SHOP DRAWING TRANSMITTAL

The Park Danforth

Portland ME

Project No.: 13-059-00

Division: 08 43 13

Transmit To:

Mark Donovan
PC Construction
131 Presumpscot Street
Portland ME 04103

Submission No.: 189
Version: A
CM Reference No.: 08 43 13-004
Copies:

Ron Norton	Construction Management Consultir rvices
Andrew Pires	PC Construction
Kemp Carey	PC Construction

Submittal No.	Qty.	Description
189 - 1	1	Aluminum Storefront and Curtainwall: Calculations

Comments:

Note: Refer to attached submittals for review comments and requirements.

NH: 155 Dow Street, Suite 400 - Manchester, NH 03101 MA: 92 Montvale Ave, Suite 2150 - Stoneham, MA 02180 www.LBPA.com

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CONSTRUCTION

Project No. 14776
The Park Danforth Expansion & Renovations
789 Stevens Ave
Portland, ME 04103

Submittal 08 43 13-004
Review Cycle 1

Title	**Aluminum Storefront and Curtainwall - Calculations**		
Type	**Calculations**		
Sent Date	**28-Apr-2016**	Spec Section	**08 43 13**
Due Date	**12-May-2016**	Spec Sub-Section	

Sent To For Review
Scott Timmons
Lavallee Brensinger Architects

Responsible Subcontractor / Vendor
Neil Armitage
Portland Glass

Item Being Submitted
Aluminum Storefront and Curtainwall - Calculations

Contractor's Review Stamp

I hereby certify that I have examined the enclosed submittal(s) and have determined and verified all field measurements, construction criteria, materials, catalog numbers, and similar data, coordinated the submittal(s) with other submissions and the work of other trades and contractors and, to the best of my knowledge and belief, the enclosed submittal(s) is/are in full compliance with the Contract requirements, except as noted above.

Signature  Date 04/28/2016

Name
Andrew Pires
PC Construction Company

This approval does not release subcontractor / vendor from the contractual responsibilities

Architect's Review Stamp

- [x] Reviewed for Performance Criteria Only
- [ ] Reviewed
- [ ] Furnish as Corrected
- [ ] Rejected
- [ ] Revise and Resubmit
- [ ] Submit Specific Item

This review is only for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Corrections or comments made on the shop drawings during this review do not relieve contractor from compliance with the requirements of the plans and specifications. Approval of a specific item shall not include approval of an assembly of which the item is a component. Contractor is responsible for: dimensions to be confirmed and correlated at the jobsite; information that pertains solely to the fabrication processes or to the means, methods, techniques, sequences and procedures of construction; coordination of his or her Work with that of all other trades; and for performing all work in a safe and satisfactory manner.

Becker Structural Engineers, Inc
Date: 05/11/2016 By: dsb

SALCONE ENGINEERING ASSOCIATES, INC. *Consultants • Designers*

509 CLARKS ROW • BRISTOL • RHODE ISLAND 02809 • TEL. (401) 254-1199 • FAX (401) 254-2830

ARCHITECTURAL DOORS & WINDOWS

* THE PARK DANFORTH PROJECT

* PORTLAND, MAINE

---

* STRUCTURAL CALCULATIONS FOR

  CURTAINWALL AND STOREFRONT FRAMING

BY: PETER M. SALCONE, PROFESSIONAL ENGINEER
ME P.E. #8628

APRIL 22, 2016

THIS COVERSHEET IS APPLICABLE TO THE FOLLOWING
CALCULATION SHEETS 1 THRU 84 OF 84

JOB: THE PARK DANFORTH
PORTLAND, MAINE

FOR: ARCHITECTURAL DOORS & WINDOWS

SUBJECT: STRUCTURAL CALCULATIONS FOR
CURTAINWALL AND STOREFRONT FRAMING

DATE: 4/22/16

BY: SALCONE ENGINEERING ASSOCIATES, INC.
509 CLARKS ROW - NORTH FARM
BRISTOL, RHODE ISLAND 02809 (401) 254-1199

GENERAL NOTES AND REFERENCES

* ALUMINUM ALLOY AND TEMPER TO BE 6063-T6

* MISC. & REINFORCING STEEL TO BE A36

* FASTENERS USED SHALL MEET THE MINIMUM SPECS OF OF SAE J429 GRADE 2 (U.O.N.)

* WELDING SHALL FOLLOW AWS SPECS - (E70XX ELECTRODES)

* ALUMINUM DESIGN MANUAL - SPECS FOR ALUMINUM STRUCTURES

* A.I.S.C. STEEL CONSTRUCTION MANUAL

* PROJECT SPECIFICATIONS SECTION 084413 & 084313

STATE OF MAINE
PETER M. SALCONE
No. 8628
LICENSED PROFESSIONAL ENGINEER
4/22/16

21.7 psf per sheet 2

DESIGN CRITERIA

WIND LOAD: (SEE SHEET 2)

* 27.1 PSF POSITIVE & NEGATIVE (NON-CORNER ZONES)
* 26.8 PSF POSITIVE & NEGATIVE (CORNER ZONES)

DEFLECTION:

* NORMAL - L/175 WITH 3/4'' MAX @ SPANS <= 13'- 6''
  - L/240 + 1/4'' @ SPANS > 13'- 6''

* PARALLEL - L/360 WITH 1/8" MAX 1/16" @ DOORS

THERMAL: * 180 DEGREES F TEMPERATURE RANGE

JOB	MADE BY	CKD. BY	DATE	FILE NO.
THE PARK DANFORTH - PORTLAND, ME			4 22 14	PAGE 2 OF 89
ASCE7-05 IBC-2009 MAINE BLDG CODE	REVISION 1 2			DIV.

Component and Cladding Wind Loads:

Wind Speed = 100.0 mph
Mean Roof Height, h = 60.00 ft, (Kh = 0.8540)
Roof Slope = 2.0 :12
Building Width: 80.0 ft
Building Length: 150.0 ft
Topographic Factor, Kzt = 1.000

Exposure Category = B
Building Closure: Enclosed
Importance Category = II, Standard (I = 1.00)
Building Roof Type = Gabled / Hipped
Building Type = Non-Low Rise

qh, Velocity Pressure = 18.58 psf

Effective Wind Area	>>>>Wall Loads<<<< (psf)			>>>>>>>>>>>>>Roof Loads<<<<<<<<<<<< (psf)					
(sq-ft)	P4,5	S4	S5	P1,2,3	S1	S2	S3	C1,2	C3
10	20.1	-21.7	-26.8	10.0	-21.9	-36.8	-55.4	-34.9	-55.4
15	19.6	-21.2	-25.7	10.0	-21.6	-34.5	-49.8	-34.6	-48.8
20	19.2	-20.9	-25.0	10.0	-21.4	-32.9	-45.9	-34.4	-44.2
25	18.9	-20.6	-24.4	10.0	-21.2	-31.6	-42.8	-34.2	-40.6
30	18.7	-20.3	-23.9	10.0	-21.0	-30.6	-40.3	-34.1	-37.6
35	18.5	-20.1	-23.5	10.0	-20.9	-29.7	-38.2	-33.9	-35.2
40	18.3	-20.0	-23.2	10.0	-20.8	-29.0	-36.4	-33.8	-33.0
45	18.1	-19.8	-22.9	10.0	-20.7	-28.3	-34.7	-33.7	-31.1
50	18.0	-19.7	-22.6	10.0	-20.6	-27.7	-33.3	-33.6	-29.4
65	17.7	-19.3	-22.0	10.0	-20.4	-26.2	-29.7	-33.4	-25.2
80	17.4	-19.1	-21.4	10.0	-20.3	-25.0	-26.8	-33.3	-21.8
100	17.1	-18.8	-20.9	10.0	-20.1	-23.8	-23.8	-33.1	-18.2
133	16.8	-18.4	-20.1	10.0	-20.1	-23.8	-23.8	-31.4	-18.2
150	16.6	-18.3	-19.8	10.0	-20.1	-23.8	-23.8	-30.7	-18.2
175	16.4	-18.1	-19.4	10.0	-20.1	-23.8	-23.8	-29.8	-18.2
208	16.2	-17.9	-19.0	10.0	-20.1	-23.8	-23.8	-28.9	-18.2
250	15.9	-17.6	-18.5	10.0	-20.1	-23.8	-23.8	-27.8	-18.2
300	15.7	-17.4	-18.0	10.0	-20.1	-23.8	-23.8	-26.7	-18.2
350	15.5	-17.2	-17.6	10.0	-20.1	-23.8	-23.8	-25.8	-18.2
400	15.3	-17.0	-17.3	10.0	-20.1	-23.8	-23.8	-25.1	-18.2
500	15.1	-16.7	-16.7	10.0	-20.1	-23.8	-23.8	-23.8	-18.2

LOADING & CONTRIBUTING AREA.

21.7 PSF (TYPICAL) 26.8 PSF (CORNER ZONE)

Where:
P4,5 = Wall pressure in interior, corner zones.
S4 = Wall suction in interior zone.
S5 = Wall suction in corner zone.
P1,2,3 = Roof Pressure in interior, edge, corner zones.
S1 = Roof Suction in interior zone.
S2 = Roof Suction in edge zone.
S3 = Roof Suction in corner zone.
C1,2 = Canopy Suction in interior, edge zones.
C3 = Canopy Suction in corner zone.
a = Edge Width (8.0 feet).

External Coefficients, Cp, for Buildings of all Heights, Main Wind Force Resisting System:

Windward Wall: 0.800
Leeward Wall Normal to Ridge: -0.500
Leeward Wall Parallel to Ridge: -0.325
Side Walls: -0.700

Design MWFRS Pressure:
p = (qh or qz) * (G * Cp) - qh(GCpi)
(where G = 0.85, GCpi = 0.18 or -0.18
qh = 15.80)

Roof Coefficients Based on Distance from Windward Edge of Roof

Normal to Ridge: (h/L = 0.75)

Area	0 to h/2	h/2 to h	h to 2h	>2h
<=100	-1.100	-0.800	-0.600	-0.500
=250	-1.035	-0.800	-0.600	-0.500
>=1000	-0.970	-0.800	-0.600	-0.500

Parallel to Ridge:(h/L = 0.40)

0 to h/2	h/2 to h	h to 2h	>2h
-0.900	-0.900	-0.500	-0.300

BY: A DATE: 4/22/16 SUBJECT: SHEET NO. 3 OF 84

CLIENT: AD+W PROJECT: THE PARK DANFORTH

I. CURTAINWALL + STOREFRONT FRAMING ANALYSIS

REFERENCE P.E. STAMPED SHOP DRAWINGS

OLDCASTLE RELIABLE II/A// CURTAINWA// FRAMING SYSTEM

OLDCASTLE FG-3000 STOREFRONT FRAMING SYSTEM

(SEE SHEETS 72 THRU 80 FOR STRUCTURAL PROPERTIES)

A. MULLION ANALYSIS

(DEFLECTION) (STRESS)

1. DETERMINE I_{xx} PROVIDED. M_{OM} MAX RESISTED & SHEAR MAX RESISTED

FOR MULLIONS USED

(CURTAINWALL)

a). WW-400 MULLION

(DEFLECTIONS:)

I_{xx} PROVIDED = 4.801 in⁴

(STRESS)

$M_{MAX} = F_b (S_{xx}) / (M.D.F.)$ ← M DISTRIBUTION FACTOR WHERE STEEL DENIF USED

6063-T6 (SPEC 19) ⟹ $F_b \cong 15$ KSI

$\therefore M_{MAX} = 15 ksi (1.806 in^3) = 27.1^{11-16}$

SHEAR MAX = $F_v (A_s)$

6063-T6 ⟹ $F_v \cong 8.5$ KSI ← CONSERV. DEPTH

$\therefore S_{MAX} = 8.5^{ksi} (.094")(3")(1) = 2,397\#$

(CONSERV. SAY ONLY (1) SIDE RESISTS TO QUALIFY JAMBS ALSO

CONSERV. OSMC COAST CASES TO QUALIFY ALL CURTAINWALL MULLIONS / JAMBS / ALL ELEVATIONS

BY: ~ DATE: 4/22/16 SUBJECT: SHEET NO. 4 OF 89

CLIENT: ADW PROJECT: THE BANK DANFORTH

(I.A.1 CONT)

b) WW-404 MULLION

IXX PROVIDED = 4.329 IN⁴

MMAX = 15(2.124) = 31.9 IN-K

c) WW400 ON WW404 W/ C3X4.1 STEEL CHANNEL REINF.

C2X4.1 IXX = 1.66 IN⁴ (2.9) = 4.814 IN⁴ (ALUM EQUIV)
SXX = 1.10 IN³
(STEEL / ALUM)

∴ IXX PROVIDED = (4.329 + 4.814) = 9.143 IN⁴
(MULL + STEEL) — WW-404 WORST CASE

MMAX

MDF MULL = [4.329/9.143] = .473
MDF STEEL = (4.814/9.143) = .527

∴ MMAX MULL = 15(1.806)/.473 = 57.3 IN-K
(WW-400 WORST CASE)

M MAX STEEL = 21.6 KSI (1.10 IN³)/.527 = 45.1 IN-K ← GOVERNS

d. WW290 MULLION

IXX PROVIDED = 10.172 IN⁴

MMAX = 15(3.01) = 45 IN-K

BY: N DATE: 4/22/16 SUBJECT: SHEET NO. 5 OF 84

CLIENT: AD+W PROJECT: THE PARK DANFORTH

(I.A.1 CONT)

(STOREFRONT)

e) FG-3495 MULLION

I_{XX} PROVIDED = 2.828 IN^4

M_{MAX} = 15(1.257) = 18.9 IN-K — CONSERV. SAY ONLY (1) SIDE RESISTS

S_{MAX} = 8.5 KSI (.09")(3")(1) = 2,040# (CONSERV. DEPTH)

USING WORST CASE CONDITIONS TO QUALIFY CHECK FOR ALL STOREFRONT MULLS / ALL ELEVATIONS ✓1

f) FG-3180 / FG-3181 SPLAYED MULLIONS

CONSERVATIVELY USING PROPERTIES FROM FG-3495 ABOVE:

I_{XX} PROVIDED = 2,828 IN^4

M_{MAX} = 18.9 IN-K

g). FG-3156 MULLIONS

I_{XX} PROVIDED = 2.947 IN^4

M_{MAX} = 15(1.309) = 19.6 IN-K

h) FG-3100

I_{XX} PROVIDED = 2.947 IN^4

M_{MAX} = 15(1.327) = 19.8 IN-K

BY: [illegible] DATE: 4/22/16 SUBJECT: SHEET NO. 6 OF 89

CLIENT: AD+LW PROJECT: THE PARK DANFORTH

(I.A CONT)

2. CHECK COMPRESSION ON MULLIONS @ CURTAINWALL ELEVATIONS

$f_c = P/A$

$P = DL + MISC$

CONSERV

Pe CW1A + CW1B = 58.4'(3.2')(15 PSF) = 2,803#

WORST CASE → Pe CW2 + CW3 = 53.3'(3.9')(15 PSF) = 3,062#

Pe CW4 = 41.5'(4.6')(15)PSF = 2,863#

$\therefore f_c = 3.062^K / 1.696\ in^2 = 1.81\ ksi$

DETERMINE F_c':

WW - 40% WORST CASE

$KL/r_x = (1)(137")/1.597 = 85.8$

$KL/r_y = (1)(113")/.919 = 122.96$ ← GOVERNS > 78

LOW - 40% WORST CASE

$\therefore F_c' = 51.000 / (122.96)^2 = 3.37^{ksi} > f_c = 1.81$ O.K.!

CHECK INTERACTION

$\left(\frac{1.81}{3.37}\right) + \left(\frac{14.5^{k/ft}}{31.9^{k/ft}}\right) = .992 < 1.0$ O.K.!

COMPRESSION — BENDING WIND LOAD — WORST CASE ACTUAL

M_{MAX}

CONSERV. APPLY WORST CASE DEAD LOAD @ WORST CASE MOMENT (WIND LOAD) + NEGLECT COMBINATION REDUCTION!

BY: [illegible] DATE: 9/22/16 SUBJECT: SHEET NO. 7 OF 84

CLIENT: ADW PROJECT: THE PARK DANFORTH

(I.A. cont'l)

3a. CHILL MULLIONS USED

FROM P.E. STAMPED SHOP DRAWINGS & PRINTOUT SHEETS 11 THRU 64

(CURTAINWALL 1 PRINTOUT SHEETS 11 THRU 32)

a). ELEV CW1A, CW1B, CW2, CW3 + CW4 JAMBS (TYPICAL)
ELEV CW5, CW6 + CW7 JAMBS

WW - 400 MULLION O.K.

b) ELEV CW1A + CW1B TOP SPAN JAMBS

WW - 400 w/ C3X9.1 STEEL CHANNEL O.K.

c) ELEV CW1A, CW1B, CW2, CW3 + CW4 MULLS (TYPICAL)
ELEV CW5, CW6 + CW7 MULLS

WW - 409 MULLION O.K.

d) ELEV CW1A + CW1B TOP SPAN MULLS

WW - 404 w/ C3X9.1 STEEL CHANNEL O.K.

e) ELEV CW4 CORNER MULL

WW - 240 MULLION O.K.

BY: ___ DATE: 9/22/16 SUBJECT: ___ SHEET NO. 8 OF 89

CLIENT: ADT&O PROJECT: THE PARK DANFORTH

E.A. 3 CONT'D

(STOREFRONT)
(PAINTOUT SHEETS) 33THRU(A1)

f). ELEV SF3B + SF3A MULLS/JAMBS, SF3A, SF4A + SF4B JAMBS
ELEV SF1A THRU SF2A + SF5 THRU SF8 (TYPICAL) MULLS/JAMBS
ELEV SF9A, SF9B, SF15, SF16A, SF16B JAMBS + SF17 MULLS/JAMBS

FG-3495 MULLION O.K.!

g). ELEV SF4C, SF4D, SF4A, SF4B, + SF15 SPLAYED MULLS
ELEV SF16A, SF19, SF16B + SF10 SPLAYED MULLS

FG-3180/ FG-3181 MULLION O.K.!

h) ELEV SF5 - TAIL 7, SF15, SF9A, SF9B, 19D + 15E DOOR JAMBS
ELEV SF20, SF17, SF18, SF11 + SF-12 DOOR JAMBS

FG-3156 MULLION O.K.!

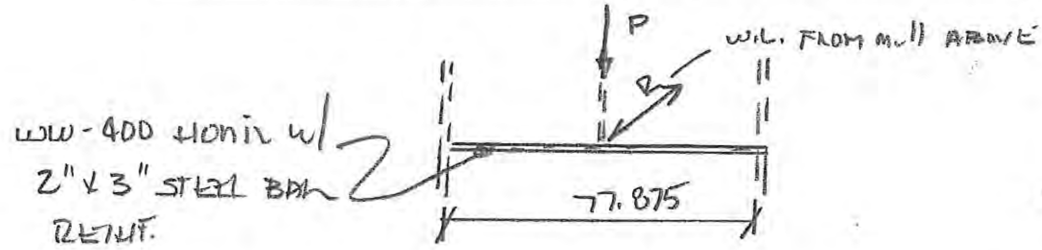
i) ELEV SF19 + SF20 JAMBS
ELEV SF18 MULLS/ JAMBS + SF10 JAMBS

FG-3100 MULLION O.K.!

(I cont)

B. Horizontal Analysis

1. Elev CW5 Horizontal Above Doors



P = DL + misc from mull above

P = 11.2'(3.5')(10PSF)

P = 394#

R = 170#

2" x 3" steel bm

$I_{yy} = 2.0\ in^4(2.9) = 5.80\ in^4$ (alum equiv)

$S_{yy} = 2.0\ in^3$

a) Wind Load

mull alone (conservative, neglect steel)

$\Delta max = L/175 = 77.875/175 = .445"$

$I_{xx}\ REQD = \dfrac{170(77.875)^3}{48(10 \times 10^6)(.445)} = 0.38\ in^4 < I_{xx}\ provided = 4.801$ O.K.

$f_{bx} = M_x/S_x = \dfrac{.170^k(77.875)}{4} / 1.806\ in^3 = 1.8^{ksi} < F_{bx} \cong 15^{ksi}$ O.K.!

b) Dead Load

$\Delta max = 1/16"$

Limit Δy to 1/16" above door

$I_{y} = \dfrac{394^{\#}(77.875)^3}{48(10 \times 10^6)(1/16")} = 6.202\ in^4$

$I_{yy}\ provided = (1.340 + 5.80) = 7.14\ in^4 > 6.202$ O.K.!
(mull + steel)

$f_{by} = M_y/S_y = \dfrac{.394(77.875)}{4} / 1.072\ in^3 = 7.2^{ksi} < F_{by} \cong 15$ O.K.!

conserv.
mull alone
neglect steel

Shear + interaction O.K.! per inspection!

(I.B CONT)

2. CURTAIN WALL TYPICAL MONITS + MONITS ABOVE DOORS

FROM Printout Sheets 65 & 64

LOW-400 HORIZONTALS

a) WIND LOAD:

I_{XX} REQ'D = .110 < 4.801 O.K.!

$f_{bx} = M_x/S_x = 1.2^{k-ft}/1.006 in^3 = 0.7 ksi < F_{bx} = 15$ O.K.!

b) DEAD LOAD:

I_{YY} REQ'D = .376 < 1.390 O.K.!

$f_{by} = M_y/S_y = 1.64^{k-ft}/1.072 in^3 = 1.5 ksi < F_{by} = 15$ O.K.!

SHEAR + INTERACTION O.K.! PER INSPECTION

3. STOREFRONT TYPICAL MONITORIALS + MONITORIALS ABOVE DOORS

From Printout sheets 67 THRU 71

FG-3197 MONIT
FG-3142 MONIT
FG-3163 MONIT ABOVE DOORS

USING WORST CASE PROPERTIES

a) WIND LOAD:

I_{XX} REQ'D = .459 < 2.545 O.K.!

$f_{bx} = M_x/S_x = 3.6^{k-ft}/.975 in^3 = 3.7 ksi < F_{bx} = 15$ O.K.!

b) DEAD LOAD:

I_{YY} REQ'D = .444 < .530 O.K.

$f_{by} = M_y/S_y = .467^{k-ft}/.293 in^3 = 1.6 ksi < F_{by} = 15$ O.K.!

SHEAR + INTERACTION O.K.! PER INSPECTION!

[redacted]
STRUCTURAL
SOFTWARE

TWO-SPAN WITH OVERHANGS

OUTPUT:- MOMENTS & REACTIONS

04-19-2016
14:16:08
PAGE 1/1

JOB TITLE : BOTTOM SPAN ELEV CW1B& CW1A mull

WIND LOAD (PSF)	: 20.6	
MULLION SPACING (FT / FT-IN)	: 3-1.25	(3.1)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

LEFT SPAN LENGTH (FT / FT-IN)	: 11-4.5	(11.38)
RIGHT SPAN LENGTH (FT / FT-IN)	: 9-4.25	(9.35)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 286. LBS
CENTER REACTION	: 835. LBS
RIGHT REACTION	: 205. LBS
LEFT MOMENT	: 0.0 KIP - IN
CENTER MOMENT	: -10.6 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAX. MOMENT LEFT SPAN	: 7.7 KIP - IN
LOC. OF MAX MOM.	: 4.55 FT FROM LEFT
MAX. MOMENT RIGHT SPAN	: 3.9 KIP - IN
LOC. OF MAX MOM.	: 6.17 FT FROM LEFT
DISP. CRITERIA LEFT SPAN	: 0.75 IN
LOC. OF MAX DISP.	: 5.01 FT FROM LEFT
REQUIRED MOI	: 1.599 IN**4
DISP. CRITERIAI RIGHT SPAN	: 0.64 IN
LOC. OF MAX DISP.	: 5.80 FT FROM LEFT
REQUIRED MOI	: 0.472 IN**4

DATE: 6/22 ||BY: ~~~ ||SUBJECT: _____ ||PAGE: 11 OF 89

JOB TITLE : BOTTOM SPAN ELEV CW1B & CW1A 3mmBS

WIND LOAD (PSF)	: 21.7	
MULLION SPACING (FT / FT-IN)	: 1-7.875	(1.66)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

LEFT SPAN LENGTH (FT / FT-IN)	: 11-4.5	(11.38)
RIGHT SPAN LENGTH (FT / FT-IN)	: 9-4.25	(9.35)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 161. LBS
CENTER REACTION	: 469. LBS
RIGHT REACTION	: 115. LBS
LEFT MOMENT	: 0.0 KIP - IN
CENTER MOMENT	: -6.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAX. MOMENT LEFT SPAN	: 4.3 KIP - IN
LOC. OF MAX MOM.	: 4.55 FT FROM LEFT
MAX. MOMENT RIGHT SPAN	: 2.2 KIP - IN
LOC. OF MAX MOM.	: 6.17 FT FROM LEFT
DISP. CRITERIA LEFT SPAN	: 0.50 IN
LOC. OF MAX DISP.	: 5.01 FT FROM LEFT
REQUIRED MOI	: 1.348 IN**4
DISP. CRITERIAI RIGHT SPAN	: 0.50 IN
LOC. OF MAX DISP.	: 5.80 FT FROM LEFT
REQUIRED MOI	: 0.340 IN**4

DATE: 4/22 ||BY: C ||SUBJECT: _____ ||PAGE: 12 OF 89

[redacted]
STRUCTURAL
SOFTWARE

TWO-SPAN WITH OVERHANGS

OUTPUT:- MOMENTS & REACTIONS

04-19-2016
14:19:03
PAGE 1/1

JOB TITLE : MIDDLE SPAN ELEV CW1B& CW1A mulls

WIND LOAD (PSF)	: 20.6	
MULLION SPACING (FT / FT-IN)	: 3-1.25	(3.1)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

LEFT SPAN LENGTH (FT / FT-IN)	: 10-6	(10.5)
RIGHT SPAN LENGTH (FT / FT-IN)	: 9-1.25	(9.1)
LEFT OVERHANG SPAN (FT / FT-IN)	: 1-4.75	(1.4)
RIGHT OVERHANG SPAN (FT / FT-IN)	: 0-0	(0)
LEFT OVERHANG FORCE (LBS)	: 205	
RIGHT OVERHANG FORCE (LBS)	: 0.0	

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 598. LBS
CENTER REACTION	: 734. LBS
RIGHT REACTION	: 216. LBS
LEFT MOMENT	: -4.2 KIP - IN
CENTER MOMENT	: -8.2 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAX. MOMENT LEFT SPAN	: 4.5 KIP - IN
LOC. OF MAX MOM.	: 4.83 FT FROM LEFT
MAX. MOMENT RIGHT SPAN	: 4.4 KIP - IN
LOC. OF MAX MOM.	: 5.64 FT FROM LEFT
DISP. CRITERIA LEFT SPAN	: 0.72 IN
LOC. OF MAX DISP.	: 4.83 FT FROM LEFT
REQUIRED MOI	: 0.725 IN**4
DISP. CRITERIAI RIGHT SPAN	: 0.62 IN
LOC. OF MAX DISP.	: 5.28 FT FROM LEFT
REQUIRED MOI	: 0.627 IN**4

JOB TITLE : MIDDLE SPAN ELEV CW1B& CW1A TRAMBS

WIND LOAD (PSF)	: 21.7	
MULLION SPACING (FT / FT-IN)	: 1-7.875	(1.66)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

LEFT SPAN LENGTH (FT / FT-IN)	: 10-6	(10.5)
RIGHT SPAN LENGTH (FT / FT-IN)	: 9-1.25	(9.1)
LEFT OVERHANG SPAN (FT / FT-IN)	: 1-4.75	(1.4)
RIGHT OVERHANG SPAN (FT / FT-IN)	: 0-0	(0)
LEFT OVERHANG FORCE (LBS)	: 115	
RIGHT OVERHANG FORCE (LBS)	: 0.0	

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 336. LBS
CENTER REACTION	: 413. LBS
RIGHT REACTION	: 121. LBS
LEFT MOMENT	: -2.3 KIP - IN
CENTER MOMENT	: -4.6 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAX. MOMENT LEFT SPAN	: 2.5 KIP - IN
LOC. OF MAX MOM.	: 4.83 FT FROM LEFT
MAX. MOMENT RIGHT SPAN	: 2.5 KIP - IN
LOC. OF MAX MOM.	: 5.64 FT FROM LEFT
DISP. CRITERIA LEFT SPAN	: 0.50 IN
LOC. OF MAX DISP.	: 4.83 FT FROM LEFT
REQUIRED MOI	: 0.587 IN**4
DISP. CRITERIAI RIGHT SPAN	: 0.50 IN
LOC. OF MAX DISP.	: 5.28 FT FROM LEFT
REQUIRED MOI	: 0.440 IN**4

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STRUCTURAL
SOFTWARE

SINGLE SPAN WITH OVERHANGS

OUTPUT:- MOMENTS & REACTIONS

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14:20:41
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JOB TITLE : TOP SPAN ELEV CW1B & CW1A m115

WIND LOAD (PSF)	: 20.0	
MULLION SPACING (FT / FT-IN)	: 3-1.25	(3.1)
ALLOWABLE DEFLECTION RATIO	L/: 180	
MAX ALLOWABLE DEFLECTION (IN)	: 1.013	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 15-3.25	(15.27)
LEFT OVERHANG SPAN (FT / FT-IN)	: 1-4.75	(1.4)
RIGHT OVERHANG SPAN (FT / FT-IN)	: 0-0	(0)
LEFT OVERHANG FORCE (LBS)	: 216	
RIGHT OVERHANG FORCE (LBS)	: 0.0	

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 800. LBS
RIGHT REACTION	: 450. LBS
LEFT MOMENT	: -4.3 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 19.6 KIP - IN
LOC. OF MAX MOM.	: 7.94 FT FROM LEFT
DISPLACEMENT CRITERIA	: 1.01 IN
LOC. OF MAX DISP.	: 7.64 FT FROM LEFT
REQUIRED MOI	: 6.599 IN**4

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JOB TITLE : TOP SPAN ELEV CW1B & CW1A TYPICAL

WIND LOAD (PSF)	: 20.9	
MULLION SPACING (FT / FT-IN)	: 1-7.875	(1.66)
ALLOWABLE DEFLECTION RATIO	L/: 180	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 15-3.25	(15.27)
LEFT OVERHANG SPAN (FT / FT-IN)	: 1-4.75	(1.4)
RIGHT OVERHANG SPAN (FT / FT-IN)	: 0-0	(0)
LEFT OVERHANG FORCE (LBS)	: 121	
RIGHT OVERHANG FORCE (LBS)	: 0.0	

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 447. LBS
RIGHT REACTION	: 251. LBS
LEFT MOMENT	: -2.4 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 10.9 KIP - IN
LOC. OF MAX MOM.	: 7.94 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.50 IN
LOC. OF MAX DISP.	: 7.64 FT FROM LEFT
REQUIRED MOI	: 7.450 IN**4

JOB TITLE : BOTTOM SPAN ELEV CW2 & CW3 mlls

WIND LOAD (PSF)	: 20.6	
MULLION SPACING (FT / FT-IN)	: 3-8.75	(3.73)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

LEFT SPAN LENGTH (FT / FT-IN)	: 11-4.5	(11.38)
RIGHT SPAN LENGTH (FT / FT-IN)	: 9-4.5	(9.38)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 344. LBS
CENTER REACTION	: 1004. LBS
RIGHT REACTION	: 247. LBS
LEFT MOMENT	: 0.0 KIP - IN
CENTER MOMENT	: -12.7 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAX. MOMENT LEFT SPAN	: 9.2 KIP - IN
LOC. OF MAX MOM.	: 4.55 FT FROM LEFT
MAX. MOMENT RIGHT SPAN	: 4.8 KIP - IN
LOC. OF MAX MOM.	: 6.19 FT FROM LEFT
DISP. CRITERIA LEFT SPAN	: 0.75 IN
LOC. OF MAX DISP.	: 5.01 FT FROM LEFT
REQUIRED MOI	: 1.919 IN**4
DISP. CRITERIAI RIGHT SPAN	: 0.64 IN
LOC. OF MAX DISP.	: 5.81 FT FROM LEFT
REQUIRED MOI	: 0.575 IN**4

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JOB TITLE : BOTTOM SPAN ELEV CW2 & CW3 JTMBS

WIND LOAD (PSF)	: 21.7	
MULLION SPACING (FT / FT-IN)	: 2-0.5	(2.04)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

LEFT SPAN LENGTH (FT / FT-IN)	: 11-4.5	(11.38)
RIGHT SPAN LENGTH (FT / FT-IN)	: 9-4.5	(9.38)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 198. LBS
CENTER REACTION	: 579. LBS
RIGHT REACTION	: 142. LBS
LEFT MOMENT	: 0.0 KIP - IN
CENTER MOMENT	: -7.4 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAX. MOMENT LEFT SPAN	: 5.3 KIP - IN
LOC. OF MAX MOM.	: 4.55 FT FROM LEFT
MAX. MOMENT RIGHT SPAN	: 2.7 KIP - IN
LOC. OF MAX MOM.	: 6.19 FT FROM LEFT
DISP. CRITERIA LEFT SPAN	: 0.50 IN
LOC. OF MAX DISP.	: 5.01 FT FROM LEFT
REQUIRED MOI	: 1.660 IN**4
DISP. CRITERIAI RIGHT SPAN	: 0.50 IN
LOC. OF MAX DISP.	: 5.81 FT FROM LEFT
REQUIRED MOI	: 0.426 IN**4

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TWO-SPAN WITH OVERHANGS

OUTPUT:- MOMENTS & REACTIONS

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10:50:15
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JOB TITLE : MIDDLE SPAN ELEV CW2 & CW3 mulls

WIND LOAD (PSF)	: 20.6	
MULLION SPACING (FT / FT-IN)	: 3-8.75	(3.73)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

LEFT SPAN LENGTH (FT / FT-IN)	: 10-6	(10.5)
RIGHT SPAN LENGTH (FT / FT-IN)	: 9-1.25	(9.1)
LEFT OVERHANG SPAN (FT / FT-IN)	: 1-4.75	(1.4)
RIGHT OVERHANG SPAN (FT / FT-IN)	: 0-0	(0)
LEFT OVERHANG FORCE (LBS)	: 247	
RIGHT OVERHANG FORCE (LBS)	: 0.0	

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 719. LBS
CENTER REACTION	: 882. LBS
RIGHT REACTION	: 259. LBS
LEFT MOMENT	: -5.0 KIP - IN
CENTER MOMENT	: -9.9 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAX. MOMENT LEFT SPAN	: 5.4 KIP - IN
LOC. OF MAX MOM.	: 4.83 FT FROM LEFT
MAX. MOMENT RIGHT SPAN	: 5.2 KIP - IN
LOC. OF MAX MOM.	: 5.64 FT FROM LEFT
DISP. CRITERIA LEFT SPAN	: 0.72 IN
LOC. OF MAX DISP.	: 4.83 FT FROM LEFT
REQUIRED MOI	: 0.869 IN**4
DISP. CRITERIAI RIGHT SPAN	: 0.62 IN
LOC. OF MAX DISP.	: 5.28 FT FROM LEFT
REQUIRED MOI	: 0.754 IN**4

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JOB TITLE : MIDDLE SPAN ELEV CW2 & CW3 JMMBS

WIND LOAD (PSF)	: 21.7	
MULLION SPACING (FT / FT-IN)	: 2-0.5	(2.04)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

LEFT SPAN LENGTH (FT / FT-IN)	: 10-6	(10.5)
RIGHT SPAN LENGTH (FT / FT-IN)	: 9-1.25	(9.1)
LEFT OVERHANG SPAN (FT / FT-IN)	: 1-4.75	(1.4)
RIGHT OVERHANG SPAN (FT / FT-IN)	: 0-0	(0)
LEFT OVERHANG FORCE (LBS)	: 142	
RIGHT OVERHANG FORCE (LBS)	: 0.0	

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 414. LBS
CENTER REACTION	: 509. LBS
RIGHT REACTION	: 149. LBS
LEFT MOMENT	: -2.9 KIP - IN
CENTER MOMENT	: -5.7 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAX. MOMENT LEFT SPAN	: 3.1 KIP - IN
LOC. OF MAX MOM.	: 4.83 FT FROM LEFT
MAX. MOMENT RIGHT SPAN	: 3.0 KIP - IN
LOC. OF MAX MOM.	: 5.64 FT FROM LEFT
DISP. CRITERIA LEFT SPAN	: 0.50 IN
LOC. OF MAX DISP.	: 4.83 FT FROM LEFT
REQUIRED MOI	: 0.723 IN**4
DISP. CRITERIAI RIGHT SPAN	: 0.50 IN
LOC. OF MAX DISP.	: 5.28 FT FROM LEFT
REQUIRED MOI	: 0.542 IN**4

JOB TITLE : TOP SPAN ELEV CW2 & CW3 mull

WIND LOAD (PSF)	: 20.6	
MULLION SPACING (FT / FT-IN)	: 3-8.75	(3.73)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 10-0.75	(10.06)
LEFT OVERHANG SPAN (FT / FT-IN)	: 1-4.75	(1.4)
RIGHT OVERHANG SPAN (FT / FT-IN)	: 0-0	(0)
LEFT OVERHANG FORCE (LBS)	: 259	
RIGHT OVERHANG FORCE (LBS)	: 0.0	

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 796. LBS
RIGHT REACTION	: 343. LBS
LEFT MOMENT	: -5.2 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 9.2 KIP - IN
LOC. OF MAX MOM.	: 5.63 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.69 IN
LOC. OF MAX DISP.	: 5.23 FT FROM LEFT
REQUIRED MOI	: 1.882 IN**4

JOB TITLE : TOP SPAN ELEV CW2 & CW3 JAMBS

WIND LOAD (PSF)	: 21.7	
MULLION SPACING (FT / FT-IN)	: 2-0.5	(2.04)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 10-0.75	(10.06)
LEFT OVERHANG SPAN (FT / FT-IN)	: 1-4.75	(1.4)
RIGHT OVERHANG SPAN (FT / FT-IN)	: 0-0	(0)
LEFT OVERHANG FORCE (LBS)	: 149	
RIGHT OVERHANG FORCE (LBS)	: 0.0	

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 459. LBS
RIGHT REACTION	: 198. LBS
LEFT MOMENT	: -3.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 5.3 KIP - IN
LOC. OF MAX MOM.	: 5.63 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.50 IN
LOC. OF MAX DISP.	: 5.23 FT FROM LEFT
REQUIRED MOI	: 1.499 IN**4

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JOB TITLE : BOTTOM SPAN ELEV CW4 mull + corner mull

WIND LOAD (PSF)	: 23.2	
MULLION SPACING (FT / FT-IN)	: 4-4.5	(4.38)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

LEFT SPAN LENGTH (FT / FT-IN)	: 10-2.5	(10.21)
RIGHT SPAN LENGTH (FT / FT-IN)	: 9-1.25	(9.1)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 401. LBS
CENTER REACTION	: 1228. LBS
RIGHT REACTION	: 331. LBS
LEFT MOMENT	: 0.0 KIP - IN
CENTER MOMENT	: -14.3 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAX. MOMENT LEFT SPAN	: 9.5 KIP - IN
LOC. OF MAX MOM.	: 3.88 FT FROM LEFT
MAX. MOMENT RIGHT SPAN	: 6.5 KIP - IN
LOC. OF MAX MOM.	: 5.83 FT FROM LEFT
DISP. CRITERIA LEFT SPAN	: 0.70 IN
LOC. OF MAX DISP.	: 4.49 FT FROM LEFT
REQUIRED MOI	: 1.665 IN**4
DISP. CRITERIAI RIGHT SPAN	: 0.62 IN
LOC. OF MAX DISP.	: 5.46 FT FROM LEFT
REQUIRED MOI	: 0.859 IN**4

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JOB TITLE : BOTTOM SPAN ELEV CW4 TmmBS

WIND LOAD (PSF)	: 25.0	
MULLION SPACING (FT / FT-IN)	: 3-6.75	(3.56)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

LEFT SPAN LENGTH (FT / FT-IN)	: 10-2.5	(10.21)
RIGHT SPAN LENGTH (FT / FT-IN)	: 9-1.25	(9.1)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 352. LBS
CENTER REACTION	: 1078. LBS
RIGHT REACTION	: 290. LBS
LEFT MOMENT	: 0.0 KIP - IN
CENTER MOMENT	: -12.6 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAX. MOMENT LEFT SPAN	: 8.3 KIP - IN
LOC. OF MAX MOM.	: 3.88 FT FROM LEFT
MAX. MOMENT RIGHT SPAN	: 5.7 KIP - IN
LOC. OF MAX MOM.	: 5.83 FT FROM LEFT
DISP. CRITERIA LEFT SPAN	: 0.50 IN
LOC. OF MAX DISP.	: 4.49 FT FROM LEFT
REQUIRED MOI	: 2.045 IN**4
DISP. CRITERIAI RIGHT SPAN	: 0.50 IN
LOC. OF MAX DISP.	: 5.46 FT FROM LEFT
REQUIRED MOI	: 0.941 IN**4

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TWO-SPAN WITH OVERHANGS

OUTPUT:- MOMENTS & REACTIONS

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10:58:13
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JOB TITLE : TOP SPAN ELEV CW4 mills

WIND LOAD (PSF)	: 23.2	
MULLION SPACING (FT / FT-IN)	: 4-4.5	(4.38)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

LEFT SPAN LENGTH (FT / FT-IN)	: 10-6.5	(10.54)
RIGHT SPAN LENGTH (FT / FT-IN)	: 10-0.75	(10.06)
LEFT OVERHANG SPAN (FT / FT-IN)	: 1-4.75	(1.4)
RIGHT OVERHANG SPAN (FT / FT-IN)	: 0-0	(0)
LEFT OVERHANG FORCE (LBS)	: 331	
RIGHT OVERHANG FORCE (LBS)	: 0.0	

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 947. LBS
CENTER REACTION	: 1227. LBS
RIGHT REACTION	: 391. LBS
LEFT MOMENT	: -6.7 KIP - IN
CENTER MOMENT	: -14.5 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAX. MOMENT LEFT SPAN	: 6.5 KIP - IN
LOC. OF MAX MOM.	: 4.64 FT FROM LEFT
MAX. MOMENT RIGHT SPAN	: 9.0 KIP - IN
LOC. OF MAX MOM.	: 6.24 FT FROM LEFT
DISP. CRITERIA LEFT SPAN	: 0.72 IN
LOC. OF MAX DISP.	: 4.85 FT FROM LEFT
REQUIRED MOI	: 0.986 IN**4
DISP. CRITERIAI RIGHT SPAN	: 0.69 IN
LOC. OF MAX DISP.	: 5.84 FT FROM LEFT
REQUIRED MOI	: 1.528 IN**4

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JOB TITLE : TOP SPAN ELEV CW4 7mmBS

WIND LOAD (PSF)	: 25.0	
MULLION SPACING (FT / FT-IN)	: 3-6.75	(3.56)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

LEFT SPAN LENGTH (FT / FT-IN)	: 10-6.5	(10.54)
RIGHT SPAN LENGTH (FT / FT-IN)	: 10-0.75	(10.06)
LEFT OVERHANG SPAN (FT / FT-IN)	: 1-4.75	(1.4)
RIGHT OVERHANG SPAN (FT / FT-IN)	: 0-0	(0)
LEFT OVERHANG FORCE (LBS)	: 290	
RIGHT OVERHANG FORCE (LBS)	: 0.0	

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 830. LBS
CENTER REACTION	: 1076. LBS
RIGHT REACTION	: 343. LBS
LEFT MOMENT	: -5.9 KIP - IN
CENTER MOMENT	: -12.7 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAX. MOMENT LEFT SPAN	: 5.7 KIP - IN
LOC. OF MAX MOM.	: 4.64 FT FROM LEFT
MAX. MOMENT RIGHT SPAN	: 7.9 KIP - IN
LOC. OF MAX MOM.	: 6.24 FT FROM LEFT
DISP. CRITERIA LEFT SPAN	: 0.50 IN
LOC. OF MAX DISP.	: 4.85 FT FROM LEFT
REQUIRED MOI	: 1.252 IN**4
DISP. CRITERIAI RIGHT SPAN	: 0.50 IN
LOC. OF MAX DISP.	: 5.84 FT FROM LEFT
REQUIRED MOI	: 1.849 IN**4

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TWO-SPAN WITH OVERHANGS

OUTPUT:- MOMENTS & REACTIONS

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11:02:10
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JOB TITLE : ELEV CW5 MULL ABOVE DOORS

WIND LOAD (PSF)	: 25.0	
MULLION SPACING (FT / FT-IN)	: 3-4.25	(3.35)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

LEFT SPAN LENGTH (FT / FT-IN)	: 4-0.5	(4.04)
RIGHT SPAN LENGTH (FT / FT-IN)	: 7-2.25	(7.19)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION OH HOIST	: 68. LBS OR $\frac{4.04'}{2}(3.35')(25\,PSF) - 170\#$
CENTER REACTION	: 629. LBS
RIGHT REACTION	: 245. LBS
LEFT MOMENT	: 0.0 KIP - IN
CENTER MOMENT	: -4.9 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAX MOMENT LEFT SPAN	: 0.3 KIP - IN
LOC. OF MAX MOM.	: 0.81 FT FROM LEFT
MAX. MOMENT RIGHT SPAN	: 4.3 KIP - IN
LOC. OF MAX MOM.	: 4.31 FT FROM LEFT
DISP. CRITERIA LEFT SPAN	: 0.28 IN
LOC. OF MAX DISP.	: 2.83 FT FROM LEFT
REQUIRED MOI	: 0.100 IN**4
DISP. CRITERIAI RIGHT SPAN	: 0.49 IN
LOC. OF MAX DISP.	: 3.88 FT FROM LEFT
REQUIRED MOI	: 0.567 IN**4

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TWO-SPAN WITH OVERHANGS

OUTPUT:- MOMENTS & REACTIONS

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10:59:48
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JOB TITLE : ELEV CW5 JAMBS

WIND LOAD (PSF)	: 25.0	
MULLION SPACING (FT / FT-IN)	: 3-5.4	(3.45)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

WORST CASE BOTTOM SPAN BN USED (1'-9 3/16" return @ top span)

SPANS & FORCES

LEFT SPAN LENGTH (FT / FT-IN)	: 11-5	(11.42)
RIGHT SPAN LENGTH (FT / FT-IN)	: 7-2.25	(7.19)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 398. LBS
CENTER REACTION	: 1047. LBS
RIGHT REACTION	: 160. LBS
LEFT MOMENT	: 0.0 KIP - IN
CENTER MOMENT	: -12.9 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAX. MOMENT LEFT SPAN	: 11.0 KIP - IN
LOC. OF MAX MOM.	: 4.57 FT FROM LEFT
MAX. MOMENT RIGHT SPAN	: 1.8 KIP - IN
LOC. OF MAX MOM.	: 5.32 FT FROM LEFT
DISP. CRITERIA LEFT SPAN	: 0.50 IN
LOC. OF MAX DISP.	: 5.02 FT FROM LEFT
REQUIRED MOI	: 3.610 IN**4
DISP. CRITERIAI RIGHT SPAN	: 0.49 IN
LOC. OF MAX DISP.	: 1.73 FT FROM LEFT
REQUIRED MOI	: 0.319 IN**4

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TWO-SPAN WITH OVERHANGS

OUTPUT:- MOMENTS & REACTIONS

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JOB TITLE : ELEV CW6 MULL

WIND LOAD (PSF)	: 25.0	
MULLION SPACING (FT / FT-IN)	: 3-10	(3.83)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

LEFT SPAN LENGTH (FT / FT-IN)	: 11-5	(11.42)
RIGHT SPAN LENGTH (FT / FT-IN)	: 7-2.25	(7.19)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 442. LBS
CENTER REACTION	: 1163. LBS
RIGHT REACTION	: 178. LBS
LEFT MOMENT	: 0.0 KIP - IN
CENTER MOMENT	: -14.4 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAX. MOMENT LEFT SPAN	: 12.2 KIP - IN
LOC. OF MAX MOM.	: 4.57 FT FROM LEFT
MAX. MOMENT RIGHT SPAN	: 2.0 KIP - IN
LOC. OF MAX MOM.	: 5.32 FT FROM LEFT
DISP. CRITERIA LEFT SPAN	: 0.75 IN
LOC. OF MAX DISP.	: 5.02 FT FROM LEFT
REQUIRED MOI	: 2.674 IN**4
DISP. CRITERIAI RIGHT SPAN	: 0.49 IN
LOC. OF MAX DISP.	: 1.73 FT FROM LEFT
REQUIRED MOI	: 0.354 IN**4

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JOB TITLE : ELEV CW6 JAMBS

WIND LOAD (PSF)	: 26.8	
MULLION SPACING (FT / FT-IN)	: 2-0.75	(2.06)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

LEFT SPAN LENGTH (FT / FT-IN)	: 11-5	(11.42)
RIGHT SPAN LENGTH (FT / FT-IN)	: 7-2.25	(7.19)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 255. LBS
CENTER REACTION	: 671. LBS
RIGHT REACTION	: 103. LBS
LEFT MOMENT	: 0.0 KIP - IN
CENTER MOMENT	: -8.3 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAX. MOMENT LEFT SPAN	: 7.1 KIP - IN
LOC. OF MAX MOM.	: 4.57 FT FROM LEFT
MAX. MOMENT RIGHT SPAN	: 1.1 KIP - IN
LOC. OF MAX MOM.	: 5.32 FT FROM LEFT
DISP. CRITERIA LEFT SPAN	: 0.50 IN
LOC. OF MAX DISP.	: 5.02 FT FROM LEFT
REQUIRED MOI	: 2.313 IN**4
DISP. CRITERIAI RIGHT SPAN	: 0.49 IN
LOC. OF MAX DISP.	: 1.73 FT FROM LEFT
REQUIRED MOI	: 0.204 IN**4

JOB TITLE : ELEV CW7 MULLS

WIND LOAD (PSF)	: 20.9	
MULLION SPACING (FT / FT-IN)	: 3-8.75	(3.73)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

LEFT SPAN LENGTH (FT / FT-IN)	: 11-5	(11.42)
RIGHT SPAN LENGTH (FT / FT-IN)	: 7-2.25	(7.19)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 360. LBS
CENTER REACTION	: 946. LBS
RIGHT REACTION	: 145. LBS
LEFT MOMENT	: 0.0 KIP - IN
CENTER MOMENT	: -11.7 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAX. MOMENT LEFT SPAN	: 10.0 KIP - IN
LOC. OF MAX MOM.	: 4.57 FT FROM LEFT
MAX. MOMENT RIGHT SPAN	: 1.6 KIP - IN
LOC. OF MAX MOM.	: 5.32 FT FROM LEFT
DISP. CRITERIA LEFT SPAN	: 0.75 IN
LOC. OF MAX DISP.	: 5.02 FT FROM LEFT
REQUIRED MOI	: 2.175 IN**4
DISP. CRITERIAI RIGHT SPAN	: 0.49 IN
LOC. OF MAX DISP.	: 1.73 FT FROM LEFT
REQUIRED MOI	: 0.288 IN**4

DATE: 9/12 ||BY: ___ ||SUBJECT: _____ ||PAGE: 31 OF 87

JOB TITLE : ELEV CW7 JAMBS

WIND LOAD (PSF)	: 21.7	
MULLION SPACING (FT / FT-IN)	: 2-1.75	(2.15)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

LEFT SPAN LENGTH (FT / FT-IN)	: 11-5	(11.42)
RIGHT SPAN LENGTH (FT / FT-IN)	: 7-2.25	(7.19)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 215. LBS
CENTER REACTION	: 565. LBS
RIGHT REACTION	: 86. LBS
LEFT MOMENT	: 0.0 KIP - IN
CENTER MOMENT	: -7.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAX. MOMENT LEFT SPAN	: 5.9 KIP - IN
LOC. OF MAX MOM.	: 4.57 FT FROM LEFT
MAX. MOMENT RIGHT SPAN	: 1.0 KIP - IN
LOC. OF MAX MOM.	: 5.32 FT FROM LEFT
DISP. CRITERIA LEFT SPAN	: 0.50 IN
LOC. OF MAX DISP.	: 5.02 FT FROM LEFT
REQUIRED MOI	: 1.949 IN**4
DISP. CRITERIAI RIGHT SPAN	: 0.49 IN
LOC. OF MAX DISP.	: 1.73 FT FROM LEFT
REQUIRED MOI	: 0.172 IN**4

DATE: 4/21 | | BY: ____ | | SUBJECT: ____ | | PAGE: 32 OF 89

JOB TITLE : ELEV SF3B 4C 3A 4A mulls

WIND LOAD (PSF)	: 20.9	
MULLION SPACING (FT / FT-IN)	: 3-5.125	(3.43)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 6-9.5	(6.79)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 243. LBS
RIGHT REACTION	: 243. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 5.0 KIP - IN
LOC. OF MAX MOM.	: 3.40 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.47 IN
LOC. OF MAX DISP.	: 3.40 FT FROM LEFT
REQUIRED MOI	: 0.736 IN**4

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STRUCTURAL
SOFTWARE

SINGLE SPAN WITH OVERHANGS

OUTPUT:- MOMENTS & REACTIONS

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11:34:38
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JOB TITLE : ELEV SF3B 4C 3A 4A JAMES

WIND LOAD (PSF)	: 21.7	
MULLION SPACING (FT / FT-IN)	: 1-9.8	(1.82)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 6-9.5	(6.79)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 134. LBS
RIGHT REACTION	: 134. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 2.7 KIP - IN
LOC. OF MAX MOM.	: 3.40 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.47 IN
LOC. OF MAX DISP.	: 3.40 FT FROM LEFT
REQUIRED MOI	: 0.405 IN**4

DATE: 4/12 ||BY: ✓ ||SUBJECT: _____ ||PAGE: 30 OF 84

JOB TITLE : ELEV SF4D 4F mills

WIND LOAD (PSF)	: 25.0	
MULLION SPACING (FT / FT-IN)	: 3-5.125	(3.43)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 6-9.5	(6.79)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 291. LBS
RIGHT REACTION	: 291. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 5.9 KIP - IN
LOC. OF MAX MOM.	: 3.40 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.47 IN
LOC. OF MAX DISP.	: 3.40 FT FROM LEFT
REQUIRED MOI	: 0.881 IN**4

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JOB TITLE : ELEV SF4D 4F JAMBS

WIND LOAD (PSF)	: 26.8	
MULLION SPACING (FT / FT-IN)	: 1-9.8	(1.82)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 6-9.5	(6.79)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 165. LBS
RIGHT REACTION	: 165. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 3.4 KIP - IN
LOC. OF MAX MOM.	: 3.40 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.47 IN
LOC. OF MAX DISP.	: 3.40 FT FROM LEFT
REQUIRED MOI	: 0.500 IN**4

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STRUCTURAL
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SINGLE SPAN WITH OVERHANGS
OUTPUT:- MOMENTS & REACTIONS

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11:36:18
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JOB TITLE : ELEV SF1B SFIC mulls

WIND LOAD (PSF)	: 20.3	
MULLION SPACING (FT / FT-IN)	: 4-1.625	(4.14)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 8-0.5	(8.04)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 338. LBS
RIGHT REACTION	: 338. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 8.1 KIP - IN
LOC. OF MAX MOM.	: 4.02 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.55 IN
LOC. OF MAX DISP.	: 4.02 FT FROM LEFT
REQUIRED MOI	: 1.432 IN**4

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JOB TITLE : ELEV SF1B SFIC JmmBS

WIND LOAD (PSF)	: 21.2	
MULLION SPACING (FT / FT-IN)	: 2-2.1	(2.18)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 8-0.5	(8.04)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 185. LBS
RIGHT REACTION	: 185. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 4.5 KIP - IN
LOC. OF MAX MOM.	: 4.02 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.50 IN
LOC. OF MAX DISP.	: 4.02 FT FROM LEFT
REQUIRED MOI	: 0.868 IN**4

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STRUCTURAL
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SINGLE SPAN WITH OVERHANGS

OUTPUT:- MOMENTS & REACTIONS

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11:38:17
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JOB TITLE : ELEV SF1A SF1D mulls

WIND LOAD (PSF)	: 23.9	
MULLION SPACING (FT / FT-IN)	: 4-1.625	(4.14)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 8-0.5	(8.04)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 397. LBS
RIGHT REACTION	: 397. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 9.6 KIP - IN
LOC. OF MAX MOM.	: 4.02 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.55 IN
LOC. OF MAX DISP.	: 4.02 FT FROM LEFT
REQUIRED MOI	: 1.687 IN**4

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SINGLE SPAN WITH OVERHANGS

OUTPUT:- MOMENTS & REACTIONS

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11:37:49
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JOB TITLE : ELEV SF1A SF1D Trim BS

WIND LOAD (PSF)	: 25.7	
MULLION SPACING (FT / FT-IN)	: 2-2.1	(2.18)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 8-0.5	(8.04)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 225. LBS
RIGHT REACTION	: 225. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 5.4 KIP - IN
LOC. OF MAX MOM.	: 4.02 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.50 IN
LOC. OF MAX DISP.	: 4.02 FT FROM LEFT
REQUIRED MOI	: 1.052 IN**4

DATE: 4/22 ||BY: ___ ||SUBJECT: _____ ||PAGE: 16 OF 89

JOB TITLE : ELEV SF2A 2B 2C 2D & 2E mills

WIND LOAD (PSF)	: 21.2	
MULLION SPACING (FT / FT-IN)	: 2-7.625	(2.64)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 7-1.5	(7.13)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 199. LBS
RIGHT REACTION	: 199. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 4.3 KIP - IN
LOC. OF MAX MOM.	: 3.56 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.49 IN
LOC. OF MAX DISP.	: 3.56 FT FROM LEFT
REQUIRED MOI	: 0.663 IN**4

DATE: 4/12 ||BY: ___ ||SUBJECT: _____ ||PAGE: 91 OF 89

JOB TITLE : ELEV SF2A 2B 2C 2D & 2E JAMBS

WIND LOAD (PSF)	: 21.7	
MULLION SPACING (FT / FT-IN)	: 1-4.8	(1.4)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 7-1.5	(7.13)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 108. LBS
RIGHT REACTION	: 108. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 2.3 KIP - IN
LOC. OF MAX MOM.	: 3.56 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.49 IN
LOC. OF MAX DISP.	: 3.56 FT FROM LEFT
REQUIRED MOI	: 0.361 IN**4

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JOB TITLE : ELEV SF5 TALL mull

WIND LOAD (PSF)	: 20.3	
MULLION SPACING (FT / FT-IN)	: 3-8	(3.67)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 9-2.375	(9.2)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 342. LBS
RIGHT REACTION	: 342. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 9.4 KIP - IN
LOC. OF MAX MOM.	: 4.60 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.63 IN
LOC. OF MAX DISP.	: 4.60 FT FROM LEFT
REQUIRED MOI	: 1.901 IN**4

DATE: 4/22 ||BY: ___ ||SUBJECT: _____ ||PAGE: 93 OF 89

JOB TITLE : ELEV SF5 TALL JAMB

WIND LOAD (PSF)	: 21.2	
MULLION SPACING (FT / FT-IN)	: 1-11	(1.92)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 9-2.375	(9.2)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 187. LBS
RIGHT REACTION	: 187. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 5.2 KIP - IN
LOC. OF MAX MOM.	: 4.60 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.50 IN
LOC. OF MAX DISP.	: 4.60 FT FROM LEFT
REQUIRED MOI	: 1.309 IN**4

