SAN FRANCISCO
PLANNING DEPARTMENT

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

Certificate of Appropriateness Case Report

HEARING DATE: AUGUST 7, 2013

Filing Date:	February 28, 2013
Case No.:	**2011.0913A**
Project Address:	**320 Judah Street**
Historic Landmark:	Landmark No. 265: The Doelger Building
Zoning:	Inner Sunset NCD (Neighborhood Commercial District) 40-X Height and Bulk District
Block/Lot:	1763/ 020 and 021
Applicant:	Geoffrey Darby 26 Blue Grass Irvine, CA 92603
Staff Contact	Shelley Caltagirone - (415) 558-6625 shelley.caltagirone@sfgov.org
Reviewed By	Tim Frye – (415) 575-6822 tim.frye @sfgov.org

PROPERTY DESCRIPTION

320 JUDAH STREET, north side between Eighth Avenue and Ninth Avenues. Assessor's Block 1763, Lots 020 and 021, located in the Inner Sunset neighborhood. The two- to three-story irregular plan building was constructed in 1932 with a horizontal addition in 1940. It consists of an oversize entry lobby and interior offices at the first, second, and third stories. The original (1932) building was designed in the Art Deco style. The horizontal addition (1940), which doubled the building's street frontage, was designed in the Streamline Moderne style. The building's visible elevations are clad in smooth stucco with some horizontal wood cladding at less-visible and non-visible elevations. The building's flat roof is obscured by a stepped parapet. The footprint of the building covers most of the two 2,500 sq. ft. parcels on which it sits, with the exception of a small interior atrium and a side driveway leading to a loading dock.

The subject building is located on the short two-block Judah Street commercial corridor, which is characterized by a mix of two- to six-story mixed use buildings, one- to two-story neighborhood-serving commercial buildings, and scattered examples of single-family houses and contemporary apartment buildings. It is located within the Inner Sunset Neighborhood Commercial District, in a 40-X Height and Bulk District. The subject building is currently vacant.

PROJECT DESCRIPTION

The intent of the overall project is to rehabilitate the existing deteriorated structure to current code standards and to restore the primary façade to the condition of the period of significance. The structure has extensive water-related damage due to failed plumbing systems, failed and improperly detailed waterproofing systems, and failed foundations. The dry-rot caused by improper detailing in the original construction has resulted in extensive exterior and interior finish, substrate, and substructure

deterioration. The reconstruction of the substrate and substructure requires the removal of the exterior finishes and the door and window systems, many of which are also deteriorated. As part of the replacement of these systems, a new waterproofing system is to be integrated with the replacement finishes and door/window systems.

The proposal includes work at the primary façade, the landmarked interior lobby space, and the landmarked interior courtyard. The restorative work includes both repairs and reconstruction where severe deterioration prohibits material repairs. The work is informed by historic photographs and physical building evidence. Specifically, the proposal includes the following:

Primary Facade

1. At the Streamline Moderne portion of the façade (western half), rebuild the structure 100% in-kind as this section of the façade is deteriorated beyond repair.
2. At the Art Deco portion of the façade (eastern half), repair and retain the wall structure in place.
3. Replace the deteriorated stucco cladding in-kind upon completion of structural work and repaint the front façade to match the 1940 white with black detail paint scheme.
4. Replace the two-story, metal-framed lobby window, the 2 wood-framed display windows flanking the entry, and the glass block windows walls at the first and second floor levels in-kind.
5. Re-build the raised planter beds in the front setback area and replacing the non-historic brick cladding with glazed black tile to closely match the original vitrolite tile with a metal speedline detail as shown in the 1940 photographs.
6. Replace the damaged metal front doors in-kind with new handles to match the original 1940 design.
7. Replace the two damaged metal projecting curved overhangs with their speedline detailing to match the original 1940 design.
8. Re-create and install the historic light fixture above the entry as shown in the 1935 photographs and the 1940 promotional brochure.
9. Repair and re-install the historic clock from 1940.

Courtyard

10. Rebuild the structure 100% in-kind as the walls are deteriorated beyond repair and the foundation they bear on is insufficient.
11. Replace the deteriorated stucco cladding in-kind with scalloped rendering to match existing upon completion of structural work.
12. Replace in-kind the 20 wood-framed windows and doors.
13. Remove the sloped roof of the stair enclosure at the east wall, which has been a source of water intrusion, and replace with a flat roof curb in conformance with the north and south roof curbs.
14. Add one arch-headed, wood-framed, multi-light window on the east wall of the courtyard.

3rd Floor South Wall

15. Replace an existing door and glass block window wall with a new door and two double-hung aluminum-clad, wood-framed windows in roughly the same opening.

Interior

16. Replace the non-historic floor tile in the lobby with 24" marble tile.

17. Remove one non-character-defining door and infill the opening between the lobby and the western display case to insert a shear wall.
18. Repair the existing lobby chandelier.
19. Patch and repaint the plaster walls as needed.

Please note that the property owner secured building permit approvals from the City in late 2012 and early 2013 while the landmark designation was under consideration in order to stabilize the building after years of poor maintenance under the previous ownership. The work involved extensive repairs and, in some cases, full replacement of the structural system (foundation, roof, floor and wall framing, see items 1 and 2 above) and also replacement of water, electrical, drainage, sewage, plumbing and heating systems. The work is documented in the attached letter from the Project Sponsor and the printed slide presentation. The work was necessary to seismically stabilize the building and to prevent further water and termite damage that posed an eminent threat to building. Care was taken throughout this stabilization work to retain as much of the original structure as possible, and the work was reviewed and approved by the Departments historic preservation planners.

OTHER ACTIONS REQUIRED

None.

COMPLIANCE WITH THE PLANNING CODE PROVISIONS

The proposed project is in compliance with all provisions of the Planning Code.

APPLICABLE PRESERVATION STANDARDS

ARTICLE 10
Pursuant to Section 1006.2 of the Planning Code, unless exempt from the Certificate of Appropriateness requirements or delegated to Planning Department Preservation staff through the Administrative Certificate Appropriateness process, the Historic Preservation Commission is required to review any applications for the construction, alteration, removal, or demolition of any designated Landmark for which a City permit is required. Section 1006.6 states that in evaluating a request for a Certificate of Appropriateness for an individual landmark or a contributing building within a historic district, the Historic Preservation Commission must find that the proposed work is in compliance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, as well as the designating Ordinance and any applicable guidelines, local interpretations, bulletins, related appendices, or other policies.

ARTICLE 10 – The Doelger Building Landmark Ordinance
In reviewing an application for a Certificate of Appropriateness, the Historic Preservation Commission must consider whether the proposed work would be compatible with the character of the Doelger Building as described in Landmark Ordinance No. 61-13, File No. 121104, approved April 10,

2013, and the character-defining features of the Doelger Building's exterior and the interior lobby[1] specifically outlined in the designating ordinance and listed below:

Exterior Features

- All exterior elevations and rooflines
- All architectural finishes and features of the exterior elevations
- Building plan including spatial configuration of driveway area
- Shaped parapet with chamfered edges and stepped secondary parapet walls
- Stepped detailing at the recessed entry vestibule
- Sunburst terrazzo paving
- Stainless steel doors with glazed half circles flanked by glass block sidelights and topped with a curved metal band
- Large plate glass lobby window with metal muntins set in geometric pattern
- Recessed window displays set in piers
- Bulkhead and integrated curved planter box, excluding brick cladding
- Curved glass block window wall and projecting curved overhang with speedline detailing
- Flush glass block window wall and protruding clock
- Metal gate with diamond and crescent pattern (excluding the recently welded metal security bars)
- Fenestration at the secondary, visible elevations, which primarily consists of wood sash casement windows with horizontal muntins
- Fenestration at the nonvisible courtyard elevations, which consists of arched and squared divided light wood sash casement windows with a horizontal muntin pattern

Interior Features

- The entry lobby and all its historic fixtures and finishes with the following exceptions:
  - Non-historic door openings
  - Contemporary elements including non-historic doors, vents, and mailboxes
  - Non-historic tile floor and stair cladding[2]
- Lobby spatial volume, mezzanine balcony, and curved side stair configuration
- The mezzanine balcony level with the following exceptions:
  - Interior of mezzanine level bathrooms
  - Balcony carpeting
- Stepped ceiling and wall detailing
- Art Deco hanging chandelier and scalloped wall sconces

[1] The limits of the lobby are defined as the historic doors and door frames that face onto the lobby from the first story as well as the balcony mezzanine. It does not include the interior office space, hallways, or bathrooms behind these door openings.

[2] The Spanish Colonial-inspired stair cladding is not consistent with the lobby's historic Art Deco design. Although it is likely that Doelger re-clad the original stairs with the extant clay tile during the identified Period of Significance, the cladding choice was likely a matter of on-site material availability rather than design intent. There is no evidence to suggest that the tiles were used to market or display features associated with Doelger's Spanish Colonial style houses. Therefore, the clay tile stair cladding has not gained significance in its own right.

- Balcony ornamentation including raised chevrons and decorative metal railing
- Wood doors with raised Art Deco ziggurat pattern

Note: The historic garage located at the east end of the building is now part of the adjacent corner lot and is not covered by this landmark designation.

THE SECRETARY OF THE INTERIOR'S STANDARDS

Rehabilitation is the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values. The Rehabilitation Standards provide, in relevant part(s):

Standard 1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

The property is intended to be used as offices. This use will require no modification of the exterior and only minor modification of the interior spaces. The character-defining exterior and interior features will all be preserved and/or restored by the project.

Standard 2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

All aspects of the historic character of the existing building will be retained and preserved. No distinctive materials, architectural elements, or spaces that characterize the property will be removed. While some character-defining features have deteriorated beyond repair and require replacement, extreme care has been taken to accurately document the historic features so that they may be replicated exactly in-kind. This applies to the stucco, glass block window units, the lobby window (recently collapsed), the metal front doors, and the metal awnings. Other features, such as the clock and lobby chandelier, will be repaired and reinstalled.

To ensure compliance with this Standard, staff recommends that the proposed interior alterations be confirmed prior to construction, and that exterior existing conditions be confirmed and documented through investigative demolition and photographs prior to confirming the extent of necessary replacement.

Standard 3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

The proposed project will not add any conjectural features or elements from other historic properties. The restorative elements of the project are based upon existing building evidence and historic photographs.

Standard 4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

None of the changes to the property outside of the period of significance (1932-1950) have acquired historical significance in their own right. This includes both the brick cladding of the

planter wall and the tile flooring of the lobby. Both are common materials with no exceptional aesthetic or historic qualities. The planter bricks will be replaced with a glazed black tile that will closely resemble the original vitrolite panels that faced the planter wall. Since vitrolite panels are no longer available on the market, the glazed tiles will be an appropriate substitute as they can match the original dimensions of the historic tiles and will have a similar glossy finish. The glazed tiles are also a durable material that will weather well in this highly trafficked area. The tiles will be reinstalled with a metal speedline detail as shown in the 1940 photographs. In the lobby, the owner proposes to replace the non-historic tile with a marble tile that is appropriate to the age and style of the building.

Standard 5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

No distinctive materials, features, finishes, construction techniques or examples of craftsmanship would be affected by the proposed project. While some character-defining features have deteriorated beyond repair and require replacement, extreme care has been taken to accurately document the historic features so that they may be replicated exactly in-kind. This in-kind replacement treatment applies to the following features: the architectural finishes and features of the exterior elevations, the shaped parapet, the stepped detailing at the recessed entry vestibule, the front doors, glass block window walls, the lobby window, the display windows, and the metal awnings. Other features, such as the clock, will be repaired and reinstalled.

Standard 6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

Due mainly to extensive water and termite damage, many historic features at the front façade require replacement. This includes the foundation, wall framing, and wood sheathing beneath the existing smooth stucco surfaces. At the primary façade and courtyard facades, the stucco cladding must be removed in order to replace the underlying deteriorated sheathing and framing. All of the stucco that is removed will be replaced in-kind and will match the configuration and texture of the original surfaces. The new waterproofing layer that will be installed behind the stucco layer to improve the performance and longevity of the wall system will slightly increase the depth of the wall, but will not change the character of the original detailing which will be replicated exactly in-kind. Moreover, the original black and white paint scheme from the 1940 renovation will also be recreated.

The glass block windows also require replacement since many units are damaged or have been replaced with various patterns of block. The new glass blocks will have a consistent pattern that closely matches the predominant historic glass pattern.

The two-story lobby window also requires replacement as the structure collapsed under its own weight in the past few months due to poor maintenance and structural strain caused to the damaged foundations and walls. The new window will be replicated with the same muntin pattern and tempered glass with framing details and dimensions that closely match the original window.

The existing front doors are rusted and marked with holes and the latching and locking mechanism has failed. Therefore, they will be replaced with new doors and the original handles will be recreated to replace the existing non-historic handles. While brushed aluminum will be used rather than stainless steel for cost and durability purposes, this change in material will be in keeping with the style and character of the landmark and will be mostly indiscernible to passersby.

Regarding the awning over the main entry, past treatments have stripped it of the original speedline detailing, which will be replicated in the new awning. The other awning to the west is also damaged and requires in-kind replacement. For the reasons cited above concerning the door replacement, brushed aluminum will be used rather than stainless steel.

At the courtyard façade, the existing windows are damaged beyond repair by rot and termites and will be replaced with new windows that match the old in terms of design, finish, and materials. Lastly, the missing light fixture above the main entry will be replicated based upon historic photographs and reinstalled.

The replacement of the features cited above will not affect the building's overall character and historical significance. However, staff recommends that all replacement areas are properly documented to illustrate the severity of deterioration for review with staff prior to any demolition activity beyond investigative measures.

Standard 9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

The project includes two exterior alterations at the courtyard, including the modification of the stair roof and the creation of a new window opening. The new roof form is intended to address a poor drainage detail that has resulted in water damage to the courtyard walls. The change would not harm the spatial quality of the courtyard area or cause the removal of any special design or crafted features. The new window will increase access to natural light at the second floor level while retaining the character of the courtyard by matching the existing fenestration pattern.

One alteration is proposed at the non-visible portion of the south wall at the third floor level. A glass block window and door will be replaced with two aluminum-clad, wood-framed windows and a door that will be consistent with the others found on the secondary facades. The wall openings will remain essentially the same dimension. This modification does not affect any character-defining features of the building.

Where existing non-historic finishes will be removed in the lobby and at the planter wall, the new finishes will be differentiated from the old.

Standard 10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

None of the proposed changes to the building would harm the essential form and integrity of the historic building if removed in the future. The historic walls could be returned to their current condition by filling in the new window openings and removing the small triangular area where the wall will be extended upwards.

PUBLIC/NEIGHBORHOOD INPUT

The Department has received no public input on the project at the date of this report.

STAFF ANAYLSIS

Based on the requirements of Article 10 and the Secretary of Interior's Standards, staff has determined that the proposed work is compatible with the character-defining features of the Doelger Building. The project is analyzed in its several parts below:

Primary Façade

Staff finds that the proposed treatment of the primary façade is appropriate and necessary for the rehabilitation of the landmark building. As described under Standards 5 and 6 above, extensive water and termite damage requires that many historic features at the front façade require replacement. The replacement of the features will not affect the building's overall character and historical significance. However, staff recommends that all replacement areas are properly documented to illustrate the severity of deterioration for review with staff prior to any demolition activity beyond investigative measures. The exterior existing conditions should be confirmed and documented through investigative demolition and photographs prior to confirming the extent of necessary replacement.

Where material substitutions are proposed for cost, availability or durability concerns, staff finds that the new materials are appropriate and in keeping with the character of the building. Staff recommends that material samples be provided to staff for review prior to installation. The proposed tile cladding for the planter installation and a stucco sample have already been provided to staff and will be presented at the hearing.

Staff finds that the proposed window, door, and awning replacements are appropriate for the building. These character-defining features at the front façade have deteriorated beyond repair and require replacement. For each of these elements, adequate care has been taken to accurately document the historic features so that they may be replicated in-kind. Full drawing details and specifications have been provided for the proposed windows as well as a framing sample for the lobby window and a glass block sample for review, which will also be available at the hearing.

If possible, the applicant would like to replicate the historic light fixture over the entry based upon historic photographs and the existing lobby fixture, which is has similar detailing. Staff recommends that the final specifications for the fixture should be reviewed by staff.

The clock, which has stopped operating, has been removed from the site for protection and repair during the stabilization work and will be and reinstalled in its original location once it has been fully restored. Staff finds that the off-site repair of the clock is appropriate and that the work will restore an important community-serving function of the historic façade.

Courtyard

Similar to the primary façade treatment, the walls of the courtyard are proposed to be replaced and re-clad in stucco. For the same reasons cited above, staff finds that the work is justified by the severe deterioration of the historic materials and that the work will re-create all of the historic features and finishes of the courtyard, including windows and doors.

The project includes two exterior alterations at the courtyard, including the modification of the stair roof and the creation of a new window opening. The new roof form is intended to address a poor drainage detail that has resulted in water damage to the courtyard walls. The change would not harm the spatial quality of the courtyard area or cause the removal of any special design or crafted features. The new window will increase access to natural light at the second floor level while retaining the character of the courtyard by matching the existing fenestration pattern.

3rd Floor South Wall

Staff finds that the original wall openings in this location will remain essentially the same dimension, causing minimal removal of historic material and that the modification does not affect any character-defining features of the building. Furthermore, the change will not be visible from the public right-of-way, and would preserve the appearance of the primary façade.

Interior

In the foyer, the non-historic Spanish-Revival style tile will be replaced with a marble tile that is appropriate to the age and style of the building. The original finish is unknown but it is presumed that it was in keeping with the Art Deco style of the building. Staff recommends that the final tile material and installation pattern are reviewed by staff prior to their installation to ensure compatibility with the historic character of the lobby.

Staff finds that the removal of the non-character-defining door and the infill of the opening between the lobby and the western display case to insert a shear wall will allow for structural strengthening of the building without affecting any character-defining features of the space. The location of the new wall will be unobtrusive from both the interior and exterior views of the building.

Lastly, staff supports the in-kind repair of interior wall finishes and the lobby chandelier. To ensure compliance with the Standards, staff recommends that the proposed interior alterations be confirmed prior to construction.

ENVIRONMENTAL REVIEW STATUS

The Planning Department has determined that the proposed project is exempt/excluded from environmental review, pursuant to CEQA Guideline Sections 15301 (Class One - Minor Alteration of Existing Structure) because the project includes a minor alteration of an existing structure that meets the Secretary of the Interior Standards for Rehabilitation of a Historic Property.

PLANNING DEPARTMENT RECOMMENDATION

Planning Department staff recommends APPROVAL WITH CONDITIONS of the proposed project as it appears to substantially meet the Secretary of the Interior Standards for Rehabilitation. Staff recommends

the following conditions:

1. That, prior to issuance of any building permits proposing alteration of the landmarked entry lobby, the Project Sponsor shall submit drawings that clarify the scope of rehabilitation of space including the fixtures and finishes.
2. That, prior to the issuance of any building permits proposing the alteration or demolition of the primary façade, the Project Sponsor shall document the extent of deterioration for all character-defining features with digital photography and/or drawings. The Project Sponsor shall submit plan drawings that clarify the extent of dry rot, termite damage, and foundation deterioration.
3. That, as part of the Building Permit, the Project Sponsor shall provide product specifications and existing and proposed shop drawings for the features to be replicated, including the entry doors, light fixture, and the awning, for review and approval by preservation staff.
4. That, as part of the Building Permit, the Project Sponsor shall provide a protection plan for the terrazzo paving during construction and identify any repair or cleaning treatments.
5. That preservation staff may review and approve a stucco cladding with integrated color if a material sample shows that it closely matches the historic painted finish.
6. That all material samples (including the window frame detail, tile sample, and glass block sample) provided by the applicant during the hearing will be submitted to the Department for retention until the project is completed.
7. That preservation staff will visit the site to approve a mock-up of the stucco application and a mock-up of the glass block construction prior to completion of the work to insure that the historic finishes and details are matched.

ATTACHMENTS

Draft Motion
Parcel and 1998 Sanborn Maps
Photographs
Project Sponsor's Letter and Slide Presentation
Plans and Window Details
Three-Coat Plaster Specifications and Pittsburg Corning Glass Block Product Information
Project Evaluation Memorandum prepared by Page & Turnbull

SC: G:\DOCUMENTS\Cases\COFA\Case Reports\320 Judah_Case Report_8.7.13.doc

SAN FRANCISCO
PLANNING DEPARTMENT

Historic Preservation Commission
Motion No.

HEARING DATE: AUGUST 7, 2013

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

Filing Date:	February 28, 2013
Case No.:	**2011.0913A**
Project Address:	**320 Judah Street**
Historic Landmark:	Landmark No. 265: The Doelger Building
Zoning:	Inner Sunset NCD (Neighborhood Commercial District) 40-X Height and Bulk District
Block/Lot:	1763/ 020 and 021
Applicant:	Geoffrey Darby 26 Blue Grass Irvine, CA 92603
Staff Contact	Shelley Caltagirone - (415) 558-6625 shelley.caltagirone@sfgov.org
Reviewed By	Tim Frye – (415) 575-6822 tim.frye @sfgov.org

ADOPTING FINDINGS FOR A CERTIFICATE OF APPROPRIATENESS FOR PROPOSED WORK DETERMINED TO BE APPROPRIATE FOR AND CONSISTENT WITH THE PURPOSES OF ARTICLE 10, TO MEET THE STANDARDS OF ARTICLE 10 AND TO MEET THE SECRETARY OF INTERIOR'S STANDARDS FOR REHABILITATION, FOR THE PROPERTY LOCATED ON LOTS 020 AND 021 IN ASSESSOR'S BLOCK 1763, WITHIN THE INNER SUNSET NCD (NEIGHBORHOOD COMMERCIAL) ZONING DISTRICT AND A 40-X HEIGHT AND BULK DISTRICT.

PREAMBLE

WHEREAS, on February 28, 2013, Geoffrey Darby, (Project Sponsor) filed an application with the San Francisco Planning Department (hereinafter "Department") for a Certificate of Appropriateness to rehabilitate the existing deteriorated structure to current code standards and to restore the primary façade to the condition of the period of significance. The structure has extensive water-related damage due to failed plumbing systems, failed and improperly detailed waterproofing systems, and failed foundations. The dry-rot caused by improper detailing in the original construction has resulted in extensive exterior and interior finish, substrate, and substructure deterioration. The reconstruction of the substrate and substructure requires the removal of the exterior finishes and the door and window systems, many of which are also deteriorated. As part of the replacement of these systems, a new waterproofing system is to be integrated with the replacement finishes and door/window systems.

The proposal includes work at the primary façade, the landmarked interior lobby space, and the landmarked interior courtyard. The restorative work includes both repairs and reconstruction where severe deterioration prohibits material repairs. The work is informed by historic photographs and physical building evidence. Specifically, the proposal includes the following:

Primary Facade

1. At the Streamline Moderne portion of the façade (western half), rebuild the structure 100% in-kind as this section of the façade is deteriorated beyond repair.
2. At the Art Deco portion of the façade (eastern half), repair and retain the wall structure in place.
3. Replace the deteriorated stucco cladding in-kind upon completion of structural work and repaint the front façade to match the 1940 white with black detail paint scheme.
4. Replace the two-story, metal-framed lobby window, the 2 wood-framed display windows flanking the entry, and the glass block windows walls at the first and second floor levels in-kind.
5. Re-build the raised planter beds in the front setback area and replacing the non-historic brick cladding with glazed black tile to closely match the original vitrolite tile with a metal speedline detail as shown in the 1940 photographs.
6. Replace the damaged metal front doors in-kind with new handles to match the original 1940 design.
7. Replace the two damaged metal projecting curved overhangs with their speedline detailing to match the original 1940 design.
8. Re-create and install the historic light fixture above the entry as shown in the 1935 photographs and the 1940 promotional brochure.
9. Repair and re-install the historic clock from 1940.

Courtyard

10. Rebuild the structure 100% in-kind as the walls are deteriorated beyond repair and the foundation they bear on is insufficient.
11. Replace the deteriorated stucco cladding in-kind with scalloped rendering to match existing upon completion of structural work.
12. Replace in-kind the 20 wood-framed windows and doors.
13. Remove the sloped roof of the stair enclosure at the east wall, which has been a source of water intrusion, and replace with a flat roof curb in conformance with the north and south roof curbs.
14. Add one arch-headed, wood-framed, multi-light window on the east wall of the courtyard.

3rd Floor South Wall

15. Replace an existing door and glass block window wall with a new door and two double-hung aluminum-clad, wood-framed windows in roughly the same opening.

Interior

16. Replace the non-historic floor tile in the lobby with 24" marble tile.
17. Remove one non-character-defining door and infill the opening between the lobby and the western display case to insert a shear wall.
18. Repair the existing lobby chandelier.
19. Patch and repaint the plaster walls as needed.

WHEREAS, the Project was determined by the Department to be categorically exempt from environmental review. The Historic Preservation Commission (hereinafter "Commission") has reviewed and concurs with said determination.

WHEREAS, on August 7, 2013, the Commission conducted a duly noticed public hearing on the current project, Case No. 2011.0913A ("Project") for its appropriateness.

WHEREAS, in reviewing the Application, the Commission has had available for its review and consideration case reports, plans, and other materials pertaining to the Project contained in the Department's case files, has reviewed and heard testimony and received materials from interested parties during the public hearing on the Project.

MOVED, that the Commission hereby grants the Certificate of Appropriateness, in conformance with the architectural plans and specifications labeled Exhibit A on file in the docket for Case No. 2011.0913A based on the following conditions and findings:

CONDITIONS OF APPROVAL

1. That, prior to issuance of any building permits proposing alteration of the landmarked entry lobby, the Project Sponsor shall submit drawings that clarify the scope of rehabilitation of space including the fixtures and finishes.
2. That, prior to the issuance of any building permits proposing the alteration or demolition of the primary façade, the Project Sponsor shall document the extent of deterioration for all character-defining features with digital photography and/or drawings. The Project Sponsor shall submit plan drawings that clarify the extent of dry rot, termite damage, and foundation deterioration.
3. That, as part of the Building Permit, the Project Sponsor shall provide product specifications and existing and proposed shop drawings for the features to be replicated, including the entry doors, light fixture, and the awning, for review and approval by preservation staff.
4. That, as part of the Building Permit, the Project Sponsor shall provide a protection plan for the terrazzo paving during construction and identify any repair or cleaning treatments.
5. That preservation staff may review and approve a stucco cladding with integrated color if a material sample shows that it closely matches the historic painted finish.
6. That all material samples (including the window frame detail, tile sample, and glass block sample) provided by the applicant during the hearing will be submitted to the Department for retention until the project is completed.
7. That preservation staff will visit the site to approve a mock-up of the stucco application and a mock-up of the glass block construction prior to completion of the work to insure that the historic finishes and details are matched.

FINDINGS

Having reviewed all the materials identified in the recitals above and having heard oral testimony and arguments, this Commission finds, concludes, and determines as follows:

1. The above recitals are accurate and also constitute findings of the Commission.

2. Findings pursuant to Article 10:

   The Historical Preservation Commission has determined that the proposed work is compatible with the character of the landmark as described in the designation report.

   - The proposed treatment of the primary façade and courtyard facades is appropriate and necessary for the rehabilitation of the landmark building. Extensive water and termite damage requires that many historic features at the front façade require replacement. The replacement of the features will not affect the building's overall character and historical significance.

   - Where material substitutions are proposed for cost, availability or durability concerns, the new materials are appropriate and in keeping with the character of the building.

   - The proposed window, door, and awning replacements are appropriate for the building. These character-defining features at the front façade have deteriorated beyond repair and require replacement. For each of these elements, adequate care has been taken to accurately document the historic features so that they may be replicated in-kind.

   - The off-site repair of the clock is appropriate and that the work will restore an important community-serving function of the historic façade.

   - The proposed courtyard alterations will not harm the spatial quality of the space or cause the removal of any special design or crafted features. The new window will increase access to natural light at the second floor level while retaining the character of the courtyard by matching the existing fenestration pattern.

   - The proposed changes at the third floor exterior wall will cause minimal removal of historic material and that the modification does not affect any character-defining features of the building. Furthermore, the change will not be visible from the public right-of-way, and would preserve the appearance of the primary façade.

   - The removal of the non-character-defining door and the infill of the opening between the lobby and the western display case to insert a shear wall will allow for structural strengthening of the building without affecting any character-defining features of the space. The location of the new wall will be unobtrusive from both the interior and exterior views of the building.

   - The in-kind repair of interior wall finishes and the lobby chandelier are appropriate and will preserve the character of this space.

   - That the proposed project meets the requirements of Article 10, Appendix E of the Planning Code.

- That the proposed project meets the following *Secretary of the Interior's Standards for Rehabilitation*:

  Standard 1. *A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.*

  Standard 2. *The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.*

  Standard 3. *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.*

  Standard 4. *Changes to a property that have acquired historic significance in their own right will be retained and preserved.*

  Standard 5. *Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.*

  Standard 6. *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

  Standard 9. *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.*

  Standard 10. *New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

3. **General Plan Compliance.** The proposed Certificate of Appropriateness is, on balance, consistent with the following Objectives and Policies of the General Plan:

   I. URBAN DESIGN ELEMENT
   THE URBAN DESIGN ELEMENT CONCERNS THE PHYSICAL CHARACTER AND ORDER OF THE CITY, AND THE RELATIONSHIP BETWEEN PEOPLE AND THEIR ENVIRONMENT.

   GOALS
   The Urban Design Element is concerned both with development and with preservation. It is a concerted effort to recognize the positive attributes of the city, to enhance and conserve those attributes, and to improve the living environment where it is less than satisfactory. The Plan is a definition of quality, a definition based upon human needs.

OBJECTIVE 1
EMPHASIS OF THE CHARACTERISTIC PATTERN WHICH GIVES TO THE CITY AND ITS NEIGHBORHOODS AN IMAGE, A SENSE OF PURPOSE, AND A MEANS OF ORIENTATION.

POLICY 1.3
Recognize that buildings, when seen together, produce a total effect that characterizes the city and its districts.

OBJECTIVE 2
CONSERVATION OF RESOURCES WHICH PROVIDE A SENSE OF NATURE, CONTINUITY WITH THE PAST, AND FREEDOM FROM OVERCROWDING.

POLICY 2.4
Preserve notable landmarks and areas of historic, architectural or aesthetic value, and promote the preservation of other buildings and features that provide continuity with past development.

POLICY 2.5
Use care in remodeling of older buildings, in order to enhance rather than weaken the original character of such buildings.

POLICY 2.7
Recognize and protect outstanding and unique areas that contribute in an extraordinary degree to San Francisco's visual form and character.

The goal of a Certificate of Appropriateness is to provide additional oversight for buildings and districts that are architecturally or culturally significant to the City in order to protect the qualities that are associated with that significance.

The proposed project qualifies for a Certificate of Appropriateness and therefore furthers these policies and objectives by maintaining and preserving the character-defining features of the landmark for the future enjoyment and education of San Francisco residents and visitors.

4. The proposed project is generally consistent with the eight General Plan priority policies set forth in Section 101.1 in that:

   A) The existing neighborhood-serving retail uses will be preserved and enhanced and future opportunities for resident employment in and ownership of such businesses will be enhanced:

      The proposed project is for the rehabilitation of a residential property and will not have any impact on neighborhood serving retail uses.

B) The existing housing and neighborhood character will be conserved and protected in order to preserve the cultural and economic diversity of our neighborhoods:

The proposed project will strengthen neighborhood character by respecting the character-defining features of the building in conformance with the Secretary of the Interior's Standards.

C) The City's supply of affordable housing will be preserved and enhanced:

The project will not reduce the affordable housing supply as the existing unit will be retained.

D) The commuter traffic will not impede MUNI transit service or overburden our streets or neighborhood parking:

The proposed project will not result in commuter traffic impeding MUNI transit service or overburdening the streets or neighborhood parking.

E) A diverse economic base will be maintained by protecting our industrial and service sectors from displacement due to commercial office development. And future opportunities for resident employment and ownership in these sectors will be enhanced:

The proposed will not have any impact on industrial and service sector jobs.

F) The City will achieve the greatest possible preparedness to protect against injury and loss of life in an earthquake.

Preparedness against injury and loss of life in an earthquake is improved by the proposed work. The work will be executed in compliance with all applicable construction and safety measures.

G) That landmark and historic buildings will be preserved:

The proposed project is in conformance with Article 10 of the Planning Code and the Secretary of the Interior's Standards.

H) Parks and open space and their access to sunlight and vistas will be protected from development:

The proposed project will not impact the access to sunlight or vistas for the parks and open space.

5. For these reasons, the proposal overall, is appropriate for and consistent with the purposes of Article 10, meets the standards of Article 10, and the Secretary of Interior's Standards for Rehabilitation, General Plan and Prop M findings of the Planning Code.

DECISION

That based upon the Record, the submissions by the Applicant, the staff of the Department and other interested parties, the oral testimony presented to this Commission at the public hearings, and all other written materials submitted by all parties, the Commission hereby **GRANTS a Certificate of Appropriateness** for the property located at Lots 020 and 021 in Assessor's Block 1763 for proposed work in conformance with the renderings and architectural plans labeled Exhibit A on file in the docket for Case No. 2011.0913A.

APPEAL AND EFFECTIVE DATE OF MOTION: The Commission's decision on a Certificate of Appropriateness shall be final unless appealed within thirty (30) days. Any appeal shall be made to the Board of Appeals, unless the proposed project requires Board of Supervisors approval or is appealed to the Board of Supervisors as a conditional use, in which case any appeal shall be made to the Board of Supervisors (see Charter Section 4.135).

Duration of this Certificate of Appropriateness: This Certificate of Appropriateness is issued pursuant to Article 10 of the Planning Code and is valid for a period of three (3) years from the effective date of approval by the Historic Preservation Commission. The authorization and right vested by virtue of this action shall be deemed void and canceled if, within 3 years of the date of this Motion, a site permit or building permit for the Project has not been secured by Project Sponsor.

THIS IS NOT A PERMIT TO COMMENCE ANY WORK OR CHANGE OF OCCUPANCY UNLESS NO BUILDING PERMIT IS REQUIRED. PERMITS FROM THE DEPARTMENT OF BUILDING INSPECTION (and any other appropriate agencies) MUST BE SECURED BEFORE WORK IS STARTED OR OCCUPANCY IS CHANGED.

I hereby certify that the Historical Preservation Commission ADOPTED the foregoing Motion on August 7, 2013.

Jonas P. Ionin
Acting Commission Secretary

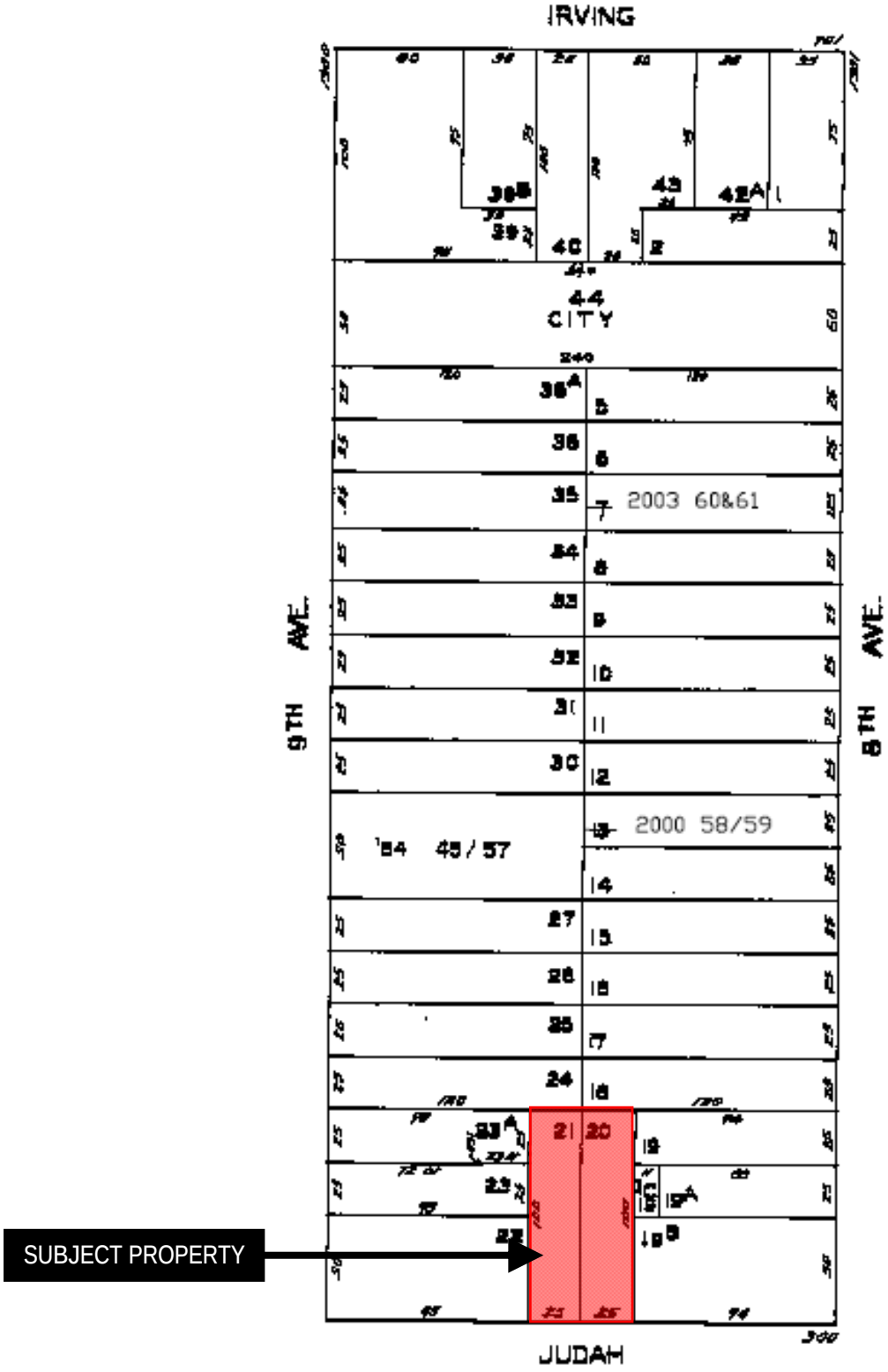
AYES:

NAYS:

ABSENT:

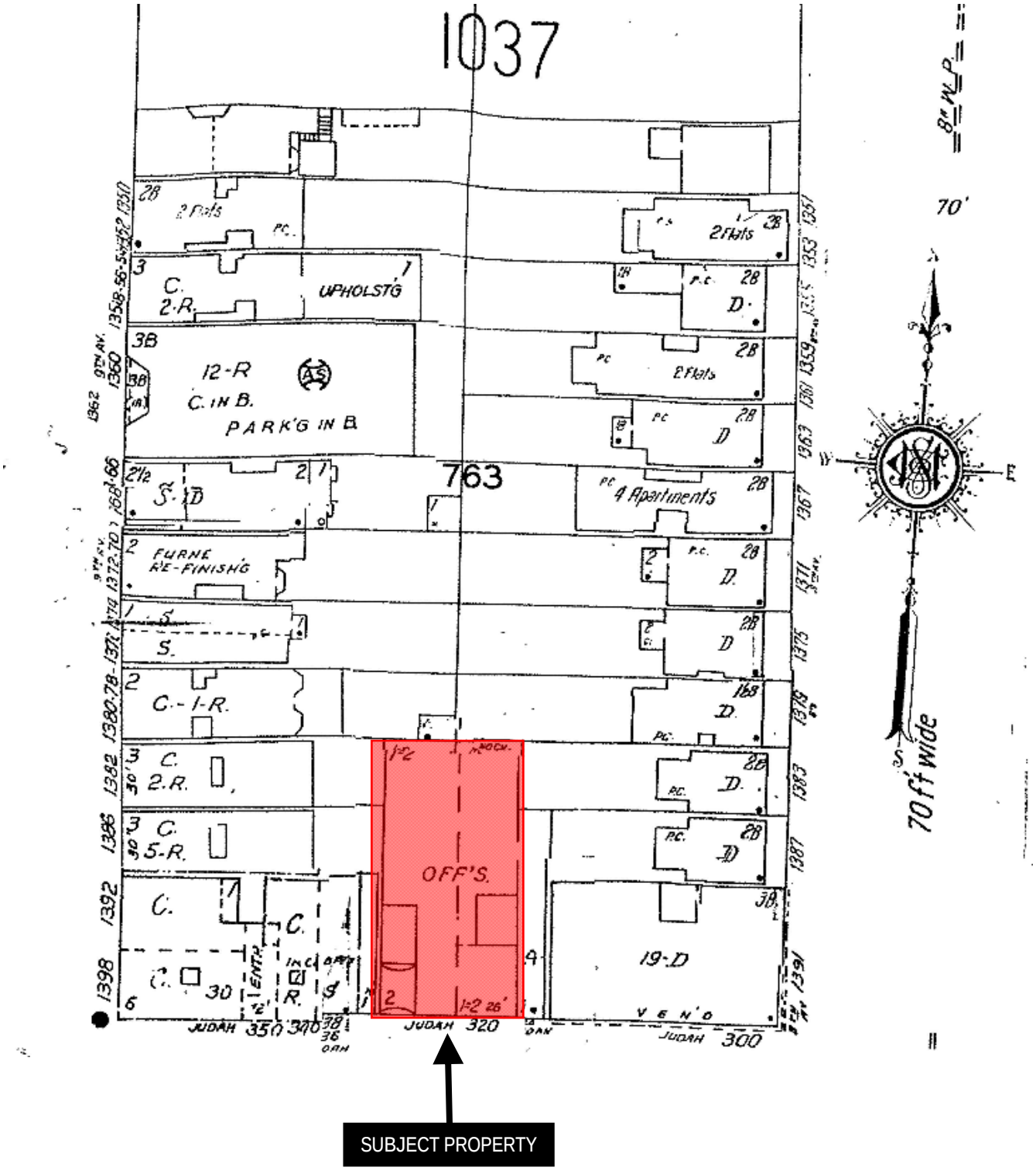
ADOPTED:

Parcel Map



Certificate of Appropriateness
Case **Number 2011.0913A**
320 Judah Street
Landmark No. 265: The Doelger Building

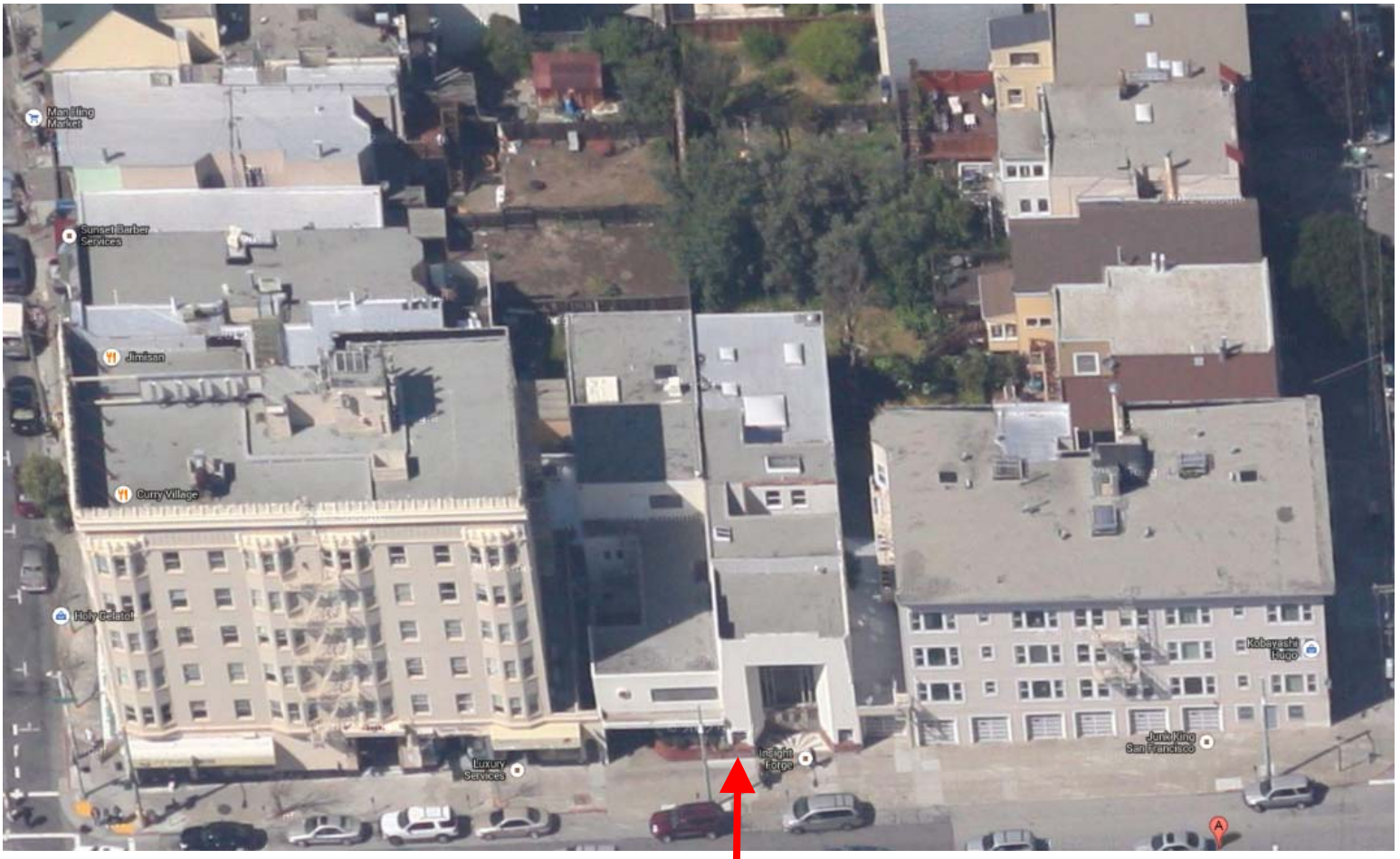
Sanborn Map*



*The Sanborn Maps in San Francisco have not been updated since 1998, and this map may not accurately reflect existing conditions.

