SECTION  – selective demolition

1. General
   1. SUMMARY
      1. Review drawings, site conditions, and other specification sections to ascertain the extent and nature of work of this section.
      2. The Work of this Section includes, but is not limited to the following:
         1. Demolish and removal of the following where indicated on the Drawings:
            1. Office partitions.
            2. Floor and wall finishes.
            3. Millwork.
            4. Doors, frames, and associated hardware.
            5. Plumbing where indicated on the Drawings.
            6. Portions of existing roofing materials to allow for new mechanical units.
            7. Power and data in demolished partitions or millwork, as indicated.
            8. Acoustic tile ceilings and associated hardware and trims.
         2. Disconnect/cap existing service in areas of demolition.
         3. Trace, demolish and remove decommissioned mechanical and electrical services found during demolition. Remove decommissioned services to the area of demolition to the source, leaving no buried services in walls and floors, unless otherwise approved by written notice from the Owner.
         4. Dispose of demolished materials except where required to be salvaged or reused.
         5. Refer to demolition notes indicated on all disciplines Drawings.
      3. Drawings contain details that suggest directions for solving some of the major demolition and removal requirements for this project; Contractor is required to develop these details further by submitting a demolition plan prepared by a professional engineer employed by the Contractor.
   2. REFERENCE STANDARDS
      1. American National Standards Institute (ANSI):
         1. ANSI A10.8‑2011, Scaffolding Safety Requirements
      2. Canadian Standards Association (CSA):
         1. CSA S350‑ M1980 (R2003), Code of Practice for Safety in Demolition of Structures.
      3. Provincial Legislation:
         1. Legislation specific to Authority Having Jurisdiction for work governed by this Section.
   3. DEFINITIONS
      1. Demolish: Detach items from existing construction and legally dispose of them off site, unless indicated to be removed and salvaged or removed and reinstalled.
      2. Remove and Salvage: Detach items from existing construction and deliver them to Owner ready for reuse.
      3. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.
      4. Existing to Remain: Existing items of construction that are not removed and that are not otherwise indicated as being removed, removed, and salvaged, or removed and reinstalled.
   4. EXAMINATION
      1. Visit and examine the site and note all characteristics and irregularities affecting Work of this Section. Submit a pre-demolition inspection report. Ensure the Owner of premises being inspected is represented at inspection.
      2. Where appropriate prepare a photographic or video record of existing conditions, particularly of existing work scheduled to remain.
      3. Where applicable, examine adjacent tenancies not part of the scope of work. Determine extent of protection required to areas and related components not subject to demolition.
   5. SUBMITTALS
      1. Provide required information in accordance with Section 01 33 00 – Submittal Procedures.
      2. Action Submittals: Provide the following submittals before starting any work of this Section:
         1. Prepare schedule in conjunction with overall project schedule and outline proposed methods in writing. Obtain approval before commencing demolition work, and indicate the following:
            1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity
            2. Interruption of utility services
            3. Coordination for shutoff, capping, and continuation of utility services
   6. QUALITY ASSURANCE
      1. Conform to requirements of all authorities having jurisdiction.
      2. Comply with applicable requirements of CSA S350-M "Code of Practice for Safety in Demolition of Structures".
      3. Work of this Contract shall be executed by an approved company having a minimum of five (5) years continuous experience and able to deploy adequate equipment and skilled personnel to complete work expediently in an efficient and orderly manner.
      4. Perform cutting and coring, where applicable, by a firm specializing in this type of work, able to produce evidence of successful completion of similar work over a period of at least five (5) years immediately prior to date of contract.
      5. Apply for, secure, arrange and pay for all permits, notices, and inspections necessary for proper execution and completion of work in this Section.
      6. Professional Engineer Qualifications: Procure the services of a professional engineer who is experienced in providing relevant engineering services to perform the following:
         1. Review portions of the Work requiring structural performance, prepare plan of action, engineer temporary shoring and bracing, and Provide site administration and inspection for work of this Section.
   7. PROTECTION
      1. Prevent movement or settlement of adjacent work. Provide and place bracing or shoring and be responsible for safety and support of such work. Be liable for any such movement or settlement, and any damage or injury caused.
      2. Cease operations and notify Consultant if safety of any adjacent work or structure appears to be endangered. Take all precautions to support the structure. Do not resume operations until reviewed with the Consultant.
