



SECTION 14 - REMOVALS

14-1 GENERAL

This item shall consist of removing, [salvaging], [abandoning], [stockpiling] and/or disposing of existing [pavements,] [asphalt-treated bases (ATB),] [cement-treated bases (CTB),] [catch basins,] [pull boxes,] [manholes,] [light fixtures,] [ducts,] [wiring,] [concrete drainage swales,] [storm drain pipe,] [fencing,] [gates,] [posts,] [concrete slabs and footings,] [handholes,] [inlets,][other] markings and other miscellaneous items identified from all areas within the limits designated on the plans, required by the Specifications, or as required by the Engineer.

[Removed concrete and asphalt pavement, and removed cement-treated base will be crushed for use as Processed Miscellaneous Base, [or as aggregate for Econcrete Subbase,] conforming to Sections 28 of these Specifications.]

Should a pipeline, conduit, or other utility or structure not indicated on the plans be encountered that must be removed or relocated to permit the completion of the construction work, the Contractor shall remove or relocate the interfering object as directed by the Engineer, and as required by Section 5 of the Specifications.

[Except for removed pavement and earth materials, which are to be stockpiled, crushed and/or recycled as specified in Sections 28 and 33,] Items are identified to be “salvaged” and/or “relocated”, they shall be carefully removed and taken to a site as shown on the plans or as directed by the Engineer. Maximum distance for such relocation will be to the Contractors Storage Yard. All items designated “to be removed” shall be removed and legally disposed of off the airport property in conformance with Section 7-16.

14-2 CONSTRUCTION METHODS

14-2.1 General.

All items designated, or required, to be removed shall be disposed of off Airport property, unless otherwise noted, and shall be transported to a legal disposal site(s). Proof of proper disposal at a legally authorized dumping site is required.

It is the Contractor’s responsibility to provide adequate and appropriate equipment to transport materials, and to maintain haul roads and stockpile sites in satisfactory condition.

[ADD / DELETE / MODIFY FOLLOWING ITEMS AS APPROPRIATE TO THE PROJECT:]

14-2.2 Removal of Pavement Materials



All **[Asphalt Concrete (AC),] [Asphalt Treated Base (ATB),] [Portland Cement Concrete (PCC)]** pavement, and **[Cement-Treated Base]** identified for removal on the plans shall be removed within the limits and to the depths shown on the Plans, unless otherwise specified. Pavement to be removed includes, but is not limited to runways, taxiways, roads, paved swales, paved infield areas, access roads and other features. Pavement shall be removed along clean straight lines by sawcutting. Existing pavement to remain in place that is damaged by the Contractor shall be repaired or replaced by the Contractor, at his expense, to the satisfaction of the Engineer. The repair or replacement method shall be approved by the Engineer prior to beginning the work. **[AC pavement,] [PCC pavement,] [ATB] and [CTB bases]** adjacent to like material which will remain, including any embedded metal, shall be cut with a concrete saw at all joints, phase lines, and/or match lines before removal, and as shown on the Plans. Sawcuts shall be full depth where the existing pavement is to be removed. Where PCC pavement that is to be removed is adjacent to pavement to remain in service, the PCC shall be removed as described for full slab removal in Section 38 of these Specifications, Concrete Repair, Removal and Replacement.

[Removed PCC,] [removed AC,] [removed ATB,] [removed CTB] and all excavated earth materials which are not immediately to be incorporated into the new pavement structures, shall be transported to the **[Contractor's Staging Area and Stockpile Site where they will be crushed, blended, and stockpiled for recycling as Processed Miscellaneous Base (PMB), or as aggregate for Econcrete Base Course][a legal disposal site]**. All materials unsuitable for such recycling will be removed from the airport and legally disposed of by the Contractor. PMB shall conform to Section 28 of these Specifications, and will be utilized for **[base,] [subbase] or [surface course materials]** in pavement shoulders, **[asphalt pavements]** and **[haul road surfacing]** as identified on the plans.

[Aggregate for Econcrete Base Course shall conform to Section 33 of these Specifications. Crushing, blending and stockpiling the materials as necessary to accomplish this goal will be considered an incidental cost of the removal of the pavement materials and no separate payment will be made. Appendix[] contains information on recent gradation test results from previously crushed and stockpiled materials produced from crushing operations on removed airfield pavement at the Airport. This data is from limited testing and is presented for informational purposes only. No warranty is expressed or implied that crushing from the removals under this project will duplicate these test results. The Contractor will be responsible for modifying his crushing and blending operations as necessary to produce the required result.]

