

October 8, 2026

Project #: HLD-2601

Via Email (heather@hbtownhall.com)

Town of Holden Beach
110 Rothschild Street
Holden Beach, NC 28462

Attention: Ms. Heather Finnell, Town Clerk

Reference: Holden Beach Fishing Pier – 2026 Underwater Inspection Report
Holden Beach, North Carolina

Dear Ms. Finnell:

At the request of the Town of Holden Beach, **MidAtlantic Engineering Partners** (MidAtlantic) performed an underwater inspection of the timber substructure at the Holden Beach Fishing Pier located at 441 Ocean Blvd W, Holden Beach, NC. The inspection was performed on September 1 and 2 2026.

The primary objectives included assessing the general condition of the timber piles, timber bracing, and timber caps; assigning Damage Ratings to individual elements and an overall Condition Assessment Rating (CAR); performing a Level I visual and tactile inspection of the accessible timber substructure elements from the pile caps to the mudline; and performing Level II/III inspections, including timber resistance drilling, on twenty percent (20%) of the water-based piles.

The inspection was performed in accordance with standards of the ASCE Manual of Practice (MOP) No. 130, Waterfront Facilities Inspection and Assessment. The inspection of the timber pier was conducted by a three-person engineer-dive team consisting of a Professional Engineer Diver, an Engineer Diver, and an Engineer-Dive Supervisor.

This letter report includes a description of the site, observed conditions, recommendations, and Opinion of Probable Cost (OPC). The appendices contain Photographs (Appendix A), Inspection Notes (Appendix B), ASCE Condition Assessment Rating (CAR) Table (Appendix C), and the Resistance Drilling Report (Appendix D).

Please do not hesitate to contact me with any questions. I can be reached at 609-870-4019 or atedeschi@midatlanticeng.com. Stuart Lewis can be reached at 646-852-0473 or slewis@midatlanticeng.com.

Respectfully submitted,

MidAtlantic Engineering Partners, LLC



Anthony Tedeschi
Project Manager

Attachments Letter Report
Appendix A – Photographs
Appendix B – Inspection Notes
Appendix C – ASCE Condition Assessment Rating (CAR)
Appendix D – Resistance Drilling Report

INTRODUCTION

MidAtlantic was retained by the Town of Holden Beach to perform an underwater inspection of the timber substructure at the Fishing Pier located at 441 Ocean Blvd W, Holden Beach, NC (Photograph 1). The inspection was performed on September 1st and 2nd 2026.

The primary objectives included assessing the general condition of the timber piles, timber bracing, and timber caps; assigning a Condition Assessment Rating (CAR) to each element; performing a Level I visual and tactile inspection of the accessible timber substructure elements from the pile caps to the mudline; and performing Level II/III inspections, including timber resistance drilling, on twenty percent (20%) of the water-based piles. Elements above the timber pile caps were not included in this inspection.

Methodology

The inspection of the timber pier was conducted by a three-person engineer-dive team. All work was performed in accordance with ASCE Manual of Practice (MOP) No. 130, Waterfront Facilities Inspection and Assessment.

The inspection included a Level I general inspection of 100 percent of the accessible timber substructure elements from the timber pile caps to the mudline. The Level I inspection included a visual and tactile evaluation to confirm the facility layout and identify structural elements with obvious damage or deterioration. The Level II/III inspections included removal of marine growth from the full pile diameter, measurement of pick penetration, and measurement of pile diameter at the base of the pile, mid-water, and waterline.

Timber resistance drilling was performed as part of the Level III inspection on fifteen (15) selected water-based timber piles, representing twenty percent (20%) of the water-based piles. The resistance drilling methodology and results are presented in Appendix D.

Field Conditions

Inspection activities were conducted over changing tidal conditions, with field work beginning during the falling tide near low tide and continuing through the rising tide toward high tide. Sea conditions were generally 1 to 2 feet with an approximately 8- to 11-second long-period swell, which resulted in larger breaking waves around and beneath the pier. Resistance drilling locations were selected in the field based on accessibility, dive conditions, and the ability to safely obtain reliable resistance measurements. As a result, resistance drilling locations were concentrated in areas where suitable conditions allowed for the safe and effective collection of resistance data.

Condition Assessment Criteria

The Condition Assessment Rating (CAR) can be interpreted as the “health” of the systems comprising the structure. The CAR is driven by the information gathered during the investigation process. Defect severity, quantity, frequency, and impact on facility operations are considered in determining the Condition Assessment Ratings. Standardized Condition Assessment Ratings provide a consistent method for categorizing inspection results and comparing observed deficiencies with conditions documented at other facilities. Consistent ratings allow for comparison of inspection data over time and support long-term waterfront asset management. The Condition Assessment Rating criteria, as defined in the ASCE inspection manual, are provided in Appendix C.

A Damage Rating is assigned to each element inspected during the investigation. The rating reflects the condition of the individual element and is independent of the element’s structural importance

or type of inspection being conducted. The elemental damage ratings are standardized to provide a qualitative description of an element's condition based on a quantified level of damage. The Damage Rating characteristics per the ASCE inspection manual can be found in Appendix C.

DESCRIPTION

The Holden Beach Fishing Pier is a timber-constructed ocean pier that extends approximately 725 feet into the Atlantic Ocean. The pier is exposed to direct ocean wave action without a wave break or other protective structure. The pier consists of 58 timber pile-supported bents. Each bent is spaced approximately 10 feet on center and consists of two opposing battered timber piles (Photograph 2). The bents are connected by 6x6 diagonal timber bracing providing lateral support, with 6x6x12 timber blocking and 4x6 diagonal timber bracing providing additional lateral support (Photograph 3). Bents -1 and 1 are constructed of three timber plumb piles.

Bents -6 through 10 consist predominantly of original-vintage timber piles. Bents 11 through 52 (end of pier) consist of newer-vintage timber piles of unknown origin, with diameters ranging from approximately 9 to 13 inches.

The eastern piles are designated as the Alpha ("A") row, and the western piles are designated as the Bravo ("B") row.

OBSERVED CONDITIONS

The timber piles associated with the Fishing Pier structure are in overall **Poor** condition. The ASCE Waterfront Facilities Inspection Manual describes a CAR of Poor as, "Major to severe deterioration or overstressing observed on widespread portions of the structure but does not significantly reduce the load-bearing capacity of the structure. Repairs may need to be carried out with moderate urgency." Table 1 summarizes the pile conditions observed during the inspection.

Table 1: Timber Pile Damage Rating Summary

RATING	QTY OF PILES	PERCENT OF PILES
Minor	91	77.1
Moderate	8	6.8
Major	11	9.3
Severe	8	6.8
TOTAL:	118	100

The inshore timber piles associated with Bents -6 through 14 exhibited light checking and weathering (Photograph 4). The piles located between Bents 23 through 52 exhibited light marine growth consisting primarily of barnacles below Mean Low Water (MLW) (Photograph 5) and typically exhibited no defects above MLW. Isolated defects were identified in some of the piles and are summarized in Table 2.

Table 2: Timber Pile Defect Summary

PILE LOCATION	DAMAGE RATING	REASON FOR RATING
-5A	Severe	Heavy rot throughout; >75% section loss (Photograph 6).
-4A	Major	Split in pile (Photograph 7).
-2A	Major	Insect damage; 25-35% section loss (Photograph 8).
17A	Severe	100% non-bearing pile; cap supported by fishplates only (Photograph 9).
23A	Major	Split in top of pile.
24A	Major	50% non-bearing due to pile displacement from beneath cap (Photograph 10).
25B	Severe	50% non-bearing due to split in top of pile.
40A	Severe	50% non-bearing due to split in top of pile.
40B	Major	Split in top of pile.
41B	Major	Split in top of pile.
44B	Major	25% non-bearing due to split in top of pile.
46B	Major	Split in top of pile.
47A	Moderate	2-inch-diameter hole with hollowing due to marine borer, 7 feet above mudline; 10–15% section loss (Photograph 11).
47B	Severe	Fracture in pile approximately 5 feet from top.
48B	Major	Split in top of pile.
49A	Severe	Broken 7 feet from top of pile (Photograph 12).
49B	Major	Split in top 18 inches of pile.
50B	Major	Split in top 18 inches of pile (Photograph 13).
52A	Severe	Split in top 18 inches of pile, 75% non-bearing (Photograph 14).
52B	Severe	3-inch by 5-inch hole with hollowing due to marine borer, 6 feet above ML; >75% section loss extending 2 feet above and below the hole (Photograph 15).

Fifty-six (56) of the 58 pile caps were rated Minor. The pile caps at Bents 26 and 27 were rated Major due to heavy end-grain rot with 35–50 percent section loss at the east ends of both caps (Photograph 16).

Typically, the timber bracing was rated Minor, with no defects noted. Sixteen (16) diagonal braces were rated Severe due to being broken and/or missing (Photograph 17). The locations of these braces are listed below:

- Bent 15 A-B
- Bent 20 B-A
- Bent 21 A-B
- Bent 24 A-B
- Bent 24 B-A
- Bent 51 A-A.5 South
- Bent 52 A.5-B North
- Bent 52 A.5-B South
- Bents 40-41 A-A East
- Bents 43-44 A-A East
- Bents 43-44 A-A West
- Bents 46-47 B-B West
- Bents 50-51 A-A East
- Bents 50-51 A-A West
- Bents 51-52 A-A East
- Bents 51-52 A-A West

Lower-elevation hardware exhibited heavy corrosion with 50–75 percent section loss (Photograph 18) throughout the entire structure.

Wood Science Consulting, Inc. (WSC) performed resistance drilling on fifteen (15) selected water-based timber piles at the waterline. The resistance drilling results indicated consistent relative-density profiles for all fifteen (15) piles, with no internal wood decay or voids detected. One pile, 23B, exhibited a low relative-density region at the approximate center of the pile; this condition was interpreted as likely representing the pith and/or limited heart rot present prior to felling and pile manufacture, rather than active internal decay. The complete resistance drilling results are provided in Appendix D.

RECOMMENDATIONS

MidAtlantic has developed recommendations for the timber substructure of the Fishing Pier based on the observed conditions documented during this inspection. The recommended repairs are intended to address the deteriorated and damaged structural elements identified during the inspection and restore the condition and functionality of the timber substructure.

The ASCE inspection criteria generally categorize recommended actions as Immediate, Priority, or Routine based on the urgency of the observed conditions. Because the Fishing Pier is currently closed, MidAtlantic is not assigning individual repair items to these action categories. Instead, the repair recommendations identified herein should be considered collectively as the required repairs to address the observed structural deficiencies prior to returning the pier to service.

The inspection performed for this report provides a condition assessment of the facility based on visual, tactile, and detailed inspection methods. The inspection included a Level I visual and tactile inspection of accessible timber substructure elements, with more detailed Level II and Level III inspections performed at selected piles.

Prior to implementing repairs, the future functionality and intended use of the facility should be established. The repair approach and final repair details should be developed based on the anticipated future operations, applicable loading requirements, and existing condition of the structure.

The recommended repairs address a portion of the timber substructure components identified during the inspection. Table 3 summarizes the quantity of each structural element recommended for repair or replacement relative to the total number of corresponding elements observed or inventoried during the inspection.

The recommended repairs include approximately 17 percent of the timber piles, 8 percent of the bent bracing, 5 percent of the row bracing, 3 percent of the pile caps, and 50 percent of the bracing hardware. When calculated based on the total number of inventoried components across the categories listed below, the recommended repairs represent approximately 31 percent of the inventoried substructure components. This overall percentage is provided for reference and is based on component count rather than structural area, volume, capacity, or replacement cost.

Table 3: Extent of Recommended Substructure Repairs

Structural Element	Recommended for Repair / Replacement	Total Inventoried	Percent Requiring Repair
Timber Piles	20	118	16.9%
Bent Bracing	8	104	7.7%
Row Bracing	8	164	4.9%
Timber Pile Caps	2	58	3.4%
Bracing Hardware	268	536	50%
Total	306	980	31.2%

**The overall percentage represents the number of components recommended for repair relative to the total number of inventoried components across the categories listed. It is not intended to represent a percentage of the physical area, structural capacity, or replacement value of the substructure.*

Recommended Repairs

Based on the conditions observed during the inspection, MidAtlantic recommends repair or replacement of the identified deteriorated and damaged timber substructure components. The recommended repairs are summarized in Table 4. These repairs should be completed as part of the overall rehabilitation of the Fishing Pier prior to reopening the facility.

Table 4: Recommended Repairs and Opinion of Probable Cost

Item	Quantity	Estimated Cost
Pile Replacement	17	\$425,000
Pile Encapsulation	1	\$9,325
Pile Shim	1	\$750
Pile Reattachment	1	\$7,400
Timber Pile Cap Replacement	2	\$52,000
Bent Bracing Replacement	8	\$61,600
Row Bracing Replacement	8	\$44,000
Lower Connection Hardware Replacement	268	\$77,720
Total Estimated Repair Cost		\$677,795

The estimated repair costs presented in the table above represent a Class 5 Opinion of Probable Cost (OPC) and are intended for planning purposes. Unit costs were developed based on New York City area construction costs with a 10 percent reduction applied to account for anticipated North Carolina market conditions. The estimated costs presented in Table 4 include the allowances and markups identified below, which were incorporated into the development of the unit costs and estimated repair costs.

The following allowances were incorporated into the OPC:

- Mobilization/Demobilization: 10%
- General Conditions: 8%
- Overhead and Profit: 21%
- Initial Design: 5%
- Construction Contingency: 10%
- Construction-Phase Design/RE/CM: 20%
- Overall Contingency: 10%

The Construction-Phase Design/RE/CM allowance includes resident engineering, construction management, and potential design modifications that may be required during construction. The Overall Contingency allowance is intended to account for unforeseen conditions and variability that may be encountered during repair of the existing structure.

The costs presented are planning-level estimates and are not intended to represent contractor bid prices or guaranteed construction costs. Actual construction costs may vary based on final design, contractor means and methods, material pricing, site access, marine conditions, and conditions encountered during construction.

Completion of the recommended repairs will address the deteriorated and damaged structural components identified during this inspection; however, the repairs should not be considered to make the Fishing Pier maintenance-free. Other timber piles and structural components were observed to be in Minor or Moderate condition and are not currently included in the recommended repair work. These components should continue to be monitored through routine inspections and maintenance. Based on their observed condition and the existing marine environment, additional maintenance and localized repairs may be required over the next five to eight years to prevent further deterioration and maintain the condition and functionality of the pier.

FUTURE INSPECTION

At the time of the inspection, the pier was not operational. Based on the current condition of the Holden Beach Fishing Pier structural elements, MidAtlantic recommends that a Routine Inspection be performed at a minimum every three (3) years or following a major storm event. The American Society of Civil Engineers (ASCE) Waterfront Facilities Inspection and Assessment, Manual of Practice No. 130 suggests that structures rated Poor, which are exposed to an aggressive environment (seawater), shall receive Routine Inspection every three (3) years or following a major storm event.

Following completion of the recommended repairs identified in this report, and provided the repairs are completed in accordance with the final repair design and the overall condition of the structure is improved, the inspection frequency may be extended to a five (5) year Routine Inspection cycle. A Routine Inspection should also be performed following a major storm event regardless of the scheduled inspection cycle.

