



**Permit Application for
Utility Installation Proposal
in County Right-of-Way or Easement**
6 crossings @ \$250 = \$1500
8 miles @ \$75 = 600 max = \$250
\$1750

Permit No.:	<u>22-045A-C</u>
Rec'd Date:	<u>7-18-2022</u>
Decision:	_____
Signature:	_____
Comments:	<u>Blk 20, Sec 105</u> <u>Blk S, Sec 52,53,56,59;</u>

Lubbock County Public Works

P.O. Box 10536

Lubbock, Texas 79409

Publicworks@lubbockcounty.gov

Phone. 806.775-1664

Pursuant to §251.106 The Commissioners Court may exercise general control over all roads in the county.

Section 1: Application Information

A. Applicant: FiberLight LLC B. Contractor: FiberLight LLC

Address: 3000 Summit Place Address: Suite 200
Alpharetta, GA 30009

Contact Name: Chris Bigley Contact Name: Rebecca Gentle

Phone: 214-714-0296 Phone: 303-913-0761

Email: chris.bigley@fiberlight.com Email: rebecca.gentle@mtc-llc.com

Section 2: Proposal Details (Locations, Type, and Timeline of Installation)

- A. Location of Installation: (if applicable, length of installation in feet): Installation of approximately 42,322' FOC
by directional and pull through methods. Starting east of CR 2600 along Woodrow Rd to CR3300 south to FM 41.
- B. Type of installation: Installation of NEW 31914' by directional bore. Pull through 10408' of FOC in existing duct.

Yes	No	
☒	☐	Completed Application
☐	☒	Does this pipeline fall under the Texas Railroad Commission (flow lines)
☐	☒	Will the line transport salt brine?

C. Proposed length of installation activities: 20 days (calendar days or working days)

Proposed start date: Aug 1st 2022 Completion date: Sep 30th 2022

Applicant will commence actual construction/work in good faith within 60 days from the date this Proposal is approved by the Lubbock County Commissioners Court. If such construction/work is not begun by the 60th day, Applicant will be required to apply for a new proposal.

Section 3: Submittal Checklist

- ☒ Completed Application
- ☒ Drawings/plans-Attach the drawings of the type of work, location, a Traffic Control Plan (in accordance with the Texas Manual on Uniform Traffic Control Devices) and description of the proposed line shown. The material specifications, minimum yield strength, and maximum operation pressure must be described on the attached drawings.
- ☐ Check Payment (If the Application is denied, then the amount will be refunded to Applicant)

Type of Installation	Crossing	Longitudinal
Overhead	\$150	\$50 per mile, maximum of \$150
Underground	\$250	\$75 per mile, maximum of \$250

Rebecca Gentle

Signature of Responsible Party

OSP Permit Specialist

Title

7/18/2022

Date

Section 4: Rules and Guidance

It is expressly understood that Lubbock County (hereinafter "the County") does not purport, hereby, to grant any right, claim, title, or easement in or upon a County road and it is further understood that should the County, for any reason at the sole discretion of the County, determine a need to work on, improve, relocate, widen, increase, add to, or in any manner change the structure of a right-of-way, the line, if affected, will be moved and relocated at the complete expense of Applicant, or owner of the line, if not the Applicant, to a location designated by the County.

Applicant acknowledges that prior to the submission of the Proposal, Applicant, or the owner of the line, if not the Applicant, has ascertained the location of all existing utilities, both aerial and underground, and the submission of this Proposal is prima facie evidence that the proposed installation will not conflict with any existing utility or other line.

All work on the County right-of-way shall not damage any part of the road way. If any damage does occur, Applicant, or owner of the line, if not the Applicant, is responsible for all expenses related to the repair of the road.

A. Pre-Construction Responsibilities

1. If the Proposal is accepted, the Applicant will assume all risks and hazards incidental to its use of the County's right-of-way under this Proposal and hold harmless, indemnify, and defend Lubbock County, its officers, employees and agents from any and all claims, suits, or actions arising out of Applicant's performance under this Proposal.
2. The Applicant shall provide within 5 business days, upon the written request of the County, proof of Insurance for and maintain, at Applicant's sole cost and expense, the following insurance coverage: (a) Industrial/Workers' Compensation Insurance protecting Applicant and the County from potential employee claims based upon job-related sickness, injury, or accident during performance of this Proposal; and (b) Comprehensive General Liability (including, without limitation, bodily injury and property damage) insurance with respect to Applicant's agents and vehicles assigned to perform the services described by this Proposal with policy limits of not less than \$1,000,000 combined single limit occurrence and \$2,000,000 in the aggregate. Lubbock County shall be named as an additional insured party and such notation shall appear on the certificate of insurance furnished by Applicant's insurance carrier.
3. The Applicant shall secure all other necessary permits, licenses, or approvals before starting work. Applicant will make the appropriate notification to Texas One Call/811 Service, in advance of the commencement of any work arising from this Proposal.
4. Approval of this Proposal is permissive, is subject to the public right of travel on and access to the right-of-way, and may not be assigned.
5. All residents or businesses affected by any scheduled maintenance causing road closure, or interruption of any utility service shall be notified forty-eight hours prior to any work. Emergency situations are exempt.
6. The County's Director of Public Works is to be notified 2 business days prior to the beginning of any work at (806) 775-1661. Failure to notify prior to the beginning of any work will constitute grounds for job shutdown and/or fines as defined in Section D.

B. During Construction Responsibilities

1. Signs and traffic controls shall comply with the current edition of the Manual on Uniform Traffic Control Devices, as approved by the Texas Department of Transportation. When necessary, flagmen shall be provided by Applicant.
2. Restoration of the right-of-way is required and shall be completed within 10 business days of the completed work within the right-of-way, unless otherwise approved by the Director of Public Works.
3. The cost of any repairs to road surface, roadbed, structures or other right-of-way features as a result of this installation will be borne by the owner of the line. Any costs to repair or replace the line will be borne by the owner of the line.
4. Where turf is disturbed by excavation or by backfilling operations, such areas shall be replaced by mulch sodding on all slopes of 2% or less. All slopes over 2% shall be replaced by block sodding.
5. All underground lines are to be installed a minimum of 36 inches below flow line of the adjacent drainage or borrow ditch.
6. All buried lines carrying an electrical current, or electronic or optical signal shall have yellow plastic tape at least two inches in width, buried a minimum of twelve inches above such lines.
7. Lines crossing under improved roads shall be placed by boring. Where right-of-ways widths will permit, boring shall extend for a minimum distance of ten foot on either side of the pavement.
 - a. In the event, where Applicant presents sufficient evidence illustrating the impracticability of boring, the

Commissioners Court may grant permission, on a case by case basis, to cut the surface of the road. In the event a cut is permitted, the work shall be conducted pursuant to the specifications of the Public Works Office and following condition:

- (i). All backfilling of dirt or caliche, within the width of the roadway, shall be done at optimum moisture, in 6" lifts and compacted sufficiently to obtain 95% Modified Standard Proctor density. Density tests from a reliable testing laboratory shall be furnished as required. Applicant is responsible for the costs of these tests.
 - (ii). Instead of utilizing the above procedure to backfill materials, the Applicant, may utilize flowable fill to backfill.
8. All excavations within the right of way and not under the road shall be backfilled by ordinary compaction with moisture added by placing the material in 6 inch layers. If the location of excavated materials is at least 5 feet outside the boundaries of the shoulder of the road, the material may be replaced by backfilling in 1 foot layers, and the material must have moisture added to secure normal density.
 9. Any temporary backfill and the permanent patch on any roadway surface shall be placed and maintained at an elevation equal to the original grade of the roadway.
 10. All lines under roads carrying pressure in excess of 50 psi shall be enclosed in satisfactory casing extending from right-of-way line to right-of-way line. Pipe used for casing may be any type approved by the Director of Public Works and shall be capable of resisting rupture, supporting the roadbed and traffic loads, and road construction, and shall be constructed such that there is no leakage through the casing, carrier pipe, joints or couplings.
 11. Overhead lines will have a minimum clearance of 18 feet above the road surface at point of crossing.
 12. No lines are to be installed under or within 50 feet of either end of a bridge. No lines shall be placed in a culvert or within 10 feet of the closest point of same.
 13. Parallel lines will be installed within 2 feet of the right of way, unless otherwise approved by the Director of Public Works, and no parallel line will be installed in the roadbed or between the drainage ditch and roadbed, unless otherwise approved by the Director of Public Works.
 14. Right-of-way surfaces shall be cleaned before the end of each day's work. All catch basins, culverts or other improvements affected by any deposits of dirt, mud, rock, debris, or other material shall be cleaned daily or as specified by the County.
 15. Any poles or pedestals necessary to underground cable installation within the County's right-of-way shall be placed with 18" of the nearer right-of-way line.

C. Post Construction Responsibilities

1. Final Inspection: All Proposals must have a final inspection once work is complete. Please call (806) 775-1661 to schedule a final inspection.
2. In the event Applicant's proposal is not approved prior to the installation of a line or Applicant does not install the line in compliance with the requirements established in this Proposal, Applicant, or owner of the line, if not the Applicant, assumes all financial responsibility for damages and/or destruction of lines, cables, etc. based upon its failure to comply with Lubbock County requirements.
3. This is a revocable Proposal. Lubbock County reserves the right to revoke approval of this Proposal at any time, in the sole discretion of Lubbock County, for interests of public health, safety or welfare, or for failure to repair any damages upon demand, or for any reason deemed sufficient by Lubbock County.

D. Fines for Non-Compliant Installation

Fines will be assessed for non-compliant installations as follows:

Type of Installation	Crossings	Longitudinal
Overhead	\$300	\$100 per mile, maximum of \$300
Underground	\$500	\$150 per mile, maximum of \$500

DATE
02/25/2022

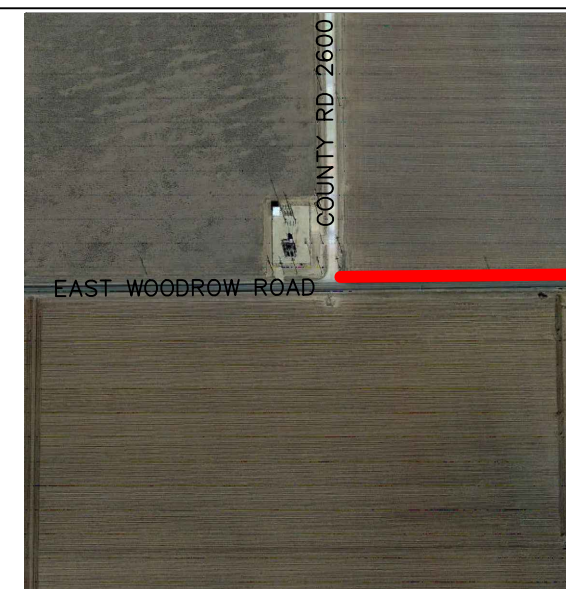


CITY: LUBBOCK, TEXAS
LATITUDE: 33.447424°

COUNTY: LUBBOCK
LONGITUDE: -101.796352°



A



START



END

CONSTRUCTION NOTES:

1. FOR UNDERGROUND CONSTRUCTION, INSTALL NEW 432 FOC IN PROPOSED DUCT
2. INSTALL NEW 36"x48"x48" HH
3. INSTALL NEW THREE (3) QTY 1.5" DUCTS

UNDERGROUND: 26720'

LEGEND

GREEN = PROJECT AREA

RED = UNDERGROUND CONSTRUCTION

BLUE = AERIAL CONSTRUCTION



8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY: DATE:

DATE	REVISION	BY

NOTES

- FOC = 432
- DUCT QTY/SIZE = (3) 1.5"
- DUCT TYPE = HDPE SDR11
- AERIAL = 0'
- BORE = 1080'
- TRENCH = 0'
- PLOW = 0'
- EXISTING = 0'
- NEW POLE = NONE
- REVIEW DRAFT:
- FINAL DRAFT:

DATE: 2/25/2022
DESIGN:
DRAFTED: MTR
CHECKED:
QA/QC:
SCALE: 1"=100'

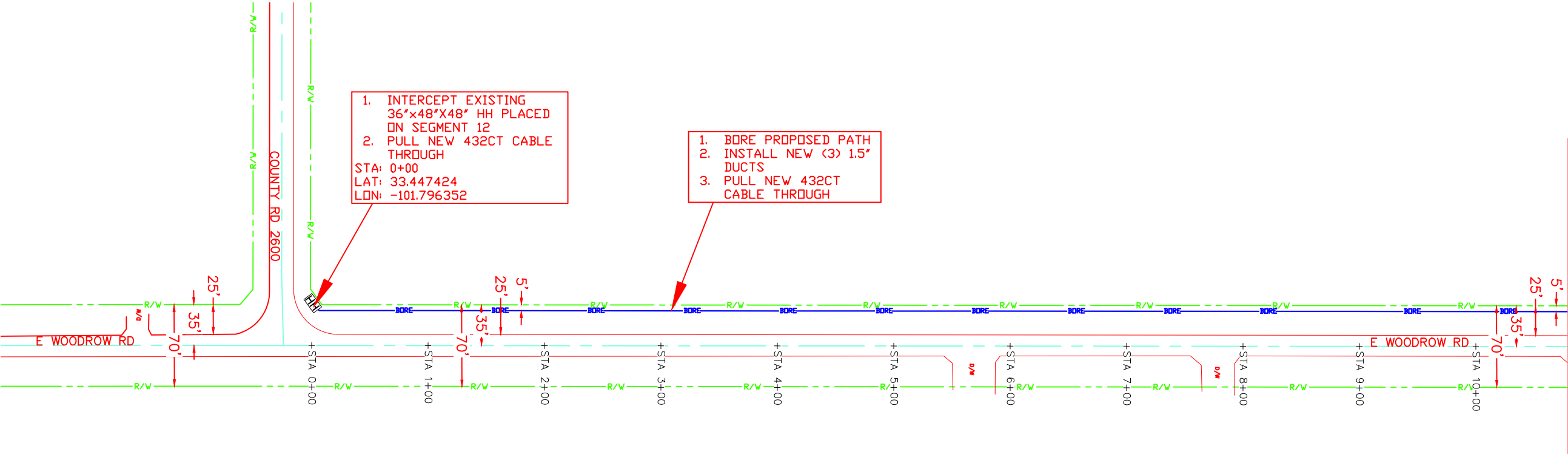


ENGINEERING COMPANY:



MANWEILER
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

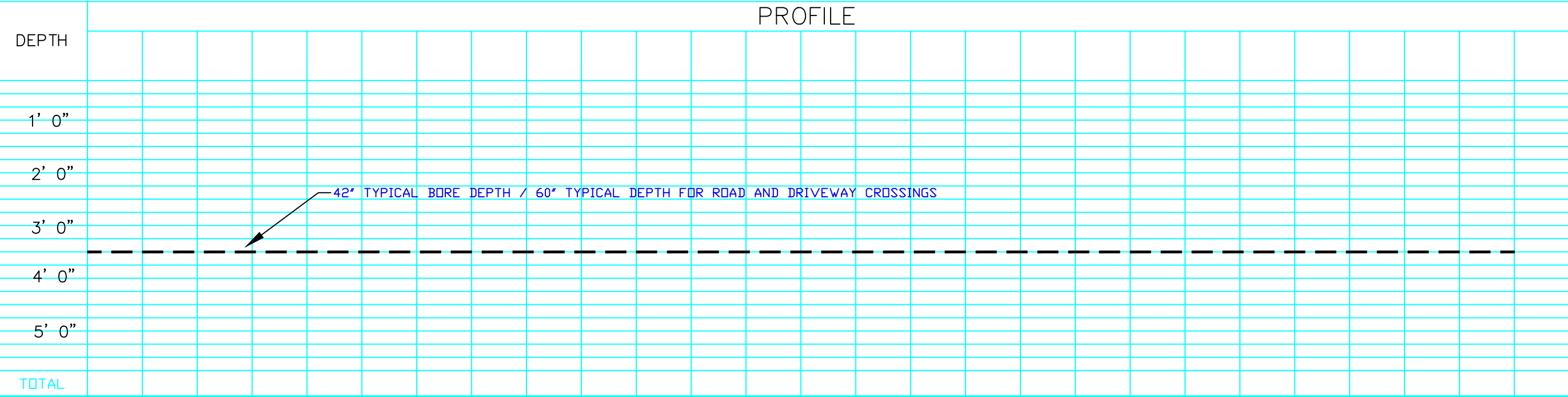
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY: DATE:

DATE	REVISION	BY

NOTES

- FOC = 432
- DUCT QTY/SIZE =(3) 1.5"
- DUCT TYPE = HDPE SDR11
- AERIAL = 0'
- BORE = 1345'
- TRENCH = 0'
- PLOW = 0'
- EXISTING = 0'
- NEW POLE = NONE
- REVIEW DRAFT:
- FINAL DRAFT:

DATE: 2/25/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

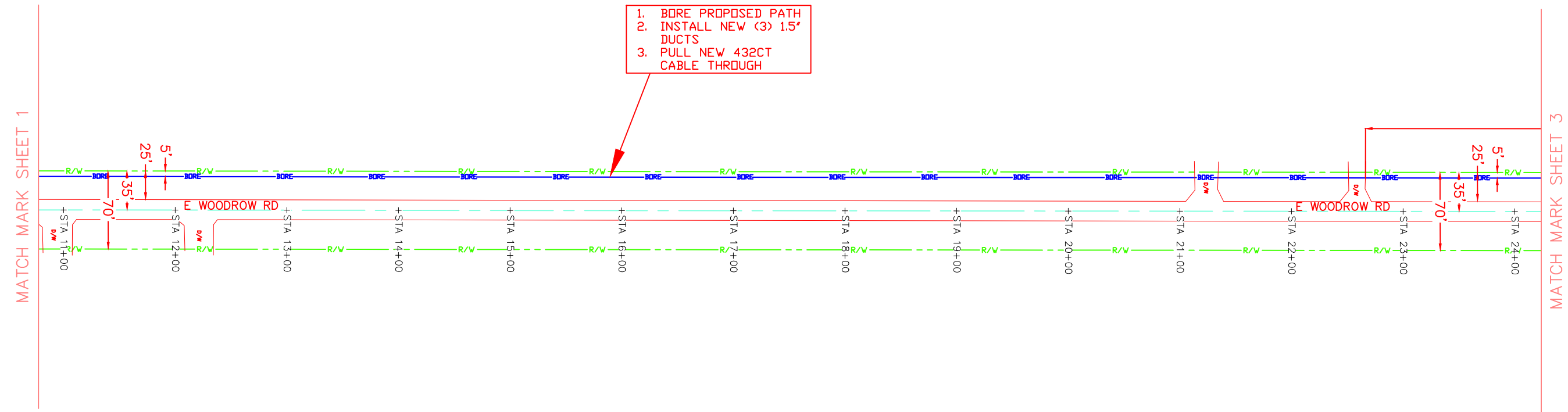
SCALE: 1"=100'



ENGINEERING COMPANY:



8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

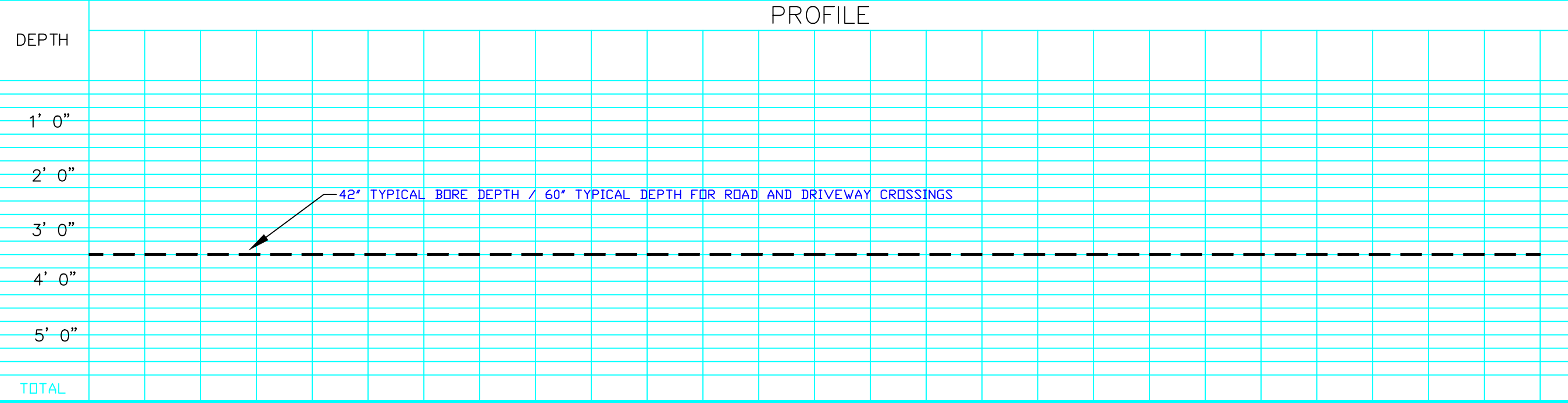
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



TOTAL

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY: DATE:

DATE	REVISION	BY

NOTES

- FOC = 432
- DUCT QTY/SIZE = (3) 1.5"
- DUCT TYPE = HDPE SDR11
- AERIAL = 0'
- BORE = 1345'
- TRENCH = 0'
- PLOW = 0'
- EXISTING = 0'
- NEW POLE = NONE
- REVIEW DRAFT:
- FINAL DRAFT:

DATE: 2/25/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

SCALE: 1"=100'

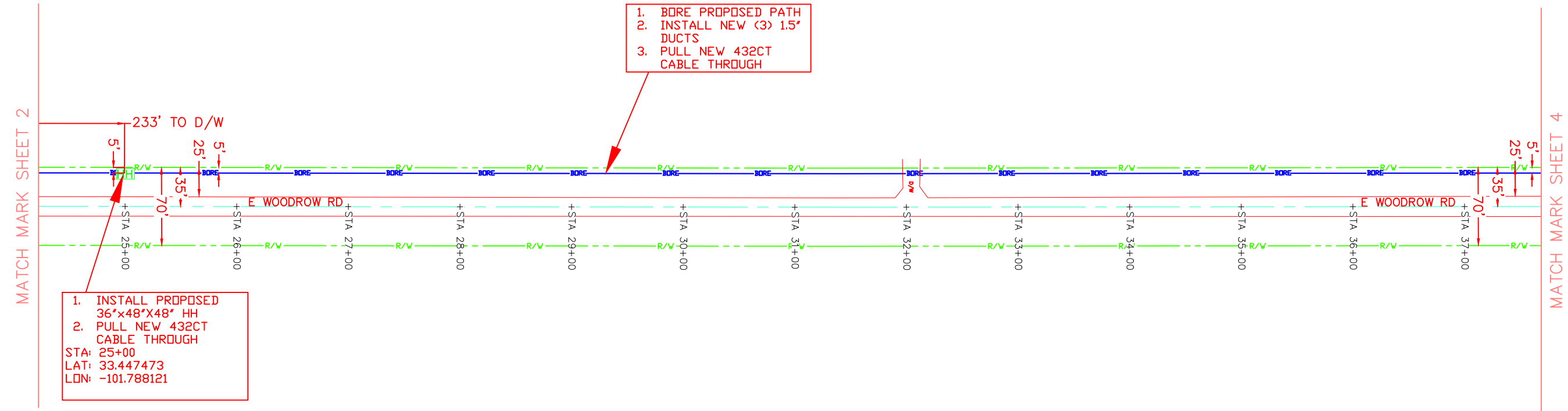


ENGINEERING COMPANY:



TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH UNDER ALL ROADS AND DRIVEWAYS

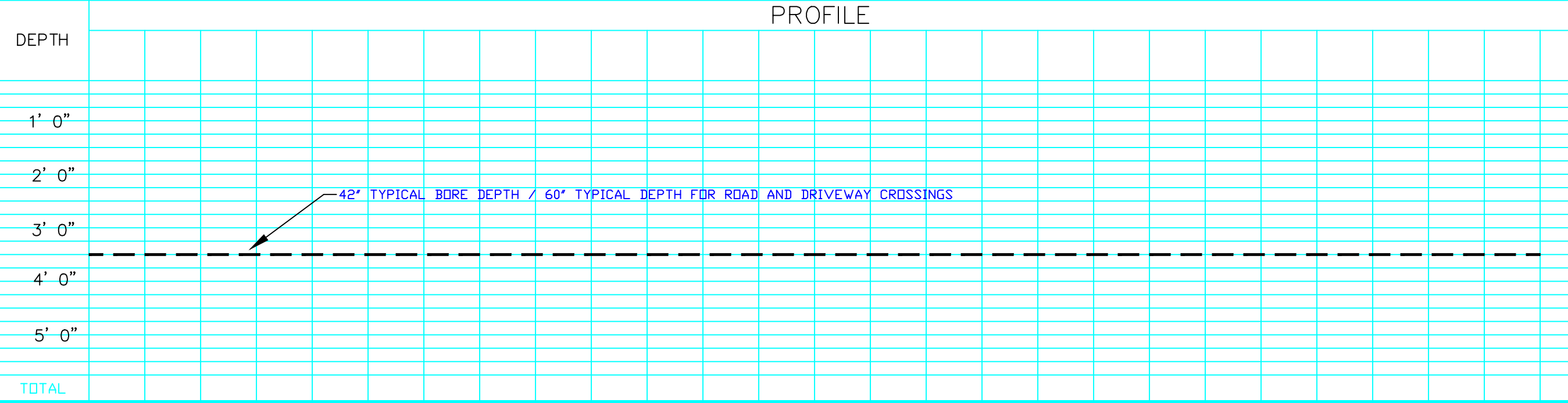
DESIGN TO MAINTAIN 5' OFF ROW' HH PLACED 3' OFF ROW



CAUTION: UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED CORRECT. CONTRACTOR TO VERIFY EXISTENCE, LOCATION AND DEPTH TO THEIR OWN SATISFACTION TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START OF CONSTRUCTION.

