



PLANNING COMMISSION REGULAR AGENDA

**Tuesday, September 12, 2023
7:00 PM**

**Council Chamber and Via Zoom
525 Henrietta Street, Martinez, CA 94553**

MEETING DETAILS - This meeting will be conducted in-person in the City Hall Council Chamber and shall be broadcasted in real time via Zoom Video/Teleconference for the viewing and participation of the public. Printed handouts of the agenda will be made available for viewing in the Council Chamber at the time of the meeting. Additional agenda documents pertaining to meetings can be found on the City's website at

<https://www.cityofmartinez.org/government/city-clerk/notices-and-publications>.

For specific instructions and proper protocol during the meeting, please visit <https://martinezcityofca.prod.govaccess.org/government/meetings-and-agendas>.

If attending the Zoom meeting, please join us by choosing any of the following options:

1. Via Mobile Phone or Desktop, using the Zoom App direct link:

<https://cityofmartinez-org.zoom.us/j/97957195728?pwd=aXVJWm9ucjJCQkxCd0lMZmFWKzhtQT09>

2. Via Web Browser, from <https://zoom.us/join>

Webinar ID: **979 5719 5728**

Passcode: **339659**

3. Via Phone by calling **(669) 900-6833** and enter the provided meeting details above

CALL TO ORDER - PLEDGE OF ALLEGIANCE

ROLL CALL - Sean Trambley (Chair) -- Tracey Casella (Vice Chair) -- Jonathan Bash -- Kimberley Glover – Susan Gustofson -- Jason Martin -- Rochelle Johnson -- Joseph Evans (Alternate)

AGENDA CHANGES

PUBLIC COMMENT - *Reserved for items not listed on the agenda*

CONSENT

- 1. Motion to approve the June 27, 2023 and July 25, 2023 Planning Commission Meeting Action Minutes
[Action Minutes, dated June 27, 2023](#)
[Action Minutes, dated July 25, 2023](#)
- 2. Continue application, without discussion, to the regular Planning Commission meeting of October 10, 2023, to allow the applicant to adequately respond to the Commission’s direction.
[Staff Report – Laurel Knoll Entry Gate](#)
[Attachment A – Written Request for Planning Commission Continuation](#)

REGULAR

- 3. Conduct a public hearing and adopt Resolution No. 23-12, approving a request for a Conditional Use Permit to construct a 47-foot-tall aluminum geodesic dome on top of an existing 64-foot-tall storage tank, for a total structure height of 111 feet, exceeding the maximum permitted height of 30 feet, located at 2801 Waterfront Road in the Heavy Industrial zoning district, Assessor’s Parcel Number 159-310-038, subject to conditions of approval.
[Staff Report - TransMontaigne Dome](#)
[Attachment A - Draft Planning Commission Resolution No. 23-12](#)
[Attachment B - Photographs and Simulations](#)
[Attachment C - Biological Impact Analysis](#)

COMMISSION ITEMS

STAFF ITEMS

PLANNING MANAGER

COMMUNICATIONS

ADJOURNMENT - I hereby certify this Agenda was publicly notified by 5:00 p.m. on September 8, 2023.

Dee Dee Fendley, Administrative Aide III

Information for the Public

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Community Development Office at (925) 372-3515. Notification at least 48 hours prior to the meeting will enable the City to make reasonable arrangements to help ensure accessibility to this meeting. Upon request, this agenda will be made available in appropriate formats to persons with disabilities as required by Section 202 of the Americans with Disabilities Act of 1990.



Action Minutes

Planning Commission Regular Meeting
 Tuesday, June 27, 2023 at 7:00 p.m.
 Via Video/Teleconference

* Full details are available via audio/video recording on our [website](#). *Microsoft Internet Explorer browser is recommended for video-viewing compatibility, or enable Adobe Flash on your default browser.*

Commissioners on Video Conference		City Staff on Video Conference
Chair Sean Trambley	Excused	Michael P. Cass, Planning Manager Dee Dee Fendley, Administrative Aide III
Vice Chair Tracey Casella	Present	
Commissioner Jonathan Bash	Present	
Commissioner Kimberley Glover	Absent	
Commissioner Susan Gustofson	Present	
Commissioner Jason Martin	Present	
Commissioner Rochelle Johnson	Present	
Commissioner Joseph Evans (Alternate)	Present	

Call to Order
Meeting called to order at 7:00 p.m. via video conference.

Agenda Changes (01:00 in video)
None

Public Comment (01:09 in video)
None

Consent Calendar (01:23 in video)				
1. Approval of April 25, 2023 Action Minutes				
Speakers:	None			
Public Comment:	None			
Closing Comments:	None			
Motion to:	Approve			
Motion by:	Commissioner Martin		Seconded By: Commissioner Johnson	
Motion passed 5-0	Sean Trambley	Excused	Susan Gustofson	Aye
	Tracey Casella	Aye	Jason Martin	Aye
	Jonathan Bash	Aye	Rochelle Johnson	Aye
	Kimberley Glover	Absent	Joseph Evans (Alternate)	Abstain
Approval of May 23, 2023 Action Minutes				
Speakers:	None			
Public Comment:	None			

Closing Comments:	None			
Motion to:	Approve			
Motion by:	Commissioner Martin		Seconded By: Commissioner Gustofson	
Motion passed 5-0	Sean Trambley	Excused	Susan Gustofson	Aye
	Tracey Casella	Aye	Jason Martin	Aye
	Jonathan Bash	Aye	Rochelle Johnson	Aye
	Kimberly Glover	Absent	Joseph Evans (Alternate)	Abstain

Regular Items (03:15 in video)

2. Conduct a public hearing and adopt Resolution No. 23-08, approving a request for a Conditional Use Permit (“CUP”) to exceed the permitted height associated with a new activated sludge bio-treater for wastewater and stormwater generated at the existing facility on an existing tank with a maximum height of 48’-1/2” (where 30-feet is permitted), replacing an existing bio-treater (Pond 7), located at 3485 Pacheco Blvd. in the Heavy Industrial (H-I) zoning district, Assessor’s Parcel Number 378-010-029-7, subject to conditions of approval.

Speakers:	<ul style="list-style-type: none"> • Michael P. Cass, Planning Manager gave a presentation outlining the project. • Commissioner Johnson asked for clarification of what the term “decommissioning” means. She asked if there are any concerns about existing materials leaching into the soil beyond the scope of the current area. She asked if there are other structures on the site with the same height as the referenced tank that required a Conditional Use Permit in the past. • Commissioner Martin asked if the wording regarding the decommissioning of Pond 7 is lacking a provision to ensure the work will be done. He questioned the zoning rights for the parcel. • Vice Chair Casella asked if the current regulations regarding Pond 7 were in effect when the pond was built in the 70’s. She asked for clarification of why the applicant is requesting a height beyond 30 feet. • Commissioner Evans asked for clarification of the timeline for the project. He asked if the Cal/OSHA requirements would change for the increased height. • Commissioner Gustofson asked if the tank in question will be replacing the use of Pond 7. • Michael Marlowe, Environmental Manager at Martinez Refining Company, explained the need for the height increase to allow refinery staff to see into the tank from above. He noted that the refinery will be following the Department of Toxic Substances Control (“DTSC”) regulations during the decommissioning of Pond 7.
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Public Comment:	None			
Closing Comments:	<ul style="list-style-type: none"> • Commissioner Martin stated it is difficult to visualize the structure, even with the visual information that was provided. He asked the applicant for an estimated timeline for the decommissioning of Pond 7. • Commissioner Bash asked about any traffic impacts this project might cause. • Mr. Marlowe approached the dais with additional photographic descriptions for Commissioner Martin to view. • JD Shanks, Construction Manager of Capital Projects at Martinez Refining Company, assured the Commission there have been plans made to ensure there will be no traffic issues during this project. • Vice Chair Casella asked where the soil will be taken when Pond 7 is decommissioned. • Commissioner Evans expressed concern about the Draft Condition of Approval stating a timeline for completion of the decommission of Pond 7 could potentially conflict with the approval timeline of the DTSC. 			
Motion to:	<p>Adopt Resolution No. 23-08, approving a request for a Conditional Use Permit (“CUP”) to exceed the permitted height associated with a new activated sludge bio-treater for wastewater and stormwater generated at the existing facility on an existing tank with a maximum height of 48’-½” (where 30-feet is permitted), replacing an existing bio-treater (Pond 7), located at 3485 Pacheco Blvd. in the Heavy Industrial (H-I) zoning district, Assessor’s Parcel Number 378-010-029-7, subject to conditions of approval. Amend Condition of Approval No. 18 to specify the decommissioning of Pond 7 will occur within one year of obtaining approval from the regulatory agencies unless a longer period or extension is granted by one of those regulatory agencies or the City.</p>			
Motion by:	Commissioner Gustofson		Seconded By: Commissioner Johnson	
Motion passed 6-0	Sean Trambley	Excused	Susan Gustofson	Aye
	Tracey Casella	Aye	Jason Martin	Aye
	Jonathan Bash	Aye	Rochelle Johnson	Aye
	Kimberly Glover	Absent	Joseph Evans (Alternate)	Aye

Commission Items (42:56 in video)

Comments/ Updates	None
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Staff Items (43:04 in video)

Comments/ Updates	None
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Planning Manager Items (43:19 in video)

Comments/ Updates	<p>Michael P. Cass, Planning Manager, provided the following updates:</p> <ul style="list-style-type: none"> • Welcome to new Planning Commissioner Joseph Evans. • Introduction of new Community and Economic Development Director, Jill Bergman. • At the City Council meeting on Wednesday, June 28, 2023, the City Council will consider adoption of the Budget for the next two years. <p>Project Updates:</p> <ul style="list-style-type: none"> • The City Council authorized submission of the Draft 2023-2031 Housing Element to the State for their 90-day review and adopted the associated Zoning Map Amendments. • The Zoning Map Amendments will go into effect in 30 days. • The Bay’s Edge annexation was approved by the City Council for submission to LAFCO and is currently under review. • The Accessory Dwelling Unit (“ADU”) regulations were considered by the City Council. The regulations are anticipated to be adopted at the second meeting in July. Updated ADU regulations will go into effect in August. • The City Council and City Manager have decided to not hold meetings in the month of August for the City Council and Planning Commission to give members an opportunity for summer activities.
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Communications (47:21 in video)

Comments/ Updates	None
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Adjournment (47:30 in video)

Vice-Chair Casella adjourned the meeting at 8:48 pm.
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Sean Trambley, Chair

Dee Dee Fendley, Administrative Aide III



Action Minutes

Planning Commission Regular Meeting
 Tuesday, July 25, 2023 at 7:00 p.m.
 Via Video/Teleconference

* Full details are available via audio/video recording on our [website](#). *Microsoft Internet Explorer browser is recommended for video-viewing compatibility, or enable Adobe Flash on your default browser.*

Commissioners on Video Conference		City Staff on Video Conference
Chair Sean Trambley	Present	Michael P. Cass, Planning Manager
Vice Chair Tracey Casella	Present	Jill Bergman, Community and Economic Development Director
Commissioner Jonathan Bash	Present	Brandon Northart, Associate Planner
Commissioner Kimberley Glover	Absent	Daniel Gordon, Associate Planner
Commissioner Susan Gustofson	Present	Imanol Tovar, Planning Technician
Commissioner Jason Martin	Present	Dee Dee Fendley, Administrative Aide III
Commissioner Rochelle Johnson	Present	
Commissioner Joseph Evans (Alternate)	Present	

Call to Order
Meeting called to order at 7:00 p.m.

Agenda Changes (01:02 in video)
None

Public Comment (01:08 in video)
None

Presentations (01:35 in video)
1. New Staff Introductions – Introduction of Community and Economic Development Director, Jill Bergman and Planning Technician, Imanol Tovar.

Regular (04:03 in video)				
2. Determine who shall serve as Chair and Vice Chair of the Planning Commission from July 1, 2023 through June 30, 2024.				
Speakers:	None			
Public Comment:	None			
Closing Comments:	None			
Motion to:	Elect Sean Trambley as Chair and Tracey Casella as Vice Chair from July 1, 2023 through June 30, 2024.			
Motion by:	Rochelle Johnson		Seconded By: Susan Gustofson	
Motion passed 7-0	Sean Trambley	Aye	Susan Gustofson	Aye
	Tracey Casella	Aye	Jason Martin	Aye
	Jonathan Bash	Aye	Rochelle Johnson	Aye
	Kimberly Glover	Absent	Joseph Evans (Alternate)	Aye

<p>3. Conduct a public hearing and adopt Resolution No. 23-11, approving a Change of Conditions to Planning Application No. 14PLN-0010 to modify Condition of Approval #8 to eliminate the requirement for a vehicular entry gate for the Laurel Knoll subdivision, located at 370 Muir Station Road, APN 162-570-056.</p>	
<p>Speakers:</p>	<ul style="list-style-type: none"> • Brandon Northart, Associate Planner, gave a presentation outlining the project. • Chris Kamerzell, from Discovery Builders, discussed the project and provided a visual map describing the location of the proposed vehicular entry gate. • Commissioner Martin asked if the vehicular entry gate was proposed by Discovery Builders before it became a condition of approval. He asked if there are any alternative design options for building an entry gate if the Commission rejects the project application. Commissioner Martin asked if the applicant has done any outreach with the residents. He asked when the new project engineer was hired and when the City was first notified of a problem with installing a gate. • Chair Trambley asked for an explanation of why the entry gate was made a condition of approval. He asked if the applicant has considered a dual opening gate. Chair Trambley noted that the presentation stated that removal of the gate condition of approval would likely reduce HOA fees. • Vice Chair Casella asked if the homes were sold with the guarantee of a gate included. She asked if the gate would be feasible if it was moved down to a lower elevation. She was concerned that the applicant did not alert the City sooner about the infeasibility of installing the gate. • Commissioner Evans stated that because the gate is listed as a Condition of Approval, it should have been brought to the attention of the Planning Division as soon as it was identified as a problem.
<p>Public Comment:</p>	<ul style="list-style-type: none"> • Mark, a Muir Heights resident, finds it hard to believe the builders did not know the gate was going to be an issue, and come forward with the information before now. He agrees with other residents on the issues of theft and transients on Muir Station Road. He feels the property owners should be compensated for the removal of the gate condition of approval. • Cano Cortez, a Laurel Knoll resident, stated the gate was promoted to him at the time of purchase, and he made his decision to purchase with this knowledge.

	<ul style="list-style-type: none"> • Irma Quijada, a Laurel Knoll resident, also has concerns about the recent theft problems and believes the gate would lessen the risk to her family. She also believes the owners should be financially compensated for removal of the gate condition of approval. • Shane Guertin, a Laurel Knoll resident, believes this issue comes down to money. He is also concerned about the transient issue in the development. • Matthew Cox, a Laurel Knoll resident, feels that the entry gate would provide more safety for the development even if it only slows down traffic. Elimination of the gate would potentially create more safety concerns. He states he was told of the gate when purchasing his home, and it was a selling point for him. 			
Closing Comments:	<ul style="list-style-type: none"> • Commissioner Gustofson asked for clarification of when the City was informed of a problem with installation of the gate. She stated that she was on the Design Review Committee when the project was considered in 2014. She was concerned about how the gate would work but was assured by the builders that it would. She doesn't understand how Discovery Builders overlooked the problems with the gate. • Commissioner Evans asked if moving the sidewalk would allow for space for the gate. • Chair Trambley stated the Planning Commission cannot arbitrate any compensation for the new homeowners, which is a civil matter. He suggested the builders conduct more outreach with the community. • Commissioner Martin suggested the developer and homeowners' association discuss this matter prior to bringing it back to the Planning Commission. • Chris Kamerzell agreed to a 90-day Permit Streamlining Act extension on processing the application to allow time to adequately respond to the Commission's comments. 			
Motion to:	Continue this item to next Planning Commission meeting on Tuesday, September 12, 2023.			
Motion by:	Jason Martin		Seconded By: Tracey Casella	
Motion passed 7-0	Sean Trambley	Aye	Susan Gustofson	Aye
	Tracey Casella	Aye	Jason Martin	Aye
	Jonathan Bash	Aye	Rochelle Johnson	Aye
	Kimberly Glover	Absent	Joseph Evans (Alternate)	Aye
4. Conduct a public hearing and adopt Resolution No. 23-09, approving a Conditional Use Permit to establish a new massage parlor, located at 510 Center Avenue, APN 162-494- 006-8, subject to conditions of approval.				

Speakers:	<ul style="list-style-type: none"> • Brandon Northart, Associate Planner, gave a presentation outlining the project. • Mike Finan, Attorney, speaking on behalf of applicant, Zhonghui Yin, provided information regarding the applicant’s background and plans for the project. • Vice Chair Casella asked what services will be provided. She asked if any of the surrounding businesses had a problem with the proposed business. • Commissioner Martin asked staff what the “General Standards” are that were recommended by the Chief of Police. • Commissioner Gustofson asked how many Massage Parlors are currently located in Martinez. She stated that the license of the massage parlor is transferrable to a new owner and wants to know why this is a condition of approval. • Commissioner Bash asked about the proposed operating hours for the project. • Commissioner Johnson voiced concern over the fact the applicant is unable to engage directly with the Planning Commission, and suggested interpreter services be offered in the future. 			
Public Comment:	None			
Closing Comments:	None			
Motion to:	Adopt Resolution 23-09, approving a Conditional Use Permit to establish a new massage parlor at 524 Center Avenue, APN 162-494-006-8, subject to conditions of approval.			
Motion by:	Tracey Casella		Seconded By: Rochelle Johnson	
Motion passed 7-0	Sean Trambley	Aye	Susan Gustofson	Aye
	Tracey Casella	Aye	Jason Martin	Aye
	Jonathan Bash	Aye	Rochelle Johnson	Aye
	Kimberly Glover	Absent	Joseph Evans (Alternate)	Aye
<p>5. Conduct a public hearing and adopt Resolution No. 23-10, recommending that the City Council adopt an Ordinance Approving a Zoning Map and Zoning Text Amendment to amend the Martinez Municipal Code by: 1) Amending Chapter 5.58 (MESSAGE PARLORS AND MASSEURS) to adjust the permitted hours; 2) amending Chapter 22.04 (DEFINITIONS) to revise and establish new definitions for agricultural accessory structure, animal boarding, campground, conservation area, employee housing, family, farm worker and employee housing, low-barrier navigation centers, outdoor recreation, residential care facility, single-room occupancy, and tasting room; 3) removing Chapter 22.10 and replacing with Chapter 22.09 (DISTRICT BOUNDARIES); 4) Adding Chapter 22.10 (A AGRICULTURAL DISTRICT) to establish development standards for the A Agricultural District; 5) Amending Chapter 22.12 (RESIDENTIAL DISTRICTS) by establishing new development standards for the R-7.0 district;</p>				

<p>establishing regulations for low-barrier navigation centers, residential care facilities, and supportive housing; and amending side yard and corner lot development standards; 6) Amending Chapter 22.14 (PROFESSIONAL AND ADMINISTRATIVE OFFICE DISTRICTS) and Chapter 22.16 (COMMERCIAL DISTRICTS) by establishing regulations for low-barrier navigation centers and supportive housing; 7) Amending Chapter 22.34 (GENERAL REQUIREMENTS) by amending the standards for fences, walls, and hedges; 8) Amending Chapter 22.39 (WIRELESS TELECOMMUNICATION FACILITIES) by eliminating the performance bond requirement for wireless telecommunications facilities on private property; and 9) Approving a zoning map amendment from C Commercial to a dual-use zoning designation of NC Neighborhood Commercial and SC Service Commercial for APN 377-010-001, -002, -009, -022, -023, -031, -032, and -034.</p>				
Speakers:		<ul style="list-style-type: none"> • Daniel Gordon, Associate Planner, gave a presentation outlining the project. • Commissioner Gustofson recused herself from the R-7.0 standards item as she lives in one of the proposed districts. She asked if having a five-foot setback on a sloped property would pose a challenge due to topography. She asked for background on why we included items such as supportive housing and low-barrier navigation centers are proposed to be permitted by right rather than a public review process. • Commissioner Martin asked if there are any current projects affected by any of the proposed changes. • Commissioner Johnson asked what other legal options are available for performance bonds. 		
Public Comment:		None		
Closing Comments:		None		
Motion to:		Adopt Resolution No. 23-10, recommending that the City Council adopt an Ordinance Approving a Zoning Map and Zoning Text Amendment as previously described, except removing the R-7.0 district item for separate consideration.		
Motion by:		Tracey Casella		Seconded By: Jason Martin
Motion passed 7-0	Sean Trambley		Aye	Susan Gustofson
	Tracey Casella		Aye	Jason Martin
	Jonathan Bash		Aye	Rochelle Johnson
	Kimberly Glover		Absent	Joseph Evans (Alternate)
Motion to:		Adopt the proposed Zoning Text Amendments to Chapter 22.12 (RESIDENTIAL DISTRICTS) by establishing new development standards for the R-7.0 district.		
Motion by:		Tracey Casella		Seconded By: Jason Martin
Motion		Sean Trambley		Aye
				Susan Gustofson
				Recused

passed 6-0	Tracey Casella	Aye	Jason Martin	Aye
	Jonathan Bash	Aye	Rochelle Johnson	Aye
	Kimberly Glover	Absent	Joseph Evans (Alternate)	Aye

Commission Items (1:51:42 in video)	
Comments/ Updates	None

Staff Items 1:51:49 in video)	
Comments/ Updates	None

Planning Manager Items (1:51:52 in video)	
Comments/ Updates	<p>Michael P. Cass, Planning Manager, gave the Planning Commissioners the following updates:</p> <ul style="list-style-type: none"> • The City is the recipient of a grant from the Metropolitan Transportation Commission in the amount of \$875,000, which will be used for the implementation of the Downtown Parking Study. • The City received Federal funding for repairs to the fishing pier. The City Council authorized the City Manager to enter into a contract with a consultant for the NEPA and environmental permitting process for that improvement. • The City is making steady process on the Marina Waterfront Plan, which is tentatively scheduled to be heard by the City Council in September. Once it is approved by the City Council, it will be sent to the State Lands Commission for their review. After receiving comments from the State Lands Commission, it will go through the formal adoption process, which includes the Planning Commission and City Council. • City staff has been in discussions regarding Historical Resource Evaluations on projects that are potentially historically significant. The City is working on bringing in a consultant with expertise in this area, who will give a presentation to the Planning Commission. • A reminder that there will not be Planning Commission meetings in the month of August, 2023.

	<ul style="list-style-type: none">• The Martinez Police Department recently rolled out Martinez Alerts, also known as Rave. Additional information is available on the home page of the City’s website.• There will be a new park at Pine Meadows. The City has a public process for naming that park. The process for submitting and voting on names is available on the City’s website through August 25, 2023.
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Communications (1:55:43 in video)	
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Comments/ Updates	None
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Adjournment (1:55:53 in video)	
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Chair Trambley adjourned the meeting at 8:56 pm.	
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Sean Trambley, Chair
Dee Dee Fendley, Administrative Aide III



STAFF REPORT

Planning Commission

Date: September 12, 2023

To: Planning Commission

From: Michael P. Cass, Planning Manager

Prepared By: Brandon Northart, Associate Planner

Subject: Change to Conditions of Approval at Laurel Knoll Subdivision to Eliminate Vehicular Entry Gate

Recommendation

Continue application, without discussion, to the regular Planning Commission meeting of October 10, 2023, to allow the applicant to adequately respond to the Commission's direction.

