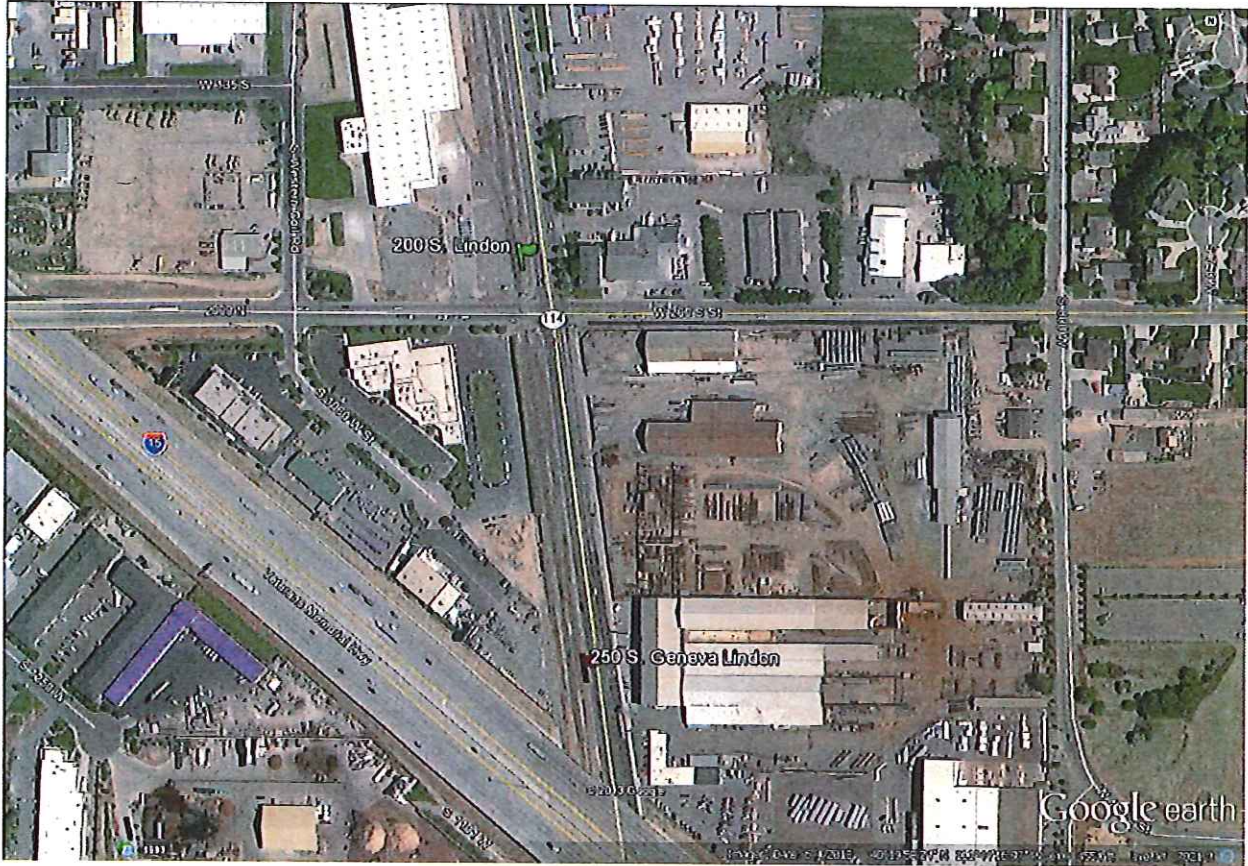


NOVEMBER 21, 2016



AMERICAN FORK CITY/CENTRACOM 200 SOUTH LINDON  
 PROJECT #AFCC-1016  
 PROVO INDUSTRIAL LEAD, MILE POST-761.62; LINDON, UTAH

