National Telecommunications and Information Administration (NTIA)
Middle Mile Grant Program
Bi-Annual Performance Report

Note: Form instructions and definitions will be created to support the report. Instructional guidance and training will be developed. Numbering to be updated based on final approved form.

RECIPIENT NAME:

QSH Parent Holdco LLC

OMB Control No.	0660-0052
Expiration Date:	4/30/2026

Middle Mile Grant Program Bi-Annual Performance Report

A. GENERAL INFORMATION

GENERAL	1a. Recipient Organization:	QSH Parent Holdco LLC	1h. Award Identification Number:	02-40-MM503
	1b. Recipient Street Address:	201 E 56th Avenue Suite 300	1i. Report Date (MM/DD/YYYY):	10/12/2023
	1c. City, State, and Zip Code:	Anchorage, AK 99518	1j. Final Report:	Yes ☐ No ☑
	1d. Unique Entity Identification (UEI) Number:	H2KRZBMTJQG3	1k. Report Period Start Date (MM/DD/YYYY):	7/1/2023
	1e. Award Start Date (MM/DD/YYYY):	7/1/2023	1l. Report Period End Date (MM/DD/YYYY):	9/30/2023
	1f. Award End Date (MM/DD/YYYY):	6/30/2027		
	1g. Name of Person Completing Report:	Adaweze Maduakor		

B. PROJECT NARRATIVE

PROJECT NARRATIVE

Please use the section below to provide a project narrative of the project(s).
This section aims to help reviewers better understand what project is being proposed and steps taken to achieve this goal.

2a. A brief description of the recipient's organization and scope of work/project priorities:	QSH Parent Holdco LLC ("Quintillion" or "Applicant") is a leading integrated digital infrastructure provider founded in 2016 and headquartered in Anchorage, Alaska with a vision of bringing world-class telecommunications services to the Arctic to support economic development and improve the quality of life. Quintillion is the first and in many cases only provider to bring world-class telecommunications infrastructure to many areas of the Alaskan Arctic through our subsea and land-based fiber optic cable networks. As the wholesaler or "middle mile" provider, we sell access to our network to a variety of regional telecommunication service providers enabling them to provide better products, pricing, and services to their customers. Quintillion also directly provides high-speed broadband to selective government and enterprise institutions. Quintillion's Phase 1 system, operational since 2017, delivers gigabit and higher bandwidth services on a 1,182-mile subsea and 505-mile terrestrial fiber optic network to Alaska's Northwest and North Slope Arctic regions, including to the remote markets of Nome, Kotzebue, Point Hope, Wainwright, Utqiagvik (Barrow), Oliktok Point, and Prudhoe Bay/Deadhorse, as well as the oil and gas infield extending along the Dalton Highway to Fairbanks where it connects with the Continental United States (CONUS) in cooperation with regional telecommunications companies. Initial Nome to Homer Express Project activities will be focused on preparing for the required marine survey, including developing the preliminary route to be surveyed, permitting survey activities, and contracting necessary resources to complete the marine bathymetry and geotechnical survey. For land facilities, initial project activities will be required to finalize land leases, permits, and other authorizations, consult with necessary stakeholders and permitting agencies, and complete site surveys, wetland determinations, and geotechnical surveys. The marine survey is a prerequisite and required before cable route, installation plans,
2b. An overview of the significant outputs and outcomes to be accomplished in the project:	Extend its existing subsea and terrestrial network south from Nome to Emmonak, continuing along the Yukon-Kuskokwim Delta coast to Naknek, and then terrestrially and submerged about 230 miles to King Salmon, Igiugig, and on to Homer. There, it can interconnect with multiple regional providers for a diverse, resilient, lower latency, competitive pathway to U.S. and global interconnectivity and cloud services. Quintillion's Nome to Homer Express Route project will have a significant national security impact by addressing connectivity shortcomings to defense installations and critical facilities locations, as well as overall Alaska network resiliency and Arctic presence providing Gig-E and beyond data transmission capacity at incomparable levels of security in a remote, yet geopolitically significant region.
2c. How would the project meet the recipient's business and/or administrative need(s)?	The Nome to Homer Express Project will significantly extend Quintillion's network to nearly complete the circumnavigation of Alaska providing resilient and redundant access to Tier 1 internet backhaul and allowing services to be provided through the open access middle mile network by cooperating providers in a number of currently unserved and underserved communities.
2d. Provide an overview of key accomplishments achieved for this reporting period on the MM infrastructure project.	Marine survey completed. -Survey Data Collection: One of the major achievements during the 2023 reporting period was the successful completion of the survey data collection. This phase involved gathering critical data related to the MM Infrastructure Project and was a crucial step in advancing the project's objectives. Key Details: 1. The data collection process was carried out meticulously and within the scheduled timeframe. 2. The routes that were surveyed. • Zone A: Nome BMH to Offshore Nome-Geohazard: Steep Offshore Slope and Strong Bottom Currents • Zone B: Offshore Nome to Emmonak BU-Geohazard: Ice Gouging and Biogenic Gas • Zone C: Emmonak BU to Emmonak BMH-Geohazard: Ice Gouging and Biogenic Gas • Zone E: Emmonak BU to Kwikluak Pass -Geohazard: Ice Gouging and Biogenic Gas • Zone F: Kwikluak Pass to Black River -Geohazard: Biogenic Gas • Zone G: Black River to Cape Romanzof-Geohazard: Biogenic Gas • Zone H: Cape Romanzof to Hooper Bay -Geohazard: Biogenic Gas • Zone I: Hooper Bay to Ningiik River -Geohazard: Biogenic Gas • Zone J: Ningiik River to Hazen Bay -Geohazard: Biogenic Gas and Shallows • Zone L: Cape Manning to Cape Corwin -Geohazard: Rocky/Hard Bottom and Shallows • Zone M: Cape Corwin to End of Route-Geohazard: Rocky/Hard Bottom and Shallows 3. The data collected includes information on infrastructure specifications, environmental factors, and logistical details. - See (uploaded file with Maps and files) Data Analysis and Reporting: While the survey data collection phase has been successfully completed, it is important to note that the data analysis and reporting phase is ongoing and expected to conclude in January 2024. This phase is critical for deriving meaningful insights and recommendations based on the collected data. Key Details: The data analysis and reporting phase involve thorough examination and interpretation of the collected data. Advanced analytical tools and techniques are being employed to extract valuable information. The reporting phase will provide detailed insights, trends, and recommendations for the project's future direction. [redacted]
2e. Provide any roadblock experienced during this reporting period impacting the expansion of the MM infrastructure project (i.e., supply chain, availability of labor).	[redacted] by seeking an alternate sufficiently rated bank letter of credit and associated attorney opinion letter.
2f. Provide any barriers to improving job quality experienced during this reporting period.	Resolving EHP /permitting necessary for the Marine Survey -Streamlining complex permitting involving federal, state, local agencies, and the Army Corps of Engineers presented significant coordination challenges, consuming time and resources. Our engineering team collaborated closely with the Army Corps of Engineers to secure initial approval. Technical data demands forced us to reduce the project scope due to logistical constraints. Meeting regulatory standards extended the timeline to 2024. Resource constraints required balancing safeguards with budget limits, which we resolved by finding the right organization. Minor stakeholder engagement issues were easily addressed with strategic communication. Despite these challenges, we successfully completed the environmental assessment and marine survey, advancing the project phase and achieving our milestone.

