



# NORTH CAROLINA 911 BOARD MEETING

Friday, June 25, 2021

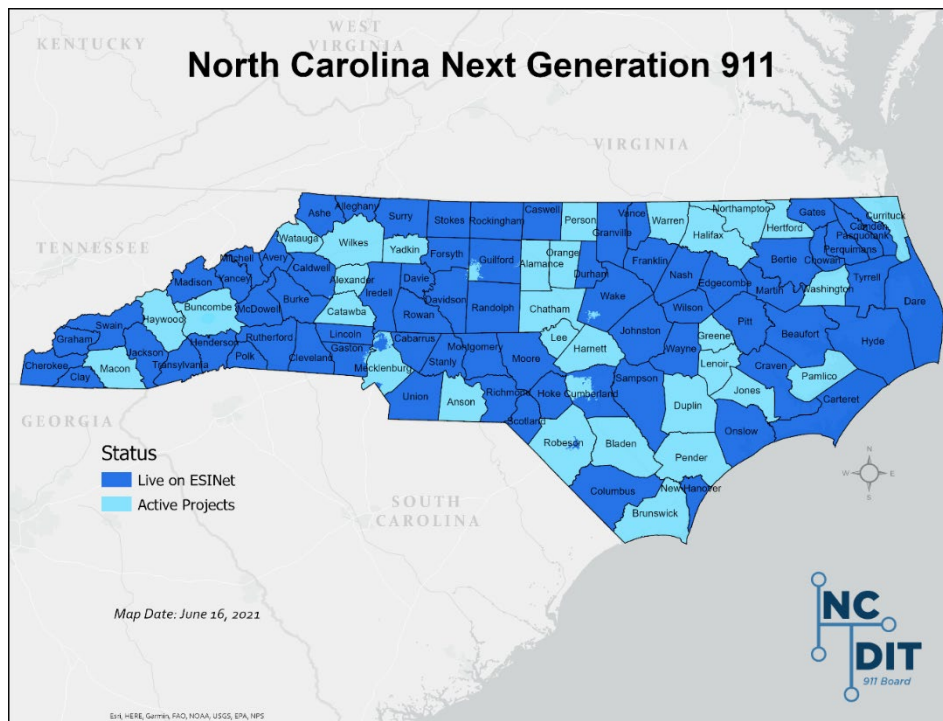
NC DOT – 1 South Wilmington Street  
1<sup>st</sup> Floor Boardroom, Raleigh, NC 27601  
and

Via Simultaneous Communication

[Join Microsoft Teams Meeting](#)

984-204-1487 Conference ID: 328 786 957#

10:00 AM – Noon



***Call to Order***  
**Eric Boyette**

***Roll Call***  
**Stephanie Conner/Amy  
Berenson**

***Tab 1***  
**Chair's Opening Remarks**  
**Eric Boyette**

## **Tab 2**

### **Ethics Awareness/Conflict of Interest Statement**

**Eric Boyette**

*In accordance with G.S. 138A-15, It is the duty of every Board member to avoid both conflicts of interest and potential conflicts of interest. Does any Board member have any known conflict of interest or potential conflict of interest with respect to any matters coming before the Board today? If so, please identify the actual or potential conflict and refrain from any undue participation in the particular matter involved.*

## **Tab 3**

### **Public Comment**

**Eric Boyette**

*The NC 911 Board welcomes comments from state and local government officials, first responders, finance directors, 911 directors, citizens and interested parties about any 911 issue(s) or concern(s). Your opinions are valued in terms of providing input to the NC 911 Board members. When addressing the Board, please state your name and organization for the record and speak clearly into the microphone.*

***Tab 4***

**Consent Agenda**

**Pokey Harris**

***(Roll Call Vote Required)***

***Tab 4 a)***

**Minutes of Meeting**

**May 28, 2021**

**North Carolina 911 Board Meeting**  
**MINUTES**  
**Friday, May 28, 2021**  
**10:00 AM – 12:00 PM**  
**Via Simultaneous Communication**  
**Microsoft Teams Meeting**



**NORTH CAROLINA 911 BOARD MEETING**  
**ROLL CALL**

**Friday, May 28, 2021**  
**10:00 AM – 12:00 PM**  
**Via Simultaneous Communication with Microsoft Teams Meeting**



NC 911 BOARD MEMBERS	IN PERSON	PRESENT VIA MS TEAMS OR PHONE	
		YES	NO
David Bone, County Manager, Davie County (NCACC)	N/A AT THIS TIME	Y	
Secretary Eric Boyette, 911 Board Chair (NC DOT)			N
Tommy Cole, Fire Chief, City of Graham (NCSFA)		Y	
Greg Coltrain, VP Business Development, Wilkes Communication/River Street (LEC)			N
Brian Drew, Manager of Customer Design and Implementation, CenturyLink/Lumen (LEC)		Y	
Bo Ferguson, Deputy City Manager, City of Durham (NCLM)		Y	
Greg Foster, Director of Communications, Alexander County (NC Association of Rescue EMS)		Y	
Chuck Greene, Director of Government Affairs, AT&T (LEC)		Y	
J.D. Hartman, Sheriff, Davie County (NC Sheriff's Association)		Y	
Jeff Ledford, Chief, City of Shelby Police Department (NCACP)		Y	
John Moore, Regional Manager, Government and Education Sales, Spectrum Communications (VoIP)			N
Melanie Neal, Director, Guilford-Metro 911 (APCO)		Y	
Jude O'Sullivan, Chief Customer Officer, Carolina West (CMRS)		Y	
Jeff Shipp, Vice President of Operations, Star Telephone (LEC)		Y	
Earl Struble, Sr. Manager Verizon Response, Verizon Wireless (CMRS)		Y	
Donna Wright, Director (Retired), Richmond CO Emergency Services (NENA)		Y	
<b>NC 911 BOARD STAFF</b>			
Rick Blumer, NMAC Technician	N/A AT THIS TIME		N
Richard Bradford, (DOJ) NC 911 Board Legal Counsel		Y	
Chris Carlin, NMAC Technician		Y	
Stephanie Conner, Western Regional Coordinator		Y	
Kristen Falco, Financial Review Specialist		Y	
Bernard Gardner, NMAC Technician		Y	
Tina Gardner, North Central Regional Coordinator		Y	
Pokey Harris, Executive Director		Y	
Jesus Lopez, (NC DIT) NC 911 Board PM		Y	
Gerry Means, Network Engineer/NG 911 Project Manager		Y	
Stanley Meeks, NMAC Manager		Y	
David Newberry, South Central Regional Coordinator		Y	
Marsha Tapler, Financial Analyst		Y	
Sarah Templeton, Financial Review Specialist		Y	
Angie Turbeville, Eastern Regional Coordinator		Y	

**NORTH CAROLINA 911 BOARD MEETING**  
**ROLL CALL**  
 Friday, May 28, 2021  
 10:00 AM – 12:00 PM  
 Via Simultaneous Communication with Microsoft Teams Meeting



GUESTS	IN PERSON	VIA MS TEAMS/PHONE	ORGANIZATION
Michael Albertson		Y	Did Not Identify
Andrew Allvine		Y	AT&T
BCSO911		Y	Brunswick County SO 911
Josh Benfield		Y	Caswell County
Gene Booth		Y	Cumberland County
Amy Berenson		Y	NC State Government
Josh Briggs		Y	AT&T
Christine Buchanan		Y	Cumberland County
Crystal Bullard		Y	Fayetteville PD
David Carroll		Y	City of Lumberton
Bridgett Cerce		Y	Moore County
Belinda Clawson		Y	Jackson County
Brandon Crone		Y	Macon County
Peggy Dalley		Y	New Hanover County
Danette (No Last Name Provided)		Y	Wake Forest PD
Michael Desmond III		Y	Charlotte MEDIC
Greg Dotson		Y	Rutherford County
Hope Downs		Y	New Hanover County
Kenneth Everett		Y	Caswell County
Marie Evitt		Y	NC Sheriff Assoc.
Ellis Frazier		Y	High Point 911
Bill French		Y	Lumberton Emergency Services
Sonja Floyd		Y	Gaston County
William Gibbs		Y	Lincoln County
Pamela Graham		Y	New Hanover County
Kyle Griffin		Y	Stanly County
Del Hall		Y	Stokes County
Henry Hedgepath		Y	Halifax County
Diane Henderson		Y	Wake Forest PD
Beverly Herring		Y	Johnston County
Jonathan Horn		Y	Charlotte Fire
Emily Hughes		Y	NC DIT
Leigh Jackson		Y	Legislative Liaison DIT
Nena Jacobs		Y	Rowan County
Adam Johnson		Y	Cumberland County
Jen Johnson		Y	NC DIT
Kim Lewis		Y	Brunswick County
Matthew Lewis		Y	Charlotte MEDIC
Jessica Lowe		Y	Forsyth County
Mike McDaniel		Y	Did Not Identify
Stori McIntyre		Y	Cleveland County
Beth Meek		Y	Intrado
Christine Moore		Y	Guliford Metro
Mark Newsome		Y	NC DIT CFO
Dominick Nutter		Y	Raleigh Wake

Ashley Overcash		Y	Did Not Identify
Amy Regan		Y	Franklin County
Mike Reitz		Y	Chatham County
Kito Romans		Y	New Bern PD
Corrine Rust		Y	Charlotte MEDIC
Robert Sergi		Y	Intrado
Christy Shearin		Y	Franklin County
Shane Sligh		Y	Pageland County, SC
Lynn Slycord		Y	Kings Mountain PD
Gethany Smith		Y	Cumberland County
Kyle Thaggard		Y	High Point 911
Pat Thetford		Y	AT&T
Rick Thomas		Y	Formerly Town of Apex
Nancy Via		Y	Wake Forest PD
Amanda Ward		Y	Gates County
Secretary James Weaver		Y	NC DIT CIO
Herman Weiss		Y	Chowan County
Travis Wilkerson		Y	Richmond County
Vic Williams		Y	Carolina Recording
Ashley Wilson		Y	Cumberland County
James Wilson		Y	Gaston County
Stephanie Wiseman		Y	Mitchell County

PHONE NUMBERS	VIA MS TEAMS/PHONE	ORGANIZATION
336-399-4181 – Ryan Boyles	Y	Forsyth County
704-239-9135 – Allen Carlisle	Y	Rowan County
910-378-6324 – Nena Cruz	Y	Onslow County
404-441-1358 – Did Not Identify	Y	Did Not Identify
704-734-0444 – Did Not Identify	Y	Did Not Identify
336-694-2555 – Kenneth Everett	Y	Caswell County
607-483-3223 – Kristen Falco	Y	NC 911 Board
704-268-3032 – Bill Gibbs	Y	Lincoln County
910-388-8342 – Megan How	Y	Onslow County
252-678-3788 – Heather Joyner	Y	Franklin County
919-291-4481 – Brett Renfrow	Y	Johnston County
919-455-3844 – Brian Smith	Y	AT&T
910-624-3960 – Tracy Trogdon	Y	Fayetteville PD
828-385-0795 – Stephanie Wiseman	Y	Mitchell County

**Call to Order** – Vice Chair Shipp called the meeting to order at 10:01 AM and asked Ms. Harris to proceed with the roll call.

**Roll Call** – Ms. Harris advised Chairman Boyette would be unable to attend due to a previous commitment. She noted Ms. Conner would call the roll of attendees and Ms. Templeton would conduct roll call votes during the meeting. She also advised they would monitor the chat area, while Mr. Newberry would serve as technical facilitator for the virtual meeting.

**Acknowledge Military Appreciation Month** – Military Appreciation Month takes place every year throughout the entire month of May to honor past and present military members and their families. Ms. Harris recognized Ms. Tapler for her service in the Army. She is the only veteran currently on staff. Ms. Harris also recognized Mr. Means who participated in ROTC during college and Secretary Jim Weaver who is currently serving as a National Guardsman. In addition, Ms. Harris thanked those guests present who are currently serving or had previously served in the military.

**1. Vice Chair’s Opening Remarks** – Ms. Harris noted the graduates of the 2020 PSAP Managers Program and the participants of the current program were present on the call. Attending a Board meeting is an assignment for those enrolled in the program. Vice Chair Shipp thanked everyone who has served our country. He mentioned this was his first meeting as Vice Chair of the 911 Board. He thanked Secretary Boyette and the Board, and further stated it is an honor to serve.

**2. Ethics Awareness/Conflict of Interest Statement** – Vice Chair Shipp read the Ethics Awareness/Conflict of Interest statement as published in the agenda.

**3. Public Comment** – Vice Chair Shipp read the invitation for public comment as published in the agenda. No one had preregistered to speak, and no one virtually present had comments.

**4. Recognition of Former Board Member Chief Buddy Martinette** – Chief Martinette served on the Board from January 2019 to April 2021. He also served on the Education Committee as an ad hoc member reviewing education standards and policies. Ms. Harris thanked him for his service and virtually presented him with the plaque that had been mailed to him prior to the meeting. Chief Martinette said serving on the Board had been an honor.

**5. Ceremonial Swearing-In of Board Member Chief Tommy Cole** – Ms. Harris welcomed Chief Tommy Cole to the Board. He was appointed to serve the seat Chief Buddy Martinette recently vacated. Chief Cole was then sworn in by Ms. Harris.

**6. Recognition of the 2020 PSAP Managers Program Participants** – Vice Chair Shipp and Ms. Harris joined Ms. Wright and the Regional Coordinators in recognizing the graduating class of the PSAP Managers Program, honoring them with a certificate of completion for the course. This class included the following individuals, many of whom were virtually present for today’s meeting:

Student	PSAP	Region	Title
Josh Benfield	Caswell County	North Central	911 Systems Administrator
Christine Buchanan	Cumberland County	Eastern	911 Standards Program Coordinator
Crystal Bullard	City of Fayetteville	Eastern	911 Supervisor
David Carroll	City of Lumberton	Eastern	Unknown
Amy Clewis	Kernersville PD	North Central	Communications Manager
Kenneth Everett	Caswell County	North Central	Communications Director
Misty Hembree	Graham County	Western	911 Director
Beverly Herring	Johnston County	South Central	911 Supervisor/Public Education Outreach
Amy Hicks Davis	Rowan County	South Central	Captain
Melody Jones	Scotland County	South Central	Shift Supervisor/CTO
Kim Lewis	Brunswick County	Eastern	911 Operations Manager
Matthew Lewis	Mecklenburg EMS	South Central	Clinical Improvement Supervisor
Heather Massie	Caswell County	North Central	Quality Assurance
Michael McDaniel	Rowan County	South Central	Battalion Chief
Shane Slight	Scotland County	South Central	Assistant Town Administrator
Gethany Smith	Cumberland County	Eastern	Administrative Program Officer
Sarah Templeton	911 Board	South Central	Financial Review
Richard Thomas	Apex Police	South Central	Communications Manager
Tracy Trogdon	Fayetteville PD	Eastern	911 Systems Analyst
Roger Wallace	Rowan County	South Central	Captain
Ashley Wilson	Cumberland County	Eastern	Communications Training Officer

**7. Consent Agenda** – Vice Chair Shipp asked Ms. Harris to proceed with the consent agenda.

**a) Minutes of Previous Meeting – April 26, 2021**

**b) NG 911 Reserve Fund**

April 2021 Account Balance \$84,644,619

April 2021 Disbursement \$1,957,428

**c) CMRS Account**

April 2021 Account Balance \$3,849,476

April 2021 Disbursement \$404,195

**d) PSAP Account**

April 2021 Account Balance \$7,183,387

April 2021 Disbursement \$4,181,555

**e) PSAP Grant/Statewide Projects Account**

April 2021 Account Balance \$11,227,199

Grant Funds Committed \$1,100,000

**f) Grant Project Updates per Reports**

Ms. Wright made a motion to accept the consent agenda as presented. The motion was seconded by Mr. Bone. Ms. Templeton conducted the roll call vote. All attending Board members voted, and the motion carried unanimously. *Roster of roll call votes for all action items for this meeting included below as part of these minutes.*

**8. Executive Director Report**

**a) 911 Board Appointment Status** – Ms. Harris said T-Mobile and Sprint have not yet submitted anyone for consideration for the vacant CMRS seat on the Board.

**b) Staffing Update** – Ms. Harris announced that Amy Berenson would be coming onboard as the Administrative and Logistics Coordinator on June 1. Ms. Berenson introduced herself to the board and spoke about her experience working with the State in other similar roles. She is looking forward to working with the Board.

**c) Biennial Audit Status** – The audit was nearing completion with the draft report forthcoming. Tentative plans are for the OSA to present at the July Board meeting.

**d) State 911 Plan Update** – The State 911 plan will proceed as previously denoted with an internal kickoff meeting in July. Suggestions for work group members have been made but others are needed. Ms. Harris plans to reach out to those individuals in the coming weeks.

**e) NextGen 911 Migration Status** – Currently 80 PSAPs have migrated.

- Caldwell County 911 (04/24/2021) – Migrated as i3. Vesta hosted call handling equipment. First live call at 1246 Hours EST. PSAP #79/physical location #127 (including backups).

- Graham County 911 (05/12/2021) – Migrated as i3. Viper hosted call handling equipment. First live call at 1051 Hours EST. PSAP #80/physical location #128 (including backups).

- Apex PD 911 (05/19/2021) –Migrated as i3. Vesta hosted call handling equipment. First live call at 1152 Hours EST. ESInet partner.

- NC State Highway Patrol (05/19/2021) –Migrated as i3. Vesta hosted call handling equipment. Troop A first live call at 0918 Hours EST. Troop C first live call at 1217 Hours EST. Troop D first live call at 1013 Hours EST. Troop E first live call at 1141 Hours EST. ESInet partner.

**f) NextGen 911 GIS Status** – All 100 jurisdictions are participating in uploading their GIS data.

**g) 988 Planning Coalition (National Suicide Prevention Lifeline)** – Ms. Harris, Mr. Bradford and Ms. Turbeville participated in the 988 Planning Coalition. Ms. Harris extended an invitation to APCO, NENA, the Sheriff's Association, and the Police Chief's Association to join as well.

**h) NCEM Statewide Exercise (04/28/2021)** – Ms. Harris, the NMAC, and the Regional Coordinators participated in the NCEM Statewide Exercise to identify any areas of improvement needed for the role in ESF2 PSAP Coordination and also tested the statewide radio communication with the PSAPs.

**i) Legislative Update**

- NC HB813 – Mr. Bradford spoke about NC HB813 which deals with ransomware. A definition for ransomware was added to DIT statutes that requires local governments – previously identified as county and municipal governments but now as local government entities – to report ransomware attacks to the Department of Information Technology.



- FCC 911 Strike Force Appointment – Ms. Harris announced that Mr. Bradford has been selected to serve on the FCC 911 Strike Force. The goal of the Strike Force is to expeditiously end 911 fee diversion.

**9. Executive Committee Report** – Ms. Wright advised there were no matters for the Executive Committee to report at that time.

#### **10. Education Committee Report**

- a) NG911 and NMAC Infographics – Mr. Greene presented the two infographics the committee had approved, one for NextGen 911 and one for the NMAC. The committee voted unanimously at its last meeting to approve the infographics for distribution. Ms. Templeton conducted the roll call vote. All attending Board members voted, and the motion carried unanimously. *The roster of roll call votes for all action items for this meeting included below as part of these minutes.*
- b) General Committee Report – Mr. Green and Board staff met with Spectrum to discuss the PSA project for telecommunicator recruitment. Due to budget constraints for this initiative, the plan is to focus on a small market as a beta test to track and assess the impact of the PSA. If the PSA is successful, there will be discussion for the potential of allocating additional funding to expand to more areas of the state.

*Mr. Ferguson left the meeting.*

#### **11. Funding Committee Report**

- a) Lumberton Emergency Services Funding Reconsideration – Lumberton Emergency Services was recommended for a reduction in funding in FY 2022, however the agency has identified a needed capital project. Staff recommended that Lumberton's distribution not be reduced for FY 2022 and approval of a funding reconsideration for Lumberton in the amount of \$87,656. The committee voted unanimously at its last meeting to approve the staff recommendation and brought this forward as a motion. Ms. Templeton conducted the roll call vote. All attending Board members voted, and the motion carried unanimously. *Roster of roll call votes for all action items for this meeting included below as part of these minutes.*
- b) Proposed FY 2022 PSAP Funding Distribution – Ms. Tapler presented the proposed PSAP Funding Distribution for FY 2022 and noted a small decrease to the amount previously approved by the Funding Committee due to a change in a PSAP report final approval. The committee voted unanimously at its last meeting to approve the proposed FY 2022 PSAP Distribution in the amount of \$42,550,206.92. However, due to the noted revision, the amount brought forward to the Board as a motion is \$42,549,875.86. Ms. Templeton conducted the roll call vote. All attending Board members voted, and the motion carried unanimously. *Roster of roll call votes for all action items for this meeting included below as part of these minutes.*
- c) CMRS Funding Approval and FY 2021 Budget Amendment – Mr. Bone presented the two items jointly, as they were related to one another. Mr. Bradford provided historical and statutory context to the items and Ms. Tapler then provided the financial details. The committee voted unanimously at its last meeting to approve staff recommendation concerning the CMRS funding approval and FY 2021 budget amendment of \$886,226.02, and brought this forward as a motion. Ms. Templeton conducted the roll call vote. All attending Board members voted, and the motion carried unanimously. *Roster of roll call votes for all action items for this meeting included below as part of these minutes.*
- d) General Committee Report – Mr. Bone advised there were no other matters for the committee to report at that time.

**12. Finance Team Report** – Ms. Tapler gave an update on the Federal 911 Grant, and her progress to close out the grant by the March 2022 deadline. She continues working on the FCC fee report and closing out the fiscal year. Ms. Falco said she and Ms. Templeton had attended several PAT meetings to work with PSAPs that plan to apply for grants in the upcoming cycle, as well as those with low fund balances to help them identify their technology needs. They also worked with the PSAPs on their revenue/expenditure reports and assisted Ms. Tapler with preparing letters to notify PSAPs of their upcoming distribution for FY 2022. Ms. Templeton gave an update on FY 2019 and FY 2020 revenue/expenditure reports status. For FY 2019 there are 85 finalized, 31 in the clarification process, and 11 awaiting the signed revised report. For FY 2020 there are 30 finalized, 34 in the clarification process, 11 awaiting the signed revised report, and 52 awaiting review.

**13. Grant Committee Report** – Ms. Harris reminded everyone the grant submission deadline is Tuesday, June 1, 2021, at 11:59 PM. She reported five grant applications have been submitted thus far. She also let committee members know staff is coordinating access to MS Teams where all the grant documentation will be available for staff and committee members. Two review dates are tentatively scheduled for July. Decrease or addition of days may be necessary depending on the number of grant applications received. The Grant Committee will meet on June 30 to begin the initial review.

**14. Standards Committee Report** – Ms. Wright said she and Ms. Gardner have plans to meet and discuss a refresher training for peer reviewers, as well as creating a schedule to complete the reviews. She also mentioned there continues to be a need of additional reviewers. Anyone interested in applying should contact their Regional Coordinator.

**15. Technology Committee Report** – Mr. Means reported 80 PSAPs have migrated to ESInet. There are currently 37 projects with firm dates scheduled and 6 with tentative dates. It is anticipated 123 PSAPs will be live on the ESInet by calendar year end. Several of the State Highway Patrol troops were successfully migrated on May 19, with the remaining troops migrating by July. He then discussed the SIP admin line project, which takes away the analog interfaces that are currently used for admin lines and will deliver local calls to the local telephone number as IP across the same connection as 911. This means all continuity planning for admin alternate routes will follow the same profile as 911 calls. The SIP admin lines infrastructure was tested in May and the infrastructure is ready for PSAP testing and deployment. Profiles have been built in AT&T's platform to administer the five PSAPs participating as the initial trial sites, the first of these being Perquimans and Union Counties. Mr. Means then provided an update on GIS efforts, reporting 85 counties are fully i3, with 24 in the GeoComm datahub waiting for certification of their data, and six still working on their data. Work continues for the i3 GIS governance policy, which will establish a standard for update requirements for the PSAPs. He then spoke about the cybersecurity assessments, having only 2 assessments left to complete. A preliminary report on the analysis will be shared with the Board, but due to the sensitivity of the information it will not be released to the public.

Mr. Meeks gave a report on the NMAC. One of the current NMAC techs resigned this month and two new NMAC techs have been hired, Bernard Gardner and Iesha Duffy. Two additional technicians are slated for hire at the start of the new fiscal year in July. The review and update of the PSAP Handbook continues, as well as review of call flow process improvements. Mr. Meeks also advised SolarWinds will be redeploying within the next two weeks.

a) **Intrado Viper Call Handling ANI/ALI Identified Issues and Resolutions** – Mr. Means provided an update on recent events that negatively impacted several PSAPs. He began with a review of several technical issues that occurred during the months of April and May impacting PSAPs on the Viper 2 hosted platform. Ms. Harris also discussed the issues experienced on the Viper call handling platform that involved the delivery of ANI/ALI. She introduced Pat Thetford from AT&T, and Beth Meek and Robert Sergi from Intrado who provided an update on the issues and resolutions.

The first incidents occurred in early April and again in early May that involved failing platform operating system software initiation files. Root cause was determined, and the software resolution is to be installed with system upgrades this month.

Outages on May 12 and May 16 were traced to issues with anti-virus protection and a failure in a recovery mechanism for a telephony services server. At this time, the root cause of the anti-virus exception has been determined and system updates are being performed. The telephony server issue was still under investigation. Senior leadership and senior engineers for both Intrado and AT&T have been engaged in the resolution process with daily updates.

b) **General Committee Report** – Mr. Means advised there were no additional items for report.


*Mr. Foster and Mr. O'Sullivan left the meeting.*

**16. 911 Regional Coordinator Reports** – The Regional Coordinators gave brief reports. Mr. Newberry attended PAT meetings to work with PSAPs on their grant applications and scheduled the first data sharing ad hoc for the Technology Committee for June 11, 2021. Ms. Conner has worked with her PSAPs to finalize their FY 2020 reports so they can submit grant applications. She participated in the NENA/APCO conference that was held virtually. Ms. Gardner met with the ad hoc for the Standards

Committee where they discussed a mission statement and narrowed down data gathering that needs to be completed. Ms. Turbeville worked with the other RCs and the FRSs on the PSAPs that were identified as having low fund balances, reviewing their needs and annual distributions. She then gave a presentation sharing the new PSAP Financial Planning Tool (PFP), a form that assists the PSAP with review of revenue and expenditures with a focus on technology planning. The plan is to roll this out to all PSAPs for use in their financial planning and budgeting.

**17. Other** – Ms. Harris said June’s Board meeting had potential to be an in-person hybrid meeting and more details will be sent out closer to that date.

**Roster of Roll Call Votes:**

<b>NORTH CAROLINA 911 BOARD MEETING</b> <b>ROLL CALL VOTES</b> Friday, May 28, 2021 10:00 AM – 12:00 PM Via Simultaneous Communication with Microsoft Teams Meeting 					
NC 911 Board Members	7. Consent Agenda	10. a) NG911 and NMAC Infographics	11. a) Lumberton Emergency Services Funding Reconsideration	11. b) Proposed FY2022 PSAP Distribution	11. c) CMRS Funding Approval and FY21 Budget Amendment
David Bone, County Manager, Davie County (NCACC)	Y	Y	Y	Y	Y
Secretary Eric Boyette, 911 Board Chair (NC DOT)	N/P	N/P	N/P	N/P	N/P
Tommy Cole, Fire Chief, City of Graham (NCSFA)	Y	Y	Y	Y	Y
Greg Coltrain, VP Business Development, Wilkes Communication/River Street (LEC)	N/P	N/P	N/P	N/P	N/P
Brian Drew, Manager of Customer Design and Implementation, CenturyLink/Lumen (LEC)	Y	Y	Y	Y	Y
Bo Ferguson, Deputy City Manager, City of Durham (NCLM)	Y	Y	N/P	N/P	N/P
Greg Foster, Director of Communications, Alexander County (NC Association of Rescue EMS)	Y	Y	Y	Y	Y
Chuck Greene, Director of Government Affairs, AT&T (LEC)	Y	Y	Y	Y	Y
J.D. Hartman, Sheriff, Davie County (NC Sheriff's Association)	Y	Y	Y	Y	Y
Jeff Ledford, Chief, City of Shelby Police Department (NCACP)	Y	Y	Y	Y	Y
John Moore, Regional Manager, Government and Education Sales, Spectrum Communications (VoIP)	N/P	N/P	N/P	N/P	N/P
Melanie Neal, Director, Guilford-Metro 911 (APCO)	Y	Y	Y	Y	Y
Jude O'Sullivan, Chief Customer Officer, Carolina West (CMRS)	Y	Y	Y	Y	Y
Jeff Shipp, Vice President of Operations, Star Telephone (LEC)	Y	Y	Y	Y	Y
Earl Struble, Sr. Manager Verizon Response, Verizon Wireless (CMRS)	Y	Y	Y	Y	Y
Donna Wright, Director (Retired), Richmond CO Emergency Services (NENA)	Y	Y	Y	Y	Y

**Adjourn** – Vice Chair Shipp adjourned the meeting at 11:55 AM.

The next Board meeting was scheduled for Friday, June 25, at 10:00 AM. (Potential for in-person hybrid meeting).



