REQUIRED RTD (LRT) CONSTRUCTION NOTES

Add these to your 'for construction' drawing

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. CONTRACTORS AND SUB-CONTRACTORS MUST ATTEND ALL NECESSARY LIGHT RAIL ON TRACK SAFETY TRAINING PRIOR TO THE START OF ANY WORK ON, ADJACENT TO, OR ACROSS RTD ROW WITH LIGHT RAIL TRACKS.

3. CONTRACTOR SHALL CONTACT RTD'S MAINTENANCE OF WAY (MOW) AND RTD RAIL OPERATIONS (303-299-3415) A FULL WEEK PRIOR TO CONSTRUCTION AND ATTEND THE WEEKLY RTD MANDATORY RAIL CONSTRUCTION MEETING (IN ADDITION TO THE UTILITY PRE-CONSTRUCTION MEETING) PRIOR TO THE START OF ANY PROJECT CONSTRUCTION. CONTRACTOR MAY NOT BEGIN ANY WORK WITHOUT AN RTD MOW ACCESS PERMIT. RTD'S MOW WILL NOT ISSUE A PERMIT WITHOUT AN EXECUTED UTILITY AGREEMENT IN PLACE FOR YOUR WORK.

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 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 RTD UNDERGROUND ELECTRIC AND COMMUNICATION DUCTS AND INSTALL THE NEW UTILITY WITHOUT COMPROMISING THE INTEGRITY OF THE RTD TRACKS OR DYNAMIC ENVELOPE. THIS MUST BE ACCOMPLISHED BY NON-DESTRUCTIVE EXPLORATORY MEANS AND METHODS OF LOCATING THE RTD DUCTS THAT DOES NOT INCLUDE POTHOLING OR DIGGING WITHIN THE RTD TRACK ENVELOPE. THE LOCATING METHOD MUST BE AGREED UPON BY BOTH CONTRACTOR AND RTD AND SHALL BE DESCRIBED AT PRE-CONSTRUCTION MEETING AND SHALL BE PART OF THE PRE-CONSTRUCTION RESOLUTION RECORD (PCRR). THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE RTD WHOLE FROM ANY DAMAGE TO RTD FACILITIES, INCLUDING DAMAGE DONE AFTER ASSISTANCE BY RTD STAFF TO HELP LOCATE RTD DUCTS.

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 CONTAIN 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 LIGHT RAIL TRACKS. DESIGN MUST MEET RTD'S LRT DESIGN CRITERIA FOR CATHODIC PROTECTION.

12. CONTRACTOR MUST HAVE THE FOLLOWING DOCUMENTS ON-SITE DURING CONSTRUCTION AT ALL TIMES:
    - RTD'S EXECUTED UTILITY AGREEMENT,
    - RTD'S APPROVED LIGHT RAIL ACCESS PERMIT,
    - RTD'S ON TRACK LIGHT RAIL 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.