C. INFRASTRUCTURE MILESTONE CATEGORIES AND PROJECT TIMELINE

INFRASTRUCTURE MILESTONE CATEGORIES AND PROJECT TIMELINE

Please use the chart below to provide the start date and end date of your project.

OVERALL PROJECT	PROJECT DURATION	3a. PROJECT START DATE	3b. PROJECT END DATE
	1460	July 1, 2023	June 30, 2027

Please provide the start and end dates for each milestone category of your project. The duration is be based on the start and end dates of each category.

Please use the table provided to indicate your EXPECTED percentage of completion on a bi-annual basis for each year of your project. Year 1 begins with your award start date.

The percentage of completion should be based primarily on the expenditure of your project budget and should be reported cumulatively from award inception through the end of each semi-annual reporting period. For example, if you expect to complete a particular milestone within the first three periods of your project, the third period and all subsequent periods should state 100%.

Please write "0" in the duration field if your project does not include an activity. If necessary, please insert additional milestones at the end.

ANTICIPATED PROJECT MILESTONES				Year 1 Baseline		Year 2 Baseline		Year 3 Baseline		Year 4 Baseline		Year 5 Baseline	
3c. MILESTONE CATEGORIES	3d. DURATION (Days)	3e. START DATE	3f. END DATE	Period 1-7/1-9/30 (2023)	Period 2	Period 1	Period 2	Period 1	Period 2	Period 1	Period 2	Period 1	Period 2
Overall Project	1368	July 1, 2023	March 30, 2027	2%	10%	25%	30%	48%	63%	76%	100%	100%	100%
Environmental Assessment	243	November 1, 2023	July 1, 2024	10%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Network Design	595	July 1, 2023	February 15, 2025	10%	50%	80%	100%	100%	100%	100%	100%	100%	100%
Rights Of Way	396	November 1, 2023	December 1, 2024	10%	40%	100%	100%	100%	100%	100%	100%	100%	100%
Construction Permits And Other Approvals	472	November 1, 2023	February 15, 2025	0%	15%	80%	100%	100%	100%	100%	100%	100%	100%
Site Preparation	243	April 2, 2025	December 1, 2025	0%	0%	20%	100%	100%	100%	100%	100%	100%	100%
Equipment Procurement	668	July 1, 2024	April 30, 2026	0%	0%	10%	30%	60%	100%	100%	100%	100%	100%
Network Build (all components - owned, leased, Indefeasible Rights of Use, etc.)	668	February 1, 2025	December 1, 2026	2%	12%	17%	27%	32%	50%	69%	100%	100%	100%
Equipment Deployment	518	May 15, 2025	October 15, 2026	2%	14%	20%	31%	38%	59%	89%	100%	100%	100%
Network Testing	166	October 15, 2026	March 30, 2027	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%
Status of Procurement	668	July 1, 2024	April 30, 2026	0%	0%	10%	30%	60%	100%	100%	100%	100%	100%
Other (please specify):	0												
				Q3 2023 / Q4 2023	Q1 2024 / Q2 2024	Q3 2024 / Q4 2024	Q1 2025 / Q2 2025	Q3 2025 / Q4 2025	Q1 2026 / Q2 2026	Q3 2026 / Q4 2026	Q1 2027		
	0												

% OF PROJECT COMPLETION

Please use the table provided to indicate your ACTUAL percentage of completion on a bi-annual basis for each year of your project. Year 1 begins with your award start date.

The percentage of completion should be based primarily on the expenditure of your project budget and should be reported cumulatively from award inception through the end of each semi-annual reporting period. For example, if you expect to complete a particular milestone within the first three periods of your project, the third period and all subsequent periods should state 100%.

Please provide a brief description of the primary activities involved in meeting each milestone (a single description should be provided for each milestone, covering all periods in years one through N). Please write the number "0" if your project does not include an activity. If necessary, please insert additional milestones at the bottom of the chart. Please add additional milestones as applicable.

ACTUAL PROJECT MILESTONES		Year 1		Year 2		Year 3		Year 4		Year 5	
4a. MILESTONE	4b. DESCRIPTION	Period 1-7/1-9/30 (2023)	Period 2	Period 1	Period 2	Period 1	Period 2	Period 1	Period 2	Period 1	Period 2
		Actual Milestone Completion (Cumulative)									
Overall Project	Engineering, permitting, manufacturing, installation, and	1%									
Environmental Assessment	NEPA review process	0%									
Network Design	Survey, route development, system and facility engineering	10%									
Rights Of Way	acquisition of land easements leases and use agreements	0%									
Construction Permits And Other Approvals	Acquisition of all necessary permits and authorizations	0%									
Site Preparation	Clearing, fill, foundation installation for all proposed facilities	0%									
Equipment Procurement	Purchase of communication equipment	0%									
Network Build (all components - owned, leased, Indefeasible Rights of Use, etc.)	Construction of fiber segments and buildings	0%									
Equipment Deployment	Installation of communication equipment	0%									
Network Testing	Testing of the completed network by segment and end-to-end	0%									
Status of Procurement	Contracting status for all material and installation services	0%									
Other (please specify):											

Subrecipient and Subawards

List of Subrecipient(s) that received a subaward or subcontract from the eligible entity and a description of the specific project for which grant funds were provided.

Associate projects names to any subrecipient or subaward associated with grant, approved grant funds, and expenditures to date.

