

September 12, 2023

SUBJECT FAI Route 80 (I-80) Project NHPP-CW1X(704) Section FAI 80 21 STRUCTURE 8 Will County Contract No. 62R29 Item No. 70, September 22, 2023 Letting Addendum A

NOTICE TO PROSPECTIVE BIDDERS:

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

- 1. Revised the Schedule of Prices
- 2. Revised pages iii, iv & vi of the Table of Contents to the Special Provisions
- 3. Revised pages 3, 150, 191, 194-196, 200, 258 & 288 of the Special Provisions
- 4. Added pages 427-430 to the Special Provisions
- 5. Revised sheets 7, 9, 10, 19, 22, 25, 33, 113, 127-129, 139-141, 240, 241, 315, 323, 604, 607- 654 & 656 of the Plans

Prime contractors must utilize the enclosed material when preparing their bid and must include any changes to the Schedule of Prices in their bid.

Very truly yours,

d.

Jack A. Elston, P.E. Bureau Chief, Design and Environment

MTS

EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	153
ROD AND CLEAN EXISTING CONDUIT	153
WEED CONTROL, BASAL TREATMENT	154
TEMPORARY WOOD POLE, 60 FT., CLASS 4, WITH 15 FT. MAST ARM	156
SOLAR POWER ASSEMBLY	157
WEED CONTROL, NATIVE LANDSCAPE ENHANCEMENT	158
CENTRACS LICENSE EXPANSION	160
OUTDOOR RATED NETWORK CABLE	161
FULL-ACTUATED CONTROLLER AND CABINET	161
SERVICE INSTALLATION (TRAFFIC SIGNALS)	163
REMOTE CONTROLLED VIDEO SYSTEM	167
LAYER II (DATALINK) SWITCH	168
TERMINATE FIBER IN CABINET	171
SPLICE FIBER IN CABINET	172
LIGHTING CONTROLLER, RADIO CONTROL, DUPLEX CONSOLE TYPE, WITH SCADA AN	D FIBER
OPTIC	173
FIBER OPTIC INTERCONNECT CENTER, 24 PORT OR 48 PORT	183
CONCRETE BARRIER WALL, VERTICAL FACE (SPECIAL)	183
TREE REMOVAL, ACRES (SPECIAL)	184
AGGREGATE SURFACE COURSE FOR TEMPORARY ACCESS (D1)	186
CURED-IN-PLACE PIPE LINER	188
MANHOLES, TYPE A, WITH 2 TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE	199
PROPOSED MANHOLE/CATCH BASIN CONNECTION OVER EXISTING STORM SEWER	199
CLEANING EXISTING DRAINAGE STRUCTURES (D1)	200
CONCRETE BARRIER BASE (SPECIAL)	201
CONCRETE BARRIER BASE, SINGLE FACE	201
FILLING EXISTING RUMBLE STRIP	202
SHOULDER RUMBLE STRIP REMOVAL	203
REMOVE IMPACT ATTENUATORS, NO SALVAGE	204
REMOVE ATTENUATOR BASE	204
REMOVE IMPACT ATTENUATOR SAND MODULE	204
REMOVE HIGH TENSION CABLE MEDIAN BARRIER	205
ENGINEER'S FIELD OFFICE TYPE A (SPECIAL) (D1)	205
TRAFFIC CONTROL AND PROTECTION (ARTERIALS) (D-1)	208

TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	208
TRAFFIC CONTROL SURVEILLANCE (EXPRESSWAYS)	
REMOVE TEMPORARY CONCRETE BARRIER, STATE OWNED	
RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL	
INTERCEPT EXISTING CONDUIT	
JUNCTION BOX EMBEDDED IN STRUCTURE (SPECIAL)	
COMBINATION LIGHTING CONTROLLER.	
REMOVE EXISTING LIGHTING CONTROLLER AND SALVAGE	
REMOVAL OF LUMINAIRE, SALVAGE (D-1)	
LIGHT POLE FOUNDATION, INTEGRAL WITH BARRIER WALL	
LIGHT POLE FOUNDATION, INTEGRAL WITH BARRIER WALL, 24" DIAMETER	
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	
FIBER OPTIC CABLE, SINGLE MODE	
FIBER OPTIC UTILITY MARKER	
FIBER OPTIC CABLE INNERDUCT	
DETECTOR LOOP LEAD-IN CABLE IN CONDUIT, CONOGA-30003	
CONCRETE FOUNDATION, SURVEILLANCE CABINET MODEL 334	
TEMPORARY TRAFFIC SIGNAL INSTALLATION (SPECIAL)	
REMOVE EXISTING TRAFFIC SURVEILLANCE EQUIPMENT	
REMOVE FIBER OPTIC CABLE FROM CONDUIT	
ABANDON EXISTING CULVERT	
HOT-MIX ASPHALT DRIVEWAY PAVEMENT	
STABILIZED CONSTRUCTION ENTRANCE	
FURNISHING AND PLACING SAND FILL	
TEMPORARY INFORMATION SIGNING	
TRANSFER SERVICE SIGN	
LUMINAIRE SAFETY CABLE ASSEMBLY	
MAINTENACE OF LIGHTING SYSTEM	261
COMMUNICATIONS VAULT	
OPTIMIZE TRAFFIC SIGNAL SYSTEM	
ROCK FILL	270
STORM SEWER ADJACENT TO OR CROSSING WATER MAIN	271
TEMPORARY PAVEMENT (D1)	272
SELECTIVE CLEARING	273
SLEEPER SLAB	273
TEMPORARY TRAFFIC SIGNAL TIMING	274
R	evised 9/12/2023

SURFACE TESTING OF PAVEMENTS – IRI (BDE)
TRAFFIC SPOTTERS (BDE)
TRAINING SPECIAL PROVISIONS (BDE)
IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION
VEHICLE AND EQUIPMENT WARNING LIGHTS (BDE)404
WATERPROOFING MEMBRANE SYSTEM (BDE)404
WEEKLY DBE TRUCKING REPORTS (BDE)
WORK ZONE TRAFFIC CONTROL DEVICES (BDE)
MENTOR-PROTÉGÉ PROGRAM407
PROJECT LABOR AGREEMENT
FENCE REMOVAL
STEEL COST ADJUSTMENT (BDE)428

The Contractor may have to temporarily widen embankments with sandbags or other temporary material to properly install the smart work zone devices on a level surface. The costs associated with temporarily widening embankments and restoring the embankment upon completion shall be according to Article 109.04 of the Standard Specifications

Any damage to the devices caused by the Contractor shall be repaired to the satisfaction of the Engineer.

Completion date: October 30, 2026

Contract TBD –Intelligent Transportation Systems (ITS) Integration

The ITS Integration Contract will furnish and install ITS wiring and devices within the Contract limits. The Contractor shall coordinate and provide access to the Work Areas to the ITS Integration Contractor to complete their work. The Contractor shall maintain protected Work Areas until the ITS Integration work is complete and accepted.

Completion date: October 31, 2027

#### **COOPERATION BETWEEN CONTRACTORS**

The following should be added to Article 105.08:

The Department reserves the right to have work performed by other contractors and by Department forces and to permit public utility companies and others to perform work during the progress and within the limits of or adjacent to the work. The Contractor shall conduct its work in a manner and shall cooperate with such other parties to cause as little interference as possible with such other work and as the Department may also direct. If there is a difference of opinion as to the respective rights of the Contractor and others doing work within the limits of or adjacent to the work, the Engineer will decide the order and coordination of the work. The Engineer's decision shall be final and binding on the Contractor. The Contractor shall make no claims against the Department for additional compensation due to delays or other conditions created by the operations of such other parties.

Coordination with Other Contractors. The Contractor is advised that certain operations will involve coordination with Department personnel and Contractors currently performing work on or adjacent to this project for the Department and other agencies. The Contractor shall cooperate to the fullest extent with the Department and the Contractors working on adjacent projects in compliance with Articles 105.07 and 105.08 of these Specifications.