      3. Prevent debris from blocking surface drainage inlets and mechanical and electrical systems which remain in operation.
      4. Temporarily suspended work that is without continuous supervision shall be closed to prevent entrance of unauthorized persons.
   8. REMAINING AND ADJACENT STRUCTURES
      1. Do not interfere with, encumber, endanger, or create nuisance, from any cause due to demolition work, to public property or any adjacent attached and/or detached structures in possession of Owner or others, which are to remain, whether occupied or unoccupied during this work.
      2. Make good damage to such structures resulting from work under this Section at no cost to Owner. Make good adjacent building surfaces damaged by work of this Section.
   9. PROTECTION OF SERVICES AND STRUCTURES
      1. Take necessary precautions to guard against movement, settlement or collapse of existing adjacent utility services, public property and/or structures, whether to remain or not. If these or other unforeseen conditions develop, take immediate emergency measures, report to Consultant, confirm in writing, and await instructions before proceeding with any further related demolition work.
      2. Prior to saw cutting or core drilling of existing concrete slabs, use ground penetrating radar (GPR) to detect utilities and structural reinforcing. Concrete X-Rays can be used when access to both sides of concrete slab is accessible for placement of required x-ray film.
   10. EXISTING SERVICES
       1. Prior to start of demolition disconnect all electrical service lines in the areas to be demolished. Post warning signs on all electrical lines and equipment which must remain energized to serve other areas during period of demolition. Disconnect electrical service lines in demolition areas to the requirements of local authority having jurisdiction.
       2. In each case, notify the affected utility company in advance and obtain approval where required before commencing with the work on main services.
       3. Arrange with utility companies for locating of such services and for disconnection of existing services owned by utility companies and which will be disconnected by said utility companies, provided such services do not interfere with adjacent tenancy operators.
       4. Remove sewer and water lines where required within existing building as deemed necessary, and cap to prevent leakage, in accordance with authorities having jurisdiction.
       5. Existing services are to be maintained where required for normal tenant operation during regular hours of operation and/or as deemed necessary by Owner.
   11. decommissioned services
       1. Remove fully decommissioned electrical and mechanical service lines, plumbing, ducting, fixtures, and all fasteners and supports for decommissioned items.
          1. Remove sewer and water lines where required within existing building as deemed necessary, and cap to prevent leakage, in accordance with authorities having jurisdiction.
       2. Patch and repair surfaces affected by this selective demolition to match existing adjacent surfaces, as approved by the Consultant.
   12. EXISTING WARRANTIES
       1. Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.
2. Products
   1. DEBRIS, SALVAGED MATERIAL AND EQUIPMENT DISPOSAL
      1. All materials and or equipment salvaged from demolition work becomes property of demolition Contractor unless designated otherwise.
      2. At no cost to Owner repair or replace material and/or equipment scheduled to remain which is damaged by demolition work. Do not sell any salvaged material or equipment directly from project site.
      3. Remove waste debris continually and entirely from project site during demolition work. Do not load vehicles transporting such debris beyond their safe capacity or in a manner which might cause spillage on public or private property. If spillage does occur, clean up immediately to prevent traffic hazards or nuisance.
   2. PROTECTION
      1. Temporary Protection:
         1. Erect temporary dust screens, as indicated in Section 01 50 00 – Temporary Facilities and Controls, to prevent dust and debris to enter areas of the building which are not scheduled for demolition. Remove temporary dust screens when no longer required.
   3. REPAIR MATERIALS
      1. Use repair materials identical to existing materials:
         1. If identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
         2. Use a material whose installed performance equals or surpasses that of existing material.
         3. Comply with material and installation requirements specified in individual Specification Sections.
      2. Floor Patching and Levelling Compounds: Cement based, trowelable, self‑levelling compounds compatible with specified floor finishes as indicated in Section 03 35 00 – Concrete Finishing.
      3. Gypsum Board Patching Compounds: Joint compound to ASTM C475, bedding and finishing types thinned to provide skim coat consistency to patch and prepare existing gypsum board walls ready for new finishes in accordance with Section 09 29 00 – Gypsum Board.
