JASTER-QUINTANILLA & ASSOCIATES, INC.
CONSULTING ENGINEERS

March 15, 2011

Mr. Mike Boudloche, Trustee
555 North Carancahua
Suite 600
Corpus Christi, TX 78478

Re: Structural Integrity Assessment
Former Encycle/Texas, Inc. /ASARCO Facility (Encycle)
5500 Up River Road
Corpus Christi, Nueces County, Texas

Dear Mr. Boudloche:

As you requested, I performed a visual observation and structural integrity assessment of the following buildings at the former Encycle/ASARCO site on Wednesday, March 2, 2011 (Figure 1 is attached for building reference purposes).

Figure 1 Building Number	Approximate Building Size (SF)
1	50,000
2	54,000
3	15,000
4	6,500
5	2,400
7	20,000
9	1,200
10	30,000
16	40,000
17	1,000
24	525
25	35,000
26	40,000
28	12,000
32	3,200

The purpose of my observation and assessment is to identify portions of the buildings which are structurally unsound and should not be used for support during the asbestos abatement process. Mr. Armando G. Avalos, the trustee representative of the United States Bankruptcy Court, Southern District of Texas provided access to the site and Mr. Kenneth Brandner, P.E., of ARCADIS identified the buildings to be structurally assessed prior

to initiation of asbestos abatement. My observations and opinions of the structural integrity of the buildings are based on visual assessment only. No drawings or design calculations of any of the structural elements of any part of the building framing or foundations were provided. No material testing of structural components was performed and no structural element was removed, uncovered or taken apart. All assessments were made while standing on the ground surface, elevated floors, catwalks or stairs, and without benefit of any mechanical lifts or hoists.

In general, the buildings assessed are not in good structural condition with various portions structurally unsound. Some of the buildings have been abandoned for approximately 25 years while others for approximately 6-7 years. Many buildings have portions of roof and wall sections which are not in place. Water infiltration, exposure to the corrosive salt-air environment coupled with the acidic processes that existed when the buildings were operational have taken a toll on the overall structural integrity in many locations. The assessments that follow are based on reasonable and prudent observations made during my visit to the site.

BUILDING 1 (Facility No. 1)

This building is a large predominantly conventional steel framed building with two elevated levels within the building. A portion of the second floor "filter press area" consist of cast-in–place concrete framing. In general, this building appears to have sufficient structural integrity to allow for planned asbestos abatement with the following exceptions:

1. There are portions of the elevated catwalk at the north portion where checkered plate decking is deteriorated and structurally unsound (Photo 1). There are obvious holes and other areas where the plate has corroded and is de-laminating. The beams supporting the plate have been structurally compromised and are structurally unsound (Photo 2). The steel columns supporting the steel beams are severely deteriorated and structurally unsound (Photo 3).

   I believe that the second level catwalk at the north portion of Facility No. 1 is structurally unsound and shall not be used for support during the asbestos abatement process.

BUILDING 2 (Facility No. 2)

This building is a large predominantly conventional steel framed building with three elevated levels within the building. A portion of the second floor of the east half of the building (east of the blue curtain) consist of diagonal wood decking spanning between 2x12 wood beams supported by steel beams. The entire wood framed portion appears to be deteriorated, likely due to "dry rot" of the wood framing. There are remnants of a "blue curtain" which separates the western half of the building from the eastern half. The elevated second level wood framed portion exhibits considerable wood rotting and is not structurally sound (Photo 4, photo is taken standing on the west half looking east). There are columns supporting the east half of the wood framed second level which are severely deteriorated and structurally unsound (Photo 5). There are also exterior wall girts (horizontal wall beams to which exterior wall panel attaches) at the east half of the north wall that are severely deteriorated and structurally unsound (Photo 6).

The west half of this building also exhibits significant structural distress. There are areas at the second level catwalk where the checkered plate decking is compromised (Photo 7). There are many areas where the plate has de-laminated and become very soft, with some noticeable openings thru the

decking.

There is evidence of structural failure at the second interior column line from the west elevation. At the first interior bay from the south elevation a full height column supporting 3 elevated levels and a large steel roof truss has settled approximately 3 inches and shifted approximately 3 inches to the west (Photo 8). The column immediately north has also failed and shifted (Photo 9). Another column on this same grid at the north end of the building has failed and shifted approximately 2 inches (Photo 10). All framing above this row of columns is affected by these column failures. The steel roof trusses that are supported by these columns all appear to slope downward due to the deterioration and settling of the bottom of the columns. There is some asbestos containing piping near the catwalk at the west half of this building (Photo 11). This catwalk is supported on one side by the noted failed columns and should not be used during the asbestos abatement process.

There is also a third level wood framed office area at the west half of this building which exhibits dry rot with obvious holes in decking. This area is structurally unsound and shall not be used during the asbestos abatement process.

In general, I do not believe this building (Facility No. 2) has sufficient structural integrity to allow for safe support during planned abatement. The extent of wood rot, compromised checkered plate, and failed structural columns is too much of a safety risk for workers during abatement.

BUILDING 3 (Facility No. 3)

This building is a tall predominantly conventional steel framed building with five elevated levels within the north half and two levels within the south half. The elevated levels consist of checkered plate supported by steel beams. There are areas where the checkered plate exhibits some minor amounts of de-lamination. In general, this building appears to possess sufficient structural integrity to allow for planned asbestos abatement with the following exception:

1. No concentrated point loads shall be applied over the checkered plate. Temporary wood decking shall be installed over checkered plate to support asbestos abatement personnel.

BUILDING 4 (Facility No. 4)

This building is a tall predominantly conventional steel framed building with five elevated levels within the building. The elevated levels are a combination of concrete and checkered plate supported by steel beams. There are areas where the checkered plate exhibits some de-lamination and deterioration (Photo 12). In general, this building appears to possess sufficient structural integrity to allow for planned asbestos abatement with the following exception:

1. No concentrated point loads shall be applied over the checkered plate. Temporary wood decking shall be installed over checkered plate to support asbestos abatement personnel.

BUILDING 5 (East Product Storage)

This building is a small single level pre-engineered metal building. In general, this building appears to have sufficient structural integrity to allow for planned abatement, with abatement likely performed with

ground level supported equipment.

