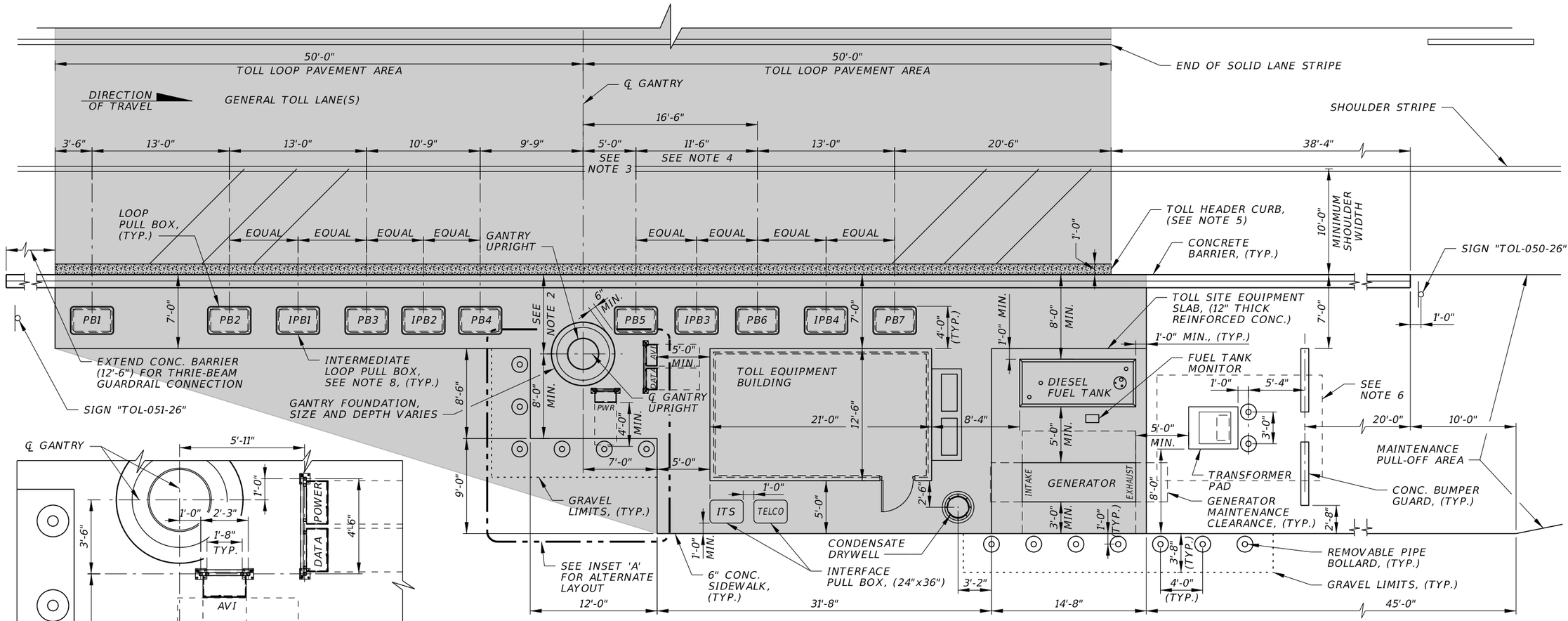
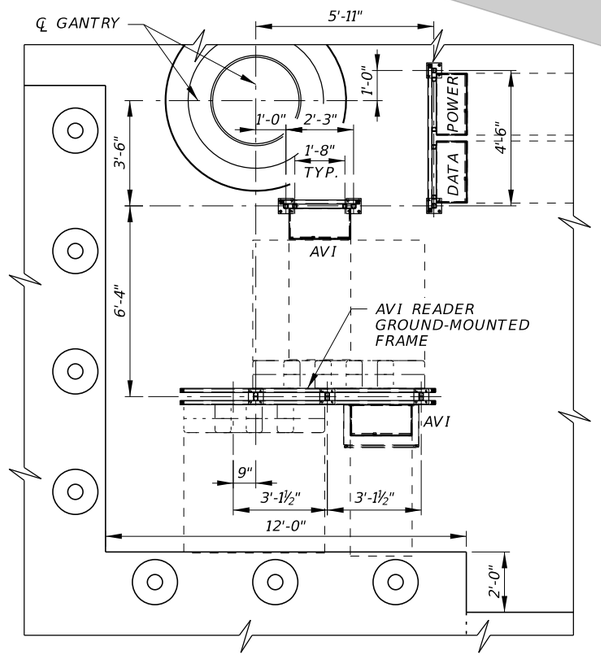
NON-ACCESSIBLE GANTRY TEB STANDARD SITE PLAN





INSET 'A' - AVI READER GROUND-MOUNTED FRAME

NOTES:

1. SHADED AREA INDICATES THE "TOLL SITE ENVELOPE".
2. 7'-6" MINIMUM FOR SPAN GANTRY. 6'-0" MINIMUM FOR CANTILEVER GANTRY.
3. STANDARD DIMENSION IS 5'-0". DIMENSION MAYBE INCREASED TO A MAXIMUM OF 6'-0" TO MAINTAIN A 6" MINIMUM CLEARANCE BETWEEN THE DRILLED SHAFT AND LOOP PULL BOX.
4. STANDARD DIMENSION IS 11'-6". DIMENSION MAYBE REDUCED SUCH THAT THE DISTANCE BETWEEN THE FOUNDATION CENTERLINE AND LOOP PULL BOX "PB6" CENTERLINE IS ALWAYS 16'-6".
5. TOLL HEADER CURB REQUIRED FOR FLEXIBLE PAVEMENT ONLY.
6. VERIFY TRANSFORMER MAINTENANCE ACCESS CLEARANCE AND METER LOCATION WITH UTILITY PROVIDER.
7. USE RETAINING WALL DESIGNS SIMILAR TO THE RTC EXHIBITS FOR ESTABLISHING THE APPROPRIATE LIMITS OF PEDESTRIAN RAILING, JUNCTION SLABS, BULLET RAILING, ETC. ALONG THE OUTSIDE EDGE OF THE TOLL SITE ENVELOPE WHEN TOLL SITES ARE LOCATED ON RETAINING WALL.
8. INCLUDE INTERMEDIATE LOOP PULL BOXES AS APPROPRIATE PER FDM 282.3.3.2.

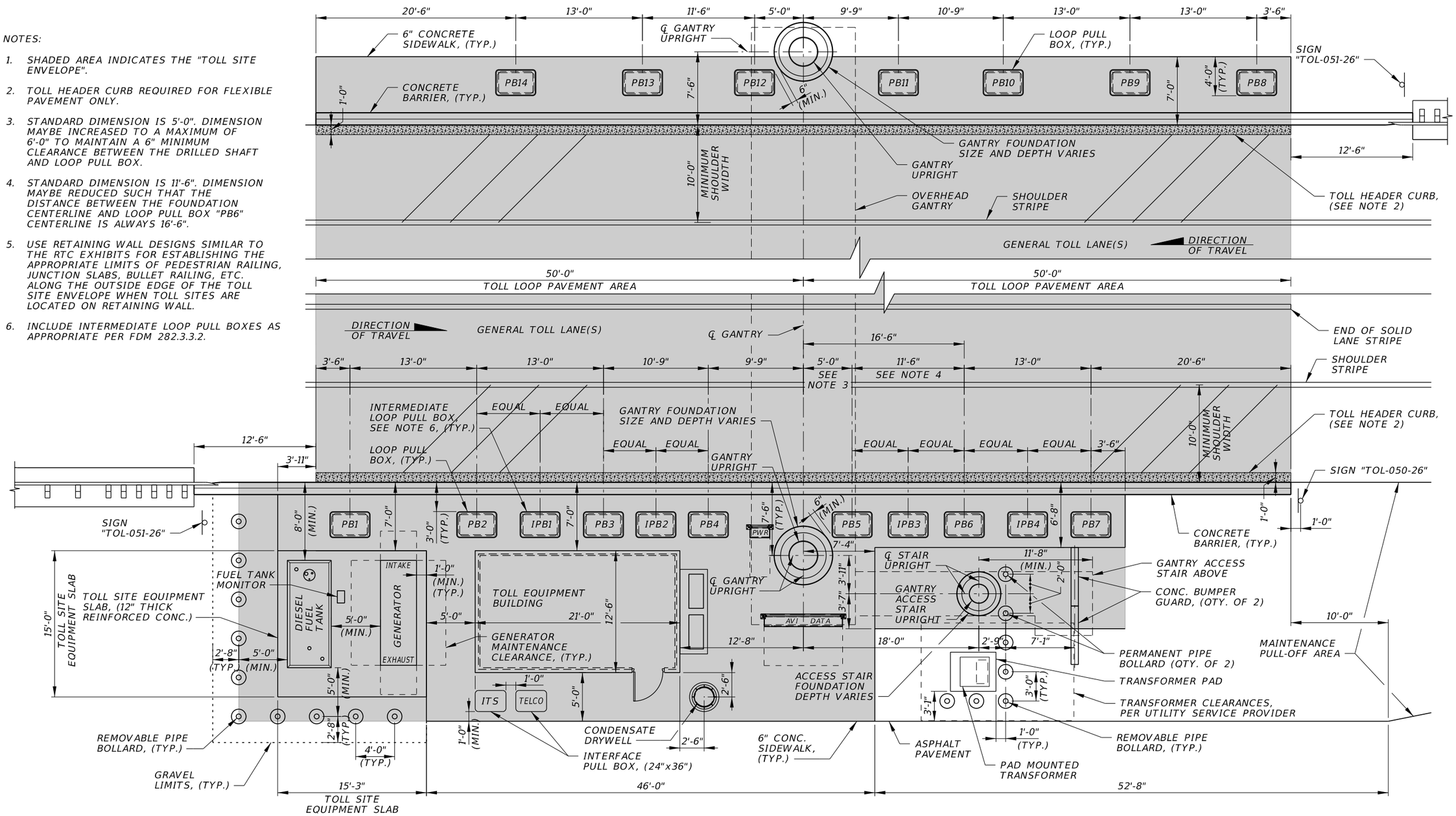
NOT TO SCALE

EXHIBIT 282-1
01/01/2027

ACCESSIBLE GANTRY TEB STANDARD SITE PLAN

NOTES:

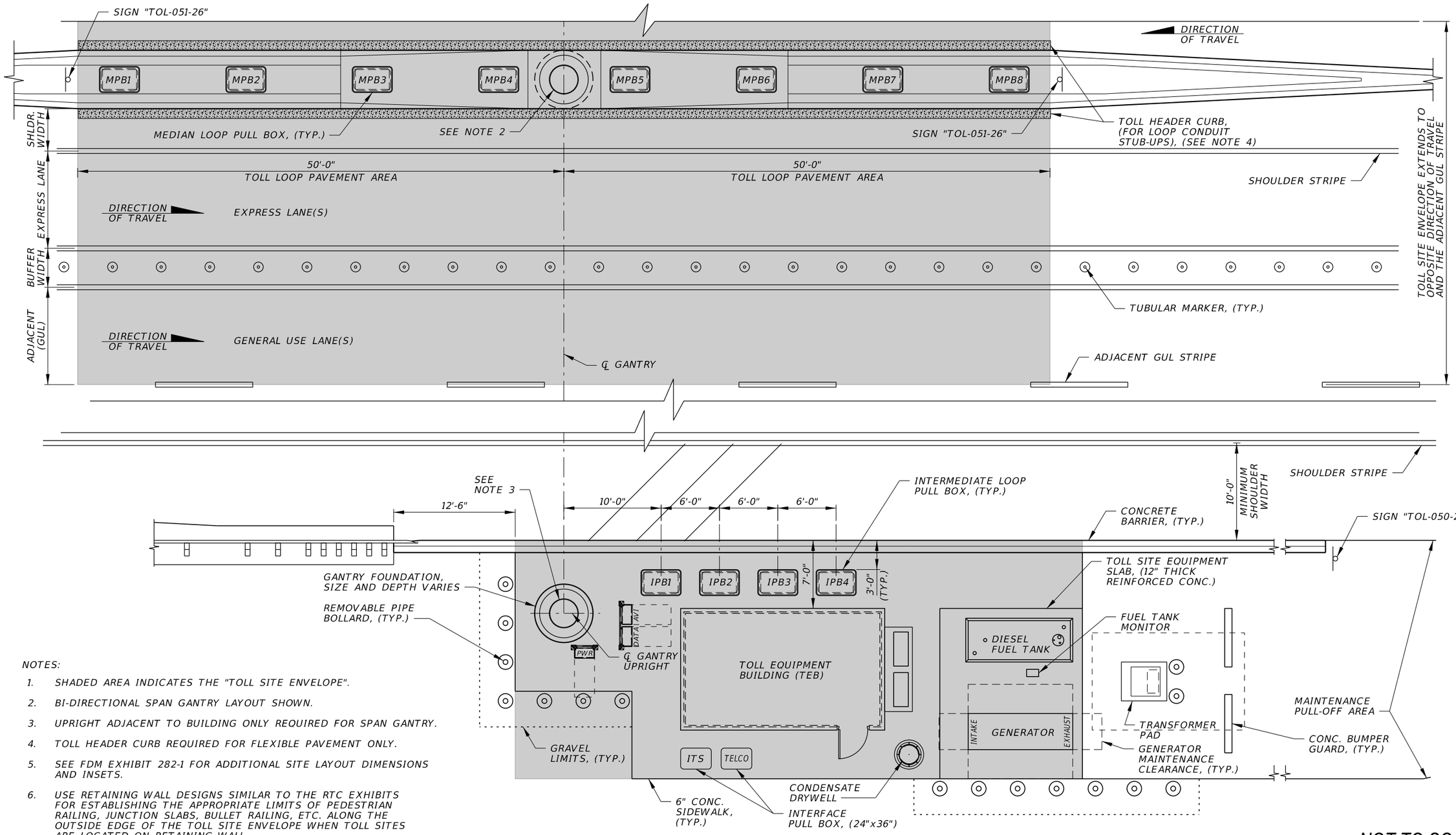
1. SHADED AREA INDICATES THE "TOLL SITE ENVELOPE".
2. TOLL HEADER CURB REQUIRED FOR FLEXIBLE PAVEMENT ONLY.
3. STANDARD DIMENSION IS 5'-0". DIMENSION MAYBE INCREASED TO A MAXIMUM OF 6'-0" TO MAINTAIN A 6" MINIMUM CLEARANCE BETWEEN THE DRILLED SHAFT AND LOOP PULL BOX.
4. STANDARD DIMENSION IS 11'-6". DIMENSION MAYBE REDUCED SUCH THAT THE DISTANCE BETWEEN THE FOUNDATION CENTERLINE AND LOOP PULL BOX "PB6" CENTERLINE IS ALWAYS 16'-6".
5. USE RETAINING WALL DESIGNS SIMILAR TO THE RTC EXHIBITS FOR ESTABLISHING THE APPROPRIATE LIMITS OF PEDESTRIAN RAILING, JUNCTION SLABS, BULLET RAILING, ETC. ALONG THE OUTSIDE EDGE OF THE TOLL SITE ENVELOPE WHEN TOLL SITES ARE LOCATED ON RETAINING WALL.
6. INCLUDE INTERMEDIATE LOOP PULL BOXES AS APPROPRIATE PER FDM 282.3.3.2.



NOT TO SCALE

EXHIBIT 282-2
01/01/2027

NON-ACCESSIBLE GANTRY TEB DETACHED SITE PLAN



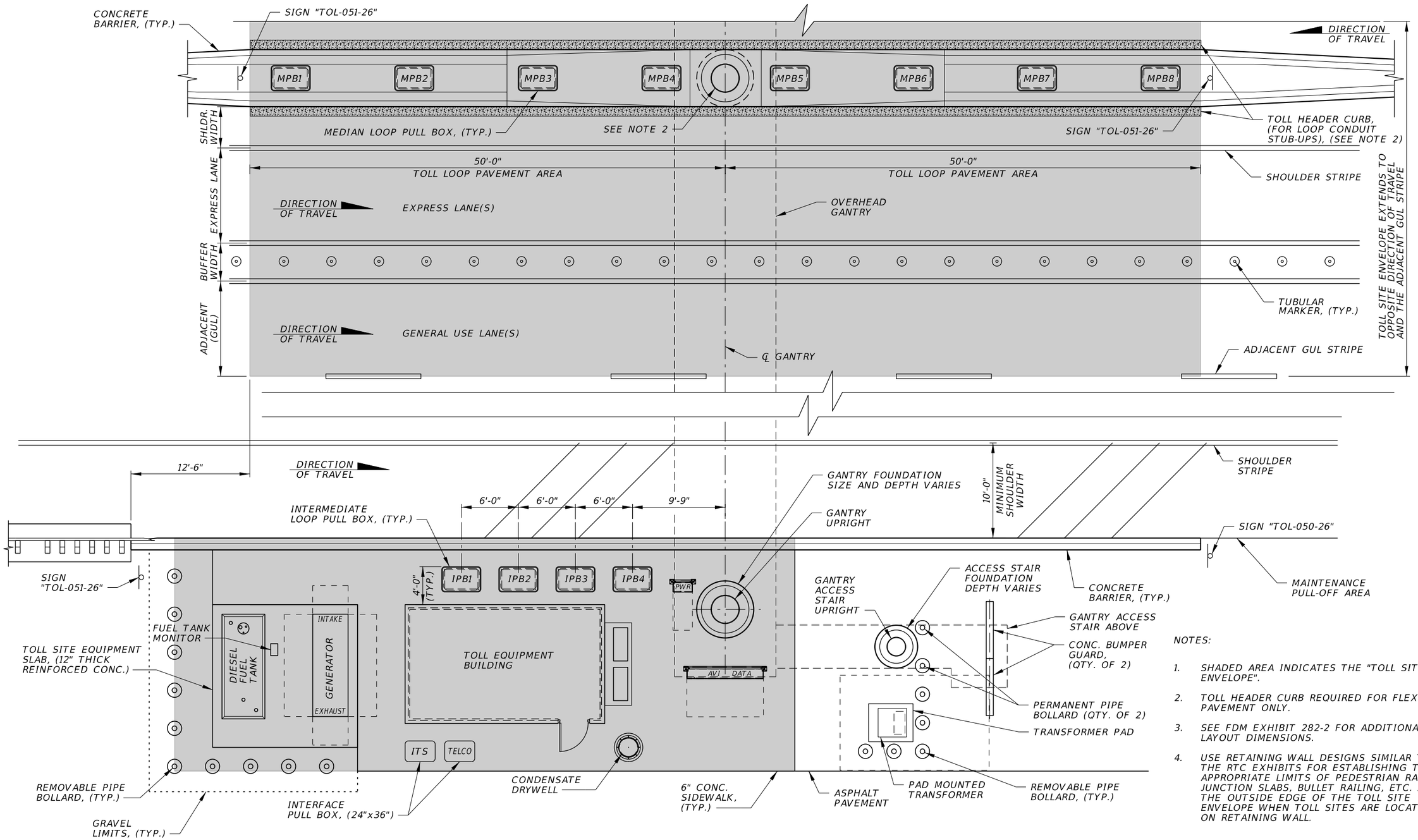
NOTES:

1. SHADED AREA INDICATES THE "TOLL SITE ENVELOPE".
2. BI-DIRECTIONAL SPAN GANTRY LAYOUT SHOWN.
3. UPRIGHT ADJACENT TO BUILDING ONLY REQUIRED FOR SPAN GANTRY.
4. TOLL HEADER CURB REQUIRED FOR FLEXIBLE PAVEMENT ONLY.
5. SEE FDM EXHIBIT 282-1 FOR ADDITIONAL SITE LAYOUT DIMENSIONS AND INSETS.
6. USE RETAINING WALL DESIGNS SIMILAR TO THE RTC EXHIBITS FOR ESTABLISHING THE APPROPRIATE LIMITS OF PEDESTRIAN RAILING, JUNCTION SLABS, BULLET RAILING, ETC. ALONG THE OUTSIDE EDGE OF THE TOLL SITE ENVELOPE WHEN TOLL SITES ARE LOCATED ON RETAINING WALL.

NOT TO SCALE

EXHIBIT 282-3
01/01/2027

ACCESSIBLE GANTRY TEB DETACHED SITE PLAN



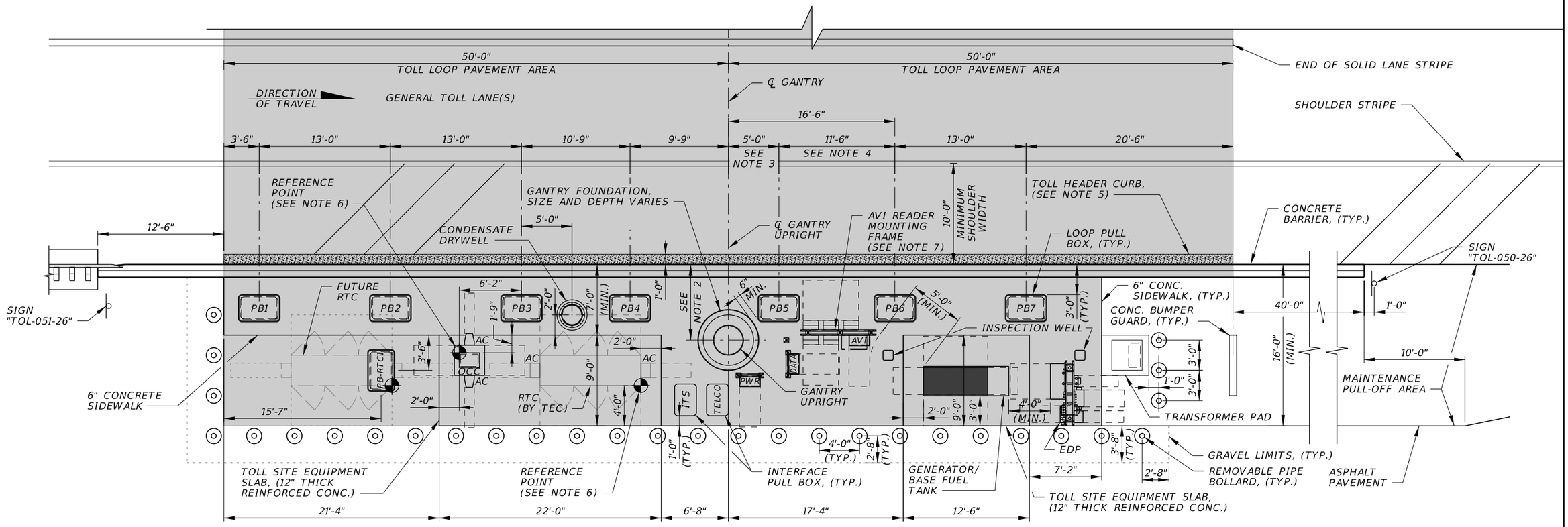
NOTES:

1. SHADED AREA INDICATES THE "TOLL SITE ENVELOPE".
2. TOLL HEADER CURB REQUIRED FOR FLEXIBLE PAVEMENT ONLY.
3. SEE FDM EXHIBIT 282-2 FOR ADDITIONAL SITE LAYOUT DIMENSIONS.
4. USE RETAINING WALL DESIGNS SIMILAR TO THE RTC EXHIBITS FOR ESTABLISHING THE APPROPRIATE LIMITS OF PEDESTRIAN RAILING, JUNCTION SLABS, BULLET RAILING, ETC. ALONG THE OUTSIDE EDGE OF THE TOLL SITE ENVELOPE WHEN TOLL SITES ARE LOCATED ON RETAINING WALL.

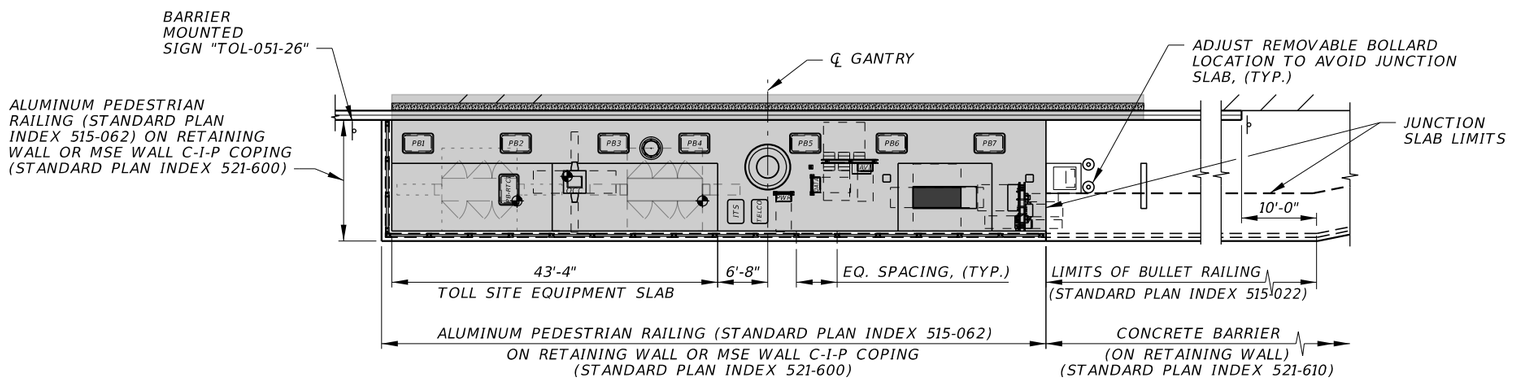
NOT TO SCALE

EXHIBIT 282-4
01/01/2027

SINGLE MOVEMENT GANTRY RTC STANDARD SITE PLAN - ON-SITE POWER SERVICE



SINGLE MOVEMENT RTC STANDARD SITE PLAN (AT GRADE) - ON-SITE POWER



SINGLE MOVEMENT RTC STANDARD SITE PLAN (ON RETAINING WALL) - ON-SITE POWER

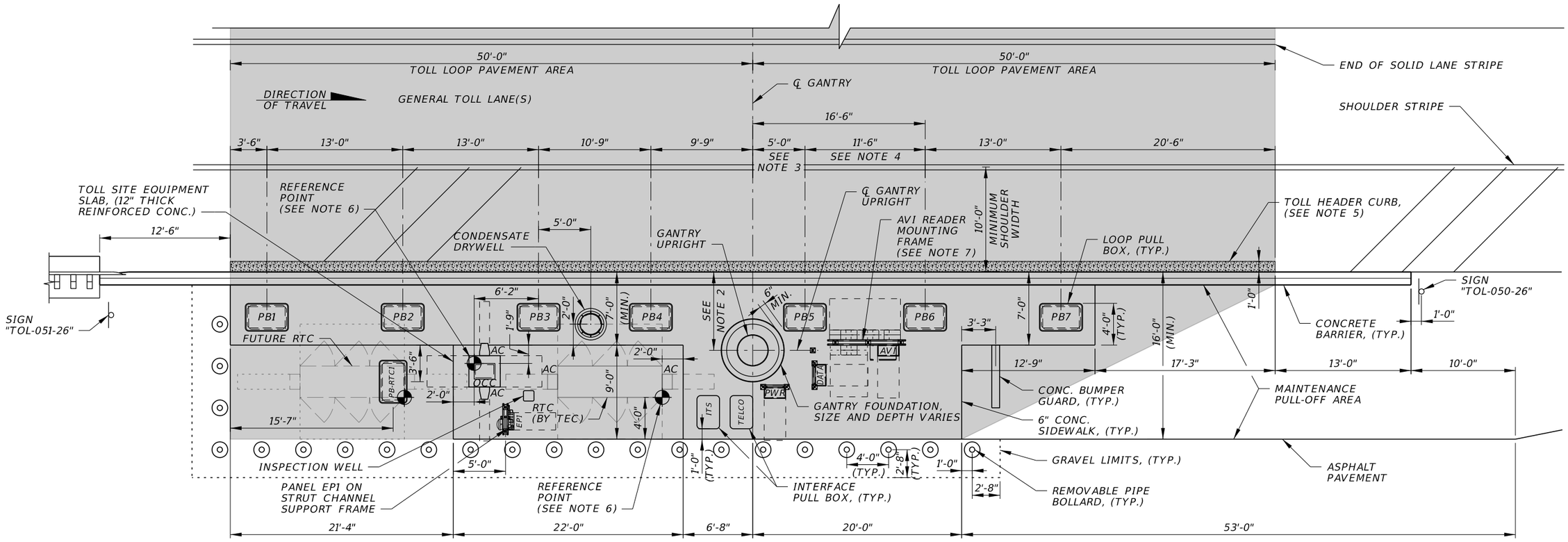
NOTES:

1. SHADED AREAS INDICATES THE "TOLL SITE ENVELOPE".
2. 7'-6" MAXIMUM FOR SPAN GANTRY. 6'-0" MINIMUM FOR CANTILEVER GANTRY.
3. STANDARD DIMENSION IS 5'-0". DIMENSION MAYBE INCREASED TO A MAXIMUM OF 6'-0" TO MAINTAIN A 6" MINIMUM CLEARANCE BETWEEN THE DRILLED SHAFT AND LOOP PULL BOX.
4. STANDARD DIMENSION IS 11'-6". DIMENSION MAY BE REDUCED SUCH THAT THE DISTANCE BETWEEN THE FOUNDATION CENTERLINE AND LOOP PULL BOX "PB6" CENTERLINE IS ALWAYS 16'-6".
5. TOLL HEADER CURB REQUIRED FOR FLEXIBLE PAVEMENT ONLY.
6. REFERENCE POINT DENOTES THE CONTROL POINT FOR CONDUIT STUB-UP LOCATIONS.
7. AVI READERS MUST NOT BE INSTALLED ABOVE PULL BOXES, MAINTAIN A MINIMUM 6" DISTANCE HORIZONTALLY.

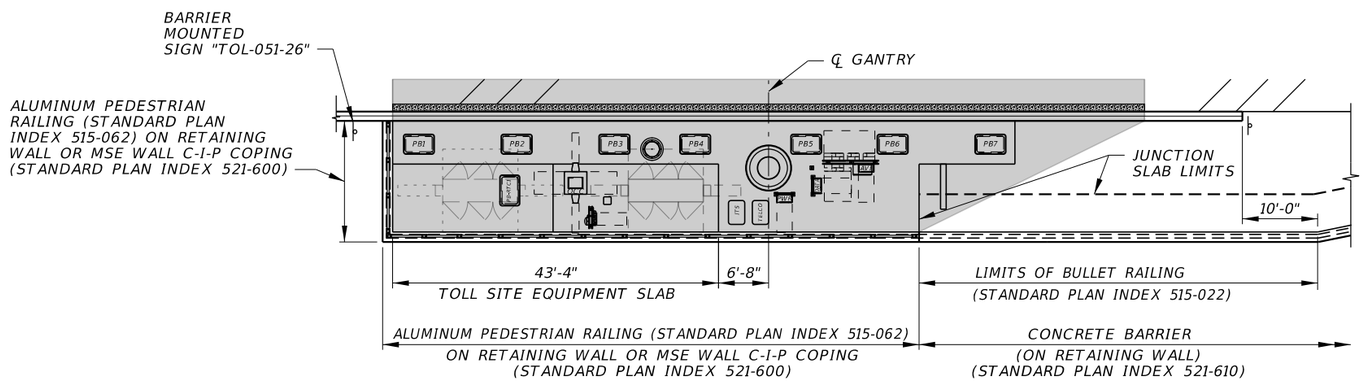
NOT TO SCALE

EXHIBIT 282-5
01/01/2027

SINGLE MOVEMENT GANTRY RTC STANDARD SITE PLAN - OFF-SITE POWER SERVICE



SINGLE MOVEMENT RTC STANDARD SITE PLAN (AT GRADE) - OFF-SITE POWER



SINGLE MOVEMENT RTC SITE PLAN (ON RETAINING WALL) - OFF-SITE POWER

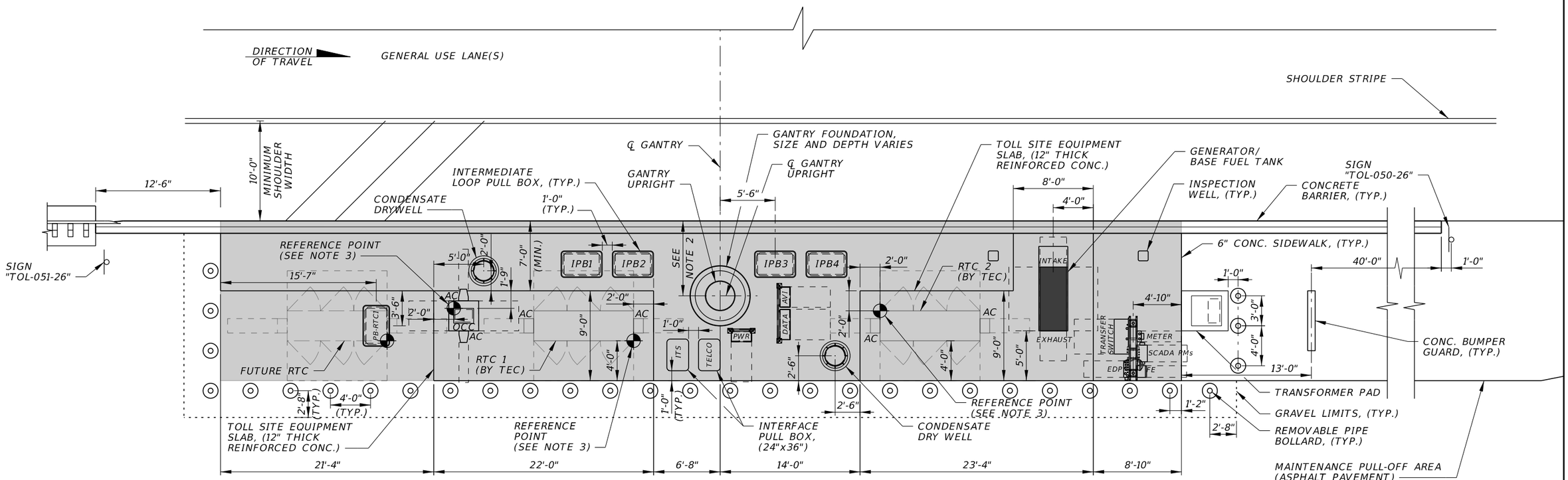
NOTES:

1. SHADED AREAS INDICATES THE "TOLL SITE ENVELOPE".
2. 7'-6" MAXIMUM FOR SPAN GANTRY. 6'-0" MINIMUM FOR CANTILEVER GANTRY.
3. STANDARD DIMENSION IS 5'-0". DIMENSION MAYBE INCREASED TO A MAXIMUM OF 6'-0" TO MAINTAIN A 6" MINIMUM CLEARANCE BETWEEN THE DRILLED SHAFT AND LOOP PULL BOX.
4. STANDARD DIMENSION IS 11'-6". DIMENSION MAY BE REDUCED SUCH THAT THE DISTANCE BETWEEN THE FOUNDATION CENTERLINE AND LOOP PULL BOX "PB6" CENTERLINE IS ALWAYS 16'-6".
5. TOLL HEADER CURB REQUIRED FOR FLEXIBLE PAVEMENT ONLY.
6. REFERENCE POINT DENOTES THE CONTROL POINT FOR CONDUIT STUB-UP LOCATIONS.
7. AVI READERS MUST NOT BE INSTALLED ABOVE PULL BOXES, MAINTAIN A MINIMUM 6" DISTANCE HORIZONTALLY.

