Statement of Work for the delivery, and Assembly of a High Density File system of Voice to the Records room at U&O Agency

Uintah and Ouray Agency is situated in the north east corner of Utah in the city of Ft. Duchesne. This is in Uintah County approximately 18 miles west of Vernal, Utah along Highway 40. The ZIP Code is 84026. The Agency has the responsibilities maintaining records in a secure and manner. There is a need to obtain additional record storage which can be managed effectively and satisfy the requirements of the Minerals Branch at the Agency. This requires:

- Lockable High-Density File System.
- Supplier/Contractor will deliver and install a high density file storage system with all necessary components to make the unit functional. This includes delivery of all materials, hardware, and components of a High-Density file system to the Minerals office at U&O Agency.
- The Supplier/Contractor will make all necessary accommodations to remove existing materials, supply leveling materials, install base and rail components and assemble a lockable storage unit. When closed the unit will have a secure panel that does not allow access to files. The unit will trolley and lock against a stationary unit on the left (south) side of the file system.
- The Supplier/Contractor will assemble the High-Density File System at the specified area along the west wall of the Minerals office. The unit will be located on the west wall in the south corner as specified by Agency personnel and according to Attachment A and associated drawing Attachment B.
- The Supplier/Contractor will assemble, test for function and finish the file system as specified. All finish materials needed to taper to the carpeted surface and any wall attachment will be provided.
- Laminates will closely match the existing Agency high density file system. Rotary handle will be provided to make the unit trolley to the lock position as well as allow access to the files placed in the file system.
- The locks, keys and any necessary training will be provided by the Supplier/Contractor.

ATTACHMENT A

MOBILE STORAGE SHELVING UNITS - LOW-PROFILE MECHANICALLY ASSISTED

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:

1. Mechanically assisted, carriage mounted high-density mobile storage units, support rails, fabrication, and installation including leveling of support rails.

B. Related Work, Not Furnished:

1. Structural floor system capable of supporting live and dead loads required by prevailing building codes, including rolling loads of storage units to be installed.
2. Finish floor covering materials and installation

1.3 REFERENCES

A. American National Standards Institute (ANSI) Standards:

1. Applicable standards for fasteners used for assembly.

B. American Society for Testing and Materials (ASTM) Standards:

1. Applicable standards for steel materials used for fabrication.

C. American Institute Of Steel Construction (AISC) Standards:

1. Applicable standards for steel materials used for fabrication.

1.4 SYSTEM DESCRIPTION

A. General: The system consists of four-post or case-type shelving units mounted on manufacturer's track-guided carriages to form a compact storage system. System design permits access to any single aisle by manually moving units until the desired aisle is opened. The carriage/rail system provides uniform carriage movement along the total length of travel, even with unbalanced loads.

B. Carriage System Design and Features: The carriage system consists of formed structural steel wheel sections with precision machined wheels riding on steel rails [recessed][surface] mounted to the floor. Wheel sections shall interlock with steel side profiles and shelving posts to form a rigid carriage structure. Wheel sections shall also be interchangeable to permit carriages to be added onto and reconfigured without cutting or welding. Rails shall

be types selected by the manufacturer to ensure smooth operation and self-centering of mobile storage units during travel without end play or binding. Rail types, quantities and spacing shall be selected by the manufacturer to suit installation conditions and requirements. All bearings used in the drive mechanism shall be permanently shielded and lubricated.

C. Movement Controls: Triple or single arm operating wheels with rotating hand knobs shall be provided on the accessible (drive) ends of shelf units, centered on the end panel, located 40 inches from the base of each unit to permit units to be moved to create a single aisle opening. Turning the handle transmits power through chain drive to drive wheels on each carriage.

D. Drive System: The system shall be designed with a positive type mechanically-assisted drive which minimizes end play, ensures there is no play in the drive handle, and that carriages will stop without drifting.