DATE: 9/22 ||BY: ___ ||SUBJECT: _____ ||PAGE: 94 OF 89

JOB TITLE : ELEV SF5 SF6 SF7 & SF8 short mulls

WIND LOAD (PSF)	: 20.3	
MULLION SPACING (FT / FT-IN)	: 4-4.5	(4.38)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 7-11.5	(7.96)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 353. LBS
RIGHT REACTION	: 353. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 8.4 KIP - IN
LOC. OF MAX MOM.	: 3.98 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.55 IN
LOC. OF MAX DISP.	: 3.98 FT FROM LEFT
REQUIRED MOI	: 1.469 IN**4

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JOB TITLE : ELEV SF5 SF6 SF7 & SF8 ← SHORT JAMBS

WIND LOAD (PSF)	: 21.2	
MULLION SPACING (FT / FT-IN)	: 2-3.25	(2.27)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 7-11.5	(7.96)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 192. LBS
RIGHT REACTION	: 192. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 4.6 KIP - IN
LOC. OF MAX MOM.	: 3.98 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.50 IN
LOC. OF MAX DISP.	: 3.98 FT FROM LEFT
REQUIRED MOI	: 0.869 IN**4

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STRUCTURAL
SOFTWARE

SINGLE SPAN WITH OVERHANGS

OUTPUT:- MOMENTS & REACTIONS

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11:46:16
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JOB TITLE : ELEV SF9A & SF9B mulls

WIND LOAD (PSF)	: 25.7	
MULLION SPACING (FT / FT-IN)	: 2-5.625	(2.47)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 7-1.125	(7.09)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 225. LBS
RIGHT REACTION	: 225. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 4.8 KIP - IN
LOC. OF MAX MOM.	: 3.55 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.49 IN
LOC. OF MAX DISP.	: 3.55 FT FROM LEFT
REQUIRED MOI	: 0.743 IN**4

DATE: 9/12 ||BY: ✓ ||SUBJECT: _____ ||PAGE: 97 OF 89

JOB TITLE : ELEV SF9A & SF9B Jmm BS

WIND LOAD (PSF)	: 26.8	
MULLION SPACING (FT / FT-IN)	: 1-8	(1.67)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 7-1.125	(7.09)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 158. LBS
RIGHT REACTION	: 158. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 3.4 KIP - IN
LOC. OF MAX MOM.	: 3.55 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.49 IN
LOC. OF MAX DISP.	: 3.55 FT FROM LEFT
REQUIRED MOI	: 0.523 IN**4

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JOB TITLE : ELEV 149D 151E 149D/E11

WIND LOAD (PSF)	: 26.8	
MULLION SPACING (FT / FT-IN)	: 1-8	(1.67)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 7-4	(7.33)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 164. LBS
RIGHT REACTION	: 164. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 3.6 KIP - IN
LOC. OF MAX MOM.	: 3.67 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.50 IN
LOC. OF MAX DISP.	: 3.67 FT FROM LEFT
REQUIRED MOI	: 0.581 IN**4

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STRUCTURAL
SOFTWARE

SINGLE SPAN WITH OVERHANGS
OUTPUT:- MOMENTS & REACTIONS

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11:49:36
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JOB TITLE : ELEV SF15 TALL mulls

WIND LOAD (PSF)	: 23.9	
MULLION SPACING (FT / FT-IN)	: 3-8.6	(3.72)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 8-10.375	(8.86)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 394. LBS
RIGHT REACTION	: 394. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 10.5 KIP - IN
LOC. OF MAX MOM.	: 4.43 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.61 IN
LOC. OF MAX DISP.	: 4.43 FT FROM LEFT
REQUIRED MOI	: 2.030 IN**4

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JOB TITLE : ELEV SF15 TALL 7mm BS

WIND LOAD (PSF)	: 26.8	
MULLION SPACING (FT / FT-IN)	: 0-8.75	(.73)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 8-10.375	(8.86)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 87. LBS
RIGHT REACTION	: 87. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 2.3 KIP - IN
LOC. OF MAX MOM.	: 4.43 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.50 IN
LOC. OF MAX DISP.	: 4.43 FT FROM LEFT
REQUIRED MOI	: 0.543 IN**4

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SINGLE SPAN WITH OVERHANGS
OUTPUT:- MOMENTS & REACTIONS

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11:51:19
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JOB TITLE : ELEV SF15 SF16A SF16B ~~mulls~~ shoot

WIND LOAD (PSF)	: 20.9	
MULLION SPACING (FT / FT-IN)	: 3-5.25	(3.44)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 6-1.5	(6.13)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 220. LBS
RIGHT REACTION	: 220. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 4.0 KIP - IN
LOC. OF MAX MOM.	: 3.06 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.42 IN
LOC. OF MAX DISP.	: 3.06 FT FROM LEFT
REQUIRED MOI	: 0.542 IN**4

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- SHORT

JOB TITLE : ELEV SF15 SF16A SF16B

WIND LOAD (PSF)	: 21.7	
MULLION SPACING (FT / FT-IN)	: 1-7.25	(1.6)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 6-1.5	(6.13)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 107. LBS
RIGHT REACTION	: 107. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 2.0 KIP - IN
LOC. OF MAX MOM.	: 3.06 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.42 IN
LOC. OF MAX DISP.	: 3.06 FT FROM LEFT
REQUIRED MOI	: 0.262 IN**4

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SINGLE SPAN WITH OVERHANGS
OUTPUT:- MOMENTS & REACTIONS

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11:53:22
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JOB TITLE : ELEV SF19 & SF20 mulls

WIND LOAD (PSF)	: 15	
MULLION SPACING (FT / FT-IN)	: 4-5	(4.42)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 7-10.5	(7.88)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 261. LBS
RIGHT REACTION	: 261. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 6.2 KIP - IN
LOC. OF MAX MOM.	: 3.94 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.54 IN
LOC. OF MAX DISP.	: 3.94 FT FROM LEFT
REQUIRED MOI	: 1.062 IN**4

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JOB TITLE : ELEV SF19 & SF20 JAMBS

WIND LOAD (PSF)	: 15	
MULLION SPACING (FT / FT-IN)	: 1-7.375	(1.61)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 7-10.5	(7.88)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 95. LBS
RIGHT REACTION	: 95. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 2.3 KIP - IN
LOC. OF MAX MOM.	: 3.94 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.50 IN
LOC. OF MAX DISP.	: 3.94 FT FROM LEFT
REQUIRED MOI	: 0.419 IN**4

DATE: 4/12 ||BY: ✓ ||SUBJECT: _____ ||PAGE: 55 OF 89

JOB TITLE : ELEV SF17 MULLS

WIND LOAD (PSF)	: 20.6	
MULLION SPACING (FT / FT-IN)	: 3-4.75	(3.4)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 8-9.375	(8.78)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 307. LBS
RIGHT REACTION	: 307. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 8.1 KIP - IN
LOC. OF MAX MOM.	: 4.39 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.60 IN
LOC. OF MAX DISP.	: 4.39 FT FROM LEFT
REQUIRED MOI	: 1.554 IN**4

DATE: 4/12 ||BY: ✓ ||SUBJECT: _____ ||PAGE: 54 OF 89

JOB TITLE : ELEV SF17 JAMBS

WIND LOAD (PSF)	: 21.2	
MULLION SPACING (FT / FT-IN)	: 1-9.375	(1.78)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 8-9.375	(8.78)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 166. LBS
RIGHT REACTION	: 166. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 4.4 KIP - IN
LOC. OF MAX MOM.	: 4.39 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.50 IN
LOC. OF MAX DISP.	: 4.39 FT FROM LEFT
REQUIRED MOI	: 1.010 IN**4

DATE: 4/17 ||BY: ___ ||SUBJECT: _____ ||PAGE: 57 OF 89

JOB TITLE : ELEV SF18 MULLS

WIND LOAD (PSF)	: 15	
MULLION SPACING (FT / FT-IN)	: 3-1.5	(3.13)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 8-9.375	(8.78)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 206. LBS
RIGHT REACTION	: 206. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 5.4 KIP - IN
LOC. OF MAX MOM.	: 4.39 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.60 IN
LOC. OF MAX DISP.	: 4.39 FT FROM LEFT
REQUIRED MOI	: 1.041 IN**4

DATE: 4/22 ||BY: ✓ ||SUBJECT: _____ ||PAGE: 58 OF 89

JOB TITLE : ELEV SF18 JAMBS

WIND LOAD (PSF)	: 15	
MULLION SPACING (FT / FT-IN)	: 1-8	(1.67)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 8-9.375	(8.78)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 110. LBS
RIGHT REACTION	: 110. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 2.9 KIP - IN
LOC. OF MAX MOM.	: 4.39 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.50 IN
LOC. OF MAX DISP.	: 4.39 FT FROM LEFT
REQUIRED MOI	: 0.669 IN**4

DATE: 4/12 ||BY: ✓ ||SUBJECT: _____ ||PAGE: 57 OF 89

JOB TITLE : ELEV SF11 JAMBS

WIND LOAD (PSF)	: 15	
MULLION SPACING (FT / FT-IN)	: 3-2	(3.17)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 9-10.5	(9.88)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 235. LBS
RIGHT REACTION	: 235. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 6.9 KIP - IN
LOC. OF MAX MOM.	: 4.94 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.50 IN
LOC. OF MAX DISP.	: 4.94 FT FROM LEFT
REQUIRED MOI	: 2.033 IN**4

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JOB TITLE : ELEV SF10 MULLS

WIND LOAD (PSF)	: 15	
MULLION SPACING (FT / FT-IN)	: 2-1	(2.08)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 9-10.5	(9.88)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 154. LBS
RIGHT REACTION	: 154. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 4.6 KIP - IN
LOC. OF MAX MOM.	: 4.94 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.68 IN
LOC. OF MAX DISP.	: 4.94 FT FROM LEFT
REQUIRED MOI	: 0.987 IN**4

DATE: 4/n ||BY: ✓ ||SUBJECT: _____ ||PAGE: 61 OF 89

JOB TITLE : ELEV SF10 JAMBS

WIND LOAD (PSF)	: 15	
MULLION SPACING (FT / FT-IN)	: 1-4	(1.33)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 9-10.5	(9.88)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 99. LBS
RIGHT REACTION	: 99. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 2.9 KIP - IN
LOC. OF MAX MOM.	: 4.94 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.50 IN
LOC. OF MAX DISP.	: 4.94 FT FROM LEFT
REQUIRED MOI	: 0.856 IN**4

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JOB TITLE : ELEV SF12 MULLS

WIND LOAD (PSF)	: 15	
MULLION SPACING (FT / FT-IN)	: 3-8.5	(3.71)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .75	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 7-11.375	(7.95)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 221. LBS
RIGHT REACTION	: 221. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 5.3 KIP - IN
LOC. OF MAX MOM.	: 3.97 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.55 IN
LOC. OF MAX DISP.	: 3.97 FT FROM LEFT
REQUIRED MOI	: 0.916 IN**4

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JOB TITLE : ELEV SF12 JAMBS

WIND LOAD (PSF)	: 15	
MULLION SPACING (FT / FT-IN)	: 1-11.25	(1.94)
ALLOWABLE DEFLECTION RATIO	L/: 175	
MAX ALLOWABLE DEFLECTION (IN)	: .50	

SPANS & FORCES

CENTER SPAN LENGTH (FT / FT-IN)	: 7-11.375	(7.95)

REACTION,MOMENTS & MOI REQ.

LEFT REACTION	: 115. LBS
RIGHT REACTION	: 115. LBS
LEFT MOMENT	: 0.0 KIP - IN
RIGHT MOMENT	: 0.0 KIP - IN
MAXIMUM MOMENT	: 2.8 KIP - IN
LOC. OF MAX MOM.	: 3.97 FT FROM LEFT
DISPLACEMENT CRITERIA	: 0.50 IN
LOC. OF MAX DISP.	: 3.97 FT FROM LEFT
REQUIRED MOI	: 0.522 IN**4

DATE: 4/22 ||BY: ✓ ||SUBJECT: _____ ||PAGE: 64 OF 84

JOB TITLE : TYPICAL CW HORIZONTAL WORST CASE

WIND LOAD (PSF)	: 26.8
GLASS WEIGHT (PSF)	: 6.50
GLASS INSET TOP & BOTTOM (IN)	: .500
GLASS INSET LEFT & RIGHT (IN)	: .500

DISPLACEMENT CRITERIA

WIND - ALLOW. DISP. RATIO	L/: 175
WIND - MAX ALLOW. DISP. (IN)	: .75
DEAD - ALLOW. DISP. RATIO	L/: 360
DEAD - MAX ALLOW. DISP. (IN)	: .125

HORIZONTAL & GLASS SPANS (D.L.O.)

SPAN LENGTH (FT / FT-IN)	: 4-2	(4.17)
GLASS ABOVE SPAN (FT / FT-IN)	: 9-5	(9.42)
GLASS BELOW SPAN (FT / FT-IN)	: 0-9.5	(.79)

WIND LOAD - REACTION,MOMENTS & MOI REQ.

REACTION	: 78. LBS	MAXIMUM MOMENT	: 1.2 KIP - IN
DISP. CRITERIA	: 0.29 IN	REQUIRED MOI	: 0.110 IN**4

DEAD LOAD - REACTION,MOMENTS & MOI REQ.

REACTION : 131. LBS DISP. CRITERIA : 0.125 IN

CHAIR LOC. (IN)	MAX MOMENT (K-IN)	REQ. MOI (IN^4)
L/4 12.5	1.640	0.376
L/8 ****	*****	*****
8	1.050	0.253
7	0.919	0.224
6	0.787	0.193
5	0.656	0.162
4	0.525	0.130
3	0.394	0.098

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JOB TITLE : TYPICAL CW HORIZONTAL ABOVE DOORS

WIND LOAD (PSF)	: 26.8
GLASS WEIGHT (PSF)	: 6.50
GLASS INSET TOP & BOTTOM (IN)	: .500
GLASS INSET LEFT & RIGHT (IN)	: .500

DISPLACEMENT CRITERIA

WIND - ALLOW. DISP. RATIO	L/: 175
WIND - MAX ALLOW. DISP. (IN)	: .75
DEAD - ALLOW. DISP. RATIO	L/: 360
DEAD - MAX ALLOW. DISP. (IN)	: .0625 ~ Limit by T0 1/16"

HORIZONTAL & GLASS SPANS (D.L.O.)

SPAN LENGTH (FT / FT-IN)	: 3-8	(3.67)
GLASS ABOVE SPAN (FT / FT-IN)	: 2-4.5	(2.38)
GLASS BELOW SPAN (FT / FT-IN)	: 7-0	(7)

WIND LOAD - REACTION,MOMENTS & MOI REQ.

REACTION	: 84. LBS	MAXIMUM MOMENT	: 1.2 KIP - IN
DISP. CRITERIA	: 0.25 IN	REQUIRED MOI	: 0.094 IN**4

DEAD LOAD - REACTION,MOMENTS & MOI REQ.

REACTION : 30. LBS DISP. CRITERIA : 0.063 IN

	CHAIR LOC. (IN)	MAX MOMENT (K-IN)	REQ. MOI (IN^4)
L/4	11.0	0.330	0.117
L/8	****	*****	*****
	8	0.240	0.089
	7	0.210	0.078
	6	0.180	0.068
	5	0.150	0.057
	4	0.120	0.046
	3	0.090	0.035

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JOB TITLE : TYPICAL STOREFRONT HORIZONTAL - LOW TRAFFIC

WIND LOAD (PSF)	: 26.8
GLASS WEIGHT (PSF)	: 6.50
GLASS INSET TOP & BOTTOM (IN)	: .500
GLASS INSET LEFT & RIGHT (IN)	: .500

DISPLACEMENT CRITERIA

WIND - ALLOW. DISP. RATIO	L/: 175
WIND - MAX ALLOW. DISP. (IN)	: .75
DEAD - ALLOW. DISP. RATIO	L/: 360
DEAD - MAX ALLOW. DISP. (IN)	: .125

HORIZONTAL & GLASS SPANS (D.L.O.)

SPAN LENGTH (FT / FT-IN)	: 4-2.5	(4.21)
GLASS ABOVE SPAN (FT / FT-IN)	: 2-9	(2.75)
GLASS BELOW SPAN (FT / FT-IN)	: 6-9.75	(6.81)

WIND LOAD - REACTION,MOMENTS & MOI REQ.

REACTION	: 112. LBS	MAXIMUM MOMENT	: 1.8 KIP - IN
DISP. CRITERIA	: 0.29 IN	REQUIRED MOI	: 0.164 IN**4

DEAD LOAD - REACTION,MOMENTS & MOI REQ.

REACTION : 40. LBS DISP. CRITERIA : 0.125 IN

	CHAIR LOC. (IN)	MAX MOMENT (K-IN)	REQ. MOI (IN^4)
L/4	12.6	0.499	0.117
L/8	****	*****	*****
	8	0.316	0.078
	7	0.277	0.069
	6	0.237	0.059
	5	0.198	0.050
	4	0.158	0.040
	3	0.119	0.030

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JOB TITLE : ELEV SF15 BIG DLO HORIZ

WIND LOAD (PSF)	: 26.8
GLASS WEIGHT (PSF)	: 6.50
GLASS INSET TOP & BOTTOM (IN)	: .500
GLASS INSET LEFT & RIGHT (IN)	: .500

DISPLACEMENT CRITERIA

WIND - ALLOW. DISP. RATIO	L/: 175
WIND - MAX ALLOW. DISP. (IN)	: .75
DEAD - ALLOW. DISP. RATIO	L/: 360
DEAD - MAX ALLOW. DISP. (IN)	: .125

HORIZONTAL & GLASS SPANS (D.L.O.)

SPAN LENGTH (FT / FT-IN)	: 6-0	(6)
GLASS ABOVE SPAN (FT / FT-IN)	: 0-8.125	(.68)
GLASS BELOW SPAN (FT / FT-IN)	: 0-8.125	(.68)

WIND LOAD - REACTION,MOMENTS & MOI REQ.

REACTION	: 51. LBS	MAXIMUM MOMENT	: 1.0 KIP - IN
DISP. CRITERIA	: 0.41 IN	REQUIRED MOI	: 0.128 IN**4

DEAD LOAD - REACTION,MOMENTS & MOI REQ.

REACTION : 15. LBS DISP. CRITERIA : 0.125 IN

	CHAIR LOC. (IN)	MAX MOMENT (K-IN)	REQ. MOI (IN^4)
L/4	18.0	0.271	0.129
L/8	9.0	0.135	0.069
	8	0.120	0.061
	7	0.105	0.054
	6	0.090	0.046
	5	0.075	0.039
	4	0.060	0.031
	3	0.045	0.023

JOB TITLE : TYPICAL SF HORIZ ABOVE DOORS

WIND LOAD (PSF)	: 26.8
GLASS WEIGHT (PSF)	: 6.50
GLASS INSET TOP & BOTTOM (IN)	: .500
GLASS INSET LEFT & RIGHT (IN)	: .500

DISPLACEMENT CRITERIA

WIND - ALLOW. DISP. RATIO	L/: 175
WIND - MAX ALLOW. DISP. (IN)	: .75
DEAD - ALLOW. DISP. RATIO	L/: 360
DEAD - MAX ALLOW. DISP. (IN)	: .0625 ~ Limit by TD 1/14

HORIZONTAL & GLASS SPANS (D.L.O.)

SPAN LENGTH (FT / FT-IN)	: 3-0	(3)
GLASS ABOVE SPAN (FT / FT-IN)	: 1-0	(1)
GLASS BELOW SPAN (FT / FT-IN)	: 7-0	(7)

WIND LOAD - REACTION,MOMENTS & MOI REQ.

REACTION	: 47. LBS	MAXIMUM MOMENT	: 0.5 KIP - IN
DISP. CRITERIA	: 0.21 IN	REQUIRED MOI	: 0.034 IN**4

DEAD LOAD - REACTION,MOMENTS & MOI REQ.

REACTION : 11. LBS DISP. CRITERIA : 0.063 IN

	CHAIR LOC. (IN)	MAX MOMENT (K-IN)	REQ. MOI (IN^4)
L/4	9.0	0.098	0.023
L/8	****	*****	*****
	8	0.087	0.021
	7	0.076	0.019
	6	0.065	0.016
	5	0.054	0.014
	4	0.043	0.011
	3	0.033	0.008

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JOB TITLE : ELEV SF15 SF20 HORIZ ABOVE DOORS

WIND LOAD (PSF)	: 26.8
GLASS WEIGHT (PSF)	: 6.50
GLASS INSET TOP & BOTTOM (IN)	: .500
GLASS INSET LEFT & RIGHT (IN)	: .500

DISPLACEMENT CRITERIA

WIND - ALLOW. DISP. RATIO	L/: 175
WIND - MAX ALLOW. DISP. (IN)	: .75
DEAD - ALLOW. DISP. RATIO	L/: 360
DEAD - MAX ALLOW. DISP. (IN)	: .0625 — Limit by Toll

HORIZONTAL & GLASS SPANS (D.L.O.)

SPAN LENGTH (FT / FT-IN)	: 6-0	(6)
GLASS ABOVE SPAN (FT / FT-IN)	: 1-0	(1)
GLASS BELOW SPAN (FT / FT-IN)	: 7-0	(7)

WIND LOAD - REACTION,MOMENTS & MOI REQ.

REACTION	: 157. LBS	MAXIMUM MOMENT	: 3.6 KIP - IN
DISP. CRITERIA	: 0.41 IN	REQUIRED MOI	: 0.459 IN**4

DEAD LOAD - REACTION,MOMENTS & MOI REQ.

REACTION : 21. LBS DISP. CRITERIA : 0.063 IN

	CHAIR LOC. (IN)	MAX MOMENT (K-IN)	REQ. MOI (IN^4)
L/4	18.0	0.386	0.366
L/8	9.0	0.193	0.196
	8	0.171	0.175
	7	0.150	0.153
	6	0.129	0.132
	5	0.107	0.110
	4	0.086	0.088
	3	0.064	0.066

JOB TITLE : ELEV SF11 HORIZ ABOVE DOOR

WIND LOAD (PSF)	: 15
GLASS WEIGHT (PSF)	: 3.25
GLASS INSET TOP & BOTTOM (IN)	: .500
GLASS INSET LEFT & RIGHT (IN)	: .500

DISPLACEMENT CRITERIA

WIND - ALLOW. DISP. RATIO	L/: 175
WIND - MAX ALLOW. DISP. (IN)	: .75
DEAD - ALLOW. DISP. RATIO	L/: 360
DEAD - MAX ALLOW. DISP. (IN)	: .0625 — LIMIT Δ TO 1/16"

HORIZONTAL & GLASS SPANS (D.L.O.)

SPAN LENGTH (FT / FT-IN)	: 6-0	(6)
GLASS ABOVE SPAN (FT / FT-IN)	: 2-6.5	(2.54)
GLASS BELOW SPAN (FT / FT-IN)	: 7-0	(7)

WIND LOAD - REACTION,MOMENTS & MOI REQ.

REACTION	: 113. LBS	MAXIMUM MOMENT	: 2.6 KIP - IN
DISP. CRITERIA	: 0.41 IN	REQUIRED MOI	: 0.330 IN**4

DEAD LOAD - REACTION,MOMENTS & MOI REQ.

REACTION : 26. LBS DISP. CRITERIA : 0.063 IN

	CHAIR LOC. (IN)	MAX MOMENT (K-IN)	REQ. MOI (IN^4)
L/4	18.0	0.467	0.444
L/8	9.0	0.234	0.237
	8	0.208	0.212
	7	0.182	0.186
	6	0.156	0.160
	5	0.130	0.134
	4	0.104	0.107
	3	0.078	0.081

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WW 400

---------- REGIONS ----------

Area: 1.58391068
Perimeter: 32.20978683
Bounding box: X: -1.25000000 -- 1.25000000
Y: -2.60181745 -- 2.65818255
Centroid: X: 0.00000000
Y: 0.00000000
Moments of inertia: X: 4.80146212 = I xx
Y: 1.34045708 = I yy
Product of inertia: XY: 0.00000000
Radii of gyration: X: 1.74109078
Y: 0.91994341
Principal moments and X-Y directions about centroid:
I: 1.34045708 along [0.00000000 -1.00000000]
J: 4.80146212 along [1.00000000 0.00000000]

$S_{xx} = 4.801/2.658 \sim 1.806$
$S_{yy} = 1.340/1.25 \sim 1.072$

WW 401

---------- REGIONS ----------

Area: 1.35632606
Perimeter: 27.82330071
Bounding box: X: -1.45628919 -- 1.04371082
Y: -2.39392021 -- 2.86643878
Centroid: X: 0.00000000
Y: 0.00000000
Moments of inertia: X: 4.79283417
Y: 1.01985726
Product of inertia: XY: 0.63091504
Radii of gyration: X: 1.87980944
Y: 0.86713621
Principal moments and X-Y directions about centroid:
I: 0.91715179 along [0.16067312 0.98700767]
J: 4.29553959 along [-0.98700767 0.16067312]

WW 402

---------- REGIONS ----------

Area: 1.33567543
Perimeter: 26.57335133
Bounding box: X: -1.00494798 -- 1.49505213
Y: -2.43131990 -- 2.82868010
Centroid: X: 0.00000000
Y: 0.00000000

SHEET 730F82
4/22/16

WW 402

Moments of inertia: X: 4.67731849 SXX = 4.677/2.828 = 1.653 IN^3
Y: 0.99463682
Product of inertia: XY: -0.54334132
Radii of gyration: X: 1.87131976
Y: 0.86294238
Principal moments and X-Y directions about centroid:
I: 0.91614541 along [0.14297642 -0.98972609]
J: 4.75580990 along [0.98972609 0.14297642]

WW 403

---------- REGIONS ----------

Area: 1.62250501
Perimeter: 32.46734341
Bounding box: X: -1.18349247 -- 1.31680753
Y: -2.53454557 -- 2.72581341
Centroid: X: 0.00000000
Y: 0.00000000
Moments of inertia: X: **5.072**97169 SXX = 5.072/2.726 = 2.092 IN^4
Y: **1.500**84702 SYY = 1.500/1.317 = 1.139 IN^3
Product of inertia: XY: 0.23668807
Radii of gyration: X: 1.76822773
Y: 0.96158651
Principal moments and X-Y directions about centroid:
I: 1.48463498 along [0.06581736 0.99783169]
J: 5.08858373 along [-0.99783169 0.06581736]

WW 404

---------- REGIONS ----------

Area: 1.69672308
Perimeter: 25.97849824
Bounding box: X: -1.25000000 -- 1.25000000
Y: -2.03876193 -- 2.00759705
Centroid: X: 0.00000000
Y: 0.00000000
Moments of inertia: X: 4.32922746 IXX SXX = 4.329/2.038 = 2.124
Y: 1.53051610 IYY SYY = 1.530/1.25 = 1.224
Product of inertia: XY: 0.00000000
Radii of gyration: X: 1.59734865
Y: 0.94975911
Principal moments and X-Y directions about centroid:
I: 1.53051610 along [0.00000000 1.00000000]
J: 4.32922746 along [-1.00000000 0.00000000]

WW 410

Print Date: 9/7/2006

Single Die Report

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4/22/14

Shape Number —— WW240
Description —— 90 DEG. CORNER MULL

Height	2.5	Sx Front	0
Depth	6.295	Sx Back	0
Wt Per Ft	2.428	Sy Left	0
Temper	T6	Sy Right	0
Alloy	6063	Sx Mirror Front	0
Die No.	81150	Sx Mirror Back	0
TN Die Num		Iy Mirror Front	0
Vendor		Iy Mirror Back	0
Primary Use	M	Ry Mirror Front	0
Project No.	PROD.DEL	Ry Mirror Back	0
Total Perimeter	34.563	Rx	0
Cross Section	2.023	J Mirror Front	0
P&D Cross Section	0	J Mirror Back	0
Outside Perimeter	19.116	X Neutral	0
Exposed Perimeter	11.126	Y Neutral	0
Exposed Surface	INSI	Profile Height	6.295
Die Factor	14	Profile Width	2.5
CCD	6.5 - 7	Date Drawn	10/14/2004
Class	H	Date Entered	10/20/2004
Ix	10.172	Last Revision	
Iy	1.993	Revision Date	12:00:00 AM

Sxx ≈ 3.00

Single Die Report

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Print Date: 07/06/2012

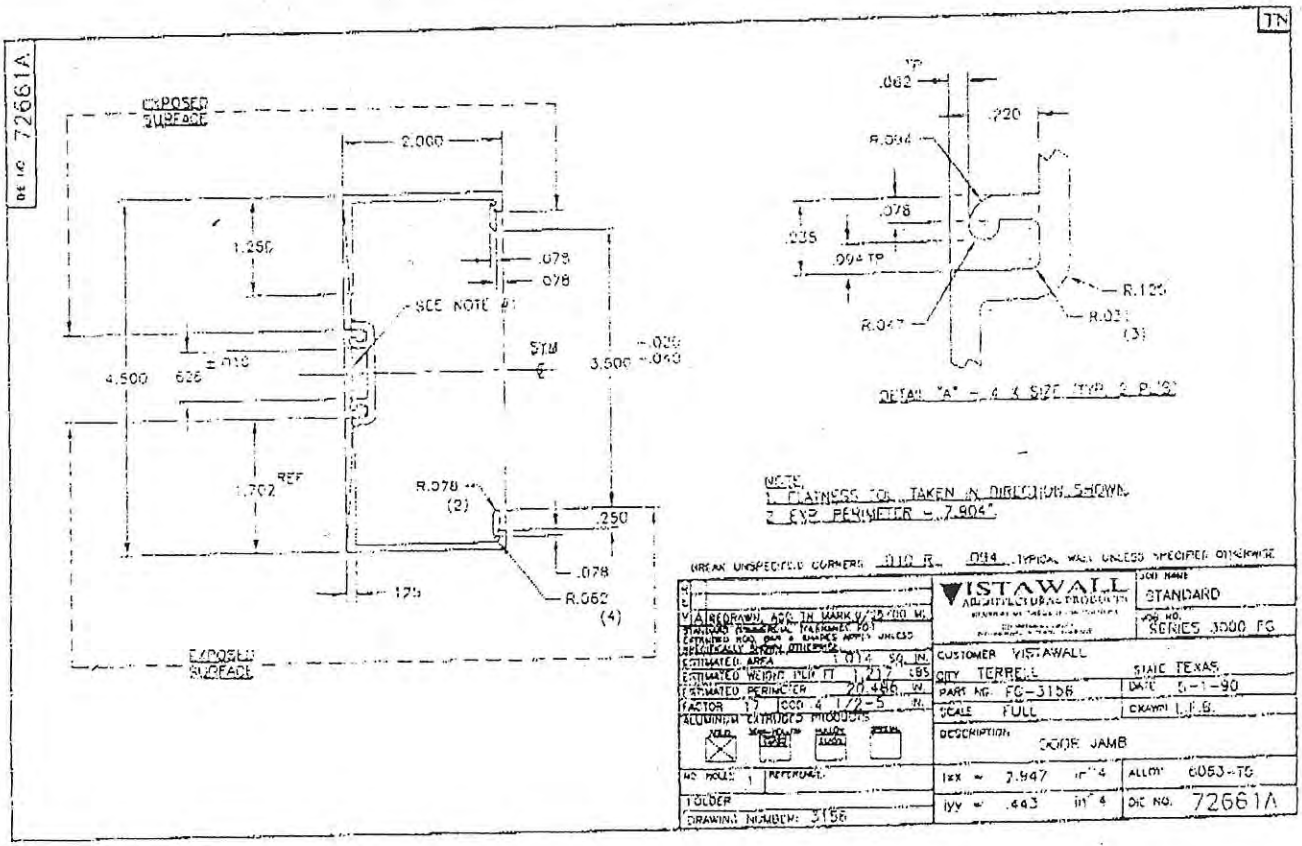
Shape Number: FG3495

Description: MULLION

Height:	2.000	**SX Front:**	1.257
Depth:	4.500	**SX Back:**	1.257
Wt Per Ft:	1.299	**SY Left:**	0.558
Temper:	T6	**SY Right:**	0.331
Alloy:	6063	**SX Mirror Front:**	0.000
Die No:	83868	**SX Mirror Back:**	0.000
TN Die No:	FG3495	**IY Mirror Front**	0.000
Primary Use:	M	**IY Mirror Back:**	0.000
Project Number:	PROD DEV	**RY Mirror Front:**	0.000
Total Perimeter:	28.465	**RY Mirror Back:**	0.000
Cross Section:	1.082	**RX:**	1.617
P&D Cross Section:	0.143	**J Mirror Front:**	0.000
Outside Perimeter:	28.465	**J Mirror Back:**	0.000
Exposed Perimeter:	7.154	**X Neutral:**	0.000
Exposed Surface:	OUSI	**Y Neutral:**	0.000
Die Factor:	22	**Profile Height:**	4.500
CCD:	4.5 - 5	**Profile Width:**	2.000
Class:	S	**Date Drawn:**	08/03/2009
IX:	2.828	**Date Entered:**	01/01/1900
IY:	0.416	**Revision Date:**	04/04/2012
		Revision:	B

Sheet 76 of 80
4/22/16

FG-3156



$I_{xx} = 2.947 \text{ in}^4$

$S_{xx} = 1.309 \text{ in}^3$

$I_{yy} = .443 \text{ in}^4$

PROJECT NAME = fg3100.txt PROJECT NUMBER=1

Ixx	- NEUTRAL MOMENT OF INERTIA =	2.94765 ←		AREA =	1.11016
Iyy	- NEUTRAL MOMENT OF INERTIA =	.426906 ←	PERIMETER =		24.0991
Ixy	- NEUTRAL MOMENT OF INERTIA =	.000000			
Ip	- POLAR MOMENT OF INERTIA =	3.37456			
Imax	- MAXIMUM MOMENT OF INERTIA =	2.94765			
Imin	- MINIMUM MOMENT OF INERTIA =	.426906			
Theta	- PRINCIPLE TO LOCAL ANGLE =	.000000			
Rmax	- MAXIMUM RADIUS OF GYRATION=	1.62947 ←			
Rmin	- MINIMUM RADIUS OF GYRATION=	.620117 ←			
IXX	- GLOBAL MOMENT OF INERTIA =	8.67829			
IYY	- GLOBAL MOMENT OF INERTIA =	1.07821			
IXY	- GLOBAL MOMENT OF INERTIA =	1.93193			
IP	- GLOBAL POLAR MOM. OF INER.=	9.75650			
XCG	- X- CENTER OF GRAVITY =	.765947			
YCG	- Y- CENTER OF GRAVITY =	2.27200			
AXX	- GLOBAL AREA MOMENT ABOUT-X=	2.52228			
AYY	- GLOBAL AREA MOMENT ABOUT-Y=	.850323			

FG-3100

SECTION MODULI INFORMATION

EXTREME FIBER DISTANCE IN PRINCIPLE-X = 1.24305
EXTREME FIBER DISTANCE IN PRINCIPLE-Y = -2.25000

$S_x = I_x/C_y = 2.94765/2.25 = 1.322\ IN^3$ ←

$S_y = I_y/C_x = .4269/1.243 = .343\ IN^3$

4/22/16

PROJECT NAME = fg3197.txt PROJECT NUMBER=1

Ixx	- NEUTRAL MOMENT OF INERTIA =	.530813	AREA =	1.27110
Iyy	- NEUTRAL MOMENT OF INERTIA =	2.54527	PERIMETER =	18.4255
Ixy	- NEUTRAL MOMENT OF INERTIA =	.507704		
Ip	- POLAR MOMENT OF INERTIA =	3.07608		
Imax	- MAXIMUM MOMENT OF INERTIA =	2.66599		
Imin	- MINIMUM MOMENT OF INERTIA =	.410091		
Theta	- PRINCIPLE TO LOCAL ANGLE =	13.3755		
Rmax	- MAXIMUM RADIUS OF GYRATION=	1.44824		
Rmin	- MINIMUM RADIUS OF GYRATION=	.568003		

Ixy (WEAK AXIS)

Ixx (STRONG AXIS)

XX	- GLOBAL MOMENT OF INERTIA =	1.27719
YY	- GLOBAL MOMENT OF INERTIA =	10.6089
XY	- GLOBAL MOMENT OF INERTIA =	2.96096
IP	- GLOBAL POLAR MOM. OF INER. =	11.8860
CG	- X- CENTER OF GRAVITY =	2.51869
CG	- Y- CENTER OF GRAVITY =	.766285
AX	- GLOBAL AREA MOMENT ABOUT-X=	.974022
AYY	- GLOBAL AREA MOMENT ABOUT-Y=	3.20150

FG-3197 HORIZ

SECTION MODULI INFORMATION

XTREME FIBER DISTANCE IN PRINCIPLE-X =	-2.60893
XTREME FIBER DISTANCE IN PRINCIPLE-Y =	-1.18105

HORIZ ORIENTATION!

$S_{xx} = I_{xx}/C = 2.54527/2.60893$

$= .975 \text{ in}^3$

$S_{yy} = .530813/1.8105$

$= .293 \text{ in}^3$

SHEET 7 OF 8

4/22/16

PROJECT NAME = fg3142.txt PROJECT NUMBER=1

xx - NEUTRAL MOMENT OF INERTIA =	.530813	AREA = 1.27110
/y - NEUTRAL MOMENT OF INERTIA =	2.54527	PERIMETER = 18.4255
xy - NEUTRAL MOMENT OF INERTIA =	.507704	
) - POLAR MOMENT OF INERTIA =	3.07608	
iax - MAXIMUM MOMENT OF INERTIA =	2.66599	
iin - MINIMUM MOMENT OF INERTIA =	.410091	
ieta - PRINCIPLE TO LOCAL ANGLE =	13.3755	
iax - MAXIMUM RADIUS OF GYRATION=	1.44824	
iin - MINIMUM RADIUS OF GYRATION=	.568003	

Ixy (WEAK AXIS)

Ixx (STRONG AXIS)

(X - GLOBAL MOMENT OF INERTIA =	1.27719	
/Y - GLOBAL MOMENT OF INERTIA =	10.6089	
(Y - GLOBAL MOMENT OF INERTIA =	2.96096	
) - GLOBAL POLAR MOM. OF INER.=	11.8860	
(G - X- CENTER OF GRAVITY =	2.51869	
(G - Y- CENTER OF GRAVITY =	.766285	
(X - GLOBAL AREA MOMENT ABOUT-X=	.974022	
(Y - GLOBAL AREA MOMENT ABOUT-Y=	3.20150	

FG-3142

SECTION MODULI INFORMATION

TREME FIBER DISTANCE IN PRINCIPLE-X =	-2.60893
TREME FIBER DISTANCE IN PRINCIPLE-Y =	-1.18105

HORIZ. ORIENTATION!

$S_{xx} = I_{xx}/c = 2.54527/2.60893$

$= .975\ in^3$

$S_{yy} = .530813/1.8105$

$= .293\ in^3$

SHEET 79 OF 89

4/22/10

Print Date: 1/18/2006

Single Die Report

Sheet 80 of 82
9/22/16

Shape Number ------- FG3163
Description ------- DOOR FRAME HEADER

Height	2	Sx Front	1.6
Depth	4.5	Sx Back	1.547
Wt Per Ft	2.024	Sy Left	0
Temper	T5	Sy Right	0
Alloy	6063	Sx Mirror Front	0
Die No.	72737H	Sx Mirror Back	0
TN Die Num		Iy Mirror Front	0
Vendor		Iy Mirror Back	0
Primary Use		Ry Mirror Front	0
Project No.	UNLISTED	Ry Mirror Back	0
Total Perimeter	34.72	Rx	0
Cross Section	1.687	J Mirror Front	0
P&D Cross Section	0	J Mirror Back	0
Outside Perimeter	18.191	X Neutral	0
Exposed Perimeter	10.058	Y Neutral	0
Exposed Surface	OUSI	Profile Height	2
Die Factor	17	Profile Width	4.5
CCD		Date Drawn	6/28/1990
Class	H	Date Entered	12/19/1990
Ix	3.625	Last Revision	A
Iy	0.901	Revision Date	9/25/2000

3y4 = .800

BY: ✓ DATE: 4/22/16 SUBJECT: _____ SHEET NO. 81 OF 89

CLIENT: ADW PROJECT: THE PARK DANFORTH

(I CONT)

C. ANCHOR ANALYSIS

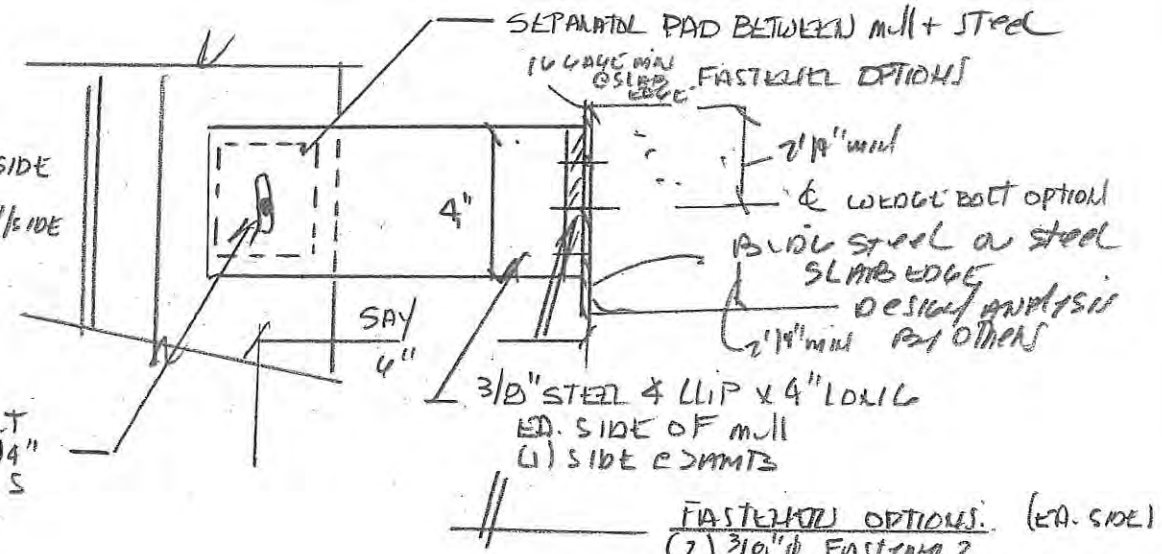
1. CURTAINWALL ANCHORS

a) INTERMEDIATE WIND LOAD ANCHORS

WORST CASE REACTION LOADS

1.228#/mull ÷ 2 = .614#/SIDE

1.078 #/mmb ÷ 1 = 1.078 #/SIDE



FASTENER OPTIONS: (EA. SIDE)
(2) 3/8" ϕ FASTENERS
(3) 1/4" ϕ TEK #1 POINT SCREWS
(1) 1/2" ϕ POWERS WEDGE BOLTS 4" EMBED

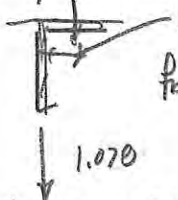
CHECK STEEL & CLIP

$f_t = f_a = 1.078^{\#}/(.375")(9-2.25") = 1.7$ KSI

$l_{cly}/r_y = 1.26"/\frac{.375}{\sqrt{12}} = 67 < 200$ O.K.!

$\therefore F_T > F_a = 16.7$ KSI $> f = 1.7$ O.K.!

CHECK BACKLEG OF ∠ CLIP



$f_{by} = 1.078(1.75")/(.375")^2(a) = 20.4$ KSI

$< F_{by} = 27$ O.K.!

CHECK 1/2" ϕ THRU BOLT

SHEAR = S = 1.078# < 2008# O.K.!

BEARING ON MULL: f_p = 1.078/(.5")(.094") = 22.9 KSI < F_p = 31 KSI O.K.

CHECK FASTENERS: 1/2" ϕ POWERS WEDGE BOLT

Pullout: P = 1.078# < Pallow = $\frac{7.560}{4}$ (.79)(.81) = 1,269# O.K.!

(ULTIMATE / F.S. / EDGE DIST. REDUCTION / SPACING REDUCTION)

(3) 1/4" ϕ TEK SCREWS

Pullout: P = 1.078/3 = 359# < Pallow = 1.151/3 = 384# O.K.!

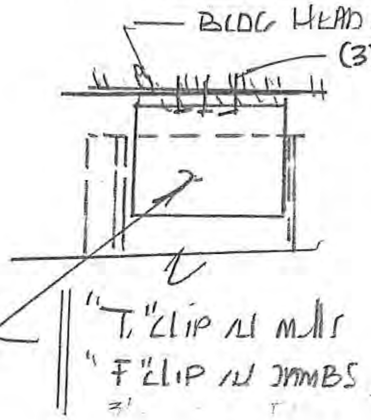
(ULTIMATE / F.S.)

(2) 3/8" ϕ FASTENERS

Pullout = P = 1078/2 = 539# < Pallow = 2294# O.K.!

(I.C.1 cont)

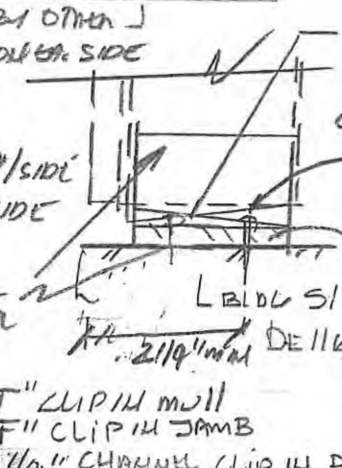
b) CURTAINWALL HEAD + SILL ANCHORS



WORST CASE REACTION LOADS

450 #/mull ÷ 2 = 225 #/side

343 #/jamb ÷ 1 = 343 /side



CHECK ANCHOR CLIPS

$f_b = M/S = \frac{.343^{k}(3")}{(.125)(4)^2/6} = 3.1\ ksi < F_b = 12\ O.K.!$ (conserv. = GAY 6063-T5 ALUM)

$f_v = V/A_v = .343/(.125)(2") = 1.4\ ksi < F_v = 5.5\ O.K.$

(conserv. net)

CHECK BEARING OF CLIP ON MULL WALL

$f_p = .343/(.125")(1.5") = 1.9\ ksi < F_p = 29\ O.K.!$

CONSERV. SAY 1½" ENGAGEMENT OF CLIP IN MULL

CHECK SHEAR ON MULL LEG FROM CLIP

$f_v = .343/(.099")(1.5") = 2.5^{ksi} < F_v = 8.5\ O.K.!$

CHECK FASTENERS

@ WOOD BLOCKING (3) #12 WOOD SCREWS

$SHEAR = S = 343/3 = 114^{\#} < S_{allow} = 145^{\#}\left(\frac{1.5"}{1.75"}\right)(1.6) = 198^{\#}\ O.K.!$ (PEN. REDUCTION, WL)

@ CONCRETE SLAB ¼"φ POWERS WEDGE BOLT

$SHEAR = S = 343^{\#} < S_{allow} = \frac{2{,}000}{4}(.72) = 360^{\#}\ O.K.!$ (ULTIMATE; F.S; 2¼" EDGE DISTANCE REDUCTION)

@ DOOR JAMB SILL ANCHOR 3/8"φ POWERS WEDGE BOLT @ 3½" EMBEDMENT

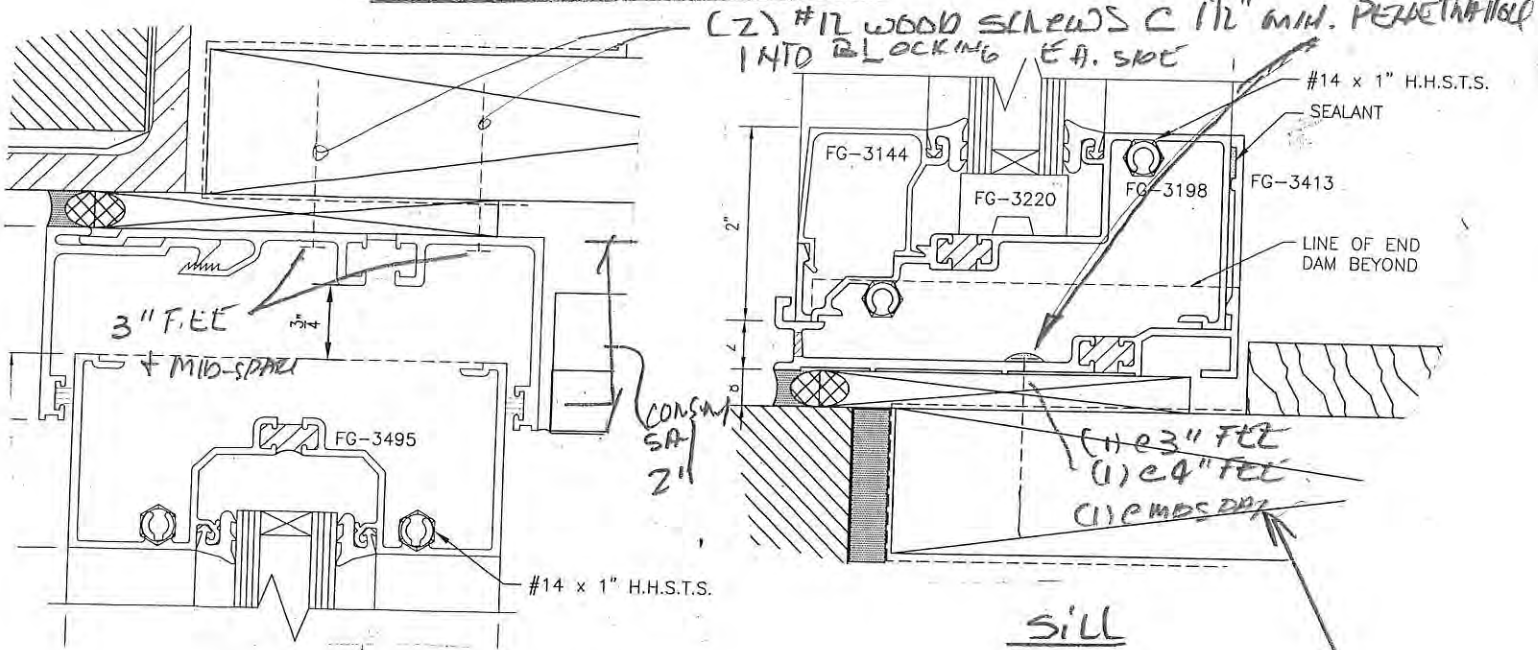
$SHEAR = S = 398^{\#} < S_{allow} = \frac{4{,}820}{4}(.43) = 518^{\#}\ O.K.!$ (ULTIMATE; F.S; 2¼" EDGE DIST. REDUCTION)

SALCONE ENGINEERING ASSOCIATES, INC. 509 Clarks Row • Bristol, RI 02809 • 401-254-1199

CLIENT: AD+W PROJECT: The Park Danforth

(I.C CONT)

2. STOREFRONT ANCHORS



HEAD

SILL

WORST CASE REACTION LOADS → 397#/mull ÷ 2 = 199#/side
225#/JAMB ÷ 1 = 225#/SIDE

WOOD BLOCKING DESIGN AND ANALYSIS BY OTHERS (TYP)

CHECK HEAD RECEPTOR

$f_b = M/S = .225^k(12")/((.125)^2(12)/6) = 14.9\,ksi < F_b = 20$ O.K.!

$f_v = S/A_s = .225^k/(.125")(6") = 0.3^{ksi} < F_v = 8.5$ O.K.!
└ CONSTANT SA ONLY @ 6" RESIST

CHECK #14 SCREW SPLINE SCREWS

SHEAR = S = 225/2 = 113# < 479# O.K.!

CHECK (2) #12 WOOD SCREWS EA. SIDE

SHEAR = S = 225#/2 = 113# < 198# O.K.!
└ see sheet 82

19. FASTENER LOAD TABLES

B. Unified Coarse Threads

TABLE 5

SAE Grade 2 Steel for Diameters Up thru 9/16"
ASTM A 307 Steel for Diameters 5/8" and Over

Nominal Thread Diameter & Thread/Inch	D Nominal Thread Diameter (Inch)	A(S) Tensile Stress Area (Sq. In.)	A(R) Thread Root Area (Sq. In.)	Allowable Tension (Pounds)	Allowable Shear		Bearing (Pounds)			Minimum Material Thickness to Equal Tensile Capacity of Fastener (In.)		
					Single (Pounds)	Double (Pounds)	1/8" St. A36	1/8" Al. 6063-T5	1/8" Al. 6063-T6	A36	6063-T5	6063-T6
#6-32	0.1380	0.0091	0.0078	269	133	267	1201	276	414	0.101	0.211	0.154
#8-32	0.1640	0.0140	0.0124	414	212	424	1427	328	492	0.128	0.280	0.202
#10-24	0.1900	0.0175	0.0152	518	260	520	1653	380	570	0.136	0.286	0.209
#12-24	0.2160	0.0242	0.0214	716	366	731	1879	432	648	0.159	0.344	0.248
1/4-20	0.2500	0.0318	0.0280	941	479	957	2175	500	750	0.180	0.385	0.279
5/16-18	0.3125	0.0524	0.0469	1551	802	1603	2719	625	938	0.225	0.492	0.354
3/8-16	0.3750	0.0775	0.0699	2294	1195	2389	3262	750	1125	0.268	0.637	0.425
7/16-14	0.4375	0.1063	0.0961	3146	1642	3285	3806	875	1313	0.311	0.740	0.494
1/2-13	0.5000	0.1419	0.1292	4200	2208	4416	4350	1000	1500	0.357	0.860	0.571
9/16-12	0.5625	0.1819	0.1664	5384	2844	5687	4894	1125	1688	0.399	0.965	0.640
5/8-11	0.6250	0.3068	0.2071	6136	3068	6136	5437	1250	1875	0.411	0.985	0.655
3/4-10	0.7500	0.4418	0.3091	8836	4418	8836	6525	1500	2250	0.484	1.170	0.766
7/8-9	0.8750	0.6013	0.4286	12026	6013	12026	7612	1750	2625	0.555	1.348	0.892
1-8	1.0000	0.7854	0.5630	15708	7854	15708	8700	2000	3000	0.627	1.526	1.010

	SAE GRADE 2	ASTM A 307
F_u (Min. Ultimate Tensile Strength)	74,000 psi	60,000 psi*
F_t (Allowable Tensile Stress)	29,600 psi	20,000 psi*
F_v (Allowable Shear Stress)	17,090 psi	10,000 psi*

For Diameters up thru 9/16":

$$A(R) = 0.7854\left(D - \frac{1.2269}{N}\right)^2$$

$$A(S) = 0.7854\left(D - \frac{0.9743}{N}\right)^2$$

$F_t = 0.40F_u$

Allowable tension $= 0.40F_u\,[A(S)]$

$F_v = \frac{0.40}{\sqrt{3}}F_u$

Allowable shear (Single) $= \frac{0.40}{\sqrt{3}}F_u[A(R)]$

TABLE 6

SAE Grade 5 Steel for Diameters Up thru 9/16"
ASTM A 449 Steel for Diameters 5/8" and Over

Nominal Thread Diameter & Thread/Inch	D Nominal Thread Diameter (Inch)	A(S) Tensile Stress Area (Sq. In.)	A(R) Thread Root Area (Sq. In.)	Allowable Tension (Pounds)	Allowable Shear		Bearing (Pounds)			Minimum Material Thickness to Equal Tensile Capacity of Fastener (In.)	
					Single (Pounds)	Double (Pounds)	1/8" St. A36	1/8" Al. 6063-T5	1/8" Al. 6063-T6	A36	6063-T6
#6-32	0.1380	0.0091	0.0078	437	216	432	1201	276	414	0.144	0.231
#8-32	0.1640	0.0140	0.0124	672	344	687	1427	328	492	0.188	0.308
#10-24	0.1900	0.0175	0.0152	840	421	842	1653	380	570	0.195	0.313
#12-24	0.2160	0.0242	0.0214	1162	593	1186	1879	432	648	0.232	0.377
1/4-20	0.2500	0.0318	0.0280	1526	776	1552	2175	500	750	0.261	0.422
5/16-18	0.3125	0.0524	0.0469	2515	1300	2599	2719	625	938	0.330	0.539
3/8-16	0.3750	0.0775	0.0699	3720	1937	3874	3262	750	1125	0.396	0.65
7/16-14	0.4375	0.1063	0.0961	5102	2663	5326	3806	875	1313	0.460	0.75
1/2-13	0.5000	0.1419	0.1292	6811	3580	7161	4350	1000	1500	0.532	0.87
9/16-12	0.5625	0.1819	0.1664	8731	4611	9223	4894	1125	1688	0.596	0.96
5/8-11	0.6250	0.3068	0.2071	12149	6259	12517	5437	1250	1875	0.732	1.220
3/4-10	0.7500	0.4418	0.3091	17495	9013	18025	6525	1500	2250	0.867	1.452
7/8-9	0.8750	0.6013	0.4286	23811	12267	24533	7612	1750	2625	0.998	1.674
1-8	1.0000	0.7854	0.5630	31102	16022	32044	8700	2000	3000	1.129	1.894

	SAE GRADE 5	ASTM A 449
F_u (Min. Ultimate Tensile Strength)	120,000 psi	120,000 psi*
F_t (Allowable Tensile Stress)	48,000 psi	39,600 psi*
F_v (Allowable Shear Stress)	27,713 psi	20,400 psi*

For Diameters up thru 9/16":

$$A(R) = 0.7854\left(D - \frac{1.2269}{N}\right)^2$$

$$A(S) = 0.7854\left(D - \frac{0.9743}{N}\right)^2$$

$F_t = 0.40F_u$

Allowable tension $= 0.40F_u\,[A(S)]$

$F_V = \frac{0.40}{\sqrt{3}}F_u$

Allowable shear (Single) $= \frac{0.40}{\sqrt{3}}F_u[A(R)]$

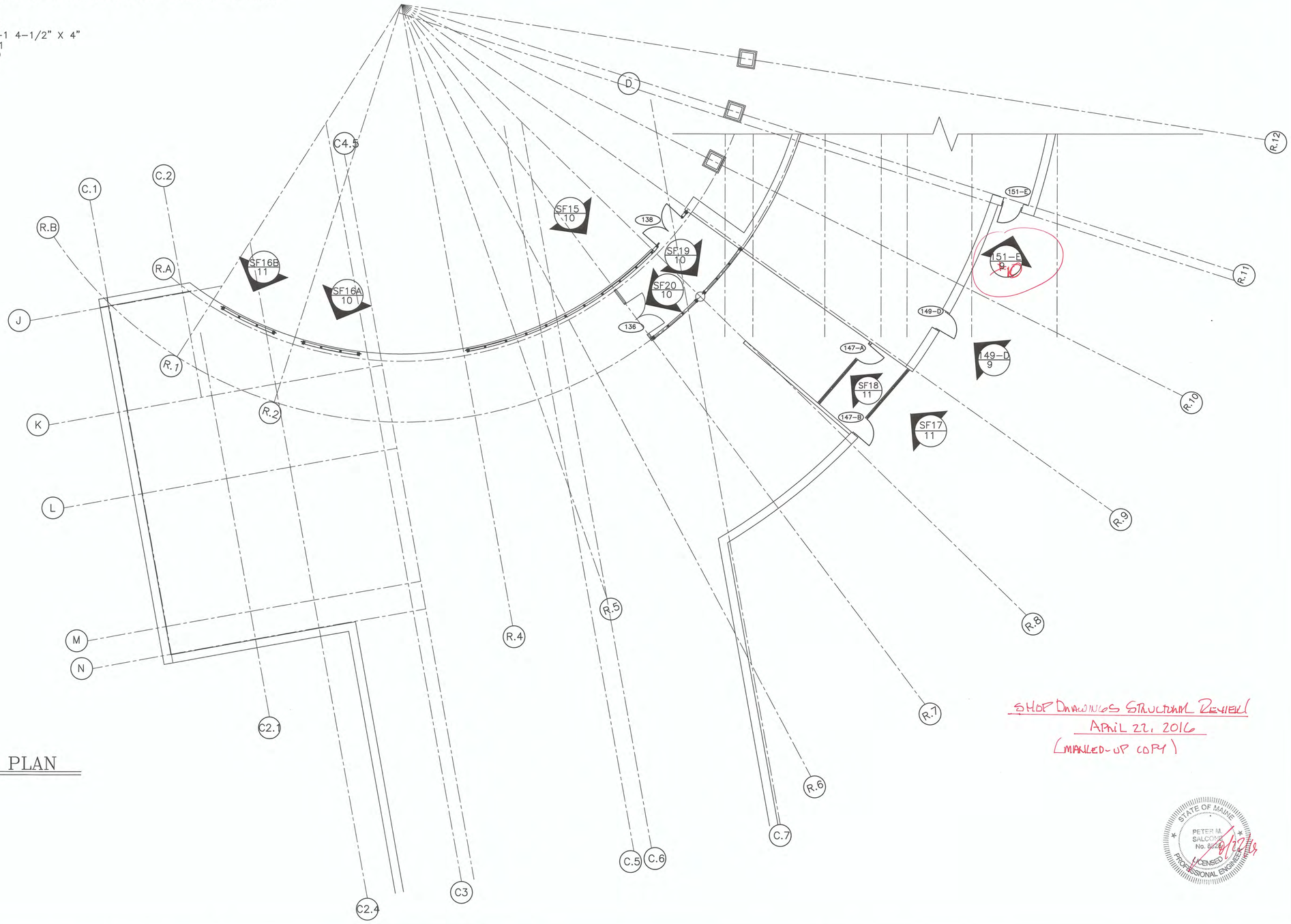
For Diameters 5/8" and over: $A(S) = 0.7858D^2$

*For fasteners 5/8" diameter and greater, values, formulas and procedures used are taken from the AISC, "Manual of Steel Construction," 9th Edition.

