

## SECTION 01731 - CUTTING AND PATCHING

## PART 1 - GENERAL

## 1.1 SUMMARY

## A. Section Includes:

1. Requirements and limitations for cutting and patching Work.
2. Products for patching and extending Work.
3. Transitions and adjustments.
4. Repair of damaged surfaces, finishes and cleaning.

## B. Related Requirements:

1. Construction Contract Between Walmart and Contractor (Par 3.12): Additional requirements for cutting and patching.
2. Section 01500 - Temporary Facilities and Controls: Temporary barriers.
3. Section 02023 - Selective Site Demolition: Procedures for removing existing materials and equipment.

## 1.2 PERFORMANCE REQUIREMENTS

A. Cutting and patching includes cutting into existing construction to provide for installation or performance of other work and subsequent fitting and patching required to restore surfaces to their original condition.

B. Cut into or partially remove portions of the existing building as required for new construction. Include such work as:

1. Cutting, moving or removal of items shown to be cut, moved or removed.
2. Cutting, moving or removal of items not shown to be cut, moved, or removed, but which must be cut, moved, or removed to allow for new construction. Work or items which are to remain in the finished work shall be patched or reinstalled after cutting, moving, or removal, and joints and finishes shall match adjacent or similar work.
3. Removal of existing surface finishes as needed to install new work and finishes.
4. Removal of abandoned items and removal of items serving no useful purpose; such as abandoned piping and electrical conduits to nearest J-boxes.
5. Repair or removal of dangerous or unsanitary conditions resulting from alterations work.

## C. Structural Work:

1. Do not cut and patch structural work in manner resulting in reduction of load-carrying capacity or load and deflection ratio.
2. Submit proposal for cutting and patching of structural work and obtain Walmart Construction Manager's approval prior to the structural alterations.

## D. Operational Limitations:

1. Do not cut and patch in manner resulting in decreased performance, shortened useful life, or increased maintenance.
2. Submit proposals for cutting and patching operational elements and safety components and obtain Walmart Construction Manager's acceptance prior to the work.

E. Quality Limitations: Do not cut and patch work exposed to view (exterior and interior) in manner resulting in noticeable reduction of aesthetic qualities and similar qualities, as determined by the Walmart Construction Manager.

F. Limitation on Acceptance: Walmart Construction Manager's acceptance to proceed with cutting and patching shall not waive right to later require removal or replacement of work found to be cut and patched in unsatisfactory manner as determined by Walmart Construction Manager.

- G. Obtain all required inspections and approvals from authorities having jurisdiction for Temporary Certificate of Occupancy for Offices and Stockroom at least seven calendar days prior to Walmart scheduled move into new Office and Stockroom areas.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Use materials for cutting and patching that are identical to existing materials. If identical materials are not available or cannot be used, use materials that match existing adjacent surfaces to fullest extent possible with regard to visual effect. Use materials for cutting and patching that will result in equal or better performance characteristics.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which work is to be performed before cutting. Take corrective action before proceeding with work if unsafe or otherwise unsatisfactory conditions are encountered.

### 3.2 PREPARATION

- A. Temporary Support: Provide temporary support of work to be cut to prevent failure.
- B. Protection:
  1. Protect other work during cutting and patching to prevent damage.
  2. Provide protection from adverse weather conditions for that part of project that may be exposed during cutting and patching operations.
  3. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
  4. Take precautions not to cut existing pipe, conduit, or duct serving building but scheduled to be relocated until provisions have been made to bypass them.

