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August 7, 2017

Marie Jones Community Development Director City of Fort Bragg 416 N Franklin Street Fort Bragg, CA 95437

Subject: Dry Shed #4 Demolition – Coastal Development Permit Application

Georgia-Pacific LLC

90 West Redwood Avenue, Fort Bragg, CA

Dear Marie:

Georgia-Pacific LLC (GP) has prepared this letter in response to the City of Fort Bragg (City) Planning Commission's recent denial of GP's application to raze and remove the building referred to as Dry Shed #4. We appreciate the diligence and effort that went into the staff report that you and your office prepared, which concurred with GP's application and provided detailed findings for approval of the project. However, we understand that a few individuals spoke in favor of delaying the permit application during the public comment period. While we understand and appreciate the sentiments behind those comments, as the property owner whom is ultimately responsible for management, costs, safety and security, our position remains firm that the building needs to be removed.

We understand that this matter is being heard once again at the next Planning Commission meeting scheduled for August 9, 2017 at 6:00 p.m. Respectfully, we offer the following information for your consideration and ask that this information be communicated to the Planning Commission, as you deem appropriate.

- In a letter dated July 13, 2017 (attached), the State of California Office of Historic Preservation deemed that Dry Shed #4 is not eligible for listing on the National Register of Historic Places.
- Based on the findings and conclusions in the attached memo prepared by an
  architectural historian from ESA, Dry Shed #4 is also not eligible for listing as an
  individual resource, nor a contributor to a historic district, to the California Register of
  Historic Places.
- As stated in the staff report prepared by the City, the City previously expressed interest in acquiring Dry Shed #4 for reuse as an industrial arts center. Based on the City's engineering analysis, it was determined that \$4MM would be necessary to rehab the building for such purpose. GP has previously offered to divest Dry Shed #4 to the City on different occasions over the past several years, but neither the City nor any other

non-profit entity has been able to produce the requisite plans and funding to acquire and redevelop the structure. The staff report goes on further to state that Dry Shed #4 has deteriorated significantly since the City completed its engineering studies. Portions of the siding are missing and the building lost a sizable portion of the roof this past winter. At this time it appears that the building does not have sufficient structural integrity, physical condition or economic value for successful reuse.

- There is no purchase and sale agreement with Mendocino Railway for Dry Shed #4 and surrounding property.
- GP commissioned a licensed structural engineer to assess Dry Shed #4 after it sustained further damage after a series of storms in January 2017 (see attached). The findings concluded: "The recent storm related roof damage in the southeast corner of the building has seriously weakened the roof framing in the southeast corner of the building and support for the gable end at the southeast corner of the building. The loss of roof framing in the southeast corner and the potential for future loss of roof and wall framing in the southeast corner of the building pose an unsafe and potential hazardous condition to operations, personnel, equipment, and vehicles inside and outside the building in the general vicinity. The loss of additional roof framing or damage to wall framing could cause the south wall of the building to become unstable..."
- Based on the findings from the structural report, GP elected to restrict occupancy of Dry Shed #4 and requested that the then tenant, Holmes Lumber, vacate the premises.
- Just as recently as July 20, 2017 there was a report of trespassing, theft, and vandalism in Dry Shed #4. The condition of Dry Shed #4 not only puts GP staff at risk but also poses a danger to those individuals whom illegally entered the building and those that may in the future. The potential for illegal trespassing will only increase after the coastal trail is connected.
- In reference to the previous demolition work in 2013, an individual at the public hearing inferred that no effort was made to recycle timbers and that the means for demolishing the buildings were careless. It should be clarified that the demolition work completed in 2013 met all of the conditions in the Coastal Development Permit and City Building Demolition Permit, including the City's waste diversion and recycling requirements. A total of 182,584 board feet of redwood beams were sized and planed on site, and ultimately salvaged by a local subcontractor. This is equivalent to 350 tons of recycled timbers. See attached recycling documentation. Similar efforts to recycle redwood beams/timbers will be employed with Dry Shed #4.

We appreciate your consideration of the facts and findings summarized above, and trust that the Planning Commission will recognize the real need for the project and make the responsible determination.

Sincerely,

Michael Hassett

Michael Through

cc: Traylor Champion, Georgia-Pacific LLC Dave Massengill, Georgia-Pacific LLC

# OFFICE OF HISTORIC PRESERVATION DEPARTMENT OF PARKS AND RECREATION

1725 23<sup>rd</sup> Street, Suite 100 SACRAMENTO, CA 95816-7100 (916) 445-7000 Fax: (916) 445-7053 calshpo@parks.ca.gov www.ohp.parks.ca.gov

July 13, 2017



In reply refer to: COE\_2017\_0130\_001

Rick M. Bottoms, Ph.D. – Chief, Regulatory Division U.S. Army Corps of Engineers San Francisco District 1455 Market Street San Francisco, CA 94103-1398

RE: Section 106 Consultation for Georgia-Pacific Operable Unit E former wood products

facility excavation and disposal activities at 90 Redwood Avenue in Fort Bragg,

County, California (2009-00372N)

Dear Dr. Bottoms:

