ATTACHMENT A

SCOPE OF WORK
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1.0 GENERAL EXPECTATIONS

A. VRE’s website is viewed as a key marketing and information tool used by current customers and potential customers and to increase public awareness of VRE. VRE’s intent is to provide information in an easy-to-use format that supplies all the information a customer or potential customer may need about VRE’s services.

B. VRE seeks to award a Contract to one (1) qualified and experienced Contractor with the capacity to make expert recommendations that take into account best practices in website content, navigation, and design, and to subsequently implement website redesign and enhancements while maintaining VRE’s current brand identity.

C. The selected Contractor must demonstrate tactical understanding of website design, development, and the mobile-first user experience, as well as be highly responsive and provide organized account service and management capabilities.

1.1 CONTRACT OVERVIEW

A. The Scope of Work (SOW) for this Contract shall cover a full range of website management services to include development, maintenance, design, technical guidance and support as well as frontend and backend programming for VRE’s website (www.vre.org) to include subdomains. The Contractor shall also be responsible for website hosting and maintenance and for providing VRE with a Content Management System (CMS).

B. This Contract shall begin with a full assessment of the current VRE website by the Contractor. Following the assessment, the Contractor shall present a plan to enhance the look and functionality of the website utilizing the existing CMS, or by migrating to a new CMS. Whether retaining the existing CMS or migrating to a new platform, the Contractor shall develop front-end site improvements as well as implement efficiencies with hosting and maintenance.

C. The Contractor shall perform subsequent work on an as needed basis through Task Orders initiated by VRE in accordance with the SPECIAL PROVISIONS – TASK ORDER REQUIREMENTS.
1.2 **GENERAL REQUIREMENTS**

A. The Contractor shall furnish all labor, including all required disciplines, supervision, materials, equipment, supplies, transportation, and incidentals necessary to provide website management services.

B. During the term of the Contract, the Contractor must at all times adhere to the Service Level Standards, to include the associated remedies, established by VRE and provided in ATTACHMENT B to this solicitation.

C. The Contractor’s work shall be managed by VRE’s Director of Rail Operations. The Director of Rail Operations or his or her designee shall work directly with the Contractor to coordinate all required tasks.

D. The Contractor shall assign a Project Manager responsible for coordination with VRE.

E. The Contractor shall recommend best practices and industry standards as appropriate.

F. The Contractor must be capable of providing oversight, guidance and support for website integrations, accessibility, content management, training, e-commerce, and cyber security as well as hosting and maintenance.

1.2.1 **BEST PRACTICES**

A. The Contractor must follow development best practices to include a code repository and documentation.

B. The Contractor must also have an understanding of Search Engine Optimization (SEO) and other optimizations aimed at reducing page load times.

C. The Contractor shall be capable of implementing Google PageSpeed Insight recommendations to achieve above-average site speeds on both desktop and mobile devices.

D. The Contractor shall ensure that VRE maintains continuous access to all work via File Transfer Protocol (FTP), Secure Shell (SSH) keys, or other agreed upon means.
1.2.2 ACCESSIBILITY

A. The Contractor shall be required to provide design guidance aimed at minimizing the time and effort of maintenance as well as maximizing the website’s functionality and Americans with Disabilities Act (ADA) accessibility.

B. The Contractor must therefore have a thorough understanding of 508 compliance and shall suggest enhancements to improve the user experience across all platforms.

2.0 BACKGROUND

VRE seeks to retain or improve upon all current website functionality. Therefore, the following is a summary of the current CMS platform utilized by VRE as well as existing website functionality.

2.1 CURRENT CMS INFORMATION

A. VRE currently uses the Mura platform for most of its website content management. VRE is using: Core Version 7.1.494; App Server Lucee (5.3.3.62); DB Server MySQL (5.6.42.0); Java Version 1.8.0_66; OS Version Linux (3.10.0-1062.9.1.el7.x86_64).

B. Multiple users in the organization log into Mura using several permission levels to manage various portions of the website.

