



**Purchasing Department  
Finance Group**

July 1, 2015

**INVITATION TO BID**

The City of Norwalk, on behalf of the Oak Hills Park Authority, is soliciting proposal submissions for an environmentally friendly, mechanically sound and efficient cold water closed loop equipment washing system for the Oak Hills Park Golf Course facility.

<b>PROJECT #</b>	<b>3557</b>	
<b>DEADLINE</b>	<b>2:00 PM</b>	<b>July 22, 2015</b>
<b>PROJECT TITLE</b>	<b>Closed Loop Equipment Washing System</b>	
<b>PROJECT SITE</b>	<b>Oak Hills Park Golf Course, 165 Fillow Street, Norwalk, CT</b>	

RFP solicitation documents are available upon receipt of this invitation over the Internet at <http://www.norwalkct.org> . Adobe Acrobat reader is required to view this document.

All questions concerning this RFP solicitation document must be directed, in writing, to Gerald J. Foley, Purchasing Agent, via e-mail to [GFoley@Norwalkct.org](mailto:GFoley@Norwalkct.org) or via fax to 203.854.7817. The deadline for submission of questions is 2:00 pm, July 15, 2015.

Businesses, without fax or Internet access equipment, may contact the Purchasing Department at 203-854-7712 for any RFP information. Our fax number is 203-854-7817.

If, after review of the RFP documents, your firm is interested in performing in providing this system, provide the information requested herein, sign and return your proposal submission , along with the requested number of copies, to the City of Norwalk Purchasing Department by the due date listed above.

Yours truly,

Gerald J. Foley  
Purchasing Agent  
City of Norwalk  
Tel 203.854.7892  
Fax 203.854.7817  
E-mail: [GFoley@Norwalkct.org](mailto:GFoley@Norwalkct.org)

## SECTION 1 - RESPONSE FORMS

### **SPECIAL NOTES ON RESPONDING:**

**ADDENDA** information is available over the Internet at <http://www.norwalkct.org>. Adobe Acrobat reader is required to view this document. If you do not have this software you may download it for free from Adobe. We strongly suggest that you check for any addenda a minimum of forty-eight hours in advance of the bid deadline.

**SUMMARIES** will be available any time after 5:00 PM on the day of the bid opening over the Internet at <http://www.norwalkct.org>. The document number to request will be the same as the project number indicated in the invitation to bid. Bid results will not be provided over the phone.

**AWARD NOTIFICATION** will be issued by mail.

**BUSINESSES WITHOUT** Fax Equipment or Internet access may contact the Purchasing Department at 203-854-7712 for this information.

**BID RESPONSES** – One (1) Original plus five (5) copies are to be delivered to:

City of Norwalk  
Purchasing Department, Room 103  
125 East Avenue  
P.O. Box 5125  
Norwalk, CT 06856-5125

See section 3 for information on delivering bids by fax.

**1.1 PRICING SHEET #3557 – Closed Loop Equipment Washing System**

<b>Vendor Name:</b>		
<b>Address:</b>		
<b>Phone:</b>	<b>Fax:</b>	<b>Email:</b>
<b>Manager:</b>		<b>Fed ID#:</b>

The undersigned hereby declares that he/she or they are thoroughly familiar with the specifications, the various sites, the City's requirements, and the objectives for each element of the project item or service and understand that in signing this proposal all right to plead any misunderstanding regarding the same is waived.

The undersigned further understands and agrees that he will furnish and provide all the necessary material, machinery, implements, tools, labor, services, and other items of whatever nature, and to do and perform all the work necessary under the aforesaid conditions, to carry out the contract and to accept in full compensation therefore the amount of the contract as agreed to by the Contractor and the City.

