



National Park Service  
U.S. Department of the Interior

Harpers Ferry Center

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# NATIONAL PARK SERVICE STANDARD SPECIFICATIONS FOR AUDIOVISUAL PRODUCTION AUGUST 1, 2008



**National Park Service**  
**STANDARD SPECIFICATIONS FOR MULTIMEDIA**  
**PLANNING, DESIGN AND PRODUCTION**  
**SERVICES WITH INSTALLATION**

**Harpers Ferry Center**  
**Harpers Ferry, West Virginia**

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**SECTION 1. DEFINITIONS**

**ABAAS:** Architectural Barriers Act Accessibility Standards are the accessibility standards which pertain to the Federal sector. The ABA, or Architectural Barriers Act of 1968, requires access to facilities designed, built, altered, or leased with federal funds.

**Assistive Listening Systems:** Assistive listening uses various devices that amplify volume for persons with mild to profound hearing loss who may or may not use a hearing aid. Assistive listening devices (ALDS) include headsets, ear buds, and hearing aids. The amplified sound is transmitted via radio frequency, infrared, or induction loops to the user's headset, ear buds, or hearing aid.

**Audio Description:** Audio description describes the visual content of video or multimedia programs. It provides individuals who are visually impaired with information that further describes the visual content not provided in the primary audio track. Audio description is a separate audio track synchronized with the program's primary audio track.

**Captions:** Captions display spoken dialogue as printed words on television screens, computer monitors, projection screens, caption boards and other visual displays. Captions are specifically designed for viewers with hearing loss to enable their full participation when viewing video or multimedia productions. They include information regarding on- and off-screen sound effects such as music or laughter. Captions also hold secondary benefits for people who are learning a foreign language, learning how to read, or watching a program in a noisy area, as well as those who understand best by processing visual information. Captions are typically displayed on-screen as white letters within a black box.

**Closed Captions:** Closed captions normally do not appear on screen unless the viewer has selected them to appear. The presentation venue must use closed caption decoder technology. The decoder will allow the otherwise-hidden data within the television signal to be displayed on the user's TV screen or computer monitor. Many newer television models allow viewers to toggle captions on or off with ease.

**Conceptual Design:** A general narrative of the program describing the creative approach to be used in developing the content, graphic elements, titles, fonts, help screens, credits, animation (2D or 3D) user interface, virtual reality, navigational devices and behavior, including attract screens and closing sequences, and the operating platform of the program.

**Contracting Officer (CO):** An official with the delegated authority to enter into, administer, and/or terminate contracts, and make related determinations and findings.

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**Contracting Officer's Representative (COR):** A Contracting Officer's representative (COR) is the individual responsible for (1) monitoring the contractor's technical process including the surveillance and assessment of performance and recommending to the Contracting Officer changes and requirements; (2) interpreting the scope of work; (3) performing technical evaluation as required; (4) performing technical inspections and acceptances required by this contract; (5) assisting the Contracting Officer in the resolution of technical problems encountered during performance.

**Day:** The word "day," as referred to herein, shall be considered to consist of a standard ten-hour working day, including travel.

**Design Alternatives:** Distinct approaches to the multimedia program that requires creative design, and/or artistic development and execution by artists, graphic designers and/or 2 or 3-D animators and computer programmers.

**Equipment:** Electronic devices used to play video, audio, or computer programs. It also includes devices and systems that control multiple programs, or that interface with other elements such as programmed lighting and electromechanical devices.

**Evaluation:** The process for better understanding the audience by using social science methods, and using this information to produce effective exhibits, programs, and products.

**Exhibition:** The overall interpretive presentation which may consist of several exhibit areas. Each exhibit area may consist of several related exhibits. Each exhibit may consist of several individual related exhibit elements. When audiovisual programs are produced in conjunction with exhibitions, they are typically exhibit elements within the exhibit.

**Exhibit Design:** Development of the physical organization of the exhibit space, integration of all exhibit elements into a cohesive presentation, functional characteristics and visual appearance of exhibit elements, and development of technical details for fabrication.

**Fine Cut:** A working draft of an audiovisual program which contains the final narration, music and sound effects tracks, as well as all still, moving, and graphic images and production credits.

**Government-Furnished Property:** Property in the possession of, or directly acquired by, the government and subsequently furnished to the contractor for performance of a contract.

**Interpretive Writing:** A writing approach that draws from technical, informational, scientific, historical, and cultural sources. It incorporates creative techniques and seeks to connect readers emotionally and intellectually to the meanings and significance of the resource(s).

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**Indefinite Delivery Indefinite Quantity Contract:** A contract established for the purpose of awarding multiple individual projects over an extended period of time. The IDIQ contract establishes basic parameters for the type of work to be performed, pricing, contractor capabilities, and performance standards. Task Orders are negotiated under the IDIQ contract for individual projects and include a detailed scope of work describing the project's technical requirements and schedule.

**Maintenance Manual:** A detailed document or set of documents that contains all pertinent information about each piece of equipment and describes all required service and maintenance.

**Multi-Purpose Room:** A room or facility that is used for a variety of purposes such as video presentations, meetings, lectures, and ceremonies. The room typically has a flat floor and moveable seating. To this end, simple playback of DVD, VHS, and computer presentations from a portable lectern are customary.

**Open Captions:** Open captions are displayed on the screen automatically as part of the video, without having to be selected by the user.

**Original Content:** All elements created specifically for the project, including original illustrations, photography, maps, sound and video recordings, and animations.

**Production Plan:** A document which presents the major categories of work to be performed in the planning, production, and post-production phases of the program. The Production Plan shall describe all of the elements required to produce the program as outlined in the Treatment and/or Scope of Work, including, but not limited to: production personnel (including the use and identification of sub-contractors, consultants, and other salaried employees of the firm), equipment, post-production facilities, personnel, travel, transportation, and an estimate of all materials expenses such as tape/film stock, archival images, and associated costs. Within the Production Plan, the contractor shall confirm that they understand the "Rights in Data – Special Works" requirements of the contract, including rights for music, stock footage, and other elements.

**Request for Proposal:** An invitation for offerors to submit a proposal on a specific commodity or service.

**Request for Quotations:** A request for a quote to perform work. This may also include a proposal to perform the work.

**Rough Cut:** A working draft of an audiovisual program which contains enough of the structure and content to evaluate the validity of the approach and to determine if changes or modifications are needed to meet the project objectives. This may mean changes to the final script or proposed visuals. Changes are made for clarity and to strengthen the goals and objectives of the program.

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**Script:** A document which contains the program’s narration and other dialogue, and provides visual cues to specific footage and imagery to be used, as well as other technical direction such as sound effects, special effects, and music cues.

**Section 504:** Section 504 of the Rehabilitation Act of 1973 states (in part) that “no otherwise qualified individual with a disability in the United States, as defined in section 7(20), shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance or under any program or activity conducted by any Executive agency or by the United States Postal Service.” For more information see <http://www.section508.gov/>.

**Section 508:** Section 508 of the Rehabilitation Act as amended requires that “when Federal agencies develop, procure, maintain, or use electronic and information technology, Federal employees with disabilities have access to and use of information and data that is comparable to the access and use by Federal employees who are not individuals with disabilities, unless an undue burden would be imposed on the agency. Section 508 also requires that individuals with disabilities, who are members of the public seeking information or services from a Federal agency, have access to and use of information and data that is comparable to that provided to the public who are not individuals with disabilities, unless an undue burden would be imposed on the agency.” For more information see <http://www.section508.gov/>.

**Submittal:** All samples, documents (i.e., drawings, schedules, facsimiles), electronic files, and other materials that together represent the level of development of work at a given time.

**Subtitles:** Subtitles are used to translate dialogue into a different language. Subtitles rarely convey nonverbal sounds such as music or sound effects. Subtitles are generally not displayed within a black box and do not have standardized font requirements. They are primarily intended for hearing audiences. Subtitles, unless produced with captioning guidelines such as identifying speakers and sound effects, are not considered a suitable accessibility alternative to captions.

**Talent/Actors:** “Professional talent” is defined as an individual whose primary source of income is derived by appearing in entertainment productions produced by a profit-making company, who has appeared in one or more similar roles in a professionally produced film, videotape or television production.

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**Treatment:** A narrative overview of the proposed production’s creative approach and storyline; a description of the proposed talent for the production (i.e. actors, reenactors, interviewees, narrator(s) and/or other participants), to include a description of the roles they will play and the general dialogue, narration and/or commentary they will provide; and a general description of the scenes, locations, graphics, artwork, and animation to be used in the production with sufficient detail to provide a sense of the proposed production. In addition, the Treatment shall include, but not be limited to: an estimated percentage of the program that will be comprised of original live action footage versus stock footage, still images or artwork; the number of days of live action photography; an estimated percentage of the program that will be comprised of historic and archival images and motion picture or video footage, and the proposed source(s) for such materials; and a description of the proposed musical score, to include whether it will be comprised of original or stock music. The AV Treatment provides the basis of the production plan and script.

**Universal Design:** The design of products and environments to be usable by all people, to the greatest extent possible, without assistance, adaptation or specialized design applicable to the Accessibility Guidelines outlined in *Section 8, Accessibility*.

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**SECTION 2. PROJECT MANAGEMENT**

**2.1 Introduction**

The purpose of the following Project Management tasks are to insure that scheduling, coordination, overseeing, and managing are effectively accomplished for all work produced under this contract.

**2.2 General Requirements**

The contractor shall assign a Project Manager to oversee the contract and shall also assign a Project Manager for each task order written under this contract.

**2.3 Specific Requirements for Contract Project Management**

The Project Manager shall be the primary point of contact between the National Park Service (NPS) Contracting Officer and COR for the contract. The Project Manager shall perform the following work:

- A. Notify the Contracting Officer and COR of any changes to the contractor's business operations that affect work under this contract, including but not limited to:
  - 1. Changes to contractor's address, phone and other contact information.
  - 2. Proposed changes to key personnel.
  - 3. Workload or capacity issues affecting the ability of the contractor to accept additional work.
  
- B. Communicate with the Contracting Officer and COR regarding major or broad issues affecting task orders written under this contract, including but not limited to:
  - 1. Clarification of work processes that are acceptable or unacceptable to the government under this contract.
  - 2. Informing the Contracting Officer and COR of misunderstandings, inconsistencies, or conflicting instructions encountered when working with different parks and different task order CORs.
  - 3. Participate in an annual teleconference when and if the option years are renewed. Time and date will be determined at that time. A minimum of two hours is required for the call.

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- C. Prepare and submit an electronic status report every six months to the COR with a copy to the Contracting Officer which lists all active task orders by number. It shall include, at a minimum, the name of the park and/or client, a brief description of the type of work being performed, and results achieved during the reporting period. It shall also include an indication of any current problems that may impede performance, the proposed corrective action, and the anticipated completion date.
- D. Update resumes for Key Personnel on an annual basis and submit them to the Contracting Officer electronically and in hard copy.
- E. Submit demo reels on an annual basis that illustrate the contractor's most current work that best represents projects of a similar nature. If the contractor has this information on their website, please provide the link. Otherwise, submit five DVDs.

