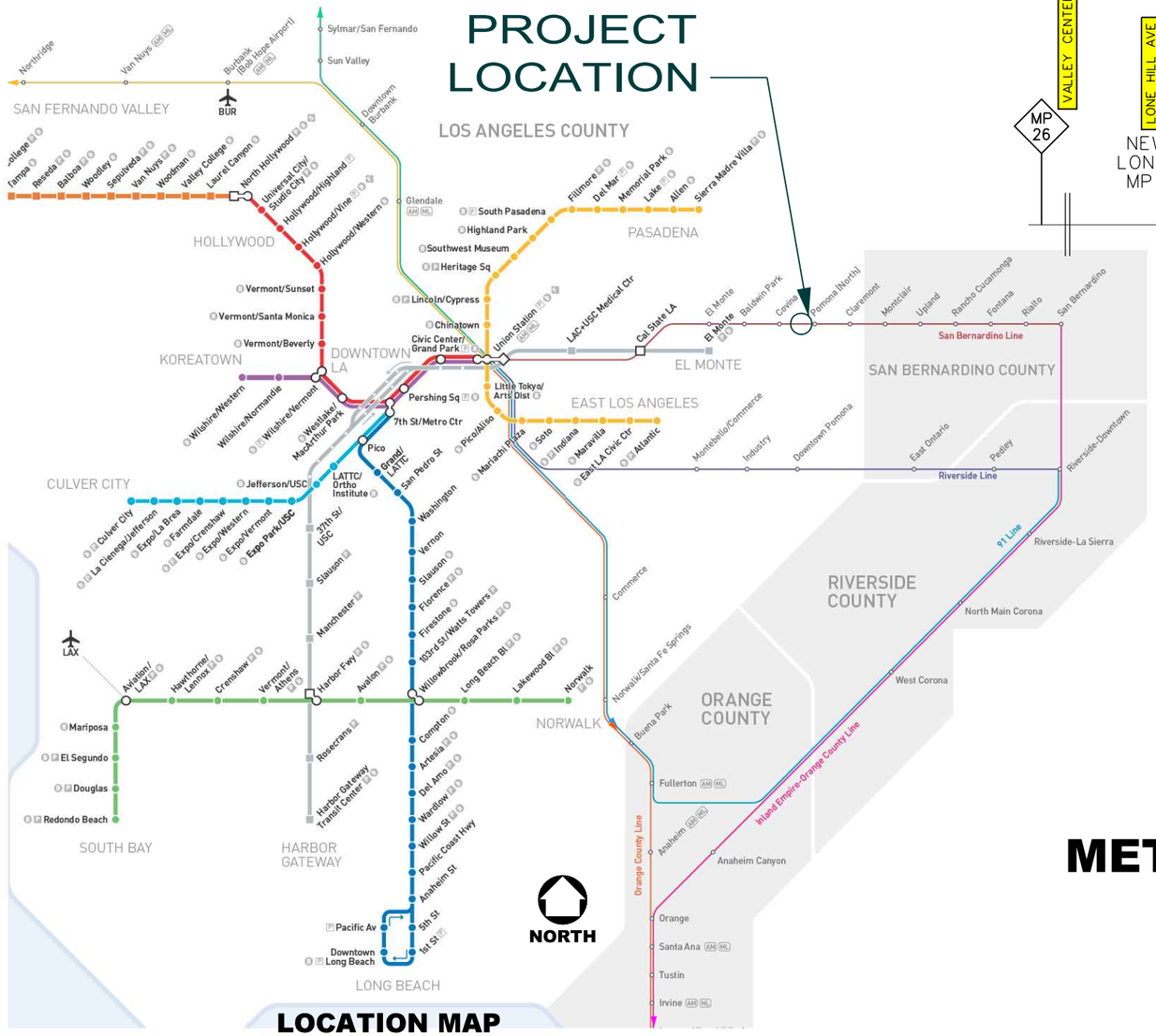
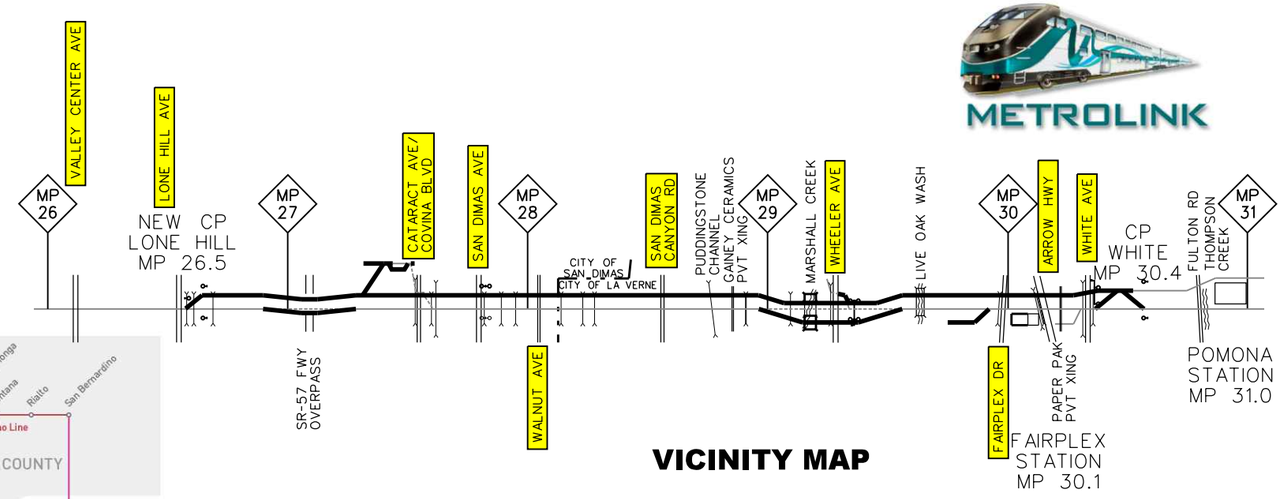
# LONE HILL AVENUE TO CP WHITE DOUBLE TRACK PROJECT
# ENVIRONMENTAL REVIEW AND PRELIMINARY ENGINEERING

Metro




**LOCATION MAP**




**VICINITY MAP**

CONTRACT NUMBER - AE4555000241519565

JULY 1, 2017

30% SUBMITTAL

NOT FOR CONSTRUCTION

## LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

## APPENDIX A

RECOMMENDED BY: _____ DATE: _____
JAY FUHRMAN
TRANSPORTATION PLANNING MANAGER - REGIONAL RAIL

APPROVED BY: _____ DATE: _____
JEANET OWENS, P.E.
EXECUTIVE OFFICER - REGIONAL RAIL

SUBMITTED BY: _____ DATE: _____
STEPHANIE WAGNER, P.E.
PROJECT MANAGER, WAGNER ENGINEERING & SURVEY, INC

APPROVED BY: _____ DATE: _____
JAY FUHRMAN
TRANSPORTATION PLANNING MANAGER - REGIONAL RAIL

Caltrans

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

Shapir.Ja 6/27/2017 3:00:12 PM $FILE$

# LONE HILL AVENUE TO CP WHITE DOUBLE TRACK PROJECT
# INDEX OF DRAWINGS

| DRAWING NUMBER | DRAWING TITLE | SHEET NUMBER |
|---|---|---|
| | **GENERAL** | |
| GI-001 | TITLE SHEET | |
| GI-002 | INDEX OF DRAWINGS - SHEET 1 OF 2 | |
| GI-003 | INDEX OF DRAWINGS - SHEET 2 OF 2 | |
| GI-004 | NOT USED | |
| GI-005 | GENERAL NOTES | |
| GI-006 | ABBREVIATIONS | |
| GI-007 | SYMBOLS | |
| GI-008 | KEY MAP - TRACK PLANS | |
| GI-009 | ACCESS ROADS | |
| GI-010 | OPTIONAL SOUNDWALL LOCATIONS | |
| PH-001 | CONSTRUCTION PHASING PLAN - SHEET 1 OF 3 | |
| PH-002 | CONSTRUCTION PHASING PLAN - SHEET 2 OF 3 | |
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| | **SURVEY AND MAPPING** | |
| VC-001 | SURVEY CONTROL | |
| VC-002 | SURVEY CONTROL | |
| VC-003 | SURVEY CONTROL | |
| VR-001 | EXISTING RIGHT-OF-WAY MAP, SHEET 1 OF 11 | |
| VR-002 | EXISTING RIGHT-OF-WAY MAP, SHEET 2 OF 11 | |
| VR-003 | EXISTING RIGHT-OF-WAY MAP, SHEET 3 OF 11 | |
| VR-004 | EXISTING RIGHT-OF-WAY MAP, SHEET 4 OF 11 | |
| VR-005 | EXISTING RIGHT-OF-WAY MAP, SHEET 5 OF 11 | |
| VR-006 | EXISTING RIGHT-OF-WAY MAP, SHEET 6 OF 11 | |
| VR-007 | EXISTING RIGHT-OF-WAY MAP, SHEET 7 OF 11 | |
| VR-008 | EXISTING RIGHT-OF-WAY MAP, SHEET 8 OF 11 | |
| VR-009 | EXISTING RIGHT-OF-WAY MAP, SHEET 9 OF 11 | |
| VR-010 | EXISTING RIGHT-OF-WAY MAP, SHEET 10 OF 11 | |
| VR-011 | EXISTING RIGHT-OF-WAY MAP, SHEET 11 OF 11 | |
| | **TRACK** | |
| TS-001 | TRACK SCHEMATIC - SHEET 1 OF 2 | |
| TS-002 | TRACK SCHEMATIC - SHEET 2 OF 2 | |
| TC-001 | TRACK TYPICAL SECTIONS - SHEET 1 OF 13 | |
| TC-002 | TRACK TYPICAL SECTIONS - SHEET 2 OF 13 | |
| TC-003 | TRACK TYPICAL SECTIONS - SHEET 3 OF 13 | |
| TC-004 | TRACK TYPICAL SECTIONS - SHEET 4 OF 13 | |
| TC-005 | TRACK TYPICAL SECTIONS - SHEET 5 OF 13 | |
| TC-006 | TRACK TYPICAL SECTIONS - SHEET 6 OF 13 | |
| TC-007 | TRACK TYPICAL SECTIONS - SHEET 7 OF 13 | |
| TC-008 | TRACK TYPICAL SECTIONS - SHEET 8 OF 13 | |
| TC-009 | TRACK TYPICAL SECTIONS - SHEET 9 OF 13 | |
| TC-010 | TRACK TYPICAL SECTIONS - SHEET 10 OF 13 | |
| TC-011 | TRACK TYPICAL SECTIONS - SHEET 11 OF 13 | |
| TC-012 | TRACK TYPICAL SECTIONS - SHEET 12 OF 13 | |
| TC-013 | TRACK TYPICAL SECTIONS - SHEET 13 OF 13 | |
| TP-001 | TRACK PLAN AND PROFILE - EXMT 1396+00 TO EXMT 1408+00 | |
| TP-002 | TRACK PLAN AND PROFILE - EXMT 1408+00 TO EXMT 1420+00 | |
| TP-003 | TRACK PLAN AND PROFILE - EXMT 1420+00 TO EXMT 1432+00 | |
| TP-004 | TRACK PLAN AND PROFILE - EXMT 1432+00 TO EXMT 1442+00 | |
| TP-005 | TRACK PLAN AND PROFILE - EXMT 1442+00 TO EXMT 1454+00 | |
| TP-006 | TRACK PLAN AND PROFILE - EXMT 1454+00 TO EXMT 1466+00 | |
| TP-007 | TRACK PLAN AND PROFILE - EXMT 1466+00 TO EXMT 1478+00 | |
| TP-008 | TRACK PLAN AND PROFILE - EXMT 1478+00 TO EXMT 1490+00 | |
| TP-009 | TRACK PLAN AND PROFILE - EXMT 1490+00 TO EXMT 1502+00 | |
| TP-010 | TRACK PLAN AND PROFILE - EXMT 1502+00 TO EXMT 1514+00 | |
| TP-011 | TRACK PLAN AND PROFILE - EXMT 1514+00 TO EXMT 1526+00 | |
| TP-012 | TRACK PLAN AND PROFILE - EXMT 1526+00 TO EXMT 1538+00 | |
| TP-013 | TRACK PLAN AND PROFILE - EXMT 1538+00 TO EXMT 1550+00 | |

| DRAWING NUMBER | DRAWING TITLE | SHEET NUMBER |
|---|---|---|
| | **TRACK (CONT.)** | |
| TP-014 | TRACK PLAN AND PROFILE - EXMT 1550+00 TO EXMT 1562+00 | |
| TP-015 | TRACK PLAN AND PROFILE - EXMT 1562+00 TO EXMT 1574+00 | |
| TP-016 | TRACK PLAN AND PROFILE - EXMT 1574+00 TO EXMT 1586+00 | |
| TP-017 | TRACK PLAN AND PROFILE - EXMT 1586+00 TO EXMT 1598+00 | |
| TP-018 | TRACK PLAN AND PROFILE - EXMT 1598+00 TO EXMT 1610+00 | |
| TP-019 | TRACK PLAN AND PROFILE - EXMT 1610+00 TO EXMT 1622+00 | |
| TP-020 | TRACK PLAN AND PROFILE - AEROPRES TRACKS | |
| TP-021 | TRACK PLAN AND PROFILE - AEROPRES TRACKS | |
| | **CROSS SECTIONS** | |
| TX-001 | CROSS SECTIONS - EXMT 1404+00 TO EXMT 1409+00 | |
| TX-002 | CROSS SECTIONS - EXMT 1410+00 TO EXMT 1415+00 | |
| TX-003 | CROSS SECTIONS - EXMT 1416+00 TO EXMT 1421+00 | |
| TX-004 | CROSS SECTIONS - EXMT 1422+00 TO EXMT 1427+00 | |
| TX-005 | CROSS SECTIONS - EXMT 1428+00 TO EXMT 1433+00 | |
| TX-006 | CROSS SECTIONS - EXMT 1434+00 TO EXMT 1439+00 | |
| TX-007 | CROSS SECTIONS - EXMT 1440+00 TO EXMT 1445+00 | |
| TX-008 | CROSS SECTIONS - EXMT 1446+00 TO EXMT 1451+00 | |
| TX-009 | CROSS SECTIONS - EXMT 1452+00 TO EXMT 1457+00 | |
| TX-010 | CROSS SECTIONS - EXMT 1458+00 TO EXMT 1459+00 | |
| TX-011 | CROSS SECTIONS - EXMT 1460+00 TO EXMT 1461+00 | |
| TX-012 | CROSS SECTIONS - EXMT 1462+00 TO EXMT 1467+00 | |
| TX-013 | CROSS SECTIONS - EXMT 1468+00 TO EXMT 1473+00 | |
| TX-014 | CROSS SECTIONS - EXMT 1474+00 TO EXMT 1479+00 | |
| TX-015 | CROSS SECTIONS - EXMT 1480+00 TO EXMT 1485+00 | |
| TX-016 | CROSS SECTIONS - EXMT 1486+00 TO EXMT 1491+00 | |
| TX-017 | CROSS SECTIONS - EXMT 1492+00 TO EXMT 1497+00 | |
| TX-018 | CROSS SECTIONS - EXMT 1498+00 TO EXMT 1503+00 | |
| TX-019 | CROSS SECTIONS - EXMT 1504+00 TO EXMT 1509+00 | |
| TX-020 | CROSS SECTIONS - EXMT 1510+00 TO EXMT 1515+00 | |
| TX-021 | CROSS SECTIONS - EXMT 1516+00 TO EXMT 1521+00 | |
| TX-022 | CROSS SECTIONS - EXMT 1522+00 TO EXMT 1527+00 | |
| TX-023 | CROSS SECTIONS - EXMT 1528+00 TO EXMT 1533+00 | |
| TX-024 | CROSS SECTIONS - EXMT 1534+00 TO EXMT 1539+00 | |
| TX-025 | CROSS SECTIONS - EXMT 1540+00 TO EXMT 1545+00 | |
| TX-026 | CROSS SECTIONS - EXMT 1546+00 TO EXMT 1551+00 | |
| TX-027 | CROSS SECTIONS - EXMT 1552+00 TO EXMT 1557+00 | |
| TX-028 | CROSS SECTIONS - EXMT 1558+00 TO EXMT 1563+00 | |
| TX-029 | CROSS SECTIONS - EXMT 1564+00 TO EXMT 1569+00 | |
| TX-030 | CROSS SECTIONS - EXMT 1570+00 TO EXMT 1575+00 | |
| TX-031 | CROSS SECTIONS - EXMT 1576+00 TO EXMT 1581+00 | |
| TX-032 | CROSS SECTIONS - EXMT 1582+00 TO EXMT 1587+00 | |
| TX-033 | CROSS SECTIONS - EXMT 1588+00 TO EXMT 1593+00 | |
| TX-034 | CROSS SECTIONS - EXMT 1594+00 TO EXMT 1599+00 | |
| TX-035 | CROSS SECTIONS - EXMT 1600+00 TO EXMT 1605+00 | |
| TX-036 | CROSS SECTIONS - EXMT 1606+00 TO EXMT 1611+00 | |
| TX-037 | CROSS SECTIONS - EXMT 1612+00 TO EXMT 1615+00 | |

| DRAWING NUMBER | DRAWING TITLE | SHEET NUMBER |
|---|---|---|
| | **UTILITIES** | |
| UP-001 | UTILITY PLAN - VALLEY CENTER AVE | |
| UP-002 | UTILITY PLAN - EXMT 1396+00 TO EXMT 1420+00 | |
| UP-003 | UTILITY PLAN - EXMT 1420+00 TO EXMT 1442+00 | |
| UP-004 | UTILITY PLAN - EXMT 1442+00 TO EXMT 1466+00 | |
| UP-005 | UTILITY PLAN - EXMT 1466+00 TO EXMT 1490+00 | |
| UP-006 | UTILITY PLAN - EXMT 1490+00 TO EXMT 1514+00 | |
| UP-007 | UTILITY PLAN - EXMT 1514+00 TO EXMT 1538+00 | |
| UP-008 | UTILITY PLAN - EXMT 1538+00 TO EXMT 1562+00 | |
| UP-009 | UTILITY PLAN - EXMT 1562+00 TO EXMT 1586+00 | |
| UP-010 | UTILITY PLAN - EXMT 1586+00 TO EXMT 1610+00 | |
| UP-011 | UTILITY PLAN - EXMT 1610+00 TO EXMT 1622+00 | |

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NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY: JS
DRAWN BY: JS
CHECKED BY: PM
IN CHARGE: MG
DATE: 7-1-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro
WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
METROLINK
JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
INDEX OF DRAWINGS
SHEET 1 OF 2

CONTRACT NO: AE4555000241519565
DRAWING NO: GI-002
REV:
SCALE: NTS
SHEET NO: 2

Shapir.Ja 6/27/2017 3:00:20 PM $FILE$

# LONE HILL AVENUE TO CP WHITE DOUBLE TRACK PROJECT
# INDEX OF DRAWINGS


| DRAWING NUMBER | DRAWING TITLE | SHEET NUMBER |
|---|---|---|
| | **ROADWAY** | |
| | **GENERAL** | |
| G-C-001 | COVER SHEET | |
| G-C-002 | GRADE CROSSINGS - INDEX OF DRAWINGS | |
| G-C-003 | NOT USED | |
| G-C-004 | CONSTRUCTION NOTES AND SYMBOLS | |
| | **VALLEY CENTER AVENUE** | |
| CS-C-010PP | VALLEY CENTER AVENUE - STREET IMPROVEMENT PLAN - (DOT) 747317H (CPUC) 101SG-26.05 | |
| SS-C-010PL | VALLEY CENTER AVENUE - SIGNING AND STRIPING PLAN - (DOT) 747317H (CPUC) 101SG-26.05 | |
| CS-C-010PR | VALLEY CENTER AVENUE - STREET IMPROVEMENT PROFILE - (DOT) 747317H (CPUC) 101SG-26.05 | |
| CS-C-011EXH | VALLEY CENTER AVENUE - VEHICULAR TURNING MOVEMENTS - (DOT) 747317H (CPUC) 101SG-26.05 | |
| | **LONE HILL AVENUE** | |
| CS-C-020PP | LONE HILL AVENUE - STREET IMPROVEMENT PLAN - (DOT) 747318P (CPUC) 101SG-26.55 | |
| SS-C-020PL | LONE HILL AVENUE - SIGNING AND STRIPING PLAN - (DOT) 747318P (CPUC) 101SG-26.55 | |
| CS-C-020PR | LONE HILL AVENUE - STREET IMPROVEMENT PROFILE - (DOT) 747318P (CPUC) 101SG-26.55 | |
| CS-C-021EXH | LONE HILL AVENUE - VEHICULAR TURNING MOVEMENTS - (DOT) 747318P (CPUC) 101SG-26.55 | |
| | **CATARACT AVENUE** | |
| CS-C-030PP | CATARACT AVENUE- STREET IMPROVEMENT PLAN - (DOT) 747320R (CPUC) 101SG-27.55 | |
| SS-C-030PL | CATARACT AVENUE- SIGNING AND STRIPING PLAN - (DOT) 747320R (CPUC) 101SG-27.55 | |
| CS-C-030PR | CATARACT AVENUE- STREET IMPROVEMENT PROFILE - (DOT) 747320R (CPUC) 101SG-27.55 | |
| CS-C-031EXH | CATARACT AVENUE- VEHICULAR TURNING MOVEMENTS - (DOT) 747320R (CPUC) 101SG-27.55 | |
| | **SAN DIMAS AVENUE** | |
| CS-C-040PP | SAN DIMAS AVENUE - STREET IMPROVEMENT PLAN - (DOT) 747321X (CPUC) 101SG-27.80 | |
| SS-C-040PL | SAN DIMAS AVENUE - SIGNING AND STRIPING PLAN - (DOT) 747321X (CPUC) 101SG-27.80 | |
| CS-C-040PR | SAN DIMAS AVENUE - STREET IMPROVEMENT PROFILE - (DOT) 747321X (CPUC) 101SG-27.80 | |
| CS-C-041EXH | SAN DIMAS AVENUE - VEHICULAR TURNING MOVEMENTS - (DOT) 747321X (CPUC) 101SG-27.80 | |
| | **WALNUT AVENUE** | |
| CS-C-050PP | WALNUT AVENUE - STREET IMPROVEMENT PLAN - (DOT) 747322E (CPUC) X101SG-28.05 | |
| SS-C-050PL | WALNUT AVENUE - SIGNING AND STRIPING PLAN - (DOT) 747322E (CPUC) X101SG-28.05 | |
| CS-C-050PR | WALNUT AVENUE - STREET IMPROVEMENT PROFILE - (DOT) 747322E (CPUC) X101SG-28.05 | |
| CS-C-051EXH | WALNUT AVENUE - VEHICULAR TURNING MOVEMENTS - (DOT) 747322E (CPUC) X101SG-28.05 | |
| | **SAN DIMAS CANYON ROAD** | |
| CS-C-060PP | SAN DIMAS CANYON ROAD - STREET IMPROVEMENT PLAN - (DOT) 914497T (CPUC) X101SG-28.55 | |
| SS-C-060PL | SAN DIMAS CANYON ROAD - SIGNING AND STRIPING PLAN - (DOT) 914497T (CPUC) X101SG-28.55 | |
| CS-C-060PR | SAN DIMAS CANYON ROAD - STREET IMPROVEMENT PROFILE- (DOT) 914497T (CPUC) X101SG-28.55 | |
| CS-C-061EXH | SAN DIMAS CANYON ROAD - VEHICULAR TURNING MOVEMENTS - (DOT) 914497T (CPUC) X101SG-28.55 | |
| | **GAINEY CERAMICS PVT XING** | |
| CS-C-070PP | GAINEY CERAMICS PVT XING - STREET IMPROVEMENT PLAN - (DOT) 747324T (CPUC) 101SG-28.86-X | |
| SS-C-070PL | GAINEY CERAMICS PVT XING - SIGNING AND STRIPING PLAN - (DOT) 747324T (CPUC) 101SG-28.86-X | |
| CS-C-070PR | GAINEY CERAMICS PVT XING - STREET IMPROVEMENT PROFILE - (DOT) 747324T (CPUC) 101SG-28.86-X | |
| CS-C-071EXH | GAINEY CERAMICS PVT XING - VEHICULAR TURNING MOVEMENTS - (DOT) 747324T (CPUC) 101SG-28.86-X | |
| | **WHEELER AVENUE** | |
| CS-C-080PP | WHEELER AVENUE - STREET IMPROVEMENT PLAN - (DOT) 914498A (CPUC) 101SG-29.28 | |
| SS-C-080PL | WHEELER AVENUE - SIGNING AND STRIPING PLAN - (DOT) 914498A (CPUC) 101SG-29.28 | |
| CS-C-080PR | WHEELER AVENUE - STREET IMPROVEMENT PROFILE - (DOT) 914498A (CPUC) 101SG-29.28 | |
| CS-C-081EXH | WHEELER AVENUE - VEHICULAR TURNING MOVEMENTS - (DOT) 914498A (CPUC) 101SG-29.28 | |
| | **FAIRPLEX DRIVE** | |
| CS-C-090PP | FAIRPLEX DRIVE - STREET IMPROVEMENT PLAN - (DOT) 747328V (CPUC) 101SG-29.97 | |
| SS-C-090PL | FAIRPLEX DRIVE - SIGNING AND STRIPING PLAN - (DOT) 747328V (CPUC) 101SG-29.97 | |
| CS-C-090PR | FAIRPLEX DRIVE - STREET IMPROVEMENT PROFILE - (DOT) 747328V (CPUC) 101SG-29.97 | |
| CS-C-091EXH | FAIRPLEX DRIVE - VEHICULAR TURNING MOVEMENTS - (DOT) 747328V (CPUC) 101SG-29.97 | |
| | **ARROW HIGHWAY** | |
| CS-C-100PP | ARROW HIGHWAY - STREET IMPROVEMENT PLAN - (DOT) 747329C (CPUC) 101SG-30.15 | |
| SS-C-100PL | ARROW HIGHWAY - SIGNING AND STRIPING PLAN - (DOT) 747329C (CPUC) 101SG-30.15 | |
| CS-C-100PR | ARROW HIGHWAY - STREET IMPROVEMENT PROFILE - (DOT) 747329C (CPUC) 101SG-30.15 | |
| CS-C-101EXH | ARROW HIGHWAY - VEHICULAR TURNING MOVEMENTS - (DOT) 747329C (CPUC) 101SG-30.15 | |

| DRAWING NUMBER | DRAWING TITLE | SHEET NUMBER |
|---|---|---|
| | **ROADWAY (CONT.)** | |
| | **WHITE AVENUE** | |
| CS-C-110PP | WHITE AVENUE - STREET IMPROVEMENT PLAN - (DOT) 747330W (CPUC) 101SG-30.33 | |
| SS-C-110PL | WHITE AVENUE - SIGNING AND STRIPING PLAN - (DOT) 747330W (CPUC) 101SG-30.33 | |
| CS-C-110PR | WHITE AVENUE - STREET IMPROVEMENT PROFILE - (DOT) 747330W (CPUC) 101SG-30.33 | |
| CS-C-111EXH | WHITE AVENUE - VEHICULAR TURNING MOVEMENTS - (DOT) 747330W (CPUC) 101SG-30.33 | |
| | **STATION** | |
| A-002 | FAIRPLEX STATION SITE PLAN | |
| A-003 | PLATFORM WORK PLAN - 1 OF 3 | |
| A-004 | PLATFORM WORK PLAN - 2 OF 3 | |
| A-005 | PLATFORM WORK PLAN - 3 OF 3 | |
| | **SIGNALS** | |
| N-001 | ADDITIONAL OVERVIEWS - MP 24 TO MP 25 | |
| N-002 | ADDITIONAL OVERVIEWS - MP 25 TO MP 26 | |
| N-003 | ADDITIONAL OVERVIEWS - MP 30 TO MP 31 | |
| N-004 | ADDITIONAL OVERVIEWS - MP 31 TO MP 32 | |
| N-005 | ADDITIONAL OVERVIEWS - MP 32 TO MP 33 | |
| ND-001 | ASPECTS SG 21-29 EAST, 1 OF 4 | |
| ND-002 | ASPECTS SG 30-35 EAST, 2 OF 4 | |
| ND-003 | ASPECTS SG 21-29 WEST, 3 OF 4 | |
| ND-004 | ASPECTS SG 30-35 WEST, 4 OF 4 | |
| ND-005 | SCALED LAYOUTS SG 24-25, 1 OF 15 | |
| ND-006 | SCALED LAYOUTS SG 24-25, 2 OF 15 | |
| ND-007 | SCALED LAYOUTS SG 25-26, 3 OF 15 | |
| ND-008 | SCALED LAYOUTS SG 25-26, 4 OF 15 | |
| ND-009 | SCALED LAYOUTS SG 26-27, 5 OF 15 | |
| ND-010 | SCALED LAYOUTS SG 26-27, 6 OF 15 | |
| ND-011 | SCALED LAYOUTS SG 27-28, 7 OF 15 | |
| ND-012 | SCALED LAYOUTS SG 27-28, 8 OF 15 | |
| ND-013 | SCALED LAYOUTS SG 28-29, 9 OF 15 | |
| ND-014 | SCALED LAYOUTS SG 28-29, 10 OF 15 | |
| ND-015 | SCALED LAYOUTS SG 29-30, 11 OF 15 | |
| ND-016 | SCALED LAYOUTS SG 29-30, 12 OF 15 | |
| ND-017 | SCALED LAYOUTS SG 30-32, 13 OF 15 | |
| ND-018 | SCALED LAYOUTS SG 32-33, 14 OF 15 | |
| ND-019 | SCALED LAYOUTS SG 32-33, 15 OF 15 | |
| ND-020 | SG 26.4 TO SG 30.6 GENERAL NOTES, 1 OF 5 | |
| ND-021 | SG 26.4 TO SG 30.6 CONDUIT AND FIBER DRAWING, 2 OF 5 | |
| ND-022 | SG 26.4 TO SG 30.6 CONDUIT AND FIBER DRAWING, 3 OF 5 | |
| ND-023 | SG 26.4 TO SG 30.6 CONNECTION DETAILS, 4 OF 5 | |
| ND-024 | SG 26.4 TO SG 30.6 CONDUIT AND FIBER DRAWING, 5 OF 5 | |
| | **BRIDGES/CULVERST/RETAINING WALLS** | |
| S-101 | RETAINING WALL – STA 1425+25 TO 1427+65, GENERAL PLAN | |
| S-102 | RETAINING WALL – STA 1425+25 TO 1427+65, CROSS SECTION | |
| S-103 | SR-57 RETAINING WALL AND PIER PROTECTION WALL– STA 1430+00, GENERAL PLAN | |
| S-104 | SR-57 RETAINING WALL AND PIER PROTECTION WALL – STA 1430+00, ELEVATION | |
| S-105 | SR-57 RETAINING WALL AND PIER PROTECTION WALL– STA 1430+00, TYPICAL SECTION | |
| S-106 | BRICK ARCH OVER PASS – STA 1458+28, GENERAL PLAN | |
| S-107 | CULVERT EXTENSION – STA 1526+58, GENERAL PLAN | |
| S-108 | STRUCTURE WIDEN STA – 1540+43, GENERAL PLAN | |


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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
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| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY (Metro)

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METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

INDEX OF DRAWINGS
SHEET 2 OF 2

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | GI-003 |
| REV | |
| SCALE | NTS |
| SHEET NO | 3 |

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# GENERAL NOTES

1. ALL LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS AND THE SPECIFICATIONS SHALL BE COMPLIED WITH FOR THIS CONTRACT.
2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE CODES, ORDINANCES AND STANDARD SPECIFICATIONS OF ALL AGENCIES THAT HAVE THE RESPONSIBILITY OF REVIEWING PLANS AND SPECIFICATIONS FOR CONSTRUCTION OF ALL ITEMS PER THESE PLANS AND SPECIFICATIONS IN THIS LOCALITY.
3. THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS AND PAY PERMIT FEES AS REQUIRED FOR CONSTRUCTION OF THIS PROJECT.
4. ALL CONSTRUCTION ACTIVITIES SHALL BE SCHEDULED AND COORDINATED THROUGH THE ENGINEER, INCLUDING THE VARIOUS COMPANIES, AGENCIES AND OTHER CONTRACTORS WHO MAY BE AFFECTED BY THIS WORK.
5. PRIOR TO COMMENCING WORK, ALL EXISTING SITE CONDITIONS SHALL BE FIELD VERIFIED WITH THE ENGINEER TO ASCERTAIN THE LIMITS OF WORK ACTIVITIES. THE CONTRACTOR SHALL SUBMIT AND RECEIVE THE ENGINEER'S APPROVAL OF THE PROJECT SCHEDULE AND OPERATIONS PLAN. EACH ITEM OF WORK SHALL BE DESCRIBED AND ACCOUNTED FOR IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR FURTHER INFORMATION REGARDING SUBMITTAL REQUIREMENTS.
6. ON SITE CONSTRUCTION BY OTHERS (RAILROAD SIGNAL FORCES, SPRINT, UTILITIES, ETC.) MAY OCCUR DURING THE CONSTRUCTION PERIOD OF THIS CONTRACT. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES THROUGH THE ENGINEER SO AS TO MINIMIZE INTERFERENCE WITH OTHERS.
7. HORIZONTAL AND VERTICAL CONTROL POINTS FOR THE PROJECT ARE IDENTIFIED IN THE CONTRACT DOCUMENTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THESE CONTROL POINTS TO ASSURE THAT ALL FACILITIES INCLUDED IN THIS PROJECT ARE CONSTRUCTED AT THE CORRECT VERTICAL AND HORIZONTAL LOCATIONS.
8. SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" IS VALID. THE CONTRACTOR SHALL CALL THE UNDERGROUND SERVICE ALERT (DIAL 8-1-1) THREE WORKING DAYS PRIOR TO CONSTRUCTION TO OBTAIN A DIG ALERT ID NUMBER.
9. CALIFORNIA SENATE BILL 1359 (APPROVED 2006) OUTLINES PROCEDURES FOR LOCATING UTILITIES BY HAND EXCAVATION. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THIS LEGISLATION AND COMPLY WITH ITS DIRECTIVE. PRIOR TO EACH CONSTRUCTION ACTIVITY WITHIN RAILROAD RIGHT-OF-WAY, THE CONTRACTOR SHALL NOTIFY RAILROAD'S SIGNAL REPRESENTATIVE.
10. THE LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS FOR EXISTING FACILITIES ARE IN ACCORDANCE WITH AVAILABLE INFORMATION WITHOUT UNCOVERING AND MEASURING. THE ENGINEER DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION OR THAT ALL EXISTING UNDERGROUND FACILITIES ARE SHOWN. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS FOR CONFLICTS WITH EXISTING UTILITIES, SIGNAL CABLES/EQUIPMENT, FIBER OPTIC LINES, AND/OR OTHER ITEMS THAT MIGHT IMPAIR CONSTRUCTION ACTIVITIES. FOR LOCATION OF SIGNALS AND COMMUNICATION CONDUITS CONTACT RAILROAD SIGNAL DEPARTMENT. INCONSISTENCIES FOUND SHALL BE REPORTED TO THE ENGINEER.
11. DEFINITIONS:
    - A. TRACK OUTAGE: TRACK WHICH IS OUT OF SERVICE FOR A GIVEN PERIOD OF TIME.
    - B. ACTIVE TRACK: TRACK ON WHICH TRAINS ARE OPERATING AND INTERRUPTION OF SERVICE MAY OCCUR ONLY WITHIN AN APPROVED "WINDOW", AS DEFINED BELOW.
    - C. FOULED TRACK: TRACK IS FOULED WHEN AN OBSTRUCTION, INCLUDING A WORKING CREW, IS PLACED WITHIN 20 FEET FROM THE CENTERLINE OF THE TRACK OR WHEN AN OVERHEAD OBSTRUCTION IS PLACED WITHIN 22'-6" ABOVE THE TOP OF RAIL. WORK MAY BE PERFORMED UNDER THE PROTECTION OF A RAILROAD FLAGMAN.
    - D. WINDOW: A GIVEN PERIOD OF TIME BETWEEN OPERATING TRAINS WHERE A TRACK MAY BE TAKEN OUT OF SERVICE, WITH THE STIPULATION THAT THE TRACK SHALL BE BACK IN SERVICE AT THE END OF THE GIVEN PERIOD OF TIME.
    - E. EXCLUSIVE TRACK WINDOW: AN APPROVED WORK WINDOW IN WHICH NO TRAIN MOVEMENTS WILL OPERATE ON ANY TRACK WITHIN THE WINDOW LIMITS. THE CONTRACTOR MAY DISMANTLE, REMOVE, RECONSTRUCT, OR OTHERWISE OBSTRUCT TRACKS WITHIN THE LIMITS OF SUCH A WINDOW. THIS WORK MAY BE PROTECTED BY TRACK OUT OF SERVICE, TRACK AND TIME LIMITS, OR BY FORM B TRACK BULLETIN.
    - F. LIMITED TRACK WINDOW: AN APPROVED WORK WINDOW FOR SOME, BUT NOT ALL TRACKS WITHIN A GENERAL WORK AREA. MOVEMENT OF TRAINS OVER THE TRACK(S) OF A LIMITED TRACK WINDOW IS UNDER THE CONTROL OF THE EIC WHO WILL NOT AUTHORIZE TRAIN MOVEMENT UNLESS AND UNTIL THE CONTRACTOR PERSONNEL AND EQUIPMENT ARE CLEAR OF THE OPERATING TRACK.
    - G. "FORM B" WORK WINDOW: AN APPROVED WORK WINDOW IN WHICH PASSENGER, FREIGHT AND ALL OTHER TRAINS AND ON-TRACK EQUIPMENT MOVEMENTS CAN BE PROHIBITED FROM ENTERING THE DEFINED LIMITS OF A SEGMENT OF TRACK. THE "FORM B" WORK WINDOW ALLOWS THE CONTRACTOR THE ABILITY TO ENTER THE OPERATING ENVELOPE AND PERFORM CONSTRUCTION ACTIVITIES. AN EMPLOYEE-IN-CHARGE/FLAGMAN FROM THE AUTHORITY WILL EXERCISE STRICT CONTROL OVER THE CONTRACTOR'S CONSTRUCTION ACTIVITIES IN CONJUNCTION WITH ROADWAY WORKER PROTECTION REQUIREMENTS, TO ASSURE THAT THE CONTRACTOR'S ACTIVITIES DO NOT DELAY OR IMPACT TRAIN SERVICE.
12. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY HOLD METRO, SCRRA AND THE DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.
13. THE CONTRACTOR SHALL NOT PLACE MATERIAL AND/OR EQUIPMENT WITHIN 20 FEET OF THE CLOSEST RAIL OF AN ACTIVE TRACK AT ANY TIME WITHOUT PRIOR APPROVAL OF THE ENGINEER.
14. ALL EXCAVATED WASTE MATERIAL SHALL BE IMMEDIATELY REMOVED FROM THE SITE. ON SITE STORAGE OF EXCAVATED WASTE MATERIAL SHALL NOT BE PERMITTED AT ANY TIME.
15. THE CONTRACTOR SHALL CLEAN UP ALL DEBRIS AND MATERIALS RESULTING FROM HIS OPERATION AND RESTORE ALL SURFACES, STRUCTURES, DITCHES AND PROPERTY TO ITS ORIGINAL CONDITION TO THE SATISFACTION OF THE ENGINEER.
16. REPAIRS TO THE DAMAGED MATERIALS OR FACILITIES INTENDED TO REMAIN IN PLACE SHALL BE MADE BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE UNLESS OTHERWISE STATED BY THE ENGINEER.
17. RAIL TRAFFIC DISRUPTIONS SHALL BE KEPT TO A MINIMUM. DISRUPTIONS IN RAIL TRAFFIC THAT MAY BE REQUIRED SHALL BE COORDINATED WITH THE ENGINEER BEFOREHAND. NO SUCH WORK SHALL BE COMMENCED WITHOUT THE ENGINEER'S APPROVAL. WORK AFFECTING THE MOVEMENT OF TRAINS WILL BE UNDER THE AUTHORITY AND OVERALL CONTROL OF THE ENGINEER OR HIS REPRESENTATIVE. UPRR FREIGHT AND METROLINK COMMUTER TRAIN OPERATIONS MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
18. EXISTING RAILROAD SIGNAGE (INCLUDING SPEED SIGNS AND MILEPOST SIGNS) SHALL BE MAINTAINED DURING THE CONSTRUCTION PERIOD. ALL RAILROAD SIGNAGE SHALL BE FULLY RESTORED UPON COMPLETION OF EACH DAY'S WORK.
19. CONTRACTOR SHALL PROVIDE FOR THE CONTINUOUS OPERATION OF THE EXISTING FACILITY WITHOUT INTERRUPTION DURING CONSTRUCTION UNLESS SPECIFICALLY AUTHORIZED BY THE RESPECTIVE AUTHORITY.
20. WALKWAYS SHALL BE PLACED AS REQUIRED BY SCRRA E.S. NOS. 2105 AND 2109 FOR ALL NEW CONSTRUCTION, UNLESS OTHERWISE NOTED. WALKWAYS SHALL BE CONTINUOUS AND A MINIMUM OF 2' WIDE WITH GRADUAL SLOPES NOT EXCEEDING 8:1.
21. SUBGRADE SHALL BE COMPACTED TO 95% AS SPECIFIED IN SPECIFICATION SECTION 31 20 00 3.02 B5.

# GENERAL NOTES FOR TRACK PLAN AND PROFILE DRAWINGS

1. DIRECTIONS: "WEST AND EAST" ON PLANS REFER TO MAP/COMPASS DIRECTIONS. "RR WEST" REFERS TO TOWARDS LOS ANGELES, DECREASING MILEPOSTS AND STATIONING. "RR EAST" REFERS TO TOWARDS SAN BERNARDINO, INCREASING MILEPOSTS AND STATIONING.
2. NEW MAINLINE TRACKS SHALL BE 136RE CONTINUOUSLY WELDED RAIL (CWR) WITH PANDROL CLIPS AND CONCRETE TIES. INDUSTRY TRACKS WILL BE 136RE CONTINUOUSLY WELDED RAIL (CWR) WITH PANDROL CLIPS AND TIMBER TIES. IF THE LENGTH OF EXISTING WOOD TIE TRACK IS LESS THAN 1000 FT, THE TRACK WILL BE REPLACED WITH CONCRETE TIES. THE EXISTING CUT SPIKES SHALL BE REPLACED WITH SCREW SPIKES AND 40% OF TIES SHALL BE REPLACED WITH NEW TIES.
3. ALL HAND THROW TURNOUTS SHALL BE EQUIPPED WITH ERGONOMIC BACKSAVER SWITCH LEVERS (TRI-HANDLE LEVERS) PER SCRRA STANDARD DRAWINGS.
4. TO ASSIST CONTRACTOR WITH DETERMINING EXISTING STATIONING, STATIONING IS PROVIDED AT VARIOUS LOCATIONS THROUGHOUT THE PROJECT LIMIT (I.E. EXISTING TURNOUTS).
5. TAPER RAILS AND COMPROMISE JOINTS DEPICTED ON PLANS SHOW LOCATIONS WHERE THERE IS A CHANGE IN RAIL WEIGHT. THE CONTRACTOR SHALL VERIFY, WITH THE RESIDENT ENGINEER, EXISTING RAIL WEIGHTS AT THESE LOCATIONS TO DETERMINE WHICH RAIL WEIGHT TRANSITION ELEMENTS TO USE. IN SOME INDUSTRY TRACK LOCATIONS, BOTH TAPER RAILS AND COMPROMISE JOINTS MAY BE REQUIRED. COMPROMISE JOINTS WILL NOT BE LOCATED ON THE MAIN LINE TRACKS. THE RESIDENT ENGINEER SHALL APPROVE ALL 39' TAPER RAIL AND COMPROMISE JOINT INSTALLATIONS.
6. FOR TIE TRANSITION DETAILS, SEE SCRRA ENGINEERING STANDARD ES2351-03. TIE TRANSITIONS ON EXISTING TRACK SHALL BE REPLACEMENT OF TIES AND OTM ONLY.
7. CONTRACTOR SHALL CONSTRUCT ALL SPECIAL TRACKWORK AND TRACKWORK ON PLAN (BALLAST, TIES, RAIL, OTM), UNLESS NOTED OTHERWISE. CONTRACTOR SHALL CONSTRUCT ALL GRADING, REGARDLESS OF TRACK CONSTRUCTOR.
8. SIGNAL CONDUITS SHOWN IN PROFILES ARE PRIMARY CONDUIT PATH CROSSINGS FOR REFERENCE ONLY, AND DO NOT NECESSARILY REPRESENT ALL SIGNAL CONDUIT CROSSINGS UNDER TRACKS. LOCATION AND DETAILS FOR CONDUITS ARE SHOWN IN THE SIGNAL PLANS.
9. CONTRACTOR SHALL CONSTRUCT WALKWAYS ALONGSIDE THE TRACK AND TURNOUTS CONFORMING TO SCRRA E.S. NO. 2105.
10. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR TURNOUT CONSTRUCTION PADS IN ACCORDANCE WITH SCRRA E.S. NO. 2005, AND CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR WALKWAYS ALONGSIDE THE TRACK AND AT TURNOUTS IN ACCORDANCE WITH SCRRA E.S. NO. 2005, AND CONSTRUCT WALKWAYS PER THE SHOP DRAWINGS.
11. SCRRA IS NOT A MEMBER OF DIGALERT. THE CONTRACTOR SHALL CALL SCRRA'S SIGNAL DEPARTMENT AT (909) 592-1346 A MINIMUM OF FIVE (5) DAYS PRIOR TO BEGINNING CONSTRUCTION TO MARK SIGNAL AND COMMUNICATION CABLES AND CONDUITS. TO ASSURE CABLES AND CONDUITS HAVE BEEN MARKED, NO WORK MAY PROCEED UNTIL YOU HAVE BEEN PROVIDED WITH AN SCRRA DIG NUMBER. IN CASE OF SIGNAL EMERGENCIES OR GRADE CROSSING PROBLEMS, THE CONTRACTOR SHALL CALL SCRRA'S 24-HOUR SIGNAL EMERGENCY NUMBER 1-888-446-9721.
12. THE APPLICANT AND/OR THE CONTRACTOR SHALL FOLLOW SCRRA'S "RIGHT-OF-WAY ENCROACHMENT APPROVAL PROCEDURES" (SCRRA FORM 36).
13. THE APPLICANT AND/OR THE CONTRACTOR SHALL FOLLOW SCRRA RULES AND REGULATIONS, ADDRESSED IN "RULES AND REQUIREMENTS FOR CONSTRUCTION ON RAILWAY PROPERTY" (SCRRA FORM 37).
14. CONTRACTOR IS TO COMPLETE SCRRA'S TEMPORARY RIGHT OF ENTRY AGREEMENT, FORM 6. REAL ESTATE LICENSE THROUGH THE APPROPRIATE MEMBER AGENCY MAY BE NEEDED. IF SO, FORM 6 WILL NOT BE ISSUED UNTIL THE LICENSE AGREEMENT HAS BEEN ISSUED. THIS FORM IS AVAILABLE ON SCRRA'S WEBSITE AT WWW.METROLINKTRAINS.COM ("ABOUT US", AND "ENGINEERING AND CONSTRUCTION").
15. CONTACT SCRRA'S CONSULTANT/CONTRACTOR AT (213) 305-8424 TO ARRANGE FOR FLAGGING SERVICES. FLAGGING SERVICE IS DEPENDENT ON THE EMPLOYEE-IN-CHARGE (EIC) AVAILABILITY AND MAY REQUIRE A MINIMUM OF FIFTEEN WORKING DAYS PRIOR TO BEGINNING WORK. PRIOR NOTIFICATION OF FLAGGING SERVICES DOES NOT GUARANTEE THE AVAILABILITY OF THE EIC FOR THE PROPOSED DATE OF WORK.
16. CONTACT SCRRA'S ADMINISTRATIVE SPECIALIST, SYSTEM SAFETY LAURENE LOPEZ AT (909) 451-2885 TO ARRANGE FOR THIRD PARTY SAFETY TRAINING. ALLOW 24 TO 72 HOURS FROM THE REQUEST FOR SAFETY TRAINING TO ARRANGE THE TRAINING.
17. TEMPORARY TRAFFIC CONTROL PLANS SHALL BE SUBMITTED TO SCRRA FOR COMMENTS AND APPROVAL NOT LESS THAN 60 DAYS PRIOR TO START OF THE WORK. THE TEMPORARY TRAFFIC CONTROL PLANS SHALL BE PREPARED, SIGNED AND SEALED BY A CALIFORNIA LICENSED CIVIL OR TRAFFIC ENGINEER. TEMPORARY TRAFFIC CONTROL WILL COMPLY WITH THE CURRENT EDITIONS OF THE CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD), WORK AREA TRAFFIC CONTROL HANDBOOK (WATCH), TEMPORARY TRAFFIC CONTROL WORK AT OR NEAR GRADE CROSSING GUIDELINES PREPARED BY SCRRA AND SCRRA'S ENGINEERING STANDARD ES4301.
18. THE CONTRACTOR SHALL INSPECT THE EXISTING TIES IN ALL TRACK SHIFT AREAS AND REPLACE UP TO 50% OF THE TIES, AS DIRECTED BY THE ENGINEER.

# GENERAL NOTES FOR UTILITY DRAWINGS

1. ALL UTILITIES CROSSING TRACKS SHALL CONFORM TO THE AREMA MANUAL OF RAILWAY ENGINEERING VOLUME 1, CHAPTER 1, PART 5, PIPELINES. ALSO, PIPELINES ACROSS OR ALONG SCRRA RAILWAY AND CASING SHALL CONFORM TO ES5001 AND ES5002.
2. INSTALLATION OF FIBER OPTICS AND ENCASEMENT, SHALL FOLLOW SCRRA DESIGN CRITERIA MANUAL, SECTION 9.8 AND ES5001 AND 5002.

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**30% SUBMITTAL**
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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
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| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY (Metro)

WAGNER ENGINEERING & SURVEY, INC. (WES) 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**GENERAL NOTES**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | GI-005 |
| REV | |
| SCALE | NTS |
| SHEET NO | 4 |

# ABBREVIATIONS

| | |
|---|---|
| & | AND |
| @ | AT |
| ° | DEGREE(S) |
| ' | FOOT or FEET or MINUTE(S) |
| " | INCH or INCHES or SECOND(S) |
| % | PERCENT |
| # | POUND or NUMBER |
| △ | CENTRAL ANGLE OF CIRCULAR CURVE |
| AC | ASPHALT CONCRETE |
| ADA | AMERICAN DISABILITIES ACT |
| AGG | AGGREGATE |
| AP | ANGLE POINT |
| APPROX | APPROXIMATELY |
| AREMA | AMERICAN RAILWAY ENGINEERING & MAINTENANCE-OF-WAY ASSOCIATION |
| AVE | AVENUE |
| BB | BEGINNING OF BRIDGE |
| BC | BEGINNING OF CURVE |
| BEG | BEGIN or BEGINNING |
| BIP | BITUMINOUS IRON PIPE |
| BLVD | BOULEVARD |
| BM | BENCHMARK |
| CA or CAL | CALIFORNIA |
| CALTRANS | DEPARTMENT OF TRANSPORTATION, STATE OF CALIFORNIA |
| CC | CENTER TO CENTER |
| CIDH | CAST IN DRILLED HOLE |
| CIP | CAST IRON PIPE or CAST IN PLACE |
| C/L, CL, or ℄ | CENTERLINE |
| CLR | CLEAR or CLEARANCE |
| CMP | CORRUGATED METAL PIPE |
| CMPA | CORRUGATED METAL PIPE ARCH |
| COMM | COMMUNICATION |
| CONC | CONCRETE |
| CP | CONTROL POINT |
| CPUC or PUC | CALIFORNIA PUBLIC UTILITIES COMMISSION |
| CS | CURVE TO SPIRAL |
| CSG | CASING |
| CSP | CORRUGATED STEEL PIPE |
| CT | CONCRETE TIES |
| CY | CUBIC YARDS |
| Dc | DEGREE OF CURVATURE (CHORD DEFINITION) |
| DESC | DESCRIPTION |
| DIA or Ø | DIAMETER |
| DOT | DEPARTMENT OF TRANSPORTATION |
| DR | DRIVE |
| DU | DUCT |
| DWG | DRAWING |
| E | EAST, EASTERLY, EASTING, SUPERELEVATION, or EXPANSION END |
| EA | EACH |
| Ea | SUPERELEVATION, ACTUAL |
| EB | END OF BRIDGE |
| EC | END OF CURVE |
| EG | EXISTING GRADE or EXISTING GROUND |
| ELEC | ELECTRIC or ELECTRICAL |
| EL or ELEV | ELEVATION |
| EOP | EDGE OF PANEL |
| EP | EDGE OF PAVEMENT |
| ES or E.S. | ENGINEERING STANDARDS |
| Eu | SUPERELEVATION, UNBALANCED |
| EQ | EQUAL |
| EX or EXIST or (E) | EXISTING |
| EXP | EXPANSION |
| F or FRT | FREIGHT |
| FES | FLARED END SECTION |
| FG | FINISHED GRADE |
| FL | FLOW LINE |
| F/O or FO | FIBER OPTIC |
| FRA | FEDERAL RAILROAD ADMINISTRATION |
| FS | FINISHED SURFACE |
| FT | FEET or FOOT |
| G | GRADE |
| G1 | GRADE ENTERING VERTICAL CURVE |
| G2 | GRADE EXITING VERTICAL CURVE |
| GB | GRADE BREAK |
| H | HEIGHT |
| HDPE | HIGH-DENSITY POLYETHELENE (PIPE) |
| HH | HANDHOLE |
| HMA | HOT-MIX ASPHALT |
| HMAC | HOT-MIX ASPHALT CONCRETE |
| HP | HIGH PRESSURE |
| HT | HAND THROW |
| HTTO | HAND THROW TURNOUT |
| I | TOTAL INTERSECTION ANGLE |
| IND | INDUSTRY (TRACK) |
| INV | INVERT |
| IJ | INSULATED JOINT |
| JT | JOINT |
| L | LENGTH |
| L.A. | LOS ANGELES |
| LACFCD | LOS ANGELES COUNTY FLOOD CONTROL DISTRICT |
| LACMTA | LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY (METRO) |
| LADPW | LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS |
| LB | POUND(S) |
| Lc | LENGTH OF CIRCULAR CURVE |
| LF | LINEAR FEET or LINEAR FOOT |
| LH | LEFT HAND |
| LOL | LAYOUT LINE |
| LT | LEFT, OR LEAD TRACK |
| Ls | LENGTH OF SPIRAL |
| MAX | MAXIMUM |
| MH | MANHOLE |
| MIN | MINIMUM |
| MP | MILEPOST |
| MT | MAIN TRACK |
| N | NORTH or NORTHERLY or NORTHING |
| NIC | NOT IN CONTRACT |
| NO. or NOS. | NUMBER or NUMBERS |
| NPDES | NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM |
| NTS | NOT TO SCALE |
| N/A | NOT APPLICABLE |
| OC or O/C | ON CENTER |
| OD | OUTSIDE DIAMETER |
| OG | ORIGINAL GRADE |
| OP | OVERPASS |
| OTM | OTHER TRACK MATERIAL |
| P or PAS | PASSENGER |
| PA | PUBLIC ADDRESS |
| PB | PULLBOX |
| PC | POINT OF CURVE |
| PCC | POINT OF COMPOUND CURVATURE or PORTLAND CEMENT CONCRETE |
| PED | PEDESTRIAN |
| PH | POTHOLE |
| PI | POINT OF INTERSECTION |
| PIP | PROTECT IN PLACE |
| PITO | POINT OF INTERSECTION OF TURNOUT |
| PL | PLACE |
| PO | POWER OPERATED |
| POB | POINT OF BEGINNING |
| POC | POINT ON CURVE |
| POE | POINT OF ENDING |
| POT | POINT ON TANGENT |
| POTO | POWER OPERATED TURNOUT |
| POVT | POINT ON VERTICAL TANGENT |
| (P) or PROP | PROPOSED |
| PS | POINT OF SWITCH |
| PT | POINT OF TANGENT |
| PTC | POSITIVE TRAIN CONTROL |
| PVC | POINT OF VERTICAL CURVE or POLYVINYL CHLORIDE (PIPE) |
| PVI | POINT OF VERTICAL INTERSECTION |
| PVT | POINT OF VERTICAL TANGENT |
| R | RADIUS or RATE OF CHANGE |
| RBM | RAILBOUND MANGANESE (FROG) |
| RC | REINFORCED CONCRETE |
| RCB | REINFORCED CONCRETE BOX |
| RCP | REINFORCED CONCRETE PIPE |
| RD | ROAD |
| REQ'D | REQUIRED |
| RR | RAILROAD |
| RT | RIGHT OR RAIL TOP |
| RH | RIGHT HAND |
| ROW or R/W | RIGHT-OF-WAY |
| RW | RETAINING WALL |
| S | SOUTH or SOUTHERLY or SLOPE |
| SC | SPIRAL TO CURVE |
| SCE | SOUTHERN CALIFORNIA EDISON |
| SCG | SOUTHERN CALIFORNIA GAS COMPANY |
| SCRRA | SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY (METROLINK) |
| SD | STORM DRAIN |
| SDMH | STORM DRAIN MANHOLE |
| SF | SQUARE FEET or SQUARE FOOT |
| SHT | SHEET |
| SIG | SIGNAL |
| ST | SPIRAL TO TANGENT or STREET |
| STA | STATION |
| STD | STANDARD |
| STL | STEEL |
| T | TANGENT |
| TC | TRACK CENTER(S) or TOP OF CURB |
| TEL | TELEPHONE |
| TF | TRACK FOOT or TRACK FEET |
| TG | TOP OF GRATE |
| T.O. or TO | TURNOUT |
| TOP | TOP OF PLATFORM |
| T/R or TOR | TOP OF RAIL |
| TPB | TREATED PERVIOUS BACKFILL |
| T.R. | TAPERED RAIL |
| TRK | TRACK |
| TS | TANGENT TO SPIRAL |
| TT | TIMBER TIES |
| TVM | TICKET VENDING MACHINE |
| TW | TOP OF WALL |
| TYP | TYPICAL |
| UD | UNDERDRAIN |
| UNO | UNLESS NOTED OTHERWISE |
| UP | UNDERPASS |
| UPRR or UP | UNION PACIFIC RAILROAD |
| V | SPEED |
| VCP | VITRIFIED CLAY PIPE |
| Vf | SPEED, FREIGHT TRAINS |
| VMS | VARIABLE MESSAGE SIGN |
| Vp | SPEED, PASSENGER TRAINS |
| W | WEST or WESTERLY or WIDTH |
| WKWY | WALKWAY |
| WSE | WATER SURFACE ELEVATION |
| WSM | WELDED SPRING MANGANESE (FROG) |
| x | BY |
| XING | CROSSING |
| XO or XOVER | CROSSOVER |
| YD | YARD |

# TRACK NAMES & ABBREVIATIONS

| | |
|---|---|
| EXMT | EXISTING MAIN TRACK |
| MT01 | MAIN TRACK 1 |
| MT02 | MAIN TRACK 2 |
| AP01 | AEROPRES PROPANE TRACK |
| APXO | AEROPRES CROSSOVER TRACK |
| APRT | AEROPRES RUNAROUND TRACK |
| MW01 | MOHAWK WESTERN TRACK |
| MOW1 | MAINTENANCE OF WAY TRACK |

# CURVE DATA

| | |
|---|---|
| CURVE 28.52-1 | CURVE NAME |
| Dc=1° 00'00" | DEGREE OF CURVE |
| Lc=1320.1' | LENGTH OF CIRCULAR CURVE |
| Ls=420' | LENGTH OF SPIRALS |
| Ea=1" | SUPERELEVATION (ACTUAL) |
| Eu=3.37"(P), -0.37"(F) | SUPERELEVATION (UNBALANCED), PASSENGER (P), FREIGHT (F) |
| V=79(P), 30(F) | SPEED (IN MPH), PASSENGER (P), FREIGHT (F) |

30% SUBMITTAL
NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY JS
DRAWN BY JS
CHECKED BY PM
IN CHARGE MG
DATE 7-1-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
ABBREVIATIONS

CONTRACT NO AE455500024151956 5
DRAWING NO GI-006 REV
SCALE NTS
SHEET NO 5

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# SYMBOLS

## TRACK

| | EXISTING | PROPOSED |
|---|---|---|
| EXISTING TRACK (TO REMAIN) | | |
| NEW TRACK | | |
| REMOVE TRACK AND CONSTRUCT NEW TRACK | | |
| EXISTING TRACK TO BE SHIFTED | | |
| REMOVE TRACK | | |
| REHAB TRACK | | |
| RAISE TRACK | | |
| POINT OF SWITCH (HAND-THROW TURNOUT) | | |
| POINT OF SWITCH (HAND THROW TURNOUT WITH ELECTRIC LOCK) | EL | |
| POINT OF SWITCH (POWER-OPERATED TURNOUT) | | |
| DOUBLE SWITCH POINT DERAIL | SP | SP |
| SLIDING DERAIL | | D |
| INSULATED JOINTS | | |
| COMPROMISE JOINT | | |
| TAPER RAIL | | |
| MILEPOST | MP XX.X | |
| SIGNAL | | |
| SIGNAL SHELTER | | |
| PTC TOWER | | |
| ACCESS GATE | GATE | GATE |
| BILLBOARD | Sign | |
| RIGHT-OF-WAY | | |
| UNDERDRAIN | | UD |
| BUMPING POST | | |
| CLEAN OUT | | |
| DITCH CENTERLINE/FLOW | | |
| FENCE (CHAINLINK) | | |
| FILL | | F |
| CUT | | C |
| RAILROAD CROSSING GATE & FLASHERS | | |
| RETAINING WALL | | |
| PULLBOX | | |
| LEFT WAYSIDE CANTILEVER | | |
| RIGHT WAYSIDE CANTILEVER | | |

## UTILITIES

| | EXISTING | PROPOSED |
|---|---|---|
| CABLE TV OVERHEAD | TV OH | TV OH |
| CABLE TV UNDERGROUND | TV | TV |
| COMMUNICATION & SIGNALING | | |
| FIBER OPTIC | FO | FO |
| FUEL GAS | G | G |
| LIGHTING | | |
| NATURAL GAS | G | G |
| OIL | O | O |
| POWER OVERHEAD | E OH | E OH |
| POWER UNDERGROUND | E | E |
| SANITARY SEWER | SS | SS |
| STORM DRAIN | SD | SD |
| TELEPHONE OVERHEAD | T OH | T OH |
| TELEPHONE UNDERGROUND | T | T |
| WATER | W | W |
| BENCH MARK | | |
| BOLLARD | | |
| BROW DITCH | | BD |
| CATCH BASIN | CB | CB |
| CABLE TV RISER | | |
| CONIFER TREE | | |
| CURB/GUTTER | | |
| DECIDUOUS TREE | | |
| DRAINAGE INLET | | |
| DRY WELL | | |
| EDGE LINE WITH DELINEATOR | | |
| EDGE OF GRAVEL | | |
| EDGE OF PAVEMENT | | |
| ELECTRICAL SERVICE | | |
| FIRE AUTO CONNECTION | | |
| FIRE HYDRANT | FH | |
| FLOW DIRECTION | | |
| RAILROAD SIGNAL (NO GATE) | | |
| FOUND CONTROL | | |
| FOUND MONUMENT AS NOTED | | |
| FUEL FILLER | | |
| GAS METER | | |
| GAS RISER | | |
| GAS VALVE | | |
| GAS VAULT | G | G |
| GUY ANCHOR | | |
| HANDHOLE (UNKNOWN TYPE) | | |
| HANDICAP SPACE | | |
| HEADWALL | | |

| | EXISTING | PROPOSED |
|---|---|---|
| IRRIGATION VALVE | | |
| JUNCTION BOX | | |
| LUMINARY | | |
| MANHOLE (UNKNOWN TYPE) | | |
| MONITOR WELL | | |
| PEDESTRIAN CROSSING GATE | | |
| POINT OF VERTICAL INTERSECTION | | |
| POLE | | |
| POST | | |
| POT HOLE LOCATION | | |
| POWER POLE | | |
| POWER METER | | |
| POWER RISER | | |
| POWER VAULT | P | P |
| SANITARY MANHOLE | | |
| SET CONTROL | | |
| SET MONUMENT AS NOTED | | |
| SET PHOTO CONTROL | | |
| SHRUB | | |
| SIGN | | |
| SIGNAL CONTROLLER | | |
| SILT FENCE/SEDIMENT BARRIER | | SCF |
| STORM MANHOLE | | |
| STREET LIGHT | | |
| TELEPHONE POLE | | |
| TELEPHONE MANHOLE | T | |
| TELEPHONE RISER | | |
| TELEPHONE VAULT | T | |
| TRAFFIC SIGNAL | | |
| TRANSFORMER | | |
| TREE | | |
| TREELINE, SHRUBBERY | | |
| UTILITY POLE W/ DROP | | |
| WATER METER | | |
| WATER VALVE | | |

LETTER SERIES

DRAWING NUMBER

SECTION DESIGNATION

## PATTERNS

- BALLAST
- SUBGRADE, EARTH
- SUBBALLAST
- AGGREGATE BASE
- CONCRETE
- TACTILE WARNING TILES
- RIPRAP

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DATE 7-1-2017


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Metro

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17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355


LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

SYMBOLS

CONTRACT NO AE4555000241519565
DRAWING NO GI-007 REV
SCALE NTS
SHEET NO 6

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

N

26

27

28

TP-001 TP-002 TP-003 TP-004 TP-005 TP-006 TP-007 TP-008 TP-009

1395+00 1400+00 1405+00 1410+00 1415+00 1420+00 1425+00 1430+00 1435+00 1440+00 1445+00 1450+00 1455+00 1460+00 1465+00 1470+00 1475+00 1480+00 1485+00 1490+00 1495+00 1500+00

VALLEY CENTER AVE

NEW
LONE HILL
MP 26.5

LONE HILL AVE

SR-57 FRWY
OVERPASS
(AMELIA OH)

COVINA BLVD

CATARACT AVE

SAN DIMAS AVE

WALNUT AVE

CITY OF
SAN DIMAS
CITY OF
LA VERNE

MATCH LINE -- SEE BELOW LEFT

N

29

30

TP-010 TP-011 TP-012 TP-013 TP-014 TP-015 TP-016 TP-017 TP-018 TP-019

1505+00 1510+00 1515+00 1520+00 1525+00 1530+00 1535+00 1540+00 1545+00 1550+00 1555+00 1560+00 1565+00 1570+00 1575+00 1580+00 1585+00 1590+00 1595+00 1600+00 1605+00 1610+00 1615+00 1620+00

GAINEY
CERAMICS
PVT XING

PAPER PAK
PVT XING

CP WHITE
MP 30.4

MATCH LINE
SEE ABOVE RIGHT

SAN DIMAS
CANYON RD

PUDDINGSTONE
CHANNEL

MARSHALL CANYON
CHANNEL

WHEELER AVE

LIVE OAK WASH

FAIRPLEX DR

FAIRPLEX
STATION

ARROW HWY

WHITE AVE

200' 0 400' 800'
GRAPHIC SCALE: 1" = 400'

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |


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NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

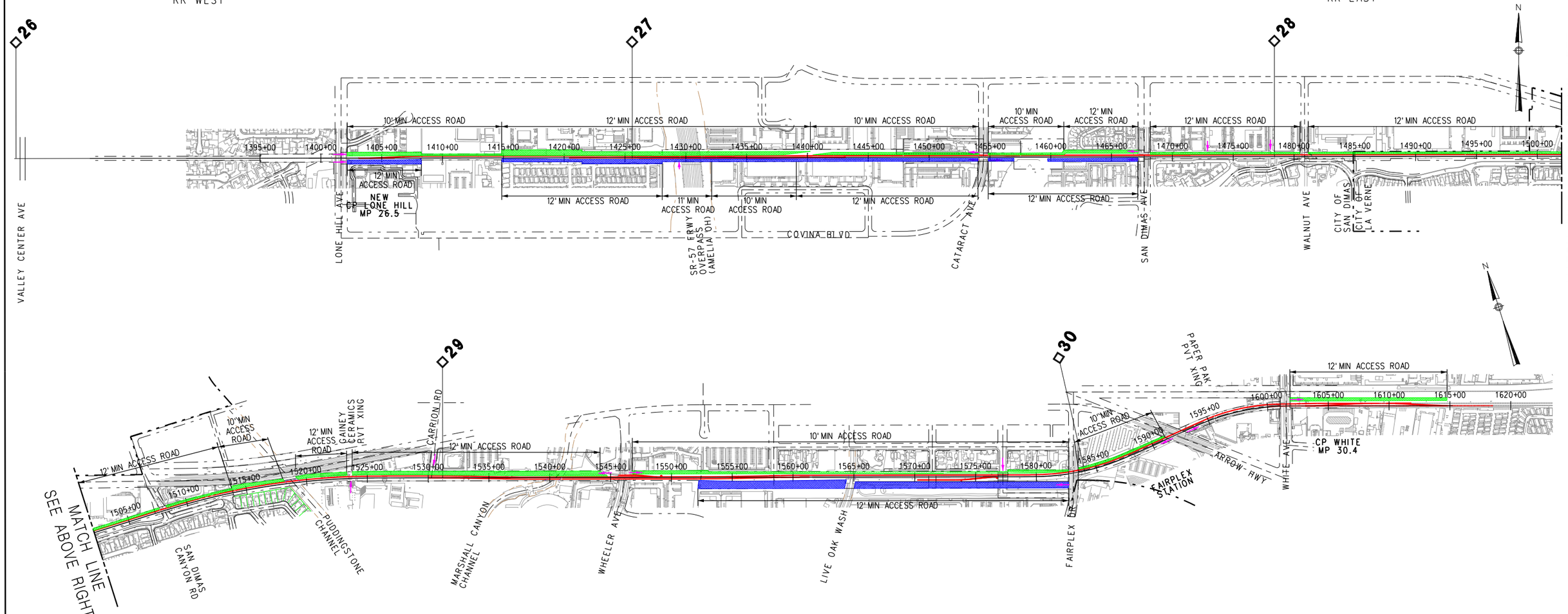
JACOBS
725 TOWN & COUNTRY RD
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ORANGE, CA 92868
TEL 714-835-6355


# LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

## KEY MAP TRACK PLANS

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | GI-008 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 7 |


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LEGEND:

- NORTH ACCESS ROAD
- SOUTH ACCESS ROAD
- ACCESS POINT

200' 0 400' 800'

GRAPHIC SCALE: 1" = 400'

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| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 02-07-2017 |


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SUITE 300
ORANGE, CA 92868
TEL 714-835-6355


## LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

### ACCESS ROADS

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | GI-009 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 8 |


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TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

MATCH LINE -- SEE BELOW LEFT

SEE ABOVE MATCH LINE RIGHT

VALLEY CENTER AVE

BEGIN SOUNDWALL STA 1376+50

BEGIN SOUNDWALL STA 1375+75

END SOUNDWALL STA 1392+50

END SOUNDWALL STA 1401+25

LONE HILL AVE

NEW CP LONE HILL MP 26.5

SR-57 FRWY OVERPASS (AMELIA OH)

COVINA BLVD

CATARACT AVE

BEGIN SOUNDWALL STA 1460+50

END SOUNDWALL STA 1467+00

SAN DIMAS AVE

WALNUT AVE

CITY OF SAN DIMAS

CITY OF LA VERNE

BEGIN SOUNDWALL STA 1488+00

END SOUNDWALL STA 1500+00

PUDDINGSTONE CHANNEL

GAINEY CERAMICS PVT XING

CARRION RD

BEGIN SOUNDWALL STA 1515+50

END SOUNDWALL STA 1523+00

SAN DIMAS CANYON RD

MARSHALL CANYON CHANNEL

BEGIN SOUNDWALL STA 1558+00

WHEELER AVE

LIVE OAK WASH

END SOUNDWALL STA 1582+50

FAIRPLEX DR

PAPER PAK PVT XING

CP WHITE MP 30.4

ARROW HWY

WHITE AVE

FAIRPLEX STATION

BEGIN SOUNDWALL STA 1606+00

END SOUNDWALL STA 1612+50

LEGEND:

OPTIONAL SOUNDWALL

200' 0 400' 800'

GRAPHIC SCALE: 1" = 400'

NOTE:

1. THE SOUNDWALL LOCATIONS SHOWN ON THIS DRAWING ARE OPTIONAL, TO BE INSTALLED IF A QUIET ZONE IS NOT USED.

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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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DATE: 02-07-2017


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Metro

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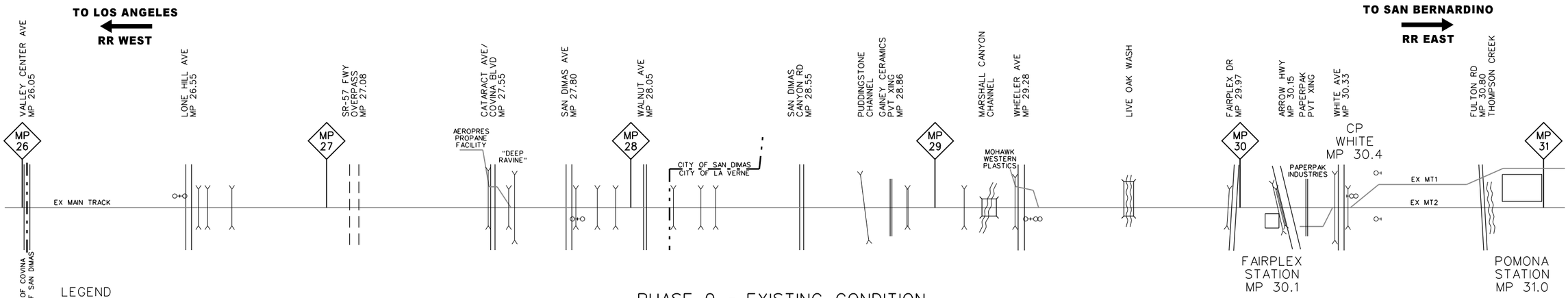
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## LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

## OPTIONAL SOUNDWALL LOCATIONS

CONTRACT NO: AE4555000241519565
DRAWING NO: GI-010
REV:
SCALE: AS SHOWN
SHEET NO: 9

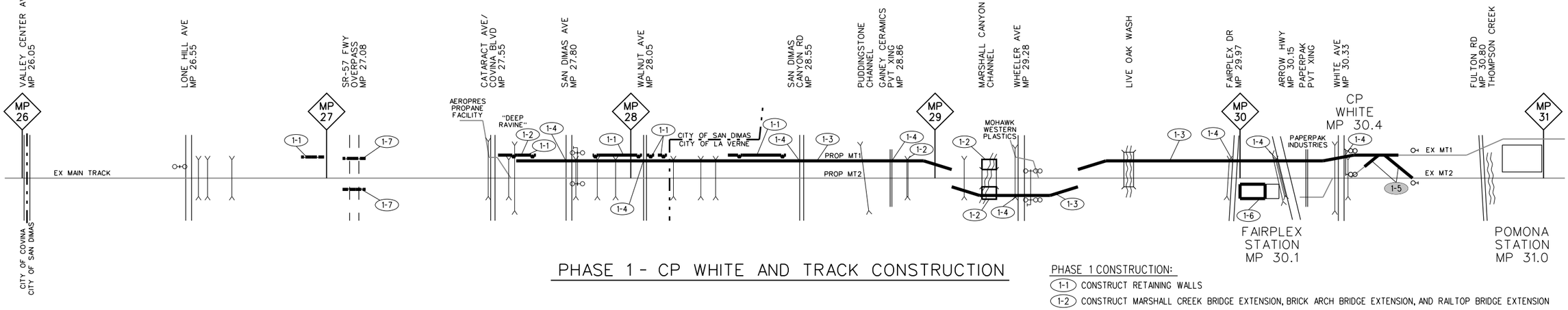
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## PHASE 0 - EXISTING CONDITION

LEGEND

- EXISTING TRACK
- PROPOSED TRACK (IN CURRENT PHASE)
- WORK DONE FROM PREVIOUS PHASE
- REMOVED TRACK
- EXISTING PLATFORM
- PROPOSED PLATFORM
- CREEK
- ROADWAY CROSSING
- ROADWAY UNDERPASS
- ROADWAY OVERPASS
- EXISTING BRIDGE
- PROPOSED BRIDGE
- EXISTING CULVERT
- PROPOSED CULVERT (EXTENSION)
- PROPOSED RETAINING WALL
- RETAINING WALL FROM PREVIOUSE PHASE
- (1-1) CONSTRUCTION ITEM
- (1-1) CONSTRUCTION ITEM DURING WORK WINDOW




## PHASE 1 - CP WHITE AND TRACK CONSTRUCTION

PHASE 1 CONSTRUCTION:

- (1-1) CONSTRUCT RETAINING WALLS
- (1-2) CONSTRUCT MARSHALL CREEK BRIDGE EXTENSION, BRICK ARCH BRIDGE EXTENSION, AND RAILTOP BRIDGE EXTENSION
- (1-3) CONSTRUCT MAIN TRACK, GRADING AND DRAINAGE, UTILITY PROTECTION, AND CULVERT EXTENSIONS
- (1-4) CONSTRUCT GRADE CROSSING IMPROVEMENTS ON NEW TRACKS
- (1-5) INSTALL #20 CROSSOVERS
- (1-6) EXTEND PLATFORM
- (1-7) CONSTRUCT PIER PROTECTION WALLS AND RETAINING WALLS

Know what's below. Call before you dig.

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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
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| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

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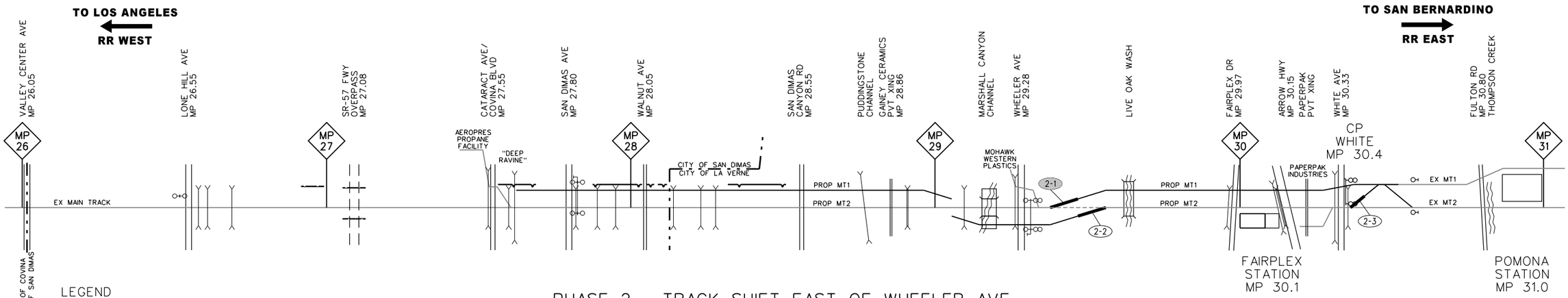
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**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**CONSTRUCTION PHASING PLAN SHEET 1 OF 3**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | PH-001 |
| REV | |
| SCALE | NONE |
| SHEET NO | 10 |

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LEGEND

- EXISTING TRACK
- PROPOSED TRACK (IN CURRENT PHASE)
- WORK DONE FROM PREVIOUS PHASE
- REMOVED TRACK
- EXISTING PLATFORM
- PROPOSED PLATFORM
- CREEK
- ROADWAY CROSSING
- ROADWAY UNDERPASS
- ROADWAY OVERPASS
- EXISTING BRIDGE
- PROPOSED BRIDGE
- EXISTING CULVERT
- PROPOSED CULVERT (EXTENSION)
- PROPOSED RETAINING WALL
- RETAINING WALL FROM PREVIOUSE PHASE

(1-1) CONSTRUCTION ITEM

(1-1) CONSTRUCTION ITEM DURING WORK WINDOW

## PHASE 2 - TRACK SHIFT EAST OF WHEELER AVE

NOTE:

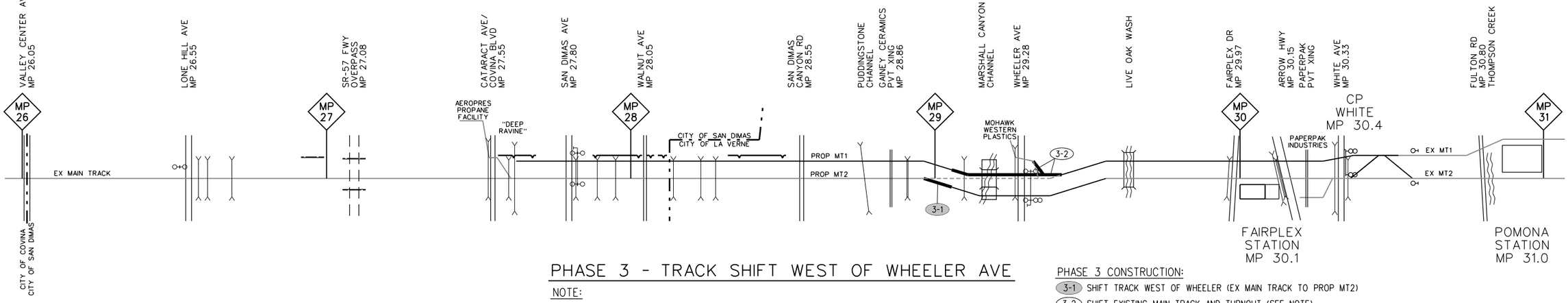
TRAINS USE THE EXISTING MAIN TRACK WEST OF WHEELER AVE, AND THE NEW SECOND MAIN TRACK EAST OF WHEELER.

PHASE 2 CONSTRUCTION:

(2-1) SHIFT TRACK EAST OF WHEELER AVE (EX MAIN TRACK TO PROP MT1)

(2-2) SHIFT TRACK EAST OF WHEELER AVE (PROP MT2 TO EX MAIN TRACK)

(2-3) REMOVE EXISTING TURNOUT AND INSTALL #20 TURNOUT




## PHASE 3 - TRACK SHIFT WEST OF WHEELER AVE

NOTE:

TRAINS USE THE EXISTING MAIN TRACK BOTH WEST AND EAST OF WHEELER AVE. MOHAWK WESTERN PLASTIC IS ACCESSED FROM THE NEW MAIN TRACK (PROP MT1) EAST OF WHEELER.
TURNOUT AND TRACK SHIFT OF MT1 SHALL BE COORDINATED TO NOT DISRUPT SERVICE TO THE INDUSTRY.

PHASE 3 CONSTRUCTION:

(3-1) SHIFT TRACK WEST OF WHEELER (EX MAIN TRACK TO PROP MT2)

(3-2) SHIFT EXISTING MAIN TRACK AND TURNOUT (SEE NOTE)

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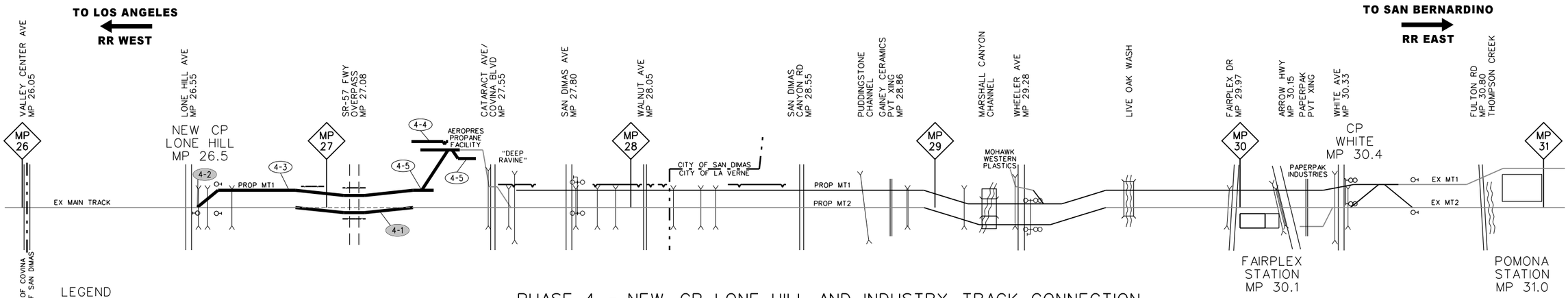
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**CONSTRUCTION PHASING PLAN SHEET 2 OF 3**

CONTRACT NO AE4555000241519565
DRAWING NO PH-002 REV
SCALE NONE
SHEET NO 11

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LEGEND

- EXISTING TRACK
- PROPOSED TRACK (IN CURRENT PHASE)
- WORK DONE FROM PREVIOUS PHASE
- REMOVED TRACK
- EXISTING PLATFORM
- PROPOSED PLATFORM
- CREEK
- ROADWAY CROSSING
- ROADWAY UNDERPASS
- ROADWAY OVERPASS
- EXISTING BRIDGE
- PROPOSED BRIDGE
- EXISTING CULVERT
- PROPOSED CULVERT (EXTENSION)
- PROPOSED RETAINING WALL
- RETAINING WALL FROM PREVIOUSE PHASE

(1-1) CONSTRUCTION ITEM

(1-1) CONSTRUCTION ITEM DURING WORK WINDOW

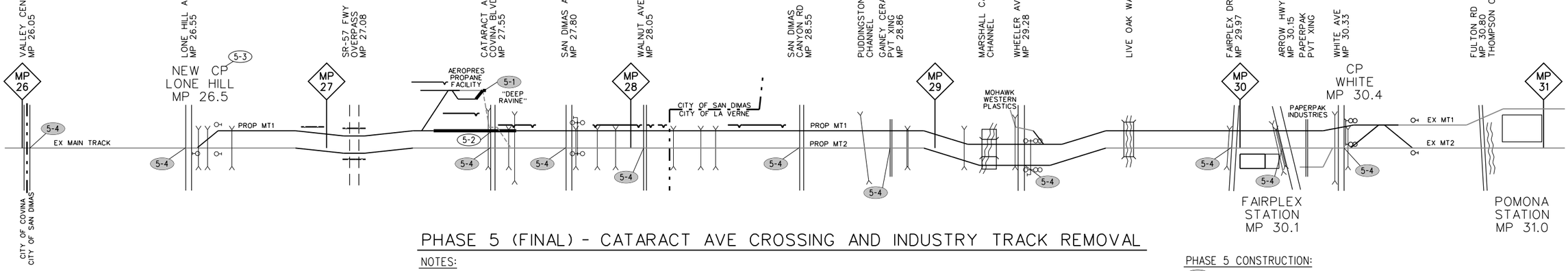
## PHASE 4 - NEW CP LONE HILL AND INDUSTRY TRACK CONNECTION

NOTES:

4-1. TRAINS USE THE EXISTING MAIN TRACK THROUGH THE PROJECT SITE. AEROPRES PROPANE IS ACCESSED FROM THE NEW MAIN TRACK (PROP MT1).
4-2. CONSTRUCTION WITHIN THE AEROPRES PROPANE FACILITY SHALL BE COORDINATED WITH THE FACILITY OWNER AND NOT DISRUPT FACILITY OPERATIONS.

PHASE 4 CONSTRUCTION:

(4-1) SHIFT MAIN TRACK 2 TO FINAL LOCATION
(4-2) INSTALL #24 TURNOUT AND INSTALL POINT PROTECTION
(4-3) CONSTRUCT NEW MAIN TRACK 1
(4-4) CONSTRUCT RETAINING WALL
(4-5) INSTALL #10 TURNOUT TO INDUSTRY AND INDUSTRY TRACKS (SEE NOTE 4-2)




## PHASE 5 (FINAL) - CATARACT AVE CROSSING AND INDUSTRY TRACK REMOVAL

NOTES:

5-1. TRAINS CAN USE BOTH MAIN TRACKS.
5-2. CONSTRUCTION WITHIN THE AEROPRES PROPANE FACILITY SHALL BE COORDINATED WITH THE FACILITY OWNER AND NOT DISRUPT FACILITY OPERATIONS.
5-3. CROSSING CLOSURES SHALL BE STAGED SO THAT NO TWO ADJACENT CROSSINGS ARE CLOSED AT THE SAME TIME, AND COMPLY WITH CITY REQUIREMENTS.

PHASE 5 CONSTRUCTION:

(5-1) REMOVE EXISTING INDUSTRY TRACK AND TURNOUT; CONSTRUCT INDUSTRY TRACK EXTENSION AND TURNOUT (SEE NOTE 5-2).
(5-2) CONSTRUCT AT-GRADE CROSSING AT CATARACT AVE FOR NEW TRACK; CONSTRUCT NEW TRACK TO COMPLETE PROP MT1
(5-3) REMOVE POINT PROTECTION AT NEW CP LONE HILL
(5-4) REPLACE EXISTING TRACK AND PANELS AT ALL EXISTING AT-GRADE CROSSINGS (SEE NOTE 5-3).

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|---|---|---|---|---|---|---|---|

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IN CHARGE MG
DATE 7-1-2017


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**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**CONSTRUCTION PHASING PLAN SHEET 3 OF 3**

CONTRACT NO AE4555000241519565
DRAWING NO PH-003 REV
SCALE NONE
SHEET NO 12

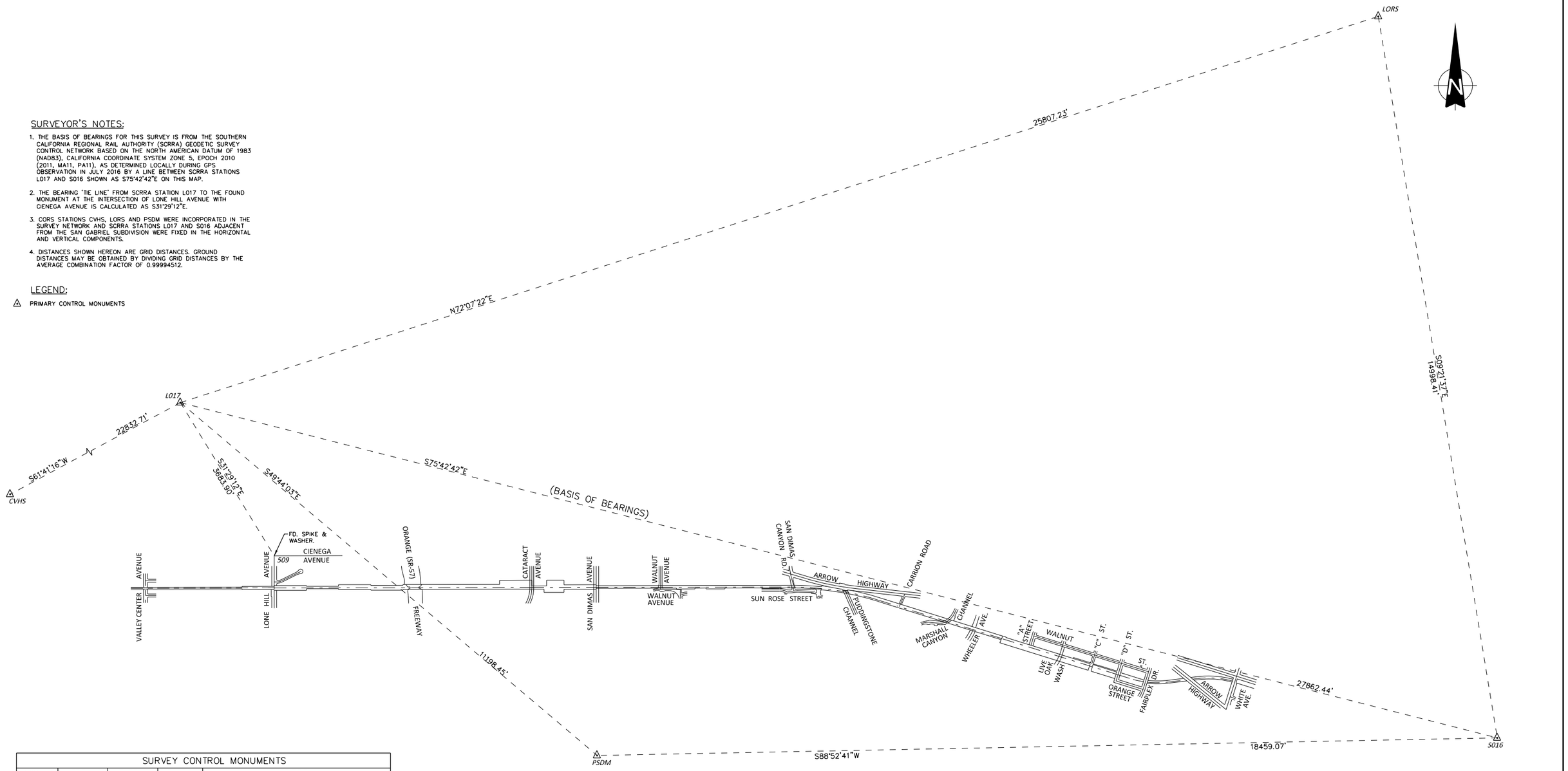
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## SURVEYOR'S NOTES:

1. THE BASIS OF BEARINGS FOR THIS SURVEY IS FROM THE SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY (SCRRA) GEODETIC SURVEY CONTROL NETWORK BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD83), CALIFORNIA COORDINATE SYSTEM ZONE 5, EPOCH 2010 (2011, MA11, PA11), AS DETERMINED LOCALLY DURING GPS OBSERVATION IN JULY 2016 BY A LINE BETWEEN SCRRA STATIONS L017 AND S016 SHOWN AS S75°42'42"E ON THIS MAP.
2. THE BEARING 'TIE LINE' FROM SCRRA STATION L017 TO THE FOUND MONUMENT AT THE INTERSECTION OF LONE HILL AVENUE WITH CIENEGA AVENUE IS CALCULATED AS S31°29'12"E.
3. CORS STATIONS CVHS, LORS AND PSDM WERE INCORPORATED IN THE SURVEY NETWORK AND SCRRA STATIONS L017 AND S016 ADJACENT FROM THE SAN GABRIEL SUBDIVISION WERE FIXED IN THE HORIZONTAL AND VERTICAL COMPONENTS.
4. DISTANCES SHOWN HEREON ARE GRID DISTANCES. GROUND DISTANCES MAY BE OBTAINED BY DIVIDING GRID DISTANCES BY THE AVERAGE COMBINATION FACTOR OF 0.99994512.

## LEGEND:

△ PRIMARY CONTROL MONUMENTS




| SURVEY CONTROL MONUMENTS | | | | |
|---|---|---|---|---|
| POINT # | NORTHING | EASTING | ELEVATION | DESCRIPTION |
| L017 | 1863069.98 | 6611532.47 | 840.55' | FD. 2" ALUMINIUM DISK STAMPED "SCRRA CONTROL L017" |
| S016 | 1856193.50 | 6638533.02 | 1064.60' | FD. 2" ALUMINIUM DISK STAMPED "SCRRA CONTROL S016" |
| LORS | 1870992.21 | 6636093.65 | 1583.37 | CA CORS – PID DM7524 |
| CVHS | 1852240.96 | 6591431.11 | 504.48' | CA CORS – PID AI4485 |
| PSDM | 1855832.04 | 6620077.49 | 1025.80' | CA CORS – PID AJ913 |
| 509 | 1859928.49 | 6613456.57 | 850.16' | FD. SPIKE & WASHER |

1000' 500' 0 1000' 2000'
GRAPHIC SCALE: HORIZ. 1" = 1000'

$FILEL$ $TIME$ $DATE$ $USER$

811 Know what's below. Call before you dig.

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# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY A. ABAD
DRAWN BY A. ABAD
CHECKED BY L. CARLSON
IN CHARGE S. WAGNER
DATE 7-1-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

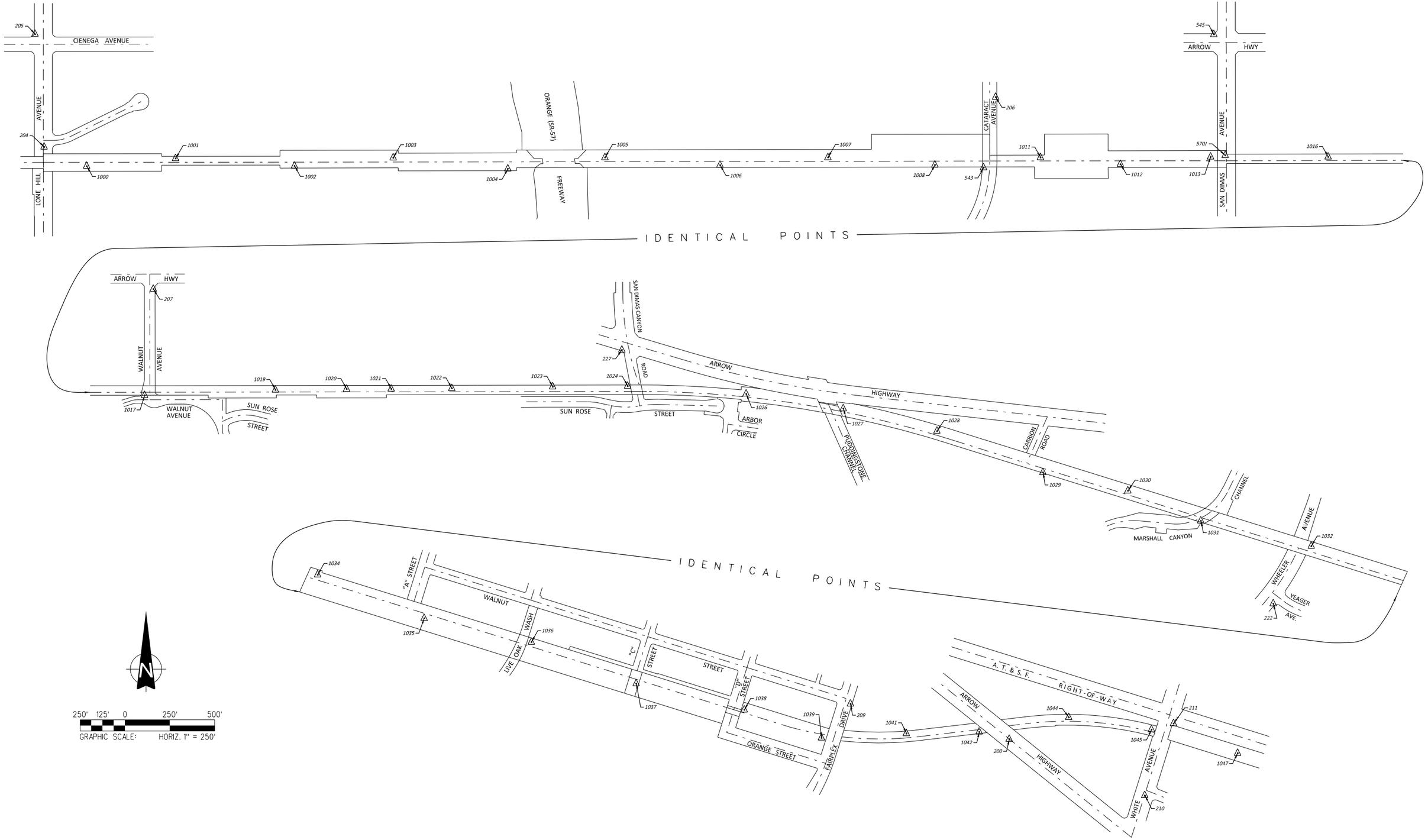
METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**SURVEY CONTROL PRIMARY CONTROL NETWORK**

CONTRACT NO AE4555000241519565
DRAWING NO VC-001 REV
SCALE AS SHOWN
SHEET NO 13




Know what's below. Call before you dig. 811

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY A. ABAD
DRAWN BY A. ABAD
CHECKED BY L. CARLSON
IN CHARGE S. WAGNER
DATE 7-1-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

## LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

## SURVEY CONTROL SECONDARY CONTROL POINTS

CONTRACT NO AE4555000241519565
DRAWING NO VC-002
REV
SCALE AS SHOWN
SHEET NO 14

$USER$ $DATE$ $TIME$ $FILEL$

| SURVEY CONTROL MONUMENTS | | | | |
|---|---|---|---|---|
| POINT # | NORTHING | EASTING | ELEVATION | DESCRIPTION |
| 200 | 1857323.72 | 6632293.42 | 1045.42' | SET 1" BRASS MON. STAMPED "WES INC. CONTROL" |
| 204 | 1859355.54 | 6613462.02 | 833.56' | SET SPIKE |
| 205 | 1859984.82 | 6613410.73 | 850.87' | SET SPIKE |
| 206 | 1859634.38 | 6618770.89 | 921.42' | SET MAG NAIL |
| 207 | 1859857.12 | 6621397.45 | 963.32' | SET MAG NAIL |
| 209 | 1857520.80 | 6631407.44 | 1041.26' | SET 1" BRASS MON. STAMPED "WES INC. CONTROL" |
| 210 | 1857010.21 | 6633049.75 | 1042.70' | SET 1" BRASS MON. STAMPED "WES INC. CONTROL" |
| 211 | 1857410.96 | 6633210.12 | 1053.30' | SET 1" BRASS MON. STAMPED "WES INC. CONTROL" |
| 222 | 1858101.94 | 6627646.33 | 1018.76' | SET 1" BRASS MON. STAMPED "WES INC. CONTROL" |
| 227 | 1859517.56 | 6624011.88 | 1002.69' | SET 1" BRASS MON. STAMPED "WES INC. CONTROL" |
| 543 | 1859241.16 | 6618703.78 | 912.85' | FD. LEAD & TACK |
| 545 | 1859983.25 | 6619988.65 | 925.44' | SET MAG NAIL |
| 570J | 1859309.32 | 6620051.68 | 933.57' | SET MAG NAIL |
| 1000 | 1859248.51 | 6613699.40 | 833.18' | SET 1" IRON PIPE WITH PLUG |
| 1001 | 1859291.26 | 6614195.30 | 844.78' | SET 1" IRON PIPE WITH PLUG |
| 1002 | 1859249.56 | 6614858.94 | 857.72' | SET 1" IRON PIPE WITH PLUG |
| 1003 | 1859295.09 | 6615409.40 | 870.46' | SET 1" IRON PIPE WITH PLUG |
| 1004 | 1859233.55 | 6616048.99 | 877.82' | SET 1" IRON PIPE WITH PLUG |
| 1005 | 1859297.07 | 6616591.30 | 887.80' | SET 1" IRON PIPE WITH PLUG |
| 1006 | 1859255.02 | 6617232.90 | 899.30' | SET 1" IRON PIPE WITH PLUG |
| 1007 | 1859297.56 | 6617835.24 | 908.13' | SET 1" IRON PIPE WITH PLUG |
| 1008 | 1859255.55 | 6618432.02 | 910.39' | SET 1" IRON PIPE WITH PLUG |
| 1011 | 1859297.03 | 6619021.28 | 913.43' | SET 1" IRON PIPE WITH PLUG |
| 1012 | 1859259.64 | 6619467.18 | 920.57' | SET 1" IRON PIPE WITH PLUG |
| 1013 | 1859300.68 | 6619970.38 | 929.60' | SET 1" IRON PIPE WITH PLUG |
| 1016 | 1859300.43 | 6620626.26 | 943.18' | SET 1" IRON PIPE WITH PLUG |
| 1017 | 1859264.71 | 6621349.01 | 955.94' | SET 1" IRON PIPE WITH PLUG |
| 1019 | 1859294.28 | 6622079.19 | 967.05' | SET 1" IRON PIPE WITH PLUG |
| 1020 | 1859299.46 | 6622475.96 | 975.39' | SET 1" IRON PIPE WITH PLUG |
| 1021 | 1859299.98 | 6622725.06 | 978.52' | SET 1" IRON PIPE WITH PLUG |
| 1022 | 1859303.58 | 6623063.12 | 985.37' | SET 1" IRON PIPE WITH PLUG |
| 1023 | 1859312.09 | 6623625.66 | 993.52 | SET 1" IRON PIPE WITH PLUG |
| 1024 | 1859315.48 | 6624044.41 | 1002.39' | SET 1" IRON PIPE WITH PLUG |
| 1026 | 1859272.53 | 6624705.26 | 1009.44' | SET 1" IRON PIPE WITH PLUG |
| 1027 | 1859190.34 | 6625247.31 | 1011.92' | SET 1" IRON PIPE WITH PLUG |
| 1028 | 1859064.80 | 6625769.95 | 1011.42' | SET 1" IRON PIPE WITH PLUG |
| 1029 | 1858834.59 | 6626361.71 | 1013.98' | SET 1" IRON PIPE WITH PLUG |
| 1030 | 1858731.53 | 6626835.37 | 1017.56' | SET 1" IRON PIPE WITH PLUG |
| 1031 | 1858564.10 | 6627242.60 | 1019.92' | SET 1" IRON PIPE WITH PLUG |
| 1032 | 1858422.90 | 6627858.77 | 1024.00' | SET 1" IRON PIPE WITH PLUG |
| 1034 | 1858241.01 | 6628434.58 | 1028.45' | SET 1" IRON PIPE WITH PLUG |
| 1035 | 1857998.24 | 6629028.66 | 1029.34' | SET 1" IRON PIPE WITH PLUG |
| 1036 | 1857865.79 | 6629626.88 | 1029.80' | SET 1" IRON PIPE WITH PLUG |
| 1037 | 1857633.99 | 6630211.61 | 1030.36' | SET 1" IRON PIPE WITH PLUG |
| 1038 | 1857487.72 | 6630815.17 | 1036.42' | SET 1" IRON PIPE WITH PLUG |
| 1039 | 1857331.25 | 6631245.37 | 1038.44' | SET 1" IRON PIPE WITH PLUG |
| 1041 | 1857355.55 | 6631719.22 | 1041.38 | SET 1" IRON PIPE WITH PLUG |
| 1042 | 1857364.93 | 6632125.87 | 1044.64' | SET 1" IRON PIPE WITH PLUG |
| 1044 | 1857445.68 | 6632624.85 | 1048.32' | SET 1" IRON PIPE WITH PLUG |
| 1045 | 1857377.67 | 6633087.28 | 1050.47' | SET 1" IRON PIPE WITH PLUG |
| 1047 | 1857246.20 | 6633567.85 | 1048.93' | SET 1" IRON PIPE WITH PLUG |

$USER$ $DATE$ $TIME$ $FILEL$

811 Know what's below. Call before you dig.

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

DESIGNED BY A. ABAD
DRAWN BY A. ABAD
CHECKED BY L. CARLSON
IN CHARGE S. WAGNER
DATE 7-1-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

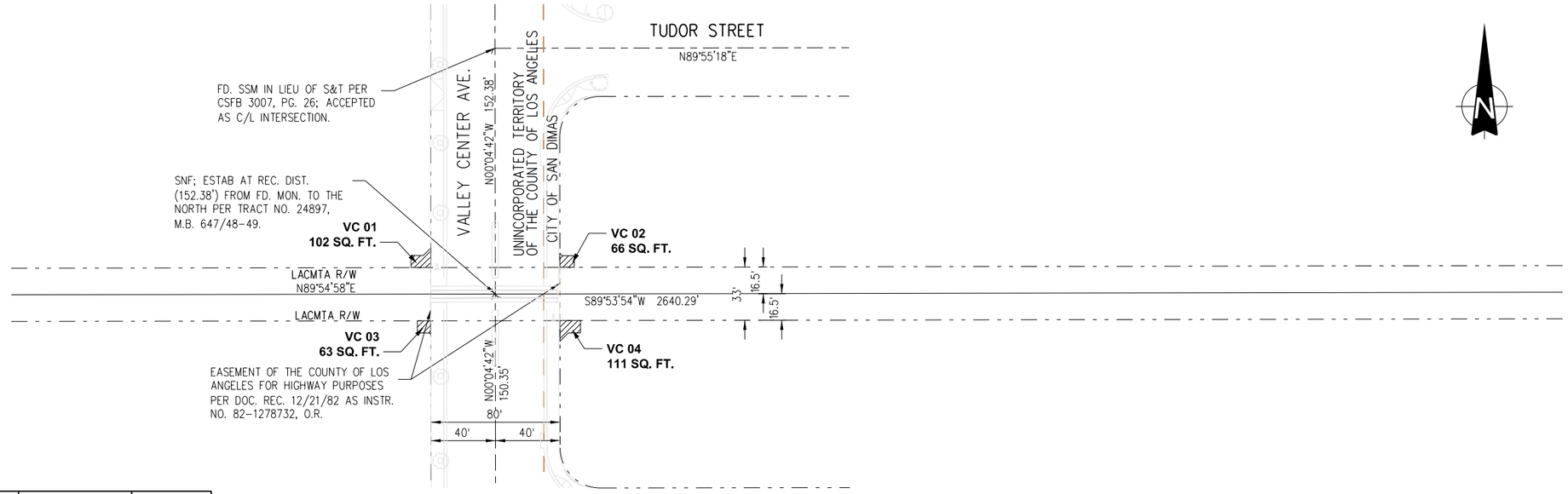
**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**SURVEY CONTROL SECONDARY CONTROL POINTS**

CONTRACT NO AE4555000241519565
DRAWING NO VC-003
REV
SCALE N/A
SHEET NO 15

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST




PLAN

| PROJECT PARCEL | APN PARCEL | OWNER<br>Name<br>Address<br>Phone | ESTATE | AREA REQUIRED (SQ.FT) |
|---|---|---|---|---|
| PCL-VC01 | 8401-035-020 | PHYLLIS MINA / MAURICE R JONES<br>21372 E TUDOR ST. COVINA, CA 91724 | CORNER CUT PARTIAL | **102 SQ. FT.** |
| PCL-VC02 | 8385-001-038 | MARK & LISA BRITT<br>1448 W TUDOR ST,<br>SAN DIMAS , CA 91773 | CORNER CUT PARTIAL | **66 SQ. FT.** |
| PCL-VC03 | 8401-003-018 | GREGORY & DIANA HAGEN<br>21342 E GREENHAVEN ST<br>COVINA CA 91724 | CORNER CUT PARTIAL | **63 SQ. FT.** |
| PCL-VC04 | 8385-009-001 | TED & TANNY FERRIS<br>1459 GREENHAVEN ST,<br>SAN DIMAS, CA 91773 | CORNER CUT PARTIAL | **111 SQ. FT.** |

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40

811 Know what's below. Call before you dig.

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

DESIGNED BY A. ABAD
DRAWN BY M. VINLUAN
CHECKED BY D. KNEZEVIC
IN CHARGE S. WAGNER
DATE 7-1-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

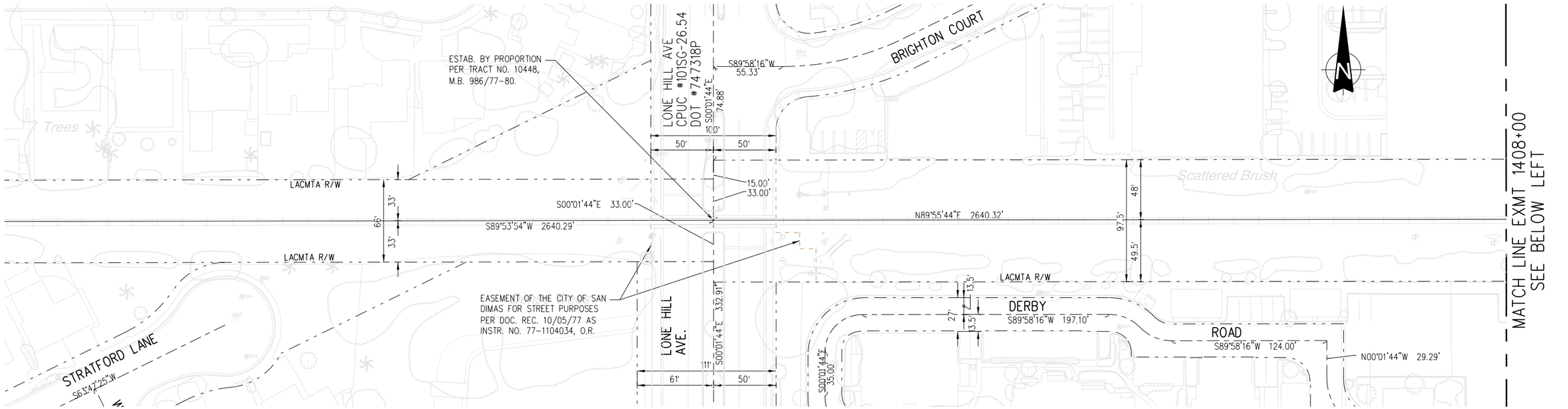
METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

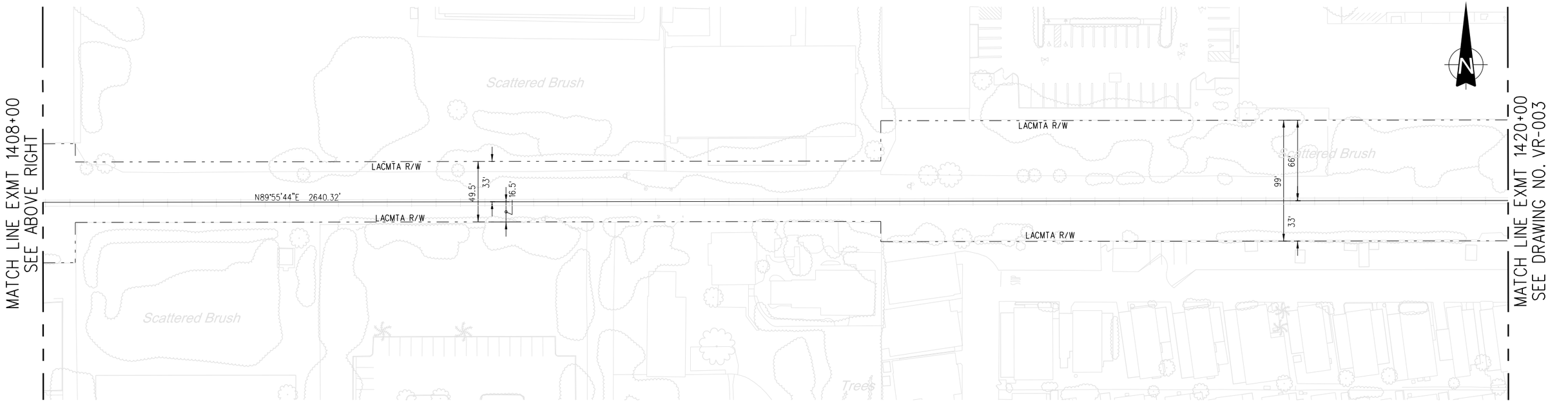
**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**
**EXISTING AND PROPOSED RIGHT-OF-WAY MAP**
**VALLEY CENTER AVENUE**

CONTRACT NO AE4555000241519565
DRAWING NO VR-001 REV
SCALE AS SHOWN
SHEET NO 16

$USER$ $DATE$ $TIME$ $FILE$




PLAN




PLAN

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | A. ABAD |
| DRAWN BY | M. VINLUAN |
| CHECKED BY | D. KNEZEVIC |
| IN CHARGE | S. WAGNER |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**
**EXISTING AND PROPOSED RIGHT-OF-WAY MAP**
**EXMT 1396+00 TO EXMT 1420+00**

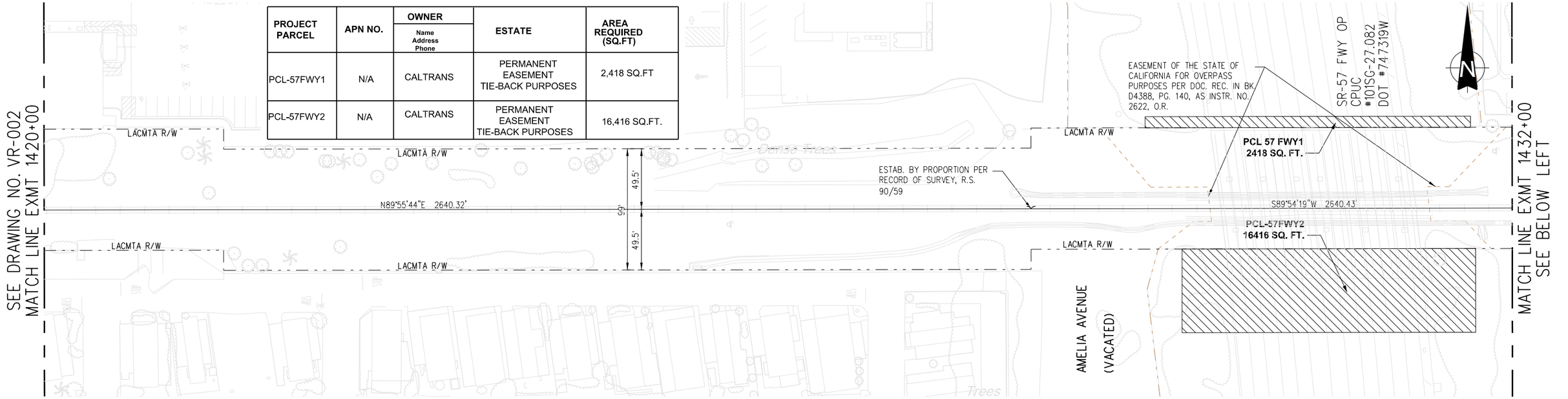
CONTRACT NO AE4555000241519565
DRAWING NO VR-002 REV
SCALE AS SHOWN
SHEET NO 17

$USER$ $DATE$ $TIME$ $FILEL$

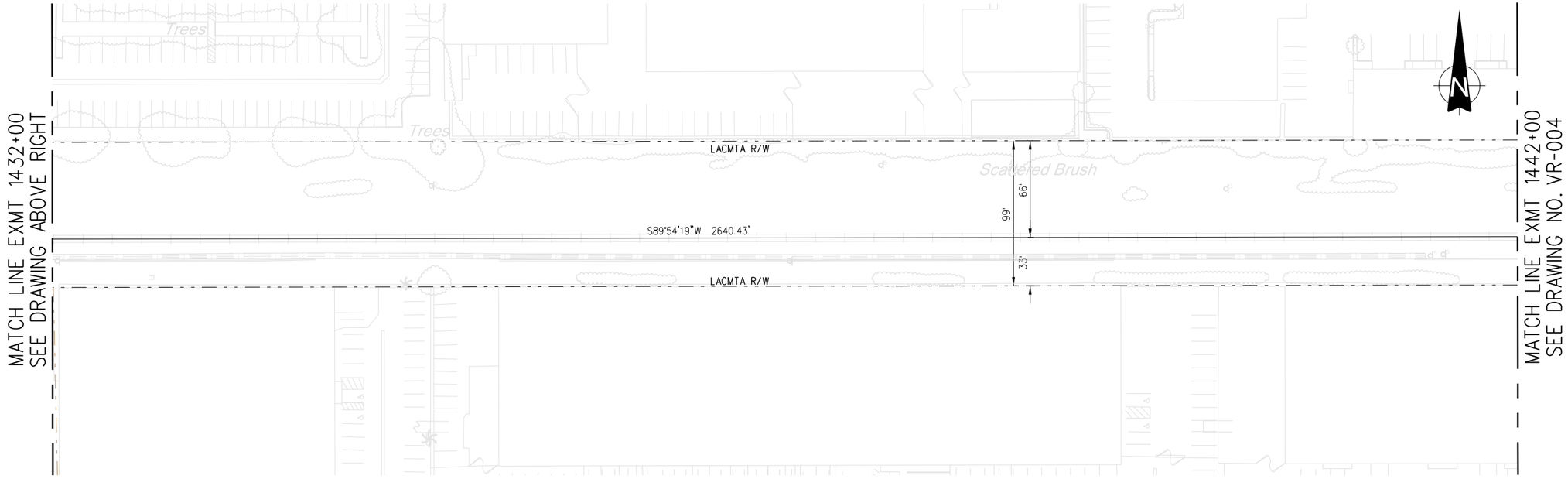
TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

| PROJECT PARCEL | APN NO. | OWNER<br>Name<br>Address<br>Phone | ESTATE | AREA REQUIRED (SQ.FT) |
|---|---|---|---|---|
| PCL-57FWY1 | N/A | CALTRANS | PERMANENT EASEMENT TIE-BACK PURPOSES | 2,418 SQ.FT |
| PCL-57FWY2 | N/A | CALTRANS | PERMANENT EASEMENT TIE-BACK PURPOSES | 16,416 SQ.FT. |




PLAN




PLAN

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40

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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

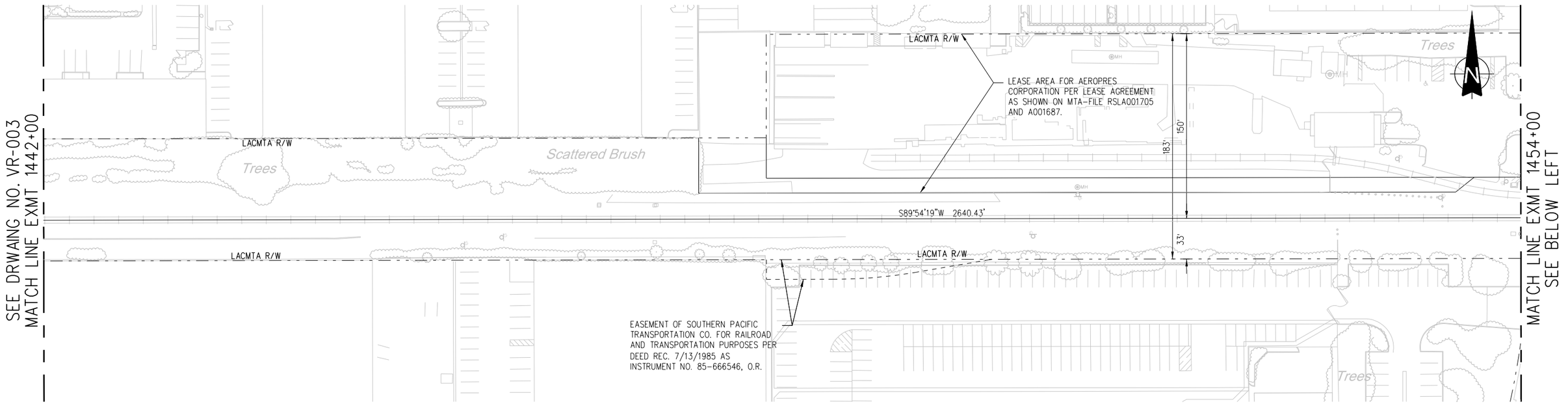
DESIGNED BY A. ABAD
DRAWN BY M. VINLUAN
CHECKED BY D. KNEZEVIC
IN CHARGE S. WAGNER
DATE 7-1-2017


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro
METROLINK
WES WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

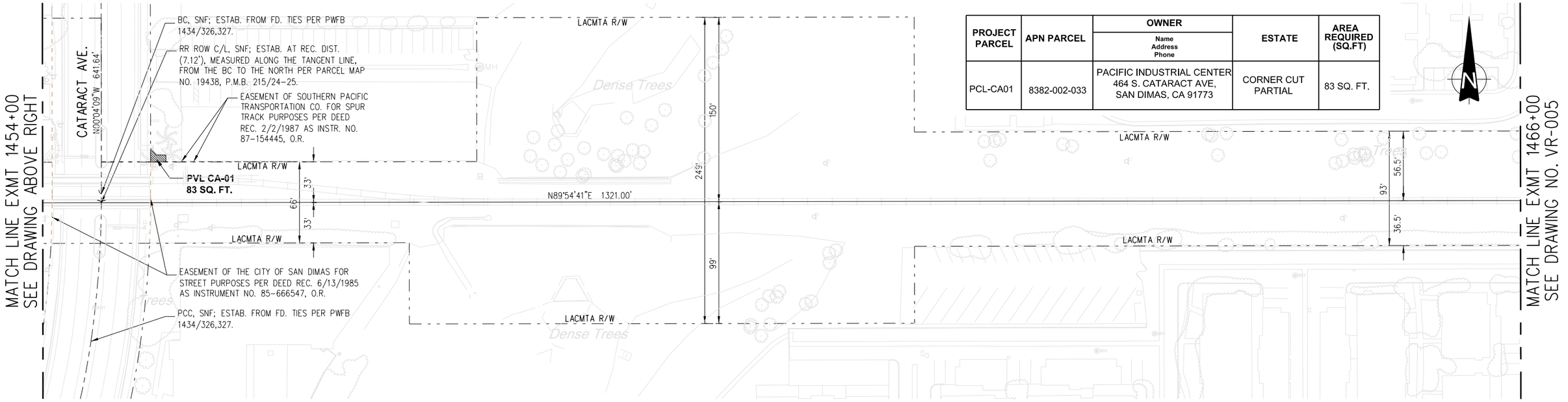

# LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
## EXISTING AND PROPOSED RIGHT-OF-WAY MAP
## EXMT 1420+00 TO EXMT 1442+00

CONTRACT NO AE4555000241519565
DRAWING NO VR-003 REV
SCALE AS SHOWN
SHEET NO 18

$USER$ $DATE$ $TIME$ $FILEL$




PLAN




| PROJECT PARCEL | APN PARCEL | OWNER (Name, Address, Phone) | ESTATE | AREA REQUIRED (SQ.FT) |
|---|---|---|---|---|
| PCL-CA01 | 8382-002-033 | PACIFIC INDUSTRIAL CENTER 464 S. CATARACT AVE, SAN DIMAS, CA 91773 | CORNER CUT PARTIAL | 83 SQ. FT. |

PLAN

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40

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# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY A. ABAD
DRAWN BY M. VINLUAN
CHECKED BY D. KNEZEVIC
IN CHARGE S. WAGNER
DATE 7-1-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**
**EXISTING AND PROPOSED RIGHT-OF-WAY MAP**
**EXMT 1442+00 TO EXMT 1466+00**

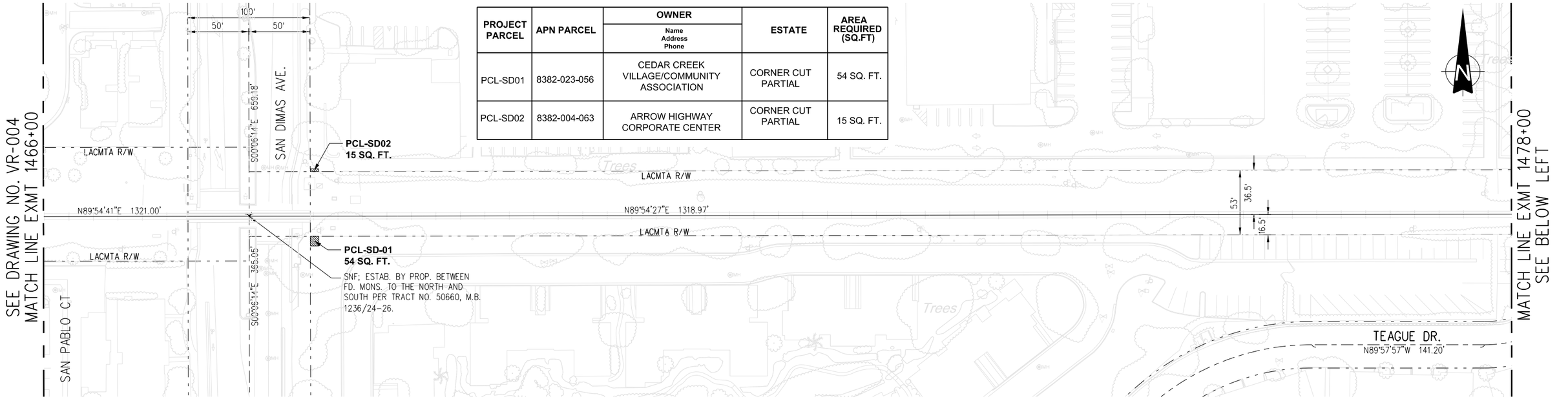
CONTRACT NO AE455500024151956 5
DRAWING NO VR-004 REV
SCALE AS SHOWN
SHEET NO 19

$USER$ $DATE$ $TIME$ $FILE$

TO LOS ANGELES, CA
RR WEST

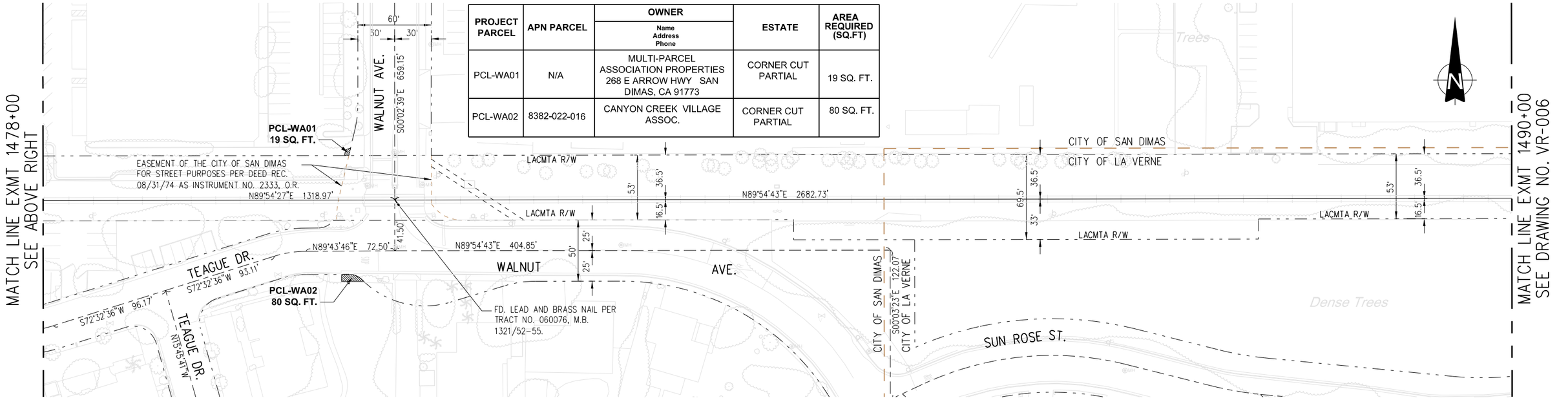
SAN BERNARDINO, CA
RR EAST

| PROJECT PARCEL | APN PARCEL | OWNER<br>Name<br>Address<br>Phone | ESTATE | AREA REQUIRED (SQ.FT) |
|---|---|---|---|---|
| PCL-SD01 | 8382-023-056 | CEDAR CREEK VILLAGE/COMMUNITY ASSOCIATION | CORNER CUT PARTIAL | 54 SQ. FT. |
| PCL-SD02 | 8382-004-063 | ARROW HIGHWAY CORPORATE CENTER | CORNER CUT PARTIAL | 15 SQ. FT. |




PLAN

| PROJECT PARCEL | APN PARCEL | OWNER<br>Name<br>Address<br>Phone | ESTATE | AREA REQUIRED (SQ.FT) |
|---|---|---|---|---|
| PCL-WA01 | N/A | MULTI-PARCEL ASSOCIATION PROPERTIES 268 E ARROW HWY SAN DIMAS, CA 91773 | CORNER CUT PARTIAL | 19 SQ. FT. |
| PCL-WA02 | 8382-022-016 | CANYON CREEK VILLAGE ASSOC. | CORNER CUT PARTIAL | 80 SQ. FT. |




PLAN

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40

$USER$ $DATE$ $TIME$ $FILEL$

811 Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | A. ABAD |
| DRAWN BY | M. VINLUAN |
| CHECKED BY | D. KNEZEVIC |
| IN CHARGE | S. WAGNER |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

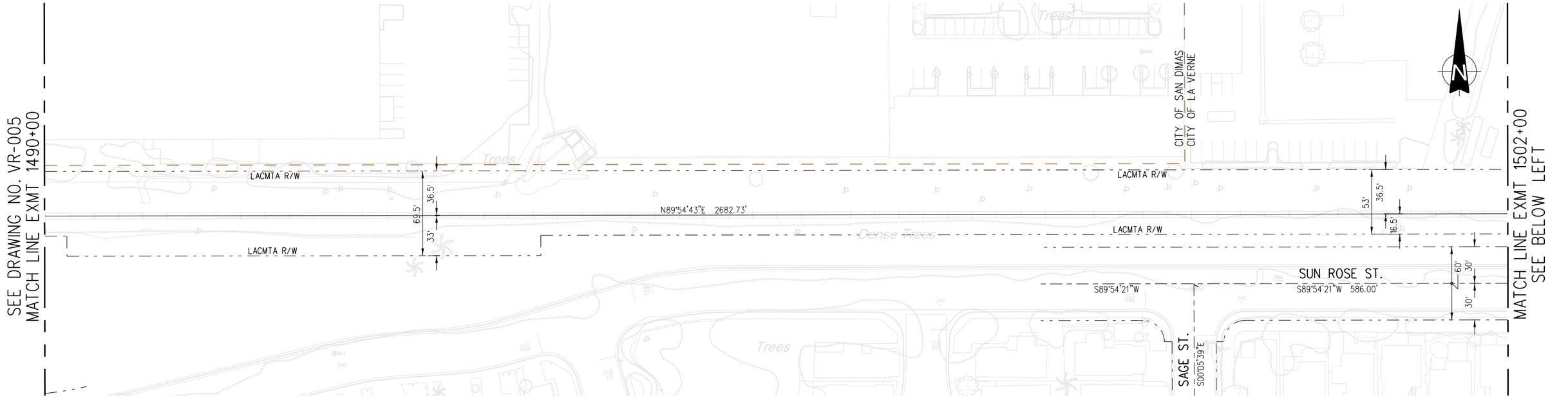
WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

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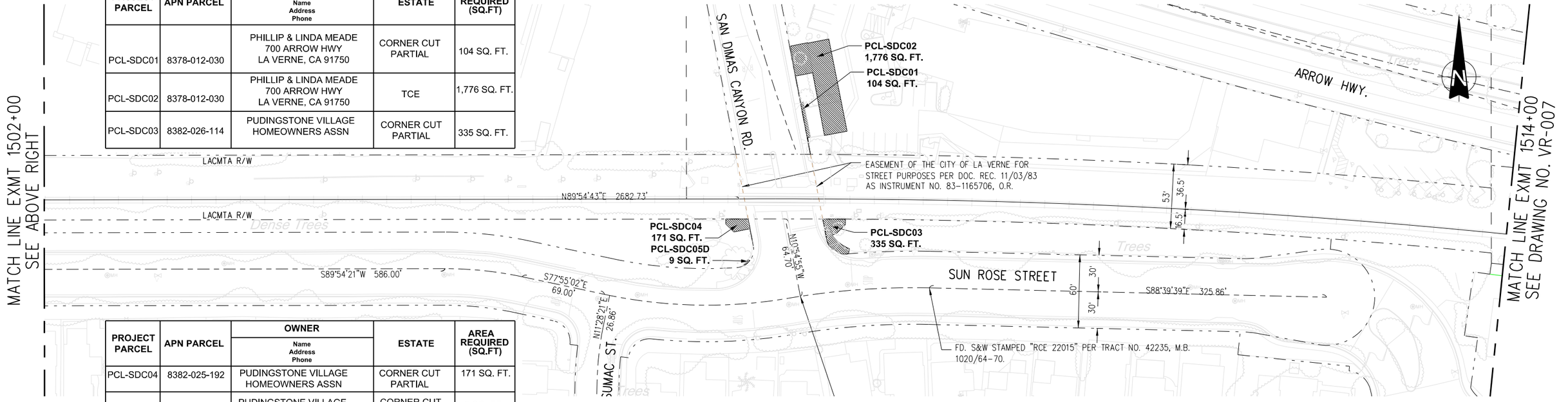
**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**
**EXISTING AND PROPOSED RIGHT-OF-WAY MAP**
**EXMT 1466+00 TO EXMT 1490+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | VR-005 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 20 |




PLAN

| PROJECT PARCEL | APN PARCEL | OWNER<br>Name<br>Address<br>Phone | ESTATE | AREA REQUIRED (SQ.FT) |
|---|---|---|---|---|
| PCL-SDC01 | 8378-012-030 | PHILLIP & LINDA MEADE<br>700 ARROW HWY<br>LA VERNE, CA 91750 | CORNER CUT PARTIAL | 104 SQ. FT. |
| PCL-SDC02 | 8378-012-030 | PHILLIP & LINDA MEADE<br>700 ARROW HWY<br>LA VERNE, CA 91750 | TCE | 1,776 SQ. FT. |
| PCL-SDC03 | 8382-026-114 | PUDINGSTONE VILLAGE<br>HOMEOWNERS ASSN | CORNER CUT PARTIAL | 335 SQ. FT. |




| PROJECT PARCEL | APN PARCEL | OWNER<br>Name<br>Address<br>Phone | ESTATE | AREA REQUIRED (SQ.FT) |
|---|---|---|---|---|
| PCL-SDC04 | 8382-025-192 | PUDINGSTONE VILLAGE<br>HOMEOWNERS ASSN | CORNER CUT PARTIAL | 171 SQ. FT. |
| PCL-SDC05 | 8382-025-192 | PUDINGSTONE VILLAGE<br>HOMEOWNERS ASSN | CORNER CUT PARTIAL | 9 SQ. FT. |

PLAN

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40

811 Know what's below. Call before you dig.

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# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY A. ABAD
DRAWN BY M. VINLUAN
CHECKED BY D. KNEZEVIC
IN CHARGE S. WAGNER
DATE 7-1-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

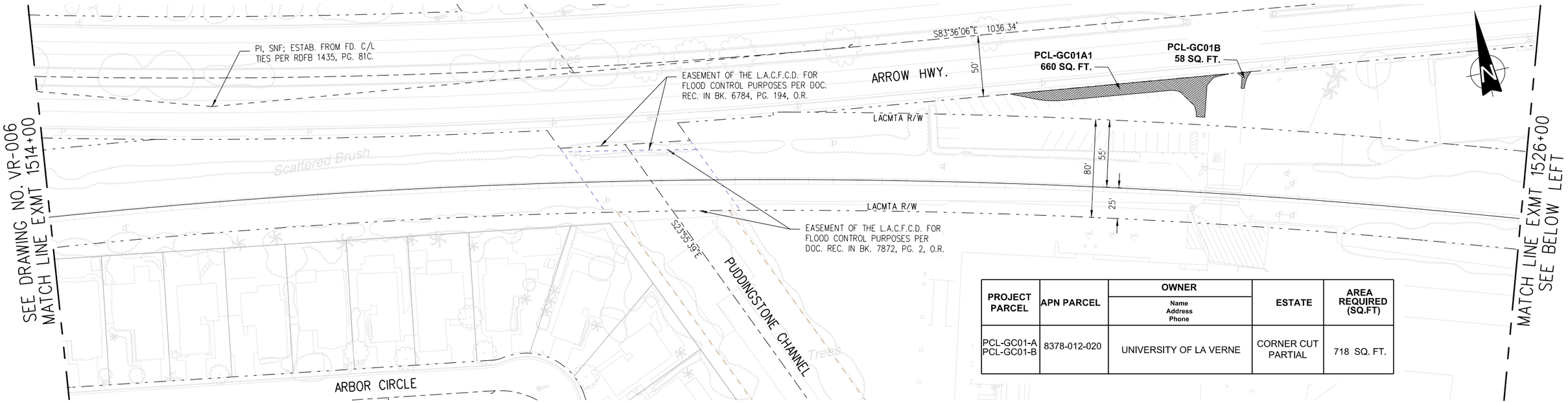
METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**
**EXISTING AND PROPOSED RIGHT-OF-WAY MAP**
**EXMT 1490+00 TO EXMT 1514+00**

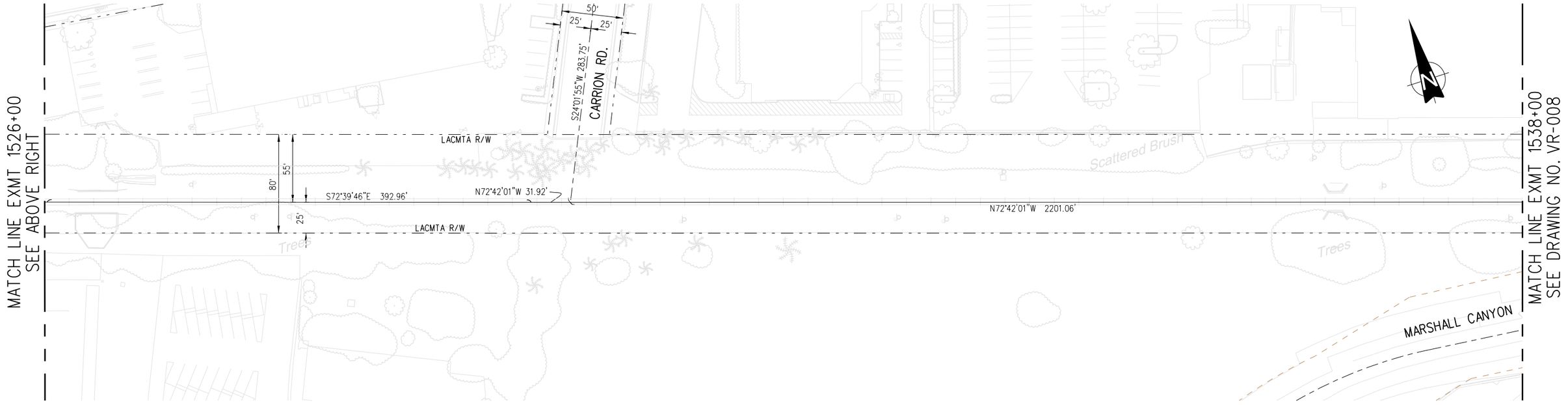
CONTRACT NO AE4555000241519565
DRAWING NO VR-006 REV
SCALE AS SHOWN
SHEET NO 21

$USER$ $DATE$ $TIME$ $FILE$




| PROJECT PARCEL | APN PARCEL | OWNER (Name, Address, Phone) | ESTATE | AREA REQUIRED (SQ.FT) |
|---|---|---|---|---|
| PCL-GC01-A<br>PCL-GC01-B | 8378-012-020 | UNIVERSITY OF LA VERNE | CORNER CUT<br>PARTIAL | 718 SQ. FT. |

PLAN




PLAN

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | A. ABAD |
| DRAWN BY | M. VINLUAN |
| CHECKED BY | D. KNEZEVIC |
| IN CHARGE | S. WAGNER |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**
**EXISTING AND PROPOSED RIGHT-OF-WAY MAP**
**EXMT 1514+00 TO EXMT 1538+00**

| | |
|---|---|
| CONTRACT NO | AE455500024151565 |
| DRAWING NO | VR-007 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 22 |

$USER$ $DATE$ $TIME$ $FILEL$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

| PROJECT PARCEL | APN PARCEL | OWNER<br>Name<br>Address<br>Phone | ESTATE | AREA REQUIRED (SQ.FT) |
|---|---|---|---|---|
| PCL-WH01 | 8378-027-040 | ARGENT LLC<br>1899 WHEELER ST,<br>LA VERNE, CA 91750 | CORNER CUT<br>PARTIAL | 208 SQ. FT. |
| PCL-WH02 | 8378-027-003 | PINNACLE PROPERTIES<br>WEST/COAST LLC,<br>1615 YEAGER AVE<br>LA VERNE, CA 91750 | CORNER CUT<br>PARTIAL | 144 SQ. FT. |
| PCL-WH03 | 8378-009-022 | JPD HOLDINGS, INC<br>1502 ARROW HWY.<br>LA VERNE, CA 91750 | CORNER CUT<br>PARTIAL | 16 SQ. FT. |
| PCL-MCC01 | 8378-010-911 | LOS ANGELES COUNTY<br>FLOOD CONTROL DISTRICT | PERMANENT<br>EASEMENT<br>(BRIDGE PURPOSES) | 533 SQ. FT. |

SEE DRAWING NO. VR-007
MATCH LINE EXMT 1538+00

MARSHALL CANYON CHANNEL

WHEELER AVE.