# **Tab 4 b – e)**

## **b)NG 911 Reserve Fund**

<b>May 2021 Account Balance</b>	<b>\$ 84,614,498</b>
<b>May 2021 Disbursement</b>	<b>\$ 421,541</b>

## **c)CMRS Account**

<b>May 2021 Account Balance</b>	<b>\$ 3,559,355</b>
<b>May 2021 Disbursement</b>	<b>\$ 290,746</b>

## **d)PSAP Account**

<b>May 2021 Account Balance</b>	<b>\$ 8,371,826</b>
<b>May 2021 Disbursement</b>	<b>\$ 3,998,608</b>

## **e)PSAP Grant/Statewide Projects Account**

<b>2021 Account Balance</b>	<b>\$ 12,131,692</b>
<b>Grant Funds Committed</b>	<b>\$ 25,710,759</b>

## Next Generation 911 Reserve Fund

FY2021 beginning Fund Balance: \$65,426,679.57

28% Allocation	July 2020	August 2020	September 2020	October 2020	November 2020	December 2020	January 2021	February 2021	March 2021	April 2021	May 2021
<b>Service Charge Receipts</b>	\$1,395,092.02	\$2,085,230.33	\$2,230,932.17	\$2,319,928.70	\$2,283,366.72	\$712,657.19	\$3,519,036.33	\$2,177,477.96	\$2,617,201.67	\$2,197,544.95	\$2,377,675.25
<b>Interest allocation</b>	\$64,893.33	\$57,000.91	\$48,171.13	\$41,868.24	\$36,337.94	\$29,666.57	\$26,004.53	\$21,844.43	\$17,447.95	\$17,220.13	\$13,744.57
<b>PSAP Grant/Statewide Project Allocation (In)</b>			\$14,000,000.00								
<b>NG 911 Reserve Fund Disbursement</b>	-\$2,615,169.69	-\$210,751.08	-\$1,224,925.34	-\$2,797,496.25	-\$115,207.19	-\$1,232,491.74	-\$5,755,069.03	-\$416,408.60	-\$356,037.62	-\$1,957,427.52	-\$421,540.60
<b>NG 911 Reserve Fund Balance</b>	\$64,271,495.23	\$66,202,975.39	\$81,257,153.35	\$80,821,454.04	\$83,025,951.51	\$82,535,783.53	\$80,325,755.36	\$82,108,669.15	\$84,387,281.15	\$84,644,618.71	\$86,614,497.93

## CMRS Account

FY2021 beginning Account Balance: \$5,964,801.21

	July 2020	August 2020	September 2020	October 2020	November 2020	December 2020	January 2021	February 2021	March 2021	April 2021	May 2021
<b>CMRS Service Charge Receipts</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Interest allocation</b>	\$5,916.18	\$4,942.46	\$4,058.58	\$2,876.10	\$2,470.26	\$1,931.48	\$1,703.72	\$1,397.86	\$1,002.38	\$867.83	\$625.08
<b>CMRS Allocation (out)</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>CMRS Disbursement</b>	-\$397,838.09	\$0.00	\$0.00	-\$90,502.16	-\$91,226.45	\$0.00	-\$268,942.79	-\$424,458.48	-\$465,328.68	-\$404,195.21	-\$290,746.14
<b>CMRS Account Balance</b>	\$5,572,879.30	\$5,577,821.76	\$5,581,880.34	\$5,494,254.28	\$5,405,498.09	\$5,407,429.57	\$5,140,190.50	\$4,717,129.88	\$4,252,803.58	\$3,849,476.20	\$3,559,355.14

## PSAP Account

FY2021 beginning Account Balance: \$16,064,101.34

	July 2020	August 2020	September 2020	October 2020	November 2020	December 2020	January 2021	February 2021	March 2021	April 2021	May 2021
<b>Service Charge Receipts</b>	\$3,703,957.11	\$3,037,143.02	\$2,887,243.71	\$3,161,764.33	\$2,991,754.65	\$244,161.92	\$5,193,795.98	\$3,165,184.02	\$3,195,068.11	\$2,856,300.49	\$3,223,001.30
<b>Wireline Service Charge Receipts</b>	\$614,662.16	\$499,831.63	\$465,005.38	\$392,418.16	\$458,439.36	\$257,467.79	\$606,566.46	\$427,329.44	\$458,240.31	\$413,456.35	\$415,330.67
<b>VOIP Service Charge Receipts</b>	\$1,000,935.69	\$787,998.26	\$733,878.84	\$688,776.70	\$737,779.53	\$283,473.29	\$1,228,238.54	\$710,994.99	\$782,177.83	\$745,060.29	\$804,025.02
<b>Prepaid Wireless Service Charge Receipts</b>	\$1,499,829.23	\$1,020,790.25	\$779,694.47	\$816,971.03	\$792,212.33	\$769,253.18	\$646,668.61	\$445,726.50	\$1,272,817.50	\$778,185.35	\$743,522.60
<b>Interest allocation</b>	\$15,933.15	\$16,542.96	\$14,575.60	\$425.36	\$868.41	\$1,026.14	\$135.36	\$1,117.14	\$1,032.67	\$1,340.76	\$1,166.44
<b>Subtotal</b>	\$6,835,317.34	\$5,362,306.12	\$4,880,398.00	\$5,060,355.58	\$4,981,054.28	\$1,555,382.32	\$7,675,404.95	\$4,750,352.09	\$5,709,336.42	\$4,794,343.24	\$5,187,046.03
<b>PSAP Allocation (out)</b>			-\$20,093,503.00								
<b>PSAP Distributions</b>	-\$4,246,371.10	-\$3,983,693.48	-\$3,993,019.11	-\$3,954,415.97	-\$4,040,728.69	-\$3,997,572.33	-\$3,997,090.43	-\$3,998,607.54	-\$3,998,607.54	-\$4,181,355.04	-\$3,998,607.54
<b>PSAP Account Balance</b>	\$18,653,047.58	\$20,031,660.22	\$825,536.11	\$1,931,475.72	\$2,871,801.31	\$429,611.30	\$4,107,925.82	\$4,859,670.37	\$6,570,399.25	\$7,183,387.45	\$8,371,825.94

Certified by OSC  
Cash Basis

PSAP Grant-Statewide 911 Projects Account

		Total Disbursed											Remaining	
		YTD	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Expenditures
			\$29,744,439.97	\$29,346,605.94	\$30,103,477.33	\$36,490,172.45	\$36,851,064.39	\$37,384,084.52	\$37,208,698.88	\$38,363,197.32	\$38,968,874.72	\$38,348,493.42	\$38,973,419.10	
<b>FY2017</b>	<b>Award Amount</b>													
Martin G2017-7 (048)	5,196,315.00	-4,724,784.53	-118,276.34					-36,429.50						0.00
Mitchell G2017-9 (049)	3,163,000.00	-2,909,389.86	-105,095.10		-110,718.43									0.00
Pasquotank G2017-11 (051)	1,010,779.00	-990,194.27						-14,540.00						0.00
<b>FY2018</b>	<b>Award Amount</b>													
Iredell G2018B-3 (063)	2,361,230.00	-2,211,577.73												0.00
<b>FY2019</b>	<b>Award Amount</b>													
Pender G2019-02 (068)	361,760.00	0.00								-321,976.50				0.00
Greene G2019-03 (069)	841,964.00	0.00									-118,547.55			723,416.45
Wayne G2019-04 (070)	1,530,693.00	-300,000.00								-904,750.17				325,942.83
Rutherford G2019-05 (071)	1,161,548.00	-624,506.15											-537,041.85	0.00
<b>FY2020</b>														
Davie G2020-01 (074)	232,767.00	0.00						-232,767.00						0.00
NC State Highway Patrol G2020-02 (075)	1,102,933.00	0.00												1,102,933.00
Pender G2020-03 (076)	45,873.00	0.00								-45,873.00				0.00
Currituck G2020-04 (077)	583,655.00	0.00												583,655.00
Franklin G2020-05 (078)	3,958,873.00	0.00												3,958,873.00
Cumberland G2020-06 (079)	2,251,387.00	0.00												2,251,387.00
Chatham G2020-07 (080)	2,339,608.00	0.00												2,339,608.00
<b>FY2021</b>														
Bladen Co 911 G2021-01 (084)	\$334,937.99	0.00												334,937.99
Clay County G2021-02 (087)	2,500,000.00	0.00								-16,982.88	-24,049.43			2,458,967.69
Lumberton PD (City of) G2021-03 (082)	\$99,241.52	0.00								-99,241.52				0.00
Sampson County G2021-05 (088)	\$5,571,543.00	0.00												5,571,543.00
Surry County G2021-06 (085)	\$238,127.00	0.00												238,127.00
Union County G2021-07 (086)	\$484,021.00	0.00												484,021.00
Wilson County G2021-08 (083)	\$35,900.00	0.00												35,900.00
<b>STATEWIDE PROJECTS:</b>	<b>Award Amount</b>													
E-CATS II (012)	2,688,500.00	-361,640.00	-535,017.38		-166,443.18		-117,125.18	-70,041.34	-160,592.84	-154,729.68			-135,116.68	987,793.72
Interpretive Services (042)	323,873.94	0.00	-23,979.75		-73,711.50		-23,768.25	-43,982.25	-21,833.25	-19,823.25	-22,820.25			44,961.19
Ortho Project III Image 20 (073)	4,108,739.00	-1,756,468.06	-80,199.60	-525,464.40	-134,187.60	-299,027.40	-18,625.00						-371,519.02	923,247.92
CRM Statewide One-time Development	700,000.00	-130,473.30	-734.10	-725.00	-9.10	-9.10	-9.10	-9.10			-2,320.00		-480.50	565,230.70
Ortho Project III Image 21 (081)	3,723,908.00	0.00			-1,386.00								-942,308.57	2,780,213.43
Approved Allocation from PSAP & Transfer out to NG 911 Fund			0.00	6,093,503.00										
<b>Interest</b>			29,501.97	26,026.83	21,904.13	18,801.78	16,568.52	13,357.96	11,723.34	10,432.80	8,280.82	7,825.42	6,328.49	
<b>Revenue 5%</b>			435,966.27	731,569.56	796,761.49	828,545.97	815,488.11	254,520.43	1,256,798.69	777,670.69	934,714.88	784,837.49	849,169.74	
<b>Total Ending Fund Balance</b>		\$ 29,744,439.97	\$29,346,605.94	\$30,103,477.33	\$36,490,172.45	\$36,851,064.39	\$37,384,084.52	\$37,208,698.88	\$38,363,197.32	\$38,968,874.72	\$38,348,493.42	\$38,973,419.10	\$37,842,450.71	

CASH BASIS REPORTING  
OSC Certified

Committed: \$ 25,710,758.92  
Grant Account Total \$12,131,691.79

***Tab 4 f)***

# **Grant Project Updates per Reports**



## County of Bladen

**NORTH CAROLINA**  
Office of Emergency Services  
Public Safety IT/ GIS and 911 PSAP  
299 Smith Circle; PO Box 396  
Elizabethtown, North Carolina 28337  
Jeffrey Kulp, Supervisor



June 09, 2021

### Bladen County 911/ Central Communications – Project Meloriem NC 911 Board 2021 Grant monthly update – May 2021

Greetings to all. I hope you are staying safe and healthy. May was a great month for this project. We made significant progress in several ways. Retrieval of RMS data that resides in the cloud may continue to cause some delays. However, Southern Software has advised us that they will not let those delays keep the entire project from moving forward at an acceptable pace.

Some May highlights include:

- Southern Software
  - The first 30% of their invoice amounts has been paid.
  - An initial IT/ Project Management phone call took place May 4<sup>th</sup>.
  - Kickoff meetings with all involved public safety agencies have been scheduled for June 7<sup>th</sup> and June 8<sup>th</sup>.
- NeverFail – Installation to take place once Southern has installed their products.
- Server Hardware – Servers have been received and are mounted in their racks at each location. OS install is pending.
- Caliber Public Safety – CAD and JMS data resides on-site and can be retrieved easily. RMS data resides on the cloud and will be need to be extracted from their servers.

Our team is excited about the capabilities this new endeavor will bring us. Seeing hardware installed along with the progress in project management areas is encouraging. We strive to make each month better than the last! Thank you for all that you do.

Sincerely,

Jeff Kulp  
911 PSAP Manager  
County of Bladen





# Chatham County Emergency Communications

297 West Street • Pittsboro, NC 27312

Office 919.545.8163  
24-hour Warning Point 919.542.2911  
[www.chathamnc.org](http://www.chathamnc.org)

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June 17, 2021

Attn: L. V. Pokey Harris, Executive Director

N.C. 911 Board

P.O. Box 17209

Raleigh, NC 27609

Reference: Chatham County FY2020 Grant Report

Ms. Harris:

We continue to make progress on our radio system upgrade project, however there is an issue with our microwave paths at one of our tower sites. All the towers in the system are connected via microwave links; at one of our sites the surrounding trees are too tall for a direct path to the adjacent tower. We are looking into several options but may need to add an additional tower at this location. The initial plan was to use a water tank to hold the equipment, but the trees are too tall surrounding the tank. We are looking at constructing a monopole tower to overcome the height issue.

Whichever option we chose for this site, we will not ask for additional funding for this grant from the 911 Board. The county will absorb the additional costs.

Work continues on other aspects of the system upgrade, to include training on new subscriber radios for every agency in the county; installation and/or distribution of radios for all the agencies. Our MCC7500 is installed at the back-up ECC and staff have been trained on the use of this new system. Installation will begin at the primary ECC the week of June 21<sup>st</sup>.

Four of the five radio towers have been completed; we are waiting on permits for the tower in Siler City. Equipment will be moved into the shelters soon.

We are grateful for the grant extension for this project (amendment 2). We are looking forward to having this project completed as soon as possible.

Regards:

A handwritten signature in black ink, appearing to read 'Mike Reitz', written over a white background.

Mike Reitz

Director



## Clay County, NC Grant Report – May 2021

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### Activities – May 2021

- Continue initial facility programming
- Conduct programming meeting – May 26
- Communicate regularly with Project Team (ongoing)

### Anticipated Activities – June 2021

- Continue with initial facility programming
- Conduct programming meeting – June 28
- Communicate regularly with Project Team (ongoing)
- Begin to define technology needs

# Clay County, NC Grant Report – May 2021

The tasks listed below will be tracked throughout the project duration and will be updated monthly. Any changes will be noted in the monthly report.

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*Work Plan*

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Task	Projected Timeframe <sup>1</sup>	Actual	Completed
Contract for project oversight	Months 1-2	December 2020	x
Issue RFQ for architectural services	Months 2-3 (December 2020 – January 2021)	December 2020	x
Select architect and contract for services	Months 4-5 (February – March 2021)	February 2021	x
Negotiate fee with architect	Months 5-6 (March – April 2021)	March 2021	x
Define technology needs in conjunction with building design	Months 3-12 (January – October 2021)		
Facility design and construction document process	Months 4-11 (February – September 2021)		
Establish lead times for major technology systems, including NG911	Months 20-22 (June – August 2022)		

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<sup>1</sup> As the grant agreement was signed in late October 2020, month 1 is considered November 2020.

## Clay County, NC Grant Report – May 2021

Task	Projected Timeframe <sup>1</sup>	Actual	Completed
Bid and award construction project	Months 16-18 (February – April 2022)		
Proceed with construction, including coordination with migration to the State ESInet NG911 network	Months 20-32 (June 2022 – June 2023)		
Procure new technology and furnishings	Months 20-26 (June – December 2022)		
Substantial completion of construction, address any facility punch list issues	Month 30 (April 2023)		
Install, test, and accept new technology: existing equipment and the CAD system will be relocated to the new site prior to and during go-live to ensure that the old and new center remain operational until the transition is complete	Months 30-34 (April – August 2023)		
Go-live / Physically transition the Clay County primary PSAP to the new facility and the State ESInet NG911 system	Months 34-36 (August – October 2023)		
Monitor systems post cutover	Months 32-36 (June – October 2023)		

PHONE (252)232-2216  
FAX (252) 232-2750



Mary Beth Newns  
Director

Liz Hodgis  
Supervisor

Currituck County  
**COMMUNICATIONS**  
147 Courthouse Rd,  
Currituck, North Carolina 27929

Date: June 1, 2021  
To: NC 911 Board  
From: Mary Beth Newns  
RE: 2020 Grant Progress Report

Please see the following highlights from progress notes regarding the Currituck County Public Safety Building construction.

Timeline: There has been a timeline change to the completion of the Public Safety Building that will house the new PSAP. The construction completion to be completed on July 15, 2021.

- Radio Communications Study draft has been submitted and being reviewed
- Radio Communications equipment and installation quote and contract negotiations by September 2021
- Radio tower build, radio system upgrades and moved into new PSAP by March 2022. \*\*This is a best-case scenario. If the county must purchase land for the tower build, that could add an additional 3 months to the tower build.

Reimbursement:

Reimbursement invoice submitted and waiting for our Finance Dept to pull copies of invoices to complete reimbursement request.

Building Progress:

- Work in progress
  - Mechanical Insulation
  - Site Work
  - Electrical
  - Windows
  - Exterior Soffit
  - Plumbing
  - Painting
  - Drywall
  - Flagpole Foundations
  - Site Utilities
  - Site Concrete
  - Masonry
  - Sewer Force Main Inspection
  - Front Entrance
  - Data cabling
  - Vestibule
- Two-Week look ahead
  - Building 2-week: Above Ceiling Punch lists, Painting, Drywall finishing, Mechanical Insulation, Testing and Turning on electrical at CPSC and Support, Starting Mechanical Systems, Flooring, Casework, Wall Tile, Monument Stair Tile
  - Site 2-week: Rough grading, Curb and Sidewalks, Rain Downspouts and Boots, Retention Pond outfall structures, Seat walls, Monument Base

PHONE (252)232-2216  
FAX (252) 232-2750



Mary Beth News  
Director

Liz Hodgis  
Supervisor

Currituck County  
**COMMUNICATIONS**

147 Courthouse Rd,  
Currituck, North Carolina 27929



# Franklin County, NC Grant Report – May 2021

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## Activities – May 2021

- Pre-Construction Bid meeting – May 4
- Hold design team meeting – May 18
- Continue defining technology timeframe
- Communicate regularly with project team (ongoing)

## Anticipated Activities – June 2021

- Hold design team meeting - June 1
- Receive Construction Bids - June 8
- Continue to define technology timeframe
- Communicate regularly with project team (ongoing)

# Franklin County, NC Grant Report – May 2021

The tasks listed below will be tracked throughout the project duration and will be updated monthly. New additions are shown in the salmon highlighted rows. At this time, the project remains on schedule.

---

## *Work Plan*

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Task	Projected Timeframe <sup>1</sup>	Actual	Completed
Contract for project oversight	Months 1-2	November 2019	x
Issue RFQ for architectural services	Months 2-3	December 2019	x
Select architect and contract for services	Months 4-5 (February – March 2020)	Selection: February 2020	x
Negotiate fee with architect	Months 5-6 (March – April 2020)	March 2020	x
Receive Commissioners' approval to proceed with contract for architectural services	Month 6 (April 2020)	May 4, 2020	x
Enter into contract for architectural services	Month 6 (April 2020) Revised: Month 8 / June 2020	June 5, 2020	x
Define technology needs in conjunction with building design	Months 13-19 / November 2020 – April 2021	April 2021	x
Facility design and construction document process	Months 9-19 (July 2020 – April 2021)	April 26, 2021	x
Establish lead times for major technology systems, including NG911			

<sup>1</sup> As the grant agreement was signed in late October 2019, month 1 is considered November 2019.



## Franklin County, NC Grant Report – May 2021

Task	Projected Timeframe <sup>1</sup>	Actual	Completed
Bid and award construction project	Months 17-19 (March 2021 – May 2021)  Revised: Months 18-21 <sup>2</sup> (April 2021 – July 2021)		
Proceed with construction, including coordination with migration to the State ESInet NG911 network	Months 20-32 (June 2021 – June 2022)  Revised: Months 22-34 (August 2021 – August 2022)		
Procure new technology and furnishings	Months 26-30		
Substantial completion of construction, address any facility punch list issues	Month 30 (April 2022)		
Install, test, and accept new technology: existing equipment and the CAD system will be relocated to the new site prior to and during go-live to ensure that the old and new center remain operational until the transition is complete	Months 30-34 (April – July 2022)		
Go-live / Physically transition the Franklin County primary PSAP to the new facility and the State ESInet NG911 system	Months 34-36 (July – September 2022)		
Monitor systems post cutover	Months 32-36 (May – September 2022)		

<sup>2</sup> Follow on dates will be adjusted once the timeframes are more clearly defined.

## Greene County, NC

911 Facility Relocation

MCP Project Number 18-128

Monthly Progress Report – May 2021

Activity	This Period	Next Period
<ul style="list-style-type: none"> <li>Design</li> </ul>	<ul style="list-style-type: none"> <li>No activities</li> </ul>	<ul style="list-style-type: none"> <li>None expected</li> </ul>
<ul style="list-style-type: none"> <li>Permits</li> </ul>	<ul style="list-style-type: none"> <li>No activities</li> </ul>	<ul style="list-style-type: none"> <li>None expected</li> </ul>
<ul style="list-style-type: none"> <li>Construction</li> </ul>	<ul style="list-style-type: none"> <li>Complete insulation and drywall</li> <li>Complete electrical rough-in</li> <li>Begin installation of acoustic grid</li> <li>Begin mechanical trim out</li> <li>Begin tile flooring and walls</li> <li>Begin interior trim and cabinets</li> <li>Begin installing interior doors and hardware</li> </ul>	<ul style="list-style-type: none"> <li>Begin installing carpet tile and LVP</li> <li>Finish hanging drywall</li> <li>Installing ductwork</li> <li>Start finishing drywall</li> <li>Install metal soffit panels</li> <li>Install storefronts</li> <li>Continue above ceiling electrical work</li> <li>Complete electrical trim out</li> <li>Complete mechanical trim out</li> <li>Complete acoustical ceiling tile</li> <li>Complete tile flooring and walls</li> <li>Continue working on interior trim and cabinets</li> <li>Complete installing interior doors and hardware</li> </ul>
<ul style="list-style-type: none"> <li>Communications Systems</li> </ul>	<ul style="list-style-type: none"> <li>Continue meetings with AT&amp;T</li> <li>Continue technology migration planning and vendor out-reach</li> <li>Evaluating recorder options</li> <li>Evaluating options for radio consoles</li> <li>Award dispatch console project</li> <li>Prep for telecom circuits</li> <li>Continue with procurements of technology needs</li> </ul>	<ul style="list-style-type: none"> <li>Continue meetings with AT&amp;T</li> <li>Continue technology migration planning and vendor out-reach</li> <li>Evaluating recorder options</li> <li>Evaluating options for radio consoles</li> <li>Prep for telecom circuits</li> <li>Continue with procurements of technology needs</li> </ul>
<ul style="list-style-type: none"> <li>Other Activity</li> </ul>	<ul style="list-style-type: none"> <li>Routine project meetings to coordinate design and technology needs</li> </ul>	<ul style="list-style-type: none"> <li>Continue to hold project meetings to discuss next steps and coordinate project needs</li> </ul>



*City of Lumberton*  
*Emergency Services Department*

May 24, 2021

**MAY 2021 PROGRESS REPORT – MCC-7500 PROJECT**

- **MCA reported that all hardware and software have been received**
- **Signed contract with MCNC for fiber service to Viper core**
- **Fiber run to my PSAP has been completed**
- **Waiting on MCNC to do the fiber run to the Farmville core**
- **MCNC estimates that it may be September before complete of fiber run**
- **MCA advised for install of MCC-7500, it must have a live fiber connection**
- **Requested and received an extension of the project to October 31, 2021**
- **Funding Committee on May 20, 2021 approved a Funding Reconsideration request for the Motorola AIS for \$87,565.**



## Sampson County, NC Grant Report – May 2021

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### Activities – May 2021

- **Construction:**
  - Completed swales
  - Completed French drain
  - Began stripping and stockpiling
  - Rough graded site
  - Submittal reviews
- **Technology**
  - Develop plan for new tower
  - Begin technology planning
  - Coordinate access control / security
  - Coordinate structured cabling

### Anticipated Activities – June 2021

- **Construction:**
  - Near completion of stripping topsoil
  - Slope drainage
  - Begin swale matting and stabilization
  - Begin temp seeding
  - Begin backfilling trenches
  - Begin off-site fill and compaction
  - Continue submittal reviews
- **Technology**
  - Continue developing plan for new tower
  - Continue with technology plan
  - Coordinate access control / security
  - Coordinate structured cabling
  - Coordinate audio-visual

## Sampson County, NC Grant Report – May 2021

The tasks listed below will be tracked throughout the project duration and will be updated monthly. At this time, the project remains on schedule.

---

*Work Plan*

---

Task	Projected Timeframe	Actual	Completed
Bid construction project	Month 1 <sup>1</sup>	December 2020	x
Contract with construction firm	Month 5 (April 2021)	April 2021	x
Construct new 911 facility	Months 5-19 (April 2021 – June 2022)	April 19, 2021 – Ongoing	
Procure equipment and infrastructure for the new facility	Months 7-19 (June 2021 – June 2022)		
Develop migration / transition plan	Months 15-19 (February – June 2022)		
Test and validate all new equipment infrastructure	Months 19-20 (June – July 2022)		
Migrate any equipment, if feasible, while operating from backup center	Month 21 (August 2022)		
Transition operations to new facility	Month 21 (August 2022)		

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<sup>1</sup> Month 1 is December 2020

# Sampson County, NC Grant Report – May 2021

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Task	Projected Timeframe	Actual	Completed
Test back capabilities for Carteret County	Months 22-23 (September – October 2022)		

Pictures:



Figure 1: Structural Fill Delivery



Figure 2: Stockpile Structural Fill



## Union County, NC Grant Report – May 2021

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### Activities – May 2021

- Grant management contract review by county staff

### Anticipated Activities – June 2021

- Review grant project schedule impact due to construction delays
- Review updated and planned task items with project team
- Execute contract for grant management assistance and oversight
- Begin development of procurement schedule & migration plan



# Union County, NC Grant Report – May 2021

The tasks listed below will be tracked throughout the project duration and will be updated monthly. **Highlighted information** denotes changes in report since last submitted report.

## *Work Plan*

Task	Projected Timeframe <sup>1</sup>	Actual	Completed
Contract for project oversight	Months 1-2 (January - February 2021)	Execution underway (delayed from March)	
Determine procurement schedule based on facility project schedule	Month 2 (February 2021)	<b>Project schedule being revised due to construction start delays</b>	
Outline and finalize a procurement strategy based on expected installation schedules	Months 5-6 (May – June 2021)	<b>Delayed due to construction start delays</b>	
Install generator (dependent on construction contract)	Month 7 (July 2021)		
Procure equipment and schedule installations	Month 11+ (November 2021 onwards depending on procurement lead times)		
Install structured cabling systems and datacenter needs	Month 12 - 13 (December 2021 – January 2022;		

<sup>1</sup> As the grant agreement was signed in mid-December 2020, month 1 is considered January 2021.

