

**ARLINGTON COUNTY, VIRGINIA
OFFICE OF THE PURCHASING AGENT**

INVITATION TO BID NO. 21-DES-ITB-493

ADDENDUM NO. 4

Arlington County Invitation to Bid No. 21-DES-ITB-493 for Net Zero Energy (NZE) Residential Building Construction is amended as follows:

Vendor Inquiries

#		Question forwarded from Vendor Registry	Response	Specification/ Drawing Sheet (if applicable)
1		The code analysis in the cover page of the drawings states that the sprinkler system is a 13B system, but then in the FP sprinkler drawings the system is called out as a 13R system. Please clarify the basis of design.	The Sprinkler System is to be NFPA 13 Automatic, Fully sprinklered.	A020, FP001
2		Section 232113.33 2.2 A states that the ground-coupled heat exchanger has been designed, but 2.2 B says Contractor is responsible for design. In 2.2 C through E it appears like the the specs are providing various options, but in some cases "as indicated on drawings" is referenced, but there are no locations for vertical or horizontal systems shown outside the building. Please clarify whether the intent is for the Contractor to engage a design professional to design the geothermal gound-coupled heat exchanger or whether the designer of record will provide a design. Note- the space on the site is limited and coordination of bore hole locations prior to bidding is advised.	Specifications revised to clarify that the system itself for the Ground Coupled heat exchanger is design-build by the subcontractor of the system. A mechanical Site plan has been added; general contractor to note that underground field is to remain within the limits of disturbance.	Section 232113_33 IEI - Ground-Loop Heat-Pump Piping & M103

3		Specificatoin Section 212113.33 2.2 F. does not provide any heat exchanger performace criteria. Please clarify the performace criteria to permit bidding.	Specification Section 232113.33 2.2 will be amended to remove Section A in Addendum#1; Section B is accurate in that the Contractor is responsible for design and execution of the closed-system ground-coupled heat exchanger, to the requirements of and within the limitations of the Contract Documents.	Section 232113_33 IEI - Ground-Loop Heat-Pump Piping
4		The water source heat pumps are shown as Daikin, but local geothermal companies recommend WaterFurnace as an alternate manufacturer for geothermal applications. Is this alternate accpetable?	Water Furnace is listed as an acceptable manufacturer in Specification Section 238126-2.1	/
5		075423 2.3/A references 'fabric-reinforced' and 'polyester' – we've seen these references be misconstrued as a 'fleece backed' membrane when design intent is in-fact standard TPO; is the true design intent to be fleece backed TPO or typical TPO?	The referenced spec section and paragraph 075423, 2.3/A is written as follows: A. "Fabric-Reinforced TPO Sheet: ASTM D 6878, Smooth type, polyester scrim-reinforced, uniform, flexible TPO sheet." There is no mention of Fleece Backed and the paragraph states: "Smooth type."	/
6		On C-0401 the generator is shown where the transformer is on A010 and E100. Please clarify what the locations of the generator and transformer are.	Location of Generator has been coordinated between Architectural & Civil Plans in Addendum #1 Drawings.	A010, C-0401
7		On A010 the placement of the generator and swing set are outside the limits of disturbance shown on C-0401. How can we disturb areas outside of the LOD? Please clarify the extents of the LOD or alter the placement of these items as needed.	Accessible Swing is to be relocated to the Back Patio area and countour edge of back patio to be modified to allow for anchoring of swing. The rear patio and stone dust footprints have been updated with the shift of the ADA accessible pergola to the rear patio .	A010, C-0401
8		On C-0401, L-0301 and L-0401 there are stepping stones along the south elevation of the building that are not shown on A010. Please clarify whether the stepping stones are needed and provide a detail and specification so that we know what to price.	A detail of the stepping stones has been provided on sheet L-0303 of the supplemental landscape plan.	L-0303 (added)
9		On C-0401 the location for the electric transformer does not match A010 and E100. Please clarify the location of the transformer and detail for the corresponding concrete pad.	Transformer to be located per A010. It is unknown yet whether Dominion will require a pad-mounted transformer for this property, so it is shown for scope purposes only. Plantings and proposed landscape lighting have been updated with the changes to the stormwater design (necessitated by LDA review, see below) and the shifting of the generator, transformer, & pergola	A010, C-0401

