

# ELEVATION CERTIFICATE

**Important:** Follow the instructions on pages 1–9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION				FOR INSURANCE COMPANY USE	
A1. Building Owner's Name Federal Business Center				Policy Number:	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 6000 Riverside Drive				Company NAIC Number:	
City Keasbey		State New Jersey		ZIP Code 08832	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Block 114, Lot 4					
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <u>Non-Residential - Inbound Guardhouse</u>					
A5. Latitude/Longitude: Lat. <u>N 40.507076</u> Long. <u>W 74.329005</u> Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983					
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.					
A7. Building Diagram Number <u>1A</u>					
A8. For a building with a crawlspace or enclosure(s):					
a) Square footage of crawlspace or enclosure(s) <u>N/A</u> sq ft					
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade <u>N/A</u>					
c) Total net area of flood openings in A8.b <u>N/A</u> sq in					
d) Engineered flood openings? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
A9. For a building with an attached garage:					
a) Square footage of attached garage <u>N/A</u> sq ft					
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade <u>N/A</u>					
c) Total net area of flood openings in A9.b <u>N/A</u> sq in					
d) Engineered flood openings? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number Township of Woodbridge, 345331			B2. County Name Middlesex		B3. State New Jersey
B4. Map/Panel Number 34023C0064	B5. Suffix F	B6. FIRM Index Date 07-06-2010	B7. FIRM Panel Effective/ Revised Date 07-06-2010	B8. Flood Zone(s) AE	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 9 Ft.
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input type="checkbox"/> FIS Profile <input checked="" type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other/Source: _____					
B11. Indicate elevation datum used for BFE in Item B9: <input type="checkbox"/> NGVD 1929 <input checked="" type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Date: _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA					

# ELEVATION CERTIFICATE

OMB No. 1660-0008  
Expiration Date: November 30, 2022

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 6000 Riverside Drive			Policy Number:
City Keasbey	State New Jersey	ZIP Code 08832	Company NAIC Number

## SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on:  Construction Drawings\*  Building Under Construction\*  Finished Construction

\*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO. Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: Onsite Drillhole - via GPS Vertical Datum: NAVD 1988

Indicate elevation datum used for the elevations in items a) through h) below.

NGVD 1929  NAVD 1988  Other/Source: \_\_\_\_\_

Datum used for building elevations must be the same as that used for the BFE.

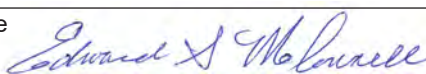
Check the measurement used.

- |   |       |      |  |                                 |
|---|-------|------|--|---------------------------------|
| a) Top of bottom floor (including basement, crawlspace, or enclosure floor)   | _____ | 11.2 | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| b) Top of the next higher floor   | _____ | N/A  | <input type="checkbox"/> feet            | <input type="checkbox"/> meters |
| c) Bottom of the lowest horizontal structural member (V Zones only)   | _____ | N/A  | <input type="checkbox"/> feet            | <input type="checkbox"/> meters |
| d) Attached garage (top of slab)  | _____ | N/A  | <input type="checkbox"/> feet            | <input type="checkbox"/> meters |
| e) Lowest elevation of machinery or equipment servicing the building<br>(Describe type of equipment and location in Comments) | _____ | 13.2 | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| f) Lowest adjacent (finished) grade next to building (LAG)  | _____ | 11.0 | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| g) Highest adjacent (finished) grade next to building (HAG)   | _____ | 11.1 | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support                                  | _____ | N/A  | <input type="checkbox"/> feet            | <input type="checkbox"/> meters |

## SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

Were latitude and longitude in Section A provided by a licensed land surveyor?  Yes  No  Check here if attachments.

Certifier's Name Edward S. McConnell, PLS	License Number GS17432	<b>Place Seal Here</b>	
Title Senior Land Surveyor			
Company Name Stantec Consulting Services, Inc.			
Address 10000 Midlantic Drive, Suite 300W			
City Mount Laurel	State New Jersey		ZIP Code 08054
Signature 	Date 04-08-2021	Telephone (856) 234-0800	Ext.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including type of equipment and location, per C2(e), if applicable)

C2e - The equipment servicing the structure at said lowest elevation is the electrical panel. It is located inside the building 2 feet above the first floor level (C2.a).

FEMA Firm Map No. 34023C0064G, Preliminary date of January 31, 2014. This map has the most stringent delineation of 14 ft NAVD88, as such, said BFE was used for construction purposes. The building has been floodproofed to an elevation of 15 ft NAVD88. See Floodproofing Certificate attached.

This certificate is for the FedEx Inbound Guardhouse.

# ELEVATION CERTIFICATE

OMB No. 1660-0008  
Expiration Date: November 30, 2022

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 6000 Riverside Drive			Policy Number:
City Keasbey	State New Jersey	ZIP Code 08832	Company NAIC Number

## SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

- E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).
- a) Top of bottom floor (including basement, crawlspace, or enclosure) is \_\_\_\_\_ N/A  feet  meters  above or  below the HAG.
- b) Top of bottom floor (including basement, crawlspace, or enclosure) is \_\_\_\_\_ N/A  feet  meters  above or  below the LAG.
- E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is \_\_\_\_\_ N/A  feet  meters  above or  below the HAG.
- E3. Attached garage (top of slab) is \_\_\_\_\_ N/A  feet  meters  above or  below the HAG.
- E4. Top of platform of machinery and/or equipment servicing the building is \_\_\_\_\_ N/A  feet  meters  above or  below the HAG.
- E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance?  Yes  No  Unknown. The local official must certify this information in Section G.

## SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner or Owner's Authorized Representative's Name

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ ZIP Code \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_ Telephone \_\_\_\_\_

Comments

Check here if attachments.

# ELEVATION CERTIFICATE

OMB No. 1660-0008  
Expiration Date: November 30, 2022

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>	<b>FOR INSURANCE COMPANY USE</b>		
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 6000 Riverside Drive	Policy Number:		
City Keasbey	State New Jersey	ZIP Code 08832	Company NAIC Number

## SECTION G – COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8–G10. In Puerto Rico only, enter meters.

- G1.  The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)
- G2.  A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.
- G3.  The following information (Items G4–G10) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate of Compliance/Occupancy Issued
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G7. This permit has been issued for:  New Construction  Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building: \_\_\_\_\_  feet  meters Datum \_\_\_\_\_

G9. BFE or (in Zone AO) depth of flooding at the building site: \_\_\_\_\_  feet  meters Datum \_\_\_\_\_

G10. Community's design flood elevation: \_\_\_\_\_  feet  meters Datum \_\_\_\_\_

Local Official's Name	Title
Community Name	Telephone
Signature	Date

Comments (including type of equipment and location, per C2(e), if applicable)

Check here if attachments.

# BUILDING PHOTOGRAPHS

See Instructions for Item A6.

OMB No. 1660-0008

Expiration Date: November 30, 2022

## ELEVATION CERTIFICATE

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Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 6000 Riverside Drive			Policy Number:
City Keasbey	State New Jersey	ZIP Code 08832	Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.



Photo One

Photo One Caption 03/24/2021 - North side of Inbound Guardhouse

Clear Photo One



Photo Two

Photo Two Caption 03/24/2021 - Door on North side of Inbound Guardhouse

Clear Photo Two

# BUILDING PHOTOGRAPHS

Continuation Page

OMB No. 1660-0008

Expiration Date: November 30, 2022

## ELEVATION CERTIFICATE

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 6000 Riverside Drive			Policy Number:
City Keasbey	State New Jersey	ZIP Code 08832	Company NAIC Number

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.