LACMTA R/W

80'
55'
25'

N72°42'01"W 2201.06'

LACMTA R/W

PCL-WHO03
16 SQ. FT.

FD. 2" I.P. STAMPED "LS 4400", PER CITY CENTERLINE TIES BK. 10, PG. 1091.

PCL-MCC01
533 SQ. FT.

WHO01
208 SQ. FT.

PCL-WHO2
144 SQ. FT.

MATCH LINE EXMT 1550+00
SEE BELOW LEFT

PLAN

MATCH LINE EXMT 1550+00
SEE ABOVE RIGHT

LACMTA R/W

E'LY LINE OF 15' WIDE MWD EASEMENT PARCEL NO. 1421-3A-1 AS SHOWN ON RECORD OF SURVEY, R.S. 232/61-67.

N72°42'01"W 2201.06'

ANGLE POINT ON THE N'LY BDRY. OF TRACT NO. 45601, M.B. 1209/9-14; ESTAB. AT REC. DIST. FROM FD. MON. TO THE SOUTH PER SAID TRACT. FD. 2" I.P. STAMPED "LS 4400", NO REF., AT 0.09' N'LY; ACCEPTED AS MON. ON LINE.

FD. 2" I.P. STAMPED "LS 4400", NO REF.; ACCEPTED AS AN ANGLE POINT ON THE N'LY BDRY. OF TRACT NO. 45601, M.B. 1209/9-14.

LACMTA R/W

N72°42'01"W 613.88'

80'
40'
40'

"A" STREET

S17°17'46"W 246.65'

S17°17'46"W 93.50'

N72°42'01"W 1883.11'

46.5'
140'
93.5'

FD. 2" I.P. STAMPED "LS 4400", NO REF.; ACCEPTED AS AN ANGLE POINT ON THE N'LY BDRY. OF TRACT NO. 45601, M.B. 1209/9-14.

MATCH LINE EXMT 1562+00
SEE DRAWING NO. VR-009

PLAN

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40

811 Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | A. ABAD |
| DRAWN BY | M. VINLUAN |
| CHECKED BY | D. KNEZEVIC |
| IN CHARGE | S. WAGNER |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

METROLINK

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

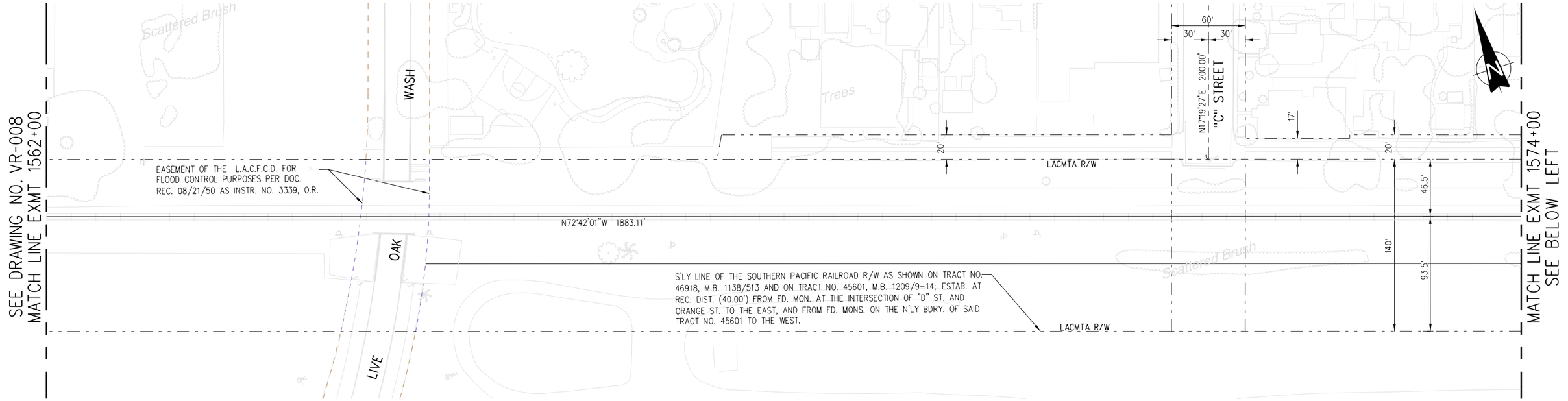
**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**
**EXISTING AND PROPOSED RIGHT-OF-WAY MAP**
**EXMT 1538+00 TO EXMT 1562+00**

| | |
|---|---|
| CONTRACT NO | AE455500024151956 5 |
| DRAWING NO | VR-008 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 23 |

$USER$ $DATE$ $TIME$ $FILE$

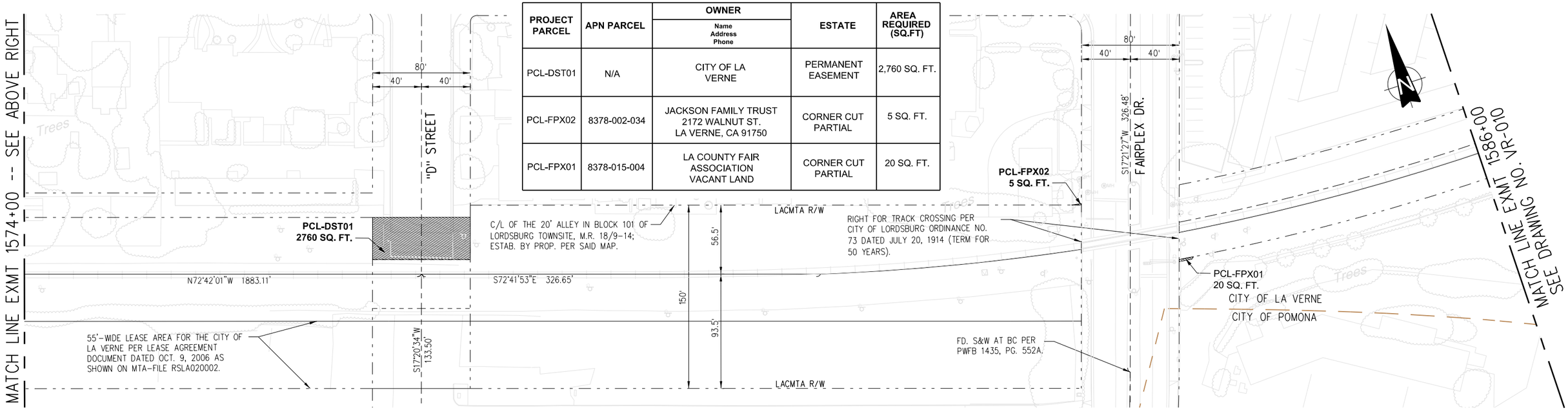
TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST




PLAN

| PROJECT PARCEL | APN PARCEL | OWNER (Name, Address, Phone) | ESTATE | AREA REQUIRED (SQ.FT) |
|---|---|---|---|---|
| PCL-DST01 | N/A | CITY OF LA VERNE | PERMANENT EASEMENT | 2,760 SQ. FT. |
| PCL-FPX02 | 8378-002-034 | JACKSON FAMILY TRUST 2172 WALNUT ST. LA VERNE, CA 91750 | CORNER CUT PARTIAL | 5 SQ. FT. |
| PCL-FPX01 | 8378-015-004 | LA COUNTY FAIR ASSOCIATION VACANT LAND | CORNER CUT PARTIAL | 20 SQ. FT. |




PLAN

GRAPHIC SCALE: HORIZ. 1" = 40

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY: A. ABAD
DRAWN BY: M. VINLUAN
CHECKED BY: D. KNEZEVIC
IN CHARGE: S. WAGNER
DATE: 7-1-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. — 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS — 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**
**EXISTING AND PROPOSED RIGHT-OF-WAY MAP**
**EXMT 1562+00 TO EXMT 1586+00**

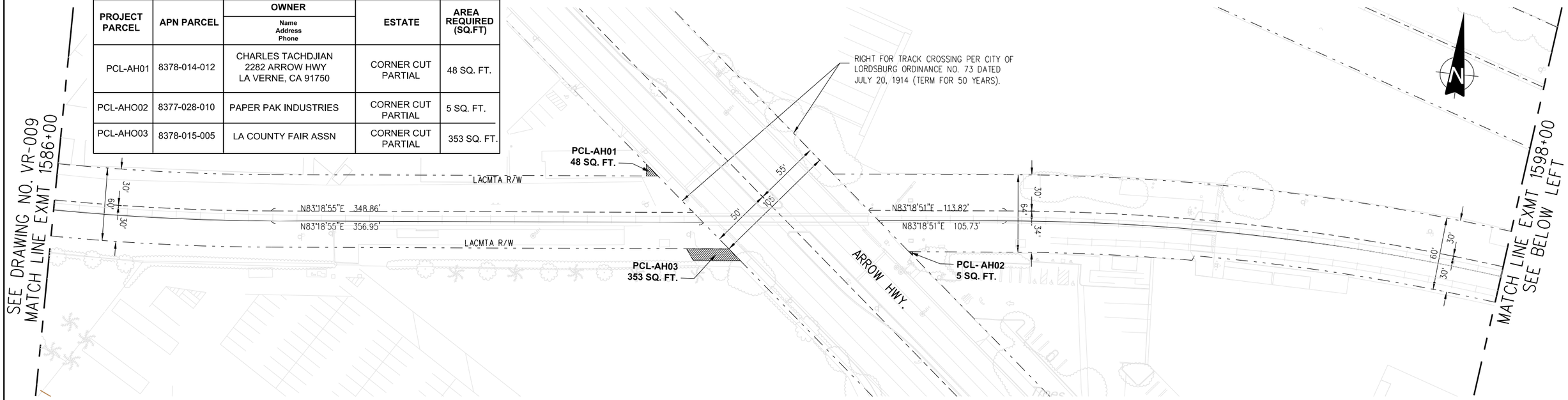
CONTRACT NO: AE4555000241519565
DRAWING NO: VR-009
REV:
SCALE: AS SHOWN
SHEET NO: 24

$USER$ $DATE$ $TIME$ $FILE$

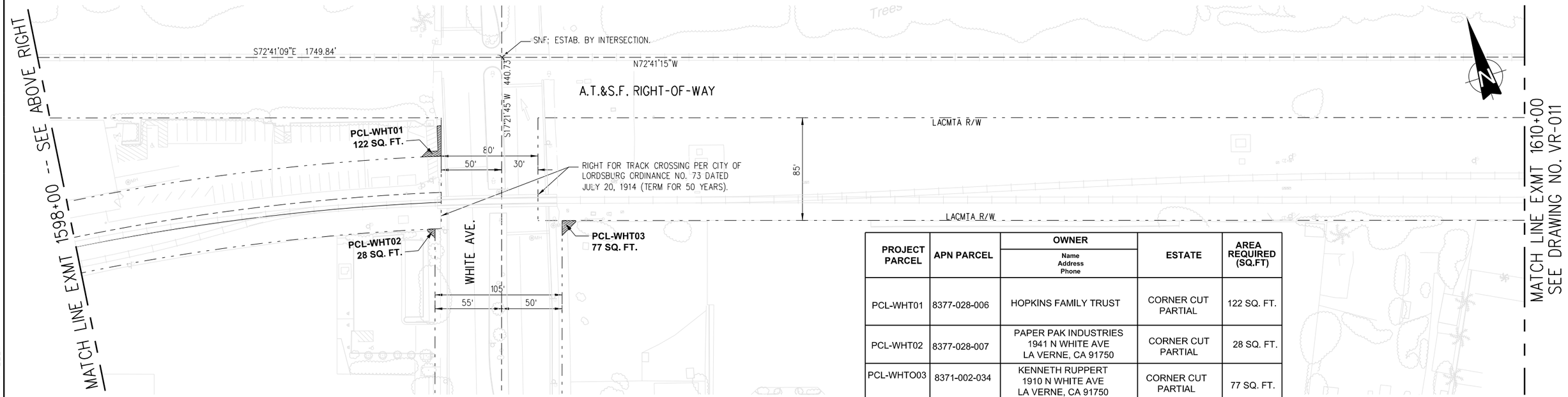
TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

| PROJECT PARCEL | APN PARCEL | OWNER (Name, Address, Phone) | ESTATE | AREA REQUIRED (SQ.FT) |
|---|---|---|---|---|
| PCL-AH01 | 8378-014-012 | CHARLES TACHDJIAN<br>2282 ARROW HWY<br>LA VERNE, CA 91750 | CORNER CUT PARTIAL | 48 SQ. FT. |
| PCL-AHO02 | 8377-028-010 | PAPER PAK INDUSTRIES | CORNER CUT PARTIAL | 5 SQ. FT. |
| PCL-AHO03 | 8378-015-005 | LA COUNTY FAIR ASSN | CORNER CUT PARTIAL | 353 SQ. FT. |




PLAN




PLAN

| PROJECT PARCEL | APN PARCEL | OWNER (Name, Address, Phone) | ESTATE | AREA REQUIRED (SQ.FT) |
|---|---|---|---|---|
| PCL-WHT01 | 8377-028-006 | HOPKINS FAMILY TRUST | CORNER CUT PARTIAL | 122 SQ. FT. |
| PCL-WHT02 | 8377-028-007 | PAPER PAK INDUSTRIES<br>1941 N WHITE AVE<br>LA VERNE, CA 91750 | CORNER CUT PARTIAL | 28 SQ. FT. |
| PCL-WHTO03 | 8371-002-034 | KENNETH RUPPERT<br>1910 N WHITE AVE<br>LA VERNE, CA 91750 | CORNER CUT PARTIAL | 77 SQ. FT. |

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40

811 Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | A. ABAD |
| DRAWN BY | M. VINLUAN |
| CHECKED BY | D. KNEZEVIC |
| IN CHARGE | S. WAGNER |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**
**EXISTING AND PROPOSED RIGHT-OF-WAY MAP**
**EXMT 1586+00 EXMT 1610+00**

| | |
|---|---|
| CONTRACT NO | AE455500024151565 |
| DRAWING NO | VR-010 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 25 |

$USER$ $DATE$ $TIME$ $FILEL$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

SEE DRAWING NO. VR-010
MATCH LINE EXMT 1610+00




PLAN

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40

811 Dig Alert
Know what's below. Call before you dig.

AS SHOWN
XX OF XX

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

DESIGNED BY A. ABAD
DRAWN BY M. VINLUAN
CHECKED BY D. KNEZEVIC
IN CHARGE S. WAGNER
DATE 7-1-2017


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

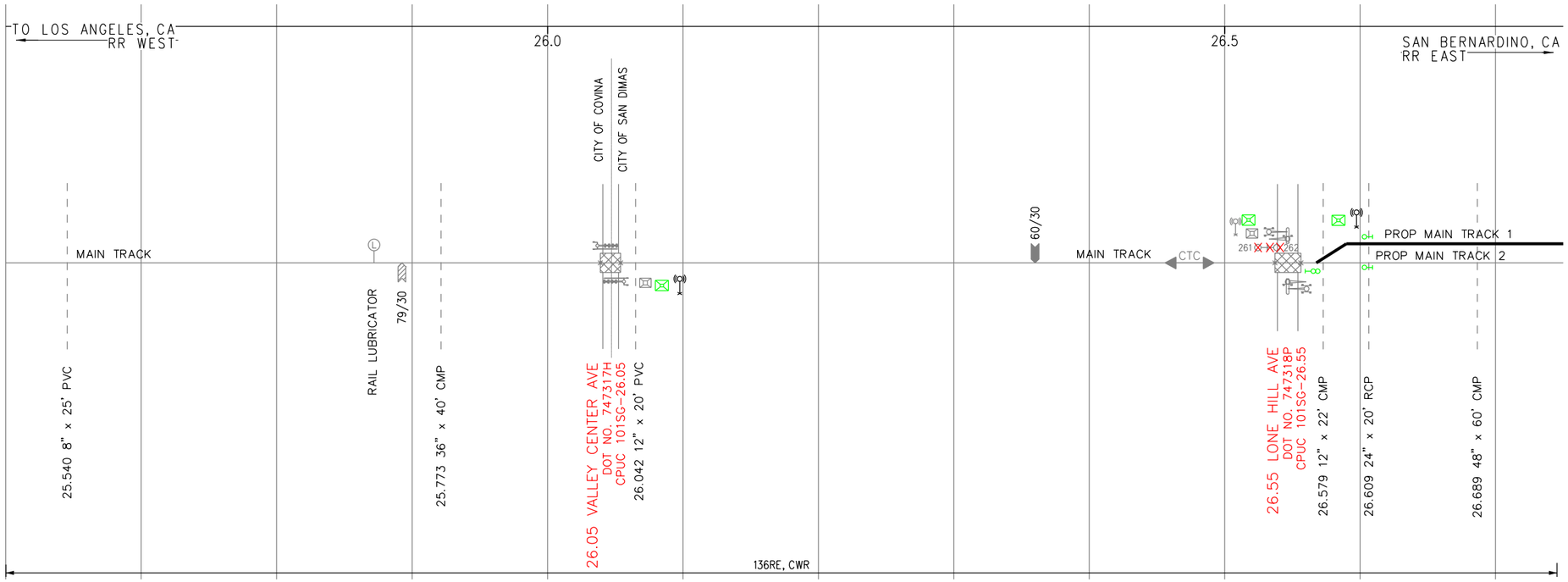
METROLINK

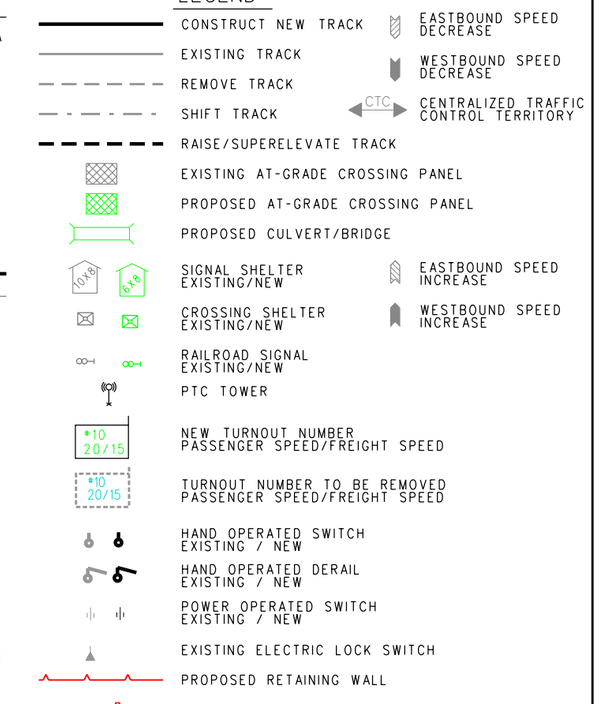
JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

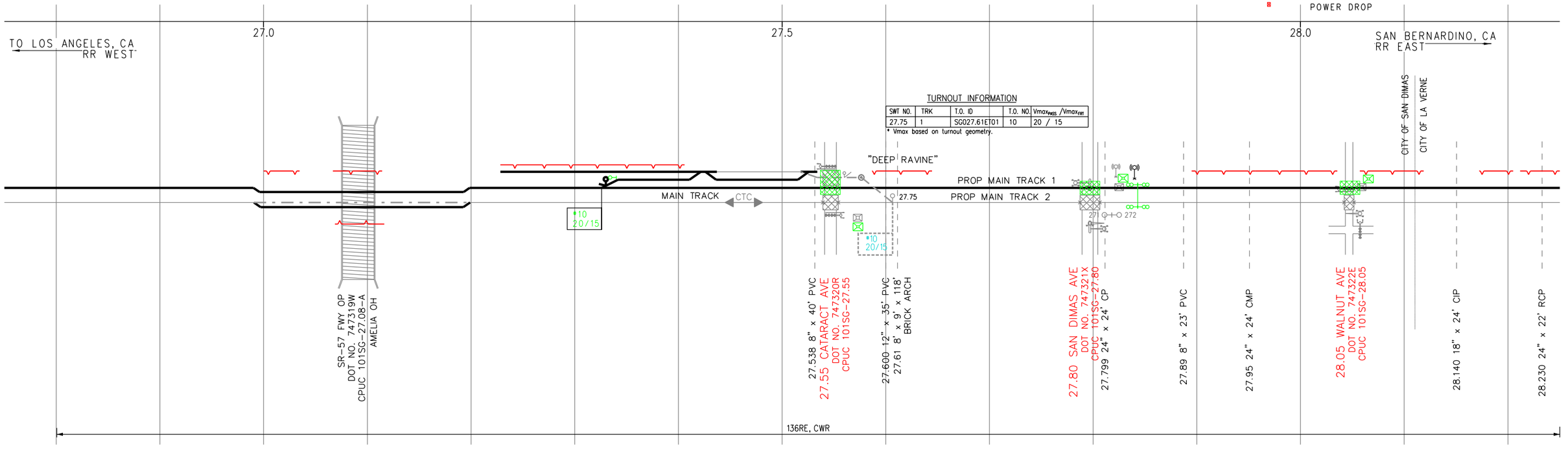

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT EXISTING AND PROPOSED RIGHT-OF-WAY MAP EXMT 1610+00 TO EXMT 1622**

CONTRACT NO AE4555000241519565
DRAWING NO VR-011 REV
SCALE AS SHOWN
SHEET NO 26

$USER$ $DATE$ $TIME$ $FILEL$




811 Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868
TEL 714-835-6355


# LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

## TRACK SCHEMATIC SHEET 1 OF 2

| | |
|---|---|
| CONTRACT NO | AE455500024151565 |
| DRAWING NO | TS-001 |
| REV | |
| SCALE | NO SCALE |
| SHEET NO | 27 |

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TO LOS ANGELES, CA
RR WEST

28.5

29.0

29.5

SAN BERNARDINO, CA
RR EAST

CTC MAIN TRACK

PROP MAIN TRACK 1

PROP MAIN TRACK 2

MAIN TRACK

#10
20/15

#10
20/15

8429

40/30

28.279 42" x 70' CMP

28.555 8" x 22' PVC
28.56
SAN DIMAS CANYON RD
DOT NO. 914497T
CPUC 101SG-28.55

28.749
2 - 11' x 10.5' x 50' RCB

28.86
GAINEY CERAMICS PVT XING
DOT NO. 747324T
CPUC 101SG-28.86-X

28.89 10' x 5' RT
& 2-48" x 20' STEEL PIPE

29.10 10' x 4.5' x 14' RT

29.17 10' x 18' x 59' RCB
MARSHALL CANYON CHANNEL

29.28 12" x 40' PVC
29.28 WHEELER AVE
DOT NO. 914498A
CPUC 101SG-29.28

29.62 11' x 21' x 43' RCB

136RE, CWR

TURNOUT INFORMATION

| SWT NO. | TRK | T.O. ID | T.O. NO. | $Vmax_{PASS}$ /$Vmax_{RET}$ |
|---|---|---|---|---|
| 8429 | 1 | SG029.34ET01 | 10 | 20 / 15 |

* Vmax based on turnout geometry.

TO LOS ANGELES, CA
RR WEST

30.0

30.5

30.9

31.0

SAN BERNARDINO, CA
RR EAST

30.4
CP WHITE

30.1
FAIRPLEX STATION (OB)

PASADENA SUB

CP WHITE WEST LIMIT

CP WHITE EAST LIMIT

MAIN TRACK 1

PROP MAIN TRACK 2

MOW TRACK

MAIN TRACK

CTC MAIN TRACK 1

CTC MAIN TRACK 2

#20
45/35

#20
45/35

#20
45/35

#20
45/35

#7
10/10

#10
20/15

40/30

79/30

79/30

79/30

8445

685'

MDC

PROP PLATFORM 306'

EXIST PLATFORM 240'

29.97 30" x 38" CURB INLET
29.97 FAIRPLEX DR
DOT NO. 747328V
CPUC 101SG-29.97

30.13 36" x 70" CURB INLET

30.14 36" x 68" CMP
30.14 8" x 25' PVC

30.15 ARROW HWY
DOT NO. 747329C
CPUC 101SG-30.15

30.22 PAPERPAK PVT XING
DOT NO. 914499G
CPUC 101SG-30.22-X

30.32
2 - 24" x 165' CMP
30.330 12" x 25' PVC

30.33 WHITE AVE
DOT NO. 747330W
CPUC 101SG-30.33

30.80 FULTON RD
DOT NO. 747331D
CPUC 101SG-30.80

CONCRETE DRAINAGE CHANNEL
30.81 33' PSC
THOMPSON WASH #1
30.81 13' x 20' x 20' RCB #2

30.86 POMONA
STATION PLATFORM
DOT NO. 931554Y
CPUC 101SG-30.86-D

31.03 POMONA
STATION ENTRY
DOT NO. 747332K
CPUC 101SG-31.03

31.15 140" WATER MAIN
METROPOLITAN WATER DISTRICT
IN 40' WIDE EASEMENT

31.23 CAREY AVE
DOT NO. 747335F
CPUC 101SG-31.23

136RE, CWR

136RE, CWR (MT1)

136RE, CWR (MT2)

TURNOUT INFORMATION

| CP | SWT NO. | TRK | T.O. ID | T.O. NO. | $Vmax_{PASS}$ /$Vmax_{RET}$ |
|---|---|---|---|---|---|
| | 8445 | 1 | SG030.30ET01 | 7 | 10 / 10 |
| WHITE | 1 | 1 | SG030.36WT01 | 20 | 45 / 35 |

* Vmax based on turnout geometry.

CITY OF LA VERNE

CITY OF POMONA

POMONA STATION
(CB)

Know what's below. Call before you dig. 811

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

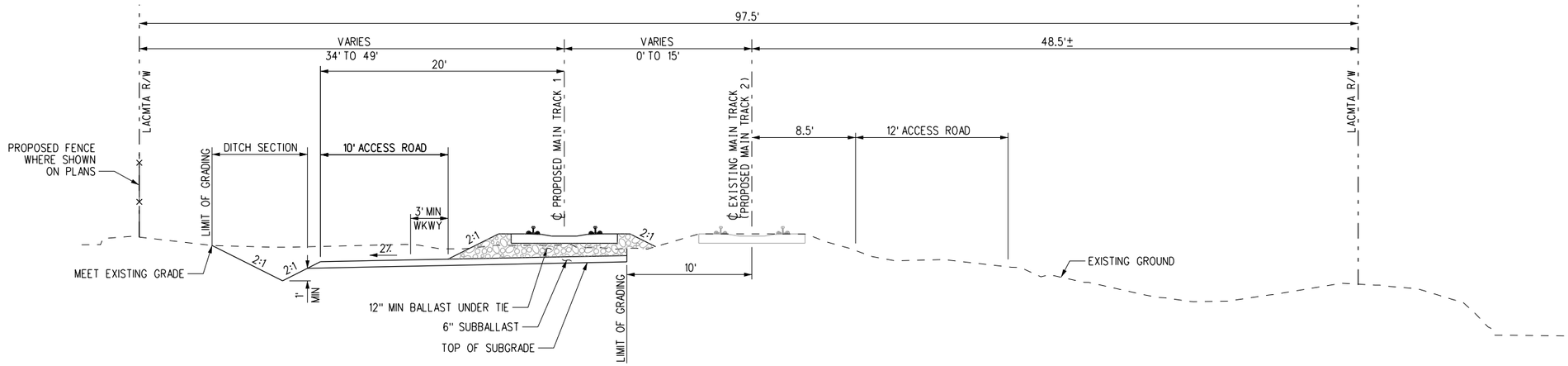
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

# LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

## TRACK SCHEMATIC SHEET 2 OF 2

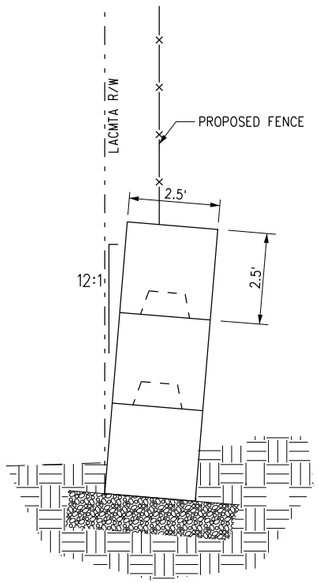
| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TS-002 |
| REV | |
| SCALE | NO SCALE |
| SHEET NO | 28 |

ShapirJa 6/27/2017 3:05:28 PM $FILE$



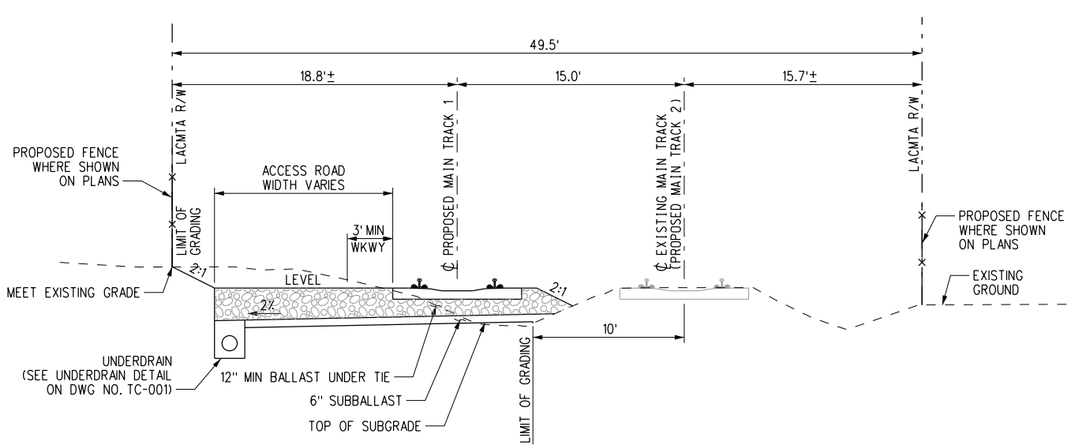

## TYPICAL CROSS-SECTION
## MT01 1403+80 TO MT01 1408+26

SCALE: NO SCALE



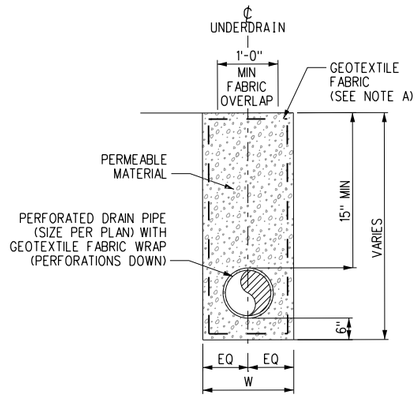

## ENVIRO-BLOCK WALL DETAIL

NO SCALE




## TYPICAL CROSS-SECTION
## MT01 1408+26 TO MT01 1414+87

SCALE: NO SCALE




## UNDERDRAIN DETAIL

NO SCALE

NOTES:

A. GEOTEXTILE FABRIC SHALL BE PLACED TO TOP OF SUBBALLAST OR HMAC IN BALLASTED TRACK AREAS, TO TOP OF SUBGRADE WHERE TRACKS ARE COVERED WITH AC PAVEMENT. THE TOP 4 INCHES OF THE TRENCH SHALL BE BACKFILL MATERIAL.

B. W = PIPE DIA (PER PLAN) PLUS 6" EACH SIDE OF PIPE

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

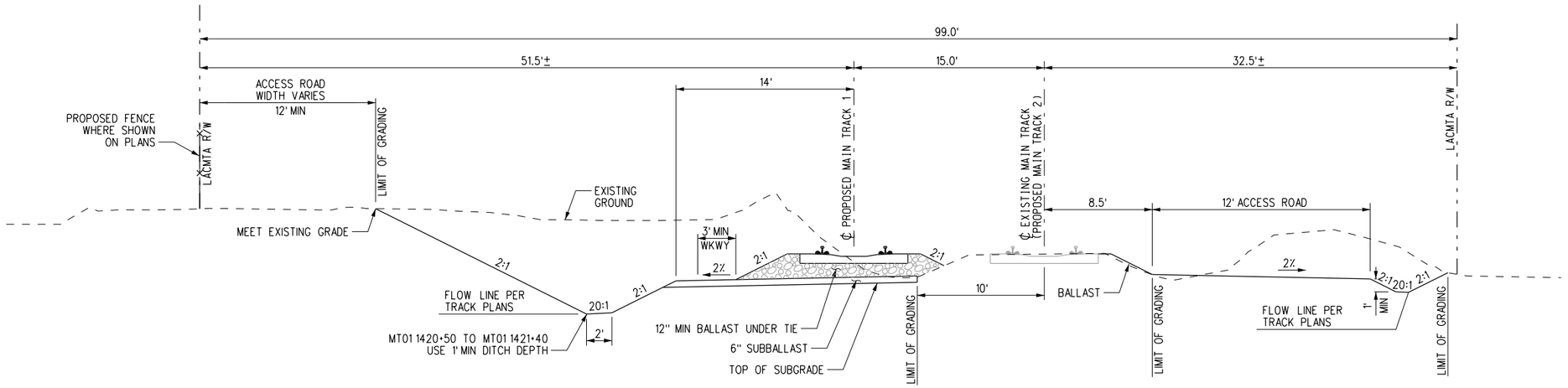
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TYPICAL CROSS SECTIONS SHEET 1 OF 13**

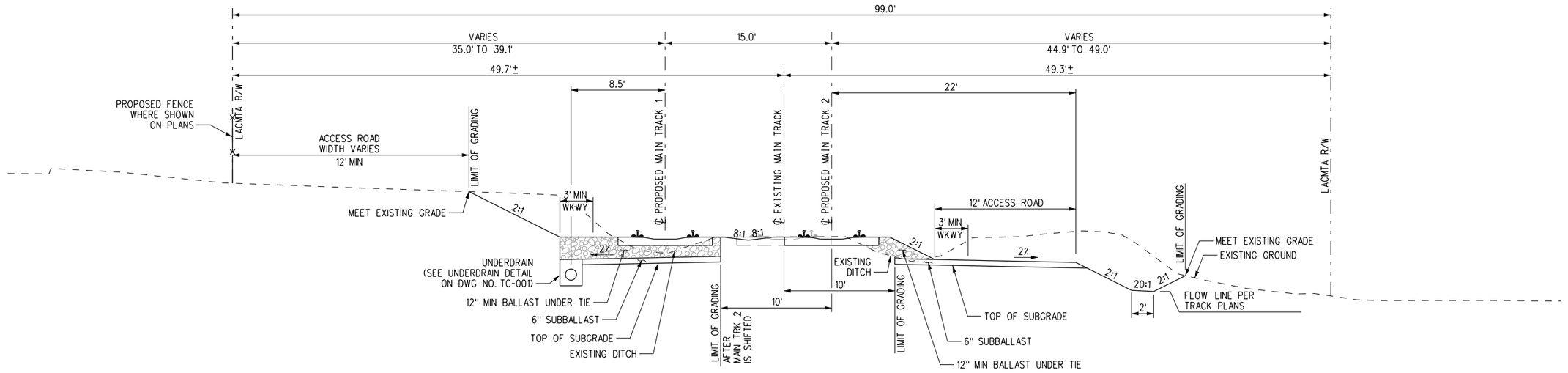
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| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TC-001 |
| REV | |
| SCALE | NONE |
| SHEET NO | 29 |

ShapirJa 6/27/2017 3:01:05 PM $FILEL$




## TYPICAL CROSS-SECTION
## MT01 1414+87 TO MT01 1421+40

SCALE: NO SCALE




## TYPICAL CROSS-SECTION
## MT01 1421+40 TO MT01 1424+15

SCALE: NO SCALE

Know what's below. Call before you dig.

# 30% SUBMITTAL
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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
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DESIGNED BY: JS
DRAWN BY: JS
CHECKED BY: PM
IN CHARGE: MG
DATE: 7-1-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. — 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

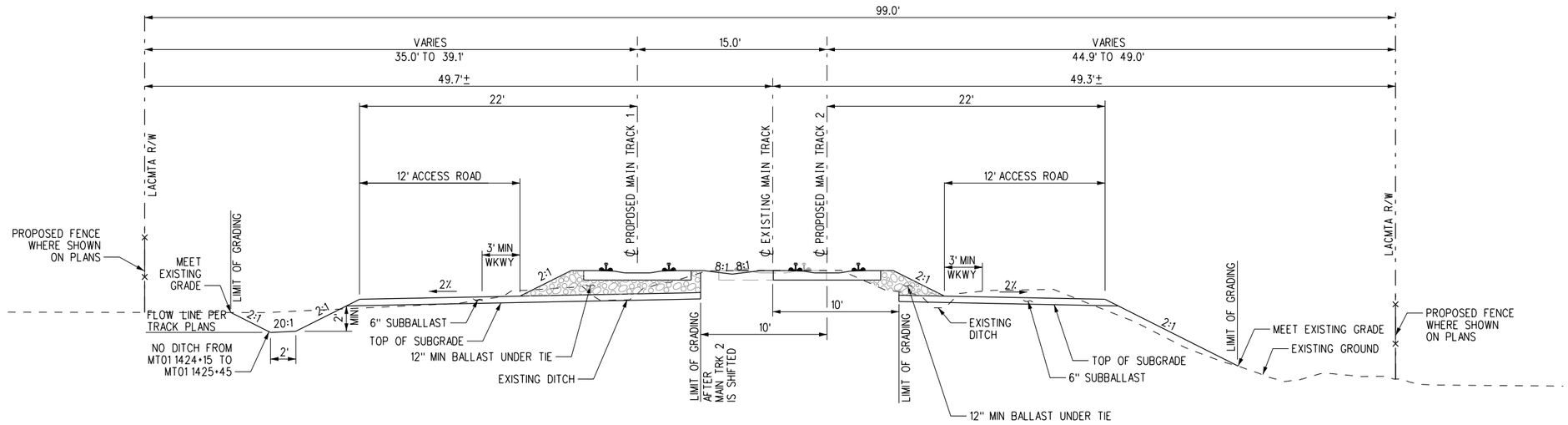
JACOBS — 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TYPICAL CROSS SECTIONS SHEET 2 OF 13**

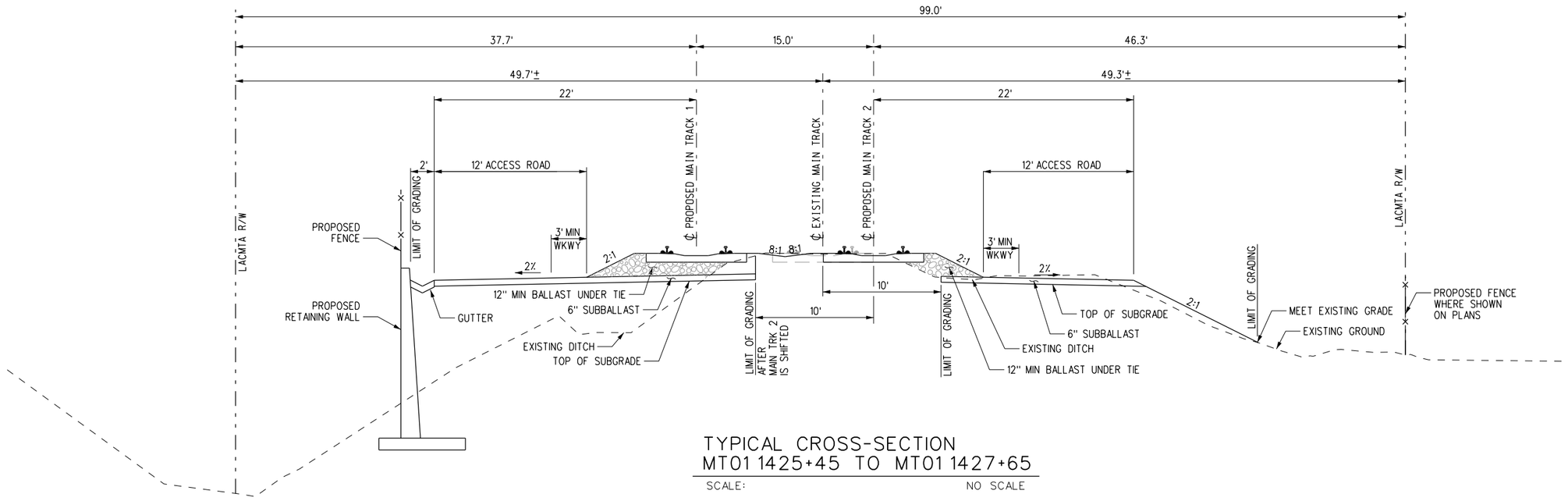
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DRAWING NO: TC-002
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SCALE: NONE
SHEET NO: 30

ShapirJa 6/27/2017 3:01:10 PM $FILEL$




## TYPICAL CROSS-SECTION
## MT01 1424+15 TO MT01 1425+45 AND
## MT01 1427+65 TO MT01 1428+07

SCALE: NO SCALE




## TYPICAL CROSS-SECTION
## MT01 1425+45 TO MT01 1427+65

SCALE: NO SCALE

Know what's below. Call before you dig.

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
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| DESIGNED BY | JS |
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| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

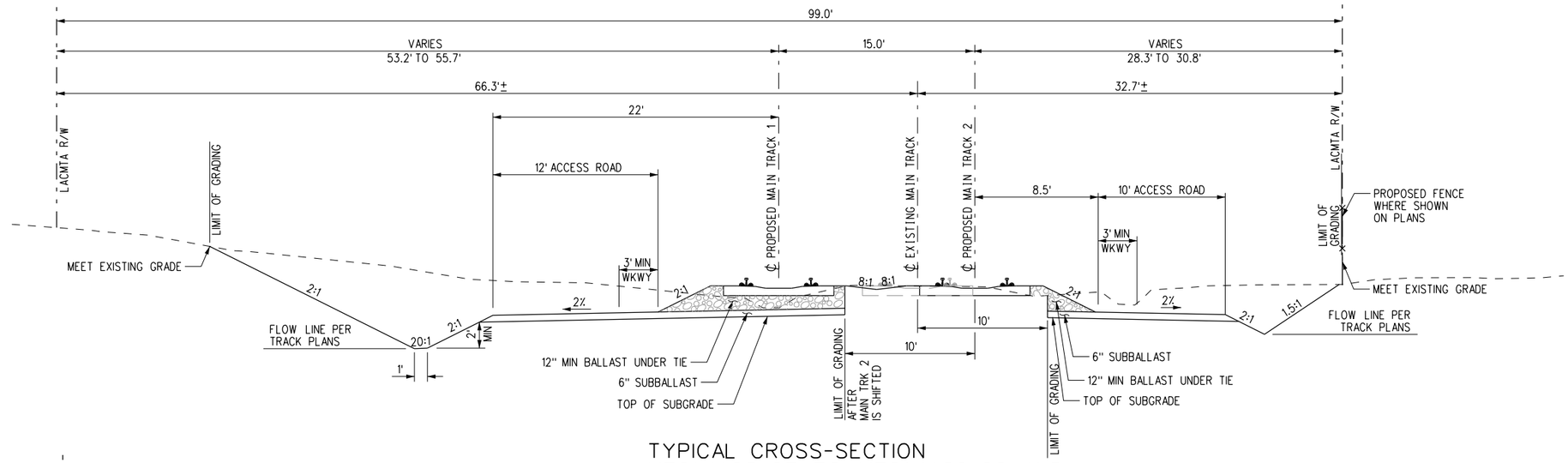
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TYPICAL CROSS SECTIONS**
**SHEET 3 OF 13**

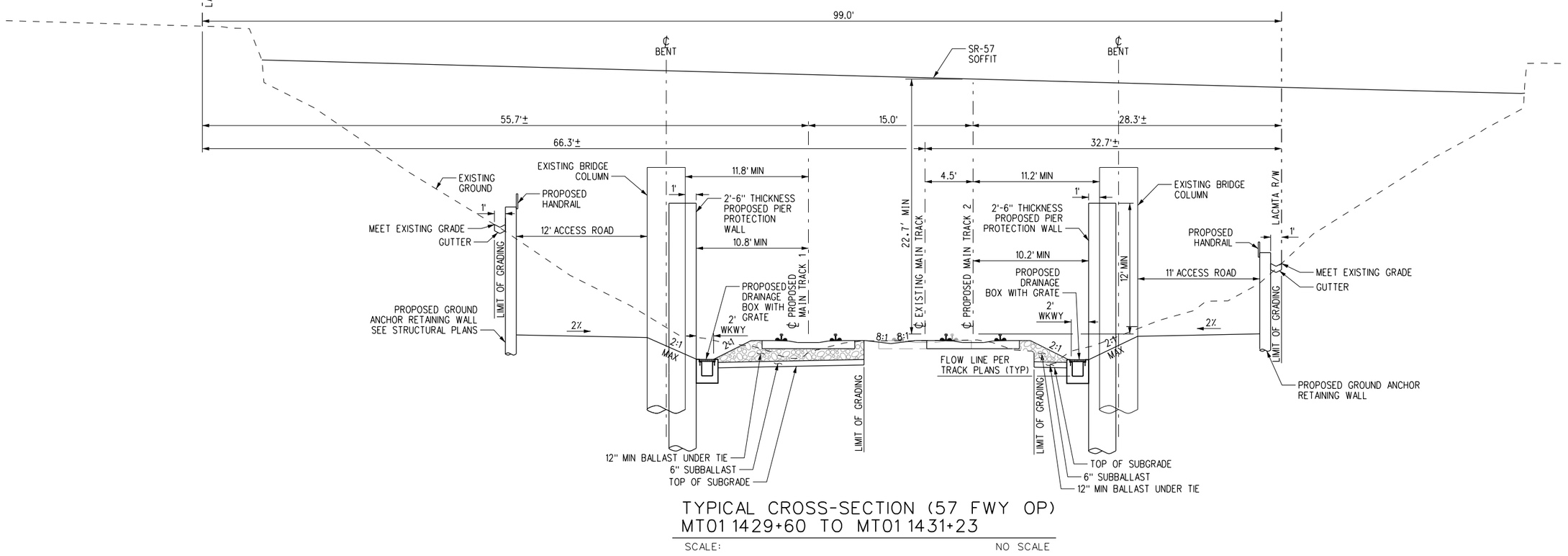
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| DRAWING NO | TC-003 |
| REV | |
| SCALE | NONE |
| SHEET NO | 31 |

ShapirJa 6/27/2017 3:01:15 PM $FILEL$




## TYPICAL CROSS-SECTION
## MT01 1428+07 TO MT01 1429+60 AND
## MT01 1431+23 TO MT01 1435+64

SCALE: NO SCALE




## TYPICAL CROSS-SECTION (57 FWY OP)
## MT01 1429+60 TO MT01 1431+23

SCALE: NO SCALE

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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

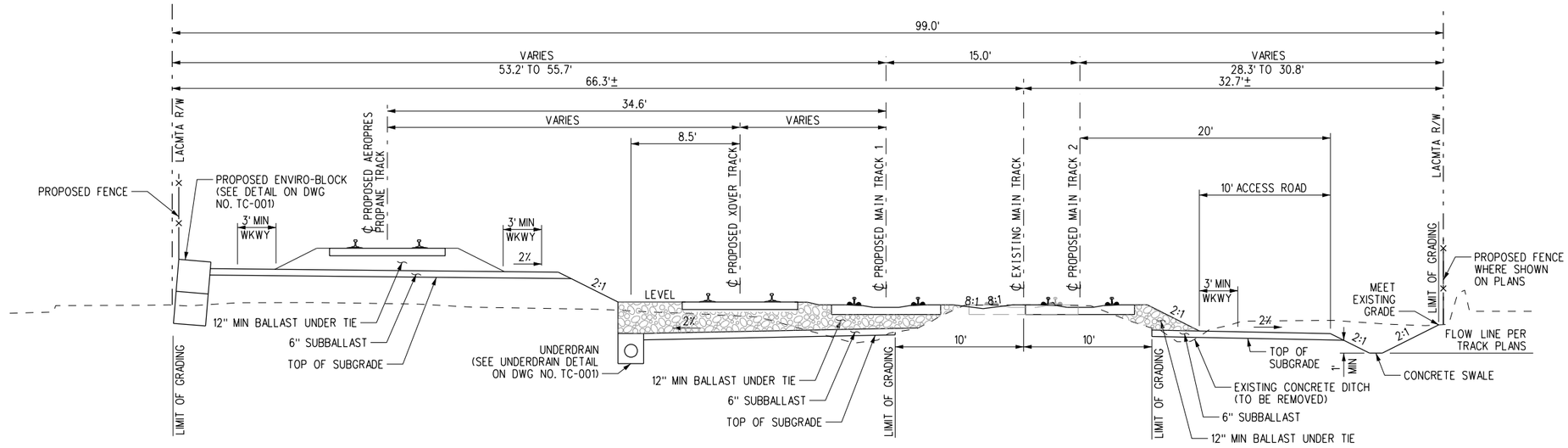
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TYPICAL CROSS SECTIONS**
**SHEET 4 OF 13**

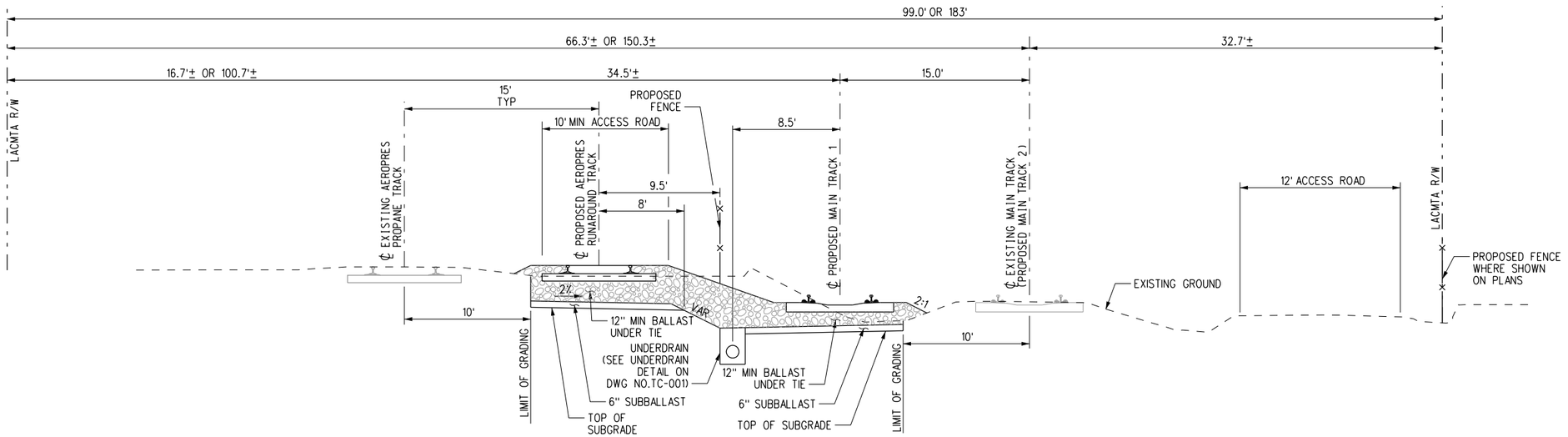
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| DRAWING NO | TC-004 |
| REV | |
| SCALE | NONE |
| SHEET NO | 32 |

ShapirJa 6/27/2017 3:01:20 PM $FILE$




TYPICAL CROSS-SECTION
MT01 1435+64 TO MT01 1447+35

SCALE: NO SCALE




TYPICAL CROSS-SECTION
MT01 1447+35 TO MT01 1454+07

SCALE: NO SCALE

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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
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| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

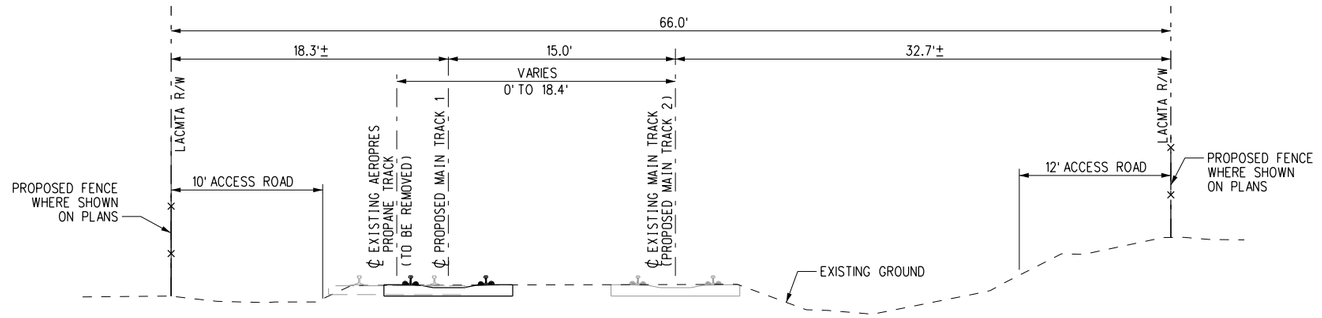
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TYPICAL CROSS SECTIONS SHEET 5 OF 13**

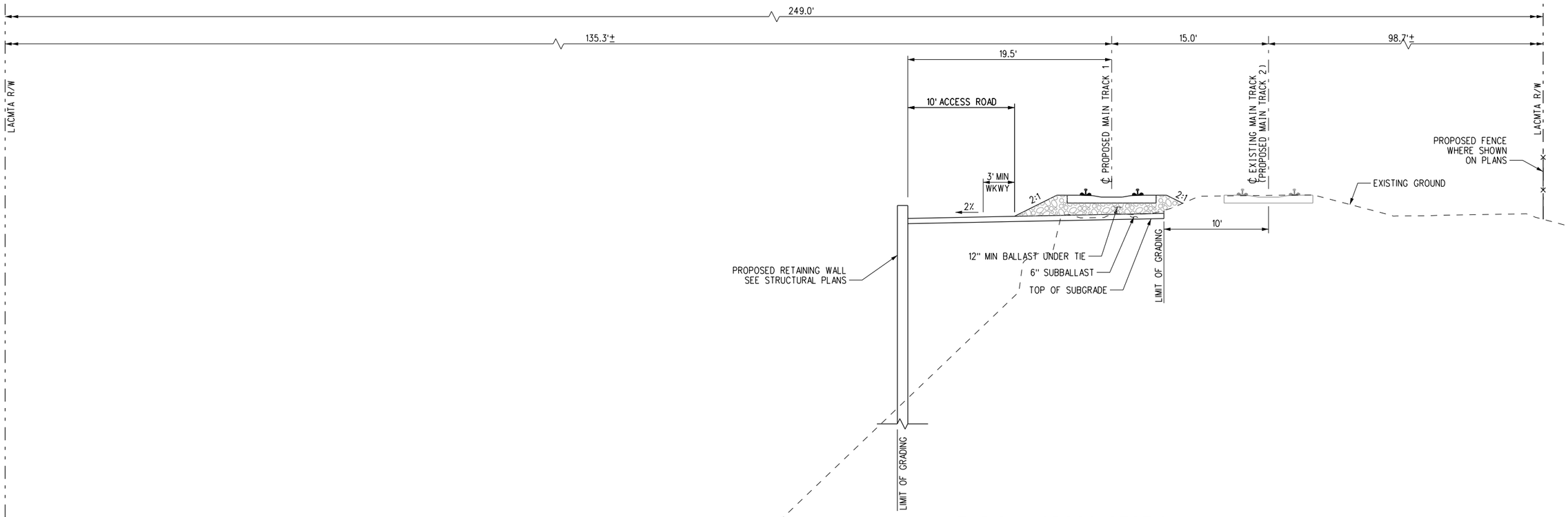
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| DRAWING NO | TC-005 |
| REV | |
| SCALE | NONE |
| SHEET NO | 33 |

Shapir Jo 6/27/2017 3:01:24 PM $FILEL$




## TYPICAL CROSS-SECTION
## MT01 1454+87 TO MT01 1457+63

SCALE: NO SCALE




## TYPICAL CROSS-SECTION
## MT01 1457+63 TO MT01 1459+43

SCALE: NO SCALE

NOTE: SEE STRUCTURAL PLANS FOR BRIDGE SECTION.

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| IN CHARGE | MG |
| DATE | 7-1-2017 |


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WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

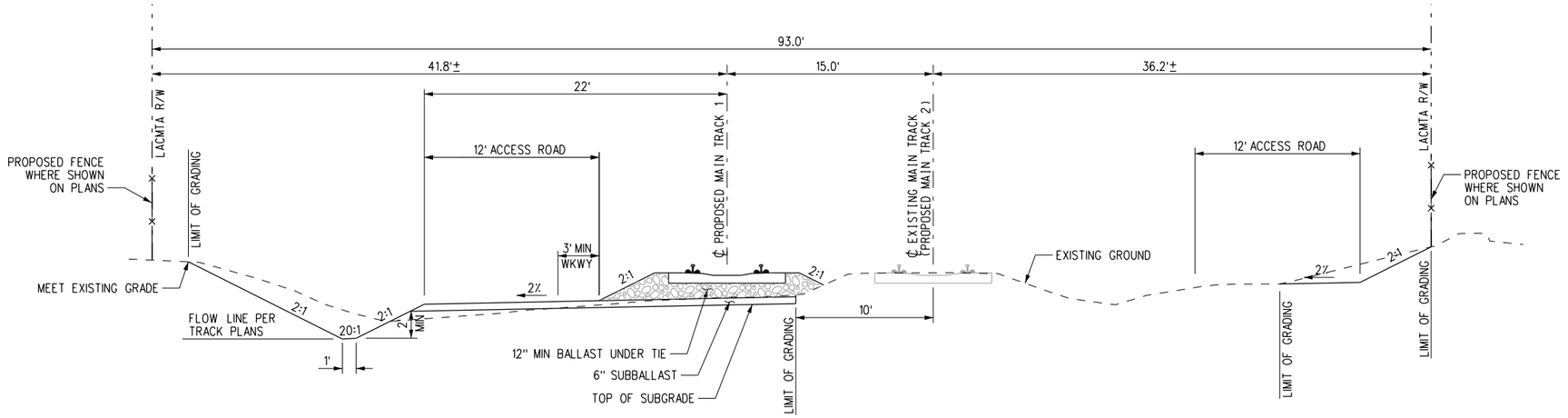
METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

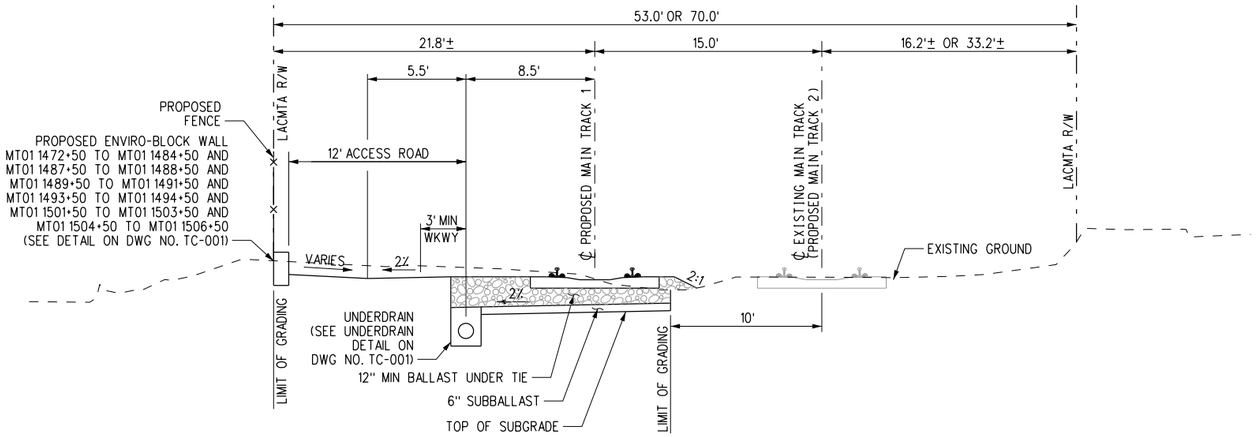
**TYPICAL CROSS SECTIONS**
**SHEET 6 OF 13**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TC-006 |
| REV | |
| SCALE | NONE |
| SHEET NO | 34 |




## TYPICAL CROSS-SECTION
## MT01 1459+43 TO MT01 1467+18

SCALE: NO SCALE




## TYPICAL CROSS-SECTION
## MT01 1467+18 TO MT01 1513+85

SCALE: NO SCALE

Know what's below. Call before you dig.

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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
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| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

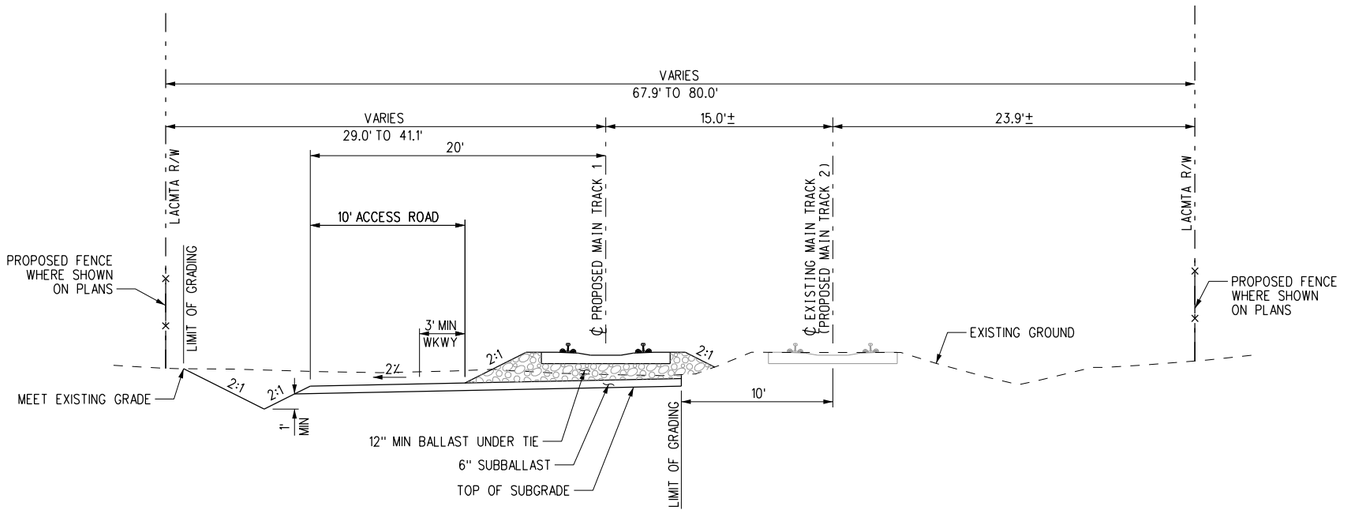
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TYPICAL CROSS SECTIONS SHEET 7 OF 13**

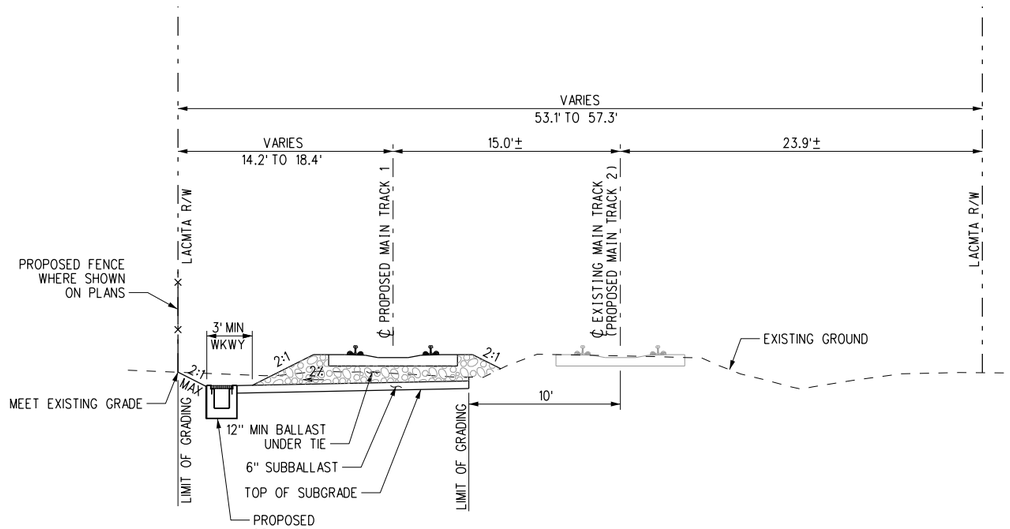
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| DRAWING NO | TC-007 |
| REV | |
| SCALE | NONE |
| SHEET NO | 35 |

ShapirJa 6/27/2017 3:01:34 PM $FILEL$




TYPICAL CROSS-SECTION
MT01 1513+85 TO MT01 1518+11

SCALE: NO SCALE




TYPICAL CROSS-SECTION
MT01 1518+11 TO MT01 1519+27

SCALE: NO SCALE

Know what's below. Call before you dig.

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
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| IN CHARGE | MG |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

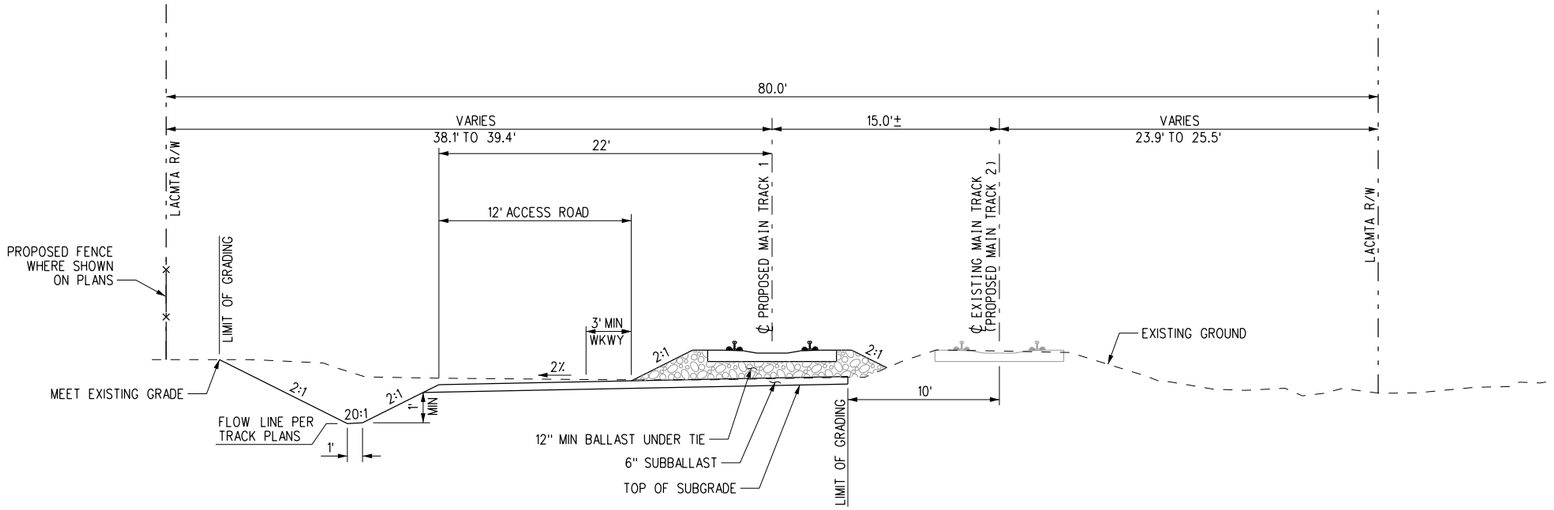
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TYPICAL CROSS SECTIONS**
**SHEET 8 OF 13**

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| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TC-008 |
| REV | |
| SCALE | NONE |
| SHEET NO | 36 |

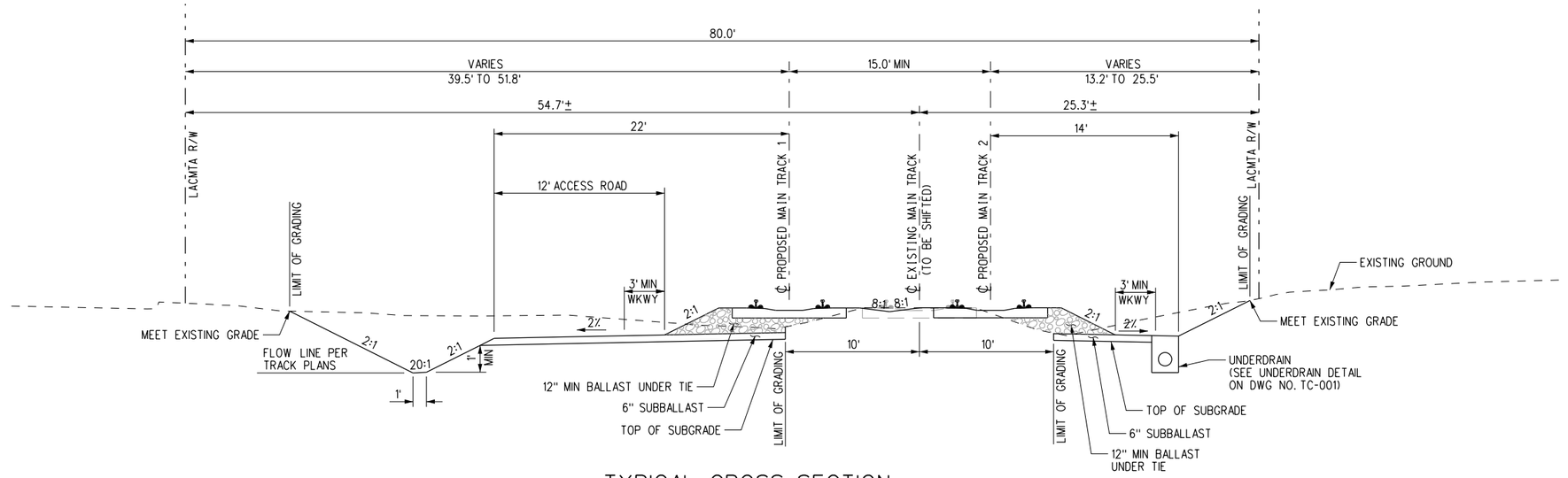
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## TYPICAL CROSS-SECTION
## MT01 1519+27 TO MT01 1530+08

SCALE: NO SCALE

NOTE: SEE STRUCTURAL PLANS FOR CULVERT EXTENSION SECTION.




## TYPICAL CROSS-SECTION
## MT01 1530+08 TO MT01 1540+55

SCALE: NO SCALE

NOTE: SEE STRUCTURAL PLANS FOR BRIDGE SECTION.

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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
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| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

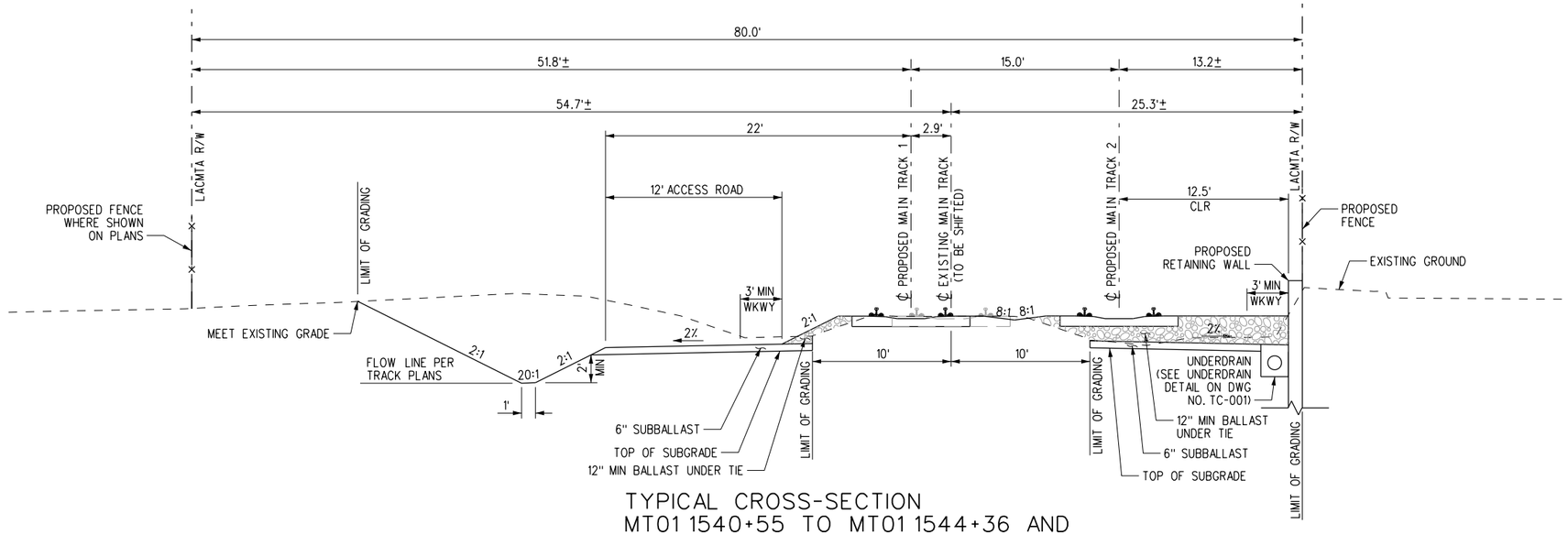
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE**
**DOUBLE TRACK PROJECT**

**TYPICAL CROSS SECTIONS**
**SHEET 9 OF 13**

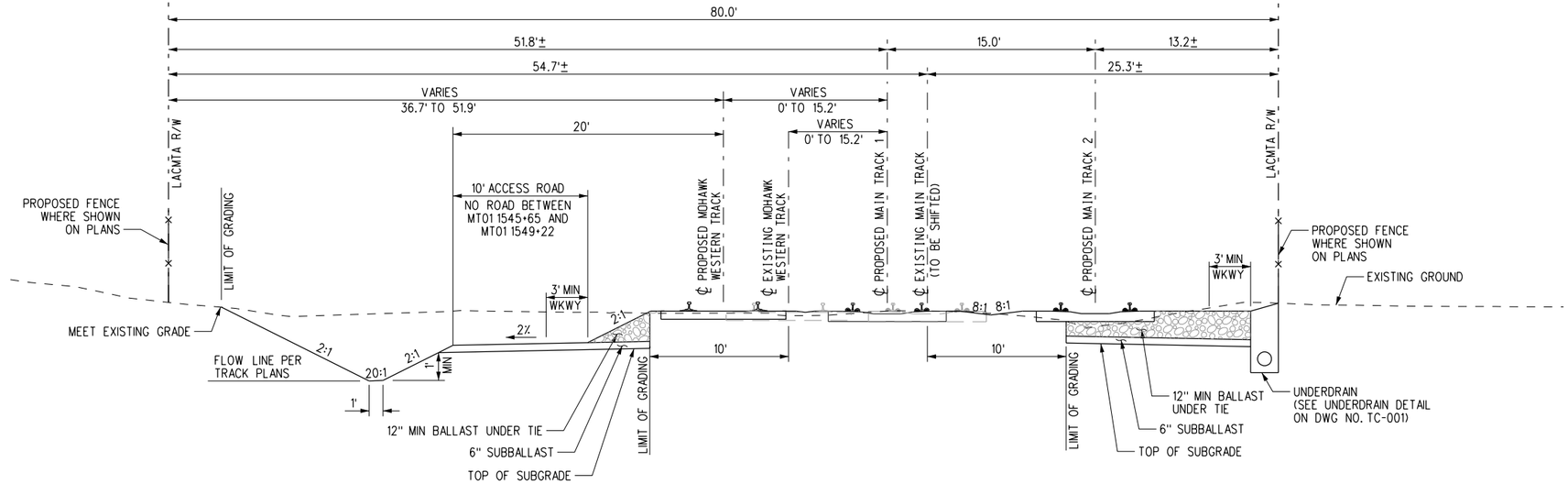
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| REV | |
| SCALE | NONE |
| SHEET NO | 37 |

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TYPICAL CROSS-SECTION
MT01 1540+55 TO MT01 1544+36 AND
MT01 1549+22 TO MT01 1552+30

SCALE: NO SCALE




TYPICAL CROSS-SECTION
MT01 1544+36 TO MT01 1549+22

SCALE: NO SCALE

Know what's below. Call before you dig.

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
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# 30% SUBMITTAL
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| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

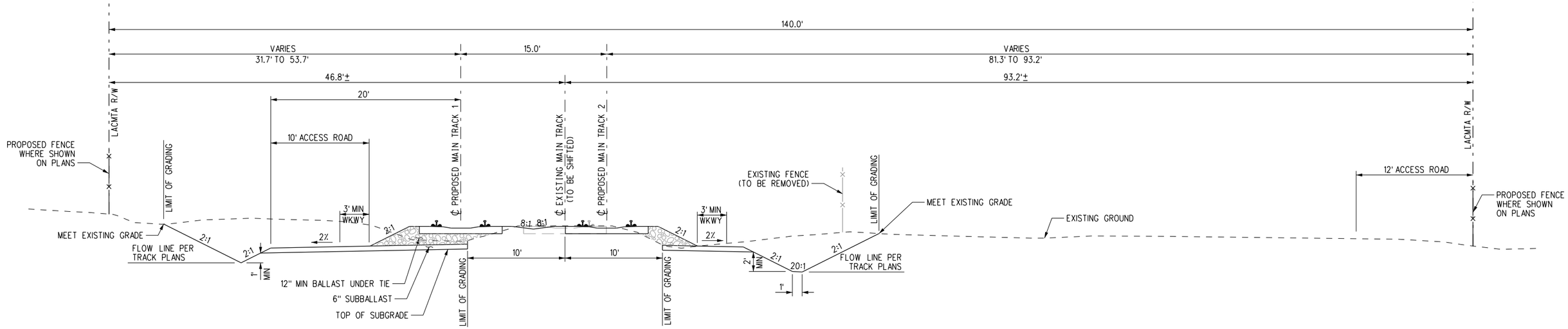
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


## LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

TYPICAL CROSS SECTIONS
SHEET 10 OF 13

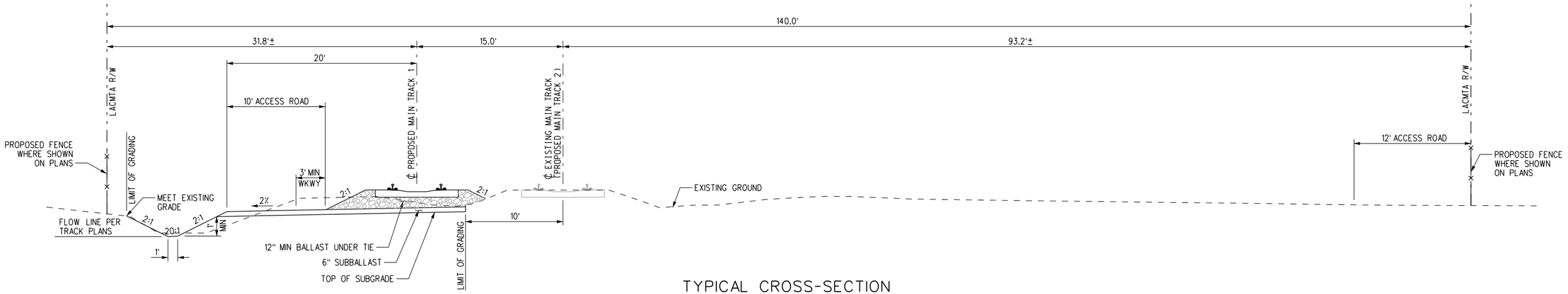
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| REV | |
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| SHEET NO | 38 |

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TYPICAL CROSS-SECTION
MT01 1552+30 TO MT01 1561+40

SCALE: NO SCALE




TYPICAL CROSS-SECTION
MT01 1561+40 TO MT01 1570+19

SCALE: NO SCALE

811 Know what's below. Call before you dig.

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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
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| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

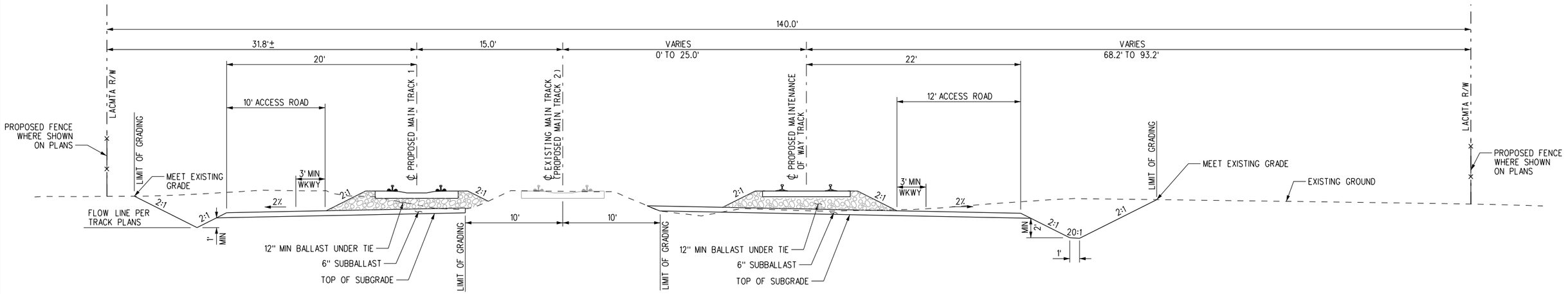
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TYPICAL CROSS SECTIONS SHEET 11 OF 13**

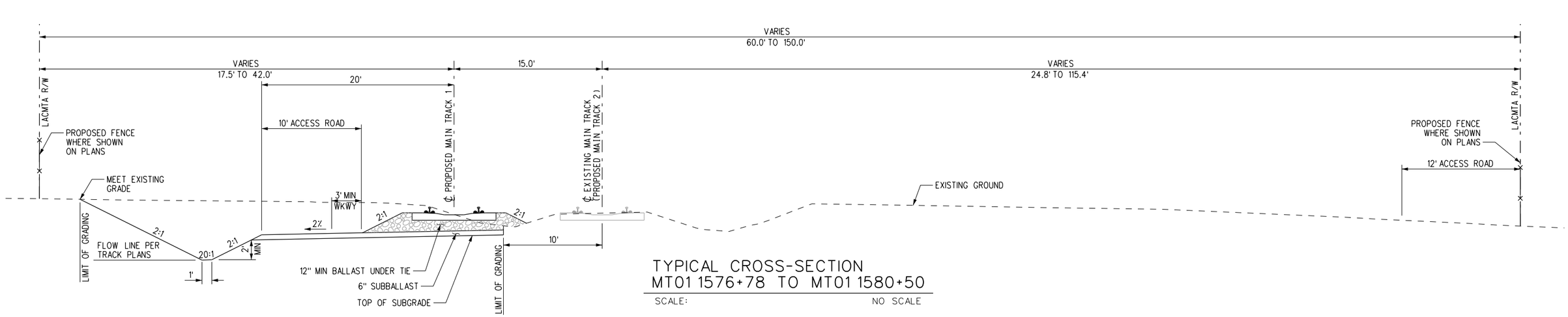
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| REV | |
| SCALE | NONE |
| SHEET NO | 39 |

ShapirJa 6/27/2017 3:01:55 PM $FILEL$




TYPICAL CROSS-SECTION
MT01 1570+19 TO MT01 1576+78

SCALE: NO SCALE




TYPICAL CROSS-SECTION
MT01 1576+78 TO MT01 1580+50

SCALE: NO SCALE

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
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| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

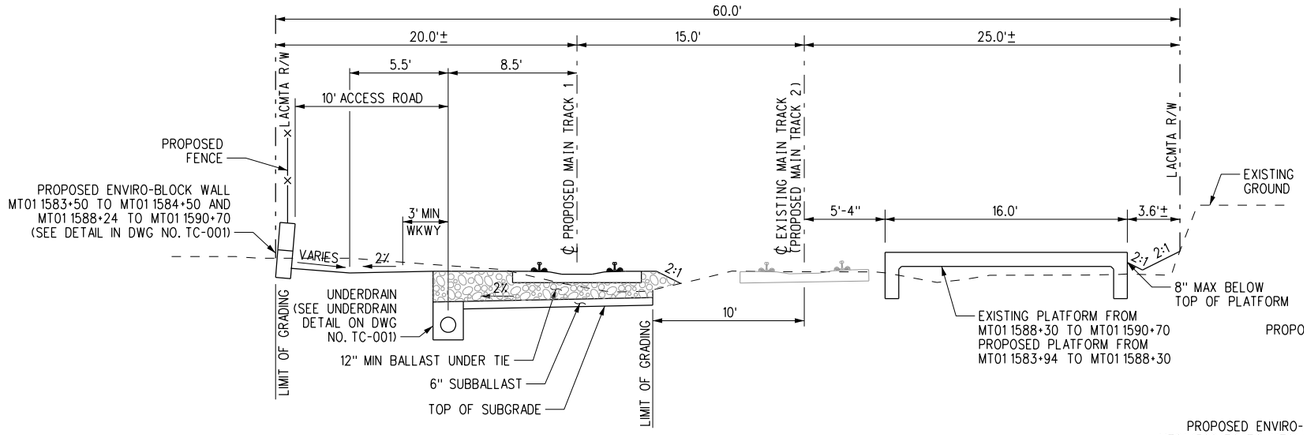
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TYPICAL CROSS SECTIONS SHEET 12 OF 13**

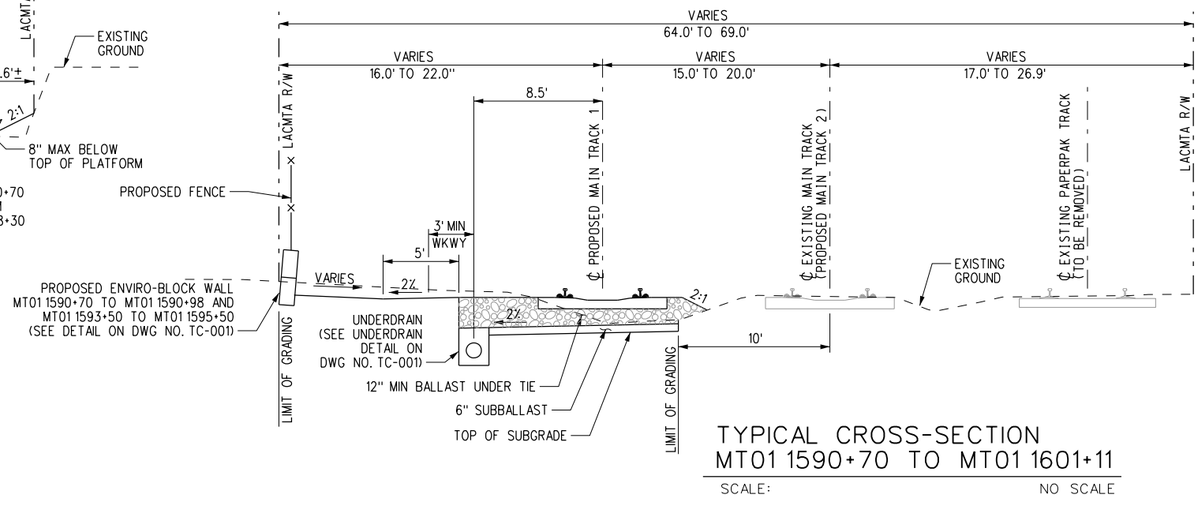
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| SHEET NO | 40 |

ShapirJa 6/27/2017 3:02:01 PM $FILEL$



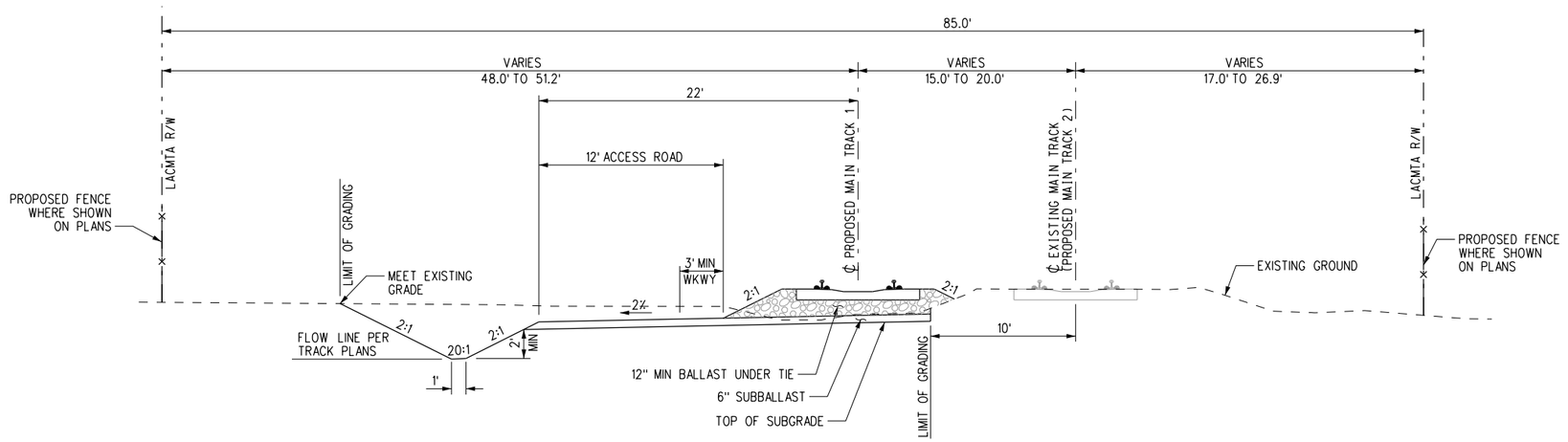

## TYPICAL CROSS-SECTION MT01 1580+50 TO MT01 1590+70

SCALE: NO SCALE




## TYPICAL CROSS-SECTION MT01 1590+70 TO MT01 1601+11

SCALE: NO SCALE




## TYPICAL CROSS-SECTION MT01 1601+11 TO MT01 1609+24

SCALE: NO SCALE

Know what's below. Call before you dig.

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

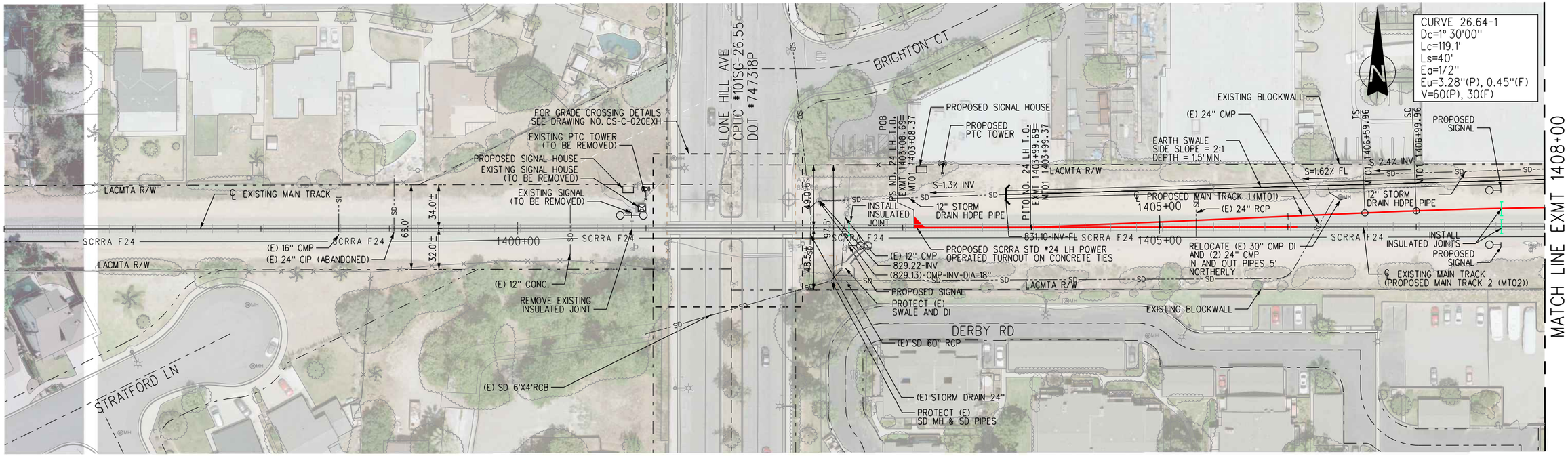
**TYPICAL CROSS SECTIONS SHEET 13 OF 13**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TC-013 |
| REV | |
| SCALE | NONE |
| SHEET NO | 41 |

Shapir.Ja 6/27/2017 3:02:07 PM $FILEL$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

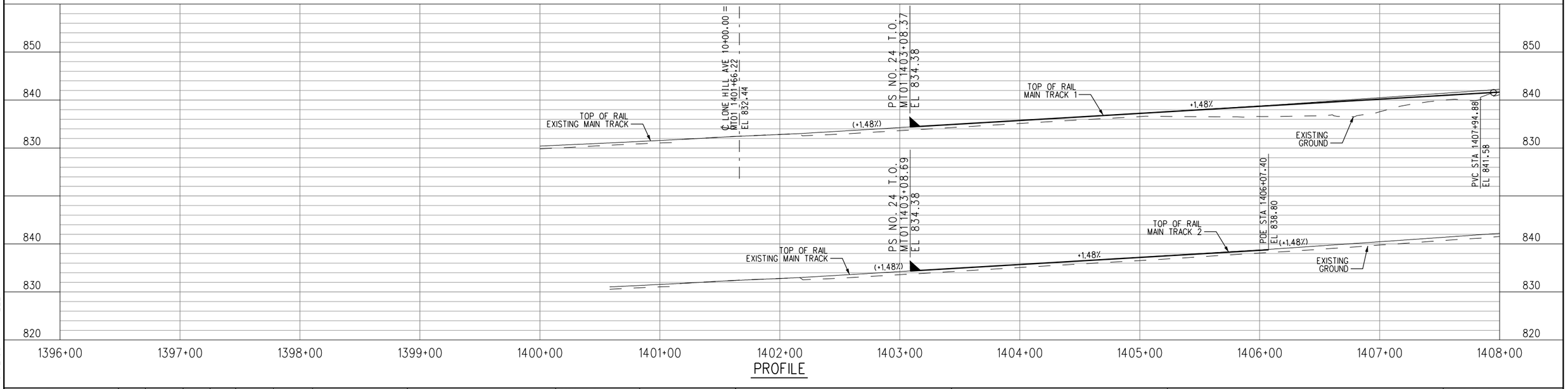



MATCH LINE EXMT 1408+00
SEE DRAWING NO. TP-002

PLAN

GRAPHIC SCALE: VERT. 1" = 10' (10' 5' 0 10' 20')

GRAPHIC SCALE: HORIZ. 1" = 40' (40' 20' 0 40' 80')




PROFILE

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# 30% SUBMITTAL
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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

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JACOBS
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**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TRACK PLAN AND PROFILE EXMT 1396+00 TO EXMT 1408+00 MP 26.44 TO MP 26.67**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-001 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 42 |

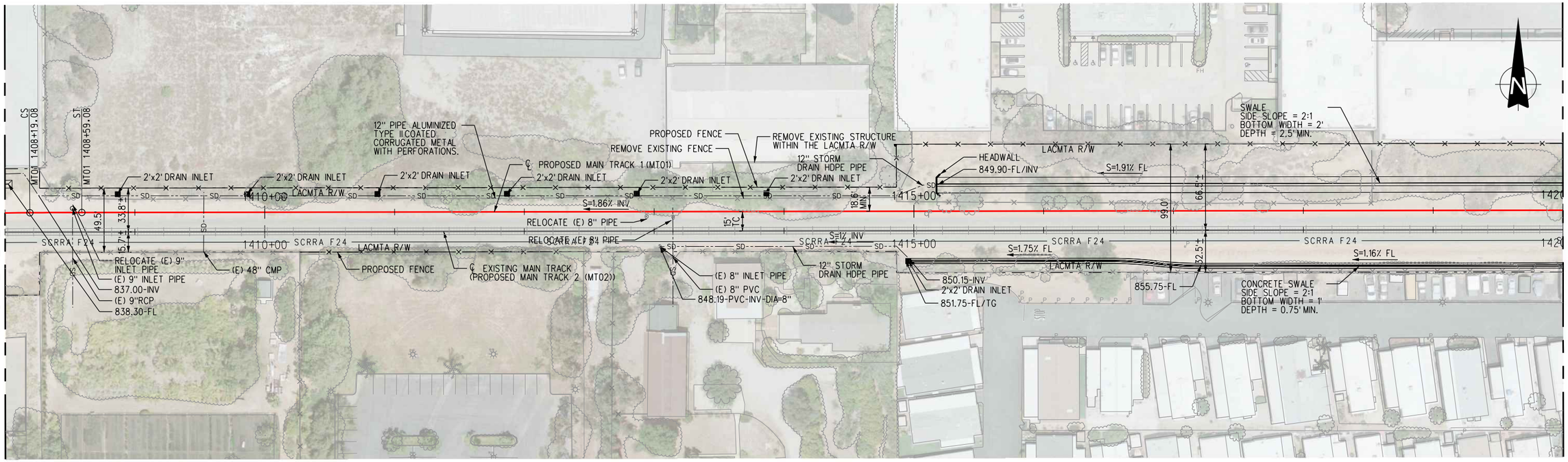
Shapir.Ja 6/28/2017 3:02:53 PM $FILE$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

SEE DRAWING NO. TP-001
MATCH LINE EXMT 1408+00

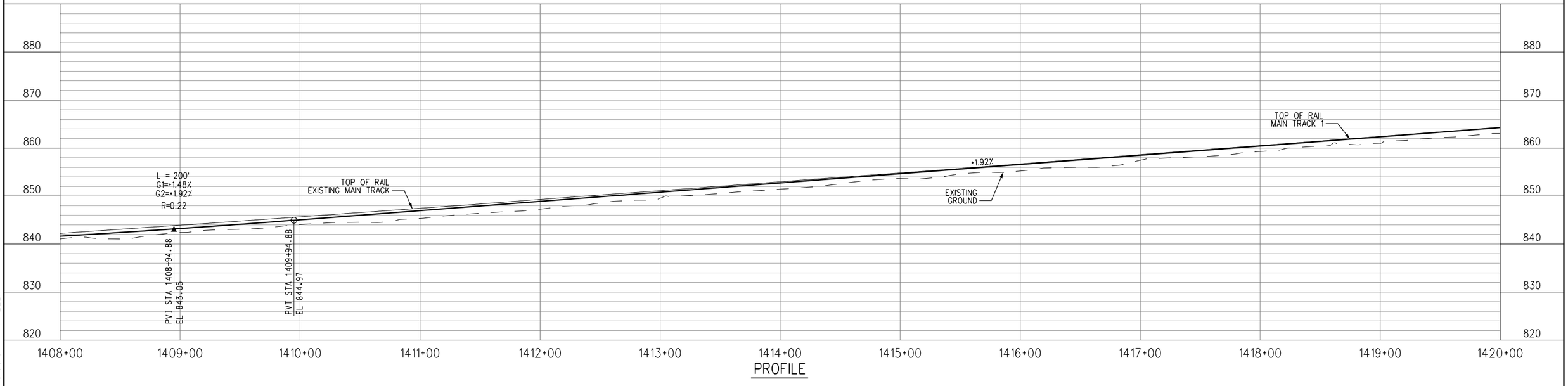
MATCH LINE EXMT 1420+00
SEE DRAWING NO. TP-003




PLAN

10' 5' 0 10' 20'
GRAPHIC SCALE: VERT. 1" = 10'

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40'




PROFILE

Know what's below. Call before you dig.

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# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

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METROLINK

JACOBS
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**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TRACK PLAN AND PROFILE EXMT 1408+00 TO EXMT 1420+00 MP 26.67 TO MP 26.89**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-002 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 43 |

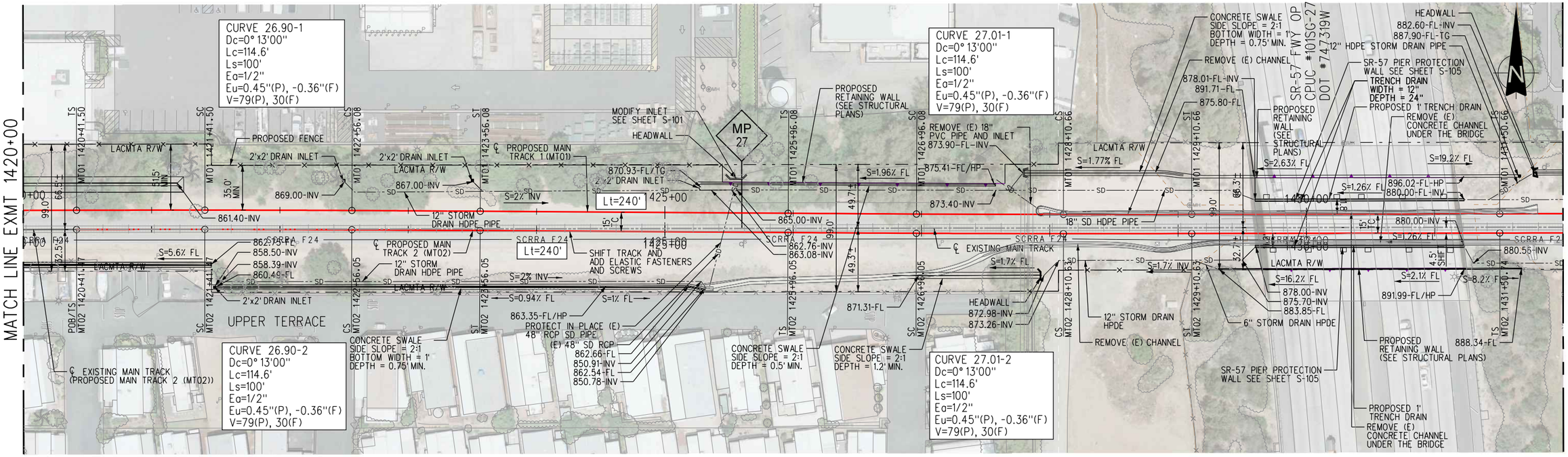
Shapir.Ja 6/28/2017 3:03:01 PM $FILE$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

SEE DRAWING NO. TP-002
MATCH LINE EXMT 1420+00

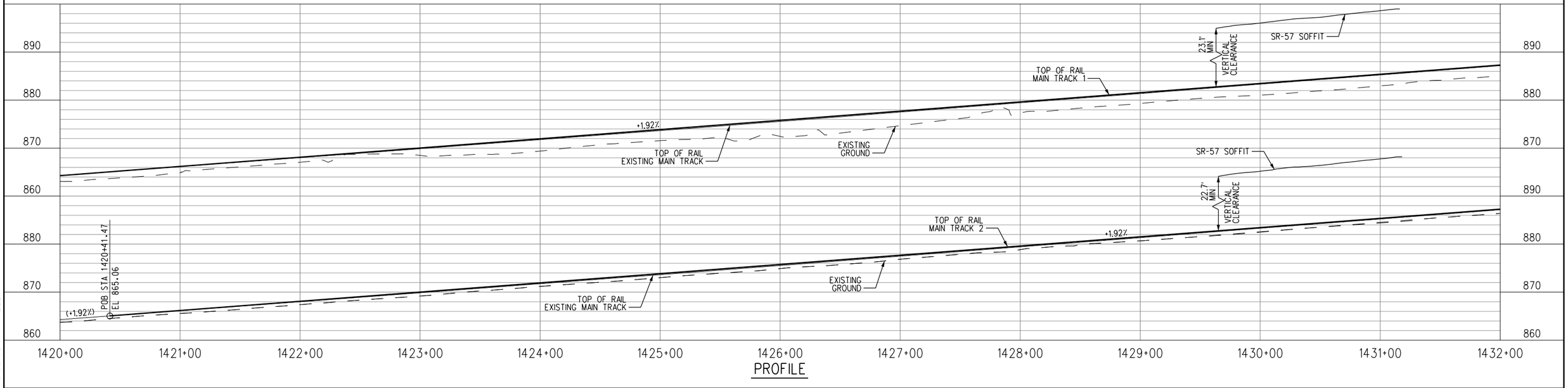
MATCH LINE EXMT 1432+00
SEE DRAWING NO. TP-004




PLAN

10' 5' 0 10' 20'
GRAPHIC SCALE: VERT. 1" = 10'

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40'




PROFILE

Know what's below. Call before you dig.