The Office of Historic Preservation (OHP) received your letter on June 12, 2017 continuing consultation on the Georgia-Pacific, LLC excavation and disposal project in Operable Unit E at the former wood products facility in Fort Bragg, Mendocino County, California. The U.S. Army Corps of Engineers (COE) is consulting with OHP to comply with Section 106 of the National Historic Preservation Act of 1966 (as amended) and its implementing regulations at 36 CFR Part 800. The COE is requesting review and concurrence on their Area of Potential Effects (APE), adequacy of their historic property identification efforts, and finding of no adverse effect to historic properties, as detailed in the following documents:

- Operable Unit E Soil and Sediment Removal Action on the Former Georgia-Pacific Wood Products Facility in Fort Bragg, Mendocino County Draft Cultural Resources Inventory Report and Finding of Effect (ESA, April 2017)
- Appendices and Attachments to ESA 2017
- Transitions over Time: A Chronological Perspective of the Union Lumber Company Lumber Mill, Fort Bragg, Mendocino County, California (Garcia and Associates 2008)
- Copies of Native American consultation correspondence

The COE is proposing to issue a permit under Section 404 of the Clean Water Act Georgia-Pacific, LLC (Applicant) to remediate contaminated soils through excavations within 19 removal action areas (RAAs) within the Operable Unit-E (OU-E) of the former Georgia-Pacific Wood Products Facility. OU-E is comprised of approximately 12 acres of man-made ponds and seasonal wetland areas across 45 terrestrial acres. The COE has defined the Area of Potential Effects (APE) as the 19 RAAs, a 20-foot wide buffer around each RAA, an area for establishment of approximately 0.59-acres of wetland north of Pond 7, and three designated staging areas. OHP has no comment on the APE at this time.

Dr. Bottoms July 13, 2017 Page 2

The COE's letter states that 16 cultural resources investigations were conducted at the Facility between 1974 and 2011. As a result, the Georgia-Pacific Lumber Mill Historic District (P-23-004385) and the Fort Bragg Native American Archaeological District (P-23-004491), comprised of 22 prehistoric archaeological sites, were recorded at the Facility and the immediate vicinity. According to the COE's letter, none of the contributing elements of the Fort Bragg Native American Archaeological District are located within the APE, although the APE is within the District's boundaries. The Georgia-Pacific Lumber Mill Historic District was originally recorded by TRC in 2003 as containing 22 contributing buildings and structures. It appears that the District was never evaluated through the Section 106 consensus process with this office, but was recommended eligible for listing on the National Register of Historic Places (NRHP) through an evaluation that was made under the California Environmental Quality Act (CEQA). Since the initial recording, 21 of the buildings have been demolished and the only remaining structure is Dry Shed #4, which is located outside of the APE. The COE is currently recommending the Georgia-Pacific Lumber Mill Historic District not eligible for listing on the NRHP due to lack of integrity.

Additional historic property identification efforts were conducted by ESA for the present undertaking and included a records search at the Northwest Information Center, a pedestrian survey of the APE, and excavation of 13 shovel test pits (STPs) in the vicinity of the proposed RAAs, in consultation with a Native American monitor with the Sherwood Band of Pomo Indians. No additional archaeological or historic resources were identified as a result of these efforts. The excavated STPs indicated that the proposed RAAs contain artificial fill or disturbed sediments. No STPs were excavated within the ponds or riparian area.

The COE contacted the Native American Heritage Commission (NAHC) and received a response on October 10, 2016 stating that a search of the Sacred Lands File yielded negative results within the APE. The Corps sent letters to the Native American contacts provided by the NAHC on November 04, 2016. The Sherwood Valley Band of Pomo Indians responded with a letter on December 01, 2016, which stated the importance of the project area as it is within the former Mendocino Reservation and that the project is located within an eligible archaeological district. A tribal monitor was present for excavation of the STPs for the current undertaking. The Sherwood Valley Band of Pomo Indians has also been consulting with the City of Fort Bragg for several years, and has been working with Georgia-Pacific and the California Department of Toxic Substance Control on a cultural resources protection plan for the Facility.

Based on the information provided, the COE are requesting concurrence on the adequacy of their historic property identification efforts and their finding of no adverse effect to historic properties for this undertaking. The following comments are provided:

- Pursuant to 36 CFR 800.4(b), the historic property identification efforts carried out for this undertaking appear to be adequate.
- The COE is proposing to treat the Fort Bragg Native American Archaeological District (P-23-004491) as eligible for the NRHP for the purposes of Section 106 for this undertaking. I do not object.

- Pursuant to 36 CFR 800.4(c)(2), the COE has recommended the Georgia-Pacific Lumber Mill Historic District (P-23-004385) as not eligible for listing on the NRHP, due to lack of integrity as most of the buildings are non-extant. I concur.
- Be advised that any unanticipated discoveries, <u>including archaeological materials</u>
   <u>associated with the Georgia-Pacific lumber mill</u>, that may be discovered during project
   implementation will need to be recorded and evaluated for their NRHP eligibility in
   consultation with OHP, pursuant to 36 CFR 800.13(b).
- It appears that no contributing elements of the Fort Bragg Native American Archaeological District are present within the APE and will be impacted by the undertaking, therefore **I concur** with the COE's finding of *no adverse effect*, pursuant to 36 CFR 800.5(b).

