

## **1 General**

### **1.01 RELATED REQUIREMENTS**

- .1 Section 08 11 00 – Metal Doors and Frames: For installation of metal doors and frames.
- .2 Section 08 14 16 – Flush Wood Doors: For installation of salvaged wood doors.
- .3 Section 12 24 13 – Window Shades: For installation of existing window blinds.

### **1.02 REFERENCES**

- .1 CSA Standard S350-M1980 (R2003), Code of Practice for Safety in Demolition of Structures.
- .2 Department of Justice Canada (Jus)
  - .1 Canadian Environmental Assessment Act (CEAA), 2012
  - .2 Canadian Environmental Protection Act (CEPA), 2012
    - .1 Transportation of Dangerous Goods Act (TDGA), 1992, c. 34
    - .2 Motor Vehicle Safety Act (MVSA), 1995
    - .3 Hazardous Materials Information Review Act, 1985.
- .3 National Fire Protection Association (NFPA)
  - .1 NFPA 241 13, Standard for Safeguarding Construction, Alteration, and Demolition Operations

### **1.03 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: Synonymous with Demolish.
- .3 Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage. Deliver salvaged materials to Departmental Representative-designated location.
- .4 Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated. Store materials scheduled for reuse in the Work; include fasteners or brackets needed for reattachment elsewhere.
- .5 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.
- .6 Waste Management Coordinator (WMC): Contractor representative responsible for supervising waste management activities as well as coordinating related, required submittal and reporting requirements.

- .7 Draft Construction Waste Management Plan (Draft CWM Plan): Detailed inventory of materials in building indicating estimated quantities of reuse, recycling and landfill, prepared in accordance with Section 01 74 21 – Construction/Demolition Waste Management and Disposal and as follows:
  - .1 Involves quantifying by volume/weight amounts of materials and wastes generated during construction, demolition, deconstruction, or renovation project.
- .8 Construction Waste Management Plan (CWM Plan): Written plan addressing opportunities for reduction, reuse, or recycling of materials prepared in accordance with Section 01 74 21- Construction/Demolition Waste Management and Disposal.
- .9 Construction Waste Management Report (CWM Report): Written report identifying actual materials that formed CWM Plan for reduction, reuse, or recycling of materials prepared in accordance with Section 01 74 21- Construction/Demolition Waste Management and Disposal.
- .10 Hazardous Substances: Dangerous substances, dangerous goods, hazardous commodities and hazardous products may include asbestos, mercury and lead, PCB's, poisons, corrosive agents, flammable substances, radioactive substances, or other material that can endanger human health or wellbeing or environment if handled improperly as defined by the Federal Hazardous Products Act (RSC 1985) including latest amendments.

#### **1.04 ADMINISTRATIVE REQUIREMENTS**

- .1 Coordination: Coordinate with Departmental Representative for the material ownership as follows:
  - .1 Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain, demolished materials become Contractor 's property and shall be removed from Project site.
  - .2 Coordinate selective demolition work so that work of this Section adheres to aesthetic criteria established by the Drawings and specified dimensions with all elements in planes as drawn, maintaining their relationships with all other building elements.
  - .3 Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to Departmental Representative that may be encountered during selective demolition remain Departmental Representative's property:
    - .1 Carefully remove and salvage each item or object in a manner to prevent damage and deliver promptly to Departmental Representative.
- .2 Work by Others: Coordinate with Departmental Representative for removal of existing security devices as indicated on electrical drawings.
- .3 Pre Demolition Meeting: Convene meeting one week prior to beginning work of this Section, with Contractor, Departmental Representative in accordance with Section 01 31 19- Project Meetings to:
  - .1 Confirm extent of salvaged and demolished materials
    - .1 Review and record condition of elements designated for salvage.
    - .2 Discuss Departmental Representative's location for final storage of salvaged components.