**Union Pacific Railroad Co.**  
 APPROVED: Date 11/27/17  
*Geoff E. Voogd*  
 FOR VP ENGINEERING

MICAH HUNSAKER  
 AMERICAN FORK CITY  
 micah@afcity.net  
 801-404-6658

JAN 27 2017  
 G.E.V. 5 SHEETS

# UNION PACIFIC GENERAL NOTES

## FIBER OPTIC INSTALLATIONS

1. FIBER OPTIC INSTALLATION ON UNION PACIFIC RAILROAD SHALL CONFORM TO THE UNION PACIFIC MANUAL "FIBER OPTIC ENGINEERING, CONSTRUCTION AND MAINTENANCE STANDARDS," LATEST EDITION.
2. ALL WORKERS ON RAILROAD PROPERTY MUST BE UNION PACIFIC RAILROAD SAFETY TRAINED AND WEAR RAILROAD APPROVED PERSONAL PROTECTIVE EQUIPMENT.
3. PRIOR TO ANY EXCAVATION ON UNION PACIFIC RIGHT OF WAY, IT IS MANDATORY TO CALL UNION PACIFIC'S "CALL BEFORE YOU DIG" NUMBER, 800-336-9193, TO ASCERTAIN IF ANY FIBER OPTIC CABLES EXIST IN THE PROJECT AREA. THIS MUST BE DONE A MINIMUM OF 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY; THIS IS IN ADDITION TO ANY STATE ONE-CALL NOTIFICATIONS.
4. DOCUMENTATION REQUIRED ON SITE DURING CONSTRUCTION INCLUDES APPROVED PLANS, APPROVAL LETTER, DIG TICKETS AND COMPLETED "RAILROAD EMERGENCY RESPONSE FORM."
5. DIRECTIONAL BORES MUST BE APPROVED PRIOR TO CONSTRUCTION.
6. TRACK BORES MUST BE CASED IF LESS THAN TEN FEET BELOW THE BASE OF RAIL. ALL MULTIPLE-DUCT BORES MUST BE CASED. THE CASING MUST EXTEND A MINIMUM OF 30 FEET FROM THE CENTER LINE OF THE NEAREST TRACK WHEN MEASURED AT RIGHT ANGLES TO THE TRACK.
7. NO EXCAVATION IS ALLOWED WITHIN 12 FEET OF ANY TRACK. ALL EXCAVATIONS MUST BE SHORED IN ACCORDANCE WITH OSHA AND RAILROAD STANDARDS. SHORING FOR EXCAVATION ON RAILROAD RIGHT OF WAY MUST BE APPROVED BY THE UNION PACIFIC VP OF ENGINEERING.
8. BORE PITS ARE TO BE LOCATED A MINIMUM OF 30 FEET FROM THE CENTER LINE OF THE NEAREST TRACK WHERE POSSIBLE. BORE PITS ARE NOT ALLOWED IN THE CUT OR FILL SECTIONS OF THE ROAD BED.
9. TRENCHES AND BORE PITS ARE TO BE FILLED OR FENCE PROTECTED AT THE END OF EACH DAY.
10. EXCAVATIONS ARE TO BE FILLED AND COMPACTED TO 95% OF MAXIMUM DRY DENSITY AS DEFINED BY ASTM STANDARD D698.
11. DO NOT FOUL THE BALLAST. KEEP ALL DIRT AND OTHER FOREIGN MATERIALS OUT OF THE TRACK BALLAST SECTION.
12. THE RIGHT OF WAY SHALL BE RESTORED TO ITS ORIGINAL CONDITION OR BETTER INCLUDING SEEDING WITH NATIVE GRASSES.
13. CABLE SHALL BE INSTALLED A MINIMUM OF 42" BELOW NATURAL GROUND. THIS DEPTH SHALL BE INCREASED TO 60" UNDER TRACKS (DRY BORE ONLY), CULVERTS AND DITCHES.
14. HANDHOLES SPLICE BOXES AND MANHOLES MUST BE DESIGNED FOR AASTO H-20 LOADING AND MUST BE INSTALLED SO AS NOT TO CREATE A STUMBLING HAZARD.
15. MARKER POSTS MUST BE INSTALLED SO AS NOT TO CREATE STUMBLING OR IMPALING HAZARDS, OR IN A LOCATION THAT OBSTRUCTS RAIL ROAD OPERATIONS.
16. CREEK BEDS THAT HAVE BEEN PLOWED OTR CUT MUST BE RESTORED AND PROTECTED BY RIP RAP OR OTHER RAIL ROAD APPROVED EROSION CONTROL PROCEDURES.
17. ANY DEVIATIONS FROM THE APPROVED PLANS MUST BE APPROVED BY THE UP CONSTRUCTION COORDINATOR ASSIGNED TO THE PROJECT. ALL CHANGES MUST BE RECORDED ON THE AS-BUILT PLANS.
18. THE CABLE MUST BE LOCATED ON THE FIELD SIDE OF ALL RAILROAD FACILITIES.
19. INSTALLATIONS NEAR RAIL ROAD SIGNAL FACILITIES WILL REQUIRE COORDINATION THROUGH THE UP CONSTRUCTION COORDINATOR WITH THE UP SIGNAL DEPARTMENT. SIGNAL DEPARTMENT PERSONNEL WILL REMOVE AND REPLACE ALL GUY WIRES ATTACHED TO RAILROAD POLE LINES.