Be advised that under certain circumstances, such as an unanticipated discovery or a change in project description, the COE may have additional future responsibilities for this undertaking under 36 CFR Part 800. For more information or if you have any questions, please contact Koren Tippett at (916) 445-7017 or koren.tippett@parks.ca.gov.

Sincerely,

Julianne Polanco

State Historic Preservation Officer



2600 Capitol Avenue Suite 200 Sacramento, CA 95816 916.564.4500 phone 916.564.4501 fax

## memorandum

date August 2, 2017

to Jeremie Maehr, PE | Principal Engineer

Kennedy/Jenks Consultants

from Katherine Anderson, Architectural Historian (ESA)

Subject Dry Shed #4 of Union Lumber Company Lumber Mill (Georgia-Pacific Wood Products Facility)

#### Introduction

Between 1974 and 2011 a total of sixteen investigations for cultural resources at the Georgia-Pacific Wood Products Facility (Facility) have been conducted. As part of a Phase II evaluation of the site's built environment, following the Phase I analysis in 2003, TRC recommended that the Georgia-Pacific Mill had achieved significance as a historic district under the National Register of Historic Places (National Register) and California Register of Historical Resources (California Register) criteria A/1 through D/4 due to: (1) its 115-year association with the redwood lumber industry and with the urban development of Fort Bragg between 1885 and 1953; (2) its association with the lives of persons significant in the past; principally with the life of C.R. Johnson, a founder of the lumber company and Fort Bragg's first mayor; (3) its large collection of early twentieth-century buildings and equipment associated with the Mill's historic use; and (4) its potential to contribute important data regarding the relationship between the redwood lumber industry and associated urban development.<sup>1</sup>

The Georgia-Pacific Lumber Mill Historic District (P-23-004385) was described as including 22 contributing buildings and structures dating from 1885 to 1953. In order to mitigate significant adverse impacts to the proposed historic district, the Phase II report recommended preparation of a formal historical recordation of the entire property. A Site Specific Treatment Plan for Cultural Resources was developed by TRC for the project, including specific treatment to be implemented for built resources in documenting the significance of the site.<sup>2</sup>

These measures included:

<sup>&</sup>lt;sup>1</sup> TRC Companies Inc, n.d. "Phase II Determination of Significance Standing Structures Georgia Pacific Lumber Mill Fort Bragg, California: Draft Report." Prepared for the City of Fort Bragg.

<sup>&</sup>lt;sup>2</sup> TRC, nd\_b, Site Specific Treatment Plan for Cultural Resources: Georgia Pacific Lumber Mill, Fort Bragg, California. Prepared for the City of Fort Bragg.

- A. The entire property should be historically recorded. This would include:
  - a. Large format photography
  - b. Copies of construction drawings
  - c. Production of a detailed history of lumber operations on the property
- B. The collection of historic company photographs, and the historic blueprints and construction drawings of the mill property that are currently stored at Noyo Hill House should be cataloged and stored in a permanent facility that allows for historical research
- C. Interviews should be recorded with (ex) employees at the mill, describing its operations and importance within the community
- D. A biography of C.R. Johnson should be produced describing his importance within the redwood lumber industry and the town of Fort Bragg
- E. A publically accessible document should be produced that described the importance of the mill with regards to the lumber industry and to local history.

Of these proposed measures, Measure E) appears to have been completed through the documentation of the site by Garcia and Associates in 2008, who drafted a detailed public history of the Union Lumber Company Lumber Mill (the historic name of the Facility), providing a written record of the importance of the company in relation to the lumber industry and local history.<sup>3</sup>

By 2013, nearly all the buildings and structures at the Facility had been demolished, with the exception of Dry Shed #4. As part of the 2014 Subsequent Environmental Impact Report completed by the City of Fort Bragg, the Georgia-Pacific Lumber Mill Historic District was recommended as no longer eligible for the National or California Register due to a lack of integrity through loss of its contributing resources. Only one of what once were 22 contributing resources remained, and the setting had been greatly altered by the demolition of the other related buildings.<sup>4</sup>

## Dry Shed #4, Description and Evaluation

TRC's circa 2003 Phase II report completed for the project described Dry Shed #4 (below, and **Figure 1**), and recommended the building eligible as a contributor to the (now defunct) Georgia-Pacific Lumber Mill Historic District.

Dry Shed #4 is a two-story warehouse-type property that appears to be four separate buildings joined at the east/west and north/south facades. The property was constructed circa 1960 and is located on the north end of the mill site, near the railroad tracks.

<sup>&</sup>lt;sup>3</sup> Garcia and Associates, 2008. "Transitions Over Time: A Chronological Perspective of the Union Lumber Company Lumber Mill: Fort Bragg, Mendocino County, California." Prepared for ARCADIS and the Georgia-Pacific Corporation. July 2008.

<sup>&</sup>lt;sup>4</sup> City of Fort Bragg, Coastal Restoration and Trail Project Phase II, Subsequent Environmental Impact Report (EIR). November 2014.