Certificate of Appropriateness
Case Number 2011.0913A
320 Judah Street
Landmark No. 265: The Doelger Building

Aerial Photo



Certificate of Appropriateness
Case Number 2011.0913A
320 Judah Street
Landmark No. 265: The Doelger Building

Exterior Photo

Current condition, front façade, facing north.

Historic Photo

In 1940, the original building was expanded to include a horizontal addition at west facade. Source: History Guild of Daly City/Colma (Portola Studio, circa 1940).

Exterior Details

Original Building (1932)

Exterior Details

Horizontal Addition (1940)

Exterior Details

Secondary Facades: Horizontal Addition (1940)

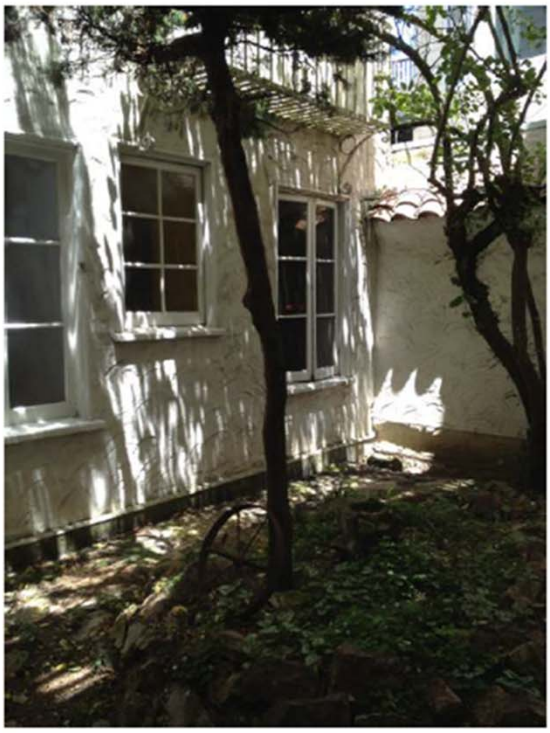
Far left: Former loading dock at end of the driveway.

Left: West-facing secondary elevations.

Below: Detail of etched glass window now set in the former loading dock door.

Exterior Details

Secondary Facades: Courtyard Atrium



Above left: View looking southeast toward interior courtyard.

Above right: View looking northeast into the interior courtyard.

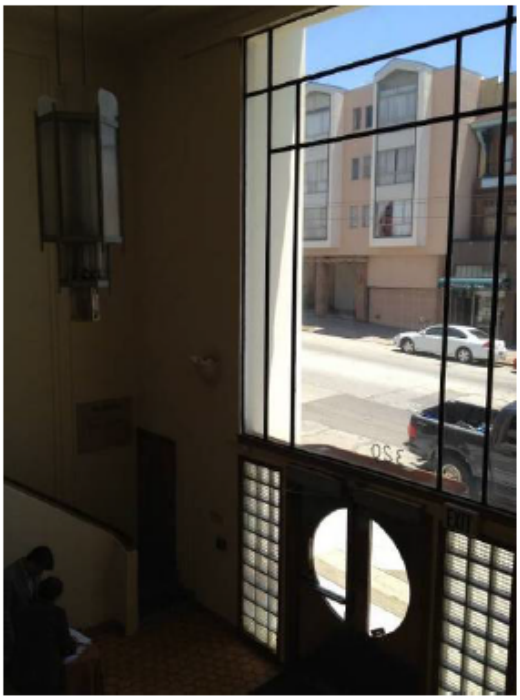
Left: View looking southwest from the third story across the courtyard. The third story wood-clad addition is visible (left) as is the atrium wall, which features Spanish clay tile coping.

Lobby Details

Left: Lobby floor *Right: Chandelier*

Left: Chandelier and balcony railing into the interior office spaces. *Center: Non-historic door opening beneath the balcony* *Right: View from the lobby*

Lobby Details





Clockwise from top left: View from the balcony mezzanine looking southeast; detail of stainless steel doors; fixed wall sconce; interior of storefront display windows; and ziggurat patterned door (at foot of stairs) leading to the display window area near the east wall.

To: Tim Frye,
Preservation Coordinator,
San Francisco Planning Department.

July 17th, 2013

Re: 320/330 Judah Street – The Doelger Building.

Tim, I have summarized below what work we have already done to 320 Judah. The summary will put some context around our COA and will hopefully answer some of the questions the Historic Preservation Commissioners (HPC) may have, so that at our August 7th meeting we will be able to focus on items they specifically need to clarify. You indicated at our meeting last Monday that the Commissioners would want to specifically focus on what we were doing to restore the "Historic" elements of the building. However I think it is important to explain to the Commissioners the dire condition this building was in and the reason we have focused so heavily on structural repair.

Last September we purchased the Doelger building, which had been on the market for over nine months, and due to its condition had received no offers even though the listing agent had reduced the sales price twice. We think the primary problems were, firstly the condition of the building, and secondly the fact that the building was going to be designated a Historic Landmark, which would therefore negate any chance of demolition. However we thought that the style and architectural character of the building were truly unique, and after meeting with Mary Brown last July to discuss the proposed Landmarking of the building we fully supported her efforts. The Historic Landmark designation not only saved a very distinctive building of period architecture but also provides a physical link to the historic role Henry Doelger played in the development of San Francisco. We regularly get people stopping by and thanking us for saving the Doelger building and a number of preservation societies, such as Woody LaBounty of outsidelands have been very complementary in our efforts to restore the property.

Prior to purchasing the property, we undertook professional structural and termite damage appraisals, and therefore thought that we had a good idea of what it would take to repair and bring the property up to current codes, especially the earthquake retro fit. However as we started to clear up what amounted to 40 years of neglected repairs and non permitted alterations, we uncovered extensive termite and dry rot structural damage which was only visible once sheetrock was removed. I have included just a small sample of photographs in my PowerPoint presentation, which I can say stopped our structural engineer Erevan O'Neil and our General Contractor Gavin Macken in their tracks. They have over 20 years of work experience here in San Francisco and had never seen such damage. It looks as though after the Doelger family sold the building, the new owners did little to no repairs, and numerous water leaks resulted in a subterranean termite infestation all over the building. In addition, on the two main sides of the building, water and sewer drains had fractured, and

over time, had washed the sand underneath the foundations literally right down the drains, resulting in washouts, cracked slabs and cracked foundations.

After we uncovered these problems we decided to "bite the bullet" and do a complete restoration from the ground up, which meant starting by excavating the foundations in order to understand the fundamental structural challenges. We initially looked at sinking piles but exploratory drilling uncovered nothing but sand with no sign of bedrock. We therefore decided to stabilize the sand using permeating grout, and to tie all of the substructure together using grade beams and high strength reinforced concrete. Without doing this we felt as though any restoration would not stand the test of time and as we are committed to taking a long-term view of our ownership of the property we went ahead.

As you can imagine once we uncovered the structural problems, we then saw how damaged the plumbing, drainage, electrical and HVAC systems were, so we have to completely replace these systems, not least for safety reasons. In addition the amount of asbestos in the tile flooring and in the insulating material around the HVAC piping, took a certified abatement company over four weeks to properly remove. Unexpected problems such as the building siting right on top of the property lines has meant we have to negotiate with eight neighbors to gain access to the outside foundations in order to waterproof, and to remove years of damaging ivy, which has attached itself to the siding. A real "out of the box" challenge has been to stop people trying to steal the few "Doelger" artifacts that remained in the building. The glass window in one of the garage doors was expertly removed and it took some serious investigations on our part to find that this piece had been taken by a person who used to live in Henry Doelger's private home in Westlake.

In order to expedite the project we have worked closely with Shelley Caltagirone on the project description for the HPC COA and we have agreed to your suggestion to engage Page and Turnbull to perform a Secretary of Interiors Standards Review and write a memorandum for the proposed restoration work.

Yours sincerely,

Geoffrey Darby,
Email: geoff@darby.cc

Henry Doelger Building Restoration

- Why Landmark the Henry Doelger building at 320 Judah ?
- Condition of Building when purchased in September 2012.
- Work done to update structure, foundation, earthquake retrofit, sprinkler, plumbing, drainage and electrical systems.
- Items for discussion for HPC meeting.
  - Front fascia structure, stucco and glass block repair.
  - Front window and door.
  - Courtyard windows and stucco.
  - Front foyer flooring material.

1935

"The Doelger Building"

1940A

2012

Why Landmark the Henry Doelger Building

- Henry Doelger sales and marketing office in the pre and post WW2 period.
- Doelger was instrumental in transforming the Sunset District and Daly City building over 28,000 affordable single family homes. In 1940's was largest builder in the United States.
- Pioneer in mass construction using assembly-line production and efficiencies of scale.
- Building is one of the few examples of Art Deco and Streamline Moderne Design in San Francisco. Originally commissioned using Charles Clausen's studios.

Status of Building September 2012
"Very poor condition"

- Foundation cracks on two sides with up to 8" of subsidence. Foundation "washout" on both sides due to broken drains.

- Extensive subterranean termite damage in five areas extending into the central structure. Inner courtyard structure totally destroyed and plate damage resulting in the building not being attached to foundation. No earthquake updating.

- Over eighteen water leaks causing dry rot damage of structure and siding. Little to no exterior water proofing every skylight was leaking and roof drainage came into building.

- In many parts exterior stucco holding building structure from collapsing. Front window scaffolded after it **collapsed**.


Luxury
Services

Driveway and foundation washout

Dry rot and termite damage

Driveway wall after stucco removed

Inner courtyard(IC) – Termite Epicenter

IC – all structural beams destroyed

IC – Termite damage everywhere

Termite damage hidden in structure all around IC

Structural Beam ground floor

Front facia foundation damage

Termite path to driveway wall

Front planter area

Interesting header

Natural ventilation?

Back of Third Floor glass blocks

Condition of Building – cont.

- Plumbing leaks, electrical fire hazards, HVAC systems in very very poor shape resulting in a significant asbestos problem. Took four weeks for abatement contractor to clean up as numerous floors where covered in asbestos tiles
- Building interior had been completely "butchered" and had unbelievably crude "jerry rigged" electrical "upgrades"
- Building on "property line" so it is extremely challenging to get 8 neighbors to allow access! This is a significant problem!
- Theft of Doelger "artifacts" has been an ongoing problem.

Work done to Restore and Update

- Foundations throughout building excavated, repaired and stabilized with permeating grouting (sand to sandstone). Four foot grade beams installed throughout the basements using 4,000psi (4kpsi) reinforced concrete connecting the upgraded foundations. Foundation in the middle of the two original buildings reinforced.

- Over 55 tons of steel "I" beams and rebar installed, forming a structural backbone connecting all floors with the foundation.

- Over 1,500 tons of 4kpsi reinforced concrete poured to form a monolithic steel reinforced foundation. Simpson Strong –Ties (SS) and anchors used throughout the structure in compliance with Simpson's Design review recommendations.

- Existing wood structure strengthened with Parallam beams, with additional studs and steel braces. Extensive shear reinforcement internally and on all corners both inside and outside. Care was taken to retain as much of the original structure as possible.

Grade beams tied to upgraded foundation

Steel reinforcement in basements

Back foundation was originally below grade

Serious earthquake reinforcement!

Ground floor original joists remain

Second floor original floor joists reinforced

Parallam headers in the building center

Work done to Restore – cont.

- Parts of roof re-engineered and 100% of the roof replaced with new drains.
- New water, drainage, sewage, plumbing and in floor heating systems being installed.
- Building brought up to Title 24 standards.
- 100% new Electrical system will be installed to current code with Lutron computer controls and LED lighting

Items for discussion

- Front fascia, structure, stucco glass block repair
- Front window and door
- Courtyard windows and stucco.
- Front foyer flooring material

PROJECT INFORMATION

SCOPE OF WORK

REPAIR & REFINISHING FRONT FACADE AND COURTYARD WALL.
REPLACE IN KIND GLASS BLOCK AND DOOR AND WINDOWS AT FRONT FACADE AND COURTYARD. ADD NEW WINDOW AND REMOVE STAIR ROOF & CONTINUE SPANISH TILED PARAPET AT WEST WALL OF COURTYARD.
REPLACE IN KIND DOORS IN LOBBY.

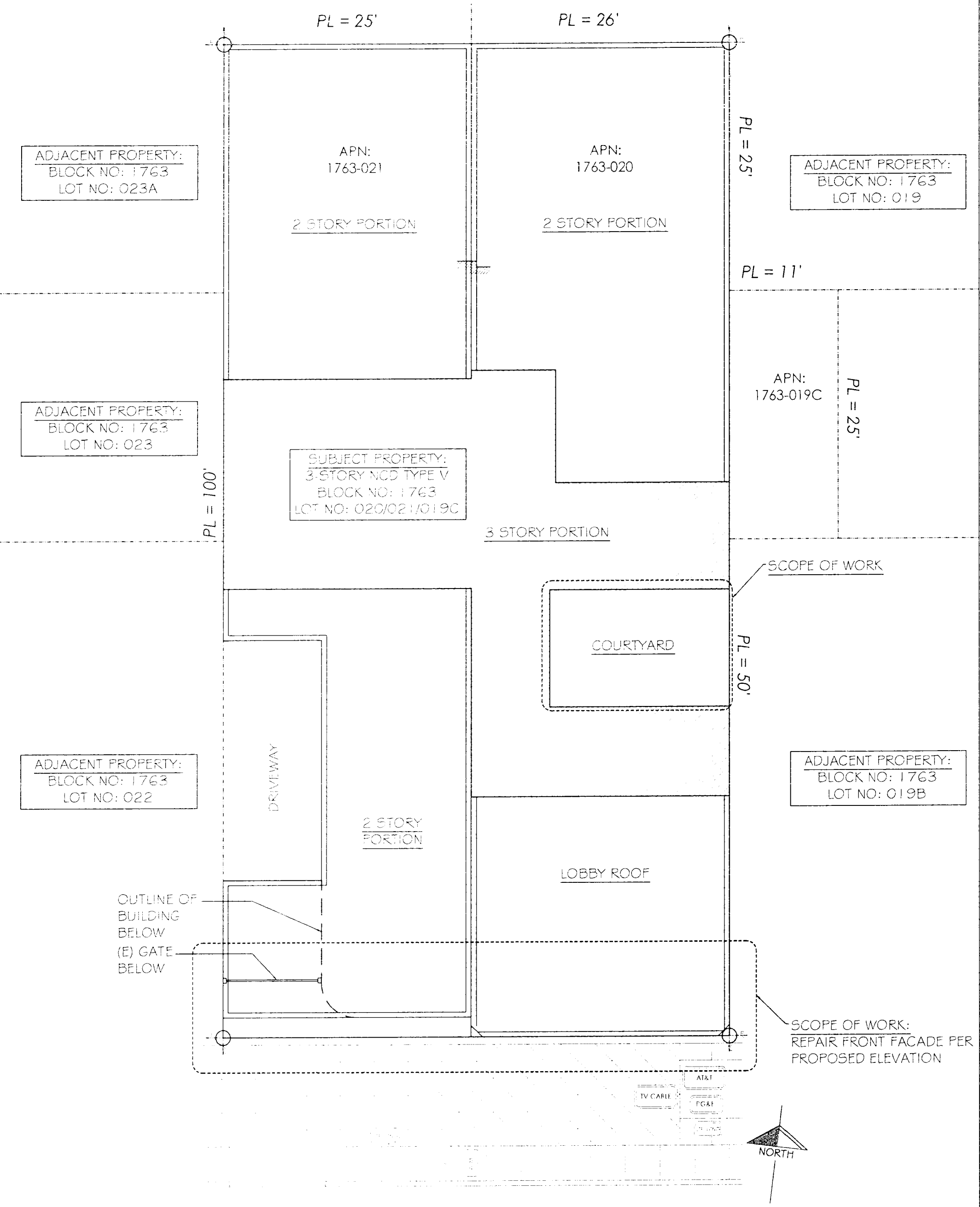
OWNER:	TDW LLC 320 JUDAH STREET SAN FRANCISCO, CA PHONE: (650) 326-7200
PROJECT CONTACT:	ONE DESIGN P.O. BOX 40606 SAN FRANCISCO, CALIFORNIA 94140 (415) 828-4412 info@onedesignsf.com
BLOCK NUMBER:	1763
LOT NUMBER:	020/021/019C
AUTHORITY:	CITY AND COUNTY OF SAN FRANCISCO
APPLICABLE CODE:	2010 CALIFORNIA BUILDING CODE WITH SFBC AMENDMENTS
ZONING DISTRICT:	NCD
CONSTRUCTION:	TYPE VB.
NUMBER OF STORIES:	3

SHEET INDEX

A1.0	-	TITLE SHEET, DRAWING INDEX, GENERAL INFO AERIAL VIEW & SITE PLAN.
A2.1	-	BASEMENT PLAN
		GROUND FLOOR PLAN
A2.2		SECOND FLOOR PLAN
		THIRD FLOOR PLAN
A3.1	-	EXISTING EAST ELEVATION
		PROPOSED EAST ELEVATION
		PHOTO MONTAGE OF COURTYARD
A3.2	-	EXISTING & PROPOSED FRONT ELEVATION
		EXISTING & PROPOSED WEST ELEVATION
		CURRENT & ORIGINAL FACADE
A4.1	-	FACADE REPAIR/REPLACEMENT
		BUILDING SECTIONS
		LOBBY WINDOW ELEVATION
A4.2	-	ARCHITECTURAL DETAILS
A4.3	-	COURTYARD WINDOW DETAILS
A5.1	-	WINDOW & DOOR SCHEDULE
		MANUFACTURERS DETAILS
A6.1	-	LOBBY INTERIOR IMAGES

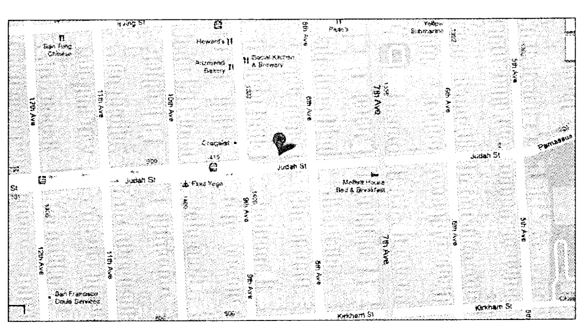
DRAWING SYMBOLS

- BUILDING ELEVATION TAG
- BUILDING SECTION TAG
- WINDOW / STOREFRONT TAG
- DETAIL TAG
- INT. WALL TYPE TAG (NUMBERS)
- LOWER CASE LETTER DENOTES SUBCATEGORY
- EXT. WALL TYPE TAG (LETTERS)
- KEY NOTE — 1-HOUR WALL
- DOOR TAG — 2-HOUR WALL
- PROPERTY LINE

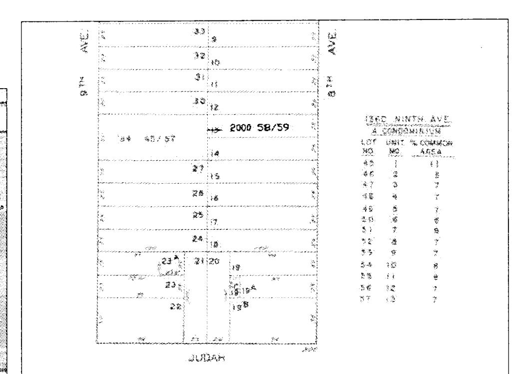


SITE PLAN
SCALE: 1/8" = 1'-0"

AERIAL VIEW



SITE LOCATION MAP



ASSESSORS MAP

GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND WORKMANSHIP FOR ALL CONSTRUCTION REQUIRED HEREIN AND SHALL BE IN ACCORDANCE WITH THE:
   - 2010 SAN FRANCISCO BUILDING CODE
   - 2010 SAN FRANCISCO ELECTRICAL CODE
   - 2010 SAN FRANCISCO ENERGY CODE
   - 2010 SAN FRANCISCO HOUSING CODE
   - 2010 SAN FRANCISCO MECHANICAL CODE
   - 2010 SAN FRANCISCO PLUMBING CODE
   - 2010 CALIFORNIA FIRE CODE

   COORDINATE ALL WORK WITH STRUCTURAL DRAWINGS

2. IN THE EVENT THE CONTRACTOR ENCOUNTERS ON THE SITE MATERIAL REASONABLY BELIEVED TO BE ASBESTOS, POLYCHLORINATED BIPHENYL (PCB) OR ANY OTHER HAZARDOUS MATERIAL WHICH HAS NOT BEEN RENDERED HARMLESS OR PREVIOUSLY IDENTIFIED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE AND THE ARCHITECT IN WRITING.

3. MANUFACTURER'S DESIGNATIONS ARE NOTES TO INDICATE PATTERN, COLOR AND PERFORMANCE.

4. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS IN THE FIELD AND IN THE EVENT OF DISCREPANCY, REPORTING SUCH DISCREPANCY TO THE ARCHITECT, BEFORE COMMENCING WORK.

5. CONTRACTOR SHALL NOT SCALE DRAWINGS. WRITTEN DIMENSIONS SHALL ALWAYS GOVERN CONTRACTOR REQUIRING DIMENSIONS NOT NOTED, SHALL CONTACT THE ARCHITECT FOR SUCH INFORMATION PRIOR TO PROCEEDING WITH THE WORK RELATED TO THOSE DIMENSIONS.

6. ALL PLAN DIMENSIONS INDICATED ARE TO COLUMN CENTERLINE, TO FACE OF CONCRETE, TO FINISHED FACE OF GYP. BD., OR TO FACE OF MASONRY U.O.N.

7. CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, HANGERS AND/OR OTHER SUPPORTS FOR ALL FIXTURES, EQUIPMENT, CASEWORK, FURNISHINGS AND ALL OTHER ITEMS REQUIRING SAME.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR PROPER INSTALLATION OF MATERIAL AND EQUIPMENT.

9. CONTRACTOR SHALL TAKE SUITABLE MEASURES TO PREVENT INTERACTION BETWEEN DISSIMILAR METALS.

10. "ALIGN" AS USED IN THESE DOCUMENTS SHALL MEAN TO ACCURATELY LOCATE FINISH FACES IN THE SAME PLANE.

11. "TYPICAL" OR "TYP." MEANS FOR ALL SIMILAR CONDITIONS, U.O.N.

12. DETAILS ARE USUALLY KEYED ONLY ONCE (ON PLANS OR ELEVATIONS WHEN THEY FIRST OCCUR) AND ARE TYPICAL FOR SIMILAR CONDITIONS THROUGHOUT, U.O.N.

13. CONSTRUCTION AREA MUST BE BROOM CLEANED DAILY AND ALL MATERIALS SHALL BE STACKED OR PILED IN AN ORDERLY FASHION OUT OF TRAFFIC PATTERNS.

14. AT COMPLETION OF THE WORK, CONTRACTOR SHALL REMOVE ALL MARKS, STAINS, FINGERPRINTS, DUST, DIRT, SPLATTERED PAINT, AND BLEMISHES RESULTING FROM THE VARIOUS OPERATIONS THROUGHOUT THE PROJECT.

15. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING DAMAGED AREAS THAT OCCUR DURING CONSTRUCTION THAT ATE WITHIN THE SCOPE OF WORK OR OUTSIDE SCOPE OF WORK, THAT ARE CAUSED BY HIM/HER OR SUBCONTRACTORS.

16. WHERE ADJOINING DOORS HAVE DISSIMILAR FLOORING, MAKE CHANGE UNDER CENTERLINE OF DOOR, U.O.N.

17. ALL PIPE, CONDUIT AND DUCT PENETRATIONS THROUGH FLOORS AND FIRE-RATED WALL AND CEILING SHALL BE SEALED WITH FIREPROOFING PLASTER OR FIRESTOPPING TO FULL DEPTH OF SLAB OR THICKNESS OF WALL/CEILING.

18. ENTERING INTO AN AGREEMENT WITH THE OWNER INDICATES THAT THE CONTRACTOR(S) HAS VISITED THE SITE, FAMILIARIZED HIM/HERSLF WITH THE EXISTING CONDITIONS, AND REVIEWED SAME WITH REQUIREMENTS OF THE CONTRACT DOCUMENTS.

19. CONTRACTOR SHALL COORDINATE ALL WORK WITH ALL SUB-CONTRACTORS, INCLUDING THOSE UNDER SEPARATE CONTRACT WITH THE OWNER.

20. CONTRACTOR SHALL SUBMIT CONFIRMATION WITH DELIVERY DATES ON ORDERS OF MATERIALS AND EQUIPMENT OF ANY LONG LEAD TIME ORDER ITEMS.

21. A 6-8" MINIMUM HEADROOM SHALL BE PROVIDE AT ALL STAIRS.

22. CONTRACTOR SHALL PROTECT ALL EXCAVATION AND CONSTRUCTION FROM RAIN OR WATER DAMAGE.

23. COMMON ABBREVIATIONS:
   - (E) = EXISTING, (N) = NEW.
   - GWB = GYP. BD. = GYPSUM WALLBOARD.
   - MTL = METAL, S.S. = STAINLESS STEEL.
   - SSD = SEE STRUCTURAL DRAWINGS.
   - AFF = ABOVE FINISHED FLOOR.

ELECTRICAL KEYED NOTES:

E1 - SEPARATE KITCHEN CIRCUITS TO BE PROVIDED FOR COUNTERTOP OUTLETS, REFRIGERATOR, AND DISHWASHER/DISPOSAL. PROVIDE MIN. 2 - 20 AMP SMALL APPLIANCE BRANCH CIRCUITS (PER SFEC SECT. 210.52 & 220-4)

E2 - GFCI PROTECTION REQ'D ON ANY RECEPT. WITHIN 6'-0" SINK.

E3 - PROVIDE ELEC. OUTLETS IN KITCHEN SO THAT NO POINT ALONG A COUNTER IS MORE THAN 24" FROM AN OUTLET PER SFEC-210.52. PROVIDE ACCESSIBLE OUTLET AT ISLAND.

E4 - PER TITLE-24, IN KITCHENS:
1- AT LEAST 50% OF INSTALLED LUMINARIES WATTAGE MUST BE OF H.E. LIGHTING AND
MUST BE SWITCHED SEPARATELY FROM NON-H.E. LIGHTING;
2 - INSTALLED WATTAGES MUST BE CALCULATED.

GENERAL ELECTRICAL NOTES:

A. PER TITLE-24, BATHROOMS, LAUNDRY ROOMS, GARAGES, AND UTILITY ROOMS ARE TO HAVE ALL HIGH EFFICACY (H.E.) LIGHTING UNLESS LIGHTING IS CONTROLLED BY CERTIFIED OCCUPANT SENSOR(S) WHICH MUST BE MANUAL-ON MOTION SENSOR AND MUST NOT HAVE 'ALWAYS-ON' OPTION.

B. PER TITLE-24, OTHER ROOMS - BEDROOMS, HALLWAYS, STAIRS, DINING ROOMS, AND CLOSETS LARGER THAN 70SF - ARE TO HAVE ALL H.E. LIGHTING UNLESS LIGHTING IS CONTROLLED BY DIMMER SWITCH OR CERTIFIED OCCUPANT SENSOR(S) WITH MANUAL-ON SENSOR AND NO 'ALWAYS-ON' OPTION.

C. PER TITLE-24, ALL RECESSED LUMINARIES IN INSULATED CEILINGS MUST BE APPROVED FOR ZERO-CLEARANCE INSULATION COVER AND MUST BE CERTIFIED AS AIR TIGHT.

D. PER TITLE-24, ALL OUTDOOR LIGHTING IS TO BE H.E. LIGHTING UNLESS LIGHTING IS:
1- CONTROLLED BY CERTIFIED MOTION SENSORS AND PHOTOCONTROL;
2- OF LANDSCAPE LIGHTING (NOT ATTACHED TO BUILDING);
3-IN OR AROUND SWIMMING POOLS OR WATER FEATURES.

E. PER SFBC 1205.3, IF A ROOM INTENDED FOR HUMAN OCCUPANCY DOES NOT HAVE MIN. NET GLAZED AREA FOR NATURAL LIGHT, PROVIDE MIN. ARTIFICIAL LIGHT OF 10 FOOT-CANDLES OVER THE AREA OF THE ROOM AT A HEIGHT OF 30 IN. AFF.

F. PER SFBC 1205.4, STAIRWAYS WITHIN DWELLING UNITS & EXTERIOR STAIRWAYS SERVING A DWELLING UNIT SHALL HAVE AN ILLUMINATION LEVEL ON TREAD RUNS OF NOT LESS THAN 1 FOOT-CANDLE WITH CONTROLS PER SFEC.

MECHANICAL NOTES:

M1 - PROVIDE 200 SQ. IN. NET OPENING FOR GARAGE VENTILATION PER SFBC 406.1.3
(UP TO 1,000 SF)

M2 - PER SFBC 406.1.4 (2), DUCTING IN PRIVATE GARAGE $ DUCTS PENETRATING THE WALLS OR CEILING, SEPARATING THE DWELLING UNIT FROM THE GARAGE TO BE MIN. 0.019 IN. SHEET METAL & HAVE NO OPENINGS INTO THE GARAGE.

M3 - PROVIDE COMBUSTION AIR OPENINGS FROM OUTSIDE FOR W.H. PER SFPC-507. (FURNACE PER SFMC-CH.7). ANY APPLIANCE WITH FLAME SOURCE TO BE MOUNTED
MIN. 18" ABOVE FLOOR IN GARAGE PER SFMC-308 (W.H. PER SFPC-510.1).

M4 - PROVIDE APPROVED SEISMIC STRAPS W.H. (OR WATER STORAGE TANKS) TO WALL
PER SFPC-510.5

M5 - TERMINATE GAS VENT PER SFMC CHAPTER 8.

M6 - DRYER EXHAUST DUCT: 14'-0" MAX. WITH 2 - 90° PER SFMC-504.3
OR PER MANUF. - VENT TO EXT. PROVIDE BOOSTER FAN PER CODE IF REQ'D
(FANTECH # RVF4XL EXT. MTD FAN OR EQ.)

M7 - PROVIDE 100 SQ. IN. NET OPENING FOR DRYER MAKE-UP AIR PER SFMC-504.3.2

M8 - PER SFBC 1203.4.2.1, BATHROOMS CONTAINING BATHTUBS, SHOWERS, SPAS,
OR SIM. BATHING FIXTURES TO BE MECH. VENTILATED PER SFMC.

M9 - TERMINATE ALL ENVIRONMENTAL AIR EXHAUST DUCTS (KITCHEN, RANGE HOOD, BATHROOM FAN, DRYER) MIN. 3 FT. FROM ANY OPENING OR PROPERTY LINE PER SFMC 504. PROVIDE BACK DRAFT DAMPER (B.D.D.)

M10 - PER SFMC TABLE 4-4, PROVIDE EXHAUST FAN (MIN. 50 CFM).

M11 - PROVIDE PRESSURE BALANCE OR THERMOSTATIC MIXING VALVE CONTROLS AT SHOWERS AND TUB/SHOWERS PER SFPC.

M12 - PROVIDE MECHANICAL VENTILATION PER SFMC CH. 4 & TABLE 4-1

M13 - PROVIDE FIREPLACE VENT/FLUE PER MANUFACTURER & SFMC.

CODE NOTES:

1. PER CBC 907.2.10.1.2, PROVIDE HARD WIRED SMOKE DETECTORS ON EVERY FLOOR AND IN EVERY SLEEPING ROOM AND HALLWAY OUTSIDE OF SLEEPING ROOMS.

2. PER CBC TABLE 602, PROVIDE ON HOUR RATED STRUCTURE EVERYWHERE WITHIN 5 FEET OF AND PARALLEL TO THE PROPERTY LINE.

3. PER CBC 406.1.4 PROVIDE GWB ASSEMBLIES BETWEEN PRIVATE GARAGE AND HABITABLE ROOMS. (MIN. 1/2" GWB BETWEEN THE DWELLING & ATTIC AREA. GARAGES BENEATH HABITABLE ROOMS SHALL BE SEPARATED FROM ALL HABITABLE ROOMS ABOVE BY NOT LESS THAN A 5/8" TYPE 'X' GWB OR EQ).

4. PROVIDE MIN. 1 EMERGENCY ESCAPE & RESCUE WINDOW PER CBC 1026 AT ALL SLEEPING ROOMS.

GENERAL PLUMING NOTES:

A. TOILET SHALL BE 1.6 GALLONS PER FLUSH MAX. CPC 402.2

B. 2007 CPC 407.6 PROVIDE MIN. 30" CLEAR WIDTH & 24" IN FRONT @ METER CLOSETS PER CPC407.6

C. SHOWERS & TUB SHOWERS SHALL BE PROVIDED WITH INDIVIDUAL CONTROLS OF THE PRESSURE BALANCE TYPE OR THE THERMOSTATIC MIXING VALUE TYPE PER CPC 418.

