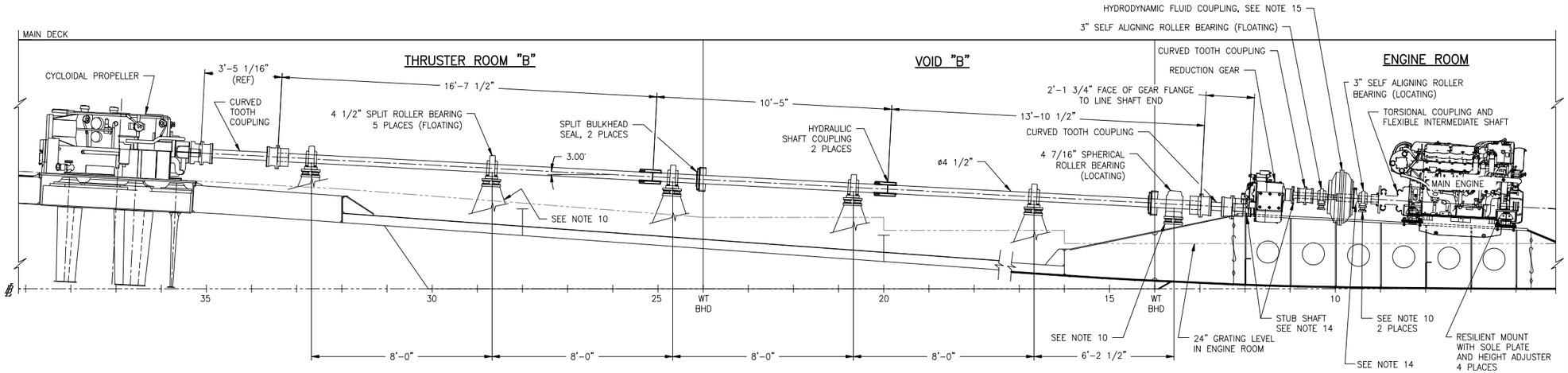

ELEVATION 1–4C
PROPULSION SHAFTING
"B" END SHOWN – "A" END SIM
SCALE: 3/8"=1'-0"

REVISION HISTORY

REV	ZONE	DESCRIPTION	DWN	DATE	APVD

GENERAL NOTES

1. VESSEL TO BE CONSTRUCTED IN ACCORDANCE WITH 46 CFR SUBCHAPTER H REGULATIONS.
2. FRAME SPACING SHOWN IS 24"
3. DIMENSIONS PROVIDED ARE FOR CONTRACT GUIDANCE AND REFERENCE ONLY PENDING FINAL COMPONENT SELECTION, DETAILED SHAFTING DESIGN, AND BUILDER'S VIBRATION ANALYSIS. SEE REF 1.
4. ALL SECTIONS OF SHAFTING SHALL BE STRAIGHT WITH RESPECT TO THE CENTERLINE WITHIN A TOLERANCE OF 0.005 INCHES IN 48 INCHES.
5. DETAILED PLANS WITH FINAL EQUIPMENT SELECTIONS, MACHINING DETAILS, AND MATERIAL SPECIFICATIONS FOR PROPULSION SHAFTING, COUPLINGS, AND COUPLING BOLTS SHALL BE SUBMITTED TO OWNER AND USCG FOR APPROVAL.
7. INSTALL AND ALIGN ENGINES, GEARS, BEARINGS, PROPELLERS, AND COUPLINGS IN STRICT ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
8. RTD TYPE BEARING TEMPERATURE DETECTORS SHALL BE INSTALLED FOR ENGINE ROOM READING OF SHAFT SEAL AND LINE SHAFT BEARING TEMPERATURES. SEE REF 1.
9. SHAFTING SHALL BE FABRICATED FROM ASTM 1045 TGP SHAFT STOCK.
10. DESIGN AND PROVIDE BEARING FOUNDATIONS TO PERMIT SHAFT ALIGNMENT AND RIGIDLY SUPPORT BEARINGS.
11. FABRICATE ALUMINUM SAFETY GUARDS OVER SHAFTING FOR PERSONNEL PROTECTION AND TO PREVENT DAMAGE TO SHAFTING PER REF 1.
12. GEARS, HYDRODYNAMIC FLUID COUPLINGS, AND BEARINGS SHALL BE MOUNTED ON ADJUSTABLE STEEL CHOCKS.
13. BED RESILIENT ENGINE MOUNTS USING AN APPROVED POURABLE CHOCKING COMPOUND. ARRANGEMENT AND INSTALLATION PROCEDURE IS TO BE IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS TO THE SATISFACTION OF THE ATTENDING SURVEYOR.
14. CONTRACTOR SHALL DESIGN AND PROVIDE FLANGED STUB SHAFTS MATCHING GEAR FLANGES AND STUB SHAFTS WITH ADAPTING FLANGES TO SUPPORT HYDRODYNAMIC FLUID COUPLING TO SUIT FINAL EQUIPMENT.
15. CONTRACTOR SHALL FABRICATE A PROTECTIVE COVER OVER, AND AN OIL CATCH BELOW, EACH HYDRODYNAMIC FLUID COUPLING. ARRANGE TO MEET COUPLING MANUFACTURER'S REQUIREMENTS. OIL CATCH SHALL HAVE A VOLUME GREATER THAN THE FLUID COUPLING OIL CAPACITY.

MACHINERY DATA

MAIN ENGINES:	600 HP @ 1800 RPM
REDUCTION GEARS:	VERTICAL OFFSET, 2.5:1 RATIO
CYCLOIDAL PROPELLERS:	470 KW @ 670 RPM, 5 X 1000MM BLADES

REFERENCES

1. 16101-200-832-1 TECHNICAL SPECIFICATIONS
2. 16101-200-201-1 MACHINERY ARRANGEMENT
3. 16101-200-180-1 PROPULSION UNIT FOUNDATIONS

NORTH CAROLINA FERRY SYSTEM
8500 SHIPYARD RD WANNS HARBOR, NC 27953

MICHAEL E. JOHNSON STATE OF WASHINGTON 49387 REGISTERED PROFESSIONAL ENGINEER
Michael E. Johnson
7/28/2017

Elliott Bay Design Group
North Carolina, PLLC

CLIENT: NORTH CAROLINA D.O.T.
RALEIGH, NORTH CAROLINA

PROJECT: NEW RIVER CLASS FERRY

TITLE: SHAFT ARRANGEMENT

SIZE	DWG NO.	REV
D	16101-200-243-1	–

SCALE	FILE NAME	SHEET	OF
AS NOTED	16101-200-243-1–	1	1

DWN	MOD	CKD	APVD	APVD DATE
JEH		NJB	MEJ	7/28/2017

7/28/2017 3:35:38 PM