

SECTION D SPECIFICATIONS
ROADWAY AND DRAINAGE CONSTRUCTION

P.I.D. No. 003490A

TIERRA VERDE

SR 679 (Pinellas Bayway) South Median Landscaping

In Pinellas County, Florida

TO ACCOMPANY PINELLAS COUNTY PUBLIC WORKS STANDARD TECHNICAL SPECIFICATIONS FOR ROADWAY AND RELATED CONSTRUCTION (LATEST EDITION) AND THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION – DIVISIONS II AND III ONLY (LATEST EDITION):

The **Order of Precedence** for Pinellas County Public Works technical requirements shall be as stated in Section H - Agreement of the Invitation to Bid.

SECTION D
SUPPLEMENTAL SPECIFICATIONS

(The following supplemental specifications are in addition to the Pinellas County Standard Technical Specifications for Roadway and General Construction)

<http://www.pinellascounty.org/technical/pdf/roadway-tech-specs-January-2018.pdf>

PAY ITEM NO. 005-0860 Survey, Irrigation As-Built Requirements by Contractor

Description: The work specified under this Section consists of all materials and labor necessary to complete all required irrigation as-built requirements as listed in the plans and specifications, to the satisfaction of the Engineer. The Contractor must be responsible to perform all survey operations in acceptable standard methods. The as-built survey shall include the beginning and ending locations of the HDEP directional bore crossing under the existing pavement to the nearest foot and dimensional from two fixed points. The Contractor must thoroughly familiarize themselves with the plans, specifications and irrigation field conditions to submit a lump sum bid that will include all means and methods necessary to satisfy the irrigation as-built survey requirements of this project.

The Contractor must provide the as-built survey to the County, within twenty-five (25) days after receiving written request from the County. Computer Aided Design and Drafting (CADD) files of the plans will be provided to the contractor for his use.

Deliverables: Deliverables are to be in accordance with the PINELLAS COUNTY CADD MANUAL for Survey and Civil Engineering. Deliverables will include two (2) hard copies on 11"x17"

sheets and will also include all Autodesk Civil 3D (latest edition) project files; fieldbook files; digital data files of all surveyed points in the standard ASCII format; and an electronic copy.

The PINELLAS COUNTY CADD MANUAL FOR LAND SURVEYING AND CIVIL ENGINEERING can be found on the Pinellas County website.

Measurement and Payment: The pay quantity must consist of all materials and labor necessary to complete the irrigation as-built survey requirements by the Contractor in connection with the construction of the project, performed to the satisfaction of the Engineer. The work specified under this Section must be one **Lump Sum (LS)**.

PAY ITEM NO. 800-2 Landscaping

Description: The work specified under this Section consists of furnishing all labor, equipment, materials and planting of all trees and shrubs of the species, size, and quality as indicated in the plans. This item also includes all grading, earthwork, mulch, shell and boulders as shown in the plans. The Engineer reserves the right to adjust the number and location of any of the designated types and species to be used at any of the locations shown, in order to provide for any unanticipated effects which might become apparent after the substantial completion of other phases of the project, or for other causes.

1. Materials:

1.1 Plants:

1.1.1 Authority for Nomenclature; Species, etc.: The designated authorities for the identification of all plant materials are publications of L.H. Bailey: "Hortus III" and "Manual of Cultivated Plants," and ensure that all specimens are true to type, name, etc., as described therein. Refer to the publication of the American Joint Committee on Horticultural Nomenclature, "Standardized Plant Names" for standard nomenclature. Where there is a conflict between the two (2) authorities for identification of plant materials, the Engineer shall decide the higher authority.

1.1.2 Grade Standards and Conformity with Type and Species: Only use nursery grown plant material except where specified as Collected Material. Use nursery grown plant material that complies with all required inspection, grading standards, and plant regulations in accordance with the latest edition of the Florida Department of Agriculture's "Grades and Standards for Nursery Plants". Except where a lesser grade is specifically specified in the plans, ensure that the minimum grade for all trees and shrubs is Florida No. 1. Ensure that all plants are the proper size and grade at the time of delivery to the site, throughout the project construction period and during any designated plant establishment period.

Ensure that plant materials are true to type and species and that any plant materials not specifically covered in Florida Department of Agriculture's "Grades and Standards for Nursery Plants" conform

in type and species with the standards and designations in general acceptance by Florida nurseries.

