

REQUIRED RTD (ACTIVE by LEASED TRACKS) CONSTRUCTION NOTES

Add these to your 'for construction' drawing for GRLW Rail Corridor

- 1) CONTRACTOR SHALL NOTIFY RTD'S UTILITY ENGINEERING/CONSTRUCTION TEAM (303-299-2811) A FULL TWO (2) WEEKS PRIOR TO CONSTRUCTION AND SHALL COORDINATE A UTILITY PRE-CONSTRUCTION MEETING WITH RTD. CONTRACTOR AND SUB-CONTRACTORS WORKING ON OR ACROSS RTD ROW/TRACKS MUST ATTEND THE UTILITY PRE-CONSTRUCTION MEETING. AN RTD REPRESENTATIVE MUST BE ON-SITE DURING CONSTRUCTION. THE UTILITY PRE-CONSTRUCTION MEETING SHALL OCCUR WITHIN A WEEK OF THE START OF CONSTRUCTION.
- 2) CONTRACTOR SHALL CONTACT RTD'S CLAUDE VIGIL (303-931-8727) A FULL TWO (2) WEEKS PRIOR TO ANY ACCESS FOR MOBILIZATION OR SURVEY WORK AND A FULL FOUR (4) WEEKS PRIOR TO ACTUAL CONSTRUCTION (INCLUDING POTHOLING) AT ANY LOCATION WITHIN 25 FEET OF TRACKS (ABOVE, BELOW, AND/OR ADJACENT TO) WHERE BNSF OR UPRR OPERATE. CONTRACTOR SHALL COORDINATE WORK ACTIVITIES WITH RTD TO AVOID IMPACT TO BNSF/UPRR TRACK OPERATIONS AND TO ARRANGE FOR A BNSF OR UPRR FLAGGER.
- 3) THE CONTRACTOR (ALL WORKERS INCLUDING GENERAL AND SUB-CONTRACTORS) WILL BE REQUIRED TO SUCCESSFULLY COMPLETE THE APPLICABLE RAILROAD SAFETY TRAINING, BNSF, UP, OR OTHER RAILROAD, CONTRACTOR ORIENTATION COURSE PRIOR TO THE START OF ANY WORK ON, ADJACENT TO, OR ACROSS RTD OWNED / BNSF OR UPRR OPERATED TRACKS AND BE PREPARED TO PRODUCE EVIDENCE OF CERTIFICATION AT ALL TIMES.
- 4) CONTRACTOR SHALL NOT BEGIN ANY WORK ON OR ACROSS RTD ROW/TRACKS UNTIL RTD HAS ISSUED AND EXECUTED UTILITY AGREEMENT.
- 5) CONTRACTOR MAY NOT BEGIN WORK UNTIL RTD HAS ISSUED A PRE-CONSTRUCTION RESOLUTION RECORD (PCRR). A PCRR WILL BE COMPLETED, SIGNED, AND ISSUED BY RTD'S UTILITY ENGINEERING/CONSTRUCTION TEAM DURING THE UTILITY PRE-CONSTRUCTION MEETING AND MUST BE KEPT ON-SITE AT ALL TIMES DURING CONSTRUCTION.
- 6) TRAFFIC CONTROL PLANS ARE REQUIRED IF WORK HAS THE POTENTIAL OF IMPACTING RTD RAIL AND/OR BUS OPERATIONS, OR AUTOMOBILE TRAFFIC NEAR TRAIN OR BUS FACILITIES AND/OR RAILROAD CROSSINGS. TRAFFIC CONTROL PLANS MUST BE SUBMITTED TO ALL OPERATING RAILROADS (BNSF, UP, ETC.) AND TO RTD FOR APPROVAL PRIOR TO CONSTRUCTION.
- 7) RTD ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS SHOWN ON THESE CONSTRUCTION DRAWINGS. IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.
- 8) CONTRACTOR SHALL IDENTIFY THE HORIZONTAL LOCATION AND VERTICAL DEPTH OF BNSF/UPRR UNDERGROUND UTILITIES WITHOUT COMPROMISING THE INTEGRITY OF THE RTD OWNED AND BNSF/UPRR OPERATED TRACKS OR THE DYNAMIC ENVELOPE. THIS MAY BE ACCOMPLISHED BY ANY MEANS OF LOCATING THE TOP AND BOTTOM OF THE RTD DUCTS THAT DOES NOT INCLUDE POTHOLING OR DIGGING WITHIN THE RTD TRACK ENVELOPE. THIS MAY INCLUDE A PHYSICAL POTHOLING METHOD IF AGREED UPON IN WRITING BY RTD AND BNSF/UPRR PRIOR TO POTHOLING.
- 9) CONTRACTOR SHALL SURVEY AND SUBMIT THE COMPLETED HORIZONTAL PLAN AND VERTICAL PROFILE TO RTD WITHIN 30 CALENDAR DAYS OF THE COMPLETION OF CONSTRUCTION. THE PLAN AND PROFILE AS-BUILTS MUST INCLUDE THE FOLLOWING INFORMATION:
 - a) BEFORE AND AFTER SURVEYS OF TOP OF RTD TRACKS – CONTRACTOR SHALL SURVEY TOP OF TRACKS TO SHOW NO MOVEMENT OF TRACKS DUE TO CONSTRUCTION: AT A MINIMUM, THE CONTRACTOR SHALL SURVEY A TOTAL OF 5 SURVEY POINTS PER RAIL (WITH 10 FOOT SEPARATION BETWEEN