The Contractor shall submit to the Resident Engineer a daily work schedule for the purpose of coordinating the Contractor's activities for the next working day. The daily work schedule must be submitted by 3:00 p.m. the day prior. This schedule is necessary and shall be used by the Engineer to schedule inspections, material testing and checking of layout as part of the following day's work. Failure to submit a schedule may result in uninspected work and therefore considered unacceptable.

The daily schedule shall include the Contractor's or Sub-Contractor's planned work for that day including the location, description, scheduled work hours and pay items of work to be performed. The schedule shall also include any material testing requests, layout check requests and all traffic control measures to be implemented for that day's work.

The Department and the Engineer shall be notified in writing by the Contractor at least 48 hours prior to the start of any operation requiring cooperating with others. All other agencies, unless otherwise noted, will be notified in writing by the Contractor ten (10) days prior to the start of any such operation. The Contractor shall make no claims against the Department for additional compensation due to delays or other conditions created by the operations of such other parties.

# PROPOSED STORM SEWER CONNECTION TO EXISTING MANHOLE

<u>Description</u>. This work shall consist of joining new pipe to existing manholes as shown on the plans or as directed by the Engineer.

<u>Construction Requirements.</u> An opening for the new pipe shall be made through the walls of the existing structure at the proper location and grade. The new pipe shall be properly fitted into place, flush with the inner face of the existing masonry, or as nearly so as the Engineer determines is practical. After the pipe is in place, the opening around the pipe shall be sealed watertight in a manner approved by the Engineer. Any portion of an existing structure that is damaged in joining the new pipe shall be repaired or replaced, at no additional cost, with new material of a type matching the old.

Method of Measurement. This work will be measured in units of each complete in place.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per each for PROPOSED STORM SEWER CONNECTION TO EXISTING MANHOLE.

## TEMPORARY END SECTION

<u>Description</u>. This work shall consist of providing temporary flared end sections at temporary culverts as shown on the plans during various stages of traffic control. This pay item shall include providing and installing each end section, maintenance as well as removal and disposal following the need for utilizing the temporary culverts. All time, labor, excavation, materials, fasteners, gaskets, or other materials necessary to complete the operation are considered included in this pay item.

Materials. The temporary end sections shall be in accordance with Article 542.07.

Method of Measurement. This work will be measured in units of each complete in place.

<u>Basis of Payment</u>. The work will be paid for at the contract unit price per each for TEMPORARY END SECTION, which payment shall include full compensation for furnishing, installing, removing and disposal of the temporary end section.

#### CONSTRUCTION REQUIREMENTS

A. General:

- 1. The Contractor shall carry out his operations in strict accordance with all OSHA and manufacturer's safety requirements. Particular attention is drawn to those safety requirements involving entering confined spaces.
- 2. It shall be the responsibility of the Contractor to remove all internal debris and clean the existing sewer line **and clean existing manholes** prior to installation of the liner.
- 3. Inspection of existing sewer lines shall be performed by experienced personnel trained in locating breaks, obstacles and service connections by closed circuit television. The interior of the line shall be carefully inspected to determine the location of any conditions that may prevent proper installation of the liner pipe into the lines, and such conditions shall be noted so they can be corrected. A videotape and suitable log shall be kept for later reference by the Illinois Department of Transportation.
- 4. The Contractor shall provide for bypass flow around the section or sections of pipe designated for lining.
- 5. The Contractor shall clear the line of obstructions such as solids, dropped joints, protruding service connections or collapsed pipe that will prevent the insertion of the liner pipe, as noted on the Drawings and TV Logs attached. If inspection reveals an obstruction that cannot be removed by conventional sewer cleaning equipment, the Contractor shall make a point repair excavation to uncover and remove or repair the obstruction prior to lining. Pre-lining point repairs will be paid per Article 109.04 of the Standard Specifications for Road and Bridge Construction.
- 6. End seals as specified with this Special Provision shall be installed around the liner at all manhole connections for all lining products.
- 7. Do not install liner if ground water temperatures and/or ambient temperatures are excessive for the product installation procedures.
- 8. All manholes connected to sewer segments being relined shall be inspected and any necessary point repairs shall be made as determined by the Engineer. Point repairs will be paid per Article 109.04 of the Standard Specifications for Road and Bridge Construction.
- 9. All services connected to a manhole that is rehabilitated shall be renewed.
- 10. Where practicable, liners can be installed in continuous runs through manholes where there are two or more continuous sewer segments, especially to connect several short segments with a continuous lining. Opening, trimming, and sealing the CIPP at manholes shall not be paid for separately.