## Union County, NC Grant Report – May 2021

Task	Projected Timeframe <sup>1</sup>	Actual	Completed
	construction dependent)		
Install backroom supporting technical systems	Month 14 - 15 (February 2022 – March 2022; construction dependent)		
Test and validate – (pre-go-live decision)	Months 16 - 17 (April - May 2022)		
30-day burn-in – (prior to go-live)	Months 18 – 19 (June – July 2022)		
Train – (just prior to cutover)	Month 19 (July 2022)		
Go-live	Month 19 (July 2022)		
30-day post-cutover monitoring	Month 20 (August 2022)		

*Grant Award Equipment Procurement Status*

Grant Award Equipment Procurement Status						
Item	Grant Award Amount	Expended Amount	Reimbursement Amount Requested / Submitted	Approved / Reimbursed Amount	Award Funds Remaining	Status / Comments
Generator	\$160,000.00	\$0.00	\$0.00	\$0.00	\$160,000.00	Electrical contractor submittal reviews underway
Radio Tower	\$150,000.00	\$0.00	\$0.00	\$0.00	\$150,000.00	Site permitting approved; county engineering firm reviewing preliminary design for bid package
Microwave Link	\$125,000.00	\$0.00	\$0.00	\$0.00	\$125,000.00	Preliminary path review completed
Structured Cabling	\$39,000.00	\$0.00	\$0.00	\$0.00	\$39,000.00	Design review completed; Awaiting compilation of bid documents by county;
Radio Distribution Surge Protection	\$5,016.00	\$0.00	\$0.00	\$0.00	\$5,016.00	Electrical contractor submittal reviews underway
Racks for Equipment	\$5,005.00	\$0.00	\$0.00	\$0.00	\$5,005.00	Awaiting compilation of bid documents by county;
Totals:	\$484,021.00	\$0.00	\$0.00	\$0.00	\$484,021.00	

*Facility Construction Activity Status<sup>2</sup>*

**Construction Schedule**

- Site construction has been extended an additional approximate 3 weeks due to site issues; site storm water piping underway; retention pond construction nearing completion

**Permitting**

- NCDEQ permit received; NCDOT revised encroachment permit pending;

**Owner (Union County) Contracted/Owner Furnished Items**

- Structured Cabling
  - Awaiting bid process start from County (delayed).
- Audio Visual System(s)

<sup>2</sup> Facility construction summary is provided as reference only for showing alignment with grant award equipment integration.

- Awaiting bid process start from County. (delayed)
- Facility Security (Access Control/CCTV) Packages
  - Awaiting bid process start from County. (delayed)
- Communications Tower
  - Awaiting bid process start from County. (delayed)



BMP 95% built, rip rap starting, then seeding



Existing site storm water system relocation underway

## Wayne County, NC

911 New Facility

MCP Project Number 18-117

Monthly Progress Report – May 2021

Activity	This Period	Next Period
1. Design	<ul style="list-style-type: none"> <li>No action expected</li> </ul>	<ul style="list-style-type: none"> <li>Facility Completed</li> </ul>
2. Permits	<ul style="list-style-type: none"> <li>No actions required</li> </ul>	<ul style="list-style-type: none"> <li>Facility Completed</li> </ul>
3. Construction	<ul style="list-style-type: none"> <li>No actions expected</li> </ul>	<ul style="list-style-type: none"> <li>Facility Completed</li> </ul>
4. Communications Systems	<ul style="list-style-type: none"> <li>Receive and install UPS annunciator</li> </ul>	<ul style="list-style-type: none"> <li>Systems Complete</li> </ul>
5. Other Activity	<ul style="list-style-type: none"> <li>Deliver draft of the final report</li> <li>MCP held routine communications with the County for project coordination</li> </ul>	<ul style="list-style-type: none"> <li>Complete financials for NC 911 Board staff</li> <li>Continue coordination with County for final grant close out</li> <li>County to submit final report</li> </ul>



**County of Wilson**  
**Emergency Communications Center**

1817 Glendale Drive Wilson, NC 27893 (252) 237-8300 (252) 399-4874  
www.wilson-co.com

May 28, 2021

Ms. L. V. Pokey Harris, MPA, ENP  
Executive Director  
NC 911 Board  
NC Department of Information Technology  
PO Box 17209  
Raleigh, NC 27619-7209

RE: Transmittal Letter for Completion of Grant G2021-08

Dear Ms. Harris,

Please find attached the following information showing the completion of the Grant awarded to Wilson County that involved the replacement of our radio tower generator in the amount of \$35,900:

- Attachment 1 – Contract G2021-08 between Wilson County and NC 911 Board
- Attachment 2 – Wilson County radio tower generator replacement proposal and Signed acceptance letter between Wilson County and Gregory Poole
- Attachment 3 – Timeline of Project
- Attachment 4 – Documentation from Gregory Poole of successful start of generator and load bank test
- Attachment 5 – Picture of generator mounted on rack
- Attachment 6 – Invoice to NC 911 Board in the amount of \$35,900, payable to Wilson County

If there are any questions, please contact us. Thank you for awarding us this grant to replace our radio tower generator to ensure continued radio communications for Wilson County.

Thank you,

Jeffrey T. Williford  
Wilson County 911 Assistant Director

Attachments

L21-013

**9-1-1**

SERVING OUR CITIZENS WITH ENHANCED 911

**AGREEMENT**

THIS AGREEMENT (the Agreement) is made effective the 9<sup>th</sup> day of the month of December, **2020**, by and between **Wilson County** the **Grantee**, a local government established pursuant to N.C. Gen. Stat. §160A-462 North Carolina, and the **North Carolina 911 Board** (hereinafter referred to as 911 Board), an agency of the State of North Carolina. Grantee and the Board (together “the Parties”) hereby agree as follows:

**WITNESSETH:**

WHEREAS, the 911 Board was created by N.C. Gen. Stat. §143B-1400 *et seq.* to collect and administer the 911 Fund; and

WHEREAS, the 911 Board solicited grant applications pursuant to N.C. Gen. Stat. §143B-1407 and procedures for Grants adopted by the Board; and

~~WHEREAS, Grantee submitted a Grant Application to relocate its primary PSAP, and~~ <sup>*lyph*</sup> 2020.12.09

WHEREAS, the 911 Board allocated funds for the purposes identified in the grant application;

NOW, THEREFORE, the Parties enter into this Agreement, and in consideration of the mutual promises and such other valuable consideration as shall be set out herein, the Parties hereto do mutually agree to the following terms and conditions:

1. Definitions:
  - a. Project: Replacement of Radio Tower Generator Project.
  - b. Deobligation: the 911 Board’s cancellation or downward adjustment of all or part of the grant award. Deobligation, if imposed, will not affect disbursed funds but will affect any remaining amount of awarded funds.
  - c. Executive Director: Executive Director of the 911 Board.
  - d. Grant Funds: the amount authorized for award by the 911 Board, \$35,900.
  - e. Grant: Financial assistance provided by the 911 Board, or a subgrantee, to carry out activities whereby the 911 Board anticipates no programmatic involvement with the grantee or subgrantee during the performance of the Grant.
  - f. Grantee: Wilson County, notwithstanding N.C. Gen. Stat §143C-6-23(a)(2).
  - g. Ineligible Costs: such expenses that are not funded through the Monthly Distributions defined G.S. 143B-1406(a), and not identified in the Approved Use of Funds List published on the 911 Board website.
  - h. Interlocal agreement: Reserved.
  - i. State Funds: Any funds appropriated by the N.C. General Assembly or collected by the State of North Carolina. The Grant Funds are State Funds. Grantee recognizes that the expenditure of money deposited in the State treasury, including the 911 Fund, is subject to acts by the General Assembly and actions of the Budget Director.

j. Subgrantee: As defined in N.C. Gen. Stat. §143C-6-23(a)(4), a non-State entity that receives a grant of State funds from a Grantee of a State Agency, here the 911 Board, or a Subgrantee of a Grantee, but does not include any non-State entity subject to the audit and other reporting requirements of the Local Government Commission.

k. Unit, or unit of local government:

As defined in N.C. Gen. Stat. §143C-1-1(d)(29), a municipal corporation that has the power to levy taxes, including a consolidated city-county as defined by N.C. Gen. Stat. §160B-2(1), and all boards, agencies, commissions, authorities and institutions thereof that are not municipal corporations.

As defined in N.C. Gen. Stat. §160A-460, means a county, city, consolidated city-county, local board of education, sanitary district, facility authority created under Article 20 of Chapter 160A of the General Statutes, special district created under Article 43 of Chapter 105 of the General Statutes, or other local political subdivision, authority, or agency of local government.

2. Scope of Project: To replace the radio communications tower generator.

a. Grantee shall be responsible for administrative and management duties associated with the Project; and shall be responsible for completing the goals and objectives described in the Grant Application. To the extent that the Project includes expenses that are not eligible for monthly distribution or reimbursement pursuant to G.S. §143B-1406 and which are not included in the Grant Funds allocated by the 911 Board, Grantee shall be responsible for all expenses for the non-eligible items. For eligible expenses limited by the 911 Board policies, e.g. chairs, Grantee shall be responsible for all expenses exceeding the expense limitations for such items.

b. Goals and objectives include:

1. Replace the current 25kW generator with a 50kW generator. The replacement generator shall be suitable for commercial use to provide power needs for the communications tower in the event power failures occur.
2. Adhere to rules for PSAP facilities within 09 NCAC 06C.0210, and for the use of grant funds, as stated within 09 NCAC 06C.0400. Incorporate applicable standards for mission-critical facilities published by the Federal Emergency Management Agency (FEMA), the National Fire Protection Association (NFPA), and the National Emergency Number Association (NENA). Ensure continuity of operations during implementation for all response agencies currently served.
3. Coordinate technology purchases and facility design to facilitate migration to the State NG9-1-1 system, including GIS call routing.
4. Conduct thorough system(s) testing before acceptance.

c. Grantee shall submit a revised budget and work plan within sixty (60) days of signing this Agreement together with details of the project representing any changes from the Grant Application. Revisions and work plan changes should identify project component details (as identified in the Grant Application) and costs identified in the Grant Application together with a timeline that includes component details. These



revised documents must reflect any changes and special conditions of the Grant award. The budget must include any matching funds or funds from other sources and the anticipated time when such funds will be spent. Grantee shall identify potential or contingent sources of funding including but not limited to other grants during the term of this Agreement. The work plan should include a timeline and specific milestones and/or deliverables that will be used to measure interim progress and accomplishments of the project during the term of this Agreement. Grant Funds will not be released until these revised documents are approved by the 911 Board Executive Director.

d. Grantee will draft one or more Requests for Proposal to be utilized by Grantee in development, procurement and/or operations of the Project consistent with the grant application and approved project budget.

e. Grantee will collect and compile documents as directed by the 911 Board for the purpose of Grantee's verifying the requirements of Article 15, Part 10 of Chapter 143B of the N.C. General Statutes.

f. Grantee shall assist the 911 Board in any audits of Grant Funds by supplying required document(s) to satisfy the requests of an auditor.

3. Changes in the Project.

a. If changes or extra work are requested with respect to the Project, such changes must be authorized in writing by the Parties. The 911 Board will not approve any changes that exceed its authority under N.C. Gen. Stat. §143B-1400 *et seq.*, or subsequent modification thereof.

b. Any work referred to in Paragraph 3(a) above shall be the subject of a separate written agreement stating the costs and schedule for completing any such extra work.

c. Each Party shall immediately notify the other of any change in conditions or applicable law, or any other event, which may significantly affect its ability to perform the Project.

d. The Parties agree that the 911 Board may assign this Agreement to its successor, if any; or continue the Agreement by amending the term if legislation is enacted that does, or may, affect the term of this agreement.

e. A request for change in the project period requires advance written approval by the 911 Board Executive Director. The request must be submitted in writing, stating the basis for the request, to the 911 Board Executive Director at least sixty (60) calendar days prior to the expiration of the Grant. The Grantee shall submit a revised budget and any other documentation or information requested by the 911 Board Executive Director indicating the planned use of all unexpended funds during the extension period.

4. Consolidation. Reserved.

5. Term of Agreement. The Parties intend that the term of this Agreement shall begin upon the Effective Date and extend through 30 May 2021 (End Date). The effective period of this Agreement shall commence upon completion by the Parties' authorized signatories (the Effective Date), and terminate upon the End Date unless sooner terminated under Paragraph 14; or amended by written agreement to extend said date by the Parties or their successors in interest.

6. Project Schedule. Grantee shall prepare and deliver a project schedule consistent with this Agreement that substantially conforms to the following:

a. The Project is anticipated to be completed in approximately six months. The proposed budget and project plans shall be reviewed, revised and provided to the 911 Board Executive Director as provided in Paragraph 2(c) above. These revised documents must reflect any changes and special conditions of the Grant award.

b. Project milestones are identified in the Grant Application and incorporated herein by reference.

c. The Wilson County PSAP will continue to operate during the Project; therefore, there will be no disruption to 911 call taking and emergency dispatching services.

d. Grantee shall prepare and release one or more solicitation documents comprising RFPs or other similar solicitation documents in compliance with the Project schedule presented in the Grant Application, and as such may be amended.

e. Contracts based upon Grantee's solicitation documents shall be awarded in a timely manner in compliance with the Project schedule presented in the Grant Application, and as such may be amended.

7. Delivery of Grant Funds. The total Grant Funds equal Thirty-Five Thousand Nine Hundred (\$35,900.00) Dollars. Grant Funds shall be held by the 911 Board and delivered as follows:

a. Funds shall be released to Grantee after receiving copies of Grantee's contracts, purchase orders and invoices therefor, and Grantee's satisfactory completion of its obligations under this Agreement. Grant Funds shall not be used for updating data gathered during the Project. The 911 Board may release Grant Funds directly to subgrantees upon receipt of evidence satisfactory to the 911 Board Executive Director that all conditions necessary to release such Funds have been satisfied. Such evidence may comprise demonstrated compliance with work and payment schedules of this Agreement and any agreement with a Subgrantee, relevant contracts, purchase orders and invoices therefor, satisfactory completion of testing and acceptance criteria of Grantee's contracts with its vendors, approval of the Grantee, and such other evidence as the Executive Director deems reasonably necessary or proper. Payment schedules may include pre-determined progress payments, payments based upon time and materials that are not to exceed a maximum amount, retainage, and such other terms that are consistent with this Agreement.

b. Grant Funds shall not be released, or paid, in advance of performance of actual services or reimbursable purchases, nor paid for interest, allocations for budget contingencies, maintenance or other services in future fiscal years. Funds shall be applied to ineligible expenses as identified in the Grant Application as authorized by N.C. Gen. Stat. §143B-1407(b)(4), and to expenses that are eligible under N.C. Gen. Stat. §143B-1400 *et seq.* and the policies of the 911 Board.

c. Indirect costs and administrative costs will not be allowable charges against Grant Funds unless such costs are specifically included in the approved Project budget as incorporated into the award.

d. Grantee will maintain full, accurate, and verifiable accounting records to support the preparation of financial statements in conformity with accounting practices applicable to N.C. local governments as approved by, or consistent with, standards of the Local Government Commission. Expenditures must be consistent with the Project Budget and N.C. Gen. Stat. §143B-1400 *et seq.*

e. In the event Grantee breaches any of the covenants or agreements contained in this Paragraph, or any of the representations and warranties of Paragraphs 9, 19, and 24 are untrue as to a material fact as of the date of this Agreement, Grantee agrees to return any unearned Grant Funds held by Grantee and refund sums equal to any non-qualified expenditures paid with Grant Funds. Grantee's obligations that are created by this subsection (e), to return Grant Funds and to refund sums, apply only to Grant Funds held by Grantee. Grant Funds are "held" by Grantee only to the extent they are in the actual, not constructive, possession of Grantee.

f. Grantee must attend workshops or other instructional sessions relating to administration of the Grant or use of 911 Funds provided by the 911 Board during the term of this Agreement.

g. Funds identified with contingencies or escalations as presented in Grantee's budget documents and financial forecasts shall revert to the Board's Grant Fund if unused or unallocated in a timely manner.

h. If the Board determines that the actual costs of the Project are less than the Grant amount, the Board, in its sole discretion, may reduce the amount of the Grant accordingly. If the Grantee determines that the actual costs of the Project are less than the Grant amount, it shall report so to the Board and return any surplus Grant funds it has received to the Board.

8. Travel Expenses. The approved budget does not include travel costs. Such costs, if any, are limited to reimbursement rates set forth in N.C. Gen. Stat. §138-6; as interpreted by the Office of State Budget and Management, and as amended from time to time. Further expenditures for travel, conferences, software or equipment that are not within the deliverables and payment schedule annexed hereto and as presented in the approved budget may be reimbursed at the rates set forth in N.C. Gen. Stat. §138-6; as interpreted by the Office of State Budget and Management, and as amended from time to time. The State of North Carolina's Travel Policy is contained in the State Budget Manual located on the Internet at <http://www.osbm.state.nc.us>. Original receipts for such expenses shall be retained by Grantee.

9. Independent Status of Grantee.

a. It is agreed between the Parties that neither this Agreement nor any provisions hereof shall be deemed to create a partnership or joint venture between Grantee and any third party; nor with the 911 Board. It is further agreed that except for the rights expressly granted to Grantee or the 911 Board in this Agreement, neither of them shall have any proprietary rights in the Project.

b. The Parties acknowledge that Grantee is an independent entity. Grantee shall not represent itself as an agent of the 911 Board; nor shall the Agreement be construed so as to make Grantee an agent of the 911 Board. Grantee shall not have the ability to bind the 911 Board to any agreement for payment of goods or services, nor shall it represent to

any person or entity that it has such ability. Grantee shall be responsible for payment of all its expenses, including rent, office expenses and all forms of compensation to employees. Grantee shall provide workers compensation insurance to the extent required for its operations and shall accept full responsibility for payments of unemployment compensation, social security, income taxes and any other charges, taxes or payroll deductions required by law in connection with its operations, for itself and its employees who are performing work pursuant to this Agreement. All expenses incurred by Grantee are its sole responsibility. The 911 Board shall not be liable for the payment of any obligations incurred in the performance of the Project.

10. Conflicts of Interest. Grantee acknowledges and represents that it has adopted policies governing conflicts of interest and ethics in the exercise of its authority, and its actions under this Agreement. Grantee will review, disclose and employ its best efforts to resolve any anticipated or reported conflict of interest or issue involving its ethics policies during the performance of this Agreement. Grantee shall, upon request, submit a copy of its conflict to interest policy, and shall ensure that such policy conforms to the requirements of N.C. Gen. Stat. §143C-6-23 and other applicable laws.

11. Obligation of Funds. Grant Funds provided by the 911 Board may not be utilized for expenses incurred by Grantee prior to the Effective Date or subsequent to the End Date. All unpaid obligations incurred prior to the End Date shall be paid and satisfied by Grantee within thirty (30) days thereafter. Prior approval shall not be required for changes that affect the approved budget unless a line item in the Budget Allocation (7(b) hereinabove) is exceeded by ten (10%) percent or \$500.00, whichever is greater. Any changes in the approved budget that would result in the addition or deletion of a budget category shall require prior approval from the 911 Board. The 911 Board may deobligate all or part of the awarded funds if:

- a. The actual cost of goods or services identified in the Grant budget funded by the Grant award is less than the total award, or
- b. If the activities for which the Grant was awarded do not begin within three (3) months of the effective date of this Agreement.

If Grant funds are not expended within the term of this Agreement and manner agreed herein, and in compliance with the project schedule and budget, the Board shall provide notice of deobligation of such Grant funds to the Grantee. Notice of deobligation shall provide an effective date of deobligation which shall not be less than thirty (30) days after the date of the notice.

12. Project Records.

a. Grantee shall maintain full, accurate and verifiable financial records, supporting documents, and all other pertinent data for this Project in such a manner so as to identify and document clearly the expenditure of Grant funds provided under this Agreement, separate from accounts for other awards, monetary contributions, or other revenue sources for this Project.

b. Grantee shall retain all financial records, supporting documents, and all other pertinent records related to the Project for five (5) years from the End Date. In the event such records are audited, all Project records shall be retained beyond such three-year period until any and all audit findings have been resolved.

c. Pursuant to N.C. Gen. Stat. §143C-6-23, and §147-64.7, Grantee agrees to make available to the State Auditor, Board, or designated representatives of the foregoing, all of its records which relate to the Project, and agrees to allow the 911 Board or its representative to audit, examine and copy any and all data, documents, proceedings, records and notes of activity relating in any way to the Project. Access to these records shall be allowed upon request at any time during normal business hours and as often as the 911 Board or its representative may deem necessary.

d. Grantee acknowledges and agrees that it will be subject to the audit and reporting requirements prescribed by N.C. Gen. Stat. § 143C-6-23 *et seq.*, Non-State Entities Receiving State Funds or N.C. Gen. Stat. §159-34, The Local Government and Fiscal Control Act - Annual Independent Audit, Rules, and Regulations; as applicable. Such audit and reporting requirements may vary depending upon the amount and source of funding received by Grantee, and such are subject to change from time to time. Grantee shall constantly monitor all performance under Grant-supported activities, including activities performed by Sub-grantees, to ensure that time schedules are being met, projected work units by time periods are being accomplished, and other performance goals are being achieved. Such obligations to comply with the Board's or other agency's monitoring activities shall survive grant closeout and the termination of this Agreement.

13. Publications.

a. Any published or distributed reports, data, or other information shall contain a disclaimer statement to the following effect: *Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view and policies of the 911 Board.*

b. 911 Board may publish or arrange for the publication of information resulting from work carried out under this Agreement, and copyright any books, publications, films, or other copyrightable materials developed in the course of or resulting from work under this Agreement.

c. Upon publication of materials resulting from the work of the Project, Grantee shall furnish a minimum of two copies of reprints to the 911 Board.

14. Termination; Availability of Funds.

a. If Grantee fails for any reason to fulfill in a timely and proper manner its obligations under this Agreement, the 911 Board shall thereupon have the right to terminate this Agreement by giving written notice to Grantee of such termination and by specifying the effective date of termination. For the avoidance of doubt, Grantee's failure to i) appropriate funds necessary to complete the project shall be reason for termination. In such event, the 911 Board shall have no responsibility to make additional payments under this Agreement after the End Date. No further expenditures shall be made under this Agreement except for such work as shall have already been performed prior to the End Date and Grantee shall return all unearned funds upon the demand of the 911 Board. The Grantee shall not be relieved of liability to the 911 Board for damages sustained by the 911 Board by virtue of any breach of this agreement, and the 911 Board may withhold payment to the Grantee for the purpose of set off until such time as the exact amount of damages due the 911 Board from such breach can be determined.

b. Failure to complete any necessary permitting, environmental abatement, or failure to appropriate funds to complete such abatement, shall result in termination of this Agreement. The Parties may terminate this Agreement by mutual consent upon sixty (60) days notice. Notice may be given by either party to the other at the addresses and to the attention of the Party's representative specified in Paragraph 28 below.

c. Termination of the contract by the Grantee shall not prohibit the 911 Board from seeking remedies for additional costs consequential to the termination, which are incurred by the 911 Board. The Grantee shall repay to the 911 Board any Grant Funds received in excess of the distributions under this Agreement.

15. Liabilities and Loss. The 911 Board assumes no liability, nor shall it have any liability under this Agreement, with respect to accidents, bodily injury, illness, breach of contract or any other damages, claims, or losses arising out of any activities undertaken by Grantee or its contractors under this Agreement, whether with respect to persons or property of Grantee, or third parties. Grantee agrees to obtain insurance to protect it and others as it may deem desirable, or, if it elects not to obtain such insurance, it represents that it has adequate resources available to it for this purpose. Further, Grantee agrees to indemnify, defend and save harmless the 911 Board, and their respective officers, agents and employees against any liability, including costs and expenses and attorneys fees, for the violation of any proprietary right or right of privacy arising out of the publication, translation, reproduction, delivery, performance, use or disposition of any information published resulting from the work of the Project or based on any libelous or other unlawful matter contained in such information. Grantee also further agrees to indemnify, defend and save harmless the 911 Board, and their respective officers, agents and employees from any and all claims and losses accruing or resulting to any and all subgrantees, laborers and any other person, firm or corporation furnishing or supplying work, services, materials or supplies in connection with the Project and the performance of this Agreement, and from any and all claims and losses accruing or resulting to any person, firm, or corporation who may be injured or damaged by Grantee or its agents in the performance of the Project.

16. Bankruptcy of Third Parties. In the event that any Sub-grantee (or other entity other than Grantee) receiving Grant funds files bankruptcy owing Grantee, the Board or other entities any money, it shall be the sole responsibility of Grantee to (i) immediately notify the Board and (ii) pursue all reasonable claims against the debtor in bankruptcy to obtain the maximum payment allowed by law. To the extent that Grantee fails to pursue the debtor in bankruptcy and obtain the maximum payment allowed by law, Grantee shall be responsible for all amounts paid to such Third Party that are not returned to Grantee; and no Grant Funds may be expended to replace such monies or payments represented by claims against the Third Party.

17. Remedies. In the event of Grantee's non-compliance with any provision in this Agreement, Grantee agrees that the Board may take any actions authorized by law or by this Agreement, including but not limited to those described in 9 N.C.A.C. 3M.0401. These remedies include, but are not limited to, reducing or suspending Grant funds or terminating the Grant, including the withdrawal of all funds described in this Agreement except for funds already expended on otherwise eligible activities which may not be recaptured or deducted from future grants. The Board may also require Grantee to reimburse Grantee's Program account for improperly expended funds by Grantee or any Subgrantee or other Third Party.

a. Upon non-compliance with the applicable provisions of 9 N.C.A.C. 3M, the Board shall take measures under .0801 of that Subchapter to ensure that the requirements are met, including: communicating the requirements to the non-State entity; requiring a response from the non-State entity upon a determination of noncompliance; and suspending payments to the non-State entity until the non-State entity is in compliance.

b. Pursuant to 9 N.C.A.C. 3M.0703(11), the Parties may terminate this Agreement with 60 day's notice by mutual consent, or as otherwise provided by law. Pursuant to 9 N.C.A.C. 3M.0703(13), unexpended grant funds shall revert back to the Board upon termination of the Agreement, unless otherwise provided by applicable laws, rules, regulations or orders.

c. However, no termination of this Agreement or the Grant (i) removes Grantee's liability regarding any Grant funds improperly expended (including the Board's enforcement abilities to recover such funds) or (ii) removes Grantee's existing and continued obligations and liabilities with respect to Grant funds already properly expended (including the Board's enforcement abilities).

18. Entire Agreement. This Agreement supersedes all prior agreements between the 911 Board and Grantee; and expresses the entire understanding of the Parties with respect to the transactions contemplated herein, and shall not be amended, modified or altered except pursuant to a writing signed by both Parties.

19. Grantee Representation and Warranties. Grantee hereby represents and warrants that:

a. Grantee is duly organized and validly existing as a unit of local government under the laws of the State of North Carolina.

b. This Agreement constitutes a binding obligation of Grantee, enforceable against it in accordance with its terms. The execution and delivery of this Agreement have been duly authorized by all necessary action on the part of Grantee and does not violate any applicable organizational documents of Grantee, or any agreement or undertaking to which it is a party or by which it is bound.

c. Grantee shall allocate such further and sufficient funds to complete the project in a manner consistent with this Agreement and the Grant Application.

d. There is no action, suit, proceeding, or investigation at law or in equity or before any court, public board or body pending, or to Grantee's knowledge, threatened against or affecting it, that could or might adversely affect the Project or any of the transactions contemplated by this Agreement or the validity or enforceability of this Agreement or Grantee's ability to discharge its obligations under this Agreement.

e. All consents or approvals necessary from any governmental authority as a condition to the execution and delivery of this Agreement have been obtained by Grantee. Grantee shall provide the 911 Board with evidence of the existence of all such contracts at the time of the execution of this Agreement.

f. The Grantee will notify the 911 Board Executive Director of any significant problems relating to the administrative or financial aspects of the award, such as misappropriation of funds; use of 911 Funds for non-eligible expenses; placement or retaining 911 funds in any account other than the Emergency System Telephone Fund.

g. Grantee certifies that it has complied with NCGS 14-234 and 133-32 and shall continue to require compliance for itself and any vendors, contractors or other third parties during the term of this Agreement. Any violations of NCGS 14-234(f) shall be reported to the Board's Executive Director within ten (10) days of Grantee learning of such violation.

