

October 27, 2017

Senator Ken Yager
Chairman, Fiscal Review Committee
8th Floor, Rachel Jackson Bldg.
Nashville, TN

Attn: Ms. Krista Lee

Dear Chairman Yager:

Please find attached, for the Fiscal Review Committee's consideration, documentation of an Amendment Request pertaining to the State's contract with U.S. Geological Survey (USGS), for the provision of Light Detection and Ranging (LiDAR) Services.

The requested Amendment #3 extends the contract one year and adds an additional \$817,993.45 to the Maximum Liability to obtain enhanced elevation LiDAR data for additional Tennessee counties that were not part of the original coverage area or Amendments #1 and #2. The new Tennessee counties are identified in Attachment 8.

The Department of Finance and Administration respectfully requests to be placed on the agenda at the next Fiscal Review Committee meeting.

Thank you for your consideration of this request.

Sincerely,



Emily Gibson, Executive Director
Enterprise Governance and Administration
Strategic Technology Solutions (STS)

Supplemental Documentation Required for
Fiscal Review Committee

*Contact Name:	Dennis Pedersen	*Contact Phone:	615-741-9356		
*Presenter's name(s):	Dennis Pedersen				
Edison Contract Number: <i>(if applicable)</i>	45314	RFS Number: <i>(if applicable)</i>	31701-03123		
*Original or Proposed Contract Begin Date:	April 1, 2015	*Current or Proposed End Date:	March 31, 2018		
Current Request Amendment Number: <i>(if applicable)</i>	3				
Proposed Amendment Effective Date: <i>(if applicable)</i>	January 9, 2018				
*Department Submitting:	Finance and Administration				
*Division:	Strategic Technology Solutions (STS)				
*Date Submitted:	October 27, 2017				
*Submitted Within Sixty (60) days:	Yes				
<i>If not, explain:</i>					
*Contract Vendor Name:	U.S. Geological Survey (USGS)				
*Current or Proposed Maximum Liability:	\$3,013,055.84				
*Estimated Total Spend for Commodities:					
*Current or Proposed Contract Allocation by Fiscal Year: <i>(as Shown on Most Current Fully Executed Contract Summary Sheet)</i>					
FY:2015	FY:2016	FY:2017	FY:2018	FY	FY
\$0.00	\$1,788,378.34	\$642,902.00	\$581,775.00	\$	\$
*Current Total Expenditures by Fiscal Year of Contract: <i>(attach backup documentation from Edison)</i>					
FY:2015	FY:2016	FY:2017	FY:2018	FY	FY
\$0.00	\$944,175.81	\$1,232,475.20	\$0.00	\$	\$
IF Contract Allocation has been greater than Contract Expenditures, please give the reasons and explain where surplus funds were spent:			At the time the original contract was approved, due to weather and changing of the season (trees budded and leafed out); flights were rescheduled later in the year to obtain enhanced elevation LiDAR data. This resulted in decreasing FY2015 Contract Allocation to \$0.00 and reallocating the dollars to FY2016. So LiDAR services that were to be paid in FY 2015 were paid in FY2016 and partially in FY2017.		
IF surplus funds have been carried forward, please give the reasons			Surplus funds were not carried forward.		

Supplemental Documentation Required for
Fiscal Review Committee

and provide the authority for the carry forward provision:			
IF Contract Expenditures exceeded Contract Allocation, please give the reasons and explain how funding was acquired to pay the overage:		Contract Expenditures have not exceeded the Maximum Liability.	
*Contract Funding Source/Amount:			
State:		Federal:	
<i>Interdepartmental:</i>	\$2,441,511.56	<i>Other:</i>	\$571,544.28
If “ <i>other</i> ” please define:		STS-GIS funds, Balance	
If “ <i>interdepartmental</i> ” please define:		Original Funding Source from TDEC and TDOT of \$669,960.28 each Amd 1 Funding source TDOT, \$599,866.00 Amd 2 Funding source TDOT, \$501,725.00	
Dates of All Previous Amendments or Revisions: <i>(if applicable)</i>		Brief Description of Actions in Previous Amendments or Revisions: <i>(if applicable)</i>	
Amd 1 – February 1, 2016		Extend Term, Increase Dollars, Add counties	
Amd 2 – December 2016		Extend Term, Increase Dollars, Add counties	
Method of Original Award: <i>(if applicable)</i>		U.S. Geological Survey (USGS) Agreement – GU-USGS	
*What were the projected costs of the service for the entire term of the contract prior to contract award? How was this cost determined?		USGS competitively awarded Geospatial Product and Service Contracts (GPSC). Utilizing the CPO approved GU-USGS Agreement, F&A STS contracted with USGS for USGS to provide, through the GPSC contracts, LiDAR Services. Costs were predetermined based on an Independent Government Cost Estimate (IGCE) which included a 5% USGS special-rate assessment.	
*List number of other potential vendors who could provide this good or service; efforts to identify other competitive procurement alternatives; and the reason(s) a sole-source contract is in the best interest of the State.			

cy17-9748

Amendment Request

This request form is not required for amendments to grant contracts. Route a completed request, as one file in PDF format, via e-mail attachment sent to: Agsprs.Agsprs@tn.gov

APPROVED

**Cooper N.
Gallimore for
Michael F. Perry**

Digitally signed by Cooper N. Gallimore
for Michael F. Perry
DN: cn=Cooper N. Gallimore for Michael
F. Perry, o=CPO, ou,
email=Cooper.Gallimore@tn.gov, c=US
Date: 2017.10.24 08:04:55 -05'00'

CHIEF PROCUREMENT OFFICER

DATE

Agency request tracking #	31701-03123	
1. Procuring Agency	Department of Finance & Administration	
2. Contractor	U.S. Geological Survey (USGS)	
3. Edison contract ID #	45314	
4. Proposed amendment #	3	
5. Contract's Effective Date	April 1, 2015	
6. Current end date	March 31, 2018	
7. Proposed end date	March 31, 2019	
8. Current Maximum Liability or Estimated Liability	\$ 3,013,055.84	
9. Proposed Maximum Liability or Estimated Liability	\$ 3,831,049.29	
10. Office for Information Resources Pre-Approval Endorsement Request – information technology service (N/A to THDA)	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Attached	
11. eHealth Pre-Approval Endorsement Request – health-related professional, pharmaceutical, laboratory, or imaging	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Attached	
12. Human Resources Pre-Approval Endorsement Request – state employee training service	<input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Attached	
13. Explain why the proposed amendment is needed	<p>Based on an award from the U. S. Geological Survey (USGS) and participation from other funding partners, an SOW has been created to add additional Tennessee counties to the original agreement's coverage area for enhanced elevation LiDAR data. The flying season is subject to seasonal weather; however, the project is scheduled to begin February 2018 or before.</p>	

Agency request tracking #	31701-03123
14. If the amendment involves a change in Scope, describe efforts to identify reasonable, competitive, procurement alternatives to amending the contract. This amendment does not involve a change in Scope.	
Signature of Agency head or authorized designee, title of signatory, and date (the authorized designee may sign his or her own name if indicated on the Signature Certification and Authorization document) <i>Buddy Lee, Asst Commissioner, 10-13-17</i>	



CONTRACT AMENDMENT COVER SHEET

Agency Tracking # 31701-03123	Edison ID 45314	Contract #	Amendment # 3		
Contractor Legal Entity Name U.S. Geological Survey			Edison Vendor ID 0000039592		
Amendment Purpose & Effect(s) To extend the contract term, increase the Maximum Liability, and add additional counties					
Amendment Changes Contract End Date: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		End Date: March 31, 2019			
TOTAL Contract Amount INCREASE or DECREASE per this Amendment (zero if N/A):			\$ 817,993.45		
Funding —					
FY	State	Federal	Interdepartmental	Other	TOTAL Contract Amount
2015			\$0.00	\$0.00	\$0.00
2016			\$1,339,920.56	\$448,458.28	\$1,788,378.84
2017			\$599,866.00	\$43,036.00	\$642,902.00
2018			\$501,725.00	\$80,050.00	\$581,775.00
2019			\$731,121.30	\$86,872.15	\$817,993.45
TOTAL:			\$3,172,632.86	\$658,416.43	\$3,831,049.29
American Recovery and Reinvestment Act (ARRA) Funding: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					
Budget Officer Confirmation: There is a balance in the appropriation from which obligations hereunder are required to be paid that is not already encumbered to pay other obligations.			<i>CPO USE</i>		
Speed Chart (optional) * See Below		Account Code (optional) * See Below			