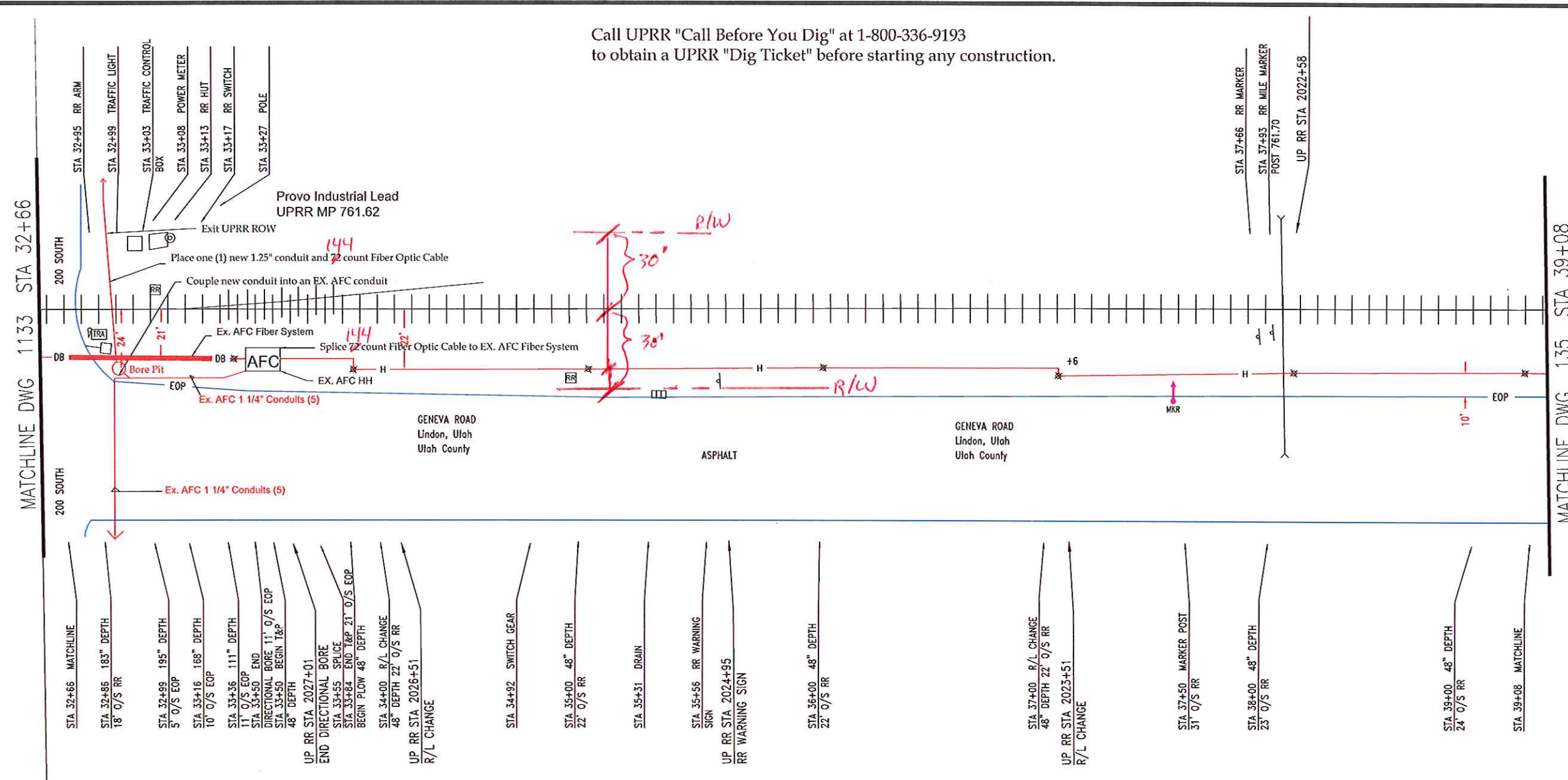


BUILDING AMERICA®

JAN 27 2017  
G.E.V.