C. Mura Dashboard Summary: Active Pages: 2022; Files: 2701; Links: 130; Internal Feeds: 31; System Users: 33.

D. VRE sells tickets for its annual Santa Trains at http://vrespecialevents.org/ using the BigCommerce platform. The site is updated typically in October, but the tickets do not go on sale until 9 a.m. Eastern Time on the Monday before Thanksgiving. The site’s ability to sell tickets is disabled usually after about ten (10) minutes of going live, based on how quickly the inventory is depleted.

E. VRE utilizes HubSpot CMS for an integration with e-Builder, construction management software. The pages managed through HubSpot allow for the “Projects” section of the website to be updated by VRE staff in e-Builder. Javascript allows the project pages to pull real-time database information for e-Builder.
2.1.2 CURRENT FUNCTIONALITY

A. VRE’s website includes interfaces such as auto language translator (Google Translate), email and Short Message Service (SMS) subscription service (Everbridge), and VRE’s custom Train Information Provider (TRIP) system/GTFS feed.

B. VRE currently maintains a zoomable and interactive version of its system map on the website, which enables users to see train status in real-time. The current version relies on the Google Cloud Platform.

C. VRE’s current theme utilizes Bootstraps and PHP.

D. The Online Forum functionality of the website is built into VRE’s Mura system. It must be functional and properly supported during Online Forum events each month. The Online Forum begins accepting questions the evening before an event (the first Wednesday of every month) and allows VRE to moderate. Sometimes automated enhancements to the Online Forum functionality are required (i.e. archiving).

E. Additional functionality and website components that need to be carried over or implemented in an improved fashion include the following:

1. Operational Calendar (homepage)
2. Social Media Feed
3. News Feed
4. Train Talk Alerts (RSS) (homepage)
5. Parking Information
6. Schedule Tables (to include the ability to print)
7. Social Media Links
8. Google Transit
9. Top Navigation/Mega Menu
10. Interactive System Map
11. Blog
12. Google Ads Pixel, Facebook Pixel
13. Google Analytics
14. Forms (i.e. Lost and Found, VRE Mobile Assistance, and Station Concerns)
15. Formatting throughout, but with particular attention to the following pages:
   i. https://www.vre.org/about/board/board-agenda-minutes/
   ii. https://www.vre.org/about/procurement/ (see child pages of current procurements)
   iii. https://www.vre.org/service/fares/fare-chart/
16. Internal Search Function
2.1.3 **CURRENT HOSTING**

A. VRE uses four (4) live servers on Azure to support redundancies and load balancing.

B. VRE also has four (4) staging servers on Azure.

C. In 2019, [www.vre.org](http://www.vre.org) had 6,488,150-page views and 895,689 site visitors. Average time on the site was 2 minutes and 17 seconds.

3.0 **WEBSITE REDESIGN**

A. The Contractor shall complete an inventory/audit of the existing VRE site including documentation of the entire website structure, illustrating visitor behavior with analytics. Wireframes shall be developed for proposed site improvements.

B. The Contractor shall provide a list of sites to reference for look and feel. The Contractor shall then work with VRE to finalize design concepts or mockups.

C. The Contractor shall provide a flexible, scalable and user-friendly CMS for streamlined updates and a responsive website. If the Contractor determines through their expert assessment of the current website that the existing CMS shall continue to be utilized, the Contractor shall provide a plan to improve existing functionality. If the Contractor determines the existing CMS shall be replaced, the Contractor shall propose a CMS and inform VRE staff about the advantages and disadvantages of competing CMS software products. The Contractor shall be responsible for the cost of the CMS software and licensing for VRE, however, VRE shall own its data within the CMS.

