



Henkels & McCoy, Inc. has reviewed the Denton Independent School District requirements for the three projects in the request for proposal, for Engineering, Design and Project Management, for Communications conduit and fiber optics installation.

Wes Lee and Ken Brinkley, of Henkels & McCoy, surveyed the projects with Jack Farguson on Monday, October 30th, 2006. A revised scope has been developed from this "ride out" which allows a more accurate estimation of the "Engineering, Design, Project Management, and Inspection" along with Henkels & McCoy being able to determine the actual cost of the installation.

In the site surveys Monday approximately 12,300' of duct was added from Cross Oaks Ranch proposed school location east to Naylor Road, and north past Highway 380 to the new County Facilities. Also, associated with this project was 4,000' of 144 fiber cable from an existing hand hole at the Temple Dane Water Plant. The cable actually begins at Providence School, located on F.M. 2931 and proceeds to the new Cross Oaks School location for a distance of approximately 13,900'.

This document is addition to and revises the document that was originally submitted with the Request For Proposal.

Henkels & McCoy understands that they will be responsible for surveying, designing, Micro-Station, Permit assembly, Project Management, P.E. stamp and signature, and Inspection of actual installation. The following is a scope of work as Henkels & McCoy understands the installation projects:

Cross Oaks Ranch

- 1. New 4-1.5" HDPE SDR 11 ducts from the existing hand hole on F.M. 720, south to Cross Oaks Ranch Boulevard. West along Cross Oaks Ranch Boulevard to and across Liberty Street to the west right-of-way where the new school property begins. A hand hole will be set on school property for entrance into the proposed building.
- 2. <u>Added</u> to the scope there will be 4-1.5" HDPE SDR 11 ducts from the proposed hand hole to be installed on school property at the intersection of Liberty Street and Cross Oaks Ranch Boulevard. This proposed duct will follow the south border of the DISD property to the Temple Dane Water treatment plant where it will stay on the Upper Trinity property to the east right-of –way of Naylor Road.
- 3. <u>Added</u> to the scope, there will be 1-1.5" HDPE SDR 11 duct placed from the proposed hand hole at the south property line of the Temple Dane Water treatment plant and Naylor Road, north approximately 9,500' across Highway 380 to the proposed Denton County Facility where the duct will stop at the south property line of Denton County.
- 4. The hand holes will be spaced at approximately 1,500' and 9 have been estimated for the Cross Oaks Ranch project.





- 5. Added 13,885' of 96 strand singlemode non-armored fiber will be pulled from Providence Elementary School, in existing conduit, to the existing hand hole north of the Cross Oaks Ranch Project. The cable will continue from the existing hand hole into the proposed 4,000' of duct along F.M. 720 to Cross Oaks Ranch Boulevard to the DISD property at the intersection of Liberty Street. Cable will be pulled into proposed school when construction has been completed.
- 6. Fiber cabinets with SC sleeves will be placed in the proposed school and in Providence Elementary.
- 7. The fiber will be fusion spliced to SC pigtails, arranged in the Cabinets, and labeled.
- 8. All fiber is to be bi-directionally tested.

Ryan Road From Wayne Stuart Elementary to New Elementary along Teasley Lane

- 1. New 4-1.5" HDPE SDR 11 duct will be placed from the existing hand hole on the north side of Ryan Road, across from Andrew Avenue, approximately 7,400', along Ryan road to the elementary school now under construction. The new school is located at the intersection of Ryan Road and Teasley Lane (F.M. 2181). The duct will be stopped on the southwest property line of DISD.
- 2. The hand holes will be spaced approximately 1,500' and 6 have been estimated for the Ryan Road project.
- 3. 24 strand singlemode non-armored fiber optic cable will be pulled from Wayne Stuart Ryan Elementary School in existing conduit to the existing hand hole at Ryan Road and Andrew Avenue. The cable will continue in the proposed duct along Ryan Road to the proposed hand hole located on the DISD property along Teasley Lane. The cable will be pulled into the new school building upon completion.
- 4. Fiber cabinets with SC sleeves are to be placed in the proposed school and in Wayne Stuart Elementary.
- 5. The fiber will be fusion spliced to the SC pigtails, arranged in the Cabinets, and labeled.
- 6. All fiber is to b tested bi-directionally.

Guyer High School to Hickory Hill Road – new DISD School

- 1. New 4-1.5" HDPE SDR 11 duct will be placed from an existing DISD hand hole located on the southeast corner of Hill Top Road and Hickory Hill Road, east along the south right-of-way of Hickory hill road for approximately 2,300'. The duct will be end at the northeast corner of the DISD property where the proposed school will be located. A new hand hole will be placed at the end of the duct where the General Contractor for the new school will bring the entrance conduit.
- 2. The new hand hole was spaced at 2,300'.
- 3. 18,100' of 144 strand singlemode non-armored fiber optic cable will be pulled from Guyer High School in existing DISD duct system to the corner of Hickory





Hill Road and Hill Top Road. The 144 cable will be pulled from Hickory Hill Road and Hill Top road in the new duct system along Hickory Hill Road to the new DISD school location. The cable will be pulled into the proposed school after building completion.

- 4. Fiber cabinets with SC sleeves are to be placed in the proposed school and in Guyer High School.
- 5. The fiber will be fusion spliced to the SC pigtails, arranged in the Cabinets, and labeled.
- 6. All fiber is to b tested bi-directionally.

Henkels & McCoy, Inc. understands that the existing duct that requires cable to be pulled through will be provided by DISD in Bentley Fiber Product which has accurate as-built information.

Henkels & McCoy, Inc. understands that permits will be assembled and presented to a DISD employee that has signature authority.

Henkels & McCoy, Inc. will not be responsible for cost of purchasing private right-of-way.

Henkels & McCoy, Inc. has added the cost of a Field Inspector and a Professional Engineer. A Project Manager was included in the original pricing. Henkels & McCoy, Inc. in the past used a Project Manger to control the schedule and make sure that tasks happen in a particular order. We use Field Inspectors to actually follow the installation crews insuring the project is being installed per the engineered plans.

Henkels & McCoy, Inc. will waive the Field Inspector Fees if the construction work is awarded to us.

See the attached "Budgetary" pricing for cost of installation per the revised scope that is included in this document.

See the attached original Request for Proposal document submitted by Henkels & McCoy, Inc.

See the attached Service Agreement Contract for legal review.

The Henkels & McCoy, Inc. legal department is still reviewing the Denton ISD contract provided by Mr. Stout.





Project									
					New	Exist			
	QTY.	Field Survey	New Ca	Exist Ca	CAD	CAD	Permit	As Built	Total
Cross Oaks									
4-1.5" duct	4,000	1,454.55			509.09		1,454.55	581.82	4,000.01
new fiber	4,000	1,404.00	387.88		000.00		1,404.00	301.02	387.88
exist fiber	9,885		301.00	958.55		1,198.18			2,156.73
P.E	0,000			000.00		1,100.10	484.85		484.85
									\$7,029.47
Cross Oaks Add									
Cross Oaks Add 1-1.5' duct	9,300	3,381.82		901.82	3,945.45		3,381.82	1,352.73	12,963.64
4-1.5 duct	3,000	1,090.91		290.91	1,272.73		1,090.91	436.36	4,181.82
new fiber	12,300	1,000.31	1,192.73	250.51	1,212.13		1,000.01	450.50	1,192.73
exist fiber	12,500		1,102.70						1,102.70
P.E							3,772.17		3,772.17
Project Mgt.	56 hrs.						0,112.11		4,490.99
Field Inspector	30 1113.								7,885.00
Tield illopector									\$34,486.35
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						Cross Oaks Grand Total:		\$41,515.82	
Wayne Stuart									
4-1.5" duct	7,400	2,690.91			3,139.39		2,690.91	1,076.36	9,597.57
new fiber	7,400	2,000.01	717.58		0,100.00		2,000.01	1,010.00	717.58
exist fiber	3,160			306.42		383.03			689.45
P.E.	-,						1,636.38		1,636.38
Project Mgt.	21 hrs.								1,701.15
Field Inspector									3,943.00
							Wayne Stuart Total:		\$18,285.13
Hickory Hill									
4-1.5" duct	2,300	836.36			975.76		836.36	334.55	2,983.03
new fiber	2,300		223.03						223.03
exist fiber	15,800			1,532.12		1,915.15			3,447.27
P.E							989.35		989.35
Project Mgt.	11 hrs.								850.57
Field Inspector									1,312.00
							Hickory	/ Hill Total:	\$9,805.25





Budgetary OSP Pricing:

Project 1 (Wayne Stuart to New Elementary)	\$117,577.93
Project 2 (Hickory Hill – Old Alton)	\$ 93,907.61
Project 3 (East of Denton Highway 380)	\$224,758.57