D. PRESSURE ABSORBING DEVICE REQ'D ON WATER LINE CLOSE TO QUICK ACTING VALVES.

ONE Design
Retrofits
Remodels
info@onedesignsf.com

NOTE A:
ALL DIMENSIONS SHOWN HERE SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO WORK. ALL EXISTING CONDITIONS SHALL BE VERIFIED AND ANY DEVIATIONS FROM WHAT IS SHOWN IN THESE PLANS SHALL BE MADE KNOWN TO ONE DESIGN

~~SEE SHEET A5.1 FOR WINDOW & DOOR SCHEDULE~~

THE SCOPE OF WORK IN THIS PROJECT IS LIMITED TO THE FACADE AND THE COURTYARD.
REFER TO PA# 201302089808 & PA#201301288851 FOR THE INTERIOR SHELL AND CORE REMODEL.
REFER TO PA#201302281237 FOR THE WINDOW REPLACEMENTS AT THE PROPERTY LINE WALLS

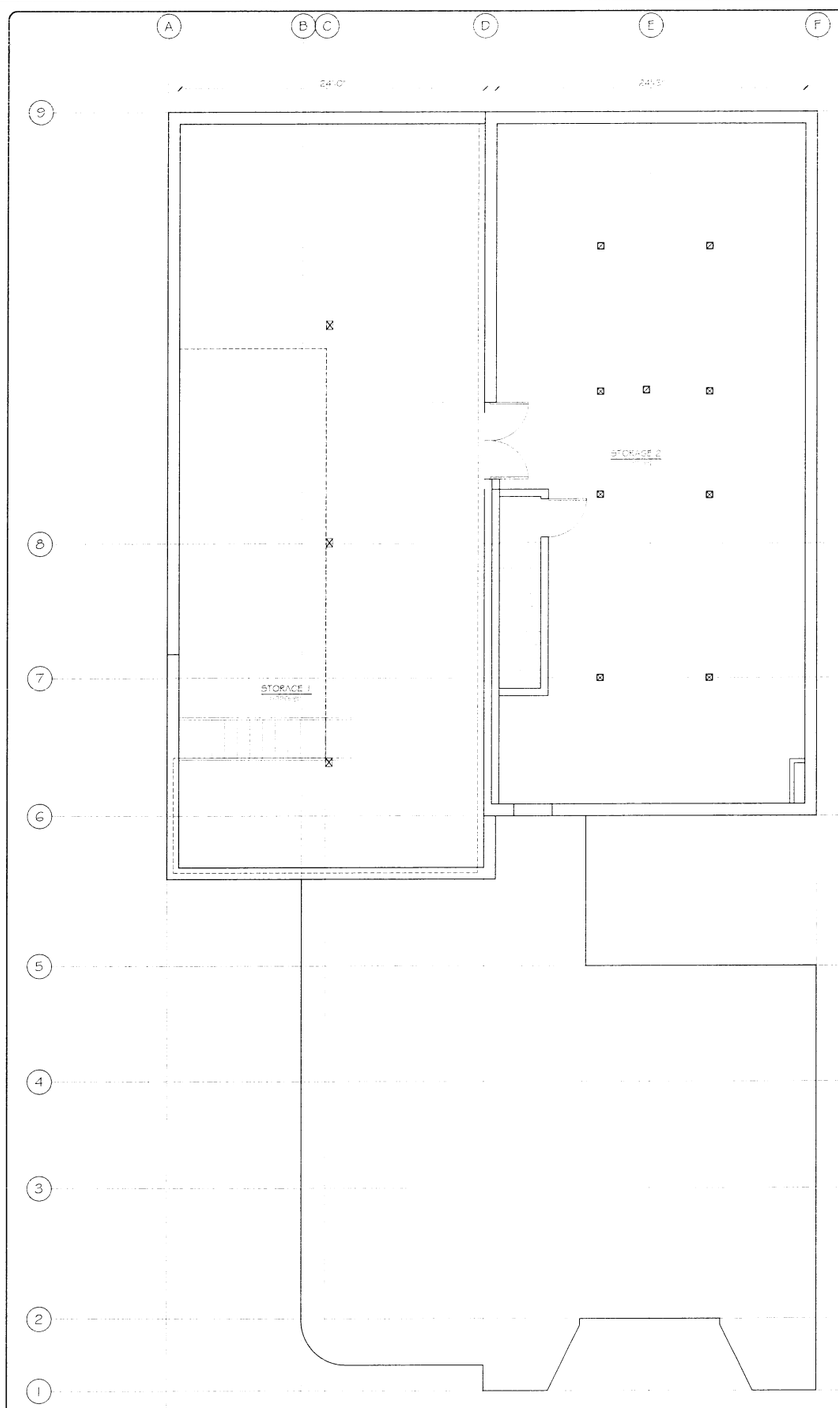
3	AMEND PER PLANNER'S REQUEST	07-30-13
2	AMEND PER PLANNER'S REQUEST	05-08-13
1	PLAN CHECK RESPONSE	04-11-13

REGISTERED PROFESSIONAL ENGINEER
EREVAN O'NEILL
C 75459
EXP. 03/31/14
CIVIL
STATE OF CALIFORNIA

PROFESSIONAL SEAL

TITLE SHEET

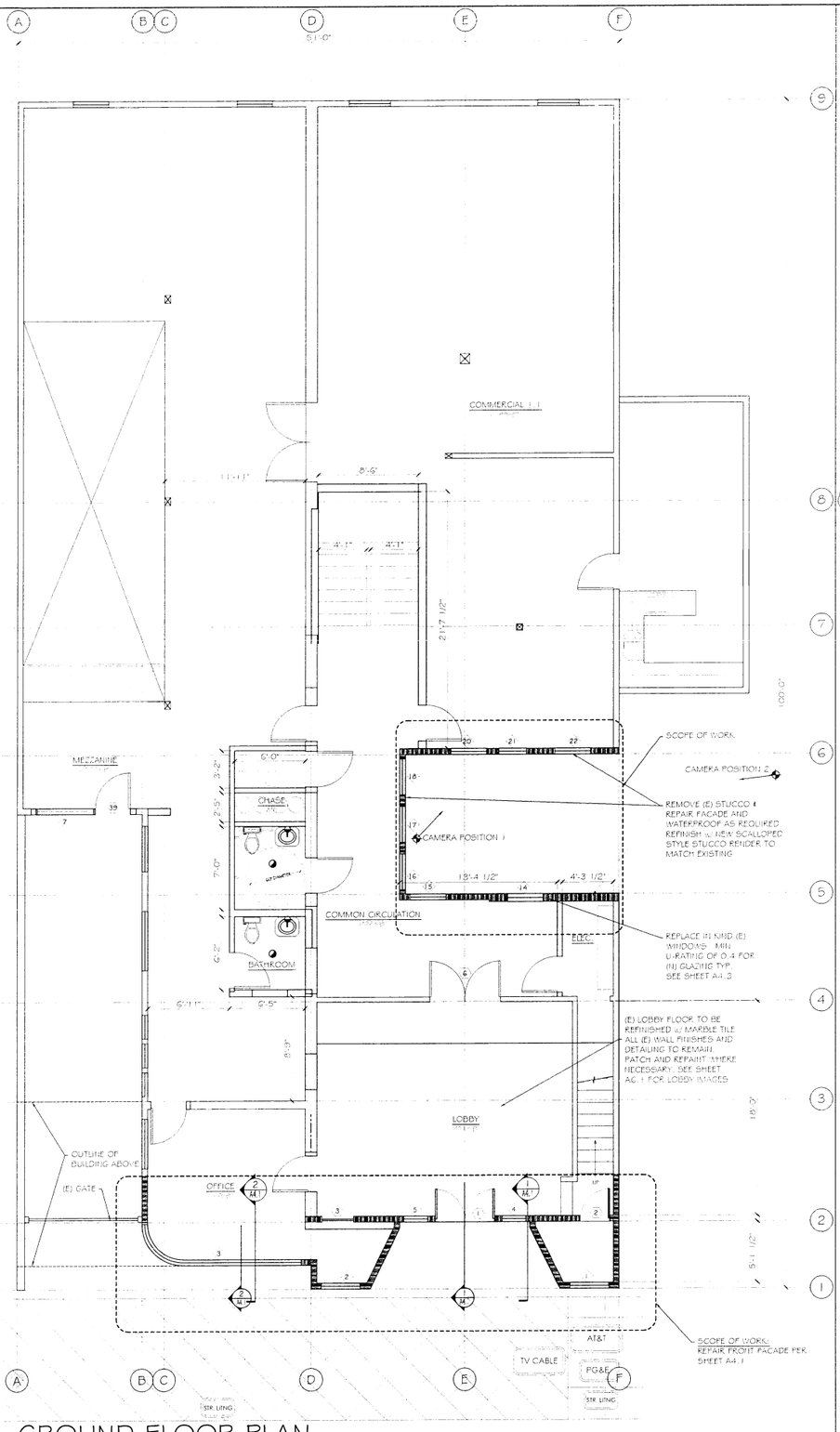
CLIENT TDW LLC 320 JUDAH STREET SAN FRANCISCO, CA	SCALE AS NOTED DATE [illegible] DRAWN [illegible] JOB #: [illegible]
TITLE FACADE REPAIRS & WINDOW REPLACEMENT 320 JUDAH ST SAN FRANCISCO, CA	DRAWING NO. A1.0 HPC



BASEMENT PLAN

SCALE: 3/16"=1'-0"

NO WORK



GROUND FLOOR PLAN

SCALE: 3/16"=1'-0"

Retrofits
Remodels
ONE Design
info@onedesignsf.com

NOTE A:
ALL DIMENSIONS SHOWN HERE SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO WORK. ALL EXISTING CONDITIONS SHALL BE VERIFIED AND ANY DEVIATIONS FROM WHAT IS SHOWN IN THESE PLANS SHALL BE MADE KNOWN TO ONE DESIGN.
SEE SHEET A0.1 FOR ADDITIONAL CODE SUMMARY.
THE SCOPE OF WORK IN THIS PROJECT IS LIMITED TO THE FACADE AND THE COURTYARD.
REFER TO P/A# 201302088508 & P/A# 201301288851 FOR THE INTERIOR SHELL AND CORE REMODEL.
REFER TO P/A# NO. 50228 - 25" FOR THE WINDOW REPLACEMENTS AT THE PROPERTY LINE WALLS.

3	AMEND PER PLANNERS REQUEST	07-30-13
2	AMEND PER PLANNERS REQUEST	05-08-13
1	PLAN CHECK RESPONSE	04-11-13

REGISTERED PROFESSIONAL ENGINEER
GREGORY O'NEILL
C 75459
EXP. 03/31/14
CIVIL
STATE OF CALIFORNIA

PROFESSIONAL SEAL

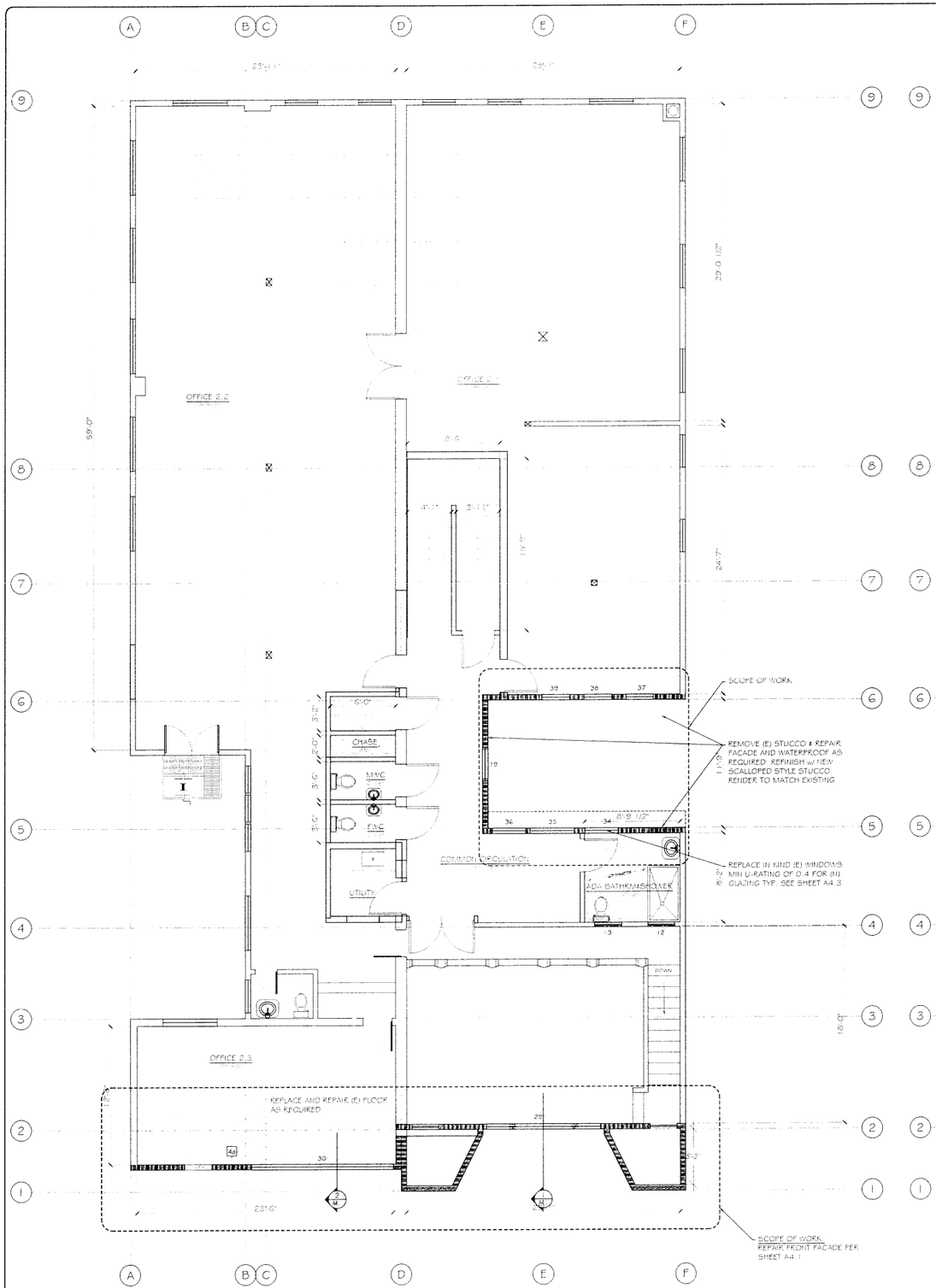
BASEMENT PLAN
GROUND FLOOR PLAN

CLIENT
TDW LLC
320 JUDAH STREET
SAN FRANCISCO, CA

SCALE 3/16"=1'-0"
DATE 03.22.13
DRAWN S.A.
JOB #: 1214

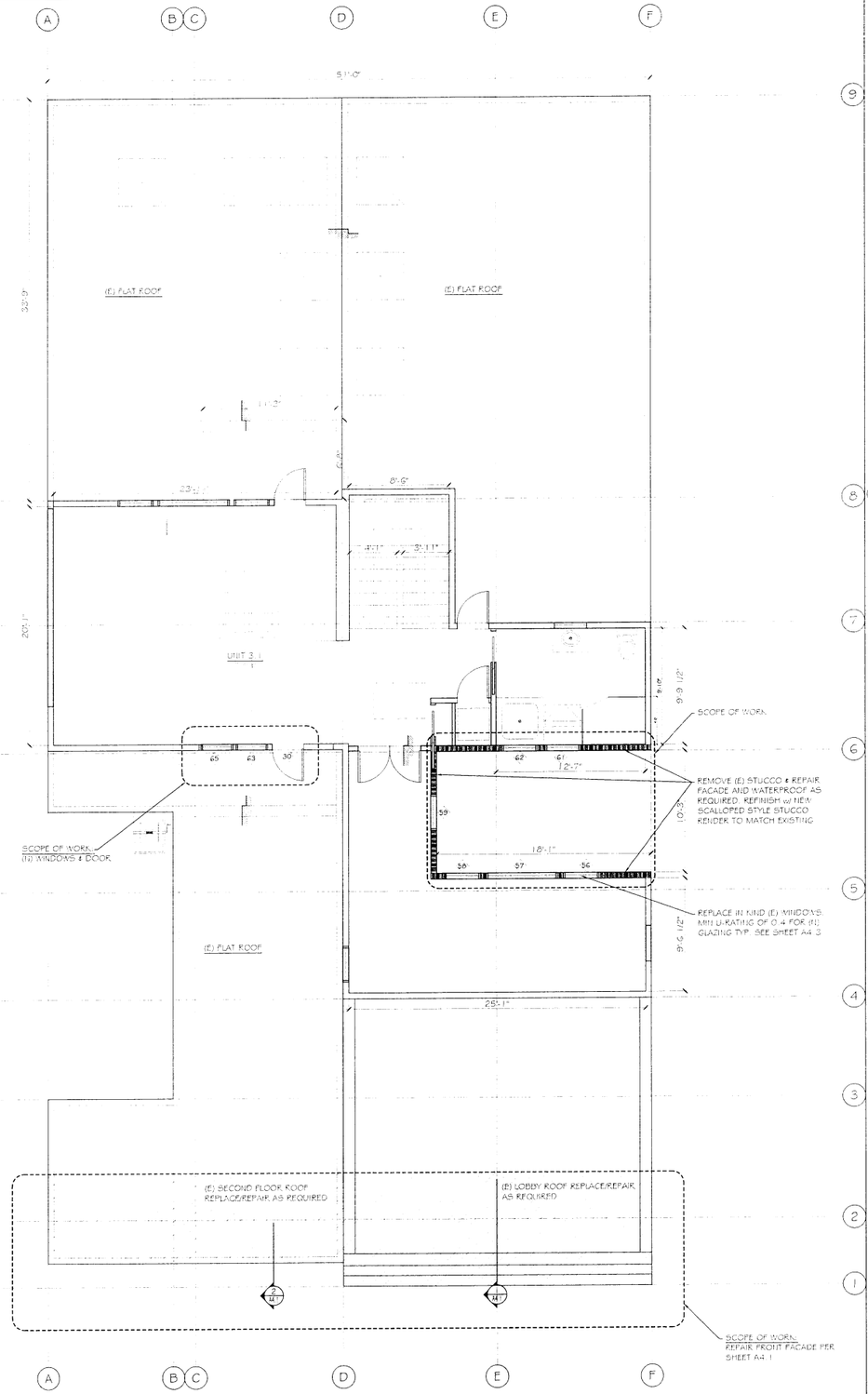
TITLE
FACADE REPAIRS & WINDOW REPLACEMENT
320 JUDAH ST
SAN FRANCISCO, CA

DRAWING NO.
A2.1



SECOND FLOOR PLAN

SCALE: 3/16"= 1'-0"



THIRD FLOOR PLAN

SCALE: 3/16"= 1'-0"

Retrofits
Remodels
ONE Design
info@onedesignsf.com

NOTE:
ALL DIMENSIONS SHALL HERE SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO WORK. ALL EXISTING CONDITIONS SHALL BE VERIFIED AND ANY DEVIATIONS FROM WHAT IS SHOWN IN THESE PLANS SHALL BE MADE KNOWN TO OUR OFFICE.
SEE SURVEY FOR PROPERTY LINE DIMENSIONS.
THE SCOPE OF WORK IN THIS PROJECT IS LIMITED TO THE FACADE AND THE COURTYARD.
REFER TO P/# 201308288208 + P/# 201309288851 FOR THE INTERIOR SHELL AND CORE REMODEL.
REFER TO P/# 201309288787 FOR THE WINDOW REPLACEMENTS AT THE PROPERTY LINE WALLS.

3	AMEND PER PLANNERS REQUEST	07.30.13
2	AMEND PER PLANNERS REQUEST	05.08.13
1	PLAN CHECK RESPONSE	04.11.13

REGISTERED PROFESSIONAL ENGINEER
BRIAN O'NEIL
C 75459
EXP. 03/31/14
CIVIL
STATE OF CALIFORNIA
PROFESSIONAL SEAL

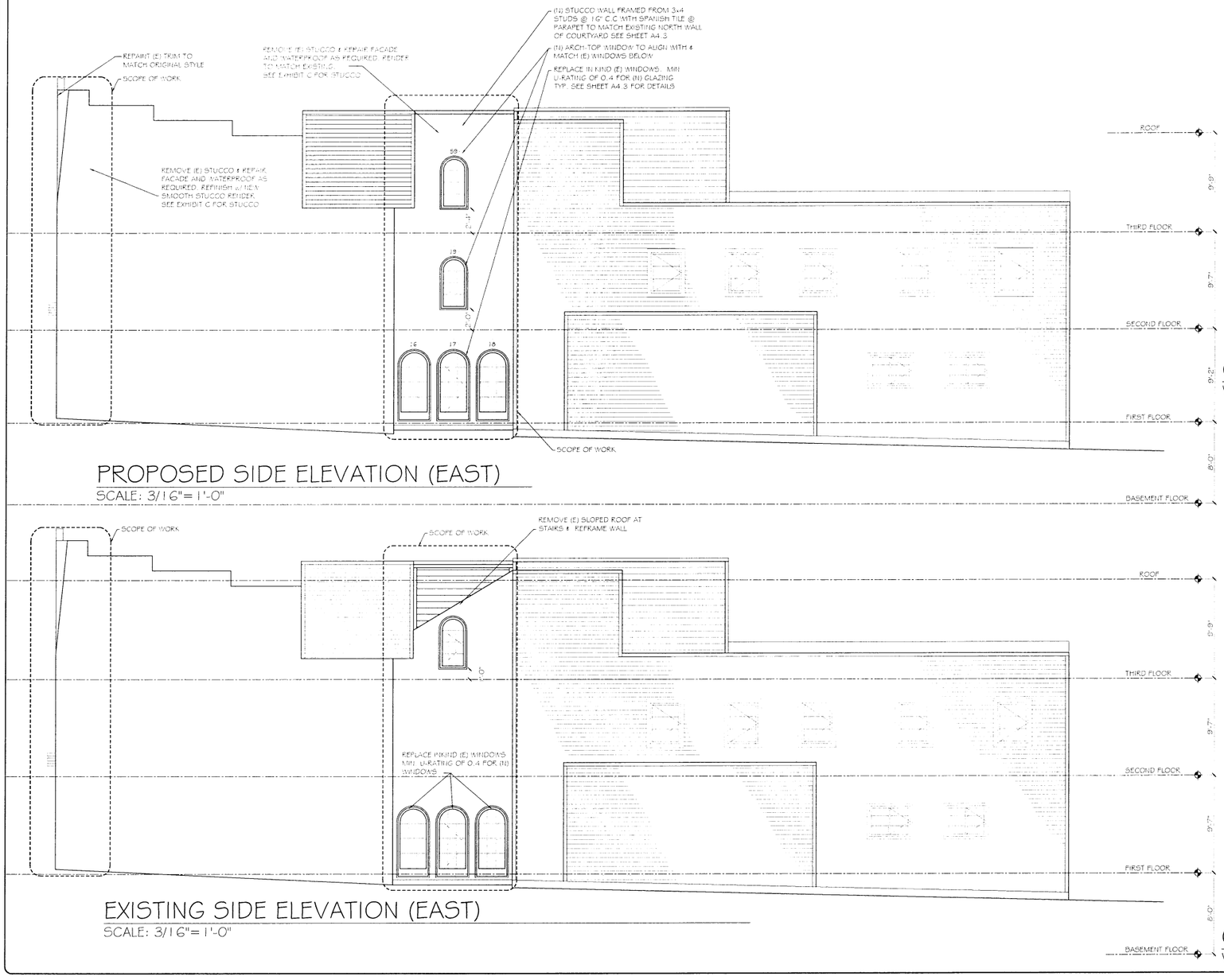
SECOND FLOOR PLAN
THIRD FLOOR PLAN

CLIENT
TDW LLC
320 JUDAH STREET
SAN FRANCISCO, CA

SCALE 3/16" = 1'-0"
DATE 07.30.13
DRAWN [illegible]
JOB #: 2[illegible]

TITLE
FACADE REPAIRS & WINDOW REPLACEMENT
320 JUDAH ST
SAN FRANCISCO, CA

DRAWING NO.
A2.2

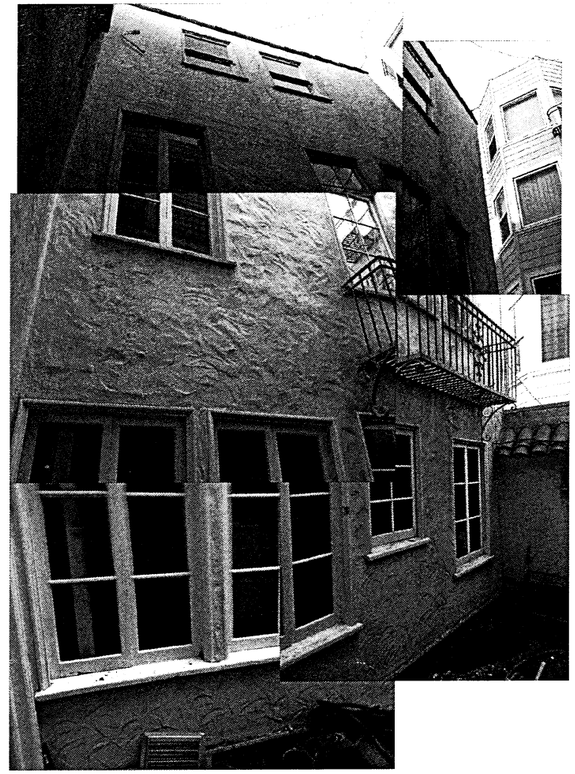


PROPOSED SIDE ELEVATION (EAST)

SCALE: 3/16"= 1'-0"

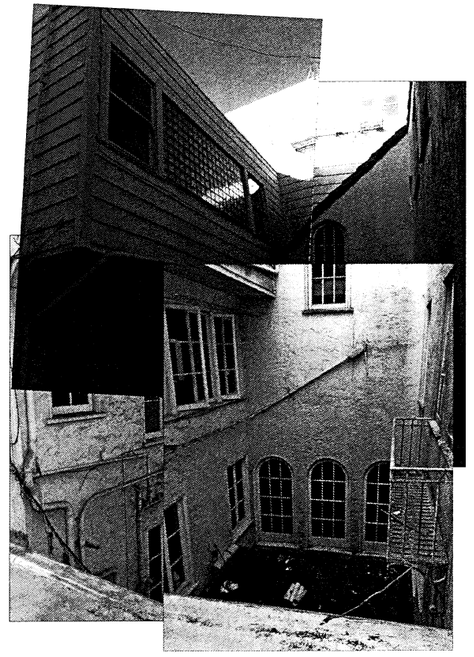
EXISTING SIDE ELEVATION (EAST)

SCALE: 3/16"= 1'-0"



COURTYARD IMAGES

VIEWED FROM THE SOUTH WEST (CAMERA POSITION 1 PER PLAN)



COURTYARD IMAGES

VIEWED FROM THE EAST (CAMERA POSITION 2 PER PLAN)

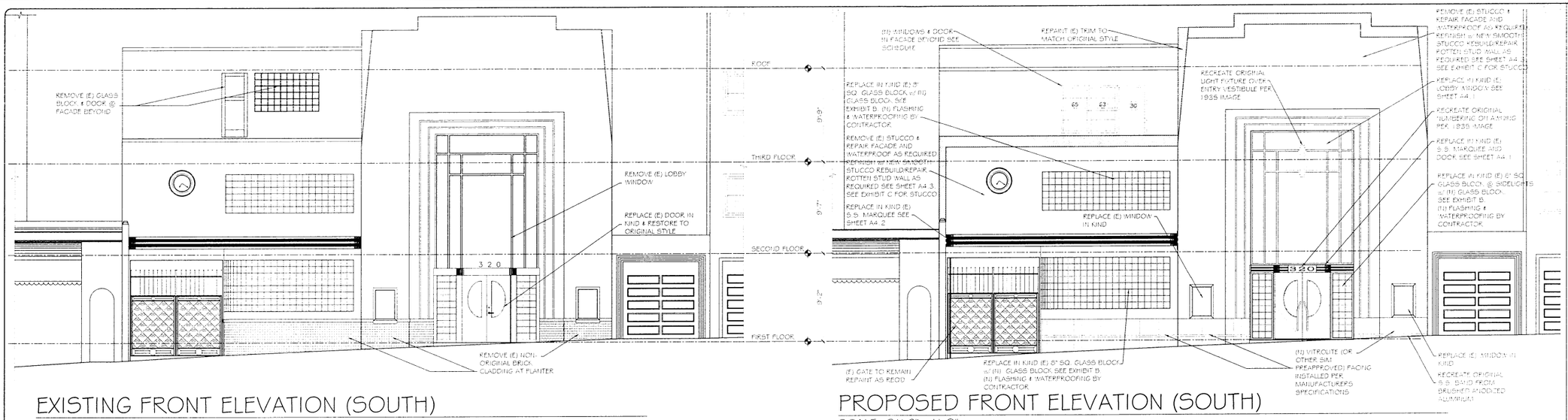
3	AMEND PER PLANNER'S REQUEST	07-30-13
2	AMEND PER PLANNER'S REQUEST	05-08-13
1		

REGISTERED PROFESSIONAL ENGINEER
ERICIAN ONEIL
C 75459
EXP. 03/31/14
CIVIL
STATE OF CALIFORNIA

PROFESSIONAL SEAL

EXISTING EAST ELEVATION
PROPOSED EAST ELEVATION
COURTYARD PHOTO MONTAGE

CLIENT TDW LLC 320 JUDAH STREET SAN FRANCISCO, CA	SCALE SCALE DATE 07-30-13 DRAWN E.O. JOB # 1204
TITLE FACADE REPAIRS & WINDOW REPLACEMENT 320 JUDAH ST SAN FRANCISCO, CA	DRAWING NO. A3.1 4 OF 5 SHEETS

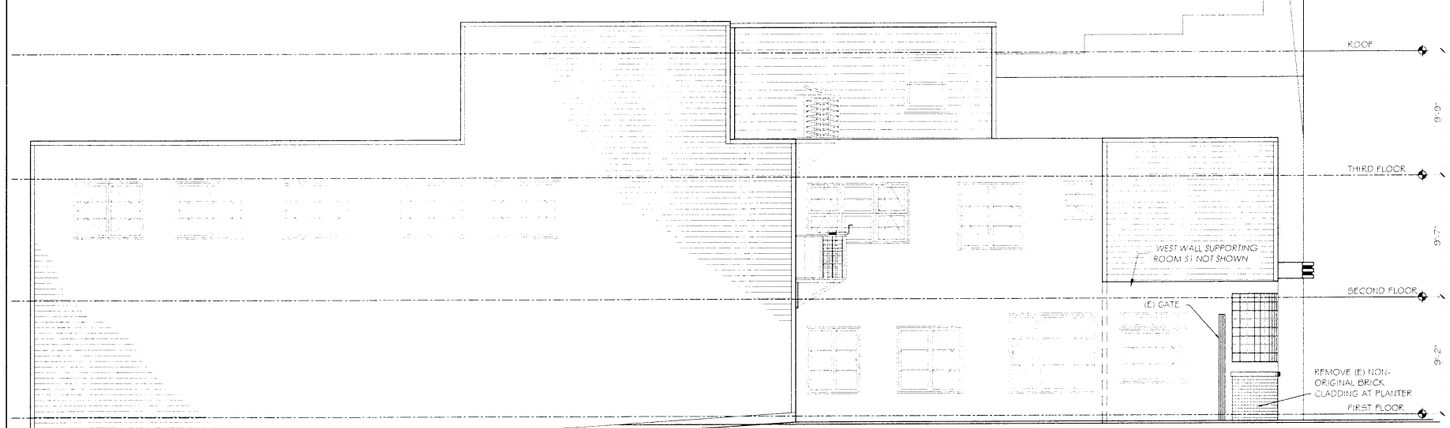


EXISTING FRONT ELEVATION (SOUTH)

SCALE: 3/16"= 1'-0"

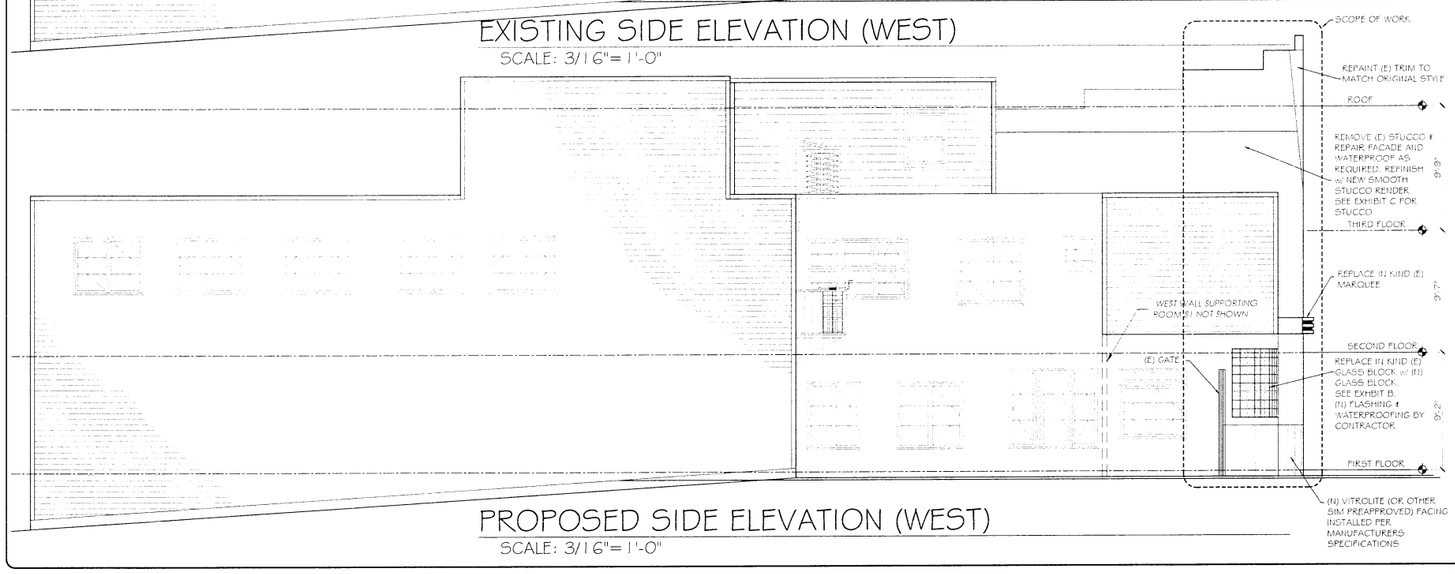
PROPOSED FRONT ELEVATION (SOUTH)

SCALE: 3/16"= 1'-0"



EXISTING SIDE ELEVATION (WEST)

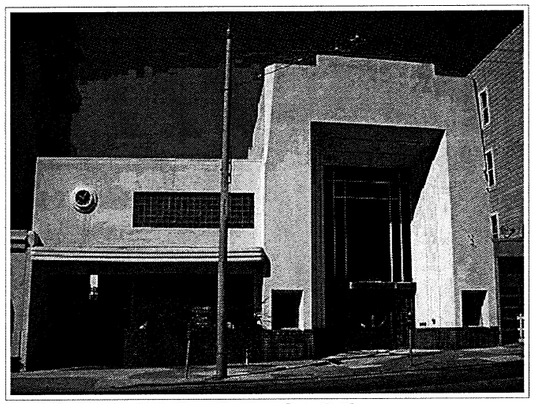
SCALE: 3/16"= 1'-0"



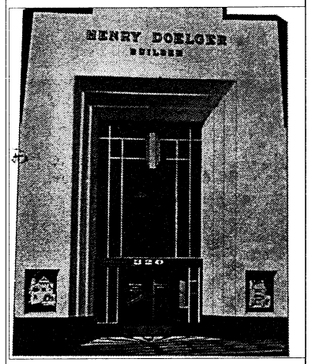
PROPOSED SIDE ELEVATION (WEST)

SCALE: 3/16"= 1'-0"

FRONT FACADE (CIRCA 1940)



CURRENT FRONT FACADE



FRONT FACADE (CIRCA 1935)

Retrofits
Remodels
ONE Design
info@onedesignsf.com

DONELLI SHOP DRAWINGS DATED 5-9-13 ARE PROVIDED IN THIS EXHIBIT

EXHIBIT B:
GLASS BLOCK TO BE ARGUS PARALLEL FLUTED 8" SQ GLASS BLOCK WITH A U-VALUE OF 0.51 BY PITTSBURGH CORNING GLASS BLOCK. INSTALLATION

2	AMEND PER PLANNER'S REQUEST	07-30-13
1	AMEND PER PLANNER'S REQUEST	05-08-13

REGISTERED PROFESSIONAL ENGINEER — BRIAN O'NEIL — C 75459 EXP. 03/31/14 — CIVIL — STATE OF CALIFORNIA

PROFESSIONAL SEAL

ORIGINAL STREET ELEVATION
EXISTING & PROPOSED FRONT ELEVATION
EXISTING & PROPOSED SIDE ELEVATION
CURRENT FRONT FACADE

CLIENT
TDW LLC
320 JUDAH STREET
SAN FRANCISCO, CA

SCALE 3/16" = 1'-0"
DATE 07-30-13
DRAWN ESD
JOB # 2012

TITLE
FACADE REPAIRS & WINDOW REPLACEMENT
320 JUDAH ST
SAN FRANCISCO, CA

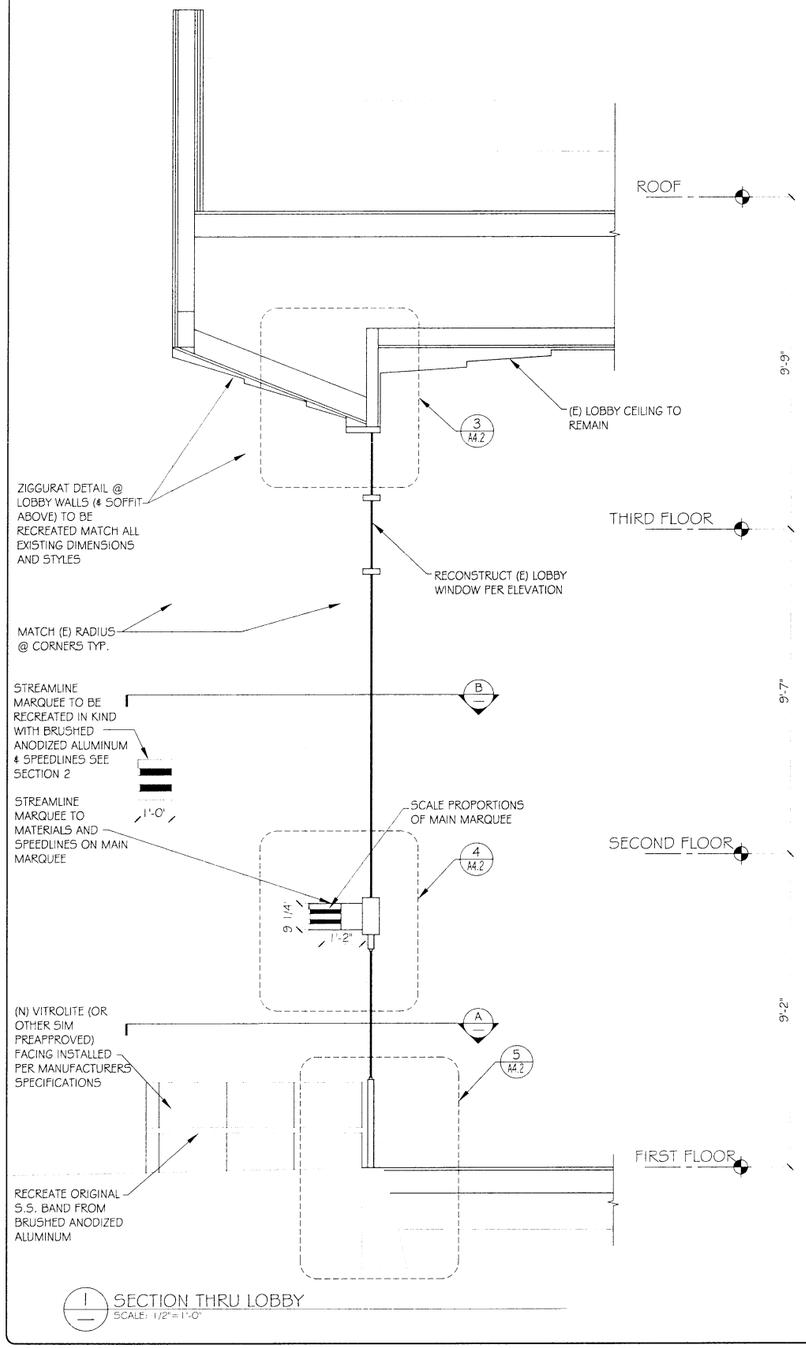
DRAWING NO.
A3.2

EXHIBIT A:
GLAZING TO BE LOW E DOUBLE GLAZED TEMPERED SAFETY GLAZING MANUFACUTERD AND INSTALLED BY BONELLI SHOP DRAWINGS DATED 5-9-13 ARE PROVIDED IN THIS EXHIBIT

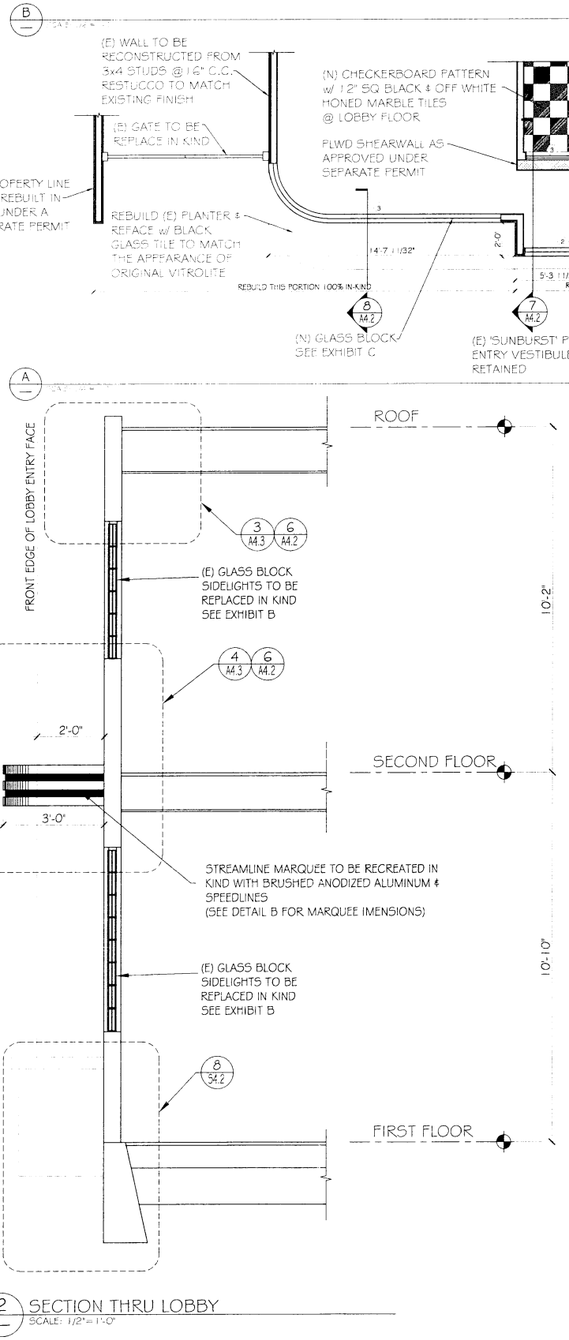
EXHIBIT B:
GLASS BLOCK TO BE ARGUS PARALLEL FLUTED 8" SQ GLASS BLOCK WITH A U-VALUE OF 0.51 BY PITTSBURGH CORNING GLASS BLOCK. INSTALLATION AND WATERPROOFING PER MANUFACTURERS SPECIFICATIONS

EXHIBIT C:
ALL NEW STUCCO IS TO CONFORM WITH THE SPECIFICATIONS SET OUT BY 'TYVEK STUCCO WRAP' BY DUPONT BUILDING INNOVATIONS IN THEIR TECHNICAL SPECIFICATIONS DATED MARCH 2009 MANUFACTURERS DETAILS ARE ALSO INCLUDED ON SHEET A5.1

*THESE ARE MANUFACTURERS DETAILS AND AS SUCH ARE INTENDED FOR GUIDANCE ONLY. INSTALLATION TECHNIQUES, WATERPROOFING & WORKMANSHIP IS THE RESPONSIBILITY OF THE CONTRACTOR.