**2.4 Specific Requirements for Task Order Project Management**

The Project Manager shall be the primary point of contact between the contractor and COR for individual task orders and shall perform the following work:

- A. The Project Manager shall have full authority to act for the contractor on all matters relating to a specific task order. The Project Manager shall maintain contact with the COR as necessary, and shall:
  - 1. Be available to take or respond to telephone calls or electronic mail messages during normal hours of operation (8:30 am - 5:00 pm local time).
  - 2. Establish office procedures to ensure that messages are relayed to the Project Manager when out of the office or because of time zone differences.
  - 3. Respond to emergency messages from the COR on the same day they are received. All non-urgent messages from the COR shall be responded to in no less than two days.
- B. Provide quality control to ensure that all elements of project work meet the requirements of the contract specifications as follows:
  - 1. Provide routine inspections of ongoing work.
  - 2. Inform the COR of any issues that could affect work quality or schedule.
  - 3. Ensure that all work not acceptable or compliant with the specifications is corrected prior to review by the COR.

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- C. Track work progress to ensure that the project is completed according to the schedule. Coordinate and confirm the dates for all submittals, meetings, and installation with the COR.
- D. Meet with the Contracting Officer and COR in accordance with Section 5, Travel, Meetings, Presentation, and as specified in individual task orders.
- E. Receive, inspect, and inventory all GFP and ensure that this material is forwarded to the appropriate unit or person within the contractor's organization for use in the project. The Project Manager shall notify the COR within seven days after receipt if GFP is missing, incorrect, inadequate, or damaged for their intended purpose. The Project Manager shall notify the COR as soon as possible if GFP is lost or damaged while in the contractor's possession.
- F. Coordinate and ensure that all specifications for submittals are in accordance with *Section 6, Submittals and Reviews*, and as specified in individual task orders.
- G. Inspect completed work, including that of subcontractors, prior to shipment or final inspection by the COR to ensure that the work meets the standards of quality specified in this contract. Ensure that all the elements of the project are complete and ready for the final inspection. The Project Manager shall notify the COR if any elements of the work will not be ready for final inspection as scheduled.
- H. For Multimedia Products, specifically:
  - 1. Coordinate installation of the multimedia software and/or hardware with the COR. Additional contacts may include: the designated National Park Service or Harpers Ferry Center Project Manager for the project, the Project Manager at the job site, Project Architect, Electrical Contractor, Building Contractor, Exhibit Fabrication Team and Park Staff.
  - 2. Ensure that all work is delivered and installed as scheduled. In the event that the COR reports problems during or after shipment, delivery, and/or installation, the Project Manager shall:
    - a. Determine the nature of the reported problem, damage, or error and provide a proposal for resolution to the COR for review and approval.
    - b. Ensure that approved corrections or repairs are made in a satisfactory manner and within the time scheduled by the COR.

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3. Provide onsite support and training at the park for the initial use of the system(s) during the time of installation if required per individual task orders.
4. Provide oversight and ensure that the final deliverables, including the closeout package, are prepared in accordance with *Section 12, Completion Report and Final Deliverables*.

**SECTION 3. VIDEO AND AUDIO PRODUCTION PROCESS**

**3.1 Introduction**

The Video and Audio Production Process followed in this contract is organized into phases of work and outlined below in sub-sections 3.2 through 3.4. While task orders may be issued for complete productions, they may also be issued for the performance of discreet services and tasks. The following phases are based on the standard work processes performed during pre-production through post production in prior National Park Service audiovisual IDIQ contracts and task orders. The stages of work follow:

**3.2 Pre- Production Planning and Research**

Work performed during the Pre-Production Planning and Research phase creates the foundation for all work to follow. During this phase, the contractor shall gain a clear understanding of the history and requirements of the project, learn about and meet the team members and stakeholders, ensure that the schedule and deliverables are logically structured, and confirm that realistic expectations based on the budget and requirements as stated in the task order have been set.

The following outline further defines the work and required submittals during this phase (unless otherwise specified in the task order):

- A. **Review Government-Furnished Property**
- B. **Travel to Site:** (or through conference calls) (see *Section 5 Travel, Meetings, and Presentations*)
  - (1) Orientation to team members, the park experience and specific resource(s) to be addressed in the project.
  - (2) Conduct development and pre-production meeting.
  - (3) Review and/or discuss themes, goals, and objectives.
  - (4) Review and/or discuss program content.
  - (5) Review all accessibility requirements for the project.
  - (6) Review use rights in relation to acquisition of materials.
  - (7) Scout locations for video and still photography if required by the task order.
  - (8) Review park resources and materials for possible inclusion in the program(s) or for background research.

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- (9) Identify additional sources for research and materials to be included in the program.
- (10) Document in a memorandum the results and principle agreements reached during the meeting.
- C. **Conduct Research:** Research may include locating stock footage and specific images to be used in the program, finding additional subject matter expertise, identifying additional locations and/or objects for video and still photography shoots, and conducting subject matter research in preparation for writing and production.
- D. **Production Plan:** (See *Section 1, Definitions*) The Production Plan shall also describe how requirements for accessibility will be met. Include the name of the Audio Description and Caption vendor(s).
- E. **Treatment:** (See *Section 1, Definitions*) If video or audio content—either standalone or as a part of a multimedia presentation—is specified, a treatment is required.
- F. **Scripts:** (See *Section 1, Definitions*) At a minimum, one draft script and two revised draft scripts shall be submitted to the COR and designated park contact. Upon review and approval of the revisions, the final script shall be submitted to the COR and designated park contact. Scripts shall be presented in the standard two-column format. Each scene in the script shall be numbered within the left column along with other visual information and cueing. The right column shall depict narration and dialogue. The script shall be prepared on 8-1/2 x 11-inch paper and shall be submitted for review electronically in the latest version of Microsoft Word.
- G. **Shot and Interview Lists:** A list identifying specific shots and interviews shall be submitted for approval. At a minimum, one revision shall be provided in response to the review unless otherwise specified in the task order.
- H. **Animation:** If animation is required, a treatment shall be submitted.

### **3.3 Production**

Work performed during the Production phase centers on the acquisition of media and other supporting material. The following outline further defines the work and required submittals during this phase (unless otherwise specified in the task order):

- A. **Shooting Script and Schedule:** No later than seven calendar days prior to the proposed start of shooting, the contractor shall submit a shooting script based on the final approved script listing specific shots to be acquired and scheduled interviews. At the same time, a shooting schedule shall be submitted that includes crew travel and lodging information, daily crew call times, talent hired for the shoot, emergency contact information, government contact requirements, and anticipated location(s) for shooting. When shooting in restricted locations, the contractor shall specify clearance needs or fee requirements.

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- B. **Interviews:** If interviews are required, a list identifying potential interviewees shall be submitted to the COR for approval prior to the interview taking place. At a minimum, one revision shall be provided in response to the review.

The use of the National Park Service Release Form is required for all interviews. Release forms drafted by the contractor will not be accepted. See Attachment B.

Proposed Talent: All talent used in the performance of work under this contract shall be appropriately and accurately costumed and equipped by the contractor. Contractor personnel shall not appear in any scenes of the production. The contractor shall give the COR prior notification of the time and place of the casting session. Casting shall be accomplished at a city or location where there is sufficient supply of professional talent to provide at least three choices for each major role. In addition to or in lieu of an in-person casting session, sample reels, videotaped and/or audio recorded readings from excerpted scripts or text may be submitted if approved by the COR in advance.

- C. **Principal Photography:** Each task order will specify a required format for footage acquisition. Deviations require approval from the COR. Copies of footage shot on location shall be submitted for review and approval on DVD with window timecode corresponding to camera original footage unless otherwise specified in the task order. For additional information see *Section 9, Technical Specifications for Video and Audio Production*.
- D. **Field Tape Logs:** See *Section 9, Technical Specifications for Video and Audio Production*
- E. **Interview Transcriptions:** Electronic transcriptions of all interviews shall be submitted to the COR for review and approval during rough cut phase of post production.
- F. **Animation:** If animation is required, storyboards, graphic layouts, modeling, and sample demonstrations illustrating movement, shall be submitted as a part of the review process before the final execution of the animation occurs.
- G. **Graphics:** A list of proposed graphics shall be submitted to the COR for review and approval.
- H. **NPS Graphic Identity:** The National Park Service has a corporate identity program that includes guidelines for all public communications media. However, exhibitions and multimedia programs, including video programs, often maintain their own graphic approach. Requirements for specific audiovisual programs shall be described in the task order. If there are not specifications, the only requirement is the use of the National Park Service Arrowhead and a short text at the end of the program. The Contracting Officer will furnish both the Arrowhead and text at time of contract award. The National Park Service approved typefaces are NPS Rawlinson OT and Adobe Frutiger Std. The NPS Rawlinson OT will be furnished at the time of contract award. The contractor shall purchase Adobe Frutiger Std, if required in individual task orders. Both typefaces are OpenType fonts.

### 3.4 Post Production

Work performed during the Post Production phase occurs after all media elements have been acquired through the submittal of Final Deliverables (See *Section 12, Completion Report and Final Deliverables*). The following outline further defines the work and required submittals during this phase (unless otherwise specified in the task order):

- A. **Rough Cuts:** (See *Section 1, Definitions*) The contractor shall submit a rough cut for review. At a minimum, two revisions shall be submitted unless otherwise specified in the schedule of deliverables for the task order.
- B. **Editing Script:** If changes are made to edited cuts in response to government reviews, each subsequent rough cut or fine cut shall be submitted with a revised script that corresponds to the most current edited version of the program.
- C. **License Agreements:** (See *Section 7, Acquisition of Materials* and *Section G, Rights in Data*) The contractor shall submit a narrative description that accounts for the copyright sources of all audiovisual elements (images, video or film footage, artwork, graphics, animations, music, sound effects, interviews, etc.) proposed for use in the program—including public domain materials, purchased stock materials and government-furnished materials—before the final project is produced. For those materials that are restricted, license agreements shall be submitted. Upon review and approval of the license agreements by the COR, any license that fails to meet the requirements as specified in the contract or the task order, will be returned to the contractor for revision. If the specified rights cannot be obtained, the contractor must replace the element unless written approval for a deviation is furnished by the Contracting Officer.
- D. **Narrator and Music Samples:** (See *Section 7, Acquisition of Materials* and *Section G, Rights in Data*) A selection of narrator samples shall be submitted for review and selection. Music samples from various composers, selected composer, or library music sources shall be submitted for review and approval.
- E. **Animation:** Conceptual and revised conceptual designs for all animation elements shall be submitted for review and approval.
- F. **Fine Cuts:** (See *Section 1, Definitions*) The contractor shall submit a fine cut for review and approval prior to the final on-line edit and sound mix. At a minimum, one revision shall be submitted unless otherwise specified in the schedule of deliverables for the task order.
- G. **On-Line Edit, Sound Design and Mix, and Color Correction:** The contractor shall submit the final edited version of the program with sound design and mix for review and approval. Unless otherwise specified in the task order, the final edited program shall be color corrected.