**1. Closed Loop Equipment Washing System**

Year	Manufacturer/Make	Model	Unit Cost
			\$

Delivery: \_\_\_\_ calendar days after receipt of order

**2. Warranty**

	Period	Unit Cost
<b>a.</b>	One (1) Year Extended Warranty - (covering years 1 &2)	\$
<b>b.</b>	Two (2) Year Extended Warranty - (covering years 1, 2 &3)	\$
<b>c.</b>	Three (3) Year Extended Warranty - (covering years 1, 2, 3 & 4)	\$

Proposer shall submit with their proposal submission a copy of the product warranty coverage that is being proposed for their system.

**3. Preventative Maintenance Service Plan**

.	Period	Unit Cost
<b>a.</b>	One (1) Year Preventative Maintenance Service Plan	\$
<b>b.</b>	Two (2) Year Preventative Maintenance Service Plan	\$
<b>c.</b>	Three (3) Year Preventative Maintenance Service Plan	\$
<b>d.</b>	Four (4) Year Preventative Maintenance Service Plan	\$

**Submitted by:**

Print Name ( of Authorized Agent of Company	
Signature of Authorized Agent of Company	
Date	

The above signatory acknowledges receipt of the following addenda issued during the bidding period and understands that they are a part of the bidding documents (if applicable):

<b>Addendum #1, Dated _</b>		<b>Addendum #2, Dated _</b>	
<b>Addendum #3, Dated _</b>		<b>Addendum #4, Dated _</b>	

## 1.2 BIDDER'S QUALIFICATIONS

If a qualification statement is not on file with Purchasing, or is over one year old, please answer the following questions. Attach a financial statement or other supportive documentation.

1. Number of years in business - \_\_\_\_\_
2. Number of personnel employed Part-time \_ \_\_\_\_\_, Full \_ \_\_\_\_\_,
3. List six systems of this type/size your firm has completed within the last three years:

Project	Date	Contact Person	Phone No.

### SERVICE:

4. Location of service center \_  
\_\_\_\_\_
5. Size of service center (sq. ft.) \_ \_\_\_\_\_
6. Number of full time mechanics employed and qualified to service this equipment:  
\_\_\_\_\_
7. Will the Secretary of State be able to issue a Certificate of Good Standing within 30 days of the bid opening?

Attach any additional information that demonstrates your qualification for this work including appropriate certifications.

**Submit One (1) Original plus five (5) copies of your submission  
(clearly mark the original copy)**

## **SECTION 2 - PROJECT SPECIFICATIONS**

The City of Norwalk, on behalf of the Oak Hills Park Authority, is soliciting proposal submissions for an environmentally friendly closed loop equipment washing system for the Oak Hills Park Golf Course facility.

The awarded firm must deliver the closed loop equipment washing system with all equipment and options as detailed in their proposal submission. Further, the closed loop system shall be delivered with the specified equipment installed and fully operational to the following address:

Oak Hills Park Golf Course  
165 Fallow Street  
Norwalk, CT 06850

Note: Any and all claims for damage in transit shall be the sole responsibility of the successful proposal. Unless otherwise agreed upon, delivery shall be made during normal business hours - Monday thru Friday, 08:00am to 3:00pm.

## **2.0 Technical Specifications – Closed Loop Equipment Washing System**

A This project consists of the supply and start-up of a closed loop wash water treatment system which shall include:

- Supply and delivery of all components and equipment for the complete operation of the system.
- Provide all labor and material necessary to start-up, test and provide training of the system.
- Provide all available equipment warranty

The City will be responsible to supply and construct the concrete wash pad and all required electrical and plumbing system/equipment in accordance with the wash water treatment system manufacturer's requirements. The City shall place the proposed wash equipment and provide plumbing and electrical termination to the system.

