Date: 02/23/2024

Addendum No. 2

For Project No. ENG2403757027
LIEBER STATE RECREATION AREA – LWCF
DOUBLE VAULT TOILETS
1317 W LIEBER RD, CLOVERDALE, IN 46120

ISSUED FROM: Engineering Division Dept. Natural Resources

ISSUE DATE: February 23, 2024

BID DATE: March 14, 2024

FOR AGENCY: Department of Natural Resources

The information contained in this Addendum shall become a part of the basic plans and specifications the same as if original incorporated therein. The original plans and specifications shall remain in their entirety, except as modified by this Addendum. The items herein shall supersede information in the specifications and on the plans.

ITEM No. 1: GENERAL

A. Attached, please find a copy of the pre-bid meeting sign-in sheet and pre-bid meeting agenda with a summary of the discussion and clarifications.
B. SITE PLANS were modified to include additional notes and clarifications.
C. SUMMARY OF WORK was modified to include additional notes and clarifications.

ITEM No. 2: CONSTRUCTION DRAWINGS

A. **MODIFIED** - SITE PLAN – Lieber SRA – Family Campground Location 1
   a. Added location and note for detectable warning surface.
   b. Added 10’ contour lines.

B. **MODIFIED** - SITE PLAN – Lieber SRA – Family Campground Location 2
   a. Added location and note for detectable warning surface.
   b. Added 10’ contour lines.

C. **MODIFIED** - SITE PLAN – Lieber SRA – North Shelter Location
   a. Added note, “…no ADA signage required.”
   b. Added 10’ contour lines.

D. **MODIFIED** - SITE PLAN – Lieber SRA – Collins Point Location
   a. Added note, "…(1) Van accessible ADA parking sign and (1) car ADA accessible sign to be installed."
   b. Added 10' contour lines.

ITEM No. 3: SPECIFICATIONS

A. **MODIFIED** - SECTION 01 11 00 – SUMMARY OF WORK:
   a. On page 2, added description for Detectable Warning Surface Tiles. Reference attached SECTION 01 11 00 for additional information.
   b. On page 2, added clarification for project Base Bids. Reference attached SECTION 01 11 00 for additional information.
   c. On page 2, added clarification for project Alternates. Reference attached SECTION 01 11 00 for additional information.
   d. On page 4, removed note C-2 stating, "Archeology investigations will begin as soon as the weather permits. An estimated timeline is being developed."
   e. On page 4, re-added note C-3 stating, "DNR will obtain approval from the Army Corps of Engineers for demo of the existing vault toilet. An estimated timeline for approval is being developed."

B. **MODIFIED** – SECTION 03 45 38 – PRECAST DOUBLE VAULT TOILET:
   a. On page 6, added specifications for 2' x 2' Orange Polyester Hatch Safety Net. Reference attached SECTION 03 45 38 for additional information.

END OF ADDENDUM

State Form 21208R4 **DAPW-118**

PRE-BID MEETING

STATE PARKS - LWCF DOUBLE VAULT TOILETS
LIEBER STATE RECREATION AREA

DEPARTMENT OF NATURAL RESOURCES
STATE OF INDIANA

Public Works Project No. ENG2403757027

LIEBER STATE RECREATION AREA
1317 W LIEBER RD, CLOVERDALE, IN 46120

Date: **February 19, 2024 @ 10:00 am ET**
Meeting Location: Project Site
1317 W LIEBER RD, CLOVERDALE, IN 46120

A. Attendee Sign-in:

B. Welcome, Introductions:
1. Project Contacts:
   a. Property Manager: Lynda Ellington
   b. Office Phone: 765-276-0194
2. DNR Construction Contact:
   a. Zachary Bell: 812-322-1585; ZaBell@dnr.IN.gov

C. Project Scope and Coordination:
1. Scope: Installation of new precast double vault toilets along with required demolition of old vault toilet buildings at Lieber State Recreation Area (with some site work such as adding concrete walks, adding ADA parking, clearing trees, and ensuring drainage away from new vault toilet).
2. 2 Base Bids + 4 Alternates
   a. Family Campground Location 1 – Base Bid
   b. Family Campground Location 2 – Base Bid
   c. North Shelter Location – Alternate
   d. North Shelter Site Improvements – Alternate
   e. Collins Point Location – Alternate
   f. Collins Point Site Improvements – Alternate
3. Building Power
   a. All 4 locations are to have solar power.

D. Documents: May be downloaded from https://www.in.gov/dnr/engineering/bidding/
1. Notice to Bidders
2. Project Specifications
3. Plans
4. Addenda

E. Project Schedule:
1. Bid Date: March 14, 2024 – Microsoft Teams Live Event
2. Construction Timeframe:
   a. Ideally begin work 09/03/24 (after Labor Day) – Coordinate with property.
   b. Complete work by 10/15/24

F. Q & A

G. Site Tour

Notes from the Pre-Bid:

Questions and Answers:

1. Question – Attendee asked if work could begin before September if the units were able to be manufactured and installed at an earlier date.
   Answer – This is something that would likely be acceptable if timeframe is coordinated and approved through property.

2. Question – Attendee asked about requirement on the plans for soil under walks and landings to be exposed to dry conditions for a minimum of 72 hours, noting that weather will affect this.
   Answer – This requirement could possibly be waived by IDNR pending an inspection and approval of the soil conditions/compaction.

3. Question – Attendee asked to confirm if ADA signage is required at all accessible parking locations?
   Answer – ADA compliant signage on a steel post (per SECTION 01 11 00) is required only at specific locations called out on plans.

4. Question – Property asked if the solar panel size has been increased compared to previous units?
   Answer – Yes, the panel size has been increased to about 40”x26”.

5. Question – During a tour of the site at the Family Campground locations, an attendee asked if a detectable warning surface with truncated domes would be required at the sidewalk transition to roadway.
   Answer – Yes, provide detectable warning surface tiles where sidewalk transitions to vehicular roadway. Reference SECTION 01 11 00 for additional information.

