORY MUTUAL.
JRES IN CONCRETE – COMMITTEE	
	3. MATERIALS:
R EVALUATION OF COMPRESSION TEST TE	A. STEEL FOR GALVANI D, E OR F WITH A
R CONCRETE FLOOR AND SLAB	B. STEEL FOR PAINTED WITH A MINIMUM Y
NG, TRANSPORTING AND PLACING	
	4. FINISHES:
R HOT WEATHER CONCRETING	A. GALVANIZING SHALL
R COLD WEATHER CONCRETING	B. SHOP COAT OF MAN
R CURING CONCRETE R CONSOLIDATION OF CONCRETE	CLEANED AND PHOS
TICE FOR DETAILING REINFORCED	5. INSTALLATION:
TS FOR REINFORCED CONCRETE	A. STEEL DECK SHALL MANUFACTURER'S S

HAVING A MINIMUM COMPRESSIVE WITH THE FOLLOWING REQUIREMENTS:

MUM SIZE FOR STRUCTURAL CONCRETE (EXCEPT SIZE FOR STAIR FILL AND 1 1/2" MAXIMUM AGGREGATE FOR ALL SLABS-ON-GRADE.

AGENT CONFORMING TO ASTM C260 WITH UCING AGENT CONFORMING TO ASTM C494

- (MAXIMUM 18 MONTHS OLD) DESIGN MIX OF ON THE PROJECT, WITH 28 DAY THE ENGINEER FOR REVIEW PRIOR TO
- ITH ASTM A615, GRADE 60 (ASTM A615M
- SPLICES UNLESS INDICATED OTHERWISE LICED AT MIDSPAN AND BOTTOM BARS AT
- IN ITS PROPER PLACE BEFORE AND OVED CHAIRS AND SPACERS AS REQUIRED. THE FIELD WITHOUT THE APPROVAL OF THE RIES IN CONCRETE EXPOSED TO
- INDICATED OR REQUIRED, THEY SHALL DOWELED INTO INTERSECTING WALLS AND LICES STAGGERED WHEREVER POSSIBLE.
- SHALL BE PROVIDED FOR WEATHER 1 1/2" AND SMALLER AND LARGER
- ALLS AND JOISTS 3/4" COLUMNS 1 1/2" (OR GIVE OTHER TRADES AMPLE
- BOLTS, PLATE, NAILERS, SLOTS, BY OTHER TRADES. THE CONTRACTOR TTING SCREEDS AND FORMS.
- TURBED SOIL OR COMPACTED GRANULAR OF 4000 PSF. ELEVATIONS OF ANS, BUT ARE ONDITIONS ARE EXPOSED BY EXCAVATION.
- TLY OF ANY WEAK STRATA, ING CONDITIONS. SEE GEOTECHNICAL REPORT ENGINEERS FOR COMPLETE FOUNDATION
- SUCH A MANNER AS TO DRAIN AWAY ALL ION EQUIPMENT AND PROCEDURES SHALL BE IDITIONS ARE MAINTAINED.
- , PILES, CAISSONS AND PIERS SHALL BE
- ALTERNATE LENGTHS, EACH POUR NOT TO DIRECTION. AT POINTS OF MINIMUM SHEAR. NO EXCEPT AS SHOWN ON PLANS.
- OLITHICALLY EXCEPT WHERE OTHERWISE CATED IN THE SPECIFICATIONS (ON THE SLABS SHALL BE LOCATED SO THAT 750 SQUARE FEET IN AREA NOR 30 FEET IN IN ALTERNATE PANELS.
- NSE, ALL CONCRETE SLAB DEFECTS SUCH TCHING, ETC. REPAIR PROCEDURES RIOR TO STARTING WORK.
- COLUMNS. SEVEN DAYS SHALL BE MAINTAINED DRYING MUST BE PREVENTED.
- EPT CONTINUOUSLY MOIST FOR A MINIMUM
- 2 COATS (ONE AT TIME OF STRIPPING A APPROVED NON-TOXIC CURING COMPOUND.
- ATELY BRACED TO WITHSTAND EARTH AND MUST BE AT LEAST SEVEN DAYS OLD
- SHALL BE DONE BY PLACING DES OF THE WALL SUCH THAT THE OTHER DOES NOT EXCEED 24 INCHES.
- WALL: OULDERS LARGER THAN 6", ORGANIC
- OMPACT TO 90% MAXIMUM DENSITY AT FINED BY ASTM D-1557.
- STALL ALL TEMPORARY SHEETING, AFELY COMPLETE THE CONSTRUCTION.
- CESSARY EQUIPMENT AND CONTINUOUSLY UCTION AND SAFE WORKING CONDITIONS. WITH ACI STANDARDS
- FOR TION. THE REUSE, OR REPRODUCTION, OF USE AS SHOP DRAWINGS IS STRICTLY SION OF MCFARLAND-JOHNSON, INC.
- EPENDENT TANDARD FIELD TESTING OF THE ESTED FOR:
- ERS: ONE AT 7 DAYS, 2 AT 28 DAYS AND FING IN THE EVENT THE 28 DAY RESULTS AKE ONE SET OF FOUR (4) CYLINDERS FOR HAN ONE SET FOR EACH 50 CUBIC YARDS.
- IZER IF USED).