BUILDING 7 (Old Casting Building)

This building is a medium sized conventional steel framed building. There is a small extension of the elevated concrete floor from East Cell House Building 16. In general, this building appears to have sufficient structural integrity to allow for planned asbestos abatement with the following exception:

1. At the interface between buildings 7 (Old Casting Building) and 16 (East Cell House), there are some severely deteriorated steel beams (Photo 13). During abatement, no one shall be allowed to work beneath or near these deteriorated beams.

BUILDING 9 (Sanitary Wastewater Building)

This building is a very small pre-engineered metal building with two elevated levels within the building. In general, this building appears to have sufficient structural integrity to allow for planned abatement with the following exceptions:

1. There are portions of the very small elevated third level where the checkered plate decking is deteriorated and structurally unsound (Photo 14). There are obvious holes and other areas where plate has corroded and is de-laminating. The beams supporting the plate are beginning to show some signs of deterioration, but appear to have adequate strength at the present time. No concentrated point loads shall be applied over the checkered plate. Temporary wood decking shall be installed over checkered plate to support asbestos abatement personnel.

BUILDING 10 (Numbered Bins Building)

This building is a large predominantly conventional steel framed building with large three-sided concrete bins. In general this building appears to have sufficient structural integrity to allow for planned abatement, with abatement likely performed with ground level supported equipment.

BUILDING 16 (East Cell House)

This building is a large predominantly conventional steel framed building with an elevated level within the building. The east half of the elevated level consist of a concrete frame with "acid brick" as the floor surface (Photo 15). The east half of the elevated floor appears structurally sound. The west half of this building previously housed corrosive containers which likely contributed to deterioration of cross-catwalks (Photos 16, 17, and 18). These steel framed catwalks and any other second level structural supports in the west half of this building are severely deteriorated and shall not be used for support during the asbestos abatement process.

At the exterior of the west side of this building is an exterior elevated steel framed catwalk (Photo 19). There is significant deterioration of much of the framing of this catwalk. Many of the steel support beams are structurally unsound (Photos 20, 21, 22 and 23). There is also a portion along part of the interior catwalk at the west side where the steel framing is totally deteriorated (Photo 24). In general, I believe the elevated concrete second level at the east half of this building has sufficient

structural integrity to allow for safe support during planned abatement. I do not believe the second level at the west half, and the exterior and interior steel framed catwalk along the west side have sufficient structural integrity during the abatement process and shall not be used for support during the abatement process. During abatement, no one shall be allowed to work beneath or near the elevated west half of the building and the steel framed catwalks along the west side.

BUILDING 17 (East Bag House)

This building is a small masonry veneer building with reportedly two elevated levels within the building. While we were not able to enter the building due to the lack of a structurally sound stairway, we were able to view an elevated level looking thru a door opening. The building appears to be steel framed as steel columns are evident. The building appears to be structurally sound with the following exception:

1. There is obvious masonry veneer distress at exterior pilasters at the north wall (Photo 25) and northwest corner (Photo 26). Abatement personnel shall not be allowed in areas immediately adjacent to distressed masonry.

BUILDING 24 (West Bag House)

This building is a small masonry veneer building with reportedly 3 elevated levels within the building. We were not able to enter the building as the entrance stair was structurally unsound. The building appears to be structurally sound with the following exception:

1. There is obvious masonry veneer distress at the northeast corner pilaster (Photo 27). Abatement personnel shall not be allowed in area immediately adjacent to distressed masonry.

BUILDING 25 (Power House)

This building is a large predominantly conventional steel framed building with two elevated levels within the building. The elevated second level consist of areas with checkered plate supported by steel beams as well as steel grating supported by steel beams at the east half of the building, and steel grating at the west half (turbine deck) of the building. There is also some elevated concrete framing at the second level (Photo 28).

In general, this building appears to have sufficient structural integrity to allow for planned abatement with the following exceptions:

1. There is a portion of checkered plate and grated area at the center portion of the first floor which is structurally unsound (Photo 29). Do not use this area for support during abatement process.

2. There is a portion of the first floor near the northeast corner which has checkered plate and grating over shallow (+/- four feet deep) concrete pit construction (Photo 30). Remove the checkered plate and grating and utilize the concrete pit for support during abatement process.

3. Do not use lifts on areas with grating and do not exceed the uniform load limit of grating at the second and third level boiler area, and the second level turbine deck in the west half of the building.

BUILDING 26 (West Cell House)

This building is a large predominantly conventional steel framed building with two elevated levels within the building. The east half of the second level consist of pre-cast concrete channels supported by concrete beams and columns, and appears structurally sound. The west half of this building previously housed corrosive containers which contributed to deterioration of cross-catwalks (Photos 31 and 32). These framed catwalks, and any other second level structural supports in the west half of this building are severely deteriorated and shall not be used for support during the abatement process.

At the exterior of the west side of this building is an exterior elevated steel framed catwalk. There is significant deterioration of much of the framing of this catwalk, and in some locations fiberglass beams were installed to replace deteriorated steel beams (Photo 33). While the fiberglass beams appear to be structurally sound, the support angles were not replaced and are structurally unsound.

There are also areas where steel members and grating are supported by concrete beams which are structurally unsound (Photo 34). Many of the concrete beams have lost considerable amounts of concrete and there is little cement binder to hold the aggregate together.

There are also areas where grating at the catwalk is not properly supported. In many cases, the ends of grating are not lapped at beam supports and there is insufficient weld between the ends of grating to properly transfer and support weight (Photo 35).

In general I believe the elevated concrete second level at the east half of this building has sufficient structural integrity to allow for safe support during planned abatement. I do not believe the second level at the west half, and the exterior and interior steel framed catwalk along the west side have sufficient structural integrity and shall not be used for support during the abatement process. During abatement, no one shall be allowed to work beneath or near the elevated west half of the building and the steel framed catwalks along the west side.

BUILDING 28 (Reagent Storage Building)

This building is a medium sized conventional steel framed building with an elevated level within the building. The east portion of the second level is concrete framed. In general, this building appears to have sufficient structural integrity to allow for planned abatement.

