



ELECTRIC DEPARTMENT
DIRECTOR OF OPERATIONS
Barry A. Muccio

*Town of
Wolfeboro*

Town of Wolfeboro Municipal Electric Department Request for Proposal

Scope of Services

It is the intent of the Wolfeboro Municipal Electric Department to hire a contractor to excavate and install an underground conduit infrastructure along a 730 foot section of Cowper Road in preparation of installing new underground utilities. The following contractor requirements are to include but not limited to the following services and scope of work:

- Excavate along the southern side of road shoulder, 730 feet within the road right-of-way at 48” of depth and 48” wide (**See Attachment A. General Project Overview**).
- Install a continuous No.6 solid Copper grounding conductor (**provided by WMED**) to be directly buried throughout the bottom of the excavated ditch with an additional 10 feet length left accessible above grade at each termination point.
- Install four (4) independent 730 foot runs (2,920ft. total) of 4” Schedule 80 Electrical Grade Conduits within the ditch as depicted (**See Attachment B. Ditch Specification**).
 - Longitudinal runs of conduit will be installed in as straight and direct a line as possible.
 - All conduit ends joints and internal finish shall be free of sharp edges and burrs which could damage the cable while pulling.
 - All buried conduit joints shall be cleaned and glued per manufacturer’s recommendations.
 - A 2,500lb pulling tape (**provided by WMED**) shall be installed within each longitudinal run of conduit.
 - If minimum depth requirements for conduit cannot be obtained due to ledge obstructions, conduits shall be encased in concrete per MED standards. Preparations for concrete by contractor (**concrete costs by WMED**).
- Install coupling adapters and rigid steel sweeps (**provided by WMED**) for each subgrade conduit at the horizontal to vertical riser transition points (12 total).
- Install protective end caps (**provided by WMED**) on all exposed above grade conduits and all conduits shall be appropriately labeled as to their intended use.
- Provide and Install sand backfill material (approximately 140 cu/yards) as a bedding and direct cover material for conduit system.

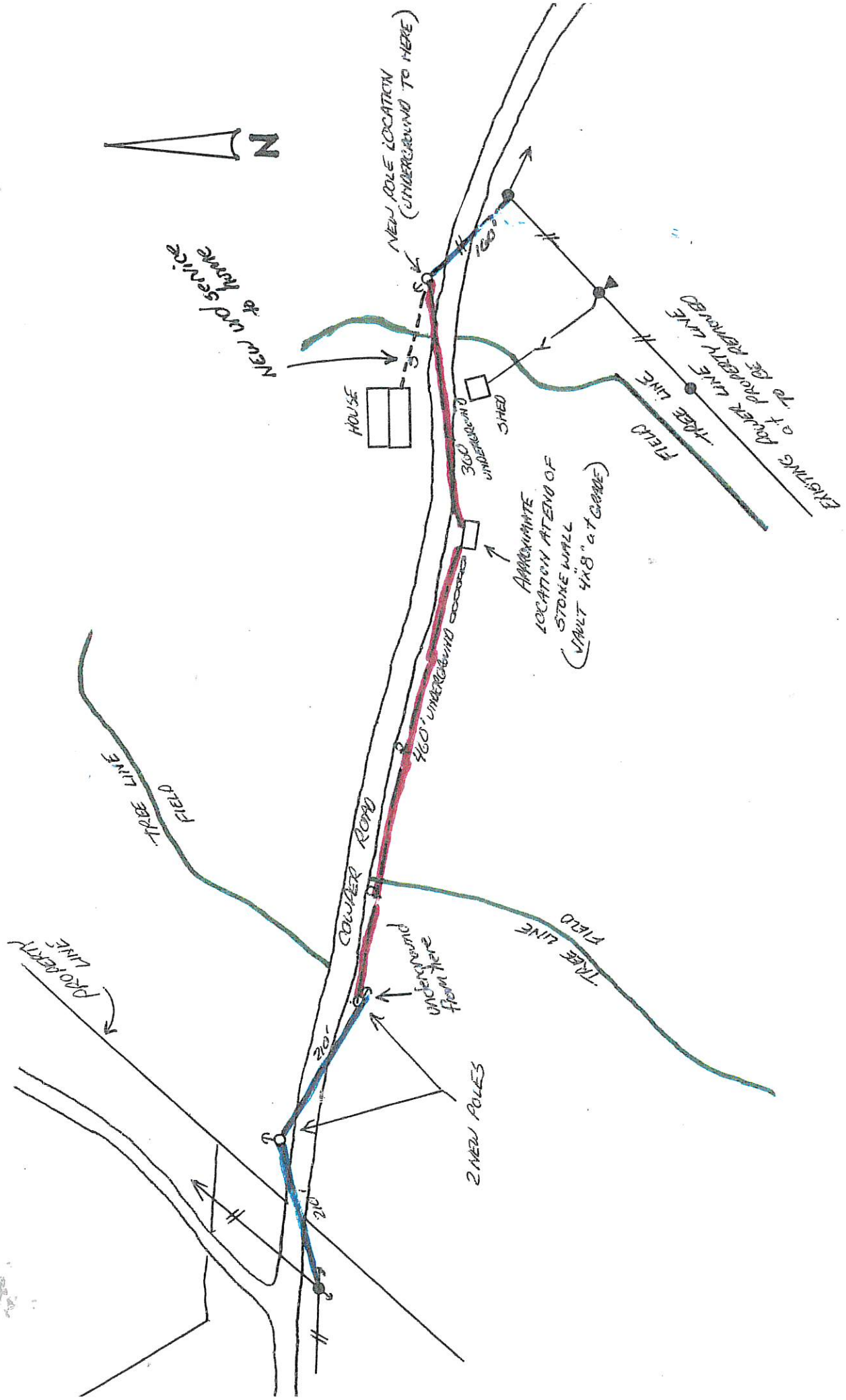
133 Middleton Road Post Office Box 777 Wolfeboro, New Hampshire 03894