- 4. The audio portion of the inspection report shall include the location or identification of the section, the manhole-to-manhole direction of travel, and the distance traveled on the specific run encountered. The inspection camera equipment shall be continuously connected to the television inspection or monitoring equipment. The recording and monitoring equipment shall be continuously connected to the television inspection or monitoring equipment. The recording and monitoring equipment shall have the built-in capability to allow the Engineer to instantly review both the audio and video quality of the recordings at all times during the television survey. Playback speed shall be continuously adjustable from one-third normal speed for slow-motion viewing to normal playback speed.
- 5. Separate MPEG files shall be created for each sewer line segment. In case of a reverse setup, such inspection shall be stored in a separate MPEG file. MPEG files shall be written to CD-ROM media for delivery to the Engineer. Multiple MPEGs may exist on each CD-ROM. Each CD-ROM shall be labeled, at a minimum, with the following information: Owner, Project Name, Date of CD creation, CD ID, Sewer Line Sections and Contractor Firm. Serial Number shall be a sequential number serving to distinguish different inspections of the same mainline with the same inspection dates, i.e. reverse setups, etc. All dates used shall be inspection dates.

The Engineer, at his sole discretion, reserves right to refuse any MPEG, on the basis of poor image quality, excessive bit rates, inconsistent frame rates or any other characteristics that may affect usability by the Illinois Department of Transportation.

This page intentionally left blank

- 9. The Contractor shall have an independent testing lab analyze finished liner samples taken from manhole cutoffs, service coupons, etc. Samples shall be taken in the presence of the Engineer. The Engineer will identify the samples, secure, and arrange for delivery of the samples to the independent testing lab, cost of the delivery shall be the responsibility of the Contractor. The Contractor shall submit the name and qualifications of the independent lab for the Engineer's approval. The cost of testing shall be the responsibility of the Contractor.
  - a. A minimum of 2 samples shall be taken of the first segment installed.
  - A sample shall be taken for each liner insertion or inversion on the project. Multiple segment insertions/inversions from one manufacturing lot require one (1) sample unless in excess of 1200- feet for which two (2) must be taken.
  - c. A minimum of 6 samples per project shall be taken for each type of liner furnished.
  - d. Tests in accordance with ASTM standards for Tensile Properties (ASTM D-638), Flexural Modulus (ASTM D-790) and wall thickness (ASTM D-2122) shall be conducted. Test results should meet the requirements outlined with ASTM D-5813.
  - e. The Contractor shall determine sampling location and procedures to ensure representative samples are obtained from the finished liner, subject to approval by the Engineer.
  - f. The Contractor shall furnish flat plates to collect liner samples.

#### CLEANING EXISTING DRAINAGE STRUCTURES (D1)

Effective: September 30, 1985 Revised: May 1, 2022

All existing storm sewers, pipe culverts, manholes, catch basins and inlets shall be considered as drainage structures insofar as the interpretation of this Special Provision is concerned. When specified for payment, the location of drainage structures to be cleaned will be determined in the field by the Engineer.

All existing drainage structures which are to be adjusted or reconstructed shall be cleaned according to Article 602.15 of the Standard Specifications. This work will be paid for according to accordance with Article 602.16 of the Standard Specifications.