6. Question – During a tour of the site at the Family Campground location, an attendee asked about the required dimensions of the sidewalk.
   Answer – The sidewalk is to be 6’ wide and 4” thick, per SECTION 03 45 38.

Other Discussion Notes:

1. During a tour of the site at the North Shelter location it was determined that the property will remove the one questionable tree at the new parking location.

2. During a tour of the site at the North Shelter location, it was noted by the property that the demolition of the old vault toilet building is still pending approval by the Army Corp of Engineers.

3. During a tour of the site at the Family Campground locations, it was noted that the property doesn’t want dirt mounds left where the old vault toilets are being removed – asking that it be spread out or utilized at the new vault toilet locations.

PRE-BID MEETING

STATE PARKS - LWCF DOUBLE VAULT TOILETS

LIEBER STATE RECREATION AREA

DEPARTMENT OF NATURAL RESOURCES
STATE OF INDIANA

Public Works Project No. ENG2403757027

LIEBER STATE RECREATION AREA
1317 W LIEBER RD, CLOVERDALE, IN 46120

Date: **February 19, 2024 @ 10:00 am ET**
Meeting Location: Project Site
1317 W LIEBER RD, CLOVERDALE, IN 46120

NAME	COMPANY	E-MAIL	PHONE
1 Zach Brummett	Wallace Const.	Zbrummett24@gmail.com	(765) 318-0903
2 Larry Eakle	Commercial Contracting Service	Larry@CommercialContractingServices.net	
3 Monte Striegel	Striegel Design	montestriegel@yahoo.com	317-714-3880
4 Andrew Striegel	"	"	812-528-1095
5 Zach Bell	DNR	Zabell@dnr.IN.gov	812-322-1565
6 Jim Kojetin	Glenroy	jmc@glenroyconstruction.com	317-903-2442
7 Sam Devine	DNR	sdevine@dnr.in.gov	
8 Caryn Atkinson	DNR	catkinson2@dnr.in.gov	3172510818
9 Lynda Ellington	DNR	lellington@dnr.in.gov	765-274-0194
10 Hannah Gastineau	DNR	hgastineau@dnr.in.gov	(463) 724-0050
11			
12			

SECTION 01 11 00 – SUMMARY OF WORK

PART 1 – GENERAL

1.1 WORK UNDER THIS CONTRACT

A. The work consists of furnishing all labor, materials, and equipment necessary to complete the following work:

1. Procurement, on-site delivery, offloading, and installation of the specified precast double vault toilet and related site improvements, and removal of the existing vault toilet(s) and restoration of the existing site. Reference attached site plans and the following for additional information.

    a. Provide steel highway plates and ballast stone fill as needed in ditches, etc. to facilitate required turning radii. Remove stone and restore lawns and ditches to original condition.
    b. Provide dewatering within pits as needed to complete the work.

2. Exterior concrete slabs:

    a. Welded steel wire fabric 6x6 W1.4/W1.4, sheets only. Welded Wire Fabric: ASTM A1064.
    b. Concrete reinforcement ASTM A615 Grade 60.
    c. Turn down perimeter 24” minimum below finish grade.
    d. Provide control joints to meet ACI Standards.
    e. Landings at doors to slope 1:50 maximum and drain away from the building.
    f. The location of the stoops shall be ADA compliant (minimum 18” concrete on handle side).
    g. Walks: 6” Thick x 6’ Wide over suitable base
    h. ADA Parking and Access Aisles: 6”Thick x 17’ Wide x 22’ Long over suitable base.
    i. Reference site drawings for additional information.

3. Exterior concrete:

    a. Minimum 28-day compressive strength 4000 psi
    b. All concrete subject to freeze-thaw conditions shall be air entrained. Air content 6% (+- 1%), Air Entraining Admixture ASTM C260
    c. Portland Cement (Gray) ASTM C150 Type I or III
    d. Water clean and potable
    e. Coarse Aggregate: crushed stone, INDOT size #8, ASTM C33
    f. Fine Aggregate: sand, INDOT size #23, ASTM C33
    g. High range water reducing admixture ASTM C494, Type F or G
    h. Synthetic Fiber Reinforcing: ¾” virgin nylon fibers, by NYCON Inc. or approved equal

i. Concrete curing compound ASTM C309, Type-1, Class "B".
j. Provide broom finish with troweled edges.

4. Reference Section 03 45 38 - PRECAST DOUBLE VAULT TOILET for additional information.

5. Public and private utility locates, protections, and coordination.

   a. Reference attached site plan, if any, for approximate location of known, below grade infrastructure in the project area at Lieber State Recreation Area. Field verify all utilities as required.

6. Provide vault toilet building demolition and daily cleanup of work site. Contractor is responsible for pumping tanks and removal of all construction waste material. All debris, including below grade plastic tanks and above grade concrete and related building materials shall be hauled to certified landfill. Fill hole and ruts with topsoil and restore lawn of all project areas to provide a smooth grade around the building.

   a. After pumping, below grade concrete vaults may be broken up to allow for drainage and left in place. Breakup or drill holes in bottom of concrete vaults and knock down side walls to at least 18-inches (minimum) below finished grade.

7. Finish grading/tapering around building to provide positive drainage once structure is complete. Refer to plans for seeding instructions. Evenly spread saved topsoil and seed all disturbed areas.

8. ADA Signage. Provide ADA compliant signage on steel post.

9. Detectable Warning Surface Tiles. Provide detectable warning surface tiles where sidewalk transitions to vehicular roadway. Tiles are to comply with US Access Board standards per R305.1.1-R305.2.3. Tiles are to be surface applied fiberglass reinforced polymer composite in Clay Red, Colonial Red or similar.

