Performance Work Statement (PWS)
M4A3 Tank Salvage, Recovery and Transportation
National Museum of the Marine Corps (NMMC)

1. Background

The National Museum of the Marine Corps (NMMC) preserves and exhibits the material history of the U.S. Marine Corps; honors the commitment, accomplishments, and sacrifices of Marines; supports recruitment, training, education, and retention of Marines; and provides the public with universally accessible platforms for the exploration of Marine Corps history. The NMMC collects and provides responsible stewardship for objects related to the history of the Marine Corps and individual Marines.

2. Scope

The purpose of this requirement is to recover M4A3 Sherman s/n 50296, currently located at Range 106 on the west side of Marine Corps Base (MCB) Twentynine Palms. This will require a crane to lift the 30-ton tank and load onto an RGN semi-trailer for transportation back to the NMMC's Museum Support Facility (MSF) at 17001 Interstate Dr, Dumfries, VA.

In addition to recovering s/n 50296, services are also required to salvage usable parts from the hull of M4A3 s/n 62179 also located on MCB Twentynine Palms. Parts required are the two runs of tracks, all ten road wheels, road wheel arms, two drive sprockets, idler wheel, dozer mount and six return rollers (with mounting hardware and retaining brackets). These will need to be palletized and shipped to the same address as above.

3. Performance Requirements

3.1. **Tasks:** The Contractor shall provide a crane capable of lifting a 34-ton M4A3 Sherman tank, schedule a truck equipped with an RGN semi-trailer and load the tank for transportation back to the National Museum of the Marine Corps Museum Support Facility at 17001 Interstate Dr, Dumfries, VA. In addition to lifting and loading the tank, the contractor shall also provide a team to salvage parts from a second Sherman tank, palletize those specific recovered parts, load them on another truck and transport them back to the same location.

3.1.1. Within 10 days of contract award, Contractor shall contact TPOC to schedule kick off meeting to establish goals and desired end state.

3.1.2. Post kick-off, the Contractor shall furnish a written work plan and transportation plan for the project within the next two weeks.

3.1.3. The contractor shall furnish a crane capable of lifting a WWII M4A3 Sherman Tank (34 tons, 68,000lbs) and a truck with an RGN semi-trailer to transport the tank from Range 106 at MCB Twentynine Palms to the NMMC MSF, Suite 100. All four lifting points on the tank are functional. There are no major obstructions surrounding the tank, but there are power lines within the vicinity. Roads are gravel.

3.1.3.1. It is the Contractor's responsibility to define the requirements for rigging and lifting the tank onto the transport truck.

3.1.3.2. All representations regarding structural integrity and lifting points are informational only. The Contractor is solely responsible for verifying the structural integrity of all lifting points, conducting safe rigging engineering, and executing a safe lift.The tank shall be tarped and all hatches covered during transport.

3.1.3.3. The tank is not mobile. It has some functional road wheels and may roll, but overall it is not mobile.

3.1.4. The Contractor shall provide a crane capable of lifting the same Sherman Tank off the semi-trailer at the delivery location in Dumfries, VA. The Contractor is responsible for offloading the tank, NMMC staff shall place it in its final position in storage.

3.1.5. Contractor shall provide a crew and all necessary equipment (forklifts, skid steers, shovels, torches, etc) to remove the following components from a second M4A3 tank hull at a nearby location on MCB Twentynine Palms. TPOC shall be present during all salvage work to provide subject matter expertise and guidance for removing components of historical significance. TPOC shall be onsite during parts removal to determine salvageability.

3.1.5.1. Both track runs. The lower portion of the left side track run is partially buried in an inch or two of sand. The right track run is more difficult to discern, but a portion appears to be buried. Whatever remains of the track run must be salvaged. A complete track run of 79 links weighs 5000lbs.