Background

On July 25, 2023, the Planning Commission considered application 23PLN-0035 to modify Condition of Approval #8 from Design Review Resolution No. 084-13 to eliminate the requirement for a vehicular entry gate for the Laurel Knoll subdivision (also known as "Muir Heights"). The Commission continued the matter to the regular Planning Commission meeting of Tuesday, September 12, 2023 to allow the applicant to respond to direction, including outreach to the new residents and analyze potential other alternatives to the front entry gate.

Discussion

The applicant has requested in writing that the Planning Commission continue the application to the regular Planning Commission meeting of October 10, 2023.

Environmental Review

The Laurel Knoll subdivision project was previously analyzed in an Initial Study/Mitigated Negative Declaration under the California Environmental Quality Act ("CEQA") pursuant to CEQA Guideline Sections 15070 through 15073 and was published on August 23, 2011. Elimination of the front entry gate would not result in any new or intensified impacts other than those described in the Initial Study/Mitigated Negative Declaration. Therefore, no additional environmental review is required.

Public Noticing and Outreach

In accordance with Government Code Sections 65090 and 65091, on July 14, 2023, the City published a "Notice of Public Hearing" in the *Martinez Gazette* and posted at City

Hall and the project site. Since the project was continued to a date certain, no additional public noticing is required.

Attachments

- Attachment A – Written Request for Planning Commission Continuation

Brandon Northart

From: Kris Kamerzell <kkamerzell@discoverybuilders.com>
Sent: Friday, August 25, 2023 9:38 AM
To: Brandon Northart
Subject: RE: [EXT] RE: Muir Heights - Vehicular Gate

Follow Up Flag: Follow up
Flag Status: Completed

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Brandon-
Sorry for not getting back to you, I meant to earlier this week and then forgot about it.

Yes, please schedule for October 10, I'm still waiting to hear from upper management what the strategy will be.

Thanks and have a great weekend.

KK

From: Brandon Northart <bnorthart@cityofmartinez.org>
Sent: Friday, August 25, 2023 9:30 AM
To: Kris Kamerzell <kkamerzell@discoverybuilders.com>
Subject: [EXT] RE: Muir Heights - Vehicular Gate

Good Morning Kris,

Haven't heard back for you on this yet, so I'm assuming you would prefer to go back to the Planning Commission on October 10th instead of September 12th. Please confirm.

Thanks,
Brandon



Brandon Northart, *he/him*
Associate Planner
City of Martinez
525 Henrietta Street, Martinez, CA 94553
Direct (925) 372-3518 | Main (925) 372-3515
bnorthart@cityofmartinez.org | cityofmartinez.org



STAFF REPORT

Planning Commission

Date: September 12, 2023

To: Planning Commission

From: Michael P. Cass, Planning Manager

Prepared By: Daniel Gordon, Associate Planner

Subject: **TransMontaigne Partners LLC Conditional Use Permit
Planning Application No. 23PLN-0028**

Recommendation

Conduct a public hearing and adopt Resolution No. 23-12, approving a request for a Conditional Use Permit (“CUP”) to construct a 47-foot-tall aluminum geodesic dome on top of an existing 64-foot-tall storage tank, for a total structure height of 111 feet, exceeding the maximum permitted height of 30 feet, located at 2801 Waterfront Road in the Heavy Industrial (“H-I”) zoning district, Assessor’s Parcel Number 159-310-038 (the “subject site”), subject to conditions of approval

Background

TransMontaigne Partners LLC is a terminal operating and transportation company that distributes, stores, and transports crude oil, chemicals, petroleum products, fertilizers, and other liquid products. TransMontaigne operates a liquids storage terminal that primarily stores crude oil and petroleum products, which is accessible by pipeline, road, and sea.

Site Description

The subject site, located at 2801 Waterfront Road, is an approximately 137-acre developed lot, containing 34 storage tanks. The subject property has a General Plan land use designation of Industrial and Manufacturing (“IM”) and is in the H-I zoning district. See Figure 1 for the aerial photo of the subject site and surrounding properties.

Figure 1 – Project Location



Surrounding Land Uses

The subject site is surrounded by the following land uses:

- North: Carquinez Strait
- East: Copart Inc. (automobile wholesaler)
- South: Waterfront Road, marshland
- West: ECO Services Corporation (chemical plant)

Project Description

TransMontaigne operates and maintains 34 circular storage tanks of varying sizes at their facility. Most of these tanks are used to store a variety of products, including crude oil, gasoline, feedstocks, and blendstocks (feedstocks are raw substances that are the basis of a finished fuel product; blendstocks are substances that are added to gasoline to produce a finished fuel). Historically, tank 501-14 (the tank proposed for the dome) was used to store crude oil. TransMontaigne now plans to use this tank for the storage of gasoline, feedstocks, and blendstocks, which necessitates the installation of the proposed dome.

Updated Bay Area Air Quality Management District (“BAAQMD”) air regulations require the use of Best Available Control Technology (“BACT”) for emissions associated with the bulk storage of organic liquids, including gasoline products (which is what is proposed for tank 501-14). Specifically, a dome roof is a required BACT measure in addition to the

existing external floating roof for tanks meeting certain threshold criteria based on tank capacity, facility size, material to be stored, and other factors. Installing the dome roof on tank 501-14 will allow this tank to meet BAAQMD BACT requirements and continue in variable product service similar to other tanks at the terminal, most of which are designed so domes are not required when switching between storage products. The three other storage tanks that are identical in design to tank 501-14 currently store crude oil and no change in use is proposed for them, and so domes are not required for them. The other storage tanks at the facility are smaller in size and their designs do not require domes.

The proposed dome is approximately 47-feet tall. When installed on the storage tank, the total structure height will measure approximately 111 feet. The size of the dome is dictated by internal load, external load, and tension requirements. There is no proposed expansion of capacity or intensification of use associated with the dome. A CUP is required for structures exceeding 30 feet in height in the H-I zoning district, pursuant to Martinez Municipal Code (“MMC”) Section 22.18.140.

Discussion

General Plan Consistency

On November 2, 2022, the City Council adopted General Plan 2035. The subject site has a General Plan land use designation of IM, which allows for primary manufacturing, refining, and similar heavy industrial uses. Approval of this CUP would be consistent with the General Plan’s goals, such as Goal LU-G-13 to “support transformation and revitalization of key commercial corridors and industrial areas.” The CUP would be consistent with this goal as the project includes upgrades to an existing facility.

Zoning Compliance

The subject site is located within the H-I zoning district. The following table provides the development standards for this district, compared to what is proposed for this project.

Table 1 – H-I Development Standards

Criteria	Requirement	Existing	Proposed	Conformance
Lot Size	10,000 sq. ft.	137 acres	No change	Y
Front Setback	20 ft.	>50 ft.	No change	Y
Side Setbacks	10 ft.	>80 ft.	No change	Y
Rear Setback	10 ft.	>40 ft.	No change	Y
Height	30 ft.	64 ft.	111 ft.	N
Landscaping	20 ft. deep in frontage	0 ft.	0 ft.	N*

*This development standard will be mitigated by the payment of an in-lieu fee, discussed below.

Table 1 lists the development standards applicable to the project. The proposed development complies with all development standards, except maximum height. A CUP is required to exceed 30-feet in height.

Landscaping

Properties within the H-I zoning district are required to have a 20-foot front yard that is entirely landscaped, per MMC Section 22.18.110. The subject site is existing non-conforming as it does not comply with this requirement, and, due to the layout and orientation of the site, such landscaping cannot feasibly be achieved. To mitigate this deficiency, the Applicant has proposed to pay a landscaping in-lieu fee of \$35,000 to the City. This in-lieu fee will be used to provide new or rehabilitated landscaping within the public right-of-way, and will relieve the Applicant of the front yard landscaping requirement imposed by MMC Section 22.18.110, until such a time that the Applicant initiates a project that directly affects the front yard area of the site. At that point, the Applicant will be required to fully comply with the landscaping requirement outlined in MMC Section 22.18.110. The proposed in-lieu fee is consistent with the City's efforts to enhance the overall aesthetic quality of the community while accommodating unique site constraints that prevent immediate compliance with the MMC. The Applicant's proposal has been reviewed and is supported by the City Engineer and the Assistant City Engineer, and is incorporated into the proposed conditions of approval (#14)

Visibility

The Applicant provided photographs and simulations demonstrating the off-site visibility of the proposed improvement. Refer to Attachment B. The existing project has minimum visibility from Waterfront Road and Highway 680. The potential visual impact is minimized by the tank's location behind a significant hill.

Biological Resources Analysis

LSA prepared a Biological Impact Analysis (Attachment C) to identify potentially significant biological resource constraints on the project site, especially those related to special-status species and sensitive habitats. The Analysis did not identify any special-status wildlife or plant species at the project site, primarily due to the fact that the site is almost fully paved and so is not a suitable habitat for most plants or animals. However, the Analysis did recommend a cessation of all construction activities during bird nesting season (February 1 through August 31), in recognition of the presence of special-status bird species that have been found in the vicinity. If construction activities do occur during this nesting period, the Analysis recommends a pre-construction survey no fewer than seven days before construction commences, and the imposition of a 50 to 250-foot buffer around any nests that are found (depending on the species of the bird). Additionally, the Analysis recommends a pre-construction survey for roosting bats 14

days prior to any construction activities with similar buffer zones imposed. These recommendations have been incorporated into the proposed conditions of approval (#16).

Required Findings

To approve a CUP, the Planning Commission must make the findings outlined in MMC Section 22.40.070. Staff believes all the required findings may be affirmatively made, as shown in Exhibit A of Attachment A.

Environmental Review

The proposed project is categorically exempt from the requirements of the California Environmental Quality Act ("CEQA") under CEQA Guidelines Sections 15301 of the CEQA Guidelines, as the project includes modifications to an existing facility.

Noticing Requirements/Public Outreach

In compliance with MMC Section 22.40.040 and Government Code Section 65901, a public hearing notice was published in the *Martinez Gazette*; was posted at City Hall and at the subject site; and was mailed via first class or electronic mail to the applicant, property owner(s), owners of property located within 300 feet of the subject site, local service agencies whose services might be affected by the project, and individuals who had previously filed written request for such notice a minimum of 10 calendar days in advance of the public hearing. No public comments were received at the time this staff report was prepared.

Attachments

- Attachment A – Draft Planning Commission Resolution No. 23-12
- Attachment B – Photographs and Simulations
- Attachment C – Biological Impact Analysis

RESOLUTION NO. 23-12

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MARTINEZ APPROVING A REQUEST FOR A CONDITIONAL USE PERMIT (“CUP”) TO CONSTRUCT A 47-FOOT-TALL ALUMINUM GEODESIC DOME ON TOP OF AN EXISTING 64-FOOT-TALL STORAGE TANK, FOR A TOTAL STRUCTURE HEIGHT OF 111 FEET, EXCEEDING THE MAXIMUM PERMITTED HEIGHT OF 30 FEET, LOCATED AT 2801 WATERFRONT ROAD IN THE HEAVY INDUSTRIAL (H-I) ZONING DISTRICT, ASSESSOR’S PARCEL NUMBER 159-310-038, AND FINDING PROJECT EXEMPT FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (“CEQA) UNDER CAL. CODE REGS., TIT. 14, SECTION 15301, SUBJECT TO CONDITIONS OF APPROVAL

WHEREAS, on June 6, 2023, TransMontaigne Partners LLC (“the Applicant”) submitted Planning Application No. 23PLN-0028, requesting approval of a Conditional Use Permit to exceed the maximum height requirement for modifications to an existing storage tank, located at 2801 Waterfront Road, APN 159-310-038; and

WHEREAS, the proposed project is regulated as set forth in the Martinez Municipal Code (“MMC”) Title 22 “Zoning,” establishing permit requirements; and

WHEREAS, the Planning Commission held a duly noticed public hearing on September 12, 2023 to consider the application, receive public testimony, and consider all other substantial evidence in the record; and

WHEREAS, the California Environmental Quality Act (“CEQA”), together with State Guidelines require that certain projects be reviewed for environmental impacts and that environmental documents be prepared; and

WHEREAS, the Planning Commission determined the project is categorically exempt from the requirements of CEQA pursuant to Section 15301 of the CEQA Guidelines, as the project includes modifications to an existing facility involving negligible or no expansion of capacity; and

WHEREAS, the Record of Proceedings (“Record”) upon which the Planning Commission bases its decision regarding the planning application includes, but is not limited to: (1) all staff reports, City files and records, and other documents prepared for and/or submitted to the City relating to the application; (2) the evidence, facts, findings, and other determinations set forth in this resolution; (3) the Martinez General Plan 2035 and the Martinez Municipal Code; (4) all designs, plans, studies, data, and correspondence submitted by the Applicant in connection with the planning application; (5) all documentary and oral evidence received at public hearings or submitted to the City

relating to the planning application; and (6) all other matters of common knowledge to the Planning Commission including, but not limited to, City, state, and federal laws, policies, rules, regulations, reports, records, and projections related to development within the City and its surrounding areas; and

WHEREAS, the Planning Commission did hear and consider all said reports, recommendations; and testimony herein above set forth and used its independent judgement to evaluate the project.

NOW, THEREFORE, the Planning Commission of the City of Martinez resolves and finds as follows:

1. The above recitals are found to be true and constitute part of the findings upon which this resolution is based.
2. The Planning Commission hereby makes the findings in Exhibit A with respect to Conditional Use Permit approval.

NOW, THEREFORE, BE IT RESOLVED, based on the findings set forth in the Record as a whole, the Planning Commission hereby adopts this Resolution, approving the Planning Application No. 23PLN-0028, subject to conditions of approval and the project plans, attached hereto as Exhibits B and C respectively, and incorporated herein by this reference.

* * * * *

I HEREBY CERTIFY that the foregoing is a true and correct copy of a resolution duly adopted by the Planning Commission of the City of Martinez at a Regular Meeting of said Commission held on the 12th day of September, 2023, by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

Sean Trambley, Planning Commission Chair

ATTEST:

Michael P. Cass, Planning Manager

EXHIBIT A
CONDITIONAL USE FINDINGS

The Planning Commission hereby makes the following findings with respect to Conditional Uses as required by MMC Section 22.40.070:

A. The proposed location of the conditional use is in accord with the objectives of this Title, and the purposes of the district in which the site is located;

The ability to store a variety of petroleum products is necessary for the facility's operation, and regulatory requirements necessitate the installation of the geodesic dome to comply with Bay Area Air Quality Management District guidelines. The existing and proposed use is permitted in the Heavy Industrial zoning district. As described in the Staff Report, the project is consistent with the applicable requirements of the MMC.

B. The proposed location of the conditional use and the proposed conditions under which it would be operated or maintained will not be detrimental to the public health, safety, or welfare, or materially injurious to properties or improvements in the vicinity;

The Project will not be detrimental to the public health, safety, or welfare, nor materially injurious to properties or improvements in the vicinity. The Project would not appreciably expand the footprint of the facility or intensify any uses at the facility. Neighbors are primarily industrial uses or open space. The proposed use will be consistent with current uses at the site, so there will be no noticeable change in noise or traffic after construction.

C. The proposed conditional use will comply with each of the applicable provisions of this Title.

The proposed conditional use complies with each of the applicable provisions of MMC Title 22.

EXHIBIT B
CONDITIONS OF APPROVAL

The following conditions of approval apply to and constitute Conditional Use Permit for TransMontaigne Partners LLC.

1. Conditions of Project Plans: The Conditions of Approval will be incorporated as the second sheet in the plan set submitted for building permit application(s).
2. Substantial Conformance: The project will be constructed substantially in conformance with the plans presented to the Planning Commission on September 12, 2023. Minor changes may be approved by the Planning Manager or designee. All improvements shall be installed in accordance with these approvals. Once constructed or installed, all improvements shall be maintained as approved.
3. Failure to Conform to Conditions: If the Applicant constructs buildings or makes improvements in accordance with these approvals, but fails to comply with any of the Conditions of Approval or limitations set forth in these Conditions of Approval and does not cure any such failure within a reasonable time after notice from the City, then such failure shall be cause for non-issuance of a certificate of occupancy, revocation or modification of these approvals or any other remedies available to the City.
4. Successors in Interest: These Conditions of Approval shall apply to any successor in interest in the property and the Applicant shall be responsible for assuring that the successor in interest is informed of the terms and conditions of this approval.
5. Expiration of Approval: The permits and approval shall expire in one year from the date on which they became effective unless the Applicant obtains a building permit and begins construction. The effective date of this planning approval is September 12, 2023.
6. Extension of Approval: The Planning Manager or designee may consider a time extension of the expiration date of a permit or approval if the Applicant files an application, along with the required fee, at least one day before the expiration date. Extensions are not automatically approved – changes in conditions, City policies, surrounding neighborhood, and other factors permitted to be considered under the law, may require or permit denial.
7. Relevant Ordinances and Regulations: Nothing contained herein shall be

construed to permit any violation of relevant ordinances and regulations of the City, or other public agency having jurisdiction.

8. Fees and Deposits: All required fees, bonds, and deposits required by City and other agencies having jurisdiction shall be paid prior to City approval of the building permit. Prior to approval of the plans and issuance of permits, the Applicant shall pay all applicable fees and deposits including, but not limited to, plan check, inspection, and drainage fees shall be in accordance with the City's fee schedule in effect at the time of payment.
9. Indemnification: The Applicant shall defend, indemnify, and hold harmless the City and its agents, officers, attorneys, and employees from any claim, action, or proceeding brought against the City or its agents, officers, attorneys, or employees to attack, set aside, void, or annul the Planning Commission's decision to approve Planning Application No. 23PLN-0028 and any environmental document approved in connection therewith. This indemnification shall include damages or fees awarded against the City, if any, cost of suit, attorneys' fees, and other costs and expenses incurred in connection with such action whether incurred by the Applicant, the City, and/or the parties initiating or bringing such action.
10. Notification Claims/Actions: The City shall promptly notify the Applicant of any claim, action or proceeding, which may be filed and shall cooperate fully in the defense, as provided for in Government Code Section 66474.9. In the event the Applicant is required to defend the City in connection with any said claim, action, or proceeding, the City shall retain the right to: (i) approve the counsel to so defend the City; (ii) approve all significant decisions concerning the manner in which the defense is conducted; and (iii) approve any and all settlements, which approval shall not unreasonably be withheld. The City shall also have the right not to participate in said defense, except that the City agrees to cooperate with the Applicant in the defense of said claim, action or proceeding. If the City chooses to have counsel of its own to defend any claim, action or proceeding, and the Applicant has already retained counsel to defend the City in such matters, the fees and expenses of the counsel selected by the City shall be paid by the City, except that the fees and expenses of the City Attorney shall be paid by the Applicant.
11. Notification of Fees, Dedications, Reservations, and Exactions: The Conditions of Approval set forth herein include certain fees, dedication requirements, reservation requirement, and other exactions which may or may not be subject to the Mitigation Fee Act (Government Code Section 6000, et sq.). Pursuant to Government Code Section 66020(d)(1), these Conditions constitute written

notice of a statement of the amount of such fees, and a description of the dedications, reservations, and other exactions. You are hereby further notified that the 90-day approval period in which you may protest these fees, dedications, reservations, and other exactions, pursuant to Government Code Section 66020(a), has begun. If you fail to file a protest within this 90-day period complying with all the requirements of Government Code Section 66020, you will be legally barred from later challenging such exactions.

12. Construction Plans:

- a. Approved Plans: Complete set of construction plans, specifications and calculations shall be submitted to the City Engineer, Community and Economic Development Director, and/or other agencies having jurisdictions for all improvements within the proposed project prior to issuance of a Building or Site Development Permit, whichever comes first. Approved plans shall become the property of the City of Martinez upon being signed by the City Engineer and Community and Economic Development Director.
- b. Easements: No Structure(s) shall be constructed over existing easements(s).

13. Colors and Materials: All proposed improvements shall be painted to match the existing tank.

14. In-Lieu Fees: The Applicant shall pay \$35,000 to the City as an in-lieu fee for the deficient front yard landscaping at the subject site. The in-lieu fees shall be used by the City Engineer or designee to provide new or rehabilitated landscaping within the public right-of-way. This fee shall be paid prior to the issuance of any building or site development permits.

15. Building Codes: Construction shall comply with all applicable City and state building codes and requirements.

16. Conditions for Construction Activity:

- a. Noise Control and Work Hours: All construction activities shall conform to the City's Noise Control Ordinance, MMC Chapter 8.34: Construction activities are limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday; and 9:00 a.m. to 5:00 p.m. Saturday and Sunday. The permittee shall post a sign on the site notifying all workers of these restrictions.

Construction activities on public streets shall be limited to the hours of 9:00 a.m. to 5:00 p.m., Monday through Friday, except for City legal holidays.

Pile support driving activities onsite are limited to the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday.

- Construction activities shall not take place during bird nesting season (February 1 through August 31). If it is deemed necessary that construction activities take place during this period, a pre-construction survey by a qualified biologist must be carried out no fewer than seven days prior to construction, along with the imposition of appropriate buffer zones around any nests found during surveying. A similar survey shall be carried out at least 14 days prior to construction to identify any roosting bats, with appropriate buffer zones imposed.
- b. Quiet Equipment: Contractor shall be required to employ the quietest construction equipment available, and to muffle noise from construction equipment and to keep all mufflers in good working order in accordance with State law.
 - c. Dust Control: Adequate dust control measures shall be always employed, including weekends and holidays, and throughout all grading and construction periods. The Applicant shall regularly water areas that are exposed for extended periods to reduce wind erosion. Measures to be incorporated may include, but are not limited to, the following: keeping dust on the site, use of water trucks or sprinkler systems to prevent dust from leaving the site and to create a crust after the completion of each day's activities, use of water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site, wetting down the construction area after work is completed for the day and whenever winds exceed 15 mph, having site watered at least once each day including weekends and/or holidays when winds exceed 15 mph, and covering soil stockpiled for more than two days or treating with soil binders to prevent dust generation.
 - d. Streets Clear of Debris: Contractor shall ensure that surrounding streets stay free and clear of silt, dirt, dust, and tracked mud coming in from or in any way related to project construction. Paved areas and access roads shall be swept on a regular basis. All trucks must be covered.
 - e. Equipment Speed: Speeds of construction equipment shall be limited to 10 miles per hour. This includes equipment traveling on local streets to and from the site.
 - f. Parking on Surrounding Streets: There shall be no parking of construction vehicles or equipment on the surrounding residential streets, including all workers' vehicles, except if approved by the City Engineer and Community and Economic Development Director.
 - g. Truck Routes: Truck routes for the import or export of cut/fill material shall be identified and approved by the City Engineer prior to the issuance of any permits.
 - h. Street Damage: The Applicant shall be responsible for the repair of any

damage to City streets (private and public) caused by the import or export of soils materials necessary for the project.

17. Permits:

- a. Building Permit and Site Development Permit: A Building Permit and a Site Development Permit are required prior to construction. All required fees and deposits shall be paid prior to issuing permit(s). The actual fee shall be determined in accordance with the City's fee schedule at the time of payment.
- b. Regulatory Agencies: All permits required by other Regulatory Agencies having jurisdiction over this project, including, but not limited to, Department of Toxic Substances Control, Environmental Protection Agency, San Francisco Regional Water Quality Control Board ("SFRWQCB"), Bay Area Air Quality Management District ("BAAQMD") and Contra Costa Health Service shall be obtained prior to issuance of City permits. Copies of these permits shall be provided to the City upon issuance.