The building features a gambrel roof covered with rolled asphalt, exterior plywood panel walls, and a poured concrete foundation. The south façade has two open loading bays. There is no fenestration at the east façade. The north façade features one enclosed loading bay and one loading bay that retains an overhead track door. The west façade features two shed wings, one of which (at the north end) appears to hold an office. Both of the shed wings feature sing-door entrances that face west. Also at the west facade is an enclosed single-door entry (facing west).

The Phase II report did not, however, provide an individual recommendation for the building. The following text from the Phase II report provides a brief context for the lumber industry in the latter half of the twentieth century.

The 1950s and 1960s saw an increase in the consolidation of the redwood industry into large corporations such as Georgia Pacific. The increasing costs of maximizing efficiency, by investing in new technology to increasing automation, continued the trend of companies requiring large amounts of investment capital in order to remain competitive. Most of the family owned businesses were sold to the larger corporations.

In 1955 lumber output in Mendocino reached its peak at over 1 billion b.f. per year. Production was high throughout the 1950s, but declined in the subsequent decades. Within ten years of reaching its peak output, production had dropped by half. Despite a recovery in the late 1980s, output continued to drop and by the 1990s it was only 250 million b.f per year (TRC, 2003).

Archival review associated with Dry Shed #4 recommends the building as not eligible under Criteria A/1, as the extant building was constructed well after World War II, and is not directly associated with the early development of or prominent years of the lumber industry in the area (significant patterns of development). Nor is Dry Shed #4 eligible under Criteria B/2, for direct associations with persons important in history. Although the larger mill site property was associated with C. R. Johnson from its inception in 1885 until his death in 1940, the extant building was constructed after his death and has no direct association with Johnson. The structure is not eligible under Criteria C/3, as the building is a common industrial building, not remarkable example of a style, and does not exhibit extraordinary design or craftsmanship. As described in TRC's report, the post-1945 buildings, especially those post-dating the period of significance of the district (1885-1953) such as the 1960 Dry Shed #4, are generally simple, post-war utilitarian warehouses and office buildings. Finally, Dry Shed #4 is not eligible under Criteria D/4, as it is not expected to yield useful information important to history.

#### Conclusion

Dry Shed #4 is recommended not eligible for listing as either an individual resource, nor a contributor to a historic district, to the California or National Registers. As noted above, the Georgia-Pacific Lumber Mill Historic District no longer retains sufficient integrity to function as a historic district, and as such Dry Shed #4 can no longer function as a contributor. The State Historic Preservation Officer concurred with the finding that the district is no longer eligible for listing based on the current conditions.<sup>5</sup> Additionally, Dry Shed #4 does not possess the historically significant associations to be considered eligible as an individual historical resource. No further mitigation is necessary for Dry Shed #4 as a built cultural resource.

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<sup>&</sup>lt;sup>5</sup> State Historic Preservation Officer (SHPO), Letter to Rick M. Bottoms, Ph.D. – Chief, Regulatory Division U.S. Army Corps of Engineers regarding Section 106 Consultation for Georgia-Pacific Operable Unit E former wood products facility excavation and disposal activities at 90 Redwood Avenue in Fort Bragg, County, California (2009-00372N). Dated July 13, 2017.

Figure 1. Dry Shed #4



## Kennedy/Jenks Consultants

## **Engineers & Scientists**

303 Second Street, Suite 300 South San Francisco, California 94107 415-243-2150 FAX: 415-896-0999

31 January 2017

Michael Hassett, P.E. Senior Manager - Remediation Georgia-Pacific LLC 133 Peachtree Street, NE Atlanta, GA 30303

Subject: Structural Assessment of Storm Damage

Dry Shed No. 4 Georgia-Pacific Fort Bragg, California K/J 1665018\*04

Dear Mr. Hassett:

Kennedy/Jenks Consultants is pleased to be able to provide engineering services associated with a limited structural condition assessment following the early January 2017 storm related damage to the Georgia-Pacific Dry Shed No. 4 in Fort Bragg, California. Summarized below are results of key observations and preliminary recommendations regarding the condition and safety of the building.

## **Purpose and Scope**

The purpose of this letter report is to document observations and recommendations related to the evaluation of the Dry Shed No. 4 building structure following recent storm related damage. This letter provides initial information regarding the current condition of the existing building structure and its suitability to perform its intended function of storing materials in the south half of the building until approximately the end of April 2017. During that time the building may be subject to additional distress from environmental factors that may further change and degrade the condition of the building. Persons who enter the building or the area around the building should use care to be aware of further changes to the building condition that may require additional assessment or actions to protect personnel. The recommendations in this report reflect the judgement of Kennedy/Jenks Consultants and the engineer responsible for the evaluation.

The report is provided to evaluate damage resulting specifically from the recent storm activity. The evaluation of all past problems and distress to portions of the building resulting from

exposure conditions, weathering, or inadequate maintenance are beyond the scope of this report. Seismic evaluation of the existing building structure is considered beyond the scope of this report. It should be recognized that there is no absolute measurement of structural safety in an existing building, particularly in buildings that have deteriorated due to prolonged exposure to the environment.