1.1.3 Inspection and Transporting: Move nursery stock in accordance with all Federal and State regulations therefor, and accompany each shipment with the required inspection certificates for filing with the Engineer. Ensure that plant materials are shipped with tags stating the botanical and common name of the plant.

1.2 Water: Water used in landscaping operations may be obtained from any approved source. Ensure that water is free of any substance which might be detrimental to plant growth. The use of effluent water is subject to approval and must meet all Federal, State and Local requirements.

2. Specific Requirements for the Various Plant Designations.

2.1 Balled-and-Burlapped Plants (B&B), and Wired Balled-and-Burlapped (WB & B):

2.1.1 General: Properly protect the root ball of these plants until planting them. The Engineer will reject any plant which shows evidence of having been mishandled. Set the B&B and WB&B plants, then remove the top 2/3 of all wire, rope, and binding surrounding the plant. Remove the burlap from the top 4 inches of the root ball. Do not disturb the root ball in any way. Bare root material is not allowed.

At least 90 days before digging out B & B and WB & B plants, root-prune those plants 1½ inches or greater in diameter, and certify such fact on accompanying invoices.

2.1.2 Provisions for Wiring: For plants grown in soil of a loose texture, which does not readily adhere to the root system (and especially in the case of large plants or trees), the Engineer may require WB & B plants. For WB & B plants, before removing the plant from the excavated hole, place sound hog wire around the burlapped ball, and loop and tension it until the tightened wire netting substantially packages the burlapped ball such as to prevent disturbing of the loose soil around the roots during handling.

2.2 Container-Grown Plants (CG): The Engineer will not accept any CG plants with roots which have become pot-bound or for which the top system is too large for the size of the container. Fully cut and open all containers in a manner that will not damage the root system. Do not remove CG plants from the container until immediately before planting to prevent damage to the root system.

2.3 Collected Plants (Trees and Shrubs) (C): Use C plants which have a root ball according to "Florida Grades and Standards for Nursery Plants". Do not plant any C plant before the Engineer's inspection and acceptance at the planting site.

2.4 Collected Plants (Herbaceous) (HC): The root mass and vegetative portions of collected herbaceous plants shall be as large as the specified container-grown equivalent. Do not plant any collected plant before inspection and acceptance by the Engineer.

2.5 Specimen Plants (Special Grade): When Specimen (or Special Grade) plants are required, label them as such on the plant list, and tag the plant to be furnished.

2.6 Palms: Wrap the roots of all plants of the palm species before transporting, except if they are CG plants, and ensure that they have an adequate root ball structure and mass for healthy transplantation as defined in “Florida Grades and Standards for Nursery Plants”.

The Engineer will not require burlapping if the palm is carefully dug from marl or heavy soil that adheres to the roots and retains its shape without crumbling. During transporting and after arrival, carefully protect root balls of palms from wind and exposure to the sun. Muck grown palms are not allowed. After delivery to the job site, palms which are not intended to be or are not planted within 24 hours, shall have the root ball covered with a moist material. Plant all palms within 48 hours of delivery to the site. Move sabal and coconut palms in accordance with the “Florida Grades and Standards for Nursery Plants.”

2.7 Substitution of Container-Grown (CG) Plants: With the Engineer’s approval, the Contractor may substitute CG plants for any other root classification types, if all other requirements of the Contract Documents are met.

3. Planting Requirements:

3.1 Layout: Prior to any excavation or planting, mark all planting beds and individual locations of palms, trees, large shrubs and proposed art and architectural structures, as shown in the plans. Marking shall be on the ground with a common bright orange colored spray paint, or with other approved methods within the project limits. Obtain the Engineer’s approval of marked locations, and make necessary utility clearance requests.

3.2 Excavation of Plant Holes: Excavate plant holes after an area around the plant three (3) times the size of the root ball has been tilled to a depth matching the root ball. Ensure that the plant hole is made in the center of the tilled area only to the depth of the plant root ball. Where excess material has been excavated from the plant hole, use the excavated material to backfill to proper level.