Rev 4/1/2016

Call UPRR "Call Before You Dig" at 1-800-336-9193  
to obtain a UPRR "Dig Ticket" before starting any construction.



- STA 32+66 MATCHLINE
- STA 32+86 183" DEPTH 18" O/S RR
- STA 32+99 195" DEPTH 5' O/S EOP
- STA 33+16 168" DEPTH 10' O/S EOP
- STA 33+36 111" DEPTH 11' O/S EOP
- STA 33+50 END DIRECTIONAL BORE 11' O/S EOP
- STA 33+50 BEGIN T&P 48" DEPTH
- UP RR STA 2027+01 END DIRECTIONAL BORE
- STA 33+55 SPLICE
- STA 33+64 END T&P 21' O/S EOP BEGIN FLOW 48" DEPTH
- STA 34+00 R/L CHANGE 48" DEPTH 22' O/S RR
- UP RR STA 2026+51 R/L CHANGE
- STA 34+92 SWITCH GEAR
- STA 35+00 48" DEPTH 22' O/S RR
- STA 35+31 DRAIN
- STA 35+56 RR WARNING SIGN
- UP RR STA 2024+95 RR WARNING SIGN
- STA 36+00 48" DEPTH 22' O/S RR
- STA 37+00 R/L CHANGE 48" DEPTH 22' O/S RR
- UP RR STA 2023+51 R/L CHANGE
- STA 37+50 MARKER POST 31' O/S RR
- STA 38+00 48" DEPTH 23' O/S RR
- STA 39+00 48" DEPTH 24' O/S RR
- STA 39+08 MATCHLINE

**CONTRACTORS NOTE:**  
ALL UTILITIES SHOWN OR NOT SHOWN ARE APPROXIMATE. PROTECTION AND LOCATION OF ALL UTILITIES ARE THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR.

JOINT	○	BLACK W/ ORANGE STRIPE
JOINT	○	BLACK W/ ORANGE STRIPE
QWEST	○	BLACK W/ GREEN STRIPE
STA	○	BLACK W/ ORANGE STRIPE
STA	○	BLACK
ATT	○	ORANGE W/ YELLOW STRIPE
ATT	○	ORANGE
ATT	●	WHITE 336 FIBER

Matchlines: MATCHLINE DWG 1133 STA 32+66 (left), MATCHLINE DWG 135 STA 39+08 (right)

Labels: 200 SOUTH, GENEVA ROAD London, Utah Utah County, ASPHALT, RR, RR MILE MARKER POST 761.70, UP RR STA 2022+58

Dimensions: 24', 21', 30', 30', 10', 16'

Notes: Place one (1) new 1.25" conduit and 72 count Fiber Optic Cable; Couple new conduit into an EX. AFC conduit; Ex. AFC Fiber System; Splice 72 count Fiber Optic Cable to EX. AFC Fiber System; Ex. AFC HH; Ex. AFC 1 1/4" Conduits (5); Bore Pit; Exit UPRR ROW; Provo Industrial Lead UPRR MP 761.62

REVISIONS:

TABULATIONS  
642' X 8' = 5136' HDPE  
84' BORE  
558' CAT PLOW  
(1) WARNING SIGN

SPMS

PREPARED FOR RECORD

APPROVED FOR: \_\_\_\_\_ ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ENGINEER UNDER THE LAWS OF THE STATE OF UTAH

SIGNED: \_\_\_\_\_ DATE \_\_\_\_\_ FIG. NO. \_\_\_\_\_

**RAWT**  
P.O. BOX 331  
NEPH, UT, 84543  
PHONE: (435) 823-4232  
E-MAIL: info@rawt.com

PROPRIETARY  
USE PURSUANT TO COMPANY INSTRUCTIONS

SPECIFICATION \_\_\_\_\_  
PROJECT NUMBER \_\_\_\_\_

OWNERSHIP:  
LINE CODE:  
CABLE C.I.I.E.:

SCALE: 1" = 50'