APPENDIX A

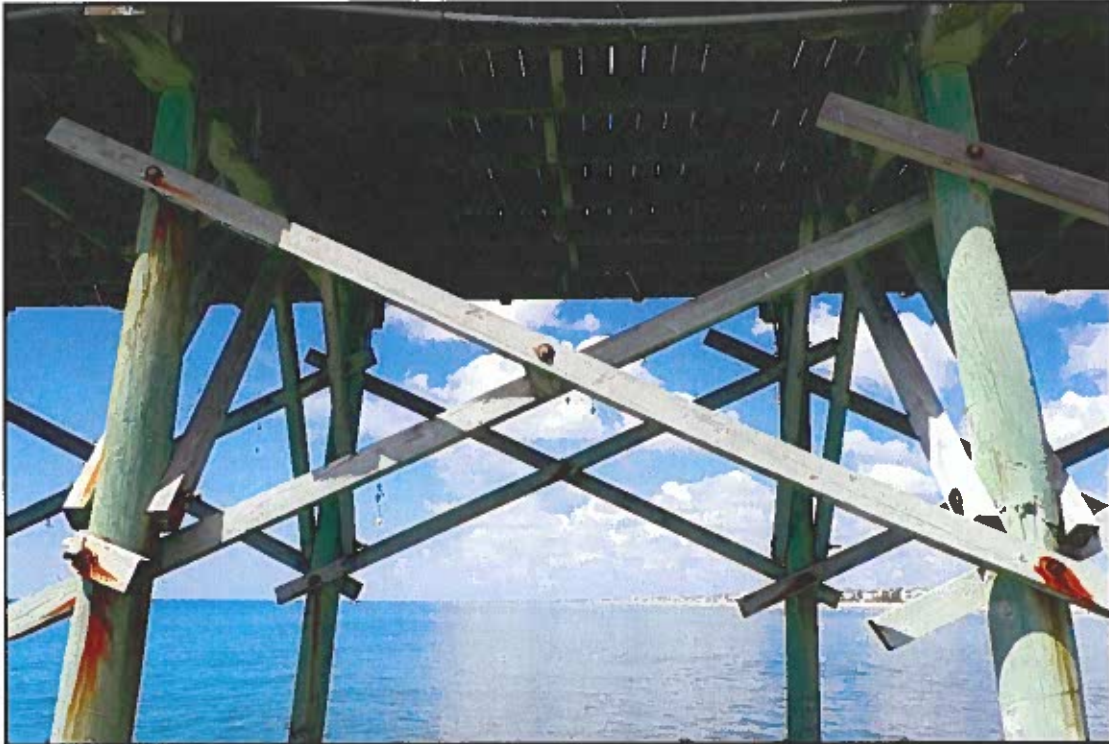
PHOTOGRAPHS



Photograph 1: Overall of Holden Beach Pier.



Photograph 2: Typical bent configuration, looking north.



Photograph 3: Typical bent configuration, looking west.



Photograph 4: Pile 12A – Typical light weathering and checking.



Photograph 5: Typical light marine growth below water.



Photograph 6: Pile -5A – Heavy rot throughout pile.



Photograph 7: Pile -4A – Typical split in top of pile.



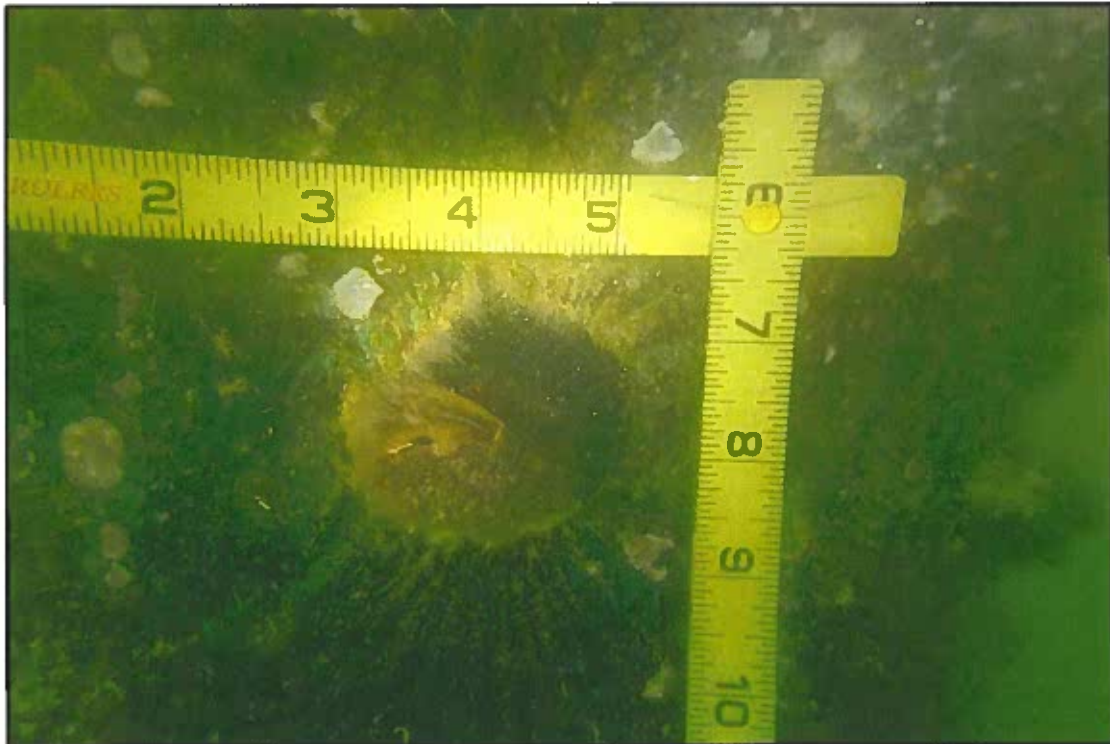
Photograph 8: Pile -2A – Insect damage at base of pile.



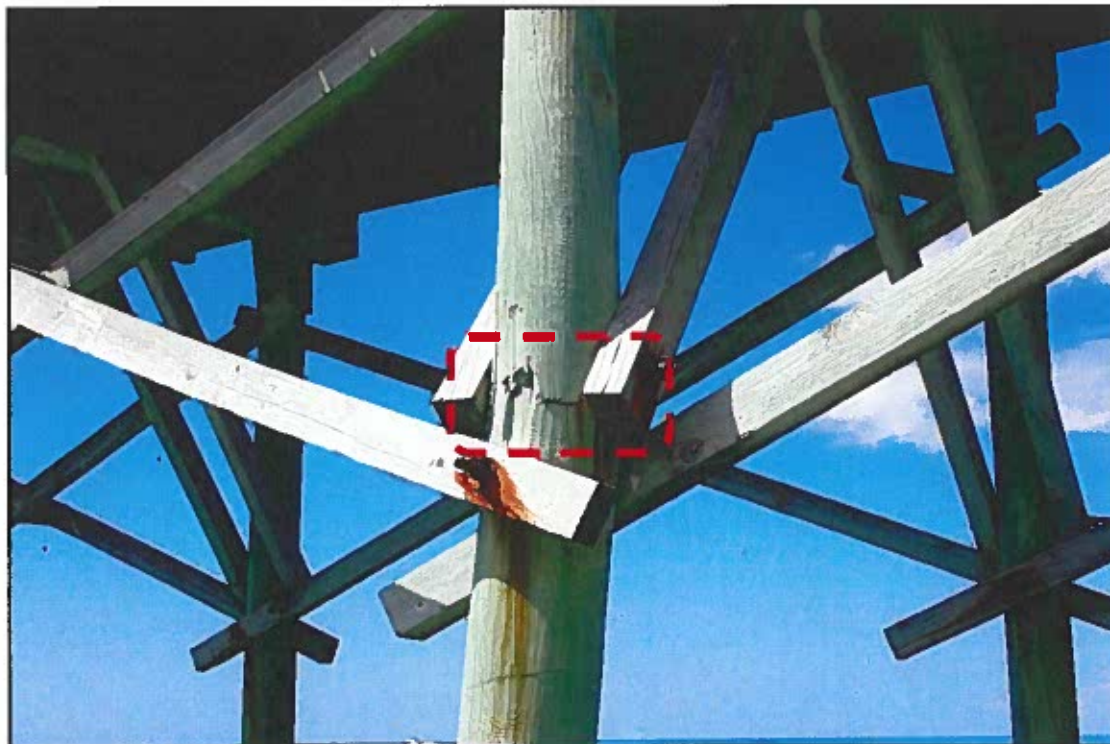
Photograph 9: Pile 17A – 100% non-bearing pile being supported by fishplates.



Photograph 10: Pile 24A – 50% non-bearing pile due to being displaced.



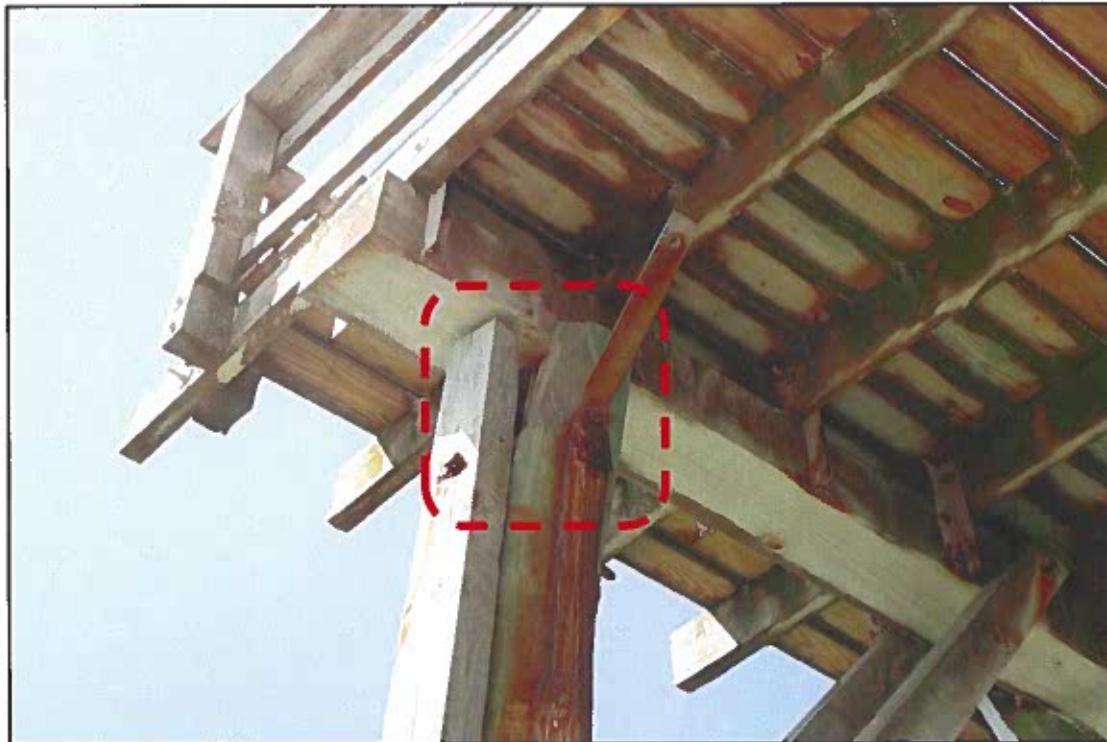
Photograph 11: Pile 47A - Hole in pile with section loss due to marine borer.



Photograph 12: Pile 49A - Broken pile 7' below top of pile.



Photograph 13: Pile 50B – Typical split in top 18” of pile.



Photograph 14: Pile 52A – Split in top 18” of pile with 75% non-bearing.



Photograph 15: Pile 52B – Hole in pile with section loss and hollowing due to marine borer.



Photograph 16: Bent 26 – End grain rot on east end of cap, looking west.



Photograph 17: Bent 51-52 – Typical bent-to-bent bracing broken and missing, looking west.



Photograph 18: Typical corrosion to lower bracing connection hardware.

APPENDIX B

INSPECTION NOTES

Structure	Bent	Row	Element	Shape	Material	Rating	Deterioration	Severity	Section Loss %	Diameter (in)	Dimensions (L x W x D)	Comments	Level I/II/III	Photo?	Depth (ft)	Time (HH:MM)	Photo #	Photo Comments
FISHING PIER	-6	A	Pile	Round	Timber	MD	Check	MD	<10	-	-	1/2" Checking	No	No	-	-	-	-
FISHING PIER	-6	B	Pile	Round	Timber	MD	Check	MD	<10	-	-	1/2" Checking	No	No	-	-	-	-
FISHING PIER	-5	A	Pile	Round	Timber	SV	Rot	HVY	>75	-	-	-	No	Yes	-	-	183-191	Heavy rot.
FISHING PIER	-5	B	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	-4	A	Pile	Round	Timber	MJ	Split	-	-	-	-	-	No	Yes	-	-	179-182	Split in pile.
FISHING PIER	-4	B	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	-3	A	Pile	Round	Timber	MN	None	-	-	-	-	Greenheart Pile	No	No	-	-	-	-
FISHING PIER	-3	B	Pile	Round	Timber	MN	None	-	-	-	-	Greenheart Pile	No	No	-	-	-	-
FISHING PIER	-2	A	Pile	Round	Timber	MJ	Borer	MD	25-35	-	-	Insect damage at the base of pile.	No	Yes	-	-	175-178	Insect damage.
FISHING PIER	-2	B	Pile	Round	Timber	MD	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	-1	A	Pile	Round	Timber	MD	Check	MD	<10	-	-	1/2" checking	No	No	-	-	-	-
FISHING PIER	-1	A.5	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	-1	B	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	1	A	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	1	A.5	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	1	B	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	2	A	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	2	B	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	3	A	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	3	B	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	4	A	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	4	B	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	5	A	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	5	B	Pile	Round	Timber	MD	Check	MD	<10	-	-	1/2" checking	No	No	-	-	-	-
FISHING PIER	6	A	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	6	B	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	7	A	Pile	Round	Timber	MN	Check	MD	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	7	B	Pile	Round	Timber	MD	Check	MD	<10	-	-	1/2" checking	No	No	-	-	-	-
FISHING PIER	8	A	Pile	Round	Timber	MN	Check	LT	<10	-	-	Pile had a mechanical cut, appeared to be from install.	No	No	-	-	-	-
FISHING PIER	8	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	9	A	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	9	B	Pile	Round	Timber	MD	Check	MD	<10	-	-	1/2" checking	No	No	-	-	-	-
FISHING PIER	10	A	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	10	B	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	11	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	11	B	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	12	A	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	Yes	-	-	192-195	Typical MN pile with LT checking.
FISHING PIER	12	B	Pile	Round	Timber	MN	Check	LT	<10	-	-	-	No	No	-	-	-	-
FISHING PIER	13	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	13	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	14	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	14	B	Pile	Round	Timber	MD	Check	MD	<10	-	-	1/2" checking	No	Yes	-	-	172-174	-
FISHING PIER	15	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	15	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	16	A	Pile	Round	Timber	MN	None	-	-	-	-	See LVI, III Notes	III	No	-	-	-	-
FISHING PIER	16	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	17	A	Pile	Round	Timber	SV	Bearing	-	-	-	-	100% Non-bearing, cap supported by fishplates.	No	Yes	-	-	166-171	Non-bearing pile
FISHING PIER	17	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	18	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	18	B	Pile	Round	Timber	MN	None	-	-	-	-	See LVI, III Notes	III	No	-	-	-	-
FISHING PIER	19	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	19	B	Pile	Round	Timber	MN	None	-	-	-	-	See LVI, III Notes	III	No	-	-	-	-
FISHING PIER	20	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	20	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	21	A	Pile	Round	Timber	MN	None	-	-	-	-	See LVI, III Notes	III	No	-	-	-	-
FISHING PIER	21	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	22	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	22	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	23	A	Pile	Round	Timber	MJ	Split	-	-	-	-	Split at top of pile	No	No	-	-	-	-
FISHING PIER	23	B	Pile	Round	Timber	MN	None	-	-	-	-	See LVI, III Notes	III	No	-	-	-	-
FISHING PIER	24	A	Pile	Round	Timber	MJ	Bearing	-	-	-	-	50% Non-bearing due to pile displaced from under the cap.	No	Yes	-	-	161-165	Non-bearing pile
FISHING PIER	24	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	25	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-

