

**PART E**  
**SPECIFICATIONS**

## **PART E - SPECIFICATIONS**

### **GENERAL**

#### **E1. GENERAL**

E1.1 These Specifications shall apply to the Work.

E1.2 The following Drawings are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing</u>
Appendix A	Building Photos
A-1	Cleaning House - Cover Sheet
A-2	Cleaning House - Basement Plan
A-3	Cleaning House - Work Floor Plan
A-4	Cleaning House - Second Floor (Mezzanine) Plan
A-5	Cleaning House - Third Floor Plan
A-6	Cleaning House - Fourth Floor Plan
A-7	Cleaning House - Fifth Floor Plan
A-8	Cleaning House - Sixth Floor Plan
A-9	Cleaning House - Seventh Floor Plan
A-10	Cleaning House - Eighth Floor Plan
A-11	Cleaning House - Ninth Floor Plan
A-12	Cleaning House - Tenth Floor Plan
A-13	Cleaning House - Head Floor Plan
A-14	Cleaning House - Building Longitudinal Section
A-15	Cleaning House - Building Cross Section
B-1	Boiler House - Cover Sheet
B-2	Boiler House - Floor Plan
B-3	Boiler House - Building Section
B-4	Boiler House - Building Elevation
B-5	Boiler House - Floor Plan
C-1	Demolition Site Plan
M-1	New Motor Room - Front Elevation
M-2	New Motor Room - Building Section
M-3	New Motor Room - First Floor Plan
M-4	New Motor Room - Foundation Plan
M-5	New Motor Room - First Floor Construction Plan
M-6	New Motor Room - Building Section
M-7	New Motor Room - Building Sections
M-8	New Motor Room - Roof Construction Plan

#### **E2. UTILITIES**

E2.1 The Contractor shall arrange and pay for the appropriate utility to disconnect and seal off from the Site, all service lines, pipes or conduits other than gas and hydro, that service the building(s) to be demolished. The Contractor shall confirm with appropriate utilities that the gas and hydro connections have been disconnected, properly capped and meters removed.

E2.2 The Contractor shall disconnect and seal off all sewer and water service connections. All sewer and water disconnects must be done by a licensed contractor approved by the City of Winnipeg to do such work.

E2.3 The Contractor shall provide each utility with adequate prior notification as to when they will require these disconnection and sealing of services.

### **E3. PROTECTIVE BARRICADES**

E3.1 The Contractor shall provide and erect all protective barricades as required in accordance with the requirements of the employment safety regulations under the Workplace Safety and Health Act, Employment Safety Act and Winnipeg By-Law No. 1481/77 pertaining to erection of barricades for protection.

E3.2 The Contractor shall provide additional temporary barricades for demolition zones in the street right of way as may be necessary for any dangerous demolition operation. Remove such temporary barricades as soon as possible once work is complete, in order to prevent unnecessary disruption to traffic.

E3.3 The Contractor shall be responsible for maintaining all protective barricades, fencing, gates, walkways, lights, etc. in good operating condition for the entire period between the Award of Contract and the completion of this demolition project. Ensure all protective barriers and barricades are installed to prevent access by unauthorized personnel.

### **E4. GENERAL**

E4.1 General and Related Work

E4.1.1 This Section applicable to all work in conjunction with drawings and specifications.

E4.1.2 Site Conditions identifies the buildings and structures to be demolished as part of this contract. The information provided is for general reference only. The Contractor must confirm existing conditions on Site prior to Bid Opportunity closing.

E4.1.3 It is the intent that Work performed under this Section will result in the entire demolition and removal of all building, structures and equipment on the site known as 49 Higgins Avenue.

E4.2 Outline of Work

E4.2.1 Visit the site prior to Bid Opportunity closing to confirm the site conditions and extent of work in this contract. Report any discrepancies to Contract Administrator immediately.

E4.2.2 All necessary permits are to be applied for and paid for prior to start of work.

E4.2.3 Provide all necessary protective measures prior to start of demolition work including protective barriers, signage and safety requirements approved by authorities having jurisdiction.