UTILIZE TCP 1-1A FOR TRAFFIC CONTROL

PROFILE



ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY: DATE:

DATE	REVISION	BY

NOTES

- FOC = 432
- DUCT QTY/SIZE =(3) 1.5"
- DUCT TYPE = HDPE SDR11
- AERIAL = 0'
- BORE = 1345'
- TRENCH = 0'
- PLOW = 0'
- EXISTING = 0'
- NEW POLE = NONE
- REVIEW DRAFT:
- FINAL DRAFT:

DATE: 2/25/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

SCALE: 1"=100'

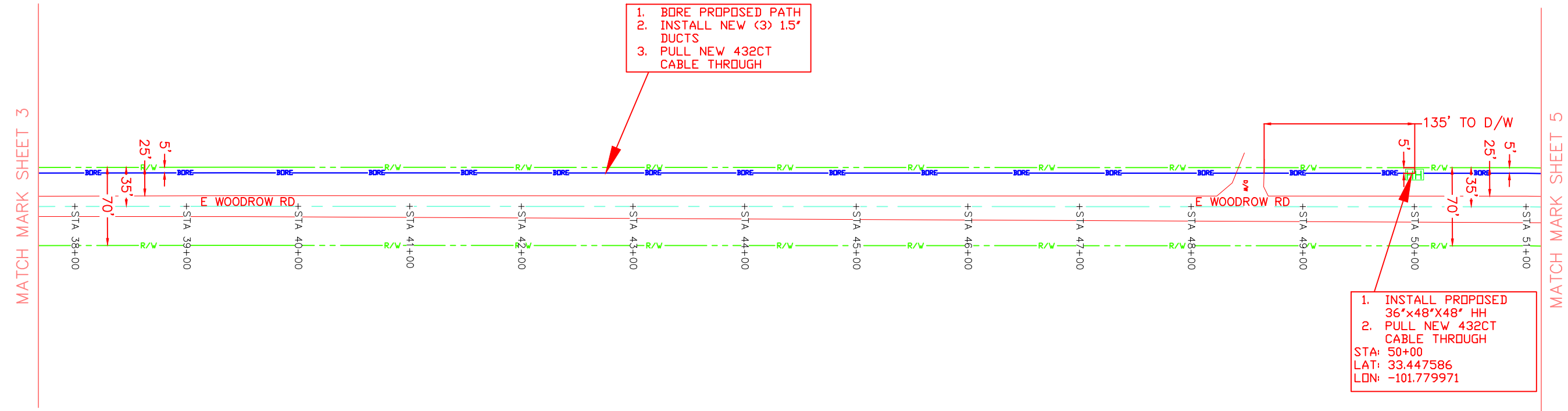


ENGINEERING COMPANY:



MANWEILER
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

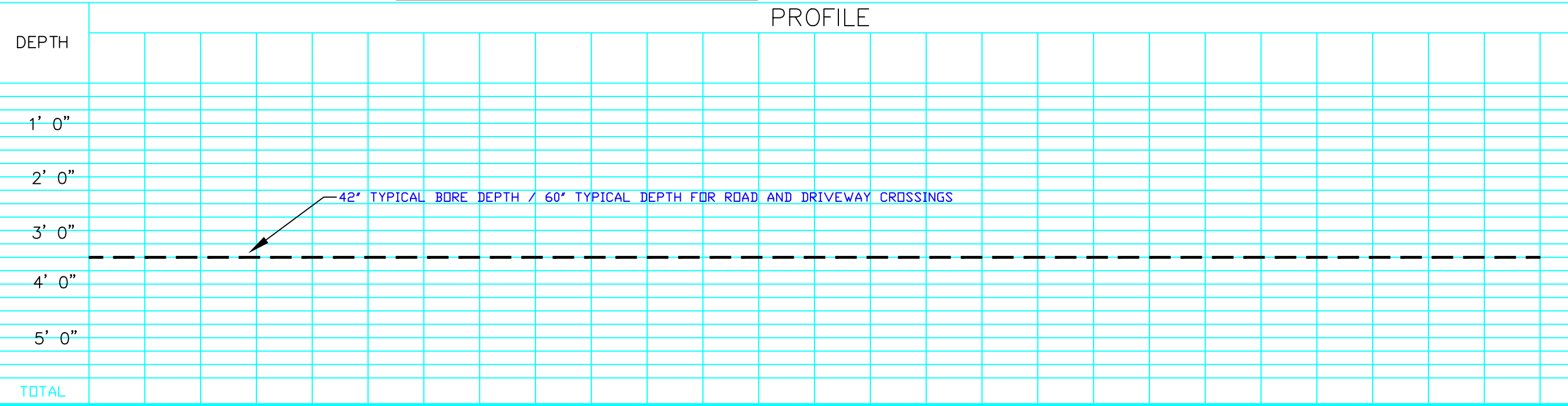
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE

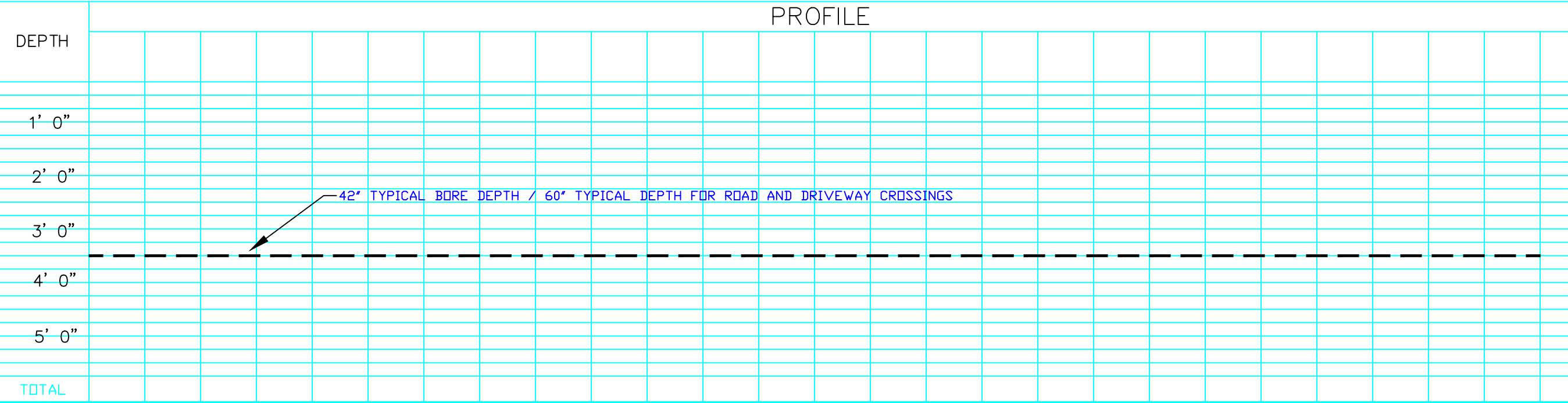
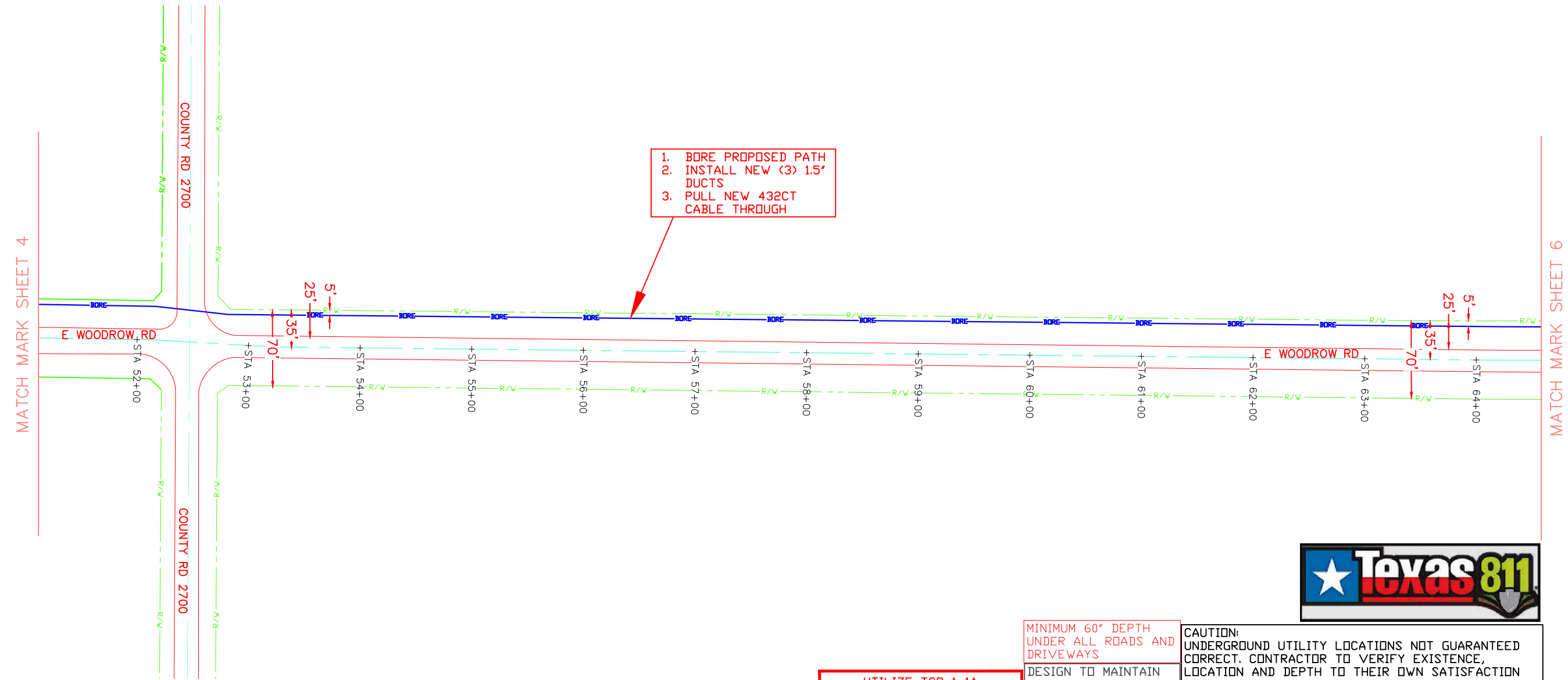


ENGINEERING COMPANY:



MANWEILER
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



	CO.
	SEC.
	TWN.
	RNG.
	TAX:

STKD BY:	DATE:	
DATE	REVISION	BY

- NOTES
- FOC = 432
 - DUCT QTY/SIZE = (3) 1.5"
 - DUCT TYPE = HDPE SDR11
 - AERIAL = 0'
 - BORE = 1345'
 - TRENCH = 0'
 - PLOW = 0'
 - EXISTING = 0'
 - NEW POLE = NONE
 - REVIEW DRAFT:
 - FINAL DRAFT:

DATE: 2/25/2022
DESIGN:
DRAFTED: MTR
CHECKED:
QA/QC:
SCALE: 1"=100'



ENGINEERING COMPANY:

MANWEILER
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY: DATE:

DATE	REVISION	BY

NOTES

- FOC = 432
DUCT QTY/SIZE =(3) 1.5"
DUCT TYPE = HDPE SDR11
AERIAL = 0'
BORE = 1345'
TRENCH = 0'
PLOW = 0'
EXISTING = 0'
NEW POLE = NONE
REVIEW DRAFT:
FINAL DRAFT:

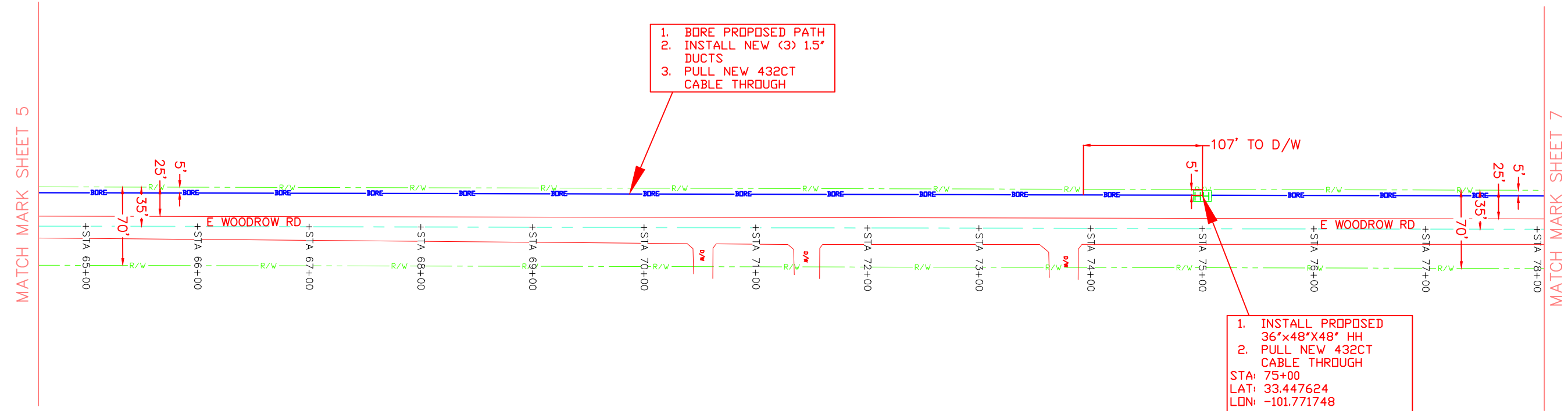
DATE: 2/25/2022
DESIGN:
DRAFTED: MTR
CHECKED:
QA/QC:
SCALE: 1"=100'



ENGINEERING COMPANY:



8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

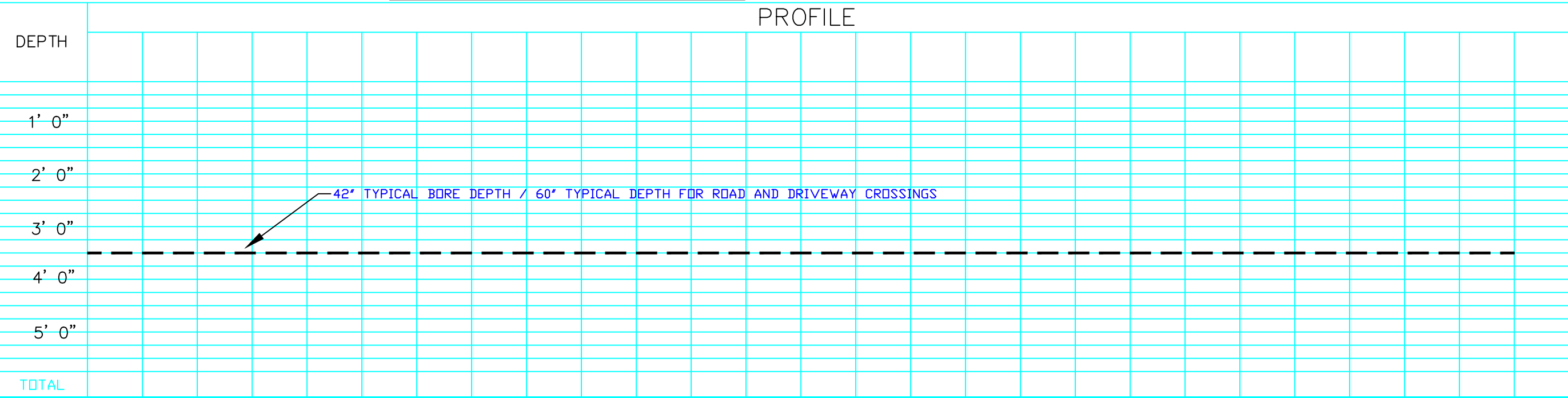
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



LUBBOCK COUNTY, TX

SHEET 007 OF 021

ROUTE

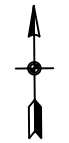
EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY _____

PROJECT PRONAME



CO.

SEC.

TWN.

RNG...

TAX:

STKD BY: DATE:

DATE	REVISION	BY
------	----------	----

[illegible]

NOTES

FOC = 432

DUCT QTY/SIZE = (3) 1.5"

DUCT TYPE = HDPE SDR11

AERIAL = 0'

BORE = 1345'

TRENCH = 0'

PLOW = 0'

EXISTING = 0'

NEW POLE = NONE

REVIEW DRAFT:

FINAL DRAFT:

DATE: 2/25/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

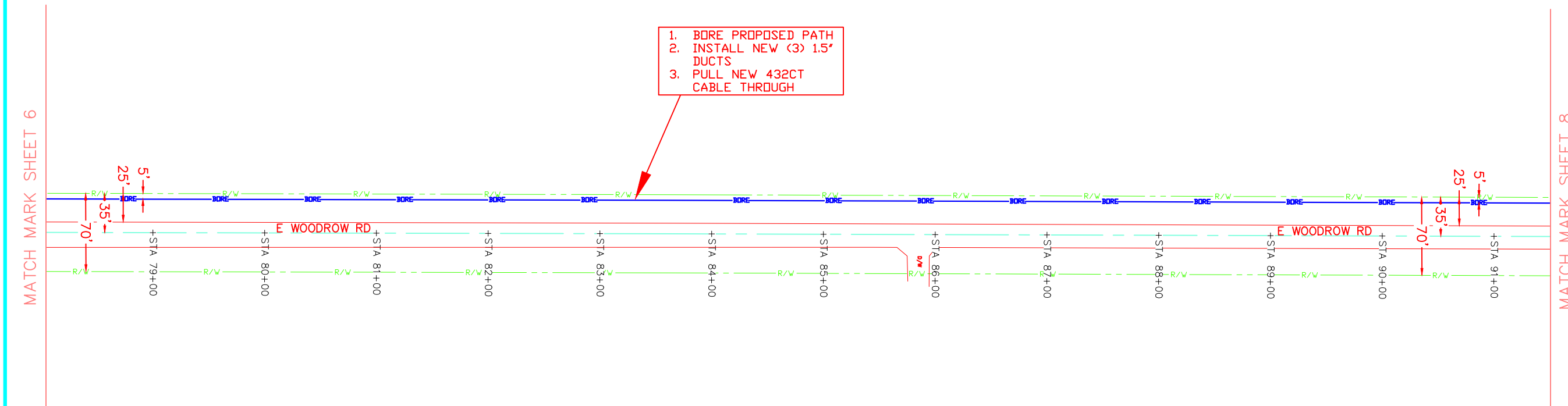
SCALE: 1"=100'



ENGINEERING COMPANY:



**8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577**



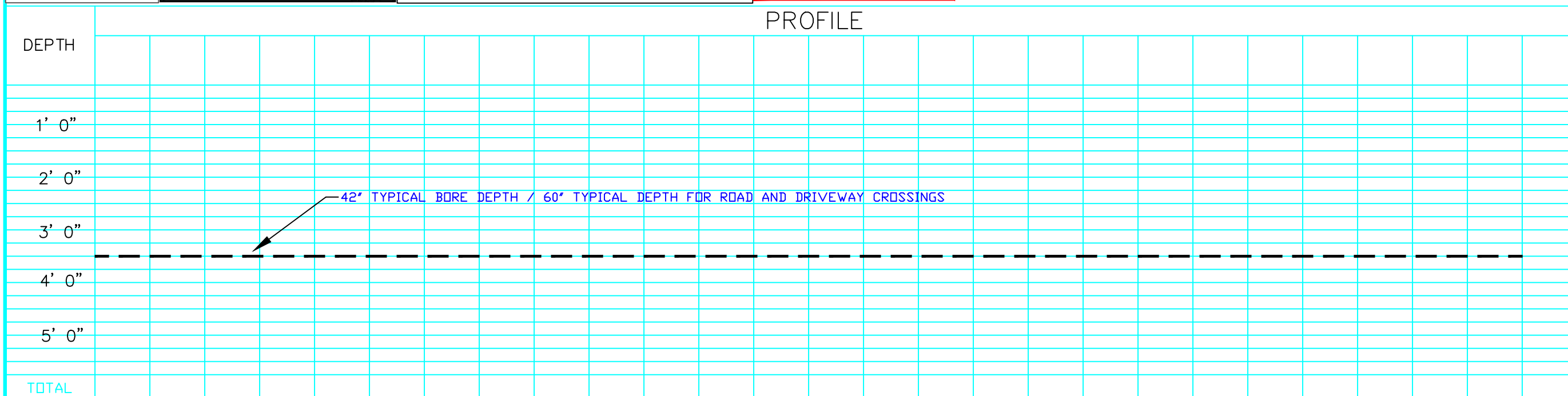
MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



**8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577**

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY: DATE:

DATE	REVISION	BY

NOTES

- FOC = 432
- DUCT QTY/SIZE =(3) 1.5"
- DUCT TYPE = HDPE SDR11
- AERIAL = 0'
- BORE = 1342'
- TRENCH = 0'
- PLOW = 0'
- EXISTING = 0'
- NEW POLE = NONE
- REVIEW DRAFT:
- FINAL DRAFT:

DATE: 2/25/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

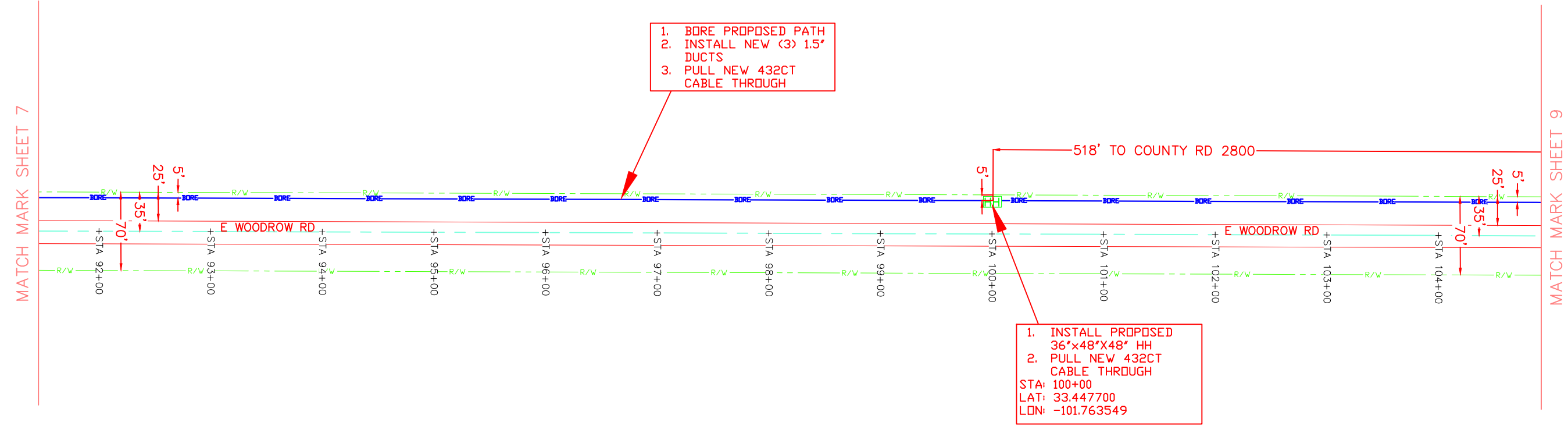
SCALE: 1"=100'



ENGINEERING COMPANY:

MANWEILER
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

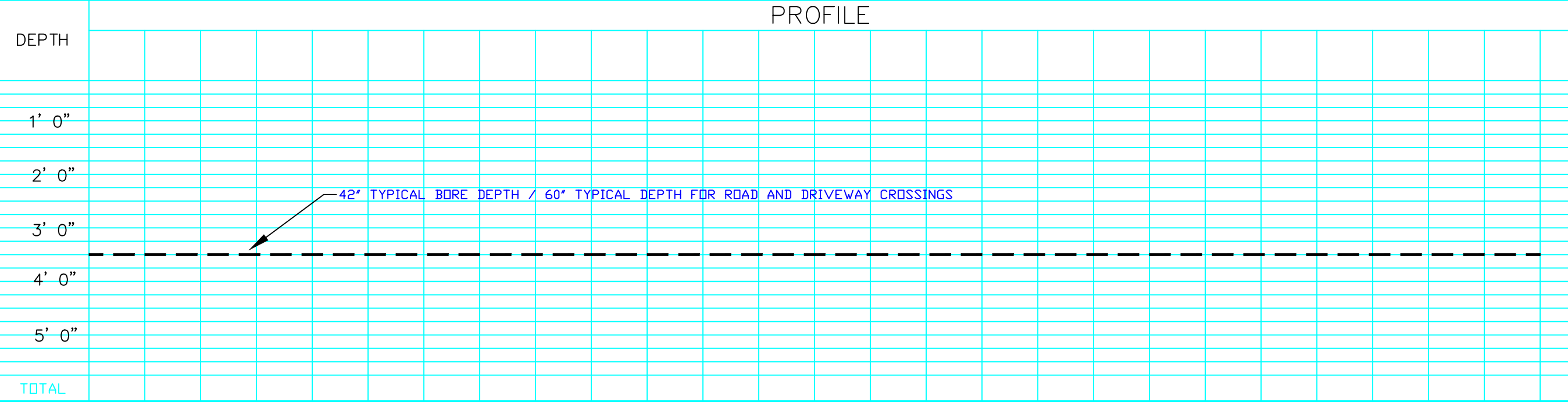
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW

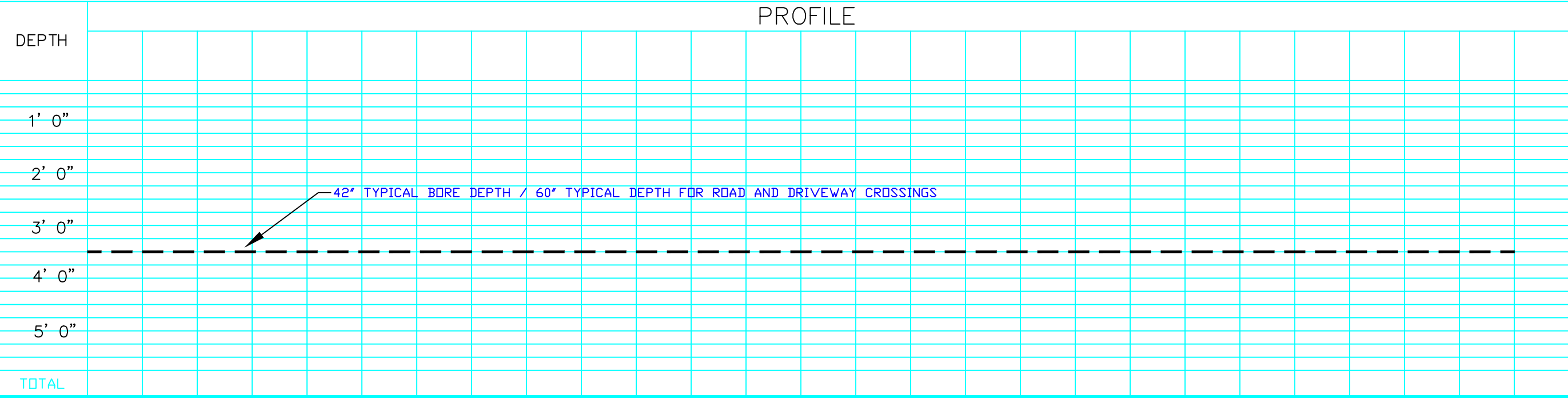
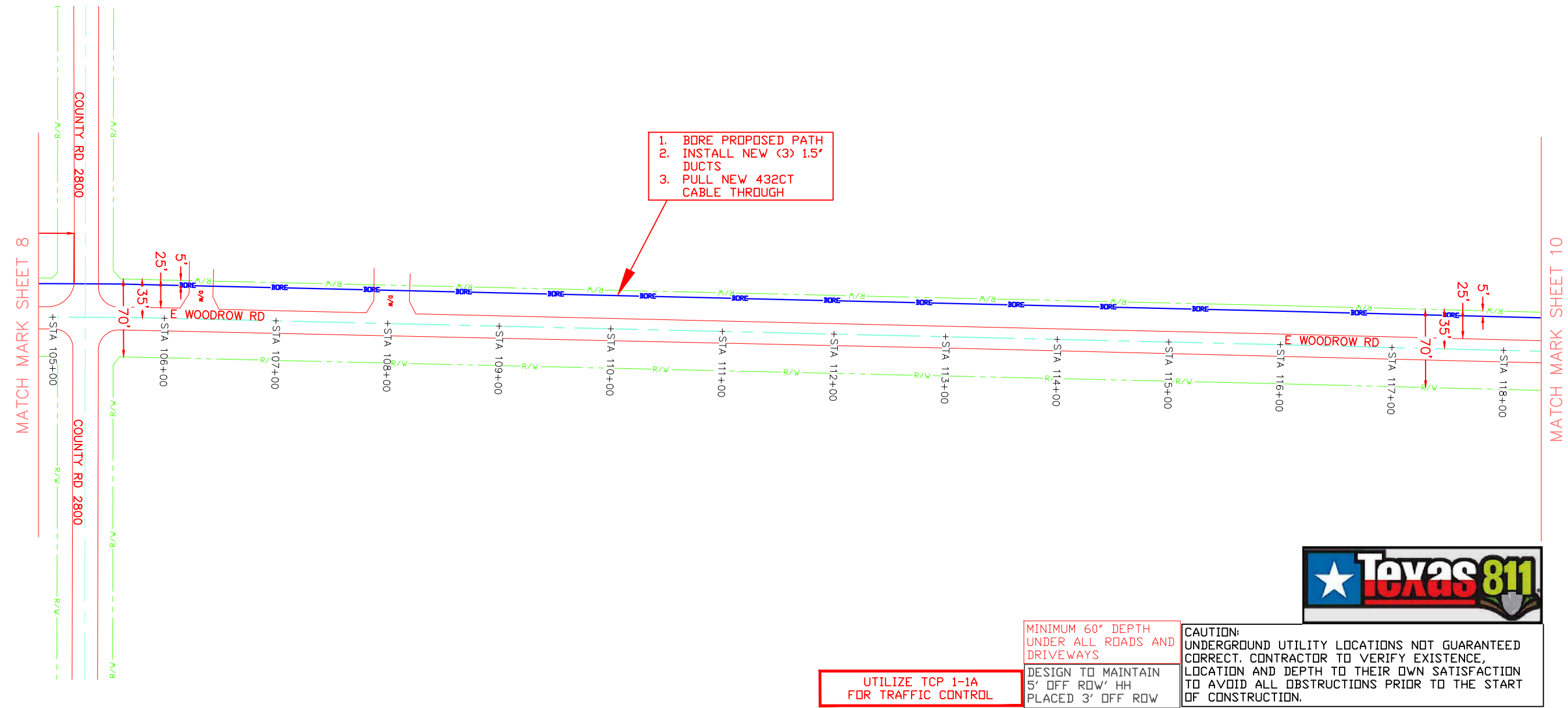


CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE





ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME

	CO.
	SEC.
	TWN.
	RNG.
	TAX:

STKD BY:	DATE:	
DATE	REVISION	BY

NOTES

FOC = 432

DUCT QTY/SIZE = (3) 1.5"

DUCT TYPE = HDPE SDR11

AERIAL = 0'

BORE = 1345'

TRENCH = 0'

PLOW = 0'

EXISTING = 0'

NEW POLE = NONE

REVIEW DRAFT:

FINAL DRAFT:

DATE: 2/25/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

SCALE: 1"=100'



ENGINEERING COMPANY:

MANWEILER
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY: DATE:

DATE	REVISION	BY

NOTES

- FOC = 432
DUCT QTY/SIZE =(3) 1.5"
DUCT TYPE = HDPE SDR11
AERIAL = 0'
BORE = 1345'
TRENCH = 0'
PLOW = 0'
EXISTING = 0'
NEW POLE = NONE
REVIEW DRAFT:
FINAL DRAFT:

DATE: 2/25/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

SCALE: 1"=100'

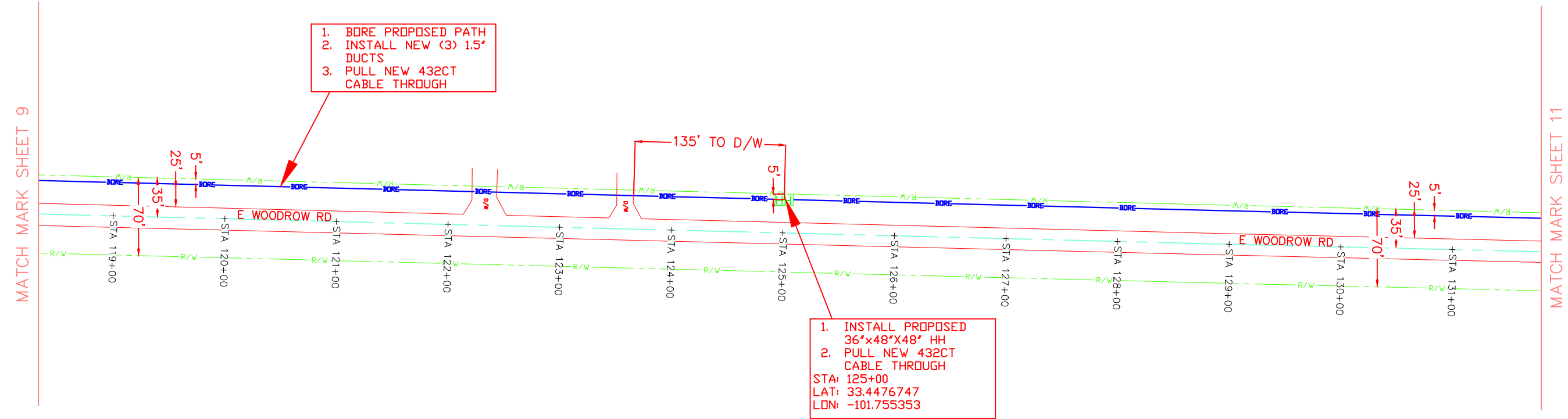


ENGINEERING COMPANY:



MANWEILER
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

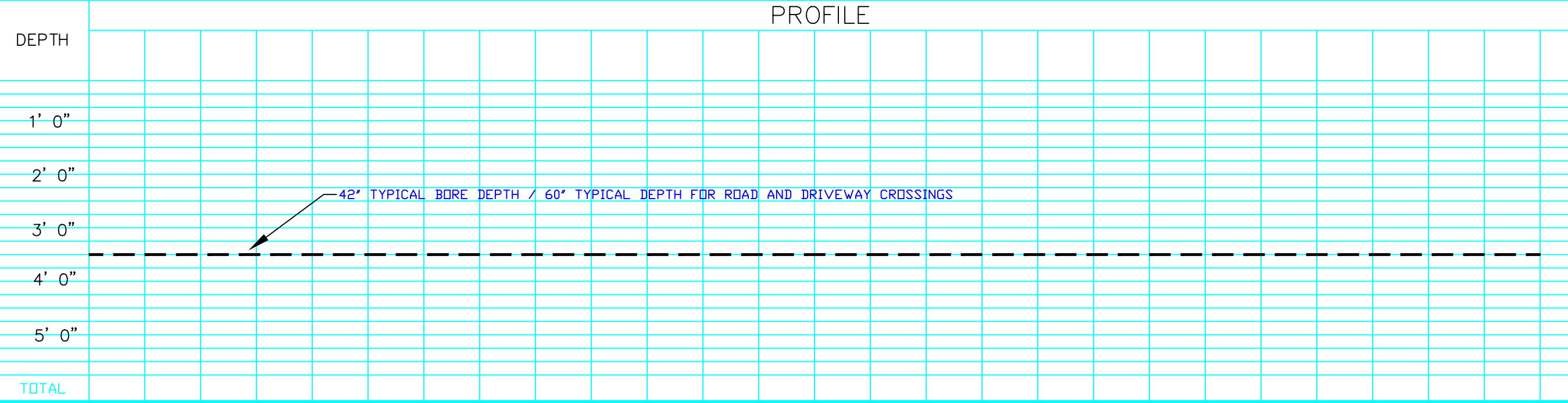
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY:		DATE:		BY
DATE	REVISION			

NOTES

- FOC = 432
- DUCT QTY/SIZE = (3) 1.5"
- DUCT TYPE = HDPE SDR11
- AERIAL = 0'
- BORE = 1345'
- TRENCH = 0'
- PLOW = 0'
- EXISTING = 0'
- NEW POLE = NONE
- REVIEW DRAFT:
- FINAL DRAFT:

DATE: 2/25/2022
DESIGN:
DRAFTED: MTR
CHECKED:
QA/QC:
SCALE: 1"=100'

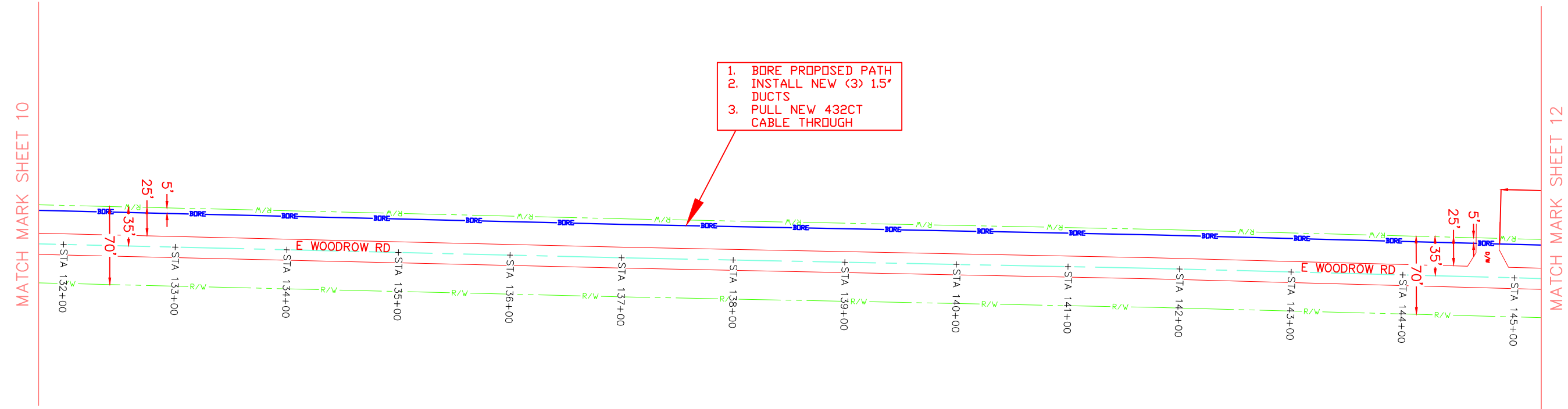


ENGINEERING COMPANY:



MANWEILER
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

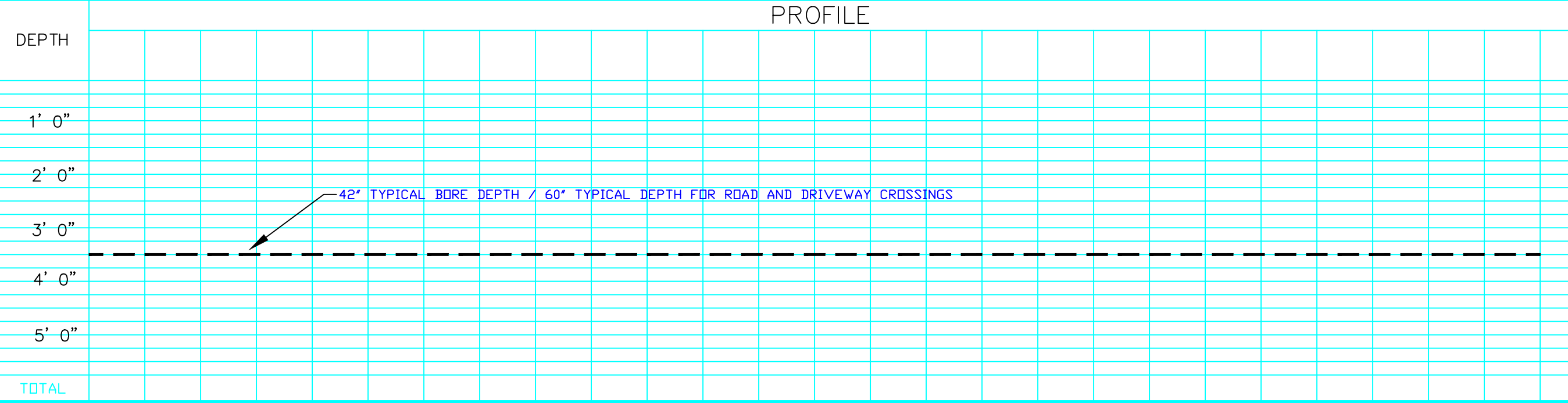
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY:		DATE:		BY
DATE	REVISION			

NOTES

- FOC = 432
DUCT QTY/SIZE = (3) 1.5"
DUCT TYPE = HDPE SDR11
AERIAL = 0'
BORE = 1345'
TRENCH = 0'
PLOW = 0'
EXISTING = 0'
NEW POLE = NONE
REVIEW DRAFT:
FINAL DRAFT:

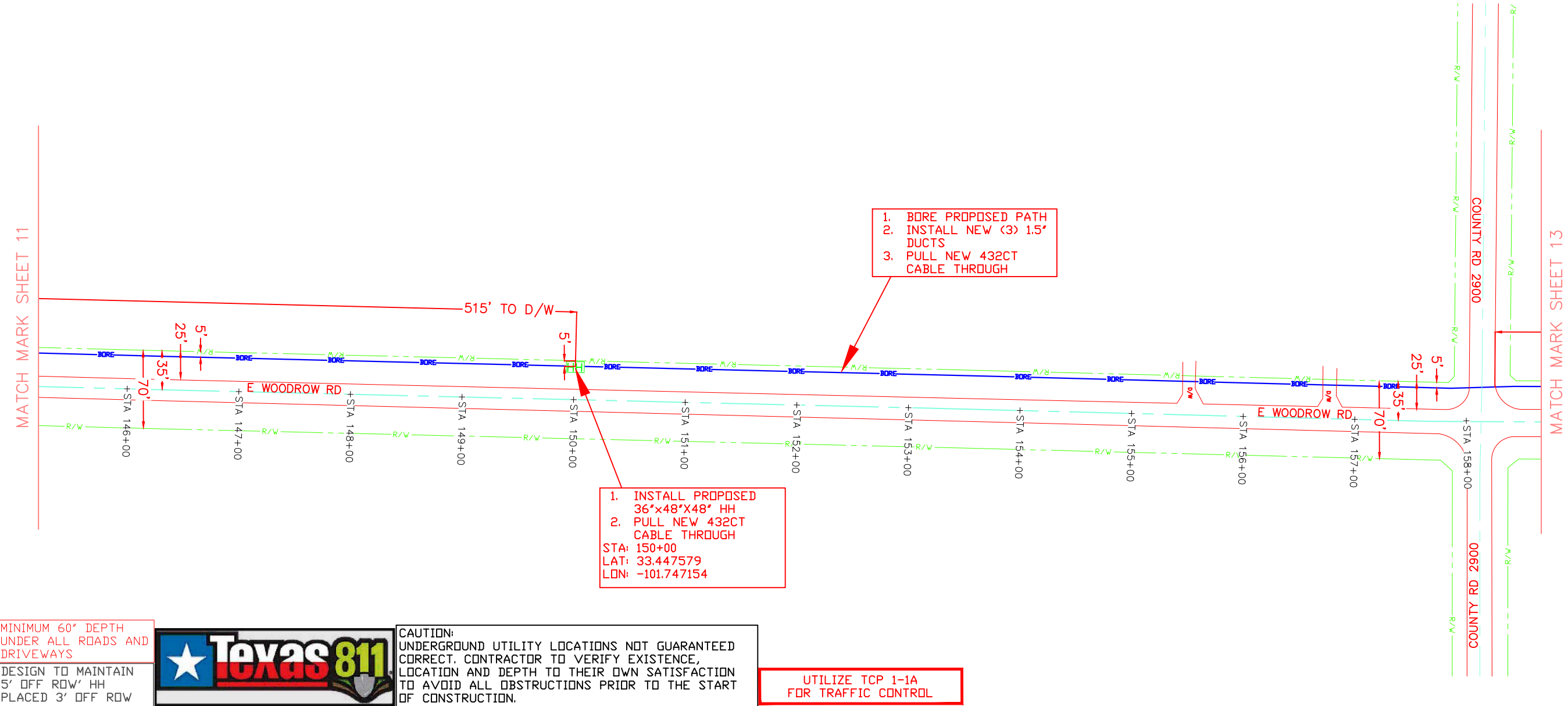
DATE: 2/25/2022
DESIGN:
DRAFTED: MTR
CHECKED:
QA/QC:
SCALE: 1"=100'



ENGINEERING COMPANY:



8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

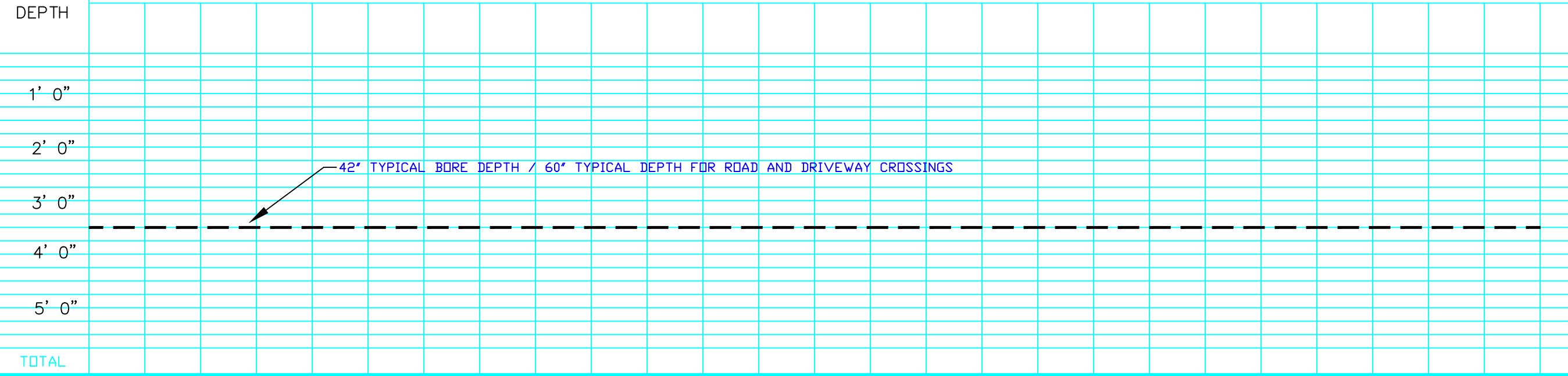
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY: DATE:

DATE	REVISION	BY

NOTES

- FOC = 432
DUCT QTY/SIZE = (3) 1.5"
DUCT TYPE = HDPE SDR11
AERIAL = 0'
BORE = 1344'
TRENCH = 0'
PLOW = 0'
EXISTING = 0'
NEW POLE = NONE
REVIEW DRAFT:
FINAL DRAFT:

DATE: 2/25/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

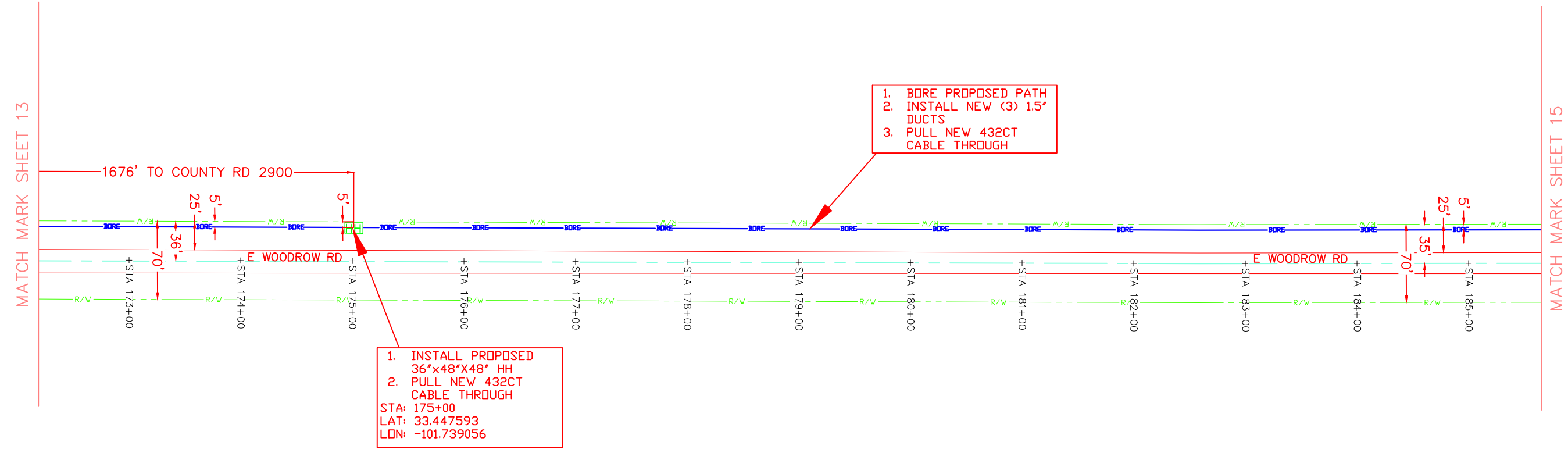
SCALE: 1"=100'



ENGINEERING COMPANY:



8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

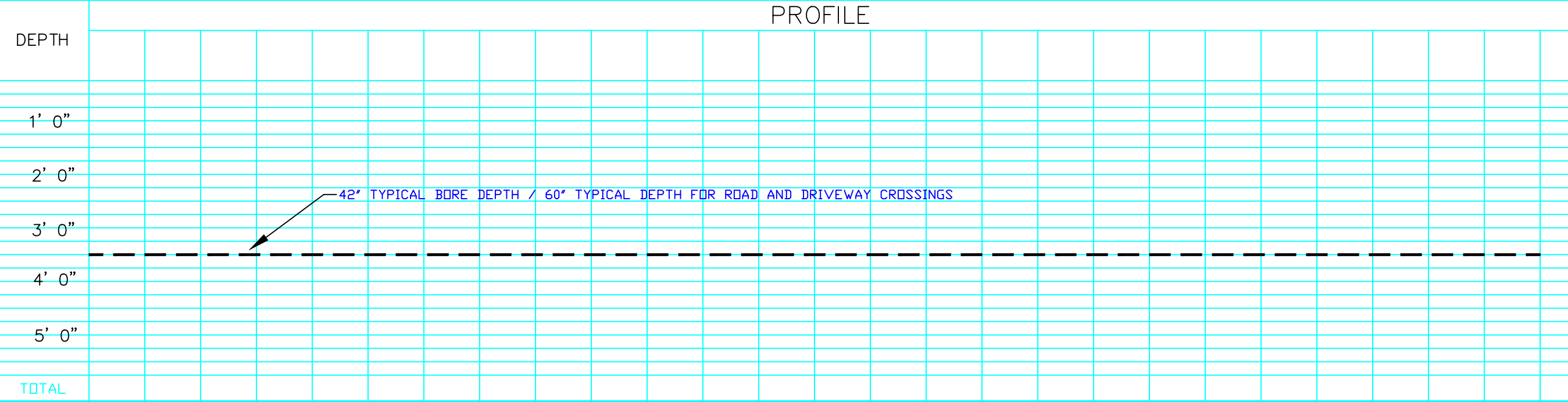
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY:		DATE:		BY
DATE	REVISION			

NOTES

- FOC = 432
- DUCT QTY/SIZE =(3) 1.5"
- DUCT TYPE = HDPE SDR11
- AERIAL = 0'
- BORE = 1344'
- TRENCH = 0'
- PLOW = 0'
- EXISTING = 0'
- NEW POLE = NONE
- REVIEW DRAFT:
- FINAL DRAFT:

DATE: 2/25/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

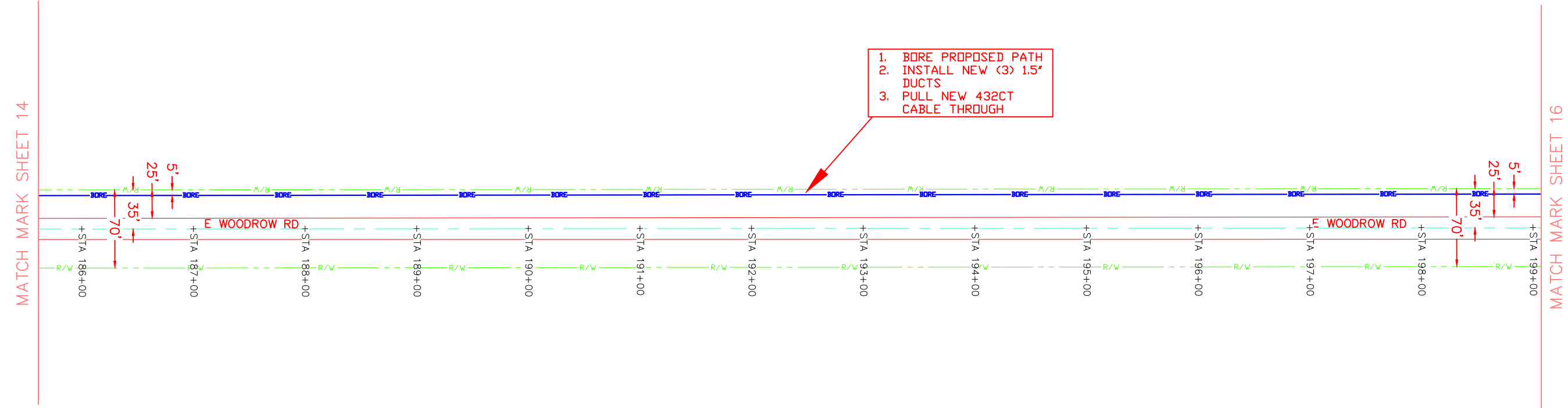
SCALE: 1"=100'



ENGINEERING COMPANY:

