

SPECIFICATION PACKET



CONVENIENCE CENTER SCALES

2024

NOTICE OF BID

The Jessamine County Fiscal Court will receive sealed bids for scales for the Jessamine County Convenience Center. Bid specifications can be picked up at the office of the Jessamine County Judge Executive David West, 101 North Main Street, Nicholasville, KY or obtained on www.jessamineco.com. Sealed bids will be accepted until Monday, July 29, 2024 at 11:00 am at the office of the Jessamine County Judge / Executive, David West, 101 North Main Street, Nicholasville Kentucky 40356. The Fiscal Court reserves the right to reject any or all bids.

Jessamine County Fiscal Court

Reciprocal Preference for Kentucky Resident Bidders

KRS 45A.490 Definitions for KRS 45A.490 to 45A.494.

As used in KRS 45A.490 to 45A.494:

- (1) "Contract" means any agreement of a public agency, including grants and orders, for the purchase or disposal of supplies, services, construction, or any other item; and
- (2) "Public agency" has the same meaning as in KRS 61.805.

KRS 45A.492 Legislative declarations.

The General Assembly declares:

- (1) A public purpose of the Commonwealth is served by providing preference to Kentucky residents in contracts by public agencies; and
- (2) Providing preference to Kentucky residents equalizes the competition with other states that provide preference to their residents.

KRS 45A.494 Reciprocal preference to be given by public agencies to resident bidders -- List of states -- Administrative regulations.

- (1) Prior to a contract being awarded to the lowest responsible and responsive bidder on a contract by a public agency, a resident bidder of the Commonwealth shall be given a preference against a nonresident bidder registered in any state that gives or requires a preference to bidders from that state. The preference shall be equal to the preference given or required by the state of the nonresident bidder.
- (2) A resident bidder is an individual, partnership, association, corporation, or other business entity that, on the date the contract is first advertised or announced as available for bidding:
 - (a) Is authorized to transact business in the Commonwealth; and
 - (b) Has for one (1) year prior to and through the date of the advertisement, filed Kentucky corporate income taxes, made payments to the Kentucky unemployment insurance fund established in KRS 341.490, and maintained a Kentucky workers' compensation policy in effect.
- (3) A nonresident bidder is an individual, partnership, association, corporation, or other business entity that does not meet the requirements of subsection (2) of this section.
- (4) If a procurement determination results in a tie between a resident bidder and a nonresident bidder, preference shall be given to the resident bidder.
- (5) This section shall apply to all contracts funded or controlled in whole or in part by a public agency.
- (6) The Finance and Administration Cabinet shall maintain a list of states that give to or require a preference for their own resident bidders, including details of the preference given to such bidders, to be used by public agencies in determining resident bidder preferences. The cabinet shall also promulgate administrative regulations in accordance with KRS Chapter 13A establishing the procedure by which the preferences required by this section shall be given.
- (7) The preference for resident bidders shall not be given if the preference conflicts with federal law.
- (8) Any public agency soliciting or advertising for bids for contracts shall make KRS 45A.490 to 45A.494 part of the solicitation or advertisement for bids.

The reciprocal preference as described in KRS 45A.490-494 above shall be applied in accordance with 200 KAR 5:400.

Method of Award

Best Value – Ranking Approach

Jessamine County Fiscal Court intends to award a Contract to the Vendor, whose offer, conforming to the Solicitation, is the most advantageous on the basis of "best value" for all products, services, and requirements contained herein.

An evaluation committee, or a designated individual, will evaluate the information provided by the Vendor in response to the established measurable criteria contained in the Solicitation.

Measurable Criteria:

Price	95 Points
Delivery	5 Points

TOTAL POINTS 100 Points

Each Vendor is responsible for submitting all relevant, factual and correct information with their offer to enable the evaluator(s) to afford each Vendor the maximum score based on the available data submitted by the Vendor. VENDOR SHALL ENTER UNIT PRICE AND TOTAL PRICE ON THE BID SHEET. If adequate space is not available, the Vendor must attach additional information that clearly cross-references the appropriate location in the solicitation (i.e. page number, paragraph, subject, etc.).