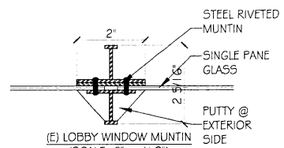
1 SECTION THRU LOBBY
SCALE: 1/2" = 1'-0"



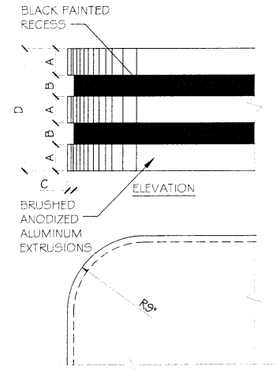
2 SECTION THRU LOBBY
SCALE: 1/2" = 1'-0"

PROPOSED LOBBY WINDOW ELEVATION
(1/2" = 1'-0")

Retrofits
Remodels
ONE Design
info@onedesignsf.com



DETAIL A



PLAN

DETAIL B
1 1/2" = 1'-0"

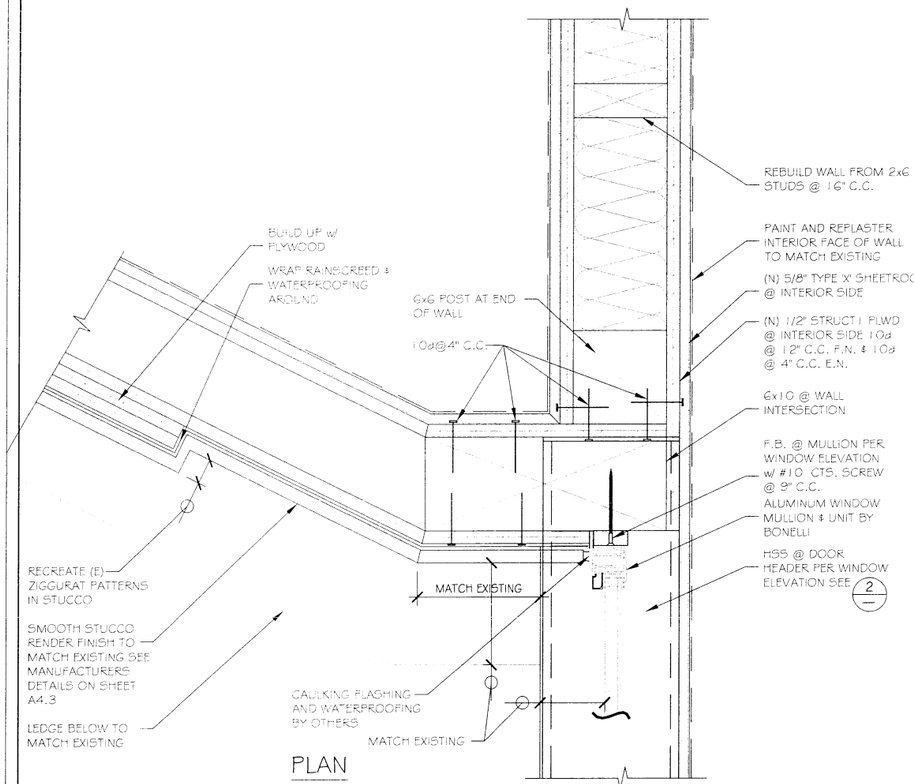
2	AMEND PER PLANNER'S REQUEST	07-30-13
1	AMEND PER PLANNER'S REQUEST	05-08-13

REGISTERED PROFESSIONAL ENGINEER
EREVAN ONEIL
C 75459
EXP. 03/31/14
CIVIL
STATE OF CALIFORNIA

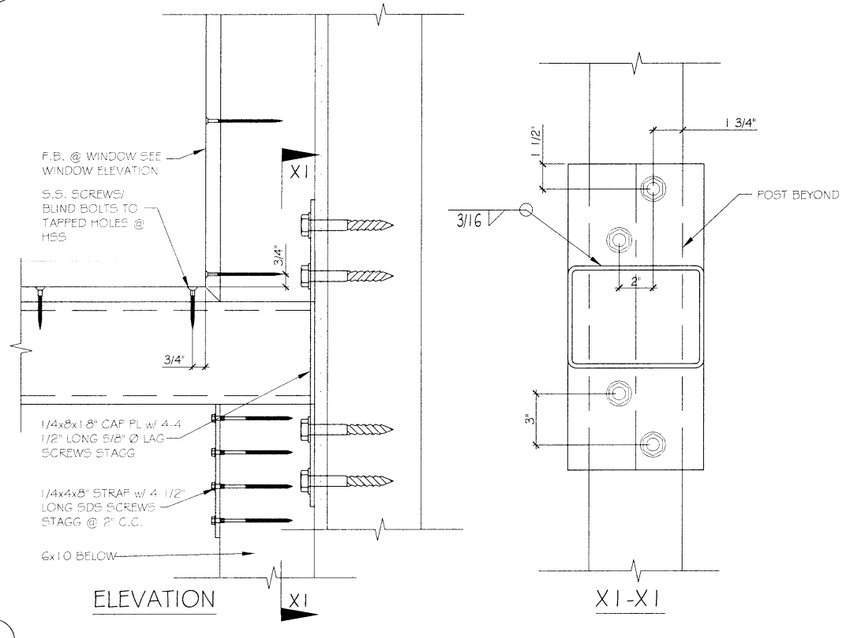
PROFESSIONAL SEAL

FACADE REPAIR/REPLACEMENT PLAN
BUILDING SECTIONS
LOBBY WINDOW ELEVATION

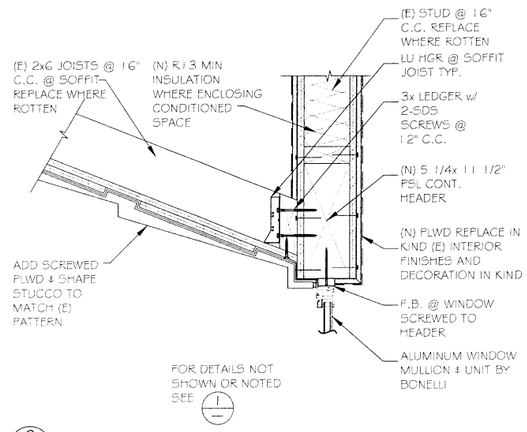
CLIENT TDW LLC 320 JUDAH STREET SAN FRANCISCO, CA	SCALE 3/16" = 1'-0" DATE 04.26.13 DRAWN E.O. JOB # 1234
TITLE FACADE REPAIRS & WINDOW REPLACEMENT 320 JUDAH ST SAN FRANCISCO, CA	DRAWING NO. A4.1 2 OF 15 SHEETS



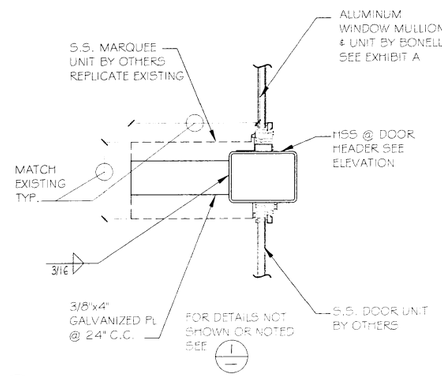
1 SCALE: 3" = 1'-0"



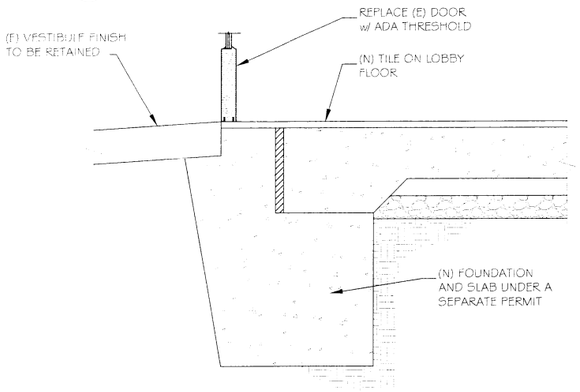
2 SCALE: 3" = 1'-0"



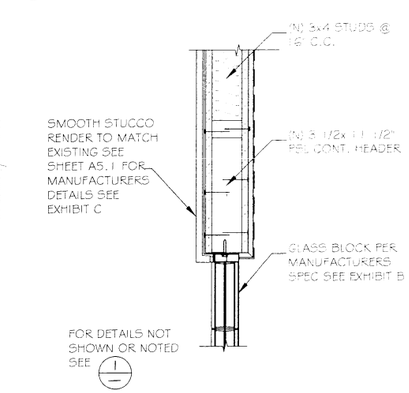
3 SCALE: 1 1/2" = 1'-0"



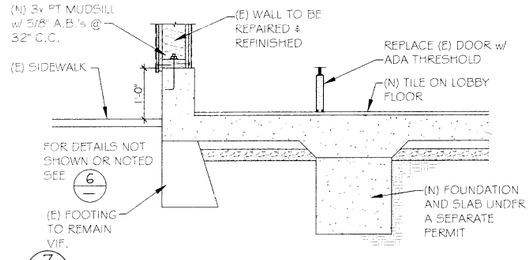
4 SCALE: 1 1/2" = 1'-0"



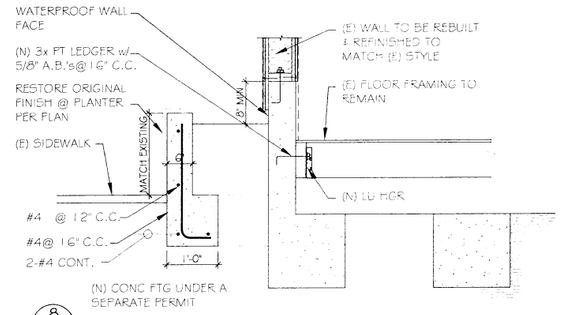
5 SCALE: 1 1/2" = 1'-0"



6 SCALE: 1 1/2" = 1'-0"



7 SCALE: 3/4" = 1'-0"



8 SCALE: 1 1/2" = 1'-0"

Retrofits
Remodels
ONE Design
info@onedesignsf.com

ALL FLAT BARS TO BE ANODIZED 6061 T6 ALUMINUM OR HIGHER GRADE

HSS TO BE GALVANIZED ASTM A500 Fy = 46ksi
WINDOW FABRICATOR MAY WISH TO USE DIFFERENT SHAPED MULLIONS PER ENGINEERS APPROVAL
PERIMETER BARS TO BE ATTACHED TO STRUCTURE w/ #10 S.S. FLATHEAD SCREWS IN COUNTERSUNK HOLES @ 12" C.C. ALL ROUND

EXHIBIT A:
GLAZING TO BE LOW E DOUBLE GLAZED TEMPERED SAFETY GLAZING MANUFACUTERD AND INSTALLED BY BONELLI SHOP DRAWINGS DATED 5-9-13 ARE PROVIDED IN THIS EXHIBIT

EXHIBIT B:
GLASS BLOCK TO BE ARGUS PARALLEL FLUTED 8" SQ GLASS BLOCK WITH A U-VALUE OF 0.51 BY PITTSBURGH CORNING GLASS BLOCK. INSTALLATION AND WATERPROOFING PER MANUFACTURERS SPECIFICATIONS

EXHIBIT C:
ALL NEW STUCCO IS TO CONFORM WITH THE SPECIFICATIONS SET OUT BY TYVEK STUCCO WRAP BY DUPONT BUILDING INNOVATIONS IN THEIR TECHNICAL SPECIFICATIONS DATED MARCH 2009 MANUFACTURERS DETAILS ARE ALSO INCLUDED ON SHEET A5.1

*THESE ARE MANUFACTURERS DETAILS AND AS SUCH ARE INTENDED FOR GUIDANCE ONLY. INSTALLATION TECHNIQUES, WATERPROOFING & WORKMANSHIP IS THE RESPONSIBILITY OF THE CONTRACTOR.

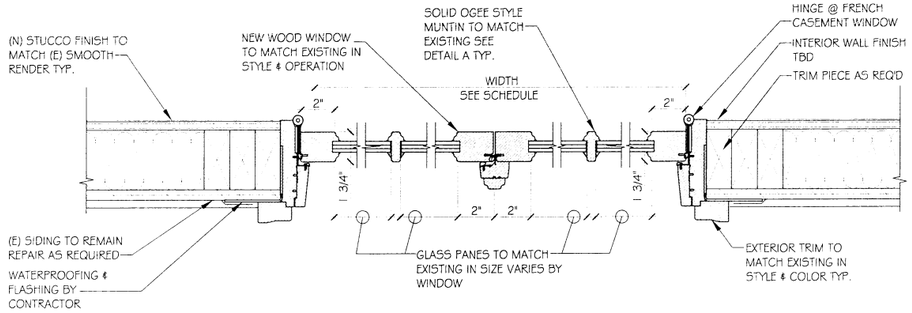
2	AMEND PER PLANNERS REQUEST	07-30-13
1	AMEND PER PLANNERS REQUEST	05-08-13

REGISTERED PROFESSIONAL ENGINEER BRETAN O'NEILL C 75459 EXP. 03/31/14 CIVIL STATE OF CALIFORNIA

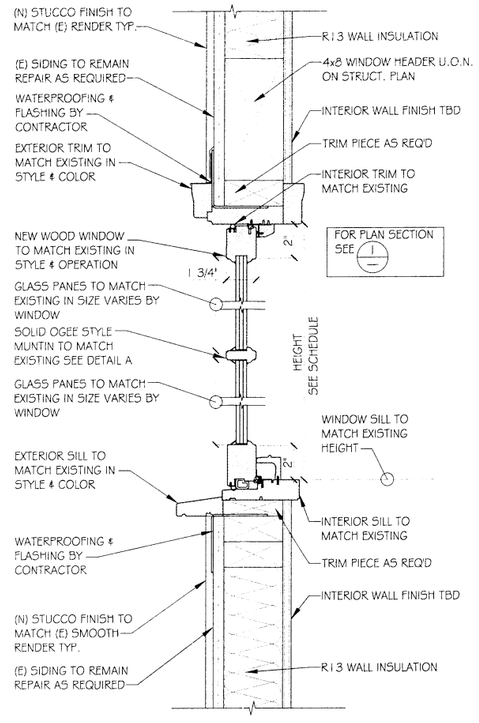
PROFESSIONAL SEAL

ARCHITECTRUAL DETAILS

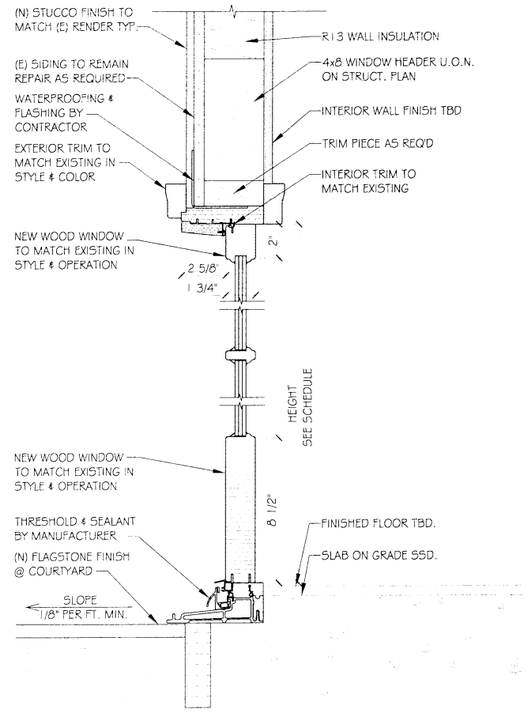
CLIENT TDW LLC 320 JUDAH STREET SAN FRANCISCO, CA	SCALE	1/2" = 1'-0"
	DATE	12.20.13
	DRAWN	BON
	JOB #:	1392
TITLE FACADE REPAIRS & WINDOW REPLACEMENT 320 JUDAH ST SAN FRANCISCO, CA	DRAWING NO. A4.2	



1 PLAN SECTION THRU EXISTING WOOD CASEMENT WINDOW (FRENCH)
SCALE: 3" = 1'-0" ALL NEW WOOD WINDOWS TO REPLICATE THIS EXISTING STYLE AND OPERATION WHERE OCCURS



2 VERTICAL SECTION THRU EXISTING WOOD CASEMENT WINDOW
SCALE: 3" = 1'-0" ALL NEW WOOD WINDOWS TO REPLICATE THIS EXISTING STYLE



3 VERTICAL SECTION THRU EXISTING WOOD CASEMENT DOOR
SCALE: 3" = 1'-0" ALL NEW WOOD WINDOWS TO REPLICATE THIS EXISTING STYLE

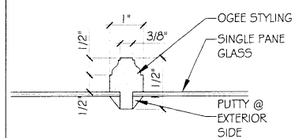
Retrofits
Remodels
ONE Design
info@onedesignsf.com

EXHIBIT A:
GLAZING TO BE LOW E DOUBLE GLAZED TEMPERED SAFETY GLAZING MANUFACUTERD AND INSTALLED BY BONELLI SHOP DRAWINGS DATED 5-9-13 ARE PROVIDED IN THIS EXHIBIT

EXHIBIT B:
GLASS BLOCK TO BE ARGUS PARALLEL FLUTED 8" SQ GLASS BLOCK WITH A U-VALUE OF 0.51 BY PITTSBURGH CORNING GLASS BLOCK. INSTALLATION AND WATERPROOFING PER MANUFACTURERS SPECIFICATIONS

EXHIBIT C:
ALL NEW STUCCO IS TO CONFORM WITH THE SPECIFICATIONS SET OUT BY 'TYVEK STUCCO WRAP' BY DUPONT BUILDING INNOVATIONS IN THEIR TECHNICAL SPECIFICATIONS DATED MARCH 2009 MANUFACTURERS DETAILS ARE ALSO INCLUDED ON SHEET A5.1

*THESE ARE MANUFACTURERS DETAILS AND AS SUCH ARE INTENDED FOR GUIDANCE ONLY. INSTALLATION TECHNIQUES, WATERPROOFING & WORKMANSHIP IS THE RESPONSIBILITY OF THE CONTRACTOR.



(E) WOOD WINDOW OGEE STYLE MUNTIN
(SCALE: 6" = 1'-0")

DETAIL A

2	AMEND PER PLANNERS REQUEST	07-30-13
1	AMEND PER PLANNERS REQUEST	05-08-13

REGISTERED PROFESSIONAL ENGINEER BRYAN ONEIL C 75459 EXP. 03/31/14 CIVIL STATE OF CALIFORNIA
PROFESSIONAL SEAL

COURTYARD WINDOW DETAILS

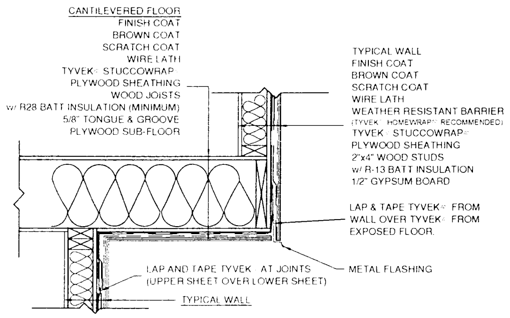
CLIENT
TDIV LLC
320 JUDAH STREET
SAN FRANCISCO, CA

SCALE 1/2" = 1'-0"
DATE
DRAWN
JOB #:

TITLE
FACADE REPAIRS & WINDOW REPLACEMENT
320 JUDAH ST
SAN FRANCISCO, CA

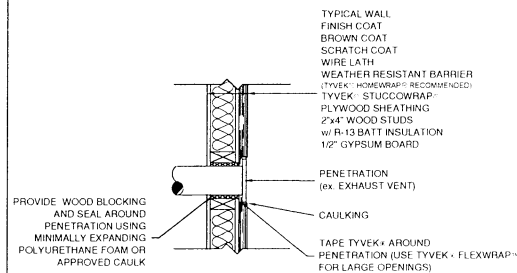
DRAWING NO.
A4.3

GENERAL NOTES
*SEAL ALL TYVEK® JOINTS AND PENETRATIONS WITH APPROVED TAPE (ex. DUPONT CONTRACTOR TAPE)
*FASTEN TYVEK® TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (ex. DUPONT WRAPCAPS)
*LOCAL LAWS, ZONING, AND BUILDING CODES VARY AND THEREFORE GOVERNS OVER MATERIAL SELECTION AND DETAILING SHOWN BELOW.
*INSTALL STUCCO ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS

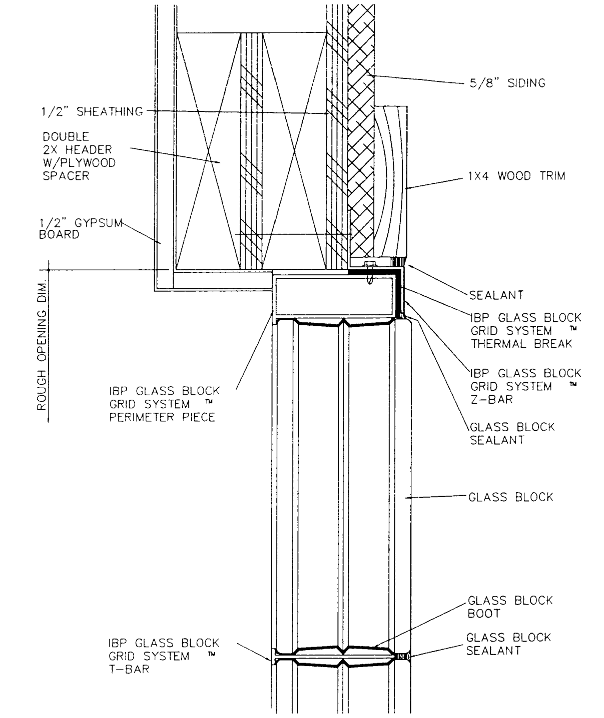


1 CANTILEVERED FLOOR DETAIL
RESIDENTIAL WOOD FRAME STRUCTURE w/ STUCCO (COOLING CLIMATE)
MANUFACTURERS DETAIL*

GENERAL NOTES
*SEAL ALL TYVEK® JOINTS AND PENETRATIONS WITH APPROVED TAPE (ex. DUPONT CONTRACTOR TAPE)
*FASTEN TYVEK® TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (ex. DUPONT WRAPCAPS)
*LOCAL LAWS, ZONING, AND BUILDING CODES VARY AND THEREFORE GOVERNS OVER MATERIAL SELECTION AND DETAILING SHOWN BELOW.
*INSTALL STUCCO ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS



2 WALL PENETRATION DETAIL
RESIDENTIAL WOOD FRAME STRUCTURE w/ STUCCO (COOLING CLIMATE)
MANUFACTURERS DETAIL*



WINDOW HEAD – WOOD STUD/EXTERIOR SIDING
1/2 FULL SCALE

Because IBP has no control over installation, workmanship, accessory materials, or conditions of application, no representation or warranty, expressed or implied, either as to MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE is made as to the performance or results of an installation of this product.

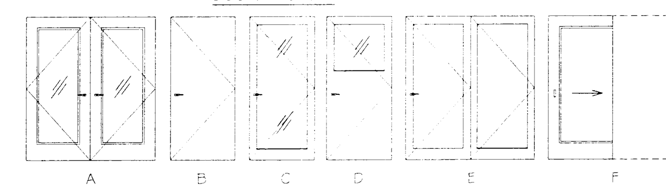
IBP glass block grid system™
WINDOWS SKYLIGHTS FLOORS SHOWERS WALLS
Innovative Building Products, Inc. • 2917 West 7th St. • Fort Worth, TX 76107
Phone: (817) 332-9124 • Fax: (817) 332-9128
www.ibpglassblock.com

IBP Glass Block Grid System™ is a trademark of Innovative Building Products, Inc. * Fort Worth, TX, USA
U.S. Patent Numbers: 4294649 * 4999964 * 5003744 * 5042210 * 5218806
Australia: 634975 * 636988 Canada: 1328970 * 2015714
Brazil: P18904269-7 Greece: 3010097 * 3017183 Ireland: 62,450 * 67,796
European: 0396075 * 0356774 Mexico: 165488 * 172717
New Zealand: 230417 * 233568 Other patents pending worldwide

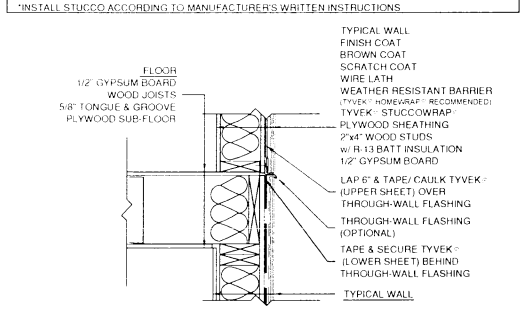
WH-2
AUG 01

NOTES:
1. VIF. w/ OWNER ALL DIMENSIONS & WHETHER (E) DOORS & WINDOWS NEED TO BE REPLACED. WATERPROOFING BY CONTRACTOR
2. ALL NEW WINDOWS SHALL BE DOUBLE GLAZED AND SHALL HAVE A MIN. U-RATING OF 0.4. WATERPROOFING BY CONTRACTOR TYP. WIDOW WORK WILL BE UNDER A SEPARATE PERMIT
3. PROVIDE SELF ADHESIVE MEMBRANE FLASHING AROUND ALL EXTERIOR OPENINGS.

DOOR TYPE KEY:

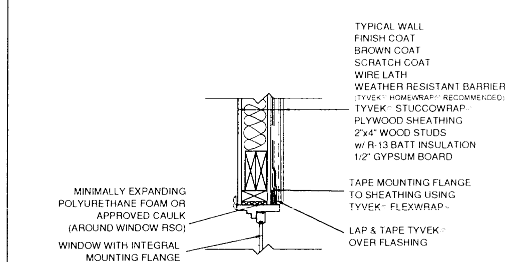


GENERAL NOTES
*SEAL ALL TYVEK® JOINTS AND PENETRATIONS WITH APPROVED TAPE (ex. DUPONT CONTRACTOR TAPE)
*FASTEN TYVEK® TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (ex. DUPONT WRAPCAPS)
*LOCAL LAWS, ZONING, AND BUILDING CODES VARY AND THEREFORE GOVERNS OVER MATERIAL SELECTION AND DETAILING SHOWN BELOW.
*INSTALL STUCCO ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS



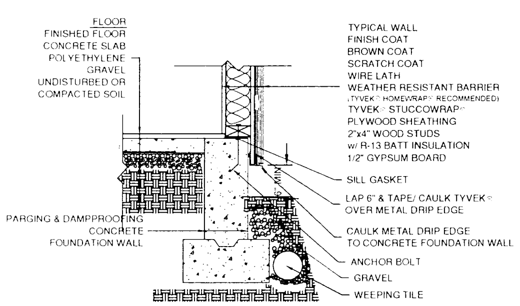
3 FLOOR/ WALL INTERFACE DETAIL
RESIDENTIAL WOOD FRAME STRUCTURE w/ STUCCO (COOLING CLIMATE)
MANUFACTURERS DETAIL*

GENERAL NOTES
*SEAL ALL TYVEK® JOINTS AND PENETRATIONS WITH APPROVED TAPE (ex. DUPONT CONTRACTOR TAPE)
*FASTEN TYVEK® TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (ex. DUPONT WRAPCAPS)
*LOCAL LAWS, ZONING, AND BUILDING CODES VARY AND THEREFORE GOVERNS OVER MATERIAL SELECTION AND DETAILING SHOWN BELOW.
*INSTALL STUCCO ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS



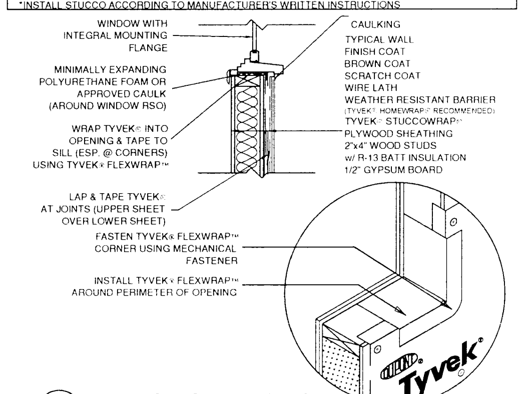
4 WINDOW HEAD DETAIL
RESIDENTIAL WOOD FRAME STRUCTURE w/ STUCCO (COOLING CLIMATE)
MANUFACTURERS DETAIL*

GENERAL NOTES
*SEAL ALL TYVEK® JOINTS AND PENETRATIONS WITH APPROVED TAPE (ex. DUPONT CONTRACTOR TAPE)
*FASTEN TYVEK® TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (ex. DUPONT WRAPCAPS)
*LOCAL LAWS, ZONING, AND BUILDING CODES VARY AND THEREFORE GOVERNS OVER MATERIAL SELECTION AND DETAILING SHOWN BELOW.
*INSTALL STUCCO ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS



5 BASE OF WALL DETAIL
RESIDENTIAL WOOD FRAME STRUCTURE w/ STUCCO (COOLING CLIMATE)
MANUFACTURERS DETAIL*

GENERAL NOTES
*SEAL ALL TYVEK® JOINTS AND PENETRATIONS WITH APPROVED TAPE (ex. DUPONT CONTRACTOR TAPE)
*FASTEN TYVEK® TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (ex. DUPONT WRAPCAPS)
*LOCAL LAWS, ZONING, AND BUILDING CODES VARY AND THEREFORE GOVERNS OVER MATERIAL SELECTION AND DETAILING SHOWN BELOW.
*INSTALL STUCCO ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS



6 WINDOW SILL DETAIL
RESIDENTIAL WOOD FRAME STRUCTURE w/ STUCCO (COOLING CLIMATE)
MANUFACTURERS DETAIL*

DOOR SCHEDULE								
MARK	LEVEL	LOCATION	WIDTH	HEIGHT	TYPE	FRAME	FIRE RATING	COMMENT
1	1.GROUND	LOBBY	2' - 8"	6' - 8"	A	ALUMINUM	--	SECURITY ADA DOOR w/ SAFETY GLAZING. SELF CLOSER
2	1.GROUND	LOBBY	VIF	VIF	B		--	EXISTING ZIGGURAUT PATTERNED WOOD DOOR
3	1.GROUND	LOBBY	VIF	VIF	B		--	MATCH STYLE OF DOOR 2 NO LONGER OPERABLE
6	1.GROUND	LOBBY	2' - 8"	6' - 8"	A	ALUMINUM	60MIN	SECURITY ADA DOOR w/ SAFETY GLAZING. SELF CLOSER
12	2. SECOND	LOBBY	VIF	VIF	B		--	EXISTING ZIGGURAUT PATTERNED WOOD DOOR NO LONGER OPERABLE
13	2. SECOND	LOBBY	VIF	VIF	B		--	EXISTING ZIGGURAUT PATTERNED WOOD DOOR NO LONGER OPERABLE
30	2. THIRD	KITCHEN/LIVING	2' - 8"	6' - 8"	C	WOOD	--	TEMPERED GLAZING
39	1. GROUND	MEZZANINE	3' - 0"	6' - 8"	C	WOOD	--	SECURITY DOOR w/ GLAZING & SELF CLOSER

WINDOW MARK	LEVEL	LOCATION	WIDTH (ft)	HEIGHT (ft)	SILL HT (ft)	TYPE	Hand	FIRE RATING	COMMENTS
1	1.GROUND	FRONT DISPLAY	3'	3'	VIF	Display Window		-	TEMPERED MATCH ORIGINAL
2	1.GROUND	FRONT DISPLAY	3'	3'	VIF	Display Window		-	TEMPERED MATCH ORIGINAL
3	1.GROUND	OFFICE	15'	5'	VIF	Glass block front		-	REPLACE IN KIND WITH GLASS BLOCK PER SPEC 1
4	1.GROUND	LOBBY	2'	6' - 8"	VIF	Glass block front		-	REPLACE IN KIND WITH GLASS BLOCK PER SPEC 1
5	1.GROUND	LOBBY	2'	6' - 8"	VIF	Glass block front		-	REPLACE IN KIND WITH GLASS BLOCK PER SPEC 1
14	1.GROUND	RECEPTION	3'	5'	VIF	Wood casement	Left	-	WOOD FRAME MATCH ORIGINAL
15	1.GROUND	RECEPTION	3'	5'	VIF	Wood casement	Left	-	WOOD FRAME MATCH ORIGINAL
16	1.GROUND	CORRIDOR	3'	7'	FLOOR	Fixed wood arch top		-	TEMPERED WOOD FRAME MATCH ORIGINAL
17	1.GROUND	CORRIDOR	3'	7'	FLOOR	›ening wood arch top door		-	TEMPERED WOOD FRAME MATCH ORIGINAL
18	1.GROUND	CORRIDOR	3'	7'	FLOOR	Fixed wood arch top		-	TEMPERED WOOD FRAME MATCH ORIGINAL
19	2. SECOND	CORRIDOR	2' - 6"	5'	24"	Stationary arch top	Fixed	-	TEMPERED WOOD FRAME COPY ORIGINAL
20	1.GROUND	COMMERCIAL 1.1	3'	5'	VIF	Wood casement	Left	-	
21	1.GROUND	COMMERCIAL 1.1	3'	5'	VIF	Wood casement	Left	-	
22	1.GROUND	COMMERCIAL 1.1	3'	5'	VIF	Wood casement	Left	-	
29	2. SECOND	LOBBY	10' - 9"	14'		Big front window.		-	SEE SHEET A4.2
30	2. SECOND	OFFICE 2.3	13' - 3"	2' - 6"	VIF	Glass block front		-	REPLACE IN KIND WITH GLASS BLOCK PER SPEC 1
34	2. SECOND	ADA BATHROOM	3'	5'	VIF	Wood casement	Left	-	
35	2. SECOND	CORRIDOR	3'	5'	VIF	Wood casement	Left	-	
36	2. SECOND	CORRIDOR	3'	5'	VIF	Wood casement	Left	-	
37	2. SECOND	OFFICE 2.1	2' - 6"	5'	VIF	Wood casement	Left	-	
38	2. SECOND	OFFICE 2.1	2' - 6"	5'	VIF	Wood casement	Left	-	
39	2. SECOND	OFFICE 2.1	3'	5'	VIF	Wood casement	Left	-	TEMPERED
56	3. THIRD	BEDROOM	3'	4'	VIF	Wood casement	Right	-	
57	3. THIRD	BEDROOM	5'	4'	VIF	Dbl wood casement	Fixed	-	
58	3. THIRD	BEDROOM	3'	4'	VIF	Wood casement	Left	-	
59	3. THIRD	BEDROOM	2' - 6"	5'	28"	Stationary arch top	Fixed	-	TEMPERED
61	3. THIRD	BATHROOM	3'	4'	VIF	Wood casement	Right	-	
62	3. THIRD	BATHROOM	3'	4'	VIF	Wood casement	Right	-	TEMPERED
63	3. THIRD	KITCHEN/LIVING	2' 6"	4' 6"	26"	Wood casement	Right	-	TEMPERED
65	3. THIRD	KITCHEN/LIVING	2' 6"	4' 6"	26"	Wood casement	Right	-	TEMPERED

ONE Design
Retrofits
Remodels
info@onedesignsf.com

EXHIBIT A:
GLAZING TO BE LOW E DOUBLE GLAZED TEMPERED SAFETY GLAZING MANUFACUTERD AND INSTALLED BY BONELLI SHOP DRAWINGS DATED 5-9-13 ARE PROVIDED IN THIS EXHIBIT

EXHIBIT B:
GLASS BLOCK TO BE ARGUS PARALLEL FLUTED 8" SQ GLASS BLOCK WITH A U-VALUE OF 0.51 BY PITTSBURGH CORNING GLASS BLOCK. INSTALLATION AND WATERPROOFING PER MANUFACTURERS SPECIFICATIONS

EXHIBIT C:
ALL NEW STUCCO IS TO CONFORM WITH THE SPECIFICATIONS SET OUT BY 'TYVEK STUCCO WRAP' BY DUPONT BUILDING INNOVATIONS IN THEIR TECHNICAL SPECIFICATIONS DATED MARCH 2009 MANUFACTURERS DETAILS ARE ALSO INCLUDED ON SHEET A5.1

*THESE ARE MANUFACTURERS DETAILS AND AS SUCH ARE INTENDED FOR GUIDANCE ONLY. INSTALLATION TECHNIQUES, WATERPROOFING & WORKMANSHIP IS THE RESPONSIBILITY OF THE CONTRACTOR.

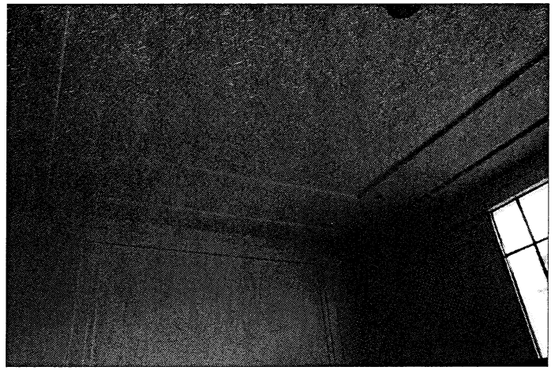
3	AMEND PER PLANNER'S REQUEST	07-30-13
2	AMEND PER PLANNER'S REQUEST	05-08-13

PROFESSIONAL SEAL

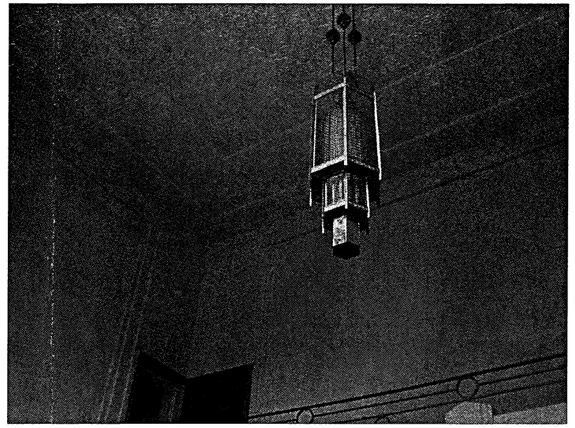
MANUFACTURERS DETAILS

CLIENT TDW LLC 320 JUDAH STREET SAN FRANCISCO, CA	SCALE 1/2 = 1'-0" DATE 02-28-13 DRAWN E.G.N. JOB #: 1292
TITLE FACADE REPAIRS & WINDOW REPLACEMENT 320 JUDAH ST SAN FRANCISCO, CA	DRAWING NO. A5.1 9 OF 10 SHEETS

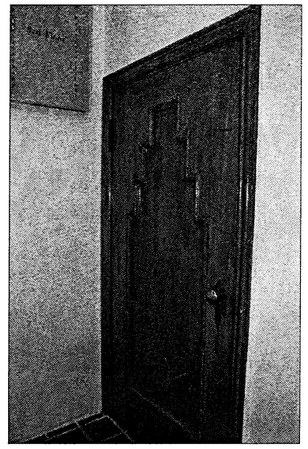
CEILING PATTERN
CAMERA POSITION 1



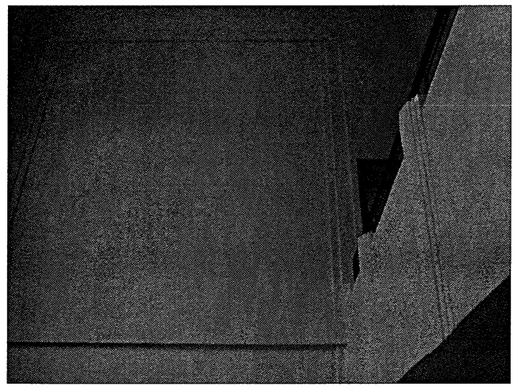
CEILING PATTERN
CAMERA POSITION 2



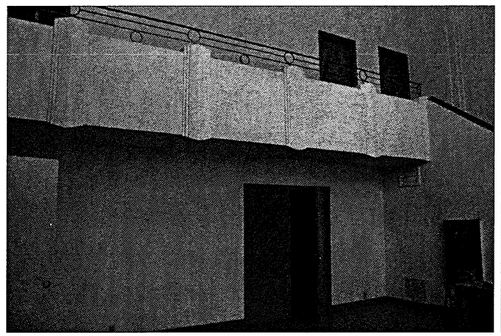
LOBBY CHANDELIER
CAMERA POSITION 3



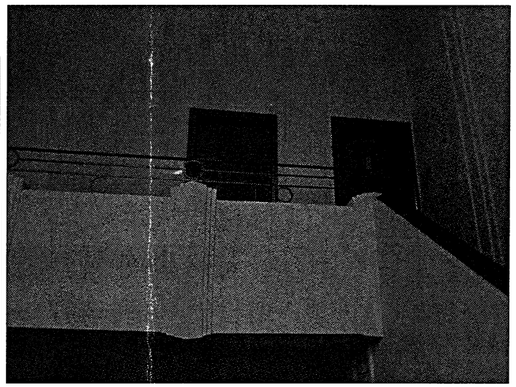
DOOR DETAIL
CAMERA POSITION 10



WEST WALL PATTERN
CAMERA POSITION 4

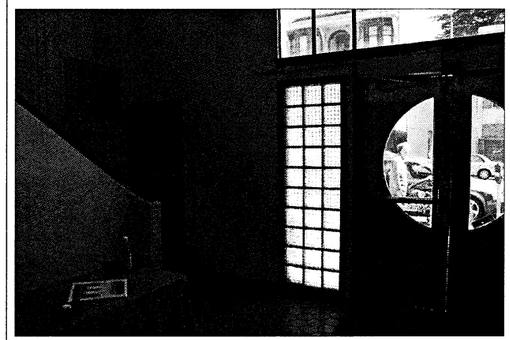


BALCONY PATTERN
CAMERA POSITION 5



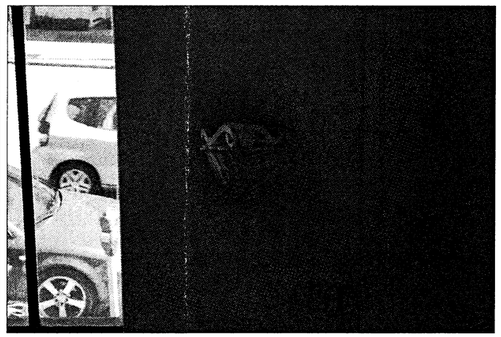
BALCONY RAILING
CAMERA POSITION 6

CEILING DETAIL

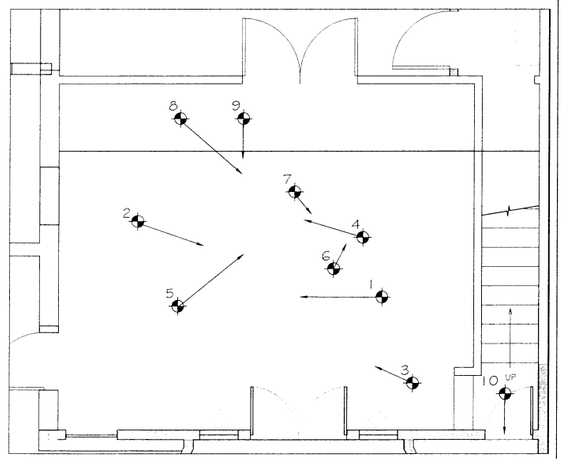


STAIR & WOOD DOOR
CAMERA POSITION 7

ENTRY VESTIBULE
CAMERA POSITION 8



WALL SCONCE
CAMERA POSITION 9



KEY PLAN

Retrofits
Remodels
ONE Design
info@onedesignsf.com

1	ADDED PER PLANNER'S REQUEST	07.30.13

PROFESSIONAL SEAL

LOBBY INTERIOR IMAGES

CLIENT
TDW LLC
320 JUDAH STREET
SAN FRANCISCO, CA

SCALE 1/2" = 1'-0"
DATE 07.26.13
DRAWN E.C.A.
JOB #: 1282

TITLE
FACADE REPAIRS & WINDOW REPLACEMENT
320 JUDAH ST
SAN FRANCISCO, CA

DRAWING NO.
A6.1

GENERAL NOTES

1. BONELLI ENTERPRISES WILL ASSUME NO RESPONSIBILITY FOR ERRORS RESULTING FROM THE USE OF THESE DRAWINGS BY OTHER TRADES.