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- H. **Accessibility:** (See *Section 8, Accessibility*) Captions, audio description, and other accessibility features shall be submitted for review before final deliverables are produced.
- I. **Final Deliverables:** Upon completion of the project, all elements shall be submitted to the COR in accordance with *Section 12, Completion Report and Final Deliverables*.

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**SECTION 4. MULTIMEDIA PLANNING, DESIGN AND PRODUCTION SERVICES  
WITH INSTALLATION**

**4.1 Introduction**

The multimedia process followed in this contract is organized into several phases of work. While task orders may be issued for turn-key projects, they may also be issued for the performance of individual services and tasks.

**4.2 Planning and Research**

Work performed during the planning and research phase creates the foundation for all work to follow. During this phase, the contractor shall gain a clear understanding of the history and requirements of the project, learn about and meet the team members and stakeholders, ensure that the schedule and deliverables are logically structured, and confirm that realistic expectations based on the budget and requirements as stated in task order have been set.

Many multimedia projects are the result of already proposed and detailed exhibit elements within visitor centers. In these cases, flowcharts, graphic approach, images, and text may have already been proposed, approved and detailed within the final exhibit design package. The amount of GFP provided to the contractor will in turn affect the level of effort required by the contractor for services and tasks such as original research, graphic design, equipment and user interface proposals, writing and editing, and image, footage and sound acquisition required by the contractor. In some instances the contractor may be required to revise GFPs or may propose their own revisions based on their expertise in the production of multimedia programs. The following outline further defines the work during this stage.

**A. Review Government-Furnished Property**

**B. Travel to Site:** (or through conference calls) (see *Section 5, Travel, Meetings, and Presentations*)

- (1) Orientation to team members, the park experience and specific resource(s) to be addressed in the project.
- (2) Conduct multimedia planning meeting
  - (a) Review existing documents.
  - (b) Review and/or discuss themes, goals, and objectives.
  - (c) Review and/or discuss design criteria.
  - (d) Review and/or discuss organizational structure and flow of program.
  - (e) Review and/or discuss proposed equipment.
  - (f) Review accessibility requirements.

- (g) Review use rights in relation to acquisition of materials.
  - (h) Scout locations for video and still photography, if specified in the task order.
  - (i) Review park resources and materials for possible inclusion in the program(s) or for background research.
  - (j) Identify additional sources for research and materials to be included in the program.
  - (k) Document in a written electronic memorandum the results and principle agreements reached during the meeting
- C. **Conduct Research:** Research may include locating repositories and specific images to be used in the program, finding additional subject matter expertise, and identifying additional locations and/or objects for video and still photography shoots. An in-depth familiarization of the subject matter may be required in preparation for text writing, editing and content organization.

### **4.3 Design and Production**

Work in this phase requires a series of submittals, each built upon the other and resulting from the planning phase. The design, flow, and content shall be finalized during this phase. The user interface shall be confirmed and sample sections of the program(s) shall be produced. Finally, the full program shall be produced.

#### **A. Conceptual Design Deliverables:**

- (1) **Flowchart:** Develop and submit a flowchart that outlines the structure and content and visually demonstrates the logical progression and connections between, to and from elements within the program.
- (2) **Graphic Design Approach:** For visually driven multimedia programs, such as touch screen interactives and websites, provide a minimum of two graphic approaches to the program. Each approach shall include the main page as well as a sampling of additional pages and/or critical elements that demonstrate the visual approach and graphic design, including typography, color selections, consistent operational features, such as back and home bars and other selectable features, illustrative features, and the incorporation of other materials such as photographs and video if applicable.

**NPS Graphic Identity:** The National Park Service has a corporate identity program that includes guidelines for all public communications media. However, exhibitions and multimedia programs, including video programs, often maintain their own graphic approach. Requirements for specific multimedia programs shall be described in the task order. If there are not specifications, the only requirement is the use of the National Park Service Arrowhead and a short text at the end of the program.

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The Contracting Officer will supply both the Arrowhead and text at time of contract award. The National Park Service approved typefaces are NPS Rawlinson OT and Adobe Frutiger Std. The NPS Rawlinson OT will be provided at the time of contract award. The contractor shall purchase Adobe Frutiger Std, if required in individual task orders. Both typefaces are OpenType fonts.

- (3) **User Interface:** If not already specified, or if a revision to an existing proposed interface is requested, the contractor shall describe whether a touch screen, track ball, mouse, button(s) or other device(s) are to be used in the operation of the program. New and emerging methods may also be proposed, such as Wii controllers and video motion capture. The contractor shall provide model names, numbers, and manufacturer specification sheets of all recommended equipment needed for operation of the program.
- (4) **Navigation:** The contractor shall describe the use of buttons, bars, icons, time outs, menus, pulldowns, or other navigational aids in detail. Attract sequences, time outs and default settings shall also be described.
- (5) **Internet Requirements:** The contractor shall inform the COR of all proposed systems and programs that require network or Internet connectivity. Plans for such systems will require additional review and approval by the NPS to insure compliance with all network security requirements and Information Technology policies in effect at the time of submittal. Computers connected to DOI/NPS LAN/WAN will have their keyboards/mouse secured from public access. Ethernet connections will be secured from public access. 802.11x wireless protocol is not permitted in NPS facilities. Touch screen programs shall be constructed so that users will not be able to reach a command level prompt or Windows applications window. All DOI/NPS security software and Active Directory settings shall be adhered to.
- (6) **Treatment:** (See *Section 1, Definitions*) If video or audio content is specified within the multimedia program, a treatment is required.
- (7) **Shot, Talent, Interviewee Lists:** If original photography, video, interviews, reenactments, or professional actors are required, a list identifying specific shots and interviews shall be submitted for approval. At a minimum, one revision shall be provided in response to the review.  
  
The use of the National Park Service Release Form is required for all interviews. Release forms drafted by the contractor will not be accepted. See Attachment B.
- (8) **Animation:** If animation is required, a treatment shall be submitted.

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- B. **Work-in-Progress Review I:** Enough of the structure and content should be completed in this phase to evaluate the validity of the approach and to determine if changes or modifications are needed to meet the project objectives.
- (1) **Interpretive Text:** Based on the task order and GFP, the contractor may be required to incorporate, rewrite, edit, and/or write and edit original text. At a minimum, two revised text documents shall be submitted to the COR and designated park contract. Upon review and approval of the revisions, the final text shall be submitted.
  - (2) **Scripts:** (See *Section 1, Definitions*) If video or audio is specified as a part of the multimedia program, a script is required unless provided as GFP. At a minimum, one draft script and two revised draft scripts shall be submitted to the COR and designated park contact. Upon review and approval of the revisions, the final script shall be submitted to the COR and designated park contact. Scripts shall be presented in the standard two-column format. Each scene in the script shall be numbered within the left column along with other visual information and cueing. The right column shall depict narrative and dialogue. The script shall be prepared on 8-1/2 x 11-inch paper and shall be submitted for review electronically in the latest version of Microsoft Word.
  - (3) **Fully Executed Section:** The contractor shall submit one fully functioning representative section based on the flow chart for review to the COR and designated park contact. If the program is complex and has numerous unique sections, multiple representative sections shall be submitted.
  - (4) **Graphics:** In addition to the graphics presented in the fully functioning sections, a list of proposed graphics shall be submitted for review and approval.
  - (5) **Location Footage:** Still or video footage, including interviews, shall be submitted for review and approval.
  - (6) **Animation:** Storyboards, graphic layouts, modeling, and sample demonstrations illustrating movement, shall be submitted as a part of the review process before the final execution of the animation occurs.
  - (7) **Rough Cuts:** (See *Section 1, Definitions*) The contractor shall submit a rough cut for review. At a minimum, two revisions shall be submitted.
  - (8) **Proposed Talent:** All talent used in the performance of work under this contract shall be appropriately and accurately costumed and equipped by the contractor. Contractor personnel shall not appear in any scenes of the production.

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The contractor shall give the COR prior notification of the time and place of the casting session. Casting shall be accomplished at a city or location where there is sufficient supply of professional talent to provide at least three choices for each major role. In addition to or in lieu of an in-person casting session, sample reels, videotaped and/or audio recorded readings from excerpted scripts or text may be submitted if approved by the COR in advance.

**C. Work-in-Progress Review II:**

- (1) **License Agreements:** (See *Section 7, Acquisition of Materials* and *Section G, Rights in Data*) The contractor shall submit a narrative description that accounts for the copyright sources of all audiovisual elements (images, video or film footage, artwork, graphics, animations, music, sound effects, interviews, etc.) proposed for use in the program—including public domain materials, purchased stock materials, and government-furnished materials—before the final project is produced. For those materials that are restricted, license agreements shall be submitted. Upon review and approval of the license agreements by the COR, any license that fails to meet the requirements as specified in the contract or the task order, will be returned to the contractor for revision. If the specified rights cannot be obtained, the contractor must replace the element unless written approval for a deviation is provided by the Contracting Officer.
- (2) **Fine Cuts:** (See *Section 1, Definitions*) If video and/or audio content is required, the contractor shall submit a fine cut for review. At a minimum, one revision shall be submitted
- (3) **Fully Executed Program(s):** All elements shall be incorporated into all sections of the program for review. At a minimum, two revisions shall be made.
- (4) **Accessibility:** (See *Section 8, Accessibility*) A comprehensive document detailing all accessibility features shall be submitted for review and approval. Following the approval of this document, captions, audio description, and other accessibility features shall be submitted for review before final production. At a minimum, two revisions shall be submitted leading to the final accessibility feature.

- D. Final Deliverables:** Upon completion of the project, all elements shall be submitted to the COR in accordance with *Section 12, Completion Report and Final Deliverables*.

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- E. **Installation and Training:** (See *Section 11, Installation, Training, Maintenance for Multimedia Programs*) Each task order shall require the contractor to either deliver the final equipment and/or programs for installation by others, or travel to the specified location to install the equipment and/or programs. Regardless, the contractor shall provide basic training to the park staff in the operation of the equipment and/or program. If travel is not required, this could take place in the form of a conference call. In all cases, a Maintenance Manual shall be required. (See *Section 11, Installation, Training, Maintenance for Multimedia Programs*).

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**SECTION 5. TRAVEL, MEETINGS, AND PRESENTATIONS**

**5.1 Introduction**

The contractor shall travel to the park or other locations to participate in review and development work sessions, conduct research, conduct location shoots, meet and/or interview subject matter experts, partners, and stakeholders, present submittals, conduct site visits, install equipment and/or programs, and conduct staff training for multimedia programs. The contractor shall be responsible for all travel necessary to conduct all pertinent activities required.

Because of the special nature of our parks, contractors are expected to exercise the highest degree of sensitivity to the resources and to minimize interference with visitors, wildlife, park resources, and park operations. All contractors are expected to comply with all rules and regulations and to acquire appropriate permits as needed.

**5.2 General Requirements**

**A. Travel to Site**

- (1) The contractor shall coordinate all travel with the COR and designated park point of contact.
- (2) The contractor shall bring all equipment they require while on travel and at the job site (for example, camera equipment and mounts, audio equipment, measuring instruments, computers, projectors, etc.).
- (3) The contractor shall provide for their own transportation while on travel.
- (4) The contractor's work days while on travel are 10-hour days.