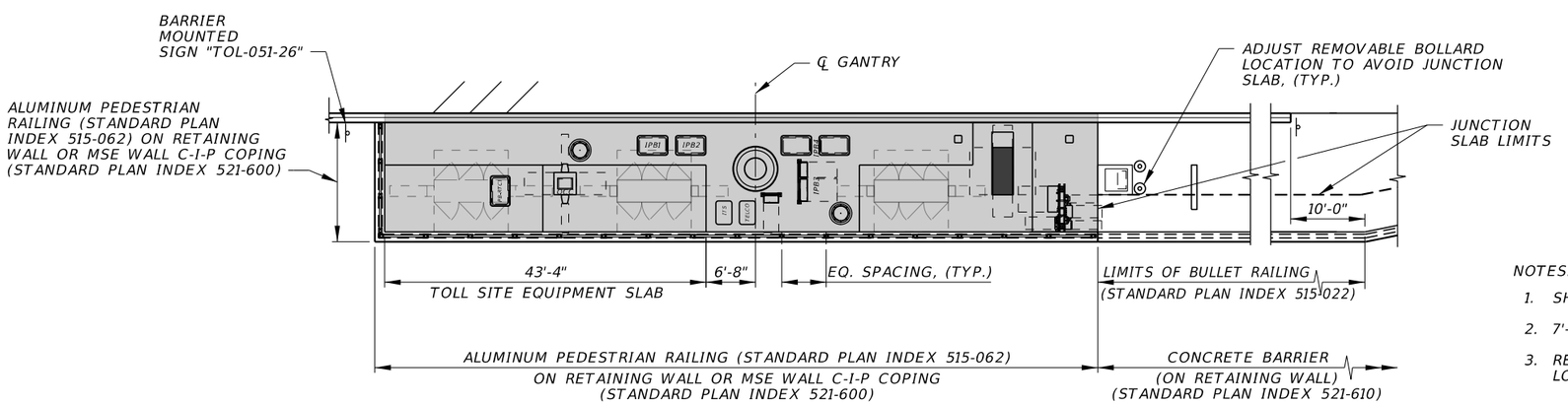
NOT TO SCALE

EXHIBIT 282-6
01/01/2027

DUAL MOVEMENT RTC DETACHED SITE PLAN



DUAL MOVEMENT RTC DETACHED SITE PLAN (AT GRADE)



DUAL MOVEMENT RTC DETACHED SITE PLAN (ON RETAINING WALL)

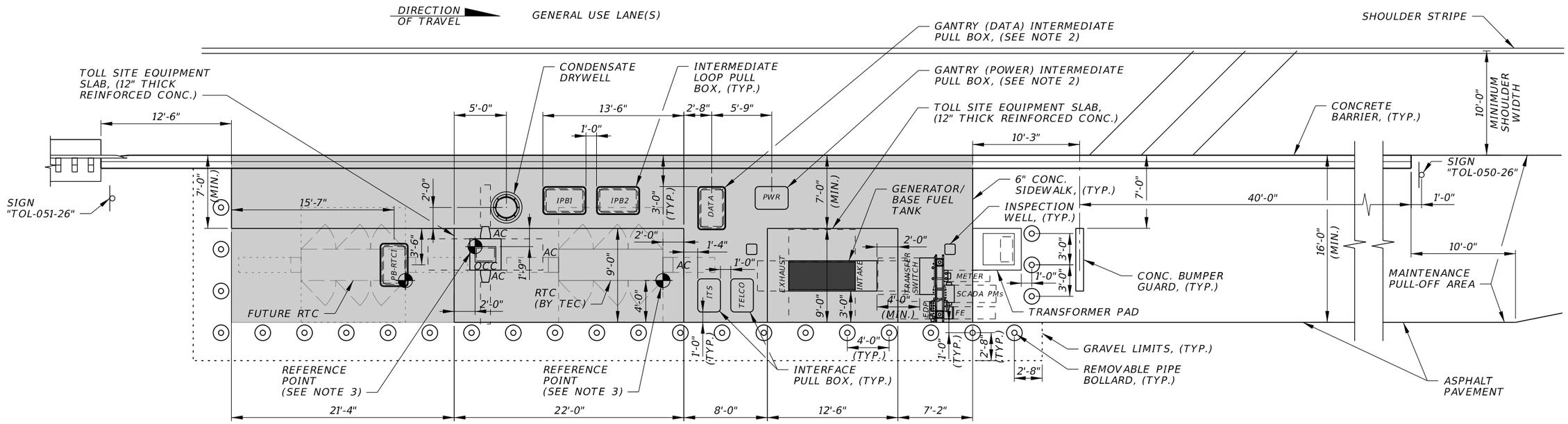
NOTES:

1. SHADED AREAS INDICATES THE "TOLL SITE ENVELOPE".
2. 7'-6" MAXIMUM FOR SPAN GANTRY. 6'-0" MINIMUM FOR CANTILEVER GANTRY.
3. REFERENCE POINT DENOTES THE CONTROL POINT FOR CONDUIT STUB-UP LOCATIONS.

NOT TO SCALE

EXHIBIT 282-7
01/01/2027

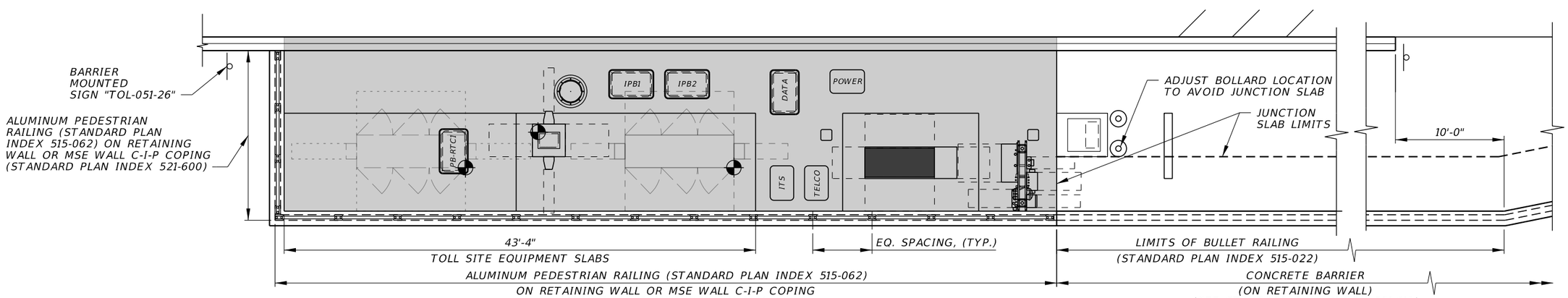
SINGLE MOVEMENT RTC REMOTE SITE PLAN - ON-SITE POWER SERVICE



SINGLE MOVEMENT RTC REMOTE SITE PLAN - ON-SITE POWER (AT GRADE)

NOTES:

1. SHADED AREAS INDICATES THE "TOLL SITE ENVELOPE". TOLL LOOP PAVEMENT AREA NOT SHOWN.
2. SIZE PULL BOX BASED ON QUANTITY AND SIZE OF CONDUIT.
3. REFERENCE POINT DENOTES THE CONTROL POINT FOR CONDUIT STUB-UP LOCATIONS.

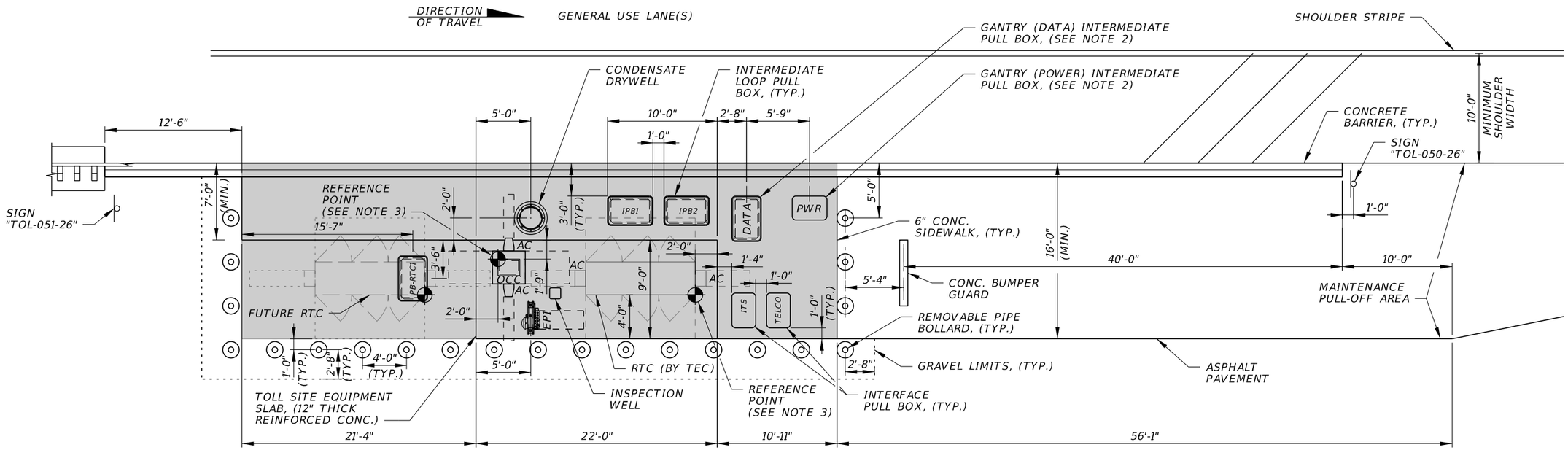


SINGLE MOVEMENT RTC REMOTE SITE PLAN - ON-SITE POWER (ON RETAINING WALL)

NOT TO SCALE

EXHIBIT 282-8
01/01/2027

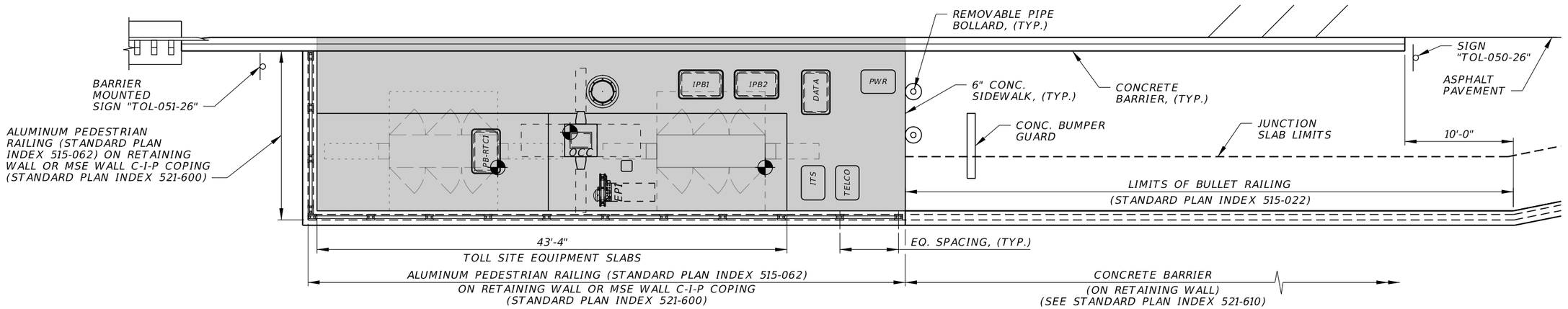
SINGLE MOVEMENT RTC REMOTE SITE PLAN - OFF-SITE POWER SERVICE



SINGLE MOVEMENT RTC REMOTE SITE PLAN - OFF-SITE POWER SERVICE (AT GRADE)

NOTES:

1. SHADED AREAS INDICATES THE "TOLL SITE ENVELOPE". TOLL LOOP PAVEMENT AREA NOT SHOWN.
2. SIZE PULL BOX BASED ON QUANTITY AND SIZE OF CONDUIT.
3. REFERENCE POINT DENOTES THE CONTROL POINT FOR CONDUIT STUB-UP LOCATIONS.

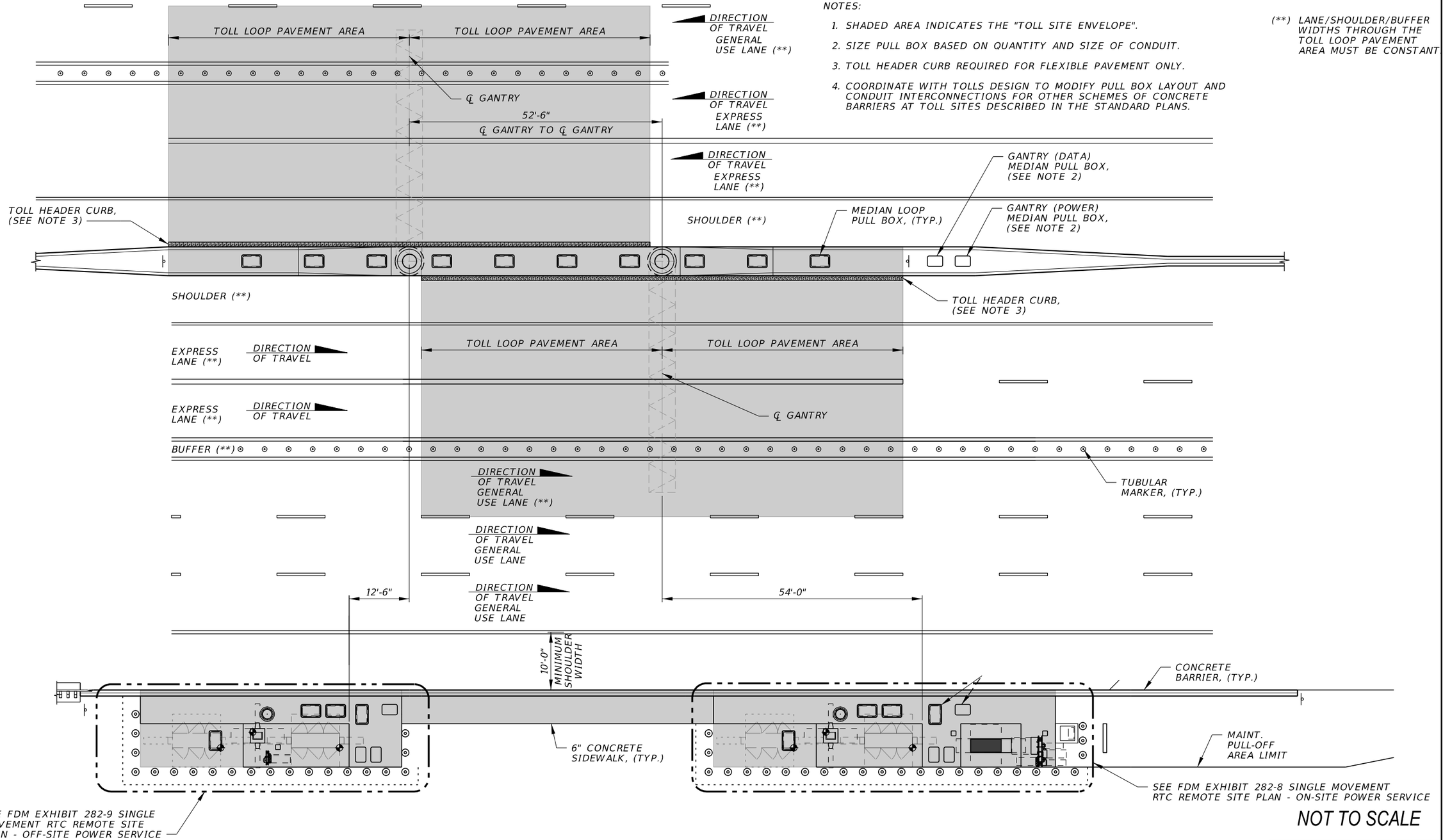


SINGLE MOVEMENT RTC REMOTE SITE PLAN - OFF-SITE POWER SERVICE (ON RETAINING WALL)

NOT TO SCALE

EXHIBIT 282-9
01/01/2027

DUAL MOVEMENT RTC REMOTE SITE PLANS



NOTES:

1. SHADED AREA INDICATES THE "TOLL SITE ENVELOPE".
2. SIZE PULL BOX BASED ON QUANTITY AND SIZE OF CONDUIT.
3. TOLL HEADER CURB REQUIRED FOR FLEXIBLE PAVEMENT ONLY.
4. COORDINATE WITH TOLLS DESIGN TO MODIFY PULL BOX LAYOUT AND CONDUIT INTERCONNECTIONS FOR OTHER SCHEMES OF CONCRETE BARRIERS AT TOLL SITES DESCRIBED IN THE STANDARD PLANS.

(**) LANE/SHOULDER/BUFFER WIDTHS THROUGH THE TOLL LOOP PAVEMENT AREA MUST BE CONSTANT

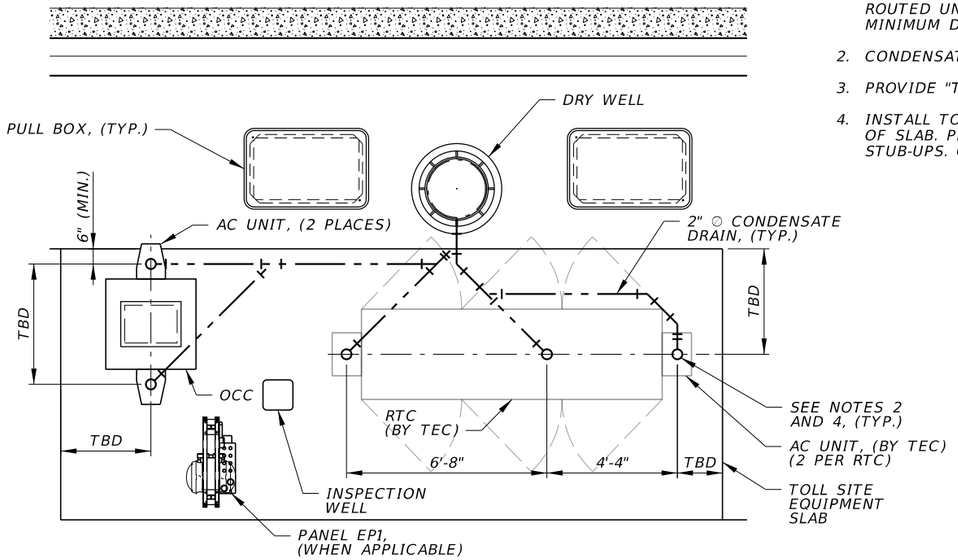
NOT TO SCALE

EXHIBIT 282-10
01/01/2027

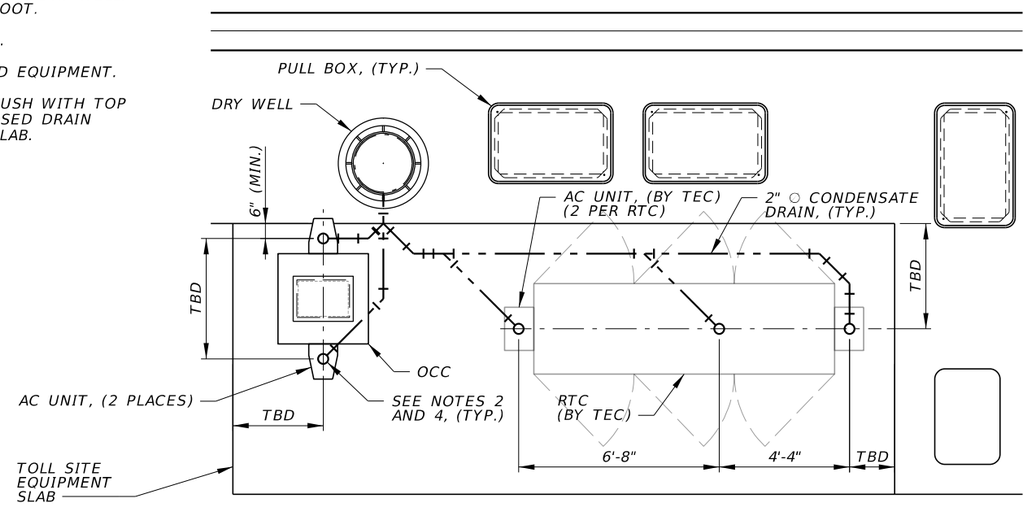
RTC CONDENSATE PIPING PLANS AND DETAILS

NOTES:

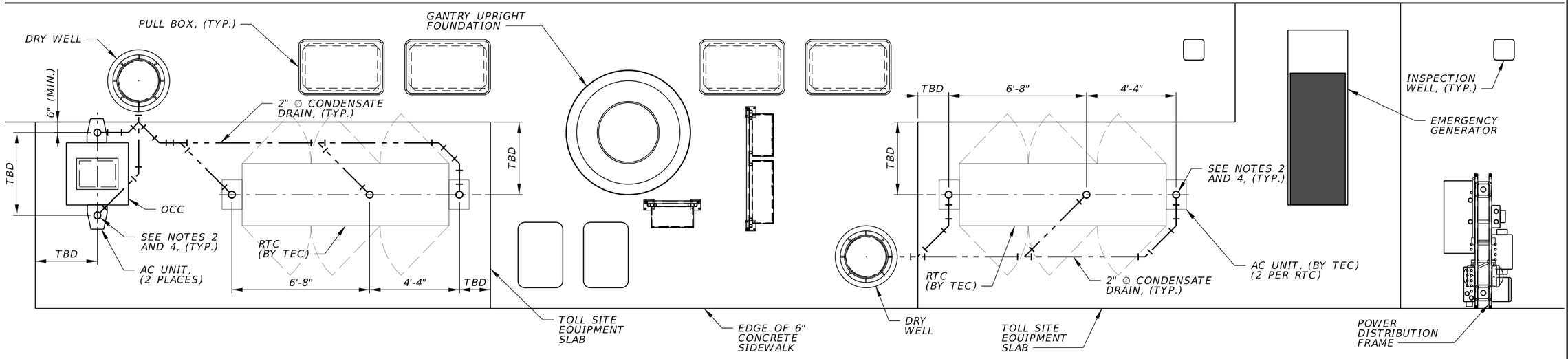
1. 2" DIAMETER SCHEDULE 40 PVC CONDENSATE DRAIN LINE ROUTED UNDERGROUND TO IN-GROUND CONDENSATE DRY WELL. MINIMUM DRAIN LINE SLOPE MUST BE 1/8" PER FOOT.
2. CONDENSATE DRAIN STUB-UP LOCATION, TYPICAL.
3. PROVIDE "TBD" DIMENSIONS BASED ON SPECIFIED EQUIPMENT.
4. INSTALL TOP OF CONDENSATE DRAIN STUB-UP FLUSH WITH TOP OF SLAB. PROVIDE REMOVABLE CAPS ON ALL UNUSED DRAIN STUB-UPS. CAPS MUST BE FLUSH WITH TOP OF SLAB.



SINGLE MOVEMENT RTC STANDARD SITE PLAN - CONDENSATE PIPING LAYOUT
ON-SITE / OFF-SITE POWER



SINGLE MOVEMENT RTC REMOTE SITE PLAN - CONDENSATE PIPING LAYOUT
ON-SITE / OFF-SITE POWER

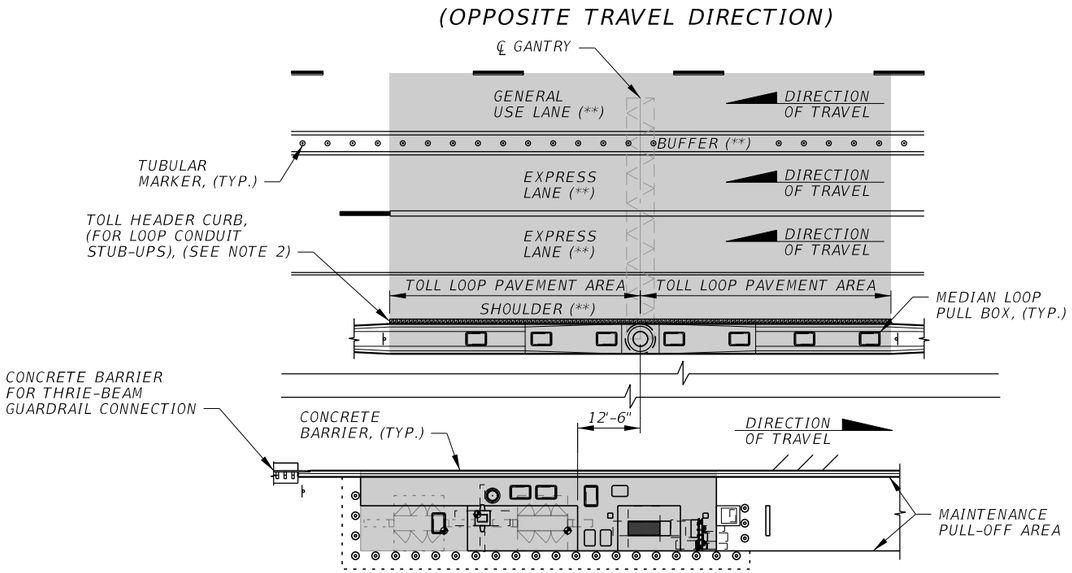


DUAL MOVEMENT RTC DETACHED SITE PLAN - CONDENSATE PIPING LAYOUT

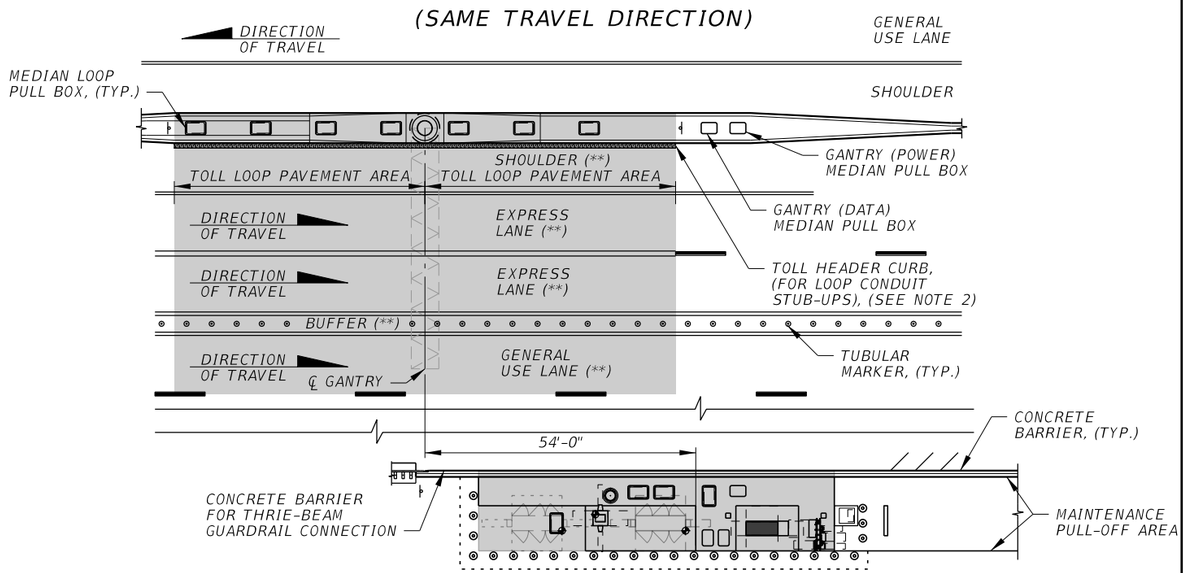
NOT TO SCALE

EXHIBIT 282-11
01/01/2027

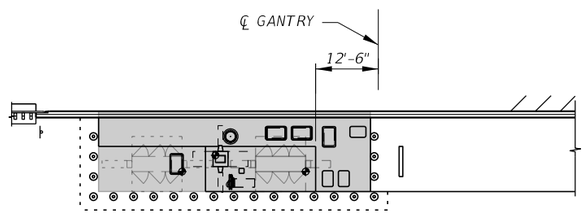
SINGLE MOVEMENT TEB AND RTC REMOTE SITE PLAN(S)



SINGLE MOVEMENT RTC REMOTE SITE PLAN - ON-SITE POWER SERVICE



SINGLE MOVEMENT RTC REMOTE SITE PLAN - ON-SITE POWER SERVICE

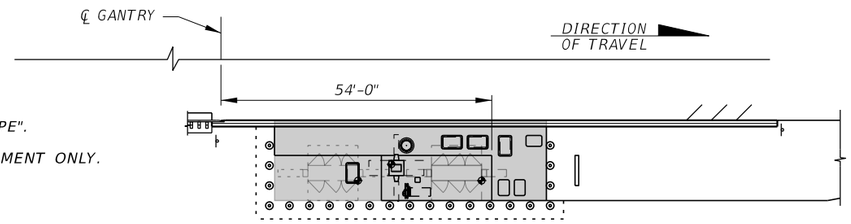


SINGLE MOVEMENT RTC REMOTE SITE PLAN - OFF-SITE POWER SERVICE

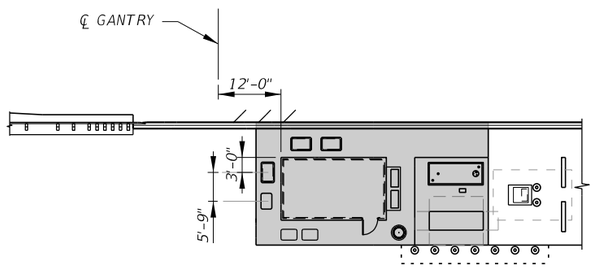
(**) LANE/SHOULDER/BUFFER WIDTHS THROUGH THE TOLL LOOP PAVEMENT AREA MUST BE CONSTANT.

NOTES:

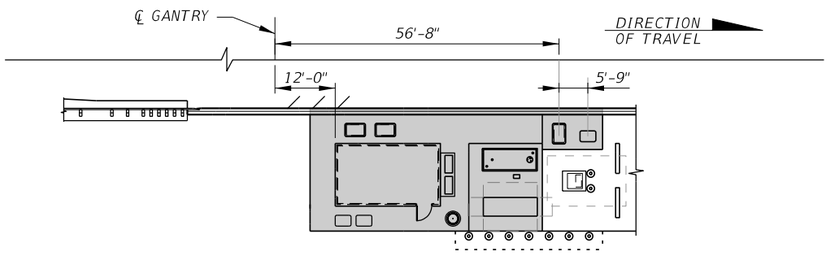
1. SHADED AREA INDICATES THE "TOLL SITE ENVELOPE".
2. TOLL HEADER CURB REQUIRED FOR FLEXIBLE PAVEMENT ONLY.



SINGLE MOVEMENT RTC REMOTE SITE PLAN - OFF-SITE POWER SERVICE



SINGLE MOVEMENT TEB REMOTE SITE PLAN - (OPTION 1)

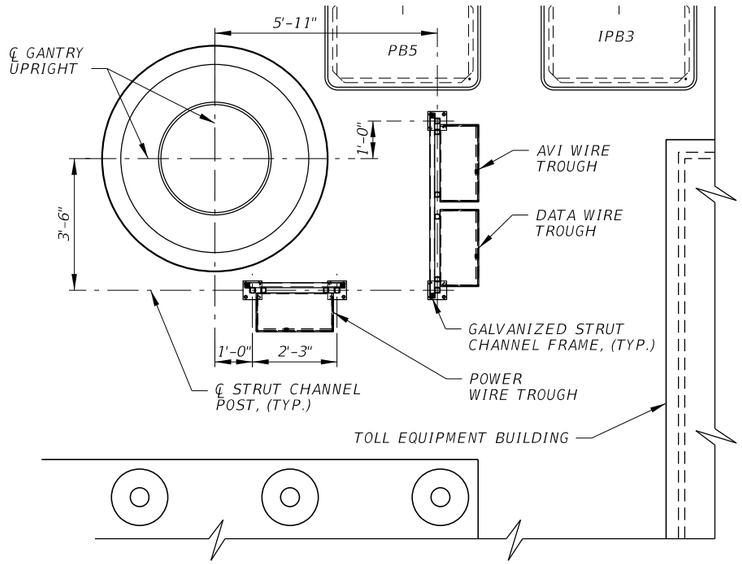


SINGLE MOVEMENT TEB REMOTE SITE PLAN - (OPTION 2)

