

**LISLE TOWNSHIP  
ASSESSOR'S OFFICE BUILDING DEMOLITION PROJECT  
TECHNICAL SPECIFICATIONS**

**DEMOLITION AND SITEWORK**

**PART 1 - GENERAL**

**1.1 SUMMARY**

A. This Work shall consist of demolishing facilities at the Lisle Township Assessor's Office Building, located at 4721 Indiana Avenue, Lisle, Illinois (Site), salvaging or disposing of demolished materials, filling, grading, and restoring Site areas. Contractor shall perform the following:

1. Item 1 – Utility Demolition. (Excludes electrical utility work covered under Item 4)
  - a. Mobilize to Site, establish traffic controls, and erosion and sediment controls.
  - b. Establish tree protection fencing and perform root and branch pruning as required for trees to remain.
  - c. Coordinate with local utilities to shut off all utility services (electric, gas, water, telephone) to building.
  - d. Remove utility equipment (air conditioning units and ductwork, electrical equipment, telephone box, gas meter, etc.) from building exterior areas and roof.
  - e. Remove utility conduit connections from building to limits of disturbance as shown on the Drawings, or as required by the utility Owner.
  - f. Plug and seal ends of all utility conduit to be abandoned in place.
  - g. Dispose of remaining demolition debris off-site following segregation of any salvageable material. Off-site disposal location(s) shall be approved by Owner prior to use.
  
2. Item 2 – Building Demolition.
  - a. Conduct all inspection and testing (e.g., asbestos and lead paint) required by law for removal of interior and exterior building materials.
  - b. Obtain all permits required for demolition and disposal activities.
  - c. Remove and dispose of all interior materials from building as required prior to demolition.
  - d. Demolish building structure, including chimney and foundation, to full depth.
  - e. Dispose of remaining demolition debris off-site following segregation of any salvageable material. Off-site disposal location(s) shall be approved by Owner prior to use.
  
3. Item 3 – Site Exterior Features Demolition.
  - a. Protect exterior structures to remain as shown on Drawings.
  - b. Remove exterior landscape materials.
  - c. Remove trees and brush as shown on Drawings.
  - d. Remove exterior retaining wall as shown on Drawings.
  - e. Remove exterior signs, fencing, and railing as shown on Drawings.

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- f. Remove exterior sidewalks, ramps, and steps as shown on Drawings.
- g. Remove pavement and exterior structures not identified for demolition only as required to conduct demolition activities. Repair or restore structures following demolition as required. Such removal and repair shall not be paid separately.
- h. Dispose of remaining demolition debris off-site following segregation of any salvageable material. Off-site disposal location(s) shall be approved by Owner prior to use.

4. Item 4 – Electrical Utility Demolition / Relocation

- a. Demolish, remove, furnish, install, test, and place into operation the electrical service components as detailed on Drawings E1.01 through E3.01.
- b. Dispose of remaining demolition debris off-site following segregation of any salvageable material. Off-site disposal location(s) shall be approved by Owner prior to use.

5. Item 5 – Earthwork.

- a. Utilize off-Site materials approved by Engineer for fill as per Section 2.2.
- b. Furnish, place, grade, and compact fill to proposed finish grades (less topsoil thickness) as shown in Drawings.

6. Item 6 – Restoration.

- a. Furnish and install topsoil, seed, and mulch or erosion blanket over all exposed finish soil areas following completion of demolition and earthwork, as shown on Drawings.
- b. Restore curb and gutter, and repair pavement areas as required, to equal or better than existing condition (prior to demolition activities) following completion of earthwork and demolition activities. Pavement repairs shall not be paid separately.
- c. Maintain seeded areas for one complete Growing Season or until seeded areas have achieved 70% vegetation coverage as agreed by Owner.