### **2.1 Materials and Equipment**

A. The closed loop wash water treatment system shall be as manufactured by ESD Waste2Water, Inc., 750GC-1 Closed Loop Golf Course System or approved equal. Said system shall include the following components:

- ESD Product Code 120C – 1,250 Gallons per day process rate @ 15 Gallons per minute. Biological remediation process with 54SCFM regenerated aeration. 5052-H32 marine grade aluminum construction with 1 wash station. Include diamond tread controls cover.
- ESD Product Code 500 – Self cleaning round main collection sum embed 5052-H32 marine grade aluminum
- ESD Product Code 503 – Shallow clipping sump embed 5052-H32 marine grade aluminum
- ESD Product 499 – Clipping separator screen with trailer clipping cart.
- ESD Product 400 – Small solids separator 2'Wx4'L 5052-H32 marine grade aluminum. 1 each pressure relief valve ESD Product Code 5Z579 – factory installed.

The entire system shall be warranted by the manufacturer for one (1) year from the date of completion of training.

- B. Additional product construction and requirements are as follows:
- Base shall be constructed entirely of 6061-T6 Tread Plate Aluminum. Forklift accessibility designed for a balanced load.
  - Process tank shall be of 5052-H32 Marine Grade Aluminum. Process tank thickness is a minimum of 0.1870". Sufficiently reinforced as to prevent warpage.
  - Piping shall meet the following ASTM standards:
    - ASTM D 2466
    - ASTM D 1784
    - ASTM D 2609
    - PVC Material Type 1 Cell Classification 12454
- C. Process & Treatment Technology
- The primary treatment process shall be conducted in a two-stage bioreactor.
  - The bioreactor shall have a design that promotes a full vertical pass through of the waste stream through a matrix media. Minimum total bioreactor media surface area 1,152 FT<sup>2</sup>
  - The matrix design shall promote the colonization of the microbe to the media. Matrix design shall increase the bioreactor capacity 10X.
  - Aeration shall be accomplished through 8 macro-aeration heads. Supply to the heads is accomplished with a regenerative blower at 1.5 hp with 60 CFM @ 32" water pressure.
  - Operating temperature range 45<sup>0</sup> F to 90<sup>0</sup> F
  - PH range 6.5-8.5.
  - System capacity 598 gallon.
  - Process rate 15 gpm. Maximum daily process 1250 gallons per day.
  - Final filtration is accomplished through a 20 micron particulate filter Particulate filter shall have a minimum of 60 FT<sup>2</sup>
- D. Re-delivery System
- Redelivery pump shall be a minimum of 0.75hp.
  - Redelivery pressure shall be a minimum of 50 psi.
  - Redelivery shall be a minimum of 15 gpm of recycled water.
  - Pressure tank shall be a minimum of 33.4 gallons.
  - System shall be equipped with 2 outlets and hose racks as standard equipment.

## E Solids Separation

- The solids separation of dirt and sand will be accomplished through a hopper bottom pre-treatment tank with at least 2 hydraulic exchange compartments.
- Solids separator pre-treatment tank shall be constructed of 5052-H32 Marine Grade Aluminum with a minimum thickness of 0.1870”
- The solids separator pre-treatment tank shall be fitted with 2” drain ports on each compartment for easy solids removal.
- The solids separator pretreatment tank shall process at a minimum rate of 15 gpm.

## F. Wash Water Collection Sump

- The wash water collection sump shall be constructed of 5052-H32 Marine Grade Aluminum with a minimum thickness of 0.1870” and suitable for direct ground burial.
- The wash water collection sump will be fitted with an aluminum bar grate that will allow a 3/4” spherical solid to pass completely through.
- Aluminum bar grating will be load rated at 800 lbs psf as a minimum
- The wash water collection sump shall be round in design and is intended to be self cleaning.
- The wash water collection sump will be fitted with a submersible 2” X 1/3hp sewage ejector pump. Pump shall be controlled by a mercury type float switch.
- All piping will conform to ASTM standards
  - ASTM D 2466
  - ASTM D 1784
  - ASTM D 2609
  - PVC Material Type 1 Cell Classification 12454

## G. System Dimension and Requirements

### Bio-reactor and redelivery system size

11’-0” Long  
04’-0” Wide  
04’-0” High  
1000 lbs dry weight.

- Power Requirements - 230-Volt Single Phase 40 Amps.
- Pressurized automatic fill valve
- High water discharge safety.