* BU: 31730_Fund: 15_ Project 00317P_Type: OTH15

**AMENDMENT 3
OF CONTRACT 45314**

This Amendment is made and entered by and between the State of Tennessee, Department of Finance and Administration, hereinafter referred to as the "State" and the U.S. Geological Survey, hereinafter referred to as the "USGS." For good and valuable consideration, the sufficiency of which is hereby acknowledged, it is mutually understood and agreed by and between said, undersigned contracting parties that the subject contract is hereby amended as follows:

1. Contract section A.2. is deleted in its entirety and replaced with the following:
 - A.2. The investigations and deliverables provided under this Agreement shall be provided in accordance with the detailed description that appear in the Statement of Works entered into between the State and the USGS (see Attachments 1, 3, 5, and 7).
2. Contract section A.3. is deleted in its entirety and replaced with the following:
 - A.3. The USGS shall provide enhanced elevation LiDAR data for each county identified in Contract Attachments 2, 4, 6, and 8, LiDAR Coverage Area using the USGS version 1.2 LiDAR base specifications.
3. Contract section B.1. is deleted in its entirety and replaced with the following:
 - B.1. This Agreement shall be effective on April 1, 2015 ("Effective Date"), and extend for a period of forty-eight (48) months after the Effective Date ("Term"). The State shall have no obligation for goods or services provided by USGS prior to the Effective Date.
4. Contract section C.1. is deleted in its entirety and replaced with the following:
 - C.1. Maximum Liability. In no event shall the maximum liability of the State under this Agreement exceed Three Million, Eight Hundred Thirty-One Thousand, Forty-Nine Dollars and Twenty-Nine Cents (\$3,831,049.29). The payment rate in Section C.3 shall constitute the entire compensation due the USGS for the investigations, any associated deliverables and all of the USGS's obligations hereunder regardless of the difficulty, materials or equipment required. The payment rates include, but are not limited to, all applicable taxes, fees, overheads, and all other direct and indirect costs incurred or to be incurred by the USGS. The USGS also agrees to jointly fund this project as indicated in the attached U.S. Department of the Interior, U.S. Geological Survey project description incorporated as a part of this document as Attachments 1, 3, 5, and 7.
5. Contract section E.4. is deleted in its entirety and replaced with the following:
 - E.4. Incorporation of Additional Documents. Included in this Agreement by reference are the following documents:
 - a. Agreement document
 - b. Agreement Attachments 1, 2, 3, 4, 5, 6, 7, and 8

In the event of a discrepancy or ambiguity regarding the USGS's duties, responsibilities, and performance under this Agreement, these documents shall govern in order of precedence detailed above.
6. Contract Attachment 7 attached hereto is added as a new attachment.
7. Contract Attachment 8 attached hereto is added as a new attachment.

Required Approvals. The State is not bound by this Amendment until it is signed by the contract parties and approved by appropriate officials in accordance with applicable Tennessee laws and regulations (depending upon the specifics of this contract, said officials may include, but are not limited to, the Commissioner of Finance and Administration, the Commissioner of Human Resources, and the Comptroller of the Treasury).

Amendment Effective Date. The revisions set forth herein shall be effective January 9, 2018. All other terms and conditions of this Contract not expressly amended herein shall remain in full force and effect.

IN WITNESS WHEREOF,

U.S. GEOLOGICAL SURVEY:

SIGNATURE

DATE

PRINTED NAME AND TITLE OF SIGNATORY (above)

TENNESSEE DEPARTMENT OF FINANCE AND ADMINISTRATION:

LARRY B. MARTIN, COMMISSIONER

DATE

**PROJECT DESCRIPTION
FOR THE ACQUISITION OF DIGITAL ELEVATION DATA FOR PORTIONS OF TENNESSEE,
BETWEEN THE
USGS, NATIONAL GEOSPATIAL TECHNICAL OPERATIONS CENTER
AND
THE STATE OF TENNESSEE, DEPARTMENT OF FINANCE AND ADMINISTRATION**

Purpose:

This acquisition is for current LiDAR derived high-resolution elevation data for the Tennessee Department of Transportation in portions of region 3, totaling approximately 9,243 sq. miles. In addition to TDOT, this project supports enhanced elevation requirements for the USGS 3D Elevation Program (3DEP), USDA-NRCS, TVA, and several local governments in Tennessee. This project also supports the National Spatial Data Infrastructure (NSDI) and will advance USGS efforts related to *The National Map* and the *National Elevation Dataset*.

Background:

OMB Circular A-16 “Coordination of Geographic Information and Related Spatial Data Activities” provides for improvements in coordination and use of spatial data. Spatial data refers to information about places or geography, and has traditionally been shown on maps. This Circular describes the effective and economical use and management of spatial data assets in the digital environment for the benefit of the government and the nation. The Circular affirms and describes the National Spatial Data Infrastructure (NSDI).

The NSDI supports and advances the building of a Global Spatial Data Infrastructure, consistent with national security, national defense, national intelligence, and international trade requirements. The components of the NSDI are data themes, metadata, the National Spatial Data Clearinghouse, standards, and partnerships.

The National Map is a consistent framework for geographic knowledge needed by the Nation. It provides public access to high-quality, geospatial data and information from multiple partners to help support decision-making by resource managers and the public. *The National Map* is the product of a consortium of Federal, State, and local partners who provide geospatial data to enhance America's ability to access, integrate, and apply geospatial data at global, national, and local scales.

A cooperative relationship between Federal, State, and local geospatial data producing agencies is essential for the development of the National Spatial Data Infrastructure (NSDI) and successful implementation of *the 3DEP*. The highest priority activity for *The National Map* is the collection of high resolution framework data, which includes current elevation data covering areas as identified by USGS. This agreement between the USGS and The State of Tennessee, will result in meeting the need for current high-resolution digital elevation data for a number of government partners, will effectively distribute the burden of production costs, and will eliminate duplication of effort between parties.

Funding:

Funding for this effort will be divided among several funding contributors. First, approximately thirty five percent of the funding would be provided through the TDOT. Second, approximately thirty percent of the funding would be provided through a combined effort of the Tennessee Department of Finance and Administration STS-GIS, TVA, and USDA/NRCS. The approximately remaining thirty five percent of the funding would come through the USGS 3DEP funding. These are estimates and the actual funding amounts may vary.

The following list includes all of the anticipated funding sources and related amounts:

Source 1: Tennessee Department of Transportation:	\$ 731,121.30
Source 2: Tennessee Department of Finance and Administration STS-GIS	\$ 86,872.15
Source 3: Tennessee Valley Authority	\$ 50,000.00
Source 4: USDA/NRCS-TN	\$ 300,000.00
Source 5: Williamson County	\$ 91,386.75
Source 6: Rutherford County	\$ 98,416.50
Source 7: USGS 3DEP funding:	\$ 731,121.30
	<u>\$2,088,918.00</u>

Funding from the Tennessee Department of Transportation (\$731,121.30), and Tennessee Department of Finance and Administration STS-GIS (\$86,872.15) is included as part of this agreement. All other reimbursable funding will be provided via separate agreements with USGS.

The funding amounts listed above are based on an Independent Government Cost Estimate (IGCE), and include a 5% USGS special-rate assessment. Should the project cost exceed the combined funding amount, or, if one or more partners are unable to participate or must change their contribution amount, the project may need to be adjusted within funding limits to the mutual agreement of all stakeholders.

Project Deliverables: Using the USGS quality level 2 (QL2) LiDAR version 1.2 base specification, the following data products will be delivered:

1. Raw Point Cloud in LAS format
2. Classified Point Cloud in LAS format
3. Bare Earth Surface (Raster digital elevation model)
4. Hydro-flattened breaklines
5. Building footprints

Products delivered will meet the following criteria:

1. Stateplane NAD83 feet and FIPS Zone 4100
2. Conform to the state index grid of 7,000 x 4,000 feet (shapefile of index grid to be provided by the State of Tennessee)