5a. Project Name	5b. Project Description	5c. Subrecipient	5d. Minority Business Enterprise (MBE)	5e. Women's Business Enterprise (WBE)	5f. Labor Surplus Area Firm	5g. Awarded Funds	5h. Expenditures to Date	5i. Remaining Grant Balance	5j. % of work complete
Nome to Homer Express Project	Quintillion Subsea Operations will be the subrecipient for the entire grant award -Engineering, permitting, manufacturing, installation, activation and operation of a subsea and terrestrial fiber optic communication network connecting Nome, AK, with Homer, AK.	[redacted] (QSO) a wholly owned subsidiary of the Applicant. All operations and business activities on behalf of the Applicant are to be performed and managed by QSO who will execute the terms of this grant application under the direction of QSH, the Applicant	Yes	Yes	Yes	$ 88,896,493.83	$ 134,253.70	$ 88,762,240.13	1%
			Yes	Yes	Yes				
			Yes	Yes	Yes				
			Yes	Yes	Yes				

D. INFRASTRUCTURE BUDGET EXECUTION DETAILS

INFRASTRUCTURE BUDGET EXECUTION DETAILS

Please provide details below on your total budget and total fund expended to date for each budget element, including detailed disbursements of both matching funds approved and federal funds obligated from project inception through end of this reporting period. Figures should be reported cumulatively from award inception to the end of the applicable reporting period.

6a. Projected Budget Element	[redacted]	6e. Total Federal Funds Expended to Date	6f. Total Non-Federal Funds Expended to Date	6g. Total Funds Expended	6h. Percent of Federal Funding Expended to Date (Cumulative)
Administrative and legal expenses	[redacted]	[redacted]	[redacted]	[redacted]	6%
Land, structures, rights-of way, appraisals, etc.	[redacted]	[redacted]	[redacted]	[redacted]	0%
Relocation expenses and payments	[redacted]	[redacted]	[redacted]	[redacted]	0%
Architectural and engineering fees	[redacted]	[redacted]	[redacted]	[redacted]	0%
Other architectural and engineering fees	[redacted]	[redacted]	[redacted]	[redacted]	0%
Project inspection fees	[redacted]	[redacted]	[redacted]	[redacted]	0%
Site work	[redacted]	[redacted]	[redacted]	[redacted]	0%
Demolition and removal	[redacted]	[redacted]	[redacted]	[redacted]	0%
Construction	[redacted]	[redacted]	[redacted]	[redacted]	0%
Equipment	[redacted]	[redacted]	[redacted]	[redacted]	0%
Miscellaneous	[redacted]	[redacted]	[redacted]	[redacted]	0%
Subtotal	[redacted]	[redacted]	[redacted]	[redacted]	0%
Contingencies	[redacted]	[redacted]	[redacted]	[redacted]	0%
Totals	[redacted]	[redacted]	[redacted]	[redacted]	0%

E. COMMUNITY BENEFIT AGREEMENT

COMMUNITY BENEFIT AGREEMENT

As stated in the MM Grant Program NOFO a Community Benefit Agreement (CBA) is an agreement signed by community benefit groups and a developer, identifying the community benefits a developer agrees to deliver, in return for community support of the project.

Please use the fields below to state the Community Benefit Group and Developer Name and describe the activities in how this partnership has supported with the Middle Mile Infrastructure project (i.e. wage agreements, targeting hiring of apprentices and disadvantaged groups in labor market, education and training opportunities, sub-contracting to local small business for construction, services, and supply chain needs).

Description of Community Agreement

7a. Community Benefit Group Name: Please provide the name of the Community Benefit Group

The Community Benefit Groups will include the underserved communities of Emmonak, Naknek, King Salmon, Igiugig, and Homer, intersected by the Nome to Homer Express Project. Other communities in proximity to the path of the Nome to Homer Express Project; Levelock, Koliganek, New Stuyahok, Dillingham, and Aleknagik, will also benefit from this project. We will be seeking relationships with all these communities in the near future in order to identify their needs and begin the development of specific programs. Quintillion outreach is continuous as we travel to meet with local tribal elders and community leaders and we will conduct a needs assessment with an identified community benefit developer coordinating the engagement in the different communities. We envision a number of community organizations being involved in order to have an effective and sustainable program. Agreements will be reached as resources and requirements are properly fleshed out. We are committed to productive outreach to these community tribal elders, local governance, and local telecommunications providers to seek understanding of needs and agreements.

7b. Developer Name: Please provide the name of the Developer

Quintillion plans to reach out to community benefit agreement developers and organizations in the next few months as construction begins.

7c. Community Benefit Group and Developer Partnership: Please describe in the space below the nature of the partnership and how the MM grant funds being used are assisting to provide community support for the infrastructure project.

Quintillion has had several community and town hall meetings, and meetings with local tribal councils, and local ISP providers, from Nome to Homer and across Alaska. The nature of the planned partnerships will be structured effectively through the following steps and considerations:

COM	1. Identify Shared Goals: The Community Benefit Group and Developer should clearly define their shared goals and objectives. In this case, it's to provide broadband fiber infrastructure to remote villages in Alaska to improve connectivity and access to essential services. 2. Legal Structure: Determine the legal structure of the partnerships, which could be a formal agreement, joint venture, or a nonprofit organization. Legal counsel may be necessary to set this up. 3. Roles and Responsibilities: Clearly outline the roles and responsibilities of each party. The Community Benefit Group may focus on community engagement, project oversight, and identifying community needs, while the Developer specializes in infrastructure development. Step 2: Funding and Resource Allocation 4. Budget Allocation: Determine how funds will be allocated for various community benefit project aspects, including infrastructure development, community engagement, education, and culture recreation opportunities Step 3: Community Engagement 5. Community Needs Assessment: The Community Benefit Group will conduct a comprehensive assessment of the specific needs of each community that we are landing in. 6. Community Input: Engage with local residents to gather their input as we start construction of the Nome to Homer Express Project. This will help tailor the project to the unique needs of each village. Engage our FPO to discuss these findings and work with NTIA if any scope changes are required due to community input Step 4: Permitting and Regulations 7. Permitting and Regulations: Ensure that all necessary permits and compliance with local regulations are in place before construction begins. This will be communicated to specific community leaders so they are assured that Quintillion is following the plan submitted to NTIA. Step 5: Project Implementation 8. Construction and Installation: Execute the construction and installation of the broadband infrastructure according to the technical plan with full compliance to environmental and historical preservation requirements. Step 6: Community Support 9. Training and Education: Allocate funds for training and education programs to help local residents make the most of the new infrastructure. This may include digital literacy training, technical support, and workforce development. Step 7: Monitoring and Evaluation 10. Performance Metrics: Establish key performance metrics to track the impact of the project on each village, such as increased internet access and any environmental impacts 11. Regular Evaluation: Regularly assess the success of the project and make adjustments as needed to ensure it continues to meet the needs of the communities. Step 8: Reporting and Transparency 12. Report to Stakeholders: Provide regular reports to funders, government agencies, and the local communities on the progress and outcomes of the project in addition to the regularly provided updates from NTIA MMG on our milestones reports. 13. Transparency: Maintain transparency in reporting any issues and challenges to local stakeholders in each community as we build the infrastructure and maintain and operate it in the years to come.