10		<p>On A010, it calls out a "proposed pergola" with accessible swing set and references the landscaping plan. The landscaping plan only illustrates a pre-manufactured swing. If a pergola is desired please provide a design and corresponding specification.</p>	<p>The premanufactured set has a pergola canopy integral to the product. The specification for the product is now listed on the architectural site plan and the location of the swing has been moved to be anchored on the back patio so that it is within the land area of disturbance; Specification: Wheelchair Gazebo Swing Fabricated in the USA by Chad Dietz; chad@IronByChad.com 800-545-2191 toll free 831-277-2014 cell, www. ironbychad.com</p>	A010, A100
11		<p>Contained within the EarthCraft Technical Guidelines are a number of pages marked optional. Can you clarify the intent of the information contained on pages with the words optional?</p>	<p>The Earthcraft Technical Guidelines were attached to the end of the 018113.63 specification in their entirety for reference. Watermarks delineating what are "Optional" differentiate compliances for additional certification "Badges" that could be earned above and beyond the base scope; They are optional, and therefore not required to be complied with to earn the Earthcraft certification contractually required by Arlington County.</p>	
12		<p>Who is responsible for paying the Earthcraft registration fee, which must be paid before certification? If the Contractor is responsible please clarify the cost</p>	<p>The Earthcraft Registration Fees will be paid for by the County.</p>	
13		<p>Please confirm whether the "builder" is supposed to select and pay for the earth craft technical advisor. Page 152 of the project manual states that the builder selects the technical advisor and that the "TA will track the project throughout the certification process and provide all EarthCraft verification, diagnostic testing, and energy modeling services as they apply to the certification path selected by the builder." The activities seem more appropriate for the owner or owner's representative to perform. Please confirm the intent.</p>	<p>The Earthcraft Technical Advisor will be paid for by the County. However, as it relates to diagnostic testing, please note the document 'Special Conditions' in the Bid Package; item number 2 – Sustainable Requirements. Any re-inspection testing due to contractor installation failure will be at the expense of the General Contractor.</p>	
14		<p>Page 153 of the specifications list a number builder responsibilities that include design elements which would normally be within the designer's scope. Please clarify whether the builder/contractor is supposed</p>	<p>Scope and responsibilities for this specific project are outlined in 018113.63, 1.2. Page 153 is a portion of the native Earthcraft Certification Guidelines documentation which was included for reference purposes. Viridiant/Earthcraft often uses the term "builder" in their documents to interchangeably apply to the architect as well</p>	

		<p>to provide the following: Completed construction specification sheet demonstrating how the project will meet EarthCraft requirements • Project worksheet that lists which requirements will be applicable and which optional badges will be pursued, if any • Manual J load calculations and Manual S equipment selection • Drawings and specifications • Note any questions about program technical requirements so that potential issues may be resolved during the design phase of the project</p>	<p>as the general contractor. Refer to the specifications for project specific scope & responsibilities.</p>	
15		<p>Can you clarify whether the earthcraft house technical criteria are provided for informational purposes only or whether they provide specific details that we must abide by? We would like to note that the architect and engineers designed this project and that we can't be responsible for ensuring that the rest of the contract documents will result in a project that meets the EarthCraft technical criteria. We will build what is designed and it is the designer's responsibility to ensure that design meets net zero energy and EarthCraft standards.</p>	<p>Per 018113.63, 1.1, B, 2, b: During the design phase, the Design Team has worked to ensure that the design will meet both Arlington County's Green Building Policy, as well as Viridiant's Net Zero Program requirements; a Whole Building Energy Model Simulation has been provided by the Engineering Team to demonstrate this compliance. The Whole Building Energy Model Simulation report was included as an attachment for reference purposes following Section 018113.63. Additionally, the Earthcraft Program documents were also included for informational purposes. The GC is responsible for all portions of scope outlined under 018113.63, 1.2 where noted.</p>	
16		<p>A010 illustrates a fence around the generator with a gate. This fencing does not appear on the civil or landscape drawings- please clarify what the fencing is and provide a clear specification.</p>	<p>Interior (to the Yard) Fencing which screens the Generator, as well as the gate leading to the parking area on A010 has been removed. Location of Generator has been coordinated between Architectural & Civil Plans in Addendum #1 Drawings.</p>	A010, C-0401
17		<p>On A0101 outside the gate to proposed generator there are two bollards shown and it notes that we are to coordinate requirements with utility company. Please provide size and detail of proposed bollards.</p>	<p>The bollards and gate adjacent to the driveway where the Generator is shown have been removed.</p>	A010
18		<p>The solar performance specs call for a 22.2 kW system, but based on the roof area the largest array possible is about 15.2 kW. This assumes a 380</p>	<p>In the Bid set the quantity of panels is 40 which would equate to 14.8 kWh – Specifications have been revised to reflect this.</p>	263100 IEI - Photovoltaic Systems

