

ENERGY CODE CERT.:

COMcheck Software Version 4.1.1.0
Envelope Compliance Certificate

Project Information
Energy Code: 90.1 (2016) Standard
Project Title: VIP PRODUCTS
Location: Goodyear, Arizona
Climate Zone: 2b
Project Type: New Construction
Vertical Glazing / Wall Area: 3%
Performance Sim. Specs: EnergyPlus 8.1.0.009 (EPW: USA_AZ_Phoenix-Sky.Harbor.Intl.AP.722780_TMY3.epw)

Construction Site: GOODYEAR, AZ
Owner/Agent:
Designer/Contractor:

Building Area	Floor Area
1-Warehouse : Nonresidential	94452

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor _(a)
Roof 1: Attic Roof with Steel Joists, [Bldg. Use 1 - Warehouse]	94452	30.6	7.5	0.031	0.027
Skylight 1: Metal Frame:Plastic, With Curb, Perf. Specs.: Product ID N/A, SHGC 0.35, VT 0.70, [Bldg. Use 1 - Warehouse] (c)	1088	---	---	0.500	0.650
Floor 1: Slab-On-Grade:Unheated, [Bldg. Use 1 - Warehouse] (d)	1275	---	---	0.730	0.730
NORTH					
Exterior Wall 1: Solid Concrete:9" Thickness, Normal Density, Furring: Metal, [Bldg. Use 1 - Warehouse]	14451	13.0	0.0	0.141	0.151
Window 1: Metal Frame:Fixed, Perf. Specs.: Product ID N/A, SHGC 0.30, VT 0.49, [Bldg. Use 1 - Warehouse] (c)	402	---	---	0.290	0.540
Door 1: Glass (> 50% glazing):Metal Frame, Entrance Door, Perf. Specs.: Product ID N/A, SHGC 0.30, VT 0.49, [Bldg. Use 1 - Warehouse] (c)	48	---	---	0.290	0.830
Door 2: Insulated Metal, Swinging, [Bldg. Use 1 - Warehouse]	42	---	---	0.380	0.370
EAST					
Exterior Wall 3: Solid Concrete:9" Thickness, Normal Density, Furring: Metal, [Bldg. Use 1 - Warehouse]	7037	13.0	0.0	0.141	0.151
Window 3: Metal Frame:Fixed, Perf. Specs.: Product ID n/a, SHGC 0.30, VT 0.49, [Bldg. Use 1 - Warehouse] (c)	220	---	---	0.290	0.540
Door 4: Insulated Metal, Swinging, [Bldg. Use 1 - Warehouse]	21	---	---	0.380	0.370
SOUTH					
Exterior Wall 4: Solid Concrete:9" Thickness, Normal Density, Furring: Metal, [Bldg. Use 1 - Warehouse]	13278	13.0	0.0	0.141	0.151
Window 4: Metal Frame:Fixed, Perf. Specs.: Product ID n/a, SHGC 0.30, VT 0.49, [Bldg. Use 1 - Warehouse] (c)	402	---	---	0.290	0.540
Door 5: Glass (> 50% glazing):Metal Frame, Entrance Door, Perf. Specs.: Product ID n/a, SHGC 0.30, VT 0.49, [Bldg. Use 1 - Warehouse] (c)	48	---	---	0.290	0.830
Door 6: Insulated Metal, Swinging, [Bldg. Use 1 - Warehouse]	147	---	---	0.380	0.370

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Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor _(a)
Door 7: Other Door, Non-Swinging, [Bldg. Use 1 - Warehouse]	1854	---	---	0.120	0.310
WEST					
Exterior Wall 2: Solid Concrete:9" Thickness, Normal Density, Furring: Metal, [Bldg. Use 1 - Warehouse]	8559	13.0	0.0	0.141	0.151
Window 2: Metal Frame:Fixed, Perf. Specs.: Product ID n/a, SHGC 0.30, VT 0.49, [Bldg. Use 1 - Warehouse] (c)	220	---	---	0.290	0.540
Door 3: Insulated Metal, Swinging, [Bldg. Use 1 - Warehouse]	21	---	---	0.380	0.370

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
(b) "Other" components require supporting documentation for proposed U-factors.
(c) Penetration product performance must be certified in accordance with NFRC and requires supporting documentation.
(d) Slab-On-Grade proposed and budget U-factors shown in table are F-factors.