(See page #24 for additional notes.)

GENERAL NOTES:

1. ALL DIMENSIONS TO BE FIELD VERIFIED BEFORE FABRICATION.
2. ALUMINUM CURTAIN WALL SYSTEM ~ OLD CASTLE RELIANCE WALL 2-1/2" X 6".
3. ALUMINUM STOREFRONT SYSTEM ~
   EXTERIOR ~ OLDCASTLE FG-3000T CENTER SET 2" X 4 1/2"
   INTERIOR ~ OLDCASTLE FG-3000 NT CENTER SET 2" X 4 1/2" W/ 1/4" GLAZING ADAPTER.
4. ALUMINUM DOORS ~ OLDCASTLE MS-375 MEDIUM STILE W/ 10" BOTTOM RAIL & 4" MIDRAIL WHERE REQ'D.
5. ALUMINUM FINISH ~ DARK BRONZE ANODIZED
6. GLAZING ~ EXTERIOR ~ OPEN FOR 1" GLAZING
   INTERIOR ~ OPEN FOR 1/4" GLAZING
7. HARDWARE ~ BUTTS ~ 1-1/2 PR. OLDCASTLE BH-1 4-1/2" X 4"
   PUSH/PULL ~ OLDCASTLE PH20/PB21
   DEADLOCK ~ ADAMS RITE 1850A-050



LEVEL 1 FLOOR PLAN

SCALE: 1/8"=1'-0"

SHOP DRAWINGS STRUCTURAL REVIEW
APRIL 22, 2016
(MARKED-UP COPY)

STATE OF MAINE
PETER M. SALCOTZ
No. 8224
LICENSED PROFESSIONAL ENGINEER
4/22/16

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102

PHONE: 207-774-9851
FAX: 207-774-9855

PG Portland Glass.

LAST REVISED: 2/25/16

JOB NAME: THE PARK DANFORTH

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
DIM.– DIMENSION
℄– CENTER LINE
F.S.– FRAME SIZE
W.S.– WINDOW SIZE
REQ'D– REQUIRED
CLR.– CLEAR
B.O.S.– BOTTOM OF STEEL
T.O.S.– TOP OF STEEL
NTS – NOT TO SCALE

SYMBOLS:

ELEVATION NUMBER / SHEET NUMBER

DETAIL NUMBER / SHEET NUMBER

REVISIONS:

NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
1			7		
2			8		
3			9		
4			10		
5			11		
6			12		

JOB NAME: THE PARK DANFORTH

ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS

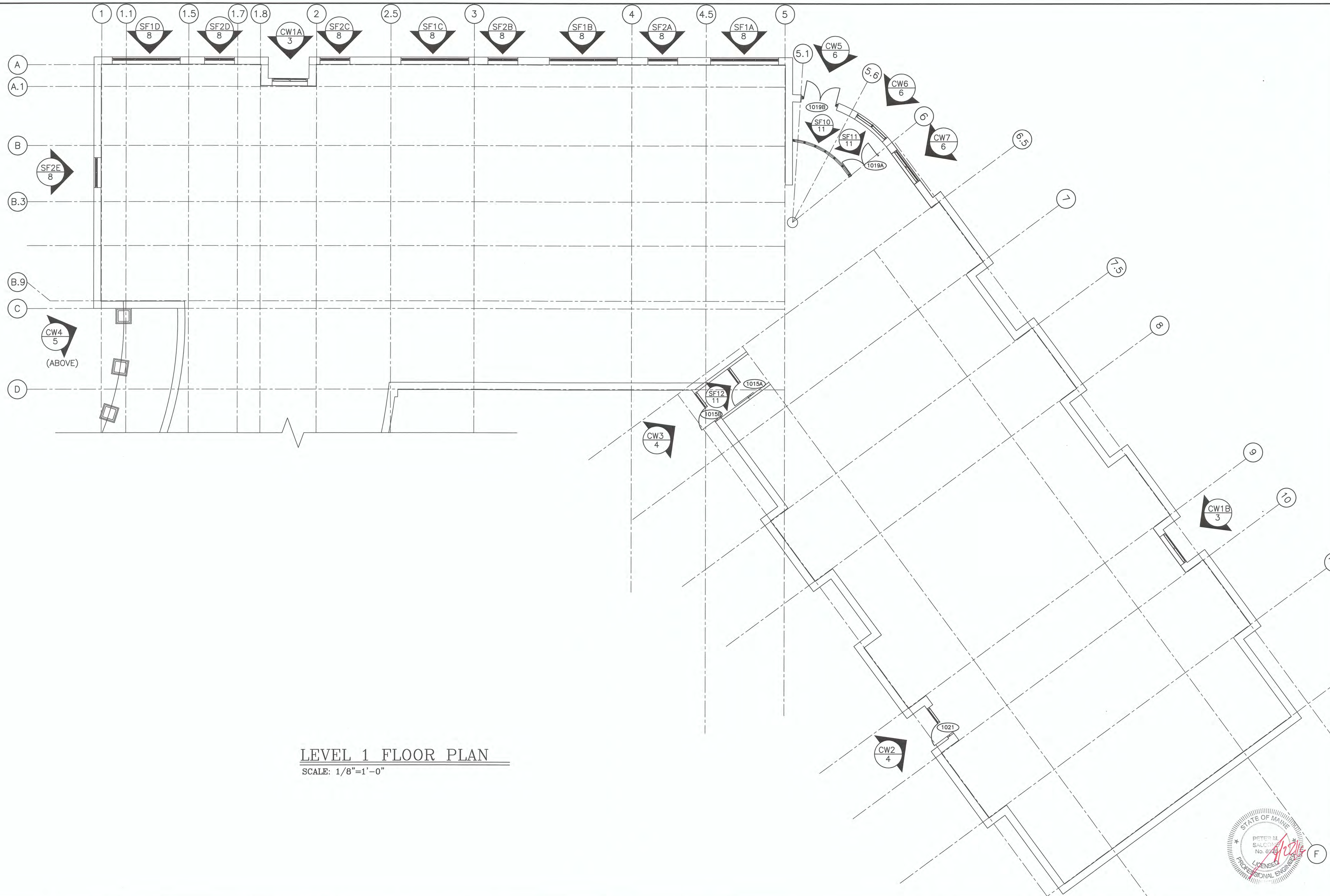
CONTRACTOR:

DATE: 2/25/16

SCALE: AS NOTED

DRAWN BY: W. PEASE

SHEET NUMBER 1 OF 33



LEVEL 1 FLOOR PLAN

SCALE: 1/8"=1'-0"

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102

PHONE: 207-774-9851
FAX: 207-774-9855

LAST REVISED: 2/25/16

PG Portland Glass.

JOB NAME: THE PARK DANFORTH

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
DIM.– DIMENSION
℄– CENTER LINE
F.S.– FRAME SIZE
W.S.– WINDOW SIZE
REQ'D– REQUIRED
CLR.– CLEAR
B.O.S.– BOTTOM OF STEEL
T.O.S.– TOP OF STEEL
NTS – NOT TO SCALE

SYMBOLS:

ELEVATION NUMBER / SHEET NUMBER

DETAIL NUMBER / SHEET NUMBER

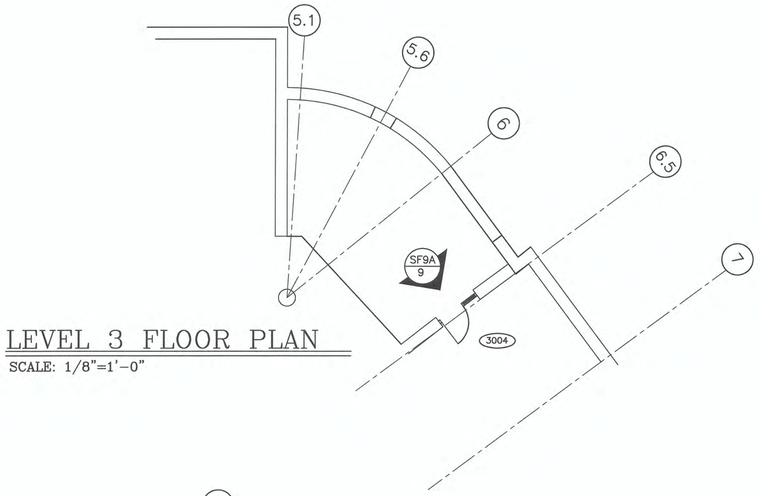
REVISIONS:

NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
1			7		
2			8		
3			9		
4			10		
5			11		
6			12		

JOB NAME: THE PARK DANFORTH	DATE: 2/25/16
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS	SCALE: AS NOTED
CONTRACTOR:	DRAWN BY: W. PEASE

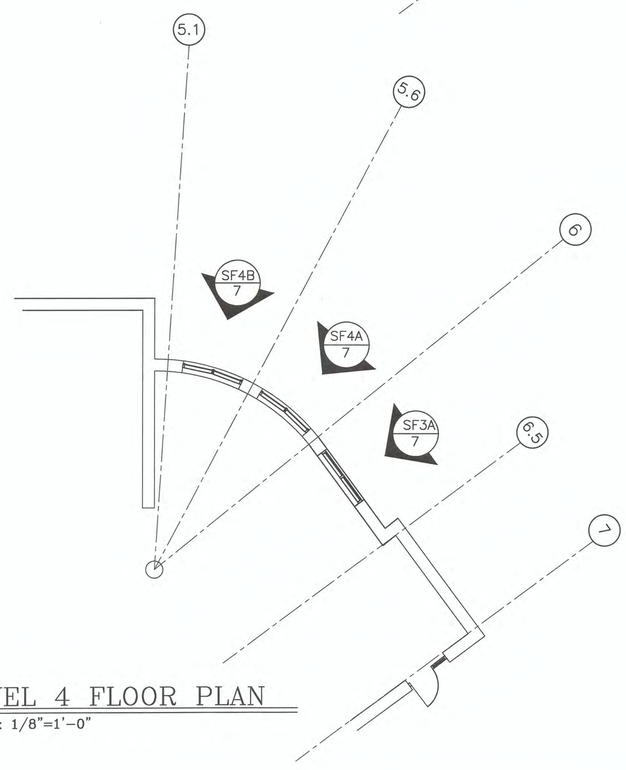
SHEET NUMBER

2 OF 33



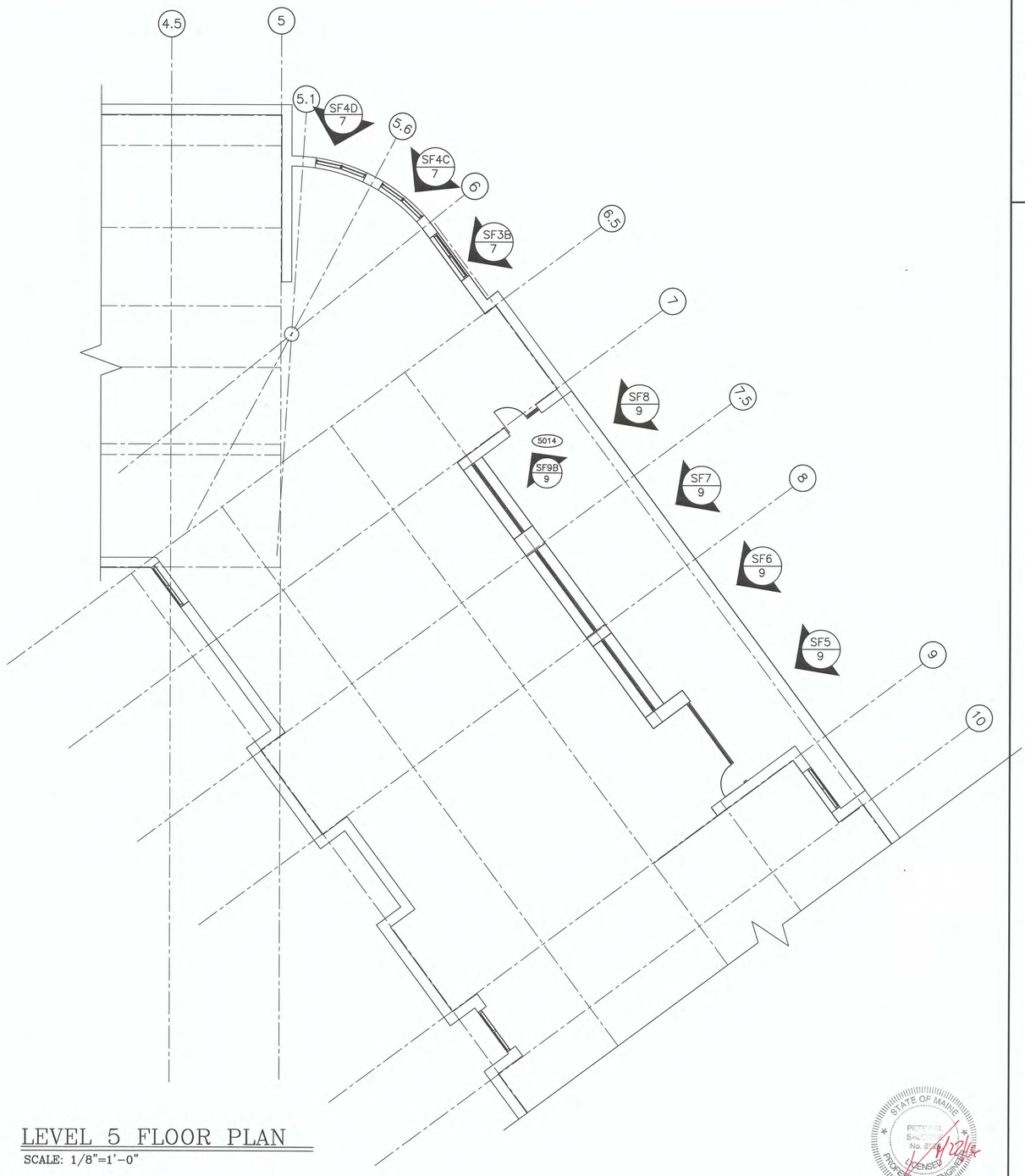
LEVEL 3 FLOOR PLAN

SCALE: 1/8"=1'-0"



LEVEL 4 FLOOR PLAN

SCALE: 1/8"=1'-0"



LEVEL 5 FLOOR PLAN

SCALE: 1/8"=1'-0"

STATE OF MAINE
PETER G. SALLOOM
No. 8543
LICENSED
PROFESSIONAL ENGINEER

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102

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PG Portland Glass.

LAST REVISED: 2/25/16

JOB NAME: THE PARK DANFORTH

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
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JOB NAME: THE PARK DANFORTH

ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS

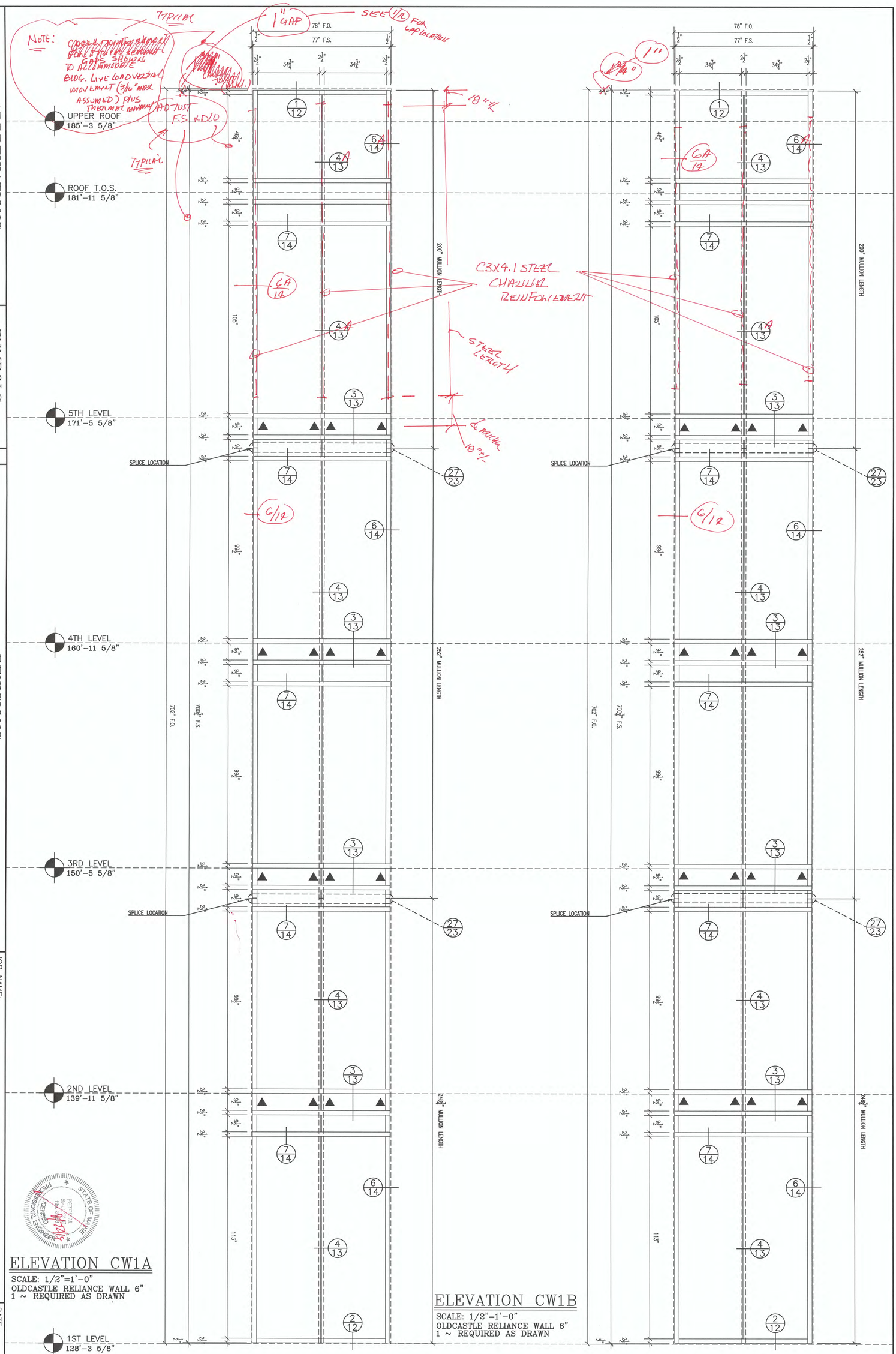
CONTRACTOR:

DATE: 2/25/16

SCALE: AS NOTED

DRAWN BY: W. PEASE

SHEET NUMBER 2A OF 33



ELEVATION CW1A

SCALE: 1/2"=1'-0"
OLDCASTLE RELIANCE WALL 6"
1 ~ REQUIRED AS DRAWN

ELEVATION CW1B

SCALE: 1/2"=1'-0"
OLDCASTLE RELIANCE WALL 6"
1 ~ REQUIRED AS DRAWN

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2		
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6		

JOB NAME: THE PARK DANFORTH

ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS

CONTRACTOR:

DATE: 2/25/16

SCALE: AS NOTED

DRAWN BY: W. PEASE

SHEET NUMBER: 3 OF 33

PG Portland Glass.

JOB NAME: THE PARK DANFORTH

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PG PORTLAND GLASS
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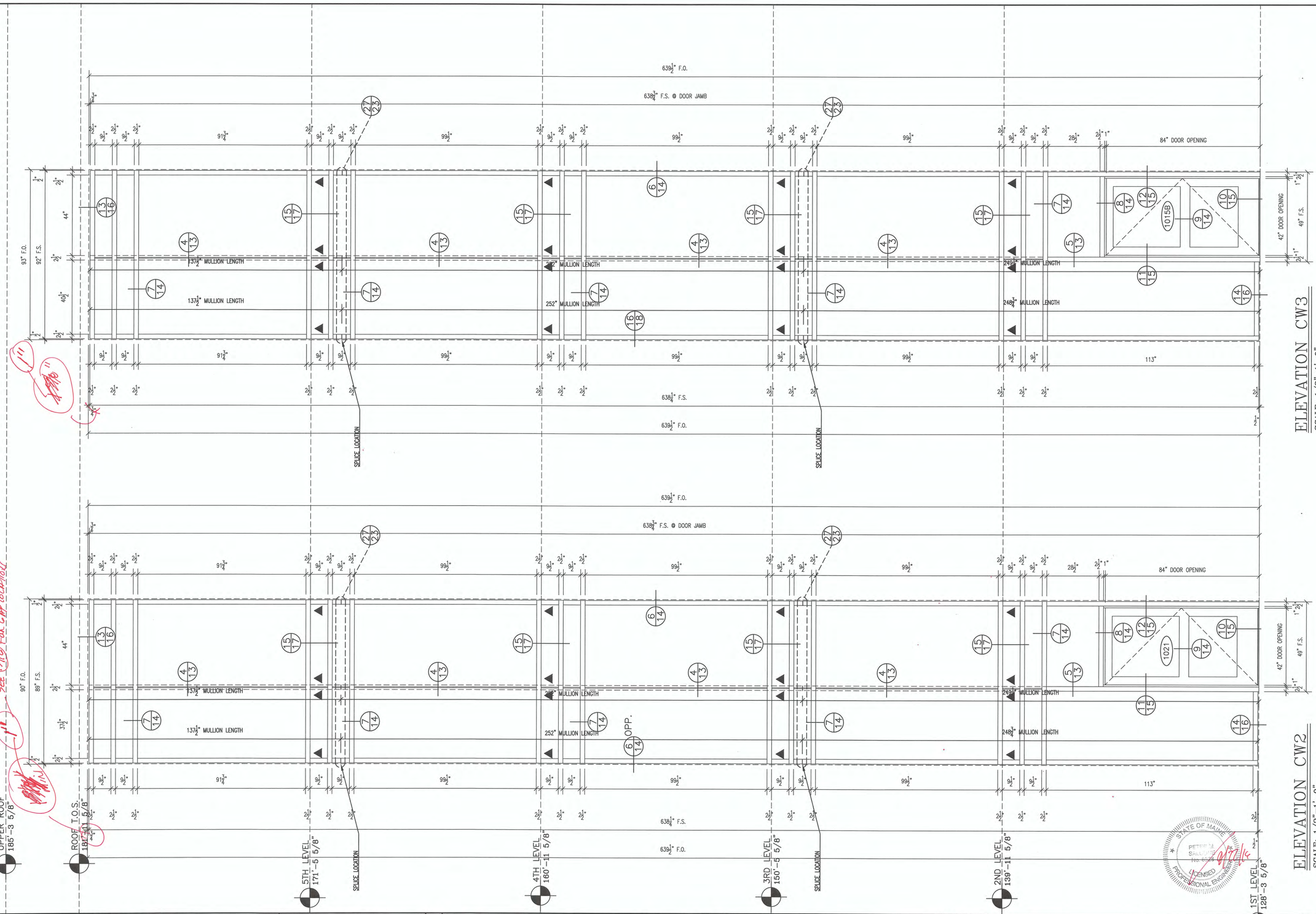

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PG Portland Glass.

LAST REVISED: 2/25/16

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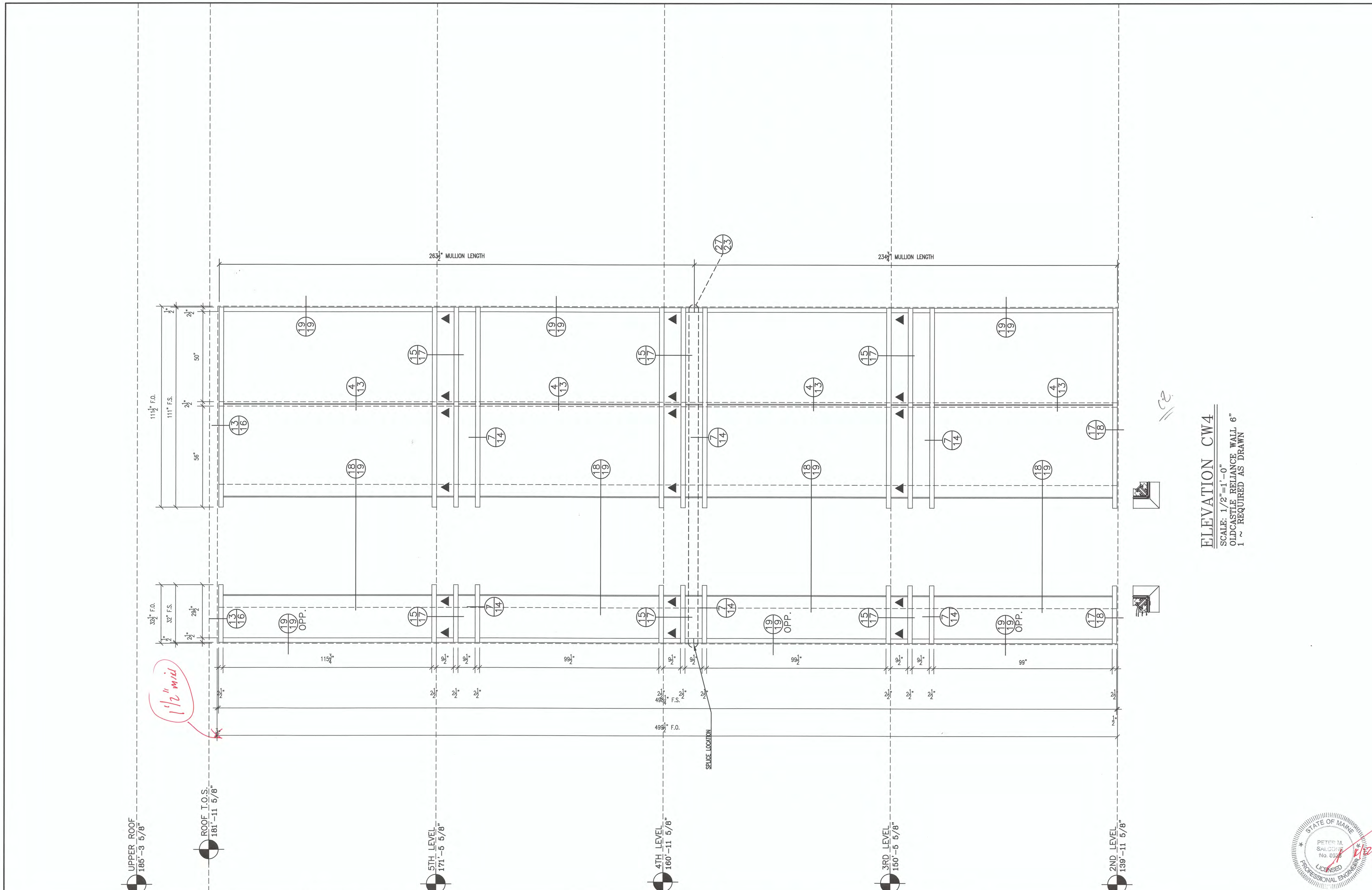
JOB NAME: THE PARK DANFORTH
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS
CONTRACTOR:

DATE: 2/25/16
SCALE: AS NOTED
DRAWN BY: W. PEASE

SHEET NUMBER 4 OF 33



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JOB NAME: THE PARK DANFORTH

ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS

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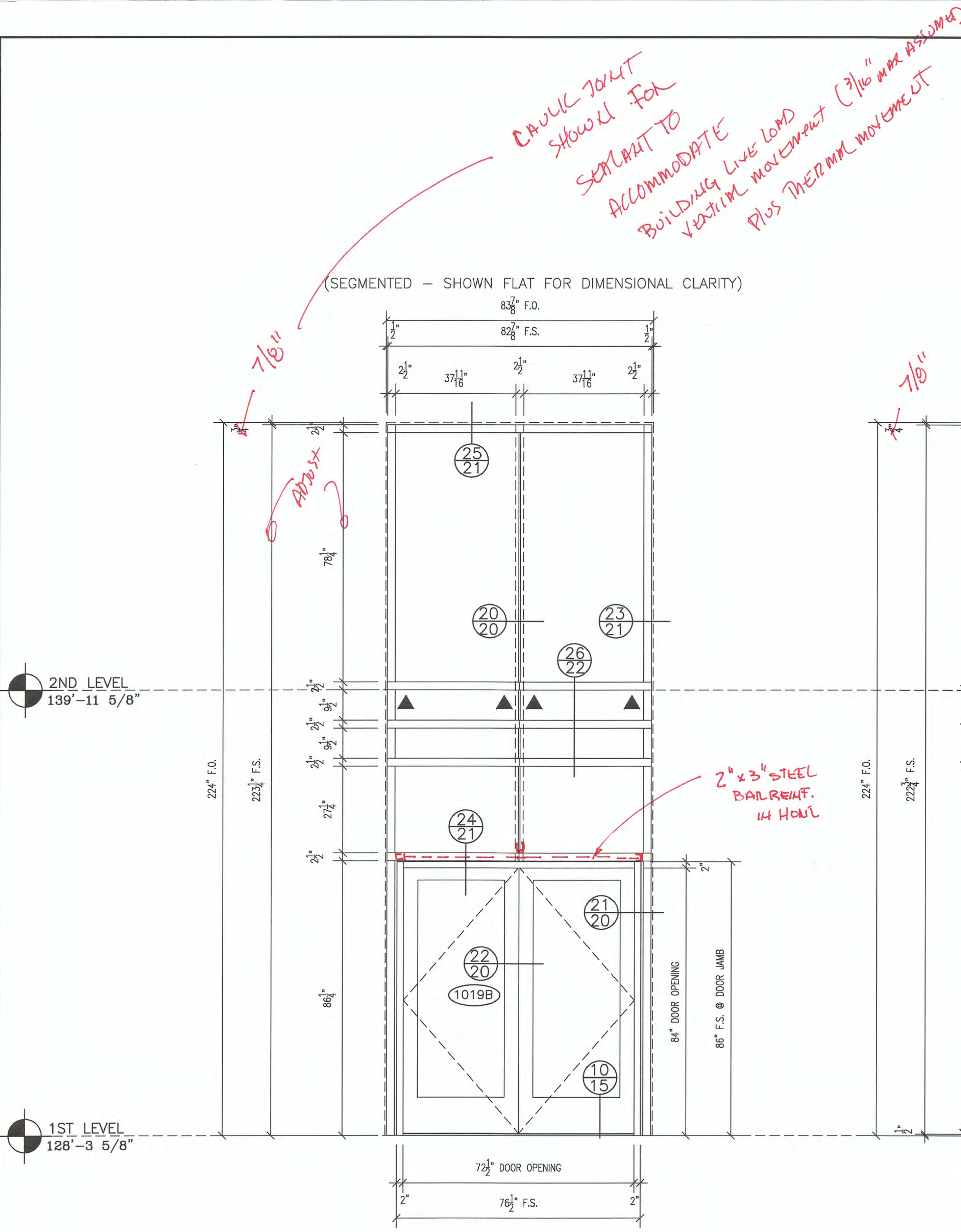
DRAWN BY: W. PEASE

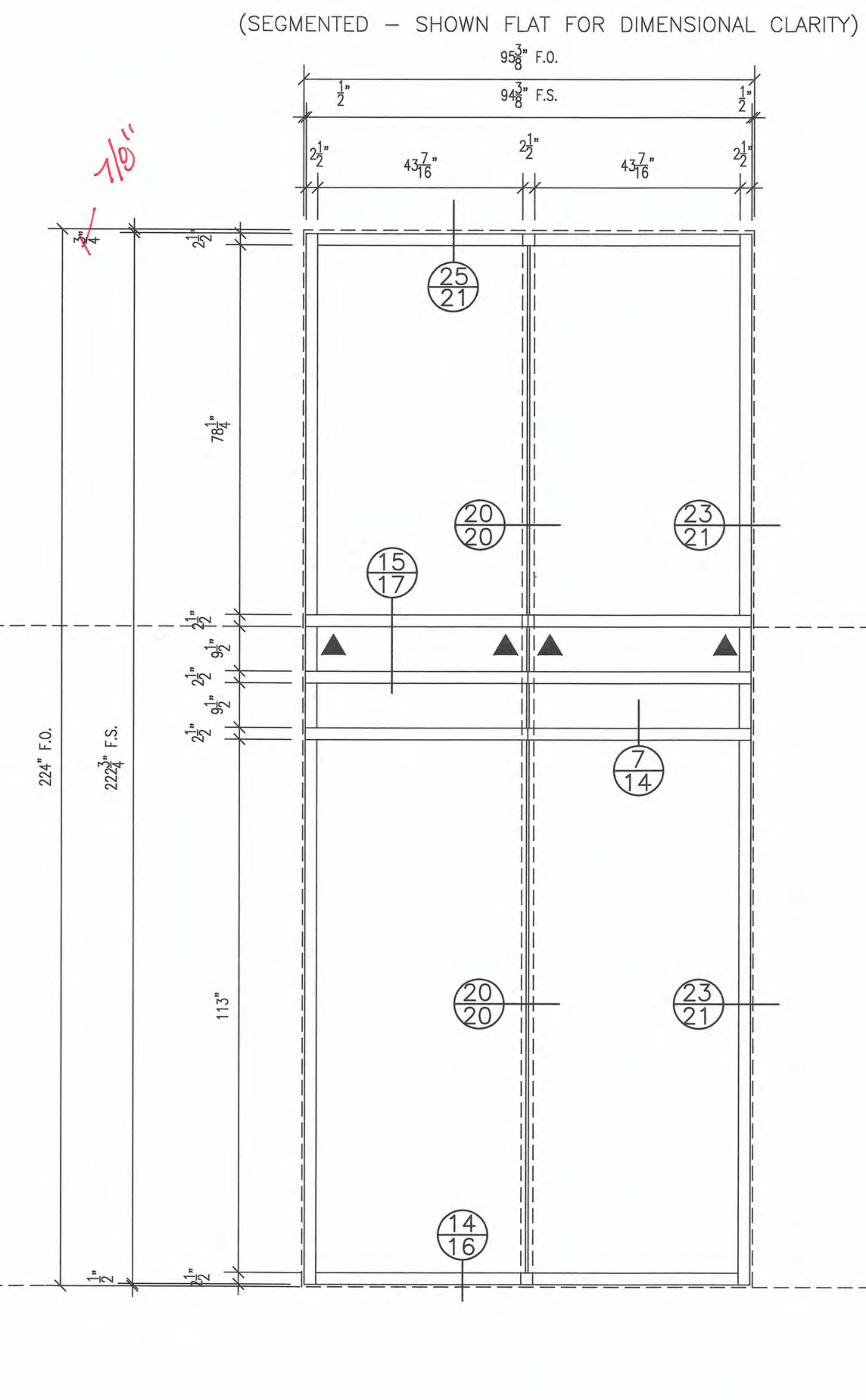
SHEET NUMBER

5 OF 33



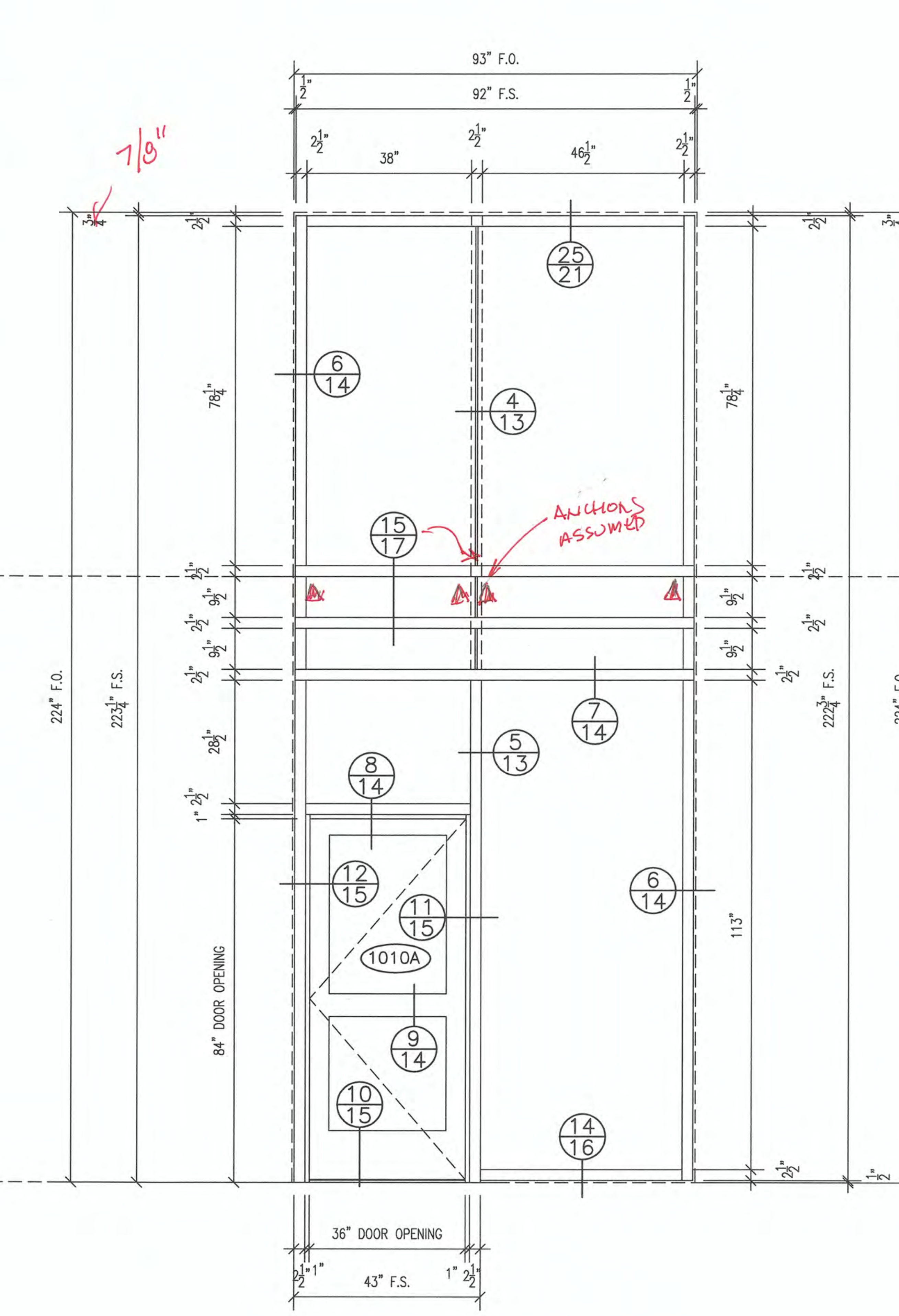
ELEVATION CW5

SCALE: 1/2"=1'-0"
OLDCASTLE RELIANCE WALL 6"
1 ~ REQUIRED AS DRAWN



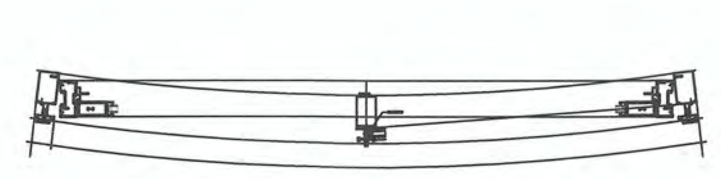
ELEVATION CW6

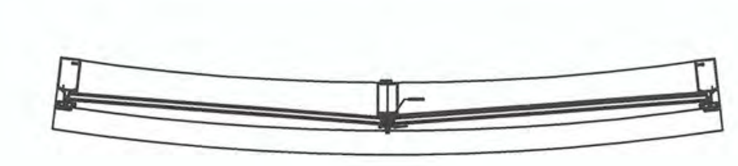
SCALE: 1/2"=1'-0"
OLDCASTLE RELIANCE WALL 6"
1 ~ REQUIRED AS DRAWN



ELEVATION CW7

SCALE: 1/2"=1'-0"
OLDCASTLE RELIANCE WALL 6"
1 ~ REQUIRED AS DRAWN





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LAST REVISED: 2/25/16

PG Portland Glass.

JOB NAME: THE PARK DANFORTH

ABBREVIATIONS:

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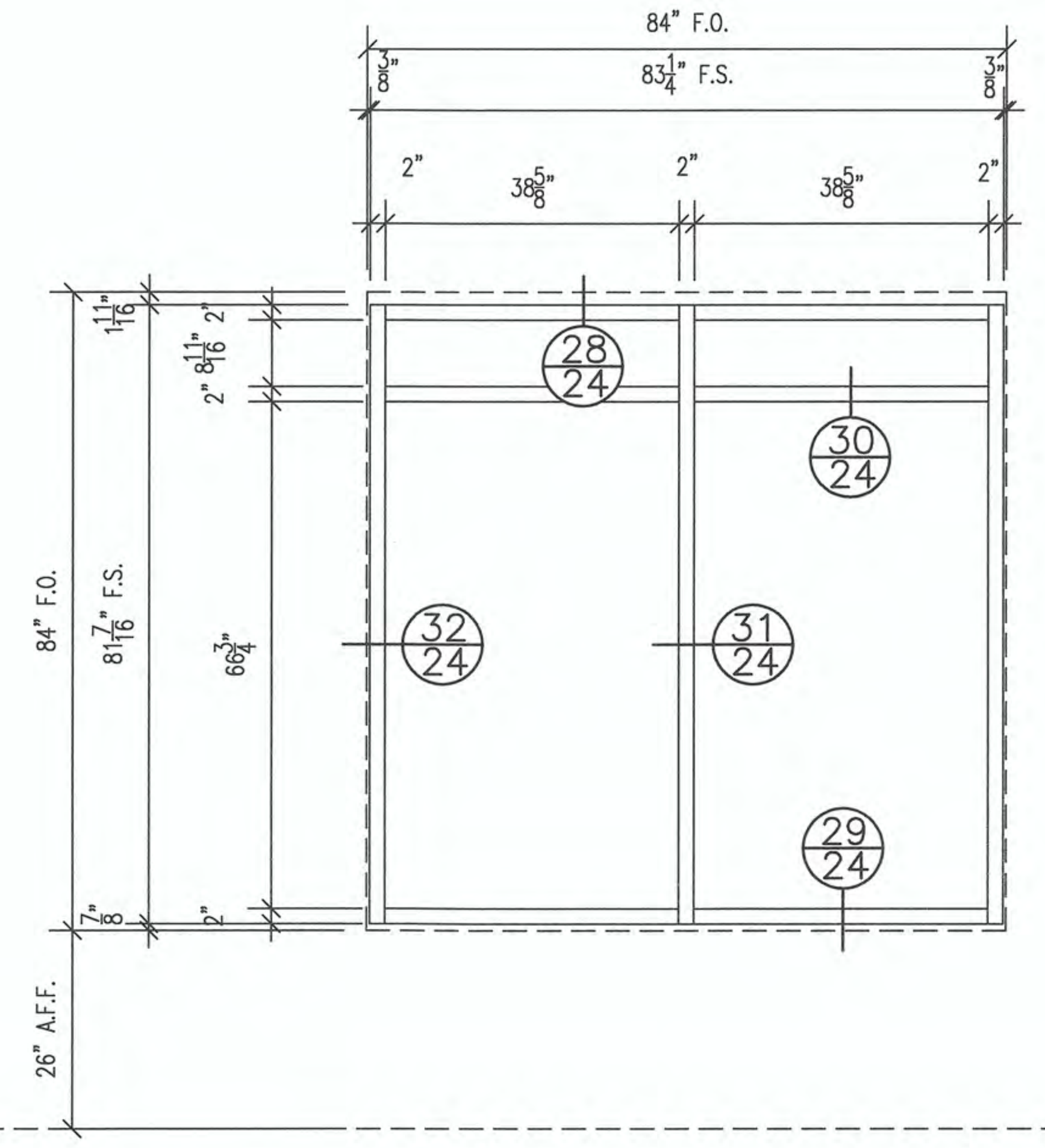
CONTRACTOR:

DATE: 2/25/16
SCALE: AS NOTED
DRAWN BY: W. PEASE

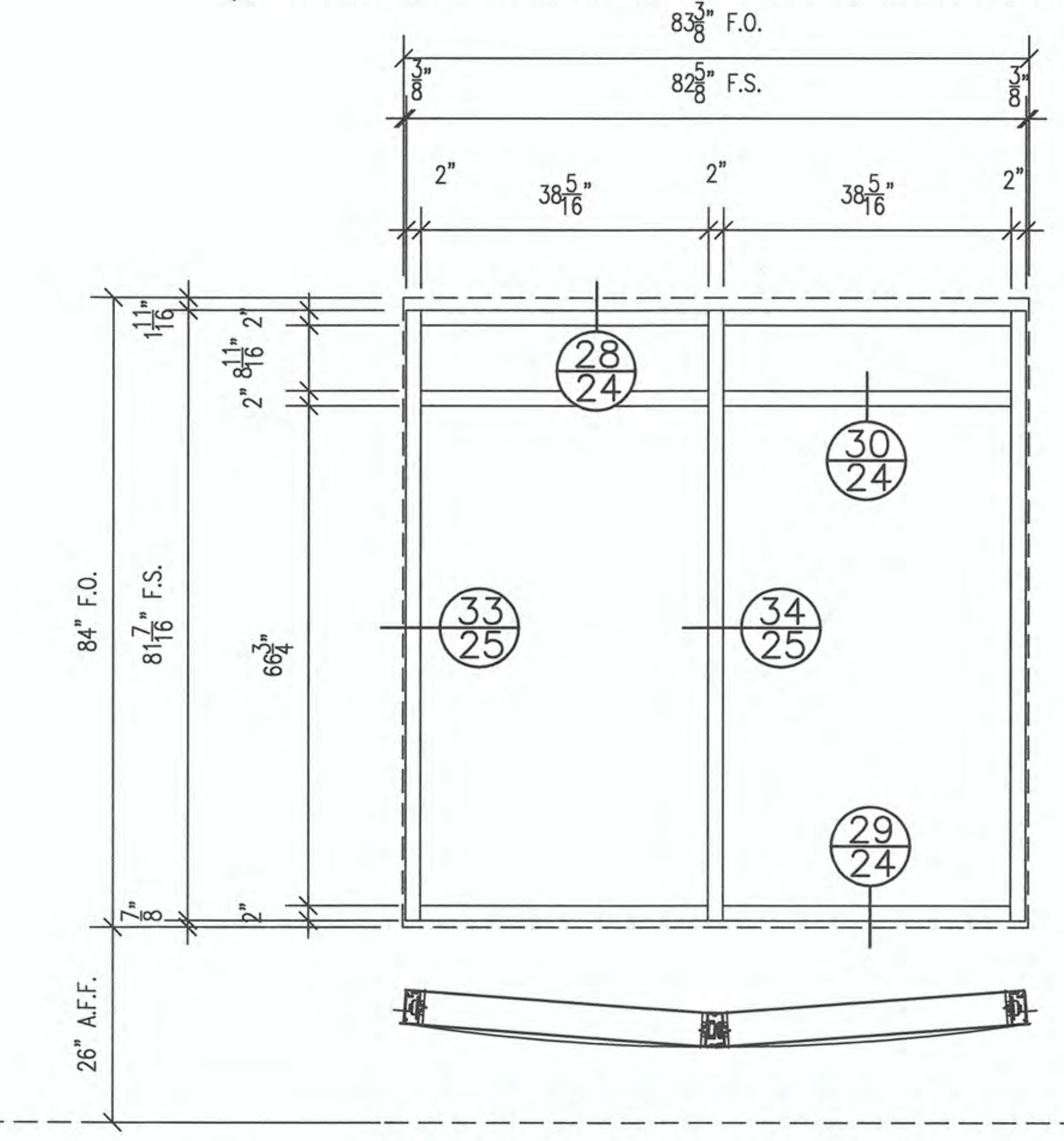
SHEET NUMBER 6 OF 33



5TH LEVEL
171'-5 5/8"

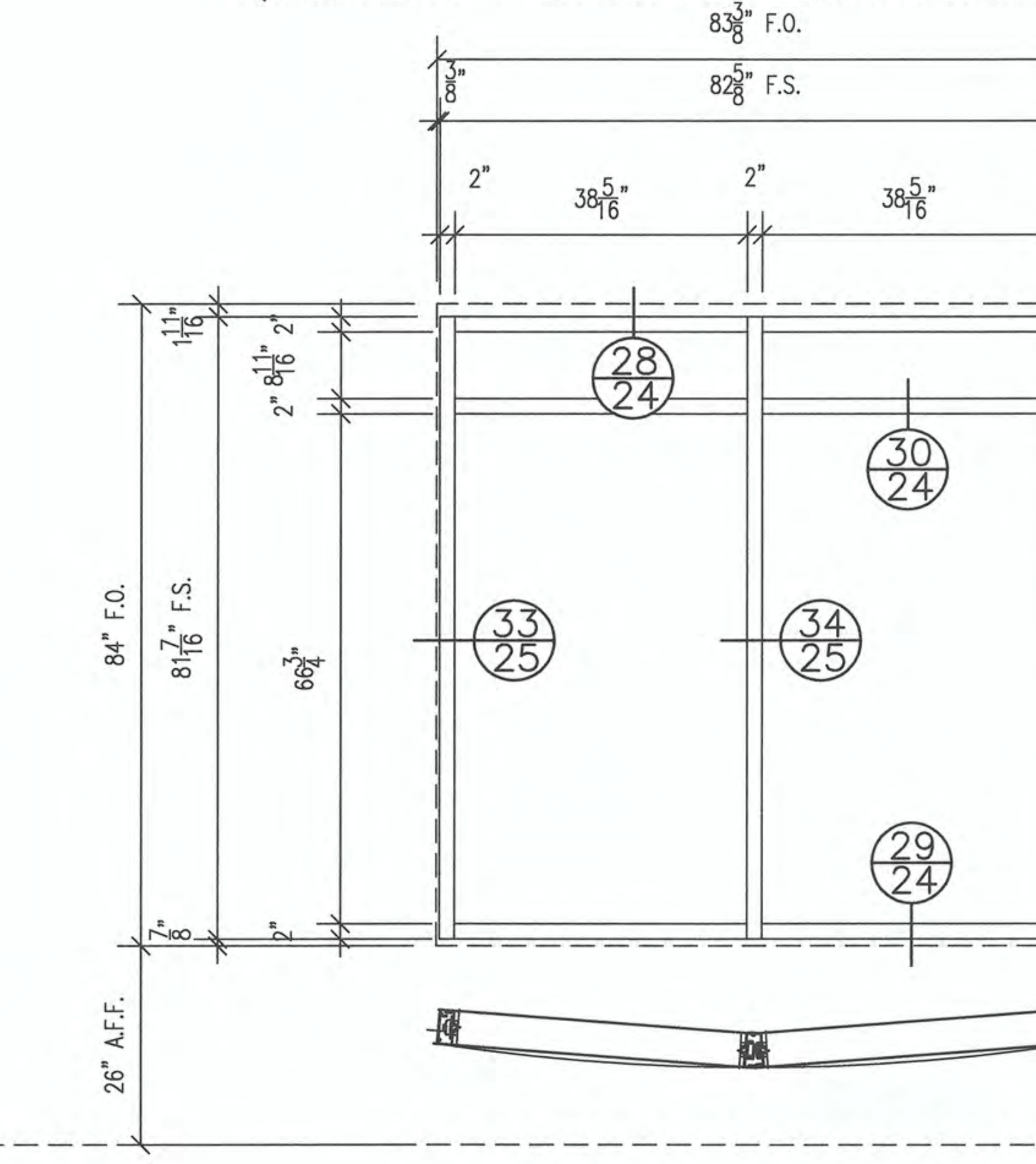
ELEVATION SF3B
SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN

(SEGMENTED – SHOWN FLAT FOR DIMENSIONAL CLARITY)



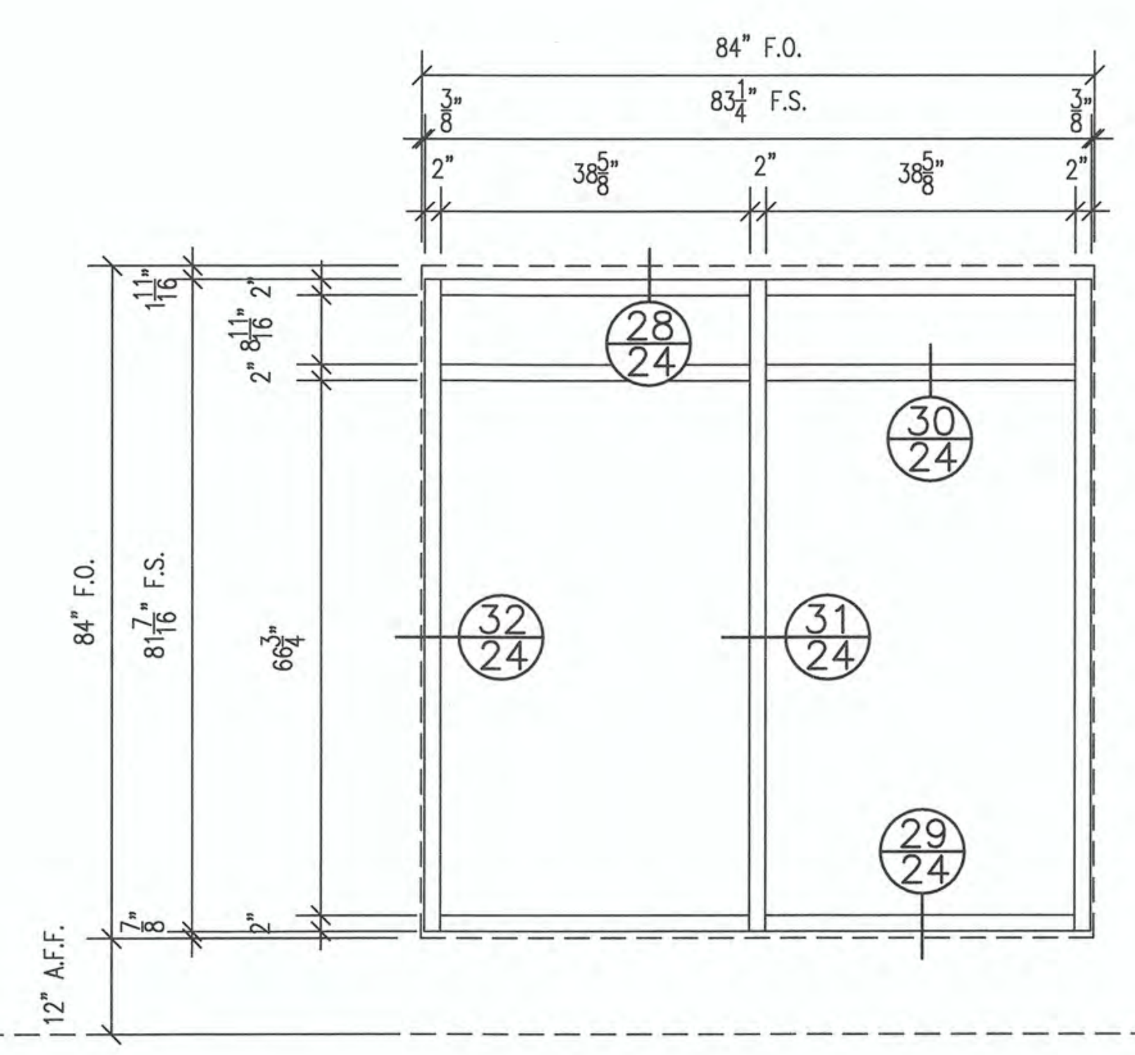
ELEVATION SF4C
SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN

(SEGMENTED – SHOWN FLAT FOR DIMENSIONAL CLARITY)