Vendors responding with the minimum Best Value requirements in this Solicitation shall not be credited with Best Value points. Vendors responding with greater than the minimum requirements shall receive Best Value points. Failure to provide adequate information will impact the evaluated points awarded to the Vendor.

Price (95 points)

The bidder with the lowest Price receives the maximum score. The bidder with the next lowest Price receives points by dividing the lowest Price by the next lowest price and multiplying that percentage by the available points. For example, 95 points is allocated to the lowest Price criteria for this procurement, Bidder "A" bids \$3.00 as the lowest bidder and receives the maximum 95 points ($\$3.00 / \$3.00 = 1.00 \times 95 = 95$). Assume Bidder "B" is the next lowest bidder at \$4.00, then "B" receives 71.3 points ($\$3.00 / \$4.00 = .75 \times 95 = 71.25$).

Delivery (5 points)

The bidder with the best delivery time receives the maximum score. The bidder with the next best delivery time receives points by dividing the best delivery by the next best delivery and multiplying that percentage by the available points. For example, 5 points is allocated to the best delivery time for this procurement, Bidder "A" bids 10 days as the best delivery time and receives the maximum 5 points ($10 / 10 = 1.00 \times 5 = 5$). Assume Bidder "B" bids the next best delivery time 15 days, then "B" receives 3.33 points ($10 / 15 = .67 \times 5 = 3.33$).

Vendor shall enter best delivery time in working days: _____ DAYS ARO

The Vendor agrees that when delivery is not made within the contracted due date, one percent (1%) per day shall be deducted from the Vendor's invoice for each day the Vendor fails to meet the contracted delivery date.

Best Value scoring is subject to **Reciprocal preference for Kentucky resident bidders and Preferences for a Qualified Bidder or the Department of Corrections, Division of Prison Industries (KAR 200 5:410)**. *Vendors not claiming resident bidder or qualified bidder status need not submit the corresponding affidavit

**REQUIRED AFFIDAVIT FOR BIDDERS, OFFERORS AND
CONTRACTORS CLAIMING
RESIDENT BIDDER STATUS**

FOR BIDS AND CONTRACTS IN GENERAL:

The bidder or offeror hereby swears and affirms under penalty of perjury that, in accordance with KRS 45A.494(2), the entity bidding is an individual, partnership, association, corporation, or other business entity that, on the date the contract is first advertised or announced as available for bidding:

1. Is authorized to transact business in the Commonwealth;
2. Has for one year prior to and through the date of advertisement
 - a. Filed Kentucky corporate income taxes;
 - b. Made payments to the Kentucky unemployment insurance fund established in KRS 341.49; and
 - c. Maintained a Kentucky workers' compensation policy in effect.

The BIDDING AGENCY reserves the right to request documentation supporting a bidder's claim of resident bidder status. Failure to provide such documentation upon request shall result in disqualification of the bidder or contract termination.

Signature	Printed Name
Title	Date
Company Name	
Address	

Subscribed and sworn to before me by _____ (Affiant) _____ (Title)

of _____ this ____ day of _____, 20__.

(Company Name)

Notary Public

[seal of notary] My commission expires: _____

REQUIRED AFFIDAVIT FOR BIDDERS, OFFERORS AND CONTRACTORS CLAIMING QUALIFIED BIDDER STATUS

FOR BIDS AND CONTRACTS IN GENERAL:

I. The bidder or offeror swears and affirms under penalty of perjury that the entity bidding, and all subcontractors therein, meets the requirements to be considered a "qualified bidder" in accordance with 200 KAR 5:410(3); and will continue to comply with such requirements for the duration of any contract awarded. Please identify below the particular "qualified bidder" status claimed by the bidding entity.