Structure	Bent	Row	Element	Shape	Material	Rating	Deterioration	Severity	Section Loss %	Diameter (in)	Dimensions (L x W x D)	Comments	Level II/III	Photo?	Depth (ft)	Time (HH:MM)	Photo #	Photo Comments
FISHING PIER	25	B	Pile	Round	Timber	SV	Split	-	-	-	-	50% bearing due to the split in pile	No	No	-	-	-	-
FISHING PIER	26	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	26	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	27	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	27	B	Pile	Round	Timber	MN	None	-	-	-	-	See LVL III Notes	III	No	-	-	-	-
FISHING PIER	28	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	28	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	29	A	Pile	Round	Timber	MN	Shell Peel	LT	-	-	-	Bottom 18"	No	No	-	-	-	-
FISHING PIER	29	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	30	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	30	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	31	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	31	B	Pile	Round	Timber	MN	None	-	-	-	-	See LVL III Notes	III	No	-	-	-	-
FISHING PIER	32	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	32	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	33	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	33	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	33	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	34	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	34	B	Pile	Round	Timber	MN	None	-	-	-	-	See LVL III Notes	III	No	-	-	-	-
FISHING PIER	35	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	35	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	36	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	36	B	Pile	Round	Timber	MN	None	-	-	-	-	See LVL III Notes	III	No	-	-	-	-
FISHING PIER	37	A	Pile	Round	Timber	MN	Shell Peel	LT	< 10	-	-	-	No	No	-	-	34-44	LT Shell Peel
FISHING PIER	37	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	38	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	38	B	Pile	Round	Timber	MN	None	-	-	-	-	See LVL III Notes	III	No	-	-	-	-
FISHING PIER	39	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	39	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	40	A	Pile	Round	Timber	SV	Split	-	-	-	-	50% bearing due to the split in pile	No	No	-	-	-	-
FISHING PIER	40	B	Pile	Round	Timber	MJ	Split	-	-	-	-	Split at top of pile	No	No	-	-	-	-
FISHING PIER	41	A	Pile	Round	Timber	MN	None	-	-	-	-	See LVL III Notes	III	No	-	-	-	-
FISHING PIER	41	B	Pile	Round	Timber	MJ	Split	-	-	-	-	Split at top of pile	No	No	-	-	-	-
FISHING PIER	42	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	42	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	43	A	Pile	Round	Timber	MN	None	-	-	-	-	See LVL III Notes	III	No	-	-	-	-
FISHING PIER	43	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	44	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	44	B	Pile	Round	Timber	MJ	Split	-	-	-	-	Split at top of pile. 25% Non-bearing	No	No	-	-	-	-
FISHING PIER	45	A	Pile	Round	Timber	MN	None	-	-	-	-	See LVL III Notes	III	No	-	-	-	-
FISHING PIER	45	B	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	46	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	46	B	Pile	Round	Timber	MJ	Split	HVY	-	-	-	Split at top of pile	No	No	-	-	-	-
FISHING PIER	47	A	Pile	Round	Timber	MD	Borer	LT	10-15	-	2"x2"x2"	7ft up from midline	No	Yes	-	-	21-33	Section Lost Due to possible marine borer
FISHING PIER	47	B	Pile	Round	Timber	SV	Broken	HVY	-	-	-	5ft from top, pile has a fracture crack	No	No	-	-	-	-
FISHING PIER	48	A	Pile	Round	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	48	B	Pile	Round	Timber	MJ	Split	HVY	-	-	-	Split at top of pile	No	No	-	-	-	-
FISHING PIER	49	A	Pile	Round	Timber	SV	Broken	HVY	-	-	-	Pile broke approx. 7' from T.O.P	No	Yes	-	-	56-65	Pile broke approx. 7' from T.O.P
FISHING PIER	49	B	Pile	Round	Timber	MJ	Split	HVY	-	-	18"	Top 18" of pile split	No	No	-	-	-	-
FISHING PIER	50	A	Pile	Round	Timber	MN	None	-	-	-	-	Top 18" of pile split	No	No	-	-	66-73	Top 18" of pile split
FISHING PIER	50	B	Pile	Round	Timber	MJ	Split	HVY	-	-	18"	Top 18" of pile split	No	Yes	-	-	15-20	Typical minor pile UW
FISHING PIER	51	A	Pile	Round	Timber	MN	None	-	-	-	-	See LVL III Notes	III	Yes	13	10:04	-	-
FISHING PIER	51	B	Pile	Round	Timber	MN	None	-	-	-	-	Top 18" of pile, 75% Non-Bearing	No	Yes	-	-	45-55	Top 18" of pile, 75% Non-Bearing
FISHING PIER	52	A	Pile	Round	Timber	SV	Split	HVY	-	-	18"	6' above ML 3x5" dia hole, with section loss due to hollowing, 2' above and below hole.	No	Yes	-	-	1-14	Hole & hollowing
FISHING PIER	52	B	Pile	Round	Timber	SV	Rot	HVY	>75	-	-	-	No	Yes	-	-	-	-
FISHING PIER	-6	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	-5	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	-4	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	-3	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	-2	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	-1	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	1	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	2	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-

Structure	Boat	Row	Element	Shape	Material	Rating	Deterioration	Severity	Section Loss %	Diameter (in)	Dimensions (L x W x D)	Comments	Level I/II	Photo?	Depth (ft)	Time (HHMM)	Photo #	Photo Comments
FISHING PIER 3	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 4	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 5	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 6	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 7	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 8	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 9	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 10	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 11	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 12	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 13	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 14	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 15	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 16	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 17	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 18	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 19	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 20	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 21	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 22	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 23	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 24	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 25	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 26	-	-	Cap	Square	Timber	MJ	Rot	HVY	35-50	-	3'	EGR on East side of cap.	No	Yes	-	-	110-122	EGR on East side of cap.
FISHING PIER 27	-	-	Cap	Square	Timber	MJ	Rot	HVY	35-50	-	3'	EGR on East side of cap.	No	Yes	-	-	110-122	EGR on East side of cap.
FISHING PIER 28	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 29	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 30	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 31	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 32	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 33	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 34	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 35	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 36	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 37	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 38	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 39	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 40	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 41	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 42	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 43	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 44	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 45	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 46	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 47	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 48	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 49	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 50	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 51	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 52	-	-	Cap	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER -6	A-B	-	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER -6	B-A	-	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER -5	A-B	-	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER -5	B-A	-	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER -4	A-B	-	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER -4	B-A	-	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER -3	A-B	-	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER -3	B-A	-	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER -2	A-B	-	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER -2	B-A	-	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER -1	A-B	-	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER -1	B-A	-	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 1	A-B	-	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 1	B-A	-	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 2	A-B	-	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER 2	B-A	-	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-

Structure	Bent	Row	Element	Shape	Material	Rating	Deterioration	Severity	Section Loss %	Diameter (in)	Dimensions (L x W x D)	Comments	Level 1/1/11	Photo 3	Depth (ft)	Time (HH:MM)	Photo #	Photo Comments	
FISHING PIER	30	A-5-B M	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	30	A-5-B S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	31	A-A-5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	31	A-A-5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	31	A-5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	31	A-5-B S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	32	A-A-5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	32	A-A-5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	32	A-5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	32	A-5-B S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	33	A-A-5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	33	A-A-5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	33	A-5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	33	A-5-B S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	34	A-A-5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	34	A-A-5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	34	A-5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	34	A-5-B S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	35	A-A-5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	35	A-A-5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	35	A-5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	35	A-5-B S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	36	A-A-5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	36	A-A-5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	36	A-5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	36	A-5-B S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	37	A-A-5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	37	A-A-5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	37	A-5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	37	A-5-B S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	38	A-A-5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	38	A-A-5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	38	A-5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	38	A-5-B S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	39	A-A-5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	39	A-A-5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	39	A-5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	39	A-5-B S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	40	A-A-5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	40	A-A-5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	40	A-5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	40	A-5-B S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	41	A-A-5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	41	A-A-5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	41	A-5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	41	A-5-B S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	42	A-A-5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	42	A-A-5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	42	A-5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	42	A-5-B S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	43	A-A-5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	43	A-A-5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	43	A-5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	43	A-5-B S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	44	A-A-5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	44	A-A-5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	44	A-5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	44	A-5-B S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	45	A-A-5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	45	A-A-5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	45	A-5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	45	A-5-B S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	46	A-A-5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	46	A-A-5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	46	A-5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	46	A-5-B S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-

Structure	Bent	Row	Element	Shape	Material	Rating	Deterioration	Severity	Section Loss %	Diameter (in)	Dimensions (L x W x D)	Comments	Level II/III	Photo #	Depth (ft)	Time (Hr:Min)	Photo #	Photo Comments
FISHING PIER	47	A-A.5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	47	A-A.5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	47	A.5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	47	A.5-B.5	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	48	A-A.5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	48	A-A.5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	48	A.5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	48	A.5-B.5	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	49	A-A.5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	49	A-A.5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	49	A.5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	49	A.5-B.5	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	50	A-A.5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	50	A-A.5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	50	A.5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	50	A.5-B.5	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51	A-A.5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51	A-A.5 S	Diag. Brace	Square	Timber	SV	Broken	-	-	-	-	-	No	Yes	-	-	83-96	TYP Broken Bracing
FISHING PIER	51	A.5-B N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51	A.5-B.5	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	52	A-A.5 N	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	52	A-A.5 S	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	52	A.5-B N	Diag. Brace	Square	Timber	SV	Broken	-	-	-	-	-	No	Yes	-	-	83-96	TYP Broken Bracing
FISHING PIER	52	A.5-B.5	Diag. Brace	Square	Timber	SV	Broken	-	-	-	-	-	No	Yes	-	-	83-96	TYP Broken Bracing
FISHING PIER	6-5	A-A. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	6-5	A-A. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	6-5	B-B. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	6-5	B-B. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	5-4	A-A. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	5-4	A-A. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	5-4	B-B. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	5-4	B-B. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	5-4	B-B. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	5-4	B-B. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	4-3	A-A. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	4-3	A-A. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	4-3	B-B. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	4-3	B-B. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	3-2	A-A. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	3-2	A-A. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	3-2	B-B. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	3-2	B-B. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	2-1	A-A. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	2-1	A-A. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	2-1	B-B. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	2-1	B-B. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	2-1	A-A. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	2-1	A-A. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	2-1	B-B. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	2-1	B-B. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	1-2	A-A. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	1-2	A-A. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	1-2	B-B. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	1-2	B-B. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	1-2	A-A. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	1-2	A-A. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	1-2	B-B. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	1-2	B-B. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	2-3	A-A. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	2-3	A-A. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	2-3	B-B. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	2-3	B-B. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	3-4	A-A. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	3-4	A-A. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	3-4	B-B. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	3-4	B-B. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	4-5	A-A. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	4-5	A-A. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	4-5	B-B. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	4-5	B-B. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	5-6	A-A. W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	5-6	A-A. E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	No	No	-	-	-	-

Structure	Brnt	Row	Element	Shape	Material	Rating	Deterioration	Severity	Section Loss %	Dim. Meter (m)	Dimensions (L x W x D)	Comments	Level II/III	Photo #	Time (HH:MM)	Depth (ft)	Photo #	Photo Comments	
FISHING PIER	22-23	A-A, W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	22-23	A-A, E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	22-23	B-B, W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	22-23	B-B, E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	23-24	A-A, W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	23-24	A-A, E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	23-24	B-B, W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	23-24	B-B, E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	24-25	A-A, W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	24-25	A-A, E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	24-25	B-B, W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	24-25	B-B, E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	25-26	A-A, W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	25-26	A-A, E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	25-26	B-B, W	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	25-26	B-B, E	Diag. Brace	Square	Timber	DNE	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	26-27	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	26-27	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	26-27	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	26-27	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	27-28	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	27-28	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	27-28	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	27-28	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	28-29	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	28-29	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	28-29	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	28-29	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	29-30	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	29-30	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	29-30	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	29-30	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	30-31	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	30-31	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	30-31	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	30-31	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	31-32	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	31-32	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	31-32	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	31-32	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	31-32	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	32-33	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	32-33	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	32-33	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	32-33	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	33-34	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	33-34	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	33-34	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	33-34	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	33-34	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	34-35	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	34-35	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	34-35	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	34-35	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	35-36	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	35-36	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	35-36	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	35-36	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	36-37	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	36-37	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	36-37	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	36-37	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	37-38	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	37-38	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	37-38	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	37-38	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	38-39	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	38-39	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	-	No	No	-	-	-	-

Structure	Boat	Row	Element	Shape	Material	Rating	Deterioration	Severity	Section Loss %	Diameter (in)	Dimensions (L x W x D)	Comments	Level I/II	Photo?	Depth (ft)	Time (HH:MM)	Photo #	Photo Comments
FISHING PIER	38-39	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	38-39	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	39-40	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	39-40	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	39-40	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	39-40	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	40-41	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	40-41	A-A, E	Diag. Brace	Square	Timber	SV	Broken	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	40-41	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	40-41	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	41-42	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	41-42	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	41-42	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	41-42	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	42-43	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	42-43	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	42-43	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	42-43	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	43-44	A-A, W	Diag. Brace	Square	Timber	SV	Broken	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	43-44	A-A, E	Diag. Brace	Square	Timber	SV	Broken	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	43-44	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	43-44	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	44-45	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	44-45	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	44-45	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	44-45	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	45-46	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	45-46	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	45-46	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	45-46	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	46-47	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	46-47	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	46-47	B-B, W	Diag. Brace	Square	Timber	SV	Broken	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	46-47	B-B, E	Diag. Brace	Square	Timber	SV	Broken	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	47-48	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	47-48	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	47-48	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	47-48	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	48-49	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	48-49	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	48-49	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	48-49	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	49-50	A-A, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	49-50	A-A, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	49-50	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	49-50	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	50-51	A-A, W	Diag. Brace	Square	Timber	SV	Broken	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	50-51	A-A, E	Diag. Brace	Square	Timber	SV	Broken	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	50-51	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	50-51	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	A-A, W	Diag. Brace	Square	Timber	SV	Broken	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	A-A, E	Diag. Brace	Square	Timber	SV	Broken	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, W	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-	No	No	-	-	-	-
FISHING PIER	51-52	B-B, E	Diag. Brace	Square	Timber	MN	None	-	-	-	-	-</						

APPENDIX C

ASCE CONDITION ASSESSMENT RATING (CAR)

Table 2-15. Condition Assessment Ratings.