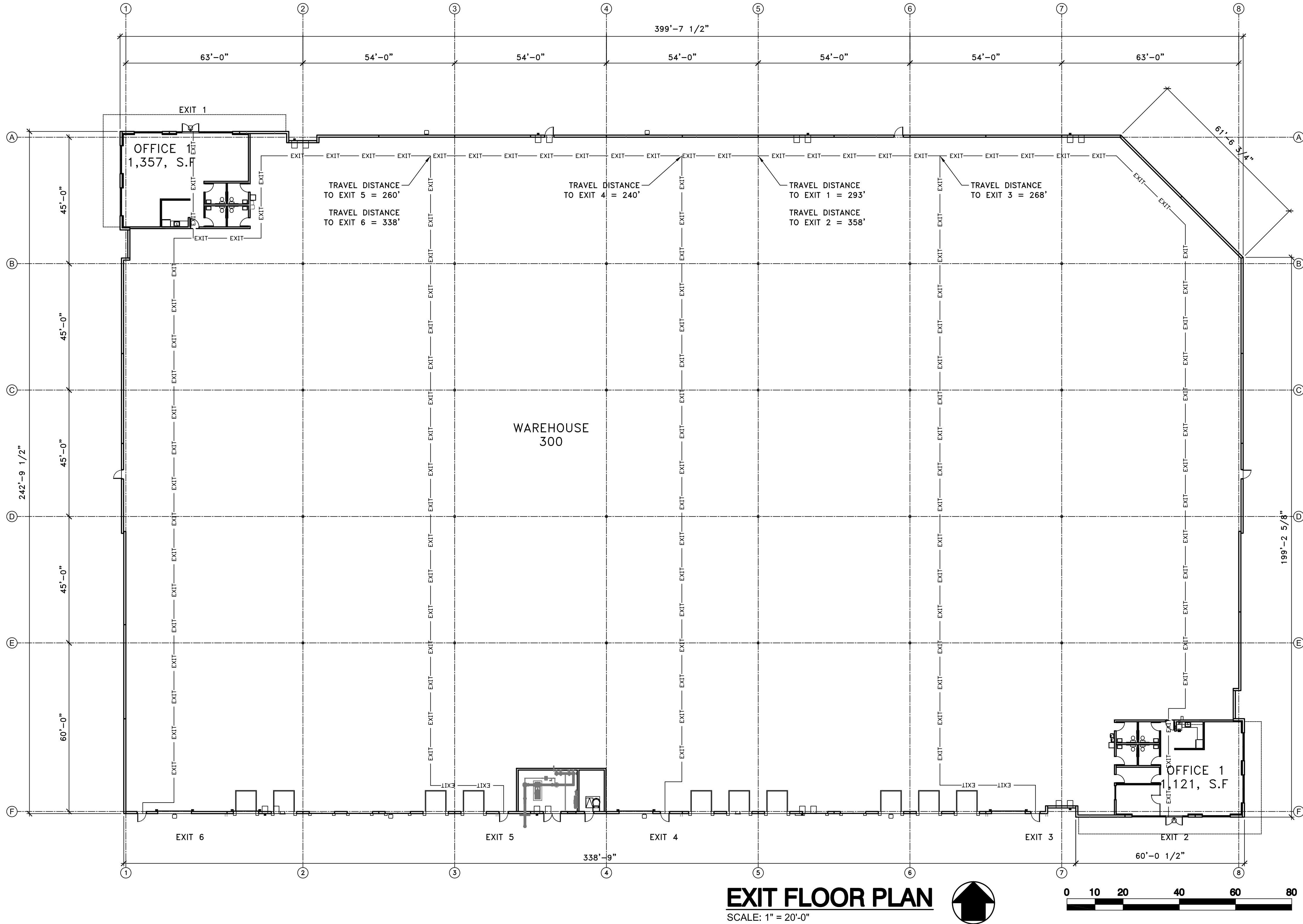
Envelope PASSES: Design 1% better than code