18. Fees and Deposits:

- a. Time of Payment: All required fees and security deposits required by the City shall be submitted prior to approval of the plans and issuance of the Building, Encroachment, Grading, or Site Development Permits, whichever comes first. Security deposit(s) shall be refunded after the project is complete and accepted by the City. The actual fees shall be determined per the City's fee schedule at the time of payment.
- b. Community and Economic Development Fees: The Applicant shall pay the following fees, prior to issuance of a permit:
 - I. Plan check and inspection fees.
 - II. Permit security deposit.
 - III. Other applicable Fees included in the User Fee Schedule at the time the permit is issued.
- c. Other Agency Fees: All fees and deposits required by other agencies having jurisdiction shall be paid prior to City approval of the Plans or issuance of the Site Development or Building Permit, whichever comes first.

19. General Requirements:

- a. Building Codes: Construction shall comply with all applicable City and State building codes and requirements including handicapped and energy conservation requirements, grading, and erosion control ordinances.

- b. City Standards: Design of all public improvements shall conform to the City Design Guidelines, Standard Special Provisions, and Standard Drawings. Prior to preparation of improvement plans, the developer or his representative should contact the City's Engineering Development Review Section of the Community and Economic Development Department.
 - c. Site Improvement Plans: Complete site improvement plans, specifications, and calculations shall be submitted to and approved by the City Engineer, Community and Economic Development Director, and/or other agencies having jurisdiction over improvements within the proposed development prior to issuance of a Building, Site, Grading, or Encroachment Permit, whichever comes first. Approved plans shall become the property of the City upon being signed by the City Engineer and Community and Economic Development Director.
 - d. Other Agencies Approval: Approval by the sanitary sewer district, the Fire District, and the water agency of all improvements is required prior to City approval of construction plans.
20. Approved Plans: Complete site development plans, specifications, and calculations shall be submitted to and approved by the City Engineer, the Community and Economic Development Director, and/or other agencies having jurisdiction over improvements within the proposed development prior to issuance of a Building, Site, or Encroachment Permit whichever comes first. Approved plans shall become the property of the City upon being signed by the City Engineer and Community and Economic Development Director.
21. Final Inspection: A final inspection by the Planning Division is required prior to closure of the building permit and use of the domed tank.

EXHIBIT C
PROJECT PLANS

[See following sheets]

R:\1129-0116 TM-Martinez T501-14 Conversion\3 ENGINEERING\Drawings\XR-V-TOPO-1129-0116.dwg



1 PROFILE T-14
EX-C SCALE: 1" = 60' HORIZ.
1" = 15' VERT.

PRIME ENGINEERING INCORPORATED

3715 NORTHSIDE PARKWAY NW
 BUILDING 300, SUITE 200
 ATLANTA, GEORGIA 30327
 404-425-7100

REVISIONS				
	REVISION DESCRIPTION	DATE	DWN	CHK
A	ISSUED FOR REFERENCE	5/18/23	AJD	SJM

TRANSMONTAIGNE

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TRANSMONTAIGNE MARTINEZ TERMINAL
 2801 WATERFRONT RD, MARTINEZ, CA 94553

PROPOSED TANK 501-14 GEODESIC DOME

EXHIBIT C

DRAWN BY: AJD	ENGINEER: SJM
DATE: 05/18/23	AFE NO.: ---
SCALE: AS NOTED	APPROVED BY:
DRIVE: R/J	DIRECTORY: TM-Martinez T501-14 Conversion\3 ENGINEERING\DWGS
DRAWING FILE: XR-V-TOPO-1129-0116.dwg	REVISION NO. A



REPORT TITLE:

ALUMINUM DOME DESIGN REPORT

ENGINEERING JOB NUMBER	377221178
REGION JOB NUMBER	37700792
CUSTOMER	TRANSMONTAIGNE
LOCATION	MARTINEZ, CA
TANK DIMENSIONS	237'-0" DIA. X 64'-0" TALL
TANK NUMBER	501-14
SERVICE	OIL

2023-MAR-15	A	Submit for approval	FA	SYK
DATE	REVISION NO.	REASON FOR REVISION	PREPARED BY	CHECKED BY

I. TABLE OF CONTENTS

I. ANALYSIS PROCEDURE 3

II. DESCRIPTION OF THE STRUCTURE..... 5

 Dome Parameters 5

 Dome Geometry 6

 Beam Locations 7

III. DESIGN LOADS AND LOAD COMBINATIONS 8

 External Loads 8

 Dead loads (DL) 8

 Live load (L_r) 8

 Wind (W) 8

 Internal Floating Roof 8

 Seismic Loads (E) 9

 Internal Loads 10

 Thermal loads (T) 10

 Load Combinations 11

IV. REACTION SUMMARY 12

V. DOME DESIGN 13

 Member Design 13

 Connection Design 13

 General Buckling Check 13

 Minimum Tension Ring Area Check 15

 Panel Design – Concentrated Loads 17

 Panel Design – Distributed Loads 18

 Venting Summary 19

 Roof to Shell Connection 20

VI. TANK SHELL ANALYSIS 25

VII. CONCLUSION 37

HMT, LLC.
Aluminum Dome Design Report

[List of Figures](#)

Figure 1: Dome Parameters	5
Figure 2: Dome Full Structure Layout.....	6
Figure 3: Dome Sector Geometry.....	7
Figure 4: Step vs. Base Shear Graph.....	14
Figure 5: 3-D FEA MODEL	25
Figure 6: HMT Support Bracket.....	26
Figure 7: Bracket Placement Due to Inward Out of Roundness	27
Figure 8: Bracket Placement Due to Outward Out of Roundness.....	28
Figure 9: Reaction Loads	29
Figure 10: Reaction Loads	30
Figure 11: Buckling With Gravity Load	31
Figure 12: Buckling Modes for Gravity Load	32
Figure 13: Buckling Shape With Stiffener.....	33
Figure 14: Modes With Stiffener	33
Figure 15: Stress Distribution	35
Figure 16: Stress Distribution With Stiffener	36

[List of Tables](#)

Table 1: Dome Parameters	5
Table 2: Dome Components.....	6
Table 3: External Loads Summary	10
Table 4: External Loads - Load Combination	11
Table 5: Support Reactions	12
Table 6: General Buckling Check Calculation	12
Table 7: Minimum Tension Ring Area Check.....	15
Table 8: Venting Area Check.....	19
Table 9: Roof-to-Shell Connection	20

I. ANALYSIS PROCEDURE

The required strengths of the members and connections and the support reactions are determined using an elastic second-order analysis of the dome using a commercially available finite element analysis program. The program can analyze beam, frame, and panel type structures with any degree of discretization and interconnecting fixities. The dome is analyzed as a three-dimensional space frame, meaning that the joints are fully restrained moment connections.

The beams were modeled as frame elements with full connecting fixity to form a space frame without including the panels for external loading cases. All beams are connected at the joints by connecting the top and bottom beam flanges with gussets (hubs). Panels and battens are included in the structural model by adding their contribution to the minor axis moment of inertia of the beams.

The analysis complies with the Aluminum Design Manual (ADM) -2020, section C, design for stability, which includes analysis to determine required strengths as well as proportioning the member and connections, so they have adequate available strength. Requirements are as follows;

- A. All effects were captured that contribute to the displacement of the structure such as flexural, shear and axial deformation, including all member and connection deformations.
- B. Second order effects including P- Δ (effect of loads acting on the displaced location of joints in the structure) and P- γ (effect of loads acting on the deflected shape of a member between joints) were captured by performing **Non-Linear P-Delta analysis**. It is imperative to capture both P- Δ and P- γ effects during non-linear analysis to get the required strength of the members and connections in order to comply with this section.
- C. The effect of member stiffness reduction due to inelasticity on the stability of the structure was accounted by reducing the stiffness of individual members by a factor T_b , which was evaluated per ADM-2020, section C.2.1
- D. Uncertainty in stiffness and strength reducing stiffness is addressed by applying a factor of 0.8 to all axial, shear and flexural stiffnesses in the structure.

External loads were factored by 1.6 before application to the structure as the structure may not behave linearly, which is why **second order analysis** is performed.

The elements representing the beams are straight beams and provide output loads in 6 degrees of freedom at each end node along the frame element. The six degrees of freedom provided are

- X-translation, Y-translation, Z-translation
- X-rotation, Y-rotation, & Z-rotation

HMT, LLC.

Aluminum Dome Design Report

Local and general buckling must be considered by either two methods as described in API 650, Annex G (13th Ed) , Section G.4.1.3. For this dome structure, general buckling of the dome will be determined by the equation in Section G.4.1.3 unless otherwise stated within this report.

The external loads have been modeled to theoretically represent the real load conditions. Loads acting over panels were resolved as distributed loads using the tributary areas theory. Loads acting over nodes were represented as point loads.

All the dome frame beams and tension ring beams are fabricated using aluminum alloy AA-6061-T6 (ASTM-B221) or AA-6005A-T61 (ASTM-B221), hubs are AA-6061-T6 (ASTM-B209) or AA-5454-H34 (ASTM-B209), and skin panels to be AA-3003-H16 (ASTM-B209) unless otherwise noted.

II. DESCRIPTION OF THE STRUCTURE

Dome Parameters

The dome is modeled with the following parameters;

Table 1: Dome Parameters

DOME PARAMETERS				
Spherical radius (R_D)	2106.37	inch	53502	mm
Tension ring diameter (D_{WP})	2818.88	inch	71599	mm
Anchor bolt diameter (D_{AB})	2840	inch	72136	mm
Dome rise (H_{WP})	541.03	inch	13742	mm
Dome height from tank rim (H_T)	562.46	inch	14286	mm
Polar angle of the base ring joints (β)	42 degree			
Dome ratio (R_D/D_{WP})	0.75			

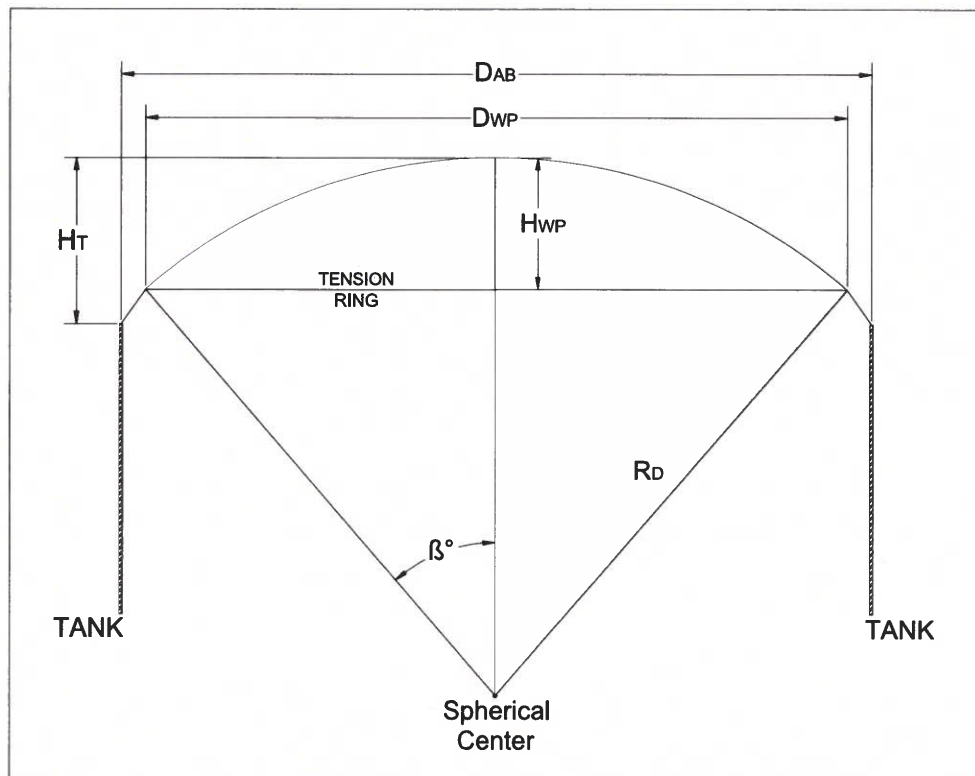


Figure 1: Dome Parameters

Dome Geometry

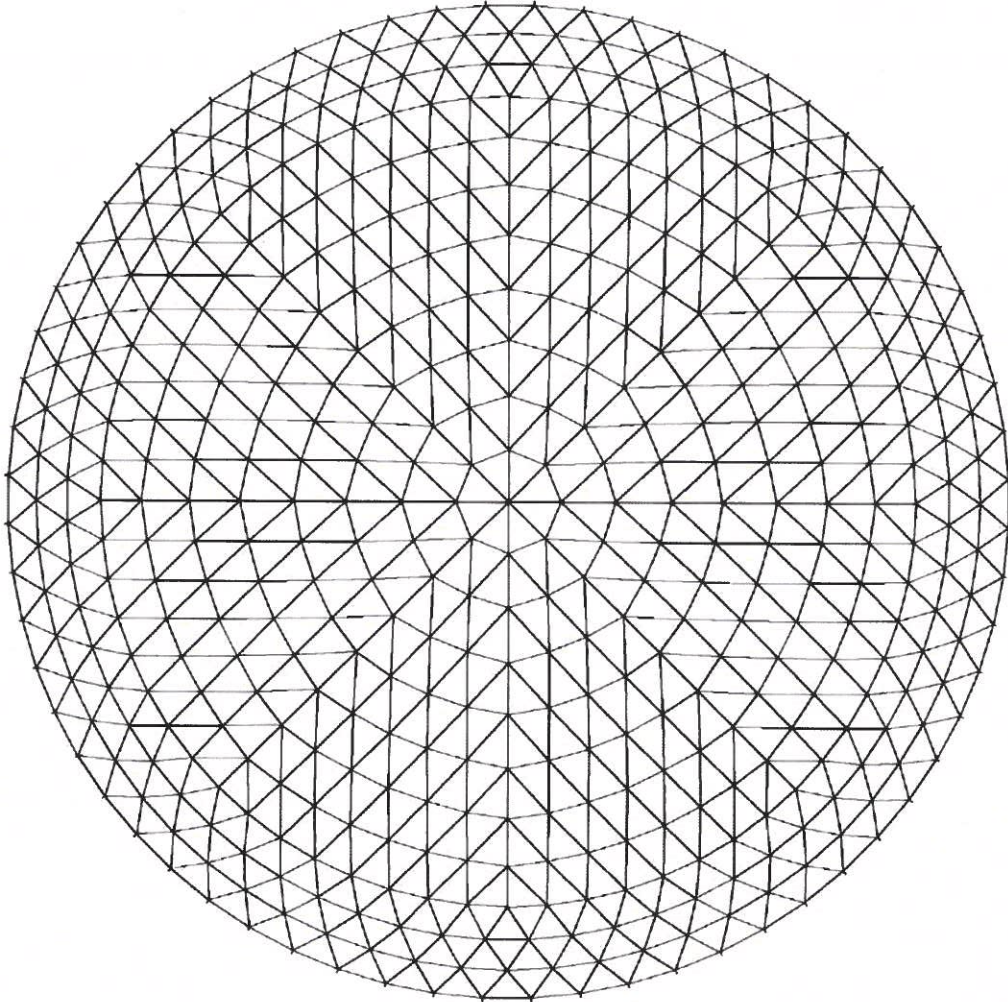


Figure 2: Dome Full Structure Layout

Above figure 2 represents the general arrangement of the dome components. The dome is composed of 8 sectors, 11 rings with 3 of which are adjusted to approach the rim symmetrically.

Table 2: Dome Components

DOMES COMPONENTS	
Number of joints	481
Number of beams	1376
Number of panels	896
Number of Support beams	64

Beam Locations

As the dome is composed of identical sectors, one sector with beam identification is shown below in figure 3.

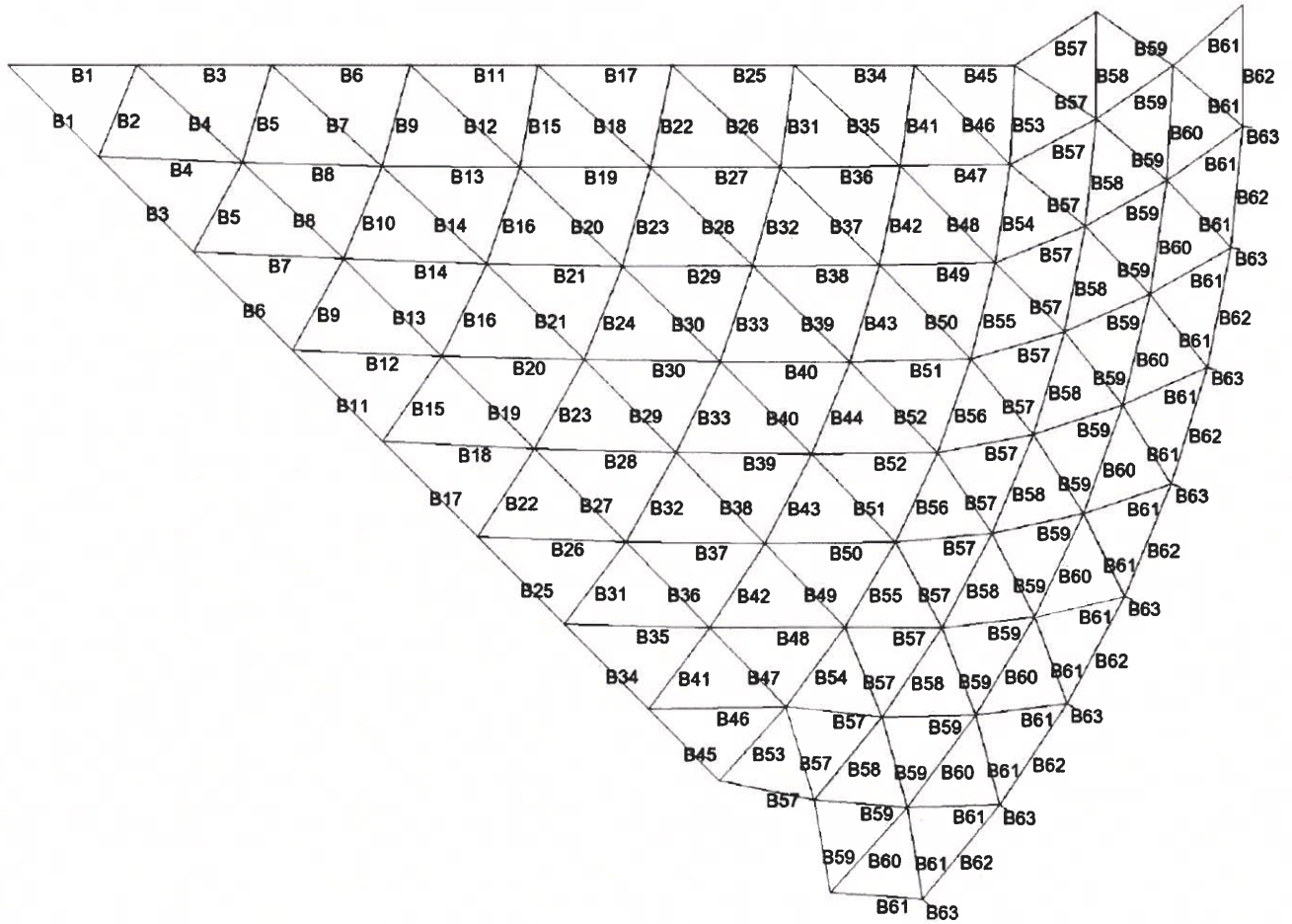


Figure 3: Dome Sector Geometry

Identification of beam types is below:

BEAM TYPES	
Interior Beams	BXX
Last Bay Diagonal Beams	B61
Tension Ring	B62
Support Beam	B63

III. DESIGN LOADS AND LOAD COMBINATIONS

External Loads

External loads are derived as per the requirements of API 650, Annex G, 13th Edition, Addendum-3.

Dead loads (D_L)

These loads include the weight of panels, beams, hubs, batten bars and bolting hardware, and the following superimposed loads ;

Live load (L_r)

The minimum roof live load for this dome roof is calculated per API 650, section 5.2.1-f and ASCE 7-10, section 4.8. Minimum roof live load is modified per ASCE 7-10, section 4.8 as follows;

$$L_0 = 15 \text{ psf (0.72 kN/m}^2\text{)} \quad \text{.....Customer Specified}$$

$$R_1 = 1 \quad \text{.....For AT < 200 ft}^2$$

F = Rise-to-span ratio multiplied by 32

$$F = (541 / 2818.9) \times 32 = 6.1$$

$$R_2 = 1.2 - 0.05F = 1.2 - 0.05(6.1) = 0.895 \text{ Therefore,}$$

minimum roof live load, L_r is calculated per equation 4.8-1;

$$L_r = L_0 \times R_1 \times R_2$$

$$L_r = 15 \times 1 \times 0.895 = 13.425 \text{ psf (0.64 kN/m}^2\text{)}$$

API 650 specifies minimum live load of 15 psf. **Therefore, 15 psf Live Load is used for the design.**

Wind (W)

Per ASCE 7-10, the design wind speed 3- second gust is 89.7 mph [144 km/hr]. Per API 650, section 5.2-(k)(1), 89.7 mph design wind speed generates 16.76 psf design wind uplift pressure which is applied normal to the spherical surface of the dome.

Internal Floating Roof Loads

API 650, section 5.2.1-e specifies the internal floating roof loads requirement for the dome roof.

This dome is designed to support future, suspended floating roof, HMT's Honeycomb Full Contact (HFC). Internal floating roof will be suspended from **413 dome hubs**. Self weight and the live load on the floating roof will be supported by the dome structure.

Dead Load of Internal Roof (DLf) includes the weight of the floatation compartments, seal and attached components. The preliminary weight of the floating roof is calculated as **131200 lbs**.

Internal Floating Roof Uniform Live Load (Lf) is **5 psf (0.24 kPa)** per API 650, section 5.2.1-e-2 as automatic drains are provided on the floating roof.

Both dead and live loads from floating roof are equally divided between **413 suspension points**.

Seismic Loads (E)

Although, seismic loads are determined in accordance with API 650, E.1 through E.6 for self-supporting structures, seismic loads do not generate the critical design forces and moments in the dome structure.

Internal Loads

Thermal loads (T)

Thermal loads are internal loads applied to the members of the structure. Thermal loads occur in domes when the temperature changes from the installation temperature and the dome supports are fixed on a tank of a material with a coefficient of thermal expansion different than that of aluminum. API 650 G.1.4.1 requires that a temperature range of ± 120 °F be used for design unless a wider range is specified by the Purchaser. This dome is designed with sliding supports, and typically thermal loads do not induce significant additional stresses in the members.

The following chart represents the summary of each load case;

Table 3: External Loads Summary

EXTERNAL LOADS						
External Load	X (kip)	Y (kip)	Z (kip)	X (kN)	Y (kN)	Z (kN)
DL_Beams	0	0	69.52	0	0	309.22
Lf	0	0	219.96	0	0	978.41
Lr	0	0	649.04	0	0	2887.08
Df	0	0	131.2	0	0	583.61
DL_Batten	0	0	11.51	0	0	51.2
DL_Misc	0	0	0	0	0	0
DL_Nodes	0	0	7.34	0	0	32.64
DL_Panels	0	0	33.09	0	0	147.18
T	0	0	0	0	0	0
W	0	0	-725.16	0	0	-3225.67
DL	0	0	121.45	0	0	540.24

Aluminum Dome Design Report

Load Combinations

API 650 G.4.2.1b requires that domes be designed for the load combinations given in 5.2.2 (a), (b), (c), (e) and (f). Loads that do not act on the dome have been removed from these combinations. (g) is included for the domes that support floating roofs.