E4.2.4 Prior to any demolition work being done on the high level suspended catwalk (between the concrete silos), the Contractor must remove all asbestos containing materials (ACM) exterior cladding as per Workplace Safety and Health and Manitoba Conservation requirements and approved by the Contract Administrator.

E4.2.5 Demolition to include high rise masonry smoke stack, 1 storey boiler house, existing rubble pile, 11 storey concrete elevator cleaning house, 27 concrete grain silos (15 at 5.5 M diameter and 12 at 6.7 M diameter) and high level steel/concrete overpass connecting grain silos. Demolish all buildings and structures on site including contents, foundations and grade beams, columns, footings and piles to 2.5 M below grade. Concrete floors at below grade levels to be jack hammered into rubble prior to any back filling.

- E4.2.6 Remove all piping from underground concrete duct traversing Higgins Ave. Fill duct with granular fill once all piping/equipment is removed to capacity.
- E4.2.7 The Contractor is to remove all excess materials from the site and recycle as much material as possible. The Contractor to load and haul material that cannot be recycled to City of Winnipeg Brady Road Landfill Site for disposal. The City will be responsible to pay for all tipping fees to City Landfill Site.
- E4.2.8 Contractor is to remove all asphalt paving on the site.
- E4.2.9 Backfill excavation areas with rubble material and cap with 1' – 0" clay top.
- E4.2.10 Grade site for proper drainage to prevent ponding of water and draining on to neighbouring properties. All existing earth berms to be graded level.
- E4.2.11 Contractor to remove all existing chain link fencing and posts at completion of project.
- E4.3 Existing Site Conditions
- E4.3.1 All known hazardous materials have been removed from all buildings with exception to the exterior asbestos cement panels enclosing the high level catwalk and the above ground fuel tank.
- E4.3.2 The existing rubble pile between the buildings was partially removed during a 1997 building fire and some portions still remain on site.
- E4.3.3 Powerhouse building – 1 storey brick/concrete construction contains 3 large boilers, high rise brick smoke stack, above ground empty fuel tank and underground tunnel traversing Higgins Ave.
- E4.3.4 Elevator cleaning building - 11 storey brick/concrete building with some wooden floors and stairwells missing from a 1997 fire. Entire building has some uncovered openings in the floor creating unsafe conditions. Precautions must be taken when entering each floor level.
- E4.3.5 15 grouped concrete silos, approximately 6.7 M diameter.
- E4.3.6 12 grouped concrete silos approximately 5.5 M diameter.
- E4.3.7 38 M long concrete/steel structure high level walkway conveyor overpass connecting the silos together.
- E4.3.8 Asbestos cement panel cladding is present on the walkway/conveyor overpass connecting the Grain silos.
- E4.3.9 Asbestos gasket materials on existing boiler access doors.
- E4.3.10 Chain link fenced in property as noted around power house and 11 storey structure
- E4.3.11 Gas and electric utilities on site have been disconnected. Contractor to arrange and pay costs for sewer and water cutoffs.
- E4.3.12 Building hazards including floor openings, missing barricades or guardrails and potential for falling debris exist on site. Contractor to make him/her self and workers aware of existing site conditions.
- E4.4 Dust Control
- E4.4.1 Ensure all work proceeds to schedule, meeting requirements of this specification.
- E4.4.2 Complete work so that airborne dust and debris are kept to a minimum and within the project site.