10. Base Bids
   a. Family Campground Location 1
   b. Family Campground Location 2

11. Alternates
   a. North Shelter Location – Double Vault Toilet Installation
   b. North Shelter Location – Site Improvements
   c. Collins Point Location – Double Vault Toilet Installation
   d. Collins Point Location – Site Improvements

B. Location and Access to Sites:

1. Prebid / Site Review meetings are scheduled for February 19th. Reference the Notice to Bidders for additional information,

2. Property Manager Contacts:

    a. Lynda Ellington – Lieber State Recreation Area Property Manager; LEllington@dnr.IN.gov; 812-531-8533, 1317 W. Lieber Rd., Suite 1, Cloverdale, IN 46120

3. Reference Section 00 31 19 - EXISTING CONDITION INFORMATION for additional information.

1.2 COORDINATION OF PLANS, SPECIFICATIONS AND PAY ITEMS

A. These specifications and plans are essential parts of the contract. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, calculated dimensions will govern over scaled dimensions; and the following relationships apply:

B. Instruction to Bidders hold over plans and specifications, and plans hold over specifications.

1.3 RIGHTS OF ACCESS

A. The Contractor agrees that representatives of the Owner, Environmental Protection Agency, U.S. Army Corps of Engineers, and the State of Indiana will have access to the work wherever it is in preparation or progress and that the Contractor will provide facilities for such access and inspection.

1.4 DISCOVERY OF HAZARDOUS MATERIAL

A. The presence of hazardous materials is unknown in the work area. However, if during the course of this work, the existence of hazardous material is observed in the work area, the Contractor shall immediately notify the Owner in writing. The Contractor shall not perform any work pertinent to the hazardous material prior to receipt of special instructions from the Owner. Should any hazardous material control measures be required, the cost thereof shall be handled by an appropriate Change Order or a separate contract or subcontract with Owner.

1.5 OPERATIONS WITHIN PROJECT PROPERTY LIMITS

A. Under no circumstances shall construction activities take place outside the property lines of the project site.

1.6 ALTERNATE BIDS

A. Voluntary alternate bids will not be accepted.

1.7 SALES TAX

A. Sales tax shall not be charged on the bid price of this project.

1.8 CONSTRUCTION PROGRESS SCHEDULE

A. The Contractor shall submit to the Code Administrator, prior to start of construction, a detailed schedule showing the order in which he proposes to carry on the work and estimated dates of completion of the various parts. The schedule shall be implemented upon approval of the Project Manager.

B. The construction schedule shall be revised and updated monthly and submitted to the Code Administrator. It is the Contractor's responsibility to complete the work within the time allotted.

C. All work required by the Contract Documents shall be completed by October 15, 2024.

1) Work can begin after archaeology investigations are complete and whenever the Contractor is ready to begin, but the timing must be coordinated with the Property Manager at least 4 weeks in advance. Peak season runs from Memorial Day weekend through Labor Day weekend. Any work before Labor Day may involve long wait times for park access, even during the week, and the Park will be heavily occupied.

~~2) Archaeology investigations will begin as soon as the weather permits. An estimated timeline is being developed.~~

3) DNR will obtain approval from the Army Corps of Engineers for demo of the existing vault toilet. An estimated timeline for approval is being developed.

1.9 CODE REQUIREMENTS AND MANUFACTURER'S INSTRUCTIONS

A. All work shall meet or exceed all current codes and standards, all current rules and regulations and all applicable requirements of Federal, State and Local Authorities having jurisdiction, including the Americans with Disabilities Act of 1990 amended to date.

B. In the case of conflicts between state and local codes or regulations, State Codes or State regulations shall prevail. All required approvals for compliance with Fire and Building Services Division of Homeland Security, health regulations, historic preservation or archaeological clearances, floodway construction or state highway crossing may have been obtained by the owner unless stated otherwise in the contract documents.

The following permits have been applied for and shall be obtained prior to beginning work:

1. No permits have been applied for any projects under this scope.

The Contractor shall be responsible for the project under all permits, may speak directly to the applicable regulatory agency, and adhering to all requirements of approved permits. The Contractor shall be responsible for ensuring that all work meets the terms of required permits, and their GENERAL AND SPECIAL CONDITIONS. The Contractor shall be responsible for notifying the Code Administrator of any work that does not meet the requirements of the permits.

C. The Contractor shall be required to comply with all OSHA or IOSHA regulations as may be applicable to this project and obtain all permits that may be required for compliance.

D. If the Contractor observes that any of the contract documents are at variance with the printed application instructions of any Manufacturer in any respect, he/she shall promptly notify the Code Administrator in writing.
E. If the Contractor performs any work contrary to State Building and other Codes, Regulations, Ordinances, or Manufacturer's printed instructions without notice to the Code Administrator, the contractor shall bear the cost arising from such non-conformance.

1.10 NOTIFICATIONS

A. Upon notice of bid award, the Contractor shall notify the Code Administrator to establish communications for the above project(s). The notification may be by mail or email to the Code Administrator's following mail or e-mail address:

Code Administrator:	Zachary Bell
Phone:	812-322-1585
Email:	ZaBell@dnr.IN.gov

1.11 WORKING HOURS

A. The Contractor shall perform all related activities on Monday through Friday excluding State holidays, between the hours of 7:00 a.m. and 6:00 p.m. local time, unless alternate arrangements are made and approved by the Property Manager or his representative.

B. All work performed at other times shall only by the approval of the Property Manager or his representative, confirmed in writing, and shall not constitute a change in the contract amount.
C. The Contractor shall plan all material deliveries during normal working hours, shall be responsible for receiving and deliveries, and shall properly protect delivered materials while being stored on the property. The Property Manager or his representative will not sign for any deliveries.

1. Contractor is responsible for control of traffic by vehicles and persons within the limits of its operations.

2. Parking for employees, subcontractors, and agents of Contractor shall be in areas subject to approval of Owner.
3. Access to the site for delivery of construction material of equipment shall be subject to approval of Owner.