As mentioned earlier, API 650 does not specify load combinations that include thermal loads that occur in domes with fixed supports. Dome is checked for the thermal loads and for sliding support domes thermal loads are not critical hence are not included in the report.

All load combinations specified above were used to analyze the dome, but only controlling load combinations will be reported further.

Only the load combinations that are applicable to this dome are shown below.

Table 4: External Loads - Load Combination

EXTERNAL LOADS - LOAD COMBINATION						
Load Combination	X (kip)	Y (kip)	Z (kip)	X (kN)	Y (kN)	Z (kN)
NL_DL+Df+Lr+0.4Lf	0	0	989.68	0	0	4402.29
NL_DL+Lr	0	0	770.49	0	0	3427.32
NL_DL+Lr+T	0	0	608.23	0	0	2705.54
NL_DL+Lr-T	0	0	608.23	0	0	2705.53
NL_DL+T	0	0	121.45	0	0	540.24
NL_DL+W	0	0	-603.71	0	0	-2685.43
NL_DL+W+T	0	0	-422.42	0	0	-1879.02
NL_DL+W-T	0	0	-422.42	0	0	-1879.01
NL_DL-T	0	0	121.45	0	0	540.24

Each of the load cases is utilized to load the finite element model of the dome. The results of the analysis are internal loads such as axial force, shear, and moments in the individual beam elements.

IV. REACTION SUMMARY

This dome is connected to the tank shell with sliding supports. When sliding supports are used at the dome roof-to-shell connection, the dome is permitted to move in a horizontal radial direction relative to the top of the tank. Radial thrust developed due to the loading on the dome roof is resisted by the integral tension ring beam. Although, due to sliding movement between dome support and the Teflon bearing pad, a small amount of radial loads are transferred to the tank shell which is less than or equal to 10% of vertical loads.

The following table provides the reactions from dome structure to the tank shell.

Table 5: Support Reactions

SUPPORT REACTIONS						
Load Combination	Radial (kip)	Tangent (kip)	Vertical (kip)	Radial (kN)	Tangent (kN)	Vertical (kN)
NL_DL+Df+Lr+0.4 Lf	1.52	-0.23	15.52	6.77	-1.03	69.06
NL_DL+Lr	1.11	-0.14	12.09	4.96	-0.61	53.76
NL_DL+Lr+T	1.25	0.1	9.54	5.56	0.43	42.42
NL_DL+Lr-T	0.45	0.1	9.54	2.02	0.44	42.42
NL_DL+T	0.68	0.01	1.9	3.02	0.06	8.46
NL_DL+W	-0.74	0	-9.46	-3.3	-0.02	-42.09
NL_DL+W+T	-0.14	-0.06	-6.61	-0.64	-0.27	-29.39
NL_DL+W-T	-0.95	-0.06	-6.61	-4.21	-0.27	-29.4
NL_DL-T	-0.39	-0.01	1.9	-1.72	-0.06	8.46
Sign Convention	'-' is into the tank		'-' is UP	'-' is into the tank		'-' is UP
	'+' is out of the tank		'+' is DOWN	'+' is out of the tank		'+' is DOWN

For the vertical reaction, negative is 'upward' and positive is 'downward'. For the radial reaction, negative is 'into tank' and positive is 'out of tank'.

The "NL-" in Table 4 and 5 signifies Nonlinear Analysis.

V. DOMED DESIGN

Member Design

All beam members are designed in accordance to the Aluminum Design Manual-2020. The results of second order analysis are used to evaluate the required strength of the beam member.

Connection Design

The beam to beam connections are designed per Aluminum Design Manual 2020 and API 650, 13th edition, Annex G. The minimum bolt attachment for all beams is 4 bolts per flange. A combination of 3/8" and 1/2" diameter Bolts are used on this dome.

General Buckling Check

The buckling check of this dome was completed by performing a snap-through buckling analysis. The results of this non-linear finite element analysis are shown below;

Table 6: Step Vs. Base Shear

NONLINEAR STATIC DATA

CASE NL_DL+Df+5Lr+0.4Lf

FUNCTION Base Shear Z: Base Shear Z

STEP	FUNCTION
	Base Shear
0.	0.
1.	359859.98
2.	719719.84
3.	1079578.9
4.	1439439.38
5.	1799300.48
6.	1979230.25
7.	2150081.1

From this table above and chart shown below, we can see that the structure fails once the applied vertical load equals 2150.081 kips. From Table 4, we can see that the maximum actual total vertical load is 989.68 kips. This means that the dome to buckle, the design loads would have to be multiplied by a factor of $2150.081/989.68 = 2.17$, which is also known as factor of safety. This factor of safety is acceptable.

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Aluminum Dome Design Report

S Display Plot Function Traces (NL_DL+Df+5Lr+0.4Lf)

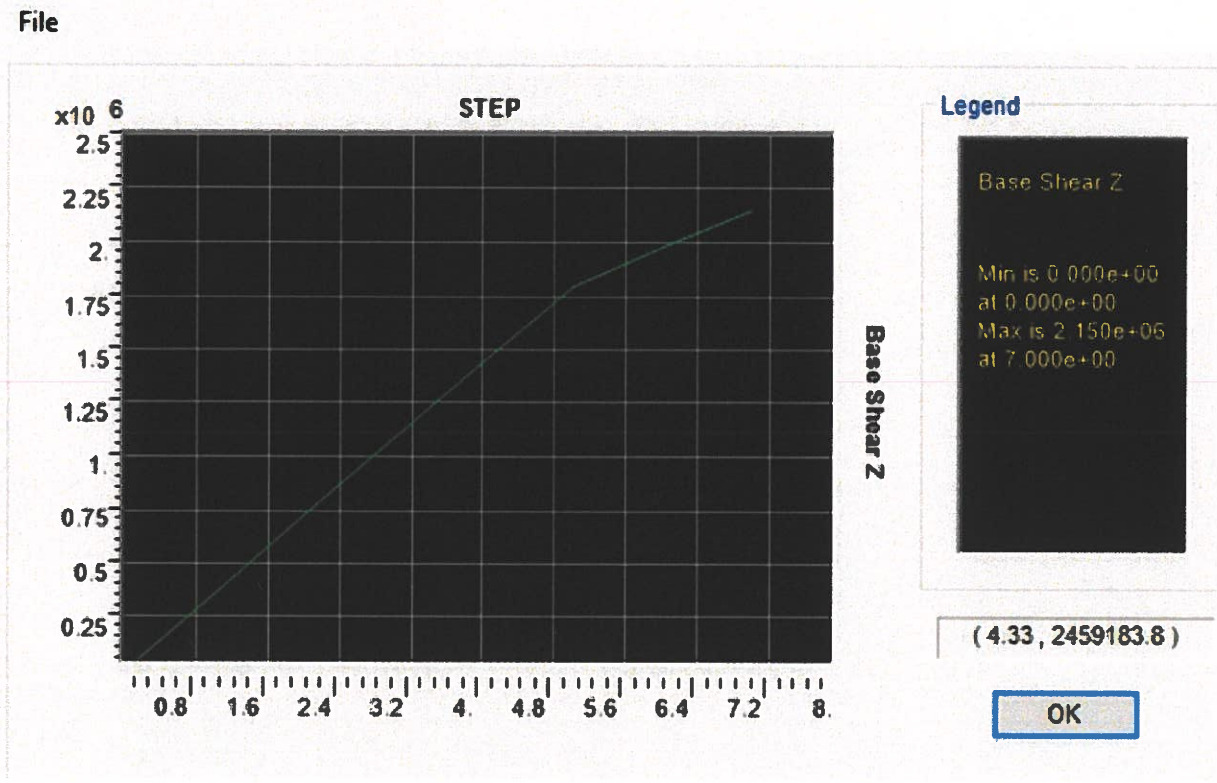


Figure 4: Step Vs. Base Shear Graph

Minimum Tension Ring Area Check

The minimum tension ring area requirement is calculated as specified in API 650, section G.4.1.3.

The required net tension ring area is calculated by,

$$A_n = \frac{D^2 * p}{8 * F_t * \tan \theta}$$

Table 6: Minimum Tension Ring Area Check

Tension Ring Beam Profile	-	8852	-	-	-	
Flange Bolt Pattern	-	423	-	-	-	
Splice Plate Bolt Size	-	1	-	-	-	
Bolt Diameter	-	1	-	-	-	
Flange Bolt Hole Diameter	D_{hef}	0.56	in	14.29	mm	
Web Bolt Hole Diameter	D_{hew}	1.09	in	27.78	mm	
Flange Thickness	t_f	0.36	in	9.14	mm	
Web Thickness	t_w	0.18	in	4.57	mm	
Beam Depth	d_s	8	in	203.2	mm	
Bar Thickness	t_{bar}	1	in	25.4	mm	
Bar Height(Width)	w_{bar}	6	in	152.4	mm	= $d_s - 2$
Nominal Tank Diameter	D_T	236.67	ft	72.14	m	
Required Maximum Gravity Load Pressure	p_{rG}	22.5	lb/ft²	1.08	kPa	
Roof Slope at Tension Ring	θ	42	deg	-	-	
Safety Factor for Tension Rupture	Ω_r	1.95	-	-	-	1.95 is typically used
Tensile Ultimate Strength	F_{tu}	38	k/in²	262	MPa	
Tension Coefficient	k_t	1	-	-	-	
Allowable Stress for Tension Ring	F_t	19.49	k/in²	134.36	MPa	= $F_{tu}/\Omega_r/k_t$
Gross Area of Beam	A_{gbm}	5.21	in²	3364.44	mm²	
Gross Area of Bars	A_{gbar}	12	in²	7741.92	mm²	= $2 w_{bar} t_{bar}$
Gross Cross Sectional Area of The Tension Ring	A_g	17.21	in²	11106.36	mm²	= $A_{gbm} + A_{gbar}$

HMT, LLC.

Aluminum Dome Design Report

Cross Sectional Area of Bolt Holes	A_{bolt}	3.19	in ²	2060.88	mm ²	= $4D_{hef}t_f + D_{hew}(t_w+t_{bar}2)$
Available Net Area	A_{na}	14.02	in ²	9045.48	mm ²	= $A_g - A_{bolt}$
Required Net Area	A_{nr}	8.98	in ²	5791.54	mm ²	= $(D^2 p_{rG}) / (8 F_t \tan\theta)$ eq.G.4.1.4-1
interaction ratio	IR	0.64	-	OK		= A_{nr}/A_{na} must be < 1 to pass

Panel Design – Concentrated Loads

The Panels are manufactured from 0.05" [1.2mm] thick AA-3003-H16 aluminum coil. They are designed to carry two concentrated loads over two sq. feet through membrane tensile forces in the plane of the panel per Section G.4.2.3.2 of API 650, Annex G.

The method that will be used is a "strip-method" for analyzing the panel. Conservatively, assume the shortest panel altitude carries the entire load in one-way action. Due to the standard available widths of aluminum coil, the minimum of the three panel altitudes cannot exceed 102 inches [2591 mm].

Given:

F= 0.25 kip Concentrated load over one square feet (two loads)

F_t= 12.3 ksi Allowable tensile stress (Aluminum Design Manual-2020., Table 2-3, Pg. VI-22)

L= 102 in Panel Length

Consider a concentrated load carried over a 1 inch [25mm] wide strip.

$$W = 2 * \frac{1\text{psi}}{144\text{psf}} * \frac{F}{1\text{ft}^2} * 1\text{in} * 12\text{in}$$

Because the panel is thin, its bending stiffness is insignificant. The panel supports the load by developing membrane tensile stresses (analogous to cable). The deflected slope and axial load for the 1" strip can be calculated using a cable analogy and the following formulas from "Roark's Formulas for Stress and Strain", 7th Edition, Section 8.17, Table 8.10, by Warren C. Young

E = 10100 ksi Modulus of elasticity for aluminum panel

A = 0.05 in² Area (thickness * width of strip)

Solution:

$$\theta = \left(\frac{W}{E * A} \right)^{1/3} \quad P = \frac{W}{2 * \tan \theta} \quad f_t = \frac{P}{A}$$

$\theta = 0.044 \text{ radian}$ Slope of deflected panel in radians assuming small slope ($\Theta < 12^\circ$.)

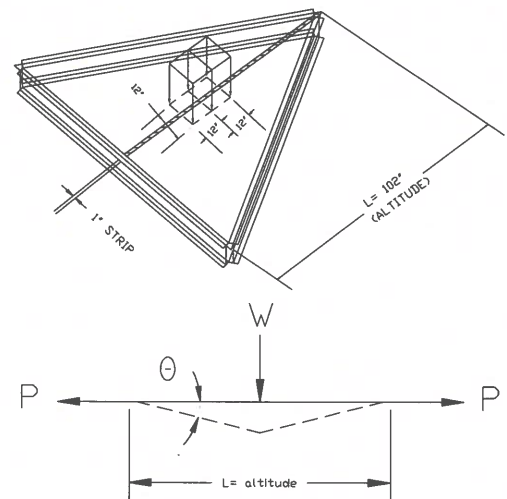
$\theta = 2.49^\circ < 12^\circ$ Therefore, it's a small slope.

P = 0.48 kips Membrane tensile force in 1" [25mm] strip

Solve for the tensile stress in 1" [25.4mm] strip

$$f_t = 9.56 \text{ ksi} < F_t = 12.3 \text{ ksi}$$

The tensile stress is less than the allowable tensile stress; therefore, the results are satisfactory.



Panel Design – Distributed Loads

The panels are manufactured from the 0.05" (1.2 mm) thick AA-3003-H16 aluminum coil. They are designed to carry a uniform distributed load through membrane tensile forces in the plane of the panel per Section G.4.2.3.1 of API 650, Annex G.

The method that will be used is a "strip-method" for analyzing the panel. Conservatively, assume the shortest panel altitude carries the entire load in one-way action. Due to the standard available widths of aluminum coil, the minimum of the three panel altitudes cannot exceed 102 inches [2591 mm].

Given:

UL= 60 psf Uniform load to be carried by the panel

F_t= 12.3 ksi Allowable tensile stress (Aluminum Design Manual-2020., Table 2-3, Pg. VI-22)

L= 102in Panel Length

Consider a line load carried over a 1 inch wide strip.

$$W = UL * \frac{1\text{psi}}{144\text{psf}} * 1\text{in} = 0.417 \text{ lbf/in}$$

Because the panel is thin, its bending stiffness is insignificant. The panel supports the load by developing membrane tensile stresses (analogous to cable). The deflected slope and axial load for the 1" strip can be calculated using a cable analogy and the following formulas from "Roark's Formulas for Stress and Strain", 7th Edition, Section 8.17, Table 8.10, by Warren C. Young.

E= 10100 ksi modulus of elasticity for aluminum panel

A= 0.05 in² Area (thickness * width of strip)

Solution:

$$y_{max} = L \left(\frac{3 * W * L}{64 * E * A} \right)^{1/3}; \quad P = \frac{W * L^2}{8 * y_{max}}; \quad f_t = \frac{P}{A}$$

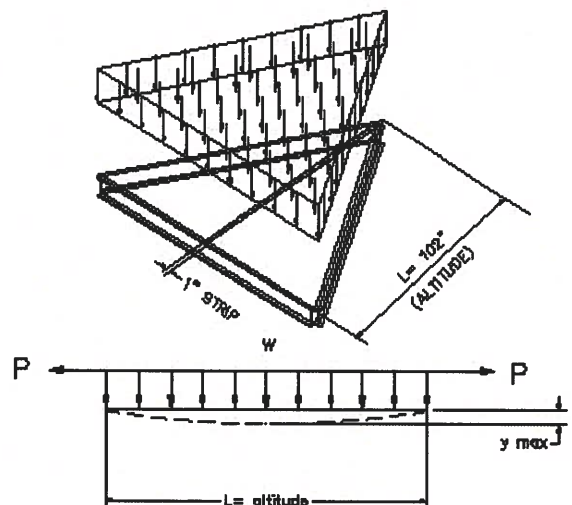
$y_{max} = 1.61 \text{ in}$ Maximum deflection

$P = 0.349 \text{ kips}$ Membrane tensile force in 1" strip

Solve for the tensile stress in 1" strip

$f_t = 6.724 \text{ ksi} < F_t = 12.3 \text{ ksi}$

The actual tensile stress is less than the allowable tensile stress; therefore, the results are satisfactory.



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Aluminum Dome Design Report

Venting Summary

Venting for the geodesic dome roof will be determined by API 650, Section 5.8.5. This section states that tanks designed in accordance with this standard and having a fixed roof and internal floating roof shall satisfy the requirements of Annex H.

Section H.5.2.2 of API 650 calls for perimeter vents (above the seal of the floating roof) with a total open area equal to or greater than 0.2 ft² [0.0186m²] per foot of tank diameter. These perimeter vents should be covered with corrosion-resistant mesh screen with 1/2" [12.7mm] openings. It also calls for an open vent of 50 in² [0.032m²] minimum to be located as close as possible to the center or the highest elevation of the roof.

Perimeter venting for the HMT geodesic dome roof is provided in the form of stainless steel wire mesh screen between the dome flashing and the rim of the tank.

Table 7: Venting Area Check

Nominal Tank Diameter	D	237	ft	72237	mm	
Vertical clearance between top of tank and flashing	Ht	0.17	ft	50.8	mm	
Required Venting Area	Areg	47.33	ft²	4397410.56	mm²	API 650, Annex H.5.2.2.1
Available venting area due to open perimeter	Aprovide	123.92	ft²	11512393.93	mm³	
Is Annex H.5.2.2 satisfied?	-	Yes	-	Yes	-	
Is additional venting required?	-	No	-	No	-	
Vent Diameter	Dv	14	in	355.6	mm	
Vent Quantity		1	Nos	1	Nos	
Venting area per vent	Avent	153.94	in²	99314.67	mm²	Minimum one vent required at center, API 650, Annex H.5.2.2.2
Required Minimum Venting Area At Center	AventCR	50.00	in²	32258.0	mm²	
Available Venting Area at Center	AventT	153.94	in²	99314.7	mm²	
Venting Requirement		Satisfied		Satisfied		

Aluminum Dome Design Report

Roof to Shell Connection

A rectangular 8" deep x 4" wide aluminum tube section is used as a support member that connects the dome tension ring to the tank shell. An aluminum Inverted double tee anchor bracket is connected to the support member with 1" dia. aluminum pin. A double tee bracket is anchored to the carbon steel pedestal using two-3/4" dia. stainless steel bolts. Per API 650, G.5.3, carbon steel mounting base and aluminum double tee anchor bracket is separated by the elastomeric bearing pad.

The double tee anchor bracket, bearing pin and support member are designed to resist forces that may occur due to any of the load combinations as mentioned in section-III of this report per Aluminum Design Manual.

Table 8: Roof-to-Shell Connection

Shoe Beam Pin and Anchor Slide Connection						
Maximum Reaction at the dome support (Gravity)	VLL	15.52	kips	69.06	kN	refer to dome support reaction table
Maximum Reaction at the dome support (Uplift)	VWL	9.46	kips	42.09	kN	refer to dome support reaction table
Maximum Radial Reaction at the dome support (Gravity)	HLL	1.52	kips	6.77	kN	refer to dome support reaction table
Maximum Radial Reaction at the dome support (Uplift)	HWL	0.74	kips	3.3	kN	refer to dome support reaction table
Net Reaction at the dome support (Gravity)	RLL	15.6	kips	69.39	kN	
Net Reaction at the dome support (Uplift)	RWL	9.49	kips	42.21	kN	
Is Pin in single shear or double shear ?		Double	-	Double	-	
Required Shear Strength in Pin	Vnr	7.8	kips	34.69	kN	
Factor of Safety for Shear	Ω_s	2.34	-	2.34	-	
Factor of Safety for Bearing	Ω_b	1.95	-	1.95	-	
Pin Strength Check (Part # 43750)						
Pin Material		AA-7075-T651		AA-7075-T651		
Ultimate Tensile Strength	Ftu	77	k/in ²	530.9	MPa	Table 4, Page IV-23, ADM2020

HMT, LLC.