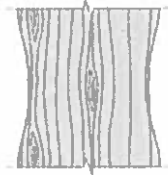
Rating	Description
6 Good	No visible damage or only minor damage noted. Structural elements may show very minor deterioration, but no overstressing observed. No repairs are required
5 Satisfactory	Limited minor to moderate defects or deterioration observed but no overstressing observed. No immediate repairs are required
4 Fair	All primary structural elements are sound but minor to moderate defects or deterioration observed. Localized areas of major to severe deterioration may be present but do not significantly reduce the load-bearing capacity of the structure. Repairs are recommended, but the priority of the recommended repairs is low
3 Poor	Major to severe deterioration or overstressing observed on widespread portions of the structure but does not significantly reduce the load-bearing capacity of the structure. Repairs may need to be carried out with moderate urgency
2 Serious	Major to severe deterioration, overstressing, or breakage may have significantly affected the load-bearing capacity of primary structural components. Local failures are possible, and loading restrictions may be necessary. Repairs may need to be carried out on a high-priority basis with urgency
1 Critical	Major to severe deterioration, overstressing, or breakage has resulted in localized failure(s) of primary structural components. More widespread failures are possible or likely to occur, and load restrictions should be implemented as necessary. Repairs may need to be carried out on a very high-priority basis with strong urgency

MINOR



CHECKS, SPLITS, OR GOUGES
LESS THAN 1/2 IN. WIDE

MODERATE



DIAMETER LOSS OF
UP TO 15%

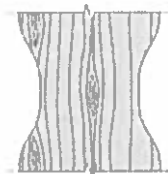


CHECKS, SPLITS, OR
GOUGES WIDER THAN 1/2 IN.



CROSS-SECTIONAL AREA
LOSS UP TO 25%

MAJOR



DIAMETER LOSS BETWEEN
15% AND 30%



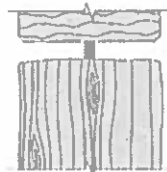
CHECKS OR SPLITS
EXTENDING THROUGH
CROSS SECTION



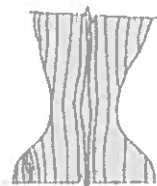
CROSS-SECTIONAL AREA
LOSS BETWEEN 25% AND 50%



SEVERE



DIAMETER LOSS MORE
THAN 30%; LOSS OF
CONNECTIONS AND/OR
FULLY NON-BEARING



BREAKAGE

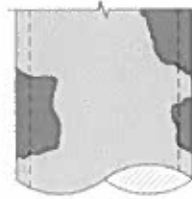


CROSS-SECTIONAL AREA
LOSS OF MORE THAN 50%

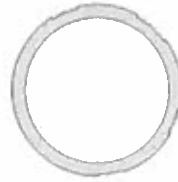


Figure 2-2. Damage ratings for timber elements.

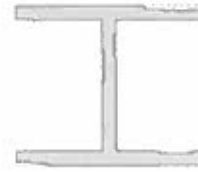
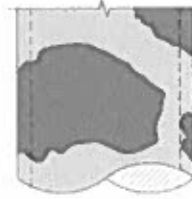
Source: Courtesy of Appledore Marine Engineering, LLC, reproduced with permission.

MINOR

PROTECTIVE COATING DAMAGED ON UP TO 25% OF THE SURFACE AREA; LESS THAN 50% OF THE SURFACE AREA AFFECTED BY CORROSION AT ANY ELEVATION OR CROSS SECTION



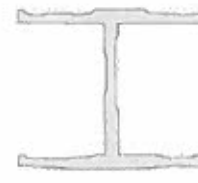
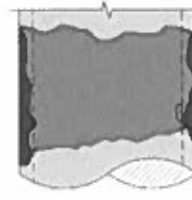
LOSS OF NOMINAL THICKNESS UP TO 15% AT ANY LOCATION

**MODERATE**

PROTECTIVE COATING DAMAGE GREATER THAN 25% OF THE SURFACE AREA; MORE THAN 50% OF THE SURFACE AREA AFFECTED BY CORROSION AT ANY ELEVATION OR CROSS SECTION



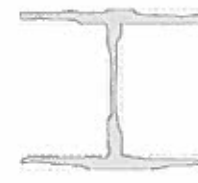
LOSS OF NOMINAL THICKNESS BETWEEN 15% AND 30% AT ANY LOCATION

**MAJOR**

LOSS OF NOMINAL THICKNESS BETWEEN 30% TO 50% AT ANY LOCATION



PARTIAL LOSS OF FLANGE EDGES OR VISIBLE REDUCTION OF WALL THICKNESS ON PIPE PILES

**SEVERE**

STRUCTURAL BENDS OR BUCKLING; BREAKAGE AND DISPLACEMENT AT SUPPORTS; LOOSE OR LOSS OF ANY CONNECTIONS



LOSS OF NOMINAL THICKNESS EXCEEDING 50% AT ANY LOCATION

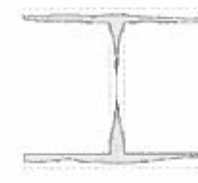


Figure 2-3. Damage ratings for steel elements.

Source: Courtesy of Appledore Marine Engineering, LLC, reproduced with permission.

APPENDIX D

SUBCONTRACTOR RESISTANCE DRILLING REPORT

Submitted to:

**MidAtlantic
2026B Briggs Road
Suite 300
Mt. Laurel, NJ**

September 11, 2026



General Condition Assessment and Resistance Drilling of Wood Pilings in the Holden Beach Fishing Pier

Wood  Science

Consulting

20 Ciferri Drive, Millbrook, NY 12545

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1. Scope

Perform a general visual condition assessment and resistance drilling of the pilings in the Holden Beach Fishing Pier. Document any hidden wood decay or marine borer damage. Provide a professional report of all findings.

2. Introduction

Wood Science Consulting, Inc. (WSC) performed an onsite inspection of the wood pilings in the Holden Beach Fishing Pier located at 441 Ocean Blvd. W, Holden Beach, North Carolina. On September 2, 2026, WSC met with MidAtlantic to conduct the inspection and testing. The following was the scope of work for WSC:

1. Conduct resistance drilling of selected wood pilings to document the relative cross section properties and conditions of the pilings at the waterline.
2. Conduct a general condition assessment of the pilings and structural elements.
3. Provide a professional report of all findings.

3. Inspection Methods

3.1 General Assessment

The general appearance and conditions of the wood pilings, pile caps, cross braces and fasteners were noted. Visible evidence of wood decay was noted, when observed. WSC did not sound the piles or conduct any surface probing with an awl. That work was conducted by MidAtlantic. General grade quality of the piles, lumber and timbers was noted. If brands were observed on poles they were noted. Visual grading of the lumber and timbers was conducted following the grading rules published by the Southern Pine Inspection Bureau (SPIB), *Standard Grading Rules for Southern Pine Lumber*.

3.2 Resistance Drilling

A Resistograph is a non-destructive tool used to collect data illustrating the relative density profile of wooden members. The Resistograph is a cordless drill equipped with a specially designed needle that is 12" long and has tip diameter of 1/8". At WSC an IML RESI PD-300 Resistograph is used to drill into selected structural members and connections. The resistance of the drilling needle is digitally displayed on a chart that results in a relative cross-sectional density profile of the member drilled at that location. Regions on the chart represented by consistent and sound wood characteristics are referred to as "consistent". Regions on the chart represented by low density levels, or when no density level is recorded, are generally indicative of wood decay or other biological infestation that would otherwise go undetected during an external visual inspection of an element or connection. Additionally, regions of lower relative density can be used to detect internal splits and even insect damage.

The Resistograph is a very effective non-destructive tool, but it is not necessarily sensitive to detecting early (a.k.a. incipient) wood decay. Therefore, in addition to resistance drilling it is generally good practice to perform periodic microbiological

analyses (e.g. microscopic) to confirm the presence or absence of early wood decay if there is any question. Since this project was a general structural condition assessment no microbiological analyses were included within the scope of work.

A total of fifteen piles were selected by MidAtlantic for testing using the resistance drill for this investigation. All drillings were conducted at the waterline. The waterline is generally the most critical location to examine on marine piles. The tops of piles can also be susceptible to wood decay due to exposure. However, the pier was closed at the time of this inspection, and the tops of the piles were generally protected with a protective covering between the pile tops and the pile caps.

4. Results

The results of the analyses and testing that were performed are discussed in the following sections. Photos are provided in Appendix I and all the resistance drilling charts collected are provided in Appendix II.

4.1 Species

Samples were not collected for species identification as they were not included in the scope of work. However, the species of the piles appeared to be consistent with southern pine and the piles were likely treated with copper chromated arsenic (CCA) based on the green color. This was confirmed on one pile that exhibited a pole brand as shown in Photo 1.

The lumber and timbers also had a green appearance consistent with southern pine and preservative treatment with CCA.

4.2 General Observations

Overall, the general condition of the piles at the waterline was found to be good. According to MidAtlantic, no internal voids were detected in the piles that were sounded. This was confirmed with the resistance drilling results that are provided in Section 4.3.

Wood decay was occasionally observed in the cross bracing and timber pile caps but was typically limited to end grain conditions (Photo 2). The remaining dimension lumber and timbers in the pier were generally in good condition except some cross braces that were fractured midspan (likely due to ocean debris during storms). The decking on the pier was not inspected since the pier was closed at the time of this inspection.

The visual grade quality of the lumber and timbers in the pier were generally consistent with No. 1 grade quality; however, one cross brace was found to have slope of grain consistent with a No. 2 visual grade (Photos 3 and 4).

Fastener corrosion was frequently observed throughout the connections between elements. Photo 5 illustrates the typical fastener conditions observed.

4.3 Resistance Drilling

A total of 15 wood piles were drilled using the resistance drill. All drillings were conducted at the waterline. The piles were selected by MidAtlantic. The results of the drillings are listed in Table 1 and all the charts are provided in Appendix II.

In summary, no internal wood decay or voids were observed in any of the piles tested. All drillings were classified as “Consistent Relative Density” profiles (See Figure 1). A consistent profile typically illustrates a density variation within the annual rings of the pile. As the needle encounters each annual ring the earlywood, or spring growth, of an has low relative density, while the late wood, or summer growth of an annual ring, is much denser. Therefore, when drilling a sound pile a consistent profile has regular peaks (i.e. dense latewood) and troughs (i.e. less dense earlywood) such as that shown in Figure 1. Also shown in Figure 1 is the center of the pile which has the lowest relative density in the cross section of a wood pile. That is the approximate center of the pile which represents the juvenile growth of a tree and is generally less dense than the remainder of the cross section.

Regions on the chart represented by low density levels, inconsistent density levels, or when no density level is recorded, may be indicative of wood decay that would otherwise be undetected during an external visual inspection of an element. However, because wood is a variable material, different timbers are expected to have variability, which of course, results in variable relative density profiles. Relative density profiles vary based on whether the timber is dry or wet, the orientation that the needle cross annual rings, the number of annual rings, species and several other wood characteristics. Variability is expected between timbers that are tested. Some timbers may exhibit higher consistent relative density profiles while others may also be consistent but at much lower levels. As long as the profile is determined to be consistent, variability is expected to occur between timbers sampled. Low relative density profiles, or lower strength timbers, are expected and this “strength” difference is taken into account in the development of design values. For example, all strength design values are based on the lower 5% percentile value. In other words, allowable design values for strength are based on the 5th weakest piece in a population. A safety factor and end-use factor is then applied to the 5th percentile value as well as other adjustment factors.

When examining the Resistograph charts in Appendix II, even though a profile may exhibit a relatively low amplitude in a profile, but the profile is still consistent, then the chart is simply illustrating a lower strength timber (i.e. lower relative density). The primary concern when interpreting the charts is when no relative density is detected or the profile is inconsistent (i.e. the profile does not exhibit typical wood characteristics). These types of profiles are generally representative of decay, insect attack or marine borer attack which may be superficial or hidden.

Only one of the piles exhibited a low relative density level in the center (See Figure 2). However, this is also the location of the pith, or center of a tree. Heart rot in standing trees can develop in this zone. Therefore, the low region in the drilling chart for Pile 23B is most likely pith but may also have some limited heart rot. This heart rot would have

been present when the tree was felled and when the pile was manufactured. This heart rot wood decay would not develop while in service.

Table 1. Results of the Resistance Drilling Conducted on Selected Piles of the Holden Beach Fishing Pier.

Pole - Drilling	Result
16A	Consistent relative density profile.
18B	Consistent relative density profile.
20A	Consistent relative density profile.
21B	Consistent relative density profile.
23B	Consistent relative density profile. Possible heart rot (see Section 4.3)
27A	Consistent relative density profile.
41A	Consistent relative density profile.
43B	Consistent relative density profile.
45A	Consistent relative density profile.
45B	Consistent relative density profile.
46A	Consistent relative density profile.
47A	Consistent relative density profile.
48A	Consistent relative density profile.
50A	Consistent relative density profile.
51B	Consistent relative density profile.

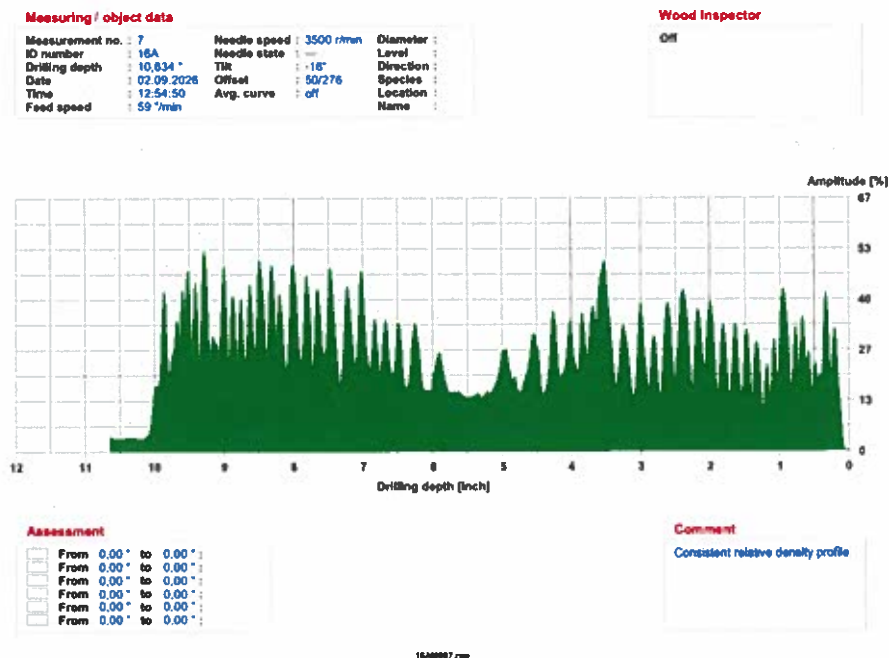


Figure 1 – Pole 16A. Consistent relative densith profile. Low region in center is representative of the pith, or center, of a pile which has the lowest density in the cross section of a pile.