BUILDING 32 (Zinc Building)

This building is a small conventional steel framed building. The west half is single story and the east half is a high volume space, with elevated checkered plate and steel beam framing. Portions of the checkered plate decking appear to have some de-lamination. In general, this building appears to possess sufficient structural integrity to allow for planned asbestos abatement with the following

exception:

1. No concentrated point loads shall be applied over the checkered plate. Temporary wood decking shall be installed over checkered plate to support asbestos abatement personnel. Much of the planned abatement will likely be performed with ground level support equipment.

In summary, the building structures reviewed are not in good structural condition and abatement personnel shall be very cautious and careful during the abatement process. I have identified areas within the described buildings which I believe are structurally unsound at the time of my visit. It is important to note that continued and further deterioration is likely to occur. I believe it is critical that the abatement process occur sooner than later as deterioration and structural distress will only worsen.

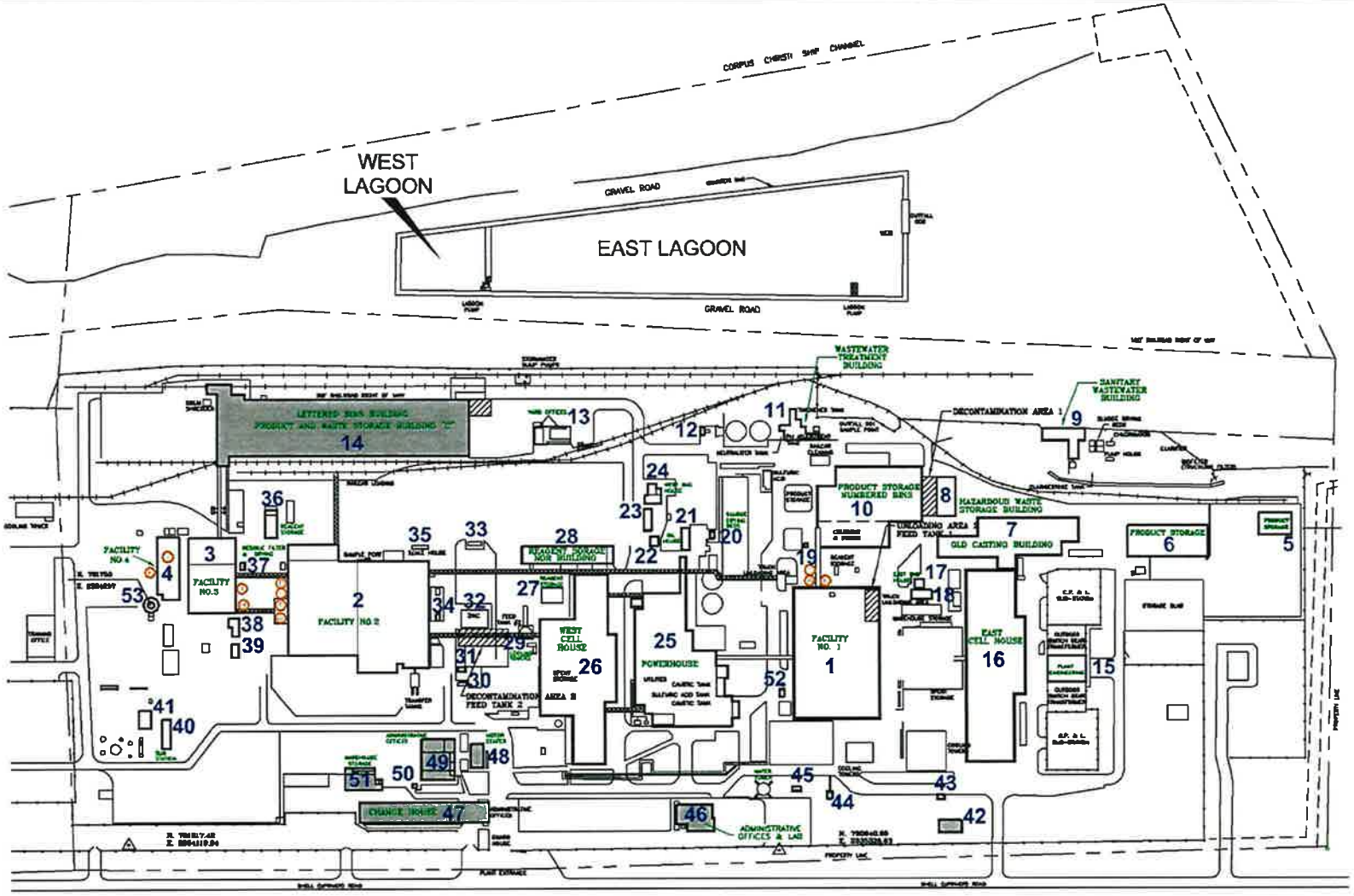
It is also important to note that the buildings are located on a coastal site with exposure to high wind activity. Based on my assessment, many of the buildings at the site have the potential for failure/collapse if subjected to hurricane force winds due to the deteriorated load-supporting beams and columns. No personnel should enter any buildings at the site when sustained wind speeds exceed tropical storm force (≥ 39 mph) and the buildings should be structurally reassessed if they are subject to hurricane force winds (≥ 74mph).

I hope my assessment of the structural integrity of the buildings is beneficial. Please call if you wish to discuss or have any questions.

Sincerely,

Gary W. Jaster, P.E.
Principal
Jaster-Quintanilla & Associates, Inc.
TBPE Firm # F323

W/Attachments



LEGEND

[1] BUILDING ID NUMBER

METAL SILOS

DENOTES BUILDING NOT TO BE DEMOLISHED

ARCADIS

SCALE VERIFICATION	REV. NO.	DATE	DESCRIPTION	BY	APPR.
IF BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING, THEN THE DRAWING IS TO VERIFY PRINT REPRODUCTION SCALE					

BUILDING LOCATION MAP

CORPUS CHRISTI, TEXAS
ENCYCLE/TEXAS, INC.