POINTS), WITH THE CENTER POINT ON EACH RAIL LOCATED AS CLOSE AS POSSIBLE OVER THE CENTERLINE OF THE NEW UTILITY SO THAT THE 5 SHOTS STRADDLE THE NEW CROSSING LOCATION. THE BEFORE (PRE-CONSTRUCTION) SURVEY MUST BE DONE NO MORE THAN 30 DAYS PRIOR TO CONSTRUCTION AND THE AFTER (POST-CONSTRUCTION) SURVEY MUST BE DONE NO MORE THAN 30 DAYS AFTER CONSTRUCTION IS COMPLETED. IF CONSTRUCTION DURATION EXTENDS BEYOND 2 MONTHS A TOP OF RAIL STATUS SURVEY MUST BE DONE AND SUBMITTED EVERY 30 DAYS DURING CONSTRUCTION ACROSS THE TRACKS. THE UTILITY AGREEMENT NUMBER AND SURVEY DATE MUST APPEAR ON ALL TOP OF RAIL SURVEY SUBMITTALS.

- b) AS-BUILT SURVEY OF INSTALLED UTILITY - CONTRACTOR SHALL SURVEY A MINIMUM OF FIVE (5) LOCATIONS EQUALLY SPACED ALONG THE INSTALLED PIPELINE ACROSS THE RTD ROW AND TRACKS TO SHOW THE EXACT INSTALLED HORIZONTAL LOCATION AND VERTICAL DEPTH OF THE NEW PIPELINE WHERE IT 1) ENTERS THE RTD ROW, 2) EXITS THE RTD ROW, 3) CROSSES THE CENTERLINE OF THE RTD TRACKS, 4) LOCATION HALF WAY BETWEEN ENTERING ROW & TRACK CENTERLINE ON EITHER SIDE OF THE TRACKS, 5) LOCATION HALF WAY BETWEEN EXITING ROW & TRACK CENTERLINE ON EITHER SIDE OF THE TRACKS. AS-BUILT SUBMITTAL SHALL INCLUDE THE FOLLOWING:
- RTD UTILITY AGREEMENT NUMBER,
 - DATE UTILITY WAS INSTALLED,
 - SIZE OF PIPE AND SIZE OF CASING,
 - THICKNESS OF PIPE AND THICKNESS OF CASING,
 - MATERIAL OF PIPE AND MATERIAL OF CASING.
 - AS-BUILTS MUST BE STAMPED, SIGNED, AND DATED BY A LICENSED SURVEYOR OR ENGINEER.
- c) SURVEYOR FIELD NOTES - CONTRACTOR SHALL SUPPLY RTD WITH A COPY OF THE SURVEYOR'S FIELD NOTES TO SUPPORT THE BEFORE AND AFTER SURVEY DATA AND FINAL UTILITY INSTALLATION DATA.

- 10) CONTRACTOR SHALL CLEARLY MARK UTILITY CROSSING USING A METHOD AGREED UPON BY CONTRACTOR AND RTD AT PRE-CONSTRUCTION MEETING. MARKERS MAY INCLUDE 4 FOOT UTILITY POSTS OVER UTILITY OR VISIBLE MANHOLES ON BOTH SIDES OF RTD ROW/TRACKS. THE CONTRACTOR SHALL INSTALL TRACER WIRE IN ALL NON-METALLIC PIPES. ALL UTILITIES INSTALLED WITHIN RTD ROW OR CROSSING RTD TRACKS MUST BE LOCATABLE WITH STANDARD LOCATING EQUIPMENT.
- 11) CATHODIC PROTECTION MUST BE INCLUDED FOR ALL NEW, BURIED, METALLIC, PRESSURIZED, PIPING CROSSING RTD RAILROAD TRACKS. DESIGN MUST MEET RTD'S RAIL DESIGN CRITERIA FOR CATHODIC PROTECTION.
- 12) CONTRACTOR MUST HAVE THE FOLLOWING DOCUMENTS ON-SITE DURING CONSTRUCTION AT ALL TIMES:
- RTD'S EXECUTED UTILITY AGREEMENT,
 - APPROVED RAIL ACCESS PERMIT,
 - APPROPRIATE RAILROAD SAFETY TRAINING CERTIFICATES,
 - PE STAMPED/SIGNED FOR CONSTRUCTION PLANS/PROFILES APPROVED BY RTD,
 - RTD RR CROSSING APPLICATION DATA SHEET,
 - RTD's SIGNED PRE-CONSTRUCTION RESOLUTION RECORD.
- 13) NO IN-FIELD CHANGES ARE ALLOWED TO ANY PART OF THIS DESIGN WHERE THE UTILITY CROSSES RTD ROW/TRACKS WITHOUT WRITTEN APPROVAL FROM RTD PRIOR TO CONSTRUCTION OF THE CHANGE.