Office: (603) 569-6975

Website: wolfeboronh.us



- Backfill and compact the existing excavated material above the sand bedding in 1 foot interval lifts to ensure settling is minimized.
- Excavate and Install a 4ft. x 8 ft. concrete vault assembly (**See Attachment C. U5-5, Vault Assembly, provided by WMED**). To include 12" compacted crushed stone base layer with drainage pipe (By Contractor).
 - The two (2) electrical conduits shall be installed "in and out" of this feed-through vault assembly and knockouts shall be patched in with masonry.
 - The two (2) communication conduits shall be stubbed-up above grade approximately 6 ft. from the exterior of the vault assembly in an area mutually agreed upon. (**See Attachment D. Communication Pedestal**).
- Install a continuous caution/warning tape (**provided by WMED**) 12" below the top finished grade of the ditch.
- The intent is to limit the daily scope and extent of work to ensure that an open ditch will not be left without cover overnight and weekends.
- It will be the contractor's responsibility to appropriately barricade and cone the work area to ensure safe travel for vehicles and pedestrians.
- A single lane for local through traffic shall be maintained throughout the excavation and utility work.
- Provide and spread/grade 40 cu/yards of 3/4" crushed gravel to the completed ditch and road surface to slope and finish grade to pre-existing conditions.
- All excess earthen material shall be removed from site by the contractor upon job completion.
- Contractor will **not** be responsible for excavation of ledge and rocks larger than 1 cu/yard in volume and therefore shall **not** be included in the contractors bid price. The drilling, splitting blasting and hammering of ledge shall be considered at a negotiated cost if encountered.
- Contractor must provide a timeline schedule to ensure that the substantial completion date is no later than November 29, 2019.