# 30% SUBMITTAL
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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

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JACOBS
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**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TRACK PLAN AND PROFILE EXMT 1420+00 TO EXMT 1432+00 MP 26.89 TO MP 27.12**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-003 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 44 |

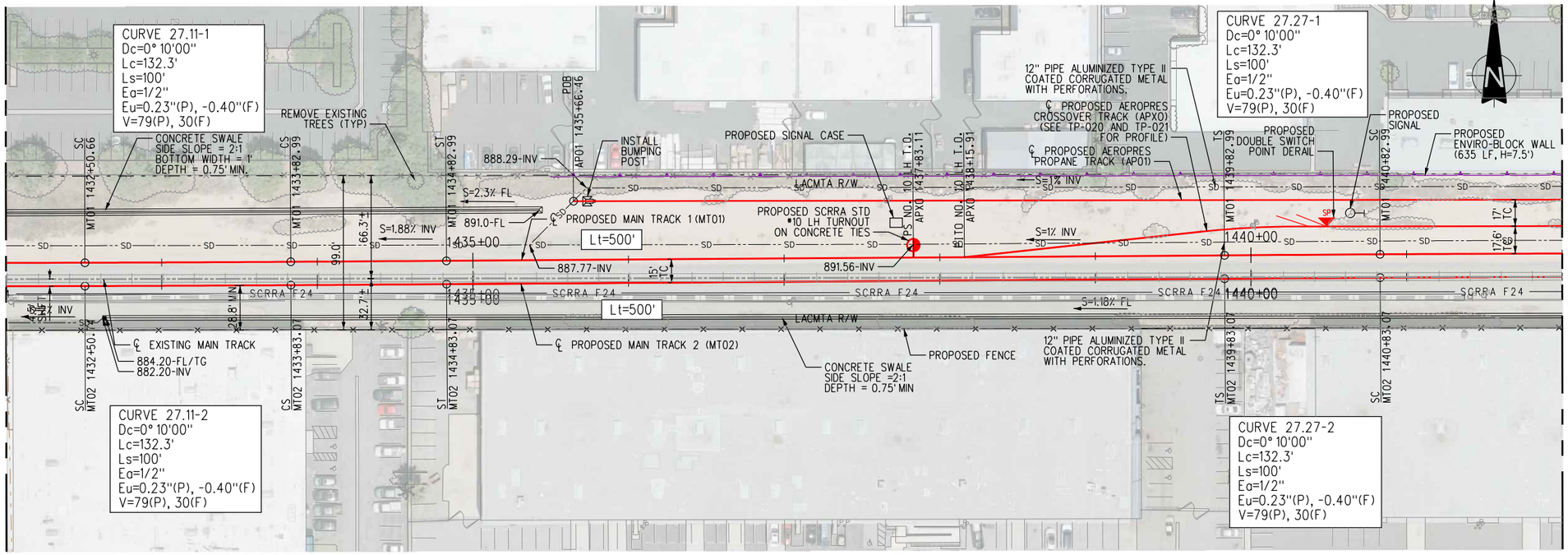
Shapir.Ja 6/28/2017 3:03:08 PM $FILEL$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

SEE DRAWING NO. TP-003
MATCH LINE EXMT 1432+00

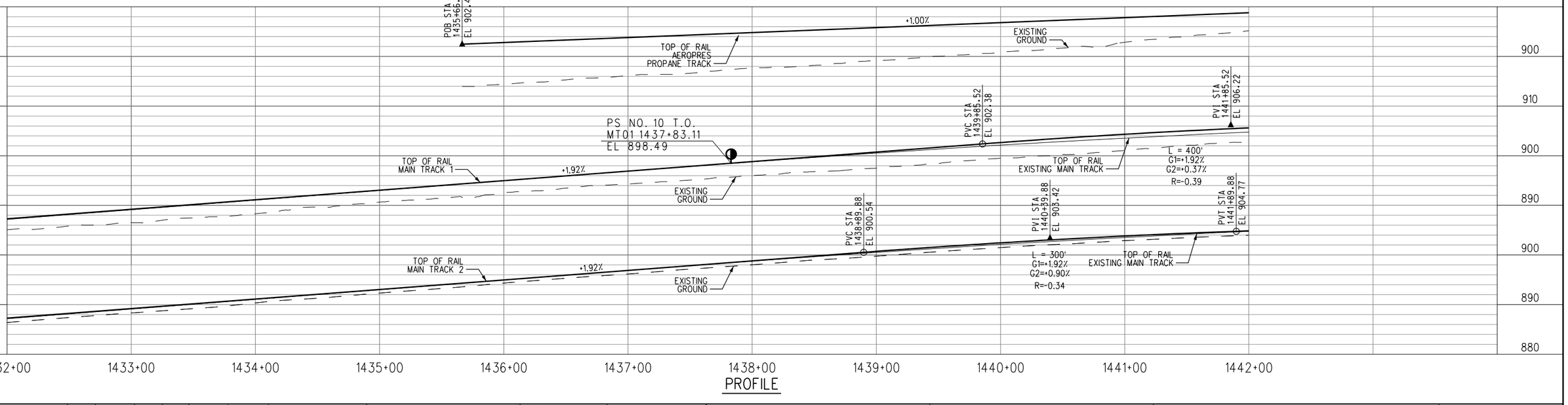
MATCH LINE EXMT 1442+00
SEE DRAWING NO. TP-005




PLAN

10' 5' 0 10' 20'
GRAPHIC SCALE: VERT. 1" = 10'

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40'




PROFILE

Know what's below. Call before you dig. 811

# 30% SUBMITTAL
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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

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**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TRACK PLAN AND PROFILE EXMT 1432+00 TO EXMT 1442+00 MP 27.12 TO MP 27.31**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-004 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 45 |

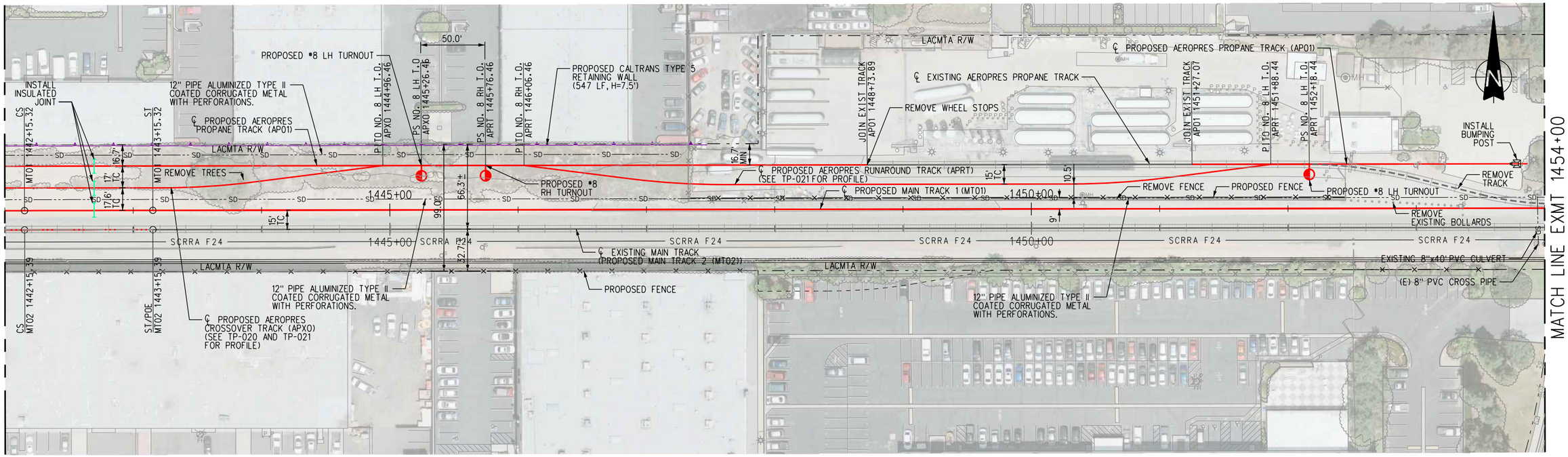
ShapirJa 6/28/2017 3:03:15 PM $FILE1$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

SEE DRAWING NO. TP-004
MATCH LINE EXMT 1442+00

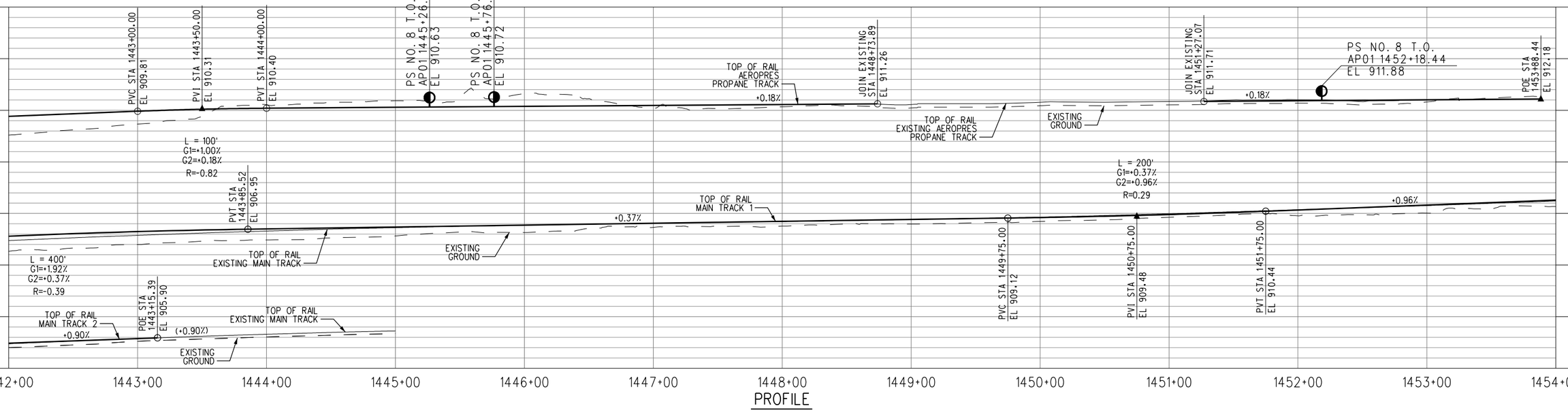
MATCH LINE EXMT 1454+00
SEE DRAWING NO. TP-006




PLAN

10' 5' 0 10' 20'
GRAPHIC SCALE: VERT. 1" = 10'

40' 20' 0 40' 80'
GRAPHIC SCALE: 1" = 40'




PROFILE

Shapir.Ja 6/28/2017 3:03:22 PM $FILE$

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|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

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17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


## LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

### TRACK PLAN AND PROFILE EXMT 1442+00 TO EXMT 1454+00 MP 27.31 TO MP 27.54

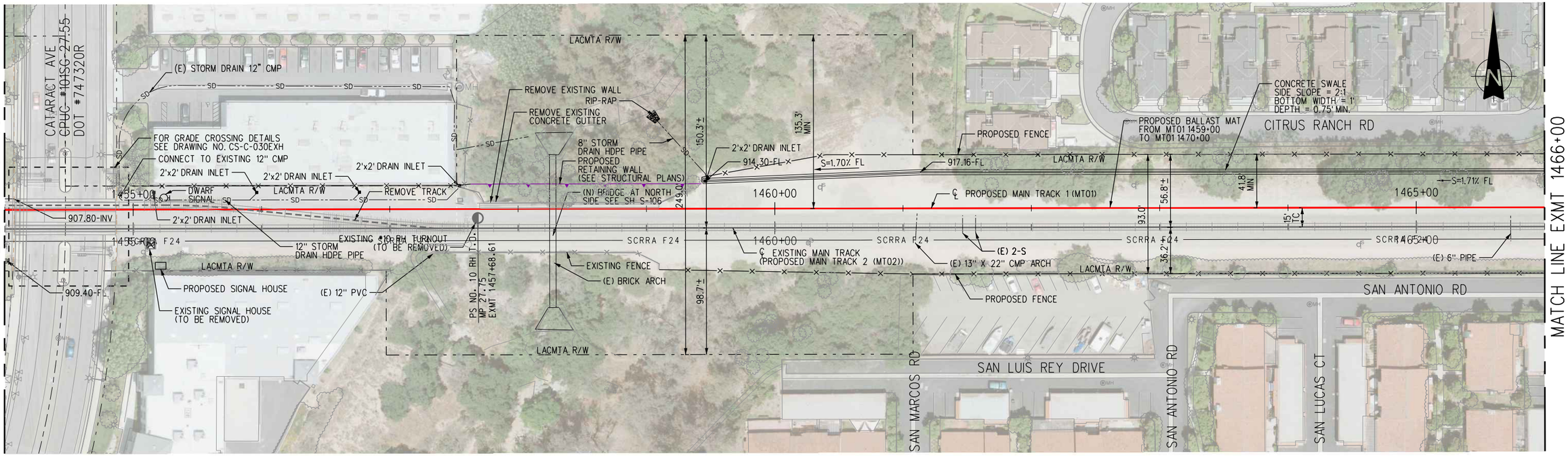
| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-005 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 46 |

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

SEE DRAWING NO. TP-005
MATCH LINE EXMT 1454+00

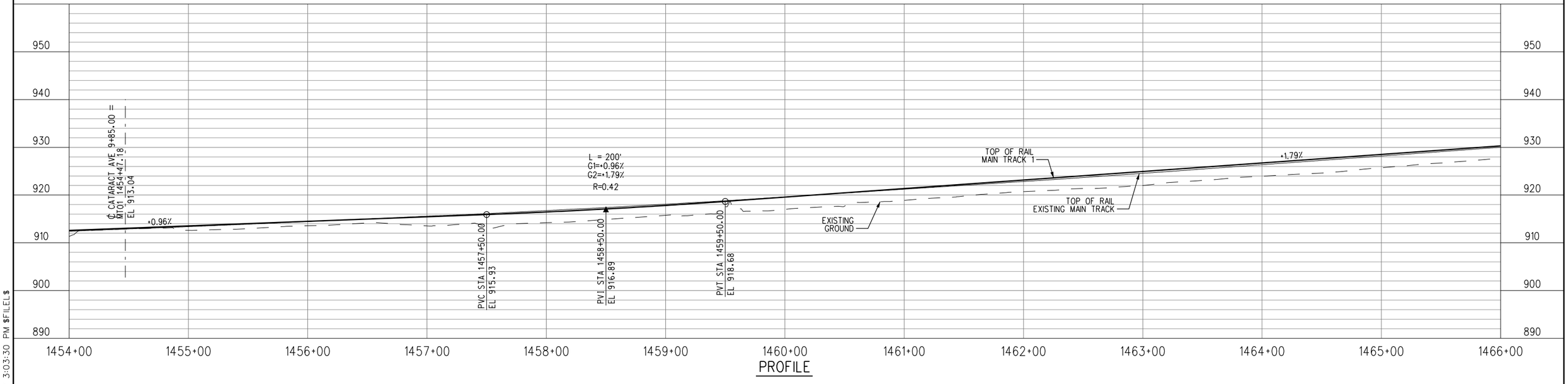
MATCH LINE EXMT 1466+00
SEE DRAWING NO. TP-007




PLAN

GRAPHIC SCALE: 10' 5' 0 10' 20' VERT. 1" = 10'

GRAPHIC SCALE: 40' 20' 0 40' 80' HORIZ. 1" = 40'




PROFILE

Know what's below. Call before you dig. 811

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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
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| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

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METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TRACK PLAN AND PROFILE EXMT 1454+00 TO EXMT 1466+00 MP 27.54 TO MP 27.77**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-006 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 47 |

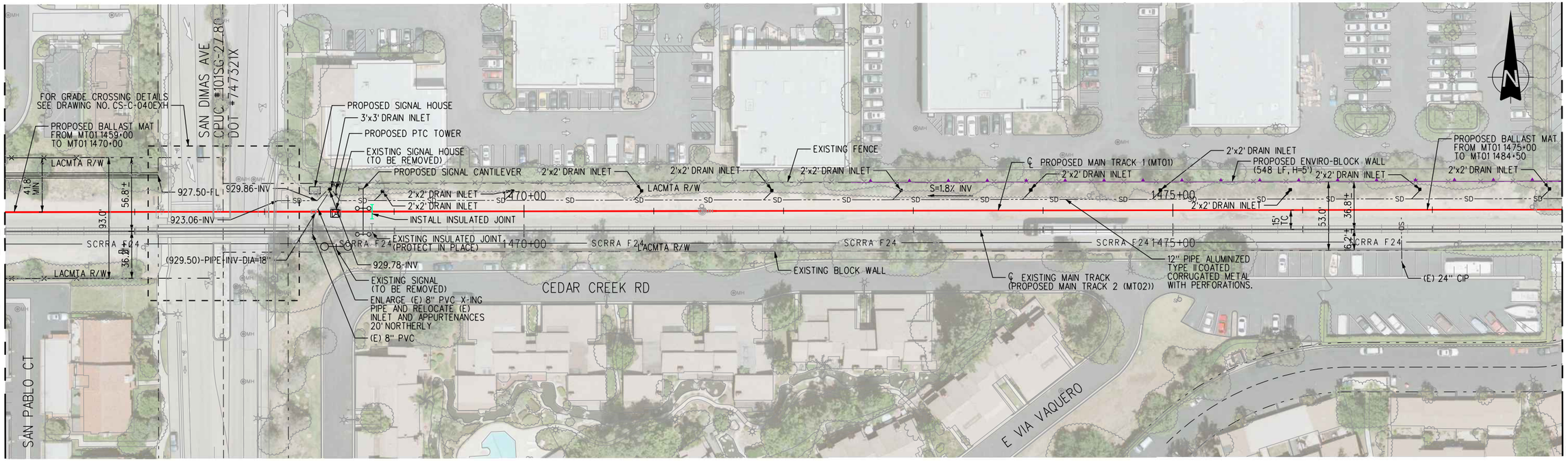
Shapir.Ja 6/28/2017 3:03:30 PM $FILE$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

SEE DRAWING NO. TP-006
MATCH LINE EXMT 1466+00

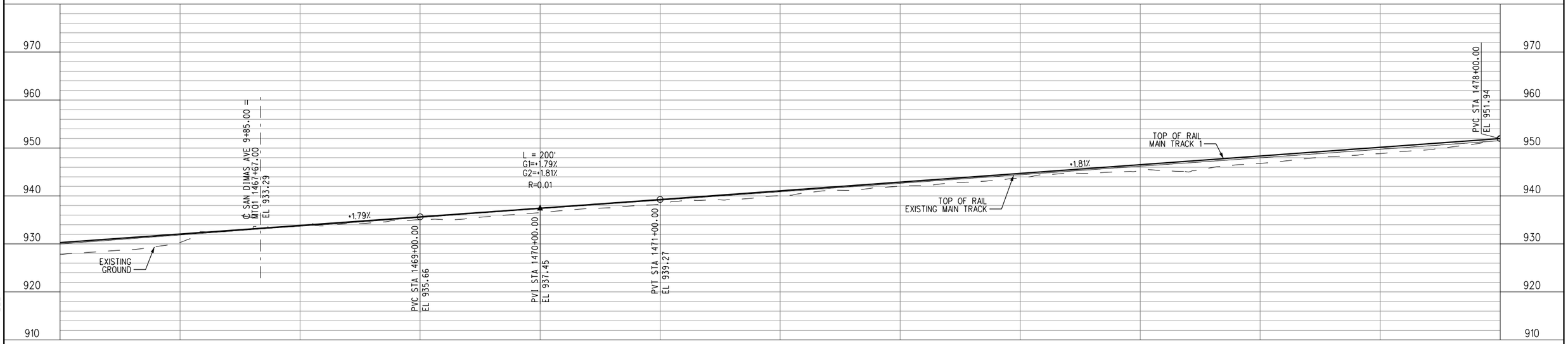
MATCH LINE EXMT 1478+00
SEE DRAWING NO. TP-008




PLAN

10' 5' 0 10' 20'
GRAPHIC SCALE: VERT. 1" = 10'

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40'




PROFILE

Know what's below. Call before you dig.

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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
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JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TRACK PLAN AND PROFILE EXMT 1466+00 TO EXMT 1478+00 MP 27.77 TO MP 27.99**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-007 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 48 |

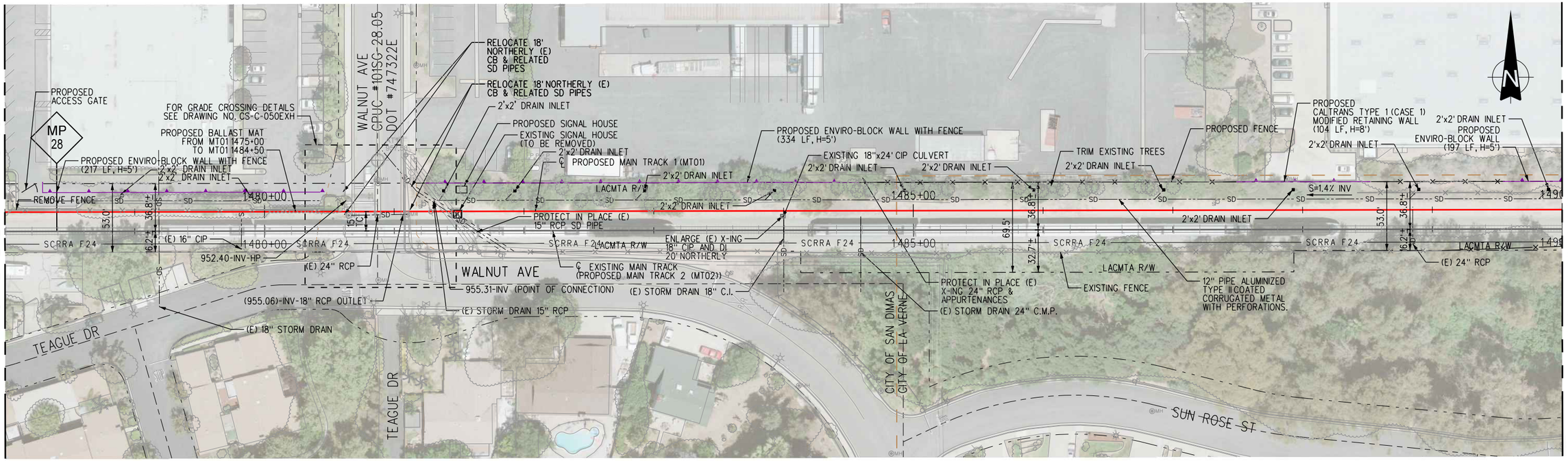
Shapir.Ja 6/28/2017 3:03:36 PM $FILE$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

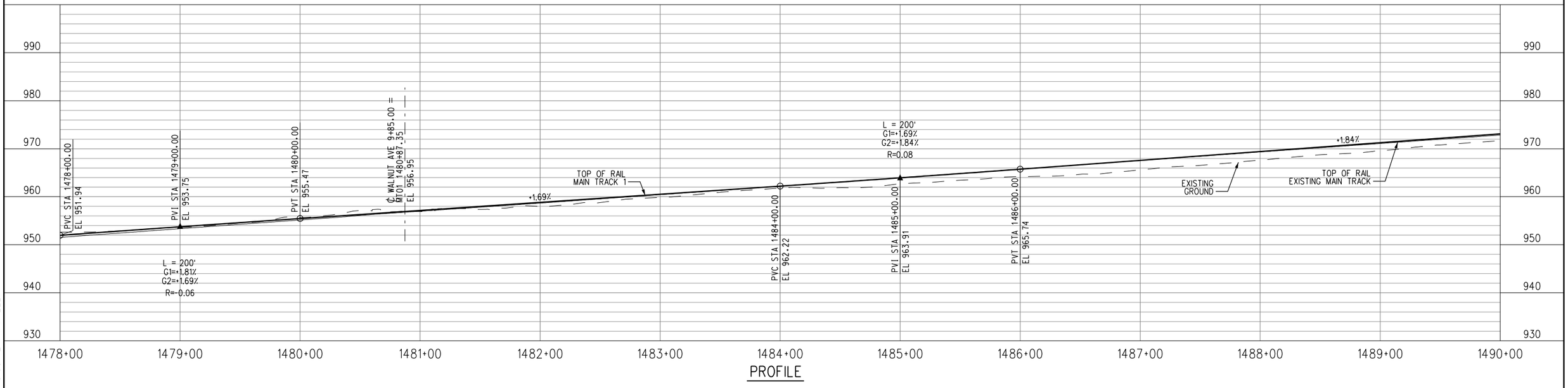
SEE DRAWING NO. TP-007
MATCH LINE EXMT 1478+00

MATCH LINE EXMT 1490+00
SEE DRAWING NO. TP-009




PLAN

GRAPHIC SCALE: VERT. 1" = 10' (10' 5' 0 10' 20')
GRAPHIC SCALE: HORIZ. 1" = 40' (40' 20' 0 40' 80')




PROFILE

811 Know what's below. Call before you dig.

# 30% SUBMITTAL
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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

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JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TRACK PLAN AND PROFILE EXMT 1478+00 TO EXMT 1490+00 MP 27.99 TO MP 28.22**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-008 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 49 |

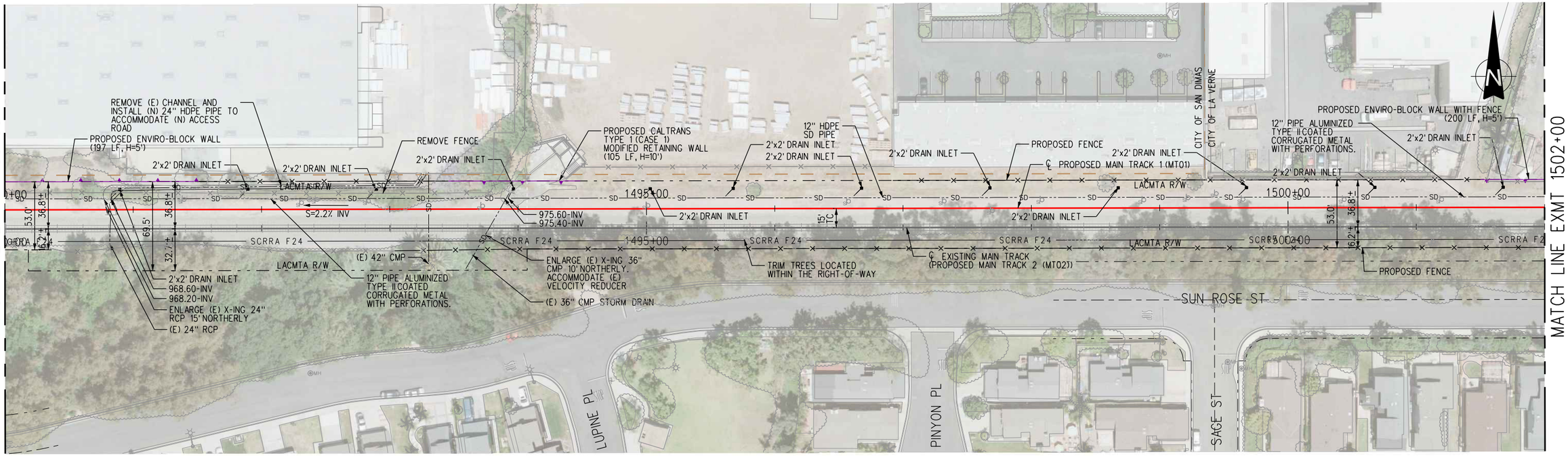
ShapirJa 6/28/2017 3:03:42 PM $FILE$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

SEE DRAWING NO. TP-008
MATCH LINE EXMT 1490+00

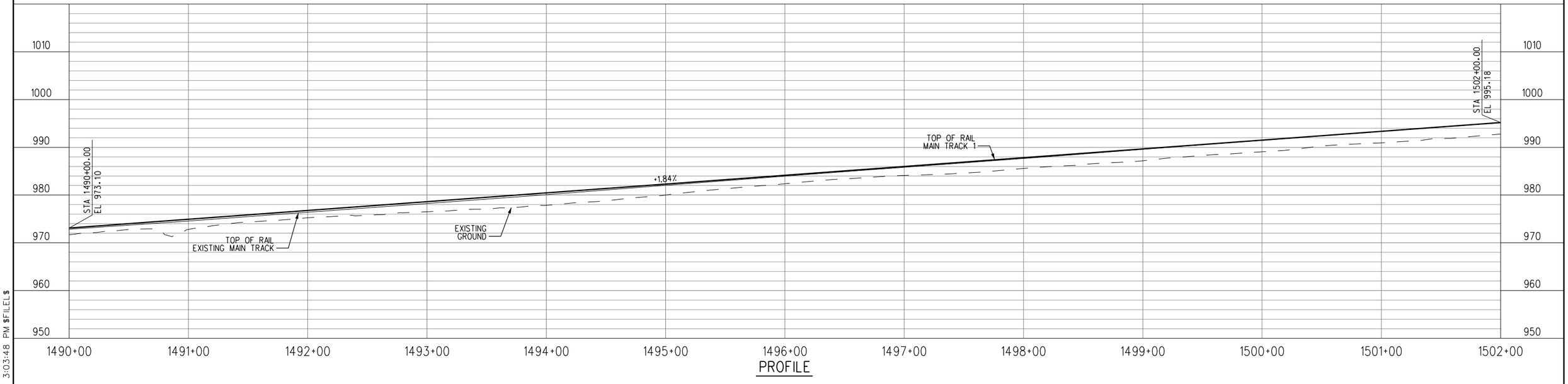
MATCH LINE EXMT 1502+00
SEE DRAWING NO. TP-010




PLAN

10' 5' 0 10' 20'
GRAPHIC SCALE: VERT. 1" = 10'

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40'




PROFILE

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

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METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TRACK PLAN AND PROFILE EXMT 1490+00 TO EXMT 1502+00 MP 28.22 TO MP 28.45**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-009 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 50 |

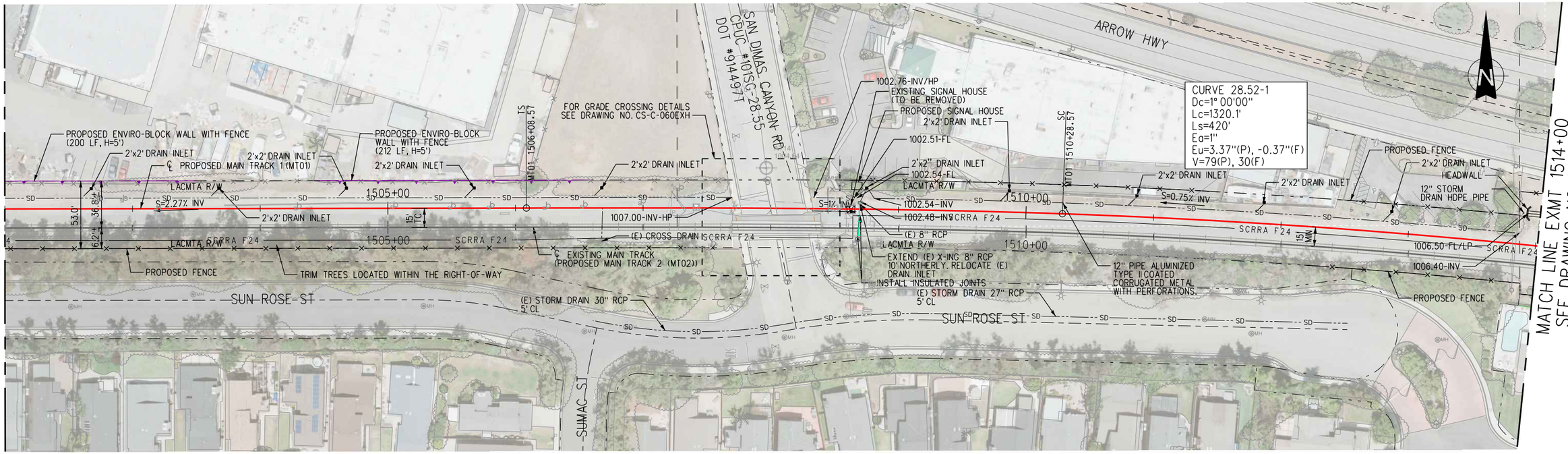
Shapir.Ja 6/28/2017 3:03:48 PM $FILEL$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

SEE DRAWING NO. TP-009
MATCH LINE EXMT 1502+00

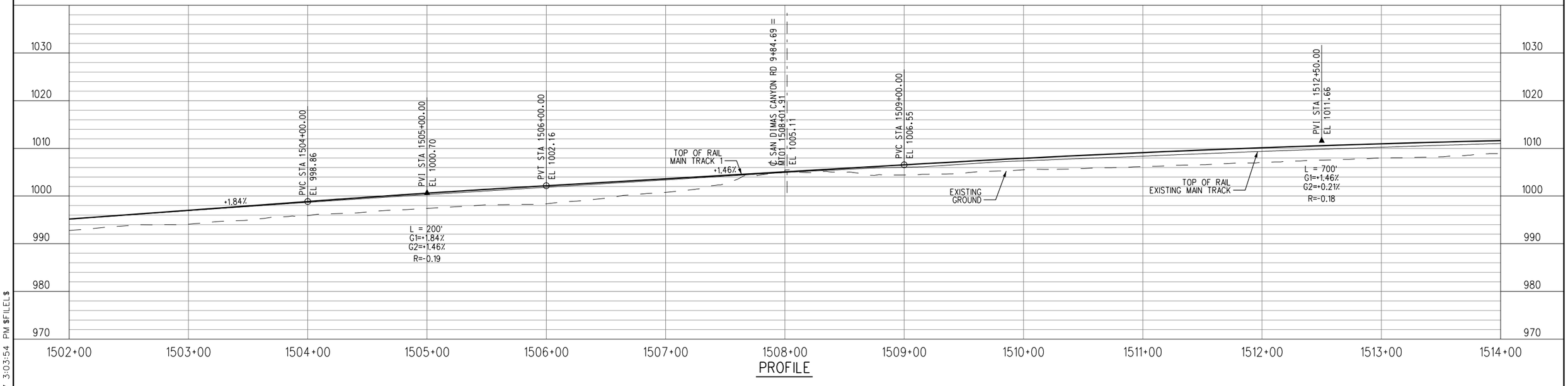
MATCH LINE EXMT 1514+00
SEE DRAWING NO. TP-011




PLAN

GRAPHIC SCALE: VERT. 1" = 10' (10' 5' 0 10' 20')

GRAPHIC SCALE: HORIZ. 1" = 40' (40' 20' 0 40' 80')




PROFILE

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

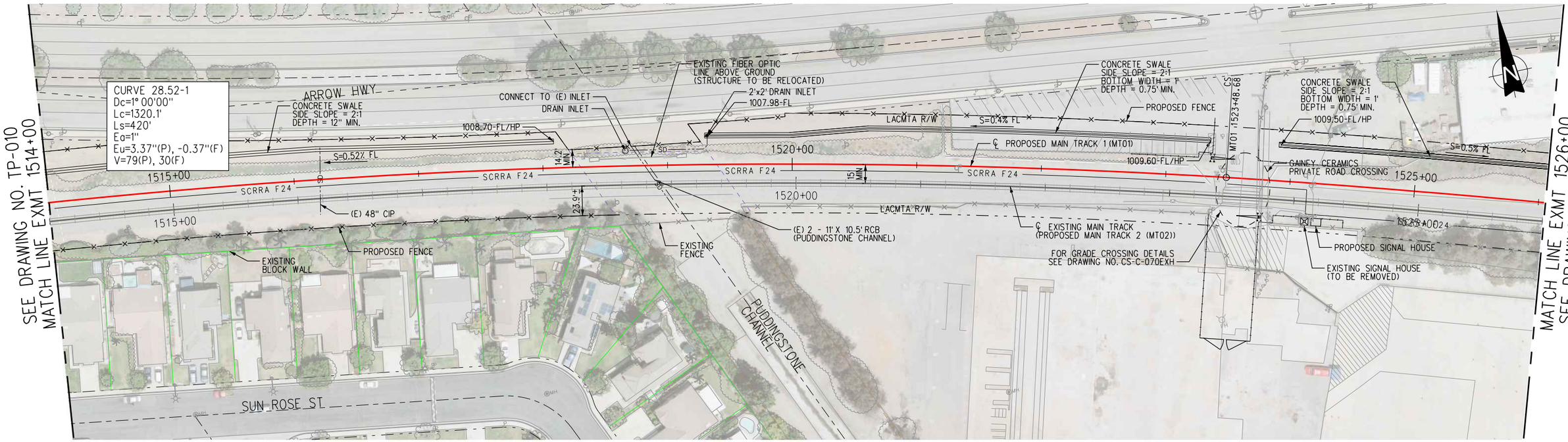
**TRACK PLAN AND PROFILE EXMT 1502+00 TO EXMT 1514+00 MP 28.45 TO MP 28.67**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-010 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 51 |

Shapir.Ja 6/28/2017 3:03:54 PM $FILE$

TO LOS ANGELES, CA
RR WEST

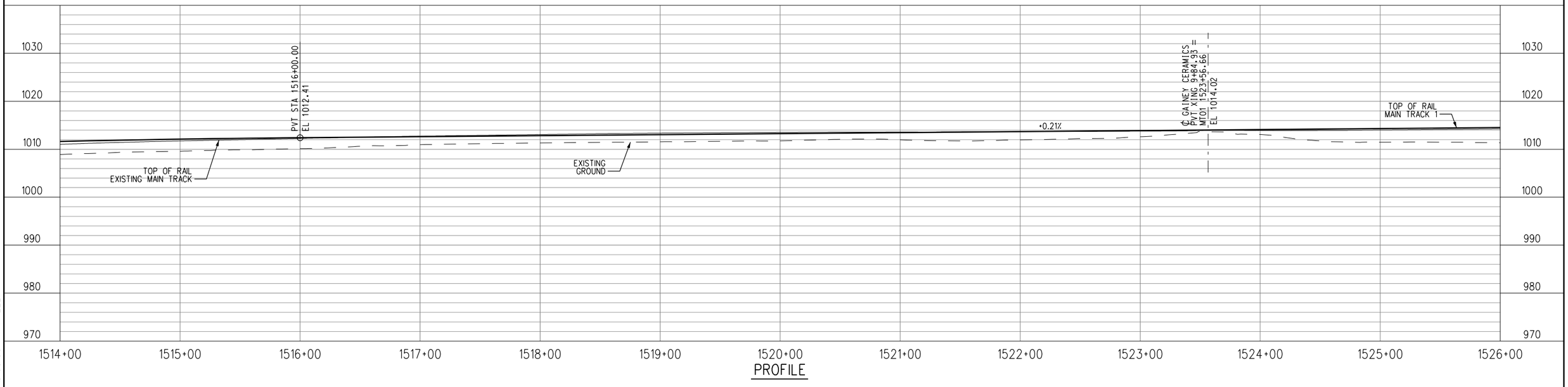
SAN BERNARDINO, CA
RR EAST




PLAN

10' 5' 0 10' 20'
GRAPHIC SCALE: VERT. 1" = 10'

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40'




PROFILE

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY JS
DRAWN BY JS
CHECKED BY PM
IN CHARGE MG
DATE 7-1-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TRACK PLAN AND PROFILE EXMT 1514+00 TO EXMT 1526+00 MP 28.67 TO MP 28.90**

CONTRACT NO AE4555000241519565
DRAWING NO TP-011 REV
SCALE AS SHOWN
SHEET NO 52

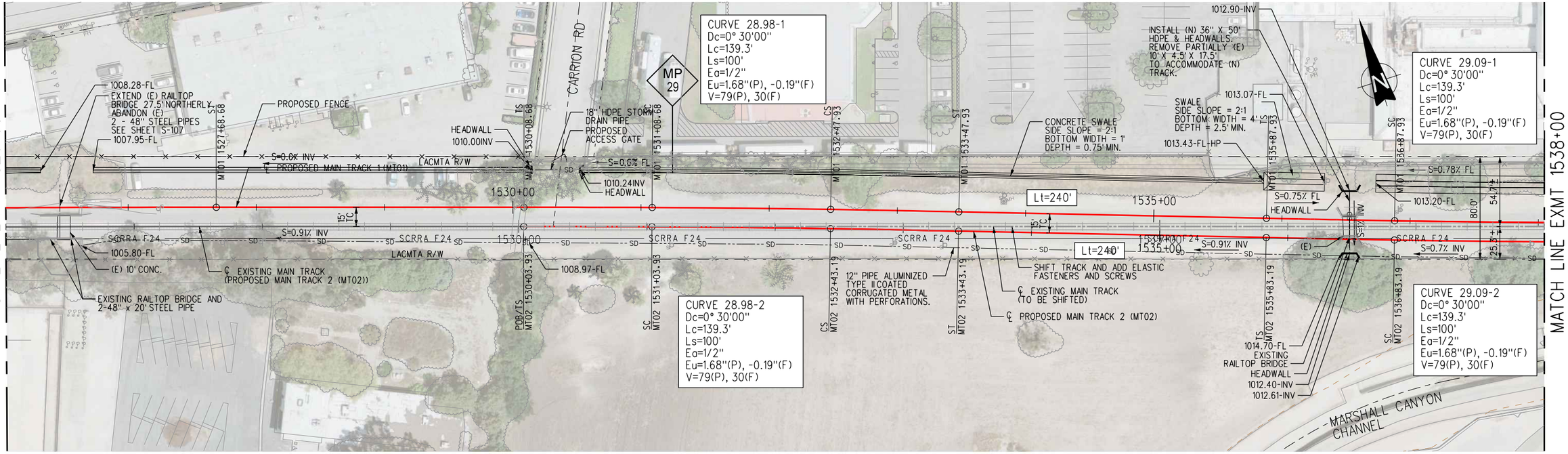
Shapir.Ja 6/28/2017 3:03:59 PM $FILEL$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

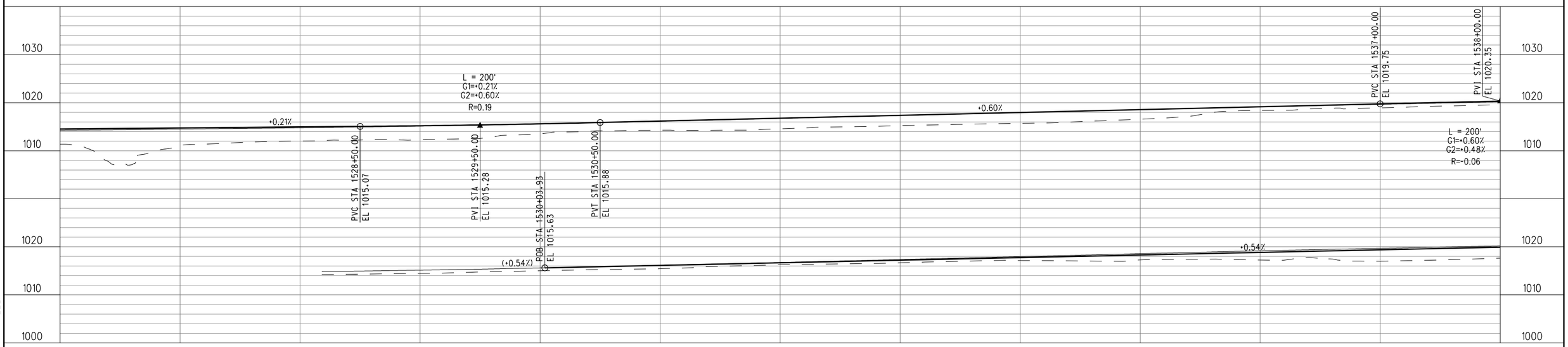
SEE DRAWING NO. TP-011
MATCH LINE EXMT 1526+00

MATCH LINE EXMT 1538+00
SEE DRAWING NO. TP-013




PLAN

GRAPHIC SCALE: VERT. 1" = 10'
GRAPHIC SCALE: HORIZ. 1" = 40'




PROFILE

811 Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TRACK PLAN AND PROFILE EXMT 1526+00 TO EXMT 1538+00 MP 28.90 TO MP 29.13**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-012 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 53 |

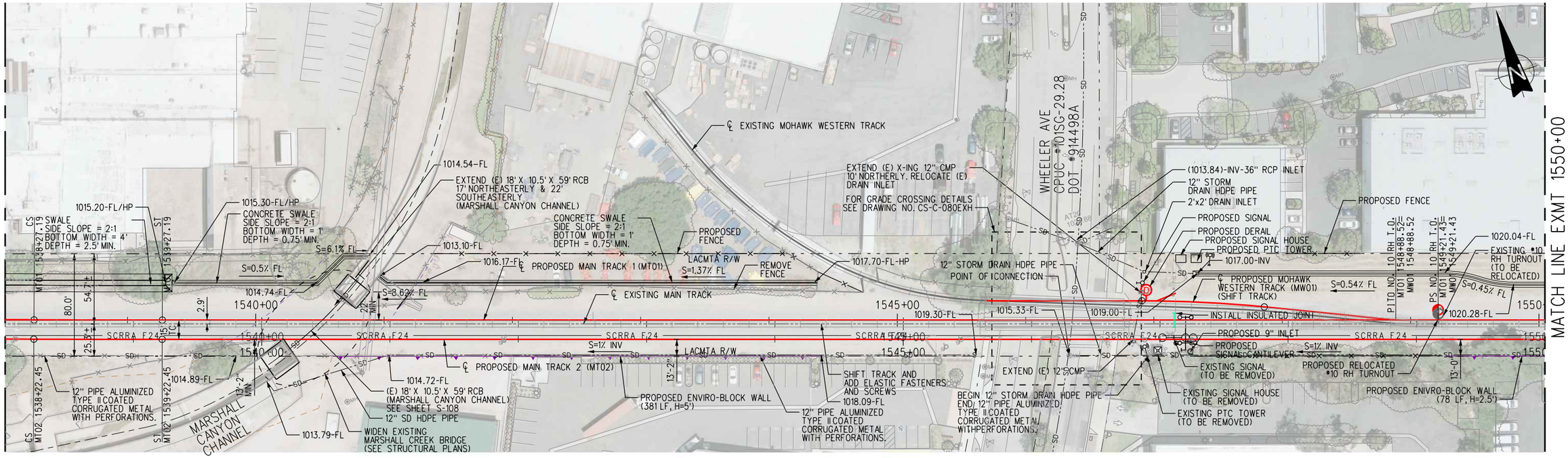
ShapirJa 6/28/2017 3:04:05 PM $FILE$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

SEE DRAWING NO. TP-012
MATCH LINE EXMT 1538+00

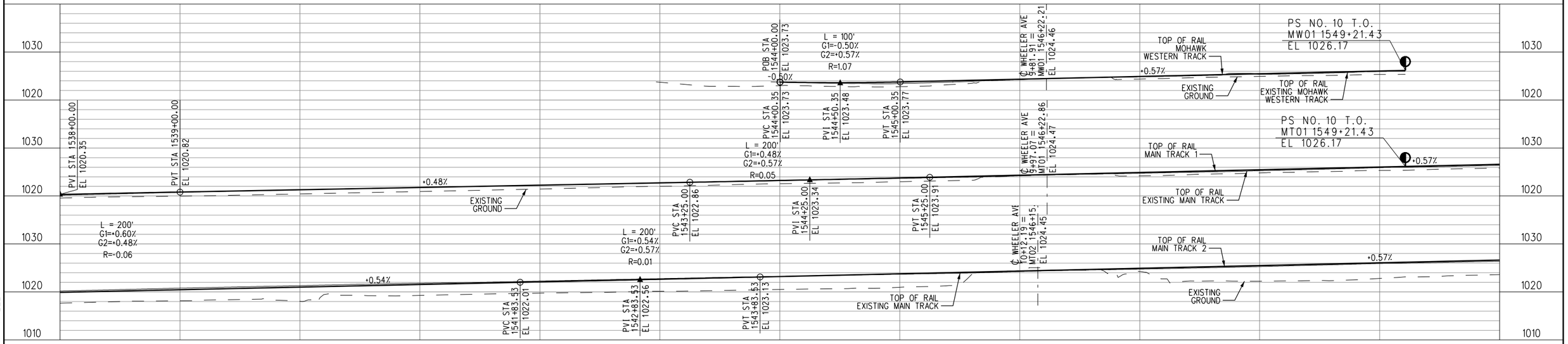
MATCH LINE EXMT 1550+00
SEE DRAWING NO. TP-014




PLAN

GRAPHIC SCALE: VERT. 1" = 10' (10' 5' 0 10' 20')

GRAPHIC SCALE: HORIZ. 1" = 40' (40' 20' 0 40' 80')




PROFILE

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TRACK PLAN AND PROFILE**
**EXMT 1538+00 TO EXMT 1550+00**
**MP 29.13 TO MP 29.36**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-013 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 54 |

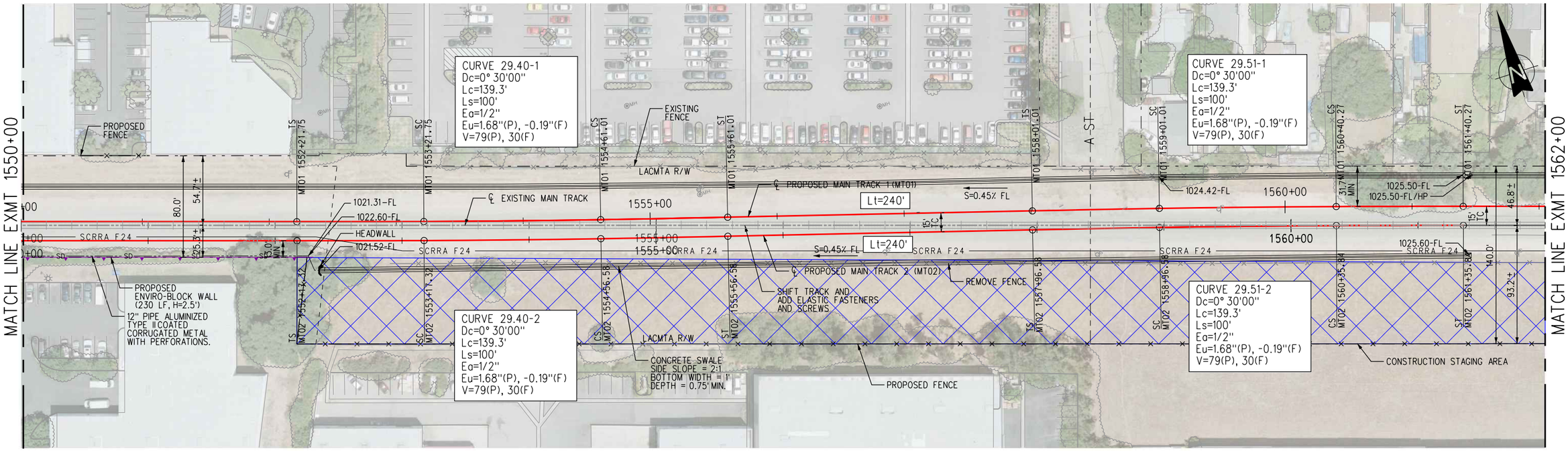
Shapir.Ja 6/28/2017 3:04:11 PM $FILE$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

SEE DRAWING NO. TP-013
MATCH LINE EXMT 1550+00

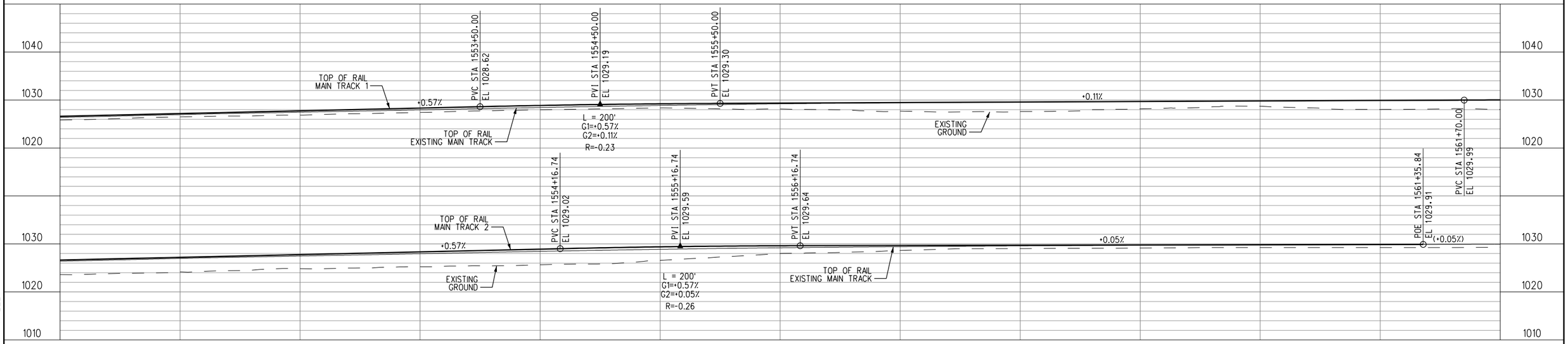
MATCH LINE EXMT 1562+00
SEE DRAWING NO. TP-015




PLAN

GRAPHIC SCALE: VERT. 1" = 10' (10' 5' 0 10' 20')

GRAPHIC SCALE: HORIZ. 1" = 40' (40' 20' 0 40' 80')




PROFILE

811 Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TRACK PLAN AND PROFILE EXMT 1550+00 TO EXMT 1562+00 MP 29.36 TO MP 29.58**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-014 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 55 |

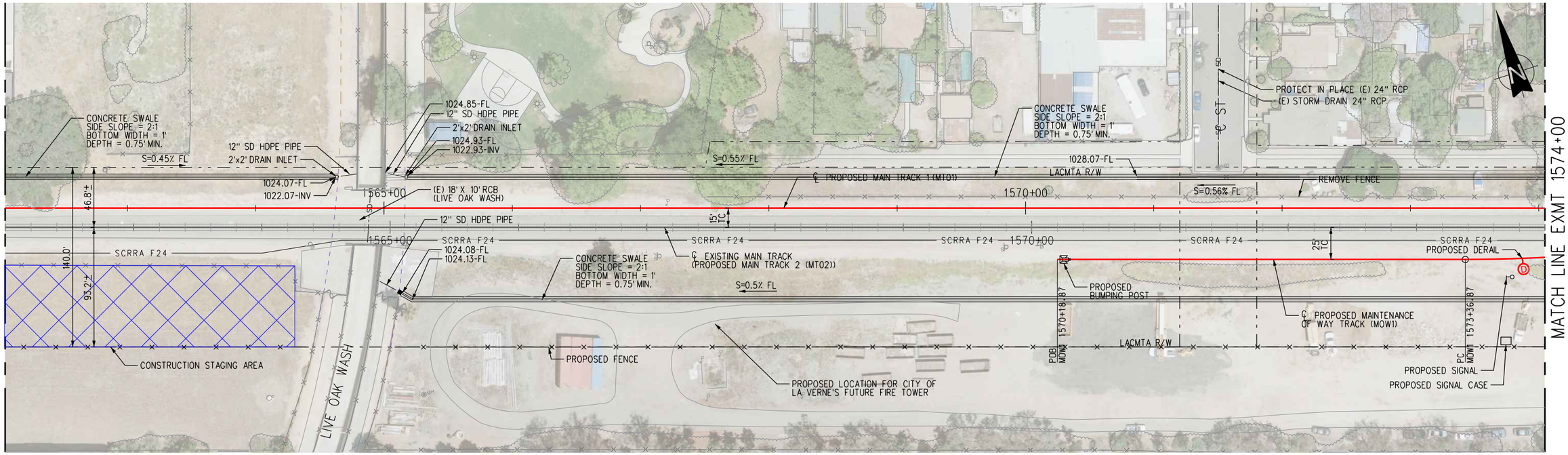
Shapir.Ja 6/28/2017 3:04:17 PM $FILEL$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

SEE DRAWING NO. TP-014
MATCH LINE EXMT 1562+00

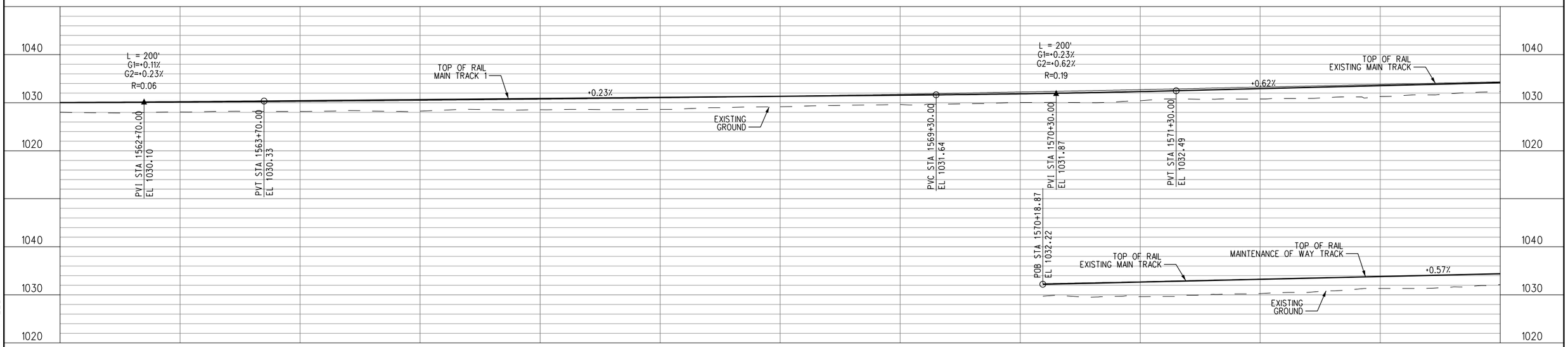
MATCH LINE EXMT 1574+00
SEE DRAWING NO. TP-016




PLAN

10' 5' 0 10' 20' GRAPHIC SCALE: VERT. 1" = 10'

40' 20' 0 40' 80' GRAPHIC SCALE: HORIZ. 1" = 40'




PROFILE

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TRACK PLAN AND PROFILE**
**EXMT 1562+00 TO EXMT 1574+00**
**MP 29.58 TO MP 29.81**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-015 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 56 |

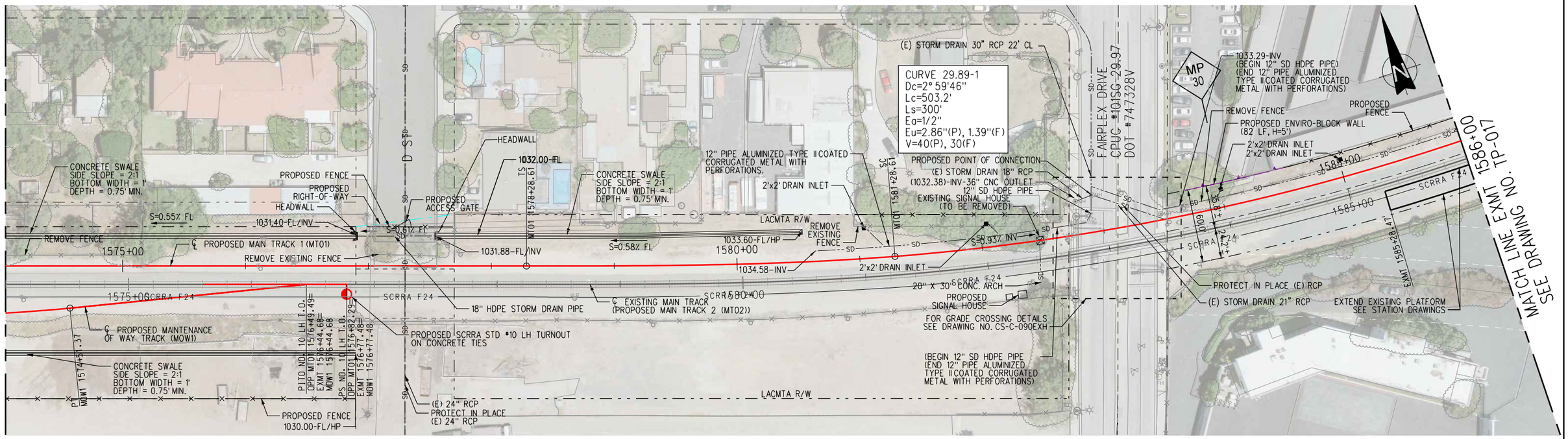
ShapirJa 6/28/2017 3:04:22 PM $FILEL$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

SEE DRAWING NO. TP-015
MATCH LINE EXMT 1574+00

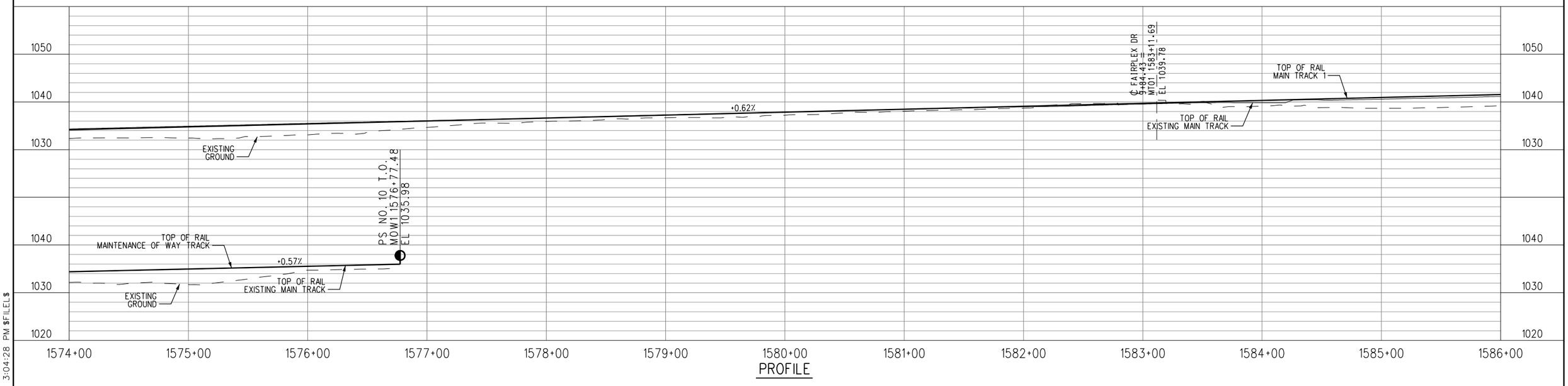
MATCH LINE EXMT 1586+00
SEE DRAWING NO. TP-017




PLAN

10' 5' 0 10' 20'
GRAPHIC SCALE: VERT. 1" = 10'

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40'




PROFILE

Know what's below. Call before you dig.

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

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| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

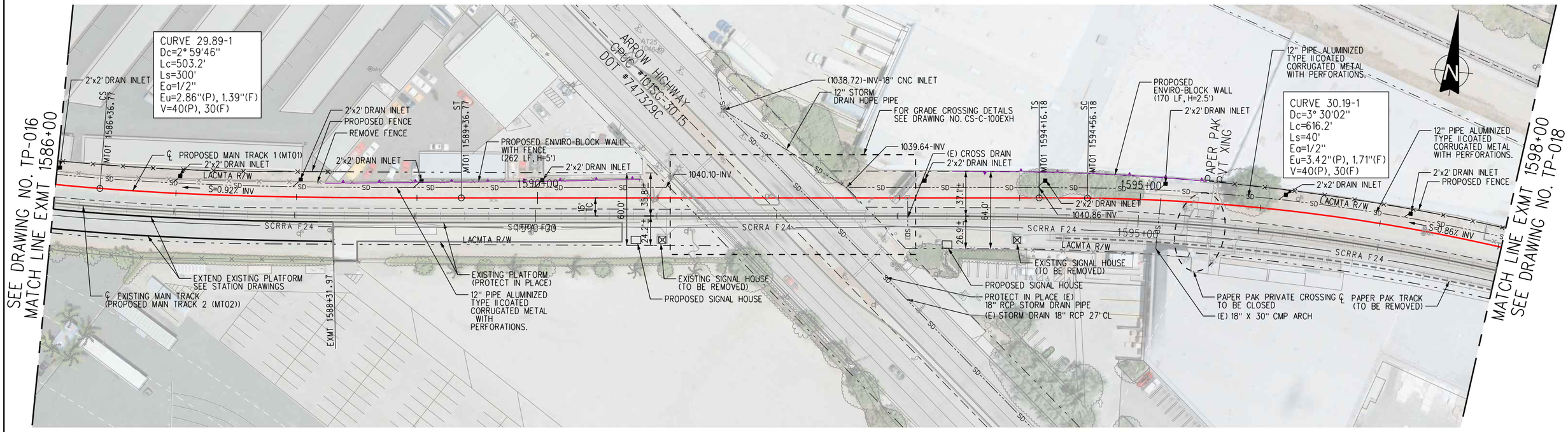
**TRACK PLAN AND PROFILE EXMT 1574+00 TO EXMT 1586+00 MP 29.81 TO MP 30.04**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-016 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 57 |

Shapir.Ja 6/28/2017 3:04:28 PM $FILEL$

TO LOS ANGELES, CA
RR WEST

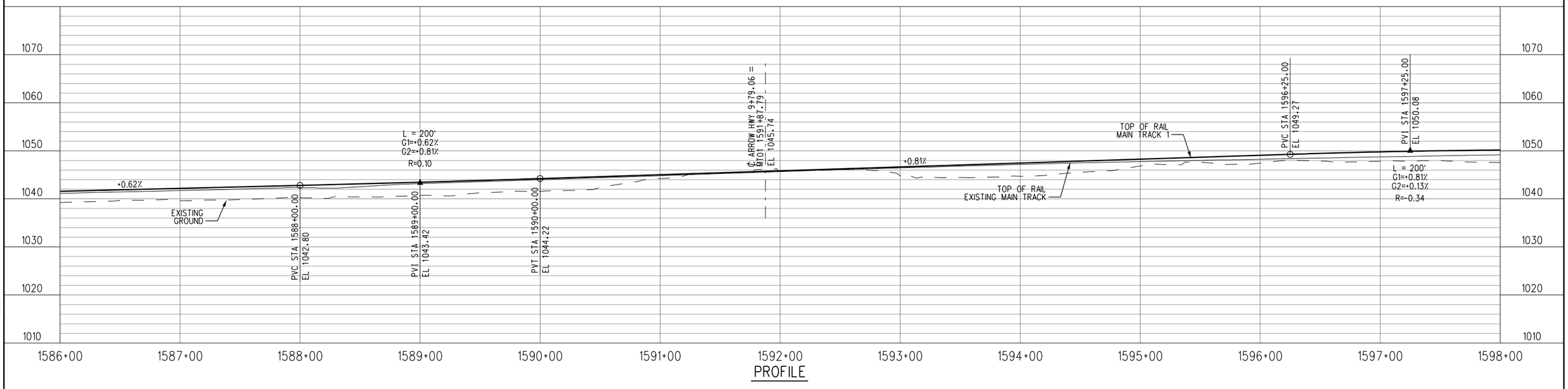
SAN BERNARDINO, CA
RR EAST




PLAN

GRAPHIC SCALE: 10' 5' 0 10' 20' VERT. 1" = 10'

GRAPHIC SCALE: 40' 20' 0 40' 80' HORIZ. 1" = 40'




PROFILE

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro
WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
METROLINK
JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TRACK PLAN AND PROFILE EXMT 1586+00 EXMT 1598+00 MP 30.04 TO MP 30.27**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-017 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 58 |

Shapir.Ja 6/28/2017 3:04:36 PM $FILEL$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

SEE DRAWING NO. TP-017
MATCH LINE EXMT 1598+00

MATCH LINE EXMT 1610+00
SEE DRAWING NO. TP-019

CURVE 30.35-1
Dc=0° 45'00"
Lc=129.3'
Ls=40'
Eq=1/2"
Eu=0.34"(P), -0.03"(F)
V=40(P), 30(F)

FOR GRADE CROSSING DETAILS
SEE DRAWING NO. CS-C-110EXH

12" PIPE ALUMINIZED TYPE II COATED CORRUGATED METAL WITH PERFORATIONS.

2'x2' DRAIN INLET

PROPOSED FENCE

℄ PROPOSED MAIN TRACK 1 (MT01)

2'x2' DRAIN INLET

2'x2' DRAIN INLET

1600+00

1046.20-INV/HP

SCRRA F24

LACMTA R/W

1600+00

EXISTING TURNOUT (TO BE REMOVED)

℄ PAPERPAK TRACK (TO BE REMOVED)

POB MT02 1599+95.00

CS MT02 1600+03.94

PROPOSED SIGNAL HOUSE

EXISTING SIGNAL HOUSE (TO BE REMOVED)

CS MT01 1600+72.36

ST MT01 1601+12.36

EXTEND 35' NORTHERLY 18" STORM DRAIN HDPE PIPE

TC VARIES 17'-0" MIN. TO 18.0' MAX

12" STORM DRAIN HDPE PIPE

REMOVE (E) DRAIN INLET (1044.77)-PVC-INV+DIA=18"

WHITE AVE.
CPUC #101SG-30.33
DOT #747330W

1045.18-INV/FL

TS MT01 1602+43.84

SC MT01 1602+83.84

REMOVE EXISTING FENCE

EXISTING SIGNAL HOUSE (TO BE REMOVED)

EXISTING PTC TOWER (TO BE REMOVED)

EXISTING SIGNAL (TO BE REMOVED)

PROPOSED CANTILEVER

EXISTING •20 LH TURNOUT (TO BE REMOVED)

(E) STORM DRAIN 30" RCP 25'± CL

ST MT02 1602+93.96

PS NO. 20 LH T.O. MT02 1603+09.52 OPP MT01 1603+15.55

PITO NO. 20 LH T.O. MT02 1603+81.86 OPP MT01 1603+88.07

PROPOSED SCRRA STD •20 LH POWER OPERATED TURNOUT ON CONCRETE TIES

CS MT01 1604+13.12

ST MT01 1604+53.12

PASADENA SUB MAIN TRACK

LACMTA R/W

℄ PROPOSED MAIN TRACK 1 (MT01)

1605+00

HEADWALL

SCRRA F24

1605+00 LACMTA R/W

20' 15'

℄ EXISTING MAIN TRACK (PROPOSED MAIN TRACK 2 (MT02))

CONCRETE SWALE SIDE SLOPE = 2:1 BOTTOM WIDTH = 1' DEPTH = 0.75' MIN.

S=0.43% FL

EXISTING SIGNAL HOUSE (TO BE REMOVED)

EXISTING SIGNAL (TO BE REMOVED)

PITO NO. 20 LH T.O. MT01 1607+91.04

1047.90-FL/HP

PS NO. 20 LH T.O. MT01 1608+63.37

PROPOSED SIGNAL HOUSE

PROPOSED PTC TOWER

PROPOSED SCRRA STD •20 LH POWER OPERATED TURNOUT ON CONCRETE TIES

EXISTING SIGNAL (TO BE REMOVED)

RAISE TRACK

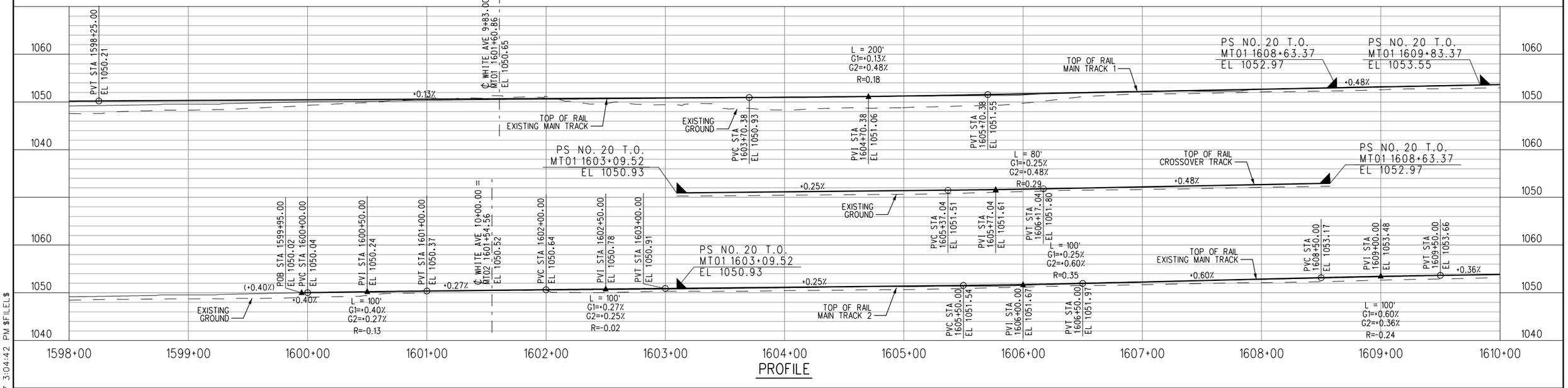
PROPOSED SCRRA STD •20 RH POWER OPERATED TURNOUT ON CONCRETE TIES

PS NO. 20 RH T.O. MT01 1609+83.37

PLAN

10' 5' 0 10' 20'
GRAPHIC SCALE: VERT. 1" = 10'

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40'




PROFILE

Know what's below. Call before you dig. 811

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

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17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TRACK PLAN AND PROFILE EXMT 1598+00 TO EXMT 1610+00 MP 30.27 TO MP 30.49**

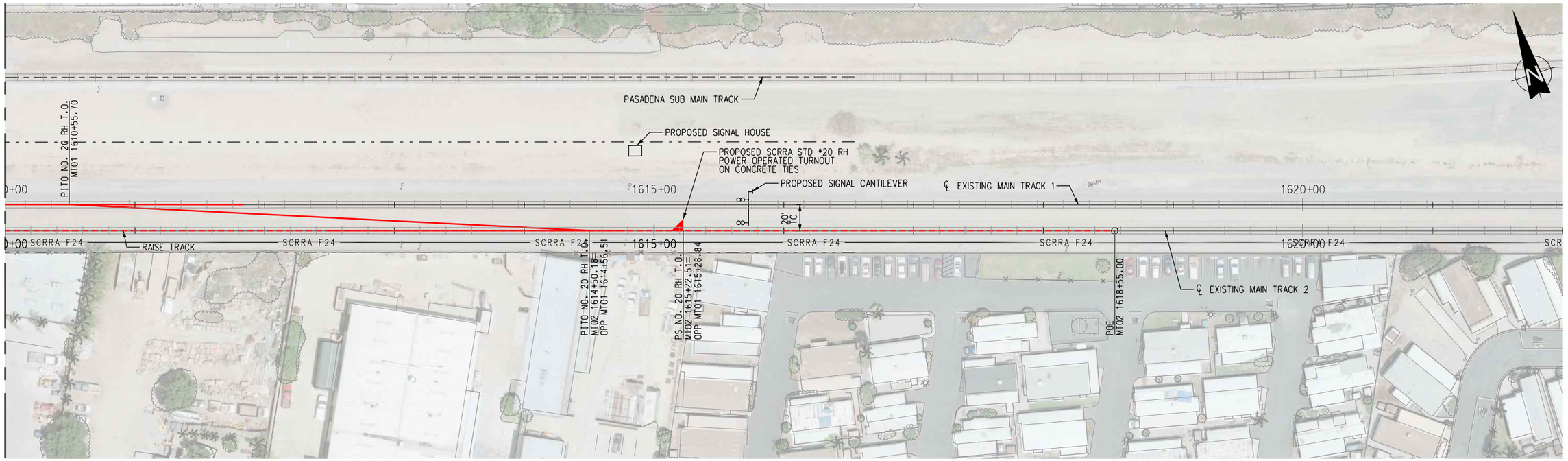
| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-018 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 59 |

Shapir.Ja 6/28/2017 3:04:42 PM $FILE$

TO LOS ANGELES, CA
RR WEST

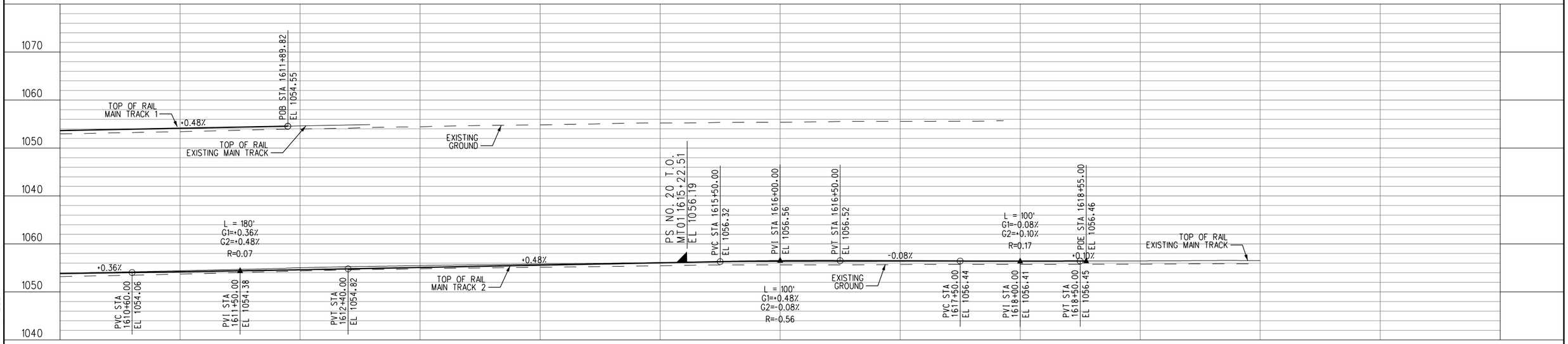
SAN BERNARDINO, CA
RR EAST

SEE DRAWING NO. TP-018
MATCH LINE EXMT 1610+00




PLAN

GRAPHIC SCALE: VERT. 1" = 10' (10' 5' 0 10' 20')
GRAPHIC SCALE: HORIZ. 1" = 40' (40' 20' 0 40' 80')




PROFILE

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

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17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

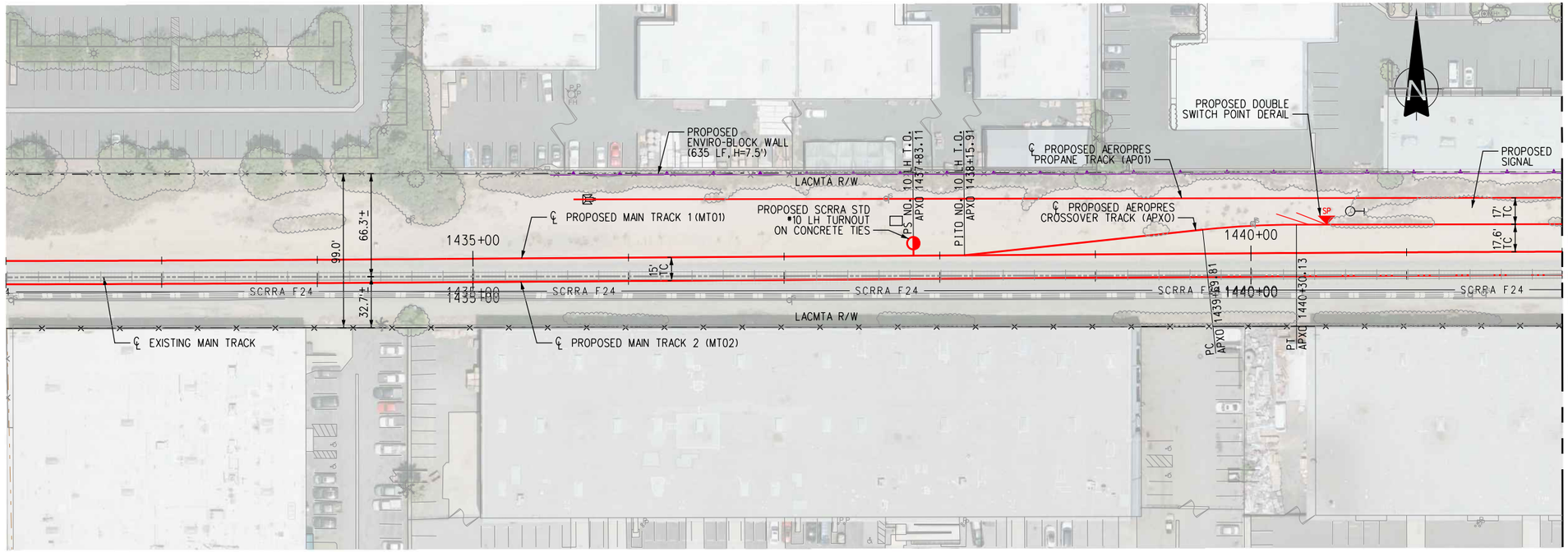
**TRACK PLAN AND PROFILE EXMT 1610+00 TO EXMT 1622+00 MP 30.49 TO MP 30.72**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-019 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 60 |

Shapir.Ja 6/28/2017 3:04:47 PM $FILE$

TO LOS ANGELES, CA
RR WEST

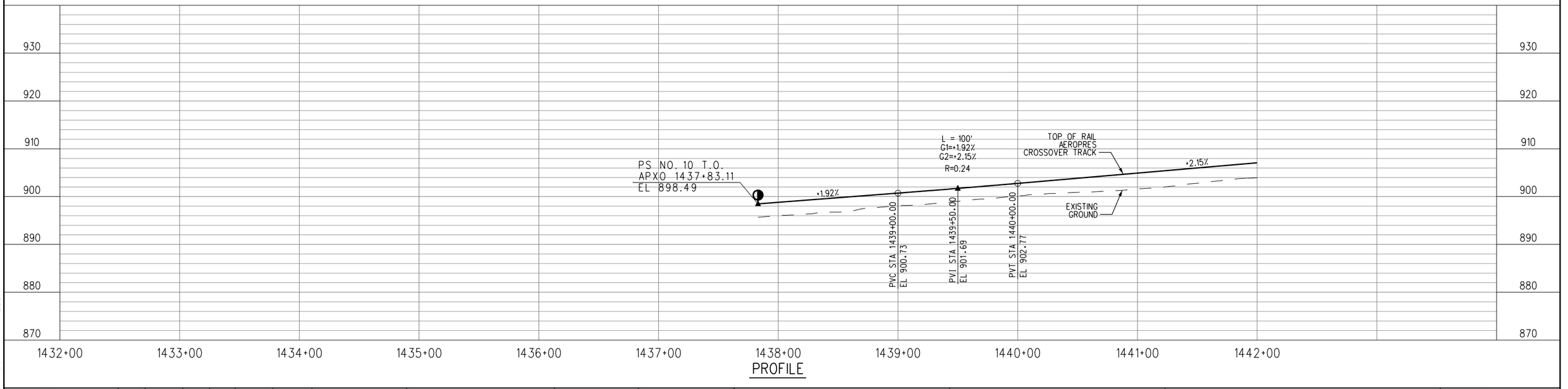
SAN BERNARDINO, CA
RR EAST




PLAN

10' 5' 0 10' 20'
GRAPHIC SCALE: VERT. 1" = 10'

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40'




PROFILE

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**TRACK PLAN AND PROFILE AEROPRES TRACKS MP 27.12 TO MP 27.31**

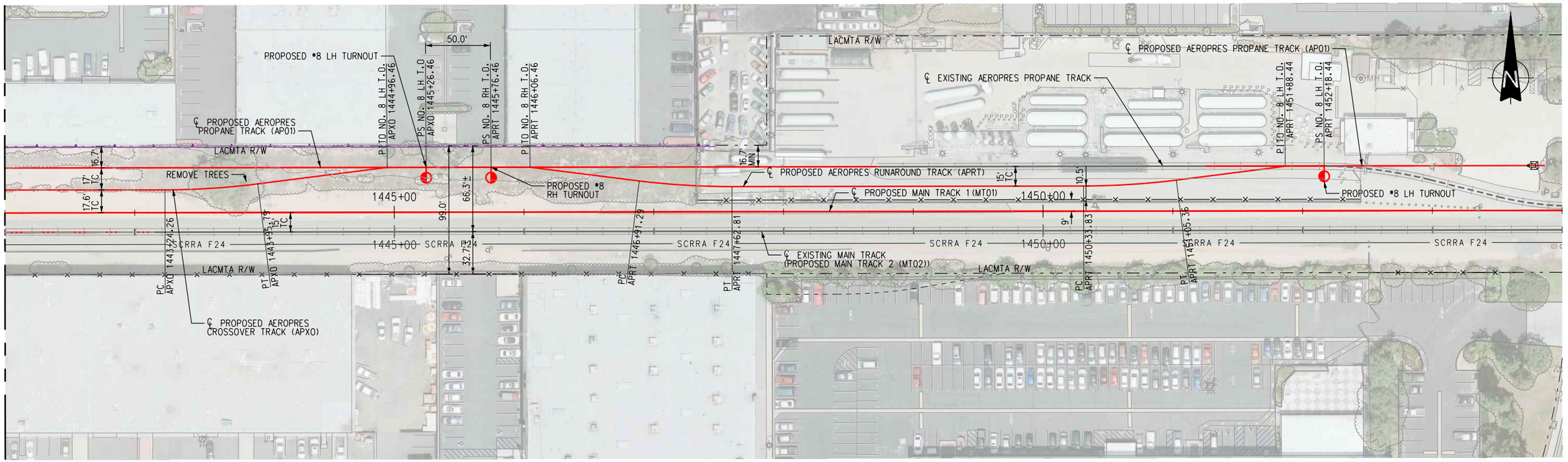
| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-020 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 61 |

Shapir.Ja 6/28/2017 11:39:47 AM $FILEL$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

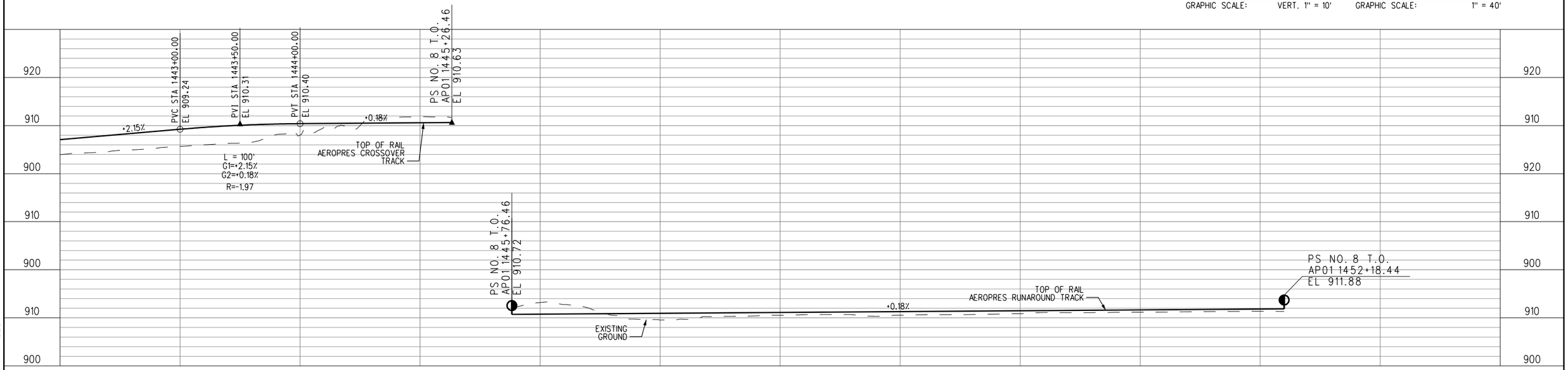
SEE DRAWING NO. TP-020
MATCH LINE EXMT 1442+00




PLAN

10' 5' 0 10' 20'
GRAPHIC SCALE: VERT. 1" = 10'

40' 20' 0 40' 80'
GRAPHIC SCALE: 1" = 40'




PROFILE

Know what's below. Call before you dig. 811

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

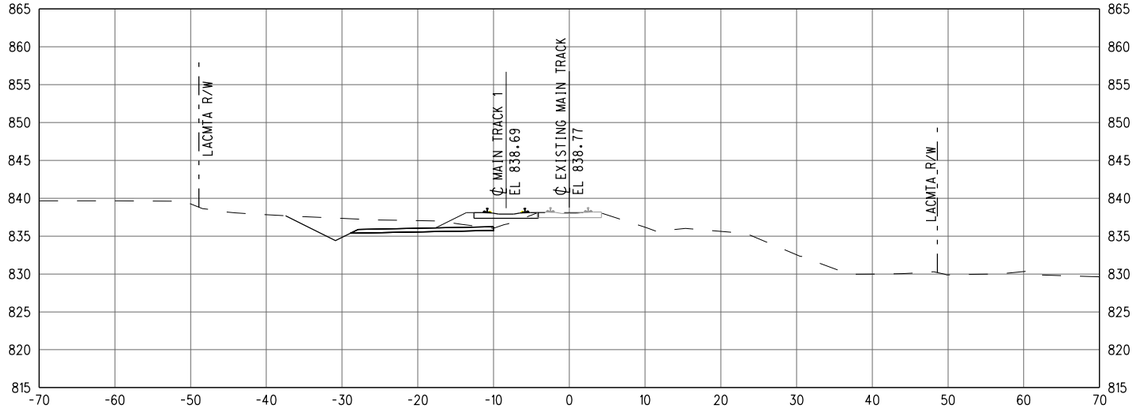
JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

# LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

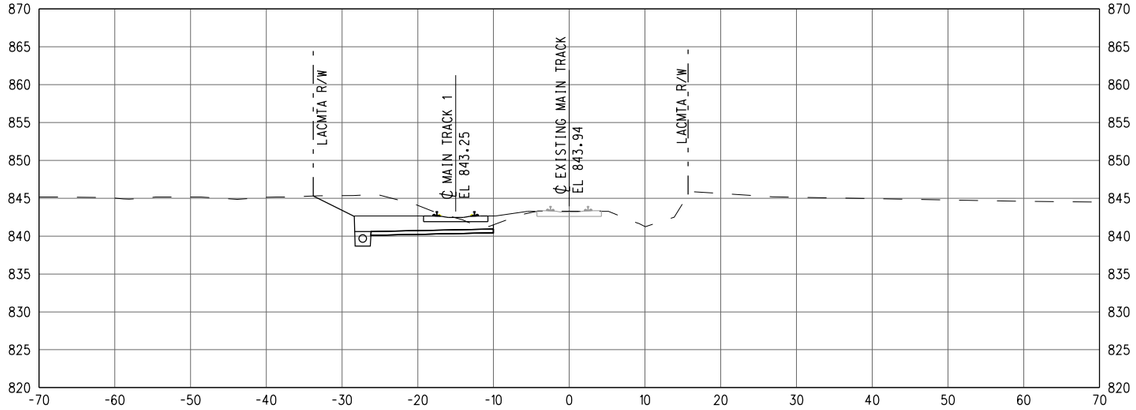
## TRACK PLAN AND PROFILE AEROPRES TRACKS MP 27.31 TO MP 27.54

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TP-021 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 62 |

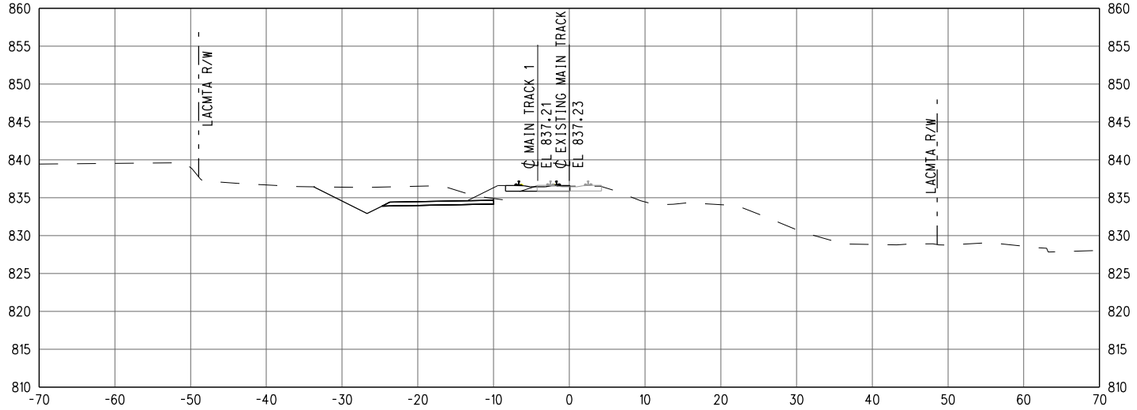
ShapirJa 6/28/2017 3:14:12 PM $FILEL$



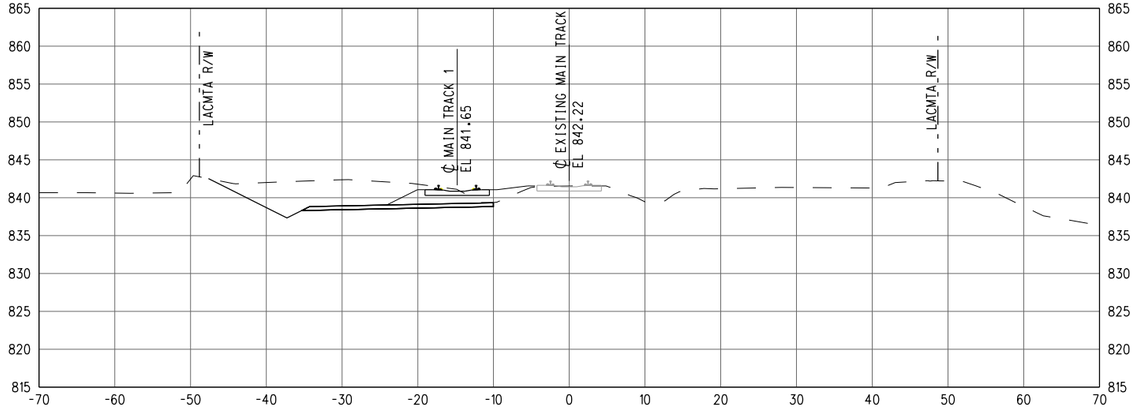

1406+00



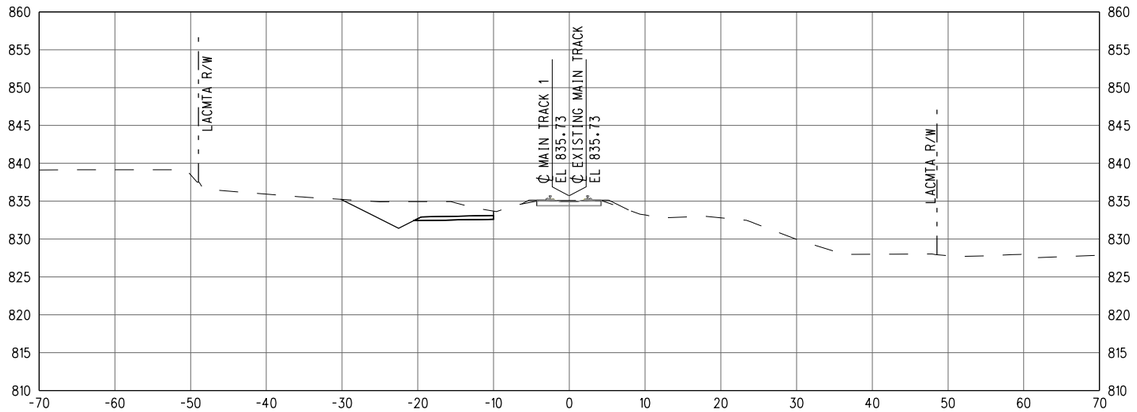

1409+00



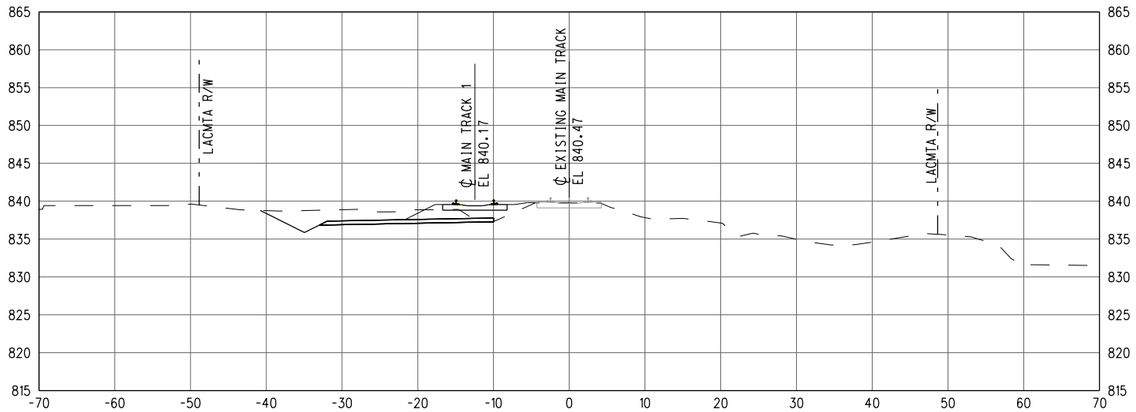

1405+00




1408+00




1404+00




1407+00

10' 0 10' 20'

GRAPHIC SCALE: 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**CROSS SECTIONS EXMT 1404+00 TO EXMT 1409+00**

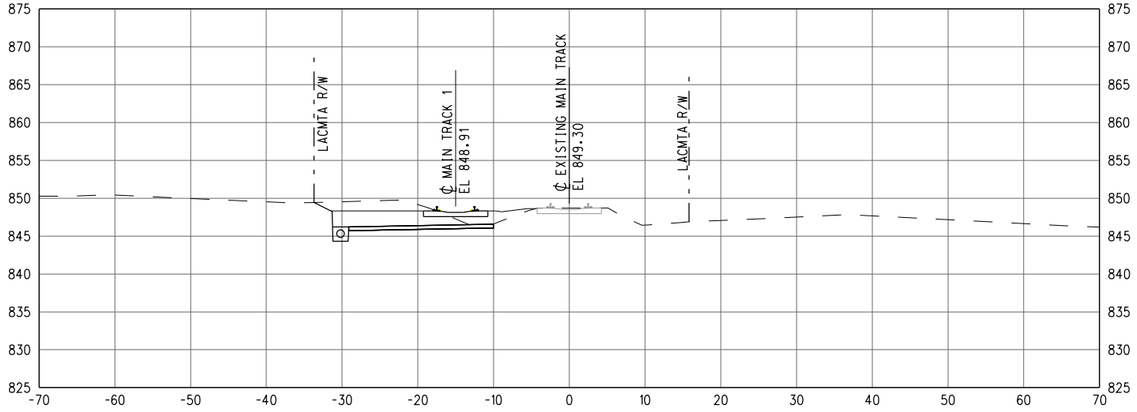
CONTRACT NO AE4555000241519565

DRAWING NO TX-001 REV

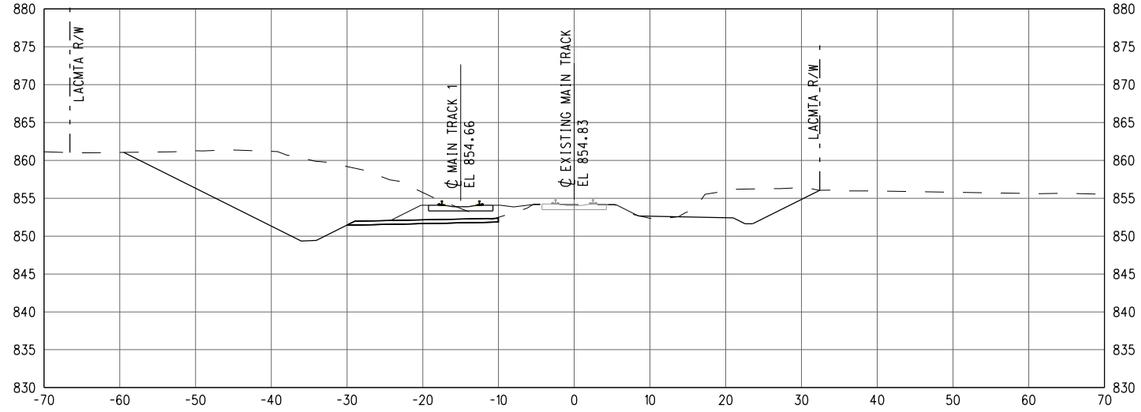
SCALE AS SHOWN

SHEET NO 63

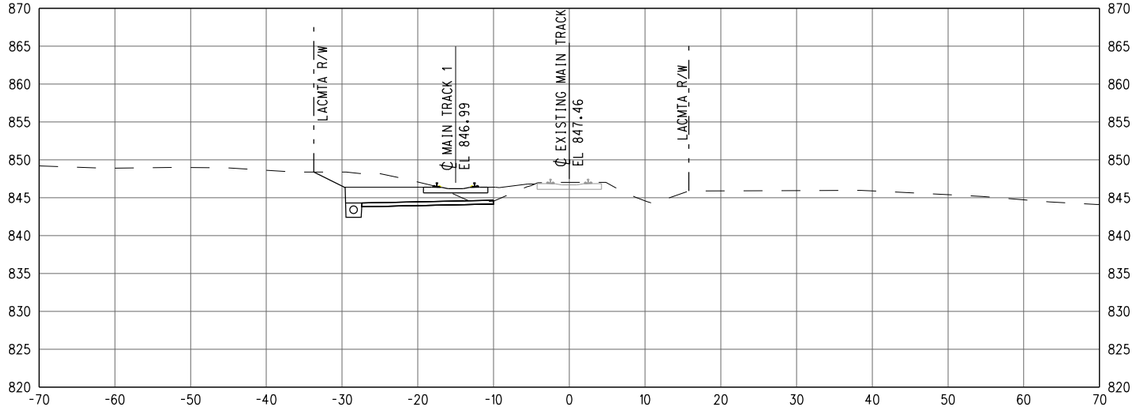
ShapirJa 6/27/2017 3:05:35 PM $FILEL$



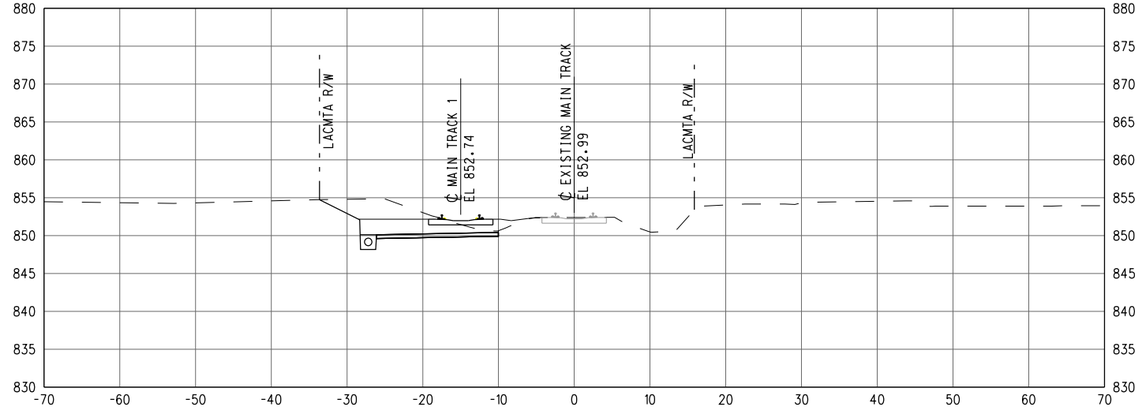

1412+00



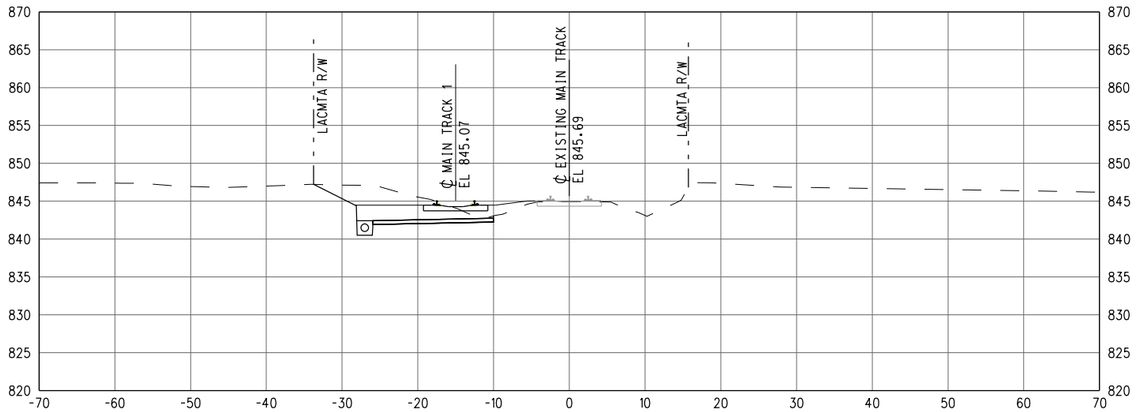

1415+00



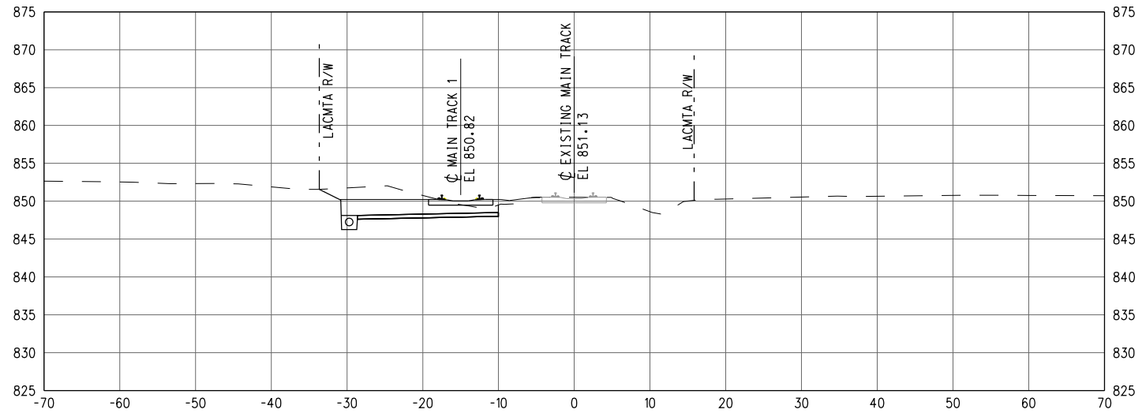

1411+00




1414+00




1410+00




1413+00

10' 0 10' 20'
GRAPHIC SCALE: 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

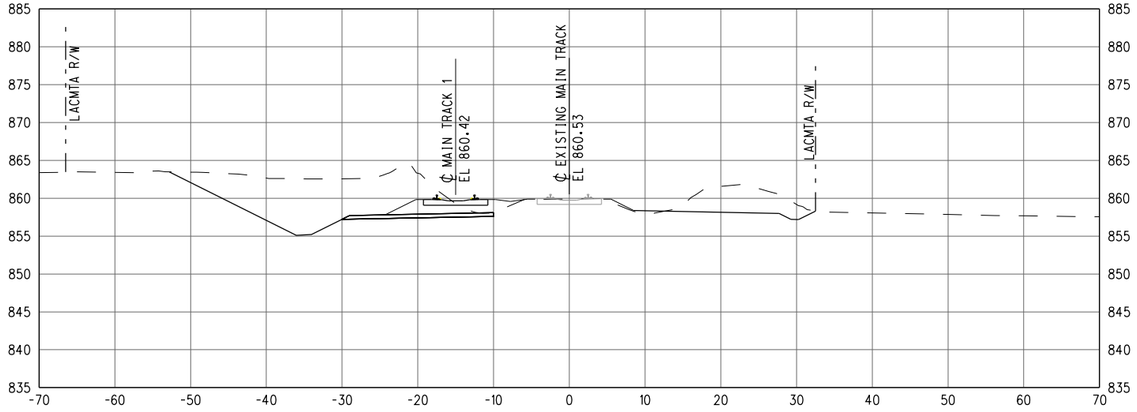
JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

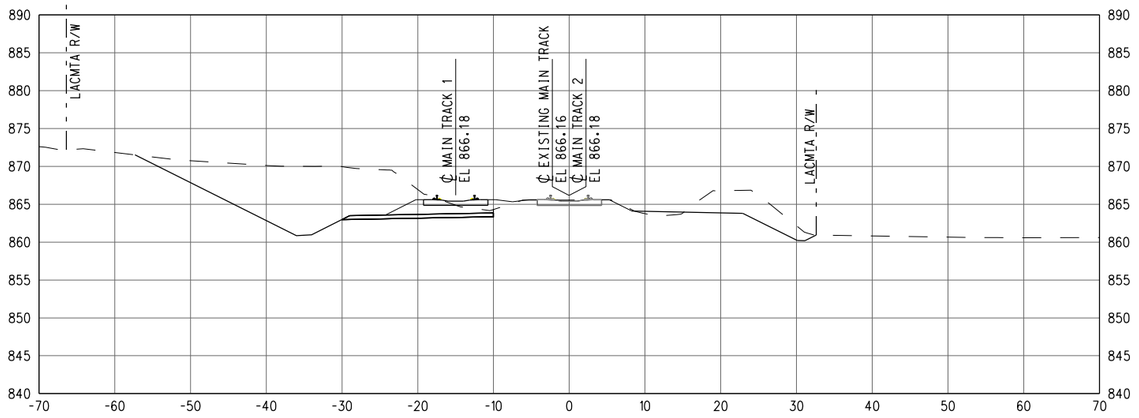
**CROSS SECTIONS EXMT 1410+00 TO EXMT 1415+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-002 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 64 |

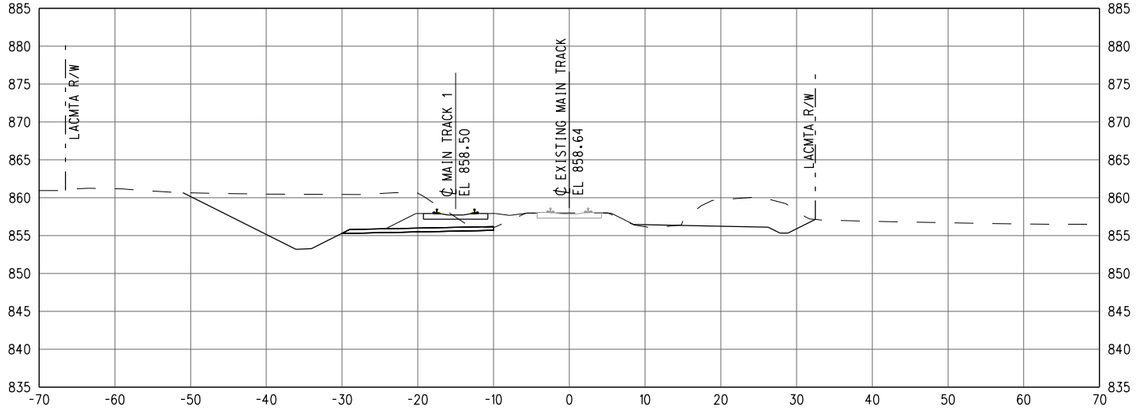
ShapirJa 6/27/2017 3:05:35 PM $FILEL$



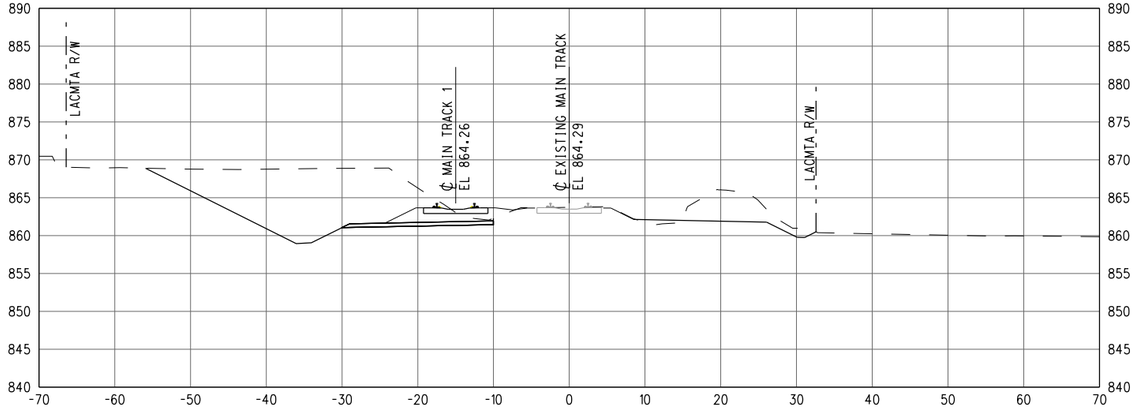

1418+00



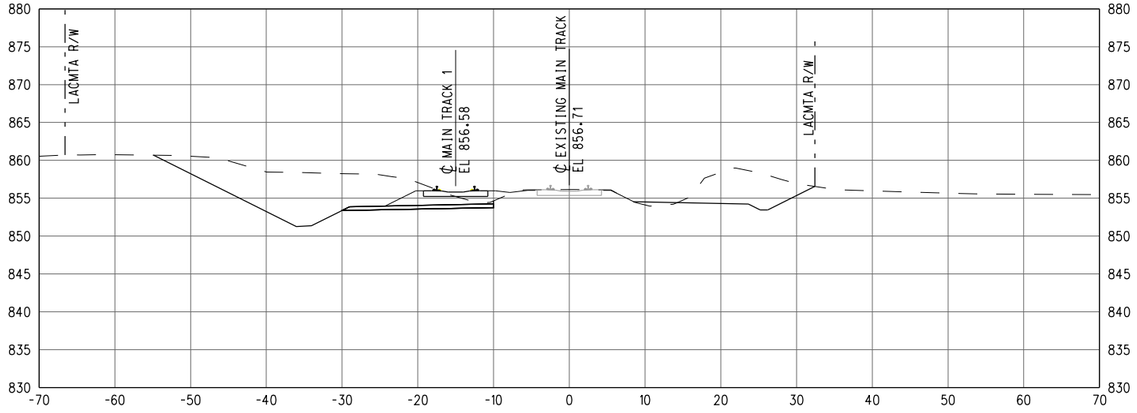

1421+00



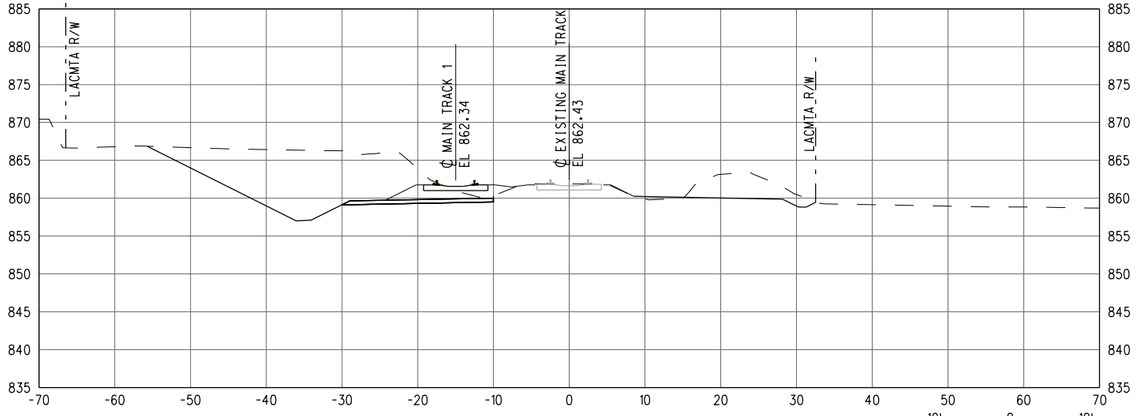

1417+00




1420+00




1416+00




1419+00

10' 0 10' 20'

GRAPHIC SCALE: 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

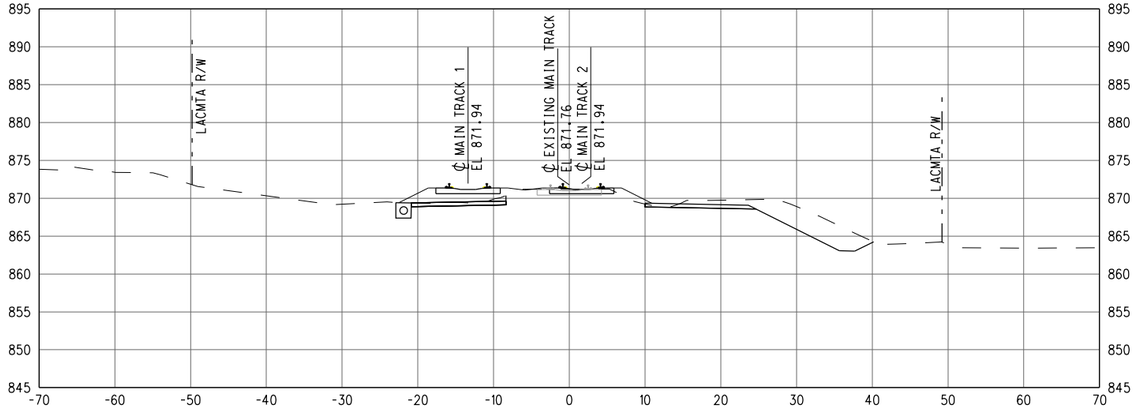
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

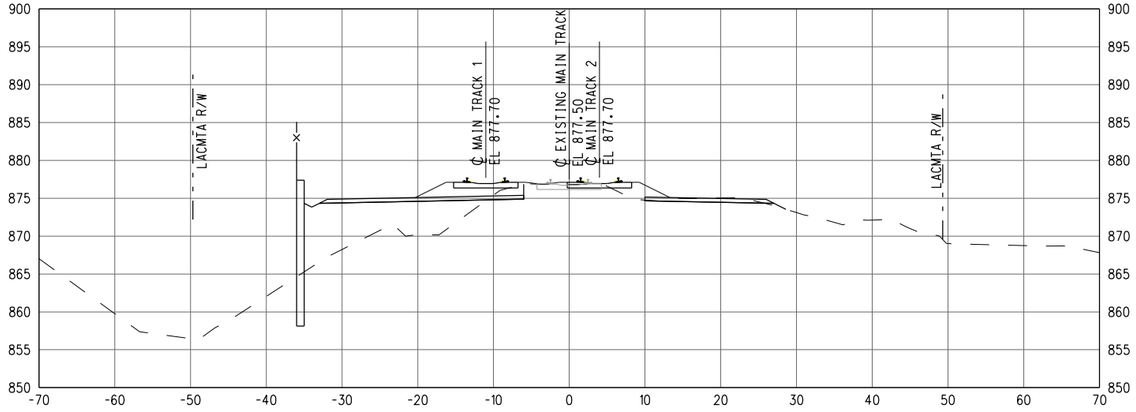
**CROSS SECTIONS EXMT 1416+00 TO EXMT 1421+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-003 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 65 |

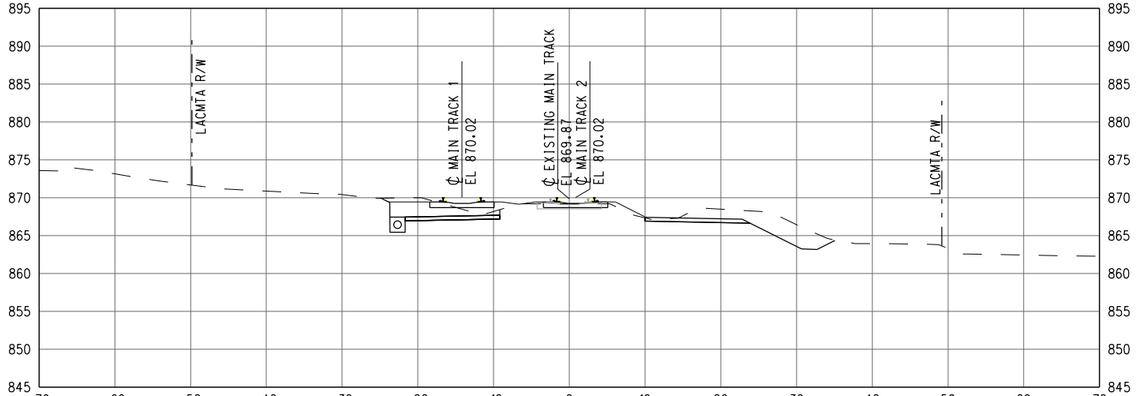
ShapirJa 6/27/2017 3:05:36 PM $FILEL$



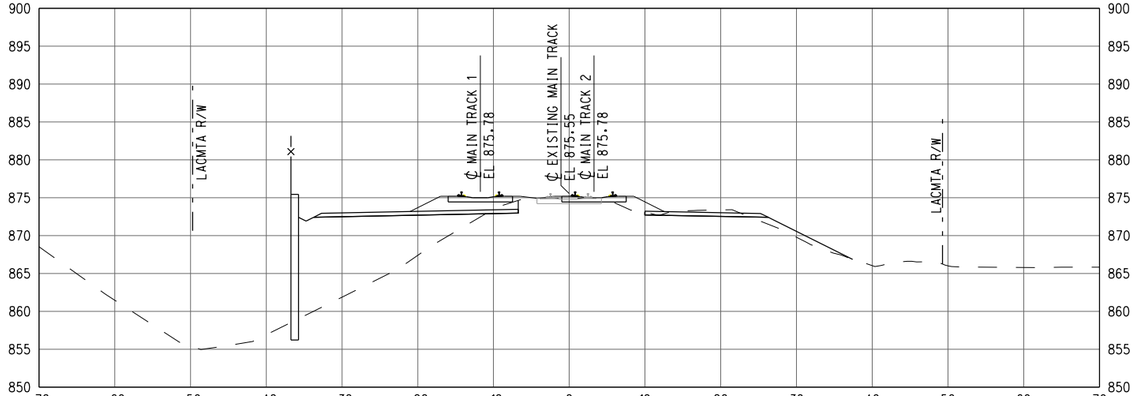

1424+00



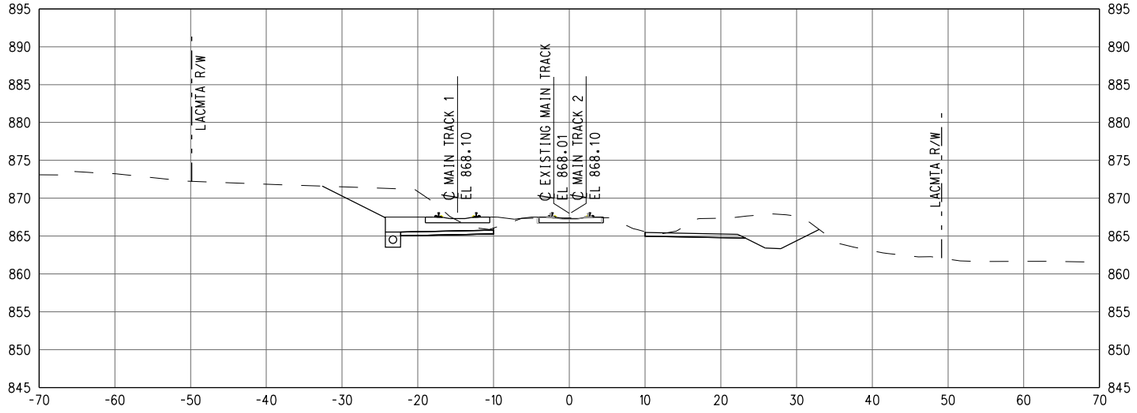

1427+00



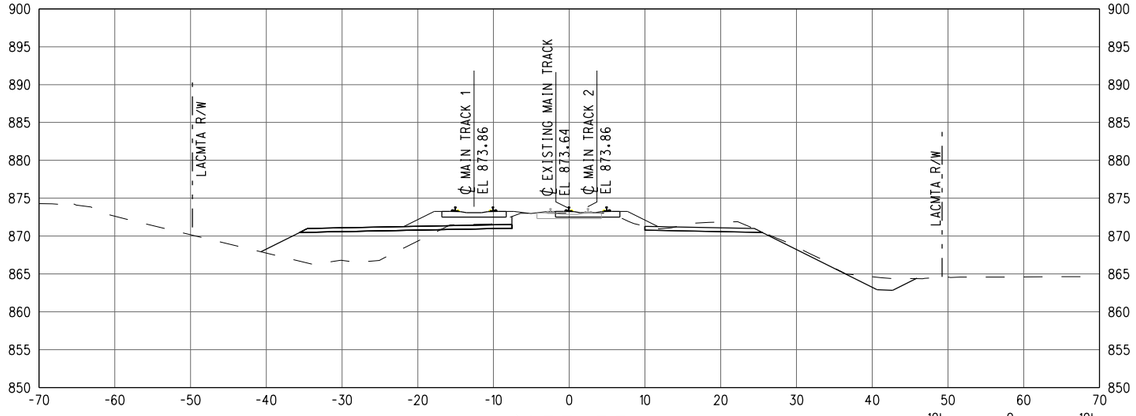

1423+00




1426+00




1422+00




1425+00

GRAPHIC SCALE: 10' 0 10' 20' — 1" = 10'

Know what's below. Call before you dig. 811

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

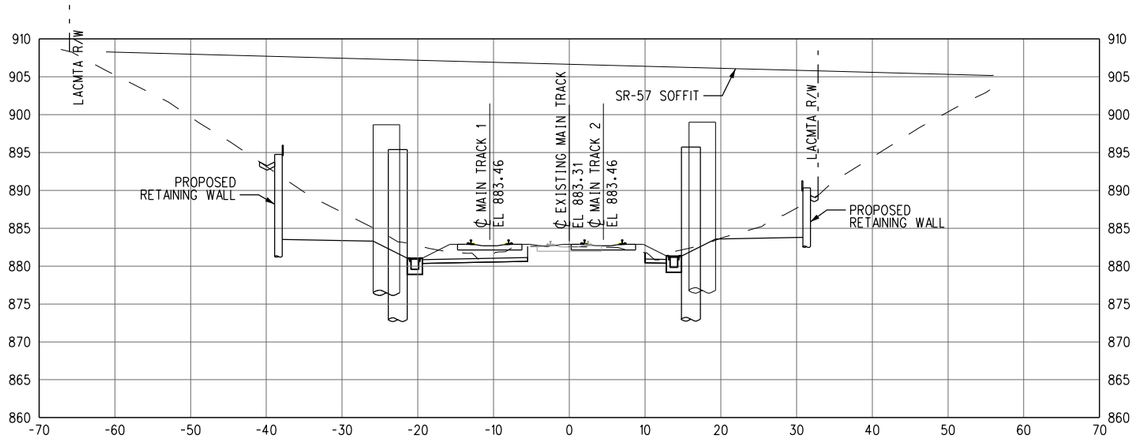
JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

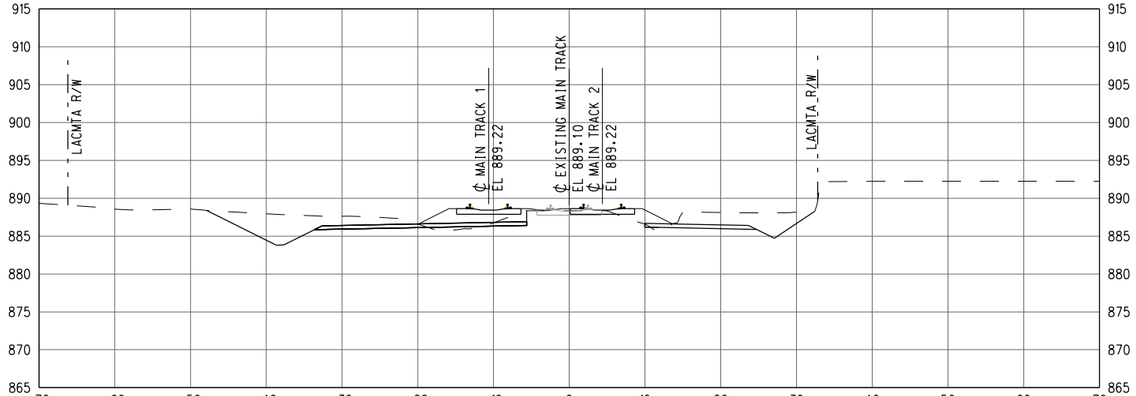
**CROSS SECTIONS EXMT 1422+00 TO EXMT 1427+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-004 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 66 |

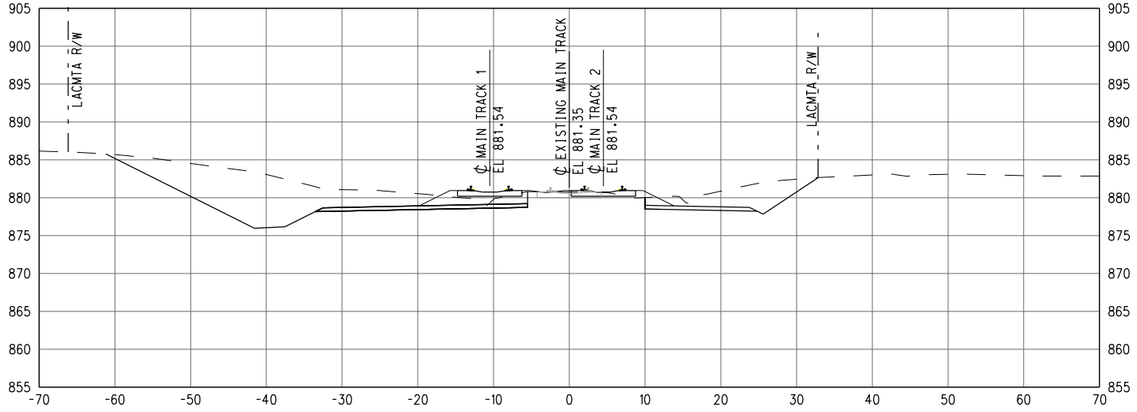
ShapirJa 6/27/2017 3:05:36 PM $FILEL$



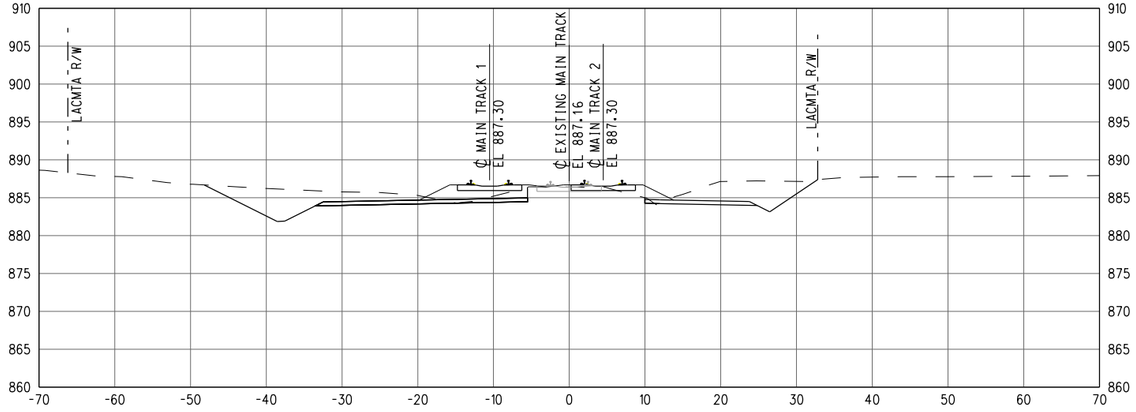

1430+00



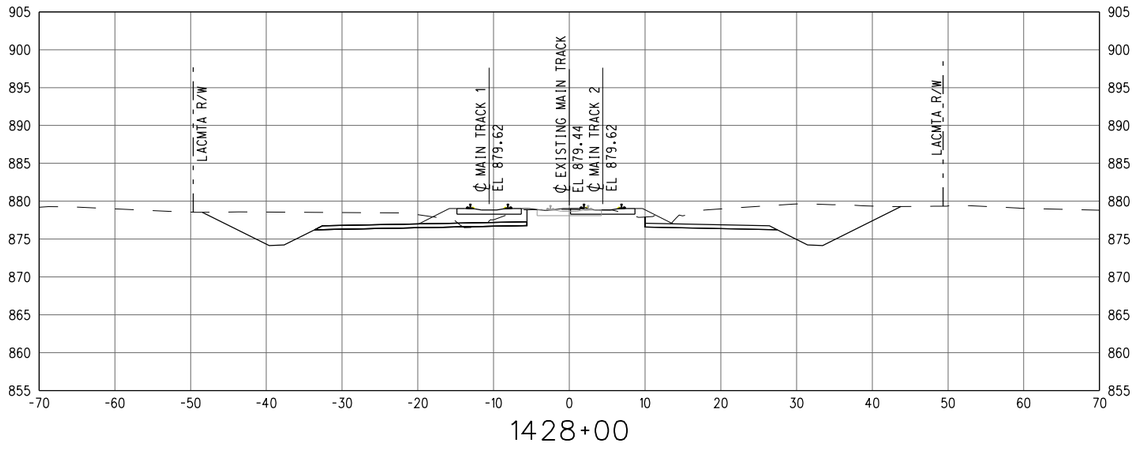

1433+00



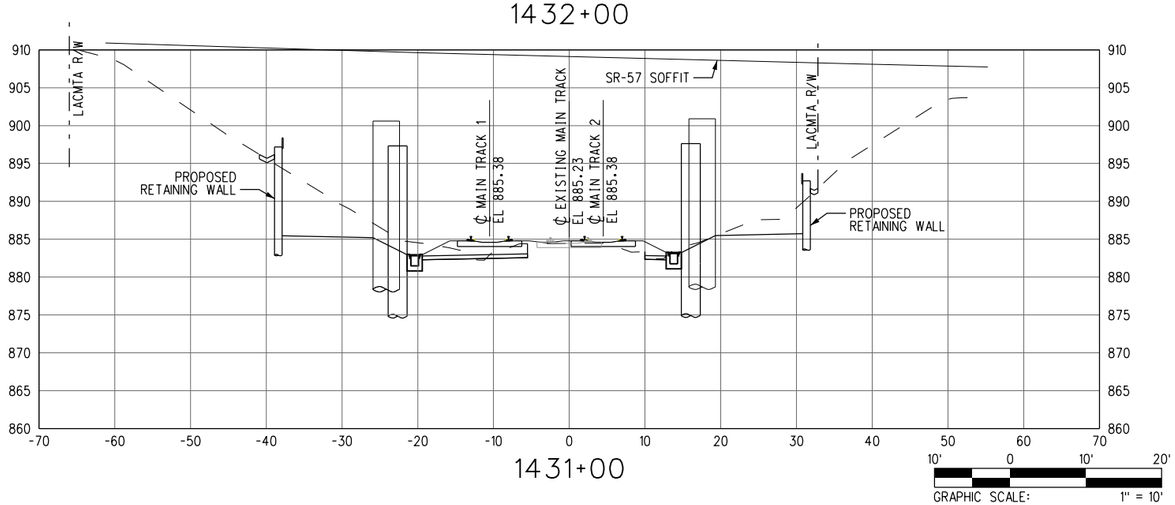

1429+00




1432+00




1428+00




1431+00

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

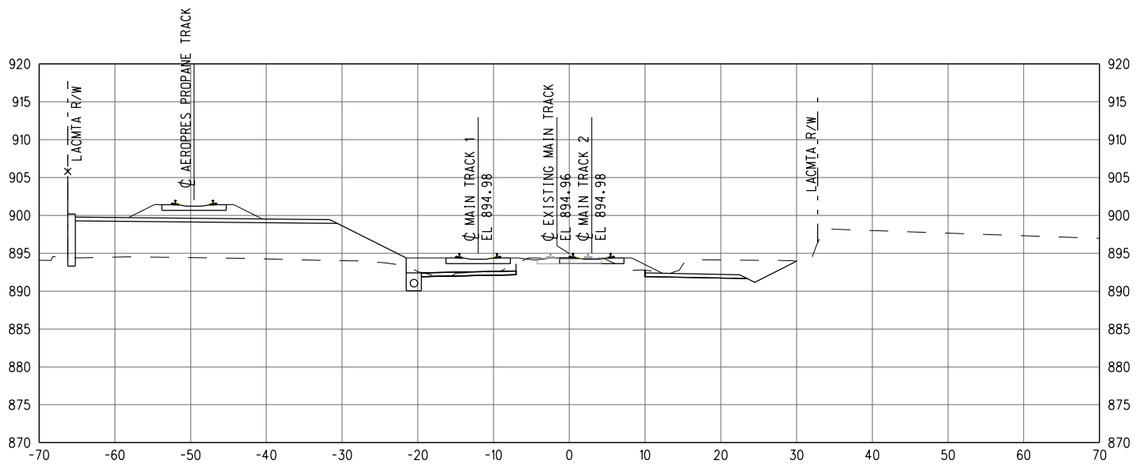
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