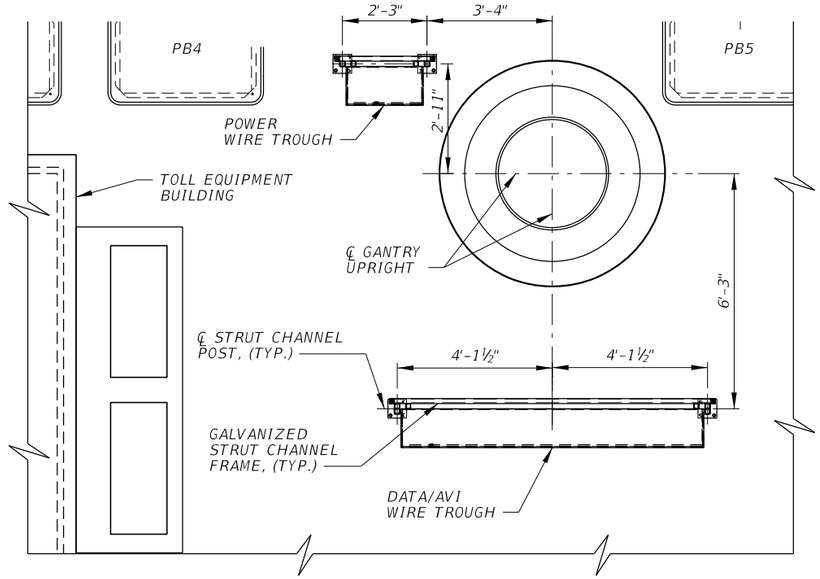
NOT TO SCALE

EXHIBIT 282-12
01/01/2027

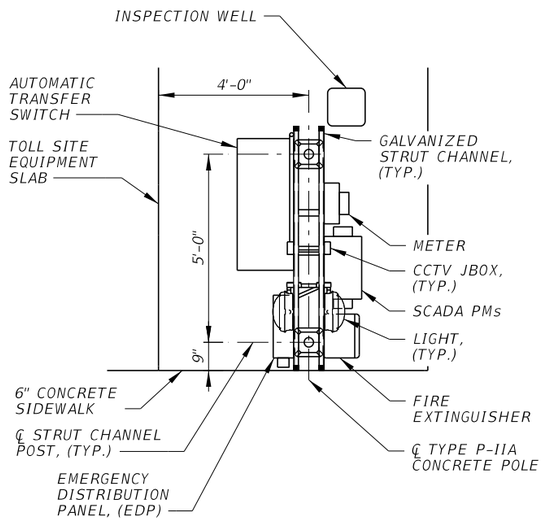
TEB AND RTC GROUND-MOUNTED STRUT CHANNEL FRAME LAYOUTS



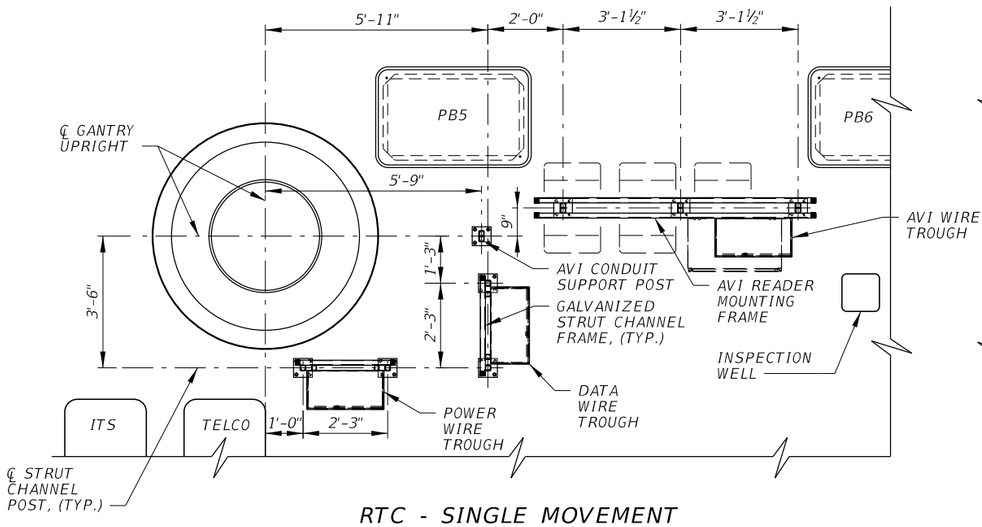
TEB NON-ACCESSIBLE GANTRY - SINGLE MOVEMENT



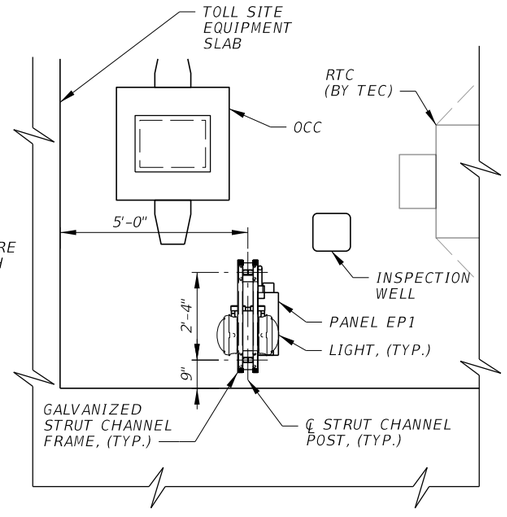
TEB ACCESSIBLE GANTRY



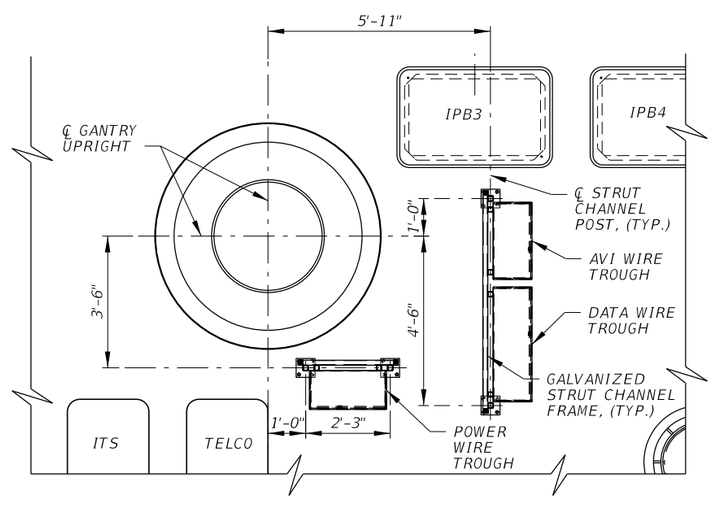
RTC ON-SITE POWER SERVICE POWER DISTRIBUTION FRAME



RTC - SINGLE MOVEMENT



RTC OFF-SITE POWER SERVICE POWER DISTRIBUTION FRAME

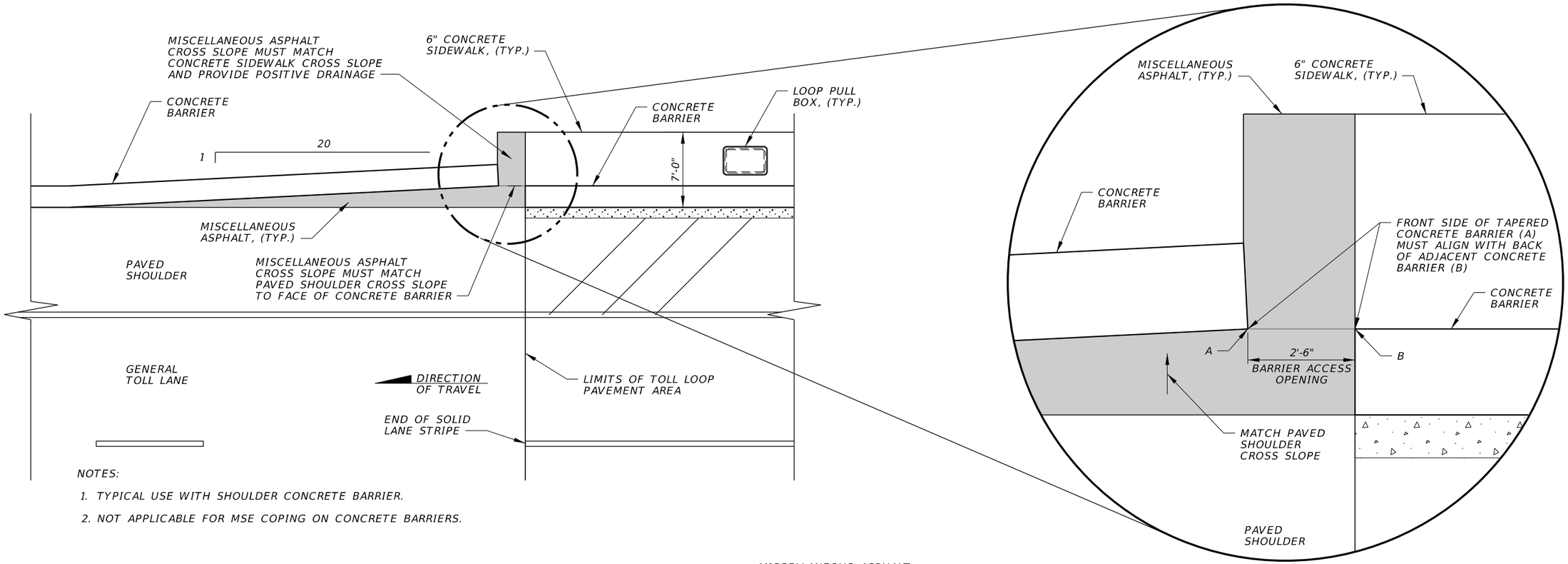


RTC DUAL MOVEMENT

NOT TO SCALE

EXHIBIT 282-13
01/01/2027

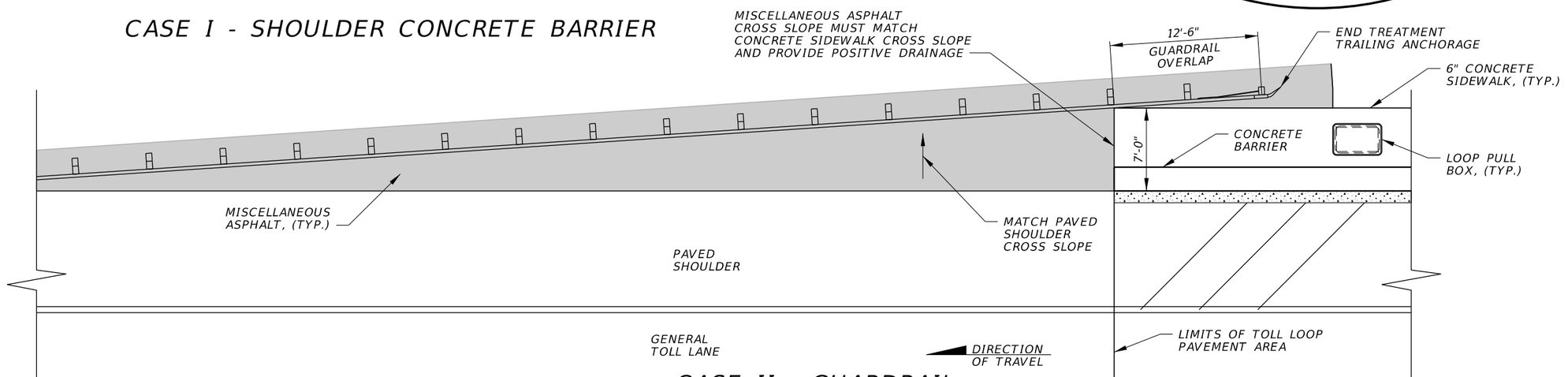
TOLL SITE BARRIER ACCESS (1 OF 2)



NOTES:

1. TYPICAL USE WITH SHOULDER CONCRETE BARRIER.
2. NOT APPLICABLE FOR MSE COPING ON CONCRETE BARRIERS.

CASE I - SHOULDER CONCRETE BARRIER



CASE II - GUARDRAIL

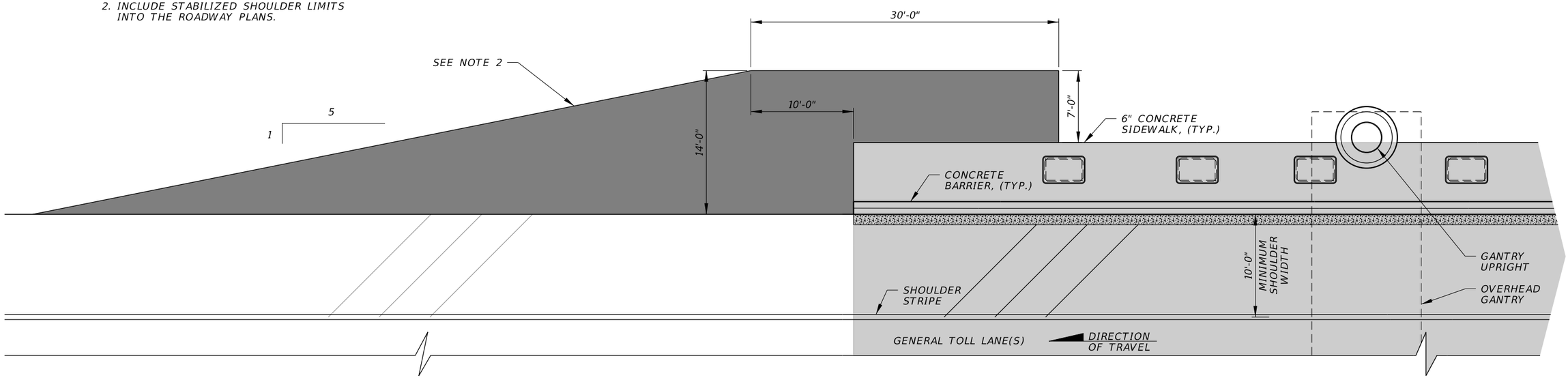
NOT TO SCALE

EXHIBIT 282-14
01/01/2027

TOLL SITE BARRIER ACCESS (2 OF 2)

NOTES:

1. SHADED AREA INDICATES THE "TOLL SITE ENVELOPE".
2. INCLUDE STABILIZED SHOULDER LIMITS INTO THE ROADWAY PLANS.

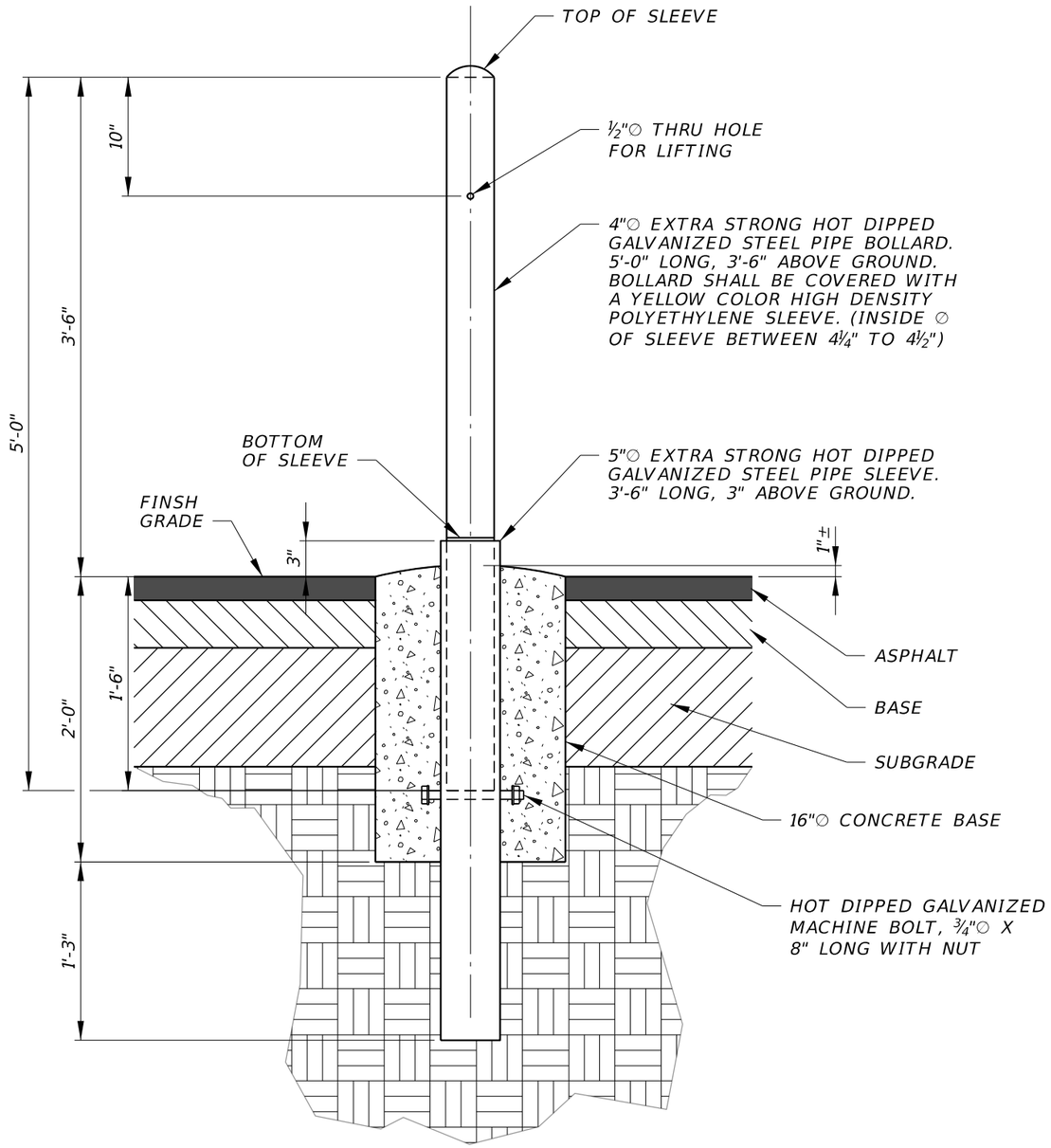


CASE III - TOLL SITE BARRIER ACCESS

NOT TO SCALE

EXHIBIT 282-15
01/01/2027

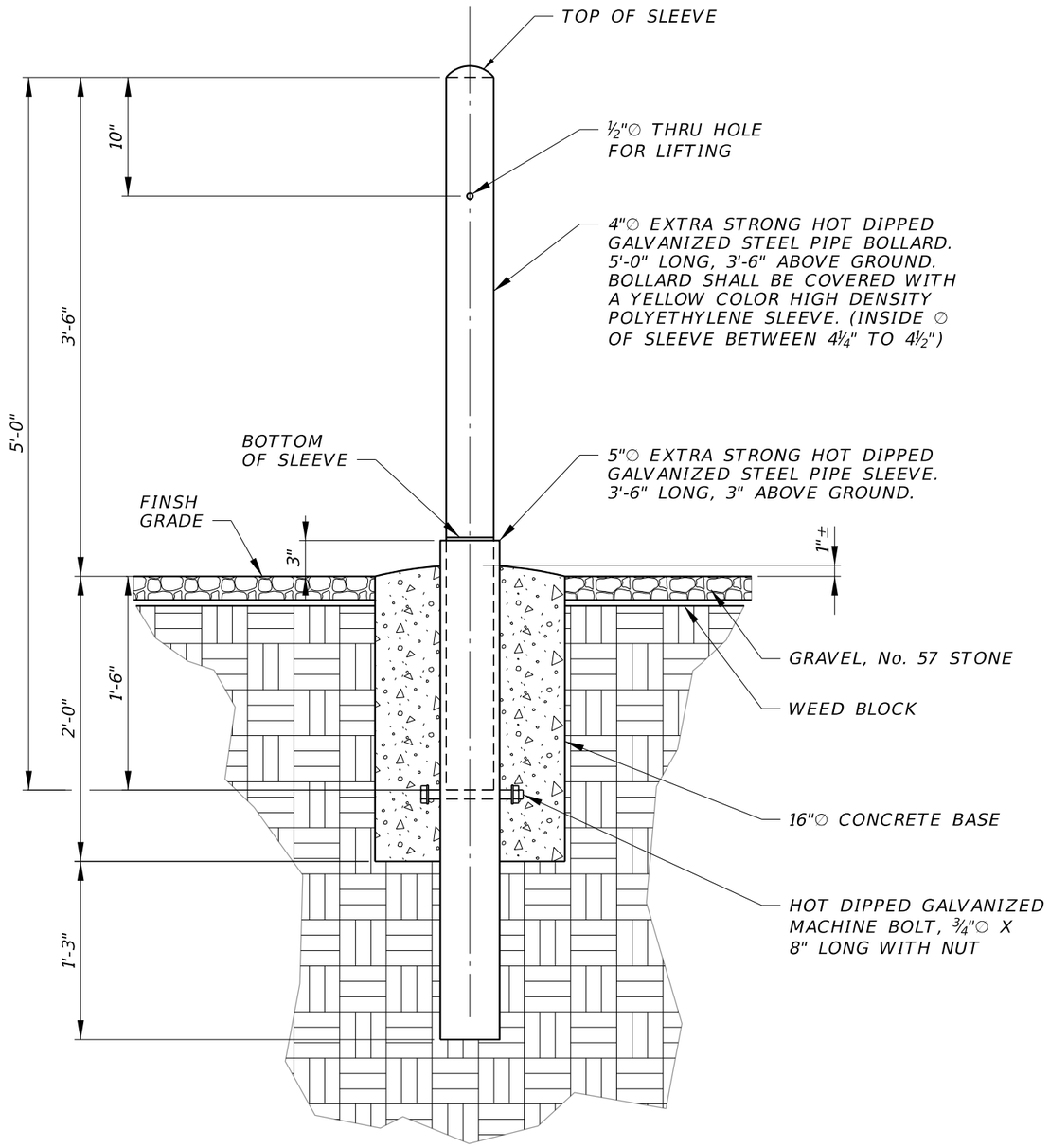
REMOVABLE PIPE BOLLARDS IN ASPHALT



NOT TO SCALE

EXHIBIT 282-16
01/01/2027

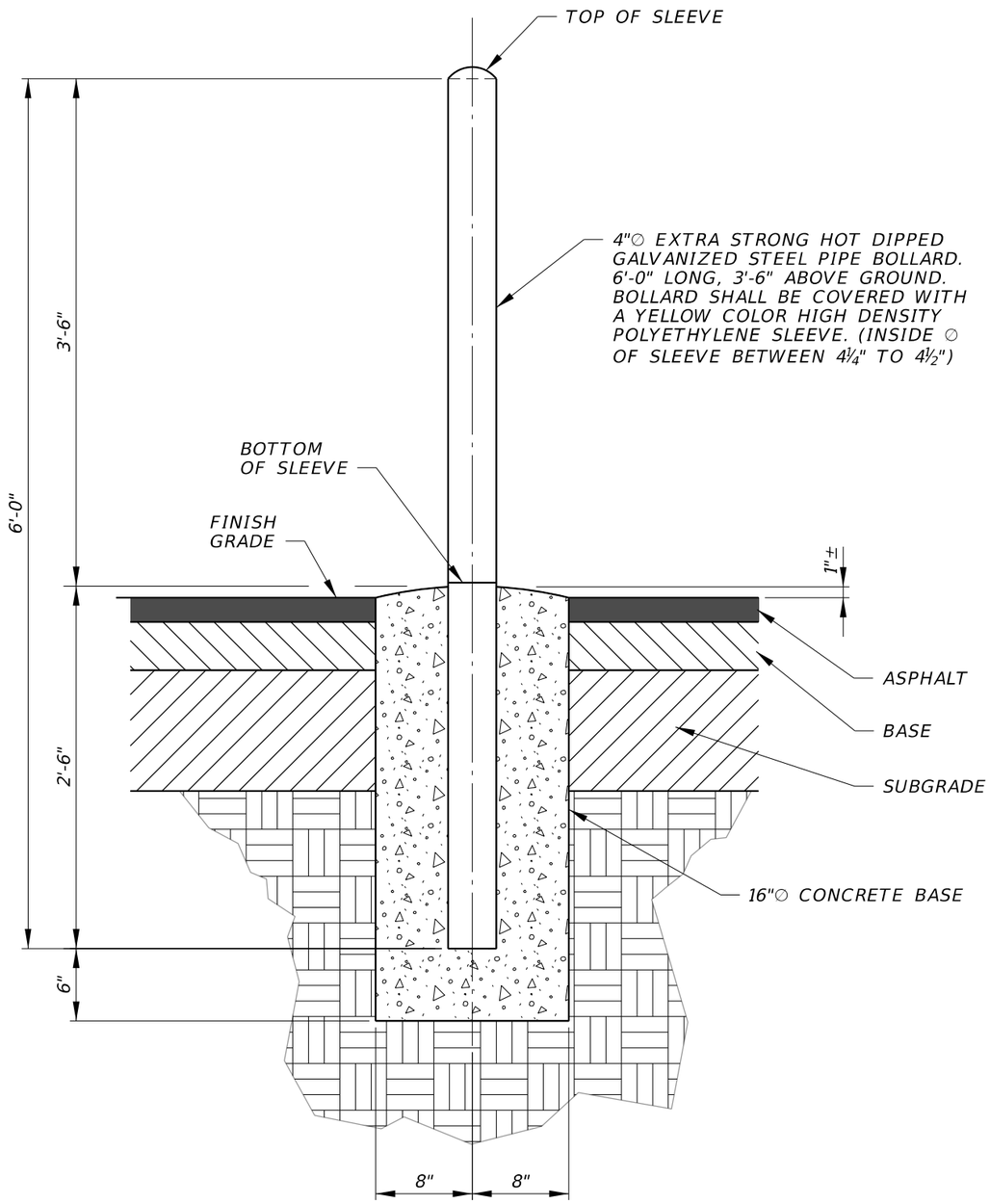
REMOVABLE PIPE BOLLARDS IN GRAVEL



NOT TO SCALE

EXHIBIT 282-17
01/01/2027

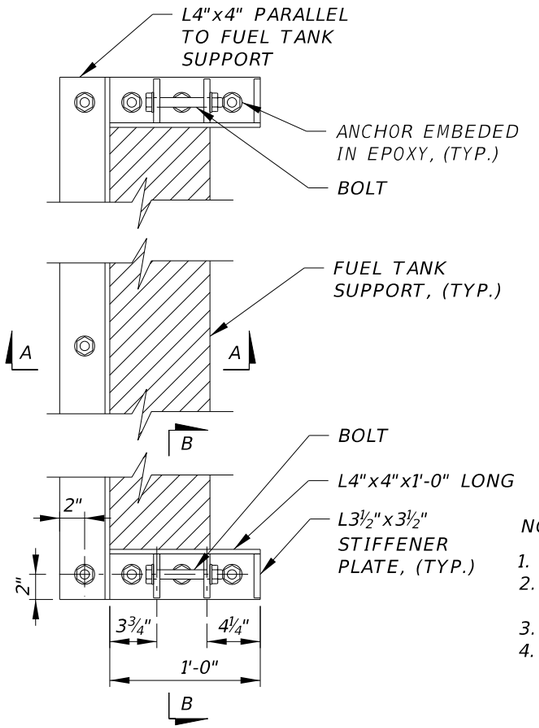
PERMANENT PIPE BOLLARDS



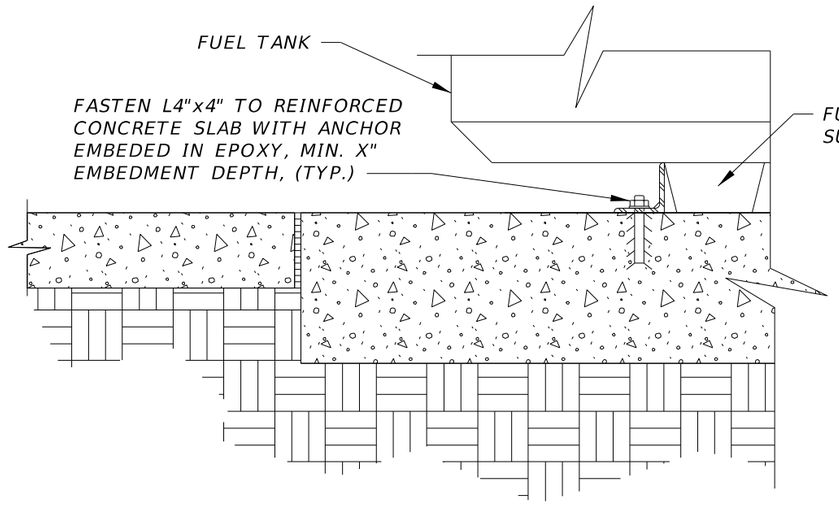
NOT TO SCALE

EXHIBIT 282-18
01/01/2027

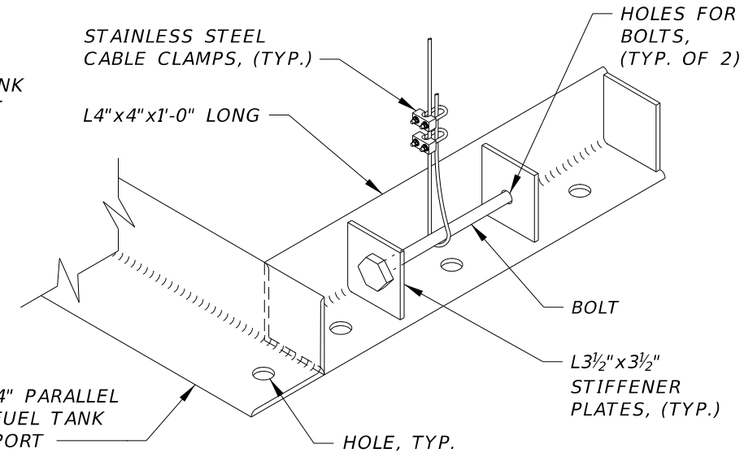
FUEL TANK HOLD-DOWN DETAILS



PLAN VIEW



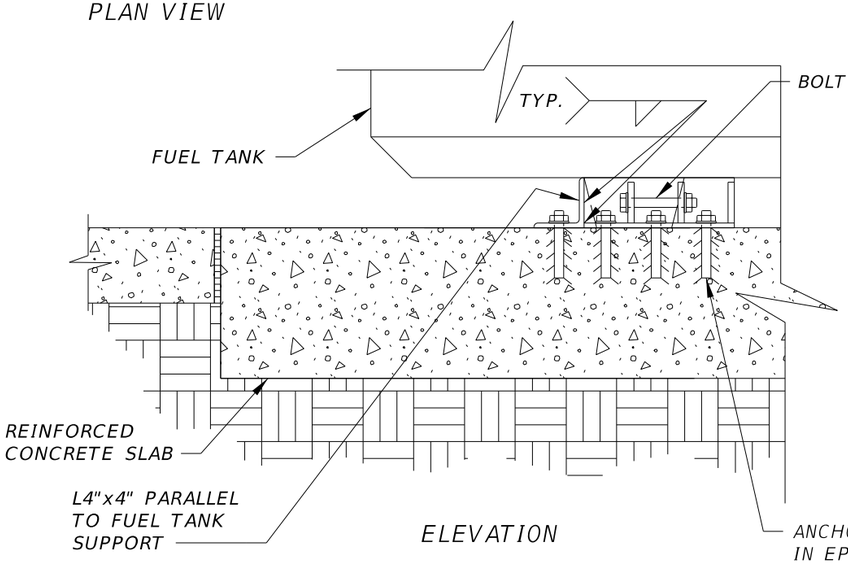
SECTION A-A



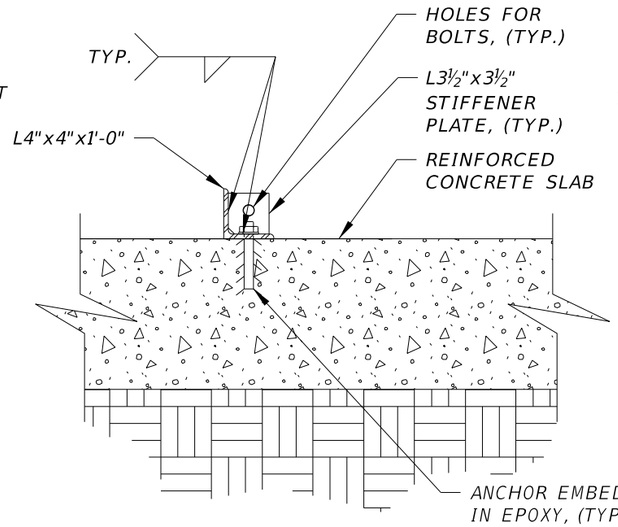
FUEL TANK HOLD DOWN CABLES, ENLARGED VIEW

NOTES:

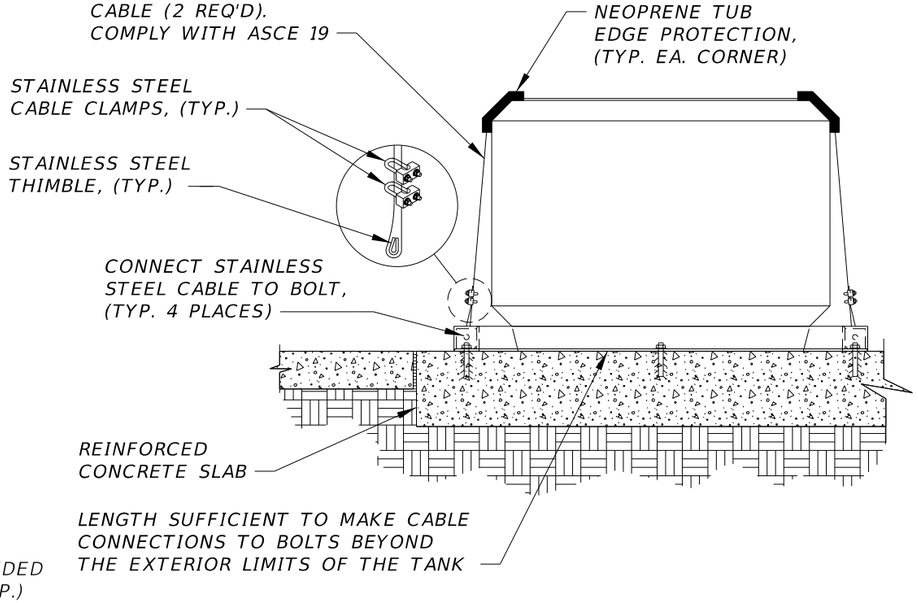
1. STRUCTURAL STEEL SHALL CONFORM TO ASTM A36.
2. ALL WELDS SHALL IN ACCORDANCE WITH AWS CODE AND ELECTRODE SHALL BE E70XX.
3. BOLTS SHALL CONFORM TO ASTM A325.
4. PAINT ALL EXPOSED STEEL WITH GRAY COLD GALVANIZED PAINT.



ELEVATION



SECTION B-B

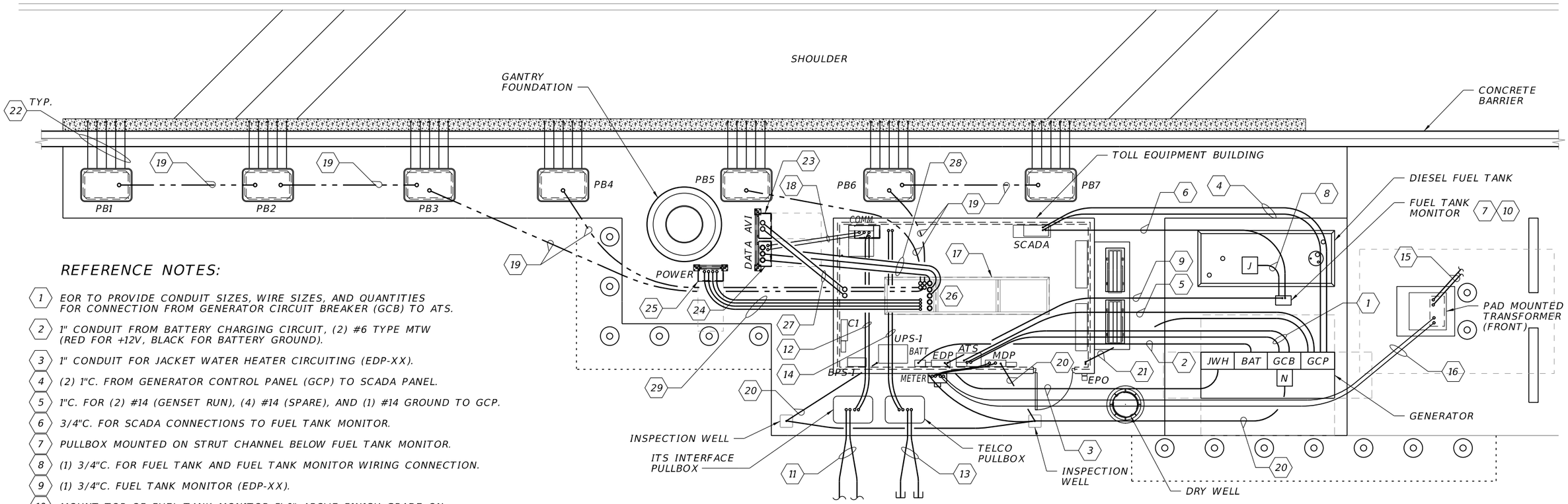


FUEL TANK HOLD DOWN CABLE DETAIL

NOT TO SCALE

EXHIBIT 282-19
01/01/2027

SINGLE MOVEMENT NON-ACCESSIBLE GANTRY TEB ELECTRICAL STANDARD SITE PLAN



REFERENCE NOTES:

1. EOR TO PROVIDE CONDUIT SIZES, WIRE SIZES, AND QUANTITIES FOR CONNECTION FROM GENERATOR CIRCUIT BREAKER (GCB) TO ATS.
2. 1" CONDUIT FROM BATTERY CHARGING CIRCUIT, (2) #6 TYPE MTW (RED FOR +12V, BLACK FOR BATTERY GROUND).
3. 1" CONDUIT FOR JACKET WATER HEATER CIRCUITING (EDP-XX).
4. (2) 1"C. FROM GENERATOR CONTROL PANEL (GCP) TO SCADA PANEL.
5. 1"C. FOR (2) #14 (GENSET RUN), (4) #14 (SPARE), AND (1) #14 GROUND TO GCP.
6. 3/4"C. FOR SCADA CONNECTIONS TO FUEL TANK MONITOR.
7. PULLBOX MOUNTED ON STRUT CHANNEL BELOW FUEL TANK MONITOR.
8. (1) 3/4"C. FOR FUEL TANK AND FUEL TANK MONITOR WIRING CONNECTION.
9. (1) 3/4"C. FUEL TANK MONITOR (EDP-XX).
10. MOUNT TOP OF FUEL TANK MONITOR 5'-0" ABOVE FINISH GRADE ON STRUT CHANNEL SUPPORT POSTS, (1-5/8"x3-1/4"x10'-0" LONG). CONCRETE ENCASE THE SUPPORT POSTS AT 3'-0" MINIMUM DEPTH BELOW GRADE. CONCRETE ENCASE EACH POST WITH A MINIMUM 4" THICKNESS ON ALL SIDES.
11. CONDUITS FROM ITS SPLICE VAULT, PROVIDED BY ITS CONTRACTOR. COORDINATE WITH ITS CONTRACTOR FOR LATERAL ROUTING AND FIBER OPTIC CABLE MARKER INSTALLATION LOCATIONS.
12. (2) 2"C. STUBBED UP BELOW THE WALL MOUNTED TOLLS COMMUNICATIONS CABINET FROM THE ITS INTERFACE PULLBOX (FOC FOR NETWORK CONNECTIONS). FOC INSTALLED BY ITS CONTRACTOR.
13. (2) 2"C. FROM TELCO PULLBOX TO FIVE FEET BEYOND EDGE OF CONRETE SIDEWALK FOR FUTURE "LEASED LINE" CIRCUIT.
14. (2) 2"C. FROM TELCO PULLBOX TO AREA BELOW COMMUNICATIONS BACKBOARD.
15. UTILITY COMPANY PRIMARY FEEDER. COORDINATE WITH UTILITY PROVIDER FOR ROUTING FROM POINT OF PRESENCE TO PAD MOUNTED TRANSFORMER. SEE SHEET SE#-XXX FOR CONTINUATION.
16. SERVICE LATERAL TO MDP VIA METER. SEE POWER RISER DIAGRAM FOR DETAILS.
17. TOLL EQUIPMENT MOUNTING FRAME.
18. (2) 2"C. (CCTV), (2) PER DIRECTION OF TRAVEL.
19. (1) 3"C. FOR LOOP WIRING.
20. GROUNDING ELECTRODE SYSTEM.
21. (1) 3/4"C. FROM EMERGENCY POWER OFF (EPO) TO GCP.
22. (X) 1"C. FOR LOOP WIRING.
23. 12"x12"x2'-0" NEMA 3R AVI WIRE TROUGH. MOUNT 4'-0" ABOVE FINISH GRADE ON A STRUT CHANNEL FRAME.
24. 12"x12"x2'-0" NEMA 3R DATA WIRE TROUGH. MOUNT 4'-0" ABOVE FINISH GRADE ON A STRUT CHANNEL FRAME.
25. 12"x12"x2'-0" NEMA 3R POWER WIRE TROUGH. MOUNT 4'-0" ABOVE FINISH GRADE ON A STRUT CHANNEL FRAME.
26. "TRAVEL DIRECTION", TOLL EQUIPMENT WORKING SPACE.
27. (2) 4"C. ("TRAVEL DIRECTION" AVI)
28. (3) 4"C. ("TRAVEL DIRECTION" DATA)
29. (4) 2"C. ("TRAVEL DIRECTION" POWER)

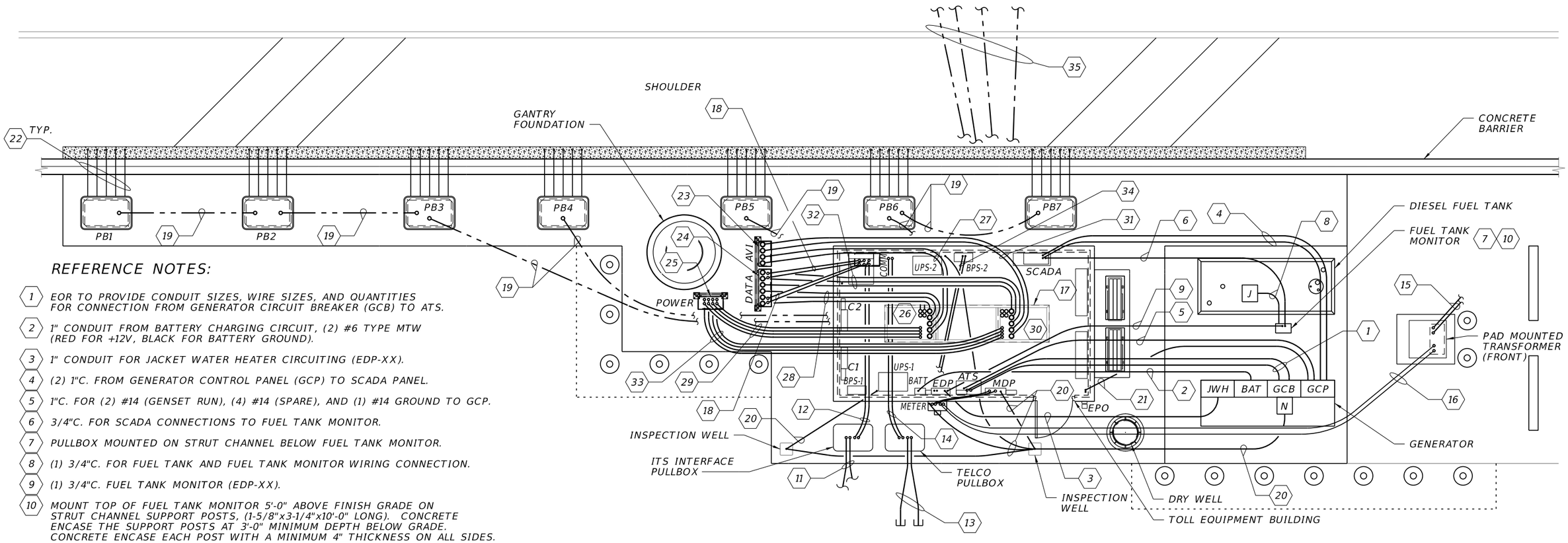
NOTES:

1. CONDUIT ROUTING MAY VARY DEPENDING ON THE SITE SPECIFIC LAYOUT. VERIFY CONDUIT ROUTING MATCHES THE OVERALL SITE CONDUIT PLANS AND IDENTIFY ANY INSTALLATION REQUIREMENTS OTHER THAN OPEN TRENCH.
2. EOR TO PROVIDE SITE SPECIFIC "TRAVEL DIRECTION", e.g., "NB, SB, EB, OR WB".
3. EXTEND CONDUITS FROM REFERENCE NOTE 13 TO THE TELCO POINT OF SERVICE WHEN A LEASED LINE CIRCUIT IS REQUIRED.
4. EXCHANGE POWER AND AVI WIRE TROUGHS, CONDUITS, AND CABLE TRAY POSITIONS FOR TEB SITES WITH AVI READER GROUND-MOUNTED FRAMES.

