



PROJECT MANUAL

Resurface Windmill Road Cedar Point Wildlife Management Area

7015 Windmill Road
Welcome, MD 20693

Project Number: EC25-09403-68

July 29, 2025

For the State of Maryland
Department of Natural Resources
Engineering and Construction Division
Josh Kurtz, Department Secretary

State of Maryland
Board of Public Works
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I. DETAILED SPECIFICATIONS

A. SCOPE:

1. This project consists of the contractor providing all labor, equipment, materials, supplies, insurance, etc. necessary to resurface a gravel road and associated parking lots at Cedar Point WMA, 7015 Windmill Road, Welcome, MD 20693, Charles County.
2. The Works shall include but is not limited to the following:

I. Culvert Install on Windmill Road near the bend

- a. Install new concrete culvert, approximately 12" diameter x 14', under the gravel road. The Installation shall include excavation of the trench, compaction of base, installation of filter fabric, installation of bedding gravel, installation of pipe, installation and compaction of new CR-6 cover gravel, and disposal of unsuitable material. See drawing for details. There shall be a minimum of 1' of gravel covered over new pipe after surface grading and compaction.
- b. Excavate for inlet and outlet swales. Swales must properly meet inlet and outlet of new pipe as per the drawings. Install gabion stones around the inlet and outlet swale aligning with and matching the grade using **Unit Price #4.**

II. Resurfacing Windmill Road and Adjacent Parking Lots

- a. Re-establish ditches and swales within 4 feet of road edge using **Unit Price #1.** Debris to be disposed of offsite.
- b. Potholes and washboard areas are to be excavated to a depth of 1 inch below the lowest point and shall be squared off at the furthest dimension. Supply, place, and compact gravel with fines to fill in potholes to adjacent grades.
- c. Scarify and regrade the existing road, approximately 2815 SY, and parking lots to remove 2 inches of gravel using road grader and blade. Pick-up, haul, and deposit all removed gravel materials, approximately 230 tons, to a designated location in the vicinity of the WMA identified by the facility manager using **Unit Price #3.**
- d. Grade entire road and parking lot surfaces with a motor grader to shape the road prior to placing new gravel. Contractor shall have a motor grader performing all grading operations. Pull behind box scrapers are not permitted as a grading tool.

- e. For parking lots, install new filter fabric over the entire areas, approximately 2,200 SF. Fabric should be pinned every 3' square throughout area and perimeter.
- f. For parking lots, install timber borders with rebar around perimeters, approximately 200 LF. Timber should rest on top of new filter fabric and must be installed before new CR-6 is added. Timbers shall be half-lapped 6" and pinned together at each end. See drawing for detail.
- g. Install new bluestone CR6 – 4" depth over the road, approximately 664 tons, and 6" depth over parking lots, approximately 256 tons, using **Unit Price #2**. Establish a grade slope of ½ inch per foot from crown to the sides. Grade and compact using a mechanical vibrating roller, 5-ton minimum. Cross slope of road shall be within 4-6%. Taper shoulders of the road out so prevent a lip higher than 2". Parking lots shall be sloped away from perimeter timber to ensure no ponding/pooling occurs. No gravel shall be spread or extend past the parking lot timbers or road surface area.
- h. Compact road and parking lots using a mechanical vibrating roller, 5-ton minimum.

III. Culvert Install along Windmill Road near farm entrance

- a. Excavate to and remove an existing culvert that runs parallel to Windmill Road and stretched under and existing gravel road. Dispose of debris off site.
- b. Install new concrete culvert, approximately 24" diameter x 14'. The Installation shall include excavation of the trench, compaction of base, installation of filter fabric, installation of bedding gravel, installation of pipe, installation and compaction of new CR-6 cover gravel, and disposal of unsuitable material. See drawing for details.
- c. Excavate for inlet and outlet swales. Swales must properly meet inlet and outlet of new pipe as per the drawings. Install gabion stones around the inlet and outlet swale aligning with and matching the grade using **Unit Price #4**.

IV. Parking Lot Fencing

- a. Install new split-rail fence posts and railing around parking lot perimeters, approximately 200 LF. Fencing shall be installed on the outside of new timber perimeter to enclose three sides of each parking lot. See drawing for details.