ELEVATION SF4D
SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN

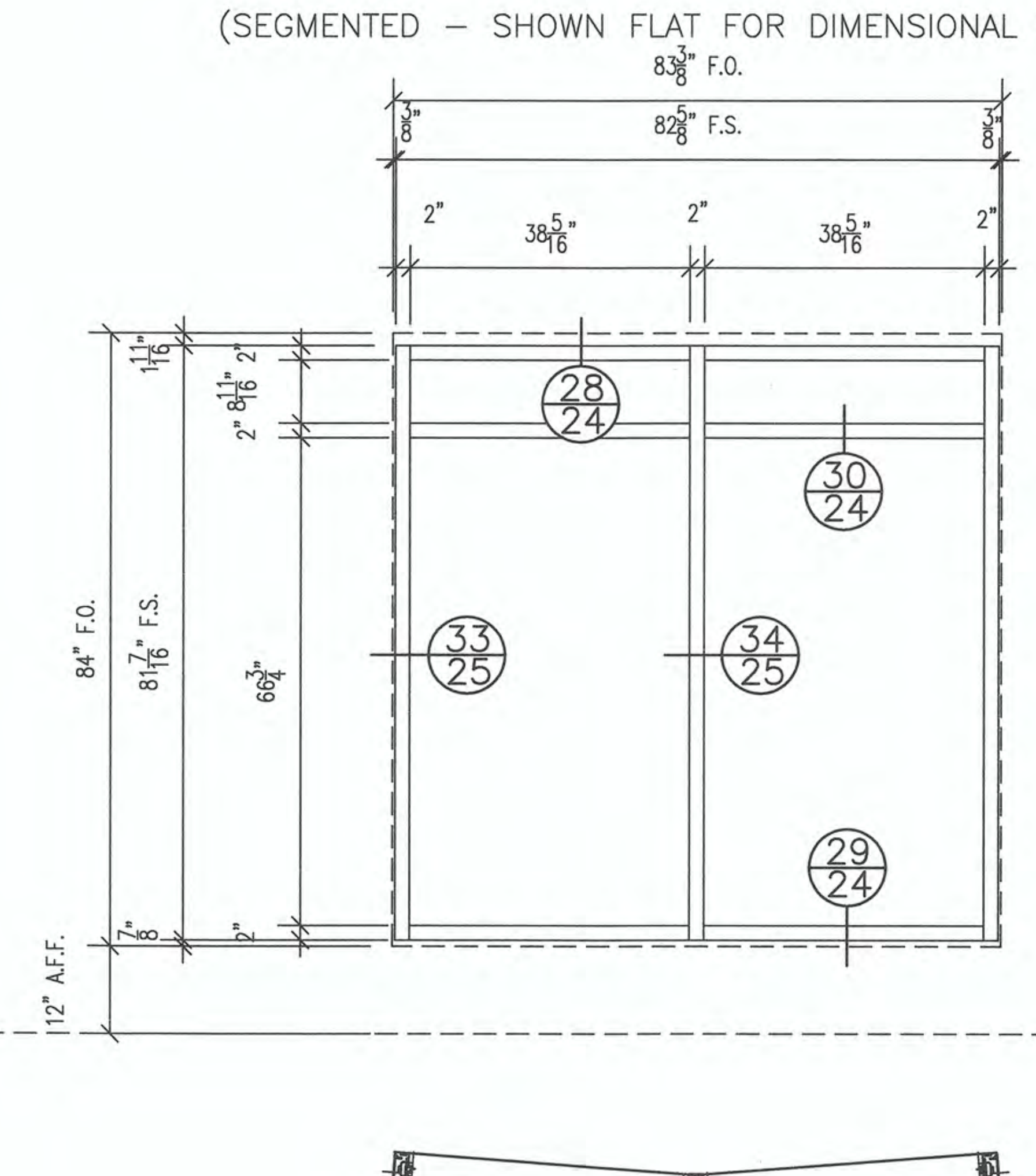
CZ



4TH LEVEL
160'-11 5/8"

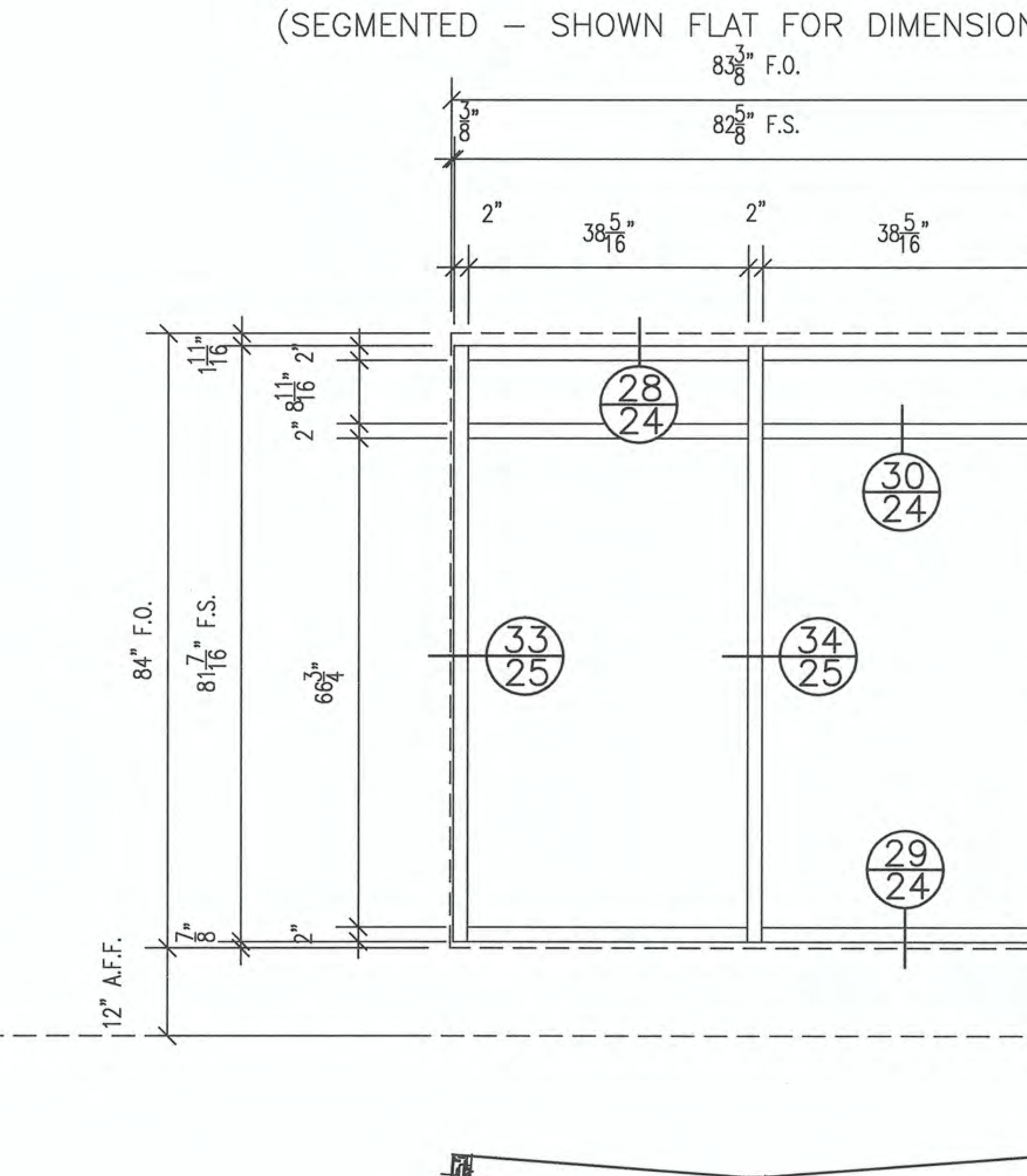
ELEVATION SF3A
SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN

(SEGMENTED – SHOWN FLAT FOR DIMENSIONAL CLARITY)



ELEVATION SF4A
SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN

(SEGMENTED – SHOWN FLAT FOR DIMENSIONAL CLARITY)



ELEVATION SF4B
SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN

CZ

STATE OF MAINE
LICENSED PROFESSIONAL ENGINEER

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JOB NAME: THE PARK DANFORTH
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS
CONTRACTOR:
DATE: 2/25/16
SCALE: AS NOTED
DRAWN BY: W. PEASE
SHEET NUMBER 7 OF 33

PG PORTLAND GLASS
832 CONGRESS STREET
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PHONE: 207-774-9851
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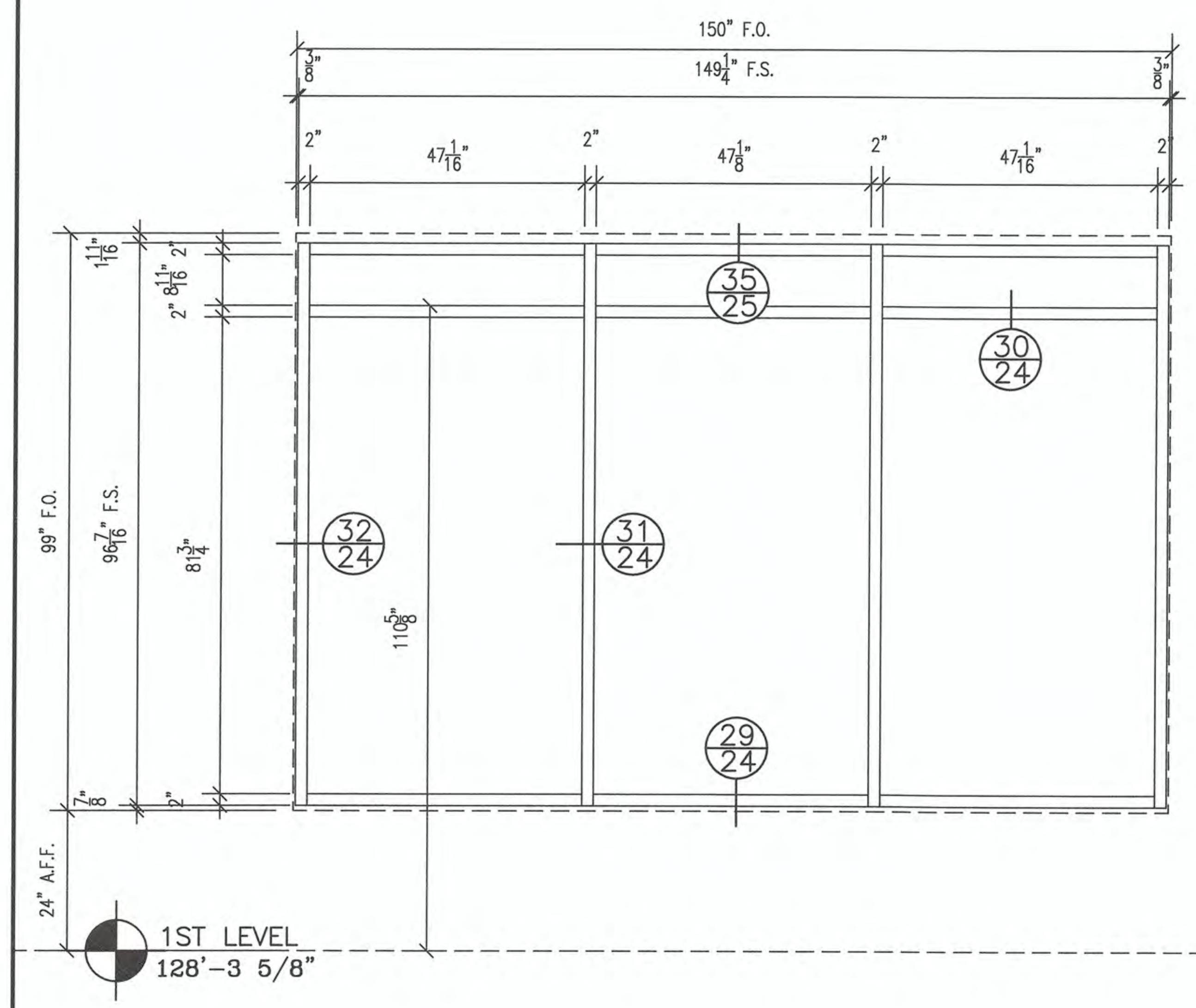
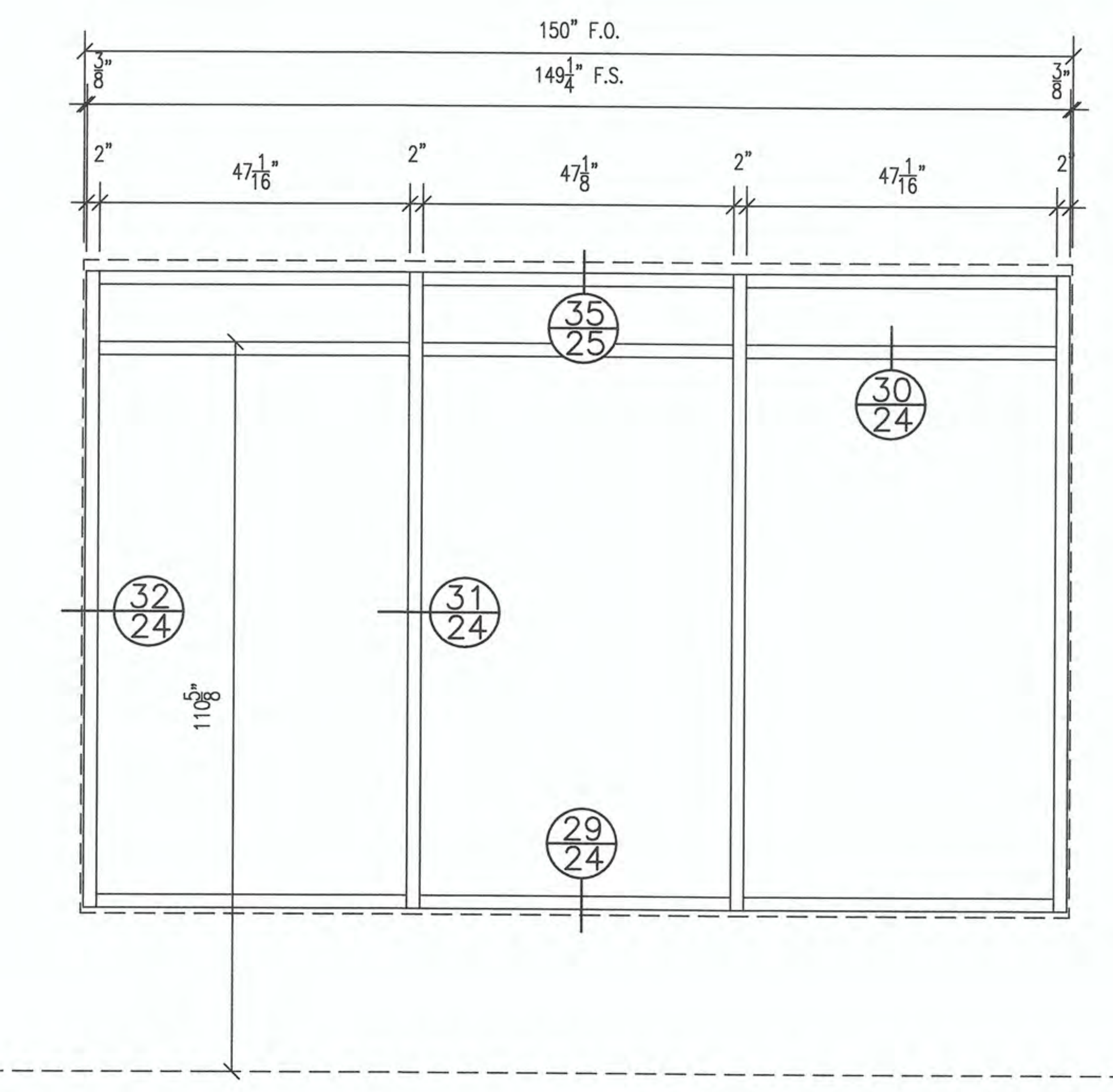
PG Portland Glass.

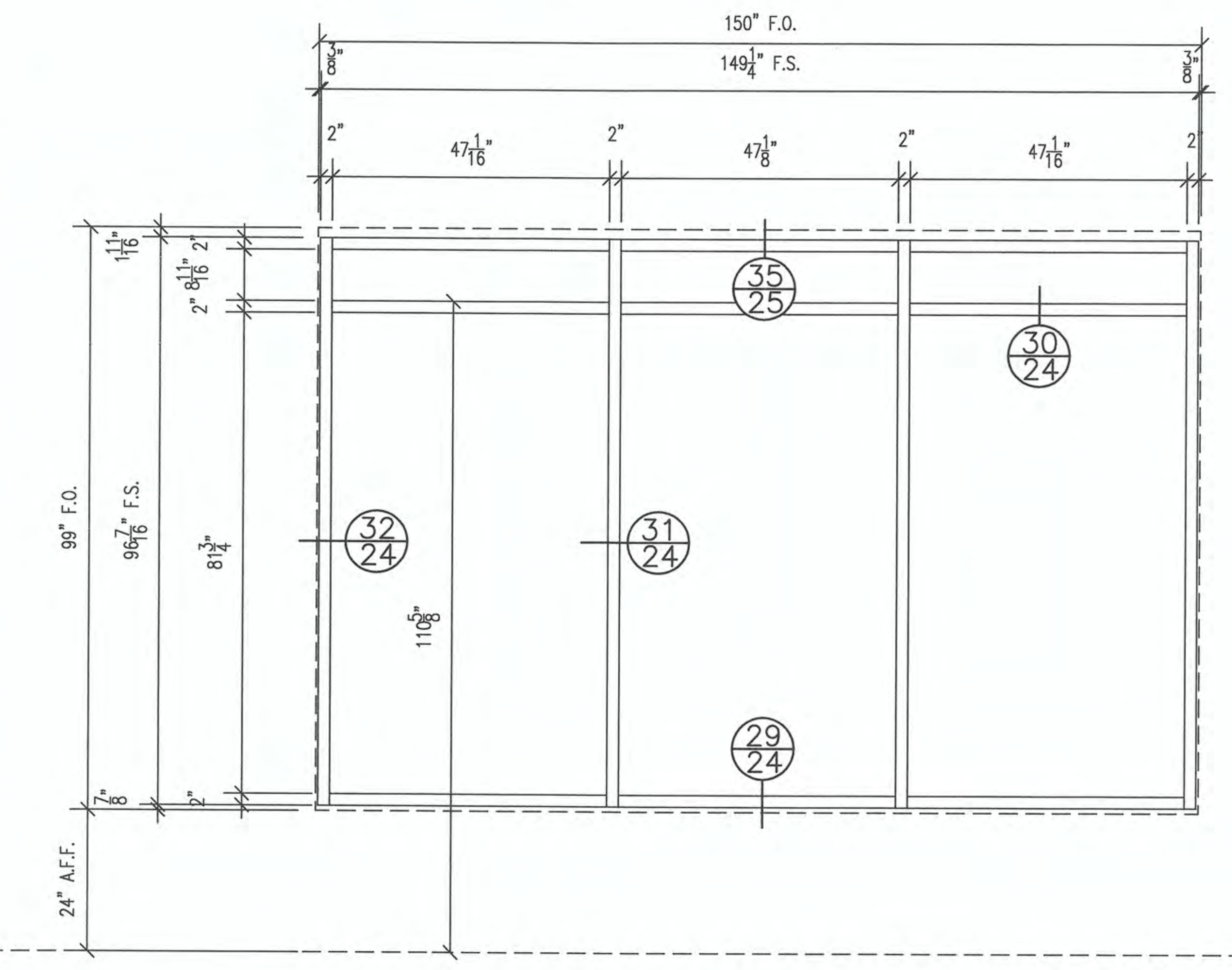
LAST REVISED: 2/25/16
JOB NAME: THE PARK DANFORTH



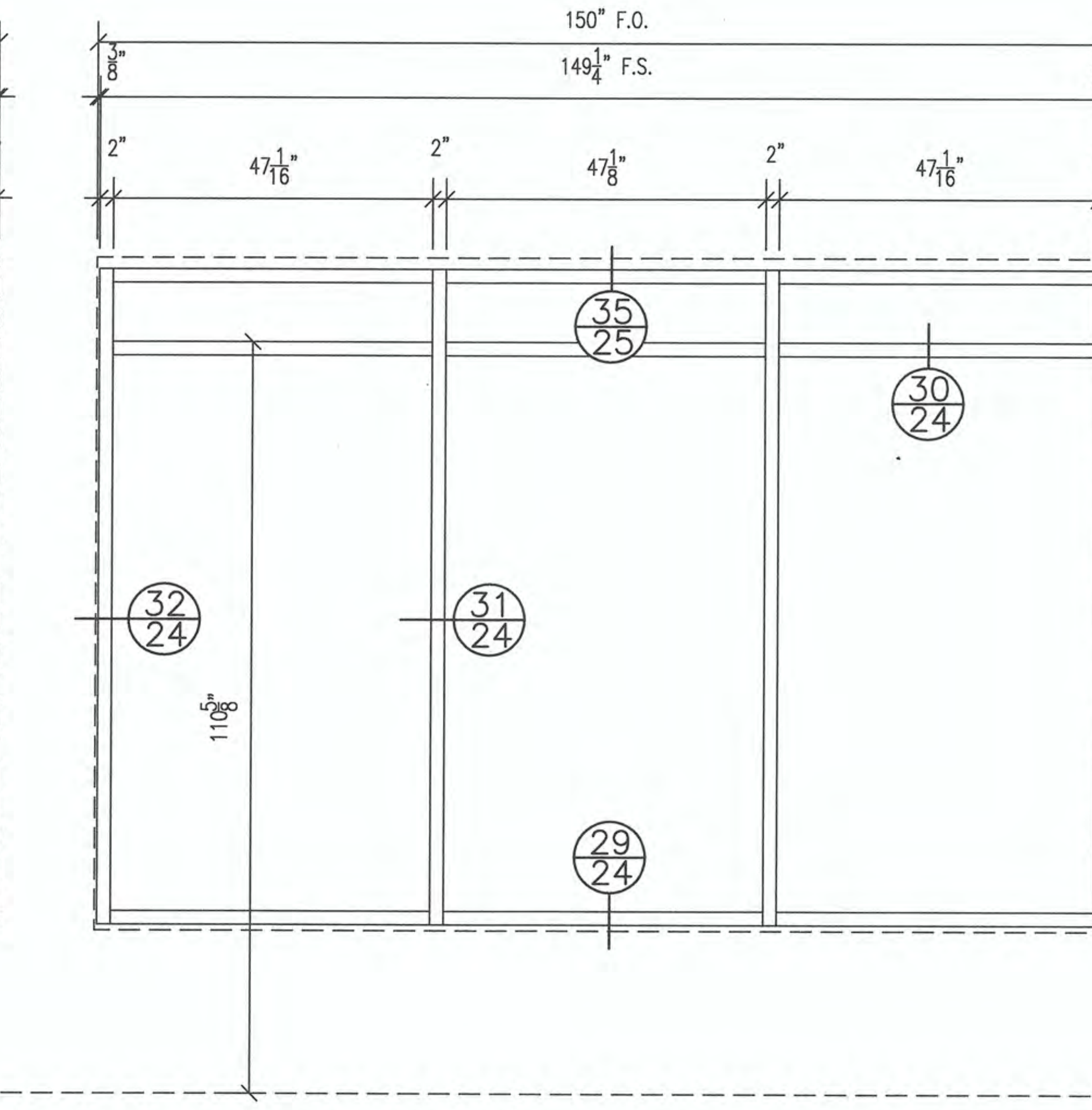
ELEVATION SF1A
SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN



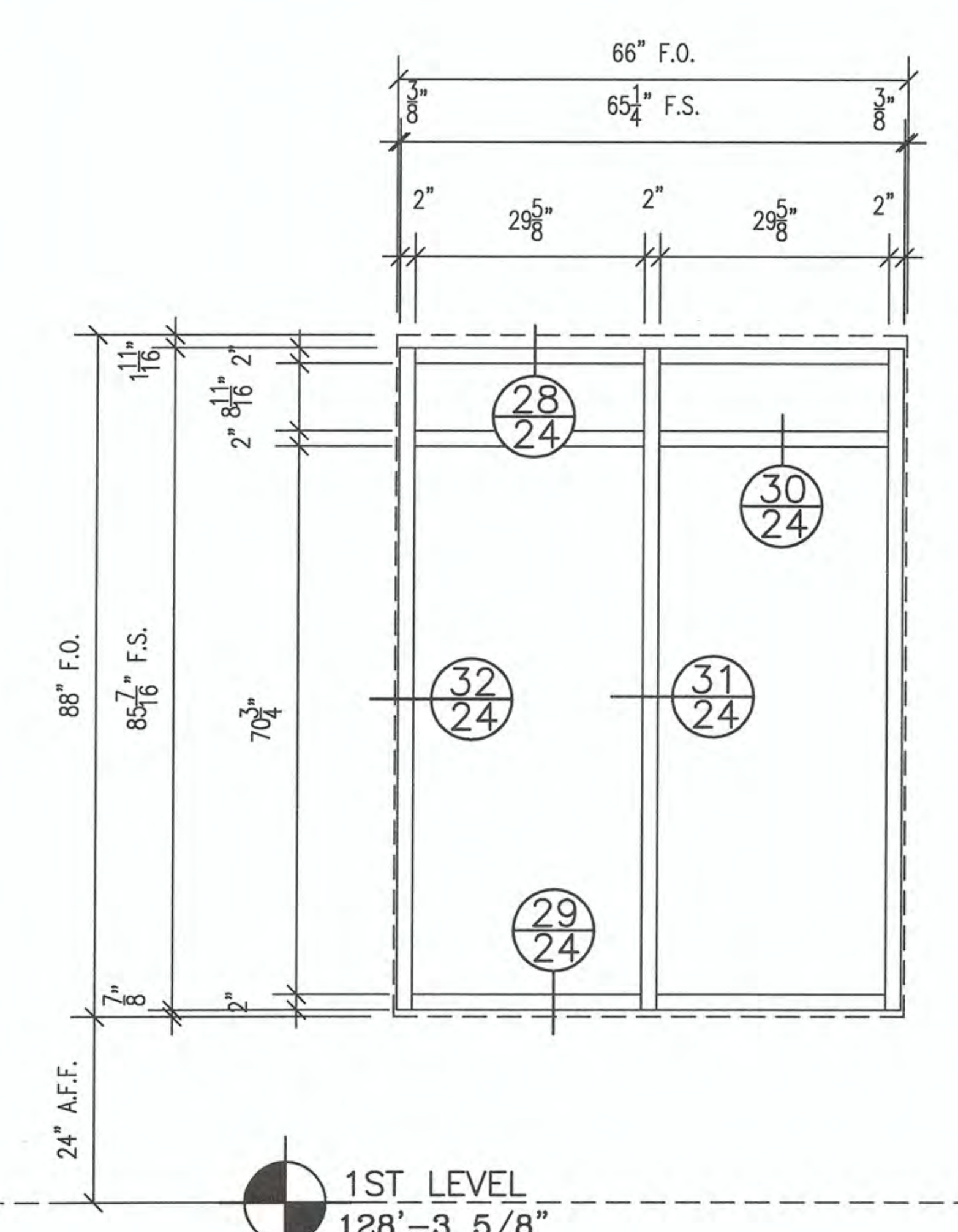
ELEVATION SF1B
SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN



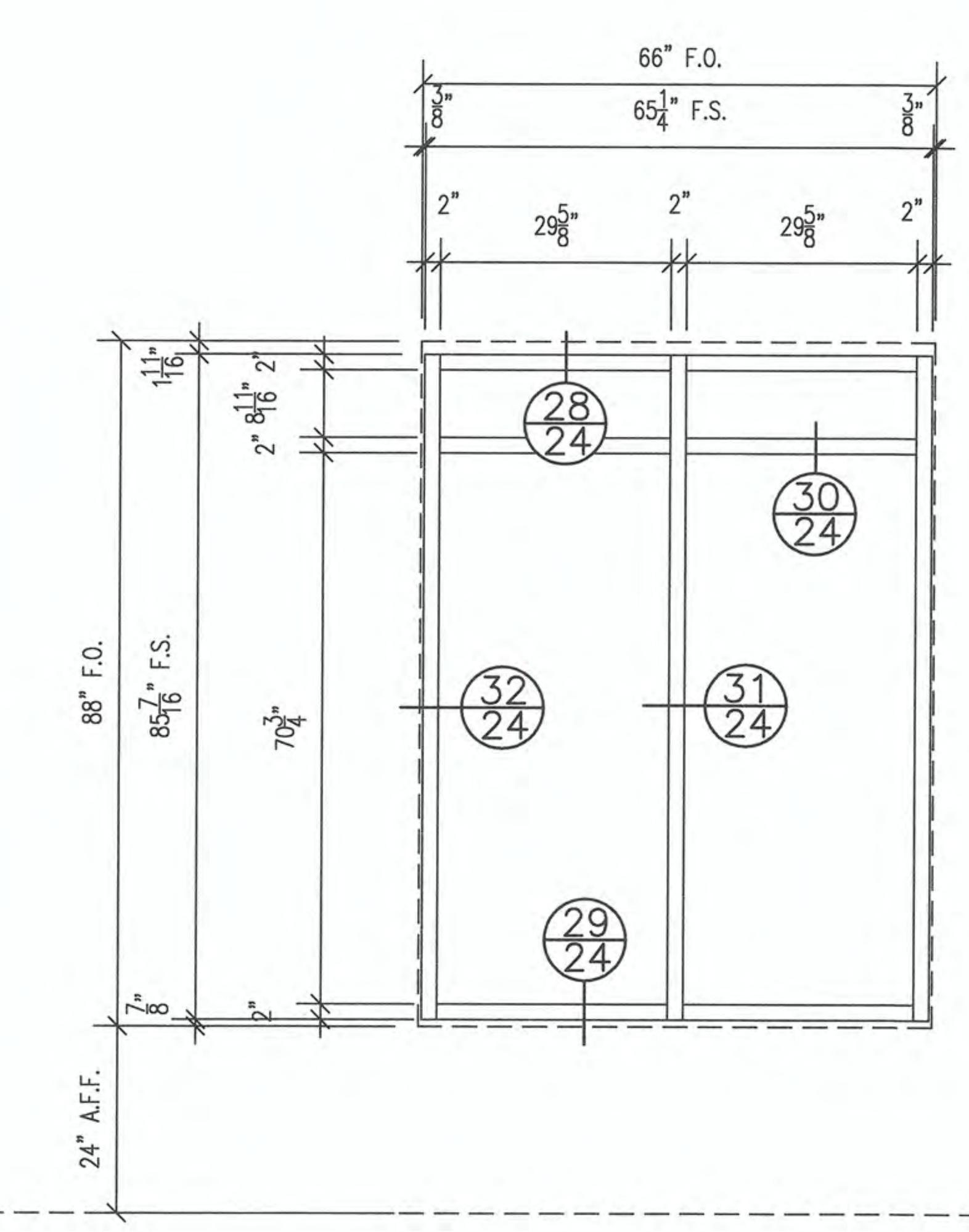
ELEVATION SF1C
SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN



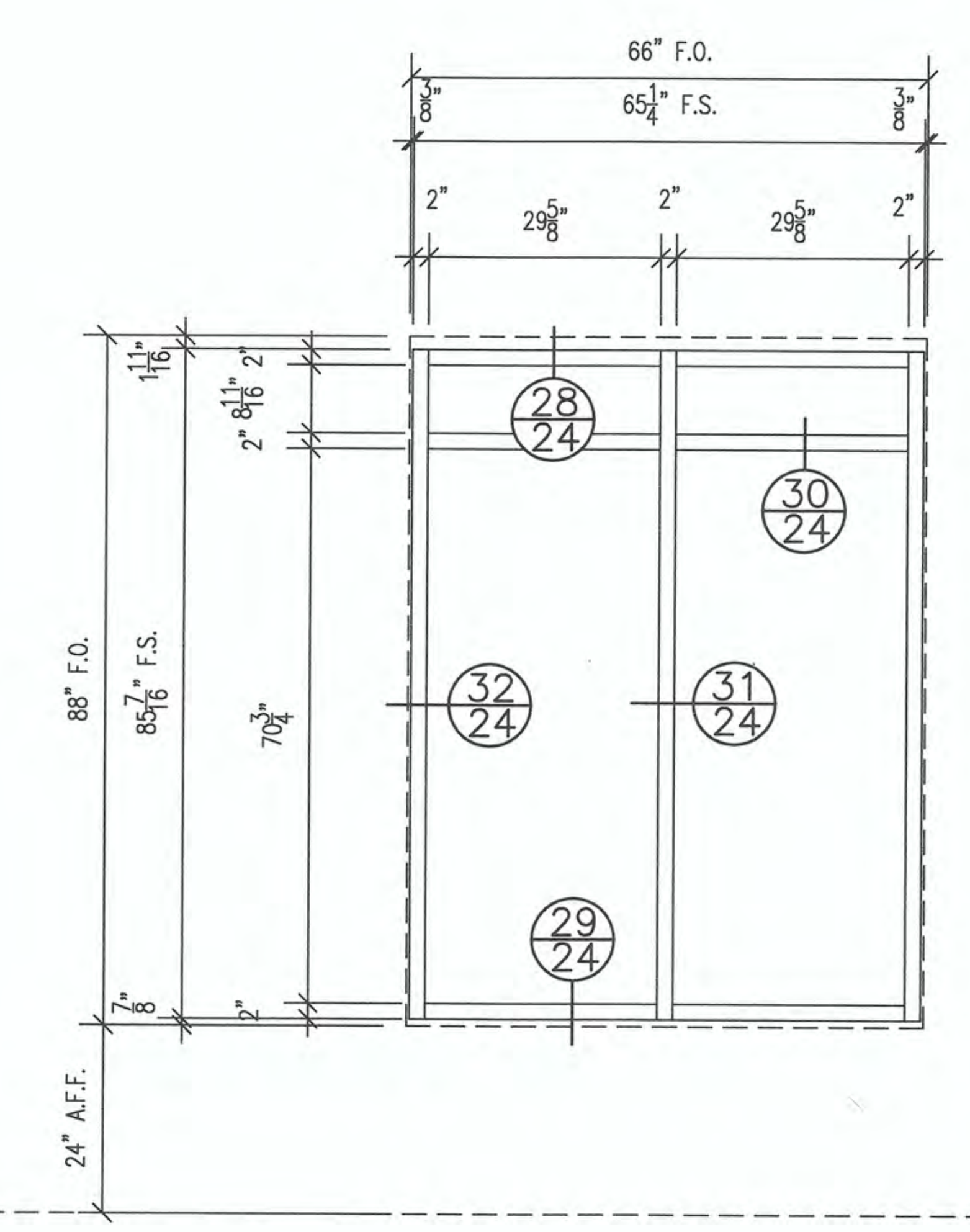
ELEVATION SF1D
SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN



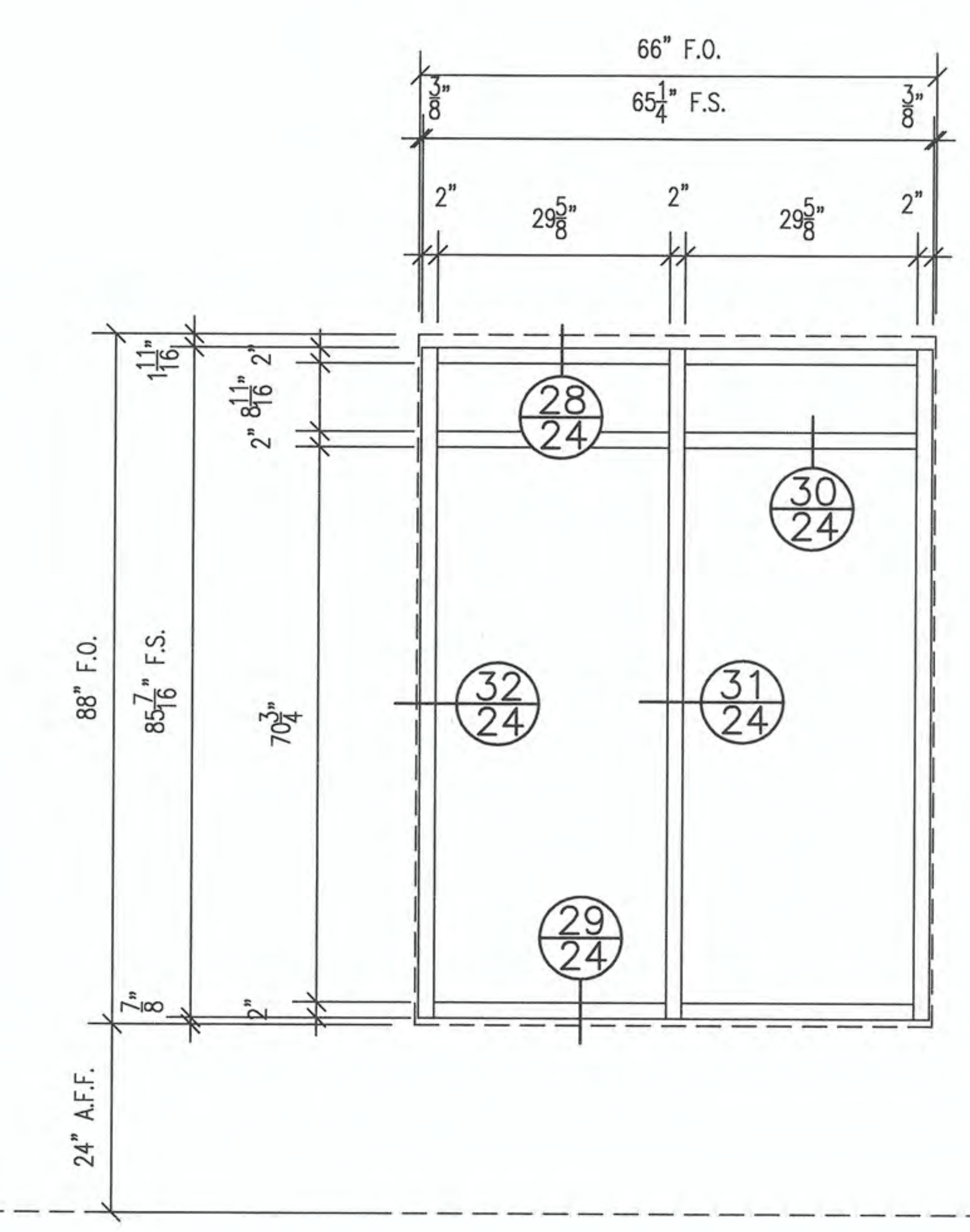
ELEVATION SF2A
SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN



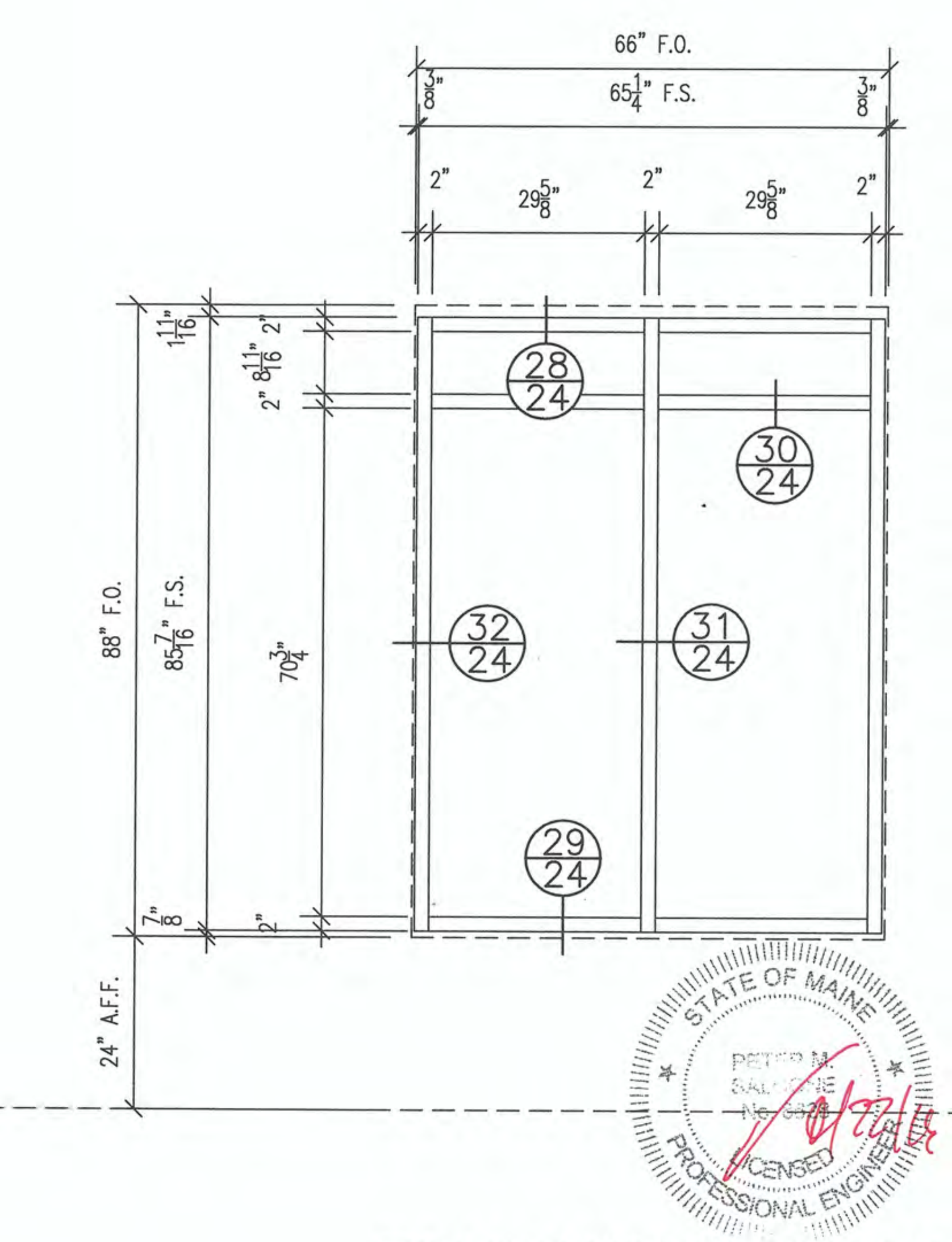
ELEVATION SF2B
SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN



ELEVATION SF2C
SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN



ELEVATION SF2D
SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN



ELEVATION SF2E
SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN

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JOB NAME: THE PARK DANFORTH
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS
CONTRACTOR:
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SCALE: AS NOTED
DRAWN BY: W. PEASE
SHEET NUMBER 8 OF 33

PG PORTLAND GLASS
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PG Portland Glass.

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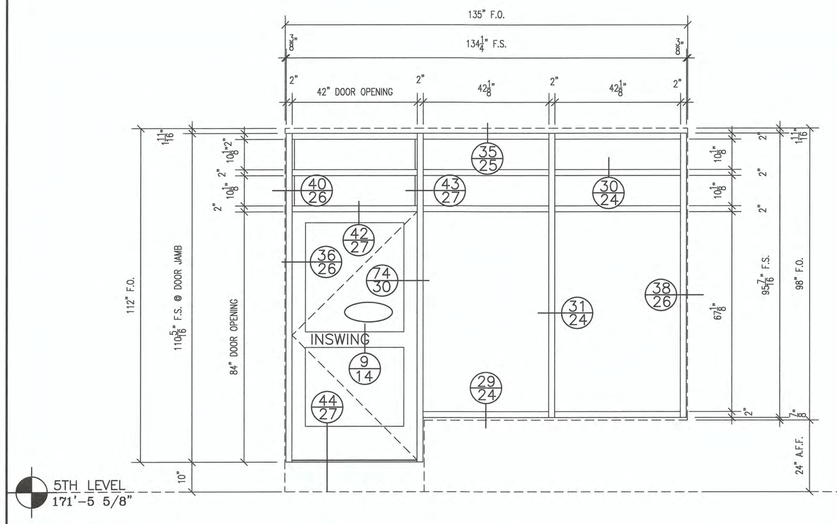
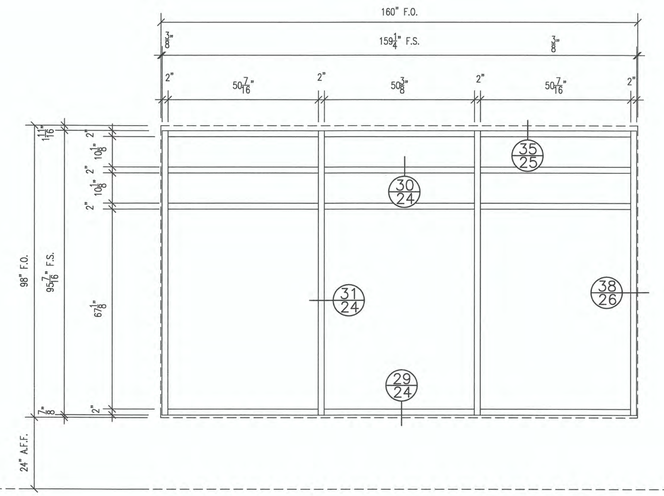


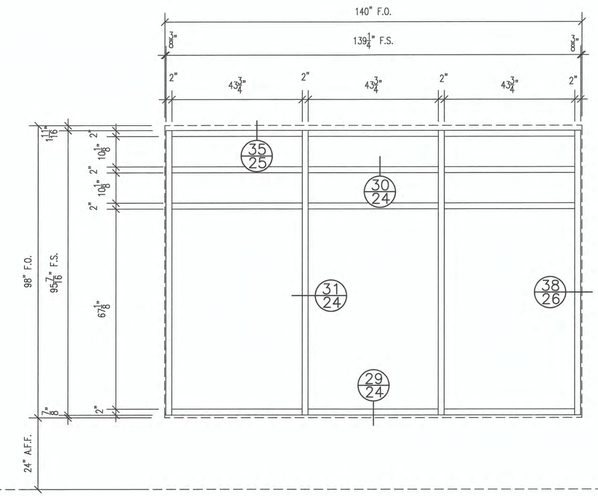
ELEVATION SF5

SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN



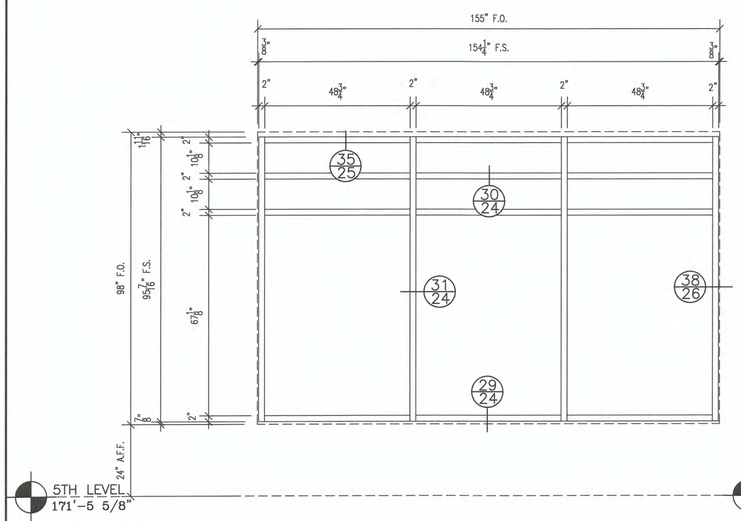
ELEVATION SF6

SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN



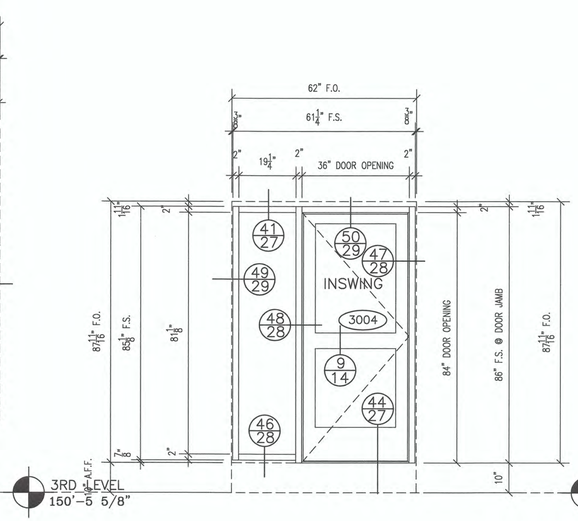
ELEVATION SF7

SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN



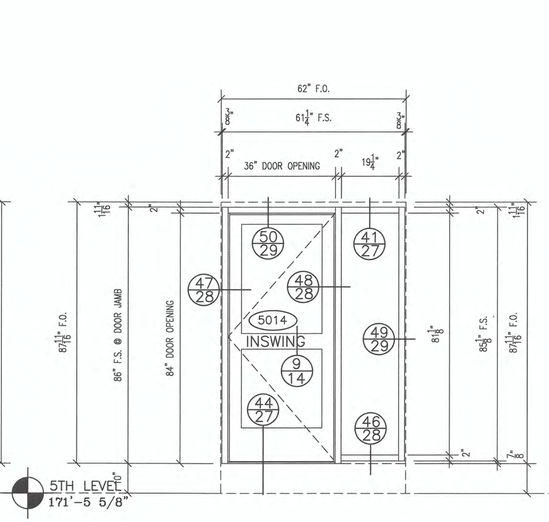
ELEVATION SF8

SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN



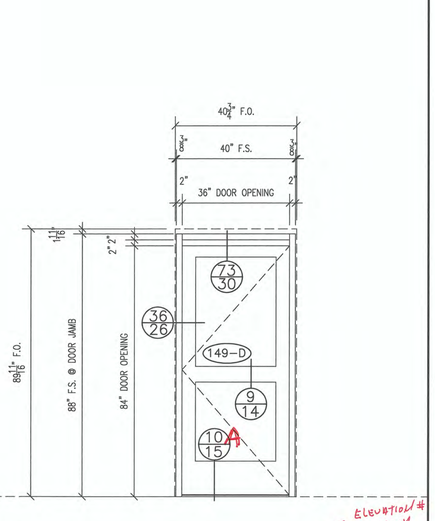
ELEVATION SF9A

SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN



ELEVATION SF9B

SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN



ELEVATION 149 IS ALSO SHOWN ON SHEET 11

ELEVATION 149-D

SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN

STATE OF MAINE — LICENSED PROFESSIONAL ENGINEER

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102
PHONE: 207-774-9851
FAX: 207-774-9855

PG Portland Glass.

LAST REVISED: 2/25/16

JOB NAME: THE PARK DANFORTH

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
DIM.– DIMENSION
℄– CENTER LINE
F.S.– FRAME SIZE
W.S.– WINDOW SIZE
REQ'D– REQUIRED
CLR.– CLEAR
B.O.S.– BOTTOM OF STEEL
T.O.S.– TOP OF STEEL
NTS – NOT TO SCALE

SYMBOLS:

ELEVATION NUMBER / SHEET NUMBER

DETAIL NUMBER / SHEET NUMBER

REVISIONS:

NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
1			7		
2			8		
3			9		
4			10		
5			11		
6			12		

JOB NAME: THE PARK DANFORTH
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS
CONTRACTOR:

DATE: 2/25/16
SCALE: AS NOTED
DRAWN BY: W. PEASE

SHEET NUMBER 9 OF 33

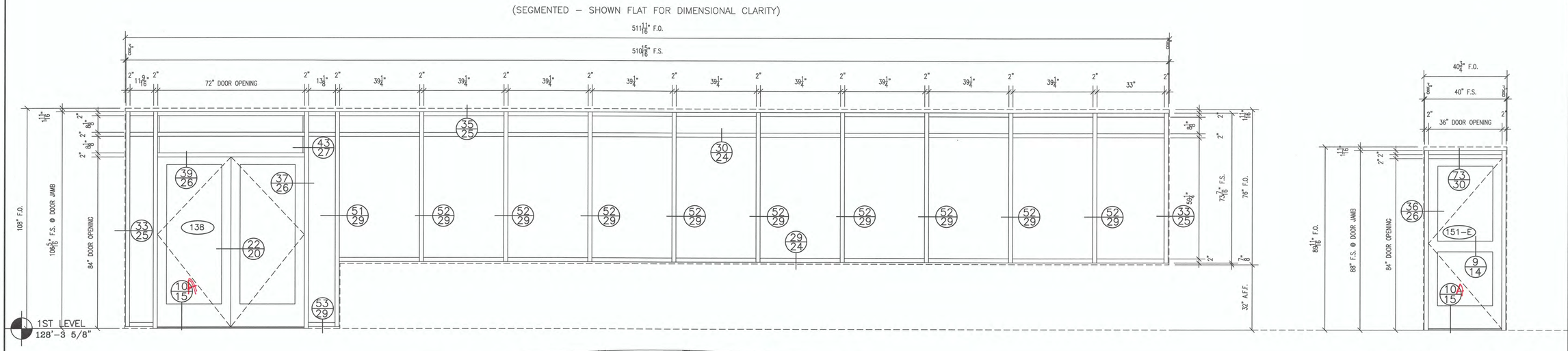
PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102
PHONE: 207.774.9851
FAX: 207.774.9855

PG Portland Glass.