NOT TO SCALE

EXHIBIT 282-20
01/01/2027

DUAL MOVEMENT NON-ACCESSIBLE GANTRY TEB ELECTRICAL STANDARD SITE PLAN



REFERENCE NOTES:

1. EOR TO PROVIDE CONDUIT SIZES, WIRE SIZES, AND QUANTITIES FOR CONNECTION FROM GENERATOR CIRCUIT BREAKER (GCB) TO ATS.
2. 1" CONDUIT FROM BATTERY CHARGING CIRCUIT, (2) #6 TYPE MTW (RED FOR +12V, BLACK FOR BATTERY GROUND).
3. 1" CONDUIT FOR JACKET WATER HEATER CIRCUITING (EDP-XX).
4. (2) 1"C. FROM GENERATOR CONTROL PANEL (GCP) TO SCADA PANEL.
5. 1"C. FOR (2) #14 (GENSET RUN), (4) #14 (SPARE), AND (1) #14 GROUND TO GCP.
6. 3/4"C. FOR SCADA CONNECTIONS TO FUEL TANK MONITOR.
7. PULLBOX MOUNTED ON STRUT CHANNEL BELOW FUEL TANK MONITOR.
8. (1) 3/4"C. FOR FUEL TANK AND FUEL TANK MONITOR WIRING CONNECTION.
9. (1) 3/4"C. FUEL TANK MONITOR (EDP-XX).
10. MOUNT TOP OF FUEL TANK MONITOR 5'-0" ABOVE FINISH GRADE ON STRUT CHANNEL SUPPORT POSTS, (1-5/8"x3-1/4"x10'-0" LONG). CONCRETE ENCASE THE SUPPORT POSTS AT 3'-0" MINIMUM DEPTH BELOW GRADE. CONCRETE ENCASE EACH POST WITH A MINIMUM 4" THICKNESS ON ALL SIDES.
11. CONDUITS FROM ITS SPLICE VAULT, PROVIDED BY ITS CONTRACTOR. COORDINATE WITH ITS CONTRACTOR FOR LATERAL ROUTING AND FIBER OPTIC CABLE MARKER INSTALLATION LOCATIONS.
12. (2) 2"C. STUBBED UP BELOW THE WALL MOUNTED TOLLS COMMUNICATIONS CABINET FROM THE ITS INTERFACE PULLBOX (FOC FOR NETWORK CONNECTIONS). FOC INSTALLED BY ITS CONTRACTOR.
13. (2) 2"C. FROM TELCO PULLBOX TO FIVE FEET BEYOND EDGE OF CONRETE SIDEWALK FOR FUTURE "LEASED LINE" CIRCUIT.
14. (2) 2"C. FROM TELCO PULLBOX TO AREA BELOW COMMUNICATIONS BACKBOARD.
15. UTILITY COMPANY PRIMARY FEEDER. COORDINATE WITH UTILITY PROVIDER FOR ROUTING FROM POINT OF PRESENCE TO PAD MOUNTED TRANSFORMER. SEE SHEET SE#-XXX FOR CONTINUATION.
16. SERVICE LATERAL TO MDP VIA METER. SEE POWER RISER DIAGRAM FOR DETAILS.
17. TOLL EQUIPMENT MOUNTING FRAME.
18. 2"C. (CCTV), (2) CONDUIT PER DIRECTION OF TRAVEL.
19. (1) 3"C. FOR LOOP WIRING.
20. GROUNDING ELECTRODE SYSTEM.
21. (1) 3/4"C. FROM EMERGENCY POWER OFF (EPO) TO GCP.
22. (X) 1"C. FOR LOOP WIRING.
23. 12"x12"x2'-0" NEMA 3R AVI WIRE TROUGH. MOUNT 4'-0" ABOVE FINISH GRADE ON A STRUT CHANNEL FRAME.
24. 12"x12"x3'-0" NEMA 3R DATA WIRE TROUGH. MOUNT 4'-0" ABOVE FINISH GRADE ON A STRUT CHANNEL FRAME.
25. 12"x12"x2'-0" NEMA 3R POWER WIRE TROUGH. MOUNT 4'-0" ABOVE FINISH GRADE ON A STRUT CHANNEL FRAME.
26. "TRAVEL DIRECTION 1", TOLL EQUIPMENT WORKING SPACE.
27. (2) 4"C. ("TRAVEL DIRECTION 1" AVI)
28. (3) 4"C. ("TRAVEL DIRECTION 1" DATA)
29. (4) 2"C. ("TRAVEL DIRECTION 1" POWER)
30. "TRAVEL DIRECTION 2", TOLL EQUIPMENT WORKING SPACE.
31. (2) 4"C. ("TRAVEL DIRECTION 2" AVI)
32. (3) 4"C. ("TRAVEL DIRECTION 2" DATA)
33. (4) 2"C. ("TRAVEL DIRECTION 2" POWER)
34. (2) 1"C. FROM BPS-2 TO EDP. SEE POWER RISER DIAGRAM FOR DETAILS.
35. PROVIDE THE FOLLOWING CONDUITS FROM THE "TRAVEL DIRECTION 2" TOLL EQUIPMENT WORKING SPACE TO THE LOOP PULL BOXES INDICATED BELOW:

    (1) 3" CONDUIT TO PB9
    (1) 3" CONDUIT TO PB11
    (1) 3" CONDUIT TO PB12
    (1) 3" CONDUIT TO PB13

NOTES:

1. CONDUIT ROUTING MAY VARY DEPENDING ON THE SITE SPECIFIC LAYOUT. VERIFY CONDUIT ROUTING MATCHES THE OVERALL SITE CONDUIT PLANS AND IDENTIFY ANY INSTALLATION REQUIREMENTS OTHER THAN OPEN TRENCH.
2. EOR TO PROVIDE SITE SPECIFIC "TRAVEL DIRECTION", e.g., "NB, SB, EB, OR WB".
3. CONDUIT ROUTING FROM " TRAVEL DIRECTION 2" TOLL EQUIPMENT WORKING SPACE IS DEPENDENT UPON TOP OF LOOP PULLBOXES ARE LOWER THAN TEB FINISH FLOOR ELEVATION.
4. EXTEND CONDUITS FROM REFERENCE NOTE 13 TO THE TELCO POINT OF SERVICE WHEN A LEASED LINE CIRCUIT IS REQUIRED.
5. EXCHANGE POWER AND AVI WIRE TROUGHS, CONDUITS, AND CABLE TRAY POSITIONS FOR TEB SITES WITH AVI READER GROUND-MOUNTED FRAMES.

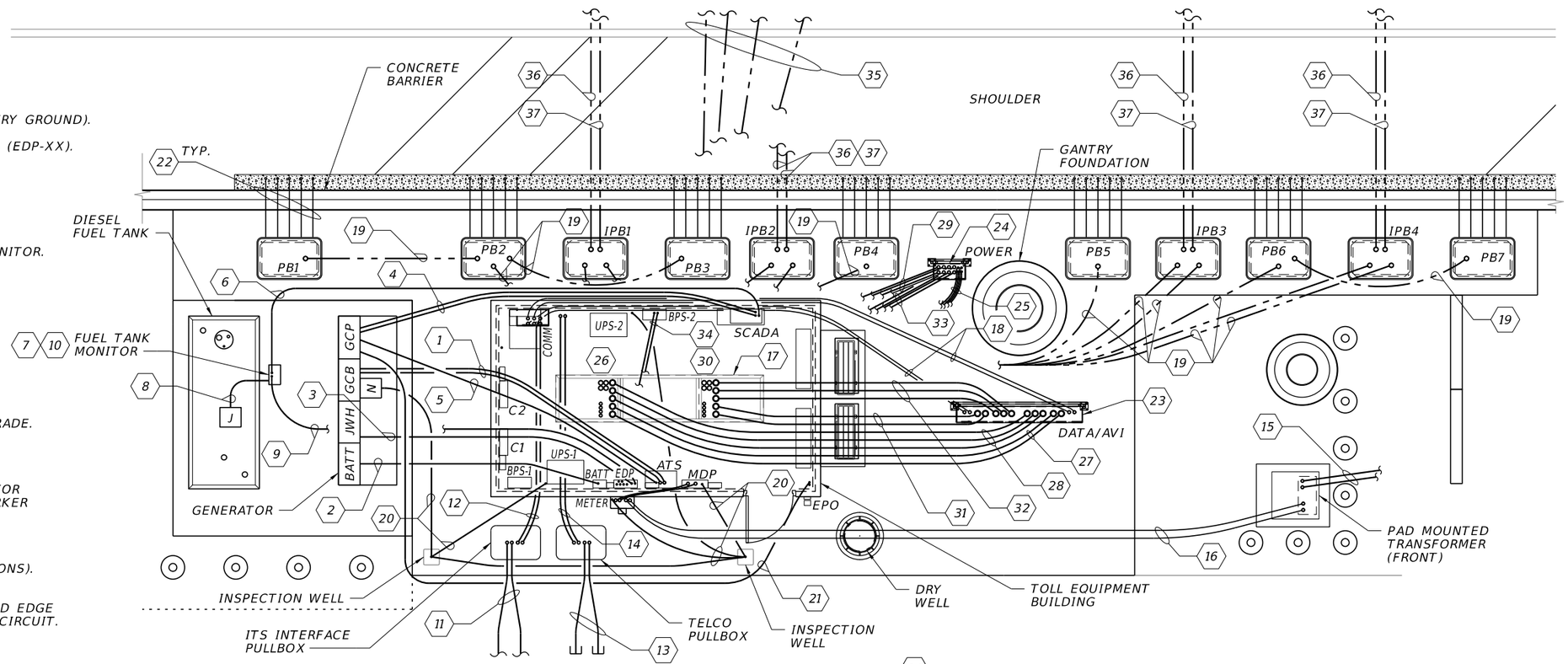
NOT TO SCALE

EXHIBIT 282-21
01/01/2027

DUAL MOVEMENT ACCESSIBLE GANTRY TEB ELECTRICAL STANDARD SITE PLAN

REFERENCE NOTES:

1. EOR TO PROVIDE CONDUIT SIZES, WIRE SIZES, AND QUANTITIES FOR CONNECTION FROM GENERATOR CIRCUIT BREAKER (GCB) TO ATS.
2. 1" CONDUIT FROM BATTERY CHARGING CIRCUIT, (2) #6 TYPE MTW (RED FOR +12V, BLACK FOR BATTERY GROUND).
3. 1" CONDUIT FOR JACKET WATER HEATER CIRCUITING (EDP-XX).
4. (2) 1"C. FROM GENERATOR CONTROL PANEL (GCP) TO SCADA PANEL.
5. 1"C. FOR (2) #14 (GENSET RUN), (4) #14 (SPARE), AND (1) #14 GROUND TO GCP.
6. 3/4"C. FOR SCADA CONNECTIONS TO FUEL TANK MONITOR.
7. PULLBOX MOUNTED ON STRUT CHANNEL BELOW FUEL TANK MONITOR.
8. (1) 3/4"C. FOR FUEL TANK AND FUEL TANK MONITOR WIRING CONNECTION.
9. (1) 3/4"C. FUEL TANK MONITOR (EDP-XX).
10. MOUNT TOP OF FUEL TANK MONITOR 5'-0" ABOVE FINISH GRADE ON STRUT CHANNEL SUPPORT POSTS, (1-5/8"x3-1/4"x10'-0" LONG). CONCRETE ENCASE THE SUPPORT POSTS AT 3'-0" MINIMUM DEPTH BELOW GRADE. CONCRETE ENCASE EACH POST WITH A MINIMUM 4" MINIMUM CLEARANCE ON ALL SIDES.
11. CONDUITS FROM ITS SPLICE VAULT, PROVIDED BY ITS CONTRACTOR. COORDINATE WITH ITS CONTRACTOR FOR LATERAL ROUTING AND FIBER OPTIC CABLE MARKER INSTALLATION LOCATIONS.
12. (2) 2"C. STUBBED UP BELOW THE WALL MOUNTED TOLLS COMMUNICATIONS CABINET FROM THE ITS INTERFACE PULLBOX (FOC FOR NETWORK CONNECTIONS). FOC INSTALLED BY ITS CONTRACTOR.
13. (2) 2"C. FROM TELCO PULLBOX TO FIVE FEET BEYOND EDGE OF CONRETE SIDEWALK FOR FUTURE "LEASED LINE" CIRCUIT.
14. (2) 2"C. FROM TELCO PULLBOX TO AREA BELOW COMMUNICATIONS BACKBOARD.
15. UTILITY COMPANY PRIMARY FEEDER. COORDINATE WITH UTILITY PROVIDER FOR ROUTING FROM POINT OF PRESENCE TO PAD MOUNTED TRANSFORMER. SEE SHEET SE#-XXX FOR CONTINUATION.
16. SERVICE LATERAL TO MDP VIA METER. SEE POWER RISER DIAGRAM FOR DETAILS.
17. TOLL EQUIPMENT MOUNTING FRAME.
18. 2"C. (CCTV), (2) CONDUIT PER DIRECTION OF TRAVEL.
19. (1) 3"C. FOR LOOP WIRING.
20. GROUNDING ELECTRODE SYSTEM.
21. (1) 3/4"C. FROM EMERGENCY POWER OFF (EPO) TO GCP.
22. (X) 1"C. FOR LOOP WIRING.
23. 12"x12"x8'-0" NEMA 3R DATA/AVI WIRE TROUGH. MOUNT 4'-0" ABOVE FINISH GRADE ON A STRUT CHANNEL FRAME.
24. 12"x12"x2'-0" NEMA 3R POWER WIRE TROUGH. MOUNT 4'-0" ABOVE FINISH GRADE ON A STRUT CHANNEL FRAME.
25. (4) 1"C. FOR GANTRY LIGHTING AND RECEPTACLE CIRCUITING, (EDP-XX, XX, AND XX).



26. "TRAVEL DIRECTION 1", TOLL EQUIPMENT WORKING SPACE.
27. (2) 4"C. ("TRAVEL DIRECTION 1" AVI)
28. (3) 4"C. ("TRAVEL DIRECTION 1" DATA)
29. (4) 2"C. ("TRAVEL DIRECTION 1" POWER)
30. "TRAVEL DIRECTION 2", TOLL EQUIPMENT WORKING SPACE.
31. (2) 4"C. ("TRAVEL DIRECTION 2" AVI)
32. (3) 4"C. ("TRAVEL DIRECTION 2" DATA)
33. (4) 2"C. ("TRAVEL DIRECTION 2" POWER)
34. (2) 1"C. FROM BPS-2 TO EDP. SEE POWER RISER DIAGRAM FOR DETAILS.
35. PROVIDE THE FOLLOWING CONDUITS FROM THE "TRAVEL DIRECTION 2" TOLL EQUIPMENT WORKING SPACE TO THE LOOP PULL BOXES INDICATED BELOW:

    (1) 3" CONDUIT TO PB9
    (1) 3" CONDUIT TO PB11
    (1) 3" CONDUIT TO PB12
    (1) 3" CONDUIT TO PB13

36. PROVIDE THE FOLLOWING CONDUITS FROM THE "TRAVEL DIRECTION 1" TOLL EQUIPMENT WORKING SPACE TO THE LOOP PULL BOXES INDICATED BELOW:

    (1) 3" CONDUIT TO MPB2 VIA IPB1
    (1) 3" CONDUIT TO MPB4 VIA IPB2
    (1) 3" CONDUIT TO MPB5 VIA IPB3
    (1) 3" CONDUIT TO MPB7 VIA IPB4

37. PROVIDE THE FOLLOWING CONDUITS FROM THE "TRAVEL DIRECTION 2" TOLL EQUIPMENT WORKING SPACE TO THE LOOP PULL BOXES INDICATED BELOW:

    (1) 3" CONDUIT TO MPB2 VIA IPB1
    (1) 3" CONDUIT TO MPB4 VIA IPB2
    (1) 3" CONDUIT TO MPB5 VIA IPB3
    (1) 3" CONDUIT TO MPB7 VIA IPB4

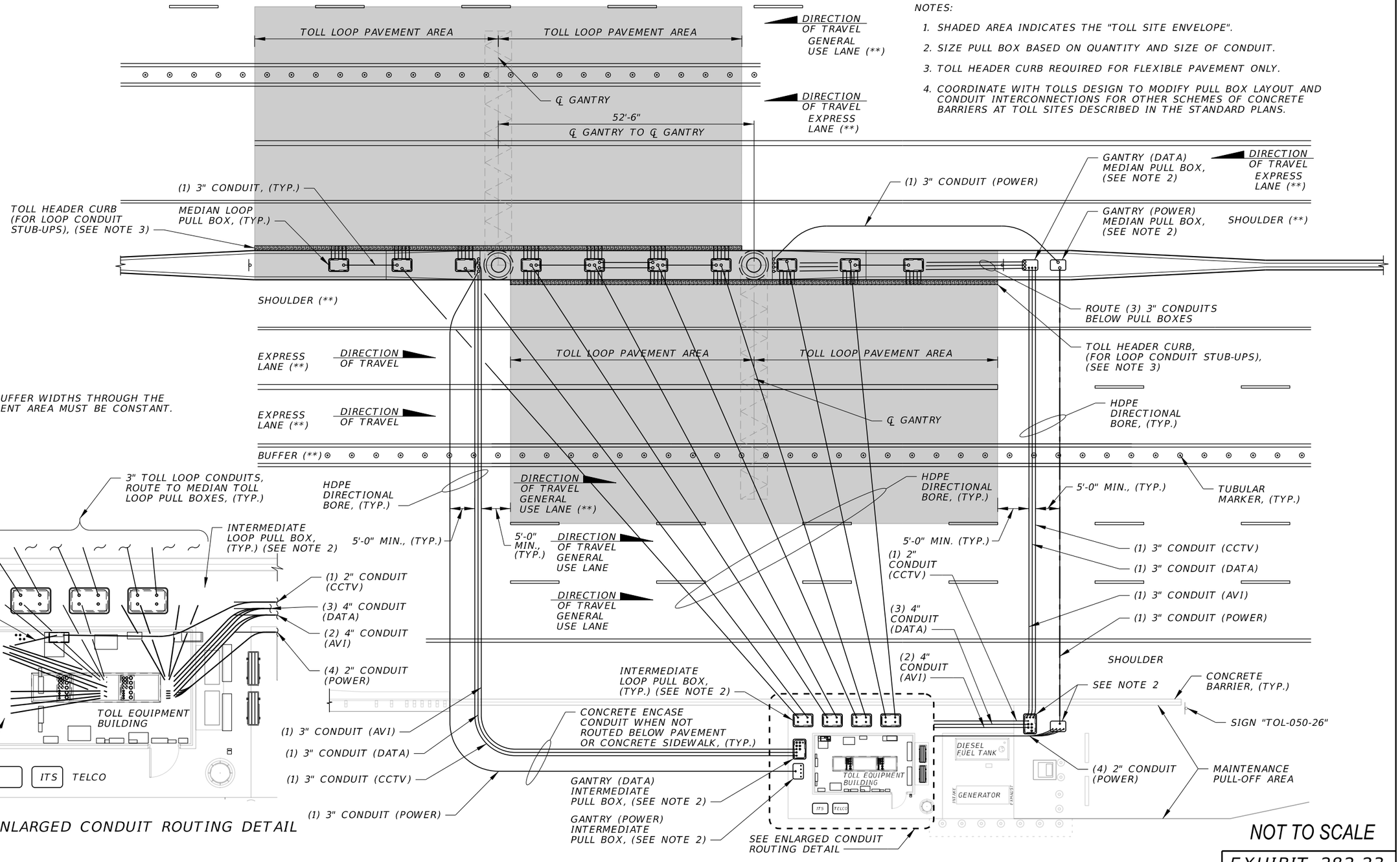
NOTES:

1. CONDUIT ROUTING MAY VARY DEPENDING ON THE SITE SPECIFIC LAYOUT. VERIFY CONDUIT ROUTING MATCHES THE OVERALL SITE CONDUIT PLANS AND IDENTIFY ANY INSTALLATION REQUIREMENTS OTHER THAN OPEN TRENCH.
2. EOR TO PROVIDE SITE SPECIFIC "TRAVEL DIRECTION", e.g., "NB, SB, EB, OR WB".
3. CONDUIT ROUTING FROM " TRAVEL DIRECTION 2" TOLL EQUIPMENT WORKING SPACE IS DEPENDENT UPON TOP OF LOOP PULLBOXES ARE LOWER THAN TEB FINISH FLOOR ELEVATION.
4. EXTEND CONDUITS FROM REFERENCE NOTE 13 TO THE TELCO POINT OF SERVICE WHEN A LEASED LINE CIRCUIT IS REQUIRED.

NOT TO SCALE

EXHIBIT 282-22
01/01/2027

DUAL MOVEMENT TEB ELECTRICAL REMOTE SITE PLAN



(**) LANE/SHOULDER/BUFFER WIDTHS THROUGH THE TOLL LOOP PAVEMENT AREA MUST BE CONSTANT.

NOTES:

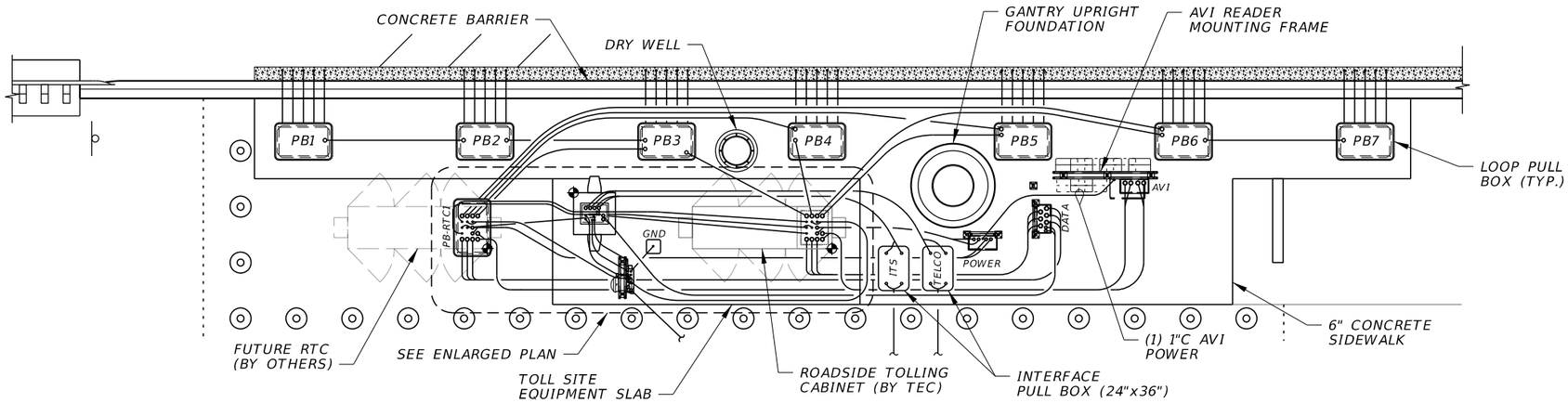
1. SHADED AREA INDICATES THE "TOLL SITE ENVELOPE".
2. SIZE PULL BOX BASED ON QUANTITY AND SIZE OF CONDUIT.
3. TOLL HEADER CURB REQUIRED FOR FLEXIBLE PAVEMENT ONLY.
4. COORDINATE WITH TOLLS DESIGN TO MODIFY PULL BOX LAYOUT AND CONDUIT INTERCONNECTIONS FOR OTHER SCHEMES OF CONCRETE BARRIERS AT TOLL SITES DESCRIBED IN THE STANDARD PLANS.