		watt panel, which is the largest residential unit. We could probably achieve a slightly larger system with a commercial panel, but not much more than 16 kW. Please clarify how we should proceed given the limited roof area and dependence on the 22.2 kW system for the NZE standard?		
19		Attachment C Special Conditions states that the Contractor shall carry 20 working days of owner delay from the date of NTP to substantial completion. This will add an entire month of general conditions to the project. Please confirm that this is correct. If it is correct, then please clarify whether this 20 day period is contained within the allotted 300-hundred consecutive calendar days allowed for the project or whether it represents an additional 30 calendar days to the overall schedule.	The "20 working day of owner's delay" is contained within the allotted 300 consecutive calendar days allowed for the project.	
20		Can you confirm the cost for Viridiant Earthcraft building inspection in the event that the first inspection fails due to a perceived construction deficiency?	The following is from Viridiant's scope of work: Reinspections and/or Additional Diagnostic Testing: <i>If reinspections and/or retesting are required due to failures or the project not being ready for inspection without communication from the contractor, an additional \$100 fee may apply for each reinspection or additional test. Project teams will be notified in writing with supporting site visit report(s) highlighting delinquent issues prior to fees being assessed.</i>	
21		Special Conditions item 1 states that "all other permits, including trade permits, shall be obtained and paid for by Contractor". Can you confirm whether the County will waive trade permit fees for this project?	The County will not waive the 'Trade permit fees'.	
22		Hello, for the demo it seems there will be some deconstruction of significant items before a full demo can take place. We just wanted to confirm the only items of the existing structure to salvage for "The Owner" are the items in section 024116 - 3.15 of the project manual, and also any	DHS has indicated that they have no need for salvaging from the previous residence therefore this note has been removed from the drawings.	A020

		<p>items of historical significance. The rest of the structure can be demolished/recycled in accordance with the terms set forth in that section and on the plans. Thank You</p>		
23		<p>There are a number of practical and technical challenges with the bid forms we are supposed to use to submit the bid. For example, the bid breakdown does not contain a category for divisions 21 or 28. How would you like us to account for this work? In almost all cases, subcontractors are not accustomed to furnishing bids on bid day with a labor, equipment, and material breakdown. Can you confirm this is necessary? Usually the detailed schedule of values is generated after the bid is awarded as this process requires significant time and energy. Furthermore, it will be relatively challenging to condense over 30 quotes into 17 categories on bid day when quotes especially for MEP will come in within minutes of the bid deadline. The site work divisions will not be easy to parse out given the commingling of trades within the 3 categories. For example, new landscaping and hardscaping has been lumped with asphalt paving. The numbers will not come this way and this will make an already complicated bidding process even more complicated. Furthermore, it is unclear how this breakdown will translate to a detailed schedule of values for billing purposes. Can you revise the bid form to be a lump sum price on bid day?</p>	<p>Revised Pricing Sheet has been provided.</p> <p>Rows for FIRE ALARM and FIRE PROTECTION have been added to the revised Pricing Sheet. Please provide prices in all cells of the PRICING SHEET for the bid breakdown as directed.</p> <p>The bid form will not be revised to be a lump sum price only, as requested.</p>	
24		<p>On Sheet C-0501 there is a discrepancy in the final floor elevation of the basement. On the grading plan it is shown as 195.67 and on the Arlington County Conduit profile it is</p>	<p>The basement elevation has been updated to match the elevation shown on the architectural sheets.</p>	C-0501

