Town of Croydon
Hill Top Well #1 and Well House
ADDENDUM # 1
January 11, 2011

PLANHOLDER:

This Addendum #1 shall become part of the Plans (Drawings), Contract Documents, Specifications and Special Provisions of the above referenced project, and all provisions of the contract shall apply hereto.

Bidders shall acknowledge receipt of all addenda by number in the space provided in the bid proposal.

Revisions

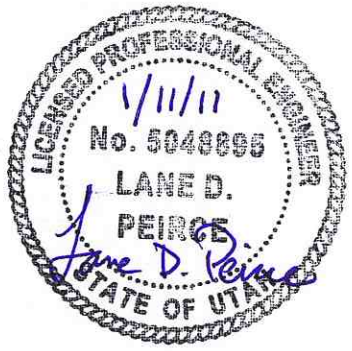
1. There is **no** buy American associated with this contract.

2. The Contractor will be responsible to pull all necessary permits including but not limited to the building permit.

3. A new revised Bid Schedule is attached to this addendum. The bidders shall use the new Revised Bid Schedule for Bidding purposes. The single revision to the Bid Schedule is the removal of Bid Item Number 6-Sound Attenuation System Installation.

4. A Masonry specification has been added to the specifications book and is attached to the addendum #1.

Sincerely,
Lane Peirce, P.E.



SUNRISE ENGINEERING, INC.
END

REVISED BID SCHEDULE

CONTRACT FOR: Croydon Hill Top Well #1 and Well House

The undersigned Bidder, having examined and determined the scope of the Contract Documents, hereby proposes to perform the work described herein for the following unit prices or lump sum amounts.

Note: ***1. Bids shall include sales tax and all other applicable taxes and fees***

2. All bids shall be checked for errors. If errors are made, unit prices shall govern and corrections will be made according to the unit price and totals will be revised to reflect the corrections.

No.	Meas. & Pmt.	Item	Quantity	Unit	Unit Price	Amount
Well Drilling Bid Items						
1	02000	Mobilization	1	LS		
2	SP13110	16" Diameter Well Hole Drilling and Logging	400	LF		
3	SP13110	Geophysical Well Log	1	LS		
4	SP13110	8" Diameter Casing Furnish and Installation	300	LF		
5	SP13110	8" Diameter Screen Furnish and Installation	100 [1]	LF		
6	SP13110	Filter (Gravel) Packing	14	CU-YD		
7	SP13110	Refill Pipe Furnish and Installation	110	LF		
8	SP13110	Sanitary Grouting	105	BG		
9	SP13110	Test Pump and Power Unit Furnish and Installation	1	LS		
10	SP13110	Development Swabing, Surging and Pumping	48	HR		
11	SP13110	Test Pumping	48	HR		
12	SP13110	Sampling and Testing for Culinary Water Quality	1	LS		
13	SP13110	Well Disinfecting and Capping	1	LS		
14	SP13110	Production Well Driller's Report Preparation	1	LS		

Well House Bid Items						
15	02015	Clear, Grub, & Grading at Well Head	1	LS		
16	02105	Rip Rap	5	CU YD		
17	02222	4" PVC Pipe AWWA C-900 DR18	303	LN-FT		
18	02222	4" D.I. Pipe (Class 350)	134	LN-FT		
19	02222	4" PVC Drain Pipe	38	LN-FT		
20	02810	Chain Link Fence	156	LN-FT		
21	02950	Geotextile Fabric (Rip Rap)	10	SQ-YD		
22	13100SP,	Well House, piping, mechanical equipment	1	LS		
23	15230	8" Gate Valve	2	EACH		
24	14117SP	Submersible Pump with Pitless Adapter	1	LS		
25	16483SP	VFD Pump Control Panel	1	LS		
26	16010	Electrical System	1	LS		
		Well Drilling and Well House Bid items			Total	

[1] The price of 8" diameter screen shall be estimated based on a length of 100 linear feet and a slot opening size of 0.01 inch. The actual lengths and locations of screen intervals shall be determined by the Contractor and approved by the Engineer after the well borehole drilling is completed. The actual slot opening size shall be determined by the Engineer based on sieve analysis of cutting samples and gravel pack materials.

The undersigned Bidder certifies that this proposal is made in good faith, without collusion or connection with any other person or persons bidding on the work.

Seal (if bid is by Corporation)

Respectfully Submitted:

Bidder: _____

Signature _____

Title: _____

License No. _____ Address: _____

Date: _____ _____

04200.1 DESCRIPTION

This section covers furnishing materials, fasteners, and anchoring devices, accessories, and the labor required to construct masonry walls and other masonry structural features of buildings.

