

June 12, 2024

Dana by the Sea HOA
24412 Alta Vista Drive
Dana Point, CA 92629
Attention: **Mike Hart**

Subject: Dana by the Sea
SB 326 Investigation Final Report

Dear Mike:

I have completed the state-required SB 326 inspections for the 21-unit "Dana by the Sea" condominium community. Initial visual inspections were performed on March 19, 2024. On May 7, 2024 the intrusive inspections were performed where, as required by SB 326, 15% of the obscured exterior elements had the primary structure exposed and inspected. Areas identified as having potential concern during the visual inspections were all opened. Other representative conditions were opened. A summary of all exterior elements inspected including a designation of which elements were exposed can be found in the attached Inspection Summary Table.

RESULTS

It is my opinion from the initial visit that the exterior wood elements are in fair condition overall. Due to the proximity to the ocean and humid environment, I noted significant rust and wood deterioration at many exterior elements. There are also signs of termite damage. Repairs, some significant in nature, will be required. In many cases the repairs will need to be designed by a structural engineer—our office or an office with similar expertise. City permits will be required.

AREAS OF CONCERN AND RECOMMENDATIONS

1. Upper master-bedroom decks at ALL Alta Vista Drive attached units:

- All upper decks receiving intrusive inspection exhibited soft, severely rotted plywood due to water infiltration at various locations. Infiltration often occurred at guardrail post bases and also at current or past cracks in the deck membrane.
- Most or perhaps even all of the deck guardrail posts and some rails have experienced significant rusting, rendering them a safety hazard.
- **Recommendation 1.1, Decking:**
 - Best solution would include complete removal of the waterproofing and replacement of all deck plywood. Inspect joist framing below for damage with the plywood removed (no joist damage was found during our inspections). Replace waterproofing. This replacement would likely require a waterproofing consultation and structural engineering.
 - Alternate: It may also be possible to expose and replace only the plywood near the guardrail posts and at areas found to be "soft."
- **Recommendation 1.2, Guardrail:**
 - Best solution would include complete removal of the guardrail system and replacement with a new, engineered system.
 - Alternate: It may also be possible to perform detailed inspections and replace only portions that are severely rusted.

Atlanta

Dallas

Denver

Las Vegas

Orange County

Phoenix

Salt Lake City

2 Venture
Suite 200
Irvine, CA 92618

949.477.4001
CA@wrightengineers.com

wrightengineers.com

2. Lower living area decks at all Alta Vista Drive attached units:

- Some areas exhibit cracking of the waterproof membrane.
- Most or perhaps even all of the deck guardrail posts and some rails have experienced significant rusting, rendering them a safety hazard.
- Unit 24436 has thick tile installed on the balcony.

- **Recommendation 2.1, Decking:**
 - Inspect waterproof decking for cracking and significant wear. Repair as needed.
- **Recommendation 2.2, Guardrail:**
 - Best solution would include complete removal of the guardrail system and replacement with a new, engineered system.
 - Alternate: It may also be possible to perform detailed inspections and replace only portions that are severely rusted.
- **Recommendation 2.3, Unit 24436:**
 - Determine if tile is overloading the structure. Include analysis of added seismic mass.

3. Exterior posts supporting deck at all Alta Vista Drive attached units:

- Exterior posts are very long as they extend from the “lower level” decks and down a significant height of the garage. Posts are wood. They are supported in some cases by metal brackets on concrete piers and in others by metal brackets on a masonry retaining wall. The soil slopes down from the building toward the retaining wall that creates the boundary of the swimming deck.
- A few of the posts have sustained significant dry rot and/or termite damage and will require replacement. Particularly:
 1. 24422: SE corner post
 2. 24424 center post
- In almost all instances the metal bracket (i.e. Post Base) that connects the post to the pier or retaining wall is moderately (potentially repairable) to significantly (needs to be replaced) rusted:
 - Moderate:
 1. 24426 SE post and NE posts
 2. 24432 E post
 3. 24436 W post
 4. 24442 W post
 5. 24444 center post
 6. 24446 west post
 - Significant:
 1. 24414 both posts
 2. 24416 all three posts
 3. 24422 both posts
 4. 24424 all four posts
 5. 24432 W and center post
 6. 24434 W post
 7. 24436 center and E post
 8. 24444 E post
 9. 24446 center, NE, and SE posts
- In a few instances, the strap that connects the low post to the post framed above the ground floor deck are rusted and will require replacement:
 1. 24414 W post
 2. 24422 E post
 3. 24434 W post