## FURNISHING AND PLACING SAND FILL

<u>Description</u>. This work shall consist of furnishing and installing sand fill to promote storm water infiltration at locations shown on the plans and as directed by the Engineer. The sand fill layer shall be graded smooth but not compacted.

Materials. Materials shall be according to Article 1003.04 with paragraph 1003.04(a) modified as follows:

(a) Description. The fine aggregate shall consist of Sand, Silica Sand and Stone Sand as described in paragraphs 1003.01(a)(1)(2)(3). Sand from any other source or process shall not be used.

<u>Method of Measurement</u>. This work will be measured for payment in place and the volume computed in cubic yards.

<u>Basis of Payment</u>. The work will be paid for at the contract unit price per cubic yard for FURNISHING AND PLACING SAND FILL, which payment shall include full compensation for furnishing and installing the sand fill and for furnishing all labor, equipment and tools necessary to complete the work specified.

Revise the fourth paragraph of Article 1030.10 of the Standard Specifications to read:

"When a test strip is not required, each HMA mixture shall still be sampled on the first day of production: I-FIT and Hamburg wheel testing for High ESAL; I-FIT testing for Low ESAL. Within two working days after sampling the mixture, the Contractor shall deliver gyratory cylinders to the District laboratory for Department verification testing. The High ESAL mixture test results shall meet the requirements of Articles 1030.05(d)(3) and 1030.05(d)(4). The Low ESAL mixture test results shall meet the requirements of Article 1030.05(d)(4). The required number and size of prepared samples submitted for the Hamburg wheel and I-FIT testing shall be according to the "High ESAL - Required Samples for Verification Testing" table in Article 1030.05(d)(3) above." Add the following to the end of Article 1030.10 of the Standard Specifications to read:

"Mixture sampled during first day of production shall include approximately 60 lb (27 kg) of additional material for the Department to conduct Hamburg wheel testing and approximately 80 lb (36 kg) of additional material for the Department to conduct I-FIT testing. Within two working days after sampling, the Contractor shall deliver prepared samples to the District laboratory for verification testing. The required number and size of prepared samples submitted for the Hamburg wheel and I-FIT testing shall be according to the "High ESAL - Required Samples for Verification Testing" table in Article 1030.05(d)(3) above."

## EXPRESSWAY SWEEPING CYCLES

<u>Description.</u> This work shall consist of the sweeping, pickup, removal and satisfactory disposal of all debris, refuse, and other rubbish which has accumulated on the highway. Areas to be cleaned are those driving surfaces including expressway, expressway ramp and local street pavement, expressway, expressway ramp and local street shoulders and crash investigation sites within the project limits. All work will be done at night according to the KEEPING THE EXPRESSWAY OPEN TO TRAFFIC special provision. This work shall include the traffic control required to close lanes necessary for the sweeping work. Moving lane closures per IDOT State Standard 701426 will not be permitted. Lanes shall be closed per IDOT State Standards 701400, 701401, 701428, 701446, and as directed by the Engineer. Sweeping will be required once every other month starting within 30 days of contract award until substantial completion of the project or as directed by the engineer.

Because sweeping operations need water to work effectively, sweeping will not be allowed when temperatures or wind chill factors are forecasted by the Departments certified meteorologists to be at or below freezing. Temperature must be above 32 degrees Fahrenheit. All shoulders and curb lines must be free of any existing snow and/or ice. Dry sweeping shall be allowed only if it is considered an emergency, immediate hazard, or any work as designated by the department that requires first priority corrective action.

#### FENCE REMOVAL

<u>Description:</u> This work shall consist of the removal of the existing woven wire fence, which may or may not include barb wired strands at those locations shown on the plans.

<u>General:</u> The fence removal shall include the removal of woven wire fence, posts, and foundations in their entirety.