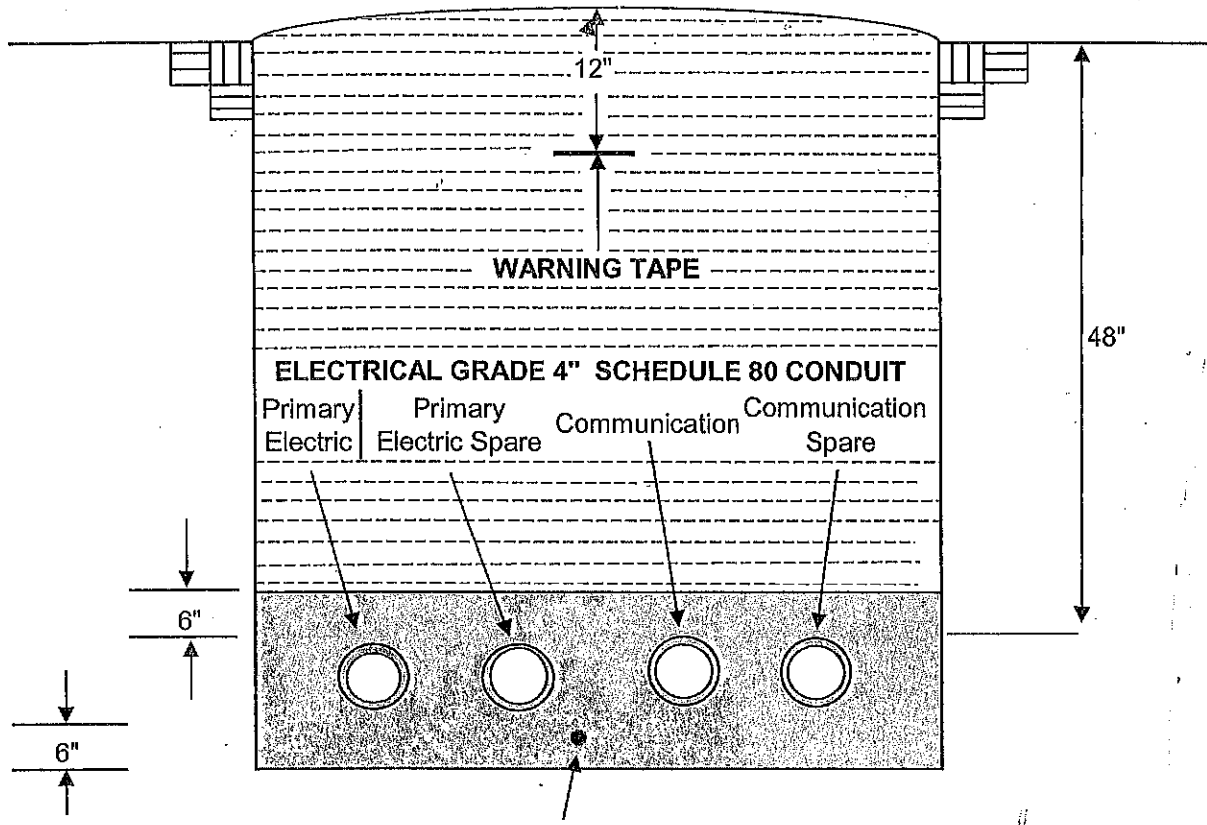


Proposed New Underground Utilities Shown in Red

Attachment A.

BRUNO
NOT TO SCALE

INSTALLATION REQUIREMENTS FOR UNDERGROUND CONDUIT




NO. 6 SOLID BARE COPPER
GROUNDING CONDUCTOR
(DIRECT BURIED IN LENGTH OF DITCH)

Note:

- * Trench width as required to maintain 6" spacing between all conduits and trench sidewalls.
- * Trenches to be in as straight line as possible, no more than 180 degree radius of sweep per run.
- * Rigid steel sweeps required for all runs over 150 ft.
- * Schedule 80 PVC or rigid required for all conduits.
- * A 2500lb pulling tape must be installed in each conduit for entire run.
- * A continuous no. 6 AWG copper grounding conductor shall be direct buried in the bottom of the trench prior to the installation of the conduit with adequate length at each end for grounding connection by Wolfeboro MED.
- * **TRENCH INSPECTION IS REQUIRED BY WOLFEBORO MED PRIOR TO BACKFILLING**