20. Performance Measures. Grantee shall ensure that its contracts with third parties include performance measures that provide remedies ensuring protection of the Grant Funds, any matching funds or funds from other sources, and that secure completion of this Agreement consistent with the time and budget for the Project. Specific measures are within the discretion of Grantee, and Grantee shall consider including measures including one or more of the following:

a. Requiring terminated vendors to provide costs of cover for replacement goods or services.

b. Termination of vendor contracts for cause and vendor's forfeiture of rights to payment.

c. Grantee's ownership, or free use, of all planning materials, estimates, drafts, plans, drawings and similar items or information produced by Grantee's vendors in the event of termination for any reason.

d. Grantee's requirement that its vendors provide contract security for their performance, including but not limited to, bonds, letters of credit, escrows of funds or other assets, or like security.

e. Terms and conditions of agreements allocating damages and setting forth limitations of liability as may be necessary or proper to ensure that any breaches or failures to perform by Grantee's vendors, as a minimum measure,

f. Acceptance testing and warranties for any and all equipment, goods and services provided by Grantee's vendors of sufficient duration and measurement to ensure performance consistent with 911 center operations.

21. Subcontracting. Grantee shall not subcontract any of the work contemplated under this contract without obtaining prior written approval from the 911 Board. Any approved subcontract shall be subject to all conditions of this Agreement. Only the subgrantees specified in the Application are to be considered approved upon award of the contract. Grantee shall be responsible for the performance of any subgrantee; and shall require all subgrantees to comply with the provisions of the grant award, including this Agreement. Grantee shall be responsible for the performance of any subgrantee.

a. Grantee shall ensure that any subgrantee provides all information necessary or proper to ensure compliance with this Agreement and the timely completion of the Project.

b. The Grantee shall provide all necessary personnel, equipment, and facilities required to implement the work as stated in the Grantee's grant application and subsequently approved project schedules, budgets and project scope identified herein, in accordance with the stated objectives, goals, results, standards, and deliverables.



22. Excusable Delay (Force Majeure). Neither party shall be liable for any failure or delay in performing any of its obligations under this Agreement that is due to causes beyond its reasonable control, such as, but not limited to, acts of God, earthquakes and other natural catastrophes, governmental acts, shortages of supplies, riots, war, fire, epidemics, delays in common carriers, labor strikes or other difficulties or circumstances beyond its reasonable control. Grantee shall notify the 911 Board promptly of any factor, occurrence or event that comes to its attention that may affect or delay Grantee's ability to perform any of its other obligations hereunder. The obligations and rights of the excused party shall be extended on a day to day basis for the time period equal to the period of the excusable delay.

23. Dispute Resolution. The Parties agree that it is in their mutual interest to resolve disputes informally. A claim by Grantee shall be submitted in writing to the 911 Board for decision. A claim by the 911 Board shall be submitted in writing to Grantee for decision. The Parties shall negotiate in good faith and use all reasonable efforts to resolve such dispute(s). During the time the Parties are attempting to resolve any dispute, each shall proceed diligently to perform their respective duties and responsibilities under this Agreement. If a dispute cannot be resolved between the Parties within thirty (30) days after delivery of notice, either Party may elect to exercise any other remedies available under this Agreement, or at law; or invite the other party to submit the matter to mediation. If both Parties agree to submit the matter to mediation, the following actions shall be taken:

a. Each Party shall recommend a mediator certified by the N.C. Courts after first determining that the recommended mediator, and said mediator's firm, if any, have no conflict or prior knowledge of the matter to be resolved, and no prior work for or against either Party; and,

b. The recommended mediators must have knowledge of the general subject matter of the FCC 911 laws, regulations and 911 practices; and,

c. The recommended mediators must be able to execute and deliver a satisfactory confidentiality and non-disclosure agreement if information exempt from disclosure under N.C. Gen. Stat. §132-1, *et seq.* is relevant or material to the matter to be resolved; and,

d. Recommended mediators and their respective contact and qualification information shall be exchanged within five (5) days to each party as provided in Paragraph 28 below following the agreement to mediate; and

e. Unless the Parties mutually agree to select a particular mediator, the selection of a mediator shall be determined by the Mediator's earliest available date to initiate mediation. Any agreement to mediate shall require the Parties to appear and mediate the matter in good faith in accordance with the schedule and calendar established by the Mediator; and,

f. Provided, however, that this term shall not constitute an agreement by either Party to mediate or arbitrate any dispute; and that any agreement to mediate may be revoked or terminated without penalty therefor if so advised by the N.C. Attorney General.

24. Special Provisions and Conditions.

a. The 911 Board may request from Grantee certain information that will assist 911 Board with evaluation of the short and long-range impact of its programs. Grantee

recognizes that such requests may occur after termination of this Agreement and agrees, to the extent possible, to provide such information as requested.

b. If the 911 Board finds that Grantee has used grant funds for an unauthorized purpose, or in a manner not agreed and approved as provided in this Agreement, the Board shall report such findings to the Attorney General, The Office of State Budget and Management, the Office of the State Auditor, and the Office of the State Controller, as may be required by applicable law and regulations. Funds shall not be disbursed to Grantee if the Grantee fails to comply with the reporting requirements of this Agreement.

c. Nondiscrimination. Grantee agrees not to discriminate by reason of age, race, religion, color, sex, national origin, or handicap related to the activities of this Agreement.

d. Conflict of Interest. Grantee certifies that to the best of its knowledge no employee or officer of Grantee has any pecuniary interest in the business of the 911 Board or of the Project, and that no person associated with Grantee has any interest that would conflict in any manner with the performance of the Agreement.

e. Order of Precedence. To the extent of any conflict between this Agreement, including the Exhibits comprising Grantee's Grant Application and supporting documents and Reporting Schedule, such conflicts shall be resolved by first referring to this Agreement, followed serially by the Reporting Schedule, grant application, and lastly by other subordinate documents in reverse order to their adoption.

f. Compliance with Laws. Grantee shall at all times observe and comply with all laws, ordinances, and regulation of the state, federal and local governments which may in any manner affect the performance of the Agreement.

g. Non-Assignability. Grantee shall not assign any interest in the Agreement and shall not transfer any interest in the same without prior written consent of the 911 Board; provided, however, that claims for money due to Grantee from the 911 Board under this Agreement may be assigned to any commercial bank or other financial institution without such approval.

h. Personnel. Grantee represents that is has, or will secure at its own expense, all personnel required to carry out and perform the scope of services required under this Agreement. Such personnel shall be fully qualified and shall be authorized under state and local law to perform such services.

i. Future Cooperation. The Board and Grantee agree to cooperate fully with one another, to execute any and all supplementary documents and/or agreements that may be necessary or helpful to give full force and effect to the terms of this Agreement and to the Parties' intentions in entering this Agreement.

j. Illegal Aliens. No costs incurred as a result of work performed by illegal aliens shall be eligible for reimbursement by Grant funds. As such, in submitting a reimbursement request to the Board for payment, Grantee shall be required to certify to the Board that the expenses for which reimbursement is sought were not incurred as a result of work performed by illegal aliens. Contracts awarded by the Grantee that are funded by this Grant shall require Grantee's Vendor(s) and each of its subcontractors comply with the E-Verify requirements of N.C.G.S. Chapter 64, Article 2.

25. Intellectual Property Rights. All documents, data, databases, maps, compilations and other works produced by Grantee or any subgrantee under this Agreement shall be considered either Works for Hire under applicable copyright law, or as public records, and neither Grantee nor any subgrantee shall have any property rights of ownership in such works.

26. Confidential Information. The Parties acknowledge and agree that each is subject to the N.C. Public Records Act, which is set forth in N.C. Gen. Stat. §132-1, *et seq.* The Parties further acknowledge and agree that other standards of confidentiality may apply to information made or received during the performance of this Agreement. Such information may include proprietary information of a third party. Prior to accepting any proprietary information, the receiving Party shall ensure that an appropriate and acceptable non-disclosure agreement (NDA) is prepared. Any NDA shall ensure:

- a. That the Proprietary Information is protected as permitted by applicable law,
- b. That the Proprietary Information is available and accessible to all persons as may be necessary to complete the purposes of this Agreement, and
- c. That the Proprietary Information is clearly marked as such.

27. Proprietary Information: Proprietary information shall be subject to the N.C. Public Records Act, which is set forth in N.C. Gen. Stat. 132-1, *et seq.* Grantee shall ensure that any third party is encouraged to review the applicable Statutes prior to submitting any information or documentation believed to be proprietary.

a. 911 Board may maintain the confidentiality of certain types of information described in N.C. Gen. Stat. §132-1, *et seq.* Such information may include trade secrets defined by N.C. Gen. Stat. §66-152 and other information exempted from the Public Records Act pursuant to N.C. Gen. Stat. §132-1.2.

b. Grantee may permit third parties to designate appropriate portions of reports, data, and other deliverables as confidential, consistent with and to the extent permitted under the statutes set forth above, by marking the top and bottom of pages containing confidential information with a legend in boldface type “**CONFIDENTIAL.**” By so marking any page, any disclosing party warrants that it has formed a good faith opinion, having received such necessary or proper review by counsel and other knowledgeable advisors that the portions marked confidential meet the requirements of the Statutes set forth above.

c. The 911 Board may serve as custodian of confidential information and not as an arbiter of claims against any party’s assertion of confidentiality. If an action is brought pursuant to N.C. Gen. Stat. §132-9 to compel disclosure information marked confidential, the disclosing party agrees that it will intervene in the action through its counsel and participate in defending the 911 Board, including any public official(s) or public employee(s). The 911 Board agrees to promptly notify Grantee in writing of any action seeking to compel the disclosure of a third party’s confidential information. The 911 Board shall have the right, at its option and expense, to participate in the defense of the action through its counsel. The 911 Board shall have no liability to Grantee or any third party with respect to the disclosure of confidential information ordered by a court of competent jurisdiction pursuant to N.C. Gen. Stat. §132-9 or other applicable law; nor by disclosure of unmarked information or information that is publicly known.

28. Notice. All notices required or permitted to be delivered hereunder and all communications in respect hereof shall be in writing and shall be deemed given when personally delivered by one or more of the following: when deposited in the United States mails, first class, postage prepaid and properly addressed, by facsimile, or by e-mail, as follows:

If to the 911 Board:           Attn: L. V. Pokey Harris, Executive Director  
  N.C. 911 Board  
  P.O. Box 17209  
  Raleigh, NC 27609  
  
  Ph: 919-754-6621  
  E-Mail: pokey.harris@nc.gov

If to Grantee:                    Attn: Jeff Williford  
  Assistant Director  
  1817 Glendale Dr SW  
  Wilson, NC 27893  
  
  Ph: 252-237-8300  
  E-Mail: jwilliford@wilson-co.com

or addressed to such other address or to the attention of such other individual as the 911 Board or Grantee shall have specified in a notice delivered pursuant to this Subsection.

29. Construction. This Agreement shall be construed and governed by the laws of the State of North Carolina. The place of this Agreement, its situs and forum, shall be Wake County, North Carolina, where all matters, whether sounding in contract or in tort, relating to its validity, construction, interpretation and enforcement shall be determined. The Parties agree and submit, solely for matters relating to this Contract, to the jurisdiction of the courts of the State of North Carolina and stipulate that Wake County shall be the proper venue for all matters.

30. **This Agreement will expire if not signed and returned to the 911 Board for countersignature no later than ninety (90) days from the date it was sent to Grantee.**

IN WITNESSETH WHEREOF, the Parties hereto have executed this Agreement as of the date first above written.

**Wilson County**

By: Jeffrey J. Willford

Title: Assistant Director

Date: 11/06/2020

Approved - S. Pearson  
10-5-20

This instrument has been preaudited in the manner required by the Local Government Budget and Fiscal Control Act.

By: Angela Smith

Chief Finance Financial Officer

ATTEST:  
[Signature]

**N.C. 911 Board**

By: Lynette Davis

Title: Executive Director, NC 911 Board

Date: 2020.12.09

Exhibit A  
Reporting Schedule

Grantee shall report the following to the Board, by providing information to the Executive Director:

1. Grantee's contracts shall include performance measures and acceptance testing criteria to ensure that the equipment and services meet the operational and technical requirements of the 911 center. Grantee shall provide copies of contracts, purchase orders and invoices for any equipment or services for which Grant Funds will be expended, including direct disbursements to subgrantees, if any. Such items shall be reported to the Executive Director in a timely manner to ensure prompt payment for any authorized invoices.
2. Progress Reports or assessments that demonstrate the success, or lack thereof, of the Project. The progress reports shall include activities and actions within the Scope of Project (Section 2), Project Schedule (Section 6), any changes in the governance proposed in the Grant Application (Section 3), achievement or progress regarding priorities identified in the Grant Application and the following information: a comparison of actual accomplishments to the goals and objectives described in the Grant Application as such are established for the period and any significant findings; reasons why established goals were not met, if applicable; and other pertinent information including, where appropriate, analysis and explanation of cost overruns or projected changes in time or funding needed for completion of project objectives.
3. A general project timeline of milestones is listed below and shall be revised consistent with progress reports and budgets for the Wilson County PSAP.
4. Reports: The Grantee shall provide monthly reporting of contracts, purchase orders and other financial matters identified in Exhibit A Paragraph 1 above. These monthly reports shall be delivered beginning on 1 January 2021 and continue thereafter on the first of each month for the term of the Agreement.
  - a. The Grantee shall submit one copy of each report via email in Microsoft Word and in PDF format to the Executive Director and the PSAP's assigned Regional Coordinator.
  - b. The Grantee shall appear and provide presentations to the 911 Board during the term of this Agreement upon request of the 911 Board.
5. Interim Reports: Between the required reporting dates, events may occur which have significant impact upon the project or program. In such cases, the Grantee shall inform the 911 Board as soon as the following types of conditions become known:
  - a. Problems, delays, or adverse conditions which will materially affect the ability to attain program objectives, prevent the meeting of time schedules and goals, or preclude the attainment of project work. This disclosure shall be accompanied by a statement of the action taken or contemplated, and any Federal or other assistance needed to resolve the situation.
  - b. Favorable developments or events which enable meeting time schedules and goals sooner than anticipated or producing more work units than originally projected.

c. Interim reports shall be delivered not less than annually.

6. Final Technical Report

a. The Grantee shall submit one copy of the final technical report via email in Microsoft Word and in PDF format to the Executive Director and the PSAP's assigned Regional Coordinator within 30 days of the end of the project period.

b. The final technical report shall document and summarize the results of the work. Such reports shall contain a comprehensive review of accomplishments, a chronological bibliography of any publications as well as significant scientific papers resulting from the work performed. The final report shall be submitted within 30 days of the end of the project period.

7. Budgets and/or budget projections for subsequent years, as may be developed during the term of this Agreement, illustrating financial support to update and maintain the Project equipment.

Exhibit B  
Grant Application

Grantee's grant application is incorporated by reference.



**Project Name: Wilson Co. 911 Tower**

<p><b>Date Issued:</b> November 30, 2020  <b>Payment Terms:</b> Net Thirty (30) Days. 100% billed upon delivery of equipment to site  <b>Quote Number:</b> DM20-30750475-01</p>	<p><b>Deliver To:</b> Mr. Ted Boswell / Mr. Jeff Williford  <b>Delivery Terms:</b> F.O.B. Factory, Freight Allowed  <b>Expected Time for Submittals:</b> 1-2 weeks  <b>Expected Delivery After Approved Submittals:</b> 14-16 weeks</p>
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**CAT NJPA SOURCEWELL #: 120617-CAT**

**GENERATOR BILL OF MATERIALS**

One (1) CATERPILLAR **LP-Fueled Skid-Base** Packaged Generator Set Model DG 50-2 with Brushless Generator, **50 kW** Standby at 1.0 P.F., **240 Volt, 1-Phase**, 60 Hertz at 1800 RPM.

Includes the Following Attachments and Accessories:

- UL 2200 Approved and Labeled for Packaged Engine-Generator Sets
- EPA Certified, Stationary Emergency
- Formed Steel Base and Vibration Isolators
- Isochronous Electronic Governor
- Adjustable Voltage Regulator
- CAT Alternator w/Anti-Condensation Heater
- Gen Run Relay
- Remote E-Stop
- Common Alarm/Shutdown Relay
- Engine Mounted Radiator with Blower Fan
- Jacket Water Heater, 1kW, 120VAC
- Lube Oil and Antifreeze
- Electric Starting System, 12 Volt DC
- Heavy-Duty Lead Acid Batteries
- Battery Trays and Cables
- 45-Amp Battery Charging Alternator
- NFPA 110 Compliant 10-Amp Dual Rate Battery Charger, 110VAC. Installed Inside Genset Enclosure.
- Air Filter System with Replaceable Element
- Weatherproof Enclosure
  - Industrial Grade Exhaust Silencer with Flexible Exhaust Fitting – Mounted Inside of Weatherproof Generator Enclosure.
  - **180MPH IBC Wind Certification**
- Generator Control Panel, Cat EMCP 4.2B (digital), generator mounted, Nema1, with the following:
  - Panel illumination light group- Engine, Oil, and Coolant Temp.
  - Battery System ammeter and fuel oil pressure gauge.
  - Running time meter; AC Ammeter, Voltmeter, Frequency Meter.
  - Phase Selector switch; Voltage adjust rheostat.
  - Engine automatic cranking system with control selector switch and cycle crank.
  - Engine fault indicating system with failure lights for low oil pressure, high water temp, over-speed, over-crank, and low water level.
  - Communications: J1939 (primary and Accessory Data Link), Modbus RTU (1/2 Duplex)

Customer Communication.

**ANNUNCIATORS:**

One (1) Local Annunciator

**CIRCUIT BREAKERS:**

- One (1) Molded Case 100% Rated **LS/I Circuit Breaker, 250 Amp, Generator Mounted.**

**AUTOMATIC TRANSFER SWITCH:**

- **NONE**

**Tap-Box:**

- **200A, 120/240v, 1-Phase**
- UL 1008 / UL 50 Listed
- Bottom Hinged Door Will Not Open Unless Main Door Has Been Opened
- All Aluminum Construction
- Powder Coat Color: Hammer Gray
- NEMA 3R
- Silver Plated Copper Bus-bar
- Clear Flip Covers on All Panel Mounts to Prevent Accidental Contact
- Pad-lockable Swinging Front Door
- Trystar Rake Theft Reduction System
- Tabs on Rear for Mounting to Wall
- 1 Set of Male 16 Series Panel Mounts
- Black and Red Panel Mounts for Phases, White Panel Mounts for Neutral
- 1 Male Green 16 Series Ground Panel Mount
- 2 350 MCM Mechanical Lug Terminations per Phase, Neutral and Ground for Permanent Connection to Load

**Tests:**

- Factory Standard, Certified at 1.0 Power Factor
- On-Site: Standard Site Load Startup Service Procedures Performed During Our Normal Business Hours; 1.5 Hour Resistive Load Bank Service
- Three (3) Operation and Maintenance Manuals
- Owner/Operator Training at Time of Startup
- **Four (4) Year Sourcewell Platinum Warranty, Covers Parts, Labor and Travel.**
- Freight to Jobsite

**This portion of the proposal includes the installation by Wheeler Electric of a 50 KW LP-Fired Generator as described below:**

- Disconnect & Dispose existing 25kW Emergency Generator
- Install New Cat 50kW LP-Fired Generator onto Existing Metal Platform
- Install New 200 Amp Tap-Box
- Modify / Reinforce Existing Gen Platform for New Genset
- Provide All Labor & Materials for the Above Service
- All Work to be Conducted During Normal Business Hours (8-5)



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**\*Related Items Not Provided by Gregory Poole if Required\*:**

- Coordination Studies for Relays or Breakers or Relay Calibration/Setting/Testing.
- Breaker Settings or Breaker Testing.
- Initial fill of Fuel and fuel for startup and testing.
- On site Pressure testing of the fuel tank. (If Required)
- All non-UL 142 or UL 2085 signage and site specific labeling by others.
- Lugs on Generator Bus Bars or the breakers.
- Infrared Scanning of equipment supplied above.
- NETA / Independent Testing.
- Any Applicable Taxes.

<b>NET PRICE, 50kW LP GENERATOR &amp; Tap-Box, F.O.B. Jobsite.....</b>	<b>\$35,900.00</b>
<i>Plus Tax</i>	

**Notes and Comments:**

- This Proposal Includes Relocation & Reconnection of 25kW Communication System to New 50kW Emergency Generator by Poole Power Systems.
- Permits, If Required Are Included
- **No Specs or Riser Were Provided to GP Power for this Project**





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**GENERAL TERMS FOR ALL QUOTATIONS  
FROM GREGORY POOLE POWER SYSTEMS:**

- 1. CONTRACT.** Unless otherwise stated, all sales transactions are expressly subject to these terms and conditions. Credit sales likewise are subject to credit approval. No understanding, promise or representation, and no waiver, alteration or modification of any of the provisions hereof shall be binding upon Gregory Poole Power Systems ("Company") unless assented to expressly in writing by an authorized representative of Company. Buyer shall not rely on any statement or representation of any party (including, without limitation, any Company sales representative) that alters, adds to or differs from these terms and conditions, and no such statement or representation shall be recognized by or be binding upon Company. Any and all provisions of Buyer's Purchase Order or other documents that add to or differ from these Terms and Conditions are EXPRESSLY rejected. No waiver of these Terms and Conditions or acceptance of others shall be construed from any failure of Company to raise objection.
- 2. QUOTATIONS AND PUBLISHED PRICES.** Quotations automatically expire forty-five (45) calendar days from the date issued unless otherwise stated in the Quotation and are subject to withdrawal by notice within that period. Company reserves the right unilaterally to extend such Quotation up to six (6) months from the date of issuance. Prices shown on the published price list and other published literature issued by the Company are not unconditional offers to sell, and are subject to change without notice. Company's price for equipment, unless otherwise specified, does not include an allowance for installation and/or final on-site adjustment. Prices shall be subject to adjustment to those in effect at time of shipment.
- 3. TAXES AND INSURANCE.** Company's prices do not include any applicable sale, use, excise or similar taxes; and the amount of any such tax which Company may be required to pay or collect will be added to each invoice unless Buyer has furnished Company with a valid tax exemption certificate acceptable to the taxing authorities. Where a Buyer fails to furnish the required documentation, the previously unpaid sales, use, excise or similar tax will be billed to the Buyer. If upon subsequent sales, use, excise or similar tax audit, an exemption certificate provided to Company by Buyer is, through no fault of Company, determined to be invalid, Company will attempt to acquire a valid exemption certificate, notarized affidavit of exempt use, or other necessary documentation from Buyer. If Buyer fails timely to furnish a valid exemption certificate, notarized affidavit, or other necessary documentation, the previously unpaid sales, use, excise or similar tax will be billed to Buyer.  
Buyer, at its sole cost and expense, shall keep any and all equipment delivered hereunder insured to the extent of its full insurable value with a standard all-risk Inland Marine Insurance Policy covering physical damage to the equipment, with any loss payable to Company. Insurance coverage shall commence on or before the time at which title to such equipment passes to Buyer. Buyer shall be responsible for obtaining at its sole cost and expense any other insurance coverage that may be necessary or appropriate.
- 4. TERMS.** Except as otherwise provided herein, TERMS ARE CASH, NET THIRTY (30) DAYS, from date of invoice. Amounts past due are subject to a service charge of 1.5% per month (or fraction thereof), or maximum contract rate permitted by law, and any payments will be applied first to service charges due. If Company deems that, by reason of the financial condition of the Buyer or otherwise, the continuance of production or shipment on the terms specified herein are not justified, Company may require full or partial payment in advance. The terms provided herein supersede any customer or trade practice regarding service charges, time of payment or any other term of payment.
- 5. DELIVERY.** Delivery dates indicated in the contact documents are approximate and are based on prompt receipt of all necessary information regarding the equipment covered by the contract. Company will use reasonable efforts to meet the indicated delivery dates, but cannot be held responsible for its failure to do so. Company shall not be liable for delays in delivery or in performance or failure to manufacture or deliver, due to: causes beyond its reasonable control; acts of God, acts of Buyer, acts of civil or military authority, priorities, fires, strikes or other labor disturbances, floods, epidemics, war, riot, or delays in transportation; or inability on account of causes beyond its reasonable control to obtain the necessary labor, materials, components or manufacturing facilities. In the event of any such delay, the date of delivery or of performance shall be extended for a period equal to the time lost by reason of the delay. In the event of any delay caused by Buyer, Company will store and handle all items ordered at Buyer's risk and will invoice Buyer for the unpaid portion of the contract price, plus storage, insurance and handling charges, on or after the date on which the equipment is ready for delivery, payable in full within ninety (90) days from invoice date. Title to the equipment and risk of loss shall pass to Buyer upon delivery to a carrier.
- 6. DELIVERY AND HANDLING CHARGES.** Unless otherwise specified, shipments are F.O.B. Company's premises. Delivery and handling charges will be prepaid and billed as a separate item on the equipment invoice on the basis of Company's current freight policies. Buyer may also specify and use a designated freight carrier. In the absence of such specification, goods will be shipped by the method and via the carrier chosen by Company.
- 7. SHIPPING AND PACKING.** All material shall be carefully packed for shipment and Company will not be responsible for loss, delay or breakage after having received "in good order" receipts from the carrier. All claims for breakage, loss, delay and damage should be made to the carrier. Shipping weights and dimensions given in Company's materials areas close to actual as practicable, but are not guaranteed. No claims will be allowed because of any discrepancy between actual weight or dimensions shipped and listed data.
- 8. SUBSTITUTIONS.** Unless specifically restricted on a purchase order, Company reserves the right to substitute the latest superseding design and manufactured equivalent product where the interchangeability of the product is based on form, fit, and function, in place of the product offered.
- 9. CHANGES.** Buyer may with the express written consent of Company make changes in the specifications for equipment or work covered by the contract. In such event, the contract price and delivery dates shall be equitably adjusted. The Company shall be entitled to payment for reasonable profit plus costs and expenses incurred by it for work and materials rendered unnecessary as a result of such changes, and for work and materials required to effect said changes.
- 10. NONCONFORMITY.** All equipment sold by Company is to be inspected before shipment, and should any of such equipment prove defective due to faults in manufacture, or fail to meet the written specifications accepted by Company, Buyer shall not return the goods, but shall notify Company immediately, stating full particulars in support of its claim, and Company will either replace the goods upon return of the defective or unsatisfactory material or shall adjust the matter fairly and promptly, but under no circumstances shall Seller be liable for consequential or other damages, losses or expenses in connection with or by reason of the use of or inability to use materials purchased for any purpose.
- 11. CANCELLATION.** Undelivered parts of any order may be canceled by the Buyer only with the written approval of Company. If Buyer makes an assignment for the benefit of creditors or in the event that the Company for any reason feels insecure about Buyer's willingness or ability to perform, then Company shall have the unconditional right to cancel this sales transaction. In the event of any cancellation of this order by Buyer, Buyer shall pay to Company the reasonable costs and expenses (including engineering expenses and all commitments to suppliers and subcontractors) incurred by Company prior to receipt of notice of such cancellation, plus Company's usual rate of profit for similar work. In the event Company agrees to accept equipment for restocking, a minimum charge of twenty-



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five percent (25%), based on the sales price to Buyer of said equipment, will apply.