1. System shall include a chain sprocket drive system for each movable carriage to ensure that carriages move uniformly along the total length of travel, even with unbalanced loads. All system components shall be selected to ensure a smooth, even movement along the entire carriage length. Drive system gearing shall be designed to permit 1 lb. of force applied to the drive handle to move a minimum of 4,000 lbs. of load.

2. A tensioning device shall be provided on each chain drive with provision for adjusting tension without removing end panels.

3. All bearings used in the drive mechanism shall be permanently shielded and lubricated.

E. Safety Features:

1. Color-coded visual indicators shall provide verification that carriages are in a locked or unlocked mode.

2. A single safety lock button, mounted on each operating wheel hub, will permit moving a carriage in either direction to create a new access aisle when pulled out (unlocked), or locking the carriage when pushed in.

F. Finishes:

1. Fabricated Metal Components And Assemblies: Manufacturer’s standard powder coat paint finish.

2. End Panels, Accessible Ends: [Plastic laminate, manufacturer’s standard textures and patterns.] [Manufacturer’s standard powder coat paint finish.]

1.5 PERFORMANCE REQUIREMENTS

A. Design Requirements:

1. Limit overall height to [84] inches.

2. Limit overall length to [96] inches.

B. Ease of Movement: Provide mechanically assisted units capable of being moved by exerting a maximum horizontal force of 5 pounds on the operating wheel.

C. [Seismic Performance: Provide mobile storage units capable of withstanding the effects of earthquake movement when required by applicable building codes.]

1.6 SUBMITTALS

A. Product Data: Submit manufacturer's product literature and installation instructions for each type of shelving, track and installation accessory required. Include data substantiating that products to be furnished comply with requirements of the contract documents.

B. Shop Drawings: Include assembly, and installation details including descriptions of procedures and diagrams. Show complete extent of installation layout including clearances, spacings, and relation to adjacent construction in plan, elevation, and sections. Indicate clear exit and access aisle widths; access to concealed components; assemblies, connections, attachments, reinforcement, and anchorage; and deck details, edge conditions, and extent of finish flooring within area where units are to be installed.

1. Show installation details at non-standard conditions. Furnish floor layouts, technical and installation manuals for every unit shipment with necessary dimensions for rail layout and system configuration at the project site. Include installed weight, load criteria, furnished specialties, and accessories.

2. Provide layout, dimensions, and identification of each unit corresponding to sequence of installation and erection procedures. Specifically include the following:

a. Location, position and configuration of tracks on all floors.

b. Plan layouts of positions of carriages, including all required clearances.

c. Details of shelving, indicating method and configuration of installation in carriages.

3. Provide location and details of anchorage devices to be embedded in or fastened to other construction.

4. Provide installation schedule and complete erection procedures to ensure proper installation.

C. Samples: Provide minimum 3 inch (76MM) square example of each color and texture on actual substrate for each component to remain exposed after installation.

D. Selection Samples: For initial selection of colors and textures, submit manufacturer's color charts consisting of actual product pieces, showing full range of colors and textures available.

E. Warranty: Submit draft copy of proposed warranty for review by the Awarding Official.

F. Maintenance Data: Provide in form suitable for inclusion in maintenance manuals for mobile storage units. Data shall include operating and maintenance instructions, parts inventory listing, purchase source listing, emergency instructions, and related information.

1. Submit manufacturer's instructions for proper maintenance materials and procedures.

2. Submit manufacturer's printed instructions for maintenance of installed work, including methods and frequency recommended for maintaining optimum condition under anticipated use conditions. Include precautions against using materials and methods which may be detrimental to finishes and performance.

G. Reference List: May provide a list of recently installed mobile storage units to be visited by owner, if requested. Intent of list is to aid in verifying the suitability of manufacturer's products and comparison with materials and product specified in this section.