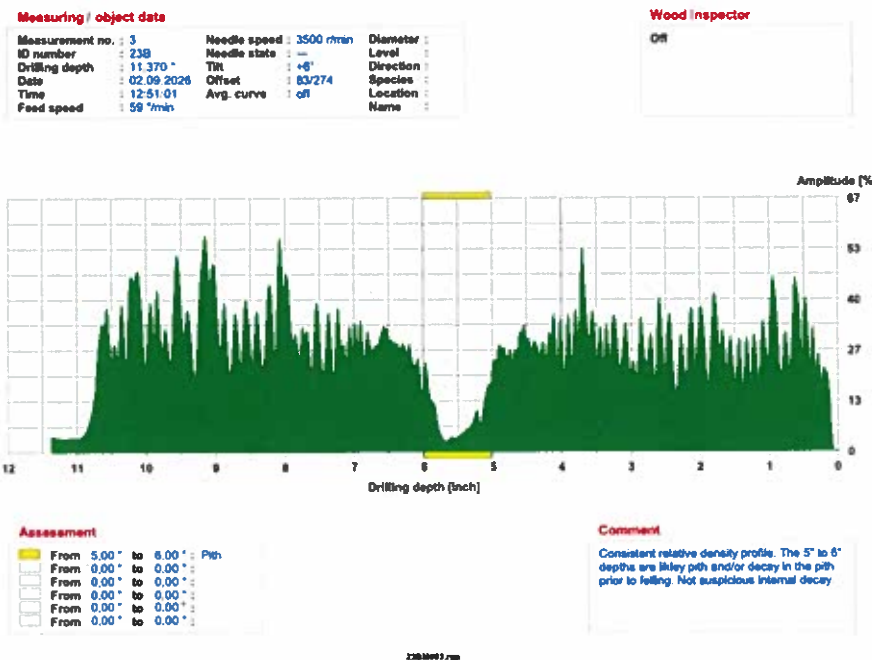


Figure 2 – Pile 23B. Profile is consistent. Internal low relative density is exactly at the location of pith (see similar trend is all other drillings). The particularly low level may represent heart rot in the pith at the time of felling and prior to manufacture.

5. Summary and Opinions

Wood Science Consulting performed a general condition assessment of the wood pilings in the Holden Beach Fishing Pier. Fifteen piles were selected by MidAtlantic for resistance drilling. Based on the results of the assessment, my knowledge, education and experience as well as documented scientific literature and industry publications, I offer the following summary and opinions:

1. The species of the piles was determined to be southern pine as verified by the brand observed on one pile. The wood preservative used to treat the piles was CCA.
2. The visual grade quality of the lumber and timbers in the pier was generally No. 1 with an occasional No. 2 element observed.
3. Wood decay was typically limited to the end grain conditions of the lumber and timbers. No wood decay was observed at the tops of any wood piles.
4. Fastener corrosion was observed throughout the pier.
5. None of the wood pilings selected for resistance drilling were found to have internal voids. This is consistent with the visual observations and soundings conducted by MidAtlantic.

If you have any questions or comments, please do not hesitate to contact me.

Respectfully submitted,



Matthew E. Anderson

Appendix I – Photographs



Photo 1 - Brand on pile indicating southern pine and CCA treatment (i.e. "SPSK").



Photo 2 - Typical wood decay, when present, limited to exposed end grain.

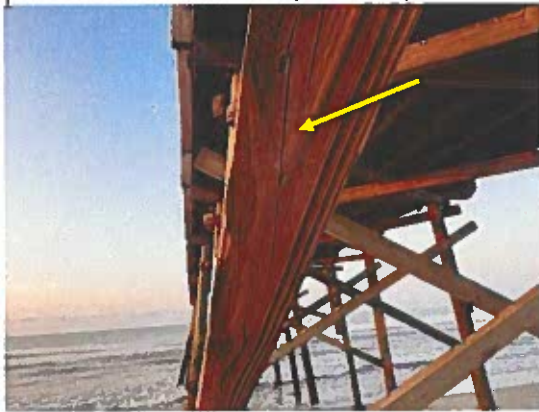


Photo 3 - Spole of grain consistent with No. 2 visual grade observed on one cross brace.



Photo 4 - General visual grade quality of timbers is at least consistent with No. 1. Fastener corrosion also visible.



Photo 5 - Typical fastener corrosion.

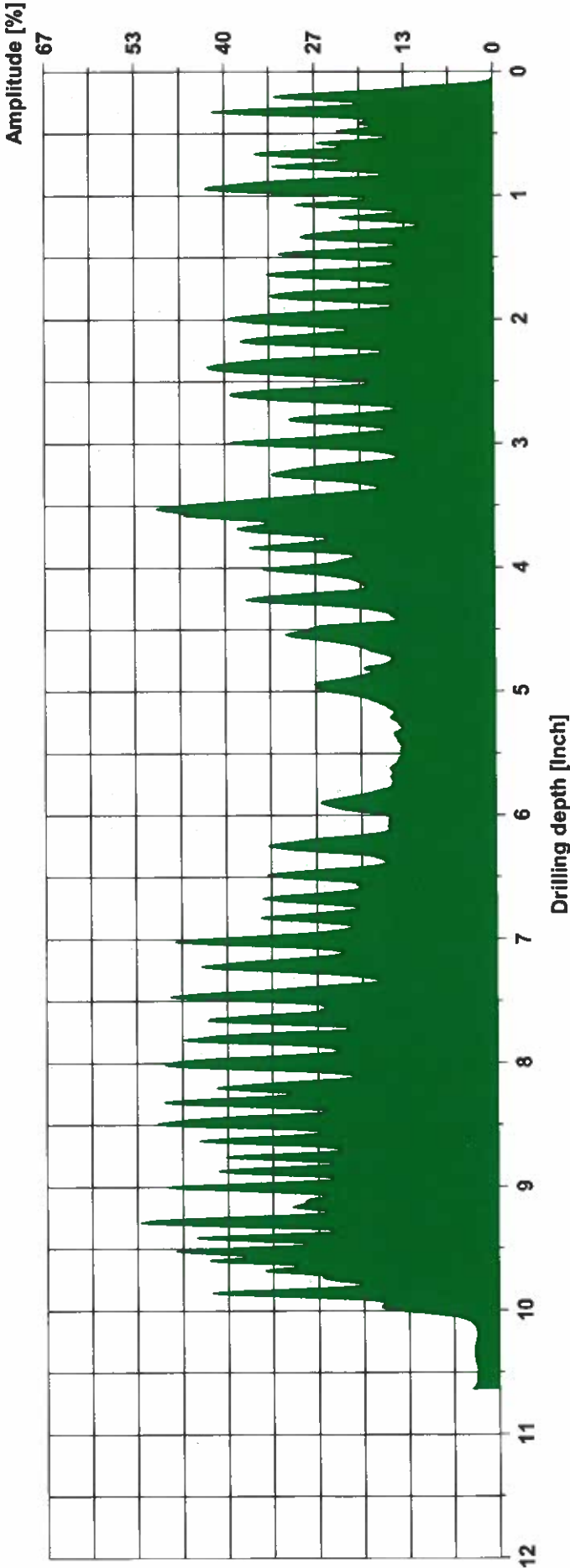
Appendix II – Resistance Drilling Charts

Measuring / object data

Measurement no. : 7
ID number : 16A
Drilling depth : 10.634 "
Date : 02.09.2026
Time : 12:54:50
Feed speed : 59 "/min
Needle speed : 3500 r/min
Needle state : ---
Tilt : -16°
Offset : 50/276
Avg. curve : off
Diameter :
Level :
Direction :
Species :
Location :
Name :

Wood Inspector

Off



Assessment

☐ From 0,00 " to 0,00 " :
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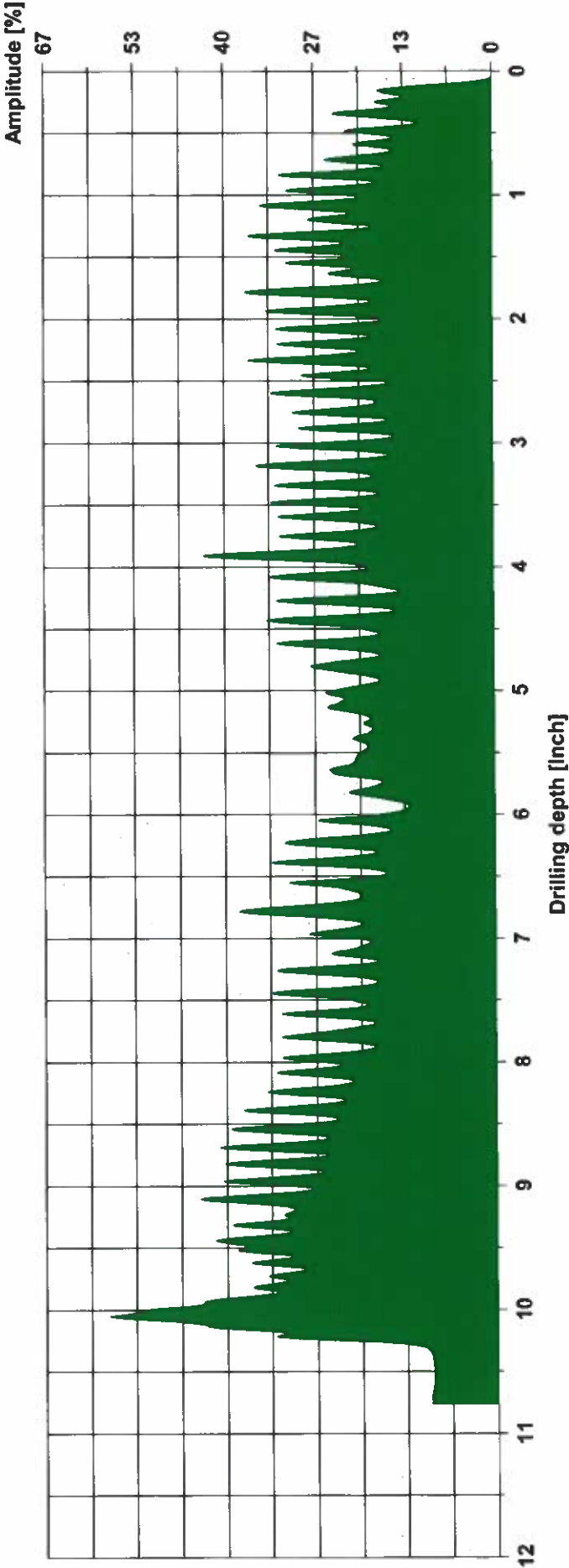
Consistent relative density profile.

Measuring / object data

Measurement no. : 6
ID number : 18B
Drilling depth : 10.764 "
Date : 02.09.2026
Time : 12:53:51
Feed speed : 59 "/min
Needle speed : 3500 r/min
Needle state : ---
Tilt : -3°
Offset : 53/278
Avg. curve : off
Diameter :
Level :
Direction :
Species :
Location :
Name :

Wood Inspector

Off



Assessment

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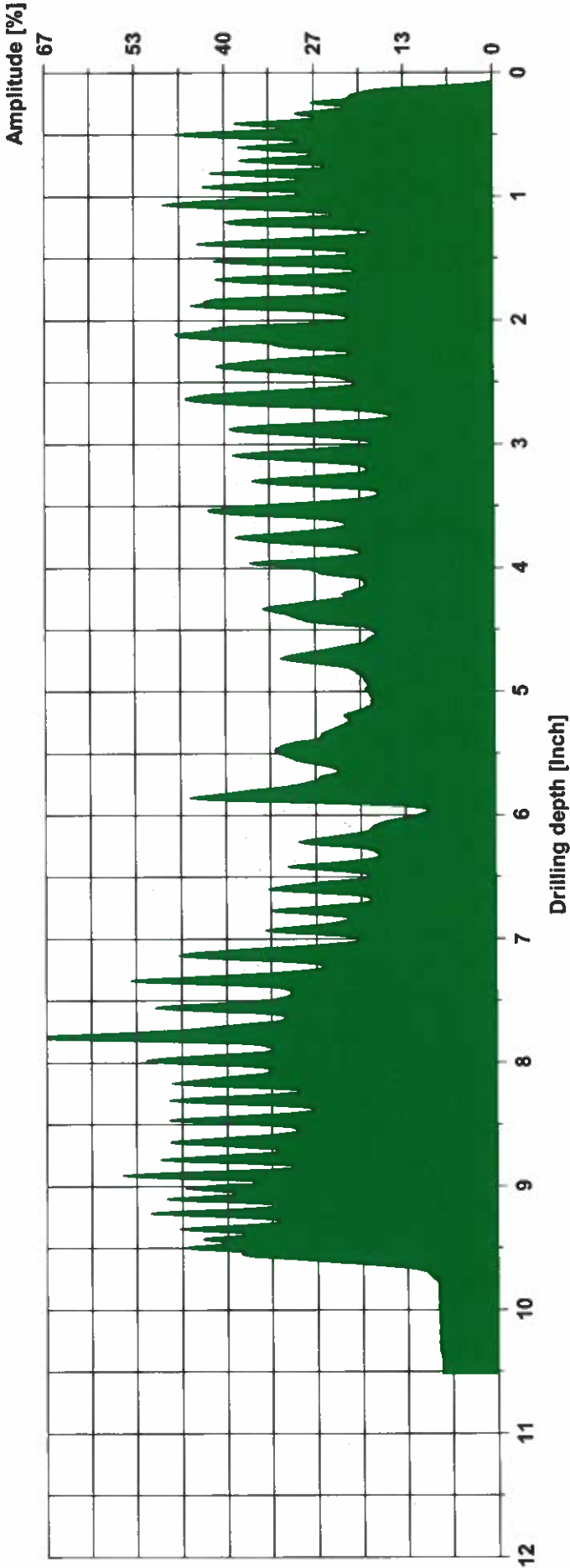
Consistent relative density profile.