MANWEILER
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

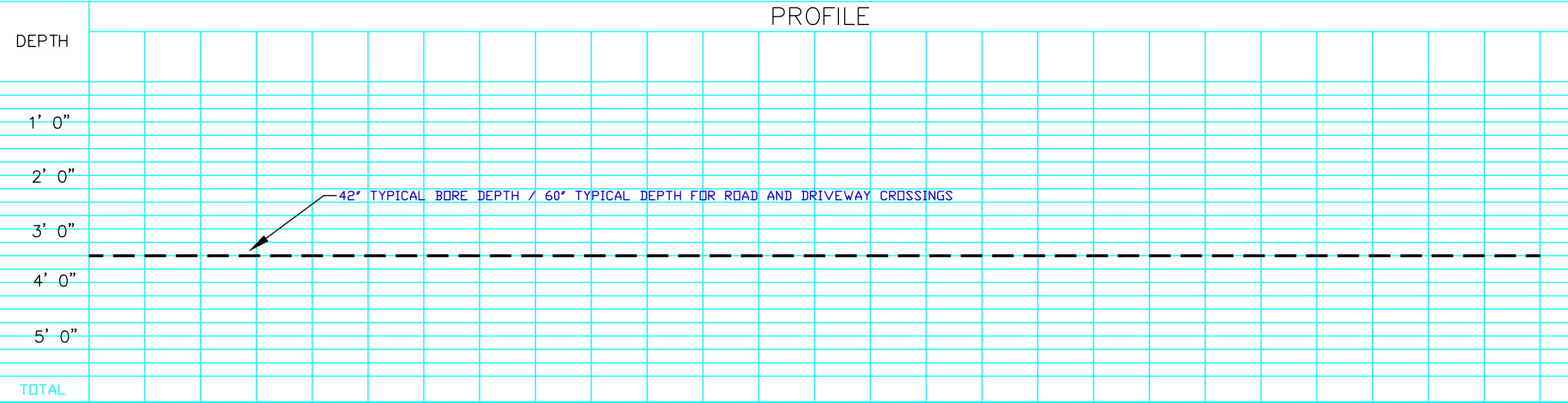
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577

ROUTE
EXCHANGE
SERVICE AREA
MAP REFERENCE
COMPANY
PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY:		DATE:		BY
DATE	REVISION			

NOTES

FOC = 432
DUCT QTY/SIZE = (3) 1.5"
DUCT TYPE = HDPE SDR11
AERIAL = 0'
BORE = 1344'
TRENCH = 0'
PLOW = 0'
EXISTING = 0'
NEW POLE = NONE
REVIEW DRAFT:
FINAL DRAFT:

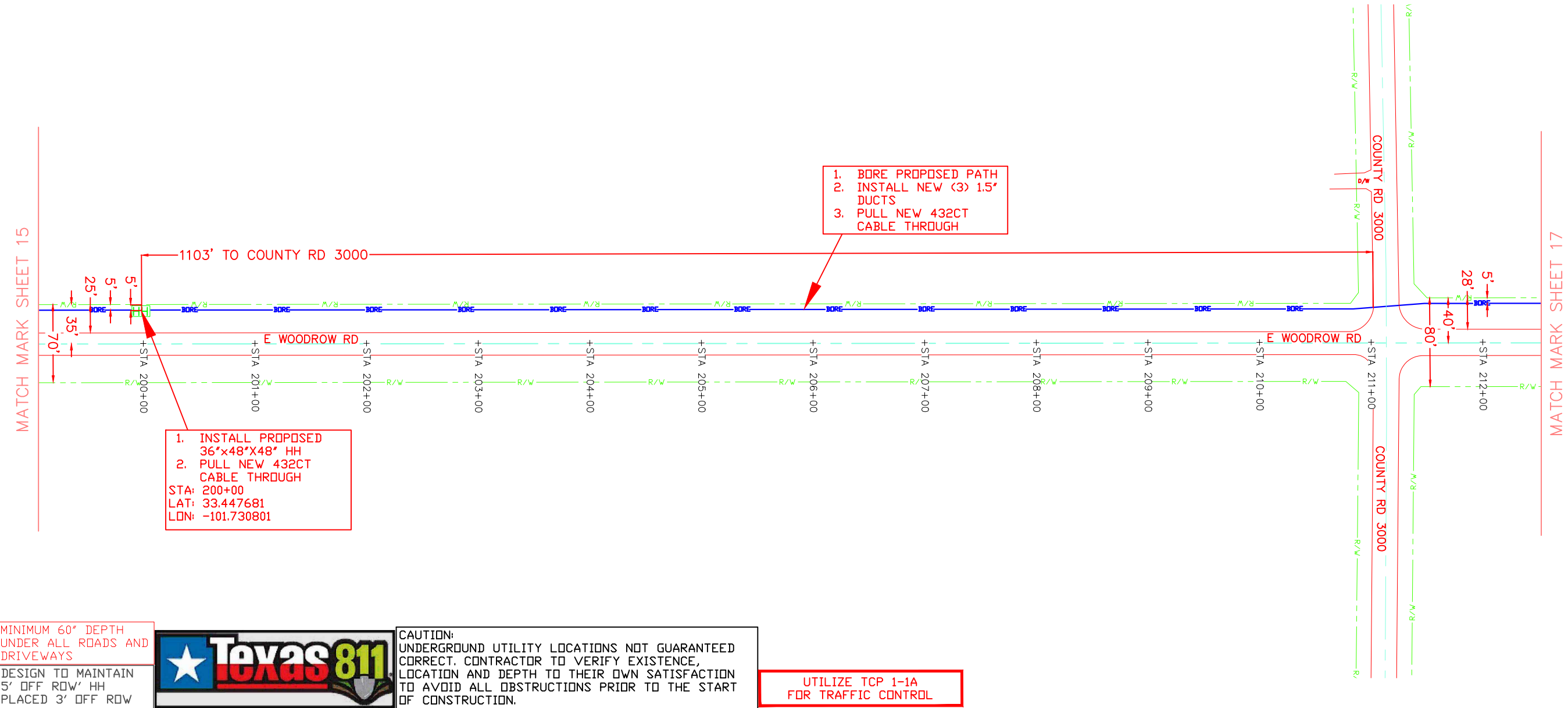
DATE: 2/25/2022
DESIGN:
DRAFTED: MTR
CHECKED:
QA/QC:
SCALE: 1"=100'



ENGINEERING COMPANY:



8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

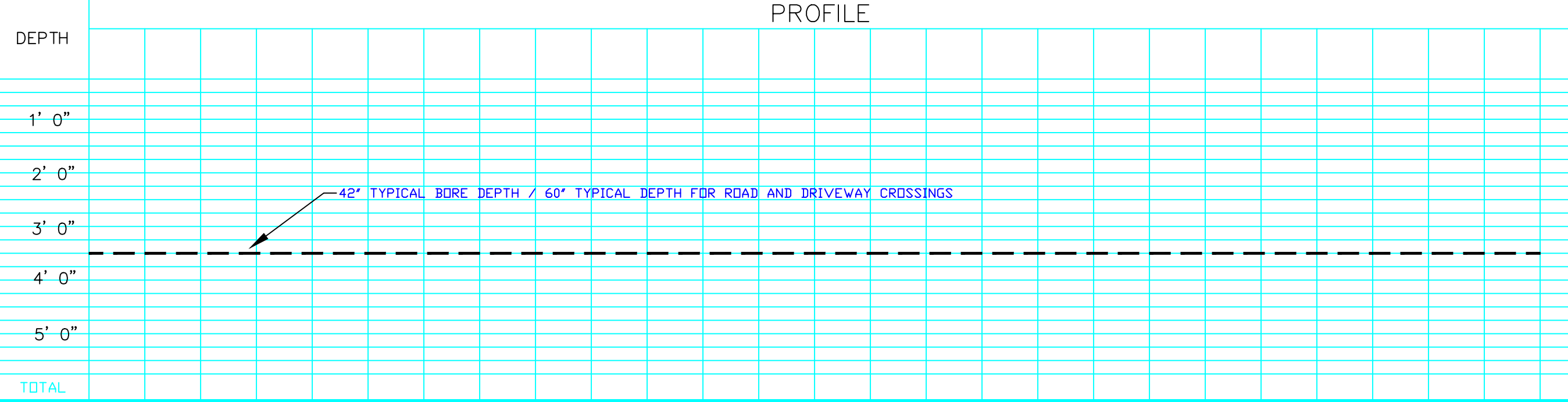
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY:		DATE:	
DATE	REVISION	BY	

NOTES

- FOC = 432
- DUCT QTY/SIZE =(3) 1.5"
- DUCT TYPE = HDPE SDR11
- AERIAL = 0'
- BORE = 1344'
- TRENCH = 0'
- PLOW = 0'
- EXISTING = 0'
- NEW POLE = NONE
- REVIEW DRAFT:
- FINAL DRAFT:

DATE: 2/25/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

SCALE: 1"=100'

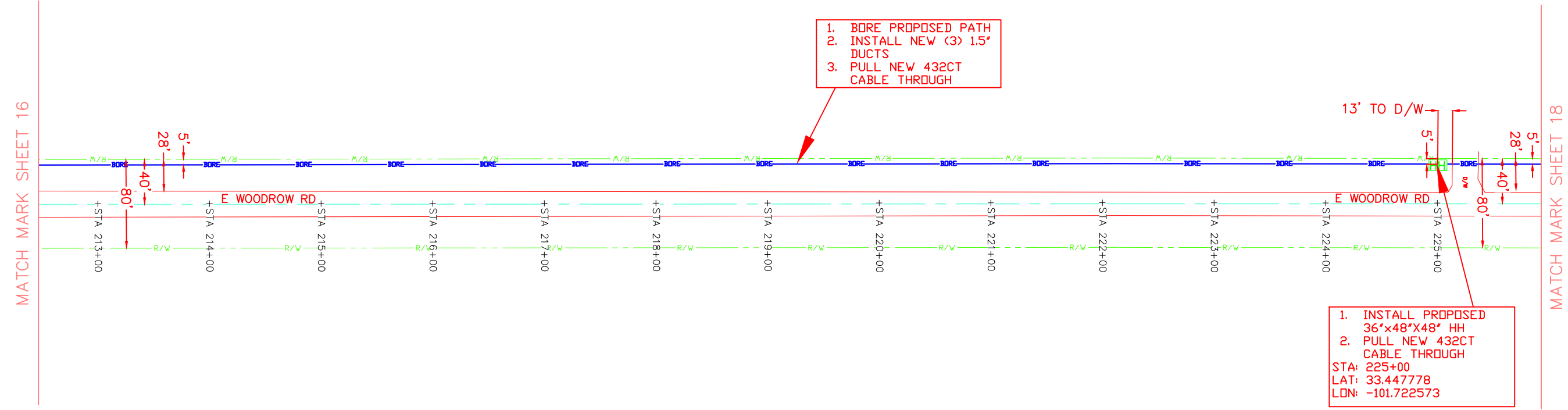


ENGINEERING COMPANY:



MANWEILER
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

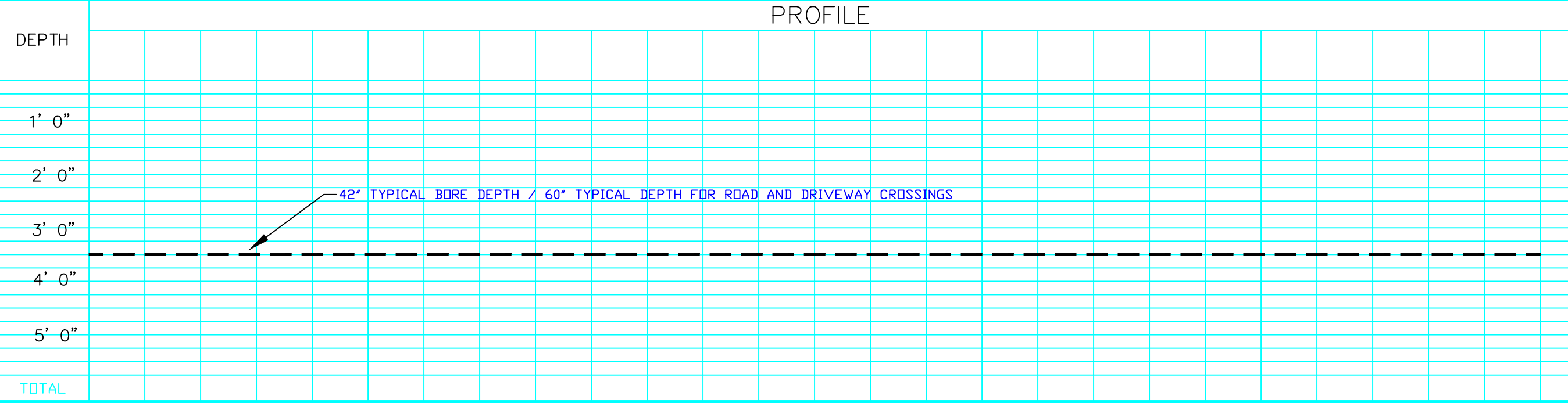
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY:		DATE:	
DATE	REVISION	BY	

NOTES

- FOC = 432
- DUCT QTY/SIZE = (3) 1.5"
- DUCT TYPE = HDPE SDR11
- AERIAL = 0'
- BORE = 1344'
- TRENCH = 0'
- PLOW = 0'
- EXISTING = 0'
- NEW POLE = NONE
- REVIEW DRAFT:
- FINAL DRAFT:

DATE: 2/25/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

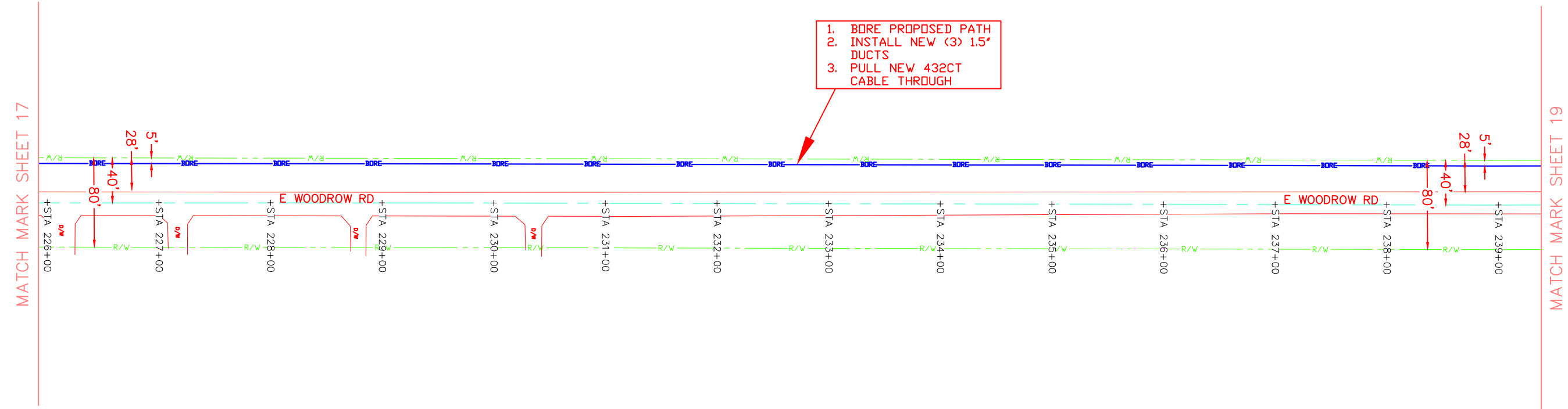
SCALE: 1"=100'



ENGINEERING COMPANY:

**MANWEILER**
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

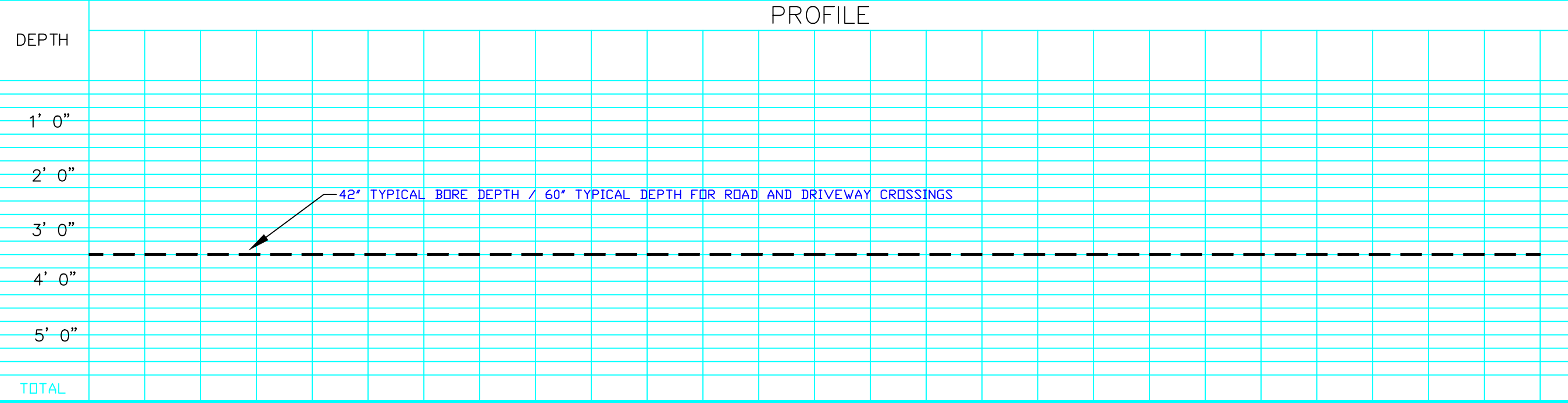
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



TOTAL

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY:		DATE:	
DATE	REVISION	BY	

NOTES

- FOC = 432
- DUCT QTY/SIZE = (3) 1.5"
- DUCT TYPE = HDPE SDR11
- AERIAL = 0'
- BORE = 1345'
- TRENCH = 0'
- PLOW = 0'
- EXISTING = 0'
- NEW POLE = NONE
- REVIEW DRAFT:
- FINAL DRAFT:

DATE: 2/25/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

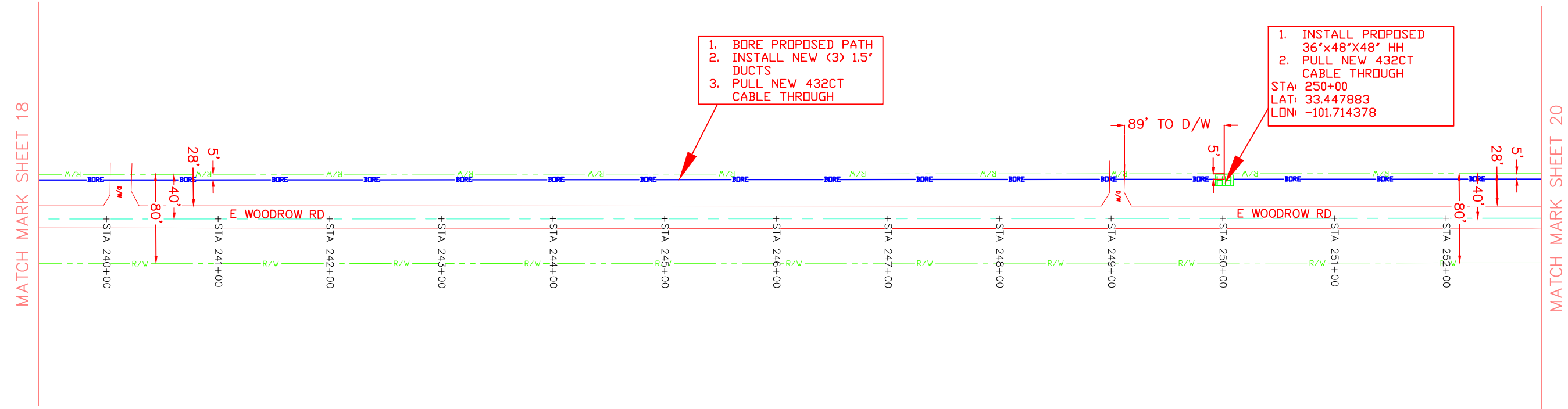
SCALE: 1"=100'



ENGINEERING COMPANY:



8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

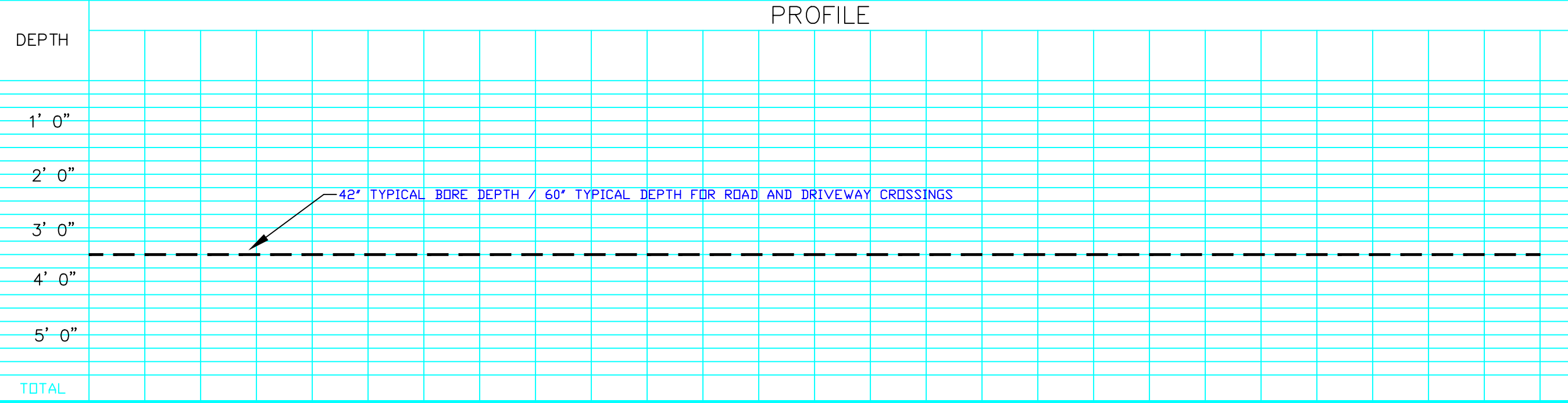
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY:		DATE:	
DATE	REVISION	BY	

NOTES

- FOC = 432
- DUCT QTY/SIZE =(3) 1.5"
- DUCT TYPE = HDPE SDR11
- AERIAL = 0'
- BORE = 1345'
- TRENCH = 0'
- PLOW = 0'
- EXISTING = 0'
- NEW POLE = NONE
- REVIEW DRAFT:
- FINAL DRAFT:

DATE: 2/25/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

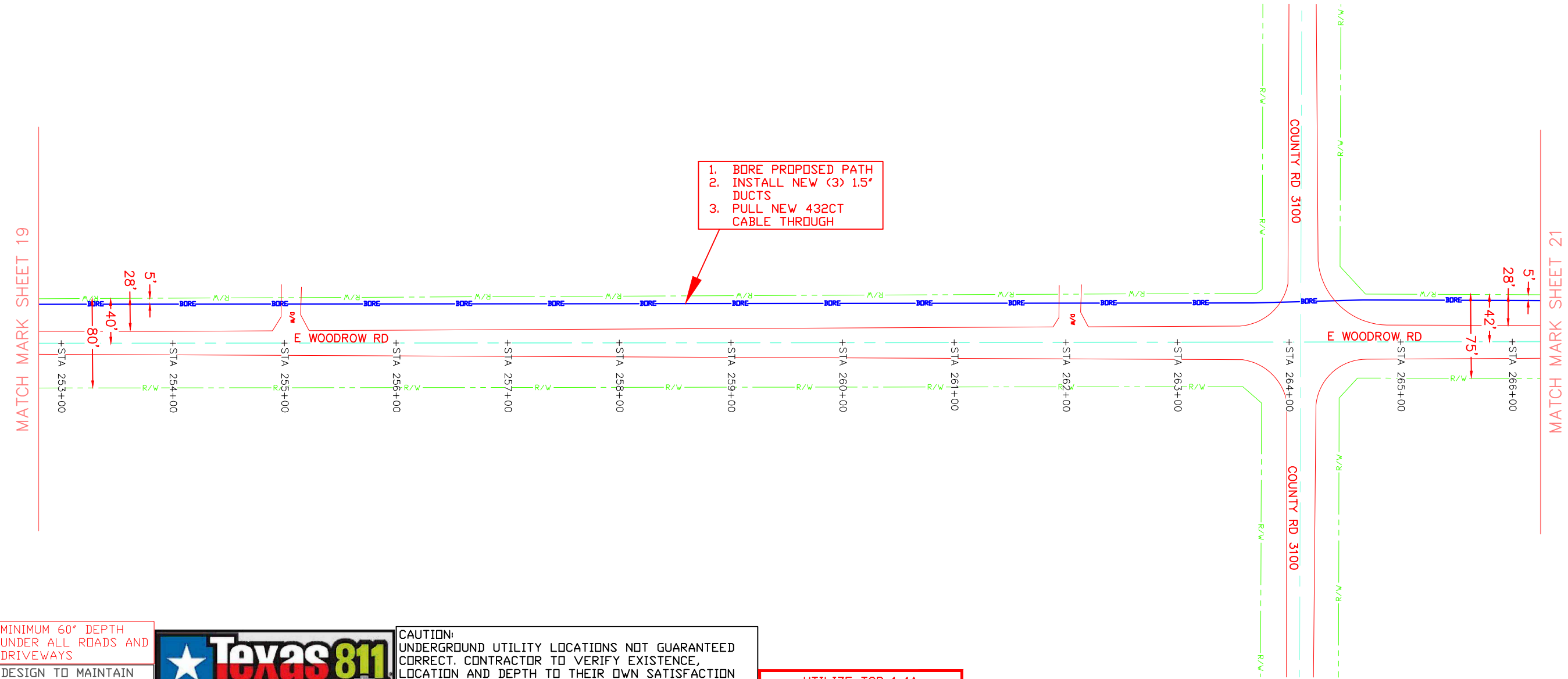
SCALE: 1"=100'



ENGINEERING COMPANY:



8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

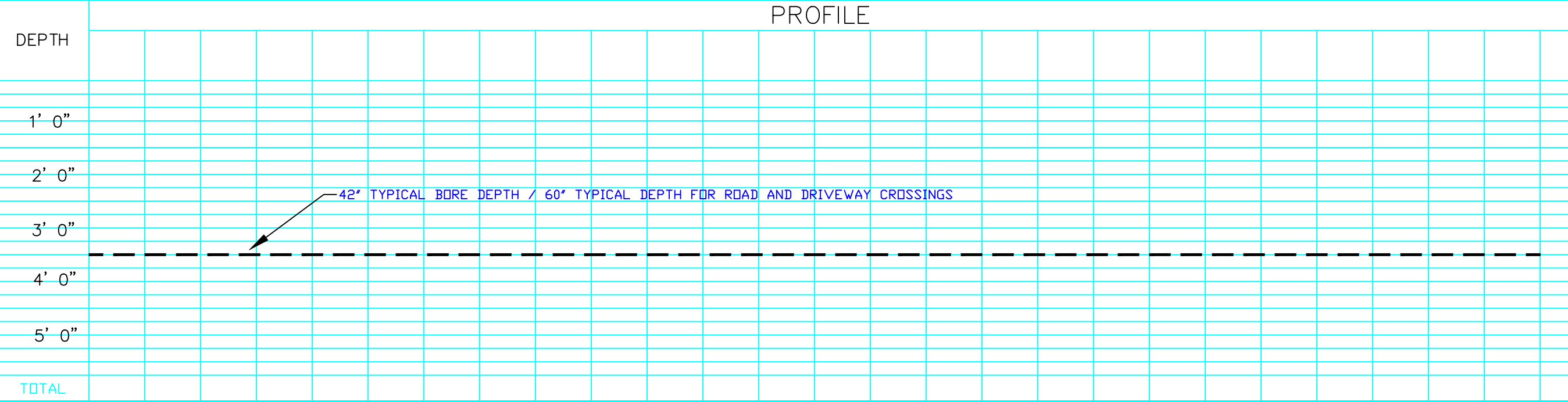
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