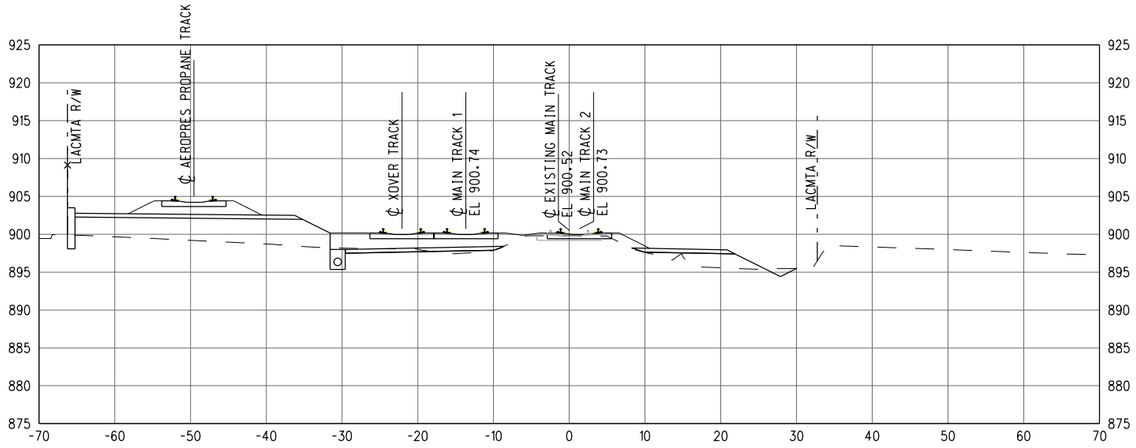
**CROSS SECTIONS EXMT 1428+00 TO EXMT 1433+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-005 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 67 |

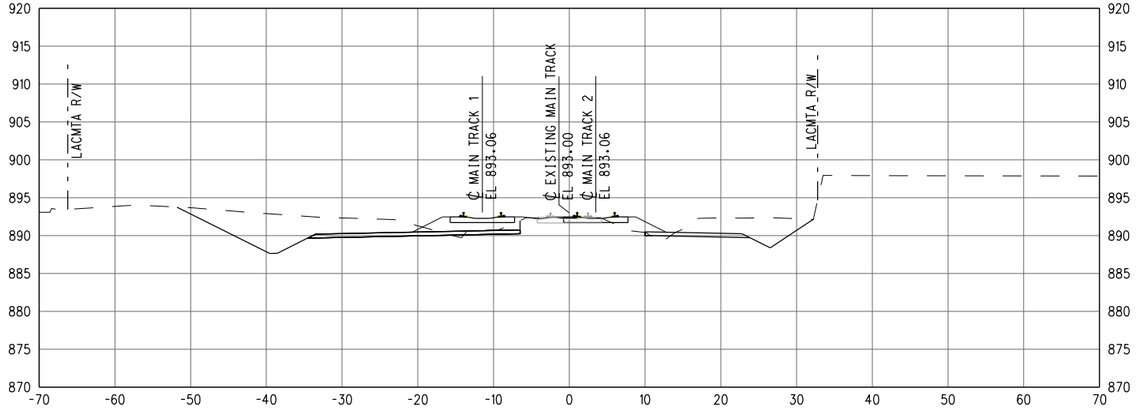
ShapirJa 6/27/2017 3:05:36 PM $FILEL$



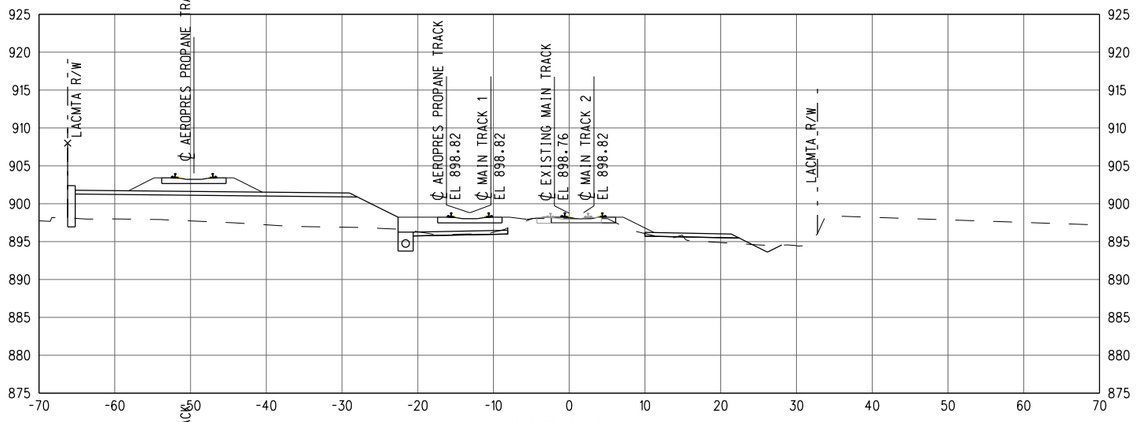

1436+00



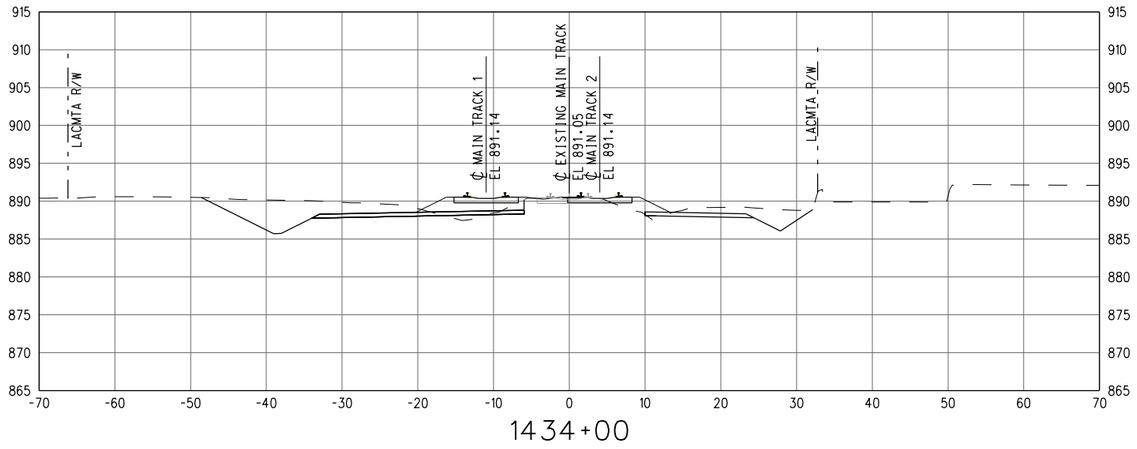

1439+00



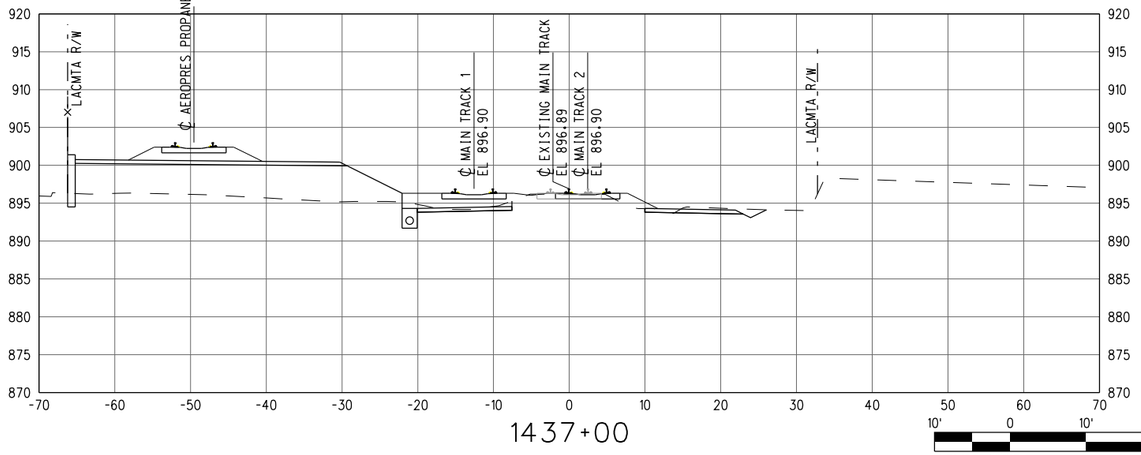

1435+00




1438+00




1434+00




1437+00

GRAPHIC SCALE: 10' 0 10' 20' — 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. — 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

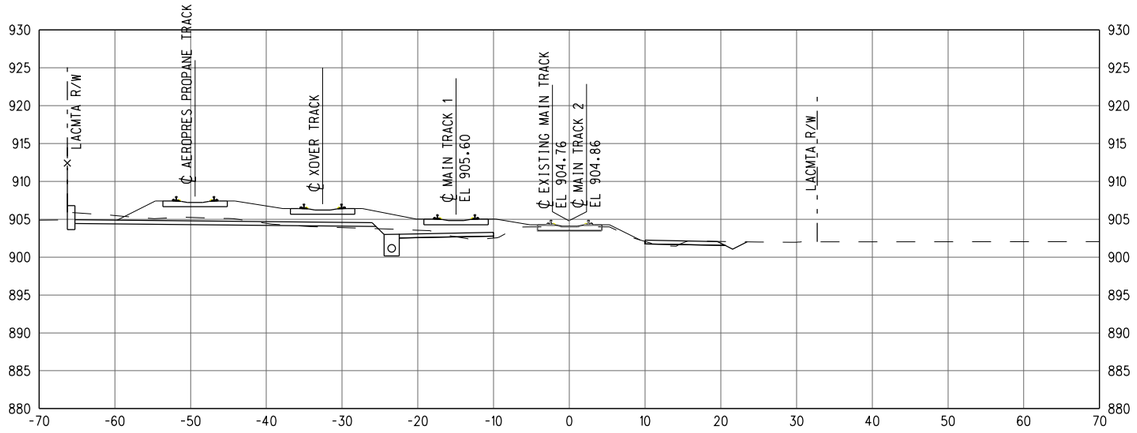
JACOBS — 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

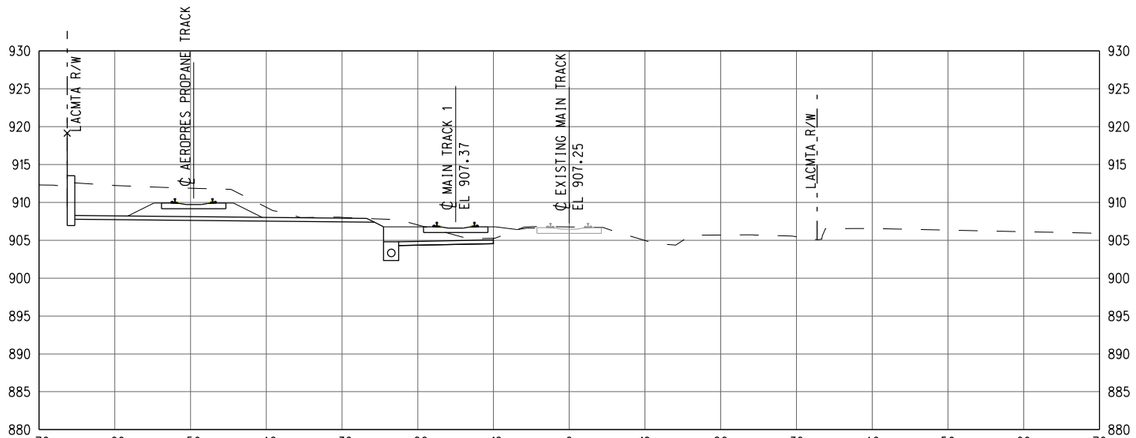
**CROSS SECTIONS EXMT 1434+00 TO EXMT 1439+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-006 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 68 |

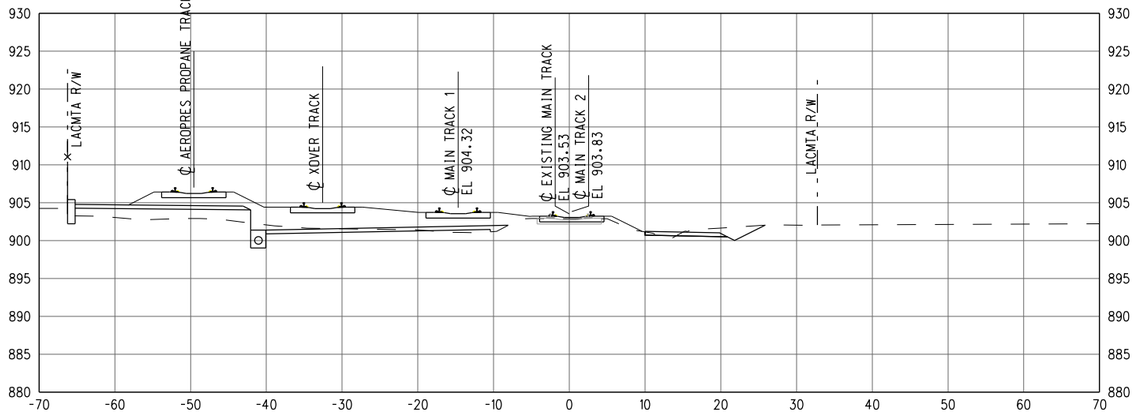
ShapirJa 6/27/2017 3:05:36 PM $FILEL$



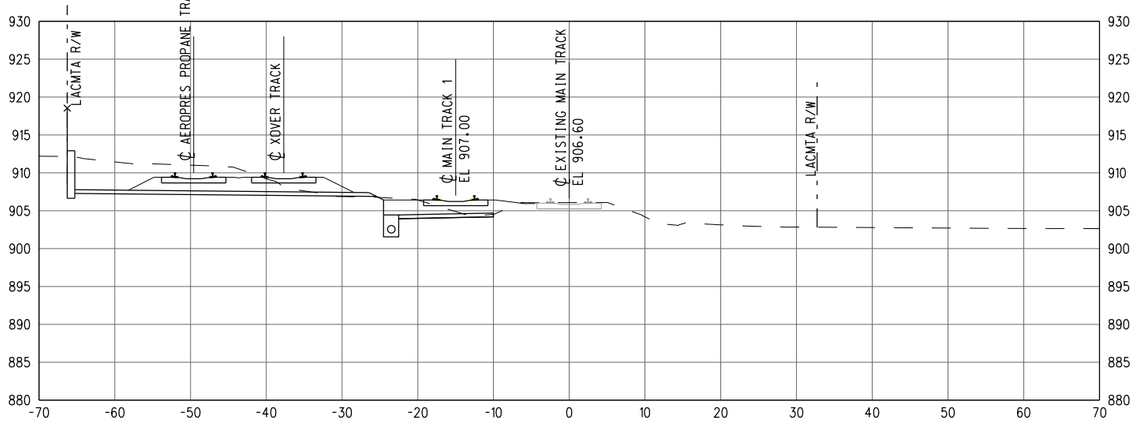

1442+00



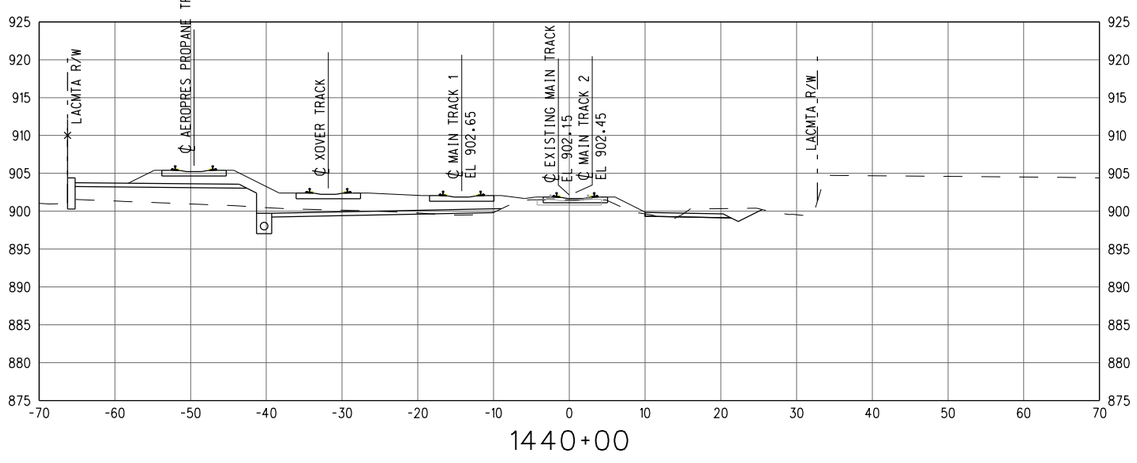

1445+00



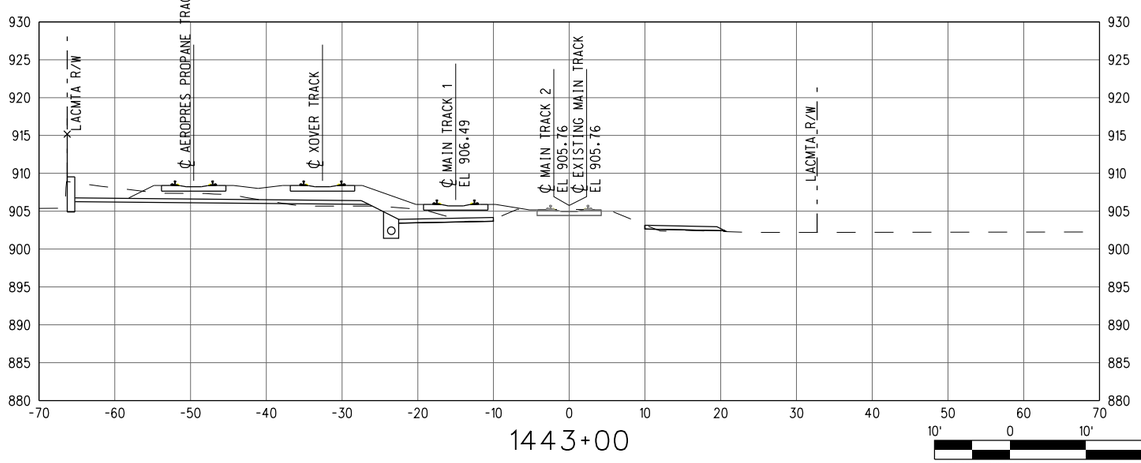

1441+00




1444+00




1440+00




1443+00

GRAPHIC SCALE: 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

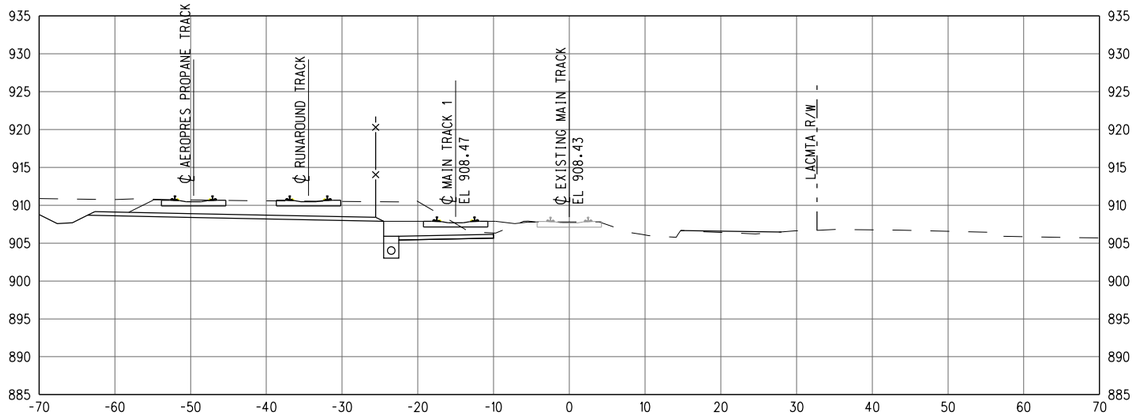
JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

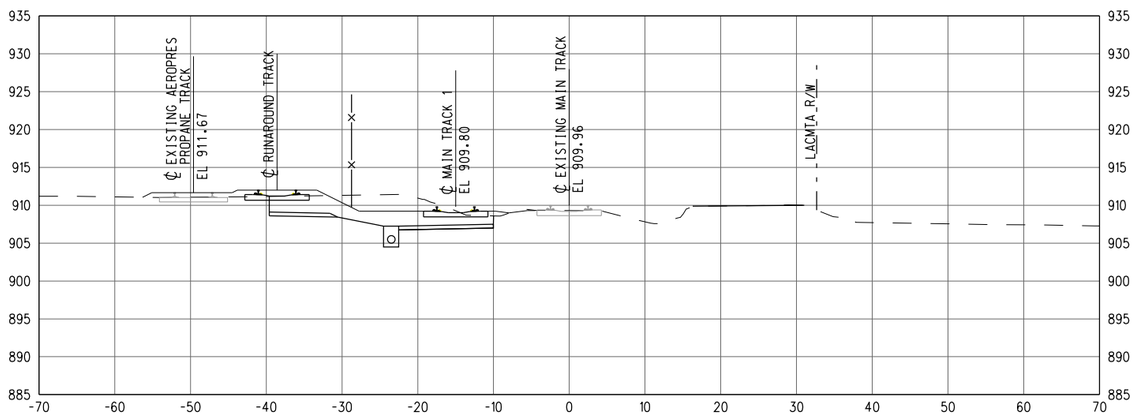
**CROSS SECTIONS EXMT 1440+00 TO EXMT 1445+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-007 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 69 |

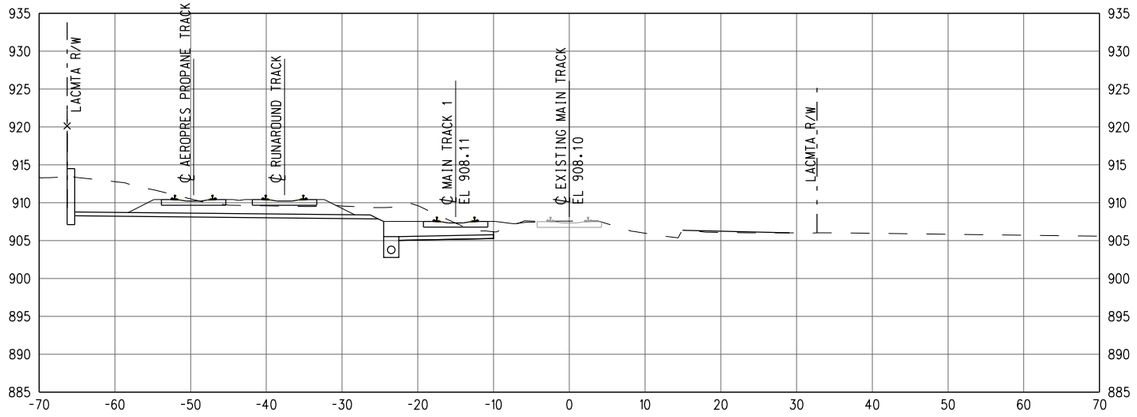
ShapirJa 6/27/2017 3:05:37 PM $FILEL$



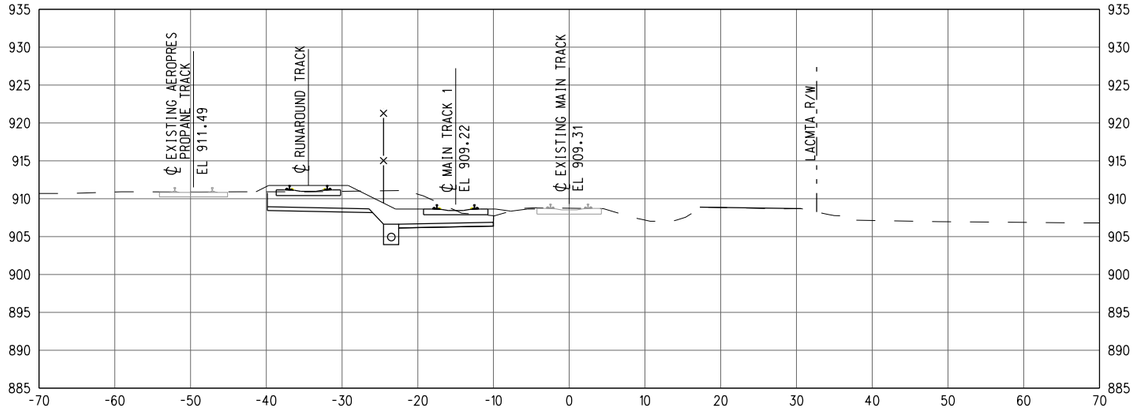

1448+00



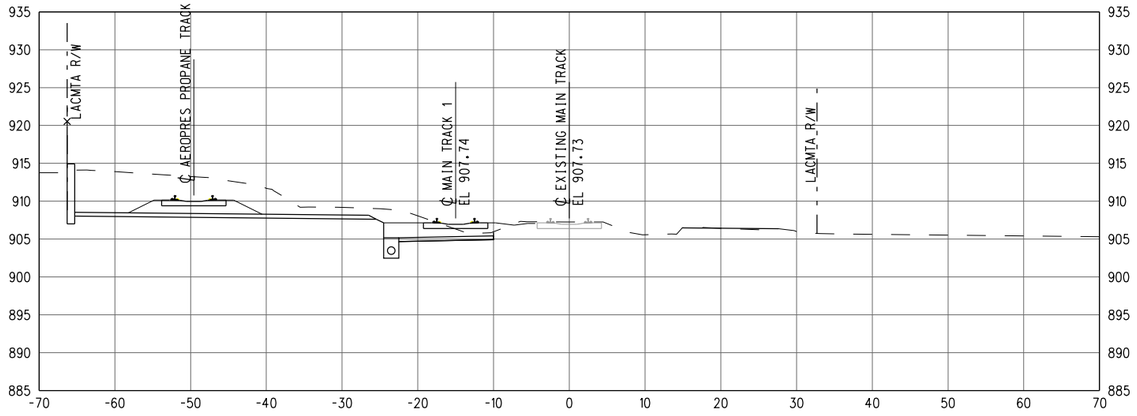

1451+00



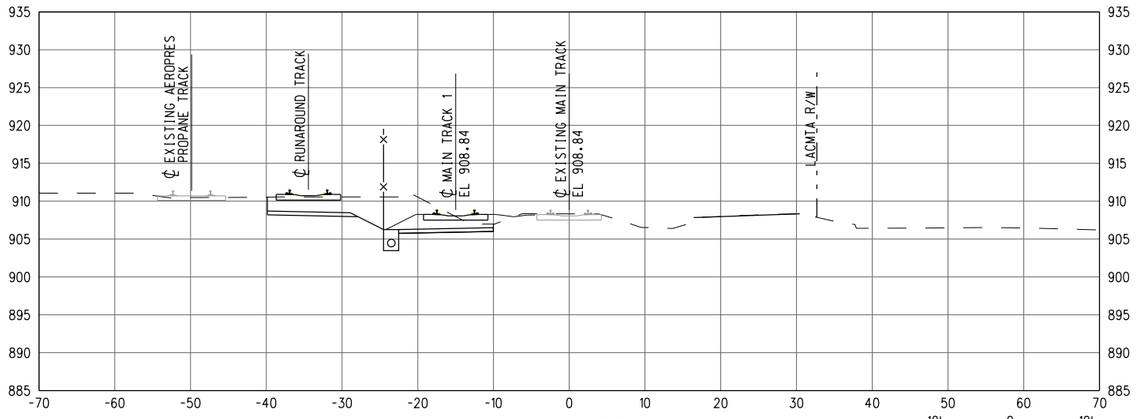

1447+00




1450+00




1446+00




1449+00

GRAPHIC SCALE: 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

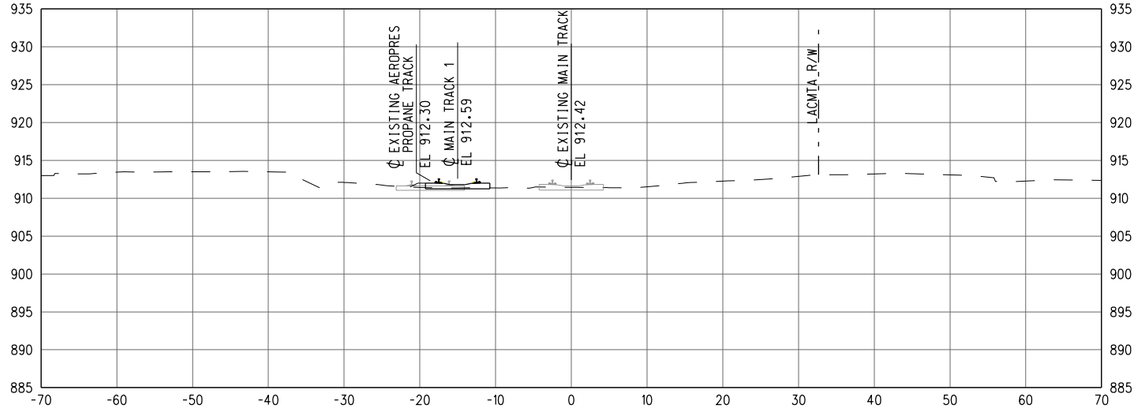
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

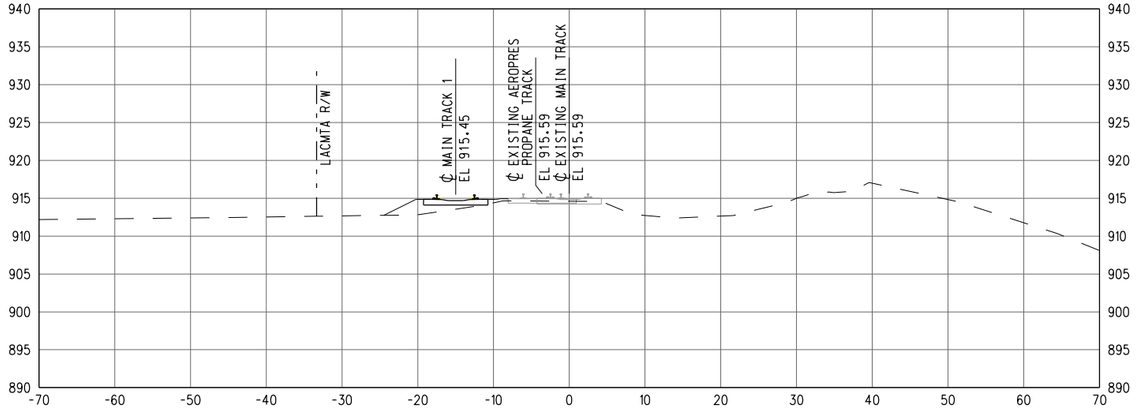
**CROSS SECTIONS EXMT 1446+00 TO EXMT 1451+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-008 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 70 |

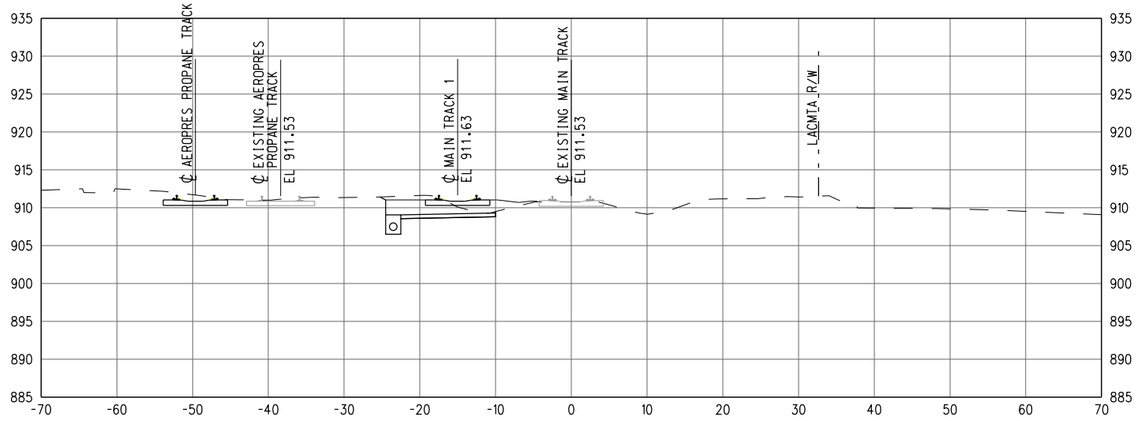
ShapirJa 6/27/2017 3:05:37 PM $FILEL$



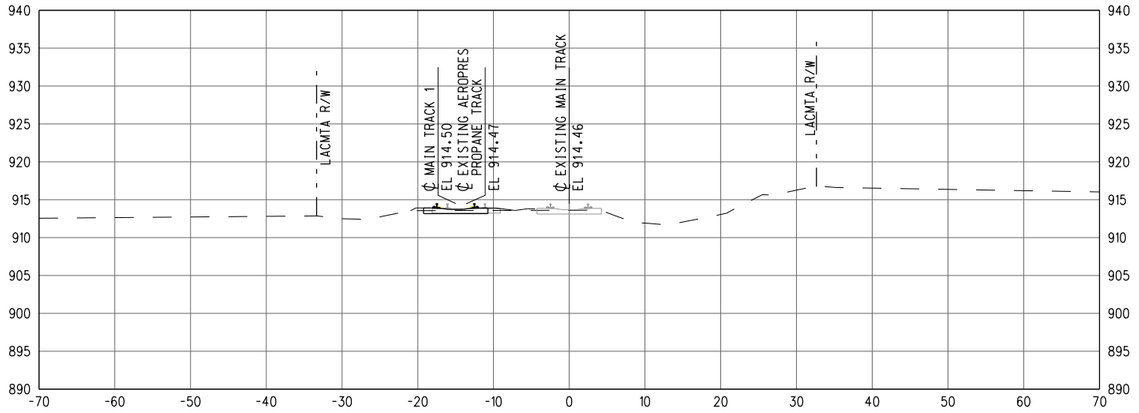

1454+00



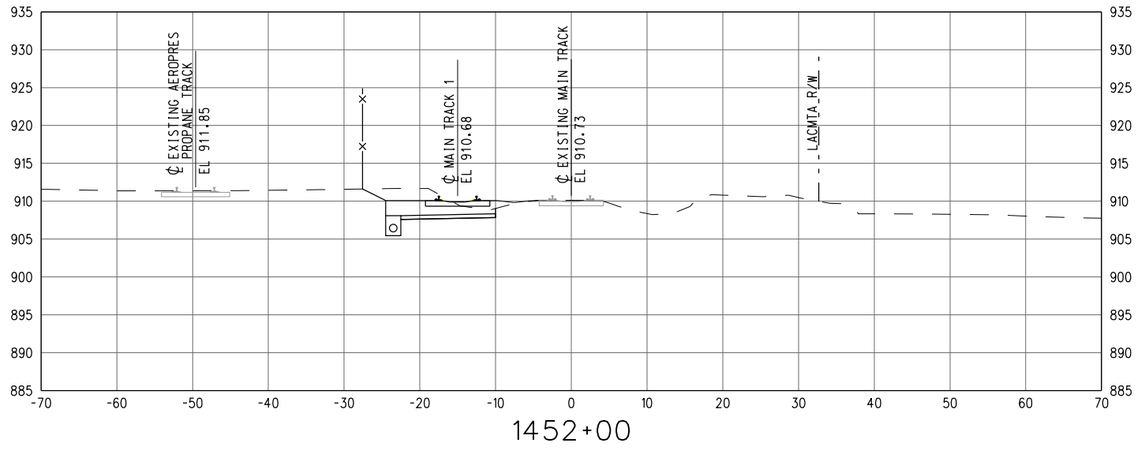

1457+00



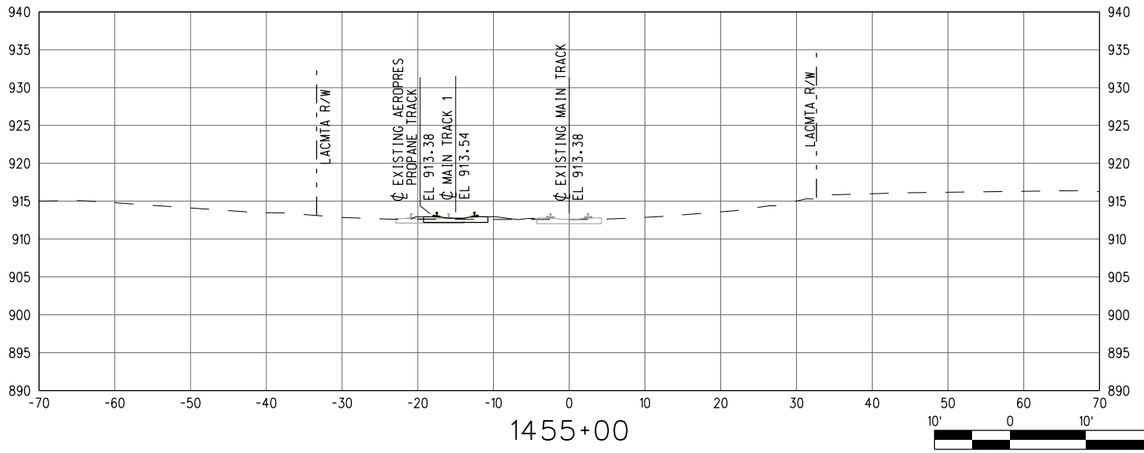

1453+00




1456+00




1452+00




1455+00

GRAPHIC SCALE: 10' 0 10' 20' — 1" = 10'

811 Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**CROSS SECTIONS EXMT 1452+00 TO EXMT 1457+00**

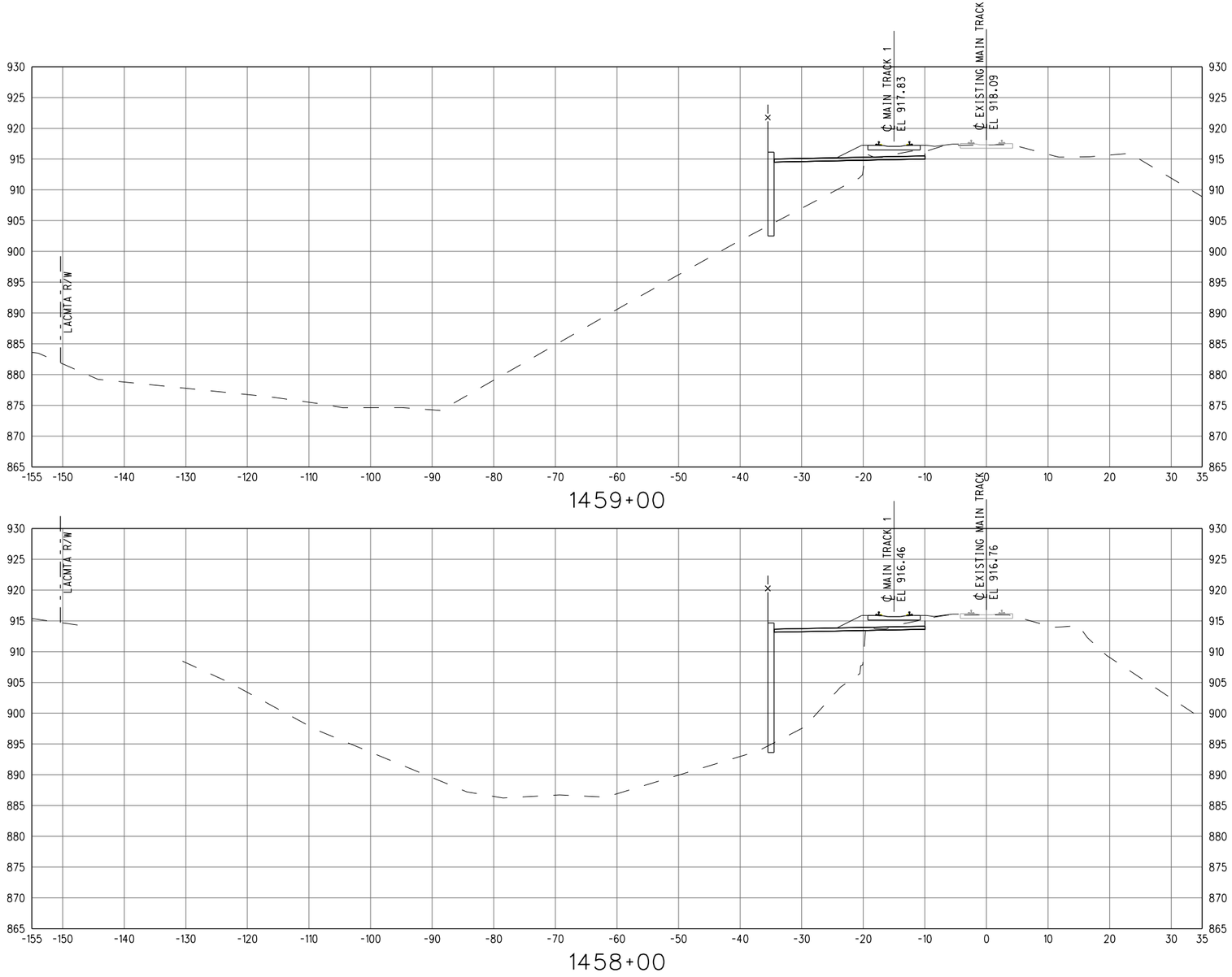
CONTRACT NO AE4555000241519565

DRAWING NO TX-009 REV

SCALE AS SHOWN

SHEET NO 71

ShapirJa 6/27/2017 3:05:37 PM $FILE$




10' 0 10' 20'
GRAPHIC SCALE: 1" = 10'

Know what's below. Call before you dig. 811

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
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| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

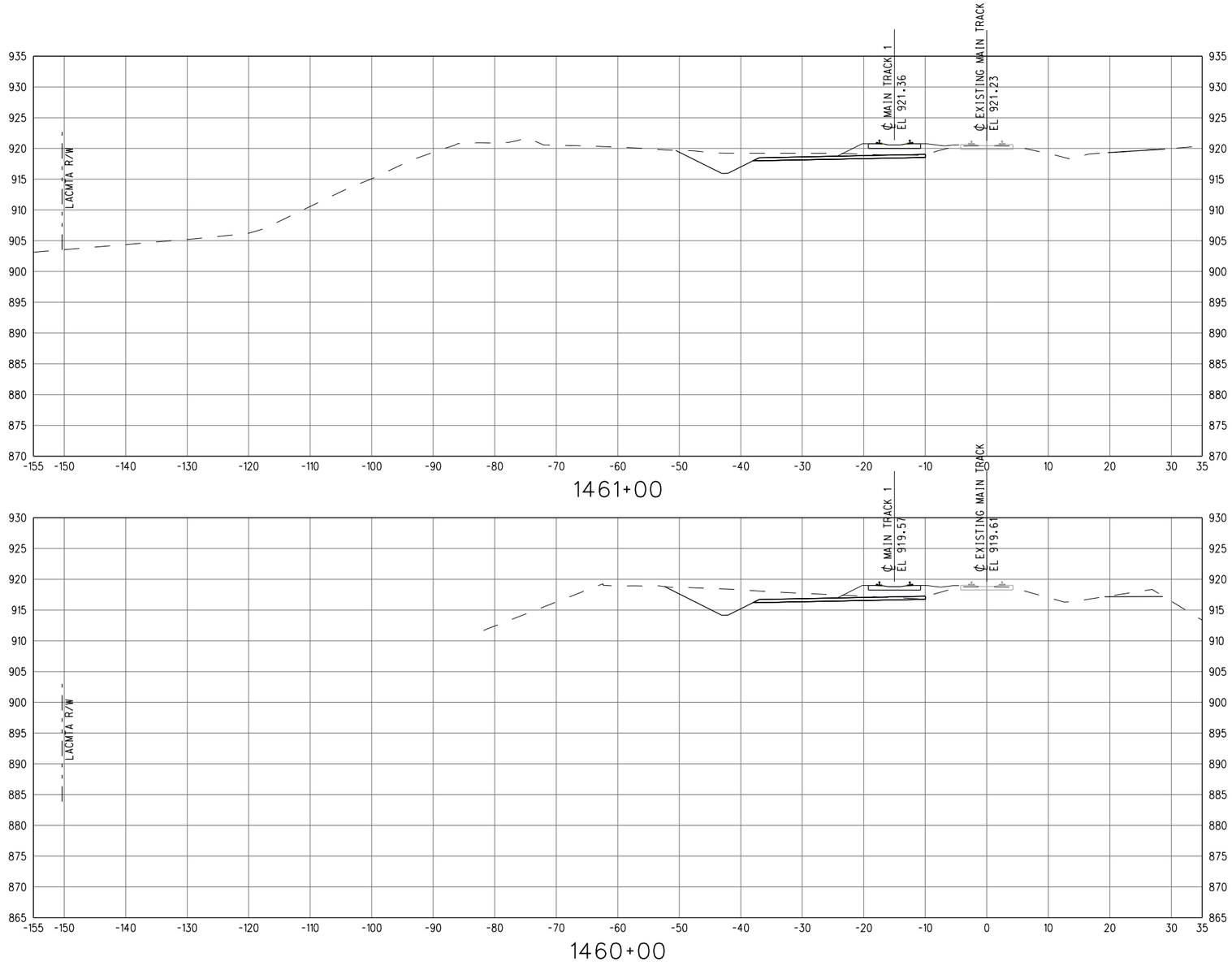
JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**CROSS SECTIONS EXMT 1458+00 TO EXMT 1459+00**

CONTRACT NO AE4555000241519565
DRAWING NO TX-010 REV
SCALE AS SHOWN
SHEET NO 72

Shapir Ja 6/27/2017 3:05:37 PM $FILE$




10' 0 10' 20'
GRAPHIC SCALE: 1" = 10'

Know what's below. Call before you dig. 811

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

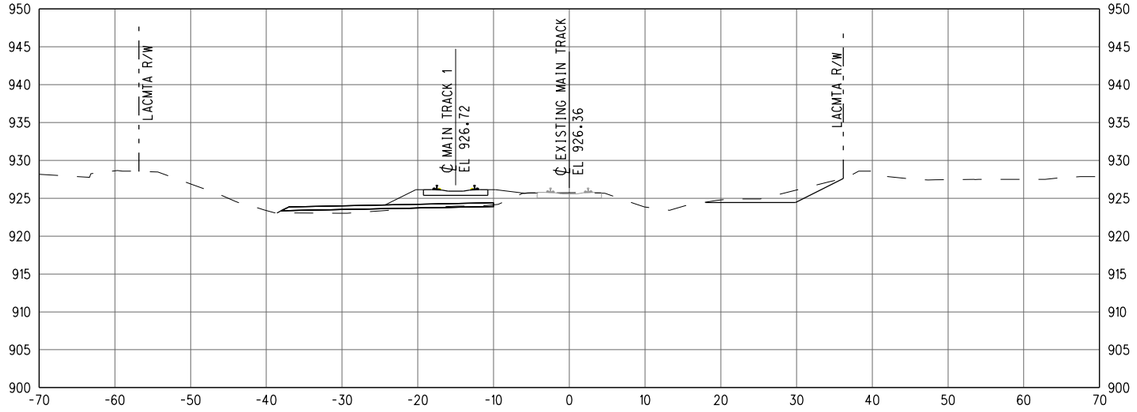
JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

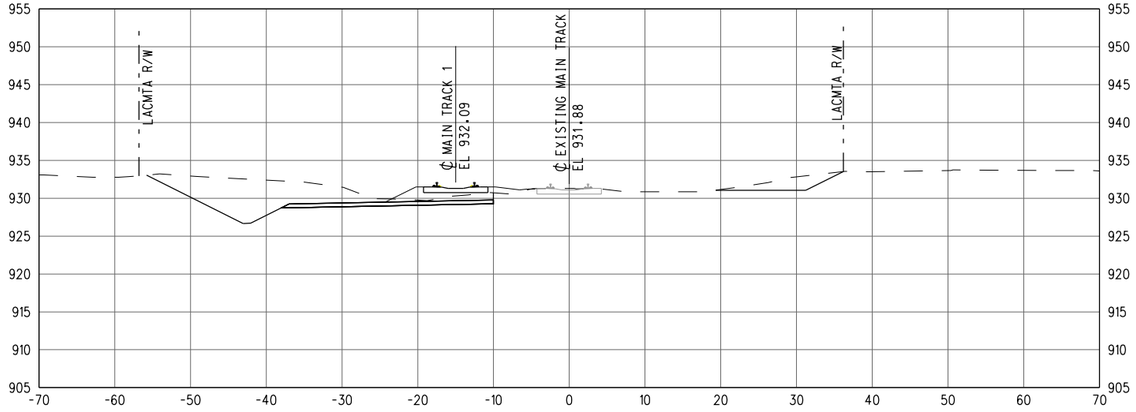
**CROSS SECTIONS EXMT 1460+00 TO EXMT 1461+00**

CONTRACT NO AE4555000241519565
DRAWING NO TX-011 REV
SCALE AS SHOWN
SHEET NO 73

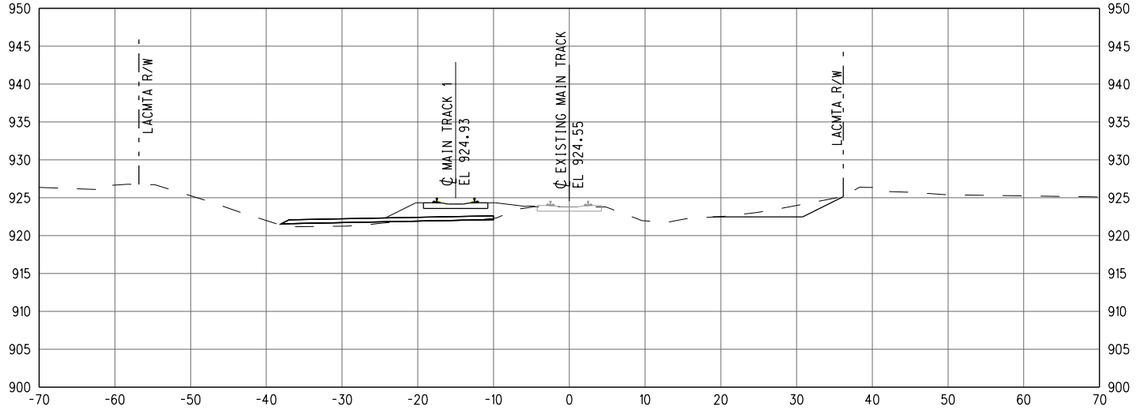
Shapir Ja 6/27/2017 3:05:37 PM $FILE$



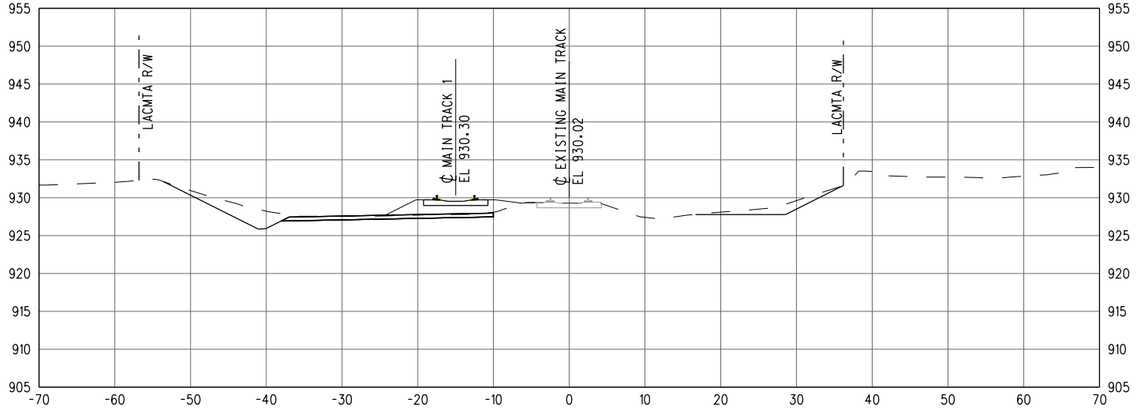

1464+00



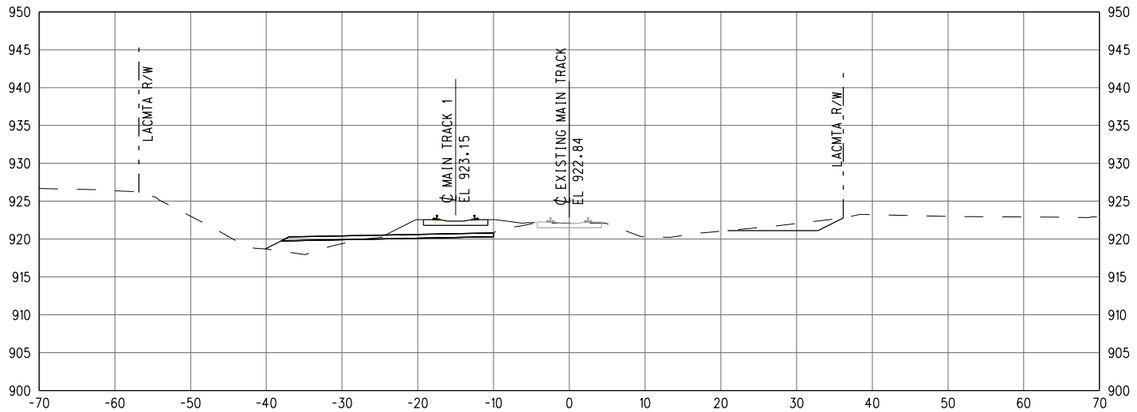

1467+00



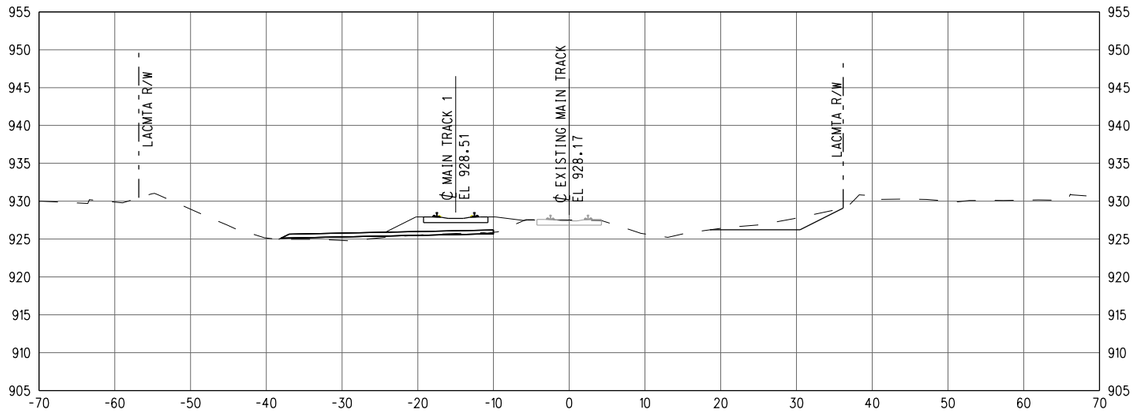

1463+00




1466+00




1462+00




1465+00

10' 0 10' 20'
GRAPHIC SCALE: 1" = 10'

811 Know what's below. Call before you dig.

# 30% SUBMITTAL
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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

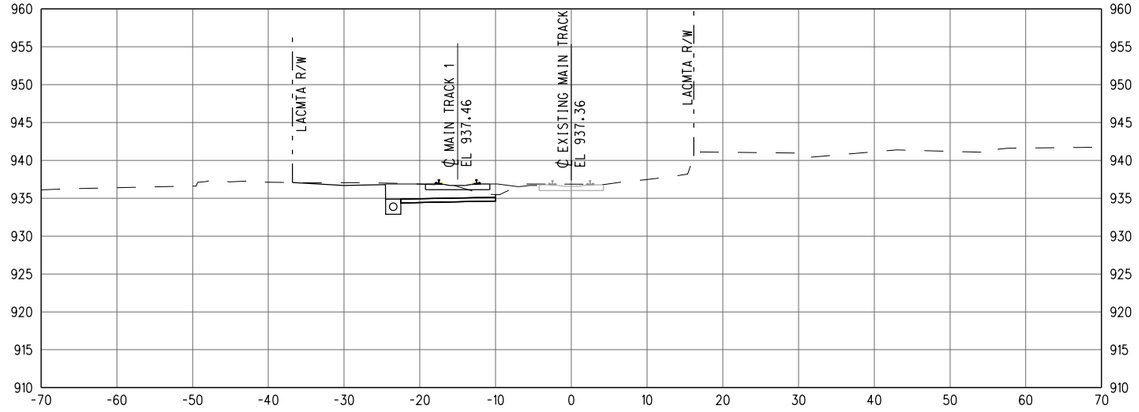
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

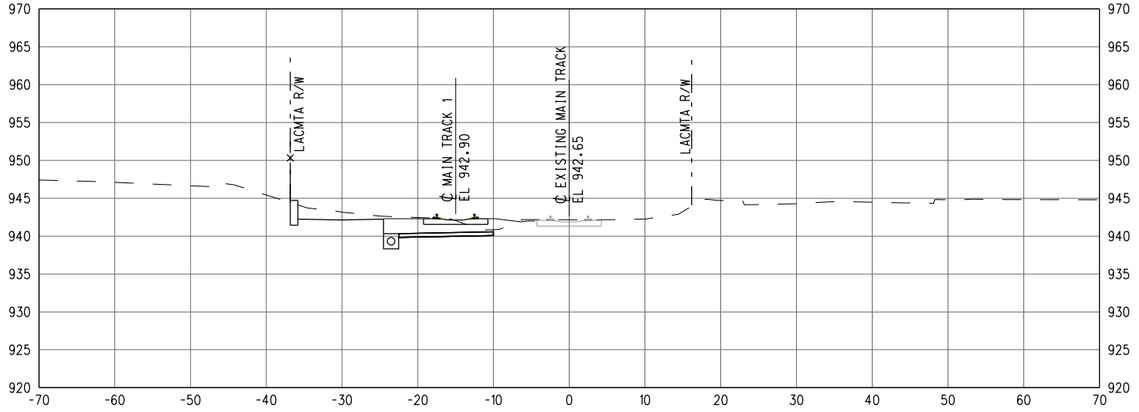
**CROSS SECTIONS EXMT 1462+00 TO EXMT 1467+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-012 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 74 |

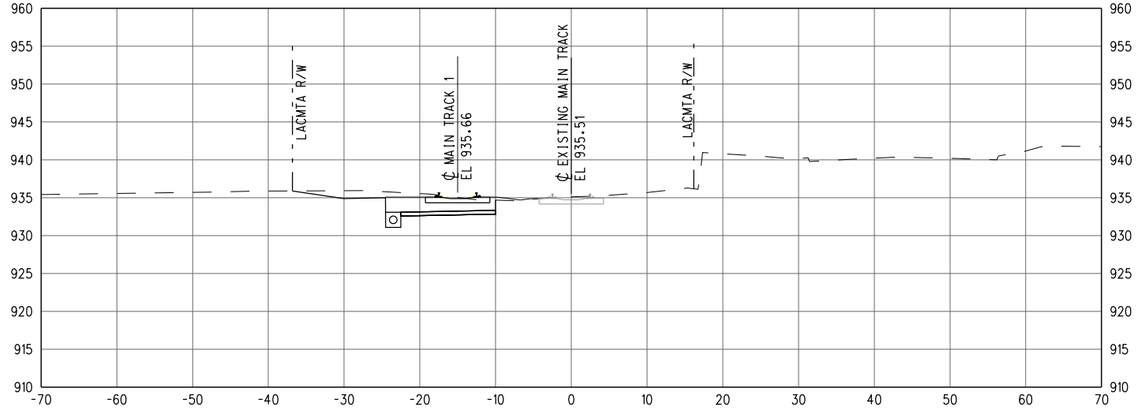
ShapirJa 6/27/2017 3:05:38 PM $FILEL$



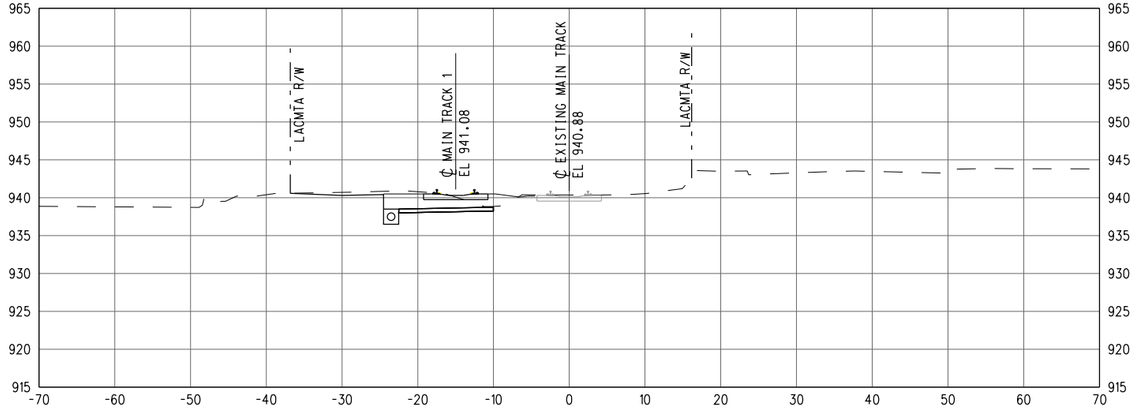

1470+00



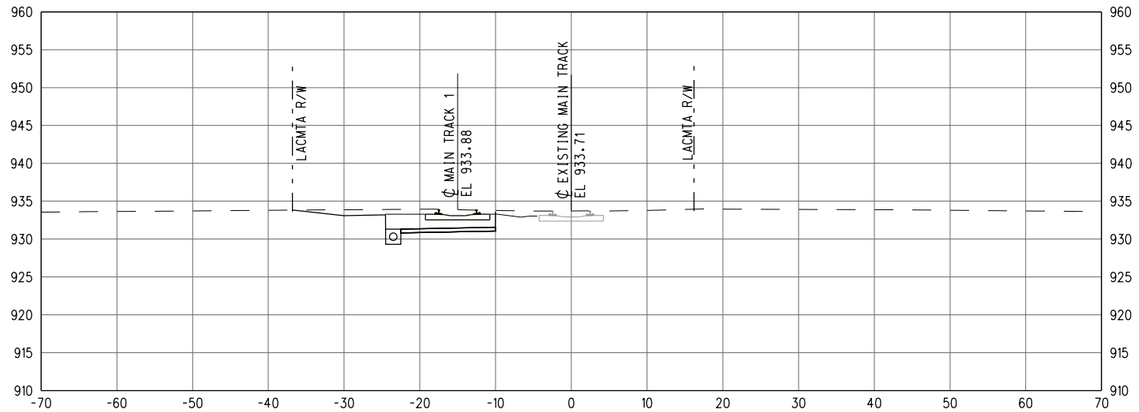

1473+00



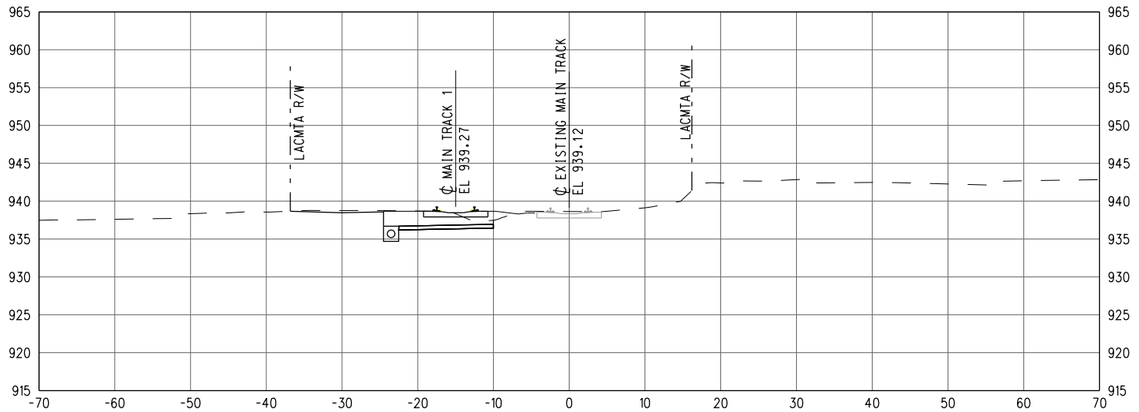

1469+00




1472+00




1468+00




1471+00

10' 0 10' 20'

GRAPHIC SCALE: 1" = 10'

811 Know what's below. Call before you dig.

# 30% SUBMITTAL
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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

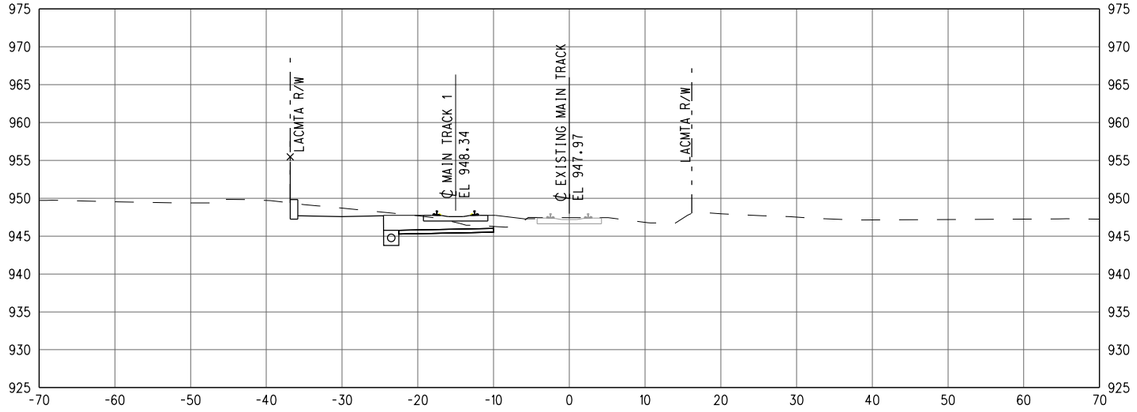
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

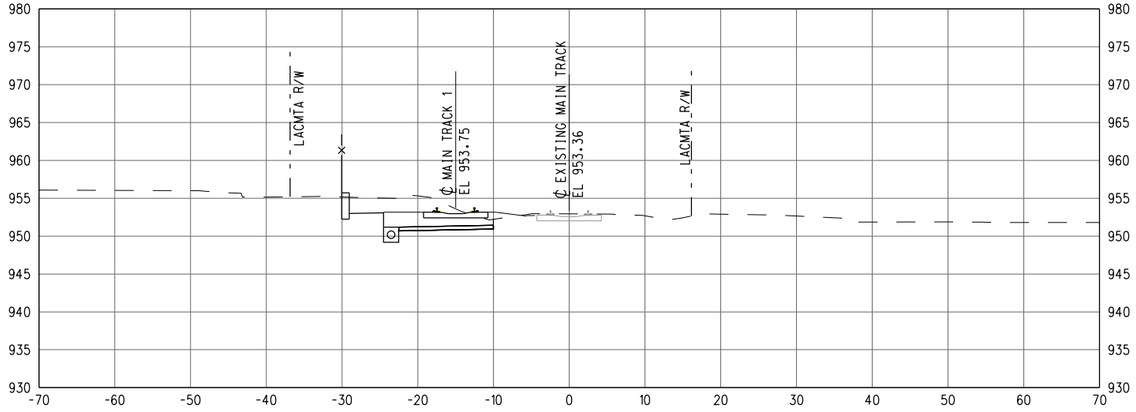
**CROSS SECTIONS EXMT 1468+00 TO EXMT 1473+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-013 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 75 |

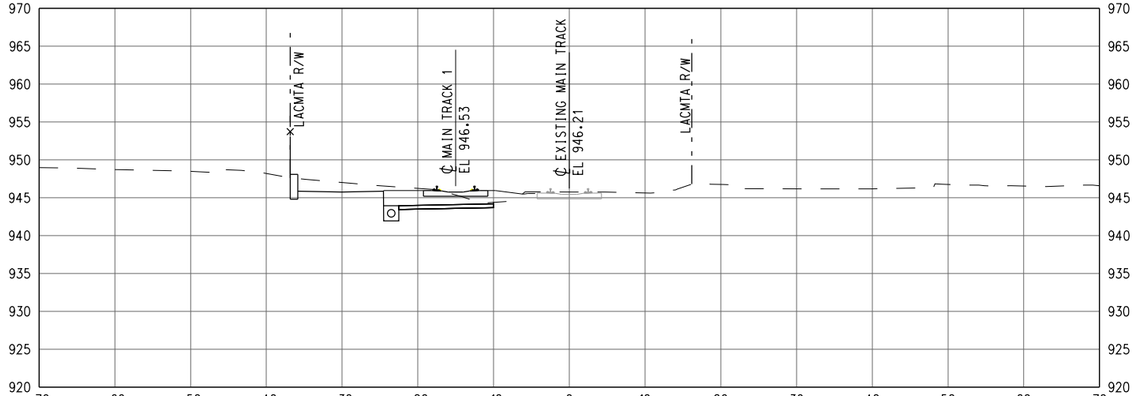
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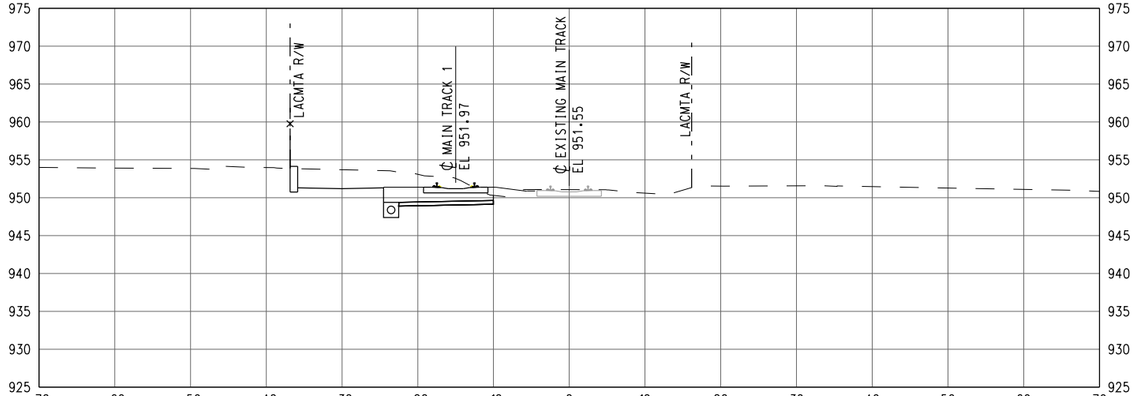

1476+00



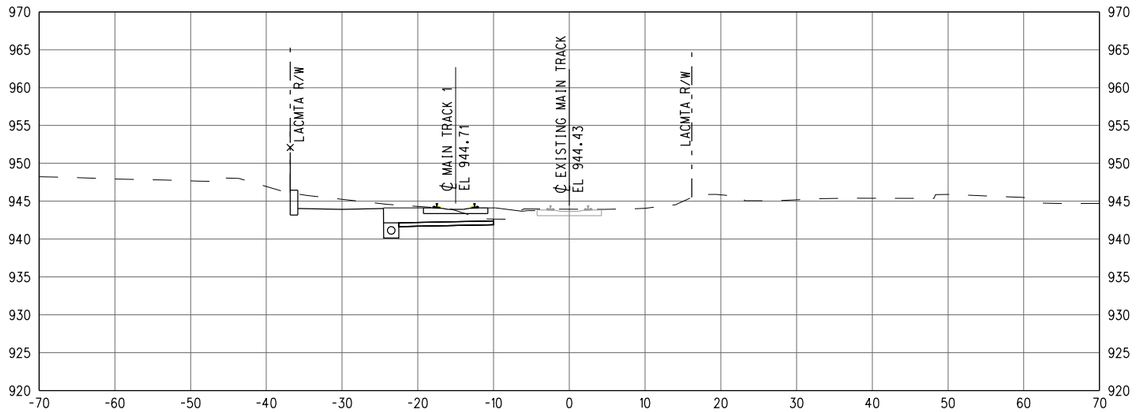

1479+00



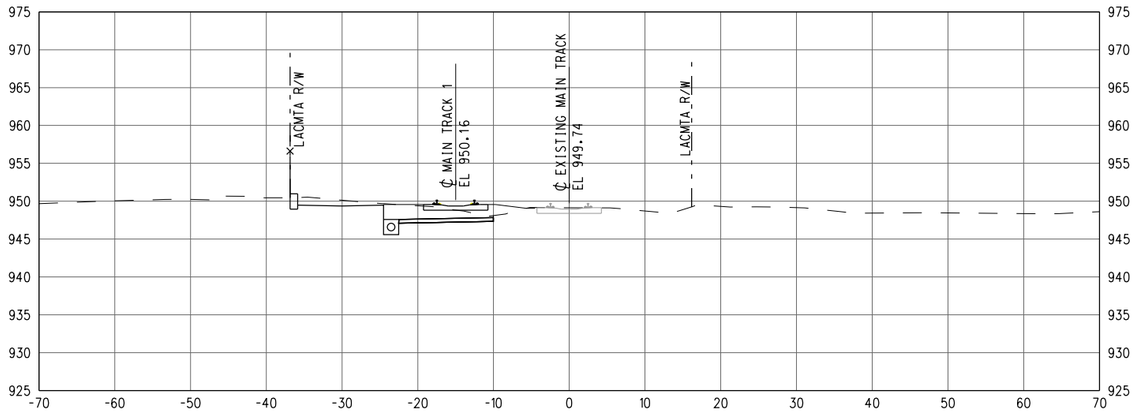

1475+00




1478+00




1474+00




1477+00

10' 0 10' 20'

GRAPHIC SCALE: 1" = 10'

ShapirJa 6/27/2017 3:05:38 PM $FILEL$

811 Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

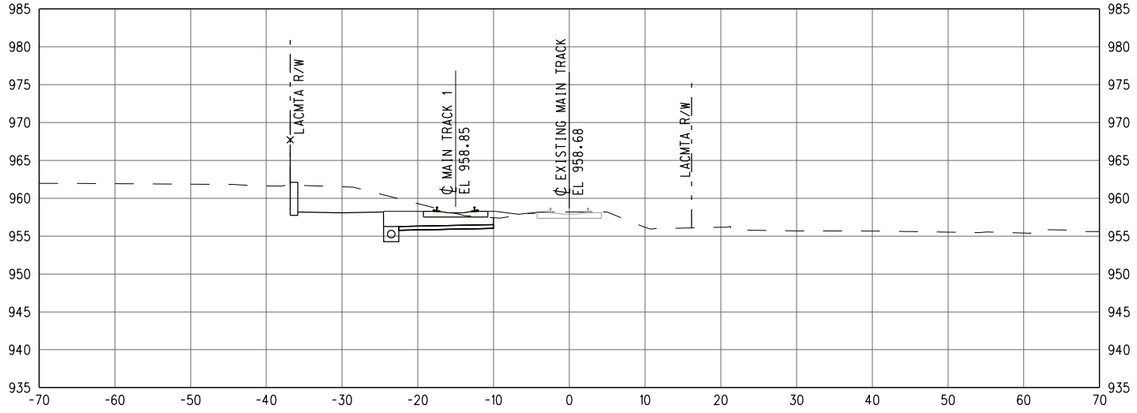
METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

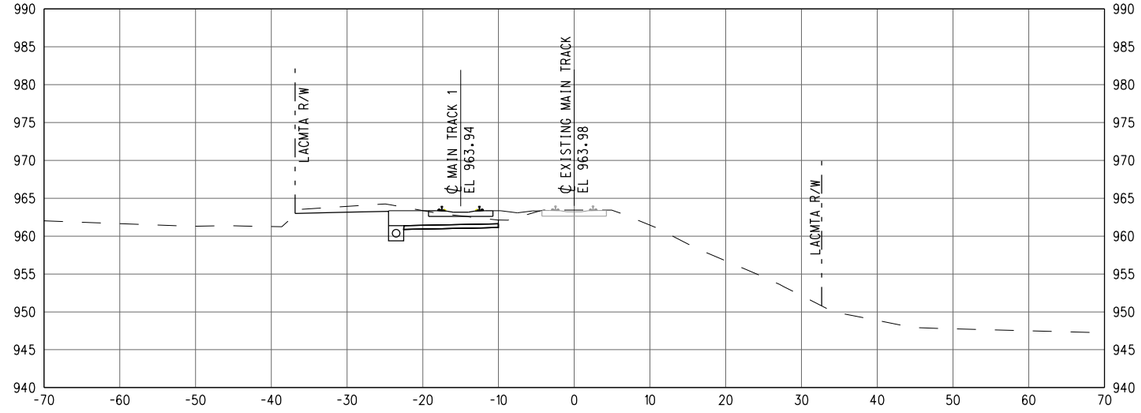
**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**CROSS SECTIONS EXMT 1474+00 TO EXMT 1479+00**

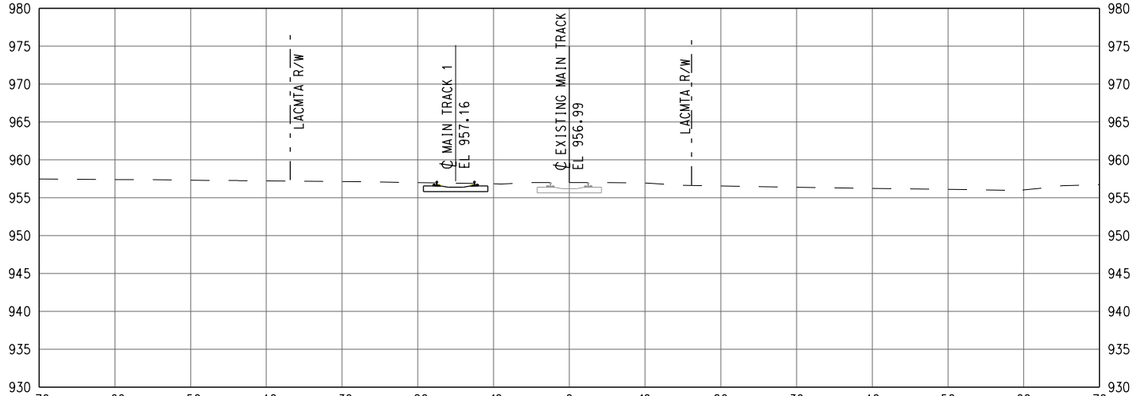
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| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-014 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 76 |



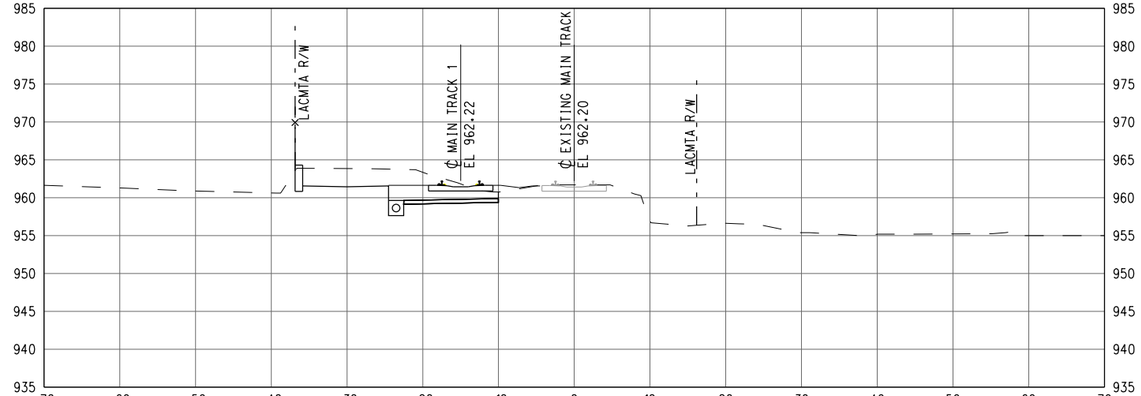

1482+00



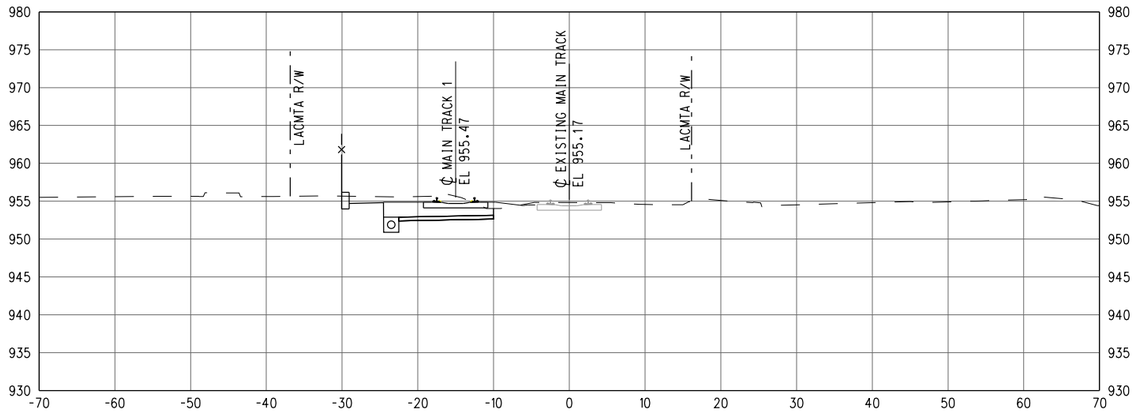

1485+00



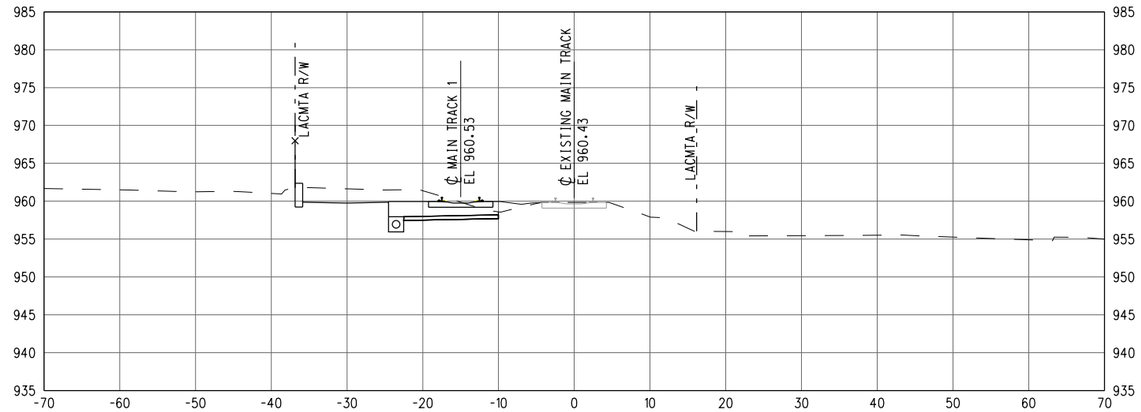

1481+00




1484+00




1480+00




1483+00

GRAPHIC SCALE: 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

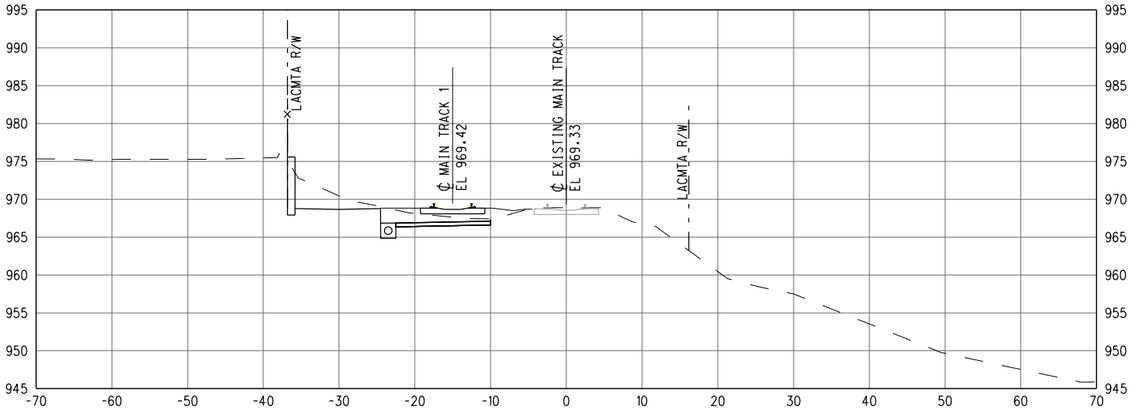
JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

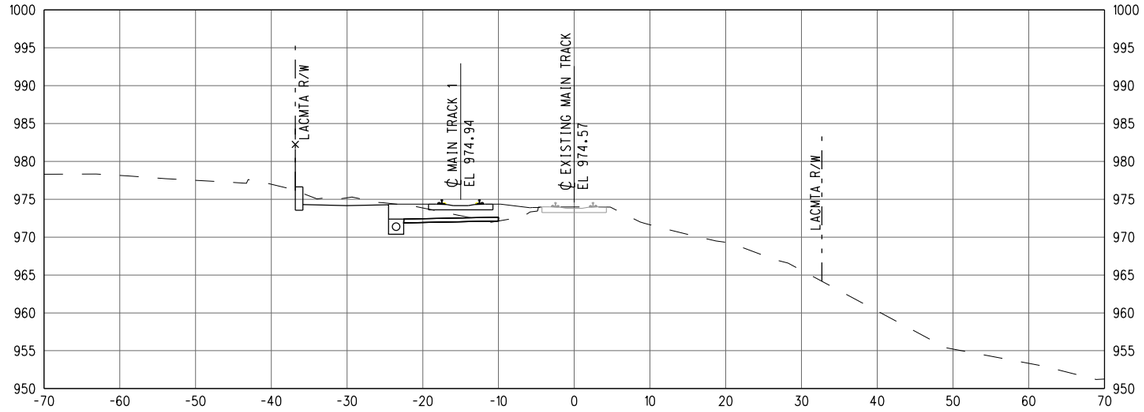
**CROSS SECTIONS EXMT 1480+00 TO EXMT 1485+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-015 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 77 |

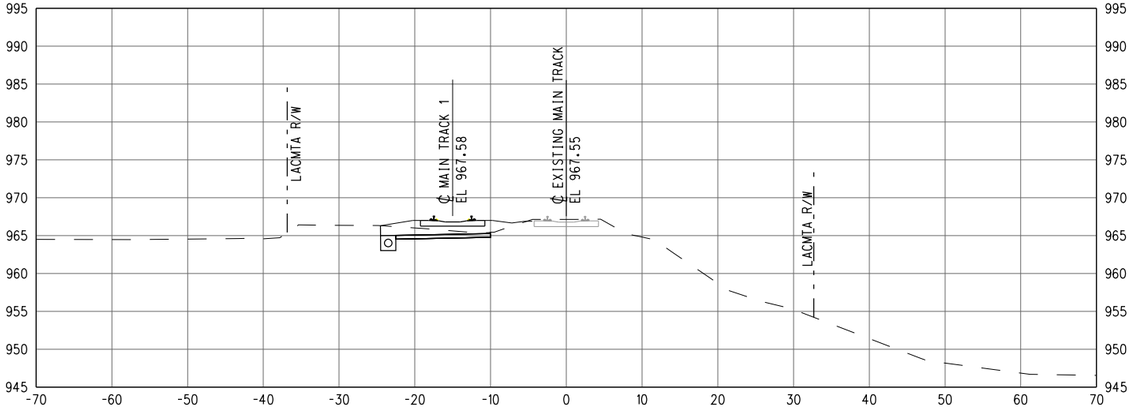
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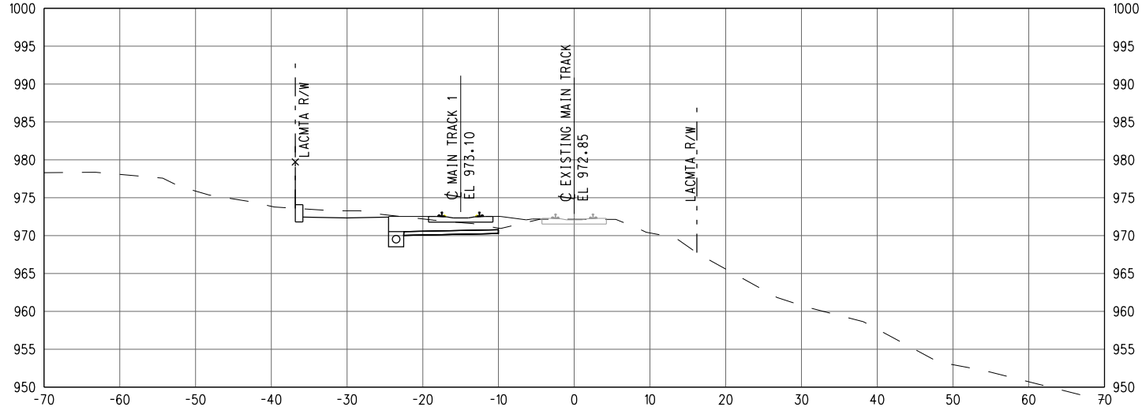

1488+00



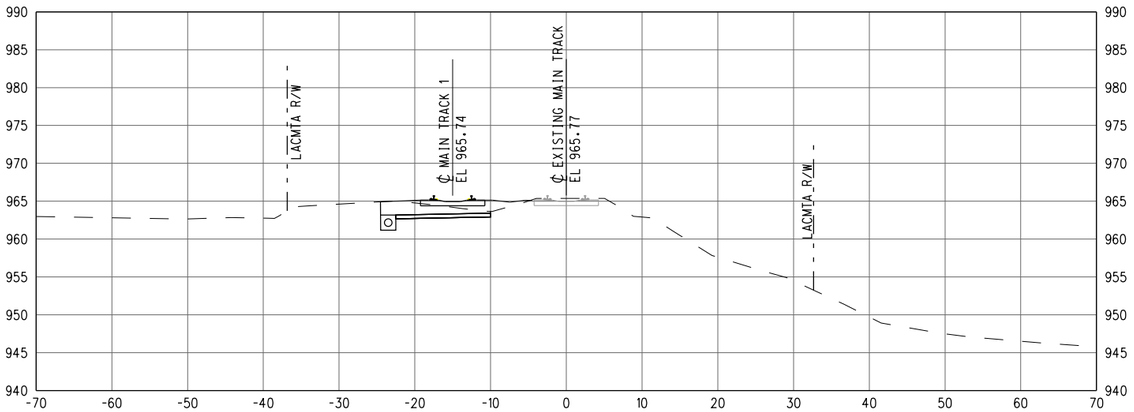

1491+00



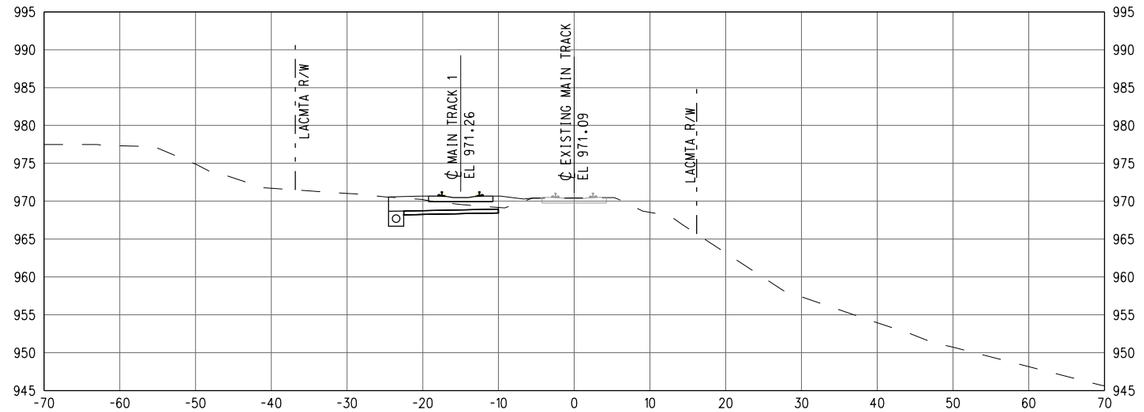

1487+00




1490+00




1486+00




1489+00

10' 0 10' 20'

GRAPHIC SCALE: 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

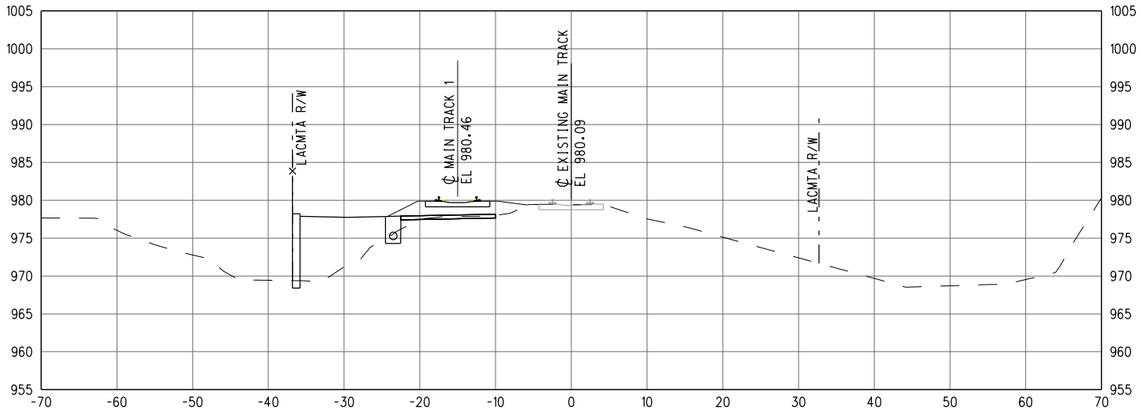
JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

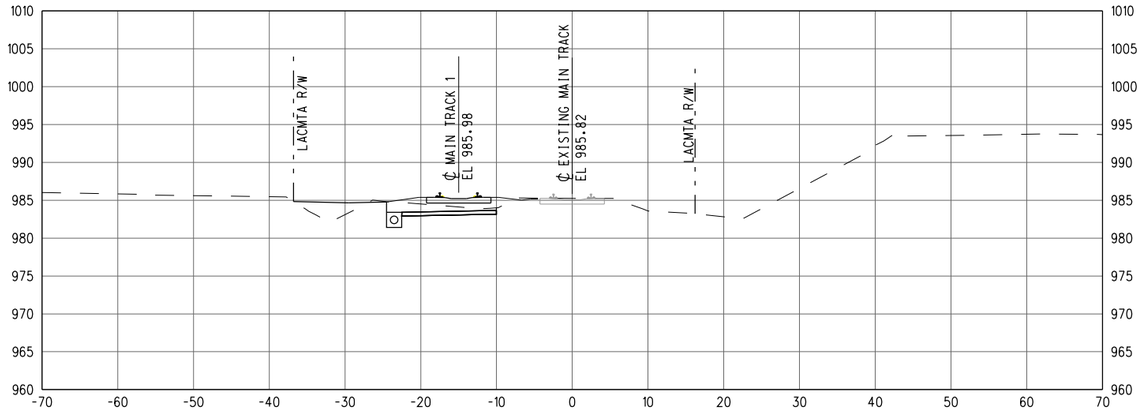
**CROSS SECTIONS EXMT 1486+00 TO EXMT 1491+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-016 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 78 |

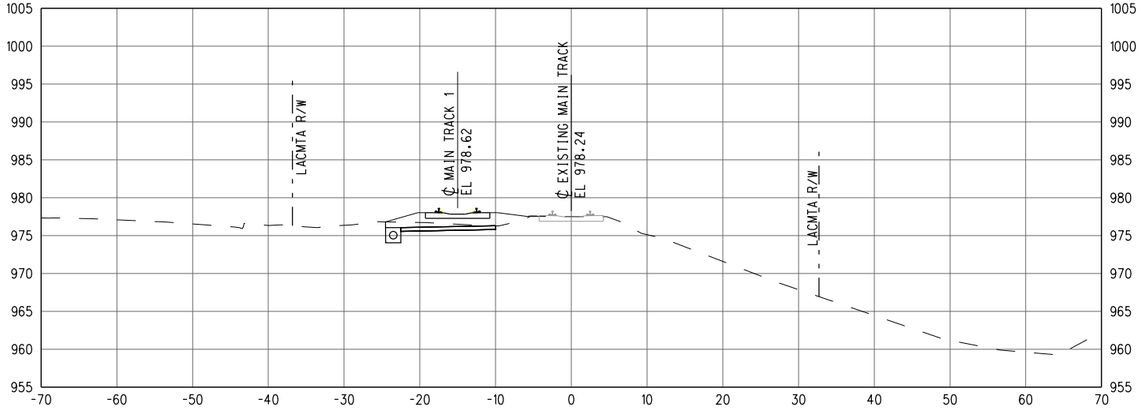
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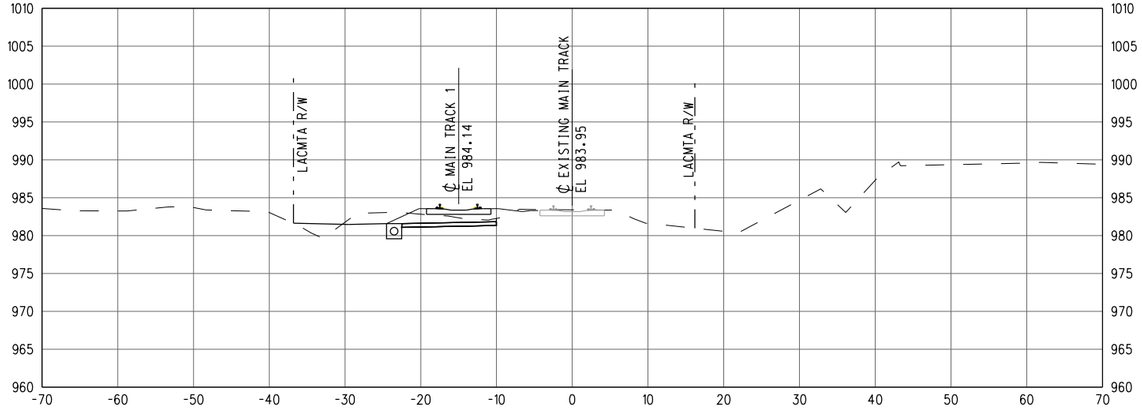

1494+00



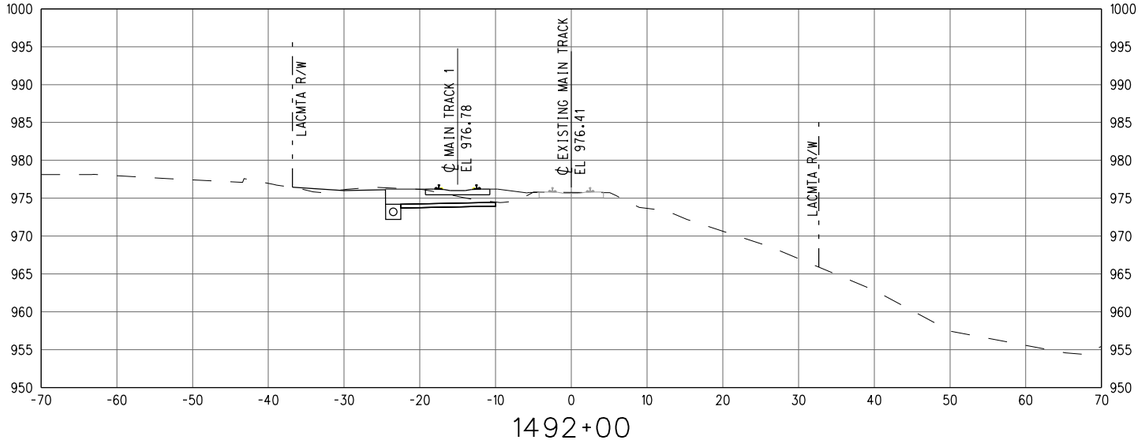

1497+00



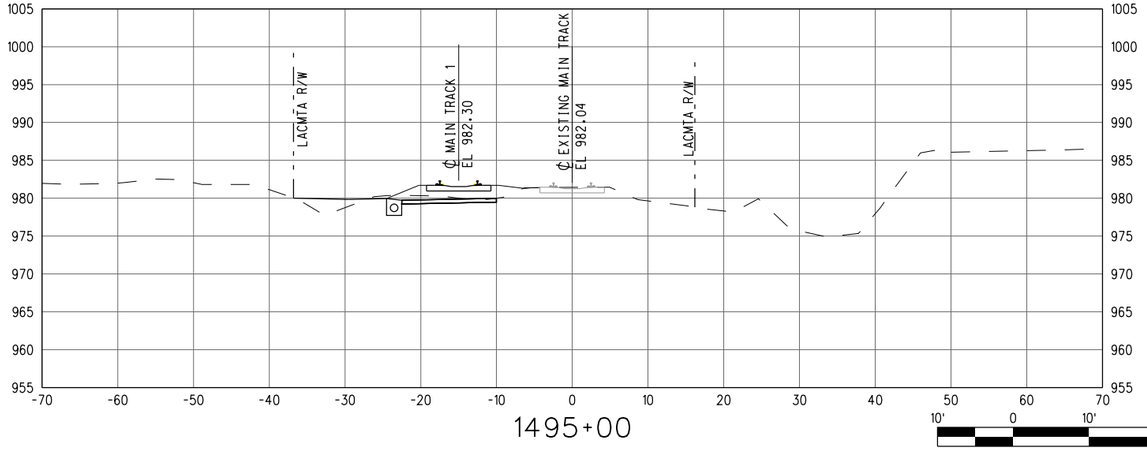

1493+00




1496+00




1492+00




1495+00

GRAPHIC SCALE: 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

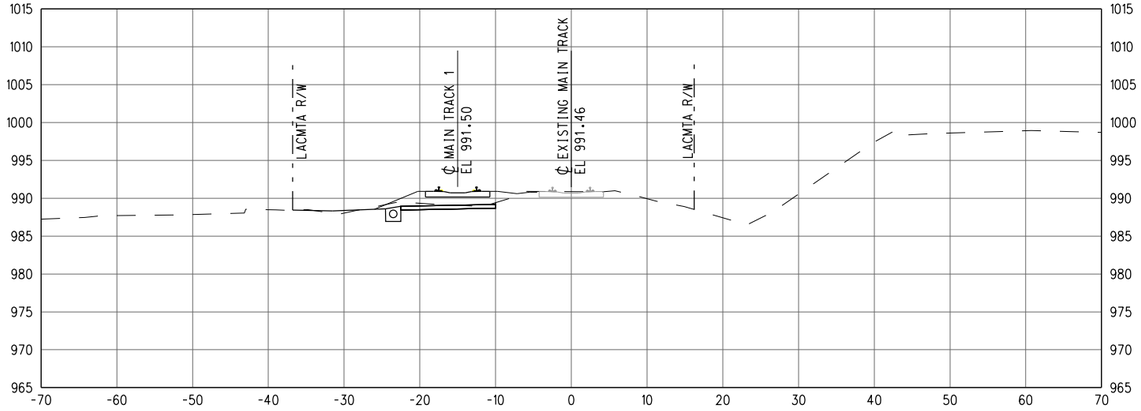
JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

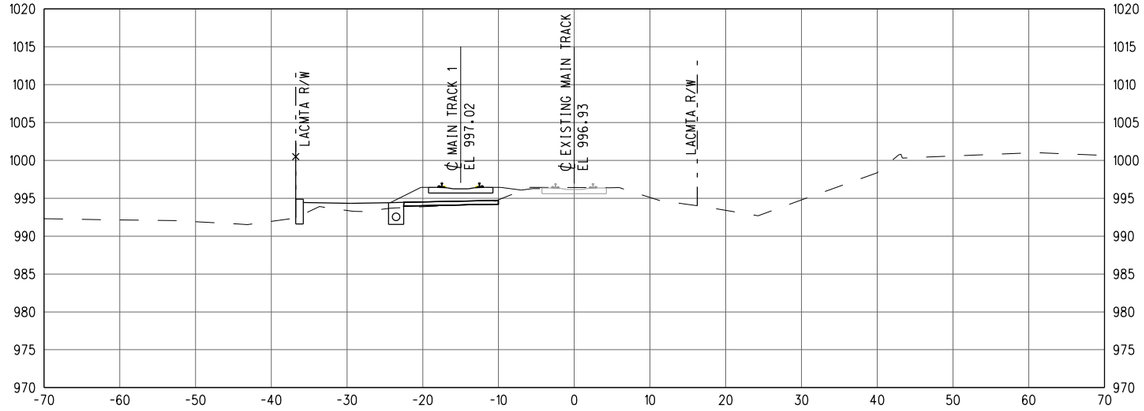
**CROSS SECTIONS EXMT 1492+00 TO EXMT 1497+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-017 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 79 |

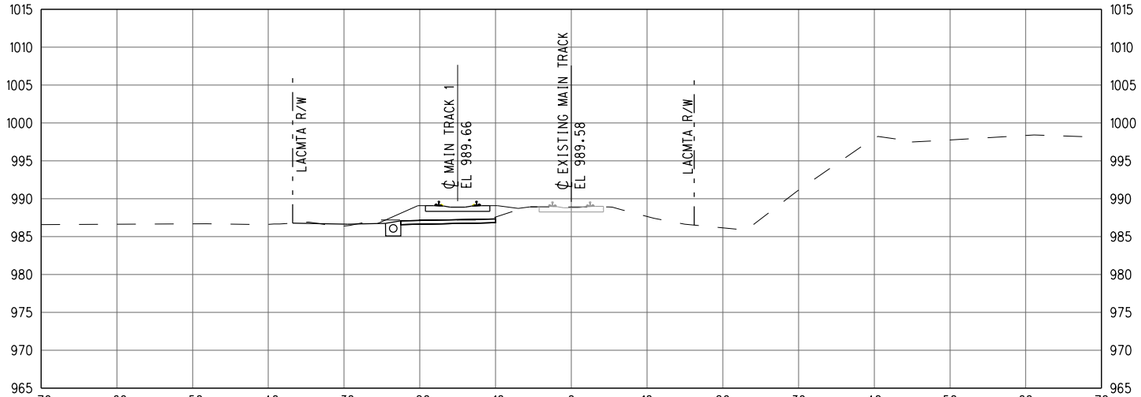
ShapirJo 6/27/2017 3:05:39 PM $FILEL$



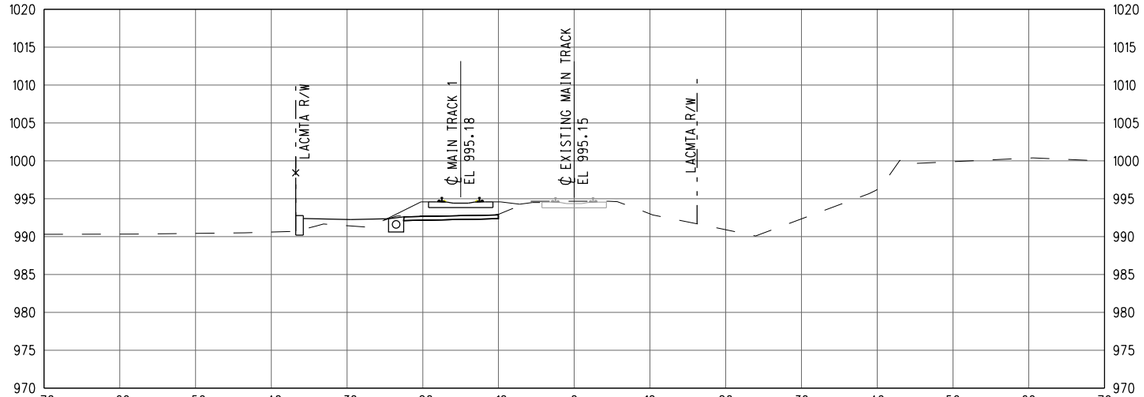

1500+00



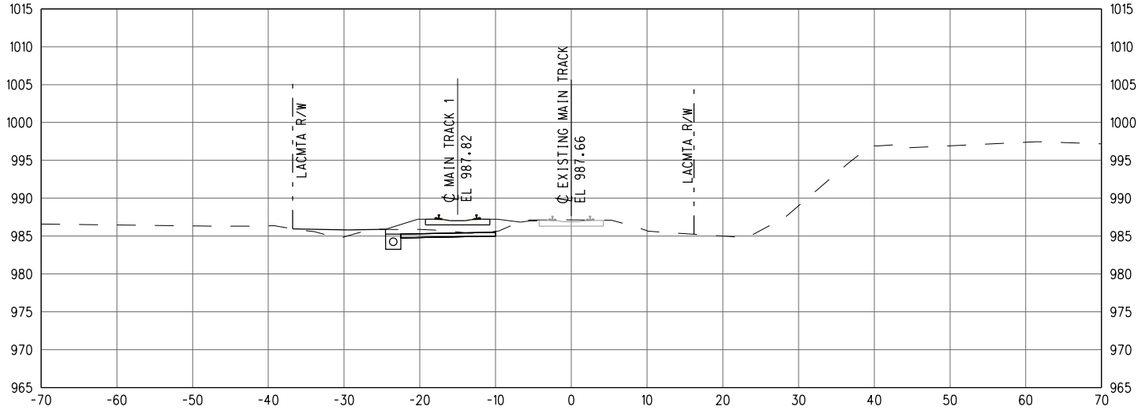

1503+00



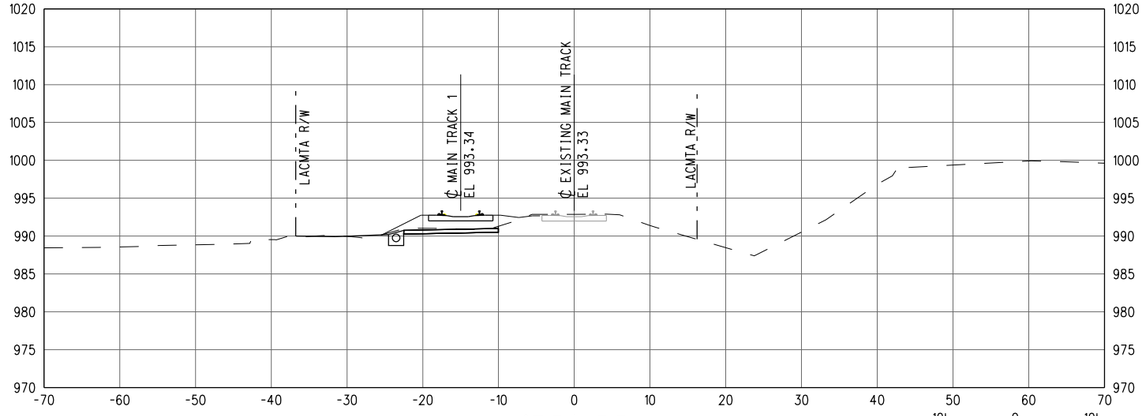

1499+00




1502+00




1498+00




1501+00

GRAPHIC SCALE: 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

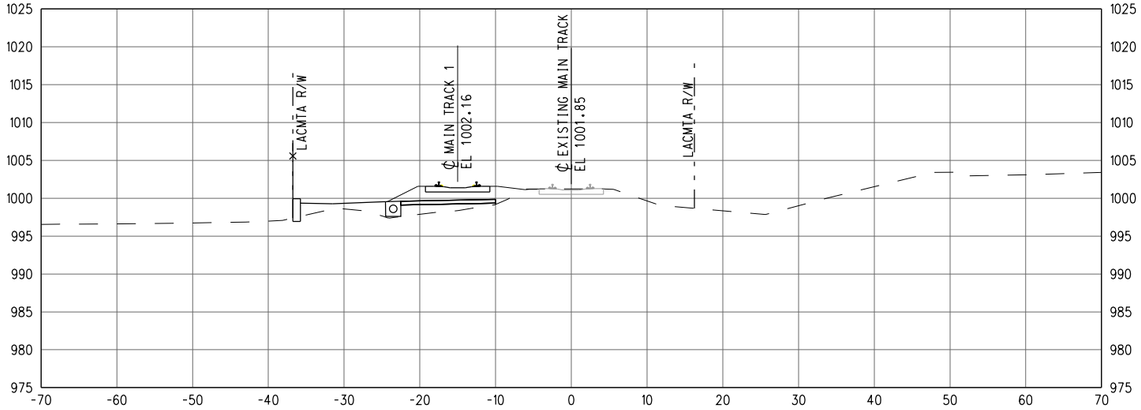
JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868
TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

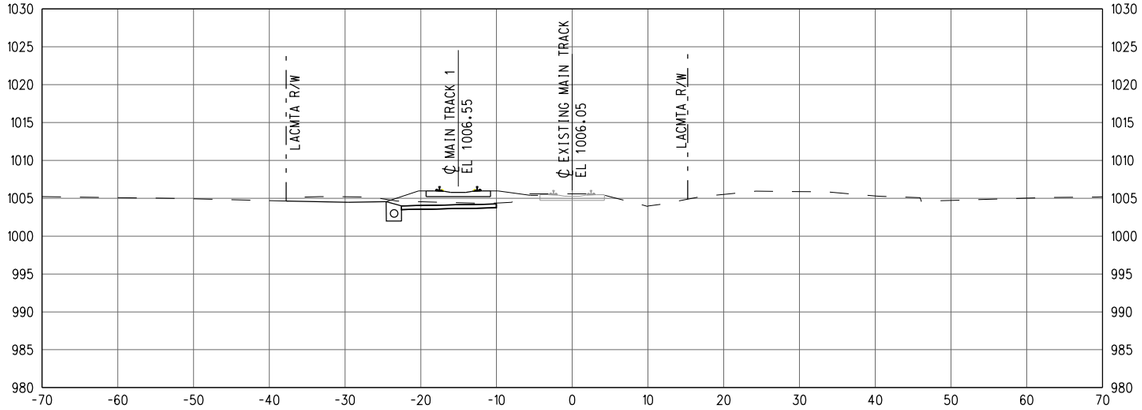
**CROSS SECTIONS EXMT 1498+00 TO EXMT 1503+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-018 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 80 |

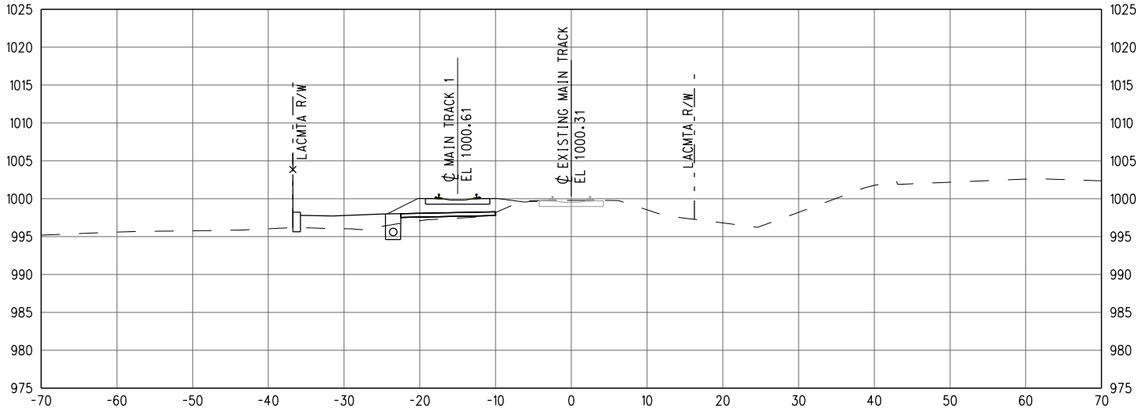
ShapirJa 6/27/2017 3:05:39 PM $FILEL$



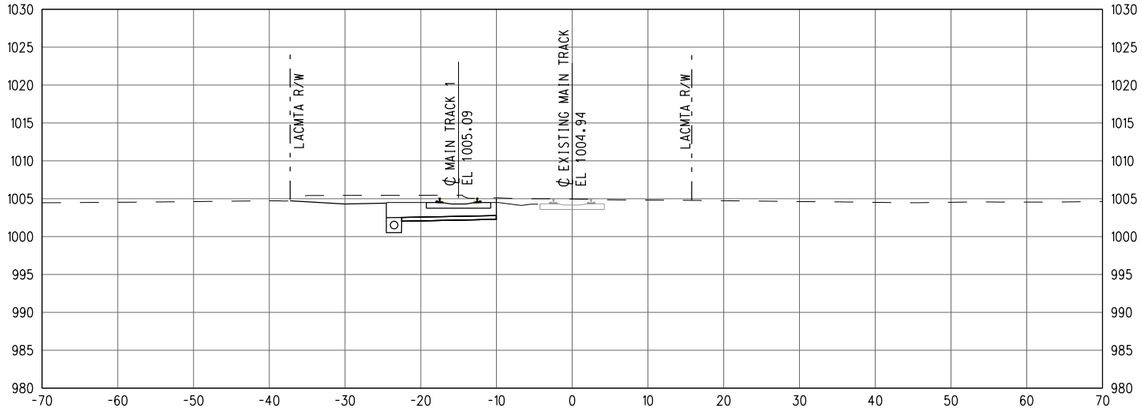

1506+00



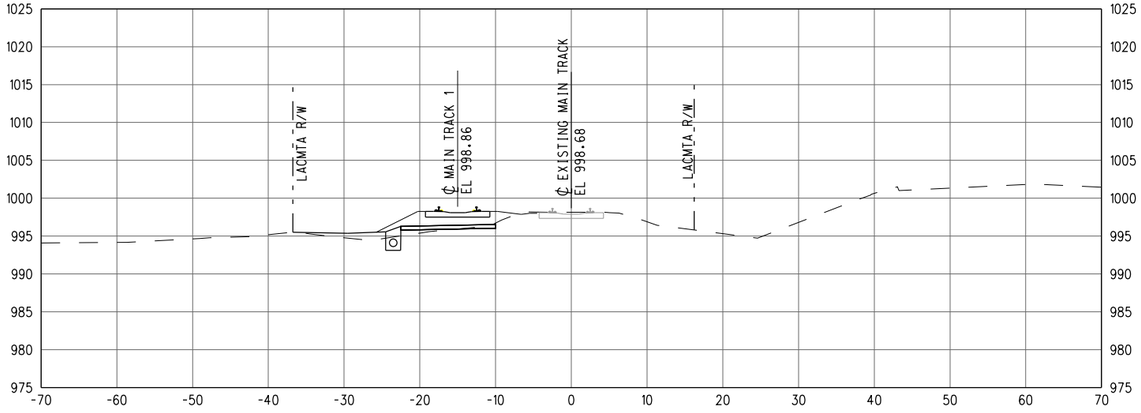

1509+00



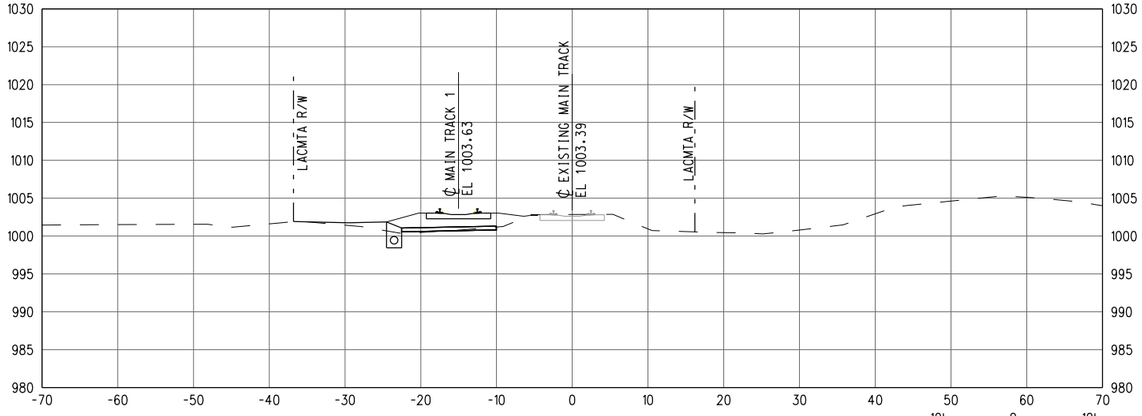

1505+00




1508+00




1504+00




1507+00

10' 0 10' 20'

GRAPHIC SCALE: 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

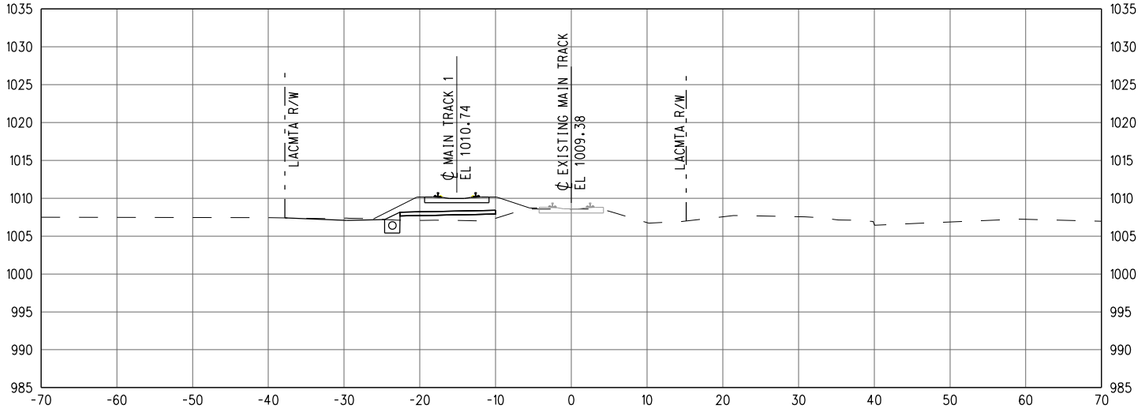
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

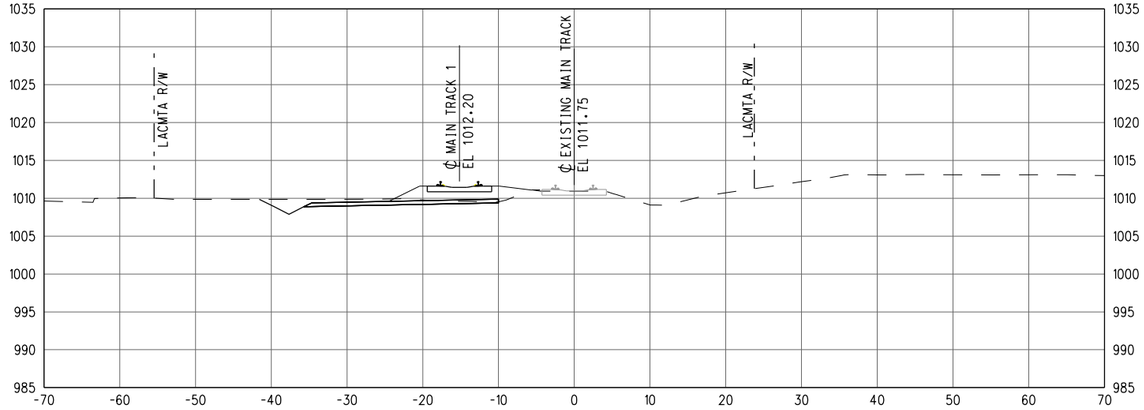
**CROSS SECTIONS EXMT 1504+00 TO EXMT 1509+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-019 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 81 |