ENLARGED CONDUIT ROUTING DETAIL

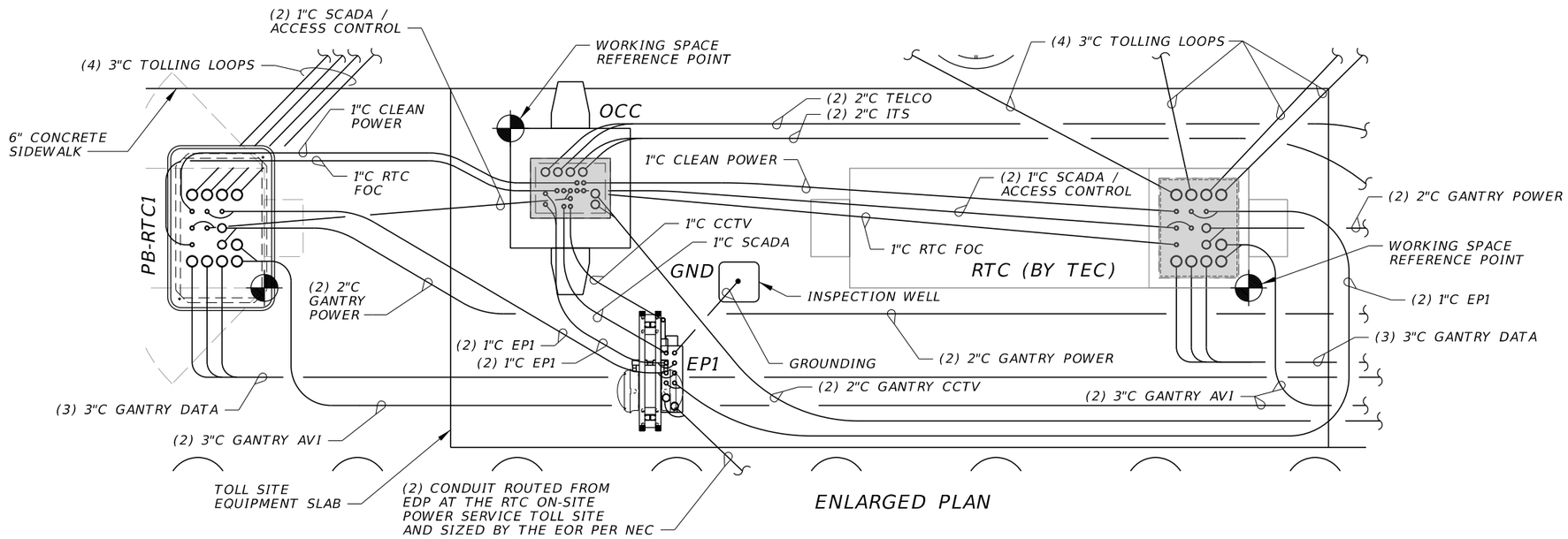
NOT TO SCALE

EXHIBIT 282-23
01/01/2027

SINGLE MOVEMENT RTC ELECTRICAL STANDARD SITE PLAN - OFF-SITE POWER SERVICE



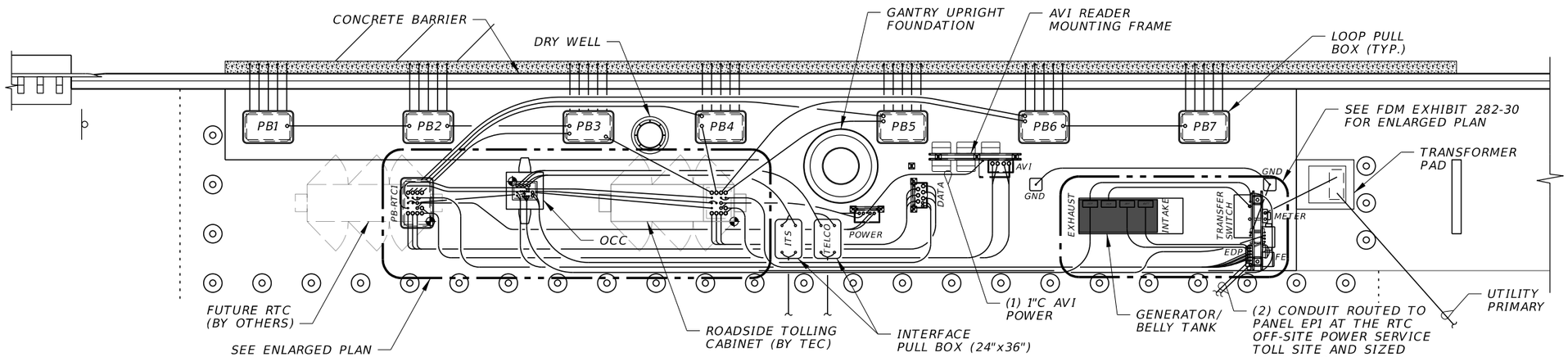
SINGLE MOVEMENT RTC ELECTRICAL STANDARD SITE PLAN - OFF-SITE POWER SERVICE



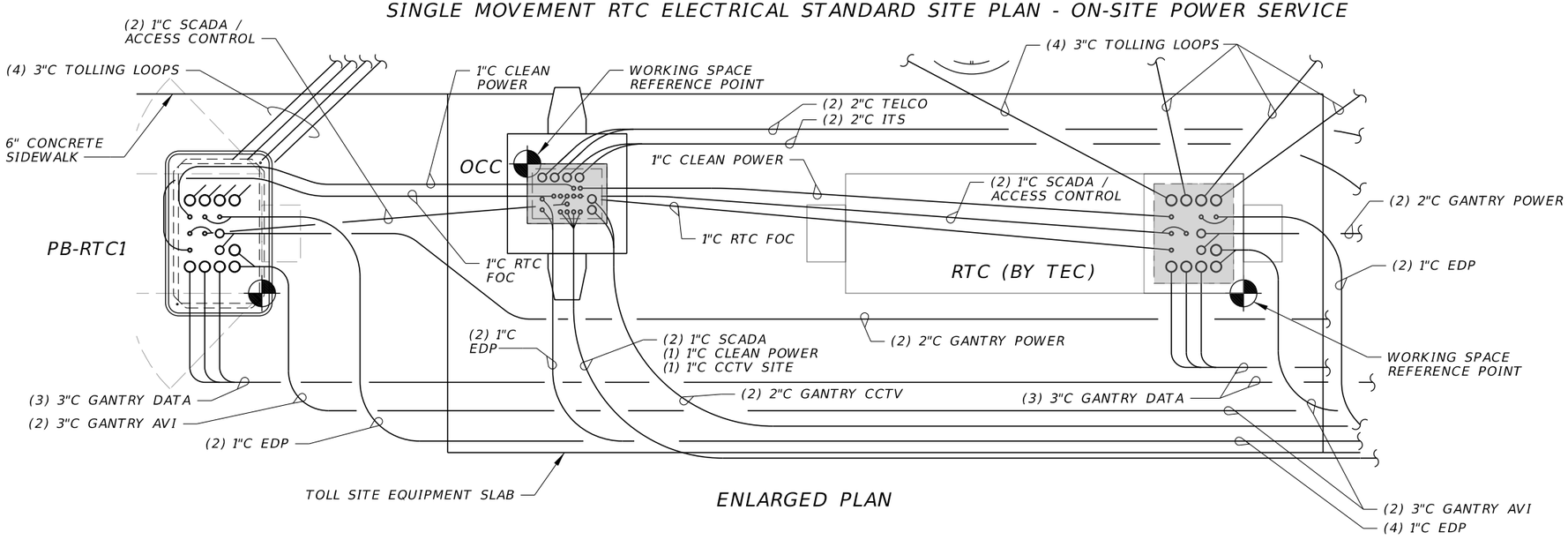
NOT TO SCALE

EXHIBIT 282-24
01/01/2027

SINGLE MOVEMENT RTC ELECTRICAL STANDARD SITE PLAN - ON-SITE POWER SERVICE



SINGLE MOVEMENT RTC ELECTRICAL STANDARD SITE PLAN - ON-SITE POWER SERVICE

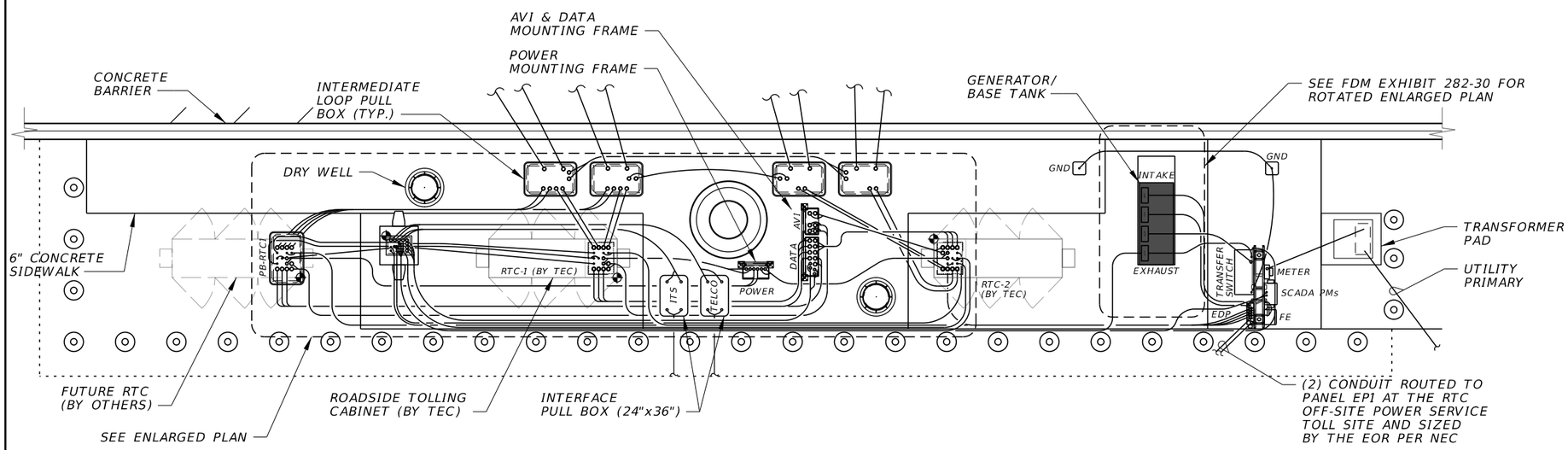


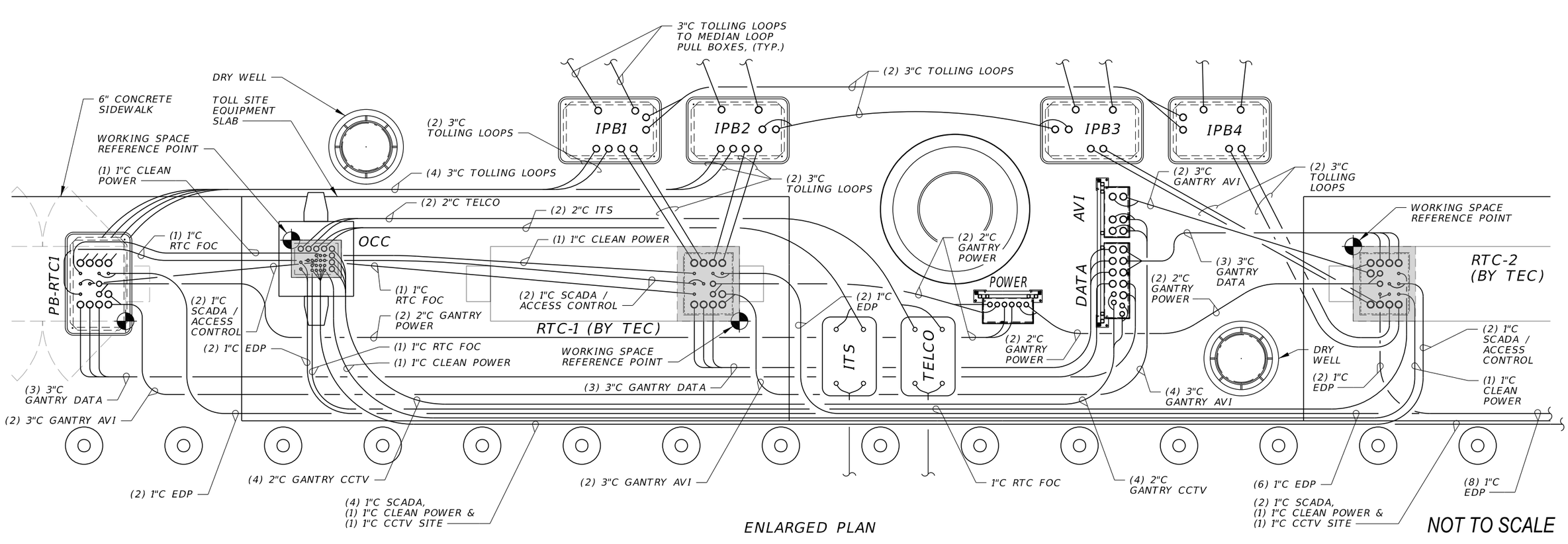
ENLARGED PLAN

NOT TO SCALE

EXHIBIT 282-25
01/01/2027

DUAL MOVEMENT RTC ELECTRICAL DETACHED SITE PLAN - ON-SITE POWER SERVICE



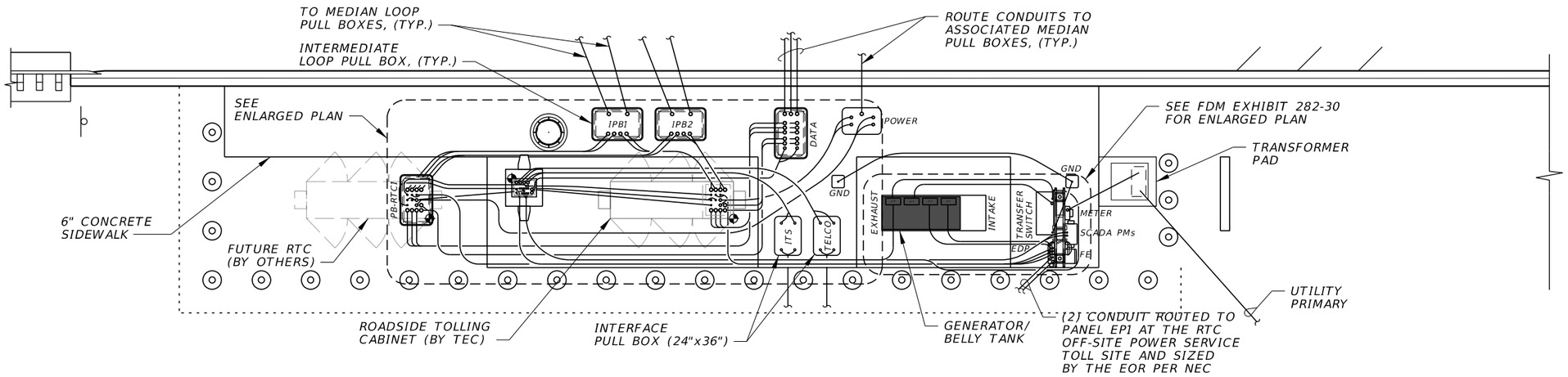


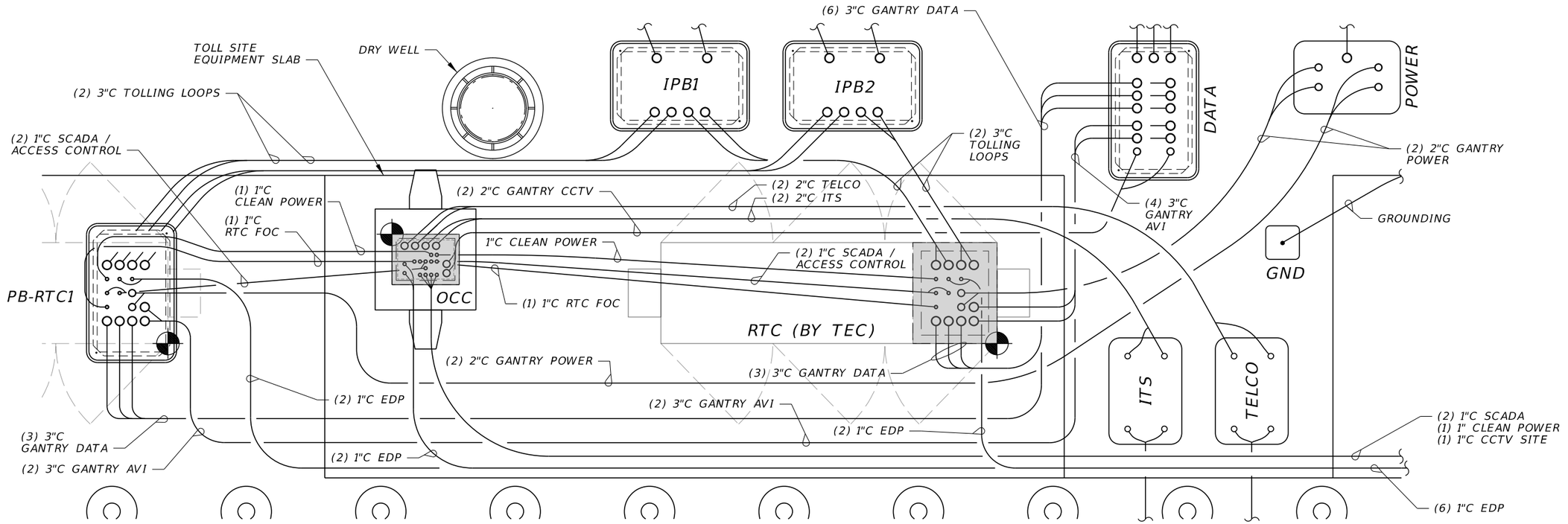
ENLARGED PLAN

NOT TO SCALE

EXHIBIT 282-26
01/01/2027

SINGLE MOVEMENT RTC ELECTRICAL REMOTE SITE PLAN - ON-SITE POWER SERVICE



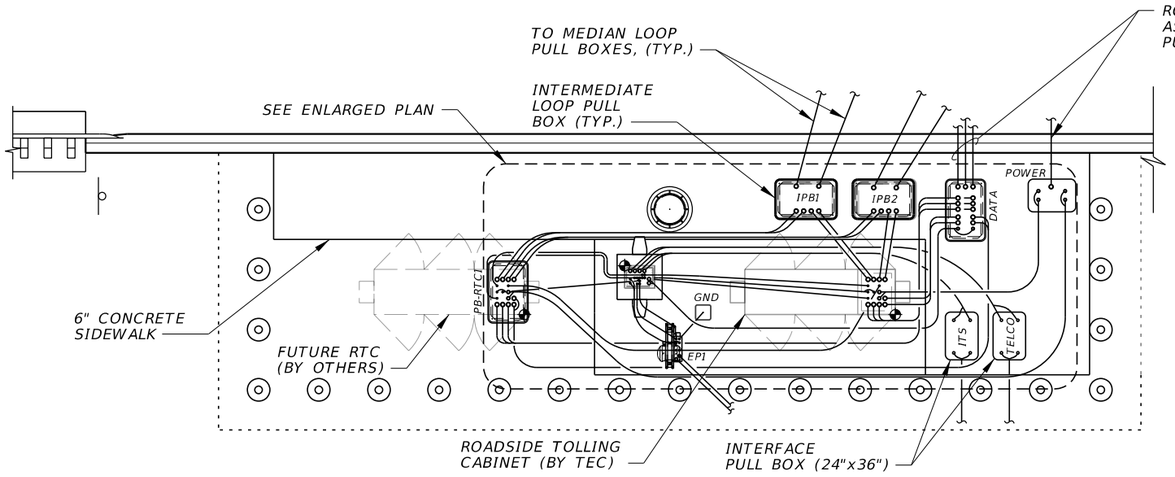


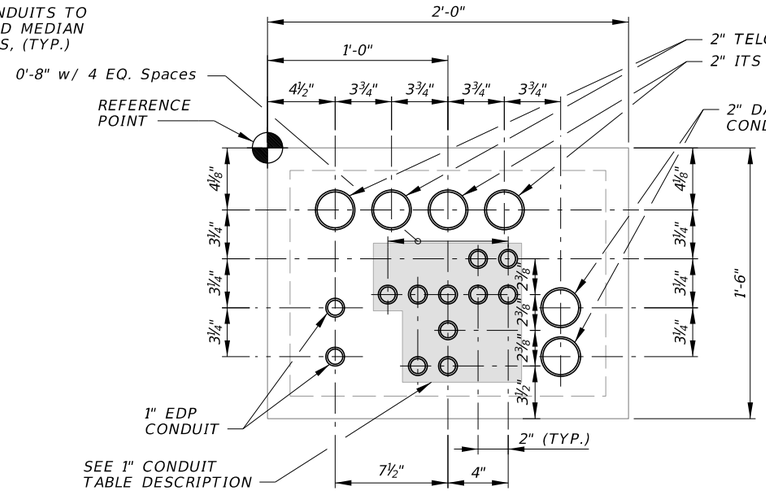
ENLARGED PLAN

NOT TO SCALE

EXHIBIT 282-27
01/01/2027

SINGLE MOVEMENT RTC ELECTRICAL REMOTE SITE PLAN - OFF-SITE POWER SERVICE

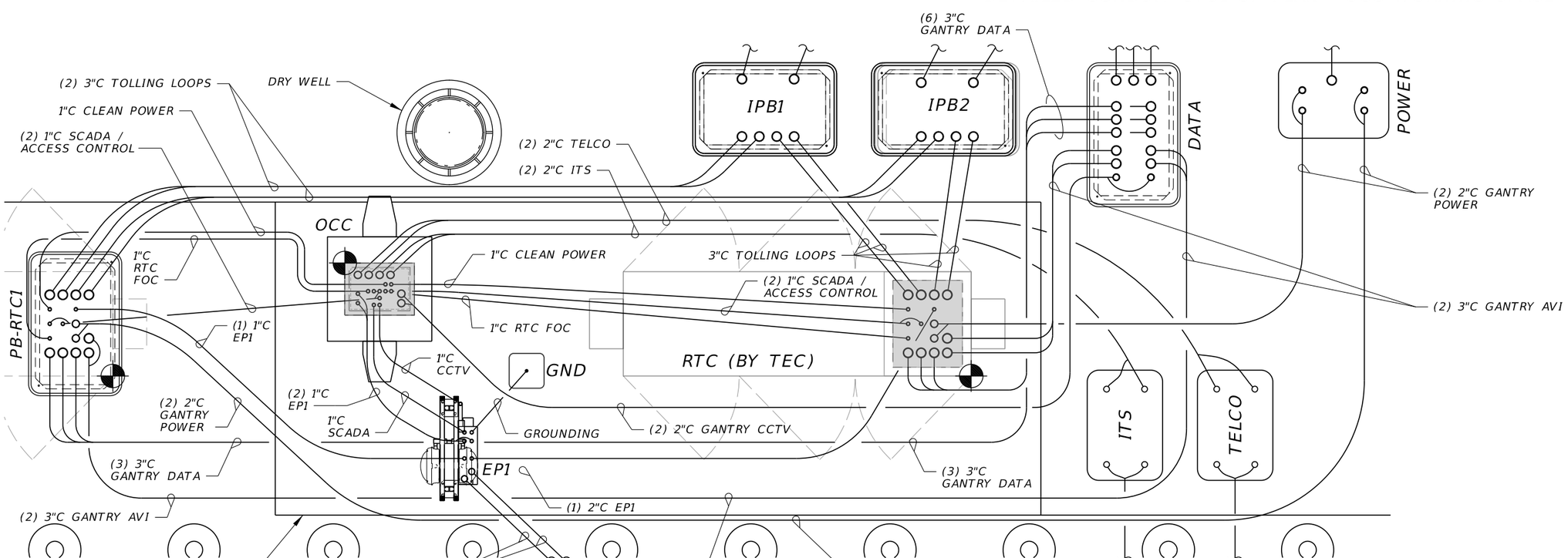




DETAILED CONDUIT STUB-UP PLAN - OCC WORKING SPACE

			1" Future Clean Power	1" Clean Power
1" Future RTC FOC	1" RTC FOC	1" Future SCADA RTC	1" SCADA RTC	1" SCADA RTC
		1" Future SCADA RTC		
	1" SCADA EP1	1" CCTV SITE		

1" CONDUIT TABLE DESCRIPTION

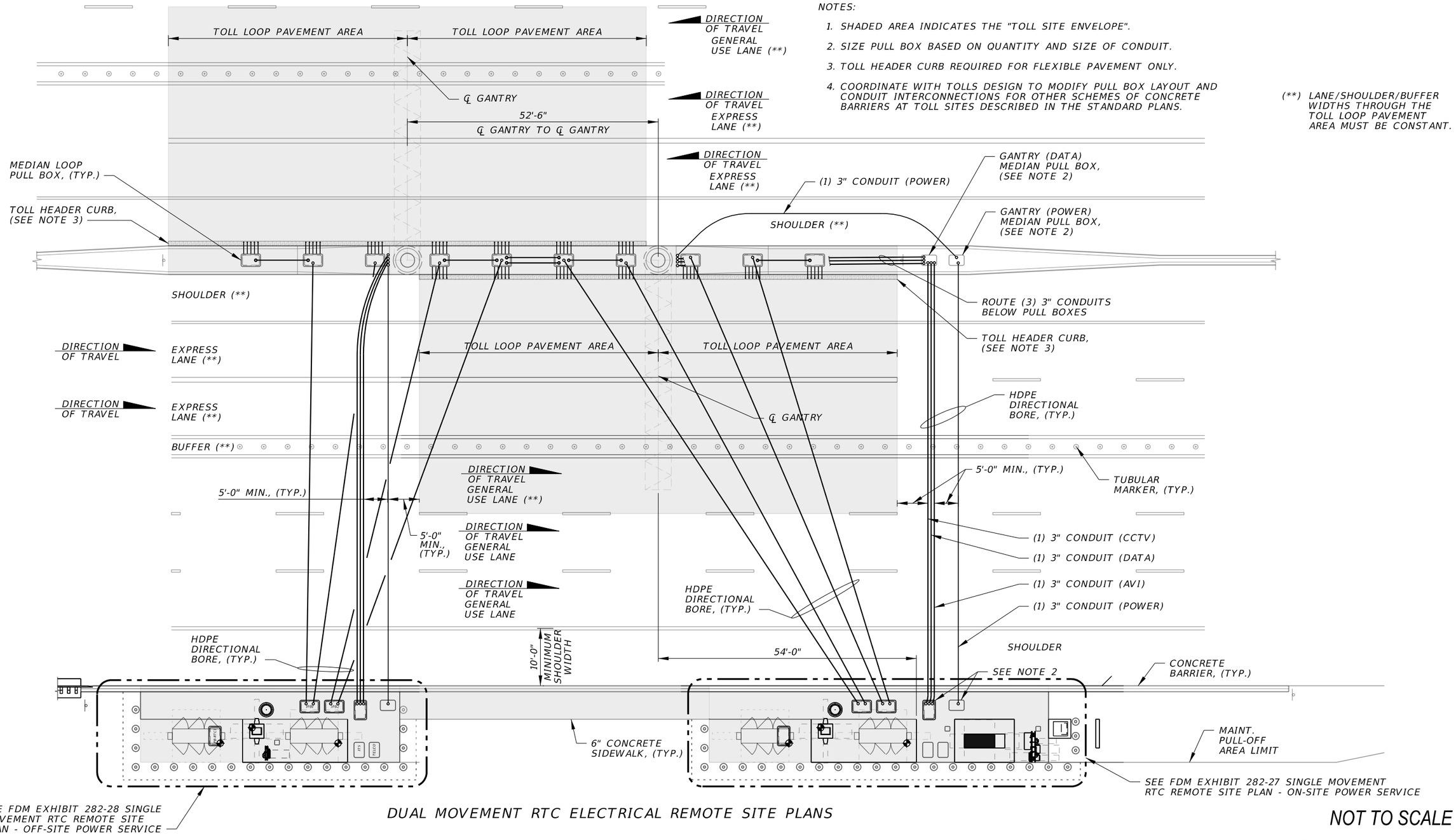


ENLARGED PLAN

NOT TO SCALE

EXHIBIT 282-28
01/01/2027

DUAL MOVEMENT RTC ELECTRICAL REMOTE SITE PLANS



NOTES:

1. SHADED AREA INDICATES THE "TOLL SITE ENVELOPE".
2. SIZE PULL BOX BASED ON QUANTITY AND SIZE OF CONDUIT.
3. TOLL HEADER CURB REQUIRED FOR FLEXIBLE PAVEMENT ONLY.
4. COORDINATE WITH TOLLS DESIGN TO MODIFY PULL BOX LAYOUT AND CONDUIT INTERCONNECTIONS FOR OTHER SCHEMES OF CONCRETE BARRIERS AT TOLL SITES DESCRIBED IN THE STANDARD PLANS.

(**) LANE/SHOULDER/BUFFER WIDTHS THROUGH THE TOLL LOOP PAVEMENT AREA MUST BE CONSTANT.

DUAL MOVEMENT RTC ELECTRICAL REMOTE SITE PLANS

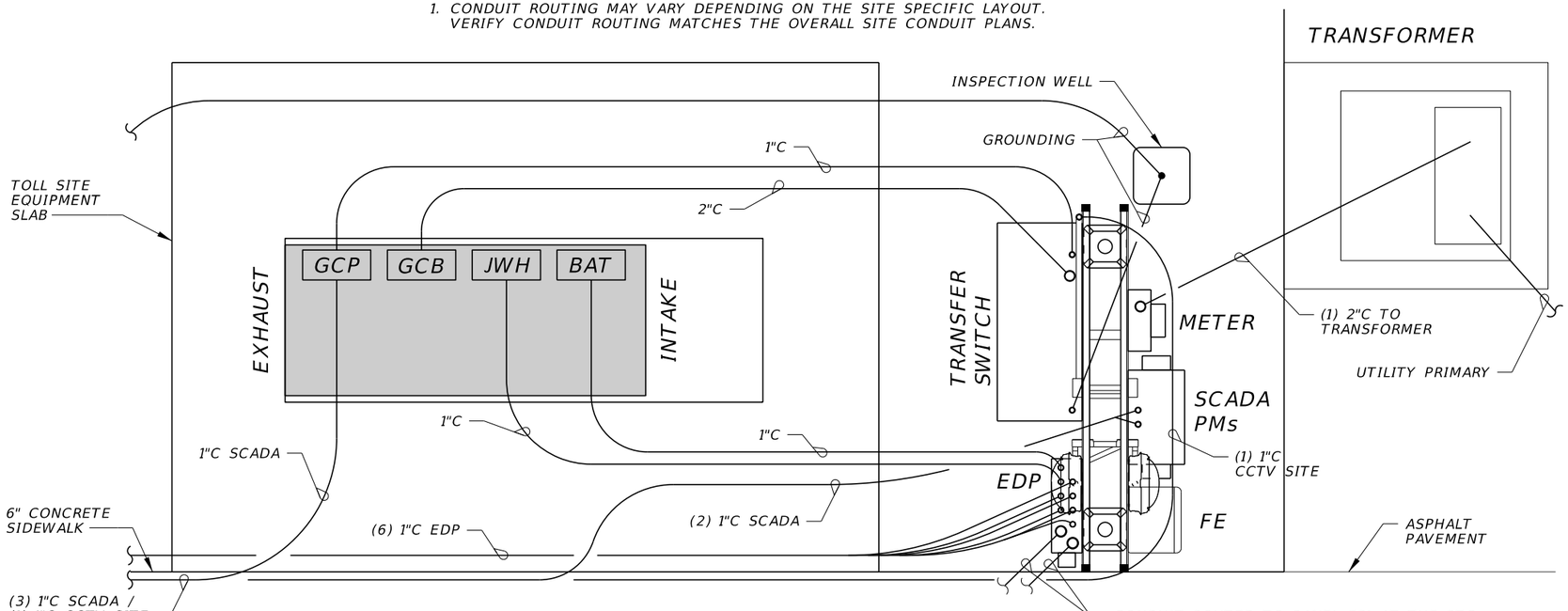
NOT TO SCALE

EXHIBIT 282-29
01/01/2027

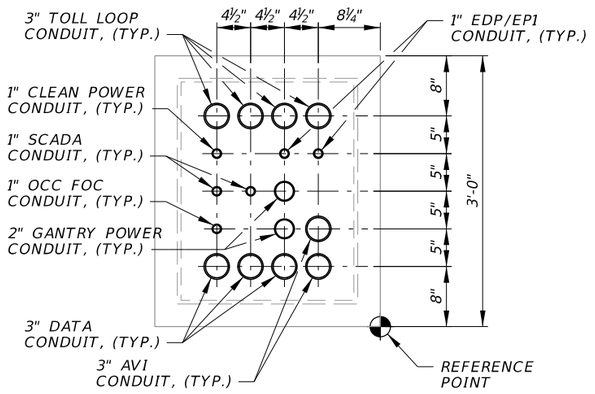
RTC SITE GENERATOR AND WORKING SPACE DETAILS

NOTE:

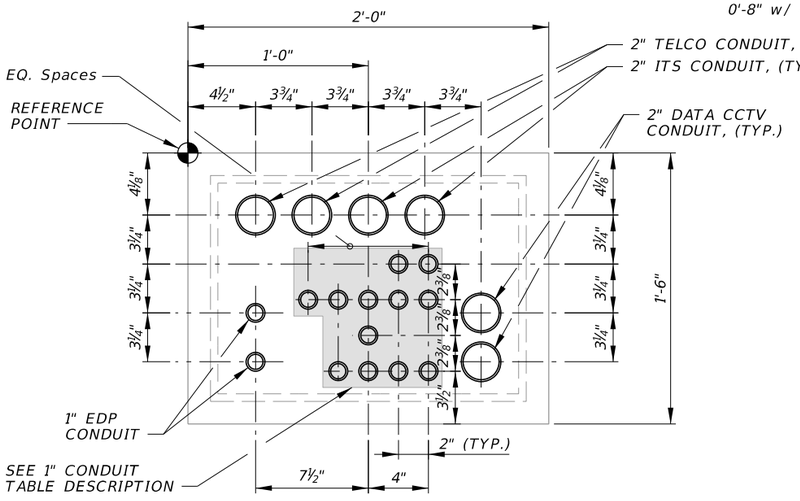
1. CONDUIT ROUTING MAY VARY DEPENDING ON THE SITE SPECIFIC LAYOUT. VERIFY CONDUIT ROUTING MATCHES THE OVERALL SITE CONDUIT PLANS.



ENLARGED CONDUIT LAYOUT PLAN - GENERATOR



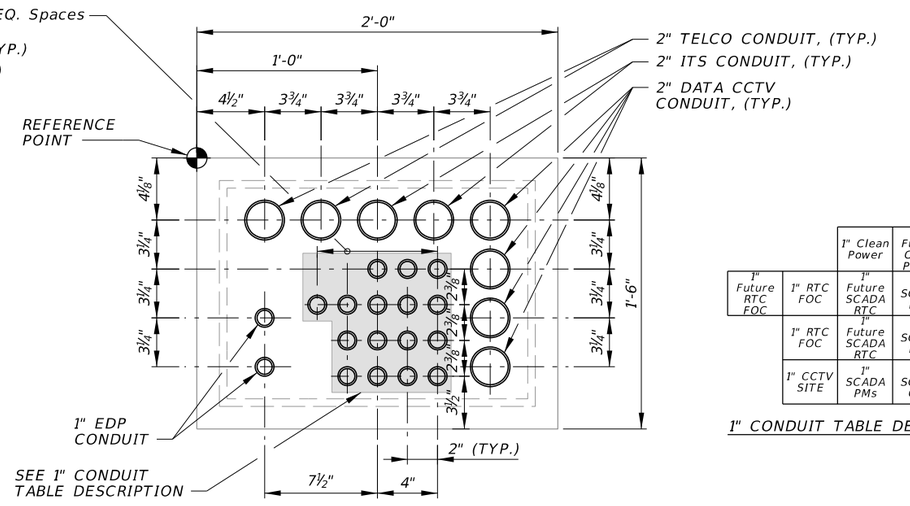
DETAILED CONDUIT STUB-UP PLAN - RTC WORKING SPACE



		1" Future Clean Power	1" Clean Power
1" Future RTC FOC	1" RTC FOC	1" Future SCADA RTC	1" SCADA RTC
		1" Future SCADA RTC	
	1" CCTV SITE	1" SCADA PMs	1" SCADA GCP	1" SCADA PMs POWER

1" CONDUIT TABLE DESCRIPTION

DETAILED CONDUIT STUB-UP PLAN - SINGLE MOVEMENT OCC WORKING SPACE



		1" Clean Power	1" Future Clean Power	1" Clean Power
1" Future RTC FOC	1" RTC FOC	1" Future SCADA RTC	1" SCADA RTC	1" SCADA RTC
	1" RTC FOC	1" Future SCADA RTC	1" SCADA RTC	1" SCADA RTC
	1" CCTV SITE	1" SCADA PMs	1" SCADA GCP	1" SCADA PMs POWER

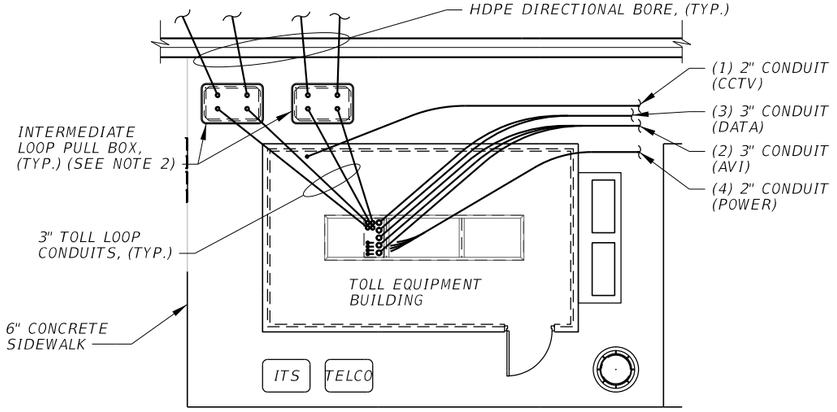
1" CONDUIT TABLE DESCRIPTION

DETAILED CONDUIT STUB-UP PLAN - DUAL MOVEMENT OCC WORKING SPACE

NOT TO SCALE

EXHIBIT 282-30
01/01/2027

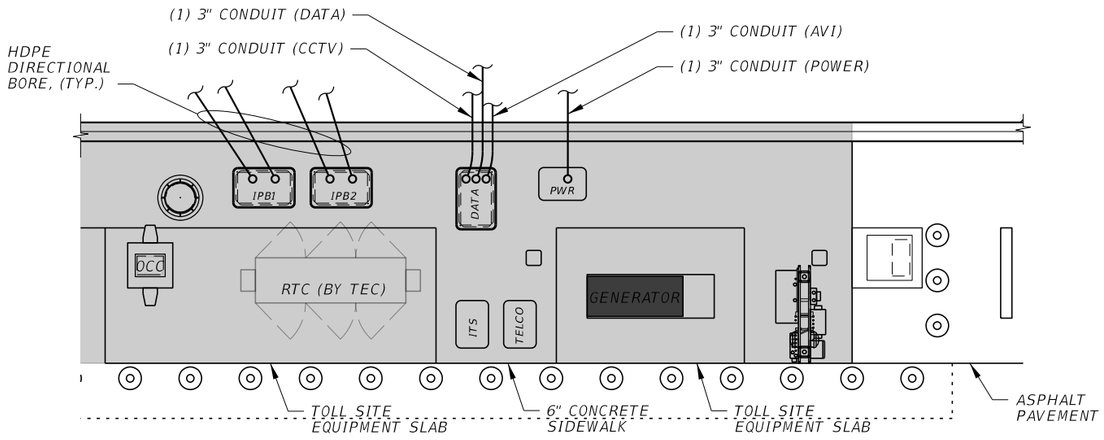
SINGLE MOVEMENT TEB AND RTC ELECTRICAL REMOTE SITE PLAN (1 OF 2)



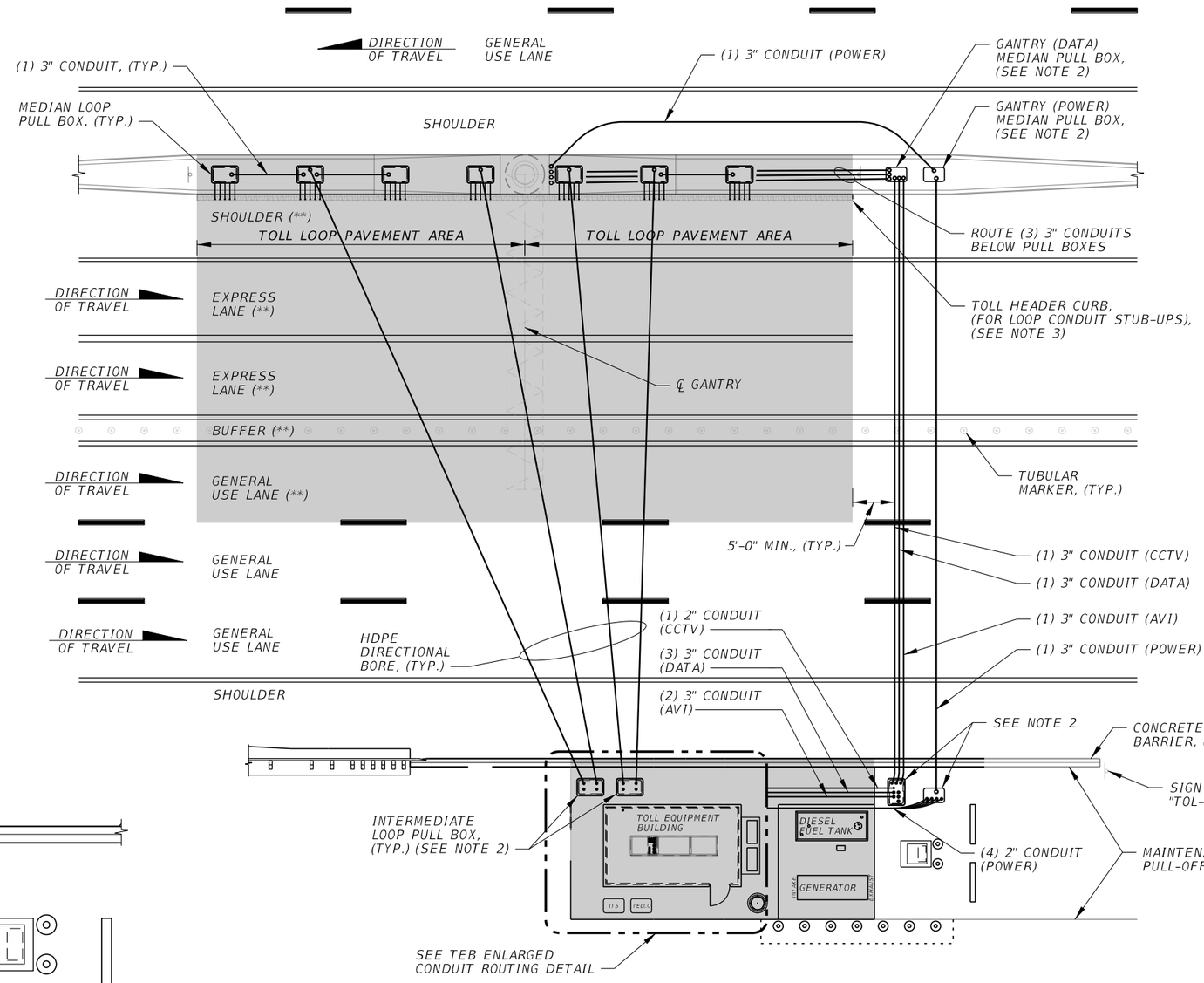
TEB ENLARGED CONDUIT ROUTING DETAIL

NOTES:

1. SHADED AREA INDICATES THE "TOLL SITE ENVELOPE".
2. SIZE PULL BOX BASED ON CONDUIT SIZE AND QUANTITY.
3. TOLL HEADER CURB REQUIRED FOR FLEXIBLE PAVEMENT ONLY.
4. COORDINATE WITH TOLLS DESIGN TO MODIFY PULL BOX LAYOUT AND CONDUIT INTERCONNECTIONS FOR OTHER SCHEMES OF CONCRETE BARRIERS AT TOLL SITES DESCRIBED IN THE STANDARD PLANS.



RTC ENLARGED CONDUIT ROUTING DETAIL



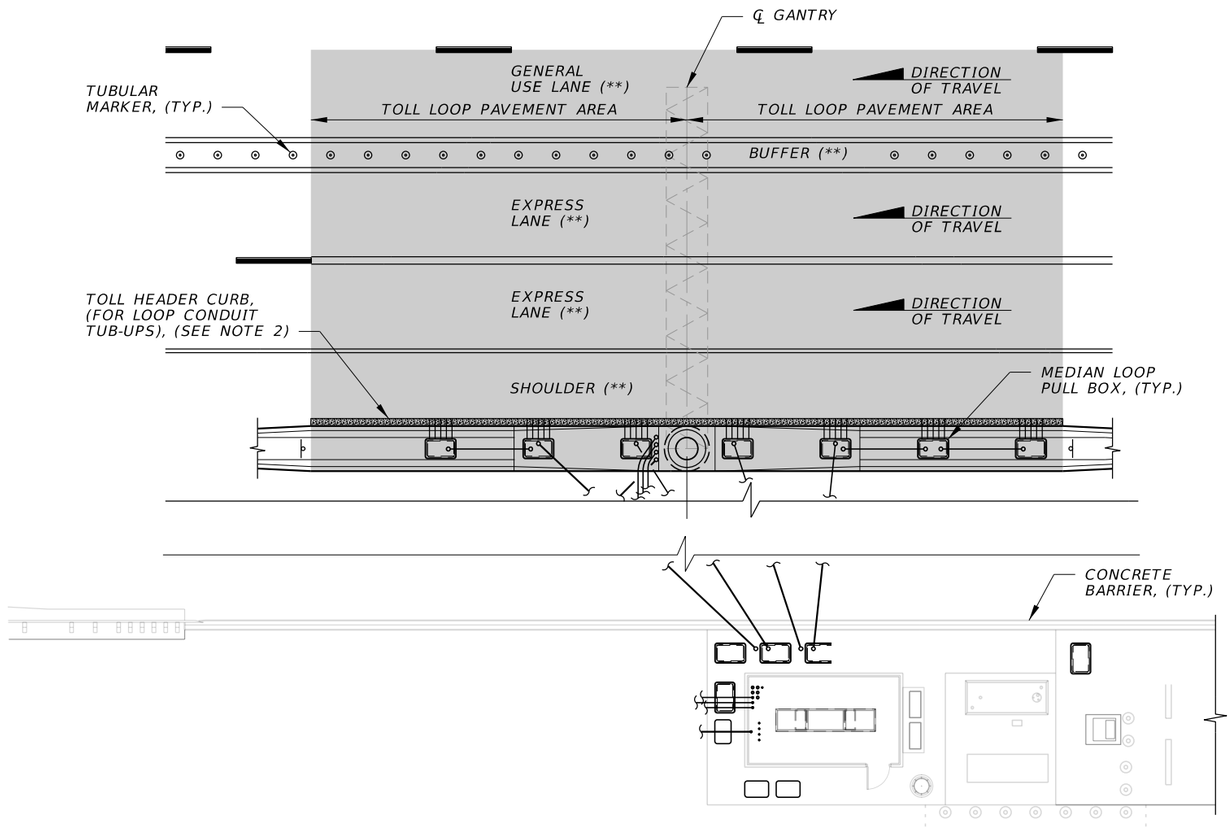
(**) LANE/SHOULDER/BUFFER WIDTHS THROUGH THE TOLL LOOP PAVEMENT AREA MUST BE CONSTANT.