LAST REVISED: 2/25/16

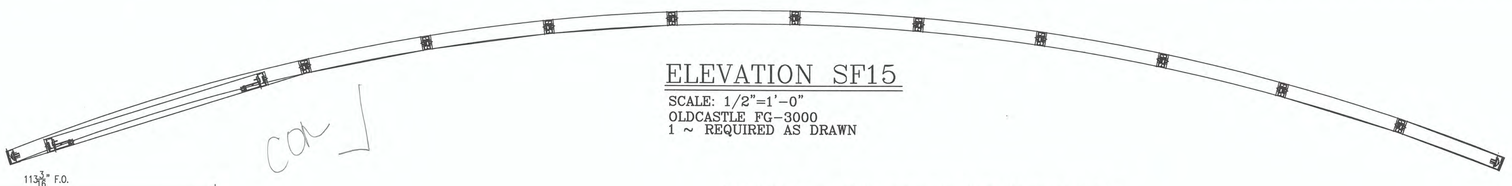
JOB NAME: THE PARK DANFORTH

(SEGMENTED – SHOWN FLAT FOR DIMENSIONAL CLARITY)

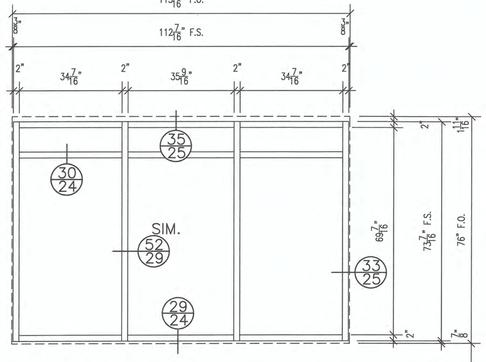


ELEVATION SF15

SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN



(SEGMENTED – SHOWN FLAT FOR DIMENSIONAL CLARITY)

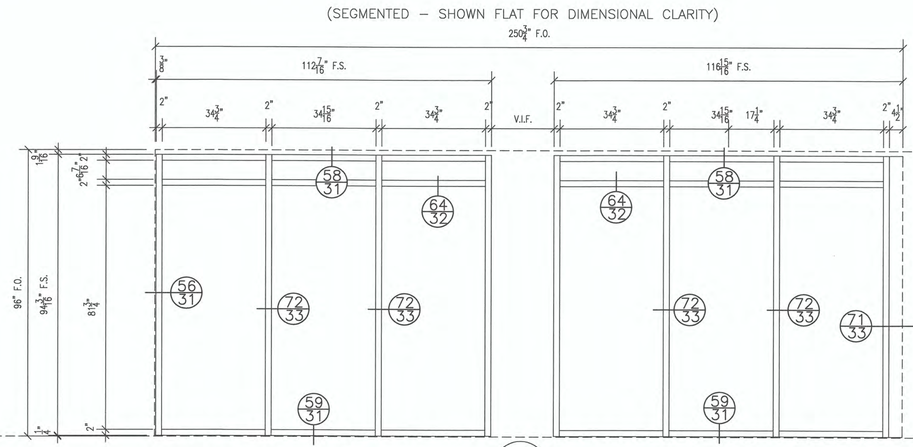


(SEGMENTED – SHOWN FLAT FOR DIMENSIONAL CLARITY)

ELEVATION SF16A

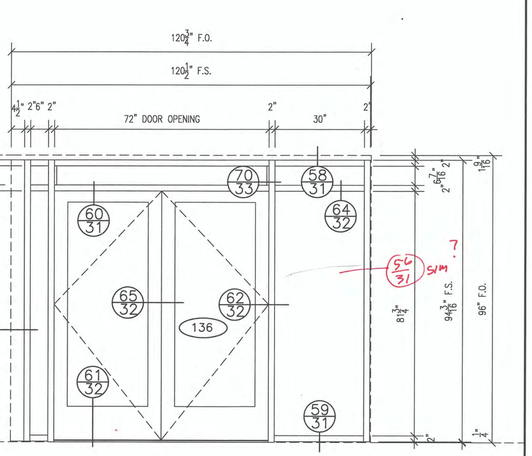
SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN

(SEGMENTED – SHOWN FLAT FOR DIMENSIONAL CLARITY)



ELEVATION SF19

SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000 w/ 1/4" ADAPTER
1 ~ REQUIRED AS DRAWN



ELEVATION SF20

SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000 w/ 1/4" ADAPTER
1 ~ REQUIRED AS DRAWN

ELEVATION 151-E

SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN

STATE OF MAINE — PETER M. [illegible] No. [illegible] LICENSED PROFESSIONAL ENGINEER

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
DIM.– DIMENSION
℄– CENTER LINE
F.S.– FRAME SIZE
W.S.– WINDOW SIZE
REQ'D– REQUIRED
CLR.– CLEAR
B.O.S.– BOTTOM OF STEEL
T.O.S.– TOP OF STEEL
NTS – NOT TO SCALE

SYMBOLS:

ELEVATION NUMBER / SHEET NUMBER

DETAIL NUMBER / SHEET NUMBER

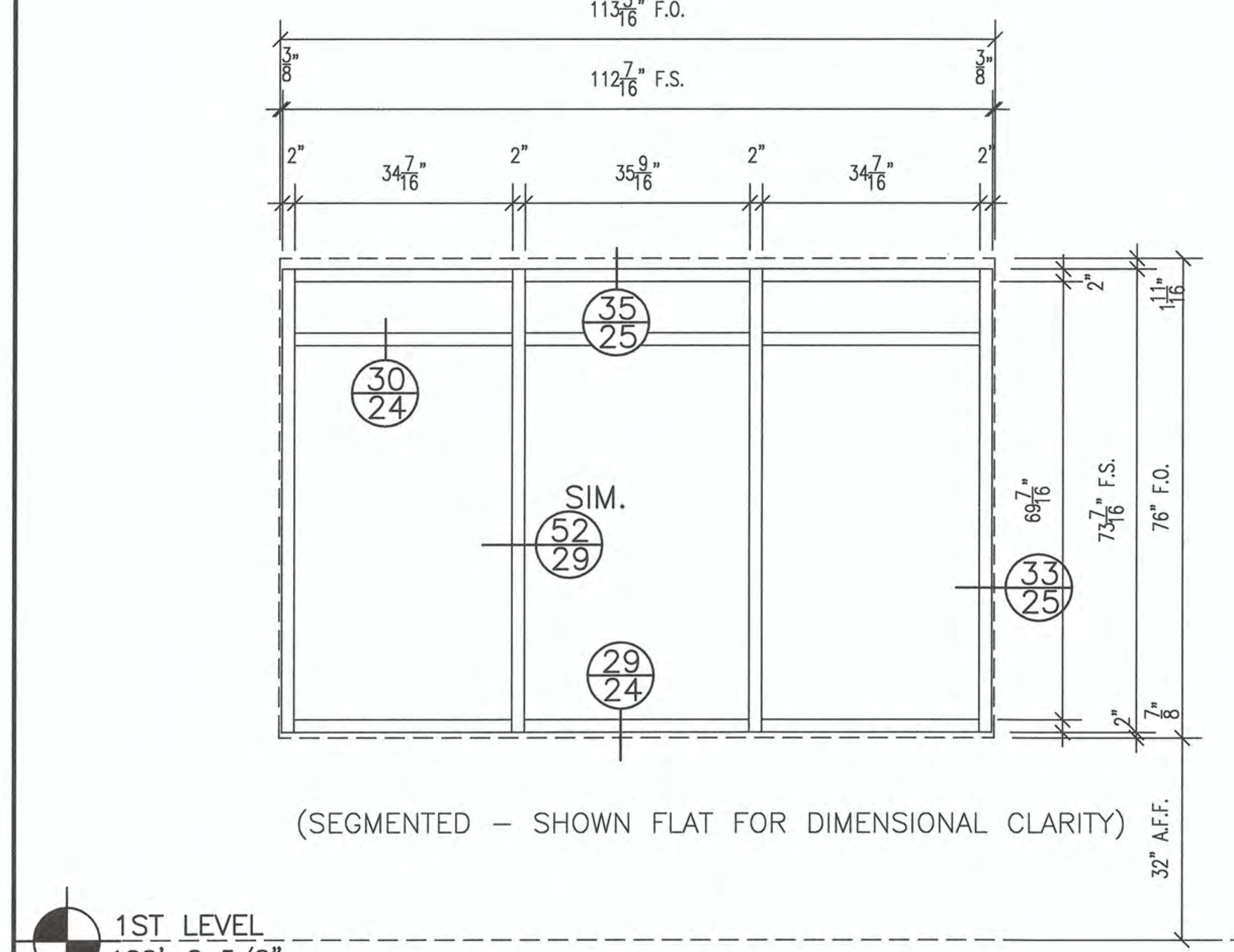
REVISIONS:

NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
1			7		
2			8		
3			9		
4			10		
5			11		
6			12		

JOB NAME: THE PARK DANFORTH
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS
CONTRACTOR:

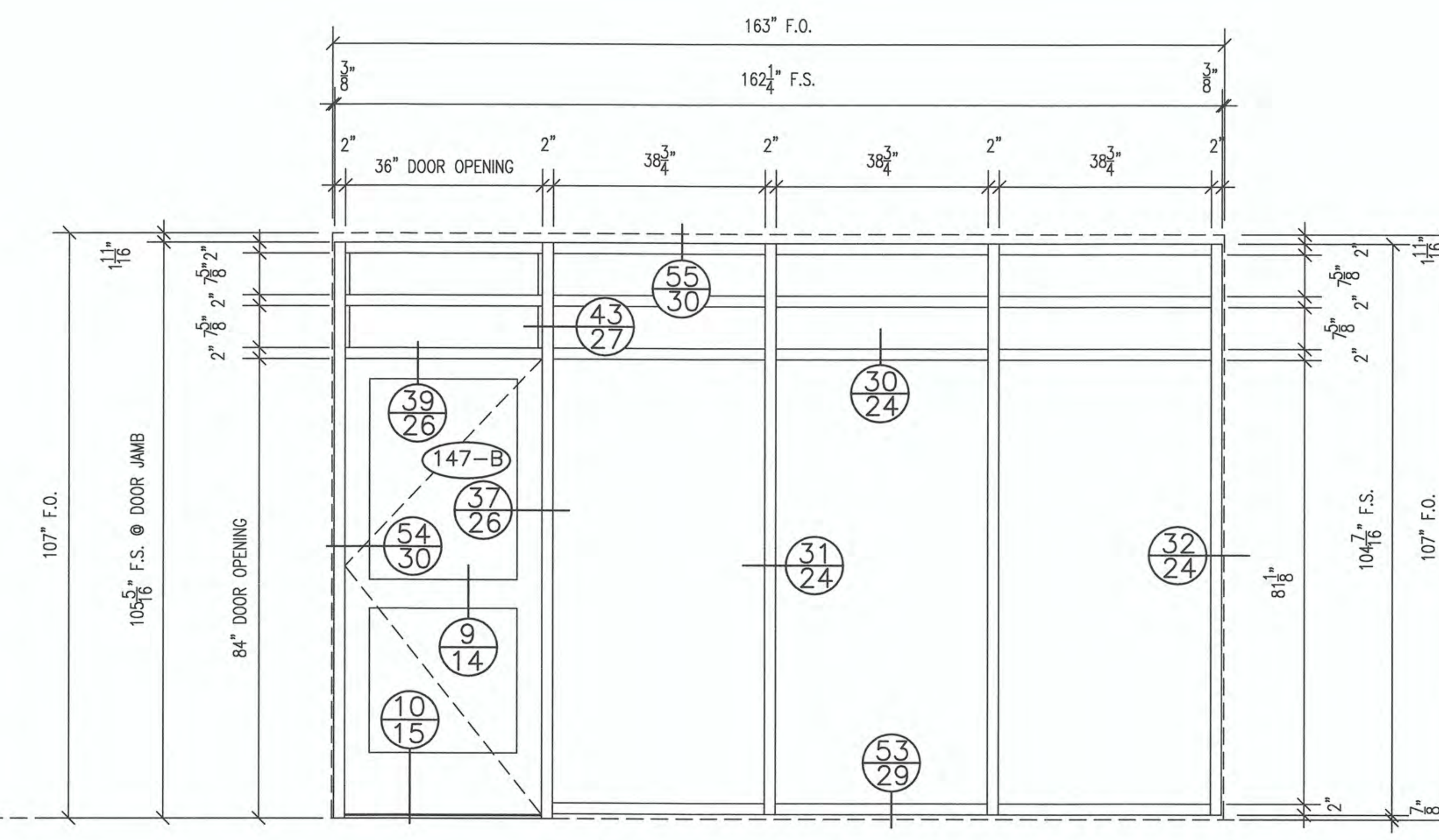
DATE: 2/25/16
SCALE: AS NOTED
DRAWN BY: W. PEASE

SHEET NUMBER 10 OF 33



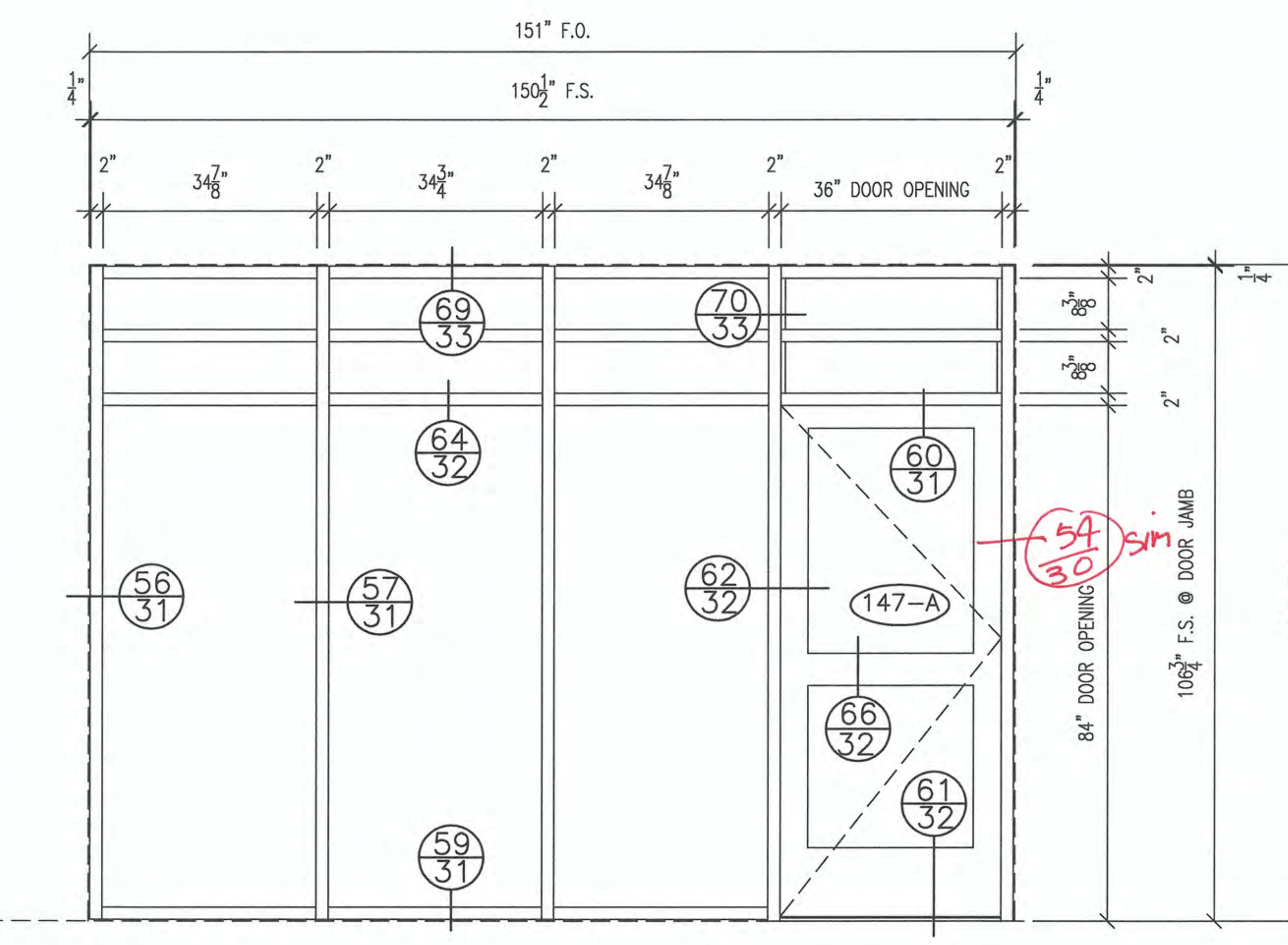
ELEVATION SF16B

SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN



ELEVATION SF17

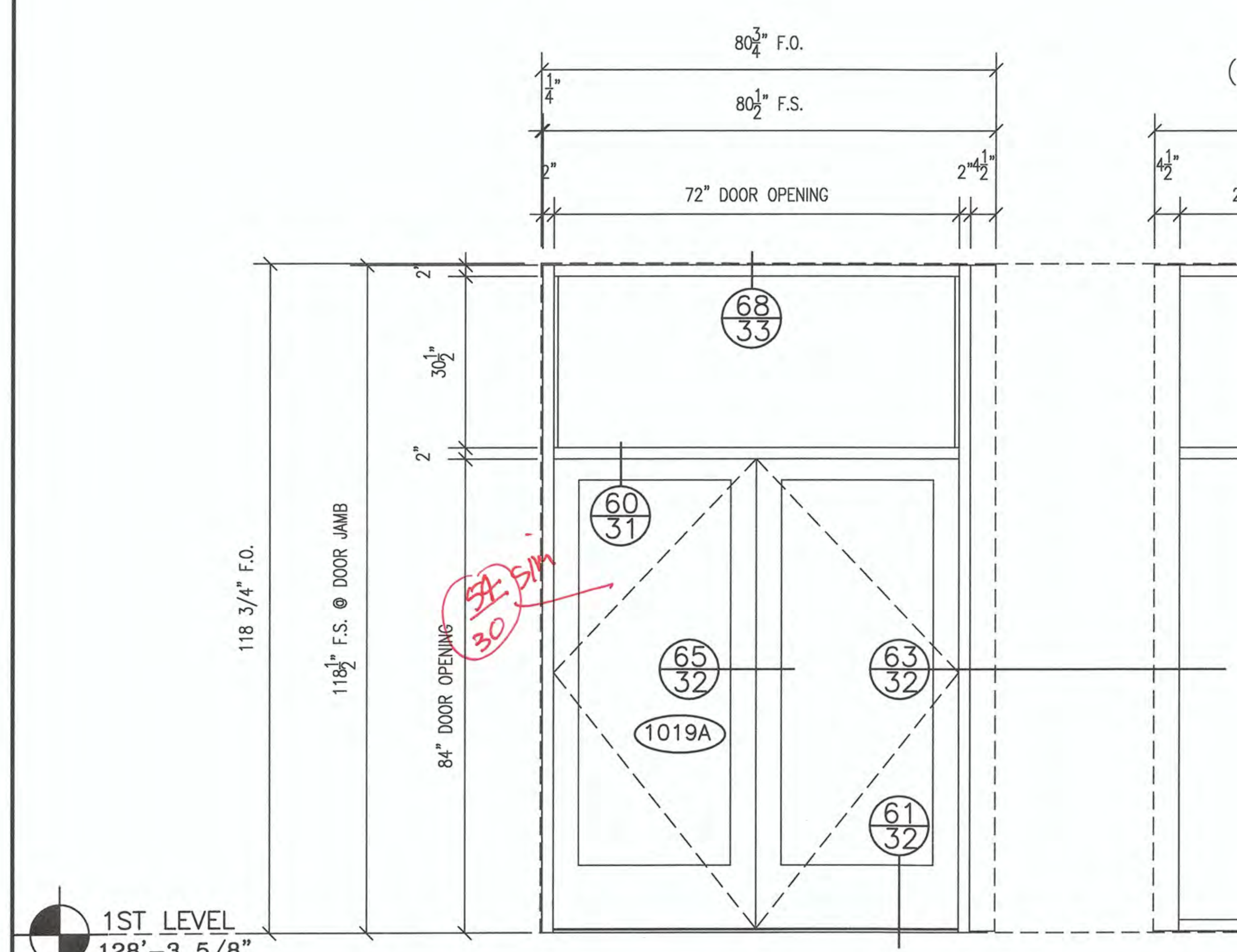
SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN

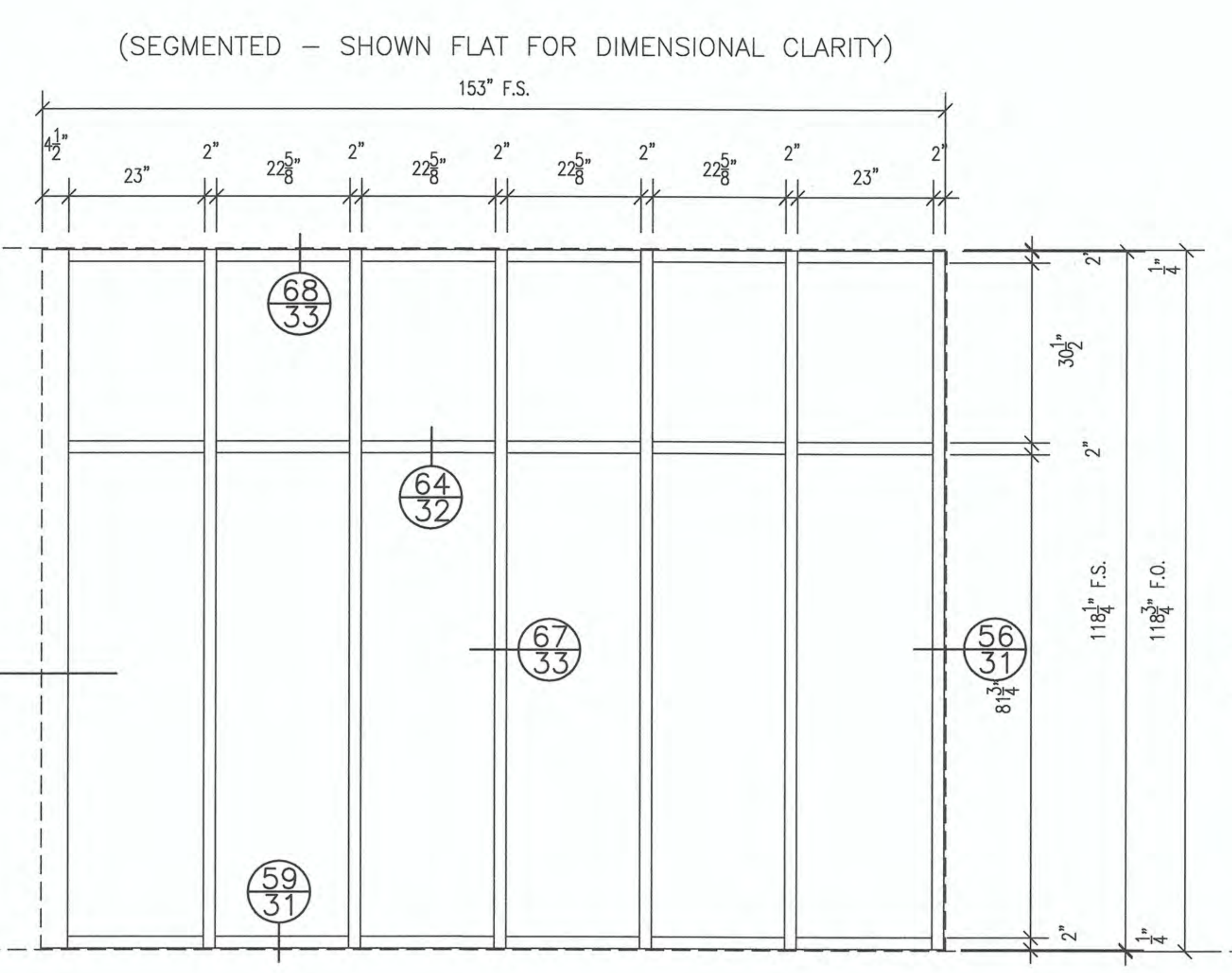


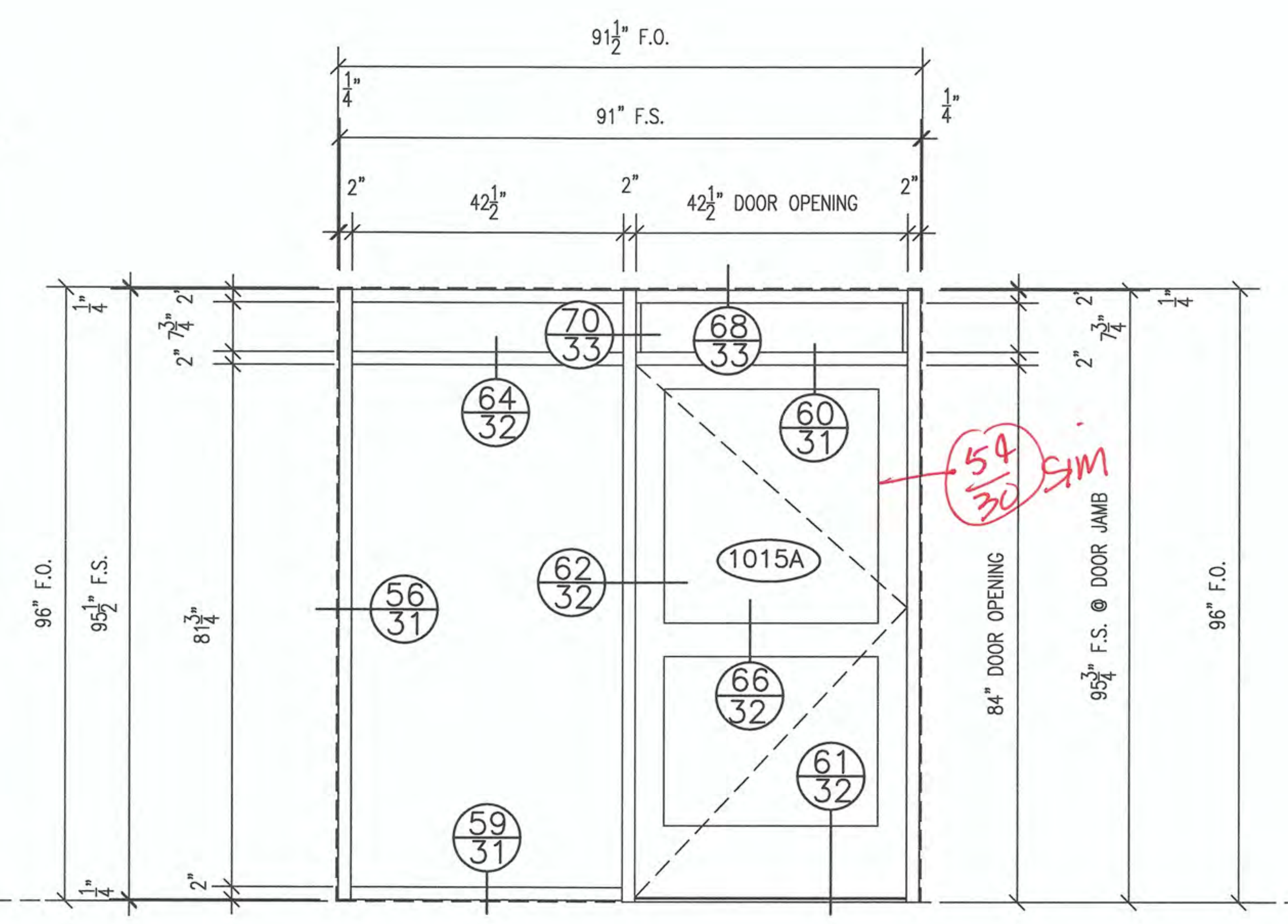
ELEVATION SF18

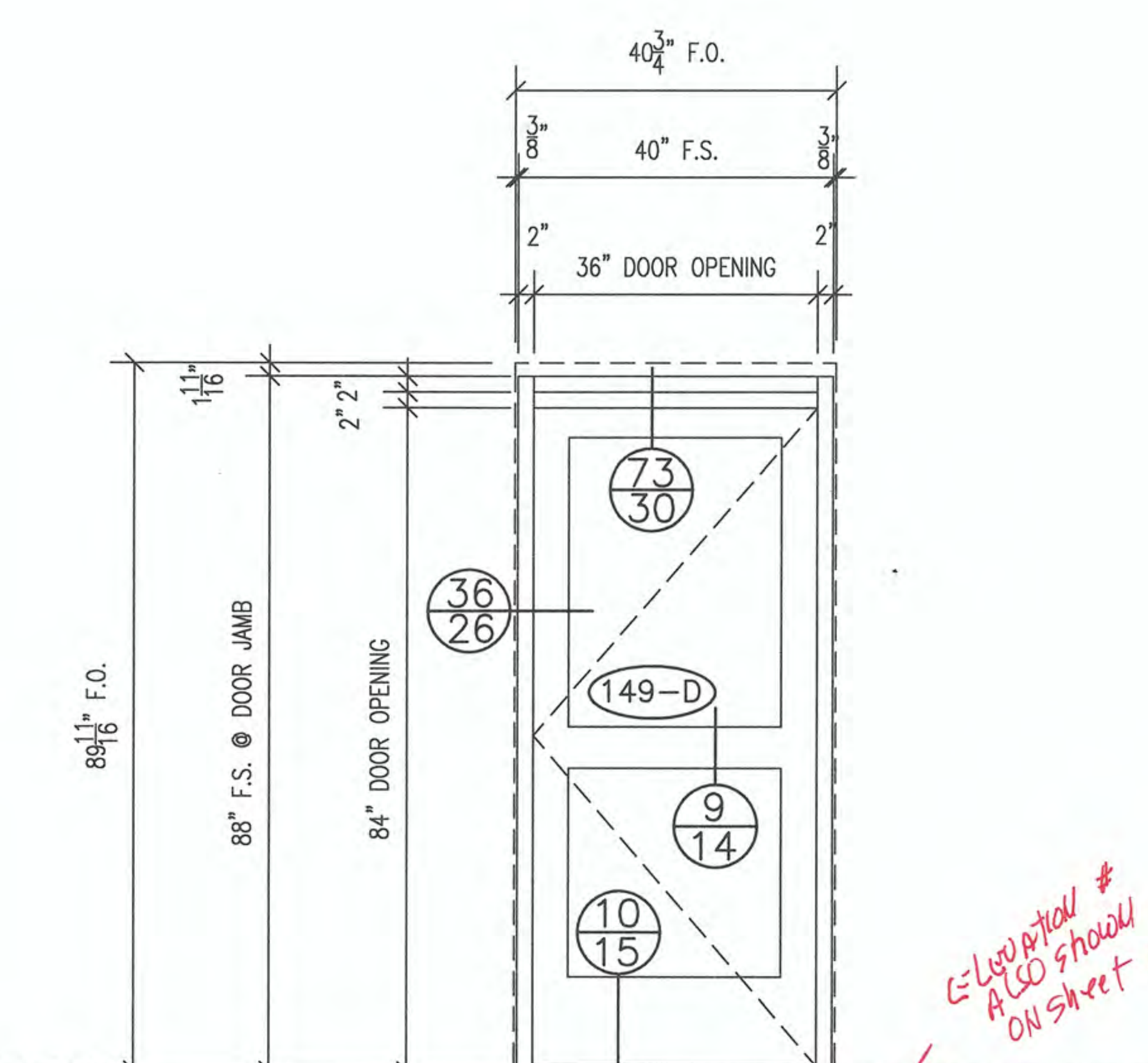
INT.

SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000 w/ 1/4" ADAPTER
1 ~ REQUIRED AS DRAWN









ELEVATION SF11

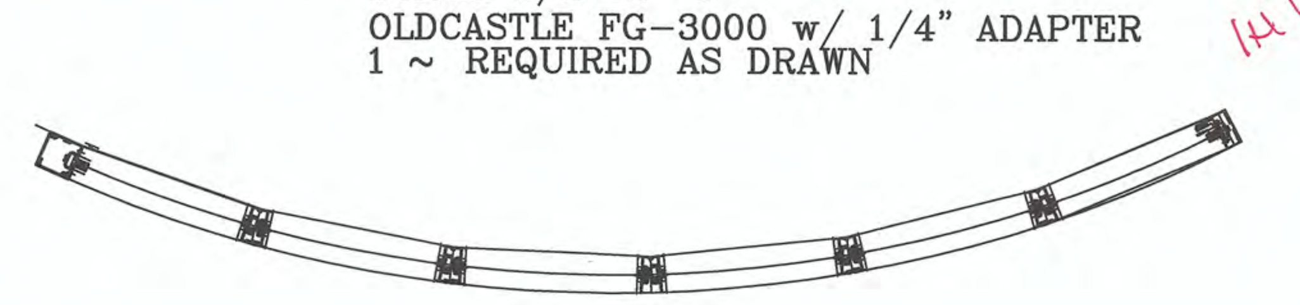
INT

SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000 w/ 1/4" ADAPTER
1 ~ REQUIRED AS DRAWN

ELEVATION SF10

INT.

SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000 w/ 1/4" ADAPTER
1 ~ REQUIRED AS DRAWN



ELEVATION SF12

INT.

SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000 w/ 1/4" ADAPTER
1 ~ REQUIRED AS DRAWN

ELEVATION 149-D

SCALE: 1/2"=1'-0"
OLDCASTLE FG-3000
1 ~ REQUIRED AS DRAWN

STATE OF MAINE — LICENSED PROFESSIONAL ENGINEER (stamp)

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
DIM.– DIMENSION
℄– CENTER LINE
F.S.– FRAME SIZE
W.S.– WINDOW SIZE
REQ'D– REQUIRED
CLR.– CLEAR
B.O.S.– BOTTOM OF STEEL
T.O.S.– TOP OF STEEL
NTS – NOT TO SCALE

SYMBOLS:

ELEVATION NUMBER / SHEET NUMBER
DETAIL NUMBER / SHEET NUMBER

REVISIONS:

NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
1			7		
2			8		
3			9		
4			10		
5			11		
6			12		

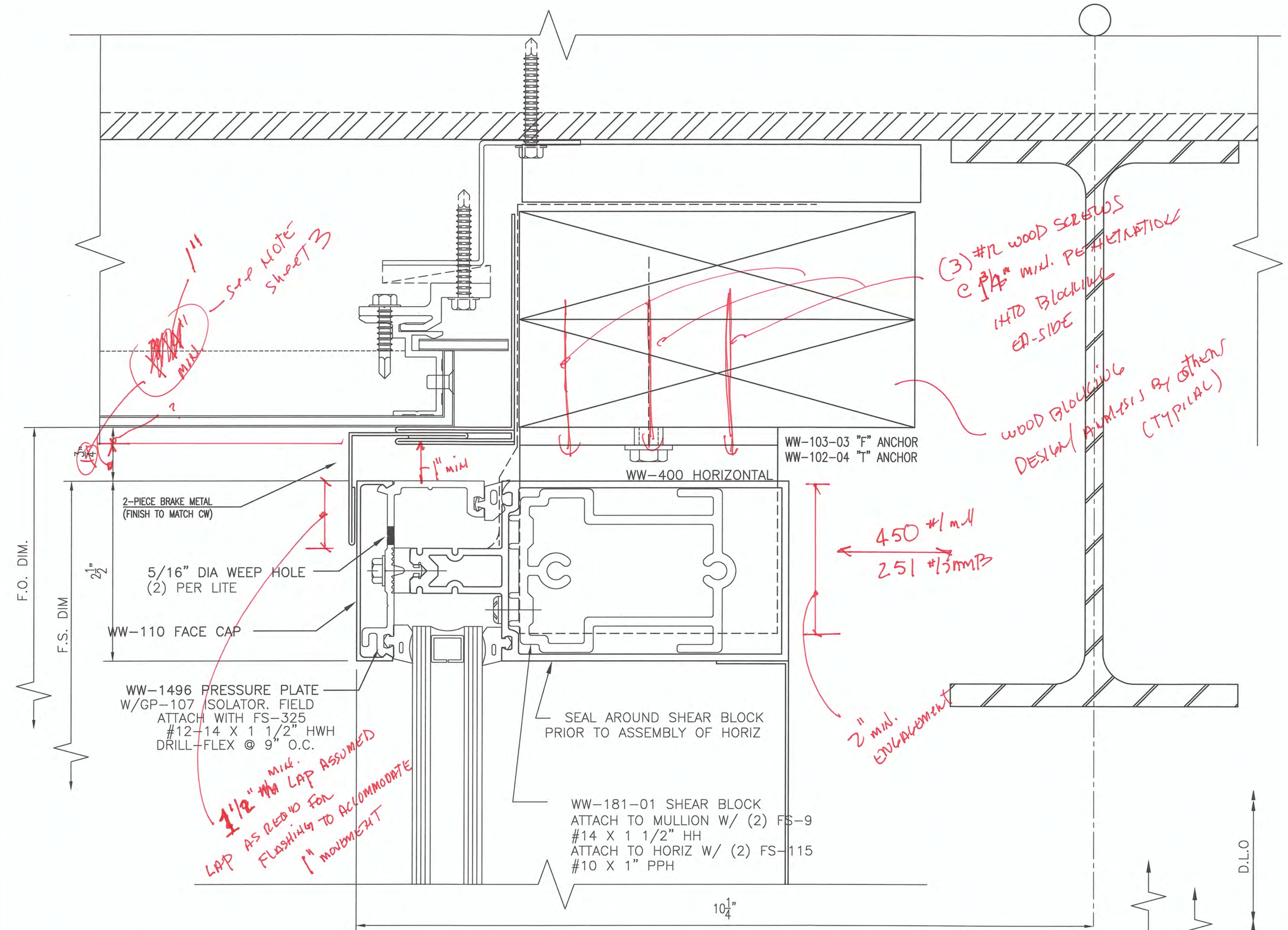
JOB NAME: THE PARK DANFORTH
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS
CONTRACTOR:
DATE: 2/25/16
SCALE: AS NOTED
DRAWN BY: W. PEASE
SHEET NUMBER 11 OF 33

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102
PHONE: 207-774-9851
FAX: 207-774-9855

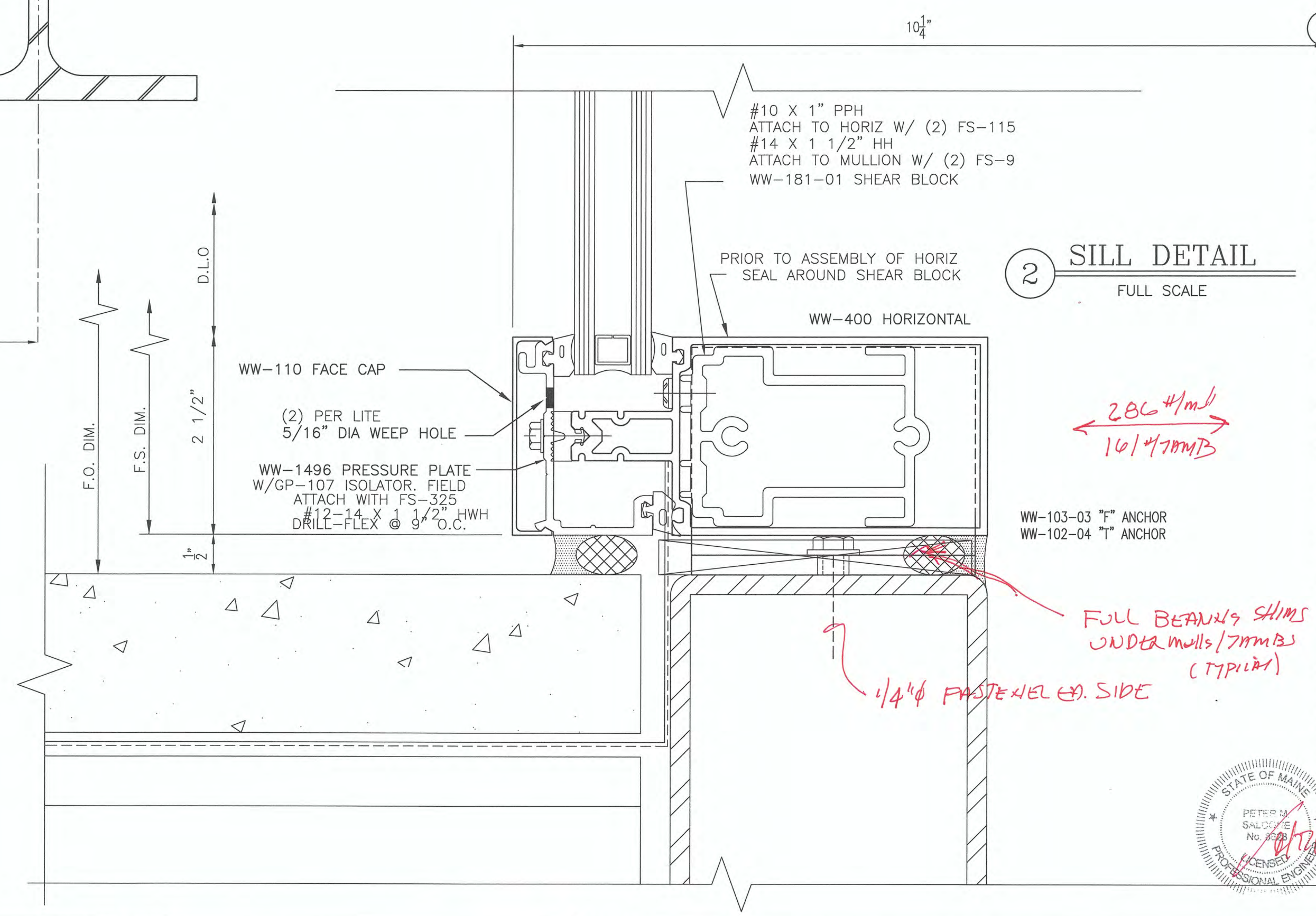
PG Portland Glass.

LAST REVISED: 2/25/16

JOB NAME: THE PARK DANFORTH



1 HEAD DETAIL
FULL SCALE



2 SILL DETAIL
FULL SCALE

STATE OF MAINE
PETER M. SALCOSTE
LICENSED PROFESSIONAL ENGINEER

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102

PHONE: 207-774-9851
FAX: 207-774-9855

LAST REVISED: 2/25/16

PG Portland Glass.

JOB NAME: THE PARK DANFORTH

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
– DIMENSION
– CENTER LINE
F.S.– FRAME SIZE
W.S.– WINDOW SIZE
REQ'D– REQUIRED
CLR.– CLEAR
B.O.S.– BOTTOM OF STEEL
T.O.S.– TOP OF STEEL
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SYMBOLS:

ELEVATION NUMBER / SHEET NUMBER

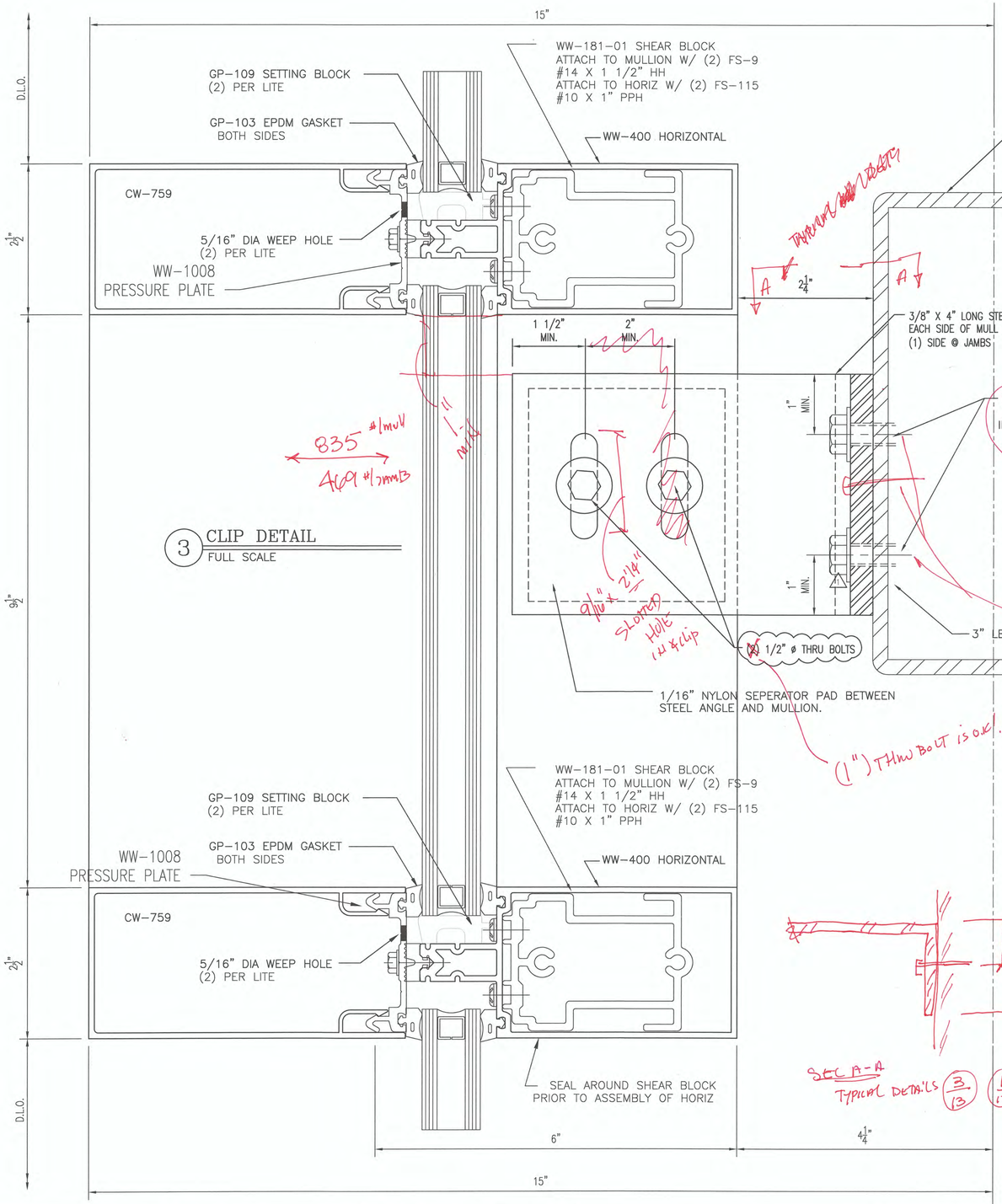
DETAIL NUMBER / SHEET NUMBER

REVISIONS:

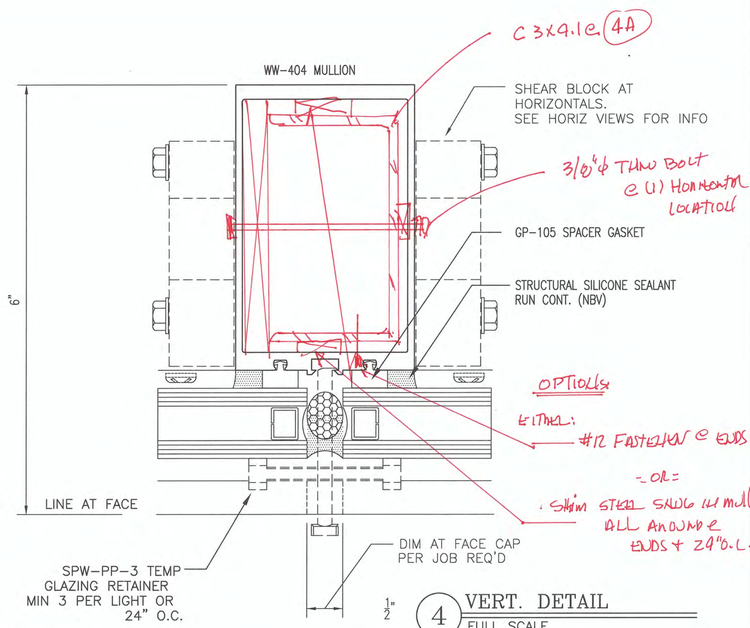
NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
1			7		
2			8		
3			9		
4			10		
5			11		
6			12		

JOB NAME: THE PARK DANFORTH	DATE: 2/25/16
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS	SCALE: AS NOTED
CONTRACTOR:	DRAWN BY: W. PEASE

SHEET NUMBER
12 OF 33



3 CLIP DETAIL
FULL SCALE



4 VERT. DETAIL
FULL SCALE

5 VERT. DETAIL
FULL SCALE

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102
PHONE: 207-774-9851
FAX: 207-774-9855

LAST REVISED: 2/25/16

PG Portland Glass.

JOB NAME: THE PARK DANFORTH

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
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W.S.– WINDOW SIZE
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B.O.S.– BOTTOM OF STEEL
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SYMBOLS:

ELEVATION NUMBER / SHEET NUMBER

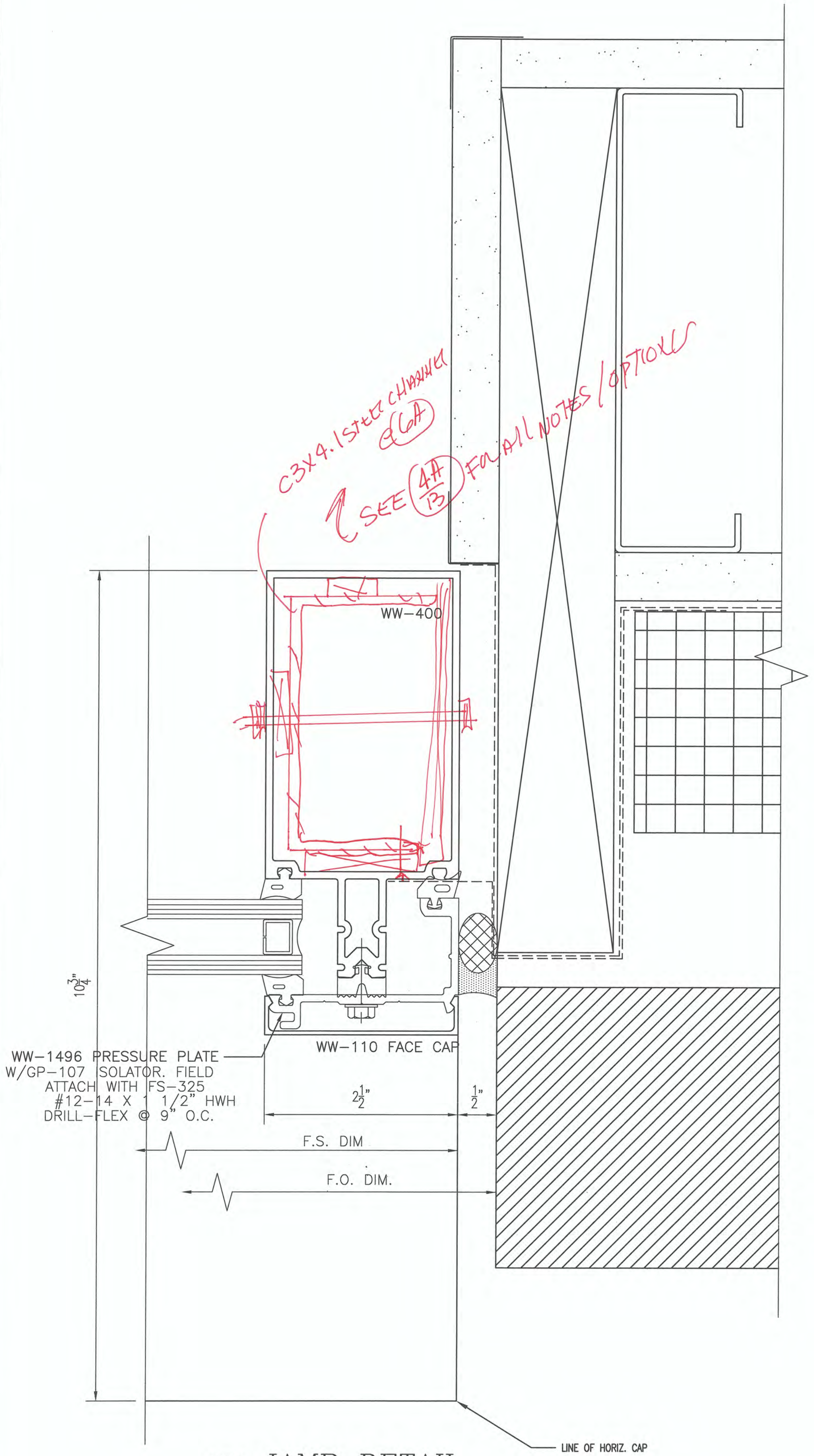
DETAIL NUMBER / SHEET NUMBER

REVISIONS:

NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
1			7		
2			8		
3			9		
4			10		
5			11		
6			12		

JOB NAME: THE PARK DANFORTH	DATE: 2/25/16
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS	SCALE: AS NOTED
CONTRACTOR:	DRAWN BY: W. PEASE

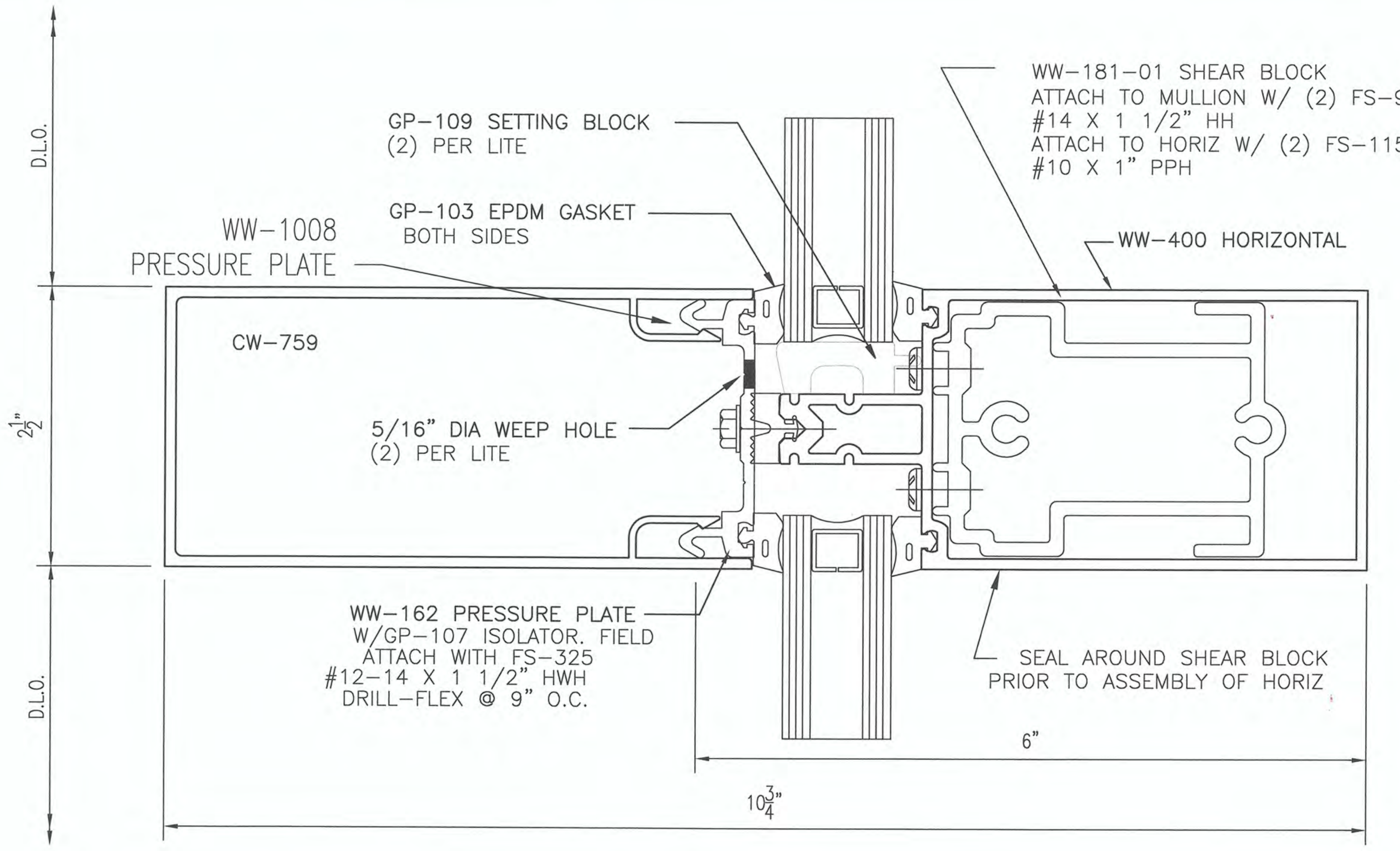
SHEET NUMBER 13 OF 33



6 JAMB DETAIL

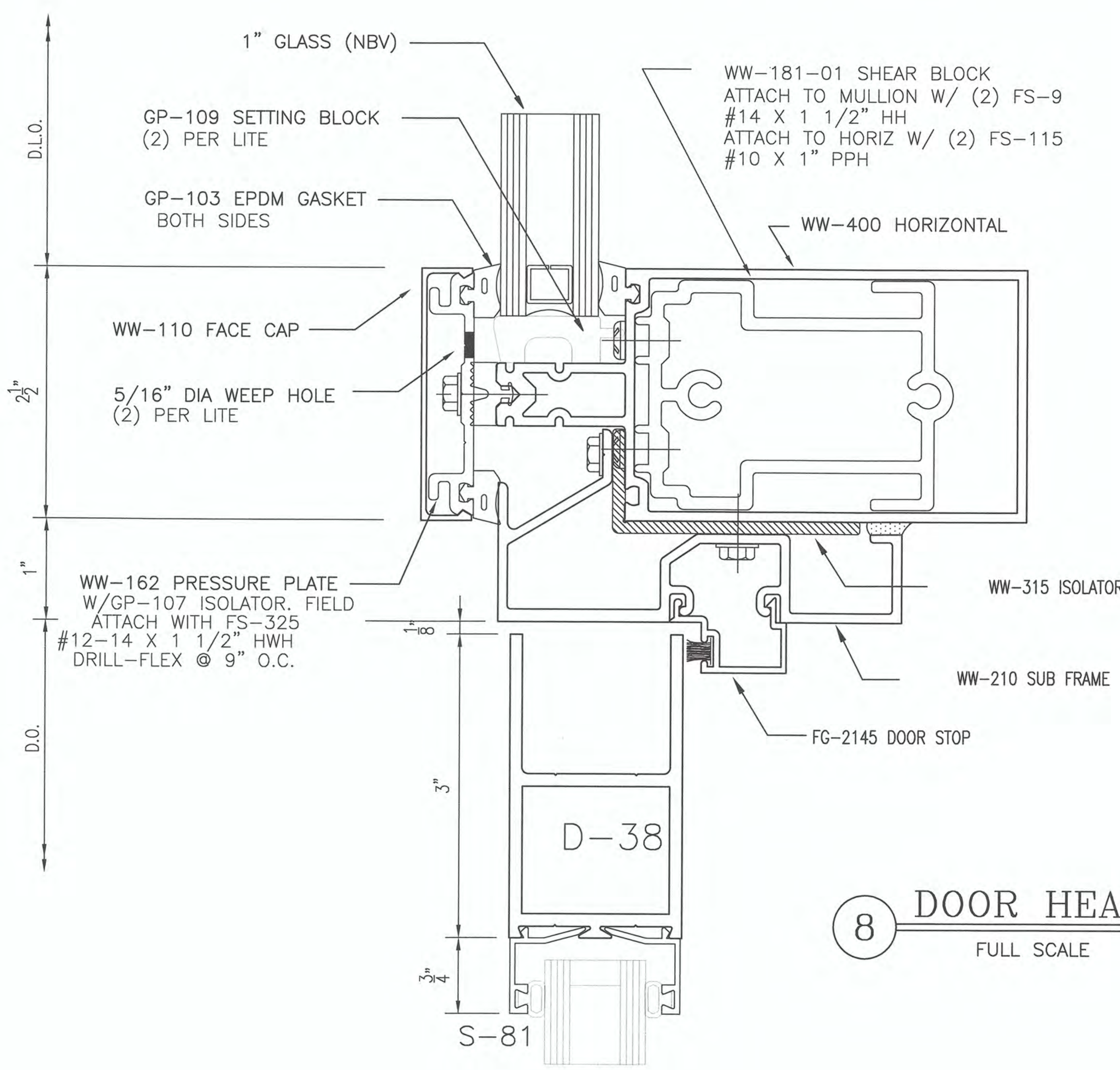
FULL SCALE

(6A) WITH C3X4.1 STEEL CHANNEL



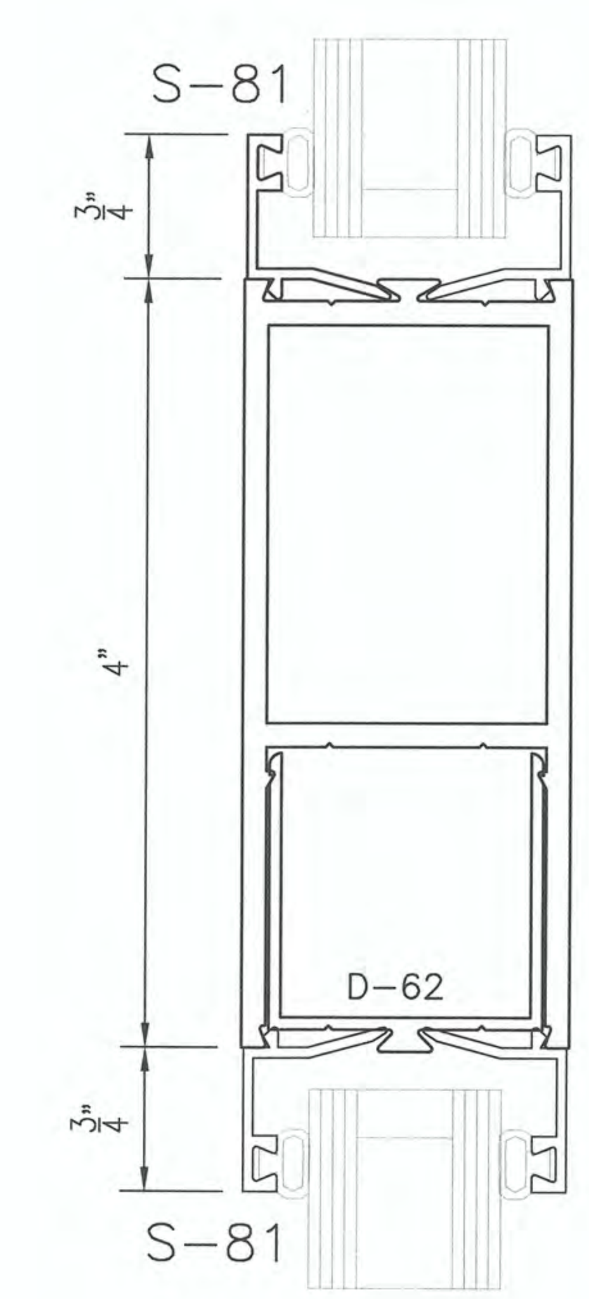
7 HORIZ. DETAIL

FULL SCALE



8 DOOR HEADER

FULL SCALE



9 MIDRAIL

FULL SCALE

STATE OF MAINE
LICENSED PROFESSIONAL ENGINEER

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
DIM.– DIMENSION
℄– CENTER LINE
F.S.– FRAME SIZE
W.S.– WINDOW SIZE
REQ'D– REQUIRED
CLR.– CLEAR
B.O.S.– BOTTOM OF STEEL
T.O.S.– TOP OF STEEL
NTS – NOT TO SCALE

SYMBOLS:

ELEVATION NUMBER / SHEET NUMBER

DETAIL NUMBER / SHEET NUMBER

REVISIONS:

NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
1			7		
2			8		
3			9		
4			10		
5			11		
6			12		

JOB NAME: THE PARK DANFORTH

ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS

CONTRACTOR:

DATE: 2/25/16

SCALE: AS NOTED

DRAWN BY: W. PEASE

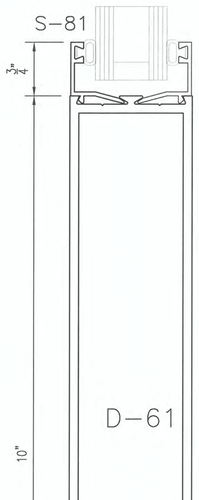
SHEET NUMBER: 14 OF 33

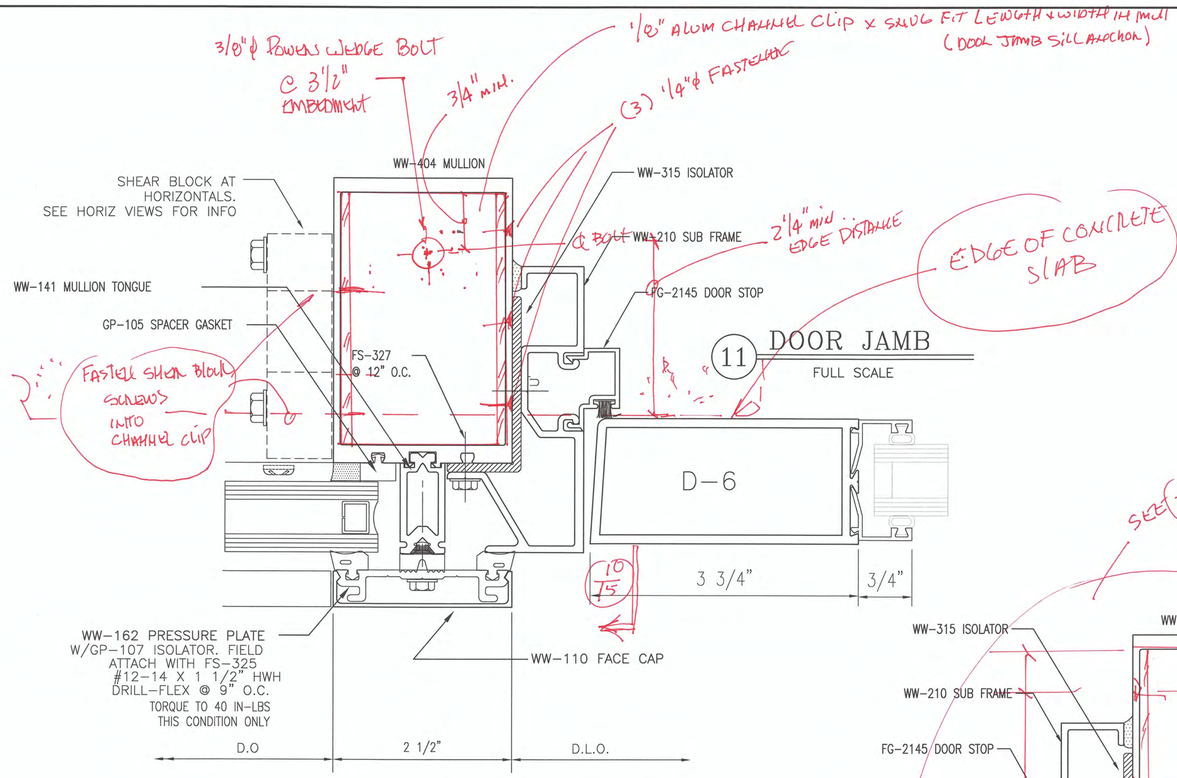
PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102
PHONE: 207-774-9851
FAX: 207-774-9855

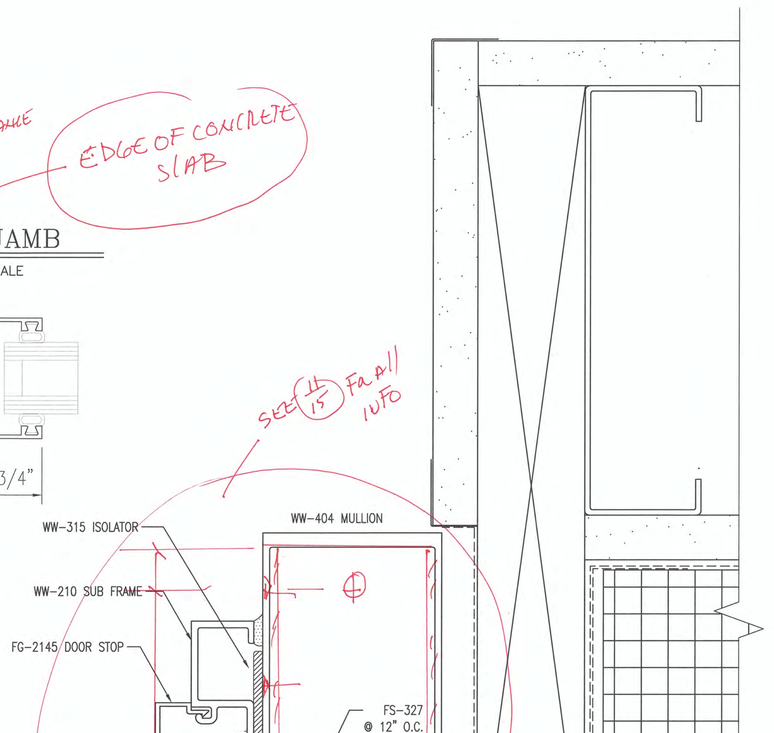
PG Portland Glass.

