

SOFTBALL FIELD ADDITION
OLIVER WOLCOTT TECHNICAL HIGH SCHOOL
TORRINGTON, CONNECTICUT
PROJECT: BI- RT - 855

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|--------------------------|-------------------------|--------------------------|
| BID OPENING | 1:00 P.M. | February 28, 2012 |
| ADDENDUM NUMBER 2 | DATE OF ADDENDUM | February 14, 2012 |

The following clarifications are applicable to drawings and specifications for the project referenced above.

Item 1

Furnish an irrigation system in accordance with the attached Specification Section 32 84 00 IRRIGATION and Drawing SK.06. Drawing SK.06 will be mailed separately to plan holders. The fully tested and operational irrigation system shall be Supplemental Bid # 2.

Item 2

The Bid Proposal Form has been revised to include this Supplemental Bid # 2. The Contractor shall utilize the revised Bid Proposal Form herein enclosed.

All questions must be in writing (not phone or e-mail) and must be forwarded to the consulting Architect/Engineer (Diversified Technology Consultants fax 203-234-7376) with copies sent to the DPW Project Manager (Natalina Raimondi fax 860-713-7261).

End of Addendum Number Two


David Busanet, Bidding & Contracts Supervisor
Department of Administrative Services on behalf
of Department of Construction Services

LEGEND FOR IRRIGATION

| Symbol | Material / Component |
|----------------------|----------------------|
| 1" INLET SPRINKLER | 1" INLET SPRINKLER |
| 3/4" INLET SPRINKLER | 3/4" INLET SPRINKLER |
| 1/2" INLET SPRINKLER | 1/2" INLET SPRINKLER |
| ZONE VALVE ASSEMBLY | ZONE VALVE ASSEMBLY |
| QUICK COUPLER | QUICK COUPLER |
| ISOLATION VALVE | ISOLATION VALVE |

NOTES FOR IRRIGATION

1. MATERIALS TO BE USED SHALL BE AS SHOWN. PROVIDE MANUFACTURER'S NAME TO THE CLIENT FOR THE MATERIALS TO BE USED. ALL MATERIALS SHALL BE APPROVED BY THE CLIENT. PROVIDE THE MANUFACTURER'S NAME TO THE CLIENT FOR THE MATERIALS TO BE USED. PROVIDE THE MANUFACTURER'S NAME TO THE CLIENT FOR THE MATERIALS TO BE USED.