**12. SECURITY INTEREST.** Buyer agrees to pay for the equipment according to the Company's payment terms and does hereby grant to the Company a purchase money security interest in the equipment until such time as it is fully paid. Buyer hereby appoints Company as its Attorney-in-Fact and authorizes Company, at Buyer's expense, to take such action as may be necessary to perfect and protect Company's security interest, including the filing and/or recording of Uniform Commercial Code Financial Statements, and grants Company the right to execute Buyer's name thereto. In the event of a default by Buyer, Company shall be entitled to any of the rights and remedies provided by law. Buyer hereby authorizes Company, at Buyer's expense, to file or record any statement, memorandum or other instrument showing the interest of Company in the equipment, including Uniform Commercial Code Financing Statement, and grant Company the right to execute Buyer's name thereto. Buyer agrees to pay or reimburse Company for any searches, filings, recording or stamp fees or taxes arising from the filing or recording of any such instrument or statement. Buyer shall at its expense protect and defend Company's title against all persons claiming against or through Buyer, at all times keeping the equipment free from any legal process or encumbrance whatsoever, including, but not limited to liens, attachments, levies and executions, and shall give Company immediate written notice thereof and shall indemnify Company from any loss caused thereby.

**13. DEFAULT.** Upon default and placing of this instrument with an attorney for collection or repossession of the equipment, Buyer agrees to reimburse Company for its reasonable attorneys' fees and court costs incurred in connection therewith.

**14. BUYER ACCEPTANCE.** My apparatus delivered hereunder shall be deemed to be fully accepted by Buyer unless Company receives written notice of rejection of any such apparatus within ten (10) days after the date of delivery to Buyer.

**15. WARRANTIES. COMPANY MAKES NO REPRESENTATION, GUARANTY OR WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO QUALITY, MERCHANTABILITY, AND/OR FITNESS FOR A PARTICULAR PURPOSE, THAT EXTEND BEYOND THE DESCRIPTION OF EQUIPMENT, UNLESS REDUCED TO WRITING AND MADE A PART OF THIS CONTRACT. IN ADDITION, ALL EQUIPMENT SHALL BE WARRANTED SOLELY BY THE MANUFACTURER OF SAID EQUIPMENT PURSUANT TO THE TERMS OF THAT MANUFACTURER'S SUPPLIED WARRANTY.**

**16. DISCLAIMER OF DAMAGES AND LIMITATION OF LIABILITY. IN NO EVENT SHALL COMPANY BE LIABLE FOR ANY TYPE OF SPECIAL CONSEQUENTIAL INCIDENTAL OR PENAL DAMAGES, WHETHER SUCH DAMAGES ARISE OUT OF OR ARE A RESULT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE, EXCEPT DAMAGES ARISING OUT OF OR RESULTING FROM COMPANY'S GROSS NEGLIGENCE OR WILFUL MISCONDUCT.**

Such damages shall include but not be limited to loss of profits or revenues, loss of use of the equipment or associated equipment, cost of substitute equipment, facilities, down-time costs, increased construction costs or claims of Buyer's customers or contractors for such damages. Buyer agrees that in the event of a transfer, assignment or lease of the equipment sold hereunder, Buyer shall secure for Company the protection afforded to it in the paragraph set forth immediately below.

Company shall not be liable for any loss, claim, expense or damage caused by, contributed to, or arising out of the acts or omissions of Buyer or third parties (including carders), whether for negligence or otherwise. In no event shall Company's liability for any cause of action whatsoever exceed the cost of the item giving rise to the claim, whether based in contract, warranty, indemnity or tort (including negligence). Buyer agrees to defend and hold Company harmless from any claim or suit arising hereunder.

**17. REGULATORY LAWS AND/OR STANDARDS.** Company takes reasonable steps to keep its products in conformity with various nationally recognized standards and such regulations which may affect its products; however, Company recognizes that its products are utilized in many regulated applications and that from time to time standards and regulations are in conflict with each other. Company makes no promise or representation that its product will conform to any federal, state or local laws, ordinances, regulations, codes or standards, except as particularly specified and agreed upon for compliance in writing as a part of the contract between Buyer and Company. Company prices do not include the cost of any related inspections or permits or inspection fees.

**18. NUCLEAR.** Purchaser represents and warrants that the equipment covered by this contract shall not be used in or in connection with a nuclear facility or application.

**19. NO RESPONSIBILITY FOR GRATUITOUS INFORMATION OR ASSISTANCE.** If Company provides Buyer with assistance or advice which concerns any parts, products, or services supplied hereunder or any system or equipment in which any such part, product or service may be installed and which advice is not required pursuant hereto, the furnishing of such assistance or advice shall not subject Company to any liability whether based in contract, warranty, tort (including negligence) or otherwise.

**20. NONDISCLOSURE.** The terms of this Quotation are confidential, and the terms of any Quotation provided by Company, are confidential and none of the details connected herewith may be disclosed by Buyer to any third party without Company's prior written consent.

**21. NONASSIGNMENT.** This order may not be assigned by Buyer, in whole or in part, without Company's prior written consent.

**22. ENTIRE AGREEMENT AND AMENDMENT.** This Quotation constitutes the entire agreement between Company and Buyer with respect to the transactions hereunder and no representation, promise or condition not set forth herein has been relied upon by Buyer or shall be binding upon either party hereto.

**23. VENUE.** Buyer agrees that any legal action arising out of or resulting from this Agreement shall be filed and maintained in the Civil District Court for the County of Wake, North Carolina.

**24. INTERPRETATION.** Should any term or provision contained in the contract contravene or be invalid under applicable law, the contract shall not fail by reason thereof but shall be construed in the same manner as if such term or provision had not appeared therein.

**This contract shall be interpreted in accordance with the laws of the State of North Carolina.**

PLEASE REVIEW YOUR SPECIFICATIONS TO BE SURE THAT THE APPARATUS DESCRIBED ABOVE MEETS YOUR REQUIREMENTS. This quotation covers items listed herein and does not constitute a specific job proposal. All equipment furnished loose for installation by others unless specifically listed as installed. Start-Up, Testing, & Training to be performed during normal business hours unless specifically indicated otherwise. Relay and/or System Coordination Study is not included unless specifically noted. Telephone and verbal orders are to be confirmed in writing. We reserve the right to correct stenographic or clerical errors. Gregory Poole Power Systems not responsible for occurrences beyond our control. This quotation is made subject to Gregory Poole Standard Terms and Conditions. This quotation is valid for Forty-five (45) days from date of issue.

ACCEPTANCE

Dorenda J. Womble DATE 12/16/2020

BY GREGORY POOLE POWER SYSTEMS

Doug McGrigor DATE 11/30/20



# PROJECT TIMELINE

ENTER START DATE:		3/24/2020	
ACTIVITY	START	END	NOTES
Attend virtual grant application workshop	3/24/2020	3/24/2020	Brenda Womble and Jeff Williford
Grant application available	4/1/2020	5/29/2020	
Grant application submitted	5/29/2020	5/29/2020	
Presentation to 911 Board	7/13/2020	7/13/2020	Presented via Microsoft Teams meeting
Notification of grant award approval from 911 Board	10/1/2020	10/1/2020	
Grant agreement sent to County Attorney for approval	10/2/2020	10/2/2020	
County Attorney approval received	10/5/2020	10/5/2020	
Notification to 911 board of our intent to accept the award	10/5/2020	10/5/2020	Sent via e-mail to Pokey and copied Tina
Grant award presented to Board of Commissioners for approval	11/2/2020	11/2/2020	
Executed contract sent to 911 Board for their signatures	11/6/2020	11/6/2020	
Updated quote received for generator	11/30/2020	11/30/2020	
Purchase order for generator created	12/7/2020	12/7/2020	
Fully executed grant agreement with all signatures received from 911 Board	12/9/2020	12/9/2020	
Signed acceptance contract between Wilson County and Gregory Poole	12/16/2020	12/16/2020	
Gregory Poole ordered the generator	12/21/2020	12/21/2020	Gregory Poole assigned the project to Russell Johnson
Gregory Poole provided estimated delivery date of generator as April 20, 2021 to their facility	1/12/2021	1/12/2021	
Monthly check in with Gregory Poole, still on track to deliver and install by May 30, 2021	1/28/2021	1/28/2021	
Monthly check in with Gregory Poole, still on track to deliver and install by May 30, 2021	2/26/2021	2/26/2021	Confirmed with Russell there are no anticipated delays. He was reminded we had a deadline of March 30th if we needed to extend the project beyond May 30th
Monthly check in with Gregory Poole, still on track to deliver and install by May 30, 2021	3/31/2021	3/31/2021	
Gregory Poole confirmed the generator has been delivered to their Garner facility	4/20/2021	4/20/2021	
Met with Gregory Poole and the electrical contractor at tower to discuss installation	5/10/2021	5/10/2021	Installation scheduled for May 18th-20th
Electrical contractor onsite and removed existing generator and mounted new generator	5/19/2021	5/20/2021	Project manager realized he didn't account for the increased volume needed to power the larger generator. He contacted a local mechanical piping company to pipe in a new gas line and install a new, larger regulator. Regulator will not be delivered until Monday 05/24/2021.
Mobile generator connected to external tap box to have a backup power source should we lose utility power	5/20/2021	5/27/2021	Mobile generator removed on 05/28/2021 after the new generator was in place and successfully tested.
Mechanical piping company onsite and ran new gas line and installed larger regulator	5/24/2021	5/24/2021	
Gregory Poole onsite to start up generator and perform 1 1/2 hour resistive load test.	5/20/2021	5/20/2021	
Gregory Poole onsite and completed all programming and testing. Generator was successfully tested with existing transfer switch.	5/27/2021	5/27/2021	Gregory Poole connected new generator to existing remote communications system to allow for remote monitoring of the generator functions and systems.
Project End	5/27/2021		

## Completion of Grant G2021-08 Attachment 3



**New Startup Information**

**Job Name:** Wilson 911 Ops Tower

**PM:** Russell Johnson

**Site Company:** Wheeler Electric

**Site Contact:** Chad Bass

**Site Contact Phone #:** 252.299.4164

**Control Panel:** 4.2B

**Remote Annunciator:** NO

**Number of Remotes:**

**Site Address:** NA

**Load Bank Test** YES

**Resistive or Reactive** Resistive

**Duration of Test in Hours** 1.5

**Steps in Load Bank**

**Number of Generators** 1

**Generator #1 Size** 50kW

**Generator #1 Voltage** 240

**Generator #1 Phase** 1

**Generator Fuel** NG

**Generator Model** DG50

**Building Test** NO

**Length of Building test**

**NFPA 110 Standard Load Bank**

**Testing to be witnessed?**

**NFPA 110 Testing Notes**

**Generator #2 Size**

**Generator #2 Voltage**

**Generator #2 Phase**

**Training to be completed** YES

**Service Call Open** YES

**Service call #** S1076280

**Number of ATS** 1

**ATS #1 AMP** 200

**Transistion** Open

**Bypass** NO

**Service Entrance** NO

**ATS Startup** GP

**Vendor** Thompson

**Startup Checklist completed:**

**Customer contacted an awaiting startup**

**Generator Fuel Tank & Vendor**

**Generator Enclosure & Vendor**

**Paralleling Switchgear & Vendor**

**Comments:**

NO ATS Startup, verify weekly exerciser with load.

**Completion of Grant G2021-08  
Attachment 4**



**Generator Start-up / Test Record**

**Job Name:** Wilson 911 ops

**Start-up Date:** 5/25/2021

**Generator Model Number:** DG50-2  
**Generator Serial Number:** T3700674  
**Unit Identification:** \_\_\_\_\_

**Generator kW Rating:** 50  
**Generator Voltage Rating:** 240  
**Generator Amp Rating:** 208 @ .8

**Exhaust System**

**Technician**

System Free of Leaks? yes  
 Flexible Connectors Installed? yes  
 Muffler Installed? yes  
 Piping/Discharge Concerns? no

STEIN

**Cooling System**

Proper Coolant Level? Yes  
 System Free of Leaks? Yes  
 Fan Drive Belts Aligned? Yes

**Enclosure/Engine Room**

Ventilation Concerns? N/A  
 System Free of Leaks? N/A  
 Fan Drive Belts Aligned? N/A

**Starting System**

Battery Racks Assembled? Yes  
 Proper Battery Acid Level? Yes  
 Battery Cables Installed? Yes  
 Battery Charger Connected? Yes  
 Record Float Charge: \_\_\_\_\_  
 Record Boost Charge: \_\_\_\_\_

**Genset Heating (JWH and Strip Heater)**

**Technician**

Shore Power Available? Yes  
 Record JWH Temperature: 117  
 Generator Space Heater Installed? no  
 Operational for 24 Hours? yes

STEIN

**Vibration Isolation**

Shipping Blocks Removed? N/A  
 Isolators Adjusted? N/A

**Lubrication System**

Proper Oil Level? yes  
 System Free of Leaks? yes

**Customer Accessories**

Remote Annunciator Installed? Yes  
 IO Module Installed? No  
 BMS Wires Installed? No

**Electrical Connections**

Load Wiring Complete by EC? Yes  
 Control Wiring Pulled/Rung Out/Numbered? yes  
 Control Wiring Landed? yes  
 Generator Circuit Breaker(s) Trip Settings Verified? no

Alarm	Alarm Set Value	EMCP Alarm	Remote Alarm
Overcrank	3	yes	
Low Coolant Temperature Alarm	70	yes	
High Engine Temp Pre-Alarm	215	yes	
High Engine Temp Shutdown	226	yes	
Low Oil Pressure	10	yes	
Overspeed	2040	yes	
Low Fuel	40	yes	
Low Coolant	yes	yes	
Generator Running	yes	yes	
Not in Auto	yes	yes	
High Battery Voltage	30	yes	
Low Cranking Voltage	20	yes	
Low Battery Voltage	22	yes	
Battery Charger Fail	yes	yes	
Common Alarm	yes	yes	
Alarm Silence	yes	yes	
Emergency Stop	yes	yes	

**Run generator at the highest possible load available for at least thirty minutes and record the following:**

Ambient Temperature: 82 F  
 Fuel Pressure: N/A in-H2O  
 Frequency: 60 Hz  
 Voltage: 240 V  
 Amperage: 100 A  
 Power: 50 kW  
 Battery Voltage: 14 V  
 Engine RPM: 1800 RPM  
 Oil Pressure: 44 psi  
 Coolant Temperature: 169 F  
 Engine Hours: 1.7 Hr.

**Technician Final Sign-off and System in AUTO:** STEIN  
**Final Sign-off Date:** 5/25/2021

**Comments:** The amp rating was turned down on the breaker to meet the 100 amp service .





**Factory Dealer Load Bank Test - 1.5 Hour Duration**

Job Name: Wilson 911 Ops

Date: 5/25/2021

Generator Model Number: DG50-2

Generator kW Rating: 50

Generator Serial Number: T3700674

Generator Voltage Rating: 240

Unit Identification: \_\_\_\_\_

Generator Amp Rating: 208 @ .8

Load Type: Resistive

1. Connect the load bank and start the generator using any method.

<u>Time</u>	<u>% Load</u>	<u>Volts</u>	<u>Amps A</u>	<u>Amps B</u>	<u>Amps C</u>	<u>RPM</u>	<u>HZ</u>	<u>KW</u>	<u>P.F</u>	<u>Oil Temp (F)</u>	<u>Oil Pressure (psi)</u>	<u>Coolant Temp (F)</u>	<u>Exhaust Temp (if Avail.) (F)</u>	<u>Battery Voltage</u>	<u>Fuel Pressure (psi)</u>	<u>Ambient Temp (F)</u>
Start	100	240	204	204	204	1800	60	50	1	N/A	56	117	N/A	14	N/A	82
15 min	100	240	204	204	204	1800	60	50	1	N/A	48	157	N/A	14	N/A	82
30 min	100	240	204	204	204	1800	60	50	1	N/A	46	169	N/A	14	N/A	82
45 min	100	240	204	204	204	1800	60	50	1	N/A	44	169	N/A	14	N/A	82
60 min	100	240	204	204	204	1800	60	50	1	N/A	44	169	N/A	14	N/A	82
75 min	100	240	204	204	204	1800	60	50	1	N/A	44	169	N/A	14	N/A	82
90 min	100	240	204	204	204	1800	60	50	1	N/A	44	169	N/A	14	N/A	82
End	0															

2. Remove load from the generator and allow generator to cool down.

Generator Cool Down: 300 sec

3. Confirm single load step (100%) performance (record voltage and frequency transients with applicable device if available).

100% Full Load Pick-up Verified: yes

4. Stop the generator using any method and disconnect the load bank.



**Owner Training Sign-in Sheet**

Job Name: Wilson 911 ops

Date: 5/25/2021

Generator Model Number: DG50-2

Generator kW Rating: 50

Generator Serial Number: T3700674

Generator Voltage Rating: 240

Unit Identification: 0

Generator Amp Rating: 208 @ .8

<u>Name</u>	<u>Company</u>	<u>Title</u>	<u>Contact Information</u>
<u>Jeffrey T. Williford</u>	<u>Wilson County 911 Center</u>	<u>Assistant Director</u>	<u>252-237-8300</u>

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**Completion of Grant G2021-08  
Attachment 5**



Account	Account Description	Adopted Budget	Budget Amendments	Amended Budget	Current Month Transactions	YTD Encumbrances	YTD Transactions	Budget - YTD Transactions	% Used/ Rec'd	Prior Year Total
<b>Fund 13 - EMERGENCY TELEPHONE SYSTEM FUND</b>										
<b>REVENUE</b>										
Department <b>4314 - ENHANCED 911</b>										
33157	NC 911 GRANT	.00	35,900.00	35,900.00	.00	.00	.00	35,900.00	0	.00
34053	FEES	433,427.00	.00	433,427.00	.00	.00	229,096.98	204,330.02	53	496,433.82
38101	INTEREST ON INVESTMENTS	2,000.00	.00	2,000.00	.00	.00	.00	2,000.00	0	8,755.31
Department <b>4314 - ENHANCED 911 Totals</b>		<b>\$435,427.00</b>	<b>\$35,900.00</b>	<b>\$471,327.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$229,096.98</b>	<b>\$242,230.02</b>	<b>49%</b>	<b>\$505,189.13</b>
<b>REVENUE TOTALS</b>		<b>\$435,427.00</b>	<b>\$35,900.00</b>	<b>\$471,327.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$229,096.98</b>	<b>\$242,230.02</b>	<b>49%</b>	<b>\$505,189.13</b>
<b>EXPENSE</b>										
Department <b>4314 - ENHANCED 911</b>										
41900	PROFESSIONAL SERVICES	52,000.00	(29,000.00)	23,000.00	.00	.00	(413.10)	23,413.10	-2	32,443.65
42320	SUPPLIES	7,000.00	(566.00)	6,434.00	.00	.00	.00	6,434.00	0	.00
43110	TRAVEL	10,000.00	.00	10,000.00	.00	700.00	.00	9,300.00	7	1,062.62
43520	REPAIRS TO EQUIPMENT	31,705.00	.00	31,705.00	.00	14,877.95	8,957.79	7,869.26	75	17,770.93
43800	DATA PROCESSING SERV & EQUIP	18,912.00	566.00	19,478.00	.00	.00	19,477.20	.80	100	18,912.00
43950	TRAINING	28,600.00	.00	28,600.00	15.00	682.23	6,910.77	21,007.00	27	8,103.00
44400	CONTRACTS/ MAINTENANCE	179,507.00	.00	179,507.00	.00	.00	178,684.57	822.43	100	174,730.32
44882	E911/DATA BASE PROVISION	91,459.00	.00	91,459.00	5,466.49	.00	41,779.10	49,679.90	46	94,401.62
44999	CONTROLLED EQUIP/F&F \$1,000 TO \$4,999	16,244.00	29,000.00	45,244.00	.00	29,000.00	15,890.62	353.38	99	17,219.75
46181	NC 911 GRANT	.00	35,900.00	35,900.00	.00	35,900.00	.00	.00	100	.00
Department <b>4314 - ENHANCED 911 Totals</b>		<b>\$435,427.00</b>	<b>\$35,900.00</b>	<b>\$471,327.00</b>	<b>\$5,481.49</b>	<b>\$81,160.18</b>	<b>\$271,286.95</b>	<b>\$118,879.87</b>	<b>75%</b>	<b>\$364,643.89</b>
<b>EXPENSE TOTALS</b>		<b>\$435,427.00</b>	<b>\$35,900.00</b>	<b>\$471,327.00</b>	<b>\$5,481.49</b>	<b>\$81,160.18</b>	<b>\$271,286.95</b>	<b>\$118,879.87</b>	<b>75%</b>	<b>\$364,643.89</b>
<b>Fund 13 - EMERGENCY TELEPHONE SYSTEM FUND Totals</b>										
<b>REVENUE TOTALS</b>		<b>435,427.00</b>	<b>35,900.00</b>	<b>471,327.00</b>	<b>.00</b>	<b>.00</b>	<b>229,096.98</b>	<b>242,230.02</b>	<b>49%</b>	<b>505,189.13</b>
<b>EXPENSE TOTALS</b>		<b>435,427.00</b>	<b>35,900.00</b>	<b>471,327.00</b>	<b>5,481.49</b>	<b>81,160.18</b>	<b>271,286.95</b>	<b>118,879.87</b>	<b>75%</b>	<b>364,643.89</b>
<b>Fund 13 - EMERGENCY TELEPHONE SYSTEM FUND Totals</b>		<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>(\$5,481.49)</b>	<b>(\$81,160.18)</b>	<b>(\$42,189.97)</b>	<b>\$123,350.15</b>		<b>\$140,545.24</b>
<b>Grand Totals</b>										
<b>REVENUE TOTALS</b>		<b>435,427.00</b>	<b>35,900.00</b>	<b>471,327.00</b>	<b>.00</b>	<b>.00</b>	<b>229,096.98</b>	<b>242,230.02</b>	<b>49%</b>	<b>505,189.13</b>
<b>EXPENSE TOTALS</b>		<b>435,427.00</b>	<b>35,900.00</b>	<b>471,327.00</b>	<b>5,481.49</b>	<b>81,160.18</b>	<b>271,286.95</b>	<b>118,879.87</b>	<b>75%</b>	<b>364,643.89</b>
<b>Grand Totals</b>		<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>(\$5,481.49)</b>	<b>(\$81,160.18)</b>	<b>(\$42,189.97)</b>	<b>\$123,350.15</b>		<b>\$140,545.24</b>

**Gregory Poole  
Equipment Company**

**INVOICE**



FEDERAL TAXPAYER ID# 56-0487311  
WWW.GREGORYPOOLE.COM  
919-755-7088

A division of Gregory Poole Equipment Company

PLEASE REMIT TO:  
Gregory Poole Equipment Company  
Processing Center, PO Box 60457  
Charlotte, NC 28260  
https://gregorypoole.billtrust.com

**INVOICE NUMBER** IN1123586  
**INVOICE DATE** 6/2/2021  
**PO NUMBER** 2021-00000404

**BILL TO**  
Wilson County  
Po Box 1728  
Wilson, NC 27894  
USA

**SHIP TO**  
Wilson County  
1817 Glendale Dr SW  
Wilson, NC 27893  
USA

SALE ORDER	DOC DATE	INVOICE ACCOUNT	ORDER ACCOUNT	STORE	DIVISION	PAGE
SO02166148	5/28/2021	C005658	C064092	Garner	EPG	1 of 1
SALESMAN		SHIP VIA	TERMS			
Stephen McGrigor		Motor Freight LTL	Cash on Delivery			
ITEM	DESCRIPTION				DISCOUNT	PRICE

GREGORY POOLE PROJECT # 20-186 / WILSON 911

DG50	CATERPILLAR DG50 GENERATOR	35,900.00
MAKE: CAT	MODEL: DG50	
GPEC ID: EQ123536	SERIAL NO: T3700674	
	METER: 1	
LOADBANK	TAP BOX	
MAKE: MIS	MODEL: MISC.	
GPEC ID: EQ124332	SERIAL NO: 109439	
	METER: 1	
INSTALL	INSTALL BY WHEELER ELECTRIC	
MAKE: MIS	MODEL: Install	
GPEC ID: EQ126386	SERIAL NO: EQ126386	
	METER: 1	
E-RETAIN	STARTUP	
MAKE: CAT	MODEL: Retainage	
GPEC ID: EQ131147	SERIAL NO: T3700674-R	

Subtotal Before Tax	35,900.00
North Carolina State Tax	1,705.25
NC Wilson County Tax	718.00

\* INVOICES PAID WITH CREDIT CARD AFTER 15 DAYS ARE SUBJECT TO 3% CONVENIENCE FEE  
 \* NO CASH DISCOUNTS & NO CREDIT CARD PAYMENTS ON MACHINE SALES  
 \* NO CREDIT ALLOWED ON PARTS RETURNED UNLESS INVOICE NUMBER IS FURNISHED  
 \* CLAIMS FOR SHORTAGES MUST BE MADE WITHIN TEN (10) DAYS OF INVOICE DATE  
 \* RETURNS ARE SUBJECT TO HANDLING CHARGES  
 \* PRODUCTS SOLD ARE HEREBY WARRANTED BY THE CONDITIONS & LIMITATIONS OF THE MANUFACTURER  
 \* INVOICE DISPUTE CLAIMS MUST BE MADE WITHIN FIFTEEN (15) DAYS OF INVOICE DATE  
 \* UNLESS OTHERWISE STATED ON THE SALES DOCUMENT, USED PARTS & EQUIPMENT ARE SOLD AS IS, WITHOUT WARRANTY

<b>Pay This Amount</b>	<b>38,323.25</b>
<b>Credit Amount</b>	

Ship To

EMERGENCY COMMUNICATION CENTER  
1817 GLENDALE DR SW  
WILSON, NC 27893

Bill To

EMERGENCY COMMUNICATION CENTER  
1817 GLENDALE DR SW  
WILSON, NC 27893

**Purchase Order**  
No. 2021-00000404

DATE 12/04/2020

VENDOR 810 - GREGORY POOLE

Contact

GREGORY POOLE  
P O BOX 60457  
CHARLOTTE, NC 28260



PURCHASE ORDER NUMBER MUST APPEAR ON ALL INVOICES, SHIPPERS, BILL OF LADING AND CORRESPONDENCE

**DELIVER BY**  
**SHIP VIA**  
**FREIGHT TERMS**  
PAGE 1 of 1  
**ORIGINATOR:** Kimberly Black

REFERENCE #

QUANTITY	UNIT	DESCRIPTION	UNIT COST	TOTAL COST
1.0000	EACH	911 Grant Tower Site Generator Replacement - 13-4314-46181 Replacing 911 Tower Generator	35,900.0000	\$35,900.00
			TOTAL DUE	\$35,900.00

Special Instructions

By accepting and fulfilling the terms of this purchase order, you certify that as of the date of execution of this Agreement

- 1) it does not appear on the Final Divestment List created by the North Carolina State Treasurer pursuant to N.C.G.S. Chapter 147 Article 6E (G.S. 147-86.55 to G.S. 147-86.63) and published on the State Treasurer's website at [www.nctreasurer.com/Iran](http://www.nctreasurer.com/Iran) and
- 2) it will not utilize any subcontractor that appears on the Final Divestment List in the performance of duties under this Agreement.

1. THIS INSTRUMENT HAS BEEN PREAUDITED IN THE MANNER REQUIRED BY THE LOCAL GOVERNMENT BUDGET AND FISCAL CONTROL ACT.  
 2. THIS DOCUMENT IS GOVERNED BY THE PROVISIONS OF NCGS, CHAPTER 25 UNIFORM COMMERCIAL CODE ARTICLE 2, SALES.