3.3 Setting of Plants: Center plants in the plant hole. Lower the plant into the hole so that it rests on a prepared hole bottom such that the roots are level with, or slightly above, the level of their previous growth and so oriented such as to present the best appearance. Backfill with native soil, unless otherwise specified on the plans. Firmly rod and water-in the backfill so that no air pockets remain. Apply a sufficient quantity of water immediately upon planting to thoroughly moisten all of the backfilled earth. Keep plants in a moistened condition for the duration of the planting period. When directed by the Engineer, form a water ring 6 inches in width to make a water collecting basin with an inside diameter equal to the diameter of the excavated hole. Maintain the water ring in an acceptable condition as determined by the Engineer.

3.4 Special Bed Preparation: Where multiple or mass plantings are to be made in extended bedding areas, and the plans specify Special Bed Preparation, prepare the planting beds as follows: Remove all vegetation from within the area of the planting bed and excavate the surface soil to a depth of 6 inches. Backfill the excavated area with peat, sand, finish soil layer material or other material to the elevation of the original surface. Till the entire area to provide a loose, friable mixture to a depth of at least 8 inches. Level the bed only slightly above the adjacent ground level. Then mulch the entire bedding area, in accordance with No. 7-Mulching.

4. Staking and Guying.

4.1 General: When specified in the plans, or as directed by the Engineer, stake plants in accordance with the following:

- Use wide plastic, rubber or other flexible strapping materials to support the tree to stakes or ground anchors that will give as the tree moves in any direction up to thirty (30) degrees. Do not use rope or wire through a hose. Use guy chords, hose or any other thin bracing or anchorage material which has a minimum of 12 inches in length of high visibility flagging tape secured to guys, midway between the tree and stakes for safety.
- Stake trees larger than 1 inch diameter and smaller than 2 inches diameter with a 2 x 2 inch stake, set at least 2 feet in the ground and extending to the crown of the plant. Firmly fasten the plant to the stake with flexible strapping materials as noted above.

4.2 Trees of 2 to 3 1/2 inches [50 to 90 mm] Caliper: Stake all trees, other than palm trees, larger than 2 inches caliper and smaller than 3 1/2 inches caliper with two (2), 2 x 4 inch stakes, 8 feet long, set 2 feet in the ground. Place the tree midway between the stakes and hold it firmly in place by flexible strapping materials as noted above.

4.3 Large Trees: Guy all trees, other than palm trees, larger than 3 1/2 inches caliper, from at least three (3) points, with flexible strapping materials as noted above. Anchor flexible strapping to 2 x 4 x 24 inch stakes, driven into the ground such that the top of the stake is at least three (3) inches below the finished ground.

4.4 Special Requirements for Palm Trees: Brace palms which are to be staked with three 2 x 4 inch wood braces, toe-nailed to cleats which are securely banded at two points to the palm, at a point one third the height of the trunk. Pad the trunk with five (5) layers of burlap under the cleats. Place braces approximately 120 degrees apart and secure them underground by 2 x 4 x 12 inch stake pads.

5. Tree Protection and Root Barriers: Install tree barricades when called for in the Plans and Specifications or by the Engineer to protect existing trees from damage during project construction. Place barricades at the drip line of the tree foliage or as far from the base of the tree trunk as possible. Barricades shall be able to withstand bumps by heavy equipment and trucks. Maintain barricades in good condition. When called for in the Plans and Specifications, install root barriers or fabrics in accordance with the details shown.

6. Pruning: Prune all broken or damaged roots and limbs in accordance with established arboriculture practices. When pruning is completed, ensure that all remaining wood is alive. Do not reduce the size or quality of the plant below the minimum specified.

7. Mulching: Uniformly apply mulch material, consisting of wood chips (no Cypress Mulch is allowed), pine straw, compost, or other suitable material approved by the Engineer, to a minimum loose thickness of three (3) inches over the entire area of the backfilled hole or bed within two days after the planting. Maintain the mulch continuously in place until the time of final inspection.

8. Disposal of Surplus Materials and Debris: Dispose of surplus excavated material from

plant holes by scattering or otherwise as directed by the Engineer so that it is not readily visible or conspicuous to the passing motorist or pedestrian. Remove all debris and other objectionable material from the site and clean up the entire area and leave it in neat condition.

9. Contractor's Responsibility for Condition of the Plantings: Ensure that the plants are kept watered, that the staking and guying is kept adjusted as necessary, that all planting areas and beds are kept free of weeds and undesirable plant growth and that the plants are maintained so that they are healthy, vigorous, and undamaged at the time of acceptance.