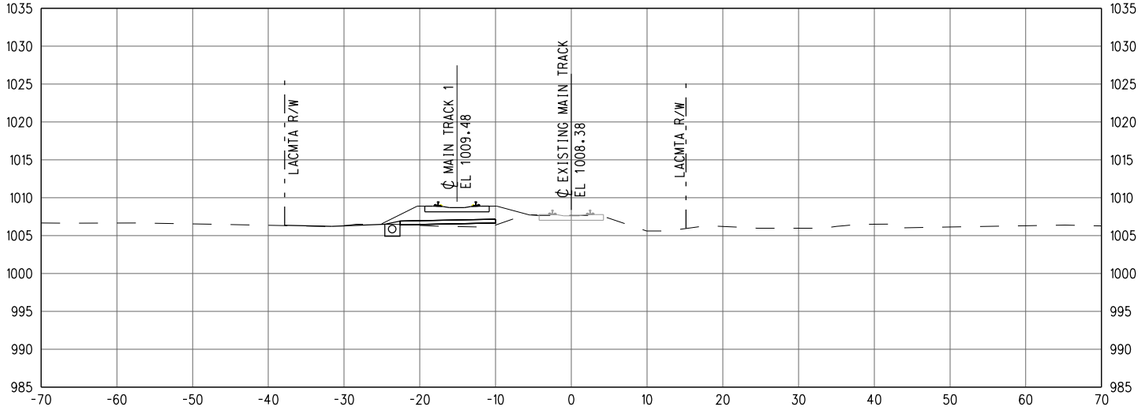
ShapirJa 6/27/2017 3:05:39 PM $FILEL$



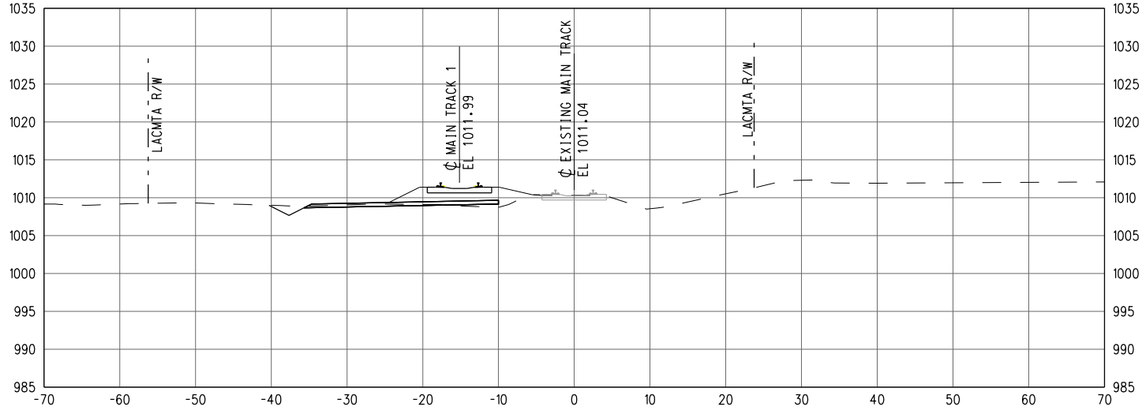

1512+00



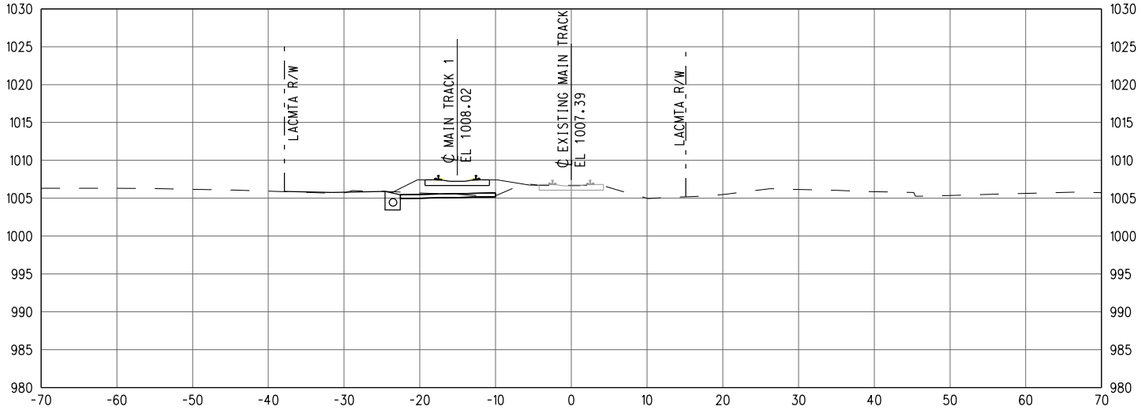

1515+00



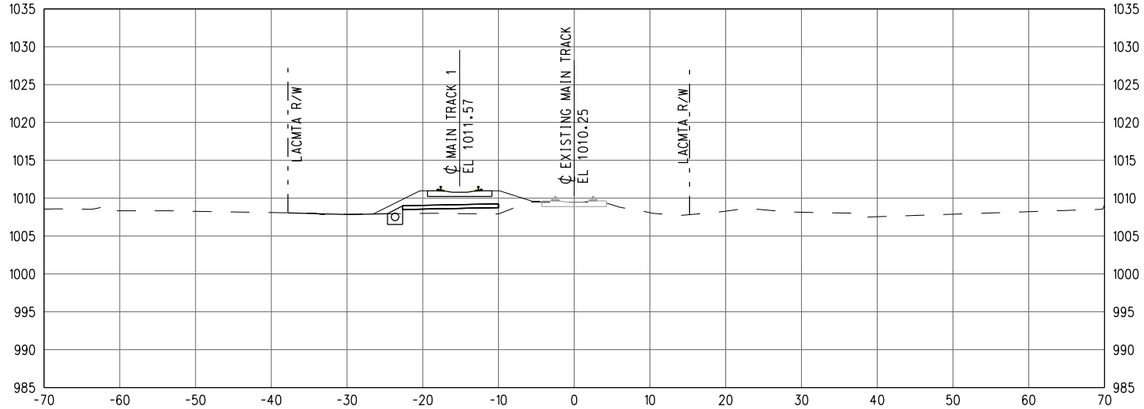

1511+00




1514+00




1510+00




1513+00

GRAPHIC SCALE: 1" = 10'

ShapirJa 6/27/2017 3:05:39 PM $FILEL$

811 Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

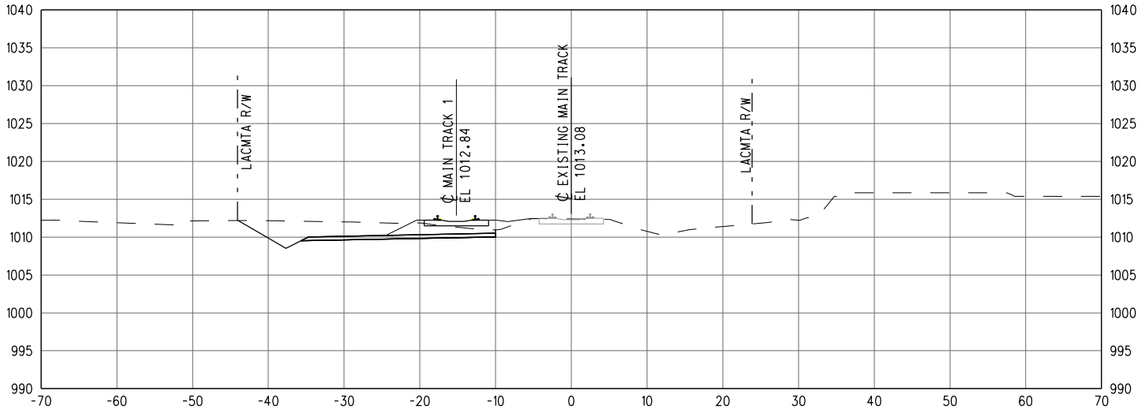
METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

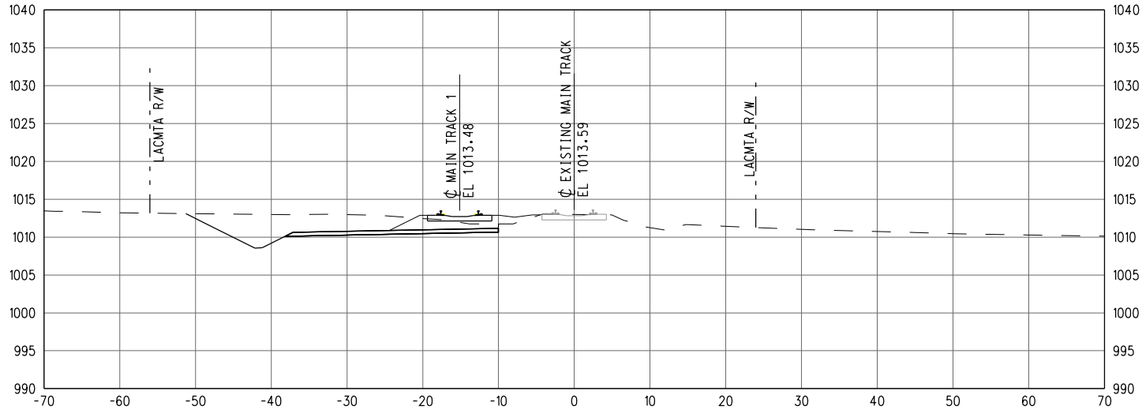
**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**CROSS SECTIONS EXMT 1510+00 TO EXMT 1515+00**

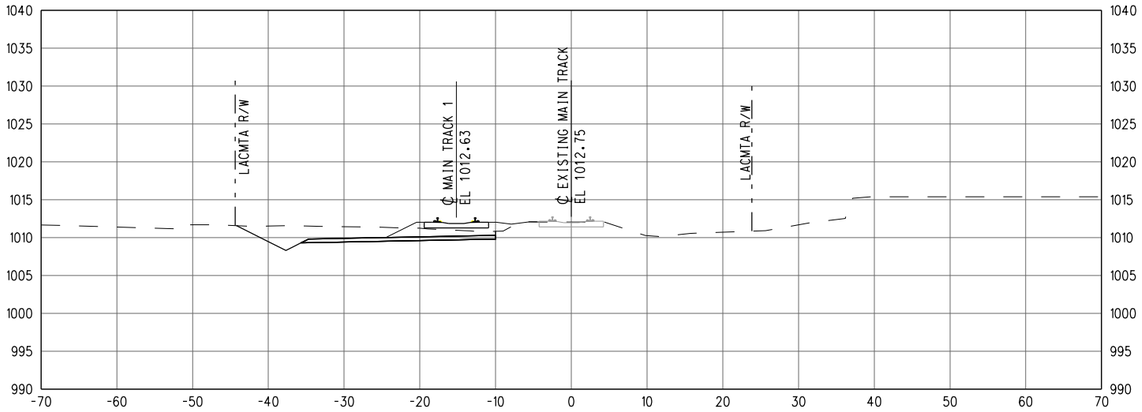
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|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-020 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 82 |



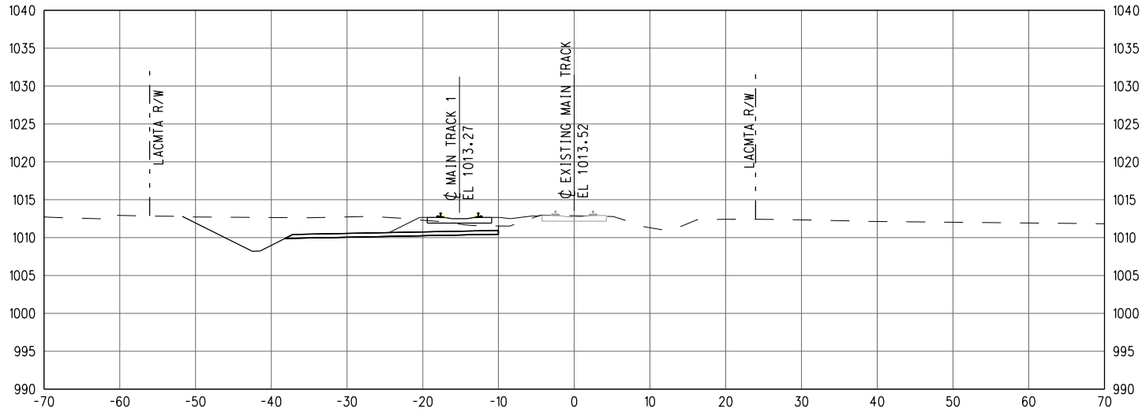

1518+00



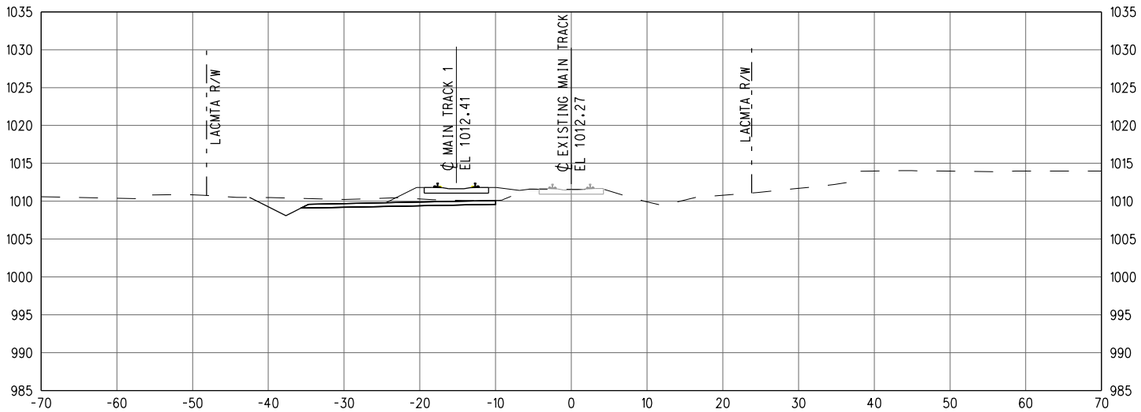

1521+00



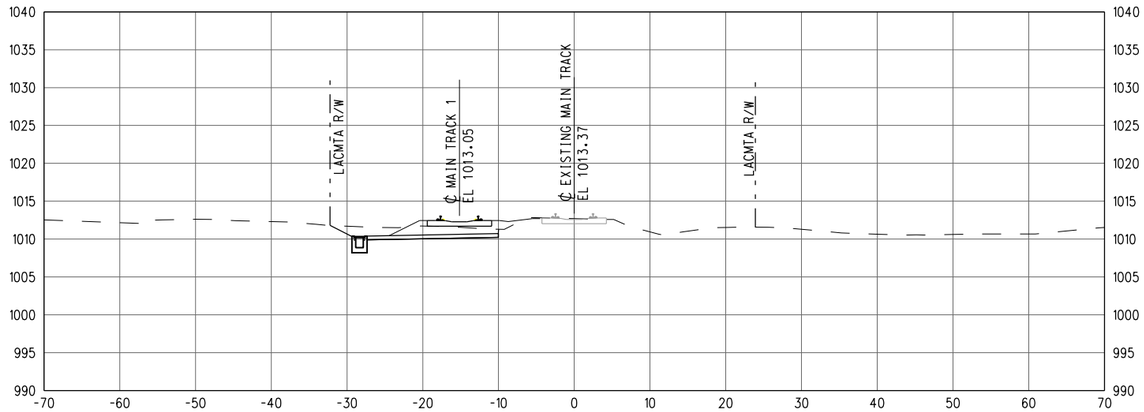

1517+00




1520+00




1516+00




1519+00

10' 0 10' 20'

GRAPHIC SCALE: 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

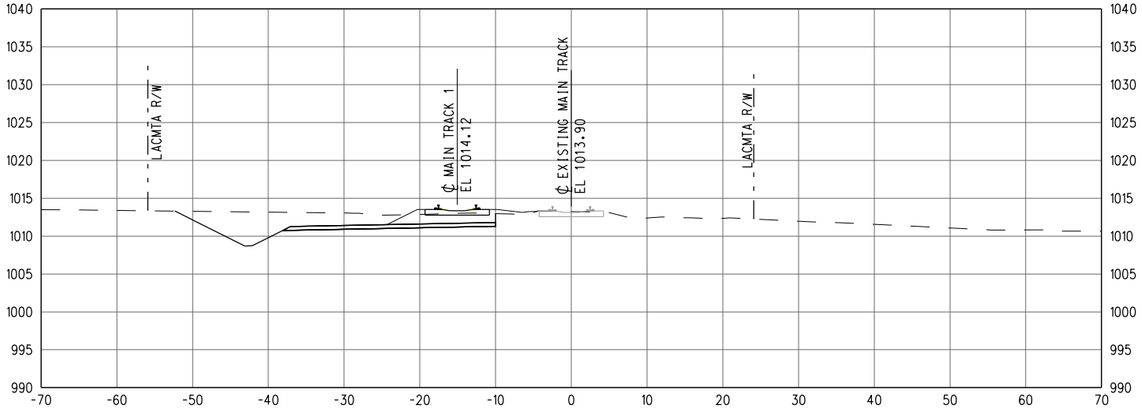
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

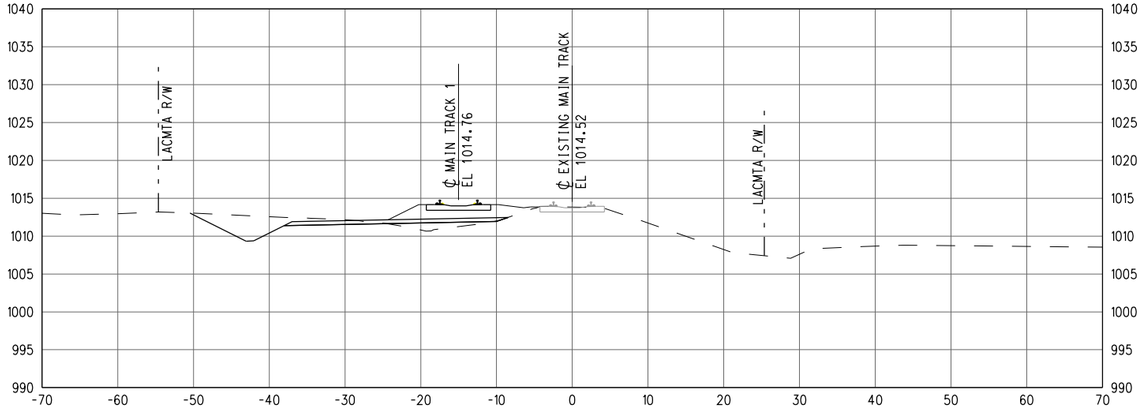
**CROSS SECTIONS EXMT 1516+00 TO EXMT 1521+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-021 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 83 |

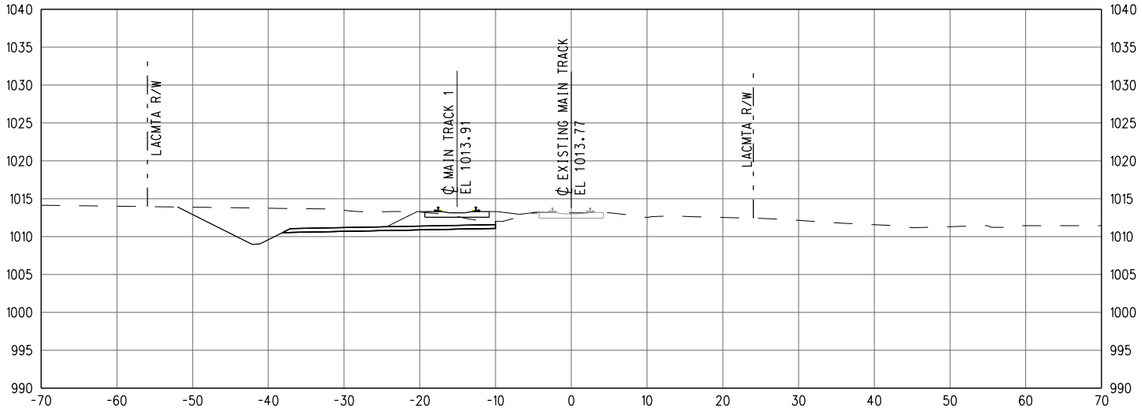
ShapirJa 6/27/2017 3:05:39 PM $FILEL$



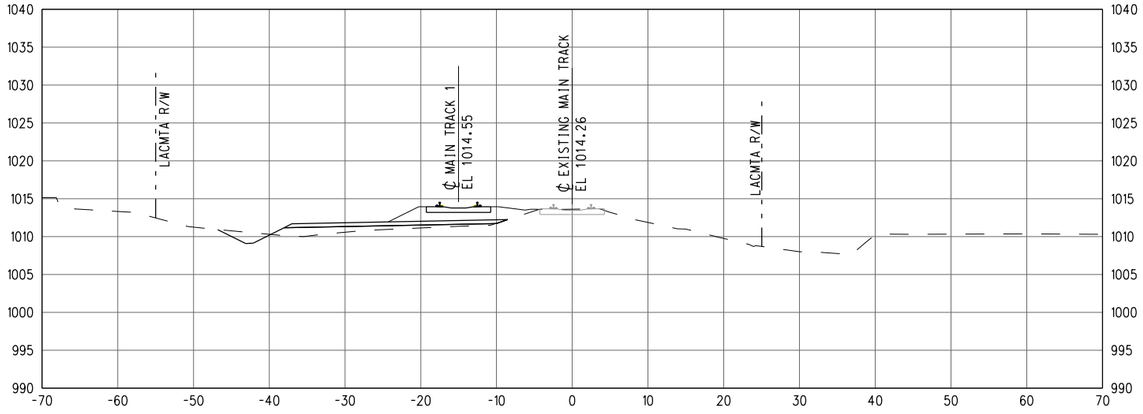

1524+00



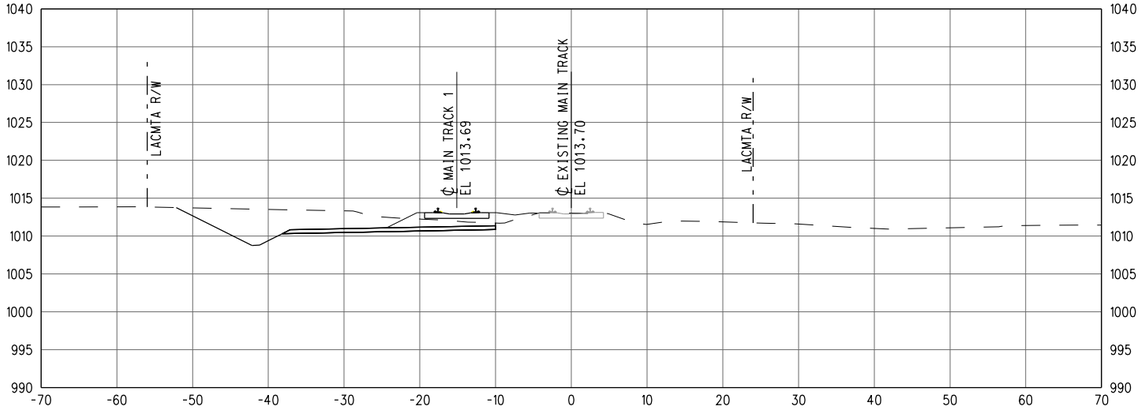

1527+00



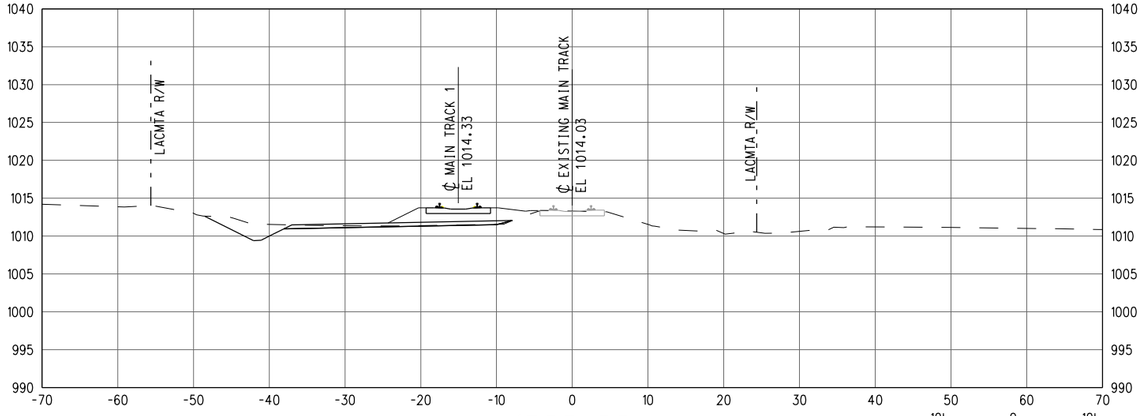

1523+00



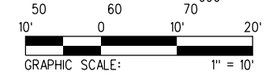

1526+00




1522+00




1525+00




Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

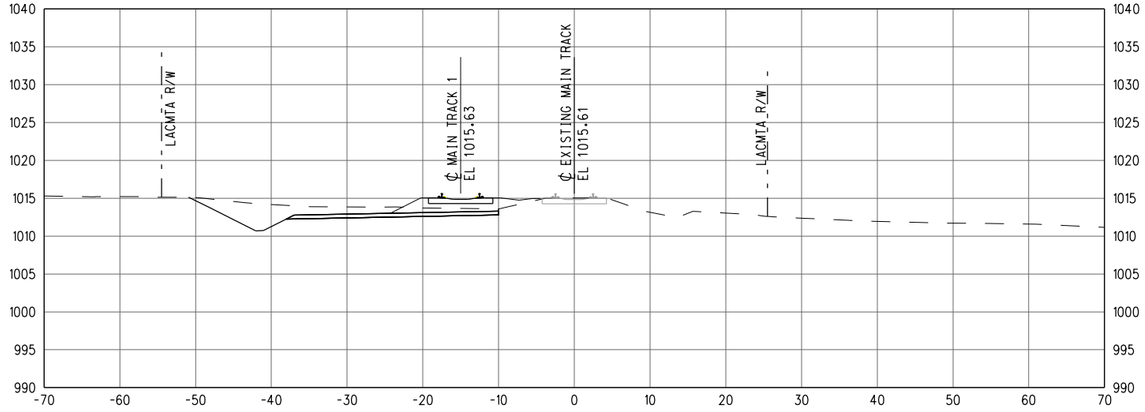
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

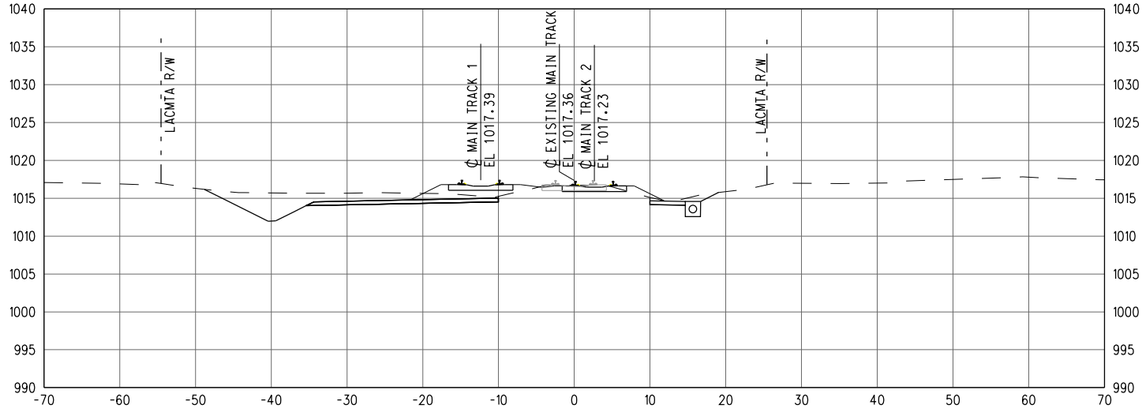
**CROSS SECTIONS EXMT 1522+00 TO EXMT 1527+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-022 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 84 |

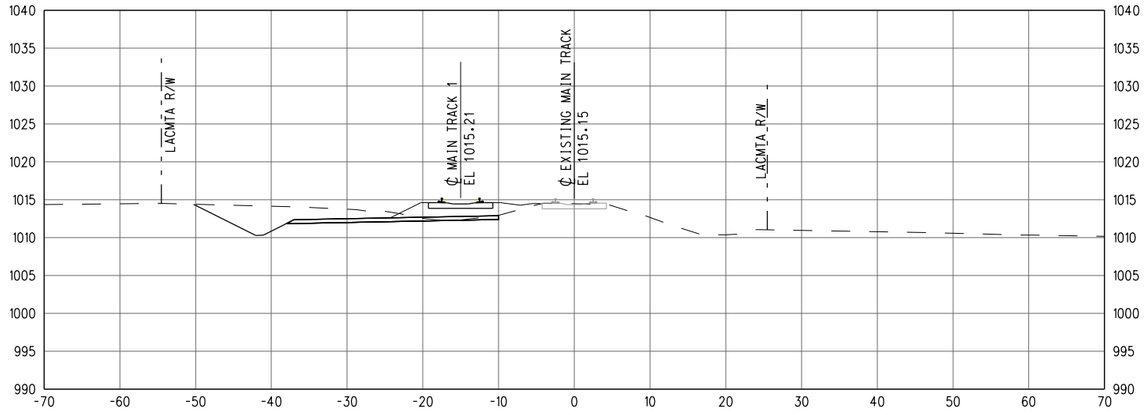
ShapirJa 6/27/2017 3:05:40 PM $FILEL$



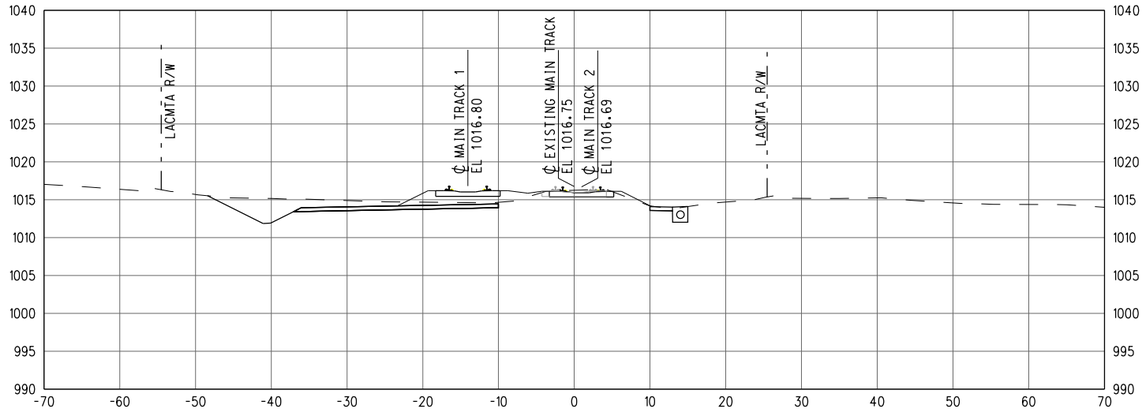

1530+00



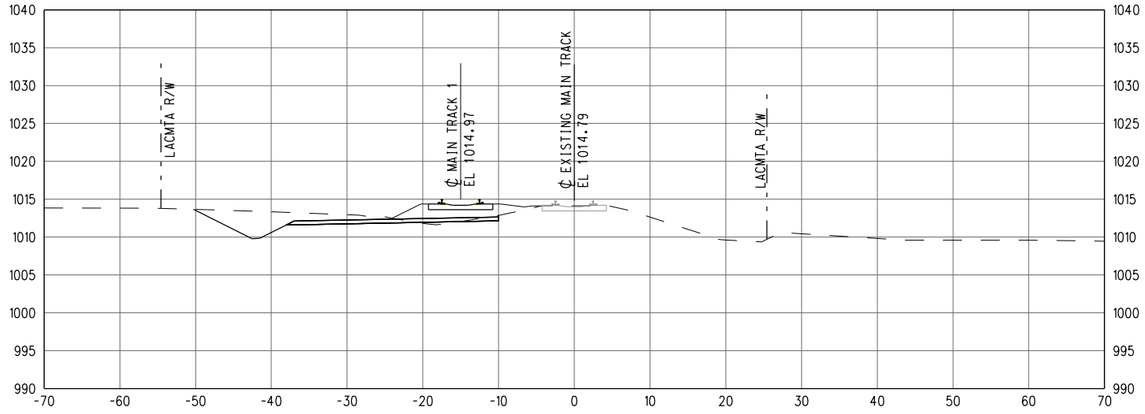

1533+00



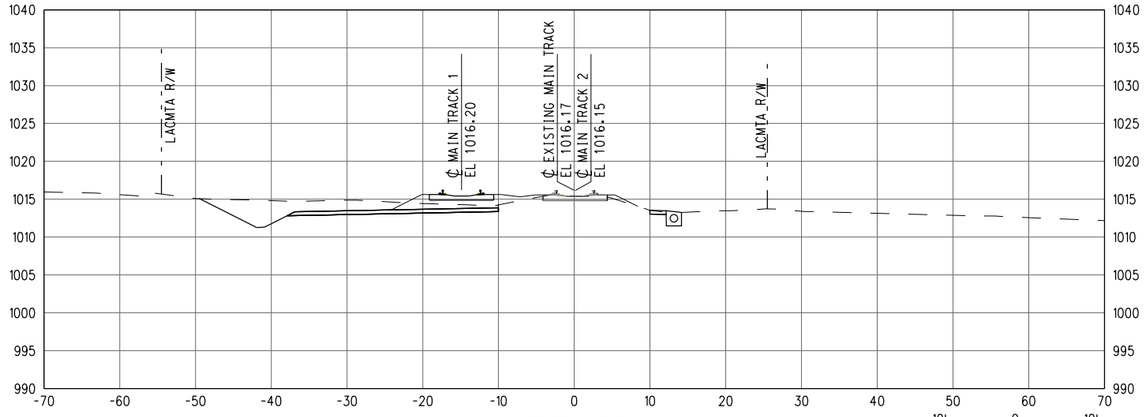

1529+00




1532+00




1528+00




1531+00

GRAPHIC SCALE: 10' 0 10' 20' — 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. — 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS — 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**CROSS SECTIONS EXMT 1528+00 TO EXMT 1533+00**

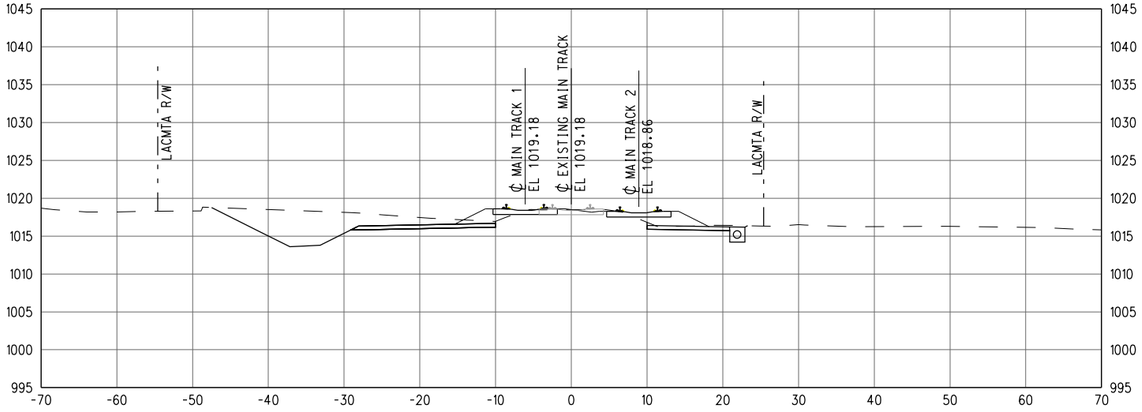
CONTRACT NO AE4555000241519565

DRAWING NO TX-023 REV

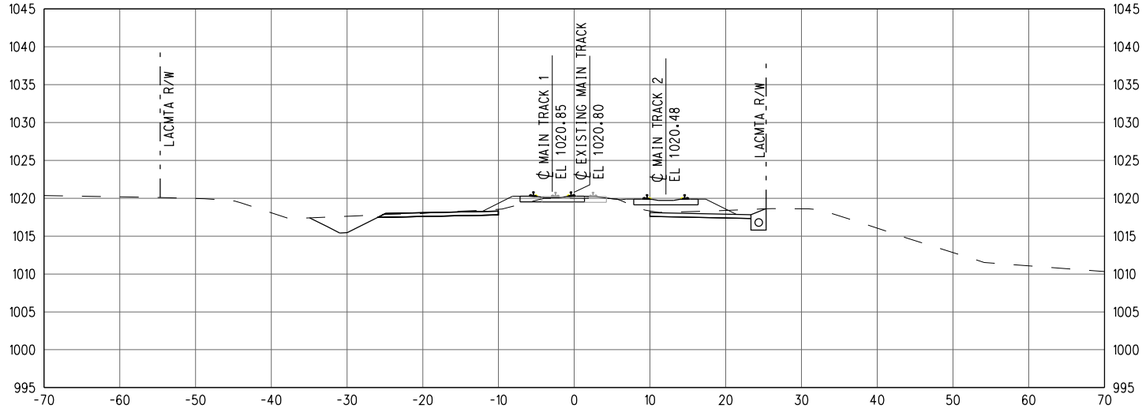
SCALE AS SHOWN

SHEET NO 85

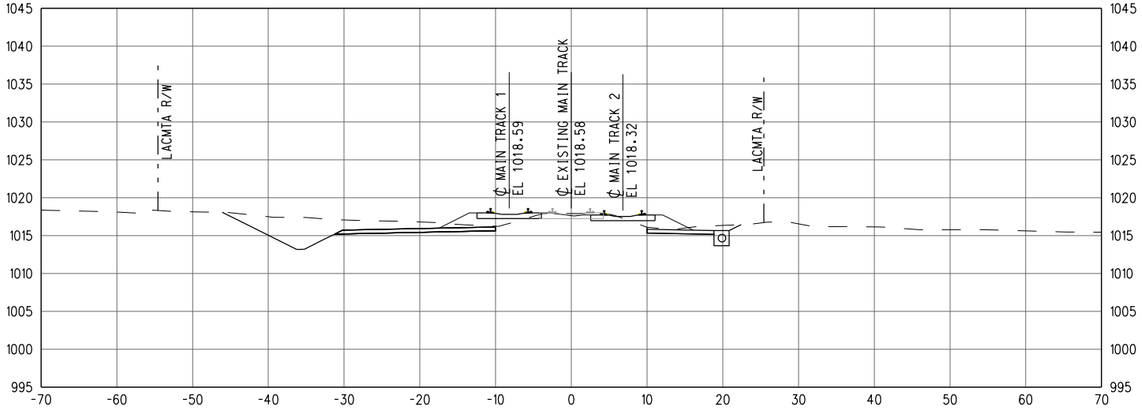
ShapirJa 6/27/2017 3:05:40 PM $FILE1$



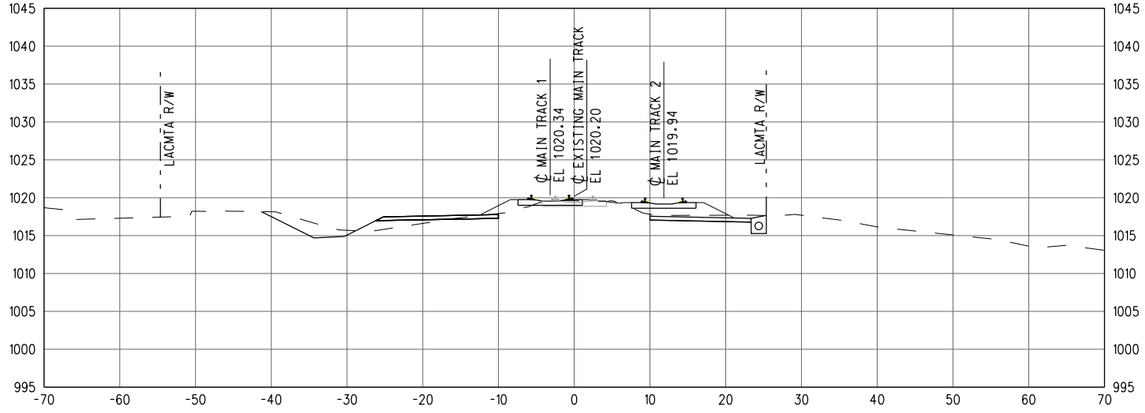

1536+00



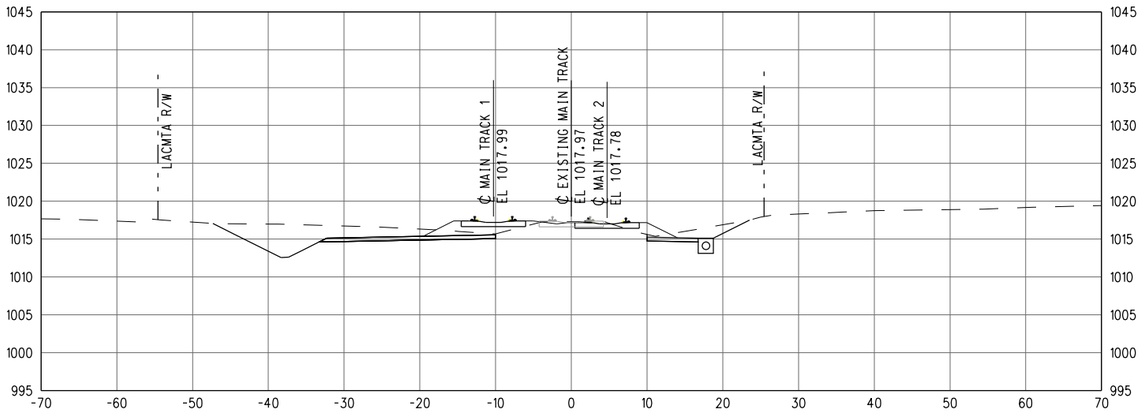

1539+00



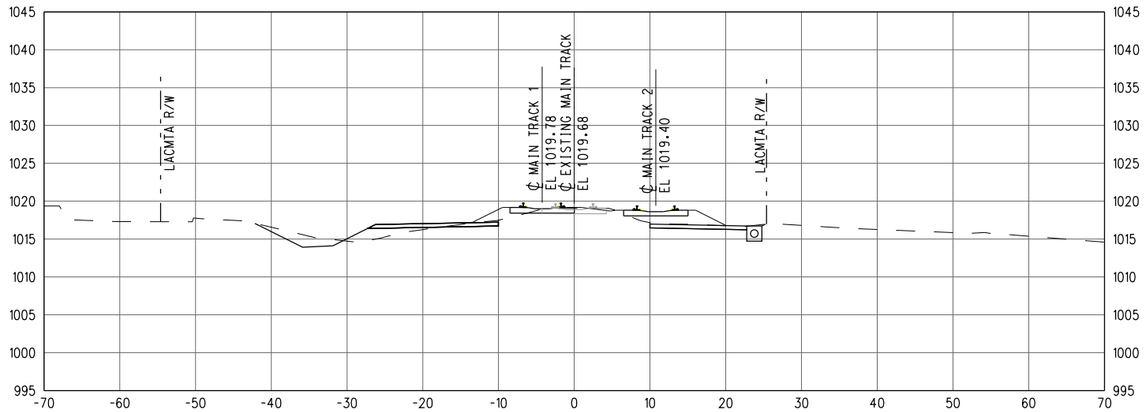

1535+00




1538+00




1534+00




1537+00

10' 0 10' 20'

GRAPHIC SCALE: 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

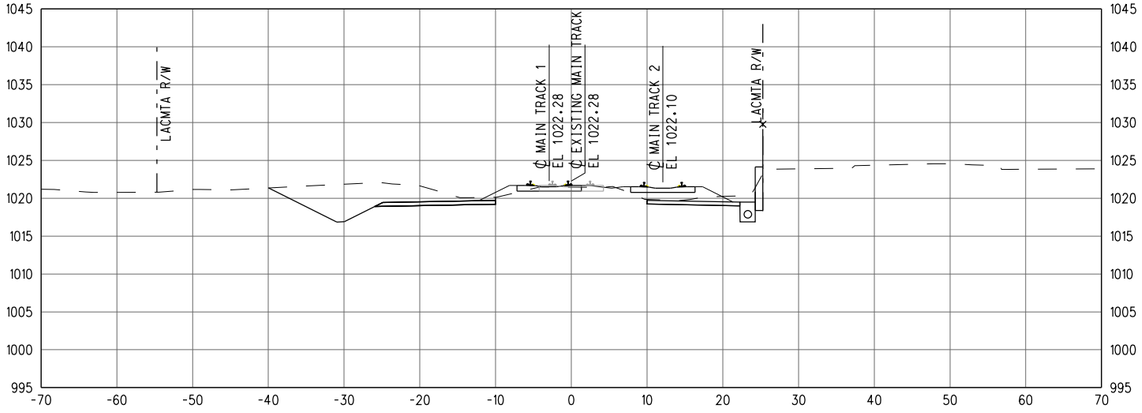
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

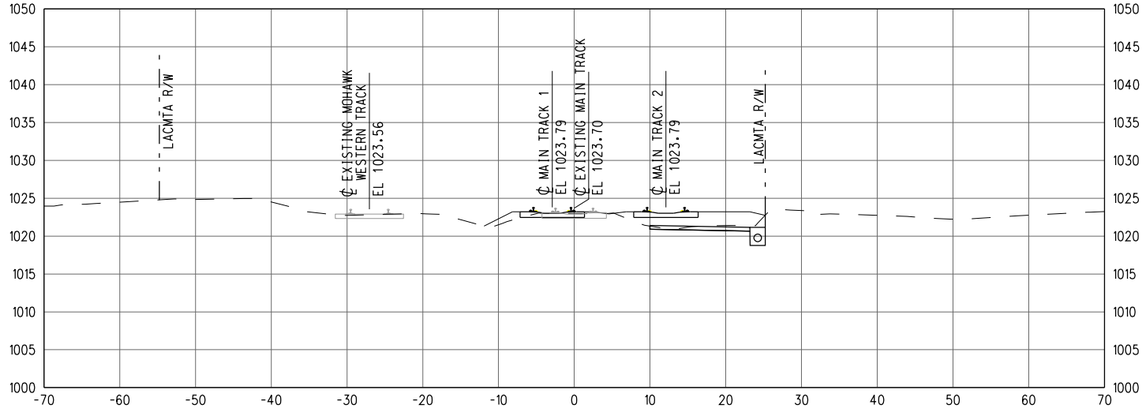
**CROSS SECTIONS EXMT 1534+00 TO EXMT 1539+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-024 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 86 |

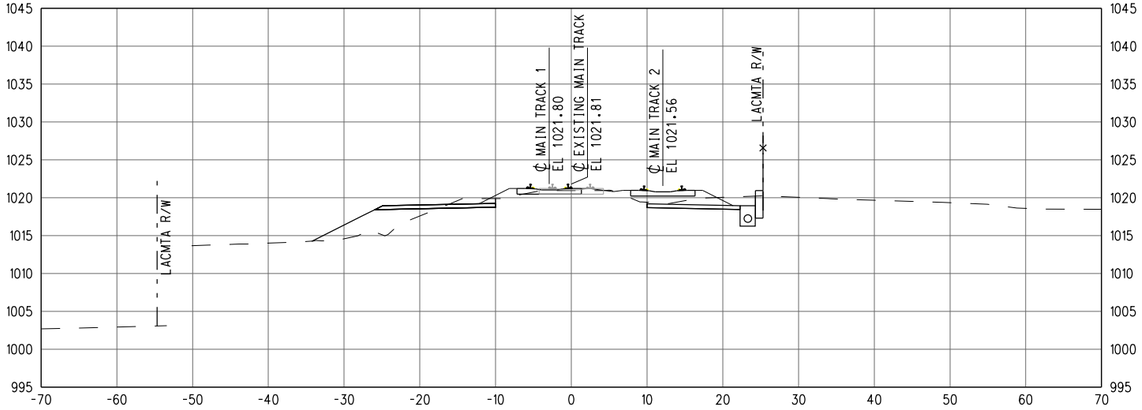
ShapirJa 6/27/2017 3:05:40 PM $FILE$



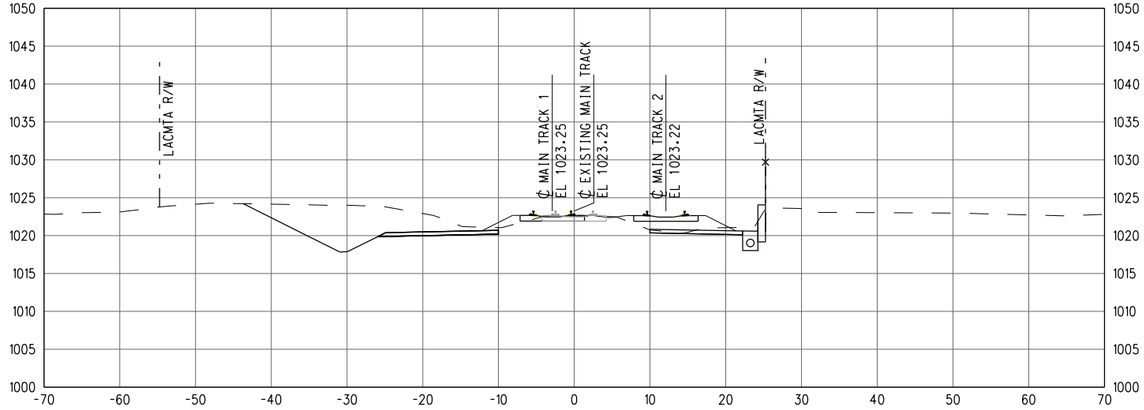

1542+00



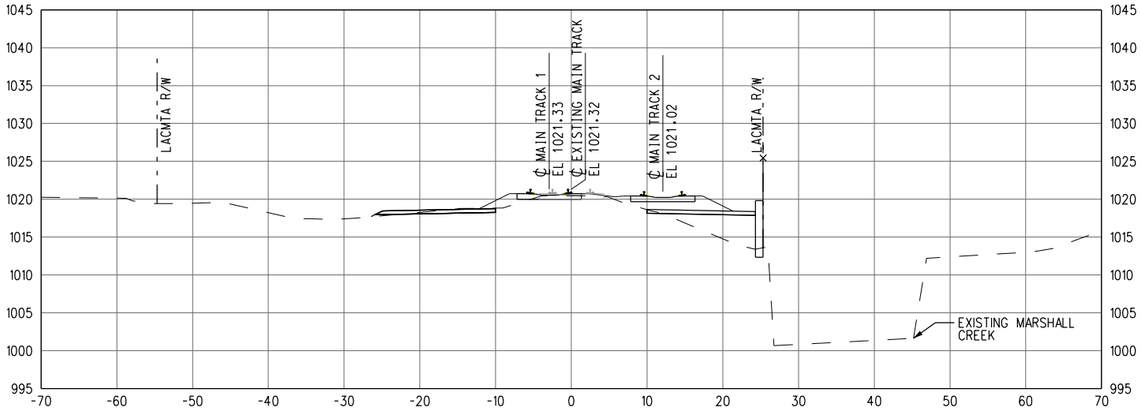

1545+00



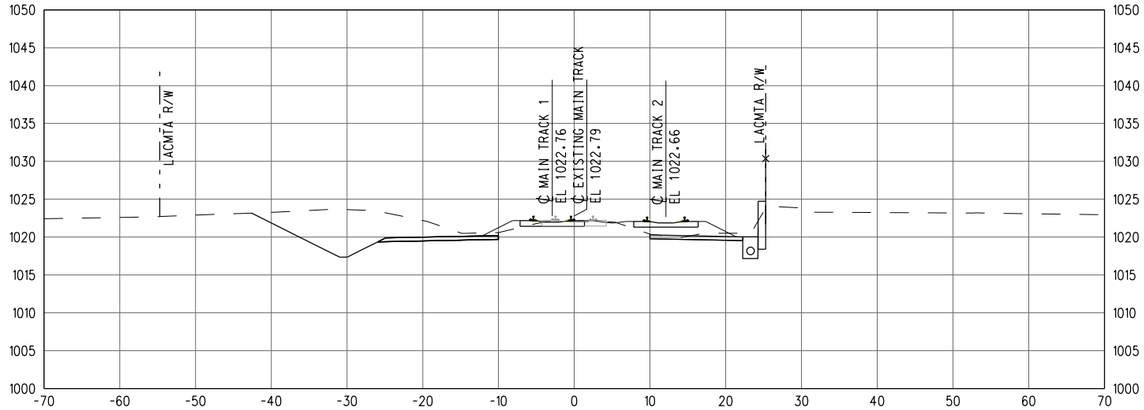

1541+00




1544+00




1540+00




1543+00

GRAPHIC SCALE: 10' 0 10' 20' — 1" = 10'

ShapirJa 6/27/2017 3:05:40 PM $FILE$

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

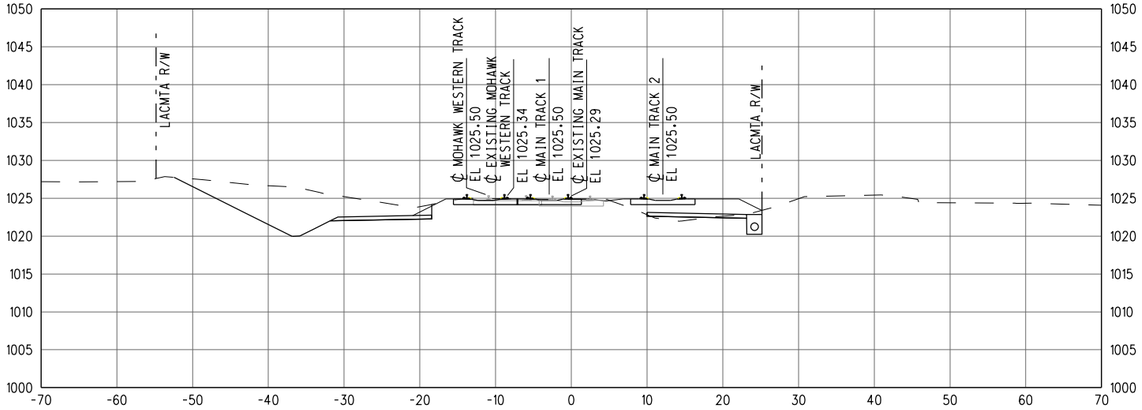
METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

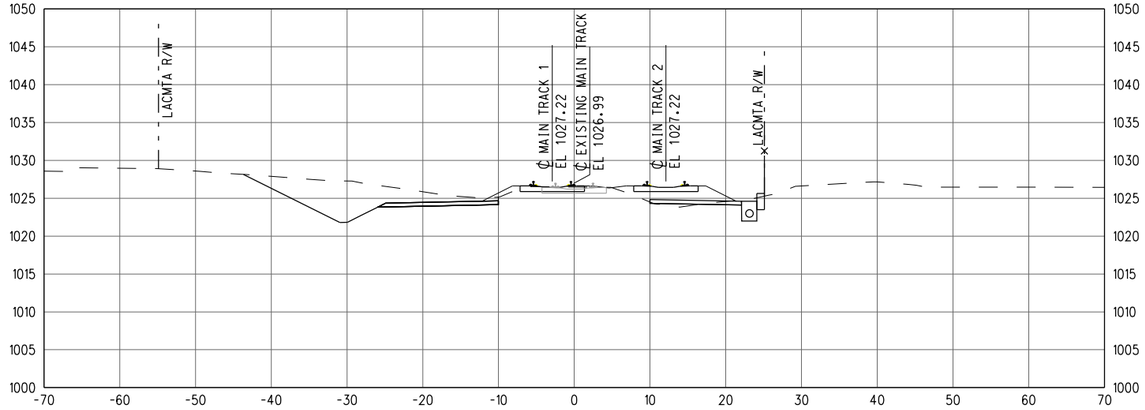
**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**CROSS SECTIONS EXMT 1540+00 TO EXMT 1545+00**

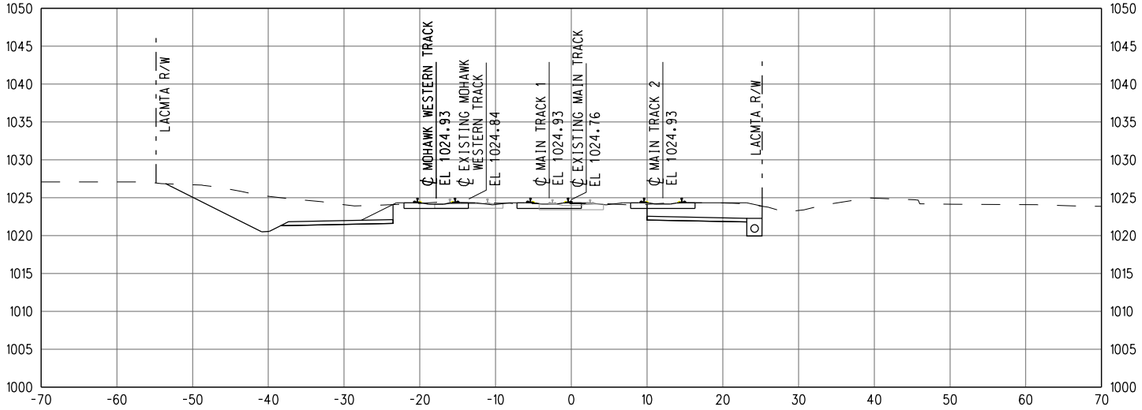
| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-025 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 87 |



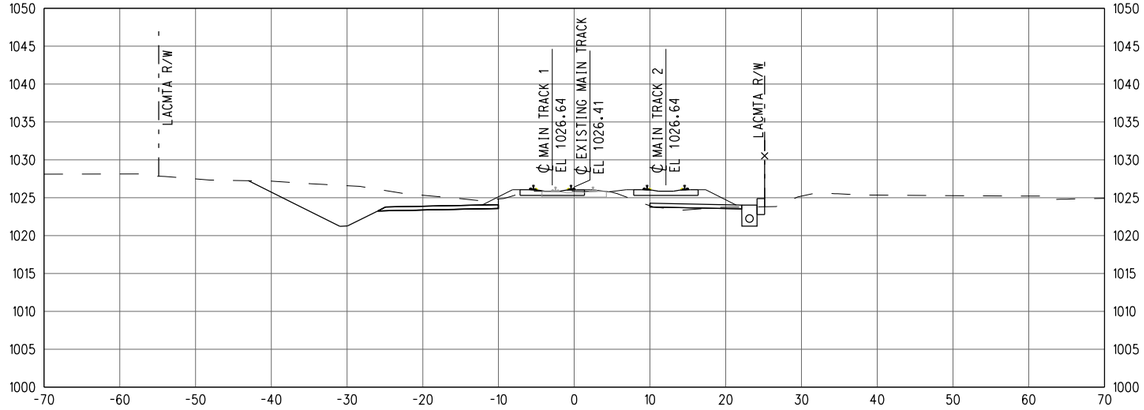

1548+00



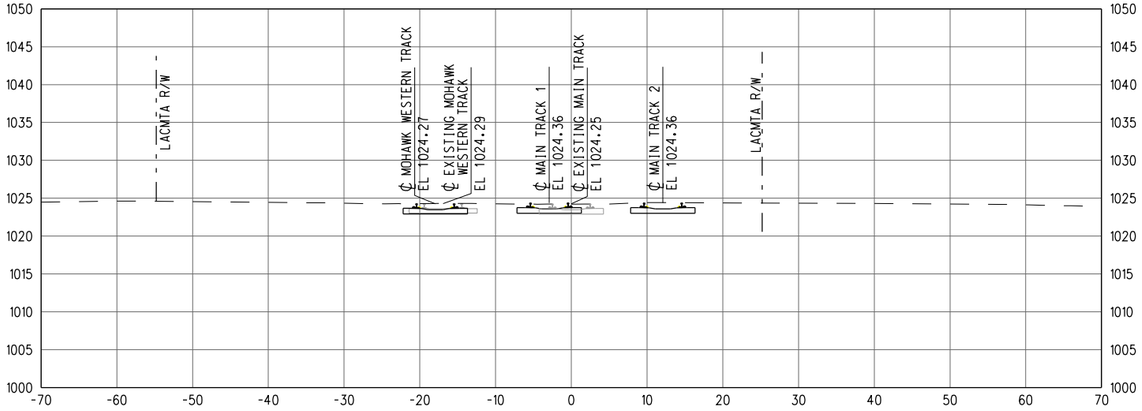

1551+00



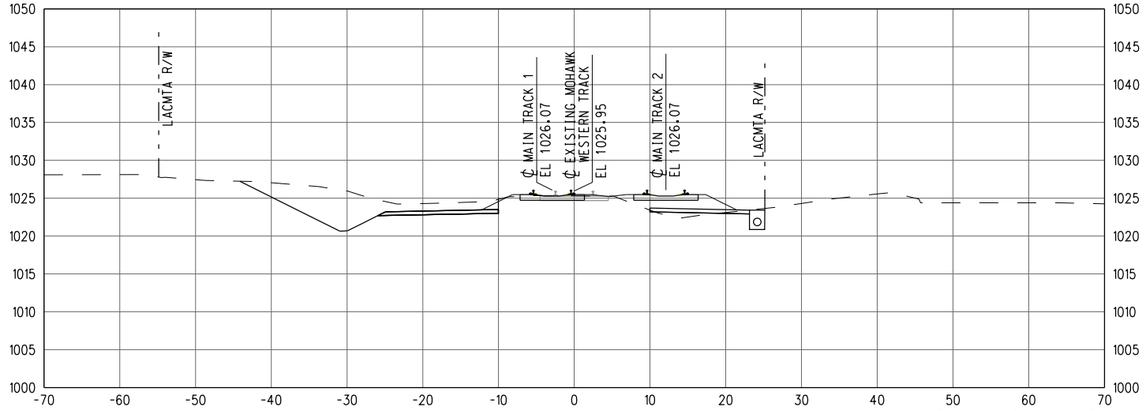

1547+00




1550+00




1546+00




1549+00

GRAPHIC SCALE: 10' 0 10' 20' — 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY JS
DRAWN BY JS
CHECKED BY PM
IN CHARGE MG
DATE 7-1-17

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

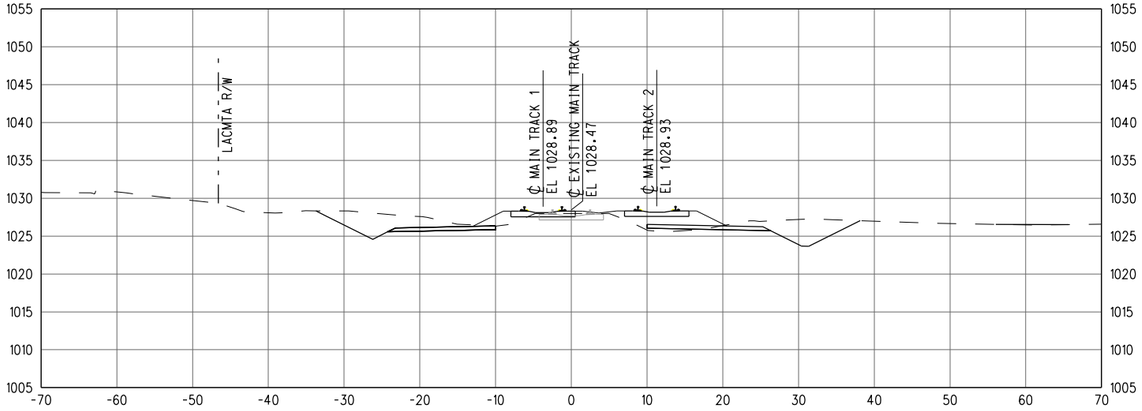
JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

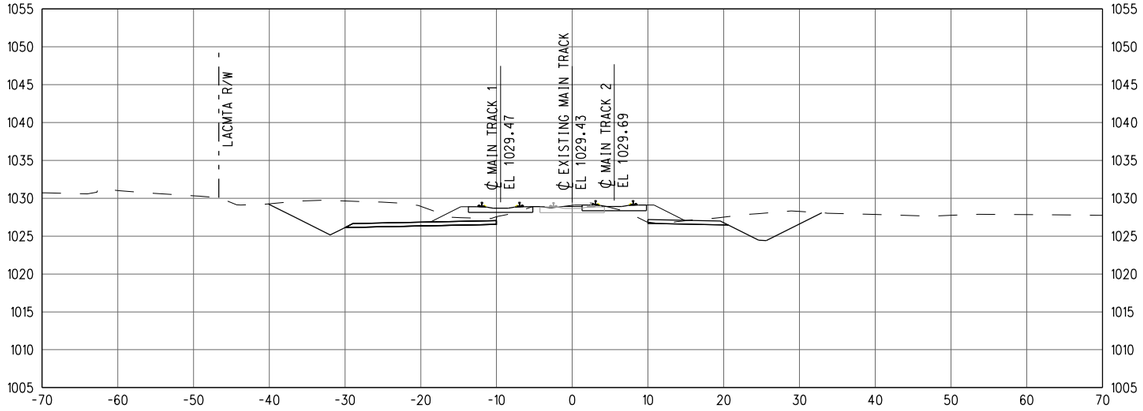
**CROSS SECTIONS EXMT 1546+00 TO EXMT 1551+00**

CONTRACT NO AE4555000241519565
DRAWING NO TX-026 REV
SCALE AS SHOWN
SHEET NO 88

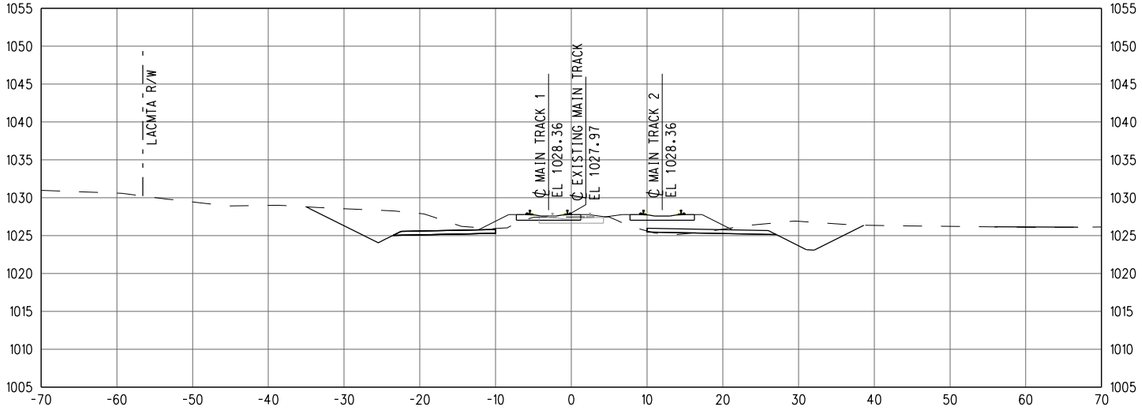
ShapirJa 6/27/2017 3:05:40 PM $FILE$



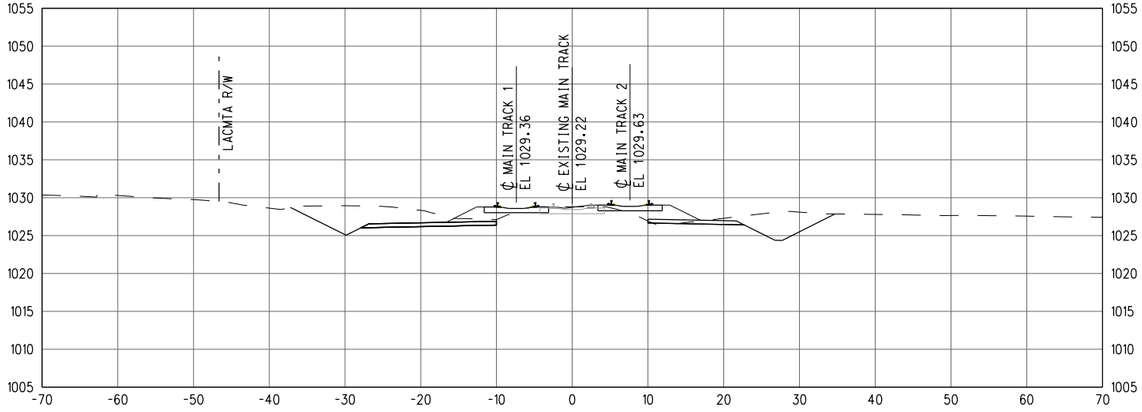

1554+00



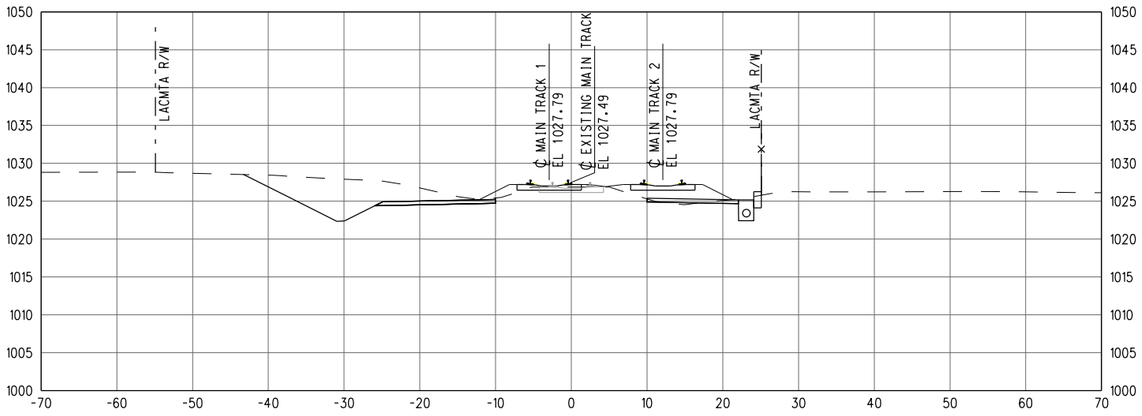

1557+00



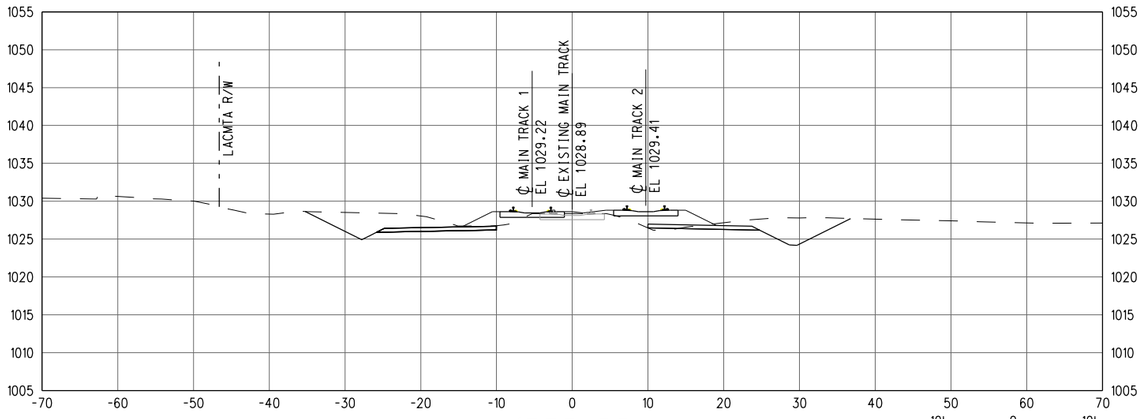

1553+00




1556+00




1552+00




1555+00

10' 0 10' 20'

GRAPHIC SCALE: 1" = 10'

Know what's **below.** **Call** before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**CROSS SECTIONS EXMT 1552+00 TO EXMT 1557+00**

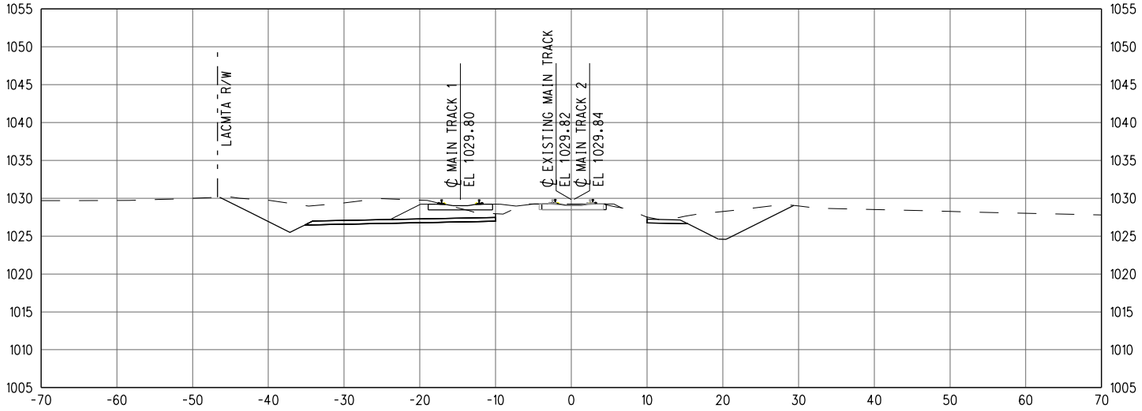
CONTRACT NO AE4555000241519565

DRAWING NO TX-027 REV

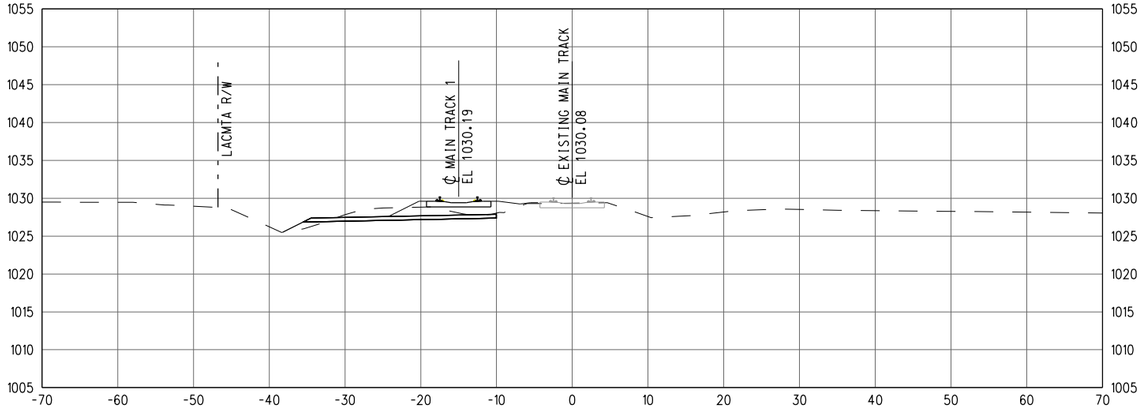
SCALE AS SHOWN

SHEET NO 89

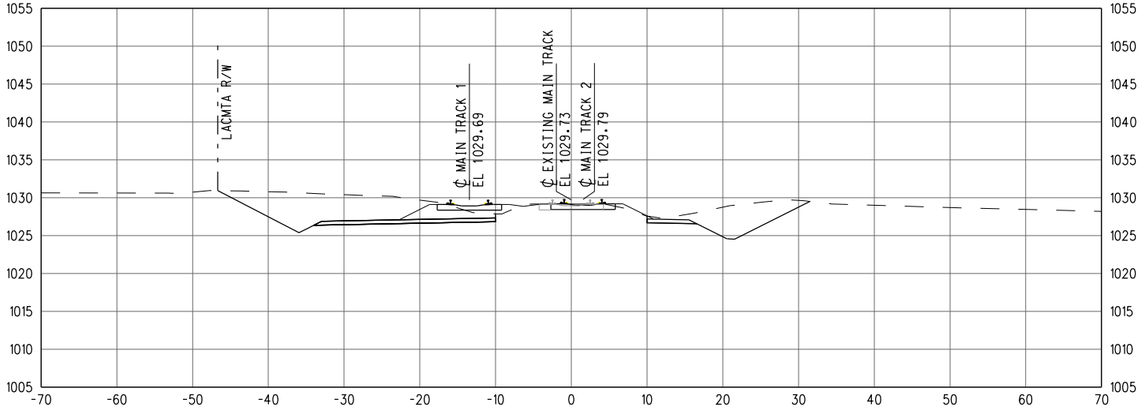
ShapirJa 6/27/2017 3:05:41 PM $FILEL$



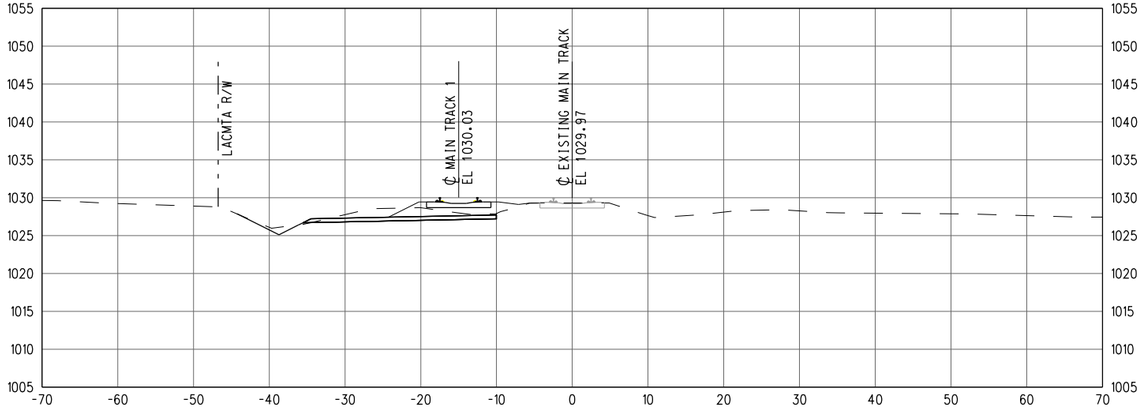

1560+00



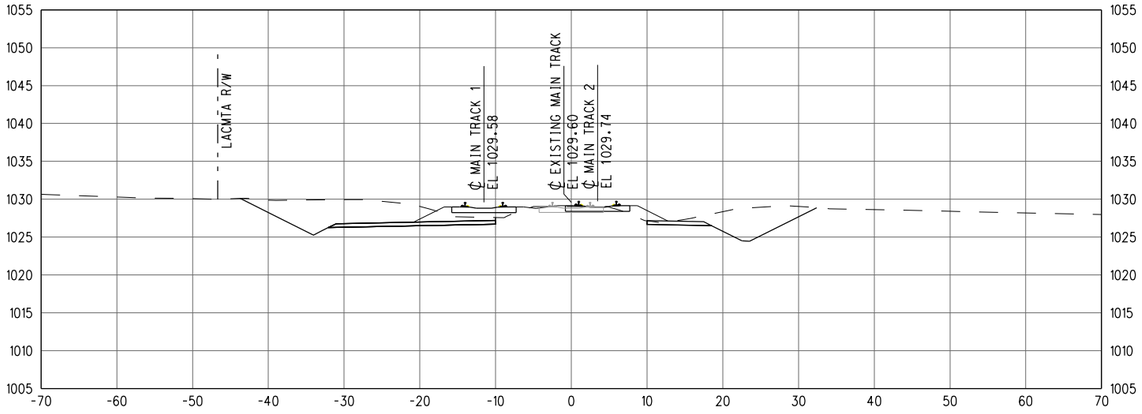

1563+00



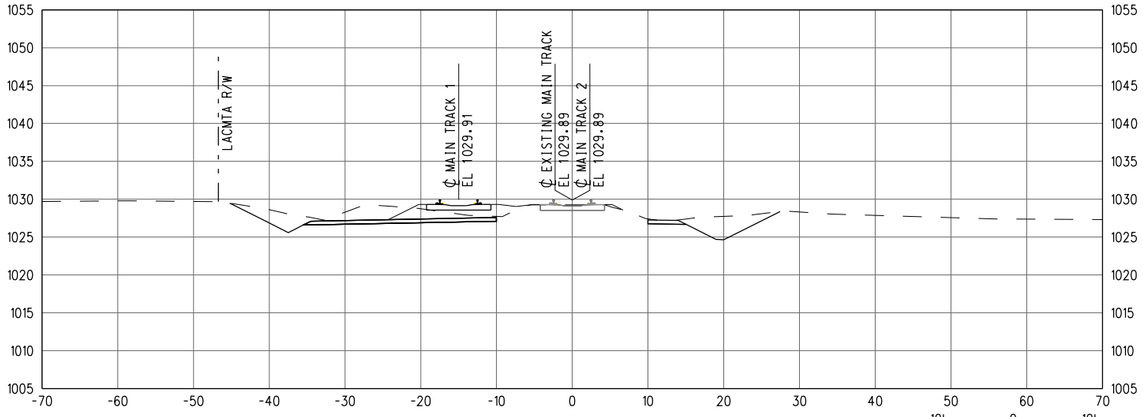

1559+00




1562+00




1558+00




1561+00

GRAPHIC SCALE: 10' 0 10' 20' — 1" = 10'

811 Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

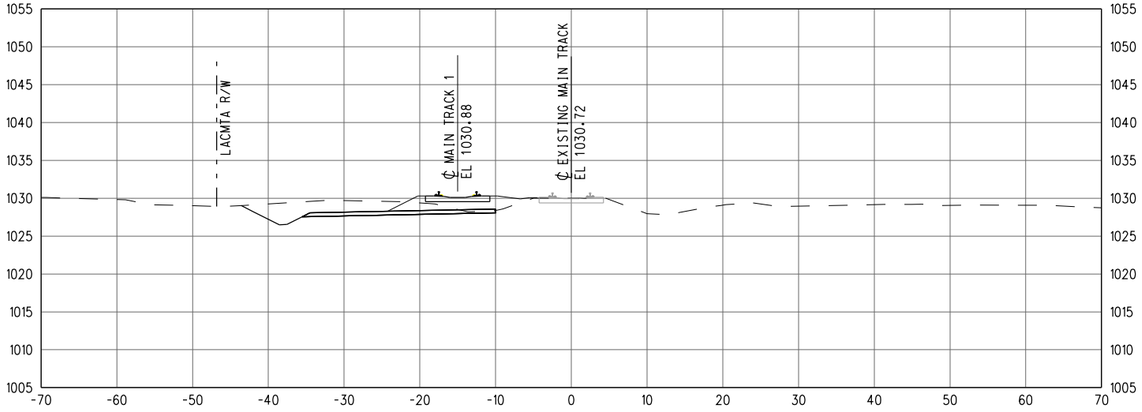
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

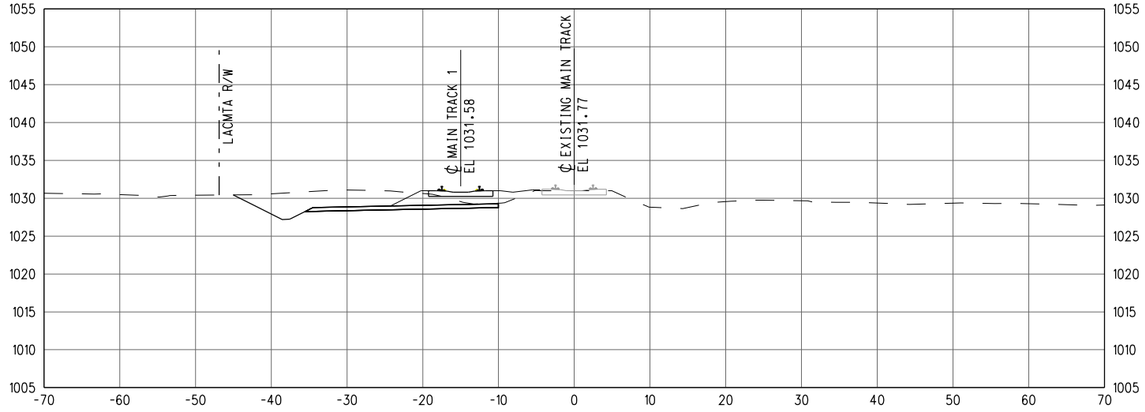
**CROSS SECTIONS EXMT 1558+00 TO EXMT 1563+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-028 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 90 |

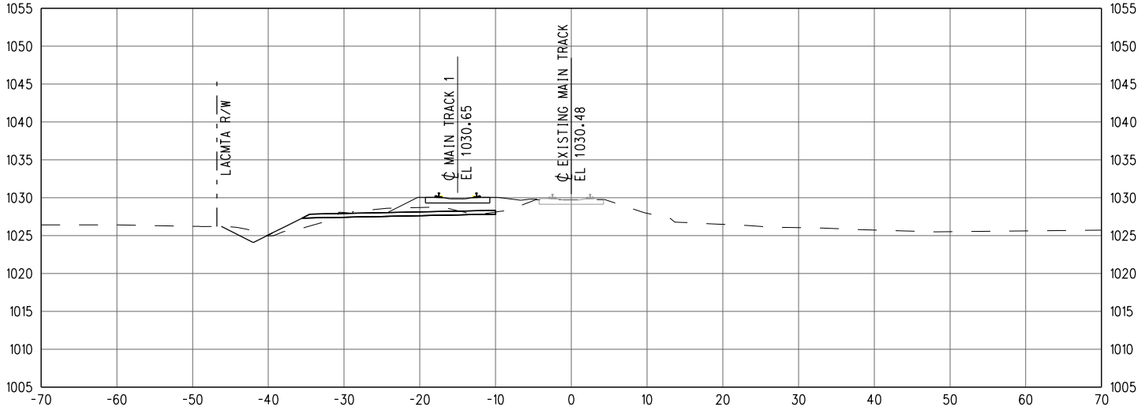
ShapirJa 6/27/2017 3:05:41 PM $FILEL$



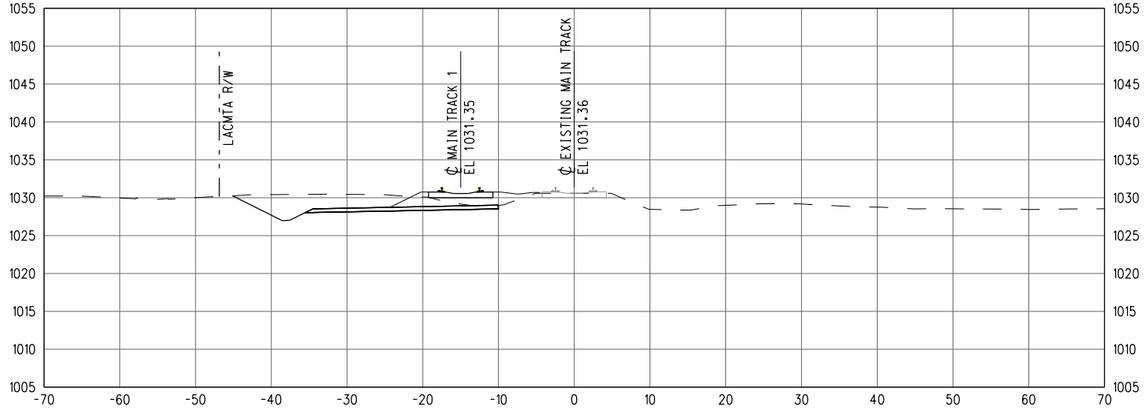

1566+00



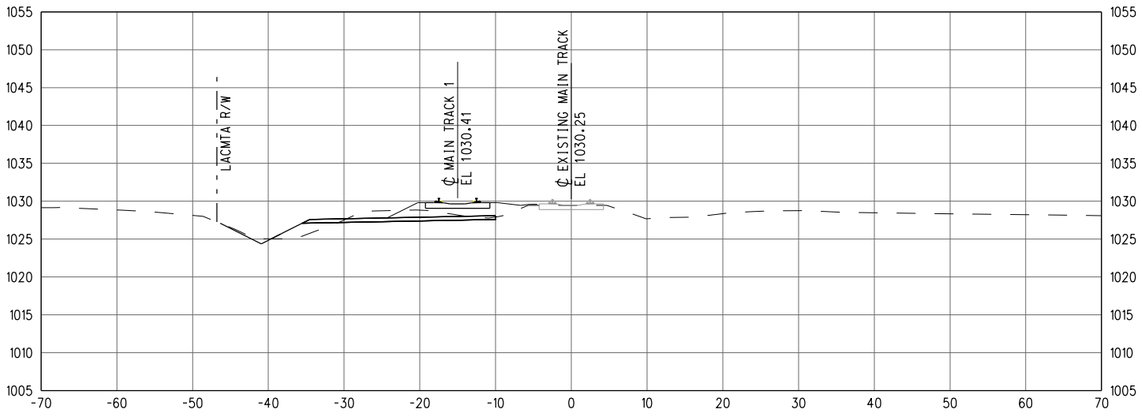

1569+00



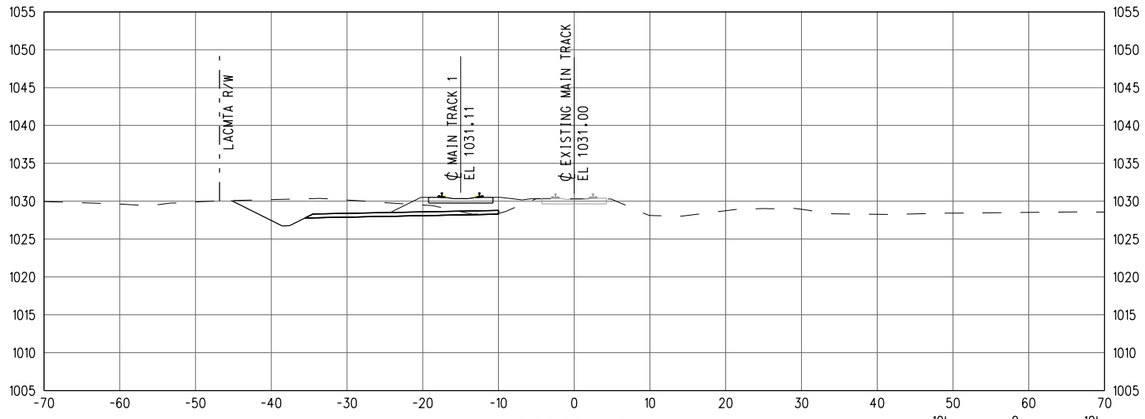

1565+00




1568+00




1564+00




1567+00

GRAPHIC SCALE: 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**CROSS SECTIONS EXMT 1564+00 TO EXMT 1569+00**

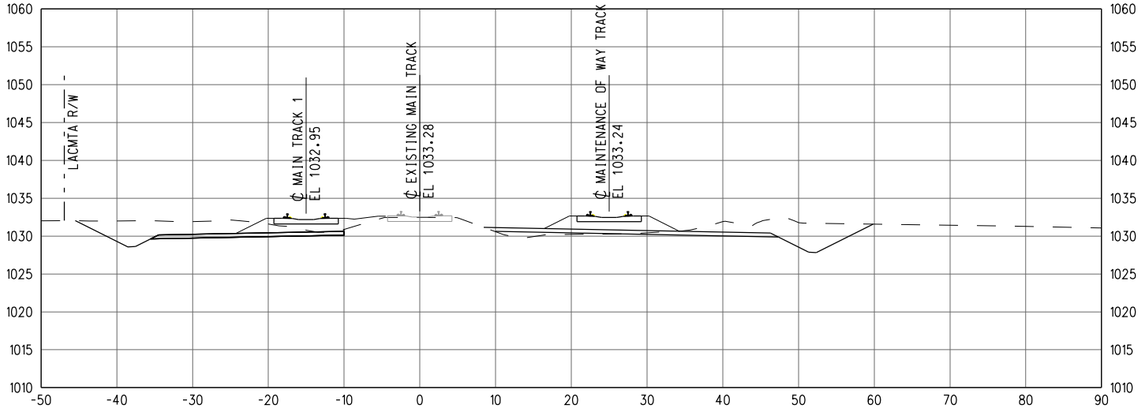
CONTRACT NO AE4555000241519565

DRAWING NO TX-029 REV

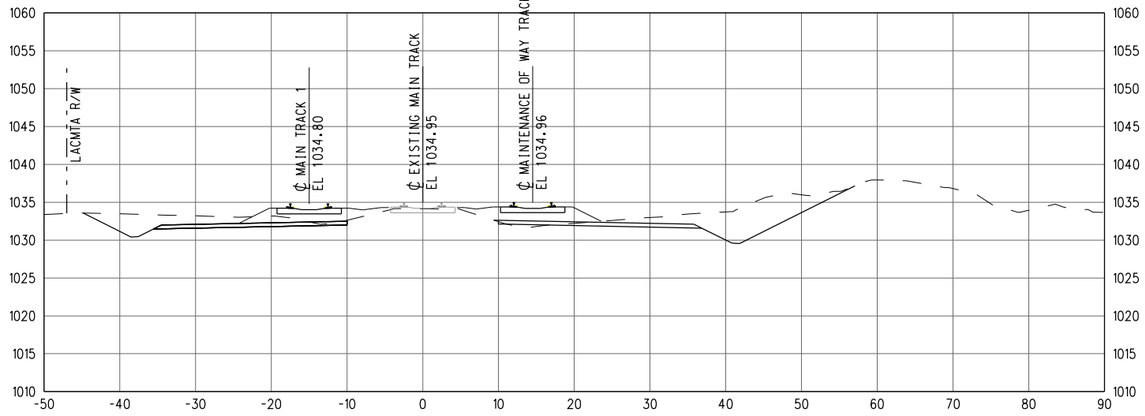
SCALE AS SHOWN

SHEET NO 91

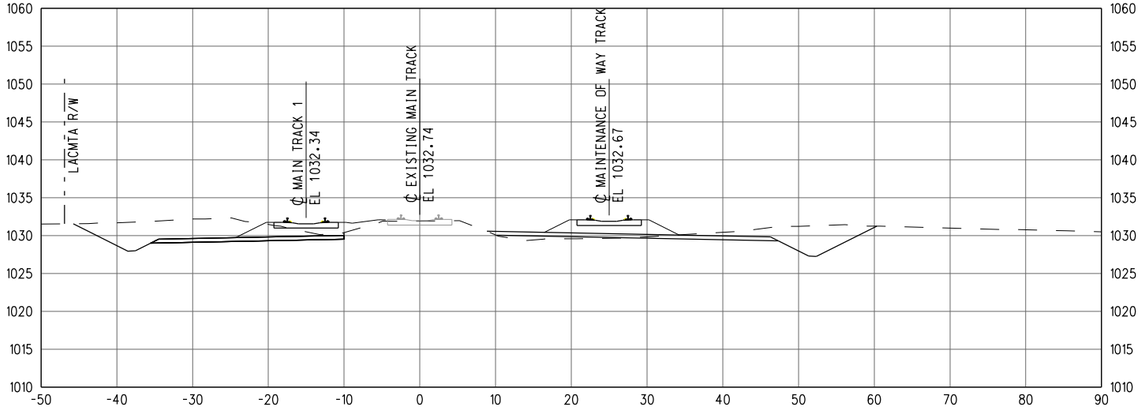
ShapirJa 6/27/2017 3:05:41 PM $FILEL$



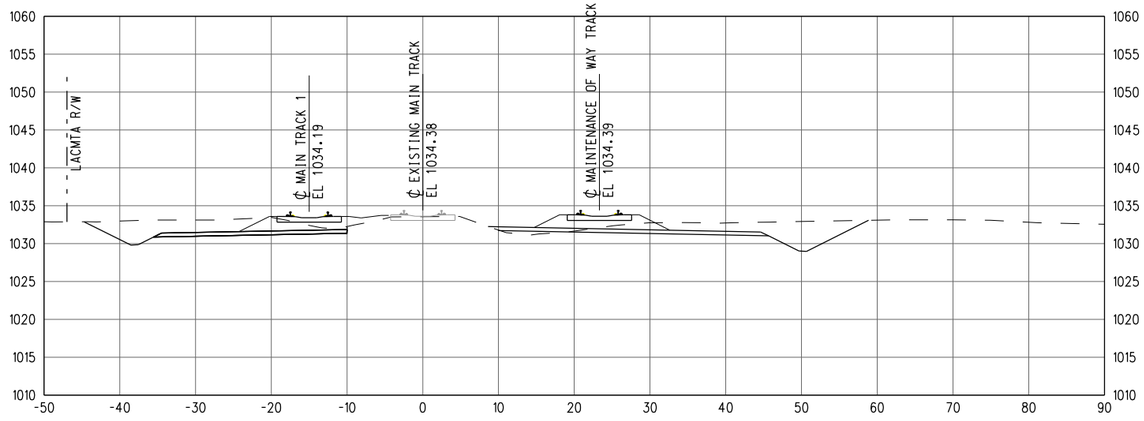

1572+00



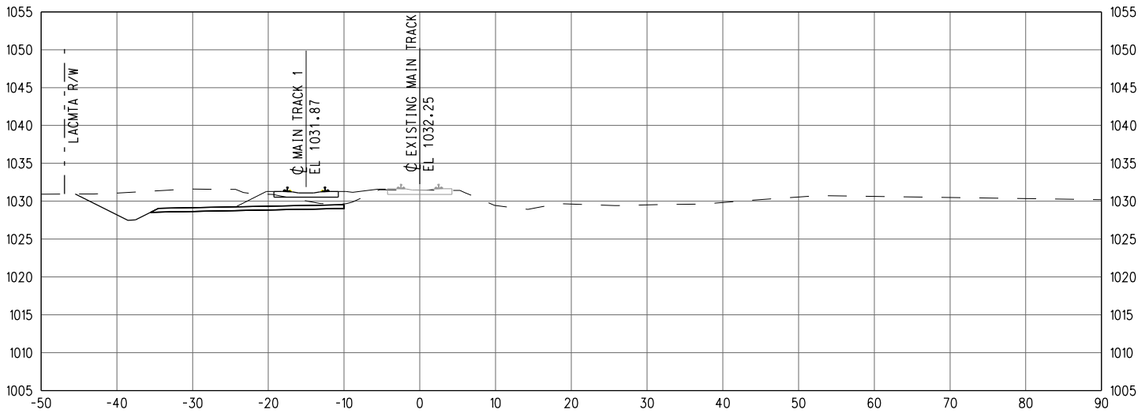

1575+00



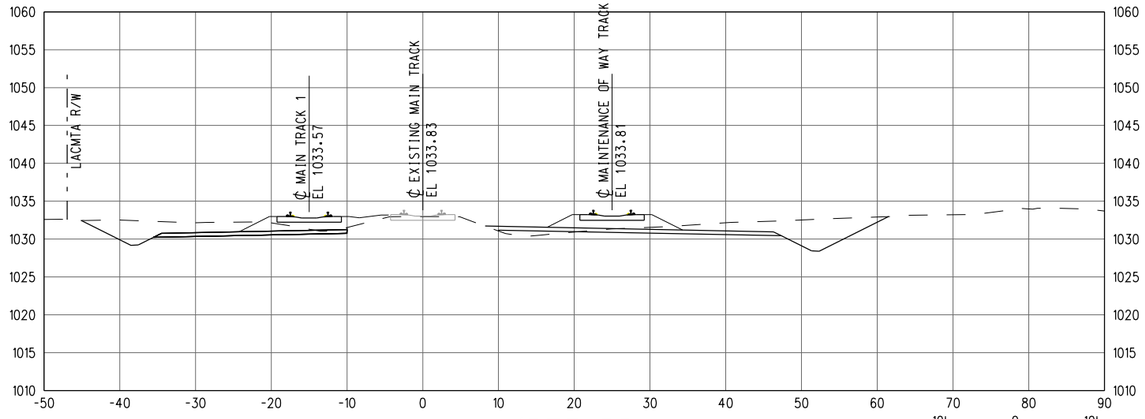

1571+00




1574+00




1570+00




1573+00

GRAPHIC SCALE: 10' 0 10' 20' — 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

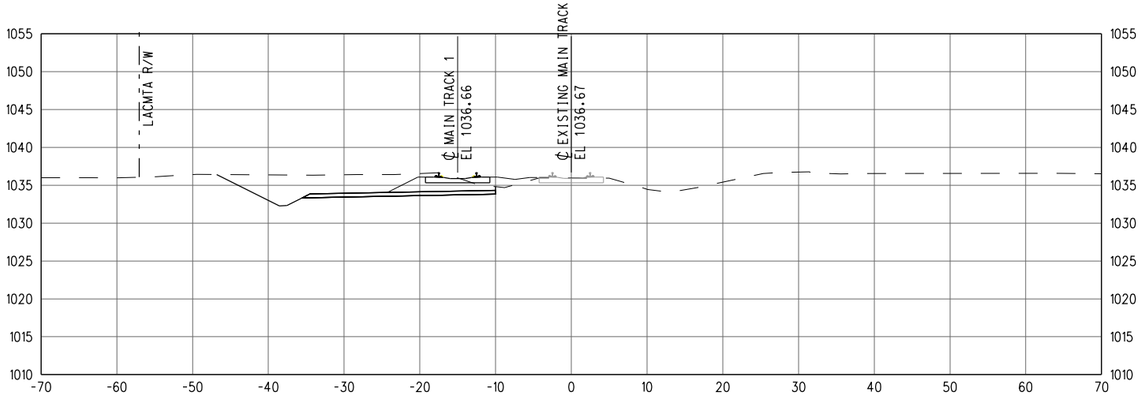
JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

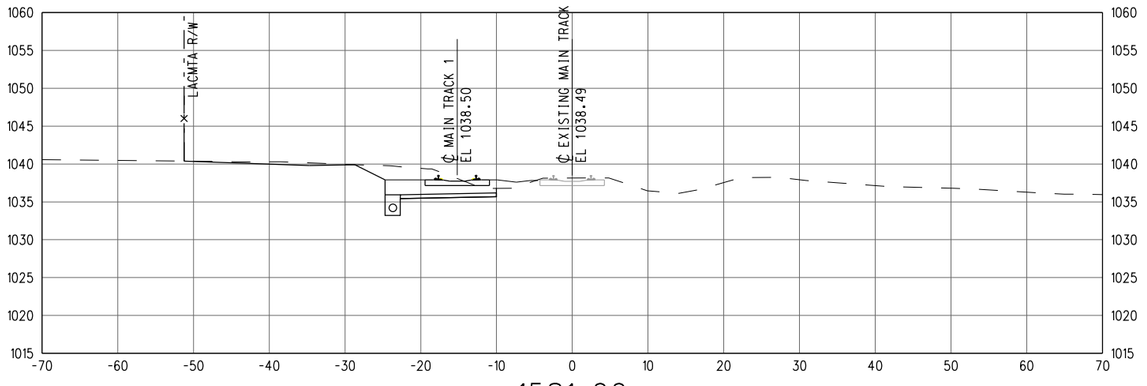
**CROSS SECTIONS EXMT 1570+00 TO EXMT 1575+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-030 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 92 |

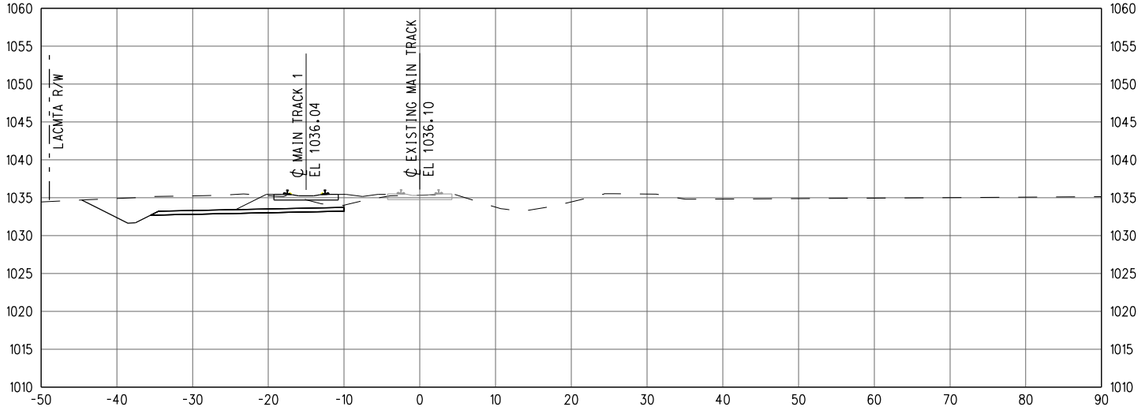
ShapirJa 6/27/2017 3:05:41 PM $FILEL$



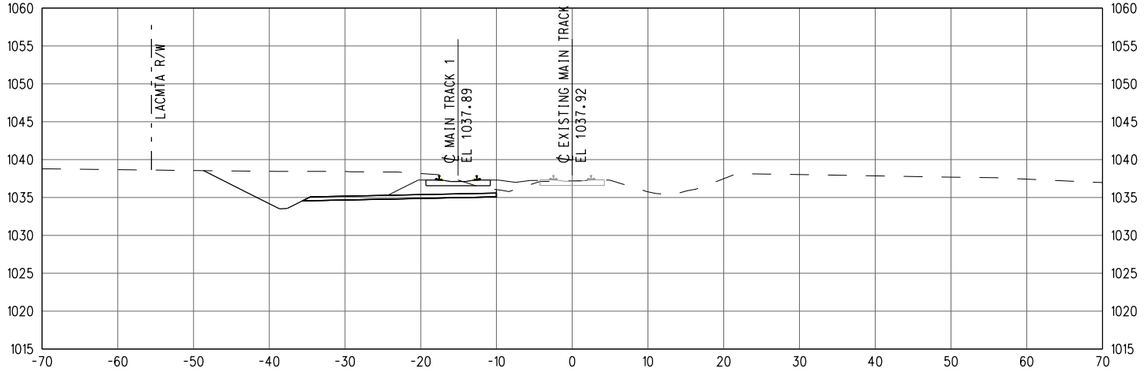

1578+00



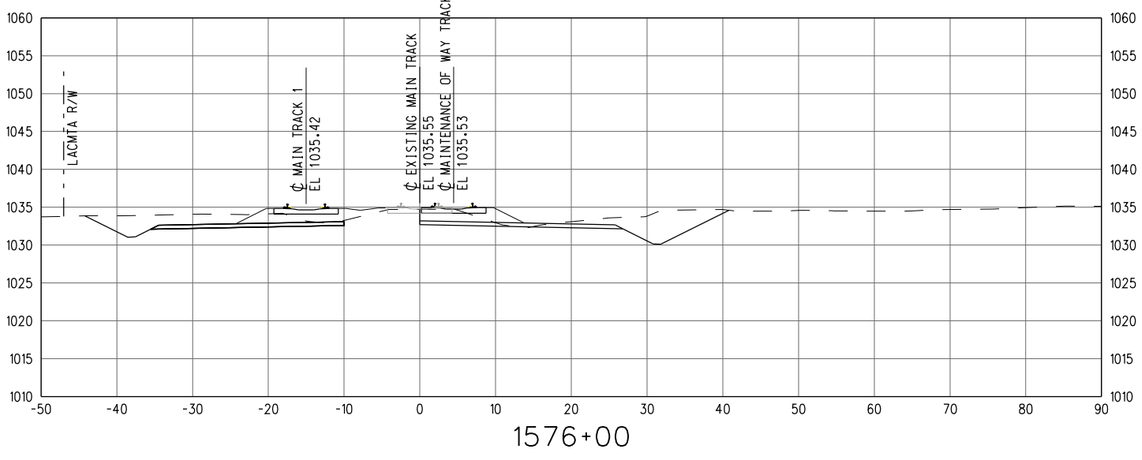

1581+00



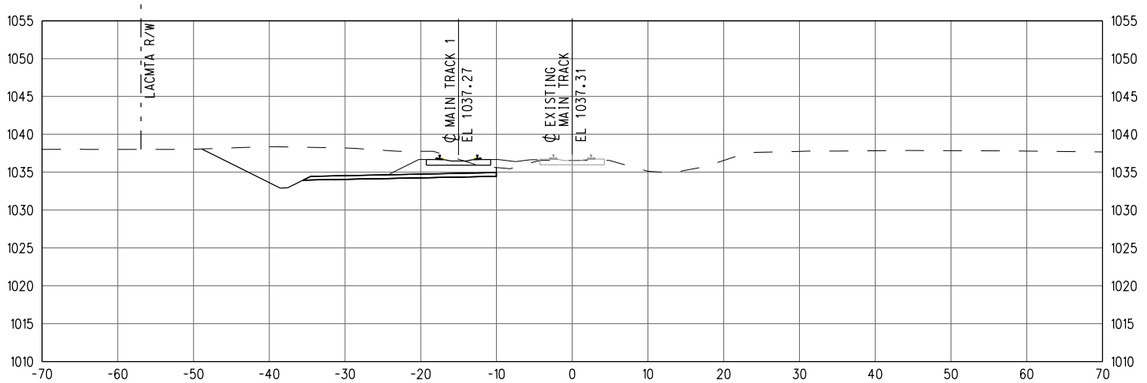

1577+00




1580+00




1576+00




1579+00

10' 0 10' 20'

GRAPHIC SCALE: 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**CROSS SECTIONS EXMT 1576+00 TO EXMT 1581+00**

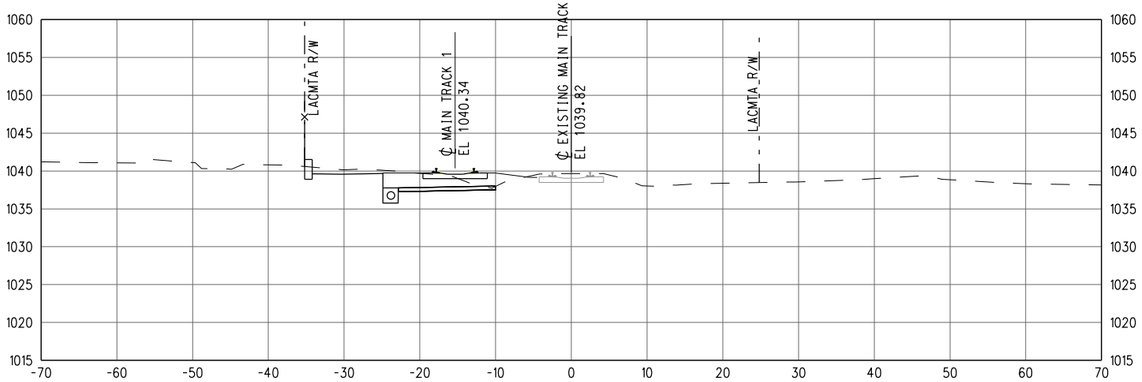
CONTRACT NO AE4555000241519565

DRAWING NO TX-031 REV

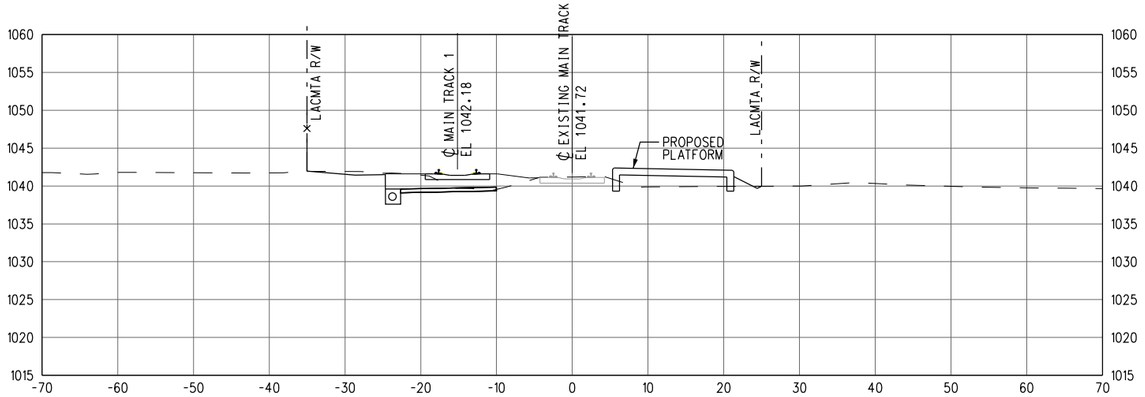
SCALE AS SHOWN

SHEET NO 93

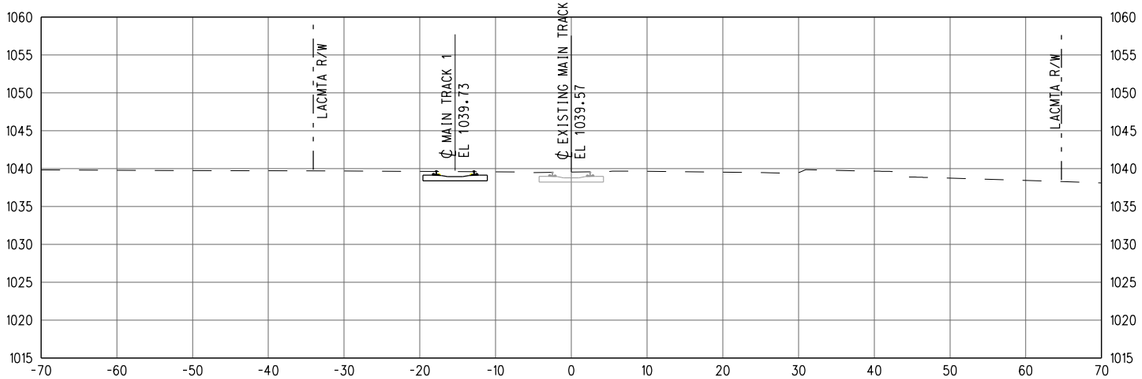
ShapirJa 6/27/2017 3:05:41 PM $FILE$



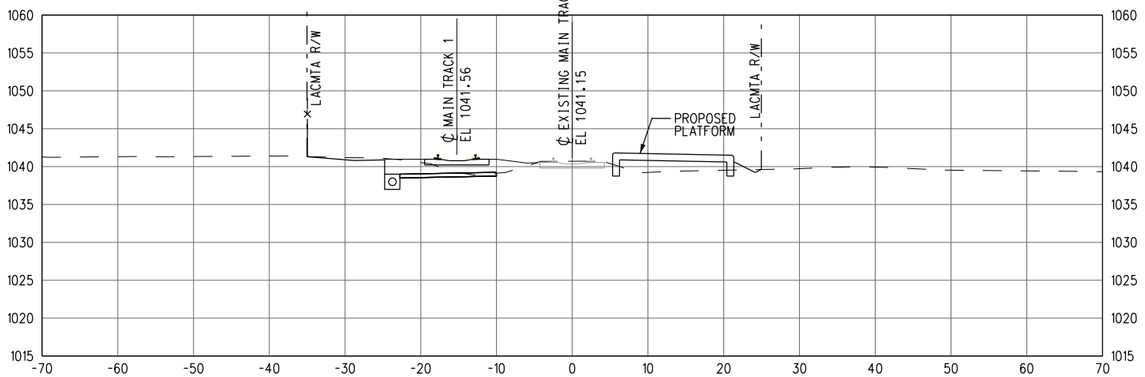

1584+00



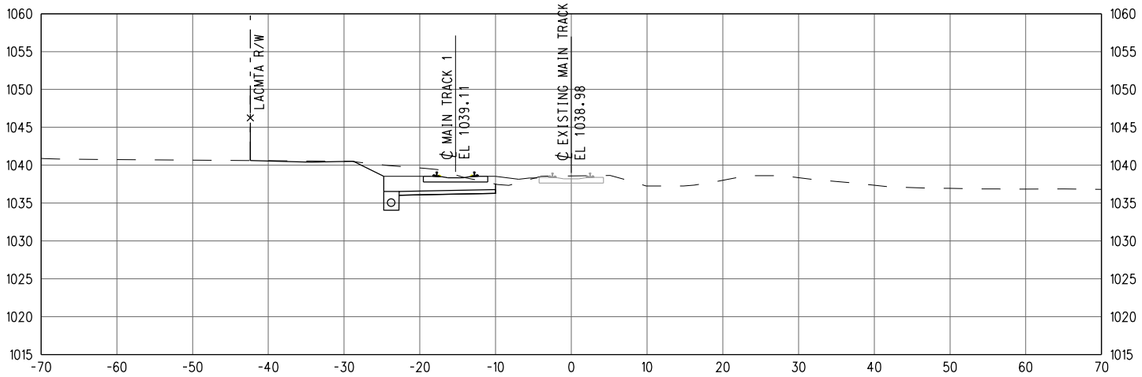

1587+00



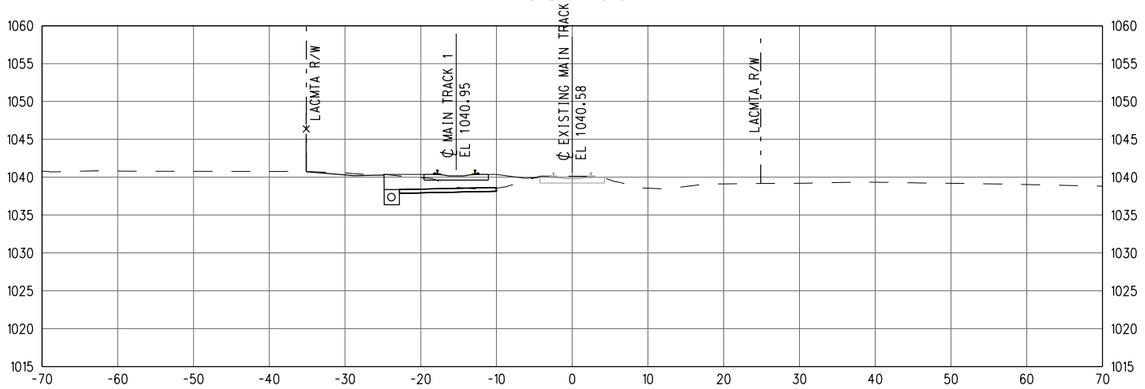

1583+00




1586+00




1582+00




1585+00

GRAPHIC SCALE: 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY: JS
DRAWN BY: JS
CHECKED BY: PM
IN CHARGE: MG
DATE: 7-1-17

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

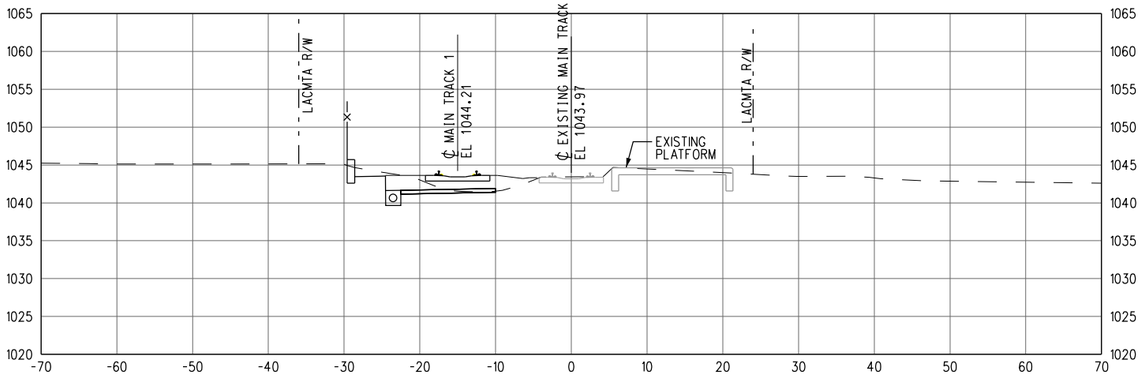
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

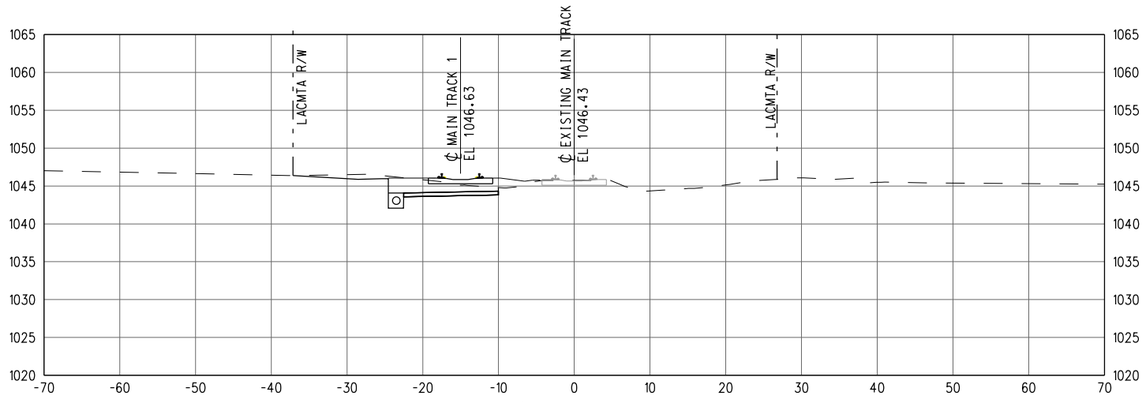
**CROSS SECTIONS EXMT 1582+00 TO EXMT 1587+00**

CONTRACT NO: AE4555000241519565
DRAWING NO: TX-032
REV:
SCALE: AS SHOWN
SHEET NO: 94

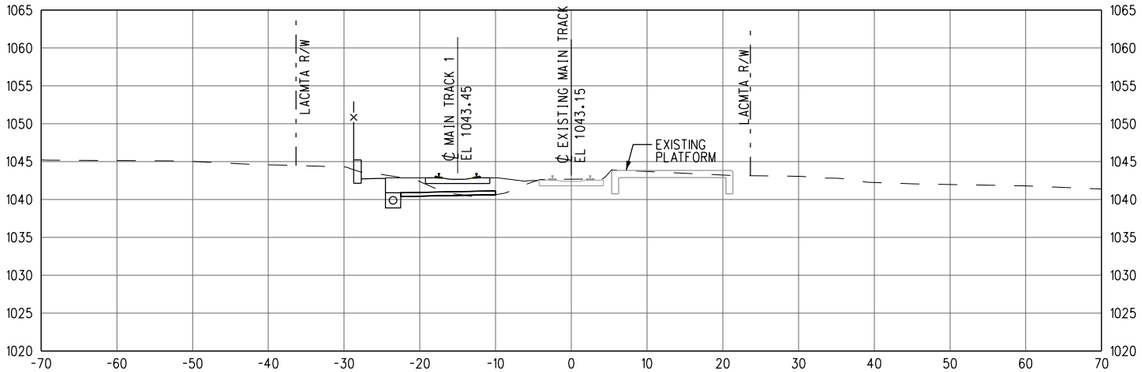
ShapirJa 6/27/2017 3:05:42 PM $FILEL$



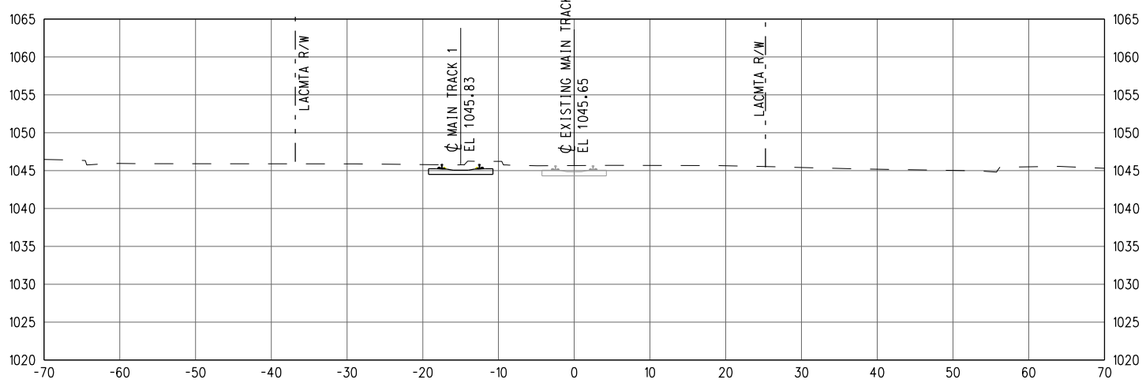

1590+00



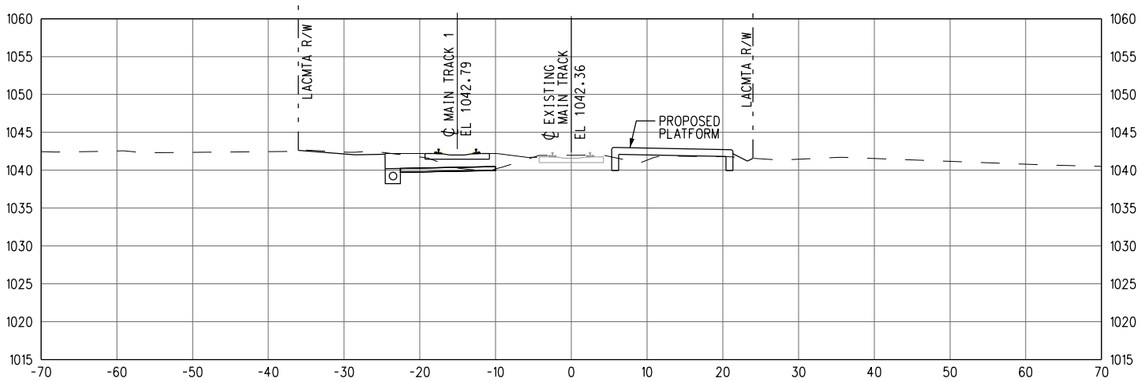

1593+00



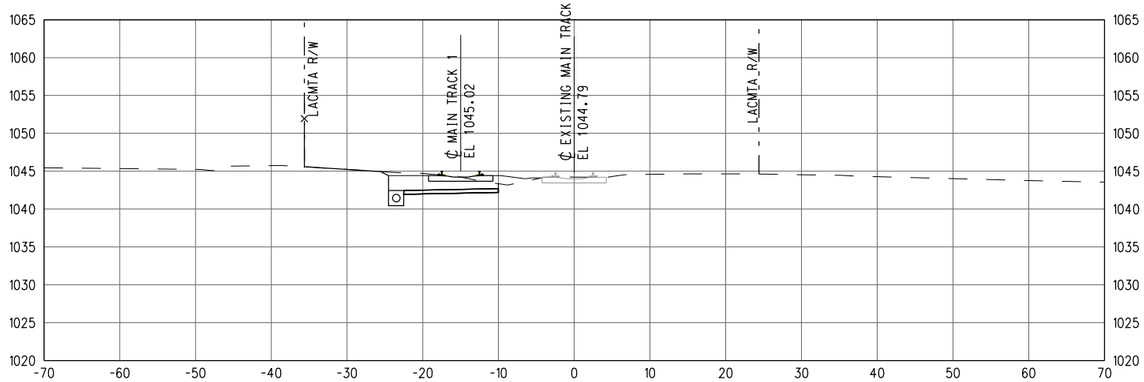

1589+00




1592+00




1588+00




1591+00

GRAPHIC SCALE: 10' 0 10' 20' — 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY: JS
DRAWN BY: JS
CHECKED BY: PM
IN CHARGE: MG
DATE: 7-1-17

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

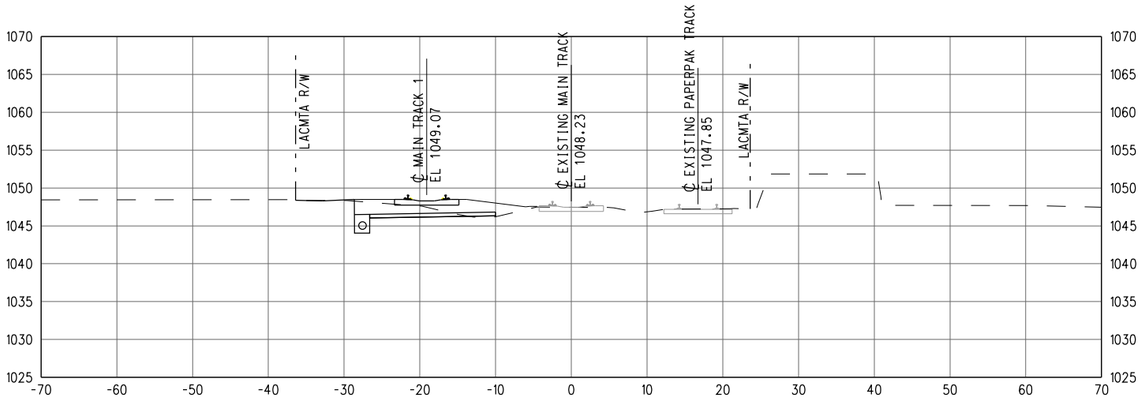
JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

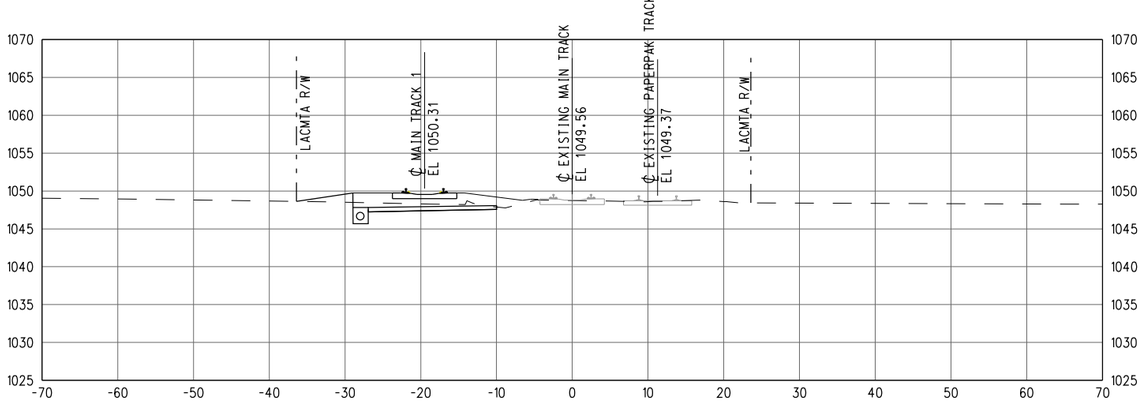
**CROSS SECTIONS EXMT 1588+00 TO EXMT 1593+00**

CONTRACT NO: AE4555000241519565
DRAWING NO: TX-033
REV:
SCALE: AS SHOWN
SHEET NO: 95

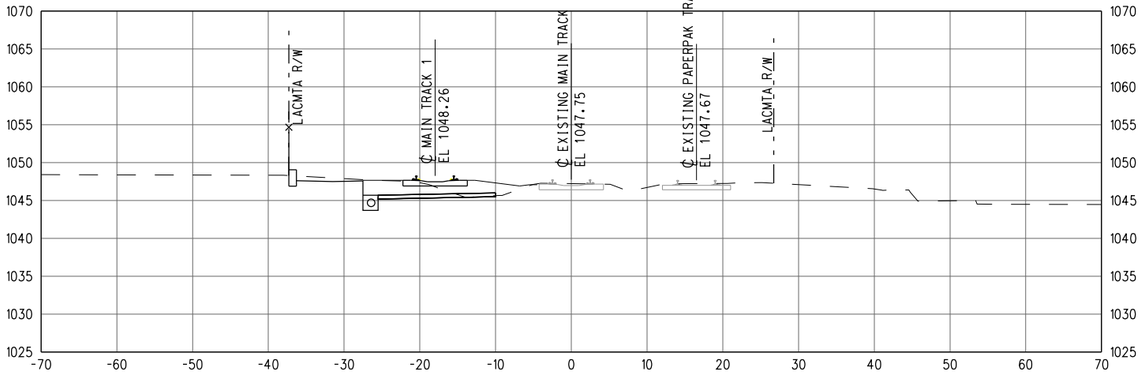
ShapirJa 6/27/2017 3:05:42 PM $FILE$



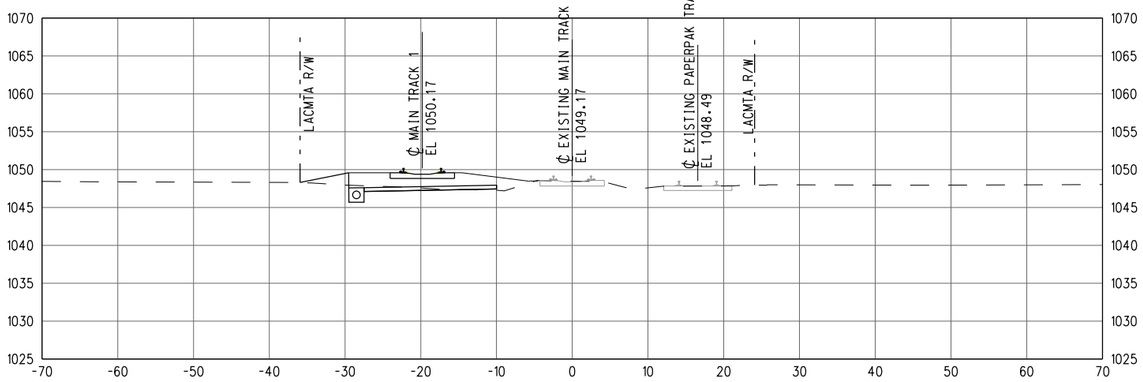

1596+00



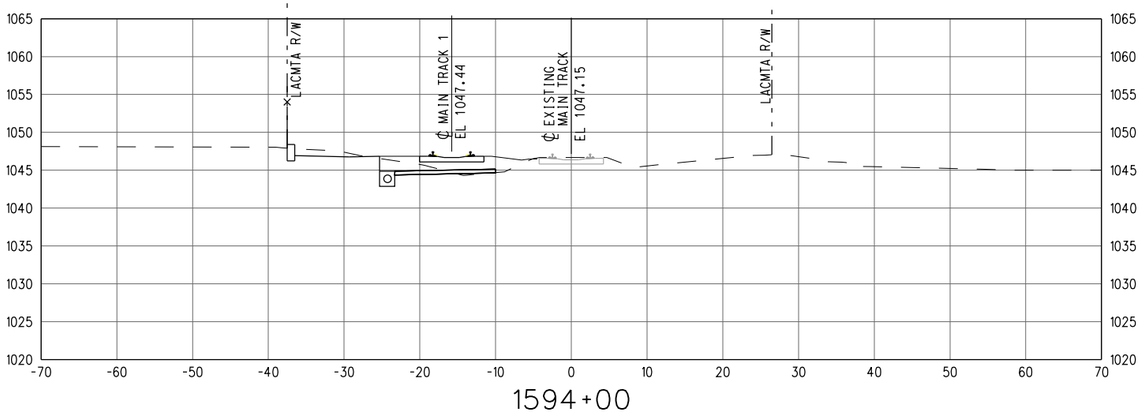

1599+00



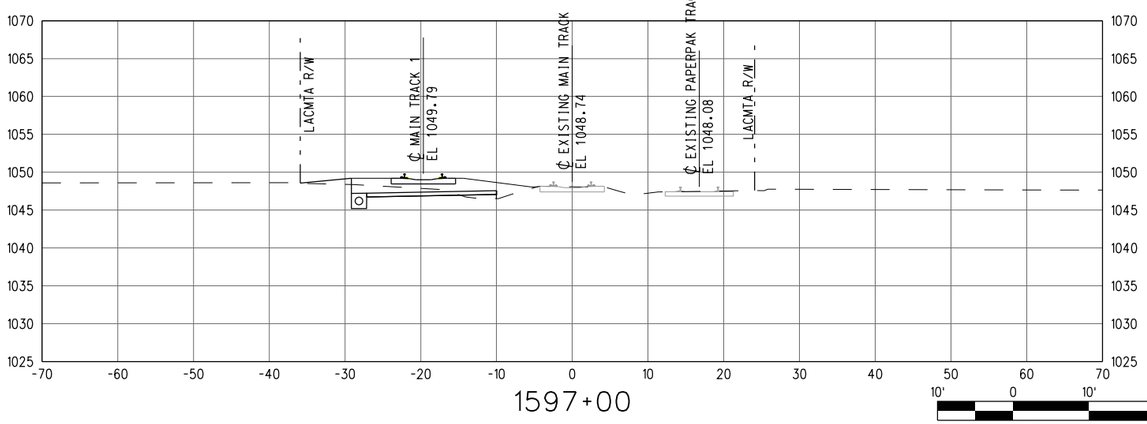

1595+00




1598+00




1594+00




1597+00

GRAPHIC SCALE: 10' 0 10' 20' — 1" = 10'

ShapirJa 6/27/2017 3:05:42 PM $FILE1$

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

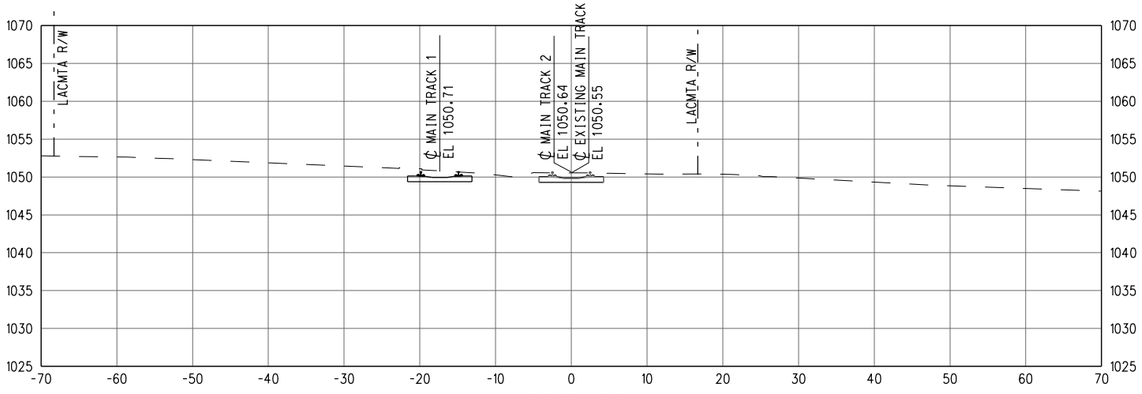
METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

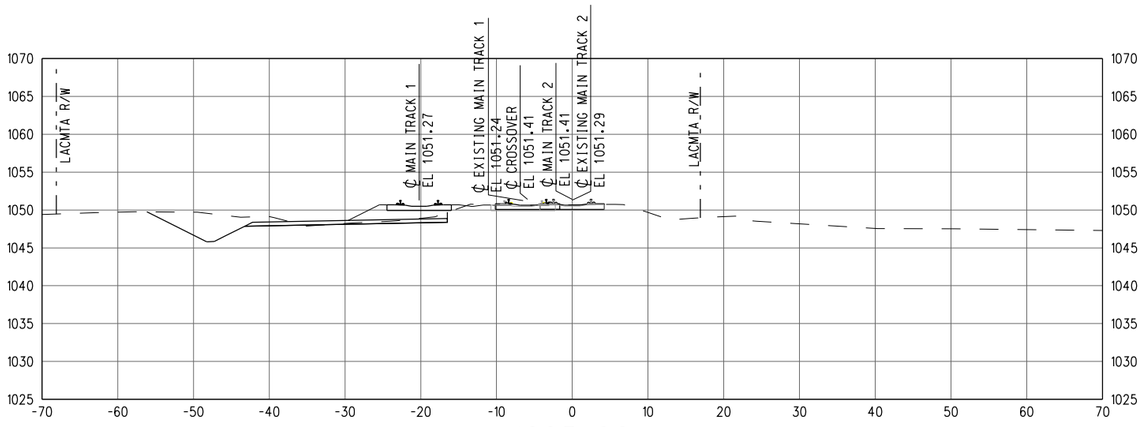
**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**CROSS SECTIONS EXMT 1594+00 TO EXMT 1599+00**

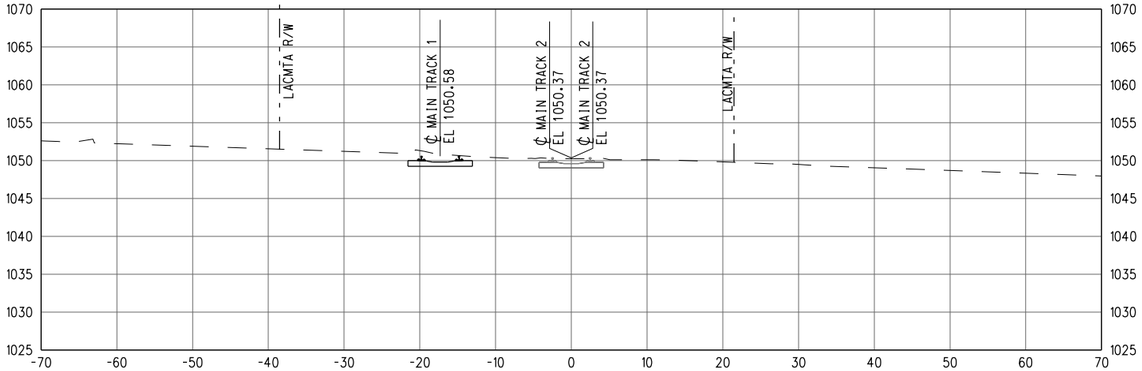
| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-034 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 96 |



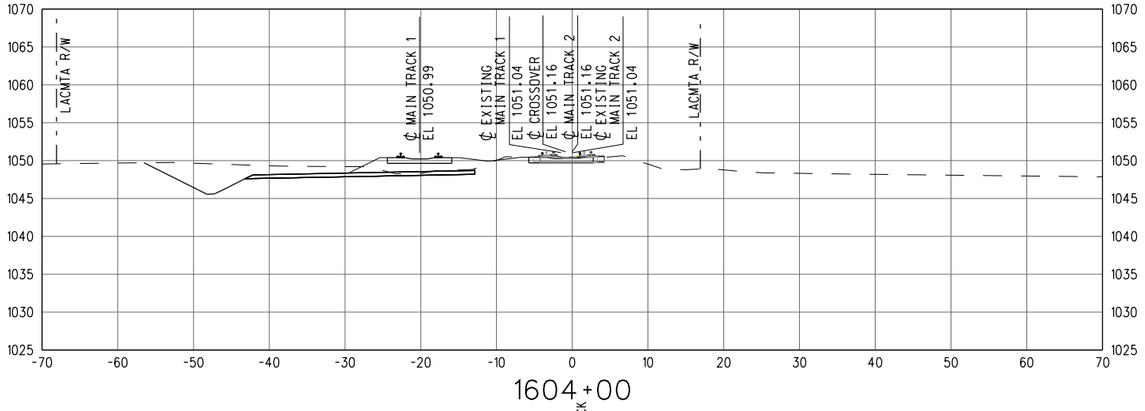

1602+00



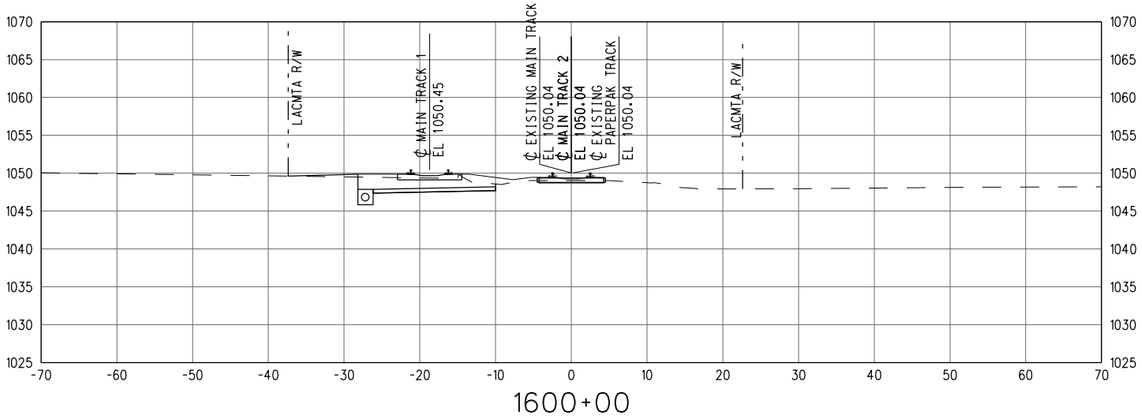

1605+00



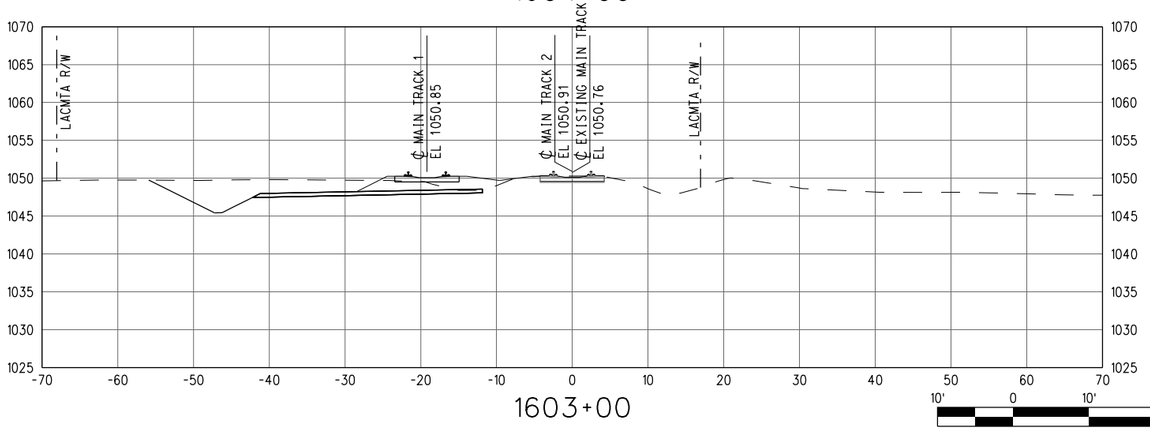

1601+00




1604+00




1600+00




1603+00

GRAPHIC SCALE: 1" = 10'

Know what's below. Call before you dig.