TOTAL

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY:		DATE:		BY
DATE	REVISION			

NOTES

- FOC = 432
- DUCT QTY/SIZE = (3) 1.5"
- DUCT TYPE = HDPE SDR11
- AERIAL = 0'
- BORE = 90'
- TRENCH = 0'
- PLOW = 0'
- EXISTING = 0'
- NEW POLE = NONE
- REVIEW DRAFT:
- FINAL DRAFT:

DATE: 2/25/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

SCALE: 1"=100'

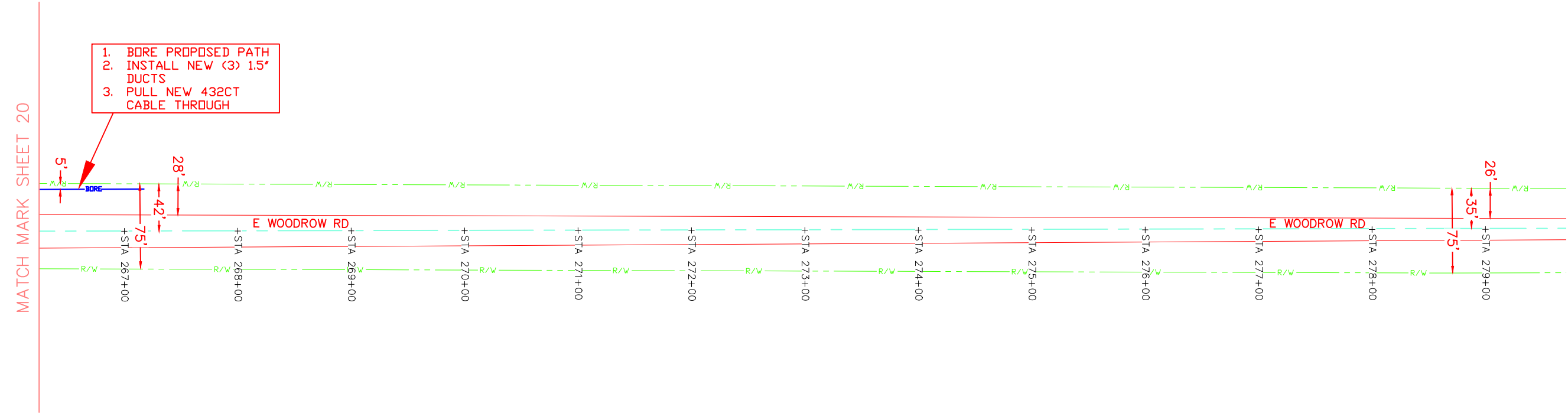


ENGINEERING COMPANY:



MANWEILER
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

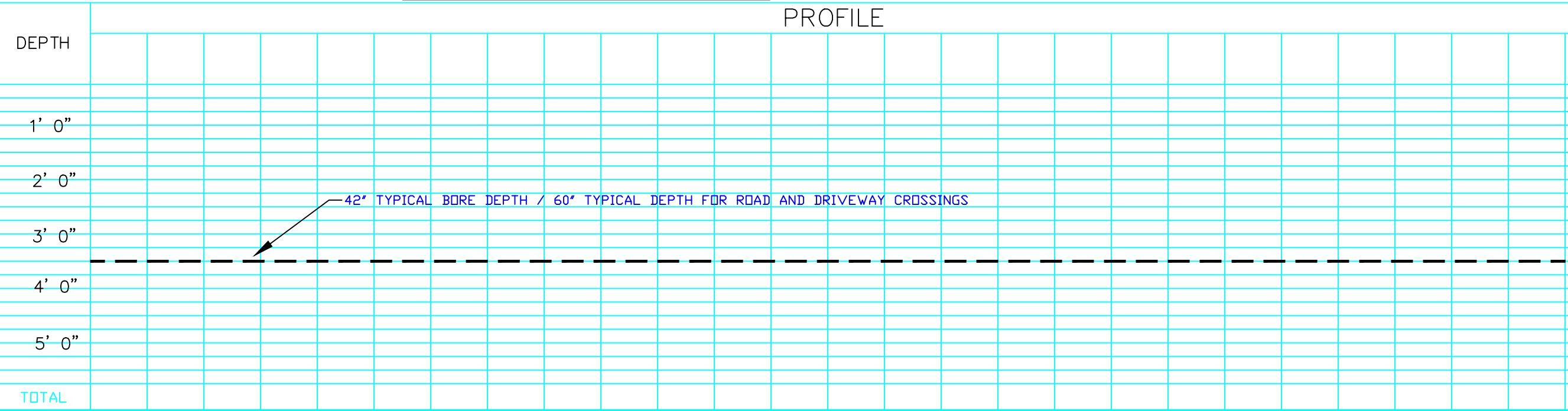
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



TOTAL

DATE
06/6/2022



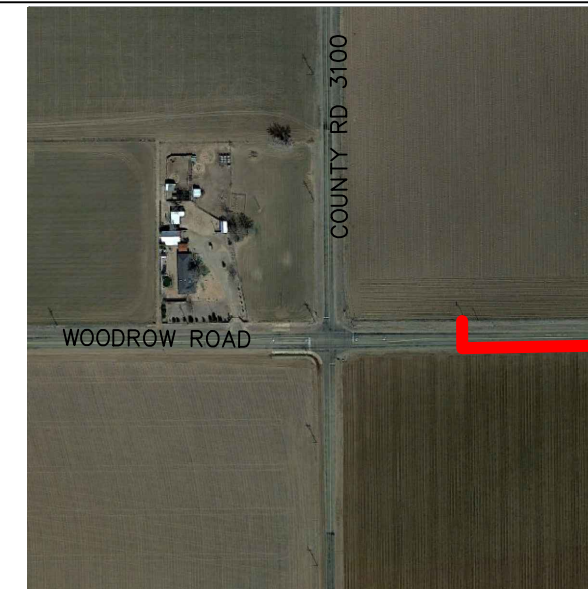
CITY: LUBBOCK, TEXAS
LATITUDE: 33.447940°

COUNTY: LUBBOCK
LONGITUDE: -101.708753°



B

1 crossing
#1



START



END

CONSTRUCTION NOTES:

1. FOR UNDERGROUND CONSTRUCTION, INSTALL NEW 432 FOC IN EXISTING DUCT

EXISTING UNDERGROUND: 10408'

LEGEND

GREEN = PROJECT AREA

RED = UNDERGROUND CONSTRUCTION

BLUE = AERIAL CONSTRUCTION



8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY: DATE:

DATE	REVISION	BY

NOTES

- FOC = 432
DUCT QTY/SIZE = (3) 1.5"
DUCT TYPE = HDPE SDR11
AERIAL = 0'
BORE = 0'
TRENCH = 0'
PLOW = 0'
EXISTING = 1319'
NEW POLE = NONE
REVIEW DRAFT:
FINAL DRAFT:

DATE: 6/6/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

SCALE: 1"=100'

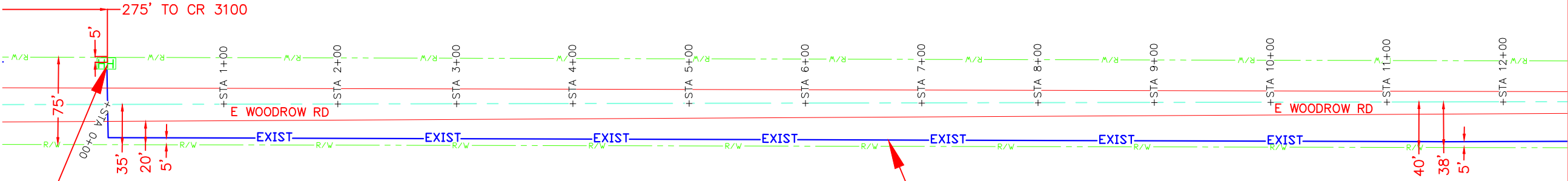


ENGINEERING COMPANY:



TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



1. INSTALL PROPOSED 36"x48"x48" HH
 2. PULL NEW 432CT CABLE THROUGH
- STA: 0+00
LAT: 33.447940
LON: -101.708753

1. PULL THROUGH EXISTING PATH
2. EXISTING (3) 1.5" DUCTS
3. PULL NEW 432CT CABLE THROUGH

MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

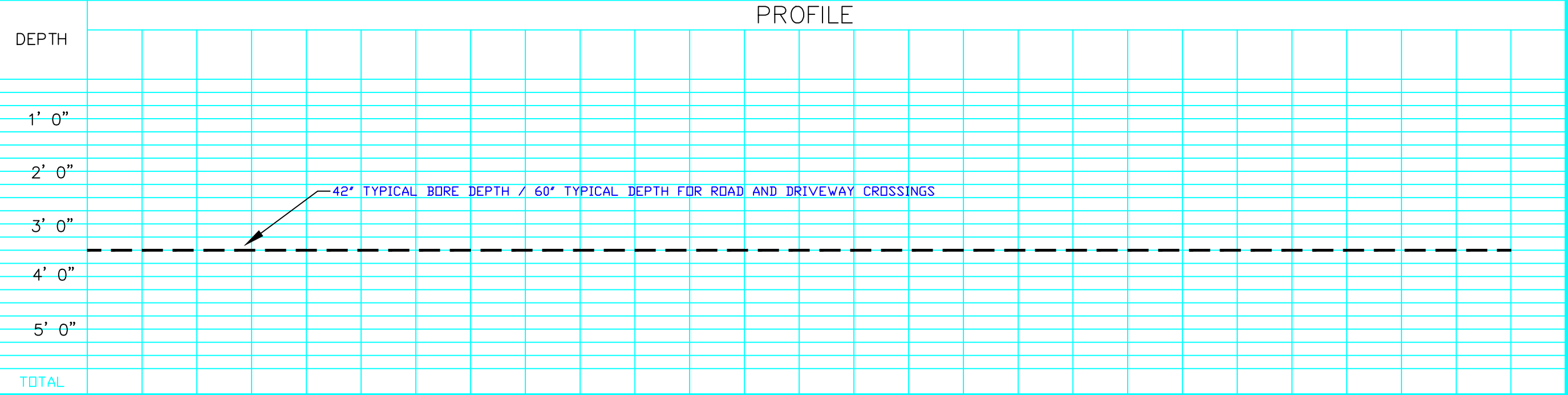
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



TOTAL

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY: DATE:

DATE	REVISION	BY

NOTES

FOC = 432
DUCT QTY/SIZE = (3) 1.5"
DUCT TYPE = HDPE SDR11
AERIAL = 0'
BORE = 0'
TRENCH = 0'
PLOW = 0'
EXISTING = 1345'
NEW POLE = NONE
REVIEW DRAFT:
FINAL DRAFT:

DATE: 6/6/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

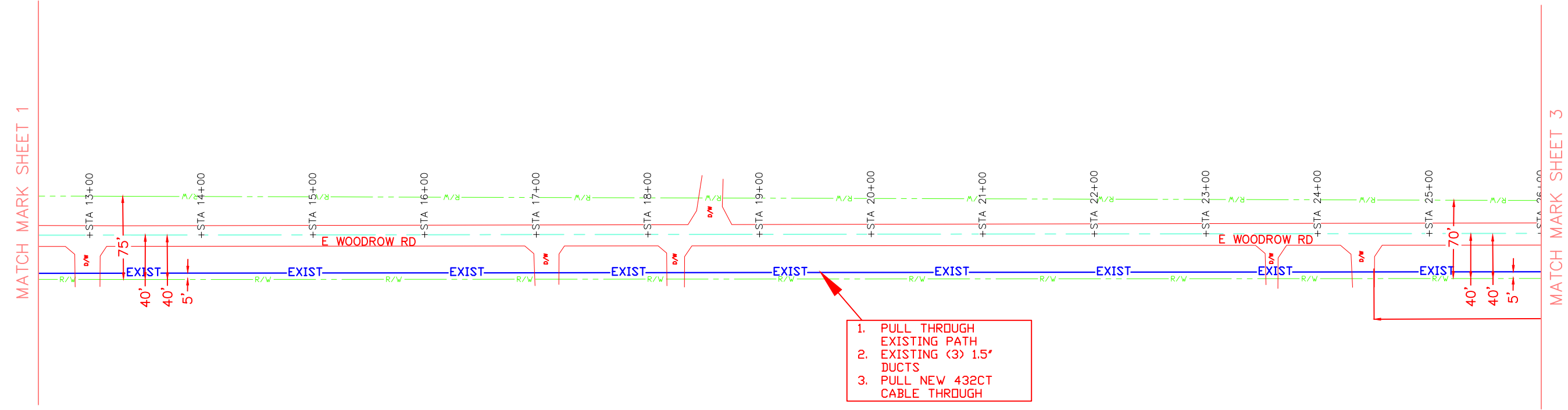
SCALE: 1"=100'



ENGINEERING COMPANY:



8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

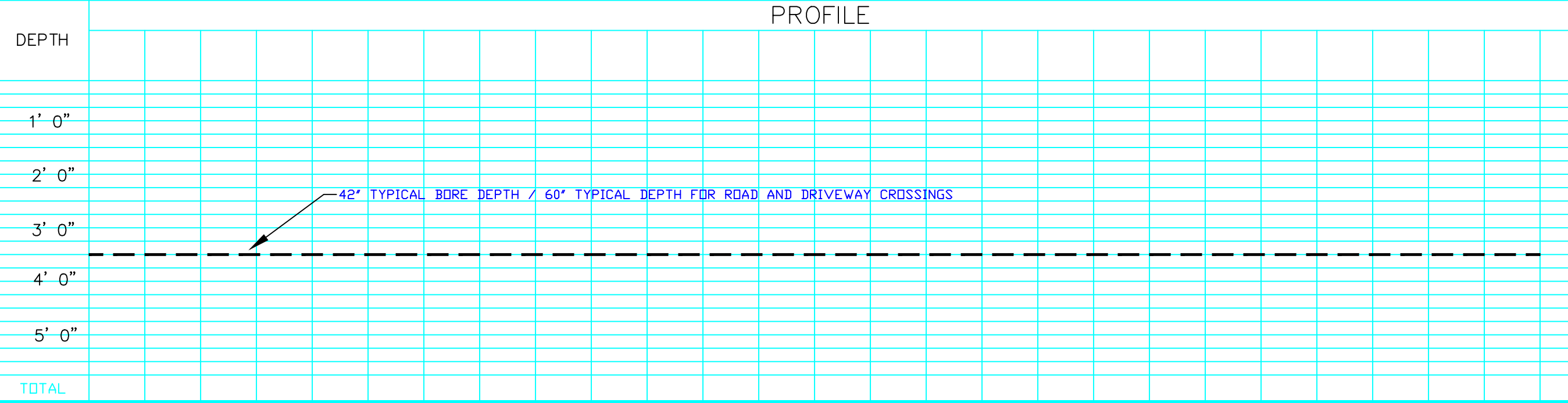
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY: DATE:

DATE	REVISION	BY

NOTES

- FOC = 432
- DUCT QTY/SIZE = (3) 1.5"
- DUCT TYPE = HDPE SDR11
- AERIAL = 0'
- BORE = 0'
- TRENCH = 0'
- PLOW = 0'
- EXISTING = 1345'
- NEW POLE = NONE
- REVIEW DRAFT:
- FINAL DRAFT:

DATE: 6/6/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

SCALE: 1"=100'

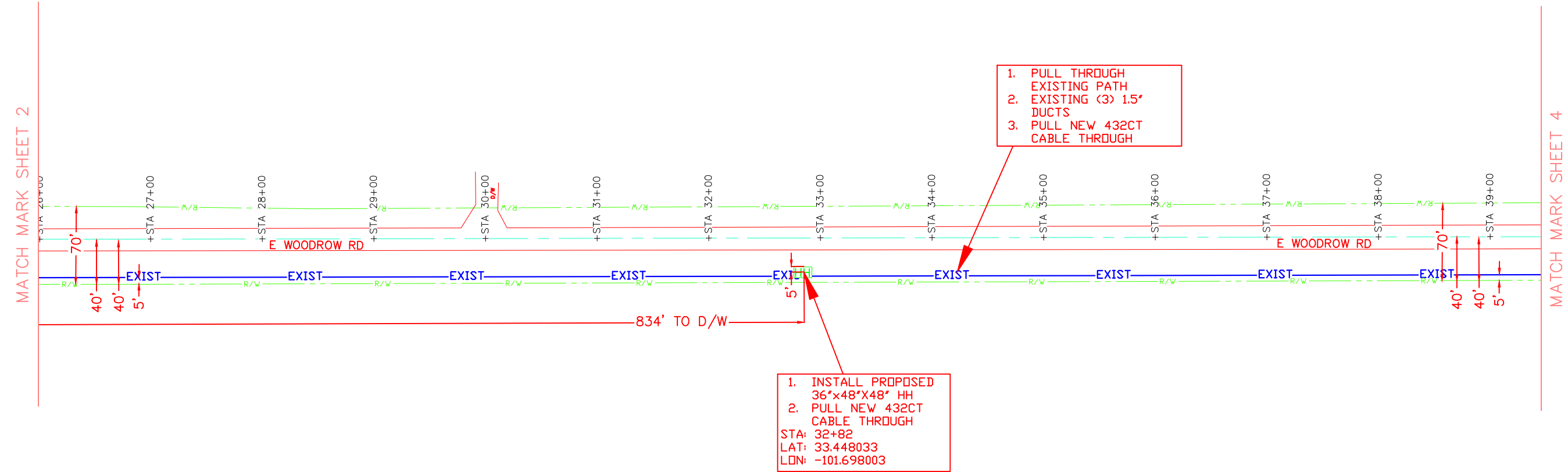


ENGINEERING COMPANY:



MANWEILER
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

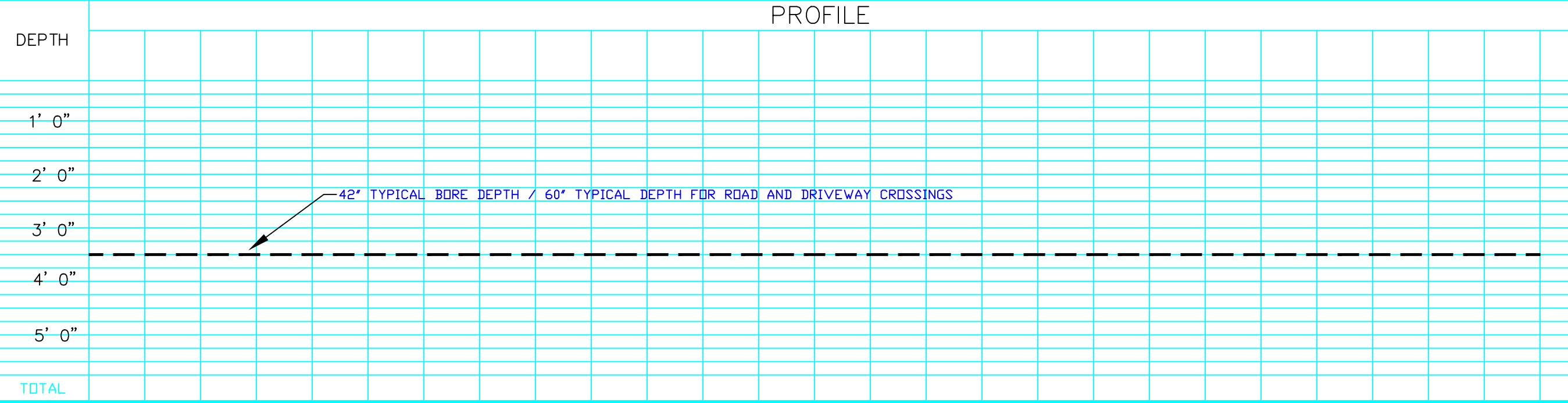
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY: DATE:

DATE	REVISION	BY

NOTES

FOC = 432
DUCT QTY/SIZE = (3) 1.5"
DUCT TYPE = HDPE SDR11
AERIAL = 0'
BORE = 0'
TRENCH = 0'
PLOW = 0'
EXISTING = 1345'
NEW POLE = NONE
REVIEW DRAFT:
FINAL DRAFT:

DATE: 6/6/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

SCALE: 1"=100'

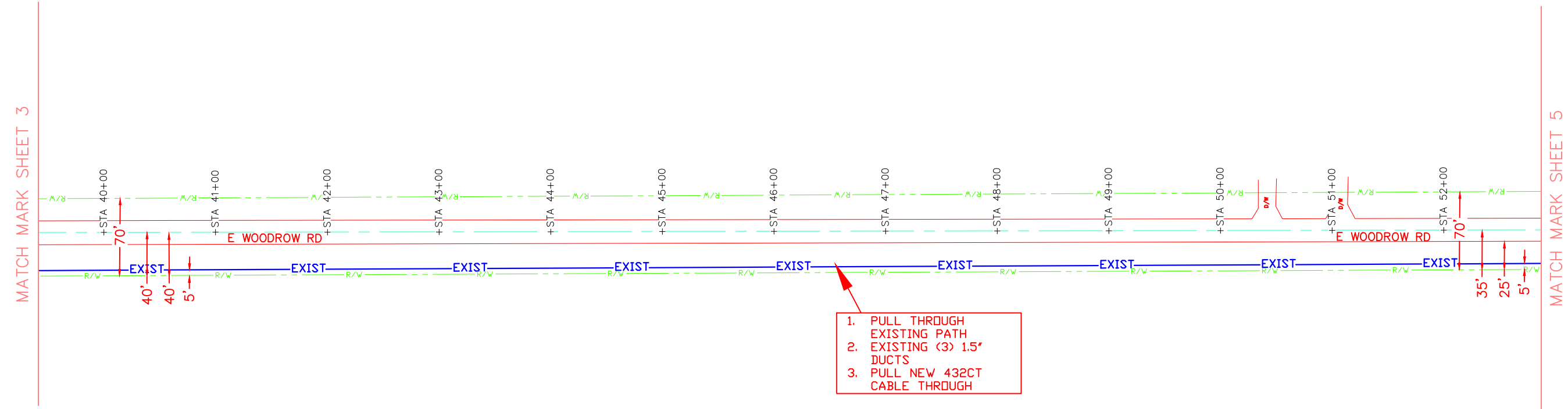


ENGINEERING COMPANY:



MANWEILER
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

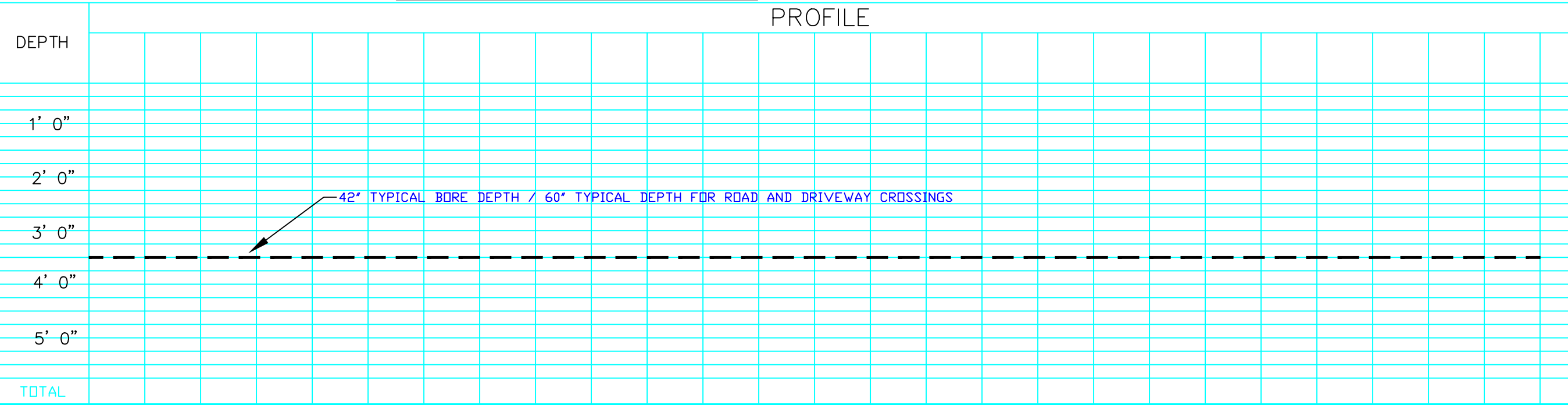
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY:		DATE:	
DATE	REVISION	BY	

NOTES

- FOC = 432
- DUCT QTY/SIZE = (3) 1.5"
- DUCT TYPE = HDPE SDR11
- AERIAL = 0'
- BORE = 0'
- TRENCH = 0'
- PLOW = 0'
- EXISTING = 1345'
- NEW POLE = NONE
- REVIEW DRAFT:
- FINAL DRAFT:

DATE: 6/6/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

SCALE: 1"=100'

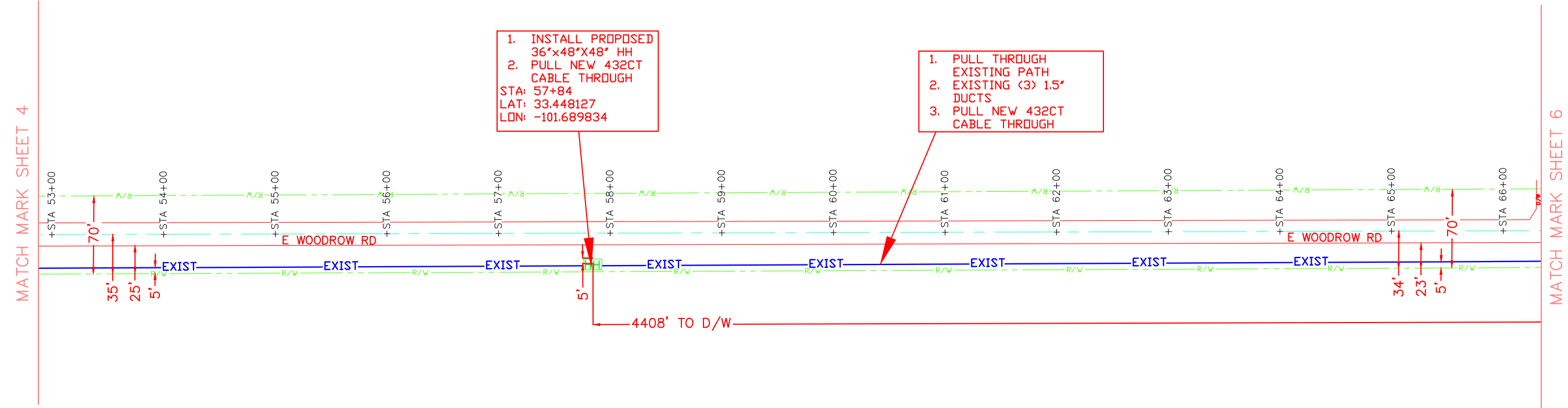


ENGINEERING COMPANY:



MANWEILER
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

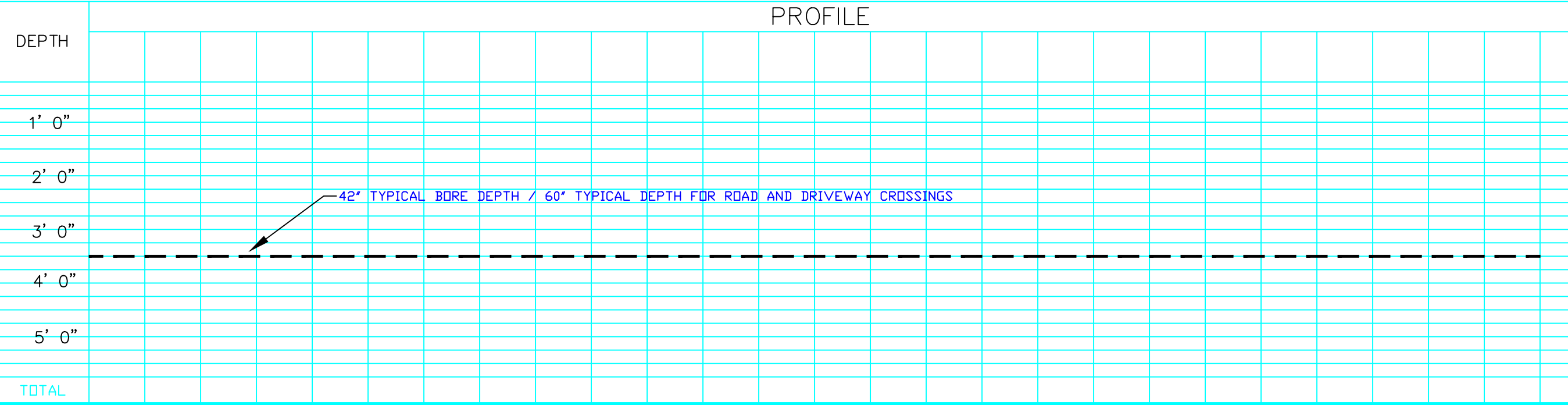
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY:		DATE:	
DATE	REVISION	BY	

NOTES

- FOC = 432
- DUCT QTY/SIZE = (3) 1.5"
- DUCT TYPE = HDPE SDR11
- AERIAL = 0'
- BORE = 0'
- TRENCH = 0'
- PLOW = 0'
- EXISTING = 1344'
- NEW POLE = NONE
- REVIEW DRAFT:
- FINAL DRAFT:

DATE: 6/6/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

SCALE: 1"=100'

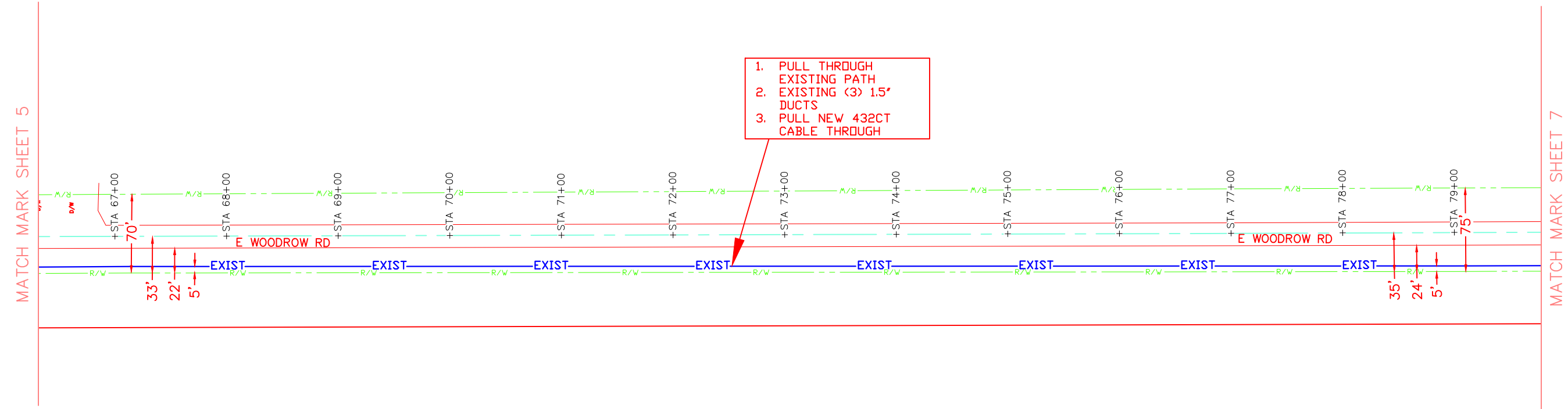


ENGINEERING COMPANY:



MANWEILER
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

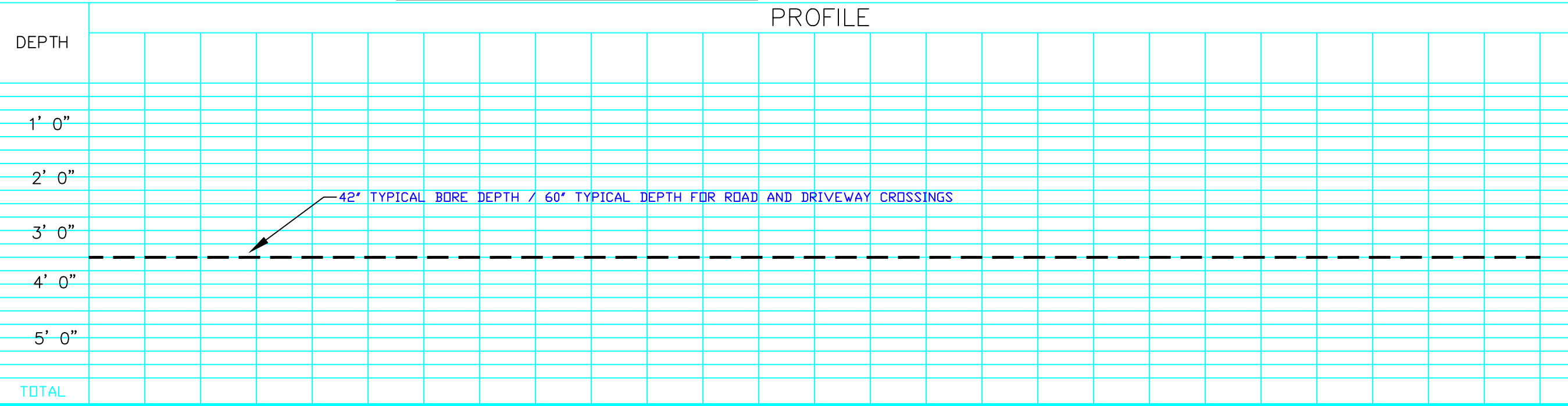
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE



ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY:		DATE:		
DATE	REVISION			BY

NOTES

FOC = 432
DUCT QTY/SIZE = (3) 1.5"
DUCT TYPE = HDPE SDR11
AERIAL = 0'
BORE = 0'
TRENCH = 0'
PLOW = 0'
EXISTING = 1345'
NEW POLE = NONE
REVIEW DRAFT:
FINAL DRAFT:

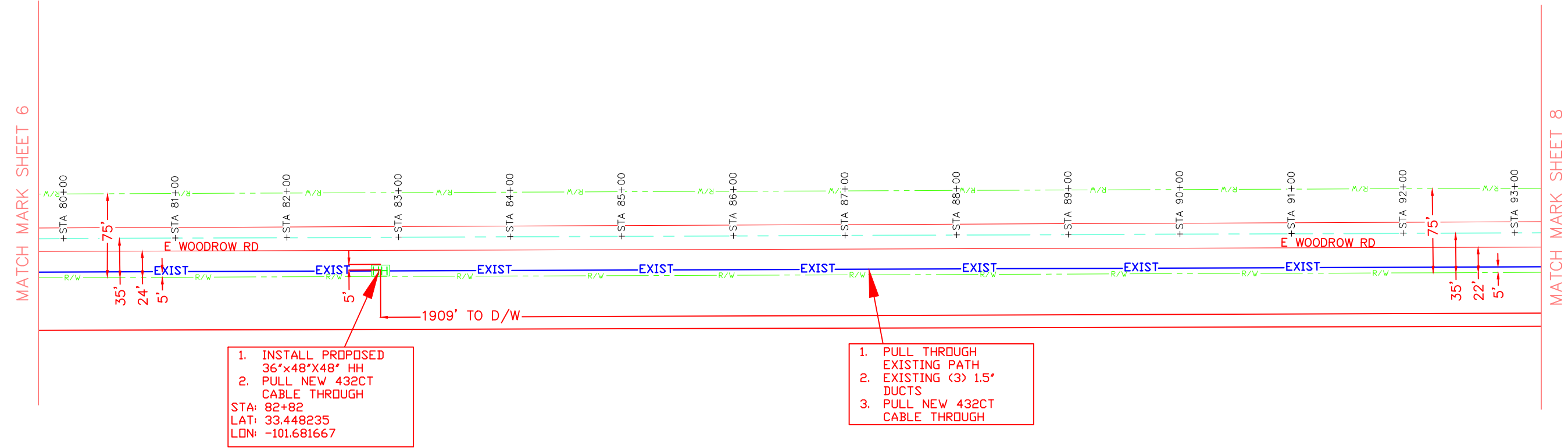
DATE: 6/6/2022
DESIGN:
DRAFTED: MTR
CHECKED:
QA/QC:
SCALE: 1"=100'



ENGINEERING COMPANY:

**MANWEILER**
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

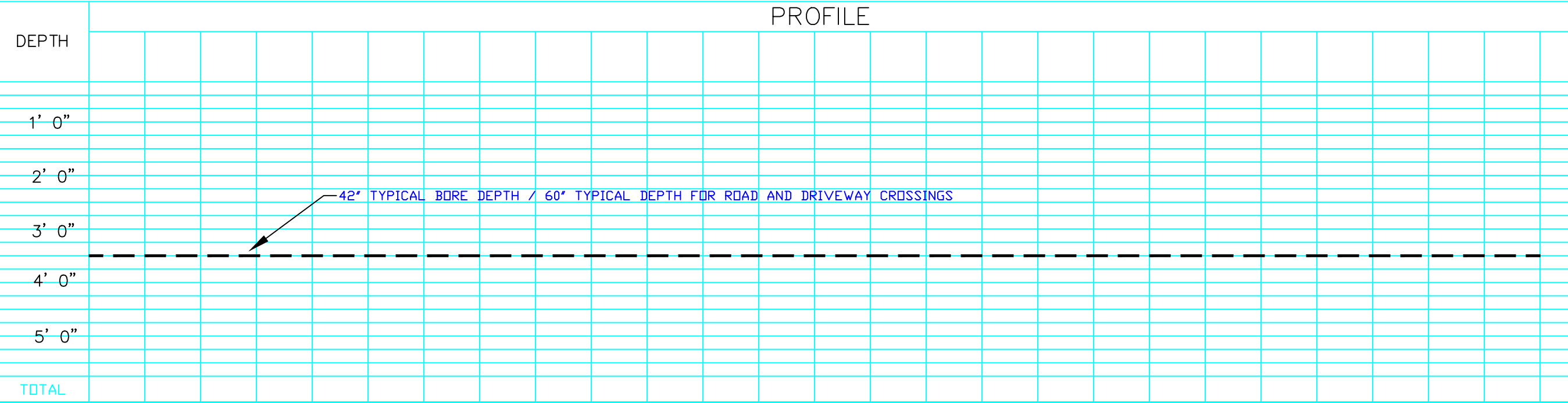
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE

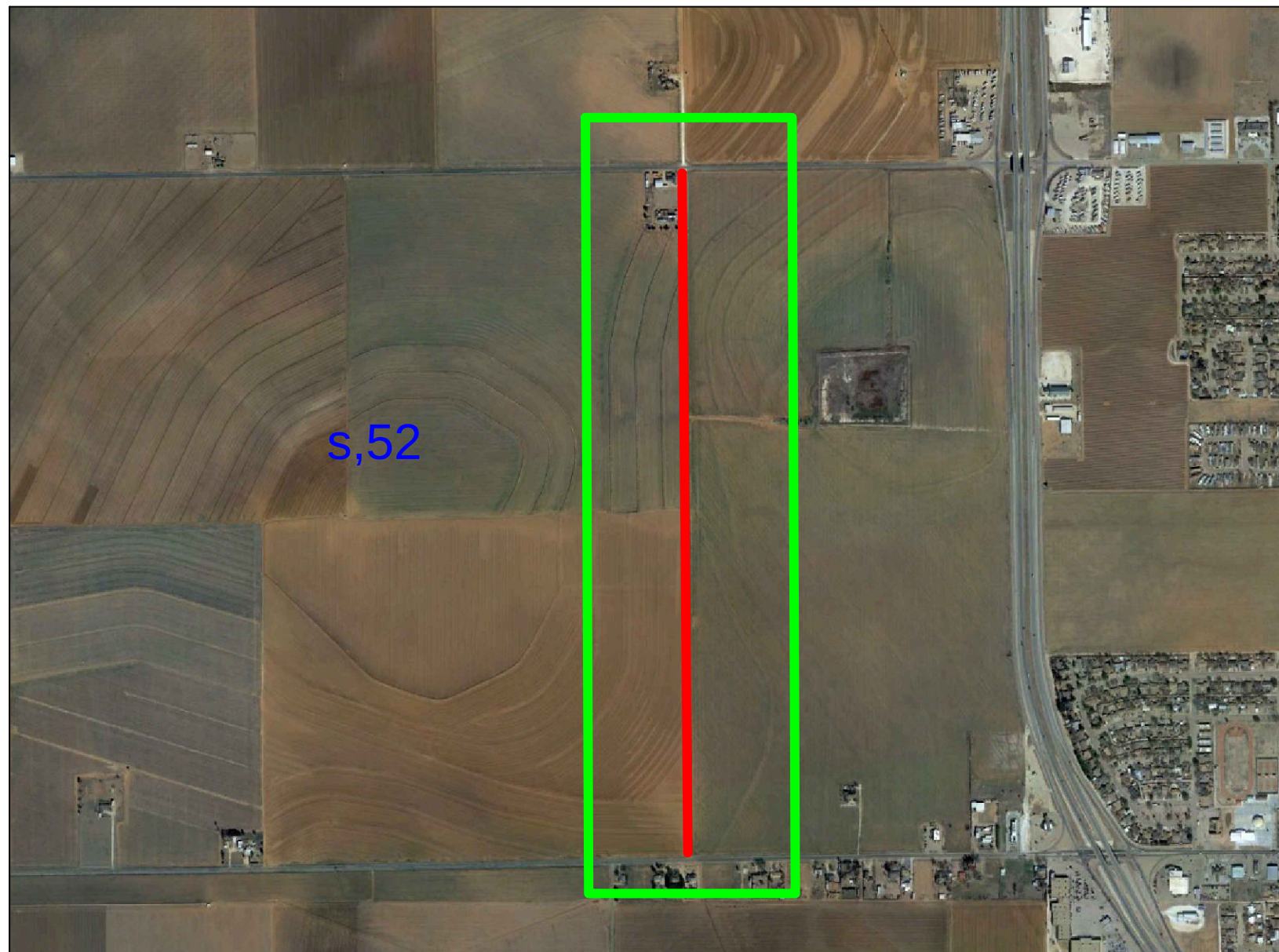


DATE
02/17/2022



CITY: LUBBOCK, TEXAS
LATITUDE: 33.448168°

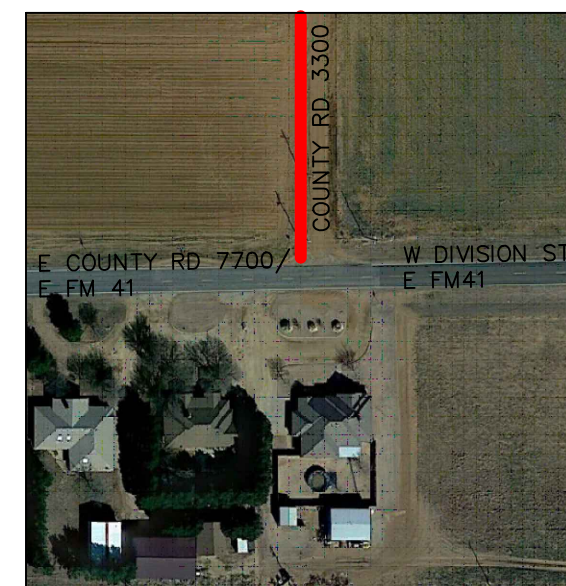
COUNTY: LUBBOCK
LONGITUDE: -101.674907°



C



START



END

CONSTRUCTION NOTES:

1. FOR UNDERGROUND CONSTRUCTION, INSTALL NEW 432 FOC IN PROPOSED DUCT
2. INSTALL NEW 36"x48"x48" HH
3. INSTALL NEW THREE (3) QTY 1.5" DUCTS

UNDERGROUND: 5194'

LEGEND

GREEN = PROJECT AREA

RED = UNDERGROUND CONSTRUCTION

BLUE = AERIAL CONSTRUCTION



8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577

LEGEND

AERIAL UTILITIES – LINETYPES & SYMBOLS

	EXISTING STRAND		POWER/PHONE/CATV		POWER
	STRAND		POWER/CATV		PHONE
	EXISTING CABLE		POWER/PHONE		OTHER POLE
	CABLE		VGR GROUND		FIBER SYMBOL
			EXIST GUY		PROP GUY
			EXIST S/W ANCH		PROP S/W ANCH
			EXIST FIBER SPLICE		PROP FIBER SPLICE
			EXIST FIBER STORAGE		PROP FIBER STORAGE

SURFACE FEATURES – LABELS

STREET ASPH. STREET TEXT D/W DRIVEWAY TEXT S/W SIDEWALK TEXT 0' DIMENSION

+STA 0+00 STATION TEXT

ABBREVIATIONS

D/W	DRIVEWAY	P/L	PROPERTY LINE	O/S	OFFSET
S/W	SIDEWALK	EOP	EDGE OF PAVEMENT	CATV	CABLE TELEVISION
R/W	RIGHT OF WAY	TBOC	TOP BACK OF CURB	FO	FIBER OPTIC

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY.....

PROJECT	PRONAME
---------	---------

CO.

SEC.

TWN.

RNG...

TAX:

STKD BY: DATE:

DATE : REVISION : BY :

[illegible]

A blank sheet of graph paper with a grid of dots. The grid consists of 20 columns and 15 rows of dots. There are two vertical dashed lines: one at the 6th column from the left and another at the 17th column from the left. These lines divide the grid into three sections: a 6-column wide section on the left, a 11-column wide section in the middle, and a 3-column wide section on the right. The top row of dots is highlighted in light blue.

Copyright © 2015 Pearson Education, Inc. or its affiliate(s). All rights reserved. Printed in the United States of America. This publication is protected by copyright. Permission is granted to reproduce copies of this publication for personal or internal use, on the condition that the copier pay the stated fee directly to Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923. For those organizations that have been granted a photocopy licence by CCC, a separate system of payment has been arranged. The fee code for users of the Copyright Clearance Center Transactional Reporting Service is 0893-4000/15 \$12.00. ISBN 978-0-13-091281-2

A horizontal number line with a solid black line. Major tick marks are labeled from 0 to 100 in increments of 10. Minor tick marks are present between the major ones. A vertical dashed line is drawn at the 50 mark.

NOTES

NOTES
REVIEW DRAFT

REVIEW DRAFT.
FINAL DRAFT

FINAL DRAFT:

.....

.....

.....

.....

.....

DATE: 2/17/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

SCALE: 1"=100'

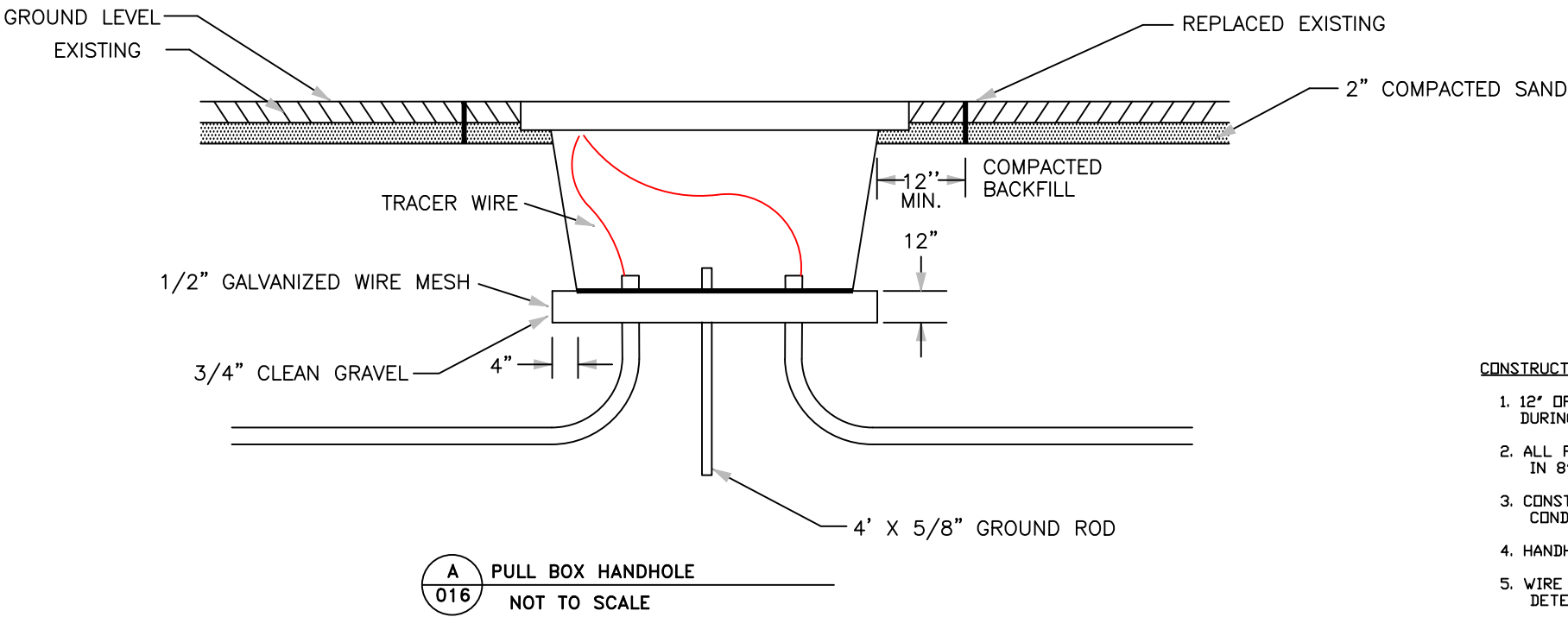


ENGINEERING COMPANY:



**8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577**

HANDHOLE INSTALLATION TYPICAL



- CONSTRUCTION NOTES:
1. 12" OF GRAVEL SHALL BE PLACED UNDER ENCLOSURE DURING INSTALLATION TO ASSIST IN DRAINAGE.
 2. ALL FILL AROUND ENCLOSURE SHALL BE COMPACTED IN 8" LAYERS.
 3. CONSTRUCTION AREA SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
 4. HANDHOLE SHALL NOT BE PLACED ON A SLOPE GREATER THAN 15%.
 5. WIRE MESH SHALL BE PLACED UNDER HANDHOLE IN GRAVEL TO DETER RODENT ENTRY.
 6. ALL TRACER WIRES MUST BE CONNECTED TO TESTING LUG AT EACH HANDHOLE AND CONTINUITY VERIFIED.

