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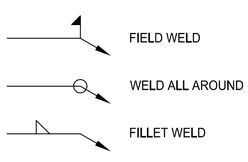
STRUCTURAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
+	AND
BOTT	BOTTOM
BOS	BOTTOM OF STEEL
B-PL	BASE PLATE
CIP	CAST-IN-PLACE
℄	CENTERLINE
CONN.	CONNECTION
Ø , DIA	DIAMETER
DN	DOWN
EXIST., (E)	EXISTING (TO REMAIN)
EA	EACH
ELEV.	ELEVATION
E.W.	EACH WAY
FD	FLOOR DRAIN
FL, FLR	FLOOR
FT	FOOT/FEET
GALV.	GALVANIZED
GA	GAUGE
HSS	HOLLOW WIRE FABRIC
ksi	KIPS PER SQUARE INCH
L	LENGTH
L.L.F.	LONG LEG HORIZONTAL
L.L.V.	LONG LEG VERTICAL
L.W.	LONG WAY
MC	MISCELLANEOUS CHANNEL
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MPH	MILES PER HOUR
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OPPOSITE HAND
PL, ℙ	PLATE
psf	POUNDS PER SQUARE FOOT
psi	POUNDS PER SQUARE INCH
SIM.	SIMILAR
S.W.	SHORT WAY
TH.	THICKNESS
TOS	TOP OF STEEL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
W/	WITH
W/O	WITHOUT
WWF	WELDED WIRE FABRIC

STRUCTURAL LEGEND



STRUCTURAL GENERAL NOTES

1. COORDINATE WITH ACCOMPANYING ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND OTHER CONTRACT DRAWINGS AS WELL AS APPROVED SHOP DRAWINGS FOR LOCATIONS OF SLEEVES, INSERTS, OPENINGS, AND FINISH ATTACHMENTS
2. ALL DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS TO BE FIELD VERIFIED AND COORDINATED WITH THE OTHER CONTRACT DOCUMENTS. REPORT ANY INCONSISTENCIES PRIOR TO COMMENCING WORK
3. THE STRUCTURAL DESIGN IS BASED ON THE FULL INTERACTION OF ALL OF ITS COMPONENT PARTS. NO PROVISIONS HAVE BEEN MADE FOR CONDITIONS OCCURRING DURING CONSTRUCTION WHEN THE STRUCTURE IS IN AN INCOMPLETE OR PARTIALLY COMPLETE STATE. CONTRACTOR IS RESPONSIBLE FOR MAKING PROPER AND ADEQUATE ACCOMMODATIONS FOR STABILITY AND SAFETY DURING CONSTRUCTION
4. DETAILS SHOWN ARE TYPICAL FOR SIMILAR CONDITIONS, U.N.O.
5. CENTER WALLS AND PIERS ON FOOTINGS
6. STRUCTURAL TESTS AND INSPECTIONS REQUIRED ACCORDING TO IBC 2009 - CH 17
7. STRUCTURE MODIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2009 IBC CODE AND 2010 ASCE-7 LRFD METHODS
8. STRUCTURE MODIFICATIONS HAVE BEEN DESIGNED FOR THE FOLLOWING LOADS(CONVENTIONAL LIGHT FRAME CONSTRUCTION):
   - RISK CATEGORY = I
   - ROOF GROUND SNOW LOAD Pg= 60 PSF
   - BASIC WIND SPEED(2 SECOND GUST) = 110 MPH
   - WIND EXPOSURE B