**B. Meetings and Presentations**

- (1) The contractor shall develop an agenda in coordination with the COR.
- (2) The contractor shall discuss with the COR expectations for work to be presented and identify the key participants.
- (3) The contractor shall determine along with COR whether documents, if any, will be submitted in advance or at the meeting.
- (4) The contractor shall facilitate meetings.
- (5) The contractor shall submit a written electronic trip report that documents discussions and outcomes.

**SECTION 6. SUBMITTALS AND REVIEWS**

**6.1 Introduction**

Submittals and reviews are the key communication points between the contractor and the COR which document a project's overall progress and any remedial actions necessary to produce complete and acceptable deliverables. At a minimum, submittals shall be provided to the COR and designated park point of contact for review and approval. Submittals to additional reviewers shall be specified in the task order. At any point in the video and audio production process or multimedia planning design, production, installation, training, and maintenance process, the COR may require informal submittals of the contractor's work-in-progress to document the current status, level of development, and response to revisions of the project.

**6.2 General Requirements**

- A. The contractor shall coordinate all submittals and review them for legibility, accuracy, completeness, and compliance with contract requirements.
- B. The contractor shall cross-reference all details that occur multiple times in a single or in multiple documents for consistency and accuracy.
- C. The contractor shall ensure that all submittals are delivered to the COR and park point of contact as scheduled for review and approval. Submittals shall be accompanied by a transmittal form describing all contents and the focus of the review.
- D. The contractor shall provide the following for each submittal to the COR and designated park point of contact:
  - (1) Two hard copies of each document and two copies of all electronic files on CD.
  - (2) Text documents, such as treatments, scripts, and draft text, shall be sent electronically for review.
  - (3) For video submittals, DVDs with window timecode shall be submitted. One DVD shall be sent to the COR and two DVDs shall be sent to the park point of contact.
  - (4) For audio submittals, CDs or electronic audio files shall be submitted. One CD or electronic audio files shall be sent to the COR and two CDs or electronic audio files shall be sent to the park point of contact.
  - (5) Other submittals that may be reviewed electronically, such as samples of animation, storyboards, and design alternatives placed on the contractor's website for secured client review, shall be submitted in addition to or in lieu of hard copies and copies of electronic files if proposed and approved by the COR.

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- E. The contractor shall receive all review comments from the COR and take appropriate action as stated below:
- (1) Approved Submittals – The contractor shall ensure that all changes, revisions, additions, or omissions required by review comments are addressed and incorporated into future submittals.
  - (2) Rejected Submittals – When submittals are rejected, the COR will notify the contractor, in writing, identifying the reasons for rejection. The contractor shall ensure that the submittal is completed and/or revised as required and resubmitted within the time scheduled by the COR. Reasons for rejections include:
    - a. Incomplete Submittals – Approval of the submittal is delayed because required elements are missing. The contractor shall submit all missing elements. When all elements are received and accepted, the COR will approve the submittal.
    - b. Unacceptable Submittals – The submittal is rejected due to poor quality of work or work that does not otherwise meet the established project goals. The contractor shall submit new material.

**6.3 Review and Approval Times for Audio and Video Production**

Unless otherwise stated in the task order, the following times for review and approval of contract submittals applies:

	ITEM DESCRIPTION	APPROVAL REQUIRED	WORKING DAYS REQUIRED FOR APPROVAL
1	Pre-Production Conference and Project Understanding	Yes	5 days
2	Treatment(s)	Yes	10 days
3	Production Plan and Schedule	Yes	10 days
4	Scriptwriting: a. First Draft Script b. Second Draft Script c. Final Script	Yes Yes Yes	21 days 15 days 10 days
5	Shooting Script and Schedule; Interview List	Yes	5 days
6	Screening of Principal Photography	Yes	10 days
7	Off-Line Edit Rough Cut(s)	Yes	10 days
8	Narrator and Music Samples	Yes	5 days

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9	Animation Work-In-Progress; Graphic Selection	Yes	10 days
10	Off-Line Edit Fine Cut(s)	Yes	10 days
11	License Agreements/Release Forms	Yes	5 days
12	On-Line Edit and Mix	Yes	5 days
13	Caption Check Disc and Audio Description Script	Yes	7 days
14	Screening of Color Corrected captioned and audio described master	Yes	5 days
15	Final Deliverables	Yes	15 days

**6.4 Review and Approval Times for Multimedia Production**

	ITEM DESCRIPTION	APPROVAL REQUIRED	WORKING DAYS REQUIRED FOR APPROVAL
1	Conceptual Work in Progress Review	Yes	10 days
2	Fully Operational Review	Yes	10 days
3	Final Deliverables	Yes	15 days

**6.5 SPECIFIC REQUIREMENTS FOR COMPLETION REPORT AND FINAL DELIVERABLES SUBMITTALS** (See *Section 12, Completion Report and Final Deliverables*)

**SECTION 7. ACQUISITION OF MATERIALS**

**7.1 Introduction**

While the creation of original materials is typical for many programs, contractors must also typically procure existing materials. The contractor shall research, procure and obtain all materials to be included as content for each program. This includes, but is not limited to still images, film or video footage, artwork, music, sound effects, and professional talent. Because most products produced by the National Park Service have secondary functions and become a part of the public domain, unless otherwise noted in the task order, the contractor is strongly encouraged to seek existing material from open source or public domain resources whenever possible. Also see *Section G, Rights in Data – Special Works (FAR 52.227-17) (DEC 2007)* for more information.

The contractor shall use the National Park Service Release Form when procuring rights. (See Attachment B) The only exception to this without prior written approval of the Contracting Officer is when the contractor is procuring existing material from an organization, company, and/or individual who require the use of their own license agreement. But even in these instances, the contractor shall make every attempt to have this party sign the National Park Service release form in addition to their own license agreement.

**7.2 Use Rights**

- A. The contractor shall clear and negotiate price, terms, and conditions of all elements for use. This includes all rights with publishers and copyright holders.
  - (1) Rights shall be negotiated in perpetuity (or for the life of the project) in accordance with the Rights in Data – Special Works (FAR 52.227-1) (DEC 2007) clause of the contract. This shall also include the rights for web/internet use unless specifically excluded by the Contracting Officer.
  - (2) Licenses with indemnification clauses signed on behalf of the National Park Service will not be accepted
  - (3) Arbitration shall be in accordance with Federal laws.
- B. The acquisitions shall have documented signed agreements in the name of the National Park Service for one-time, non-exclusive use. If a licensor will not agree to the above terms, the contractor shall immediately notify the COR. Only when the contractor receives, in writing from the Contracting Officer, permission to use an element with a license that does not meet the above terms may that element be used. Otherwise it shall be removed from the program and a replacement or an alternative approach proposed by the contractor shall be used.

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- C. If the copyright of an element, such as a historic photograph, is unknown, the contractor shall immediately notify the COR. The contractor shall also submit in writing their detailed attempts to locate copyright information. Only if the contractor receives written permission from the Contracting Officer to use an element with an unknown copyright, may that element be used. Otherwise it shall be removed from the program and a replacement or an alternative approach proposed by the contractor shall be used.

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**SECTION 8. ACCESSIBILITY**

**8.1 Introduction**

Park visitors who have physical, sensory, and/or cognitive disabilities have legally established civil rights to receive the same information and context that NPS interpretive media provide fellow citizens.

All work performed under this contract shall be in accordance with the latest Programmatic Accessibility Guidelines for NPS Interpretive Media, which are available at [www.nps.gov/hfc/accessibility](http://www.nps.gov/hfc/accessibility). The Guidelines combine laws, policies, and best practices to offer design and presentation solutions that are acceptable in most situations. Contractors are advised to understand that physical access is required for employees to operate and service equipment.

In addition to Universal Design principles, specific design requirements for accessibility are mandated by statute. Laws that apply to work performed under this contract include the Americans with Disabilities Act (for non-Federal buildings and facilities), the Architectural Barriers Act (for Federal Government buildings and facilities), and Section 508 of the Rehabilitation Act, for electronic and information technology purchased by the Federal Government. Detailed information on these statutes may be found at [www.access-board.gov](http://www.access-board.gov).

Industry standard software and tools used to develop multimedia programs are continually developing to meet the needs of people using accessibility services and features. The contractor shall use the most up-to-date programs and software that best meet the accessibility needs. The contractor shall also defer to published guidance from those companies whose software and tools are used to create professional quality multimedia programs. This includes Adobe products, whose guidance for producing Flash-based accessible programs can be found at: <http://www.adobe.com/accessibility/>. If industry guidance conflicts with guidance provided in the latest Programmatic Accessibility Guidelines for NPS Interpretive Media, the contractor shall notify the COR immediately. The contractor shall not proceed until written direction is given from the COR.

**8.2 GENERAL REQUIREMENTS**

There are three main accessibility requirements of all audiovisual programs: captions, audio description, and assistive listening. While these three requirements are straightforward in the production of video and audio programs, accessibility requirements for multimedia and “new media” continue to evolve along with the technology used to create and deliver these programs. The information below augments information in Programmatic Accessibility Guidelines for NPS Interpretive Media. But both should be referred to when addressing accessibility.

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- A. **Captioning:** The NPS policy states that all training and informational video productions which support the agency's mission, regardless of format, that contain speech or other audio information necessary for the comprehension of the content, shall be captioned. The NPS policy also states that the captions shall be displayed at all times. For video programs, captions may be displayed on caption boards or on-screen. For multimedia programs, captions shall be placed on the screen.
- (1) Caption Specifications
- a. For video programs and multimedia programs that contain video, the contractor shall provide closed captions. This includes video podcasts.
  - b. For audio programs requiring captions, specifications will be contained in the task order.
  - c. For video programs, all closed captions shall conform to National Captioning Institute line 21 specifications.
  - d. For video programs, all captions shall consist of no more than two lines, and each line shall consist of no more than 32 characters.
  - e. Closed captions shall use all uppercase characters. When open captions are specified, upper and lower case shall be used.
  - f. Captions shall be pop-on/pop-off, not roll-up.
  - g. Captions shall distinguish between narration and spoken dialogue, and shall indicate the presence of music and sound effects.
  - h. If captions are to be displayed on a caption board below the screen, they shall be placed on the top two lines of the four-line caption space. If captions are to be displayed on a caption board above the screen, they shall be placed on the bottom two lines of the four-line caption space.
  - i. If captions are to be displayed on-screen, they shall be placed on the bottom two lines of the four-line caption space, and shall appear at the bottom of the screen. When images or on-screen titles interfere with caption readability, the caption placement may temporarily switch from the bottom to the top of the screen.