 COMPACTED BACKFILL
NO ROCKS LARGER THAN
6" DIAMETER

 SAND OR FINE BACKFILL
NO ROCKS LARGER THAN
1" DIAMETER

 UNDISTURBED EARTH



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569-8157

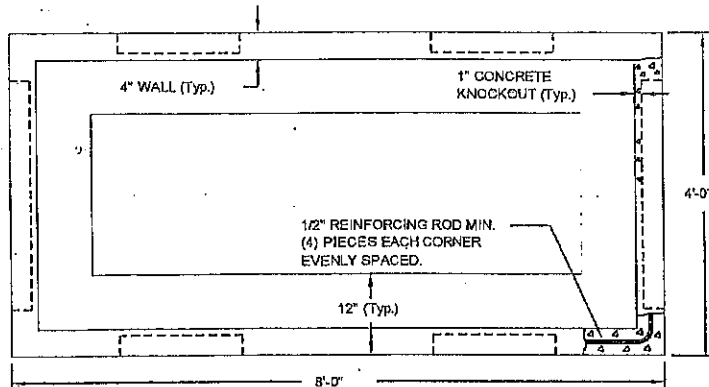
**TRENCH FOR JOINT PRIMARY
ELECTRIC, CABLE TV & TELEPHONE**

TRENCH

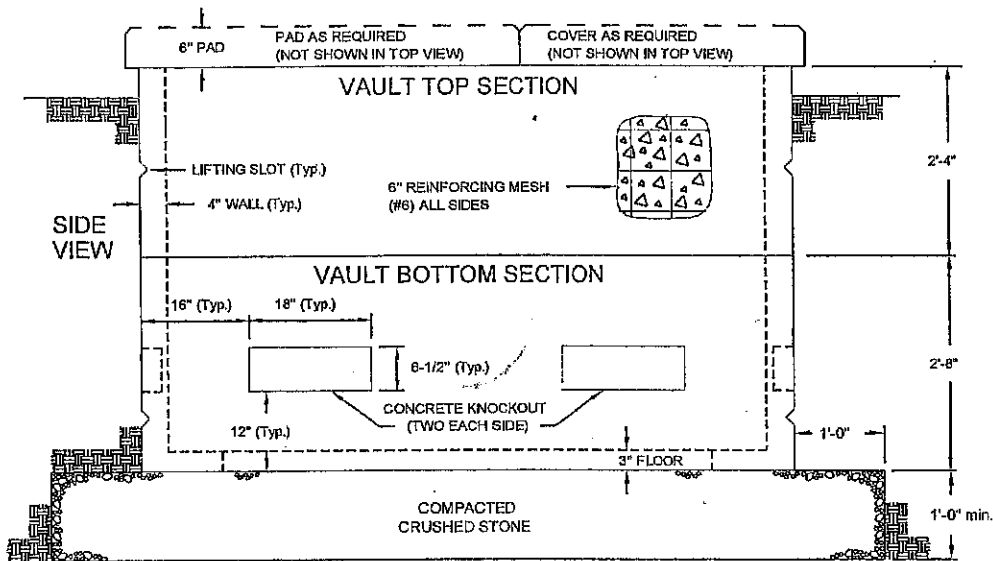
Attachment B.