CONCRETE BLOCK MASONRY

1. ALL CONCRETE MASONRY UNITS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 1,900 PSI AND CONFORM TO THE REQUIREMENTS OF ASTM C90.
2. PROVIDE STANDARD TWO-CELL, 8" HIGH, 16" LONG BLOCKS. U-SHAPED LINTEL BLOCKS, OPEN-ENDED BLOCKS AND OPEN BOTTOM BOND BEAM (WEB KNOCK-OUT) BLOCKS ARE RECOMMENDED FOR EASE OF CONSTRUCTION TO COMPLETE THE WORK SPECIFIED HEREIN.
3. ALL CMU WALLS SHALL BE BUILT IN A RUNNING-BOND PATTERN.
4. MORTAR SHALL BE TYPE "S" HIGH STRENGTH MORTAR.
5. ALL GROUT SHALL BE COARSE GROUT CONFORMING WITH ASTM C476 AND SHALL HAVE A MINIMUM 26 DAY COMPRESSIVE STRENGTH OF 3,000 PSI.
6. GROUT SHALL BE PLACED USING LOW LIFT GROUTING PROCEDURE PER ACI.
7. MINIMUM VERTICAL REINFORCEMENT SHALL BE AS SHOWN ON PLANS.
8. MORTAR JOINTS IN ALL REINFORCED MASONRY WALLS SHALL HAVE MINIMUM #9 GAUGE WIRE LADDER-TYPE HORIZONTAL REINFORCEMENT AT 16" O.C. IN ADDITION, PROVIDE THE FOLLOWING REINFORCING:
   - A. (2)-#5 FULL HEIGHT VERTICAL BARS AT EACH SIDE OF WALL OPENINGS AND WALL ENDS.
   - B. (2)-#5 CONTINUOUS HORIZONTAL BARS AT 4'-8" MAXIMUM VERTICAL SPACING.
   - C. OVER WALL OPENINGS UP TO 4'-0" WIDE: PROVIDE (2)-#5 HORIZONTAL BARS. WALL OPENINGS UP TO 8'-0" WIDE: PROVIDE TWO COURSES GROUTED SOLID WITH (2)-#5 BARS TOP AND BOTTOM. EXTEND BARS 4'-0" BEYOND EACH SIDE OF THE OPENING. OPENINGS UP TO 12'-0" WIDE: PROVIDE W12x50:16" LONGER THAN OPENING, W/ 8" SQUARE, 3/8" THICK BEARING PLATES AT EACH END OF OPENING.
   - D. ALL REINFORCING BARS SHALL BE SECURELY HELD IN POSITION WITH 9 GAUGE WIRE SUPPORTS PRIOR TO GROUTING.
   - E. ANY ADDITIONAL REINFORCEMENT SHOWN ON THE DRAWINGS.
9. LAP ALL REINFORCING BARS IN MASONRY THE LESSER OF 48 BAR DIAMETERS OR 24 INCHES. LAP HORIZONTAL WIRE REINFORCEMENT A MINIMUM OF 12 INCHES.
10. ALL MASONRY CONSTRUCTION WILL BE INDEPENDENTLY TESTED AND INSPECTED BY THE OWNER.

CAST IN PLACE CONCRETE NOTES

1. NORMAL WEIGHT CONCRETE STRENGTH:
   - a. FOOTINGS AND WALLS = 4000 PSI @ 28 DAYS
   - b. PIERS = 4000 PSI.
2. AGGREGATE: 3/4" MAX STONE
3. MAXIMUM WATER-CEMENT MATERIALS RATIO=0.45
4. PROVIDE 6% AIR ENTRAINMENT PLUS OR MINUS 1.5% TO ALL CONCRETE EXPOSED TO EARTH OR WEATHER.
5. SLUMP LIMIT 4" PLUS OR MINUS 1".
6. PROVIDE DOWELS AND/OR KEYWAYS AT ALL CONSTRUCTION JOINTS.
7. PROVIDE 48 HOUR MIN BETWEEN PLACEMENTS.
8. ALL CONCRETE FORMWORK TO REMAIN IN PLACE 3 DAY MIN FOLLOWING PLACEMENT
9. ALL EXPOSED FLOOR SURFACES TO BE WET-CURED FOR 7-DAYS, FOLLOWED BY APPLICATION OF ACCEPTABLE FLOOR SEALER.
10. NOTIFY STRUCTURAL INSPECTOR AT LEAST 48 HOURS PRIOR TO PLACEMENT FOR INSPECTION
11. CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE THE LATEST VERSIONS OF ACI 301 AND 318.
12. CHAMFER EXTERIOR CORNERS AND EDGES OF PERMANENTLY EXPOSED CONCRETE WHERE SPECIFIED ON THE DRAWINGS.
13. GROUT MIXTURES:
    - a. USE ONLY APPROVED PREPACKAGES NON-SHRINK GROUT.
    - b. USE ONLY A MINIMUM AMOUNT OF WATER TO PRODUCE A FLOWABLE GROUT.
    - c. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI AT 7 DAYS AND 7500 PSI AT 28 DAYS.