Photo Three

Photo Three

Photo Three Caption

Clear Photo Three

Photo Four

Photo Four

Photo Four Caption

Clear Photo Four

## FLOODPROOFING CERTIFICATE FOR NON-RESIDENTIAL STRUCTURES

### Paperwork Burden Disclosure Notice

Public reporting burden for this data collection is estimated to average 3.25 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting this form. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street SW, Washington, DC 20742, Paperwork Reduction Project (1660-0008). **NOTE: Do not send your completed form to this address.**

**General:** This information is provided pursuant to Public Law 96-511 (the Paperwork Reduction Act of 1980, as amended), dated December 11, 1980, to allow the public to participate more fully and meaningfully in the Federal paperwork review process.

**Authority:** Public Law 96-511, amended; 44 U.S.C. 3507; and 5 CFR 1320.

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### Privacy Act Statement

**Authority:** Title 44 CFR § 61.7 and 61.8.

**Principal Purpose(s):** This information is being collected for the primary purpose of estimating the risk premium rates necessary to provide flood insurance for new or substantially improved structures in designated Special Flood Hazard Areas.

**Routine Use(s):** The information on this form may be disclosed as generally permitted under 5 U.S.C. § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/FEMA-003 – National Flood Insurance Program Files System or Records Notice 73 Fed. Reg. 77747 (December 19, 2008); DHS/FEMA/NFIP/LOMA-1 – National Flood Insurance Program (NFIP) Letter of Map Amendment (LOMA) System of Records Notice 71 Fed. Reg. 7990 (February 15, 2006); and upon written request, written consent, by agreement, or as required by law.

**Disclosure:** The disclosure of information on this form is voluntary; however, failure to provide the information requested may result in the inability to obtain flood insurance through the National Flood Insurance Program or being subject to higher premium rates for flood insurance. Information will only be released as permitted by law.

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### Purpose of the Floodproofing Certificate for Non-Residential Structures

Under the National Flood Insurance Program (NFIP), the floodproofing of non-residential buildings may be permitted as an alternative to elevating to or above the Base Flood Elevation (BFE). A floodproofing design certification is required for non-residential structures that are floodproofed. This form is to be used for that certification.

A floodproofed building is a building that has been designed and constructed to be watertight (substantially impermeable to floodwaters) below the BFE and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. Before a floodproofed building is designed, numerous planning considerations, including flood warning time, uses of the building, mode of entry to and exit from the building and the site in general, floodwater velocities, flood depths, debris impact potential, and flood frequency, must be addressed to ensure that dry floodproofing will be a viable floodplain management measure.

The minimum NFIP requirement is to floodproof a building to the BFE. However, when it is rated for flood insurance one-foot is subtracted from the floodproofed elevation. Therefore, a building has to be floodproofed to one foot above the BFE to receive the same favorable flood insurance rates as a building elevated to the BFE.

Additional guidance can be found in FEMA Publication 936, Floodproofing Non-Residential Buildings (2013), available on FEMA's website at <https://www.fema.gov/media-library/assets/documents/34270>.

## FLOODPROOFING CERTIFICATE FOR NON-RESIDENTIAL STRUCTURES

The floodproofing of non-residential buildings may be permitted as an alternative to elevating to or above the Base Flood Elevation; however, a floodproofing design certification is required. This form is to be used for that certification. Floodproofing of a residential building does not alter a community's floodplain management elevation requirements or affect the insurance rating unless the community has been issued an exception by FEMA to allow floodproofed residential basements. The permitting of a floodproofed residential basement requires a separate certification specifying that the design complies with the local floodplain management ordinance.

BUILDING OWNER'S NAME Federal Business Center	<b>FOR INSURANCE COMPANY USE</b>  POLICY NUMBER   COMPANY NAIC NUMBER	
STREET ADDRESS (Including Apt., Unit, Suite, and/or Bldg. Number) OR P.O. ROUTE AND BOX NUMBER 6000 Riverside Drive		
OTHER DESCRIPTION (Lot and Block Numbers, etc.) Block 114, Lot 4 - Inbound Guardhouse		
CITY            Keasbey	STATE        NJ	Zip Code      08832

### SECTION I – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

Provide the following from the proper FIRM:

COMMUNITY NUMBER	PANEL NUMBER	SUFFIX	DATE OF FIRM INDEX	FIRM ZONE	BASE FLOOD ELEVATION (in AO Zones, Use Depth)
345331	34023C0064	F	07-06-2010	AE	9'

Indicate elevation datum used for Base Flood Elevation shown above:  NGVD 1929     NAVD 1988     Other/Source: \_\_\_\_\_

### SECTION II – FLOODPROOFED ELEVATION CERTIFICATION (By a Registered Professional Land Surveyor, Engineer, or Architect)

All elevations must be based on finished construction.

**Floodproofing Elevation Information:**

Building is floodproofed to an elevation of 15 . 0 feet (In Puerto Rico only: \_\_\_\_\_ . \_\_\_\_\_ meters).

NGVD 1929     NAVD 1988     Other/Source: \_\_\_\_\_

(Elevation datum used must be the same as that used for the Base Flood Elevation.)

Height of floodproofing on the building above the lowest adjacent grade is 4.0 feet (In Puerto Rico only: \_\_\_\_\_ meters).

**For Unnumbered A Zones Only:**

Highest adjacent (finished) grade next to the building (HAG) \_\_\_\_\_ . \_\_\_\_\_ feet (In Puerto Rico only: \_\_\_\_\_ . \_\_\_\_\_ meters).

NGVD 1929     NAVD 1988     Other/Source: \_\_\_\_\_

(NOTE: For insurance rating purposes, the building's floodproofed design elevation must be at least 1 foot above the Base Flood Elevation to receive rating credit. If the building is floodproofed only to the Base Flood Elevation, then the building's insurance rating will result in a higher premium. See the Instructions section for information on documentation that must accompany this certificate if being submitted for flood insurance rating purposes.)




## FLOODPROOFING CERTIFICATE FOR NON-RESIDENTIAL STRUCTURES

**Non-Residential Floodproofed Elevation Information Certification:**

Section II certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information

*I certify that the information in Section II on this Certificate represents a true and accurate interpretation and determination by the undersigned using the available information and data. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.*

CERTIFIER'S NAME Edward S. McConnell, PLS	LICENSE NUMBER (or Affix Seal) GS17432			PLACE SEAL HERE
TITLE Senior Land Surveyor	COMPANY NAME Stantec Consulting Services, Inc.			
ADDRESS 10000 Midlantic Drive, Suite 300W	CITY Mount Laurel	STATE New Jersey	ZIP CODE 08060	
SIGNATURE 	DATE Apr 6, 2021	PHONE +1 (856) 234-0800		

**SECTION III – FLOODPROOFED CERTIFICATION (By a Registered Professional Engineer or Architect)**


**Non-Residential Floodproofed Construction Certification:**

*I certify the structure, based upon development and/or review of the design, specifications, as-built drawings for construction and physical inspection, has been designed and constructed in accordance with the accepted standards of practice (ASCE 24-05, ASCE 24-14 or their equivalent) and any alterations also meet those standards and the following provisions.*

The structure, together with attendant utilities and sanitary facilities is watertight to the floodproofed design elevation indicated above, is substantially impermeable to the passage of water, and shall perform in accordance with the 44 Code of Federal Regulations (44 CFR 60.3(c)(3).

All structural components are capable of resisting hydrostatic and hydrodynamic flood forces, including the effects of buoyancy, and anticipated debris impact forces.