1.7 QUALITY ASSURANCE

A. Manufacturer Qualifications: Engage an experienced manufacturer who is ISO 9001 certified for the design, production, installation and service of carriage mounted high-density mobile storage units and support rails. Furnish certificate attesting manufacturer's ISO 9001 quality system registration.

B. Installer Qualifications: Engage an experienced installer who is a manufacturer's authorized representative for the specified products for installing carriages and anchoring shelving units to carriages.

1. Minimum Qualifications: 2-years experience installing systems of comparable size and complexity to specified project requirements.

2. Guaranteed 24-hour service response time.

1.8 DELIVERY, STORAGE AND HANDLING

A. Follow manufacturer's instructions and recommendations for delivery, storage, and handling requirements.

1.9 PROJECT CONDITIONS

A. Field Measurements: Verify dimensions before fabrication. Indicate verified measurements on Shop Drawings. Coordinate fabrication and delivery to ensure no delay in progress of the Work.

B. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating mobile storage units. Coordinate construction to ensure actual dimensions correspond to established dimensions.

1.10 SEQUENCING AND SCHEDULING

A. Sequencing: Coordinate storage shelving system installation with other work to minimize possibility of damage and soiling during remainder of construction period.

B. Scheduling: Plan installation to commence after finishing operations, including painting have been completed.

C. Built-In Items: Provide components which must be built in at a time which causes no delays general progress of the Work.

D. Pre-installation Conference: Schedule and conduct conference on project site to review methods and procedures for installing mobile storage units including, but not limited to, the following:

1. Review project conditions and levelness of flooring and other preparatory work performed under other contracts.

2. Review and verify structural loading limitations.

3. Recommended attendees include:

a. Awarding Official or Awarding Officials Representative.

b. Facility Manager.

c. Manufacturer's representative.

d. Subcontractors or installers whose work may affect, or be affected by, the work of this section.

1.11 WARRANTY

A. Provide a written warranty, executed by Contractor, Installer, and Manufacturer, agreeing to repair or replace units which fail in materials or workmanship within the established warranty period. This warranty shall be in addition to, and not a limitation of, other rights the Owner may have under General Conditions provisions of the Contract Documents.

B. Warrant the entire movable compact shelving installation against defects in materials for five (5) years and workmanship for a period of one (1) year from date of acceptance by the Owner.

1.12 MAINTENANCE

A. Optional manufacturer's extended maintenance agreement for ____ year's ____months, commencing on the day the standard maintenance warranty ends.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. General: Products are based upon mobile shelving system products manufactured by a High-Density manufacturer. Contingent on meeting specification requirements, other acceptable manufacturers may be included.

2.2 BASIC MATERIALS

A. General: Provide materials and quality of workmanship which meet or exceed established industry standards for products specified. Material thicknesses/gauges are manufacturer's option unless indicated otherwise.

B. Plastic Laminates: NEMA LD-3, GP-28, Vertical Grade.

2.3 GROUT

A. General: Provide non-shrink, non-staining hydraulic cement compound conforming to the following requirements, based on the performance of the test specimens at room temperature and in laboratory air.

1. Linear Movement: No shrinkage while setting; maximum expansion limited to .002 inches per linear inch.

2. Compressive Strength: Based on two inch cubes made following ASTM standards, tested on a Balding-Southward machine of 60,000 pounds (27,200kg) capacity, meet or exceed the following:

a. Age: 1 hour ---- 4,500 psi
7 days ---- 8,000 psi

2.4 MANUFACTURED COMPONENTS

A. Rails:

1. Material: ASTM/AISI Type 1035 or 1045 steel, or equal, manufacturer’s selection.
2. Capacity: 750 pounds per lineal foot of carriage.
3. Minimum Contact Surface: 5/8 inch wide.
4. Rail configuration shall permit attachment to top of structural floor system with provision for leveling rails to compensate for variations in floor surface level.
5. Provide rail connections designed to provide horizontal and vertical continuity between rail sections, to gradually transfer the concentrated wheel point load to and from adjoining rail sections. Butt joints are not permitted.
6. Anti-Tip Rail Form Covers: Manufacturer shall provide for protection if required to prevent damage to rails during concrete back pours.