VAULT CONSTRUCTION - UNDERGROUND

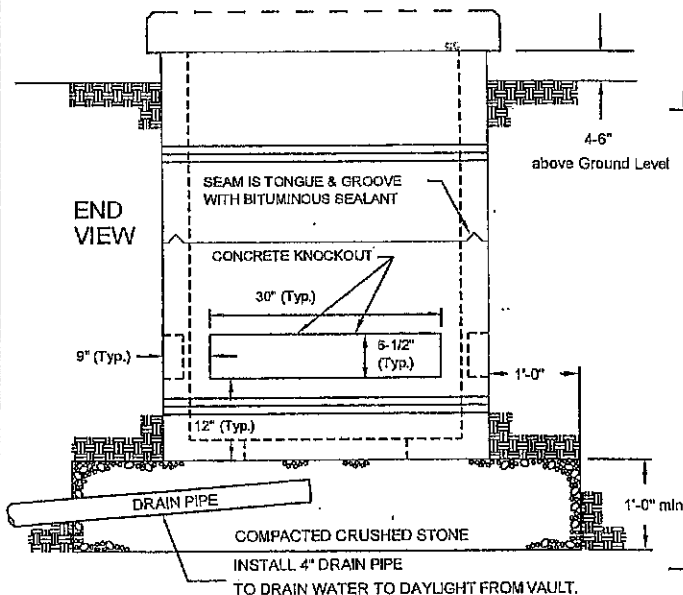
TOP VIEW



SIDE VIEW



END VIEW



INSTALLATION REQUIREMENTS

1. Top section of vault shall be no lower than 6 inches above grade.
2. All vault will be constructed with a drainage system of approved pipe material to drain water that may penetrate the vault. The piping shall originate at the lowest point inside the vault and routed to daylight in a manner to promote drainage.
3. If vault is located near a traveled way, WMED may require a protective structure to prevent damage.
4. Seal all knockouts after conduit is placed.
5. Concrete shall have a compression strength of 5000 P.S.I. after 28 days when tested in accordance with the latest edition of ASTM C-39-72.

PAD AND COVER REQUIREMENTS

FOR SINGLE PHASE TRANSFORMERS
USE PAD U6-5A WITH SOLID 4' x 4' COVER

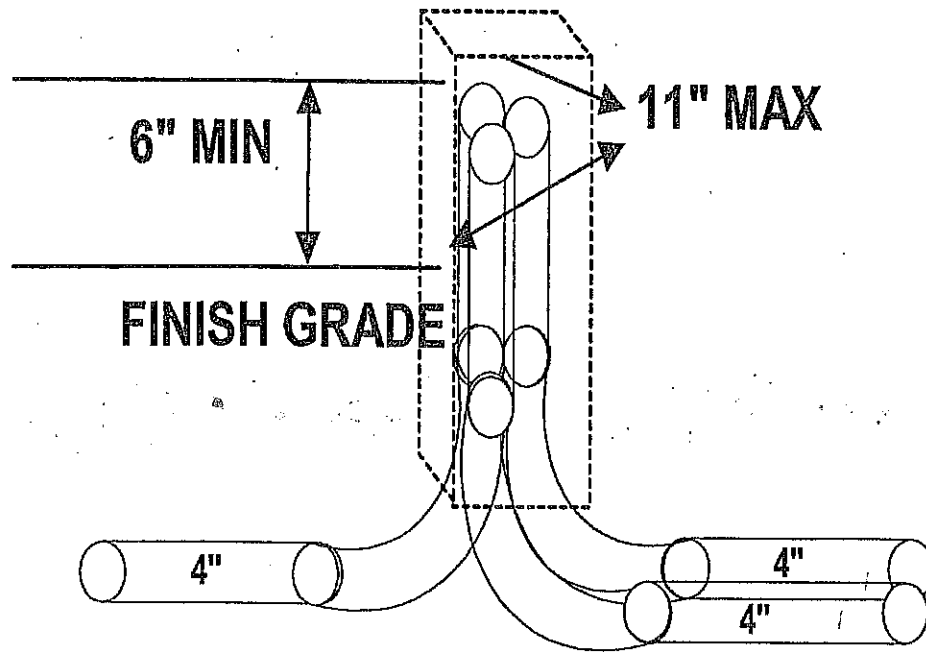


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**VAULT ASSEMBLY
MULTIPLE SERVICES AND
SINGLE PHASE TRANSFORMERS**

VAULT
U5-5
Attachment C.

INSTALLATION REQUIREMENTS FOR UNDERGROUND CONDUIT



ALL BENDS ARE TO BE 36" RADIUS SWEEPS
(NO PLUMBERS BENDS)
METALLIC SWEEPS REQUIRED ON ALL
RUNS IN EXCESS OF 225'



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Communication Conduit Pedestal Riser
CABLE TV & TELEPHONE

Conduit

Attachment D.