1.2 REFERENCES

- A. All Work and materials shall conform to the Drawings and Specifications as shown, and the latest editions of the following codes and standards:
  - 1. Illinois Department of Transportation (IDOT):
    - a. Standard Specifications for Road and Bridge Construction, adopted January 1, 2016 (IDOT Standard), including all addenda.
  - 2. Occupational Health and Safety Administration (OSHA) codes and regulations.

1.3 DEFINITIONS

- A. Engineer – Patrick Engineering Inc.

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- B. Owner – Lisle Township
- C. Demolition Debris – Debris resulting from removal of items and materials specified on the drawings and within these specifications.
- D. Disturbed Area – Areas having bare soil or distressed vegetation as a result of Contractor performance of the Work.
- E. Salvage – Beneficial re-use of materials specified for removal.

**1.4 PERFORMANCE REQUIREMENTS**

- A. Demolition: Contractor is responsible for demolition and removal of all structures shown on Drawings and restoration of all disturbed areas to match proposed conditions as shown on the Drawings.
- B. Salvage: Contractor is entitled to salvage value of any materials that are to be removed from Site.
- C. Disposal: Dispose of demolition debris (that cannot be salvaged) in accordance with State of Illinois regulations concerning construction and demolition debris. Demolition debris may not be used as fill material unless prior approved by Engineer.
- D. Abandonment: Items abandoned in-place shall be buried and/or sealed in accordance with industry standards. Abandonment shall be performed so as to prevent future settlement of ground surface above and surrounding said items.
- E. Restoration: Restore all excavated and disturbed demolition areas to match surface grades and vegetative conditions shown on the Drawings. Fill excavations and depressions with fill material compacted in place as specified. Seed and mulch areas with the specified limits and to restore damaged areas. Place at minimum 6 inches of topsoil, if seeding is required to restore vegetation. Maintain all restored areas throughout the Work Period.
- F. Access: Maintain access roads used to enter or leave Site. Repair access roads as necessary to leave them in existing condition (prior to demolition activities) or better. Clean roads of debris and dirt on a regular basis or as directed by Owner.

**PART 2 - PRODUCTS**

**2.1 GENERAL**

- A. All products and materials used for Work specified in this section shall be reviewed by Engineer prior to use.

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**2.2 FILL MATERIAL**

- A. Contractor shall be responsible for identifying and obtaining all fill material required for the Project.
  - 1. Engineer shall review all fill material prior to use. Submit samples and/or test data for review.
  
- B. Material Types For Structural Fill Purposes:
  - 1. Suitable Fine-Grained Soils - Soil materials that comply with ASTM D2487 Soil Classification Group CL and meet the following requirements:
    - a. Laboratory maximum modified dry density of 110 pcf or greater when determined in accordance with ASTM D1557.
    - b. Plasticity Index greater than 12.
    - c. Liquid Limit less than 45.
    - d. Particle size distribution with greater than 50% passing the No. 200 sieve.
  - 2. Suitable Coarse-Grained Soils – Soil materials that comply with ASTM D2487 soil classification groups GW, GP, GM, SW, SP and SC.
  - 3. Granular base materials removed from existing pavement areas may be used as structural fill, subject to gradation, placement and compaction control by Engineer.
  
- C. Topsoil supplied from off-site sources shall be natural, fertile agricultural soil material capable of sustaining vigorous plant growth. It shall contain not less than 4% nor more than 10% organic matter, as determined in accordance with AASHTO T194. It shall contain not less than 12% nor more than 50% clay and the sand content shall not exceed 55%, both as determined in accordance with AASHTO T88. The pH shall be between 5.0 and 8.0. Topsoil material shall be relatively free from large roots, sticks, weeds, brush, stones larger than 1-inch in diameter, or other litter or waste products. It shall be a loamy mixture having at least 90% passing the No. 10 sieve.

**2.3 SEED**

- A. General:
  - 1. Seed shall meet the requirements of IDOT Standard Article 1081.04(b) and (c).
  - 2. All seed quantities shall be Pure Live Seed (PLS).
  - 3. Seed mixture shall be Type 1 (Lawn Mixture) as per IDOT Standard Article 250.07, unless otherwise specified on the Drawings.