2. THESE DRAWINGS HAVE BEEN PREPARED IN ACCORDANCE WITH BONELLI ENTERPRISES QUOTATION OR PER AN ACCEPTED PURCHASE ORDER AND OTHER APPLICABLE CONTRACT DOCUMENTS.

3. FINAL APPROVAL BY THE CUSTOMER CONSTITUTES ACCEPTANCE OF ALL DEVIATIONS TO THE CONTRACT DOCUMENTS MADE BY BONELLI IN THESE DRAWINGS.

4. THESE DRAWINGS REPRESENT BONELLI'S INTERPRETATION OF THE APPLICATION OF BONELLI PRODUCTS TO THIS PROJECT IN FUNCTIONAL COMPLIANCE WITH THE ARCHITECTS DRAWINGS AND SPECIFICATIONS. IT IS IMPORTANT THAT THIS INTERPRETATION BE REVIEWED DIMENSIONALLY AND FUNCTIONALLY WITH RESPECT TO ACTUAL ARCHITECT INTENT, INTERFACING CONDITIONS AND MATERIALS, JOB SITE CONDITIONS.

5. ALL BLOCKING, SHIMMING, PERIMETER CAULKING, BREAKSHAPES, PANNING, SCREWS OR ANY REQUIRED MATERIAL FOR INSTALLATION IS BY OTHERS.

6. REQUEST FOR REVISION AFTER BONELLI ENTERPRISES HAS BEEN AUTHORIZED TO FABRICATE WILL BE SUBJECT TO A HANDLING CHARGE PLUS THE COST OF ANY FABRICATED MATERIALS.

7. A BITUMINOUS PAINT/ZINC CHROMITE OR AN EQUAL SEPARATION MATERIAL IS REQUIRED WHEN ALUMINUM COMES IN CONTACT WITH STEEL OR OTHER DISSIMILAR MATERIALS.

GENERAL STRUCTURAL INFORMATION

1. NOTE WELL: IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO INSURE THAT ALL BLOCKING, SUB FRAMING AND ACCESSORY FRAMING COMPONENTS THAT THE WINDOW SYSTEMS ARE FASTENED TO ARE ADEQUATELY CONNECTED TO THE STRUCTURAL FRAMING. THESE COMPONENTS ARE FURNISHED AND INSTALLED BY OTHERS. IT IS NOT THE RESPONSIBILITY OF THE MANUFACTURER TO DESIGN THESE COMPONENTS OR THEIR CONNECTIONS.

2. ALL FASTENERS TO BE STAINLESS STEEL

3. ALL STEEL COMPONENTS SUPPLIED BY GLAZING CONTRACTOR TO BE A36 STEEL (PAINTED).

4. ALL ALUMINUM EXTRUSIONS TO BE ALLOY 6063-T5 AS MANUFACTURED BY BONELLI

5. GLASS SETTING BLOCKS TO BE LOCATED AT 1/4 POINTS UNLESS OTHERWISE NOTED ON ELEVATIONS

7. ALL SHIMS TO BE SOLID PLASTIC W/ 5000 PSI MIN COMP. STRENGTH OR ALUMINUM

LEGENDS/SYMBOLS

ABBREVIATIONS

A/C	=	ACCESS CONTROLLED	NIC	=	NOT IN CONTRACT
AFF	=	ABOVE FINISHED FLOOR	NTS	=	NOT TO SCALE
BOH	=	BOTTOM OF HORIZONTAL	O	=	OBSCURE
C/L	=	CENTER LINE	OD	=	OPENING DIMENSION
DIM	=	DIMENSION	OFD	=	OVERALL FRAME DIMENSION
DLO	=	DAYLIGHT OPENING	REF	=	REFERENCE
D/L	=	DEAD LOAD (ANCHOR)	RO	=	ROUGH OPENING
DO	=	DOOR OPENING	TOFF	=	TOP OF FINISHED FLOOR
EL	=	ELEVATION	TOH	=	TOP OF HORIZONTAL
FS	=	FRAME SIZE	TOS	=	TOP OF SLAB
FF	=	FINISH FLOOR	TOSTL	=	TOP OF STEEL
GC	=	GENERAL CONTRACTOR	UON	=	UNLESS OTHERWISE NOTED
MO	=	MASONRY OPENING	WC	=	WEB CENTER
ML	=	MULLION LENGTH	WD	=	WINDOW DIMENSION
SG	=	SINGLE GLAZED	W/L	=	WIND LOAD (ANCHOR)
			WP	=	WORKING POINT

320 JUDAH STREET, SAN FRANCISCO

EXTERIOR DOORS & WINDOWS

ALUMINUM DOOR & WINDOW SYSTEMS BY:

BONELLI ENTERPRISES

(650) 873-3222

SIGN HERE

SIGNATURE CONFIRMS THAT BUYER HAS REVIEWED AND APPROVED ALL INFORMATION NOTED. ANY CHANGES TO THIS INFORMATION SHOULD BE DONE STRICTLY VIA THESE DRAWINGS. BONELLI ENTERPRISES WILL NOT BE RESPONSIBLE FOR ANY CHANGES OR DISCREPANCIES AFTER SIGNATURE.

GLAZING SCHEDULE

(SEE SEPARATE PRODUCT SUBMITTALS FOR SPECIFICS)

GLAZING TYPE	DESCRIPTION
1	POWDER COATED ALUMINUM PANEL
2	CLEAR TEMPERED

SILICON GLAZING NOTE

THE INSTALLER IS RESPONSIBLE FOR SELECTING AND CONTACTING THE SILICONE MANUFACTURER TO DETERMINE WHICH TYPE OF SILICONE IS TO BE USED AND WHAT SAMPLES ARE REQUIRED TO BE SUBMITTED FOR ADHESION AND COMPATIBILITY TESTING. THE SILICONE SEALANT SHALL NOT BE APPLIED TO BONELLI PRODUCTS WITHOUT APPROVAL OF THE SILICONE MANUFACTURER AND UNTIL ALL REQUIRED TESTING IS COMPLETED AND DETAILED APPLICATION INSTRUCTIONS HAVE BEEN DELIVERED BY THE SILICONE MANUFACTURER TO THE INSTALLER. IF YOU FIND THE SILICONE MANUFACTURER'S INSTALLATION INSTRUCTIONS ARE NOT IN ACCORDANCE WITH BONELLI'S INSTALLATION INSTRUCTIONS, IT IS YOUR RESPONSIBILITY TO NOTIFY BONELLI OF THIS CONFLICT PRIOR TO GLAZING. YOUR GLASS SUPPLIER MUST BE MADE AWARE THAT THEIR GLASS WILL BE USED IN A SSG APPLICATION. THE APPLICATION MUST BE APPROVED BY THE GLASS SUPPLIER PRIOR TO GLAZING. FOR ANY STRUCTURAL SILICONE GLAZED PRODUCT APPLICATION THAT IS NOT SHOWN IN BONELLI'S STANDARD PRODUCT LITERATURE, THE APPLICATION MUST BE PRE-APPROVED BY BONELLI.

INDEX

SHEET NUMBER	DESCRIPTION
A.0	COVER SHEET
A.1	WINDOW AND DOOR ELEVATIONS
D.1-D.2	DETAILS

DATES/DELTAS

5-9-2013	SHOP DRAWING SET PRODUCED

SYSTEM DESCRIPTION

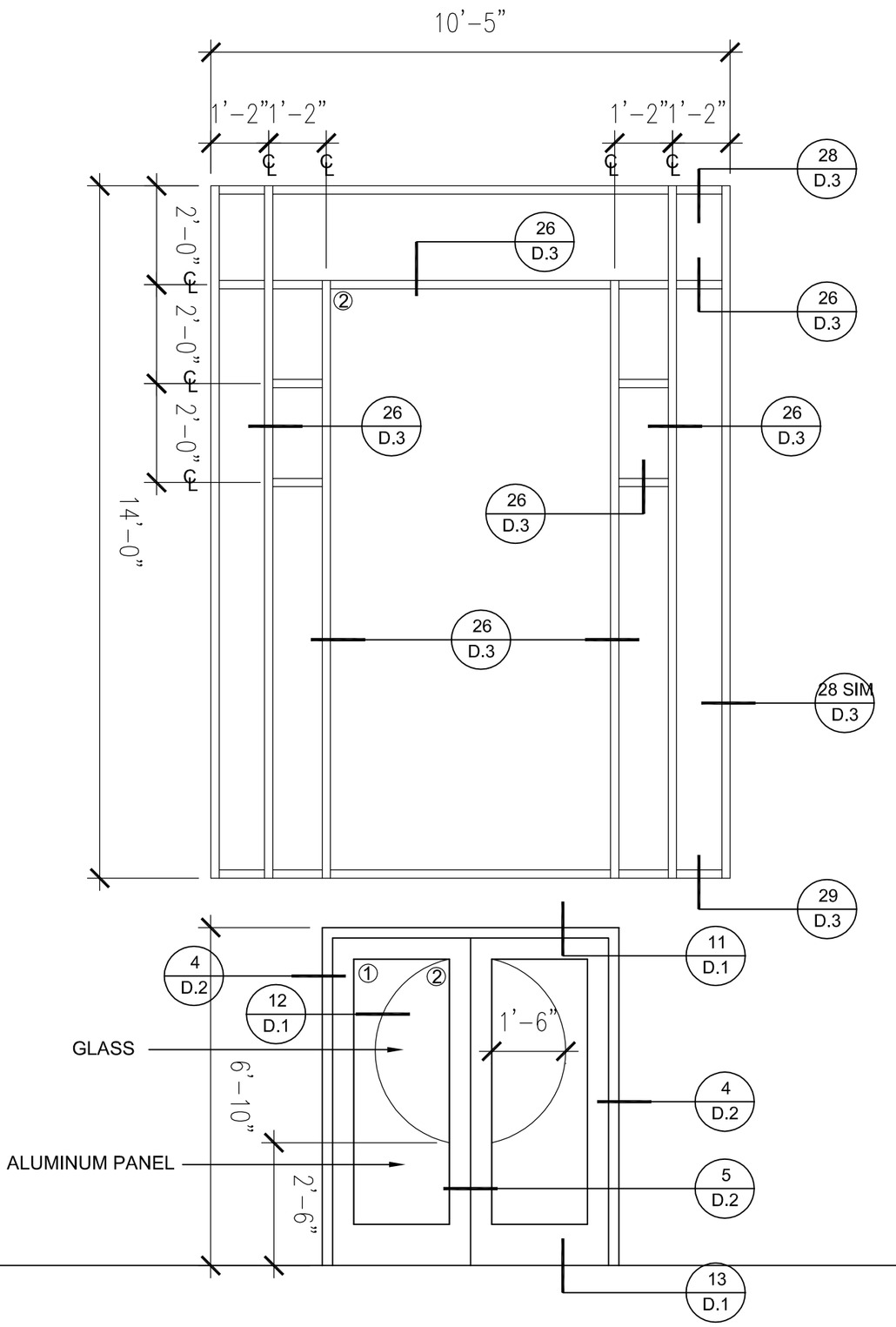
WINDOWS:

BONELLI SERIES 2000 SWING DOOR AND 2600 FIXED WINDOW.

FINISH TYPE: RAL POWDERCOAT $\frac{049}{91260}$
MIRROR SILVER AT DOOR AND BLACK AT WINDOW

TOTAL WINDOW COUNT = 2

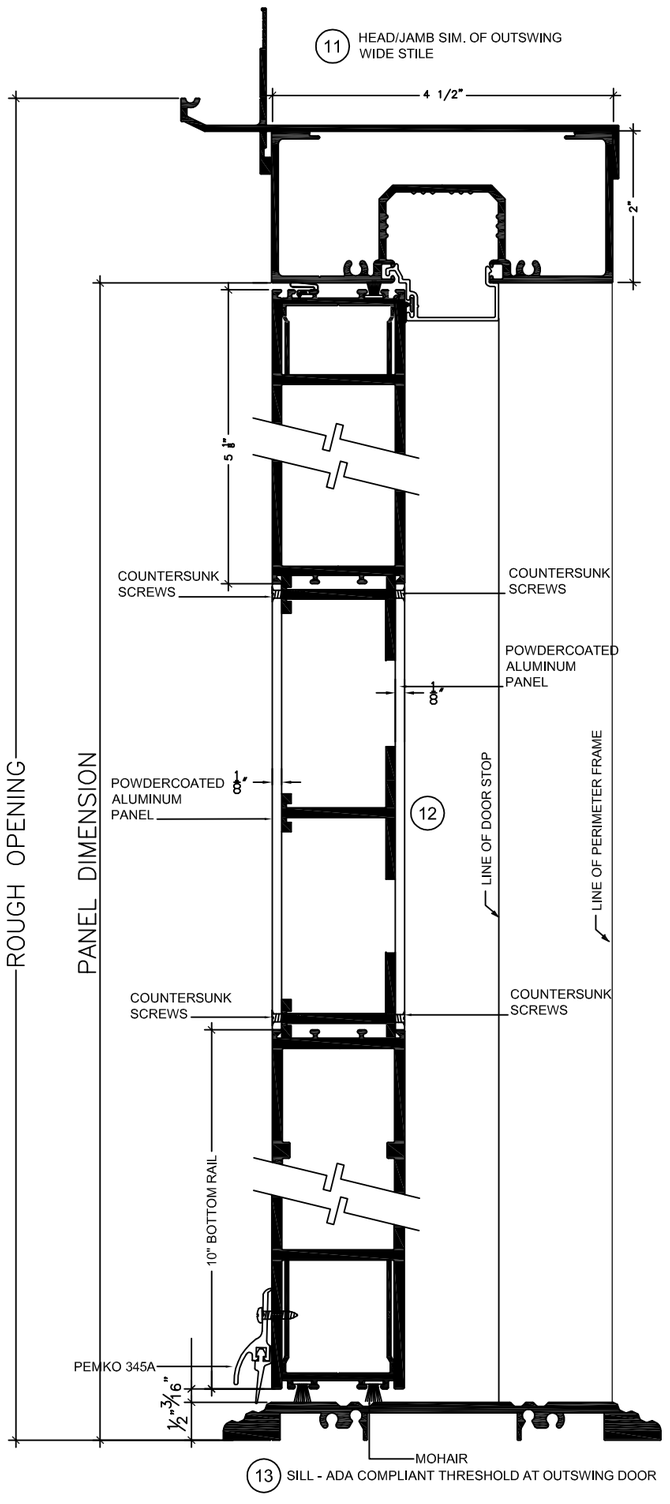
THE GLAZING CONTRACTOR WILL BE RESPONSIBLE FOR THE ACCURACY OF ALL REPRESENTATIONS ON SAID SHOP DRAWINGS (INCLUDING BUT NOT LIMITED TO: QUANTITIES, SIZES, DIMENSIONS, LOCATIONS, AND ANY INSTALLATION DRAWINGS (FROM CONDITIONS DESCRIBED ON THE ARCHITECTURALS). BONELLI CANNOT BE HELD LIABLE FOR ANY ERRORS OR OMISSIONS.



SHEET NUMBER	A. 1		
SCALE	3/8" = 1'-0"		
DATE	MAY 7, 2013		
TITLE	WINDOW LOCATION ELEVATION		
PROJECT	320 JUDAH STREET SAN FRANCISCO		

330 COREY WAY
SOUTH SAN FRANCISCO,CA 94080
tel:650.873.3222 fax:650.873.3245
email:cad@bonelli.com

BONELLI
Windows & Doors



BONELLI
Windows & Doors
330 COREY WAY
SOUTH SAN FRANCISCO,CA 94080
tel:650.873.3222/fax:650.873.3245
email:cad@bonelli.com

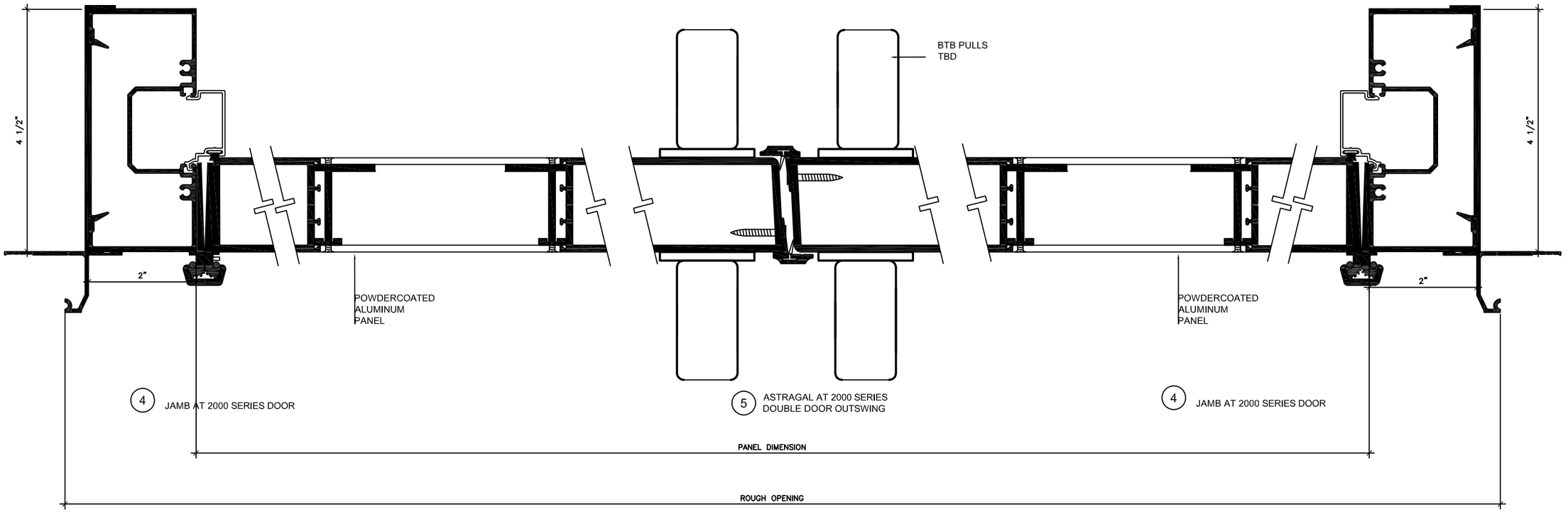
TITLE
DETAILS

PROJECT
320 JUDAH STREET
SAN FRANCISCO

DATE
MAY 7, 2013

SCALE
6" = 1'-0"

SHEET NUMBER
D.1



4 JAMB AT 2000 SERIES DOOR

5 ASTRAGAL AT 2000 SERIES DOUBLE DOOR OUTSWING

4 JAMB AT 2000 SERIES DOOR

BONELLI Windows & Doors
330 COREY WAY
SOUTH SAN FRANCISCO,CA 94080
tel:650.873.3222/fax:650.873.3245
email:cad@bonelli.com

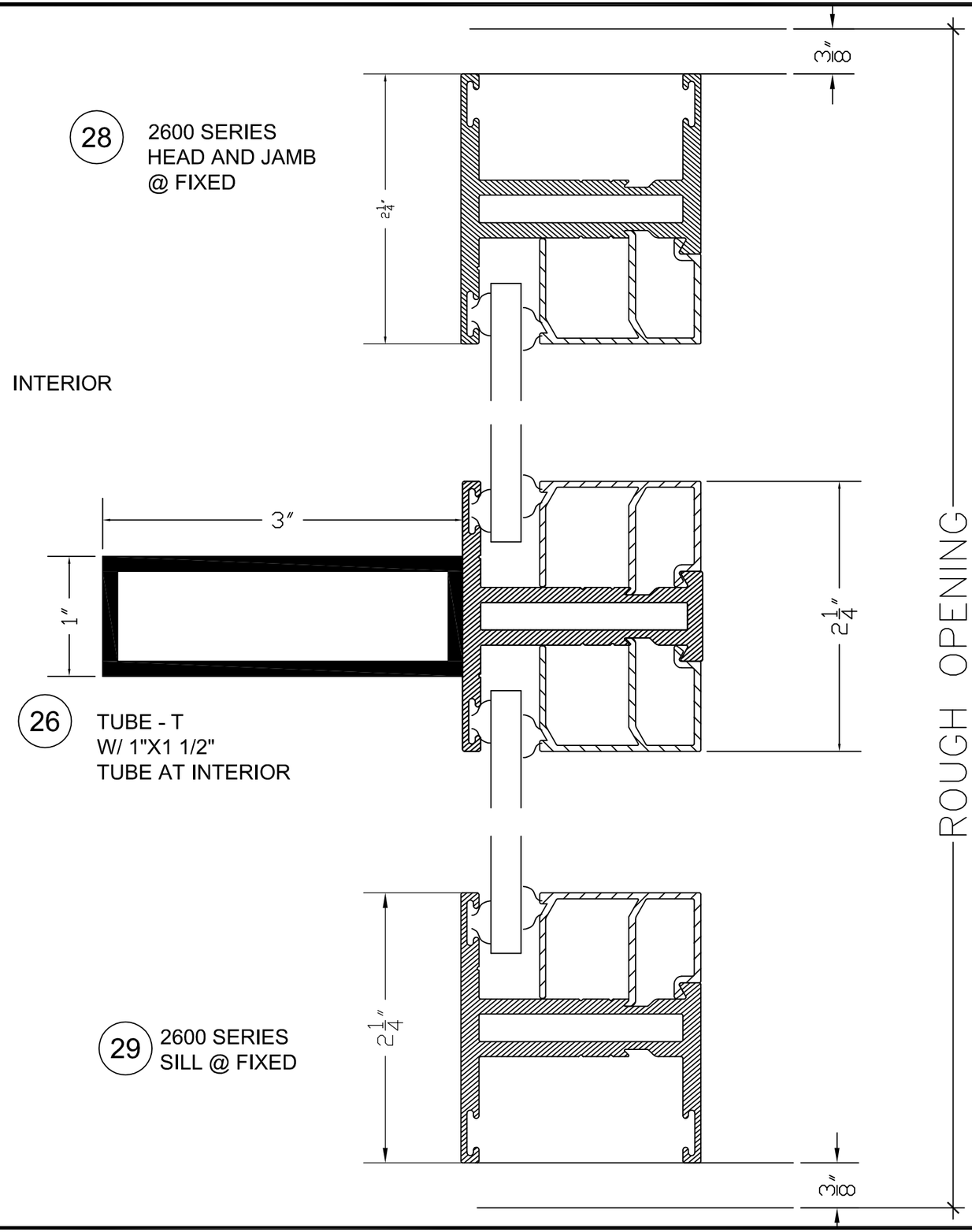
TITLE: DETAILS

PROJECT: 320 JUDAH STREET
SAN FRANCISCO

DATE: MAY 7, 2013

SCALE: 6" = 1'-0"

SHEET NUMBER: D.2



BONELLI Windows & Doors
330 COREY WAY
SOUTH SAN FRANCISCO,CA 94080
tel:650.873.3222/fax:650.873.3245
email:cad@bonelli.com

TITLE DETAILS

PROJECT 320 JUDAH STREET
SAN FRANCISCO

DATE MAY 7, 2013

SCALE 1'-0" = 1'-0"

SHEET NUMBER D.3

DuPont Building Innovations
4417 Lancaster Pike
Chestnut Run Plaza 721
Wilmington, DE 19805
1-800-448-9835
www.construction.TYVEK.com

March 2009

Product and System Specifications
DuPont™ Tyvek® StuccoWrap®

Specifier Note: The purpose of this guide specification is to assist the specifier in correctly specifying weather barrier products and execution. The specifier needs to edit the guide specifications to fit the needs of specific projects. Contact a DuPont ™ Tyvek® Specialist to assist in appropriate product selections. Throughout the guide specification, there are Specifier notes to assist in the editing of the file.

References have been made within the text of the specification to CSI MasterFormat 2004 Section numbers and titles. The specifier needs to coordinate these numbers and titles with sections included for the specific project. Brackets [ ]; “AND/OR”; and “OR” have been used to indicate when a selection is required.

This guide is for applications using a non-woven, spunbonded polyolefin sheet air and moisture barrier assembly that is surface-textured to create additional drainage channels. This barrier is non-perforated, without visible holes or voids, designed to help stop the passage of bulk water and airflow movement, yet it is vapor permeable. This barrier assembly offers a balance of properties and protection for the building envelope by providing a lightweight barrier that will resist wind, water, abrasion, tearing, puncturing, and UV exposure for up to 4 months.

DuPont™ Tyvek® StuccoWrap® is approved for use as a drainable membrane behind drainable EIFS applications. This weather barrier is also for use as the primary weather barrier for traditional stucco and direct-applied stone masonry applications requiring two-layer weather resistive barrier systems or an intervening layer over the primary weather resistive barrier. This weather barrier is acceptable for use behind traditional lapped cedar and cement siding applications up to four stories. For applications beyond four stories, DuPont™ Tyvek® CommercialWrap® D is recommended.

This weather barrier is specifically for above grade, vertical wall surfaces where the wall assembly may consist of any of the following: exterior gypsum sheathing, exterior plywood sheathing, oriented strand board (OSB) sheathing, stud walls with no sheathing, and masonry.

It is the recommendation and the preferred application for the weather barrier to be installed prior to the installation of the windows and doors. Use this section for the preferred application. When project conditions dictate the weather barrier is to be installed after the installation of the windows and doors, use the related Guide Specification for DuPont™ Tyvek® StuccoWrap® AFTER Window Installation.)

SECTION 07 25 00

WEATHER BARRIERS

DuPont™ Tyvek® StuccoWrap®

Use when weather barrier is installed BEFORE the window and door installation.

PART 1 – GENERAL

1.1 SECTION INCLUDES

(Specifier Note: "Weather barrier assembly" has been used throughout the document. A weather barrier is a weather-resistant membrane for vertical building envelope protection that will maintain air/moisture resistance while maintaining moisture-vapor permeability. The assembly consists of the following four components.)

A. Weather barrier membrane (DuPont™ Tyvek® StuccoWrap®)
B. Seam Tape (DuPont™ Tyvek® Tape)
C. Flashing (DuPont™ FlexWrap™, DuPont™ FlexWrap™ NF, DuPont™ StraightFlash™, DuPont™ StraightFlash™ VF, and/or DuPont™ Thru-Wall Flashing)
D. Fasteners (DuPont™ Tyvek® Wrap Caps)

1.2 REFERENCES

A. ASTM International
   1. ASTM C920; Standard Specification for Elastomeric Joint Sealants
   2. ASTM C1193; Standard Guide for Use of Joint Sealants
   3. ASTM D882; Test Method for Tensile Properties of Thin Plastic Sheeting
   4. ASTM D1117; Standard Guide for Evaluating Non-woven Fabrics
   5. ASTM E84; Test Method for Surface Burning Characteristics of Building Materials
   6. ASTM E96; Test Method for Water Vapor Transmission of Materials
   7. ASTM E1677; Specification for Air Retarder Material or System for Framed Building Walls
   8. ASTM E2178; Test Method for Air Permeance of Building Materials
B. AATCC – American Association of Textile Chemists and Colorists
   1. Test Method 127 Water Resistance: Hydrostatic Pressure Test
C. TAPPI
   1. Test Method T-410; Grams of Paper and Paperboard (Weight per Unit Area)
   2. Test Method T-460; Air Resistance (Gurley Hill Method)

1.3 SUBMITTALS

(Specifier Note: The use of a weather barrier as part of an assembly to reduce air infiltration may assist in achieving points for USGBC LEED® Certified Projects or an ENERGY STAR® label for new homes or home

improvements. Contact a DuPont™ Tyvek® Specialist for assistance.)

A. Refer to Section [01 33 00 Submittal Procedures] [insert section number and title].
B. Product Data: Submit manufacturer current technical literature for each component.
C. Samples: Weather Barrier membrane, minimum 8-1/2 inches by 11 inch.
D. Quality Assurance Submittals
    1. Manufacturer Instructions: Provide manufacturer's written installation instructions.

(Specifier Note: See the DuPont website for more information on warranties.)

E. Closeout Submittals
    1. Refer to Section [01 78 00 Closeout Submittals] [insert section number and title].

1.4 QUALITY ASSURANCE

A. Qualifications
    1. Installer shall have experience with installation of similar weather barrier assemblies under similar conditions.
    2. Installation shall be in accordance with manufacturer's installation guidelines and recommendations.
    3. Source Limitations: Provide weather barrier and accessory materials produced by single manufacturer.

1.5 DELIVERY, STORAGE AND HANDLING

A. Refer to Section [01 60 00 Product Requirements] [insert section number and title].
B. Deliver weather barrier materials and components in manufacturer's original, unopened, undamaged containers with identification labels intact.
C. Store weather barrier materials as recommended by system manufacturer.

1.6 SCHEDULING

(Specifier Note: The preferred order of installation for DuPont™ Tyvek® StuccoWrap® is prior to the installation of windows and doors.)

A. Review requirements for sequencing of installation of weather barrier assembly with installation of windows, doors, louvers and flashings to provide a weather-tight barrier assembly.

PART 2 - PRODUCTS

(Specifier Note: Product Information is proprietary to DuPont™ Tyvek® StuccoWrap®. If additional products are required, contact DuPont Building Innovations for assistance.)

2.1 MANUFACTURER

A. DuPont Building Innovations; 4417 Lancaster Pike, Chestnut Run Plaza 721, Wilmington, DE 19805; 1-800-44-TYVEK (8-9835); http://www.construction.TYVEK.com

2.2 MATERIALS

A. Basis of Design: Textured, spunbonded polyolefin, non-woven, non-perforated, weather barrier is based upon DuPont™ Tyvek® StuccoWrap® and related assembly components.

B. Performance Characteristics:

1. Air Penetration: 0.004 cfm/ft^2 at 75 Pa, when tested in accordance with ASTM E2178. Type I per ASTM E1677.
2. Water Vapor Transmission: 50 perms, when tested in accordance with ASTM E96, Method B.
3. Water Penetration Resistance: 210 cm when tested in accordance with AATCC Test Method 127.
4. Basis Weight: 2.1 oz/yd^2, when tested in accordance with TAPPI Test Method T-410.
5. Air Resistance: 300 seconds, when tested in accordance with TAPPI Test Method T-460.
6. Tensile Strength: 30/30 lbs/in., when tested in accordance with ASTM D882, Method A.
7. Tear Resistance: 7/9 lbs, when tested in accordance with ASTM D1117.
8. Surface Burning Characteristics: Class A, when tested in accordance with ASTM E84. Flame Spread: 5, Smoke Developed: 25

2.3 ACCESSORIES

A. Seam Tape: [2 or 3] inch wide, DuPont™ Tyvek® Tape as manufactured by DuPont Building Innovations.

B. Fasteners:

(Specifier Note: Fasteners are dependent upon substrate construction. More than one type of fastener may be required on a single project. REVIEW construction conditions and DELETE fasteners that are unnecessary.)

1. (Specifier Note: Steel Frame Construction) DuPont™ Tyvek® Wrap Cap Screws, as manufactured by DuPont Building Innovations: 1-5/8 inch rust resistant screw with 2-inch diameter plastic cap or manufacturer approved 1-1/4” or 2” metal gasketed washer.

AND/OR

2. (Specifier Note: Wood Frame Construction) Tyvek® Wrap Caps, as manufactured by DuPont Building Innovations: #4 nails with large 1-inch plastic cap fasteners or 1-inch plastic cap staples with leg length sufficient to achieve a minimum penetration of 5/8-inch into the wood stud.

AND/OR

3. (Specifier Note: Masonry Construction) Masonry tap-con fasteners with Tyvek® Wrap Caps as manufactured by DuPont Building Innovations: 2-inch diameter plastic cap fastener.

C. Sealants

(Specifier Note: Sealants compatible with weather barrier assembly may be specified in this section or in Division 07 sealants section. DELETE paragraphs 2 and 3 when sealants are specified in Division 07.)

1. Refer to Section [07 92 00 Joint Sealants] [insert section number and title].

OR

2. Provide sealants that comply with ASTM C920, elastomeric polymer sealant to maintain watertight conditions.

(Specifier Note: Sealant products listed below have been tested for compatibility and intermittent contact with DuPont weather barrier materials. EDIT for specific project as appropriate when sealants are specified within this section.)

3. Products:
   a. DuPont Residential Sealant
   b. DuPont Commercial Sealant
   c. Sealants recommended by the weather barrier manufacturer.

D. Adhesive:
   1. Provide adhesive recommended by weather barrier manufacturer.

(Specifier Note: Products listed below are only recommendations for inclusion when required and should be EDITED for specific project.)

   2. Products:
      a. Liquid Nails® LN-109
      b. Denso Butyl Liquid
      c. 3M High Strength 90

(Specifier Note: SIA product meets California VOC requirements.)

      d. SIA 655
      e. Adhesives recommend by the weather barrier manufacturer.

E. Primer:
   1. Provide flashing manufacturer recommended primer to assist in adhesion between substrate and flashing.

(Specifier Note: Products listed below are only recommendations for inclusion when required and should be EDITED for specific project.)

   2. Products:
      a. 3M High Strength 90
      b. Denso Butyl Spray

(Specifier Note: SIA product meets California VOC requirements.)

      c. SIA 655
      d. Permagrip 105
      e. ITW TACC Sta' Put SPH
      f. Primers recommended by the flashing manufacturer

F. Flashing

(Specifier Note: Flashing is dependent upon construction conditions. DELETE flashing products that are unnecessary and inappropriate for specific project.)

   1. DuPont™ FlexWrap™, as manufactured by DuPont Building Innovations: flexible membrane flashing

materials for window openings and penetrations.

AND/OR

2. DuPont™ FlexWrap™ NF, as manufactured by DuPont Building Innovations: flexible membrane flashing materials for window openings and penetrations.

AND/OR

3. DuPont™ StraightFlash™, as manufactured by DuPont Building Innovations: straight flashing membrane materials for flashing windows and doors and sealing penetrations and masonry ties, etc.

AND/OR

4. DuPont™ StraightFlash™ VF, as manufactured by DuPont Building Innovations: dual-sided, straight flashing membrane materials for brickmold and non-flanged windows and doors.

AND/OR

5. DuPont™ Thru-Wall Surface Adhered Membrane with Integrated Drip Edge: Thru-Wall flashing membrane materials for flashing at changes in direction or elevation (shelf angles, foundations, etc.) and at transitions between different assembly materials.

AND/OR

6. Preformed Inside and Outside Corners and End Dams as manufactured by DuPont: Preformed three-dimensional shapes to complete the flashing system used in conjunction with DuPont™ Thru-Wall Flashing.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify substrate and surface conditions are in accordance with weather barrier manufacturer recommended tolerances prior to installation of weather barrier and accessories.

3.2 INSTALLATION – WEATHER BARRIER

A. Install weather barrier over exterior face of exterior wall substrate in accordance with manufacturer recommendations.

B. Start weather barrier installation at a building corner, leaving 6-12 inches of weather barrier extended beyond corner to overlap.

C. Apply wrap with grooved surface pattern in vertical direction.

D. Install weather barrier in a horizontal manner starting at the lower portion of the wall surface. Maintain weather barrier plumb and level

E. Shingle weather barrier over back edge of weep screed. Seal weather barrier with sealant or tape to weep screed. Ensure weeps are not blocked.

F. Subsequent layers shall overlap lower layers a minimum of 6 inches horizontally in a shingling manner.

G. Window and Door Openings: Extend weather barrier completely over openings.

H. Weather Barrier Attachment:

(Specifier Note: Attachment method is dependent upon substrate construction. DELETE methods that are

unnecessary and inappropriate for specific project.)

1. (Specifier Note: Steel or Wood Frame Construction) Attach weather barrier to studs through exterior sheathing. Secure using weather barrier manufacturer recommended fasteners, space 12 -18 inches vertically on center along stud line, and 24 inch on center, maximum horizontally.

AND/OR

2. (Specifier Note: Masonry Construction) Attach weather barrier to masonry. Secure using weather barrier manufacturer recommended fasteners, space 12 -18 inches vertically on center and 24 inches maximum horizontally. Weather barrier may be temporarily attached to masonry using recommended adhesive, placed in vertical strips spaced 24 inches on center, when coordinated on the project site.

(Specifier Note: Cladding anchors, supports and fasteners will likely be specified in the Section including the cladding. COORDINATE the inclusion of the following paragraph in the appropriate specification section. With weather barrier manufacturer's approval cladding anchors can be used to fasten the weather barrier.)

I. Apply 4 inch by 7 inch piece of DuPont™ StraightFlash™ or weather barrier manufacturer approved alternate to weather barrier membrane prior to the installation cladding anchors.

3.3 SEAMING

A. Seal seams of weather barrier with seam tape at all vertical and horizontal overlapping seams.

B. Seal any tears or cuts as recommended by weather barrier manufacturer.

(Specifier Note: Opening preparation and flashing installation is dependent upon the construction of the opening and construction of the window. DELETE execution requirements that are not appropriate for specific project. COORDINATE proper design and detailing at windows, doors and other openings or intersections for proper flashing in accordance with window manufacturer guidelines, industry standards and best flashing and waterproofing practices.)

(Specifier Note: MAINTAIN the following opening preparation and flashing articles when used in conjunction with non-flanged windows.)

3.4 OPENING PREPARATION (for use with non-flanged windows – all cladding types)

A. Flush cut weather barrier at edge of sheathing around full perimeter of opening.

B. Cut a head flap at 45-degree angle in the weather barrier at window head to expose 8 inches of sheathing. Temporarily secure weather barrier flap away from sheathing with tape.

3.5 FLASHING (for use with non-flanged windows – all cladding types)

(Specifier Note: DuPont recommends the use of the 7-inch wide DuPont™ FlexWrap™ with 2 by 4 framing and 9-inch wide DuPont™ FlexWrap™ with 2 by 6 framing.)

A. Cut [7-inch] [9-inch] wide DuPont™ FlexWrap™ or DuPont™ FlexWrap™ NF a minimum of 12 inches longer than width of sill rough opening.

B. Cover horizontal sill by aligning DuPont™ FlexWrap™ edge with inside edge of sill. Adhere to rough opening across sill and up jambs a minimum of 6 inches. Secure flashing tightly into corners by working

in along the sill before adhering up the jambs.

C. Fan DuPont™ FlexWrap™ at bottom corners onto face of wall. Firmly press in place. Mechanically fasten fanned edges. . Mechanical fastening is not required for DuPont™ FlexWrap™ NF.

D. Apply 9-inch wide strips of DuPont™ StraightFlash™ at jambs. Align flashing with interior edge of jamb framing. Start DuPont™ StraightFlash™ at head of opening and lap sill flashing down to the sill.

E. Spray-apply primer to top 6 inches of jambs and exposed sheathing.

F. Install DuPont™ FlexWrap™ or DuPont™ FlexWrap™ NF at opening head using same installation procedures used at sill. Overlap jamb flashing a minimum of 2 inches.

G. Coordinate flashing with window installation.

H. On exterior, install backer-rod in joint between window frame and flashed rough framing. Apply sealant at jambs and head, leaving sill unsealed. Apply sealants in accordance with sealant manufacturer's instructions and ASTM C1193.

I. Position weather barrier head flap across head flashing. Adhere using 4-inch wide DuPont™ StraightFlash™ over the 45-degree seams.

J. Tape head flap in accordance with manufacturer recommendations.

K. On interior, install backer rod in joint between frame of window and flashed rough framing. Apply sealant around entire window to create air seal. Apply sealants per sealant manufacturer's instructions and ASTM C1193.

(Specifier Note: MAINTAIN the following open preparation and flashing articles when used in conjunction with flanged windows and doors.)

3.6 OPENING PREPARATION (for use with flanged windows)

A. Cut weather barrier in an "I-cut" pattern. A modified I-cut is also acceptable.
   1. Cut weather barrier horizontally along the bottom and top of the window opening.
   2. From the top center of the window opening, cut weather barrier vertically down to the sill..
   3. Fold side and bottom weather barrier flaps into window opening and fasten.

B. Cut a head flap at 45-degree angle in the weather barrier membrane at window head to expose 8 inches of sheathing. Temporarily secure weather barrier membrane flap away from sheathing with tape.

3.7 FLASHING (for use with flanged windows)

(Specifier Note: DuPont recommends the use of the 7-inch wide DuPont™ FlexWrap™ with 2 by 4 framing and 9-inch wide DuPont™ FlexWrap™ with 2 by 6 framing.)

A. Cut [7-inch] [9-inch] wide DuPont™ FlexWrap™ or DuPont™ FlexWrap™ NF a minimum of 12 inches longer than width of sill rough opening.

B. Cover horizontal sill by aligning DuPont™ FlexWrap™ or DuPont™ FlexWrap™ NF edge with inside edge of sill. Adhere to rough opening across sill and up jambs a minimum of 6 inches. Secure flashing tightly into corners by working in along the sill before adhering up the jambs.

C. Fan DuPont™ FlexWrap™ at bottom corners onto face of wall. Firmly press in place. Mechanically fasten fanned edges. . Mechanical fastening is not required for DuPont™ FlexWrap™ NF.