*I certify that the information in Section III on this certificate represents a true and accurate determination by the undersigned using the available information and data. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.*

CERTIFIER'S NAME Joseph R. Odenheimer, PE	LICENSE NUMBER (or Affix Seal) GS17432			PLACE SEAL HERE
TITLE Associate	COMPANY NAME Stantec Consulting Services, Inc.			
ADDRESS 10000 Midlantic Drive, Suite 300W	CITY Mount Laurel	STATE New Jersey	ZIP CODE 08054	
SIGNATURE 	DATE Apr 6, 2021	PHONE +1 (856) 234-0800		

Copy all pages of this Floodproofing Certificate and all attachments for 1) community official, 2) insurance agent/company, and 3) building owner.

## FLOODPROOFING CERTIFICATE FOR NON-RESIDENTIAL STRUCTURES

### Instructions for Completing the Floodproofing Certificate for Non-Residential Structures

To receive credit for floodproofing, a completed Floodproofing Certificate for Non-Residential Structures is required for non-residential and business buildings in the Regular Program communities, located in zones A1–A30, AE, AR, AR Dual, AO, AH, and A with BFE.

In order to ensure compliance and provide reasonable assurance that due diligence had been applied in designing and constructing floodproofing measures, the following information must be provided with the completed Floodproofing Certificate:

- Photographs of shields, gates, barriers, or components designed to provide floodproofing protection to the structure.
- Written certification that all portions of the structure below the BFE that will render it watertight or substantially impermeable to the passage of water and must perform in accordance with Title 44 Code of Federal Regulations (44 CFR 60.3 (c)(3)).
- A comprehensive Maintenance Plan for the entire structure to include but not limited to:
  - Exterior envelope of the structure
  - All penetrations to the exterior of the structure
  - All shields, gates, barriers, or components designed to provide floodproofing protection to the structure
  - All seals or gaskets for shields, gates, barriers, or components
  - Location of all shields, gates, barriers, and components as well as all associated hardware, and any materials or specialized tools necessary to seal the structure.



Stantec Consulting Services Inc.  
10000 Midlantic Drive Suite 300W, Mount Laurel NJ 08054-1520

April 6, 2021  
File: 218010965

Attention: Thomas Flynn, Floodplain Manager  
Woodbridge Township  
1 Main Street  
Woodbridge, NJ 07095

**Reference: FedEx Woodbridge Hub Expansion: Guardhouse Floodproofing Measures**

Dear Mr. Flynn,

In the above noted project, the two guardhouses below the flood plain elevation have received the following preventative measures:

- Knee walls of poured concrete, 4'-3" high and coated in liquid applied water repellant coating for the entirety of that height. Product: Henry Company HE101 – Non-Fibered Foundation Coating.
- Bolted on floodgate frames and inserts with pneumatic seals for insert during flooding at each exterior door (2 each building, total 4), Product: Presray Corp FB22 Flood Barrier.

**Flood Emergency Operation Plan**

1. In the event of flood warnings or flood threats, the Facility Manager of the FedEx Hub shall notify the onsite security manager of potential flooding.
2. Security personnel located in Guardhouse should install the removable flood protection barrier at each doorway.

**Inspection and Maintenance Plan**

1. Inspect the exterior structure annually and after heavy rain and winds. Any cracking or compromised block, gapped joints or other deficiencies should be reconstructed to provide a floodproofed condition.
2. Inspect all penetrations into the structure annually. Any cracking, deterioration or compromised seals shall be removed and resealed in accordance with regulations.
3. Inspect the portable Flood Barrier doors annually. Inspection includes the Owner/Manager to install doors to test for a secure fit.
4. See attached Presray documentation for maintenance and inspection of seals related to the Flood Barrier doors.
5. The portable Flood Barrier doors shall be located within the guardhouse for easy access and installation.

Each of the listed items should be inspected at least once a year.

April 6, 2021

Thomas Flynn, Floodplain Manager

Page 2 of 2

Reference: FedEx Woodbridge Hub Expansion: Guardhouse Floodproofing Measures

Regards,

**Stantec Consulting Services Inc.**



**Joseph Odenheimer** P.E.

Associate

Phone: 856 242 6042

Joseph.Odenheimer@stantec.com

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Last Rev Date: 04/12/2012

### Physical Properties

Appearance Smooth gloss black	Drying Time @ 50% R.H. 68°F (20°C) 8 hrs set to touch	Solids By Weight 74% minimum
Base Refined asphalt	Flash Point 105° F (ASTM D-3278)	Specific Gravity @ 77° F (25°C) 0.93
Brookfield Viscosity 2000-4000 cPs	Gloss (60°) >80	Weight Per Gallon 7.6- 8.2 lbs (ASTM D-1475)
Consistency @ 77° F Brush, Spray	Maximum VOC 247 g/l	

### Description

HE101 - NON-FIBERED FOUNDATION COATING is a cold applied, non-fibrated, liquid asphalt in a solvent system ideal for dampproofing above and below grade exterior concrete and masonry walls and foundations that are thoroughly dry. NOT TO BE SOLD IN SOUTHERN CALIFORNIA.

### Usage

HE101 - NON-FIBERED FOUNDATION COATING is recommended for commercial or residential foundations.

### Coverage

1.5 to 2.0 gallons per 100 square feet. Do not over-apply.

### Surface Preparation

FOR EXTERIOR USE ONLY. Surface must be clean and dry, and free of moisture both on and beneath the surface. Remove rust and scale from metal by wire brushing. Carefully inspect entire area to be coated. Repair all cracks, breaks, tears and holes.

### Application

Stir coating thoroughly. Do not thin. Apply a single coat over the entire surface with a brush or heavy duty spray equipment.

### Precautions

In cold weather, store HE101 - NON-FIBERED FOUNDATION COATING in a warm room overnight before using. DO NOT APPLY IF THERE IS A THREAT OF RAIN WITHIN 24 HOURS. Avoid contact with coating after it is applied. Over-application, especially in cold weather, may cause sagging. Exposed coating tends to soften in warm weather. Do not heat container or store at temperatures greater than 110°F. When transporting this product, be sure the pail is secured and the lid is tight. Do not allow pail to tumble as this may loosen the lid and allow leakage to occur.

### Cleanup

Remove coating from tools, etc., with paint thinner or mineral spirits. Clean hands with a waterless hand cleaner.

## Caution

**WARNING! COMBUSTIBLE!** Contains petroleum distillate. Keep away from heat and flame. **CLOSE AIR INTAKES** until solvents dissipate. Contains volatile solvents that might contaminate potable water. Close container after each use. Dispose of container and unused contents in accordance with Local, State and Federal regulations. **DANGER! HARMFUL OR FATAL IF SWALLOWED!** If swallowed, do not induce vomiting. **CALL A PHYSICIAN IMMEDIATELY!** Use protective measures to avoid contact with eyes and skin. In case of eye contact, open eyelids wide and flush immediately with plenty of water for at least 15 minutes. In case of accidental injection by power spray equipment, **GET MEDICAL ATTENTION IMMEDIATELY!**

**USE ONLY WITH ADEQUATE VENTILATION!** Avoid breathing of vapor. If you experience eye watering, headaches or dizziness, leave area or increase fresh air or wear respirator (NIOSH/MSHA TC 23C or equal). Repeated and prolonged occupational overexposure to solvent vapor may cause permanent brain and nervous system damage, and may cause liver or kidney damage.

**KEEP OUT OF REACH OF CHILDREN!**

**WARNING!** This product contains detectable amounts of chemicals known to the State of California to cause cancer, or birth defects or other reproductive harm.

Employers should obtain a copy of the Material Safety Data Sheet (MSDS) from your supplier or directly from the toll free number or website below.