**2.4 FERTILIZER**

- A. Fertilizer shall meet the requirements of IDOT Standard Article 1081.08.

**2.5 MULCH**

- A. Mulch shall be straw or hydraulic mulch meeting the requirements of IDOT Standard Article 1081.06.

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2.6 EROSION CONTROL BLANKET

- A. Erosion control blanket (ECB) shall meet the requirements of IDOT Standard Article 1081.10(c).
- B. Erosion control staples shall be the size and type recommended by the manufacturer.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Mark location of utilities.
  - 1. Coordinate with local utility companies (JULIE locate) to ensure all utilities are marked.
- B. Relocate or protect utilities to remain in service as shown on the Drawings or as required by Owner so that they are not damaged and remain in service during completion of Work.
- C. Confirm or arrange for de-energizing of utilities to be demolished or utilities within the work area that may potentially be damaged by demolition activities. Use "Lock-Out / Tag-Out" procedures and qualified personnel to maintain such utilities in a de-energized state until demolition activities are completed.
  - 1. Provide documentation to Owner confirming de-energizing or removal of utilities from service.

3.2 DEMOLITION

- A. Provide an exclusion zone (area that excludes all persons) around structures to be demolished, structures in the process of being demolished, and debris piles.
  - 1. Provide visible markers and/or fencing to delineate the boundaries of the exclusion zone(s).
- B. Remove all items that are indicated for removal on Drawings.
- C. Remove all structural components completely unless otherwise noted on Drawings or approved by Engineer.
- D. Protect all items to remain.
- E. Excavate as necessary for demolition purposes.
- F. Demolish all items in an orderly and careful manner. At the end of day's work, leave Site in a safe and secure condition.

3.3 DISPOSAL

- A. Salvage or dispose of all demolition debris.

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- B. Dispose items in accordance with applicable Federal, State of Illinois, and local regulations.

**3.4 FILL**

- A. Place fill to match and blend with adjacent undisturbed surface grades.
- B. Fill materials shall be placed in layers (lifts) and compacted in accordance with the following specified requirements. Lift thickness shall not exceed 8 inches (loose condition) and the fill material (when compacted) shall have a moisture content within the limits of -1 to +3 percentage points of optimum value. Specific lift thickness and moisture content shall be as determined by Engineer to obtain the required compaction and strength of material in place.
- C. Cohesive soils and well-graded aggregate mixtures shall be sampled and tested to determine the laboratory maximum density and optimum moisture content (control values) of the material. The test method shall be the ASTM Standard as indicated below.
- D. Free-draining cohesionless soils and aggregate mixtures shall be sampled and tested to determine the laboratory relative density (control value) of the material.
- E. Laboratory density and moisture tests shall be performed to determine the control values for each type and source of material to be used. One test of laboratory maximum density and optimum moisture content shall be performed for each 300 cubic yards of fill and backfill material and when any change in material occurs that may affect the maximum density or optimum moisture content values.
- F. The top 6 inches of existing subgrade and all layers of cohesive soil under proposed or repaired pavement and structures shall be compacted to at least 90% maximum dry density, as determined by the Modified Proctor Method (ASTM D1557).
- G. Fill placed for landscape areas shall be compacted to at least 85% maximum dry density, as determined by the Modified Proctor Method (ASTM D1557).
- H. Soil fill materials compacted in place under proposed or repaired pavement and structures shall be field tested to determine in-place density and moisture values. A nuclear density gauge shall be used (in accordance with ASTM D6938) to measure in-place density/moisture values of cohesive soils and well-graded aggregate materials, unless Engineer determines other testing equipment is more suitable for the type of material being tested. The dry unit weight of the in-place compacted material shall be compared to its control value to determine the percent compaction achieved.
- I. Unless otherwise noted, grades and contours shown on the Plans are final topsoil and pavement surface elevations. All excavated and filled areas not within the limits of buildings, structures, or pavements shall be graded to 6 inches below the indicated elevations to allow for topsoil placement, unless otherwise indicated on the Plans.