B. Floor / Ramp :

1. Floor/Ramp Sheathing: Minimum 3/4-inch (19MM) underlayment grade plywood containing no added urea formaldehyde. Particle board sheathing materials are not permitted.
2. Provide fire retardant treated floor/ramp materials when required by code.
3. Finished flooring materials shall be provided by [the Owner] [others].
4. Ramps at entrances to system. Full floor between all rails.

C. Carriages:

1. Provide manufacturer's design movable carriages fabricated of welded wheel assembly with bolted steel and riveted construction. Galvanized carriage components are unacceptable. The use of cross-bracing is unacceptable.
2. Design carriages to allow the shelving uprights to recess and interlock into the carriage wheel section a minimum of 2 inches. Carriage design shall provide a minimum of two shelving retention rivets and two carriage bolts to securely retain each shelving post. Top mounting of shelving onto carriages is unacceptable.
3. Provide each carriage with two wheels per rail.

D. Drive / Guide System:

1. Design: Provide drive system which prevents carriage whipping, binding, and excessive wheel/rail wear under normal operation.
   a. Provide a full-length line drive shaft, whereby, all wheels on one side of carriage shall drive.
2. Shafts: 1 inch steel connecting tube shafts.
3. Bearing Surfaces: Provide rotating load bearing members with ball or roller bearings. Provide shafts with pillow block or flanged self-aligning type bearings.

E. Wheel Sections:

1. Low-Profile Wheel Section: Minimum 12-gauge fixture-welded wheel sections to ensure that, once installed; bottom storage shelf is no higher than 4.25 inches above

top of rail. Locate wheel assemblies under each upright to distribute loads directly to wheels.

2. Wheel Size: Minimum 3 inches, outside diameter drive and load wheels.

3. Guide Wheels: All wheels and all locations.

F. Face Panels:

1. Materials: Plastic laminate clad particle board with plastic edging on vertical edges.

2. Finishes: Selected from manufacturer's standard available colors and patterns.

G. Shelving: (Choose from Four Post or Case-Type)

H. Accessories:

1. No additional Accessories.

2.5 FABRICATION

A. General: Coordinate fabrication and delivery to ensure no delay in progress of the Work.

B. Wheels: Provide precision machined units with permanently shielded and lubricated bearings.

C. Carriage Wheel Sections: Fabricate Carriage wheel sections to provide two heavy-duty 7-gauge support plates to support the full weight of shelving posts.

D. Carriage Side Profiles: Fabricate 14-gauge die-formed carriage side profiles 2-3/4 inches tall each with four (4) shelving retention rivets.

E. Rail Shims: Fabricate galvanized steel shims with interlocking tabs to prevent dislocation; interlocking tabs to interlock with rail and with other shims. For non-grouted systems only.

F. Shelving, Supports and Accessories: See individual descriptions in "Shelving" paragraphs.

2.6 FINISHES

A. Colors: Selected from manufacturer's standard available colors.

B. Paint Finish: Provide factory applied electrostatic powder coat paint. Meet or exceed specifications of the American Library Association.

C. Laminate Finish: Provide factory applied laminate panels at locations indicated on approved shop drawings.

D. Edgings: Provide preformed edging, color-matched to unit colors selected.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine floor surfaces with Installer present for compliance with requirements for installation tolerances and other conditions affecting performance of mobile storage units.

B. Verify that building structural system is adequate for installing mobile storage units at locations indicated on approved shop drawings.

Verify that intended installation locations of mobile storage units will not interfere with nor block established required exit paths or similar means of egress once units are installed.

C. Prepare written report, endorsed by Installer, listing conditions detrimental to proper performance of mobile storage units, once installed.