- ROOF DECK
- 1. ROOF DECK SHALL BE OF TYPE, GAUGE, FINISH AND MANUFACTURER AS INDICATED ON THE DRAWINGS, OR APPROVED EQUIVALENT.
- OF THE LATEST EDITION OF THE FOLLOWING CODES AS OTHERWISE SHOWN OR SPECIFIED: I FOR THE DESIGN OF COLD-FORMED STEEL ERS".
- JAL FOR FLOOR DECKS AND ROOF DECKS". ESIGN MANUAL".
- NIZED STEEL DECK UNITS: ASTM A446, GRADE A, B, C, MINIMUM YIELD POINT OF 33 KSI. NO OIL DECK TO BE PAINTED. STEEL DECK UNITS: ASTM A611, GRADE C, D OR E YIELD POINT OF 33 KSI.
- CONFORM TO ASTM A525 COATING CLASS G60.
- NUFACTURER'S STANDARD PRIMER PAINT APPLIED OVER SPHATIZED STEEL.
- BE ERECTED AND FASTENED IN ACCORDANCE WITH THE SPECIFICATIONS AND ERECTION LAYOUTS. PUDDLE WELDS SHALL BE AT LEAST 5/8 INCH IN DIAMETER, OR ELONGATED, HAVING AN EQUAL PERIMETER. FILLET WELDS WHEN USED SHALL BE APPROXIMATELY 1.5 INCHES LONG. WELD METAL SHALL PENETRATE ALL LAYERS OF DECK MATERIAL AT END LAPS AND SIDE JOINTS AND HAVE GOOD FUSION TO THE SUPPORTING MEMBERS. FASTENING WITH 36/7 PATTERN WITH TWO SIDELAPS PER SPAN. END LAPS OF SHEETS SHALL BE A MINIMUM OF 2 INCHES AND SHALL OCCUR OVER SUPPORTS.
- B. POWDER ACTUATED OR PNEUMATICALLY-DRIVEN FASTENERS, EQUIVALENT TO THE WELDS, WILL BE CONSIDERED BY THE ENGINEER. COMPLETE DOCUMENTATION SHALL BE SUBMITTED. C. EXTREME CAUTION MUST BE USED BY THE DECK INSTALLER TO INSURE THAT THE POWDER ACTUATED FASTENERS ARE NOT DRIVEN COMPLETELY THROUGH
- THE DECK. D. UPLIFT LOADING: INSTALL AND ANCHOR ROOF DECK UNITS TO RESIST GROSS UPLIFT LOADING OF 30 PSF, EXCEPT EAVE OVERHANGS SHALL RESIST 45 PSF.
- E. ALL EDGES OF THE DECKING SHALL BE PROPERLY SUPPORTED. OPENINGS IN THE DECK EQUAL TO OR SMALLER THAN 8" SQUARE SHALL HAVE A 20" SQUARE X 1/8" THICK PLATE WELDED OR SCREWED TO THE TOP OF THE DECK TO SUPPORT THE OPENINGS. FOR OPENINGS LARGER THAN THE ABOVE, AN L4x4x1/4 FRAME (BEARING ON STRUCTURAL SUPPORTS) SHALL BE USED UNLESS OTHERWISE NOTED ON DRAWINGS.
- 6. ACCESSORIES: A. RIDGE AND VALLEY PLATES AND STEEL CANT STRIPS ATTACHED DIRECTLY TO THE STEEL DECK AS REQUIRED AND AS SHOWN ON THE PLANS TO PROVIDE A FINISHED SURFACE FOR THE APPLICATION OF INSULATION AND ROOFING, SHALL BE FURNISHED BY THE DECK MANUFACTURER. B. PROVIDE ALL OTHER ACCESSORIES INCLUDING METAL AND FLEXIBLE
- CLOSURE STRIPS, SUMP PANS, ETC. NECESSARY FOR A COMPLETE INSTALLATION. 7. SHOP DRAWINGS: SUBMIT DETAILED DRAWINGS SHOWING LAYOUT, TYPE, GAUGE
- AND MANUFACTURER OF DECKING, FASTENER TYPE AND SPACING AND ALL ACCESSORIES.