		shown as 196.67. Please confirm which elevation is correct.		
25		On A010 the bottom of stair and top of stair elevations for the basement do not match the same elevations shown on C0501. Please clarify which drawing is accurate.	The basement elevation on sheet C-0501 is now shown at elevation 195.0. The areaway elevations have been updated with the basement elevation of 195.0	C-0501
26		On 1/A101 the finish floor elevation of the basement is shown as -11' from the ground floor. This would make the finish floor elevation 195 (206-11); however, the grading plan on C-0501 shows the finish slab elevation of 195.67. Please clarify the correct elevation.	The basement elevation on sheet C-0501 is now shown at elevation 195.0. The areaway elevations have been updated with the basement elevation of 195.0	C-0501
27		Please provide details including designs, materials, etc that will allow us to bid the raised garden planters illustrated with a picture on L0302. Currently this is presented as a design build item without adequate details to hard bid the raised beds.	Details for the raised planter beds have been added to sheet L-0303.	L-0303
28		Sheet A020 General Note 12 states that we should "provide any and all recommended accessories, primers, and surface preparation as part of the base bid whether or not specifically called out on dwgs or specs." We cannot furnish a bid based on "recommended" accessories and miscellaneous items for equipment and material that is not explicitly specified in the drawings and specifications. Can you confirm that we are not expected to provide more than what is explicitly called for in the contract documents? It is impossible to account for the vast array of possible items that this general note encompasses.	Miscellaneous accessories required for typical installation means and methods are expected to be encompassed by the Base Bid and are not necessarily noted in detail throughout the drawings. By and large these accessories are outlined within the specifications.	
29		General note 16 on A020 requests a comprehensive traffic management plan. Can you clarify what is required in this plan?	General Contractor is expected to develop an appropriate plan for how construction traffic is to circulate to and from the site as well as develop approved locations for worker parking and present to owner for review.	

30		Please clarify where we will be expected to deliver attic stock materials as referenced in general note 31 on sheet A020.	Attic stock should be stored in the Storage Room in the Basement of the dwelling, on shelving provided. Also see Specs section 017700-Closeout Procedure, paragraph 1.6B #4 & 4a.	
31		Sheet A020 General Note 36 states that the Contractor shall provide submittals showing attachment details for stone veneer and fiber cement siding and that the details need to be designed by a licensed structural engineer. Can you confirm that you are expecting the Contractor to retain a structural engineer to design connection details as opposed to standard connection details provided by the manufacturers? Please be advised, this is outside the normal purview of a general contractor in a design-bid-build scenario and will be difficult to price.	The stone veneer and fiber cement siding manufacturers are to provide & submit attachment shop drawings which have been determined to be structurally adequate by a PE under their purview.	
32		Sheet A020 note 22 states that the contractor is supposed to request reports from the owner about hazardous materials in the building such as asbestos. Can you confirm if there are any reports and furnish them for review if they exist.	There is a Hazardous material report which shall be provided only to the successful Contractor of this ITB.	
33		Sheet A020 General Finish note 9 states that the Contractor shall provide 3% overage on finish materials. Does this include all finish materials e.g. drywall, drywall mud, flooring, etc. or only specific items? Shall we take the 3% quantity listed in the drawings or what is indicated in individual spec sections?	"Interior Finishes" means applied appearance finish materials (not substrates, etc.) -- the materials that require attic stock are defined in their individual specification section.	
34		Sheet A020 General Partition Note 16 states that we need to hire a professional engineer to re-engineer the framing for the building. Is this necessary, or can we simply use the wall details and layouts provided with the contract documents?	Delegated design is note required for typical interior stud walls. Note has been removed.	A020
35		Sheet A020 general demo note 7 states that the owner may request we salvage materials for them and store them at some location. Can you clarify	DHS has indicated that they have no need for salvaging from the previous residence therefore this note will be removed.	A020