_____ A nonprofit corporation that furthers the purposes of KRS Chapter 163

_____ Per KRS 45A.465(3), a "Qualified nonprofit agency for individuals with severe disabilities" means an organization that:

- (a) Is organized and operated in the interest of individuals with severe disabilities; and
- (b) Complies with any applicable occupational health and safety law of the United States and the Commonwealth; and
- (c) In the manufacture or provision of products or services listed or purchased under KRS 45A.470, during the fiscal year employs individuals with severe disabilities for not less than seventy-five percent (75%) of the man hours of direct labor required for the manufacture or provision of the products or services; and
- (d) Is registered and in good standing as a nonprofit organization with the Secretary of State.

The BIDDING AGENCY reserves the right to request documentation supporting a bidder's claim of qualified bidder status. Failure to provide such documentation upon request may result in disqualification of the bidder or contract termination.

Signature

Printed Name

Title

Date

Company Name _____

Address _____

Solicitation/Contract #: Convenience Center Scales

_____ Must provide proof of general liability insurance in the minimum amount of \$1,000,000.00 with Jessamine County Fiscal Court named as additional insurer

_____ Must have worker's compensation insurance coverage for all employees that perform work under the contract prior to execution of contract

_____ Must have a Jessamine County Occupational License and be in compliance

_____ Must adhere to all local, state and federal regulations

Company Name _____

Company Phone Number _____

Company Address _____

Bid \$ _____

ENGINEERING SPECIFICATIONS

Steel Platform Motor Truck Scale

1 GENERAL PROVISIONS

- 1.1 Furnish and install one steel deck motor truck scale and associated electronic controls.
- 1.2 The scale shall have a clear and unobstructed weighing surface of not less than 40 feet long and 11 feet wide.
- 1.3 The scale shall have a profile not to exceed 14-1/2" inches, which is measured from the top of the scale to the top of the foundation slab or pier at the load cell bearing points.
- 1.4 The scale shall be fully electronic in design and shall not incorporate any mechanical weighing elements, check rods, or check stays.
- 1.5 The scale shall be designed to perform as a single weighing platform and shall be of flat-top design. Side rail support beams are not acceptable.
- 1.6 The scale shall have a gross weighing capacity of 100 tons.
- 1.7 The scale shall have a Concentrated Load Capacity (CLC) of 100,000 pounds.
- 1.8 The scale shall be designed to accept vehicles that generate up to 80,000 pounds per tandem axle.
- 1.9 The scale shall be designed to accept an average daily traffic volume of up to 3000 vehicles per day, 365 days per year, for 20 years, assuming that 100% of the vehicles are fully loaded with the equivalent of 80,000 lbs. on their dual tandem axle.
- 1.10 In order for the bid to be considered, Supplier must provide written confirmation of empirical testing data to validate the design of the weighbridge through actual life-cycle testing. During the testing process the weighbridge must see a minimum of 1 million cycles, with at least 80,000 lbs. of test load, applied on the 8 contact points of a standard truck's dual tandem axle tires. This documentation must be provided with the proposal submittal. Failure to provide this information will result in the bid being considered non-responsive.
- 1.11 The scale shall be calibrated to a minimum of 120,000 pounds by 20-pound increments and not to exceed 200,000 pounds. System configurations with increments greater than 20-pound increments will not be accepted; therefore scales with gross capacities in excess of 200,000 pounds will not be acceptable in order for the scale to meet NTEP Legal For Trade regulatory requirements.
- 1.12 The scale weighing related electronics shall be comprised solely of load cells, load cell cables and digital weight display. No other devices shall be permitted between the load cell and the digital weight display. Junction boxes, summing boards, gathering boards and gathering boxes, Totalizers, external analog to digital converter boxes and sectional controller boxes will not be accepted because of their significant and inherent maintenance issues.