F. CLIMATE RESILIENCE

CLIMATE RESILIENCE

Recipients must demonstrate that they have sufficiently accounted for current and future weather and climate related risks to new MM infrastructure projects. At present, weather and climate related risks to broadband networks include wildfires, extreme heat and cold, inland and coastal flooding, and the extreme winds produced by weather events such as tornadoes, hurricanes, and other weather events. Because retrofitted and new infrastructure for broadband might be expected to have a lifetime of 20 years or more, recipients must account not only for current risks but also for how the frequency, severity, and nature of these extreme events may plausibly evolve as our climate continues to change over the coming decades.

Climate Resiliency Risk Mitigation

This purpose of this section is for the recipient to demonstrate that they have sufficiently accounted for current and future weather and climate-related risks to new MM infrastructure projects. In particular, each recipient should demonstrate how they've addressed the known and identifiable risks of current and future projected weather and climate conditions through measures such as (but not limited to) choice of a technology platform suitable to the climate risk of the region, reliance on alternatives siting of facilities (i.e., underground construction where appropriate), retrofitting, or hardening of existing assets, and use of network redundancy to safeguard against threats to infrastructure.

8a. Were any geographic areas identified for **this reporting period** subject to an initial and/or updated hazard screening for future weather and climate related risk? If so, please provide **the date of the screening and provide related documentation as an attachment to this report.**

No, none for this reporting period.

8b Climate Resilience Category	8c. Date of Most Recent Hazard Screening	8d. Name and Title of Representative Completing Most Recent Hazard Screening	8e. Date of Report Completion
NA	NA	NA	NA

8f. Identified Risk: For your MM project, what are the potential weather and climate hazards that may be most important to be addressed that could impact the resiliency of the middle mile infrastructure deployed (i.e. wildfires, extreme heat and cold, inland and coastal flooding, extreme winds: tornadoes, hurricanes and other weather events)?

Coastal cities and infrastructure are already vulnerable to damage from storms, which is likely to increase with sea level rise (SLR) and the inundation of areas farther inland. Rising seas increase the risk of coastal flooding, storm surge inundation, coastal erosion, ice scouring events, and shoreline retreat. SLR will threaten not only submerged fiber infrastructure, but land-based stations for undersea fiber optic cables, as well as data centers and other vital infrastructure, especially for those sited in low-lying coastal areas. On land, increased near-surface permafrost thaw has been documented to cause extensive damage to infrastructure in Alaska. Increased wildfire activity and storm surges can also jeopardize backhaul networks, data centers, and other infrastructure.

8g. Weather and Climate Hazards: Were any significant climate or weather hazards experienced during this reporting period (i.e., floods, tornados) impacting infrastructure buildout or service? Briefly describe how you monitored for weather and climate caused issues for the reliability of the system. If so, please provide the date of the disaster, location and backup documentation related (i.e., news articles).

Quintillion experienced an outage as a result of an ice scouring event causing damage to our subsea cable approximately 50 Km north of Oliktok Point on June 11, 2023. Due to the location of the cut nearby the terrestrial fiber connection point at the Oliktok Point cable landing station, the sub-sea system was isolated resulting in a complete loss of service to the connected communities. Our dedicated team of experts worked in coordination with our partners and undersea cable maintenance teams to restore the services at the earliest possible time coordinating the timing of a repair vessel s arrival with the ice break up around point Barrow. The vessel was equipped with a 600HP trenching remotely operated submersible vehicle (ROV) and specialized jointing equipment to support the cable repair and reburial.

Following cable retrieval and repair aligned with permissible weather conditions, system testing was performed for a minimum of 24 hours prior to release to local service providers with 100% restoration of services on September 18, 2023. Follow on burial operations for the repaired section were completed on September 30, 2023. Customers and stakeholders were kept aware of the issue and progress to resolution through frequent e-mail updates and a web page at https://www.quintillionglobal.com/service-outage/. A related article from Alaska Public Media can be found at https://alaskapublic.org/2023/07/26/as-frustration-grows-quintillion-extends-timeline-for-restoring-western-alaska-internet-service/.

The cable fault end (damaged segment) was retrieved and is stored and secured for after action study. A complete report is being prepared that will offer additional insights into the cause of the damage, the repair efforts/ methodologies, possible ice scouring future mitigation activities, and other relevant details. Quintillion is steadfastly committed to learning from the experience and taking actions to mitigate to the extent practical future occurrences.

8h. Risks to Deployment of New Infrastructure: Has the team identified any risks impacting the deployment of new or repaired infrastructure due to current and future weather and climate-related threats during this reporting period?

Now that Quintillion has experienced an outage from an ice scouring event, particular care will be taken in the design and deployment of new subsea fiber infrastructure to reduce the likelihood and/or impact of such events going forward. Oliktok Point is the highest U.S. latitude and thus experiencing the worst Arctic ice risks of any point on the network with the planned Nome to Homer Express Project further south and at substantially less risk from similar incidents.

8i. Risk Mitigation: How will the project avoid and/or mitigate the risk identified? If not applicable, please explain why.