2. PROVIDE ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS.

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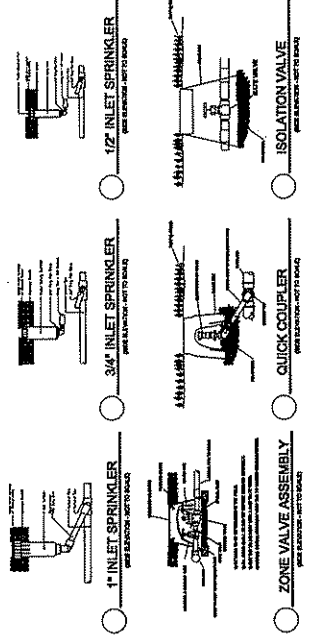
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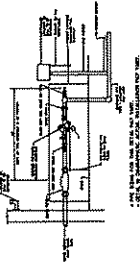
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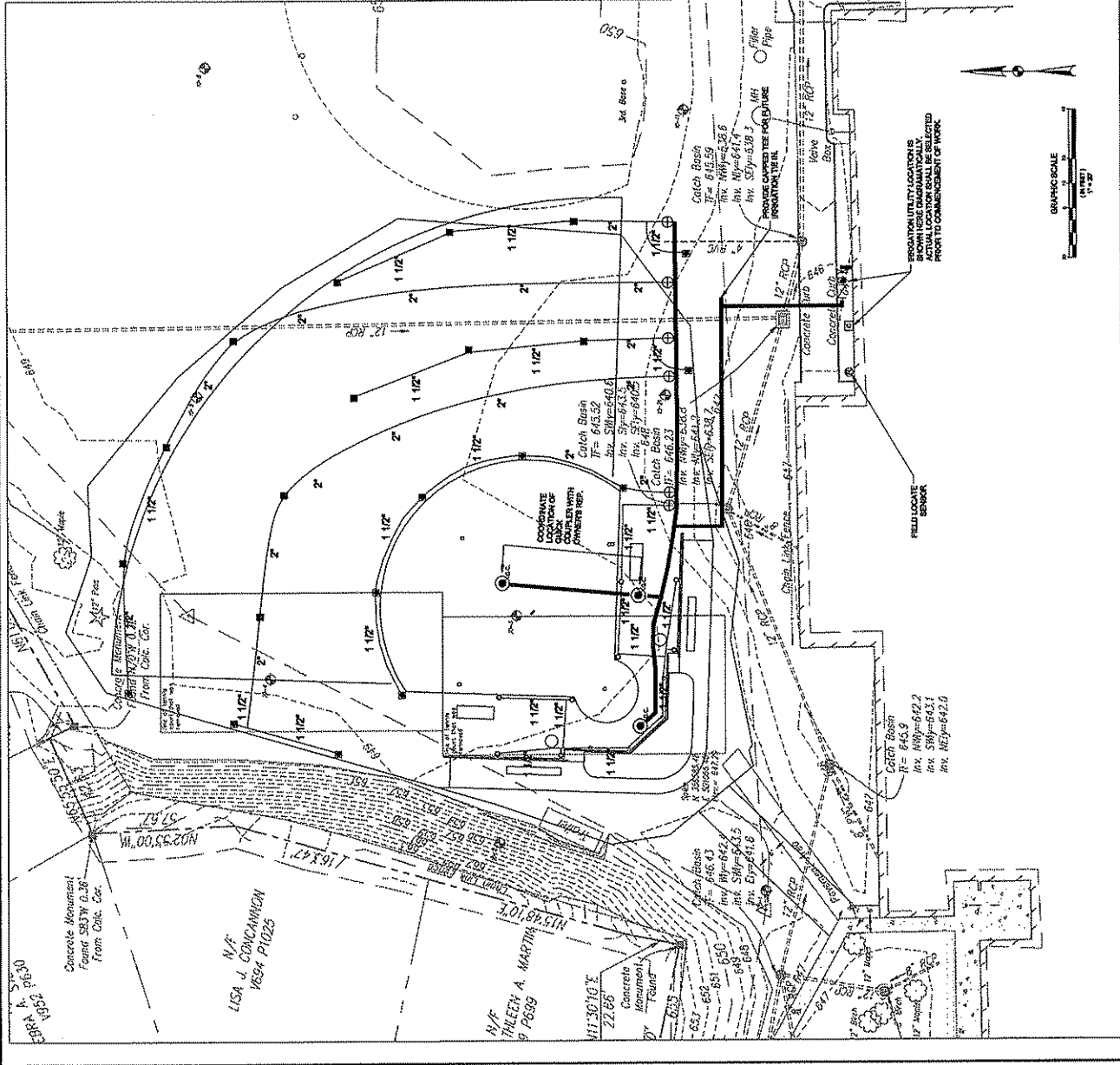
DETAILS FOR IRRIGATION
(not to scale)



CHANGE SETUP AS NECESSARY TO ACCOMMODATE ACTUAL CONDITIONS.



IRRIGATION UTILITIES
SEE EXISTING RECORDS



Drawn by: SREATERMATE2
Reviewed by: SREATERMATE2
Checked by: SREATERMATE2
Project: Other Woodport Technical High School
School Field Addition
Tanger, Connecticut

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC WORKS
Shows Prepared by: CONVERSE TECHNOLOGY CONSULTANTS
Project No. 1684 P1025
Sheet No. 81058
Scale No. SK06

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Piping.
 - 2. Sleeving for piping.
 - 3. Manual valves.
 - 4. Automatic control valves.
 - 5. Miscellaneous piping specialties.
 - 6. Sprinklers.
 - 7. Quick couplers.
 - 8. Controllers.
 - 9. Boxes for automatic control valves.
 - 10. Wiring and connections.