1.12 PRE-CONSTRUCTION / SERVICE MEETING

The Contractor and his/her Subcontractor (if any) shall attend a pre-construction/pre-service meeting with the Property Manager and/or his representative at the work site. The date for this meeting shall be scheduled by the Property Manager within 14 days after the contract is awarded unless Property Manager has approved alternate arrangements.

A. Tree Removal

1. The Contractor shall mark all trees designated for removal with survey tape. Once all trees designated for removal are marked, the Contractor shall schedule a separate pre-construction meeting with the Owner to approve all tree removals. Once tree removals are approved the Contractor may proceed with removal.

    a. Without completing special inspection requirements, trees may only be removed during the inactive bat season, which is October 1 through March 31. Tree trimming and removal shall be minimized as much as possible.

B. Responsibility for Damage or Destruction as a Result Flooding

1. The Contractor shall be responsible for any and all damage that may occur at the site within the construction limits as a result of floods, and shall replace or restore damaged structures or features of the work, whether of a permanent of temporary character, at no additional cost to the Owner. The Contractor shall have no basis of claims because of floods occurring during the construction period unprecedented in magnitude or frequency.

C. Emergency Access

1. The Contractor shall be responsible for maintaining safe driveway access and access within the parking lot and to the building at all times. During operations, the Contractor shall coordinate with the Owner to provide an alternate sidewalk access. The Contractor shall be responsible for maintaining vehicular access to the parking lot areas at all times.

1.13 SITE CONDITIONS

A. Preliminary to the bidding, bidders are strongly encouraged to visit the site of the proposed work and thoroughly familiarize him/herself as to the nature and location of the work, general conditions, and the kind of equipment needed during the execution of the work. Failure to visit the site before bidding does not relieve the Contractor of responsibilities for anything that he/she would be made aware had he/she visited.

1.14 PROTECTION OF FACILITIES AND PREMISES

A. **The Contractor SHALL** be responsible for the protection of all facilities during the entire period of service. Any damages to the existing facilities, roads, lawns, driveways, or other State owned property caused by the contractor SHALL be repaired by the Contractor at his/her expense and in a manner and schedule approved by the Property Manager.
B. **The contractor SHALL** confine his/her operations and the storage of materials and equipment within an area approved by the Property Manager or his representative.

C. **The Contractor SHALL**, at all times, keep the premises free from accumulation of waste materials or rubbish caused by his/her employees or work and prevent the spread of this debris during windy conditions. At the completion of the work, the Contractor SHALL leave the premises in a neat, clean, and orderly fashion.

D. **The Contractor SHALL power wash any mechanical equipment or vehicle to be used on the job site to remove all mud and debris prior to unloading on the site.** This is necessary to prevent contamination by invasive species seeds that may be attached to the equipment. The Contractor SHALL NOT unload the equipment on site without prior visual inspection by the Property Manager. No other vehicles/machines shall be permitted in the project area. All other equipment or project related vehicles must be parked in specified parking areas.

1.15 SITE ACCESS AND CONSTRUCTION AREAS

A. Provide and maintain vehicular access to the site and within the site for use by persons and equipment involved in the construction of the project. Maintain access roads and driveways with sufficient rock, stone, or gravel to provide a suitable support for vehicular traffic under anticipated loads.

B. Provide and maintain temporary parking facilities for use by construction personnel and the Owner. Maintain parking facilities free of construction materials, mud, snow, ice and debris.

C. Restore areas to original or to specified conditions shown on the drawings at completion of the work.

D. The Contractor shall confine the construction operations and storage of materials within the project construction work limits.

E Soil disturbance outside of the construction limits is prohibited.

F. Except for permanent site improvements provided under the Contract, Contractor shall restore property disturbed during the Work to the conditions which previously existed.

G. Parking and Deliveries:

1. Contractor is responsible for control of traffic by vehicles and persons within the limits of its operations.
2. Parking for employees, subcontractors, and agents of Contractor shall be in areas subject to approval of Owner.
3. Access to the site for delivery of construction material of equipment shall be subject to approval of Owner.

H. The Contractor shall be responsible for the protection of all facilities during the entire period of service. Any damages to the existing facilities, roads, lawns, driveways, or other State-owned property caused by the contractor shall be repaired by the Contractor at his/her expense and in a manner and schedule approved by the Owner.

I. The Contractor shall power wash any mechanical equipment or vehicle to be used on the job site to remove all mud and debris prior to unloading on the site. This is necessary to prevent contamination by invasive species seeds that may be attached to the equipment.

J. The Contractor shall, at his expense, be responsible to repair any and all damage to the State property's roads and drainage structures caused by his equipment and/or personnel from project site. Areas to be repaired shall be done by using similar material and be approved by the Owner.

1.16 UTILITIES

A. The Contractor shall be responsible for calling in utility locations prior to beginning construction. The Contractor shall notify the Engineer immediately if existing utilities are found to be in conflict with proposed improvements.

1.17 DUST AND NOISE CONTROL

A. Dust shall be minimized by use of water. Noise shall be minimized by use of properly constructed and maintained equipment provided with suitable mufflers, snubbers, and other sound attenuating devices and supports. Erosion shall be controlled in such a manner that soil particles from the construction site are prevented from entering public waters or from being deposited on neighboring property, streets, and highways.

1.18 SAFETY AND HEALTH PLAN

A. **The Contractor SHALL** be required to comply with all OSHA or IOSHA regulations as may be applicable to this project and obtain all permits that may be required for compliance.

B. **The Contractor SHALL** prepare a safety and health plan that identifies the safety requirements of the project, procedures to follow in case of an emergency, accident, injury, or illness and make this plan available to all employees, and sub-contractors complete with persons and/or phone numbers to call for all who are working at this site. This plan **SHALL** be given to the Code Administrator or his representative prior to the start of work and posted at the job site.