Solids separator and pre-treatment tank

24" Wide

48" Long

58" High

- 2" drain ports with Polyethylene Ball Valves
- 2" Gravity drain transfer port

Wash water collection sump

31 3/4" High to slab grade

30 1/2" Wide at grate

23" Diameter basin

1 1/2" Bar grate

Grate

## **2.2 Proposal Submission requirements**

- A. Proposer shall submit with their proposal submission, a detailed scaled drawing of the proposed system. Such drawing must include equipment locations, hose reels, remote plans, etc... of the proposed system.
- B. Proposer shall submit with their proposal submission, an itemized list that clearly outlines the proposed manufacturer and model number of each of the major components of the washing and filtration systems, along with manufacturer cut sheet information.
- C. Proposer shall submit with their proposal submission, an itemized list of all consumable components (ex. Filters, etc...) that shall be required for the operation of proposed system. Additionally, proposal is to provide an estimated annual cost for such components covering a five (5) year operating period.
- D. Product Warranty Information: The City desires a product warranty that covers all parts and labor for the entire proposed system for at least one (1) year. Proposer shall submit with their proposal submission a copy of the product warranty information that is being proposed for their system. Such warranty information should provide an overview of coverage that is be proposed and which components of their proposed system are covered and which components of their proposed system are not covered by this warranty.

Additionally, proposers are requested to be provide with their proposal submission, annual pricing for extended warranty period offerings covering:

- (1) One (1) year product warranty extension;
- (2) Two (2) year product warranty extension;
- (3) Three (3) year product warranty extension

- E. Preventative Maintenance & Service Information: The City desires a preventative maintenance service plan for the proposed system covering at least one (1) year. Such preventative maintenance service plan should include, at minimum, annual preventative maintenance site visits by a local factory trained and certified service technician. Proposers shall provide an overview of the preventative maintenance services that shall be performed by the service technician and provide a detailed overview of preventative maintenance service plan(s) that are being proposed. Proposer shall submit with their proposal submission the proposed annual cost of such preventative maintenance service plan(s) covering: (1) Initial year of service; Year 2; Year 3 and Year 4. Additionally include an overview of your proposed response time for (1) a routine service call and; (2) an emergency service call.
- F. Training: Proposers shall include with their proposal submission an overview of the training that shall be afforded the City on the use and operation of the proposed system.
- G. References: Proposers shall include with their proposal submission a list of at least five (5) local (Connecticut, New York, New Jersey) golf course facilities where their proposed system has been in use and operation for at least two (2) years. Include on this list the contact name and telephone number of each such reference.
- H. Other Information: Proposers are welcome to submit other information concerning their proposed system.

### **SECTION 3 - GENERAL INFORMATION**

**NOTE: SECTION 3 - GENERAL INFORMATION** contains the City's Standard Terms and Conditions. You are responsible for obtaining a copy prior to bidding. If you do not have a revision dated 08/08/2013, or later on file you may obtain a copy over the Internet at <http://www.norwalkct.org> . Adobe Acrobat reader is required to view this document. If you do not have this software you may down load it for free from Adobe. A link to the Adobe site is provided. Document number 1002.

Link to Document 1002      <http://www.norwalkct.org/documentcenter/view/868>

Exhibits:

Product Literature information      X pages

## Model 750 1-Hose Wash Water Recycling System



The **Model 750** is a 1-Hose wash water recycle system designed to handle the equipment washing needs of a turf care maintenance facility that requires 1 equipment wash station for efficient operation. For optimal performance, the Model 750 is designed to be used in conjunction with ESD Waste2Water's pre-engineered Clipping Separation System and in-ground sumps. The Model 750 can readily be modified to accommodate remote hose stations, and can be customized to easily update existing wash areas. The system is versatile, requires low maintenance and is extremely effective at recycling wash water from turf care facility wash areas.