The existing fence shall be removed in a logical sequence, and with continuity, ahead of fence replacement, at a distance that will not result in unusually long delays between fence removal and new fence replacement. At the end of each day's work or whenever no work is being performed in the areas that have had the fence removed, a temporary fence shall be installed by the Contractor. This temporary fence may be snow fence, or other fence material approved by the Engineer. Temporary fencing shall be kept to a minimum and shall be inspected daily by the Contractor. Maintenance shall be checked daily and kept up by the Contractor so long as the temporary fence is in use. Permanent and temporary fence ends shall be securely fastened together by steel wire in such a manner as to prevent casual dismantling of the temporary fence. No gaps shall be left between the ends of the fence. There shall be no additional compensation for furnishing, installing and removing temporary fence as herein specified.

The resulting void from the removal of the post or foundation holes shall be backfilled with compacted (hand tamped as a minimum) coarse aggregate material (CA-6, CA-10 or CA-12). If the holes are in turf, areas at finished grade they shall be capped with four (4) inches of topsoil graded to match existing ground. Any ruts resulting from these operations shall be filled with topsoil and graded smooth. No additional compensation shall be made for the off-site disposal of materials and for filling of foundation holes or ruts.

Existing posts which are set in concrete may be sawed off flush with the top of the concrete foundations. After the alignment of the new fence has been established and new posts are in place, the Contractor has the option of totally removing the old fence posts and foundations or removing the old fence posts and foundations a minimum of 6" below the existing ground elevation. No old fence posts and foundations are to remain in place upon completion of the new fence. All the holes from the old fence foundations shall be filled with natural sand. The top 6" shall be filled with topsoil.

Any damage to public or private property which results from the removal of the existing fence shall be repaired by the Contractor to the satisfaction of the Engineer at no additional cost.

<u>Method of Measurement:</u> This work will be paid for payment in feet, in place and standing prior to removal.

<u>Basis of Payment.</u> This work will be paid for at the contract unit price per foot for FENCE REMOVAL.

## STEEL COST ADJUSTMENT (BDE)

Effective: April 2, 2004 Revised: January 1, 2022

<u>Description</u>. Steel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in steel prices when optioned by the Contractor. The bidder shall indicate with their bid whether or not this special provision will be part of the contract. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel cost adjustment.

<u>Types of Steel Products</u>. An adjustment will be made for fluctuations in the cost of steel used in the manufacture of the following items:

Metal Piling (excluding temporary sheet piling) Structural Steel Reinforcing Steel

Other steel materials such as dowel bars, tie bars, welded reinforcement, guardrail, steel traffic signal and light poles, towers and mast arms, metal railings (excluding wire fence), and frames and grates will be subject to a steel cost adjustment when the pay items they are used in have a contract value of \$10,000 or greater.

The adjustments shall apply to the above items when they are part of the original proposed construction, or added as extra work and paid for by agreed unit prices. The adjustments shall not apply when the item is added as extra work and paid for at a lump sum price or by force account.

<u>Documentation</u>. Sufficient documentation shall be furnished to the Engineer to verify the following:

- (a) The dates and quantity of steel, in lb (kg), shipped from the mill to the fabricator.
- (b) The quantity of steel, in lb (kg), incorporated into the various items of work covered by this special provision. The Department reserves the right to verify submitted quantities.

<u>Method of Adjustment</u>. Steel cost adjustments will be computed as follows:

SCA = Q X D

Where: SCA = steel cost adjustment, in dollars

Q = quantity of steel incorporated into the work, in lb (kg)

D = price factor, in dollars per lb (kg)

 $D = MPI_M - MPI_L$ 

- Where:  $MPI_M =$  The Materials Cost Index for steel as published by the Engineering News-Record for the month the steel is shipped from the mill. The indices will be converted from dollars per 100 lb to dollars per lb (kg).
  - MPI<sub>L</sub> = The Materials Cost Index for steel as published by the Engineering News-Record for the month prior to the letting for work paid for at the contract price; or for the month the agreed unit price letter is submitted by the Contractor for extra work paid for by agreed unit price,. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

The unit weights (masses) of steel that will be used to calculate the steel cost adjustment for the various items are shown in the attached table.

No steel cost adjustment will be made for any products manufactured from steel having a mill shipping date prior to the letting date.

