



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
P.O. BOX 778
DOVER, DELAWARE 19903

JENNIFER COHAN
SECRETARY

VIA WEBSITE POSTING AND MAILING

March 26, 2020

Contract No. T202087701.01
Guardrail Repair, Canal District, Open End, FY20-FY22
New Castle County

Ladies and Gentlemen:

Enclosed is Addendum No. 2 for the referenced contract consisting of the following:

1. The Bid Proposal Cover, revised, to be substituted for the same page of the Proposal.
2. Five (5) pages, Bid Proposal Forms, pages 1 through 5, revised, to be substituted for the same pages in the Proposal.

The following Item Numbers have been deleted: 724001, 724003 and 724007

The following Item Numbers have been added: 724002 and 724006

3. The following plan sheets have been revised: 5, 8, 9, 10, 11 and 13
4. Bid Express Amendment File No. 1, **new**.

Please note the revisions listed above and submit your bid based upon this information.

Sincerely,

~signature on file~

Connie Ivins
Competitively Bid Contracts Coordinator
Delaware Department of Transportation

STATE OF DELAWARE



DEPARTMENT OF TRANSPORTATION

BID PROPOSAL

for

CONTRACT T202087701.01

GUARDRAIL REPAIR, CANAL DISTRICT, OPEN END,
FY20-FY22

NEW CASTLE COUNTY

ADVERTISEMENT DATE: February 24, 2020

COMPLETION TIME: 1,095 Calendar Days

SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
DELAWARE DEPARTMENT OF TRANSPORTATION
AUGUST 2016

Bids will be received in the Bidder's Room at the Delaware Department of Transportation's Administration Building, 800 Bay Road, Dover, Delaware prior to 2:00 P.M. local time **March 24 31, 2020**



Delaware Department of Transportation

03/24/2020 10:52:13 AM

AASHTOWare Project™ Version 4.2 Revision 026

Proposal Schedule of Items

Page 1 of 5

Proposal ID: T202087701.01

Project(s): T202087701

Contractor: _____

SECTION: 0001 GUARDRAIL REPAIR ITEMS

Alt Set ID: _____ **Alt Mbr ID:** _____

All figures must be typewritten

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0010	720004 STEEL RAIL ELEMENT, STRAIGHT	27,500.000 LF	_____	_____	_____	_____
0020	720005 STEEL RAIL ELEMENT, CURVED	1,100.000 LF	_____	_____	_____	_____
0030	720006 GALVANIZED STEEL POSTS	1,650.000 EACH	_____	_____	_____	_____
0040	720007 SHORT WOOD BREAKAWAY POST, TREATED	10.000 EACH	_____	_____	_____	_____
0050	720008 TREATED WOOD BLOCK	3,300.000 EACH	_____	_____	_____	_____
0060	720009 TERMINAL CONNECTOR, BRIDGE AND BARRIER	15.000 EACH	_____	_____	_____	_____
0070	720010 GALVANIZED RAIL ELEMENT, THRIE BEAM	5.000 EACH	_____	_____	_____	_____
0080	720011 GALVANIZED TRANSITION SECTION, THRIE BEAM	5.000 EACH	_____	_____	_____	_____
0090	720012 GALVANIZED STEEL POST, THRIE BEAM	5.000 EACH	_____	_____	_____	_____
0100	720013 GALVANIZED STEEL BRACKET, THRIE BEAM	5.000 EACH	_____	_____	_____	_____
0110	720019 GALVANIZED STEEL POST, 8'	28.000 EACH	_____	_____	_____	_____



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0120	720020 REFLECTORIZED WASHERS	880.000 EACH	_____	_____	_____	_____
0130	720021 GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1,100.000 LF	_____	_____	_____	_____
0140	720027 TREATED WOOD GUARDRAIL POST	25.000 EACH	_____	_____	_____	_____
0150	720032 REMOVE AND RESET GALVANIZED STEEL POST AND OFFSET BLOCK	30.000 EACH	_____	_____	_____	_____
0160	720500 GALVANIZED FUSION BONDED POLYESTER COATED GUARDRAIL	550.000 LF	_____	_____	_____	_____
0170	720509 IMPACT ATTENUATOR, TYPE 1, LEVEL II REPAIR	10.000 EACH	_____	_____	_____	_____
0180	720549 GALVANIZED STEEL POST, EXTRA LENGTH	120.000 LF	_____	_____	_____	_____
0190	720595 GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1 LEVEL 1 REPAIR	65.000 EACH	_____	_____	_____	_____
0200	720596 GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1, LEVEL 2 REPAIR	36.000 EACH	_____	_____	_____	_____
0210	720597 GUARDRAIL END TREATMENT ATTENUATOR, TYPE 2, LEVEL 1 REPAIR	12.000 EACH	_____	_____	_____	_____



