

**STRUCTURAL ABBREVIATIONS:**

±	PLUS OR MINUS
∠	ANGLE
ACI	AMERICAN CONCRETE INSTITUTE
AFF	ABOVE FINISH FLOOR
AISI	AMERICAN IRON AND STEEL INSTITUTE
ALT	ALTERNATE
APA	AMERICAN PLYWOOD ASSOCIATION
ARCH	ARCHITECTURAL
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
BF	BRACED FRAME
BFE	BOTTOM OF FOOTING ELEVATION
BLDG	BUILDING
BP	BASE PLATE
BSE	BRICK/BLOCK SHELF ELEVATION
CJ	CONTROL JOINT
C	CENTERLINE
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
DIA	DIAMETER
DWG	DRAWING
EA	EACH
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATION
EOD	EDGE OF DECK
EQ	EQUAL
EQUIP	EQUIPMENT
EXIST	EXISTING
EXT	EXTERIOR
F <sub>c</sub>	CONCRETE COMPRESSIVE STRENGTH
F <sub>m</sub>	MASONRY COMPRESSIVE STRENGTH
FND	FOUNDATION
FTG	FOOTING
F <sub>y</sub>	YIELD STRESS
GA	GAUGE
GALV	GALVANIZED
GYP BD	GYPSON BOARD
HGT	HEIGHT
HORIZ	HORIZONTAL
HSS	HOLLOW STRUCTURAL SECTION
IBC	INTERNATIONAL BUILDING CODE
IN	INCH
INSUL	INSULATION
INV	INVERT
K	KIPS
KSI	KIPS PER SQUARE INCH
LBS	POUNDS
MAX	MAXIMUM
MECH	MECHANICAL
MF	MOMENT FRAME
MFR	MANUFACTURER
MIN	MINIMUM
MO	MASONRY OPENING
MPH	MILES PER HOUR
MTL	METAL
#, NO	NUMBER
OC	ON CENTER
OPNG	OPENING
PCF	POUNDS PER CUBIC FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
RCSC	RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS
REINF	REINFORCED
REQD	REQUIRED
SAT	SUSPENDED ACOUSTICAL TILE
SIM	SIMILAR
STL	STEEL
TMS	THE MASONRY SOCIETY
TOS	TOP OF STEEL
TPE	TOP OF PIER ELEVATION
TWE	TOP OF WALL ELEVATION
TYP	TYPICAL
VERT	VERTICAL
W/	WITH
WP	WORKING POINT
WWF	WELDED WIRE FABRIC

**BUILDING DESIGN LOADS**

ROOF SNOW LOAD (ROOF LIVE LOAD) ASCE 7-05/IBC 2009  
 GROUND SNOW LOAD (Pg) = 60 PSF  
 SNOW EXPOSURE FACTOR (Ce) = 1.0  
 SNOW LOAD ROOF SLOPE FACTOR (Cs) = 1.0  
 SNOW LOAD THERMAL FACTOR (Ct) = 1.1  
 SNOW LOAD IMPORTANCE FACTOR (I) = 1.10

BALANCED ROOF SNOW LOAD (Pf) = 51 PSF  
 SNOW DRIFTING (Pd) = VARIES, SEE SHEET S-005

ROOF DEAD LOAD:  
 CLASSROOM = 25 PSF  
 STAGE, KITCHEN AND MECHANICAL ROOMS = 35 PSF

FLOOR LIVE LOADS:  
 FIRST FLOOR = 100 PSF  
 SECOND FLOOR:  
 CLASSROOM = 40 PSF + 15 PSF PARTITIONS  
 CORRIDORS = 80 PSF  
 STAIRS = 100 PSF  
 MECHANICAL ROOM = 150 PSF

WIND LOAD ASCE 7-05/IBC 2009

BASIC WIND SPEED = 100 MPH  
 WIND LOAD IMPORTANCE FACTOR = 1.15  
 WIND EXPOSURE = EXPOSURE B  
 BUILDING TYPE = "ENCLOSED"  
 WIND DESIGN PRESSURE:  
 MAIN WIND FORCE RESISTING SYSTEM = 24 PSF (MAXIMUM PRESSURE)  
 SEE SHEET S-003 FOR WALL PRESSURES AND SHEET S-004 FOR ROOF PRESSURES.