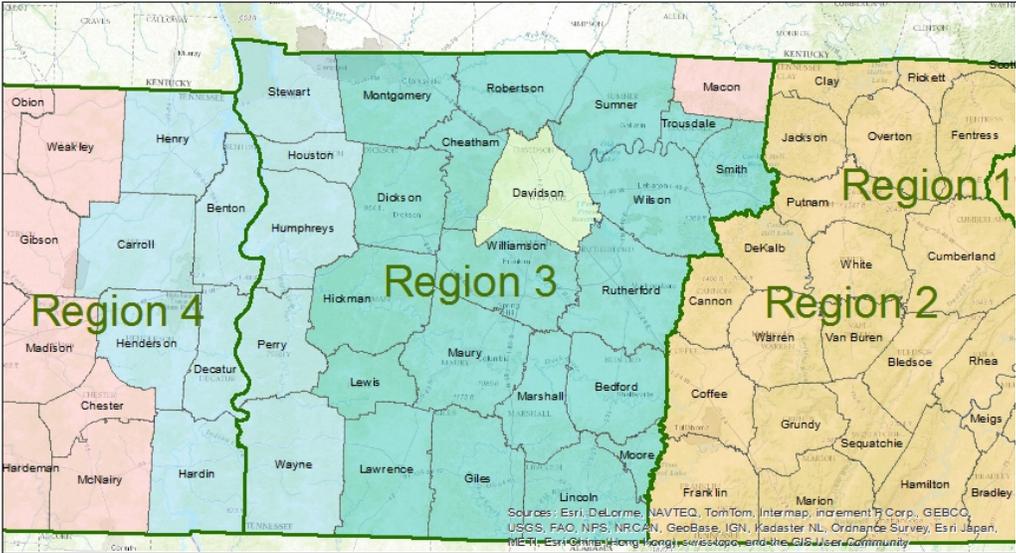
Four full sets of data will be provided to:

Dennis Pedersen
Director, GIS Services
F&A STS
901 5th Ave North
Nashville, TN 37243-1100
Dennis.Pedersen@tn.gov
Telephone # 615-741-9356
FAX # 615-782-0200

Data will be made available across the entire project area with the following exception. Data over areas with restricted access (military properties, etc.) will not be shared with partners or the public unless clearance is granted. If clearance is not granted, only federal funds will be applied to those areas.

Every effort will be made to complete data acquisition between February-March 2018. However, it is possible, due to weather and other circumstances beyond USGS's control that data acquisition may occur outside the specified timeframe including different flying seasons and/or different calendar/fiscal years.

Proposed TN Lidar Acquisition for 2018



Legend

- 2015
- 2016
- 2017
- 2018
- Existing or Planned



CONTRACT AMENDMENT COVER SHEET

Agency Tracking # 31701-03123	Edison ID 45314	Contract #	Amendment # 2		
Contractor Legal Entity Name U.S. Geological Survey			Edison Vendor ID 000039592		
Amendment Purpose & Effect(s) To extend the contract term, increase the Maximum Liability, and add additional counties					
Amendment Changes Contract End Date: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		End Date: March 31, 2018			
TOTAL Contract Amount INCREASE or DECREASE per this Amendment (zero if N/A):			\$ 581,775.00		
Funding —					
FY	State	Federal	Interdepartmental	Other	TOTAL Contract Amount
2015			\$0.00	\$0.00	\$0.00
2016			\$1,339,920.56	\$448,458.28	\$1,788,378.84
2017			\$599,866.00	\$43,036.00	\$642,902.00
2018			\$501,725.00	\$80,050.00	\$581,775.00
TOTAL:			\$2,441,511.56	\$571,544.28	\$3,013,055.84
American Recovery and Reinvestment Act (ARRA) Funding: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					
Budget Officer Confirmation: There is a balance in the appropriation from which obligations hereunder are required to be paid that is not already encumbered to pay other obligations.			<i>CPO USE</i>		
Speed Chart (optional) * See Below		Account Code (optional) * See Below			

*** BU: 31730_Fund: 15_Project 00317P_Type: OTH15**

**AMENDMENT 2
OF CONTRACT 45314**

This Amendment is made and entered by and between the State of Tennessee, **Department of Finance and Administration**, hereinafter referred to as the "State" and the **U.S. Geological Survey**, hereinafter referred to as the "USGS." For good and valuable consideration, the sufficiency of which is hereby acknowledged, it is mutually understood and agreed by and between said, undersigned contracting parties that the subject contract is hereby amended as follows:

1. Contract section A.2. is deleted in its entirety and replaced with the following:
 - A.2. The investigations and deliverables provided under this Agreement shall be provided in accordance with the detailed description that appear in the Statement of Works entered into between the State and the USGS (see Attachments 1, 3, and 5).
2. Contract section A.3. is deleted in its entirety and replaced with the following:
 - A.3. The USGS shall provide enhanced elevation LiDAR data for each county identified in Contract Attachments 2, 4, and 6, LiDAR Coverage Area using the USGS version 1.2 LiDAR base specifications.
3. Contract section B.1. is deleted in its entirety and replaced with the following:
 - B.1. This Agreement shall be effective on April 1, 2015 ("Effective Date"), and extend for a period of thirty-six (36) months after the Effective Date ("Term"). The State shall have no obligation for goods or services provided by USGS prior to the Effective Date.
4. Contract section C.1. is deleted in its entirety and replaced with the following:
 - C.1. Maximum Liability. In no event shall the maximum liability of the State under this Agreement exceed Three Million, Thirteen Thousand, Fifty-Five Dollars and Eighty-Four Cents (\$3,013,055.84). The payment rate in Section C.3 shall constitute the entire compensation due the USGS for the investigations, any associated deliverables and all of the USGS's obligations hereunder regardless of the difficulty, materials or equipment required. The payment rates include, but are not limited to, all applicable taxes, fees, overheads, and all other direct and indirect costs incurred or to be incurred by the USGS. The USGS also agrees to jointly fund this project as indicated in the attached U.S. Department of the Interior, U.S. Geological Survey project description incorporated as a part of this document as Attachments 1, 3, and 5.
5. Contract section E.4. is deleted in its entirety and replaced with the following:
 - E.4. Incorporation of Additional Documents. Included in this Agreement by reference are the following documents:
 - a. Agreement document
 - b. Agreement Attachments 1, 2, 3, 4, 5, and 6

In the event of a discrepancy or ambiguity regarding the USGS's duties, responsibilities, and performance under this Agreement, these documents shall govern in order of precedence detailed above.
6. Contract Attachment 5 attached hereto is added as a new attachment.
7. Contract Attachment 6 attached hereto is added as a new attachment.

Required Approvals. The State is not bound by this Amendment until it is signed by the contract parties and approved by appropriate officials in accordance with applicable Tennessee laws and regulations (depending upon the specifics of this contract, said officials may include, but are not limited to, the Commissioner of Finance and Administration, the Commissioner of Human Resources, and the Comptroller of the Treasury).

Amendment Effective Date. The revisions set forth herein shall be effective **January 10, 2017**. All other terms and conditions of this Contract not expressly amended herein shall remain in full force and effect.

IN WITNESS WHEREOF,

U.S. GEOLOGICAL SURVEY:

SIGNATURE

DATE

PRINTED NAME AND TITLE OF SIGNATORY (above)

TENNESSEE DEPARTMENT OF FINANCE AND ADMINISTRATION:

LARRY B. MARTIN, COMMISSIONER

DATE

**PROJECT DESCRIPTION
FOR THE ACQUISITION OF DIGITAL ELEVATION DATA FOR PORTIONS OF TENNESSEE,
BETWEEN THE
USGS, NATIONAL GEOSPATIAL TECHNICAL OPERATIONS CENTER
AND
THE STATE OF TENNESSEE, DEPARTMENT OF FINANCE AND ADMINISTRATION**

Purpose:

This acquisition is for current LiDAR derived high-resolution elevation data for the Tennessee Department of Transportation in portions of region 3 and 4, totaling approximately 5,734 sq. miles. In addition to TDOT, this project supports enhanced elevation requirements for the USGS 3D Elevation Program (3DEP), USDA-NRCS, TVA, and several local governments in Tennessee. This project also supports the National Spatial Data Infrastructure (NSDI) and will advance USGS efforts related to *The National Map* and the *National Elevation Dataset*.

Background:

OMB Circular A-16 "Coordination of Geographic Information and Related Spatial Data Activities" provides for improvements in coordination and use of spatial data. Spatial data refers to information about places or geography, and has traditionally been shown on maps. This Circular describes the effective and economical use and management of spatial data assets in the digital environment for the benefit of the government and the nation. The Circular affirms and describes the National Spatial Data Infrastructure (NSDI).

The NSDI supports and advances the building of a Global Spatial Data Infrastructure, consistent with national security, national defense, national intelligence, and international trade requirements. The components of the NSDI are data themes, metadata, the National Spatial Data Clearinghouse, standards, and partnerships.

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Funding:

Funding for this effort will be divided among several funding contributors. First, approximately thirty five percent of the funding would be provided through the TDOT. Second, approximately thirty percent of the funding would be provided through a combined effort of the Tennessee Department of Finance and Administration STS-GIS, TVA, and USDA/NRCS. The approximately

remaining thirty five percent of the funding would come through the USGS 3DEP funding. These are estimates and the actual funding amounts may vary.