1.3 DEFINITIONS

- A. Circuit Piping: Downstream from control valves to sprinklers, specialties, and drain valves. Piping is under pressure during flow.
- B. Drain Piping: Downstream from circuit-piping drain valves. Piping is not under pressure.
- C. Main Piping: Downstream from point of connection to water distribution piping to, and including, control valves. Piping is under water-distribution-system pressure.
- D. Low Voltage: As defined in NFPA 70 for circuits and equipment operating at less than 50 V or for remote-control, signaling power-limited circuits.

1.4 PERFORMANCE REQUIREMENTS

- A. Irrigation zone control shall be automatic operation with controller and automatic control valves.

- B. Location of Sprinklers and Specialties: Design location is approximate. Make minor adjustments necessary to avoid plantings and obstructions such as signs and light standards. Maintain 100 percent irrigation coverage of areas indicated.
- C. Delegated Design: Design 100 percent coverage irrigation system, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- D. Minimum Working Pressures: The following are minimum pressure requirements for piping, valves, and specialties unless otherwise indicated:
 - 1. Irrigation Main Piping: 200 psig
 - 2. Circuit Piping: 200 psig

1.5 SUBMITTALS

- A. Product Data: For each type of product indicated. Include rated capacities, operating characteristics, and furnished specialties and accessories.
- B. Coordination Drawings: Irrigation systems, drawn to scale, on which components are shown and coordinated with each other, using input from Installers of the items involved. Also include adjustments necessary to avoid plantings and obstructions such as signs and light standards.
- C. Qualification Data: For qualified Installer.
- D. Zoning Chart: Show each irrigation zone and its control valve.
- E. Controller Timing Schedule: Indicate timing settings for each automatic controller zone.
- F. Field quality-control reports.
- G. Operation and Maintenance Data: For sprinklers controllers and automatic control valves to include in operation and maintenance manuals. Original controller set times prepared on a zone by zone list for owner use in "reset to original settings" to be supplied.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers that include a certified irrigation designer.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver piping with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe-end damage and to prevent entrance of dirt, debris, and moisture.
- B. Store plastic piping protected from direct sunlight. Support to prevent sagging and bending.

1.8 PROJECT CONDITIONS

- A. Interruption of Existing Water Service: Do not interrupt water service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary water service according to requirements indicated:
 - 1. Notify owners representative no fewer than two days in advance of proposed interruption of water service.
 - 2. Do not proceed with interruption of water service without owners representative written permission.

1.9 EXTRA MATERIALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Sprinklers: 2 extra of each.
 - 2. Automatic Control Valves: 1 extra of each
 - 3. Keys and hose attachment for quick couplers: 2 of each.
 - 4. Keys to controller cabinet: 2

PART 2 - PRODUCTS

2.1 PIPES, TUBES, AND FITTINGS

- A. Comply with requirements in the piping schedule for applications of pipe, tube, and fitting materials, and for joining methods for specific services, service locations, and pipe sizes.
- B. Soft Copper Tube: ASTM B 88, Type L , water tube, annealed temper.
 - 1. Copper Pressure Fittings: ASME B16.18, cast-copper-alloy or ASME B16.22, wrought-copper solder-joint fittings. Furnish wrought-copper fittings if indicated.
 - 2. Bronze Flanges: ASME B16.24, Class 150, with solder-joint end.

3. Copper Unions: MSS SP-123, cast-copper-alloy, hexagonal-stock body, with ball-and-socket, metal-to-metal seating surfaces and solder-joint or threaded ends.

C. PVC Pipe: ASTM D 1785, PVC 1120 compound, SDR 21, Class 200.

1. PVC Socket Fittings: ASTM D 2466, Schedule 40.
2. PVC Threaded Fittings: ASTM D 2464, Schedule 80.
3. PVC Socket Unions: Construction similar to MSS SP-107, except both headpiece and tailpiece shall be PVC with socket ends.

