

## **SECTION 02 41 19.27 – SELECTIVE DEMOLITION OF EXISTING COMMUNICATIONS SYSTEMS**

### **PART 1 - GENERAL**

#### **1.1 SUMMARY**

- A. This section includes the minimum requirements for the selective demolition of existing communications systems at both Terminal A and Terminal C.
- B. Because both Terminal A and Terminal C will continue to remain in operation during the construction project, some if not all work must be performed during off-peak hours in order to minimize interference with existing operations. The work schedule must be coordinated with, and approved by, the Owner's Authorized Representative (OAR).
- C. The following activities must be completed prior to the commencement of asbestos abatement and primary demolition activities.
  - 1. Identification and labeling of selected existing communications backbone cabling.
  - 2. Completing a cabling spreadsheet
- D. The following activities are to be performed during the course of general demolition.
  - 1. Demolition and removal of abandoned communications cabling
  - 2. Salvaging existing items to be reused or recycled

#### **1.2 DEFINITIONS AND TERMS**

- A. Backbone Cabling: Cabling (either copper or fiber optic) that interconnects telecommunications spaces such as MCRs, CRs, telephone termination closets, etc.
- B. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.
- C. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner.
- D. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.
- E. Existing to Remain: Existing items of construction that are not to be permanently removed, and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.
- F. Owner's Authorized Representative (OAR): Individual designated and possessing the authority to act on behalf of the Owner. The Owner's Authorized Representative may be the Owner, the Architect, the Design Consultant, or other designated individuals.

### 1.3 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste, including communications cabling, becomes the property of Contractor. Any demolition waste suitable for recycling shall be recycled through a properly licensed facility.
- B. Drawings may indicate the removal of items other than cabling. Please refer to Key Notes for the disposition of these items.
- C. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.
  - 1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

### 1.4 COORDINATION OF WORK

- A. Project Kickoff: A project kickoff meeting will be required and scheduled by the OAR.
  - 1. Meeting must be coordinated and scheduled with the OAR.
  - 2. The following attendees are required:
    - a. Contractor
    - b. DFW ITS
    - c. OAR
    - d. American Airlines
    - e. DFW Public Safety
    - f. DFW Airport Operations
  - 3. Optional attendees may be invited:
    - a. TSA
  - 4. Required meeting agenda items:
    - a. Review progress reporting requirements.
    - b. Review of work schedule and acceptable working hours.
    - c. Review communications infrastructure labeling requirements.
    - d. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
    - e. Review requirements of work performed by other trades that affect labeling and selective cable demolition operations.
- B. Pre-Activity Meetings: A pre-activity meeting must take place prior to the commencement of each phase of field work outlined in this scope.
  - 1. The following attendees are required:
    - a. Contractor
    - b. DFW ITS
    - c. OAR
    - d. American Airlines
    - e. DFW Public Safety
    - f. DFW Airport Operations
  - 2. Optional attendees may be invited:
    - a. TSA

3. Required meeting agenda items:
  - a. Identify areas work will be performed in.
  - b. Identify working hours.
  - c. Identify potential outages.
  - d. Identify any scheduled and coordinated outages.
  - e. Identify onsite contact person name and telephone number.
  - f. Report on any accidents or unplanned outages that occurred in the previous work period.
- C. In the event that a power outage or disruption must be performed, a completed Power Outage Request form must be submit to poweroutage@dfwairport.com at least 7 days in advance of the requested utility disruption. Forms may be found on the DFW Network P drive P:\Power Outages.
- D. Other projects: OAR may require the contractor to attend project meetings for any projects that are running concurrently or may impact the labeling and selective cable demo activities outlined in this scope.

## 1.5 INFORMATIONAL SUBMITTALS

- A. Unless otherwise agreed to by OAR, all informational submittals must be reviewed and accepted prior to commencement of work.
- B. A work plan must be submitted to the OAR each week prior to commencement of any work. Work plan must include the following:
  1. Identify areas work will be performed in.
  2. Identify working hours.
  3. Identify potential outages.
  4. Identify any scheduled and coordinated outages.
  5. Identify onsite contact person name and telephone number.
  6. Report on any accidents or unplanned outages that occurred in the previous work period.
- C. Qualification Data: All labeling and selective demolition work must be performed under the direct (on-site) supervision of a qualified communications technician. This technician must possess detailed knowledge of the building and existing conditions within each work area. Submit a report detailing Communications Technician overall industry experience and familiarity with each work area within scope for this project.
- D. Proposed Protection Measures: Submit report, including drawings, that indicates the measures proposed for protecting individuals and property, for environmental protection, for dust control and noise control. Indicate proposed locations and construction of barriers.
- E. Schedule of Selective Demolition Activities: Indicate the following:
  1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's and American Airlines on-site operations are uninterrupted.
  2. Interruption of utility services. Indicate how long utility services will be interrupted.
  3. Coordination for shutoff, capping, and continuation of utility services.
  4. Use of elevator and stairs.
  5. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.