- .2 Review Contractor 's demolition plan
  - .1 Verify existing site conditions adjacent to demolition work
  - .2 Coordination with other construction sub trades
- .3 Review procedures for noise control and dust control.
- .4 Review requirements of work that rely on substrates exposed by selective demolition operations.
- .5 Review procedures for protection of adjacent building elements, components and finishes.
- .4 Hold project meetings every week.
- .5 Ensure key personnel, site supervisor, subcontractor representatives, WMC attend.
- .6 WMC must provide verbal report on status of waste diversion activity at each meeting.

#### **1.05 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Make submittals in accordance with Section 01 33 00 – Submittal Procedures.
- .2 Make following submittals before starting any work of this Section:
  - .1 Submit Schedule of Selective Demolition Activities: Indicate following:
    - .1 Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity.
    - .2 Coordinate with Departmental Representative, for ongoing site operations, and limit the number of interruptions during regular business hours.
    - .3 Interruption of utility services. Indicate duration of utility services interruption.
    - .4 Coordination for shutoff, capping, and continuation of utility services.
    - .5 Use of elevator and stairs. Refer to Section 01 14 00 – Work Restrictions.
    - .6 Locations of temporary partitions and means of egress, including for others affected by selective demolition operations.
    - .7 Coordination with Departmental Representative for continuing occupancy of portions of existing building.
  - .2 Demolition Plan: Submit a plan of demolition area indicating extent of temporary facilities and supports, methods of removal and demolition prepared by a professional engineer in accordance with requirements of Authority Having Jurisdiction, and as follows:
    - .1 Proposed Dust Control, Noise Control measures: Submit statement or drawing that indicates the measures proposed for use, proposed locations, and proposed time frame for their operation. Departmental Representative reserves the right to make modifications where proposed methods interfere with the ongoing building operation.
    - .2 Inventory: Submit a list of items that have been removed and salvaged after selective demolition is complete.
    - .3 Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

- .4 Pre demolition Photographs : Submit photographs indicating existing conditions of adjoining construction and site improvements prior to starting Work. Include finish surfaces that may be misconstrued as damage caused by selective demolition operations.
- .3 Proposed Protection Measures: Submit description of proposed measures for protecting individuals and property including but not limited to components and finishes scheduled to remain; character defining elements, and for dust control and noise control. Indicate proposed locations and construction of temporary barriers.

#### **1.06 QUALITY ASSURANCE**

- .1 Regulatory Requirements: Perform work as follows; use most restrictive requirements where differences occur between the municipal, provincial and federal jurisdictions:
  - .1 Provincial and Federal Requirements: Perform work in accordance with governing environmental notification requirements and regulations of the Authority Having Jurisdiction.
  - .2 Municipal Requirements: Perform hauling and disposal operations in accordance with regulations of Authority Having Jurisdiction.
  - .3 Conform to Saskatchewan Occupational Health and Safety Act and Regulation.
  - .4 Conform to Workers' Compensation Board Regulations.
  - .5 Conform to City of local bylaws and regulations governing this type of work.
- .2 Perform selective demolition work by specialists familiar with materials affected.
- .3 Regulatory Requirements: Perform work in compliance with CEPA, TDGA, and applicable Provincial and Municipal regulations.

#### **1.07 WASTE MANAGEMENT AND DISPOSAL**

- .1 Place materials defined as hazardous or toxic in designated containers.
- .2 Handle and dispose of hazardous materials in accordance with CEPA, TDGA, regional and municipal regulations.
- .3 Dispose of materials that are not scheduled for salvage and cannot be recycled, in accordance with applicable codes at licensed facilities.

#### **1.08 ENVIRONMENTAL PROTECTION**

- .1 Ensure that selective demolition work does not adversely contribute to excess air and noise pollution.
- .2 Do not dispose of waste of volatile materials including but not limited to, mineral spirits, oil, petroleum based lubricants, or toxic cleaning solutions into watercourses, storm or sanitary sewers.
  - .1 Ensure proper disposal procedures are maintained throughout Work.
- .3 Do not pump water containing suspended materials into watercourses, sanitary or storm system.