2.2 PIPING JOINING MATERIALS

- A. Pipe-Flange Gasket Materials: AWWA C110, rubber, flat face, 1/8 inch thick unless otherwise indicated; full-face or ring type unless otherwise indicated.
- B. Metal, Pipe-Flange Bolts and Nuts: ASME B18.2.1, carbon steel unless otherwise indicated.
- C. Brazing Filler Metals: AWS A5.8/A5.8M, BCuP Series, copper-phosphorus alloys for general-duty brazing unless otherwise indicated.
- D. Solder Filler Metals: ASTM B 32, lead-free alloys. Include water-flushable flux according to ASTM B 813.
- E. Solvent Cements for Joining PVC Piping: ASTM D 2564. Include primer according to ASTM F 656.
- F. Plastic, Pipe-Flange Gasket, Bolts, and Nuts: Type and material recommended by piping system manufacturer unless otherwise indicated.

2.3 SLEEVING FOR PIPING

- A. Standard: ASTM D 1785, SDR 21, Class 200 PVC Pipe.

2.4 MANUAL VALVES

- A. Brass Ball Valves:
 1. Manufacturers: Subject to compliance with requirements
 2. Subject to compliance with requirements or comparable product by one of the following:
 - a. Hammond Valve.
 - b. NIBCO INC.
 - c. Aqua Valve Co..
 3. Description:

- a. Standard: MSS SP-110.
- b. SWP Rating: 150 psig .
- c. CWP Rating: 600 psig .
- d. Body Design: Two piece.
- e. Body Material: Forged brass.
- f. Ends: Threaded or solder joint if indicated.
- g. Seats: PTFE or TFE.
- h. Stem: Brass.
- i. Ball: Chrome-plated brass.
- j. Port: Full or regular, but not reduced.

B. Bronze Gate Valves:

1. Manufacturers: Subject to compliance with requirements.
2. Subject to compliance with requirements, provide or comparable product by one of the following:
 - a. American Valve, Inc.
 - b. NIBCO INC.
 - c. Aqua Valve Co.
3. Description:
 - a. Standard: MSS SP-80, Type 2.
 - b. Class: 125.
 - c. CWP Rating: 200 psig .
 - d. Body Material: ASTM B 62 bronze with integral seat and screw-in bonnet.
 - e. Ends: Threaded or solder joint.
 - f. Stem: Bronze, nonrising.
 - g. Disc: Solid wedge; bronze.
 - h. Packing: Asbestos free.
 - i. Handwheel: Malleable iron, bronze, or aluminum.

2.5 AUTOMATIC CONTROL VALVES

A. Plastic, Automatic Control Valves:

1. Manufacturers: Subject to compliance with requirements.
2. Subject to compliance with requirements, provide or comparable product by one of the following:
 - a. Hunter Industries Incorporated - PGV.
 - b. Rain Bird Corporation - PEB.
 - c. Toro Company (The); Irrigation Division – P220.
3. Description: Molded-plastic body, normally closed, diaphragm type with manual-flow adjustment, and operated by 24-V ac solenoid.

2.6 MISCELLANEOUS PIPING SPECIALTIES

- A. Water Hammer Arresters: ASSE 1010 or PDI WH 201, with bellows or piston-type pressurized cushioning chamber and in sizes complying with PDI WH 201, Sizes A to F.
- B. Pressure Gages: ASME B40.1. Include 4-1/2-inch diameter dial, dial range of two times system operating pressure, and bottom outlet.
- C. Backflow: Reduced pressure type. Size: 2"

2.7 SPRINKLERS

- A. General Requirements: Designed for uniform coverage over entire spray area indicated at available water pressure.
- B. Large Rotary Sprinklers:
 - 1. Manufacturers: Subject to compliance with requirements.
 - 2. Subject to compliance with requirements, provide or comparable product by one of the following:
 - a. Hunter Industries Incorporated.
 - b. Irritrol Systems.
 - c. Rain Bird Corporation.
 - d. Toro Company (The); Irrigation Division.
 - 3. Description:
 - a. Body Material: ABS.
 - b. Nozzle: Plastic
 - c. Retraction Spring: Stainless steel.
 - d. Internal Parts: Corrosion resistant.
 - 4. Capacities and Characteristics:
 - a. Flow: 3.8 to 31.5 GPM
 - b. Pop-up Height: 4" aboveground to nozzle.
 - c. Arc: 0 to 360 degrees.
 - d. Radius: 40' to 67'
 - e. Inlet: 1" IPS
- C. Medium Rotary Sprinklers:
 - 1. Manufacturers: Subject to compliance with requirements.
 - 2. Subject to compliance with requirements, provide or comparable product by one of the following:
 - a. Hunter Industries Incorporated.
 - b. Irritrol Systems.
 - c. Rain Bird Corporation.