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- (2) Caption Review, Approval, and Deliverables
- a. The contractor shall submit all captions for review and approval by the COR.
  - b. Caption review submittals shall include an electronic copy of the captioned script as a Microsoft Word document. This document shall contain the visual timecode as a reference for the caption placement. The contractor shall also provide a DVD check disc with visual time code and the closed captions burned on screen. The contractor shall provide a second check disc and caption script to the park contact. The contractor shall not proceed with the final deliverables until the check disc and caption script are approved by the COR, which may require the submission of additional revised check discs and scripts before final approval.
  - c. Upon approval of the captions, the contractor shall deliver the final captioned master on Digital Betacam, unless otherwise specified. The captioned master tape shall have continuous non-drop frame SMPTE time code and shall be formatted to NPS specifications in accordance with the specifications provided in *Section 9, Technical Specifications for Video and Audio Production* or *Section 10, Technical Specifications for Multimedia Production*.
  - d. If requested in the task order, the contractor shall deliver one master DVD-R disc and two backup DVD-R discs of the final captioned master. The discs shall be formatted as follows:

One title, one chapter, continuous frame count from beginning to end, including black, ten seconds of black at head of disc before first picture fade-up, and 30 seconds of black after the last frame of the program. The discs shall be labeled in accordance with the specifications provided in *Section 9, Technical Specifications for Video and Audio Production*.
  - e. The contractor shall deliver the final approved .scc caption file on a disc, which shall be labeled in accordance with the specifications provided in *Section 9, Technical Specifications for Video and Audio Production*. The contractor shall also deliver an electronic Microsoft Word file of the final approved caption script and the final .scc caption file.

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(3) Directory of Known Captioning Vendors:

**CPC Computer Prompting and Captioning Co.**

1010 Rockville Pike, Suite 306

Rockville, MD 20852

800-977-6678

[www.cpcweb.com](http://www.cpcweb.com)

**Henninger Media Services**

2601 Wilson Boulevard

Arlington, VA 22201

703-243-3444

[www.henninger.com](http://www.henninger.com)

**Pillar to Post Video**

205 S. Whiting Street, Suite 602

Alexandria, VA 22304

703-751-4787

**Video Labs**

15237 Display Court

Rockville, MD 20850

800-800-8240

[www.videolabs.net](http://www.videolabs.net)

**VITAC Corp.**

1501 Wilson Blvd., Suite 1003

Arlington, VA 22209

703-807-2766

[www.vitac.com](http://www.vitac.com)

**Action Duplication**

8 Union Hill Road

Conshohocken, PA 19428

800-847-3827

[www.actionduplication.com](http://www.actionduplication.com)

**Caption Colorado**

5690 DTC Boulevard, Suite 500W

Englewood, CO 80111

800-775-7838

[www.captioncolorado.com](http://www.captioncolorado.com)

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**Caption Max**

2438 27th Avenue South  
Minneapolis, MN 55406  
612-341-3566  
[www.captionmax.com](http://www.captionmax.com)

**National Capitol Captioning**

2820 Washington Blvd. #2  
Arlington, VA 22201  
703-243-9696  
[www.capitolcaptioning.com](http://www.capitolcaptioning.com)

**National Captioning Institute**

1900 Gallows Road, Suite 3000  
Vienna, VA 22182  
703-917-7600  
[www.ncicap.org](http://www.ncicap.org)

**Visual Audio Captioning, Inc.**

8930 Glenbrook Road  
Fairfax, VA 22031  
703/280-0041  
[www.visualaudiocaptioning.com](http://www.visualaudiocaptioning.com)

**WGBH Caption Center**

125 Western Avenue  
Boston, MA 02134-1008  
617-300-3600  
[main.wgbh.org/wgbh/pages/mag](http://main.wgbh.org/wgbh/pages/mag)

- A. **Audio Description:** The NPS policy states that all training and informational video productions which support the agency's mission, regardless of format, that contain visual information necessary for the comprehension of the content, shall be audio described. The policy shall also apply to multimedia productions. In general, audio description helps to ensure that people who are blind or have low vision enjoy equal access to film, video, and multimedia programs by providing additional descriptive narration of key visual elements.

For video programs in particular, audio description uses the natural pauses in the existing soundtrack to insert descriptions of essential visual elements such as actions, settings, appearance of characters, body language, costumes, lighting, on-screen text, etc., when such information is not offered in the existing soundtrack. This prerecorded narration is delivered on a separate audio track that is synchronized with the program's primary audio track.

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In theater settings, audio description is typically played from a separate audio track or device and is not heard over the main loudspeaker(s). Visitors requesting audio description will typically receive a headset and receiver. The audio description track is then transmitted to the headset via a radio frequency or infrared signal. Only those visitors with headsets will hear the audio description track. In exhibit settings, where video programs are often activated via pushbutton or motion sensor, the audio description soundtrack may also be activated via pushbutton or other visitor actuated device. The playback method shall be specified in each task order.

For multimedia programs, the delivery of audio description shall depend upon the nature of the program. For example, an option for visitors to receive directional navigation as well as audio description that further describes what is seen on the screen, may be selectable. Or text-to-voice readers may be activated. The contractor shall propose options to meet these accessibility needs. In addition, the contractor may be required to work in collaboration with exhibit planners, designers, and fabricators to further develop the accessibility approach if this approach requires integration within a larger exhibit accessibility approach.

(1) Audio Description Specifications

- a. All audio description shall be written, narrated, and recorded by trained, professional audio description providers.
- b. All audio description shall conform to accepted industry standards and practices. While there is not one set of national or international guidelines, only professionals within the field shall be referred to for guidance, standards, and practices.
- c. All digital audio shall be created at a sampling rate of 48 KHz, unless otherwise specified in the task order.

(2) Audio Description Review, Approval, and Deliverables

- a. The contractor shall provide an electronic Microsoft Word file of the proposed script to the COR and the designated park contact for review and approval. Each block of text in the audio description script shall reference SMPTE time code of the program along with the preceding line from the program's original narration track. The contractor shall not proceed with the final deliverables until the audio description script is approved by the COR, which may require additional script submittals before final approval.

- b. Upon approval of the audio description script, the contractor shall record the audio description soundtrack in a professional studio using a professional audio description narrator. The contractor shall then provide a CD check disc or MP3 file of the edited audio description track for review and approval by the COR. Upon final approval by the COR, the contractor shall transfer the final edited track to a master tape format to be specified in the task order.
  - c. All master tapes shall have continuous non-drop frame SMPTE time code and shall be formatted to NPS specifications in accordance with the specifications provided in *Section 9, Technical Specifications for Video and Audio Production*.
  - d. The contractor shall deliver a backup copy of the final approved audio description soundtrack on a CD as a WAV or AIFF audio file and as an MP-3 digital audio file. The contractor shall also deliver an electronic Microsoft Word file of the final approved audio description script. The disc shall be labeled in accordance with the specifications provided in *Section 9, Technical Specifications for Video and Audio Production*.
  - e. If the contractor is using text-to-voice readers, the contractor shall submit the program for review and approval with this feature.
  - f. If the contractor is producing audio description for multimedia programs, the contractor shall follow the above submittal guidance including submitting scripts for review. If a professional narrator is used instead of a text-to-voice reader, the contractor shall submit a CD audio file and a MP3 file of the final narration.
- (3) Directory of Known Audio Description Vendors:

**Audio Description Associates**

6502 Westmoreland Ave.  
Takoma Park, MD 20912  
301-920-0218  
[www.audiodescribe.com](http://www.audiodescribe.com)

**Audio Description Solutions**

110 Lincoln Way West  
New Oxford, PA 17350-1314  
717-624-4860  
[www.audiodescriptionsolutions.com](http://www.audiodescriptionsolutions.com)

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**Pillar to Post Video**

205 S. Whiting Street, Suite 602  
Alexandria, VA 22304  
703-751-4787

**Audio Eyes (Amber Boggs)**

9250 Reseda Blvd., #107  
Northridge, CA 91324  
818-782-7733

**Caption Max**

2438 27th Avenue South  
Minneapolis, MN 55406  
612-341-3566  
[www.captionmax.com](http://www.captionmax.com)

**Narrative Television Network**

5840 South Memorial Drive, Suite 312  
Tulsa, OK 74145-9082  
800-801-8184  
[www.narrativetv.com](http://www.narrativetv.com)

**National Captioning Institute**

1900 Gallows Road, Suite 3000  
Vienna, VA 22182  
703-917-7600  
[www.ncicap.org](http://www.ncicap.org)

**VITAC**

101 Hillpointe Drive  
Canonsburg, PA 15317-9503  
800-278-4822  
[www.vitac.com](http://www.vitac.com)

**WGBH Media Access Group**

125 Western Avenue  
Boston, MA 02134-1008  
617-300-3600  
[main.wgbh.org/wgbh/pages/mag](http://main.wgbh.org/wgbh/pages/mag)

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- B. **Assistive Listening:** Approaches to providing assistive listening (see *Section 1, Definitions*), are often addressed and provided by the exhibit planners, designers, fabricators, and installers. However, in cases where a multimedia program is a standalone program that does not involve the coordination with others, the contractor shall propose and provide the proper assistive listening devices, such as a T-Coil compatible handset with volume control.

**SECTION 9. TECHNICAL SPECIFICATIONS FOR VIDEO AND AUDIO  
PRODUCTION**

**9.1 Introduction**

Because technology is constantly evolving, the tools used to produce and deliver programs change as well. Below are general guidelines and required minimums that inform task orders. Specific details such as required master formats will be specified in task orders. In addition, the contractor may also be asked to specify proposed equipment as a part of the proposal submission.

Performance under this contract shall be in accordance with professional television broadcast, video and film production standards and/or procedures. Production and specification standards may be revised during the course of this contract to reflect evolving industry standards, changing technology, and in response to changes in common business practice within the industry. The contractor shall comply with new and/or changing technology and upgrade as necessary.

**9.2 Key Personnel**

All key personnel shall have a minimum of five years of professional experience in their respective discipline in regards to a wide range of production and directorial work; the use and understanding of film and video cameras and formats; sound recording systems; non-linear editing systems; and audio finishing systems as appropriate to the production.

**A. Cinematographer and Videographer**

The Cinematographer or Videographer shall be proficient in the use of 35mm, 16mm, Super 16mm film cameras and High Definition and Digital Betacam video cameras and recorders as appropriate to the production. The Cinematographer or Videographer shall have practical experience and knowledge of lighting design.

**B. Producer, Director, Sound Recordist, Editor, Writer**

**9.3 Film**

If a project requires originating footage to be shot on film, it will be specified in the task order. In almost all cases when film is specified, editing and mastering will be in a videotape format unless otherwise noted in the task order.

**A. Film Stock:** Specifications for film stock should be provided by the contractor for approval by the COR. High speed Kodak stocks (or Fuji equivalents) shall not be used unless approved in advance by the COR.