C. **The Contractor SHALL** understand that the Property, DNR Engineering, nor the State of Indiana DOES NOT bare any responsibility for the cost of injuries to Contractor or Sub-Contractor, or their employees injured during the course of the contract. The **Contractor SHALL** be responsible for the transport of injured employees needing medical or other attention.

1.19 SUBSTITUTIONS

A. Materials and methods specified herein are known to meet the requirements of the project. Anyone wanting to use substitute materials or methods shall submit a written request, accompanied by necessary supporting information at least 10 days prior to the bid. If the Designer determines that the proposed substitution is acceptable, an addendum to the specifications will be issued to all prospective bidders.

1.20 ARCHEOLOGICAL AND HISTORIC ARTIFACTS:

A. If any objects are uncovered during construction which could possibly be of archeological or historic importance, this shall immediately be reported to the Owner. Work at that spot shall not proceed further until the Owner has evaluated the object and the area where it was found and approved continuation of the work.

B. If any construction time is lost due to such objects being found, an equal number of calendar days will be added to the project completion time.

1.21 Salvage Rights:

A. Unless stated otherwise in the specifications or on the plans, all equipment and materials removed as part of this project and not indicated for re-use on the project and not listed above shall become the property of the Contractor and removed from the site.

1.22 CONFINED SPACE ENTRY:

A. Written permit is required prior to entry into areas meeting the OSHA definition of a "permit required confined space". Areas meeting this definition, and which are known or presumed to require access for this project, are as follows:

1. There are no known permits required for confined spaces on this project.

B. Non-listing of a confined space requiring access does not relieve the Contractor of responsibility for obtaining a permit if required by OSHA Regulations.

1.23 TEMPORARY TOILET FACILITIES:

A. Not required.

END OF SECTION

SECTION 03 45 38 - PRECAST DOUBLE VAULT TOILET

1.0 SCOPE

A. This specification covers the prefabrication, on-site delivery, offloading, installation and placement of a precast double vault toilet as manufactured by Huffcutt, or approved equal. The basis of design is the Indiana DNR Goldeneye Double Vault Pit Toilet, as manufactured by Huffcutt, and as follows:

B. Unit shall comply with all applicable Federal, State, and Local Codes, and authorities having jurisdiction, including the following:

1. 2010 ADA Standards for Accessible Design
2. Indiana General Administration Rules (GAR)
3. 2014 Indiana Building Code (IBC) with 2012 International Building Code
4. 2014 Indiana Building Code Chapter 11 Accessibility with A117.1 Accessible and Usable Buildings and Facilities, 2009 Edition
5. 2014 Indiana Fire Code (IFC)
6. 2012 Indiana Plumbing Code (IPC)
7. 2009 Indiana Electrical Code (IEC)
8. 2014 Indiana Mechanical Code (IMC)
9. 2010 Indiana Energy Conservation Code (IECC) with ASHRAE 90.1 2007
10. Special Administrative Rules for Industrialized Building Systems and Mobile Structure Systems

2.0 SPECIFICATIONS

ASTM C33	Concrete Aggregates
ASTM C39	Method of Test for Compressive Strength of Cylindrical Concrete Specimens
ASTM C94	Standard Specifications for Ready-Mixed Concrete
ASTM C143	Method of Test for Slump of Concrete
ASTM C150	Standard Specification for Portland Cement
ASTM C231	Standard Test Method for Air Content of Freshly Mixed Concrete by Pressure Method
ASTM C192	Method of Making a Curing Test Specimens in the Laboratory
ASTM C309	Standard Specifications for Liquid Membrane-Forming Compounds for Curing Concrete
ASTM C494	Standard Specifications for Chemical Admixtures for Concrete
ASTM A615	Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
ASTM C979	Standard Specification for Pigments for Integrally Colored Concrete
ACI 211.1	Recommended Practice for Selecting Proportions for Normal and Heavyweight Concrete
ACI 306	Cold Weather Concreting
ACI 318	Building Code Requirements Structural Concrete and Commentary (Includes Errata)
PCI MNL 116	Quality Control for Plants and Production of Precast Prestressed Concrete Products

3.0 MANUFACTURER CRITERIA

The manufacturer supplying the requested precast concrete vault facility must meet the following:

A. Manufacturer must provide stamped, engineered drawings for Owner review and approval prior to acceptance.

B. Manufacturer shall provide a 20-year warranty on all concrete building components.

C. Manufacturer must show four examples of designed precast concrete vault toilet facilities produced, installed, and in use as an example of their ability to perform on this contract.

4.0 DESIGN CRITERIA

The design criteria are to ensure that the vault toilet shall be professionally designed for the items below and provide protection from vandalism and other unforeseen hazards. Design criteria include 2014 IBC Code and 2000 NEC Code.

A. Snow Load

B. Wind Load

C. Earthquake

D. Floor Load

E. Additional Design Standards and Permit Requirements

1. The vault toilet is designed to meet the requirements of the American with Disabilities Act Requirements and the Uniform Federal Accessibility Standards as of the date of these specifications.
2. The vault is an all-concrete design with a minimum 3/12 roof pitch.
3. The vault shall have a minimum 4-inch wall, 4 ½ inch roof and 5-inch floor thickness.
4. All wall to floor interior surface seems shall have a minimum 1-inch radius covering made of high strength grout.
5. Permits required are as follows and shall be applied, paid for, and secured by the Indiana Registered manufacture vendor/Contractor:

    a. Indiana Department of Homeland Security/Fire and Building Safety Division-Construction Design Release (CDR) for Industrialized Building Systems/Mobile Structures Permit.
    b. Indiana Department of Homeland Security/Division of Fire and Building Safety State Form 37318 (Rev 15/1-12) Application for Construction Design Release Permit.

5.0 MATERIALS

A. Concrete – General

The concrete mix design shall be designed to ACI 211.1 to produce concrete of good workability.