## Product Sizes

5 GALLON (41.9 lb)

## Limited Warranty

We, the manufacturer, warrant only that this product is free of defects, since many factors which affect the results obtained from this product - such as weather, workmanship, equipment utilized and prior condition of the substrate - are all beyond our control. We will replace at no charge any product proved to be defective within 12 months of purchase, provided it has been applied in accordance with our written directions for uses we recommended as suitable for this product. Proof of purchase must be provided. DISCLAIMER OF WARRANTIES AND LIMITATION OF LIABILITY: THIS LIMITED WARRANTY IS IN LIEU OF ANY OTHER WARRANTIES EXPRESS OR IMPLIED INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FOR A PARTICULAR PURPOSE. MANUFACTURER SHALL HAVE NO LIABILITY OF ANY KIND BEYOND PRODUCT REPLACEMENT, INCLUDING FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES RESULTING FROM ANY DEFECTS OR ANY DELAYS CAUSED BY REPLACEMENT OR OTHERWISE. THIS LIMITED WARRANTY PROVIDES THE PURCHASER'S EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT.

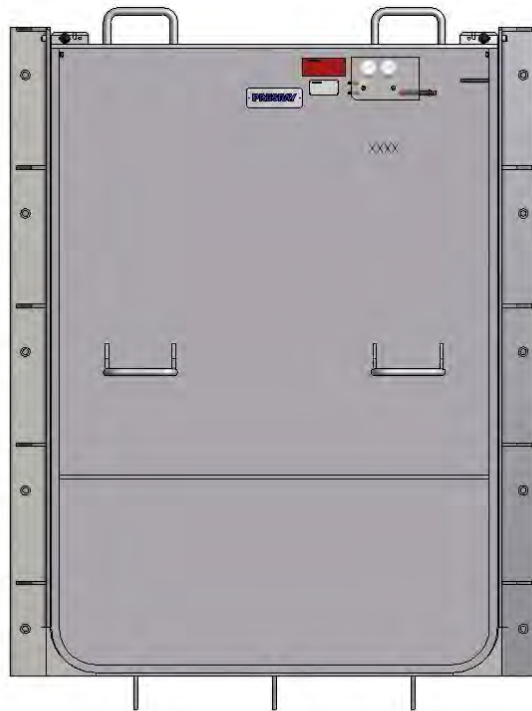
# PRESRAY

## Flood Protection Products

Installation and Operation Manual

For an FB11 / FB22

Flood Barrier System



**WARRANTY ENCLOSED-Owner's  
signature required to activate!**

**Presray Corporation**

P.O. BOX 200, Wassaic, NY 12592 USA

(845) 373-6700 • Fax: (845) 855-8034

E-Mail: [info@presray.com](mailto:info@presray.com)

Drawings: See enclosed prints.

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**1.0 INTRODUCTION**

The Presray Flood Barrier model FB11/FB22 consists of an aluminum panel with two inflatable “Pneuma-Seal” seals and a frame structure that is incorporated into an opening that requires flood protection.

The frame utilizes smooth sealing surfaces for the “Pneuma-Seals” to contact when the seals are inflated. The frame structure may be installed into an opening by using any one or combination of different methods outlined in this manual.



The assembly is designed so when hydrostatic pressure is applied to the panel the pressure will be transmitted directly to the frame, which is then distributed into the wall or structure. The panel slide latches permit the user to quickly and easily install the barrier with no tools.

Attached to each panel is a data plate that specifies the model number, part number and serial number of each barrier assembly.

If a panel requires replacement parts, the parts are to be of the same part number and description listed on the bill of material, which is incorporated on the assembly drawing. Modifications to the barrier assembly of any kind are not permitted without written authorization from Presray.

## **2.0 INSTALLATION CONSIDERATIONS**

The Presray Flood Barrier model FB11 / FB22 is intended to be installed in a wall and floor that has a high level of structural integrity. The cognizant engineer or architect should be contacted if the level of structural integrity or the compatibility of the structure with the barrier is in question.

The assembly should not be left in an unsafe or otherwise hazardous condition during the installation procedure. The assembly should be kept away from any solvents or fluids that could damage the seals.

## **3.0 INSTALLATION PROCEDURE**

The following steps are to be addressed when installing the Presray FB11/ FB22 Flood Barrier assembly. The Presray assembly drawing designated for the particular opening should be available during the installation procedure. Please read and understand all the steps fully before starting any installation work. If any problems do arise, please contact Presray immediately for assistance.

NOTE: Before starting any installation work, carefully inspect the assembly. Inspect the seals and sealing surfaces to insure no damage had occurred during shipping. The assembly is designed to be installed as a unit.

- 1) Transport the assembly to the intended opening in its packing crate.
- 2) Unpack the assembly.

NOTE: Be sure the panel and frame are securely strapped together before lifting from the packing crate.

**WARNING:** THE PROPER METHOD FOR LIFTING THE BARRIER ASSEMBLY IS WITH A STRAP THAT WRAPS AROUND BOTH HANDLES ON TOP OF THE PANEL.

- 3) Lift the assembly from the crate and position it over the opening. Temporarily secure the frame in the opening so that the assembly is plumb and level within 1/16".

NOTE: If necessary, grind away or fill in any areas of the wall or floor

that prevent proper location of the assembly. **Also, note that the sill is designed to be embedded into the concrete floor so that the surface is smooth and flush. Block out this area ahead of time as necessary.**

- 4) **CASTING INTO CONCRETE:** If the frame is to be cast in place the opening must be blocked out ahead of time to accommodate the nelson studs. Position and support the frame in the opening at the correct elevation according to the dimensions on the assembly print so that the assembly is plumb and level within 1/16". With the panel installed in the frame ensure that the gap between the panel and the frame with the shims used during shipping are preserved.
- 5) Complete the concrete work casting the frame into the concrete wall and floor of the structure. Ensure that the sill is flush with the floor and the transition through the sill area is smooth and free of tripping hazards.
- 6) **MOUNTING WITH EXPANSION ANCHORS:** If the frame is to be mounted to the front of the opening with expansion anchors from **Table 1**, leave the panel installed in the frame with the shipping shims intact to preserve the gapping. See Figure 1. If the frame is to be installed inside the jambs of the opening, remove the panel from the frame to gain access to the anchor holes. In both cases, use the frame as a template and drill through the holes in the frame for the expansion anchors. Refer to the appropriate assembly print to determine which anchor is used in the opening and cross reference **Table 1** in this manual to determine the size of the hole required to install the anchor.
- 7) Clear the anchors holes of debris and install the expansion anchors through the frame into the wall to secure the jambs to the structure.
- 8) Remove the panel (if not already removed) to access the holes in the sill.
- 9) Drill through the holes in the sill for the expansion anchors. Drill the holes according to **Table 1**.
- 10) Clear the holes of debris and install the expansion anchors securing the sill to the existing structure.
- 11) Apply concrete grout to any larger voids between the frame and finished floor according to the manufacturer's instructions to ensure a smooth transition through the sill area.
- 12) Apply RTV sealant (GE 5000, Momentive Industries 108, or other equivalent) to the seams between the frame and opening. If possible, apply RTV between the frame and the wall and floor. Proceed to step 21.

NOTE: It is recommended that the maximum gap be caulked is less than 1/32" to insure a watertight condition.

- 13) **MOUNTING WITH ADHESIVE INSERTS:** If the frame is to be mounted with adhesive type anchors mark the anchor holes into the wall and floor. In order to get to the anchor holes in the jamb mounted frame, the panel must be removed from the frame.

14) Remove the frame and drill the correct diameter holes at the marked locations according to **Table 2**.

15) Clear the holes of debris and install the adhesive inserts according to the manufacturer’s instructions using the setting tool called out in **Table 2**.

16) After the epoxy has completely cured reposition the frame in the opening and secure it to the wall and floor with the hardware provided.