## **1.09 SITE CONDITIONS**

- .1 Portions of building immediately adjacent to selective demolition area will be occupied.
  - .1 Conduct selective demolition so that building operations will not be disrupted.
  - .2 Provide before disrupting building access or services in accordance with Section 01 14 00 – Work Restrictions.
- .2 Maintain access to existing means of egress, walkways, corridors, exits, and other adjacent occupied or used facilities
  - .1 Do not close or obstruct walkways, exits, or other facilities used by occupants of adjacent areas without written permission from Departmental Representative or Authority Having Jurisdiction.
  - .2 Provide temporary exiting requirements as required by authorities having jurisdiction.
- .3 Hazardous Materials: The building is constructed with known hazardous materials.
  - .1 Hazardous materials will be as defined in the Hazardous Materials Act
  - .2 Building Asbestos Reports are included a separately bound appendix document.
    - .1 Examine report to become aware of locations where hazardous materials are present.
  - .3 If materials suspected of containing hazardous materials are encountered in course of work, do not disturb; immediately notify Departmental Representative.
    - .1 Hazardous materials will be removed by Departmental Representative under a separate contract or as a change to the Work.

## **2 Products**

### **2.01 DESCRIPTION**

- .1 Work of this Section includes, but is not necessarily limited to, following:
  - .1 Demolition, removal completely from site, and disposal of all identified components, materials, equipment and debris.
  - .2 Selective demolition to allow new walls, bulkheads, ceilings and other materials to meet existing construction as indicated
  - .3 All material from demolition shall be removed from site immediately with no salvage, selling, sorting or burning permitted on site
  - .4 Retain items indicated on drawings for re use in new construction

### **2.02 DEBRIS**

- .1 Make arrangements for transport and disposal of demolished materials from site.

### **2.03 EQUIPMENT**

- .1 Provide equipment required for safe and proper demolition of building interiors indicated.
- .2 Wherever possible use equipment driven by electric motor. Pneumatic and gas driven equipment are not permitted.
- .3 Do not use vibrating equipment for removal of masonry or concrete.

## **2.04 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 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; gypsum based products are not acceptable for work of this Section.
- .3 Concrete Unit Masonry: Lightweight concrete masonry units, and mortar, cut and trimmed to fit existing opening to be filled. Provide standard hollow core units, square end units and bond beam units as indicated on drawings.
- .4 Gypsum Board Patching Compounds: Joint, bedding and finishing compounds to Section 09 21 16 – Gypsum Board
  - .1 Provide skim coat to patch and prepare existing painted gypsum board walls in construction area ready for new finishes in accordance with Section 09 21 16 – Gypsum Board Systems.
- .5 Hoarding and Dust Screens: Refer to Section 01 56 00 – Temporary Barriers and Enclosures.

## **2.05 EXISTING MATERIALS**

- .1 Items to be retained for re use in new construction include, but are not limited to following:
  - .1 Cabinet convector heater covers.
  - .2 Visual display boards.
  - .3 Specialties.
  - .4 Window coverings.
  - .5 Thermostats.
  - .6 Other miscellaneous items identified on drawings.
- .2 Confirm with Departmental Representative materials scheduled for re use that are not in re usable condition prior to installation

## **3 Execution**

### **3.01 EXAMINATION**

- .1 Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- .2 Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.

- .3 Notify Departmental Representative where existing mechanical, electrical, or structural elements conflict with intended function or design:
  - .1 Investigate and measure the nature and extent of conflict and submit written report to Departmental Representative.
  - .2 Departmental Representative will issue additional instructions or revise drawings as required to correct conflict.
- .4 Confirm existing electrical systems are in working condition prior to carrying out modifications.
  - .1 Where existing systems are not operable, notify Departmental Representative prior to carrying out work.
  - .2 Inoperable electrical systems will be repaired by Departmental Representative under separate contract or as change to the Work at the sole discretion of the Departmental Representative.