SINGLE MOVEMENT TEB ELECTRICAL REMOTE SITE PLAN

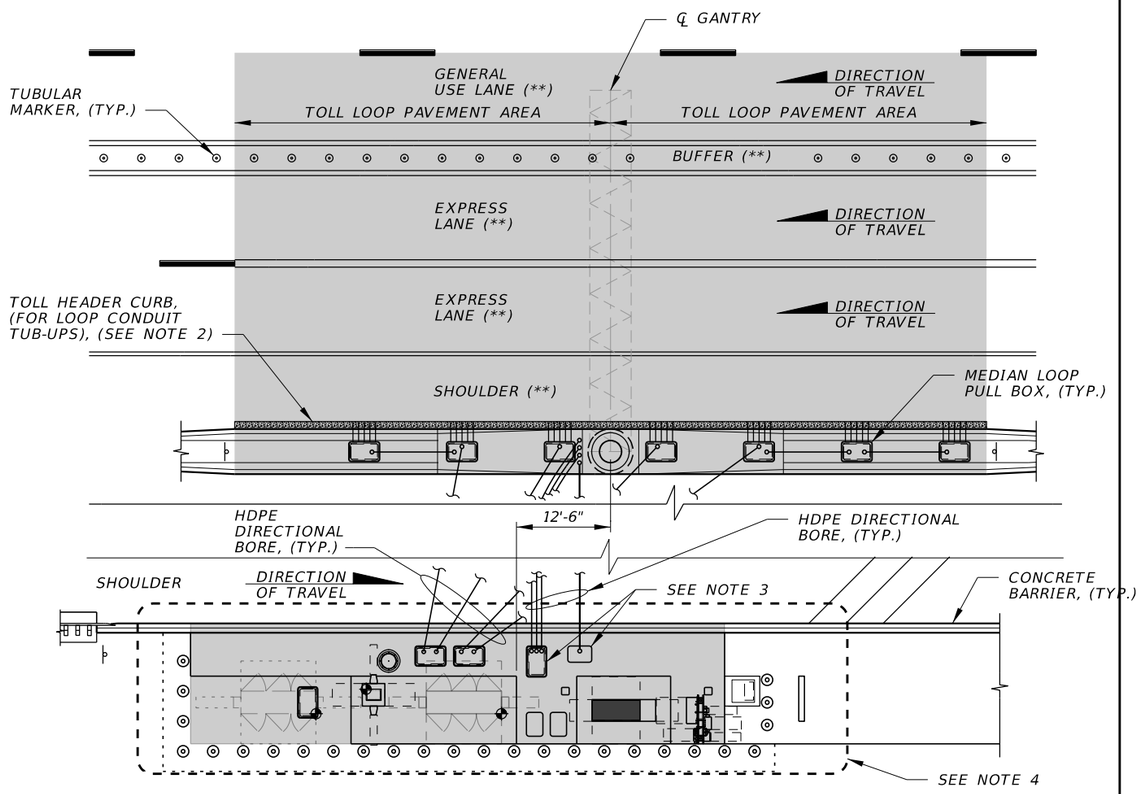
NOT TO SCALE

EXHIBIT 282-31
01/01/2027

SINGLE MOVEMENT TEB AND RTC ELECTRICAL REMOTE SITE PLAN (2 OF 2)



SINGLE MOVEMENT TEB ELECTRICAL REMOTE SITE PLAN



SINGLE MOVEMENT RTC ELECTRICAL REMOTE SITE PLAN

NOTES:

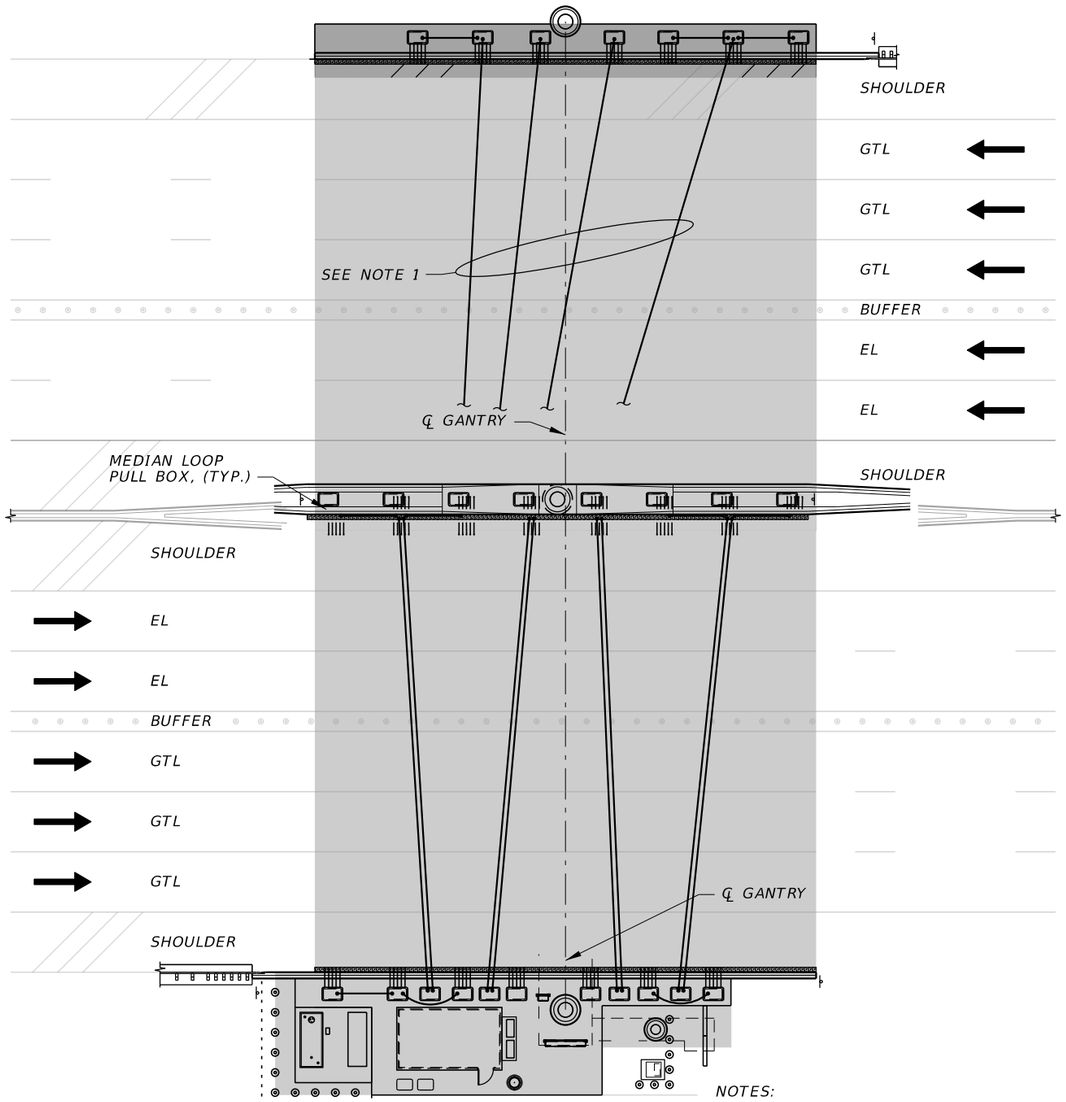
1. SHADED AREA INDICATES THE "TOLL SITE ENVELOPE".
2. TOLL HEADER CURB REQUIRED FOR FLEXIBLE PAVEMENTONLY.
3. SIZE PULL BOX BASED ON QUANTITY AND SIZE OF CONDUIT.
4. SEE FDM EXHIBIT 282-27 FOR ENLARGED CONDUIT ROUTING PLAN.

(**)LANE/SHOULDER/BUFFER WIDTHS THROUGH THE TOLL LOOP PAVEMENT AREA MUST BE CONSTANT.

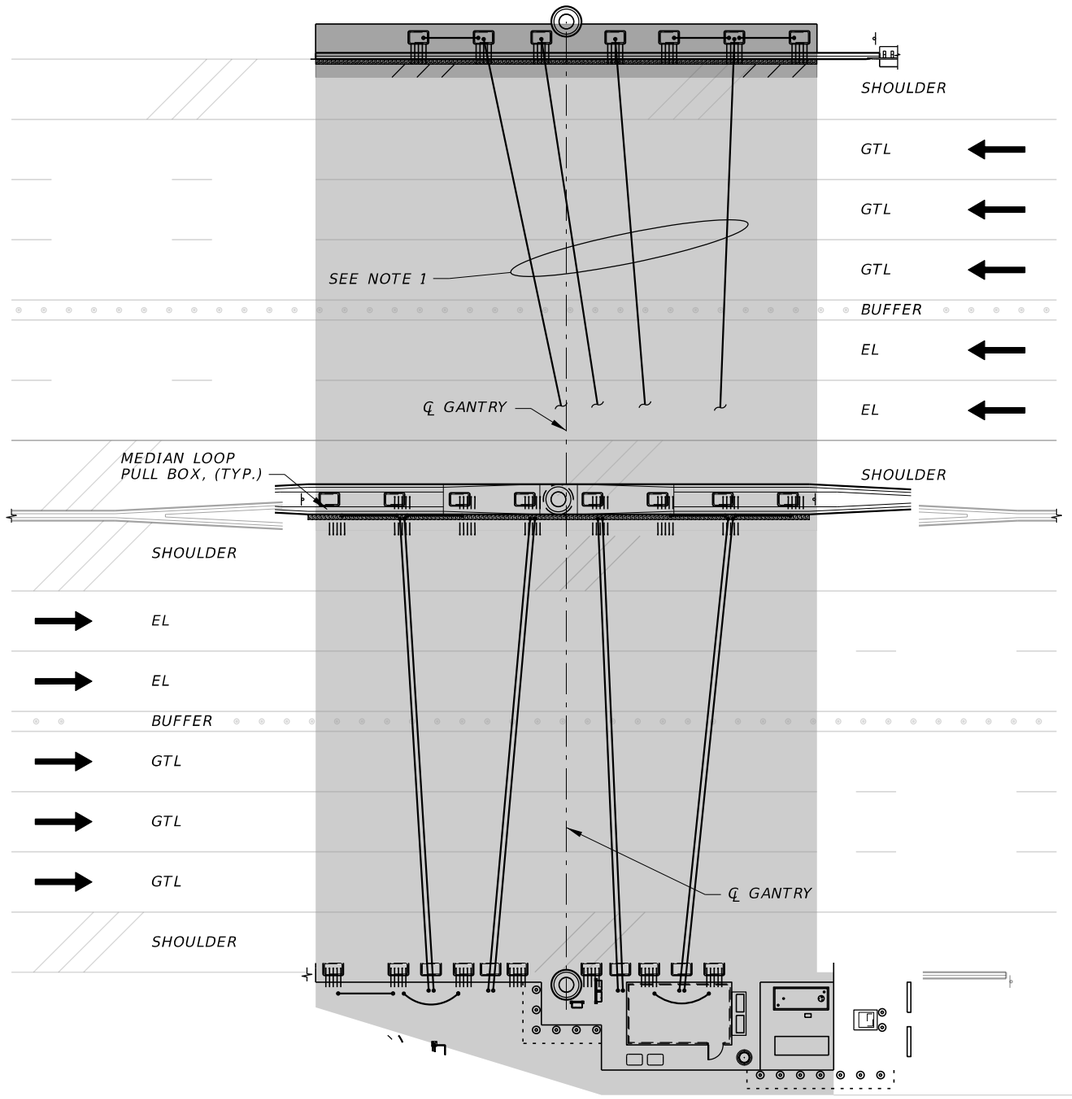
NOT TO SCALE

EXHIBIT 282-32
01/01/2027

TEB STANDARD LOOP CONDUIT ROUTING PLANS



ACCESSIBLE GANTRY
LOOP CONDUIT PLAN



NON-ACCESSIBLE GANTRY
LOOP CONDUIT PLAN

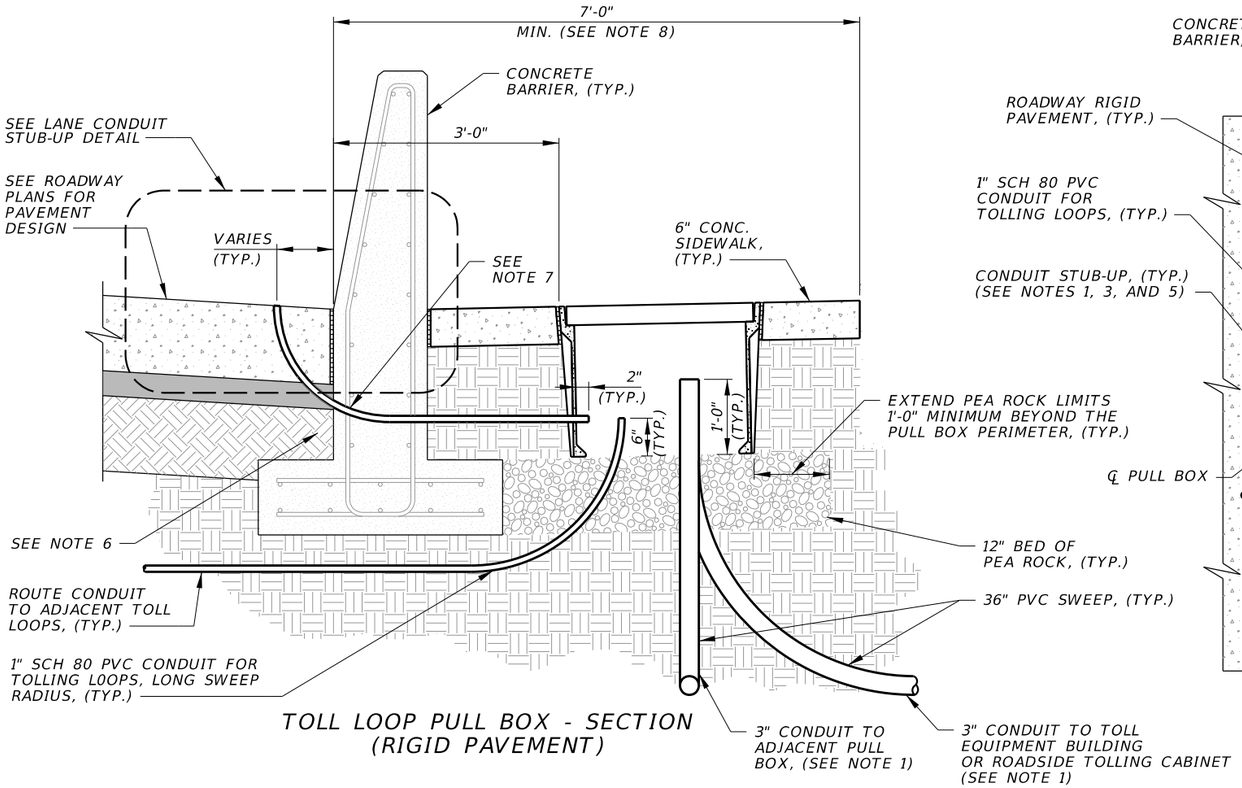
NOTES:

1. CONTINUE DIRECTIONAL BORES TO CORRESPONDING TOLL EQUIPMENT WORKING SPACE IN THE TOLL EQUIPMENT BUILDING (TEB), PROVIDED THE TEB FINISH FLOOR ELEVATION IS HIGHER THAN THE TOLL LOOP PULL BOXES
2. ALL LOOP PULL BOXES SHALL BE ANSI/SCTE 77, TIER 15, AND UL LISTED UNLESS OTHERWISE NOTED.
3. NUMBER OF LANES AND SHOULDERS MAY VARY. SEE ROADWAY PLANS FOR TYPICAL SECTION, SHOULDERS, LANES AND BUFFER WIDTHS.
4. SHADED AREA INDICATES THE "TOLL SITE ENVELOPE".
5. COORDINATE WITH TOLLS DESIGN TO MODIFY PULL BOX LAYOUT AND CONDUIT INTERCONNECTIONS FOR OTHER SCHEMES OF CONCRETE BARRIERS AT TOLL SITES DESCRIBED IN THE STANDARD PLANS.

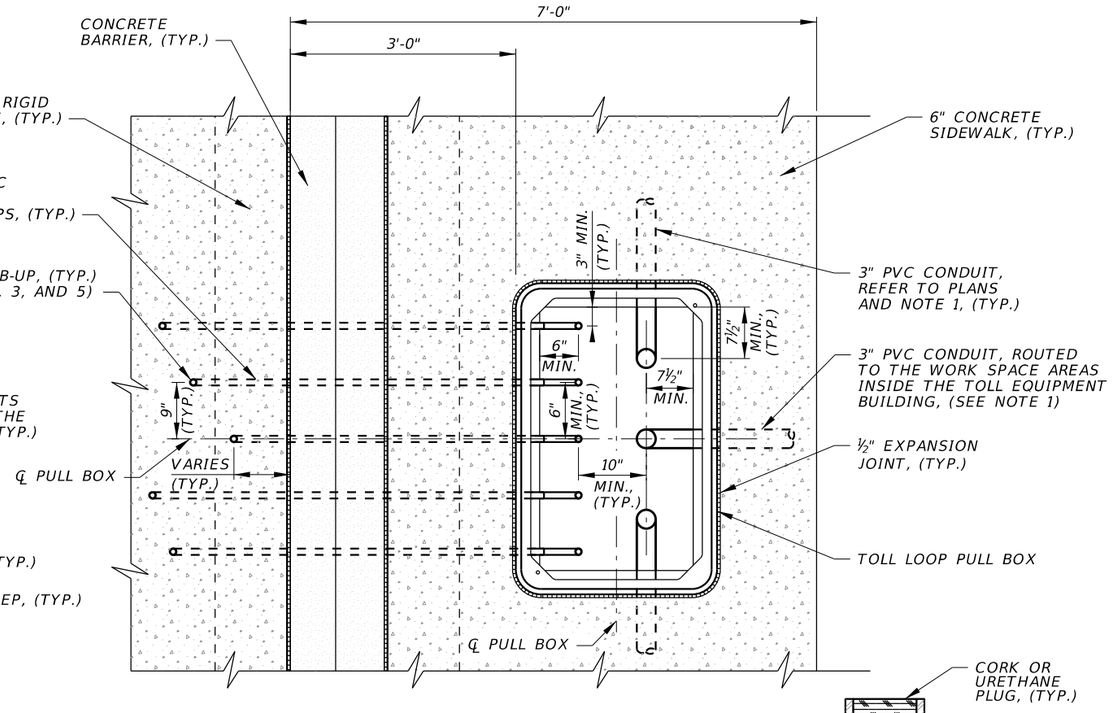
NOT TO SCALE

EXHIBIT 282-33
01/01/2027

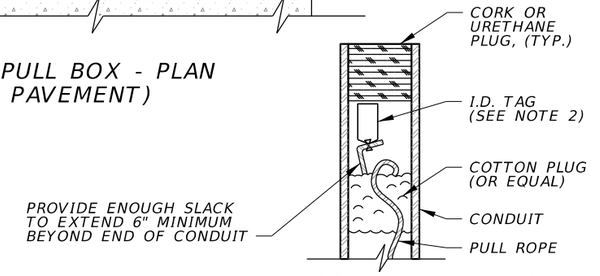
TOLL LOOP PULL BOX DETAILS FOR RIGID PAVEMENT



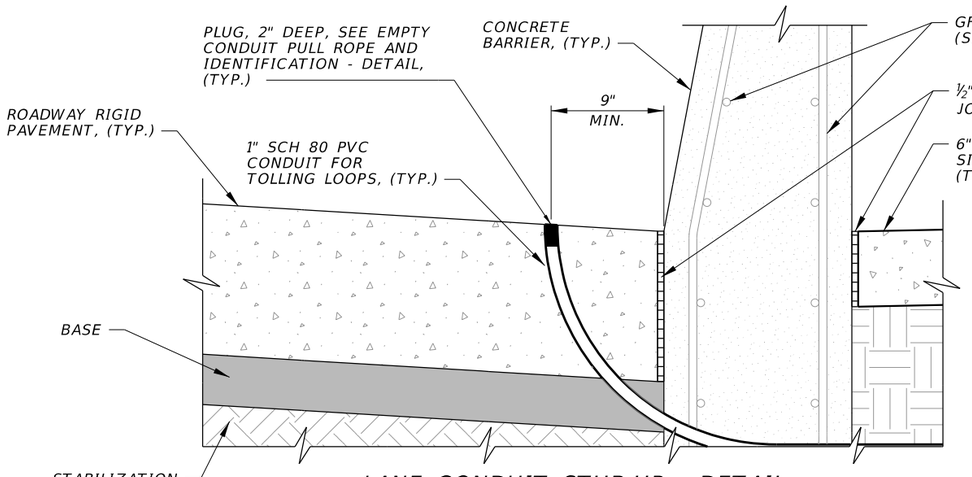
TOLL LOOP PULL BOX - SECTION
(RIGID PAVEMENT)



TOLL LOOP PULL BOX - PLAN
(RIGID PAVEMENT)



EMPTY CONDUIT PULL ROPE
AND IDENTIFICATION - DETAIL



LANE CONDUIT STUB-UP - DETAIL
(RIGID PAVEMENT)

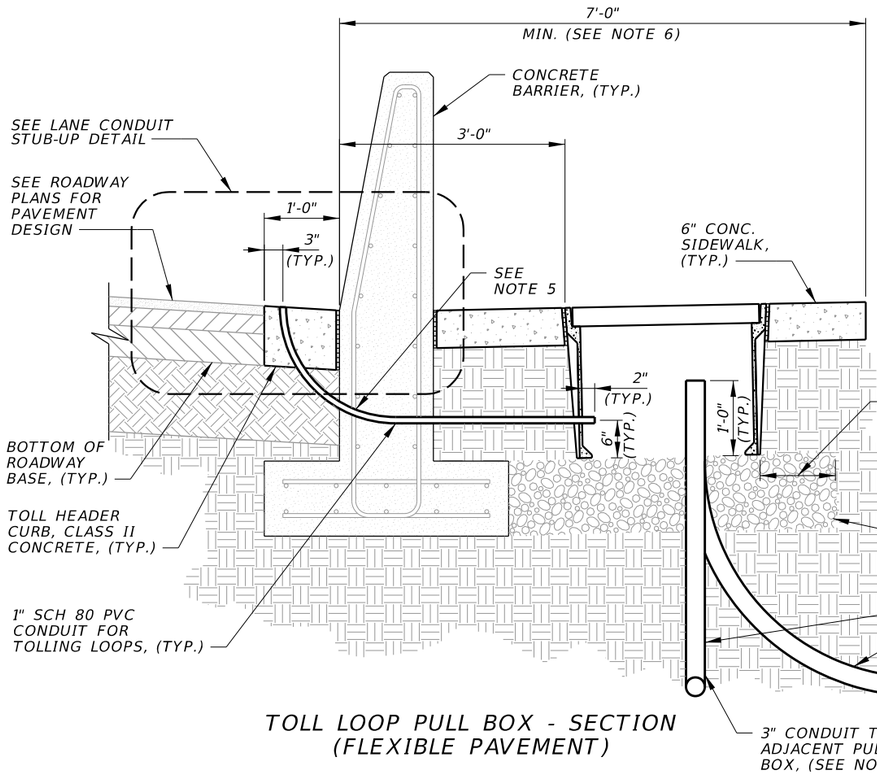
NOTES:

1. SEAL BOTH ENDS OF CONDUIT WITH NON-CONDUCTING SEALING COMPOUND MANUFACTURED FOR THAT PURPOSE. PROVIDE PULL ROPE WITH ID TAG.
2. I.D. TAG T0 INCLUDE FOLLOWING INFORMATION: NAME OF CONDUIT SYSTEM INTENDED, EQUIPMENT OR DEVICE SERVED, AND LOCATION OF OTHER END OF RUN.
3. PROVIDE ONE (1) 1-INCH STUB-UP CONDUITS FOR EACH EQUIPPED LANE AND SHOULDER AT EACH TOLL LOOP PULL BOX. PROVIDE A MINIMUM OF FIVE (5) 1-INCH STUB-UP CONDUITS AT EACH TOLL LOOP PULL BOX.
4. USE GFRP REINFORCEMENT IN LIEU OF STEEL IN ACCORDANCE WITH THE STANDARD PLANS.
5. COORDINATE STUB-UP LOCATIONS WITH THE DEPARTMENT PRIOR TO DESIGN.
6. EDGE DRAINS ARE NOT PERMITTED WITHIN THE TOLL LOOP PAVEMENT AREA.
7. A MINIMUM CLEARANCE OF TWO INCHES MUST BE PROVIDED BETWEEN THE CONDUIT AND REINFORCEMENT.
8. A MINIMUM CLEARANCE TO THE FACE OF BUILDING OR BACK OF SIDEWALK, AS SHOWN IN PLANS.

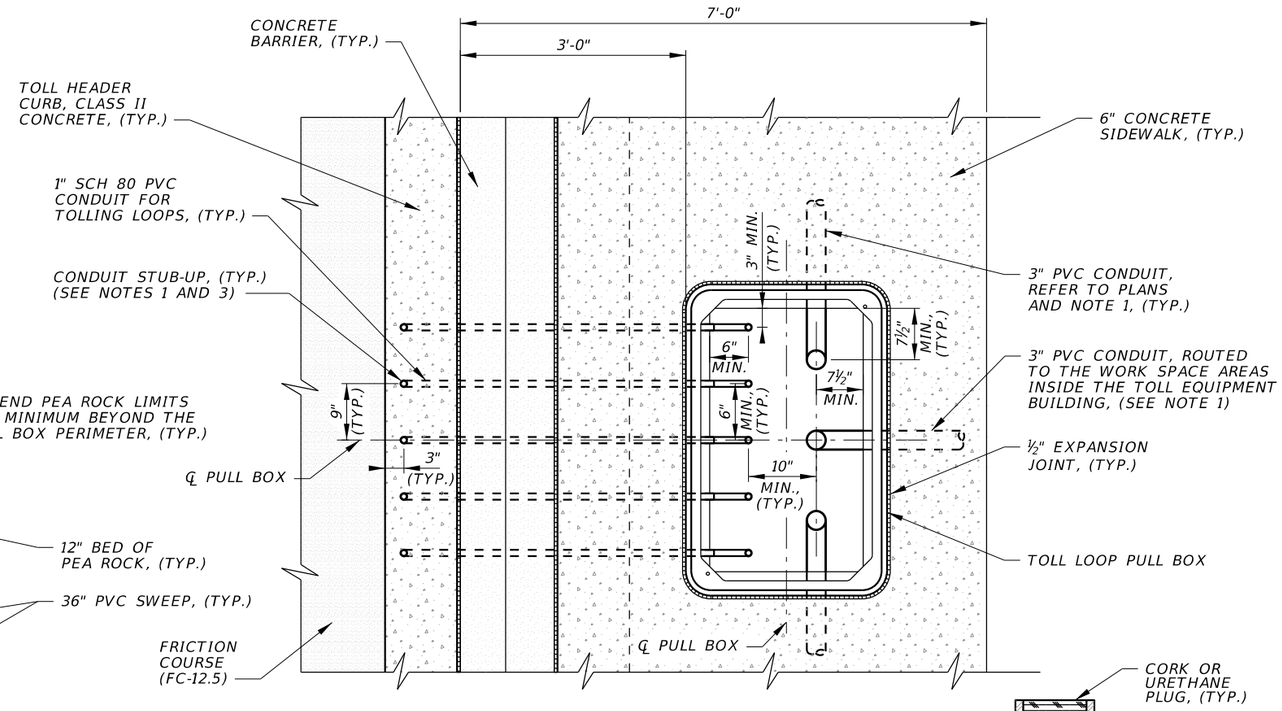
NOT TO SCALE

EXHIBIT 282-34
01/01/2027

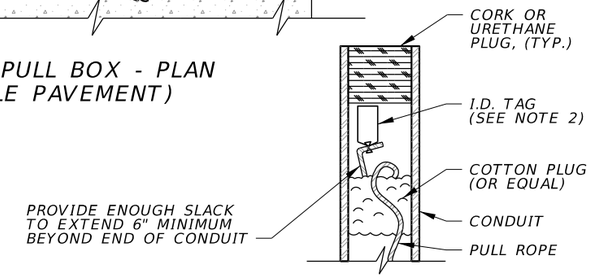
TOLL LOOP PULL BOX DETAILS FOR FLEXIBLE PAVEMENT



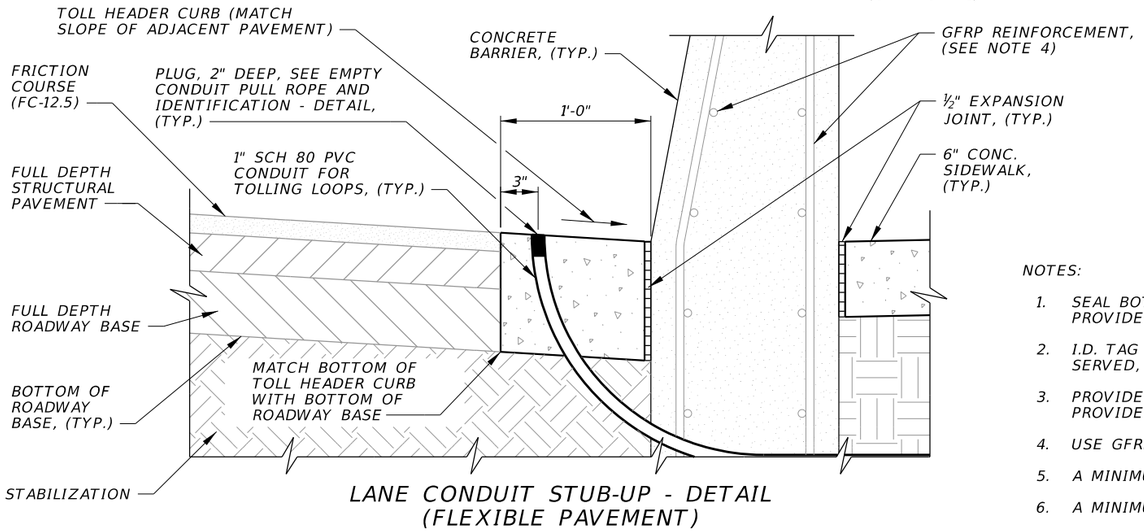
TOLL LOOP PULL BOX - SECTION
(FLEXIBLE PAVEMENT)



TOLL LOOP PULL BOX - PLAN
(FLEXIBLE PAVEMENT)



EMPTY CONDUIT PULL ROPE
AND IDENTIFICATION - DETAIL



LANE CONDUIT STUB-UP - DETAIL
(FLEXIBLE PAVEMENT)

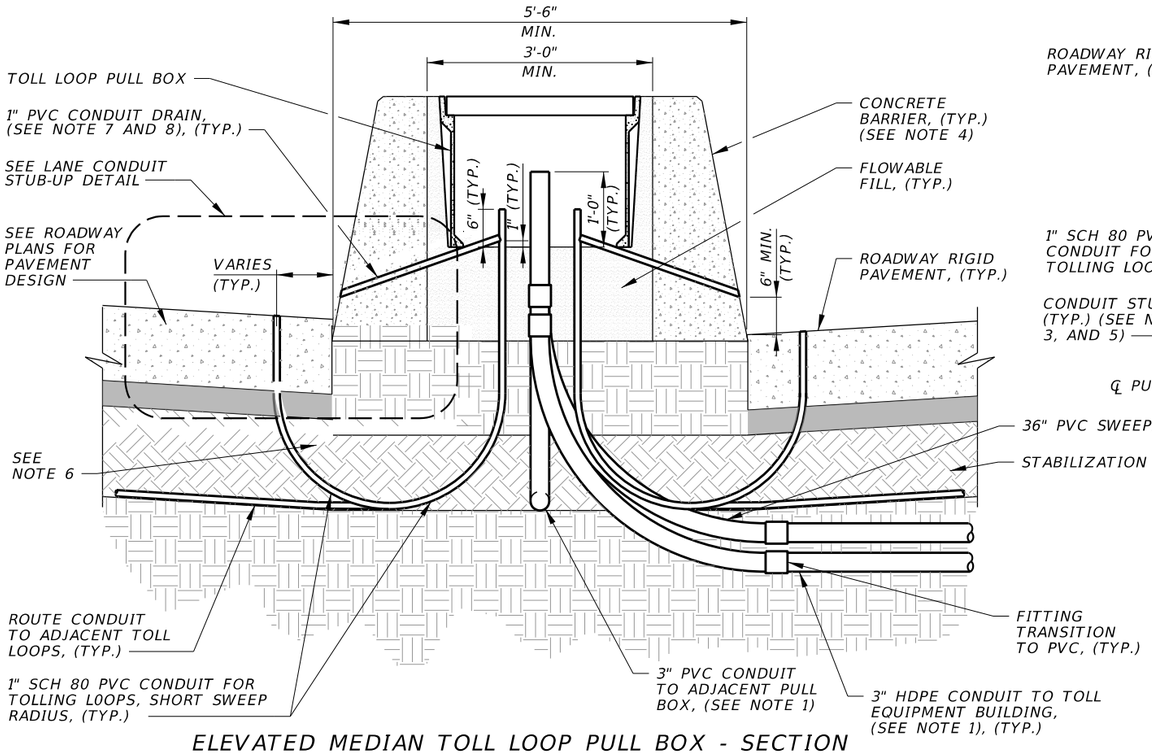
NOTES:

1. SEAL BOTH ENDS OF CONDUIT WITH NON-CONDUCTING SEALING COMPOUND MANUFACTURED FOR THAT PURPOSE. PROVIDE PULL ROPE WITH ID TAG.
2. I.D. TAG T0 INCLUDE FOLLOWING INFORMATION: NAME OF CONDUIT SYSTEM INTENDED, EQUIPMENT OR DEVICE SERVED, AND LOCATION OF OTHER END OF RUN.
3. PROVIDE ONE (1) 1-INCH STUB-UP CONDUITS FOR EACH EQUPPED LANE AND SHOULDER AT EACH TOLL LOOP PULL BOX. PROVIDE A MINIMUM OF FIVE (5) 1-INCH STUB-UP CONDUITS AT EACH TOLL LOOP PULL BOX.
4. USE GFRP REINFORCEMENT IN LIEU OF STEEL IN ACCORDANCE WITH THE STANDARD PLANS.
5. A MINIMUM CLEARANCE OF TWO INCHES MUST BE PROVIDED BETWEEN THE CONDUIT AND REINFORCEMENT.
6. A MINIMUM CLEARANCE TO THE FACE OF BUILDING OR BACK OF SIDEWALK, AS SHOWN IN PLANS.