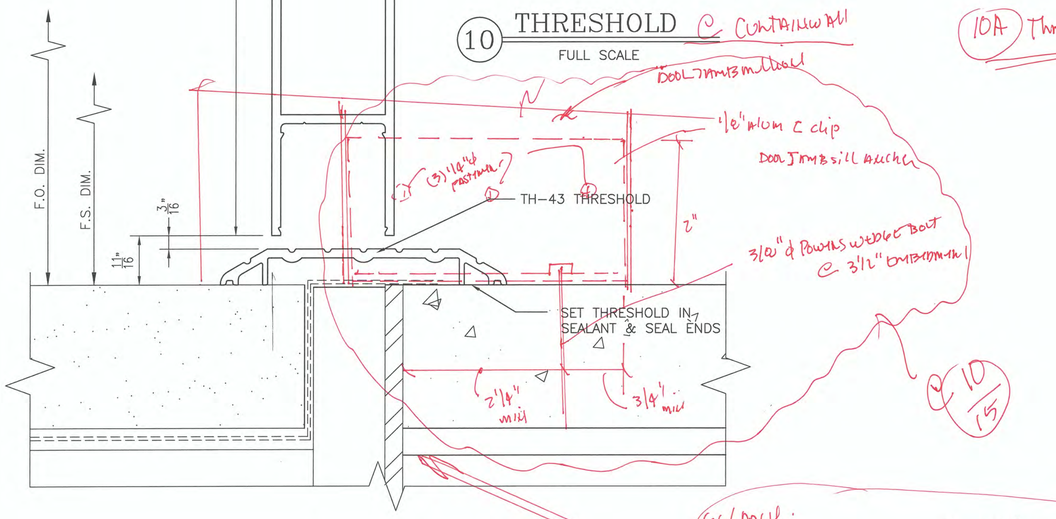
LAST REVISED: 2/25/16

JOB NAME: THE PARK DANFORTH









PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102

PHONE: 207-774-9851
FAX: 207-774-9835

PG Portland Glass.

LAST REVISED: 2/25/16

JOB NAME: THE PARK DANFORTH

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
DIM.– DIMENSION
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REQ'D– REQUIRED
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B.O.S.– BOTTOM OF STEEL
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SYMBOLS:

ELEVATION NUMBER / SHEET NUMBER

DETAIL NUMBER / SHEET NUMBER

REVISIONS:

NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
1			7		
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4			10		
5			11		
6			12		

JOB NAME: THE PARK DANFORTH
DATE: 2/25/16
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS
SCALE: AS NOTED
CONTRACTOR:
DRAWN BY: W. PEASE

SHEET NUMBER 15 OF 33

JOB NAME: THE PARK DANFORTH

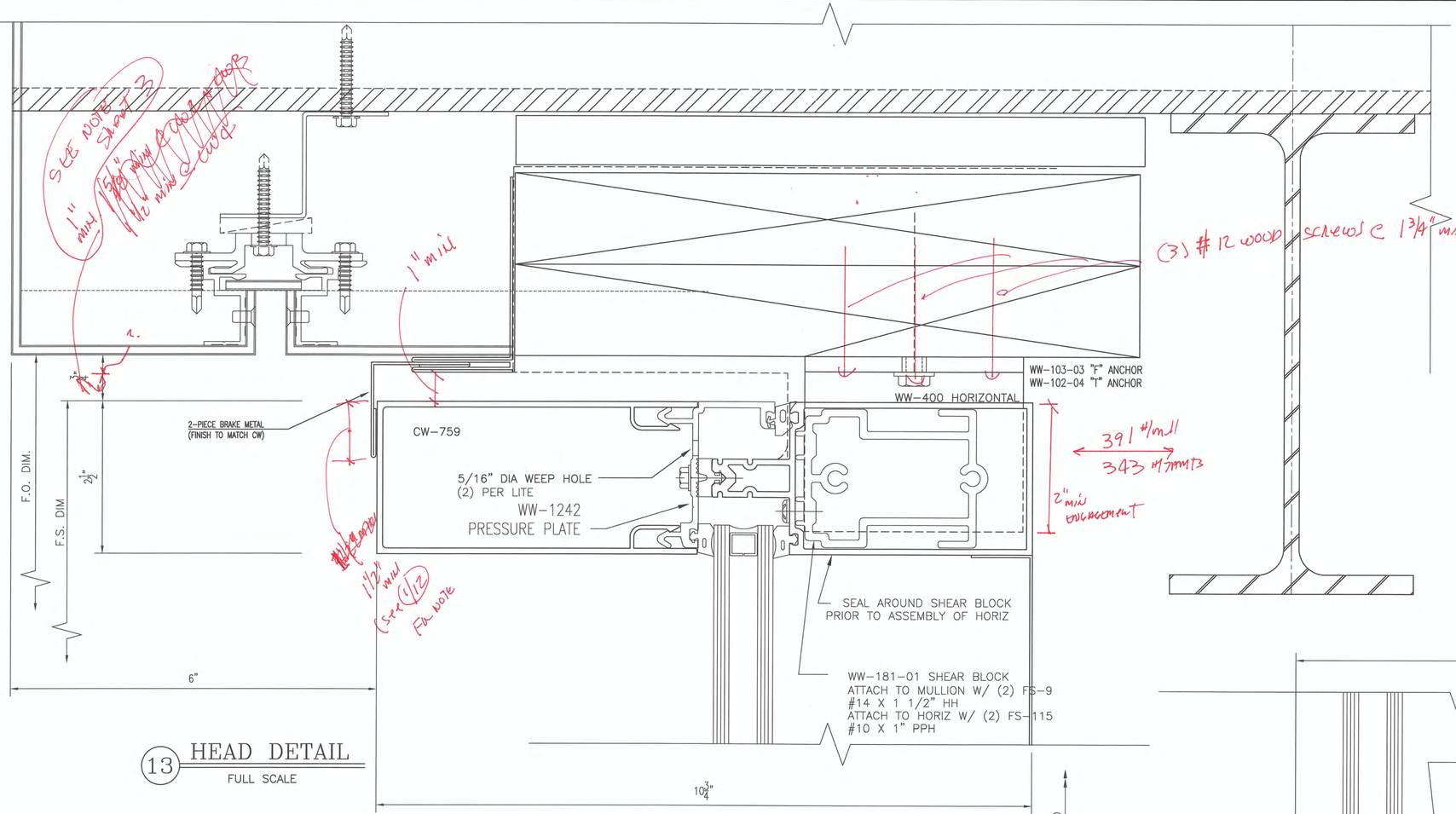
PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102

PHONE: 207-774-9851
FAX: 207-774-9855

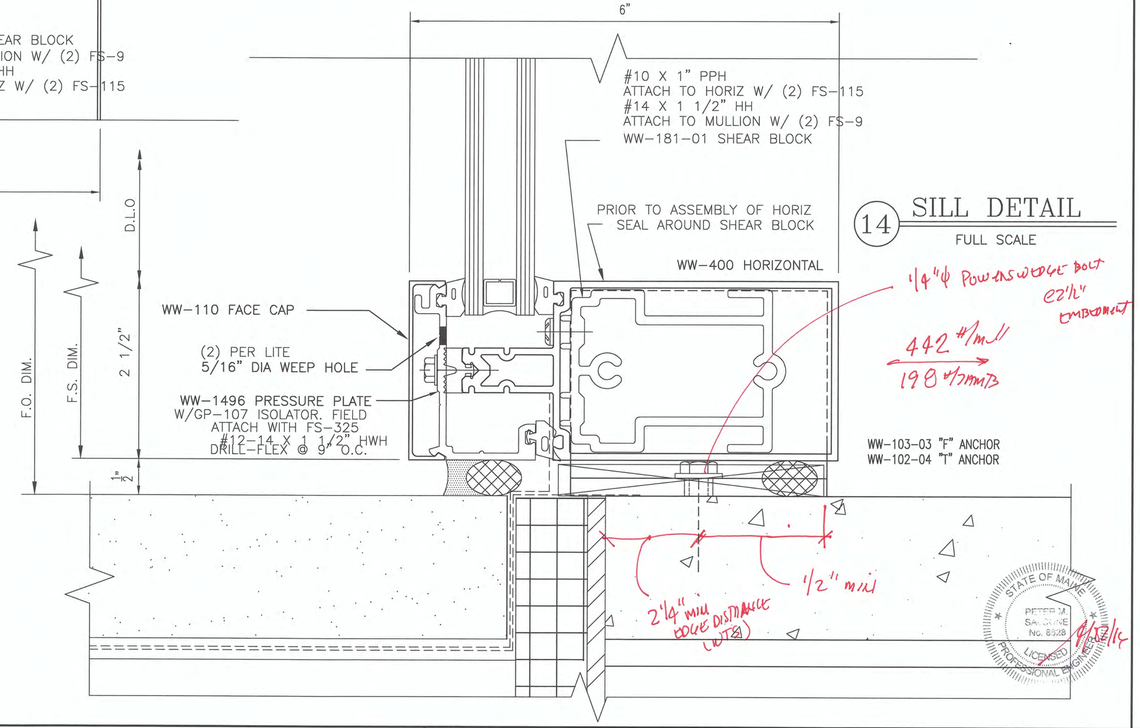
PG Portland Glass.

LAST REVISED: 2/25/16

JOB NAME: THE PARK DANFORTH



13 HEAD DETAIL
FULL SCALE



14 SILL DETAIL
FULL SCALE

STATE OF MAINE
PETER J. SALOME
No. 8328
LICENSED PROFESSIONAL ENGINEER
1/12/16

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
DIM.– DIMENSION
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F.S.– FRAME SIZE
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REQ'D– REQUIRED
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NTS – NOT TO SCALE

SYMBOLS:

ELEVATION NUMBER / SHEET NUMBER

DETAIL NUMBER / SHEET NUMBER

REVISIONS:

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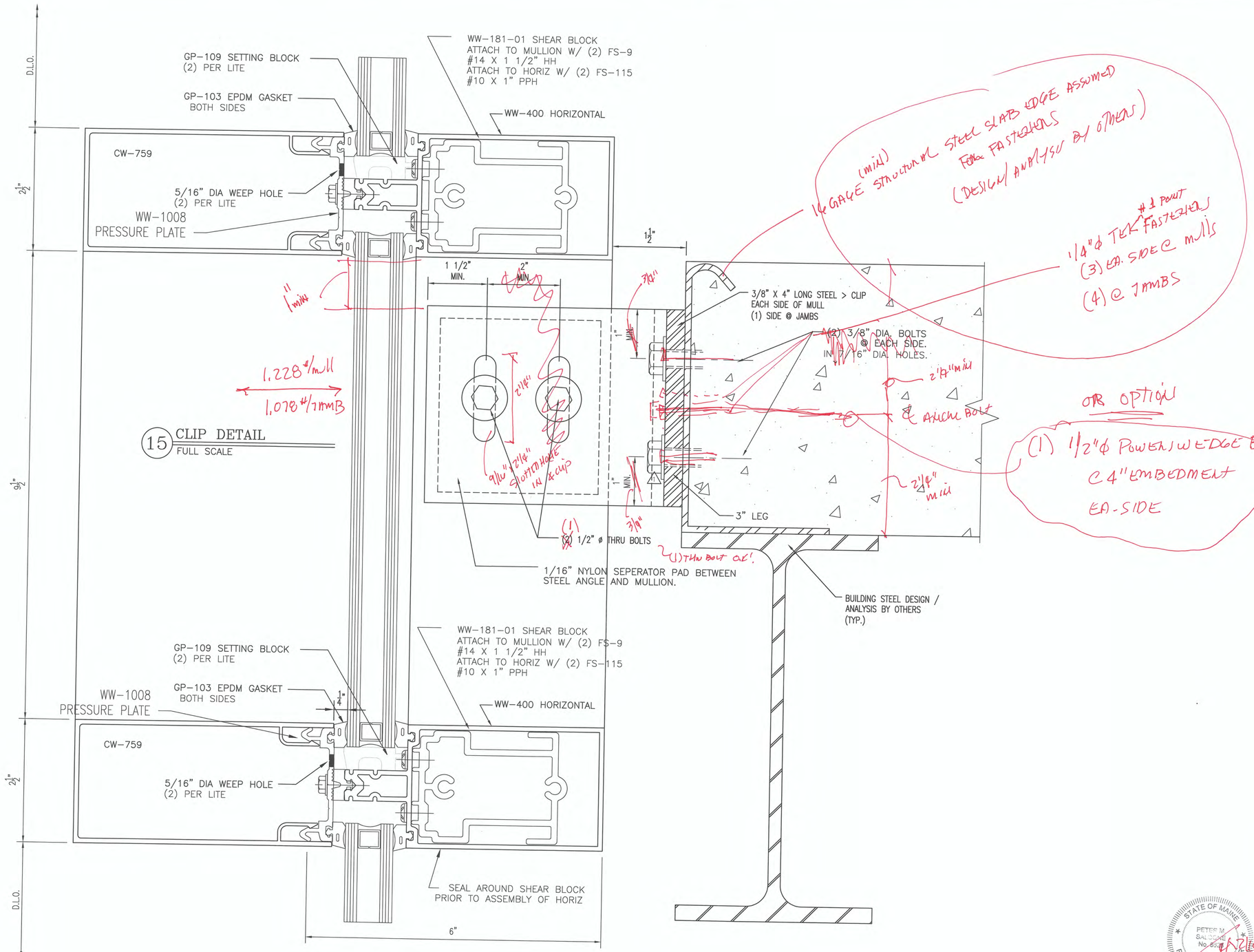
1			7		
2			8		
3			9		
4			10		
5			11		
6			12		

JOB NAME: THE PARK DANFORTH
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS
CONTRACTOR:

DATE: 2/25/16
SCALE: AS NOTED
DRAWN BY: W. PEASE

SHEET NUMBER 16 OF 33

JOB NAME: THE PARK DANFORTH



15 CLIP DETAIL
FULL SCALE

STATE OF MAINE
PETER M. SALISBURY
No. 6347
LICENSED PROFESSIONAL ENGINEER

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
DIM.– DIMENSION
℄– CENTER LINE
F.S.– FRAME SIZE
W.S.– WINDOW SIZE
REQ'D– REQUIRED
CLR.– CLEAR
B.O.S.– BOTTOM OF STEEL
T.O.S.– TOP OF STEEL
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SYMBOLS:

ELEVATION NUMBER / SHEET NUMBER

DETAIL NUMBER / SHEET NUMBER

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NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
1			7		
2			8		
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4			10		
5			11		
6			12		

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102
PHONE: 207-774-9851
FAX: 207-774-9855

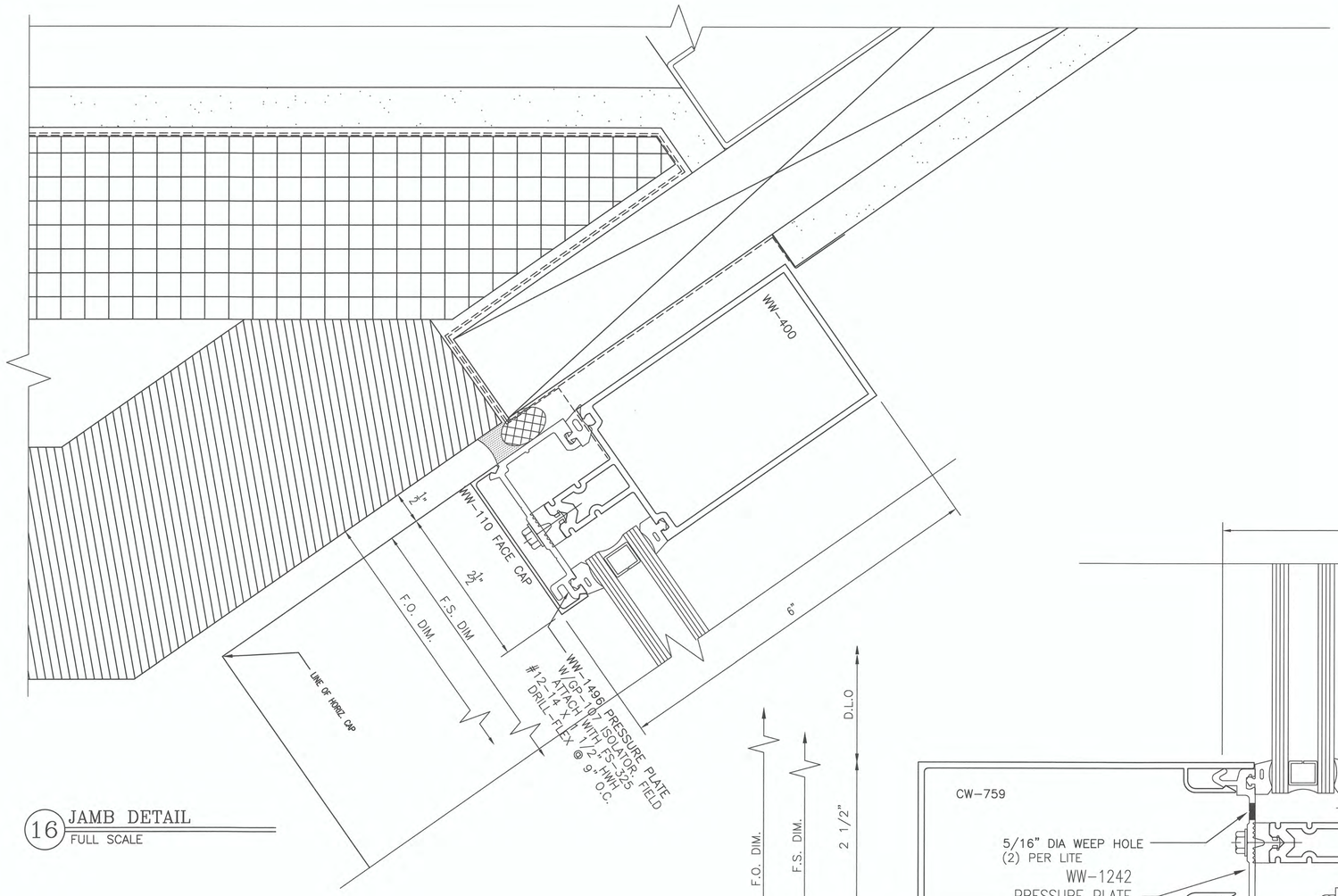
PG Portland Glass.

LAST REVISED: 2/25/16

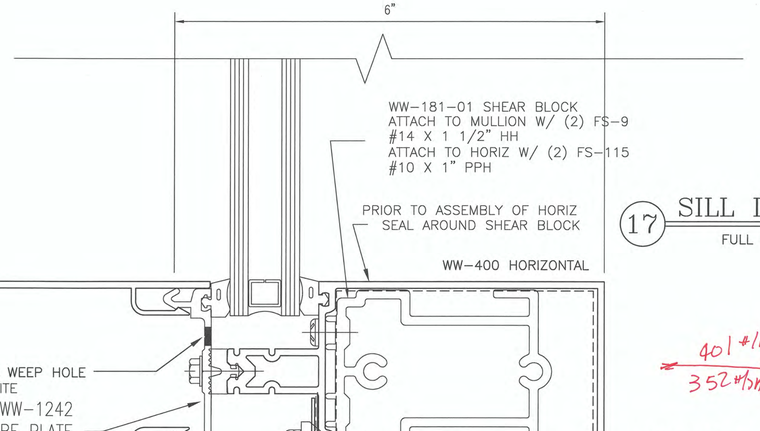
JOB NAME: THE PARK DANFORTH

JOB NAME: THE PARK DANFORTH	DATE: 2/25/16
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS	SCALE: AS NOTED
CONTRACTOR:	DRAWN BY: W. PEASE

SHEET NUMBER 17 OF 33



16 JAMB DETAIL
FULL SCALE



17 SILL DETAIL
FULL SCALE

STATE OF MAINE
PETER M. SALOOMEY
No. 7809
LICENSED PROFESSIONAL ENGINEER

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102

PHONE: 207-774-9851
FAX: 207-774-9855

LAST REVISED: 2/25/16

PG Portland Glass.

JOB NAME: THE PARK DANFORTH

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
DIM.– DIMENSION
℄– CENTER LINE
F.S.– FRAME SIZE
W.S.– WINDOW SIZE
REQ'D– REQUIRED
CLR.– CLEAR
B.O.S.– BOTTOM OF STEEL
T.O.S.– TOP OF STEEL
NTS – NOT TO SCALE

SYMBOLS:

ELEVATION NUMBER / SHEET NUMBER

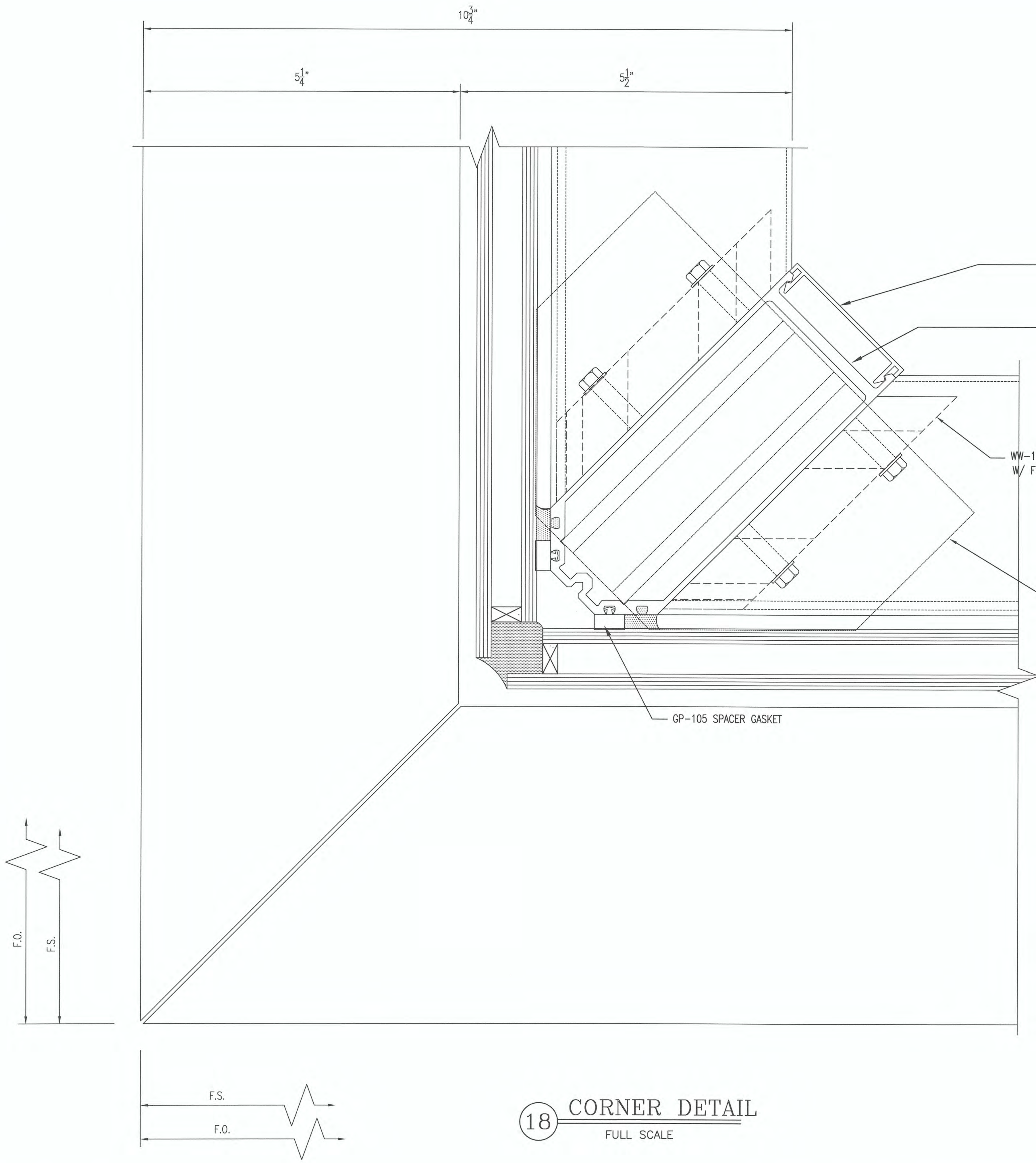
DETAIL NUMBER / SHEET NUMBER

REVISIONS:

NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
1			7		
2			8		
3			9		
4			10		
5			11		
6			12		

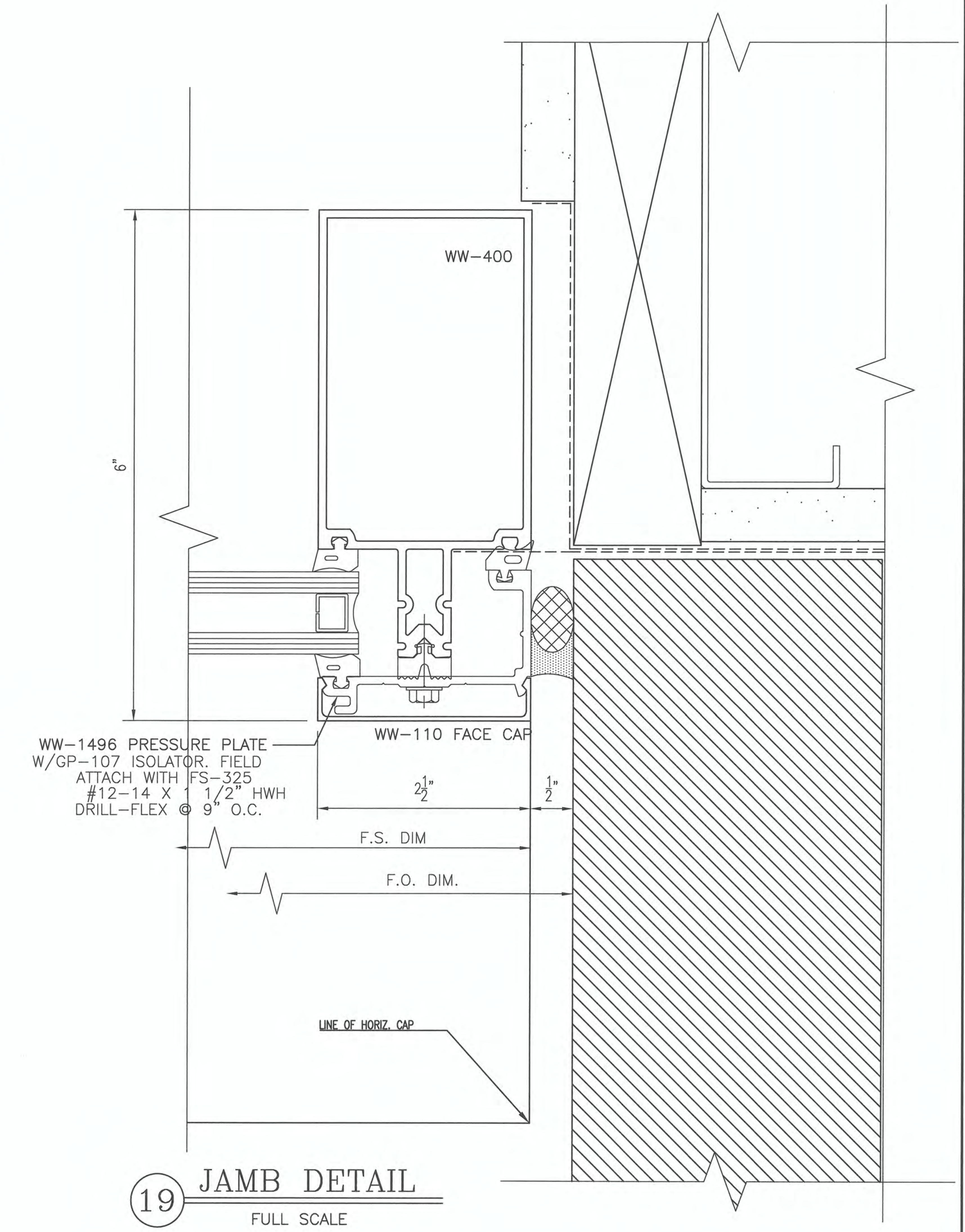
JOB NAME: THE PARK DANFORTH
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS
CONTRACTOR:
DATE: 2/25/16
SCALE: AS NOTED
DRAWN BY: W. PEASE

SHEET NUMBER 18 OF 33



18 CORNER DETAIL

FULL SCALE



19 JAMB DETAIL

FULL SCALE

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102
PHONE: 207-774-9851
FAX: 207-774-9855

PG Portland Glass.

LAST REVISED: 2/25/16

JOB NAME: THE PARK DANFORTH

STATE OF MAINE — LICENSED PROFESSIONAL ENGINEER

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
DIM.– DIMENSION
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REQ'D– REQUIRED
CLR.– CLEAR
B.O.S.– BOTTOM OF STEEL
T.O.S.– TOP OF STEEL
NTS – NOT TO SCALE

SYMBOLS:

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DETAIL NUMBER / SHEET NUMBER

REVISIONS:

NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
1			7		
2			8		
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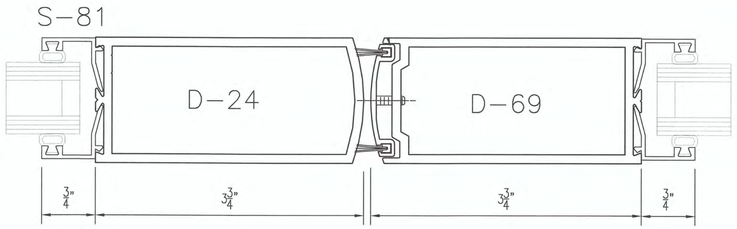
5			11		
6			12		

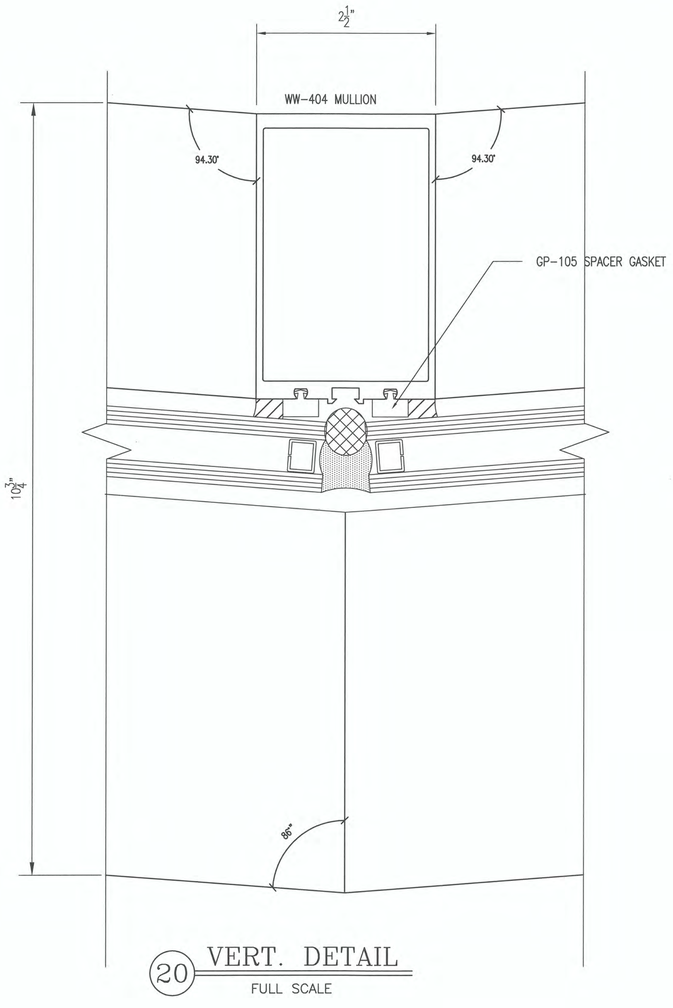
JOB NAME: THE PARK DANFORTH	DATE: 2/25/16
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS	SCALE: AS NOTED
CONTRACTOR:	DRAWN BY: W. PEASE

SHEET NUMBER

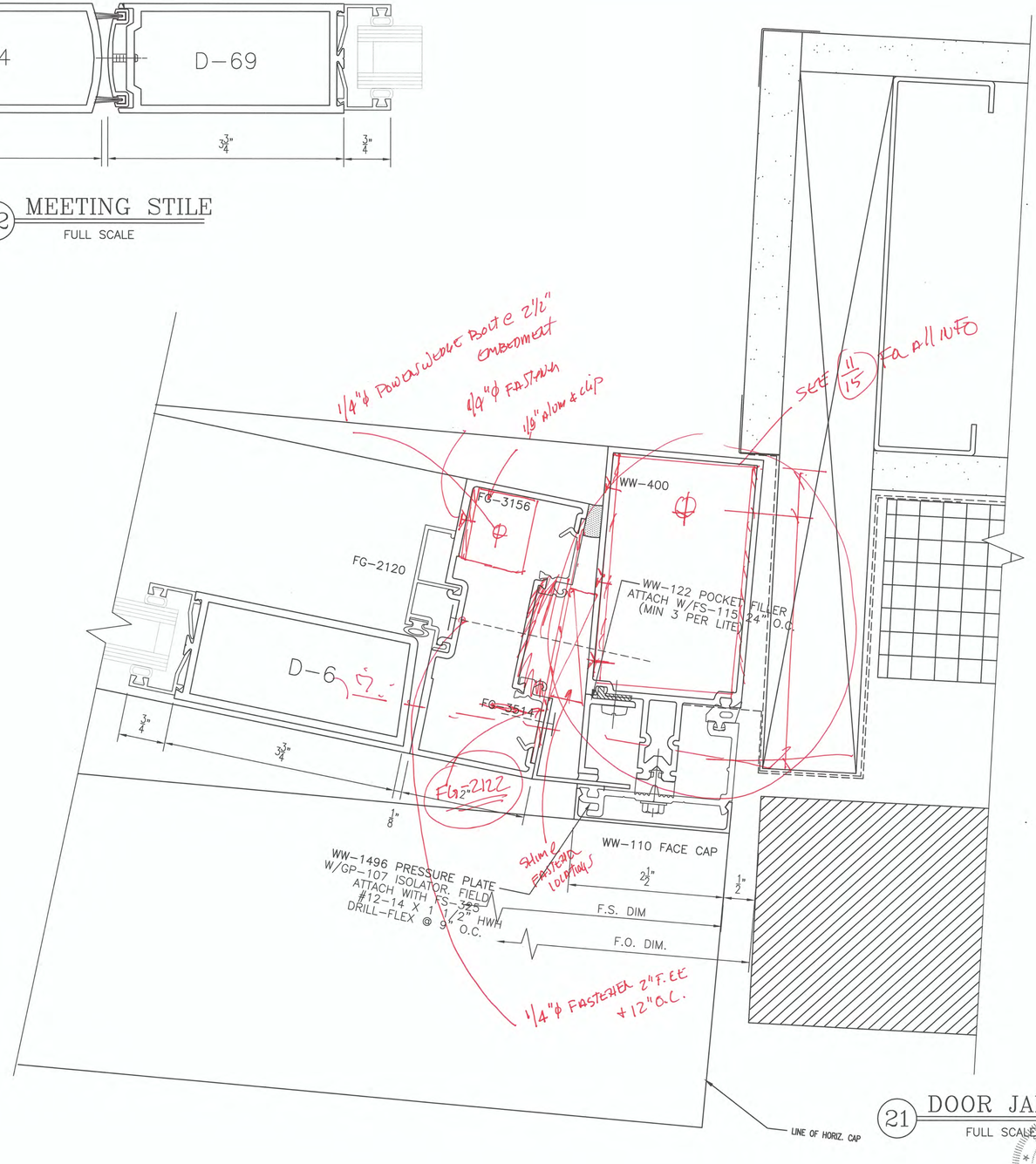
19 OF 33



22 MEETING STILE
FULL SCALE



20 VERT. DETAIL
FULL SCALE



21 DOOR JAMB
FULL SCALE

STATE OF MAINE
PETER M. SALMANSE
No. 9525
LICENSED PROFESSIONAL ENGINEER
11/15/16

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102

PHONE: 207-774-9851
FAX: 207-774-9855

PG Portland Glass.

LAST REVISED: 2/25/16

JOB NAME: THE PARK DANFORTH

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
DIM.– DIMENSION
℄– CENTER LINE
F.S.– FRAME SIZE
W.S.– WINDOW SIZE
REQ'D– REQUIRED
CLR.– CLEAR
B.O.S.– BOTTOM OF STEEL
T.O.S.– TOP OF STEEL
NTS – NOT TO SCALE

SYMBOLS:

ELEVATION NUMBER / SHEET NUMBER

DETAIL NUMBER / SHEET NUMBER

REVISIONS:

NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
1			7		
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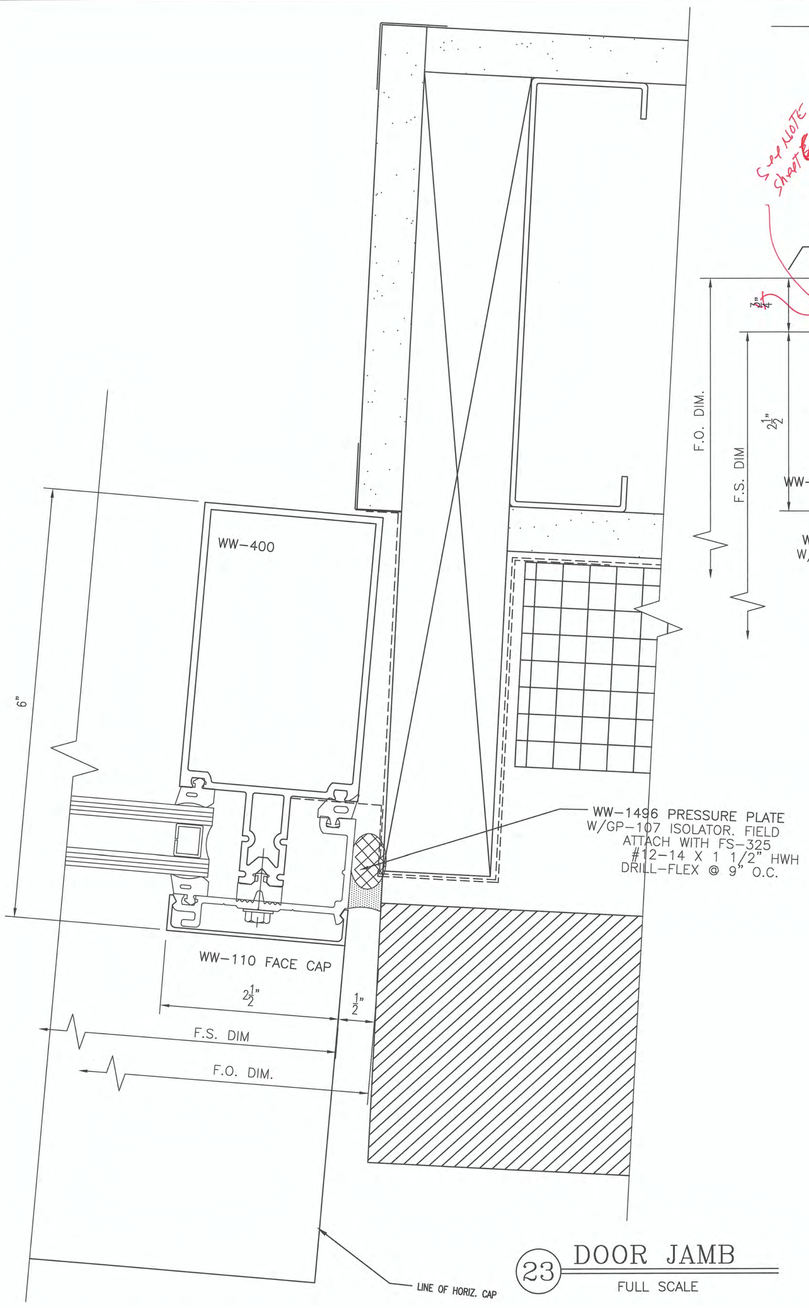
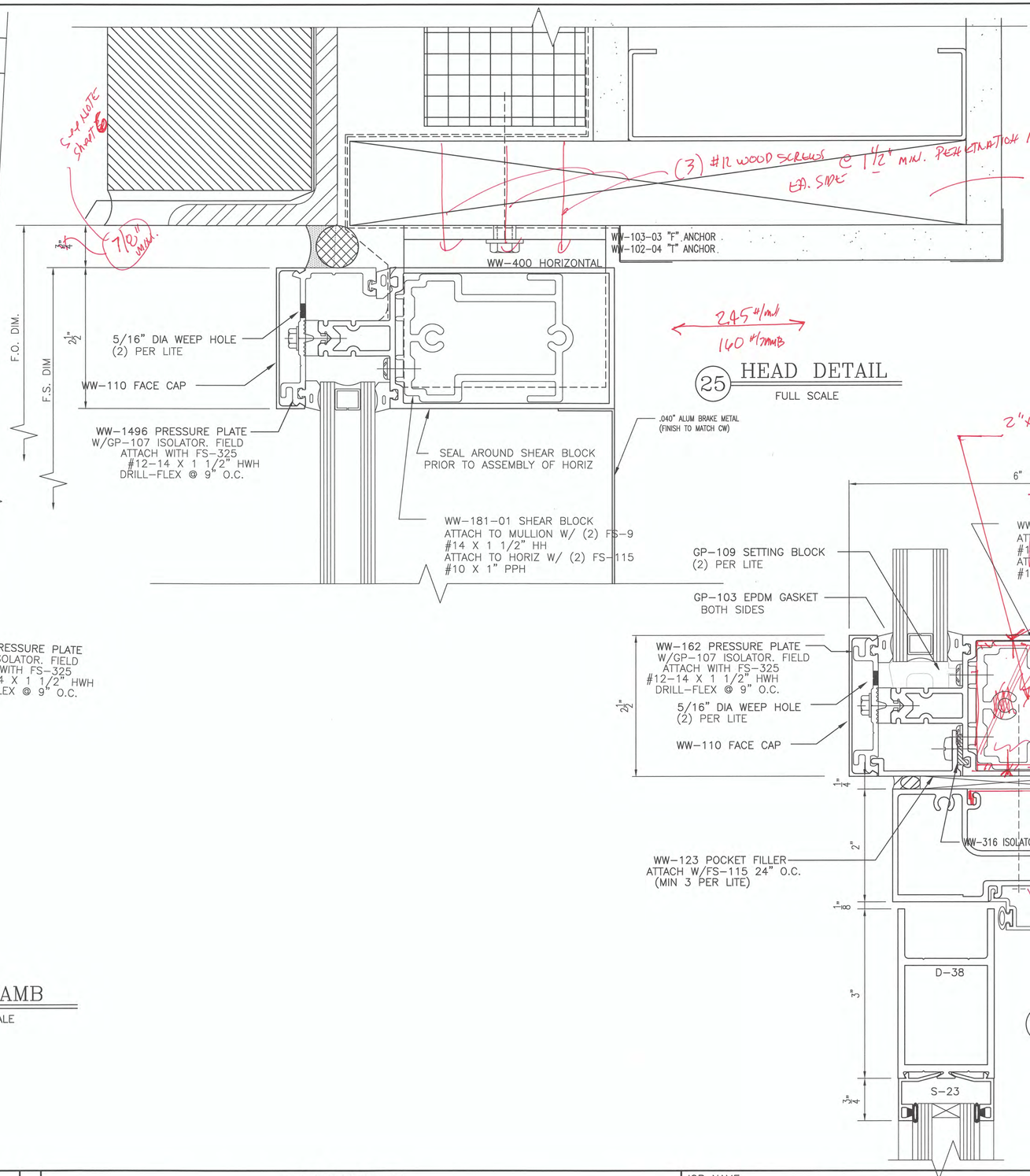
4			10		
5			11		
6			12		

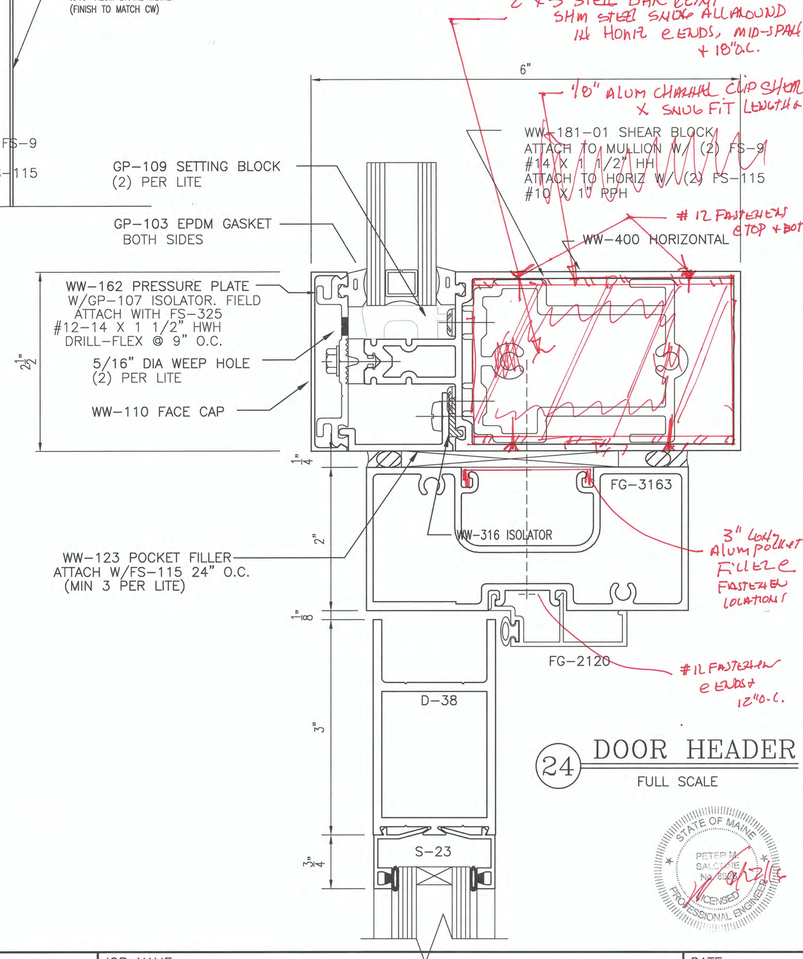
JOB NAME: THE PARK DANFORTH	DATE: 2/25/16	SHEET NUMBER 20 OF 33
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS	SCALE: AS NOTED	
CONTRACTOR:	DRAWN BY: W. PEASE	



23 DOOR JAMB
FULL SCALE



25 HEAD DETAIL
FULL SCALE



24 DOOR HEADER
FULL SCALE

STATE OF MAINE
PETER M. SALMON
LICENSED
PROFESSIONAL ENGINEER
9/12/16

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102
PHONE: 207-774-9851
FAX: 207-774-9855

LAST REVISED: 2/25/16

PG Portland Glass.

JOB NAME: THE PARK DANFORTH

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
DIM.– DIMENSION
℄– CENTER LINE
F.S.– FRAME SIZE
W.S.– WINDOW SIZE
REQ'D– REQUIRED
CLR.– CLEAR
B.O.S.– BOTTOM OF STEEL
T.O.S.– TOP OF STEEL
NTS – NOT TO SCALE

SYMBOLS:

ELEVATION NUMBER
SHEET NUMBER

DETAIL NUMBER
SHEET NUMBER

REVISIONS:

NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
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3			9		
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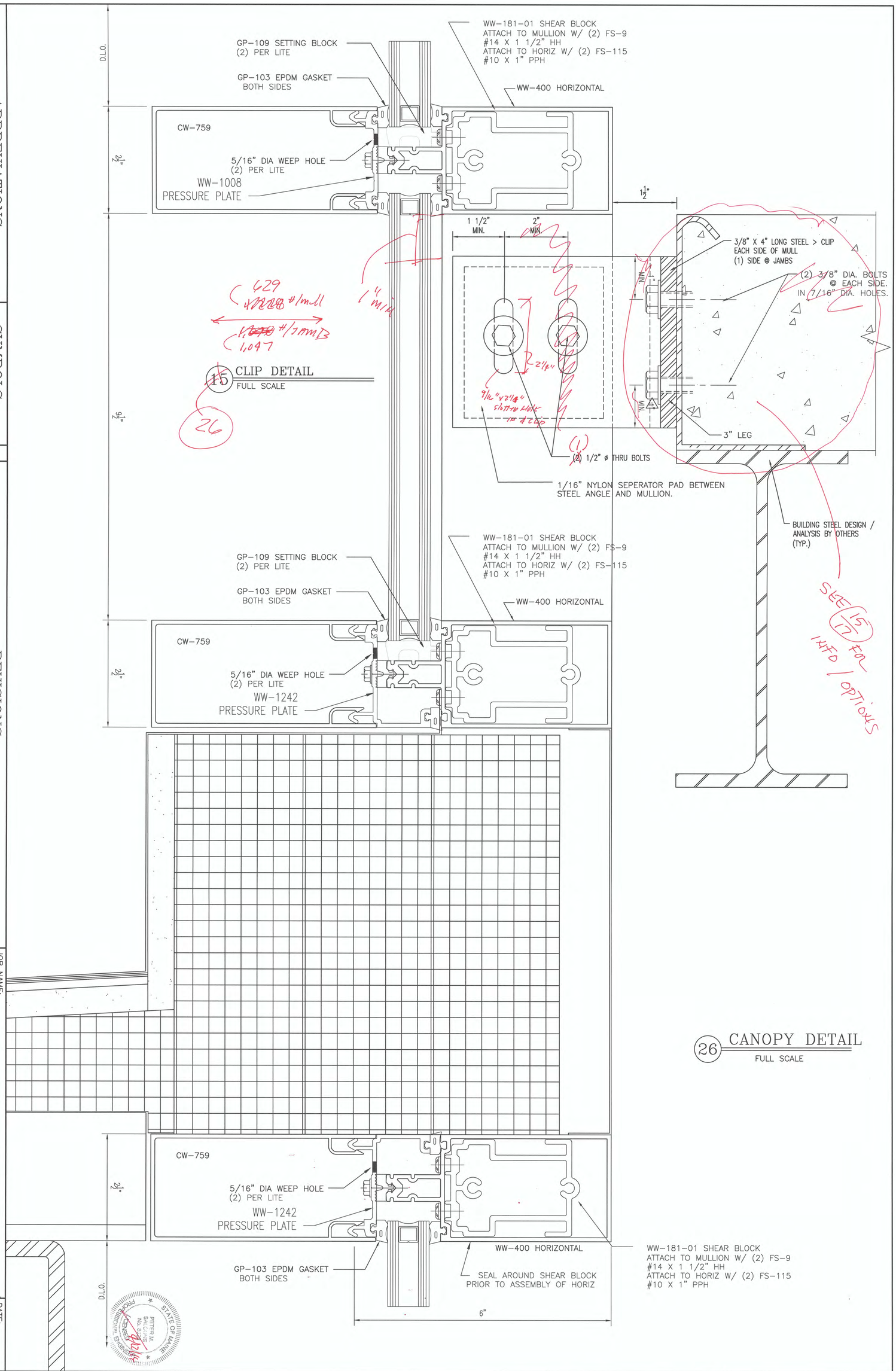
5			11		
6			12		

JOB NAME: THE PARK DANFORTH
DATE: 2/25/16
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS
SCALE: AS NOTED
CONTRACTOR:
DRAWN BY: W. PEASE
SHEET NUMBER 21 OF 33

JOB NAME: THE PARK DANFORTH



ABBREVIATIONS:

M.O. – MASONRY OPENING
F.O. – FINISHED OPENING
D.O. – DOOR OPENING
S.O. – STEEL OPENING
A.F.F. – ABOVE FINISHED FLOOR
DIM. – DIMENSION
℄ – CENTER LINE
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W.S. – WINDOW SIZE
REQ'D – REQUIRED
CLEAR
B.O.S. – BOTTOM OF STEEL
T.O.S. – TOP OF STEEL
NTS – NOT TO SCALE

SYMBOLS:

DETAIL NUMBER
SHEET NUMBER

ELEVATION NUMBER
SHEET NUMBER

REVISIONS:

NO.	DATE:	DESCRIPTION:

JOB NAME: THE PARK DANFORTH

ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS

CONTRACTOR:

DATE: 2/25/16

SCALE: AS NOTED

DRAWN BY: W. PEASE

SHEET NUMBER 22 OF 33

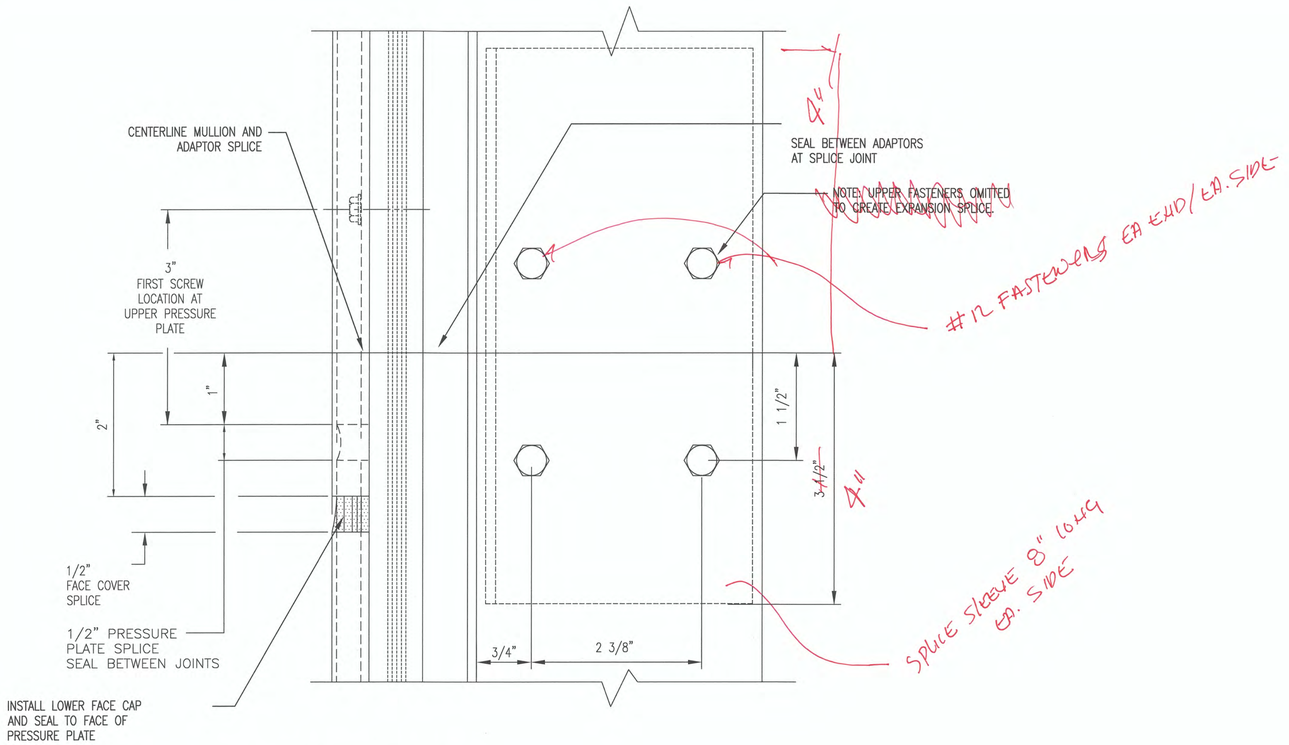
PG Portland Glass.

JOB NAME: THE PARK DANFORTH

LAST REVISED: 2/25/16

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102

PHONE: 207-774-9851
FAX: 207-774-9855



27 SPLICE DETAIL

FULL SCALE

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102

PHONE: 207-774-9851
FAX: 207-774-9855

PG Portland Glass.