### **3.02 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS**

- .1 Existing Services/Systems to Remain: Maintain services/systems not indicated for demolition and protect them against damage.
  - .1 Protect existing fire alarm devices and exit lighting, and keep in service for duration of work.
  - .2 Provide temporary support acceptable to Departmental Representative for existing services to remain where required by demolition of existing supporting structures.
- .2 Existing Services/Systems to Be Removed, Relocated: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
  - .1 Arrange to shut off indicated utilities with utility companies as required.
  - .2 If services/systems are required to be removed, or relocated, before proceeding with selective demolition provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
    - .1 Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing.
    - .2 Cut off pipe or conduit to a minimum of 25 mm below slab, and remove concrete mound. Patch concrete using cementitious grout.
  - .3 Disconnect, demolish, and remove plumbing, and HVAC systems, equipment, and components indicated to be removed.
    - .1 Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
    - .2 Equipment and Fixtures to Be Removed: Disconnect and cap services and remove equipment and fixtures.
    - .3 Ducts to Be Removed: Remove portion of ducts indicated and plug remaining ducts with same or compatible ductwork material.
  - .4 Abandonment of redundant equipment and systems in place is unacceptable. Remove unused services back to active mains. Cap at existing point of connection to main.

### 3.03 PREPARATION

- .1 Check conditions, obtain and confirm actual site dimensions, as required to ensure correct execution of Work. Notify Departmental Representative in writing of matters, discrepancies between actual site conditions and Contract Documents that may hinder proper execution of Work.
- .2 Identify and mark all equipment and materials identified to be retained by Departmental Representative, or to be re used in subsequent construction. Separate and store items to be retained in an area away from area of demolition and protect from accidental disposal.
- .3 Post warning signs on electrical lines and equipment that must remain energized to serve other areas during period of demolition.
- .4 Do not disrupt active or energized utilities crossing the demolition site
- .5 Provide and maintain barricades, warning signs, protection for workmen and the public during the full extent of Work in accordance with Section 01 56 00 – Temporary Barriers and Enclosures.
- .6 Arrange for temporary disruption of existing services with Departmental Representative.
- .7 Adjust all junction boxes, receptacles and switch boxes flush with new wall construction where additional layers to existing construction are indicated.
- .8 Locate, disconnect, cap, plug or divert, as required, existing utility services within property where they interfere with execution of Work, in conformity with requirements of authorities having jurisdiction. Mark location of these and previously capped or plugged services and indicate location (horizontal and vertical) on record drawings. Support and maintain pipes and conduits encountered.
  - .1 Immediately notify Departmental Representative, in case of damage to any service, designated to remain in place.
- .9 Immediately notify Departmental Representative should uncharted utility or service be encountered, and await instruction in writing regarding remedial action.

### 3.04 SELECTIVE DEMOLITION

- .1 Carefully remove items indicated for reuse and reinstallation. Store in dry, weather protected location for reinstallation where indicated.
- .2 Carefully remove items indicated for salvage. Transport to location on property as directed by Departmental Representative.
- .3 Selectively demolish and remove existing construction only to extent required by future construction and as indicated.
  - .1 Demolish and dismantle work in neat and orderly manner and in strict accordance with all regulations.
  - .2 Demolish in a manner to minimize dusting and to prevent migration of dust.
- .4 At end of each day's work, leave Work in safe condition so that no part is in danger of toppling or falling.



