

PRECONSTRUCTION DESIGN MEMORANDUM

MEMO: PCDM-21

SUBJECT: SCDOT Process for USGS Equipment

DATE: August 22, 2019

RE: See Section 3.0 – Supporting Documents

The purpose of this memorandum is to establish a process for working with the United States Geological Survey (USGS) when a SCDOT project affects USGS equipment or when an equipment installation request by SCDOT is provided to USGS within SCDOT's Rights-Of-Way (ROW). This memorandum includes the processes and corresponding flow charts. Reference Section 3.0 for additional supporting documents.

1.0 Processes

1.1 SCDOT Project affects USGS Equipment

- a. The Hydraulic Designer will determine if a SCDOT project affects an active or inactive site containing USGS equipment. This can be accomplished by field inspection and using the [USGS National Water Information System: Mapper](#). Search both active and inactive surface water, groundwater, atmospheric, and any other site types. A field inspection is required because some sites may not appear in the Mapper, such as rapid deployment and tidal surge network brackets.
- b. The Hydraulic Designer will provide the Hydraulic Design Support Office (HDSO) with the following information: USGS Station Number, USGS Station Name, SCDOT Project ID, Bridge ID, Location Map, and Latitude/Longitude.
- c. The HDSO will contact USGS and provide details about the location.
- d. The HDSO will inform the Hydraulic Designer if USGS equipment will be replaced or reattached as part of the project. The HDSO will send the Hydraulic Designer, Design Manager, Program Manager, and Letting Preparation Engineer a confirmation that the special provision will apply to the project.
- e. The Program Manager will add the special provision to the contract.
- f. The designer will place the following note within the plan view of the bridge plan & profile sheet at the approximate location of the USGS equipment:
APPROXIMATE LOCATION OF USGS EQUIPMENT
(SEE SPECIAL PROVISION)
- g. USGS will inform the HDSO once the site has been reactivated.



1.2 Equipment Installation Requested by SCDOT to USGS within SCDOT's ROW

- a. SCDOT requests USGS to install equipment.
- b. USGS submits an installation plan as part of a blanket encroachment permit to the HDSO for review.
- c. If necessary, the HDSO will send the plan to SCDOT Bridge Maintenance for review.
- d. The HDSO will inform USGS of comments that need to be resolved.
- e. Once approved, the HDSO informs the District Maintenance Engineer (DME) and the Resident Maintenance Engineer (RME) about the work to be done and verifies that the appropriate offices within Headquarters have approved the installation plan.
- f. USGS will inform SCDOT Bridge Maintenance, the HDSO, the DME, and the RME when the installation will take place.
- h. USGS will coordinate with the DME on the installation and temporary traffic control, if required.
- i. USGS will inform SCDOT Bridge Maintenance, the HDSO, the DME, and the RME when the installation has been completed.

2.0 Process Flow Charts

Attachment 1 depicts the process flow chart for Section 1.1. Attachment 2 depicts the process flow chart for Section 1.2.

3.0 Supporting Documents

The supporting documents can be accessed as follows:

1. The special provision is in Attachment 3.
2. The blanket encroachment permit is located on SCDOT's encroachment permit website.
3. A template for the USGS installation plan is located on SCDOT's encroachment permit website.

4.0 Maintenance of USGS Equipment

USGS has set intervals for maintenance of all equipment. An encroachment permit is not necessary for routine maintenance and upgrades to USGS equipment. In most cases, this only takes a short period of time and does not require traffic control. USGS and SCDOT will work together when traffic control is determined to be necessary by both parties following the provisions in the blanket encroachment permit.

USGS will inform the appropriate SCDOT personnel in the Districts and/or County Offices via letter about the maintenance schedule for equipment that is attached to SCDOT structures at the beginning of the Federal fiscal year. An updated letter will be provided by USGS at the start of the Federal fiscal year when new installations are added, installations are taken out of service, changes with USGS personnel, and at least once every five years.

5.0 SCDOT Maintenance Activities at USGS Equipment Sites

The HDSO will coordinate with the SCDOT Director of Maintenance to issue guidance concerning SCDOT maintenance operations that affect USGS equipment.

6.0 USGS Emergency Operations

An encroachment permit is not necessary for USGS operations, maintenance, and upgrades during emergency operations. Part of USGS’s emergency operations will be deploying, removing, and managing numerous rapid deployment gages as part of the SCDOT/USGS Rapid Deployment Gage (RDG) network. The HDSO will contact USGS on all deployments for the RDG network. USGS will coordinate with the HDSO concerning any RDG installation requests from other state and Federal agencies. USGS and SCDOT will work together when traffic control is determined to be necessary by both parties following the provisions in the blanket encroachment permit. USGS will inform the HDSO about all equipment attached to SCDOT structures during these events.