1. Concrete will contain a minimum of 675 pounds of cementitious material per cubic yard. Cement shall be a low alkali type I/II or III conforming to ASTM C-150.
2. Coarse aggregates used in the concrete mix design will conform to ASTM C33 with the designated size of coarse aggregate #67.
3. Minimum water/cement ratio shall not exceed .45.
4. Air-entraining admixtures will conform to ASTM C260. Water reducing admixtures will conform to ASTM C494, Type A.
5. If Self Compacting Concrete (SCC) is used, it must conform to ASTM C1611.

B. Colored Concrete

1. Color additives will conform to ASTM C979, A 12”x12”x1” color sample shall be available for IDNR approval.
2. The following will contain colored concrete:
   a. Toilet building roof panels.
   b. Building walls
   c. Screen panels
3. The same brand and type of color additive shall be used throughout the manufacturing process.
4. All ingredients shall be weighed, and the mixing operation shall be adequate to ensure uniform dispersion of the color.

C. Cold Weather Concrete

1. Cold weather concrete placement shall be in accordance with ACI 306.
2. Concrete shall not be placed if ambient temperature is expected to be below 35 degrees F, during the curing period unless heat is readily available to maintain the surface temperature of the concrete at least 45 degrees F.
3. Materials containing frost or lumps of frozen materials may not be used.

D. Hot Weather Concrete

1. The temperature of the concrete shall not exceed 95 degrees F. at the time of placement. When the ambient reaches 90 degrees F. the concrete shall be protected with moist covering.

E. Concrete Reinforcement

1. All reinforcing steel will conform to ASTM A615. All welded wire fabric will conform to ASTM A185.
2. All Reinforcement shall be new, free of dirt, oil, paint, grease, loose mill scale and loose or thick rust when placed.
3. Details not shown on drawings or specified shall be to ACI318.
4. Steel reinforcement shall be centered in the cross-sectional area of the walls and will have at least 1 1/4” of cover on the under surface of the floor and roof.
5. The maximum allowable variation for center-center spacing of reinforcing steel shall be ½.”
6. Full lengths of reinforcing steel shall be used when possible. When splices are necessary on long runs; splices shall be alternated from opposite sides of the

components for adjacent steel bars. Lap bars #4 or smaller a minimum of 12". Lap bars larger than #4 a minimum of 24 bar diameters.

7. Reinforcing bars shall be bent cold. No bars partially embedded in concrete shall be field bent unless approved by IDNR.

F. Sealers and Curing Compounds

1. Curing compounds, if used, shall be colorless, complying with ASTM C309, type 1 or 1-D.
2. Weatherproofing sealer for exterior of building shall be a clear water repellent penetrating sealer.

G. Caulking, Grout, Adhesive and Sealer

1. Caulking service temperatures from –40 to +194 degrees Fahrenheit.
2. Interior points shall be caulked with a paintable polyurethane sealant. Exterior shall be caulked with a non-paintable UV resistant silicone sealant – ADFAST ADSEAL 458-359 or approved equal, color sample shall be available for IDNR approval.
3. Grout shall be a non-shrink type and shall be painted to match the color of surrounding concrete as nearly as possible.
4. Cement base coating to be formulated with a very fine aggregate system built into bonding agent.
5. Join concrete vault and concrete building using manufacturer's standard butyl adhesive.

H. Paint

1. All paints and materials will conform to all Federal specifications or be similar "top –of-the-line-components." Paints shall not contain more that .06 percent by weight of lead.

I. Grab bars

1. Grab bars shall be 18-gauge, type 304 stainless steel with 1-1/2" clearance. Grab bars will each be able to withstand 300-pound top loading.

J. Toilet Paper Dispenser

1. Dispenser shall be constructed of ¼" thick, type 304 stainless steel. Dispenser shall be capable of holding three (3) standard rolls of toilet paper. Toilet paper holder fastening system shall be able to withstand 300-pound top loading.
   a. Provide hasp and padlock.

K. Steel Doors

1. Doors shall be flush panel type 1-3/4" thick, minimum 16-gauge galvanized steel, top painted with DTM (DIRECT TO METAL) ALKYD.
2. Door frames shall be knockdown or welded type, single rabbet, minimum 16-gauge prime coated steel top painted with DTM (DIRECT TO METAL) ALKYD, width to suit wall thickness. Three (3) rubber door silencers shall be provided on latch side of frame.

L. Door Hinges

1. Door hinges shall be 3 per door with dull chrome plating 4-1/2”x4-1/2”, adjustable tension, automatic-closing and hold open for each door (Cal-Royal or approved equal).

M. Lockset

1. Lockset shall meet ANSI A156.2 Series 4000, Grade 1 cylindrical SFIC lockset as manufactured by Stanley Security Solutions, 93K Series or approved equal for exterior door.
2. Lever handle both inside and out and shall meet ADA requirements.
3. Either handle operates latch unless outside handle is locked by inside push-button.
4. Push-button will automatically release when inside lever handle is turned, or door is closed.
5. Emergency access from the outside with key.
6. Inside lever always active.
7. US26D finish.

N. Door Stop

1. Doorstop shall be a dome style stop meeting ANSI 156.16 and manufactured by Ives or approved equal.

O. Double Coat Hook

1. Coat hook shall be 304 stainless steel 16 gauge (1.5mm), formed construction with a satin finish and have 3/16”x7/8” nail in anchor. Upper hook will extend at least 2-1/2” inches from the wall at a height of 48”. Lower hook will extend at least 1-1/4” from the wall at a height of 15” minimum from the floor.

P. Door Sweep

1. Door sweep shall be provided at the bottom of door and shall be an adjustable brush type.

Q. Wall Vent

1. Vent cover shall be 18-gauge 304 stainless steel painted with DTM (DIRECT TO METAL) and anchored into the concrete wall with high strength anti-rust tap con fasteners. The vent louvre frame and louvres shall be non-vision .1” extruded aluminum jet coat finish. Vent to come with insect screen. Cover to be recessed a minimum ¾” on exterior walls with a 45-degree bevel. Interior to be flush mounted. Wall vent shall not protrude from the wall.

