

# CUTTING AND PATCHING

## Section: 01 73 29

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### PART 1 – GENERAL

#### 1.1 SUMMARY

This Section includes the requirements and limitations of cutting and patching as part of the Work.

#### 1.2 RELATED REQUIREMENTS

- A. Section 01 11 00, Summary of Work
- B. Section 01 50 00, Temporary Facilities and Controls

#### 1.3 DESCRIPTION OF REQUIREMENTS

- A. Coordinate the patching of surfaces and finishes in areas where existing items are removed. Drilling the work to install fasteners and similar operations are excluded from the definition of cutting-and-patching.
- B. Adhere to all safety precautions as outlined in Section 01 11 00, Summary of Work.
- C. Refer to other sections of these specifications for specific cutting-and-patching requirements and limitations applicable to individual units of work.

#### 1.4 SUBMITTALS

- A. Submit a written request to Owner's Authorized Representative (OAR) in advance of executing cutting or alteration, other than required by Contract Documents, which affects:
  - 1. Work of Owner or any separate contractor.
  - 2. Structural value or integrity of any element of Project.
  - 3. Integrity or effectiveness of weather-exposed or moisture-resistant elements or systems.
  - 4. Efficiency, operational life, maintenance or safety of operational elements.
  - 5. Visual qualities of sight-exposed elements.
- B. Request shall include:
  - 1. Identification of Project.
  - 2. Location and description of the affected Work.
  - 3. Necessity for cutting, alteration or excavation.
  - 4. Effect on any work of the Owner or any separate contractor, or on structural or weatherproof integrity of Project.
  - 5. Description of proposed Work:
    - a. Scope of cutting, patching, alteration, or excavation.
    - b. Trades who will execute work.
    - c. Products proposed to be used.
    - d. Extent of refinishing to be done.
    - e. Cost proposal when applicable.
  - 6. Alternatives to cutting and patching.

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7. Written confirmation from manufacturer or installer of existing affected work that cutting and patching work will not void warranty.
- C. Submit a request for Substitution should conditions of Work or schedule indicate change of products from original installation.
- D. Submit written notice to the OAR designating date and time the work will be uncovered or altered.

#### **1.5 COORDINATION**

Coordinate the cutting and patching work with manufacturer and installer of warranted materials, products or systems to avoid voiding warranty where warranties are in force for the existing work.

#### **1.6 QUALITY ASSURANCE**

Requirements for Structural Work: Do not cut-and-patch structural work in a manner resulting in a reduction of load-carrying capacity or load/deflection ratio.

## **PART 2 – PRODUCTS**

### **2.1 MATERIALS**

- A. Provide materials for cutting-and-patching which will result in equal-or-better work than the work being cut-and-patched, in terms of performance characteristics and including visual effect where applicable. Comply with the requirements of the Contract Documents and use materials comparable with the original materials and where recognized that satisfactory results can be produced thereby.
- B. Submit request from the OAR for further direction should conditions of work or schedule indicates change of products that are not comparable with the original installation.

## **PART 3 – EXECUTION**

### **3.1 EXAMINATION**

- A. Examine existing conditions of the Work, including elements subject to damage or to movement during cutting, patching, excavating, and backfilling.
- B. Examine conditions affecting installation of products, or performance of work.
- C. Report unsatisfactory or questionable conditions to OAR. Do not proceed with the Work until notified by the OAR.

### **3.2 INSTALLATION**

- A. Do not cut-and-patch structural work in a manner resulting in a reduction of load-carrying capacity or load/deflection ratio. Provide adequate temporary support for work to be cut, to prevent failure. Do not endanger other work.
- B. Provide adequate protection of other work during cutting-and-patching, to prevent damage; and provide protection of the work from adverse weather exposure.
- C. Maintain excavations free of water.
- D. Conform to requirements for temporary barriers, enclosures, and controls described in Section 01 50 00.

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#### **3.3 DUST CONTROL**

Provide positive methods of dust control and apply dust control materials to minimize raising dust from cutting and patching operations.

#### **3.4 PERFORMANCE**

- A. Patch with seams which are durable. Complete with specified tolerances for the work.
- B. Employ skilled tradesmen to perform cutting-and-patching.
- C. Cut work by methods which will not cause to damage to materials to be retained and work adjoining the cut area.
  - 1. Flame cutting of the reinforcing bars is discouraged but permitted if in compliance with the requirements of the American Welding Society (AWS) D.1.1 Structural Welding Code – Steel and D.1.4 Structural Welding Code – Reinforcing Steel by an experienced welder and as per directions by the OAR. Flame cutting in the Air Operations Area (AOA) is not permitted.
  - 2. Where physical cutting action is required, cut work with sawing and grinding tools, not with hammering and chopping tools. Core drill openings through the concrete.
- D. Fit work to pipes, sleeves, ducts, conduit and other penetrations through surfaces as called for elsewhere in the Contract Documents. Allowing for movement where movement is required, fill space around pipe or insert with material with physical characteristics equivalent to fire-resistant requirement of penetrated surfaces where fire-rated separations are penetrated.
- E. Restore exposed finishes of patched areas and, where necessary, extend finish restoration onto retained work adjoining, in a manner, which will minimize evidence of patching.
- F. Refinish entire affected surface as necessary to provide even finish similar to adjacent finishes.

#### **PART 4 – MEASUREMENT AND PAYMENT**

Not Used.

**- END OF SECTION -**