V. Remove and properly dispose of excess materials and debris off state property.

NOTE: The accuracy of all applicable dimensions and quantities associated with the work is the responsibility of the Contractor. All information is to be confirmed to the Contractor's satisfaction prior to bidding. The State will not be held responsible for the Contractor's failure to do so.

B. PRE-BID CONFERENCE:

1. Each Bidder is encouraged to attend the scheduled pre-bid conference/ site visit, although it is not mandatory. See COMAR 21.11.03.09C (2) (e) for additional information.

C. QUALIFICATIONS OF THE CONTRACTOR:

1. The Contractor shall be licensed in the State of Maryland as a General Contractor to perform work associated with this project.
2. The Contractor shall have a minimum of three (3) years of experience performing similar construction projects.
3. The Contractor shall be registered by Charles County to perform work associated with this project.
4. Upon request, the Contractor shall supply to the DNR Procurement Officer a list of other similar projects which have been completed by the Contractor.

D. SITE INSPECTION:

1. It is suggested that the Contractor visit the job site and familiarize himself/herself with the conditions under which the work will be performed. No allowance will be made for errors on the Contractor's part for failure to take into Considerations or account any conditions or circumstances existing at the site which might affect the specified work.
2. Please contact the Facility Manager for the Cedar Point WMA Candice Collision at **410-804-0981** prior to any site visit other than the Pre-Bid conference.

E. SCHEDULE OF WORK:

1. All work shall be coordinated with the Park Manager and DNR Project Engineer at the work initiation meeting.
2. Work shall be accomplished during normal park hours of 8:00 a.m. to 4:30 p.m., Monday through Friday, unless permission is given in writing to do otherwise.

3. Work shall be performed and completed within **60** calendar days of Notice to Proceed.

F. STANDARDS AND CODES:

1. All work shall be performed in a top-quality workmanship manner in accordance with the standards of the trade.
2. The Contractor shall comply with OSHA (Occupational Safety and Health Administration) and MOSHA (Maryland Occupational Safety and Health Administration) regulations regarding construction safety and health standards throughout the duration of the Project.
3. All work shall be performed in accordance with the applicable code requirements and standards as defined by the Maryland Code Administration "Maryland Building Performance Standards" (MBPS) and the latest editions of:
 - International Building Code (IBC)
 - International Residential Code (IRC)
 - International Plumbing Code (IPC)
 - International Mechanical Code (IMC)
 - National Electric Code (NEC)
 - International Energy Conservation Code (IECC)
 - Maryland Accessibility Code (MAC)
 - National Fire Protection Association Code (NFPA)
 - Maryland Department of Transportation-State Highway Administration's (SHA) "Standards Specifications for Construction and Materials"

G. MATERIALS AND SUPPLIES:

1. General:
 - a. All materials shall be as specified or approved equal by the DNR Project Engineer. In the event the Contractor chooses to substitute materials other than those specified, the Contractor shall submit to the DNR Project Engineer all pertinent data to determine the or-equal status. This material shall be submitted to the DNR Project Engineer a minimum of ten (10) days prior to the bid opening. The DNR Project Manager shall notify the Contractor within five (5) days as to the or-equal status.
 - b. Once the project has been awarded and prior to any purchasing and installation of any material, the contractor shall provide information regarding the materials submittals, in accordance with DNR requirements.