- d. Toro Company (The); Irrigation Division.
 - 3. Description:
 - a. Body Material: ABS.
 - b. Nozzle: Plastic
 - c. Retraction Spring: Stainless steel.
 - d. Internal Parts: Corrosion resistant.
 - 4. Capacities and Characteristics:
 - a. Flow: 1.12 to 9.8 GPM
 - b. Pop-up Height: 4" aboveground to nozzle.
 - c. Arc: 0 to 360 degrees.
 - d. Radius: 29' to 46'
 - e. Inlet: 3/4" IPS
- D. Spray Heads:
- 1. Manufacturers: Subject to compliance with requirements.
 - 2. Subject to compliance with requirements, provide or comparable product by one of the following:
 - a. Hunter Industries Incorporated – PROS-04-MPR40-CV.
 - b. Rain Bird Corporation – 1804-SAM-PRS.
 - c. Toro Company (The); Irrigation Division – 570Z PRX.
 - 5. Description:
 - a. Body Material: ABS.
 - b. Nozzle: Plastic
 - c. Retraction Spring: Stainless steel.
 - d. Internal Parts: Corrosion resistant.
 - 6. Capacities and Characteristics:
 - a. Flow: .16 to 4.2 GPM
 - b. Pop-up Height: 4" and 12" aboveground to nozzle.
 - c. Arc: 0 to 360 degrees.
 - d. Radius: 0' to 30'
 - e. Inlet: 1/2" IPS

2.8 QUICK COUPLERS

- A. Manufacturers: Subject to compliance with requirements.

- B. Subject to compliance with requirements, provide or comparable product by one of the following:
 - 1. Hunter Industries Incorporated – HQ-44.
 - 2. Rain Bird Corporation – 44-RC.
 - 3. Toro Company (The); Irrigation Division – 474-00.

- C. Description: Factory-fabricated, bronze or brass, two-piece assembly. Include coupler water-seal valve; removable upper body with spring-loaded or weighted, rubber-covered cap; hose swivel with ASME B1.20.7, 3/4-11.5NH threads for garden hose on outlet; and operating key.
 - 1. Include two matching key(s).

2.9 CONTROLLERS

- A. Manufacturers: Subject to compliance with requirements.

- B. Subject to compliance with requirements, or comparable product by one of the following:
 - 1. Hunter Industries Incorporated- I Core.
 - 2. Rain Bird Corporation- ESP-SMT.
 - 3. Toro Company- Intellisense.

- C. Description:
 - 1. Controller Stations for Automatic Control Valves. Include switch for manual or automatic operation of each station.
 - 2. Exterior Control Enclosures: NEMA 250, Type 4, weatherproof, with locking cover and two matching keys; include provision for grounding.
 - a. Body Material Molded plastic.
 - b. Mounting: Surface type for wall.
 - 3. Control Transformer: 24-V secondary, with primary fuse.
 - 4. Timing Device: Adjustable, 24-hour, 14-day clock, with automatic operations to skip operation any day in timer period, to operate every other day, or to operate two or more times daily.
 - a. Manual or Semiautomatic Operation: Allows this mode without disturbing preset automatic operation.
 - b. Nickel-Cadmium Battery and Trickle Charger: Automatically powers timing device during power outages.
 - c. Surge Protection: Metal-oxide-varistor type on each station and primary power.
 - 5. Sensor: Hunter Solar Sync, or equal.