Aluminum Dome Design Report

Tensile Yield Strength	Fty	66	k/in2	455.05	MPa	Table 4, Page IV-23, ADM2020
Ultimate Shear Strength	Fsu	46.2	k/in2	318.54	MPa	= 0.6 x Ftu Table A3.1, Page I-21, ADM2020
Shear Yield Strength	Fsy	39.6	k/in2	273.03	MPa	= 0.6 x Fty
Diameter of the Pin	D	1	in	25.4	mm	
Diameter of the Pin hole in the shoe beam	dsb	1.03	in	26.19	mm	
Diameter of the Pin hole in the Anchor Slide	das	1.06	in	26.99	mm	
Available Shear Strength	Vn / Ωs	15.51	kips	68.98	kN	Eq. J.6-1, ADM 2020
Nominal Bearing strength of Pin	Rnb	39.7	kips	176.61	kN	Eq. J.6.5 Aluminum Design Manual 2020
Available Bearing Strength	Rn b / Ωb	20.36	kips	90.57	kN	
Minimum of Bearing and Shear Strength	Rn / Ω	15.51	kips	68.98	kN	= min of Vn / Ωs, Rn / Ωb
Interaction ratio for Pin Shear or Bearing Strength	Vnr / (Vn / Ω)	0.5	kips	0.5	kN	Passed
Double T Anchor Bearing Strength (Part # 43765)						
Beam Depth	d	8	in	203.2	mm	
Anchor Slide Material		AA-6061-T6	-	AA-6061-T6	-	AA-6061-T6 OR AA6005A-T61
Ultimate Tensile Strength	Ftu	38	k/in2	262	MPa	Table 4, Page IV-23, ADM2020
Tensile Yield Strength	Fty	35	k/in2	241.31	MPa	Table 4, Page IV-23, ADM2020
Ultimate Shear Strength	Fsu	22.8	k/in2	157.2	MPa	= 0.6 x Ftu ; Table A3.1, Page I-21, ADM2020
Shear Yield Strength	Fsy	21	k/in2	144.79	MPa	= 0.6 x Fty ; Table A3.1, Page I-21, ADM2020
Thickness of anchor slide leg	tas	0.5	in	12.7	mm	
Minimum edge distance for Uplift	deup	1.78	in	45.24	mm	

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Aluminum Dome Design Report

Minimum edge distance for Gravity load	degr	4.09	in	103.98	mm	
minimum edge distance requirement per ADM 2020	de	1.5	in	38.1	mm	= 1.5 . D ; J.6.2 Aluminum Design Manual 2020
does anchor slide meets minimum edge distance criteria?		Yes	-	Yes	-	= de>deup , de>deup
Required shear in Uplift on each leg (Double Shear)	Vnrup	4.75	kips	21.11	kN	= RWL/2
Required shear in Gravity on each leg (Double Shear)	Vnrgr	7.8	kips	34.69	kN	= RLL/2
Projected area of Pin	Apb	0.5	in2	322.58	mm2	= tas . D
Nominal bearing Strength of Anchor Slide	Rn	25.27	kips	112.4	kN	= 1.33 . Ft _u . Ap _b ; Eq. J.8-1, ADM 2020
Available Bearing Strength of Anchor Slide	Rnb/ Ω _b	12.96	kips	57.64	kN	
Interaction Ratio for Anchor Slide Bearing Strength	Vnrup/(Rnb/ Ω _b)	0.37	-	0.37	-	Passed
Shoe/Support Beam bearing strength						
Thickness of Shoe Beam at Pin connection	tsb	0.5	in	12.7	mm	
Shoe Beam Material		AA-6061-T6				AA-6061-T6 OR AA6005A-T61
Nominal bearing Strength of Shoe Beam	Rnsb	25.27	kips	112.4	kN	= 1.33 . Ft _u . Ap _b
Available Bearing Strength of Beam	Rnsb/ Ω _b	12.96	kips	57.64	kN	Eq. J.8-1, ADM 2020
Interaction Ratio for Shoe Beam Bearing Strength	Vn/(Rn sb/ Ω _b)	0.6	-	0.6	-	Passed
Anchor Bolts at Double T Anchor (Part # 43763)						
Support Style		SLIDING		SLIDING		
Bolt Material		SS 304		SS 304		
Material Specification		ASTM F593-CW2		ASTM F593-CW2		

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Aluminum Dome Design Report

Number of bolts	nb	2	Nos.	2	Nos.	
Ultimate Tensile Strength	Fu	85	k/in2	586.05	MPa	Table 2-4, AISC Stainless Steel Design Guide - 27
Diameter of Bolt	db	0.75	in	19.05	mm	
Nominal unthreaded body area of bolt	Ab	0.44	in2	285.02	mm2	
Nominal tensile stress	Fnt	63.75	k/in2	439.54	MPa	= 0.75 x Fu ; (Table J3.2, AISC 360-16I)
Nominal shear stress (threads in shear plane)	Fnv	38.25	k/in2	263.72	MPa	= 0.45 x Fu ;(Table J3.2, AISC 360- 16)
Nominal shear stress (threads not in shear plane)	Fnv	47.86	k/in2	329.95	MPa	= 0.563 x Fu ;(Table J3.2, AISC 360-16)
Factor of Safety	Ωs	2	-	2	-	
Are bolt threads in shear plane?		YES	-	YES	-	
Nominal shear strength of bolts	Rnv	16.9	kips	75.16	kN	(Eq. J3-1, AISC 360-16, Specification for Structural Steel)
Available shear strength bolts	Rnv / Ωs	8.45	kips	37.58	kN	
Nominal tensile strength	Rnt	28.16	kips	125.27	kN	(Eq. J3-1, AISC 360-16, Specification for Structural Steel)
Available tensile strength bolts	Rnt / Ωs	14.08	kips	62.64	kN	
Combined Tension and Shear						
Required shear stress	frv	1.72	kips	7.66	kN	=RLL /Ab or RWL/Ab
Required tensile stress	frt	17.57	kips	78.15	kN	=VLL /Ab or VWL/Ab
Is required shear stress frv Is less that 30% of available shear stress?		No	-	No	-	
Is required shear stress frt Is less that 30% of available Tensile stress?		Yes	-	Yes	-	
Is effect of combined stress needs to be investigated?		Yes	-	Yes	-	

HMT, LLC.

Aluminum Dome Design Report

Factor of safety	Ω	2	-	2	-	
Nominal Tensile Stress modified to include shear stress	F'nt	77.14	k/in ²	531.83	MPa	(Eq. J3-3b, AISC 360-16, Specification for Structural Steel)
Minimum of Fnt or F'nt	F'nt	63.75	k/in ²	439.54	MPa	
Available tensile strength of a bolt subjected to combine tension and shear	Rnt&s / Ω_s	14.08	kips	62.64	kN	(Rnt&s / Ω_s) = (F'nt x Ab / Ω_s);(Eq. J3-2, AISC 360-16)
Bolt shear strength interaction ratio	-	0.09	-	0.09	-	Passed
Bolt tensile strength interaction ratio	-	0.55	-	0.55	-	Passed

VI. TANK SHELL ANALYSIS

Description of the Structure & Analysis Procedure

Tank number 501-14 has been modeled and analyzed with a top course thickness of 1/4" [6.35] per the provide from customer.

The top shell course, wind girder and dome supports were modeled to simulate vertical loads acting over the tank shell. This structure was analyzed with Solidworks 2020, a commercially available structural analysis application that uses the finite element method. Shell plates as well as frame components have been analyzed as "shell" elements. The model has circular symmetry; therefore, 64 support points were modelled along 360 degrees. As such the results shown in the report for a full 360-degree modeled tank will be same on each support points because of the symmetric fixtures applied.

Details of the model construction are shown in Figure 5 and listed in Table 10 below.

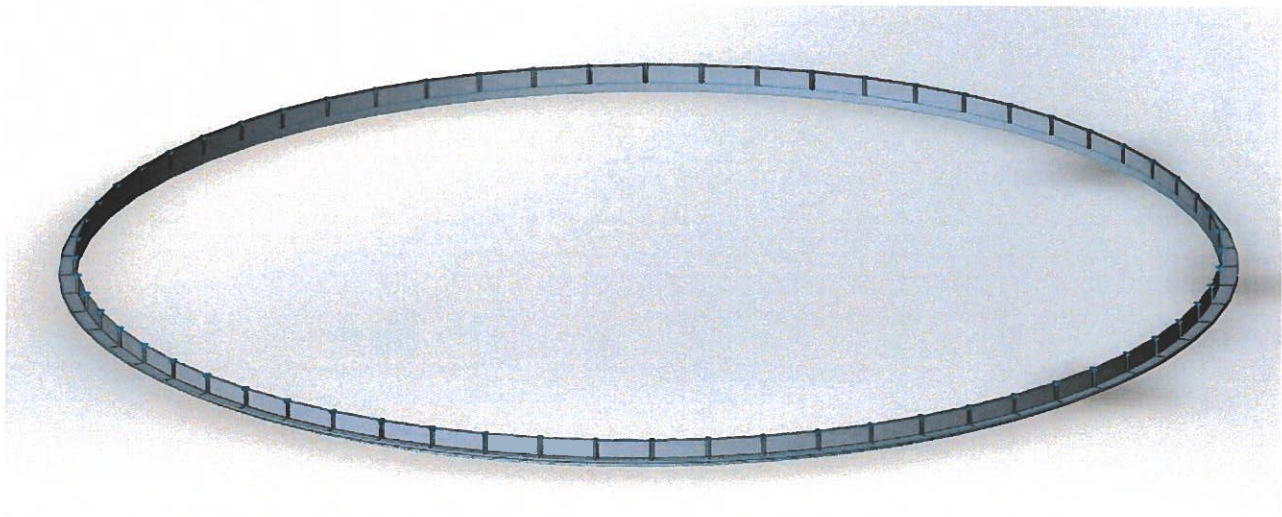


Figure 5: 3-D FEA MODEL

Description	Thickness (in)	Material
Top Course	1/4	A-36
Wind Girder	3/8	A-36
Top Angle	3 x 3 x 1/4 Leg out Butt Welded	A-36

Wind girder dimensions are 40 1/2" wide (Horizontal) x 6 1/2" (Vertical) and located 48" from top of the tank.

Materials for the top shell course, wind girder and top angle were assumed to be A-36 for this analysis.

Load Criterion

External loads are derived from the requirements of API 650, Annex G, 13th Edition.

Dead load includes the weight of panels, beams, node plates, batten bars, and bolting hardware.

Refer to section IV for controlling load combinations.

Case Combinations

The combined load cases that are required are listed in API 650, Section 5. Only the controlling load case combinations will be presented in this report.

From the dome analysis, the maximum reactions acting over the tank are listed in Table 5. The reactions are applied on the tank shell as distributed loads at 64 equally spaced areas, which represent the bracket resting on the tank shell. (See representation in Figure 5)

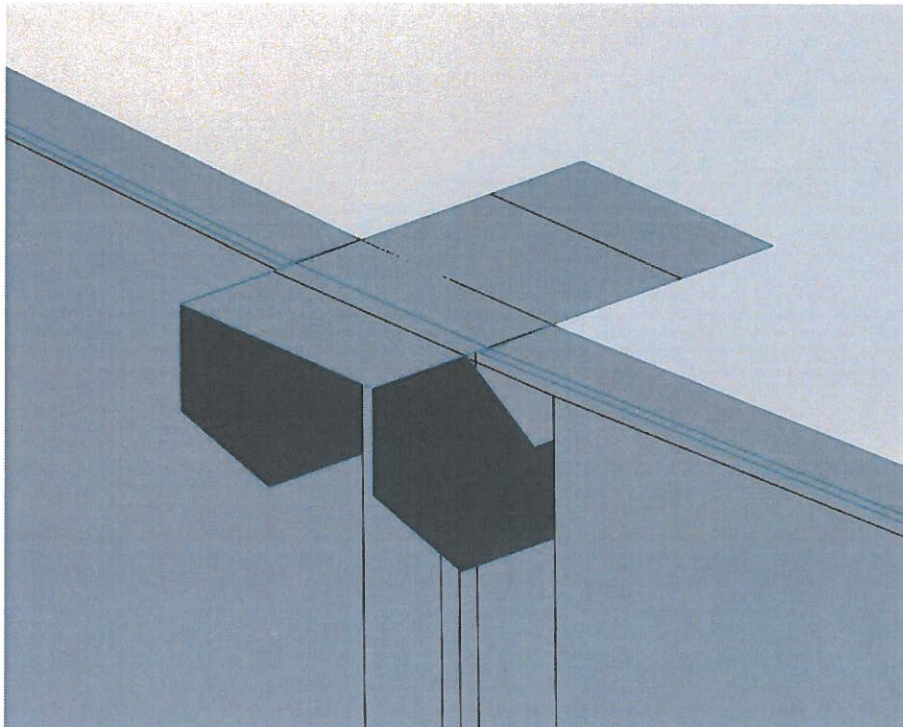


Figure 6: HMT Support Bracket

(For exact details, refer to construction drawings. Pedestal has been simplified for analysis purposes)

Note: $DL+Df+Lr+0.4Lf$ is the critical load case combination when analyzing the tank shell for buckling and stress analysis. Other load case combinations will not be shown in the results section.

Aluminum Dome Design Report

The reactions were modeled to simulate 3.613" out-of-roundness outwards & 3.979" out-of-roundness inwards on the radius of the tank shell as shown in Figure 6 and 7. These values were based the verticality report for Tank 501-14.

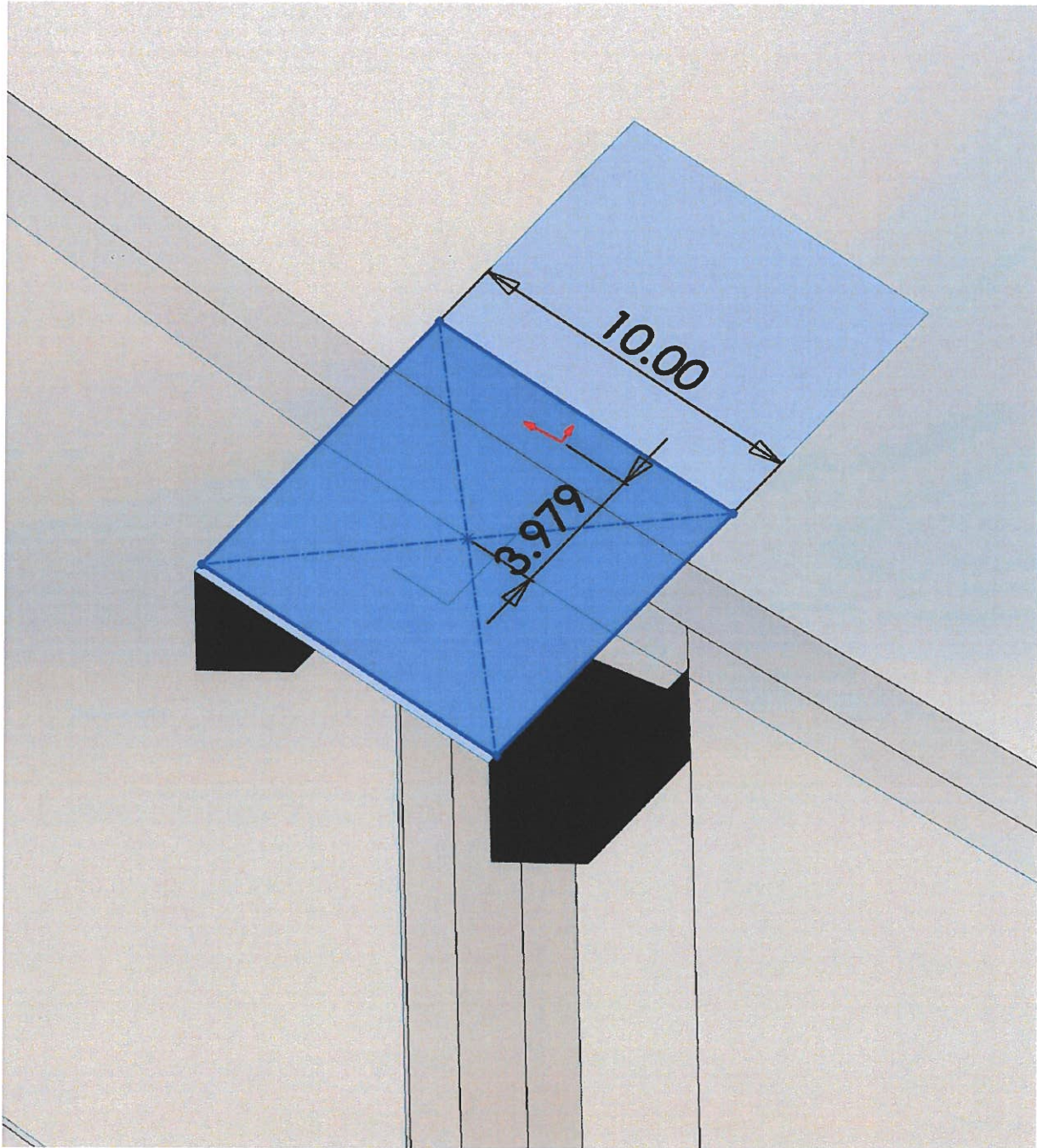


Figure 7: Bracket Placement Due to Inward Out-of-Roundness

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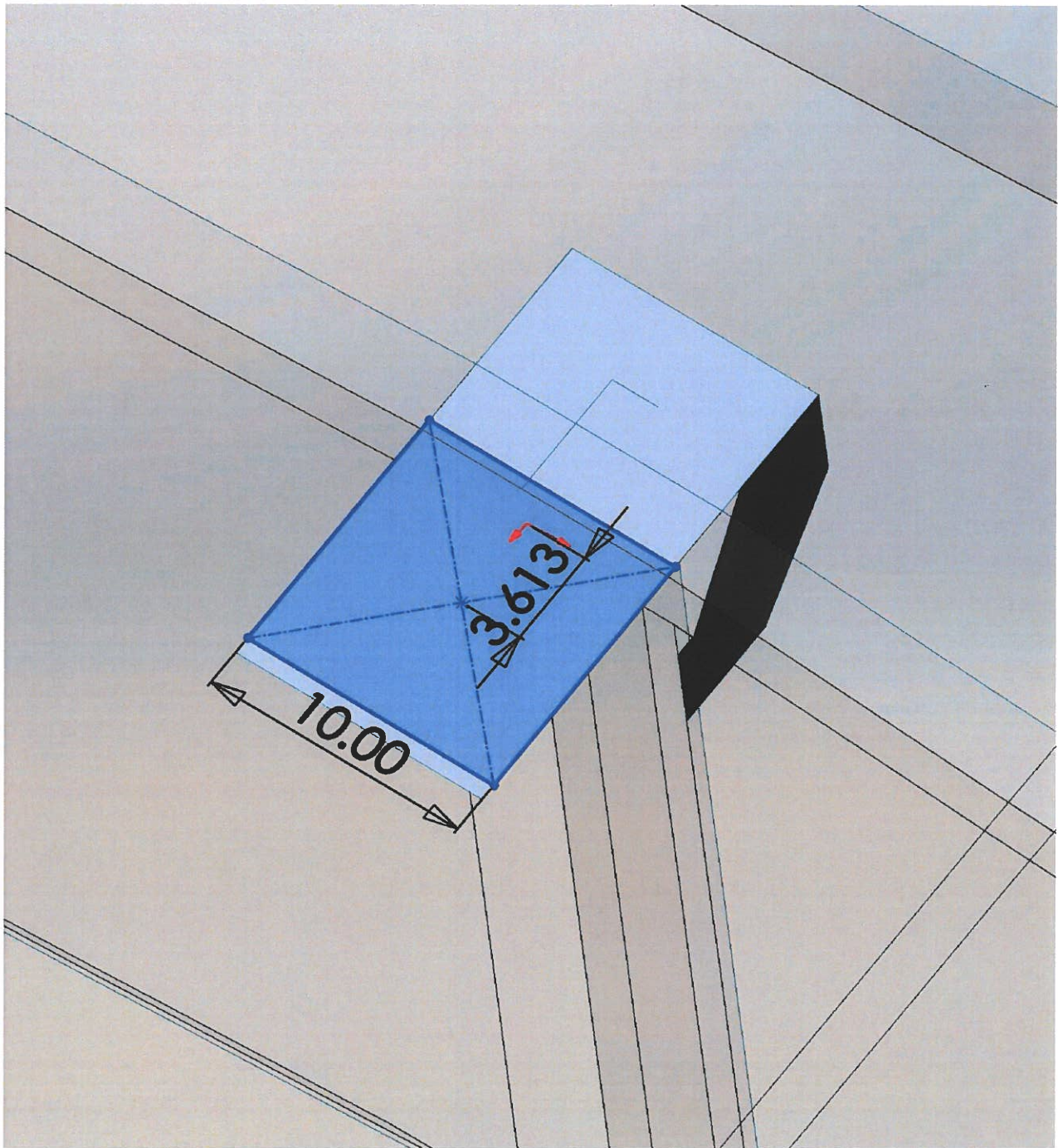


Figure 8: Bracket Placement Due to Outward Out-of-Roundness

Due to out of roundness, the vertical reaction is placed 3.613" away from tank shell on the outside. Reactions placed on the inside are not critical; thus, they are not shown in the report.

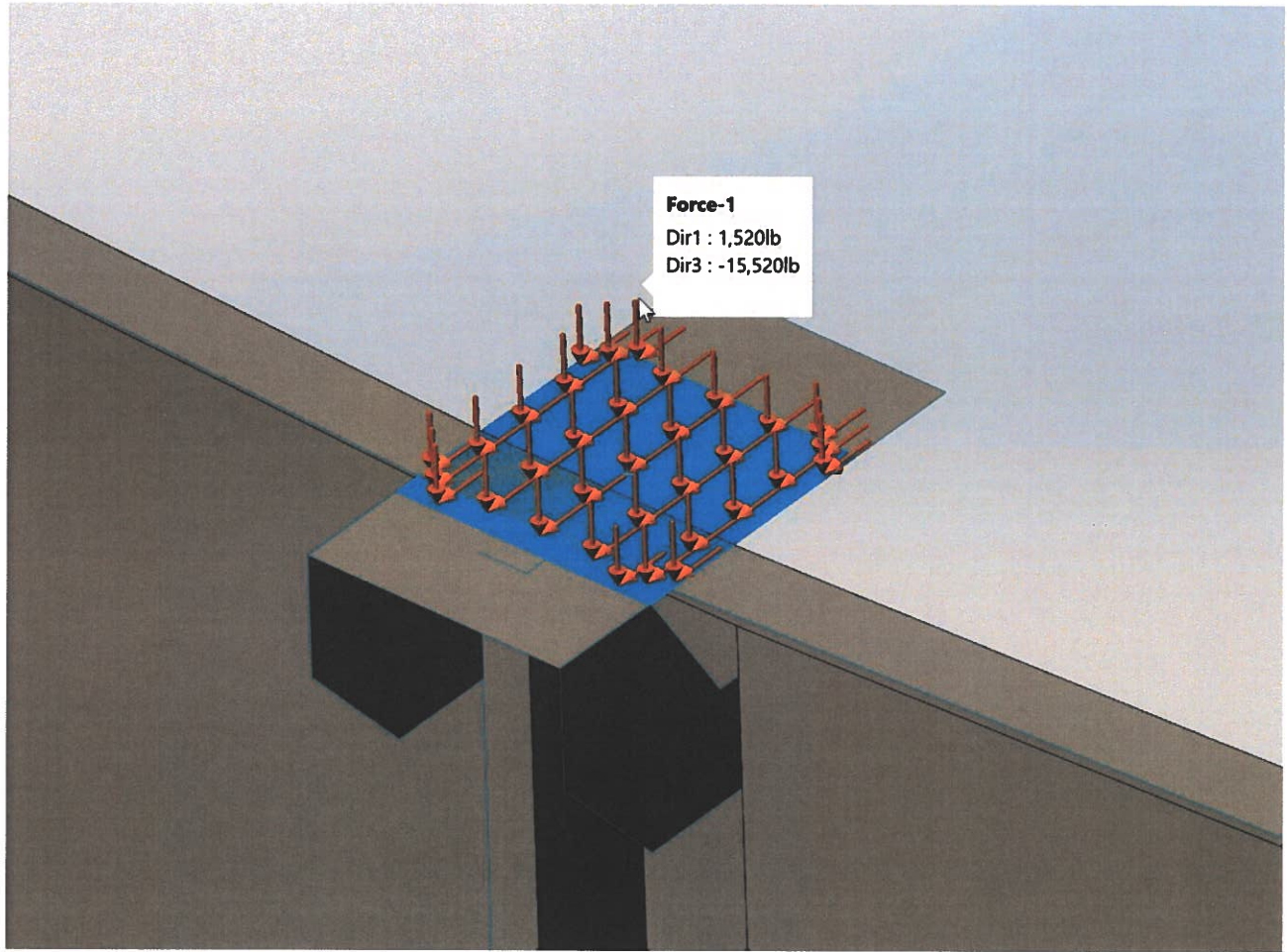


Figure 9: Reaction Loads (DL+Df+Lr+0.4Lf)