- c. All materials shall be new and where applicable shall be delivered to the job site with labels intact and legible.
 - d. The Contractor shall be responsible for the coordination, off-loading and proper storage of all materials and supplies up until the time of the final inspection
 - e. Materials shall be stored in a safe area, out of the way of traffic. Storage site location shall be approved by the Facility Manager prior to the storage of any materials on site. All materials and supplies shall be stored up off the ground surface and protected from weather with a waterproof covering. Any special storage instruction required by the material manufacturer shall be performed by the Contractor as if specified herein.
 - f. Any materials that have not been specifically mentioned, but are necessary for the complete, safe and satisfactory completion of the project shall be provided by the Contractor as if specified herein.
2. Specifics:
- a. Road and Parking Lot Gravel Material: Shall be Crusher Run CR6 Blue Grey Gravel with fines material.
 - b. Filter Fabric: Shall be heavy duty non-degradable, 600 lb. tensile strength, woven fabric with manufacturer recommended pins/staples.
 - c. Culvert pipes: Shall be 12" dia. And 24" dia., precast concrete pipes ASTM C76, AASHTO M170 standards and the specs as per the drawing. Fittings and couplers if any shall be as per manufacturer instructions.
 - d. Culvert Bedding Gravel: Shall be #57 gravel without fines.
 - e. Gabion Stones: Shall be 4" – 12" SHA approved.
 - f. Timber: Shall be extreme weather pressure treated Southern Yellow Pine Ground Contact Timber ties of size 6 inches x 6 inches, jointed by 6 inches half lap and pinned.
 - g. Rebar: Shall be 3/8" standard construction rebar cut into 18" sections. Installed every 3 feet, minimum twice per timber.
 - h. Fencing: Fence Post and Single Rail, Extreme weather pressure treated ground contact southern yellow pine timber posts of size 6 inches x 6 inches and single rail boards extreme weather pressure treated southern yellow pine of size 2 inches x 8 inches. Posts shall be installed every 10'. Posts

shall reach a minimum height of 3' and extend into the ground to a minimum depth of 3'. Fix the post to the rail with stainless steel Hex bolts fasteners and washers of size ½" x 6".

H. METHOD OF WORK:

1. General:

- g. All work shall be as called for in these written specifications.
- h. The Contractor shall coordinate all work with various trades and material suppliers to complete the project expeditiously within the time limits of the contract. The sequence of events shall be left up to the Contractor.
- i. All work shall be performed in the best and most professional manner possible by mechanics skilled in their respective trades.
- j. All work shall be performed to minimize disruption to facility operations. It is understood that the Contractor shall maintain accessibility for vehicular and pedestrian traffic throughout the project.
- k. The Contractor shall provide and install adequate barricades, signs, etc. necessary to ensure public safety as approved by the Facility Manager.
- l. At the end of each day, open ditches shall be properly backfilled and compacted in accordance to the applicable sections of these specifications.
- m. The Contractor shall adhere to OSHA-MOSHA regulations throughout the project to ensure the safety of his/her employees, state employees, and the public.
- n. The Contractor shall maintain the work site in a safe, neat, and orderly manner throughout the entire project. The Contractor shall take steps to prevent accumulation of debris at the job site.

2. Specifics:

I. Culvert Install on Windmill Road near the bend

- a. Excavate for the installation of new concrete culvert under the gravel road. The trench shall be a minimum width of 3' and a minimum length to fit a new 14' pipe. Trench shall connect to inlet swale and extend to location of outflow. Depth shall be approximately 32" from existing road surface. New pipe will require a minimum of 1' of gravel coverage after compaction.

1. The base of the trench shall be smooth and compacted with hand tamper or motorized tamper prior to backfilling to provide a stable foundation. A minimum compaction level of 95% is required.
 2. Line base and walls of trench with non-degradable geotextile fabric. Ensure that fabric is overlapped by a minimum of 6" at each seam.
- b. Backfill with new 4" thick #57 gravel for pipe bedding. Compact with hand tamper or motorized hand tamper to achieve a minimum compaction level of 95%. Ensure that trench slopes towards outflow.
 - c. Lower the culvert pipe in the trench and place it on the prepared compacted uniformly sloping #57 bed along the marked position aligning with the ditch/ swales run off channels, matching proper grade levels for smooth runoff of stormwater.
 - d. Backfill around the culvert pipe sides and gaps to halfway upside culvert pipe with #57 gravel in compacted 6" layers. See drawings for details.
 - e. Backfill to match existing adjacent road grades using CR-6. Each 4" layer shall be compacted with a mechanical hand tamper or motorized hand tamper to achieve a minimum of 95% compaction. There shall be a minimum of 1' of gravel covered over new pipe after surface grading and compaction.
 - f. Re-establish and clear out ditches/swales approximately 4' wide and 20' length on sides of the gravel road near the inlet side of the culvert runoff channel. Install non-degradable geotextile fabric over the clear out area of 80 SF on the inlet side of the culvert.
 - g. Clear out an area of 4' x 4' on the outflow side of the culvert pipe and install the non-degradable geotextile fabric over the 4' x4' area on the outflow side of the culvert.
 - h. Install Gabion stones over the geotextile fabric installed area, to avoid erosion of soil on the inlet and outflow side using **Unit Price #4**.