04200.1.1 RELATED WORK

Section 03200 - Concrete Reinforcement
Section 03600 - Grout and Mortar

04200.1.2 SUBMITTALS

04200.1.2.1 DRAWINGS - When called for in these Specifications, the Contractor shall furnish drawings of general construction of forms, jointing, location of ties, and other items affecting visibility. Where special shapes of concrete units are shown on the Drawings, the Contractor shall furnish drawings and detailed descriptions of these units for approval by the Engineer.

04200.1.2.2 MANUFACTURER'S INFORMATION - Submit name of manufacturer, type, size, and grade along with color samples of block units for selection by the Engineer.

04200.1.3 DEFINITIONS

Flashing - sheet metal or plastic placed in brick walls to deflect surface water accumulation onto or away from joints with other structural components such as roof surfaces, foundations, etc.

Wall Ties - metal connectors placed strategically to connect exterior wall veneer sections to interior faces or other structural components.

Lintels - steel or reinforced concrete units installed horizontally over openings in wall sections to support masonry units placed over the opening.

Wythe - a single width of masonry wall units.

04200.2 MATERIALS

04200.2.1 CONCRETE BLOCK UNITS

Shall be hollow, lightweight, Grade N, Type I units meeting the requirements of ASTM C 90.

04200.2.2 MORTAR AND GROUT

Shall meet the requirements of Section 03600. When block opening sizes will allow adequate clearance, aggregate particle size in grout used for bond beams and vertical reinforcement may be increased to 1/2-inch (maximum).

04200.2.3 FLASHINGS

Unless otherwise shown on the Drawings or described in these Specifications, all material used for masonry flashings shall be 22 gauge (minimum) galvanized sheet steel.

04200.2.4 JOINT REINFORCEMENT

Shall be truss type galvanized steel, with 3/16-inch side rods and No. 9 cross ties.

04200.2.5 WALL TIES

Shall be galvanized bent wire, 0.1875-inch (minimum), but not greater than one-half of the mortar joint thickness.

04200.2.6 REINFORCEMENT

Shall be of deformed steel bars of the size shown on the Drawings, meeting the requirements for reinforcement steel in Section 03200.

04200.2.7 CONTROL JOINT FILL MATERIAL

Fill material shall be fully compressible 3/8-inch thick sponge rubber, meeting the requirements of IAW ASTM D-1782, with a minimum resiliency recovery rate of 90% or better, or approved equal.

04200.2.8 SEALER

Shall be a penetrating sealer, such as Pre-Prime 167 manufactured by Devoe Coatings or approved equal.

04200.3 CONSTRUCTION

04200.3.1 MORTAR

All mortar shall be mixed on the job and, with the exception of putty, no mixing off the job, either complete or in part, will be allowed. Materials for mortar shall be measured by volume. Mortar shall be mixed in a mechanical mixer and only in such quantities as are needed for immediate use. Mortar shall be mixed for five minutes after all materials have been placed in the mixer. No mortar which has been mixed for more than one hour shall be used.

04200.3.2 HANDLING AND STORAGE OF MASONRY UNITS

All masonry units shall be transported and handled in such manner as to prevent chipping and breakage. Storage piles, stacks, or bins shall be placed in locations where materials will be protected from damage. Chipped, cracked, or otherwise defective units shall not be laid in the wall where defects may be exposed to view.

04200.3.3 LAYING UP

04200.3.3.1 PREPARATION - Preparation for laying up the masonry work shall proceed as follows:

- The foundation surface on which a masonry wall is to be built shall be clean. When residual material, such as dust, dirt, chips, concrete splatter, etc., is found to be present on the top surface of the foundation wall, the Contractor shall take appropriate measures as deemed necessary by the Engineer to remove such material before starting any masonry course.

- All sills, ledges, offsets and other projections shall be protected from spills or drops of mortar, and all construction by other trades shall be protected from damage which may result from the masonry work.

- Masonry units shall be cured and dried before being used and surface shall be clean and free from dust, dirt, or other foreign matter when laid in the wall. Masonry units shall not be wetted before being used but shall be laid dry.

04200.3.3.2 CONSTRUCTION TOLERANCES - All masonry walls shall be laid in uniform and true courses that are level and plumb. Walls should be plumb to within plus or minus ½-inch per 20 feet. Walls shall be straight horizontally to within plus or minus ¼-inch in 50 feet. Wall thickness shall be as shown on the Drawings with a tolerance of ¼-inch.