LAST REVISED: 2/25/16

JOB NAME: THE PARK DANFORTH

STATE OF MAINE PETER M. SALCOME No. 8828 LICENSED PROFESSIONAL ENGINEER 4/12/16

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
DIM.– DIMENSION
℄– CENTER LINE
F.S.– FRAME SIZE
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REQ'D– REQUIRED
CLR.– CLEAR
B.O.S.– BOTTOM OF STEEL
T.O.S.– TOP OF STEEL
NTS – NOT TO SCALE

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DETAIL NUMBER / SHEET NUMBER

REVISIONS:

NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
1			7		
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5			11		
6			12		

JOB NAME: THE PARK DANFORTH

ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS

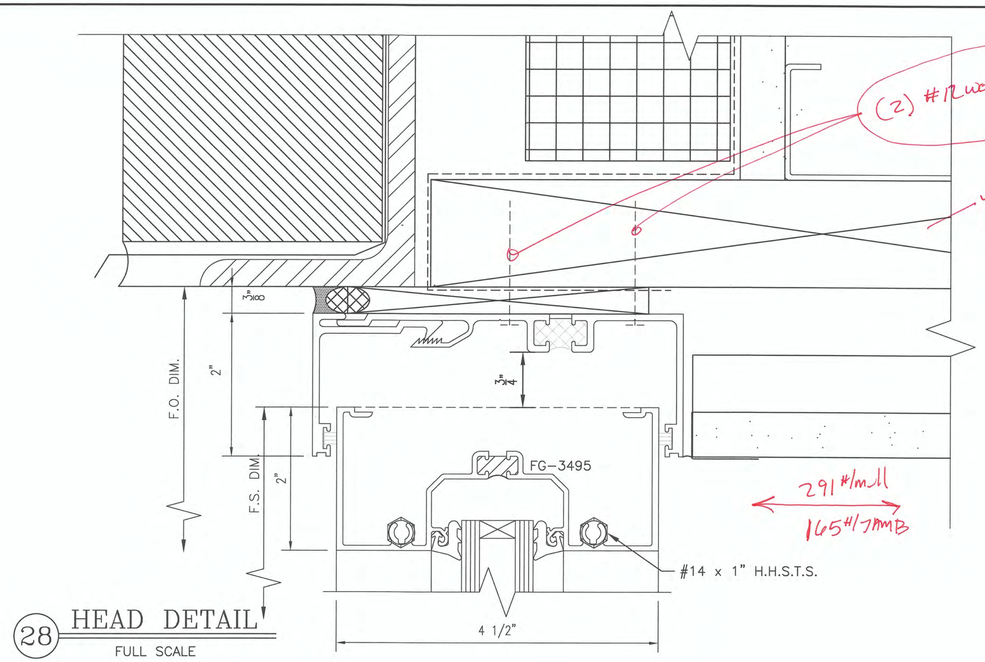
CONTRACTOR:

DATE: 2/25/16

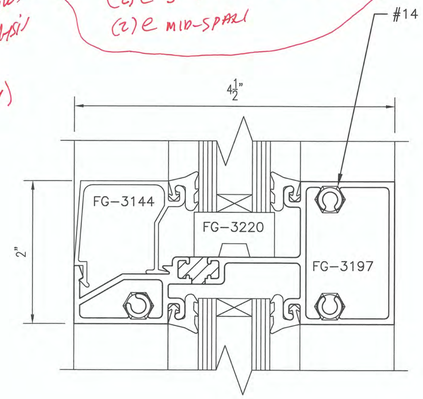
SCALE: AS NOTED

DRAWN BY: W. PEASE

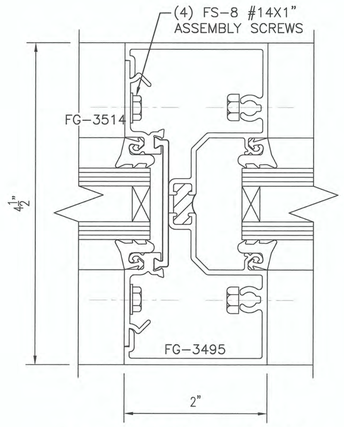
SHEET NUMBER 23 OF 33



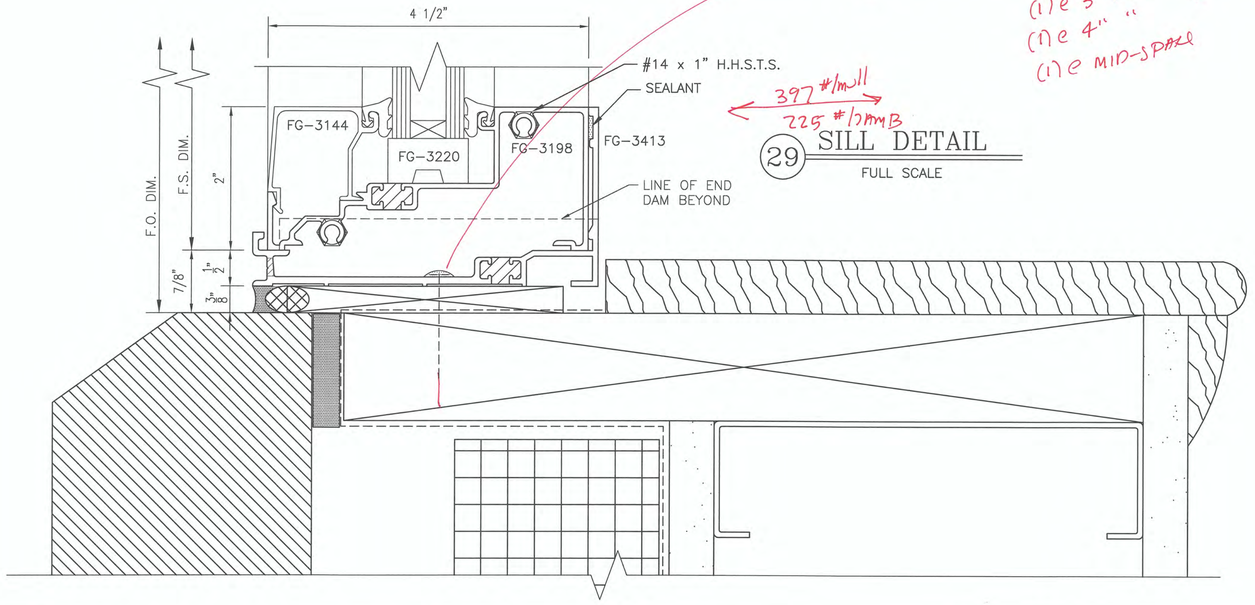
28 HEAD DETAIL
FULL SCALE



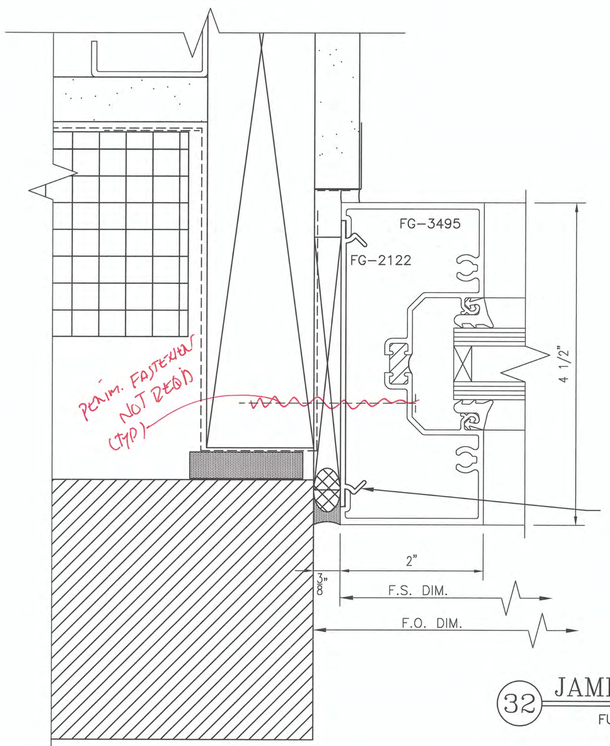
30 HORIZ. DETAIL
FULL SCALE



31 VERT. DETAIL
FULL SCALE



29 SILL DETAIL
FULL SCALE



32 JAMB DETAIL
FULL SCALE

PETER M. SALCOME No. 8234 LICENSED PROFESSIONAL ENGINEER STATE OF MAINE 4/12/16

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
DIM.– DIMENSION
℄– CENTER LINE
F.S.– FRAME SIZE
W.S.– WINDOW SIZE
REQ'D– REQUIRED
CLR.– CLEAR
B.O.S.– BOTTOM OF STEEL
T.O.S.– TOP OF STEEL
NTS – NOT TO SCALE

SYMBOLS:

ELEVATION NUMBER / SHEET NUMBER

DETAIL NUMBER / SHEET NUMBER

REVISIONS:

NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
1			7		
2			8		
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4			10		
5			11		
6			12		

JOB NAME: THE PARK DANFORTH
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS
CONTRACTOR:

DATE: 2/25/16
SCALE: AS NOTED
DRAWN BY: W. PEASE

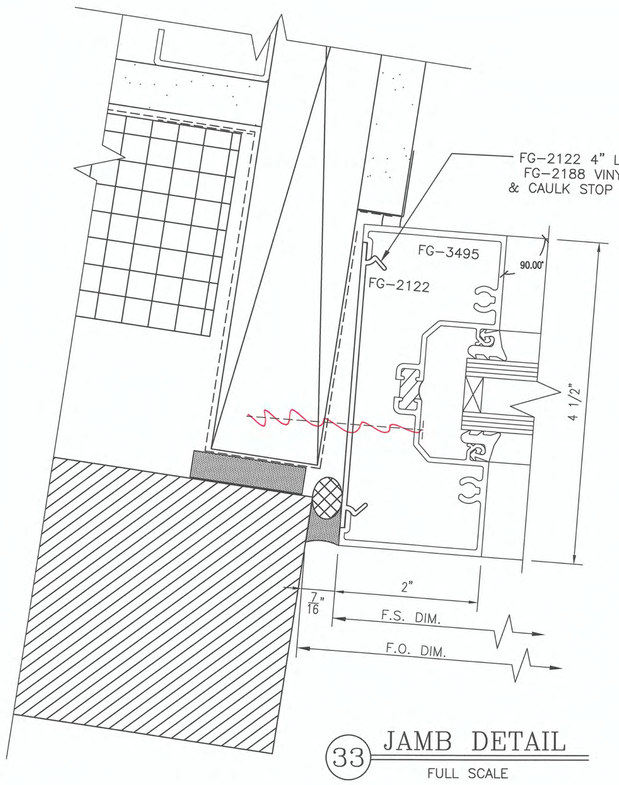
SHEET NUMBER 24 OF 33

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102
PHONE: 207-774-9851
FAX: 207-774-9835

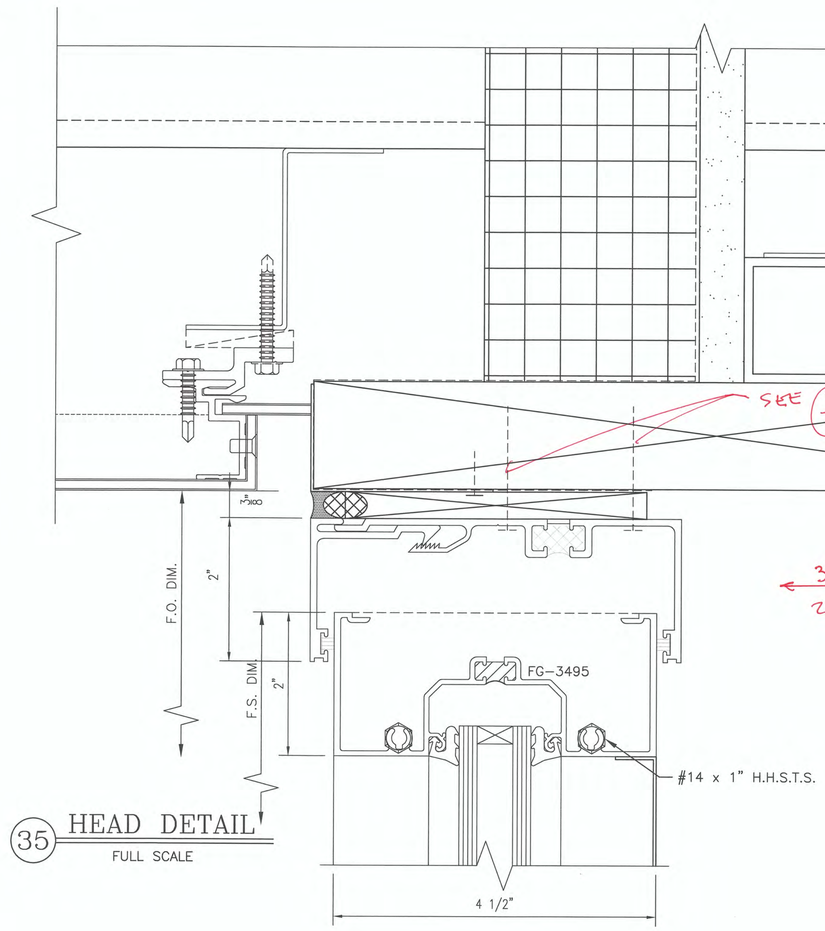
PG Portland Glass.

LAST REVISED: 2/25/16

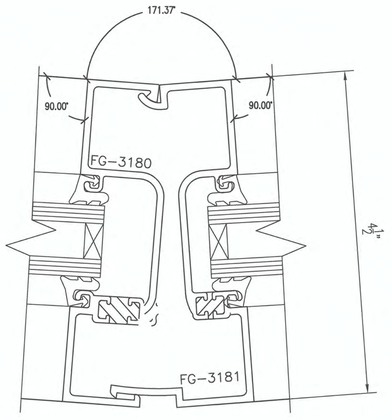
JOB NAME: THE PARK DANFORTH



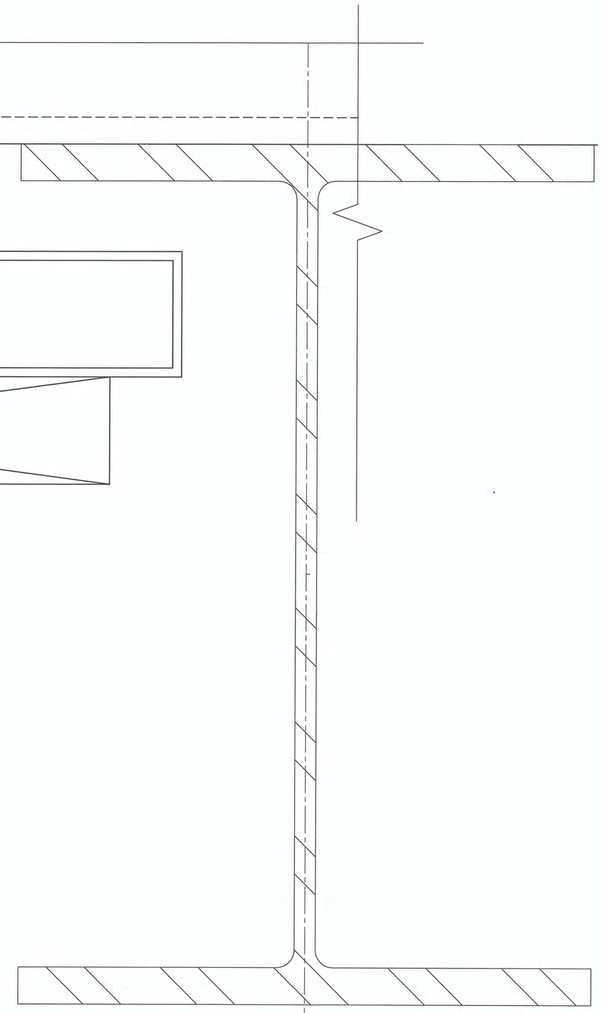
33 JAMB DETAIL
FULL SCALE



35 HEAD DETAIL
FULL SCALE



34 VERT. DETAIL
FULL SCALE



PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102

PHONE: 207.774.9851
FAX: 207.774.9835

PG Portland Glass.

LAST REVISED: 2/25/16

JOB NAME: THE PARK DANFORTH

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
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SYMBOLS:

ELEVATION NUMBER / SHEET NUMBER

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REVISIONS:

NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
1			7		
2			8		
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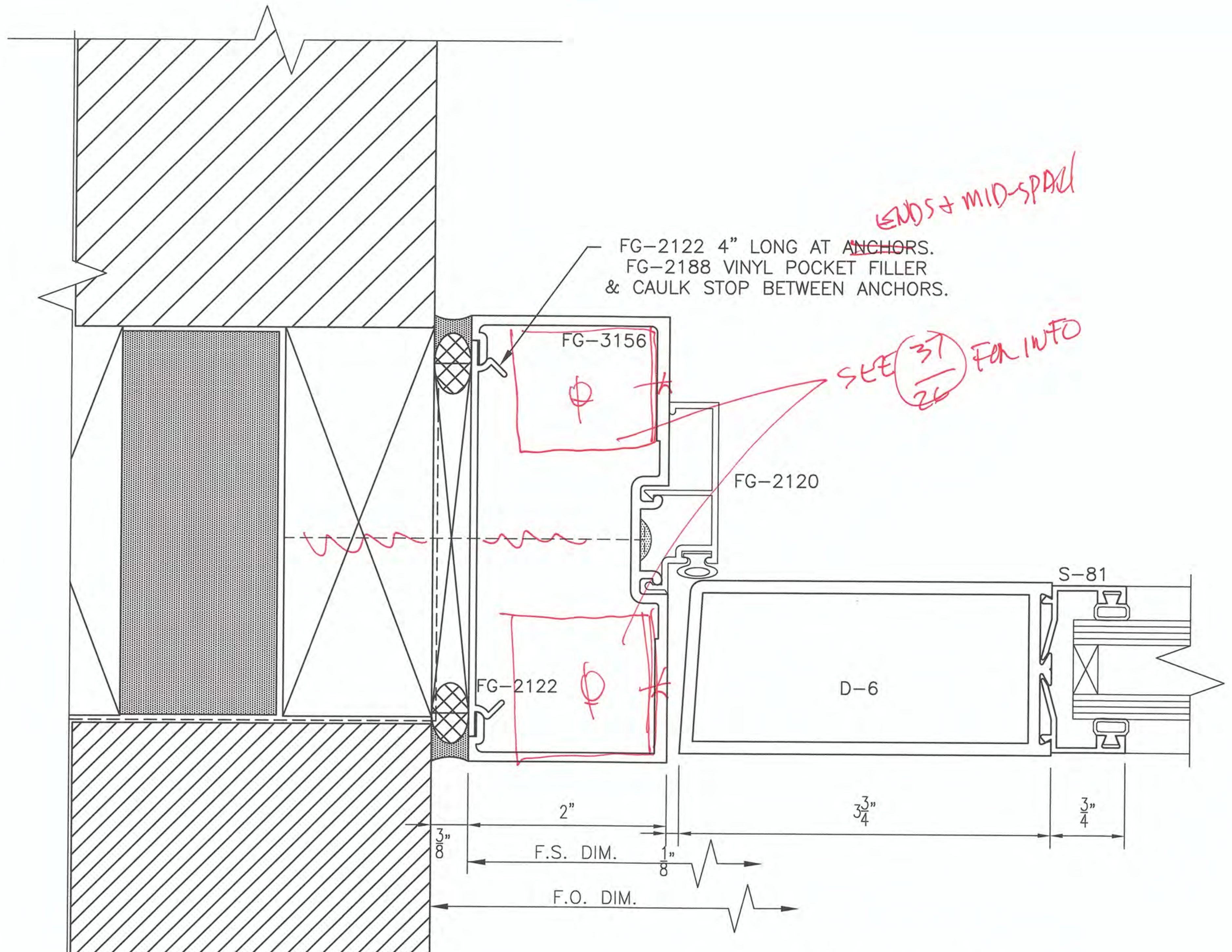
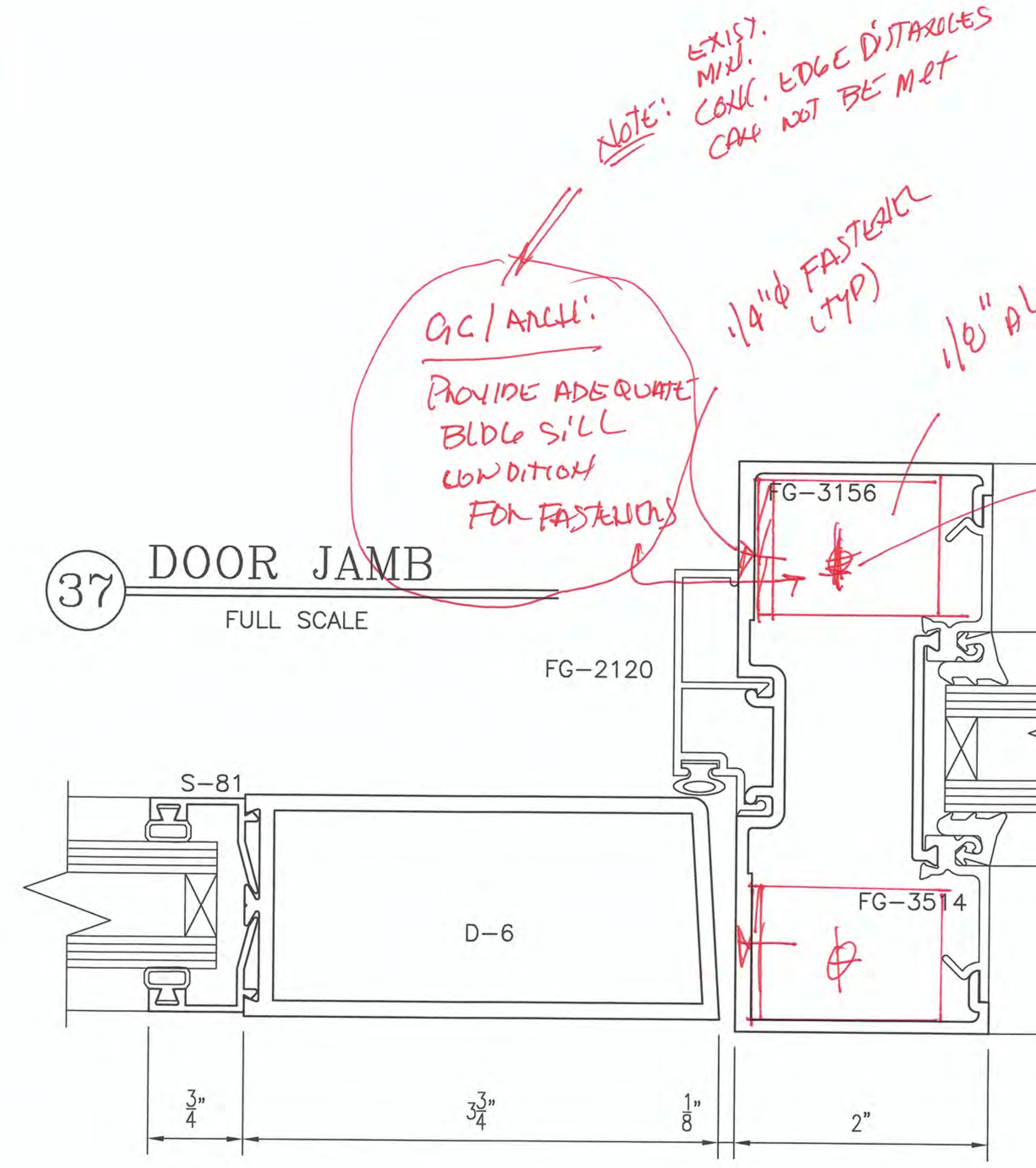
4			10		
5			11		
6			12		

JOB NAME: THE PARK DANFORTH
DATE: 2/25/16
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS
SCALE: AS NOTED
CONTRACTOR:
DRAWN BY: W. PEASE

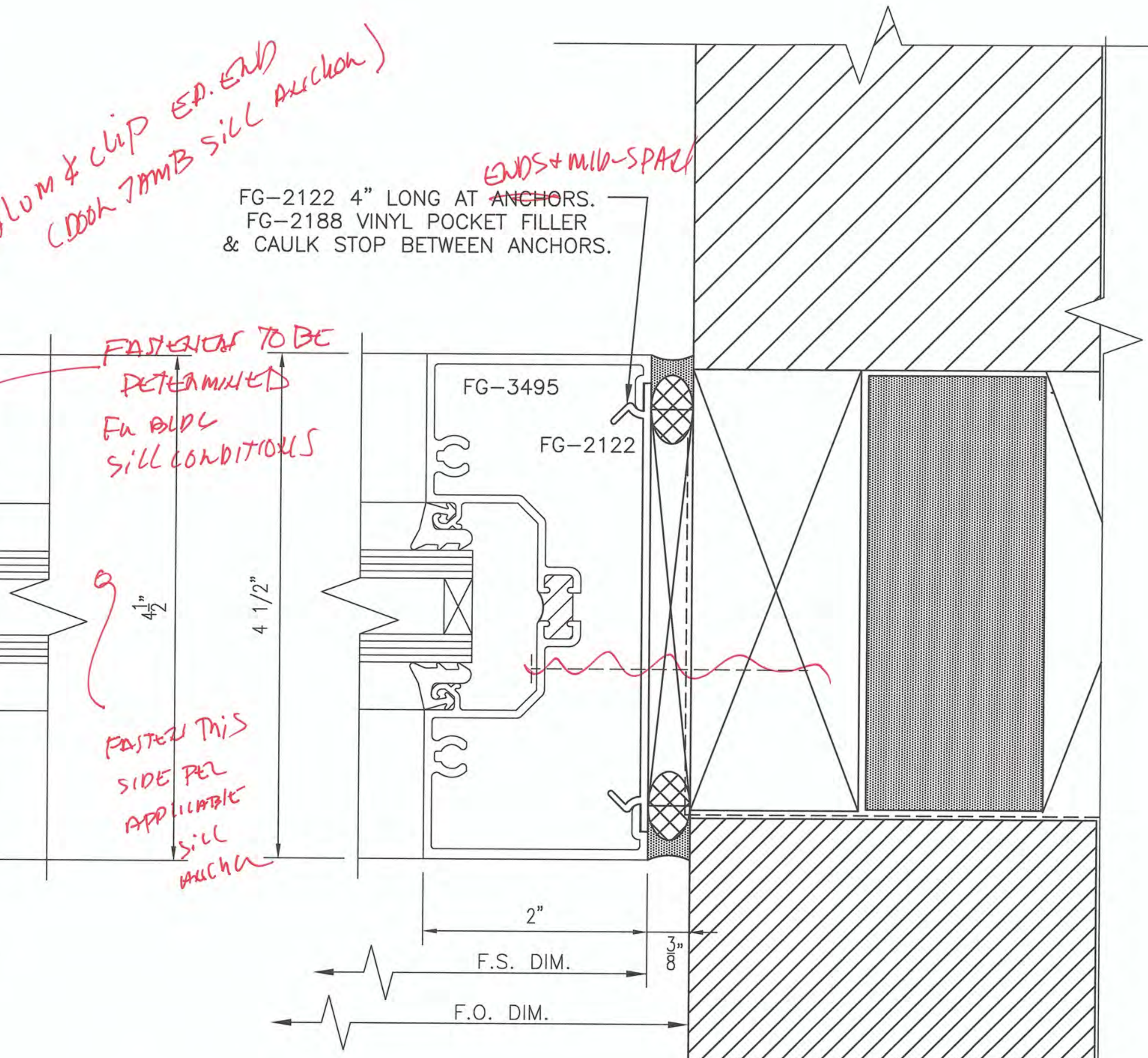
SHEET NUMBER 25 OF 33



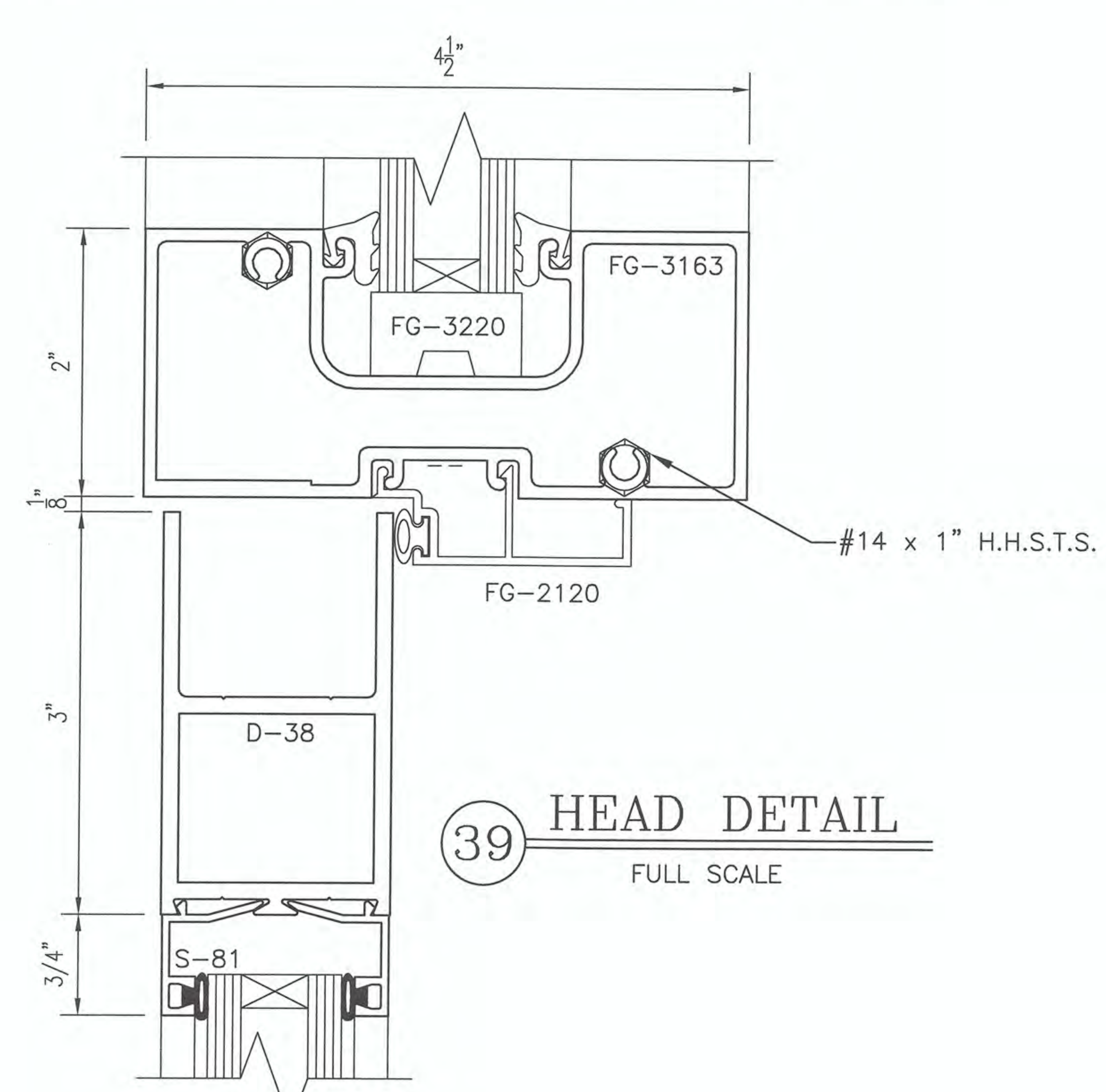
36 JAMB DETAIL
FULL SCALE



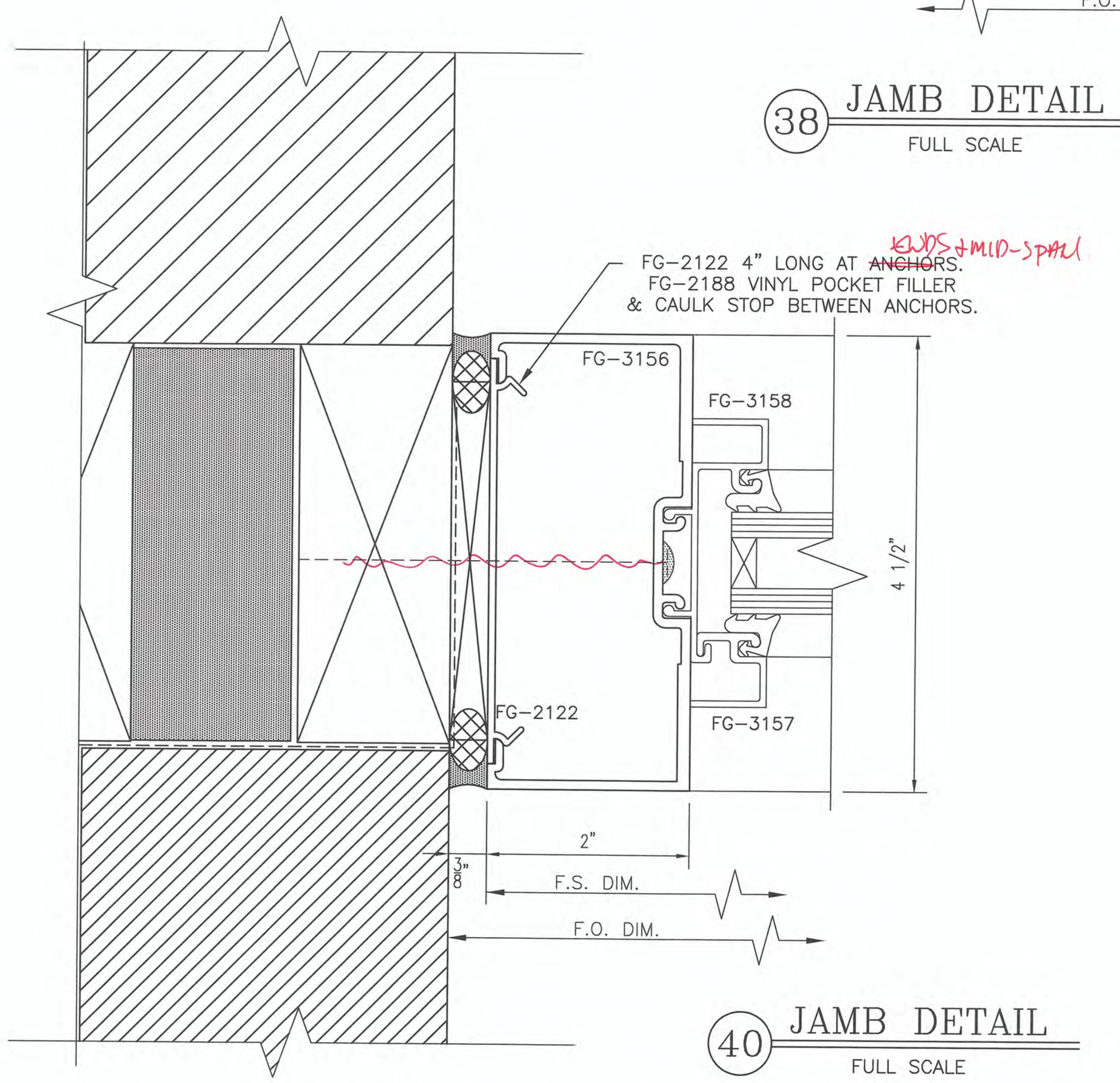
37 DOOR JAMB
FULL SCALE



38 JAMB DETAIL
FULL SCALE



39 HEAD DETAIL
FULL SCALE



40 JAMB DETAIL
FULL SCALE

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
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SYMBOLS:

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DETAIL NUMBER / SHEET NUMBER

REVISIONS:

NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
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5			11		
6			12		

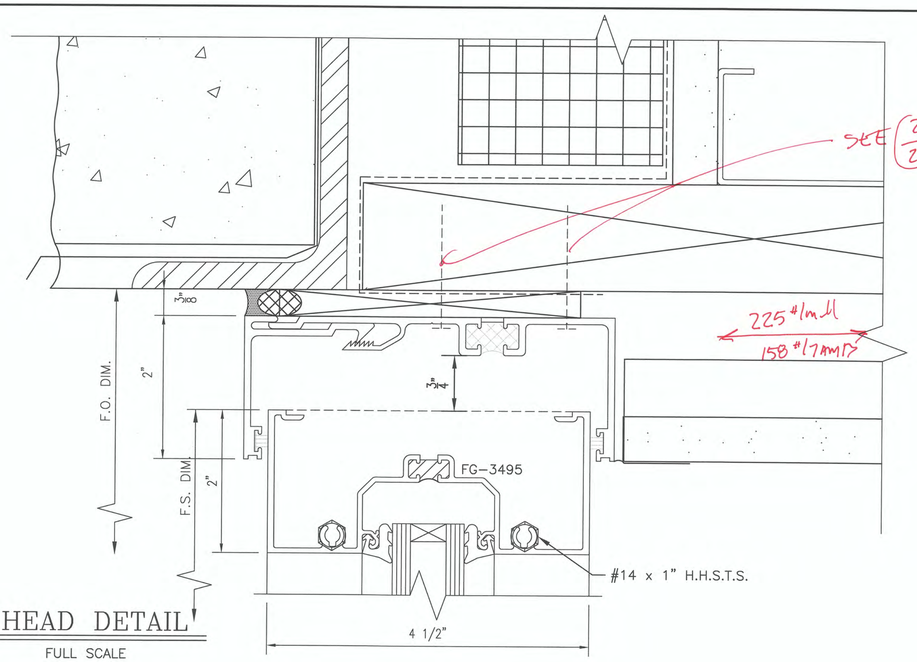
JOB NAME: THE PARK DANFORTH
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS
CONTRACTOR:
DATE: 2/25/16
SCALE: AS NOTED
DRAWN BY: W. PEASE
SHEET NUMBER 26 OF 33

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102
PHONE: 207-774-9851
FAX: 207-774-9855

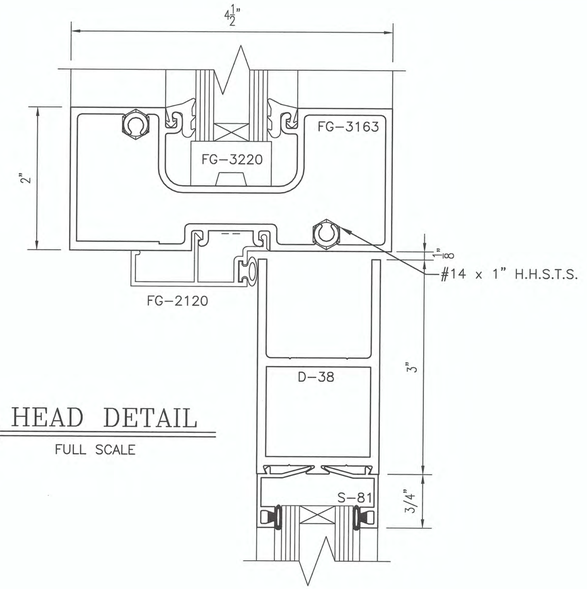
PG Portland Glass.

LAST REVISED: 2/25/16
JOB NAME: THE PARK DANFORTH

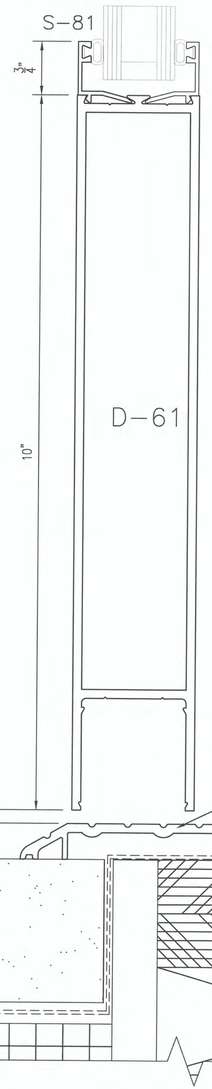
STATE OF MAINE PROFESSIONAL ENGINEER LICENSED

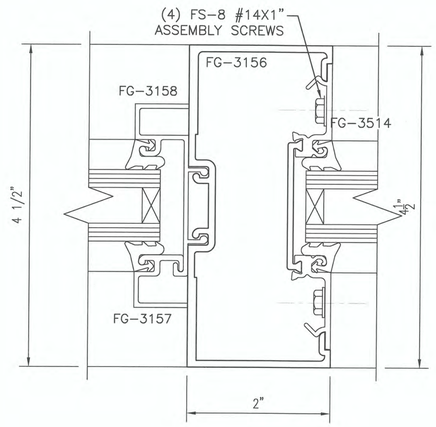


41 HEAD DETAIL
FULL SCALE

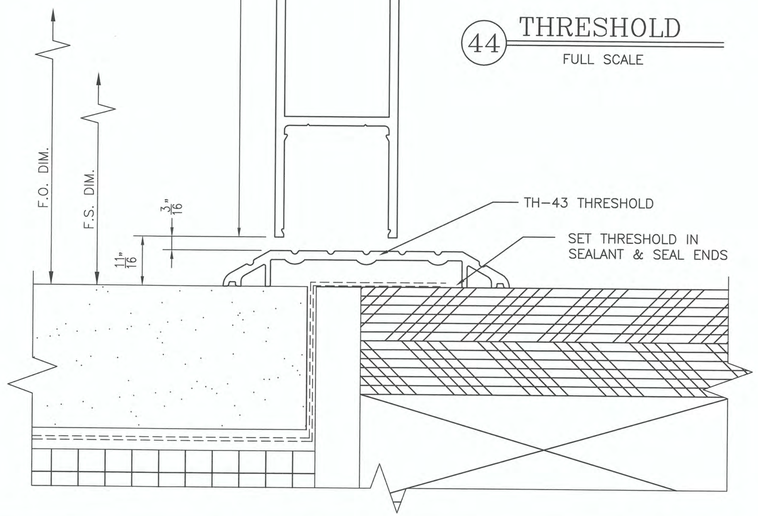


42 HEAD DETAIL
FULL SCALE





43 VERT. DETAIL
FULL SCALE



44 THRESHOLD
FULL SCALE

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102

PHONE: 207-774-9851
FAX: 207-774-9855

PG Portland Glass.

LAST REVISED: 2/25/16

JOB NAME: THE PARK DANFORTH

STATE OF MAINE
PETER M. SALCONE
No. 8[illegible]
REGISTERED PROFESSIONAL ENGINEER
9/12/16

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
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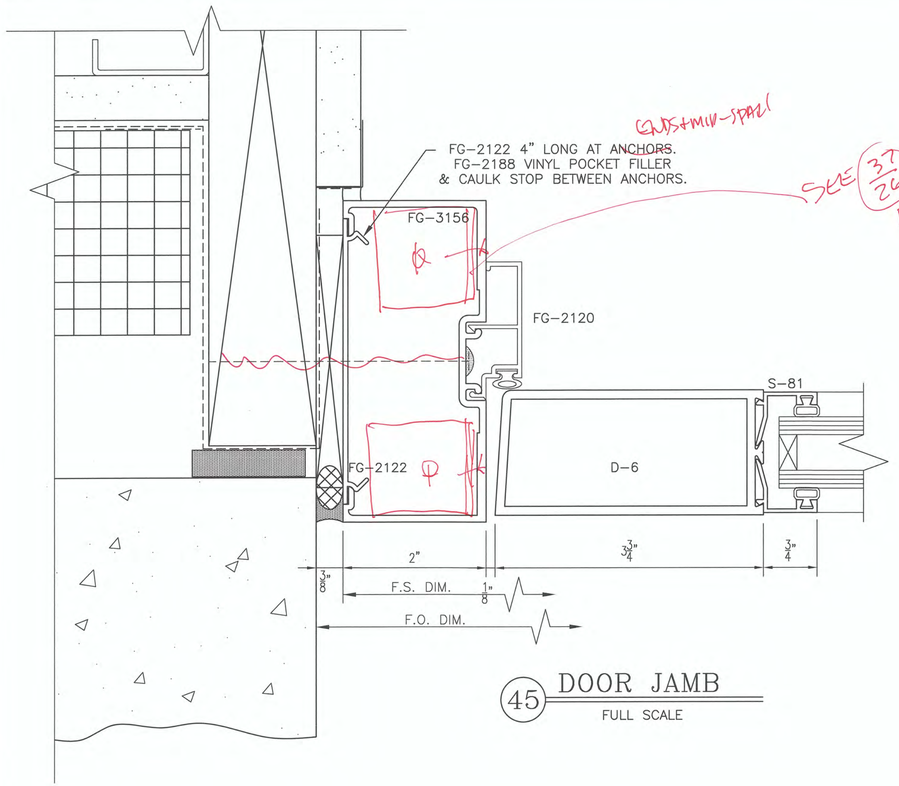
3			9		
4			10		
5			11		
6			12		

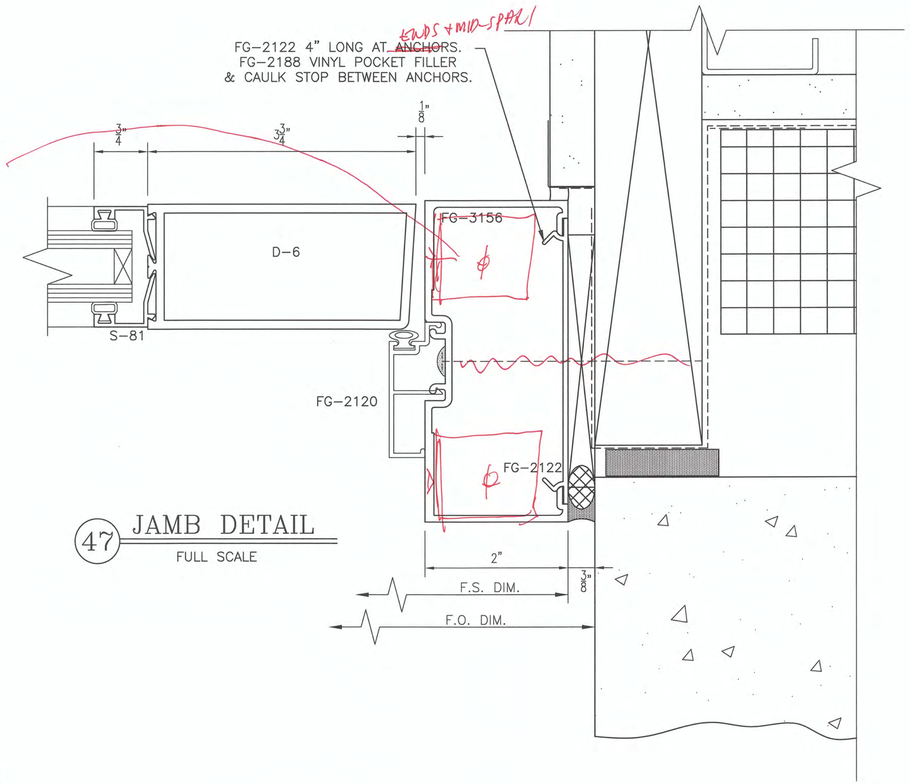
JOB NAME: THE PARK DANFORTH
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS
CONTRACTOR:

DATE: 2/25/16
SCALE: AS NOTED
DRAWN BY: W. PEASE

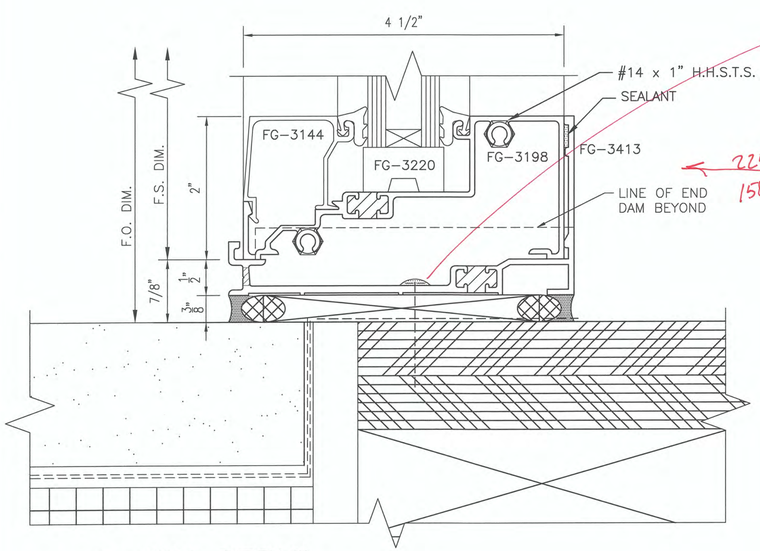
SHEET NUMBER
27 OF 33



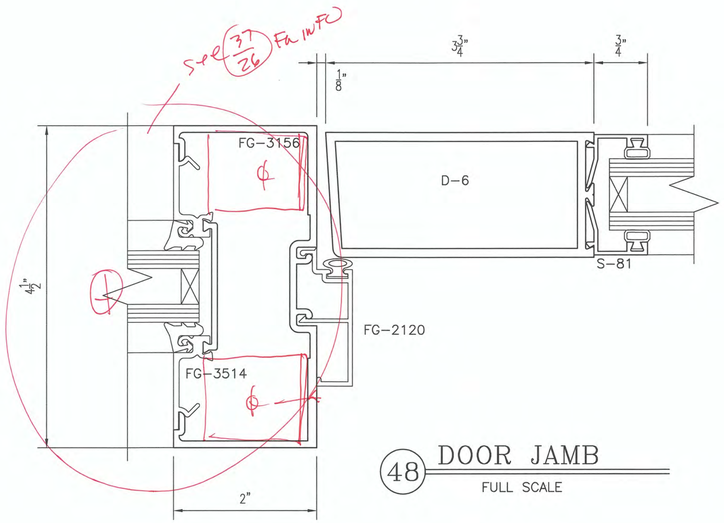
45 DOOR JAMB
FULL SCALE



47 JAMB DETAIL
FULL SCALE



46 SILL DETAIL
FULL SCALE



48 DOOR JAMB
FULL SCALE

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
DIM.– DIMENSION
℄– CENTER LINE
F.S.– FRAME SIZE
W.S.– WINDOW SIZE
REQ'D– REQUIRED
CLR.– CLEAR
B.O.S.– BOTTOM OF STEEL
T.O.S.– TOP OF STEEL
NTS – NOT TO SCALE

SYMBOLS:

ELEVATION NUMBER / SHEET NUMBER

DETAIL NUMBER / SHEET NUMBER

REVISIONS:

NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
1			7		
2			8		
3			9		
4			10		
5			11		
6			12		

JOB NAME: THE PARK DANFORTH
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS
CONTRACTOR:

DATE: 2/25/16
SCALE: AS NOTED
DRAWN BY: W. PEASE

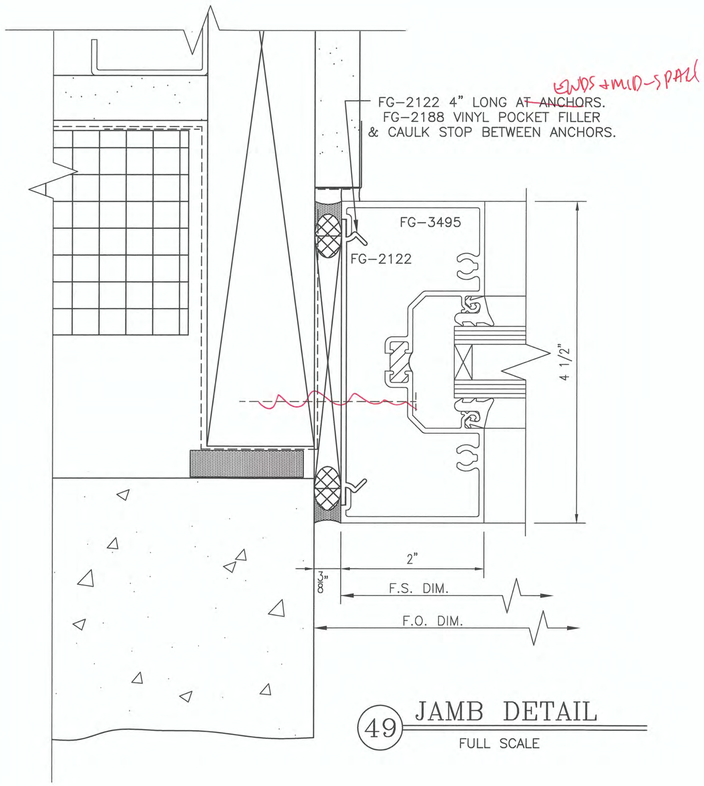
SHEET NUMBER 28 OF 33

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102
PHONE: 207-774-9851
FAX: 207-774-9855

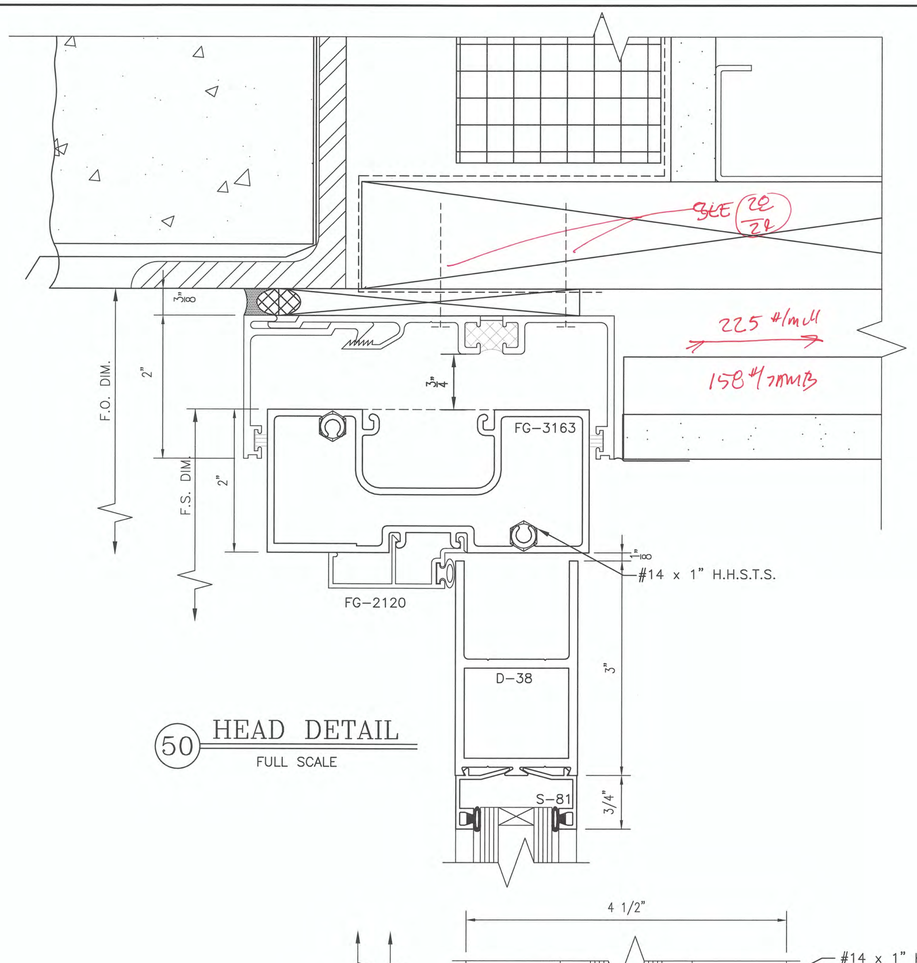
PG Portland Glass.

LAST REVISED: 2/25/16

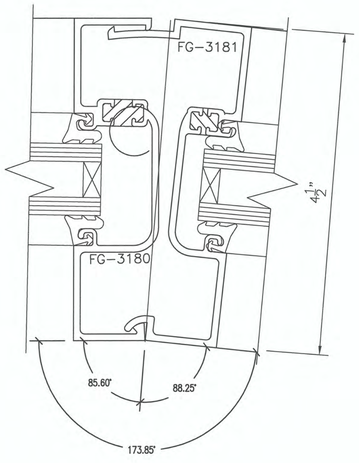
JOB NAME: THE PARK DANFORTH



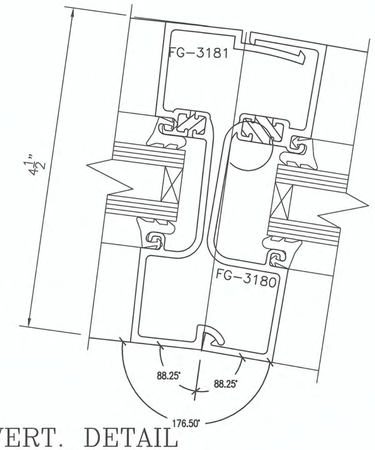
49 JAMB DETAIL
FULL SCALE



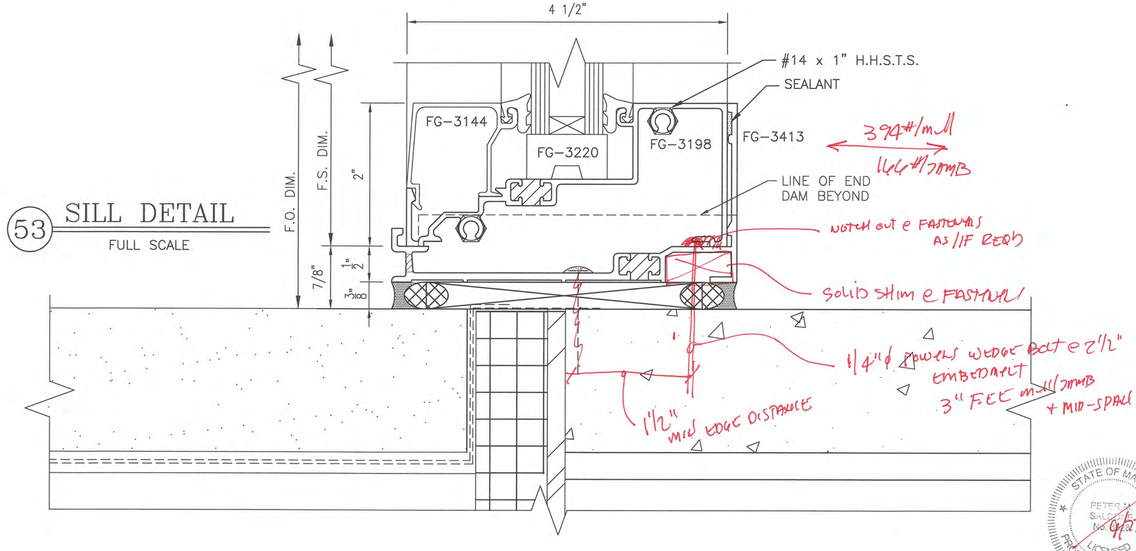
50 HEAD DETAIL
FULL SCALE



51 VERT. DETAIL
FULL SCALE



52 VERT. DETAIL
FULL SCALE



53 SILL DETAIL
FULL SCALE

STATE OF MAINE
PETER J. SALLEE
No. 9752
LICENSED PROFESSIONAL ENGINEER
4/22/16

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102
PHONE: 207-774-9851
FAX: 207-774-9855

PG Portland Glass.

