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**Civil Engineering**

**PROTECTION OF AERIAL AND  
UNDERGROUND UTILITIES**

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This instruction implements AFD 32-10, Installations and Facilities, Jul 94 and defines the procedures to be followed prior to starting approved construction work of a potential hazard to base utilities. It applies to base and tenant units responsible for construction work on Andrews Air Force Base and off-base sites controlled by 89 AW.

**SUMMARY OF REVISIONS**

This revision reflects changes of office designations resulting from 89th Airlift Wing reorganization.

**1. Terms Explained:**

1.1. Construction Agencies. Those units authorized to perform and supervise approved construction work on Andrews Air Force Base. Namely:

- 1.1.1. The 89th Communications Group (89 CG)
- 1.1.2. The 89th Civil Engineer Squadron (89 CES)
- 1.1.3. A Resident Officer in Charge of Construction (USN), Washington DC area (ROICC)
- 1.1.4. Federal Aviation Administration (FAA)
- 1.1.5. Air National Guard Readiness Center (ANGRC)
- 1.1.6. DC Air National Guard (DCANG)
- 1.1.7. Naval Air Facility (NAF)
- 1.1.8. Air Force Reserve (AFRES)

1.2. **Construction Work. Includes:**

- 1.2.1. Excavating, grading, or filling earth, roadways, or other surfaces, including all trenching, drilling, or digging more than 4 inches below the existing surface of the ground.
- 1.2.2. Removing or relocating aerial utility poles and supports.
- 1.2.3. Installing guy anchors, ground rods, or other objects driven below the existing surface of the ground.
- 1.2.4. Demolishing and relocating buildings or other fixed installations.

**1.3. Base Utilities. Includes the following systems:**

- 1.3.1. Communications-Electronics Cable Systems - all cable, aerial or underground, used for the transmission of intelligence or control of electronic equipment.
- 1.3.2. Communications-Electronics Supporting Structures - all ducts, manholes cable trough, stub-ups, and poles required in support of the communications - electronics cable system.
- 1.3.3. Electrical Distribution System - all cable and transformers, aerial or underground, used for the transmission of electrical energy.
- 1.3.4. Fuel Distribution System - all lines and pipes, aerial or underground, used for the transfer of combustible liquids and gases.
- 1.3.5. Water and Sewage Distribution Systems - all water mains, lines, pipes, pumps, controls, and manholes.
- 1.3.6. Heating System - steam, return condensate water, and domestic natural gas.

**2. Responsibilities.** The construction agencies listed below must coordinate on final construction plans for approved construction projects to ensure the correct location and identification of all utilities in the areas. All construction agencies must be sure that precautionary and protective measures are taken during each phase of work. Further:

**2.1. The 89 CG must:**

- 2.1.1. Check all drawings to make sure there is no conflict with facilities under the programming and maintenance responsibility of the 89 CG.
- 2.1.2. Keep current "plant in place" cable records and data on location of all communications-electronics cable systems used with the base telephone exchange and closed circuit television.
- 2.1.3. Keep construction plans and provide data on the location of all communications-electronics utilities under construction.
- 2.1.4. Check and correct construction plans for communications electronic utilities under construction. These plans will be submitted for coordination as applies to programs and maintenance responsibilities of the 89 CG.
- 2.1.5. Ensure changes affecting as-built drawings of communications-electronics supporting structures and "plant in place" records of the communication electronics cable system are provided to 89 CES/CEC for records update.

2.2. Andrews FAA must perform those functions in 2.1.1, 2.1.2, 2.1.3, and 2.1.5 above, as appropriate, for buried utilities maintained by their organizations. The same functions will be performed by the organizations concerned for their facilities which are not contained in the program of the 89 CG.

**2.3. The 89 CES/CEC must:**

2.3.1. Maintain current as-built drawings of all base utilities other than communications-electronics cable and support systems and provide data concerning the location of all utilities to construction agencies.

2.3.2. Review and make necessary correction to utility systems as indicated on construction plans submitted for coordination.

2.3.3. Approve final plans for all projects. Base civil engineer's approval will not be granted until the proposed construction work has been coordinated and approved as stated in paragraph 3.

**2.4. Chesapeake Division, Naval Facilities Engineering Command (ROICC) must:**

2.4.1. Maintain construction plans and provide data concerning the location of utilities under military construction project (MCP) construction.

2.4.2. Review and make necessary correction of utilities under MCP construction as indicated on construction plans submitted for coordination.

2.4.3. Coordinate MCP construction plans and obtain AF Form 103, Base Civil Engineer Work Clearance Request, from the 89 CES/CEC prior to excavation, erection, and drilling at the site.

**2.5. All other assigned and tenant units must:**

2.5.1. Ensure the 89 AW staff agency of primary interest has information before installation, change, relocation or other alterations to communications-electronics type, or other aerial or underground utilities and that the agency is kept currently informed of the status of such work as it progresses.

2.5.2. Accept the general supervision of the 89 AW staff agency of primary interest in the performance of all work affecting aerial or underground utilities.

**3. General:**

3.1. Prior to commencing construction work, the responsible construction agency will ensure the construction drawings have been coordinated with the 89 CG, Andrews FAA, 89 CES/CEC, and other 89 AW responsible agencies, (e.g., safety, security police, and base operations) as required, and have received the approval of each office concerning the location and identification of utilities. The coordinating officer's signature of each of the above offices placed within each block of the appropriate section of AF Form 103, will mean all utilities are properly shown and will serve as final base approval for start of construction operations. One copy of the approved and coordinated drawings will be furnished to the contractors by the construction agency. Coordinate AF Forms 103 within 14 days prior to the start of excavating or erection operation. NOTE: The forms will only be valid for 30 days following approval. Construction agencies shall have the form revalidated every 30 days for ongoing operations.

3.1.1. For MCP and real property maintenance by contract (RPMC) projects confined to a single construction site, the AF Form 103 will remain valid for the duration of the construction project

provided the construction surveillance is continuously maintained every workday by the ROICC or construction inspector.

3.1.2. For MCP and RPMC projects covering a large or distributed area, such as utility distribution projects, the AF Form 103 will remain valid for 30 days following approval.

3.2. The location of utilities shown on construction drawings are considered as approximate only. Construction agencies should hand excavate within the vicinity of the utilities located by the construction drawings.

3.3. The 89 CG and 89 CES/CEC require 7 working days to technically review and certify digging permits, weather permitting. The construction agency will hand-carry the work clearance request through the coordination process. If required, the 89 CG and base civil engineer forces will perform a survey and mark the approximate location of utilities. At the completion of the site surveys, the permit will receive signature approval by the cable maintenance.

**4. Miscellaneous** . All movement of "high loads" requiring a roadway clearance in excess of 14 feet will be coordinated with the base civil engineer for assistance of an approved route.

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Commander