SHEET T3 OF T8

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME

CO.
SEC.
TWN.
RNG.
TAX:

STKD BY: DATE:

DATE REVISION BY

NOTES

REVIEW DRAFT:

FINAL DRAFT:

DATE: 2/17/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

SCALE: 1"=100'

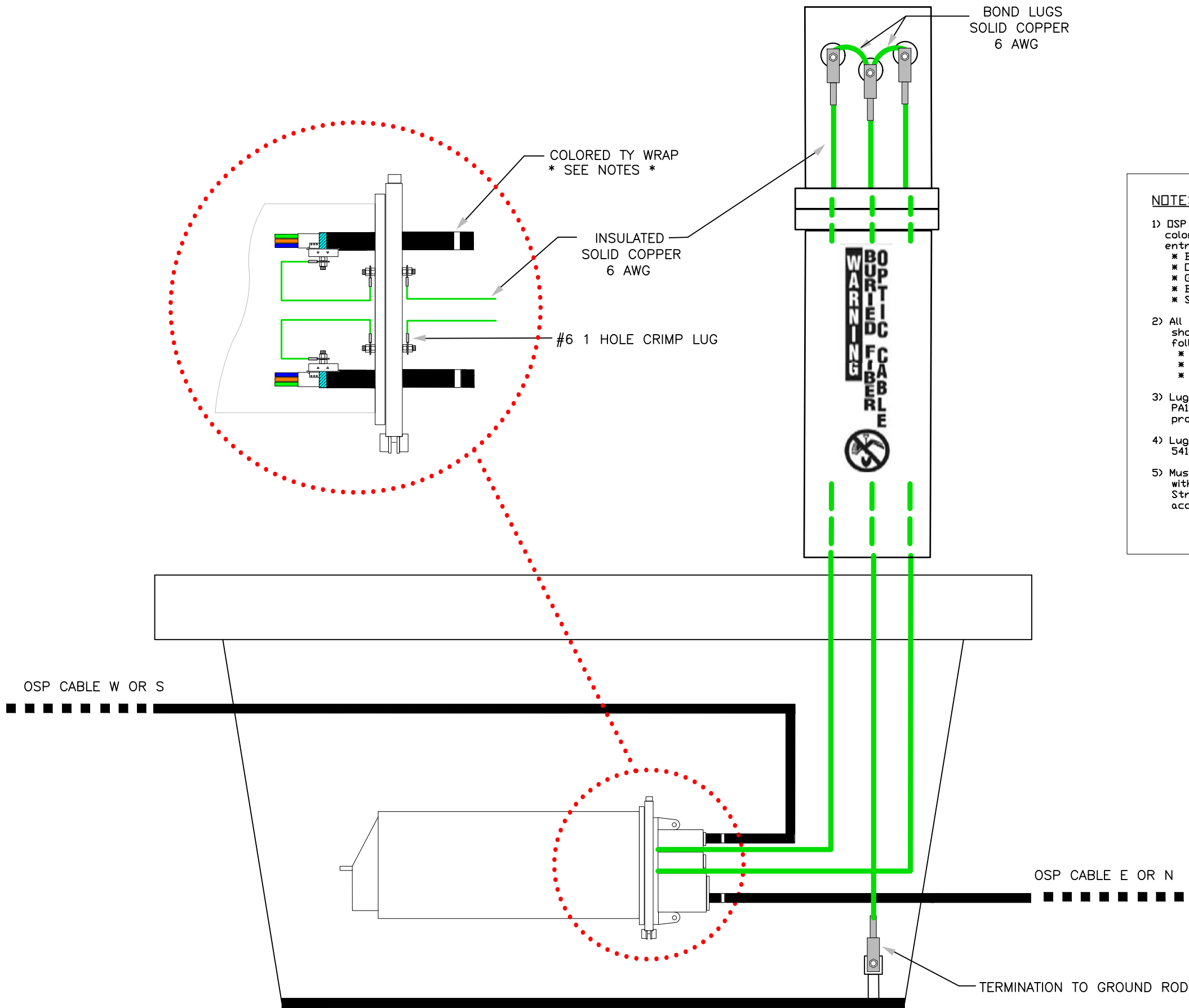


ENGINEERING COMPANY:



8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577

SPLICE ENCLOSURE GROUNDING TYPICAL



- NOTES:
- 1) OSP cables will be marked with colored Ty-Wraps at the enclosure entry according to direction:
 - * Blue = Input from MTSD
 - * Orange = North
 - * Green = East
 - * Brown = South
 - * Slate = West
 - 2) All terminations on marker posts should be made IAW with the following directions:
 - * Left Terminal = West or South
 - * Center Terminal = Ground
 - * Right Terminal = East or North
 - 3) Lugs must be crimped with Greenlee PA1649 crimpers or equivalent professional grade crimping tool.
 - 4) Lugs must be Thomas and Betts 54136 or equivalent.
 - 5) Must use an insulated 6 AWG wire with solid copper conductor. Stranded conductor will not be accepted

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME

CO.
SEC.
TWN.
RNG.
TAX:

STKD BY: DATE:

DATE REVISION BY

NOTES

REVIEW DRAFT:

FINAL DRAFT:

DATE: 2/17/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

SCALE: 1"=100'

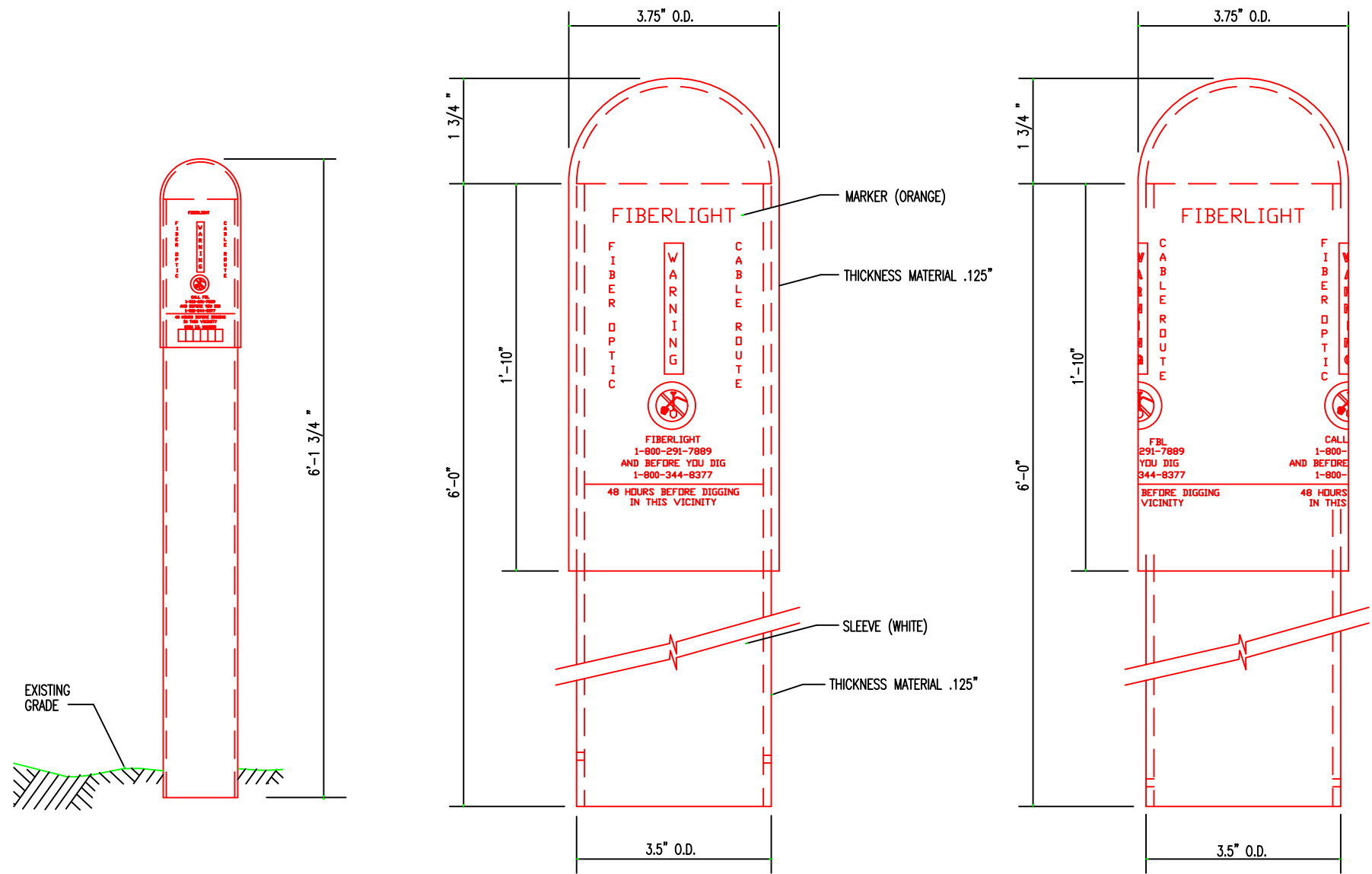


ENGINEERING COMPANY:

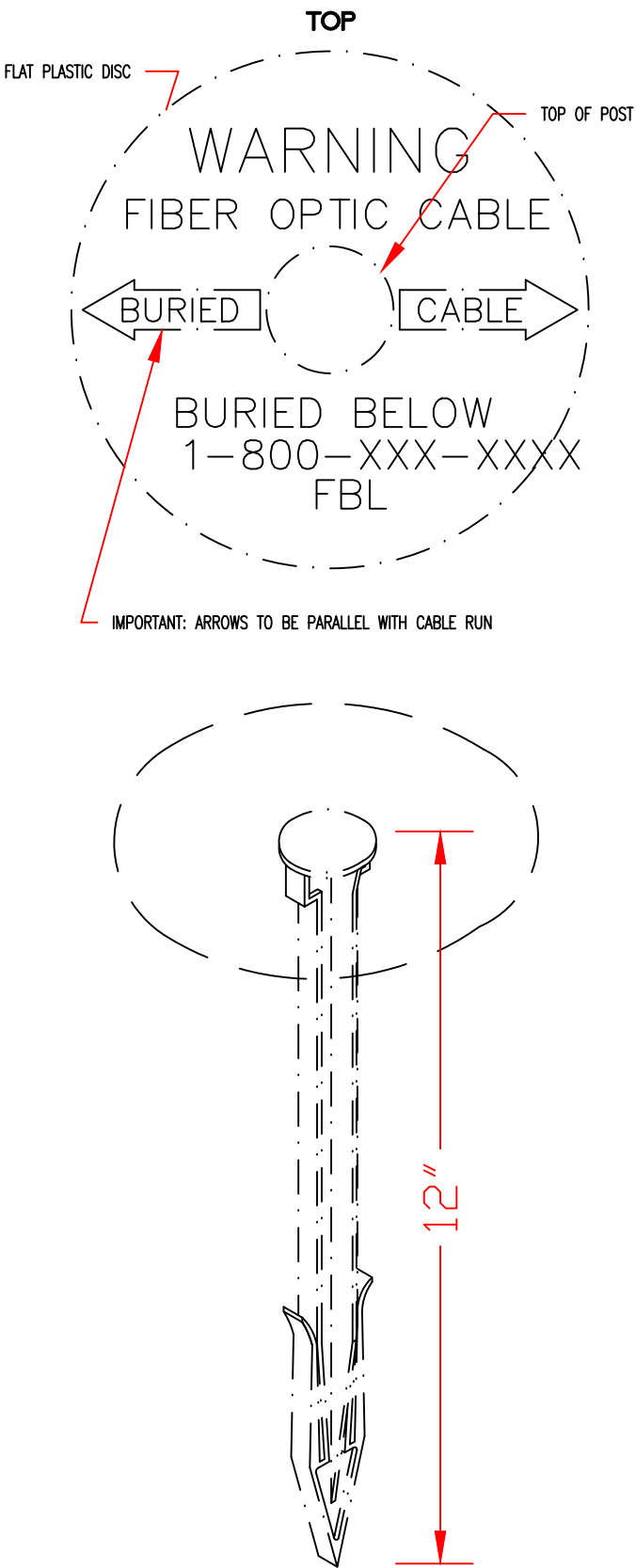


8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577

COTT MARKER INSTALLATION DETAIL



FLAT PLASTIC MARKER



ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT	PRONAME
---------	---------

CO. _____
SEC. _____
TWN. _____
RNG. _____
TAX: _____

STKD BY: _____ DATE: _____

DATE	REVISION	BY

NOTES

REVIEW DRAFT:

FINAL DRAFT:

DATE: 2/17/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

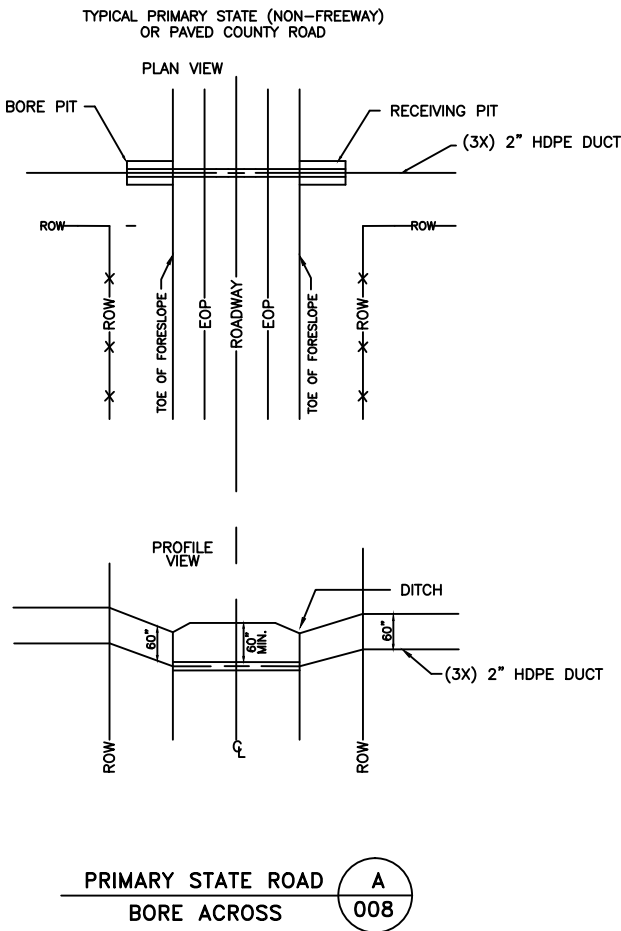
SCALE: 1"=100'



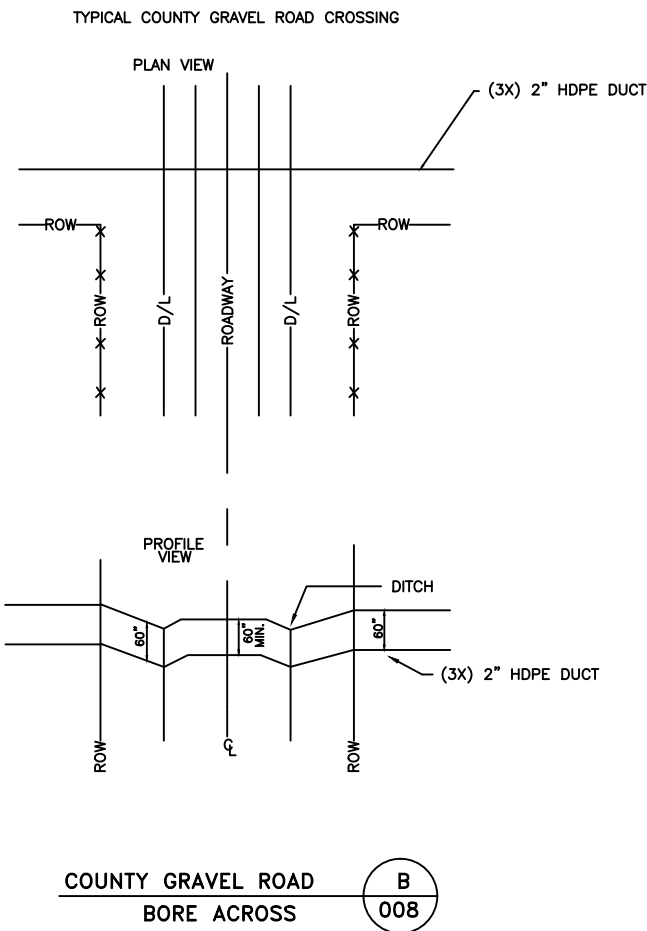
ENGINEERING COMPANY:



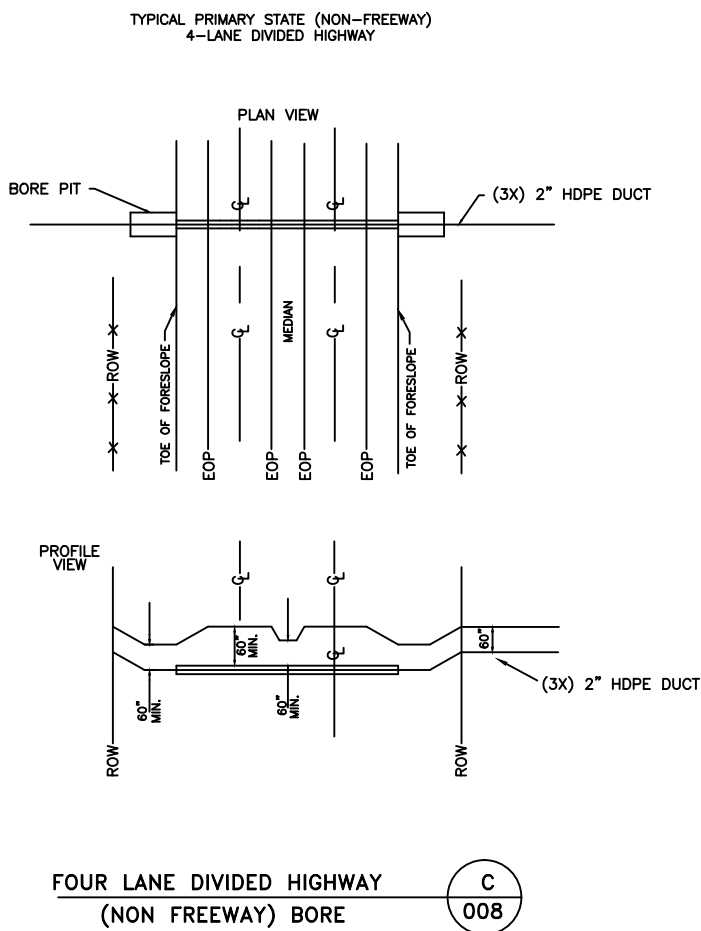
TYPICAL ROAD CROSSINGS



1. HDPE CASING SHALL EXTEND FROM TOE OF SLOPE TO TOE OF SLOPE.
2. BORE PITS SHALL BE AT A DISTANCE OF TEN FEET PLUS THE DEPTH OF THE PIT WITHOUT SHORING ON CONVENTIONAL HIGHWAYS, IF SHORING IS USED, THE PIT SHALL BE LOCATED A MINIMUM OF TEN FEET FROM THE EDGE OF PAVEMENT ON CONVENTIONAL HIGHWAYS UNLESS OTHERWISE STATED ON THE PERMIT.
3. HDPE CASING MUST BE A MINIMUM OF 60" BELOW THE DESIGNED DITCH GRADES ON EACH SIDE OF HIGHWAY AND 60" (CHECK WITH THE LOCAL JURISDICTIONAL AUTHORITY. UNDER A ROADWAY.
4. ENDS OF ALL HDPE CASING MUST BE FOAM PLUGGED.
5. ALL OPERATIONS MUST MEET REGULATING AGENCY REQUIREMENTS.



1. ALL COUNTY GRAVEL ROAD CROSSINGS – AND GRAVEL DRIVEWAYS SHALL BE PLOWED THROUGH UNLESS SHOWN OTHERWISE ON THE CONSTRUCTION DRAWINGS.
2. CABLE MUST BE A MINIMUM OF 60" BELOW THE DESIGNED DITCH GRADES ON EACH SIDE OF ROADWAY. MINIMUM COVER REQUIREMENTS BE MAINTAINED THROUGHOUT THE ENTIRE ROADWAY.
3. ALL OPERATIONS MUST MEET REGULATING AGENCY REQUIREMENTS.



1. HDPE CASING SHALL EXTEND FROM TOE OF SLOPE TO TOE OF SLOPE.
2. BORE PITS SHALL BE A MINIMUM OF 30 FEET FROM THE EDGE OF PAVEMENT ON FULLY ACCESS-CONTROLLED HIGHWAY UNLESS OTHERWISE STAYED ON THE PERMIT.
3. HDPE CASING MUST BE A MINIMUM OF 60" BELOW THE DESIGNED DITCH GRADES ON EACH SIDE OF HIGHWAY AND 60" UNDER A ROADWAY.
4. ENDS OF ALL CASING MUST BE FOAM PLUGGED.
5. PITS FOR BORING ARE NOT PERMITTED IN THE HIGHWAY MEDIAN.
6. ALL OPERATIONS MUST MEET REGULATING AGENCY REQUIREMENTS.

SHEET T6 OF T8

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME

CO.
SEC.
TWN.
RNG.
TAX:

STKD BY: DATE:

DATE REVISION BY

NOTES

REVIEW DRAFT:

FINAL DRAFT:

DATE: 2/17/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

SCALE: 1"=100'

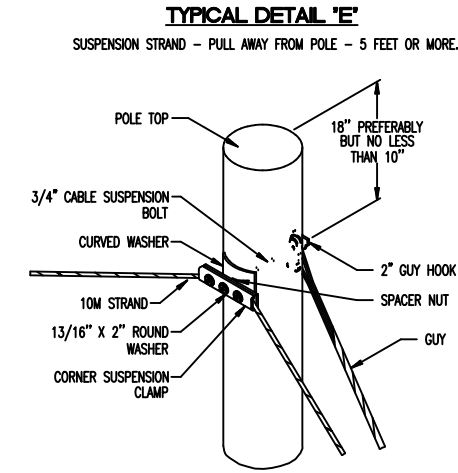
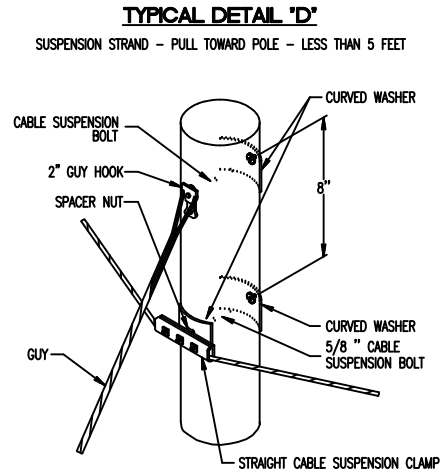
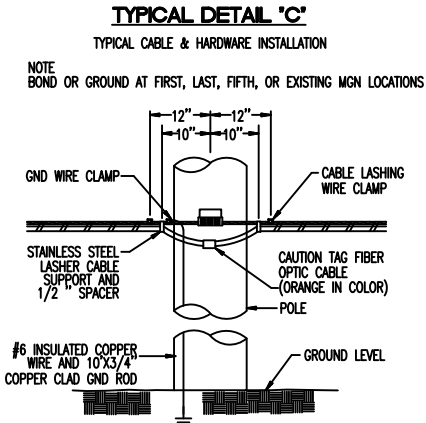
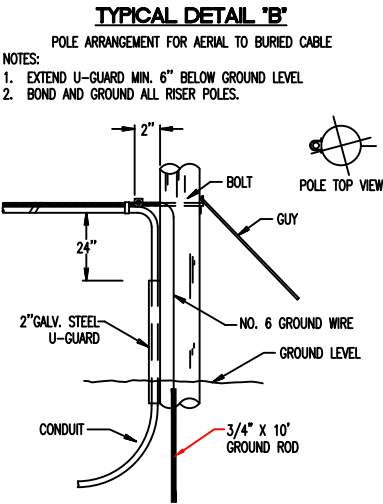
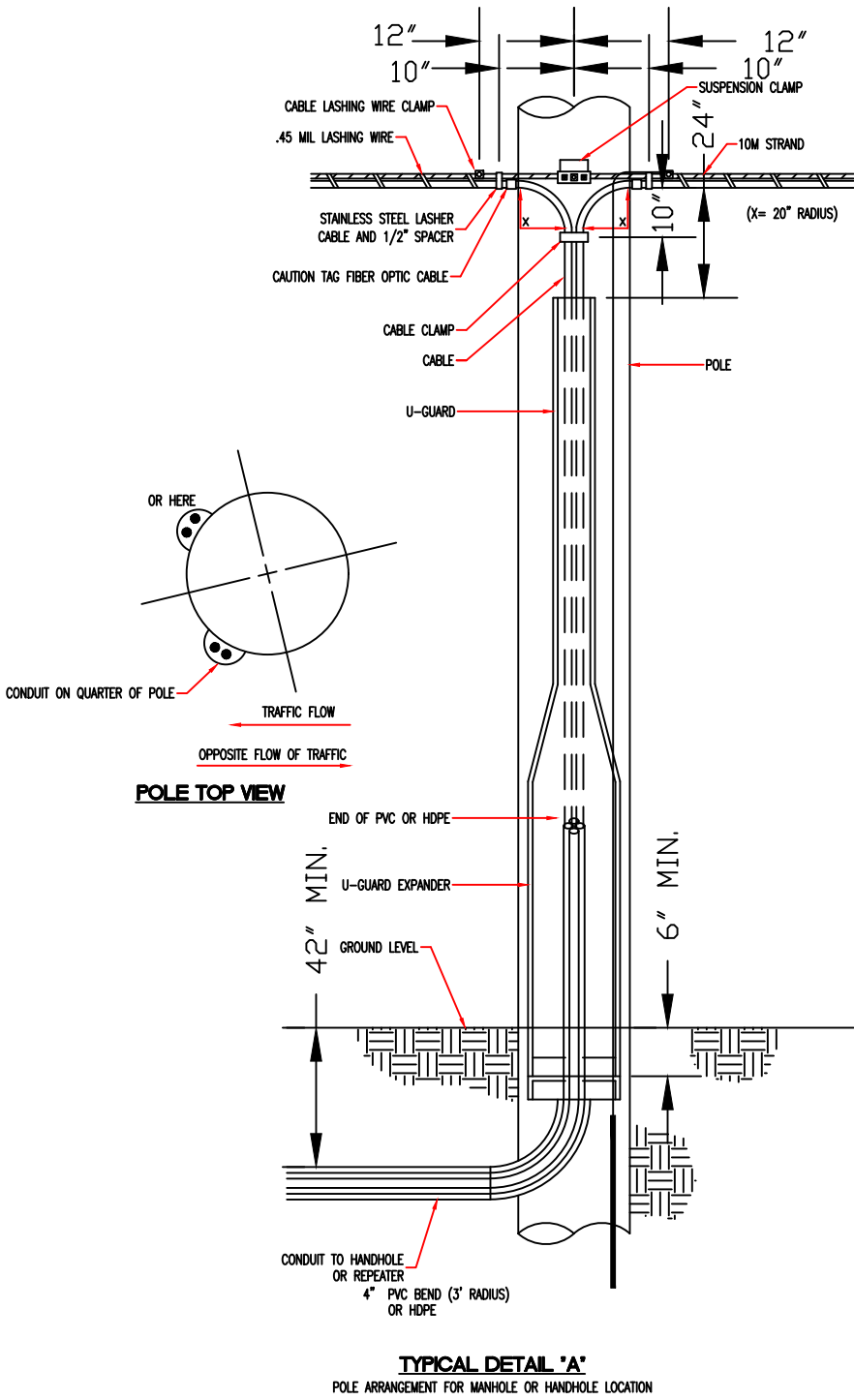


ENGINEERING COMPANY:

MTC MANWEILER
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577

TYPICAL DETAIL FOR AERIAL CONSTRUCTION



	CO.
	SEC.
	TWN.
	RNG.
	TAX:

NOTES

REVIEW DRAFT:

FINAL DRAFT:

DATE: 2/17/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

SCALE: 1"=100'