STRUCTURAL NOTES

1. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SITE, ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS AND THE SPECIFICATIONS. 2. ALL STRUCTURAL STEEL WORK SHALL, UNLESS OTHERWISE INDICATED, CONFORM TO THE "STEEL CONSTRUCTION MANUAL". SPECIFICALLY

- INCLUDING THE SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS AND THE CODE OF STANDARD PRACTICE OF THE A.I.S.C. AND TO THE REQUIREMENTS OF THE LOCAL BUILDING CODES. 3. ALL WELDING SHALL CONFORM TO THE "STRUCTURAL WELDING CODE - ANSI/AWS D1.1" OF THE AMERICAN WELDING SOCIETY.
- 4. STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING: STRUCTURAL SHAPES
- ASTM A992, FY = 50,000 PSI (WIDE FLANGE SHAPES) ASTM A36, FY = 36,000 PSI (ANGLES, CHANNELS, S-SHAPES, ETC.)
- BOLTS ASTM A325
- COLUMN ANCHOR BOLTS ASTM F1554 GR 36 GALVANIZED
- STEEL PIPE ASTM A53, TYPE E OR S, GRADE B, FY = 35,000 PSI
- ASTM A500, GRADE B, FY = 42,000 PSI STRUCTURAL TUBING
- ASTM A500, GRADE B, FY = 46,000 PSI

5. ALL SHOP CONNECTIONS SHALL BE BOLTED OR WELDED. ALL FIELD CONNECTIONS SHALL BE BOLTED EXCEPT WHERE WELDING IS SPECIFICALLY CALLED FOR. BOLTS SHALL BE 3/4" DIA. MINIMUM WITH OPEN HOLES 1/16" LARGER, EXCEPT FOR COLUMN GROUT PLATES WHICH ARE 3/16" LARGER AND COLUMN BASE PLATES WHICH ARE 5/16" LARGER. CONNECTIONS NOT DETAILED SHALL BE DESIGNED FOR THE LOADS INDICATED ON THE DRAWINGS, LOADS GIVEN IN THE AISC UNIFORM LOAD TABLES OR AS INDICATED IN THE MINIMUM CONNECTION DETAILS, WHICHEVER IS GREATER.

6. TIGHTEN ALL BOLTS TO ACHIEVE THE MINIMUM FASTENER TENSION SPECIFIED IN TABLE 4 OF RCSC'S "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS". CONTRACTOR SHALL EMPLOY AN INDEPENDENT TESTING LABORATORY TO TEST A MINIMUM OF THREE BOLTS IN A DEVICE CAPABLE OF INDICATING BOLT TENSION TO VERIFY PROPER BOLT TIGHTENING PROCEDURES AND RELATE BOLT TENSION TO TORQUE. TWIST-OFF OR T.C. BOLTS THAT MEET ASTM A325 OR A490 REQUIREMENTS ARE ACCEPTABLE.

7. THE DESIGN OF ALL CONNECTIONS SHALL BE THE RESPONSIBILITY OF THE STEEL FABRICATOR. COMPLETE CALCULATIONS SHALL BE PREPARED BY A REGISTERED PROFESSIONAL ENGINEER AND SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO ANY FABRICATION.

8. ALL STRUCTURAL STEEL SHALL BE SHOP PAINTED (MINIMUM 1.5 MILS DRY FILM THICKNESS) WITH AN APPROVED RUST INHIBITIVE PRIME PAINT. STEEL SHALL BE THOROUGHLY CLEANED (ABRASIVE BLASTED) PRIOR TO PAINTING. FIELD TOUCH UP WITH THE SAME PAINT WILL BE REQUIRED.

9. UNLESS OTHERWISE NOTED, PROVIDE LOOSE LINTELS OVER OPENINGS IN MASONRY WALLS FOR EACH 4" OF THICKNESS AS FOLLOWS: 1-L3 1/2 X 3 1/2 X 1/4 (LENGTH = M.O. + 8") FOR OPENINGS UP TO AND INCLUDING 4'-0" 1-L6X3 1/2 X 5/16 (LENGTH = M.O. + 12") FOR OPENINGS GREATER THAN 4'-0" TO 6'-0" EXTERIOR LINTELS SHALL BE HOT DIPPED GALVANIZED.