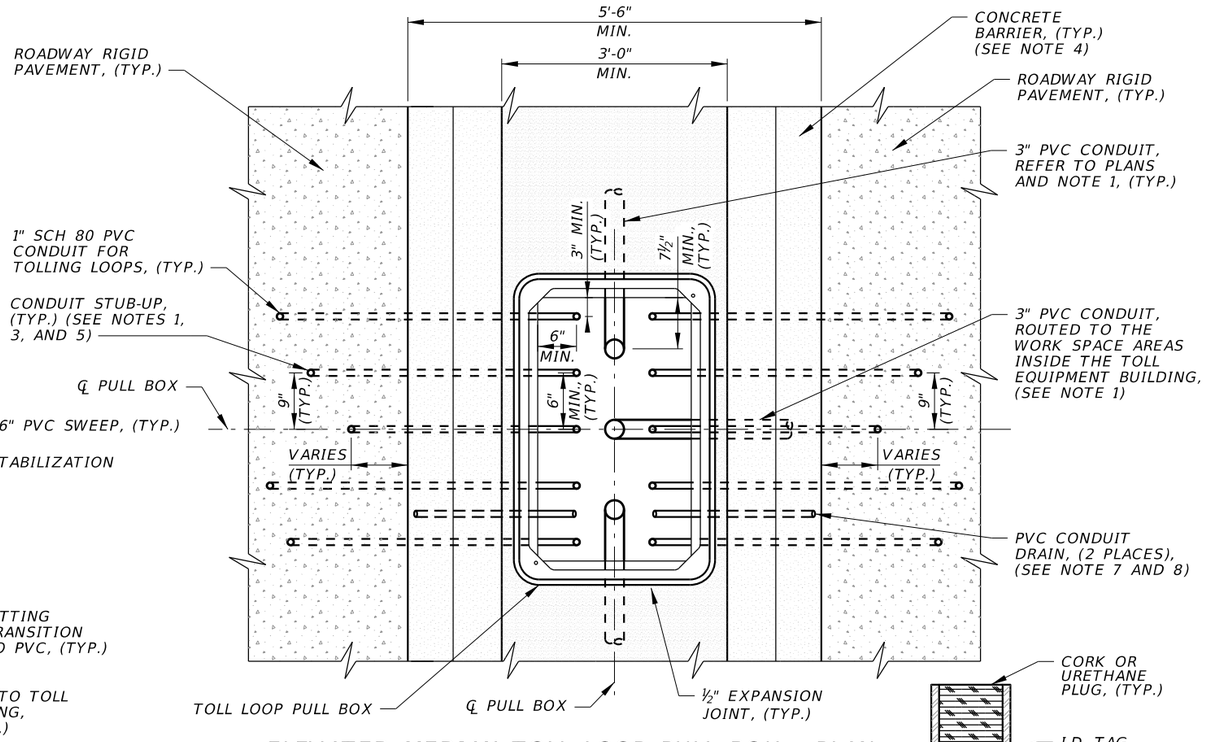
NOT TO SCALE

EXHIBIT 282-35
01/01/2027

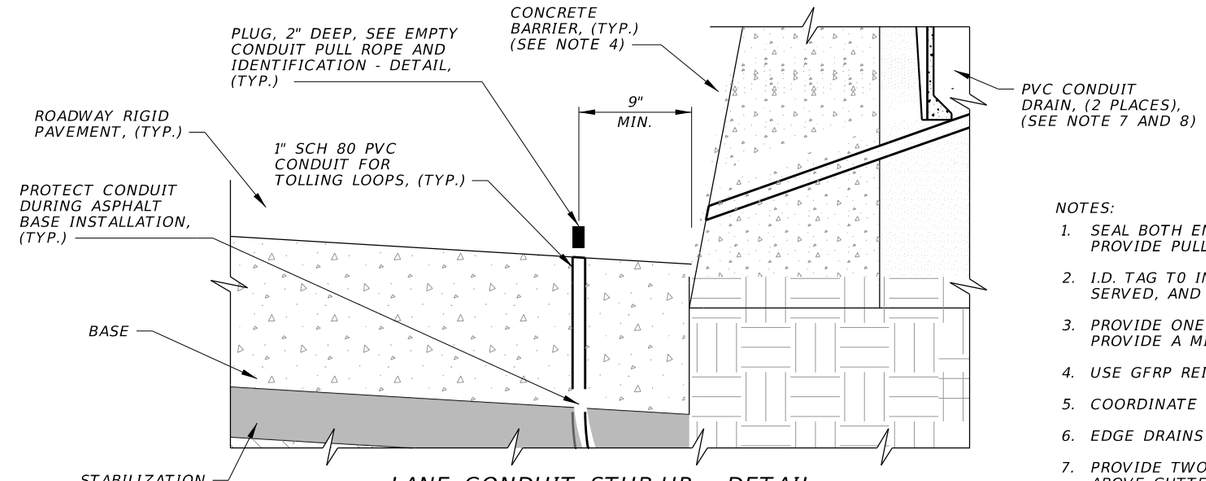
ELEVATED TOLL LOOP PULL BOX DETAILS FOR RIGID PAVEMENT



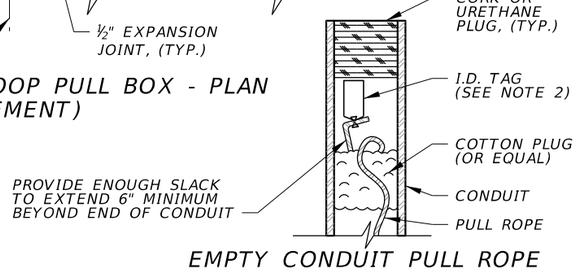
ELEVATED MEDIAN TOLL LOOP PULL BOX - SECTION
(RIGID PAVEMENT)



ELEVATED MEDIAN TOLL LOOP PULL BOX - PLAN
(RIGID PAVEMENT)



LANE CONDUIT STUB-UP - DETAIL
(RIGID PAVEMENT)



EMPTY CONDUIT PULL ROPE
AND IDENTIFICATION - DETAIL

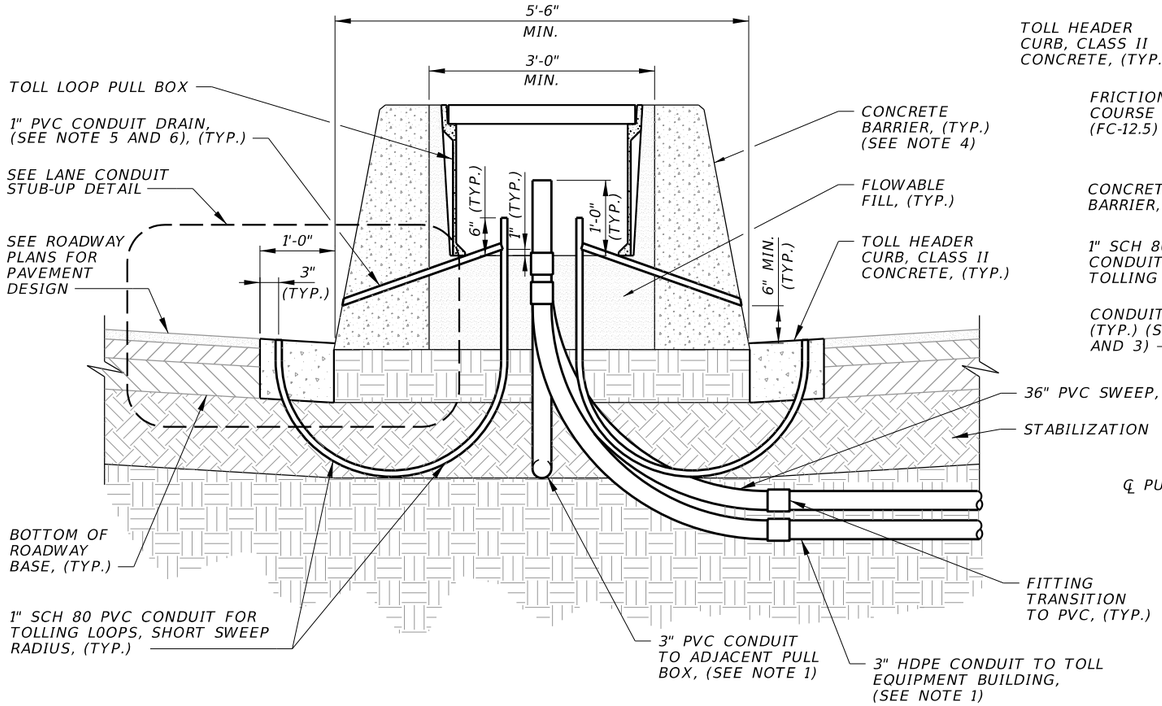
NOTES:

1. SEAL BOTH ENDS OF CONDUIT WITH NON-CONDUCTING SEALING COMPOUND MANUFACTURED FOR THAT PURPOSE. PROVIDE PULL ROPE WITH ID TAG.
2. I.D. TAG T0 INCLUDE FOLLOWING INFORMATION: NAME OF CONDUIT SYSTEM INTENDED, EQUIPMENT OR DEVICE SERVED, AND LOCATION OF OTHER END OF RUN.
3. PROVIDE ONE (1) 1-INCH STUB-UP CONDUITS FOR EACH EQUIPPED LANE AND SHOULDER AT EACH TOLL LOOP PULL BOX. PROVIDE A MINIMUM OF FIVE (5) 1-INCH STUB-UP CONDUITS AT EACH TOLL LOOP PULL BOX.
4. USE GFRP REINFORCEMENT.
5. COORDINATE STUB-UP LOCATIONS WITH TURNPIKE TOLLS PRIOR TO DESIGN.
6. EDGE DRAINS ARE NOT PERMITTED WITHIN THE TOLL LOOP PAVEMENT AREA.
7. PROVIDE TWO (2) 1-INCH PVC CONDUIT DRAINS PER LOOP PULL BOX. TERMINATE EACH DRAIN CONDUIT SIX (6) INCHES ABOVE GUTTER LINE. STUB EACH DRAIN CONDUIT UP 1-INCH MAXIMUM ABOVE THE BOTTOM OF THE TOLL LOOP PULL BOX. LOCATE EACH DRAIN CONDUIT IN THE LOW POINT OF THE TOLL LOOP PULL BOX AND SLOPE FOR POSITIVE DRAINAGE.
8. A MINIMUM CLEARANCE OF TWO INCHES MUST BE PROVIDED BETWEEN THE CONDUIT AND REINFORCEMENT.

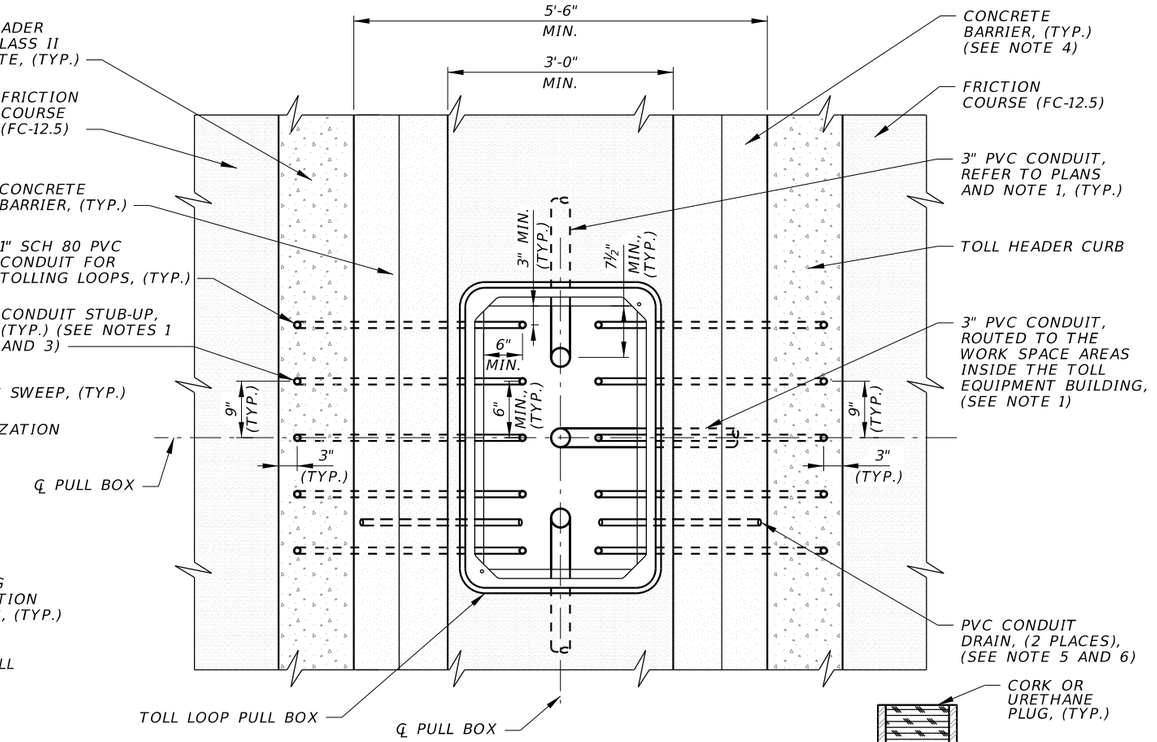
NOT TO SCALE

EXHIBIT 282-36
01/01/2027

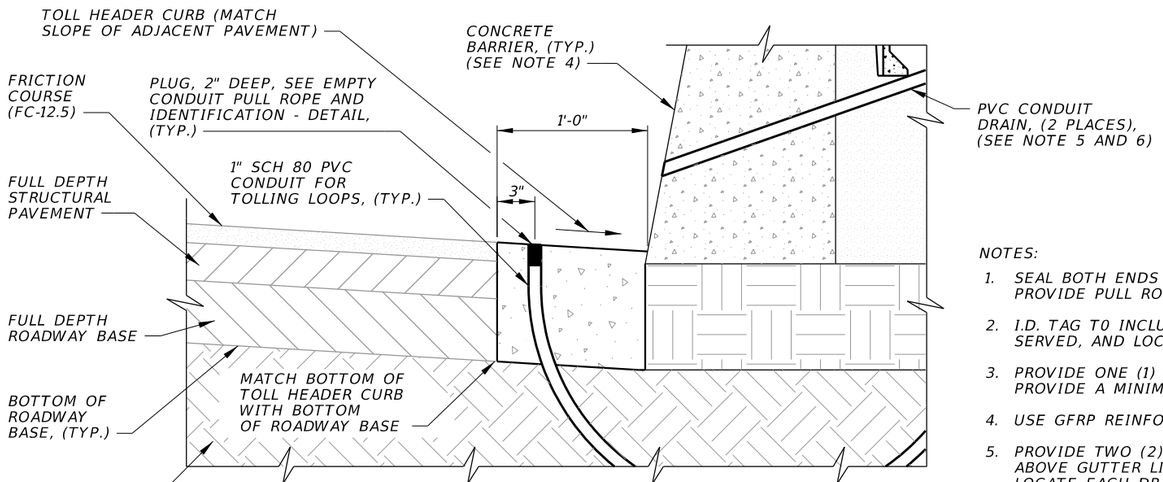
ELEVATED TOLL LOOP PULL BOX DETAILS FOR FLEXIBLE PAVEMENT



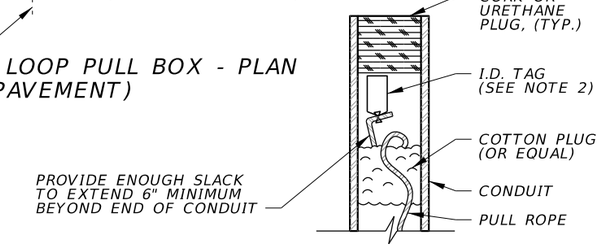
ELEVATED MEDIAN TOLL LOOP PULL BOX - SECTION
(FLEXIBLE PAVEMENT)



ELEVATED MEDIAN TOLL LOOP PULL BOX - PLAN
(FLEXIBLE PAVEMENT)



LANE CONDUIT STUB-UP - DETAIL
(FLEXIBLE PAVEMENT)



EMPTY CONDUIT PULL ROPE
AND IDENTIFICATION - DETAIL

NOTES:

1. SEAL BOTH ENDS OF CONDUIT WITH NON-CONDUCTING SEALING COMPOUND MANUFACTURED FOR THAT PURPOSE. PROVIDE PULL ROPE WITH ID TAG.
2. I.D. TAG T0 INCLUDE FOLLOWING INFORMATION: NAME OF CONDUIT SYSTEM INTENDED, EQUIPMENT OR DEVICE SERVED, AND LOCATION OF OTHER END OF RUN.
3. PROVIDE ONE (1) 1-INCH STUB-UP CONDUITS FOR EACH EQUIPPED LANE AND SHOULDER AT EACH TOLL LOOP PULL BOX. PROVIDE A MINIMUM OF FIVE (5) 1-INCH STUB-UP CONDUITS AT EACH TOLL LOOP PULL BOX.
4. USE GFRP REINFORCEMENT.
5. PROVIDE TWO (2) 1-INCH PVC CONDUIT DRAINS PER LOOP PULL BOX. TERMINATE EACH DRAIN CONDUIT SIX (6) INCHES ABOVE GUTTER LINE. STUB EACH DRAIN CONDUIT UP 1-INCH MAXIMUM ABOVE THE BOTTOM OF THE TOLL LOOP PULL BOX. LOCATE EACH DRAIN CONDUIT IN THE LOW POINT OF THE TOLL LOOP PULL BOX AND SLOPE FOR POSITIVE DRAINAGE.
6. A MINIMUM CLEARANCE OF TWO INCHES MUST BE PROVIDED BETWEEN THE CONDUIT AND REINFORCEMENT.

NOT TO SCALE

EXHIBIT 282-37
01/01/2027

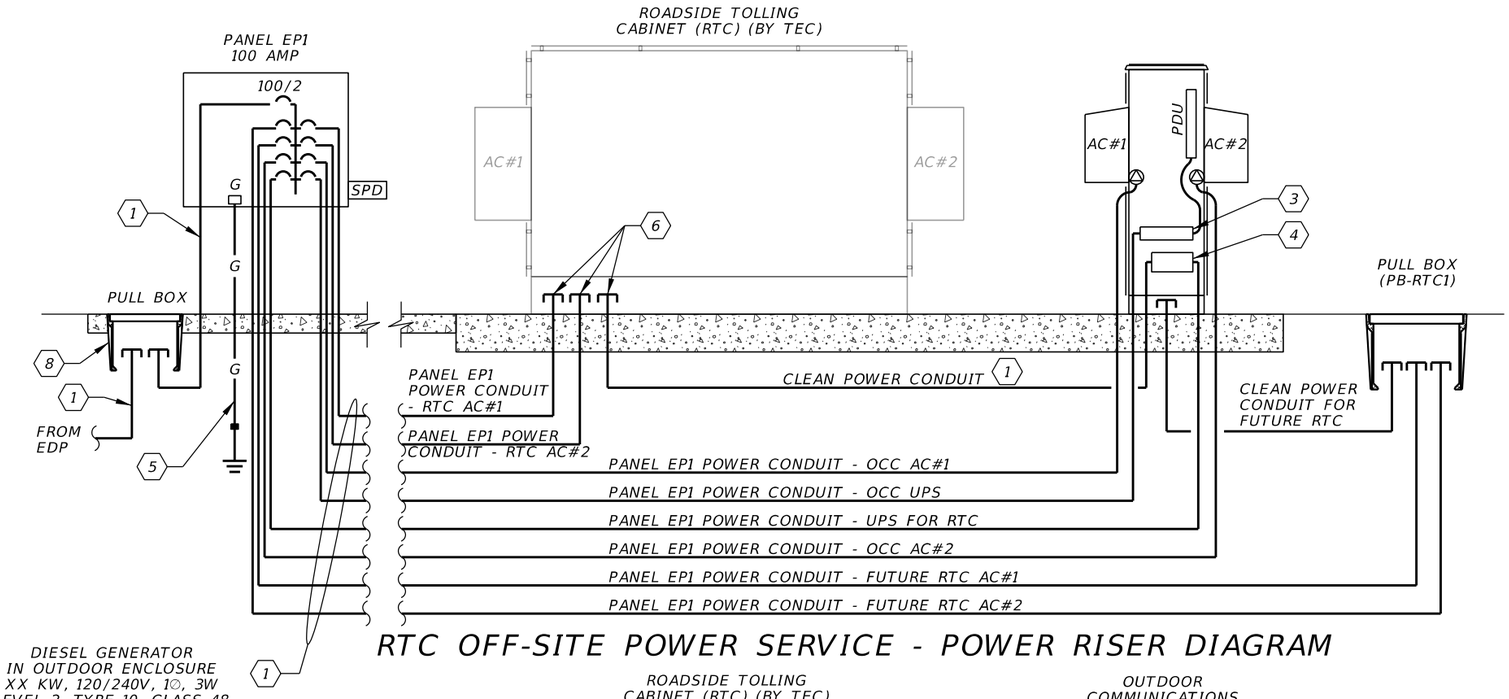
RTC POWER RISER DIAGRAM

NOTES:

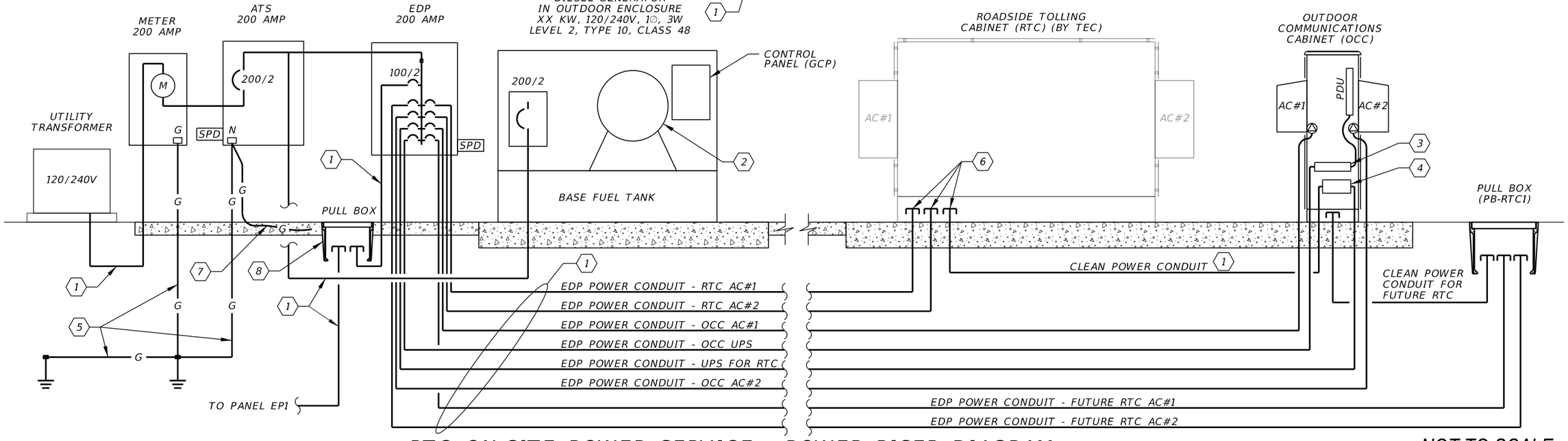
1. SEE RTC CONDUIT ROUTING PLAN EXHIBITS FOR CONDUIT ROUTING LAYOUT AND SIZES.
2. ONLY CONDUIT SHOWN. PROVIDE ADDITIONAL BRANCH CIRCUIT POWER CONNECTIONS FOR THE EQUIPMENT SHOWN. SEE FDM 282.3.4.1 FOR ALL CIRCUITS FROM EDP AND 282.3.4.2 FOR ALL CIRCUITS FROM PANEL EP1.

REFERENCE NOTES:

1. SIZE CONDUCTORS BASED ON NEC VOLTAGE DROP ALLOWANCES.
2. 40 kW GENERATOR IS BASIS OF DESIGN. FINAL GENERATOR SIZE PROVIDED BY EOR.
3. PROVIDE (1) 120V 2 KVA UPS FOR EACH OUTDOOR COMMUNICATIONS CABINET (OCC).
4. PROVIDE (1) 120/240V 5 KVA UPS FOR EACH ROADSIDE TOLLING CABINET (RTC).
5. GROUNDING CONDUCTORS SIZED BY THE EOR.
6. PROVIDE (3) 1" CONDUITS WITH PULL STRINGS ONLY AND STUB UP 6" ABOVE FINISH GRADE WITHIN THE WORKING SPACES AS SHOWN IN EXHIBIT 232.1-11. COVER THE STUBBED UP OPEN END OF EACH CONDUIT WITH ELECTRICAL TAPE. LABEL EACH CONDUIT END WITH "UPS", "AC#1", AND "AC#2" AS APPLICABLE. POWER CONDUCTORS TO BE SIZED AND INSTALLED BY THE TOLL EQUIPMENT CONTRACTOR.
7. CONCRETE ENCASED ELECTRODE.
8. PROVIDE PULL BOX WITH CONCRETE APRON FOR OFF-SITE POWER RTC TOLL SITES.



RTC OFF-SITE POWER SERVICE - POWER RISER DIAGRAM

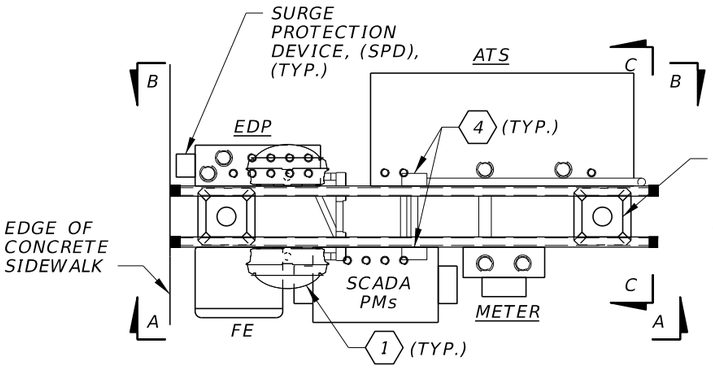


RTC ON-SITE POWER SERVICE - POWER RISER DIAGRAM

NOT TO SCALE

EXHIBIT 282-38
01/01/2027

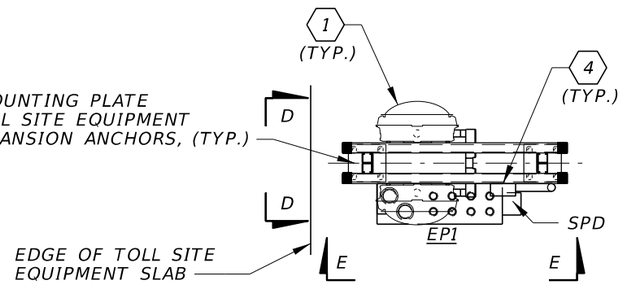
RTC POWER DISTRIBUTION FRAME LAYOUTS



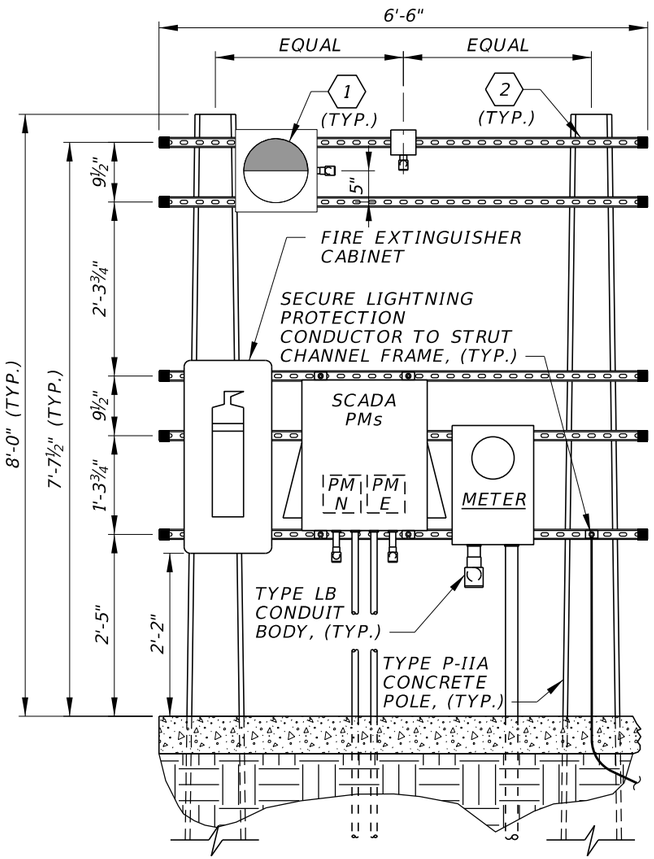
PLAN - ON-SITE POWER SERVICE

NOTES:

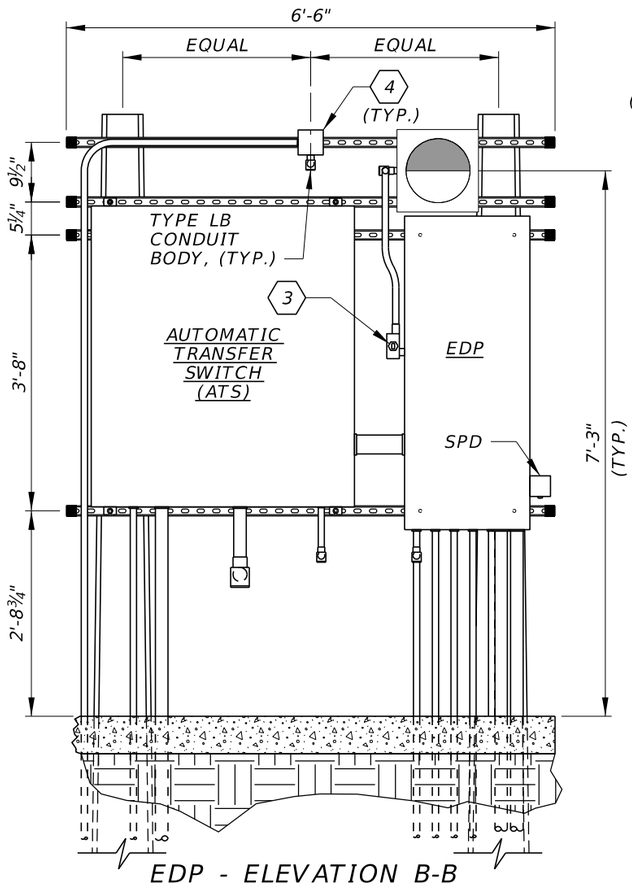
1. TYPE "B" FIXTURE WITH SURFACE ADAPTER (JUNCTION BOX) MOUNTED TO SS PLATE, (TYP.)
2. SECURE STRUT CHANNEL TO SUPPORT FRAME WITH MANUFACTURER APPROVED FASTENERS.
3. WEATHERPROOF LIGHTING OVERRIDE SWITCH
4. CCTV JUNCTION BOX, (TYP.)



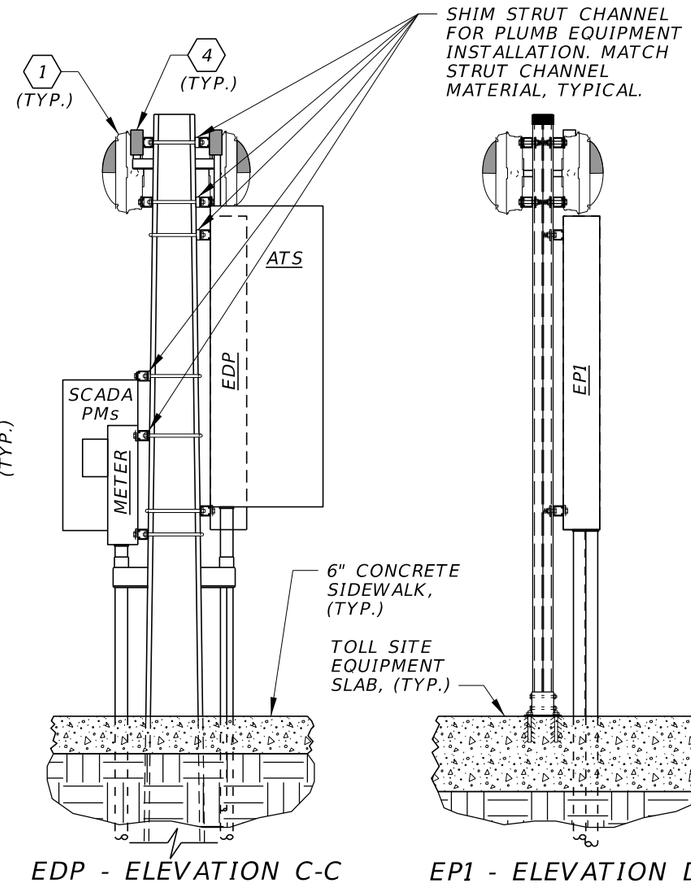
PLAN - OFF-SITE POWER SERVICE



EDP - ELEVATION A-A

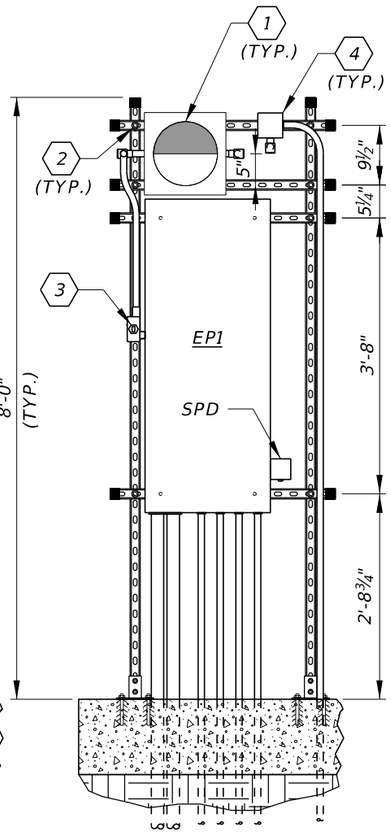


EDP - ELEVATION B-B



EDP - ELEVATION C-C

EP1 - ELEVATION D-D

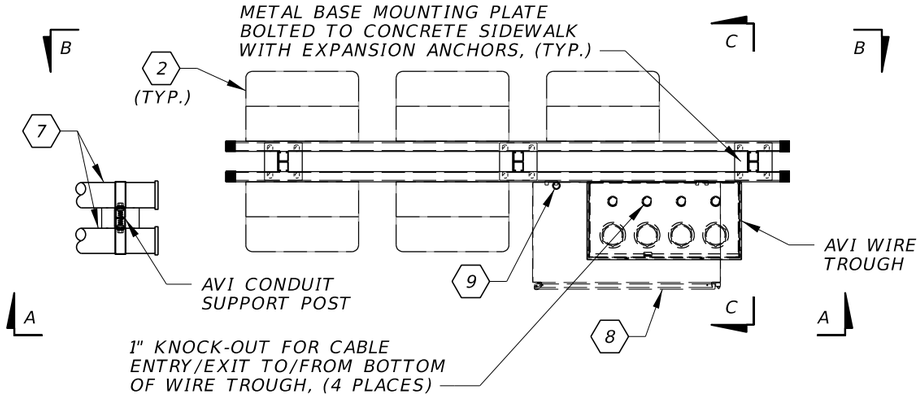


EP1 - ELEVATION E-E

NOT TO SCALE

EXHIBIT 282-39
01/01/2027

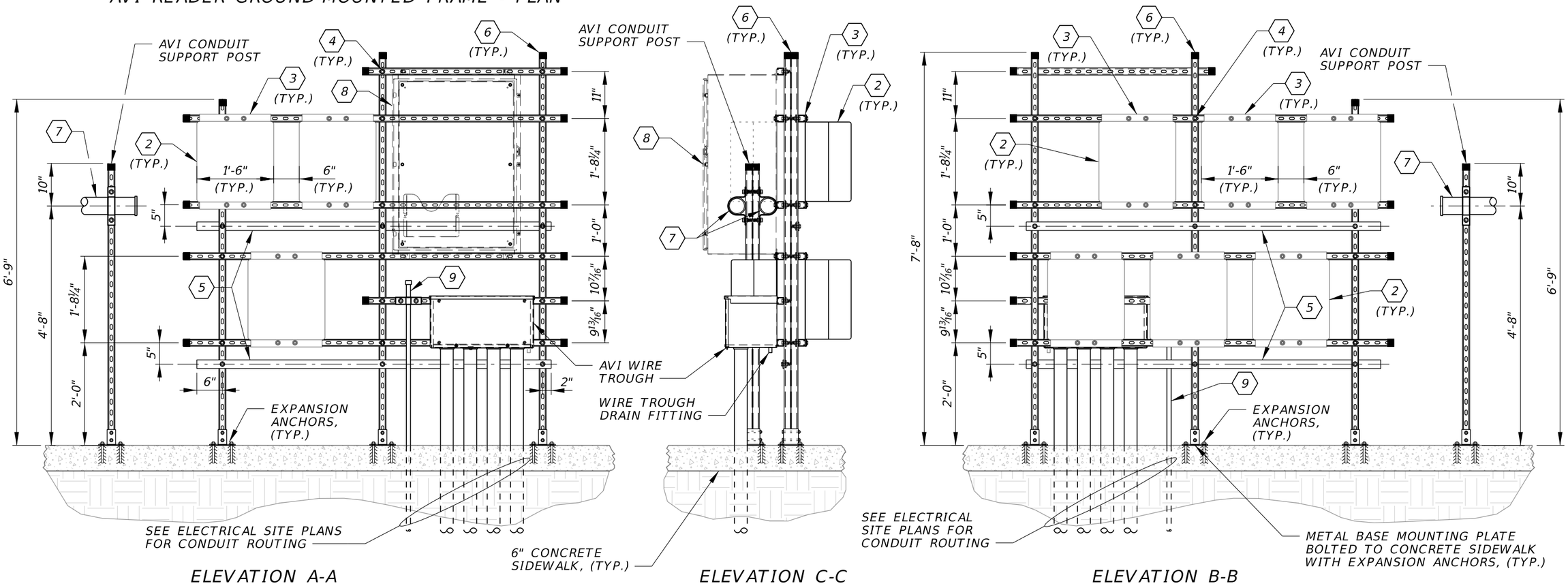
AVI READER GROUND-MOUNTED FRAME LAYOUTS



NOTES:

1. ONE AVI READER IS REQUIRED FOR EACH GANTRY MOUNTED ANTENNA AND HOUSED INSIDE AN AVI ENCLOSURE.
2. AVI ENCLOSURE, (PROVIDED BY TEC)
3. AVI ENCLOSURE MOUNTING PLATE, (PROVIDED BY TEC)
4. SECURE STRUT CHANNEL TO SUPPORT FRAME WITH MANUFACTURER APPROVED FASTENERS.
5. COPPER GROUND BUS BAR MOUNTED BELOW AVI READERS. BOLT DIRECTLY TO STRUT CHANNEL. BUS BAR MUST BE 1/4" THICK, 2" HIGH, AND LENGTH AS REQUIRED. SUPPORT GROUND BUS BAR AT EACH VERTICAL STRUT CHANNEL POST.
6. SEE FDM EXHIBIT 282-13 FOR GROUND-MOUNTED STRUT CHANNEL POST LAYOUT DIMENSIONS.
7. 4"C FOR AVI ROUTED TO AVI SECTION OF UPRIGHT CABLE TRAY.
8. AVI CABINET, (PROVIDED BY TEC)
9. STUB AND CAP 1" CONDUIT FOR AVI POWER TO TEC EQUIPMENT.