REMIT PAYMENT TO:

Wilson County  
PO Box 1728  
Wilson, NC 27894

DATE

5/28/2021

INVOICE

WILSON-G2021-08-0528

NC 911 Board  
Office of Information Technology Services  
PO Box 17209  
Raleigh, NC 27619-7209

Relocation & Reconnection of 25kW Communication System  
to New 50kW Emergency Generator at the Tower Site \$35,900.00

One (1) Caterpillar DG50-2 LP-Fueled Skid-Base w/Brushless  
Generator, 50kW Standby @ 1.0 P.F., 240 Volt, 1-Phase,  
60 Hertz @ 1800 RPM

One (1) Local Annunciator

One (1) Molded Case LS/I Circuit Breaker, 250 AMP, Generator  
Mounted

Wheeler Electric performed the following:

- Disconnected & Disposed of 25KW Emergency Generator
- Modified/Reinforced Existing GEN Platform for New GENSET
- Installed New CAT 50kW LP-Fired Generator onto Existing  
Metal Platform
- Installed New 200 AMP, 120/240V, 1-Phase Tap-Box

Three (3) Operation and Maintenance Manuals

Owner/Operator Training at Time of Startup

Four (4) Year Sourcewell Platinum Warranty

Covers Parts, Labor, and Travel

Freight to Jobsite

Total Due

**\$35,900.00**

June 4, 2021

Pokey Harris  
Executive Director  
NC 911 Board  
Department of Information Technology  
PO Box 17209  
Raleigh, NC 27619-7209

Dear Ms. Harris:

The NC Center for Geographic Information and Analysis (CGIA) is pleased to submit the final report for the Coastal 2020 (CO20) orthoimagery project. This phase was the first step in the third four-year cycle to refresh orthoimagery for counties in the coastal plain. It also represented the first project where the color infrared component of the orthoimagery was delivered, making the overall product even more useful to the PSAPs and the broader user community.

The CO20 project area consisted of 27 counties and a total of 26 primary PSAPs. The project team included NCDOT Photogrammetry, NCDPS-Geodetic Survey, and the Secretary of State-Land Records Management Program. CGIA also had an excellent partnership with elements of the military community in North Carolina including a major partnership with the Marine Corps and timely communication with other branches in the project area. Each provided the necessary access to enable flights in their respective areas. This improved the efficiency of our processes and those of our contractors.

Five private contractors were selected through the qualifications-based selection (QBS) process to acquire, process, and deliver orthoimagery for 15,679 square miles. Approximately 66% of the orthoimagery tiles received quality review by a combination of staff from each PSAP, county/city GIS team, NCDOT, and CGIA to satisfy the quality assurance goals of the project. NCDPS-Geodetic Survey reviewed a representative sample of the orthoimagery to ensure horizontal accuracy. Only 170 issues were identified for resolution in the entire project area compared to 415 issues identified in 2016 for the same area. This improvement reflects the degree of oversight that the project team provides and the high-quality work of the five contractors.

The project delivered 17,484 orthoimagery tiles at 5,000 feet by 5,000 feet each in early December 2020. Despite the remote work that was required of the state project team due to COVID-19 protocols, the technical processes remained the same and products were delivered by the contractors and evaluated without any delays. The technical work on the project was completed on schedule. In terms of actual delivery, the impacts of COVID-19 prevented face to face delivery of the orthoimagery to the PSAPs. Certified US mail was used as the mechanism for delivery instead. Then, the imagery was posted to *NC OneMap* for public access. Project closeout occurred at the end of May following a minor set of corrections affecting three counties in the northeastern part of the project area.

The project team continued to achieve success on the fiscal aspect of the program. The CO20 project finished with a cost savings of \$813,544 (or 19.8%) under the approved budget. On behalf of the team, I



would like to thank you and the NC 911 Board for your ongoing support and confidence in the program as we wrap up the first phase of your latest four-year commitment for sustained current, accurate, and complete orthoimagery for the 911 community in North Carolina.

Sincerely,

A handwritten signature in black ink, appearing to read "Tim Johnson". The signature is fluid and cursive, with the first name "Tim" and last name "Johnson" clearly distinguishable.

Tim Johnson, GISP  
Director, NC Center for Geographic Information and Analysis

attachment

**Statewide Orthoimagery Program  
Coastal Orthoimagery 2020  
FINAL REPORT**

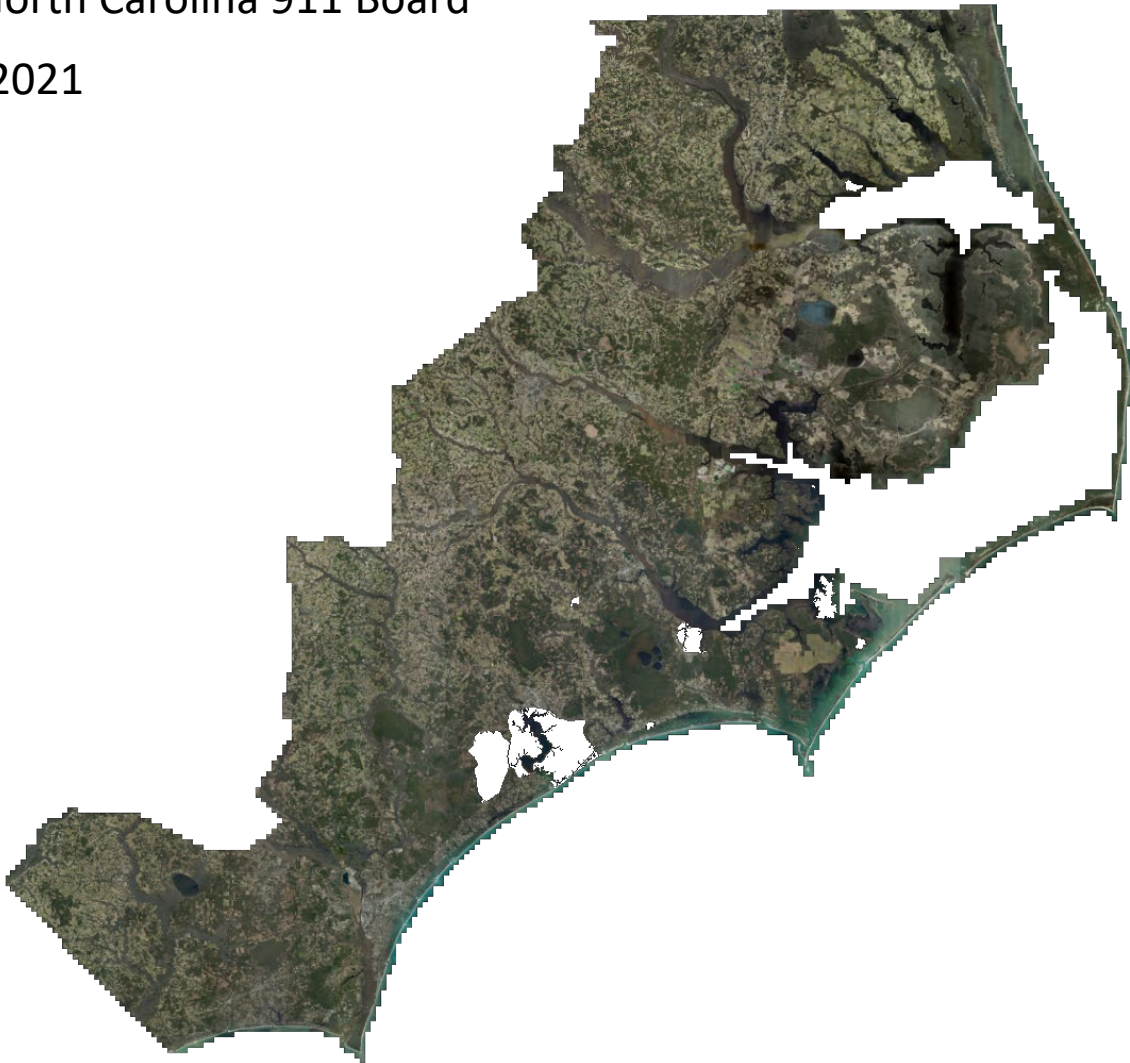
**Prepared by:**

NC Center for Geographic Information and Analysis

**Prepared for:**

The North Carolina 911 Board

May 2021



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# 1. Executive Summary

The NC Center for Geographic Information and Analysis (CGIA) serves as the project manager for the NC 911 Board Statewide Orthoimagery Program. This program is defined by four distinct geographic phases across the State with one phase being completed each year. Phase 1 of 4 of the 4<sup>th</sup> Cycle through the state, the Coastal 2020 Orthoimagery Project, is the subject of this report. The NC 911 Board requires a consistent, accurate, high quality seamless digital imagery product for distribution to Public Safety Answering Points (PSAPs) across the project area. The purpose of the project was to acquire and deliver high resolution imagery to the Primary PSAPs emergency operation centers in 27 counties identified in Table 1.

Beaufort County Communications Center	Currituck Communications	City of Jacksonville	Pasquotank/Camden E9-1-1
Bertie County Communications	Dare Central Communications	Jones/Lenoir County 911	Pender County 911
Brunswick County Sheriff's Office	Duplin County Communications	Martin County Communications Center	Perquimans County Communication
Carteret County Emergency Services	Gates County Central Communications	New Bern Emergency Communications	Pitt County Communications
Chowan Central Communications	Greene County Communications Center	New Hanover County Public Safety Communications Center	Washington County Communications Center
Columbus Central Communications	Havelock Police Department	Onslow County 911	
Craven County Emergency Communications	Hertford County Emergency Services	Pamlico County Emergency Management	

**Table 1: Locations of Primary PSAP Clients**

Imagery is a mission critical asset that supports accurate, timely and effective placement of 911 calls in correct locations. The technical framework for this project delivers a consistent mapping resource with a high-level of positional accuracy for 911 operations at every PSAP in the project region. This was accomplished by strict adherence to the *North Carolina Technical Specifications for Digital Orthophoto Base Mapping* (the State Standard) adopted October 1, 2009 (and updated in December 2014). Throughout the project, private sub-contractors were required to deliver core compliance deliverables that ensured that the State Standard was followed. This coupled with engaging PSAP and County end-users in a thorough quality review process resulted in a product free of error and that represents the truest depiction of the ground conditions in the project area.

The NC 911 Board’s original vision for this program was to provide all North Carolinians equivalent, up-to-date base imagery that supports detailed mapping of streets and building locations, as well as accurate mapping of property boundaries. Over the past 10 years, the Statewide Orthoimagery Program has created a consistent foundation for all counties to use in the creation of these additional mapping products. Many of these products are now the building blocks for the Next-Generation 911 (NG911) effort. The Coastal 2020 Orthoimagery Project continued to build on this with the inclusion of color infrared (CIR) imagery alongside the typical 3-band, true color (RGB) product developed in past projects. This is a product that is normally collected during acquisition but was never pursued as a deliverable until the 2020 project since the cost having become lower to process and store it. The CIR product will now be available as an additional tool for improving and validating the GIS datasets used in NG911 for street centerlines and addressing.

### 1.1. Cost and Schedule

CGIA relies on sound costing methods, actuals, and comparable contractor cost balancing comparisons and per unit indicators. Private contractors account for almost 80% of the budget and therefore monitoring the NC 911 Board’s investment is a top priority of the program. Costs for each phase are submitted annually. Since 2012, project costs have come in over \$3.3M under the combined authorized budgets for all projects during this period. The primary reasons for these savings are cost negotiations with private contractors, more efficient technological solutions for imagery acquisition and processing, and better cost forecasting. CGIA utilizes an inflationary costing model based on project actuals that serves to provide a solid foundation and baseline to serve as the basis for forecasts. Past performance has demonstrated that costs are attributable to three primary factors: (1) the cost of fuel and overhead inflation; (2) the efficient use of advanced large-format sensors; and (3) the complexity of the study area, most notably the difficulty in the mountains. In the 2020 project, a compressed schedule for delivery, the elimination of DIT Server Hosting costs, negotiations with private contractors, and major reduction in travel and reimbursable expenses due to COVID-19 travel restrictions resulted in a large reduction in overall project costs.

In terms of the overall budget, CGIA demonstrated a project underrun of \$813,544.66 or a 19.8% savings to the NC 911 Board. This is largely attributable to a reduction in actual private contractor costs due to negotiations, a NCDOT surplus of 32.5% (i.e., actual cost under the budgeted amount), a CGIA labor surplus of 73.4% due to having less receipts-based staff working on the project, and an elimination of DIT Server Hosting.

### 1.2. Quality, Compliance, and Oversight

CGIA mandates the need for a technical oversight body and puts oversight, accountability, and compliance at the forefront of priorities. The project team backs all decisions and specifications on sound industry practice and quantitative analysis and bases its deliveries and deadlines on firm and reasonable timeframes. To achieve the Project Team’s objective of administering a proactive approach to quality, contracted requirements were implemented for the delivery of core attachment deliverables of signed and sealed compliance documentation as follows either per study area, per aerial triangulation (AT) block, or per county for a total of 52 reports.

1. *Flight and Control Plan (5)*
2. *Ground Control Survey Report (5)*
3. *Imagery Acquisition Compliance Report (5)*
4. *Airborne Global Navigation Satellite System-Inertial Measurement Unit (GNSS-IMU) (Post Processing & Aerotriangulation Report (5)*
5. *Orthoimagery Delivery Report (27)*
6. *Final Report (5)*

Per the direction and vision of the NC 911 Board, local stakeholders, as well as the Project Team, were actively involved early in the visual quality assurance/quality control process ultimately yielding a better product with minimal follow up issues. Specifically, a representative sample of 30% NCDOT, 5% CGIA, and a 25% County quality review of

the study area was the desired goal. In 2020, approximately 10,347 square miles were reviewed that represents 65.9% of the total study area. This is accomplished through a system called VOICE. VOICE (Virtual Online Inspection, Checking and Editing) is a GIS web-based tool that hosts imagery stored in the cloud. VOICE contains a suite of tools that facilitate quality control of all imagery developed for the project. The VOICE tool was well received by the PSAP and local government reviewers as an effective means of contributing to the quality control process. VOICE satisfied the following objectives:

1. Satisfies the NC 911 Board’s requirement to provide end users the ability to review the product prior to delivery.
2. Provides secure access by end-user points of contact to review imagery as it is completed by contractors.
3. Store imagery hosted in the cloud thus eliminating the need to deliver external drives that increase costs and scheduling.
4. Provides an effective solution for reviewing imagery seamlessly.

Overall, the quality review process involved a high level of end-user participation and support. Due to project efficiencies gained from improved level 1 review by contractors and from improved elevation data for the region, only 170 errors were found by reviewers and required correction by the vendors. This continues the trend of past projects in improving the quality of orthoimagery tiles delivered to VOICE and reducing the amount of error prior to end-user review. Table 2 demonstrates the final issues statistics derived from VOICE.

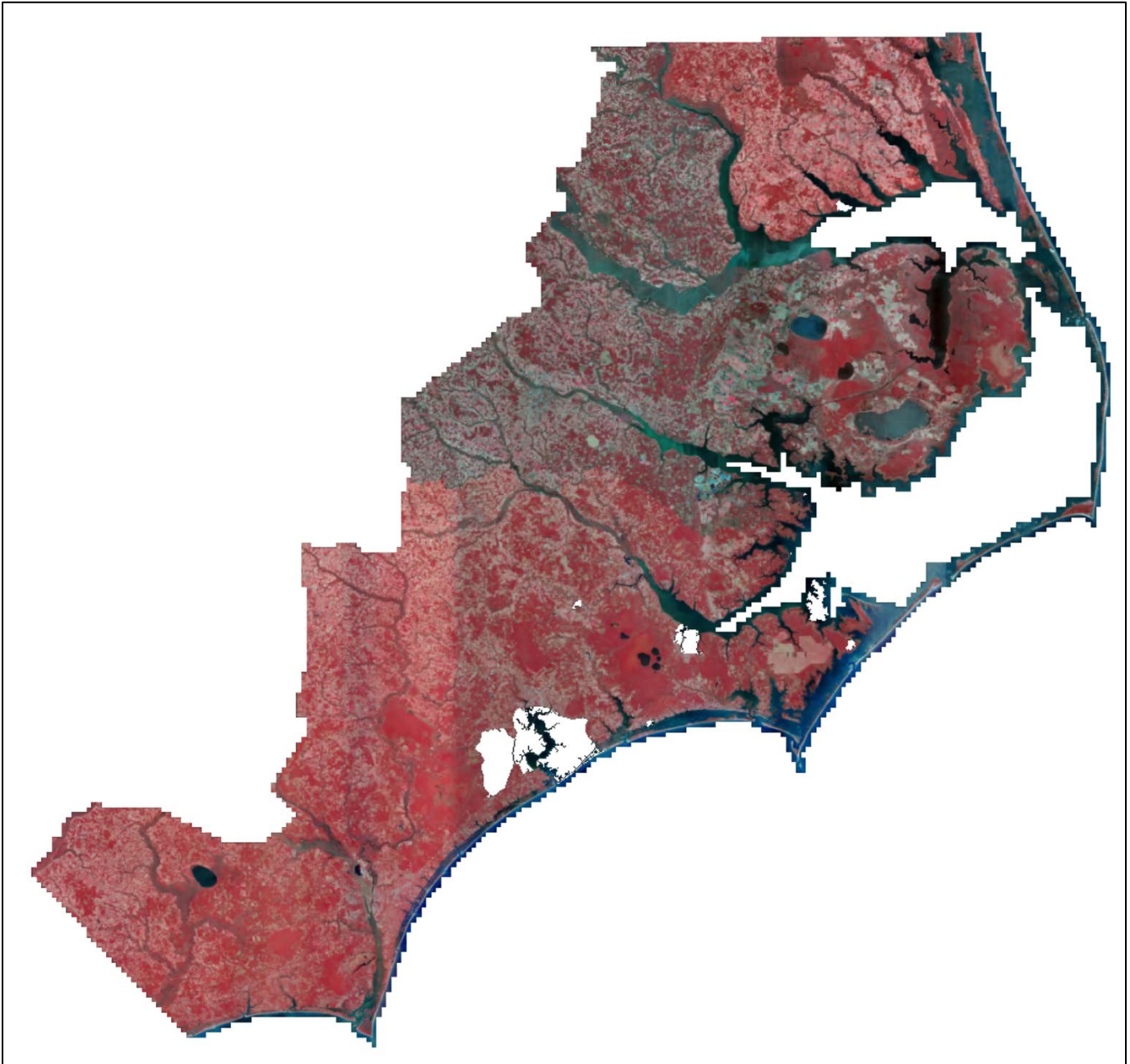
County	Units Per County	Percent Reviewed	Number of Errors Resolved	County	Units Per County	Percent Reviewed	Number of Errors Resolved
Beaufort	1047	61%	12	Hyde	961	60%	2
Bertie	831	61%	6	Jones	524	61%	5
Brunswick	1054	62%	4	Lenoir	240	63%	4
Camden	322	61%	2	Martin	526	61%	3
Carteret	985	60%	3	New Hanover	274	100%	4
Chowan	279	60%	4	Onslow	1050	62%	3
Columbus	1146	79%	4	Pamlico	499	87%	4
Craven	857	61%	6	Pasquotank	288	61%	5
Currituck	514	61%	37	Pender	903	61%	3
Dare	799	61%	21	Perquimans	319	63%	11
Duplin	1188	64%	0	Pitt	751	82%	9
Gates	404	61%	2	Tyrrell	526	74%	1
Greene	319	63%	1	Washington	439	63%	0
Hertford	439	99%	14				
				<b>Total</b>	<b>17,484</b>	<b>66%</b>	<b>170</b>

**Table 2: Final VOICE Statistics**



### 1.3. Project Advancements

In the 2017 project, CGIA improved project efficiencies related to the Quality Control timeline and was able to deliver the final products to all PSAPs in the project area six weeks earlier than in previous projects. This allowed for delivery of the products in early December. This expedited delivery schedule continued with the 2020 orthoimagery deliveries that took place the first week of December. Due to the COVID-19 pandemic, the regular delivery meeting was held virtually with over 60 participants. Soon after this meeting, imagery drives were sent via certified U.S. Postal Service packages to all Primary PSAPs in the project area.



**Figure 1: Color Infrared Product results for the Coastal 2020 Orthoimagery Project**

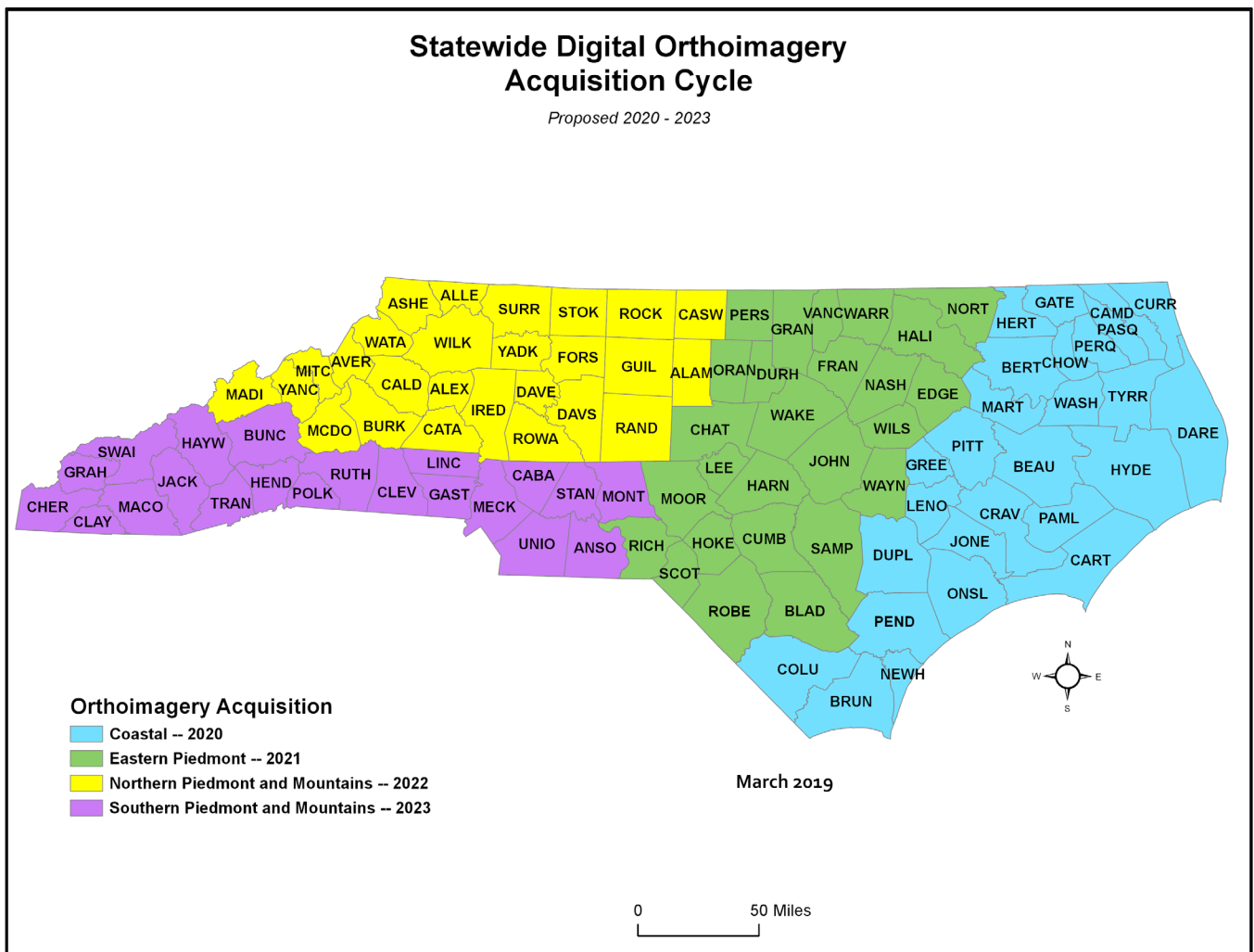
A major advancement for the 2020 project was the inclusion of the 4<sup>th</sup> band, or Color Infrared (CIR) band of imagery. Past projects delivered a 3-band imagery product consisting of Red, Green, and Blue (RGB) bands that combine to create the final imagery. For this project, 4-band imagery was produced that included CIR that allows for easier

delineation between vegetation and man-made features. The color infrared developed from this project can be seen in Figure 1 above. This data can be used by first responders and dispatchers to identify man-made features in dense vegetation more easily than with typical RGB imagery. It also has a number of other uses going forward that may assist in the creation and maintenance of GIS mapping layers, such as roads and addresses used in NextGen 9-1-1 mapping. The cost of this additional CIR product on the overall project budget was approximately 1%.

## 2. Project Background

Digital aerial imagery is the most fundamental dataset for use with geographic information systems in local, state, and federal government and in numerous private and non-profit organizations. The 2010 Statewide Orthoimagery project confirmed that imagery is used by Public Safety Answering Points (PSAP) for visual reference and for accurate street mapping, by counties to map property boundaries and infrastructure, and by a range of users to display land use and impervious surfaces.

Orthoimagery is used in search and rescue operations, by the state emergency management office for emergency response planning and development of hazard mitigation plans, and by the floodplain program to develop flood insurance rate maps; it is used by the NC Department of Agriculture and Consumer Services for bio-emergency planning operations; it is used by the NC Department of Transportation (NCDOT) for highway mapping and planning; and by numerous other local, state and federal organizations to get a clear, current, and accurate picture of the



landscape. In addition, other groups, such as the engineering and surveying industry, utilities, and real estate development use aerial imagery to meet their location-based business needs. The North Carolina Geographic Information Coordinating Council recognized orthoimagery as a priority dataset, and the GIS Study, requested by the General Assembly and conducted by the NC Office of State Budget and Management, recommended funding of orthoimagery as a key dataset that would yield multiple benefits.

Figure 2 illustrates the 2020-2023 cycle of orthoimagery acquisition. Continuing the success of the Statewide Orthoimagery Program the Board approved the third four-year cycle of orthoimagery acquisition based on the Business Plan for Orthoimagery in North Carolina and its recommended annual approach. The Coastal 2020 project area encompassed 27 counties in the easternmost region of the state.

## 2.1. Achievements

The Coastal 2020 project achieved all objectives and requirements. In summary, imagery of the highest quality was delivered on time and within budget to Primary PSAPs and county representatives in 27 counties (Table 1). The acquisition season in 2020 was one of the most difficult since the beginning of the program due to an unseasonably warm winter, abundance of rain and clouds, restricted airspace considerations over coastal military installations, GPS interference training conducted by the Department of Defense over several weeks, and coastal snow fall in late February. All these factors limited the amount of flying time available to collect such a large geographic region. However, the project team and acquisition contractors did a great job coordinating through these events to ensure collection of the imagery in the short windows that were available.

After acquisition was complete, local stakeholders were actively involved early in the quality assurance/quality control process yielding a better product with minimal follow up issues. The quality control process continued to utilize the VOICE cloud-based solution for interactive review of imagery thus making the review process more efficient than traditional methods. The VOICE tool was well received by the PSAP and local government reviewers as an effective means of contributing to the quality control process. The orthoimagery was successfully loaded onto the NC OneMap Geospatial Portal, enabling free and quick access by public and private sector users.

## 2.2. Deliverables

### Technical

- 1) Orthoimagery, true color RGB with 0.5-foot resolution in 5,000 by 5,000-foot tiles (equivalent to a mapping scale of 1 inch – 200 feet) in GeoTIFF and MrSID (20:1 compression ratio) formats, as well as a derived single file per county MrSID mosaic (50:1 compression ratio) format.
- 2) Orthoimagery, false color CIR with 0.5-foot resolution in 5,000 by 5,000-foot tiles (equivalent to a mapping scale of 1 inch – 200 feet) in GeoTIFF and MrSID (20:1 compression ratio) formats, as well as a derived single file per county MrSID mosaic (50:1 compression ratio) format.
- 3) Project metadata in txt, HTML, and XML format per county
- 4) Continuously Operating Reference Station (CORS) network report
- 5) NC OneMap Geospatial Portal Image Services and applicable data
- 6) Outreach workshops
- 7) A functional and operable online QC application
- 8) 60-day local review and client satisfaction period
- 9) A minimum of 60% coverage area visual quality control that confirms a product free of degradation and most resembles the truest representation of the highest quality imagery

### Reports and Requirements Documentation

- 1) Weekly contractors' status reports

- 2) Monthly invoicing and accomplishments
- 3) Distribution schedules
- 4) Documentation providing permissions, limitations, and any restrictions regarding collection and use of orthoimagery comprising military properties within the Scope of the Project
- 5) Seven core project compliance documentation deliverables
- 6) Final Report and Contractors' Lessons Learned Reports
- 7) Guidelines for orthorectification specifications and procedures
- 8) NCGS horizontal quality review reports
- 9) 60-day local review and client satisfaction period customer surveys

### 3. Schedule and Milestones

The project schedule covered 104 weeks from July 1, 2019 through May 30, 2021, defined by four blocks of core phases including six months of Qualifications-Based Selection and project planning, two months of acquisition, four months of post processing, four months of quality review, two months of post-delivery review, NC OneMap implementation, and closeout.