7.0 USGS Site Location Data for SCDOT

It is important for SCDOT to retain all modifications to any of structures within SCDOT ROW. SCDOT’s will receive the following information from USGS when equipment is located within SCDOT ROW; a plan and profile sheet(s) showing the as-built location of the installation, latitude/longitude, equipment type, route, structure number, crossing, vertical and horizontal datum, and funding partner. SCDOT will provide USGS with the mile point, route LRS, Asset ID, and direction. USGS will develop a REST server for this information and any additional data that USGS considers necessary. The REST server will be periodically updated by USGS.

	Immediately
<hr/> George R. Bedenbaugh, Jr. Preconstruction Support Engineer	<hr/> Effective Date

GRB:tpk

ec:

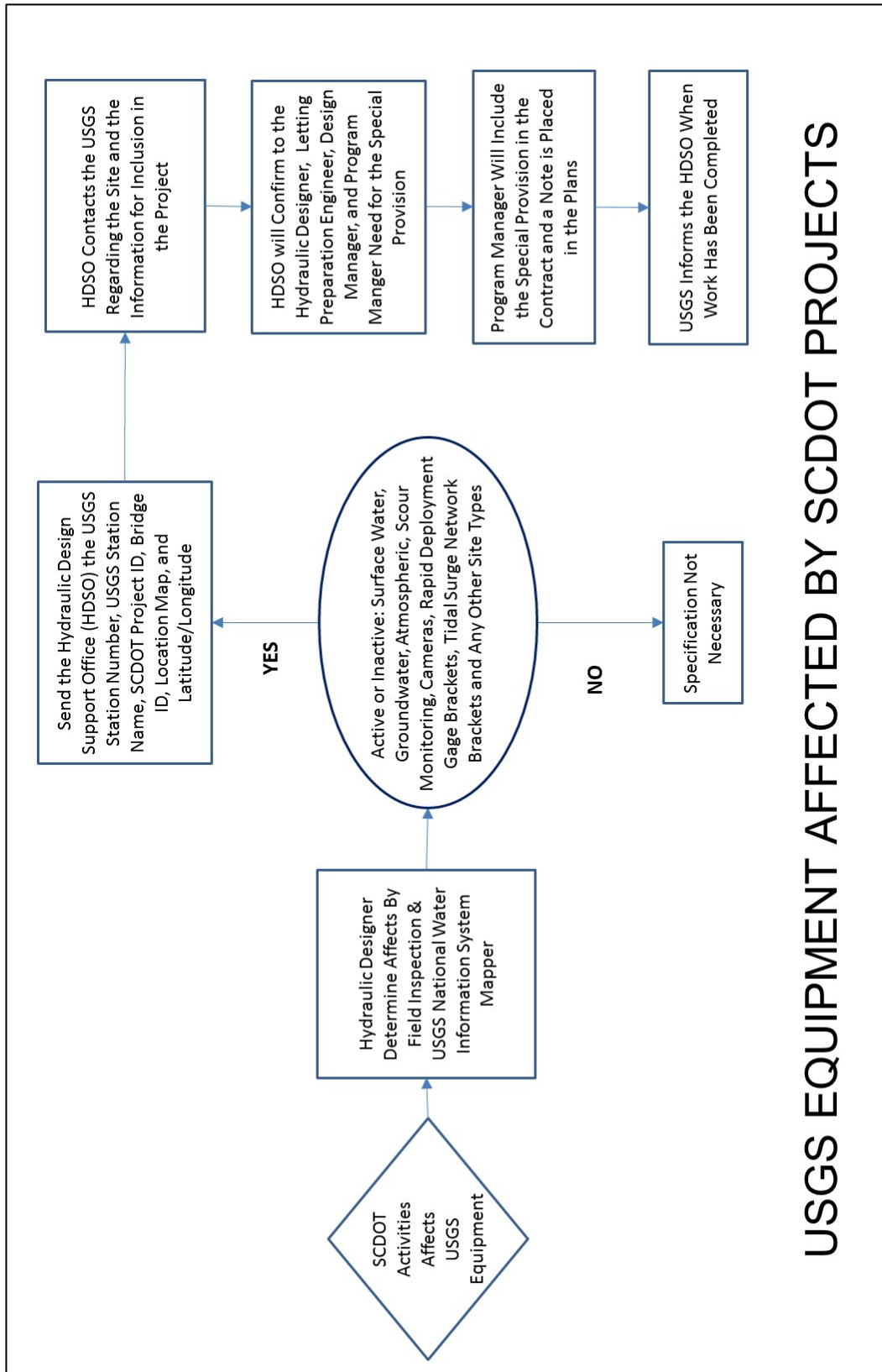
Attachments

John Boylston, Director of Preconstruction
 Robert Isgett, Director of Construction
 David Cook, Director of Maintenance
 Robert Perry, Director of Traffic Engineering
 Chris Gaskins, RP Engineer – Design Build
 Mike Barbee, Director of Rights of Way