Preparing fiber optic cable networks for climate change hazards is crucial to limiting the number and duration of outages. As this proposed project will be a new build, measures will be taken to limit the severity of climate-related impacts on the infrastructure. Cable burial and construction materials will buffer exposure to above-ground events and shoreline retreat. Winter construction will be utilized where necessary to minimize tundra damage and erosion in permafrost areas. Standby generators with onsite fuel storage will provide backup power availability to sustain operations in severe weather events and natural disasters.
Additionally, this project will conduct site-specific studies to determine the extent of the risk associated with each potential location for infrastructure deployment, including extended length pile foundations for all structures to raise them above expected inundation levels during the expected system life. Site selection will account for hazard mitigation by prioritizing cost-effective locations with lower risk. Overall, the project is committed to proactive adaptation efforts to counteract these threats and ensure system resiliency.
Quintillion is currently pursuing alternative ground bypass network segments for the most recent ice scour damaged area to provide an alternate network pathway to the most risk prone portion of the system. Commercial ground lay options are under consideration including possible fiber acquisition. Utqiagvik area terrestrial fiber bypass permits have been prepared and submitted with strong support from vendors and partners. We are currently focusing on funding support for the project. Consideration of the FEMA BRIC program for this purpose has been examined and determined not an optimum fit, so other funding pathways are under consideration.

8j. Additional Information: Is there any additional information you would like to share during this reporting period that the grant team should be aware of regarding the management of sustainable climate resiliency for your MM project?

None at this time.

8k. Additional Resources

Has the team utilized the available resources to assist with mitigation and long-term planning efforts for this reporting period? If so, which resources?
2018 National Climate Assessment
NOAA's 2022 State Climate Summaries
NOAA Disaster and Risk Mapping Tool
NOAA's Storms Event Database
NOAA Climate Explorer and Digital Coast
FEMA National Risk Index
Consulted FEMA-approved Hazard Mitigation Plans prepared by states in which they propose to build middle mile infrastructure to help identify key risk and hazards

Where these mitigation strategies have been less effective than planned, largely due to the effects of climate change, Quintillion has jointly engaged specialist consultants, researchers, and regulatory agencies with adjacent infrastructure operators to develop effective rehabilitation and ongoing monitoring and maintenance programs. Following coordination and incorporation of feedback from identified organizations and specialist consultants, identified climate risks and exposures will be incorporated into the construction design and installation plans. Specific attention will be given to protect the infrastructure from rising sea levels, ice scouring, coastal erosion and flooding, and melting of permafrost.

Ongoing monitoring and reassessment of climate risks will be undertaken and will incorporate commercially available satellite imagery and aerial photography, feedback from community members, climate researcher teams, and state, local, and federal agencies that study the effects of climate change. Quintillion will track these climate risk projections and infrastructure hardening recommendations from these sources to identify future adaptation measures and continue to adapt the proposed infrastructure to future circumstances and evolving industry standards as part of planned capital improvement and maintenance plans. Quintillion plans to complete its first full Climate Resiliency Hazard Screening report in the fourth quarter of 2024 and will periodically review and revise such reporting every three to five years as conditions warrant.

6. Workforce

DAVIS-BACON ACT CERTIFICATION

For projects receiving over $5,000,000 (based on expected total cost), as determined by the U.S. Secretary of Labor by subchapter IV of chapter 31 of title 40, United States Code (commonly known as the "Davis-Bacon Act"), all laborers and mechanics employed by contractors and subcontractors in the performance of such project are paid wages at rates not less than those prevailing.

Davis-Bacon Act Certification

9a. Does the recipient have access to the information requested (all laborers and mechanics employed by contractors and subcontractors in the performance of such project are paid wages at rates not less than those prevailing?)	Yes ☐	No ☑		Not-Applicable. Construction has not commenced on this project. Quintillion is committed to abide by Davis Bacon prevailing wages for its employees and will contractually require Davis Bacon wages and certified payroll for any of its contractors and subcontracts for the project.

LOCAL HIRE PRIORITIZATION AND IMPACT

Local Hire Prioritization and Impact

Local hiring is a goal or requirement to hire people who live close to the place of work. This aim is often more specifically structured as a requirement for contractors awarded certain types of publicly funded projects to recruit a certain proportion of the people working on the project from a particular area. Please provide all direct hires and contractors supporting the MM Infrastructure project.

Please use the table below to describe how the project prioritizes local hiring.

Hires by Race, Ethnicity and Gender	Number of Hires																					
	Race/Ethnicity																					
	9b. Hispanic or Latino			9c. Non-Hispanic/Non-Latino																		Totals
				9c-1. Men						9c-2. Women						9c-3. X						
	9b-1. Men	9b-2. Women	9b-3. X	White	Black or African American	Native Hawaiian or Pacific Islander	Asian	Native American or Alaska Native	Two or More Races	White	Black or African American	Native Hawaiian or Pacific Islander	Asian	Native American or Alaska Native	Two or More Races	White	Black or African American	Native Hawaiian or Pacific Islander	Asian	Native American or Alaska Native	Two or More Races	
Number of Local Direct Hires	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				0
Number of Non-Local Direct Hires	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				0
Percentage of Local Direct Hires on Award	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0
Number of Local Subcontractors	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				0
Number of Non-Local Subcontractors	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				0
Percentage of Local Subcontractors on Award	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0

DAVIS-BACON WAGES

Davis-Bacon Act Wages

Please confirm if wages are at least prevailing*

*As stated in the MM NOFO as determined by the U.S. Secretary Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code (commonly known as the "Davis-Bacon Act"), for the corresponding classes of laborers and mechanics employed on projects of a character similar to the contract work in the civil subdivision of the State (or the District of Columbia) in which the work is to be performed.

10a. Are wage rates at least the Davis-Bacon prevailing wage for all laborers?	Yes ☐	No ☐	10c. Are wage rates at least the prevailing wage for all mechanics?	Yes ☐	No ☐	Not Applicable for this reporting period
10b. Please cite your source of how this information was gathered (for 10a).	Not- Applicable for this reporting period		10d. Please cite your source of how this information was gathered (for 10c).	Not Applicable for this reporting period		

10e. If you answered "No" to either 10a. or 10c., please provide an attachment reporting the wages and benefits of workers on the project by job classification, and whether those wages are less than the prevailing wage.