Measuring / object data

Measurement no. : 5
ID number : 20A
Drilling depth : 10.520 "
Date : 02.09.2026
Time : 12:52:32
Feed speed : 59 "/min
Needle speed : 3500 r/min
Needle state : ---
Tilt : -4°
Offset : 58/275
Avg. curve : off
Diameter :
Level :
Direction :
Species :
Location :
Name :

Wood Inspector

Off



Assessment

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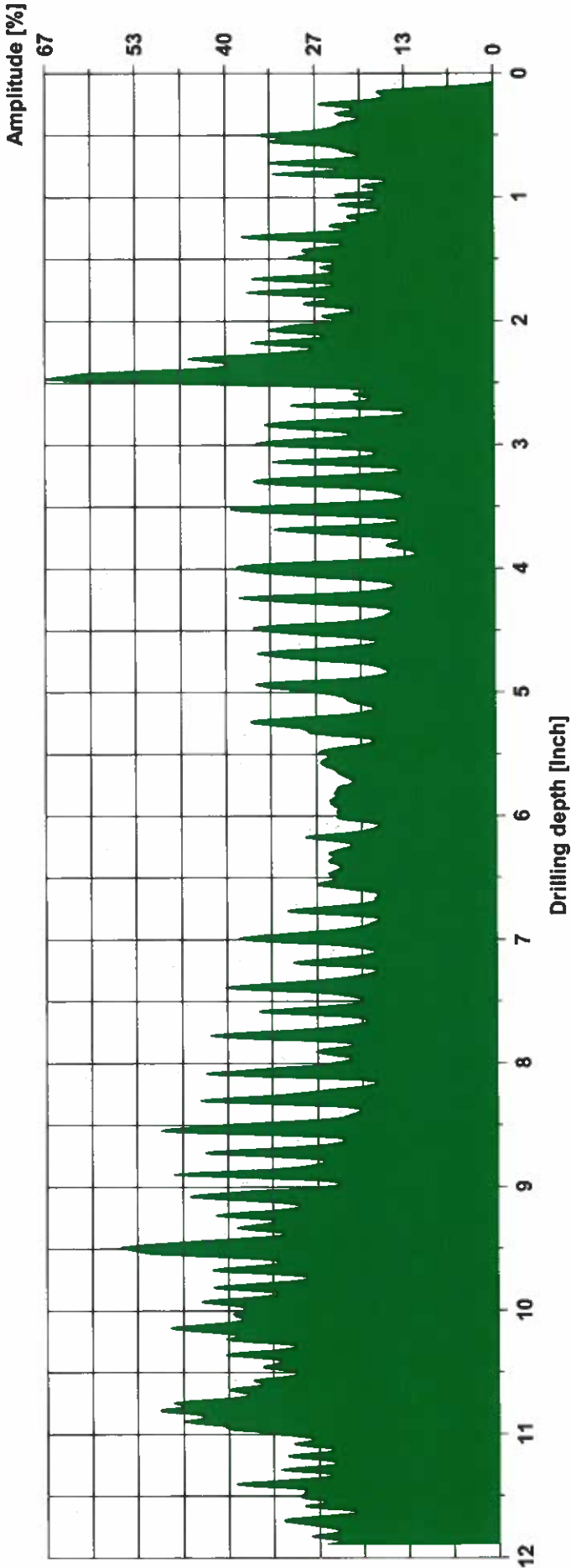
Consistent relative density profile.

Measuring / object data

Measurement no. : 4
ID number : 21B
Drilling depth : 11.890 "
Date : 02.09.2026
Time : 12:51:48
Feed speed : 59 "/min
Needle speed : 3500 r/min
Needle state : --
Tilt : +8°
Offset : 84/274
Avg. curve : off
Diameter :
Level :
Direction :
Species :
Location :
Name :

Wood Inspector

Off



Assessment

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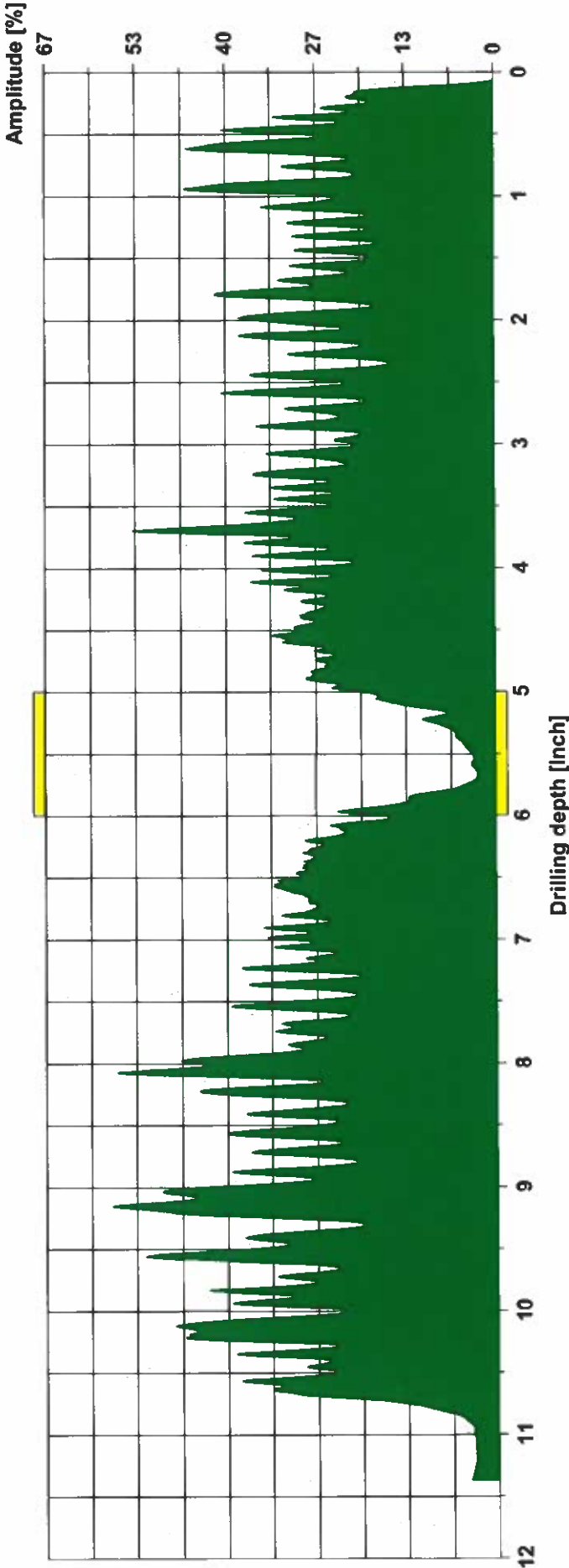
Consistent relative density profile.

Measuring / object data

Measurement no. : 3
ID number : 23B
Drilling depth : 11,370 "
Date : 02.09.2026
Time : 12:51:01
Feed speed : 59 "/min
Needle speed : 3500 r/min
Needle state : ---
Tilt : +6°
Offset : 83/274
Avg. curve : off
Diameter :
Level :
Direction :
Species :
Location :
Name :

Wood Inspector

Off



Assessment

	From	5,00 "	to	6,00 "	:	Pith
	From	0,00 "	to	0,00 "	:	
	From	0,00 "	to	0,00 "	:	
	From	0,00 "	to	0,00 "	:	
	From	0,00 "	to	0,00 "	:	
	From	0,00 "	to	0,00 "	:	

Comment

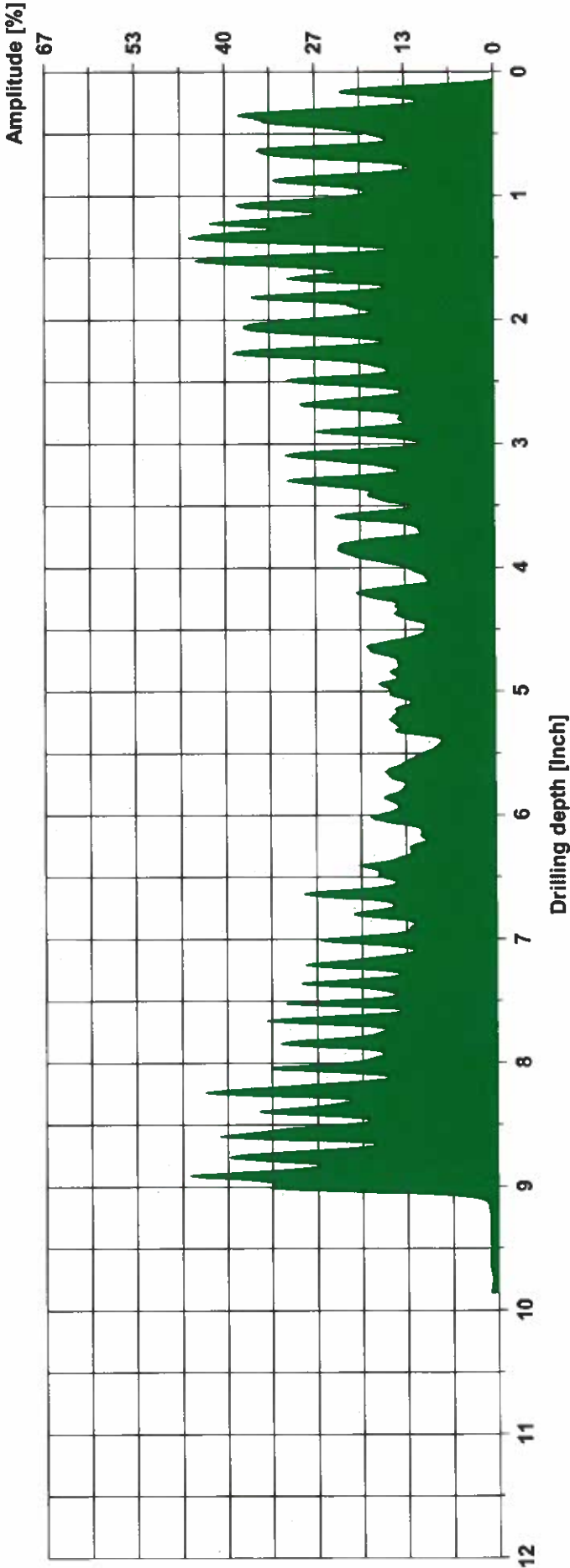
Consistent relative density profile. The 5" to 6" depths are likely pith and/or decay in the pith prior to felling. Not suspicious internal decay.

Measuring / object data

Measurement no. : 2
ID number : 27A
Drilling depth : 9.858 "
Date : 02.09.2026
Time : 12:49:32
Feed speed : 59 "/min
Needle speed : 3500 r/min
Needle state : --
Tilt : +3°
Offset : 84/272
Avg. curve : off
Diameter :
Level :
Direction :
Species :
Location :
Name :

Wood Inspector

Off



Assessment

From 0,00 " to 0,00 " :
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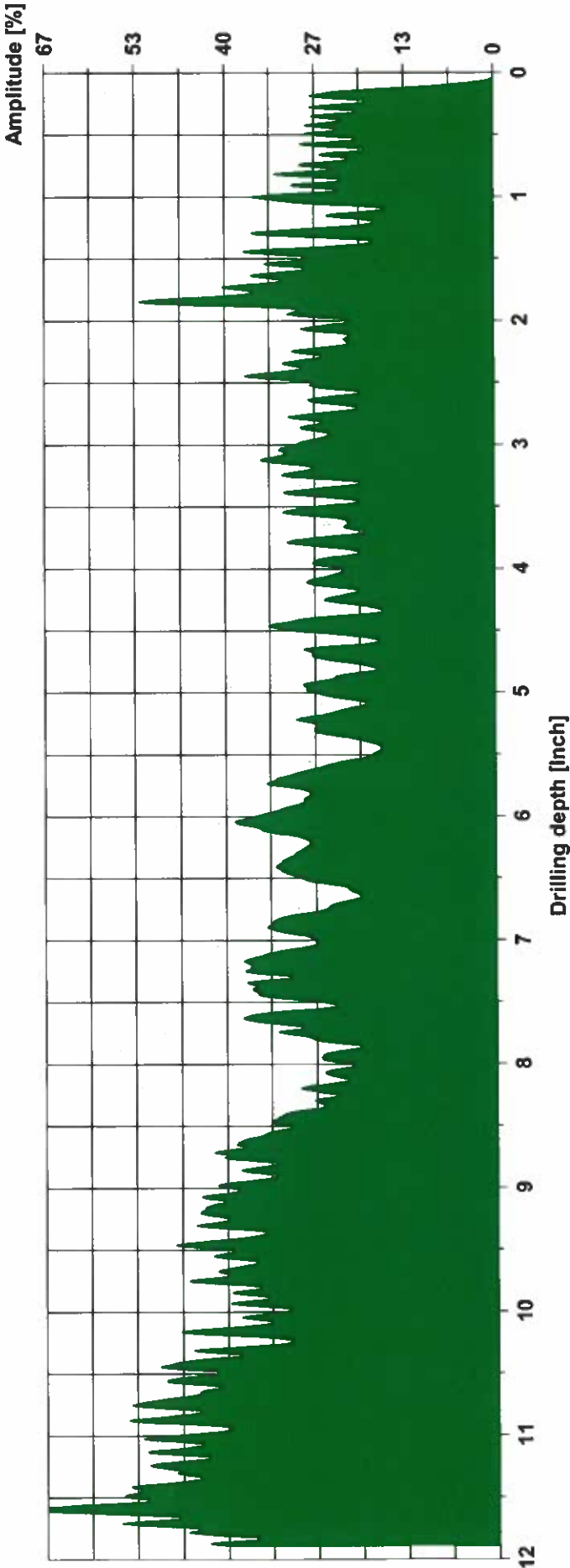
Consistent relative density profile.

Measuring / object data

Measurement no. : 11
ID number : 41A
Drilling depth : 11.894"
Date : 02.09.2026
Time : 14:49:41
Feed speed : 59 "/min
Needle speed : 3500 r/min
Needle state : ---
Tilt : +2°
Offset : 58/270
Avg. curve : off
Diameter :
Level :
Direction :
Species :
Location :
Name :

Wood Inspector

Off



Assessment

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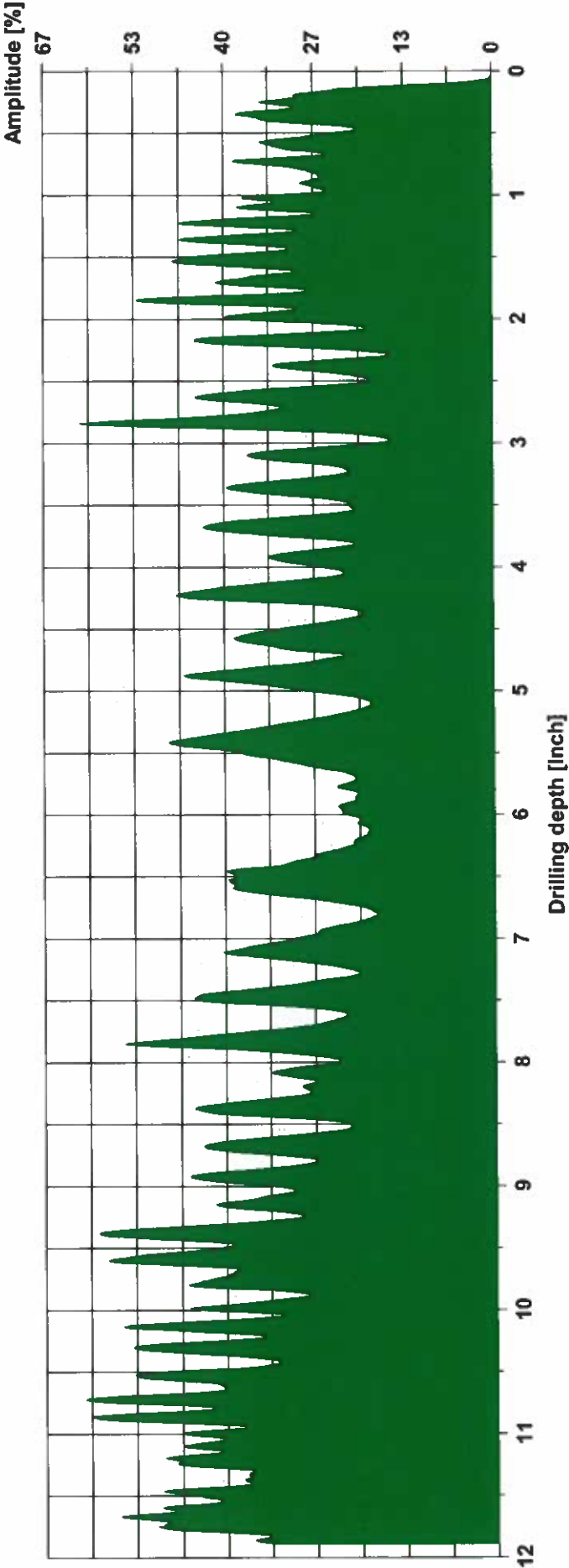
Consistent relative density profile.