FIGURE 1

ATTACHMENT 1

SITE PHOTOGRAPHS (March 2011)

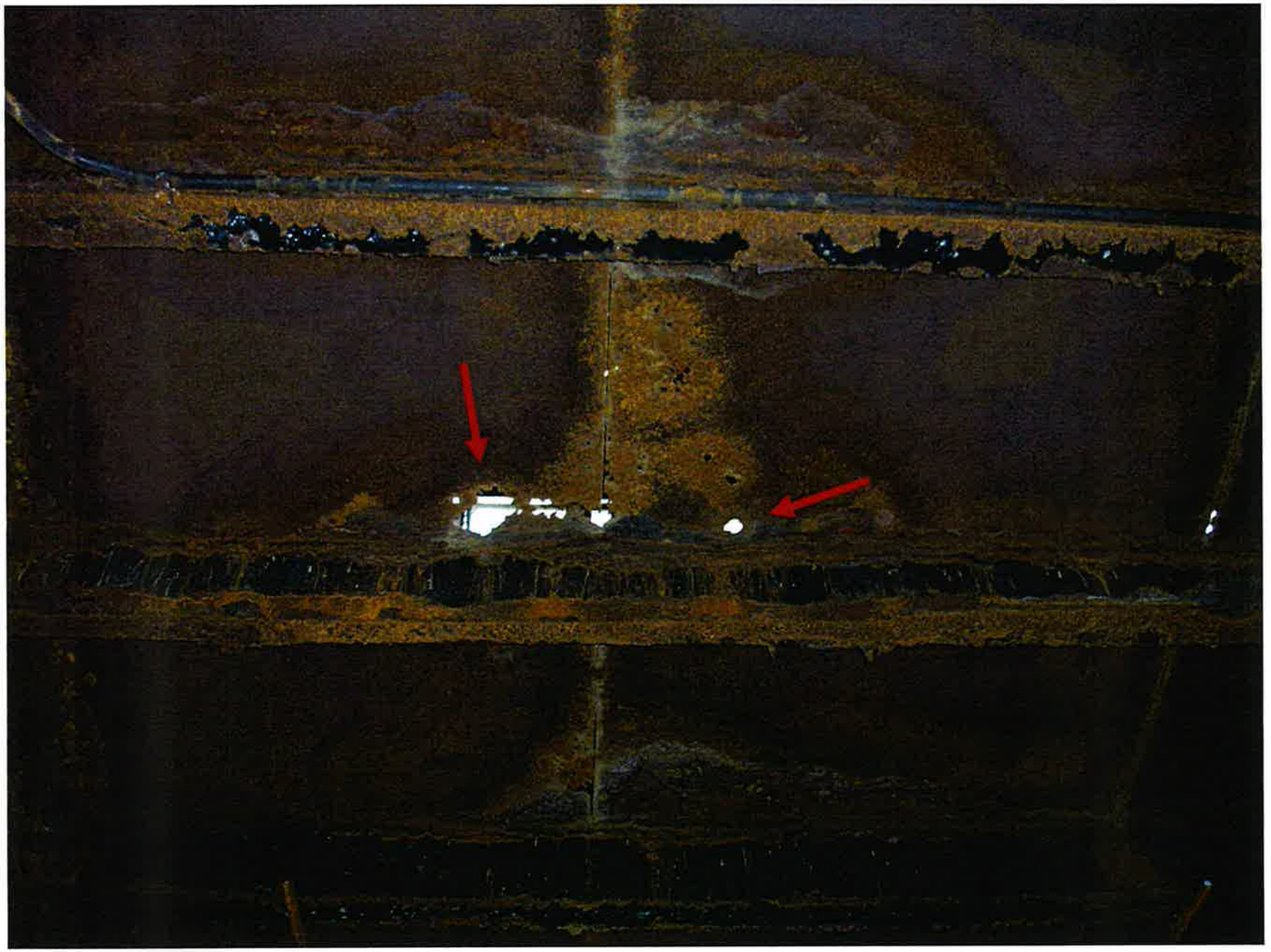


PHOTO 1 – DETERIORATED CHECKERED PLATE AT ELEVATED CATWALK AT NORTH PORTION OF BUILDING 1

PHOTO 2 – DETERIORATED TOP FLANGE OF BEAM AT CATWALK OF BUILDING 1

PHOTO 3 – DETERIORATED COLUMN AT ELEVATED CATWALK OF BUILDING 1

PHOTO 4 – VIEW OF SECOND LEVEL FLOOR AT EAST HALF OF BUILDING 2

PHOTO 5 – DETERIORATED COLUMN AT BUILDING 2

PHOTO 6 – DETERIORATED WALL GIRT AT NORTH FACE OF BUILDING 2

PHOTO 7 – COMPROMISED CHECKERED PLATE AT SECOND LEVEL OF WEST HALF OF BUILDING 2

PHOTO 8 - FAILED COLUMN AT FIRST INTERIOR BAY, LOOKING NORTH, WEST HALF OF BUILDING 2

PHOTO 9 – FAILED COLUMN AT SECOND INTERIOR BAY, LOOKING SOUTH, WEST HALF OF BUILDING 2

PHOTO 10 – FAILED COLUMN AT NORTH END, LOOKING NORTH, WEST HALF OF BUILDING 2

PHOTO 11 – ELEVATED CATWALK AT WEST HALF OF BUILDING 2

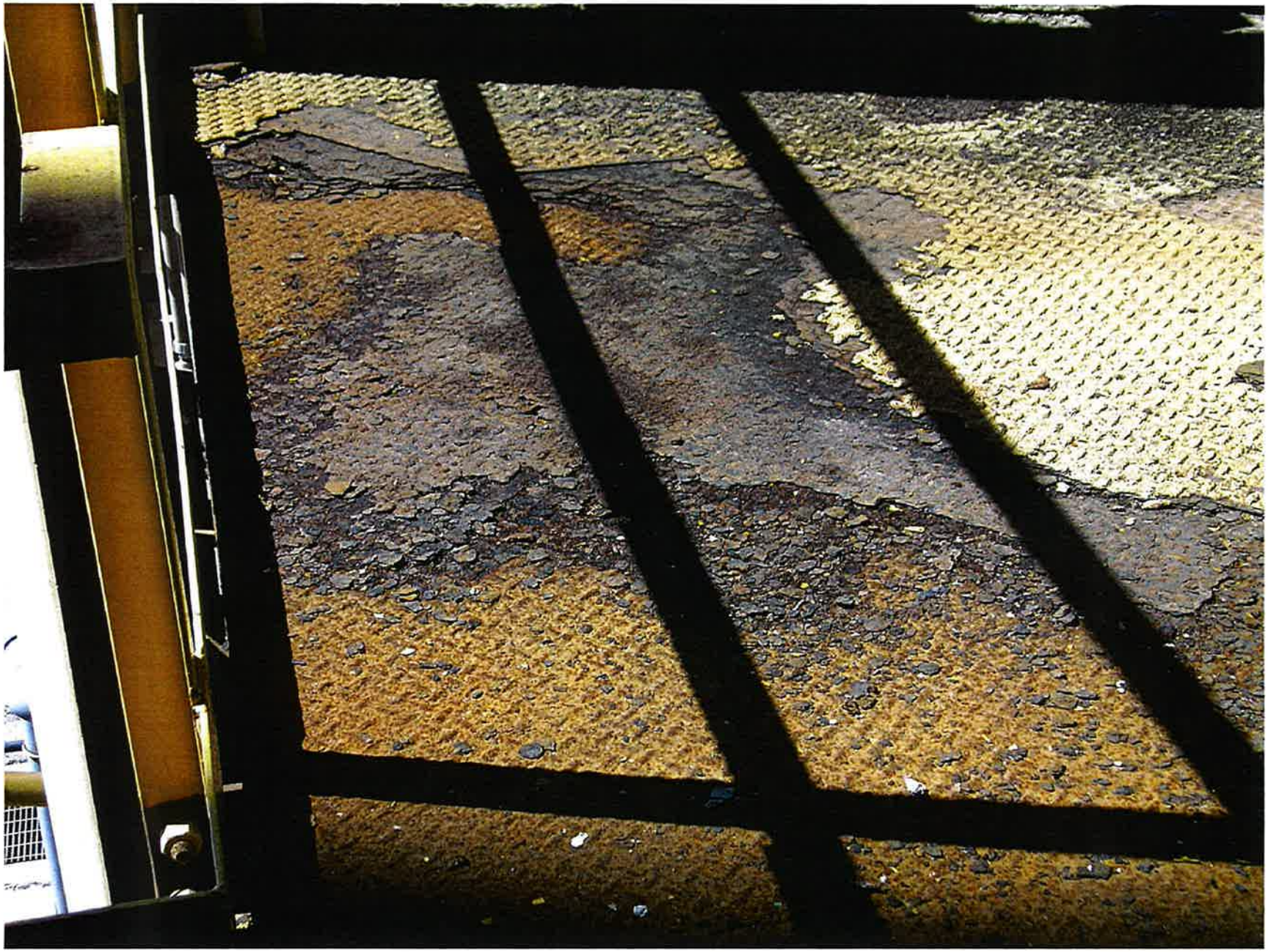


PHOTO 12 - DETERIORATED CHECKERED PLATE AT WEST HALF OF BUILDING 4

PHOTO 13 – DETERIORATED BEAM AT INTERFACE BETWEEN BUILDINGS 7 AND 16

PHOTO 14 – DETERIORATED CHECKERED PLATE AT THIRD LEVEL OF BUILDING 9

PHOTO 15 – VIEW OF EAST HALF OF SECOND LEVEL OF BUILDING 16