17) Apply RTV sealant (GE 5000, Momentive Industries 108, or other equivalent) to the seams between the frame and opening. If possible, apply RTV between the frame and the wall and floor.

NOTE: The gap between the panel and frame must remain the same thickness of the shims provided in shipment. The assembly must be in the same position as noted in step 3.

18) Apply concrete grout to any larger voids between the frame and finished floor according to the manufacturer’s instructions to ensure a smooth transition through the sill area. Proceed to step 21.

NOTE: It is recommended that the maximum gap be caulked is less than 1/32” to insure a watertight condition.

19) **WELD IN PLACE INSTALLATION**: If the frame is to be welded to existing building members, position and support the frame in the opening according to the dimensions on the assembly print. Ensure that the gaps between the panel and the frame as held by the shipping shims are maintained.

20) Remove the panel from the frame and weld the frame to the existing building member according to the welding instructions called out on the assembly print.

21) Touchup any areas of primer damaged during installation. Use the primer specified on the accompanying drawing or an approved equivalent. Paint the primed area of the frame with a finish coat paint that will resist the expected environmental conditions.

**Table 1. Expansion Anchors**

<b>ANCHOR</b>	<b>REQUIRED HOLE</b>
Hex Head Power –Bolt 6914	3/8” dia X 3 3/4” deep
Hex Head Power –Bolt 6932	1/2” dia X 4” deep
Hex Head Power –Bolt 6934	1/2” dia X 5” deep
Hex Head Power –Bolt 6944	5/8” dia X 5 1/4” deep
Flat Head Power –Bolt 6981	3/8” dia X 4” deep
Flat Head Power –Bolt 6984	1/2” dia X 5 1/4” deep

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**Flat Head Power –Bolt 6987**
**5/8" dia X 5 3/4" deep**


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### Table 2. Adhesive Insert Anchors

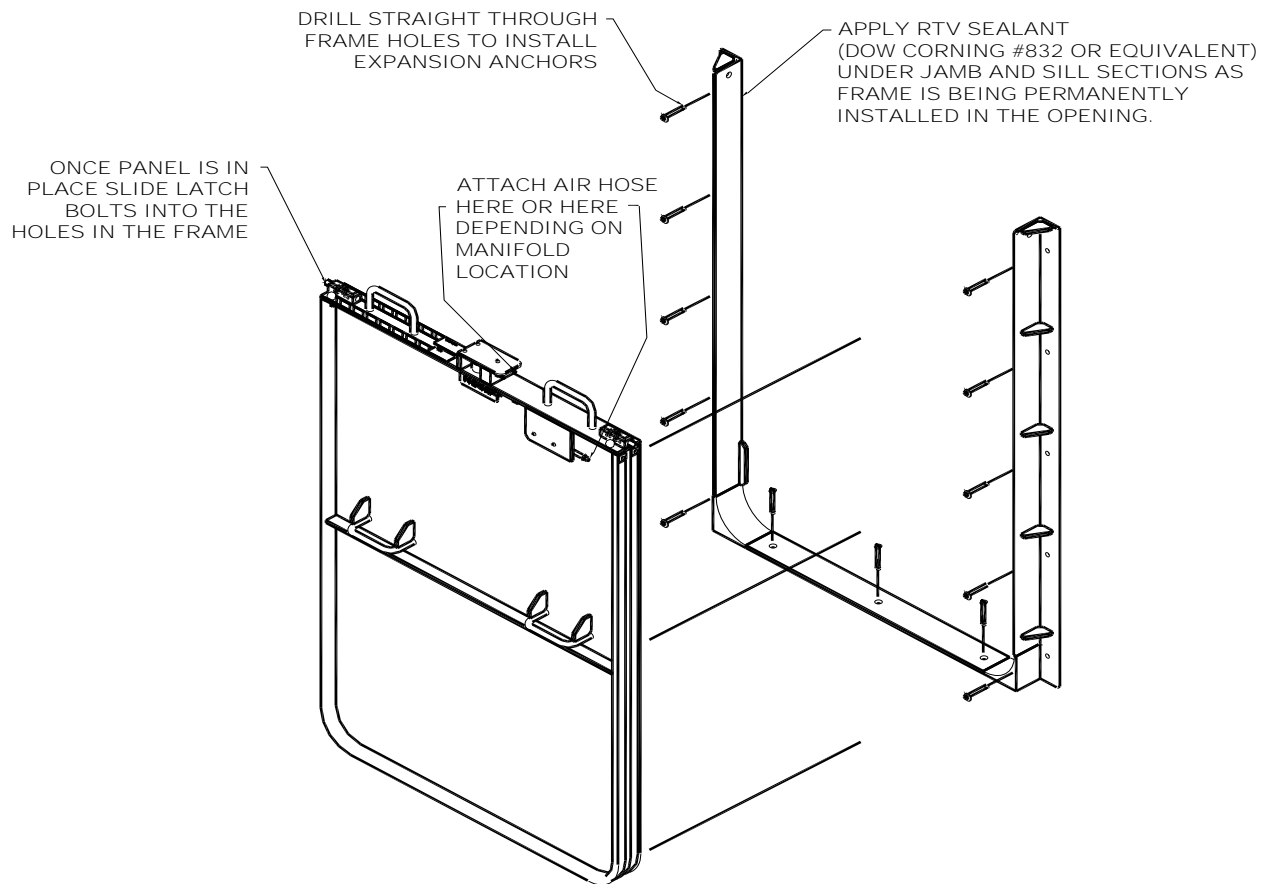
\*\*\*If the component is removable, use the recessed setting tool to form a space for the head of the protective plug screw to sit flush with the wall when the component is not installed.

**Note: Use extra washers to hold down the mullions or jambs if necessary.**

**Special Screen Tube Type Adhesive Inserts Used in Hollow Block or Brick with voids:**

For 3/8" dia. bolts use Hilti Insert 00088997 and Hilti Screen Tube 00068615. For 1/2" dia. bolts use Hilti Insert 00088998 and Hilti Screen Tube 00068615. For both bolt types drill the holes for the screen tubes 27/32" dia. X 3 1/2" deep. Clear the holes of debris and install the screen tube and inserts according to the manufacturer's instructions using the setting tool and plug screw for the appropriate diameter bolt shown in Table 2 and called out on the assembly print.

ANCHOR See Print	BOLT SIZE	REQUIRED HOLE IN WALL/FLOOR	SETTING TOOL RECESSED*** OR FLUSH	PLUG SCREW FOR RECESSED	"O"-RING FOR PLUG
PR21143-1	FOR 3/8" BOLT	1 1/16" DIA X 4 1/2" DP	PR23910/PR23358	PR23065	N/A
PR21143-2	FOR 1/2" BOLT	7/8" DIA X 5 1/4" DP	PR23070/PR23071	PR22351	AS-110-B46
PR21143-3	FOR 5/8" BOLT	1 1/8" DIA X 6 3/4" DP	PR26591/PR23359	PR26592	AS-112-B46
PR21143-4	FOR 3/4" BOLT	1 1/4" DIA X 8 1/4" DP	PR24162/PR24163	PR24163	AS-112-A568



**Figure 1. Face Mount Installation Diagram**

#### **4.0 INSPECTION**

In order to verify that the unit will be watertight the following checks should be carried out:

- 1) Chalk test
  - a. Apply chalk-line chalk to the surface of the seal or frame.
  - b. Close the door or insert the panel into the frame
  - c. Inflate the seal to recommended (gage green zone) pressure
  - d. Deflate the seal and carefully open the door or remove the panel from the frame so as not to smear the chalk
  - e. Inspect the frame for the imprint where the seal has contacted the frame.
  - f. If contact is not evident, raise seal pressure slightly and retest
  - g. If contact cannot be created within the gage green zone, contact Presray