- E4.4.3 The Contract Administrator reserves the right to require the Contractor to take action to minimize dust if deemed necessary.
- E4.4.4 Keep noise, dust, and inconvenience to occupants of adjacent buildings to minimum.
- E4.4.5 Provide temporary dust screens, covers, railings, supports, and other protection as required.
- E4.4.6 Cooperation and consideration to be given to neighbouring business and operations as approved by Contract Administrator.
- E4.5 Notification
  - E4.5.1 Notify Sanitary Landfill site as per local requirements.
  - E4.5.2 Inform all workers on site of the presence of hazardous areas ie. floor openings, etc. Notify workers of presence of hazardous materials being the asbestos cement cladding and asbestos boiler gasket material identified in these specifications.
- E4.6 Protection
  - E4.6.1 Prevent movement, settlement or damage of adjacent structures, services, walks, paving, trees, landscaping and adjacent grades. Provide any necessary bracing, shoring or underpinning as required. Repair damage caused by demolition as directed by Contract Administrator at Contractors expense.
  - E4.6.2 Support affected structures and cease operations and notify Contract Administrator if safety of structure being demolished or adjacent structures appear to be endangered. Provide Contract Administrator with corrective measures stamped by a professional engineer licensed to practise in the Province of Manitoba. Perform all necessary works, once approved by Contract Administrator at the Contractor's expense.

## **E5. HAZARDOUS MATERIALS**

- E5.1 If asbestos or other hazardous materials are discovered during the Work of the Contract, the Contractor shall stop all work immediately and notify the Contract Administrator. The Contract Administrator will determine measures to be taken for removal of the hazardous materials before the Contractor may resume work on the site.

## **E6. DEMOLITION**

- E6.1 Notify neighbouring businesses prior to start of work and anytime during demolition work which may cause minor disruption to their respective business.
- E6.2 Inspect property with Contract Administrator for existing site conditions and work plan for actual demolition work as per work schedule submitted and approved by Contract Administrator.
- E6.3 Ensure all permits are in place acceptable to all governing authorities having jurisdiction.
- E6.4 Ensure all street closings are applied for and approved prior to any street closing.
- E6.5 Do not commence demolition work without approval of the Contract Administrator.
- E6.6 Proceed to demolish structures in an organized and professional manner.
  - E6.6.1 The Contractor shall demolish the existing buildings, structures, fences, sidewalks, etc. on the Site. The Contractor shall completely demolish all buildings and structures/foundations that are above and below ground and remove all debris and rubbish from the Site. The Contractor shall not store or permit debris or rubbish to accumulate on the Site.

- E6.6.2 The Contractor shall ensure that the demolition operation be conducted with the minimum interference with streets, sidewalks, etc. No salvage material shall be placed or stored on streets, sidewalks, etc. within or surrounding the Site.
- E6.6.3 The Contractor shall protect all existing trees located on the Site or within the street right-of-way from damage during the demolition operation. The Contractor shall not remove existing trees without the written consent of the Contract Administrator.
- E6.6.4 The Contractor shall not burn debris or other material on the Site.
- E6.6.5 Demolish and remove all foundations. Piles must be removed to a minimum of 2.5 M below finished grade.
- E6.6.6 Remove existing equipment and services in building areas to be demolished.
- E6.6.7 At end of each day's work, leave work in safe and stable condition.
- E6.6.8 Demolish to minimize dusting. Keep materials wetted as directed by Contract Administrator.
- E6.6.9 All trucks must be covered prior to leaving site.
- E6.6.10 The Contractor shall keep the exposed basement areas of the Site free of water until it has been backfilled to the satisfaction of the Contract Administrator. All equipment, pumps and appurtenances as may be required to keep these areas free of water shall be provided and maintained by the Contractor.
- E6.6.11 The Contractor shall leave the entire site, which includes everything above and below ground, clean and free of all rubble and debris.

## E6.7 Site Report

- E6.7.1 The Contractor shall fax a weekly site report to the Contract Administrator consisting of the following:
  - (a) Number of personnel on site daily;
  - (b) Equipment working on site;
  - (c) Number of trucks hauling materials from site and destination;
  - (d) Summary of weekly activities;
  - (e) Additional information upon request from Contract Administrator.