## **Review of Background Documents**

No background documents (drawings, specifications, construction records) were received or reviewed as part of the assessment. Georgia-Pacific indicated detailed structural drawings of the building were not identified among accessible records. If Georgia-Pacific is able to provide drawings of the existing building structural capacity checks on the framing members of the walls or roof could be performed. It is believed the building was constructed in the late 1970's or early 1980's. No information was reviewed associated with design of the building in conformance with building code requirements applicable at the time of construction. No soils or foundations information was reviewed and no review was made of the building foundations or floor slab.

## **Observations of Building Conditions and Storm Damage**

A walk-through of Dry Shed No. 4 was performed by Donald L. Barraza, P.E. with Kennedy/Jenks Consultants on 24 January 2017. Access to the site and building was provided by Mr. James Gross, Site Coordinator, for Georgia-Pacific. Based on input received from Mr. Gross the building is approximately 450'-0" long by 150'-0" wide and has approximately 75,000 square feet of floor area. The building was constructed in the late 1970's or early 1980's (approaching 40 years in age). The building is of wood framed construction with plywood sheathing. The building has an M-shaped modified gambrel roof configuration with a roof drain cricket running the length of the building to direct interior rainwater drainage to the north and south ends of the building. Observations were made of the interior and exterior of the building and portions of the roof were observed from the drain cricket. Based on observations made at the time of the assessment, the following deficiencies were observed:

- The physical properties of the construction materials have degraded significantly with water related damage to the plywood sheathing and wall and roof structural wood framing members. The modified bitumen roof waterproofing material has blown off of many areas of the south half of the building.
- 2. An approximately 16'-0" x 8'-0" damaged open area in the plywood sheathing and roof purlins was observed in the roof of the building near the southeast corner of the building. See Photos 2, 3, 4, 5, 7, 8, and 9. The damaged section of plywood sheathing and 2x4 roof purlins is still lying on the roof and could blow off the roof in the next storm.

- 3. An approximately 8'-0" x 8'-0" damaged open area in the plywood sheathing and roof purlins was observed in the roof of the building near the southeast corner of the building. See Photos 6, 7, 8, and 10.
- 4. Besides the loss of the plywood sheathing and purlins one of the girders supporting and attaching the south transverse wall to the building has pulled out of its beam hanger and has failed. See Photo 11.
- 5. The loss of the plywood at two openings in the roof as well as the loss of the girder in the beam seat on the southeast corner of the building removes the strength of the roof diaphragm connection to the south wall of the building in the southeast corner. It also appears that another approximately 16'-0" x 8'-0" section of roof is about to be lost from the building in the southeast corner. The remaining roof girders appeared to be in adequate condition still supporting and attaching the south gable wall to the remainder of the roof.
- 6. The 10x12 posts and the 4x12 walers supporting the 2x4 studs and plywood sheathing in the south gable end wall were intact with no observed splitting.
- 7. An approximately 20'-0" x 16'-0" damaged open area in the plywood sheathing, wall studs, and walers was observed on east wall of the building near the northeast corner of the building. See Photos 16, 17, and 18. This area was reportedly not damaged in the recent storms. The area is missing one 3x10 waler and the second 3x10 waler is split. The 2x4 studs and plywood sheathing have been lost in this area.
- 8. There is a large area on the south half of the building where the modified bitumen roof material has blown off and has collected and blocks the roof drainage depression between the two roofs. There is extensive modified bitumen roofing material debris along the entire length of the south half of the roof drain cricket. The APP Modified Bitumen roofing material used on the building roof was manufactured by Dibiten. See Photo 12.
- 9. There is extensive loss of the modified bitumen roofing material over the south half of the building. The roofing material has been removed from both the east and west halves of the building with more extensive loss on the areas of the roof exposed to the west (ocean) side. Water has ponded in the roof drain cricket on the south half of the building and is prevented from freely draining to the downspout on the south end of the building.
- 10. There is minimal debris in the roof drain cricket on the north half of the building. Water was freely draining to the downspout on the north end of the building. The roofing

material on the north half of the building did not show observable signs of damage or deterioration as observed from the roof drain cricket area.

- 11. The interior redwood trusses did not show observable signs of significant damage or deterioration. The gable end truss on the south side of the building near the roof damage appeared to be intact with connections to the posts and roof girders supporting the truss.
- 12. Water damage was observed over many areas of the interior roof to plywood and 2x4 purlins and girders with some holes in the plywood sheathing where the modified bitumen roofing material had blown off.
- 13. There is plywood and 2x4 roof purlin debris over the southeast corner of the roof which could blow off the roof in the next storm.

A photo contact sheet with all 114 photographs taken during the observations of building conditions is enclosed with the letter.

## **Limitations and Further Investigations**

The structural assessment of recent storm related damage to the building was limited in its scope and is not considered to be a comprehensive structural or seismic condition assessment of the building structure. Field measurements and member dimensions were limited to those areas of observed damage in the southeast corner of the building and accessible from the ground. The evaluation of all past problems and distress to portions of the building resulting from exposure conditions, weathering, or inadequate maintenance are beyond the scope of this report. No nondestructive testing, exploratory removal, sampling, testing or physical measurements of the overall structure were performed. Based on the remaining useful life of the building, intent to terminate lease of the building for storage of materials by April 2017, it is not recommended that further or more detailed investigations be performed. If the Owner is concerned about the wind load capacity of the roof or wall framing in deteriorated areas additional structural capacity checks could be performed; however, it is unlikely that the existing wall and roof wood framing would be judged to be adequate using typical design loads and contemporary analysis methods and building codes.