ENGINEERING SPECIFICATIONS

Steel Platform Motor Truck Scale

- 1.13 The load cells and load cell mounting hardware shall be constructed of stainless steel. The cables shall be stainless steel sheathed. Load cells which are not stainless steel and hermetically sealed shall not be acceptable because of their inability to prevent moisture from entering the load cell and causing a premature failure.
- 1.14 The scale shall meet the requirements set forth by the current edition of the National Institute of Standards and Technology Handbook 44 (NIST HB-44). The scale manufacturer shall provide a Certificate of Conformance (NTEP Certification) to these standards upon request.
- 1.15 The design and manufacture of the scale weighbridge, load cells, and digital instrument shall all be of one manufacturer to maximize compatibility and availability of components and to insure maximum benefit from the system's lightning protection capability. Also, the manufacturer shall have a quality system that has been registered to the standards of ISO 9001.
- 1.16 The manufacturer or bidder shall provide with the bid proposal a listing of the total cost (labor, parts, travel time and mileage) for two service technicians to travel to the scale site with a heavy duty test truck, stay on site for four (4) hours to troubleshoot and replace one load cell in the scale and the main printed circuit board in the weight display. This listing shall be provided for service in the following three timeframes: 6 months after installation, 36 months after installation, and 58 months after installation. Listings of the same costs at these three time periods must also be provided assuming the failure is the result of a lightning strike. The cost of recalibration must be included in each service cost summary. Failure to provide the information required in this section will cause your bid submittal to be considered non-responsive and disqualified from consideration.
- 1.17 The scale shall be a Mettler-Toledo, Inc. Model VTS231 or equivalent.

ENGINEERING SPECIFICATIONS

Steel Platform Motor Truck Scale

3 WEIGHBRIDGE SPECIFICATIONS

- 3.1 The scale weighbridge shall be constructed of two prefabricated scale modules each with a nominal surface dimension of 11' wide by 19' 10.5" long.
- 3.2 The scale weighbridge shall be capable of weighing trucks that have dual-tandem axle weights (4 feet minimum between dual axles and at least 10 feet from next axle) of up to 80,000 pounds, and shall have a Concentrated Load Capacity (CLC) of 100,000 pounds.
- 3.3 All welding shall be completed in accordance with the American Welding Society (AWS) D1.1 Structural Welding Code.
- 3.4 All welding shall be performed by welding operators who have been certified to the AWS D1.1 Structural Welding Code.
- 3.5 All welding shall be performed in position 1F to ensure maximum weld integrity.
- 3.6 Longitudinal weighbridge members shall be welded continuously, using a high-penetration, submerged arc welding process. The use of intermittent, or stitch welds on longitudinal members or deck tread plate is unacceptable.
- 3.7 The weighbridge shall be designed to allow access to load cell cables, base plates, and all foundation anchor bolts from the top of the scale platform.
- 3.8 The weighbridge and load cell mounting assemblies shall be designed to allow installation or replacement of a load cell with only one additional inch of clearance required between the top of the foundation and the bottom of the weighbridge on pit-less installations.
- 3.9 There shall be no bolted connections between the load cell and weighbridge assemblies.
- 3.10 The load cell assembly shall be designed so that when you are at the scale weighbridge with a lifting jack, the load cell can be replaced in less than 5 minutes
- 3.11 There shall be no field welding required for the installation of the scale.

ENGINEERING SPECIFICATIONS

Steel Platform Motor Truck Scale

4 SURFACE PREPARATION AND FINISH

- 4.1 The weighbridge shall be shot blasted to a minimum SSPC-SP6 specification prior to painting.
- 4.2 All enclosed chambers created by joining two steel members must be hermetically sealed to eliminate internal corrosion.
- 4.3 All exterior surfaces of the scale shall have a two component, high build epoxy finish, impregnated with aluminum flake for increased corrosion resistance and UV protection, providing total Dry Film Thickness of 5-7 mils; International/Akzo Nobel Intergard 7562 or equivalent.
- 4.4 The finish shall be force cured in order to reduce risk of contamination and ensure durability of the surface.