## E7. SALVAGED MATERIALS

- E7.1 All salvaged building materials resulting from the demolition including fixtures, except items noted hereinafter, shall become the property of the Contractor and shall be removed from the Site. All goods and chattels at the Site shall become the property of the City of Winnipeg, and shall be removed by the City prior to the demolition and sold to offset the cost of the demolition, unless in the judgment of the Contract Administrator these goods have no reclaimable value, in which case, these items shall be disposed of by the Contractor as refuse.
- E7.2 Service meters shall remain the property of the utility owning service.
- E7.3 The Contractor shall disconnect water meters and return them to the City of Winnipeg, Water and Waste Department, Emergency Services, Stores - 552 Plinguet Street, east end of building, within seven (7) days of disconnection.

E7.4 The Contractor shall supply the Contract Administrator with the water meter receipt received from Water and Waste Department. The receipt shall accompany the Contractor's invoice.

## **E8. RECYCLING OF MATERIALS**

E8.1 The Contractor shall recycle all material found on site. Any material except concrete and brick that cannot be recycled in a cost effective manner shall be hauled to the Brady Road Landfill dump site for recycling purposes.

E8.2 The Contractor will be responsible for all trucking costs. The City will be responsible for all tipping fees to Brady Road Landfill with proof of delivery.

E8.3 Other deleterious materials shall be disposed of at the City of Winnipeg Brady Road Landfill. Copies of all Brady Road Landfill dumping receipts are to be provided monthly to the Contract Administrator.

E8.4 The Contractor must provide the Contract Administrator with the end location for all salvaged metal.

E8.5 Recycling of Concrete

E8.5.1 The Contractor shall recycle all rebar, brick, concrete and concrete products by:

- (a) removing the rebar and crushing the concrete to 100 mm diameter and down, utilizing the Contractor's own forces or others. All recycled material becomes property of the Contractor for his use; or
- (b) loading and hauling the rebar, concrete and concrete products directly to the Maple Leaf Construction Yard located at 2245 Brookside Boulevard, Winnipeg. The City will pay for crushing costs and the Contractor shall pay for all costs related to loading and hauling of the material to the crushing plant. The recycled materials will become the property of Maple Leaf Construction.

E8.6 The Contractor shall not stockpile rebar, concrete or concrete products at the Site.

## **E9. SITEWORK RESTORATION**

E9.1 Products

E9.1.1 Backfill Material

- (a) Any below grade areas or excavations will be backfilled with clean fill (i.e., clay). Clean fill is defined as local natural soil; free of contaminants, boulders, cobbles, organics, wood, concrete, frozen material, and other deleterious materials which could have originated from excavation activities conducted by others. Particle size of material should not exceed 100 mm in diameter. The Contractor shall import clean fill from nearby excavation.
- (b) Contract Administrator reserves the right to inspect all backfill material as it enters site and the Contractor will provide all available documentation regarding environmental assessments of the site the backfill is originating from.
- (c) Dispose of excavated material that does not meet definition of clean fill, as defined in Clause E9.1.1(a)

E9.2 Execution

E9.2.1 Sequences of Operation

- (a) Inspection

- (i) Contact Contract Administrator twenty-four (24) hours prior to backfilling any excavation.
    - (ii) Contract Administrator must inspect and approve all excavations prior to backfilling.
  - (b) Backfill
    - (i) The Contractor shall grade the property to 300 mm above finished grade.
    - (ii) The excavations will be backfilled with clean fill, as defined in Clause E9.1.1(a) Backfill Material.
  - (c) Compaction
    - (i) All backfill shall be compacted in maximum .6 M layers with heavy machine compactor.
  - (d) Grading
    - (i) The Contractor shall grade and slope the site to drain towards adjacent roadways.
  - (e) Cleanup
    - (i) The Contractor shall remove all asphalt paving areas prior to leaving the site and any material that may have collected or spilled on any public street. The finished site shall have no exposed construction debris and shall be clean and neat in every respect.
- E9.2.2 Restore areas and existing works outside areas of demolition to match condition of adjacent, undisturbed areas. Upon completion of work, remove debris, trim surfaces and leave work site clean. Site restoration shall be inspected and approved by the Contract Administrator.
- E9.2.3 Contractor will be responsible for site settlement for a period of 1 year. The Contractor shall provide sufficient fill material if settlement occurs during this time.