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0220	720598 GUARDRAIL END TREATMENT ATTENUATOR, TYPE 2, LEVEL 2 REPAIR	12.000 EACH	_____	_____	_____	_____
0230	720600 GUARDRAIL END TREATMENT ATTENUATOR, TYPE 3, LEVEL 2 REPAIR	6.000 EACH	_____	_____	_____	_____
0240	720601 GUARDRAIL END TREATMENT ATTENUATOR, TYPE 3, LEVEL 1 REPAIR	12.000 EACH	_____	_____	_____	_____
0250	720608 IMPACT ATTENUATOR, TYPE 1, LEVEL 1 REPAIR	6.000 EACH	_____	_____	_____	_____
0260	720614 IMPACT ATTENUATOR, TYPE 1, LEVEL III REPAIR	15.000 EACH	_____	_____	_____	_____
0270	720663 GUARDRAIL END TREATMENT ATTENUATOR, MINOR REPAIR	44.000 EACH	_____	_____	_____	_____
0280	721001 GUARDRAIL END TREATMENT, TYPE 1-31, TEST LEVEL 3	110.000 EACH	_____	_____	_____	_____
0290	721003 GUARDRAIL END TREATMENT, TYPE 2-31, TEST LEVEL 3	17.000 EACH	_____	_____	_____	_____
0300	721004 GUARDRAIL END TREATMENT, TYPE 3-31	6.000 EACH	_____	_____	_____	_____



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SECTION: 0001 GUARDRAIL REPAIR ITEMS

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0310	721006 END ANCHORAGE 31	28.000 EACH	_____	_____	_____	_____
0320	721010 GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-31	12.000 EACH	_____	_____	_____	_____
0330	721011 GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 2-31	5.000 EACH	_____	_____	_____	_____
0370	763000 INITIAL EXPENSE/DE-MOBILIZATION	LUMP SUM	LUMP SUM		_____	_____
0380	763507 EMERGENCY MOBILIZATION	12.000 EACH	_____	_____	_____	_____
0390	802003 ARROW PANELS TYPE C	220.000 EADY	_____	_____	_____	_____
0400	803001 FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	125.000 EADY	_____	_____	_____	_____
0410	805001 PLASTIC DRUMS	220.000 EADY	_____	_____	_____	_____
0420	808002 FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	220.000 EADY	_____	_____	_____	_____
0430	810001 TEMPORARY WARNING SIGNS AND PLAQUES	1,100.000 EADY	_____	_____	_____	_____
0440	811001 FLAGGER, NEW CASTLE COUNTY STATE	200.000 HOUR	_____	_____	_____	_____



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0450	811013 FLAGGER, NEW CASTLE COUNTY, STATE, OVERTIME	22.000 HOUR	_____	_____	_____	_____
0460	826001 PERMANENT WOOD BARRICADE	6.000 EACH	_____	_____	_____	_____
0470	908004 TOPSOIL, 6" DEPTH	55.000 SY	_____	_____	_____	_____
0480	908014 PERMANENT GRASS SEEDING, DRY GROUND	55.000 SY	_____	_____	_____	_____
0490	724002 PERMANENT IMPACT ATTENUATOR, TYPE 2	12.000 EACH	_____	_____	_____	_____
0500	724006 PERMANENT IMPACT ATTENUATOR, TYPE 6	12.000 EACH	_____	_____	_____	_____
Section: 0001			Total:		_____	
			Total Bid:		_____	

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CONTRACT No. T2020-877-01

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Guardrail Repair – Canal District – Open End

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closure. Typically, the detour set-up shall follow Typical Application 20 of the Manual on Uniform Traffic Control Devices (MUTCD). All Traffic Control Devices shall be compliant as per ~~NCHRP Report 350~~ and/or MASH. The Contractor shall be responsible for furnishing and maintaining the Maintenance of Traffic apparatus at the closure (i.e. Type III Barricade, Road Closed signs, etc) and all advance warning signs. The Contractor shall be responsible for placement of detour trailblazers. If necessary, the Engineer will assign the detour route.

Retro-reflective drums will be required in work areas where completion time will extend beyond one daylight operation as outlined in Section 6F.67 and Section 6G.02 of the Manual on Uniform Traffic Control Devices (MUTCD).