PHOTO 16 – DETERIORATED CATWALK AT WEST HALF OF BUILDING 16

PHOTO 17 – DETERIORATED CATWALK AT WEST HALF OF BUILDING 16

PHOTO 18 – DETERIORATED CATWALK AT WEST HALF OF BUILDING 16

PHOTO 19 - VIEW OF CATWALK AT WEST ELEVATION OF BUILDING 16

PHOTO 20 – DETERIORATED FRAMING AT EXTERIOR CATWALK AT WEST SIDE OF BUILDING 16

PHOTO 21 – DETERIORATED FRAMING AT EXTERIOR CATWALK AT WEST SIDE OF BUILDING 16

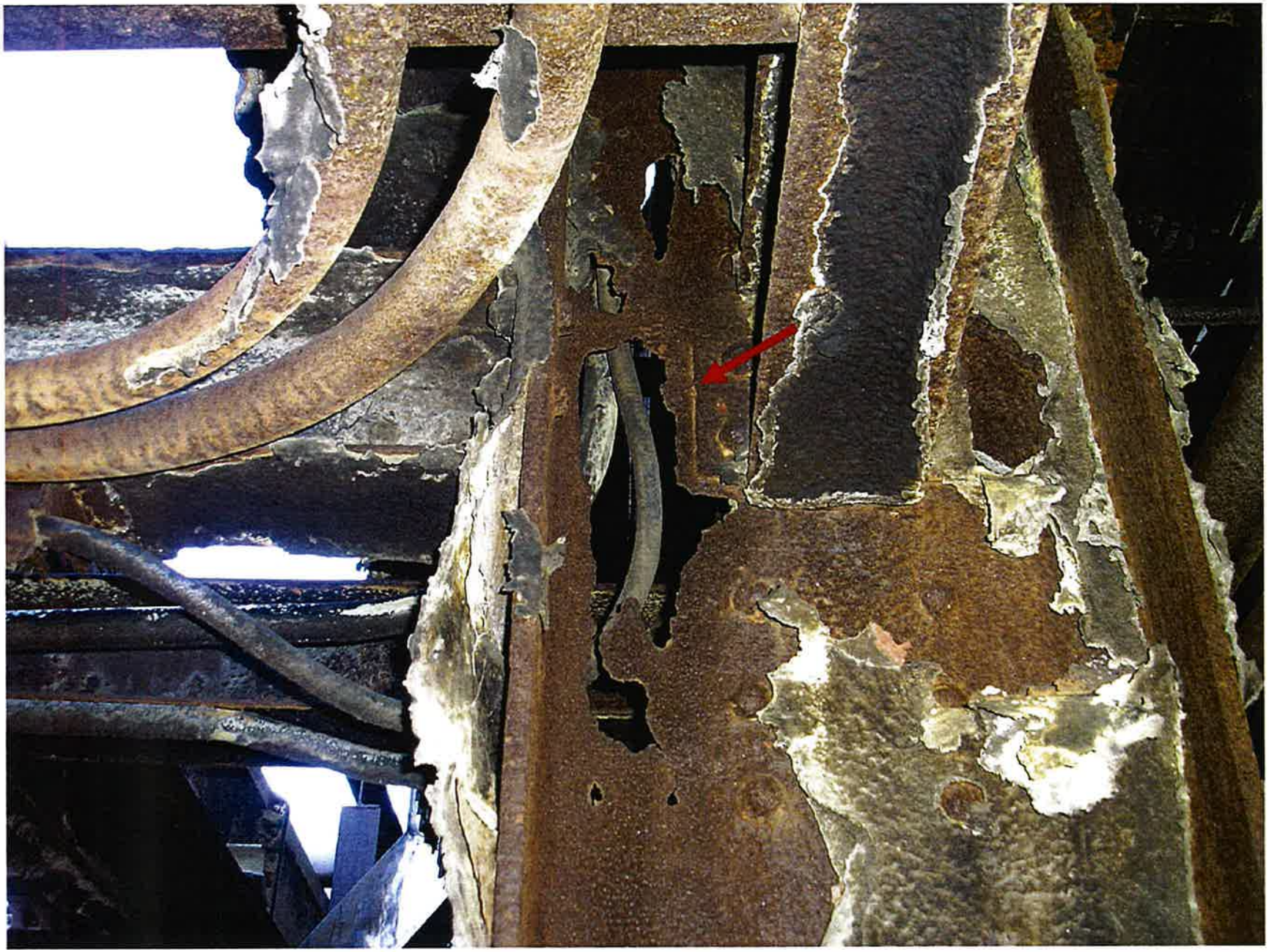


PHOTO 22 – DETERIORATED FRAMING AT EXTERIOR CATWALK AT WEST SIDE OF BUILDING 16

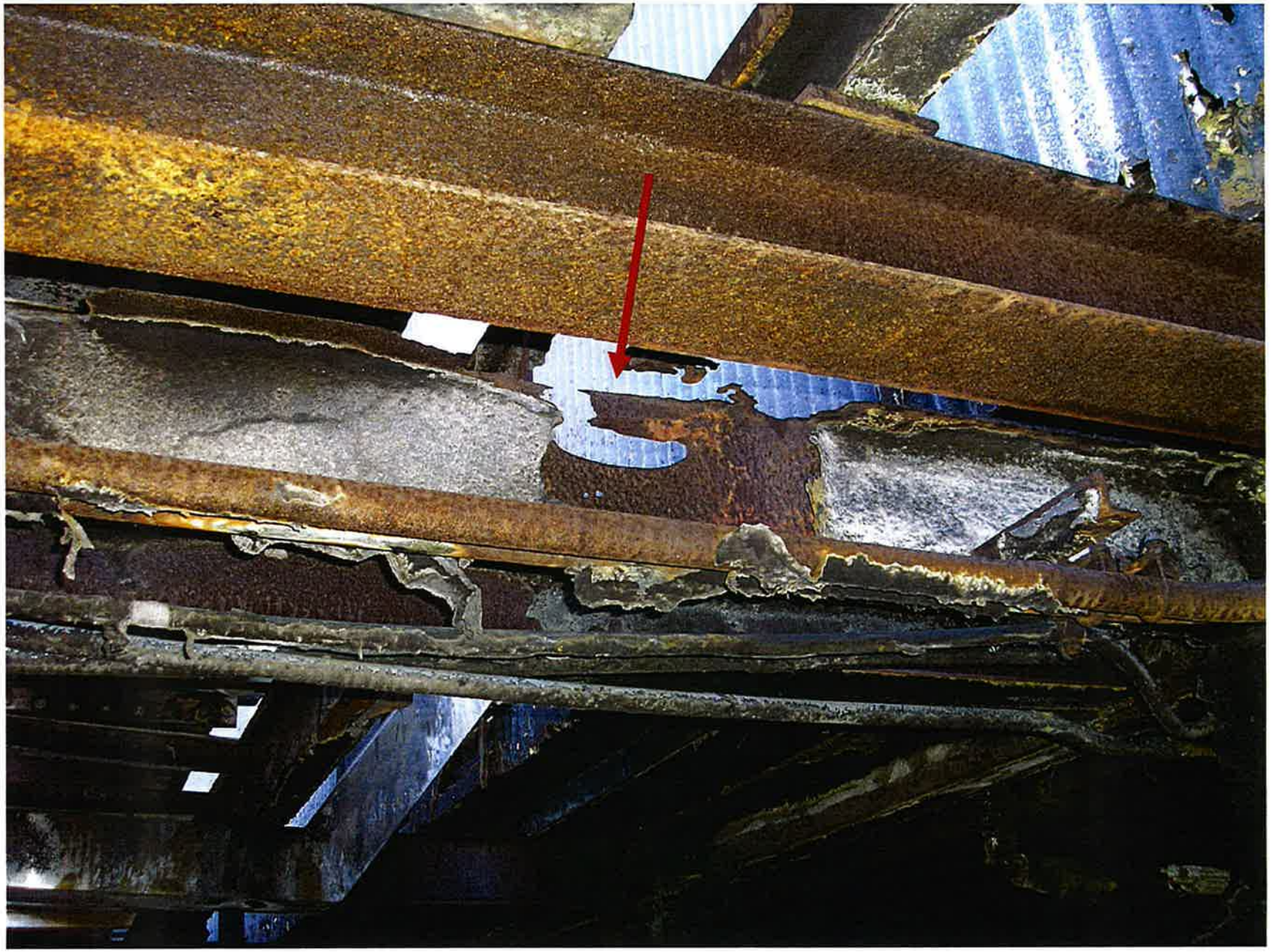


PHOTO 23 – DETERIORATED FRAMING AT EXTERIOR CATWALK AT WEST SIDE OF BUILDING 16

PHOTO 24 – DETERIORATED FRAMING AT INTERIOR CATWALK AT WEST SIDE OF BUILDING 16

PHOTO 25 – VIEW OF MASONRY DISTRESS AT NORTH WALL OF BUILDING 17

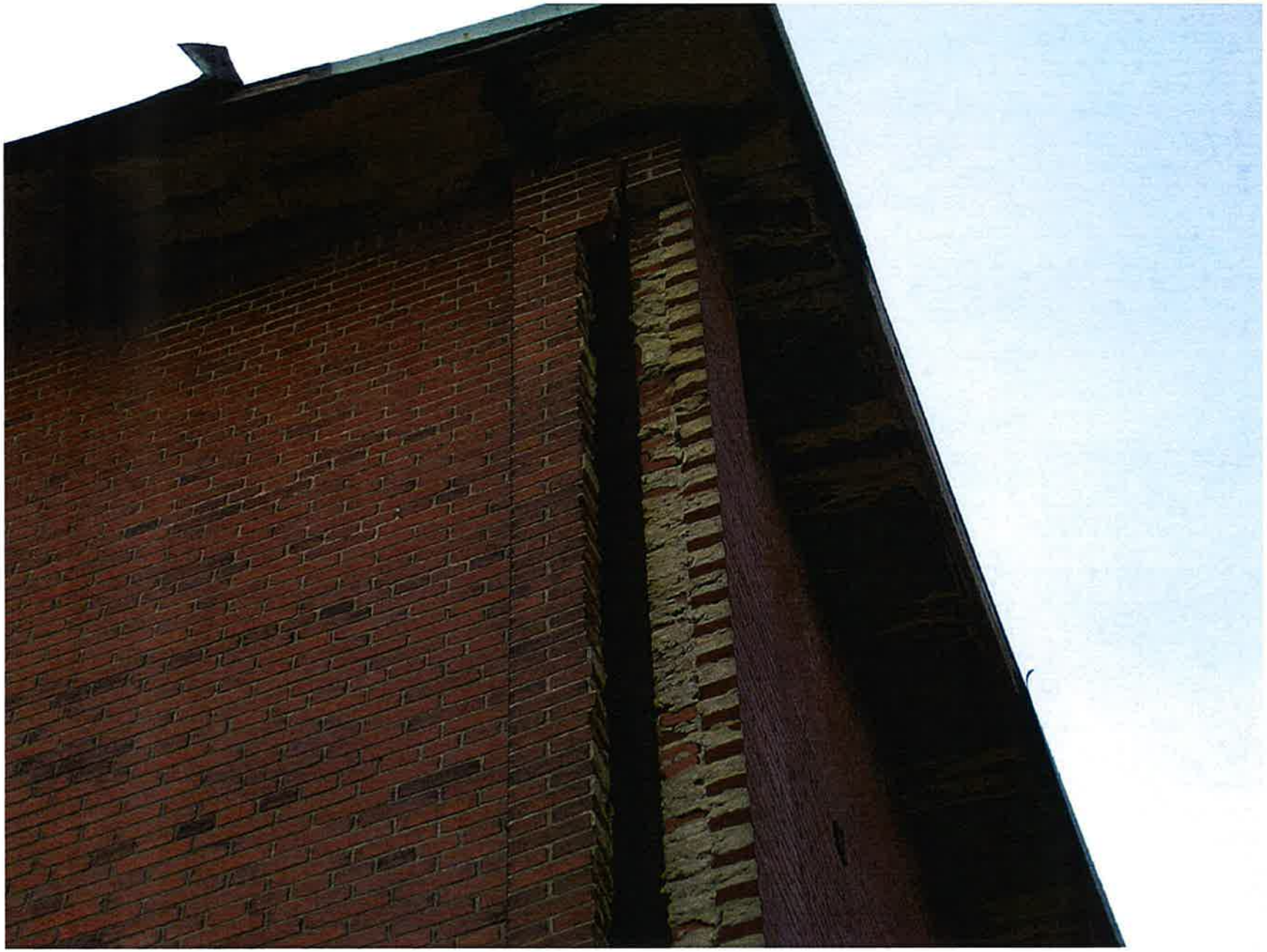


PHOTO 26 – VIEW OF MASONRY DISTRESS AT NORTHWEST CORNER OF BUILDING 17

PHOTO 27 – VIEW OF MASONRY DISTRESS AT NORTHWEST CORNER OF BUILDING 24

PHOTO 28 – VIEW OF GRATED TURBINE LEVEL AT SECOND FLOOR OF EAST HALF OF BUILDING 25

PHOTO 29 – VIEW OF UNSOUND CHECKERED PLATE AREA AT CENTER PORTION OF FIRST FLOOR BUILDING 25