D. On exterior, apply continuous bead of sealant to wall or backside of window mounting flange across jambs and head. Do not apply sealant across sill.
E. Install window according to manufacturer's instructions.
F. Apply 4-inch wide strips of DuPont™ StraightFlash™ at jambs overlapping entire mounting flange. Extend jamb flashing 1-inch above top of rough opening and below bottom edge of sill flashing.
G. Apply 4-inch wide strip of DuPont™ StraightFlash™ as head flashing overlapping the mounting flange. Head flashing should extend beyond outside edges of both jamb flashings.
H. Position weather barrier head flap across head flashing. Adhere using 4-inch wide DuPont™ StraightFlash™ over the 45-degree seams.
I. Tape head flap in accordance with manufacturer recommendations
J. On interior, install backer rod in joint between frame of window and flashed rough framing. Apply sealant around entire window to create air seal. Apply sealant in accordance with sealant manufacturer's instructions and ASTM C1193.

3.8 THRU-WALL FLASHING INSTALLATION

A. Apply primer per manufacturer's written instructions.
B. Install preformed corners and end dams bedded in sealant in appropriate locations along wall.
C. Starting at a corner, remove release sheet and apply membrane to primed surfaces in lengths of 8 to 10 feet.
D. Extend membrane through wall and leave ¼ inch minimum exposed to form drip edge.
E. Roll flashing into place. Ensure continuous and direct contact with substrate.
F. Lap ends and overlap preformed corners 4 inches minimum. Seal all laps with sealant.

(Specifier Note: DELETE paragraph below if a metal drip edge is not required.)

G. Trim exterior edge of membrane 1-inch and secure metal drip edge per manufacturer's written instructions.

(Specifier Note: DELETE option below when not required for project.)

H. Terminate membrane on vertical wall. [Terminate into reglet, counterflashing or with termination bar.]

I. Apply sealant bead at each termination.

(Specifier Note: DELETE remaining installation paragraphs below not required for project. Coordinate with accessories named in Part 2 above.)

3.9 THRU-WALL FLASHING / WEATHER BARRIER INTERFACE AT BASE OF WALL

A. Overlap thru-wall flashing with weather barrier by 6-inches.
B. Mechanically fasten bottom of weather barrier through top of thru-wall flashing.
C. Seal vertical and horizontal seams with tape or sealing membrane.

3.10 THRU-WALL FLASHING / WEATHER BARRIER INTERFACE AT SHELF ANGLE

A. Seal weather barrier to bottom of shelf angle with sealing membrane.
B. Apply thru-wall flashing to top of shelf angle. Overlap thru-wall flashing with weather barrier by 6-inches.
C. Seal bottom of weather barrier to thru-wall flashing with tape or sealing membrane.

3.11 THRU-WALL FLASHING / WEATHER BARRIER INTERFACE AT WINDOW HEAD

A. Cut flap in weather barrier at window head.
B. Prime exposed sheathing.
C. Install lintel as required. Verify end dams extend 4 inches minimum beyond opening.
D. Install end dams bedded in sealant.
E. Adhere 2 inches minimum thru-wall flashing to wall sheathing. Overlap lintel with thru-wall flashing and extend ¼ inch minimum beyond outside edge of lintel to form drip edge.
F. Apply sealant along thru-wall flashing edges.
G. Fold weather barrier flap back into place and tape bottom edge to thru-wall flashing.
H. Tape diagonal cuts of weather barrier.
I. Secure weather barrier flap with fasteners.

3.12 PROTECTION

A. Protect installed weather barrier from damage.

END OF SECTION

DISCLAIMER:

DuPont Building Innovations Guide Specifications have been written as an aid to the professionally qualified specifier and design professional. The use of this guideline specification requires the sole professional judgment and expertise of the qualified specifier and design professional to adapt the information to the specific needs for the building owner and the project, to coordinate with their construction document process, and to meet all the applicable building codes, regulations and laws. DUPONT EXPRESSLY DISCLAIMS ANY WARRANTY, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE OF THIS PRODUCT FOR THE PROJECT.

Please contact your local DuPont™ Tyvek® Specialist at 1-800-44-Tyvek or visit www.Construction.Tyvek.com

PITTSBURGH CORNING GLASS BLOCK®

architectural products

GLASS BLOCK PRODUCTS
& DESIGN INFORMATION

PITTSBURGH CORNING GLASS BLOCK

Pittsburgh Corning Corporation has been manufacturing Pittsburgh Corning Glass Block products since 1937 and today is the only domestic manufacturer in North America. The company recognizes its responsibility to provide a variety of products and to furnish accurate descriptive and technical information which will help the design professional select and specify Pittsburgh Corning Glass Block products.

The comprehensive variety of patterns, styles and sizes available have been designed to work together in your projects as a total system. Pittsburgh Corning stands behind all its glass block when used exclusively with Pittsburgh Corning accessory products by offering a limited five-year warranty.

www.pittsburghcorning.com

features application photos, product information, specifications, installation details, literature, continuing education, case histories, and much more information on how to design with Pittsburgh Corning Glass Block products.

TABLE OF CONTENTS

Introduction 2
Glass Block Benefits & Applications 3-5
Glass Block Products 6-7
Physical & Design Data 8-10
Fire Ratings & Code Information 11
Accessories 12
Typical Construction Details 12-18
Typical Details For Fire Rated Construction 15
Standard Specifications 18-19

ON THE COVER:

College of the Sequoias, Learning Resource Center, Visalia, CA
Architect: Spencer/Hoskins Associates
ARGUS® Pattern

North Hollywood Police Station, N. Hollywood, CA
Architect: Meyer & Allen Associates
ARGUS® Pattern and HEDRON® Corner Block

Lawrence College, Appleton, WI // VUE® Pattern

Appalachian State University, School of Business, Boone, NC
Architect: J.N. Pease Associates // VUE® Pattern

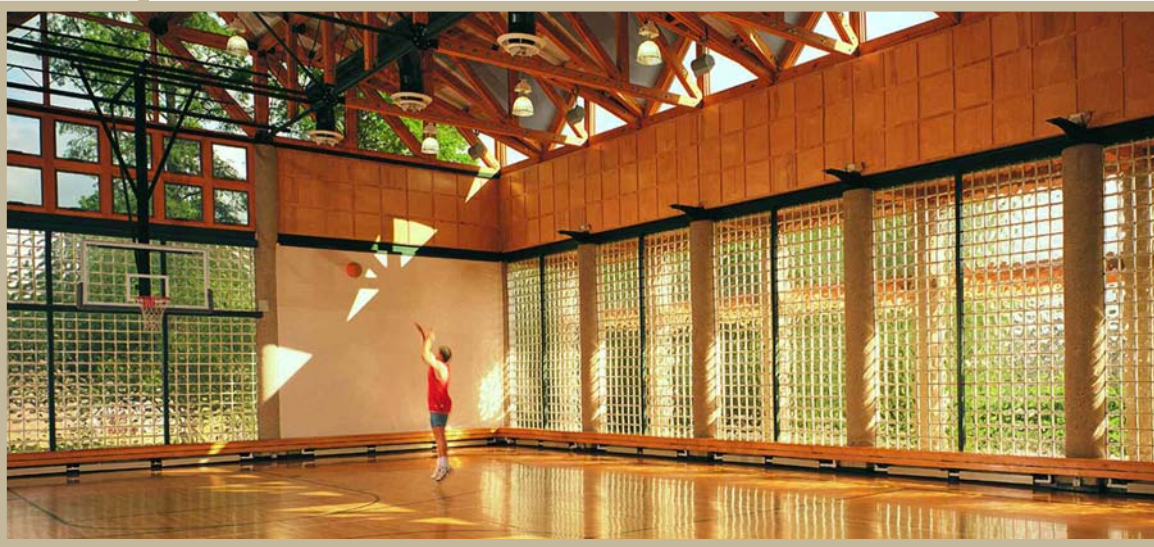
Circle of Design Excellence Award Winner

Sponsored by Pittsburgh Corning, this program recognizes those designs where glass block forms a prominent architectural feature of a building, either interior or exterior.

Hillman Cancer Center, Pittsburgh, PA // Architect: IKM Inc.

"We selected the glass block to create a visually stunning separation between the research and clinical pavilions. It enabled the transmission of natural daylight into the labs and treatment areas while still maintaining the appropriate degree of privacy. The use of glass block greatly contributed to the Hillman Cancer Center's artful expression of both the functional and emotional needs of the clinical pavilion dedicated to healing, and the opportunity for interaction and flexibility of a research pavilion dedicated to finding a cure." – Mihai Marcu, AIA, President, IKM Inc.

Lloyd Hall, Philadelphia, PA // Architect: Armstrong Kaulbach Architects // VISTABRIK® Solid Glass Block, VUE® Pattern



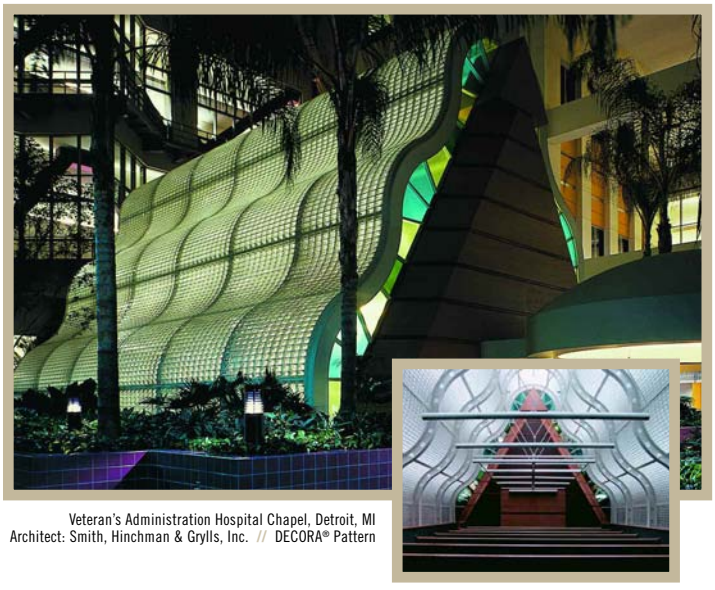
GLASS BLOCK BENEFITS & APPLICATIONS

(l to r): AT&T Information Systems, Weston, MA
Designer: Hugh Stubbins & Associates // VUE® Pattern
Mercy Hospital, St. Caritas Cancer Center, Springfield, MA
Architect: AE Design, Inc. // ESSEX® AA and IceScapes® Patterns

BEAUTY AND VERSATILITY

Extraordinarily versatile and available in many aesthetically pleasing sizes and styles, glass block offers virtually limitless design possibilities. Glass block walls, partitions and windows combine the delicate beauty and light transmission of glass with the strength of glass block.

Big opportunities generally mean big challenges. So when Armstrong Kaulbach Architects designed the first new building, **Lloyd Hall** *(see photo on page 2)*, on Philadelphia's Boathouse Row, they were looking at a once-a-century challenge. It had to be big without dwarfing its neighbors. A modern classic with 19th century charm and 21st century convenience. They achieved this with a skylit, peaked profile and a three-sided exposure of VISTABRIK® Glass Block.



Veteran's Administration Hospital Chapel, Detroit, MI
Architect: Smith, Hinchman & Grylls, Inc. // DECORA® Pattern

"This building is going to be used for everything from black tie parties to basketball games. So every inch of this place has to endure years of hard wear – and look great doing it. VISTABRIK® Glass Block has the perfect balance of durability, security and sheer beauty to make this place special."

– Lisa Armstrong, AIA, Architect
Armstrong Kaulbach Architects

SOUND TRANSMISSION

Three inches of solid glass makes VISTABRIK® a dense barrier to sounds from trains, traffic, crowds, sirens and machinery. The STC value of with a 53, makes the acoustical properties of VISTABRIK® comparable to insulated masonry walls. STC values for THICKSET® Series Glass Block range between 48 and 50, with Premiere Series Glass Block ranging from 35 to 40.

LIGHT TRANSMISSION AND PRIVACY

Glass block has a dynamic relationship with light, both natural and artificial. As light changes, so does the material's appearance and in turn the surrounding environment. Transmitting up to 80% of available light, glass block provides a great range of light and privacy, depending on the pattern and transparency of the unit used. It is also scratch-resistant, without any yellowing, clouding or weathering.

SECURITY

When top architects need to add security to their projects, Pittsburgh Corning answers with a range of solutions:

Premiere Series

Available in the widest range of sizes, shapes and patterns, these blocks offer enhanced resistance to impact, fire, sound transmission, graffiti and weather.

THICKSET® Series

These thicker-faced blocks offer all the performance features of our Premiere Series but with an extra reduction in sound transmission and increased fire resistance available in 60- or 90-minute ratings.

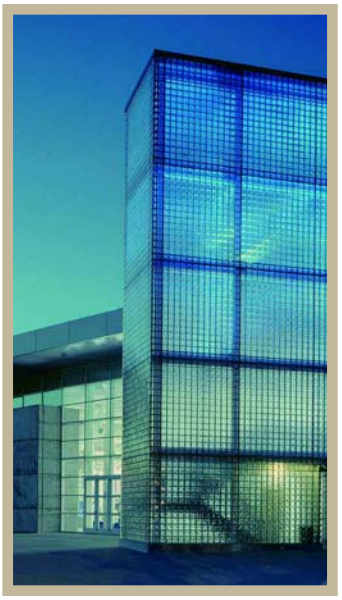
VISTABRIK® Glass Block

Three inches of solid glass block make this the top-performing product offering the highest ballistic ratings, resistance to impact and sound transmission while still transmitting 80% of available light

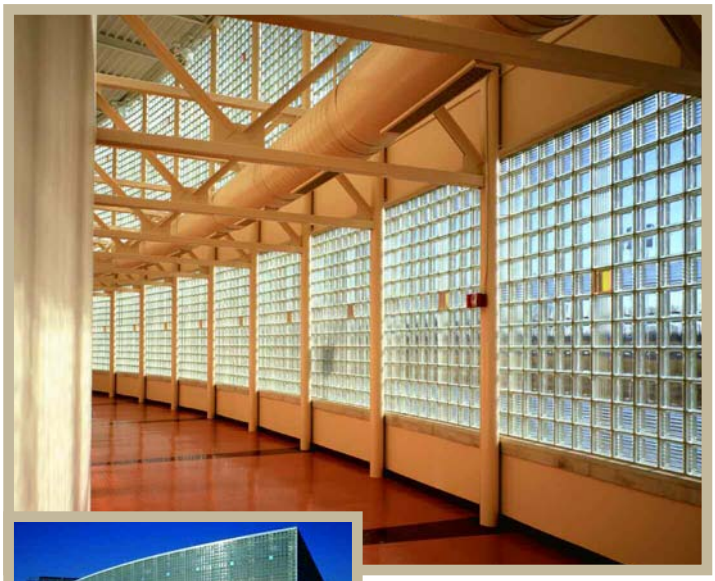
IMPACT AND BALLISTIC RESISTANT

Pittsburgh Corning Glass Blocks are inherently stronger than conventional glass because of the thickness of the faces and the mortar that binds the blocks together. As a result the glass blocks are more difficult to break and therefore provide resistance and are a deterrent to forced entry. Our solid 3" VISTABRIK® Glass Block resists penetration from high-impact ballistics, including 9mm and .357 magnum bullets. VISTABRIK® glass blocks are UL® tested and component recognized for ballistic levels 1, 2, and 6.

Regional Transit District Station, Denver, CO
VISTABRIK® Solid Glass Block, VUE® Pattern



University of New Hampshire // DECORA® Pattern



University of Toledo - Nitschke Auditorium
ARGUS® Pattern and VUE® Pattern

ENERGY CONSERVATION

Glass block can provide more than double the thermal resistance (R-Value) of single-glaze 1/8" thick plate glass. The differences between the shading coefficient of glass block and flat sheet glass is also significant. Contributing to this is the louvering effect of glass block's horizontal mortar joints, which helps reduce light transmission from the higher summer sun. The size and orientation of the block can greatly affect the amount of shading that can occur.

GRAFFITI RESISTANT

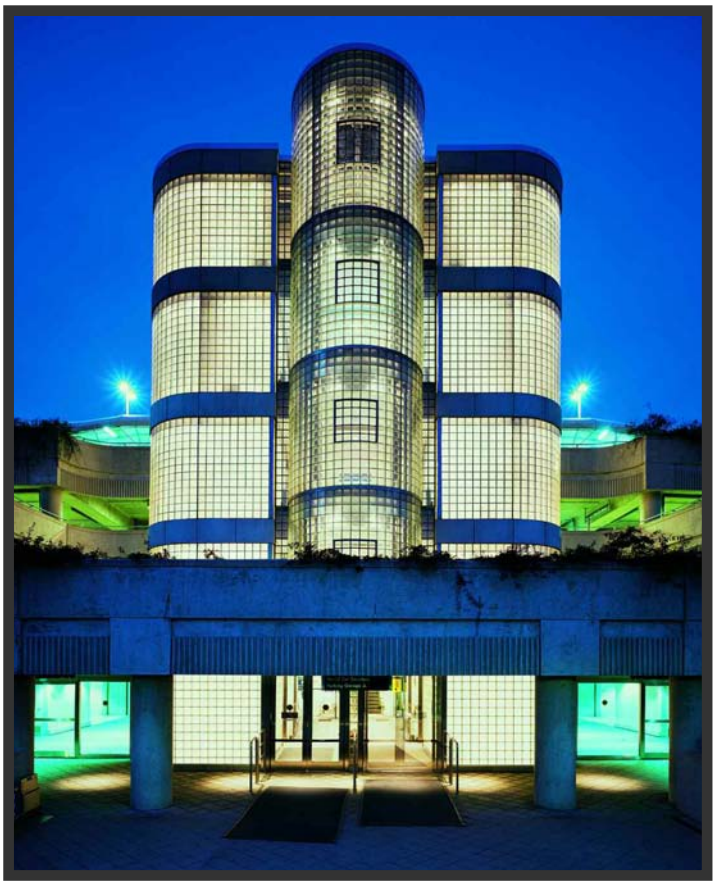
Glass block resists damage and is easy to clean.

HURRICANE IMPACT GLASS BLOCK SYSTEM

Pittsburgh Corning's THICKSET® 90 Glass Block with our KWiK'N EZ® Rigid Track Installation System is hurricane tested and code approved. The system has passed hurricane impact tests recognized by the International Building Code and Dade County in coastal areas. Which makes it the perfect solution if you want beauty and function that will weather most any storm.

Exempla Good Samaritan Medical Center, Lafayette, CO
Architect: Davis Partnership P.C. Architects
DECORA® and VUE® Patterns

Private Residence // DECORA® Pattern



Terminal A Parking Garage, Ronald Reagan Washington National Airport, Washington, D.C.
Architect: Hartman-Cox Architects (In association with HNTG Corporation) // DECORA®, ESSEX® AA and VUE® Patterns

"We started with the vertical elements of the garages – the elevator towers – and using the VUE® pattern, turned it into a virtual wayfinder system. Then, we continued that theme with small wayfinder devices – information pylons using ESSEX® AA – throughout the garages." – Graham Davidson, Architect

Chula Vista Police Department Headquarters/City of Chula Vista, Chula Vista, CA // Architect: Carrier Johnson
ESSEX® AA and VISTABRIK® Patterns

"This building had to embody the LAPD's more open, community-oriented mission. The ARGUS® pattern glass block was really critical in creating that openness. It gives us the perfect balance of light and security." – Clifton Allen, Architect

North Hollywood Police Station, N. Hollywood, CA // Architect: Meyer & Allen Associates
ARGUS® Pattern and HEDRON® Corner Block

EARTHQUAKE RESISTANCE

Pittsburgh Corning Glass Block met the requirements of Section 1630.2, (Vol. 2) of the 1994 Uniform Building Code which governed seismic design of nonstructural components supported by structures.

The Northridge, CA earthquake on January 17, 1994 was the largest earthquake in the United States to have its epicenter in an urban area. A detailed survey was made of the performance of structures containing Pittsburgh Corning glass block panel applications. In all sites visited, the glass block walls and panel systems that were designed and constructed in accordance with Pittsburgh Corning specifications and the provision of the Uniform Building Code resisted the seismic forces without failure.

Glass block panels inherently have attributes that make them very safe in earthquakes, including the fact that since glass block panels are isolated from the framing with expansion joints, the glass block are better able to resist the seismic forces independent of their surrounding frames. In summary, glass block panel design criteria currently specified in the UBC provides an excellent architectural product that performed very well during the Northridge earthquake.

Combined Operations Center // Heathrow Airport, U.K. // Architect: Nicholas Grimshaw & Partners // VUE® Pattern

FIRE RESISTANT

An important feature of glass block, critical to safe building design, is the product's inherent fire-resistance property. By varying the face thickness of the product and conforming to installation specifications, Pittsburgh Corning is able to offer a family of fire rated products approved and rated according to Underwriters Laboratory (UL®), standards. Glass block are available in 45-, 60- and 90-minute ratings for window assemblies. See pages 11 and 15 for additional technical information. Visit our website at www.pittsburghcorning.com for electronic details.

PREMIERE SERIES

- Includes the largest selection of patterns and sizes for the utmost in design flexibility.
- All patterns are classified by UL®, for use in 45-minute rated window assemblies.
- All sizes available are rated except 12" x 12" and shapes.
- Nominal face thickness: 0.25"

THICKSET® 60 Block

- Classified by UL®, for use as 45-or 60-minute rated window assemblies.
- Nominal face thickness: 0.375"

THICKSET® 90 Block

- Classified by UL®, for use as 45-, 60- or 90-minute rated window assemblies.
- Nominal face thickness: 0.75"

VISTABRIK® Solid Glass Block

- The ultimate glass block solution, 3 solid inches of glass which resists bullets, fire, noise, and graffiti.
- Classified by UL®, for use as 45-, 60- or 90-minute rated window assemblies.
- Actual face thickness: 3.0"

HIGH PERFORMANCE LINE — Pittsburgh Corning's High Performance Line of glass block products is comprised of products that offer the highest value, performance features and benefits related to improved safety, energy efficiency, aesthetics and decorative choices.

THICKSET® Block

Cutaways show the greater face thickness of the THICKSET® Series Block. THICKSET® 60 Block on left vs. the THICKSET® 90 Block on right.

THICKSET® 90 Block DECORA® Pattern

THICKSET® 90 block provides a 90-minute fire rating. The DECORA® pattern provides maximum light transmission with subtle visual distortion. The nondirectional faces make installation quick.

THICKSET® 90 Block ENDURA™ Pattern

THICKSET® 90 block provides a 90-minute fire rating. The ENDURA™ pattern's narrow flutes provide moderate light transmission/ maximum privacy.

THICKSET® 90 Block VUE® Pattern

THICKSET® 90 block provides a 90-minute fire rating. The VUE® pattern transmits maximum light and allows ultimate visibility.

THICKSET® 60 Block DECORA® Pattern

THICKSET® 60 block provides a 60-minute fire rating. The DECORA® pattern provides maximum light transmission with subtle visual distortion. The nondirectional faces make installation quick.

THICKSET® 60 Block VUE® Pattern

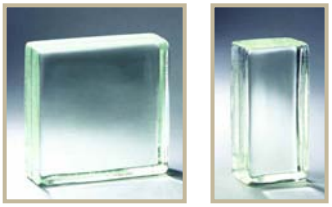
THICKSET® 60 block provides 60-minute fire rating. The VUE® pattern transmits maximum light and allows ultimate visibility.

DECORA® LX Pattern

Fibrous glass insert adds moderate thermal and light characteristics. Maximum privacy. **Please note: The "LX" fibrous glass insert is available in other patterns and sizes by special order. Minimum order quantities apply.**

HEDRON® LX Corner Block, DECORA® Pattern

Hexagonal corner unit allows you to form 90-degree corners resulting in a gently rounded continuous glass face.



VISTABRIK® Solid Glass Block

Solid 3" solid glass block. Clear visibility, durable, impact, vandal and bullet resistant, low maintenance and aesthetically attractive. Excellent light transmission. Available in 8" x 8" and 4" x 8" sizes, and in 3" x 8" special order.

VISTABRIK® STIPPLED Solid Glass Block

Solid 3" thickness of glass with a stippled finish to add privacy. Durable, impact, vandal and bullet resistant, low maintenance and aesthetically attractive. Good light transition/ medium privacy. **Special Order.**

VISTABRIK® Paver

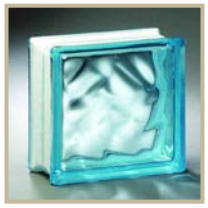
One and a half inches of solid glass. Clear, durable, low maintenance. Excellent light transmission. Horizontal applications only.

PC® Custom Signature Block

Custom manufactured with your corporate logo or other design pressed into one or both inside surfaces of an eight inch square, standard unit. **Special Order Only.**

SRT™ Block, Wavy and Clear Patterns – Brown Edge

Features a metal oxide coating on the inside surface of the block which greatly reflects solar energy while reducing the passage of sunlight.

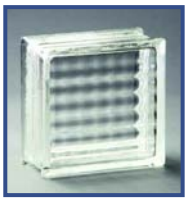


Colored Glass Blocks

Add color for unlimited design options. Available in Blue, Bronze and Rosa (pink) in the Wave Pattern. Use alone or mix with clear, colorless Pittsburgh Corning Premiere Series glass block.

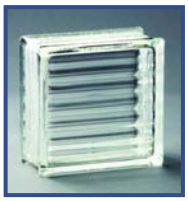
SIGNATURE LINE — Pittsburgh Corning's Signature Line of glass block products is comprised of high quality Premiere and Thinline® Series products and the largest selection of patterns and shapes. This line has become the standard in the industry and provides the most design flexibility in the selection and use of glass block for walls, windows, partitions, and showers in residential and commercial applications.

PREMIERE SERIES GLASS BLOCK



ARGUS® Pattern

Rounded perpendicular flutes diffuse light while allowing maximum light transmission and a medium degree of privacy.



ARGUS® Parallel Fluted Pattern

Rounded parallel flutes on each face diffuse light while allowing maximum light transmission and a medium degree of privacy. Compliments the SPYRA® pattern.

DECORA® Pattern

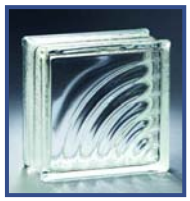
The trademark wavy undulations of this pattern provides maximum light transmission with subtle visual distortion. The nondirectional faces make installation quick.

ESSEX® AA Pattern

The fine grid design of the closely spaced ridges in this pattern offers moderate light transmission and a maximum degree of privacy.

IceScapes® Pattern

Non-directional pattern lets light in without sacrificing privacy. Maximum light transmission/medium to maximum privacy.



SPYRA® Pattern

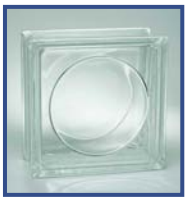
SPYRA® Pattern gives you many options for decorative patterns, such as bold circles, rounded corners and the illusions of waves. Maximum light transmission and minimal privacy.

VUE® Pattern

Faces are smooth and undistorted to transmit the most light and allow ultimate visibility. This is your best choice for passive solar collection and visual clarity.

SIGNATURE LINE – PREMIERE SERIES GLASS BLOCK (continued)...

SeaScapes™ Pattern
The three dimensional circles appear to float within the glass block. The pattern lets in light and also provides a degree of privacy.



FOCUS™ Pattern
This new circular pattern gives an exciting new way to bring more light and drama to any project.

Corner Double Bevel Stipple™ Pattern
Maximum light transmission with medium privacy.

Corner Double Bevel VUE® Pattern
Maximum light transmission.

Corner Wide Bevel Stipple™ Pattern
Maximum light transmission with medium privacy.

Corner Wide Bevel VUE® Pattern
Maximum light transmission.

Diagonal Bevel Stipple™ Pattern
Maximum light transmission with medium privacy.

Diagonal Bevel VUE® Pattern
Maximum light transmission.

Double Bevel Stipple™ Pattern
Maximum light transmission with medium privacy.

Double Bevel VUE® Pattern
Maximum light transmission.

Stipple™ Pattern
Maximum light transmission with medium privacy.

Wide Bevel Stipple™ Pattern
Maximum light transmission with medium privacy.

Wide Bevel VUE® Pattern
Maximum light transmission.

SHAPES AND FINISHING UNITS

ARQUE® Block DECORA® and IceScapes® Patterns
ARQUE® Block is a brilliant way to create smooth, graceful curves and columns. ARQUE® Block forms a consistent, tight curve ideally suited for columns.

ENCURVE® Block, DECORA® and IceScapes® Patterns
Arched, soft edges to round out your design options or finish panels. Use with 8" x 8" EndBlock™ Finishing Units for a stepped panel.

EndBlock™ Finishing Unit DECORA® and IceScapes® Patterns 6" x 8"
The rounded, finished surface on one edge of these blocks makes them virtually disappear when used vertically or horizontally on the edges of panels, walls or dividers.

EndBlock™ Finishing Unit DECORA® and IceScapes® Patterns 8" x 8"
The rounded, finished surface on one edge of these blocks makes them virtually disappear when used vertically or horizontally on the edges of panels, walls or dividers.

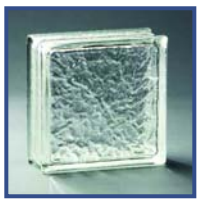
HEDRON® Corner Block DECORA® and IceScapes® Patterns
Hexagonal corner unit allows you to form 90-degree corners resulting in a gently rounded continuous glass face.

TRIDRON 45º Block® DECORA® and IceScapes® Patterns
The unique shape of this block lets you create everything from 45-degree angles to full circles.

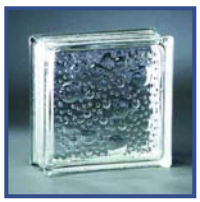
Thinline® SERIES GLASS BLOCK

DECORA® Pattern
The trademark wavy undulations of this pattern provides maximum light transmission with subtle visual distortion. The nondirectional faces make installation quick.

DELPHI® Pattern
This raised diamond design lends a prismatic effect to the light it transmits. Moderate light transmission and maximum privacy. DELPHI® pattern available in Thinline® Series only.



IceScapes® Pattern
Non-directional pattern lets light in without sacrificing privacy. Maximum light transmission/medium to maximum privacy.



SeaScapes™ Pattern
The three dimensional circles appear to float within the glass block. The pattern lets in light and also provides a degree of privacy.

EndBlock™ Finishing Unit, DECORA® Pattern
For finishing horizontal or vertical edges of panels. This 4" x 8" size available in Thinline® Series only.

PITTSBURGH CORNING GLASS BLOCK PRODUCTS

	Pattern	Nominal Size[1] (Actual size is 1/4" less than nominal; mm shown is actual)	Weight (lb/ft²) installed with mortar	Heat Transmission[2] U Value (Btu/hr ft² °F)	Thermal Resistance[2] R Value (hr ft² °F/Btu)	Visible Light Transmission[3] (%)	Shading Coef.[5]	Sound Transmission S.T.C.	Solar Heat Gain Coefficient[7]
HIGH PERFORMANCE LINE	**Solar Reflective Glass Block**								
	SRT Clear	190 mm x 190mm x 95 mm (metric size)	20	0.58	1.72	30	0.55		.40
	SRT Wavy	190 mm x 190 mm x 95 mm (metric size)	20	0.57	1.75	30	0.55		.34
	THICKSET® Block—Nominal Thickness = 4"; Actual Thickness = 3⅞" (98mm)								
	THICKSET® 60 Block—DECORA® & VUE®	8" x 8" (197mm)	25	0.51	1.96	VUE®=75 DECORA®=49	0.65	48	.66-.68[7]
	THICKSET® 90 Block—DECORA® & VUE®	8" x 8" (197mm)	30	0.51	1.96	VUE®=70 DECORA®=38	0.65	50	.66-.68[7]
	THICKSET® 90 Block—ENDURA™	8" x 8" (197mm)	30	0.51	1.96	38	0.65	50	.66-.68[7]
	Glass Block with "LX" Fibrous Glass Inserts—Nominal Thickness = 4"; Actual Thickness = 3⅞" (98mm)								
	DECORA® "LX" Filter	6" x 6" (146mm)	20	0.48	2.06	50-55[4]	0.45[4]		.56
		8" x 8" (197mm)	20	0.48	2.06	50-55[4]	0.45[4]	40	.56
		12" x 12" (299mm)	20	0.48	2.06	50-55[4]	0.45[4]		.56
	VISTABRIK® Solid Glass Block—See Nominal/Actual Sizes Listed								
	VISTABRIK® Solid Glass Block	8" x 8" x 3" Nominal 7⅞" x 7⅞" x 3" Actual (194mm x 194mm x 76mm)	40	0.87	1.15	80		53 (NRC=0.05)	.75-.78[7]
		3" x 8" x 3" Nominal 3" x 7⅞" x 3" Actual (76mm x 194mm x 76mm)	40	0.87	1.15	80			.75-.78[7]
		(Paver) 8" x 8" x 1½" Nominal 7⅞" x 7⅞" x 1½" Actual (194mm x 194mm x 38mm)	N/A	0.87	1.15	80			.75-.78[7]
		4" x 8" x 3" Nominal 3⅞" x 7⅞" x 3" Actual (92mm x 194mm x 76mm)	40	0.87	1.15	80			.75-.78[7]
	STIPPLE Finish	8" x 8" x 3" Nominal 7⅞" x 7⅞" x 3" Actual (194mm x 194mm x 76mm)	40	0.87	1.15	80		53 (NRC=0.05)	.75-.78[7]
SIGNATURE LINE	**Standard Premiere Series Block—Nominal Thickness = 4"; Actual Thickness = 3⅞" (98mm)**								
	ARGUS®	6" x 6" (146mm)	20	0.51	1.96	75	0.65	37	.66-.68[7]
		8" x 8" (197mm)	20	0.51	1.96	75	0.65	39	.66-.68[7]
		12" x 12" (299mm)	20	0.51	1.96	75	0.65	35	.66-.68[7]
	ARGUS® Parallel Fluted	8" x 8" (197mm)	20	0.51	1.96	75	0.65	39	.66-.68[7]
	Bevel (All Patterns)	8" x 8" (197mm)	20	0.51	1.96	75	0.65	39	.66-.68[7]
	DECORA®	6" x 6" (146mm)	20	0.51	1.96	75	0.65	37	.66-.68[7]
		8" x 8" (197mm)	20	0.51	1.96	75	0.65	39	.66-.68[7]
		12" x 12" (299mm)	20	0.51	1.96	75	0.65	35	.66-.68[7]
		4" x 8" (95 x 197mm)	20	0.51	1.96	75	0.65		.66-.68[7]
		6" x 8" (146 x 197mm)	20	0.51	1.96	75	0.65		.66-.68[7]
	ESSEX® AA	8" x 8" (197mm)	20	0.51	1.96	50[4]	0.45[4]	39	.66-.68[7]
	FOCUS™	8" x 8" (197mm)	20	0.51	1.96	75	0.65	39	.66-.68[7]
	IceScapes®	8" x 8" (197mm)	20	0.51	1.96	75	0.65	39	.66-.68[7]
		4" x 8" (95 x 197mm)	20	0.51	1.96	75	0.65		.66-.68[7]
		6" x 8" (146 x 197mm)	20	0.51	1.96	75	0.65		.66-.68[7]
	SeaScapes™	8" x 8" (197mm)	20	0.51	1.96	75	0.65	39	.66-.68[7]
	SPYRA®	8" x 8" (197mm)	20	0.51	1.96	75	0.65	39	.66-.68[7]
	VUE®	6" x 6" (146mm)	20	0.51	1.96	75	0.65	37	.66-.68[7]
		8" x 8" (197mm)	20	0.51	1.96	75	0.65	39	.66-.68[7]
		12" x 12" (299mm)	20	0.51	1.96	75	0.65	35	.66-.68[7]
		4" x 8" (95 x 197mm)	20	0.51	1.96	75	0.65		.66-.68[7]
		6" x 8" (146 x 197mm)	20	0.51	1.96	75	0.65		.66-.68[7]
	Thinline® Series Block—Nominal Thickness = 3"; Actual Thickness = 3⅛" (79mm)								
	DECORA®	6" x 6" (146mm)	16	0.57	1.75	75	0.65		.66-68[7]
		8" x 8" (197mm)	16	0.57	1.75	75	0.65	31[6]	.66-68[7]
		4" x 8" (95 x 197mm)	16	0.57	1.75	75	0.65		.66-68[7]
		6" x 8" (146 x 197mm)	16	0.57	1.75	75	0.65		.66-68[7]
	IceScapes®	6" x 6" (146mm)	16	0.57	1.75	75	0.65		.66-68[7]
		6" x 8" (146 x 197mm)	16	0.57	1.75	75	0.65		.66-68[7]
		8" x 8" (197mm)	16	0.57	1.75	75	0.65	31[6]	.66-68[7]
	DELPHI®	8" x 8" (197mm)	16	0.57	1.75	75	0.65	31[6]	.66-68[7]
		4" x 8" (95 x 197mm)	16	0.57	1.75	75	0.65		.66-68[7]
		6" x 8" (146 x 197mm)	16	0.57	1.75	75	0.65		.66-68[7]
	SeaScapes™	8" x 8" (197mm)	16	0.57	1.75	75	0.65		.66-68[7]
	⅛" FLAT SHEET GLASS COMPARISON (3mm)			1.04	0.96	90	1.00	28	

1 Size: Block are manufactured to a ± 1/16" (2mm) tolerance.
2 Heat Transmission/Thermal Transmission: Winter night values. To calculate instantaneous heat gain through glass panels, see ASHRAE HANDBOOK OF FUNDAMENTALS, 2005, Section 31.3.
3 Light Transmission: Values ±5%.
4 Light Transmission/Shading Coefficient: Estimated figures based on accumulated data.
5 Shading Coefficient: Based on 8"-sq. units; ratio of heat gain through glass block panels vs. that through a single light of double-strength sheet glass under specific conditions.
6 Sound Transmission: Assembly construction with KWiK'N EZ® Silicone System.
7 SHGC: Default values as interpreted from International Energy Conservation Code.

INSTALLED PANEL WEIGHT

Refer to Table on page 8 for weight of panels installed with mortar. Glass block panels installed with the KWiK'N EZ® Rigid Track Silicone System are up to 25% lighter per square foot than panels installed with mortar. Local building codes should be consulted for any limits on panel sizes or installation details.

NON-LOAD BEARING

Glass block panels are **non-load bearing**; adequate provisions must be made for support of construction above these panels. Panels are mortared at the sill, with jamb and head details designed to accommodate for building movement and lintel deflection. The compressive strength (for information purposes only) of all hollow glass block is 400 to 600 psi.; THICKSET® Series Glass Block is 2500 psi.; and VISTABRIK® Series is 80,000 psi.

THERMAL EXPANSION COEFFICIENT

The thermal expansion coefficient of glass block is 47 x 10^{-7} /(°F).

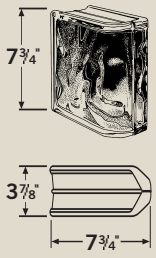
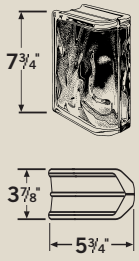
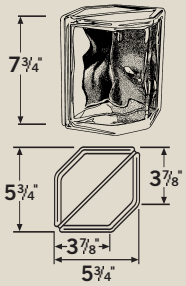
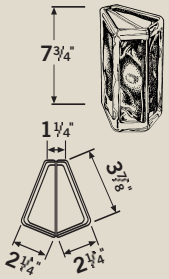
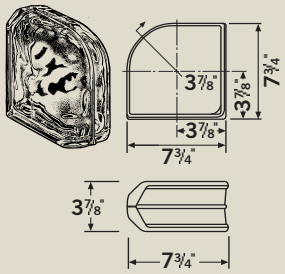
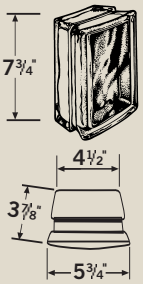
DETAILED DRAWINGS

Structural members illustrated on page 14 and other "detail" pages indicate general principles of construction. Member sizes should be determined by structural analysis to avoid excessive deflections. Maximum deflection shall not exceed L/600.

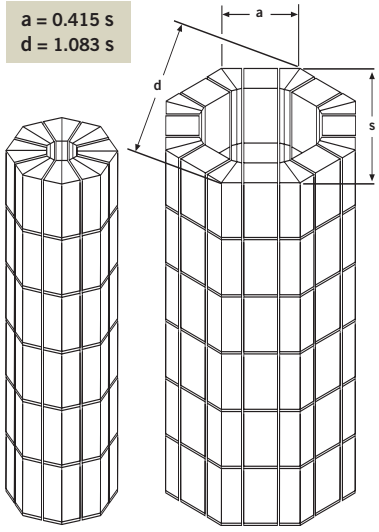
PREMIERE SERIES AND Thinline® SERIES

All glass block illustrated are Premiere Series Glass Block, the 4" nominal thick products. Modify as necessary for Thinline® Series, the 3" nominal thick units or VISTABRIK® Solid Glass Block, 3" actual thickness. Pittsburgh Corning recommends that the use of the Thinline® Series units be limited to light commercial and residential applications.

FINISHING UNITS

PREMIERE SERIES						Thinline® SERIES
EndBlock™ Finishing Units		HEDRON® Corner Unit	TRIDRON 45° Block® Unit	ENCURVE® Finishing Unit	ARQUE® Block Unit	EndBlock™ Finishing Unit
						
DECORA® & IceScapes® Patterns 8" High Premiere Series	DECORA® & IceScapes® Patterns 8" High Premiere Series	DECORA® & IceScapes® Patterns 8" High Premiere Series	DECORA® & IceScapes® Patterns 8" High Premiere Series	DECORA® & IceScapes® Patterns 8" Square Premiere Series	DECORA® & IceScapes® Patterns 8" High Premiere Series	DECORA® Pattern 8" High Thinline® Series Only

a = 0.415 s
d = 1.083 s



Columns can be All-TRIDRON 45° Block® (left) or interspersed with 4" x 8" or 8" x 8" glass block.