All open excavations shall be secured with plastic drums with fluorescent sheeting and orange, plastic snow fence. If the construction activity results in a vertical difference or drop-off along, adjacent to or across a travel way, the Contractor shall eliminate or remedy this hazard by the methods detailed in Section 6G.20 of the Manual on Uniform Traffic Control Devices (MUTCD) as directed by the Engineer. The snow fence, tie wire, etc shall be incidental to the work it protects.

9. The Contractor, with the Engineer or Engineer's representative, shall inventory all traffic signs on all roadways subject to improvements. Necessary signs shall be maintained in operation during construction, and any other signs shall be properly stored with the Contractor, who shall be responsible for loss or damage. Immediately prior to final inspection, the Contractor and Engineer shall again inventory the traffic signs and account for any lost or damaged signs.
10. The Project Manager is responsible for ensuring any required documents and analysis as part of the adopted Work Zone Safety and Mobility Procedures and Guidelines has been completed prior to any work starting on this contract.
11. Work located in Municipalities requires Town Agreements. Work in these locations cannot commence before obtaining them. To obtain a Town Agreement, the contractor must work with DeIDOT's TEAM Support at (302) 760-2251.
12. No work near or within railroad Right-of-Way is anticipated. If any railroad property or facilities are near or within the proposed limits of work or if the proposed work encroaches upon the railroad's Right-of-Way, the contractor shall be responsible for obtaining the required clearances and insurances for each involved railroad in accordance with the appropriate DeIDOT Maintenance of Railroad Traffic item. DeIDOT's Railroad Section Manager must be contacted at (302) 760-2183 to coordinate the execution of the appropriate agreements and authorizations required from any railroad company involved, including coordination for railroad flagging, if necessary.
13. For the purpose of this contract, the replacement guardrail type and location shall be identical to the damaged guardrail, except in the instances when an upgrade to the current standard of guardrail is deemed necessary, or when otherwise directed by the department. The department shall determine what, if any, guardrail elements shall be

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accept the location and release the Contractor from responsibility for the work at that location. If a work order is sufficiently large and complex as determined by the Engineer, a final inspection may be held upon the completion of that work order.

24. The Contractor and their agents guarantee the specific locations listed in this contract against the failure of the guardrail for three (3) years from the date of acceptance. This is a good faith guarantee, which will not be cause for the department to retain the completion security, but failure to comply will affect future bidding.

25. GUARDRAIL/END TREATMENT, TYPE I

All bolts, washers and nuts shall be incidental to repairs.

a) LEVEL I REPAIR

When the Attenuator is damaged up to, but not past the third post, the following items shall be reused or replaced at the discretion of the Engineer or representative:

A Level I Repair shall consist of the following:

- Guardrail Extruder (Reuse)
- Bearing Plate (Reuse)
- Assembly Cable (Reuse)
- Strut (Reuse)
- Cable Anchor (Reuse)
- Deep Beam Guardrail (Replace)
- Wood Post (Replace)
-  Impact Head (Reuse)*
- Ground Strut (Reuse)
-  W-Beam Guardrail End (Replace)

*If the impact head is not reusable as determined by the Engineer or representative the item will be paid as a Level II Repair.

b) LEVEL II REPAIR

When the Attenuator is damaged up to but not past the fifth post, the following items shall be replaced unless otherwise directed by the Engineer or representative:

-  All Items specified in Level I Repair plus the following:
 - Impact Head (Reuse)*
 - Wood Block (Replace)

 *If the impact head is not reusable as determined by the Engineer or representative the item will be paid as a Level III Repair.

c) LEVEL III REPAIR

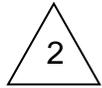
Complete replacement of unit.

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26. GUARDRAIL/END TREATMENT, TYPE II

All bolts, washers and nuts shall be incidental to repairs.

a) LEVEL I REPAIR



When the Attenuator is damaged to but not past the second post, the following Item shall be replaced, unless otherwise directed by the Engineer:

Impact Head (Reuse)*

Barrier (Terminal)

Strut Assembly

Cable

Cable Anchor Bracket

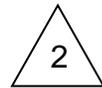
Back up Plate

Post

Bearing Plate

Pipe

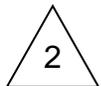
Guardrail



***If the impact head is not reusable as determined by the Engineer or representative the item will be paid as a Level II Repair.**

b) LEVEL II REPAIR

When the Attenuator is damaged to but not past the third post, the following Item shall be replaced, unless otherwise directed by the Engineer:



All Items specified in Level I Repair plus the following:

Impact Head (Reuse)*

Posts

Block

Back up Plate

Guardrail



***If the impact head is not reusable as determined by the Engineer or representative the item will be paid as a Level II Repair.**

c) LEVEL III REPAIR

Complete replacement of the damaged unit.