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

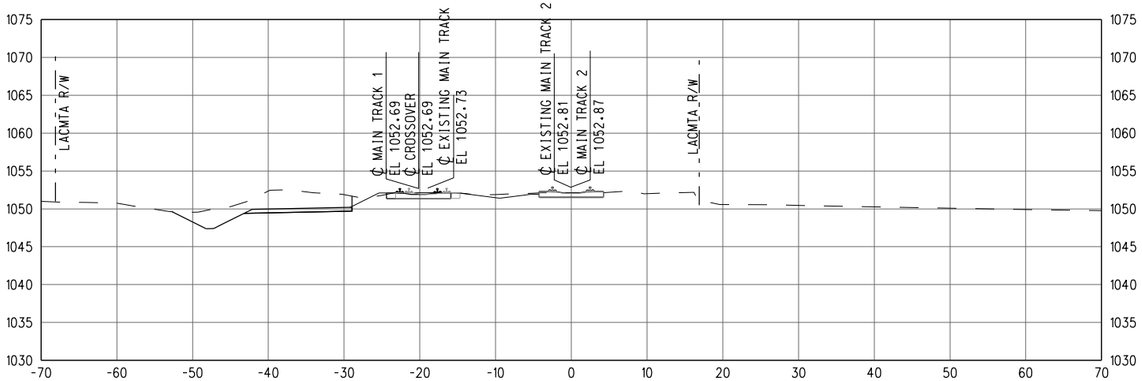
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

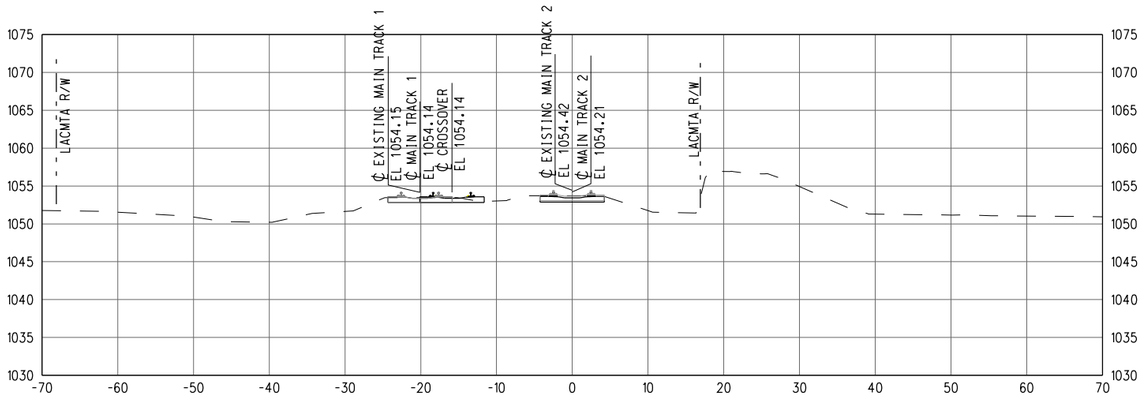
**CROSS SECTIONS EXMT 1600+00 TO EXMT 1605+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-035 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 97 |

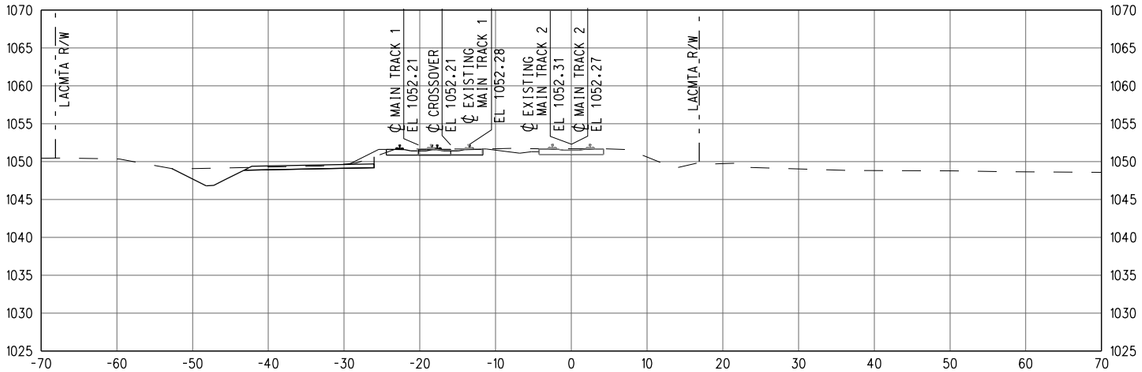
ShapirJa 6/27/2017 3:05:42 PM $FILEL$



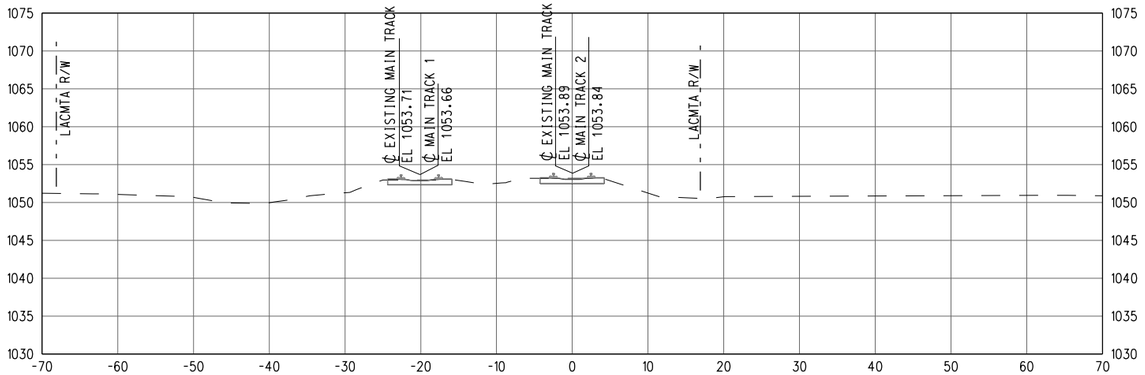

1608+00



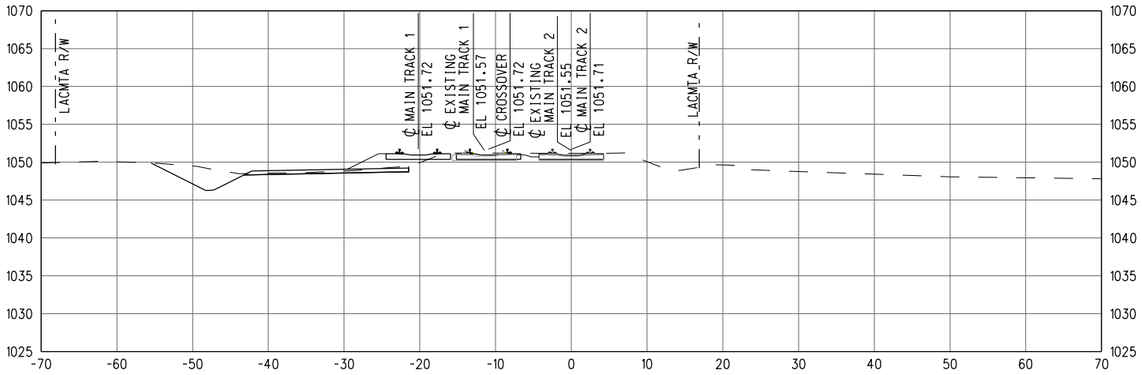

1611+00



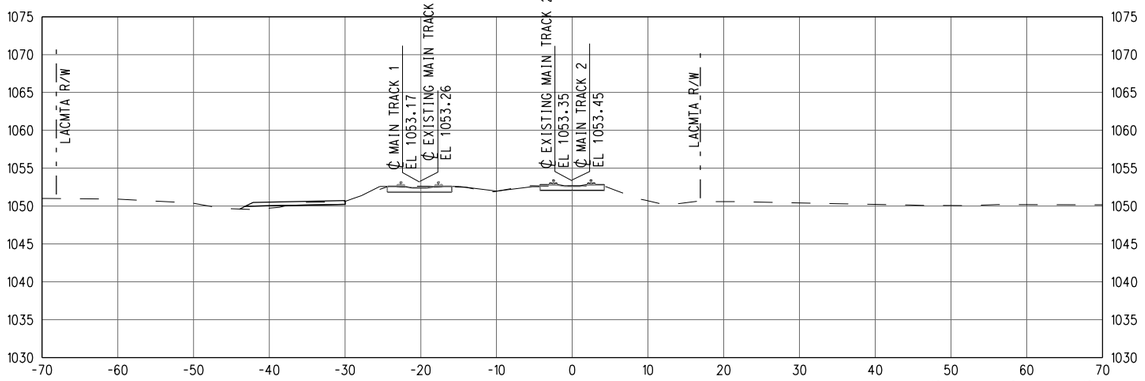

1607+00




1610+00




1606+00




1609+00

GRAPHIC SCALE: 10' 0 10' 20' — 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**CROSS SECTIONS EXMT 1606+00 TO EXMT 1611+00**

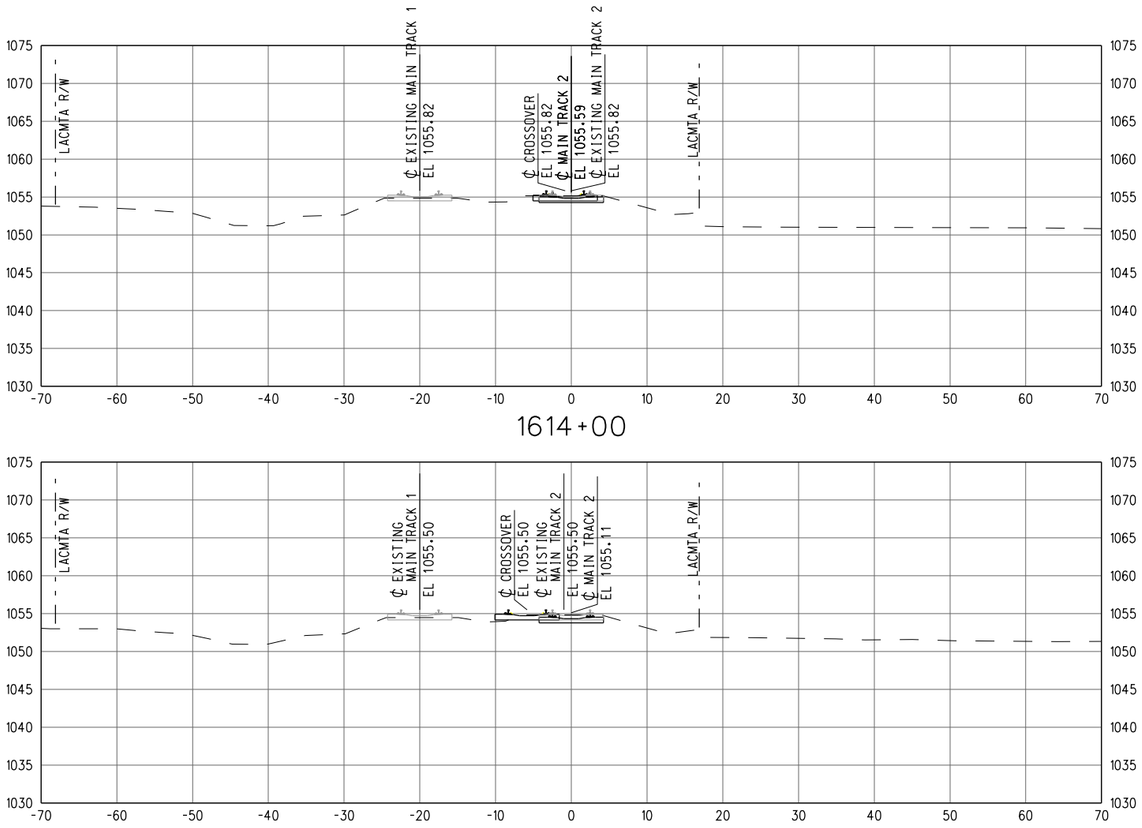
CONTRACT NO AE4555000241519565

DRAWING NO TX-036 REV

SCALE AS SHOWN

SHEET NO 98

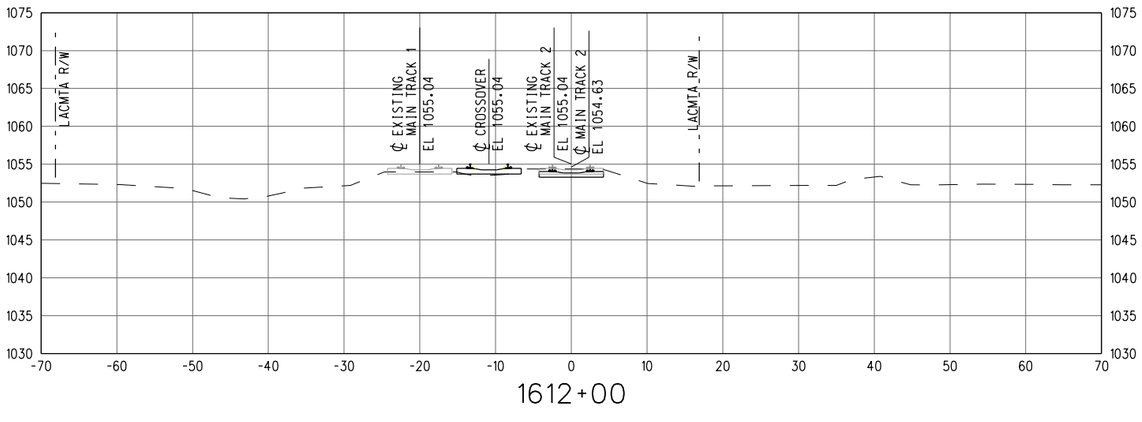
ShapirJa 6/27/2017 3:05:43 PM $FILE$



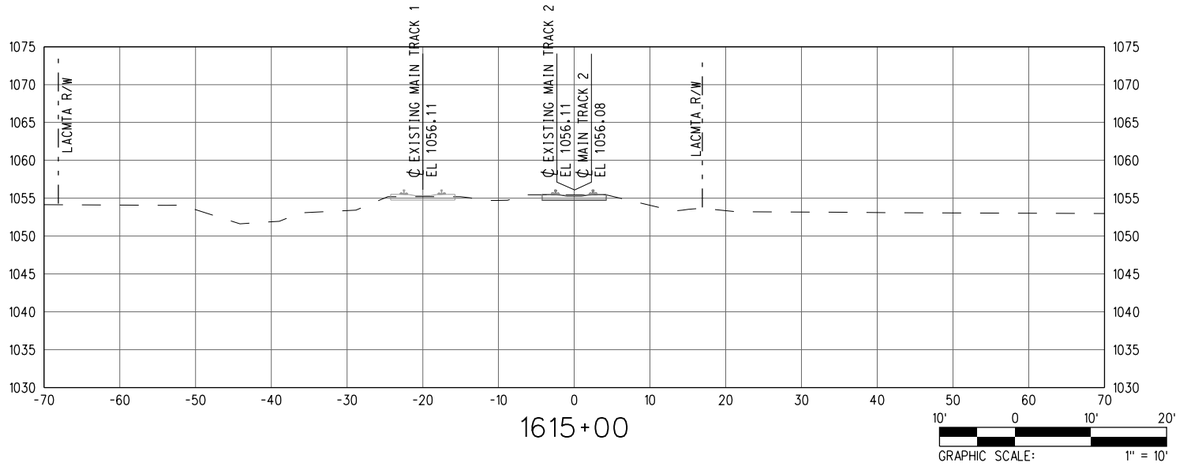

1614+00




1613+00




1612+00




1615+00

10' 0 10' 20'
GRAPHIC SCALE: 1" = 10'

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-17 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

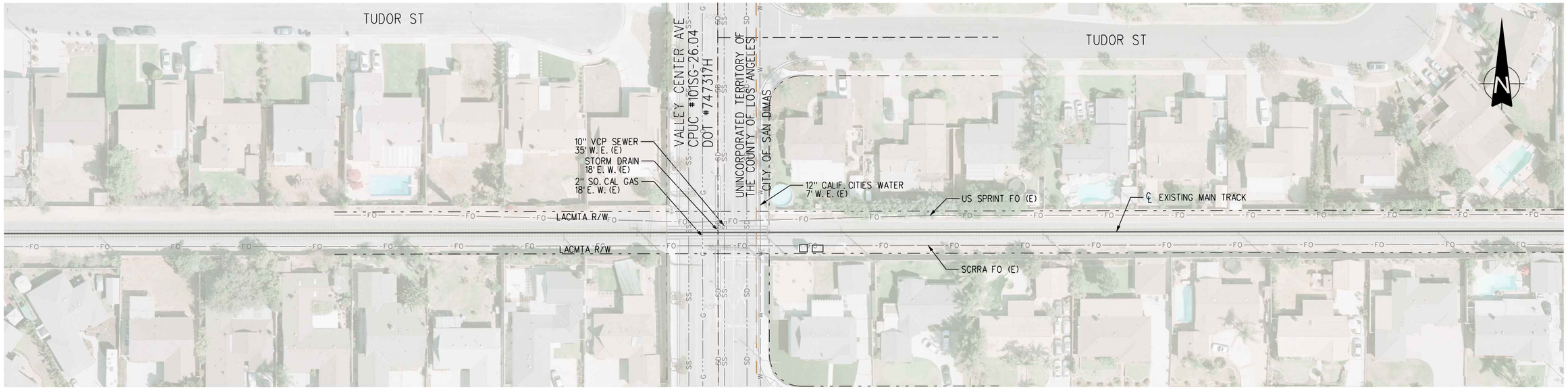
**CROSS SECTIONS EXMT 1612+00 TO EXMT 1615+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | TX-037 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 99 |

ShapirJa 6/27/2017 3:05:43 PM $FILEL$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST




PLAN

NOTE: (E) - EXISTING

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40

811 Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | F. MIRANDA |
| DRAWN BY | M. VINLUAN |
| CHECKED BY | D. BEJARANO |
| IN CHARGE | S. WAGNER |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355


**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

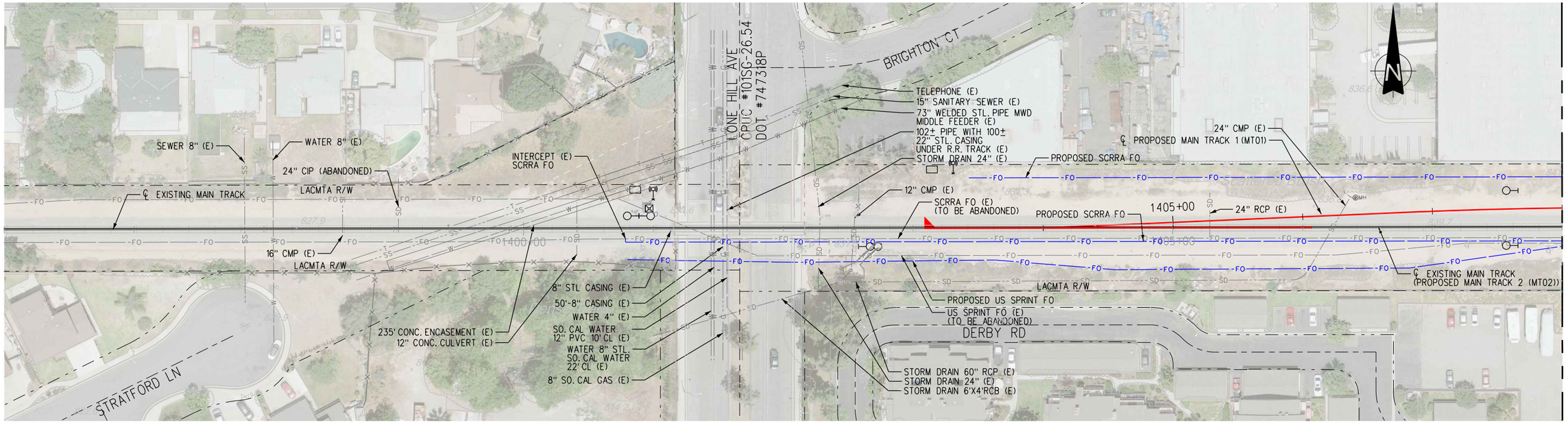
**COMPOSITE UTILITY PLAN VALLEY CENTER AVENUE**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | UP-001 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 100 |

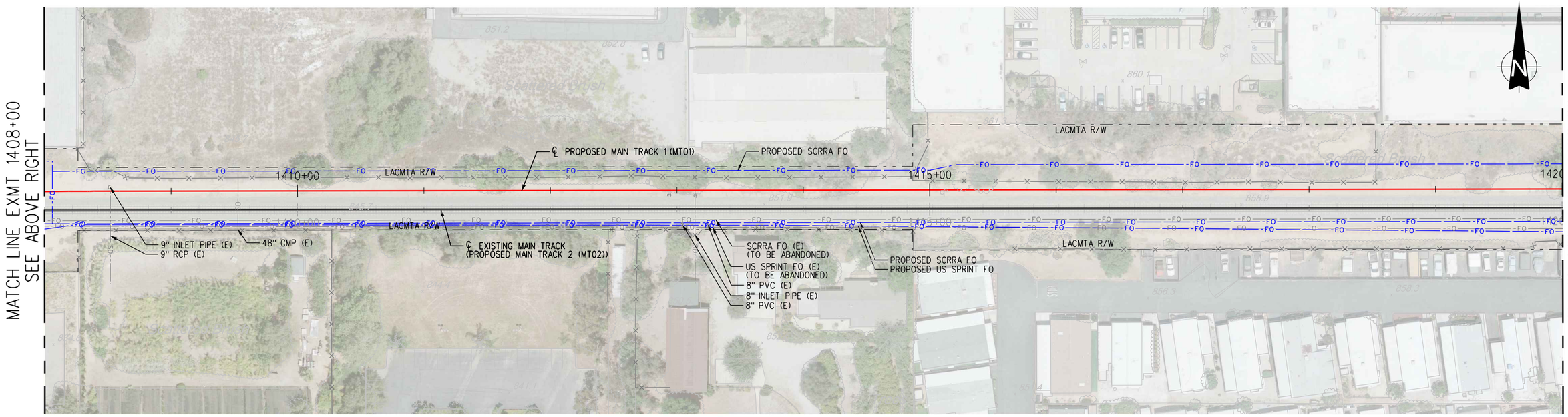
$USER$ $DATE$ $TIME$ $FILE$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST




PLAN




PLAN

NOTE: (E) - EXISTING

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40

$FILEL$
$TIME$
$DATE$
$USER$

811 Know what's below. Call before you dig.

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| | |
|---|---|
| DESIGNED BY | F. MIRANDA |
| DRAWN BY | M. VINLUAN |
| CHECKED BY | D. BEJARANO |
| IN CHARGE | S. WAGNER |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

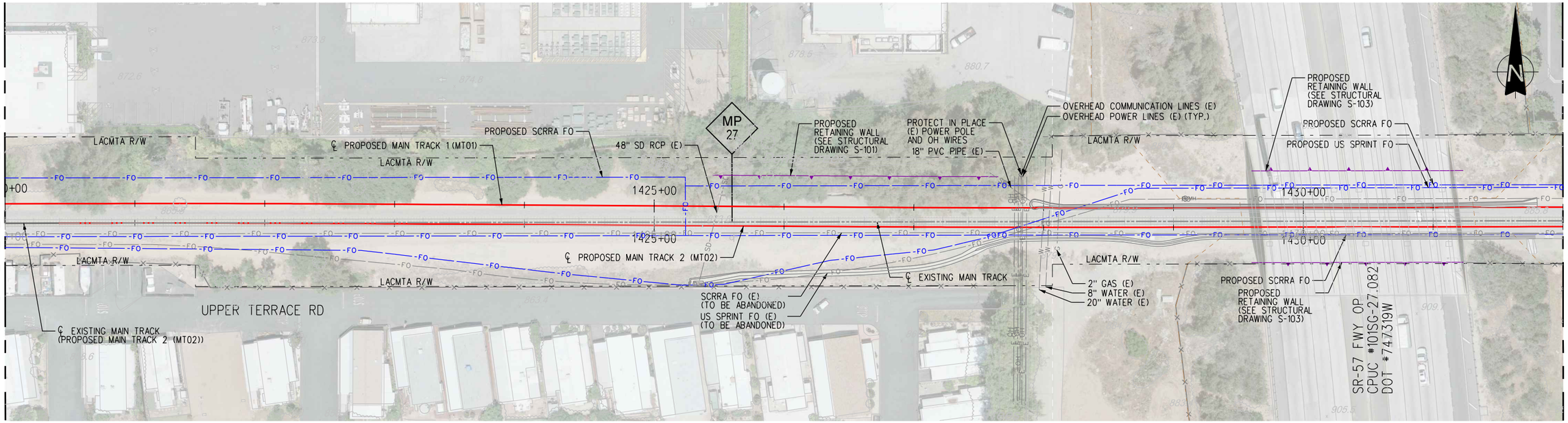
**COMPOSITE UTILITY PLAN EXMT 1396+00 TO EXMT 1420+00**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | UP-002 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 101 |

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

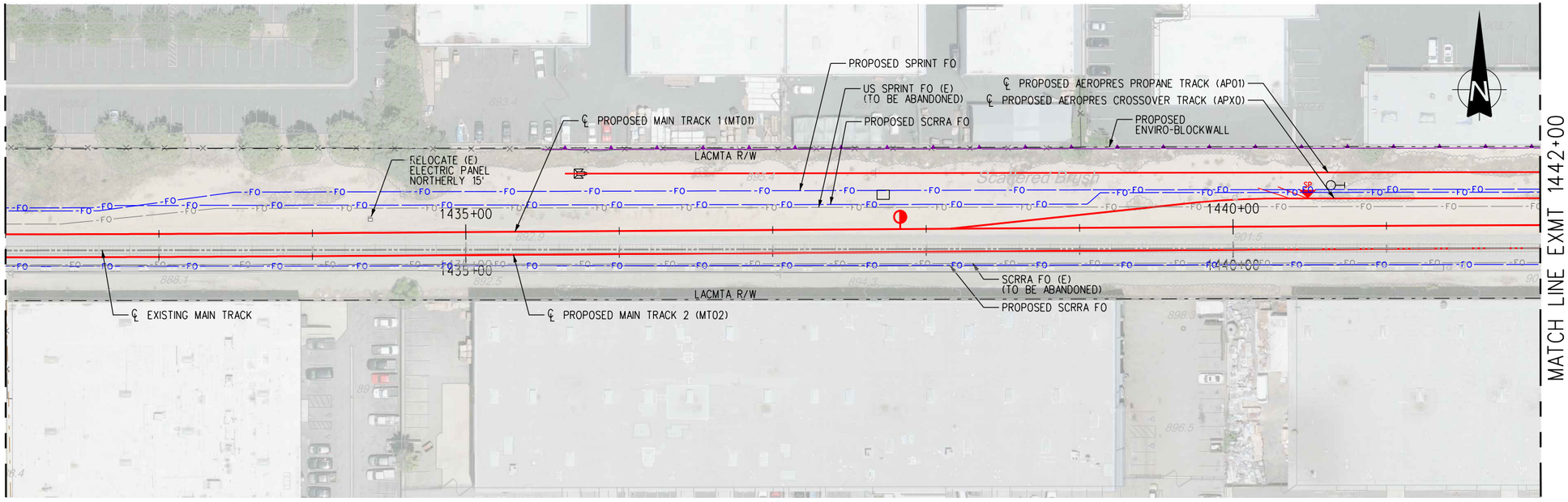
SEE DRAWING NO. UP-002
MATCH LINE EXMT 1420+00




PLAN

MATCH LINE EXMT 1432+00
SEE BELOW LEFT

MATCH LINE EXMT 1432+00
SEE DRAWING ABOVE RIGHT




PLAN

MATCH LINE EXMT 1442+00
SEE DRAWING NO. UP-004

NOTE: (E) - EXISTING

GRAPHIC SCALE: HORIZ. 1" = 40
40' 20' 0 40' 80'

$USER$ $DATE$ $TIME$ $FILEL$

Know what's below. Call before you dig. 811

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| | |
|---|---|
| DESIGNED BY | F. MIRANDA |
| DRAWN BY | M. VINLUAN |
| CHECKED BY | D. BEJARANO |
| IN CHARGE | S. WAGNER |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**COMPOSITE UTILITY PLAN EXMT 1420+00 TO EXMT 1442+00**

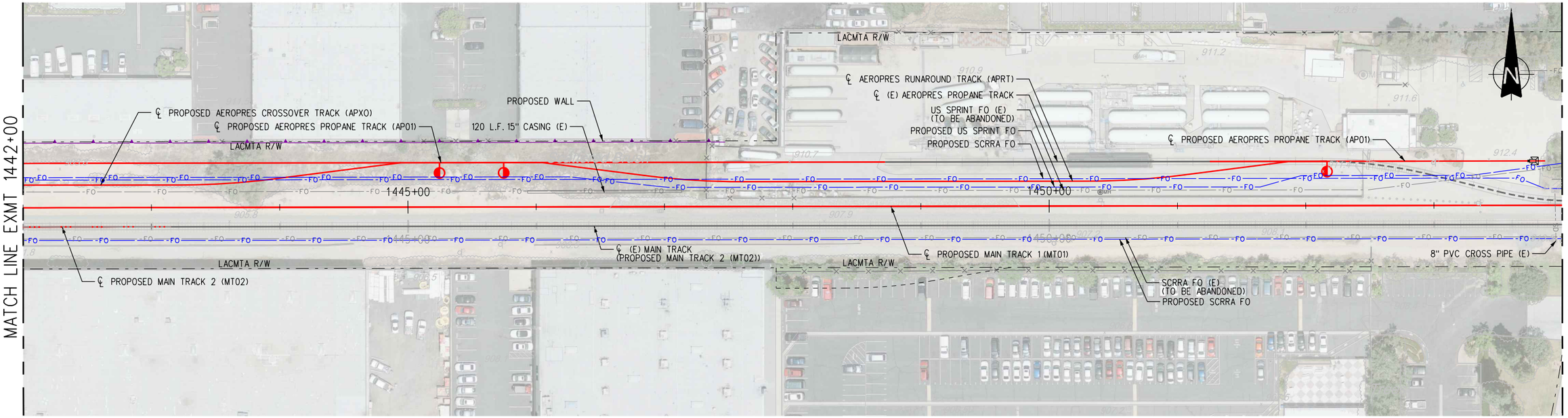
| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | UP-003 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 102 |

TO LOS ANGELES, CA
RR WEST

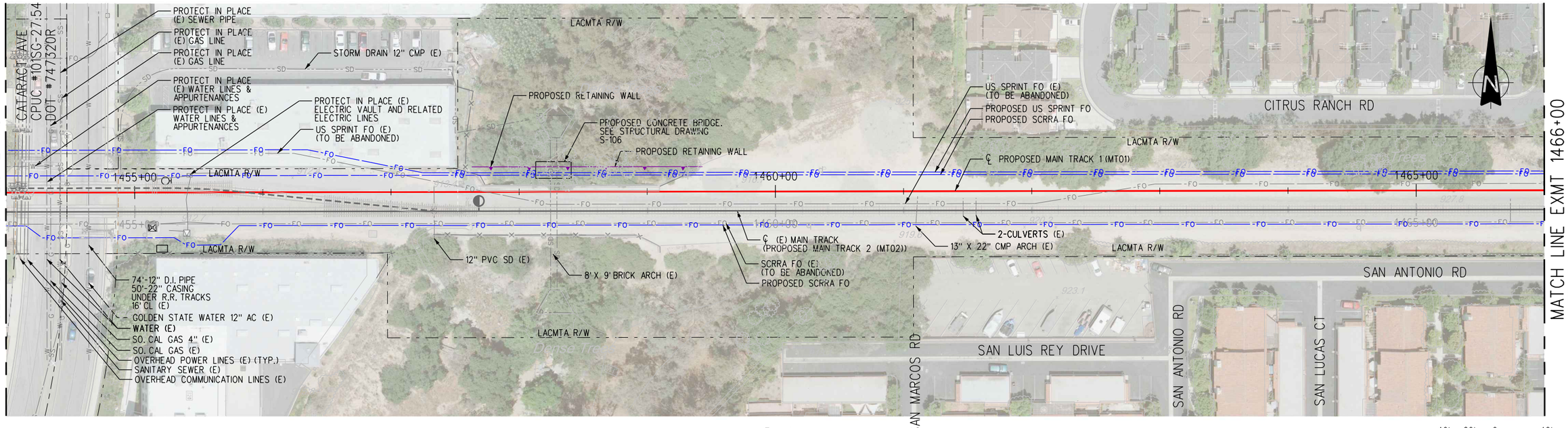
SAN BERNARDINO, CA
RR EAST

SEE DRWAING NO. UP-003
MATCH LINE EXMT 1442+00

MATCH LINE EXMT 1454+00
SEE BELOW LEFT




PLAN




PLAN

MATCH LINE EXMT 1454+00
SEE DRAWING ABOVE RIGHT

MATCH LINE EXMT 1466+00
SEE DRAWING NO. UP-005

NOTE: (E) - EXISTING

GRAPHIC SCALE: HORIZ. 1" = 40
40' 20' 0 40' 80'

$FILE$
$TIME$
$DATE$
$USER$

811 Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | F. MIRANDA |
| DRAWN BY | M. VINLUAN |
| CHECKED BY | D. BEJARANO |
| IN CHARGE | S. WAGNER |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**COMPOSITE UTILITY PLAN EXMT 1442+00 TO EXMT 1466+00**

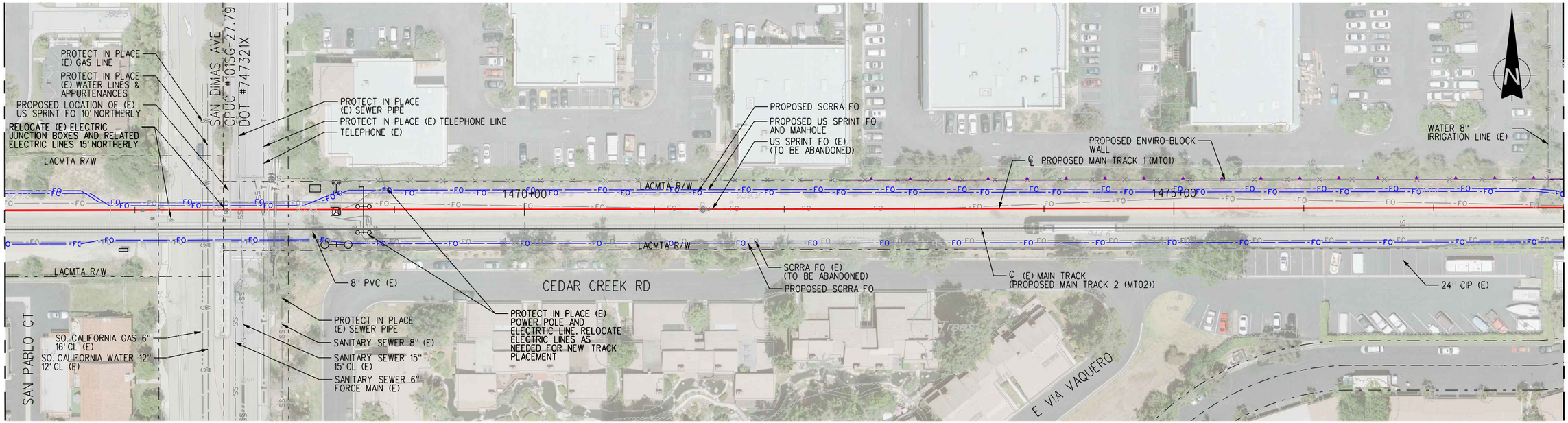
| | |
|---|---|
| CONTRACT NO | AE455500024151956 5 |
| DRAWING NO | UP-004 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 103 |

TO LOS ANGELES, CA
RR WEST

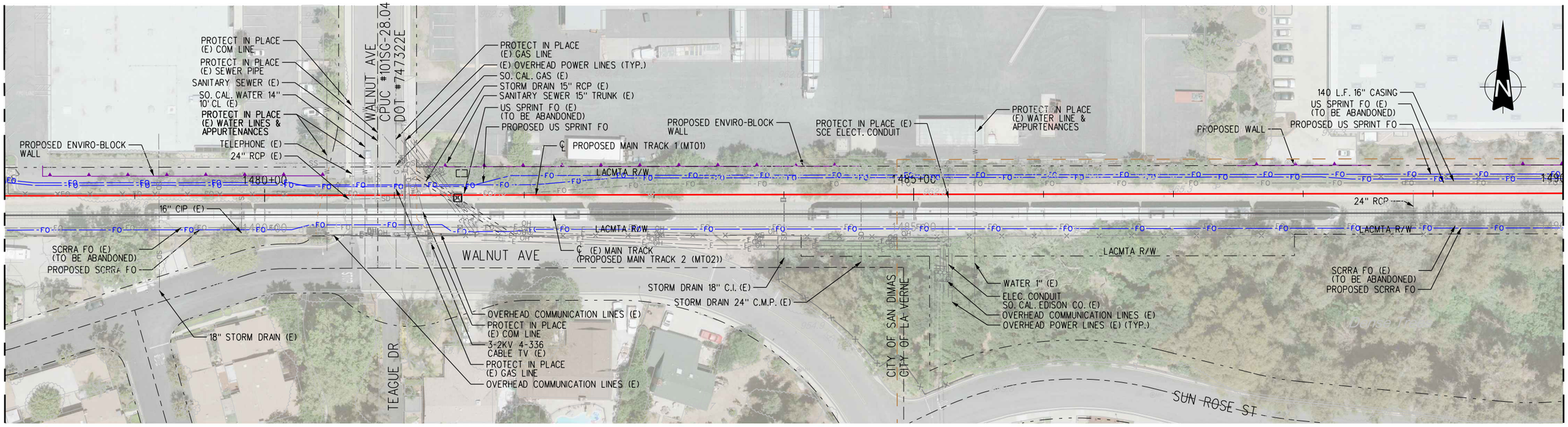
SAN BERNARDINO, CA
RR EAST

SEE DRAWING NO. UP-004
MATCH LINE EXMT 1466+00

MATCH LINE EXMT 1478+00
SEE BELOW LEFT




PLAN




PLAN

MATCH LINE EXMT 1478+00
SEE ABOVE RIGHT

MATCH LINE EXMT 1490+00
SEE DRAWING NO. UP-006

NOTE: (E) - EXISTING

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40

$FILE$
$TIME$
$DATE$
$USER$

811 Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | F. MIRANDA |
| DRAWN BY | M. VINLUAN |
| CHECKED BY | D. BEJARANO |
| IN CHARGE | S. WAGNER |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

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METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**COMPOSITE UTILITY PLAN EXMT 1466+00 TO EXMT 1490+00**

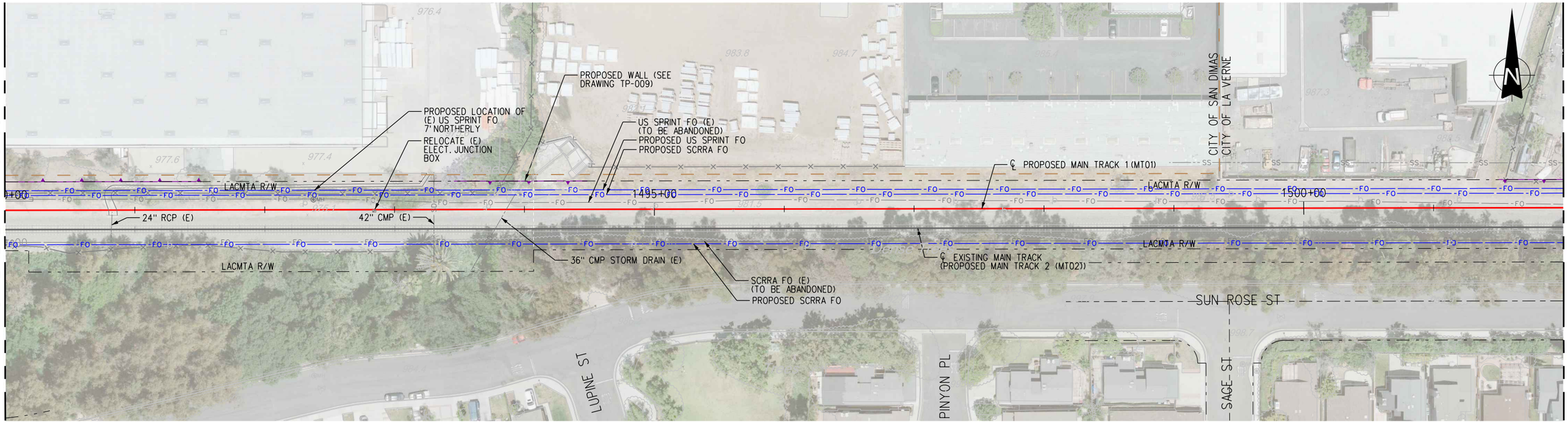
| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | UP-005 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 104 |

TO LOS ANGELES, CA
RR WEST

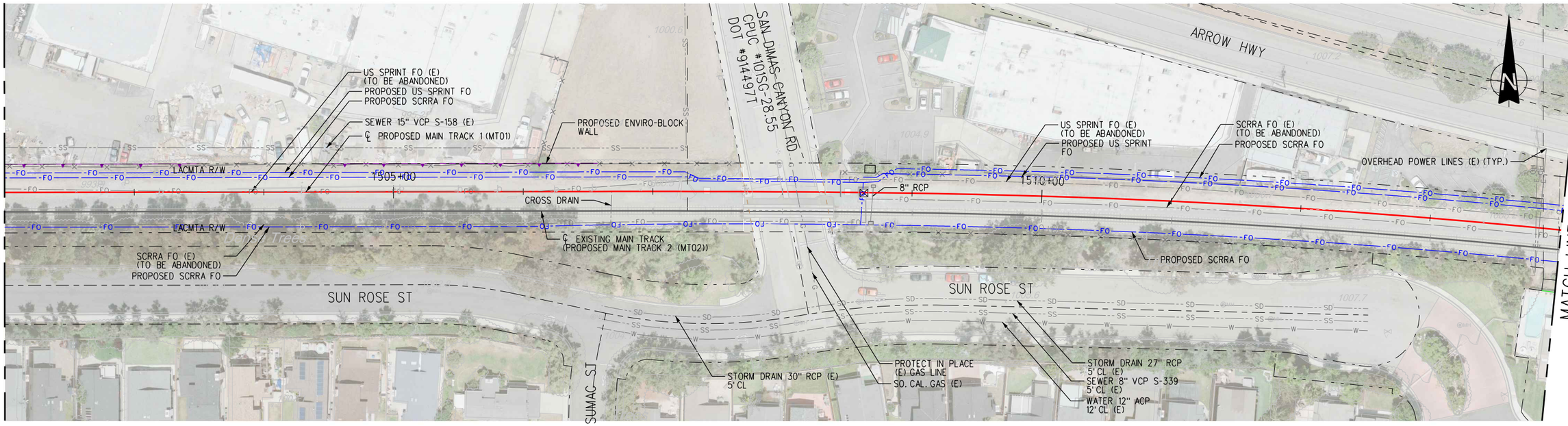
SAN BERNARDINO, CA
RR EAST

SEE DRAWING NO. UP-005
MATCH LINE EXMT 1490+00

MATCH LINE EXMT 1502+00
SEE BELOW LEFT




PLAN




MATCH LINE EXMT 1502+00
SEE ABOVE RIGHT

MATCH LINE EXMT 1514+00
SEE DRAWING NO. UP-007

PLAN

NOTE: (E) - EXISTING

GRAPHIC SCALE: 40' 20' 0 40' 80' HORIZ. 1" = 40

$FILEL$
$TIME$
$DATE$
$USER$

811 Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | F. MIRANDA |
| DRAWN BY | M. VINLUAN |
| CHECKED BY | D. BEJARANO |
| IN CHARGE | S. WAGNER |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

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METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

## LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

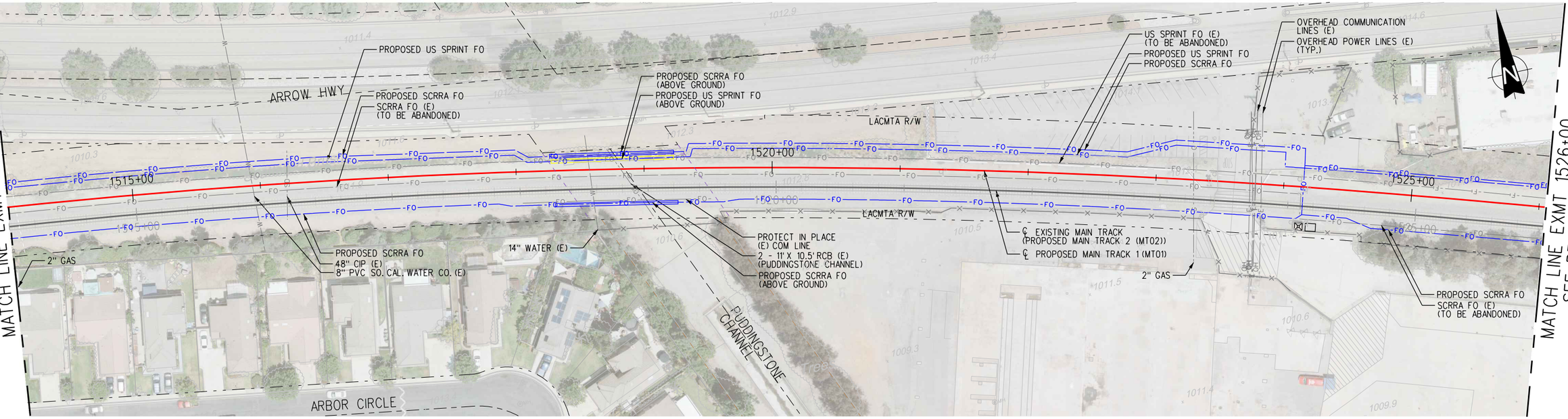
## COMPOSITE UTILITY PLAN EXMT 1490+00 TO EXMT 1514+00

| | |
|---|---|
| CONTRACT NO | AE455500024151956 5 |
| DRAWING NO | UP-006 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 105 |

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

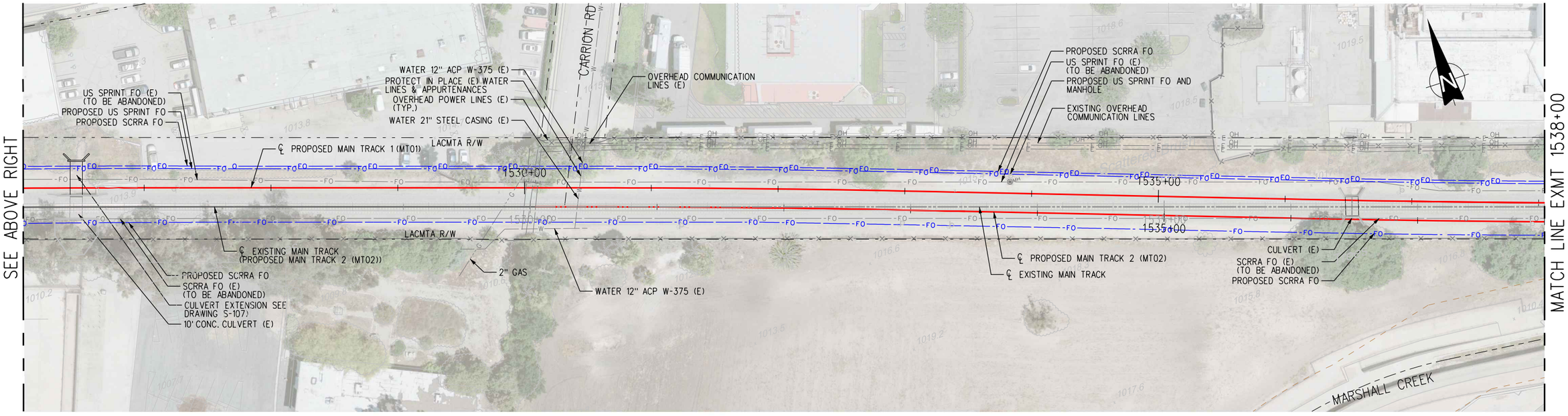
SEE DRAWING NO. UP-006
MATCH LINE EXMT 1514+00




MATCH LINE EXMT 1526+00
SEE BELOW LEFT

PLAN

MATCH LINE EXMT 1526+00
SEE ABOVE RIGHT




MATCH LINE EXMT 1538+00
SEE DRAWING NO. UP-008

PLAN

NOTE: (E) - EXISTING

GRAPHIC SCALE: 40' 20' 0 40' 80'
HORIZ. 1" = 40

$USER$ $DATE$ $TIME$ $FILE$

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | F. MIRANDA |
| DRAWN BY | M. VINLUAN |
| CHECKED BY | D. BEJARANO |
| IN CHARGE | S. WAGNER |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

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ORANGE, CA 92868
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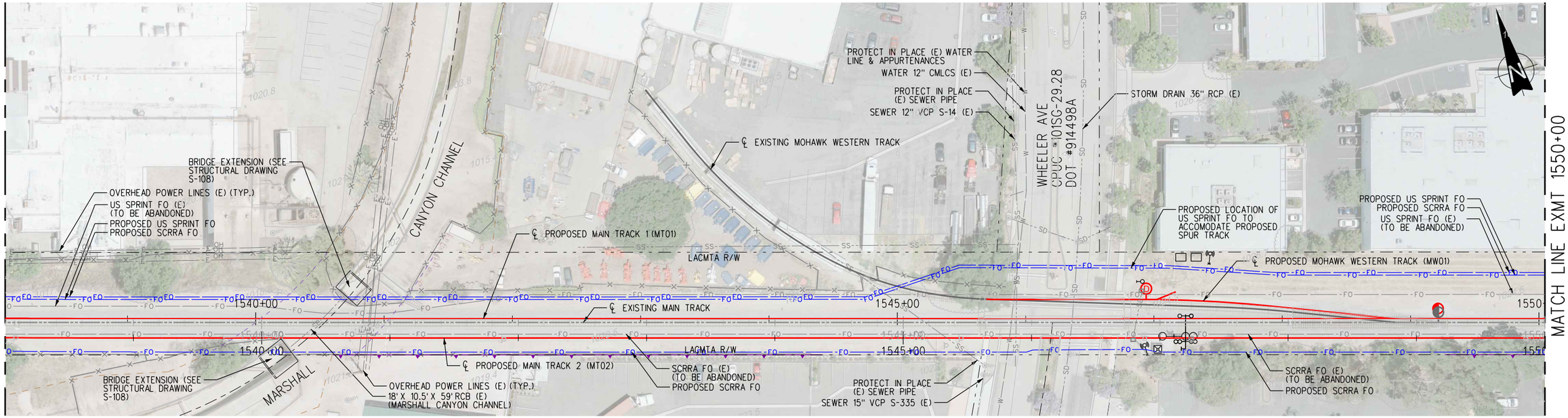
## LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

## COMPOSITE UTILITY PLAN EXMT 1514+00 TO EXMT 1538+00

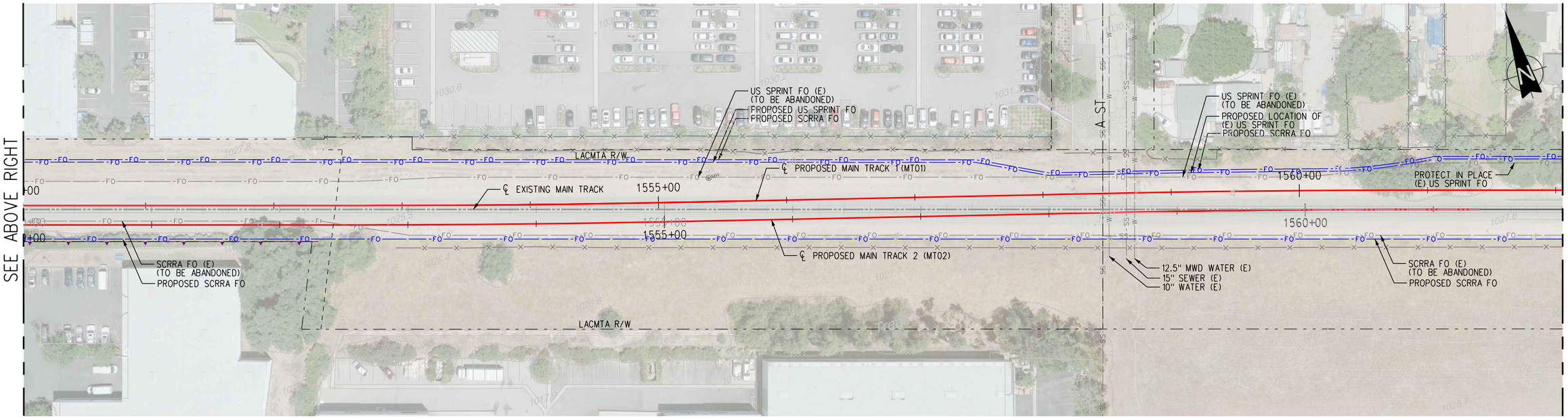
| | |
|---|---|
| CONTRACT NO | AE455500024151956 5 |
| DRAWING NO | UP-007 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 106 |

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST




PLAN




PLAN

NOTE: (E) - EXISTING

GRAPHIC SCALE: HORIZ. 1" = 40
40' 20' 0 40' 80'

$FILEL$
$TIME$
$DATE$
$USER$

811 Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | F. MIRANDA |
| DRAWN BY | M. VINLUAN |
| CHECKED BY | D. BEJARANO |
| IN CHARGE | S. WAGNER |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


# LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

## COMPOSITE UTILITY PLAN EXMT 1538+00 TO EXMT 1562+00

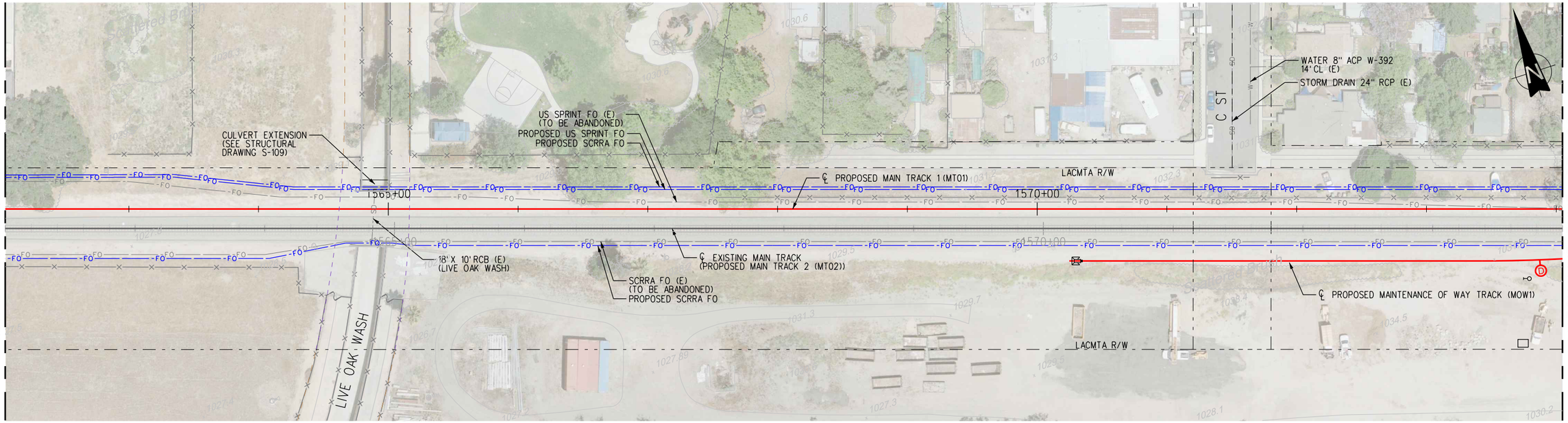
| | |
|---|---|
| CONTRACT NO | AE455500024151956 5 |
| DRAWING NO | UP-008 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 107 |

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

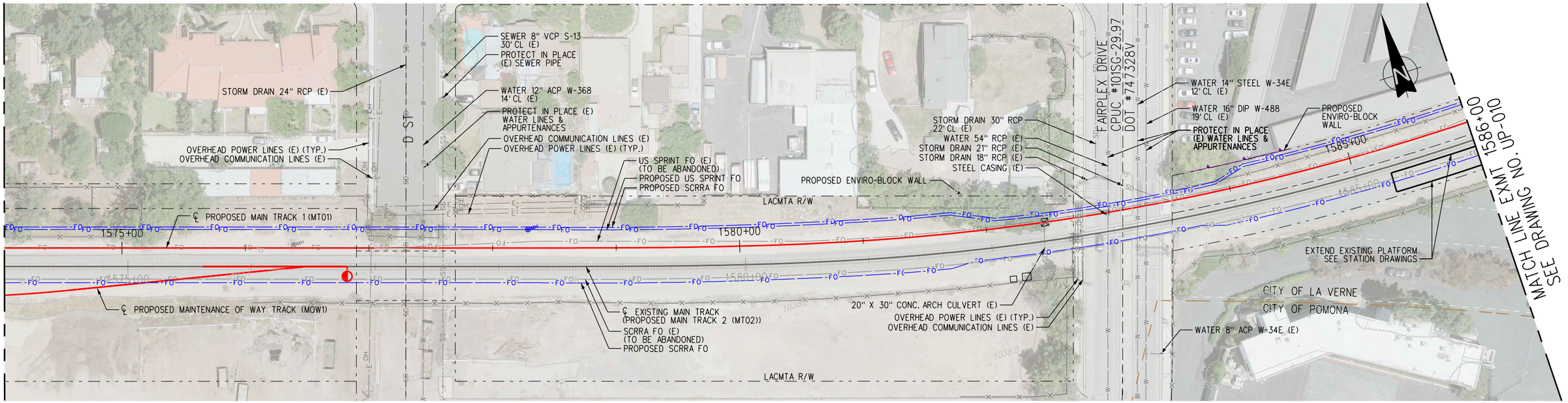
SEE DRAWING NO. UP-008
MATCH LINE EXMT 1562+00

MATCH LINE EXMT 1574+00
SEE BELOW LEFT




PLAN

MATCH LINE EXMT 1574+00 -- SEE ABOVE RIGHT




PLAN

NOTE: (E) - EXISTING

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40

$FILE$
$TIME$
$DATE$
$USER$

811 Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | F. MIRANDA |
| DRAWN BY | M. VINLUAN |
| CHECKED BY | D. BEJARANO |
| IN CHARGE | S. WAGNER |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


# LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

## COMPOSITE UTILITY PLAN EXMT 1562+00 TO EXMT 1586+00

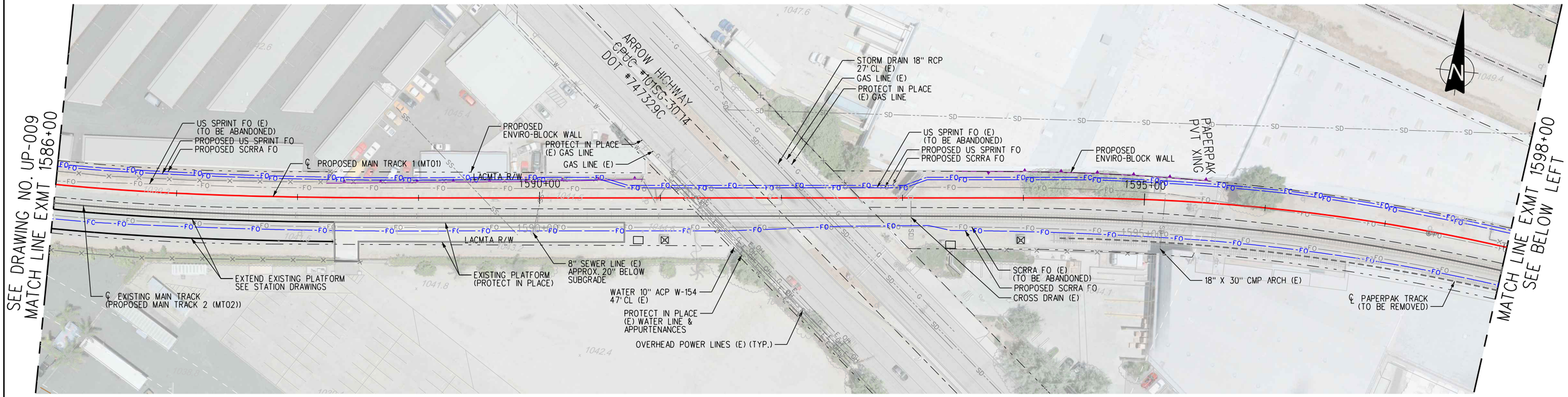
| | |
|---|---|
| CONTRACT NO | AE455500024151956 5 |
| DRAWING NO | UP-009 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 108 |

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

SEE DRAWING NO. UP-009
MATCH LINE EXMT 1586+00

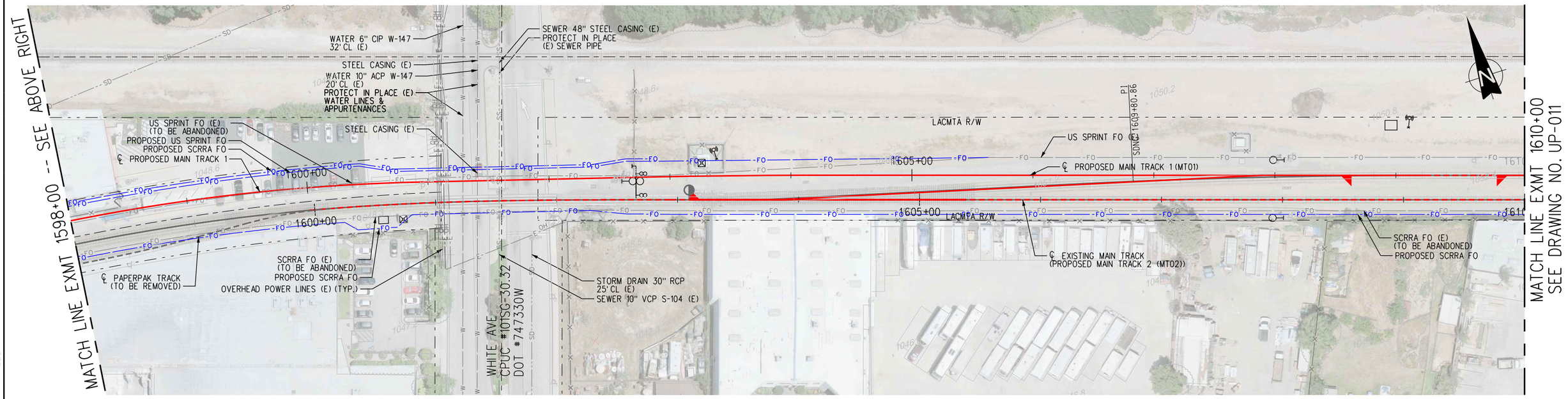
MATCH LINE EXMT 1598+00
SEE BELOW LEFT




PLAN

MATCH LINE EXMT 1598+00 -- SEE ABOVE RIGHT

MATCH LINE EXMT 1610+00
SEE DRAWING NO. UP-011




PLAN

NOTE: (E) - EXISTING

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40

$USER$ $DATE$ $TIME$ $FILE$

811 Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | F. MIRANDA |
| DRAWN BY | M. VINLUAN |
| CHECKED BY | D. BEJARANO |
| IN CHARGE | S. WAGNER |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

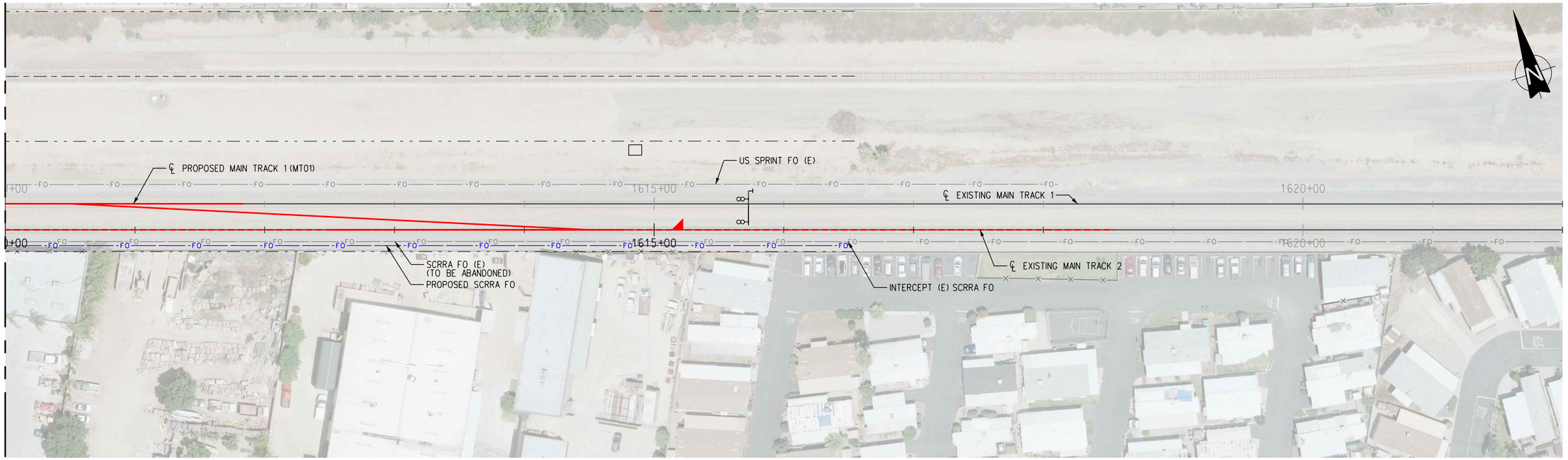
**COMPOSITE UTILITY PLAN EXMT 1586+00 EXMT 1610+00**

| | |
|---|---|
| CONTRACT NO | AE455500024151956 5 |
| DRAWING NO | UP-010 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 109 |

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

SEE DRAWING NO. UP-010
MATCH LINE EXMT 1610+00




PLAN

40' 20' 0 40' 80'
GRAPHIC SCALE: HORIZ. 1" = 40

NOTE: (E) - EXISTING

811 Dig Alert
Know what's below.
Call before you dig.

AS SHOWN
XX OF XX

30% SUBMITTAL
NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY F. MIRANDA
DRAWN BY M. VINLUAN
CHECKED BY D. BEJARANO
IN CHARGE S. WAGNER
DATE 7-1-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

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ORANGE, CA 92868
TEL 714-835-6355

# LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

## COMPOSITE UTILITY PLAN EXMT 1610+00 TO EXMT 1622

CONTRACT NO AE4555000241519565
DRAWING NO UP-011
REV
SCALE AS SHOWN
SHEET NO 110

$USER$ $DATE$ $TIME$ $FILEL$

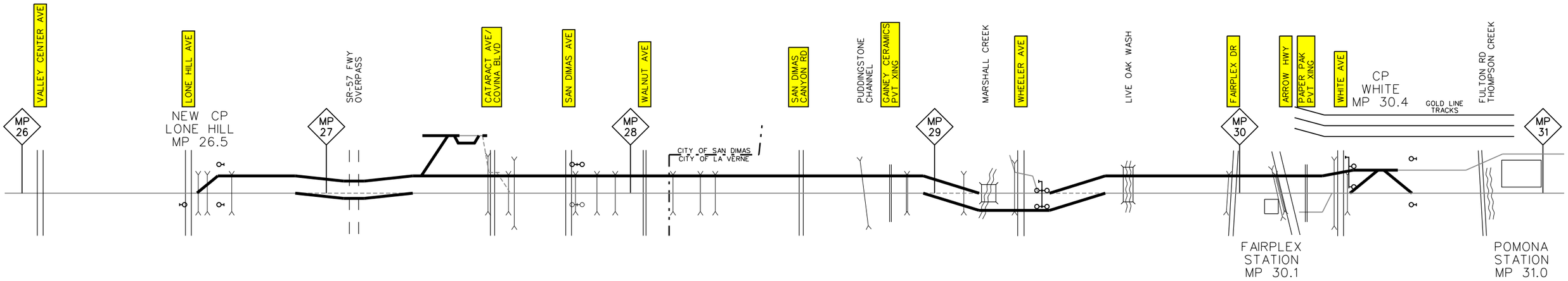
# LONE HILL AVENUE TO CP WHITE DOUBLE TRACK PROJECT

## ENVIRONMENTAL REVIEW AND PRELIMINARY ENGINEERING

## MP 26.55 TO MP 30.40 (SAN GABRIEL SUBDIVISION)

Metro

METROLINK




**JUNE 28, 2017**

**CONTRACT No.** AE4555000241519565

WES WAGNER ENGINEERING & SURVEY, INC.

JACOBS

**30% SUBMITTAL**
**NOT FOR CONSTRUCTION**

| DRAWING NUMBER | DRAWING TITLE | SHEET NUMBER |
|---|---|---|
| | **ROADWAY** | |
| | **GENERAL** | |
| G-C-001 | COVER SHEET | |
| G-C-002 | GRADE CROSSINGS - INDEX OF DRAWINGS | |
| G-C-003 | NOT USED | |
| G-C-004 | CONSTRUCTION NOTES AND SYMBOLS | |
| | **VALLEY CENTER AVENUE** | |
| CS-C-010PP | VALLEY CENTER AVENUE - STREET IMPROVEMENT PLAN - (DOT) 747317H (CPUC) 101SG-26.05 | |
| SS-C-010PL | VALLEY CENTER AVENUE - SIGNING AND STRIPING PLAN - (DOT) 747317H (CPUC) 101SG-26.05 | |
| CS-C-010PR | VALLEY CENTER AVENUE - STREET IMPROVEMENT PROFILE - (DOT) 747317H (CPUC) 101SG-26.05 | |
| CS-C-011EXH | VALLEY CENTER AVENUE - VEHICULAR TURNING MOVEMENTS - (DOT) 747317H (CPUC) 101SG-26.05 | |
| | **LONE HILL AVENUE** | |
| CS-C-020PP | LONE HILL AVENUE - STREET IMPROVEMENT PLAN - (DOT) 747318P (CPUC) 101SG-26.55 | |
| SS-C-020PL | LONE HILL AVENUE - SIGNING AND STRIPING PLAN - (DOT) 747318P (CPUC) 101SG-26.55 | |
| CS-C-020PR | LONE HILL AVENUE - STREET IMPROVEMENT PROFILE - (DOT) 747318P (CPUC) 101SG-26.55 | |
| CS-C-021EXH | LONE HILL AVENUE - VEHICULAR TURNING MOVEMENTS - (DOT) 747318P (CPUC) 101SG-26.55 | |
| | **CATARACT AVENUE** | |
| CS-C-030PP | CATARACT AVENUE- STREET IMPROVEMENT PLAN - (DOT) 747320R (CPUC) 101SG-27.55 | |
| SS-C-030PL | CATARACT AVENUE- SIGNING AND STRIPING PLAN - (DOT) 747320R (CPUC) 101SG-27.55 | |
| CS-C-030PR | CATARACT AVENUE- STREET IMPROVEMENT PROFILE - (DOT) 747320R (CPUC) 101SG-27.55 | |
| CS-C-031EXH | CATARACT AVENUE- VEHICULAR TURNING MOVEMENTS - (DOT) 747320R (CPUC) 101SG-27.55 | |
| | **SAN DIMAS AVENUE** | |
| CS-C-040PP | SAN DIMAS AVENUE - STREET IMPROVEMENT PLAN - (DOT) 747321X (CPUC) 101SG-27.80 | |
| SS-C-040PL | SAN DIMAS AVENUE - SIGNING AND STRIPING PLAN - (DOT) 747321X (CPUC) 101SG-27.80 | |
| CS-C-040PR | SAN DIMAS AVENUE - STREET IMPROVEMENT PROFILE - (DOT) 747321X (CPUC) 101SG-27.80 | |
| CS-C-041EXH | SAN DIMAS AVENUE - VEHICULAR TURNING MOVEMENTS - (DOT) 747321X (CPUC) 101SG-27.80 | |
| | **WALNUT AVENUE** | |
| CS-C-050PP | WALNUT AVENUE - STREET IMPROVEMENT PLAN - (DOT) 747322E (CPUC) X101SG-28.05 | |
| SS-C-050PL | WALNUT AVENUE - SIGNING AND STRIPING PLAN - (DOT) 747322E (CPUC) X101SG-28.05 | |
| CS-C-050PR | WALNUT AVENUE - STREET IMPROVEMENT PROFILE - (DOT) 747322E (CPUC) X101SG-28.05 | |
| CS-C-051EXH | WALNUT AVENUE - VEHICULAR TURNING MOVEMENTS - (DOT) 747322E (CPUC) X101SG-28.05 | |
| | **SAN DIMAS CANYON ROAD** | |
| CS-C-060PP | SAN DIMAS CANYON ROAD - STREET IMPROVEMENT PLAN - (DOT) 914497T (CPUC) X101SG-28.55 | |
| SS-C-060PL | SAN DIMAS CANYON ROAD - SIGNING AND STRIPING PLAN - (DOT) 914497T (CPUC) X101SG-28.55 | |
| CS-C-060PR | SAN DIMAS CANYON ROAD - STREET IMPROVEMENT PROFILE- (DOT) 914497T (CPUC) X101SG-28.55 | |
| CS-C-061EXH | SAN DIMAS CANYON ROAD - VEHICULAR TURNING MOVEMENTS - (DOT) 914497T (CPUC) X101SG-28.55 | |
| | **GAINEY CERAMICS PVT XING** | |
| CS-C-070PP | GAINEY CERAMICS PVT XING - STREET IMPROVEMENT PLAN - (DOT) 747324T (CPUC) 101SG-28.86-X | |
| SS-C-070PL | GAINEY CERAMICS PVT XING - SIGNING AND STRIPING PLAN - (DOT) 747324T (CPUC) 101SG-28.86-X | |
| CS-C-070PR | GAINEY CERAMICS PVT XING - STREET IMPROVEMENT PROFILE - (DOT) 747324T (CPUC) 101SG-28.86-X | |
| CS-C-071EXH | GAINEY CERAMICS PVT XING - VEHICULAR TURNING MOVEMENTS - (DOT) 747324T (CPUC) 101SG-28.86-X | |
| | **WHEELER AVENUE** | |
| CS-C-080PP | WHEELER AVENUE - STREET IMPROVEMENT PLAN - (DOT) 914498A (CPUC) 101SG-29.28 | |
| SS-C-080PL | WHEELER AVENUE - SIGNING AND STRIPING PLAN - (DOT) 914498A (CPUC) 101SG-29.28 | |
| CS-C-080PR | WHEELER AVENUE - STREET IMPROVEMENT PROFILE - (DOT) 914498A (CPUC) 101SG-29.28 | |
| CS-C-081EXH | WHEELER AVENUE - VEHICULAR TURNING MOVEMENTS - (DOT) 914498A (CPUC) 101SG-29.28 | |
| | **FAIRPLEX DRIVE** | |
| CS-C-090PP | FAIRPLEX DRIVE - STREET IMPROVEMENT PLAN - (DOT) 747328V (CPUC) 101SG-29.97 | |
| SS-C-090PL | FAIRPLEX DRIVE - SIGNING AND STRIPING PLAN - (DOT) 747328V (CPUC) 101SG-29.97 | |
| CS-C-090PR | FAIRPLEX DRIVE - STREET IMPROVEMENT PROFILE - (DOT) 747328V (CPUC) 101SG-29.97 | |
| CS-C-091EXH | FAIRPLEX DRIVE - VEHICULAR TURNING MOVEMENTS - (DOT) 747328V (CPUC) 101SG-29.97 | |
| | **ARROW HIGHWAY** | |
| CS-C-100PP | ARROW HIGHWAY - STREET IMPROVEMENT PLAN - (DOT) 747329C (CPUC) 101SG-30.15 | |
| SS-C-100PL | ARROW HIGHWAY - SIGNING AND STRIPING PLAN - (DOT) 747329C (CPUC) 101SG-30.15 | |
| CS-C-100PR | ARROW HIGHWAY - STREET IMPROVEMENT PROFILE - (DOT) 747329C (CPUC) 101SG-30.15 | |
| CS-C-101EXH | ARROW HIGHWAY - VEHICULAR TURNING MOVEMENTS - (DOT) 747329C (CPUC) 101SG-30.15 | |

| DRAWING NUMBER | DRAWING TITLE | SHEET NUMBER |
|---|---|---|
| | **ROADWAY (CONT.)** | |
| | **WHITE AVENUE** | |
| CS-C-110PP | WHITE AVENUE - STREET IMPROVEMENT PLAN - (DOT) 747330W (CPUC) 101SG-30.33 | |
| SS-C-110PL | WHITE AVENUE - SIGNING AND STRIPING PLAN - (DOT) 747330W (CPUC) 101SG-30.33 | |
| CS-C-110PR | WHITE AVENUE - STREET IMPROVEMENT PROFILE - (DOT) 747330W (CPUC) 101SG-30.33 | |
| CS-C-111EXH | WHITE AVENUE - VEHICULAR TURNING MOVEMENTS - (DOT) 747330W (CPUC) 101SG-30.33 | |

811 Know what's below. Call before you dig.

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

30% SUBMITTAL
NOT FOR CONSTRUCTION

| | |
|---|---|
| DESIGNED BY | JF |
| DRAWN BY | JF |
| CHECKED BY | MG |
| IN CHARGE | MG |
| DATE | 7-28-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**GRADE CROSSINGS INDEX OF DRAWINGS**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | G-C-002 |
| REV | |
| SCALE | |
| SHEET NO | 112 |

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| No. | Construction Notes: |
|---|---|
| 1 | CONSTRUCT CONCRETE MEDIAN CURB PER APWA STD 120-2. |
| 2 | CONSTRUCT STAMPED CONCRETE MEDIAN. |
| 3 | CONSTRUCT RIVER ROCK MEDIAN. |
| 4 | CONSTRUCT LANDSCAPED MEDIAN. |
| 5 | RAISE STAMPED TO ACCOMMODATE 8" CF. |
| 6 | RAISE RIVER ROCK TO ACCOMMODATE 8" CF. |
| 7 | MODIFY IRRIGATION AND LANDSCAPING AS NEEDED TO ACCOMMODATE PROPOSED IMPROVEMENTS. |
| 8 | CONSTRUCT R/W DRIVEWAY ACCESS PER SCRRA ES 4011. |
| 9 | PROTECT IN PLACE (ITEM AS NOTED). |
| 10 | CONSTRUCT CONCRETE CURB & GUTTER (8" CF). |
| 10A | CONSTRUCT CONCRETE CURB (8" CF) PER APWA STD 120-2. |
| 11 | CONSTRUCT 4" PCC SIDEWALK WITH 4"X4" WELDED WIRE MESH. |
| 12 | CONSTRUCT PEDESTRIAN TREATMENTS PER SCRRA ENGINEERING STANDARDS. |
| 13 | INSTALL NEW RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS. |
| 14 | REHAB EXISTING RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS. |
| 15 | INSTALL DETECTION LOOP DETAIL SEE ES 4001 DETAIL B & ES 8405. |
| 16 | INSTALL PEDESTRIAN SWING GATE SEE ES 4002-01 & ES 4002-02. |
| 17 | INSTALL DETECTABLE WARNING SURFACE. |
| 18 | CONSTRUCT 8" FULL DEPTH ASPHALT CONCRETE PAVEMENT. |
| 19 | CONSTRUCT VARIABLE ASPHALT CONCRETE PAVEMENT. |
| 20 | CONSTRUCT WELDED WIRE MESH FENCING PER SCRRA ENGINEERING STANDARDS 5105 H=4'-0". |
| 21 | CONSTRUCT 12' SINGLE LEAF SECURITY ACCESS GATE PER SCRRA ENGINEERING STANDARDS 5106. |
| 22 | REMOVE TREE AND REPLACE ELSEWHERE, AS DIRECTED BY THE ENGINEER. |
| 23 | REMOVE CONFLICTING PIPE GATE. |
| 24 | REMOVE CONFLICTING RAILING. |
| 25 | CONSTRUCT RETAINING WALL. |
| 26 | CONSTRUCT DELINEATOR. |
| 27 | REMOVE CONFLICTING WALL OR FENCE. |
| 28 | REMOVE CONFLICTING KRAIL BARRIER. |
| 29 | CONSTRUCT CONCRETE MEDIAN. |
| 30 | CONSTRUCT CROSS GUTTER STD 122-2. |
| 31 | CONSTRUCT CONCRETE BOLLARD. |
| 32 | CONSTRUCT CURB RAMP PER APWA STD 111-4. |
| 33 | TRIM UP EXISTING TREE. |
| 34 | INSTALL NEW STORM DRAIN CULVERT ACROSS THE STREET TO A DRAINAGE DITCH. |
| 35 | CONSTRUCT DRIVEWAY PER APWA STD 110-2. |
| 36 | REMOVE EXISTING DRIVEWAY. |
| 37 | LANDSCAPE & IRRIGATION AS REQUIRED BY RELOCATION OF DRIVEWAY. |
| 38 | RELOCATE EXISTING POWER POLE & STREET LIGHT LUMINARE. |
| 39 | CONSTRUCT 3' SINGLE LEAF SECURITY ACCESS GATE. |
| 40 | CONSTRUCT 6" PCC SIDEWALK WITH 4"X4" WELDED WIRE MESH. |
| 41 | RELOCATE EXISTING FIRE HYDRANT. |
| 42 | RELOCATE EXISTING POWER DROP. |
| 43 | EXISTING SEWER MANHOLE. |
| 44 | REMOVE EXISTING UTILITY MARKER. |
| 45 | REMOVE EXISTING POWER POLE. |
| 46 | INSTALL NEW 200 AMP METER SERVICE. |
| 47 | INSTALL NEW 100 AMP METER SERVICE. |
| 48 | INSTALL QUEUE DETECTOR LOOPS PER APWA 457-1 |
| 49 | REMOVE EXISTING BOLLARD. |
| 50 | PEDESTRIAN GATE WITH TWO WAY FLASHING LIGHT, WITHOUT BELL. |
| 51 | PEDESTRIAN GATE WITH THREE-WAY FLASHING LIGHT SIGNAL WITHOUT BELL. |
| 52 | PEDESTRIAN GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL. |
| 53 | CPUC STD No. 8 WITH TWO-WAY FLASHING LIGHT SIGNAL. |
| 54 | CPUC STD No. 8 WITH ONE-WAY FLASHING LIGHT SIGNAL. |
| 55 | CPUC STD No. 8A CANTILEVER FLASHING LIGHT SIGNAL. |
| 56 | CPUC STD No. 9 GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL. |
| 57 | CPUC STD No. 9 GATE WITH ONE-WAY FLASHING LIGHT SIGNAL, WITHOUT BELL. |
| 58 | CPUC STD NO. 9 GATE WITH OUT FLASHING LIGHT & BELL. |
| 59 | EXISTING SIGNAL HOUSE. |
| 60 | RELOCATE EXISTING PTC TOWER. |
| 61 | REMOVE EXISTING CANTELEVER SIGNAL. |
| 62 | CPUC STD NO. 9E GATE WITH 1-WAY LIGHTS AND BELL. |
| 63 | INSTALL NEW PTC TOWER. |
| 64 | INSTALL NEW SIGNAL HOUSE. |
| 65 | REMOVE EXISTING SIGNAL HOUSE. |
| 66 | CPUC STD GATE WITH 1-WAY LIGHTS WITHOUT BELL. |
| 67 | INSTALL 2-TRACK SIGNAL CANTILEVER. |
| 68 | INSTALL NEW SIGNAL. |
| 69 | REMOVE EXISTING SIGNAL. |
| 70 | INSTALL TRACK SIGNAL CANTELEVER. |
| 71 | CPUC STD No. 9-A WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL. |
| 75 | RELOCATE EXISTING CATCH BASIN |
| 76 | RELOCATE EXISTING POWER POLE |
| 77 | REMOVE BILLBOARD |

| No. | Striping Notes: |
|---|---|
| 1 | INSTALL 24" SOLID WHITE STOP LINE |
| 2 | INSTALL 4" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G) |
| 3 | INSTALL 4" DOUBLE YELLOW STRIPING WITH RPM TYPE (H) (DETAIL 22) |
| 4 | INSTALL 12" WHITE LINE |
| 5 | INSTALL RED CURB AS SHOWN |
| 6 | INSTALL 4" SOLID YELLOW LINE, 1' OFFSET FROM MEDIAN. |
| 7 | INSTALL 4" WHITE LANE LINE (DETAIL 8) |
| 8 | NOT USED |
| 9 | REMOVE PAVEMENT MARKING |
| 10 | PAVEMENT MARKING |
| 11 | REMOVE STRIPING & MARKINGS (WET SANDBLAST) |
| 12 | PROPOSED SIGN |
| 13 | REMOVE SIGN |
| 14 | INSTALL LANELINE PER CALTRANS (DETAIL 13) |
| 15 | INSTALL 8" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G) |
| 16 | INSTALL 12" WHITE LINE |
| 17 | INSTALL 4" WHITE LANE LINE (DETAIL 27B) |
| 18 | INSTALL 4" DOUBLE YELLOW STRIPING (DETAIL 21) |
| 19 | INSTALL 4" SOLID WHITE RETROFLECTIVE STRIPE WITH RPM'S PER ES4006 AND ES4016. |
| 20 | REMOVE BILLBOARD. |
| 21 | INSTALL MEDIAN STRIPING PER CALTRANS (DETAIL 30) |
| 22 | INSTALL CHANNELIZING LINE PER CALTRANS (DETAIL 38, DETAIL 38A ,DETAIL 38C) |
| 23 | INSTALL LANELINE PER CALTRANS (DETAIL 10, DETAIL 9) |
| 24 | INSTALL TWO-WAY LEFT TURN LANES PER CALTRANS (DETAIL 31) |
| 25 | INSTALL NO PASSING ZONES-ONE DIRECTION |

## SYMBOLS & LEGEND

- PROPOSED NEW AC PAVING
- PROPOSED NEW PCC CONCRETE
- GRIND EXISTING AC PAVEMENT
- BALLAST
- PEDESTRIAN SWING GATE
- PEDESTRIAN GATE
- EXISTING VEHICLE GATE
- EXISTING CANTILEVER SIGNAL
- CHAIN LINK FENCE
- EXISTING UTILITY VALVE
- EXISTING FIRE HYDRANT
- EXISTING MANHOLE
- EXISTING UTILITY POLE
- EXISTING DRIVEWAY
- C B — EXISTING CATCH BASIN
- L S — EXISTING LANDSCAPING
- PROPOSED RAILROAD SIGNAL HOUSE
- PROPOSED RAILROAD CONCRETE PANEL
- PTC TOWER
- CRUSHED MISCELLANEOUS BASE
- STREET LIGHT
- PROPOSED DETECTABLE WARNING SURFACE
- EXISTING RAILROAD CONCRETE PANEL
- PROPOSED POWER DROP METER

## UTILITIES

| | EXISTING | PROPOSED |
|---|---|---|
| CABLE TV OVERHEAD | ---TV OH--- | ---TV OH--- |
| CABLE TV UNDERGROUND | ---TV--- | ---TV--- |
| COMMUNICATION & SIGNALING | ——— | ——— |
| FIBER OPTIC | ---FO--- | ---FO--- |
| FUEL GAS | ---G--- | ---G--- |
| LIGHTING | ——— | ——— |
| NATURAL GAS | ---G--- | ---G--- |
| OIL | ---O--- | ---O--- |
| POWER OVERHEAD | ---E OH--- | ---E OH--- |
| POWER UNDERGROUND | ---E--- | ---E--- |
| SANITARY SEWER | ---SS--- | ---SS--- |
| STORM DRAIN | ---SD--- | ---SD--- |
| TELEPHONE OVERHEAD | ---T OH--- | ---T OH--- |
| TELEPHONE UNDERGROUND | ---T--- | ---T--- |
| WATER | ---W--- | ---W--- |

## ABBREVIATIONS

| | |
|---|---|
| AC | ASPHALT CONCRETE |
| AGG | AGGREGATE |
| AP | ANGLE POINT |
| AVE | AVENUE |
| BC | BEGINNING OF CURVE |
| BEG | BEGIN |
| BLVD | BOULEVARD |
| CB | CATCH BASIN |
| C/L, CL, or ℄ | CENTERLINE |
| CPUC or PUC | CALIFORNIA PUBLIC UTILITIES COMMISSION |
| DR | DRIVE |
| DWG | DRAWING |
| EA | EACH |
| EG | EXISTING GRADE or EXISTING GROUND |
| EL or ELEV | ELEVATION |
| EOP | EDGE OF PANEL |
| EP | EDGE OF PAVEMENT |
| ES or E.S. | ENGINEERING STANDARDS |
| EQ | EQUAL |
| EX or EXIST or (E) | EXISTING |
| FG | FINISHED GRADE |
| FL | FLOW LINE |
| FO | FIBER OPTIC |
| FS | FINISHED SURFACE |
| FT | FEET or FOOT |
| G | GRADE |
| G1 | GRADE ENTERING VERTICAL CURVE |
| G2 | GRADE EXITING VERTICAL CURVE |
| GB | GRADE BREAK |
| L | LENGTH |
| L.A. | LOS ANGELES |
| LACFCD | LOS ANGELES COUNTY FLOOD CONTROL DISTRICT |
| LACMTA | LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY (METRO) |
| LADPW | LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS |
| LF | LINEAR FEET or LINEAR FOOT |
| LOL | LAYOUT LINE |
| LS | LANDSCAPING |
| LT | LEFT, OR LEAD TRACK |
| MAX | MAXIMUM |
| MH | MANHOLE |
| MIN | MINIMUM |
| MT | MAIN TRACK |
| NTS | NOT TO SCALE |
| N/A | NOT APPLICABLE |
| PCC | POINT OF COMPOUND CURVATURE or PORTLAND CEMENT CONCRETE |
| PED | PEDESTRIAN |
| PH | POTHOLE |
| PI | POINT OF INTERSECTION |
| PIP | PROTECT IN PLACE |
| PL | PLACE or PROPERTY LINE |
| PNT | POINT |
| POB | POINT OF BEGINNING |
| POC | POINT ON CURVE |
| POE | POINT OF ENDING |
| POT | POINT ON TANGENT |
| POVT | POINT ON VERTICAL TANGENT |
| (P) or PROP | PROPOSED |
| PT | POINT OF TANGENT |
| PTC | POSITIVE TRAIN CONTROL |
| PVC | POINT OF VERTICAL CURVE or POLYVINYL CHLORIDE (PIPE) |
| PVCC | POINT OF VERTICAL COMPOUND CURVATURE |
| PVI | POINT OF VERTICAL INTERSECTION |
| PVT | POINT OF VERTICAL TANGENT |
| R | RADIUS or RATE OF CHANGE |
| RD | ROAD |
| REV | REVERSE |
| RGH | REVERSE GUTTER HIKE |
| RR | RAILROAD |
| RT | RIGHT |
| ROW or R/W | RIGHT-OF-WAY |
| S | SOUTH or SOUTHERLY or SLOPE |
| SCE | SOUTHERN CALIFORNIA EDISON |
| SCG | SOUTHERN CALIFORNIA GAS COMPANY |
| SCRRA | SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY (METROLINK) |
| SD | STORM DRAIN |
| SDMH | STORM DRAIN MANHOLE |
| SF | SQUARE FEET or SQUARE FOOT |
| SHT | SHEET |
| ST | STREET |
| STA | STATION |
| STD | STANDARD |
| T | TANGENT |
| TEL | TELEPHONE |
| TG | TOP OF GRADE |
| T/R or TOR | TOP OF RAIL |
| TRNS | TRANSITION |
| TYP | TYPICAL |
| UD | UNDERDRAIN |
| UPRR or UP | UNION PACIFIC RAILROAD |

Know what's below. Call before you dig.

30% SUBMITTAL
NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY JS
DRAWN BY JS
CHECKED BY PM
IN CHARGE MG
DATE 7-1-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

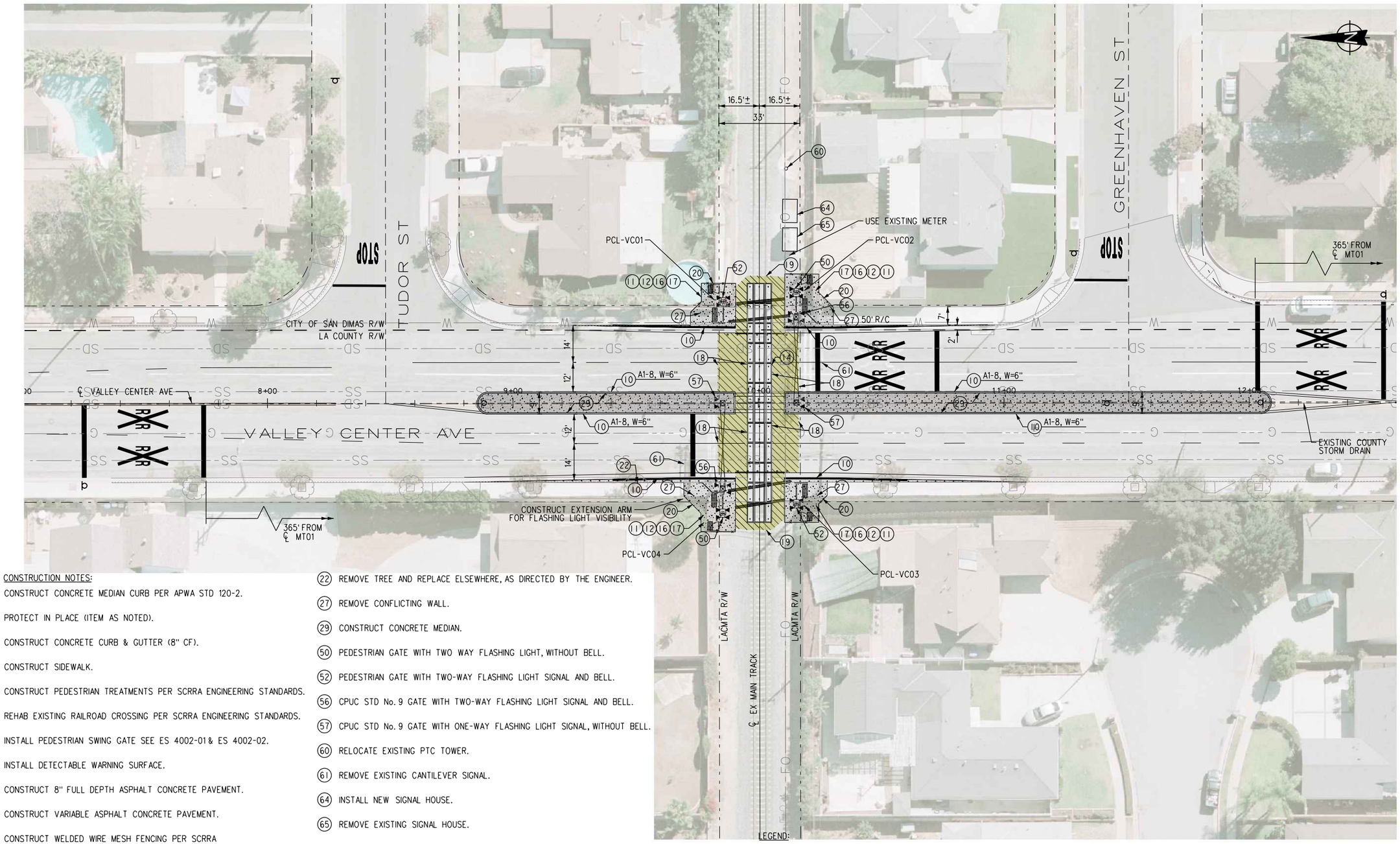
# LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

## CONSTRUCTION NOTES AND SYMBOLS

CONTRACT NO AE4555000241519565
DRAWING NO G-C-004 REV
SCALE NONE
SHEET NO 113

ShapirJa 6/28/2017 4:21:14 PM $FILE$

SHaPIRJa
PW:\\DC1CLUS01.JacOBS.cOM:JacOBSUJLPaTTERSON\DOcUMENTS\ENGINEERING\WaGNER\001 - LONE HILL AVE TO CP WHITE\MaSTER FILES\JEG-TRacK-C
6/27/2017
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CONSTRUCTION NOTES:

(1) CONSTRUCT CONCRETE MEDIAN CURB PER APWA STD 120-2.

(9) PROTECT IN PLACE (ITEM AS NOTED).

(10) CONSTRUCT CONCRETE CURB & GUTTER (8" CF).

(11) CONSTRUCT SIDEWALK.

(12) CONSTRUCT PEDESTRIAN TREATMENTS PER SCRRA ENGINEERING STANDARDS.

(14) REHAB EXISTING RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.

(16) INSTALL PEDESTRIAN SWING GATE SEE ES 4002-01 & ES 4002-02.

(17) INSTALL DETECTABLE WARNING SURFACE.

(18) CONSTRUCT 8" FULL DEPTH ASPHALT CONCRETE PAVEMENT.

(19) CONSTRUCT VARIABLE ASPHALT CONCRETE PAVEMENT.

(20) CONSTRUCT WELDED WIRE MESH FENCING PER SCRRA ENGINEERING STANDARDS 5105 H=4'-0".

(22) REMOVE TREE AND REPLACE ELSEWHERE, AS DIRECTED BY THE ENGINEER.

(27) REMOVE CONFLICTING WALL.

(29) CONSTRUCT CONCRETE MEDIAN.

(50) PEDESTRIAN GATE WITH TWO WAY FLASHING LIGHT, WITHOUT BELL.

(52) PEDESTRIAN GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.

(56) CPUC STD No. 9 GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.

(57) CPUC STD No. 9 GATE WITH ONE-WAY FLASHING LIGHT SIGNAL, WITHOUT BELL.

(60) RELOCATE EXISTING PTC TOWER.

(61) REMOVE EXISTING CANTILEVER SIGNAL.

(64) INSTALL NEW SIGNAL HOUSE.

(65) REMOVE EXISTING SIGNAL HOUSE.

NOTES:

1. REMOVE EXISTING ACTIVE WARNING DEVICES UPON INSTALLATION OF NEW ACTIVE WARNING DEVICES.

LEGEND:

CONCRETE WALK

8" ASPHALT

40 MPH POSTED ROADWAY SPEED

GRAPHIC SCALE: 20' 10' 0 20' 40' — 1" = 20'

| | |
|---|---|
| R8-8 24"X30" DO NOT STOP ON TRACKS | R28(S)(CA) 12"X18" NO STOPPING ANY TIME |
| R6-1R ONE WAY | TYPE N |
| W10-1 | R15-1 RAILROAD CROSSING |
| W10-2L 36"X36" | W10-2R 36"X36" |
| W48 (CA) TRACK | R4-7 |
| R3-5R ONLY | |

| WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER |
|---|---|---|---|---|---|
| | | | | | |

**DIG ALERT**

CALL BEFORE YOU DIG

SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIGALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIGALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE TWO WORKING DAYS BEFORE YOU DIG.

1-800-227-2600

CAUTION: REMEMBER THAT THE USA CENTER NOTIFIES ONLY THOSE UTILITIES BELONGING TO THE CENTER. THERE COULD BE OTHER UTILITIES PRESENT AT THE WORK SITE. THE CENTER WILL INFORM YOU OF WHOM THEY WILL NOTIFY.

BENCHMARK

BM NUMBER

| △ | DATE | DESCRIPTION | APP'D | DATE |
|---|---|---|---|---|

REVISIONS

**CITY OF SAN DIMAS**

REVIEWED BY: _____ DIRECTOR OF PUBLIC WORKS _____ DATE

APPROVED BY: _____ CITY ENGINEER _____ DATE

(INSERT ENGINEER'S SEAL HERE)

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

PREPARED BY: JS

CHECKED BY: MG

DATE: 6/28/17

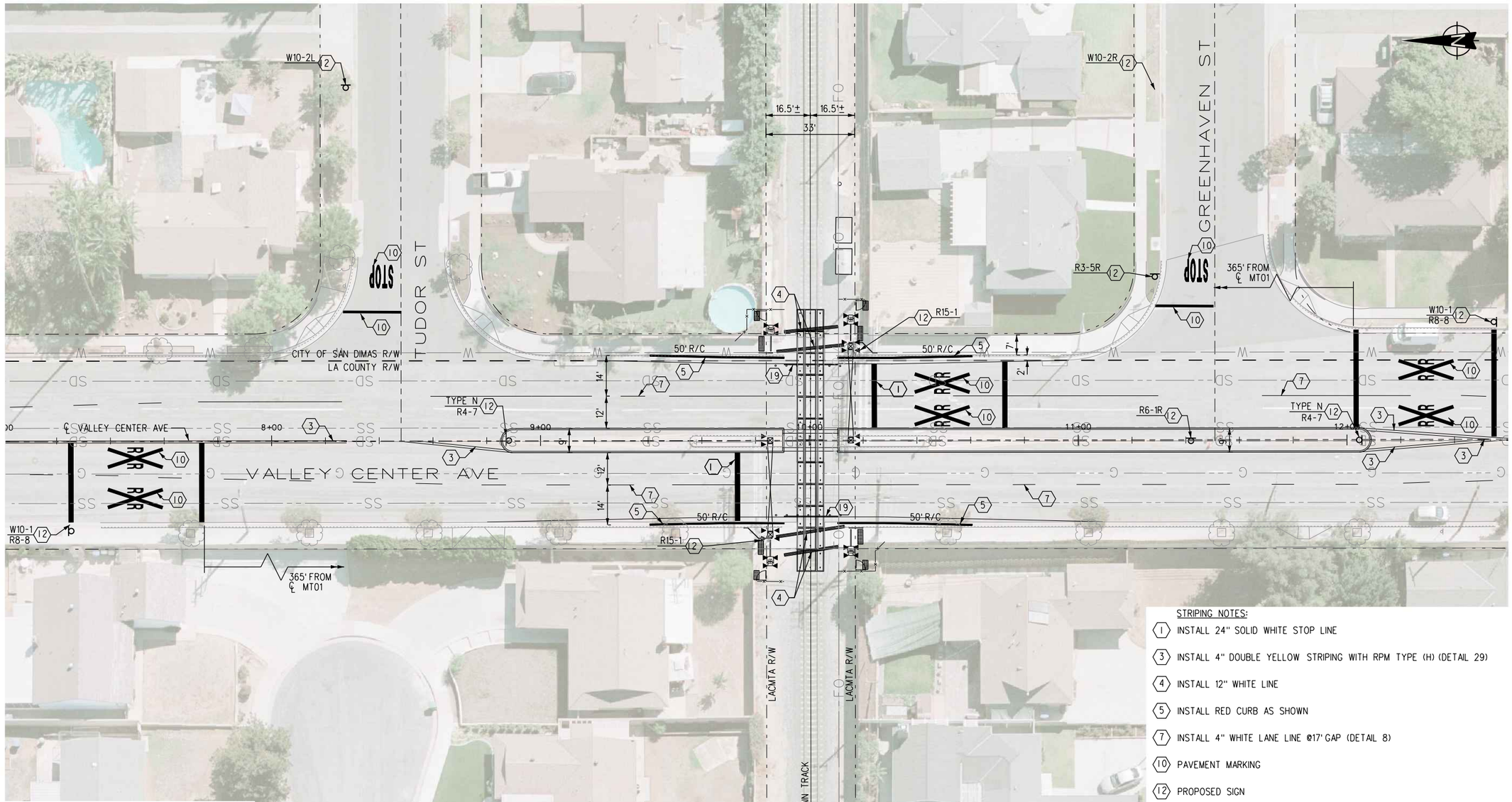
DRAWING NO: CS-C-010PP

LONE HILL AVE TO CP WHITE
DOUBLE TRACK PROJECT

VALLEY CENTER AVE
STREET IMPROVEMENT PLAN
(DOT) 747317H – (CPUC) 101SG-26.05

SHEET 114 OF SHEETS

SHaPIRJa
PW:\\DC1CLUS01.JacOBS.COM:JacOBSUJLPaTTERSON\DOcUMENTS\ENGINEERING\WaGNER\001 - LONE HILL AVE TO CP WHITE\MaSTER FILES\JEG-TRacK-C
6/27/2017
3:06:41 PM




CONSTRUCTION SYMBOLS

- CONSTRUCT
- EXISTING
- REMOVE
- STRIPING NOTES
- REMODEL EXISTING
- REMOVE & CONSTRUCT
- WORK BY OTHERS

STRIPING NOTES:

1. INSTALL 24" SOLID WHITE STOP LINE
3. INSTALL 4" DOUBLE YELLOW STRIPING WITH RPM TYPE (H) (DETAIL 29)
4. INSTALL 12" WHITE LINE
5. INSTALL RED CURB AS SHOWN
7. INSTALL 4" WHITE LANE LINE @17' GAP (DETAIL 8)
10. PAVEMENT MARKING
12. PROPOSED SIGN
13. REMOVE SIGN
14. NOT USED
15. INSTALL 8" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G)
19. 4" SOLID WHITE RETROFLECTIVE STRIPE WITH RPM'S PER ES4006 AND ES4016.

NOTES:

1. ALL MARKINGS SHALL BE THERMOPLASTIC.
2. REMOVE CONFLICTING STRIPING AND MARKINGS (WET SANDBLAST).

GRAPHIC SCALE: 20' 10' 0 20' 40' — 1" = 20'

R8-8 24"X30" — DO NOT STOP ON TRACKS
R28(S)(CA) 12"X18" — NO STOPPING ANY TIME
R6-1R — ONE WAY
TYPE N
W10-1 — RAILROAD CROSSING
R15-1
W10-2L 36"X36"
W10-2R 36"X36"
W48 (CA) — TRACK
R4-7
R3-5R — ONLY

WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER

**DIG ALERT** SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIGALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID, FOR YOUR DIGALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE TWO WORKING DAYS BEFORE YOU DIG.
1-800-227-2600
CAUTION: REMEMBER THAT THE USA CENTER NOTIFIES ONLY THOSE UTILITIES BELONGING TO THE CENTER. THERE COULD BE OTHER UTILITIES PRESENT AT THE WORK SITE. THE CENTER WILL INFORM YOU OF WHOM THEY WILL NOTIFY.