10. THE STRUCTURAL STEEL CONTRACTOR SHALL PROVIDE ALL NECESSARY GUYING AND BRACING REQUIRED TO ERECT AND HOLD THE STEEL FRAME PLUMB AND SQUARE UNTIL THE ROOF DECK AND WALLS ARE INSTALLED. 11. THERE WILL BE NO FIELD BURNING, CUTTING OR OTHER ALTERATIONS OF PRIMARY STRUCTURAL STEELWITHOUT THE WRITTEN

PERMISSION OF THE ENGINEER. 12. NO MASONRY CONSTRUCTION SHALL BE ALLOWED IN AN AREA WHERE THE STRUCTURAL STEEL WORK IS NOT COMPLETE, SPECIFICALLY INCLUDING PLUMBING AND ALIGNMENT.

13. ALL ROOF DECKING SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS, FACTORY MUTUAL REQUIREMENTS AND THE STEEL DECK INSTITUTE (S.D.I.) UNLESS OTHERWISE NOTED. ALL EDGES OF THE DECKING SHALL BE PROPERLY SUPPORTED. OPENINGS IN THE DECK EQUAL TO OR SMALLER THAN 8" IN DIAMETER OR 8" SQUARE SHALL HAVE A 20" SQUARE X 1/8" THICK PLATE WELDED OR SCREWED TO THE TOP OF THE DECK TO SUPPORT THE OPENINGS. FOR OPENINGS LARGER THAN THE ABOVE, AN L4X4X1/4 FRAME (BEARING ON STRUCTURAL SUPPORTS) SHALL BE USED UNLESS OTHERWISE NOTED ON PLANS. 14. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER (ARCHITECT) FOR REVIEW PRIOR TO FABRICATION FOR THE

FOLLOWING ITEMS: STRUCTURAL STEEL ROOF DECKING

IT IS REQUIRED THAT THE STRUCTURAL STEEL SUBCONTRACTOR PREPARE COMPLETE ERECTION DRAWINGS. REVISING OR PHOTOCOPYING OF THESE STRUCTURAL DRAWINGS WILL NOT BE PERMITTED. 15. ALL STRUCTURAL STEEL FABRICATION AND ERECTION MUST COMPLY WITH THE LATEST REQUIREMENTS OF OSHA 29 CFR PART 1926.

- GRANULAR FILL UNDER SLABS & FOOTINGS
- 1. PRIOR TO PLACING GRANULAR FILL, ALL ORGANIC MATERIAL, TOPSOIL, DEBRIS AND ANY OTHER DELETERIOUS MATERIAL SHALL BE REMOVED.
- 2. GRANULAR FILL SHALL BE AN APPROVED, WELL GRADED BANK RUN OR CRUSHER RUN GRAVEL MEETING THE REQUIREMENTS OF THE FOLLOWING TABLE:

SIEVE DESIGNATION	<u>% PASSING</u>
2"	100
NO. 4	40-70
NO. 100	4-15
NO. 200	0-4

- 3. IF THE GRANULAR FILL IS IN CONTACT WITH A SUB-SLAB VAPOR BARRIER, IT SHALL BE A BANK-RUN GRAVEL RATHER THAN A CRUSHER-RUN GRAVEL SO THAT THE VAPOR BARRIER WILL NOT BE PUNCTURED THUS MAKING IT INEFFECTIVE.
- 4. THE MATERIAL SHALL BE PLACED IN MAXIMUM 8" LIFTS AND COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-1557, MODIFIED PROCTOR.
- 5. THE OWNER WILL TAKE DENSITY TESTS ON THE COMPACTED FILL. DENSITY TESTS SHALL BE DONE ON EACH LIFT AT THE RATE OF ONE TEST FOR EVERY 1000 SQUARE FEET OF THE COMPACTED FILL. IF THE MATERIAL TESTS LESS THAN 95%, CORRECTIVE ACTION AND ADDITIONAL TESTING WILL BE REQUIRED. THE ADDITIONAL TESTING AND CORRECTIVE ACTION WILL BE PAID FOR BY THE CONTRACTOR.
- 6. MATERIALS SHALL BE PLACED IN SUCH A WAY AS NOT TO DAMAGE CONCRETE FOUNDATIONS AND FOOTINGS.
- 7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, FROM A TESTING FIRM APPROVED BY THE ENGINEER, A SIEVE ANALYSIS AND A LABORATORY MOISTURE-DENSITY CURVE FOR THE PROPOSED GRANULAR FILL. THE PROCEDURE SHALL BE REPEATED UNTIL A MATERIAL MEETING THE SPECIFICATIONS IS PROVIDED.

SEALED:

← 48 BAR DIA (2'−0" MIN.) HOOK WHERE NECESSARY

ADD #5 x 4'-0" AT CORNERS EACH FACE FOR OPENINGS OVER 24"

PROVIDE 2 OF REINFORCING
 INTERRUPTED BY OPENING
 1/2 EACH SIDE OF OPENING
 MINIMUM 1-#5 TOP & BOTTOM
 EACH SIDE