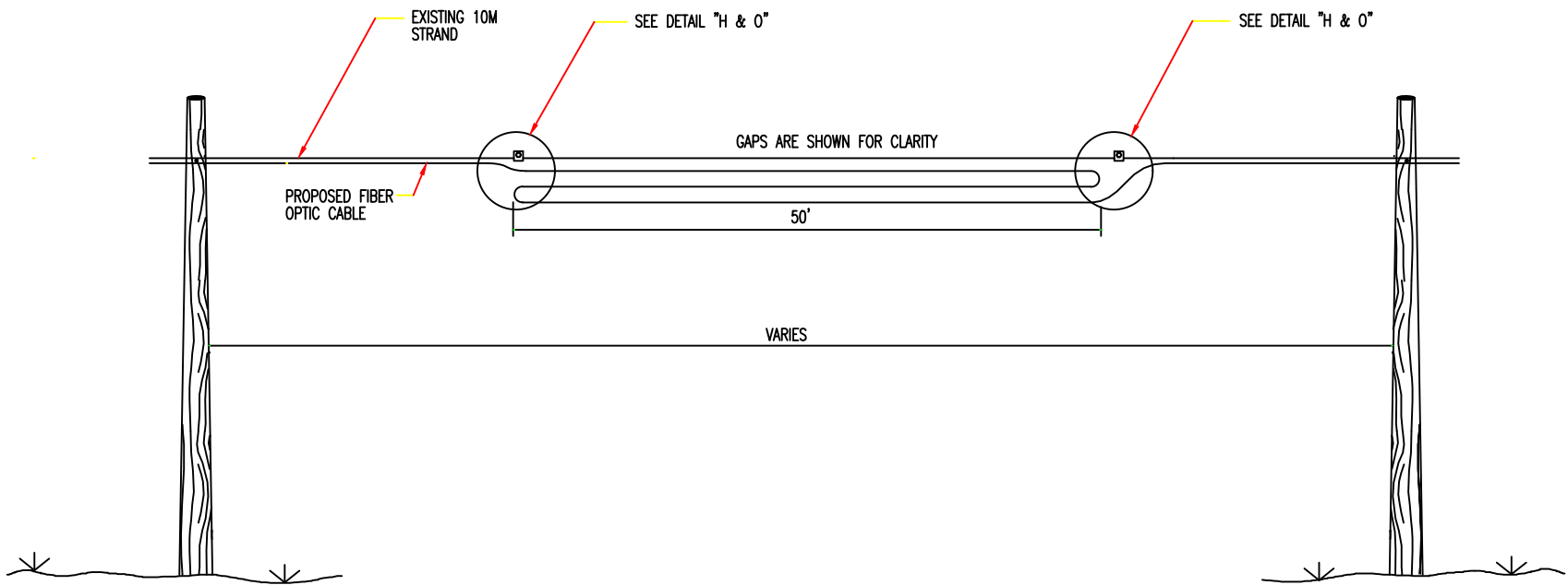


ENGINEERING COMPANY:

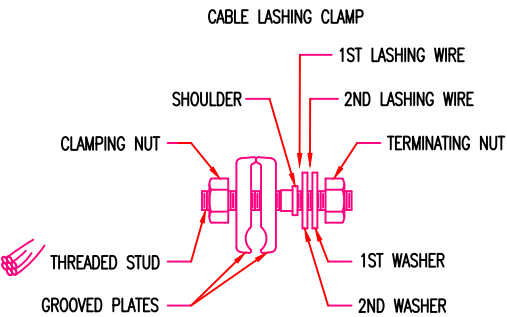
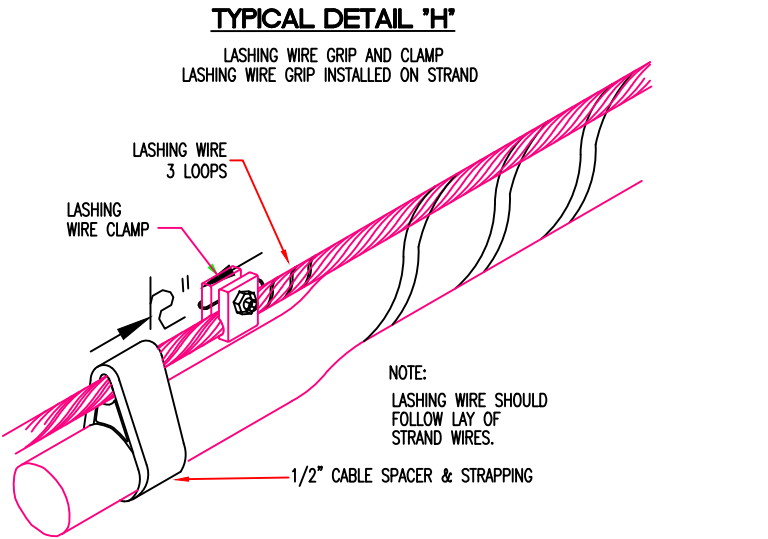
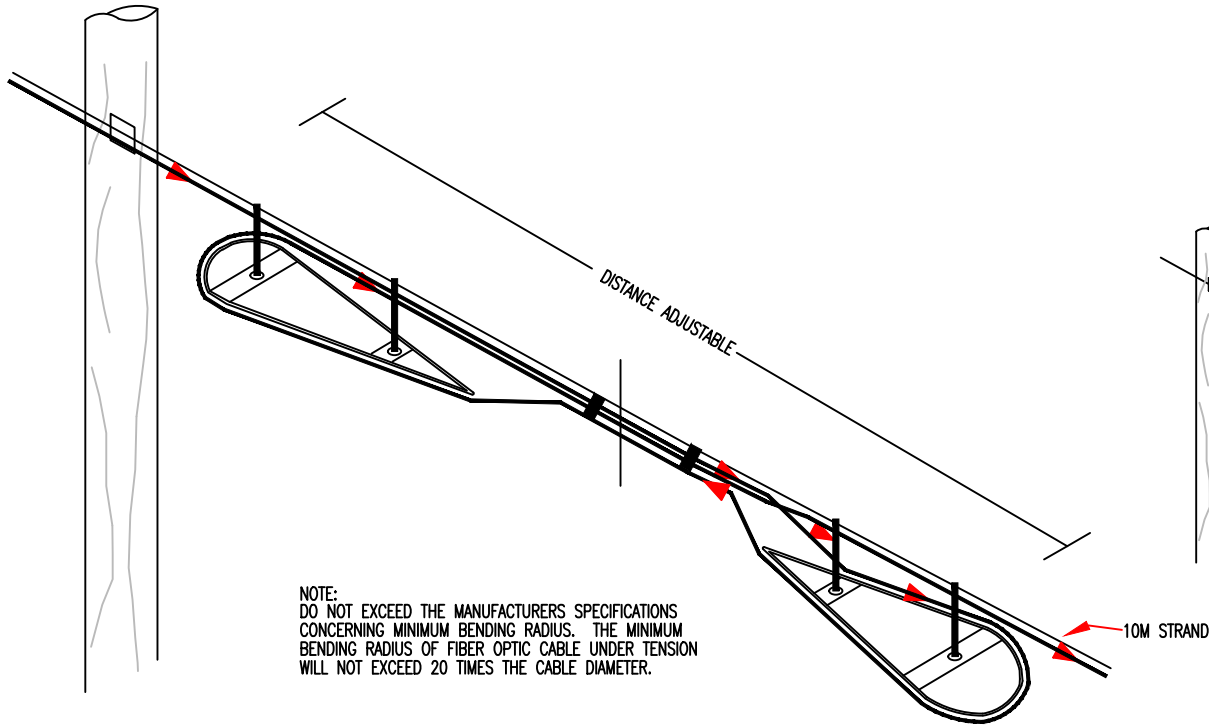
MTC MANWEILER
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577

TYPICAL DETAIL FOR STORING FIBER SLACK COIL

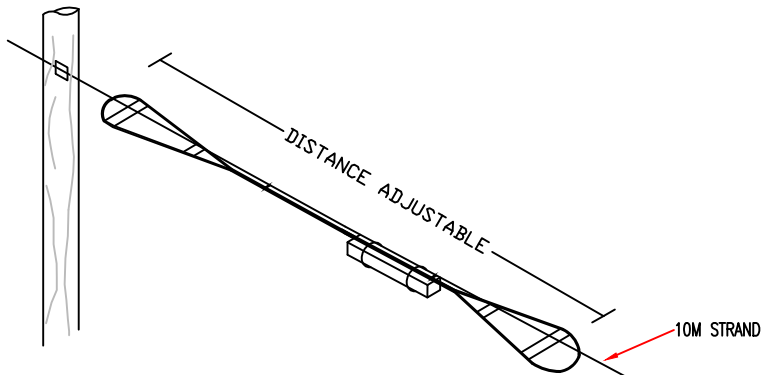


DETAIL "O"



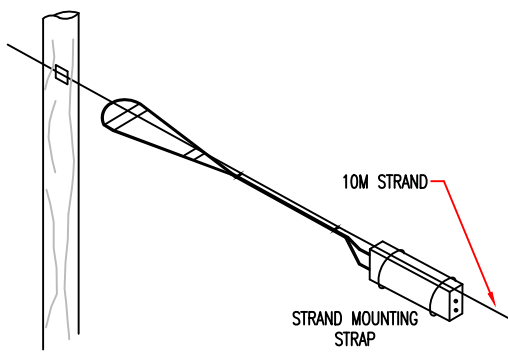
TYPICAL DETAIL "K"

IN-LINE SPLICE APPLICATION



TYPICAL DETAIL "L"

BUTT SPLICE APPLICATION



DATE	REVISION	BY

NOTES

REVIEW DRAFT:

FINAL DRAFT:

DATE: 2/17/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

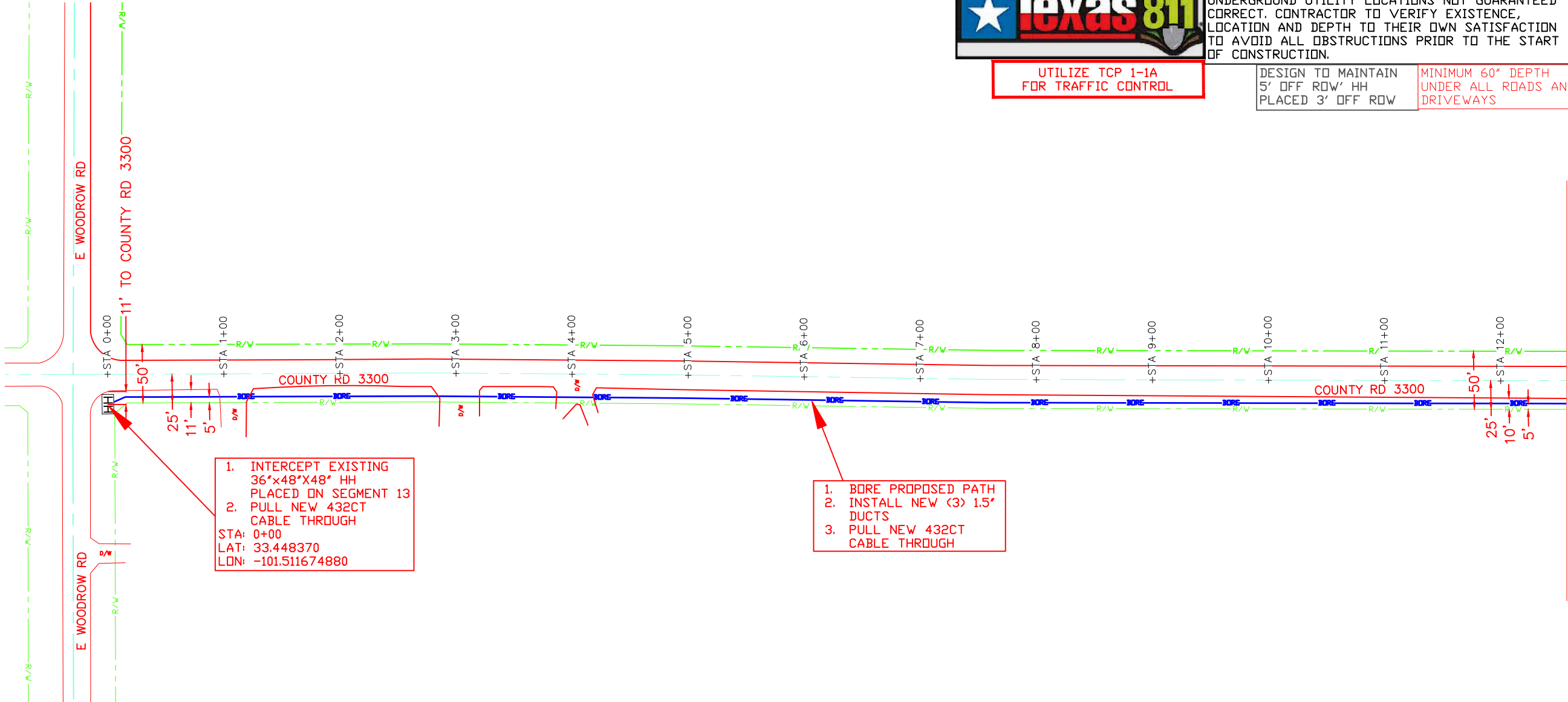
SCALE: 1"=100'



ENGINEERING COMPANY:



8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW

MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

MATCH MARK SHEET 2

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME

	CO.
	SEC.
	TWN.
	RNG.
	TAX:

STKD BY:	DATE:	
DATE	REVISION	BY

NOTES

FOC = 432

DUCT QTY/SIZE = (3) 1.5"

DUCT TYPE = HDPE SDR11

AERIAL = 0'

BORE = 1257'

TRENCH = 0'

PLOW = 0'

EXISTING = 0'

NEW POLE = NONE

REVIEW DRAFT:

FINAL DRAFT:

DATE: 2/17/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

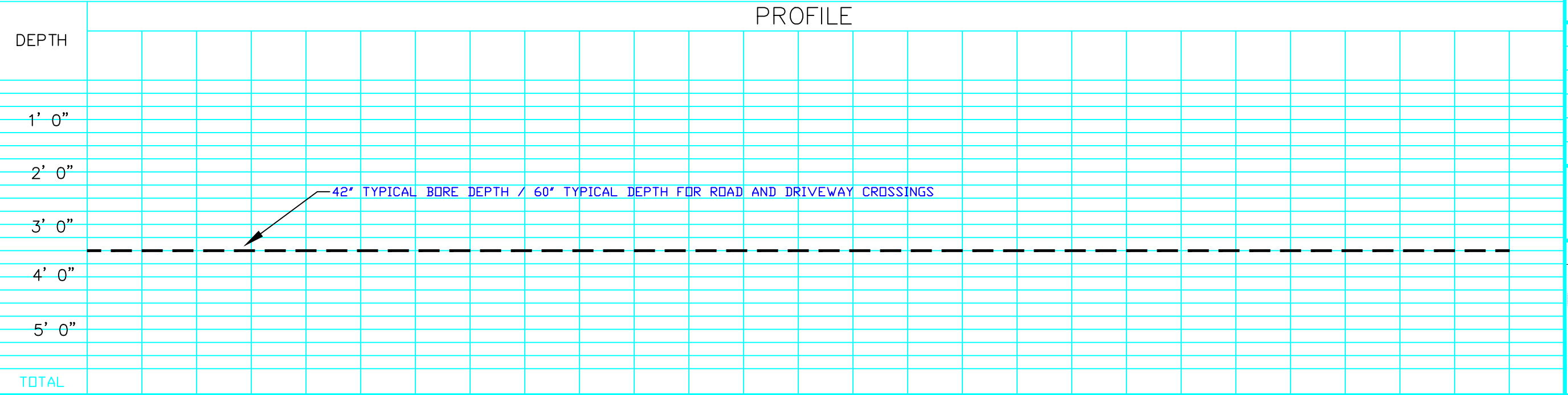
SCALE: 1"=100'



ENGINEERING COMPANY:

MANWEILER
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



CO.
SEC.
TWN.
RNG.
TAX:

DATE	REVISION	BY

NOTES

- FOC = 432
- DUCT QTY/SIZE =(3) 1.5"
- DUCT TYPE = HDPE SDR11
- AERIAL = 0'
- BORE = 1345'
- TRENCH = 0'
- PLOW = 0'
- EXISTING = 0'
- NEW POLE = NONE
- REVIEW DRAFT:
- FINAL DRAFT:

DATE: 2/17/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

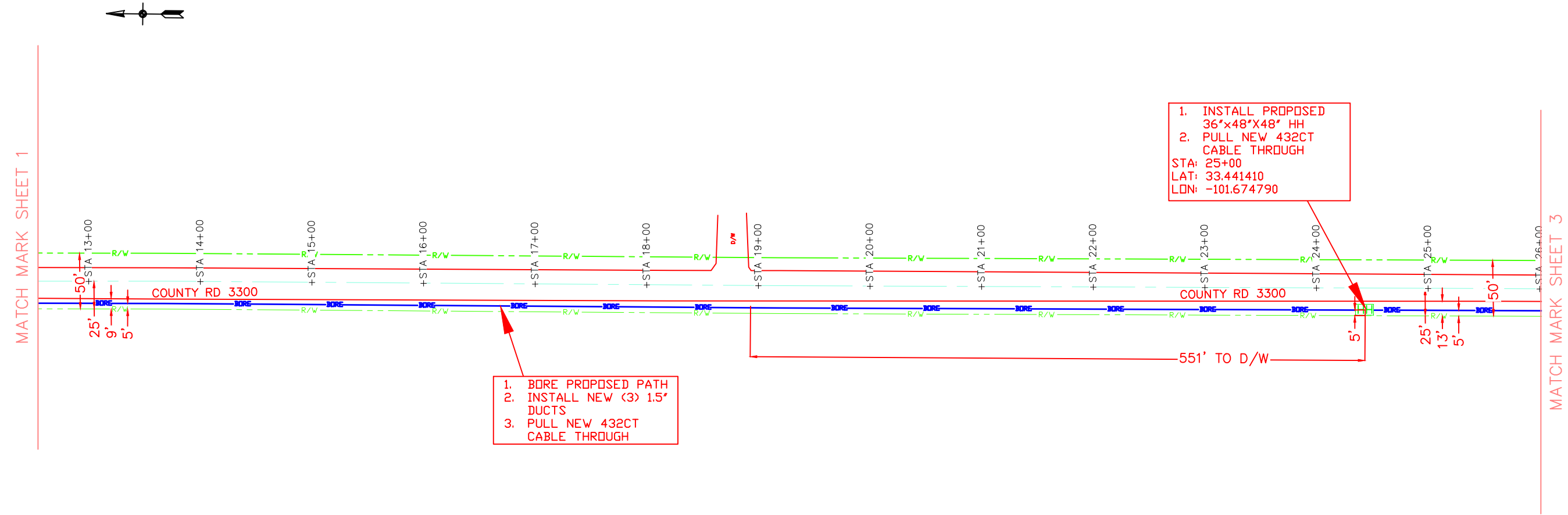
SCALE: 1"=100'



ENGINEERING COMPANY:

MANWEILER
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



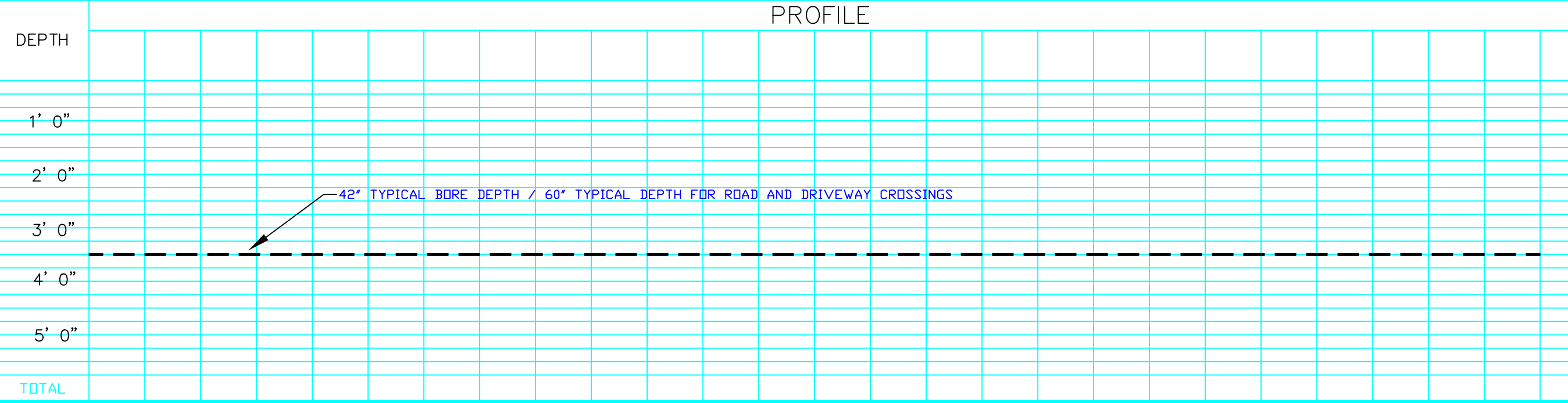
MINIMUM 60" DEPTH UNDER ALL ROADS AND DRIVEWAYS

DESIGN TO MAINTAIN 5' OFF ROW' HH PLACED 3' OFF ROW

CAUTION: UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED CORRECT. CONTRACTOR TO VERIFY EXISTENCE, LOCATION AND DEPTH TO THEIR OWN SATISFACTION TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START OF CONSTRUCTION.

UTILIZE TCP 1-1A FOR TRAFFIC CONTROL

PROFILE



ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT PRONAME



CO.
SEC.
TWN.
RNG.
TAX:

STKD BY: DATE:

DATE	REVISION	BY

NOTES

- FOC = 432
- DUCT QTY/SIZE =(3) 1.5"
- DUCT TYPE = HDPE SDR11
- AERIAL = 0'
- BORE = 1345'
- TRENCH = 0'
- PLOW = 0'
- EXISTING = 0'
- NEW POLE = NONE
- REVIEW DRAFT:
- FINAL DRAFT:

DATE: 2/17/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

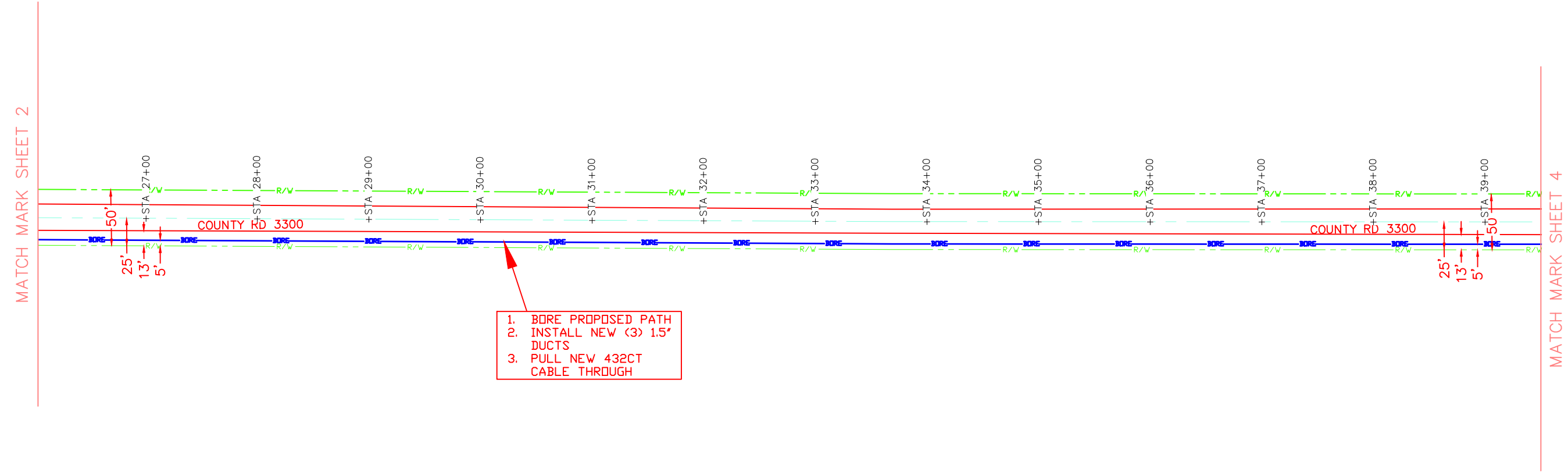
SCALE: 1"=100'



ENGINEERING COMPANY:

**MANWEILER**
TELECOM CONSULTING, INC.

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



MINIMUM 60" DEPTH
UNDER ALL ROADS AND
DRIVEWAYS

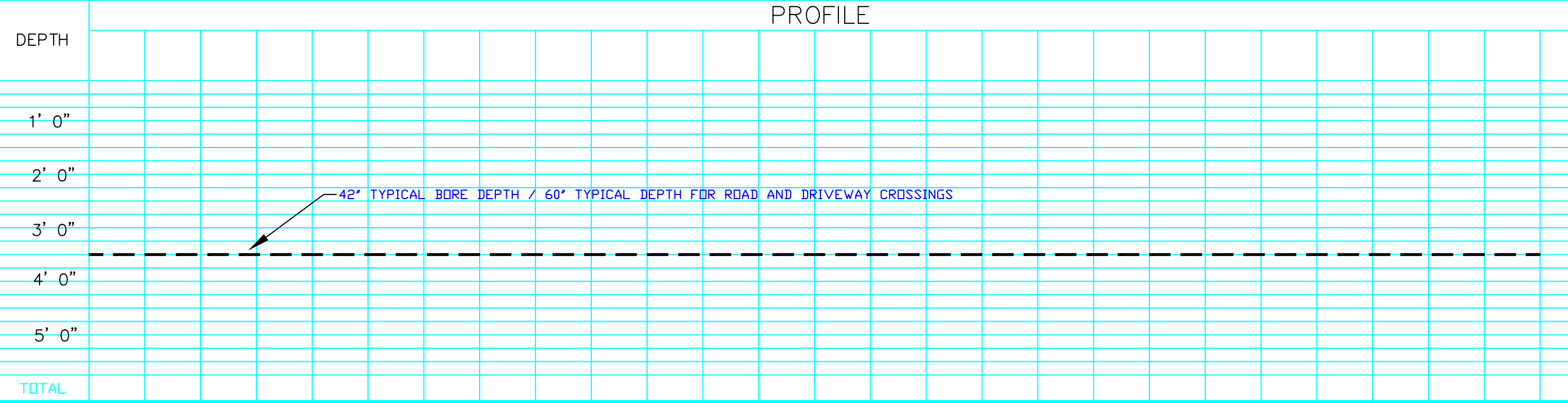
DESIGN TO MAINTAIN
5' OFF ROW' HH
PLACED 3' OFF ROW

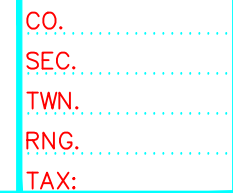


CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

UTILIZE TCP 1-1A
FOR TRAFFIC CONTROL

PROFILE





STKD BY: DATE:

DATE	REVISION	BY
------	----------	----

A blank sheet of graph paper with a grid of dots. The grid consists of 20 columns and 15 rows of small black dots. There are three vertical dashed lines at the first, eighth, and fifteenth columns from the left. There are two horizontal dashed lines at the fifth and tenth rows from the top. These dashed lines intersect at points marked by solid dots. The intersections are located at (8, 5), (15, 5), and (15, 10) relative to the top-left dot as (0,0).

[illegible]

NOTES

500 100

FOC = 432

DUCT QTY/SIZE = (3) 1.5"

DUCT TYPE = HDPE SDR11

AERIAL = 0'

BORE = 1247'

TRENCH = 0'

PLOW = 0'

EXISTING = 0'

NEW ROLE - NONE

NEW FOLE - NONE

REVIEW DRAFT:

REVIEW DRAFT:
FINAL DRAFT

FINAL DRAFT:

DATE: 2/17/2022

DESIGN:

DRAFTED: MTR

CHECKED:

QA/QC:

SCALE: 1"=100'

SCALE: 1 = 100