      4. Fireproofing: Patch and repair all fireproofing damaged during demolition of adjacent surfaces with compatible fireproofing materials. Provide test reports from fireproofing manufacture warranting installation, adhesion, and compatibility between existing and new fireproofing materials.
      5. Roofing: Remove no more existing roofing than can be covered in one day by new roofing. Refer to Section 07 01 50 – Maintenance Roofing Work, for new roofing requirements.
   4. EXISTING MATERIALS
      1. Items to be retained for re‑use in new construction include, but are not limited to the following:
         1. Relocate existing fire extinguisher in locations indicated on the Drawings.
         2. Salvage existing atrium tile base for use in new work, adjacent to existing work.
         3. Relocate pendent fixture and all associated hardware and support system, as indicated on the Drawings.
         4. Confirm with Consultant any materials that appear to be in re‑usable condition prior to disposal.
         5. Confirm with Consultant any materials scheduled for re‑use that are not in re‑usable condition prior to installation.
3. Execution
   1. GENERAL
      1. Exercise caution in dismantling, disconnecting of work adjacent to existing work designated to remain.
      2. Carry out demolition in a manner to cause as little inconvenience to the adjacent properties as possible.
      3. Carry out demolition in an orderly and careful manner.
      4. Demolition by explosives is not permitted.
      5. Selling or burning of materials on site is not permitted.
      6. Sprinkle exterior debris with water to prevent dust. Do not cause flooding, contaminated run-off or icing. Do not allow waste material, rubbish, and windblown debris to reach and contaminate adjacent properties.
      7. Lower waste materials in a controlled manner; do not drop or throw materials from heights.
      8. At end of each day's work, leave in safe condition so that no part is in danger of toppling or falling.
   2. SAFETY AND SECURITY
      1. Maintain security of the building at all times during demolition work.
      2. Provide and maintain fire prevention equipment and alarms accessible during demolition.
   3. ACCESS ROUTES
      1. Restrict operations to designated access routes.
      2. Do not obstruct roads, parking lots, sidewalks, hydrants, and the like.
   4. SELECTIVE DEMOLITION
      1. Provide necessary shoring and supports to assure safety of structure prior to cutting and coring.
      2. Where practical, sawcut and remove material as required.
      3. Where sawcutting is not appropriate, use suitable hand tools.
      4. Demolish, cut-out and remove from site all other work noted on drawings or required to permit new construction.
      5. Do not allow water to accumulate or flow beyond work area. Provide receptacles and mop-up as work proceeds.
      6. Fill all openings in gypsum board walls with gypsum board and steel framing to match existing, skim coat to make wall smooth and even.
      7. Demolish completely all ceiling panels and grid as indicated.
      8. Patch and repair all walls, floor and ceilings damaged during demolition with material matching adjacent walls, prepare ready for new finishes.
         1. Prepare existing surfaces schedule to receive new finish by grinding, filling, over-coating, stripping, washing, etching, shot blasting or other chemical or mechanical means, as required to ensure satisfactory installation of new finish.
   5. PATCHING AND REPAIRING
      1. Floors and Walls:
         1. Where walls or partitions that are demolished extend from one finished area into another, patch and repair floor and wall surfaces in the new space.
         2. Provide a level and smooth surface having uniform finish colour, texture, and appearance.
         3. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform colour and appearance.
         4. Patch with durable seams that are as invisible as possible.
         5. Provide materials and comply with installation requirements specified in other Sections of these Specifications.
         6. Patch any existing areas adjoining / adjacent to new construction in good workmanship, filling and finishing gaps between finishes to allow new work to blend seamlessly with existing work.
         7. Where patching occurs in a painted surface, apply primer and intermediate paint coats over patch and apply final paint coat over entire unbroken surface containing patch. Provide additional coats until patch blends with adjacent surfaces.
         8. Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
      2. Ceilings: patch, repair, or re‑hang existing ceilings as necessary to provide an even‑plane surface of uniform appearance.
   6. EXCESSIVE DEMOLITION
      1. Where excessive demolition occurs, be responsible for cost of replacing such work.
      2. Consultant shall determine extent of such 'over-demolition' and method of rectification.
   7. COMPLETION
      1. Leave project site as directed, reasonably clean and presentable, free from above grade debris, any salvaged material and/or equipment except those designated to remain.
      2. Maintain access to exits clean and free of obstruction during removal of debris.

END OF SECTION