



Proposal #10680a

For

City of Columbus – Department of Public Utilities

Attn: Bill Rogers

P.O. Box 2949

Columbus, OH 43216-2949

For

Outside Plant Construction
Hap Cremean Water Plant

March 9, 2012



Dear Bill,

Thank you for this opportunity to propose **Outside Plant Construction** of 24 strand single mode outside plant fiber optic cabling from the intersection of Stelzer and Morse Roads to the Hap Cremean Water Plant Admin Building and continuing service to the Lab Building.

If you have any questions please do not hesitate to call me at 740-964-7081 ext. 2101.

Sincerely,

A handwritten signature in blue ink, appearing to read "A. Gunter".

Anthony Gunter, RCDD
President

Proposed Services – Phase 2

Outside Plant Construction: Echo 24 shall install 24 strand single mode fiber optic cabling from the Columbus FiberNet at the intersection of Stelzer and Morse Roads to the Hap Cremean Water Plant Admin Building with continuing service to the Lab Building per the following:

- Install approximately 6,000' of underground 2" duct from the large CFN handhole on Stelzer Road approximately 200' south of the intersection of Morse Road
 - North to the intersection of Morse
 - East on Morse Road to the front of the property at 4250 Morse Road (Hap Cremean Water Plant)
 - North to the existing abandoned power manhole.
 - Note: the cable pathway incorporates utilization of two 5" ducts which exist and have been abandoned from power usage from this manhole, through a manhole and to the point 960' to the north where they are intercepted.
 - Approximately 960' north of this manhole, we will intercept two abandoned 5" ducts and turn them up into a newly placed handhole in a grassy area. (Abandoned ends of the 5" ducts which continue into a high voltage manhole shall be filled with grout.)
 - From this new handhole we will place one new 4" duct east to the Admin Building where we will penetrate the building at the current IDF
 - Additionally we will install a new 4" duct northwest approx. 50' to the current handhole. This handhole will be replaced and reworked with a larger handhole.

ECHO 24

- Upon completion of the above pathway, Echo 24 will place a 24 strand Corning single mode fiber optic cable from the CFN handhole into the Admin Building.
 - Note that from the manhole nearest Morse Road, Echo 24 will install 3x1 Maxcell innerduct in the same conduit as the fiber all the way into the Admin Building
- From the Admin Building, Echo 24 will install a 6 strand Corning single mode indoor / outdoor rated fiber optic cable through the underground conduit system into the Lab Building.
- Prepare Final As-Built drawings upon completion
- In the CFN handhole Echo 24 will fusion splice to an existing fiber optic cable utilizing a Preformed 8006634 splice closure.
- In the Admin Building, Echo 24 will terminate the cable by fusion splicing to factory polished SC pigtails in a Corning PCH-04U combo shelf utilizing Corning Duplex SC coupler panels CCH-CP12-59. It is understood that this combo shelf will be installed in the existing relay rack.
- At the Lab Building, Echo 24 will terminate with fusion spliced factory polished pigtails in Corning FBT-048 wall mount pad-lockable fiber termination closure with a duplex SC coupler panel Corning LDC-CP1P-38.
- All fiber optic strands shall be OTDR and Power Meter / Light Source tested upon completion.
- All fibers are to be OTDR tested with a launch cable of sufficient length to escape the OTDR's blind spot rendering the trace fully viewable from connector to connector. All Test results will be turned over to the City in an electronic format that will be viewable by the City without the use of special or additional equipment or software other than that delivered by the vendor
- **It is understood that this project shall be subject to Federal Davis Bacon Prevailing Wage requirements.**

Pricing – Phase 2:

Construction Labor and Materials

\$179,415

<i>UTC Item Description</i>	<i>Manuf</i>	<i>Part #</i>	<i>Unit</i>	<i>Qty</i>	<i>Unit Price</i>	<i>Ext Cost</i>
48 Port Fiber Building Terminal	Corning	FBT-048	ea	1	\$223.98	\$223.98
Heat shrink splice boot	Corning	2806031-01	50/Pkg	2	\$47.53	\$95.06
36 fiber splice trays	PLP	80805514	ea	1	\$53.14	\$53.14
Pretium Connector Housing, 4RU	Corning	PCH-04U	ea	1	\$355.29	\$355.29
SC Simplex, SM, 6 Port Insert	Corning	LDC-CP1P-38	ea	1	\$34.69	\$34.69
6 Fiber Heat Fusion Splice Tray	Corning	M67-068	ea	1	\$31.53	\$31.53
Registered Installer	Echo 24	Installation	Hour	724	\$42.00	\$30,408.00
Registered Technician	Echo 24	Installation	Hour	625	\$47.00	\$29,375.00



Registered Foreman	Echo 24	Installation	Hour	465	\$53.00	\$24,645.00
Certified RCDD	Echo 24	Installation	Hour	32	\$92.00	\$2,944.00
N/A UTC Item Description	Manuf	Part #	Unit	Qty	Unit Price	Ext Cost
6 strand single mode in-out door OFNR cable	Corning	S-RO-6-CL-A-BK-SIC	feet	800	\$0.34	\$272.00
Maxcell innerduct 3x1	Maxcell	MXC3456BL10000-1500	feet	1,500	\$3.49	\$5,235.00
24 strand aerial duct cable	Corning	024EU4-T4101D20	feet	9300	\$0.38	\$3,534.00
6 Duplex SC adapter panel with 12 ports	Corning	CCH-CP12-59	ea	3	\$69.75	\$209.25
Splice tray 48 single fiber	Corning	SCF-ST-077	ea	2	\$24.70	\$49.40
SC pigtails, color coded 12 pack w/ Corning glass	C Enterprises	XGREI40-6AW	Dozen	3	\$62.63	\$187.89
8.5" x 22" Coyote closure kit	PLP	8006634	ea	1	\$727.15	\$727.15
End plate for Coyote closure kit	PLP	80805739	ea	1	\$115.14	\$115.14
Directional boring	Precision Pipeline	City of Cols Compl#: 263290585	Subcontr act labor	1	\$79,275.00	\$79,275.00
Miscellaneous				1	\$1,644.48	\$1,644.48

Total This Order \$179,415

Proposal Terms and Acceptance

Acceptance: As an authorized agent of **City of Columbus**, your signature hereby authorizes Echo 24, Inc. to proceed with the services outlined in this proposal number **10680a**. Further, by signing, you agree to all of the terms as outlined in the UTC contract.

 Printed name Signature Date

PO#: _____