3.1.5.1.1. The tracks are buried under a few inches of loose sand. They should come up with relative ease.

3.1.5.1.2. The tracks must be secured without any cutting.

3.1.5.2. Unbolt or otherwise remove the three complete bogey trucks from the left side of the hull and the forward bogey truck on the right side and palletize. Each unit complete weighs roughly 800lbs. Four total. All components of the bogey trucks shall be preserved for future use.

3.1.5.3. The single bulldozer mount on the right side of the suspension must be unbolted and palletized. Mount attachment points for the bulldozer mount shall be preserved for future use and duplication.

3.1.5.4. The rear two bogey trucks on the right side are damaged, but all road wheels, road wheel arms present must be recovered and palletized.

3.1.5.5. The vertical, rectangular engine bay door stop on the left side of the upper hull must be torch-cut from the upper hull, preserving as much original material as possible. The right side is missing, so that is not an issue.

3.1.5.6. Idler wheel (only one present) must be removed and palletized.

3.1.5.7. Two drive sprockets (the outer face of the left drive sprocket is gone, but the inner face and the hub are still present). The right sprocket is intact. Both sprockets must be removed and palletized.

3.1.5.8. The tank hull (s/n 62179) will remain on MCB Twentynine Palms as a target/navigation point.

3.1.6. All parts are required to be palletized and secured with steel banding prior to shipping.

3.1.6.1. Palletizing with steel strapping is acceptable. The parts will not deteriorate further traveling across the country.

3.1.6.2. NMMC estimates that the vendor will need six pallets for the bogey trucks and tracks. Determination of number of pallets necessary will be made by vendor. Splitting track runs for easier palletization is possible, but must be done while protecting track end connectors, connector bolts, and track links.

3.1.7. Smaller parts (e.g. engine deck door stop) shall be boxed prior to palletizing.

3.1.8. The Contractor shall furnish all necessary blocking, bracing, and securement equipment.

3.1.9. NMMC shall provide a forklift and staff to offload the palletized parts and boxes at the delivery destination.

4. Applicable Information and/or Documents

4.1. **Government Technical Point of Contact (TPOC):** TPOC contact information to be provided to the Contractor at time of award.

4.1.1. Jonathan Bernstein, Arms & Armor Curator, National Museum of the Marine Corps – Project manager
4.1.2. Andres Fuentes, MCB Twentynine Palms Range Management Officer – Site Manager

4.2. **Period of Performance**: The Government intends to award a Firm Fixed Price (FFP) contract for this requirement. The tank and parts shall be delivered to the NMMC MSF within 90 days of contract award.

4.3. **Place of Performance:** M4A3 50296 is located in the parking lot area for Range 106 on the northwestern side of Marine Corps Air-Ground Combat Center, MCB Twentynine Palms, California. M4A3 62179 is several miles further into the range complex. Close coordination with the MCB Twentynine Palms Range Management Officer at Range Control is critical for access and safe operation in the range areas. Access will only be granted through MCAGCC Range Management coordination.

4.3.1. Tank 50296 location: To be provided upon contract award

4.3.2. Tank 62179 location: To be provided upon contract award

4.4. **Delivery Address:** In coordination with the TPOC, delivery shall arranged to arrive during regular business hours Monday-Friday 0730-1600. Deliverables shall be delivered in coordination with the TPOC to:

NMMC Museum Support Facility (MSF)
17001 Interstate Dr. Ste. 100
Dumfries, VA 22026-2121