BENCHMARK
BM NUMBER

| Δ | DATE | DESCRIPTION | APP'D | DATE |
|---|---|---|---|---|

REVISIONS

**CITY OF SAN DIMAS**
REVIEWED BY: _____ DIRECTOR OF PUBLIC WORKS _____ DATE
APPROVED BY: _____ CITY ENGINEER _____ DATE

(INSERT ENGINEER'S SEAL HERE)

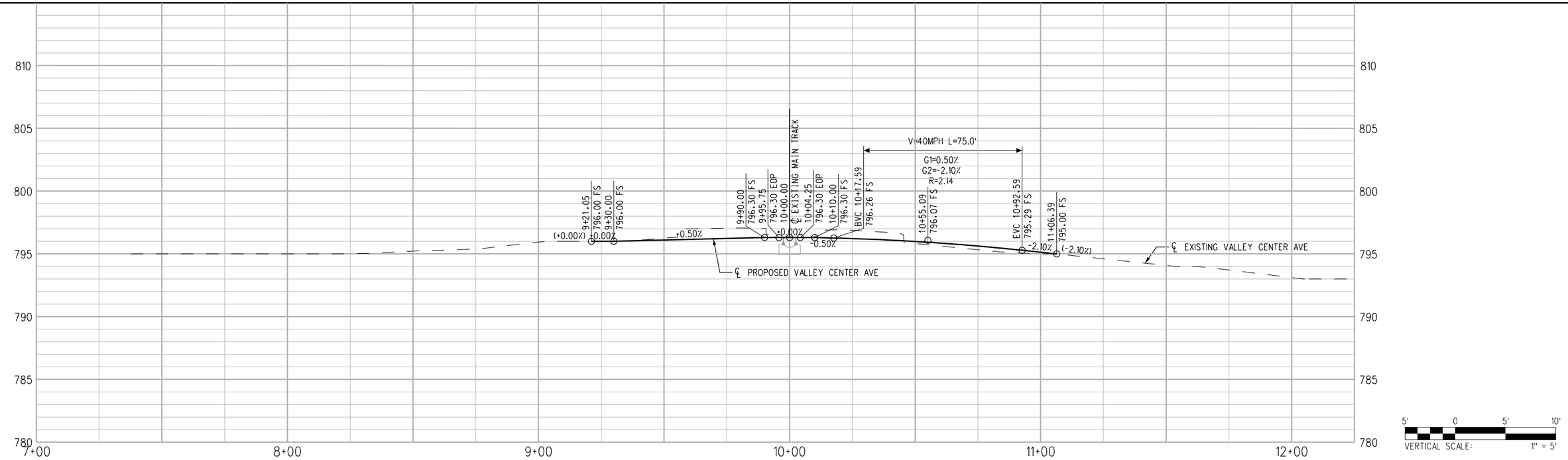
WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

PREPARED BY: JS
CHECKED BY: MG
DATE: 6/28/17

DRAWING NO: SS-C-010PL

LONE HILL AVE TO CP WHITE
DOUBLE TRACK PROJECT
VALLEY CENTER AVE
SIGNING AND STRIPING PLAN
(DOT) 747317H – (CPUC) 101SG-26.04

SHEET 115 OF SHEETS




811 Know what's below. Call before you dig.

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

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ORANGE, CA 92868
TEL 714-835-6355

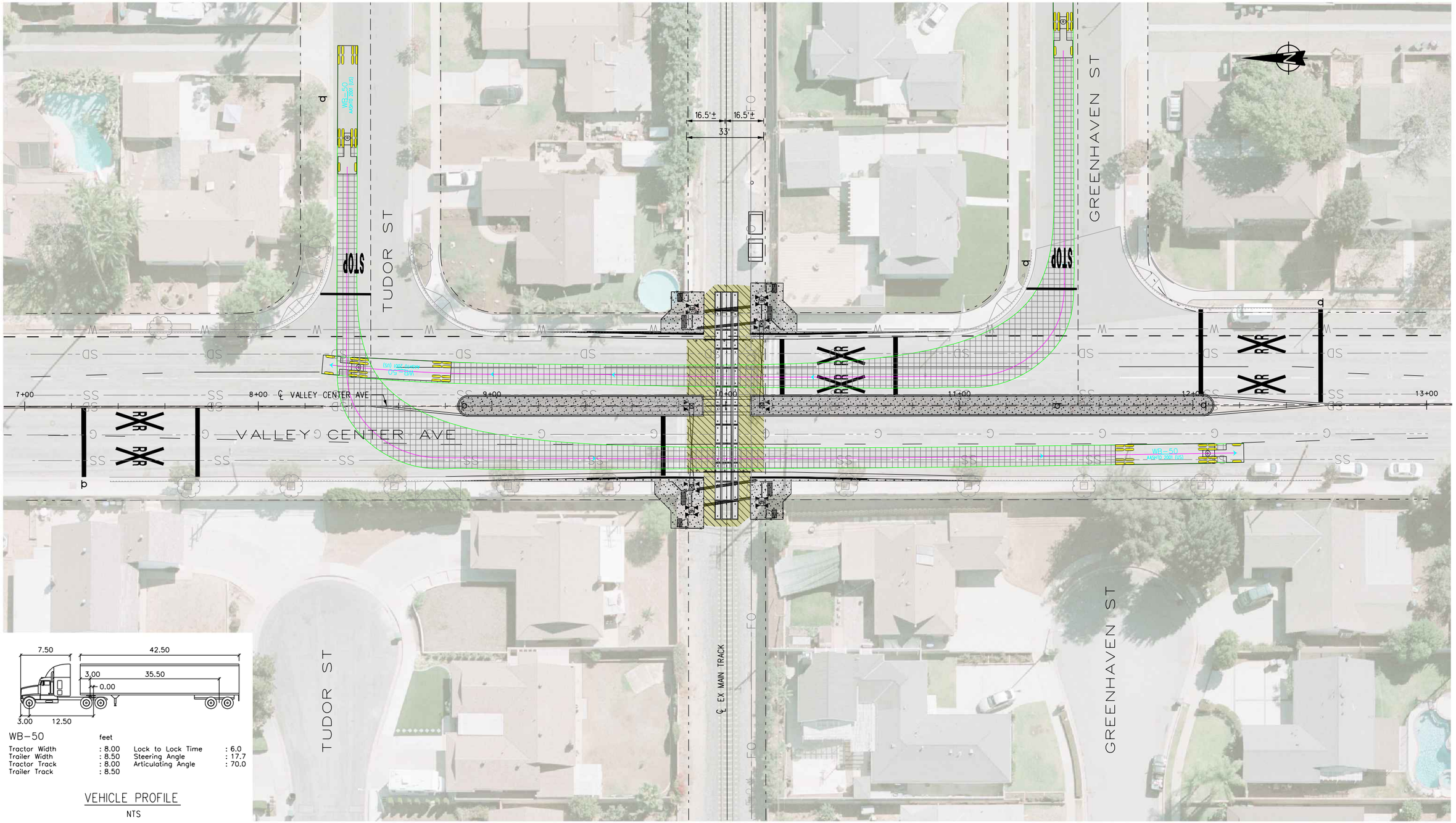

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**STREET IMPROVEMENT PROFILE VALLEY CENTER AVENUE (DOT) 747317H; (CPUC) 101SG-26.05**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | CS-C-010PR |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 116 |

ShapirJa 6/27/2017 3:06:32 PM $FILEL$

SHaPIRJa
PW:\\DC1CLUS01.JacOBS.cOM:JacOBSUJLPaTTERSON\DOcUMENTS\ENGINEERING\WaGNER\001 - LONE HILL AVE TO CP WHITE\MaSTER FILES\JEG-TRacK-C
3:06:22 PM
6/27/2017







WB–50 feet

| | | | |
|---|---|---|---|
| Tractor Width | : 8.00 | Lock to Lock Time | : 6.0 |
| Trailer Width | : 8.50 | Steering Angle | : 17.7 |
| Tractor Track | : 8.00 | Articulating Angle | : 70.0 |
| Trailer Track | : 8.50 | | |

VEHICLE PROFILE

NTS

40 MPH POSTED ROADWAY SPEED

20' 10' 0 20' 40'

GRAPHIC SCALE: 1" = 20'

| WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER |
|---|---|---|---|---|---|
| | | | | | |

**DIG ALERT**

SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIGALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID, FOR YOUR DIGALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE TWO WORKING DAYS BEFORE YOU DIG.

1-800-227-2600

CAUTION: REMEMBER THAT THE USA CENTER NOTIFIES ONLY THOSE UTILITIES BELONGING TO THE CENTER. THERE COULD BE OTHER UTILITIES PRESENT AT THE WORK SITE. THE CENTER WILL INFORM YOU OF WHOM THEY WILL NOTIFY.

BENCHMARK

BM NUMBER

| Δ | DATE | DESCRIPTION | APP'D | DATE |
|---|---|---|---|---|

REVISIONS

**CITY OF SAN DIMAS**

REVIEWED BY: _____ DIRECTOR OF PUBLIC WORKS _____ DATE

APPROVED BY: _____ CITY ENGINEER _____ DATE

(INSERT ENGINEER'S SEAL HERE)

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

PREPARED BY: JS

CHECKED BY: MG

DATE: 6/28/17

DRAWING NO: CS-C-011EXH

LONE HILL AVE TO CP WHITE
DOUBLE TRACK PROJECT

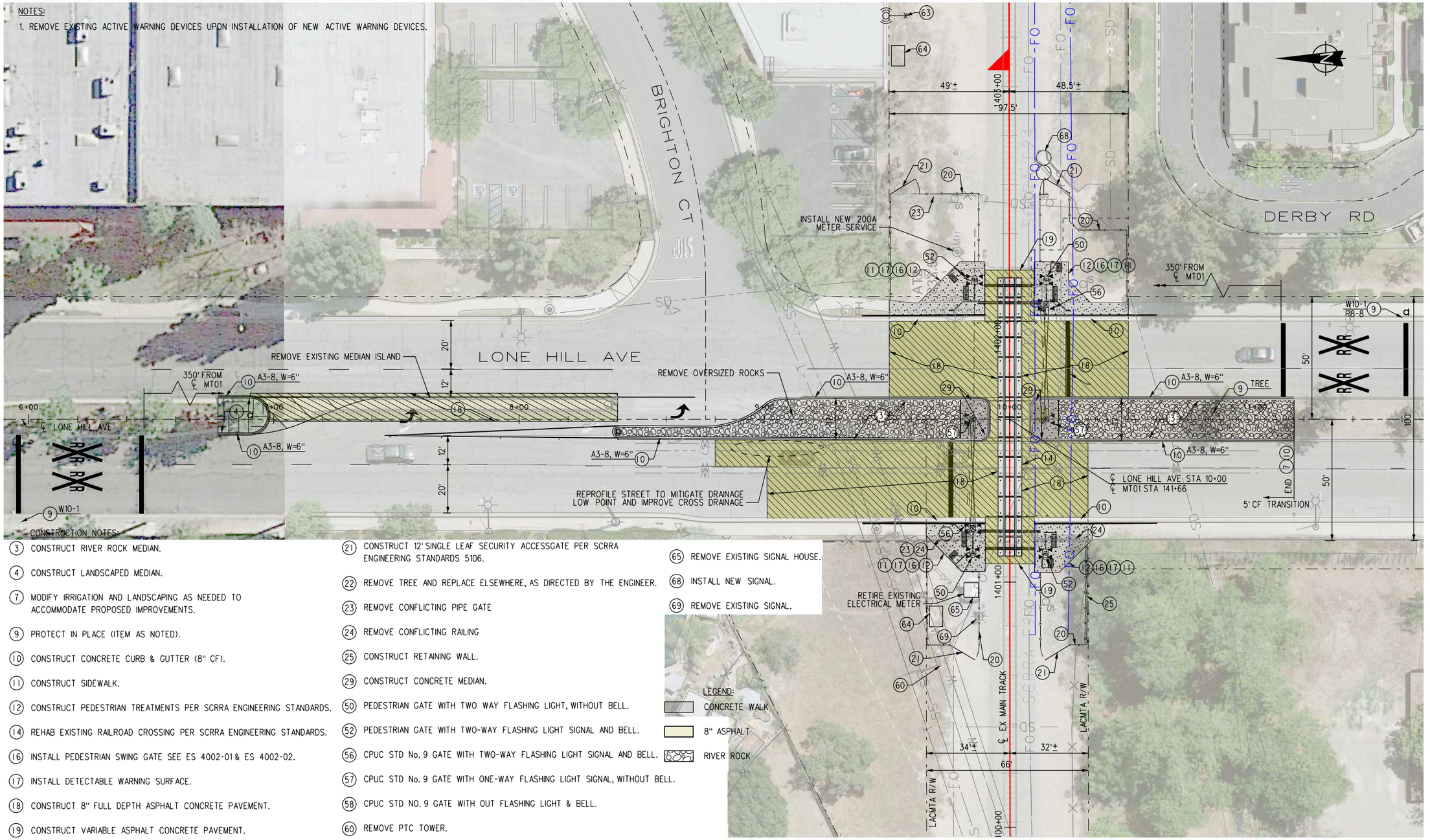
VALLEY CENTER AVE
VEHICULAR TURNING MOVEMENTS
(DOT) 747317H – (CPUC) 101SG-26.05

SHEET 117 OF SHEETS

SHaPIRJa
PW:\\DC1CLUS01.JacOBS.cOM:JacOBSULPaTTERSON\DocUMENTS\ENGINEERING\WaGNER\001 - LONE HILL AVE TO CP WHITE\MaSTER FILES\JEG-TRacK-C
6/27/2017
3:06:50 PM

NOTES:

1. REMOVE EXISTING ACTIVE WARNING DEVICES UPON INSTALLATION OF NEW ACTIVE WARNING DEVICES.




CONSTRUCTION NOTES:

3. CONSTRUCT RIVER ROCK MEDIAN.
4. CONSTRUCT LANDSCAPED MEDIAN.
7. MODIFY IRRIGATION AND LANDSCAPING AS NEEDED TO ACCOMMODATE PROPOSED IMPROVEMENTS.
9. PROTECT IN PLACE (ITEM AS NOTED).
10. CONSTRUCT CONCRETE CURB & GUTTER (8" CF).
11. CONSTRUCT SIDEWALK.
12. CONSTRUCT PEDESTRIAN TREATMENTS PER SCRRA ENGINEERING STANDARDS.
14. REHAB EXISTING RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.
16. INSTALL PEDESTRIAN SWING GATE SEE ES 4002-01 & ES 4002-02.
17. INSTALL DETECTABLE WARNING SURFACE.
18. CONSTRUCT 8" FULL DEPTH ASPHALT CONCRETE PAVEMENT.
19. CONSTRUCT VARIABLE ASPHALT CONCRETE PAVEMENT.
20. CONSTRUCT WELDED WIRE MESH FENCING PER SCRRA ENGINEERING STANDARDS 5105 H=4'-0".
21. CONSTRUCT 12' SINGLE LEAF SECURITY ACCESSGATE PER SCRRA ENGINEERING STANDARDS 5106.
22. REMOVE TREE AND REPLACE ELSEWHERE, AS DIRECTED BY THE ENGINEER.
23. REMOVE CONFLICTING PIPE GATE
24. REMOVE CONFLICTING RAILING
25. CONSTRUCT RETAINING WALL.
29. CONSTRUCT CONCRETE MEDIAN.
50. PEDESTRIAN GATE WITH TWO WAY FLASHING LIGHT, WITHOUT BELL.
52. PEDESTRIAN GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.
56. CPUC STD No. 9 GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.
57. CPUC STD No. 9 GATE WITH ONE-WAY FLASHING LIGHT SIGNAL, WITHOUT BELL.
58. CPUC STD NO. 9 GATE WITH OUT FLASHING LIGHT & BELL.
60. REMOVE PTC TOWER.
63. INSTALL NEW PTC TOWER.
64. INSTALL NEW SIGNAL HOUSE.
65. REMOVE EXISTING SIGNAL HOUSE.
68. INSTALL NEW SIGNAL.
69. REMOVE EXISTING SIGNAL.

LEGEND:
- CONCRETE WALK
- 8" ASPHALT
- RIVER ROCK

35 MPH POSTED ROADWAY SPEED

GRAPHIC SCALE: 20' 10' 0 20' 40' — 1" = 20'

| | |
|---|---|
| R8-8 24"X30" DO NOT STOP ON TRACKS | R10-6 24"X36" STOP HERE ON RED |
| R15-1 RAIL-ROAD CROSSING | R28(S)(CA) 12"X18" NO STOPPING ANY TIME |
| W48 (CA) TRACK | W10-1 RR |
| W10-2L 36"X36" | W10-2R 36"X36" |
| R6-1R ONE WAY | TYPE N |
| R4-7 | R3-5R ONLY |

**DIG ALERT** SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIGALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID, FOR YOUR DIGALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE TWO WORKING DAYS BEFORE YOU DIG.
1-800-227-2600
CAUTION: REMEMBER THAT THE USA CENTER NOTIFIES ONLY THOSE UTILITIES BELONGING TO THE CENTER. THERE COULD BE OTHER UTILITIES PRESENT AT THE WORK SITE. THE CENTER WILL INFORM YOU OF WHOM THEY WILL NOTIFY.

BENCHMARK
BM NUMBER

| △ | DATE | DESCRIPTION | APP'D | DATE |
|---|---|---|---|---|

REVISIONS

**CITY OF SAN DIMAS**
REVIEWED BY: _____ DIRECTOR OF PUBLIC WORKS _____ DATE
APPROVED BY: _____ CITY ENGINEER _____ DATE

(INSERT ENGINEER'S SEAL HERE)

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

PREPARED BY: JS
CHECKED BY: MG
DATE: 6/28/17

DRAWING NO: CS-C-020PP

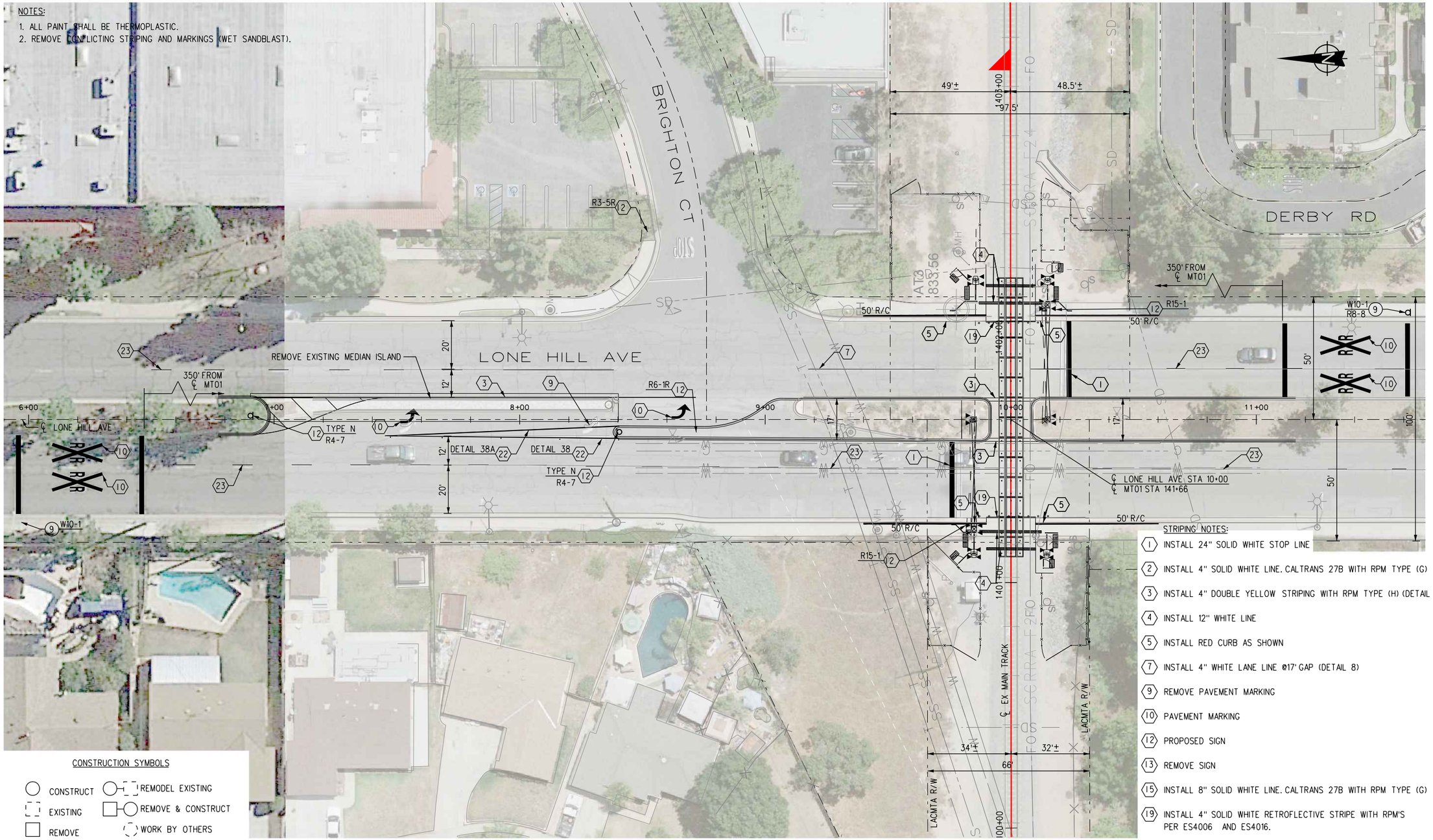
LONE HILL AVE TO CP WHITE
DOUBLE TRACK PROJECT
LONE HILL AVE
STREET IMPROVEMENT PLAN
(DOT) 747318P – (CPUC) 101SG-26.55

SHEET 118 OF SHEETS

| WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER |
|---|---|---|---|---|---|
| | | | | | |

SHaPIRJa
PW:\\DC1CLUS01.JacOBS.cOM:JacOBSuJLPaTTERSON\DOcUMENTS\ENGINEERING\WaGNER\001 - LONE HILL AVE TO CP WHITE\MaSTER FILES\JEG-TRacK-C
3:07:19 PM
6/27/2017

NOTES:
1. ALL PAINT SHALL BE THERMOPLASTIC.
2. REMOVE CONFLICTING STRIPING AND MARKINGS (WET SANDBLAST).




CONSTRUCTION SYMBOLS

- CONSTRUCT
- EXISTING
- REMOVE
- STRIPING NOTES
- REMODEL EXISTING
- REMOVE & CONSTRUCT
- WORK BY OTHERS

STRIPING NOTES:

1. INSTALL 24" SOLID WHITE STOP LINE
2. INSTALL 4" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G)
3. INSTALL 4" DOUBLE YELLOW STRIPING WITH RPM TYPE (H) (DETAIL 29)
4. INSTALL 12" WHITE LINE
5. INSTALL RED CURB AS SHOWN
7. INSTALL 4" WHITE LANE LINE @17' GAP (DETAIL 8)
9. REMOVE PAVEMENT MARKING
10. PAVEMENT MARKING
12. PROPOSED SIGN
13. REMOVE SIGN
15. INSTALL 8" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G)
19. INSTALL 4" SOLID WHITE RETROFLECTIVE STRIPE WITH RPM'S PER ES4006 AND ES4016.
22. INSTALL CHANNELIZING LINE PER CALTRANS (DETAIL 38, DETAIL 38A)
23. INSTALL LANELINE PER CALTRANS (DETAIL 9)

20' 10' 0 20' 40'
GRAPHIC SCALE: 1" = 20'

| | |
|---|---|
| R8-8 24"X30" | R10-6 24"X36" |
| R15-1 | R28(S)(CA) 12"X18" |
| W48 (CA) | W10-1 |
| W10-2L 36"X36" | W10-2R 36"X36" |
| R6-1R | TYPE N |
| R4-7 | R3-5R |

| WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER |
|---|---|---|---|---|---|
| | | | | | |

**DIG ALERT** SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIGALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIGALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE TWO WORKING DAYS BEFORE YOU DIG.
1-800-227-2600
CAUTION: REMEMBER THAT THE USA CENTER NOTIFIES ONLY THOSE UTILITIES BELONGING TO THE CENTER. THERE COULD BE OTHER UTILITIES PRESENT AT THE WORK SITE. THE CENTER WILL INFORM YOU OF WHOM THEY WILL NOTIFY.

BENCHMARK
BM NUMBER

| △ | DATE | DESCRIPTION | APP'D | DATE |
|---|---|---|---|---|

REVISIONS

**CITY OF SAN DIMAS**
REVIEWED BY: _____ DIRECTOR OF PUBLIC WORKS _____ DATE
APPROVED BY: _____ CITY ENGINEER _____ DATE

(INSERT ENGINEER'S SEAL HERE)

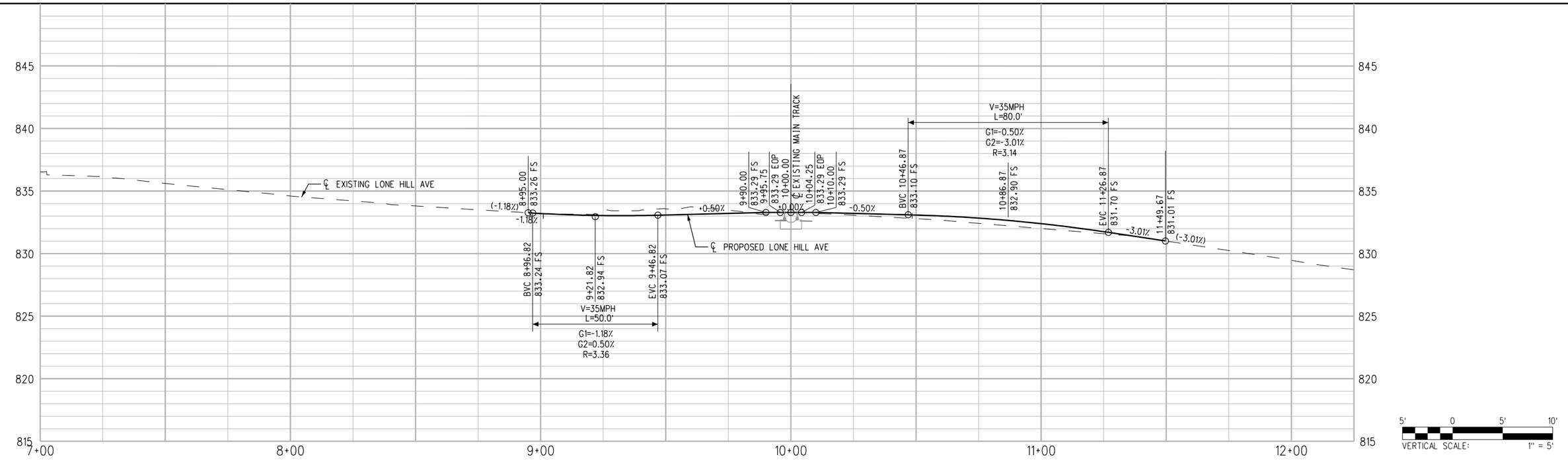
WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

PREPARED BY: JS
CHECKED BY: MG
DATE: 6/28/17

DRAWING NO: SS-C-020PL

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
LONE HILL AVE
SIGNING AND STRIPING PLAN
(DOT) 747318P – (CPUC) 101SG-26.54

SHEET 119 OF SHEETS




811 Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

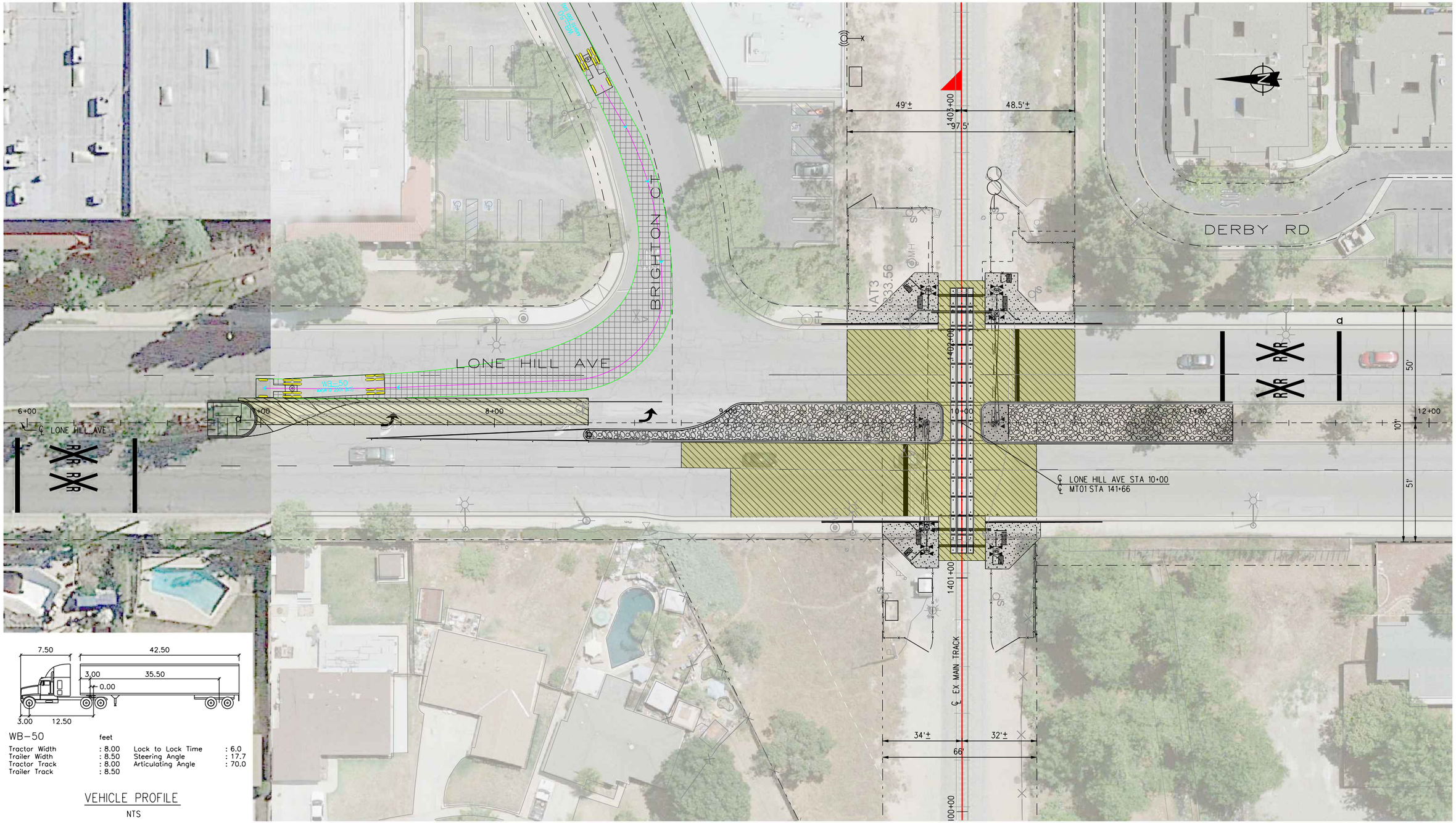
**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**STREET IMPROVEMENT PROFILE LONE HILL AVENUE (DOT) 747318P; (CPUC) 101SG-26.55**

CONTRACT NO AE4555000241519565
DRAWING NO CS-C-020PR REV
SCALE AS SHOWN
SHEET NO 120

ShapirJa 6/27/2017 3:07:01 PM $FILEL$

SHaPIRJa
PW:\\DC1CLUS01.JacOBS.cOM:JacOBSULPaTTERSON\DOcUMENTS\ENGINEERING\WaGNER\001 - LONE HILL AVE TO CP WHITE\MaSTER FILES\JEG-TRacK-C
6/27/2017
3:07:10 PM







WB-50 feet

| | | | |
|---|---|---|---|
| Tractor Width | : 8.00 | Lock to Lock Time | : 6.0 |
| Trailer Width | : 8.50 | Steering Angle | : 17.7 |
| Tractor Track | : 8.00 | Articulating Angle | : 70.0 |
| Trailer Track | : 8.50 | | |

VEHICLE PROFILE

NTS

20' 10' 0 20' 40'

GRAPHIC SCALE: 1" = 20'

| WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER |
|---|---|---|---|---|---|
| | | | | | |

**DIG ALERT** SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIGALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIGALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE TWO WORKING DAYS BEFORE YOU DIG.

1-800-227-2600

CAUTION: REMEMBER THAT THE USA CENTER NOTIFIES ONLY THOSE UTILITIES BELONGING TO THE CENTER. THERE COULD BE OTHER UTILITIES PRESENT AT THE WORK SITE. THE CENTER WILL INFORM YOU OF WHOM THEY WILL NOTIFY.

BENCHMARK

BM NUMBER

| Δ | DATE | DESCRIPTION | APP'D | DATE |
|---|---|---|---|---|

REVISIONS

**CITY OF SAN DIMAS**

REVIEWED BY: _____ DIRECTOR OF PUBLIC WORKS _____ DATE

APPROVED BY: _____ CITY ENGINEER _____ DATE

(INSERT ENGINEER'S SEAL HERE)

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

PREPARED BY: JS

CHECKED BY: MG

DATE: 6/28/17

DRAWING NO: CS-C-021EXH

# LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

## LONE HILL AVE VEHICULAR TURNING MOVEMENTS (DOT) 747318P – (CPUC) 101SG-26.55

SHEET 121 OF SHEETS

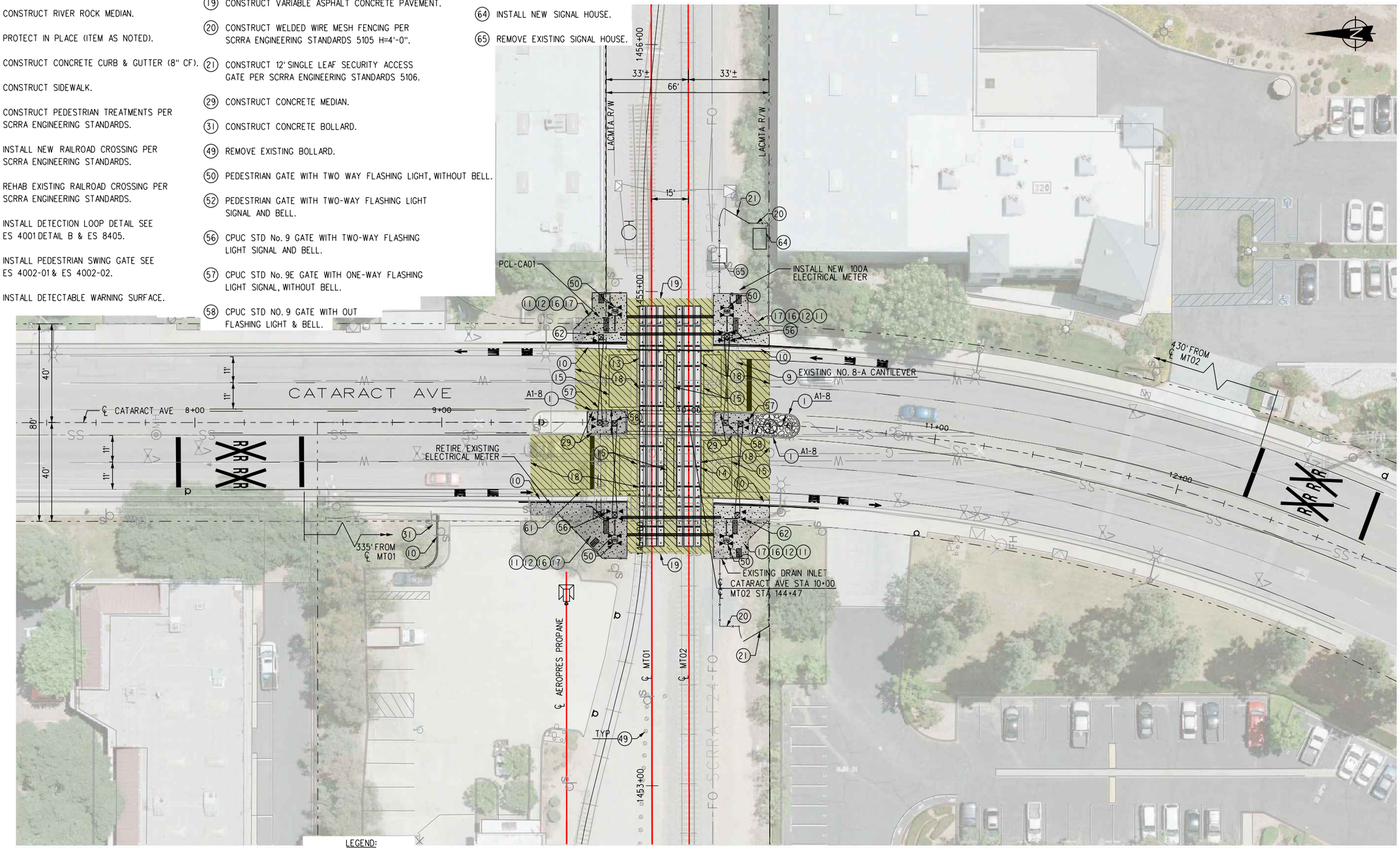
8HaPIRJa
PW:\\DC1CLUS01.JacOBS.cOM:JacOBSUJLPaTTERSON\DOcUMENTS\ENGINEERING\WaGNER\001 - LONE HILL AVE TO CP WHITE\MaSTER FILES\JEG-TRacK-C

CONSTRUCTION NOTES:

1. CONSTRUCT CONCRETE MEDIAN CURB PER APWA STD 120-2.
3. CONSTRUCT RIVER ROCK MEDIAN.
9. PROTECT IN PLACE (ITEM AS NOTED).
10. CONSTRUCT CONCRETE CURB & GUTTER (8" CF).
11. CONSTRUCT SIDEWALK.
12. CONSTRUCT PEDESTRIAN TREATMENTS PER SCRRA ENGINEERING STANDARDS.
13. INSTALL NEW RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.
14. REHAB EXISTING RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.
15. INSTALL DETECTION LOOP DETAIL SEE ES 4001 DETAIL B & ES 8405.
16. INSTALL PEDESTRIAN SWING GATE SEE ES 4002-01 & ES 4002-02.
17. INSTALL DETECTABLE WARNING SURFACE.
18. CONSTRUCT 8" FULL DEPTH ASPHALT CONCRETE PAVEMENT.
19. CONSTRUCT VARIABLE ASPHALT CONCRETE PAVEMENT.
20. CONSTRUCT WELDED WIRE MESH FENCING PER SCRRA ENGINEERING STANDARDS 5105 H=4'-0".
21. CONSTRUCT 12' SINGLE LEAF SECURITY ACCESS GATE PER SCRRA ENGINEERING STANDARDS 5106.
29. CONSTRUCT CONCRETE MEDIAN.
31. CONSTRUCT CONCRETE BOLLARD.
49. REMOVE EXISTING BOLLARD.
50. PEDESTRIAN GATE WITH TWO WAY FLASHING LIGHT, WITHOUT BELL.
52. PEDESTRIAN GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.
56. CPUC STD No. 9 GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.
57. CPUC STD No. 9E GATE WITH ONE-WAY FLASHING LIGHT SIGNAL, WITHOUT BELL.
58. CPUC STD NO. 9 GATE WITH OUT FLASHING LIGHT & BELL.
61. REMOVE EXISTING CANTELEVER SIGNAL.
62. CPUC STD NO. 9E GATE WITH 1-WAY LIGHTS AND BELL.
64. INSTALL NEW SIGNAL HOUSE.
65. REMOVE EXISTING SIGNAL HOUSE.

NOTES:

1. REMOVE EXISTING ACTIVE WARNING DEVICES UPON INSTALLATION OF NEW ACTIVE WARNING DEVICES.




LEGEND:

- CONCRETE WALK
- 8" ASPHALT
- RIVER ROCK

40 MPH POSTED ROADWAY SPEED

GRAPHIC SCALE: 20' 10' 0 20' 40' — 1" = 20'

| | |
|---|---|
| R8-8 24"X30" DO NOT STOP ON TRACKS | R10-6 24"X36" STOP HERE ON RED |
| R15-1P RAIL ROAD CROSSING | R28(S)(CA) 12"X18" NO STOPPING ANY TIME |
| W48 (CA) | W10-1 |
| W10-2L 36"X36" | W10-2R 36"X36" |
| R6-1R ONE WAY | R3-2 24"X24" |
| TYPE N | R15-2P(2) 2 TRACKS |
| R7-1 NO PARKING ANY TIME | R4-7 |

**DIG ALERT**

SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIGALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID, FOR YOUR DIGALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE TWO WORKING DAYS BEFORE YOU DIG.

1-800-227-2600

CAUTION: REMEMBER THAT THE USA CENTER NOTIFIES ONLY THOSE UTILITIES BELONGING TO THE CENTER. THERE COULD BE OTHER UTILITIES PRESENT AT THE WORK SITE. THE CENTER WILL INFORM YOU OF WHOM THEY WILL NOTIFY.

**BENCHMARK**

BM NUMBER

| △ | DATE | DESCRIPTION | APP'D | DATE |
|---|---|---|---|---|

**REVISIONS**

**CITY OF SAN DIMAS**

REVIEWED BY: _____ DIRECTOR OF PUBLIC WORKS _____ DATE

APPROVED BY: _____ CITY ENGINEER _____ DATE

(INSERT ENGINEER'S SEAL HERE)

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

PREPARED BY: JS
CHECKED BY: MG
DATE: 6/28/17

DRAWING NO: CS-C-030PP

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

CATARACT AVE STREET IMPROVEMENT PLAN (DOT) 747320R – (CPUC) 101SG-27.55

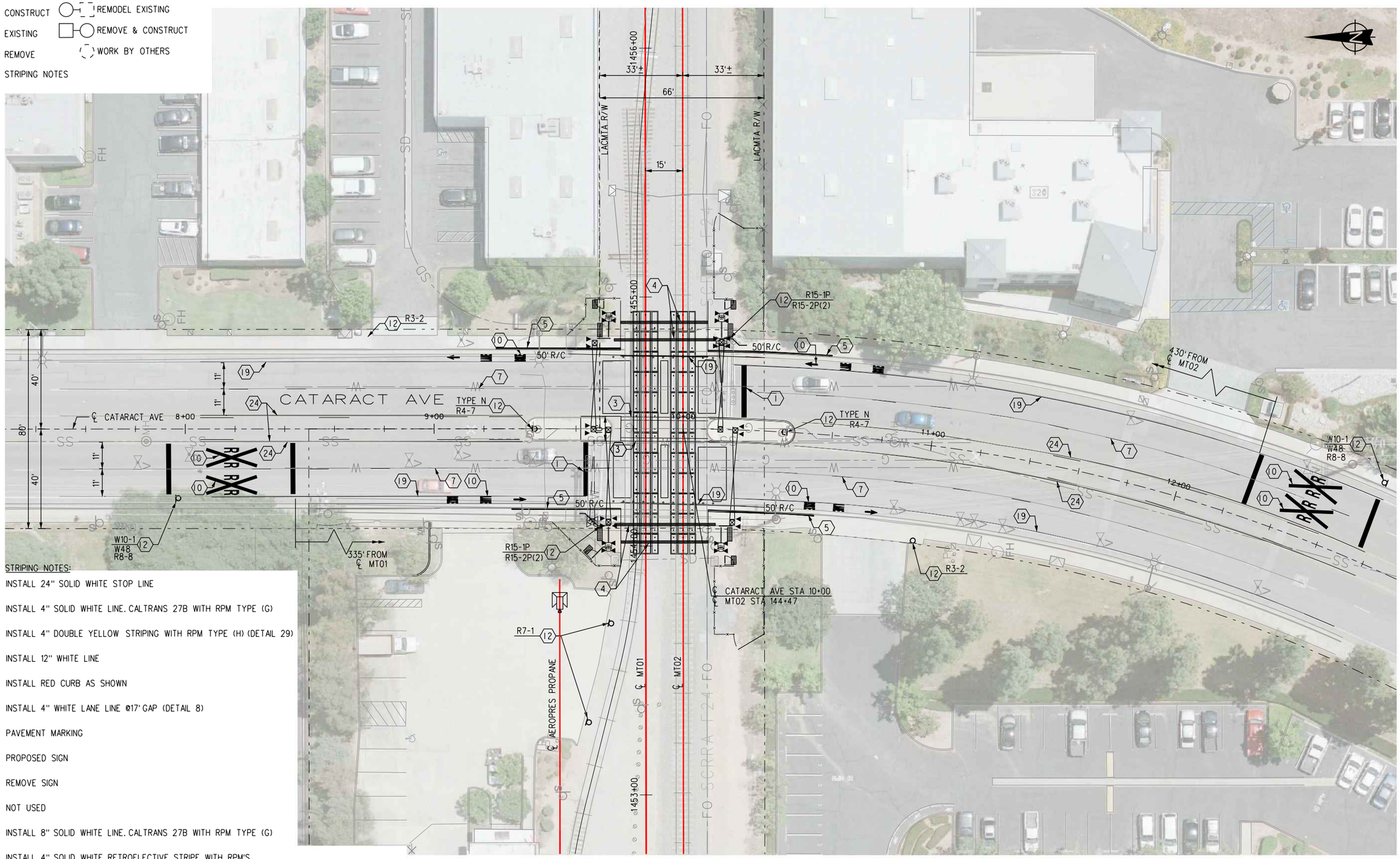
SHEET 122 OF SHEETS

| WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER |
|---|---|---|---|---|---|
| | | | | | |

8HaPIRJa
PW:\\DC1CLUS01.JacOBS.cOM:JacOBSUJLPaTTERSON\DOcUMENTS\ENGINEERING\WaGNER\001 - LONE HILL AVE TO CP WHITE\MaSTER FILES\JEG-TRacK-C
6/27/2017
3:08:02 PM

CONSTRUCTION SYMBOLS

- CONSTRUCT
- EXISTING
- REMOVE
- STRIPING NOTES
- REMODEL EXISTING
- REMOVE & CONSTRUCT
- WORK BY OTHERS




STRIPING NOTES:

1. INSTALL 24" SOLID WHITE STOP LINE
2. INSTALL 4" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G)
3. INSTALL 4" DOUBLE YELLOW STRIPING WITH RPM TYPE (H) (DETAIL 29)
4. INSTALL 12" WHITE LINE
5. INSTALL RED CURB AS SHOWN
7. INSTALL 4" WHITE LANE LINE @17' GAP (DETAIL 8)
10. PAVEMENT MARKING
12. PROPOSED SIGN
13. REMOVE SIGN
14. NOT USED
15. INSTALL 8" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G)
19. INSTALL 4" SOLID WHITE RETROFLECTIVE STRIPE WITH RPM'S PER ES4006 AND ES4016.
24. INSTALL TWO-WAY LEFT TURN LANES PER CALTRANS (DETAIL 31)

NOTES:

1. ALL MARKINGS SHALL BE THERMOPLASTIC.
2. REMOVE CONFLICTING STRIPING AND MARKINGS (WET SANDBLAST).

20' 10' 0 20' 40'
GRAPHIC SCALE: 1" = 20'

| | |
|---|---|
| R8-8 24"X30" | R10-6 24"X36" |
| R15-1 | R28(S)(CA) 12"X18" |
| W48 (CA) | W10-1 |
| W10-2L 36"X36" | W10-2R 36"X36" |
| R6-1R | R3-2 24"X24" |
| TYPE N | R15-2P(2) |
| R7-1 | R4-7 |

**DIG ALERT**
SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIGALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIGALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE TWO WORKING DAYS BEFORE YOU DIG.
1-800-227-2600
CAUTION: REMEMBER THAT THE USA CENTER NOTIFIES ONLY THOSE UTILITIES BELONGING TO THE CENTER. THERE COULD BE OTHER UTILITIES PRESENT AT THE WORK SITE. THE CENTER WILL INFORM YOU OF WHOM THEY WILL NOTIFY.

**BENCHMARK**
BM NUMBER

| △ | DATE | DESCRIPTION | APP'D | DATE |
|---|---|---|---|---|

**REVISIONS**

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REVIEWED BY: _____ DIRECTOR OF PUBLIC WORKS _____ DATE
APPROVED BY: _____ CITY ENGINEER _____ DATE

(INSERT ENGINEER'S SEAL HERE)

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

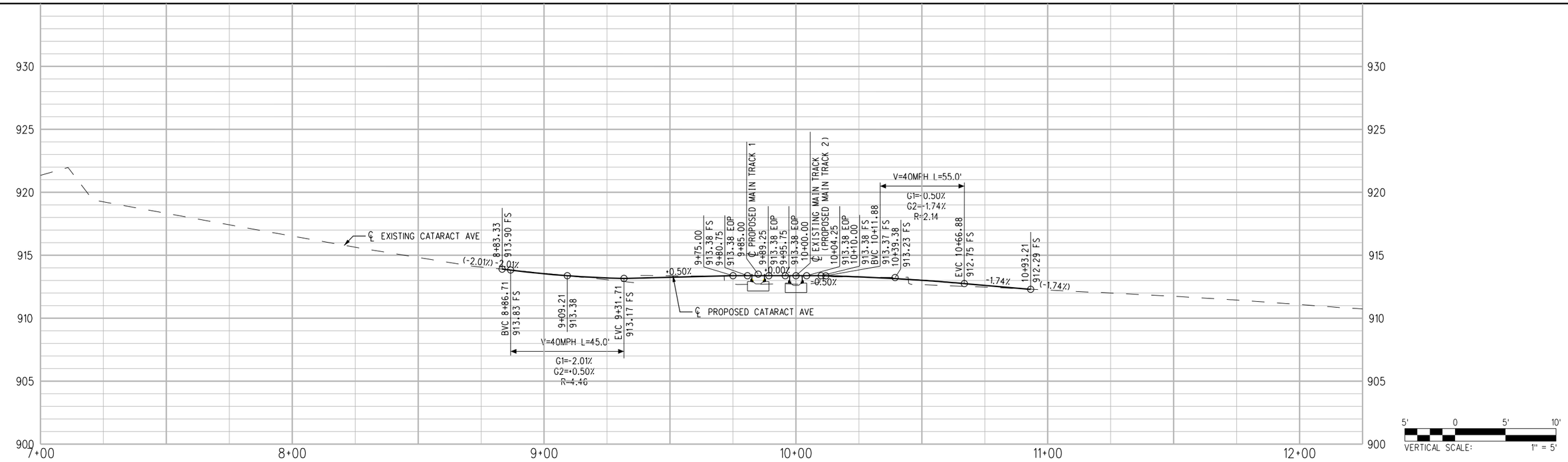
PREPARED BY: JS
CHECKED BY: MG
DATE: 6/28/17

DRAWING NO: SS-C-030PL

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
CATARACT AVE
SIGNING AND STRIPING PLAN
(DOT) 747320R – (CPUC) 101SG-27.54

SHEET 123 OF SHEETS

| WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER |
|---|---|---|---|---|---|
| | | | | | |




Know what's below. Call before you dig.

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

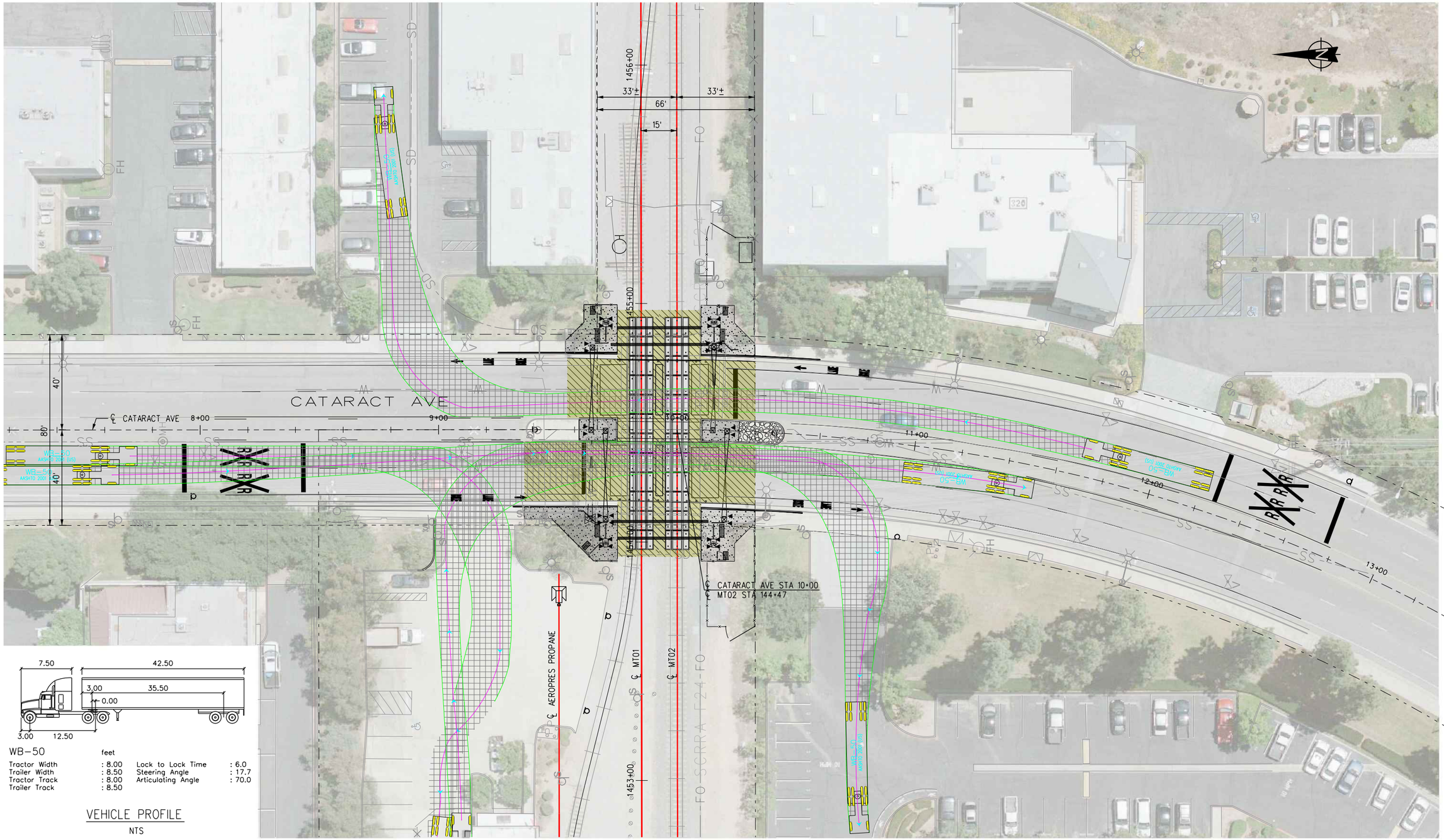

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**STREET IMPROVEMENT PROFILE CATARACT AVENUE (DOT) 747320R; (CPUC) 101SG-27.55**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | CS-C-030PR |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 124 |

ShapirJa 6/27/2017 3:07:42 PM $FILEL$

8HaPIRJa
P W:◇DC1CLUS01.JacOB8.cOM:JacOBSUJLPaTTERSON◇DOcUMENTS◇ENGINEERING◇WaGNER◇001 - LONE HILL AVE TO CP WHITE◇MaSTER FILES◇JEG-TRacK-C
3:07:51 PM
6/27/2017







WB–50 feet

| | | | |
|---|---|---|---|
| Tractor Width | : 8.00 | Lock to Lock Time | : 6.0 |
| Trailer Width | : 8.50 | Steering Angle | : 17.7 |
| Tractor Track | : 8.00 | Articulating Angle | : 70.0 |
| Trailer Track | : 8.50 | | |

VEHICLE PROFILE

NTS

40 MPH POSTED ROADWAY SPEED

GRAPHIC SCALE: 20' 10' 0 20' 40' — 1" = 20'

| WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER |
|---|---|---|---|---|---|
| | | | | | |

**DIG ALERT**

SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIGALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIGALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE TWO WORKING DAYS BEFORE YOU DIG.

1-800-227-2600

CAUTION: REMEMBER THAT THE USA CENTER NOTIFIES ONLY THOSE UTILITIES BELONGING TO THE CENTER. THERE COULD BE OTHER UTILITIES PRESENT AT THE WORK SITE. THE CENTER WILL INFORM YOU OF WHOM THEY WILL NOTIFY.

**BENCHMARK**

BM NUMBER

| △ | DATE | DESCRIPTION | APP'D | DATE |
|---|---|---|---|---|

**REVISIONS**

**CITY OF SAN DIMAS**

REVIEWED BY: _____ DIRECTOR OF PUBLIC WORKS _____ DATE

APPROVED BY: _____ CITY ENGINEER _____ DATE

(INSERT ENGINEER'S SEAL HERE)

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

PREPARED BY: JS

CHECKED BY: MG

DATE: 6/28/17

DRAWING NO: CS-C-031EXH

LONE HILL AVE TO CP WHITE
DOUBLE TRACK PROJECT

CATARACT AVE
VEHICULAR TURNING MOVEMENTS
(DOT) 747320R – (CPUC) 101SG-27.55

SHEET 125 OF SHEETS

8HaPIRJa
PW:\\DC1CLU801.JacOB8.cOM:JacOB8UJLPaTTERSON\DOcUMENTS\ENGINEERING\WaGNER\001 - LONE HILL AVE TO CP WHITE\MaSTER FILES\JEG-TRacK-C
3:08:12 PM
6/27/2017

CONSTRUCTION NOTES:

(3) CONSTRUCT RIVER ROCK MEDIAN.

(6) RAISE RIVER ROCK TO ACCOMMODATE 8" CF.

(7) MODIFY IRRIGATION AND LANDSCAPING AS NEEDED TO ACCOMMODATE PROPOSED IMPROVEMENTS.

(9) PROTECT IN PLACE (ITEM AS NOTED).

(10) CONSTRUCT CONCRETE CURB & GUTTER (8" CF).

(11) CONSTRUCT SIDEWALK.

(12) CONSTRUCT PEDESTRIAN TREATMENTS PER SCRRA ENGINEERING STANDARDS.

(13) INSTALL NEW RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.

(14) REHAB EXISTING RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.

(16) INSTALL PEDESTRIAN SWING GATE SEE ES 4002-01 & ES 4002-02.

(17) INSTALL DETECTABLE WARNING SURFACE.

(18) CONSTRUCT 8" FULL DEPTH ASPHALT CONCRETE PAVEMENT.

(19) CONSTRUCT VARIABLE ASPHALT CONCRETE PAVEMENT.

(20) CONSTRUCT WELDED WIRE MESH FENCING PER SCRRA ENGINEERING STANDARDS 5105 H=4'-0".

(21) CONSTRUCT 12' SINGLE LEAF SECURITY ACCESS GATE PER SCRRA ENGINEERING STANDARDS 5106.

(22) REMOVE TREE.

(23) REMOVE CONFLICTING PIPE GATE.

(28) REMOVE CONFLICTING KRAIL BARRIER.

(29) CONSTRUCT CONCRETE MEDIAN.

(50) PEDESTRIAN GATE WITH TWO WAY FLASHING LIGHT, WITHOUT BELL.

(52) PEDESTRIAN GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.

(56) CPUC STD No. 9 GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.

(57) CPUC STD No. 9 GATE WITH ONE-WAY FLASHING LIGHT SIGNAL, WITHOUT BELL.

(60) RELOCATE EXISTING PTC TOWER.

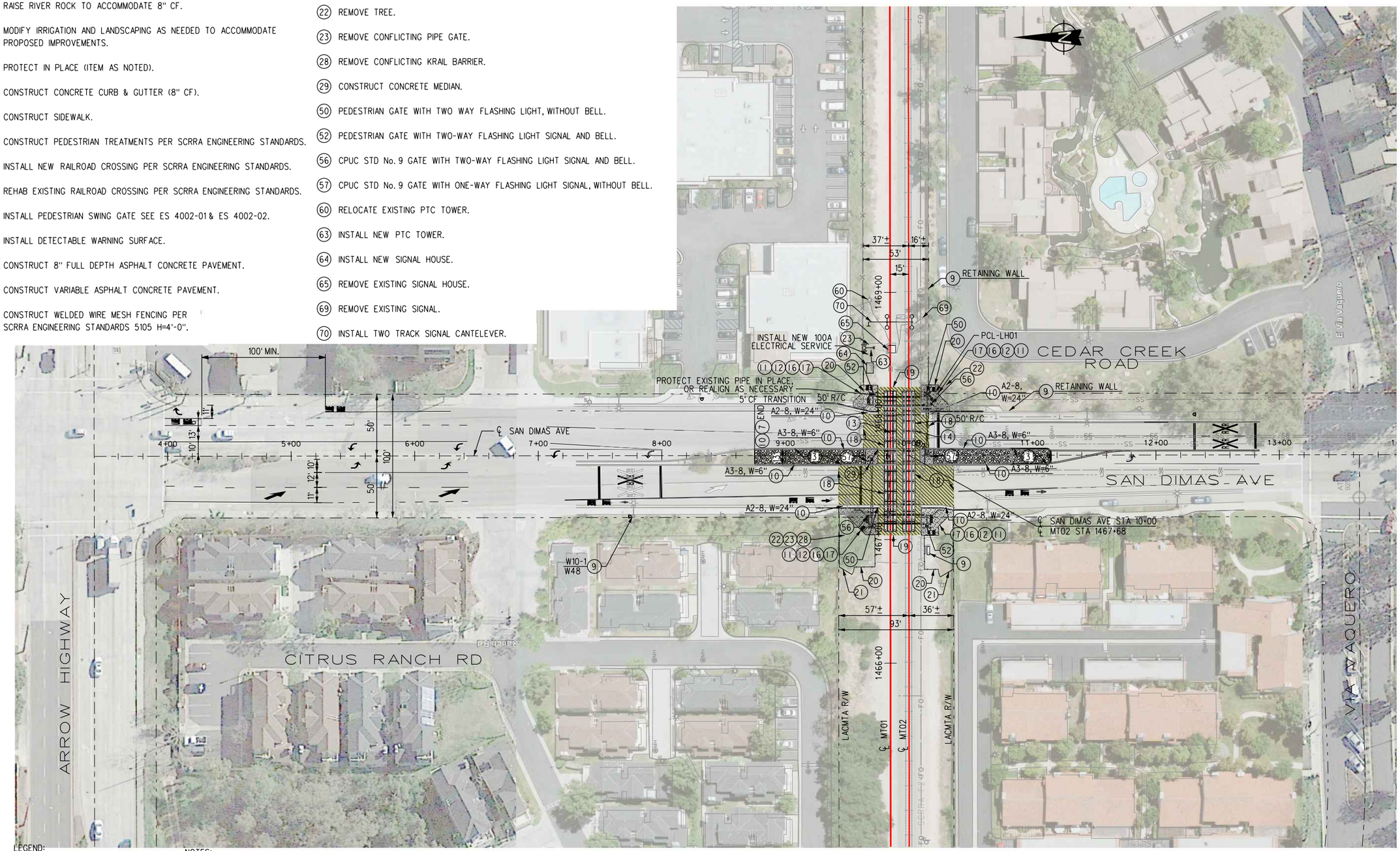
(63) INSTALL NEW PTC TOWER.

(64) INSTALL NEW SIGNAL HOUSE.

(65) REMOVE EXISTING SIGNAL HOUSE.

(69) REMOVE EXISTING SIGNAL.

(70) INSTALL TWO TRACK SIGNAL CANTELEVER.




LEGEND:

CONCRETE WALK  RIVER ROCK

8" ASPHALT

NOTES:

1. REMOVE EXISTING ACTIVE WARNING DEVICES UPON INSTALLATION OF NEW ACTIVE WARNING DEVICES.

40 MPH POSTED ROADWAY SPEED

GRAPHIC SCALE: 40' 20' 0 40' 80' — 1" = 40'

R8-8 24"X30" — DO NOT STOP ON TRACKS

R10-6 24"X36" — STOP HERE ON RED

R15-1 — RAIL ROAD CROSSING

R28(S)(CA) 12"X18" — NO STOPPING ANY TIME

W48 (CA) — TRACKS

W10-1 — RR

W10-2L 36"X36"

W10-2R 36"X36"

R6-1R — ONE WAY

TYPE N

W48 (CA) — TRACKS

R15-2 (2) — TRACKS

R3-5R — ONLY

R4-7

**DIG ALERT** SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIGALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIGALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE TWO WORKING DAYS BEFORE YOU DIG.
1-800-227-2600
CAUTION: REMEMBER THAT THE USA CENTER NOTIFIES ONLY THOSE UTILITIES BELONGING TO THE CENTER. THERE COULD BE OTHER UTILITIES PRESENT AT THE WORK SITE. THE CENTER WILL INFORM YOU OF WHOM THEY WILL NOTIFY.

BENCHMARK
BM NUMBER

| △ | DATE | DESCRIPTION | APP'D | DATE |
|---|---|---|---|---|

REVISIONS

**CITY OF SAN DIMAS**

REVIEWED BY: _____ DIRECTOR OF PUBLIC WORKS _____ DATE

APPROVED BY: _____ CITY ENGINEER _____ DATE

(INSERT ENGINEER'S SEAL HERE)

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

PREPARED BY: JS
CHECKED BY: MG
DATE: 6/28/17

DRAWING NO: CS-C-040PP

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

SAN DIMAS AVENUE STREET IMPROVEMENT PLAN
(DOT) 747321X - (CPUC) 101SG-27.80

SHEET 126 OF SHEETS

| WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER |
|---|---|---|---|---|---|

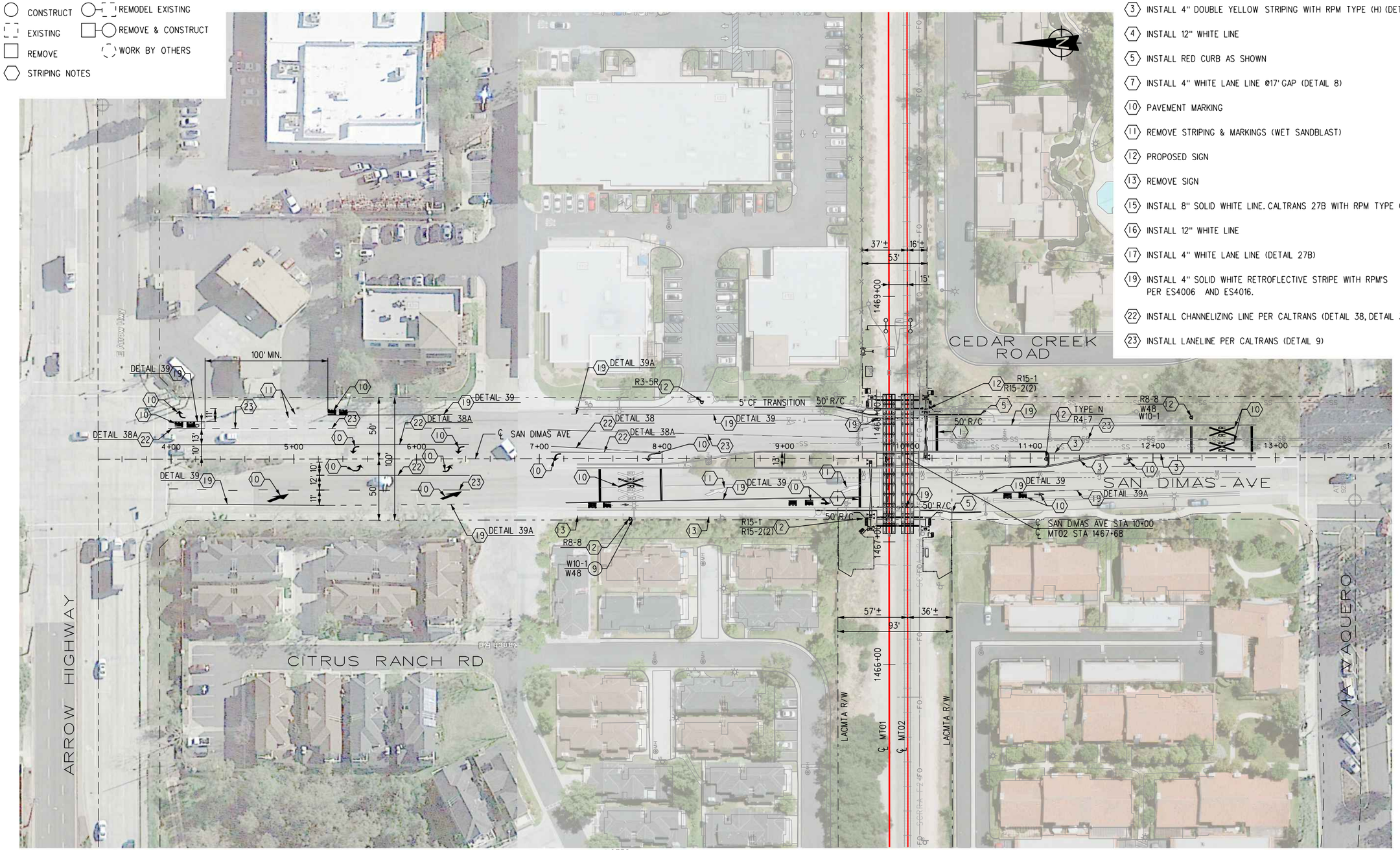
$HaPIRJa
PW:\\DC1CLU801.JacOBS.cOM:JacOBSUJLPaTTERSON\DOCUMENTS\ENGINEERING\WaGNER\001 - LONE HILL AVE TO CP WHITE\MaSTER FILES\JEG-TRacK-C
3:08:53 PM
6/27/2017

CONSTRUCTION SYMBOLS

- CONSTRUCT
- EXISTING
- REMOVE
- STRIPING NOTES
- REMODEL EXISTING
- REMOVE & CONSTRUCT
- WORK BY OTHERS

STRIPING NOTES:

1. INSTALL 24" SOLID WHITE STOP LINE
3. INSTALL 4" DOUBLE YELLOW STRIPING WITH RPM TYPE (H) (DETAIL 29)
4. INSTALL 12" WHITE LINE
5. INSTALL RED CURB AS SHOWN
7. INSTALL 4" WHITE LANE LINE @17' GAP (DETAIL 8)
10. PAVEMENT MARKING
11. REMOVE STRIPING & MARKINGS (WET SANDBLAST)
12. PROPOSED SIGN
13. REMOVE SIGN
15. INSTALL 8" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G)
16. INSTALL 12" WHITE LINE
17. INSTALL 4" WHITE LANE LINE (DETAIL 27B)
19. INSTALL 4" SOLID WHITE RETROFLECTIVE STRIPE WITH RPM'S PER ES4006 AND ES4016.
22. INSTALL CHANNELIZING LINE PER CALTRANS (DETAIL 38, DETAIL 38A)
23. INSTALL LANELINE PER CALTRANS (DETAIL 9)




NOTES:

1. ALL MARKINGS SHALL BE THERMOPLASTIC.
2. REMOVE CONFLICTING STRIPING AND MARKINGS (WET SANDBLAST).

GRAPHIC SCALE: 40' 20' 0 40' 80' — 1" = 40'

| | |
|---|---|
| R8-8 24"X30" | R10-6 24"X36" |
| R15-1 | R28(S)(CA) 12"X18" |
| W48 (CA) | W10-1 |
| W10-2L 36"X36" | W10-2R 36"X36" |
| R6-1R | TYPE N |
| W48 (CA) | R15-2 (2) |
| R3-5R | R4-7 |

**DIG ALERT**

CALL BEFORE YOU DIG

SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIGALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIGALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE TWO WORKING DAYS BEFORE YOU DIG.

1-800-227-2600

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BENCHMARK

BM NUMBER

| △ | DATE | DESCRIPTION | APP'D | DATE |
|---|---|---|---|---|

REVISIONS

**CITY OF SAN DIMAS**

REVIEWED BY: _____ DIRECTOR OF PUBLIC WORKS _____ DATE

APPROVED BY: _____ CITY ENGINEER _____ DATE

(INSERT ENGINEER'S SEAL HERE)

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

PREPARED BY: JS

CHECKED BY: MG

DATE: 6/28/17

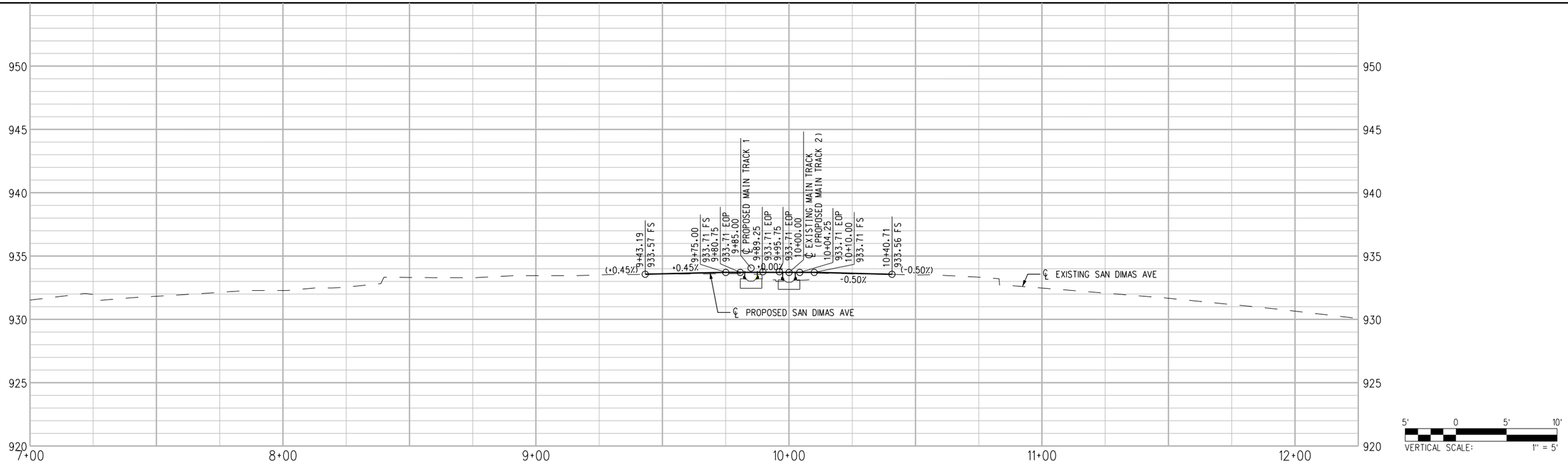
DRAWING NO: SS-C-040-PL

LONE HILL AVE TO CP WHITE
DOUBLE TRACK PROJECT

SAN DIMAS AVENUE
SIGNING AND STRIPING PLAN
(DOT) 747321X - (CPUC) 101SG-27.79

SHEET 127 OF SHEETS

| PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT |
|---|---|---|---|---|---|
| | | | | | |




Know what's below. Call before you dig.

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

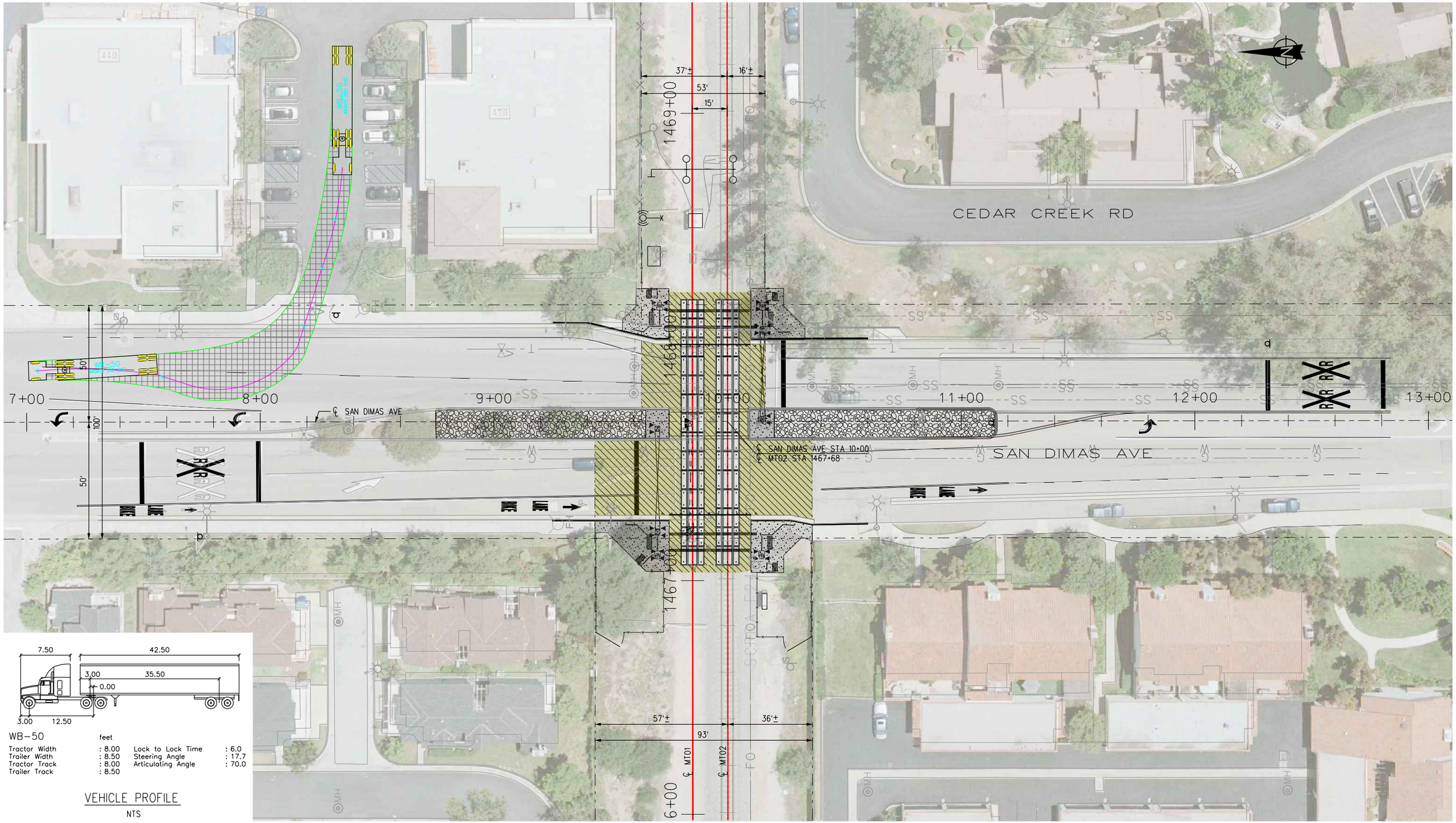

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**STREET IMPROVEMENT PROFILE SAN DIMAS AVENUE (DOT) 747321X; (CPUC) 101SG-27.80**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | CS-C-040PR |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 128 |

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$haPIRJa
PW:\\DC1CLUS01.JacOB8.cOM:JacOBSUJLPaTTERSON\DocUMENTS\ENGINEERING\WaGNER\001 - LONE HILL AVE TO CP WHITE\MaSTER FILES\JEG-TRacK-C
6/27/2017
3:08:32 PM







WB–50 feet

| | | | |
|---|---|---|---|
| Tractor Width | : 8.00 | Lock to Lock Time | : 6.0 |
| Trailer Width | : 8.50 | Steering Angle | : 17.7 |
| Tractor Track | : 8.00 | Articulating Angle | : 70.0 |
| Trailer Track | : 8.50 | | |

VEHICLE PROFILE

NTS

40 MPH POSTED ROADWAY SPEED

20' 10' 0 20' 40'

GRAPHIC SCALE: 1" = 20'

| WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER |
|---|---|---|---|---|---|
| | | | | | |

**DIG ALERT**

SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIGALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIGALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE TWO WORKING DAYS BEFORE YOU DIG.

1-800-227-2600

CAUTION: REMEMBER THAT THE USA CENTER NOTIFIES ONLY THOSE UTILITIES BELONGING TO THE CENTER. THERE COULD BE OTHER UTILITIES PRESENT AT THE WORK SITE. THE CENTER WILL INFORM YOU OF WHOM THEY WILL NOTIFY.

**BENCHMARK**

BM NUMBER

| △ | DATE | DESCRIPTION | APP'D | DATE |
|---|---|---|---|---|

**REVISIONS**

**CITY OF SAN DIMAS**

REVIEWED BY: _____ DIRECTOR OF PUBLIC WORKS _____ DATE

APPROVED BY: _____ CITY ENGINEER _____ DATE

(INSERT ENGINEER'S SEAL HERE)

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

PREPARED BY: JS

CHECKED BY: MG

DATE: 6/28/17

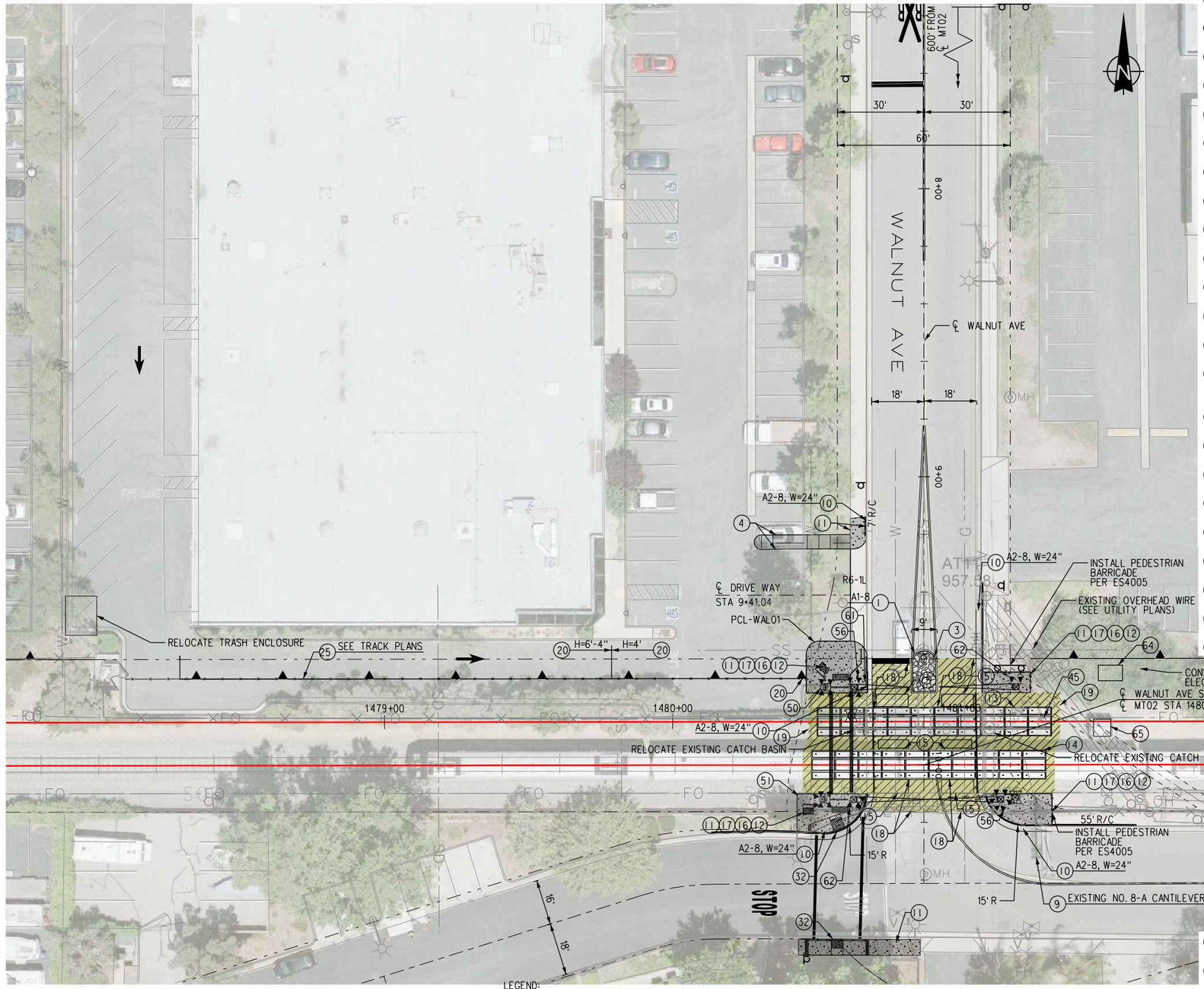
DRAWING NO: CS–C–041EXH

LONE HILL AVE TO CP WHITE
DOUBLE TRACK PROJECT

SAN DIMAS AVENUE
VEHICULAR TURNING MOVEMENTS
(DOT) 747321X – (CPUC) 101SG–27.80

SHEET 129 OF SHEETS

8HaPIRJa
PW:◇DC1CLUS01.JacOBS.cOM:JacOBSUJLPaTTERSON◇DOcUMENTS◇ENGINEERING◇WaGNER◇001 - LONE HILL AVE TO CP WHITE◇MaSTER FILES◇JEG-TRaCK-C
6/27/2017
3:09:00 PM




CONSTRUCTION NOTES:

1. CONSTRUCT CONCRETE MEDIAN CURB PER APWA STD 120-2.
3. CONSTRUCT RIVER ROCK MEDIAN.
4. CONSTRUCT LANDSCAPED MEDIAN.
9. PROTECT IN PLACE (ITEM AS NOTED).
10. CONSTRUCT CONCRETE CURB & GUTTER (8" CF).
11. CONSTRUCT SIDEWALK.
12. CONSTRUCT PEDESTRIAN TREATMENTS PER SCRRA ENGINEERING STANDARDS.
13. INSTALL NEW RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.
14. REHAB EXISTING RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.
15. INSTALL DETECTION LOOP DETAIL SEE ES 4001 DETAIL B & ES 8405.
16. INSTALL PEDESTRIAN SWING GATE SEE ES 4002-01 & ES 4002-02.
17. INSTALL DETECTABLE WARNING SURFACE.
18. CONSTRUCT 8" FULL DEPTH ASPHALT CONCRETE PAVEMENT.
19. CONSTRUCT VARIABLE ASPHALT CONCRETE PAVEMENT.
20. CONSTRUCT WELDED WIRE MESH FENCING PER SCRRA ENGINEERING STANDARDS 5105 H=4'-0", UNLESS NOTED OTHERWISE.
25. CONSTRUCT RETAINING WALL.
32. CONSTRUCT CURB RAMP PER APWA STD 111-4.
45. REMOVE EXISTING POWER POLE.
50. PEDESTRIAN GATE WITH TWO WAY FLASHING LIGHT, WITHOUT BELL.
51. PEDESTRIAN GATE WITH THREE-WAY FLASHING LIGHT SIGNAL WITHOUT BELL.
52. PEDESTRIAN GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.
56. CPUC STD No. 9 GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.
61. REMOVE EXISTING CANTELEVER SIGNAL.
62. CPUC STD NO. 9E GATE WITH 1-WAY LIGHTS AND BELL.
64. INSTALL NEW SIGNAL HOUSE.
65. REMOVE EXISTING SIGNAL HOUSE.

| | |
|---|---|
| R1-1 30"X30" | R4-4P |
| R15-1 | R15-2 (2) |
| W10-3L 36"X36" | W10-3R 36"X36" |
| W48 (CA) | W10-1 |
| R6-1R | R6-1L |
| R4-7 | W1-1A |
| TYPE N | |

NOTES:

1. REMOVE EXISTING ACTIVE WARNING DEVICES UPON INSTALLATION OF NEW ACTIVE WARNING DEVICES.

LEGEND:

CONCRETE WALK | RIVER ROCK | 8" ASPHALT

30 MPH POSTED ROADWAY SPEED

GRAPHIC SCALE: 20' 10' 0 20' 40' — 1" = 20'

| WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER |
|---|---|---|---|---|---|
| | | | | | |

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CALL BEFORE YOU DIG

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1-800-227-2600

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**BENCHMARK**

BM NUMBER

| △ | DATE | DESCRIPTION | APP'D | DATE |
|---|---|---|---|---|

**REVISIONS**

**CITY OF SAN DIMAS**

REVIEWED BY: _____ DIRECTOR OF PUBLIC WORKS _____ DATE

APPROVED BY: _____ CITY ENGINEER _____ DATE

(INSERT ENGINEER'S SEAL HERE)

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

PREPARED BY: JS
CHECKED BY: MG
DATE: 6/28/17

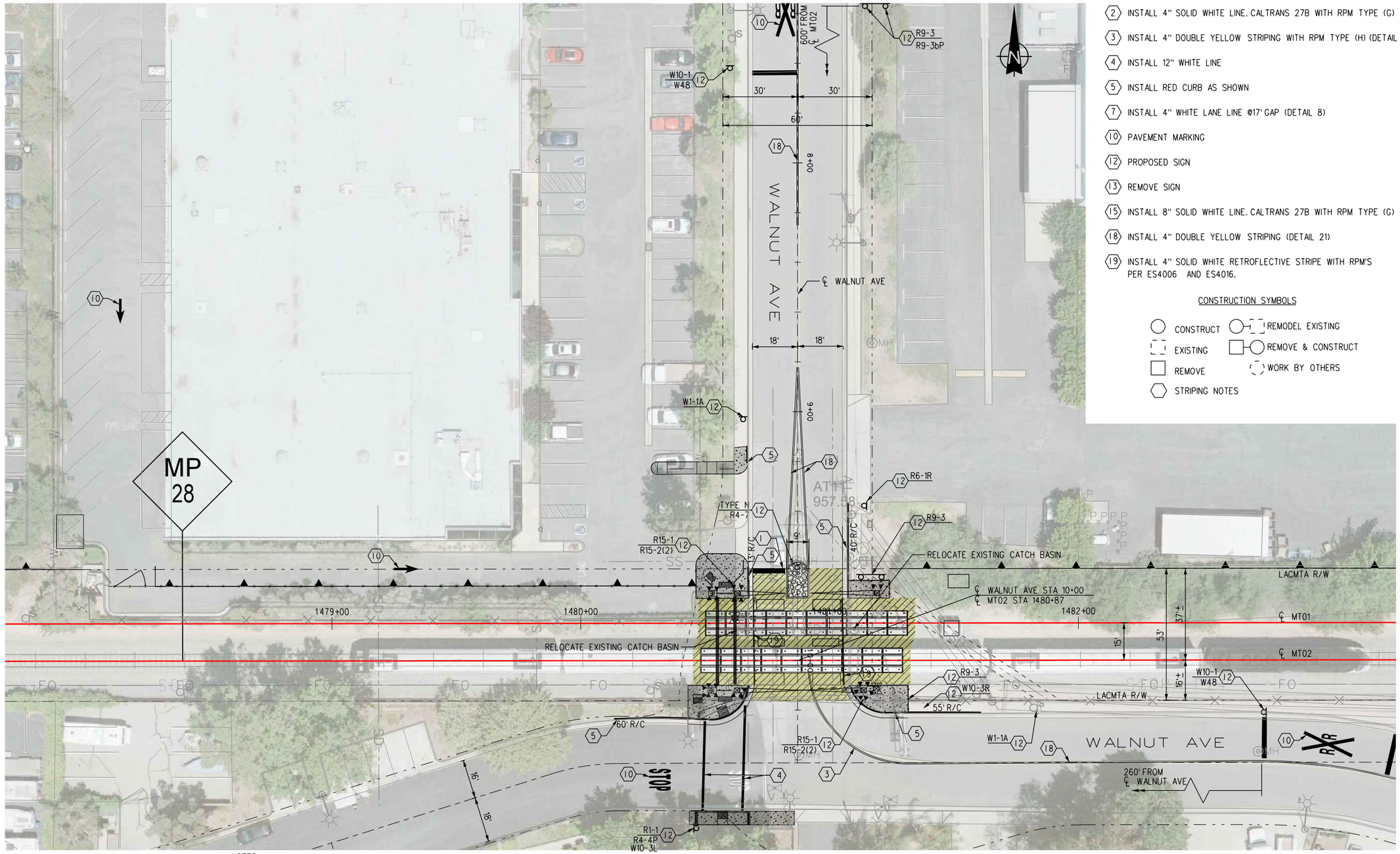
DRAWING NO: CS-C-050PP

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

WALNUT AVENUE STREET IMPROVEMENT PLAN
(DOT) 747322E- (CPUC) X101SG-28.05

SHEET 130 OF SHEETS

8HaPIRJa
PW:\\DC1CLUS01.JacOBS.cOM:JacOBSUJLPaTTERSON\DOcUMENTS\ENGINEERING\WaGNER\001 - LONE HILL AVE TO CP WHITE\MaSTER FILES\JEG-TRaCK-C
6/27/2017
3:09:10 PM




STRIPING NOTES:

1. INSTALL 24" SOLID WHITE STOP LINE
2. INSTALL 4" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G)
3. INSTALL 4" DOUBLE YELLOW STRIPING WITH RPM TYPE (H) (DETAIL 22)
4. INSTALL 12" WHITE LINE
5. INSTALL RED CURB AS SHOWN
7. INSTALL 4" WHITE LANE LINE @17' GAP (DETAIL 8)
10. PAVEMENT MARKING
12. PROPOSED SIGN
13. REMOVE SIGN
15. INSTALL 8" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G)
18. INSTALL 4" DOUBLE YELLOW STRIPING (DETAIL 21)
19. INSTALL 4" SOLID WHITE RETROFLECTIVE STRIPE WITH RPM'S PER ES4006 AND ES4016.

CONSTRUCTION SYMBOLS

- CONSTRUCT
- EXISTING
- REMOVE
- STRIPING NOTES
- REMODEL EXISTING
- REMOVE & CONSTRUCT
- WORK BY OTHERS

| | |
|---|---|
| R1-1 30"X30" | R4-4P |
| R15-1 | R15-2 (2) |
| W10-3L 36"X36" | W10-3R 36"X36" |
| W48 (CA) | W10-1 |
| R6-1R | R6-1L |
| R4-7 | W1-1A |
| TYPE N | R9-3 24"X30" |
| | R9-3bP 30"X30" |

NOTES:

1. ALL MARKINGS SHALL BE THERMOPLASTIC.
2. REMOVE CONFLICTING STRIPING AND MARKINGS (WET SANDBLAST).

30 MPH POSTED ROADWAY SPEED

GRAPHIC SCALE: 20' 10' 0 20' 40' — 1" = 20'

| WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER |
|---|---|---|---|---|---|
| | | | | | |

**DIG ALERT** SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIGALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIGALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE TWO WORKING DAYS BEFORE YOU DIG.
1-800-227-2600
CAUTION: REMEMBER THAT THE USA CENTER NOTIFIES ONLY THOSE UTILITIES BELONGING TO THE CENTER. THERE COULD BE OTHER UTILITIES PRESENT AT THE WORK SITE. THE CENTER WILL INFORM YOU OF WHOM THEY WILL NOTIFY.

**BENCHMARK**
BM NUMBER

| △ | DATE | DESCRIPTION | APP'D | DATE |
|---|---|---|---|---|

**REVISIONS**

**CITY OF SAN DIMAS**
REVIEWED BY: _____ DIRECTOR OF PUBLIC WORKS DATE
APPROVED BY: _____ CITY ENGINEER DATE

(INSERT ENGINEER'S SEAL HERE)

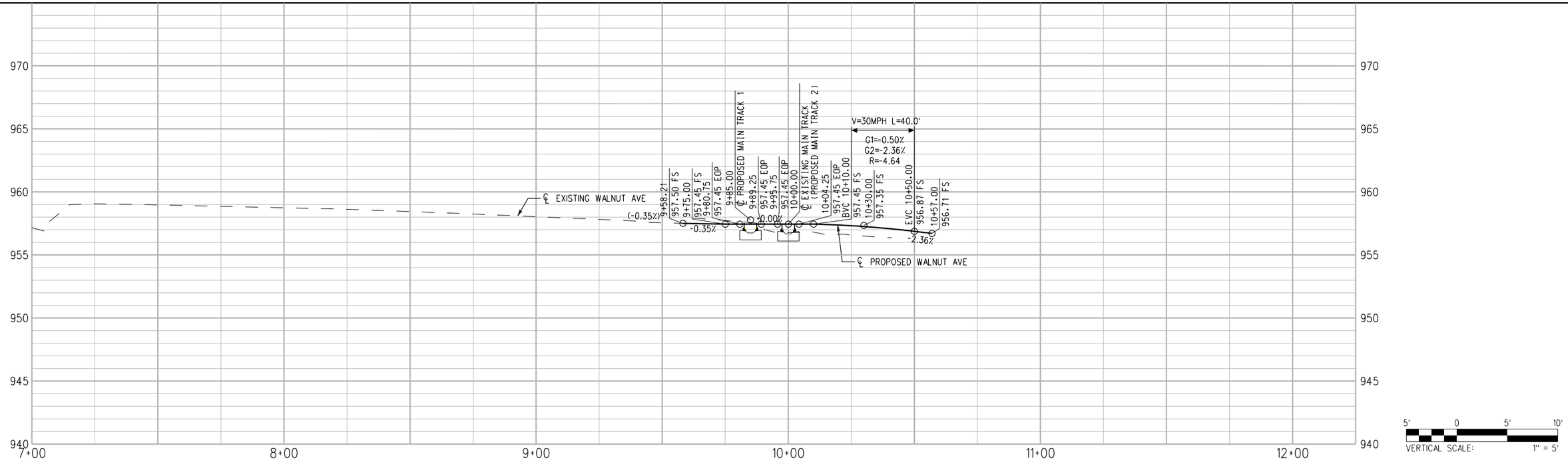
WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

PREPARED BY: JS
CHECKED BY: MG
DATE: 6/28/17

DRAWING NO: SS-C-050PL

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
WALNUT AVENUE
SIGNING AND STRIPING PLAN
(DOT) 747322E- (CPUC) X101SG-28.04

SHEET 131 OF SHEETS




Know what's below. Call before you dig.

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

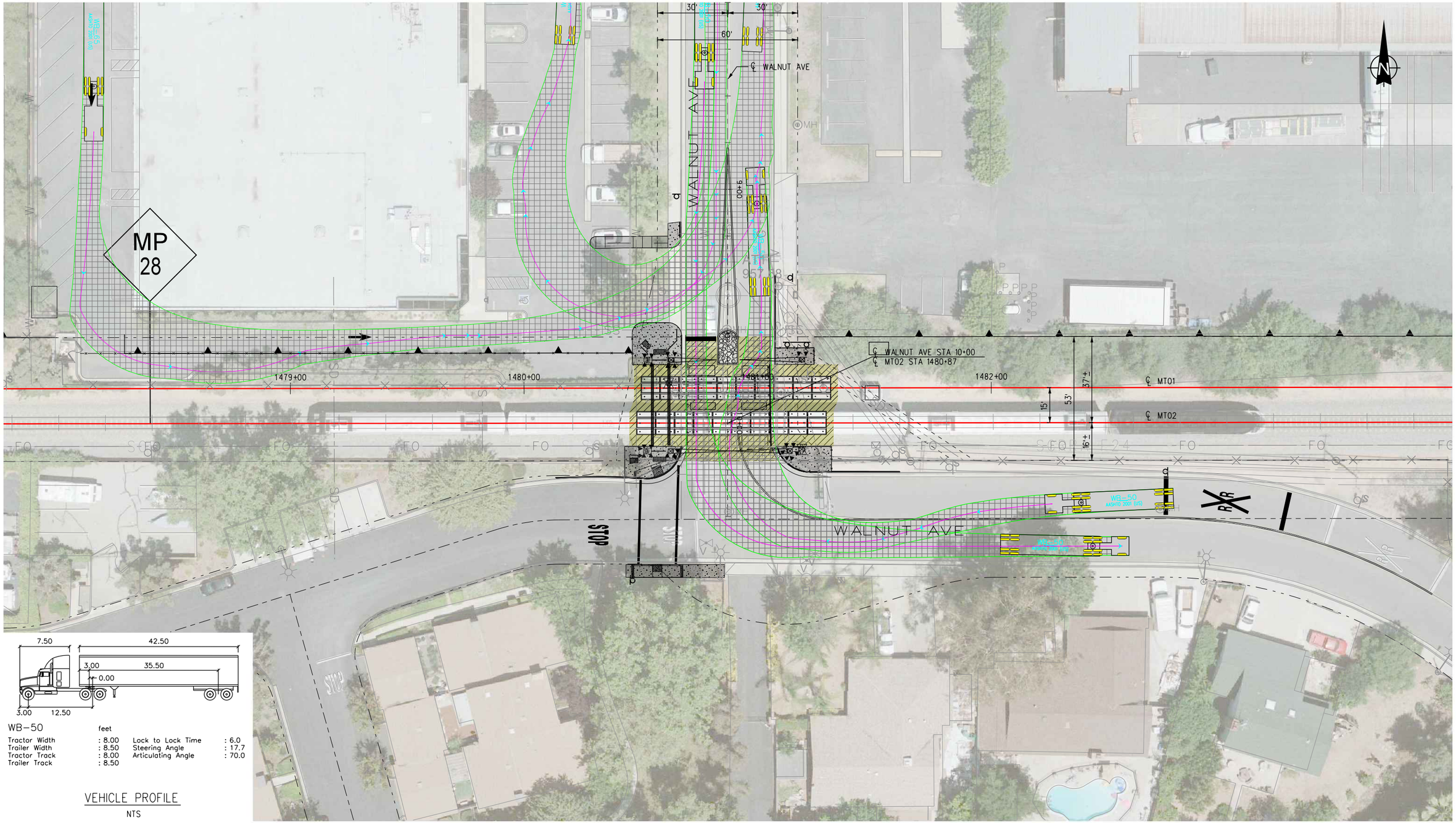

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**STREET IMPROVEMENT PROFILE**
**WALNUT AVENUE**
**(DOT) 747322E; (CPUC) X101SG-28.05**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | CS-C-050PR |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 132 |

ShapirJa 6/27/2017 3:09:07 PM $FILEL$

SHaPIRJa
PW:\\DC1CLUS01.JacOBS.cOM:JacOBSUJLPaTTERSON\DOcUMENTS\ENGINEERING\WaGNER\001 - LONE HILL AVE TO CP WHITE\MaSTER FILES\JEG-TRaCK-C
6/27/2017
3:09:13 PM







WB-50 feet

| | | | |
|---|---|---|---|
| Tractor Width | : 8.00 | Lock to Lock Time | : 6.0 |
| Trailer Width | : 8.50 | Steering Angle | : 17.7 |
| Tractor Track | : 8.00 | Articulating Angle | : 70.0 |
| Trailer Track | : 8.50 | | |

VEHICLE PROFILE

NTS

20' 10' 0 20' 40'

GRAPHIC SCALE: 1" = 20'

| PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT |
|---|---|---|---|---|---|
| | | | | | |

**DIG ALERT**

SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIGALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIGALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE TWO WORKING DAYS BEFORE YOU DIG.

1-800-227-2600

CAUTION: REMEMBER THAT THE USA CENTER NOTIFIES ONLY THOSE UTILITIES BELONGING TO THE CENTER. THERE COULD BE OTHER UTILITIES PRESENT AT THE WORK SITE. THE CENTER WILL INFORM YOU OF WHOM THEY WILL NOTIFY.

BENCHMARK

BM NUMBER

| △ | DATE | DESCRIPTION | APP'D | DATE |
|---|---|---|---|---|

REVISIONS

**CITY OF SAN DIMAS**

REVIEWED BY: _____ DIRECTOR OF PUBLIC WORKS _____ DATE

APPROVED BY: _____ CITY ENGINEER _____ DATE

(INSERT ENGINEER'S SEAL HERE)

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

PREPARED BY: JS
CHECKED BY: MG
DATE: 6/28/17

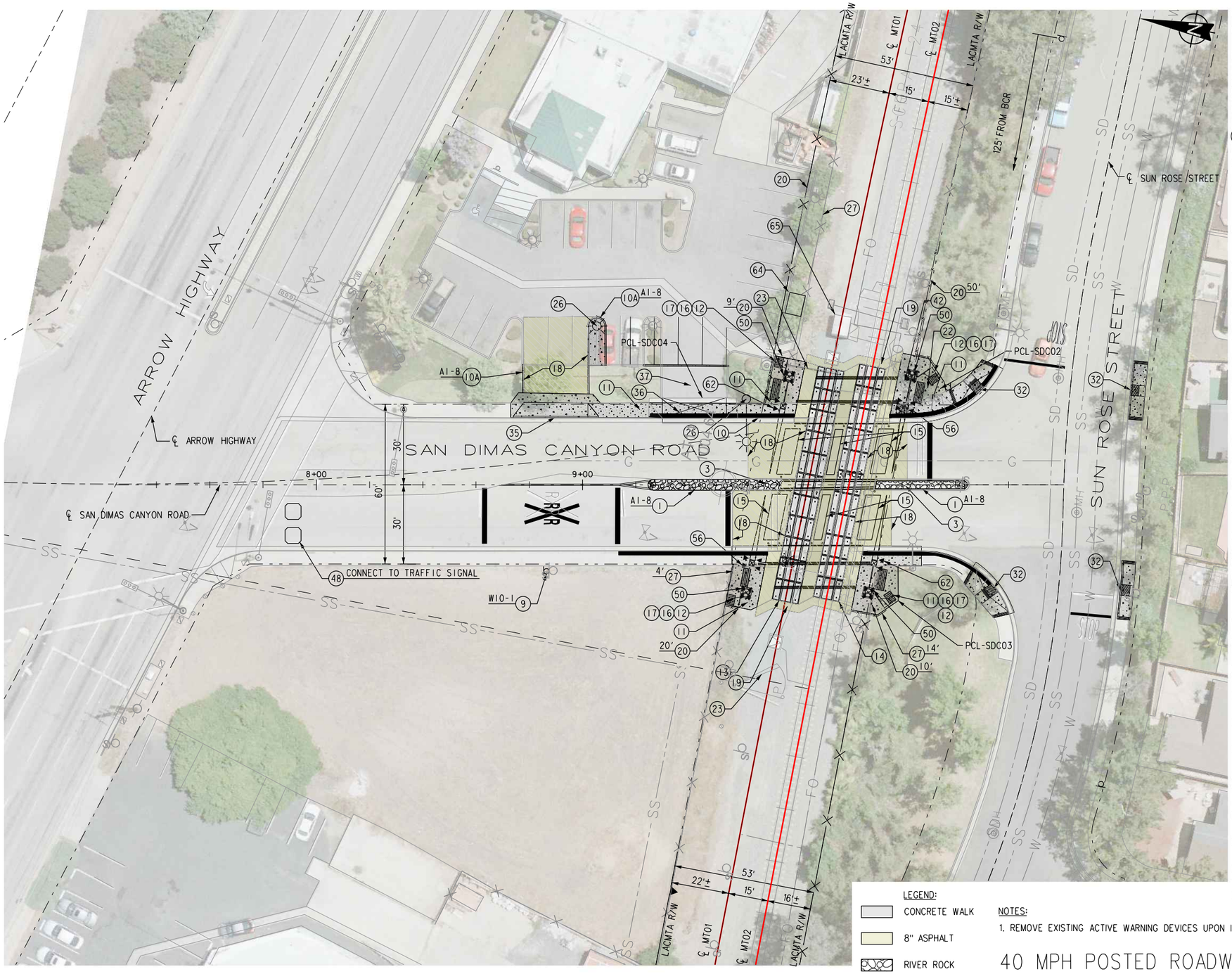
DRAWING NO: CS-C-051EXH

LONE HILL AVE TO CP WHITE
DOUBLE TRACK PROJECT

WALNUT AVENUE
VEHICULAR TURNING MOVEMENTS
(DOT) 747322E- (CPUC) X101SG-28.05

SHEET 133 OF SHEETS

8HaPIRJa
PW:◇DC1CLUS01.JacOBS.COM:JacOBSUJLPaTTERSON◇Documents◇ENGINEERING◇WaGNER◇001 - LONE HILL AVE TO CP WHITE◇MaSTER FILES◇JEG-TRaCK-C
3:09:26 PM
6/27/2017




LEGEND:

- CONCRETE WALK
- 8" ASPHALT
- RIVER ROCK

NOTES:

1. REMOVE EXISTING ACTIVE WARNING DEVICES UPON INSTALLATION OF NEW ACTIVE WARNING DEVICES.

40 MPH POSTED ROADWAY SPEED

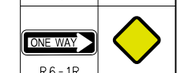
GRAPHIC SCALE: 20' 10' 0 20' 40' — 1" = 20'

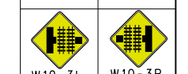
CONSTRUCTION NOTES:

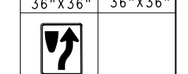
(1) CONSTRUCT CONCRETE MEDIAN CURB PER APWA STD 120-2.
(3) CONSTRUCT RIVER ROCK MEDIAN.
(9) PROTECT IN PLACE (ITEM AS NOTED).
(10) CONSTRUCT CONCRETE CURB & GUTTER (8" CF).
(10A) CONSTRUCT CONCRETE CURB (8" CF) PER APWA STD 120-2.
(11) CONSTRUCT SIDEWALK.
(12) CONSTRUCT PEDESTRIAN TREATMENTS PER SCRRA ENGINEERING STANDARDS.
(13) INSTALL NEW RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.
(14) REHAB EXSTING RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.
(15) INSTALL DETECTION LOOP DETAIL SEE ES 4001 DETAIL B & ES 8405.
(16) INSTALL PEDESTRIAN SWING GATE SEE ES 4002-01 & ES 4002-02.
(17) INSTALL DETECTABLE WARNING SURFACE.
(18) CONSTRUCT 8" FULL DEPTH ASPHALT CONCRETE PAVEMENT.
(19) CONSTRUCT VARIABLE ASPHALT CONCRETE PAVEMENT.
(20) CONSTRUCT WELDED WIRE MESH FENCING PER SCRRA ENGINEERING STANDARDS 5105 H=4'-0".
(22) REMOVE TREE.
(23) REMOVE CONFLICTING PIPE GATE.
(26) INSTALL STREET LIGHT.
(27) REMOVE CONFLICTING FENCE.
(32) CONSTRUCT CURB RAMP PER APWA STD 111-4.
(35) CONSTRUCT DRIVEWAY PER APWA STD 110-2.
(36) REMOVE EXISTING DRIVEWAY.
(37) LANDSCAPE & IRRIGATION AS REQUIRED BY RELOCATION OF DRIVEWAY.
(42) RELOCATE EXISTING POWER DROP.
(48) INSTALL QUEUE DETECTOR LOOPS PER APWA 457-1
(50) PEDESTRIAN GATE WITH TWO-WAY FLASHING LIGHTS, NO BELL.
(56) CPUC STD No. 9 GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.
(59) EXISTING SIGNAL HOUSE.
(62) CPUC STD No. 9E GATE WITH 1-WAY LIGHTS AND BELL.
(64) INSTALL NEW SIGNAL HOUSE.
(65) REMOVE EXISTING SIGNAL HOUSE.












| WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER |
|---|---|---|---|---|---|
| | | | | | |

811 UNDERGROUND SERVICE ALERT
DIG ALERT
PLAY IT SAFE DIAL BEFORE YOU DIG! AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION

REFERENCES

| NO. | DESCRIPTION | APP. | DATE | NO. | DESCRIPTION | APP. | DATE |
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(INSERT ENGINEER'S SEAL HERE)

APPROVED BY:
(CONSULTING FIRM) RCE DATE
APPROVED BY:
CITY OF LA VERNE DATE

PLANS PREPARED BY:
WES WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

CITY OF LA VERNE

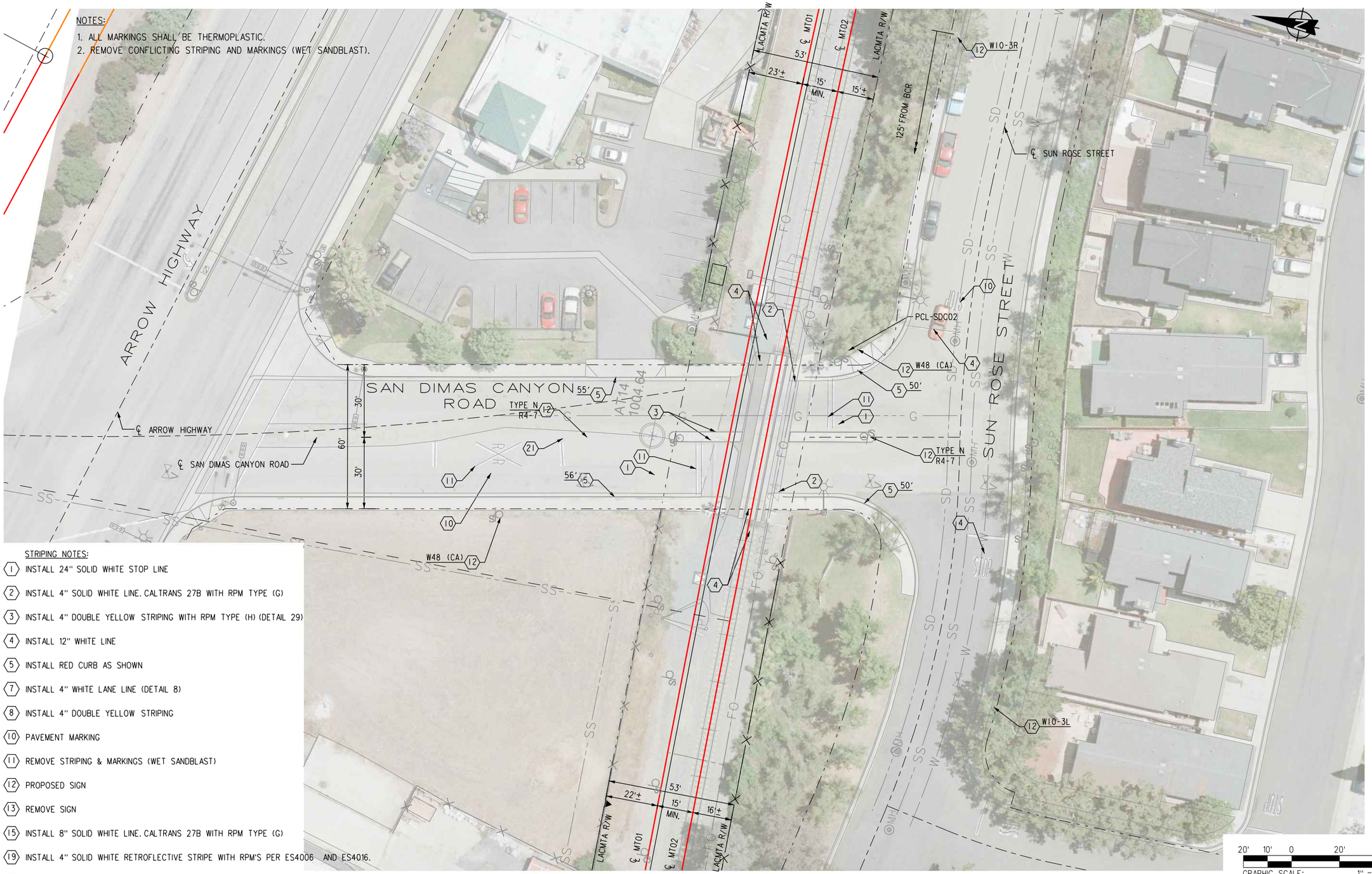
LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
SAN DIMAS CANYON ROAD
STREET IMPROVEMENT PLAN
(DOT) 914497T – (CPUC) X101SG-28.55

| DESIGNED: | JF | DRAWN: | JF | CHECKED: | MG | SCALE: |
|---|---|---|---|---|---|---|
| DESIGN DATE: | 6/28/17 | DRAWING NO.: | CS-C-060PP | SHEET: | 134 | OF X |

8HaPIRJa
PW:◇◇DC1CLUS01.JacOBS.cOM:JacOBSUJLPaTTERSON◇DOcUMENTS◇ENGINEERING◇WaGNER◇001 - LONE HILL AVE TO CP WHITE◇MaSTER FILES◇JEG-TRaCK-C
3:09:43 PM
6/27/2017

NOTES:

1. ALL MARKINGS SHALL BE THERMOPLASTIC.
2. REMOVE CONFLICTING STRIPING AND MARKINGS (WET SANDBLAST).




STRIPING NOTES:

1. INSTALL 24" SOLID WHITE STOP LINE
2. INSTALL 4" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G)
3. INSTALL 4" DOUBLE YELLOW STRIPING WITH RPM TYPE (H) (DETAIL 29)
4. INSTALL 12" WHITE LINE
5. INSTALL RED CURB AS SHOWN
7. INSTALL 4" WHITE LANE LINE (DETAIL 8)
8. INSTALL 4" DOUBLE YELLOW STRIPING
10. PAVEMENT MARKING
11. REMOVE STRIPING & MARKINGS (WET SANDBLAST)
12. PROPOSED SIGN
13. REMOVE SIGN
15. INSTALL 8" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G)
19. INSTALL 4" SOLID WHITE RETROFLECTIVE STRIPE WITH RPM'S PER ES4006 AND ES4016.
21. INSTALL MEDIAN STRIPING CALTRANS DETAIL 30

| | |
|---|---|
| W10-1 | W48 (CA) |
| R6-1R | TYPE N |
| W10-3L 36"X36" | W10-3R 36"X36" |
| R4-7 | |

20' 10' 0 20' 40'
GRAPHIC SCALE: 1" = 20'

811 DIG ALERT — UNDERGROUND SERVICE ALERT
PLAY IT SAFE DIAL BEFORE YOU DIG! — AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION

REFERENCES

| NO. | DESCRIPTION | APP. | DATE | NO. | DESCRIPTION | APP. | DATE |
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(INSERT ENGINEER'S SEAL HERE)

APPROVED BY: _____
(CONSULTING FIRM) RCE DATE
APPROVED BY: _____
CITY OF LA VERNE DATE

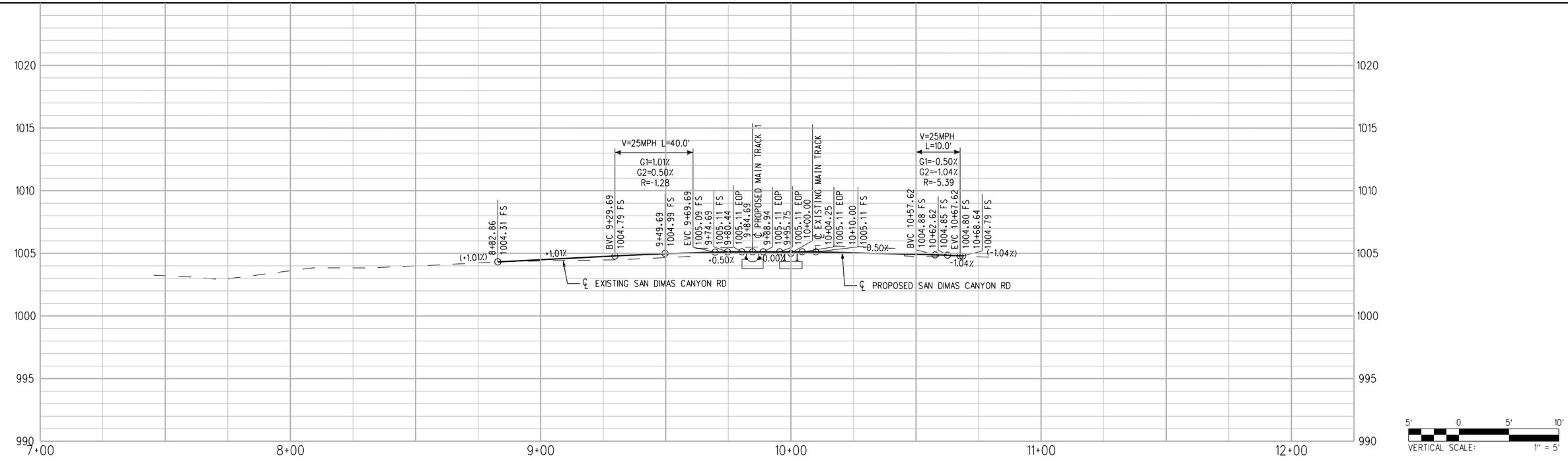
PLANS PREPARED BY:
WES WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

CITY OF LA VERNE

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
SAN DIMAS CANYON ROAD
SIGNING AND STRIPING PLAN
(DOT) 914497T – (CPUC) X101SG-28.55

| DESIGNED: | JF | DRAWN: | JF | CHECKED: | MG | SCALE: |
|---|---|---|---|---|---|---|
| DESIGN DATE: | 6/28/17 | DRAWING NO.: | SS-C-060PL | SHEET: | 135 | OF X |

| PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT |
|---|---|---|---|---|---|
| | | | | | |




Know what's below. Call before you dig.

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

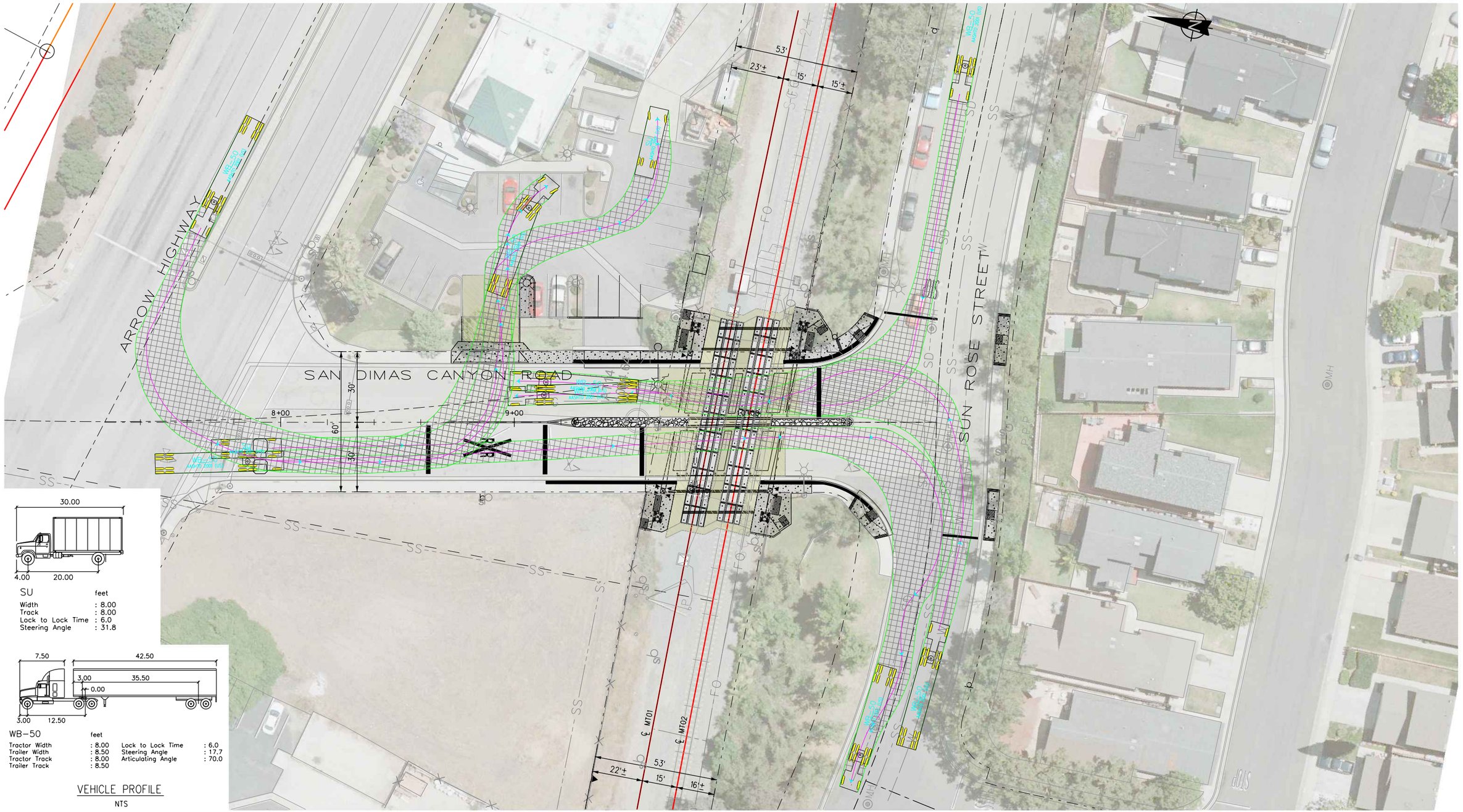

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**STREET IMPROVEMENT PROFILE SAN DIMAS CANYON ROAD (DOT) 914497T; (CPUC) X101SG-28.55**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | CS-C-060PR |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 136 |

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8HaPIRJa
PW:◇DC1CLUS01.JacOBS.cOM:JacOBSUJLPaTTERSON◇DOcUMENTS◇ENGINEERING◇WaGNER◇001 - LONE HILL AVE TO CP WHITE◇MaSTER FILES◇JEG-TRacK-C
3:09:38 PM
6/27/2017







SU feet

| | |
|---|---|
| Width | : 8.00 |
| Track | : 8.00 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 31.8 |




WB-50 feet

| | | | |
|---|---|---|---|
| Tractor Width | : 8.00 | Lock to Lock Time | : 6.0 |
| Trailer Width | : 8.50 | Steering Angle | : 17.7 |
| Tractor Track | : 8.00 | Articulating Angle | : 70.0 |
| Trailer Track | : 8.50 | | |

VEHICLE PROFILE

NTS

40 MPH POSTED ROADWAY SPEED

20' 10' 0 20' 40'

GRAPHIC SCALE: 1" = 20'

811 UNDERGROUND SERVICE ALERT
DIG ALERT
PLAY IT SAFE DIAL BEFORE YOU DIG! AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION

REFERENCES

| NO. | DESCRIPTION | APP. | DATE | NO. | DESCRIPTION | APP. | DATE |
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(INSERT ENGINEER'S SEAL HERE)

APPROVED BY:

(CONSULTING FIRM) RCE DATE

APPROVED BY:

CITY OF LA VERNE DATE

PLANS PREPARED BY:

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

CITY OF LA VERNE

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
SAN DIMAS CANYON ROAD
VEHICULAR TURNING MOVEMENTS
(DOT) 914497T – (CPUC) X101SG-28.55

| DESIGNED: | JF | DRAWN: | JF | CHECKED: | MG | SCALE: |
|---|---|---|---|---|---|---|
| DESIGN DATE: | 6/28/17 | DRAWING NO.: | CS-C-061EXH | SHEET: | 137 | OF X |

| PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT |
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PW:◇◇DC1CLUS01.JacOBS.cOM:JacOBSuJLPaTTERSON◇DocUMENTS◇ENGINEERING◇WaGNER◇001 - LONE HILL AVE TO CP WHITE◇MaSTER FILES◇JEG-TRacK-C
6/27/2017
3:00:48 PM

CONSTRUCTION NOTES:

(10) CONSTRUCT CONCRETE CURB & GUTTER (8" CF).

(11) CONSTRUCT SIDEWALK.

(13) INSTALL NEW RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.

(14) REHAB EXSTING RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.

(18) CONSTRUCT 8" FULL DEPTH ASPHALT CONCRETE PAVEMENT.

(20) CONSTRUCT WELDED WIRE MESH FENCING PER SCRRA ENGINEERING STANDARDS 5105 H=4'-0", U.N.O.

(21) CONSTRUCT 12' SINGLE LEAF SECURITY ACCESS GATE PER SCRRA ENGINEERING STANDARDS 5106.

(26) CONSTRUCT DELINEATOR.

(27) REMOVE CONFLICTING FENCE.

(28) REMOVE CONFLICTING KRAIL BARRIER.

(30) CONSTRUCT CROSS GUTTER STD 122-2.