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- B. **Film Processing:** Quality of film processing shall be in accordance with laboratory standards and procedures as covered in the latest edition of the Association of Cinema and Video Laboratories (ACVL) Handbook.
- C. **Film to Tape Transfers:** Film-to-tape transfers shall be performed on professional, state-of-the-art transfer equipment. The method used for film-to-tape transfer shall be specified by the contractor for approval by the COR. Footage that is scratched shall be transferred with a liquid gate. All film will be professionally prepared and cleaned before transfer to video. Unless otherwise specified in the task order, all film footage shall be transferred to Digital Betacam. All film shot with sync sound shall have the audio recorded onto the videotape with non-drop frame SMPTE timecode. The contractor shall provide DVD screeners with timecode of all original footage. Both original (except existing stock footage) and transfers will become property of the government.
- D. **Motion Picture Camera Equipment:** All motion picture cinematography shall be filmed on a 16mm or Super 16mm professional camera with film registration pin and a frame line centered on the sprocket hole(s), or a 35mm professional quality film camera.
- E. **Frame rates:** 24, 30, or 29.97 frames per second are acceptable frame rates for normal filming. Non-standard speeds are acceptable for time-lapse and special effects. Other frame rates proposed by the contractor shall be approved by the COR.
- F. **Camera Logs:** Every camera roll must have an accompanying log describing each shot on the roll. Logs may be generated from a NLE system (e.g. Avid bins) after the film has been transferred to video or from field logs transcribed into a Word, Excel, or Access document. Whatever the source, every camera roll must have an associated log submitted electronically as a Word, Excel, or Access document.

#### **9.4 Video**

- A. **Video Camera Equipment and Videotape Formats:** Unless otherwise specified in the task order or approved in advance by the COR, the format must be at least Digital Betacam. Typically, however, the final format will be High Definition.
- B. **Frame Rate:** The frame rate shall be 30 or 29.97 frames per second unless otherwise specified in the task order, or proposed by the contractor and reviewed and approved by the COR.

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- C. **Tape Logs:** Every field tape must have an accompanying log describing each shot on the tape. Logs may be generated from a NLE system (e.g. Avid bins) or from field logs transcribed into a Word, Excel, or Access document. Whatever the source, every camera roll must have an associated log submitted electronically as a Word, Excel, or Access document.

## **9.5 Audio**

Audio may be mono or multi-channel and may require additional tracks for foreign languages and the visually or hearing impaired.

- A. **Format:** Unless otherwise specified, recordings of wild and/or sync sound shall be made on professional digital audio recorders. All digital audio for video programs shall be created at a sampling rate of 48KHz, unless otherwise specified in the task order. Audio programs delivered on CD shall be created at 44.1KHz.
- B. **Tape Logs:** A log identifying each sound take shall be provided electronically in a Word, Excel, or Access document. Identifying slates with clap-sticks shall be used as often as possible even when documentary technique with automatic “bloop,” “silent-slate,” “smart-slate,” or a time code system is used. If Dolby is used, a minimum of five seconds of Dolby-tone shall be recorded at the head of each reel at the time of original recording.

## **9.6 Location Shooting: All Formats**

- A. All film footage, video footage, and audio recordings shall be captured on new, professional grade film or tape stock or other preapproved digital storage.
- B. All cameras shall be mounted on a tripod, Steadicam, or other stabilizing device. Movement must be steady and of excellent professional quality. Handheld camerawork is allowable if specifically called for in the script and is appropriate to the video.
- C. Aerial photography shall be shot using professional grade FAA approved aerial camera mounting, rigging and stabilizing equipment unless otherwise specified in the task order. Hand-held aerial cinematography/videography will not be accepted unless approved in writing by the COR or specified in the script or task order.
- D. Before the location shoot, the contractor shall submit a daily shooting schedule, and include information on the crew selected for the shoot, the crew call times, crew travel and lodging information, emergency contact information, and government contact requirements, and anticipated location(s) of shoot. When shooting in restricted locations, the contractor shall be responsible for clearance needs and/or fee requirements.

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- E. Wild and/or sync sound shall be recorded throughout filming and videography and shall be included in the final edited production when appropriate. Unless otherwise specified, recordings of wild and/or sync sound shall be made on professional digital recorders. Original sync and/or wild recordings of background ambiance at each location and sync recording of any shots (other than uncontrolled wildlife) where sync will be clearly discernible are required.

## **9.7 Post Production**

- A. **Editing:** Unless otherwise specified in the task order, all editing will be accomplished on a non-linear editing system. Individual bin logs listing all digitized shots shall be submitted as part of the Completion Report. (see *Section 12, Completion Report and Final Deliverables*)
- B. **Scoring:** All music used in the production shall be cleared, and all fees to those with performance rights or copyrights should be paid for by the contractor, for non-exclusive, unlimited worldwide use in the production(s), unless otherwise specified in the task order. Original music scores and sound effects produced under this contract become the property of the government. A statement identifying all library music needle-drops or full scores and copies of all clearances shall be furnished in the Completion Report as part of the final deliverables. (see *Section 12, Completion Report and Final Deliverables*)
- C. **Sound Design and Mix:** The contractor shall provide, at a minimum, stereo music and sound effects for all programs with sound unless otherwise specified in the task order.
- D. **Color Correction:** Unless otherwise specified in the task order, all video programs shall be color corrected.

## **9.8 Slates and Labeling For Source Film Rolls, Video and Audio Tapes**

- A. **Camera Rolls:** All camera rolls shall be clearly slated and all film cans shall be clearly labeled with a unique and sequential number. The slate shall include the following minimum information: National Park Service, Four-letter Park acronym (will be furnished with each task order), TV-Number (will be furnished with each task order), frame rate, film stock, date and unique camera roll number.
- B. **Videotape:** All videotapes shall be clearly labeled (both box and tape) with a unique and sequential number. The label shall include the following minimum information: National Park Service, Four-letter Park acronym (will be furnished with each task order), TV-Number (will be furnished with each task order), frame rate, date and unique tape roll number.

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- C. **Audiotape:** All individual cassettes and other digital storage of recorded material shall be clearly identified (both cassette and digital media and box) with date, sound and film roll/videotape numbers, and program identification. This information shall be recorded at the head of each cassette/storage medium.

**9.9 Slates and Labeling For Program Masters**

All slates and labeling for master tapes, discs, and other digital sources produced under this contract shall be formatted as follows:

<b><i>SLATE/LABEL SHALL READ:</i></b>	
<b>National Park Service</b>	Or other government agency if project is non-NPS
<b>Four Letter Park Acronym</b>	e.g. BTR; will be furnished with each task order
<b>TV-XXXX</b>	e.g. TV-602; will be furnished with each task order
<b>Title of Program</b>	e.g. <i>“Big Trees National Park: Giants In Our Midst”</i>
<b>XX:XX</b>	e.g. 21:27; total running time of the program
<b>Audio Configuration</b>	e.g. mono, stereo, 5.1 surround
<b>Captioning and/or Audio Description Information</b>	e.g. “Closed Captioned on top two lines,” “Open Captioned,” “Audio Description on Channel 4”
<b>Production Company</b>	Contractor name
<b>Mastering Date</b>	Date final master was produced
<b>Anamorphic or Letterbox</b>	

**9.10 Set-Up for Program Masters**

The contractor shall submit master tapes for all video, and on occasion, audio elements and programs. Specific formats shall be specified in the task order; however the following set-up is required for all master tapes:

<b>Tape Start</b>		at	00:58:00:00
<b>Black/Silence</b>	00:58:00:00	to	00:58:30:00
<b>SMPTE Color Bars/Tone</b>	00:58:30:00	to	00:59:30:00
<b>Slate (See 9.9, Slates and Labeling For Program Masters)</b>	00:59:30:00	to	00:59:35:00
<b>Black/Silence</b>	00:59:35:00	to	01:00:00:00
<b>Program **</b>	01:00:00:00	to	01:XX:XX:XX
<b>Black/Silence</b>	30 Seconds		
<b>SMPTE Color Bars</b>	5 seconds		
<b>Black/Silence</b>	30 seconds	to	60 seconds

\*\* Includes “Attract Loop” or DVD menu if specified

### 9.11 Attract Loops

When specified in the task order, attract loops shall:

1. Be placed on the master tape (see 9.10, *Set-Up for Program Masters*)
2. Have a 60% to 70% maximum luminance
3. Be low contrast
4. Have text and images that vary in placement within each frame to avoid any possibility of burn-in or image persistence
5. Contain a minimum of three to four images relevant to the program with directional information regarding how the program will play (i.e.: “Push Button for Program”) in text on the screen and, if specified, though audio. The directional text on the screen shall run for 15 continuous seconds. Alternatively the contractor can provide a moving attract loop with text dissolving in and out in various places on the screen
6. Attract loops shall be submitted to the COR for review and approval before final editing and mastering

### 9.12 Digital Video For Exhibit Programs

- A. **File Formats:** All digital video shall be encoded. They shall be provided in the following formats after review and approval of the COR: MPEG1, MPEG2. The transfer of programs to disc-based servers or solid-state media players will be listed in each task order.
- B. **Pixel Resolution:** At a minimum, all sequences shall be stored at 640 x 480 frame size.
- C. **Frame Rate:** The frame rate shall be 30 frames per second unless otherwise specified in the task order, or proposed by the contractor and reviewed and approved by the COR.
- D. **Playback Control Requirements for Video Within Multimedia Programs:** Video sequences shall run to their conclusion with time-outs deactivated. If within the program, playing of the video takes the user to a separate screen, upon its conclusion, the program will return to the previous menu level within the multimedia program. Alternatively, navigational buttons allowing the user to return to the previous page or a menu are acceptable. Video playback within interactive programs shall have playback controls during the playback of all video sequences.

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At a minimum, playback features shall include:

<b>Play</b>	<ul style="list-style-type: none"> <li>• Resumes running video</li> <li>• Displays stop button</li> </ul>	<ul style="list-style-type: none"> <li>• Hides play button, displays pause button</li> <li>• Deactivates time-out</li> </ul>
<b>PAUSE</b>	<ul style="list-style-type: none"> <li>• Stops running video</li> <li>• Displays play button</li> </ul>	<ul style="list-style-type: none"> <li>• Freezes on current frame</li> <li>• Resets time-out</li> </ul>
<b>STOP</b>	<ul style="list-style-type: none"> <li>• Stops running video</li> <li>• Displays play button</li> </ul>	<ul style="list-style-type: none"> <li>• Resets to the beginning</li> <li>• Resets time-out</li> </ul>
<b>BACK-UP/ FORWARD</b>	<ul style="list-style-type: none"> <li>• Stops running video</li> <li>• Resumes running video</li> </ul>	<ul style="list-style-type: none"> <li>• Continues to back-up or fast forward until user depresses feature.</li> </ul>

**E. Graphics**

- (1) All graphics shall be in full color and developed in at least 24-bit color.
- (2) Graphics shall be created in one of the following file formats unless otherwise specified in the task order:

.TIF (TIFF file images)

.PSD (Adobe Photoshop file)

.JPG (Joint Photographic Expert Group) saved at the High Quality Level 10

.PNG (Portable Network Graphics)

**9.13 Screen Resolution**

The screen resolution shall be determined by the production path and display equipment, proposed by the contractor, and reviewed and approved by the COR.

**9.14 Typography**

The contractor shall select the fonts, leading, color, and backgrounds in such a manner to insure good legibility. Characters and symbols shall contrast with their backgrounds, either light characters on a dark background or dark characters on a light background. Shading, outlining, and underlining shall be used when appropriate to enhance legibility.

**SECTION 10. TECHNICAL SPECIFICATIONS FOR MULTIMEDIA PRODUCTION**

**10.1 Introduction**

Because technology is constantly evolving, so too do the tools used to produce and deliver programs. Below are general guidelines and required minimums. Specific details, such as required master formats, will be specified in task orders.