LAST REVISED: 2/25/16

JOB NAME: THE PARK DANFORTH

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
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SYMBOLS:

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REVISIONS:

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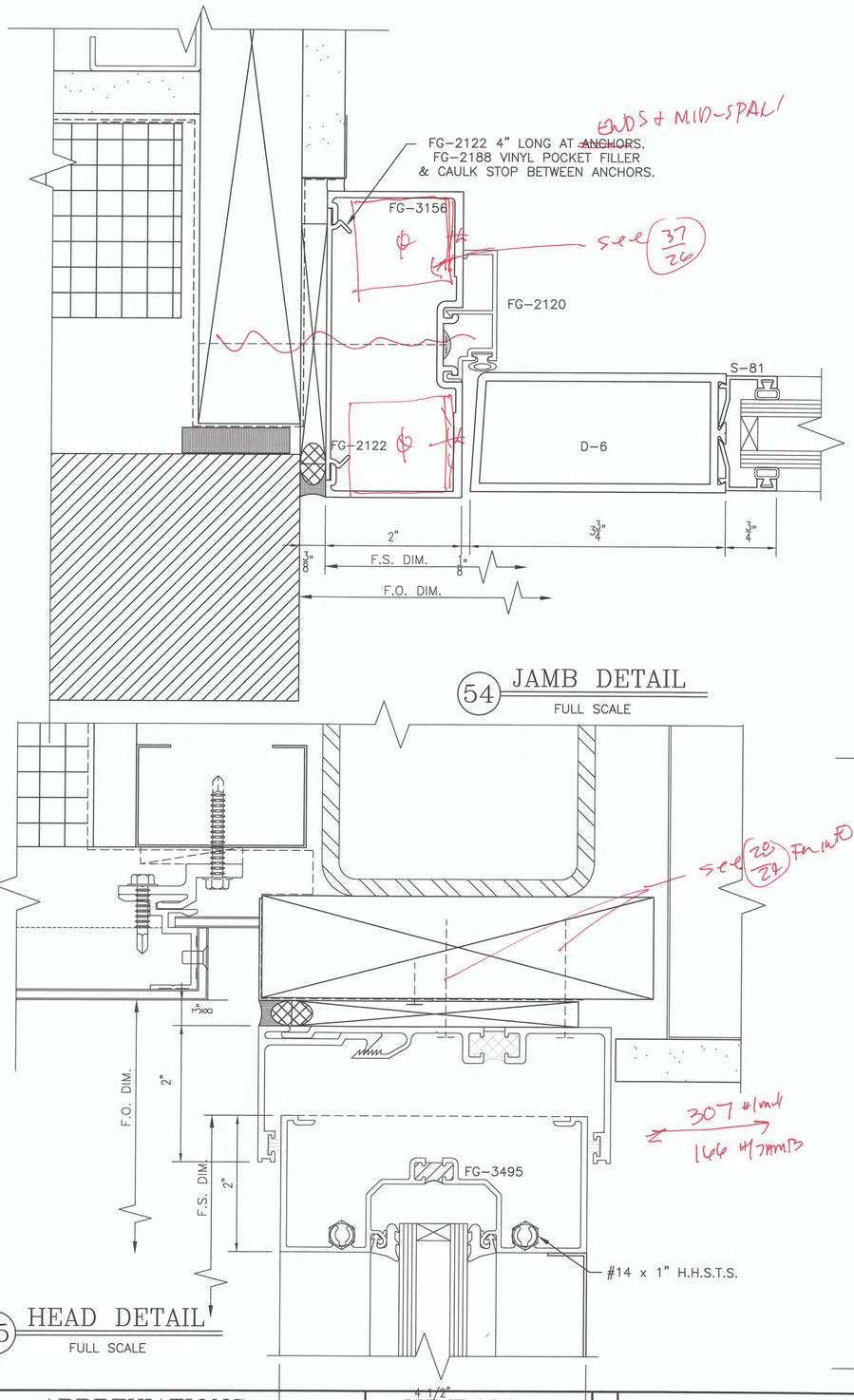
6			12		

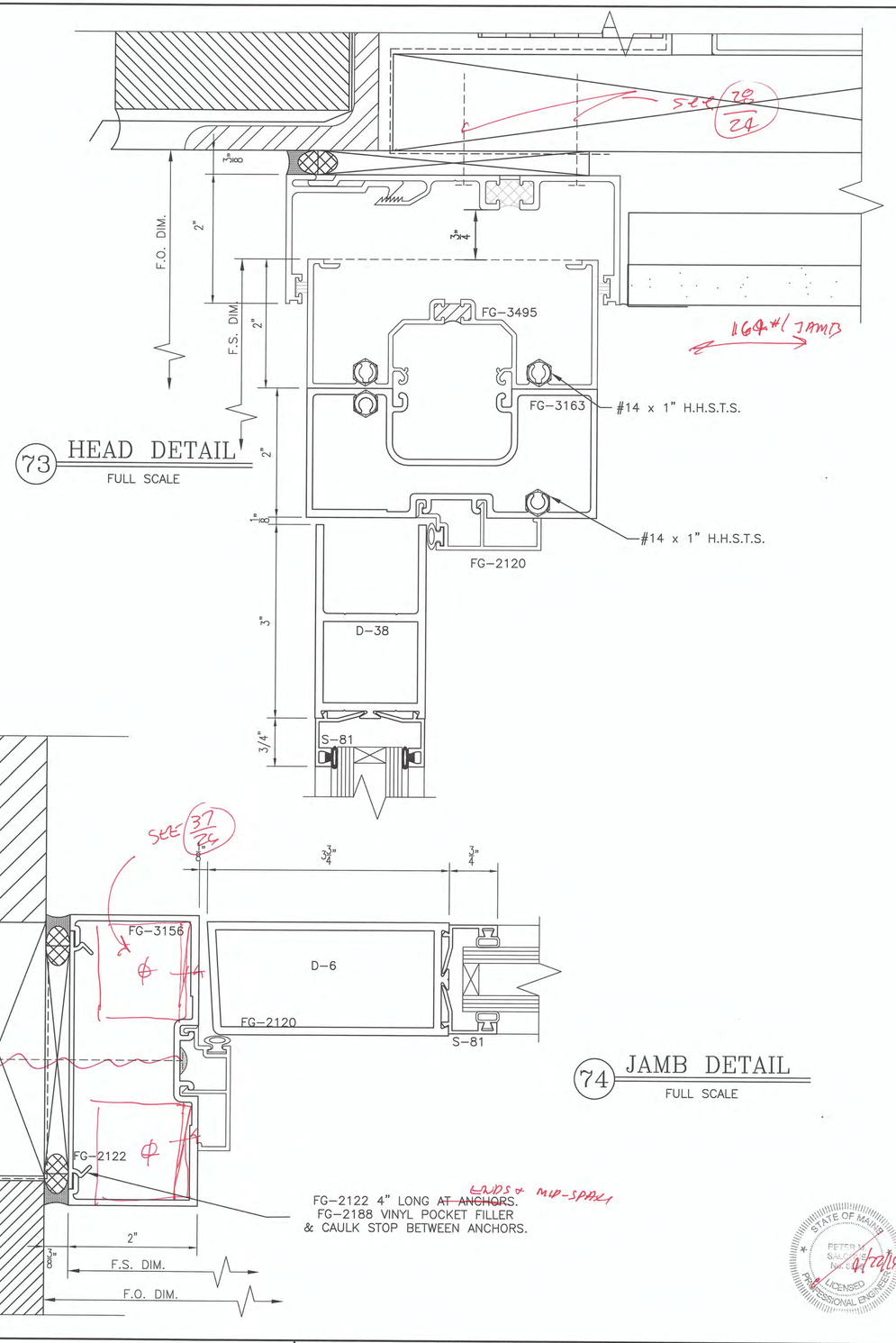
JOB NAME: THE PARK DANFORTH
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS
CONTRACTOR:

DATE: 2/25/16
SCALE: AS NOTED
DRAWN BY: W. PEASE

SHEET NUMBER 29 OF 33



54 JAMB DETAIL
FULL SCALE



55 HEAD DETAIL
FULL SCALE

73 HEAD DETAIL
FULL SCALE

74 JAMB DETAIL
FULL SCALE

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
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6			12		

JOB NAME: THE PARK DANFORTH
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS
CONTRACTOR:

DATE: 2/25/16
SCALE: AS NOTED
DRAWN BY: W. PEASE

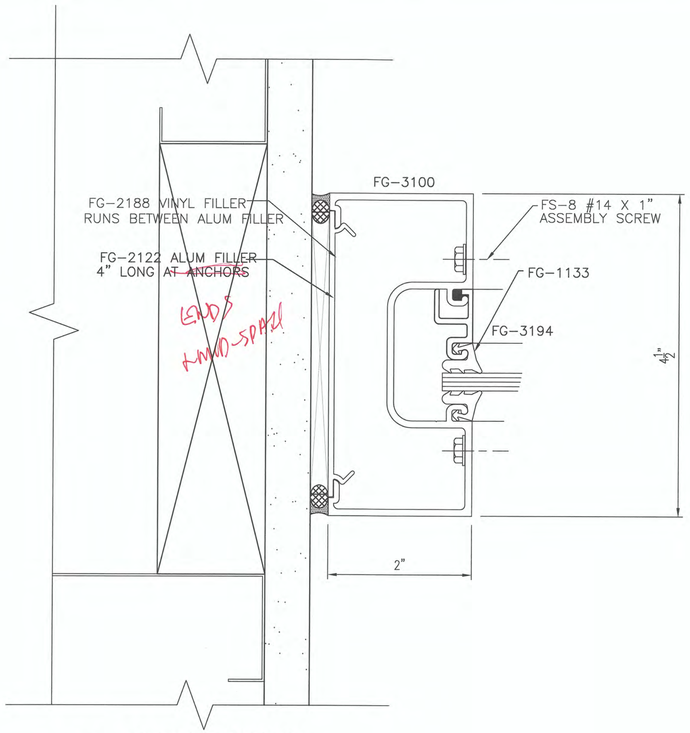
SHEET NUMBER 30 OF 33

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102
PHONE: 207.774.9851
FAX: 207.774.9855

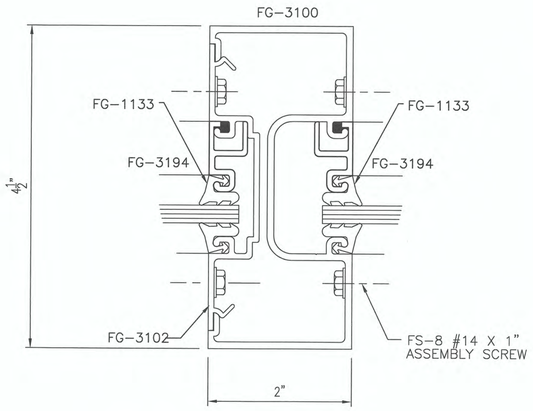
LAST REVISED: 2/25/16

PG Portland Glass.

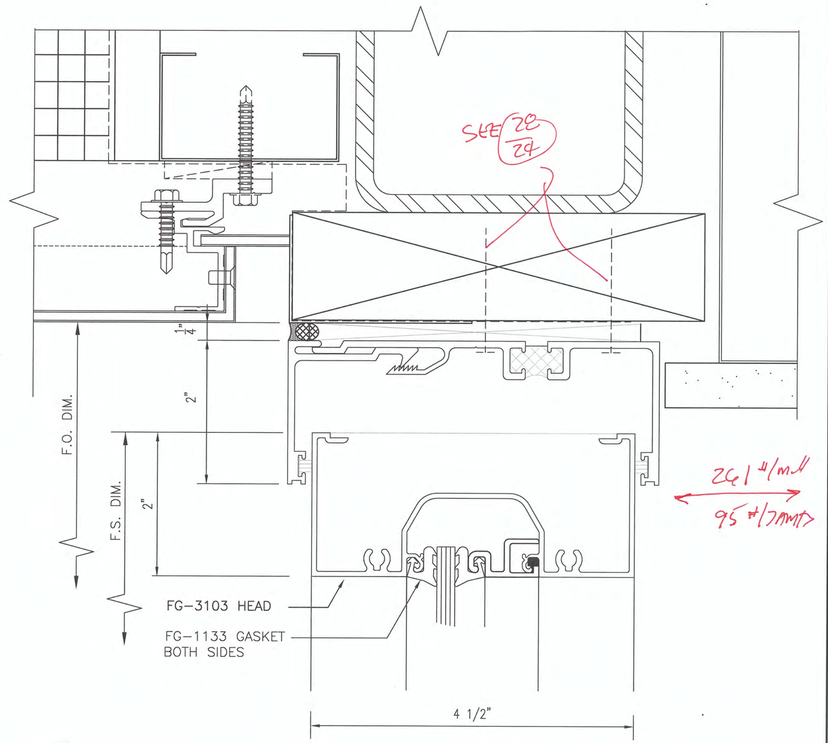
JOB NAME: THE PARK DANFORTH



56 JAMB DETAIL
FULL SCALE

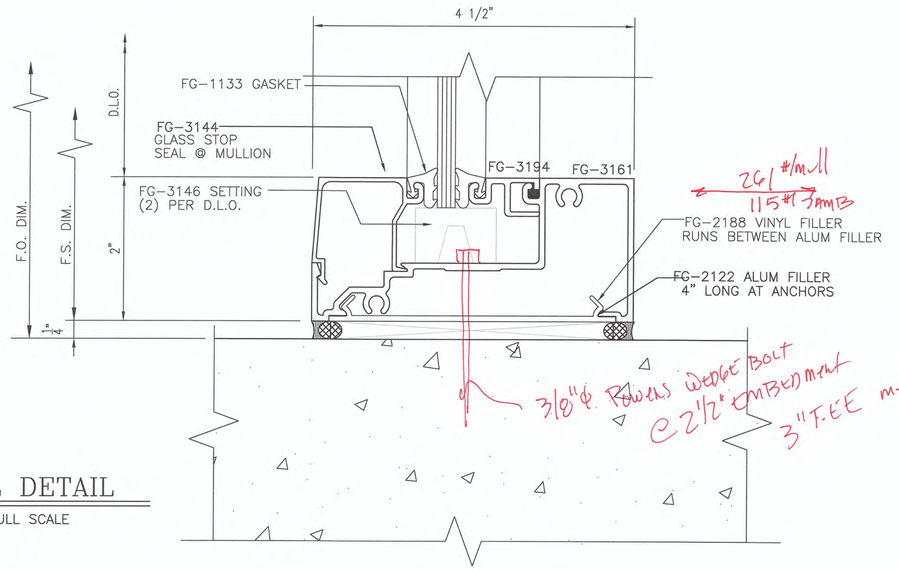


57 VERT. DETAIL
FULL SCALE

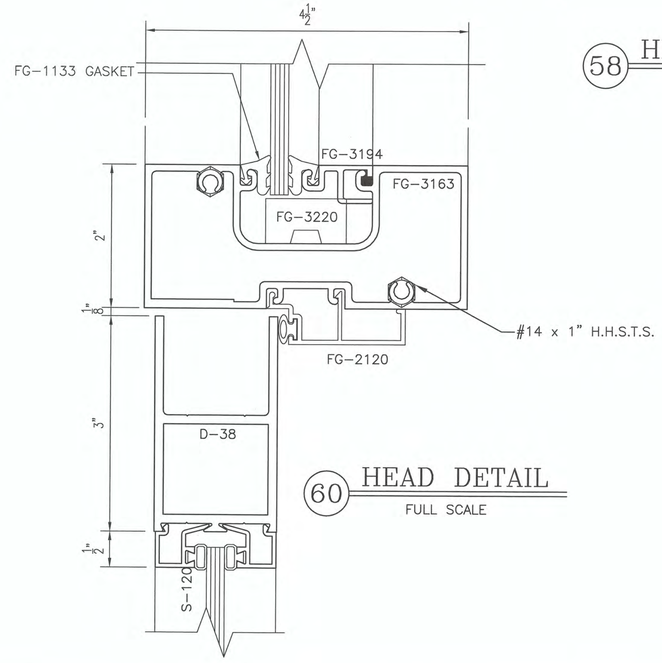


58 HEAD DETAIL
FULL SCALE

BOTH SIDES



59 SILL DETAIL
FULL SCALE



60 HEAD DETAIL
FULL SCALE

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
DIM.– DIMENSION
℄– CENTER LINE
F.S.– FRAME SIZE
W.S.– WINDOW SIZE
REQ'D– REQUIRED
CLR.– CLEAR
B.O.S.– BOTTOM OF STEEL
T.O.S.– TOP OF STEEL
NTS – NOT TO SCALE

SYMBOLS:

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DETAIL NUMBER / SHEET NUMBER

REVISIONS:

NO.	DATE:	DESCRIPTION:	NO.	DATE:	DESCRIPTION:
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6			6		

JOB NAME: THE PARK DANFORTH
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS
CONTRACTOR:

DATE: 2/25/16
SCALE: AS NOTED
DRAWN BY: W. PEASE

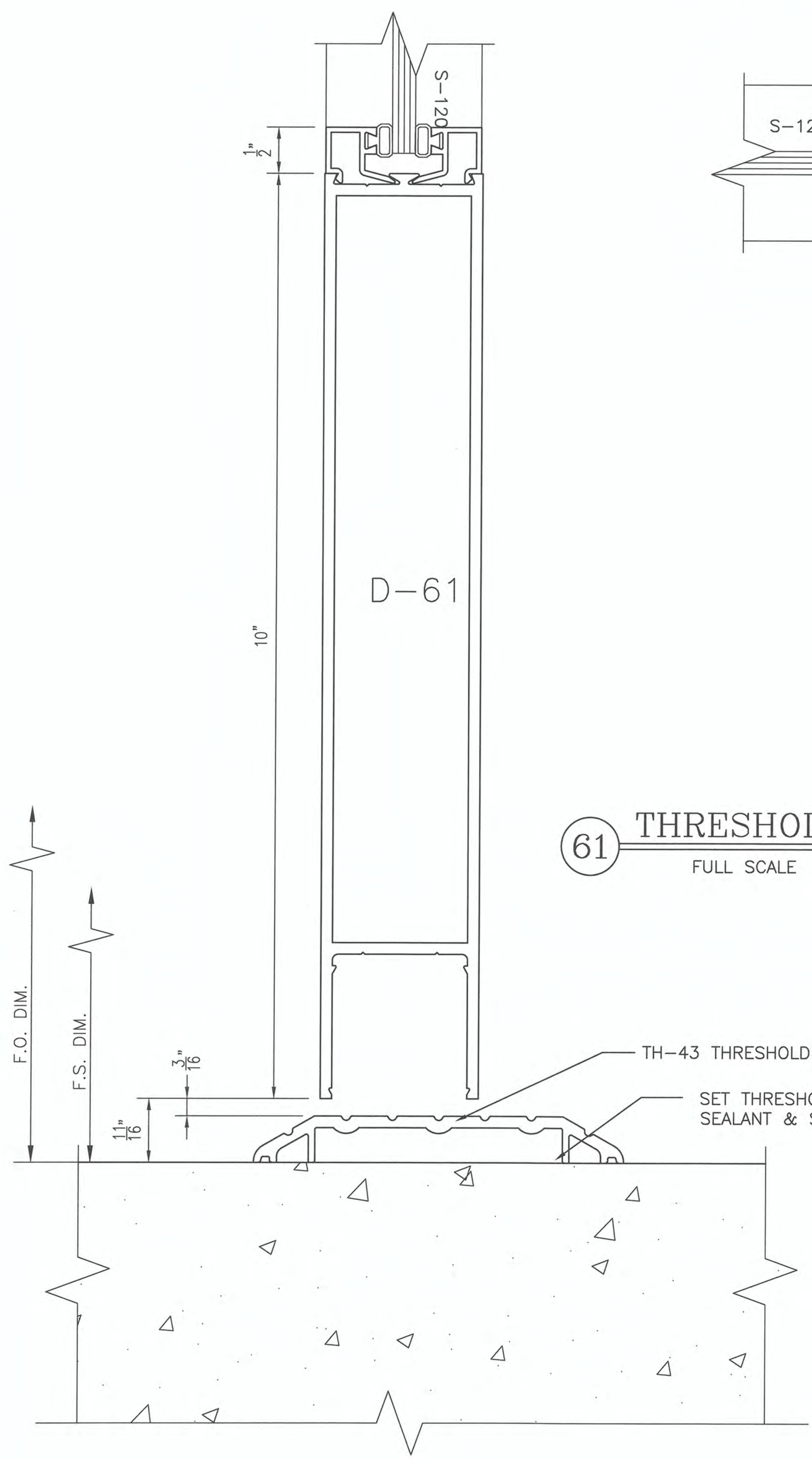
SHEET NUMBER 31 OF 33

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102
PHONE: 207-774-9851
FAX: 207-774-9855

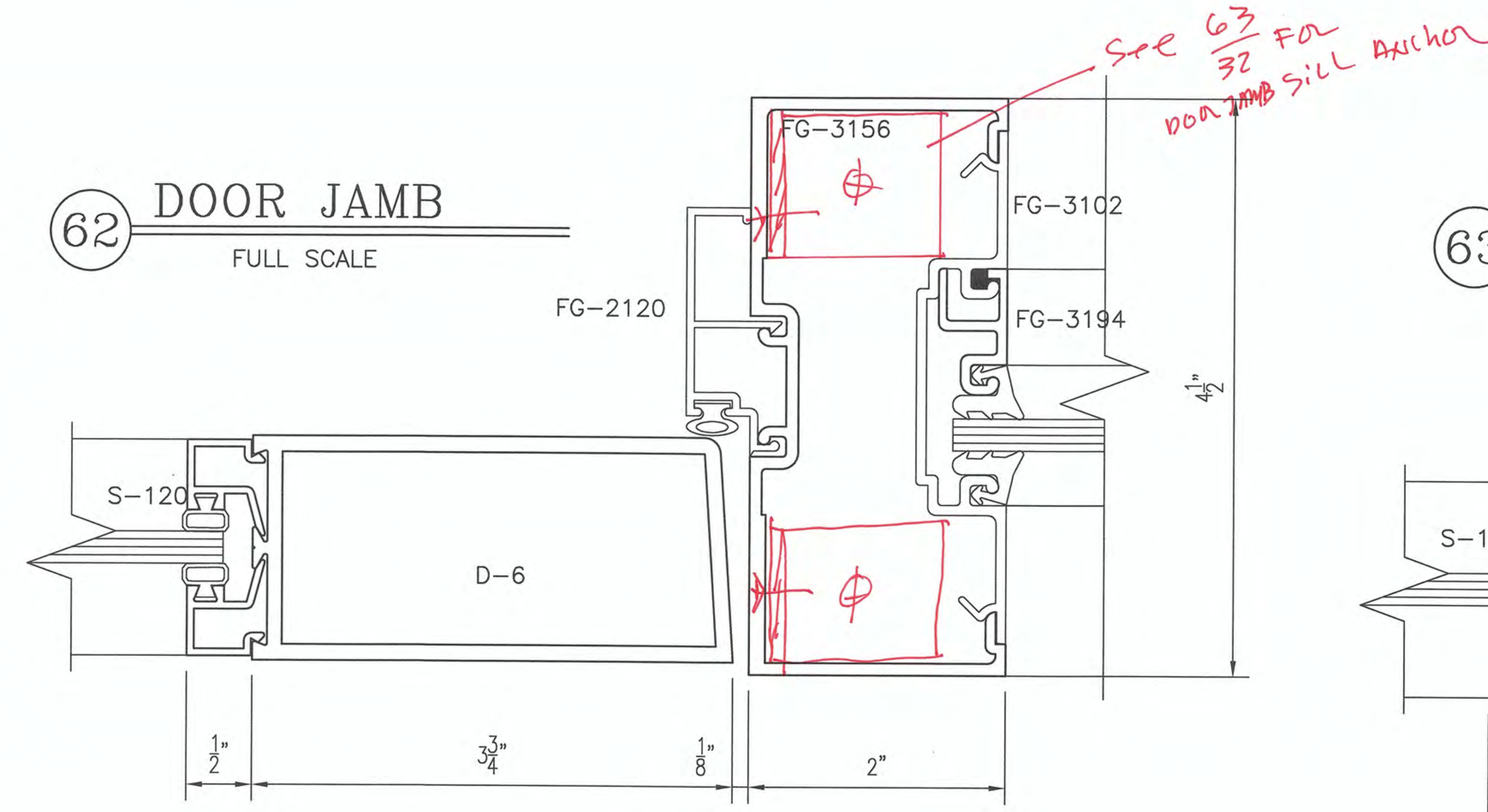
LAST REVISED: 2/25/16

JOB NAME: THE PARK DANFORTH

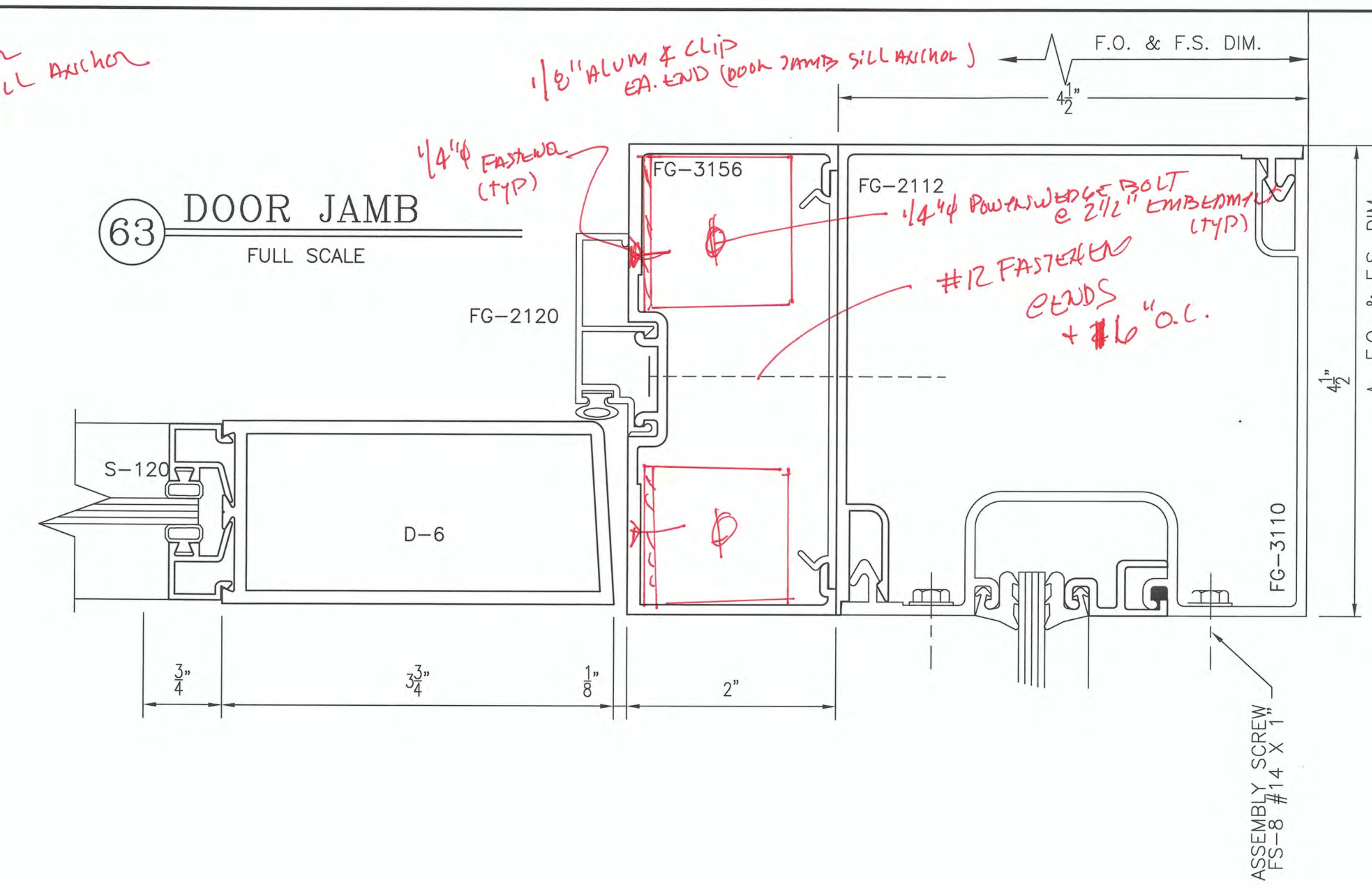
PG Portland Glass.



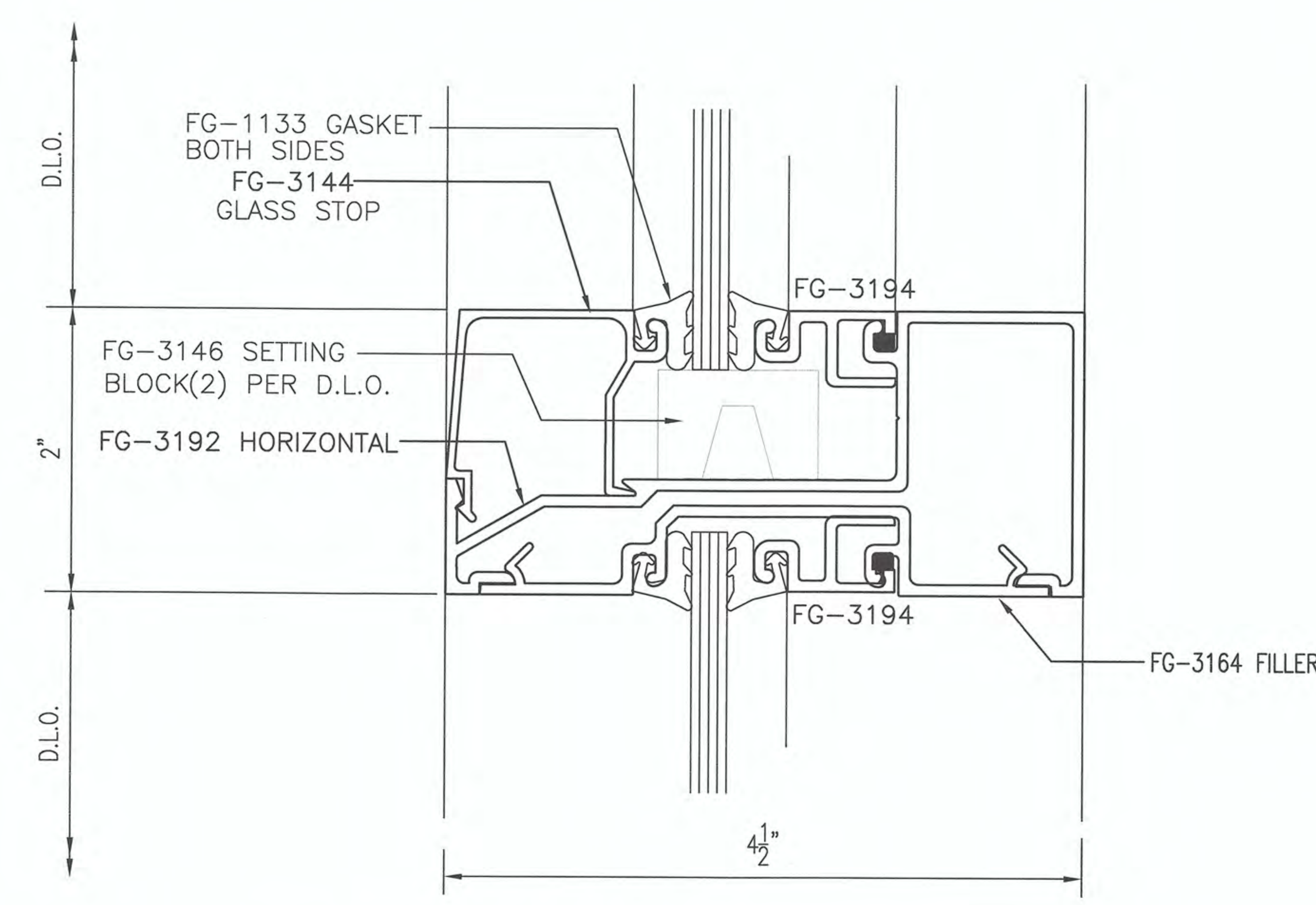
61 THRESHOLD
FULL SCALE



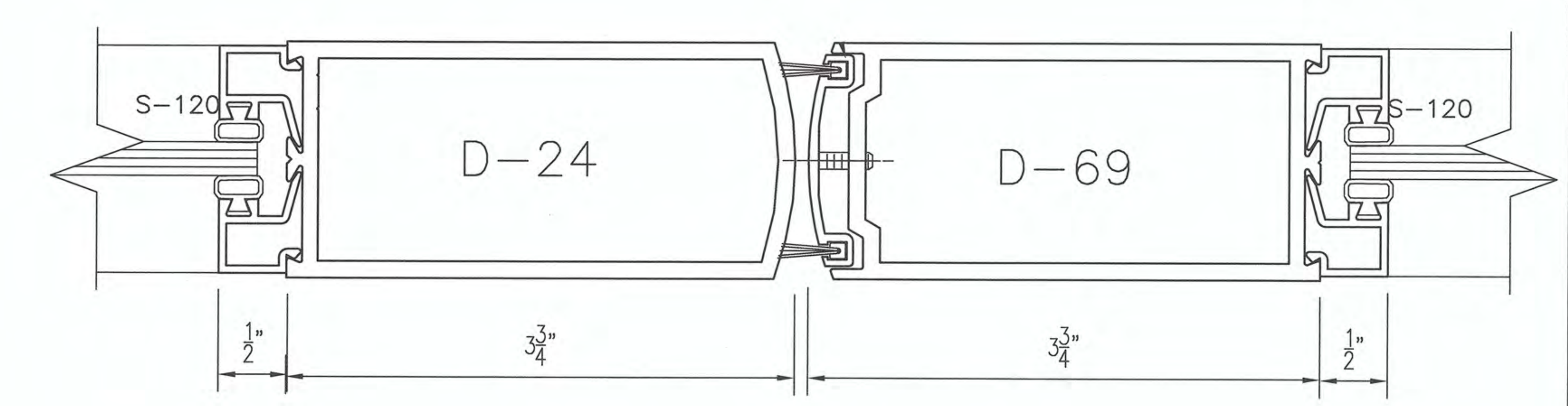
62 DOOR JAMB
FULL SCALE



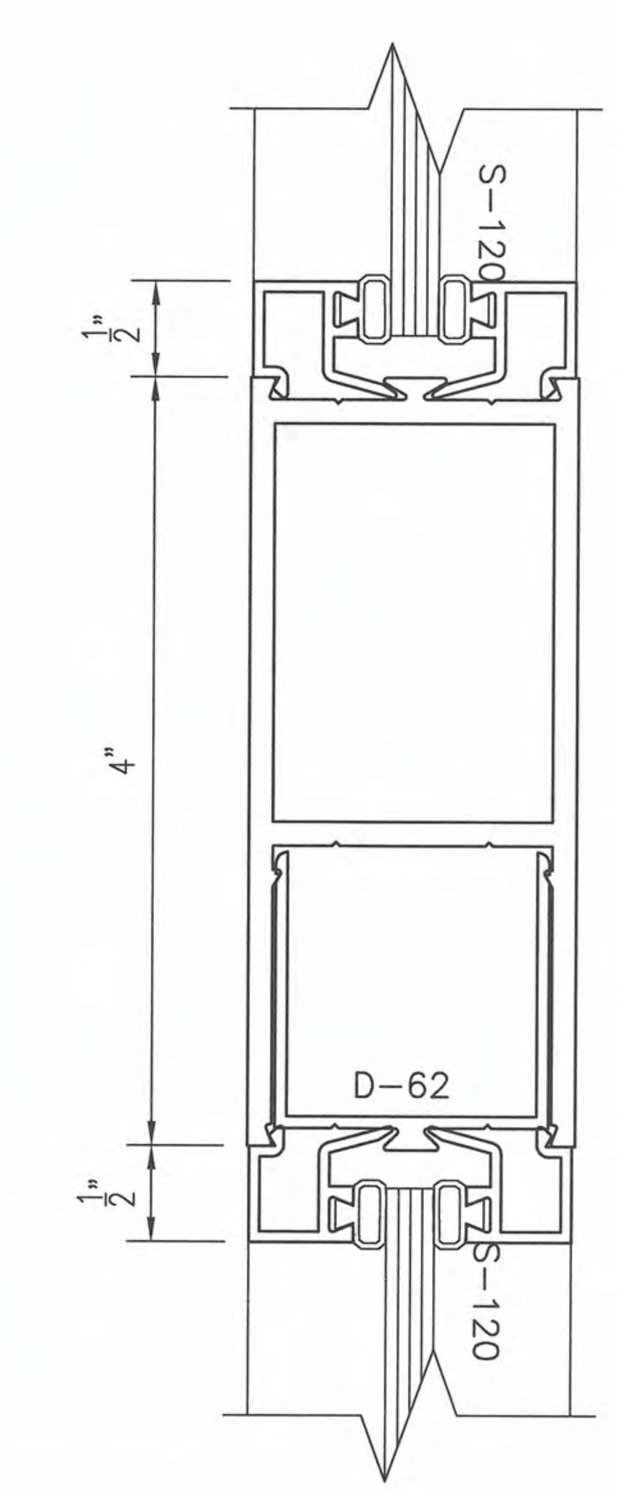
63 DOOR JAMB
FULL SCALE



64 HORIZ. DETAIL
FULL SCALE



65 MEETING STILE
FULL SCALE



66 MIDRAIL
FULL SCALE

ABBREVIATIONS:

M.O.– MASONRY OPENING
F.O.– FINISHED OPENING
D.O.– DOOR OPENING
S.O. – STEEL OPENING
A.F.F.– ABOVE FINISHED FLOOR
DIM.– DIMENSION
℄– CENTER LINE
F.S.– FRAME SIZE
W.S.– WINDOW SIZE
REQ'D– REQUIRED
CLR.– CLEAR
B.O.S.– BOTTOM OF STEEL
T.O.S.– TOP OF STEEL
NTS – NOT TO SCALE

SYMBOLS:

ELEVATION NUMBER / SHEET NUMBER
DETAIL NUMBER / SHEET NUMBER

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1			7		
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6			12		

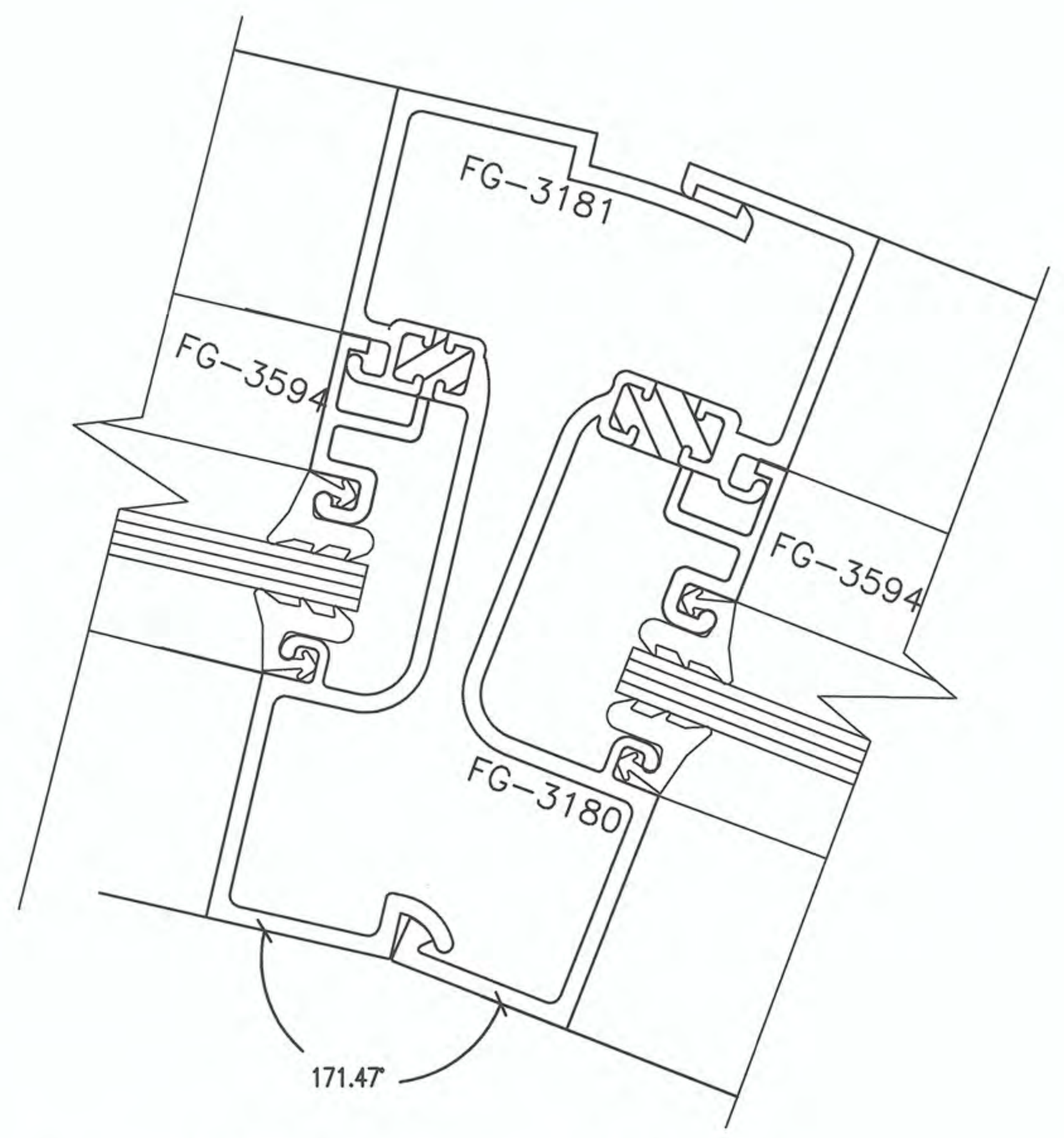
JOB NAME: THE PARK DANFORTH
ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS
CONTRACTOR:
DATE: 2/25/16
SCALE: AS NOTED
DRAWN BY: W. PEASE
SHEET NUMBER 32 OF 33

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102
PHONE: 207-774-9851
FAX: 207-774-9855

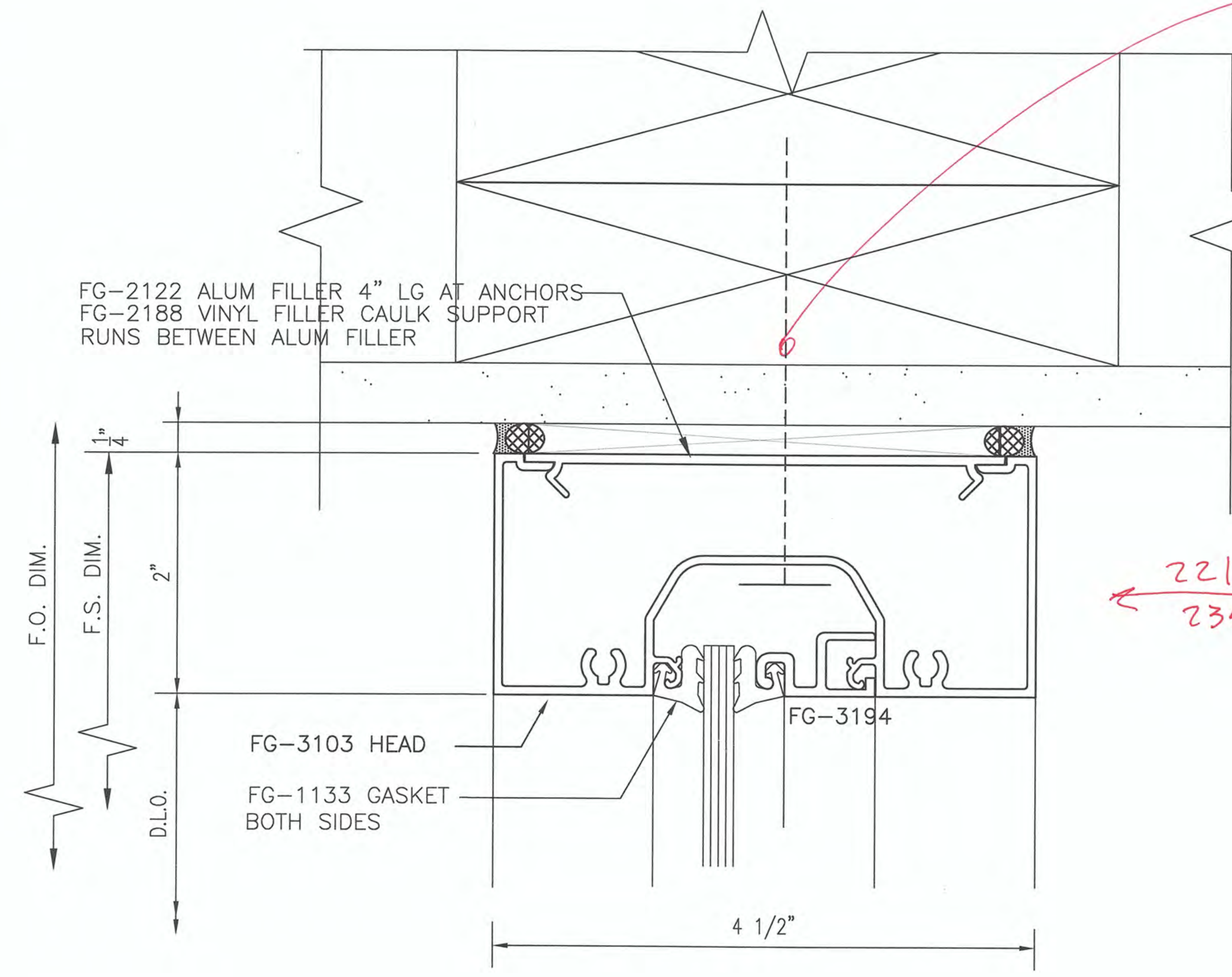
PG Portland Glass.

LAST REVISED: 2/25/16
JOB NAME: THE PARK DANFORTH

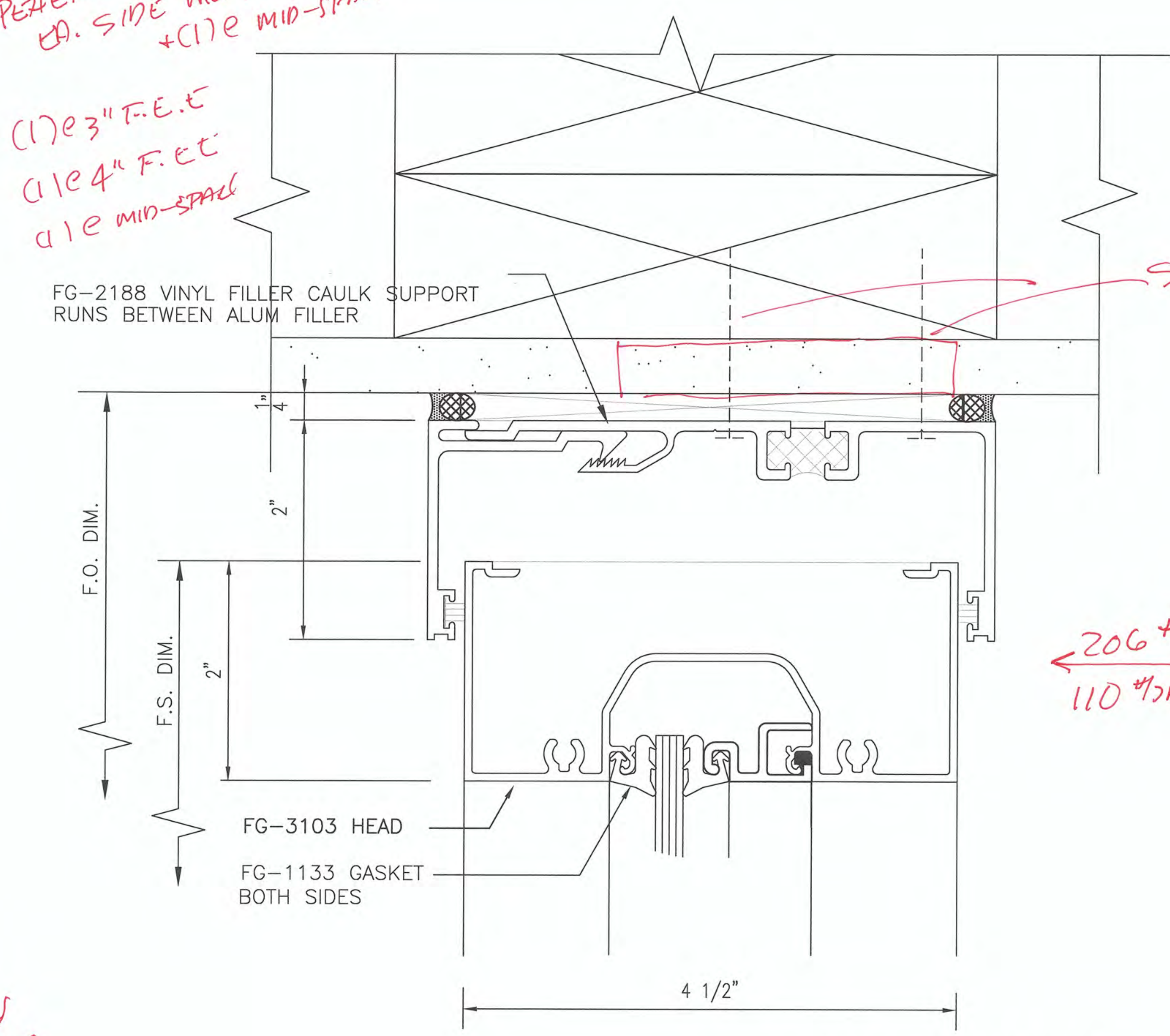
STATE OF MAINE PETER M. SALCONE No. 6228 LICENSED PROFESSIONAL ENGINEER



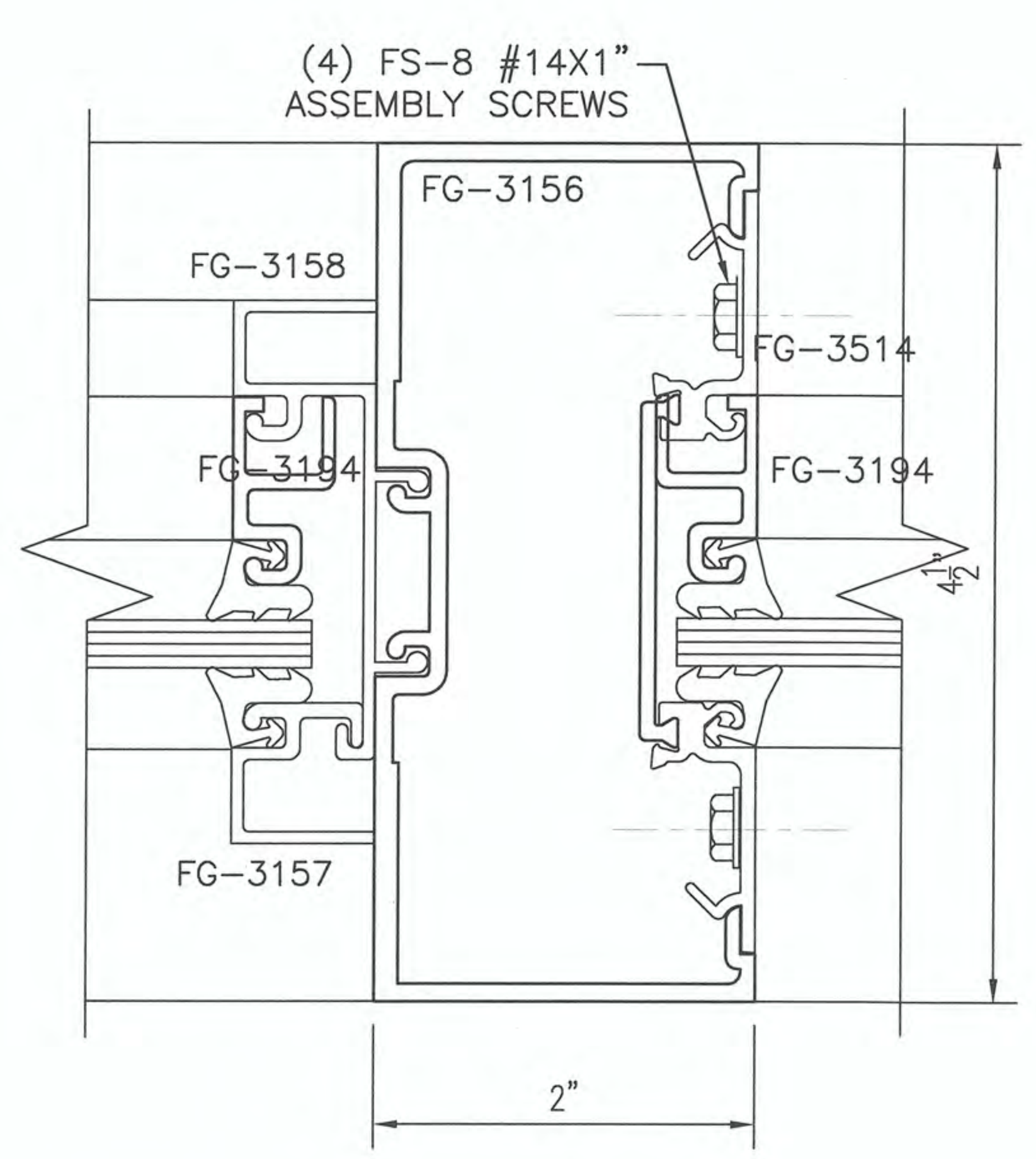
67 VERT. DETAIL
FULL SCALE



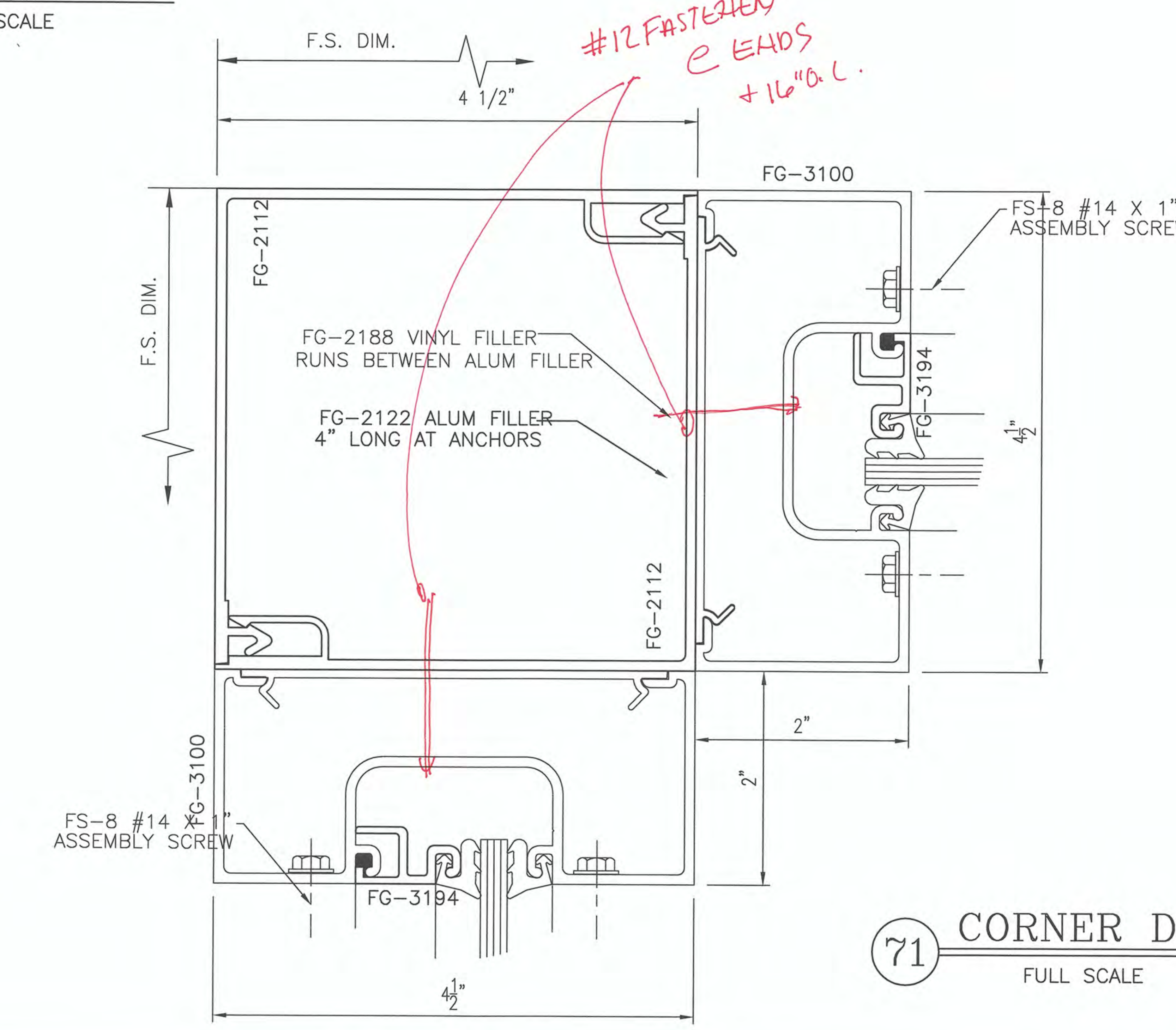
68 HEAD DETAIL
FULL SCALE



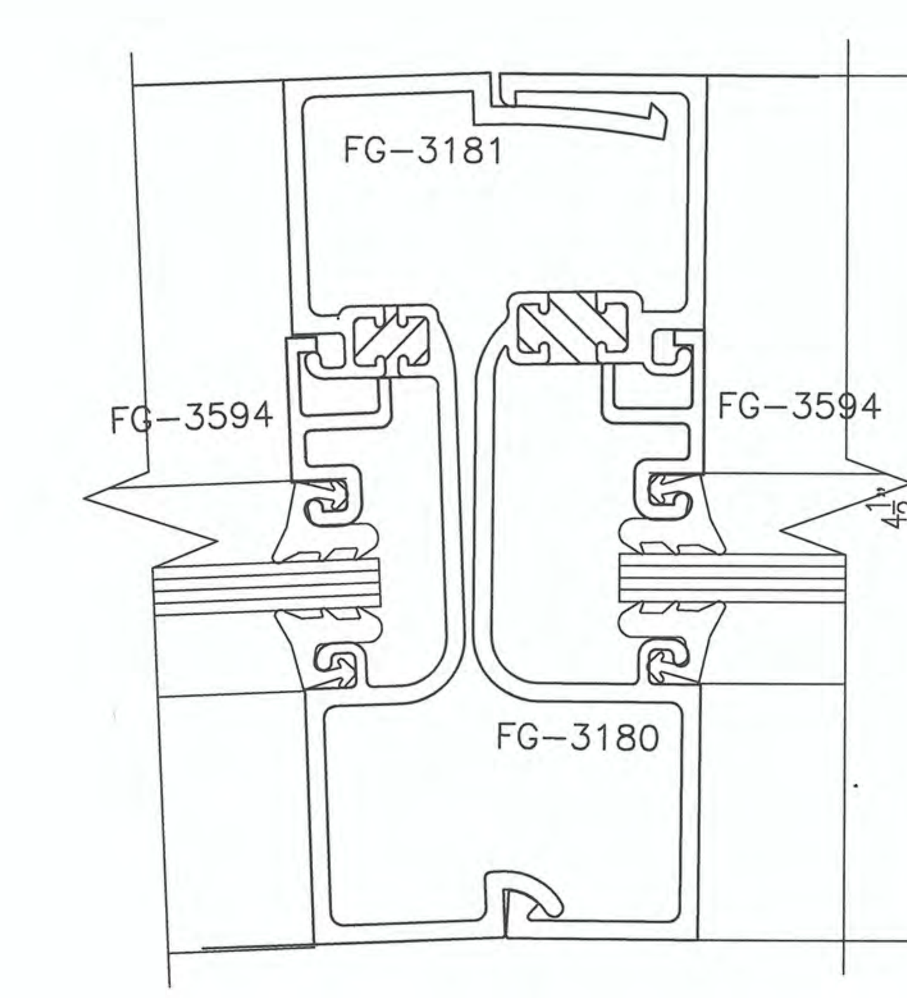
69 HEAD DETAIL
FULL SCALE



70 VERT. DETAIL
FULL SCALE



71 CORNER DETAIL
FULL SCALE



72 VERT. DETAIL
FULL SCALE

ABBREVIATIONS:

M.O.– MASONRY OPENING	F.S.– FRAME SIZE
F.O.– FINISHED OPENING	W.S.– WINDOW SIZE
D.O.– DOOR OPENING	REQ'D– REQUIRED
S.O. – STEEL OPENING	CLR.– CLEAR
A.F.F.– ABOVE FINISHED FLOOR	B.O.S.– BOTTOM OF STEEL
DIM.– DIMENSION	T.O.S.– TOP OF STEEL
℄– CENTER LINE	NTS – NOT TO SCALE

SYMBOLS:

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JOB NAME: THE PARK DANFORTH

ARCHITECT: LAVALLEE BRENSINGER ARCHITECTS

CONTRACTOR:

DATE: 2/25/16

SCALE: AS NOTED

DRAWN BY: W. PEASE

SHEET NUMBER 33 OF 33

PG PORTLAND GLASS
832 CONGRESS STREET
PORTLAND, MAINE 04102
PHONE: 207-774-9851
FAX: 207-774-9855

PG Portland Glass.

LAST REVISED: 2/25/16

JOB NAME: THE PARK DANFORTH