SEGMENT F-3

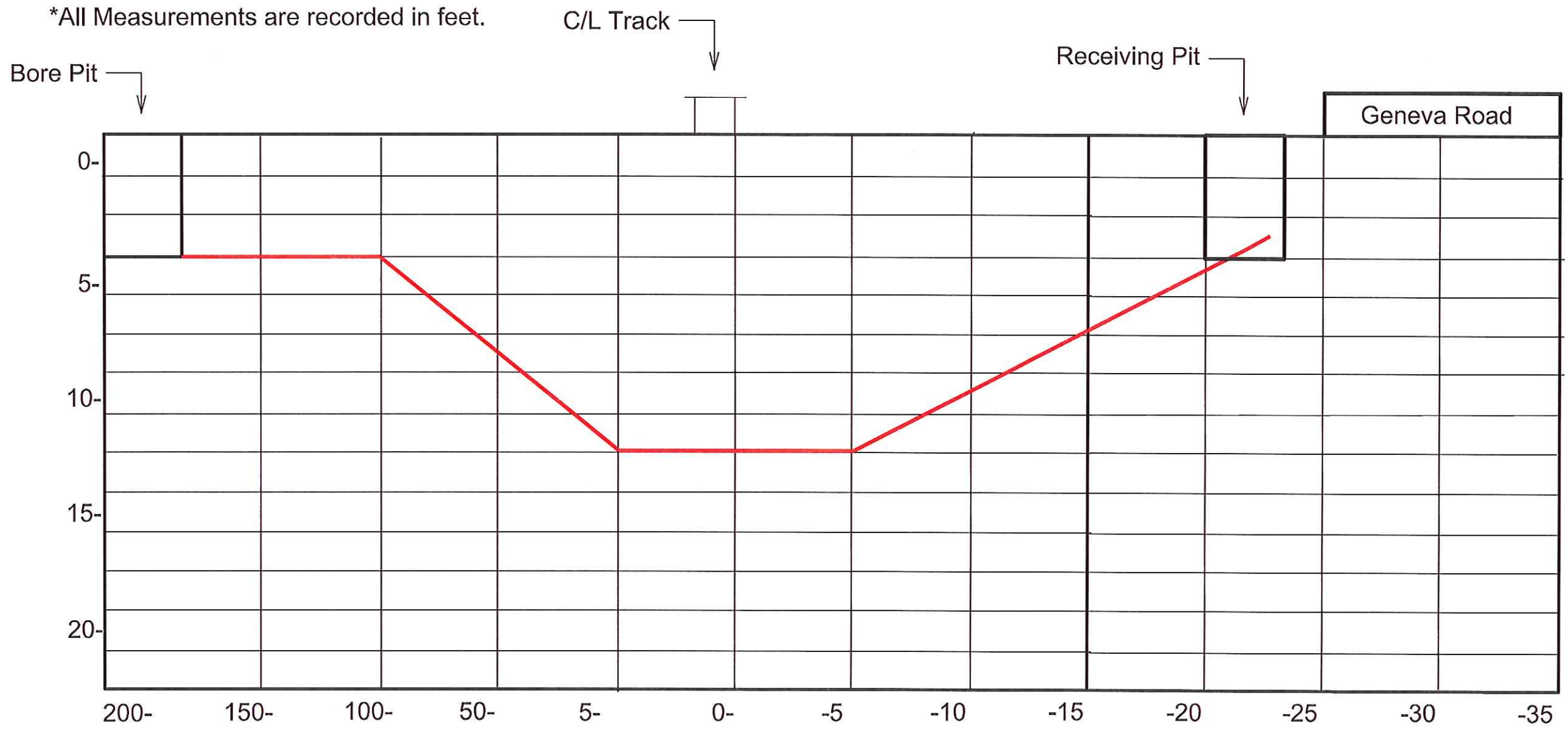
UP MP 761

134

JAN 27 2017  
G.E.V.



\*All Measurements are recorded in feet.