Materials identified for removal and replacement with Select Fill shall be replaced with Select Fill conforming to Section 23 of these Specifications, paragraph 152-2.2.a, Select Material.

No stockpiling of any material shall be allowed anywhere on the AOA except at the designated Stockpile Site.

Cold milling of asphalt and grinding of concrete pavement to accommodate grade match or other pavement detailing is covered under Section 21 of these Specifications.



When pavement removal results in damage to adjacent pavement to remain in place, the Contractor will be required, at his expense, to repair the pavement.

For damaged asphalt concrete pavement, the damaged asphalt surface course shall be cut back at least 1 foot into sound surfacing. The removed, damaged pavement shall be replaced with asphalt concrete surfacing conforming to Section 36 of these Specifications. Contractor shall provide repair and compaction of underlying base course if determined to be necessary by the Engineer. Application of bituminous prime coat or tack coat, as appropriate, in accordance with Sections 39 and 40 of these specifications, respectively, will be done prior to repaving. No payment will be made for this repair work.

Damaged Portland Cement Concrete pavement shall be repaired in accordance with Section 38 of these specifications. Type of repair shall depend on degree of damage, which shall be determined by the Engineer.

14-2.3 Removal of Pavement Markings.

The Contractor shall be required to obliterate, or remove, existing markings as indicated on the Plans, or directed by the Engineer, by the use of shotblasting or high pressure water to the satisfaction of the Engineer. Paint markings shall be removed from all areas to receive an asphalt overlay or other asphaltic treatment. "Paintovers" – obliteration of existing markings by covering with paint or bituminous materials will not be allowed.

Upon completion of obliteration operations, any paint, pavement, or obliteration materials left on the pavement shall be removed by means of high performance vacuum. Areas where marking obliterations have occurred shall have an emulsified asphalt fog seal placed on them bringing the pavement color back to its original color. The fog seal shall be considered incidental to the Removal of Pavement Painted Markings bid item and no separate payment will be made. Application rate shall be as approved by the Engineer.

14-2.4 Removal and/or Abandonment of Drainage System Items

All trash, debris, pipe, conduit, catch basins, pull boxes, manholes, ducts, wiring, storm drain piping, and other items being removed shall be disposed of off Airport property.

Voids resulting from abandoned or removed structures and pipes, and the volumes of underground structures and pipes identified to be abandoned in place, shall be filled with Controlled Low Strength Material (CLSM) conforming to Section 24 of these Specifications.

Whenever a pipeline, conduit, sewer, or other utility not shown on the Plans is encountered, the Contractor shall immediately inform the Engineer as required in Section 5 of the Specifications.



14-2.5 Removal of Drainage Lines

If identified on the plans, or if directed by the Engineer, all pipe, conduit, concrete encasement, drainage structures, trash, debris, and other items being removed shall be disposed of off Airport property.

Unless otherwise shown on the plans, voids resulting from abandoned or removed structures and pipes, and the volumes of underground structures and pipes identified to be abandoned in place, shall be filled with Controlled Low Strength Material (CLSM) conforming to Section 24 of these Specifications.

When drainage lines or structures are removed under existing pavement, pavement repairs shall be effected using materials conforming to the appropriate sections of these specifications. Backfill and pavement repairs or restoration will not be measured for payment.

14-2.6 Chain Link Fence Removal

Removal of Chain Link fence shall consist of the removal of chain-link fence from the locations shown on the plan, including all debris, foundations, broken concrete, and other miscellaneous items associated with the fence. Material shall be removed from the airport property and legally disposed of at the Contractor's expense.

14-2.7 Adjust Miscellaneous Structures To Grade

Manholes, inlets, handholes, and other structures and other utilities identified on the plans to be adjusted to grade shall be done in accordance with the details and standard specification references shown on the plans. Where no specific details are called out, the Contractor's method of adjusting the grade of the structure shall be submitted to, and approved by, the Engineer prior to proceeding with the work. All adjustments shall be capable of supporting the following aircraft:

- (1) Dual-wheel, 48,800# per wheel gear assembly of the Boeing 727; 34 inch center-to-center wheel spacing;
- (2) Dual-Tandem (four-wheel), 57,900# per wheel, gear assembly of the Boeing 747-800; 46.8 inch transverse and 56.5 inch longitudinal center-to-center wheel spacing; and
- (3) Tridem (six-wheel), 58,900# per wheel, gear assembly of the Airbus A380, 53 inch transverse and 67 inch longitudinal center-to-center wheel spacing.