**Production and specification standards** may be revised during the course of this contract to reflect evolving industry standards, changing technology, and in response to changes in common business practice within the industry. The contractor shall comply with new and/or changing technology and upgrade as necessary.

**10.2 General Requirements**

**A. Authoring Systems/Software**

- (1) Software (authoring language) used to develop the program shall be readily available, off-the-shelf. No proprietary code, in the sense that it may only be used by the contractor, is allowable. The source code, in any language required to augment the authoring language, will become the property of the government. All authoring language source code, and any other code required to complete and run the program, shall be included in the final deliverables.
- (2) If different from that stated in the contractor's proposal, the contractor shall provide a description of the process utilized in developing all aspects of the program, including but not limited to, the digitization and touch up of still and moving images; the creation of art, graphic, animation, and virtual reality elements; the capture, digitization, and editing of still and moving images; and the capture, editing, and mixing of music and sound effects.
- (3) It is recognized that the software used to create each program will vary. While the National Park Service is flexible about software applications, at a minimum, the contractor shall have demonstrated professional experience in the following programs and applications for multimedia production:
  - a. Flash CS3 Professional
  - b. Photoshop CS3
  - c. Dreamweaver CS3
  - d. Acrobat 8 Professional
  - e. After Effects CS3 Professional
  - f. Fireworks CS3

The National Park Service may update this list through the course of this contract, but it is also expected that contractors shall remain current with software upgrades, changing technology, and industry practice.

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- (4) It is recognized that the complexity and delivery of audio and video as stand-alone programs or features within multimedia will vary. While the contractor shall be expected to use professional industry standard software, such as Final Cut Pro, Avid Xpress Pro and Avid Pro Tools LE, the contractor may propose the software for these purposes. Individual task orders may require minimum video and audio editing software.
  - (5) All system software proposed for the operation of the program shall be readily available commercially and fully supported on the open market.
- B. Equipment/Hardware:** The proposal and purchase of the equipment will either be GFP or shall be the responsibility of the contractor. Equipment selections shall be based on the long-term requirements of the presentation program. The systems shall be easy to operate with minimal training and designed for long life, minimal maintenance, and shall be carefully coordinated to insure that all design goals are met. The contractor shall coordinate information and installation as necessary with other members of the exhibition and the COR. This may include the shipment to and from the contractor's facility to another facility for fabrication and installation purposes.
- (1) The contractor shall provide equipment and systems designed with ease of use in mind, and require minimal maintenance.
  - (2) All system hardware proposed for the operation of the program shall be readily available commercially and fully supported on the open market.
  - (3) The contractor shall provide detail specifications for all audiovisual and computer equipment for the system as follows:
    - a. Specify equipment types, brands, and costs that are appropriate for the application, as well as for the environmental conditions in which the equipment will be installed.
    - b. Specify all ancillary equipment required for a fully operational system, such as surge protectors, uninterruptible power supplies, keyboard and mouse.
    - c. Identify all equipment by brand name and model number.
    - d. For each product specified, provide the manufacturer's technical information sheets, the manufacturer and/or supplier's address, telephone number, and information regarding accessories and additional equipment.
    - e. Special order items and items that are not normally available from a manufacturer's stock shall be clearly identified as such.
    - f. Voltage and load requirements.

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- g. When previously specified equipment has been discontinued or is unavailable through normal means, the contractor shall specify replacement equipment by brand name and model number, and provide cut sheets that show all product specifications.
- h. A life-cycle cost estimate for all major components specified for the program.

**C. Graphics**

- (1) All graphics shall be in full color and developed in at least 24-bit color.
- (2) Graphics shall be created in one of the following file formats unless otherwise specified in the task order:

.TIF (TIFF file images)

.PSD (Adobe Photoshop file)

.JPG (Joint Photographic Expert Group) saved at the High Quality Level 10

.PNG (Portable Network Graphics)

- D. **Screen Resolution:** The screen resolution shall be determined by the production path and display equipment, proposed by the contractor, and reviewed and approved by the COR.
- E. **Typography:** The contractor shall select the fonts, leading, color, and backgrounds in such a manner to insure good legibility. Characters and symbols shall contrast with their backgrounds, either light characters on a dark background or dark characters on a light background. Shading, outlining, and underlining shall be used when appropriate to enhance legibility.
- F. **Digital Audio:** All digital audio for video programs shall be created at a sampling rate of 48KHz, unless otherwise specified in the task order. Audio programs delivered on CD shall be created at 44.1KHz.
- G. **Scoring and Sound Effects:** The contractor shall provide stereo music and sound effects as required by the approved conceptual design, treatment, and script. However, the contractor may add music or sound effects when, in the contractor's professional judgment, such additional music or sound effects will enhance the presentation. Any additions must be approved in advance by the COR.

Original music scores and sound effects produced under this contract become the property of the government. A statement identifying all library music scores and copies of all clearances shall be furnished in the completion report as part of the final deliverables.

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H. **Digital Video:** Video may be a requirement—either as an incorporated feature within a program, such as selections of oral history interviews within an interactive computer program. When the production of multiple programs is required, standalone video programs (such as a 2 – 3 minute exhibit video) may be required. Video elements may be GFP, or the contractor may be required to produce these elements.

- (1) **File Formats:** All digital video shall be encoded. They shall be provided in the following formats after review and approval of the COR: MPEG1, MPEG2. The transfer of programs to disc-based servers or solid-state media players will be listed in each task order.
- (2) **Pixel Resolution:** At a minimum, all sequences shall be stored at 640 x 480 frame size.
- (3) **Frame Rate:** The frame rate shall be 30 frames per second unless otherwise specified in the task order, or proposed by the contractor and reviewed and approved by the COR.
- (4) **Playback Control Requirements:** Video sequences shall run to their conclusion with time-outs deactivated. If within the program, playing of the video takes the user to a separate screen, upon its conclusion, the program will return to the previous menu level within the program. Alternatively, navigational buttons allowing the user to return to the previous page or a menu are acceptable. Video playback within interactive programs shall have playback controls during the playback of all video sequences.

At a minimum, playback features shall include:

<b>Play</b>	<ul style="list-style-type: none"> <li>• Resumes running video</li> <li>• Displays stop button</li> </ul>	<ul style="list-style-type: none"> <li>• Hides play button, displays pause button</li> <li>• Deactivates time-out</li> </ul>
<b>PAUSE</b>	<ul style="list-style-type: none"> <li>• Stops running video</li> <li>• Displays play button</li> </ul>	<ul style="list-style-type: none"> <li>• Freezes on current frame</li> <li>• Resets time-out</li> </ul>
<b>STOP</b>	<ul style="list-style-type: none"> <li>• Stops running video</li> <li>• Displays play button</li> </ul>	<ul style="list-style-type: none"> <li>• Resets to the beginning</li> <li>• Resets time-out</li> </ul>
<b>BACK-UP/ FORWARD</b>	<ul style="list-style-type: none"> <li>• Stops running video</li> <li>• Resumes running video</li> </ul>	<ul style="list-style-type: none"> <li>• Continues to back-up or fast forward until user depresses feature.</li> </ul>

- (5) **Location Shooting (for still photography and video and sound recording):** See *Section 9, Technical Specifications for Video and Audio Production, 9.6, A-E.*

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- (6) **Labeling requirement for source materials, masters and slates:** See *Section 9, Technical Specifications for Video and Audio Production, 9.8 and 9.9.*
  - (7) **Set-Up for Program Masters:** Whether discreet elements imbedded within multimedia programs, or standalone videos, the contractor shall submit master tapes for all video elements and/or programs. Specific formats shall be specified in the task order. See *Section 9, Technical Specifications for Video and Audio Production, 9.10* for tape set-up format.
  - (8) **Attract Loops:** When specified in the task order. See *Section 9, Technical Specifications for Video and Audio Production, 9.11.*
- I. **Websites:** All official National Park Service websites are located at [www.nps.gov](http://www.nps.gov). All parks have a website coordinator who enters data into the National Park Service's content management database, making each park's website similar in their design and organization of information. Each website allows for "special features," which may include virtual tours and other interactive programs. While contractors may be contracted to develop websites for parks hosted by outside entities, developing special features within the current NPS website will be more likely.
- (1) **HTML:** When websites are developed, they shall be prepared in HTML (Hypertext Markup Language), or in languages compatible with HTML. The HTML pages shall be accessible via web browsers Internet Explorer (v6 or better), Mozilla Firefox (v2 or better), and Safari (v3 or better).
  - (2) **Use of other Applications:** For interactive components, it is acceptable for the contractor to use other plug-in applications, such as Adobe Flash, Adobe Shockwave, Adobe SVG, RealPlayer, Windows Streaming Media, and Microsoft Silverlight. In these cases, the contractor shall make every attempt to ensure that the application chosen meets accessibility requirements. If it does not, an additional alternative for accessibility purposes shall be created.
  - (3) **NPS Internet and Intranet Publishing:** All services provided by the contractor shall comply with National Park Service "Director's Order #70: Internet and Intranet Publishing" (National Park Service, January 8, 2001). This document may be reviewed via the Internet at: [www.nps.gov/policy/DOrders/DOrder70.html](http://www.nps.gov/policy/DOrders/DOrder70.html).
  - (4) **Posting Video to the Web:** Video posted on the web shall be encoded in the MP4 format/h.264 compression for maximum interoperability. At a minimum two versions shall be outputted: 320x240 15 fps and 640x480 29.7 fps.

**SECTION 11. INSTALLATION, TRAINING, MAINTENANCE FOR MULTIMEDIA PROGRAMS**

**11.1 Introduction**

Each task order, primarily those for the production of Multimedia, will specify how the finished product will be delivered to the park. In some cases the contractor shall send the equipment and programs to the Exhibit Fabrication contractor who in turn will install the program. In other cases the contractor will be required to deliver and install the equipment and/or program as part of their task order.

**11.2 General Requirements**

The installation, training, and maintenance of audiovisual systems and hardware at NPS and other government locations follow:

**A. Equipment & Software:**

- (1) The contractor shall inform the COR when the system is complete and in proper operating condition.
- (2) The contractor shall bring to the attention of the COR any aspects of the designs and specification included, which the contractor anticipates or foresees will cause any problems, setback, or undesirable results in the development, delivery, installation, operations, or other aspects of the systems described.

**B. Installation and Training:**

Each task order will specify whether the contractor is required to install the equipment and/or program(s). In any case, the contractor shall provide a minimum of two hours of training to the designated park staff.

**C. Maintenance:**

- (1) All equipment and materials purchased by the contractor shall be guaranteed for a period of one year from the date of installation and acceptance by the COR.