### 3.3 ALTERATIONS, CUTTING AND PROTECTION

- A. Extent
  1. Cutting and removal work shall be performed so as not to cut or remove more than is necessary and so as not to damage adjacent work.
  2. Conduct work in such a manner as to minimize noise and to minimize accumulation and spread of dirt and dust.
  3. Perform cutting for ductwork and other rectangular openings with carborundum saw with approved dust arrestor.
  4. Drill holes for conduit and piping using core drills.
  5. Use wet saw to saw cut interior building slabs or masonry/concrete walls. Saw cut and remove small sections by hand. Air (pneumatic) or electric jackhammers will not be allowed unless previously approved by Walmart Construction Manager and/or General Contractor. Ensure dust protection is provided (Refer to Section 01500 for temporary dust partitions).
- B. Shoring, Bracing and Capping: Provide shores, needling, and bracing as needed to keep building structurally secure and free of deflection in all its parts, and as needed for installation of new structural members. (Refer Section 02251).
- C. Responsibility and Assignment to Trades
  1. The General Contractor shall assign the work of moving, removal, cutting, patching and repair to trades under his supervision so as to cause the least damage to each type of work encountered, and so as to return the building as much as possible to the appearance of new work.
  2. Patching of finish materials shall be assigned to mechanics skilled in the work of the finish trade involved.

D. Protection

1. Protect remaining finishes, equipment, and adjacent work from damage caused by cutting, moving, removal and patching operations. Protect surfaces, which will remain a part of the finished work.
2. Protect existing facilities and features, within designated construction limits and along corridor access route to construction area.
3. Cover existing wall and floor finishes (if it remains) in work areas, in adjacent areas and along corridor access route to prevent damage from product delivery and construction operations.
4. During demolition, cutting and construction, provide positive dust control by wetting dust debris and by completely sealing openings to Walmart occupied and customer traffic areas with temporary partitions, so as to prevent spread of dust and dirt to adjacent areas.
5. After materials, equipment and machinery are installed, properly protect Work until final acceptance.
6. Any damage to the existing building resulting from construction operations shall be repaired by the Contractor without cost to the Walmart.

3.4 PATCHING, EXTENDING AND MATCHING

A. Skill

1. Patch and extend existing work using skilled mechanics capable of matching the existing quality of workmanship. The quality of patched or extended work shall not be less than that specified in the Sections of the Specifications, which follow these general requirements.

B. Patching

1. In areas where any portion of an existing finished surface is damaged, soiled, stained, or otherwise made or found to be imperfect, patch or replace the imperfect portion of the surface with matching material.
2. Provide adequate support or substrate for patching of finishes.
3. If the imperfect surface was a painted or coated one, repaint or recoat the patched portion in such a way that uniform color and texture over the entire surface results.
4. If the surrounding surface cannot be matched, repaint or recoat the entire surface to nearest corner or transition point.
5. At locations in existing areas where partitions are removed, patch the floors, walls and ceilings with finish materials to match new finishes.
6. Patch new concrete to match existing concrete substrate.

C. Quality

1. In the Sections of the Specifications, which follow these General Requirements, no concerted attempt has been made to describe each of the various existing products that must be used to patch, match, extend or replace existing work. Obtain all such products in time to complete the Work on schedule. Such products shall be provided in quality, which is in no way inferior to the existing products.
2. Where a product or type of construction occurs in the existing building, and it is not specified as a part of the new work, provide such products or types of construction as needed to patch, extend or match the existing work.
3. These Specifications will generally not describe existing products or standards of execution, nor will they enumerate products, which are not a part of the new construction. The existing product is its own specification.
4. The presence of any product or type of construction in the old work shall cause its patching, extending, or matching to be performed as necessary to make the work complete and consistent, to identical standards of quality.

D. Transitions

1. Where new work abuts or finishes flush with existing work, make the transition as smooth and workmanlike as possible. Patched work shall match existing adjacent work in texture and appearance so as to match new construction standards.
2. Where masonry or other finished surface is cut in such a way that a smooth transition with new work is not possible, terminate the existing surface in a neat fashion along a straight line at a natural line of division.
3. Where two or more spaces are indicated to become one space, rework ceilings so that horizontal planes, without breaks, steps or bulkheads result.

4. In cases of extreme change of ceiling or floor, obtain instructions from Walmart Construction Manager as to method of making transition.

E. Matching

1. Restore existing work that is damaged during construction to a condition equal to its condition at the time of the start of the Work.

END OF SECTION