Envelope Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 90.1 (2016) Standard requirements in COMcheck Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Wesley R. Balmer
Name - Title
Signature
Date 3/15/21

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PLUMBING FIXTURE CALCS:

PER TABLE 2902.1

GENDER COUNT OFFICE = 17/2 = 8.5 MEN + 8.5 WOMEN
GENDER COUNT STORAGE = 182/2 = 91 MEN + 91 WOMEN

W/C REQUIRED PER GENDER:
OFFICE = 1:25 = 0.04 = 8.5 X .04 = .34
STORAGE = 1:100 = .01 = 91 X .01 = .91
TOTAL PER GENDER = .34 + .91 = 1.25 = 2 MINIMUM

LAVATORIES REQUIRED PER GENDER:
OFFICE = 1:40 = 0.025 = 8.5 X .025 = .21
STORAGE = 1:100 = .01 = 91 X .01 = .91
TOTAL PER GENDER = .21 + .91 = 1.12 = 2 MINIMUM

DRINKING FOUNTAINS:
1:100 OFFICE = 17 / 100 = .17
1:1000 STORAGE = 182 / 1000 = .18
TOTAL REQUIRED = .17 + .18 = .35 = 1 TOTAL

SERVICE SINK: 1 REQUIRED

PLUMBING FIXTURE PROVIDED

W/C PROVIDED PER GENDER:
WOMEN = 3 - MEN = 3

LAVATORIES PROVIDED PER GENDER:
WOMEN = 3; MEN = 3

DRINKING FOUNTAIN PROVIDED = 4

SERVICE SINK = 2

OCCUPANT LOAD & EXIT REQUIREMENTS:

ALL CALCULATIONS ARE BASED ON GROSS FLOOR AREA.

OFFICE (B): OCCUPANT LOAD PER TABLE 1004.5;
BUSINESS = 1:150 S.F.
OFFICE 1 = 1357 / 150 = 9 PEOPLE
OFFICE 2 = 1121 / 150 = 8 PEOPLE

OFFICE 1 EXITS REQ'D = 1; EXITS PROVIDED = 1
OFFICE 2 EXITS REQ'D = 1; EXITS PROVIDED = 1
TRAVEL DISTANCE ALLOWED: 300 FEET

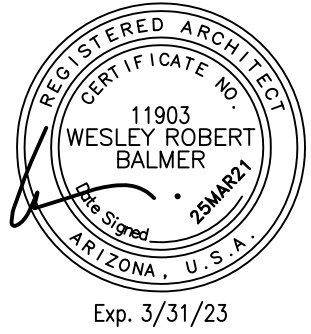
STORAGE (S1): OCCUPANT LOAD PER TABLE 1004.5;
WAREHOUSE = 1:500 S.F.
WAREHOUSE = 90602 / 500 = 182 PEOPLE

EXITS REQ'D = 2; EXITS PROVIDED = 6
TRAVEL DISTANCE ALLOWED: 400 FEET
PER 1017.2.2 - ALL CONDITIONS ARE MET.

MINIMUM EXIT WIDTH PER SECTION 1005.3.2 FOR EGRESS DOORS: .2 INCHES PER OCCUPANT
OFFICE 1 = 9 X .02 = .18" (PROVIDED = 64")
OFFICE 2 = 8 X .02 = .16" (PROVIDED = 64")

WAREHOUSE = 182 x .2 = 3.64" (PROVIDED 192")
(WIDTH IS BASE ON SECTION 1010.1.1 MINIMUM DOOR OPENING WITH DOOR OPEN 90-DEG. = 32". ALL DOORS ARE 36" WIDE)

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VIP PRODUCTS
GOODYEAR, AZ.
OCCUPANT LOAD CALCS; EXIT PLAN; PLUMBING FIXTURES; ENERGY CODE CERT.

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