PHOTO 30 – VIEW OF NORTH PORTION OF FIRST FLOOR, NORTHEAST CORNER OF BUILDING 25

PHOTO 31 – DETERIORATED CATWALK AT WEST HALF OF BUILDING 26

PHOTO 32 – DETERIORATED CATWALK AT WEST HALF OF BUILDING 26

PHOTO 33 – DETERIORATED SUPPORT OF FIBERGLASS BEAM AT CATWALK AT WEST SIDE OF BUILDING 26

PHOTO 34 – DETERIORATED CONCRETE BEAM AT WEST SIDE OF BUILDING 26

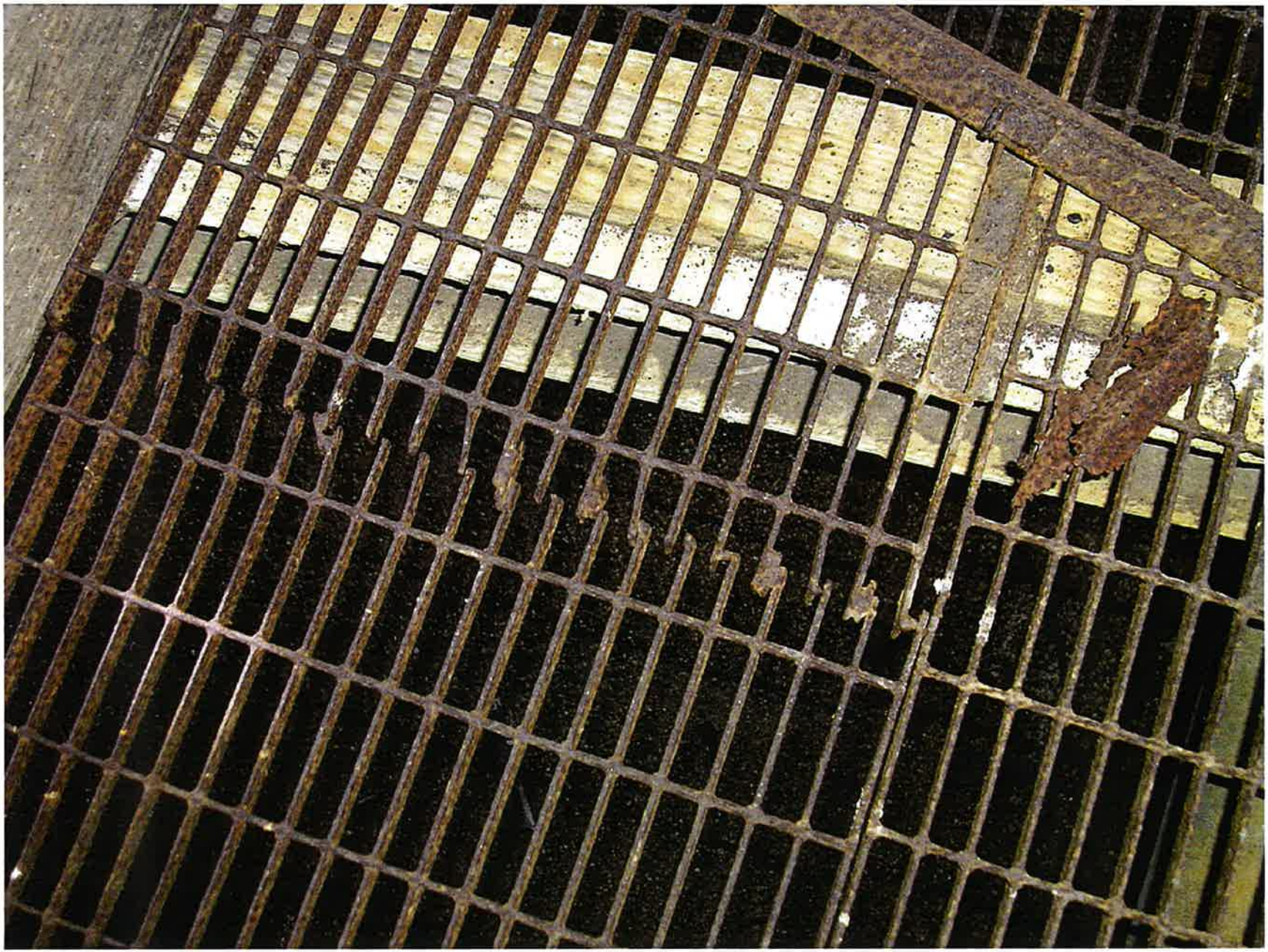


PHOTO 35 – VIEW OF GRATING AT SECOND LEVEL OF CATWALK AT WEST SIDE OF BUILDING 26

ATTACHMENT 2

RESUME OF STRUCTURAL ENGINEER

GARY W. JASTER, PE
Principal

Education
The University of Texas at Austin - Bachelor of Science in Architectural Engineering, 1974

Registration
Licensed Professional Engineer in the States of: Louisiana No. 22137, Texas No. 45301
Qualified Inspector for Texas Windstorm Insurance Association

Professional Affiliations
Architectural Engineering Institute
American Institute of Steel Construction
American Concrete Institute
National Society of Professional Engineers
Texas Society of Professional Engineers
Travis Chapter Society of Professional Engineers

Civic Affiliations
Former Member, Building and Fire Code Board of Appeals, City of Austin