WORKFORCE DEMOGRAPHICS

Workforce Demographic Data

Jobs by Race, Ethnicity and Gender	Number of Jobs																					
	Race/Ethnicity																					
	11a. Hispanic or Latino			11b. Non-Hispanic/Non-Latino																		Totals
				11b-1. Men						11b-2. Women						11b-3. X						
	11a-1. Men	11a-2. Women	11a-3. X	White	Black or African American	Native Hawaiian or Pacific Islander	Asian	Native American or Alaska Native	Two or More Races	White	Black or African American	Native Hawaiian or Pacific Islander	Asian	Native American or Alaska Native	Two or More Races	White	Black or African American	Native Hawaiian or Pacific Islander	Asian	Native American or Alaska Native	Two or More Races	
Jobs Created	N/A	N/A	N/A																			0
Jobs Retained	There where no job losses in this reporting period	There where no job losses in this reporting period	There where no job losses in this reporting period																			0

UNIONIZED WORKFORCE

12-a. Does this project include some workforce elements that are unionized?	Yes ☐	No ☑	12-c. Does your MM project utilize a project labor agreement?	Yes ☐	No ☑	[redacted]
12-b. Are workers provided access to union educators/organizers on employer property or during the work day?	Yes ☐	No ☑	12-d. Did workers receive additional information or training about their workplace rights in addition to already required notice postings?	Yes ☑	No ☐	Additional training is provided to the workers and information is sent out periodically

WORKFORCE CONTINUITY PLAN
NATIONAL LABOR RELATIONS ACT

H. Workforce Continuity Plan
National Labor Relations Act (29 U.S.C. 158 (f)

As stated in the MM NOFO, If a recipient has not provided a certification that a project either will use a unionized project workforce or included a project labor agreement, meaning a pre-hire collective bargaining agreement consistent with section 8(f) of the National Labor Relations Act (29 U.S.C. 158 (f)), then the recipient must provide a project workforce continuity plan.

Workforce Continuity Plan

13a. Please describe the steps taken to ensure the project has ready access to a sufficient supply of appropriately skilled and unskilled labor to ensure construction is completed skillfully throughout the project's life (as required in Section III.B of the MM NOFO). As stated in the MM NOFO, the middle mile grant recipient is capable of carrying out the proposed project in a competent manner, including a plan to attract or retain an appropriate skilled and credentialed workforce.

For your MM project, please provide a brief description of efforts made to attract, train or retain a skilled and credentialed workforce.

Has the team offered any of the following resources to assist with maintaining a sufficient supply of appropriately skilled labor force for this reporting period? If so, which resources (please provide a brief description of any of the following that apply):
Professional Certifications
In-House Training
Registered Apprenticeships
Labor-Management Partnerships
Partnerships with entities like unions, community colleges, or community-based groups

Professional Certifications
Certifications/Membership: These professional certifications require an average of 30 hours of CPE (continuing professional education) classes each year which she has complied with since earning the certifications.
CPA Certificate (certified public accountant)
CMA Certificate (certified management accountant)
CFM Certificate (certified financial manager)
CGMA Certificate (certified global management accountant)
Member of the Wyoming Board of Certified Public Accountants
Member of the American Institute of Certified Public Accountants - AICPA
Member of the Institute of Management Accountants - IMA
Certified Information Systems Security Professional (CISSP) The CISSP is a certification awarded by the International Information System Security Certification Consortium, Inc.(ISC2) for tested proficiency and knowledge, skills, and abilities of IS Information security domains.
PMP- The Project Management Professional (PMP) certification is a globally recognized and highly respected credential in the field of project management. It is awarded by the Project Management Institute (PMI) to individuals who demonstrate a high level of competence and expertise in managing projects. PMP certification holders are required to earn and maintain 60 Professional Development Units (PDUs) through continuing education and project management-related activities to maintain their certification.
Certified SAFe® 5 Scrum Master- The Certified SAFe® 5 Scrum Master (SSM) certification is a credential offered by Scaled Agile, Inc., SAFe is a framework for scaling Agile principles and methods to large organizations and complex projects. Maintaining the Certified SAFe® 5 Scrum Master certification often requires ongoing professional development and renewing it at regular intervals
Member Project Management Institute Alaska
Member Global Project Management Institute

In-House Training
Yes -Various all year round
Registered Apprenticeships
N/A
Labor-Management Partnerships
N/A
Partnerships with entities like unions, community colleges, or community-based groups
Skagway College

13b. Please describe below, the steps taken to minimize risks of labor disputes and disruptions that would jeopardize the timeliness and cost-effectiveness of completing the MM project.

The Nome to Homer Express project is a massive undertaking that involves constructing a subsea cable, a critical infrastructure connecting Nome and Homer. The project involves a diverse workforce comprising consultants, and internal skilled staff. Given the complexity and importance of the project, it is imperative to minimize the risks of labor disputes and disruptions that could jeopardize its timely completion and cost-effectiveness. The following processes and and steps are in place for anticipated labor disputes. 1.Labor Agreements and Contracts
2.Clearly defined project expectations, timelines, and performance standards
3.Well-established open and transparent communication channels between management, labor unions and workers.
4.Quintillion pays and offers Fair Compensation and Benefits and requires that their contractors and adhere to fair wages and rules
5.Established effective conflict resolution mechanisms, such as grievance procedures or mediation, are in place.
6.Quintillions external HR consultants have a dedicated labor relations team that are well-versed in labor laws and dispute resolution.
7.Legal Compliance- We stay in strict adherence to labor laws to avoid legal disputes.
8.We Engage with the local community to build support for the project, which can help prevent external labor disputes or protests.
Additionally during this reporting period,the first and foremost step in minimizing disruptions or disputes is establishing clear and open communication channels. Our Project managers and stakeholders have initiated regular meetings and discussions with all parties involved, including external consultants, and internal staff. These meetings serve as a platform for addressing concerns, discussing expectations, and sharing progress updates. Our Consultants were treated as integral members of the project team rather than external entities. They participated in regular project meetings and had access to the same communication channels as internal staff. This approach fostered a sense of ownership and commitment, reducing the risk of conflicts between different segments of the workforce.

13c. Please describe below the steps to ensure a safe and healthy workplace that avoids delays and costs associated with workplace illnesses, injuries, and fatalities.

Quintillion is deeply committed to cultivating a safe and healthy workplace environment, backed by our robust leadership commitment, clear safety policies, and defined goals. Our dedication to employee well-being is reinforced through our just concluded annual workplace training. We have also instituted comprehensive emergency preparedness plans and a rigorous incident reporting and investigation process, ensuring strict compliance with regulatory standards.below is an overview of the various Quintillion company-wide training programs and initiatives that are crucial for fostering a safe, ethical, and inclusive workplace culture. These programs are in compliance with legal regulations and industry best practices. Each initiative promotes employee well-being which in turn leads to the avoidance of illnesses, injuries, and fatalities thereby reducing any associated costs cumulating in organizational and project success.
Whistleblower Policy Review:
Provided by Christine Brown-ACHR

Whistleblower training is an integral part of our commitment to ethics and transparency. It equips employees with the knowledge of their rights and responsibilities when reporting misconduct. This initiative fosters a culture of accountability and protects whistleblowers from retaliation, ensuring that legitimate concerns about wrongdoing are brought to light.