17. DO NOT WET SET REINFORCEMENT OR ANCHOR RODS.

CONCRETE REINFORCEMENT NOTES

1. ALL REINFORCING BAR TO CONFORM TO ACI 318
2. SUBMIT REBAR SHOP DRAWINGS FOR APPROVAL
3. REINFORCING STEEL TO BE ASTM A615 GRADE 60 (60 KSI) DEFORMED
4. WHERE CONTINUOUS BARS ARE INDICATED, THEY SHALL RUN AROUND CORNERS AND DOWEL INTO INTERSECTING WALLS. THEY SHALL BE LAPPED AS INDICATED AND BE NO LESS THAN 40 BAR DIAMETERS.
5. REBAR CLEARANCES:
   - A. UNFORMED, EARTH CONTACT: 3"
   - B. FORMED, EARTH CONTACT: 2"
   - C. FORMED, WEATHER EXPOSURE: 2"
   - D. WIRE MESH: 1.5" FROM TOP SURFACE.
6. USE REBAR CHAIRS TO ACHIEVE REQUIRED CLEARANCES.
7. DO NOT CUT REINFORCING TO ACCOMMODATE INSTALLATION OF EMBEDDED ITEMS. CONTACT STRUCTURAL ENGINEER TO RESOLVE CONFLICTS.
8. COORDINATE INSTALLATION OF PIPES, CONDUITS, ETC. WITH MEP TRADES
9. COORDINATE MASONRY DOWELS WITH MASON FOR BLOCK LAYOUT.
10. FABRICATE STEEL REINFORCEMENT ACCORDING TO CRSI'S "MANUAL OF STANDARD PRACTICE".
11. DO NOT TACK WELD CROSSING REINFORCING BARS.

EXCAVATIONS

1. REMOVE ALL SOFT, ORGANIC AND OTHER UNSUITABLE MATERIAL FROM UNDER AND ADJACENT TO ALL FOOTINGS AND FROM UNDER ALL SLABS ON GRADE.
2. EXTEND AND SLOPE SIDES OF EXCAVATION TO ENSURE STABILITY AND SAFETY AT ALL TIMES.
3. SHORE, SHEET AND BRACE EXCAVATION AS REQUIRED TO ENSURE SAFETY AND STABILITY AT ALL TIMES.
4. PUMP EXCAVATION TO REMOVE SURFACE AND GROUND WATER TO PERMIT FINISHING OF EXCAVATION AND PLACEMENT OF FOUNDATIONS IN THE DRY.
5. ELEVATIONS GIVEN ARE MINIMUM IN DEPTH AND ARE NOT TO BE CONSTRUED AS LIMITING IN ANY WAY THE AMOUNT OF EXCAVATION REQUIRED TO REACH A SPECIFIED BEARING STRATA.

Reviewed for Code Compliance
Inspector Initial/Date
Approved/Denied
Date: 08/09/16

ecomaine
LOCKER ROOM RENOVATION
PORTLAND, ME

SIGNED COPY OF DRAWING ON FILE AT DIRIGO A/E OFFICE

NOTES, ABBREVIATIONS, + LEGENDS

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DATE: 1/13/16
PROJECT NO. 15-015
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S0.1