CITY OF PORTLAND, MAINE
RESURGAM
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 09/20/16

BM B1 -

SPAN = 8'0" $w = (40+17)(16/2+2) + 12(2) = 594 \rightarrow 600$ plf (WALL)

$V_u = 2400^{\#}$ $M_u = 4800^{'\#}$ $\Delta_{DL} = 5.53 \times 10^{7}$ #·in²

(3)-2x12

$V_a = 5241^{\#}$ $M_a = 9153^{'\#}$ $I = 534$ $\Delta = .07"$

((3)-2x12 V1/V2 SPF)

LATERAL DESIGN

WL = 16.3 psf

GRID A + B ⇒ $R = 16.3(4.5+5.2)(20.17/2) = 1595^{\#}$

GRID 1 & 2 ⇒ $R = 16.3(4.5+1.73)(16/2) = 813^{\#}$

GRID A + B

$R = 1595^{\#}$ PANELS ⇒ (2) - 5.5' TOTAL = 11'-0"

$V_{SW} = 1595/11 = 145$ plf ← (TYPE B SW)

$M_{OT} = 145(5.5)(9) = 7178^{'\#}$ $M_{RW} = .6[(6(6)+108)(5.5^2/2)+90(5.5)] = 1604^{'\#}$

NET OT = $5574^{'\#}$ $R = 1013^{\#}$ ← (HOLD)

GRID 1 -

$R_1 = 813^{\#}$ PANELS ⇒ 4.67 7.5' TOTAL = 12.17'

$V_{SW} = 813/12.17 = 67$ plf ← ((15)32 US + W/ edge 6" o.c.)

4.67

$M_{OT} = 67(4.67)(9) = 2816^{'\#}$ $M_{RW} = .6[(6(10)+108)(4.67^2/2)+240(4.67)] = 1772^{'\#}$

NET OT = $1044^{'\#}$ $R = 224^{\#} < 500^{\#}$ NO HDS

GRID 2 -

SAME AS GRID 1 BY INSPECTION - SAME LOAD + MORE WALL

DAN GREEN
ENGINEERING, INC.
SALEM, OREGON

FILE NO. _____ SHEET NO. PH.1
DESIGNER _____ DATE _____
CLIENT _____
PROJECT _____