The following list includes all of the anticipated funding sources and related amounts:

Source 1: Tennessee Department of Transportation:	\$ 501,725.00
Source 2: Tennessee Department of Finance and Administration STS-GIS	\$ 80,050.00
Source 3: Tennessee Valley Authority	\$ 50,000.00
Source 4: USDA/NRCS-TN	\$ 300,000.00
Source 5: USGS 3DEP funding:	\$ 501,725.00
	<u>\$1,433,500.00</u>

Funding from the Tennessee Department of Transportation (\$501,725.00), and Tennessee Department of Finance and Administration STS-GIS (\$80,050.00) is included as part of this agreement. All other reimbursable funding will be provided via separate agreements with USGS.

The funding amounts listed above are based on an Independent Government Cost Estimate (IGCE), and include a 5% USGS special-rate assessment. Should the project cost exceed the combined funding amount, or, if one or more partners are unable to participate or must change their contribution amount, the project may need to be adjusted within funding limits to the mutual agreement of all stakeholders.

Project Deliverables: Using the USGS quality level 2 (QL2) LiDAR version 1.2 base specification, the following data products will be delivered:

1. Raw Point Cloud in LAS format
2. Classified Point Cloud in LAS format
3. Bare Earth Surface (Raster digital elevation model)
4. Hydro-flattened breaklines
5. Building footprints

Products delivered will meet the following criteria:

1. Stateplane NAD83 feet and FIPS Zone 4100
2. Conform to the state index grid of 7,000 x 4,000 feet (shapefile of index grid to be provided by the State of Tennessee)

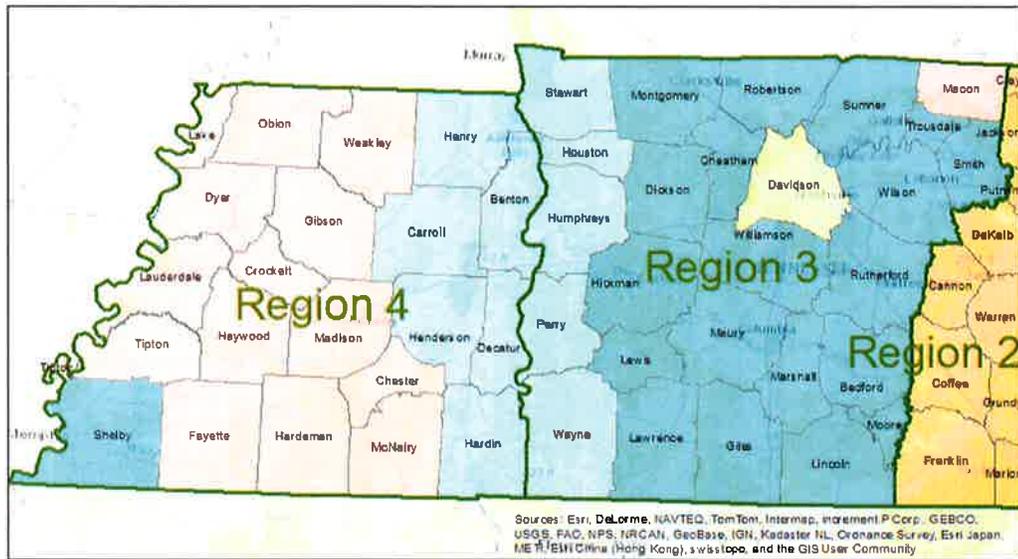
Four full sets of data will be provided to:

Dennis Pedersen
Director, GIS Services
F&A STS
901 5th Ave North
Nashville, TN 37243-1100
Dennis.Pedersen@tn.gov
Telephone # 615-741-9356
FAX # 615-782-0200

Data will be made available across the entire project area with the following exception. Data over areas with restricted access (military properties, etc.) will not be shared with partners or the public unless clearance is granted. If clearance is not granted, only federal funds will be applied to those areas.

Every effort will be made to complete data acquisition between February-May 2017. However, it is possible, due to weather and other circumstances beyond USGS's control that data acquisition may occur outside the specified timeframe including different flying seasons and/or different calendar/fiscal years.

2017 Proposed LiDAR



Legend

- 2015
- 2016
- 2017
- 2018
- Existing or Planned



CONTRACT AMENDMENT COVER SHEET

Agency Tracking # 31701-03123	Edison ID 45314	Contract #	Amendment # 1		
Contractor Legal Entity Name U. S. Geological Survey			Edison Vendor ID 0000039592		
Amendment Purpose & Effect(s) To extend the contract term, increase the Maximum Liability, and add additional counties.					
Amendment Changes Contract End Date: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		End Date: March 31, 2017			
TOTAL Contract Amount INCREASE or DECREASE per this Amendment (zero if N/A):			\$ 642,902.00		
Funding —					
FY	State	Federal	Interdepartmental	Other	TOTAL Contract Amount
2015			\$0.00	\$0.00	\$0.00
2016			\$1,339,920.56	\$448,458.28	\$1,788,378.84
2017			\$599,866.00	\$43,036.00	\$642,902.00
TOTAL:			\$1,939,786.56	\$491,494.28	\$2,431,280.84
American Recovery and Reinvestment Act (ARRA) Funding: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					
Budget Officer Confirmation: There is a balance in the appropriation from which obligations hereunder are required to be paid that is not already encumbered to pay other obligations.			<i>CPO USE</i>		
<i>Felencio M. Hill</i> 1/13/16					
Speed Chart (optional) * See Below		Account Code (optional) * See Below			

*BU: 31730 _ Fund: 15 _ Project: 00317P _ Type: OTH15



AMENDMENT 1 OF CONTRACT 45314

This Amendment is made and entered by and between the State of Tennessee, Department of Finance and Administration, hereinafter referred to as the "State" and U.S. Geological Survey, hereinafter referred to as the "USGS." For good and valuable consideration, the sufficiency of which is hereby acknowledged, it is mutually understood and agreed by and between said, undersigned contracting parties that the subject contract is hereby amended as follows:

1. Contract section A.2. is deleted in its entirety and replaced with the following:
 - A.2. The investigations and deliverables provided under this Agreement shall be provided in accordance with the detailed description that appear in the Statement of Works entered into between the State and the USGS (see Attachments 1 and 3).

2. Contract section A.3. is deleted in its entirety and replaced with the following:
 - A.3. The USGS shall provide enhanced elevation LiDAR data for each county identified in Contract Attachments 2 and 4, LiDAR Coverage Area using the USGS version 1.2 LiDAR base specifications.

3. Contract section B.1. is deleted in its entirety and replaced with the following:
 - B.1. This Agreement shall be effective on April 1, 2015 ("Effective Date"), and extend for a period of twenty-four (24) months after the Effective Date ("Term"). The State shall have no obligation for goods or services provided by USGS prior to the Effective Date.

4. Contract section C.1. is deleted in its entirety and replaced with the following:
 - C.1. Maximum Liability. In no event shall the maximum liability of the State under this Agreement exceed Two Million, Four Hundred Thirty-One Thousand, Two Hundred Eighty Dollars and Eighty-Four Cents (\$2,431,280.84). The payment rate in Section C.3 shall constitute the entire compensation due the USGS for the investigations, any associated deliverables and all of the USGS's obligations hereunder regardless of the difficulty, materials or equipment required. The payment rates include, but are not limited to, all applicable taxes, fees, overheads, and all other direct and indirect costs incurred or to be incurred by the USGS. The USGS also agrees to jointly fund this project as indicated in the attached U.S. Department of the Interior, U.S. Geological Survey project description incorporated as a part of this document as Attachments 1 and 3.

5. Contract section E.4. is deleted in its entirety and replaced with the following:
 - E.4. Incorporation of Additional Documents. Included in this Agreement by reference are the following documents:
 - a. Agreement document
 - b. Agreement Attachments 1, 2, 3, and 4

In the event of a discrepancy or ambiguity regarding the USGS's duties, responsibilities, and performance under this Agreement, these documents shall govern in order of precedence detailed above.

6. Contract Attachment 3 attached hereto is added as a new attachment.



7. Contract Attachment 4 attached hereto is added as a new attachment.

Required Approvals. The State is not bound by this Amendment until it is signed by the contract parties and approved by appropriate officials in accordance with applicable Tennessee laws and regulations (depending upon the specifics of this contract, said officials may include, but are not limited to, the Commissioner of Finance and Administration, the Commissioner of Human Resources, and the Comptroller of the Treasury).

Amendment Effective Date. The revisions set forth herein shall be effective February 1, 2016. All other terms and conditions of this Contract not expressly amended herein shall remain in full force and effect.