D. Proceed with installation only after any unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Rails:

1. Lay out rails using full length units to the maximum extent possible. Use cut lengths only at ends to attain total length required. Locate and position properly, following dimensions indicated on approved shop drawings. Verify thickness of finished floor materials to be installed and install level 1/16 inch above finished floor surfaces.

2. When using grouted rails, verify level, allowing for a minimum 1/4 inch of grout under high points. Position and support rails so that no movement occurs during grouting.

3. When grouting, set rails in full grout bed, completely filling any voids entire length of all rails including rail connectors. Trim up sides flush with rails to ensure proper load transfer from rail to supporting floor. Using shims in lieu of full grouting is not permitted.

4. Installation Tolerances When Grouting: Do not exceed levelness of installed rails listed below:

   a. Maximum Variation from True Level Within Any Module: 3/32 inch.

   b. Maximum Variation between Adjacent (Parallel) Rails: 1/16 inch, perpendicular to rail direction.

   c. Maximum Variation in Height: 1/32 inch, measured along any 10 foot rail length.

5. Installation Tolerances When Shimming: Do not exceed variation from level listed below:

   a. Maximum Variation across All Rails (up to 5 rails or 12 feet: 3/8 inch.

   b. Maximum Variation from Rail to Rail: 1/8 inch.

   c. Maximum Variation in 12 feet of Rail Length, Along Any Rail: ¼ inch and Maximum Variation in 2 feet of Rail Length (Flatness): 1/8 inch.

6. Verify rail position and level; anchor to structural floor system with anchor type and spacings indicated on approved shop drawings.\

B. Floors/Ramps:

1. General: Finished elevation shall be 1/16 inch below top of rails.
2. Place floors and ramps to the extent indicated on approved shop drawings. Provide ramp at both ends of mobile system if dual control access is required.
3. Construct floors and ramps to prevent warping or deformation of floor panels in a normal operating environment. Support panels on levelers at maximum 16 inches on center.
4. Ramp Slope: Do not exceed the following:
   a. ADA Accessible Ramps: Maximum 1:12 slope (4.76 degrees).
   b. Other Ramps: Maximum 9-degree slope (1.9:12).
   c. Vertical Transition, Ramp edge to floor: Maximum 1/8 inch.

C. Shelving Units Installation:

1. General: Follow layout and details shown on approved shop drawings and manufacturer's printed installation instructions. Position units level, plumb; at proper location relative to adjoining units and related work.
2. Carriages:
   a. Place movable carriages on rails. Ensure that all wheels track properly and centering wheels are properly seated on centering rails. Fasten multiple carriage units together to form single movable base where required.
   b. Position fixed carriage units to align with movable units.
3. Shelving Units:
   a. Stabilize shelving units following manufacturer's written instructions. Reinforce shelving units to withstand the stress of movement where required and specified.

3.3 FIELD QUALITY CONTROL

A. Verify shelving unit alignment and plumb after installation. Correct if required following manufacturer’s instructions.

B. Remove components which are chipped, scratched, or otherwise damaged and which do not match adjoining work. Replace with new matching units, installed as specified and in manner to eliminate evidence of replacement.

3.4 ADJUSTING

A. Adjust components and accessories to provide smoothly operating, visually acceptable installation.

3.5 CLEANING

A. Immediately upon completion of installation, clear components, and surfaces. Remove surplus materials, rubbish and debris resulting from installation upon completion of work and leave areas of installation in neat, clean condition.

3.6 DEMONSTRATION/TRAINING

A. Schedule and conduct demonstration of installed equipment and features with Owner's personnel.

B. Schedule and conduct maintenance training with Owner's maintenance personnel. Training session should include lecture and demonstration of all maintenance and repair procedures that end user personnel would normally perform.

3.7 PROTECTION

A. Protect system against damage during remainder of construction period. Advise Owner of additional protection needed to ensure that system will be without damage or deterioration at time of substantial completion.