NOTE: If damage to 5' tube sleeve occurs this will be considered a LEVEL II Repair, Soil Plate may also need to be replaced.

27. GUARDRAIL/END TREATMENT, TYPE III

All bolts, washers and nuts shall be incidental to repairs.

a) LEVEL I REPAIR



Page 8, Project Notes 8, 25 and 26 have been revised.

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When the Attenuator is damaged to but not past the second post, the following Item shall be replaced, unless otherwise directed by the Engineer:

Nose Plate/Rolled
Channel Strut
Side Plate
Bearing Plate
Pipe Sleeve
Cable Assembly
Bent Plate Sleeve
Wood Post
Wood Block

b) LEVEL II REPAIR

When the Attenuator is damaged to but not past the third post, the following Item shall be replaced, unless otherwise directed by the Engineer:

All Items in Level I plus the following:

Spacer Channel
Guardrail
Wood Block
Pipe
* Wood Post
Tube Sleeve
Soil Plate

*Note: Tube sleeve and soil plate may need to be replaced in this level if damaged.

c) LEVEL III REPAIR - will be the complete replacement of the unit.

28. The following standard construction detail sheets are part of the contract documents:

B-L, B-2, B-3, B-4, B-5, B7-1, B8-1, B8-2, B9, B10, B11-1, B11-2, B12 and B13-1

29. IMPACT ATTENUATOR, TYPE I

All bolts, washers, brackets, screws, and nuts shall be incidental to repairs.

a) LEVEL I REPAIR

When the Attenuator is damaged up to, but not past the first bay, the following Items shall be reused or replaced at the discretion of the Engineer or representative:

A Level I Repair shall consist of the following:

Nose (Replace)

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Cartridge	(Replace)
Diaphragm	(Replace)
Fender Panel	(Replace)
Monorail	(Reuse)
Backup	(Reuse)
Bearing Plate	(Reuse)
Assembly Cable	(Reuse)
Strut	(Reuse)
Cable Anchor	(Reuse)
Ground Strut	(Reuse)

b) LEVEL II REPAIR

When the Attenuator is damaged up to but not past the fourth bay, the following Items shall be replaced unless otherwise directed by the Engineer or representative:

A Level II Repair shall consist of the following:

Nose	(Replace)
Cartridge	(Replace)
Diaphragm	(Replace)
Fender Panel	(Replace)
Monorail	(Reuse)
Backup	(Reuse)
Bearing Plate	(Reuse)
Assembly Cable	(Reuse)
Strut	(Reuse)
Cable Anchor	(Reuse)
Ground Strut	(Reuse)

c) LEVEL III REPAIR

When the Attenuator is damaged past the fourth bay, the following Items shall be replaced unless otherwise directed by the Engineer or representative:

A Level II Repair shall consist of the following:

Nose	(Replace)
Cartridge	(Replace)
Diaphragm	(Replace)
Fender Panel	(Replace)
Monorail	(Replace)
Backup	(Replace)
Bearing Plate	(Replace)
Assembly Cable	(Reuse)
Strut	(Reuse)
Cable Anchor	(Reuse)
Ground Strut	(Reuse)

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2

Item #	Description	Unit	Quantity
721011	Guardrail to Barrier Connection, Approach Type 2-31	EACH	5
724004 2	Permanent Impact Attenuator, Type 4 2	EACH	12
724003 6	Permanent Impact Attenuator, Type 3 6	EACH	12
724007	Bullnose End Treatment	EACH	44
763000	Initial Expense	L.S	1
763507	Emergency Mobilization	EACH	12
802003	Arrowpanels, Type C	EA-DAY	220
803001	Furnish and Maintain Portable Changeable Message Sign	EADY	125
805001	Plastic Drums	EA-DAY	220
808002	Furnish and Maintain Truck-Mounted Attenuator, Type II	EA-DAY	220
810001	Temporary Warning Signs and Plaques	EA-DAY	1100
811001	Flagger, New Castle County, State	HOUR	200
811013	Flagger, New Castle County, State, Overtime	HOUR	22
826001	Permanent Wood Barricade	EACH	6
908004	Topsoil (6 inch Depth)	SY	55
908014	Permanent Seeding, Dry Ground	SF	55