[redacted]

Our drug-free workplace policy and training program aim to maintain a safe and productive environment. By educating employees on company policies and legal regulations regarding drug and alcohol use, we create awareness of the potential risks associated with substance abuse. This initiative contributes to workplace safety, productivity, and compliance.

[redacted]

PII training and annual security policy review are crucial components of our data protection efforts. These initiatives educate employees on the importance of safeguarding personally identifiable information (PII) and best practices for secure handling. By staying compliant with data protection laws, we mitigate data breaches and identity theft risks.

[redacted]

Our cybersecurity training program empowers employees with the knowledge and skills to defend against cyber threats and protect our systems, networks, and data. Covering a broad range of security topics, this program enhances our overall cybersecurity posture, ensuring the integrity of our digital assets.

[redacted]

Discrimination and harassment training address critical workplace issue, fostering inclusivity and respect. Through education on discrimination, harassment, and bias, employees gain awareness and tools to prevent and address these issues. This training helps create a more inclusive and equitable atmosphere.

[redacted]

Diversity and inclusion training promote equity and diversity within our organization. By raising awareness, fostering understanding, and addressing biases and systemic barriers, this program empowers employees to celebrate unique perspectives and backgrounds, contributing to a more inclusive environment.

7. Anti-bribery/Anti-Corruption:

13d. For your MM project, please provide a brief description below of efforts made to ensure a safe and healthy workplace.

Has the team offered any of the following resources to assist with maintaining a safe and healthy workplace for this reporting period? If so, which resources (please provide a brief description of any of the following that apply):
Safety Training
Certifications and/or Licensure Requirements for all relevant works (e.g., OSHA 10, OSHA 30, confined space, traffic control, or other training required of workers employed by contractors)
Issues raised by workplace safety committees and their resolutions

Not Applicable for this reporting Period

13e. Please provide the name(s) below of any subcontracted entities performing work on the project, and the total number of workers employed by each entity.

13e-1. Name of Subcontracted Entity Performing Work	13e-2. Total Number of Workers within this Subcontract	13e-3. Job Categories of Workers Supporting Project within this Subcontract
TerraSond Limited	11	Business Development Manager, Production Lead, Health, Safety, Environmental and Quality Advisor, Lead Processor Geophysicist, hydrographer, surveyor.
Tetra Tech, Inc.	4	Project Manager, Routing Lead Survey Engineer

13f. Please describe below the steps taken to ensure that workers on the project receive wages and benefits sufficient to secure an appropriately skilled workforce in the context of the local and regional labor market.

Quintillion will competitively procure services from qualified contractors to complete the project including environmental consulting, engineering and design, and construction. Quintillion currently pays at or above Davis Bacon prevailing wages for its employees and will contractually require Davis Bacon wages for any subcontractors for this project. All staff are degreed and have certifications and appropriate experience in their relevant areas. Quintillion will utilize Wilson Albers to manage and oversee hiring of positions to ensure an highly skilled workforce. Engagement with contractors will be based on experience and qualifications. Contractor's workers are expected to be highly skilled and compensated to ensure skilled workforce. When applicable contractors will certify that they are paying not less than the prevailing wage.

I. ANCHOR INSTITUTIONS

ANCHOR INSTITUTIONS

Please provide Anchor Institution (AI) data for the current period only (not cumulative). Please add rows as needed.

14a. Anchor Institution Name	14b. Street Address	14c. City	14d. State	14e. Type of Anchor Institution	14f. Interconnection within 1,000 Feet of AI Enabling Gig Symmetrical Service	14g. Narrative Description of how the Anchor Institution may benefit from the Grant Funded Infrastructure
N/A						
N/A						
N/A						
N/A						
N/A						
N/A						
N/A						
N/A						
N/A						
N/A						
N/A						
N/A						
N/A						
N/A						
N/A						
N/A						
N/A						

J. BROADBAND ACCESS KEY INDICATOR: SUBSCRIBERS AND SPEED

PROJECTED NUMBER OF SUBSCRIBERS AND SPEED

Please use the following table to provide anticipated key indicators with the projected totals for each beneficiary category, access type and speed category for your infrastructure service or project. Except as indicated, information should be reported cumulatively from award inception through the end of the bi-annual period for Bi-Annual Indicators. Please write the number "0" if your project does not include this indicator.

PROJECTED NUMBER OF SUBSCRIBERS AND SPEED		Year 1		Year 2		Year 3		Year 4		Year 5	
SUBSCRIBER TYPE		Period 1: 4/1/23-9/30/23	Period 2: 10/1/23-3/31/24	Period 3: 4/1/24--9/30/24	Period 4: 10/1/24--3/31/25	Period 5: 4/1/25--9/30/25	Period 6: 10/1/25-3/31/26	Period 7: 4/1/26-9/30/26	Period 8: 10/1/26-3/31/27	Period 9: 4/1/27--9/30/27	
15a. Anchor Institutions (AIs)	15a-1. Total number of AIs passed	0	0	0	0	0	0	6	13	26	
	15a-2. Number of AIs within 1,000 feet of the middle mile infrastructure	0	0	0	0	0	0	6	13	26	
	15a-3. Total number of AIs served	0	0	0	0	0	0	0	0	0	
	15a-4. AIs with new access	0	0	0	0	0	0	0	0	0	
	15a-5. AIs with improved access	0	0	0	0	0	0	0	0	0	
	15a-6. Total number of AIs served with speeds of at least 1/1Gbps	0	0	0	0	0	0	0	0	0	
15b. Broadband Wholesalers or Last Mile Providers	15b-1.Total number of broadband wholesalers or last mile providers served	0	0	0	0	0	0	2	4	7	
	15b-2. Broadband wholesalers or last mile providers with new access	0	0	0	0	0	0	2	4	7	
	15b-3. Broadband wholesalers or last mile providers with improved access	0	0	0	0	0	0	2	4	7	
	15b-4. Total number of broadband wholesalers or last mile providers offering speeds of at least 25/3 Mbps	0	0	0	0	0	0	2	4	7	
	15b-5. Total number of broadband wholesalers or last mile providers offering speeds of at least 100/20 Mbps	0	0	0	0	0	0	2	2	4	
	15b-6. Total number of broadband wholesalers or last mile providers offering speeds of at least 1/1 Gbps	0	0	0	0	0	0	1	1	2	

Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Q1 2025	Q2 2025	Q3 2025	Q4 2025	Q1 2026	Q2 2026	Q3 2026	Q4 2027	Q1 2027	Q2 2027	Q3 2027

K. BROADBAND ACCESS KEY INDICATOR: NETWORK BUILD PROGRESS

NETWORK BUILD PROGRESS

Please use the following table to provide anticipated key indicators and progress of your Infrastructure project. Except as indicated, information should be reported cumulatively from award inception through the end of the bi-annual period. Please write the number "0" if your project does not include this indicator.