4.5. **List of Deliverables:**

Deliverable Name	Description	Frequency or Required Date	Method of Delivery
Work/Transportation Plan	Written plan outlining scope of work, planned methods of accomplishment and how the tank and parts will be loaded and transported.	NLT two weeks post kick off meeting.	Email to TPOC
M4A3 Sherman s/n 50296	Transport Tank to NMMC MSF	Within 90 days of contract award	Deliver to MSF
Drive Sprocket	Drive gear at forward end of tank. Left only has the internal sprocket face, right side has both inner and outer faces on the hub. Rough Dimensions: 36” in diameter Estimated Weight:100lbs per face	Within 90 days of contract award	Deliver to MSF
Three complete left side, one forward right side bogey trucks	The three bogey trucks on the left side of the hull and the one farthest forward on the right side should be removed	Within 90 days of contract award	Deliver to MSF

	complete and palletized individually Rough Dimensions: Estimated Weight: 800lbs		
Right side road Wheels and road wheel arms	All of the right side road wheels, regardless of condition must be recovered along with their road wheel arms and palletized Rough Dimensions: 20" diameter Estimated Weight: 100lbs per	Within 90 days of contract award	Deliver to MSF
Idler Wheel	Only one on the left side of the tank, already detached from the hull. Rought Dimensions: 24" Estimated Weight:150lbs	Within 90 days of contract award	Deliver to MSF
Tracks	Two runs of T54E1 track. The left side looks like a complete run of 79 track links. Right side is TBD, but the entire track run, including whatever is buried is required. Both lengths should be coiled and palletized individually. Rough Dimensions: Estimated Weight:5000lbs per complete run of 79 links	Within 90 days of contract award	Deliver to MSF
Bulldozer Mounting Arm	Single Bulldozer mounting arm on the right side of the tank must be unbolted and removed intact. Rough Dimensions: Estimated Weight:	Within 90 days of contract award	Deliver to MSF
Engine Deck Door Stop	Left side vertical rectangular engine door stop must be torch cut at the base and removed, preserving as much original material as possible. Right stop is no longer present. Rough Dimensions:5" x 7" Estimated Weight:10lbs?	Within 90 days of contract award	Deliver to MSF

4.6. **Hours of Operation:** Services must be performed during normal working hours in coordination with Range Management Officer at MCB Twentynine Palms Range Control, 7:00AM – 3:00PM, Monday – Friday, except U.S. Federal Holidays. Visit Federal Holidays (opm.gov) to view the applicable listing of U.S. Federal Holidays.

4.7. **Government Furnished Equipment & Support:**

4.7.2. The TPOC shall be onsite at MCB Twentynine Palms for all lifting, loading, salvage, and packing tasks to provide subject matter expertise.

4.7.3. NMMC shall provide access to a forklift at the delivery location to assist with offloading the palletized parts and boxes.
4.7.4. NMMC shall place the tank and parts in their final positions within NMMC collections storage.

4.8. **Contractor Personnel / Qualifications:**

4.8.2. Riggers, Crane Operators, Forklift Operators: Vendor shall provide proof that the riggers, crane and forklift operators are certified to utilize their respective equipment.
4.8.3. Salvage Techs: Vendor shall provide proof that the employee(s) conducting the salvage task are certified to operate an oxy-acetylene torch and have 5 years experience utilizing this equipment.
4.8.3.1. The Contractor shall contact and coordinate with the MCB Twentynine Palms Base Fire Prevention Office for burn permit requirements.
4.8.3.2. Hot work on MCB Twentynine Palms requires compliance with OSHA 29 CFR 1910.252 (welding, cutting, brazing); a base-issued hot work permit approved by the Installation Fire Marshal; a designated fire watch operator onsite during and after operations; ABC or Class K fire extinguishers at the worksite; and contractor safety briefing completion per base regulations.
4.8.3.3. The Contractor shall have applicable certifications for operating a blowtorch on a Marine Base.
4.8.4. The Contractor shall be a shipping and transportation company that specializes in crate building, handling, packing, and transportation of museum artifacts.
4.8.5. The Contractor shall provide a certificate of insurance showing coverage for value of $250,000. Insurance shall be applicable from artifact pickup until delivery to the Museum Support Facility in Dumfries, VA.