- 2) Water test
  - a. Close the door or insert the panel into the frame
  - b. Inflate the seal to recommended (gage green zone) pressure
  - c. Carefully fill the gap between the seal with water. A funnel and/ or tube may help.
  - d. Look for evidence of leaks
  - e. If leaks are present, raise seal pressure slightly until the leaks stop
  - f. If the leaks cannot be stopped within the gage green zone, contact Presray

## **5.0 OPERATION**

Presray recommends that the flood barrier assembly is operated every three (3) months and prior to an anticipated flood. This will allow time for any minor problems to be corrected and will help ensure reliable flood protection. Perform the following steps at these intervals and during actual use:

Operate the barrier as follows:

A. To install the barrier panel:

- Remove any accumulated debris from the seals and the frame.  
(Impaired sealing surfaces will cause leaks).
- Place the panel in the opening. Depending on panel weight this may be accomplished by two people or by utilizing a portable handling device with a capacity of at least 2X the weight listed on sheet 1 of the assembly drawing.
- Extend the slide latches on the panel. Be sure the shafts of the latches extend fully into the holes in the frame.
- Inflate the seals, using an air supply source. (Some models include a hand-operated air pump attached to the front of the panel to inflate the seals if no other air source is available.)

CAUTION: Inflate the seals ONLY to the green area marked on the gauges.

The pressure must be no higher or lower than the green area.

- The Flood Barrier is now installed and ready for use.

NOTE: Factory testing in consistent ambient conditions has shown that inflatable seals in good working condition lose approximately 1 to 1.5 psi of pressure per 24 hour period due to the inherent permeability of the rubber compound used to manufacture the seals. If the seals are inflated to the maximum recommended pressure (top of green zone on gage) one can roughly estimate that the inflatable seals will be effective for 4-6 days from the time of inflation.

## **6.0 MAINTENANCE**

Periodically inspect the assembly, for any signs of excessive wear or damage. The frame sealing surface should be kept clean and smooth. Small scratches, nicks and gouges should be ground or filed smooth. Always grind or file in a longitudinal direction. Grinding or filing across the sealing surface could create a leak path. If damage is severe, fill such areas and then grind or file them smooth to obtain the original surface profile.

The Pneuma-Seal should be inspected for damage and signs of excessive wear. Damaged seals must be replaced. NOTE: Even slight damage to the seal may impair its ability to provide leak tight protection. If there is any question, about the degree of damage to the seal, contact Presray.

The seal should be replaced every five (5) years, or sooner if inspection indicates seal damage. Proper maintenance will ensure reliable flood barrier performance

#### PNEUMA-SEAL REPLACEMENT:

- 1) Place the panel on suitable supports.

NOTE: Depending on size, it may be necessary to make use of a portable handling device with a capacity of at least 2X the panel weight listed on sheet 1 of the assembly drawing to accomplish this task. If this not possible, a minimum of two people are required to move the panel.

- 2) Remove the screws from the clamps on the end of the seal and disconnect the air inlet tube.
- 3) Pull the seal out of the retainer.

#### TO INSTALL A NEW SEAL:

- 1) Inflate the seal to 5 to 10 psig and plug the air inlet tube.
- 2) Start with the end of the seal opposite the air inlet tube. Begin sliding the seal into the top of the retainer on the side of the barrier with the air inlet hole.

NOTE: It is recommended that 3 to 4 people be on hand to assist in installing the seals. Place one person on each side of the panel to help move the seal through its retainer and one or two people to hold the panel in position. If this is not possible it may be necessary to clamp or otherwise mechanically restrain the panel.

- 3) After sliding the seal down the side of the barrier with the air inlet hole, continue to slide the seal along the bottom retainer.

NOTE: Soapy water solution or talc may be used to assist in this procedure.

- 4) Slide the seal up the remaining side to the end of the panel. Clamp the end with the plate and screws that were previously removed.
- 5) Press the air inlet tube through slot in retainer and clamp the end of the seal.

NOTE: The air inlet end of the seal and the panel have been specially prepared to allow

the installer to accomplish this without interference or damage to the air inlet tube.

- 6) Deflate the seal and connect the tube to the barbed fitting provided on the controls on the panel.
- 7) Inflate the seal to 5 psig and check for leaks.

## **7.0 STORAGE**

When not in use Presray recommends that the flood panel be stored in a shed or at least covered with a tarp to protect it from normal weather elements that may corrode the seals or mechanisms over time.

## **8.0 FACTORY SERVICE**

To obtain factory service and/or spare parts refer to the model number, part number and serial number, then contact:

Presray Corporation  
P.O. Box 200  
Wassaic, N.Y. 12592  
Flood Protection Products Division  
(845) 373-6700  
Fax: (845) 855-8034  
E-Mail: [service@presray.com](mailto:service@presray.com)

## **9.0 WARRANTY**

**PRESRAY CORP. P.O. BOX 200, Wassaic, NY 12592 (845) 373-6700**



**LIMITED WARRANTY AND WARNING**

**PRODUCT INSPECTION  
AND REPLACEMENT**

**NOTE: IF THIS FORM IS NOT SIGNED BY THE END USER AND RETURNED TO PRESRAY ON OR BEFORE ONE MONTH AFTER SHIP DATE, THEN THE LIMITED WARRANTY BELOW WILL BE NULL AND VOID AND THE OTHER PROVISIONS OF THIS DOCUMENT SHALL REMAIN IN EFFECT.**

END USER NAME	
END USER ADDRESS	
ADDRESS OF PRODUCT INSTALLATION	
PRODUCT	FB11/FB22 Flood barrier system
PRODUCT ID NUMER	FB11/ FB22- _____ - __
EFFECTIVE DATE OF WARRANTY	INSTALLATION DATE OF BARRIER IF INSTALLED BY PRESRAY TECHNICIAN OR DATE OF SHIPMENT IF INSTALLED BY OTHERS.
EXPIRATION DATE OF WARRANTY	5 YEARS FROM DATE OF INSTALL BY PRESRAY OR DATE OF SHIPMENT, WHICHEVER APPLIES.

**LIMITED WARRANTY**

Presray warrants that, during the “Warranty Period”:

- (i) the “PRODUCT”, the elastomeric seals which are a component the PRODUCT and the services rendered by Presray and Presray’s Subcontractors in connection with the installation of the PRODUCT will be free from all material defects in materials and workmanship; and
- (ii) in all material respects, the PRODUCT will be designed in accord with the specifications provided to Presray by the End User (“Specifications”);
- (iii) the PRODUCT will be fit for its intended use as described in the Specifications.

“Warranty Period” means the 60 month period which commences upon the date of Presray’s shipment of the PRODUCT.

If the PRODUCT, services or design do not conform to the limited warranty as described above, and the End User so notifies Presray on or before the thirtieth (30<sup>th</sup>) day after expiration of the Warranty Period, Presray will, at its option, either repair or replace the nonconforming portion of the PRODUCT or remedy the defect in the services or design as the case may be.

Presray shall not be held responsible, nor will any claim be allowed for consequential damages or other losses, claim, suit or damages resulting from any defect in the PRODUCT, services or design.