Table 3 represents the components of the project. The project team established planned start and finish dates early in the project for these milestones. Actual finish dates were recorded when milestones were completed.

Task	Item	Planned Start	Planned Finish	Actual Finish/Percent Complete
<b>1</b>	<b>Project Initiation</b>	<b>7/1/2019</b>	<b>12/31/2019</b>	<b>2/7/2020</b>
	Issue RFQ for Orthoimagery QBS	7/31/2019	7/31/2019	7/31/2019
	Closing date for RFQ responses	8/26/2019	8/26/2019	8/26/2019
	Contract NCGS and NCDOT	8/1/2019	8/1/2019	10/21/2019
	Host workshop for selected applicants	9/24/2019	9/24/2019	9/24/2019
	Technical and cost proposals due	10/8/2019	10/8/2019	10/8/2019
	Negotiate with selected applicants	10/28/2019	10/28/2019	10/28/2019
	Issue Purchase Orders	11/22/2019	11/22/2019	12/30/2019
	Conduct Kickoff Meeting	12/12/2019	12/12/2019	12/12/2019
	Contract QC Service Provider	1/1/2020	1/1/2020	2/7/2020
<b>2</b>	<b>Planning and Design</b>	<b>10/15/2019</b>	<b>4/30/2020</b>	<b>4/2/2020</b>
	CORS Upgrades	10/15/2019	3/1/2020	1/16/2020
	Validation Range	10/15/2019	1/14/2020	1/14/2020

	RTN Maintenance	10/15/2019	Ongoing	Ongoing
	Control Surveys and Attachment C-1: Control Surveys Report	12/12/2019	4/2/2020	4/2/2020
<b>3A</b>	<b>Acquisition</b>	<b>1/20/2020</b>	<b>4/27/2020</b>	<b>4/27/2020</b>
	Acquire Imagery for 27 Counties	1/20/2020	3/15/2020	3/9/2020
	Attachment D: Imagery Acquisition Compliance Report	2/1/2020	4/27/2020	4/27/2020
<b>3B</b>	<b>Acquisition Post-Processing</b>	<b>2/1/2020</b>	<b>5/21/2020</b>	<b>6/16/2020</b>
	Attachment E: GNSS-IMU Post Processing & Aerotriangulation Report	3/1/2020	5/15/2020	6/16/2020
	Ortho Generation Workshop	3/24/2020	3/24/2020	3/31/2020
	Study Area Web Map Service	4/1/2020	5/21/2020	5/5/2020
<b>4</b>	<b>Quality Review Production and Product Delivery</b>	<b>5/21/2020</b>	<b>10/17/2020</b>	<b>10/17/2020</b>
	QC Production Cycle	5/21/2020	10/17/2020	10/17/2020
<b>5</b>	<b>Implementation</b>	<b>11/16/2020</b>	<b>1/29/2021</b>	<b>1/29/2021</b>
	Product Delivery	11/16/2020	11/20/2020	12/7/2020
	Implement the NC OneMap Geospatial Portal solution	12/1/2020	Ongoing	Ongoing
	60 day End-User Evaluation	11/20/2020	1/29/2021	1/29/2021
<b>6</b>	<b>Project Closeout</b>	<b>12/1/2020</b>	<b>4/30/2021</b>	<b>4/30/2021</b>
	Final Data Packaging and Final Reports	12/1/2020	4/30/2021	4/30/2021
	Project Closeout	4/1/2021	4/30/2021	4/30/2021

Table 3: Project Milestones

## 4. Project Scope and Management

This collaborative project took advantage of strategic resources from statewide 911 management and operations, the core collaboration project team, state standards and specifications, state technical services, the statewide GIS coordination structure, and ongoing statewide initiatives. The following are the specific project responsibilities shared and distributed among the six core members of the project collaboration team. Figure 3 is the project organization chart.

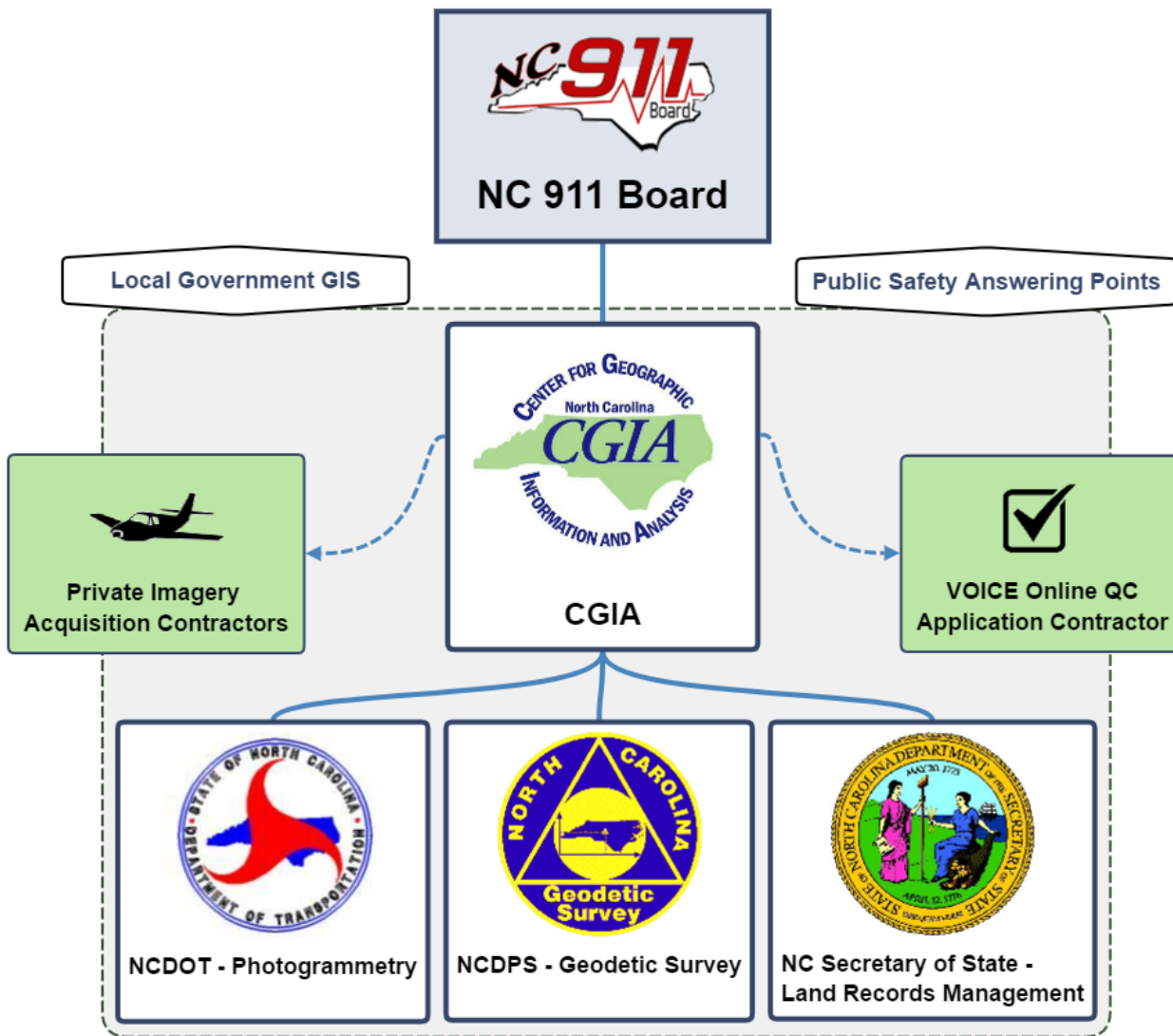


Figure 3: Project Collaboration Team

### 4.1. NC 911 Board

The NC 911 Board is the client for the orthoimagery product. The NC 911 Board requires a consistent, accurate, high quality product for distribution to PSAPs across the study area. It provided guidance to CGIA through the planning, implementation, and delivery stages of the project. The NC 911 Board received periodic briefings and monthly status updates on the project and provided feedback to the project team as needed.

### 4.2. NC Center for Geographic Information and Analysis (CGIA)

CGIA performed services including Qualifications-Based Selection processes, project administration, invoicing, quality

control, and product delivery. The agency houses the NC OneMap Geospatial Portal and specified the detailed requirements for information technology upgrades in the NC OneMap framework. CGIA performed outreach by communicating with counties and cities, contractors, state agencies, federal partners, and the public to explain the products and benefits of the program, performed quality review of 5% of the project study area, insure compliance with DOD national security, and served as project manager for a collaboration of state agencies under contract to the Department of Information Technology (DIT). These included the NC Department of Public Safety-NC Geodetic Survey (NCGS), the NC Department of Transportation (NCDOT) Photogrammetry Unit, and five private sector contractors. In addition, CGIA solicited guidance and recommendations from the Department of the Secretary of State and the Working Group for Orthophotography Planning within the Statewide Mapping Advisory Committee.

#### 4.3. NC Department of Transportation (NCDOT) Photogrammetry Unit

NCDOT performed technical and advisory services. NCDOT has expertise and experience in managing orthoimagery acquisition, utilizing software for evaluating photogrammetric deliverables, performing oversight, developing, evaluating, and approving compliance documentation, and managing and performing visual quality control of up to 30% of the study area. NCDOT served as the core responsible party for insuring compliance of photogrammetry specifications.

#### 4.4. NC Department of Public Safety-NC Geodetic Survey (NCGS)

NCGS performed technical advisory services for survey control, establishing field network systems, performing field maintenance, and for managing independent field quality control through a QBS process. NCGS has expertise and experience in managing photogrammetric deliverables, performing oversight, developing, evaluating, and approving compliance documentation, and managing and performing field quality control. NCGS served as the core responsible party for upgrading and maintaining the Continuously Operating Reference Station (CORS) network for GNSS in North Carolina, maintaining the aerial camera validation range located in Surry County, setting survey control standards, and administering compliance for horizontal quality control.

#### 4.5. NC Department of the Secretary of State (NCSOS)

The Department of the Secretary of State (NCSOS) is the author of the State *Standard* for orthoimagery acquisition. This standard was used as a foundational component of the statewide effort to ensure accuracy and consistency in the final product delivered to the PSAP community and other users. NCSOS served as the core responsible party for administering compliance to the orthophoto standards that serve as the fundamental framework of specifications for the acquisition contractors.

#### 4.6. NC Primary Public Safety Answering Points

The Primary Public Safety Answering Points (PSAPs) and the local government representatives were critical to the successful completion of the project. These collaborators are the local experts for their geographic area. PSAP and county representatives performed early quality review and submitted issues for resolution, received final delivery of the orthoimagery product from CGIA, and performed final 60-day review of the orthoimagery products.

#### 4.7. Photogrammetric Services Contractors

Private contractors, managed by CGIA with support from collaborating members of the state project team, performed aerial imagery acquisition and processing of 27 counties. The five primary contractors were: Atlas Geographic Data, Quantum Spatial, Sanborn Map Company, Spatial Data Consultants, and Surdex Corporation.

## 5. Project Phases

The purpose of this section is to summarize the core phases of work, to document the relevant variations in this project relative to past projects, and to present future recommendations. The Statewide Orthoimagery Program consists of four mirrored phases each consistent in approach where each subsequent phase builds not only on the success of the previous phase but also on recommendations for improvement. The project term begins in July and proceeds through a two-year cycle ending in June. The project lifecycle is defined by four core blocks:

- 5.1 Project Initiation, QBS, Procurement, and Planning
- 5.2 Imagery Acquisition and Post Processing Production
- 5.3 Quality Control
- 5.4 Implementation and Closeout

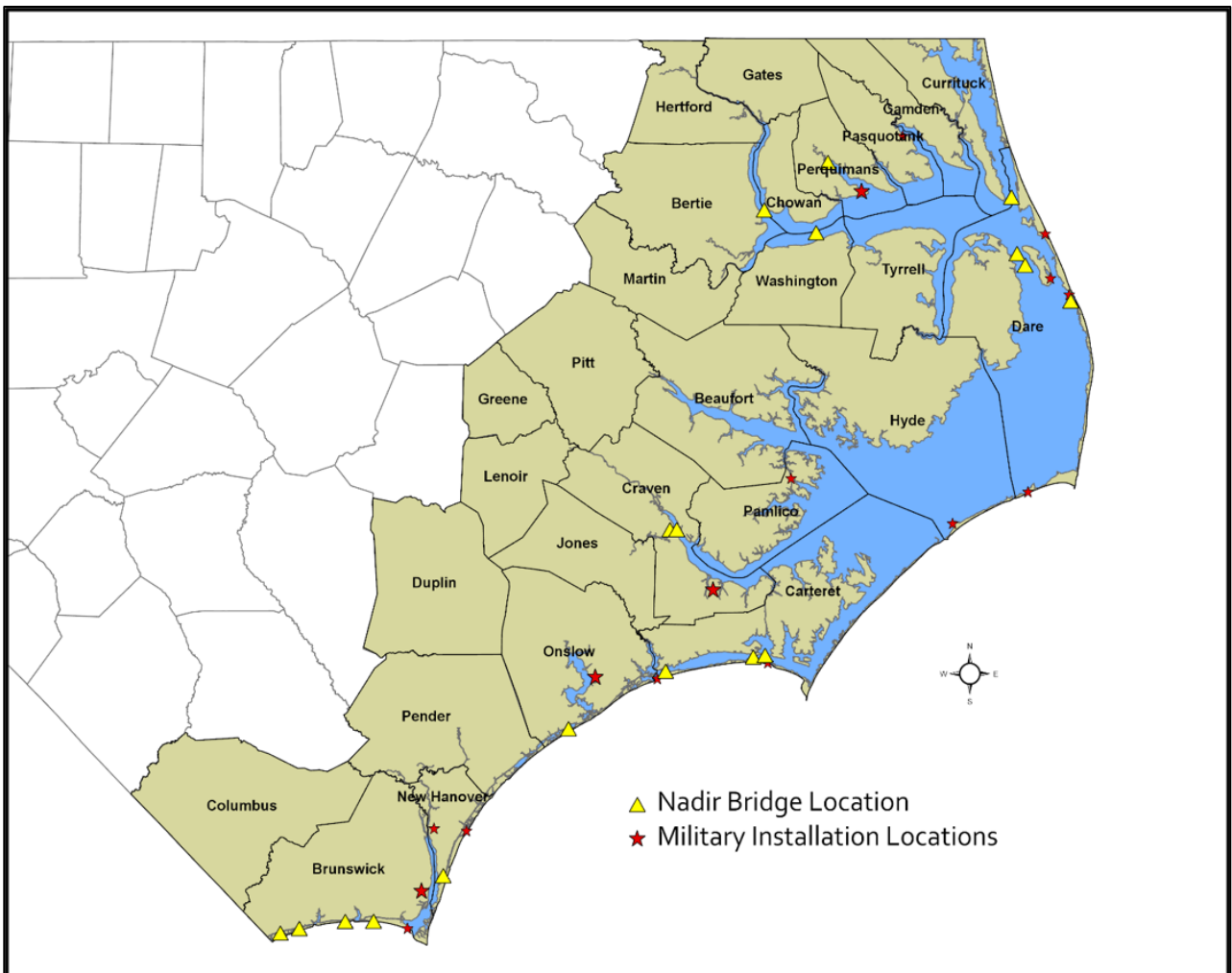


Figure 4: Project Area

### 5.1 Block 1: Project Initiation, QBS, Procurement, Planning (Jul 2019 – Jan 2020)

The purpose of this block is to develop contracts with public and private sector project partners, and to begin other administrative tasks in preparation for orthoimagery acquisition. The magnitude of this project required engagement



of four private photogrammetric services contractors with specific expertise in photogrammetry. CGIA adheres to the guidelines set forth in the Mini-Brooks Act (G.S. 143-64.31 et seq) to select firms qualified to provide such services based on demonstrated competence and qualification for the type of professional services required without regard to fee.

The selection criteria implemented for selecting private firms consisted of four scoring categories: past performance on similar projects, specialized expertise in the type of project, adequate equipment and capacity, and technical approaches. Specific requirements for this project area required demonstrated technical expertise for acquiring imagery in mountainous terrain and approaches for minimizing building lean in downtown urban areas. The project team determined the region necessitated four acquisition vendors to successfully collect in the available collection window and selected the top four vendors based on the scoring of the selection criteria. Future projects in this region may consider the addition of a fifth vendor due to the difficulty of collection in the mountains. By having more aircraft available to fly in the western half of the project area, this would ensure efficient completion of Block 2 when flying conditions are optimal.

### 5.2 Block 2: Acquisition and Post Processing Production (Jan 2020 – Jun 2020)

The purpose of this task is to finalize technical planning details, initiate acquisition and complete before leaf-on conditions, conduct workshops, finalize radiometry requirements, initiate outreach, implement the VOICE quality review application, and develop, engage, review, and approve quality compliance documentation. The project study area is depicted in Figure 4.

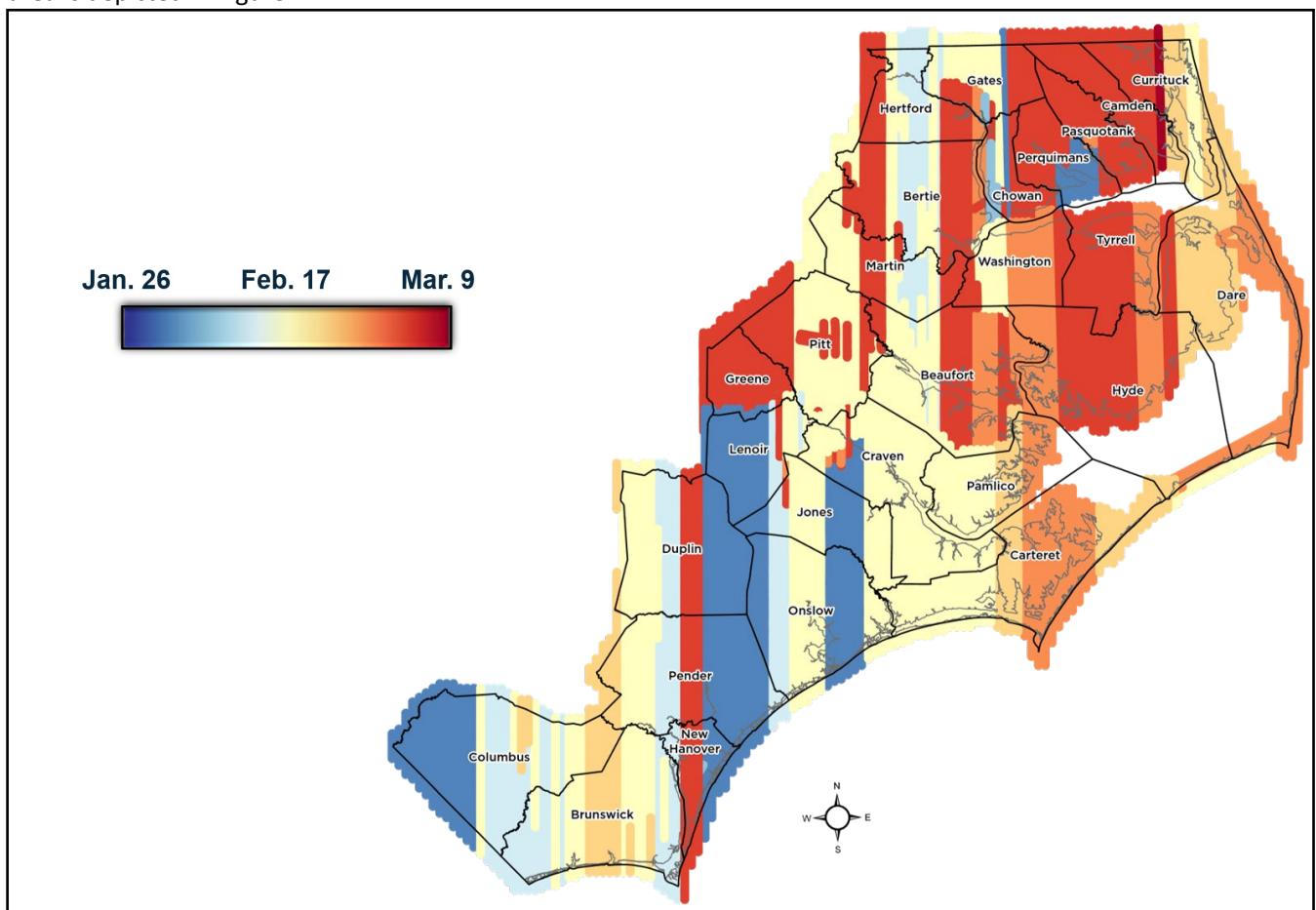


Figure 5: Final Acquisition

The most significant achievement of this phase was successful collection of the coastal region prior to leaf-on conditions. The coastal region presents many challenges to acquisition, such as multiple military installations with restricted airspace, seasonal flooding issues, and relatively early leaf-out conditions. In 2020, a February winter storm even brought snow to the region that resulted in delays in acquisition. Therefore, completing all acquisition in such a short period of time is a testament to the hard work and proactive planning of the project team and contractors. Figure 5 summarizes the acquisition for 2020. The decision by the project team to contract with five private vendors for acquisition proved crucial to completing the project before leaf-out conditions as it brought a total of ten aircraft to the project.

### 5.3 Block 3: Quality Control (Jun 2020 – Nov 2020)

The purpose of this task is to perform a full circle quality review to assure that the imagery meets state specifications and is free of systematic errors or systematic visual quality issues and to verify the quality and completeness of the product (including review, issues submittal, resolution, resolution submittal review, and signoff). Per the direction and vision of the NC 911 Board, local stakeholders and the Project Team were actively involved early in the visual quality assurance/quality control process ultimately yielding a better product with minimal follow up issues. Specifically, a representative sample of 30% NCDOT, 5% CGIA, and a 25% County quality review of the study area was the desired goal. In 2020, approximately 10,347 square miles were reviewed that represents 66% of the total study area. This is accomplished through a system called VOICE. VOICE (Virtual Online Inspection, Checking and Editing) is a GIS web-based tool that hosts imagery stored in the cloud. A total of 170 issues were found during VOICE review and contractors fixed these issues prior to final delivery of the products. This is a much smaller amount compared with past projects. In this same project area in 2016, 415 issues were found and fixed during VOICE review.

In addition, this Block consists of developing the alternative Multi-Resolution Seamless Image Database (MrSID) products (including a single file product that extends seven miles outside the county boundary), assembling neighboring county imagery, reviewing other applicable relevant data such as metadata, and packaging for delivery. Orthoimagery data from adjacent state partners in South Carolina and Virginia are also brought in and processed with the final products to ensure minimum coverage requirements are met.

### 5.4 Block 4: Implementation and Closeout (Dec 2020 – Mar 2021)

1. Deliver the final imagery through U.S. certified mail due to COVID-19 restrictions. Each Primary PSAP received a portable disk drive that covers the minimum seven miles outside of their applicable counties. The products were distributed using certified U.S. Postal Service mail due to COVID-19 restrictions in early December. A virtual delivery meeting with 60 participants from 27 counties was held on December 2, 2020.
2. Make public release of data on NC OneMap and implement DIT hosting services.
3. Evaluate the deliverable through a 60-day evaluation period.
4. Review final report submittals and develop final project report.
5. Perform final project management activities relevant to closeout and financial assessment.

In February of 2021, NCDOT discovered an small area in Currituck County with a slight horizontal displacement in the final imagery above the 1.0 foot standard used for horizontal accuracy on this project. After working with the vendor, Quantum Spatial, to determine the extent of the issue, it was found that 130 tiles that spanned portions of Currituck, Camden, and Pasquotank Counties needed to be reprocessed and redelivered to rectify the issue. The displacement was very minor and would not impact use of the imagery for emergency response. However, through analyzing the cause of the issue, it was determined that Quantum Spatial did not follow standard photogrammetric practices of using enough tie points between exposures which resulted in over-reliance on GNSS-IMU to create the imagery tiles. The project team will implement a more stringent check of tie points used for future projects to avoid this issue going forward.

## 6 Project Website (<https://nconemap.gov/Orthoimagery.aspx>)



Figure 7: Program overview website

Maintaining a project website facilitates simple communication through web content mapping and delivers a central means of project communication. Through this current statewide cycle, this line of communication has continued to be a valuable tool containing useful applications for assessing project status, learning about the history of the program (Figure 7), and accessing end products through imagery discovery tools and tutorials. This method for conveying current project status while also providing context for the overall program continued through the 2020 Coastal orthoimagery project.

A major focus of the project website is for end users to be able to discover and download any available products. Figure 8 demonstrates how a PSAP can interactively select a county on the map and download the single-file county imagery file. This is important for those counties that may be on the border of a project area and might need to

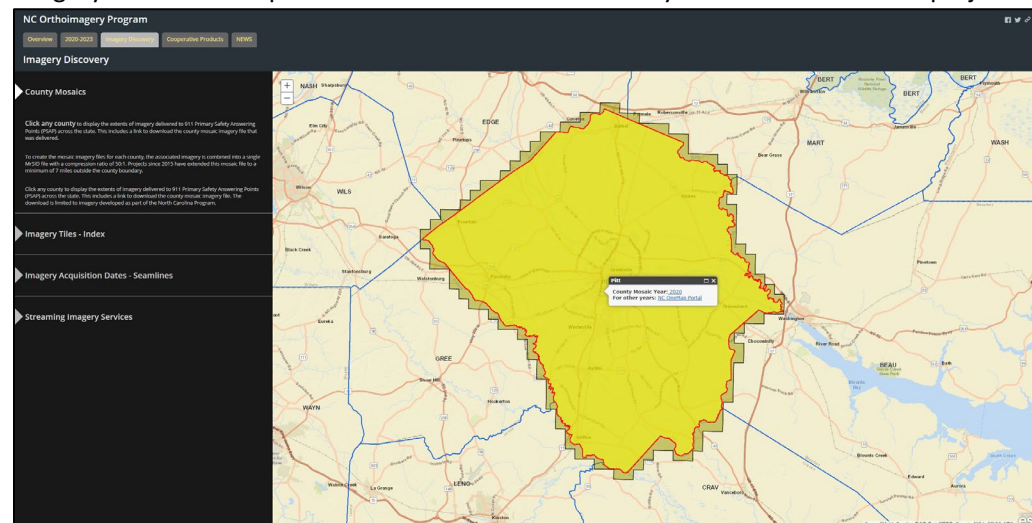


Figure 8: Imagery Discovery section for users to identify and download imagery

download an adjacent county file that was produced as part of a subsequent project year. This resource allows them to keep their regional imagery files current without the need to mail hard drives to CGIA, the neighboring PSAP, or the 911 Board.

A major improvement was made to the overall NC OneMap website in 2019. NC OneMap is an important resource for the State of North Carolina that provides access to authoritative data and web services from many local, state, and federal government agencies. As part of the redesign of NC OneMap, the statewide orthoimagery products were highlighted on an imagery initiative page (Figure 9). On this new NC OneMap imagery site, end-users can search for available products and get access to the imagery and metadata. There are various options for either using online streaming services or downloading certain products for each of the past imagery projects going back to the initial 2010 statewide collection. There are also web applications that can be used to view details about the imagery products. The Orthoimagery Program website is also linked here for seamless navigation to view the entire history and details of the program.