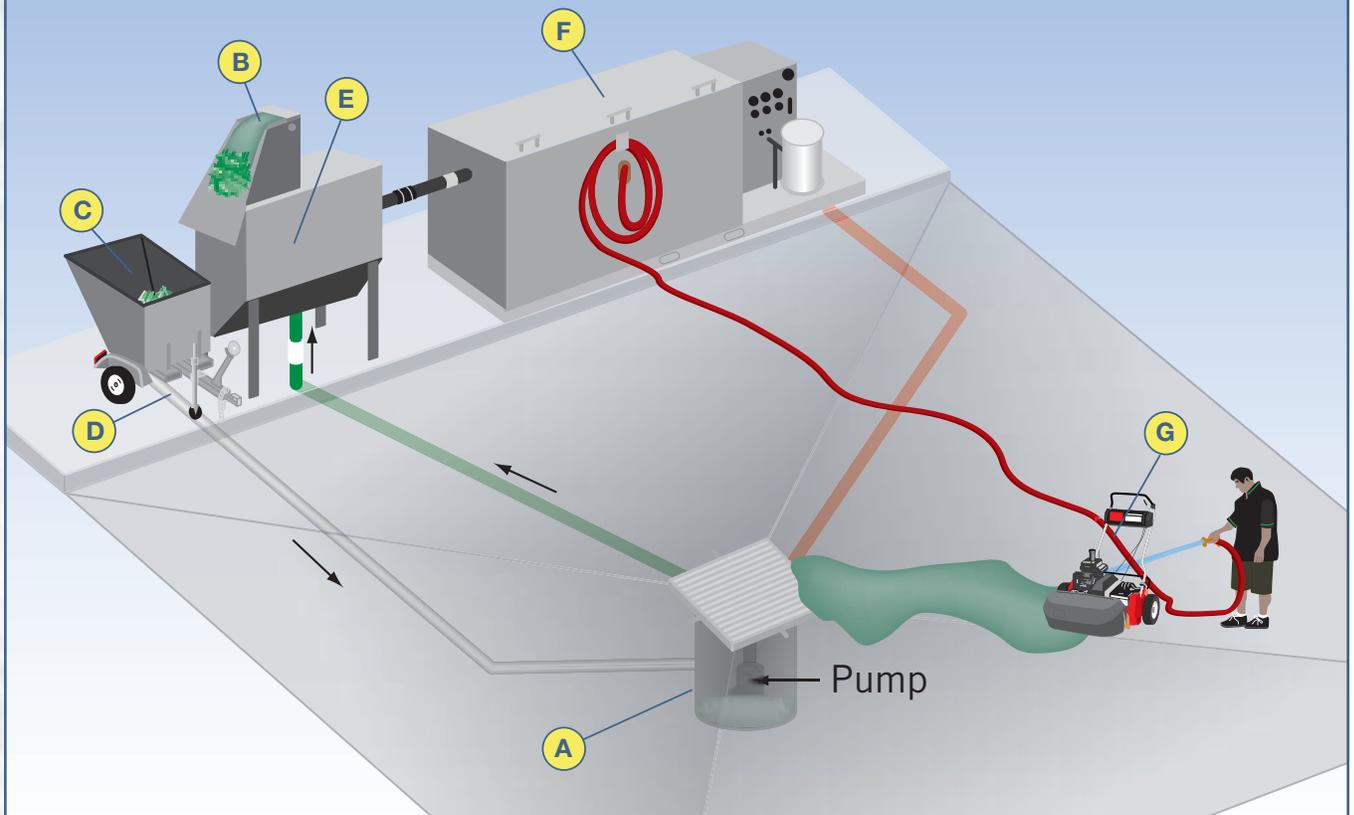
### Model 750 Specifications:

<b>Flow Range:</b>	0-15 GPM
<b>Daily Throughput:</b>	1,250 GPD
<b>Electrical:</b>	230 Volt 1 Phase 40 amp
<b>Fresh Water Supply:</b>	3/4" line required
<b>Operating Capacity:</b>	598 gallons
<b>Biological Media:</b>	1,152 sq ft
<b>Pressure Pump: (Centrifugal)</b>	3/4 hp
<b>Regenerative Blower:</b>	1.5 hp
<b>Dimensions: (L x W x H)</b>	7' x 4' x 4'3"
<b>Net Weight:</b>	450 lbs



Certified to UL-508A Standards



**System Wash Water Flow Diagram and Description**

- A Round Sump**  
Wash water flows into a pre-engineered ESD Round Sump. Water, grass clippings and sand are swooshed around into a slurry. A powerful pump then pushes the slurry to the Clipping Separator.
- B Clipping Separator**  
The wash water slurry flows over the fine mesh clipping screen where grass and other solids slide down the clipping screen and into the Clipping Cart. At the same time, water drops through the clipping screen and into the Solids Separator.
- C Clipping Cart**  
The clipping cart captures grass clippings, sand particulates and other solids. The solids are dewatered as they drip-dry in the Clipping Cart. The water drains into a Shallow Sump below the Clipping Cart. Once dewatered, the grass clippings are removed and disposed of appropriately.
- D Shallow Sump**  
Below the Clipping Cart a Shallow Sump collects excess water where it is drained back to the Round Sump.
- E Solids Separator**  
Wash water from the Clipping Separator flows through a series of baffles and then gravity-feeds into the Biological Treatment System. Fine solids settle, and are drained on a regular basis, through valves in the bottom of the Solids Separator. The solids are then deposited into the Clipping Cart for disposal.
- F Biological Treatment System**  
Once in the Biological Treatment System, the water travels over and under a series of baffles and through a mass of honeycomb biomedica covered with specially-formulated microbes. Organic contaminants are consumed by the microbes, and the contaminants are converted into carbon dioxide and water.
- G Recycled Wash Water**  
Treated water is delivered, with a powerful pump, to the wash hoses and nozzles provided by ESD. The equipment is then washed with forceful streams of recycled wash water.



## ESD EQUIPMENT

- ① ESD MODEL 750 GC-1, CP-50-001 [120C]
- ② ESD 2'X4' SOLID SEPARATOR [400]
- ③ ESD CLIPPING SEPERATOR W/ CART [499.5]
- ④ ESD SHALLOW SUMP [503]
- ⑤ ESD ROUND SUMP W/SUMP PUMP [500]