Presray does not warrant against, and shall not be held responsible for any loss, claim, suit or damages resulting from any of the following:

- (i) defects in materials, workmanship, or design of anything other than the PRODUCT or the services expressly warranted by Presray as described above, including without limitation, defects in materials, workmanship or design of any equipment, fixtures, installations, buildings, walls, barriers, beams, supports or structures in the facility where the PRODUCT is installed.
- (ii) defects in materials, workmanship, or design of any "Component Part". "Component Part" means any equipment or other discrete component which is incorporated into the PRODUCT, excluding however, the elastomeric seals which are warranted by Presray as described above. Presray will assign and transfer to the End User warranty rights, if any, provided by third party suppliers of Component Parts, subject however, to any and all terms, conditions, limitations and remedies as specified in each particular warranty. Presray is not an agent of any such supplier and **ALL SUCH COMPONENT PARTS ARE PROVIDED TO END USER "AS IS."**
- (iii) Acts of God (other than floods which are within the tolerances described in the Specifications) such as, but not limited to earthquakes, tornadoes and hurricanes; fire; vehicular accidents; vandalism; negligence of individuals or entities other than Presray, criminal or wrongful acts or omissions of individuals or entities other than Presray.
- (iv) defects in the Specifications.
- (v) End User's or any individual or entity's negligent, gross negligent, or intentional misuse of the PRODUCT

#### **Disclaimer Of Other Warranties**

**THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE FACE OF THIS LIMITED WARRANTY. PRESRAY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY AND ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.**

#### **Limitation of Liability and Action**

IN NO EVENT WILL PRESRAY, OR ITS OFFICER, DIRECTORS, SHAREHOLDERS OR EMPLOYEES BE LIABLE TO END USER, ITS OFFICERS, DIRECTORS, SHAREHOLDERS, MEMBERS OR EMPLOYEES FOR ANY INCIDENTAL, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES WHATSOEVER, INCLUDING, WITHOUT LIMITATION,

**PRESRAY CORP. P.O. BOX 200, Wassaic, NY 12592 (845) 373-6700**

LOSS OF USE, REVENUE OR PROFIT, ARISING OUT OF OR OTHERWISE RELATING TO THE USE OR PERFORMANCE OF THE PRODUCT EVEN IF PRESRAY HAS BEEN ADVISED OF OR KNEW OF THE POSSIBILITY OF SUCH DAMAGES.

No action, regardless of form, arising out of this Limited Warranty may be brought by End User more than two (2) years after the cause of action has accrued.

**WARNING REGARDING PRODUCT INSPECTION  
AND REPLACEMENT**

**THE FOLLOWING WARNING IS PROVIDED TO YOU, THE END-USER OF THE ABOVE PRODUCT, TO REDUCE THE RISK OF PRODUCT FAILURE. POSSIBLE CONSEQUENCES OF PRODUCT FAILURE INCLUDE FLOODING, PERSONAL INJURY, DEATH AND PROPERTY DAMAGE.**

The PRODUCT'S elastomeric seal is susceptible to aging, which in turn will lead to PRODUCT FAILURE. In certain environments, the PRODUCT'S elastomeric seal has been shown to maintain its functionality for five (5) years or more. However, in certain other environments, loss of functionality and DANGER OF PRODUCT FAILURE AND FLOODING will occur in a much shorter time period.

TO REDUCE THE RISK OF PRODUCT FAILURE, THE PRODUCT NEEDS TO BE INSPECTED BY PRESRAY OR OTHER QUALIFIED PERSONNEL, IN ACCORDANCE WITH THE INSPECTION/MAINTENANCE INSTRUCTIONS PROVIDED WITH THE PRODUCT, AT LEAST ONCE EVERY TWELVE MONTHS. ALSO, THE PRODUCT'S ELASTOMERIC SEAL NEEDS TO BE REPLACED AT LEAST ONCE EVERY FIVE (5) YEARS.

PRESRAY IS NOT RESPONSIBLE FOR CONTACTING YOU TO SCHEDULE NECESSARY INSPECTIONS OR REPLACEMENT AND IS NOT RESPONSIBLE FOR KEEPING TRACK OF THE TIME ELAPSED FROM THE DATE OF YOUR PURCHASE OF THE PRODUCT. FAILING TO PERIODICALLY INSPECT THE PRODUCT AND TO REPLACE THE ELASTOMERIC SEAL COULD LEAD TO PRODUCT FAILURE.

Presray's obligations with respect to the PRODUCT are limited to those expressly set forth in the Limited Warranty above. This warning does not change the terms of such Limited Warranty and does not impose any further obligations upon Presray beyond those set forth in the Limited Warranty.

By signing this document, you acknowledge receipt of the above Limited Warranty and Warning with respect to the Product and agree to the provisions set forth above

\_\_\_\_\_  
SIGNATURE OF END-USER

DATE:

## Presray Corporation

### Comprehensive Safety Maintenance Inspection (CSMI)

#### Presray Field Service

Presray's Comprehensive Safety Maintenance Inspection (CSMI) program has been established to ensure product functionality, reliability and safety for the installed barriers. Thorough on-site annual inspections, by a Presray Engineer, will identify any problems early on and prevent costly maintenance in the future. There are currently two options available and Presray is always willing to customize our service plan to accommodate your requirements.

Option #1 - One scheduled annual safety maintenance visit per year for 5 year term at a discounted rate while under contract to identify any discrepancies with your flood protection/airtight product(s). Upon each visit, a Product Safety Audit Checklist will be submitted identifying any concerns or stating satisfactory condition of your Presray installed products. If it is identified that there are parts and labor necessary to restore any of the barrier/doors within the specified tolerances, both time & material would be supplied at the discounted CSMI customer pricing.

Option #2 - Includes the annual service visits in option #1 plus Presray will include the scheduled replacement of the seals and any other major components within the 5-year term. This provides for better budgetary control for the recommended maintenance intervals since the cost of the service is spread out over the term of the agreement. Presray's goal is 100% product readiness and customer satisfaction.

To receive pricing or for more information about our Comprehensive Safety Maintenance Program contact Field Service at 845-373-6700 or email [service@presray.com](mailto:service@presray.com) or complete the form below and fax to 845-855-8034.

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

Email address: \_\_\_\_\_

*CUSTOMER SURVEY*

Company: \_\_\_\_\_

Project Name: \_\_\_\_\_

Presray Corporation wants to ensure that we are satisfying the needs of our key customers. With this in mind, please take a few moments to complete the following form and either fax or e-mail your response back. We welcome any additional comments and look forward to your feedback.

Sincerely,

Presray Corporation

Project Coordination Department

Extremely  
Satisfied

Extremely  
Dissatisfied

Statement	5	4	3	2	1
Presray responds timely & thoroughly to questions					
Presray meets delivery requirements for drawings					
Presray meets delivery requirements for product					
Quality required is delivered accurately					
Product received is suited for application intended					
Installation/Operation Manuals are easy to understand & follow					
Overall appearance of Presray's product					
Overall satisfaction with Presray Corporation					

Any suggestions on how we can improve our services?

\_\_\_\_\_

\_\_\_\_\_

REV	DESCRIPTION	DATE	BY	CH	AP
/	Original issue	10/1/12	AM	EH	EH
A	IMPROVE STANDARDIZATION	4/3/13	EH	JF	JF
B	COMBINE FB11 & FB22 INTO ONE MANUAL	5/19/14	EH	JF	JF
C	REVISED WARRANTY TO 5 YEARS	2/8/17	DRS	JF	JF

NOTES:

1. IMPRESSION STAMP DATE, SERIAL NO., ASSEMBLY NO. & OPENING NO.
2. APPROXIMATE WEIGHT OF ASSEMBLY: 377 LBS, PANEL: 157 LBS.
3. PANEL TO BE FLAT WITHIN 1/8" OVERENTIRE LENGTH.
4. FRAME TO BE STRAIGHT WITHIN 1/8" OVER ENTIRE LENGTH.
5. TOLERANCES MUST BE MAINTAINED AT INSTALLATION.
6. ALL TOLERANCES NON-ACCUMULATIVE.
7. BRUSH-OFF BLAST CLEAN FRAME & PANEL PER SSPC-SP7. PAINT FRAME ONE COAT: SHERWIN-WILLIAMS PRIMER #E61-R-26. PAINT PANEL ONE COAT: AMERLOCK 2 SLV-1000.
8. OPERATING PRESSURE: 20 TO 25 PSI.
9. GREEN LINE GAUGES AT 20 TO 25 PSI. DUE TO PERMEABILITY OF THE MATERIAL, INFLATABLE SEALS WILL GRADUALLY LOSE AIR PRESSURE. REINFLATE AS REQUIRED TO MAINTAIN PRESSURE IN THE GREEN AREA OF THE GAGE.
10. LOCITTE ENDS AT ASSEMBLY.
11. FOR INSTALLATION & OPERATION INSTRUCTION SEE PRESRAY MANUAL IMF22-13507-01.
12. SEAL ANY PENETRATIONS THROUGH PANEL AT ASSEMBLY.
13. IF JOB HAS MORE THAN ONE OF THE SAME STYLE BARRIER GOING TO THE SITE, AT FINAL ASSEMBLY ENGRAVE BOTH PANEL & FRAME WITH MATCHING 3/8" HIGH LETTERS (IN AREA OF TOGGLE).
14. LOCATE AT ASSEMBLY PER PRESRAY SPECIFICATION PS225.
15. AT FINAL ASSEMBLY STENCIL IN 1/2" HIGH LETTERS OPENING LOCATIONS, MIN 2 PLACES.
16. STRUCTURAL NOTES:

DESIGN LOADS:

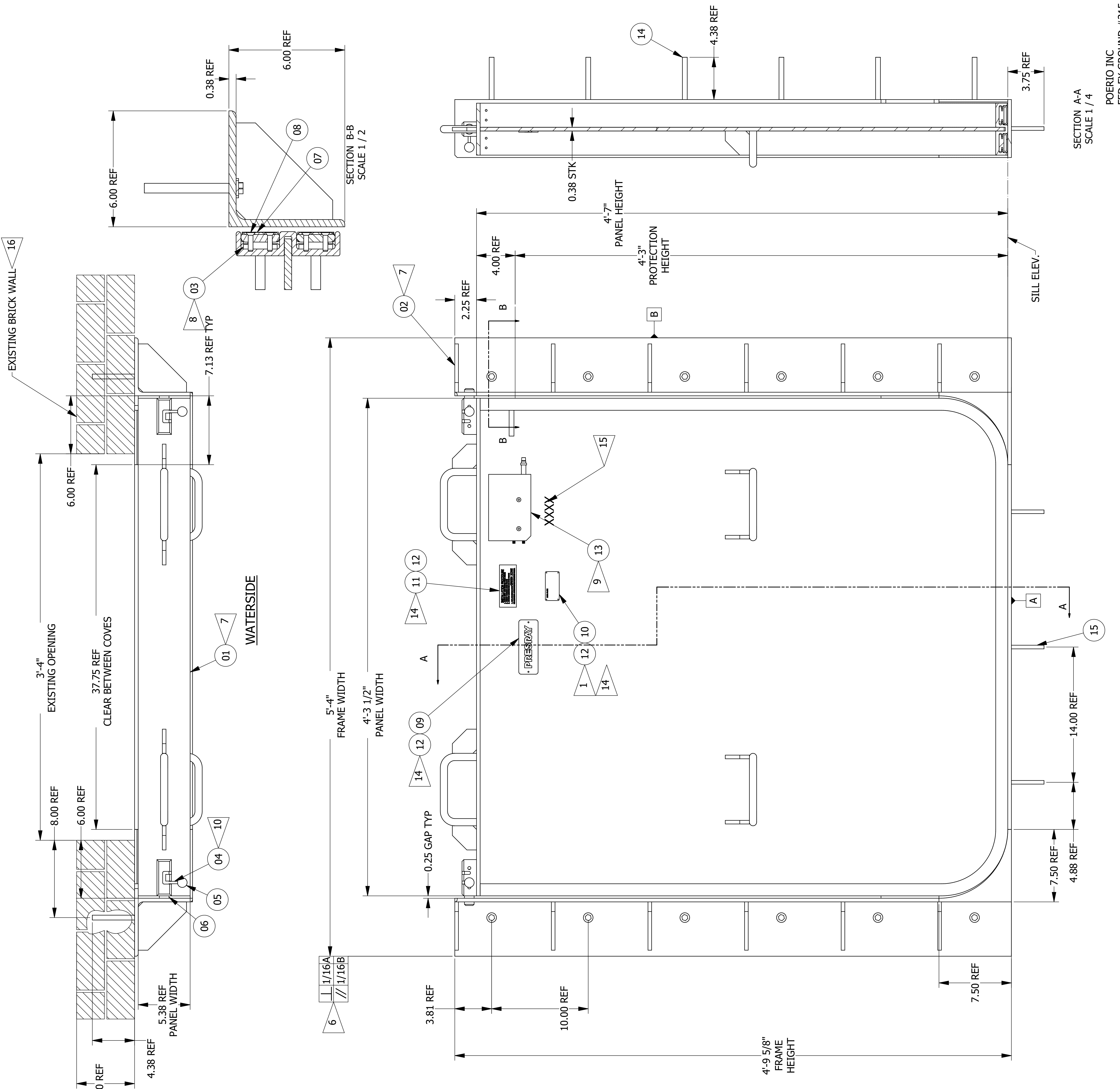
- FLOOD LOADS EVALUATED PER ASCE 7-16
- FEMA FLOOD ZONE: NOT SPECIFIED, NON COASTAL
- HYDROSTATIC : 5" SEATING HEAD OF FRESH WATER.
- HYDRODYNAMIC : NOT SPECIFIED (V=0)
- DEBRIS IMPACT : NOT SPECIFIED (V=0)
- ABILITY OF EXISTING STRUCTURE TO CARRY DESIGN LOADS TO BE DETERMINED BY OTHERS.

ASSUMPTIONS FOR CONCRETE/MASONRY ANCHORAGE:

- CONCRETE STRENGTH MINIMUM 4,000 PSI
- MASONRY PRISM STRENGTH MINIMUM 1,500 PSI

ASSUMPTIONS FOR STRUCTURAL CONNECTIONS:

- STRUCTURAL BOLT/SCREW TENSILE STRENGTH 70 KSI MINIMUM, UNLESS INDICATED OTHERWISE
- REQUIRED BOLT TORQUES, WHERE INDICATED, ARE BASED ON DRY UNLUBRICATED CONDITIONS



SECTION A-A  
SCALE 1/4"

POERIO INC  
FED EX GROUND #315  
WOODBIDGE NJ 15237  
OPENING: GUARDHOUSE ENTRANCES

QTY	DESCRIPTION	MATERIAL	STOCK SIZE/PART NO.
3	15	ZPS	6681
12	14	SS	5934
1	13	AL	PR30259
1	12	ADHESIVE TAPE	MCM 863K33 (NEOP FOAM)
1	11	RED MICARTA	PR16968
1	10	AL	PR555
1	9	AL	PR555
4	09	AL	25374H1.0055
4	07	BR	PR557
2	06	SS	PR2466
2	05	PLUS	MCM 604K13
2	04	SS	PR19685
2	03	EPDM	FB22.13507-01.03 DETAIL
1	02	STL	FB22.13507-01.02 DETAIL
1	01	AL	FB22.13507-01.01 DETAIL
1	00	AL	FB22.13507-01.00 DETAIL

THE PRESRAY CORP.  
MASSAIC, NEW YORK

DATE: 9/13/2019  
SCALE: 1/4"  
DRAWN BY: J.P.  
CHECKED BY: J.P.  
DESIGNED BY: J.P.  
PROJECT NO.: FB22-13507-01

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