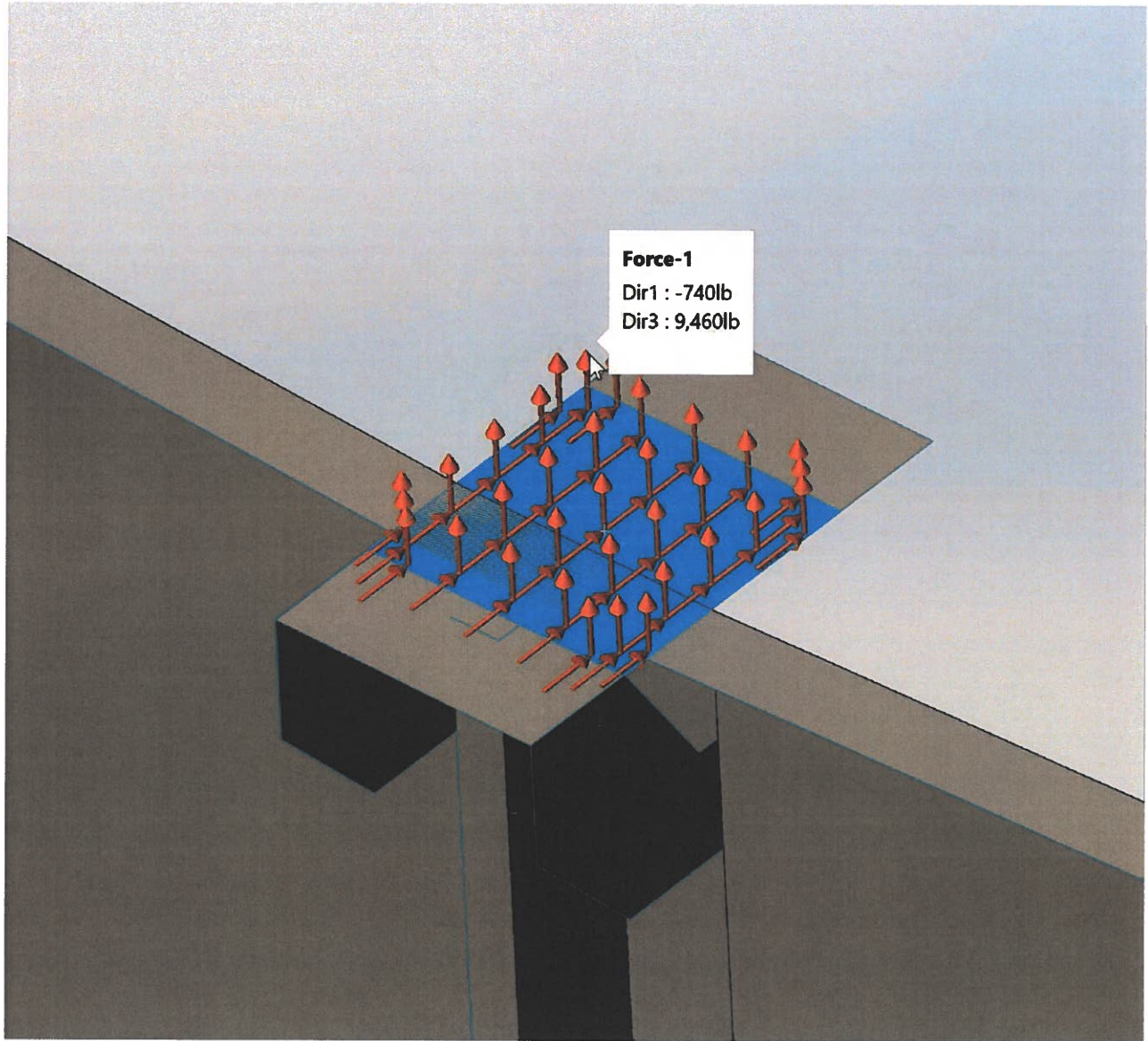


Figure 10: Reaction Loads (DL+W)

Results

Shell Buckling

Slender tank shells tend to buckle under axial loading. Buckling is defined as the sudden deformation which occurs when the stored axial energy in the membrane is converted into bending energy with no change in the applied loads. The shape the model takes while buckling is called the buckling mode shape. Buckling analysis calculates any number of modes, but the results below show the lowest mode (mode 9) because it is associated with the lowest critical load. In this analysis, 12 modes were calculated. The results of these are shown in [Figure 12](#). The product of the buckling factors shown, times the applied axial load, gives the critical buckling load. This is also known as the safety factor. It is HMT recommendation keep the buckling factor above 2.5

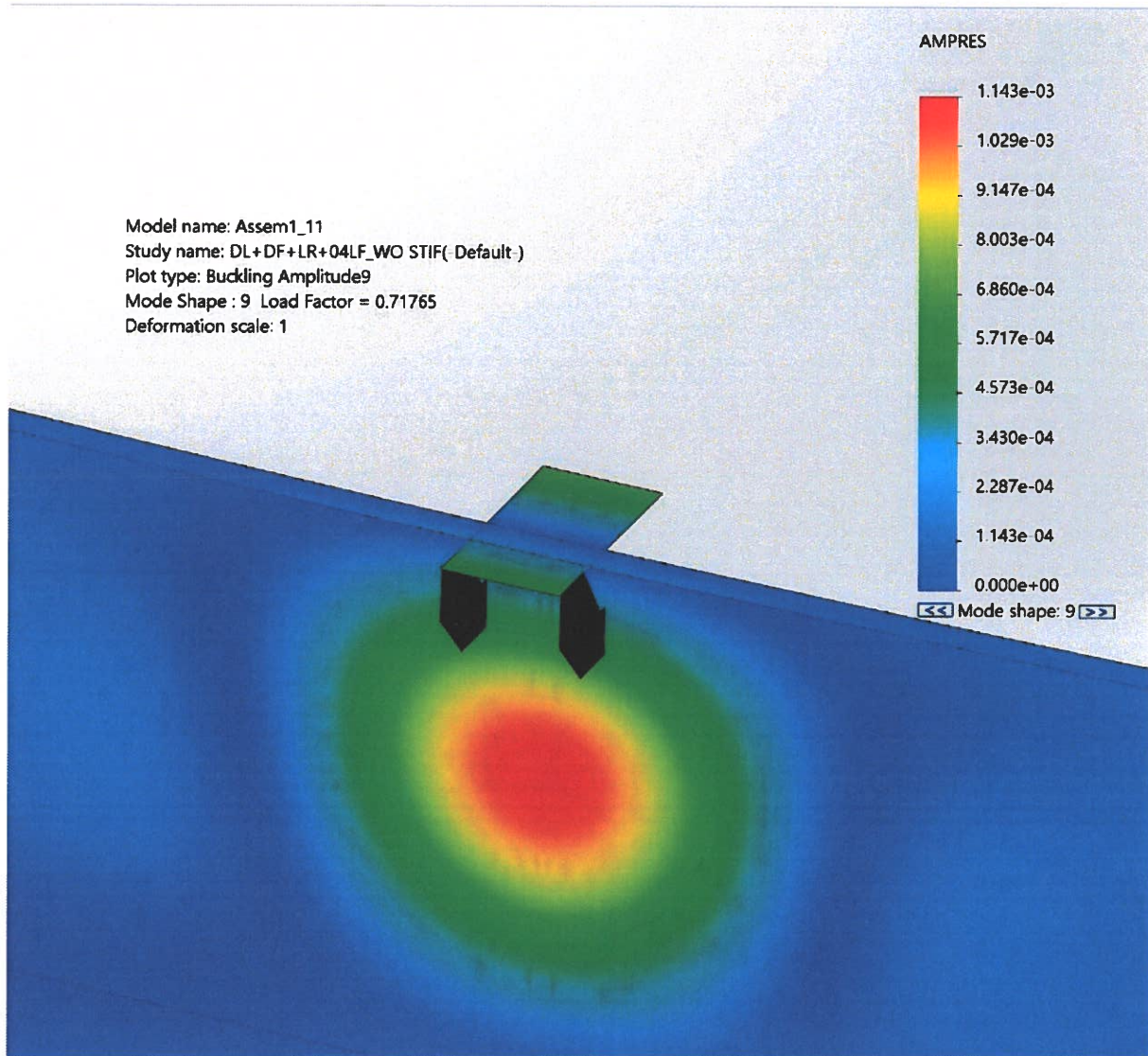


Figure 11: Buckling With Gravity Load

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Study name: Buckling 1_Existing Tank

Mode No.	Buckling Factor of Safety
1	-1.1235
2	-1.1217
3	-1.0866
4	-1.0846
5	-0.80235
6	-0.8009
7	-0.68087
8	-0.68078
9	0.71765
10	0.71783
11	1.0512
12	1.0534

Figure 12: Buckling Modes and Factor of Safety for Gravity Load

The reactions shown in Figure 11 were applied to pedestals in the model, which resulted the above buckling factor of 0.71 for the Gravity Load case, as shown in Figure 12.

HMT Engineering recommends the buckling factor to remain above 2.5. Therefore the second analysis performed with additional C5 X 9 – 36” long channel placed underneath each pedestal.

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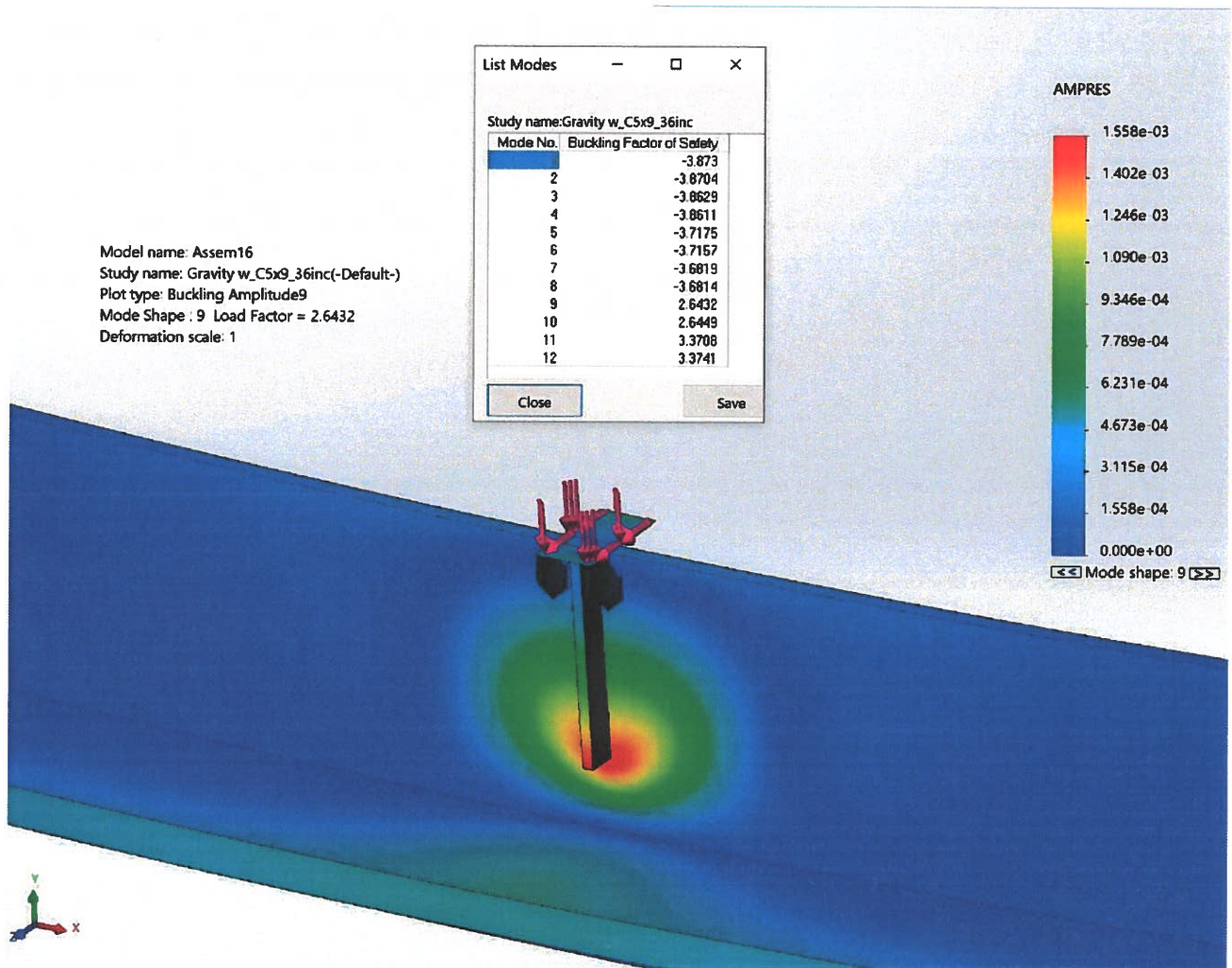


Figure 13: Buckling Shape With Stiffener

Study name:Gravity w_C5x9_36inc

Mode No.	Buckling Factor of Safety
1	-3.873
2	-3.8704
3	-3.8629
4	-3.8611
5	-3.7175
6	-3.7157
7	-3.6819
8	-3.6814
9	2.6432
10	2.6449
11	3.3708
12	3.3741

Figure 14: Modes and Factor of Safety With Stiffener

HMT, LLC.

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This Structure will not buckle under applied loads unless their magnitude is over **2.64** times the applied loads if the 36" long C5 X 9 vertical stiffeners are included in the structure.

Shell Stress Check

Finite element model is analyzed to check the maximum stresses in the tank shell due to dome support reactions. A non-linear analysis was used with an initial step increment of 0.01 to converge the model and obtain the resulting stress below.

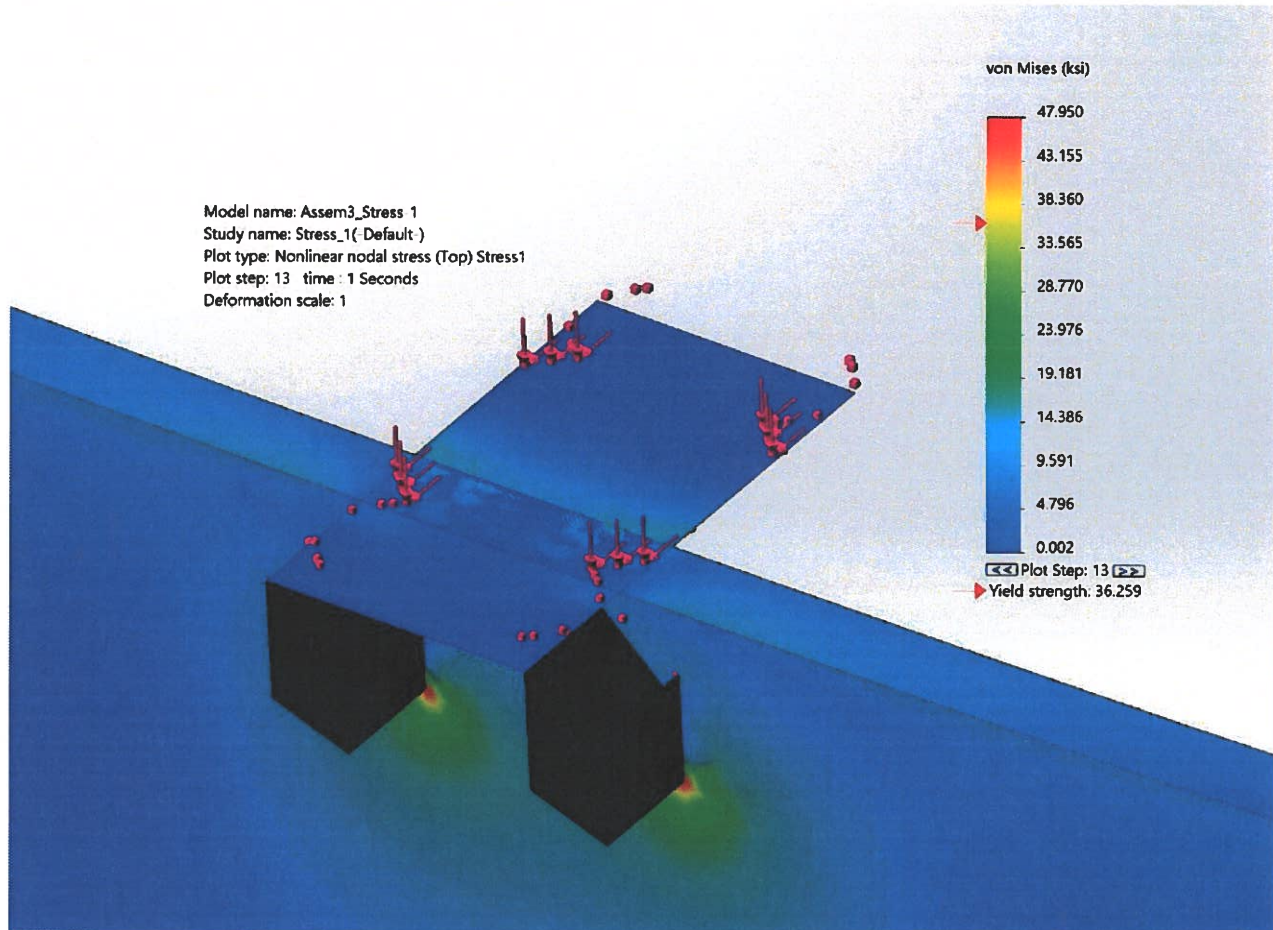


Figure 15: Stress Distribution Due to (DL+Df+Lr+0.4Lf) Load Case

The maximum stress is **47.950 ksi** as shown in Figure 15.

Specified Minimum Yield Strength : 36.0 ksi ; Minimum Ultimate Tensile Strength : 58.0 ksi

Allowable design strength < Overall component stress

Hence, **NOT OK.**

A second non-linear analysis was performed with the addition of C5x9 channel stiffener placed underneath each pedestal. This channel is 36" in length and connected to the top angle and tank shell. Foam pourer pipe is assumed as 6" diameter while designing 36" length stiffener. Customer needs to confirm the size of pipe.

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Aluminum Dome Design Report

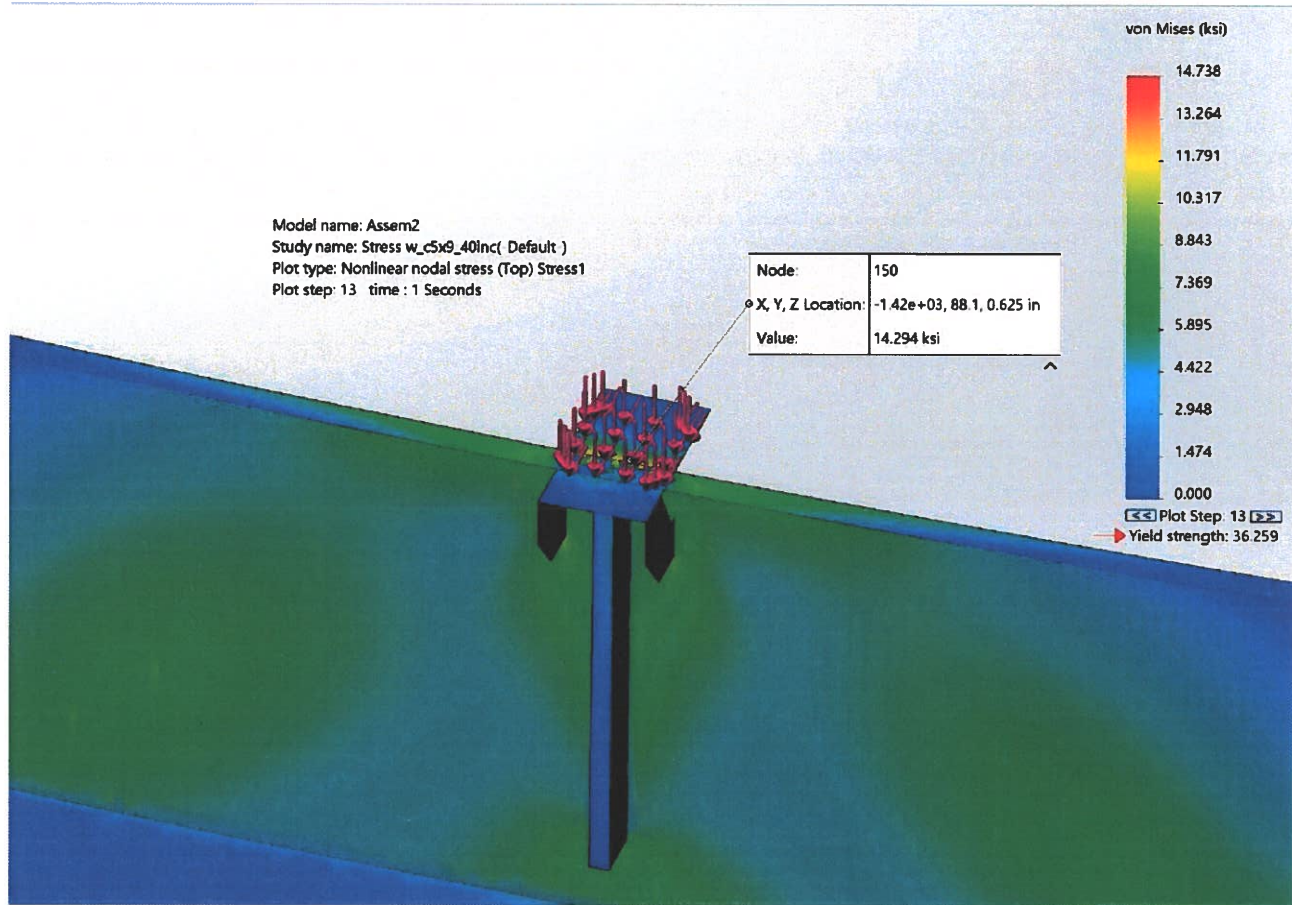


Figure 16: Stress Distribution Due to (DL+Df+Lr+0.4Lf) Load Case With C5x9 Stiffener

The maximum stress is **14.738 ksi** as shown in Figure 16.

Specified Minimum Yield Strength : 36.0 ksi ; Minimum Ultimate Tensile Strength : 58.0 ksi

Allowable design strength > Overall component stress

Hence, **OK**.

VII. CONCLUSION

The dome design presented in this report meets the requirements of Annex G of API 650, 13th Edition. The members and connections are designed to provide adequate support to external design loads and safely transfer forces from one beam element to the next without exceeding allowable strengths as specified in Aluminum Design Manual-2020.

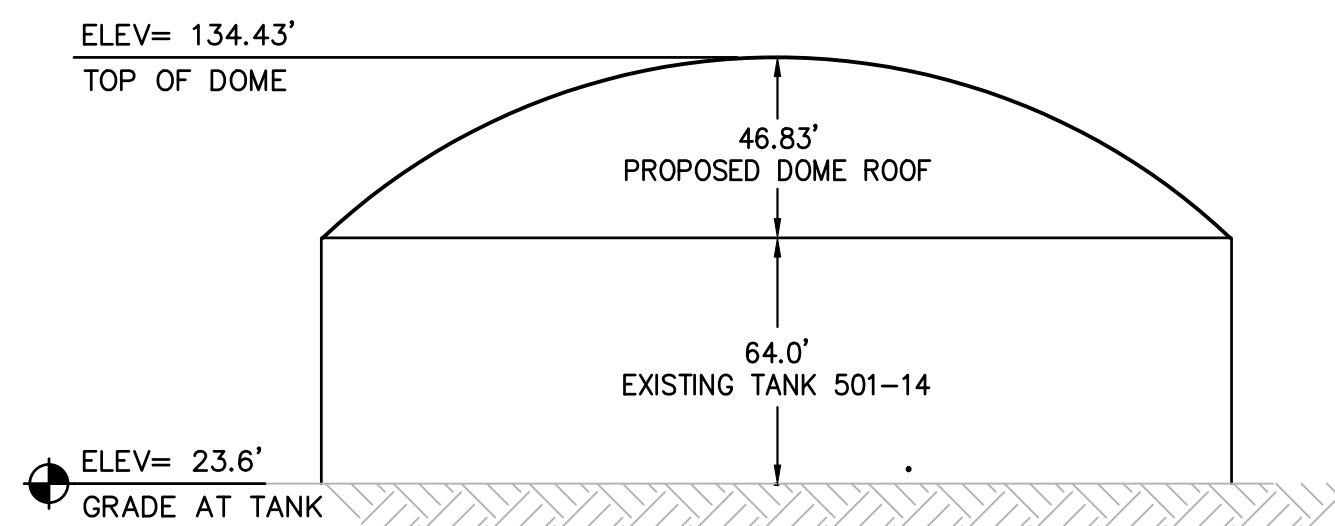
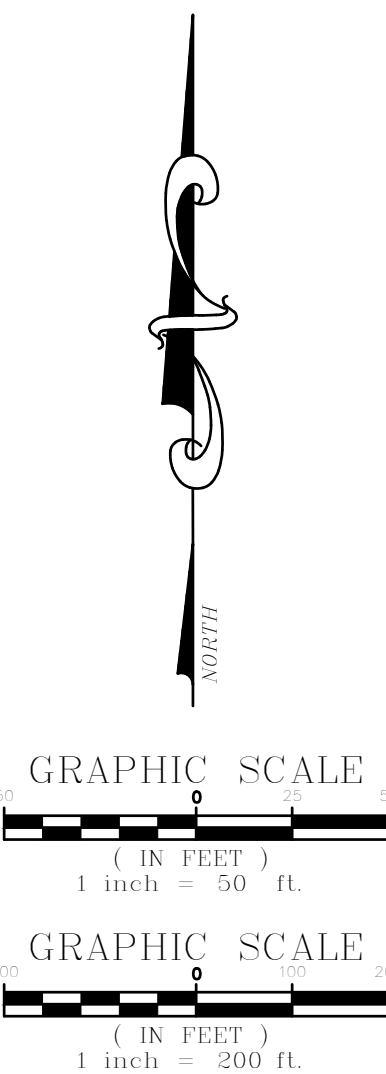
Tank Shell Analysis

Buckling analysis is an iterative process that basically shows when the tank model has failed under the given loads by providing a buckling factor (safety factor). Of all the modes of failure of tanks, buckling is probably the most common and most catastrophic. The analysis was conducted to show the buckling factor when adding a 36" long C5x9 channel directly underneath each pedestal. HMT recommends a buckling safety factor of **2.5**, the addition of just the C5x9 stiffeners would increase the safety factor to **2.64**.