4.9. **Travel:** The Government intends to award a Firm-Fixed Price (FFP) contract type. The Contractor is responsible for all travel/per diem related expenses required to perform this contract. Any anticipated travel costs in the performance of this contract shall be included as part of the quoted rate(s). Any travel matters associated with the performance of this contract are the sole responsibility of the Contractor. The Government shall not have any financial responsibility other than paying for the FFP on each line item.

4.10. **Security Requirements:**

4.10.1 There are no security or escort requirements for the tank and parts while in transit from California to Virginia.
4.10.2. No sensitive or classified materials are involved with this requirement.
4.10.3. Access to the tank sites shall be controlled and all Contractor staff shall be escorted by MCB Twentynine Palms Range Control and/or Cultural Resource Officer.

4.11 Environmental and Hazardous Material Considerations:
4.11.1 The paint on both tanks is lead based.
4.11.2 There is no engine in either tank. Petroleum, oil, and lubricants (POLs) will be minimal and located in the transmission and final drive housing, if any.
4.11.3 Asbestos would be restricted to the engine compartment, but with the engine gone, there should not be any asbestos present.

4.12 **Government Facility Access:**
The target sites are located on MCB Twentynine Palms. The Contractor shall follow the below instructions to obtain base access prior to performance.

- The Contractor will require a background check by MCB Twentynine Palms to obtain facility/base access prior to arrival at the work site.
    - The Contractor must provide the TPOC with the names and contact information of each Contractor employee who will need to enter MCB Twentynine Palms. The Vendor must provide this information to the TPOC no later than three (3) business days prior to the date when services on MCB Twentynine Palms are required.
- The Vendor must complete registration in the Defense Biometric Identification System (DBIDS) prior to entering MCBQ. The Vendor must possess a valid form of identification.
    - Visit the Base Access site at the link provided and follow the instructions for Contractors to obtain base access.
    - The DBIDS registration information and a list of valid forms of identification are found at: https://www.29palms.marines.mil/Staff-Offices/Special-Staff/Mission-Assurance/Provost-Marshals-Office/Visitor-Center/#dbids
    - The Vendor shall present a Government form of ID at the main entrance to MCB Quantico.

4.13 Specifications:

4.13.1 M4A3 Sherman Specifications

Length: 247 inches
Width: 105 inches
Height: 115 inches
Empty Weight: 63,000lbs
Hull alone empty weight: 18,000lbs
Complete track run weight: 5,000lbs x2
Center of gravity

4.13.2 Unexploded Ordinance (UXO) risk has been mitigated for both tank locations. Neither tank is on a live-fire range.

4.13.3 Currently, NMMC does not have access to site surveys for the two tank locations.

4.13.4 Forklift requirements – At least one 35k forklift to lift 62179's hull and support while the tracks and road wheels are removed