- In several locations soil is in contact with the bottom of the post or nearly so and needs to be pulled away to protect the post and bracket from corrosion/rot:
 1. 24416 E post
 2. 24424 SE post
 3. 24446 W post
- **Recommendation 3.1, Replace dry-rotted and termite damaged posts:**
 - At a minimum, replace the posts noted above. During demolition and construction, be aware of other posts that have experienced dry-rot or termite damage. This replacement will likely require structural engineering.
- **Recommendation 3.2, Repair/Replace damaged posts bases:**
 - At a minimum, repair/replace the posts bases noted above. During demolition and construction, be aware of other post bases that have experienced rust damage. This replacement will likely require structural engineering.
- **Recommendation 3.3, Repair/Replace damaged straps:**
 - At a minimum, replace the straps noted above. During demolition and construction, be aware of other post bases that have experienced rust damage. This replacement will likely require structural engineering.
- **Recommendation 3.4, Remove rust and paint:**
 - Remove loose rust, treat metal, and repaint to protect against future corrosion.

4. Elements at 24448 Alta Vista Drive unit (This unit is detached from all other units):

- Second floor deck has been covered with heavy tile and may be beyond the weight the structure is designed for.
- Ocean side ground-floor deck has been covered with heavy tile and may be beyond the weight the structure is designed for.
- Pool side ground-floor deck is an open "Trex" deck and appears to have been constructed outside of the original construction. All three main beams supporting the deck are rotted. One beam is sufficiently low that soil is in direct contact with it. Wood posts are also too low and in contact with soil.
- There is a pedestrian bridge that connects the 24448 unit to the parking garage—it is wood framed similar to deck construction. One of the column bases has rusted significantly.
- Unlike other locations throughout the property, guardrails at this unit appear to be in good condition.
- **Recommendation 4.1, Second floor and First floor ocean-side decks:** Determine if decks are of sufficient gravity and seismic capacity for the heavy tile covering.
- **Recommendation 4.2, Pool-side deck:** Deck has significant damage to the primary structure (beams and posts) and grade issues causing the beams and posts to be in contact with soil. Deck requires a nearly complete rebuild or demolition. Structural engineering required.
- **Recommendation 4.3, Pedestrian bridge:** Repair/replace the posts base noted above. During demolition and construction, be aware of other post bases that have experienced rust damage. This replacement will likely require structural engineering.

5. Pedestrian Bridge connecting Garage to Pool Stair

- Pedestrian bridge is wood framed similar to deck construction.
- 4x4 post bases are rusted severely.
- Steel stair ledgers have rusted significantly.
- Stair landing is also wood framed similar to deck construction. Posts seem okay, but two post bases are rusted severely.

- **Recommendation 5.1, Pedestrian bridge and landing:** Repair/replace the posts bases noted above. During demolition and construction, be aware of other post bases that have experienced rust damage. This replacement will likely require structural engineering.
- **Recommendation 5.2, Pedestrian bridge and landing:** Repair/replace steel ledgers at stair. During demolition and construction, be aware of other elements that have experienced rust damage. This replacement will likely require structural engineering.

6. Upper master-bedroom decks at ALL Granada units:

- All master-bedroom decks receiving intrusive inspection exhibited soft, severely rotted plywood due to water infiltration at the guardrail middle post location. It appears that water has been infiltrating through the waterproofing at the post location for many years. This location is also a low point in the deck, worsening the condition.
- Most or perhaps even all of the deck guardrail posts and some rails have experienced significant rusting, rendering them a safety hazard.

- **Recommendation 6.1, Decking:**
 - Best solution would include complete removal of the waterproofing and replacement of all deck plywood. Inspect joists and other framing below for damage with the plywood removed. Replace waterproofing. This replacement would likely require a waterproofing consultation and structural engineering.
 - Alternate: It may also be possible to expose and replace only the plywood and impacted members near the guardrail posts.
- **Recommendation 6.2, Guardrail:**
 - Best solution would include complete removal of the guardrail system and replacement with a new, engineered system.
 - Alternate: It may also be possible to perform detailed inspections and replace only portions that are severely rusted. Remove loose rust, treat metal, and repaint to protect against future corrosion.

7. Over-garage living room decks at ALL Granada units:

- No structural damage was found at any of the over-garage living room decks during the inspections.
- Guardrails seemed to be in generally good condition.

- **Recommendation 7.1, Decking:**
 - Inspect and repair or restore waterproof deck as needed.
- **Recommendation 7.2, Guardrail:**
 - Remove loose rust, treat metal, and repaint to protect against future corrosion.

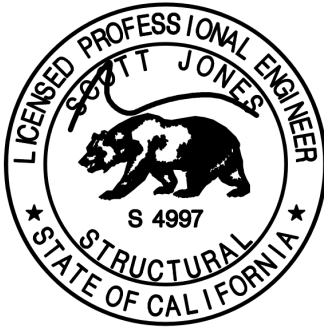
8. Exterior stairs at ALL Granada units:

- No structural damage was found at any of the exterior wood stairs during the inspections.
- Severe handrail damage was discovered at unit 33665 stair.
- **Recommendation 8.1, Decking:**
 - Inspect and repair or restore waterproofing at stairs as needed.
- **Recommendation 8.2, Guardrail:**
 - Replace rusted handrail at unit 33665 stair.