5 LOAD CELL SPECIFICATIONS

- 5.1 Each load cell shall have a minimum capacity of 50 metric tons (110,000 pounds) with 300% ultimate overload rating.
- 5.2 All Load cells shall be certified by NTEP and meet the specifications as set forth by NIST HB-44 for Class III L devices. The manufacturer shall provide a Certificate of Conformance to these standards upon request.
- 5.3 All load cells shall be certified to meet the specifications set forth by the International Organization of Legal Metrology (OIML) in document R60 for C3 load cells, which requires 60% tighter accuracy tolerances than NIST HB-44 for Class III L devices. The manufacturer shall provide a Certificate of Conformance to these standards upon request.
- 5.4 Load cells shall be digital with an integral microprocessor and analog-to-digital conversion function located within the load cell housing.
- 5.5 Load cells shall output only converted digital information without load correction for load position to the scale instrument. Analog output of signals from the load cell is not acceptable due to susceptibility of signal interference.
- 5.6 The load cell assembly shall be constructed so as to perform as a rocker pin and shall have no positive fixed mechanical connectors, such as bolts or links that are required in mounting the load cell to the weighbridge or foundation base plates.
- 5.7 The load cell shall not require check rods, flexures or chain links for stabilization, as each of these items are sources of ongoing maintenance requirements.
- 5.8 The load cell shall not require a junction box to communicate between the load cell and scale instrument. No other devices shall be permitted between the load cell and the digital weight display. Junction boxes, summing boards, gathering boards and gathering boxes, Totalizers, external analog to digital converter

ENGINEERING SPECIFICATIONS

Steel Platform Motor Truck Scale

boxes and sectional controller boxes will not be accepted because of their significant and inherent maintenance issues.

- 5.9 The load cell shall be of stainless steel construction and hermetically sealed with a minimum NEMA 6P / IP68 (submersible) and IP69K rating.
- 5.10 The load cell shall contain integral Transient Voltage Surge Suppressors (TVSS) for all input and communication lines. Each TVSS shall contain self-resetting thermal breakers to protect the load cell components from voltage and current surges.
- 5.11 The load cell shall come equipped with a neoprene rubber boot to keep debris from contaminating the lower bearing surface.
- 5.12 The load cell shall have a positive-lock quick connector integral to its housing for connecting and disconnecting the load cell interface cable at the load cell. The connector shall be of glass-to-metal, pin-type construction to maintain a hermetic seal.
- 5.13 System shall be so designed as to permit a load cell cable to be replaced without either splicing the load cell cable or replacing the load cell, either of which will contribute to eventual system failure and unnecessary service costs System shall be so designed as to permit the replacing the load cell cable without requiring that the scale must be recalibrated, further reducing service/maintenance costs.
- 5.14 The load cell shall have the following specifications:
 - 5.14.1 V_{min} : 5.0 pounds maximum
 - 5.14.2 Hysteresis: $\pm 0.025\%$ of full scale
 - 5.14.3 Non-Linearity: $\pm 0.015\%$ of full scale
 - 5.14.4 Creep (30 minutes): $\pm 0.017\%$ of applied load
 - 5.14.5 Temperature range: $-10^{\circ}\text{C} + 40^{\circ}\text{C}$
- 5.15 The load cell interface cable shall be stainless steel sheathed for environmental and rodent protection. Neoprene covered load cell cable shall not be permitted.
 - 5.15.1 Load cell cables which are hard wired directly to the load cell are not acceptable due to the failure rates associated with moisture wicking into the load cell from aged cables or damaged cables, and due to the unnecessary expense associated with replacing entire load cells when only a cable has been damaged.
- 5.16 The load cell shall have a minimum 10-year warranty against defects in materials and workmanship and failure from lightning or surge voltages. The warranty shall cover all costs associated with replacement parts, travel, mileage, on-site labor and recalibration after repair, the full cost of which shall be supported solely by the manufacturer and not in part by any other 3rd party.