4.13.5 Crane requirement – 120t or larger, capable of operating on unimproved road

4.13.6 Grade and flooring support specifications at MSF:

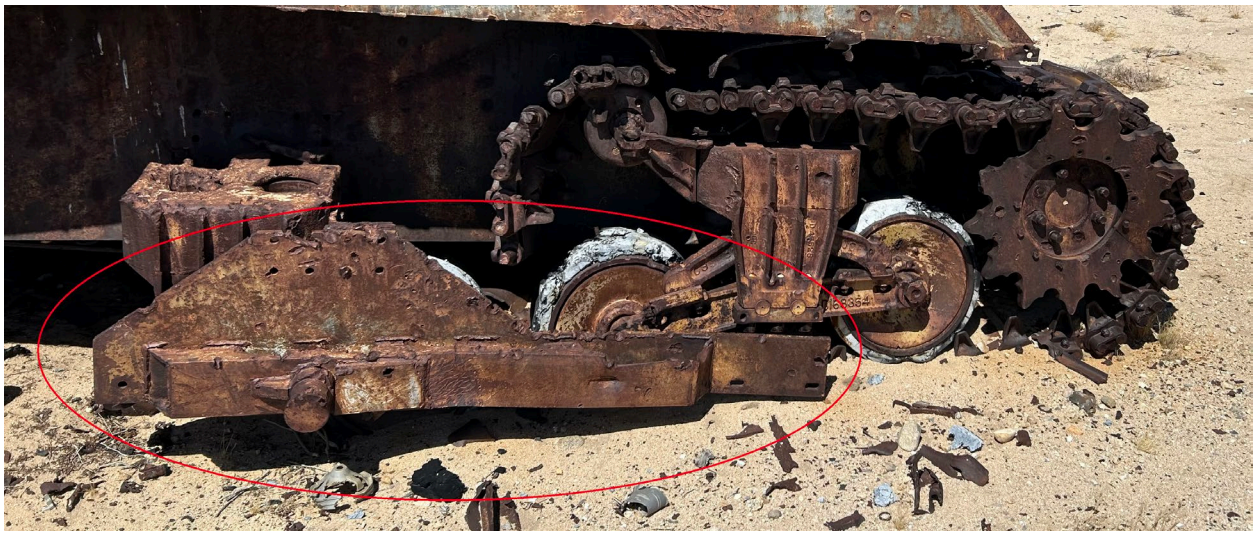
4.14 **List of Attachments:**

- Attachment 1: Tank 50296

Picture 1: Tank 1 for Transport: S/N 50296. Located in Gravel Parking Lot, 40 meters from the main road.

Picture 2: Tank 2 for Salvage: S/N 62179. It is 500 meters off of the main road and roughly 30 meters from the dirt access road.

Picture 3: Tank 62179 Bulldozer mounting arm



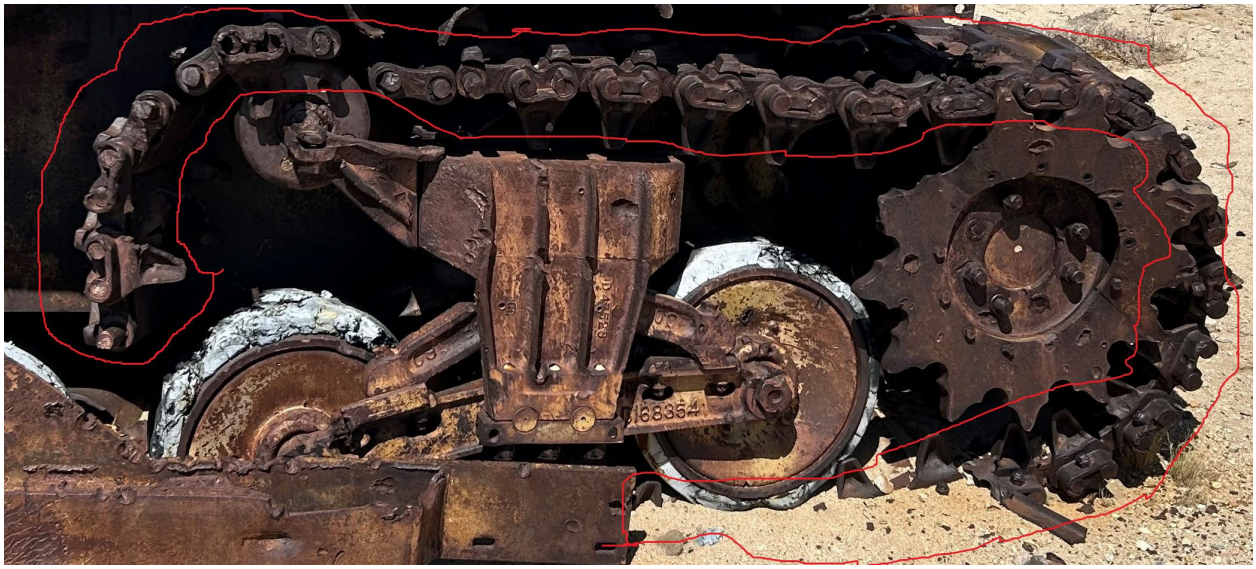
Picture 3: Tank 62179 Bogey Truck

Picture 4: Tank 62179 Engine door support block

Picture 5: Drive sprocket x2. Left side is missing outer facing, but inner face and hub are present.

