

Table 7: Program snippet to release hold train

```
bitWrite(ledSignals2, 0, HIGH);           //RELEASE HOLD TRAIN
outShift();
if (bitRead(ledSignals2, 4 == 1)) {      //Siding is occupied
  if (holdDirection == 1) {              //EB
    if (wbSwitchApproach == 0) {         //No WB train
      while (wbSwitchPosition == 0) {
        WBfouled();                     //Sets fouled indicator on WB switch
      }
      redYellowEB();                     //EB proceeds through WB switch
      delay(delayTime / 4);
      while (wbSwitchSignal == 0) {
        delay(1);                         //EB clears WB switch
      }
      ebDeparted = 1;
      redRedEB();                         //EB signals set to red/red
    }
  }
  if (holdDirection == 2) {              //WB
    if (ebSwitchApproach == 0) {         //No EB train
      while (ebSwitchPosition == 0) {
        delay(1);                         //Change EB position to siding
        EBfouled();                       //Sets fouled indicator on EB switch
      }
      redYellowWB();                     //WB proceeds through EB switch
      delay(delayTime / 4);
      while (ebSwitchSignal == 0) {
        delay(1);                         //WB clears EB switch
      }
      wbDeparted = 1;
      redRedWB();                         //EB signals set to red/red
    }
  }
}
```

```
    bitWrite(ledSignals2, 4, !bitRead(ledSignals2, 4)); //Change siding occupied LED
    bitWrite(ledSignals2, 0, HIGH);
    outShift();
}
holdState = 1; //Reset holdState to NORMAL
bitWrite(ledSignals2, 0, LOW);
outShift();
holdDirection = 0; //Clear HOLD flags
break;
```