R. Windows and Vault Cleanout Cover

1. Screen Windows: Provide two 30”x12” vinyl windows per toilet.
   a. Screens mesh size is to be U.S. Mesh Size 16 for all screens.
2. Cleanout Covers: Provide one steel cover per toilet.
3. Windows to have ¾” recess with 45-degree bevel.
4. Windows and frames to have vandal resistant fasteners.

5. Plate for vault cleanout cover shall be ¼" thick diamond plate steel. Lid shall be hinged and configured so that it can be locked with a padlock. A gasket shall be provided across the entire width and length of the lid to provide an airtight seal.
   a. Vault Access Hatch Locking: Manufacturer's standard square key.
   b. Provide 2' x 2' Orange Polyester Hatch Safety Net, as manufactured by US Netting or approved equal. Netting shall fill entire opening and have a strap width of 1" with a maximum mesh size of 6". The net material shall consist of UV resistant polyester webbing with a minimum tensile strength of 3,800 lbs. System shall be rated for 500-pound load. Install with 304 stainless steel mounting brackets with manufacturer's approved fasteners and accessories. Provide a 2-year warranty that covers defects.

S. Riser

1. Riser will meet ADA and be a molded unit with heavy duty seat and lid, as manufactured by Romtec, Roseburg, OR approved equal. Riser shall be between 17" and 19" high and shall be a smooth surface and have high impact resistance at extremely cold temperatures. The color shall be white with safety bars consisting of on ¾" stainless steel bar centered in the riser.

T. Vent Stack

1. Vent stack to be a minimum 12 inches in diameter and a minimum 3 feet higher than the roof peak. Pipe shall be polyethylene plastic pip, 12" DR21, PE 3608 high density, black color, UV stabilized HDPE pipe manufactured by WL Plastics, 307-682-5554.

U. Signs

1. The vault toilet shall have a sign-UNISEX- provided for each unit.
2. Appropriate signage shall be installed to meet ADA-ABAAG standards. The required signs shall be mounted on the exterior wall of the vault toilet adjacent to the latch side of the door. Signs shall be attached and trimmed using a color matched Polyurethane sealant.
3. Signs shall be 6" x 9" made of Lexan polycarbonate plastic with standard white recreation symbols or text on a brown background.
4. Message "RESTROOM" shall be in raised grade 2 braille across the bottom of the sign.
5. An interior sign reading "PLEASE DO NOT PUT TRASH IN TOILETS. IT IS EXTREMELY DIFFICULT TO REMOVE-Thank you" shall be installed above each toilet riser.

V. Solar

1. Provide fully functional lighting system and as follows:
   a. Exterior Lighting: One, surface mounted fixture (E-WMP Series or approved equal).
   b. Interior Lighting: One, surface mounted interior fixture (WPTS70 RAB Lighting or approved equal) within each toilet room.

c. 100W roof mounted solar panel (ACOPower or approved equal).
d. 12X12X6 Panel Enclosure (Hubbell-Wiegmann catalog # BN4121206CH or approved equal).
e. Sunlight-10 Lighting Controller (Morningstar Corporation or approved equal).
f. Battery (Duracell Ultra # DURA12-35C or approved equal).

2. Provide Solar for the following project locations. Reference site plans for specific projects under this bid package.

SCHEDULE:

LIEBER
Family Campground Location 1 - Solar
Family Campground Location 2 - Solar
North Shelter Location - Solar

6.0 MANUFACTURE

A. Mixing and Delivery of Concrete

Mixing and delivery of concrete shall be in accordance with ASTM C94, section 10.6 through 10.9 with the following additions:
a. Aggregate and water shall be adjusted to compensate for differences in the saturated surface-dry condition.
b. Concrete shall be discharged as soon as possible after mixing is complete. This time shall not exceed 30 minutes.

B. Placing and Consolidating Concrete

Concrete shall be consolidated by the use of mechanical vibrators. Vibration shall be sufficient to accomplish compaction but not to the point that segregation occurs.

C. Finishing Concrete

1. Interior floor and exterior slabs shall be floated and troweled. A light broom finish shall be applied to the exterior slabs.
2. All exterior building walls and exterior screen walls shall be cast to simulate horizontal lap and board and batten texture.
3. All exterior surfaces of the roof panels shall be cast to simulate a shaker roof texture.

D. Cracks and Patching

1. Cracks in concrete components which are judged to affect the structural integrity of the building shall be rejected.
2. Small holes, depressions and air voids shall be patched with a suitable material. The patch will match the finish and texture of the surrounding surface.
3. Patching shall not be allowed on defective areas if the structural integrity of the building is affected.

E. Curing and Hardening Concrete

1. Concrete surfaces shall not be allowed to dry out from exposure to hot, dry weather during initial curing period.

7.0 FINISHING AND FABRICATION

A. Structural Joints

1. Wall components shall be joined together with two welded plate pairs at each joint. Each weld plate shall be 6” long and located one pair on the top quarter and one pair in the bottom quarter of the seam. Weld plates shall be anchored into the concrete panel and welded together with a continuous weld. The inside seams shall be a paintable caulk. The outside seams will use a caulk in a coordinating building color.
2. Walls and roof shall be joined with weld plates, 3”x6”, at each building corner.
3. The joint between the floor slab and walls shall be joined with a grout mixture on the inside, a matched colored caulk on the outside and two weld plates 6” long per wall.
4. Or approved equal.