NOTE: All mortar joints are 1/4".

GLASS BLOCK BETWEEN TRIDRON 45° BLOCK®

	a (in.)	s (in.)	d (in.)
None	4.75	11.45	12.40
1 - 4" x 8" x 4"	8.75	21.08	22.83
1 - 6" x 8" x 4"	10.75	25.90	28.05
1 - 8" x 8" x 4"	12.75	30.72	33.27
1 - 4" x 8" x 4" + 1 - 8" x 8" x 4"	16.75	40.36	43.71
2 - 8" x 8" x 4"	20.75	50.00	54.15
1 - 4" x 8" x 4" + 2 - 8" x 8" x 4"	24.75	59.64	64.59
3 - 8" x 8" x 4"	28.75	69.28	75.03

MAXIMUM PANEL DIMENSIONS*

	Premiere Series			Thinline® Series			VISTABRIK®		
	A (Sq.Ft.)	H (Ft.)	W (Ft.)	A (Sq.Ft.)	H (Ft.)	W (Ft.)	A (Sq.Ft.)	H (Ft.)	W (Ft.)
EXTERIOR**	144	20	25	85	10	15	100	10	10
INTERIOR	250	20	25	150	10	15	150	10	15

A = Area H = Height W = Width

* Uniform Building Code (UBC) limits exterior height and width to 15 feet.
** All exterior areas and dimensions are based on 20 psf design windload with 2.7 safety factor.

MORTAR MIX AND ESTIMATING TABLES

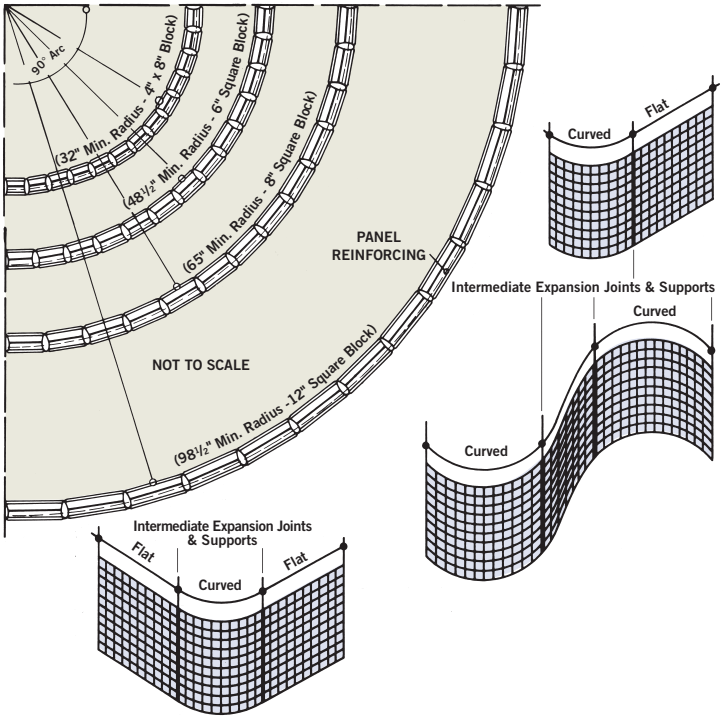
An optimum mortar mix for installing Pittsburgh Corning Glass Block is:

Portland Cement	Lime	Sand
1 Part	½ Part	3.4 Parts
1.0 cubic foot	0.5 cubic foot	3.4 cubic feet

NUMBER OF BLOCK FOR 100 SQ. FT. PANEL

Block Sizes (Nominal)	6"	8"	12"	4" x 8"	6" x 8"
Number of Block	400	225	100	450	300

INSIDE RADIUS MINIMUMS FOR CURVED PANEL CONSTRUCTION

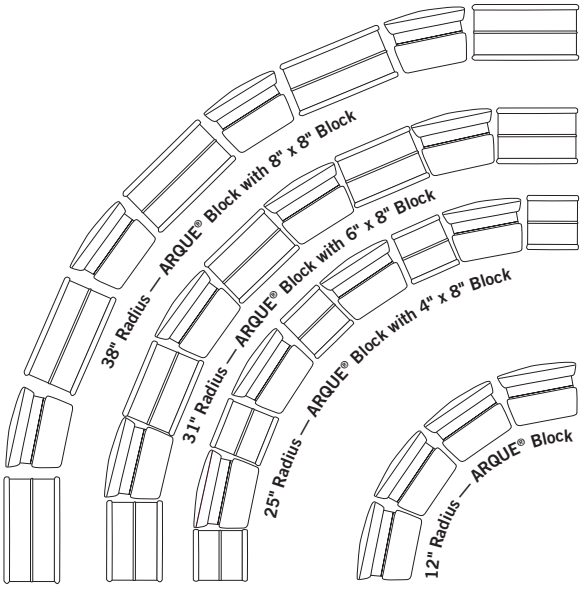


RADIUS MINIMUMS FOR CURVED PANEL CONSTRUCTION

Block Size	Inside Radius Inches	Number of Blocks in 90° Arc	Vertical Joint Thickness In Inches	
			Inside	Outside
4" x 8"	32	13	1/8	5/8
6" x 6"	48½	13	1/8	5/8
8" x 8"	65	13	1/8	5/8
12" x 12"	98½	13	1/8	5/8

NOTES:

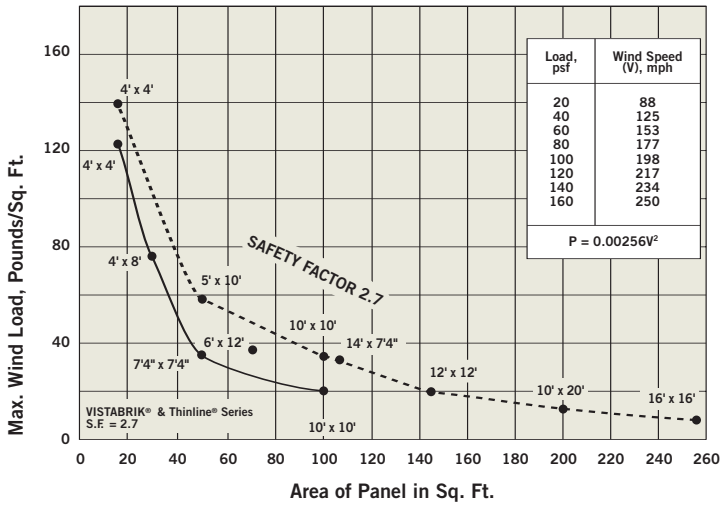
1. It is suggested that curved areas be separated from flat areas by intermediate expansion joints and supports, as indicated in these drawings.
2. When straight, ladder-type reinforcing is used on curved walls, the innermost parallel wire may be cut periodically and/or bent to accommodate the curvature of the wall.

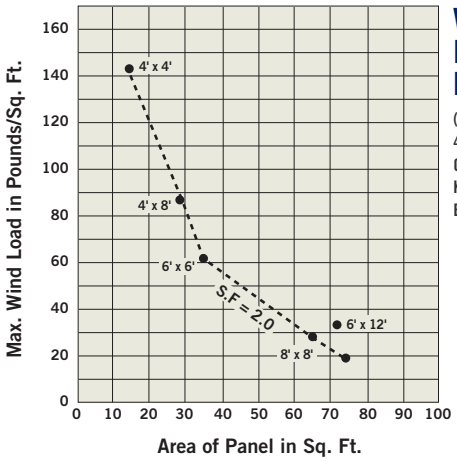


ARQUE® Block used along with other Pittsburgh Corning Block sizes, allows you to form consistent curves of various radii. Radii shown are to inside face of curve.

WIND LOAD RESISTANCE – MORTAR SYSTEM

(Based on Standard Nominal 4" Thick Premiere Series Glass Block. Installed with mortar. Based on 2.7 Safety Factor)

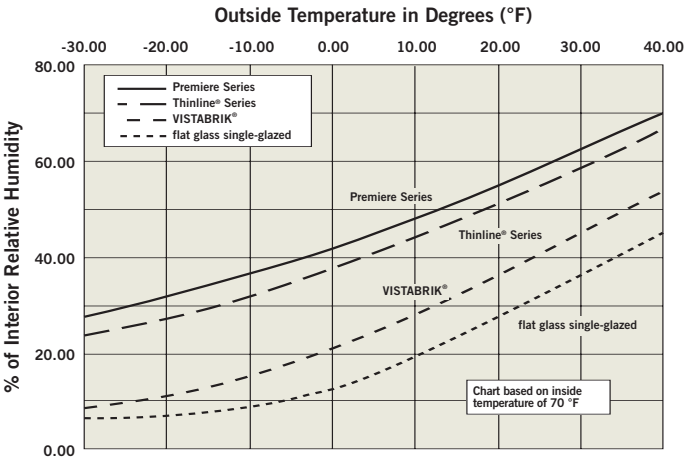




WIND LOAD RESISTANCE – KWiK'N EZ® SYSTEM

(Based on Standard Nominal 4" Thick Premiere Series Glass Block Installed with KWiK'N EZ® Silicone System). Based on 2.0 Safety Factor.

RESISTANCE TO SURFACE CONDENSATION



Example: At a relative humidity of 40%, an outside temperature of approximately -3 ºF will cause condensation on Premiere Series Glass Block or approximately 3 ºF above zero on Thinline® Series block. Under the same conditions, condensation will form on a single-glazed flat glass window at 34 ºF above zero.

FIRE RATINGS AND CODE INFORMATION

All sizes (exceptions listed below) of Premiere Series and Thinline® Series glass blocks have at least a 45 minute fire rating when used as a window assembly within a one hour fire-rated wall assembly. All THICKSET® 90 (thick-faced) and solid glass blocks have fire ratings of up to 90 minutes, and the THICKSET® 60 and ESSEX® AA Pattern glass blocks have fire ratings of up to 60 minutes, when used as window assemblies and where permitted by code.

Pittsburgh Corning Glass Block units that are not fire-rated:

- All 12" x 12" sizes
- All DELPHI®, pattern block
- All HEDRON® Corner block, TRIDRON 45° Block® units, EndBlock®, ENCURVE® and ARQUE® finishing units
- All paver units
- VISTABRIK® Corner Block

PANEL SIZES AND DIMENSION LIMITATIONS

Pittsburgh Corning Glass Block listed above have been tested and classified by Underwriters Laboratories® (UL®) for use as fire-rated window assemblies to panel sizes and dimension limitations listed below:

- With the exception of all 12" x 12" sizes, finishing blocks, corner blocks and the DELPHI® pattern block, all Premiere Series and Thinline® Series glass blocks in panels up to 120 square feet in masonry walls or 94 square feet in non-masonry walls are classified by Underwriters Laboratories, for use as 45-minute rated window assemblies.
- The Uniform Building Code (U.B.C.) limits the area of 45-minute rated window assemblies to 84 square feet, with no dimension exceeding 12 feet. These panels are usually acceptable as window assemblies for use in fire separation walls that are rated one hour or less.
- THICKSET® 60 Block are listed for use as 45- or 60-minute fire rated window assemblies in panels up to 100 square feet.
- THICKSET® 90 Block and VISTABRIK® Solid Glass Block are all listed for use as 45-, 60- or 90-minute fire rated window assemblies in panels up to 100 square feet.
- Where permitted by building codes, glass block fire-rated window assemblies having a fire resistance rating of not less than 45 minutes may be used as "opening protectives." These assemblies shall not exceed 25% of the wall areas separating a tenancy from a corridor or a corridor from an enclosed vertical opening or one fire-rated area from another fire-rated area.
- **Exception:** Although glass block masonry systems have been tested as window assemblies (not wall assemblies), they may be used as one hour fire partitions as required for corridors in the enclosure of atriums only when sprinkler protection is provided on occupied sides.

45- AND 60-MINUTE RATED CONSTRUCTION

- All 45- and 60-minute rated Pittsburgh Corning Glass Block may be used in both masonry and non-masonry (steel or wood stud framing with gypsum board) walls.
- These rated glass block windows may be framed and anchored with either PC® Panel Anchor construction or channel-type restraints.
- The use of a fire retardant type sealant for head and jamb locations is required.
- Specifications and construction details for such panels are as per Pittsburgh Corning Corporation recommendations.
- Non-masonry, fire-rated steel stud with gypsum board wall assemblies must conform to UL® listed wall assembly #U465.
- Framing and support of the rated glass block window assembly shall be provided with double-studding at the jamb locations with height of supporting wall limited to no more than 3 feet.

90-MINUTE RATED CONSTRUCTION

- Where permitted by building codes, all 90-minute rated Pittsburgh Corning Glass Block may be used in masonry walls only.
- 90-minute rated glass block window assemblies must be framed and anchored with 1/4" thick steel (not aluminum) channel-type restraints or masonry chases. The use of panel anchor construction is not permitted.
- The use of a fire retardant type sealant for head and jamb locations is required.
- Specifications and construction details of such panels are as per Pittsburgh Corning Corporation recommendations.
- Twice the typical thickness (3/4" total) of expansion material is required at head and jamb locations.

45-MINUTE RATED CURVED CONSTRUCTION

- The glass blocks noted under 90-minute rating and those 8" x 8" x 4" sized glass block noted under 45-minute rating are classified for use in masonry walls as curved window assemblies, provided that the radius of the assembly is at least twice the opening width (i.e. chord length).

CODE COMPLIANCE

All of our fire-rated glass block products are listed in the Underwriters Laboratories current issue of the Fire Resistance Directory – Volume 3. A listing of our products can also be viewed on the Underwriters Laboratories Website at www.ul.com.

- U.L. Classification: R2556 (For Glass Block)
- Underwriters Laboratories of Canada Guide Number 230I7 (For Glass Block)
- U.L. Classification: R18572 (For Plastic Spacers)
- In accordance with NFPA 80, Chapter 14

CITY CODE APPROVALS

- New York City Materials and Equipment Acceptance MEA 406- 90-M. Vol.IV
- Los Angeles Research Report RR-24486
- Dade County Acceptance
  07-0626.10
  04-0301.01
  04-0824.01
  05-1107.02
- State of Florida Approvals
  FL 1363
  FL 1366
  FL 5357
  FL 8039
- Texas Department of Insurance WIN #s 62, 63, 64, and 540

BUILDING CODE AND NATIONAL STANDARDS REFERENCES:

- The BOCA National Building Code (N.B.C.)
- The Standard Building Code (SBCCI)
- The Uniform Building Code (U.B.C.)
- International Building Code (IBC)
- Canadian Standards Association (CSA) A371-94 "Masonry Construction for Buildings"
- Canadian Standards Association (CSA) S304.1-94 "Masonry Design for Buildings."
- ACI 530/ASCE 5/TMS 402 "Building Code Requirements for Masonry Structures"
- ISO 9001:2000 Certification: Manufacture test and distribution of Pittsburgh Corning Glass Block products.

FIRE RATINGS — GLASS BLOCK ASSEMBLIES

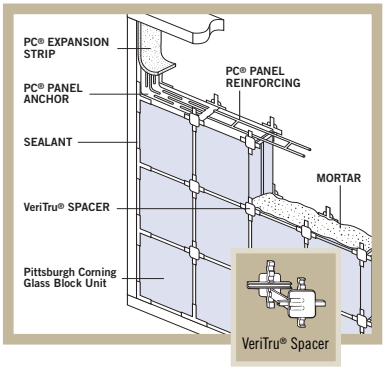
Premiere Series Glass Blocks, THICKSET® 60 Blocks, THICKSET® 90 Blocks and 3" thick VISTABRIK® Solid Glass Block units have been tested and classified by Underwriters Laboratories (UL®) for use in fire-rated window assemblies to panel sizes and dimension limitations as listed.

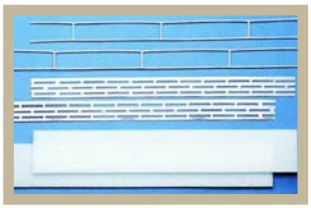
	Masonry Wall Construction					Non-Masonry Wall Construction			
	Panel Limitations		Fire Rating			Panel Limitations		Fire Rating	
Product	Max. Area/Panel	Max Ht. or Width	45 Min.	60 Min.	90 Min.	Max. Area/Panel	Max Ht. or Width	45 Min.	60 Min.
Thinline® Series	120	12	X			94	10.75	X	
Premiere Series	120	12	X			94	10.75	X	
THICKSET® 60 and ESSEX® AA Pattern	100	10	X	X		94	10.75	X	X
THICKSET® 90	100	10	X	X	X*	94	10.75	X	X
VISTABRIK®	100	10	X	X	X*	94	10.75	X	X

*1/4" steel channel. 3/4" thick expansion material at head and jambs, and fire retardant sealant are required.

PANEL CONSTRUCTION USING VeriTru® SPACERS

The one-piece, all plastic VeriTru® Spacer speeds construction, assures uniform placement and helps keep panel flush. Can now be used in fire-rated panels. Special spacers are available for the VISTABRIK® and ARQUE® Block.





PC® PANEL REINFORCING, PANEL ANCHORS & EXPANSION STRIPS

PC® Panel Reinforcing (top) — in panels — is embedded horizontally in the mortar joints between every other course. **PC® Panel Anchors** (middle) are used to tie Pittsburgh Corning Glass Block panels into the surrounding framework when channels are not used. **PC® Expansion Strips** (bottom), made of white polyethylene, are inserted at the head and jambs. The strips replace mortar at these locations to cushion the glass block and allow the panel to expand and contract freely.

OTHER ACCESSORIES

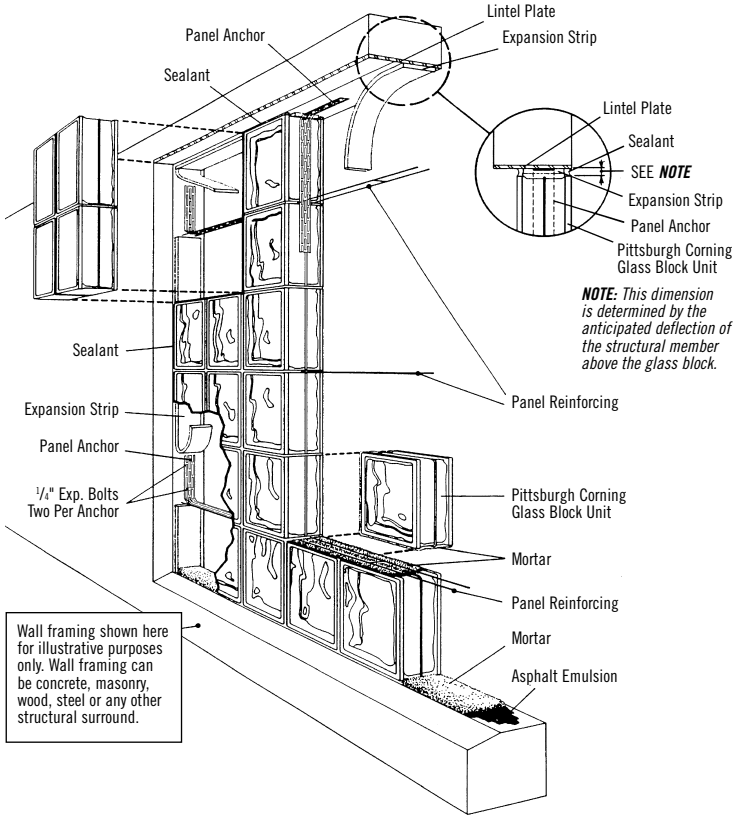
Additional materials — such as mortar, channels or framing, packing, sealants and asphalt emulsion are available from other manufacturers.

NEW!

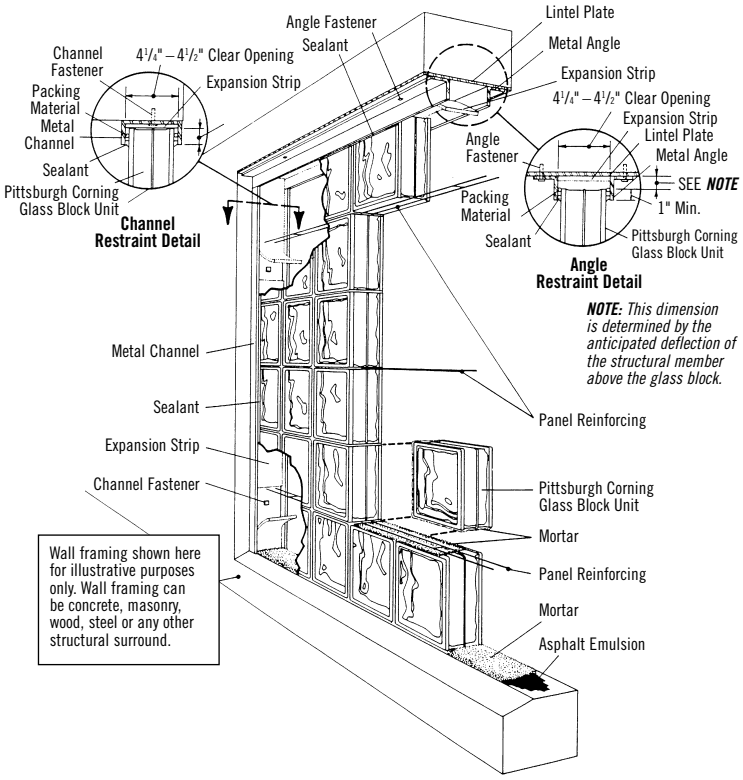
ProVantage® INSTALLATION SYSTEM

Unlike previous systems using sealant and spacers, the new ProVantage® Installation System for use with Premiere Series glass blocks, can turn corners, make radius walls, build showers and is suitable for interior or exterior applications. The system utilizes spacers to align and hold the blocks in place for easy assembly. Sealant is used to bond the spacer and blocks together. The consistent, even-spaced joints are then finished with a special tile grout resulting in a clean, smooth professional look. For smaller straight wall panels, with 3-side support, sealant can be used in the joints to provide an all-glass look.

PANEL ANCHOR CONSTRUCTION



CHANNEL-TYPE RESTRAINT CONSTRUCTION



GLOSSARY OF TERMS (Detail Drawings pages 12-18)

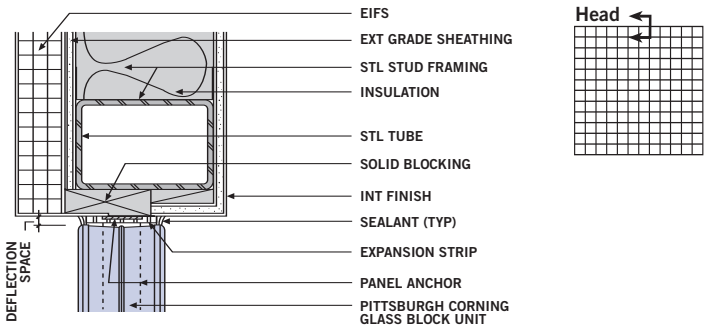
BLDG – Building
CMU – Concrete Masonry Unit (concrete block)
CONT STL – Continuous Steel (used to reinforce wall)
ELEV – Elevation (side view of building)
GYP BD – Gypsum Board
HM – Hollow Metal (door frame)
INT – Interior
MAX HT – Maximum Height (for Pittsburgh Corning Glass Block panel 20ft./6m)
SILL – Bottom of Panel
TYP – Typical (detail)
CLG – Ceiling
CONC – Concrete
EIFS – Exterior Insulation Finishing System
EXT – Exterior
HEAD – Top of Panel
HORIZ – Horizontal
JAMB – Side of Panel
PLAN – View of Building from above, typically the floor
STL – Steel
WD – Wood

Materials shown other than glass block are for illustration purposes only as examples of typical construction details.

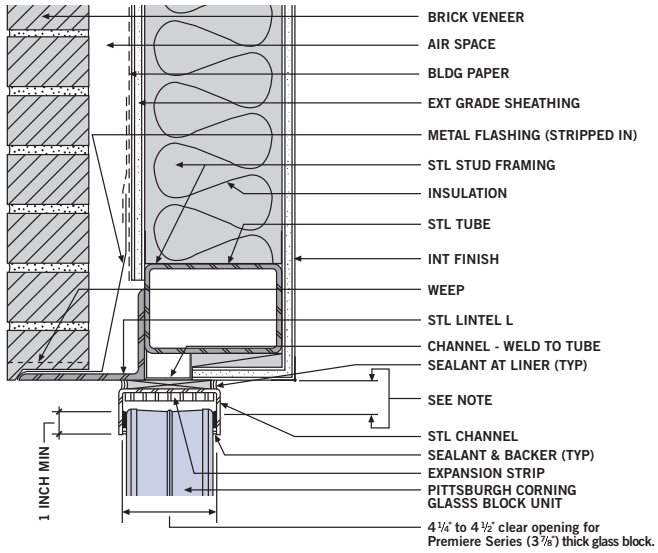
DETAILS CAN BE DOWNLOADED AS .DWG OR .DXF FILES FROM OUR WEBSITE

www.pittsburghcorning.com/architects/specdetails.asp

TYPICAL HEAD DETAILS (Exterior Openings)



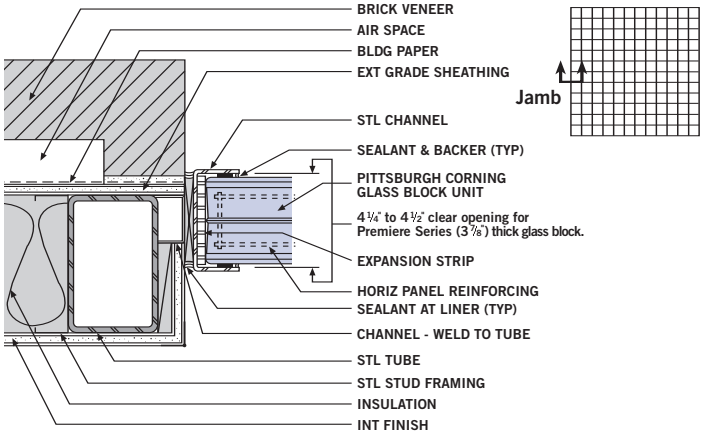
(PCD 031) Head – Glass Block in Steel Stud Wall with Synthetic Plaster Finish



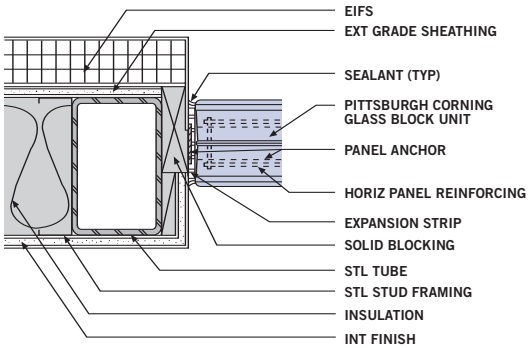
NOTE: This dimension is determined by the anticipated deflection of the structural member above the glass block.

(PCD 061) Head – Glass Block in Steel Stud Wall with Brick Veneer

TYPICAL JAMB DETAILS (Exterior Openings)

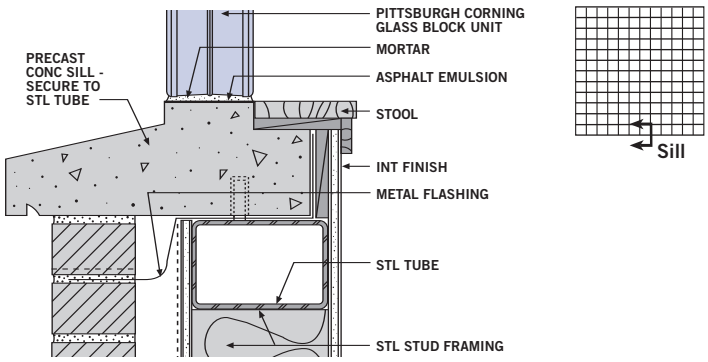


(PCD 062) Jamb – Glass Block in Steel Stud Wall with Brick Veneer

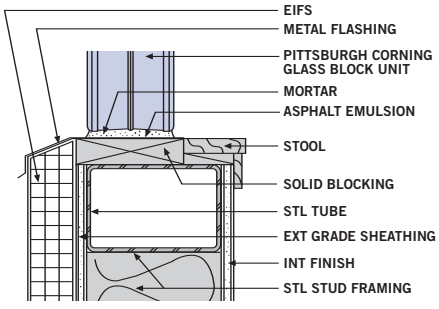


(PCD 032) Jamb – Glass Block in Steel Stud Wall with Synthetic Plaster Finish

TYPICAL SILL DETAILS (Exterior Openings)

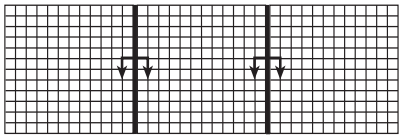


(PCD 063) Sill – Glass Block in Steel Stud Wall with Brick Veneer

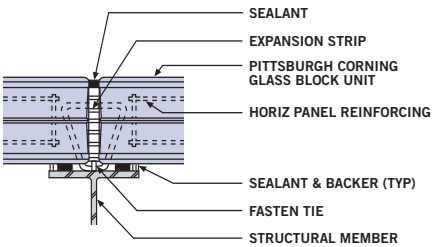


(PCD 033) Sill – Glass Block in Steel Stud Wall with Synthetic Plaster Finish

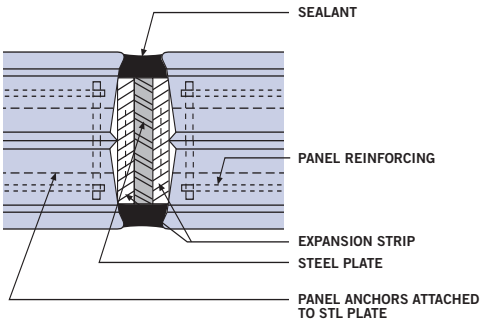
TYPICAL STIFFENER DETAILS
Continuous Panels ≤ 144 Sq. Ft. Each

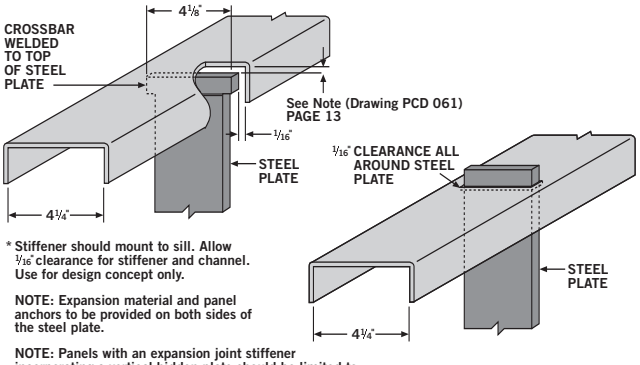


Vertical Stiffener



(PCD 132A) Intermediate Vertical Support in Multiple Horizontal Panels



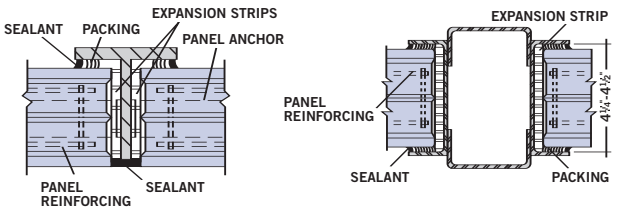


* Stiffener should mount to sill. Allow 1/16" clearance for stiffener and channel. Use for design concept only.

NOTE: Expansion material and panel anchors to be provided on both sides of the steel plate.

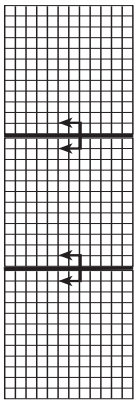
NOTE: Panels with an expansion joint stiffener incorporating a vertical hidden plate should be limited to a maximum 10' in height.

(PCD 132B) Intermediate Support in Multiple Horizontal Panels

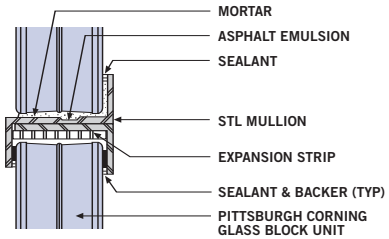


(PCD 132C & D) Intermediate Support in Multiple Horizontal Panels

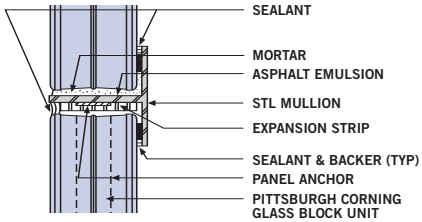
TYPICAL SHELF ANGLE DETAILS
Continuous Panels ≤ 144 Sq. Ft. Each



Horizontal Stiffener

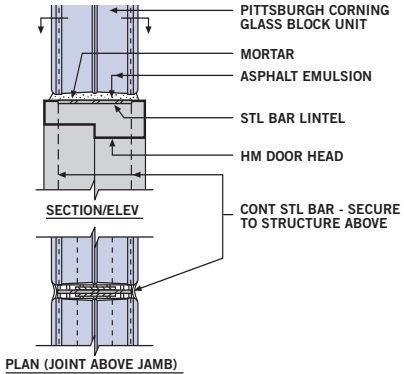


(PCD 128) Intermediate Horizontal Support in Multiple Vertical Panels

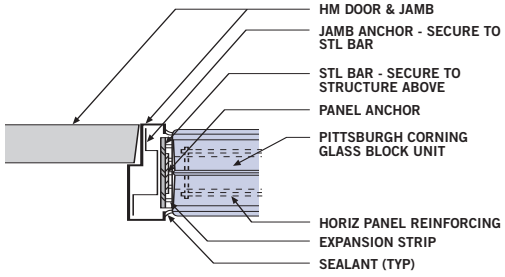


(PCD 129) Intermediate Horizontal Support in Multiple Vertical Panels

HOLLOW METAL DOOR FRAME DETAILS

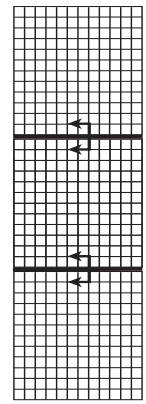


(PCD 153) Head – Hollow Metal Door Frame at Glass Block

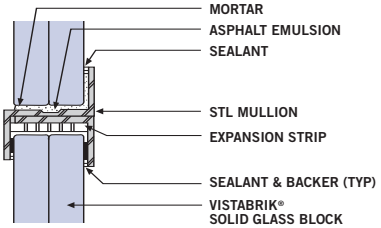


(PCD 154) Jamb – Hollow Metal Door Frame at Glass Block

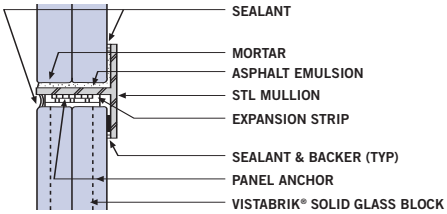
TYPICAL SHELF ANGLE DETAILS – FOR VISTABRIK® PANELS
Continuous Panels ≤ 100 Sq. Ft. Each



Horizontal Stiffener

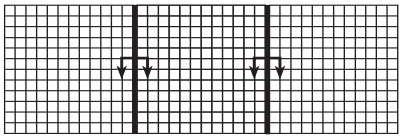


(PCD 130) Intermediate Horizontal Support in Multiple Vertical Panels

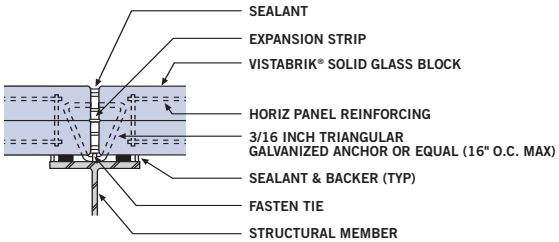


(PCD 131) Intermediate Horizontal Support in Multiple Vertical Panels

TYPICAL STIFFENER DETAILS – FOR VISTABRIK® PANELS
Continuous Panels ≤ 100 Sq. Ft. Each

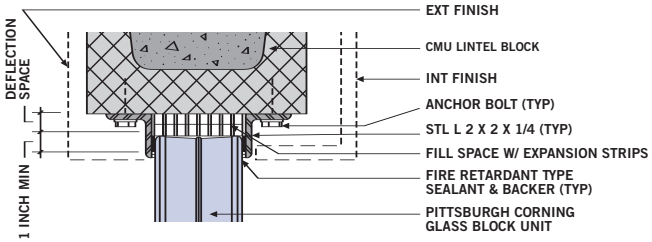


Vertical Stiffener

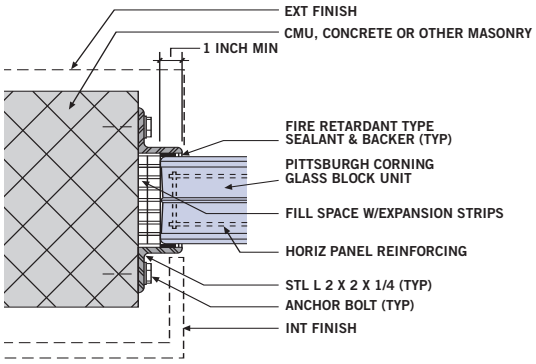


(PCD 133) Intermediate Vertical Support in Multiple Horizontal Panels

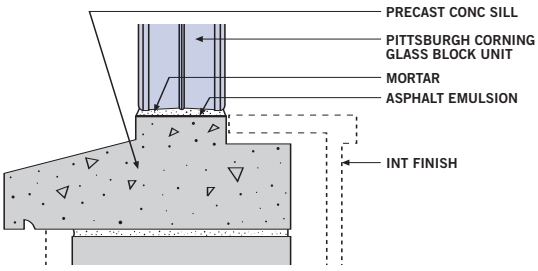
DETAILS FOR FIRE RATED CONSTRUCTION



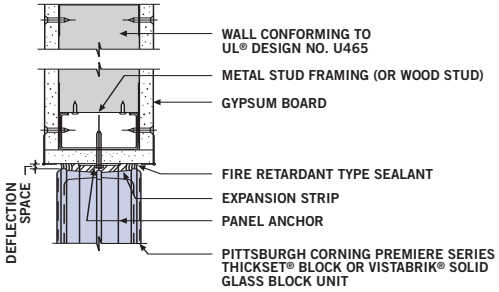
(PCD 004) Head – 90 Minute Fire Rated Glass Block in CMU Wall



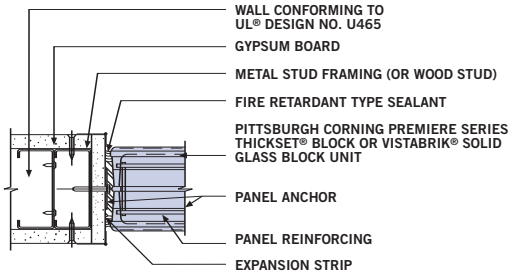
(PCD 005) Jamb – 90 Minute Fire Rated Glass Block in CMU Wall



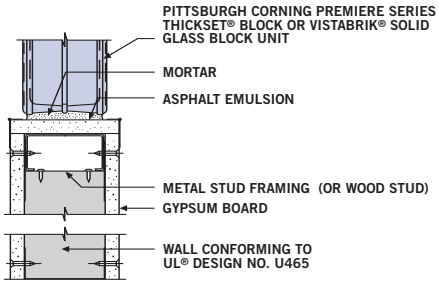
(PCD 006) Sill – 90 Minute Fire Rated Glass Block in CMU Wall



(PCD 159) Head – 45 & 60 Minute Fire Rated Glass Block Panel

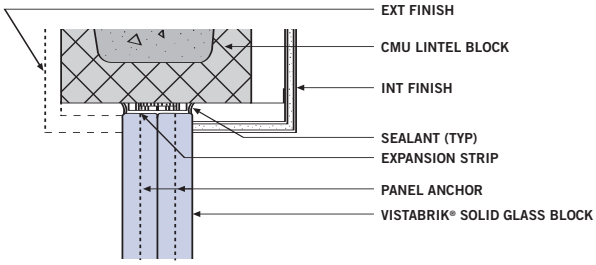


(PCD 160) Jamb – 45 & 60 Minute Fire Rated Glass Block Panel

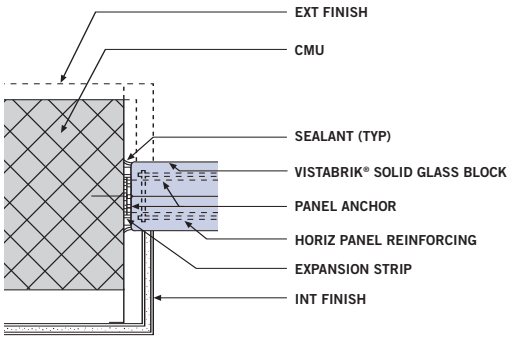


(PCD 161) Sill – 45 & 60 Minute Fire Rated Glass Block Panel

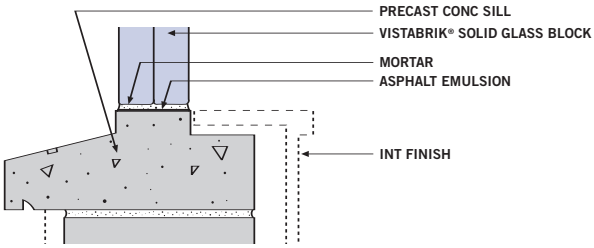
VISTABRIK® SOLID GLASS BLOCK DETAILS



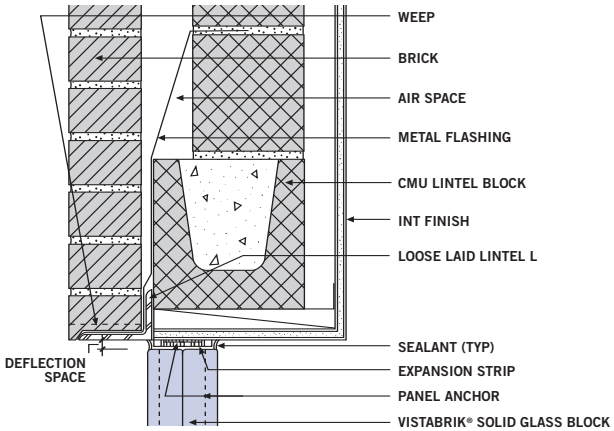
(PCD 037) Head – Solid Glass Block in CMU Wall