		what is being salvaged and where it needs to be stored so that we can properly account for the time and cost associated with this activity?		
36		To quantify the fill for the job we need to understand the volume of the existing basement space that will need to be filled in. Please provide this information or an allowance for fill of the existing structure footprint as we have no way to quantify the below grade area that needs to be filled in.	Quantifying the fill volume is a takeoff calculation that is the responsibility of the General Contractor.	
37		Sheet AD100 note 22 suggests that we may be able to get water via a formal request to the County. Can you confirm whether we will have free access to water provided by the County for the duration of construction?	There will be charges for the Contractor temporary hook-up and use of water utility	
38		Specification 329300 paragraph 3.7A calls out plastic edging, but the Landscape drawings call out steel cortan edging. Please clarify what we should price.	Landscape drawings prevail as to the edging type. Edging to be Corten steel.	
39		On sheet S.110 there are 2 12x12 concrete piers on the south side of the elevator pit; however, we do not know how high they are or how they tie in to the rest of the structure. Please clarify design intent.	The 12x12 concrete pier is to be built integrally with the pit wall in section 4/S.211. Wall forms to bump out at the corners to frame around the pier and pour the walls and piers all at once.	
40		On A200, there are 4 doors with note 9 indicated. Note 9 references a ceiling assist track, but there is no mention of this assembly in the type 8 hardware set specified for these doors. Please clarify what is involved with this system so that we can furnish a precise estimate.	The track is listed on the door schedule for reference only, as to which doors the track runs above; it is detailed to run above the door, but is not integral to the door's hardware. The specification for the track is listed in Note "C3" on RCP A1001.	
41		Sheet A601 references Sheet A400, but this page does not appear in the drawing set. Please clarify what is going on.	This sheet does not exist. Reference removed from drawing.	A601
42		Please clarify what the cap is on the top of the top of the concrete retaining wall at the north areaway.	Cap is detailed in 1/A501. A reference bubble to this detail was added in the overall railing detail #6/A501 for clarity.	A501

43		On 16/A500, there is a foundation drain shown with a reference to the plumbing drawings, but no reference is found on the plumbing or civil drawings.	Below Slab Plumbing plan has been revised to reflect the routing of the 4" foundation drain to sump; civil drawing has been revised to reflect the connection to the discharge.	P100, C-0501
44		Please provide specific size and routing for foundation drains shown at retaining wall and next to basement shown on A402 and 4/A602. We need to know where the water is going.	Below Slab Plumbing plan has been revised to reflect the routing of the 4" foundation drain to sump; civil drawing has been revised to reflect the connection to the discharge.	P100, P-601, C-0501
45		On Sheet A600 can you clarify which handrail detail applies to each of the stair plans shown? The word banister is used on Sheet A701 and we are not sure what detail applies to 13-15 on sheet A701 either. Clarification is much appreciated.	The notes in 13, 14, 15/A701 have been revised to remove reference to "Banister" and clarify this is the "Handrail."	A701
46		Detail 12 on Sheet A500 shows a turned down slab for the porch, but the referenced structural drawings show a basic 4" slab. Please clarify the design.	3/S3111 structural detail applies to this condition and does represent a turn down slab. These details are coordinated.	/
47		There is a conflict between the porch slab detail on Sheet A501 detail 15 and the referenced structural drawing on Sheet S.111. The archs show a turned down slab and the structural do not. Which detail prevails?	3/S3111 structural detail applies to this condition and does represent a turn down slab. These details are coordinated.	/
48		Sheet A501 Detail 9 and elsewhere shows the trex post railing and post assemblies, but there is no mention of the corner post assemblies or how we are supposed to install the post. Is there a 4x4 that the trex composite sleeve goes over?	A pressure treated wood post is required for the composite sleeve to install over at each post location. Note regarding posts were added to detail.	A500, A501

LDA or Permit Review Comments			
49	LDA Permit Sub01 - Comments for County Reviewer	The single bioretention basin on C-0401 has been separated into three rain gardens. The BMP Schematic, sections, and calculations have been updated.	C-0401, C-0701-C0705
50	LDA Permit Sub01 - Comments for County Reviewer	Curb and gutter was required & added along the 13th Street Frontage.	C-0401