**3.5 CURB AND GUTTER RESTORATION**

- A. Install curb and gutter as shown on Drawings.

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3.6 EROSION PROTECTION

- A. Install erosion and sediment control measures identified on Drawings prior to conducting excavation and fill activities.
- B. Compaction of existing material or backfill may be used to stabilize unstable foundation materials.
- C. Install seed and mulch or erosion control blanket to stabilize topsoil within 24 hours of finish grading.

3.7 SEEDING

- A. Perform seeding in accordance with IDOT Standard Article 250.

3.8 MAINTENANCE

- A. Maintain surface grades, supply additional topsoil in low areas, including areas affected by erosion.
- B. Water to ensure uniform seed germination and to keep surface of soil damp.
  - 1. Apply water slowly so that surface of soil will not puddle and crust.
  - 2. Replant damaged areas showing root growth failure, deterioration, bare or thin spots, and eroded areas.
  - 3. Ditches and slopes that are replanted shall be covered with Erosion Control Blanket to prevent erosion and to allow seed to germinate.

3.9 CLEANUP

- A. Clean up areas disturbed as a result of the Work as soon as practicable following completion of the Work. Remove all materials from the disturbed areas, stabilize areas with vegetation and erosion control products, and leave in a neat and orderly condition.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. Items 1, 2, 3, 4, 5, and 6. These are lump sum items. Measurement shall be based on percentage of Work completed, as estimated by Contractor and approved by Engineer. Mobilization and general conditions cost shall be spread over items 1 through 6.

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**4.2 PAYMENT**

- A. Item 1 – Utility Demolition. Payment will be at the Contract lump sum price. Progress payments will be made at the interval specified in the Contract. Payment shall include all costs associated with: mobilization to Site, coordination with utilities, construction staking, traffic control, shutoff of utility services, protection of existing utilities to remain; stockpiling, loading, transporting and salvage or disposal of demolition debris.
- B. Item 2 – Building Demolition. Payment will be at the Contract lump sum price. Progress payments will be made at the interval specified in the Contract. Payment shall include all costs associated with: demolition of structure(s) to below foundation depth; removal of all interior furnishings, debris, and other loose items; stockpiling, loading, transporting and salvage or disposal of demolition debris.
- C. Item 3 – Site Exterior Features Demolition. Payment will be at the Contract lump sum price. Progress payments will be made at the interval specified in the Contract. Payment shall include all costs associated with: protection of exterior structures and trees, installation and maintenance of erosion and sediment control measures; protection of pavements and other structures to remain; demolition of incidental structures, trees and other landscaping, demolition of identified exterior structure(s); stockpiling, loading, transporting and salvage or disposal of demolition debris.
- D. Item 4 – Electrical Utility Demolition / Relocation. Payment will be at the Contract lump sum price. Progress payments will be made at the interval specified in the Contract. Payment shall include all costs associated with: furnishing, installing, testing, and placing electrical utility back into service.
- E. Item 5 – Earthwork. Payment will be at the Contract lump sum price. Progress payments will be made at the interval specified in the Contract. Payment shall include all costs associated with: clearing and grubbing, stripping, stockpiling, and replacing topsoil, supply of fill and topsoil from off site; survey for construction stakeout; excavation, loading, transporting, stockpiling, final placement, compaction, and final grading of fill and topsoil.
- F. Item 6 – Restoration. Payment will be at the Contract lump sum price. Progress payments will be made at the interval specified in the Contract. Payment shall include all costs associated with: replacement of curb and gutter, base course, and patching of pavement; seed bed preparation; seeding; fertilizer; and mulch and/or erosion blanket application; and watering and maintenance of vegetation until the quality and coverage of the vegetation growing in place is accepted by Owner; removal and disposal of soil and erosion control measures; and final cleanup.

END OF SECTION

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