Thank you for allowing us to be of service in providing the SB326 inspections. We would be happy to engage with you in the creation of structural plans and details for needed repairs. Feel free to contact us anytime.

Best regards,

WRIGHT ENGINEERS



06/12/2024

Scott N. Jones, SE S4997, LEED AP
Executive Vice President

Attachments: Inspection Summary Table – units
Inspection Summary Table – site
Photographs

Dana by the Sea - SB 326 Inspections - Units

Unit	Stair	Low Deck	High Deck	Deck Posts	Intrusive performed?	Opened up for inspection :	Repair Required?	Action
24414 Alta Vista Drive	N/A	Moderate guardrail rust.	Moderate guardrail rust. Guardrail post brace rusted significantly.	Both wood posts steel bases severely rusted. West second floor post strap severely rusted.	No		Yes	Repair or replace upper deck plywood. Repair or replace deck guardrails. Replace deck post bases. Replace low-post to post-above-ground-floor-deck strap.
24416 Alta Vista Drive	N/A	Cracking of waterproof layer near guardrail post base. Moderate guardrail rust.	Cracking of waterproof layer in two places. Guardrail is weak-- appears guardrail post is rusted off at base.	Two front wood posts steel bases severely rusted. Rear wood post is in direct contact with soil.	Yes	Expose guardrail post base.	Yes	Repair or replace upper deck plywood. Repair or replace deck guardrails. Replace deck post bases. Lower soil grade away from post base.
24422 Alta Vista Drive	N/A	Deck post at SE corner is rotted/ termite damaged severely and requires replacement.	Moderate guardrail rust.	Both wood posts steel bases severely rusted.	No		Yes	Repair or replace upper deck plywood. Repair or replace deck guardrails. Replace SE deck post. Replace deck post bases.
24424 Alta Vista Drive	N/A	No issues discovered.	Plywood sagging near edge. Water ponding. Significant rust at guardrail.	Front West post steel base severely rusted. Front East post is degraded and steel base severely rusted. Rear post steel base severely rusted. Center post rotted at bottom.	Yes	Bore hole in soffit below upper level deck below sagging plywood.	Yes	Repair or replace upper deck plywood. Repair or replace deck guardrails. Replace all deck post bases. Replace center post from foundation to lower deck.
24426 Alta Vista Drive	N/A	Deck has covering in place. Significant guardrail rust.	Significant guardrail rust.	Both wood posts steel bases marginally rusted.	No		Yes	Repair or replace upper deck plywood. Repair or replace deck guardrails. Repair or replace all deck post bases.

Unit	Stair	Low Deck	High Deck	Deck Posts	Intrusive performed?	Opened up for inspection :	Repair Required?	Action
24432 Alta Vista Drive	N/A	No issues discovered.	Cracking of waterproof layer.	Two front wood posts steel bases severely rusted. Rear wood post bases marginally rusted.	Yes	Expose top of plywood at crack in waterproof layer.	Yes	Repair or replace upper deck plywood. Repair or replace deck guardrails. Repair or replace all deck post bases.
24434 Alta Vista Drive	N/A	No issues discovered.	No issues discovered.	West wood posts steel base severely rusted. West second floor post strap severely rusted.	No		Yes	Repair or replace upper deck plywood. Repair or replace deck guardrails. Repair or replace west deck post base.
24436 Alta Vista Drive	N/A	Deck has been covered by heavy tile and may be beyond weight structure is designed for. Significant guardrail rust.	Significant cracking and damage to waterproof layer. Standing water at rail.	Front West post steel base marginally rusted. Front East and Rear post is steel base severely rusted. Rear post steel base severely rusted.	Yes	Bore holes in soffit below upper level deck below cracking in waterproof layer and below ponding.	Yes	Determine if tile on deck is overloading structure. Repair or replace upper deck plywood. Repair or replace deck guardrails. Repair or replace all deck post bases.
24442 Alta Vista Drive	N/A	No issues discovered.	Severe guardrail rust.	West wood posts steel base moderately rusted.	No		Yes	Repair or replace upper deck plywood. Repair or replace deck guardrails. Repair or replace west deck post base.
24444 Alta Vista Drive	N/A	No issues discovered.	Significant guardrail rust.	Front East post steel base moderately rusted. Rear post steel base severely rusted.	No		Yes	Repair or replace upper deck plywood. Repair or replace deck guardrails. Repair or replace deck post bases.
24446 Alta Vista Drive	N/A	No issues discovered.	Severe guardrail rust, guardrail is wobbly, guardrail base rusted significantly.	Front West post steel base marginally rusted and needs soil pulled away from base. Other three post steel bases are severely rusted.	No		Yes	Repair or replace upper deck plywood. Repair or replace deck guardrails. Repair or replace deck post bases. Lower soil grade away from post base.