ENGINEERING SPECIFICATIONS Steel Platform Motor Truck Scale

- 5.17 Load cells shall be Mettler-Toledo, Inc. POWERCELL® PDX® load cell or equivalent.

6 SCALE INSTRUMENT SPECIFICATIONS

- 6.1 The scale instrument shall be designed for use in vehicle scale weighing applications. It shall be capable of performing basic weighing operations including but not limited to:
- 6.1.1 Inbound/outbound two-weighment operations.
 - 6.1.2 Single weighment operations where vehicle tare weights are known either through preset tares which are stored in the scale instrument memory or manually entered tare values which are entered through the keyboard.
 - 6.1.3 Transient vehicle weighing operations where the transaction is to be completed but the record will not be added to memory accumulators or totals.
- 6.2 The instrument shall, as a minimum, utilize a 128 x 64 dot vacuum florescent display with graphic capability to present the transactional information along with weight to the operator. During normal weighing operations the display will incorporate the following elements:
- 6.2.1 Weight (21mm high characters)
 - 6.2.2 Time and Date
 - 6.2.3 Center of Zero
 - 6.2.4 Mode of Operation (Gross or Net)
 - 6.2.5 Weighing Unit (lb or kg)
- 6.3 The scale instrument shall have the following keyboard operations:
- 6.3.1 0-9 Numeric Keys
 - 6.3.2 . (Decimal Point)
 - 6.3.3 Clear
 - 6.3.4 Tare
 - 6.3.5 Zero
 - 6.3.6 Print
 - 6.3.7 Four Application-Specific Assignable Soft Keys with icons for easy operator use to identify TempID and VehID, etc.
 - 6.3.8 Five Scale-Function Soft Keys
 - 6.3.9 Screen Navigation Keys for Up, Down, Left, and Right Commands

ENGINEERING SPECIFICATIONS

Steel Platform Motor Truck Scale

- 6.3.10 Enter
- 6.4 The operator shall be capable of entering alphanumeric characters through the terminal without the need for an external keyboard. However, the scale instrument shall, as an accessory, be capable of being interfaced to a standard USB-style computer keyboard without modifications to the scale instrument hardware or software for the purpose of entering alphanumeric information, as well as emulation of application and scale instrument soft-key functionality, if required.
- 6.5 The scale instrument shall have the following operational parameters:
 - 6.5.1 Capable of communicating with up to 3 pairs of digital load cell assemblies.
 - 6.5.2 Ability to digitally average the weight information sent from the load cells and updating the instrument's weight display 15 times per second.
 - 6.5.3 Capable of being programmed for sign-corrected net weighing so that all net weights are positive.
 - 6.5.4 Have a transaction counter to automatically assign sequence numbers to transactions.
 - 6.5.5 Have automatic zero capture on power-up selectable to capture zero at 2% or 10% of the full-scale capacity.
 - 6.5.6 Have adjustable digital filtering.
 - 6.5.7 Have adjustable automatic zero maintenance selectable for ± 0.5 , ± 1 , or ± 3 displayed increments.
 - 6.5.8 Have push-button zero selectable for $\pm 2\%$ or $\pm 20\%$ of full-scale capacity.
 - 6.5.9 Tare, Zero, and Print functions shall be inhibited while the weight display is changing. Motion detection shall be selectable for ± 0.5 , ± 1.0 , ± 2.0 , or ± 3.0 increments.
 - 6.5.10 Only receives digital information from the load cell assemblies. There shall be no analog-to-digital conversion function in the scale instrument.
 - 6.5.11 Capable of providing load correction for load position.
- 6.6 The scale instrument shall have the following service characteristics:
 - 6.6.1 Set-up and navigation through all phases of set-up, calibration, and testing shall be intuitive through a decision-tree format.
 - 6.6.2 Capable of performing calibration, span, zero, and shift adjustment through software calculations that require no in-scale adjustment.