D. The Contractor shall integrate the proposed CMS with all existing website content to include, but not limited to, the following:

1. e-BUILDER
2. Parking Logix
3. SharePoint
4. Microsoft Power BI
5. Everbridge
6. VRE Mobile App
7. VRE eCommerce
8. GTFS Static and Real-Time Feeds

E. The Contractor shall implement a Search Engine Optimization (SEO) tool.
F. The Contractor shall assist with the automation of tasks to include, but not limited to, the following:

1. Online Forum
2. Daily Downloads
3. Web Forms
4. Sitemap Uploads to Google Search Console
5. Reminders for Content Updates

G. The CMS shall have the ability to archive inactive pages, so they no longer appear on site or in the site search results. Pages may need to be archived for future use but should not be visible/discoverable while archived.

H. The Contractor shall adjust the call parameters through the Google Cloud Platform, as well as set the timeout parameters on VRE’s website to reduce the number of monthly calls related to the Train Status page. The Contractor is encouraged to suggest other means and methods of updating maps on the Train Status page.

I. The Contractor shall provide a user-friendly (WYSIWYG) interface. The design shall include robust homepage design to include easy management of top-level navigation and mega menus through the CMS. The interface shall allow VRE staff to easily revert changes through version control and perform updates in near real time. VRE staff must be able to edit all text, images and menus through the CMS and easily access top level tasks to include schedules, fare information, forms, PDF uploads, feeds, and links.

J. The Contractor shall provide an industry best practice recommendation based on VRE’s needs for archival procedures and implement a solution to facilitate archiving (i.e. Board Kits over X number of years old).

K. The Contractor shall enable VRE to perform A/B testing for the creation of multiple creating and testing of two (2) versions of a page at the same URL then selecting the version that performs better with visitors to the page.

3.1 TECHNICAL REQUIREMENTS

A. The VRE website must be compatible with the two (2) most recent versions of Internet Explorer/Edge, Firefox, Chrome, and Safari, not including beta/dev releases.
B. The site must be functional on mobile devices, including tablets and smartphones. The site must be able to auto correct for various platforms (i.e. desktop, tablet, or phone) utilizing a responsive design.

C. The website design and CMS must allow non-technical VRE staff to easily make content changes.

D. Text should be clearly scalable into larger fonts to accommodate the visually impaired to the greatest extent possible.

3.2 CYBER SECURITY

A. The Contractor must apprise VRE of security issues related to the CMS platform and implement any necessary security patches.

B. Following implementation of a patch, the Contractor shall send a bulletin of the patch update to VRE.

C. Additionally, the Contractor must ensure frequent security measures are considered and implemented on VRE’s servers to protect VRE’s website files.

D. The Contractor shall employ a Domain Name System solution and Distributed Denial of Service protection and security.

E. The Contractor shall provide a Certified Application Security Engineer as part of its team.

F. The Contractor shall provide a security review of all proposed changes and maintain a security change log to be shared with the VRE Project Manager and the VRE Director of Information Technology.

3.3 HOSTING AND MAINTENANCE

In addition to a successful launch of a redesigned site, VRE is seeking ongoing hosting and maintenance services to ensure that its website continues to meet the needs of the organization.

A. VRE’s website is vital to the organization’s communication efforts. Therefore, the website must be completely functional at all times – 24 hours a day, 7 days a week. The Contractor must have the resources necessary to provide VRE with uninterrupted, live technical support, 24 hours a day, 7 days a week.
B. The Contractor shall either assume responsibility for proper configuration and management of the VRE Azure servers or propose/manage a new hosting solution. The Contractor shall host the entire website in the Contractor’s environment.

C. The Contractor shall provide VRE with a plan for an additional backup and restore process that shall utilize VRE’s existing Barracuda hardware-based and/or cloud-based system. The backup and restore plan shall include full, and differential backups and snapshots of the entire web server and its contents. The plan shall also include procedures, schedules, retention period configurations, and testing of backups through bare metal restores on staging servers in the VRE test environment.

D. Should the Contractor keep VRE’s staging servers, the servers shall be updated as often as the live servers so that the test servers are a mirror-image of the live servers, providing VRE staff an accurate test environment.

E. The Contractor shall use VRE’s servers or a VRE-approved hosting solution for the VRE live website and staging work. New integrations may require collecting Personally Identifiable Information (PII), and the Contractor must ensure the information is fully protected and secured.