04200.3.3.3 BOND PATTERN - Bond pattern for all masonry walls shall be running bond unless otherwise indicated on the Drawings. No jumping of bond will be allowed. Bond shall be plumb throughout.

04200.3.3.4 APPLICATION OF MORTAR – Mortar shall be applied as follows:

- Full mortar bedding shall be used for the first course on the foundation.
- Joint thickness is to be ½ inch both vertically and horizontally unless otherwise shown.
- Full mortar coverage shall be provided on all face shells and on the webs surrounding cells to be filled.
- Vertical head joints shall be well buttered for a thickness equal to the face shell, and these joints shall be shoved together tightly so that the mortar bonds well to both units.
- Joints shall be solidly filled from the face of the units to the depth of the face shell.
- Mortar joints shall be straight, clean and uniform in thickness and shall be tooled concave unless indicated otherwise on the Drawings. However, when walls are to be coated with bitumen damp proofing, mortar joints shall be struck flush with masonry unit faces.

04200.3.3.5 PLACEMENT OF MASONRY – Masonry units shall be placed as follows:

- Before starting the actual lay-up work, masonry shall be laid dry on the foundation wall and bond adjusted to openings, angles and corners.
- No units smaller than ½ block shall be used.
- Masonry units shall be laid in the wall to the desired height with joints of uniform thickness.
- Masonry units shall be adjusted to their final position in the wall, level, plumb, and straight, while the mortar is still soft and plastic enough to ensure a good bond.
- If the position of a unit is shifted after the mortar has stiffened, or the bond is broken or cracks are formed, the unit shall be re-laid in fresh mortar.
- If work has been stopped long enough for mortar to set, both masonry and mortar shall be cleaned before new work is laid up.

04200.3.3.6 CONSTRUCTING AND GROUTING VERTICAL CELLS – This work shall proceed as follows:

- All masonry shall be laid so as to preserve a clear, unobstructed, vertical continuity of the cells to be filled with grout.
- The vertical opening shall measure not less than 2 inches by 3 inches.
- Walls and cross webs forming such cells shall be fully bedded in mortar, to prevent leakage of grout. See also subsection 04200.3.10 below. All head (or end) joints shall be solidly filled

with mortar for a distance in from the face of the wall or unit not less than the thickness of the longitudinal face shells.

- Vertical reinforcement shall be held in position at the top and bottom and at intervals not exceeding 192 diameters of the reinforcement material.

- All vertical cells containing reinforcement shall be filled solidly with grout in individual lifts not to exceed 4 feet in height each.

- Place and consolidate grout fill without disturbing reinforcing. Grout lifts greater than 8-inches shall be mechanically vibrated. Do not consolidate by shaking the vertical bars.

- Whenever grouting is to be stopped for one hour or longer, horizontal construction joints shall be formed by stopping the pour of grout 1½" below the top of the uppermost unit.

04200.3.3.7 BEAMS AND BEARING PLATES - Two courses of grouted hollow masonry shall be provided below all steel bearing plates or beams bearing on masonry walls. At bearing points fill masonry cores with grout a minimum of 24-inches wide from bearing point to lower support member or bond beam. Place external bearings on each side of contact with load as required to properly transfer load to the masonry wall, as indicated on the plans.

Use "H" blocks for bond beams. Reinforce bond beams and pilasters as indicated on the Drawings.

04200.3.4 OPENINGS

04200.3.4.1 METAL DOORFRAMES - Jambs and heads of metal doorframes to be connected to masonry shall be anchored and fully grouted. Filling of doorframes with grout shall be done as each two vertical feet of masonry are laid. Bed anchors of metal doors and glazed frames in mortar joints. Fill frame voids solid with mortar. Fill masonry cores with grout for one core from framed openings.

04200.3.4.2 CUTOUTS - All necessary cutting of masonry units to form chases, etc., for anchorage or other appurtenances shall be part of the Contractor's required work.

- All cutting and fitting of exposed masonry units shall be done with a power driven carborundum or diamond disc blade saw.

- Where masonry is to enclose conduits, pipes, stacks, ducts, and similar items, the necessary slots, chases, cavities, and similar spaces for these items shall be constructed as required, whether indicated on the plans or not.

- The Contractor shall not cover such work until he has been informed that the work has been inspected and tested.

- All openings in exterior masonry around pipes, conduits, etc., shall be caulked weather tight with a silicone rubber product or compound designed for this purpose.