#### **Conclusions and Recommendations**

The recent storm related roof damage in the southeast corner of the building has seriously weakened the roof framing in the southeast corner of the building and support for the gable end at the southeast corner of the building. The loss of roof framing in the southeast corner and the potential for future loss of roof and wall framing in the southeast corner of the building pose an unsafe and potential hazardous condition to operations, personnel, equipment, and vehicles

inside and outside the building in the general vicinity. The loss of additional roof framing or damage to wall framing could cause the south wall of the building to become unstable requiring shoring or bracing. The Owner should take measures to restrict activities in the general vicinity shown in Figure 1. Do to the limited intended remaining use of the building we would not recommend further non-destructive testing of building materials or exploratory removal, sampling, testing or physical measurements of the overall structure. As previously noted, it is clear that the physical properties of the construction materials have degraded significantly with water and wind related damage to the plywood sheathing and wall and roof structural wood framing members. The loss of the modified bitumen roof waterproofing material from many areas of the south half of the building has contributed to the degradation of the wood roof framing.

If you have any questions or need additional information please call Don Barraza at (415) 243-2483 or Jeremie Maehr at (415) 243-2472.

No. C45483 Exp. 12/31/18

Very truly yours,

KENNEDY/JENKS CONSULTANTS

Donald L. Barraza, P.E.

Principal / Structural Department Head

Enclosure (2)

1. Appendix with 18 photographs.

2. Photo contact sheet with all 114 photographs taken on 01/24/2017.

cc: Jeremie Maehr, Kennedy/Jenks Consultants

Figure 1: Building Restriction Area



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Photo #1:

Dry Shed #4



## Photo #2:

Dry Shed #4 East Side with Roof Damage in Southeast Corner



## Photo #3:

Dry Shed #4 East Side with Roof Damage in Southeast Corner; 16'-0" x 8'-0" Opening

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#### Photo #4:

Dry Shed #4 East Side with Roof Damage in Southeast Corner; 16'-0" x 8'-0" Opening



## Photo #5:

Dry Shed #4 East Side with Roof Damage in Southeast Corner; 16'-0" x 8'-0" Opening



## Photo #6:

Dry Shed #4 Roof Damage and 16'-0" x 8'-0" Opening in Southeast Corner



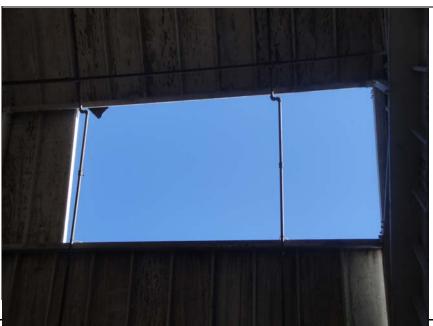
#### Photo #7:

Dry Shed #4 East Side with Roof Damage in Southeast Corner; Two Opening in Roof, Loss of 2x4 Purlins, Plywood Sheathing, and Modified Bitumen Roofing Material



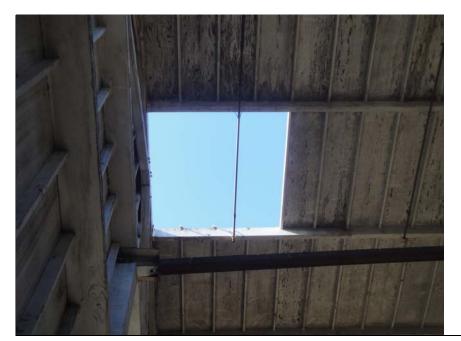
#### Photo #8:

Dry Shed #4 East Side with Roof Damage in Southeast Corner; Two Opening in Roof, Loss of 2x4 Purlins, Plywood Sheating, and Modified Bitumen Roofing Material



#### Photo #9:

Dry Shed #4 Roof Damage and 16'-0" x 8'-0" Opening in Southeast Corner; Loss of Plywood Sheathing and 2x4 Purlins



#### Photo #10:

Dry Shed #4 Roof Damage and 8'-0" x 8'-0" Opening in Southeast Corner; Loss of Plywood Sheathing and 2x4 Purlins



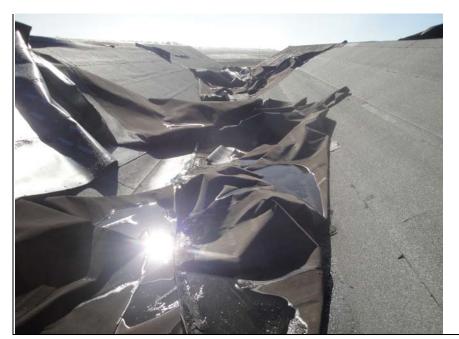
## Photo #11:

Dry Shed #4 East Side with Roof Damage in Southeast Corner; Rafter Pullout from Beam Seat



## Photo #12:

Dry Shed #4 West Side with Loss of Modified Bitumen Material on Half of Roof



#### Photo #13:

Dry Shed #4 South Half Roof with Modified Bitumen Material in Roof Drain Cricket



## Photo #14:

Dry Shed #4 South Half Roof with Modified Bitumen Material in Roof Drain Cricket and Blocked Downspout Inlet