F. At a minimum, the Contractor shall complete software and plug-in updates for all programs in use on VRE’s website on a quarterly basis. Security updates shall be performed when critical patches are made available from software and hardware vendors.

G. On a quarterly basis, the Contractor shall check for broken links, broken images, template distortion, and test all contact forms and other interactive elements and provide a report and remediation plan. This report should also include site traffic statistics. Once approved by the VRE Project Manager, remediation steps shall be accomplished by the Contractor.

H. The Contractor shall live monitor all VRE website servers and shall enable downtime alerts and send copies of all alerts in real-time to designated VRE staff.

3.4 TESTING & GO-LIVE

A. Prior to go-live of the redesigned website, the Contractor shall thoroughly test the functionality of links and pages.

B. The Contractor shall also develop, coordinate, and implement a cutover/transition plan acceptable to VRE. The cutover plan must identify,
quantify, and minimize any anticipated downtime. The cutover shall occur during VRE non-operating hours.

3.5 TRAINING

A. The Contractor must be able to provide instruction, either on-site at VRE’s offices in Alexandria, Virginia or off-site, to train VRE staff on the use and maintenance of future site enhancements or changes in CMS/site functionality.

B. The Contractor shall offer two (2) separate training sessions for VRE non-technical staff to address the steps required to manage updates and edits to webpages and any other required tasks.

C. The Contractor shall be responsible for providing VRE staff with all necessary training materials, to include training manuals.

4.0 TASK ORDERS

VRE may issue Task Orders on an as needed basis to the Contractor for additional work to include custom development to support the VRE mobile ticketing app, e-commerce, and integrations as well as other assignments required by VRE. Task Orders will be initiated by VRE in accordance with the SPECIAL PROVISIONS – TASK ORDER REQUIREMENTS.

4.1 VRE MOBILE APP

A. Though the fare purchasing component of VRE’s mobile ticketing app, VRE Mobile, is managed through a separate contract, should the Contractor hold the expertise and desire, VRE may issue Task Orders on an as needed basis to the Contractor to complete custom development work to support VRE Mobile. The Contractor may use Subcontractors to complete the work upon VRE’s approval.

B. VRE Mobile will provide the following “Trip Tools” functionality through Application Programming Interfaces (APIs), RSS feeds, etc.:

1. Trip Planning Tool (e.g., Google Maps, Moovit, other GTFS application)
2. Parking Count System
3. **Automated Passenger Count System (APC) -** The primary objective of the APC installation is to provide more reliable passenger counting at an increased frequency than VRE’s existing process (i.e., on each train at each stop), with the base accuracy meeting the requirements for reporting into the Federal Transit Administration’s (FTA) National Transit Database (NTD). Full implementation of the APC system is nearing completion.

4. **Push Notifications –** VRE has the following list of “Train Talk” alerts that it intends to distribute through push notifications:
   
   a. Service alerts  
   b. Service advisories  
   c. Station updates (e.g. real-time VRE parking availability updates)  
   d. Support system notifications (e.g. real-time VRE passenger counts)  
   e. VRE news updates

   *VRE currently uses Everbridge to provide push notifications and their API code can be found at - [https://api.everbridge.net/](https://api.everbridge.net/).*

5. **Amtrak Train Arrival Information**

4.2 **E-COMMERCE**

VRE currently sells special event tickets through a BigCommerce site. Bringing e-commerce components into [www.vre.org](http://www.vre.org) may be required via a subdomain, subdirectory, or other recommended solution. The site visitor must however be able to transition between e-commerce and non-e-commerce pages without a disruption in the user experience.

4.3 **INTEGRATIONS**

A. VRE seeks to automate and/or enhance several website functions, including but not limited to, the following:

1. SmartBenefits iframe until an API is available. VRE may require a true integration with SmartBenefits once the API is available.

2. Tailored Google Transit trip planner.


5. Sync form data and VRE’s homegrown Customer Relationship Management tool.