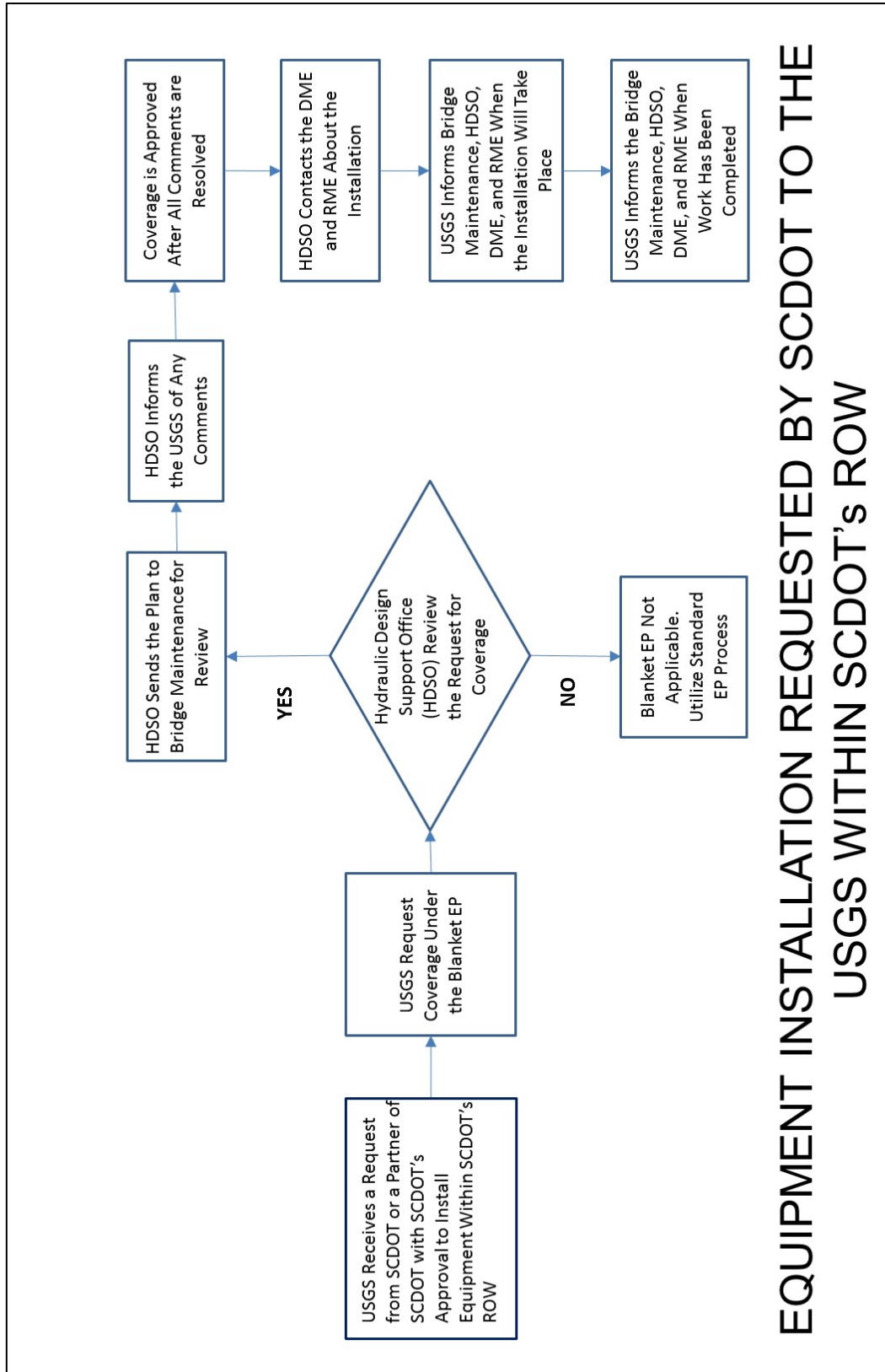
Jennifer Necker, RP Engineer – Lowcountry
 Leah Quattlebaum, RP Engineer - Pee Dee
 Philip Sandel, RP Engineer - Midlands
 Julie Barker, RP Engineer - Upstate
 Ladd Gibson, Director of Mega Projects
 Tad Kitowicz, FHWA

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ATTACHMENT 1



ATTACHMENT 2



EQUIPMENT INSTALLATION REQUESTED BY SCDOT TO THE USGS WITHIN SCDOT'S ROW

ATTACHMENT 3

Special Provision:

SECTION 107: COORDINATION OF USGS EQUIPMENT RELOCATION WITHIN HIGHWAY CONSTRUCTION:

For projects requiring United States Geological Survey (USGS) equipment to be installed, removed, or relocated, coordination between the Contractor, the Department, and the USGS will be required.

Coordinate the schedule for the installation, removal, or relocation of any USGS equipment. Notify the RCE within 48 hours prior to the beginning of work by the USGS. Provide traffic control for all USGS operations.

All work and equipment related to the removal, installation, or relocation of USGS equipment will be performed and provided by the USGS and will follow their standard practices and guidance from the SCDOT Bridge Maintenance Office and Hydraulic Design Support Office.

No direct payment will be made for coordination or work required for the relocation of USGS equipment. Include all associated cost in unit price for Traffic Control.