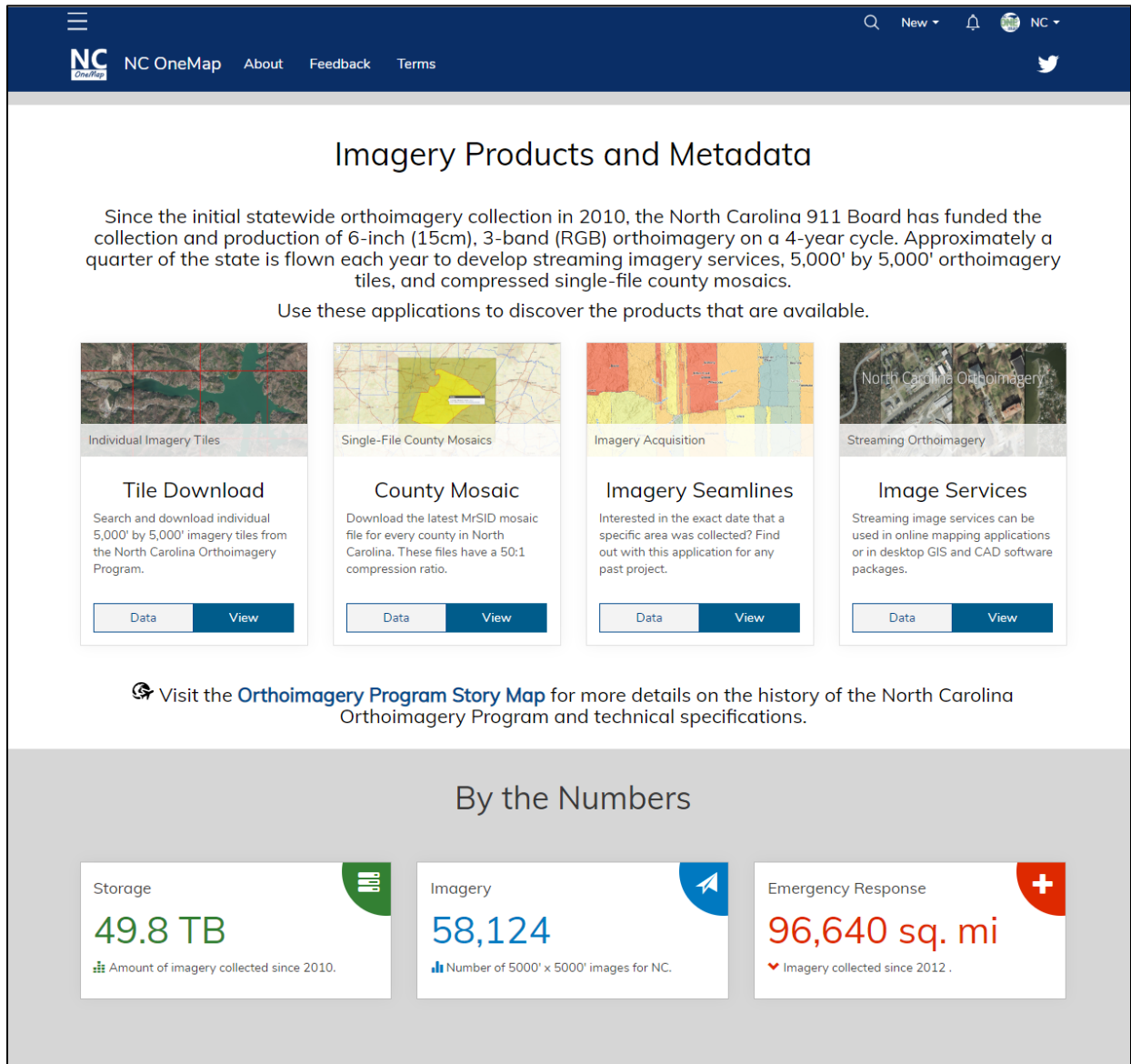


Figure 9: New redesigned NC OneMap website for imagery products and metadata

## 7. Summary

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The Coastal Orthoimagery 2020 project is the initial phase of the third update cycle of the 2010 statewide orthoimagery product. The project team delivered 17,484 tiles of orthoimagery covering 15,679 square miles in December of 2020. This area included 26 PSAPs and encompassed 27 counties in the coastal plain of North Carolina. The project team, PSAPs, and local governments reviewed 10,347 square miles were reviewed that represents 66% of the study area. Only 170 total issues were fixed by the contractors following review by the contractor, CGIA, NCDOT, and the PSAP and county GIS reviewers. This is much lower than past projects, with a total of 415 issues found during review of the same project area in 2016. The data was loaded into the NC OneMap data resource for widespread accessibility on the scheduled date of December 17, after final delivery to the PSAP client.

The 2020 project continues the tradition of past NC 911 Board Orthoimagery projects of adhering to tight standards and oversight of contractor deliverables. It begins with engaging private contractors through competitive negotiations driven through qualifications and not low bid. Throughout the process, a focus is put on value to the NC 911 Board to ensure that a quality product is delivered to each PSAP at a reasonable cost. The Team administers tightened specifications based on 2<sup>nd</sup> generation sensor technology which in summary mean contractors can fly higher, faster, and generate less airtime resulting in savings to the NC 911 Board. At the same time, the Project Team evaluates economic indicators such as fuel price to make sure contractors' prices are in line with trends and expectations and not linear curves of increase.

Adherence to project guidelines is of paramount importance. Through explicit contractual terms and conditions, CGIA will not tolerate sub-standard performance and will enforce compliance if applicable at no extra cost to the NC 911 Board. The project team performs internal assessments of the project, yielding lessons learned and recommendations for improvement in the areas of project planning/management, image acquisition and processing, quality control, and NC OneMap implementation. The project team strives to improve upon the program during each subsequent phase.

The Coastal Orthoimagery 2020 project was completed on time and under budget with a product that meets the needs of the PSAPs for current, consistent, accurate, and complete orthoimagery. The product has added benefits for many stakeholders beyond the 911 community thus satisfying the vision of the NC 911 Board for delivering a product accessible to all citizens of North Carolina.

## 8. Acknowledgements

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This project achieved success because of the effective collaboration and teamwork among public agencies and private sector service providers. The project team would like to recognize the following participants for helping keep the project on task, on time, and within budget to the benefit of all.

NC 911 Board: Eric Boyette (Chair), Pokey Harris (Executive Director), Tina Gardner (Regional PSAP Coordinator), Angie Turbeville (Regional PSAP Coordinator), Marsha Tapler (Financial Analyst), David Newberry (Regional PSAP Coordinator), and Stephanie Conner (Regional PSAP Coordinator).

### Geographic Information Coordinating Council

NC Department of Transportation-Photogrammetry Unit: Keith Johnston, Rob Allen, Richard Greene, Don Early, Nick Short, Donnie Griffin, Marc Swartz, Mohammed Khan, Gena Neal, Jackie Speir, Pam Harrington, Angie Guin, Paul Chromy, and Nelson Holden

NC Department of Public Safety-NC Geodetic Survey: Gary Thompson, Watson Ross, and Scott Lokken

NC Department of the Secretary of State-Land Records Management Section: John Bridgers and Rich Elkins

NC Attorney General's Office: Richard Bradford

NC Department of Administration: Margaret Serapin

### NC Department of Information Technology:

- Administration & Finance Division: Mark Newsome, Joey Bullock, Dawn Urey
- State DIT Purchasing Procurement and Contracts: Jen Johnson, Judy King, Shamekia Gales, Joetta Brunson
- Administrative Support: Susan Chan, Brittany Jacobs

### Statewide Mapping Advisory Committee

Working Group for Elevation and Orthophotography Planning: Gary Thompson, Keith Johnston, Dan Madding, Sean McGuire, Rich Elkins, Allan Sandoval, Hope Morgan, John Bridgers, Silvia Terziotti, Erik Hund, Doug Newcomb, Stephen Dew, Kevin Jamison, Chris Koltyk, and Jeff Brown

Private Service Providers: Imagery Acquisition and Production and Quality Control

- Atlas Geographic Data
- Sanborn Map Company
- Spatial Data Consultants
- Surdex Corporation
- Quantum Spatial

Private Service Providers: Horizontal Accuracy QC

- CESI Civil-Geotechnical-Surveying

Finally, I would like to thank CGIA staff for their persistence and attention to detail throughout the project: John Derry, Ben Shelton, Brett Spivey, David Giordano, Matthew McLamb and Jeff Brown.

Tim Johnson, Director, GISP  
NC Center for Geographic Information and Analysis  
919-754-6588  
[tim.johnson@nc.gov](mailto:tim.johnson@nc.gov)

## Appendix A: Definitions

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### **Public Safety Answering Point (PSAP)**

A public safety answering point is a call center responsible for answering calls to an emergency telephone number for police, firefighting, and ambulance services.

### **Aerial Photography**

Aerial photography is any photography taken from the air. Typically, aerial photographs are taken with specialized, high-quality, large format cameras that point down vertically from the aircraft to the ground below.

Orthophotography is derived from overlapping vertical aerial photography. Digital cameras are becoming more prevalent than film cameras for projects in North Carolina.

### **Aerial Triangulation**

The primary purpose of aerial triangulation (AT) is to compensate for errors in ground positioning of the imagery. GNSS positional data is processed against the stationary GNSS base stations established throughout the project area. Also, data from the sensor (camera) is processed to provide the continuous orientation and position of the sensor throughout the flight of the aircraft. The orientation and position is used with the raw imagery data to produce a georeferenced image. The triangulation process involves multiple viewing angles and point matching to produce a network of image points. Ground control points are also integrated in the processing to produce imagery that fits the terrain within accuracy specifications.

### **Color Infrared (CIR)**

A color infrared (CIR) image is a form of multispectral aerial imagery that includes part of the visible light spectrum as well as the near infrared part of the spectrum, which is invisible to the human eye.

### **Continuously Operating Reference Station (CORS)**

The National Geodetic Survey (NGS), an office of the National Oceanic and Atmospheric Administration (NOAA) National Ocean Service, coordinates a network of continuously operating reference stations (CORS). Each CORS site provides Global Navigation Satellite System (GNSS - GNSS and GLONASS) carrier phase and code range measurements in support of three-dimensional positioning activities throughout the United States and its territories. Surveyors, GIS/LIS professionals, engineers, scientists, and others can apply CORS data to position points at which GNSS data have been collected. The CORS system enables positioning accuracies that approach a few centimeters relative to the National Spatial Reference System, both horizontally and vertically.

### **Datum**

A set of constants specifying the coordinate system used for geodetic control, i.e., for calculating the coordinates of points on the Earth. This project uses the standard datum for orthoimagery in North Carolina: North America Datum (NAD) 1983 with the readjustment from 2011.

### **Digital Orthoimagery (DOI)**

Digital Orthoimagery is a remotely-sensed digital picture, stored in a raster data format. It is a geo-referenced image prepared from a vertical photograph or other remotely-sensed data in which displacement of objects due to sensor orientation and terrain relief have been removed.

### **Digital Elevation Model (DEM)**

Digital Elevation Model is a sample of ground elevations points used to model a land surface. It is a required element in the processing of digital orthoimagery based on the accurate identification of control points in the images whose ground positions are accurately known. North Carolina has statewide elevation datasets derived from Light Detection and Ranging (LiDAR) technology.

## **Geographic Registration**

Registration is the spatial referencing of an orthoimage to an area on the earth's surface. An image must be geographically registered in order to use it in a GIS as an overlay.

## **Global Navigation Satellite System (GNSS)**

A system of satellites, computers, and receivers that is able to determine the latitude and longitude of a receiver on Earth by calculating the time difference for signals from different satellites to reach the receiver.

## **Ground Control Point**

Points of accurately known geographic location used to register imagery and other coverage data to ground position. In preparation for flights, white panels are placed in visible locations (ground control points) and their positions are surveyed and recorded. For quality control, aerial imagery contractors compare the geospatial location of the ground control points in the imagery to the recorded locations. Third party horizontal quality control may use the ground control points and other recorded reference points to check the accuracy of visible locations in the imagery.

## **Ground Sample Distance (GSD)**

Ground sample distance is the area on the ground represented by each pixel in a digital orthoimage. The smaller the pixel, the more detail is visible in the image. North Carolina requires pixel of one-foot or smaller, and 6-inch and even 3-inch pixels are prevalent over urban areas. This project uses 6-inch GSD.

## **High Accuracy Reference Network (HARN)**

The HARN is a statewide network of survey monuments measured to an extremely high level of accuracy with respect to, and as part of, a similar nationwide network of high-accuracy points. The positions of these monuments are established using GNSS and other sophisticated space-based measuring technologies. HARN is not expressed as part of the datum for this project (NAD 1983(2011)).

## **Metadata**

Metadata is information in standard format about the content, quality, and condition of a dataset. For imagery, metadata includes when and how images were captured from aircraft, processing, extent, contact information, and other items that inform users of the imagery products.

## **Multi-spectral**

Digital orthoimagery collected in multiple bands, with each band corresponding to a portion of the spectrum. Various band combinations may be combined to assist in the identification of specific ground features, via automated image processing techniques.

## **Nadir**

Nadir is the point on the ground directly below the aircraft following the force of gravity toward the earth's surface.

## **Natural Color**

Natural color is derived from three (red, green, blue) of the four digital bands captured by digital cameras. Commonly used for inventory analysis, cartographic verification, and data verification. Especially useful for showing man-made features, which typically occur in a wider range of colors than natural features.

## **Orthoimagery**

An orthoimage is remotely sensed image data in which displacement of features in the image caused by terrain relief and sensor orientation have been mathematically removed. Orthoimagery combines the image characteristics of a photograph with the geometric qualities of a map. An orthoimage or orthophoto is an aerial photograph (or digital image) geometrically corrected ("orthorectified") such that the scale is uniform: the photo has the same lack of distortion as a map. Unlike an uncorrected aerial photograph, an orthoimage can be used to measure true distances, because it is an accurate representation of the earth's surface, having been adjusted for topographic relief, lens



distortion, and camera tilt. Orthoimagery is commonly used in the creation of a Geographic Information System (GIS). Software can display the orthoimage and enable an operator to digitize or place line work, text annotations or geographic symbols (such as hospitals, schools, and fire stations).

### **Panchromatic**

A film type which renders imagery as gray scale. It generally provides the best resolution and least amount of storage space.

### **Pixel**

A pixel is a two-dimensional picture element that is the smallest non-divisible element of a digital image. For this project, a pixel represents 6 inches on the ground, and each 5,000 by 5,000-foot tile has 10 million pixels.

### **Positional Accuracy**

This refers to the variation that can exist between coordinates for a feature on the image to the actual location of that feature on the earth's surface.

### **Remote Sensing**

The process of collecting data about objects or landscape features without coming into direct physical contact with them.

### **Scale**

Scale is the ratio of distances on a map to those same distances on the earth's surface. Ground resolution relates to mapping scale. For example, a map scale of 1 inch on the map = 200 feet on the ground is equivalent to an image ground resolution of 6 inches (pixel size). A scale of 1-to-400 is equivalent to 1-foot resolution. A scale of 1-to-100 is equivalent to 3-inch ground resolution.

### **State Plane**

A coordinate system (grid) of plane rectangular (x, y) coordinates for pre-determined zones in each of the 50 states. Local governments in North Carolina use state plane with map units in feet.

### **Tile**

Images are subdivided into smaller units to reduce the physical file size and the amount of computer processing required. Tiles usually cover a regular rectangular grid. The tile size for 6-inch resolution images in North Carolina is 5,000 feet by 5,000 feet.

Sources: NC Center for Geographic Information and Analysis; adapted from New York State Geographic Information System Clearinghouse; the Federal Geographic Data Committee glossary; USGS metadata records, and various project documents.

***Tab 5***  
**Executive Director's Report**  
**Pokey Harris**

***Tab 5 a)***  
**Retirement of PSAP Director Mike Edge**  
**Scotland County**

***Tab 5 b)***  
**Board Appointment Status**

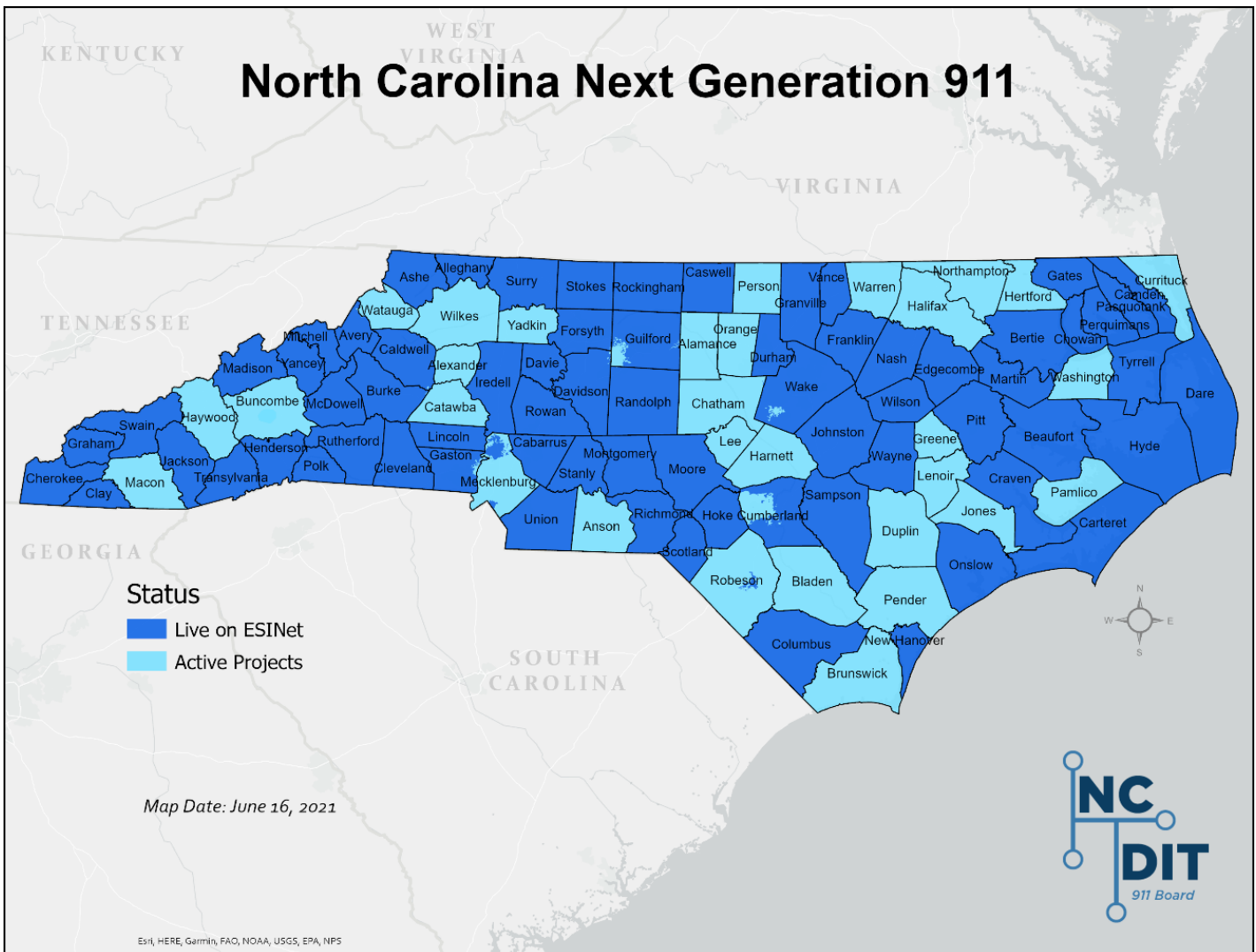
***Tab 5 c)***  
**Biennial Audit Status**

***Tab 5 d)***  
**State 911 Plan Update**

# Tab 5 e)

# NextGen 911 Migration Status

## NC NG911 Migration Status



# ESInet Migrations

## June 6, 2021 – June 16, 2021

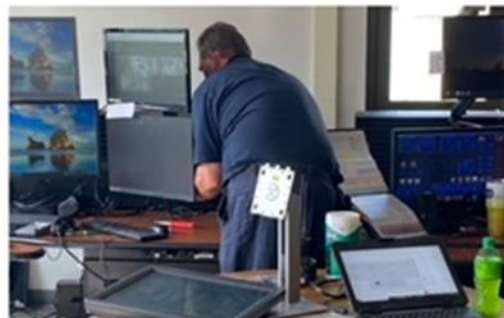
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*Due to ESInet migrations now being conducted under Covid-19 restrictions and limited accessibility requirements, photos and quotes may or may not be included.*

## Kudos and Congratulations to All!!!

### Avery County 911 (Western Region) ESInet Migration June 9, 2021

- Migration as i3
- Vesta Hosted Call Handling Equipment
- First Live Call at 1128 Hours EST
- PSAP #81/Physical Location #129 (Including Backups)



# **Caswell County 911 (North Central Region) ESInet Migration June 9, 2021**

- Migration as i3
- Vesta Hosted Call Handling Equipment
- First Live Call at 1554 Hours EST
- PSAP #82/Physical Location #131 (Including Backups)

# **Johnston County 911 (Backup Center) (South Central Region) ESInet Migration June 15, 2021**

- Migration as i3
- Viper Hosted Call Handling Equipment
- First Live Call at 1110 Hours EST
- PSAP #83/Physical Location #133 (Including Backups)



# **Pineville PD 911 (South Central Region) ESInet Migration June 16, 2021**

- Migration as i3
- Vesta Hosted Call Handling Equipment
- First Live Call at 1126 Hours EST
- PSAP #84/Physical Location #134 (Including Backups)

# **Cornelius PD 911 (South Central Region) ESInet Migration June 16, 2021**

- Migration as i3
- Vesta Hosted Call Handling Equipment
- First Live Call at 1439 Hours EST
- PSAP #85/Physical Location #135 (Including Backups)



***UPCOMING ESINET MIGRATIONS  
SCHEDULED PRIOR TO JUNE  
911 BOARD MEETING***

**Buncombe County 911  
(Western Region)  
June 23, 2021**

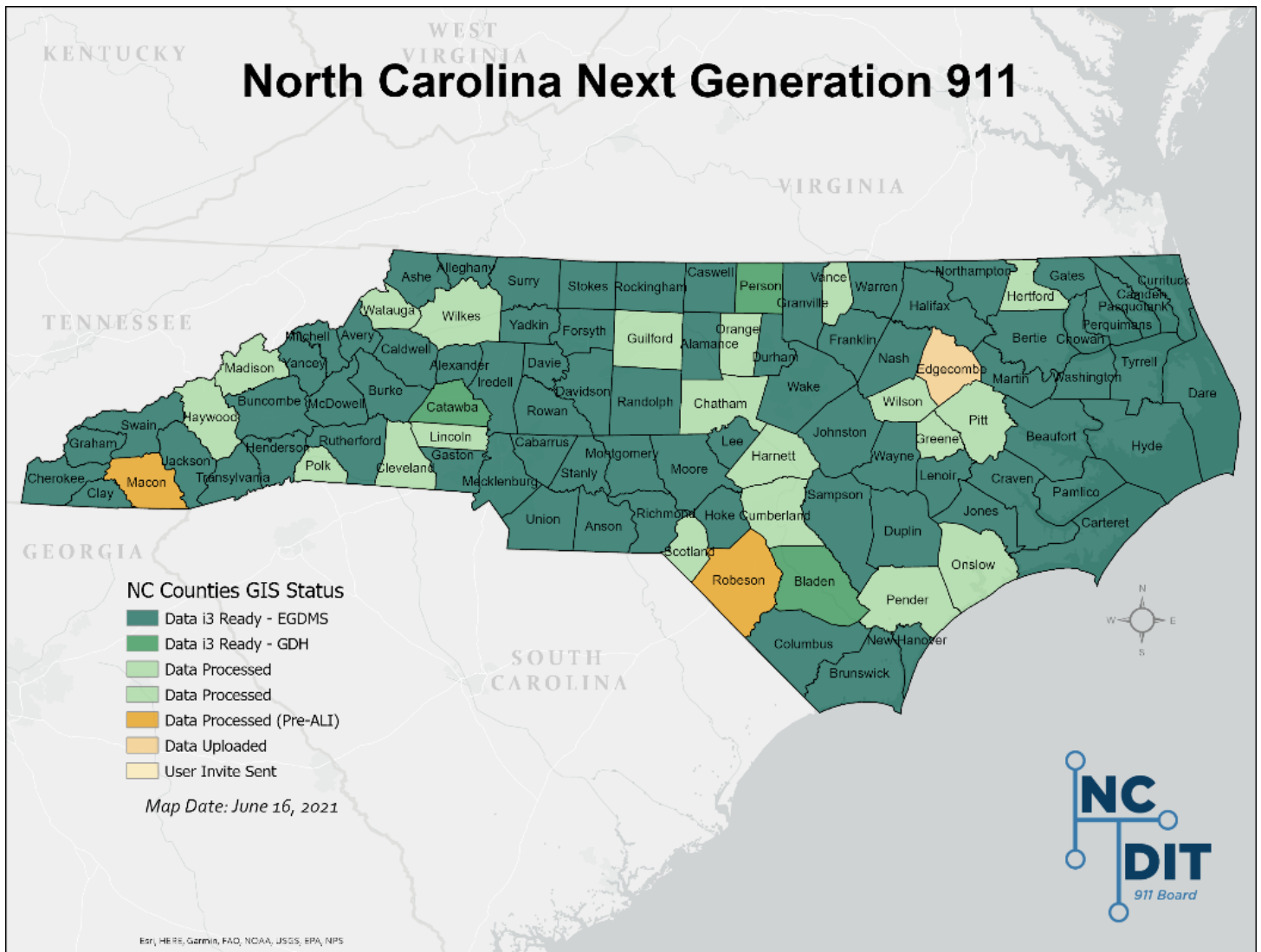
**Asheville PD 911 (Secondary PSAP)  
(Western Region)  
June 23, 2021**

**Washington County 911  
(Eastern Region)  
June 24, 2021**

# Tab 5 f)

# NextGen 911 GIS Status Map

## NC NG911 GIS Status





***Tab 5 g)***

**988 Planning Coalition –  
National Suicide Prevention  
Lifeline**

***Tab 5 h)***

**Legislative Update  
Richard Bradford**

***Tab 5 i)***

**Staffing Update**

***Tab 6***

**Executive Committee Report  
Donna Wright**

***Tab 7***

**Education Committee Report**

**Chuck Greene**

***Tab 8***

**Funding Committee Report**

**David Bone**

***Tab 8 a)***

**Wilkes County Seat Count**

**Request**

***(Roll Call Vote Required)***

**Stephanie Conner**



# Wilkes County Sheriff's Office

381 Executive Drive  
Wilkesboro, North Carolina 28697

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Chris L. Shew,  
Sheriff

Coordinator Stephanie Connor,

I am writing this on behalf of the Wilkes County Communications Center to formally request a review and increase in Wilkes County's seat count. Currently, Wilkes County is approved for 4 seats in the primary center and 3 backup positions. Wilkes County would like to formally request 1 additional seat in the primary center as they have seen an influx of call volume and staffing demand throughout the course of time since this has last been revisited. In the year 2020, the Wilkes County Communications Center received 36,635 911 calls and currently has 17 full-time certified staff with 14 part-time certified staff. Wilkes County Communication Center dispatches all primary law enforcement agencies, medical services, fire services, and numerous other non-emergency services throughout the county as they are the only PSAP located within the county. I thank you for your consideration in this matter and should you have any questions please feel free to contact me anytime.

Logan G. Kerr

A handwritten signature in blue ink, appearing to read "L.G. Kerr", written over a faint grid background.

Major of Operations

CC: Sheriff Chris Shew, Director Todd Lankford, & Director Pokey Harris

***Tab 8 b)***

**General Committee Report**

***Tab 9***

**Finance Team Report**

**Marsha Tapler/Kristen Falco/  
Sarah Templeton**

***Tab 10***

**Grant Committee Report**

**Jeff Shipp/Pokey Harris**

***Tab 11***

**Standards Committee Report**

**Donna Wright**

***Tab 12***

**Technology Committee Report**

**Jeff Shipp/Gerry Means/Stanley Meeks**

***Tab 13***

**911 Regional Coordinator Reports**

**Turbeville/Newberry/Conner/Gardner**

***Tab 14***

**Other**

**Pokey Harris**

***Adjourn***

*Next NC 911 Board Meeting – Friday, July 23, 2021, 10:00 AM – Noon  
TBD (Potential for In-Person Hybrid Meeting)*