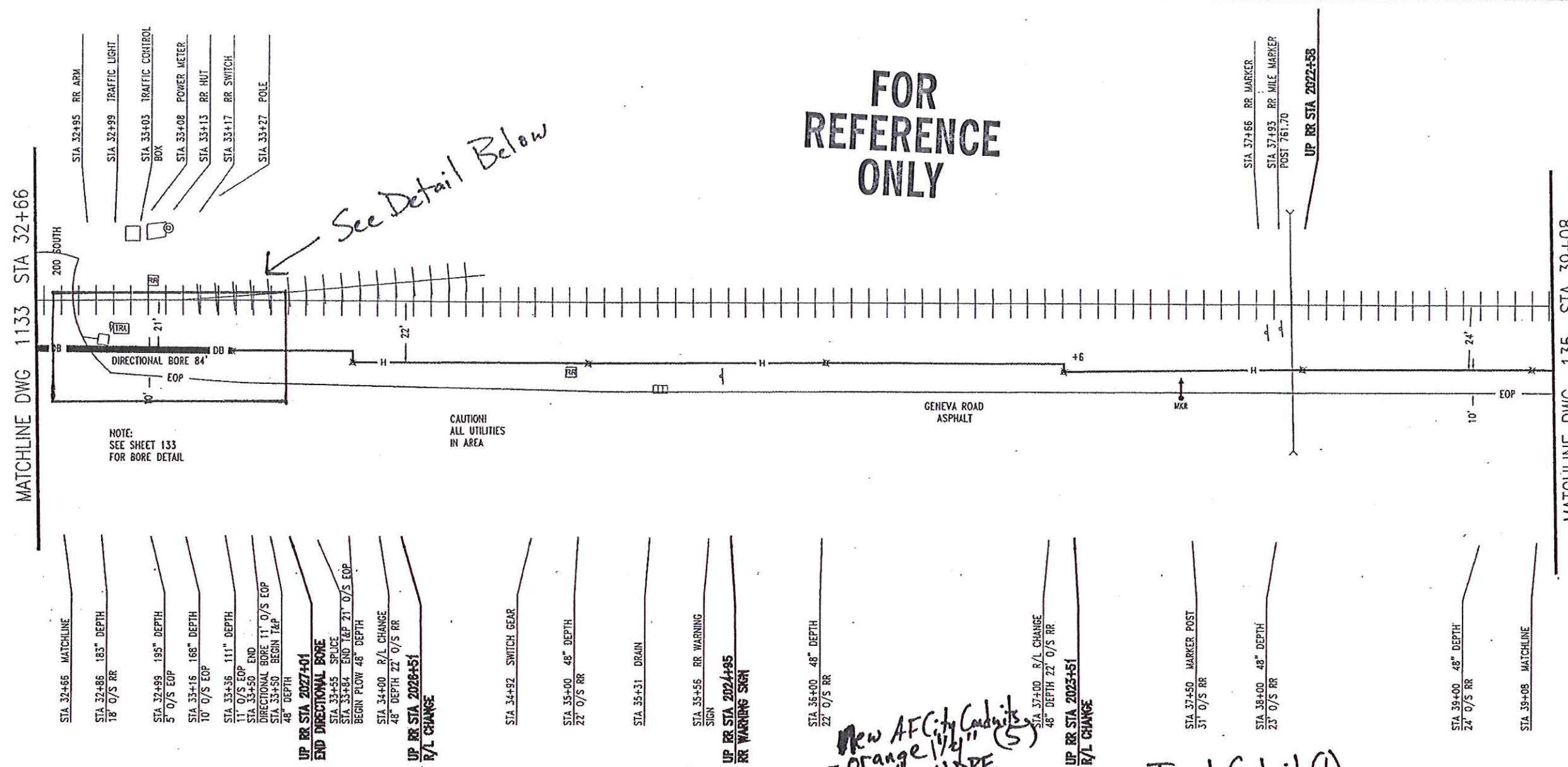
JAN 27 2017  
G.E.V.