IN WITNESS WHEREOF,

U.S. GEOLOGICAL SURVEY:

Kari J. Craun

KARI J. CRAUN, DIRECTOR, USGS-NGTOC

1-12-2016

DATE

TN DEPARTMENT OF FINANCE AND ADMINISTRATION:

Larry B. Martin

LARRY B. MARTIN, COMMISSIONER

1/13/16

DATE



ATTACHMENT 3

PROJECT DESCRIPTION FOR THE ACQUISITION OF DIGITAL ELEVATION DATA FOR PORTIONS OF TENNESSEE, BETWEEN THE USGS, NATIONAL GEOSPATIAL TECHNICAL OPERATIONS CENTER AND THE STATE OF TENNESSEE, DEPARTMENT OF FINANCE AND ADMINISTRATION

Purpose:

This acquisition is for current LiDAR derived high-resolution elevation data for the Tennessee Department of Transportation in portions of region 1, totaling approximately 8,042 sq. miles. In addition to TDOT, this project supports enhanced elevation requirements for the USGS 3D Elevation Program (3DEP), USDA-NRCS, TVA, US Forest Service, and several local governments in Tennessee. This project also supports the National Spatial Data Infrastructure (NSDI) and will advance USGS efforts related to *The National Map* and the *National Elevation Dataset*.

Background:

OMB Circular A-16 "Coordination of Geographic Information and Related Spatial Data Activities" provides for improvements in coordination and use of spatial data. Spatial data refers to information about places or geography, and has traditionally been shown on maps. This Circular describes the effective and economical use and management of spatial data assets in the digital environment for the benefit of the government and the nation. The Circular affirms and describes the National Spatial Data Infrastructure (NSDI).

The NSDI supports and advances the building of a Global Spatial Data Infrastructure, consistent with national security, national defense, national intelligence, and international trade requirements. The components of the NSDI are data themes, metadata, the National Spatial Data Clearinghouse, standards, and partnerships.

The National Map is a consistent framework for geographic knowledge needed by the Nation. It provides public access to high-quality, geospatial data and information from multiple partners to help support decision-making by resource managers and the public. *The National Map* is the product of a consortium of Federal, State, and local partners who provide geospatial data to enhance America's ability to access, integrate, and apply geospatial data at global, national, and local scales.

A cooperative relationship between Federal, State, and local geospatial data producing agencies is essential for the development of the National Spatial Data Infrastructure (NSDI) and successful implementation of *the 3DEP*. The highest priority activity for *The National Map* is the collection of high resolution framework data, which includes current elevation data covering areas as identified by USGS. This agreement between the USGS and The State of Tennessee, will result in meeting the need for current high-resolution digital elevation data for a number of government partners, will effectively distribute the burden of production costs, and will eliminate duplication of effort between parties.

Funding:



Funding for this effort will be divided among several funding contributors. First, approximately thirty percent of the funding would be provided through the TDOT. Second, approximately forty percent of the funding would be provided through a combined effort of the Tennessee Department of Finance and Administration OIR-GIS, TVA, US Forest Service, USDA/NRCS, and several local governments. The approximately remaining thirty percent of the funding would come through the USGS 3DEP funding. These are estimates and the actual funding amounts may vary.

The following list includes all of the anticipated funding sources and related amounts:

Source 1: US Forest Service:	\$ 40,000.00
Source 2: Tennessee Department of Transportation:	\$ 599,866.00
Source 3: Tennessee Department of Finance and Administration OIR-GIS	\$ 43,036.00
Source 4: Tennessee Valley Authority	\$ 50,000.00
Source 5: Several local governments	\$ 377,598.00
Source 6: USDA/NRCS-TN	\$ 300,000.00
Source 7: USGS 3DEP funding:	<u>\$ 600,000.00</u>
	\$2,010,500.00

Funding from the Tennessee Department of Transportation (\$599,866.00), and Tennessee Department of Finance and Administration OIR-GIS (\$43,036.00) is included as part of this agreement. All other reimbursable funding will be provided via separate agreements with USGS.

The funding amounts listed above are based on an Independent Government Cost Estimate (IGCE), and include a 5% USGS special-rate assessment. Should the project cost exceed the combined funding amount, or, if one or more partners are unable to participate or must change their contribution amount, the project may need to be adjusted within funding limits to the mutual agreement of all stakeholders.

Project Deliverables: Using the USGS quality level 2 (QL2) LIDAR version 1.2 base specification, the following data products will be delivered:

1. Raw Point Cloud in LAS format
2. Classified Point Cloud in LAS format
3. Bare Earth Surface (Raster digital elevation model)
4. Hydro-flattened breaklines
5. Building footprints

Products delivered will meet the following criteria:

1. Stateplane NAD83 feet and FIPS Zone 4100
2. Conform to the state index grid of 7,000 x 4,000 feet (shapefile of index grid to be provided by the State of Tennessee)

Five full sets of data will be provided to:

Dennis Pedersen
Director, GIS Services
F&A OIR



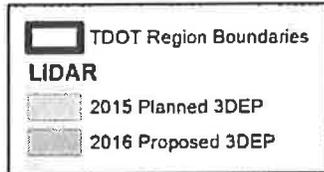
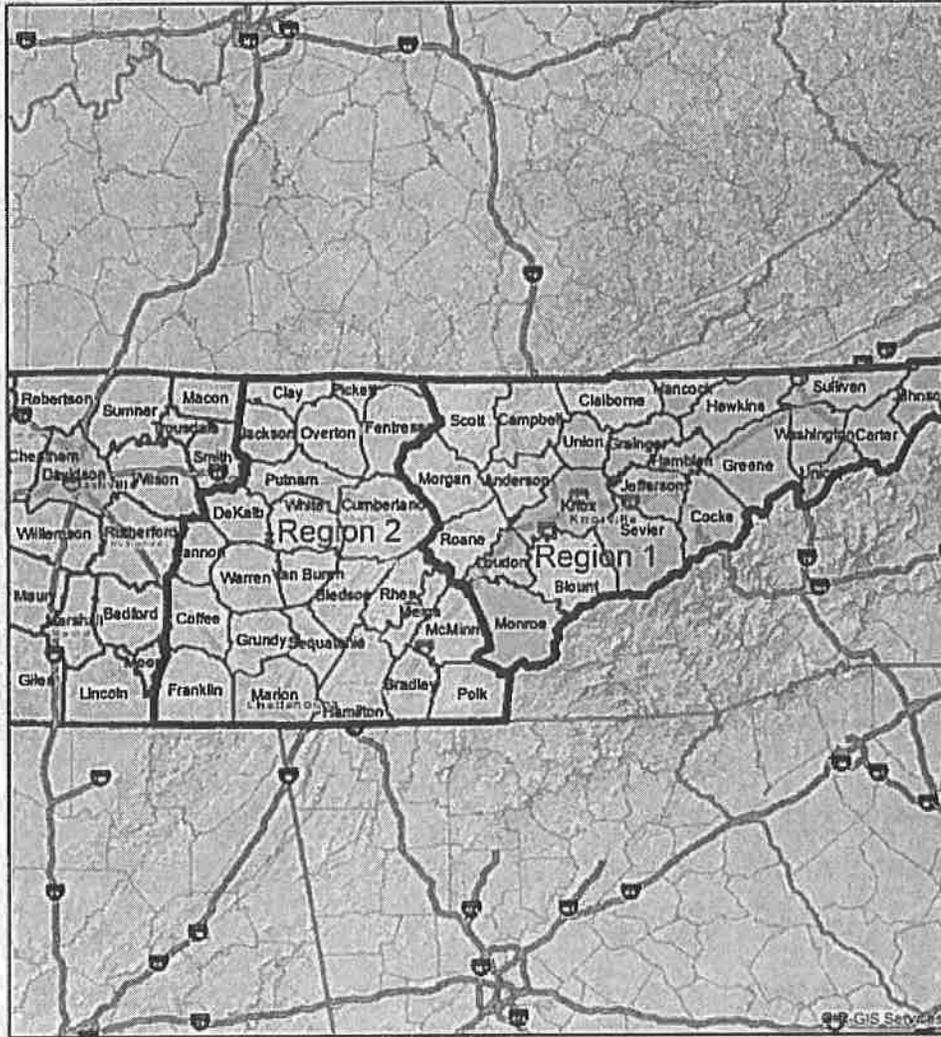
901 5th Ave North
Nashville, TN 37243-1100
Dennis.Pedersen@tn.gov
Telephone # 615-741-9356
FAX # 615-782-0200

Data will be made available across the entire project area with the following exception. Data over areas with restricted access (military properties, etc.) will not be shared with partners or the public unless clearance is granted. If clearance is not granted, only federal funds will be applied to those areas.