SEISMIC DESIGN DATA ASCE 7-05/IBC 2009

SHORT PERIOD SPECTRAL RESPONSE ACCELERATION (Ss) = 0.32  
 ONE SECOND SPECTRAL RESPONSE ACCELERATION (S1) = 0.08  
 OCCUPANCY CATEGORY = III  
 SEISMIC DESIGN CATEGORY = C  
 SEISMIC IMPORTANCE FACTOR = 1.25  
 SITE CLASS = E  
 TOTAL BASE SHEAR = 980 KIPS

BASIC STRUCTURAL SYSTEM

STEEL MOMENT FRAMES (NOT DETAILED)  
 RESPONSE MODIFICATION COEFFICIENT (R) = 3.00  
 DEFLECTION AMPLIFICATION FACTOR (Cd) = 3.00  
 SYSTEM OVER STRENGTH FACTOR (φ) = 3.00  
 STEEL BRACED FRAMES (NOT DETAILED)  
 RESPONSE MODIFICATION COEFFICIENT (R) = 3.00  
 DEFLECTION AMPLIFICATION FACTOR (Cd) = 3.00  
 SYSTEM OVER STRENGTH FACTOR (φ) = 3.00

ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE PROCEDURE

DESIGN SOIL BEARING PRESSURE = 1,000 PSF

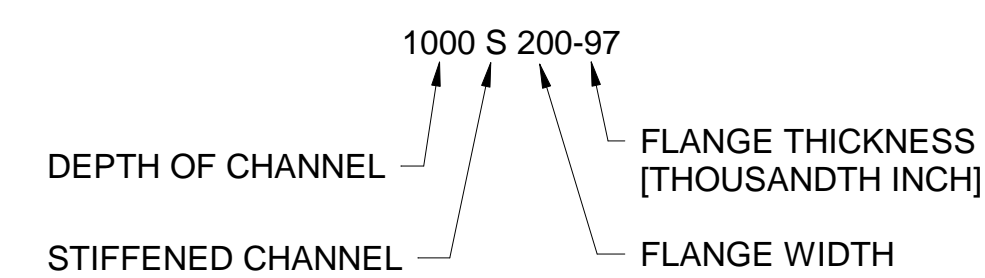
MECHANICAL EQUIPMENT MAXIMUM WEIGHTS USED IN DESIGN:

MAU-1 = 2,500 POUNDS  
 ACCU-1 = 400 POUNDS  
 ACCU-2 = 675 POUNDS

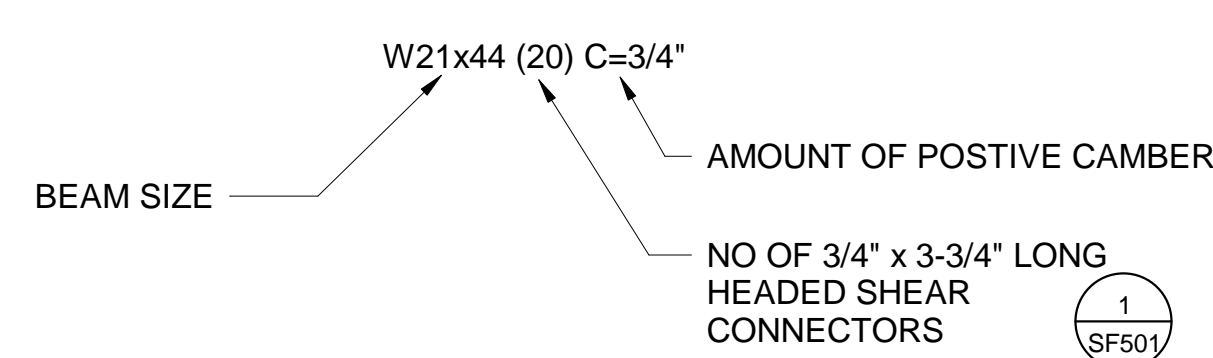
NOTES:

- SEISMIC LOAD RESISTING SYSTEM CONSISTS OF THE FOLLOWING:
  - VERTICAL ELEMENTS - STEEL MOMENT FRAMES AND STEEL BRACED FRAMES.
  - HORIZONTAL ELEMENTS - STEEL ROOF DECK AND COMPOSITE DECK/CONCRETE SLABS ACTING AS A DIAPHRAGM.
  - COLLECTOR ELEMENTS - BEAMS AND HORIZONTAL BRACES WHERE INDICATED.
- FOUNDATIONS AND FLOOR FRAMING TO THE EAST OF COLUMN LINE 49 HAVE BEEN DESIGNED FOR A FUTURE SECOND STORY. MEMBER SIZES ARE BASED ON THE MAXIMUM FORCES FOR ROOF BEAMS ACTING NON-COMPOSITELY OR FLOOR BEAMS ACTING COMPOSITELY.

**COLD-FORMED STEEL LEGEND**



**COMPOSITE FLOOR BEAM LEGEND**



		STATE OF MAINE <b>PUBLIC SCHOOL PROJECT</b>	
		TITLE PORTLAND PUBLIC SCHOOLS NEW FRED P. HALL ELEMENTARY SCHOOL LOCATION 23 ORONO ROAD, PORTLAND, ME	
TITLE THIS DWG. STRUCTURAL DESIGN LOADS AND ABBREVIATIONS		OAK POINT ASSOCIATES DRAWING NO. S-002 SHEET NO.	
NO.	DATE	DESCRIPTION	BY
		REVISIONS	
	03/17/17		