Measuring / object data

Measurement no. : 9
ID number : 43B
Drilling depth : 11.894 "
Date : 02.09.2026
Time : 14:36:43
Feed speed : 59 "/min
Needle speed : 3500 r/min
Needle state : ---
Tilt : +4°
Offset : 57/272
Avg. curve : off
Diameter :
Level :
Direction :
Species :
Location :
Name :

Wood Inspector

Off



Assessment

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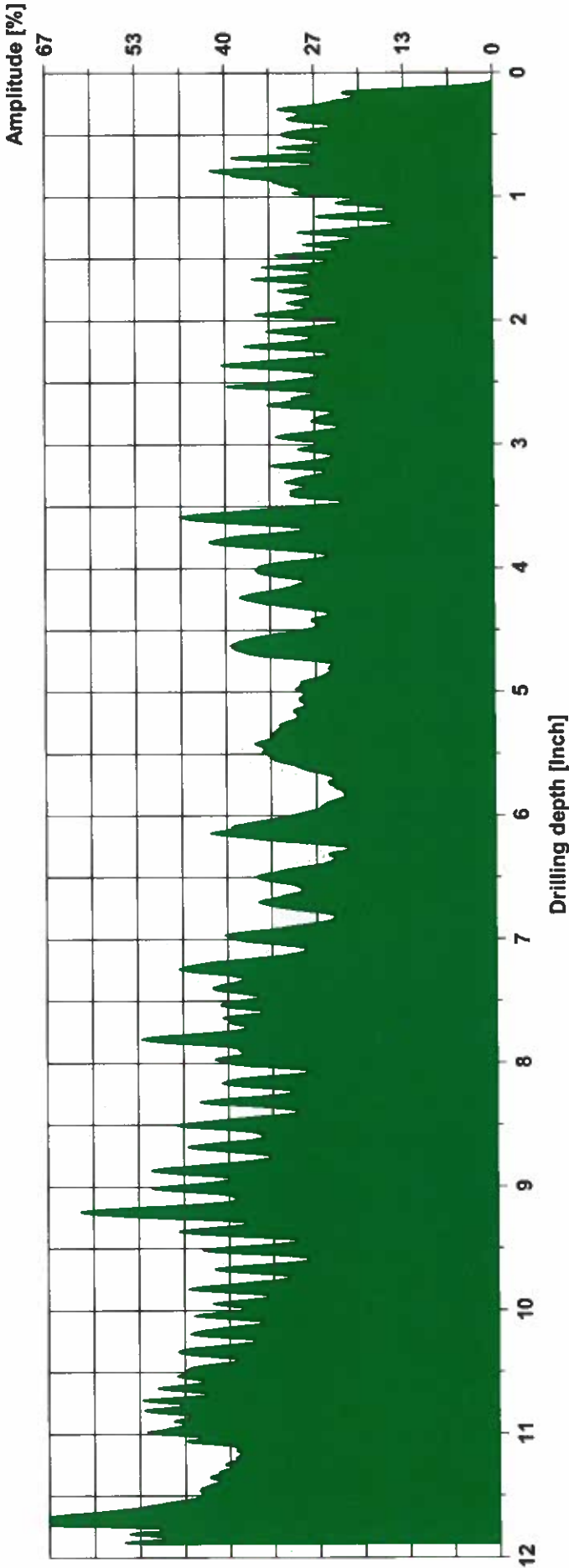
Consistent relative density profile.

Measuring / object data

Measurement no. : 10
ID number : 45A
Drilling depth : 11.894 "
Date : 02.09.2026
Time : 14:43:28
Feed speed : 59 "/min
Needle speed : 3500 r/min
Needle state : --
Tilt : -3°
Offset : 57/273
Avg. curve : off
Diameter :
Level :
Direction :
Species :
Location :
Name :

Wood Inspector

Off



Assessment

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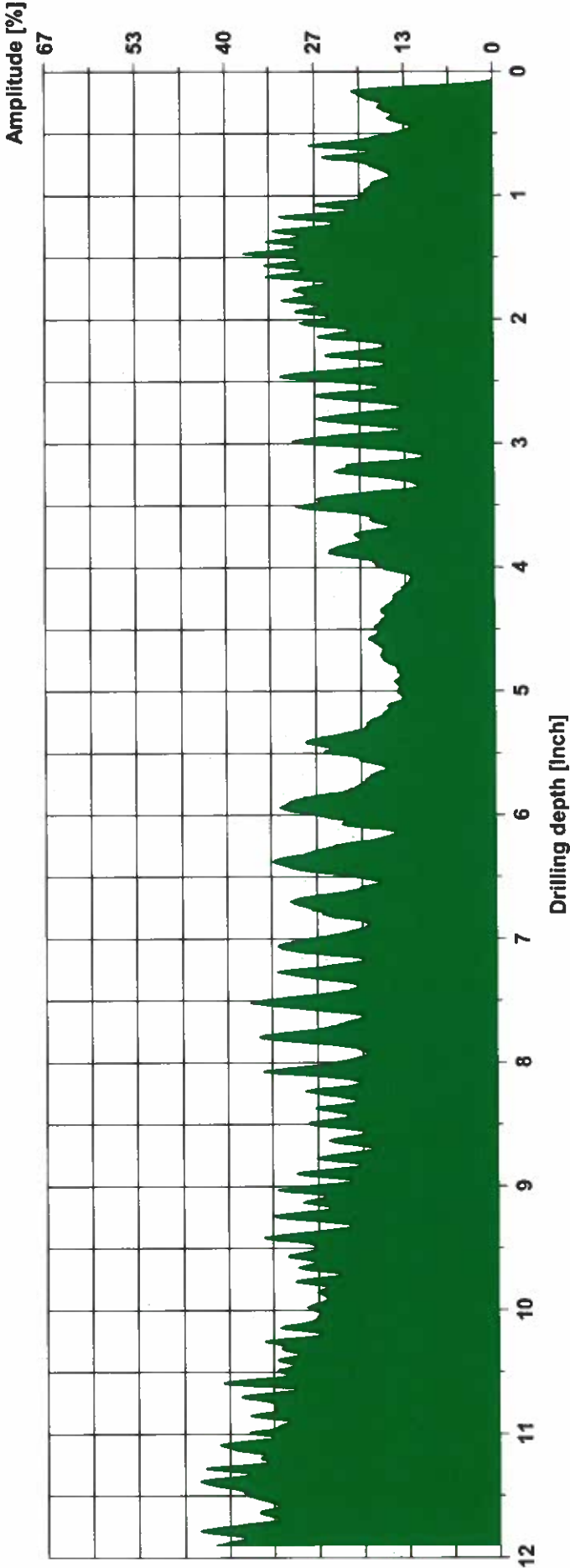
Consistent relative density profile.

Measuring / object data

Measurement no. : 16
ID number : 45B
Drilling depth : 11.902 "
Date : 02.09.2026
Time : 15:05:41
Feed speed : 59 "/min
Needle speed : 3500 r/min
Needle state : --
Tilt : +2°
Offset : 54/270
Avg. curve : off
Diameter :
Level :
Direction :
Species :
Location :
Name :

Wood Inspector

Off



Assessment

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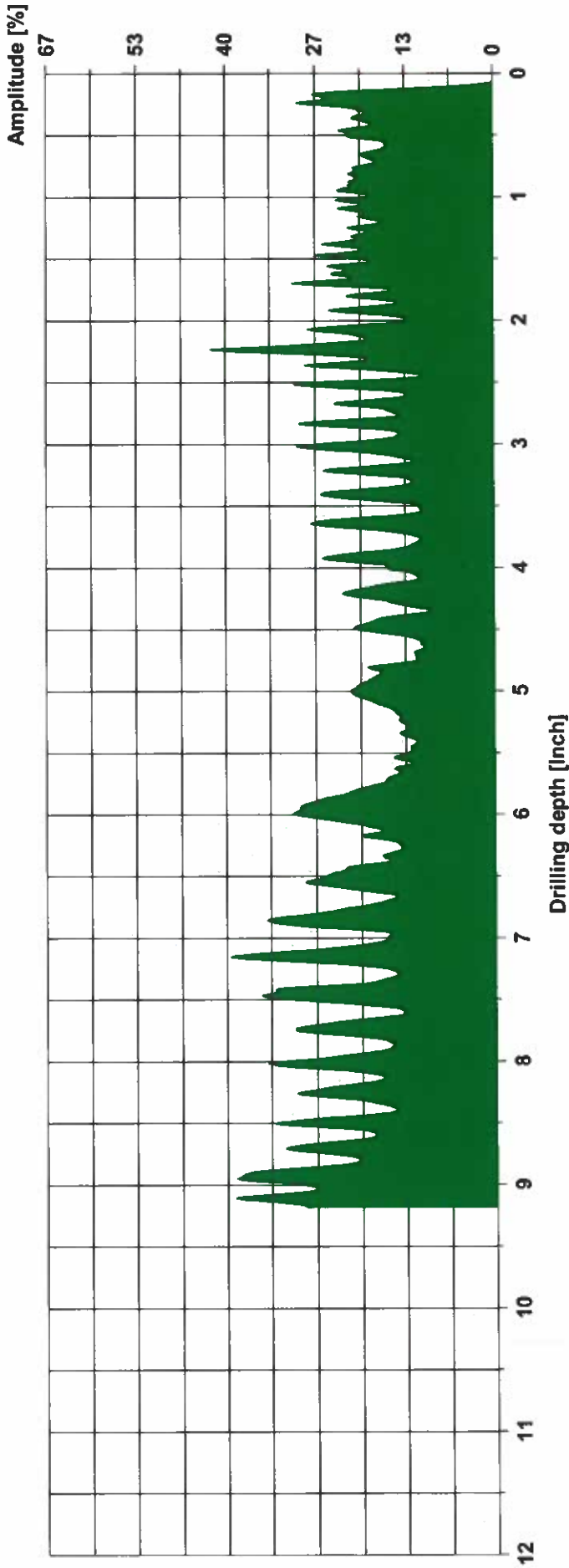
Consistent relative density profile.

Measuring / object data

Measurement no. : 12
ID number : 46A
Drilling depth : 9,181 "
Date : 02.09.2026
Time : 14:53:19
Feed speed : 59 "/min
Needle speed : 3500 r/min
Needle state : ---
Tilt : +3°
Offset : 57/269
Avg. curve : off
Diameter :
Level :
Direction :
Species :
Location :
Name :

Wood Inspector

Off



Assessment

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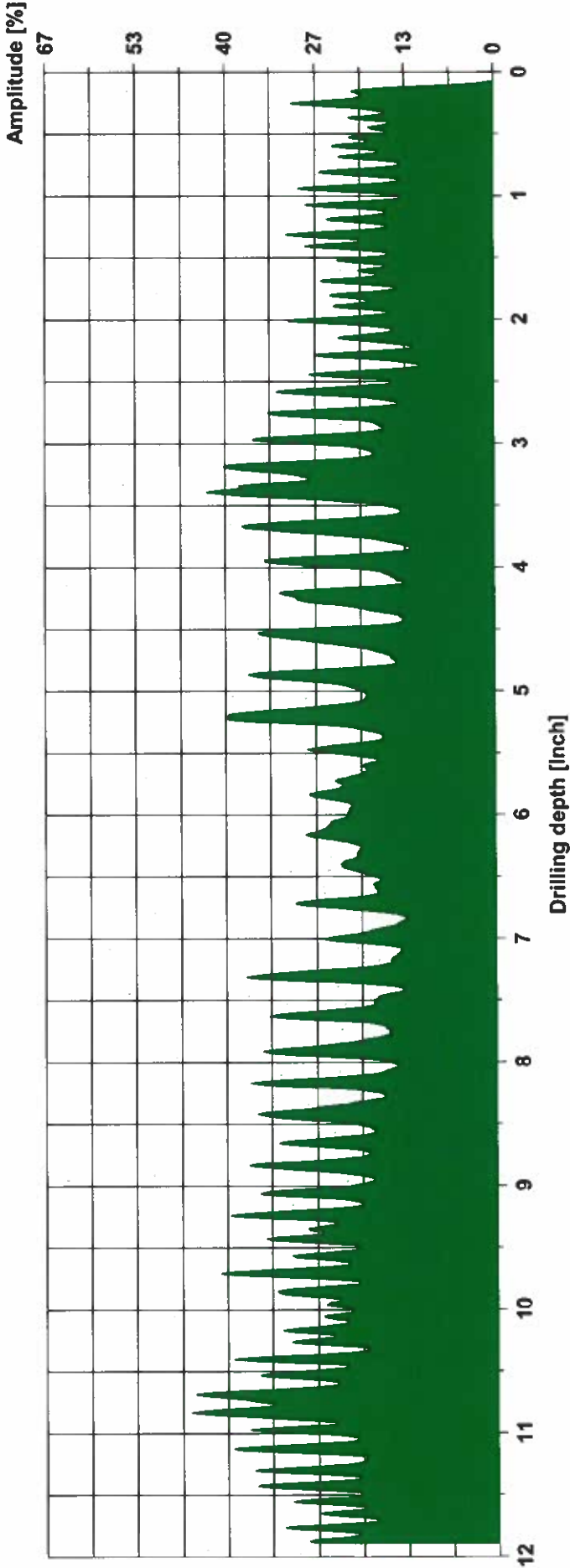
Consistent relative density profile.

Measuring / object data

Measurement no. : 14
ID number : 47A
Drilling depth : 11.890 "
Date : 02.09.2026
Time : 15:00:41
Feed speed : 59 "/min
Needle speed : 3500 r/min
Needle state : ---
Tilt : -4°
Offset : 55/278
Avg. curve : off
Diameter :
Level :
Direction :
Species :
Location :
Name :

Wood Inspector

Off



Assessment

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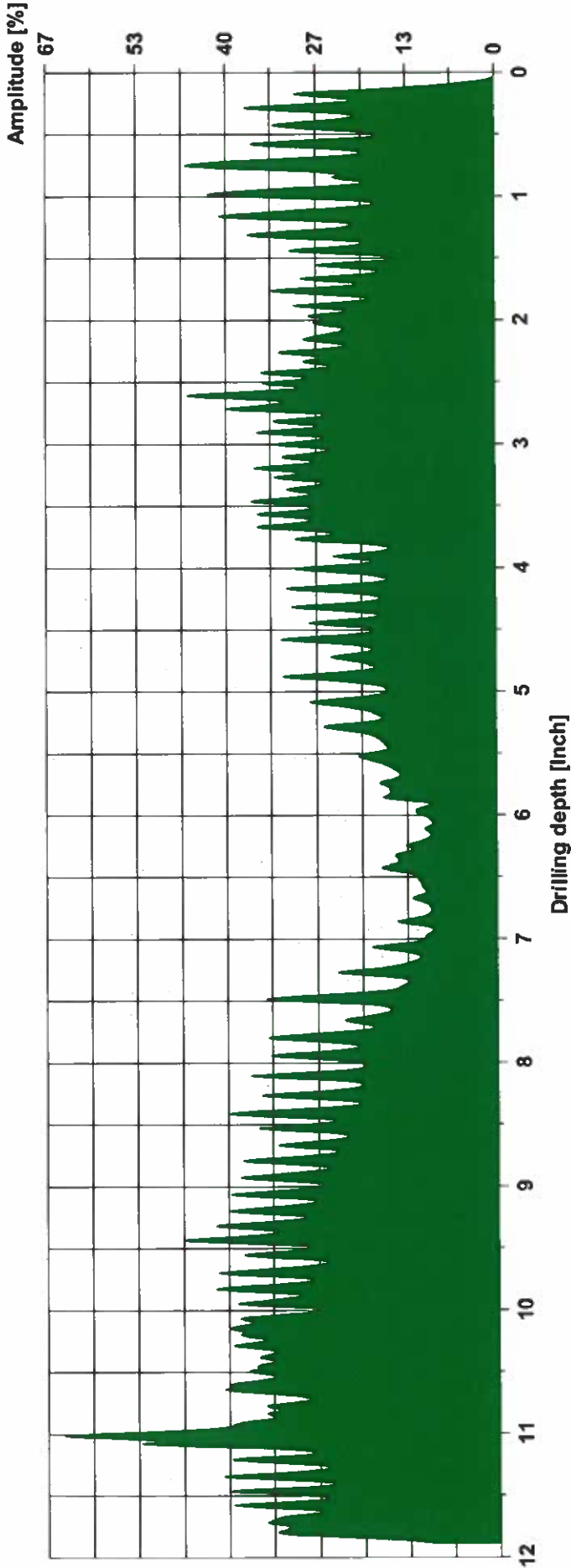
Consistent relative density profile.