## Photo #15:

Dry Shed #4 Roof Damage and 16'-0" x 8'-0" Plywood and 2x4 Purlin Debris on Roof



#### Photo #16:

Dry Shed #4 East Side with Wall Damage in Northeast Corner; 20'-0" x 16'-0" Opening; Loss of Plywood Sheathing, 2x4 Studs



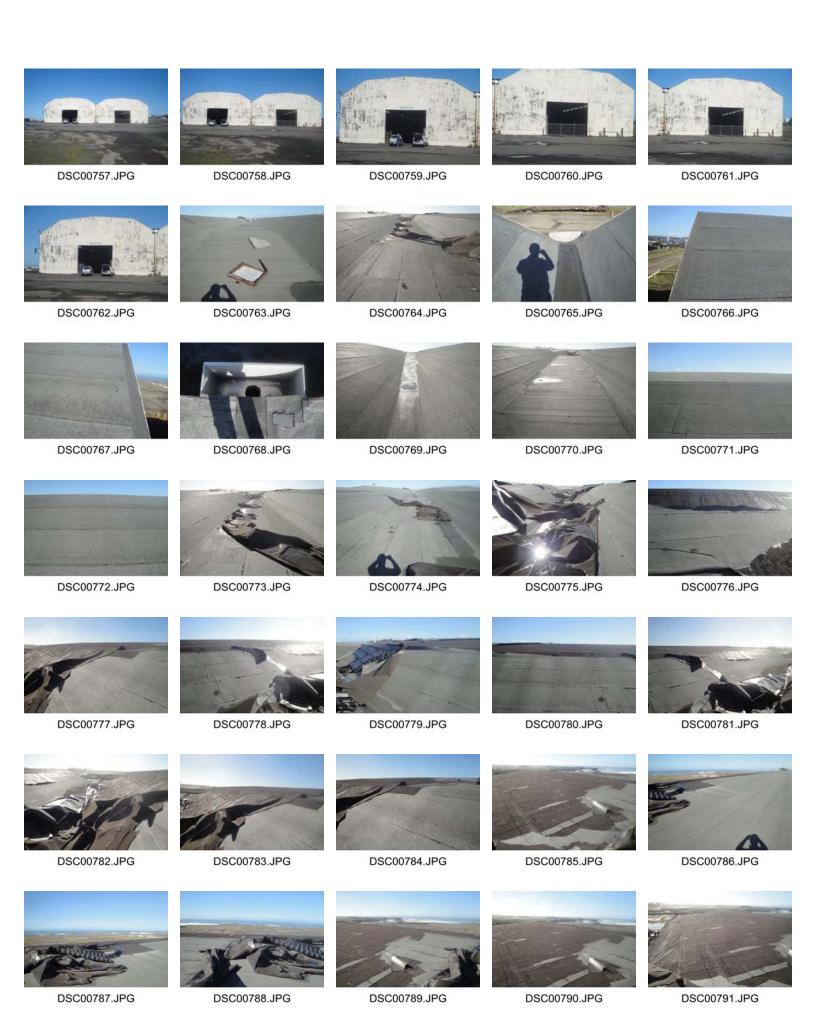
#### Photo #17:

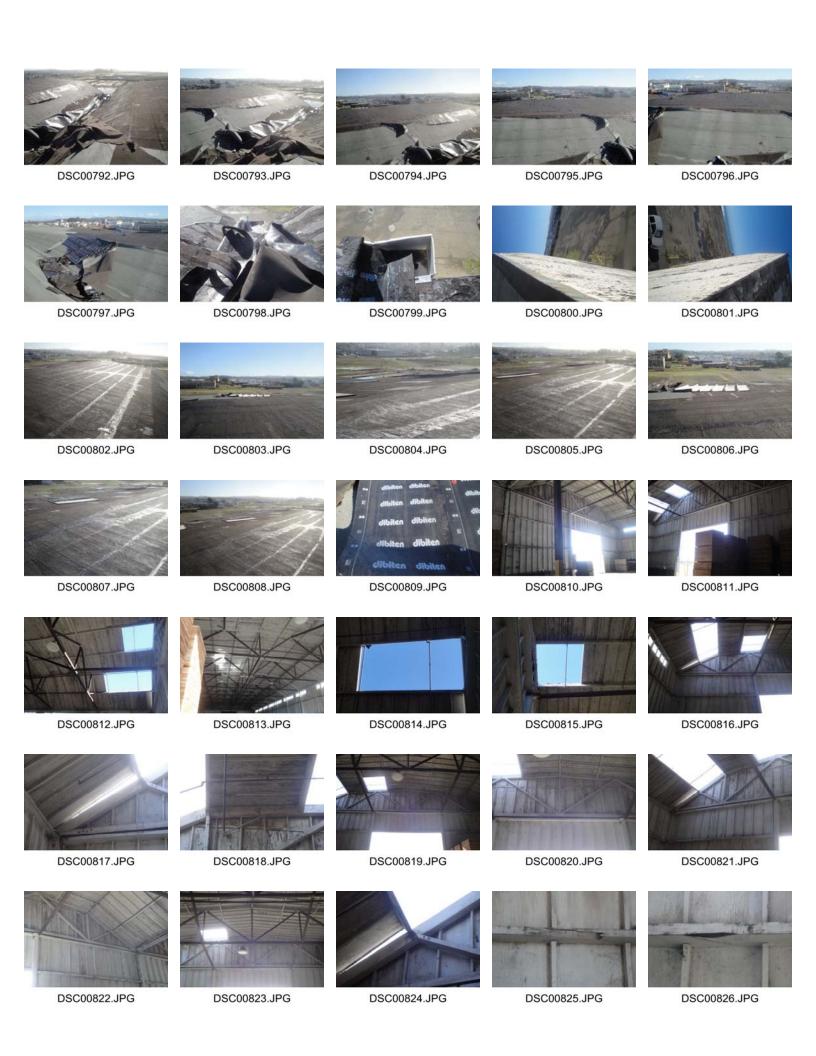
Dry Shed #4 East Side with Wall Damage in Northeast Corner; 20'-0" x 16'-0" Opening; Loss of Plywood Sheathing, 2x4 Studs