- F. Pre-demolition Photographs or Video: Submit before Work begins.

## **1.6 CLOSEOUT SUBMITTALS**

- A. Inventory: Submit a list of any items such as equipment racks, enclosures, ladder rack, etc. that have been removed and returned to the owner.
- B. Complete Cabling List: Submit completed "CIRCUIT IDENTIFICATION" spreadsheet upon completion of each phase of the project. This spreadsheet catalogs the circuit identification assigned to each backbone cable that was labeled during this project.

## **1.7 QUALITY ASSURANCE**

- A. This project must be supervised by an experienced telecom technician who demonstrates:
  - 1. Proven and verifiable knowledge of telecom industry practices.
  - 2. Detailed knowledge of DFW Terminal D facility.

## **1.8 FIELD CONDITIONS**

- A. This is an operational passenger terminal. Conduct labeling and selective cable demolition, so Owner's operations will not be disrupted.
- B. This is an operational terminal at one of the world's largest airports. Some if not all work must be performed during off-peak hours in order to minimize interference with terminal operations. Work schedule must be coordinated with and approved by the Owner's Authorized Representative (OAR).
- C. Conditions existing at time of inspection will be maintained by Owner as far as practical.
  - 1. Before selective demolition, Owner will remove the following items:
    - a. Network electronics to be removed by Owner.
- D. Notify OAR of discrepancies between existing conditions and Drawings before proceeding with labeling and selective cable demolition.
- E. Hazardous Materials: Hazardous materials are present in buildings and structures to be selectively demolished. A report on the presence of hazardous materials is on file for review and use. Examine report to become aware of locations where hazardous materials are present.
- F. Storage or sale of removed items or materials on-site is not permitted.
- G. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
  - 1. Maintain fire-protection facilities in service during selective demolition operations.

## **PART 2 - PRODUCTS**

### **2.1 PERFORMANCE REQUIREMENTS**

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards:
  - 1. NEC 2002, Article 770.3(B) and 800.52(B)

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

- A. Review record documents of existing construction provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in record documents.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of communications conduit and cabling labeling.
- C. Survey existing conditions and correlate with requirements indicated to determine extent of selective cable demolition required.
- D. When unanticipated conditions occur or structural elements that conflict with intended labeling or selective cable demolition are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report with recommendation for resolution to OAR.

### **3.2 PREPARATION**

- A. Site Access and Temporary Controls: Conduct backbone cable labeling and selective cable-removal operations to ensure minimum interference with terminal operations including roads, corridors, walks, walkways, and other adjacent occupied and used facilities.
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
  - 1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
  - 2. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
  - 3. Cover and protect furniture, furnishings, and equipment that have not been removed.

### **3.3 SELECTIVE CABLE REMOVAL, GENERAL**

- A. General: Demolish and remove existing abandoned communications cabling as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
  - 1. Remove raceway where possible to make way for hazardous materials abatement.

2. Remove and dispose of demolished items and materials promptly.
  3. It is the contractor's responsibility to verify that cabling is not in use prior to its removal.
  4. Each work area must be returned to its pre-work condition at the conclusion of each work day.
  5. When disturbing building elements such as ceiling tile or fire stopping in a fire rated enclosure/space during the course of labeling or selective cable removal these elements must be replaced/returned to a condition that maintains the fire rating for that space. This must be done at the end of each workday.
  6. Proceed with selective cable removal systematically, from higher level to lower level. Complete work above each floor or tier before disturbing cabling systems on the next lower level.
- B. Outages: If active cabling is cut, damaged, or otherwise rendered inoperable it is the contractor's responsibility to IMMEDIATELY NOTIFY the emergency contacts listed below. The cable owner will instruct the contractor on next steps.
1. DFW Airport Operations Center (AOC) at (972) 973-3112
  2. Contractor Emergency Contact:
  3. Cable Owner:
    - a. DFW: DFW ITS Help Desk at (972) 973-9000
    - b. American Airlines Operational Technical Support (OTS) Group:
- C. Mitigation:
1. Contractor is responsible to repair or replace damaged cable in a manner which meets or exceeds cable owner's requirements within the following parameters:
    - a. Cable owner determines type of repair that is acceptable:
      - 1) Generally, if damaged cable is permanent, backbone cable splicing will not be accepted, and new cable must be installed per owner's requirements.
      - 2) Generally, if damaged cable is temporary, splicing will be permissible.
- D. Removed and Salvaged Items:
1. Pack or crate items after removal. Identify contents of containers.
  2. Store items in a secure area until delivery to Owner.
  3. Transport items to Owner's storage area as designated by OAR.
  4. Protect items from damage during transport and storage.
- E. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by OAR, items may be removed to a suitable, protected storage location during selective demolition, cleaned and reinstalled in their original locations after selective demolition operations are complete.