Picture 6: Left side track – 79 track links per side. Left side looks complete, with the lower portion buried in 2-3 inches of sand. Entire length is required.

Picture 7: Right side track. Unsure how many of the 79 links are there. Salvage whatever is present.



Picture 8: Idler wheel (only one present)

<u>Q&A from Industry RFI:</u>

Q1: Definition of 'usable parts' from tank s/n 62179 — who determines salvageability and what disposition instructions apply to non-selected parts?

A1: NMMC TPOC does and will be on site for the parts removal. Tank hull will remain on 29 Palms as a target/navigation point.

Q2. Blocking, bracing, and securement specifications - Government-furnished or contractor-responsibility?

A2: Contractor furnished.

Q3: Interim storage requirements if same-day delivery at NMMC is not possible upon transit completion.

A3: Arrangements will need to be made for arrival during regular business hours at 17001 Interstate Drive, Dumfries, VA. Monday-Friday 0730-1600.

Q4: Security escort requirements, if any, for transport through civilian public roads in California and Virginia.

A4: There are no security requirements, but the tank does need to be tarped and all hatches covered.

Q5: Structural Integrity of Tank #1. The PWS states all lifting points are functional. However, the provided images indicate extensive corrosion exposure. Recommend: Structural engineering inspection; Verification of lift points; Confirmation hull integrity remains intact

A5: The tank is structurally intact. Corrosion is surface only and the armor and welds remain structurally sound.

Q6: Buried Components. Track components appear partially buried. Clarification needed: Excavation depth; Soil conditions; Required restoration of excavation area

A6: Tracks are buried under a few inches of loose sand. They should come up with relative ease.

Q7: Unexploded Ordinance (UXO) Risk. Since both tanks are located on training ranges: Has EOD cleared the area and the route? Is there any unexploded ordnance risk?

A7: UXO risk has been mitigated for both locations. Neither is on a live-fire range.

Q8: Environmental Hazards. Clarify potential issues involving: Lead paint; Fuel residue; Oils; Asbestos; Hazardous material handling requirements.

A8: Paint is lead based. There is no engine in it, so POLs will be minimal and located in the transmission and final drive housing, if any. Asbestos would be restricted to the engine compartment, but with the engine gone, there shouldn't be any.

Q9: Delivery Site Requirements. The current PWS does not clarify: Whether the Government provides unloading equipment; Whether a crane is needed at final destination; Final placement requirements at the museum facility.

A9: A crane is required from the vendor at the delivery location.

Q10: Please confirm if a crane is needed at destination to unload the tanks.

A10: Yes. To be furnished by contractor

Q11: Level of preservation required during salvage operations?

A11: Remove the four complete bogey trucks, preserving all components for future use; Remove the bulldozer mount, preserving mount attachment points for future use and duplication. Secure tracks without any cutting.

Q12: Specific packaging/crating standards for museum acceptance?

A12: Palletizing with steel strapping is acceptable. These will not deteriorate further traveling across the country.

Q13: Site access logistics and staging constraints at Twentynine Palms

A13: Please see details above in PWS; any additional will be coordinated with 29 Palms Range Control.

Q14: Tank mobility?

A14: The tank is not mobile. It has some functional road wheels and MAY roll, but overall it is not mobile.

Q15: Lifting point condition?

A15: Lifting lugs are in better condition than Lucky's and Lucky lifted just fine. Please see video for general information about “Lucky” (some loading pics at the end): https://www.youtube.com/watch?v=trp-fKa2UO0

Q16: Salvage dimensions/weight?

A16: Each bogey truck weighs roughly 800lbs. No estimate on other parts.

(End of PWS)