Every effort will be made to complete data acquisition between February-May 2016. However, it is possible, due to weather and other circumstances beyond USGS's control that data acquisition may occur outside the specified timeframe including different flying seasons and/or different calendar/fiscal years.



2016 Proposed LiDAR





A G R E E M E N T

(fee-for-service agreement with the U.S. Geological Survey)



Begin Date April 1, 2015	End Date March 31, 2016	Agency Tracking # 31701-03123	Edison Record ID 45314		
Contractor Legal Entity Name U. S. Geological Survey			Edison Vendor ID 0000039592		
Subrecipient or Vendor <input type="radio"/> Subrecipient <input checked="" type="radio"/> Vendor		CFDA #			
Service Caption (one line only) LiDAR Services					
Funding —					
FY	State	Federal	Interdepartmental	Other	TOTAL Contract Amount
2015			\$558,300.23	\$186,857.62	\$745,157.85
2016			\$781,620.33	\$261,600.66	\$1,043,220.99
TOTAL:			\$1,339,920.56	\$448,458.28	\$1,788,378.84
American Recovery and Reinvestment Act (ARRA) Funding: <input type="radio"/> YES <input checked="" type="radio"/> NO					
Budget Officer Confirmation: There is a balance in the appropriation from which obligations hereunder are required to be paid that is not already encumbered to pay other obligations. 			OCR USE - GU		
Digitally signed by Felenceo Hill DN: cn=Felenceo Hill, o=Dept. Finance & Administration, ou=Capital Projects Finance Director, Office of Business & Finance, email=Felenceo.Hill@tn.gov, c=US Date: 2015.03.24 14:39:22 -05'00'					
Speed Chart (optional) *See Below		Account Code (optional) *See Below			

*BU: 31730 _ Fund: 15 _ Project: 00317P _ Type: OTH15



**AGREEMENT
BETWEEN THE STATE OF TENNESSEE,
DEPARTMENT OF FINANCE AND ADMINISTRATION
AND U.S. GEOLOGICAL SURVEY**

This Agreement (USGS JFA# 15H5TN001), by and between the State of Tennessee, Department of Finance and Administration, hereinafter referred to as the "State" and U.S. Geological Survey, hereinafter referred to as the "USGS," is for the provision of Light Detection and Ranging (LiDAR) Services, as further defined in the "SCOPE OF INVESTIGATIONS."

The USGS legal authorities to enter into this agreement are 43 USC 50, 43 USC 50b, and 43 USC 36c.

USGS Edison Registration ID # 0000039592

USGS JFA # 15H5TN001

State Tax ID # 62-6001445

A. SCOPE OF INVESTIGATIONS:

- A.1. The USGS shall provide all investigations and deliverables as required, described, and detailed by this Scope of Investigations and shall meet all delivery timelines specified in the Scope of Investigations section or elsewhere in this Agreement.
- A.2. The investigations and deliverables provided under this Agreement shall be provided in accordance with the detailed description that appears in the Statement of Work entered into between the State and the USGS (see Attachment 1).
- A.3. The USGS shall provide enhanced elevation LiDAR data for each county identified in Contract Attachment 2, LiDAR Coverage Area using the USGS version 1.2 LiDAR base specifications.
- A.4. The USGS shall use the competitively awarded Geospatial Product and Service Contracts (GPSC) to provide the services associated with this Contract.

B. TERM OF AGREEMENT:

- B.1. This Agreement shall be effective on April 1, 2015 ("Effective Date"), and extend for a period of twelve (12) months after the Effective Date ("Term"). The State shall have no obligation for goods or services provided by USGS prior to the Effective Date.
- B.2. Term Extension. It is understood and agreed that the State may extend the Term an additional period of time, not to exceed one hundred-eighty (180) days beyond the expiration date of this Contract, under the same terms and conditions. In no event, however, shall the maximum Term, including all extensions or renewals, exceed a total of sixty (60) months.

C. PAYMENT TERMS AND CONDITIONS:

- C.1. Maximum Liability. In no event shall the maximum liability of the State under this Agreement exceed One Million, Seven Hundred Eighty-Eight Thousand, Three Hundred Seventy-Eight Dollars and Eighty-Four Cents (\$1,788,378.84). The payment rate in Section C.3 shall constitute the entire compensation due the USGS for the investigations, any associated deliverables and all of the USGS's obligations hereunder regardless of the difficulty, materials or equipment required. The payment rates include, but are not limited to, all applicable taxes, fees, overheads, and all other direct and indirect costs incurred or to be incurred by the USGS. The USGS also agrees to jointly fund this project as indicated in the attached U.S. Department of the Interior, U.S. Geological Survey project description incorporated as a part of this document as Attachment 1.



C.2. **Compensation Firm.** The payment rate and the maximum liability of the State under this Agreement are firm for the duration of the Agreement and are not subject to escalation for any reason unless amended.

C.3. **Payment Methodology.** The USGS shall be compensated based on actual expenses incurred by its contractors related to this effort plus administrative fee as shown below. Billings shall be rendered monthly, based on actual expenses, independent of product delivery in a total amount not to exceed the Agreement Maximum Liability established in Section C.1. Billings shall be accompanied by documentation as described in C.5.11 below.

USGS will exhaust all other sources of funding at its disposal prior to invoicing the State for services. In the event that a given invoice amount must be split between other sources of funding and the State, USGS shall provide additional documentation to detail the amounts split between the separate funding sources, such that the State can reconcile its portion of the Vendor Invoice Amount.

C.4. **Travel Compensation.** The USGS shall not be compensated or reimbursed for travel, meals, or lodging.

C.5. **Invoice Requirements.** The USGS shall invoice the State based upon terms described in Section C.3, above.

a. Invoices with all necessary supporting documentation are to be sent to:

Dennis Pedersen
Director, GIS Services
F&A OIR
901 5th Ave North
Nashville, TN 37243-1100
Dennis.Pedersen@tn.gov
Telephone # 615 -741-9356
FAX # 615-782-0200

b. The USGS agrees that each invoice submitted shall clearly and accurately (all calculations must be extended and totaled correctly) detail the following required information.

- (1) Invoice Number (assigned by the USGS);
- (2) Invoice Date;
- (3) Invoice Period (period to which all invoiced charges are applicable);
- (4) Agreement Number (assigned by the State to this Agreement);
- (5) Account Name: Department of Finance & Administration, Office for Information Resources;
- (6) Account Number (uniquely assigned by the USGS to the above-referenced Account Name);
- (7) USGS Name;
- (8) USGS Tennessee Edison Registration ID Number (Referenced in Preamble of this Agreement);
- (9) USGS Contact for Invoice Questions (name, phone, and/or fax);
- (10) USGS Remittance Address
- (11) Documented substantiation of Charges, which shall include the following:

i. USGS Invoice query/report that details:

- (a) Vendor Name of vendor providing the services to USGS;
- (b) Vendor Invoice Number;
- (c) Vendor Invoice Amount;



- (d) USGS Overhead Expense (5% of Vendor Invoice Amount); and
- (e) Total USGS Invoice Amount.

ii. Progress report that indicates progress commensurate with the Vendor Invoice Amount.

c. The USGS understands and agrees that an invoice to the State under this Agreement shall:

- (1) include only charges for investigations described in Agreement Section A and in accordance with payment terms and conditions set forth in Agreement Section C;
- (2) only be submitted for completed work and shall not include any charge for future work; and
- (3) not include sales tax or shipping charges.

C.6. **Payment of Invoice.** A payment by the State shall not prejudice the State's right to object to or question any payment, invoice, or matter in relation thereto. A payment by the State shall not be construed as acceptance of any part of the work or service provided or as approval of any amount invoiced, provided that the state questions a paid invoice within a period of six (6) months after payment of an invoice.

C.7. **Invoice Reductions.** The USGS's invoice shall be subject to reduction for amounts included in any invoice or payment theretofore made which are determined by the State, on the basis of audits conducted in accordance with the terms of this Agreement, not to constitute proper remuneration for compensable investigations or deliverables.

D. STANDARD TERMS AND CONDITIONS:

D.1. **Required Approvals.** The State is not bound by this Agreement until it is signed by any federal officials in accordance with federal regulations and by appropriate officials in accordance with applicable Tennessee laws and regulations (depending upon the specifics of this contract, said officials may include, but are not limited to, the Commissioner of Finance and Administration, the Commissioner of Human Resources, and the Comptroller of the Treasury).