04200.3.5 LINTELS

Where steel or pre-cast concrete lintels are not scheduled, install reinforced masonry unit lintels over openings. Construct or shop-fabricate lintels using grout fill and reinforcing. Maintain 8 inches minimum bearing on each side of opening.. Door, window, and similar openings in

masonry walls, unless indicated or specified otherwise, shall have lintels made up of like material "U" block units reinforced and filled solidly with grout to properly span openings. Do not splice reinforcing bars in lintels. Allow lintels to reach full strength before removing temporary supports.

04200.3.6 REINFORCING

Reinforce as indicated. Lap splices at least 40 bar diameters.

04200.3.7 ANCHORS AND BRACING

Supply metal anchors as shown on the Drawings for anchoring the masonry work to other structural members. Provide temporary dry bracing required during erection of masonry work. Maintain in place until building structure provides permanent bracing.

04200.3.8 MASONRY FLASHINGS

Extend flashing through veneer, turn up a minimum of 8 inches, and bed into mortar joints of masonry or seal substrate as required. Lap end joints 8 inches minimum and seal watertight. Use the flashing manufacturer's recommended sealant.

04200.3.9 CONTROL JOINTS

Control joints, with filler, shall be as shown on the Drawings or as specified herein.

04200.3.9.1 LOCATION - Control joints shall be provided for all vertical masonry walls where such walls exceed 40 feet in length. In longer lengths of walls, joints shall be provided at least every 30 feet or as indicated on the plans. Control joints shall be continuous for the full height of walls.

04200.3.9.2 FORMING - Form control joints by using a sheet, building paper type bond breaker fitted to the hollow contour of the block unit end. Fill the void so created with grout. Rake the joint at the exposed faces of rod and sealant.

04200.3.9.3 REINFORCING - Horizontal joint reinforcing shall not cross control joints. However, at bond beams, control joints shall separate masonry and grout; and steel reinforcing shall be continuous.

04200.3.9.4 FILLER - Control joint fillers shall be installed in continuous lengths in accordance with the manufacturer's instructions. Fill materials shall be held below the finished surface, and the remainder of the joint shall be caulked with synthetic rubber.

04200.3.10 ACCESSORIES

Furnish and install steel or pre-cast concrete components as shown on the Drawings.

Set metal door frames, fabricated metal frames, window frames, wood nailing strips, anchor bolts, plates and other items tight and caulk exterior joints with silicone rubber composition colored to match color of mortar. Place all anchor bolts in solid grouted cores. Build items plumb and level.

04200.3.11 COMPLETION, CLEANUP AND SEALING

04200.3.11.1 DEFECTIVE WORK - At the completion of the work, all defective mortar joints on exposed masonry shall be re-pointed. Where necessary, defective joints shall be cut out and re-pointed.

04200.3.11.2 CLEANING - Brush off excess mortar as work progresses. Dry brush at the end each day's work.

04200.3.11.3 FINAL CLEANING - After mortar is thoroughly set and cured and damaged surfaces are repaired, final cleaning of exposed masonry surfaces shall proceed as follows:

- Dry clean to remove large particles of mortar using wood paddles and scrapers. Use a chisel or wire brush if necessary.
- Scrub down wall with stiff fiber brush and either a solution of ½ cup of trisodium phosphate and ½ cup of household detergent dissolved in 1 gallon of water, or commercial muratic acid mixed in 8-10 parts of clean water, or other approved masonry cleaner.
- Rinse walls by washing off cleaning solution, dirt and mortar crumbs using clean, 100 percent soluble pressurized water.

04200.3.11.4 SEALER – A penetrating sealer shall be applied to concrete block masonry surfaces as shown on the Drawings.

04200.3.12 INSULATING FILL IN WALLS

Exterior walls of all buildings having internal cells in the block and that are not filled with grout shall be filled with insulation. Insulation shall be foamed-in-place insulation as specified in Division 7. The cells in the block wall shall be kept as free of mortar as possible as the work goes up. The brick laying shall not be carried more than four feet vertically ahead of the insulation fill. That is, the insulation shall be foamed in place in lifts not to exceed four feet. Care shall be taken that no insulating fill gets into cells which are to be filled with grout and that no grout gets into cells that are to be filled with insulation.

04200.4 METHOD OF MEASUREMENT

Unless provided otherwise in the Special Provisions, concrete block masonry will be measured as part of the building or structure listed in the Bid Schedule and no separate measurement will be made.

04200.5 BASIS OF PAYMENT

Separate payment for concrete block masonry will not be made unless indicated otherwise in the Special Provisions.