II. Resurfacing Windmill Road and Adjacent Parking Lots

- a. Re-establish ditches and swales within 4 feet of road edge using **Unit Price #1**. Existing swales have filled with leaf debris and loose soil since their initial creation. Swales shall be cleaned and reshaped to meet their initial design intent. Debris to be disposed of offsite.
- b. Potholes and washboard areas are to be excavated to a depth of 1 inch below the lowest point and shall be squared off at the furthest

dimension. Supply, place, and compact gravel with fines to fill in potholes to adjacent grades.

- c. Scarify and regrade the existing road, approximately 2815 SY, and parking lots to remove 2" of gravel using road grader and blade. Pick-up, haul, and deposit all removed gravel materials, approximately 230 tons, to a designated location in the vicinity of the WMA identified by the facility manager using **Unit Price #3**.
- d. Grade entire road and parking lot surfaces with a motor grader to shape the road prior to placing new gravel. Contractor shall have a motor grader performing all grading operations. Pull behind box scrapers are not permitted as a grading tool.
- e. For parking lots, install new filter fabric over the entire areas, approximately 2,200 SF. Fabric should be pinned every 3' square throughout area and perimeter. Fabric shall overlap adjacent fabric by a minimum of 6".
- f. For parking lots, install timber borders with rebar around perimeters, approximately 200 LF. Timber should rest on top of new filter fabric and must be installed before new CR-6 is added. Timbers shall be half-lapped 6" and pinned together at each end. Each timber is to be pinned every 3' with a minimum of 2 pins per timber. See drawing for detail.
- g. Install new bluestone CR6 – 4" depth over the road, approximately 664 tons, and 6" depth over parking lots, approximately 256 tons, using **Unit Price #2**. Establish a grade slope of ½ inch per foot from crown to the sides. Grade and compact using a mechanical vibrating roller, 5-ton minimum. Cross slope of road shall be within 4-6%. Taper shoulders of the road out so prevent a lip higher than 2". Parking lots shall be sloped away from perimeter timber to ensure no ponding/pooling occurs. No gravel shall be spread or extend past the parking lot timbers or road surface area.
- h. Compact road and parking lots using a mechanical vibrating roller, 5-ton minimum. Ensure grade and slopes are maintained during compaction.

III. Culvert Install along Windmill Road near farm entrance

- a. Excavate to and remove an existing culvert that runs parallel to Windmill Road and stretched under and existing gravel road. Dispose of debris off site.
- b. Install new concrete culvert, approximately 24" diameter x 14'. The Installation shall include excavation of the trench, compaction of base,

installation of filter fabric, installation of bedding gravel, installation of pipe, installation and compaction of new CR-6 cover gravel, and disposal of unsuitable material. Installation shall follow same process as culvert installation under Windmill Road. Culvert must have a minimum of 1' of gravel above the pipe after compaction. See drawings for details.

- c. Excavate for inlet and outlet swales. Swales must properly meet inlet and outlet of new pipe as per the drawings. Install gabion stones around the inlet and outlet swale aligning with and matching the grade using **Unit Price #4.**

IV. **Parking Lot Fencing**

- a. Install new split-rail fence posts and railing around parking lot perimeters, approximately 200 LF. Fencing shall be installed on the outside of new timber perimeter to enclose three sides of each parking lot. Posts shall be installed at a maximum of 10' apart. Posts shall reach a minimum height of 3' and extend into the ground to a minimum depth of 3'. Fix the post to the rail with stainless steel Hex bolts fasteners and washers of size 1/2" x 6". See drawing for details.

- V. Remove and properly dispose of excess materials and debris off state property.

Note: Provide for a smooth and uniform transition between the existing paved or gravel surfaces, new parking lots and the new road surface.