6. Wiring: UL 493, Type UF #14/1, with solid-copper conductors; insulated cable; suitable for direct burial.
 - a. Splicing Materials: Manufacturer's packaged kit consisting of insulating, spring-type connector or crimped joint and epoxy resin moisture seal; suitable for direct burial for use with 600 Volts.

2.10 BOXES FOR AUTOMATIC CONTROL VALVES

A. Plastic Boxes:

1. Manufacturers: Subject to compliance with requirements.
 - a. Armorcast Products Company.
 - b. Carson Industries LLC.
 - c. Orbit Irrigation Products, Inc.
 - d. Dura Plastics.
2. Description: Box and cover, with open bottom and openings for piping; designed for installing flush with grade.
 - a. Size: As required for valves and service.
 - b. Shape: All of the same shape
 - c. Sidewall Material: PE.
 - d. Cover Material: PE.

PART 3 - EXECUTION

3.1 EARTHWORK

- A. Excavating, trenching, and backfilling are specified in Division 31 Section "Earth Moving."
- B. Install warning tape directly above pressure piping, 12 inches below finished grades, except 6 inches below subgrade under pavement and slabs.
- C. Provide minimum cover over top of underground piping according to the following:
 1. Irrigation Main Piping: Minimum depth of 18 to 24 inches below finished grade, or not less than 18 inches.
 2. Circuit Piping: 12 inches
 3. Sleeves: 24 inches

3.2 PREPARATION

- A. Set stakes to identify locations of proposed irrigation system. Obtain Architect's approval before excavation.

3.3 PIPING INSTALLATION

- A. Location and Arrangement: Drawings indicate location and arrangement of piping systems. Install piping as indicated unless deviations are approved on Coordination Drawings.
- B. Install piping at minimum uniform slope of 0.5 percent down toward drain valves.
- C. Install piping free of sags and bends.
- D. Install groups of pipes parallel to each other, spaced to permit valve servicing.
- E. Install fittings for changes in direction and branch connections.
- F. Install unions adjacent to valves and to final connections to other components with NPS 2 or smaller pipe connection.
- G. Install flanges adjacent to valves and to final connections to other components with NPS 2-1/2 or larger pipe connection.
- H. Install underground thermoplastic piping according to ASTM D 2774
- I. Install expansion loops in control-valve boxes for plastic piping.
- J. Lay piping on solid subbase, uniformly sloped without humps or depressions.
- K. Install ductile-iron piping according to AWWA C600.
- L. Install PVC piping in dry weather when temperature is above 40 deg F. Allow joints to cure at least 24 hours at temperatures above 40 deg F before testing.
- M. Install water regulators with shutoff valve and strainer on inlet and pressure gage on outlet. Install shutoff valve on outlet. Install aboveground or in control-valve boxes.
- N. Water Hammer Arresters: Install between connection to building main and circuit valves aboveground or in control-valve boxes.
- O. Install piping in sleeves under parking lots, roadways, and sidewalks.
- P. Install sleeves made of Schedule 40 PVC pipe and socket fittings, and solvent-cemented joints.
- Q. Install transition fittings for plastic-to-metal pipe connections according to the following:
 - 1. Underground Piping:
 - a. NPS 1-1/2 and Smaller: Plastic-to-metal transition fittings.
 - b. NPS 2 and Larger: AWWA transition couplings.

3.4 JOINT CONSTRUCTION

- A. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
- B. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
- C. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID. Join pipe fittings and valves as follows:
 - 1. Apply appropriate tape or thread compound to external pipe threads unless dry seal threading is specified.
 - 2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.
- D. Flanged Joints: Select rubber gasket material, size, type, and thickness for service application. Install gasket concentrically positioned. Use suitable lubricants on bolt threads.
- E. Copper-Tubing Brazed Joints: Construct joints according to CDA's "Copper Tube Handbook," using copper-phosphorus brazing filler metal.
- F. Copper-Tubing Soldered Joints: Apply ASTM B 813 water-flushable flux to tube end unless otherwise indicated. Construct joints according to ASTM B 828 or CDA's "Copper Tube Handbook," using lead-free solder alloy (0.20 percent maximum lead content) complying with ASTM B 32.
- G. PVC Piping Solvent-Cemented Joints: Clean and dry joining surfaces. Join pipe and fittings according to the following:
 - 1. Comply with ASTM F 402 for safe-handling practice of cleaners, primers, and solvent cements.
 - 2. PVC Pressure Piping: Join schedule number, ASTM D 1785, PVC pipe and PVC socket fittings according to ASTM D 2672. Join other-than-schedule-number PVC pipe and socket fittings according to ASTM D 2855.
 - 3. PVC Nonpressure Piping: Join according to ASTM D 2855.