Contact tire pressure should be assumed to be 221 psi.

Utility systems on lines where manholes, handholes and other structures to be modified or adjusted to grade will be required to be tested after the completion of the work. No modification or adjustment will be accepted for payment until such testing is completed and approved by the Engineer.



The Contractor shall be solely responsible for all coordination with affected utility or owner agencies where adjustments to access structures are required. This shall include FAA, fuel companies, telephone and other utility companies. No modifications to the schedule will be allowed for delays due to the failure on the part

14-2.8 Fill with Select Material to Grade

Where the plans indicate removal of pavement materials and “Fill with Select Material to Grade” such material shall conform to the requirements for Select Material as discussed in Section 23 of the Specifications.

14-2.9 Dust Control

The Contractor is advised that control of dust during demolition operations is his/her sole responsibility and is of utmost importance in the safe operation of the airport. Airborne dust and debris can cause hazards to operating jet aircraft in addition to creating visibility concerns. Adequate use of water trucks or other methods of dust control shall be utilized at all times. The Engineer will retain the authority to cease all construction operations, with no modification to the allowable contract schedule, when excess dust is observed. Dust control measures will not be measured for payment, but will be considered incidental to other bid items.

14-2.10 Electrical [and NAVAIDS] Removals

Removals of electrical [and NAVAIDS] items are covered in Section[s]73 [and] of these Specifications[, respectively].

14-2.11 [Other]

[Description of other specific removal items]

14-2.[12][] Miscellaneous Removals

Miscellaneous Removals shall consist of the removal of all other miscellaneous items which are necessary for the progress of the work, that are identified on the plans for removal, but which are not covered in other removals bid items. This category includes, but is not limited concrete foundations, footings and associated reinforcement; junction cans and boxes, electrical fixtures, duct, conduit, cable and appurtenances not paid under Section 73, and all other items identified on the plans for removals which are not expressly covered under other removals pay items.

14-3 MEASUREMENT.

14-3.1 The quantity of Remove [Asphalt Concrete (AC),] [Asphalt Treated Base (ATB),] [Portland Cement Concrete (PCC)] pavement, and [Cement-Treated Base] to be paid for shall be the number of square yards of pavement removed, regardless of thickness, which is



removed from the airport and legally disposed of. No guarantee of the thicknesses shown is expressed or implied, and variations from the thickness shall not be construed to change the amount to be paid for pavement removal. Underlying aggregate base, subbase and soil strata shall be removed, measured and paid under Unclassified Excavation, Section 23 of these Specifications, Earthwork. The Contractor shall provide documentation of legal disposal.

14-3.2 Remove and Crush [Asphalt Pavement][Portland Cement Concrete][CTB] shall be made at the contract unit price per square yard, for removing and crushing pavement of the type specified, regardless of thickness

14-3.3 Remove Painted Pavement Markings. Pavement marking removal shall be measured by the square foot of removed marking. No measurement of fog seal will be made but is shall be considered incidental to the pavement marking removal.

14-3.4 Remove and/or Abandon Drainage System Items

Removal and/or abandonment of drainage system items will be measured by each item removed and/or abandoned in accordance with the plans or as directed by the Engineer.

14-3.5 Remove Drainage Lines

Drainage lines removed shall be measured for payment by the linear foot of lines removed. No separate measurement for excavation or backfill will be made which will be considered incidental to the removal.

14-3.6 Remove Chain-link Fence

Chain-link fence removed shall be measured for payment by the linear foot of fence removed and disposed of. Gates will be measured as fence.

14-3.7 Adjust Miscellaneous Structures to Grade

Adjustment of miscellaneous structures to grade shall be measured for payment by the number of items adjusted in accordance with the plans and specs or as directed by the Engineer.

14-3.8 Fill with Select Material

No measurement will be made for items requiring Select Fill. Fill will be considered incidental to other bid items and no separate payment will be made.

14-3.9 Dust Control

No measurement will be made for Dust Control, which will be considered incidental to other bid items and no separate payment will be made.



14-3.10 Electrical [and NAVAIDS] Removals

Measurement of removal of electrical [and NAVAIDS] items will be made as described in Section[s]73 [and] of these Specifications[, respectively].