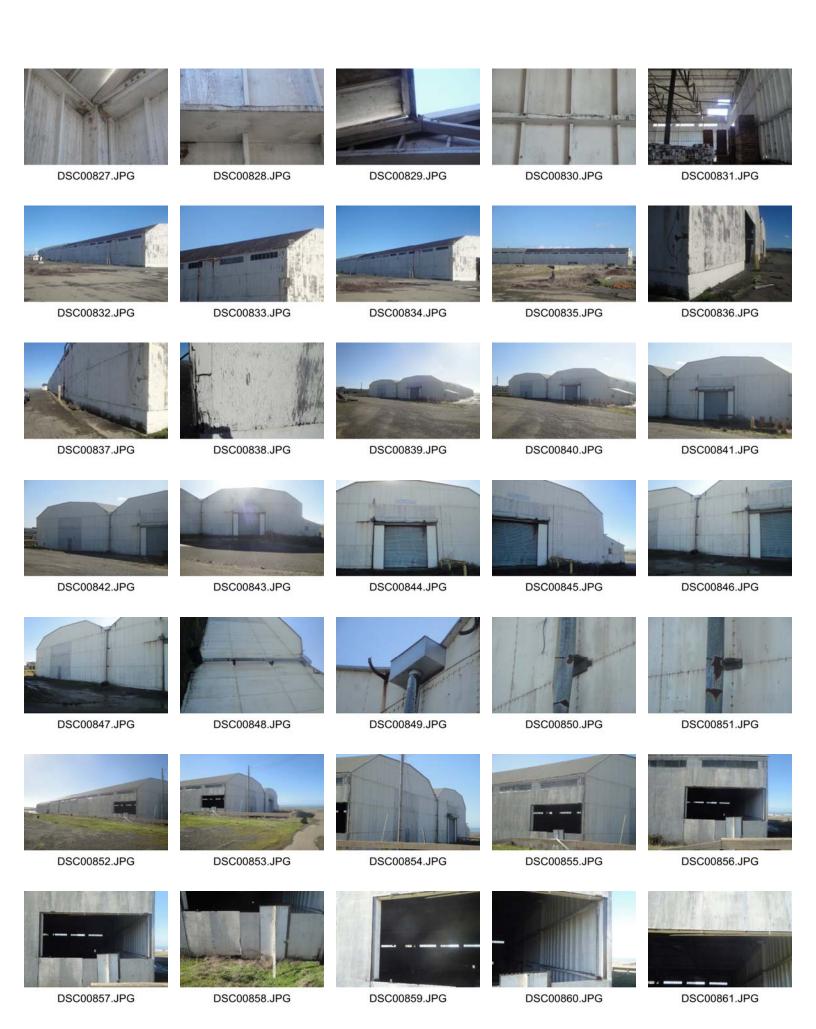


## Photo #18:

Dry Shed #4 East Side with Wall Damage in Northeast Corner; 20'-0" x 16'-0" Opening; Loss of Plywood Sheathing, 2x4 Studs; Split 3x10 Waler













DSC00863.JPG



DSC00864.JPG



DSC00865.JPG



DSC00866.JPG



DSC00867.JPG



DSC00868.JPG



DSC00869.JPG



DSC00870.JPG

Georga Pacific

Timbers

Ft Bragg, CA

Recycled

00/			<u> </u>	
Date	Invoice	Qty	Unit	Board Feet
8-Aug	1101	11	EA	1648
8-Aug	10042	260	EA	17576
10-Aug	1002	192	EA	11464
13-Aug	1004	268	EA	14784
13-Aug	1003	250	EA	23451
14-Aug	1102	84	EA	5375
26-Aug	1005	484	EA	18292
26-Aug	1105	12	EA	384
28-Aug	1106	5	EA	313
30-Aug	1005	286	EA	17648
6-Sep	1007	568	EA	18857
16-Sep	1110	152	EA	1000
17-Sep		229	EA	4220
19-Sep	1108	37	EA	5088
25-Sep		1287	EA	42484
				182584

Each board foot is approximately 3.83 pounds	699296.72 pounds
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349.64836 tons