ENGINEERING SPECIFICATIONS

Steel Platform Motor Truck Scale

- 6.6.3 Entry of information shall be accomplished through the instrument's keyboard only.
- 6.6.4 Capable of assigning each load cell with its own unique identification number and displaying the weight reading of each individual load cell through the instrument without disconnecting any of the load cells from the system.
- 6.6.5 Ability to display digital raw counts for the attached digital load cells with their values being updated on a real-time basis. The scale instrument shall also be capable of displaying the raw count values of multiple digital load cells on the graphical display.
- 6.6.6 Ability to identify and to immediately display an error condition associated with an individual load cell in the event of a failure or out-of-tolerance condition. The displayed message shall identify the failed load cell and the cause of the failure to avoid an invalid weighing on the scale.
- 6.6.7 Ability to monitor and display health of load cell network and to compare the current network status to the values captured during calibration. This is a requirement to reduce downtime and provide information to the user so that the user can proactively use the information to determine the most convenient time to address maintenance issues, while avoiding downtime at the most inopportune time.
- 6.6.8 Load cell health information shall include individual load cell temperature, supply voltage at load cell, signal voltages, maximum loading. These data are vital in reducing downtime and troubleshooting time and cost.
- 6.6.9 Ability to monitor the gas concentration sensors in each load cell and identify which load cell may be breached or physically damaged so that unscheduled downtime can be eliminated.
- 6.6.10 Ability to access system status data through an Ethernet connection using a web server residing on the instrument for remote diagnostics
- 6.6.11 Ability to access system memory through an Ethernet connection using a shared data server. This allows tighter integration with customer operations.
- 6.7 The scale instrument shall be NTEP certified and meet or exceed the specifications set forth by NIST HB-44 for Class II, III, and III-L Devices. The manufacturer upon request shall provide a Certificate of Conformance to these standards.
- 6.8 The scale instrument shall be housed in a metal enclosure that is suitable for desk or wall mounting.
- 6.9 The scale instrument shall have flexible storage capability with a minimum of 256 Mbytes of flexible memory in which to store pertinent vehicle, transactional, and

ENGINEERING SPECIFICATIONS

Steel Platform Motor Truck Scale

commodity information. The scale instrument shall be capable of storing the weight information automatically or enabling the operator to assign a memory location to the weight manually. The scale instrument will run SQL or equivalent database application to enable possible integration into higher level databases.

- 6.10 The scale instrument shall have subtotal and total weight accumulators.
- 6.11 The operator shall be able to enter up to 12 digits of alphanumeric ID through the instrument keyboard.
- 6.12 The scale instrument shall have gross/net weight switching.
- 6.13 The scale instrument shall be capable of being programmed and calibrated in pounds or kilograms.
- 6.14 The scale instrument shall have the following data communications capabilities:
 - 6.14.1 One com port RS232
 - 6.14.2 One com port RS232, RS422, or RS485
 - 6.14.3 One TCP/IP 10 Base-T Ethernet
 - 6.14.4 One Web server
 - 6.14.5 One Shared Data server
- 6.15 The scale instrument shall output the following information:
 - 6.15.1 Gross, Tare, and Net Weight
 - 6.15.2 ID
 - 6.15.3 Transaction Counter
 - 6.15.4 Time and Date
 - 6.15.5 Variable Application-Specific Information
 - 6.15.6 Standard Reports Generated by the Scale Instrument
- 6.16 The scale instrument shall be UL/cUL listed.
- 6.17 Scale instrument shall have the ability to connect with external PC software to allow configuration, data backup and restore, security unlock capabilities, FTP access to log files so as to significantly reduce service cost and downtime during any repair and maintenance of the scale.
- 6.18 The scale instrument shall be a Mettler-Toledo, Inc. Model IND780 or equivalent.

7 JUNCTION BOXES AND CABLES

- 7.1 Junction boxes shall not be permitted in the scale, attached to the exterior of the scale, or remotely mounted from the scale. Sectional controllers with encapsulated PCBs shall not be permitted due to the failure rates associated

ENGINEERING SPECIFICATIONS Steel Platform Motor Truck Scale

with PCBs that have wired connections made within enclosures which are not hermetically sealed.