Member, Austin Chamber of Commerce

Experience
Mr. Jaster has 36 years of engineering experience and is responsible for business development, project management, and supervision of project personnel. He has extensive experience in the structural design and management of various types of industrial and manufacturing projects throughout the state of Texas.

Relevant Projects
- OCTG, Houston, Texas
- EGC Plastics, Humble, Texas
- Simulator Building, Texas National Guard, Camp Bowie, Brownwood, Texas
- Sandia National Laboritories, Steam Plant Temporary Boilers, Albuquerque, New Mexico
- CFAN Plant Expansion, San Marcos, Texas
- Central Utility Plant, Austin-Bergstrom International Airport, Austin, Texas
- CSC/City Hall Chilled Water Plant and Hobby Complex Parking Garage, Austin, Texas
- NSU Central Plant and Parking Garage Ice Tank Strengthening Peer Review, Cooper City, Florida
- Austin Energy Fire Protection/Safety at Holly Street, Decker Creek and San Hill Power Plants, City of Austin, Austin, Texas
- Advanced Micro Devices Lonestar Campus Central Plant, Austin, Texas, Gold LEED
- 807 North Broadway, Corpus Christi, Texas
- Bay Hall, Texas A&M University at Corpus Christi
- Border Patrol Station, Corpus Christi, Texas
- Christos Spohn Hospital Shoreline, Corpus Christi, Texas
- Dr. Clotilde P. Garcia Public Library, Corpus Christi, Texas
- Early Childhood Development Facility, Texas A&M University at Corpus Christi
- North Beach Town Homes, Corpus Christi, Texas

If the enlarged photo does not appear in a new window, hold the "ctrl" key down while clicking on the enlargement button.

Structural Engineering Overview

Our structural engineers provide our clients creative, reliable, and cost-effective design solutions. Jaster-Quintanilla is an active team member and it is our objective to coordinate with other disciplines in a time-sensitive manner. Our comprehensive services include design for new construction, expansions, adaptive reuse, and structural investigations. Services offered include:

- Building Design
- Building Performance Analysis
- Hydraulic Structures
- Design for harsh environments including water and wastewater treatment and industrial plants
- Design for Sustainability
- Condition Assessments
- Transportation Structures
- Building Envelope Investigation and Rehabilitation
- Litigation Support Services