## PLUMBING PIPE

- Ⓐ FRESH WATER, 3/4"SCH 40 PVC
- Ⓑ STUB-UP, 3/4"SCH 40 PVC

## ELECTRIC

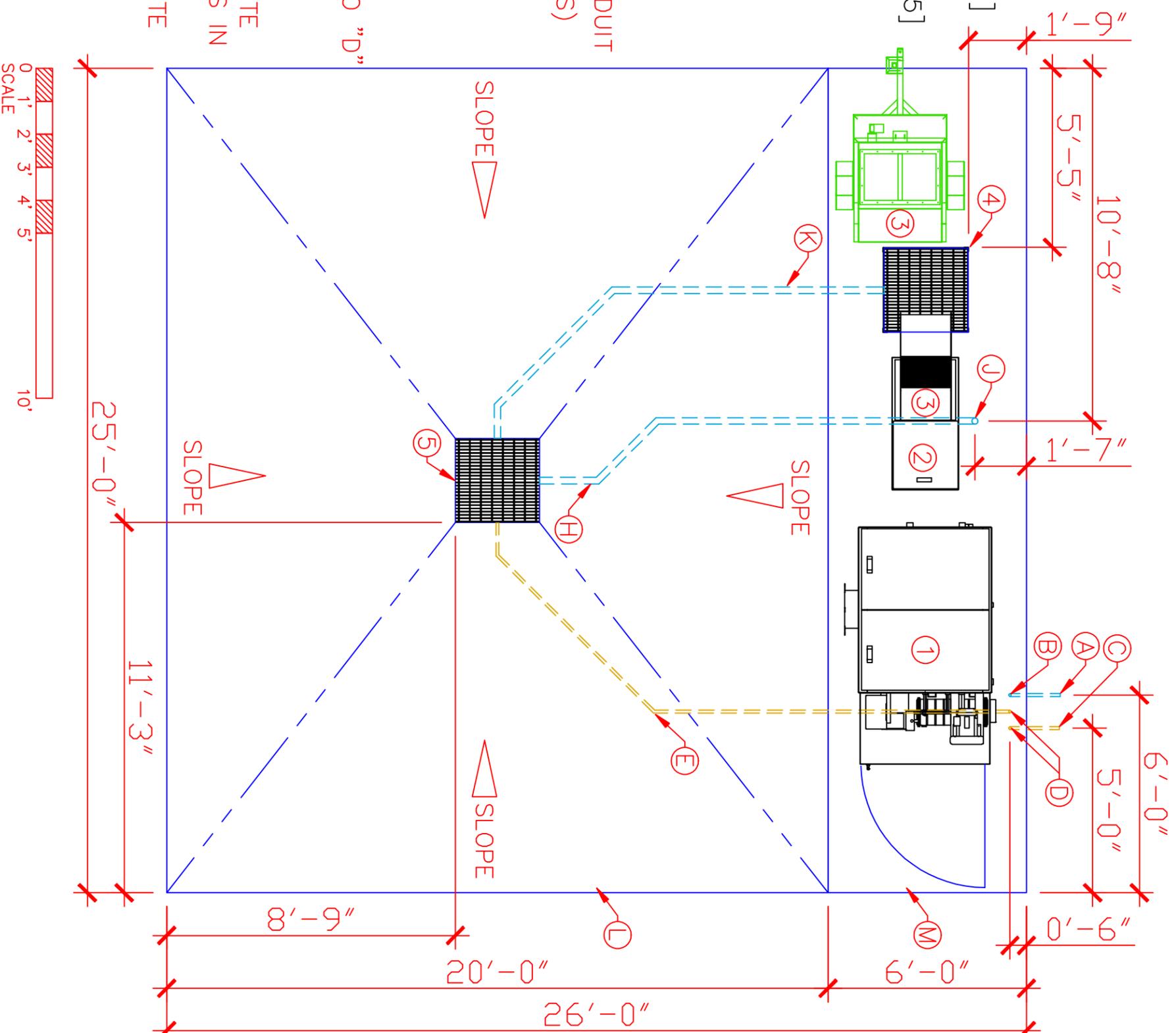
- Ⓒ MAIN ELEC. POWER, 240V/40A, 3/4" CONDUIT
- Ⓓ STUB-UP, 3/4"ELEC. CONDUIT (02 PLACES)
- Ⓔ 3/4" ELEC. CONDUIT, FR "D", TO "5"

## PROCESS PIPING

- Ⓗ FORCED SUPPLY LINE, 2"SCH 40 PVC
- Ⓙ STUB-UP NIPPLE, 2" S.S.
- Ⓚ GRAVITY DRAIN, 2"SCH 40 PVC, FR "C" TO "D"

## CONCRETE AREAS

- Ⓛ 8" THICK, 3000 PSI, FIBER-MESH CONCRETE PAD, SLOPING TOWARDS "5", ALL FOOTERS IN ACCORDANCE WITH LOCAL CODES.
- Ⓜ 8" THICK, 3000 PSI, FIBER-MESH CONCRETE PAD LEVEL SURFACE.



**ESD**

Waste2Water

495 Oak Road  
Ocala, FL 34472

PREPARED FOR:  
STANDARD

2010

PROJECT NAME:

ENVIRONMENTAL

WASH AREA

TITLE:

PLAN

DRAWN BY: MLB

ENGINEERING:

MFG:

QC:

DATE: 09/23/10

DWG NO: 750 STD

SCALE: NTS

SHEET: