

NAVARRO COUNTY COMMISSIONER'S COURT

A Special meeting of the Navarro County Commissioner's Court was held on Tuesday, the 21st day of July, 2015 at 10:00 a.m., in the Courtroom of the Navarro County Annex Building in Corsicana, Texas. Presiding Judge HM Davenport, Jr. Commissioners present Jason Grant, David Warren, Dick Martin, and James Olsen.

1. 10:04 A.M. Motion to convene by Comm. Olsen sec by Comm. Warren
Carried unanimously
2. Opening prayer by Comm. Martin
3. Pledge of Allegiance
4. Public comments-No comments
5. Motion to approve Level 1 Technology Proposals CAT 6 network regarding fiber and cabling for the Courthouse by Comm. Martin sec by Comm. Grant
Carried unanimously TO WIT PG 1214-1220
6. Motion to adjourn by Comm. Martin sec by Comm. Warren
Carried unanimously

I, SHERRY DOWD, NAVARRO COUNTY CLERK, ATTEST THAT THE FOREGOING IS A TRUE AND ACCURATE ACCOUNTING OF THE COMMISSIONERS COURT'S AUTHORIZED PROCEEDING FOR JULY 21st, 2015.

SIGNED 21st DAY OF JULY 2015.


SHERRY DOWD, COUNTY CLERK



1214

5

LEVELONETECHNOLOGY
NETWORK INFRASTRUCTURE

300 S. 13th Street

Waco, Texas 76701



CAT6 Network Cabling for Navarro County Court House Project

Not to exceed \$46,400.00

Prepared for:

Navarro County

Prepared by:

Brandon Armstrong
Sr. Project Manager/Estimator

LevelOne Technology
300 S. 13th
Waco, TX 76701
254-214-8166

LevelOne Technology is providing this SOW for OSI Layer 1 installation for the Navarro County Court House project. To date, LevelOne has not received an official scope of work or site plans, thus the final cable drop counts/locations will be obtained from site visit(s) and information provided by Navarro County Court House Technical Staff. All final quantities and pricing may be adjusted based on the final counts and requirements per the request of Navarro County Court House.

Based on the most recent information, the LevelOne Scope of Work will consist of the following:

- LevelOne will provide and install a plenum Cat 6 solution in pathways provided by others.
- LevelOne will install 2 CAT 6 drops to each location shown on the drawings unless the county decides that 1 drop per location will be enough.
- LevelOne will install 1 CAT 6 drop to each location that the Navarro County IT department decides they want wireless access points placed.
- LevelOne will extend and/or install a fiber from the Building entrance of the LAN/WAN fiber up to the MDF in a pathway provided by others.
- All faceplate/jack colors will be decided at a later date by the Navarro County.
- The LevelOne not to exceed price covers a standard faceplate with label window. If Navarro County decides on a specialty faceplate (Decor or stainless) that price difference will be quoted and submitted for approval by Navarro County.
- MDF/IDF Closet Build Out
- Turn Key installation, termination, testing and labeling per Navarro County Court House standard labeling scheme.

Each horizontal cable and/or optical fiber cable will be terminated on a modular patch panel or fiber enclosure in the associated assigned IDF/MDF.

The quote is based on LevelOne utilizing Industry Leading On-Site Installation Technicians to perform the scope as listed in this document.

PROJECT PARAMETERS

LevelOne will provide a 20-year warranty on the cabling materials and labor.

LevelOne will provide full management and installation services for the project, LevelOne will also offer updates to the General contractor, owner and technology consultant as requested.

All information and counts will be obtained from consultant/customer provided information.

LevelOne is proposing completion within the parameters and schedule.

LevelOne fully understands the requirements to successfully install a new network with a minimum of disruptions to Navarro County Court House and/or other contractors involved in the project. LevelOne will coordinate with Navarro County Court House representatives before the installation begins. Additionally, LevelOne will meet with all contacts prior to start of Project to review the construction plan and schedule.

All work performed under this scope will strictly adhere to the latest EIA/TIA and Navarro County Court House Infrastructure standards.

LevelOne will act as a central point of contact for the communication cabling implementation in the facility. All services will be provided in accordance with the provided specifications, as well as Navarro County Court House, manufacturer, and industry standards.

LevelOne Service Deliverables:

Centralized Project Management

- The main point of contact at LevelOne for project related communication is Brandon Armstrong, Brandon_armstrong@levelonetechnology.com (254-214-8166)
- Additional Contacts are:
 Braden Downs, braden_downs@levelonetechnology.com (254-749-7662)
 Chip Thompson, chip_thompson@levelonetechnology.com (254-214-7681)
- LevelOne will coordinate installation activities in conjunction with Navarro County Court House planning personnel and/or construction managers.
- No additional work will be performed unless approval has been received.
- Technicians will have proper LevelOne identification.

LevelOne Methodology

This section starts from the point of deployment, and assumes all back office scheduling and preliminary site support is completed. This methodology is considered to be in the preliminary phase as this is a proposal; these methods are *suggested* and can be modified to fit the project more precisely upon receipt of additional information.

- LevelOne will staff the required number of technicians to install the specified system.
- LevelOne will execute a sign-off form verifying completion for each project stage.

LevelOne will complete the following as part of this project prior to deployment:

- In-Person Design Programming Meeting in conjunction with the Navarro County Court House engineering and consultant personnel.
- Preliminary layout of site.

Structured Cabling Solution

This LevelOne structured cabling system carries a 20-year warranty on all installed labor, cabling and connectivity hardware.

Work Area Outlets (WAO) / Horizontal Cabling

1 Plenum CAT6 Cable

Plenum Cat 6 cable will be utilized in the horizontal cabling. Per EIA/TIA Standards, cable will be run "perpendicular and parallel" to the building structure wherever possible.

2 CAT6 Inserts

CAT 6 Modular inserts will be utilized in a faceplate at the workstation end for data applications. The inserts will be colored blue as per application and in compliance with specifications. Specific color(s) may be requested by Navarro County Court House.

3 Faceplates and Additional Cable Terminations

- 3.1 At each Work Area Outlet and specific to the outlets application, LevelOne will provide and install a faceplate designed to accept snap-in inserts and equipped with a label field and cover. LevelOne will install surface mount faceplates wherever possible, if they cannot be accommodated, a Biscuit type will be installed.
- 3.2 Each 4-pair data cable will be terminated on a CAT 6 insert and snapped into the faceplate. Any open faceplate ports will be filled with a blank insert.
- 3.3 Each 4-pair voice cable will be terminated on a CAT 6 insert and snapped into the faceplate. Any open faceplate ports will be filled with a blank insert.

4 Structured Cable System Routing

- 4.1 LevelOne will install each data cable from the specified rack in the designated

closet to the appropriate work area outlet as identified on the project prints and/or at the direction of the Navarro County Court House staff. All cables will be routed in the overhead ceiling space and placed into a cable support system consisting of newly installed J-hooks.

4.2 Any floor cores, conduit, or sleeves are to be provided by others.

4.3 Patch Panels for Voice and Data Termination

4.3.1 24 or 48-port Patch Panels will be utilized in the Distribution Cabinets or Racks for the termination of the CAT 6 horizontal station cables.

4.4 Horizontal and Vertical Wire Managers

4.4.1 LevelOne will place one (1) Horizontal Wire Manager above and below each patch panel. This will ensure neatness in all cable dressing.

4.4.2 All new cables will be dressed neatly through the managers.

4.5 Equipment Racks and Cabinets

4.5.1 LevelOne will and install a wall mount rack in each the identified IDF in the facility. This rack will house all copper and networking components. Racks are provided by Navarro County Court House

4.5.2 All Racks will be grounded using an approved grounding bar in accordance with EIA/TIA 5E07 and Navarro County Court House Standards. Earth Ground Provided by Others

4.6 Ladder-Type Cable Tray (If requested/required)

4.6.1 If required, LevelOne will install basket or ladder tray as needed to manage the cable entering the IDF room.

4.6.2 LevelOne will utilize the appropriate hardware to mount the tray. This may include any hardware deemed appropriate including wall angle brackets, threaded rods, beam clamps, butt-splices, junction splices, triangle brackets, rack-to-runway plates, or other items as needed.

4.6.3 The cable tray sections will bond together forming one tray system in each closet. LevelOne has provisioned for the each tray system to be grounded at a minimum of one (1) location.

5 Grounding and Bonding

- 5.1 LevelOne will connect each rack or cable tray system to the Telecommunications Grounding Buss Bar (Provided by others) in the Data Center using #6 AWG stranded copper cable.
- 5.2 Connection to the building ground or main ground bar is by others.
- 5.3 All bonding will be in accordance with EIA/TIA 5E07 as well as NEC and other applicable standards.

6 Fire Stopping

- 6.1 LevelOne has included labor and material for the fire stopping of all necessary telecommunications penetrations including the following Products:
 - Fire Stop Caulk for Conduits – HILTI FS5E01
 - Fire Stop Putty for Bare Penetrations – HILTI FS5E11A
 - Fire Stop Pillows, Box of 20 – Nelson AA500

7 CAT 6 and Optical Fiber Testing

All 4-Pair, Cat 6A or CAT 6 UTP cables will be tested and certified with a Fluke DTX-1800. The cable testing will be equipped with the latest software available. The tester will measure the electrical characteristics of the cable using a true frequency sweep method, similar to that of high-end laboratory style testing equipment. Each test will be conducted from the Horizontal Cross connect to the workstation outlet. All cable pairs and terminations will be tested for continuity including shorts, opens, crosses, splits, and wire mapping.

- Length (ft)
- Impedance (ohms)
- Resistance (ohms)
- Capacitance (pF)
- Attenuation (dB @ X MHz)
- Near End Cross Talk (NEXT; dB @ X MHz)
- Return Loss
- Delay Skew
- Pair to pair Power Sum Cross Talk (ELFEXT; dB @ X MHz)
- Attenuation to Crosstalk Ratio (ACR; dB @ X MHz)
- Additional EIA/TIA Cat 6A or CAT 6 requirements

7.1 Hard-copy results for each UTP 4-pair cable will be submitted as part of LevelOne's "as-built" project performance acceptance records. In addition to the above information, the documentation will also include a pass/fail indication for the

specified cable, the test date, and the serial number and software version of the scanner.

7.2 All fiber strands will be tested and certified with a FLUKE OF-400 OTDR. Test/Certification results will be provided to Navarro County Court House on Completion of the project

8 Labeling

8.1 Labeling provided by LevelOne will be typed or computer printed. The labeling convention will be as per the drawings and specification provided by Navarro County Court House, unless otherwise requested prior to construction. At such time, a jointly agreed upon labeling convention will be incorporated into LevelOne's pre-construction plan.

8.2 Items that will be labeled include:

- Work area telecommunications outlets
- Telecommunications closet connecting hardware (i.e., terminal blocks, patch panels)
- Telecommunications cable (i.e., backbone fiber/copper, horizontal). The cables will be labeled on each end.

PROVISIONS

Main building ground attachment and riser TGBB's to be provided by others.

Level One is not responsible for any conduit pathways.

Level One has recommended conduit sizes. If smaller sizes are used, we will not be responsible if cables do not fit.

Level One not responsible for Electrical outlets at MDF/IDF locations.