AVI READER GROUND-MOUNTED FRAME - PLAN



ELEVATION A-A

ELEVATION C-C

ELEVATION B-B

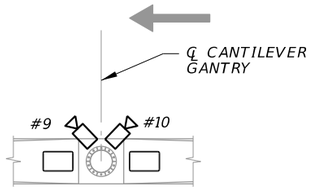
NOT TO SCALE

EXHIBIT 282-40
01/01/2027

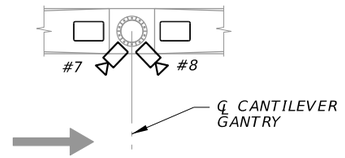
CCTV CAMERA SITE LOCATIONS FOR TEB SITES

NOTES:

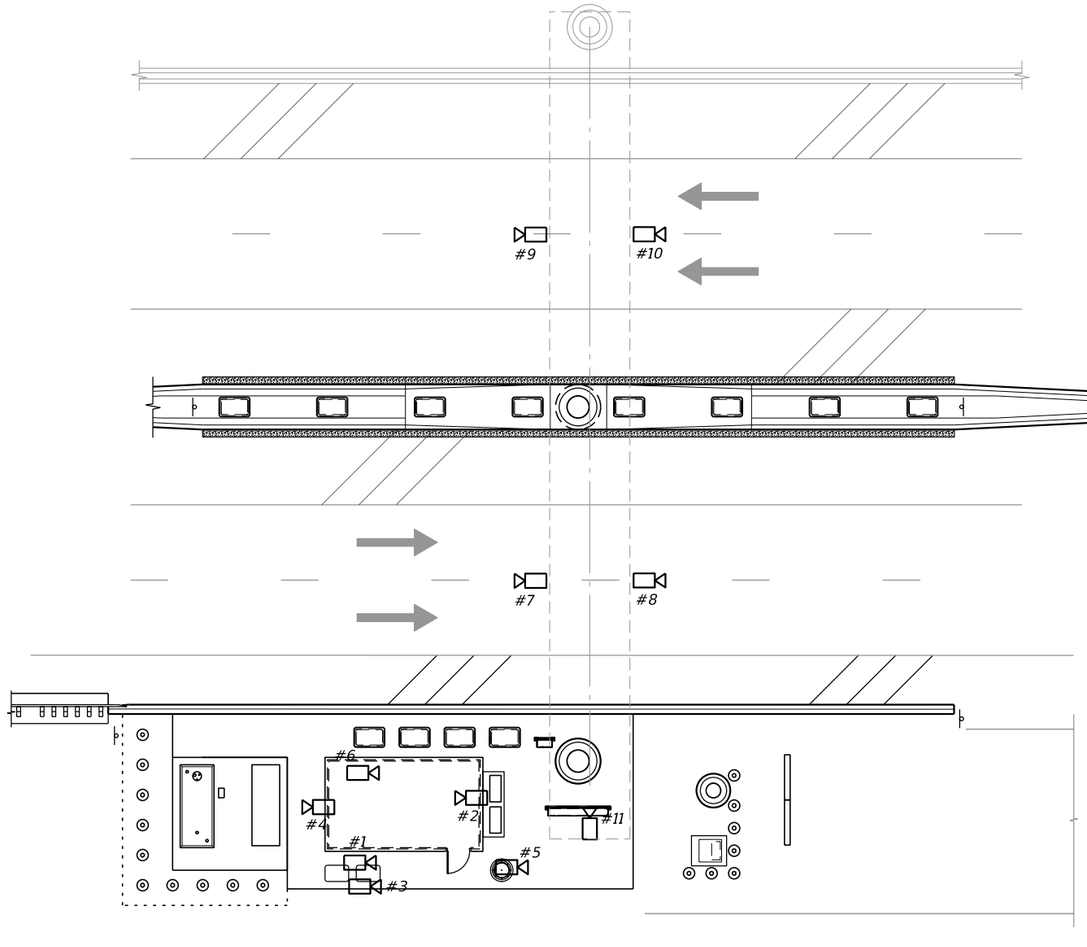
CCTV CAMERA NO.	DESCRIPTION
1.	FIXED INDOOR BUILDING CAMERA - TOLL EQUIPMENT BUILDING INTERIOR.
2.	FIXED INDOOR BUILDING CAMERA - TOLL EQUIPMENT BUILDING INTERIOR.
3.	FIXED OUTDOOR BUILDING CAMERA - TOLL EQUIPMENT BUILDING EXTERIOR ENTRY DOOR.
4.	FIXED OUTDOOR BUILDING CAMERA - TOLL EQUIPMENT BUILDING EXTERIOR.
5.	FIXED OUTDOOR BUILDING CAMERA - TOLL EQUIPMENT BUILDING EXTERIOR.
6.	FIXED OUTDOOR BUILDING CAMERA - TOLL EQUIPMENT BUILDING EXTERIOR.
7.	FIXED OUTDOOR GANTRY MOUNTED CAMERA - GANTRY APPROACH (BUILDING SIDE).
8.	FIXED OUTDOOR GANTRY MOUNTED CAMERA - GANTRY DEPARTURE (BUILDING SIDE).
9.	FIXED OUTDOOR GANTRY MOUNTED CAMERA - GANTRY DEPARTURE (OPPOSITE BUILDING SIDE).
10.	FIXED OUTDOOR GANTRY MOUNTED CAMERA - GANTRY APPROACH (OPPOSITE BUILDING SIDE).
11.	FIXED OUTDOOR GANTRY MOUNTED CAMERA - WALKWAY OVERVIEW.



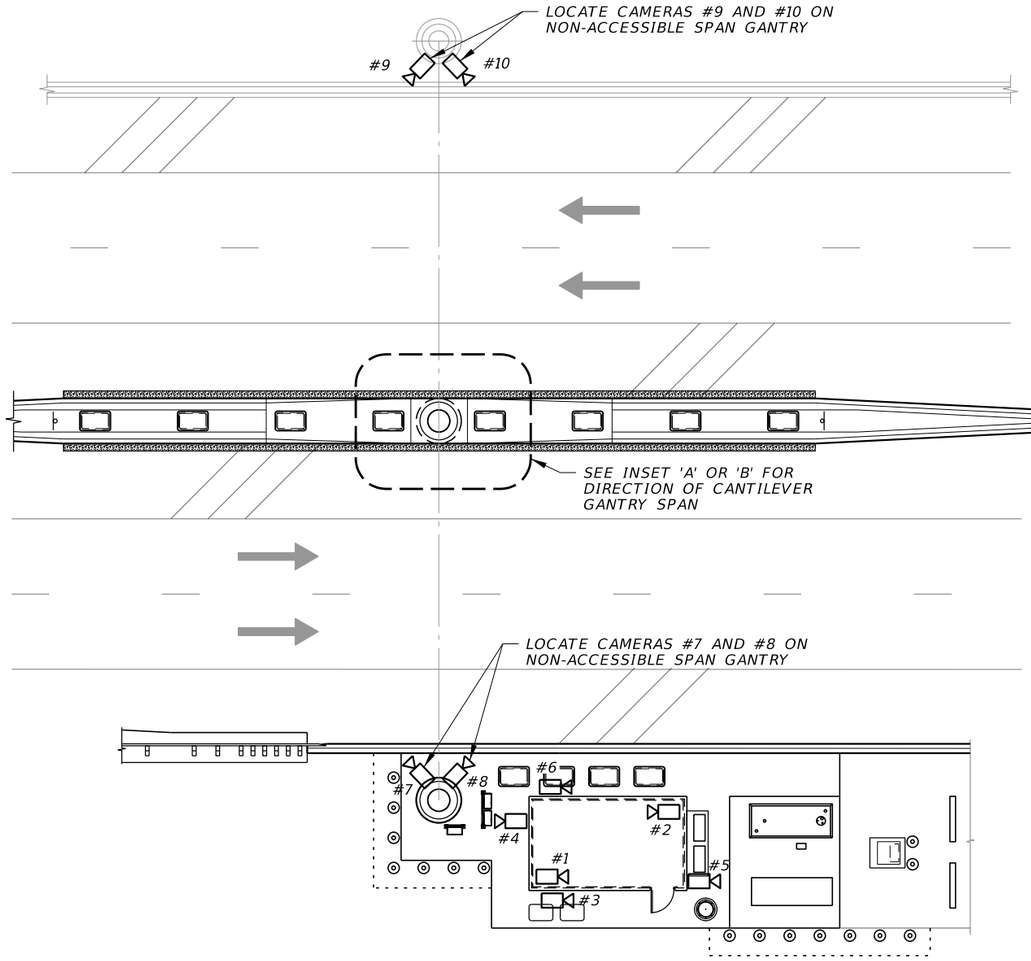
INSET 'A'



INSET 'B'



TYPICAL ACCESSIBLE GANTRY TOLL SITE



TYPICAL NON-ACCESSIBLE GANTRY TOLL SITE

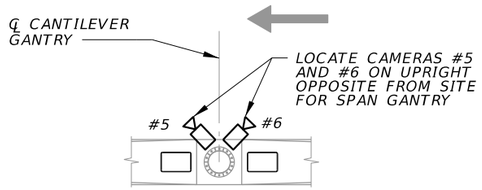
NOT TO SCALE

EXHIBIT 282-41
01/01/2027

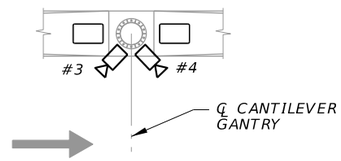
CCTV CAMERA SITE LOCATIONS FOR RTC SITES

NOTES:

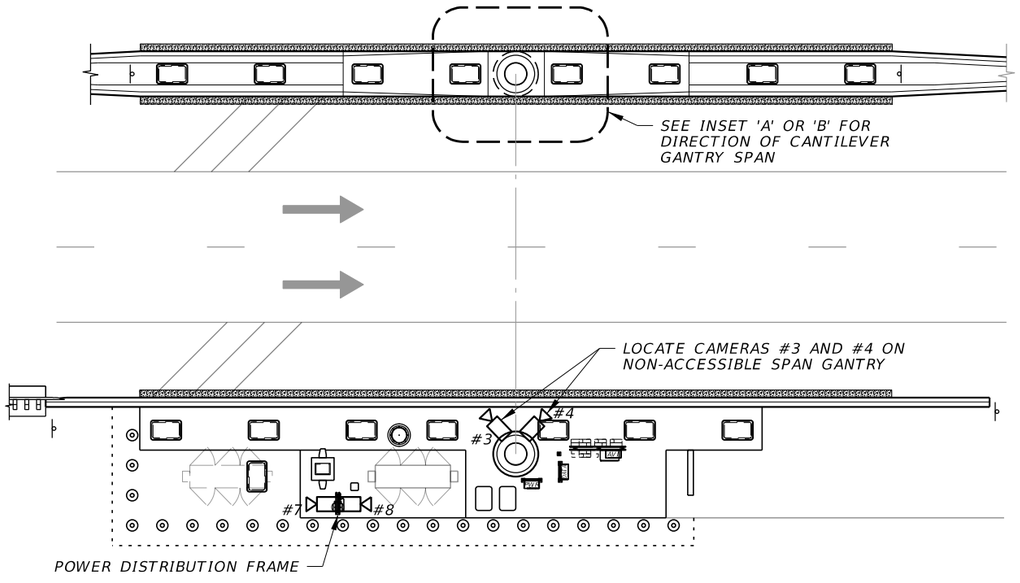
CCTV CAMERA NO.	DESCRIPTION
1.	FIXED OUTDOOR/FRAME MOUNTED CAMERA - SITE EQUIPMENT OVERVIEW.
2.	FIXED OUTDOOR/FRAME MOUNTED CAMERA - SITE PARKING OVERVIEW.
3.	FIXED OUTDOOR GANTRY MOUNTED CAMERA - GANTRY APPROACH (ADJACENT TO SITE).
4.	FIXED OUTDOOR GANTRY MOUNTED CAMERA - GANTRY DEPARTURE (ADJACENT TO SITE).
5.	FIXED OUTDOOR GANTRY MOUNTED CAMERA - GANTRY DEPARTURE (OPPOSITE FROM SITE).
6.	FIXED OUTDOOR GANTRY MOUNTED CAMERA - GANTRY APPROACH (OPPOSITE FROM SITE).
7.	FIXED OUTDOOR/FRAME MOUNTED CAMERA - OFF-SITE EQUIPMENT OVERVIEW.
8.	FIXED OUTDOOR/FRAME MOUNTED CAMERA - OFF-SITE PARKING OVERVIEW.



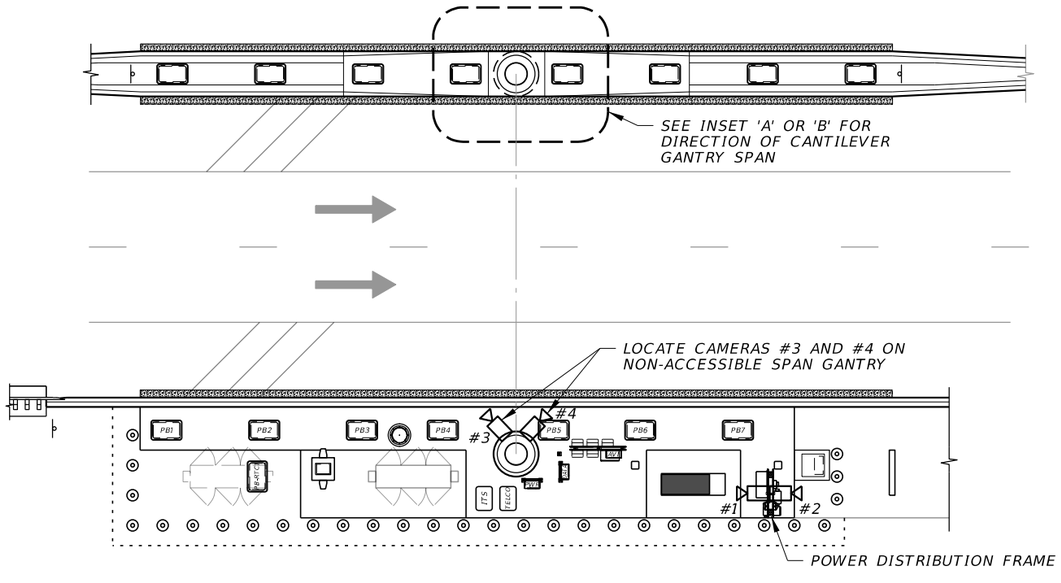
INSET 'A'



INSET 'B'



TYPICAL NON-ACCESSIBLE GANTRY TOLL SITE WITH OFF-SITE POWER SERVICE



TYPICAL NON-ACCESSIBLE GANTRY TOLL SITE WITH ON-SITE POWER SERVICE

NOT TO SCALE

EXHIBIT 282-42
01/01/2027

RTC SCADA RISER DIAGRAM (1 OF 3)

DIAGRAM NOTES:

1. LINE SIDE CURRENT AND VOLTAGE SENSING. FACTORY INSTALLED CLASS B CURRENT TRANSFORMERS WITH 0-5 AMP SECONDARY FOR EACH PHASE WITH CT SHORTING BLOCK. FACTORY INSTALLED VOLTAGE SENSING FOR EACH PHASE AND NEUTRAL WITH A FUSED TERMINAL BLOCK.

2. CONTACTS TO MONITOR THE POSITION OF THE CIRCUIT BREAKER. AUXILIARY CONTACTS CLOSE WHEN THE BREAKER IS CLOSED AND OPEN WHEN THE BREAKER IS OPEN.

3. PROVIDE AND INSTALL A WALL MOUNTED COMBINATION TEMPERATURE AND HUMIDITY (T&H) SENSOR, VERIS IND, CATALOG #HW2TA2A WITHIN THE ENCLOSURE. SENSOR MUST BE IP 20 RATED WITH A COLOR TOUCHSCREEN DISPLAY AND THIN FILM POLYMER CAPACITIVE SENSOR ELEMENTS THAT ARE EASILY REPLACEABLE IN THE FIELD. SENSOR MEASURING ACCURACY MUST BE ±2%. PROVIDE 24 VDC INPUT POWER. THE OUTPUT SIGNAL WILL BE 4 TO 20 MILLI-AMP ANALOG CURRENT TO THE SCADA PLC. CONNECT WITH CABLE TYPE BELDEN 28326A, (4) CONDUCTOR, 18 AWG STRANDED, TC CONDUCTORS, BLACK, RED, GREEN, WHITE.

4. PROVIDE CONDUIT ONLY. COIL 50 FEET OF CABLE IN THE OCC TO BE PULLED AFTER THE NEAREST RTC INSTALLATION. COIL 100 FEET OF CABLE IN THE OCC TO BE PULLED AFTER THE FURTHEST RTC INSTALLATION.

5. EACH OPERABLE/LATCHING DOOR ON THE OCC AND RTC CABINETS/ENCLOSURES MUST BE EQUIPPED WITH DOOR POSITION CONTACTS TO REMOTELY MONITOR THE POSITION OF THE ENCLOSURE DOORS. OCC ENCLOSURES HAVE TWO DOORS AND RTC ENCLOSURES HAVE THREE DOORS. THE DOOR CONTACTS MUST BE FACTORY INSTALLED BY THE CABINET/ENCLOSURE MANUFACTURER. EACH SET OF CONTACTS MUST BE DOUBLE POLE, DOUBLE THROW (DPDT), RATED FOR 24 VDC, 2 AMPS, AND 6000 OPERATION CYCLES. PROVIDE 24 VDC INPUT POWER. WHEN A DOOR IS OPEN, THE CONTACTS WILL CLOSE AND SEND A 24 VDC SIGNAL TO THE SCADA PLC.

6. PROVIDE ONE 10/100 Mb/S ETHERNET NIC CONNECTION FOR EACH UPS.

7. INFRASTRUCTURE WITHIN THIS AREA IS NOT REQUIRED FOR RTC TOLL SITES WITH OFF-SITE POWER. ROUTE SCADA CONNECTIONS FROM EP1 TO OCC IN OFF-SITE POWER LAYOUTS.

8. PROVIDE CONTACTS TO MONITOR THE POSITION OF THE MAIN CIRCUIT BREAKER AT OFF-SITE POWER LOCATIONS. AUXILIARY CONTACTS CLOSE WHEN THE BREAKER IS CLOSED AND OPEN WHEN THE BREAKER IS OPEN.

9. INSTALL A SCADA PLC WITHIN EACH TOLL EQUIPMENT CONTRACTOR INSTALLED RTC CABINET. PROVIDE A LEAK DETECTOR SENSOR AND 4-20 MILLI-AMP ANALOG SENSORS FOR MONITORING TEMPERATURE AND HUMIDITY WITHIN THE ENCLOSURE. PROVIDE AND INSTALL THE SCADA WIRING AND CABLING TO EACH FACTORY INSTALLED ENCLOSURE DOOR POSITION CONTACTS, MAXIMUM OF (3) SETS. THE DOOR POSITION CONTACTS WILL BE CLOSED WHEN THE DOOR IS CLOSED AND OPEN WHEN THE DOOR IS OPEN.

10. AUXILIARY CONTACTS TO MONITOR THE POSITION OF THE ATS. CONTACTS ARE CLOSED WHEN THE ATS IS IN NORMAL POSITION AND OPEN WHEN ATS IS IN EMERGENCY POSITION.

11. PROVIDE HAWKEYE #921 SPLIT-CORE CURRENT TRANSDUCERS WITH 0 TO 30/60/120 AMPS INPUT, 4-20 MILLI-AMP DC OUTPUT SIGNAL TO MONITOR AND MEASURE THE BRANCH CIRCUIT CURRENT FOR EACH A/C UNIT AT EACH OCC AND RTC.

12. ACCESS CONTROL COMPONENTS SUCH AS MAG-LOCKS (ML), PROXIMITY CARD READERS (CR), CONTROLLERS (DC/EC), AND ASSOCIATED CABLES WILL BE PROVIDED AND INSTALLED BY THE DEPARTMENT. PROVIDE AND INSTALL ONE EMPTY CONDUIT WITH PULL STRING FOR ACCESS CONTROL CABLES ROUTED BETWEEN EACH RTC ENCLOSURE'S ACCESS CONTROL AND MONITORING DEVICES AND THE OCC ENCLOSURE.

13. PROVIDE LEAK DETECTOR GEMS CATALOG #ELS-1100 WITH 1/2" STRAIGHT THREADS #143580.

ABBREVIATIONS:

ATS	AUTOMATIC TRANSFER SWITCH
BRGW	BLUE, RED, GREEN, WHITE
CR	ACCESS CONTROL CARD READER
DC/EC	ACCESS CONTROL DOOR CONTROLLER/ EXPANSION CARD
DPDT	DOUBLE POLE DOUBLE THROW
GCB	GENERATOR CIRCUIT BREAKER
GCP	GENERATOR CONTROL PANEL
MCB	MAIN CIRCUIT BREAKER
ML	ACCESS CONTROL MAG LOCK
NIC	NETWORK INTERFACE CARD
OCC	OUTDOOR COMMUNICATIONS CABINET
PLC	PROGRAMMABLE LOGIC CONTROLLER
PM-N	POWER METER - UTILITY
PM-G	POWER METER - GENERATOR
PMs	POWER METERS ENCLOSURE
RTC	ROADSIDE TOLLING CABINET
SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
SPD	SURGE PROTECTION DEVICE
UPS	UNINTERRUPTIBLE POWER SUPPLY

NOTES:

1. ALL CABLES AND CONDUCTORS INSTALLED IN CONDUIT BELOW GRADE SHALL BE LISTED FOR USE IN WET LOCATIONS OR LISTED FOR DIRECT BURIAL INSTALLATION.

2. DATA WIRING AND POWER WIRING MUST BE RUN IN SEPARATE CONDUITS.

3. THE CONTRACTOR-INSTALLED SCADA ROUGH-IN MUST BE INSPECTED BY THE DEPARTMENT PRIOR TO ACCEPTANCE.

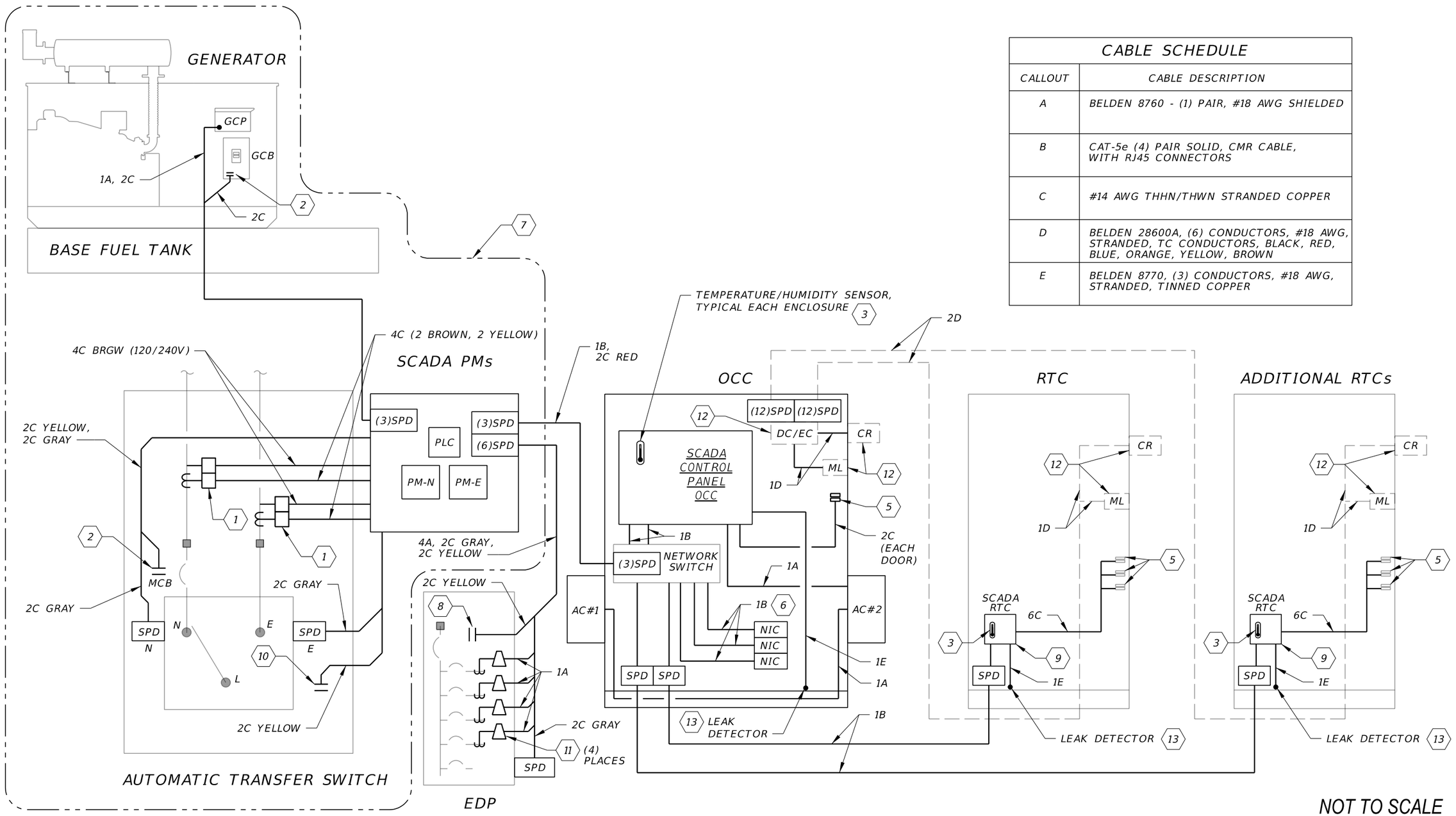
4. WIRING ROUTING IS DIAGRAMMATIC.

5. EQUIPMENT SHOWN AS SCREENED IS FOR REFERENCE ONLY. EQUIPMENT SHOWN AS SCREENED AND DASHED IS PART OF THE ACCESS CONTROL SYSTEM AND IS PROVIDED AND INSTALLED BY THE DEPARTMENT.

EXHIBIT 282-43
01/01/2027

RTC SCADA RISER DIAGRAM (2 OF 3)

CABLE SCHEDULE	
CALLOUT	CABLE DESCRIPTION
A	BELDEN 8760 - (1) PAIR, #18 AWG SHIELDED
B	CAT-5e (4) PAIR SOLID, CMR CABLE, WITH RJ45 CONNECTORS
C	#14 AWG THHN/THWN STRANDED COPPER
D	BELDEN 28600A, (6) CONDUCTORS, #18 AWG, STRANDED, TC CONDUCTORS, BLACK, RED, BLUE, ORANGE, YELLOW, BROWN
E	BELDEN 8770, (3) CONDUCTORS, #18 AWG, STRANDED, TINNED COPPER

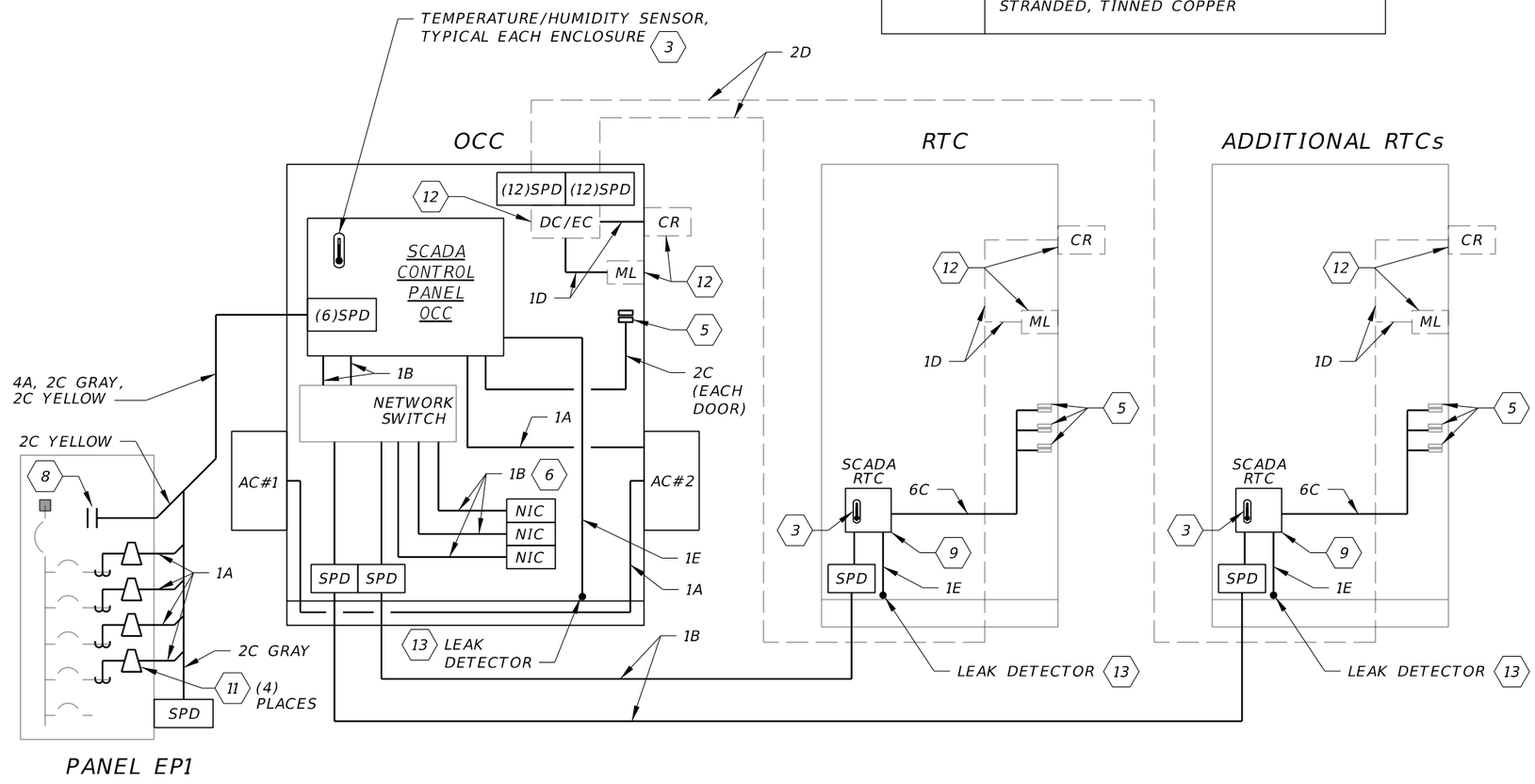


NOT TO SCALE

EXHIBIT 282-44
01/01/2027

RTC SCADA RISER DIAGRAM (3 OF 3)

CABLE SCHEDULE	
CALLOUT	CABLE DESCRIPTION
A	BELDEN 8760 - (1) PAIR, #18 AWG SHIELDED
B	CAT-5e (4) PAIR SOLID, CMR CABLE, WITH RJ45 CONNECTORS
C	#14 AWG THHN/THWN STRANDED COPPER
D	BELDEN 28600A, (6) CONDUCTORS, #18 AWG, STRANDED, TC CONDUCTORS, BLACK, RED, BLUE, ORANGE, YELLOW, BROWN
E	BELDEN 8770, (3) CONDUCTORS, #18 AWG, STRANDED, TINNED COPPER



NOT TO SCALE

EXHIBIT 282-45
01/01/2027

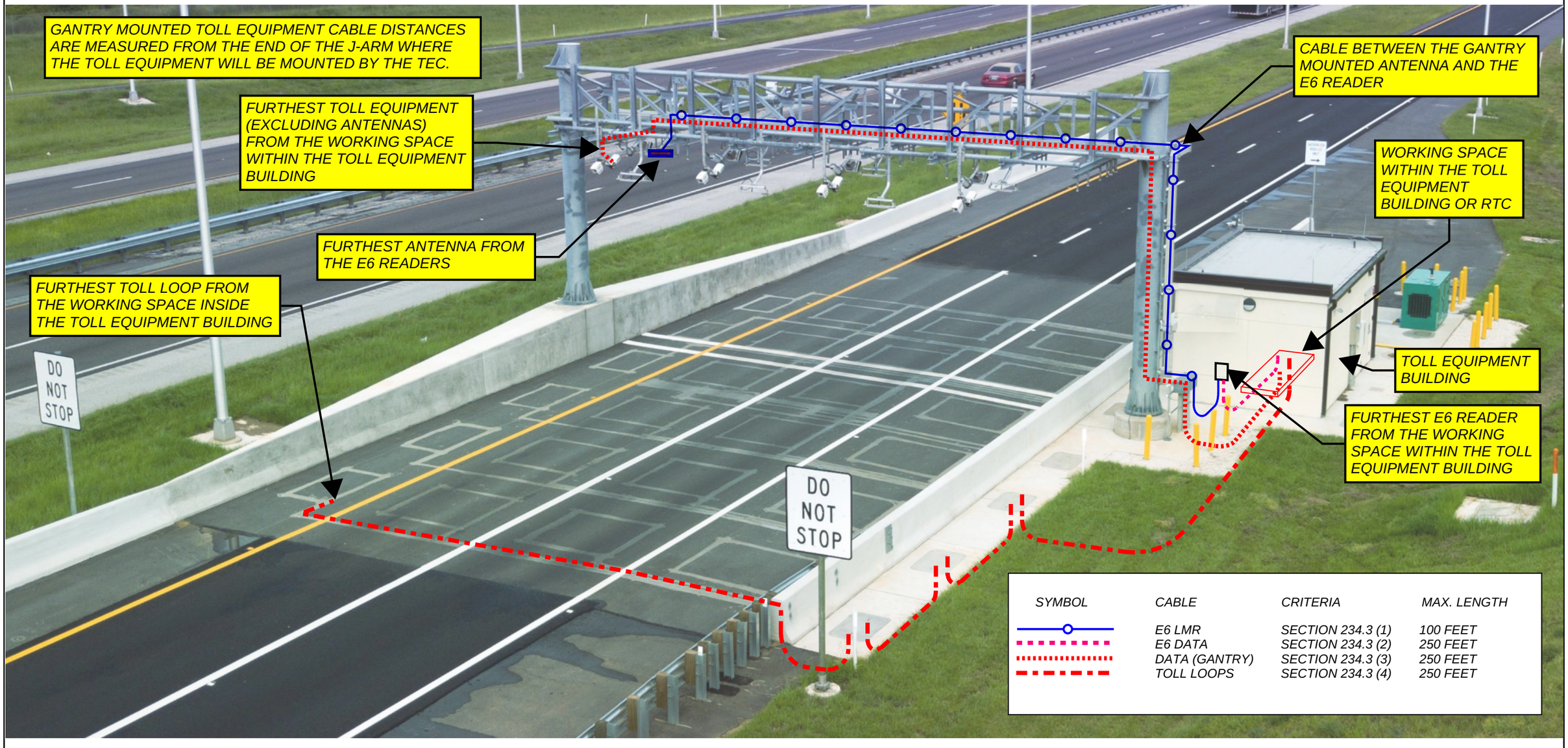


Exhibit 282-46
Calculated Cable Distances
Date: 1/1/2027