If the Contractor fails to provide the required documentation, the method of adjustment will be calculated as described above; however, the  $MPI_M$  will be based on the date the steel arrives at the job site. In this case, an adjustment will only be made when there is a decrease in steel costs.

<u>Basis of Payment</u>. Steel cost adjustments may be positive or negative but will only be made when there is a difference between the  $MPI_L$  and  $MPI_M$  in excess of five percent, as calculated by:

Percent Difference =  $\{(MPI_L - MPI_M) \div MPI_L\} \times 100$ 

Steel cost adjustments will be calculated by the Engineer and will be paid or deducted when all other contract requirements for the items of work are satisfied. Adjustments will only be made for fluctuations in the cost of the steel as described herein. No adjustment will be made for changes in the cost of manufacturing, fabrication, shipping, storage, etc.

The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

Attachment		
Item	Unit Mass (Weight)	
Metal Piling (excluding temporary sheet piling)		
Furnishing Metal Pile Shells 12 in. (305 mm), 0.179 in. (3.80 mm) wall thickness)	23 lb/ft (34 kg/m)	
Furnishing Metal Pile Shells 12 in. (305 mm), 0.250 in. (6.35 mm) wall thickness)	32 lb/ft (48 kg/m)	
Furnishing Metal Pile Shells 14 in. (356 mm), 0.250 in. (6.35 mm) wall thickness)	37 lb/ft (55 kg/m)	
Other piling	See plans	
Structural Steel	See plans for weights	
	(masses)	
Reinforcing Steel	See plans for weights	
	(masses)	
Dowel Bars and Tie Bars	6 lb (3 kg) each	
Welded Reinforcement	63 lb/100 sq ft (310 kg/sq m)	
Guardrail		
Steel Plate Beam Guardrail, Type A w/steel posts	20 lb/ft (30 kg/m)	
Steel Plate Beam Guardrail, Type B w/steel posts	30 lb/ft (45 kg/m)	
Steel Plate Beam Guardrail, Types A and B w/wood posts	8 lb/ft (12 kg/m)	
Steel Plate Beam Guardrail, Type 2	305 lb (140 kg) each	
Steel Plate Beam Guardrail, Type 6	1260 lb (570 kg) each	
Traffic Barrier Terminal, Type 1 Special (Tangent)	730 lb (330 kg) each	
Traffic Barrier Terminal, Type 1 Special (Flared)	410 lb (185 kg) each	
Steel Traffic Signal and Light Poles, Towers and Mast Arms		
Traffic Signal Post	11 lb/ft (16 kg/m)	
Light Pole, Tenon Mount and Twin Mount, 30 - 40 ft (9 – 12 m)	14 lb/ft (21 kg/m)	
Light Pole, Tenon Mount and Twin Mount, 45 - 55 ft (13.5 – 16.5 m)	21 lb/ft (31 kg/m)	
Light Pole w/Mast Arm, 30 - 50 ft (9 – 15.2 m )	13 lb/ft (19 kg/m)	
Light Pole w/Mast Arm, 55 - 60 ft (16.5 – 18 m)	19 lb/ft (28 kg/m)	
Light Tower w/Luminaire Mount, 80 - 110 ft (24 – 33.5 m)	31 lb/ft (46 kg/m)	
Light Tower w/Luminaire Mount, 120 - 140 ft (36.5 – 42.5 m)	65 lb/ft (97 kg/m)	
Light Tower w/Luminaire Mount, 150 - 160 ft (45.5 – 48.5 m)	80 lb/ft (119 kg/m)	
Metal Railings (excluding wire fence)		
Steel Railing, Type SM	64 lb/ft (95 kg/m)	
Steel Railing, Type S-1	39 lb/ft (58 kg/m)	
Steel Railing, Type T-1	53 lb/ft (79 kg/m)	
Steel Bridge Rail	52 lb/ft (77 kg/m)	
Frames and Grates		
Frame	250 lb (115 kg)	
Lids and Grates	150 lb (70 kg)	