FOR REFERENCE ONLY

See Detail Below

MATCHLINE DWG 1133 STA 32+66

MATCHLINE DWG 135 STA 39+08



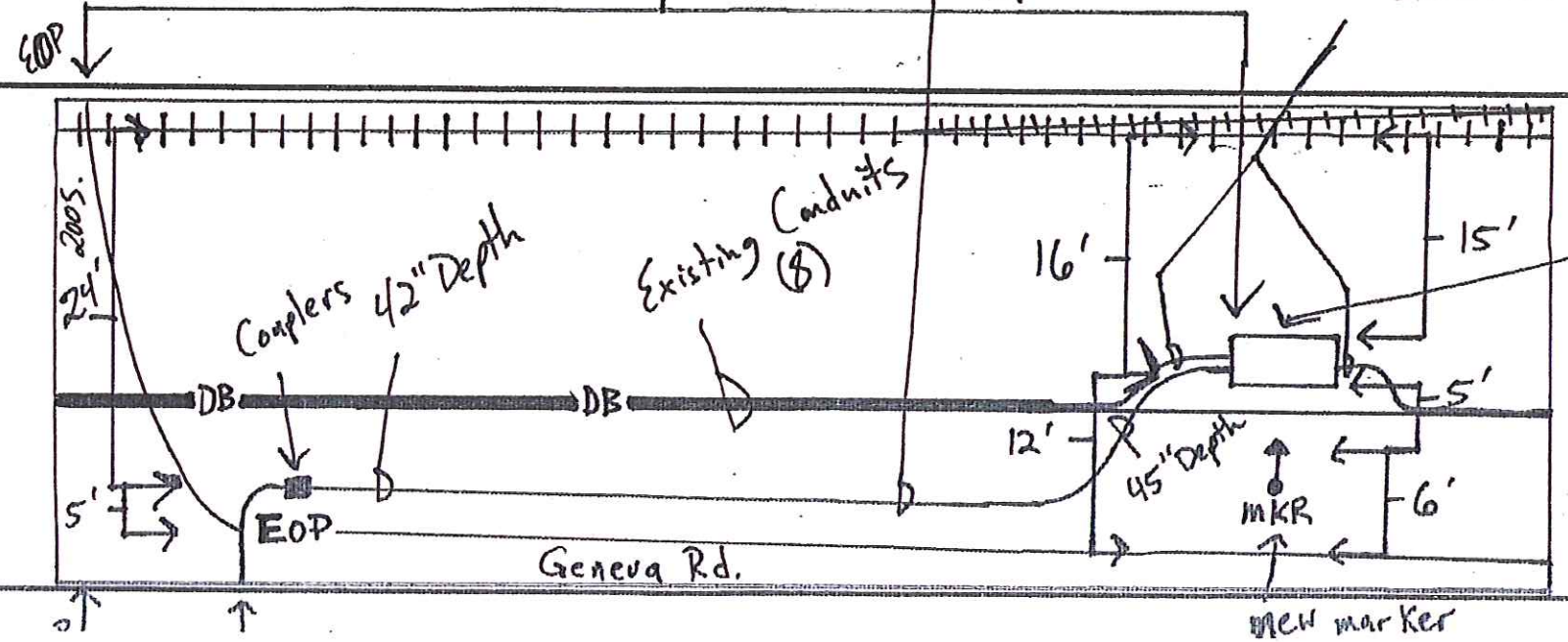
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23' O/S RR
- STA 39+00 48" DEPTH  
24' O/S RR
- STA 39+08 MATCHLINE

New AFCity Conduits  
- orange 1 1/4" (5)  
48" HDPE  
Depth

Joint Conduit (1)  
- BIK w/or. stripe - AFCity  
48" depth

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- STA ○ BLACK W/ ORANGE STRIPE
- STA ○ BLACK
- ATT ○ ORANGE W/ YELLOW STRIPE
- ATT ○ ORANGE
- ATT ○ WHITE
- 336 FIBER



New AF Handhole  
24" Depth

SEP 10 2004  
JAN 27 2017  
G.E.V.

REVISIONS:

TABULATIONS  
642' X 8 = 5136' HDPE  
84' BORE  
558' CAT PLOW  
(1) WARNING SIGN

SPMS

PREPARED FOR RECORD

APPROVED FOR OUTSIDE PLANT ENGINEER DATE

I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A QUALY REGISTERED ENGINEER UNDER THE LAWS OF THE STATE OF UTAH

SCHEMATIC DATE FIG. NO.

**RMWT**  
P.O. BOX 231  
MOUNTAIN VIEW, UT 84048  
PHONE (435) 623-7232  
E-MAIL: info@rmwt.com

PROPRIETARY  
USE PURSUANT TO COMPANY INSTRUCTIONS

SPECIFICATION

PROJECT NUMBER

OWNERSHIP:  
LINE CODE:  
CABLE CLL:

SCALE: 1" = 50'

SEGMENT F-3

UP MP  
761

134