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- (2) All software and the program(s) shall be guaranteed by the contractor for a period of one year from the date of acceptance by the COR. Maintenance for this period will be limited to the functionality of the program and includes:
  - a. Operational malfunctions within the program(s), such as navigational buttons not properly activating as intended, the program does not boot up or shutdown as required, or the user is able to unintentionally navigate to other operational functions of the computer.
  - b. Operational malfunctions with the equipment.
  - c. Grammatical errors: Unless final text is GFP, the contractor is responsible for copy editing and proof reading all text. If spelling or other grammatical errors are found, the contractor shall correct and revise the program accordingly.
  - d. Maintenance Manual: Preceding final closeout, the contractor shall provide an electronic copy and two printed and bound manuals for use in operation and simple troubleshooting of the program specified in the task order. One Master copy of the manual shall include the owner's operating and/or service manuals for each item of equipment used in the specified system. This includes the manufacturer's warranty along with the date of purchase. The user manual shall include detailed photos of system components showing critical control functions, control settings, and user connections. The contractor shall submit a draft copy of the maintenance manual for approval before final copying and distribution.
  
- (3) The manual layout as a minimum shall have:
  - a. Cover / Title.
  - b. Contents.
  - c. Systems Overview description(s).
  - d. Backup disk(s) of the program(s) for re-installation if necessary.

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- e. System Operation
  - 1) Daily System Procedures.
  - 2) Show Startup and Shutdown operation.
  - 3) System Adjustments.
    - a) Audio.
    - b) Video.
- f. Troubleshooting Guide
- g. Using the manual specified, the contractor shall provide no less than two hours of training and instruction to personnel designated in writing by the COR. The contractor shall provide all installation, maintenance, and user instruction manuals as provided by the manufacturers of all components of the systems included in the “Master Maintenance Manual” copy.

**SECTION 12. COMPLETION REPORT AND FINAL DELIVERABLES**

**12.1 Introduction**

Most projects completed under this contract are procured using government funding. As such, they are not proprietary and the public, both individuals and companies, may request to use the program in its entirety or discreet elements. In addition to delivering both the master programs as well as the GFP and individual elements, it is therefore essential that detailed records, including license agreements, are kept for all elements used within the program, from historic photographs to originally created artwork.

For more information about rights and clearances see *Section 7, Acquisition of Materials* in this section as well as *Section G, Rights in Data – Special Works (FAR 52.227-17) (DEC 2007)* of this contract.

**12.2 Specific Requirements For Completion Report**

The contractor shall submit one hardcopy and an electronic file of the **entire** completion report detailing information about the program and all elements used within the program. In addition, the contractor shall submit all materials in acid-free archival storage boxes. Each box shall have an attached lid and shall not exceed 15" x 12.5" x 10".

The Completion Report shall contain the following information:

1. **Title:** Full title of program.
2. **Media Number:** Assigned NPS number and park acronym (i.e. BITR TV-602; BITR MM-412).
3. **TRT:** Total running time.
4. **Project Number:** Assigned NPS Project Number (i.e. 96-153).
5. **Client:** Official Name of Park or other client.
6. **Completed:** Date program completed.
7. **Formats:** Master formats delivered of final program. Also state accessibility features, such as the type of captioning, audio description, assistive listening, etc. on each master.
8. **NPS Producer-Director:** State the NPS COR.
9. **NPS Production Assistant:** State the NPS Production Assistant, if any.

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10. **Contract Production Company:** List the full name of company.
11. **Purpose of Show:** A brief paragraph stating overall theme of the program.
12. **Use Rights:** Identify what type of use rights were purchased. All original release forms (in hard copy as well as electronically) will be included under Item A, Licenses/Release Forms, and Permission Letters, under Attachments of this report with the exception of footage and graphics. Refer to Section 7 of the Specifications, Acquisition of Materials.
13. **Narration:** State narrator's name, restrictions, if any, and type of clearances acquired (i.e. license, permission letter, clearances.).
14. **Music:** State music used (i.e. original composition, library music, etc). Identify name, restrictions, if any, and type of license acquired (i.e. license, permission letter, clearances). If multiple music selections have been used, identify the source, restrictions, and license as well as the time code of the selection within the program.
15. **Other Talent:** State any other talent used, including interviews, restrictions, if any, and kind of clearances acquired (i.e. license, permission letter, etc.).
16. **Original Footage Format:** If film or video footage is originally produced under this contract, list the original format and all pertinent information, such as the selected frame rate.
17. **Source Materials and Detailed Logs:** This list functions as an inventory of all returned materials. This area is broken into two parts and will be expanded under *Item B, Source Material List and Detailed Logs*, under Attachments of this report.

**Part I:** List all materials included in the final deliverables. Identify each item. If multiple boxes are delivered, identify which box the item is in. Briefly describe the general contents of the item. Note whether the item (or any part of the item) is restricted. Note if the item or portions of a particular item have been used in the program.

**Part II:** Provide detailed logs for those materials that have multiple items within them. For example, if a CD-Rom has multiple electronic files, identify each file; if video footage has been acquired, log each shot on the tape or other approved digital media; if sound recordings have been produced, log each take, etc. All logs should correspond and be labeled in such a way so that it is clear which log refers to which source materials. Sync audio should refer back to the corresponding footage.

18. **Footage:** The purpose of this list is an accounting of all shots within the program as well as whether the shots are restricted. If video footage is used, either as an individual video element or as a part of a multimedia program, all footage used in the final program shall be listed. It is recognized that programs with longer running times may have hundreds of associated shots. Shots, if identifiable as a group may be noted in this manner. For example, if multiple shots of a natural environment and/or the interior of a historic house have been use in the program, the list may simply state, “*all exterior and interior shots of the Clara Barton House were shot for this production and are in the public domain.*” However, for all shots that are restricted, the location within the program and timecode shall be noted. Again, if the same kind of material has been used, a general statement may first be given and then the individual shots listed. For example, “*All interviews in the final program are restricted for one-time use in this production. Use rights include educational use, archival research, viewing at the visitor center, distribution, sales, broadcast and publishing on the web for the life of the project. Interviews occur within the program at:*

*00:03:11:12: Interview with Bob Warren* (For a multimedia program, the interview location may be identified by its location within the flow chart of the program.)

All original release forms and/or licenses obtained (in hard copy as well as electronically) shall be filed under this section.

19. **Graphics:** State the type of graphics used and any general restrictions. This area will be expanded under Item C, Graphics, under Attachments of this report. The following information shall be included: graphic thumbnail, title and description, use rights, time code or location within program of the image contained in final program, format of image used, location of original image used, and miscellaneous notes.

The thumbnail shall be no smaller than 120 pixels wide for landscape orientation and 80 pixels wide for portrait orientation. Both shall be 72 dpi.

All original release forms and/or licenses obtained (in hard copy as well as electronic) shall be filed under this section.

20. **Credits:** A listing of credits as they appear in the program. This area will be expanded under Item D, under Attachments of this report. This information should only include sources used in the production, not all sources considered. The information under this section must match the data provided above under Items 13 through 17.

21. **Final Text and/or Script:** The final approved text and/or script shall be provided and filed under Item E, Final Text/Script of this report. The script shall also be annotated to include footage and/or images used in conjunction with the narration.
22. **Sequence Information:** If video is produced, this section shall include the Edit Decision List (EDL) of the completed show. This area will be expanded under Attachment J, Sample Completion Report. If the production has been finished on a system that cannot produce an EDL, provide the EDL that is closest to the final product.
23. **Total number of boxes delivered:** List the number of boxes delivered. All boxes submitted should be labeled with the park acronym, media number, and discreet box number within the series (i.e. 3 of 5).

Refer to Attachment D for a sample copy of a Completion Report to be used under this contract.

### **12.3 Specific Requirements For Final Deliverables**

In addition to the Completion Report, the contractor shall submit all production elements gathered for this production, including research material. All delivery elements shall be boxed or canned and packaged in accordance with normal commercial standards for domestic delivery of such items. All elements and the boxed packages themselves shall be labeled to show the Contract Number, Task Order Number, TV or MM Number, Title, Running Time if applicable, and a brief description of the contents. The following shall also be submitted:

- A. **Government-Furnished Property:** At the conclusion of the project, all GFP shall be returned to its source—typically the park point of contact and/or COR. Copies of correspondence verifying the return of materials shall be provided in the close-out report
- B. **Original Material:**
  1. All original artwork, graphics, photographs, slides, transparencies, or other source materials created for the production.
  2. All original film, audio, and video source tapes properly labeled with logs. Original, unmixed music recordings with log sheets or a list of sources and copies of Release Forms for any music used and all other sound recordings made for this project. All sound recordings on magnetic tape or film shall be on polyester base stock. Cellulose acetate tape or film is NOT acceptable.

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- C. **Multimedia production:** The government shall receive all source files and files intended to be delivered via web browsers on a CD or DVD (in Universal format to be readable by both Macintosh or Windows computers). The CD or DVD folder and file structure shall be complete so all hyperlinks are active. All source code shall become property of the government and free of imbedded contractor references.
- D. **Master tape formats and associated elements for Video Production:** Tape delivery formats are typically specified in the task order. If no specifications are listed in the task order, the contractor shall adhere to the following deliverables list for all videos, whether standalone or discreet sections within a multimedia program:
- (1) One Digital Betacam edit master, 16:9 anamorphic, stereo mix on CH-1 & 2, Mono Mix on CH-3, audio description on CH-4.
  - (2) One Digital Betacam master, 16:9 anamorphic, closed captioned, stereo mix on CH-1 & 2, Mono Mix on CH-3, audio description on CH-4.
  - (3) One Digital Betacam master, letterboxed, closed captioned, stereo mix on CH-1 & 2, Mono Mix on CH-3, audio description on CH-4.
  - (4) One Digital Betacam master, 16:9 anamorphic, closed captioned, stereo mix on CH-1 & 2, stereo mix with audio description on CH-3 & 4.
  - (5) Three letterboxed, closed captioned DVD masters, with stereo mix, each with one title, one chapter, continuous frame numbers with 10 seconds of black before and after the show.
  - (6) Three 16:9 anamorphic closed captioned DVD masters, with stereo mix, each with one title, one chapter, continuous frame numbers with 10 seconds of black before and after the show.
  - (7) Audio Post Production Elements: All unmixed music, sound effects, dialog and narration with SMPTE non-drop-frame time code identical to the master. Recording shall be on professional grade DA-88 compatible audiotapes recorded at 48kHz or as sound files from a pre-approved Digital Audio Workstation or video non-linear editor. Mix cue sheets shall be provided either on paper or as digital files.
  - (8) Audio final mixes: Multi-channel (i.e. 5.1 or 7.1) mixes shall be delivered on DA-88 audio cassette(s) at 48kHz, with SMPTE non-drop-frame time code identical to the master or approved digital audio files. The DA-88 or approved digital audio files shall also contain a stereo mixdown on two tracks. The master and protection videotapes for 5.1 (or greater) programs shall contain stereo mixdowns on two tracks.
  - (9) One CD of the Audio description in audio CD format.

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- (10) One CD of the Audio Description in MP3 format.
- (11) One MPEG2 file of the program delivered on DVD-R.
- (12) Electronic version of the .scc caption file and a hard copy printout.

**E. For Audio Production:**

- (1) Audio Post Production Elements: All unmixed music, sound effects, dialog and narration shall be on professional grade DA-88 compatible audiotapes recorded at 48kHz or as sound files from a pre-approved Digital Audio Workstation or video non-linear editor. Mix cue sheets shall be provided either on paper or as digital files.
- (2) Three CDs of program in audio CD format.
- (3) Three CDs of program in MP3 format.