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Environmental Engineer
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190 Beatty Avenue
Richwood, Ohio 43344

Public Service with integrity

ADDENDUM #3

FROM: Union County Engineers Office
Josh Holtschulte

DATE: January 28, 2019

RE: **UNI-CR340-2.46 Bridge Replacement**

PAGES (including cover): 2

This addendum supplements and amends the original Drawings and Specification issued and shall be taken into account in preparing proposals, and shall become a part of the Contract Documents.

1. Meeting agenda from the January 23, 2019 pre-bid meeting is included herein and shall be incorporated into the Contract Documents. The attendance sheet from the meeting is also included herein this addendum.
2. The DBT shall design and construct a ~~40'x5'~~ **8'x5'** box culvert as shown on the Stage 1 Plans. The invert of the box culvert shall be placed 1' below the natural flowline.
3. The box culvert shall be constructed in accordance with Item 611 unless otherwise specified. The DBT shall provide Shop Drawings and an Installation Plan. Performance Report, Performance Inspection, Conduit Evaluation and Drainage Structure Evaluation are not required. The DBT will not be responsible for compaction testing. Union County reserves the right to perform compaction testing at the cost of Union County. Concrete apron (DM-1.1) will not be required. Provide RCP, same type as bridge, at the outlet.
4. Reference Bid Documents: Completion date is October ~~31~~ **30**, 2019. Maximum closure is ~~90~~ **135** days.
5. Proposal Note 555 is not required.
6. Reference Design Build Scope of Services 10.2 5): Union County will be responsible for the removal of the necessary trees between October 1, 2018 and April 1, ~~2018~~ **2019**.
7. Reference Design Build Scope of Services 10.2 6): No in-stream work is permitted from April 15, ~~2018~~ **2019** to June 30, ~~2018~~ **2019**.
8. Stop bars are not required. The DBT is not responsible for permanent signs. All permanent signing shall be the responsibility of Union County. The DBT shall not open the road to traffic until permanent signs are in place.

9. The DBT shall provide Post-Construction Storm Water Structural Best Management Practices (BMPs) in accordance with Location & Design Manual Volume 2 as a “Redevelopment Project”.
10. The DBT shall design and construct driveways and drive pipes to meet a minimum of existing conditions as well as ODOT and Union County standards. Union County Driveway and Pipe Standards are attached to this addendum.
11. The DBT shall provide aggregate drains to be paid under Item 605 SPECIAL – UNDERDRAINS.
12. The DBT shall provide both center line and edge line pavement markings.
13. The DBT is not responsible for the design of the horizontal and vertical alignment. The DBT is also not responsible for the hydraulic design of the bridge and box culvert.

Please note and sign the bottom portion of 6.7 of the bid packet proposal acknowledging that this Addendum was received.



PREBID CONFERENCE AGENDA

Project: UNI-CR340B-2.46

Date/Time: January 23, 2018 10:00am

Location: Union County Engineer's Office

A. Contact Information / Communication Protocol

1. Union County

Project Engineer: Josh Holtschulte

PH: (937) 645-3109

Email: jholtschulte@co.union.oh.us

B. Key points

- DBE – 8%

- ODOT 2016 Specifications

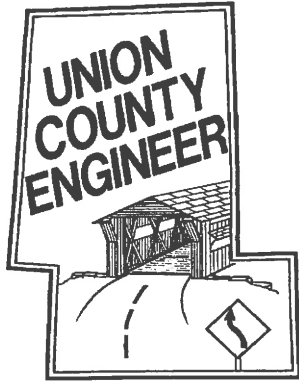
- Completion date is October 30, 2019

- No in-stream work is permitted from April 15, 2019 to June 30, 2019.

Additional environmental commitments in 10.2 of the Design Build Scope of Services.

- Union County will remove any trees prior to April 1st. DBT will be responsible for removal of stumps.

- Bids are due on February 5th by 11:00am in the office of the Board of Commissioners.



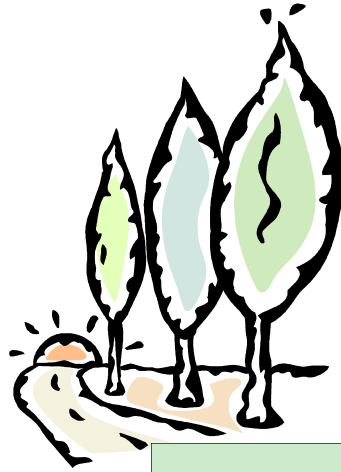
UNI CR340B-2.46 Cunningham-Arbela Road Bridge Replacement

Pre-Bid Conference
Wednesday, January 23, 2019 @ 10:00am
SIGN-IN SHEET

<u>NAME</u>	<u>COMPANY</u>	<u>PHONE</u>	<u>EMAIL</u>
Josh Holtschulte	Union County Engineer	937-645-3109	jholtschulte@co.union.oh.us
Jessica Cain	Engineer	937-645-3018	jcain@co.union.oh.us
Matt Rotar	Union Co. Engineer	937-645-3467	mrotar@co.union.oh.us
WHITNEY FLORENCE	R&I CONST. INC	419-448-8236	riconst@bright.net
BRAD SUNDHEIMER	IGEL	614-445-8421	BRAD.SUNDHEIMER@IGELCO.COM
Brad Stanley	Igel	614 357 2118	brad.stanley@igelco.com
Russ Krock	ADR # Assoc. LTD	740-345-1921	rrock@adrinnovation.com
SEAN WADE	EAGLE BRIDGE	937-726-0039	smw@eaglebridge.net
Tom Less	WOOLPERT	614-827-6136	TOM.LESS@WOOLPERT.COM

DRIVEWAY & PIPE STANDARDS

INSTALLING A
DRIVEWAY, DRIVEWAY
PIPE, OR ROADSIDE
PIPE?



ALL INSTALLATIONS
SHALL BE DONE IN
ACCORDANCE WITH
THESE STANDARD
SPECIFICATIONS
AND DRAWINGS

general design

DRIVE WIDTHS & RADII

minimum residential drive width is ten (10) feet [special drives, such as common access drives or multi-family drives may be wider, but should not exceed twenty four (24) feet; field drives may be wider than 24' to accommodate equipment]

min radius for each approach (adjacent to the road) **is twenty (20) feet**

DRIVEWAY MATERIAL (MINIMUMS)

field Drive—6" crushed aggregate base

residential drive—2" asphalt over 6" crushed aggregate base, or 8" crushed aggregate base, or 6" concrete (reinforcing recommended)

commercial, industrial, or multi-family drive—design shall be based on specific use requirements

common access drive—see CAD regulations

CONCRETE DRIVES

concrete drives on **uncurbed** county and township roads shall be terminated four (4) feet from the edge of pavement

the area between the drive and the pavement shall be filled with either 2" asphalt over 6" crushed aggregate base or 8" of crushed aggregate base

concrete drives on **uncurbed** township roads, in residential subdivisions with posted speed limits of 25 mph, shall be terminated as described above **or** can be brought to the edge of pavement **if the concrete drive is "held down" 1/4" lower than the road pavement**

INTERSECTION ANGLE

drives should intersect the road at an angle between 70° and 90° ; 90° is preferable

PROFILE

drives on **uncurbed** roads shall slope down and away from the edge of pavement for a minimum distance of four (4) feet

beyond four (4) feet the driveway may slope up or down, but at a slope no greater than ten percent (10%)

LOCATION ALONG PUBLIC ROADS

sight distance due to vertical or horizontal curves shall be no less than 495'

driveway spacing from other driveways or roads: local—250'
minor collector—360'
major collector—495'
(may be greater for commercial, industrial or multi-family drives)

VARIANCES

a variance may be granted for extreme situations where these standards can not be met

general design



CR 164

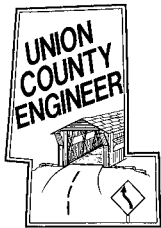
working to keep
your roads safe

UNION COUNTY ENGINEER

233 West Sixth Street
Marysville, Ohio 43040
937.645.3018

800.258.8278 inside Union Co. only
engineer@co.union.oh.us

Hours
730A—500P
Monday—Friday



INSTALLATION STANDARDS

PIPES—DRIVEWAY

pipe size (diameter) will be determined by county engineer staff

minimum diameter for residential & field drives is 10" (minimum diameter for all other drives is 12")

minimum pipe length is 30'

ALLOWABLE PIPE MATERIAL—DRIVEWAY

reinforced concrete pipe (RCP)

smooth wall high density polyethylene pipe (HDPE)

corrugated metal pipe (CMP)

COVER—DRIVEWAY

pipe must be covered by a minimum of eight (8) inches of material or as otherwise recommended by the manufacturer

PIPES—DITCH ENCLOSURE

pipe size (diameter) will be determined by county engineer staff (minimum 10")

pipe may be perforated or solid

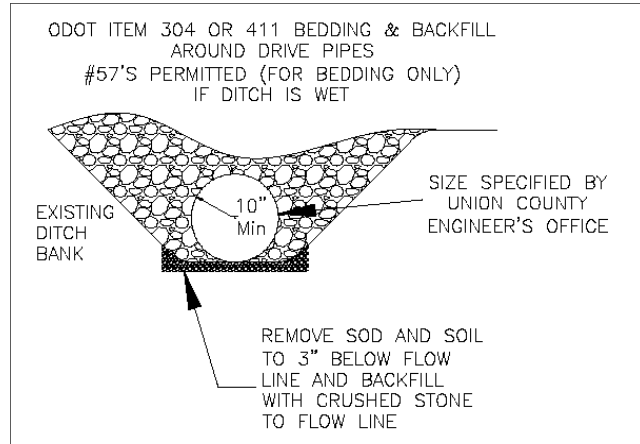
backfill may be granular material or soil

INLETS—DITCH ENCLOSURE

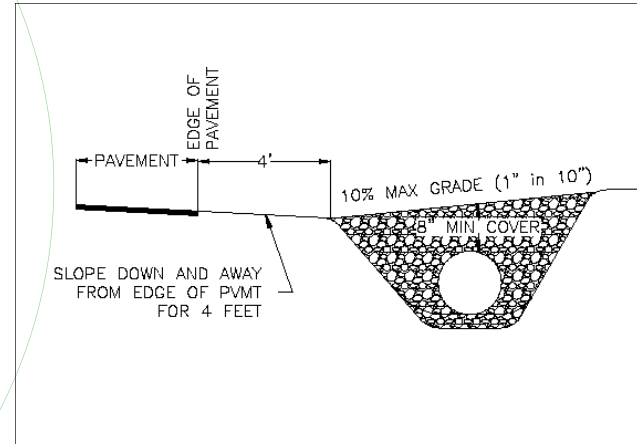
minimum 8" diameter drop inlet is required in residential subdivisions with storm sewer systems

must be installed on "high" or upstream side of driveway

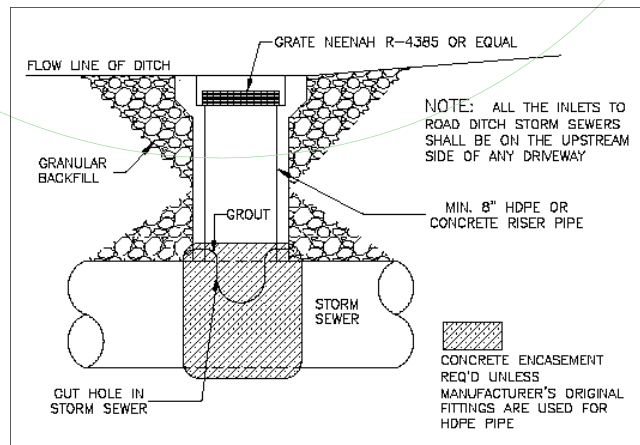
drops are also required every 200' along ditch enclosures, regardless of road type



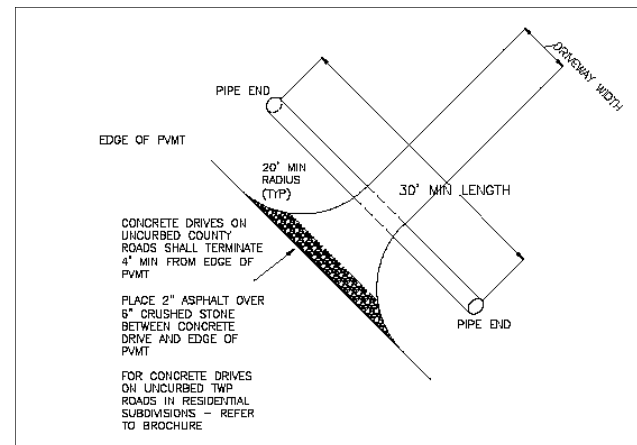
DRIVE PIPE DETAIL



DRIVEWAY PROFILE



DROP INLET DETAIL



DRIVEWAY LAYOUT

RESPONSIBILITY

when a new driveway is proposed, a property owner must fill out a driveway application, pay associated fees, and obtain a driveway permit prior to construction

property owners are responsible for purchase, installation, replacement, and repair of driveways, driveway pipe, and roadside pipe (ditch enclosure)

deficient drives or pipes shall be replaced by the owner within 30 days of notification by the county engineer

work not completed within 30 days of notification will be completed by the county engineer and the cost will be assessed to the property owner

PLEASE NOTE

these guidelines are intended for single drive use

additional standards may apply for commercial, industrial, multi-family, and common access drives