I. **WARRANTY AND GUARANTEE:**

- 1. The Contractor shall guarantee his/her work for a period of two (2) years from the date of acceptance. Any defects found within the warranty period shall be repaired or replaced by the Contractor at no additional cost to the State.

J. **GENERAL REQUIREMENTS:**

- 1. All work shall be coordinated with the Facility Manager and DNR Project Manager during the work initiation meeting.
- 2. Contractor shall complete the project within **60 Calendar days** of the start date.
- 3. Work shall be accomplished during normal work hours of 8.00 am. To 4.30 pm., Monday through Friday unless permission is given in writing by the facility manager to do otherwise.
- 4. The Contractor shall notify the Department of Natural Resources (DNR) Project Manager (Project Manager) within seven days of receiving the signed

Contract to schedule a Pre-Construction Meeting. The Project Manager will identify the requirements for documentation, Administrative Submittals, Progress Meetings, Change Orders, completion reporting, payment application, and any special requirements of these specifications.

5. The Contractor shall forward Administrative Submittals to the Project Manager, and receive written approval of said submittals, prior to mobilizing or ordering materials. Administrative Submittals shall include, if applicable, permits, certifications, resumes, project schedule, licenses, schedule of values, subcontractor information, and safety procedures.
6. The Contractor shall provide a bar chart, or list of dates, proposing the construction schedule from the anticipated start date until completion without interruption. The schedule shall show all steps or stages of the project that are dependent on other work being in place. Additionally, work by subcontractors or changes in the division of construction shall be shown. The Contractor shall immediately notify the Project Manager of any anticipated delays, such as long lead items.
7. Project Progress Meetings shall be scheduled biweekly or monthly, as required by the Project Manager, throughout the duration of the project. The Contractor shall provide updates on work activities, the construction schedule, submittals, quality control, safety, security, etc. on a biweekly basis regardless of the meeting schedule.
8. When the Contractor believes the work in place satisfies the contract requirements and can be utilized by the facility for its intended purpose, the Contractor shall request a Substantial Completion Inspection. If determined substantially complete, the Project Manager will provide the inspection report, list any items observed incomplete and/or in need of correction, and shall identify the warranty start date.
9. The Contractor shall provide closeout documents at the time of the Substantial Completion including the Contractor's two-year warranty specific to the project. The Contractor shall also provide any manufacturer's warranties, operation and maintenance manuals, final inspection reports, facility training information, loose accessories, keys, attic stock, etc., and As-Built Drawings, if applicable to the project.
10. The completed project is subject to the inspection and approval by the Department of Natural Resources.
11. The requirements stated in the latest edition of Department of General Services "General Conditions – Instructions to Bidders for Construction Projects" are hereby made part of these documents.

II. ALTERNATES AND UNIT PRICES

A. ALTERNATES:

None

B. UNIT PRICES:

1. The Contractor shall insert a cost per linear foot x estimated 400 LF = Total **Unit Price #1**, to re-establish ditches/ swales within 4 feet of road edge. Swales shall be opened to a minimum depth of 1' deep x 3' wide.
2. The Contractor shall insert a cost per ton X an estimated 940 tons = Total **Unit Price #2**, to apply new CR6 gravel with fines over the scarified road and parking lots as directed by the DNR project manager to include purchasing, grading and compaction in accordance with the specifications.
3. The contractor shall insert a cost per ton X an estimated 230 tons = Total **Unit Price #3**, to pick-up, haul, and place the scarified gravel material removed from the existing gravel road directed by Facility manager to new location within WMA.
4. The contractor shall insert a cost per ton X an estimated 10 tons = Total **Unit Price #4**. To Install Gabion stones 4" – 12" size or RC 57 or as approved equal around swales aligning with and matching the grade of the inlet/outlet openings of the new culvert pipes.

NOTE: The Contractor shall incorporate all costs associated with transportation, fuel, maintenance on equipment, employee salary, benefits, overhead, profit, etc., in the Unit Price. Unit Prices will be used to increase/decrease the contract price based on actual quantities installed, in accordance with the Instructions to Bidders for Construction Projects (3.B.3)