Measurement and Payment: The work specified under this Section, including 1 year warranty, shall be one **Lump Sum (LS)** actually constructed and accepted.

PAY ITEM NO. 800-4 Irrigation

1. General:

Description of Work: Install a complete and working underground irrigation system according to plans and specifications provided. The work shall include but not be limited to furnishing and installing sprinklers, drip, electric valves, wire, lateral pipe, mainline pipe, isolation valves, quick couplers, controller and related equipment and electrical service connection. Service connection and associated service equipment shall be installed in accordance with National Electrical Code (2017) and as directed by the Engineer.

1.1 Quality Assurance:

Manufacturer's Qualifications: Irrigation products (i.e.: sprinklers, valves, controllers) shall be as specified in the plans.

1.2 Related Sections/Work

1.2.1 Section- Electrical & Sleeving: Electrical service for the controller shall be provided by the Contractor. The Contractor will coordinate with the County Engineer and Duke Energy for electrical connections. The Contractor shall be responsible for all Duke Energy service charges and all monthly electrical usage fees during construction, and the 90 day establishment period. Fees will be turned over to the County upon final acceptance by the County.

1.2.2 Section- General: Contractor to supply the following:

- Provide and install: All conduits and sleeves required for irrigation installation (size and type as specified on drawing). Note: The Contractor shall be responsible to record and maintain location markers for all sleeves.
- Electrical connection: All conduits, wiring, electrical components, and all service equipment and support structure as specified on drawings to ensure a complete and working underground irrigation system.

1.3 Job Conditions

1.3.1 Site Conditions:

Changes to the landscape shall be expected. Any necessary re-excavation or alterations to the system needed, shall be performed at the Contractor's expense.

2. Products:

2.1 Acceptable Manufacturers

2.1.1 All sprinkler heads, valves and drip products for this project shall be manufactured by Hunter Industries or approved equal.

2.2.2 Irrigation controller, decoder products and two-wire accessories for this project shall be manufactured by Hunter Industries or approved equal.

2.2 Materials

2.2.1 **Pipe:** PVC Pipe: All mainline and lateral pipe, High-impact virgin polyvinyl-chloride (PVC-1120) conforming to NSF Standard 14 and ASTM D-2241 for thermoplastic pipe with minimum 200 PSI test strength. Pipe shall have standard thermoplastic pipe dimension ratio of SDR-21 and shall be marked or stamped every 5 feet to indicate brand, strength rating, size and standards. See drawing for sizes specified.

2.2.2 Pipe Sleeves

Pipe Size	Sleeve size	Sleeve Type
3-inch	6-inch	HDPE
Two-wire	2-inch	HDPE

(Sleeve sizes and locations are based on a single pipe being installed in a sleeve. Contractor shall verify sleeve sizes with the plans.)

2.2.3 **Fittings:** PVC Pipe Fittings: All fittings 1" through 3" shall be Schedule 40 PVC Solvent Weld, Type 1, meeting the requirements of ASTM D-2466. All threaded PVC pipe fitting shall be ASTM D2467, Schedule 80 PVC.

2.2.4 **Solvent and Primer:** Solvent and primer used on PVC pipe shall meet the requirements of ASTM D-2564 and shall be approved by the National Sanitation Foundation. All solvent and primer shall be used in accordance with manufacturer's specification. Primer shall be purple in color. Solvent shall be used as is from original container. No thinner shall be added to the solvent to change its viscosity. If viscosity or consistency is unsuitable, the solvent shall not be used.

2.2.5 Isolation Valves and Valves Boxes

- Valves: Type and size as specified on drawings.
- Valve Boxes: All valves shall be protected by a two-piece valve box assembly consisting of a removable cover and box. Enclosure shall be rigid plastic material composed of fibrous components chemically inert and unaffected by moisture, corrosion, and temperature changes. Boxes shall be sized as follows: Minimum of a 12" rectangular valve box and purple cover shall be used for all automatic valves 2" and smaller. Minimum of a 10" valve box and black cover shall be used for all quick coupling valves, isolation valves, lightning arrestors and two-wire splices. Side walls to extend at least 2 inches below the bottom of the valve body; deep mainline appropriate

extensions shall be used to reach depth of valves. All valve boxes shall not bear directly on pipe and have continuous brick supports.