B. Painting/Staining

1. An appropriate curing time shall be allowed before paint is applied to concrete.
2. Some applications may require acid etching. A 30% solution of hydrochloric acid shall be used, flushed with water, and allowed to thoroughly air dry.
3. Painting shall not be done outside in cold, frosty, or damp weather.
4. Painting shall not be done outside in winter unless the temperature is 50 degrees F. or higher.
5. Painting shall not be done in dusty areas.
6. Schedule of finishes and colors
   a. Inside concrete surfaces
      I Interior floors shall be a high solid single-component chemical and urine resistant aliphatic moisture cure urethane, which meets ADA requirements for slip resistance.
      II Interior walls and ceilings shall be 2 coats of a modified acrylic, water repellent penetrating stain, followed by 1 coat of clear sealer.
   b. Metal surfaces both inside and out
      I 2 coats of DTM (DIRECT TO METAL) ALKYD
   c. Exterior concrete surfaces
      I Exterior slab shall be 1 coat of clear sealer
      II Exterior walls shall be 2 coats of water repellent penetrating stain in same color as the walls or roof followed by 1 coat of clear acrylic anti-graffiti sealer.
   d. The roof color shall be a granite rock color with a cedar shake roof texture. The exterior walls shall be a rosewood color with horizontal lap siding on the bottom portion and the board and bat on the top portion.

8.0 TESTING

A. The following tests shall be performed on concrete used in the manufacture of toilets. Testing will only be performed by qualified individuals who have been certified ACI Technician Grade 1. Sampling shall be in accordance with ASTM C172.

1. The slump of the concrete shall be performed on the first batch of concrete in accordance with ASTM C143. This slump shall be in the 3”-4” range. Slump may be increased using chemical admixtures provided that the concrete maintains same or lower water to cement ratio and does not exhibit segregation. Slump will never exceed 9”.
2. The air content of the concrete shall be checked per ASTM C231 on the first batch of concrete. The air content shall be in the range of 5.5% +/_ 1%.
3. The compressive strength of the cylinders shall be tested to ASTM C39. We will make one (1) cylinder for release, one (1) for 7 days and one (1) for 28 days. The release must be a minimum, strength of 2500 psi, the 7-day must be minimum of 4500 psi and the 28-day must be a minimum of 5000 psi.
4. A copy of all test reports shall be available to the customer as soon as 28-day test results are available.

9.0 INSTALLATION

A. Scope of Work

Work specified under this Section includes excavation, backfill and placement of precast concrete vault toilet by the contractor.

B. Materials

1. Bedding material to be sand or 3/8” minus crushed or screened aggregate.

C. Location and Access to Site:

1. DNR will stake the approximate location (center of building) in accordance with the attached location site plan. Slight adjustments to the building location shall be made with the approval of the Property Manager and DNR Code Administrator to accommodate ADA access.
2. Bidders shall verify that access to the site is sufficient for truck delivery and operation of the crane to install the work in performance of the contract requirements.

D. Excavation and Elevation by the Contractor

1. Comply with all applicable OSHA Standards for excavation.
2. Excavate for the installation of the toilet vault to a depth that will allow the structure site to be free draining after installation is completed. The double vault toilet requires an excavated hole that is to the size required by the vault toilet manufacturer. The hole shall be excavated to a depth as required by the vault toilet manufacturer below finish grade. The depth shall include a 2” leveling course beneath the vault toilet. Stockpile topsoil in a separate pile at sites.
3. Finish floor elevation shall be 4 inches above natural grade measured within a 25-foot radius of the center of the building. The intention is that the finish floor elevation is

slightly higher to the surrounding grade for positive drainage away from the building. The finished floor elevation and final grading shall allow for ADA access.

E. Backfill and Compaction

1. Compact the natural ground at the bottom of the vault excavation with a minimum of three passes with a whacker-type mechanical compactor or equivalent approved by DNR Engineering field representative.
2. Install sand or aggregate bedding material for leveling course if needed. Compact leveling course with one pass with a whacker-type mechanical tamper. Grade leveling course so there shall be no high spots in the middle of the vault bottom. Compact with a second pass with a whacker.
3. Set vault in place and check for level or appropriate scope. Backfill around structure. Use excavated material for backfill except those rocks larger than six inches in maximum dimension shall not be placed within six inches of the exterior vault walls.
4. Fill, adjacent to the building entry, shall have excavated material placed in eight-inch loose lifts and compacted with a minimum of two passes with a whacker-type mechanical tamper.

F. Finish Grading and Concrete platform and accessible sidewalks

1. Spread excess excavated material from the vault around the structure. Intended final grade is flush with the top of the slab. Allow for placement of topsoil to reach the grade. Grade backfill away from the structure at maximum slope of five percent. Spread stockpiled topsoil as a final layer after rough grading is completed. Final mulched seeding is to be furnished and completed by the contractor.
2. Contractor is to furnish and install a 6’ x 12’ (to match the width of the building) concrete platform that is anchored to the vault with 8” steel pins 2’ on center. Install a 6’ wide sidewalk that meets all ADA requirements connecting the platform and asphalt or sidewalk (location as designated by the property). The concrete platform and accessible sidewalk shall be 4” thick and 4,000 psi strength with 6x6 10/10 WWF reinforcement with a 4” compacted aggregate subbase. Provide 18-inch turn down along edge of platform and joints between sidewalks and asphalt.

G. Work shall be performed in accordance with drawings and specifications prepared by IDNR Division of Engineering 402 W. Washington Street Rm W299 Indianapolis, IN 46204. Do not scale drawings.

H. Vault Toilet Riser and Accessories

1. Polyurethane caulk shall be applied between toilet riser flange and concrete floor before the toilet riser is installed.

I. Exhaust Pipe Installation

1. After exhaust pipe is installed, seal around pipe at top and underside of roof with polyurethane caulk. Seal around pipe at top of slab shall be accomplished by using polyurethane caulk.

J. Electrical Service

1. For project sites with electrical service, provide 120V light fixtures and conductors in grey PVC conduit to building mounted service disconnect. Tie into nearest electrical service with spare capacity. Complete all wiring connections and work to comply with the current electrical code for fully functional system.

2. Connect to site electrical service for the following project locations. Reference site plans for specific projects under this bid package.

   SCHEDULE:

   None

END OF SECTION