The stresses calculated through the analysis were used to determine if the tank can safely support the dome. The dome loads can be supported with the addition of stiffened channel (C5 x 9 x 36" long) under each dome supports to eliminate overstressing.

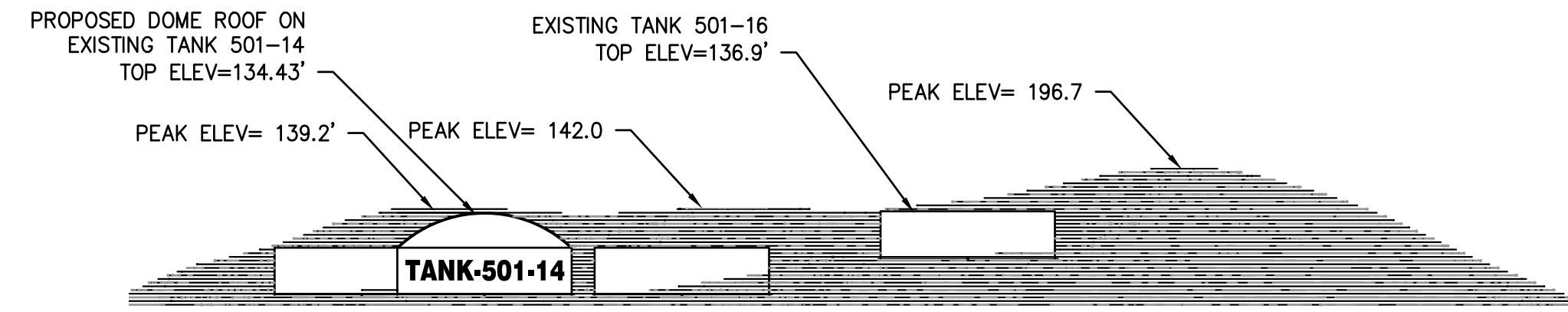


1 EXISTING OVERALL SITE
EX-A SCALE: 1" = 200'

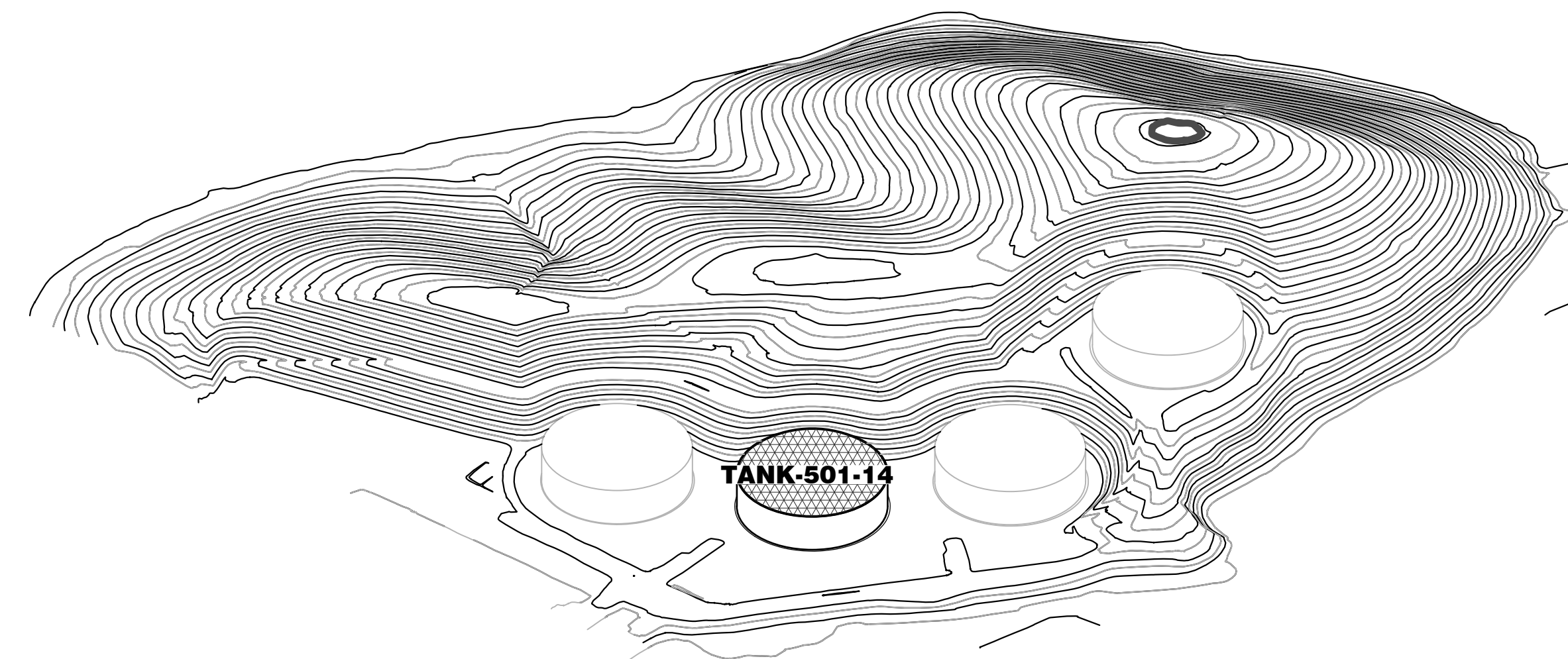


6 EXISTING TANK 501-14 ELEVATION
EX-A SCALE: 1" = 50'

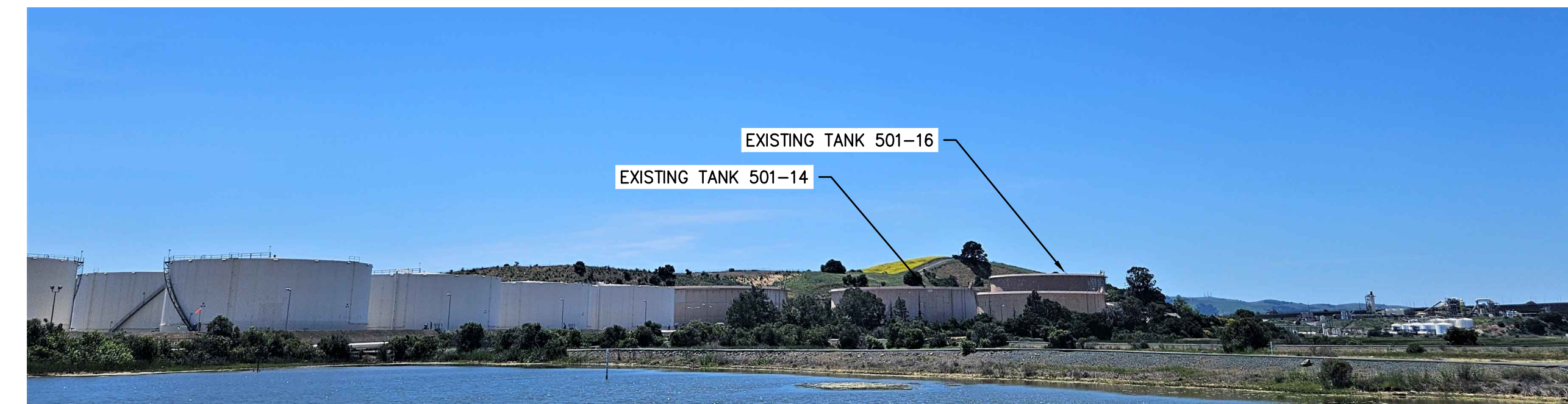
3 EX-A **4 EX-A**



2 ELEVATION VIEW
EX-A SCALE: 1" = 200'



3 EXISTING CONTOUR MAP VIEW FROM NORTHEAST
EX-A SCALE: 1" = 200'



4 EXISTING SITE VIEW FROM NORTHEAST
EX-A SCALE: 1" = 200'



5 PROPOSED VIEW OF DOME ROOF FROM NORTHEAST
EX-A SCALE: 1" = 200'

PRIME ENGINEERING INCORPORATED

3715 NORTHSIDE PARKWAY NW
BUILDING 300, SUITE 200
ATLANTA, GEORGIA 30327
404-425-7100

REVISIONS				
REVISION	REVISION DESCRIPTION	DATE	DWN	CHK
A	ISSUED FOR REFERENCE	5/15/2023	AJD	SJM

TRANSMONTAIGNE

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TRANSMONTAIGNE MARTINEZ TERMINAL 2801 WATERFRONT RD, MARTINEZ, CA 94553	
PROPOSED TANK 501-14 GEODESIC DOME	
EXHIBIT A	
DRAWN BY: AJD	ENGINEER: SJM
DATE: 05/15/23	AFE NO.: ---
SCALE: 1/8"=1'-0", U.N.O.	APPROVED BY: TTT
DRIVE: R/	DIRECTORY: TM-Martinez T501-14 Conversion\3 ENGINEERING\DWGS
DRAWING FILE: EX-A OVERALL SITE.dwg	REVISION NO. A



6. BENICIA-MARTINEZ BRIDGE

5. HWY 680 N

4. MOCOCO ROAD

3. MARINA VISTA AVE.

7. HWY 680 N

2. WATERBIRD WAY

1. WATERFRONT RD.

8. TRANSMONTAIGNE TERMINAL

TANK 504-14

TRANSMONTAIGNE MARTINEZ TERMINAL
2801 WATERFRONT RD. MARTINEZ, CA
94553
PROPOSE TANK 501-14 GEODESIC DOME
EXHIBIT B



1. WATERFRONT ROAD

TANK LOCATION



2. WATERBIRD WAY

TANK LOCATION



3. MARINA VISTA AVE.

TANK LOCATION



4. MOCOCO RD.

TANK LOCATION



5. HWY 680 N

TANK LOCATION



6. BENICIA MARTINEZ BRIDGE

TANK LOCATION



7. HWY 680 N

EXIT 56
Marina Vista
Martinez
3/4 MILE

TANK LOCATION



TOLL
FAS TRAK
OR
INVOICE
NO CASH

GET MORE **SOLAR** Got Watts?
Electric & Solar
\$2000.OFF
EXCLUSIONS APPLY
yelp G
gotwatts.com
Lic 985920

8. TRANSMONTAIGNE TERMINAL

PROPOSED DOME





July 24, 2023

Abhi Bobde
Project Engineer
TransMontaigne
2801 Waterfront Road
Martinez, CA 94553

Subject: Biological Impact Assessment
TransMontaigne Tank 14 Geodesic Dome, Martinez, Contra Costa County

Dear Mr. Bobde:

Per your request, LSA prepared this Biological Impact Assessment for the proposed installation of a geodesic dome on an existing 64-foot-tall tank at the TransMontaigne facility located at 2801 Waterfront Road in Martinez, Contra Costa County. This report addresses potential impacts from the proposed dome on biological resources and specifically determines whether the existing tank supports habitat for nesting birds or other sensitive species.

METHODS

Prior to the 2023 survey, LSA searched the records of the California Department of Fish and Wildlife's (CDFW) *California Natural Diversity Database* (CNDDDB) (CDFW 2023) and the U.S. Fish and Wildlife Service's (USFWS) *Information for Planning and Consultation (IPaC)* on-line database (USFWS 2023) for occurrences of special-status plant and wildlife species on or adjacent to the project site. LSA also reviewed local eBird (2023) hotspots for observations of special-status birds near the project site. The potential presence of special-status species was determined based on an evaluation of the habitat types present on the project site and the CNDDDB records and other occurrence information from the vicinity.

On July 13, 2023, LSA Senior Biologist Dan Sidle conducted a reconnaissance-level survey of the project site to evaluate the potential occurrence of special-status species and sensitive habitats. LSA biologists previously conducted surveys in the project area in 2021. LSA conducted the survey by searching around the project site for biological resources, such as the presence of special-status species and their habitats.

The scientific and vernacular nomenclature for the plant and wildlife species used in this study are from the following standard sources: plants - Baldwin et al. (2012) and updates listed on the Jepson Herbarium website (<http://ucjeps.berkeley.edu/eflora/>); amphibians and reptiles - Crother (2017); birds - American Ornithologists' Union (1998) and supplements through 2023; and mammals - Bradley et al. (2014).

PROJECT SITE DESCRIPTION

The project site consists of an existing 64-foot-tall tank surrounded by paved surfaces, access roads, and tanks, as well as native/non-native plants to the northeast and west. Northeast of the project

site is a narrow band of trees, shrubs, and ruderal (weedy) vegetation located near the facility's chain-link fence. Observed plant species in this area include eucalyptus (*Eucalyptus* sp.), pine (*Pinus* spp.), coast live oak (*Quercus agrifolia*), toyon (*Heteromeles arbutifolia*), coyote brush (*Baccharis pilularis*), wild oats (*Avena* sp.), ripgut brome (*Bromus diandrus*), veldt grass (*Ehrharta* sp.), and sweet fennel (*Foeniculum vulgare*). Immediately northeast of this vegetated area on the other side of the chain-link fence is a brackish marsh wetland. West of the tank are trees, shrubs, and ruderal vegetation, consisting of acacia (*Acacia* sp.), mustard (*Brassica* sp.), smilo grass (*Stipa miliacea*), and pampas grass (*Cortaderia* sp.). Similar plant species, such as coast live oak, pine, toyon, coyote brush, wild oats, and sweet fennel, are growing northeast of the project site. A patch of native California poppy (*Eschscholzia californica*) was also observed in this area.

WILDLIFE

Several wildlife species or wildlife sign were observed or detected adjacent to the project site during the field survey. These species consisted of Botta's pocket gopher (*Thomomys bottae*) and several bird species. Two salt marsh common yellowthroats (*Geothlypis trichas sinuosa*), which is a California Species of Special Concern (SSC), were detected in the brackish marsh wetland northeast of the project site. Most of the birds observed during the survey were in the ornamental trees and ruderal habitat and included common bird species, such as lesser goldfinch (*Spinus psaltria*), house finch (*Haemorhous mexicanus*), California towhee (*Melospiza crissalis*), and American crow (*Corvus brachyrhynchos*).

SPECIAL-STATUS SPECIES

For the purposes of this assessment, special-status species are defined as follows:

1. Species that are listed, formally proposed, or designated as candidates for listing as threatened or endangered under the federal Endangered Species Act (ESA);
2. Species that are listed, or designated as candidates for listing, as rare, threatened, or endangered under the California Endangered Species Act (CESA);
3. Plant species that are on the California Rare Plant Rank Lists 1A, 1B, and 2;
4. Animal species that are designated as Species of Special Concern or Fully Protected by CDFW; or
5. Species that meet the definition of rare, threatened, or endangered under Section 15380 of the CEQA guidelines.

Special-Status Plant Species

Although several special-status plants have been recorded within 5 miles of the project site (Table A), the project site consists of an existing tank and paved access surfaces and therefore, does not provide suitable habitat for special-status plants.

Special-Status Wildlife Species

Several special-status wildlife species are known to occur in the vicinity (Table A) and could occur near the project site but would not occur at the actual site due to the lack of suitable habitat. Special-status wildlife species that are more likely to occur adjacent to the project site are discussed below:

- White-tailed kite (*Elanus leucurus*; California Fully Protected [CFP]) could nest in the trees or large shrubs adjacent to the project site. A white-tailed kite was observed foraging near the project site during LSA's previous 2021 field survey.
- Suisun song sparrow (*Melospiza melodia maxillaris*; SSC) and San Francisco common yellowthroat were observed or detected during the recent and previous field surveys and these two bird species could nest in the wetland near the project site. These two bird species are not likely to be impacted by the project due to the project site's location within an existing developed/industrial area with ongoing noise and human activity.
- California black rail (*Laterallus jamaicensis coturniculus*; California Threatened; CFP) have been recorded in the brackish marsh wetland near the project site and suitable habitat may be present in the same wetland for California Ridgeway's rail (*Rallus longirostris obsoletus*; Federal and State Endangered; CFP). Breeding by these two bird species is not likely to be impacted by the project due to the project site's location within an existing developed/industrial area with ongoing noise and human activity.
- The salt marsh harvest mouse (*Reithrodontomys raviventris*; Federal and State Endangered; CFP) has been recorded in the brackish marsh wetlands northeast of the site, but this species would not occur at the project site due to the lack of suitable habitat.
- Western red bat (*Lasiurus blossevillii*; SSC) and pallid bat (*Antrozous pallidus*; SSC) may roost and/or forage within the trees adjacent to the project site, while other bat species, such as the Townsend's western big-eared bat (*Corynorhinus townsendii*; SSC), could forage over the project site. No evidence of roosting bats was observed during the survey, but trees suitable for western red bat and trees with cavities potentially suitable for cavity-roosting bats may be present adjacent to the project site.

MITIGATION/AVOIDANCE MEASURES

Based on the field survey and review of CNDDDB records (CDFW 2023), LSA recommends the following measures be implemented to ensure impacts to biological resources are avoided:

Nesting Birds

If possible, the project shall avoid construction activities during the bird nesting season (February 1 through August 31). If construction activities are scheduled during the nesting season, a qualified biologist shall conduct a pre-construction survey of all suitable nesting habitat (i.e., trees, shrubs, structures) within 250 feet of the project site (where accessible). The pre-construction survey shall

be conducted no more than 7 days prior to the start of work. If the survey indicates the presence of nesting birds, protective buffer zones shall be established around the nests as follows: for raptor nests, the size of the buffer zone shall be a 250-foot radius centered on the nest; for other birds, the size of the buffer zone shall be a 50- to 100-foot radius centered on the nest. In some cases, these buffers may be increased or decreased depending on the bird species and the level of disturbance that will occur near the nest.

California Ridgway's Rail and California Black Rail

No work shall occur within 700 feet of potential California Ridgway's rail and California black rail habitat between February 1 and August 31. Alternatively, construction activities may be conducted between September 1 and January 31. All work shall be conducted during daylight hours.

Roosting Bats

A qualified biologist shall conduct a pre-construction survey for roosting bats at all suitable bat roosting habitat (i.e., trees) within the project area within 14 days prior to the beginning of project-related activities. If active bat roosts are discovered or if evidence of recent prior occupation is established, a buffer shall be established around the roost site until the roost site is no longer active. Before any construction activities begin in the vicinity of the identified bat roosts on the project site, a qualified biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the bats and their habitat, the specific measures that are being implemented to conserve the bat roosts for the current project, and the boundaries within which construction activities may be accomplished. Brochures, books, and briefings may be used in the training session. If an active bat roost is identified and will be impacted by the proposed project, CDFW shall be contacted to determine the appropriate mitigation, which may include the construction of a new bat roost within the project area.

Please contact me at dan.sidle@lsa.net or at (510) 376-5704 or Ross Dobberteen, Ph.D., Principal in Charge, at ross.dobberteen@lsa.net or at (510) 236-6810, if you have any questions or require additional information.

Sincerely,

LSA Associates, Inc.



Dan Sidle
Associate/Senior Biologist

Attachment: Table A: Special-Status Species Evaluated for the Project Site

REFERENCES

American Ornithologists' Union (AOU). 1998. Check-list of North American birds. 7th Edition.
American Ornithologists' Union, Washington, D.C.

- Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. *The Jepson Manual: Vascular Plants of California, Second Edition*. University of California Press, Berkeley.
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- California Department of Fish and Wildlife (CDFW). 2023. Query of the California Natural Diversity Database for special-status species occurrences within 5 miles of the project site. Biogeographic Data Branch, California Department of Fish and Wildlife, Sacramento. July.
- Crother, B.I. (ed.). 2017. *Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in Our Understanding*, pp. 1-102. SSAR Herpetological Circular No. 43.
- eBird. 2023. eBird: An online database of bird distribution and abundance [web application]. Ithaca, New York. Accessed at <www.ebird.org> on July 13.
- U.S. Fish and Wildlife Service (USFWS). 2023. IPaC Information for Planning and Consultation. List of federally listed species known to occur in the project area. July 13.

Table A: Special-Status Species Evaluated for the Project Site

Species	Status (Federal/ State)	Habitat	Discussion
Plants			
Bent-flowered fiddleneck <i>Amsinckia lunaris</i>	-/1B	Gravelly slopes, grassland, openings in woodland, often serpentine.	No suitable habitat present.
Pallid manzanita <i>Arctostaphylos pallida</i>	FT/CE,1B	Broad-leaved upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub. Grows on uplifted marine terraces on siliceous shale and thin chert.	No suitable habitat present. No manzanitas present on site.
Big tarplant <i>Blepharizonia plumosa</i>	-/1B	Valley and foothill grassland. Dry hills and plains in annual grassland; clay to clay-loam soils. Usually on slopes and often in burned areas.	No suitable habitat present.
Congdon's tarplant <i>Centromadia parryi</i> ssp. <i>congonii</i>	-/1B	Grassland; in alkaline soils.	No suitable habitat present.
Soft salty bird's beak <i>Chloropyron molle</i> ssp. <i>molle</i>	FE/1B	Coastal salt marshes and brackish marshes from northern San Francisco Bay to Suisun Bay.	No suitable habitat present.
Bolander's Water-hemlock <i>Cicuta maculata</i> var. <i>bolanderi</i>	-/2B	Marshes and swamps in fresh or brackish water.	No suitable habitat present.
Western leatherwood <i>Dirca occidentalis</i>	-/1B	Broad-leaved upland forest, chaparral, riparian woodland, riparian forest, cismontane woodland, closed-cone coniferous forest. Often found on brushy slopes and mesic sites; mostly in mixed evergreen and foothill woodland communities.	No suitable habitat present.
Jepson's coyote-thistle <i>Eryngium jepsonii</i>	-/1B	Clay soils in vernal pools and valley and foothill grassland.	No suitable habitat present.
San Joaquin spearscale <i>Extriplex joaquinana</i>	-/1B	Occurs in chenopod scrub, alkali meadow, grassland; in seasonal alkali wetlands or sink scrub.	No suitable habitat present.
Diablo helianthella <i>Helianthella castanea</i>	-/1B	Open, grassy sites, usually rocky, axonal soils in partial shade in broad-leaved upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grassland.	No suitable habitat present.
Santa Cruz tarplant <i>Holocarpha macradenia</i>	FT/CE,1B	Light sandy soil or sandy clay; often grows alongside non-natives in coastal prairie and valley and foothill grassland.	No suitable habitat present.
Carquinez goldenbush <i>Isocoma arguta</i>	-/1B	Alkaline soils, flats, lower hills; on low benches near drainages and on tops and sides of mounds in swale habitat in valley and foothill grassland.	No suitable habitat present.