D.2. **Modification and Amendment.** This Agreement may be modified only by a written amendment signed by all parties hereto and approved by both the officials who approved the base contract and, depending upon the specifics of the contract as amended, any additional officials required by Tennessee laws and regulations (said officials may include, but are not limited to, the Commissioner of Finance and Administration, the Commissioner of Human Resources, and the Comptroller of the Treasury).

D.3. **Termination for Convenience.** The Agreement may be terminated by either party by giving written notice to the other, at least thirty (30) days before the effective date of termination. Should the State exercise this provision, the USGS shall be entitled to compensation for all satisfactory and authorized investigations completed as of the termination date. Should the USGS exercise this provision, the State shall have no liability to the USGS except for those units of investigations which can be effectively used by the State. The final decision as to what these units of investigations are shall be mutually agreed upon by both parties.

D.4. **Termination for Cause.** If the USGS fails to properly perform its obligations under this Agreement in a timely or proper manner, or if the USGS violates any terms of this Agreement, the State shall have the right to immediately terminate the Agreement and withhold payments in excess of fair compensation for completed investigations. The USGS agrees to be responsible for damages to persons or property caused by the negligent acts or omissions of USGS employees acting within the scope of their employment in accordance with the Federal Tort Claims Act, codified at 28 USC 2671 et seq. If found liable in a federal court of competent jurisdiction, the USGS agrees to pay damages and attorney's fees to the extent permitted under federal law.



- D.5. **Contracting.** The USGS shall not assign this Agreement or enter into a contract or other agreement for any of the investigations or any associated deliverables performed under this Agreement without obtaining the prior written approval of the State and such approval shall not be unreasonably withheld. If such contracts are approved by the State, they shall contain, at a minimum, sections of this Agreement below pertaining to "Conflicts of Interest," "Nondiscrimination," and "Records" (as identified by the section headings). Notwithstanding any use of approved contractors, the USGS shall be the prime contractor and shall be responsible for all work performed.
- D.6. **Conflicts of Interest.** The USGS agrees that no part of the total Agreement Amount shall be paid directly or indirectly to an employee or official of the State of Tennessee as wages, compensation, or gifts in exchange for acting as an officer, agent, employee, subcontractor, or consultant to the USGS in connection with any work contemplated or performed relative to this Agreement.
- D.7. **Nondiscrimination.** The USGS hereby agrees and assures that no person shall be excluded from participation in, be denied benefits of, or be otherwise subjected to discrimination in the performance of this Agreement or in the employment practices of the USGS on the grounds of handicap or disability, age, race, color, religion, sex, national origin, or any other classification protected by federal, Tennessee State constitutional, or statutory law. The USGS, as a federal government entity, is bound by federal anti-discrimination laws and cannot discriminate on these prohibited bases.
- D.8. **Records.** The USGS shall maintain documentation for all charges under this Agreement. The books, records, and documents of the USGS, insofar as they relate to work performed or money received under this Agreement, shall be maintained for a period of three (3) full years from the date of the final payment and shall be subject to audit at any reasonable time and upon reasonable notice by the State, the Comptroller of the Treasury, or their duly appointed representatives. The financial statements shall be prepared in accordance with generally accepted accounting principles.
- D.9. **Prevailing Wage Rates.** All Agreements for construction, erection, or demolition or to install goods or materials that involve the expenditure of any funds derived from the State require compliance with the prevailing wage laws as provided in *Tennessee Code Annotated*, Section 12-4-401 *et seq.*
- D.10. **Evaluation.** The USGS's activities conducted and records maintained pursuant to this Agreement shall be subject to periodic reviews and evaluation by the State, the Comptroller of the Treasury, or their duly appointed representatives.
- D.11. **Progress Reports.** The USGS shall submit brief, periodic, progress reports to the State as requested.
- D.12. **Strict Performance.** Failure by any party to this Agreement to insist in any one or more cases upon the strict performance of any of the terms, covenants, conditions, or provisions of this Agreement shall not be construed as a waiver or relinquishment of any such term, covenant, condition, or provision. No term or condition of this Agreement shall be held to be waived, modified, or deleted except by a written amendment signed by the parties hereto.
- D.13. **Independent Contractor.** The parties hereto, in the performance of this Agreement, shall not act as agents, employees, partners, joint venturers, or associates of one another. It is expressly acknowledged by the parties hereto that such parties are independent entities and that nothing in this Agreement shall be construed to create a principal/agent relationship or to allow either to exercise control or direction over the manner or method by which the other transacts its business affairs or provides its usual investigations. The employees or agents of one party shall not be deemed or construed to be the employees or agents of the other party for any purpose whatsoever.



The USGS, being a federal agency, shall be considered to be self insured for the purposes of public liability. The USGS is also subject to the Federal Torts Claims Act.

- D.14. **State Liability.** The State shall pay the USGS no more than as specifically provided in this Agreement and as it may be amended.
- D.15. **Force Majeure.** The obligations of the parties to this Agreement are subject to prevention by causes beyond the parties' control that could not be avoided by the exercise of due care including, but not limited to, natural disasters, riots, wars, epidemics, or any other similar cause.
- D.16. **State and Federal Compliance.** The parties shall comply with all applicable state and federal laws and regulations in the performance of this Agreement.
- D.17. **Governing Law.** This Agreement shall be governed by and construed in accordance with appropriate federal laws and courts. The USGS agrees that it will be subject to the exclusive jurisdiction of the courts of the United States that are located within the State of Tennessee where appropriate in actions that may arise under this Agreement.
- D.18. **Completeness.** This Agreement is complete and contains the entire understanding between the parties relating to the subject matter contained herein, including all the terms and conditions of the parties' agreement. This Agreement supersedes any and all prior understandings, representations, negotiations, and agreements between the parties relating hereto, whether written or oral.
- D.19. **Severability.** If any terms and conditions of this Agreement are held to be invalid or unenforceable as a matter of law, the other terms and conditions hereof shall not be affected thereby and shall remain in full force and effect. To this end, the terms and conditions of this Agreement are declared severable.
- D.20. **Headings.** Section headings of this Agreement are for reference purposes only and shall not be construed as part of this Agreement.

E. SPECIAL TERMS AND CONDITIONS:

- E.1. **Conflicting Terms and Conditions.** Should any of these special terms and conditions conflict with any other terms and conditions of this Agreement, these special terms and conditions shall control.
- E.2. **Communications and Contacts.** All instructions, notices, consents, demands, or other communications required or contemplated by this Agreement shall be in writing and shall be made by certified, first class mail, return receipt requested and postage prepaid, by overnight courier service with an asset tracking system, or by EMAIL or facsimile transmission with recipient confirmation. Any such communications, regardless of method of transmission, shall be addressed to the respective party at the appropriate mailing address, facsimile number, or EMAIL address as set forth below or to that of such other party or address, as may be hereafter specified by written notice.

The State:

Dennis Pedersen
Director, GIS Services
F&A OIR
901 5th Ave North
Nashville, TN 37243-1100
Dennis.Pedersen@tn.gov
Telephone # 615 -741-9356
FAX # 615-782-0200

The USGS:



Bill Sneed
USGS/Geospatial Liaison for Arkansas and Tennessee
401 Hardin Road
Little Rock, AR 72211
Email: wsneed@usgs.gov
Phone: 501-228-3665
Fax: 501-228-3601

OR

Mark Gewinner, NGTOC Agreement Coordinator
1400 Independence Road, MS 323
Rolla, MO 65401
573-308-3636 (Work); 573-308-3652 (Fax)

All instructions, notices, consents, demands, or other communications shall be considered effectively given upon receipt or recipient confirmation as may be required.

E.3. Subject to Funds Availability. The Agreement is subject to the appropriation and availability of state and/or federal funds. In the event that the funds are not appropriated or are otherwise unavailable, the State reserves the right to terminate the Agreement upon written notice to the USGS. Said termination shall not be deemed a breach of Agreement by the State. Upon receipt of the written notice, the USGS shall cease all work associated with the Agreement. Should such an event occur, the USGS shall be entitled to compensation for all satisfactory and authorized investigations completed as of the termination date.

E.4. Incorporation of Additional Documents. Included in this Agreement by reference are the following documents:

- a. Agreement document
- b. Agreement Attachments 1 and 2

In the event of a discrepancy or ambiguity regarding the USGS's duties, responsibilities, and performance under this Agreement, these documents shall govern in order of precedence detailed above.

E.5. State Ownership of Work Products. The State shall have ownership, right, title, and interest, including ownership of copyright, in all work products, including computer source code, created, designed, developed, derived, documented, installed, or delivered under this Agreement subject to the next subsection and full and final payment for each "Work Product." The State shall have royalty-free and unlimited rights and license to use, disclose, reproduce, publish, distribute, modify, maintain, or create derivative works from, for any purpose whatsoever, all said Work Products.