3.5 VALVE INSTALLATION

- A. Install in underground piping in boxes for automatic control valves. Install a gate valve before each control valve. Install a DBY splice kits at each automatic control valve. Fittings and nipples as required.

3.6 SPRINKLER INSTALLATION

- A. Install sprinklers after hydrostatic test is completed.

- B. Install sprinklers at manufacturer's recommended heights. Install on (3) el 12" lay, Schedule 40 pvc swing joints.
- C. Locate part-circle sprinklers to maintain a minimum distance of 4 inches from walls and 2 inches from other boundaries unless otherwise indicated.

3.7 AUTOMATIC IRRIGATION-CONTROL SYSTEM INSTALLATION

- A. Equipment Mounting: Install interior controllers on wall.
 - 1. Place and secure anchorage devices. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 2. Install anchor bolts to elevations required for proper attachment to supported equipment.
- B. Equipment Mounting: Install exterior freestanding controllers on precast concrete bases.
 - 1. Place and secure anchorage devices. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 2. Install anchor bolts to elevations required for proper attachment to supported equipment.
- C. Install control cable in same trench as irrigation piping and at least 2 inches below or beside piping. Provide conductors of size not smaller than recommended by controller manufacturer. Install cable in separate sleeve under paved areas. Use #14/1 UF wire. Use expansions loops, by wrapping around a 1" dowel 12" long, every 500'.

3.8 CONNECTIONS

- A. Comply with requirements for piping specified in Division 22 Section "Facility Water Distribution Piping" for water supply from exterior water service piping, water meters, protective enclosures, and backflow preventers. Drawings indicate general arrangement of piping, fittings, and specialties.
- B. Install piping adjacent to equipment, valves, and devices to allow service and maintenance.
- C. Connect wiring between controllers and automatic control valves.

3.9 IDENTIFICATION

- A. Identify system components. Comply with requirements for identification specified in Division 22 Section "Identification for Plumbing Piping and Equipment."
- B. Equipment Nameplates and Signs: Install engraved plastic-laminate equipment nameplates and signs on each automatic controller.

1. Text: In addition to identifying unit, distinguish between multiple units, inform operator of operational requirements, indicate safety and emergency precautions, and warn of hazards and improper operations.
 - C. Warning Tapes: Arrange for installation of continuous, underground, detectable warning tapes over underground piping during backfilling of trenches. See Division 31 Section "Earth Moving" for warning tapes.
- 3.10 FIELD QUALITY CONTROL
- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections.
 - B. Perform tests and inspections.
 1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.
 - C. Tests and Inspections:
 1. Leak Test: After installation, charge system and test for leaks. Repair leaks and retest until no leaks exist.
 2. Operational Test: After electrical circuitry has been energized, operate controllers and automatic control valves to confirm proper system operation.
 3. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
 - D. Any irrigation product will be considered defective if it does not pass tests and inspections.
 - E. Prepare test and inspection reports.
- 3.11 STARTUP SERVICE
- A. Startup service shall be the responsibility of the irrigation installer.
 1. Complete installation and startup checks according to manufacturer's written instructions.
 2. Verify that controllers are installed and connected according to the Contract Documents.
 3. Verify that electrical wiring installation complies with manufacturer's submittal.
- 3.12 ADJUSTING
- A. Adjust settings of controllers.

- B. Adjust automatic control valves to provide flow rate at rated operating pressure required for each sprinkler circuit.
- C. Adjust sprinklers and devices, except those intended to be mounted aboveground, so they will be flush with finish grade.