Table A: Special-Status Species Evaluated for the Project Site

Species	Status (Federal/ State)	Habitat	Discussion
Contra Costa goldfields <i>Lasthenia conjugens</i>	FE/1B	Cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools/mesic.	No suitable habitat present. Closest CNDDDB occurrence is approximately 4.8 miles from the site.
Delta tule pea <i>Lathyrus jepsonii</i> var. <i>jepsonii</i>	-/1B	Freshwater and brackish marshes.	No suitable habitat present.
Mason's lilaeopsis <i>Lilaeopsis masonii</i>	-/1B	Freshwater and brackish marshes, riparian scrub.	No suitable habitat present. Closest CNDDDB occurrence is in Payton Slough, approximately 0.6 mile from the site.
Long-styled sand-spurrey <i>Spergularia macrotheca</i> var. <i>longistyla</i>	-/1B	Wetlands and riparian habitat.	No suitable habitat present. Closest CNDDDB occurrence is a 1900 record at an unknown location in Martinez.
Suisun Marsh aster <i>Symphotrichum lentum</i>	-/1B	Marshes and swamps (brackish and freshwater).	No suitable habitat present. Closest CNDDDB occurrence is at Pacheco Creek, approximately 0.9 mile from the site.
Saline clover <i>Trifolium hydrophilum</i>	-/1B	Marsh, swamps, valley and foothill grassland, vernal pools.	No suitable habitat present. Closest CNDDDB occurrence is a 1928 record approximately 2 miles from the site.
Oval-leaved viburnum <i>Viburnum ellipticum</i>	-/2B	Chaparral, cismontane woodland, and lower montane coniferous forest.	No suitable habitat present.
Fish			
Steelhead (central California coast Distinct Population Segment) <i>Oncorhynchus mykiss</i>	FT/-	Coastal streams from Russian River south to Aptos Creek (Santa Cruz Co.), including streams tributary to San Francisco and San Pablo Bays.	No suitable habitat present.
Steelhead (California Central Valley Distinct Population Segment) <i>Oncorhynchus mykiss</i>	FT/-	Sacramento and San Joaquin Rivers and their tributaries.	No suitable habitat present.
Chinook salmon (Central Valley Spring-Run Evolutionary Significant Unit) <i>Oncorhynchus tshawytscha</i>	FT/CT	Anadromous: spawns in Sacramento River system.	No suitable habitat present.
Chinook salmon (Sacramento River Winter-run Evolutionary Significant Unit) <i>Oncorhynchus tshawytscha</i>	FE/CE	Anadromous: spawns in Sacramento River system.	No suitable habitat present.
Delta smelt <i>Hypomesus transpacificus</i>	FT/CE	Only found in estuarine waters from the Sacramento-San Joaquin confluence to San Pablo Bay. Usually found in water with an average salinity concentration of 2 parts per thousand for much of its life cycle, but can tolerate a wide range of salinities and moves into river channels and tidally influenced backwater sloughs.	No suitable habitat present.
Longfin smelt <i>Spirinchus thaleichthys</i>	FC/CT	Open waters of estuaries typically in middle or bottom of water column.	No suitable habitat present. Closest CNDDDB occurrence is approximately 0.6 mile from the site.

Table A: Special-Status Species Evaluated for the Project Site

Species	Status (Federal/State)	Habitat	Discussion
Sacramento splittail <i>Pogonichthys macrolepidotus</i>	-/SSC	Slow moving river sections, dead end sloughs. Requires flooded vegetation for spawning and foraging for young.	No suitable habitat present. Closest CNDDDB occurrence is approximately 3.5 miles from the site.
Green Sturgeon (southern Distinct Population Segment) <i>Acipenser medirostris</i>	FT/SSC	Rivers and estuaries.	No suitable habitat present. Closest CNDDDB occurrence is approximately 0.6 mile from the site.
Invertebrates			
Callippe silverspot butterfly <i>Speyeria callippe callippe</i>	FE/-	Restricted to the northern coastal scrub of the San Francisco peninsula, where host plant, Johnny jump up (<i>Viola pedunculata</i>) is present.	No suitable habitat present. Project site is outside the known range of the species. Closest CNDDDB occurrence is approximately 7 miles from the site.
San Bruno elfin butterfly <i>Callophrys mossii bayensis</i>	FE/-	Known to occur only on slopes of the coastal mountains in San Mateo County. Lays eggs on the larval host plant stonecrop (<i>Sedum spathulifolium</i>).	No suitable habitat present. Project site is outside the known range of the species. No CNDDDB records within 5 miles of the site.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT/-	Inhabits vernal pools and swales during all stages of its life cycle.	No suitable habitat present. Project site is outside the known range of the species. No CNDDDB records within 5 miles of the site.
Western bumble bee <i>Bombus occidentalis</i>	CDFW Sensitive	Variety of habitat types supporting native flowering plants. Species has declined precipitously, perhaps from disease.	No suitable habitat present. Closest CNDDDB occurrence is a 1937 and 1957 record from at an unknown location approximately 0.6 mile from the site.
Amphibians			
California tiger salamander <i>Ambystoma californiense</i>	FT/CT	Breeds in vernal pools, ponds, and stock ponds. Spends summer and early fall in uplands surrounding breeding sites, taking refuge in small mammal burrows or other underground cover.	No suitable habitat present. No extant CNDDDB records within 5 miles of the site.
California red-legged frog <i>Rana draytonii</i>	FT/SSC	Found in lowlands and foothills in or near permanent ponds and streams with dense, shrubby, or emergent riparian vegetation.	No suitable habitat present. Closest CNDDDB occurrence is approximately 4.3 miles away.
Reptiles			
Western pond turtle <i>Emys marmorata</i>	-/SSC	Found in ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and adjacent grasslands or other open habitat for egg-laying.	No suitable habitat present. Closest CNDDDB occurrence is in Moorhen Marsh approximately 0.7 mile away.
Alameda whipsnake <i>Masticophis lateralis euryxanthusi</i>	FT/CT	Found in chaparral and rock outcrops. May migrate through grassland and riparian scrub.	No suitable habitat present. The project site is unlikely to support species due to its urban setting and isolation from occupied habitat. Closest CNDDDB occurrence is in the Alhambra Highlands approximately 3.6 miles from the site.

Table A: Special-Status Species Evaluated for the Project Site

Species	Status (Federal/ State)	Habitat	Discussion
Birds			
Barrow's goldeneye <i>Bucephala islandica</i>	-/SSC	Breed in trees on shallow freshwater lakes.	No suitable habitat present. Species observed in the Waterbird Regional Preserve, including McNabney Marsh (eBird 2023).
American white pelican <i>Pelecanus erythrorhynchos</i>	-/SSC	Shallow inland and coastal marine habitats, marshes, lakes, rivers.	No suitable habitat present. Species observed during LSA's survey in 2021. Species observed in the Waterbird Regional Preserve, including McNabney Marsh (eBird 2023).
Long-eared owl <i>Asio otus</i>	-/SSC	Woodlands and forests that are open or adjacent to grasslands, meadows, or shrublands.	No suitable habitat present at the project site. No CNDDDB occurrences within 5 miles of the site.
Short-eared owl <i>Asio flammeus</i>	-/SSC	Open grasslands, meadows, and marshes with few trees. Requires dense ground vegetation for both roosting and nesting.	No suitable habitat present, but could occur in adjacent wetlands. Species observed along Pt. Edith Trail (eBird 2023).
Burrowing owl <i>Athene cunicularia</i>	-/SSC	Nests in burrows in grasslands and woodlands; often associated with ground squirrels. Will also nest in artificial structures (culverts, concrete debris piles, etc.).	Suitable habitat may be present in the ruderal grasslands near the site, but no suitable burrows or burrow surrogates observed during survey. Species observed in the Waterbird Regional Preserve, including McNabney Marsh (eBird 2023). Closest CNDDDB occurrence is approximately 3.9 miles from the site.
California Ridgway's rail <i>Rallus longirostris obsoletus</i>	FE/CE, CFP	Occurs in salt marshes and tidal sloughs. Requires tidal mudflats for foraging habitat. Prefers cordgrass (<i>Spartina</i> sp.) for cover and nesting but can be occasionally found in bulrush and cattails.	No suitable habitat present, but could occur in adjacent wetlands. Closest CNDDDB occurrence recorded approximately 1 mile from the site in Pacheco Creek, 1.2 miles from the site in the vicinity of Suisun Point, and 1.1 miles from the site in Point Edith.
California black rail <i>Laterallus jamaicensis coturniculus</i>	-/CT, CFP	Salt marshes bordering larger bays, also found in brackish and freshwater marshes.	No suitable habitat present, but could occur in adjacent wetlands. Closest CNDDDB occurrence recorded approximately 0.03 mile from the site in Pacheco Marsh/Bullhead Marsh.
California least tern <i>Sterna antillarum browni</i>	FE/CE, CFP	Nest on the ground on sandy beaches, alkali flats, hard-pan surfaces (salt ponds).	No suitable habitat present. Closest CNDDDB occurrence is approximately 5.5 miles from the site at the Avon-Port Chicago Marsh.
Black skimmer <i>Rynchops niger</i>	-/SSC	Nest on the ground on sandy beaches. Foraging in a variety of habitats, including tidal waters of bays and estuaries.	No suitable habitat present. Species observed foraging at the Waterbird Regional Preserve, including McNabney Marsh (eBird 2023).

Table A: Special-Status Species Evaluated for the Project Site

Species	Status (Federal/ State)	Habitat	Discussion
White-tailed kite <i>Elanus leucurus</i>	–/CFP	Nests in shrubs and trees in open areas and forages in adjacent grasslands and agricultural land.	Species could nest in trees or large shrubs adjacent to the project site. Species observed foraging near site during the March 2021 field survey. Species observed in the Waterbird Regional Preserve, including McNabney Marsh (eBird 2023). No CNDDDB occurrences within 5 miles of the project site.
Northern harrier <i>Circus hudsonius</i>	–/SSC	Nests and forages in meadows, grasslands, open rangeland, and fresh or saltwater marshes.	Suitable habitat present in grasslands near the project site. Species observed in the Waterbird Regional Preserve, including McNabney Marsh (eBird 2023). No CNDDDB occurrences recorded within 5 miles of the project site.
Golden eagle <i>Aquila chrysaetos</i>	–/CFP	Forages in rolling foothill or coast-range terrain, with open grassland and scattered large trees. Nests in large trees, on cliffs, and occasionally on power line poles.	No suitable habitat present, but species may briefly fly or forage over the project site. Species observed in the Waterbird Regional Preserve, including McNabney Marsh (eBird 2023). No CNDDDB occurrences within 5 miles of the project site.
American peregrine falcon <i>Falco peregrinus anatum</i>	Delisted/ Delisted, CFP	Forages in open country, mountains, and sea coasts. Nests on high cliffs, bridges, and buildings.	No suitable nesting habitat present, but species may briefly fly or forage over the project site. Species observed in the Waterbird Regional Preserve, including McNabney Marsh (eBird 2023).
Loggerhead shrike <i>Lanius ludovicianus</i>	–/SSC	Found in grasslands and open shrub or woodland communities. Nests in dense shrubs or trees and forages in scrub, open woodlands, grasslands, and croplands. Frequently uses fences, posts, and utility lines as hunting perches.	Suitable nesting and foraging habitat present at the project site. Species observed in the Waterbird Regional Preserve, including McNabney Marsh (eBird 2023). No CNDDDB occurrences within 5 miles of the project site.
Vaux's swift <i>Chaetura vauxi</i>	–/SSC	Grasslands and agricultural fields; nests in dense vegetation in large hollow trees near open water; forages in most habitats but prefers rivers and lakes.	No suitable roosting habitat present, but could fly or forage over the project site during migration. No CNDDDB occurrences recorded within 5 miles of the project site.
Olive-sided flycatcher <i>Contopus cooperi</i>	–/SSC	Coniferous forests with open canopies.	No suitable habitat present at the project site, but could fly or forage over the site during migration. No CNDDDB occurrences recorded within 5 miles of the project site.

Table A: Special-Status Species Evaluated for the Project Site

Species	Status (Federal/ State)	Habitat	Discussion
Suisun song sparrow <i>Melospiza melodia maxillaris</i>	-/SSC	Tidal marshes in Suisun Bay.	Suitable habitat present near the project site. Song sparrows, which could have been the special-status subspecies, observed in wetlands during April survey in 2021. Closest non-historic CNDDDB occurrence is approximately 0.02 mile from the site.
Grasshopper sparrow <i>Ammodramus savannarum</i>	-/SSC	Grasslands with coyote brush and other shrubs.	Suitable habitat present in grasslands near the project site. Species observed in the Waterbird Regional Preserve, including McNabney Marsh (eBird 2023).
Tricolored blackbird <i>Agelaius tricolor</i>	-/CT, SSC	Breeds in large colonies near freshwater, preferably emergent wetland such as cattails and tules but also in thickets of willow and other shrubs. Requires nearby foraging areas with large numbers of insects.	Suitable nesting habitat present near the project site, but species no longer known to nest in the area. Species observed in the Waterbird Regional Preserve, including McNabney Marsh (eBird 2023). Closest CNDDDB occurrence of a nesting colony is a 1980 record near the site at the Mountain View Sanitation District Sewage Pond, but this species is no longer nesting at the site.
Yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	-/SSC	Nests in freshwater emergent wetlands with dense vegetation and deep water, often along borders of lakes and ponds.	Suitable nesting habitat present, but species not known to occur to nest near the project site. Species observed in the Waterbird Regional Preserve, including McNabney Marsh (eBird 2023).
Yellow warbler <i>Dendroica petechia</i>	-/SSC	Nests in extensive willow riparian woodlands.	No suitable nesting habitat present. May forage on or adjacent to the project site during migration. Species observed in the Waterbird Regional Preserve, including McNabney Marsh (eBird 2023). No CNDDDB occurrences within 5 miles.
San Francisco common yellowthroat <i>Geothlypis trichas sinuosa</i>	-/SSC	Occurs in fresh- and saltwater marshes; nests in tall grasses, tule patches, and willows.	Suitable habitat present in wetlands near the project site. Species detected in wetlands near the project site. Species observed in the Waterbird Regional Preserve, including McNabney Marsh (eBird 2023). Closest CNDDDB occurrence is approximately 0.02 mile from the site.

Table A: Special-Status Species Evaluated for the Project Site

Species	Status (Federal/ State)	Habitat	Discussion
Mammals			
Townsend’s western big-eared bat <i>Corynorhinus townsendii</i>	–/SSC	Found in wooded areas with caves or old buildings for roost sites.	No suitable roosting and hibernating habitat present at the project site, but could forage over the project site. No CNDDDB occurrences within 5 miles of the project site.
Pallid bat <i>Antrozous pallidus</i>	–/SSC	Occupies a wide variety of habitats at low elevations. Most commonly found in open, dry habitats with rocky areas for roosting.	Suitable roosting habitat present in trees within and adjacent to the project site and suitable foraging habitat present at the site. No CNDDDB occurrences within 5 miles of the project site.
Western red bat <i>Lasiurus blossevillii</i>	–/SSC	Roosts primarily in trees, 2-40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	Suitable roosting habitat present in trees within and adjacent to the project site and suitable foraging habitat present, but species does not breed in the area. No CNDDDB occurrences recorded within 5 miles of the project site.
San Francisco dusky-footed woodrat <i>Neotoma fuscipes annectens</i>	–/SSC	Primarily along riparian areas within chaparral and woodlands. Feeds mainly on woody plants but also eats acorns, grasses, and fungi. Builds conspicuous stick houses in trees and on the ground.	Suitable habitat present at the project site, but no woodrat houses observed during the reconnaissance-level surveys. No CNDDDB occurrences within 5 miles of the project site.
Salt marsh harvest mouse <i>Reithrodontomys raviventris</i>	FE/CE, CFP	Tidal salt marshes of San Francisco Bay and its tributaries. Requires tall, dense pickleweed (<i>Salicornia</i> sp.) for cover.	No suitable habitat present at the project site, but species known to occur in tidal marsh northeast of site. Closest CNDDDB occurrence is approximately 0.03 mile from the site.
American badger <i>Taxidea taxus</i>	–/SSC	Grassland, scrub, and woodland with loose-textured soils.	No suitable habitat present on the site, but species could occur in grassland hills near the project site. No CNDDDB occurrences within 5 miles of the project site.

Source: Compiled by LSA (2023)

Status Codes:

FE = Federally listed as an endangered species.

FT = Federally listed as a threatened species.

FC = Federally listed as a candidate threatened species.

CE = State-listed as an endangered species.

CT = State-listed as a threatened species.

CFP = State-listed as a fully protected species.

SSC = State Species of Special Concern.

1A = California Rare Plant Rank (CRPR): species presumed extinct.

1B = CRPR: plant considered rare, threatened, or endangered in California and elsewhere.

2B = CRPR: plant considered rare, threatened, or endangered in California but more common elsewhere.

– = No status.

^a Nearest records are based on CNDDDB (CDFW 2023) occurrences unless otherwise noted.



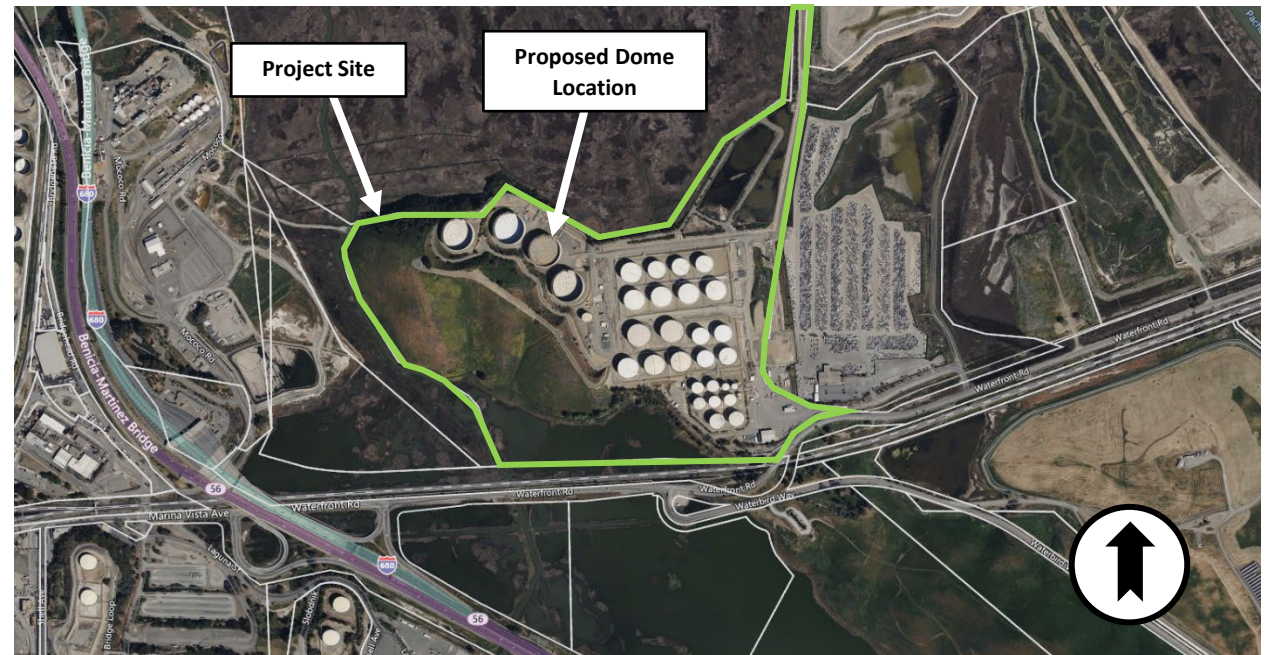
**City of Martinez
Planning Commission
TransMontaigne Dome Conditional Use Permit**

September 12, 2023



Background

- TransMontaigne is a terminal operating and transportation company that distributes, stores, and transports crude oil, chemicals, petroleum products, fertilizers, and other liquid products.
- Located at 2801 Waterfront Road.





Site Description

- 137-acre lot containing approximately 34 storage tanks
- General Plan Designation: Industrial and Manufacturing
- Zoning District: Heavy Industrial
- Surrounding land uses:
 - Carquinez Strait,
 - Automobile Wholesaler,
 - Chemical Plant, and
 - Marshland



Project Description

- Tank 501-14 has historically stored crude oil.
- Propose to use this tank for storing gasoline, feedstocks, and blendstocks.
- Change in the type of product stored in the tank necessitates certain design changes to the tank.
- Dome roof is a requirement of the Bay Area Air Quality Management District.



Project Description

- Proposed Dome Height: 47 feet
- Existing Tank Height: 64 feet
- Total Height: 111 feet
- A Conditional Use Permit is required for structures exceeding 30 feet in height in the Heavy Industrial zoning district.

TransMontaigne Dome



Project Description





Discussion

- Promotes Goal LU-G-13 (“supporting transformation and revitalization of key commercial corridors and industrial areas”) and is a use that is consistent with the Industrial and Manufacturing General Plan designation.
- Conforms with most development standards for the zoning district. Height and Landscaping are the only two standards that will not be met.
- Approval of the CUP will alleviate the height deficiency.
- TransMontaigne proposes to pay an in-lieu fee of \$35,000 to the City to mitigate the landscaping deficiency. This is supported by the City Engineer and Assistant City Engineer.



Biological Impact Analysis

- Consultant performed a Biological Impact Analysis.
- No special status wildlife or plant species were identified on the site.
- Recommend cessation of all construction activities during bird nesting season (February 1 through August 31).
- If construction activities do occur during this time, the analysis recommended a pre-construction survey for bird nests and the imposition of a 50-250-foot buffer around any nests that are found.
- These recommendations have been incorporated into the proposed Conditions of Approval for the project.



Visibility

- Minimal visibility from most parts of town.
- Visible from the southbound direction of the Benicia-Martinez Bridge (I-680) and from Waterfront Road.
- The tank is otherwise shielded by topography.

TransMontaigne Dome



Visibility





Findings and Environmental Review

- Staff believes that all the required findings for this project can be made affirmatively, as shown in Exhibit A of Attachment A.
- Project is exempt from CEQA as it concerns modifications to an existing facility.



Conditions of Approval

- Staff recommends eliminating Draft Condition #13. This would have required the dome to be painted the color of the existing tank.
- The applicant has informed us that this is not a feasible option, given that the dome is comprised of an aluminum material that does not “accept” paint.
- The aluminum will weather and lose its shine, becoming a neutral gray.
- Staff believes this is acceptable.

TransMontaigne Dome



Questions?