- 7.2 Load cell cables and scale instrument cables shall be stainless steel sheathed for environmental and rodent protection.
- 7.3 In order to minimize maintenance issues, only a single cable shall be used to transmit data or weight signals between the weighbridge and the digital weight display.

8 LIGHTNING PROTECTION SPECIFICATIONS

- 8.1 A comprehensive lightning protection system shall be provided with the scale.
- 8.2 The system shall not require complicated wiring or devices to provide this protection.
- 8.3 Major scale components including load cells and scale instrument shall be included in the lightning protection system.
- 8.4 Grounding of all scale components including load cells, scale instrument, and accessories shall be to one common point. Systems with multiple ground points are not acceptable.
- 8.5 An AC line surge protector shall conveniently plug into a common electrical outlet and have a receptacle.
- 8.6 Each AC line surge protector required shall have one isolated, grounding, hospital-grade duplex receptacle, and an internal 15-amp circuit breaker.
- 8.7 Verification of the lightning protection system's performance shall be available in writing from a third-party verification laboratory upon request. Proposals submitted without confirming the availability of 3rd party confirmation that the load cells, cables and instrument as a system have been able to withstand the equivalent of a lightning strike with 38,000 amperes will be rejected.
- 8.8 The lightning protection system shall be a Mettler-Toledo, Inc. StrikeShield™ Lightning Protection System or equivalent.

9 PRINTER SPECIFICATIONS – DOCUMENT PRINTER

- 9.1 The printer shall be housed in a suitable enclosure for desktop mounting.
- 9.2 The printer shall interface with the scale instrument using a singular cable with quick connectors on each end and shall not require any modifications to the instrument or printer.
- 9.3 The printer shall have a serial interface capable of communicating with the instrument using an RS232C interface with selectable transmission rates from 300 to 9,600 baud. Transmission must be on demand.

ENGINEERING SPECIFICATIONS Steel Platform Motor Truck Scale

- 9.4 The printer shall have a nine-pin dot matrix print head with a minimum rated life of 200 million characters.
- 9.5 The printer shall be capable of printing at a minimum speed of 300 characters per second.
- 9.6 The printer shall have an easily replaceable ink ribbon cartridge that shall be rated for a minimum life of 3 million characters.
- 9.7 The printer shall be capable of accepting single or up to six-part forms.
- 9.8 An adjustable paper guide shall be provided.
- 9.9 The printer shall provide both friction-feed and tractor-feed paper advance.
- 9.10 The printer shall have a minimum buffer memory capable of storing at least 28,000 characters.
- 9.11 The printer shall be capable of printing all information sent from the scale instrument, including:
 - 9.11.1 Gross, Tare, and Net Weights
 - 9.11.2 Time and Date
 - 9.11.3 Transaction Counter Number
 - 9.11.4 12-Digit Alphanumeric ID
 - 9.11.5 Standard Reports Generated by the Scale Instrument
- 9.12 All materials, components, and electrical design shall comply with UL and CSA standards and requirements.
- 9.13 The printer shall be an APR-320 or equivalent.

11 WARRANTY REQUIREMENTS

- 11.1 The scale manufacturer shall warrant the scale assembly including all load cells, weighbridge structure, scale instrument and associated cables from failures due to a defect in manufacturing, workmanship, lightning, or surge voltages.
- 11.2 The guarantee will warrant the product for a period of 10 years from date of installation or 120 months from date of shipment to the Buyer, whichever occurs first. Bidder shall promptly correct any such defect appearing within the warranty period.
- 11.3 The warranty shall support 100% coverage of repair parts, labor, travel time, and mileage from the closest service location, or at the manufacturer's sole discretion, replacement of the product under warranty. The full cost of warranty as specified herein shall be supported solely by the manufacturer and not in part by any other 3rd party or service provider.