NETWORK BUILD PROGRESS	Year 1		Year 2		Year 3		Year 4		Year 5	
KEY INDICATOR	Period 1-7/1-9/30 (2023)	Period 2	Period 1	Period 2	Period 1	Period 2	Period 1	Period 2	Period 1	Period 2
16a. Total of new fiber miles (aerial or buried)	0									
16b. Total of fiber miles leased	0									
16c. Total of existing fiber miles upgraded	0									
16d. Total of new microwave links	0									
16e. Total of new towers	0									
16f. Total of new interconnection points	0									
16g. Total of signed agreements with broadband wholesalers or last mile providers	0									
16h. Total of potential agreements (i.e., agreements currently being negotiated) with broadband wholesalers or last mile providers (This Total should NOT be reported cumulatively)	0									

L. QUANTIFIABLE METRICS

FIBER OPTIC BASED

Quantifiable Metrics - Section designed to assist with **reporting** and **audit** purpose to quantify how much progress was made and track the location of where the progress was made.

17a. Fiber Optic Based	Year 1		Year 2		Year 3		Year 4		Year 5	
	Period 1-7/1-9/30 (2023)	Period 2	Period 1	Period 2	Period 1	Period 2	Period 1	Period 2	Period 1	Period 2
17a-1. Is the fiber a buried/aerial or undersea application?	Buried & Undersea									
17a-2. Number of strands deployed	0									
17a-3. Number of miles of buried fiber deployed	0									
17a-4. Number of miles of aerial fiber deployed	0									
17a-5. Estimated capacity of fiber (i.e. throughput)	0									
17a-6. Deployment cost per mile of buried fiber optics	0									
17a-7. Deployment cost per mile of aerial fiber optics	0									
17a-8. Total Spent on Buried Fiber Deployment this reporting period	0									
17a-9. Total Spent on Aerial Fiber Deployment this reporting period	0									
17a-10. Total spent on Fiber Deployment this reporting period	0									
17a-11. Please provide any additional information about the Fiber Optic deployment (200 words or less)	Project will include terrestrial, and subsea fiber, both will be buried.									
17a-12. Please provide the digital mappings (e.g., CAD, Revit, KMZ, KML) for the new aerial fiber and buried fiber equipment installed during this reporting period.										

MICROWAVE BASED

17b. Microwave Based	Year 1		Year 2		Year 3		Year 4		Year 5	
	Period 1-7/1-9/30 (2023)	Period 2	Period 1	Period 2	Period 1	Period 2	Period 1	Period 2	Period 1	Period 2
17b-1. How many microwave nodes have been deployed?	N/A									
17b-2. How many microwave nodes are operating for reporting period?	N/A									
17b-3. Installation cost per microwavable node	N/A									
17b-4. Number of new towers built to support microwave structure	N/A									
17b-5. If applicable, what type(s) of tower were constructed (a) Monopole (b) Self-Support, (c) Guyed or (d) Other during this reporting period?	N/A									
17b-6. Average cost per tower installed	N/A									
17b-7. Total spend on Tower deployment this reporting period	N/A									
17b-8. Total spend on microwave deployment this reporting period	N/A									
17b-9. If you answered "Other" to question 17b-5 or if it is a combination of multiple types, please provide a detailed narrative description detailing what type of tower or what combination of towers is used for the project and the their associated costs. (200 words or less).	N/A									
17b-10. Please provide the digital mappings (e.g., CAD, Revit, KMZ, KML) for the microwave nodes created during this reporting period.										

SATELLITE

17c. Satellite	Year 1		Year 2		Year 3		Year 4		Year 5	
	Period 1-7/1-9/30 (2023)	Period 2	Period 1	Period 2	Period 1	Period 2	Period 1	Period 2	Period 1	Period 2
17c-1. What satellite provider is being used?	N/A									
17c-2. What is the estimated capacity of the satellite link (i.e. throughput)?	N/A									
17c-3. What is the associated cost to use this satellite service?	N/A									
17c-4. Please provide any additional information about the Satellite deployment (200 words or less)	N/A									
17c-5. Please provide the digital mappings (e.g., CAD, Revit, KMZ, KML) for the satellite network accessed during this reporting period.										

CERTIFICATIONS

Certifications

18. Please provide certification evidencing compliance with Federal labor and employment laws along with the requirements of Infrastructure Investment and Jobs Act and Middle Mile Grant Program, for the bi-annual period for which this report is being filed.

I certify that **QUINTILLION** is in compliance with Federal labor and employment laws along with the requirements of the Infrastructure Investment and Jobs Act and Middle Mile Grant Program, for the bi-annual period for which this report is being filed.

19. Please provide certification evidencing compliance with the Build America, Buy America Act. The Build America, Buy America Act requires that all of the iron, steel, manufactured products (including but not limited to fiber-optic communications facilities), and construction materials used in the project or other eligible activities are produced in the United States unless a waiver is granted.

N/A-Per Administrative Notice for 02-40-MM503 Quintillion is exempted from The Build America, Buy America Act

MM GRANT PROGRAM BI-ANNUAL REPORT CERTIFICATION

20. I certify to the best of my knowledge and belief that this report is correct and complete for performance of activities for the purposes set forth in the award documents.

20a. Typed or Printed Name and Title of Authorized Certifying Official:		**20c. Telephone (area code, number and extension):**	[redacted]
Michael McHale		**20d. Email Address:**	[redacted]
20b. Signature of Certifying Official:			
		20e. Date:	