Unit	Stair	Low Deck	High Deck	Deck Posts	Intrusive performed?	Opened up for inspection :	Repair Required?	Action
24448 Alta Vista Drive	N/A	Ocean side: Deck has been covered by heavy tile and may be beyond weight structure is designed for. No other issues discovered. Pool side: Open Terex deck. All 3 main wood beams are rotted. One beam needs to be raised above grade. Wood posts need to be raised above grade.	Deck has been covered by heavy tile and may be beyond weight structure is designed for. No other issues discovered.		No		Yes	Determine if tile on deck is overloading structure. Completely rebuild or demolish poolside deck.
33651 Granada	No issues discovered.	Rail to front door rusted severely.	Rail post is rusted at base.	4x4 post supporting deck rotted significantly at the base.	No		Yes	Repair or replace upper deck plywood at post. Repair or replace upper deck guardrails. Replace 4x4 post at deck.
33655 Granada	No issues discovered.	Significant guardrail post rust at base.	Rail post is rusted off at base.	N/A	Yes		Yes	Repair or replace upper deck plywood at post. Repair or replace upper deck guardrails.
33661 Granada	No issues discovered.	No issues discovered.	No issues discovered.	N/A	No		No	Repair or replace upper deck plywood at post. Repair or replace upper deck guardrails.
33665 Granada	No issues discovered. Rail is rusted severely.	No issues discovered.	Rail post is rusted off at base.	N/A	Yes	Bore hole in soffit below post location and ledger location at upper level deck.	Yes	Repair or replace upper deck plywood at post. Repair or replace upper deck guardrails.
33671 Granada	No issues discovered.	No issues discovered.	No issues discovered.	N/A	No		No	Repair or replace upper deck plywood at post. Repair or replace upper deck guardrails.

Unit	Stair	Low Deck	High Deck	Deck Posts	Intrusive performed?	Opened up for inspection :	Repair Required?	Action
33675 Granada	No issues discovered.	No issues discovered.	Rail post is likely rusted off at base.	N/A	Yes		Yes	Repair or replace upper deck plywood at post. Repair or replace upper deck guardrails.
33681 Granada	No issues discovered.	No issues discovered.	Rail post is rusted off at base.	N/A	No		Yes	Repair or replace upper deck plywood at post. Repair or replace upper deck guardrails.
33685	Waterproof layer is cracked.	Waterproof layer has small cracks.	Rail post is rusted off at base.	N/A	Yes	Bore hole in finish below upper level deck crack in waterproof layer. Expose underside of stair framing for visual inspection.	Yes	Repair or replace upper deck plywood at post. Repair or replace upper deck guardrails.
33691 Granada	No issues discovered.	No issues discovered.	Rail post is rusted off at base.	N/A	No		Yes	Repair or replace upper deck plywood at post. Repair or replace upper deck guardrails.

8

# of elements	52
# required to be opened (15%)	8
actual number opened	8

Dana by the Sea - SB 326 Inspections - Site

Location	Element	Condition	Intrusive performed?	Repair Required?	Action
Bridge from Garage to Pool Stair	Pedestrian bridge.	No structural issues discovered. Soil needs to be pulled away from wood beam near support.	No	Yes	Pull soil away from wood beam near support.
Stair from Garage Pedestrian Bridge to pool deck	Steel stair.	Steel construction is not a part of this inspection. However, the steel stair tread ledgers are severely rusted and need repair.	No	Yes	Replace or strengthen stair tread ledgers.
Bridge from Garage to Unit 24448	Pedestrian bridge.	One column base has rusted beyond repair.	No	Yes	Replace rusted wood column base.
			0		

Photographs



Figure 1: Typical decking with damage at guardrail post.



Figure 2: Severely rusted baseplate and rotten plywood photographed during intrusive inspection.



Figure 3: Severely rusted baseplate and rotten plywood photographed during intrusive inspection.



Figure 4: Severely rusted post-to-post strap.

Photographs



Figure 5: Upper deck where water is ponding.



Figure 6: Rotted plywood below ponding area.



Figure 7: Typical post base with severe rust.



Figure 8: Wood in contact with soil.

Photographs



Figure 9: Granada upper (Master) balconies at typical area of water damage at guardrail post. Note this is a low point in the deck and a point of drainage.



Figure 10: Baseplate exposed to show severe rust damage and damage to structure below.



Figure 11: Visible water damage to wood elements directly below baseplate and leak noted in Figures 9 and 10.



Figure 12: Severely rusted stair tread ledger angles.