

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- .1 Cutting and Patching covers adjustment to, and necessary reworking of, elements of construction in both new and existing work. The following definitions for cutting and patching apply to this contract.
 - .1 Cutting: Physical modification of construction work, both new and existing, or physical removal of installed materials.
 - .2 Patching: Restoration of replacement and installation of construction material, both new and existing, including finishing, repair, and painting necessary to restore the surface to the condition of finish at the time of cutting.

1.02 RESPONSIBILITY

- .1 The Contractor shall be responsible for all cutting, fitting or patching that is necessary to complete the work of its contract or to make its several parts fit together properly.
- .2 The Contractor shall not endanger any work by cutting or digging, and shall not cut or alter the work of any other sub contractor except with the consent of the Architect.
- .3 The Contractor shall provide opening for their work with the smallest opening possible in order to maintain existing materials integrity.

1.03 SUBMITTALS

- .1 Cutting and Patching Proposal: Where approval of procedures for cutting and patching is required before proceeding, submit a proposal describing procedures well in advance of the time cutting and patching will be performed and request approval to proceed. Include the following information, as applicable in the proposal:
 - .1 Describe the extent of cutting and patching required and not it is to be performed; indicate why it cannot be avoided.
 - .2 Describe anticipated results in terms of changes to existing construction; include changes to structural elements and operation components as well as changes in the buildings appearance and other significant visual elements.
 - .3 List products to be used and firms or entities that will perform work.
 - .4 Indicate dates when cutting and patching is to be performed.
 - .5 List utilities that will be disturbed or affected, including those that will be relocated and those that will be temporarily out-of-service. Indicate how long service will be disrupted.
 - .6 Where cutting and patching involves addition of reinforcement to structural elements

submit details and engineering calculations to show how reinforcement is integrated with the original structure.

- .7 Approval by the Architect to proceed with cutting and patching does not waive the Architect's right to later require complete removal and replacement of a part of the work found to be unsatisfactory.

1.04 QUALITY ASSURANCE

- .1 Requirements for Structural Work: Do not cut and patch structural elements in a manner that would reduce their load-carrying capacity or load-deflection ratio.

- .1 Obtain approval of the cutting and patching proposal before cutting and patching the following structural elements:
 - .1 Foundation construction.
 - .2 Bearing and retaining walls.
 - .3 Structural concrete.
 - .4 Structural steel.
 - .5 Lintels.
 - .6 Piping, duct work and equipment.

- .2 Operational and Safety Limitations: Don not cut and patch operating elements or safety related components in a manner that would result in reducing their capacity to perform as intended, or result in increased maintenance, or decreased operational life of safety.

- .1 Obtain approval of the cutting and patching proposal before cutting and patching the following operating elements or safety related systems.
 - .1 Shoring, bracing and sheeting.
 - .2 Primary operational systems.
 - .3 Water, moisture, or vapor barriers.
 - .4 Membranes and flashings.
 - .5 Control systems
 - .6 Electrical wiring system.

- .3 Visual Requirements: Don not cut and patch construction exposed on the exterior or in occupied spaces, in a manner that would, in the Architect's opinion, reduce the buildings aesthetic qualities, or result in visual evidence of cutting and patching. Remove and replace work cut and patch in a visually unsatisfactory manner.

PART 2 - PRODUCTS

2.01 MATERIALS

- .1 Use materials that are identical to existing materials. If identical materials are not available or cannot be used where exposed surfaces are involved. Use materials that match existing adjacent surfaces to the fullest extant possible with regard to visual effect. Use materials whose installed performance will equal or surpass that of existing materials.

PART 3 - EXECUTION

3.01 INSPECTION

- .1 Before cutting existing surfaces, examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed. Take corrective action before proceeding, if unsafe or unsatisfactory conditions are encountered.
- .2 Before proceeding, meet at the site with parties whose work interface with cutting and patching. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

3.02 PREPARATION

- .1 Temporary Support: Provide temporary support of work to be cut.
- .2 Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portion of the project that might be exposed during cutting and patching operations.
- .3 Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

3.03 PERFORMANCE

- .1 General: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.
 - .1 Cut existing construction to provide for installation of other components or performance of other construction activities and the subsequent fitting and patching required to restore surfaces to their original condition.
 - .2 Cutting: Cut existing construction using methods least likely to damage element to be retained or adjoining construction. Where possible review proposed procedure with the original installers recommendations.
 - .1 In general, where cutting is required use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots neatly to size required with minimum disturbance to adjacent surfaces. Temporarily cover openings when not in use.
 - .2 To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
 - .3 Cut through concrete and masonry using a cutting machine such as a Carborundum saw or diamond core drill.

- .4 By-pass utility services such as pipe or conduit, before cutting, where services are shown or required to be removed, relocated or abandoned. Cut-off pipe or conduit in walls or partitions to be removed. Cap, valve or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after by-passing and cutting.
- .3 Patching: Patch with durable seams that are as invisible as possible. Comply with specified tolerances.
 - .1 Where feasible, inspect and test patch areas to demonstrate integrity of the installation.
 - .2 Restore exposed finished of patch areas and extend finished restoration into retained adjoining construction a manner that will eliminate evidence of patching and refinishing.
- .4 Where removal of walls or partitions extends one finished area into another, patch and repair floor and wall surfaces in the new space to provide an even surface of uniform color and appearance. Remove existing floor and wall coverings and replace with new materials if necessary to achieve uniform color and appearance.
 - .1 Where patching occurs in a smooth painted surface, extend final paint coat over entire surface to extend to the first natural division (door frame, corner or material change) containing the patch, after the patch area has received primer and second coat.
- .5 Patch, repair or rehang existing ceilings as necessary to provide an even plane surface of uniform appearance.

3.04 CLEANING

- .1 Thoroughly clean areas and spaces where cutting and patching is performed or used as access. Remove completely pain, mortar, oils, putty and items of similar nature. Thoroughly clean piping, conduit and similar features before painting or other finishing is applied. Restore damaged pipe covering to its original condition.

END OF SECTION 01045