- .5 Remove existing equipment, services, and obstacles where required for refinishing or making good of existing surfaces, and replace as work progresses.
- .6 Neatly cut walls, openings and holes plumb, square, and true to dimensions required.
  - .1 Use cutting methods least likely to damage construction to remain or adjoining construction.
  - .2 Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces.
  - .3 Temporarily cover openings to remain.
  - .4 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 Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
- .8 Demolish existing carpet, resilient flooring and adhesive remnants as follows:
  - .1 Vacuum existing carpet thoroughly, prior to removal, using vacuum equipped with power head/sweeper.
  - .2 Apply fine mist water spray to carpet as required to minimize dust generation during removal. Avoid spraying near electrical outlets.
  - .3 Demolish existing carpet and resilient floor finishes, remove and dispose of off site.
  - .4 Remove adhesive to the greatest extent possible using scrapping tools and as follows:
    - .1 Do not use solvent based cleaners to remove adhesive remnants.
    - .2 Lightly shot blast or grind floor using machine designed for purpose to remove adhesive remnants.
    - .3 Vacuum floor ready for application of skim coating.
    - .4 Repair all slab depressions and damage with cementitious patching compound.
    - .5 Skim coat floor with minimum 1 mm thick cementitious floor underlayment compatible with new flooring materials.
  - .5 Floor substrate shall be smooth, free from ridges and depressions, and adhesive remnants that could telegraph through resilient flooring materials and carpets.
  - .6 Recycle materials in accordance with Section 01 74 21 – Construction/Demolition Waste Management and Disposal.
- .9 Demolish ceiling components as indicated. Retain in place existing ceiling suspension wall angle at perimeter widow walls and as indicated.
- .10 Patch and repair all walls, floor and ceilings damaged during demolition with material matching adjacent walls, prepare ready for new finishes.
- .11 Protect interiors of parts not to be demolished from exterior elements at all times.
  - .1 Refer to Section 01 56 00 – Temporary Barriers and Enclosures.
- .12 Lower waste materials in controlled manner; do not drop or throw materials from heights.
- .13 Contain fibrous materials (e.g. insulation) to minimize release of airborne fibres while being transported within facility.

### **3.05 REMOVAL FROM SITE**

- .1 Remove and dispose of demolished materials off-site in accordance with authorities having jurisdiction, and Section 01 74 21 – Construction/Demolition Waste Management and Disposal.
- .2 Burning of materials on site is not permitted.

### **3.06 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 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.
  - .7 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.

### **3.07 PROTECTION**

- .1 Prevent movement, settlement or damage of adjacent parts, components, systems, and assemblies of existing building to remain.
- .2 Protect construction indicated to remain against damage and soiling during selective demolition.
  - .1 When permitted by Departmental Representative, items may be removed to suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.
- .3 Do not damage or deface existing construction, equipment or finishes indicated to remain.
- .4 Provide temporary dust screens, covers, supports and other protection as required. Refer to Section 01 56 00 – Temporary Barriers And Enclosures.
- .5 Maintain safe access to and egress from occupied areas adjoining.
- .6 Provide and maintain fire prevention equipment and alarms accessible during demolition.

### **3.08 CLEANING AND RESTORATION**

- .1 Develop Construction Waste Management Plan related to Work of this Section and in accordance with Section 01 74 21– Construction/Demolition Waste Management and Disposal.
- .2 Waste Management: Separate waste materials for reuse, recycling in accordance with Section 01 74 21- Construction/Demolition Waste Management and Disposal , and as follows:
  - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.
- .3 Divert excess materials from landfill to site approved by Departmental Representative.
- .4 Promptly as the Work progresses, and on completion, clean up and remove from the site all rubbish and surplus material.
  - .1 Remove rubbish resulting from demolition work daily in accordance with Section 01 74 11 - Cleaning.
- .5 Transport material designated for alternate disposal using approved receiving organizations listed in CWM Plan and in accordance with applicable regulations.
  - .1 Written authorization from Departmental Representative is required to deviate from receiving organizations listed in CWM Plan.
- .6 Dispose of materials not designated for alternate disposal in accordance with applicable regulations.
  - .1 Disposal facilities must be those approved of and listed in CWM Plan.
  - .2 Written authorization from Representative Consultant is required to deviate from disposal facilities listed in CWM Plan.
- .7 Clean existing materials indicated for reinstallation.
  - .1 Clean prior to storing.
  - .2 Obtain written cleaning instructions from original manufacturer.
- .8 Damage from Demolition: Upon completion of Work of this Section review designated work area with Departmental Representative to identify areas damaged by demolition.
  - .1 Reinstate areas affected by Work to condition which existed prior to beginning of Work as established by pre-construction photographs.
  - .2 Where pre-construction photographs do not show pre-existing conditions, repair damage as directed by Departmental Representative.

**END OF SECTION**

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