2.2.6 Backflow Prevention Devices: N/A

2.2.7 Quick Coupling Valves: N/A.

2.2.8 Zone Valves: Electric Zone Valve: Hunter ICV 101G-R and 151G –FS-R (1", 1-1/2) Type and size as specified on drawings.

2.2.9 Sprinkler Heads:

- Turf Rotor Head: Hunter I-20-06-SS-R
- Shrub spray: Hunter PRO-12-CV-R

2.2.10 Controller Required Features

- Controller Two-wire: Hunter ACC2, 75 Station base model, plastic pedestal with one (1) A2C-D75 expansion module.
- Maintenance Remote: Hunter Roam XL
- Two-wire Decoders: Hunter ICD-100, ICD-200 and ICD-400

2.2.11 Sensors :

Rain shut off Device: Hunter WSS-SEN Wireless solar Sync

2.2.12 Wire and Wire Splices Communication wire:

- The wire paths shall be a twisted pair: solid-core, color-coded red/blue pairs, enclosed in a PE sleeve available in 6 different colors for in-ground identification. The two-wire paths shall be Hunter Industries Model ID1xxx for 12 AWG (2 mm) conductors where "xxx" indicates the external sleeve color-code.
- Wire splices: All 24 volt wire connections shall be made using water-tight 3M DBR/Y connectors. All field splices shall be contained in a 10" valve box. Provide minimum twenty four inch (24") slack at remote control valves, connections and at all wire splices to allow raising the valve bonnet or splice to the surface, without disconnecting the wire, for repair.

2.2.13 Grounding: The installer shall provide adequate earth ground (not to exceed 10 ohms, or in compliance with practices as defined in American Society of Irrigation Consultants Earth Grounding Guideline 100-2002, available at www.asic.org) and connect it to one of the decoder ground leads every 1000 ft.(330m), or every 12th decoder module, whichever is shorter. Minimum ground hardware shall be a 4" x 36" (100 x 915mm) copper plate with at least 10AWG/2.5mm dia. copper wire. In high lightning areas, grounding may be increased to every 500 ft./150m or 6 decoders. Ground connections from decoder ground lead to grounding hardware shall be made by joining the 12AWG (2mm dia.) decoder ground wire with a 10AWG (2.5mm dia.) solid copper lead in an approved wire nut of appropriate size, inserted in a DBRY-6 waterproof direct burial connector, or with an approved wire clamp. Ground hardware shall extend at right angles from the two-wire red/blue path, and ground hardware shall be located at least 6ft./2m away from the two-wire path.

2.2.14 Swing Joints: All sprinkler heads 6 GPM or less shall be attached to the piping with 18" of flex-PVC pipe and coordinating elbows.

2.2.15 Filtration: Install Amiad filters at each water meter hook-up. 2" Filters for 1 ½" meters and 1 ½" filters for each 1" meter.

3. Execution

3.1 Layout and Staking

3.1.1 Piping Layout: Piping layout is diagrammatic. The Contractor shall verify site conditions and any deviations from the Plans shall be approved by the Engineer prior to installation.

3.1.2 Staking: All sprinkler heads, valves and mainline line routing shall be staked prior to installation for approval by the Engineer.

3.2 System Design: Water and pressure requirements shall be as noted on drawings and verified by the Contractor. Any alterations required to the plans that add or remove irrigation shall require written authorization by the Engineer who must obtain consent of FDOT.

3.3 Trenching

3.3.1 Trenches shall be excavated so that irrigation lines are installed with the following minimum depths for pipe cover:

- All PVC pipe: Depth as specified below: Lateral pipe: 18" cover, Mainline pipe: 24" cover
- All wire: Depth as specified: 24V control wire - 24" or as required by code. 115V power wire - 24" or as required by code.

3.3.2 All PVC Mainline piping must be trenched. All PVC lateral pipe 2-1/2" and smaller may be pulled with approval of the Engineer if proper soil conditions exist and minimum depth requirements are maintained.

3.3.3 Trench excavation in excess of required depth shall have bottom graded and tamped prior to any pipe placement.

3.3.4 Backfill material shall be free from debris, including rocks, large stones, clay clumps or other unsuitable substances and care shall be taken to prevent settling and damage to pipe during and after backfilling operations. When backfilling, soil shall be mechanically tamped in 6-inch layers.