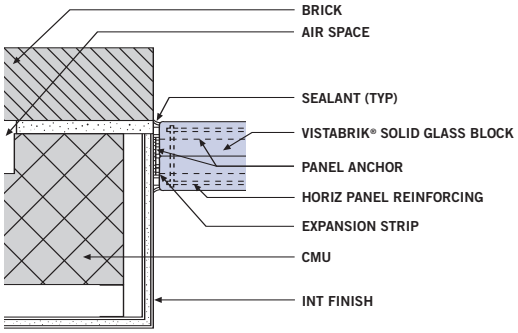
(PCD 038) Jamb – Solid Glass Block in CMU Wall



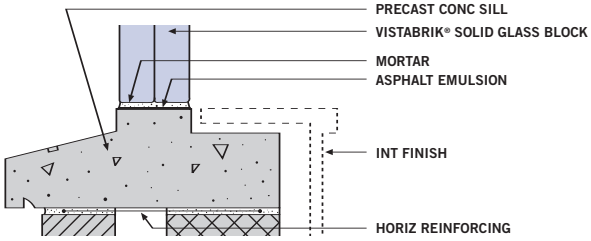
(PCD 039) Sill – Solid Glass Block in CMU Wall



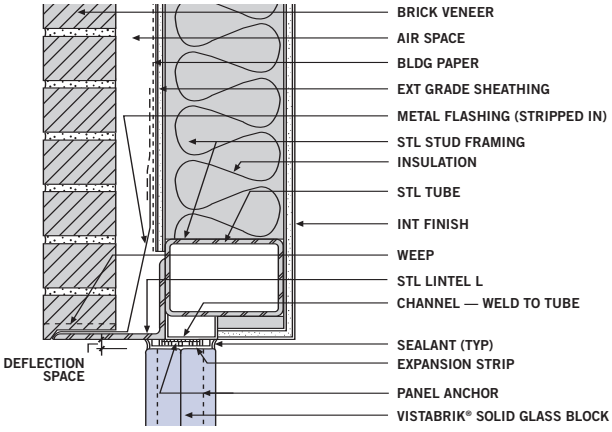
(PCD 040) Head – Solid Glass Block in Brick Masonry Cavity Wall



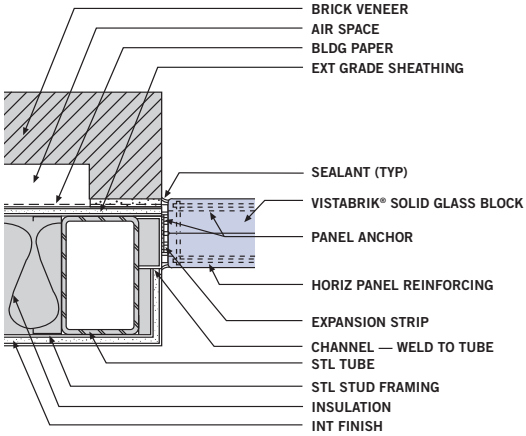
(PCD 041) Jamb – Solid Glass Block in Brick Masonry Cavity Wall



(PCD 042) Sill – Solid Glass Block in Brick Masonry Cavity Wall

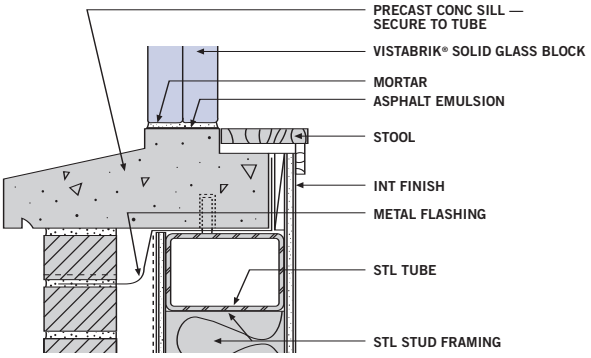


(PCD 043) Head – Solid Glass Block in Steel Stud Wall with Brick Veneer

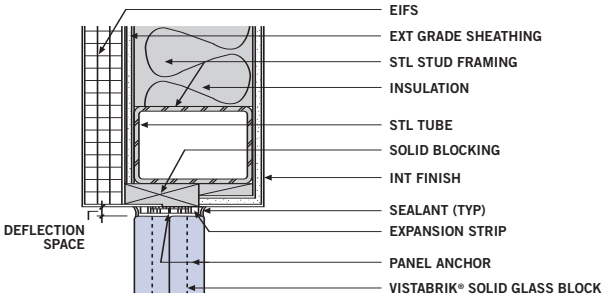


(PCD 044) Jamb – Solid Glass Block in Steel Stud Wall with Brick Veneer

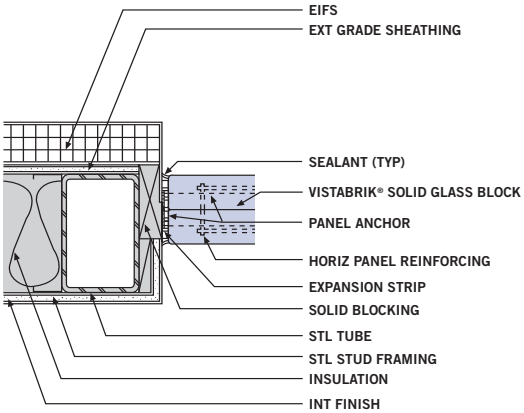
VISTABRIK® SOLID GLASS BLOCK DETAILS (continued)



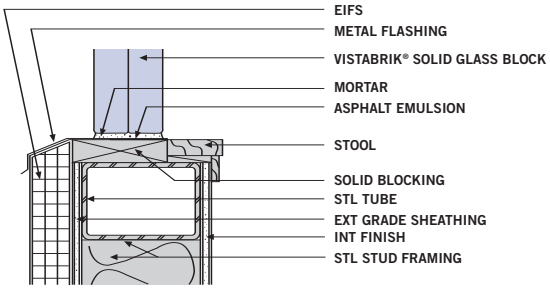
(PCD 045) Sill – Solid Glass Block in Steel Stud Wall with Brick Veneer



(PCD 049) Head – Solid Glass Block in Steel Stud Wall with Synthetic Plaster Finish

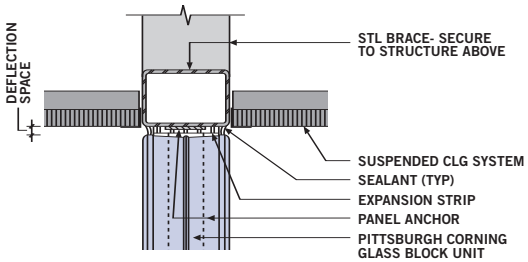


(PCD 050) Jamb – Solid Glass Block in Steel Stud Wall with Synthetic Plaster Finish

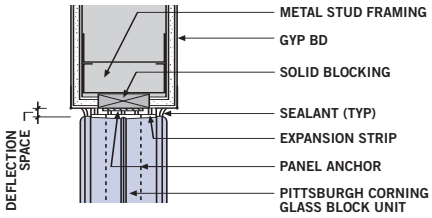


(PCD 051) Sill – Solid Glass Block in Steel Stud Wall with Synthetic Plaster Finish

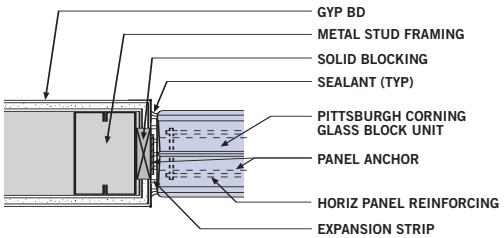
MISCELLANEOUS INTERIOR DETAILS



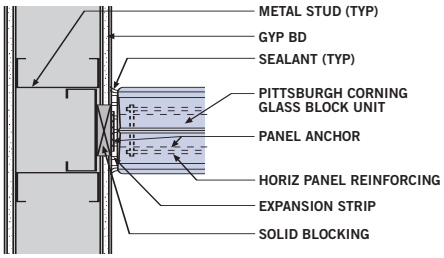
(PCD 148) Head – Glass Block in Suspended Ceiling



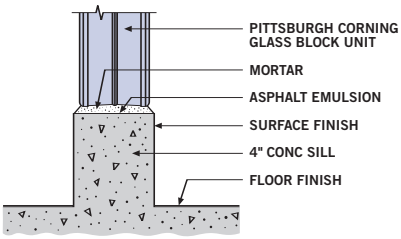
(PCD 149) Head – Glass Block in Partition



(PCD 150) Jamb – Glass Block in Partition

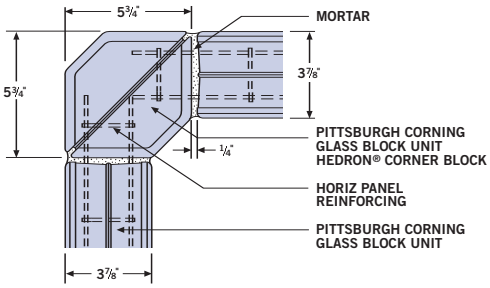


(PCD 151) Jamb – Glass Block Perpendicular to Partition

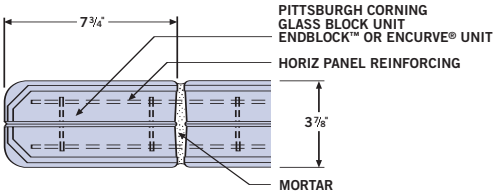


(PCD 241) Sill – Interior Concrete Floor Slab

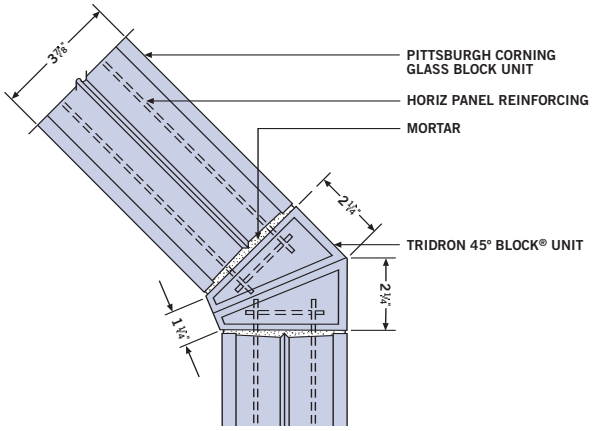
PREMIERE SERIES FINISHING UNITS DETAILS



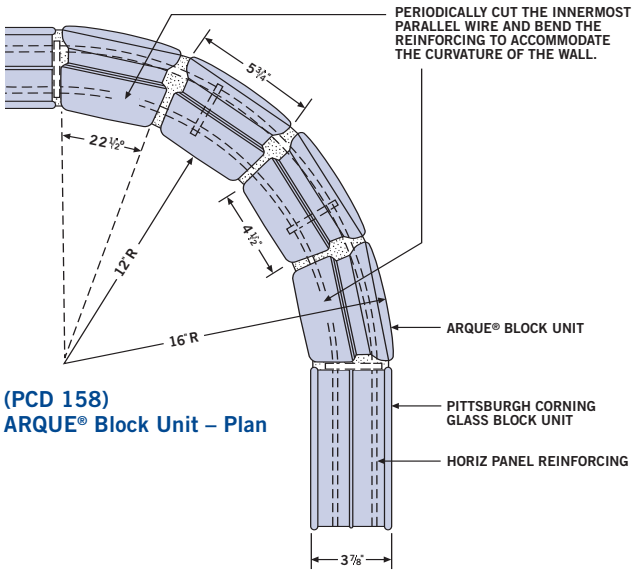
(PCD 155) Glass Block at Corner – Plan



(PCD 156) EndBlock™ or
ENCURVE® Finishing Block – Plan



(PCD 157) TRIDRON 45° Block® Unit – Plan



(PCD 158)
ARQUE® Block Unit – Plan

DIVISION 4 – MASONRY, SECTION 04270 GLASS UNIT MASONRY

PART 1 – GENERAL

1.01 Summary
This specification has been prepared by Pittsburgh Corning Corporation using generally accepted and appropriate technical information but is not intended to be solely relied upon for the specification design or technical applications. Having no control over the elements of design, installation, workmanship or site conditions, Pittsburgh Corning assumes that the actual design choices and installation will be made by persons trained and qualified in the appropriate disciplines. Therefore, Pittsburgh Corning disclaims all liability potentially arising from the use or misuse of this specification.

1.02 Section Includes
A. Glass Block Units, hollow or solid
B. Integral Joint Reinforcement
C. Mortar

1.03 Related Sections
A. Steel Channels
B. Sills, lintels, jambs
C. Sealant (caulk)
D. Packing Material

1.04 References
A. ASTM A82—Spec. for Cold Drawn Steel Wire
B. ASTM A153—Class B-2, Spec. Zinc Coating (Hot dip) on Iron and Steel Hardware (Canada same)
C. ASTM A167, Spec. for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet and Strip
D. ASTM A580, Spec. for Stainless Steel Wire
E. ASTM C144, Spec. for Aggregate for Masonry (Canada – A179-94)
F. ASTM C150, Spec. for Portland Cement (Canada – CAN/CSA-A5-93)
G. ASTM E2010 and NFPA 257, Fire Test of Window Assemblies (equivalent to UL® 9 and CAN 4-S106-M80)
H. ASTM C207, Spec. for Hydrated Lime for Masonry Purposes (Canada same)
I. ASTM C270, Spec. for Mortar for Unit Masonry (Canada – A179-94)
J. ASTM D1187, Type II—Spec. for Asphalt-Base Emulsions (For Metal Surfaces)
K. ASTM D1227, Type III—Spec. for Emulsified Asphalt (For Porous Surfaces)

1.05 System Description
Knowledge of the following basic information is essential for proper installation of Pittsburgh Corning Glass Block units:
1. Glass block panels shall not be designed to support structural loads.
2. Maximum deflection of structural members supporting glass block panels shall not exceed L/600
3. Sills of all panels must be painted with a heavy coat of asphalt emulsion and must cure for two hours before first mortar bed is placed.
4. Provision for expansion and movement must be made at jambs and heads of all panels. Mortar must not bridge expansion spaces.
5. Mortar should be mixed and applied in accordance with the recommendations of Pittsburgh Corning Corporation. See Mortar Materials.
6. Design and installation of glass block projects should be done by whole units since cutting glass block is not recommended.

1.06 Submittals
A. Product Data
Submit two (2) copies of manufacturer's literature and two (2) copies of manufacturer's installation instructions.
B. Samples
1. Submit two (2) glass block units of each type specified, showing size, design and pattern of faces.
2. Submit representative samples of (panel reinforcing), (panel anchors), (expansion strips), and (sealant).
C Test Reports —
Fire Tests
Submit documents verifying glass block units are classified for a ¾, 1 or 1½-hour fire exposure according to ASTM 2010, Underwriters Laboratories of Canada CAN 4-S106-M80, UL® 9, or NFPA 257 "Fire Tests of Window Assemblies." All such glass block unit cartons shall carry appropriate UL® labels.

1.07 Storage and Protection
A. Store unopened cartons of glass block in a clean, cool, dry area.
B. Protect opened cartons of glass block against windblown rain or water run-off with tarpaulins or plastic covering.

1.08 Project/Site Conditions
A. Do not install glass block units when temperature is 40°F (4°C) and falling. Maintain the temperature of glass unit masonry above 40°F (4°C) for the first 48 hours after construction.

1.09 Warranty
A. Pittsburgh Corning Corporation offers a limited 5-year warranty on Pittsburgh Corning Glass Block units.

PART 2 – PRODUCTS

2.01 Acceptable Manufacturers
A. The drawings and specifications are based on catalog data, specifications and products of Pittsburgh Corning Corporation and designate the type and quality of work intended under this section.
1. Products of other manufactures proposed as equivalent quality must be submitted through the bidding contractors for written approval of the architect ten days prior to the bid date.
2. Supporting technical data, samples, published specifications and the like must be submitted for comparison.

3. Contractor shall warrant that proposed substitutions, if accepted, will provide performance equivalent to the materials specified herein.
4. These specifications have been developed by Pittsburgh Corning Corporation based on extensive tests of panels composed of Pittsburgh Corning Premiere Series Glass Block masonry units as manufactured by Pittsburgh Corning Corporation. These specifications do not apply to panels made from glass block masonry units produced by any other manufacturer.

2.02 Glass Block Units

A. Glass block units, nominally _____ inch x _____ inch x _____ inch thick shall be partially evacuated hollow units made of clear, colorless glass with a polyvinyl butyral edge coating.
Pattern type:
_____.

B. Solid glass units, nominally _____ inch x _____ inch x _____ thick made of clear colorless glass with a polyvinyl butyral edge coating. Pattern type: VISTABRIK® Solid Glass Block.

NOTE: Pittsburgh Corning Corporation offers a polyvinyl butyral edge coating for better bonding and to provide for an expansion/contraction mechanism for each block.

2.03 Accessories

A. Panel Reinforcing: two parallel 9 gauge wires either 1 5/8 inch or 2 inch on center with electrically butt-welded crosswires spaced at regular intervals, hot dipped galvanized after welding or Type 304 stainless steel, by Pittsburgh Corning Corporation.

B. Panel Anchors: 20 gauge perforated steel strips 24 inches long by 1 3/4 inches wide, hot dipped galvanized after perforation or 22 gauge by 16 inches long by 1 3/4 inches wide of Type 304 stainless steel, by Pittsburgh Corning Corporation.

C. Expansion Strips: made of polyethylene foam with a thickness of 3/8 inch, by Pittsburgh Corning Corporation.

D. Asphalt Emulsion: a water-based asphalt emulsion, by Karnak Chemical Corp. (Karnak 100, 1-800-526-4236), or equal.

E. Sealant (caulk): non-staining, waterproof mastic, (silicone), (urethane), (_____) type.
Below is a list of the toll-free telephone numbers of the Technical Departments of the following sealant manufacturers:
- Dow Corning Corporation, 1-800-248-2481 in Midland, MI
- General Electric, 1-800-255-8886, in Waterford, NY
- Sonneborn Building Products, 1-800-243-6739 in Minn., MN
- Tremco Incorporated, 1-800-321-7906 in Beachwood, OH Below is information on the fire retardant sealant used on glass block fire tests:
- Fyre-Sil Silicone Sealant (for fire-rated construction), by Tremco, Inc. (1-800-321-7906)

F. Packing (Backer Rods): polyethylene foam, neoprene, fibrous glass or equal as approved by sealant manufacturer.

G. Channels (Aluminum): Available from Julius Blum & Company, Inc., 1-800-526-6293 in Carlstadt, NJ.
- Premiere Series (4" Glass Block) Use: 4 1/2" x 2" x 1/8" size.
- VISTABRIK® and Thinline® Series (3" Glass Block) Use: 4" x 1 1/2" x 1/8" size.

2.04 Mortar Materials

Mortar: Type S in accordance with ASTM C270. Mortar shall be 1 part Portland Cement, 1/2 part lime, and sand equal to 2 1/4 to 3 times the amount of cementitious material (cement plus lime), all measured by volume. (For exterior glass block panels, an integral type waterproofer should be added to the mortar mix.) **No antifreeze compounds or accelerators allowed.**

NOTE: All model building codes also accept the use of Type N mortar.

1. Portland Cement: Type I in accordance with ASTM C150. If a waterproof Portland Cement is used, the integral type waterproofer shall be omitted. (Masonry Cement is not recommended.)
Color:_____
2. Lime: Type S, in accordance with ASTM C207. Shall be a pressure-hydrated dolomitic lime, provided that not less than 92% of all the active ingredients are completely hydrated.
3. Sand: A clean, white quartzite or silica type, essentially free of iron compounds, in accordance with ASTM C144, not less than 100% passing a No. 8 sieve.
4. Integral Type Water-repellent: Stearate type by Sonneborn Building Products (Hydrocide Powder, 1-800-243-6739), or approved equal. Note: Add hydrocide powder to dry mortar mix. Do not add powder to wet mortar mix.
5. External Type Water proofer: Water based silane sealer type by Sonneborn Building Products (HYDROZO ENVIROSEAL™ 20, 1-800-243-6739). Note: Remove excess sealer from glass surfaces soon after application.

PART 3 – EXECUTION

3.01 Preparation

A. Verify that (channels), (panel anchors) have been provided at head and jambs for the purpose of providing panel support within the opening.

B. Mix all mortar components to a consistency that is drier than mortar for ordinary masonry. Retempering the mortar after it has taken its initial set shall not be permitted. **Do not use antifreeze compounds or accelerators.**

C. ***Freshly mixed mortar may create skin irritation. Avoid direct contact where possible and wash exposed skin areas promptly with water. If any mortar gets into the eyes, rinse immediately with water and get prompt medical attention.***

3.02 Installation

A. Cover sill area with a heavy coat of asphalt emulsion. Allow emulsion to cure at least 2 hours before placing mortar.

B. Where panel anchors are used at jambs and heads in lieu of channel or chase surrounds, install panel anchors in the same joints (16 inches o.c. maximum starting after first course) where panel reinforcing will be laid. Panel anchors are to be embedded a minimum of 12 inches into the mortar joints.

C. Place or adhere expansion strips to jambs and head. Make certain expansion strip extends to sill and covers leg of panel anchor that is attached to jambs and head.

D. Set a full mortar bed joint, applied to sill.

E. Set lower course of block. Maintain a uniform joint width of 1/4 to 3/8 inch plus or minus 1/8 inch. All mortar joints must be full and not furrowed. Steel tools must not be used to tap blocks into position. (Place a rubber crutch tip on end of trowel to tap block into position.) Do not realign, tap or otherwise move block after initial placement. For VISTABRIK® Solid Glass Block units, typical mortar joint is 3/8 inch. Special VISTABRIK® spacers that provide a 3/8 inch thick mortar joint are available.

F. Install panel reinforcing every 16 inches o.c. maximum (starting after the first course) in the horizontal mortar joints and in joints immediately above and below all openings within panels. Run reinforcing continuously from end to end of panels. Lap reinforcing not less than 6 inches whenever it is necessary to use more than one length. NOTE: In corrosive atmospheres (i.e. saline air, chlorine air, etc.), the use of stainless steel channels, reinforcing and panel anchors should be considered. Consult local building codes in costal areas. For VISTABRIK® Solid Glass Block, use 1 5/8 inch wide reinforcing (same as Thinline® Series glass block). Do not bridge expansion joints with reinforcing. Install reinforcing as follows:
- **Place lower half of mortar in bed joint. Do not furrow.**
- **Press panel reinforcing into place.**
- **Cover panel reinforcing with upper half of mortar bed and trowel smooth. Do not furrow.**

G. Place full mortar bed for joints not requiring panel reinforcing – do not furrow. Maintain uniform joint width.

H. Set succeeding courses of block. Spaces at head of panel and jambs must remain free of mortar for caulking with sealant.

I. Use only wooden or rubber tipped tools when tapping glass blocks into place.

J. Strike joints smooth while mortar is still plastic and before final set. Remove surplus mortar from faces of glass blocks and wipe dry. (See Section 3.03). Tool joints smooth and concave before mortar takes final set. At this time, remove and clean out all excess mortar from jambs, head and other locations.

K. After final mortar set (approximately 24 hours), install packing tightly between glass block panel and jamb and head locations. Leave space for sealant.

L. Apply sealant evenly to the full depth of recesses as indicated on the drawings and in accordance with the manufacturers' published application manual and instructions.

M. *All exterior glass block panels shall be well sealed to prevent water entry.*

3.03 Cleaning

A. Remove surplus mortar from the faces of the glass block at the time joints are struck or tooled. **Mortar should be removed while it is still plastic** using a clean, wet sponge or an ordinary household scrub brush with stiff bristles.

B. **Do not use harsh cleaners, acids (of any strength), abrasives or alkaline materials while cleaning glass block. Never use a wire brush to remove mortar from glass block surfaces.**

C. Final mortar removal is accomplished with a clean, wet sponge or cloth. Rinse sponge or cloth frequently in clean water to remove abrasive particles **that could scratch glass surfaces**. Allow any remaining film on the block to dry to a powder.

D. After all sealants, caulking, etc., have been applied, remove excess caulking materials with commercial solvents such as xylene, toluene, mineral spirits or naptha and follow with normal wash and rinse. Be careful not to damage caulking by overgenerous application of strong solvents. Comply with solvent manufacturers' printed directions on label for toxicity and flammability warnings.

E. Final cleaning of glass block panels is accomplished after they are completely installed. Wait until panels are not exposed to direct sunlight. Start at the top of the panel and wash with generous amounts of clean water. Dry all water from the glass block surface. Change cloth frequently to eliminate dried mortar particles or aggregate **that could scratch the glass surface**. To remove the dry powder from the glass surfaces, use a clean, dry, soft cloth. For stubborn or hard to remove powder or stains, the use of an "extra fine" steel wool (grades 000 or 0000) is suggested. Try this first in an unobtrusive area.

INSPIRING VISIONARIES SINCE 1937!

Exempla Good Samaritan Medical Center, Lafayette, CO // DECORA® and VUE® Patterns

Van Ness Realty // DECORA® Pattern

School of Performing Arts/Pittsburgh City Schools
VUE® Pattern

Stillwell Avenue Terminal/New York City Transit –
Coney Island, Brooklyn, NY
VISTABRIK® Stippled and Solid Glass Blocks

Lovonya DeJean Middle School, Richmond, CA
DECORA® Pattern

PITTSBURGH CORNING PROJECT DESIGN ASSISTANCE

Unmatched Service

When specifying Pittsburgh Corning Glass Block, you receive a level of technical support and guidance unavailable from any other glass block producer.

Pittsburgh Corning Representative and Distributor Assistance

Services are available through your local Pittsburgh Corning Representative and Distributor. They will arrange for drawing review and technical guidance, full sample selection, professional installation, on-site assistance, and provide technical support after the job is completed, if needed.

Technical Service Department

Our Technical Service Department, located in Pittsburgh, is available for technical advice, project design assistance, and plan review. Please call the Pittsburgh Corning Glass Block Resource Center, 1-800-624-2120.

Pittsburgh Corning Glass Block Resource Center

From your first inquiry, information is readily available to you, toll-free from anywhere in the continental United States and Canada. Our Resource Center, 1-800-624-2120, is your initial channel for literature requests and answers to technical questions.

CONTINUING EDUCATION AIA

To further our dedication to the architectural community, Pittsburgh Corning is teaming up with the AIA to bring you innovative ways to earn continuing education credits, including a great slide presentation that we can set up in your offices. This program provides HSW Learning Units. For more information, visit our website at www.pittsburghcorning.com.

PITTSBURGH CORNING GLASS BLOCK WEBSITE

www.pittsburghcorning.com

features application photos, product information, specifications, installation details, literature, continuing education, case histories, and much more information on how to design with Pittsburgh Corning Glass Block products.

PITTSBURGH CORNING GLASS BLOCK®

800 Presque Isle Drive
Pittsburgh, PA 15239-2799
Tel: 1-800-624-2120
(Glass Block Resource Center)
www.pittsburghcorning.com

Printed in U.S.A. GB-185 25M Rev. 11/07
(Replaces 3/07)

PAGE & TURNBULL

MEMORANDUM

DATE	July 31, 2013	PROJECT NO.	13148
TO	Erevan O'Neill	PROJECT	320 Judah Street
FROM	One Design email: erevanoneill@gmail.com	ATTN	Peter Birkholz
CC	-	VIA	email

REGARDING Analysis of Proposed Project at 320 Judah Street

BACKGROUND

During the rehabilitation of the Doelger Building at 320 Judah Street in San Francisco, the contractor discovered deteriorated materials that are in need of replacement. Since the property has been determined to be eligible for listing as a San Francisco Article 10 Landmark, the San Francisco Planning Department has asked the project sponsor to submit an Architectural Peer Review of the proposed design that clarifies and confirms that the proposed work would be in compliance with the Secretary of the Interior's *Standards for Rehabilitation*.

This memo provides an up-to-date project description, a summary of current conditions, and an analysis of the proposed project.

Page & Turnbull has reviewed the following information provided by Erevan O'Neil of One Design: architectural drawings, product information, window shop drawings, and the Landmark Designation report prepared by Mary Brown at the San Francisco Planning Department.

The following project analysis describes the proposed work at 320 Judah Street and evaluates its compliance with the Secretary of the Interior's *Standards for Rehabilitation*.

CHARACTER-DEFINING FEATURES

The Landmark Designation report prepared by the San Francisco Planning Department in September, 2012 defines the following character-defining features of the Doelger Building:

Exterior character-defining features:

- All exterior elevations and rooflines
- All architectural finishes and features of the exterior elevations
- Building plan including spatial configuration of driveway area
- Shaped parapet with chamfered edges and stepped secondary parapet walls
- Stepped detailing at the recessed entry vestibule
- Sunburst terrazzo paving
- Stainless steel doors with glazed half circles flanked by glass block sidelights and topped with a curved metal band
- Large plate glass lobby window with metal muntins set in geometric pattern
- Recessed window displays set in piers
- Bulkhead and integrated curved planter box, excluding brick cladding
- Curved glass block window wall and projecting curved overhang with speedline detailing
- Flush glass block window wall and protruding clock
- Metal gate with diamond and crescent pattern (excluding the recently welded metal secu rity bars)
- Fenestration at the secondary, visible elevations, which primarily consists of wood sash casement windows with horizontal muntins
- Fenestration at the nonvisible courtyard elevations, which consists of arched and square divided light wood sash casement windows with a horizontal muntin pattern

Interior character-defining features:

- The entry lobby and all its historic fixtures and finishes with the following exceptions:
  - Non-historic door openings
  - Contemporary elements including non-historic doors, vents, and mailboxes
  - Non-historic tile floor and stair cladding
- Lobby spatial volume, mezzanine balcony, and curved side stair configuration
- The mezzanine balcony level with the following exceptions:
  - Interior of mezzanine level bathrooms
  - Balcony carpeting
- Stepped ceiling and wall detailing
- Art Deco hanging chandelier and scalloped wall sconces
- Balcony ornamentation including raised chevrons and decorative metal railing
- Wood doors with raised Art Deco ziggurat pattern

PROJECT DESCRIPTION

Project Description: The intent of the overall project is to rehabilitate the existing deteriorated structure to current code standards and to restore the primary façade to the condition of the period of significance. The structure has extensive water related damage due to failed plumbing systems, failed and improperly detailed waterproofing systems which have caused extensive dry-rot within the wood framed structure, and the failure of the foundations. The structure is located on a very tight urban lot with only the primary façade publicly visible. No major redesign, additions or exterior alterations are proposed as part of this project.

The existing scope of work includes the following:

- Partial seismic retrofit;
- Exterior envelope and waterproofing replacement;
- In-kind replacement of the exterior doors and windows;
- Restoration of the primary façade to the date of the period of significance;
- Rehabilitation of the wood structural system;
- Replacement electrical and plumbing systems;
- Rehabilitation of the decorative clock;
- New heating and ventilating system;
- Roof repairs and re-roofing of roof systems;
- Restoration of the main entry lobby;
- Exterior painting;
- Hazardous materials removal.

Extensive dry rot caused by improper detailing from the date of the original construction has resulted in extensive exterior and interior finish, substrate and substructure deterioration. The reconstruction of the substrate and substructure requires the removal of the exterior finishes and the door and window systems. As part of the replacement of these systems, a new waterproofing system is to be integrated with the replacement finishes and door/window systems.

PROJECT ANALYSIS

The following analysis of the 320 Judah Street rehabilitation project is a review for conformance with the Secretary of the Interior's *Standards for Rehabilitation*. Each standard is numbered and an explanation of the project's conformance follows the quoted standards.

Rehabilitation Standard 1. *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

The proposed scope of work will retain the use of the building as an office building.

The character of the building's exterior will remain unaltered, and the character and function of the building's significant interior spaces and spatial relationships will be maintained.

As designed, the proposed project will be in compliance with Rehabilitation Standard 1.

Rehabilitation Standard 2. *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

The architectural drawings that we have reviewed indicate that the historic character of the Doelger Building will be retained. On the exterior of the building, distinctive materials, features, spaces and spatial relationships will not be altered, but deteriorated materials will be removed and replaced in-kind. The full scope of interior rehabilitation has not been provided, so we suggest that the City discuss the scope of the proposed interior work with the project sponsor. The evaluation of the interior provided below was based on a verbal description provided by the project designer.

EXTERIOR
Primary historic features at the street elevation will be retained. Due to underlying deterioration of wood sheathing below the existing painted cement plaster finish, the cement plaster will be removed and replaced in-kind. Character-defining features including the glass block windows, metal clad doors and display windows and the large glass storefront window assembly will be replaced in-kind. The façade will be restored to its character during its period of significance.

INTERIOR – Entry Lobby
Based on a description from the project designer it is our understanding that the entry lobby is to be restored to its original configuration and that the character defining features of the lobby will be rehabilitated. The proposed work within the entry lobby is minor and will not affect the overall character or use of the building. Proposed work includes removal of non-historic flooring and replacement with 24" square marble tile, cleaning and repair of the existing chandelier, and patching and repainting of existing plaster walls, as needed.

INTERIOR – OFFICE SPACES
The Landmark Nomination did not consider these spaces as character defining; these spaces have not been reviewed as part of this memorandum.

SUMMARY
Based on the exterior repair and rehabilitation work described in the Design Development package, the building will continue communicate its significance as a historic resource. The alterations proposed for the building exterior will restore the exterior to its period of significance.

The interior lobby will be restored and character defining features will be retained and restored for future use.

As designed, the proposed project will not impact the overall historic character of the property and will be in substantial compliance with Rehabilitation Standard 2. We recommend that proposed interior alterations be confirmed prior to construction, and that exterior existing conditions be confirmed and documented through investigative demolition and photographs prior to confirming extent of demolition and replacement.

Rehabilitation Standard 3. *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

The proposed project will not create a false sense of history, nor will it add conjectural historical features to the building. The proposed alterations including the restoration of the façade and interior lobby will not create a false sense of development. No portions of the existing building will be demolished and no new conjectural features or additions will be built.

As designed, the proposed project will be in compliance with Rehabilitation Standard 3.

Rehabilitation Standard 4. *Changes to a property that have acquired significance in their own right will be retained and preserved.*

The period of significance of the Doelger Building extends from 1932, when the building was constructed, to 1950, when Doelger vacated the building.

According to the Landmark Designation Report, all existing exterior elevations and rooflines are considered to be character-defining features. This means that any additions to the building that were

built after its original construction in 1932 (and prior to 1950) are considered to contribute to the significance of the resource.

When the building was originally built in 1932, it was one-story building with a mezzanine. A garage was added later that year, but the Landmark Designation Report indicates that the garage is now part of the adjacent corner lot and is not included in the landmark designation.

According to the Landmark Designation Report, the roof of the building was raised and an additional mezzanine was installed in 1936. In 1940, a new addition expanded the footprint of the building onto the adjacent lot. The city's report indicates that the expanded building "contained the sales office, design workshops, staff office space..." etc.

The proposed project includes the rehabilitation of the building, including the spaces and elements that were added and expanded in 1936 and 1940.

As designed, the proposed project will be in compliance with Rehabilitation Standard 4.

Rehabilitation Standard 5. *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

The distinctive features of the building's exterior, which have been identified in the city's list of character-defining features provided below, will be retained or replaced in-kind. In cases where the features are deteriorated beyond repair, the features will be replaced with new to match the original in design, color, texture, and, where possible, materials. According to information provided to Page & Turnbull by the project designer, the following work to the character-defining features is proposed:

- All exterior elevations and rooflines will be retained.
- All architectural finishes and features of the exterior elevations will be replaced in-kind.
- Building plan including spatial configuration of driveway area will be retained.
- Shaped parapet with chamfered edges and stepped secondary parapet walls – the form of these features will be retained and the finish materials will be replaced in-kind.
- Stepped detailing at the recessed entry vestibule - the form of these features will be retained and the finish materials will be replaced in-kind.
- Sunburst terrazzo paving will be retained.
- Stainless steel doors with glazed half circles flanked by glass block sidelights and topped with a curved metal band. Doors will be replaced to match form and character of

the original, but for reasons of durability and cost, the new doors will be made out of brushed aluminum rather than stainless steel. All glass block will be replaced in-kind.

- Large plate glass lobby window with metal muntins set in geometric pattern will be replaced in-kind.
- Recessed window displays set in piers - the form of these features will be retained and the finish materials will be replaced in-kind.
- Bulkhead and integrated curved planter box, excluding brick cladding - the form of these features will be retained and the finish materials will be replaced in-kind. The brick cladding will be removed and replaced with black glass, Vitrolite or similar material.
- Curved glass block window wall and projecting curved overhang with speedline detailing – the projecting overhang (marquis) will be replaced to match form and character of the original, but for reasons of durability and cost, will be made out of brushed aluminum rather than stainless steel. All glass block will be replaced in-kind.
- Flush glass block window wall and protruding clock – glass block will be replaced in-kind and clock will be retained and restored.
- Metal gate with diamond and crescent pattern (excluding the recently welded metal secu rity bars) - will be retained.
- Fenestration at the secondary, visible elevations, which primarily consists of wood sash casement windows with horizontal muntins - will be replaced in-kind.
- Fenestration at the nonvisible courtyard elevations, which consists of arched and square divided light wood sash casement windows with a horizontal muntin pattern – the non-visible courtyard was not reviewed as part of this proposed project scope.

Interior work to be confirmed.

If the proposed exterior work is justified by documentation of severe deterioration, the proposed work will be in compliance with Rehabilitation Standard 5.

Rehabilitation Standard 6. *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

According to the project designer, many of the building's existing materials are exhibiting severe deterioration, including the foundation, wall framing, and wood sheathing beneath the existing exterior smooth stucco surfaces.

On the main façade of the building, all of the exterior cement plaster is anticipated to be removed in order to replace the underlying deteriorated sheathing and framing. All cement plaster that is removed will be replaced in-kind and will match the configuration and texture of the original cement plaster surfaces.

The plans indicate that the existing gate will be replaced in-kind while elevations indicate that it will be retained and repainted. We assume that the existing gate will be retained and repainted.

The existing stainless steel marquis above the glass-block window and above the entry doors will be replaced in form and configuration. For reasons of cost and durability, the replacement material will be brushed aluminum rather than stainless steel.

The existing glass block is cracking and leaking, so existing glass block windows and sidelights will be replaced in-kind with new flashing and waterproofing.

Existing front doors are rusted and marked with holes where incompatible metals screws were used, and the latching and locking mechanism are no longer in good working order. The front doors will be replaced with new brushed aluminum doors that match the dimensions and character of the original stainless steel doors.

The front lobby window will be replaced with new to match the original as closely as possible.

Non-historic brick wainscot and planter cladding will be removed and replaced with new black glass or Vitrolite (or similar) cladding to match the character of the original walls.

The existing clock on the main elevation will be repaired, retained and reinstalled.

The existing starburst terrazzo pattern on the floor of the main entrance will be retained and restored.

Due to the level of deterioration that is understood to be in the underlying wood framing and sheathing, and the condition of the existing windows and doors that has been described by the project designer, we do not believe that replacement of these features in-kind will affect the building's overall character or significance. However, all areas proposed for replacement should be properly documented to illustrate the severity of deterioration and the need for replacement.

If deterioration of the existing features is as severe as described by the project designer, then replacement of these materials in-kind is appropriate and the proposed project will be in compliance with Rehabilitation Standard 6.

We recommend that exterior existing conditions be confirmed and documented through investigative demolition and photographs prior to confirming extent of demolition and replacement.

Rehabilitation Standard 7. *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

No proposed chemical or physical treatments are proposed at this time.

As designed, the proposed project will be in compliance with Rehabilitation Standard 7. If cleaning or sealing of any historic materials is proposed, the project designer or contractor should consult with a preservation architect regarding treatment of existing surfaces in order to remain in compliance with Standard 7.

Rehabilitation Standard 8. *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

Minimal excavation will be required to repair existing foundations in the area of work. If any archeological material is encountered during the course of the project, it is recommended that construction be halted and an archeologist be contacted to examine the site.

As designed, the proposed project will be in compliance with Rehabilitation Standard 8.

Rehabilitation Standard 9. *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

The proposed project does not include any new additions, exterior alterations or related new construction. In areas where new finishes and materials will replace historic finishes and materials, these features will be replaced in-kind.

In areas where existing, non-historic finishes will be removed, the new finishes will be differentiated from the old. For example, non-historic flooring will be removed from the main lobby and replaced with new square marble tile. The new material will be compatible with but differentiated from the original materials within the building.

As designed, the proposed project will be in compliance with Rehabilitation Standard 9.

Rehabilitation Standard 10. *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

The proposed project does not include any new additions or related new construction.

As designed, the proposed project will be in compliance with Rehabilitation Standard 10.

PROJECT-SPECIFIC IMPACTS

As the above analysis demonstrates, the proposed project appears to be in compliance with the Secretary of the Interior's *Standards for Rehabilitation* and does not appear to affect the eligibility of this building for listing in any local, state, or national historical registers.

We recommend, however, that the level of deterioration and the need for replacement of façade materials be confirmed in the field through visual observation and investigative demolition, and that the results of this investigation be documented in photographs.

We also recommend that the interior scope of work be confirmed by the project designer.