3.13 CLEANING

- A. Flush dirt and debris from piping before installing sprinklers and other devices.

3.14 DEMONSTRATION

- A. Train the Owner's maintenance personnel to adjust, operate, and maintain automatic control valves and controllers. Demonstrate for the owner proper winterization (blow out) process.

3.15 PIPING SCHEDULE

- A. Install components having pressure rating equal to or greater than system operating pressure.
- B. Piping in control-valve boxes and aboveground may be joined with flanges or unions instead of joints indicated.
- C. Underground irrigation main piping, NPS 4 shall be one of the following:
 - 1. Schedule 40 PVC pipe and socket fittings, and solvent-cemented joints.
 - 2. SDR 21, PVC, pressure-rated pipe; PVC socket fittings; and solvent-cemented joints.
- D. Circuit piping, NPS 2, shall be the following:
 - 1. PVC pipe and socket fittings; and solvent-cemented joints.

END OF SECTION 328400

FOR PROJECTS ESTIMATED TO COST LESS THAN \$500,000.00
FOR CURRENTLY CERTIFIED SET-ASIDE CONTRACTORS ONLY

To: Department of Public Works
Bidding & Contracts Unit
Procurement
165 Capitol Avenue - Room G-35
Hartford, CT 06106

Bid Date: _____

From: _____ (Bidder's Legal Company Name)

_____ (Address of Bidder)

_____ (Tel. No.)

_____ (FAX No.)

_____ (E-Mail Address)

_____ (Firm Federal Employer Identification Number)

_____ (Firm CT Tax Registration Number)

_____ (Print Contact Person's Name)

_____ (Title)

For: BI-RT-855
Softball Field Addition
Oliver Wolcott Technical High School
75 Oliver Street
Torrington, CT

The Undersigned, having familiarized himself with all requirements of the Contract Documents as prepared by the Architect, and all Addenda to the Documents, hereby proposes to furnish all construction as required by the Documents and Addenda thereto for the completion of the project for the following amounts:

BID SCHEDULE

Base Bid:

_____ (Written amount)

Dollars (\$ _____)

bid as **non-responsive** if the bidder does not make all required **pre-award submittals** within the time designated by the Department of Public Works.

If written notice of the acceptance of this Bid is provided by mail, facsimile or other communication technology, or delivered to the Undersigned after the bid opening date or any time thereafter *before* this bid is withdrawn, the Undersigned will, within 10 days *after* the date of such notice, furnish all documents requested in the **Letter of Intent**.

The **successful bidders** must submit a "Contractor/Consultant Certification" for contracts with a value of \$50,000 or more. This certification and a resolution/certificate of authority should be completed and submitted when requested in the Letter of Intent. This **certification** and **resolutions** are located at <http://www.ct.gov/dpw>.

With regard to a State contract as defined in **P.A. 07-01** having a value in a calendar year of **\$50,000 or more** or **a combinations or series of such agreements or contracts** having a value of **\$100,000 or more**, the authorized signatory to this **submission** in response to the State's solicitation expressly **acknowledges** receipt of the State Election Enforcement Commission's **notice** advising prospective state contractors of the state campaign contribution and solicitation prohibitions, and will inform its principals of the contents of the **notice**. See Attachment **SEEC Form 11 – located in Section 00 73 53**

The Commission on Human Rights and Opportunities (CHRO) Employment Information Form, "**Bidder Contract Compliance Monitoring Report**" is posted on the **CHRO Webpage**: http://www.state.ct.us/chro/metapages/ContractCompliance/CC_forms/NotificationToBidders.pdf and *must be submitted to DPW with your Bid Proposal*.

Bidder Type of Business (check one):

Corporate Seal, *if a Corporation*

- Corporation
- Limited Liability Corporation (LLC)
- Partnership
- Sole Proprietor

Doing Business As (d/b/a), if yes, provide complete name **below**:

Provide **Exact Wording** on Corporate Seal **below**:

Signature of Bidder

Title

Print Name

Date

A Resolution/Certificate of Authority *must be submitted with your Bid Proposal.*

SUBMIT ALL PAGES OF THE BID PROPOSAL