3.3.5 Where trenching of PVC pipe lines is not possible because of adverse soil conditions or obstructions, and backhoe operation is required, the Contractor shall provide labor, materials and equipment for this operation, including full trench backfilling with soil if required in the opinion of the Engineer. Site restoration of these areas shall be as directed by the Engineer. It shall be a part of this contract and shall be performed in the following manner.

3.3.6 Depth of sleeves shall be as noted on installation details on drawing.

3.4 Installation

3.4.1 General: Comply with requirements of Uniform Plumbing Code.

3.4.2 Piping:

- PVC pipe shall be laid on solid undisturbed soil or on a thoroughly compacted full bed of suitable soil so as to assure full bedding, proper alignment and minimum slope for drainage.
- PVC pipe ends and PVC fittings shall be thoroughly cleaned for full depth of fitting with liquid cleaner cement. Method of application shall be in accordance with manufacturer's recommendations for solvent weld connections.
- Lay pipe on solid sub-base, uniformly sloped without humps or depressions.
- Install PVC pipe in dry weather when temperature is above 40 degrees F (4 degrees C) in strict accordance with manufacturer's instructions. Allow joints to cure at least 24 hours at temperature above 40 degrees F (4 degrees C) by the time the contractor gets to construction before testing, unless otherwise recommended by manufacturer.
- Backfill for all trenches, regardless of the type of pipe covered, shall be mechanically compacted to minimum 90% density.

3.4.3 Connection to Water Source: Points of connection shall be as indicated on the Plans. The Contractor shall verify points of connection with the Engineer.

3.4.4 Cross Connection Protection: Install according to Uniform Plumbing Code. All above grade piping shall be galvanized steel pipe or copper pipe.

3.4.5 Sprinkler Heads: Flush circuit lines with full head of water and install heads after flushing is complete.

- Install sprinkler heads at finished grade.
- Install 12" pop up shrub heads above grade where needed to cover intended landscaped area.
- Locate part-circle heads to maintain minimum distance of 12 inches from walls, 6 inches from non-curved road ways and 4 inches from sidewalks and other boundaries, unless otherwise indicated.
- All irrigation heads shall be installed on 18 inch flex PVC or as specified on the Plans.
- All nozzles shall match sprinkler head manufacturer. (Unless otherwise specified)

3.4.6 Dielectric Protection: Use dielectric fittings at connections where pipes of dissimilar metals are joined.

3.5 Thrust Blocks

- Provide concrete thrust blocks on thrust side of mainline pipe wherever pipe changes direction at tees, bends, or dead ends, and at any other location where thrust is to be expected.
- Refer to pipe manufacturer's recommendations for type and method of thrust blocks.

3.6 Balance and Adjustment

- The Contractor shall balance and adjust various components of the sprinkler system to maximize performance and efficiency. This includes synchronization of controllers, adjustments to pressure regulators, pressure relief valves, part circle sprinkler heads, individual station adjustments, and any other adjustments necessary to obtain optimum performance of system.
- The Contractor shall flush all lines and evacuate all air and debris from the system.
- Adjust all electric remote control valve pressure regulators and flow control stems for system balance and optimum performance.

3.7 Owner's Manual

- Owner's Manual: After completion of the system and before final payment, the Contractor shall provide to the Engineer, instruction sheets including maintenance, operations manuals and parts lists covering all operating equipment that shall be bound into a folder and furnished to the Engineer. Contractor shall also provide all necessary special tools and spare parts for maintaining the system.

3.8 Starting Equipment and Systems

- Adjust for proper operation within the manufacturer's published tolerances.
- Demonstrate proper operation of equipment to the Engineer.

Measurement and Payment: The work specified under this Section shall be paid for at the contract unit price per **Lump Sum (LS)** actually provided and accepted.

PAY ITEM NO. 800-6 Maintenance 90 Day-Establishment Period

Description: The work shall consist of providing labor and material required to provide a Plant Establishment Period, assuming responsibility for the proper maintenance, survival and condition of all landscape items during a 90 day establish period.

Measurement and Payment: The work specified under this Section shall be paid for at the contract unit price per **Lump Sum (LS)** actually provided and accepted.