### **3.4 SELECTIVE ABANDONED CABLE REMOVAL PROCEDURES**

- A. General: The general scope includes removal of only clearly abandoned cable that is obviously not in use. It is common to encounter bundles of cable that have been cut at one end and left in the cable trays or left coiled up in plenum spaces. A more exhaustive cable demolition effort will be pursued under a different work package.
- B. Optical Fiber: Once contractor has verified that the optical fiber is abandoned and should be removed it is up to the contractor to remove optical fiber with care as not to damage any other active cabling system components. Contractor should begin on termination end and work back

to point of origin cutting 3 to 5 foot sections of cable at a time until cable has been demolished back to the point of origin.

- C. Copper Cabling: Once contractor has verified that the copper communications cabling is abandoned and should be removed it is up to the contractor to remove the copper cabling with care as not to damage any other active cabling. If there is any question as to the status of cabling the contractor should consult with the OAR prior to its removal. Contractor should begin on termination end and work back to point of origin cutting 3 to 5 foot sections of cable at a time until cable has been demolished back to the point of origin.
- D. Raceway: Contractor should remove raceway (conduit or cable tray) that is abandoned taking care not to damage raceway that is to remain in service. If there is any question as to the intent to reuse raceway the OAR should be consulted prior to its removal.
- E. Active Communications Rooms: If abandoned cable originates or terminates in an active communications room contractor should demo all cables back to room location and coordinate access to active room with appropriate party (DFW ITS or American Airlines). Contractor should make every effort to minimize need for access to active rooms.

### 3.5 PROTECT IN PLACE

- A. General: Protect-in-place of existing communications cabling as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
  - 1. Remove raceway where necessitated to make way for hazardous materials abatement.
  - 2. Remove and dispose of demolished items and materials promptly.
  - 3. It is the contractor's responsibility to verify that cabling is not in use prior to protecting it.
  - 4. Each work area must be returned to its pre-work condition at the conclusion of each work day.
  - 5. When disturbing building elements such as ceiling tile or fire stopping in a fire rated enclosure/space during the course of labeling or selective cable removal these elements must be replaced/returned to a condition that maintains the fire rating for that space. This must be done at the end of each workday.
  - 6. Upon restoral of the cabling system each termination must be labeled and tested per Division 271500 "Horizontal Cabling System".
- B. Outages: If active cabling is cut, damaged, or otherwise rendered inoperable it is the contractor's responsibility to IMMEDIATELY NOTIFY the emergency contacts listed below. The cable owner will instruct the contractor on next steps.
  - 1. DFW Airport Operations Center (AOC) at (972) 973-3112
  - 2. Contractor Emergency Contact:
  - 3. Cable Owner:
    - a. DFW: DFW ITS Help Desk at (972) 973-9000
    - b. American Airlines Operational Technical Support (OTS) Group:
- C. Mitigation:
  - 1. Contractor is responsible to repair or replace damaged cable in a manner which meets or exceeds cable owner's requirements within the following parameters:
    - a. Cable owner determines type of repair that is acceptable:
      - 1) Generally, if damaged cable is permanent, backbone cable splicing will not be accepted, and new cable must be installed per owner's requirements.

2) Generally, if damaged cable is temporary, splicing will be permissible.

D. Removed and Salvaged Items:

1. Pack or crate items after removal. Identify contents of containers.
2. Store items in a secure area until delivery to Owner.
3. Transport items to Owner's storage area as designated by OAR.
4. Protect items from damage during transport and storage.

E. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by OAR, items may be removed to a suitable, protected storage location during selective demolition, cleaned and reinstalled in their original locations after selective demolition operations are complete.

### 3.6 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site.

1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent damage to adjacent surfaces and areas.
3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent. Removal method must be approved by the construction manager.

B. Burning: Do not burn demolished materials.

C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

### 3.7 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by labeling and selective cable demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

**END OF SECTION 02 41 19.27**