51	LDA Permit Sub01 - Comments for County Reviewer	Tree 102 has been shown to remain until permission from the neighbor has been granted for removal.	C-1203
	Discipline	Comment	Specification/ Drawing Sheet (if applicable)
52	ISD-Mechanical	Dryer Specification was revised to be ventless.	A720
53		Lower Level Apt Kitchen Hood Exhaust specification revised in order to be under 400CFM.	A720
54	ISD-Residential Building	Per details 6 & 7/S.310 and Note J.9 on sheet S.000, all wood in contact with concrete or exposed to weather is to be pressure treated (PT). A note indicating the same will be added to detail 3/S.311	S310, S311
55		ISD Comment: The first floor steel beam occurring on column line 2 is graphically shown bearing at its left end, column line A, on the inside corner of the foundation, such that its centerline is just off the inside face of the wall, so that more of the beam's 8" width will be off the foundation wall than on. Please make clear that won't really be the case. Response: The W10x39 is actually framing to the W10x22 which is bearing 10" onto the concrete wall. Detail 9/S.211 has been added to the drawings to clarify.	S211
56		ISD Comment: Compliance with the wall bracing requirements of VRC R602.10 is required, typically shown by the braced wall panels identified on plans, with their lengths dimensioned and the method of bracing used at each, with an accompanying worksheet to show the code method for figuring required amount of braced wall lengths. This project is calling for SIPS wall panels. The bracing review can be done prior to permit approval, or after, as part of the SIPS shop drwg review. If the latter, please note on plans requiring submittal of SIPS shop drawings to ISD for review, approval of which must occur prior to scheduling a wall bracing inspection. The bracing inspection is made prior to installation of doors, windows and housewrap. Response: A note was added to each of the plans indicating that the SIPS panel wall bracing requirements will be submitted on the fabricator's installation shop drawings.	S111, S112, S113, A310
57		The lower level floor plan was revised in the Staff/Living Room area in order to reduce the gross square footage associated with the apartment's living area and to provide a demarcation of the Staff Area from that apartment's total area due to the requirements for permitting this space as a "Family /Caregiver Suite" under ACZO 12.9.8. A wall with sliding door was added to the lower level stair landing to create an interior vestibule outside of the Living Room and the Staff desk was revised to be a linear desk, open to the Lower Level landing, (in lieu of the L-shaped desk) and there is a fixed glass window above the Staff Desk looking into the Living Area.	A101, A200, A702, A800, A902, F101 M101, P101, E201, FA101, FP101
58		AUDIT is deleted in its entirety and replaced with the following: (page 28) The Contractor must retain all books, records and other documents related to this Contract for at least five years, or such period of time required by the County's funding partner(s), if any, whichever is greater, after the final payment and must allow the County or its authorized agents to examine the documents during this period and during the Contract Term. The Contractor must provide any requested documents to the County for examination within 15 days of the request, at the Contractor's expense. Should the County's examination reveal any overcharging by the Contractor, the Contractor must, within 30 days of County's request, reimburse the County for the overcharges and for the reasonable costs of the County's examination, including, but not limited to, the services of	

		<p>external audit firm and attorney's fees; or the County may deduct the overcharges and examination costs from any amount that the County owes to the Contractor. If the Contractor wishes to destroy or dispose of any records related to this Contract (including confidential records to which the County does not have ready access) within five years after the final payment, or such period of time required by the County's funding partner(s), if any, whichever is greater, the Contractor must give the County at least 30 days' notice and must not dispose of the documents if the County objects.</p> <p>The Purchasing Agent may require the Contractor to demonstrate that it has the necessary facilities, ability, and financial resources to comply with the Contract and furnish the service, material or goods specified herein in a satisfactory manner at any time during the term of this Contract.</p>	
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The balance of the solicitation remains unchanged.

Arlington County, Virginia

Sy Gezachew
Procurement Officer

RETURN THIS PAGE, FULLY COMPLETED AND SIGNED, WITH YOUR BID:

BIDDER ACKNOWLEDGES RECEIPT OF ADDENDUM NUMBER 4.

FIRM NAME: _____

AUTHORIZED SIGNATURE: _____ **DATE:** _____