14-3.11 [Other]

[Describe measurement]

14-3.[] Miscellaneous Removals.

Removal and disposal of all other items not addressed herein but identified on the plans shall be measured for payment as one lump sum item of work.

14-4 BASIS OF PAYMENT

14-4.1 Payment for Remove [Asphalt Concrete (AC),] [Asphalt Treated Base (ATB),] [Portland Cement Concrete (PCC)] pavement, and [Cement-Treated Base] shall be made at the contract unit price per square yard of the type of pavement removed, which price and payment shall constitute full compensation for all equipment, material, labor and supervision to saw-cut, load, remove and dispose off the airport, regardless of thickness. No separate payment shall be made for saw-cuts or for cold-milling or grinding, if required.

14-4.2 Payment for Remove and Crush [Asphalt Pavement][Portland Cement Concrete][CTB] shall be made at the contract unit price per square yard, which price and payment shall constitute full compensation for all equipment, material, labor and supervision to cut, load, remove to the stockpile area, crush, blend and stockpile existing pavement of the type specified, in conformance with the specifications, regardless of thickness. This item includes the removal of all metal or miscellaneous embedments in the existing pavement. No separate payment shall be made for saw-cuts, crushing, blending or stockpiling.

14-4.3 Payment for Remove Pavement Painted Markings shall be made at the contract unit price per square foot, which price shall constitute full compensation for all equipment, materials, labor, and supervision for complete removal. No separate payment will be made for fog seal.

14-4.4 Payment for Remove and/or Abandon Drainage System Items shall be at the contract price for each structure removed and/or abandoned, regardless of size, and shall constitute full compensation for all equipment, materials, labor and supervision required for performing all work involved in backfilling with CLSM, and abandonment of the drainage system items as shown on the plans or as directed by the Engineer.

14-4.4 Payment for Remove Storm Drain Lines shall be at the contract price per lineal foot of removed pipe, regardless of size, and shall constitute full compensation for all equipment,



materials, labor and supervision required for performing all work involved in demolition, removals, backfilling, and disposal of the existing storm drain lines as shown on the plans or as directed by the Engineer.

14-4.5 Payment for Remove Chain Link Fence shall be made at the contract unit price per lineal foot, which price shall constitute full compensation for all equipment, materials, labor, and supervision for complete removal and disposal.

14-4.6 Payment for Adjustment of Miscellaneous Structures to Grade shall be at the contract price for each structure adjusted to grade, regardless of size, and shall constitute full compensation for all equipment, materials, labor and supervision required for performing all work involved in adjust structures as shown on the plans or as directed by the Engineer.

14-4.7 No payment will be made for Select Fill, or for Dust Control, which shall be considered incidental to other bid items.

14-4.8 Payment for removal of electrical [and NAVAIDS] items will be made as described in Section[s]73 [and] of these Specifications[, respectively].

14-4.9 [Other]

[Describe payment]

14-4.[] Payment for Remove Miscellaneous Items shall be made at the contract lump sum price, which price shall constitute full compensation for all equipment, materials, labor, and supervision for complete removal and disposal of all miscellaneous removals items shown on the plans, including miscellaneous electrical and storm drain items, which are not paid under other bid items.

Testing and disposal of contaminated soils, as described in Section 23 of these specifications, shall be undertaken as required.

Soil sampling, in conformance with Section 23-3, shall be conducted at the site of suspected contaminated soils for all removals operations.

No additional payment shall be made for difficulties encountered when making removals in areas of night, weekend or other limited-time construction, or in other areas subject to construction phasing restrictions.

Payment shall be made under:

- Item 14.1 Remove [Asphalt Concrete (AC),] [Asphalt Treated Base (ATB),] [Portland Cement Concrete (PCC)] [Cement-Treated Base] Pavementper square yard



- Item 14.2 Remove and Crush[Asphalt Pavement][Portland Cement Concrete][CTB] Pavementper square yard
- Item 14.3 Remove Painted Pavement Markings.....per square foot
- Item 14.4 Remove and/or Abandon Drainage Structures per each
- Item 14.5 Remove Storm Drain Linesper linear foot
- Item 14.6 Remove Chain Link Fenceper linear foot
- Item 14.7 Adjust [] to Grade per each
- Item 14.8 [Other] per [each][linear feet][lump sum]
- Item 14.[] Miscellaneous Removalsper lump sum

END OF SECTION 14



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