- a. To the extent that the USGS uses any of its pre-existing, proprietary or independently developed tools, materials or information ("USGS Materials"), the USGS shall retain all right, title and interest in and to such USGS Materials, and the State shall acquire no right, title or interest in or to such USGS Materials EXCEPT the USGS grants to the State an unlimited, non-transferable license to use, copy and distribute internally, solely for the State's internal purposes, any USGS Materials reasonably associated with any Work Product provided under the Agreement. Writings prepared by Federal employees as part of their official duties cannot be copyrighted in the United States because copyright protection is not available for any work of the United States Government (17 U.S.C. § 105). Writings prepared by a United States Federal Government employee as part of his/her official duties is called a 'US Government Work' and is in the public domain in the United States of America (the "USA"). To the extent that the USGS have any right to copyright the Work in countries other than the USA, and to the extent that the State intends to disseminate the work in countries other than the USA, the USGS agrees that



the State may secure copyright to the extent authorized by any applicable laws, provided that the US Government retains an irrevocable, non-exclusive, royalty-free license to copy, publish and use the Work for Government purposes.

- b. The USGS shall furnish such information and data as the State may request, including but not limited to computer code, that is applicable, essential, fundamental, or intrinsic to any Work Product and USGS Materials reasonably associated with any Work Product, in accordance with this Agreement and applicable state law.
- c. Nothing in this Agreement shall prohibit the USGS's use for its own purposes of the general knowledge, skills, experience, ideas, concepts, know-how, and techniques obtained and used during the course of providing the investigations requested under this Agreement.
- d. Nothing in the Agreement shall prohibit the USGS from developing for itself, or for others, materials which are similar to and/or competitive with those that are produced under this Agreement.

E.6. Competitive Procurements. This Agreement provides for reimbursement of the cost of goods, materials, supplies, equipment, or contracted services. Such procurements shall be made on a competitive basis, where practical. The USGS shall maintain documentation for the basis of each procurement for which reimbursement is paid pursuant to this Agreement. In each instance where it is determined that use of a competitive procurement method was not practical, said documentation shall include a written justification, approved by the Commissioner of Finance and Administration, for such decision and non-competitive procurement.

IN WITNESS WHEREOF,

U.S. GEOLOGICAL SURVEY:

Kari J. Craun *3-17-2015*

 KARI J. CRAUN, Director, USGS-NGTOC DATE

TN DEPARTMENT OF FINANCE AND ADMINISTRATION:

Larry B. Martin Digitally signed by Felenceo Hill
Date: 2015.03.24 14:38:34
-05'00'

 LARRY B. MARTIN, COMMISSIONER *msk* DATE



ATTACHMENT 1

PROJECT DESCRIPTION FOR THE ACQUISITION OF DIGITAL ELEVATION DATA FOR PORTIONS OF TENNESSEE, BETWEEN THE USGS, NATIONAL GEOSPATIAL TECHNICAL OPERATIONS CENTER AND THE STATE OF TENNESSEE, DEPARTMENT OF FINANCE AND ADMINISTRATION

Purpose:

This acquisition is for current LiDAR derived high-resolution elevation data for the Tennessee Department of Transportation region 2 and portions of region 1, totaling approximately 11,912 sq. miles. In addition to TDOT, this project supports enhanced elevation requirements for the USGS 3D Elevation Program (3DEP), the Tennessee Department of Environment and Conservation, USDA-NRCS, TVA, DOE - Oak Ridge office, and Hamilton County. This project also supports the National Spatial Data Infrastructure (NSDI) and will advance USGS efforts related to *The National Map* and the *National Elevation Dataset*.

Background:

OMB Circular A-16 "Coordination of Geographic Information and Related Spatial Data Activities" provides for improvements in coordination and use of spatial data. Spatial data refers to information about places or geography, and has traditionally been shown on maps. This Circular describes the effective and economical use and management of spatial data assets in the digital environment for the benefit of the government and the nation. The Circular affirms and describes the National Spatial Data Infrastructure (NSDI).

The NSDI supports and advances the building of a Global Spatial Data Infrastructure, consistent with national security, national defense, national intelligence, and international trade requirements. The components of the NSDI are data themes, metadata, the National Spatial Data Clearinghouse, standards, and partnerships.

The National Map is a consistent framework for geographic knowledge needed by the Nation. It provides public access to high-quality, geospatial data and information from multiple partners to help support decision-making by resource managers and the public. *The National Map* is the product of a consortium of Federal, State, and local partners who provide geospatial data to enhance America's ability to access, integrate, and apply geospatial data at global, national, and local scales.

A cooperative relationship between Federal, State, and local geospatial data producing agencies is essential for the development of the National Spatial Data Infrastructure (NSDI) and successful implementation of *the 3DEP*. The highest priority activity for *The National Map* is the collection of high resolution framework data, which includes current elevation data covering areas as identified by USGS. This agreement between the USGS and The State of Tennessee, will result in meeting the need for current high-resolution digital elevation data for a number of government partners, will effectively distribute the burden of production costs, and will eliminate duplication of effort between parties.

Funding:

Funding for this effort will be divided among four primary contributors. First, twenty five percent of the funding would be provided through the Tennessee Department Environment and Conservation. Second, twenty five percent of the funding would be provided through TDOT. Third, twenty five percent of the funding would be provided through a combined effort of the Tennessee Department of Finance and Administration OIR-GIS, TVA, City of Chattanooga,



Hamilton County, USDA/NRCS, and DOE/ORO. The remaining twenty five percent of the funding would come through the 3DEP funding. These are estimates and the actual funding amounts may vary.

The following list includes all of the anticipated funding sources and related amounts:

Source 1: Tennessee Department of Environment and Conservation::	\$ 669,960.28
Source 2: Tennessee Department of Transportation:	\$ 669,960.28
Source 3: Tennessee Department of Finance and Administration OIR-GIS	\$ 448,458.28
Source 4: Tennessee Valley Authority	\$ 50,000.00
Source 5: Hamilton County/City of Chattanooga	\$ 71,502.00
Source 6: USDA/NRCS-TN	\$ 75,000.00
Source 7: US DOE/ORO	\$ 25,000.00
Source 8: USGS 3DEP funding:	\$ 669,960.28
Source 9: USDA/NRCS-TX	<u>\$ 147,893.10</u>
	\$2,827,734.22

USDA/NRCS-TX will participate in the project up to the amount shown above. However, any cost savings known after contractor award will be returned to USDA/NRCS-TX up to their full commitment amount. Any remaining funds will be returned to the other partners on a prorated basis.

Funding from the Tennessee Department of Environment and Conservation (\$669,960.28), Tennessee Department of Transportation (\$669,960.28), and Tennessee Department of Finance and Administration OIR-GIS (\$448,458.28) is included as part of this agreement. All other reimbursable funding will be provided via separate agreements with USGS.

The funding amounts listed above are based on an Independent Government Cost Estimate (IGCE), and include a 5% USGS special-rate assessment. Should the project cost exceed the combined funding amount, or, if one or more partners are unable to participate or must change their contribution amount, the project may need to be adjusted within funding limits to the mutual agreement of all stakeholders.

Project Deliverables: Using the USGS quality level 2 (QL2) LiDAR version 1.2 base specification, the following data products will be delivered:

1. Raw Point Cloud in LAS format
2. Classified Point Cloud in LAS format
3. Bare Earth Surface (Raster digital elevation model)
4. Hydro-flattened breaklines
5. 1 foot contours

Products delivered will meet the following criteria:

1. Stateplane NAD83 feet and FIPS Zone 4100
2. Conform to the state index grid of 7,000 x 4,000 feet (shapefile of index grid to be provided by the State of Tennessee)

Five full sets of data will be provided to:

Dennis Pedersen
 Director, GIS Services
 F&A OIR
 901 5th Ave North
 Nashville, TN 37243-1100
Dennis.Pedersen@tn.gov



Telephone # 615-741-9356
FAX # 615-782-0200

Data will be made available across the entire project area with the following exception. Data over areas with restricted access (military properties, etc.) will not be shared with partners or the public unless clearance is granted. If clearance is not granted, only federal funds will be applied to those areas.

Every effort will be made to complete data acquisition between January-May 2015. However, it is possible, due to weather and other circumstances beyond USGS's control that data acquisition may occur outside the specified timeframe including different flying seasons and/or different calendar/fiscal years.



ATTACHMENT 2

LiDAR Coverage Area