Measuring / object data

Measurement no. : 15
ID number : 48A
Drilling depth : 11.886 "
Date : 02.09.2026
Time : 15:02:49
Feed speed : 59 "/min
Needle speed : 3500 r/min
Needle state : ---
Tilt : +7°
Offset : 55/270
Avg. curve : off
Diameter :
Level :
Direction :
Species :
Location :
Name :

Wood Inspector

Off



Assessment

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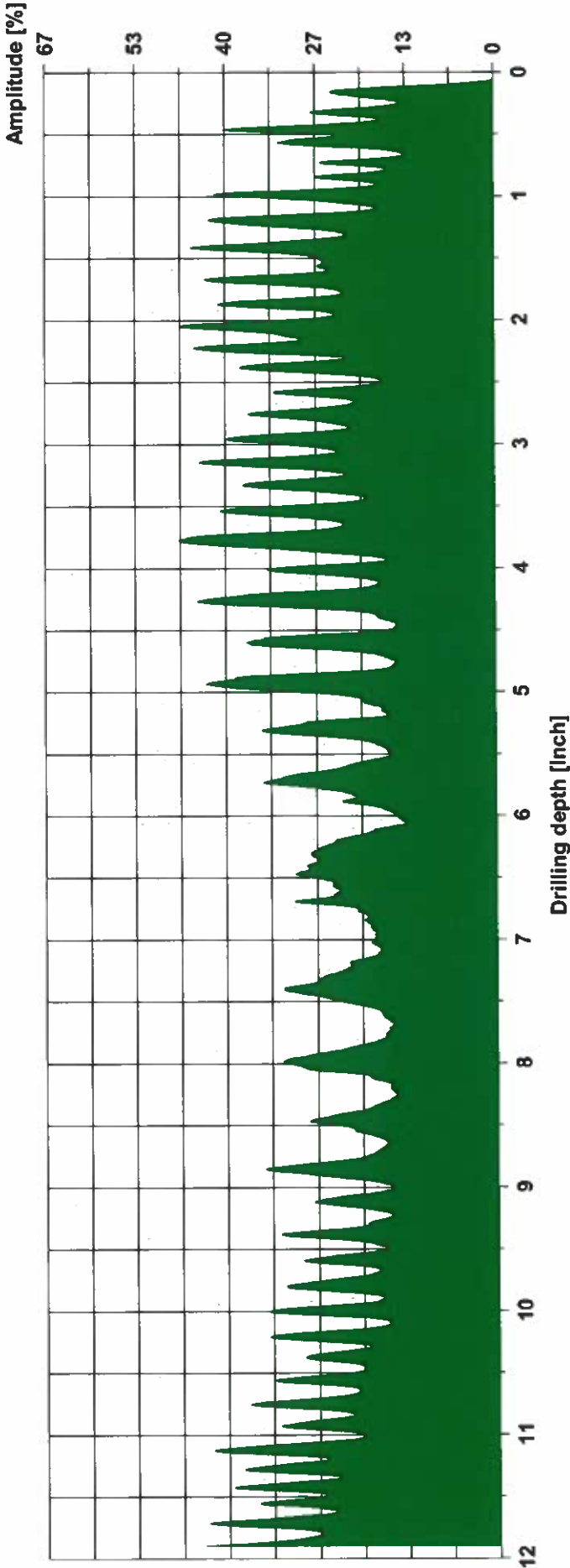
Consistent relative density profile.

Measuring / object data

Measurement no. : 13
ID number : 50A
Drilling depth : 11.898 "
Date : 02.09.2026
Time : 14:58:47
Feed speed : 59 "/min
Needle speed : 3500 r/min
Needle state : ---
Tilt : 0°
Offset : 57/279
Avg. curve : off
Diameter :
Level :
Direction :
Species :
Location :
Name :

Wood Inspector

Off



Assessment

☐ From 0,00 " to 0,00 " :
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Comment

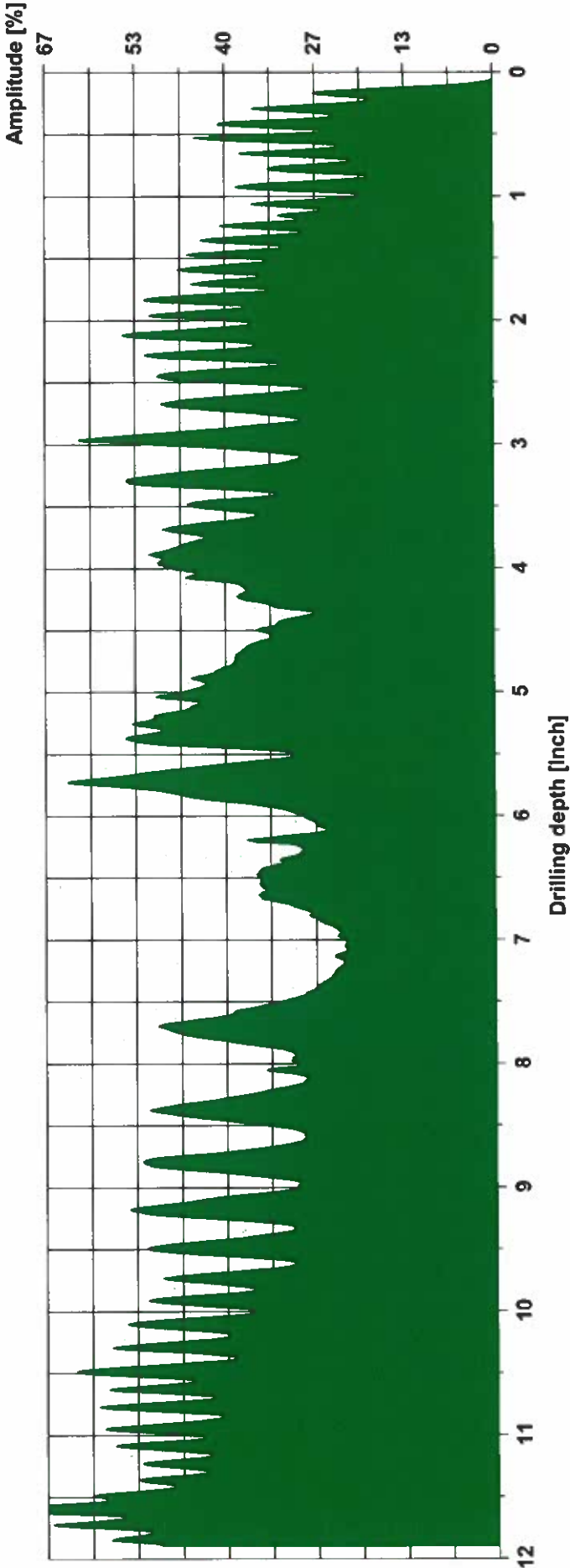
Consistent relative density profile.

Measuring / object data

Measurement no. : 8
ID number : 51B
Drilling depth : 11.898 "
Date : 02.09.2026
Time : 14:30:13
Feed speed : 59 "/min
Needle speed : 3500 r/min
Needle state : ---
Tilt : -6°
Offset : 60/274
Avg. curve : off
Diameter :
Level :
Direction :
Species :
Location :
Name :

Wood Inspector

Off



Assessment

☐ From 0,00 " to 0,00 " :
☐ From 0,00 " to 0,00 " :
☐ From 0,00 " to 0,00 " :
☐ From 0,00 " to 0,00 " :
☐ From 0,00 " to 0,00 " :
☐ From 0,00 " to 0,00 " :

Comment

Consistent relative density profile.



10/12/2026

Mr. Bryan Chadwick, Town Manager
Ms. Heather Finnell, Town Clerk
Town of Holden Beach
110 Rothschild Street
Holden Beach, NC 28462

RE: Formal Condemnation of the Holden Beach Fishing Pier Pursuant to N.C.G.S. § 160D-1119

441 Ocean Boulevard West, Holden Beach, NC

Based on MidAtlantic Engineering Partners Underwater Inspection Report dated October 8, 2026 (Project No. HLD-2601) and Separate Chief Building Official Assessment of Upper Structure

Dear Mr. Chadwick and Ms. Finnell:

As Planning & Inspections Director for the Town of Holden Beach, and pursuant to the authority granted under Article 11 of Chapter 160D of the North Carolina General Statutes (Building Code Enforcement), I have reviewed the October 8, 2026, underwater inspection report prepared by MidAtlantic Engineering Partners for the timber substructure of the Holden Beach Fishing Pier. Separately, and outside the scope of that engineer's report, I have assessed the upper structure based on field photographs and visual inspection. Based on these findings, I hereby determine that the pier appears especially dangerous to life and shall be held to be unsafe under N.C.G.S. § 160D-1119(a).

Statutory Authority

N.C.G.S. § 160D-1119(a) provides:

"Every building that shall appear to the inspector to be especially dangerous to life because of its liability to fire or because of bad condition of walls, overloaded floors, defective construction, decay, unsafe wiring or heating systems, inadequate means of egress, or other causes shall be held to be unsafe, and the inspector shall affix a notice of the dangerous character of the structure to a conspicuous place on the exterior wall of the building."

The statute further provides procedures for notice, administrative hearing, and orders to repair, close, vacate, or demolish under N.C.G.S. §§ 160D-1121 and 160D-1122 in the event corrective action is not promptly taken.

Findings Supporting Condemnation

The MidAtlantic Engineering Partners report (October 8, 2026, Project HLD-2601) assigns an overall Condition Assessment Rating (CAR) of **Poor** and documents widespread major-to-severe defects in the timber substructure. **Separately and outside the scope of the MidAtlantic engineer's report**, field photographs and a visual assessment of the upper structure (decking, supporting top members, guardrail system, and fasteners) performed by the Chief Building Official document extensive additional deterioration. These upper-structure conditions further demonstrate defective construction, decay, and deterioration that render the structure especially dangerous to life under N.C.G.S. § 160D-1119(a).

Substructure defects documented in the MidAtlantic report include:

Multiple timber piles rated Severe or Major, including Pile 17A (100% non-bearing; cap supported solely by fishplates), Pile 52A (75% non-bearing due to split), Piles 25B and 40A (50% non-bearing due to splits), Pile 52B (marine borer damage with >75% section loss), Pile - 5A (heavy rot with >75% section loss), and Pile 49A (broken approximately 7 feet from the top).

- Sixteen (16) diagonal braces rated Severe as broken and/or missing.
- Heavy corrosion of lower-elevation hardware with 50–75% section loss.
- Two pile caps (Bents 26 and 27) rated Major due to heavy end-grain rot with 35–50% section loss.

Additional obvious deterioration of supporting top members, decking, guardrail system, and fasteners observed outside the MidAtlantic report (based on field photographs and Chief Building Official assessment) includes:

- Advanced weathering, checking, splitting, and surface decay of timber pile caps, beams, and joists that support the decking, with visible gaps and loss of bearing at multiple pile-to-cap connections.
- Heavily corroded and deteriorated fasteners, bolts, washers, and connection hardware throughout the upper structure, exhibiting extensive rust, section loss, and staining that compromise connection integrity.
- Weathered and deteriorated timber decking boards and supporting members visible from below, showing checking, cracking, and long-term exposure damage.
- Guardrail system components and associated connections showing weathering, corrosion of fasteners, and general deterioration consistent with prolonged marine exposure.
- Split and decayed ends of timber members at connection points, with evidence of displacement and reduced load transfer capacity.
- Overall advanced weathering of the timber structure above the pile caps, including faded, checked, and eroded surfaces on horizontal and diagonal members.

- At the low tide line, a measured 1.5-foot racking of the top of the structure, both vertically and horizontally and racked parallel of center, indicating a complete failure of alignment and structural continuity at that section.

These upper-structure conditions, identified independently of and outside the MidAtlantic engineer's report, when combined with the documented substructure defects, constitute defective construction and decay within the meaning of N.C.G.S. § 160D-1119(a). The structure is exposed to direct ocean wave action, and the combination of non-bearing and broken piles, missing lateral bracing, severely corroded fasteners, deteriorated top members, and the 1.5-foot racking at the low tide line creates an unacceptable risk of progressive structural failure. The pier remains closed due to these safety concerns.

The MidAtlantic report identifies recommended substructure repairs with a Class 5 Opinion of Probable Cost of approximately \$677,795. **Based on the Chief Building Official's assessment of the upper structure (decking, supporting members, guardrail system, and fasteners), an additional Class 5 Opinion of Probable Cost of \$500,000 is estimated for necessary repairs to the upper structure.** These upper-structure deficiencies and the associated cost estimate were developed outside the scope of the MidAtlantic report. The combined Class 5 Opinion of Probable Cost of approximately \$1,177,795 must be addressed, along with proper engineered design, permits, and inspections, prior to any return of the pier to service.

Action Taken and Recommended Next Steps

Pursuant to N.C.G.S. § 160D-1119(a), I am directing that a notice of the dangerous character of the structure be affixed to a conspicuous place on the pier. The pier shall remain closed to all public access and use.

I further recommend that the Board of Commissioners be advised of this determination and that the Town proceed under the procedures of N.C.G.S. §§ 160D-1121 and 160D-1122 as necessary. Given that the Town is the owner of the structure, any order to repair, close, or take other corrective action will be directed accordingly. No reopening of the pier should occur until the structural deficiencies identified in the MidAtlantic report and the additional upper-structure conditions documented separately by the Chief Building Official have been fully remediated under proper engineered design, permits, and inspections, and the structure has been verified as no longer unsafe.

Please place this determination, the MidAtlantic report, and the supporting field photographs on the agenda of the Board of Commissioners for formal acknowledgment and direction regarding next steps.

I am available to discuss these findings or the statutory process in greater detail.

Respectfully, Timothy D Evans, Planning and Inspections Director, BIII, EIII, FIII, PIII, MIII,
CPM