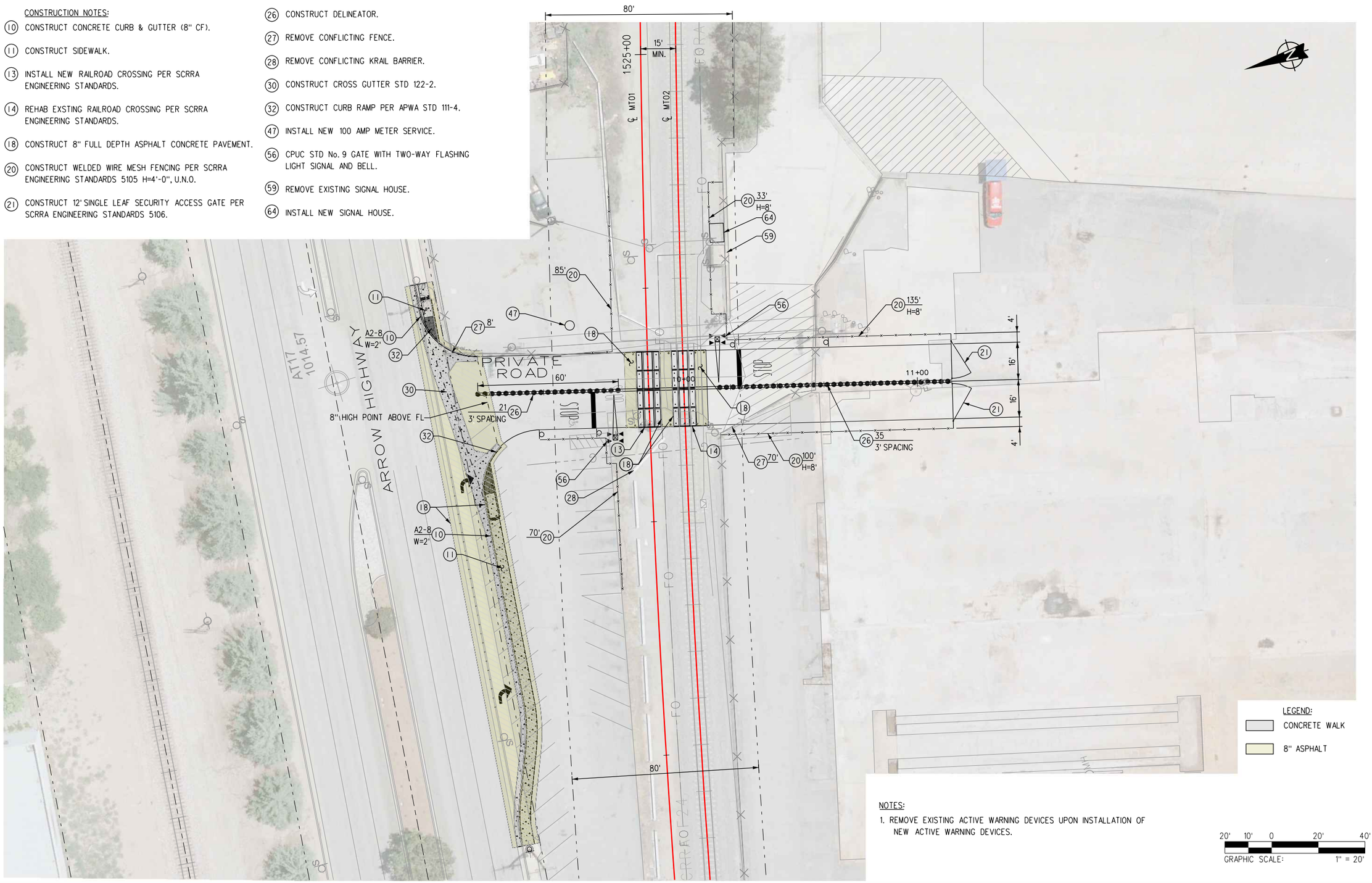
(32) CONSTRUCT CURB RAMP PER APWA STD 111-4.

(47) INSTALL NEW 100 AMP METER SERVICE.

(56) CPUC STD No. 9 GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.

(59) REMOVE EXISTING SIGNAL HOUSE.

(64) INSTALL NEW SIGNAL HOUSE.




NOTES:

1. REMOVE EXISTING ACTIVE WARNING DEVICES UPON INSTALLATION OF NEW ACTIVE WARNING DEVICES.

GRAPHIC SCALE: 20' 10' 0 20' 40' — 1" = 20'

NO STOPPING ANY TIME
R28(S)(CA)
12"X18"

811 UNDERGROUND SERVICE ALERT
DIGALERT
PLAY IT SAFE DIAL BEFORE YOU DIG! AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION

REFERENCES

| NO. | DESCRIPTION | APP. | DATE | NO. | DESCRIPTION | APP. | DATE |
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(INSERT ENGINEER'S SEAL HERE)

APPROVED BY:
(CONSULTING FIRM) RCE DATE
APPROVED BY:
CITY OF LA VERNE DATE

PLANS PREPARED BY:
WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

CITY OF LA VERNE

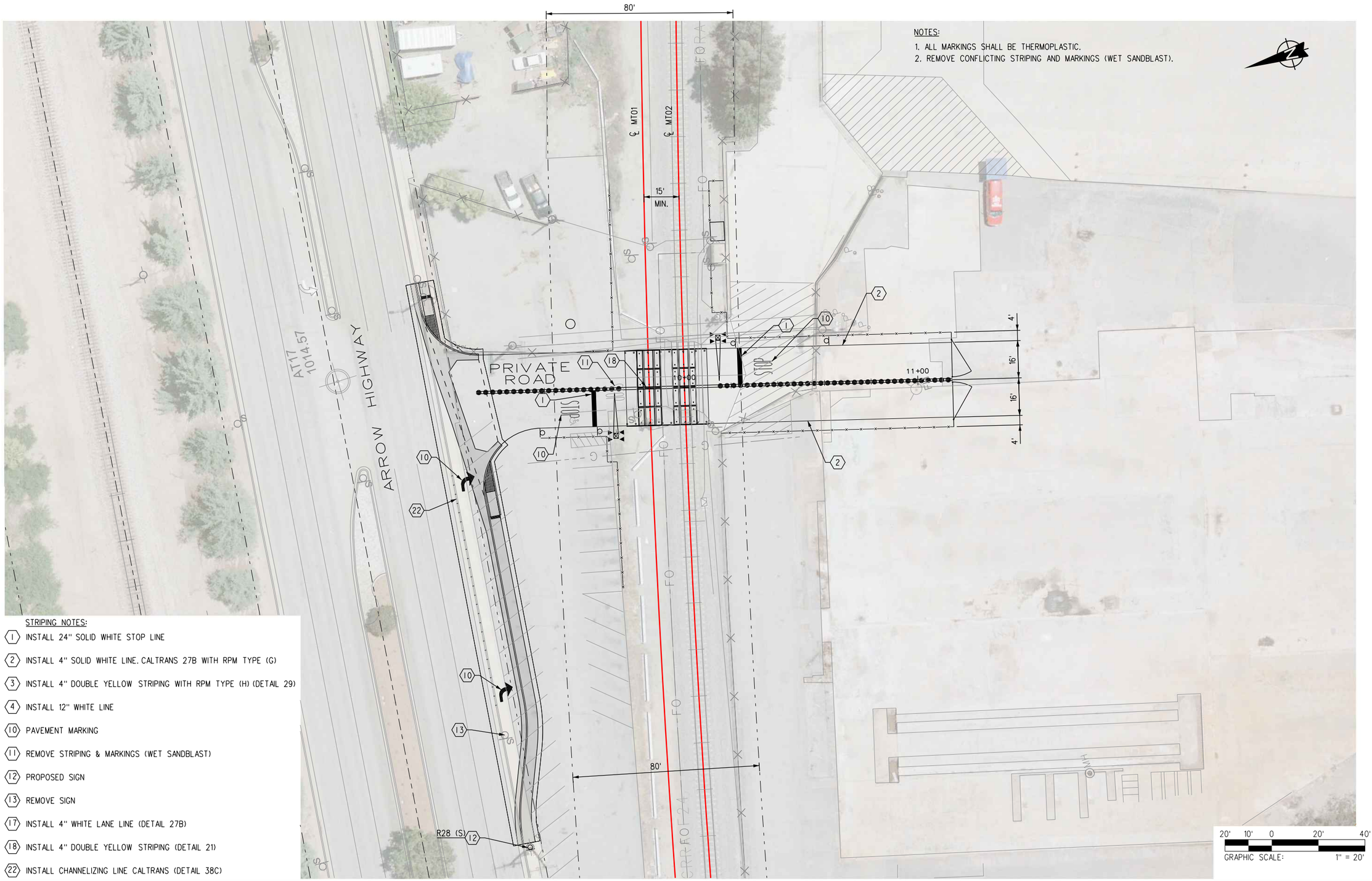
# LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

GAINEY CERAMICS PRIVATE ROAD
STREET IMPROVEMENT PLAN
(DOT) 747324T– (CPUC) X101SG–28.86X

| DESIGNED: | JF | DRAWN: | JF | CHECKED: | MG | SCALE: | |
|---|---|---|---|---|---|---|---|
| DESIGN DATE: | 6/28/17 | DRAWING NO.: | CS–C–070PP | SHEET: | 138 | OF | X |

WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER

8HaPIRJa
PW:◇◇DC1CLUS01.JacOB8.cOM:JacOBSUJLPaTTERSON◇DOcUMENTS◇ENGINEERING◇WaGNER◇001 - LONE HILL AVE TO CP WHITE◇MaSTER FILES◇JEG-TRacK-C
6/27/2017
3:10:04 PM




NOTES:

1. ALL MARKINGS SHALL BE THERMOPLASTIC.
2. REMOVE CONFLICTING STRIPING AND MARKINGS (WET SANDBLAST).

STRIPING NOTES:

(1) INSTALL 24" SOLID WHITE STOP LINE
(2) INSTALL 4" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G)
(3) INSTALL 4" DOUBLE YELLOW STRIPING WITH RPM TYPE (H) (DETAIL 29)
(4) INSTALL 12" WHITE LINE
(10) PAVEMENT MARKING
(11) REMOVE STRIPING & MARKINGS (WET SANDBLAST)
(12) PROPOSED SIGN
(13) REMOVE SIGN
(17) INSTALL 4" WHITE LANE LINE (DETAIL 27B)
(18) INSTALL 4" DOUBLE YELLOW STRIPING (DETAIL 21)
(22) INSTALL CHANNELIZING LINE CALTRANS (DETAIL 38C)

NO STOPPING ANY TIME
R28(S)(CA)
12"X18"

811 UNDERGROUND SERVICE ALERT
DIGALERT
PLAY IT SAFE. DIAL BEFORE YOU DIG! AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION

REFERENCES

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(INSERT ENGINEER'S SEAL HERE)

APPROVED BY:
(CONSULTING FIRM) RCE DATE
APPROVED BY:
CITY OF LA VERNE DATE

PLANS PREPARED BY:
WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

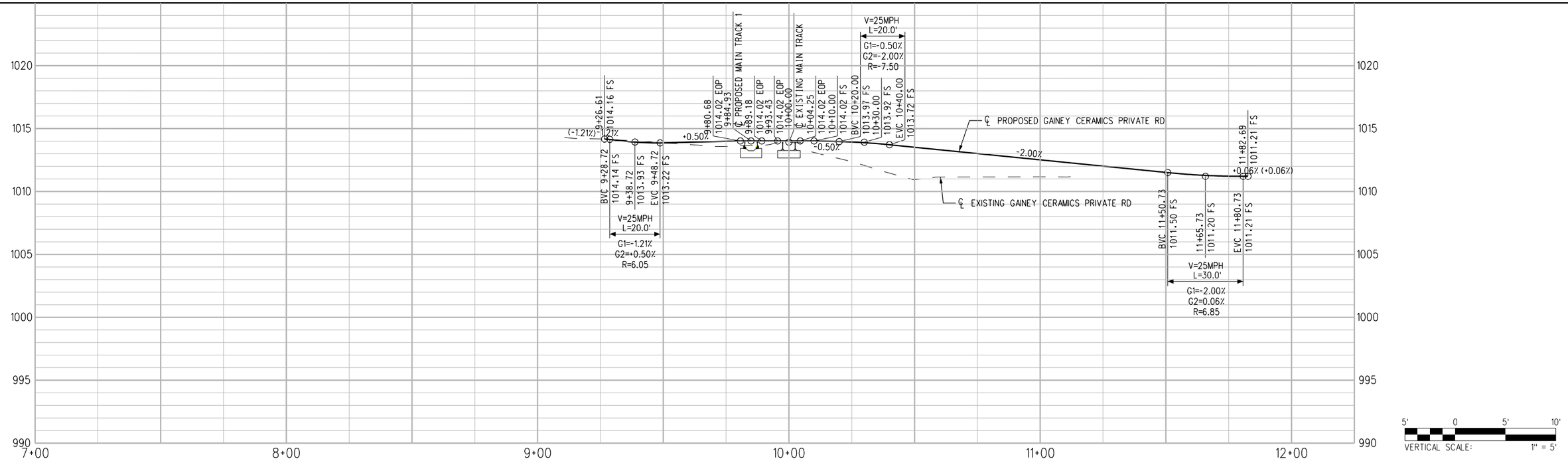
JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

CITY OF LA VERNE

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
GAINEY CERAMICS PRIVATE ROAD
SIGNING AND STRIPING PLAN
(DOT) 747324T– (CPUC) X101SG–28.86X

| DESIGNED: | JF | DRAWN: | JF | CHECKED: | MG | SCALE: |
|---|---|---|---|---|---|---|
| DESIGN DATE: | 6/28/17 | DRAWING NO.: | SS–C–070PL | SHEET: | 139 | OF X |

| WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER |
|---|---|---|---|---|---|
| | | | | | |




Know what's below. Call before you dig.

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

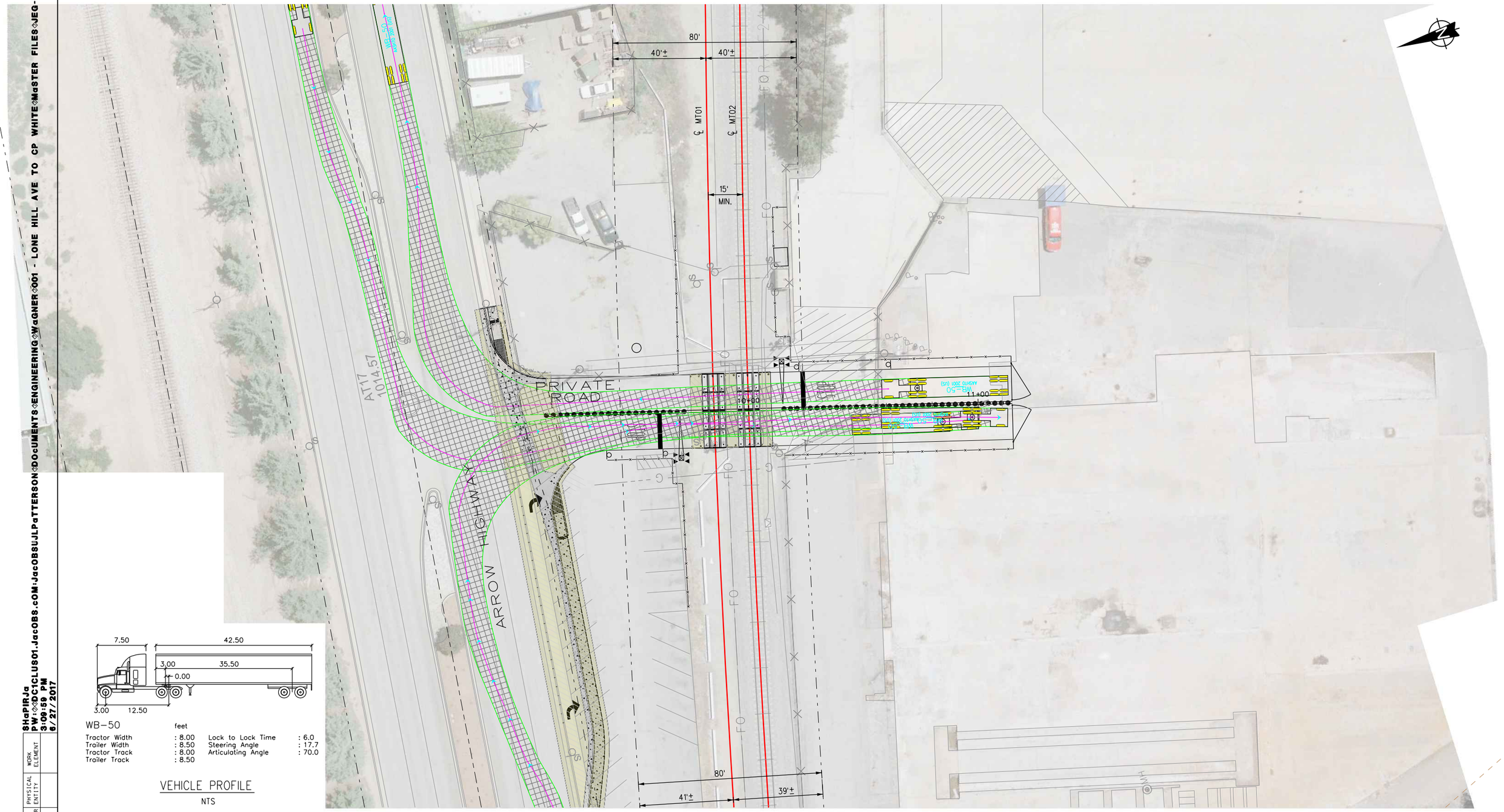
**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**STREET IMPROVEMENT PROFILE GAINEY CERAMICS PRIVATE ROAD (DOT) 747324T- (CPUC) X101SG-28.86X**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | CS-C-070PR |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 140 |

ShapirJa 6/27/2017 3:09:54 PM $FILE$

8HaPIRJa
PW:◇DC1CLUS01.JacOBS.cOM:JacOBSUJLPaTTERSON◇DOcUMENTS◇ENGINEERING◇WaGNER◇001 - LONE HILL AVE TO CP WHITE◇MaSTER FILES◇JEG-TRacK-C







WB–50 feet

| | | | |
|---|---|---|---|
| Tractor Width | : 8.00 | Lock to Lock Time | : 6.0 |
| Trailer Width | : 8.50 | Steering Angle | : 17.7 |
| Tractor Track | : 8.00 | Articulating Angle | : 70.0 |
| Trailer Track | : 8.50 | | |

VEHICLE PROFILE

NTS

811 UNDERGROUND SERVICE ALERT
DIGALERT
PLAY IT SAFE. DIAL BEFORE YOU DIG! AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION

REFERENCES

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(INSERT ENGINEER'S SEAL HERE)

APPROVED BY:

(CONSULTING FIRM) RCE DATE

APPROVED BY:

CITY OF LA VERNE DATE

PLANS PREPARED BY:

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

CITY OF LA VERNE

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
GAINEY CERAMICS PRIVATE ROAD
VEHICULAR TURNING MOVEMENTS
(DOT) 747324T– (CPUC) X101SG–28.86X

| DESIGNED: | JF | DRAWN: | JF | CHECKED: | MG | SCALE: |
|---|---|---|---|---|---|---|
| DESIGN DATE: | 6/28/17 | DRAWING NO.: | CS–C–071EXH | SHEET: | 141 | OF X |

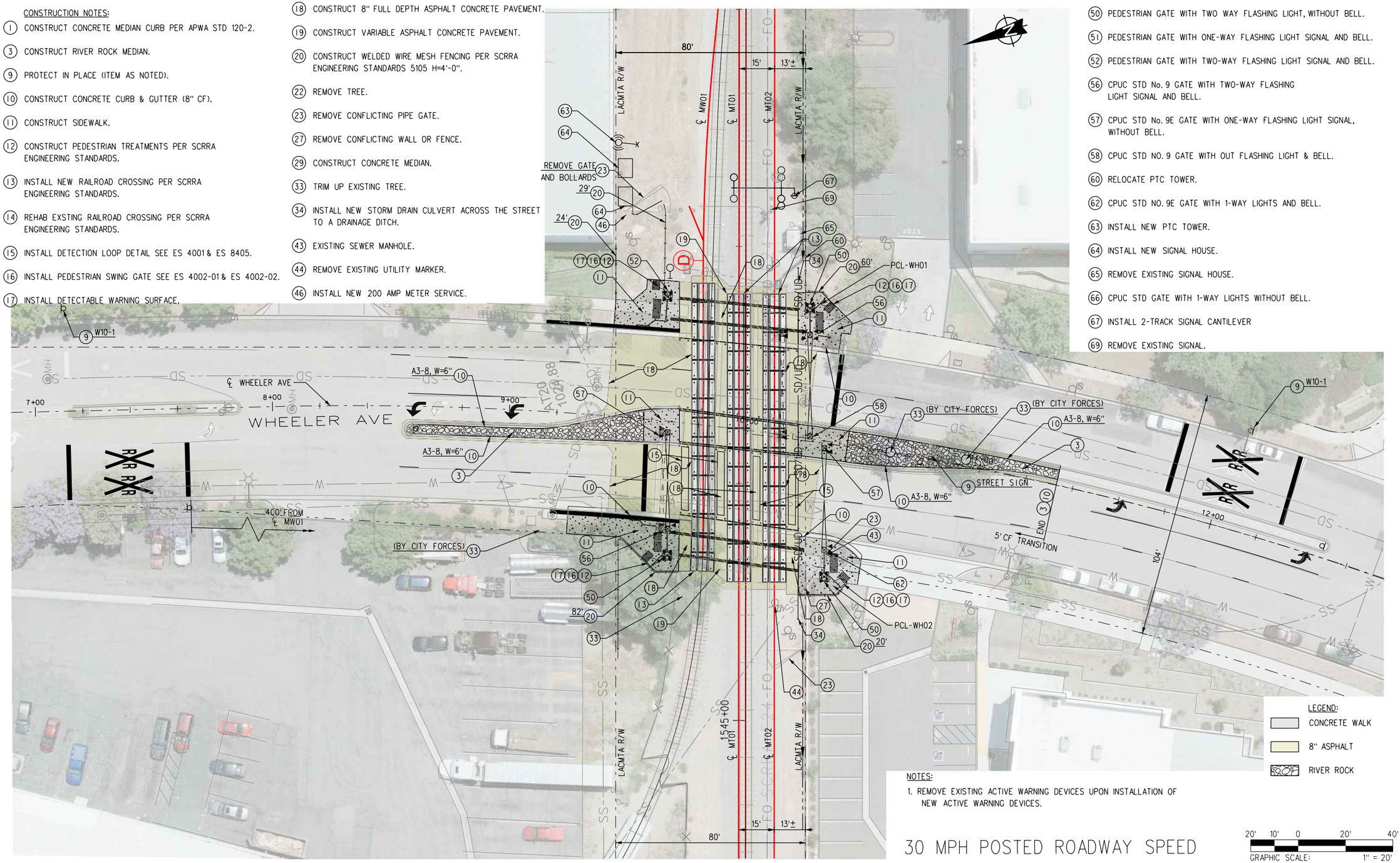
| WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER |
|---|---|---|---|---|---|
| | | | | | |

6/27/2017 3:09:59 PM

8HaPIRJa
PW:\\DC1CLUS01.JacOBS.cOM:JacOBSUJLPaTTERSON\DocUMENTS\ENGINEERING\WaGNER\001 - LONE HILL AVE TO CP WHITE\MaSTER FILES\JEG-TRacK-C
6/27/2017
3:10:10 PM

CONSTRUCTION NOTES:

1. CONSTRUCT CONCRETE MEDIAN CURB PER APWA STD 120-2.
3. CONSTRUCT RIVER ROCK MEDIAN.
9. PROTECT IN PLACE (ITEM AS NOTED).
10. CONSTRUCT CONCRETE CURB & GUTTER (8" CF).
11. CONSTRUCT SIDEWALK.
12. CONSTRUCT PEDESTRIAN TREATMENTS PER SCRRA ENGINEERING STANDARDS.
13. INSTALL NEW RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.
14. REHAB EXSTING RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.
15. INSTALL DETECTION LOOP DETAIL SEE ES 4001& ES 8405.
16. INSTALL PEDESTRIAN SWING GATE SEE ES 4002-01& ES 4002-02.
17. INSTALL DETECTABLE WARNING SURFACE.
18. CONSTRUCT 8" FULL DEPTH ASPHALT CONCRETE PAVEMENT.
19. CONSTRUCT VARIABLE ASPHALT CONCRETE PAVEMENT.
20. CONSTRUCT WELDED WIRE MESH FENCING PER SCRRA ENGINEERING STANDARDS 5105 H=4'-0".
22. REMOVE TREE.
23. REMOVE CONFLICTING PIPE GATE.
27. REMOVE CONFLICTING WALL OR FENCE.
29. CONSTRUCT CONCRETE MEDIAN.
33. TRIM UP EXISTING TREE.
34. INSTALL NEW STORM DRAIN CULVERT ACROSS THE STREET TO A DRAINAGE DITCH.
43. EXISTING SEWER MANHOLE.
44. REMOVE EXISTING UTILITY MARKER.
46. INSTALL NEW 200 AMP METER SERVICE.
50. PEDESTRIAN GATE WITH TWO WAY FLASHING LIGHT, WITHOUT BELL.
51. PEDESTRIAN GATE WITH ONE-WAY FLASHING LIGHT SIGNAL AND BELL.
52. PEDESTRIAN GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.
56. CPUC STD No. 9 GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.
57. CPUC STD No. 9E GATE WITH ONE-WAY FLASHING LIGHT SIGNAL, WITHOUT BELL.
58. CPUC STD NO. 9 GATE WITH OUT FLASHING LIGHT & BELL.
60. RELOCATE PTC TOWER.
62. CPUC STD NO. 9E GATE WITH 1-WAY LIGHTS AND BELL.
63. INSTALL NEW PTC TOWER.
64. INSTALL NEW SIGNAL HOUSE.
65. REMOVE EXISTING SIGNAL HOUSE.
66. CPUC STD GATE WITH 1-WAY LIGHTS WITHOUT BELL.
67. INSTALL 2-TRACK SIGNAL CANTILEVER
69. REMOVE EXISTING SIGNAL.




NOTES:

1. REMOVE EXISTING ACTIVE WARNING DEVICES UPON INSTALLATION OF NEW ACTIVE WARNING DEVICES.

LEGEND:
- CONCRETE WALK
- 8" ASPHALT
- RIVER ROCK

30 MPH POSTED ROADWAY SPEED

GRAPHIC SCALE: 20' 10' 0 20' 40' — 1" = 20'

| | |
|---|---|
| W10-1 | W48 (CA) |
| R6-1R | TYPE N |
| R4-7 | |

811 UNDERGROUND SERVICE ALERT
DIG ALERT
PLAY IT SAFE. DIAL BEFORE YOU DIG! AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION

REFERENCES

| NO. | DESCRIPTION | APP. | DATE | NO. | DESCRIPTION | APP. | DATE |
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(INSERT ENGINEER'S SEAL HERE)

APPROVED BY:
(CONSULTING FIRM) RCE DATE
APPROVED BY:
CITY OF LA VERNE DATE

PLANS PREPARED BY:
WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

CITY OF LA VERNE

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
WHEELER AVENUE
STREET IMPROVEMENT PLAN
(DOT) 914498A – (CPUC) 101SG-29.28

| DESIGNED: | JF | DRAWN: | JF | CHECKED: | MG | SCALE: |
|---|---|---|---|---|---|---|
| DESIGN DATE: | 6/28/17 | DRAWING NO.: | CS-C-080PP | SHEET: | 142 | OF X |

| PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT |
|---|---|---|---|---|---|
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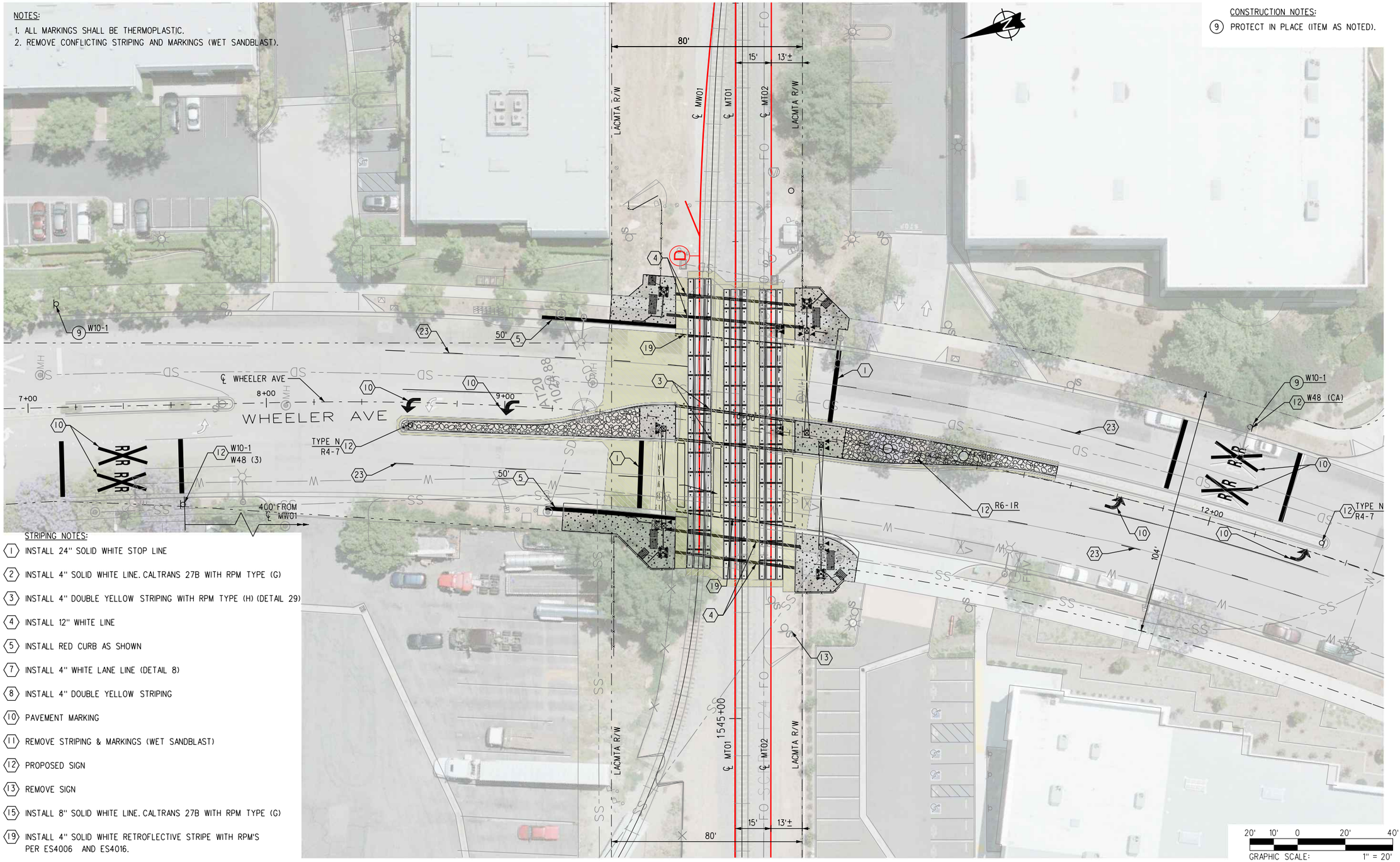
8HaPIRJa
PW:\\DC1CLUS01.JacOBS.cOM:JacOBSUJLPaTTERSON\DOcUMENTS\ENGINEERING\WaGNER\001 - LONE HILL AVE TO CP WHITE\MaSTER FILES\JEG-TRacK-C
6/27/2017
3:10:26 PM

NOTES:

1. ALL MARKINGS SHALL BE THERMOPLASTIC.
2. REMOVE CONFLICTING STRIPING AND MARKINGS (WET SANDBLAST).

CONSTRUCTION NOTES:

(9) PROTECT IN PLACE (ITEM AS NOTED).




STRIPING NOTES:

(1) INSTALL 24" SOLID WHITE STOP LINE

(2) INSTALL 4" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G)

(3) INSTALL 4" DOUBLE YELLOW STRIPING WITH RPM TYPE (H) (DETAIL 29)

(4) INSTALL 12" WHITE LINE

(5) INSTALL RED CURB AS SHOWN

(7) INSTALL 4" WHITE LANE LINE (DETAIL 8)

(8) INSTALL 4" DOUBLE YELLOW STRIPING

(10) PAVEMENT MARKING

(11) REMOVE STRIPING & MARKINGS (WET SANDBLAST)

(12) PROPOSED SIGN

(13) REMOVE SIGN

(15) INSTALL 8" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G)

(19) INSTALL 4" SOLID WHITE RETROFLECTIVE STRIPE WITH RPM'S PER ES4006 AND ES4016.

(23) INSTALL LANELINE PER CALTRANS (DETAIL 10)

| | |
|---|---|
| W10-1 | W48 (CA) |
| R6-1R | TYPE N |
| R4-7 | |

811 UNDERGROUND SERVICE ALERT
DIG ALERT
PLAY IT SAFE DIAL BEFORE YOU DIG! AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION

REFERENCES

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(INSERT ENGINEER'S SEAL HERE)

APPROVED BY:

(CONSULTING FIRM) RCE DATE

APPROVED BY:

CITY OF LA VERNE DATE

PLANS PREPARED BY:

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

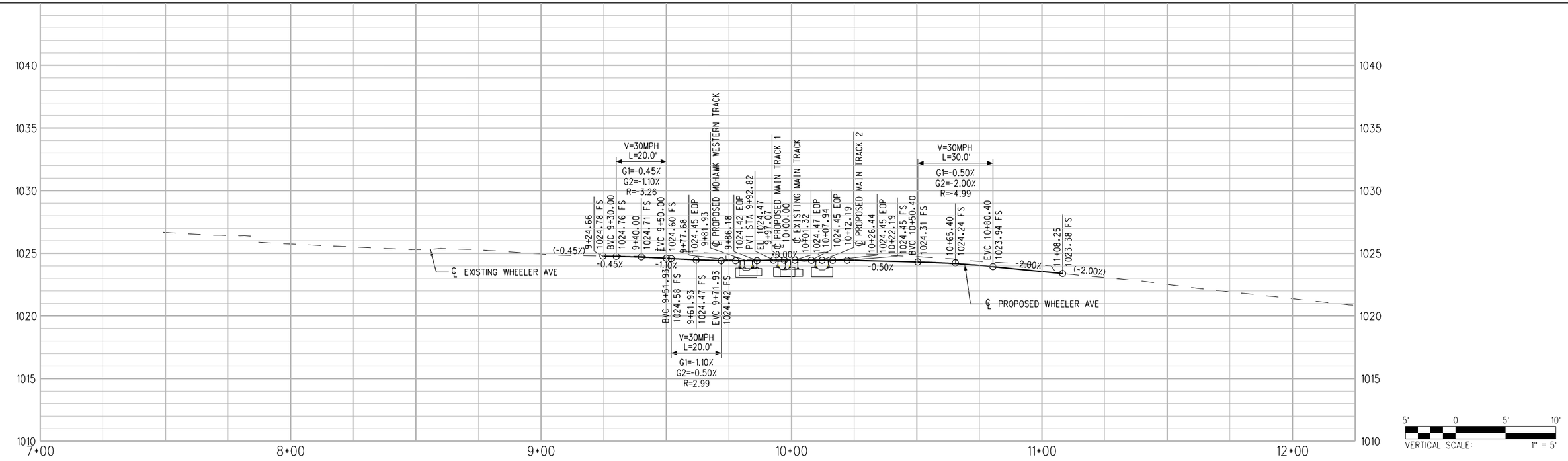
JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

CITY OF LA VERNE

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
WHEELER AVENUE
SIGNING AND STRIPING PLAN
(DOT) 914498A – (CPUC) 101SG-29.28

| DESIGNED: | JF | DRAWN: | JF | CHECKED: | MG | SCALE: |
|---|---|---|---|---|---|---|
| DESIGN DATE: | 6/28/17 | DRAWING NO.: | SS-C-080PL | SHEET: | 143 | OF X |

| PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT |
|---|---|---|---|---|---|
| | | | | | |




Know what's below. Call before you dig.

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

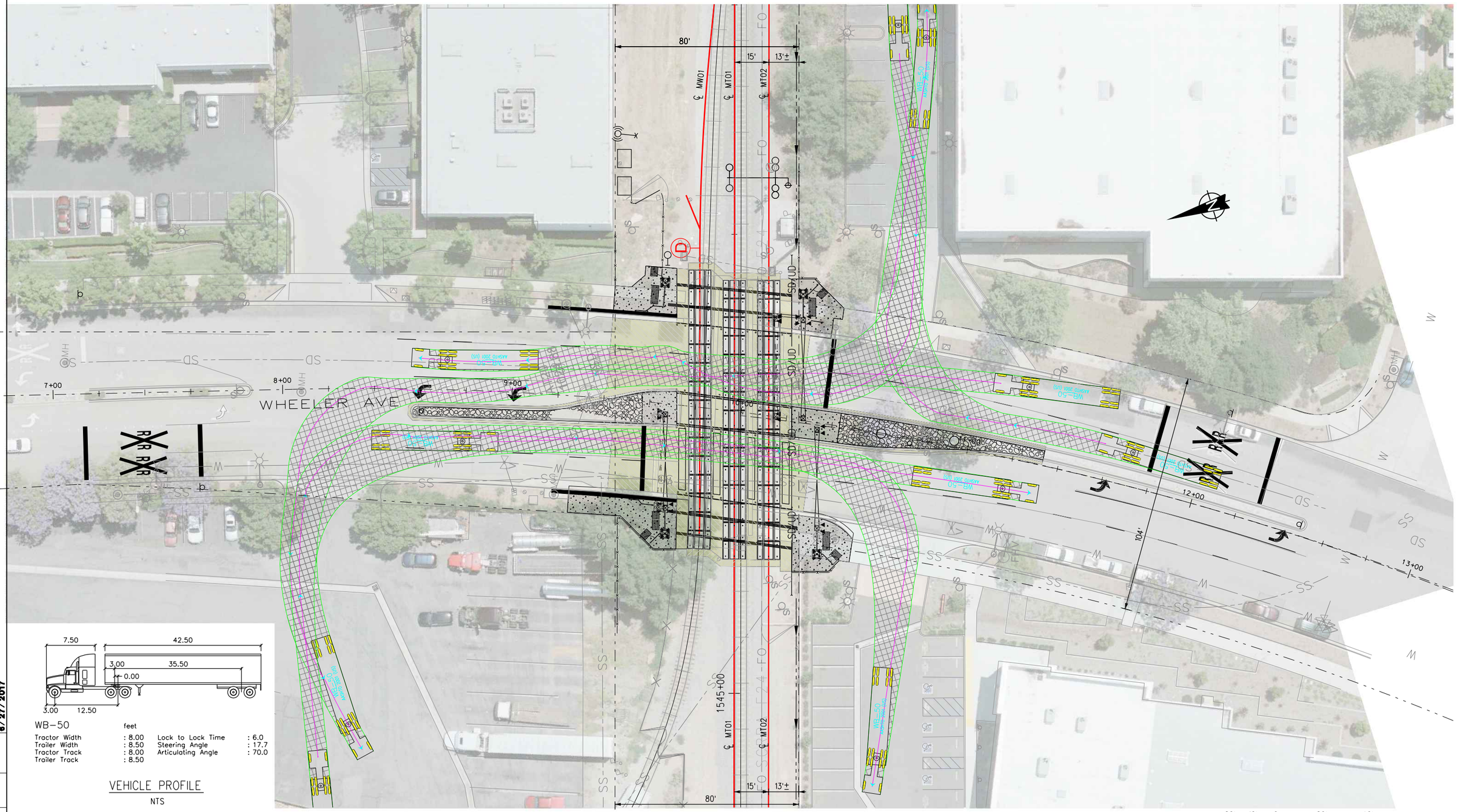

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**STREET IMPROVEMENT PROFILE WHEELER AVENUE (DOT) 914498A; (CPUC) 101SG-29.28**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | CS-C-080PR |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 144 |

ShapirJa 6/27/2017 3:10:16 PM $FILEL$

8HaPIRJa
PW:◇◇DC1CLUS01.JacOBS.cOM:JacOBSUJLPaTTERSON◇DOcUMENTS◇ENGINEERING◇WaGNER◇001 - LONE HILL AVE TO CP WHITE◇MaSTER FILES◇JEG-TRacK-C
3:10:21 PM
6/27/2017







WB–50 feet

| | | | |
|---|---|---|---|
| Tractor Width | : 8.00 | Lock to Lock Time | : 6.0 |
| Trailer Width | : 8.50 | Steering Angle | : 17.7 |
| Tractor Track | : 8.00 | Articulating Angle | : 70.0 |
| Trailer Track | : 8.50 | | |

VEHICLE PROFILE

NTS

30 MPH POSTED ROADWAY SPEED

20' 10' 0 20' 40'

GRAPHIC SCALE: 1" = 20'

811 UNDERGROUND SERVICE ALERT
DIG ALERT
PLAY IT SAFE. DIAL BEFORE YOU DIG! AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION

REFERENCES

| NO. | DESCRIPTION | APP. | DATE | NO. | DESCRIPTION | APP. | DATE |
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(INSERT ENGINEER'S SEAL HERE)

APPROVED BY:

(CONSULTING FIRM) RCE DATE

APPROVED BY:

CITY OF LA VERNE DATE

PLANS PREPARED BY:

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

CITY OF LA VERNE

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
WHEELER AVENUE
VEHICULAR TURNING MOVEMENTS
(DOT) 914498A – (CPUC) 101SG–29.28

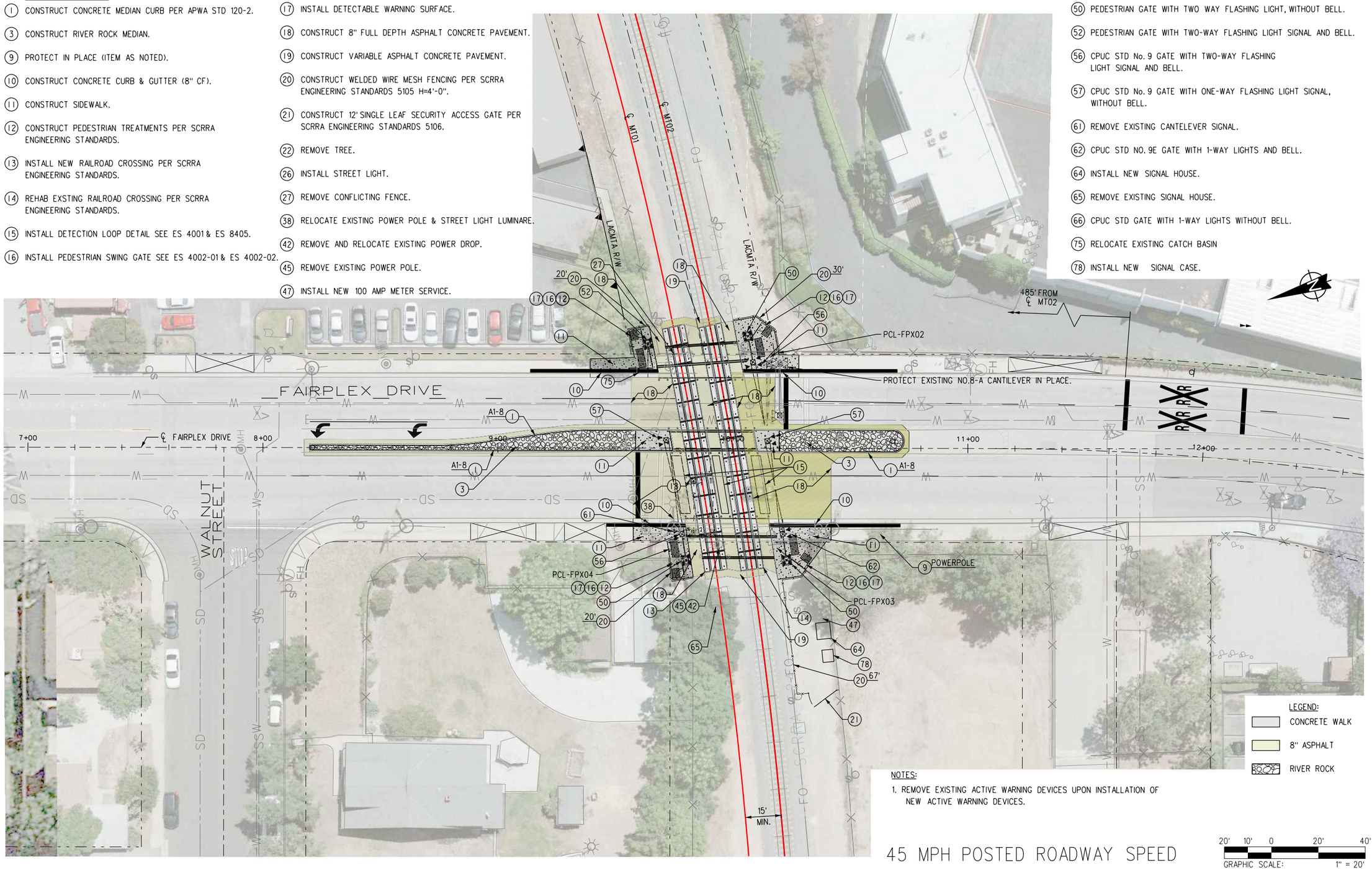
| DESIGNED: | JF | DRAWN: | JF | CHECKED: | MG | SCALE: | |
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| DESIGN DATE: | 6/28/17 | DRAWING NO.: | CS–C–081EXH | SHEET: | 145 | OF | X |

| PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT |
|---|---|---|---|---|---|
| | | | | | |

8HaPIRJa
PW:◇DC1CLUS01.JacOBS.cOM:JacOBSUJLPaTTERSON◇DocUMENTS◇ENGINEERING◇WaGNER◇001 - LONE HILL AVE TO CP WHITE◇MaSTER FILES◇JEG-TRacK-C
6/27/2017
3:10:32 PM

CONSTRUCTION NOTES:

1. CONSTRUCT CONCRETE MEDIAN CURB PER APWA STD 120-2.
3. CONSTRUCT RIVER ROCK MEDIAN.
9. PROTECT IN PLACE (ITEM AS NOTED).
10. CONSTRUCT CONCRETE CURB & GUTTER (8" CF).
11. CONSTRUCT SIDEWALK.
12. CONSTRUCT PEDESTRIAN TREATMENTS PER SCRRA ENGINEERING STANDARDS.
13. INSTALL NEW RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.
14. REHAB EXSTING RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.
15. INSTALL DETECTION LOOP DETAIL SEE ES 4001& ES 8405.
16. INSTALL PEDESTRIAN SWING GATE SEE ES 4002-01& ES 4002-02.
17. INSTALL DETECTABLE WARNING SURFACE.
18. CONSTRUCT 8" FULL DEPTH ASPHALT CONCRETE PAVEMENT.
19. CONSTRUCT VARIABLE ASPHALT CONCRETE PAVEMENT.
20. CONSTRUCT WELDED WIRE MESH FENCING PER SCRRA ENGINEERING STANDARDS 5105 H=4'-0".
21. CONSTRUCT 12' SINGLE LEAF SECURITY ACCESS GATE PER SCRRA ENGINEERING STANDARDS 5106.
22. REMOVE TREE.
26. INSTALL STREET LIGHT.
27. REMOVE CONFLICTING FENCE.
38. RELOCATE EXISTING POWER POLE & STREET LIGHT LUMINARE.
42. REMOVE AND RELOCATE EXISTING POWER DROP.
45. REMOVE EXISTING POWER POLE.
47. INSTALL NEW 100 AMP METER SERVICE.
50. PEDESTRIAN GATE WITH TWO WAY FLASHING LIGHT, WITHOUT BELL.
52. PEDESTRIAN GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.
56. CPUC STD No. 9 GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.
57. CPUC STD No. 9 GATE WITH ONE-WAY FLASHING LIGHT SIGNAL, WITHOUT BELL.
61. REMOVE EXISTING CANTELEVER SIGNAL.
62. CPUC STD NO. 9E GATE WITH 1-WAY LIGHTS AND BELL.
64. INSTALL NEW SIGNAL HOUSE.
65. REMOVE EXISTING SIGNAL HOUSE.
66. CPUC STD GATE WITH 1-WAY LIGHTS WITHOUT BELL.
75. RELOCATE EXISTING CATCH BASIN
78. INSTALL NEW SIGNAL CASE.




NOTES:

1. REMOVE EXISTING ACTIVE WARNING DEVICES UPON INSTALLATION OF NEW ACTIVE WARNING DEVICES.

45 MPH POSTED ROADWAY SPEED

GRAPHIC SCALE: 20' 10' 0 20' 40' — 1" = 20'

TYPE N | R4-7

W10-1 | W48 (CA)

| WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER |
|---|---|---|---|---|---|
| | | | | | |

811 UNDERGROUND SERVICE ALERT
DIG ALERT
PLAY IT SAFE DIAL BEFORE YOU DIG! AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION

REFERENCES

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(INSERT ENGINEER'S SEAL HERE)

APPROVED BY:
(CONSULTING FIRM) RCE DATE
APPROVED BY:
CITY OF LA VERNE DATE

PLANS PREPARED BY:
WES WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

CITY OF LA VERNE

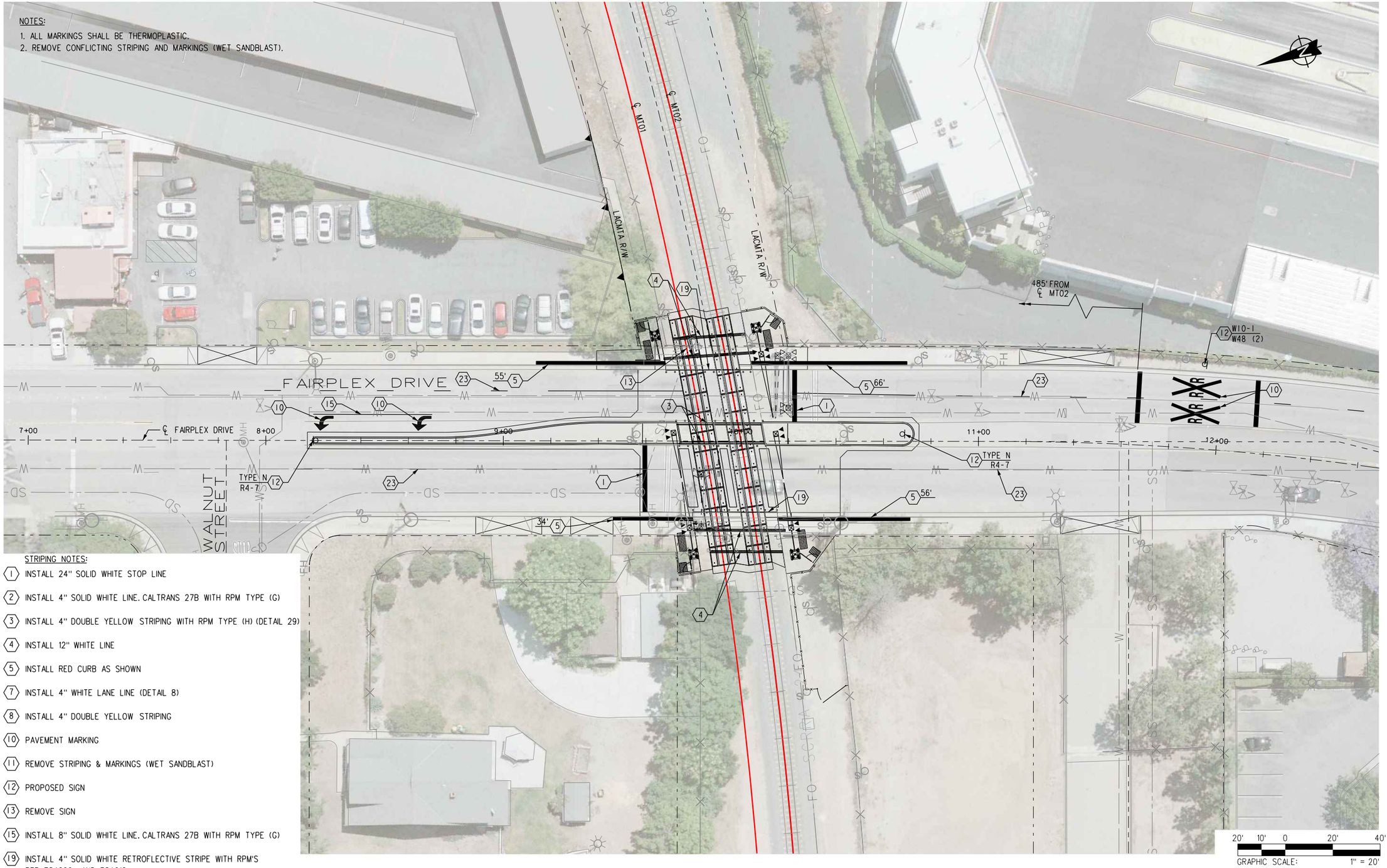
LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
FAIRPLEX DRIVE
STREET IMPROVEMENT PLAN
(DOT) 747328V – (CPUC) 101SG-29.97

| DESIGNED: | JF | DRAWN: | JF | CHECKED: | MG | SCALE: |
|---|---|---|---|---|---|---|
| DESIGN DATE: | 6/28/17 | DRAWING NO.: | CS-C-090PP | SHEET: | 146 | OF X |

SHaPIRJa
PW:\\DC1CLUS01.JacOBS.COM:JacOBS\ULPaTTERSON\DOcUMENTS\ENGINEERING\WaGNER\001 - LONE HILL AVE TO CP WHITE\MaSTER FILES\JEG-TRaCK-C
6/27/2017
3:10:49 PM

NOTES:

1. ALL MARKINGS SHALL BE THERMOPLASTIC.
2. REMOVE CONFLICTING STRIPING AND MARKINGS (WET SANDBLAST).




STRIPING NOTES:

(1) INSTALL 24" SOLID WHITE STOP LINE

(2) INSTALL 4" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G)

(3) INSTALL 4" DOUBLE YELLOW STRIPING WITH RPM TYPE (H) (DETAIL 29)

(4) INSTALL 12" WHITE LINE

(5) INSTALL RED CURB AS SHOWN

(7) INSTALL 4" WHITE LANE LINE (DETAIL 8)

(8) INSTALL 4" DOUBLE YELLOW STRIPING

(10) PAVEMENT MARKING

(11) REMOVE STRIPING & MARKINGS (WET SANDBLAST)

(12) PROPOSED SIGN

(13) REMOVE SIGN

(15) INSTALL 8" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G)

(19) INSTALL 4" SOLID WHITE RETROFLECTIVE STRIPE WITH RPM'S PER ES4006 AND ES4016.

TYPE N

R4-7

W10-1

W48 (CA)

811 UNDERGROUND SERVICE ALERT
DIG ALERT
PLAY IT SAFE. DIAL BEFORE YOU DIG! AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION

REFERENCES

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APPROVED BY:

(CONSULTING FIRM) RCE DATE

APPROVED BY:

CITY OF LA VERNE DATE

PLANS PREPARED BY:

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

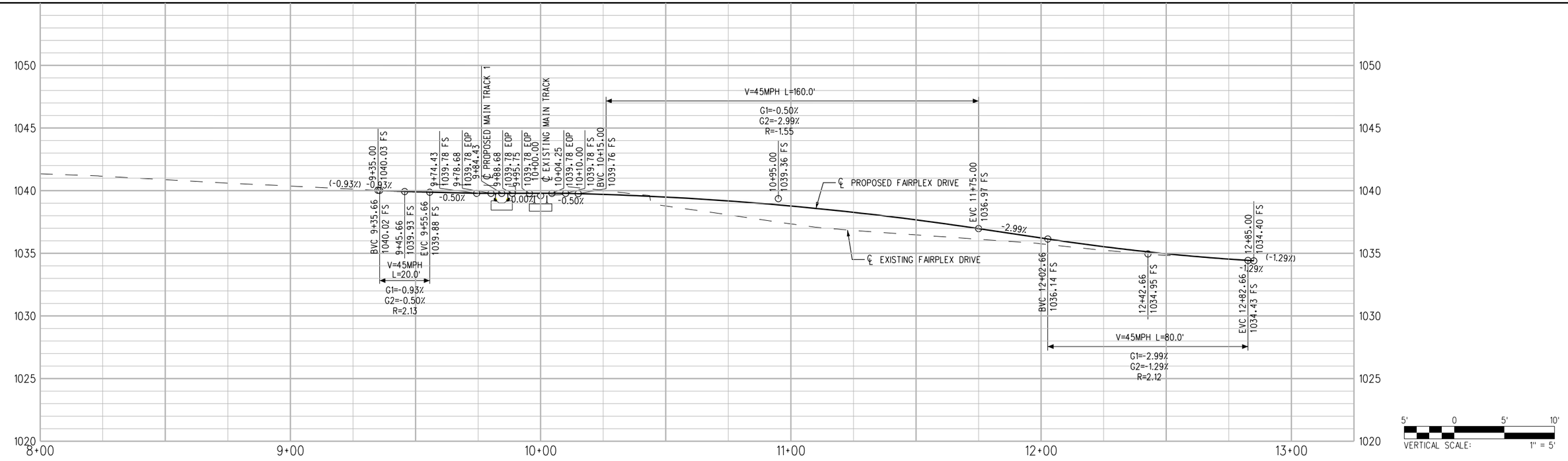
JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

CITY OF LA VERNE

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
FAIRPLEX DRIVE
SIGNING AND STRIPING PLAN
(DOT) 747328V – (CPUC) 101SG-29.97

| DESIGNED: | JF | DRAWN: | JF | CHECKED: | MG | SCALE: |
|---|---|---|---|---|---|---|
| DESIGN DATE: | 6/28/17 | DRAWING NO.: | SS-C-090PL | SHEET: | 147 | OF X |

| PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT |
|---|---|---|---|---|---|
| | | | | | |




Know what's below. Call before you dig.

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

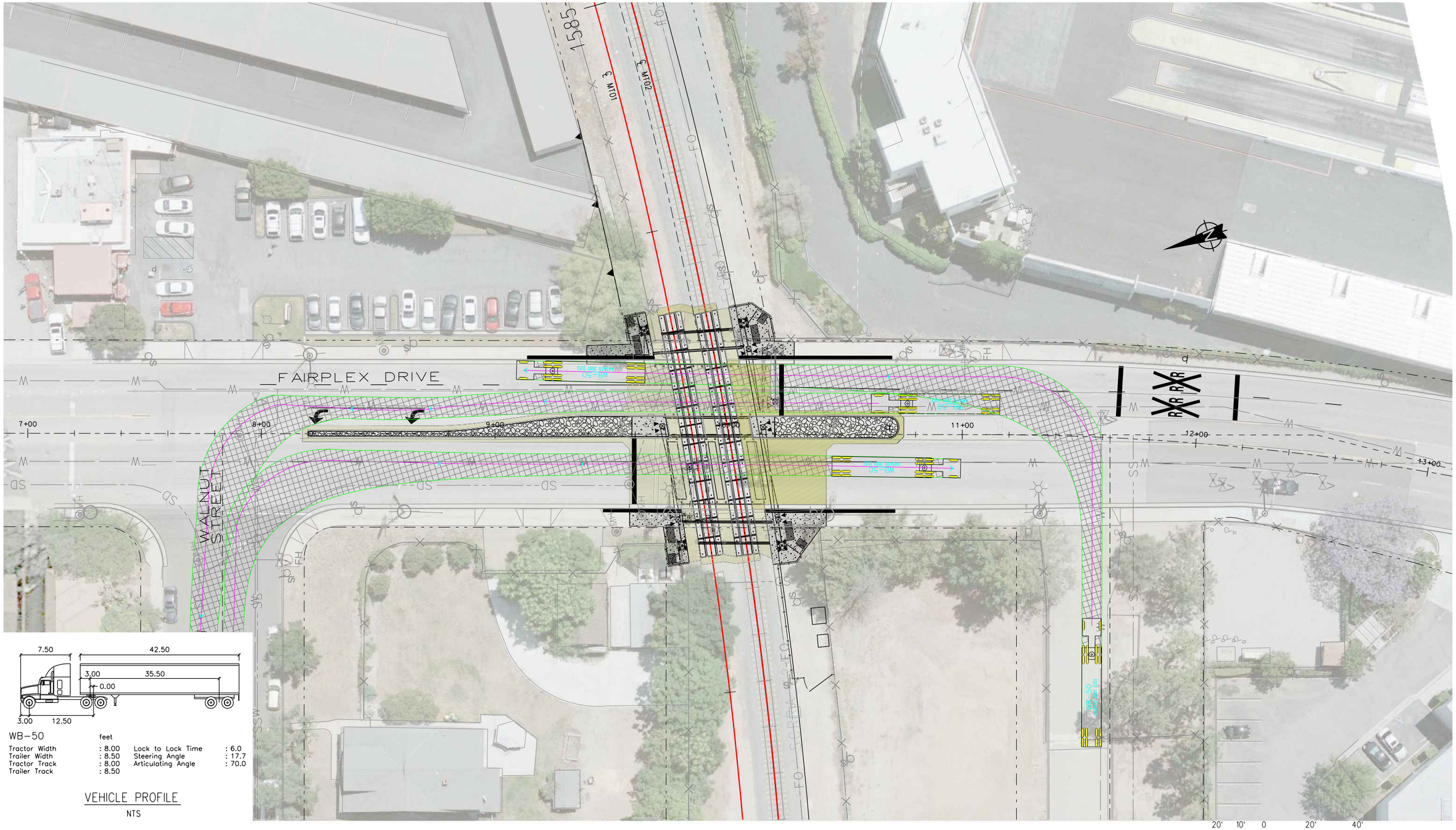

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**STREET IMPROVEMENT PROFILE FAIRPLEX DRIVE**
**(DOT) 747328V; (CPUC) 101SG-29.97**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | CS-C-090PR |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 148 |

ShapirJa 6/27/2017 3:10:38 PM $FILEL$

8HaPIRJa
PW:\\DC1CLUS01.JacOBS.cOM:JacOBSUJLPaTTERSON\DocUMENTS\ENGINEERING\WaGNER\001 - LONE HILL AVE TO CP WHITE\MaSTER FILES\JEG-TRacK-C
6/27/2017
3:10:43 PM







WB-50 feet

| | | | |
|---|---|---|---|
| Tractor Width | : 8.00 | Lock to Lock Time | : 6.0 |
| Trailer Width | : 8.50 | Steering Angle | : 17.7 |
| Tractor Track | : 8.00 | Articulating Angle | : 70.0 |
| Trailer Track | : 8.50 | | |

VEHICLE PROFILE

NTS

45 MPH POSTED ROADWAY SPEED

20' 10' 0 20' 40'

GRAPHIC SCALE: 1" = 20'

811 UNDERGROUND SERVICE ALERT
DIGALERT
PLAY IT SAFE. DIAL BEFORE YOU DIG! AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION

REFERENCES

| NO. | DESCRIPTION | APP. | DATE | NO. | DESCRIPTION | APP. | DATE |
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(INSERT ENGINEER'S SEAL HERE)

APPROVED BY:

(CONSULTING FIRM) RCE DATE

APPROVED BY:

CITY OF LA VERNE DATE

PLANS PREPARED BY:

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

CITY OF LA VERNE

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
FAIRPLEX DRIVE
VEHICULAR TURNING MOVEMENTS
(DOT) 747328V – (CPUC) 101SG-29.97

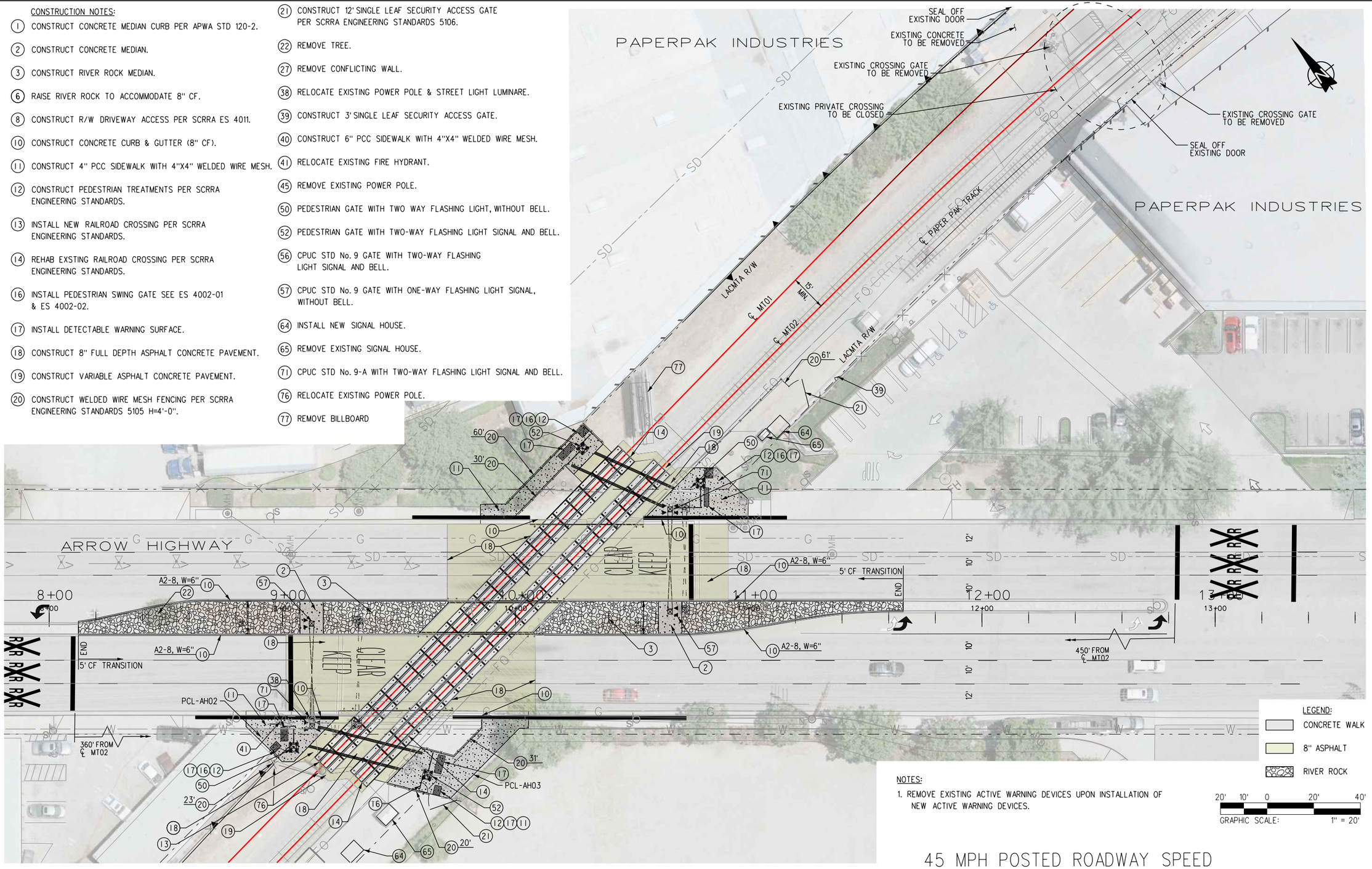
| DESIGNED: | JF | DRAWN: | JF | CHECKED: | MG | SCALE: |
|---|---|---|---|---|---|---|
| DESIGN DATE: | 6/28/17 | DRAWING NO.: | CS-C-091EXH | SHEET: | 149 | OF X |

| WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER |
|---|---|---|---|---|---|
| | | | | | |

8HaPIRJa
PW:\\DC1CLUS01.JacOBS.cOM:JacOBSUJLPaTTERSON\Documents\ENGINEERING\WaGNER\001 - LONE HILL AVE TO CP WHITE\MaSTER FILES\JEG-TRacK-C
6/27/2017
3:10:55 PM

CONSTRUCTION NOTES:

1. CONSTRUCT CONCRETE MEDIAN CURB PER APWA STD 120-2.
2. CONSTRUCT CONCRETE MEDIAN.
3. CONSTRUCT RIVER ROCK MEDIAN.
6. RAISE RIVER ROCK TO ACCOMMODATE 8" CF.
8. CONSTRUCT R/W DRIVEWAY ACCESS PER SCRRA ES 4011.
10. CONSTRUCT CONCRETE CURB & GUTTER (8" CF).
11. CONSTRUCT 4" PCC SIDEWALK WITH 4"X4" WELDED WIRE MESH.
12. CONSTRUCT PEDESTRIAN TREATMENTS PER SCRRA ENGINEERING STANDARDS.
13. INSTALL NEW RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.
14. REHAB EXSTING RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.
16. INSTALL PEDESTRIAN SWING GATE SEE ES 4002-01 & ES 4002-02.
17. INSTALL DETECTABLE WARNING SURFACE.
18. CONSTRUCT 8" FULL DEPTH ASPHALT CONCRETE PAVEMENT.
19. CONSTRUCT VARIABLE ASPHALT CONCRETE PAVEMENT.
20. CONSTRUCT WELDED WIRE MESH FENCING PER SCRRA ENGINEERING STANDARDS 5105 H=4'-0".
21. CONSTRUCT 12' SINGLE LEAF SECURITY ACCESS GATE PER SCRRA ENGINEERING STANDARDS 5106.
22. REMOVE TREE.
27. REMOVE CONFLICTING WALL.
38. RELOCATE EXISTING POWER POLE & STREET LIGHT LUMINARE.
39. CONSTRUCT 3' SINGLE LEAF SECURITY ACCESS GATE.
40. CONSTRUCT 6" PCC SIDEWALK WITH 4"X4" WELDED WIRE MESH.
41. RELOCATE EXISTING FIRE HYDRANT.
45. REMOVE EXISTING POWER POLE.
50. PEDESTRIAN GATE WITH TWO WAY FLASHING LIGHT, WITHOUT BELL.
52. PEDESTRIAN GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.
56. CPUC STD No. 9 GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.
57. CPUC STD No. 9 GATE WITH ONE-WAY FLASHING LIGHT SIGNAL, WITHOUT BELL.
64. INSTALL NEW SIGNAL HOUSE.
65. REMOVE EXISTING SIGNAL HOUSE.
71. CPUC STD No. 9-A WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.
76. RELOCATE EXISTING POWER POLE.
77. REMOVE BILLBOARD




LEGEND:
- CONCRETE WALK
- 8" ASPHALT
- RIVER ROCK

NOTES:
1. REMOVE EXISTING ACTIVE WARNING DEVICES UPON INSTALLATION OF NEW ACTIVE WARNING DEVICES.

GRAPHIC SCALE: 20' 10' 0 20' 40' — 1" = 20'

45 MPH POSTED ROADWAY SPEED

W10-1 | W48 (CA) | R6-1R | TYPE N

811 UNDERGROUND SERVICE ALERT
DIG ALERT
PLAY IT SAFE DIAL BEFORE YOU DIG! AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION

REFERENCES

| NO. | DESCRIPTION | APP. | DATE | NO. | DESCRIPTION | APP. | DATE |
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(INSERT ENGINEER'S SEAL HERE)

APPROVED BY: _____ (CONSULTING FIRM) RCE DATE
APPROVED BY: _____ CITY OF LA VERNE DATE

PLANS PREPARED BY:
WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

CITY OF LA VERNE

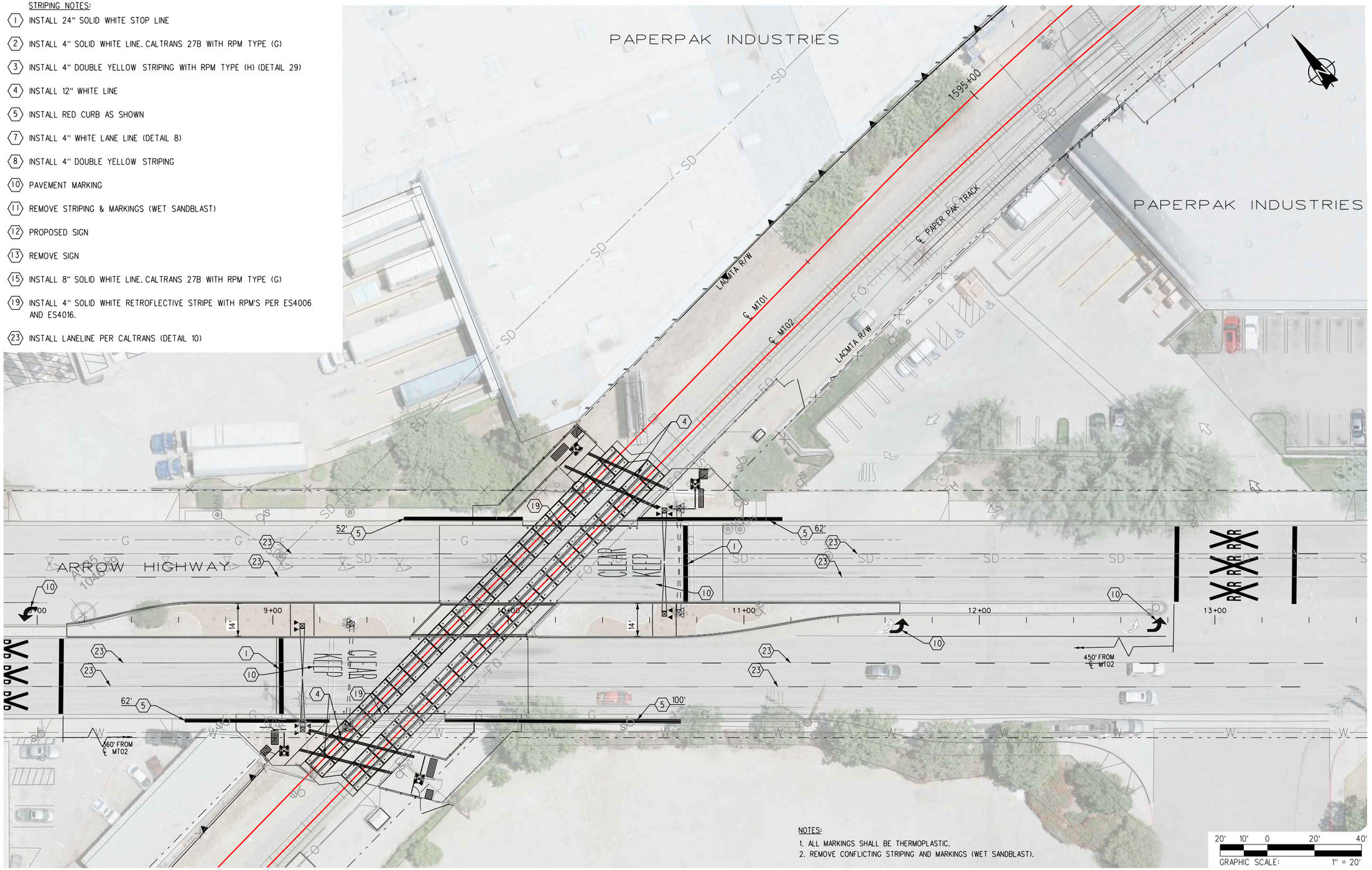
LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
ARROW HIGHWAY
STREET IMPROVEMENT PLAN
(DOT) 747329C – (CPUC) 101SG-30.15

| DESIGNED: JF | DRAWN: JF | CHECKED: MG | SCALE: |
|---|---|---|---|
| DESIGN DATE: 6/28/17 | DRAWING NO.: CS-C-100PP | SHEET: 150 | OF X |

| PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT |
|---|---|---|---|---|---|
| | | | | | |

STRIPING NOTES:

1. INSTALL 24" SOLID WHITE STOP LINE
2. INSTALL 4" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G)
3. INSTALL 4" DOUBLE YELLOW STRIPING WITH RPM TYPE (H) (DETAIL 29)
4. INSTALL 12" WHITE LINE
5. INSTALL RED CURB AS SHOWN
7. INSTALL 4" WHITE LANE LINE (DETAIL 8)
8. INSTALL 4" DOUBLE YELLOW STRIPING
10. PAVEMENT MARKING
11. REMOVE STRIPING & MARKINGS (WET SANDBLAST)
12. PROPOSED SIGN
13. REMOVE SIGN
15. INSTALL 8" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G)
19. INSTALL 4" SOLID WHITE RETROFLECTIVE STRIPE WITH RPM'S PER ES4006 AND ES4016.
23. INSTALL LANELINE PER CALTRANS (DETAIL 10)




| | |
|---|---|
| W10-1 | W48 (CA) |
| R6-1R | TYPE N |

811 DIGALERT — UNDERGROUND SERVICE ALERT
PLAY IT SAFE DIAL BEFORE YOU DIG! — AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION

REFERENCES

| NO. | DESCRIPTION | APP. | DATE | NO. | DESCRIPTION | APP. | DATE |
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(INSERT ENGINEER'S SEAL HERE)

APPROVED BY: _____
(CONSULTING FIRM) RCE DATE
APPROVED BY: _____
CITY OF LA VERNE DATE

PLANS PREPARED BY:
WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

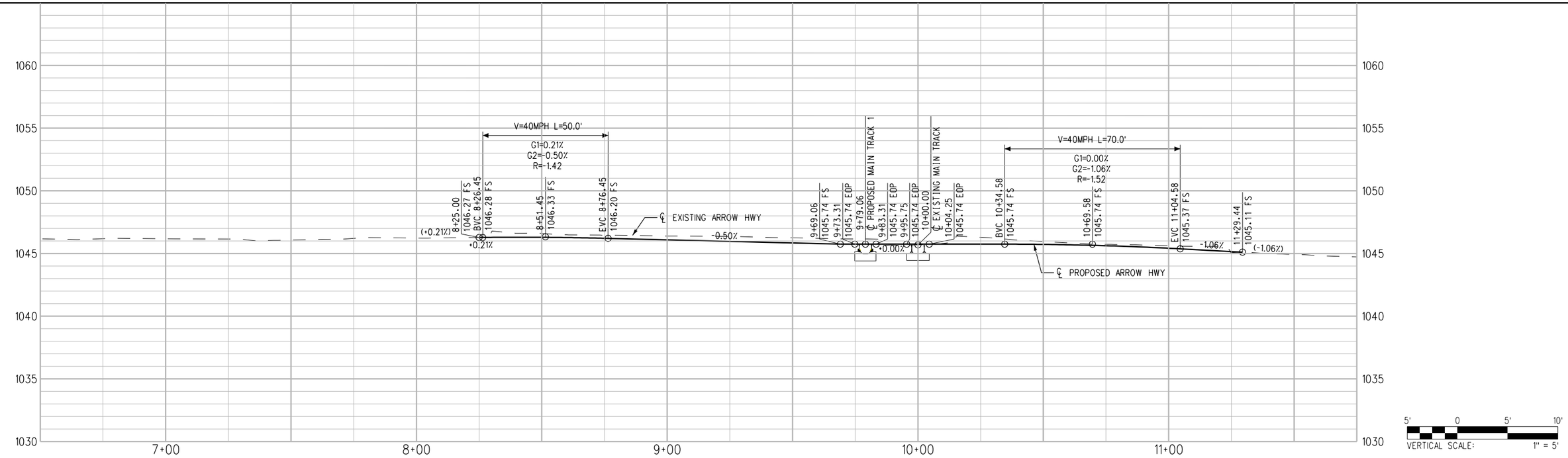
CITY OF LA VERNE

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
ARROW HIGHWAY
SIGNING AND STRIPING PLAN
(DOT) 747329C – (CPUC) 101SG-30.14

| DESIGNED: | JF | DRAWN: | JF | CHECKED: | MG | SCALE: |
|---|---|---|---|---|---|---|
| DESIGN DATE: | 6/28/17 | DRAWING NO.: | SS-C-100PL | SHEET: | 151 | OF X |

PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT

8HaPIRJa
PW:◇DC1CLU501.JacOBS.cOM:JacOBSUJLPaTTERSON◇DocUMENTS◇ENGINEERING◇WaGNER◇001 - LONE HILL AVE TO CP WHITE◇MaSTER FILES◇JEG-TRacK-C
6/27/2017
3:11:12 PM




Know what's below. Call before you dig.

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| | |
|---|---|
| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

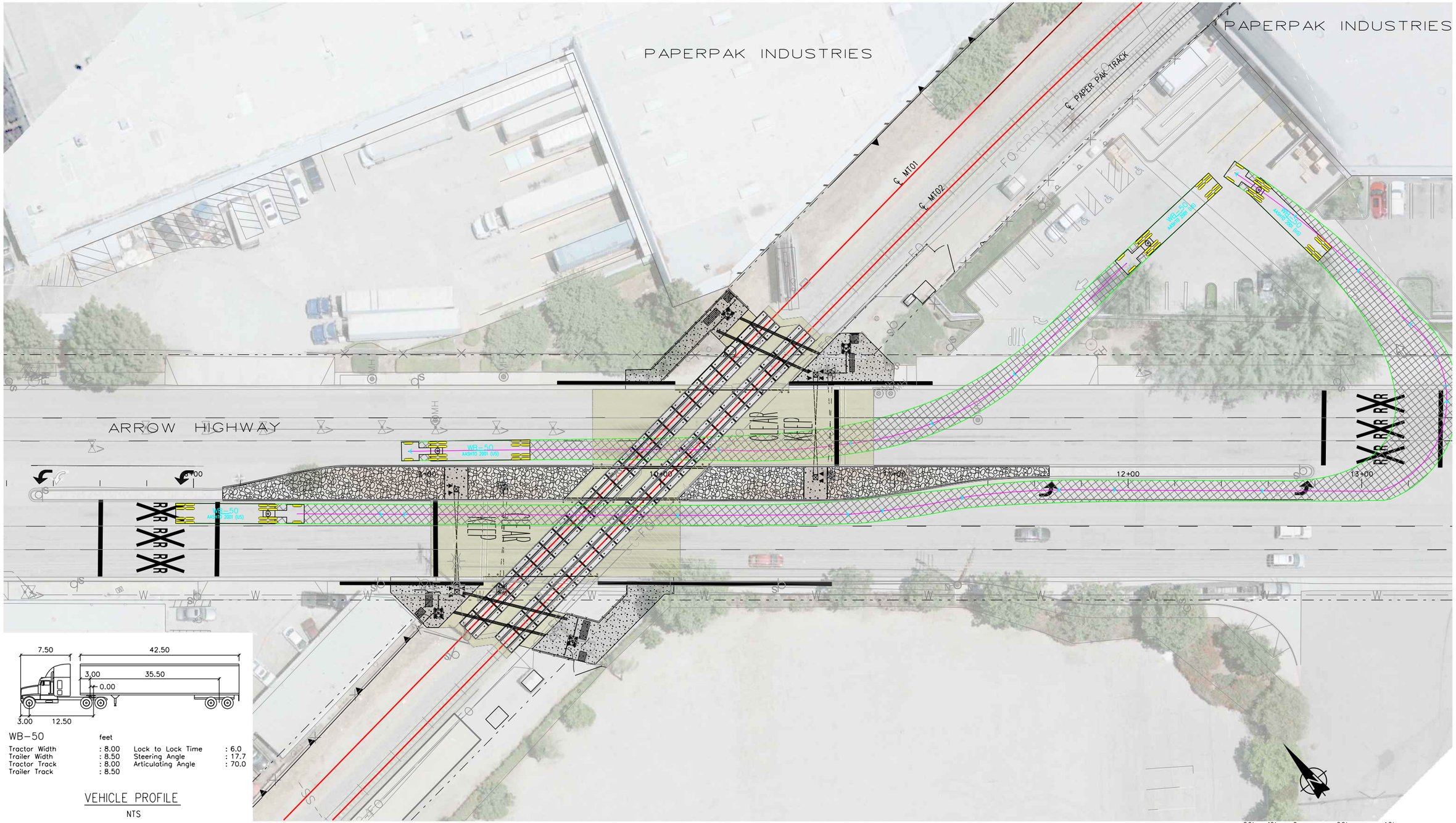

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**STREET IMPROVEMENT PROFILE ARROW HIGHWAY (DOT) 747329C; (CPUC) 101SG-30.15**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | CS-C-100PR |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 152 |

ShapirJa 6/27/2017 3:11:01 PM $FILEL$

$HaPIRJa
PW:\\DC1CLU801.JacOB8.cOM:JacOB8UJLPaTTERSON\DOcUMENTS\ENGINEERING\WaGNER\001 - LONE HILL AVE TO CP WHITE\MaSTER FILES\JEG-TRacK-C
6/27/2017
3:11:06 PM







WB-50 feet

| | | | |
|---|---|---|---|
| Tractor Width | : 8.00 | Lock to Lock Time | : 6.0 |
| Trailer Width | : 8.50 | Steering Angle | : 17.7 |
| Tractor Track | : 8.00 | Articulating Angle | : 70.0 |
| Trailer Track | : 8.50 | | |

VEHICLE PROFILE

NTS

45 MPH POSTED ROADWAY SPEED

20' 10' 0 20' 40'

GRAPHIC SCALE: 1" = 20'

811 DIG ALERT — UNDERGROUND SERVICE ALERT

PLAY IT SAFE. DIAL BEFORE YOU DIG! — AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION

REFERENCES

| NO. | DESCRIPTION | APP. | DATE | NO. | DESCRIPTION | APP. | DATE |
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(INSERT ENGINEER'S SEAL HERE)

APPROVED BY:

(CONSULTING FIRM) RCE DATE

APPROVED BY:

CITY OF LA VERNE DATE

PLANS PREPARED BY:

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

CITY OF LA VERNE

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
ARROW HIGHWAY
VEHICULAR TURNING MOVEMENTS
(DOT) 747329C – (CPUC) 101SG-30.15

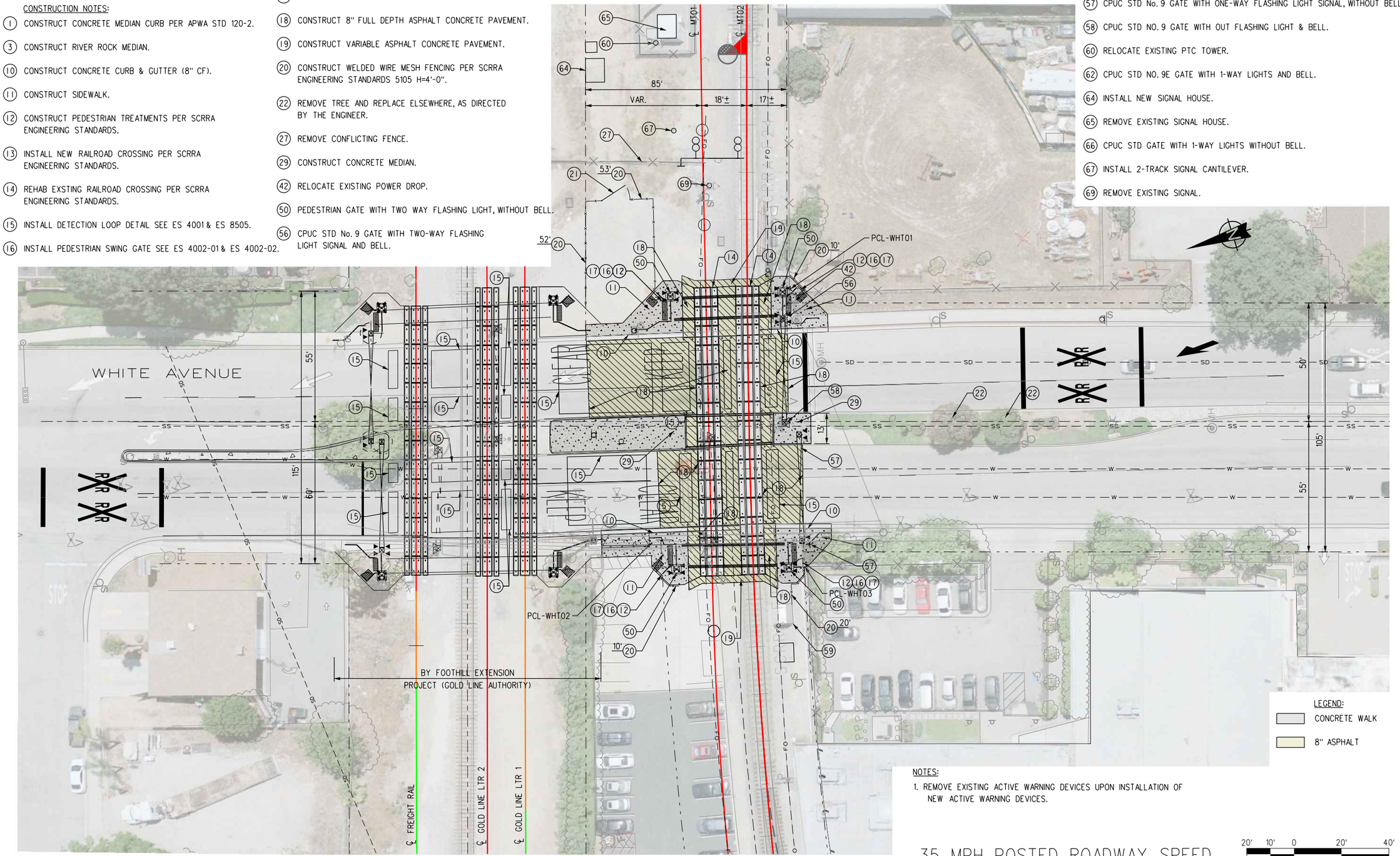
| DESIGNED: | JF | DRAWN: | JF | CHECKED: | MG | SCALE: | |
|---|---|---|---|---|---|---|---|
| DESIGN DATE: | 6/28/17 | DRAWING NO.: | CS-C-101EXH | SHEET: | 153 | OF | X |

| WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER |
|---|---|---|---|---|---|
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8HaPIRJa
PW:◇◇DC1CLUS01.JacOBS.cOM:JacOBSUJLPaTTERSON◇DocUMENTS◇ENGINEERING◇WaGNER◇001 - LONE HILL AVE TO CP WHITE◇MaSTER FILES◇JEG-TRacK-C
6/27/2017
3:11:20 PM

CONSTRUCTION NOTES:

1. CONSTRUCT CONCRETE MEDIAN CURB PER APWA STD 120-2.
3. CONSTRUCT RIVER ROCK MEDIAN.
10. CONSTRUCT CONCRETE CURB & GUTTER (8" CF).
11. CONSTRUCT SIDEWALK.
12. CONSTRUCT PEDESTRIAN TREATMENTS PER SCRRA ENGINEERING STANDARDS.
13. INSTALL NEW RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.
14. REHAB EXSTING RAILROAD CROSSING PER SCRRA ENGINEERING STANDARDS.
15. INSTALL DETECTION LOOP DETAIL SEE ES 4001& ES 8505.
16. INSTALL PEDESTRIAN SWING GATE SEE ES 4002-01& ES 4002-02.
17. INSTALL DETECTABLE WARNING SURFACE.
18. CONSTRUCT 8" FULL DEPTH ASPHALT CONCRETE PAVEMENT.
19. CONSTRUCT VARIABLE ASPHALT CONCRETE PAVEMENT.
20. CONSTRUCT WELDED WIRE MESH FENCING PER SCRRA ENGINEERING STANDARDS 5105 H=4'-0".
22. REMOVE TREE AND REPLACE ELSEWHERE, AS DIRECTED BY THE ENGINEER.
27. REMOVE CONFLICTING FENCE.
29. CONSTRUCT CONCRETE MEDIAN.
42. RELOCATE EXISTING POWER DROP.
50. PEDESTRIAN GATE WITH TWO WAY FLASHING LIGHT, WITHOUT BELL.
56. CPUC STD No. 9 GATE WITH TWO-WAY FLASHING LIGHT SIGNAL AND BELL.
57. CPUC STD No. 9 GATE WITH ONE-WAY FLASHING LIGHT SIGNAL, WITHOUT BELL.
58. CPUC STD NO. 9 GATE WITH OUT FLASHING LIGHT & BELL.
60. RELOCATE EXISTING PTC TOWER.
62. CPUC STD NO. 9E GATE WITH 1-WAY LIGHTS AND BELL.
64. INSTALL NEW SIGNAL HOUSE.
65. REMOVE EXISTING SIGNAL HOUSE.
66. CPUC STD GATE WITH 1-WAY LIGHTS WITHOUT BELL.
67. INSTALL 2-TRACK SIGNAL CANTILEVER.
69. REMOVE EXISTING SIGNAL.




LEGEND:
- CONCRETE WALK
- 8" ASPHALT

NOTES:
1. REMOVE EXISTING ACTIVE WARNING DEVICES UPON INSTALLATION OF NEW ACTIVE WARNING DEVICES.

35 MPH POSTED ROADWAY SPEED

GRAPHIC SCALE: 20' 10' 0 20' 40' — 1" = 20'

W10-1 | W48 (CA) 5 TRACK
R6-1R ONE WAY | TYPE N
R8-8 DO NOT STOP ON TRACKS

| PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT |
|---|---|---|---|---|---|
| | | | | | |

811 UNDERGROUND SERVICE ALERT
DIGALERT
PLAY IT SAFE. DIAL BEFORE YOU DIG! AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION

REFERENCES

| NO. | DESCRIPTION | APP. | DATE | NO. | DESCRIPTION | APP. | DATE |
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(INSERT ENGINEER'S SEAL HERE)

APPROVED BY: _____
(CONSULTING FIRM) RCE DATE
APPROVED BY: _____
CITY OF LA VERNE DATE

PLANS PREPARED BY:
WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

CITY OF LA VERNE

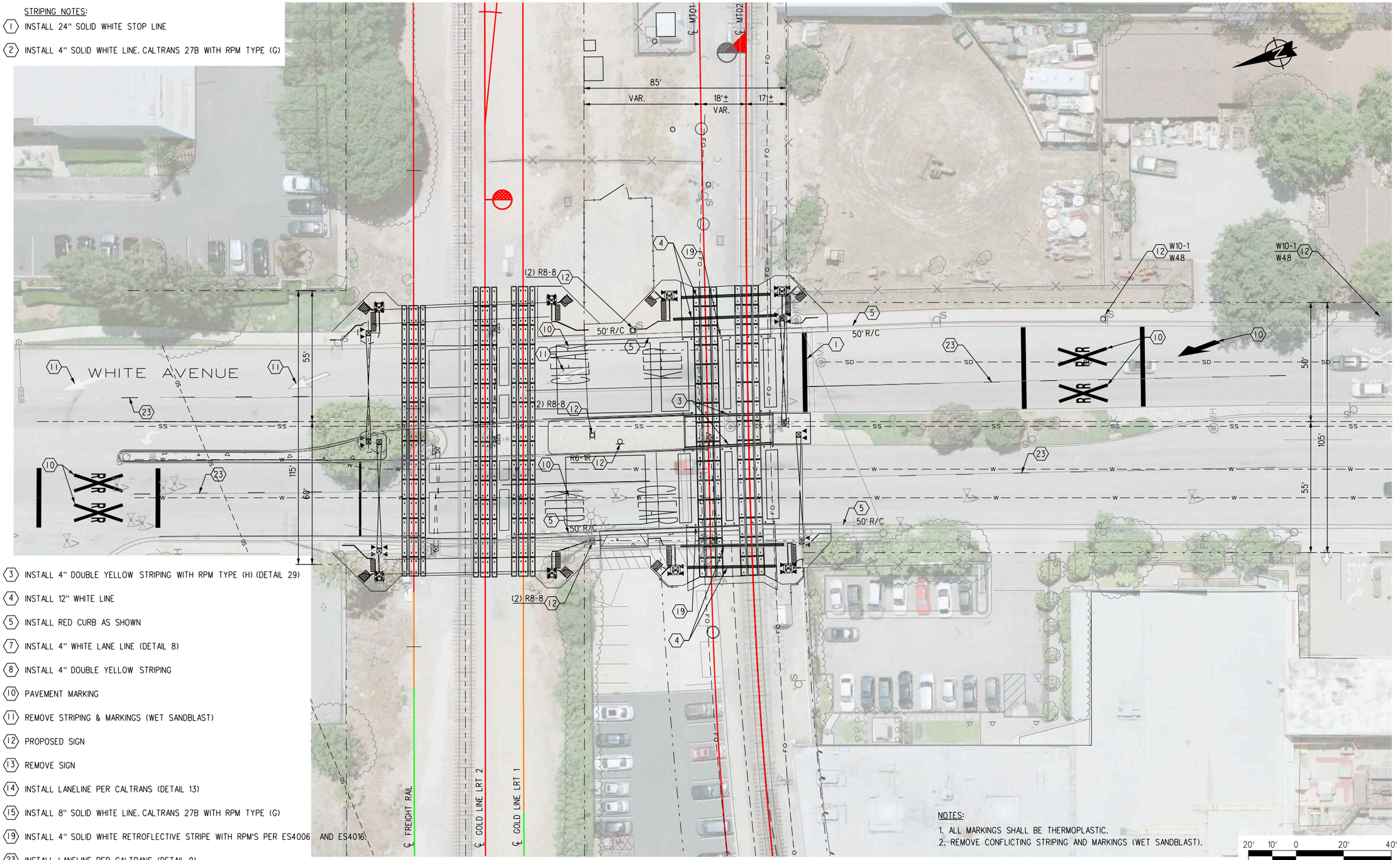
LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
WHITE AVENUE
STREET IMPROVEMENT PLAN
(DOT) 747330W – (CPUC) 101SG-30.33

| DESIGNED: | JF | DRAWN: | JF | CHECKED: | MG | SCALE: |
|---|---|---|---|---|---|---|
| DESIGN DATE: | 6/28/17 | DRAWING NO.: | CS-C-110PP | SHEET: | 154 | OF X |

8HaPIRJa
PW:◇◇DC1CLUS01.JacOBS.cOM:JacOBSUJLPaTTERSON◇DocUMENTS◇ENGINEERING◇WaGNER◇001 - LONE HILL AVE TO CP WHITE◇MaSTER FILES◇JEG-TRacK-C

STRIPING NOTES:

1. INSTALL 24" SOLID WHITE STOP LINE
2. INSTALL 4" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G)




3. INSTALL 4" DOUBLE YELLOW STRIPING WITH RPM TYPE (H) (DETAIL 29)
4. INSTALL 12" WHITE LINE
5. INSTALL RED CURB AS SHOWN
7. INSTALL 4" WHITE LANE LINE (DETAIL 8)
8. INSTALL 4" DOUBLE YELLOW STRIPING
10. PAVEMENT MARKING
11. REMOVE STRIPING & MARKINGS (WET SANDBLAST)
12. PROPOSED SIGN
13. REMOVE SIGN
14. INSTALL LANELINE PER CALTRANS (DETAIL 13)
15. INSTALL 8" SOLID WHITE LINE. CALTRANS 27B WITH RPM TYPE (G)
19. INSTALL 4" SOLID WHITE RETROFLECTIVE STRIPE WITH RPM'S PER ES4006 AND ES4016
23. INSTALL LANELINE PER CALTRANS (DETAIL 9)

NOTES:

1. ALL MARKINGS SHALL BE THERMOPLASTIC.
2. REMOVE CONFLICTING STRIPING AND MARKINGS (WET SANDBLAST).

GRAPHIC SCALE: 20' 10' 0 20' 40' — 1" = 20'

| | |
|---|---|
| W10-1 | W48 (CA) |
| R6-1R | TYPE N |
| R8-8 | |

| WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER |
|---|---|---|---|---|---|
| | | | | | |

811 DIGALERT — UNDERGROUND SERVICE ALERT
PLAY IT SAFE DIAL BEFORE YOU DIG! — AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION

REFERENCES

| NO. | DESCRIPTION | APP. | DATE | NO. | DESCRIPTION | APP. | DATE |
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(INSERT ENGINEER'S SEAL HERE)

APPROVED BY: _____ (CONSULTING FIRM) RCE DATE
APPROVED BY: _____ CITY OF LA VERNE DATE

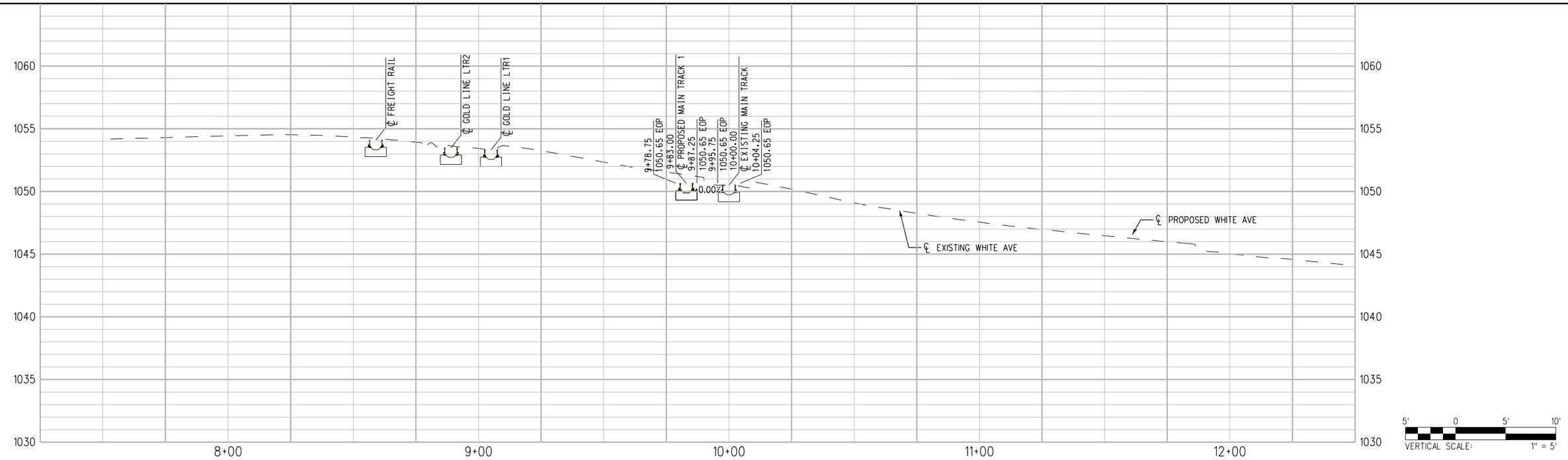
PLANS PREPARED BY:
WES WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

CITY OF LA VERNE

LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
WHITE AVENUE
SIGNING AND STRIPING PLAN
(DOT) 747330W – (CPUC) 101SG-30.32

| DESIGNED: | JF | DRAWN: | JF | CHECKED: | MG | SCALE: |
|---|---|---|---|---|---|---|
| DESIGN DATE: | 6/28/17 | DRAWING NO.: | SS-C-110PL | SHEET: | 155 | OF X |

6/27/2017
3:11:57 PM




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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
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| IN CHARGE | MG |
| DATE | 7-1-2017 |


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WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

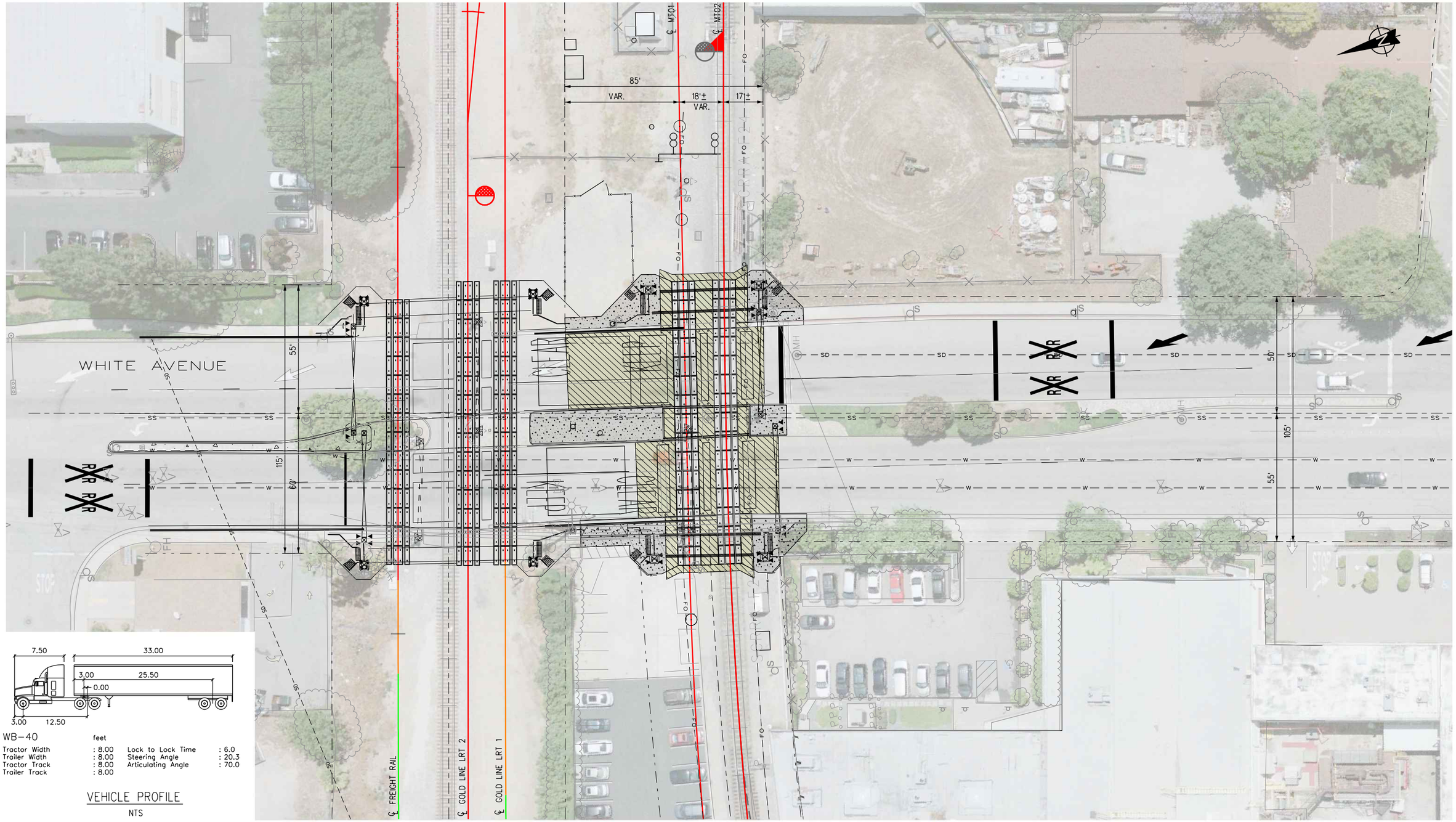

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**STREET IMPROVEMENT PROFILE WHITE AVENUE (DOT) 747330W; (CPUC) 101SG-30.33**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | CS-C-110PR |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 156 |

ShapirJa 6/27/2017 3:11:46 PM $FILEL$

8HaPIRJa
PW:◇◇DC1CLUS01.JacOBS.cOM:JacOBSUJLPaTTERSON◇DocUMENTS◇ENGINEERING◇WaGNER◇001 - LONE HILL AVE TO CP WHITE◇MaSTER FILES◇JEG-TRacK-C
6/27/2017
3:11:51 PM







WB–40 feet

| | | | |
|---|---|---|---|
| Tractor Width | : 8.00 | Lock to Lock Time | : 6.0 |
| Trailer Width | : 8.00 | Steering Angle | : 20.3 |
| Tractor Track | : 8.00 | Articulating Angle | : 70.0 |
| Trailer Track | : 8.00 | | |

VEHICLE PROFILE

NTS

35 MPH POSTED ROADWAY SPEED

GRAPHIC SCALE: 20' 10' 0 20' 40' — 1" = 20'

811 UNDERGROUND SERVICE ALERT
DIGALERT
PLAY IT SAFE. DIAL BEFORE YOU DIG! AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION

REFERENCES

| NO. | DESCRIPTION | APP. | DATE | NO. | DESCRIPTION | APP. | DATE |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

(INSERT ENGINEER'S SEAL HERE)

APPROVED BY:

(CONSULTING FIRM) RCE DATE

APPROVED BY:

CITY OF LA VERNE DATE

PLANS PREPARED BY:

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17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
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JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

CITY OF LA VERNE

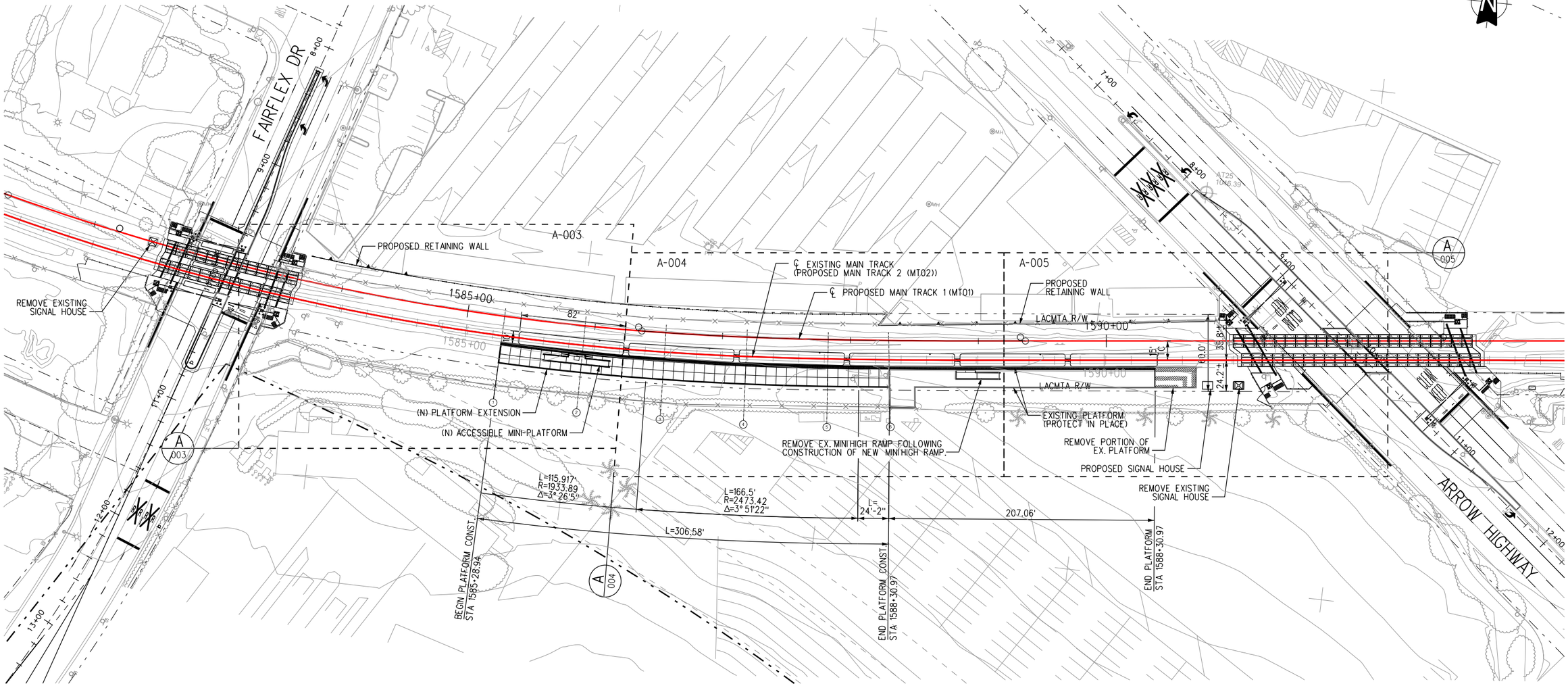
LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT
WHITE AVENUE
VEHICULAR TURNING MOVEMENTS
(DOT) 747330W – (CPUC) 101SG–30.33

| DESIGNED: | JF | DRAWN: | JF | CHECKED: | MG | SCALE: | |
|---|---|---|---|---|---|---|---|
| DESIGN DATE: | 6/28/17 | DRAWING NO.: | CS–C–111EXH | SHEET: | 157 | OF | X |

| PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT |
|---|---|---|---|---|---|
| | | | | | |

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST




PLAN

20' 10' 0 20' 40'
GRAPHIC SCALE: HORIZ. 1" = 20

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| IN CHARGE | MG |
| DATE | 7-1-2017 |

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Metro

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SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

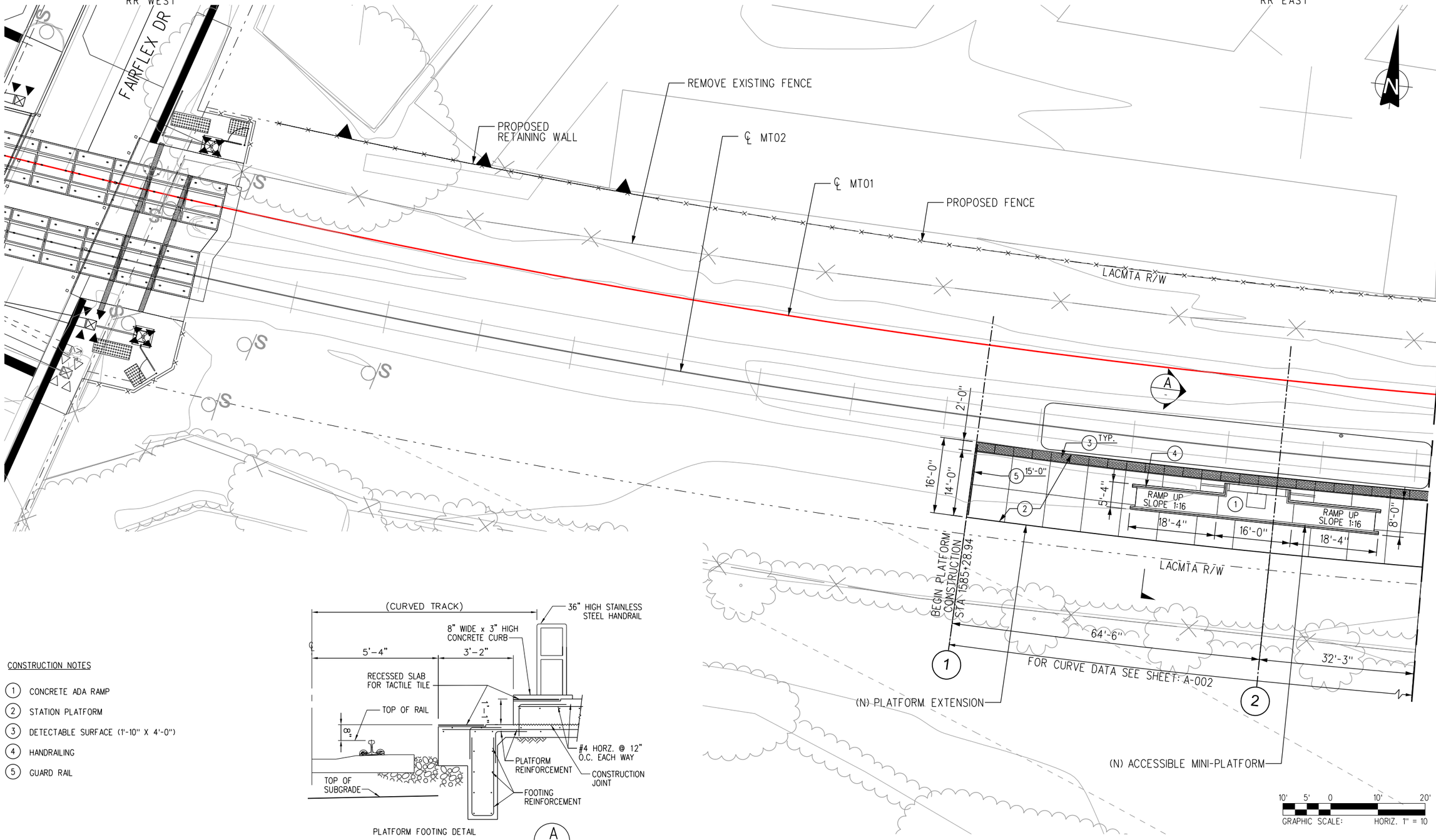
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ORANGE, CA 92868
TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**STATION SITE PLAN**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | A-002 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 158 |

Shapir.Ja 6/27/2017 3:12:17 PM $FILE$




CONSTRUCTION NOTES

1. CONCRETE ADA RAMP
2. STATION PLATFORM
3. DETECTABLE SURFACE (1'-10" X 4'-0")
4. HANDRAILING
5. GUARD RAIL




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| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

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**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**PLATFORM NEW WORK PLAN SHEET 1 OF 3**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | A-003 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 159 |

ShapirJa 6/27/2017 3:12:12 PM $FILE$

TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST

℄ MT02

℄ MT01

PROPOSED FENCE

PROPOSED
RETAINING WALL & FENCE

LACMTA R/W

REMOVE EXISTING FENCE

(N) TACTILE STRIPING

REMOVE EXISTING
MINI-PLATFORM

SEE DRAWING NO. A-003
MATCH LINE EXMT 1586+24.11

SEE DRAWING NO. A-005
MATCH LINE EXMT 1589+21.67

PCC
STA 1586+42.70

32'-3"

64'-6"

64'-6"

48'-0"

L=24'-2"

L=166'-6" O.D.
R=2473.42
Δ=3° 51'22"

EC-PT
STA 1588+06.95

END PLATFORM
CONSTRUCTION
STA 1588+30.97

14'-0"

7'-0"

6"

RAMP UP
SLOPE 1:16

17'-0"

17'-0"

34'-0"

EXISTING PLATFORM
(PROTECT IN PLACE)

FOR CURVE DATA
SEE SHEET: A-002

3

4

5

6

CONSTRUCTION NOTES

1. CONCRETE ADA RAMP
2. STATION PLATFORM
3. DETECTABLE SURFACE (1'-10" X 4'-0")
4. HANDRAILING

10' 5' 0 10' 20'
GRAPHIC SCALE: HORIZ. 1" = 10

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| IN CHARGE | MG |
| DATE | 7-1-2017 |

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**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

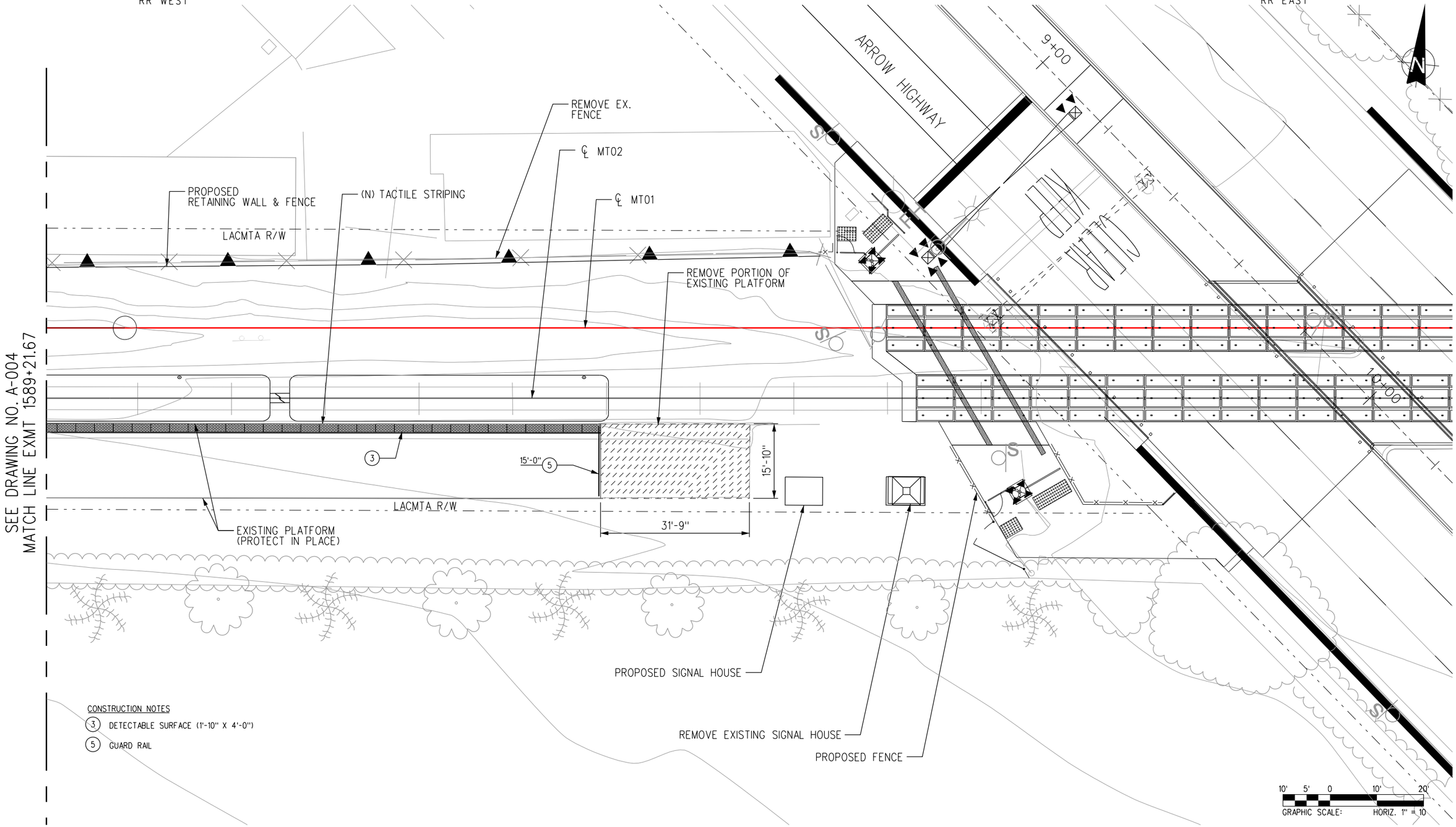
**PLATFORM NEW WORK PLAN SHEET 2 OF 3**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | A-004 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 160 |

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TO LOS ANGELES, CA
RR WEST

SAN BERNARDINO, CA
RR EAST




CONSTRUCTION NOTES

(3) DETECTABLE SURFACE (1'-10" X 4'-0")

(5) GUARD RAIL

811 A-004
AS SHOWN
Know what's below.
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| DRAWN BY | JS |
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| IN CHARGE | MG |
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**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**PLATFORM NEW WORK PLAN SHEET 3 OF 3**

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | A-005 |
| REV | |
| SCALE | AS SHOWN |
| SHEET NO | 161 |

Shapir.Ja 6/27/2017 3:12:03 PM $FILE$

24
A

MP 24 TO 25

FILENAME: PTC209SCVR001

REVISED: 09/01/2013

ISSUED: 09/01/2013

SCALE: 1" = 200'

REVISIONS OR RECOMMENDATIONS:
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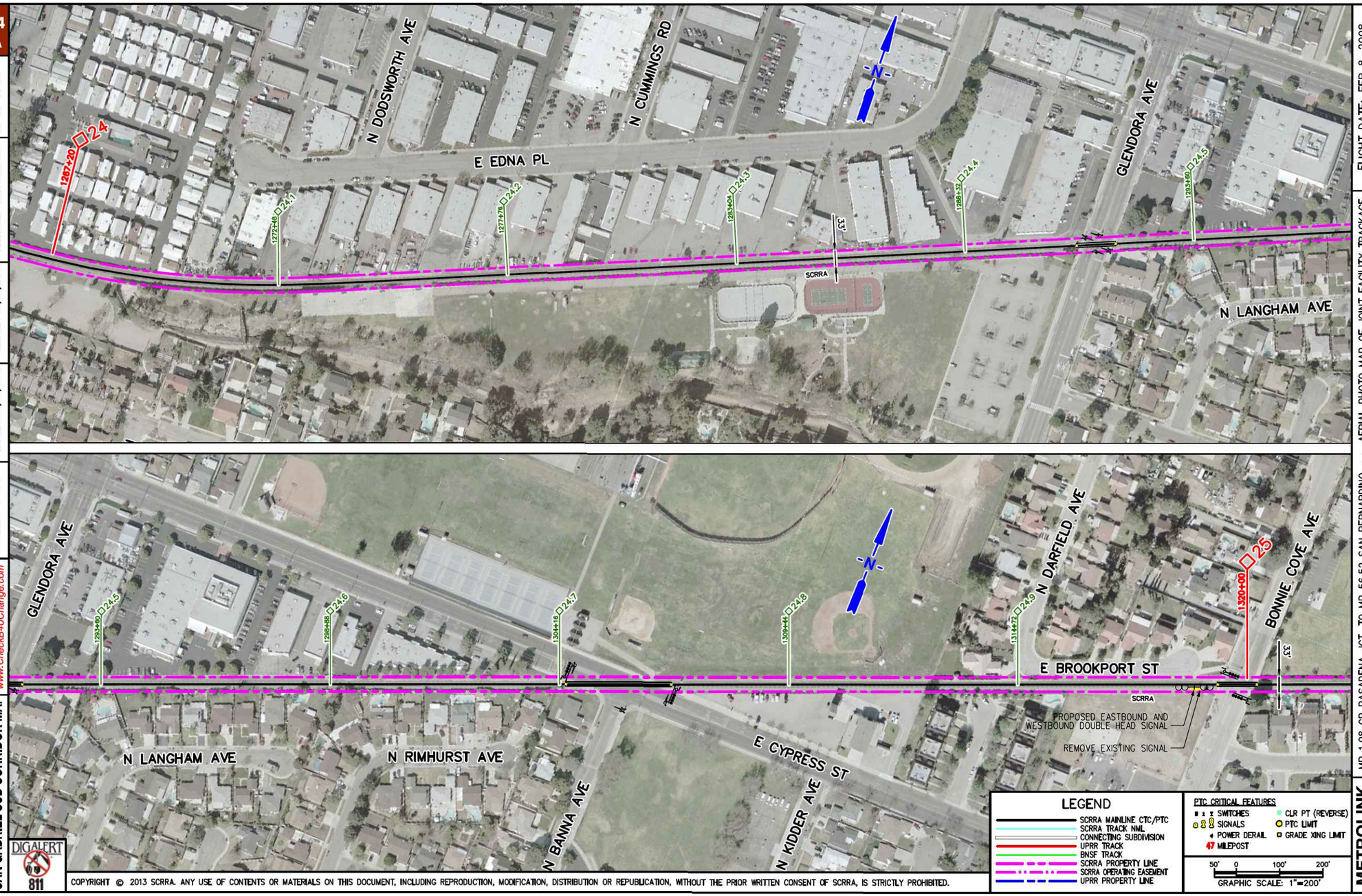
SAN GABRIEL SUB CORRIDOR MAP

DIGALERT 811

FLIGHT DATE: FEB 8, 2008

AERIAL PHOTO MAP OF JOINT FACILITY TRACKAGE – MP 1.08 CP PASADENA JCT. TO MP 56.52 SAN BERNARDINO

METROLINK




LEGEND

- SCRRA MAINLINE CTC/PTC
- SCRRA TRACK NML
- CONNECTING SUBDIVISION
- UPRR TRACK
- BNSF TRACK
- SCRRA PROPERTY LINE
- SCRRA OPERATING EASEMENT
- UPRR PROPERTY LINE

PTC CRITICAL FEATURES

- SWITCHES
- SIGNALS
- POWER DERAIL
- 47 MILEPOST
- CLR PT (REVERSE)
- PTC LIMIT
- GRADE XING LIMIT

50' 0 100' 200'
GRAPHIC SCALE: 1"=200'

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## LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

### ADDITIONAL OVERVIEWS MP 24 TO MP 25 SHEET 1 OF 5

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | N-001 |
| REV | |
| SCALE | NTS |
| SHEET NO | 162 |

25
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MP 25 TO 26

FILENAME: PTC209SCVR001

ISSUED: 09/01/2013

REVISED: 09/01/2013

SCALE: 1" = 200'

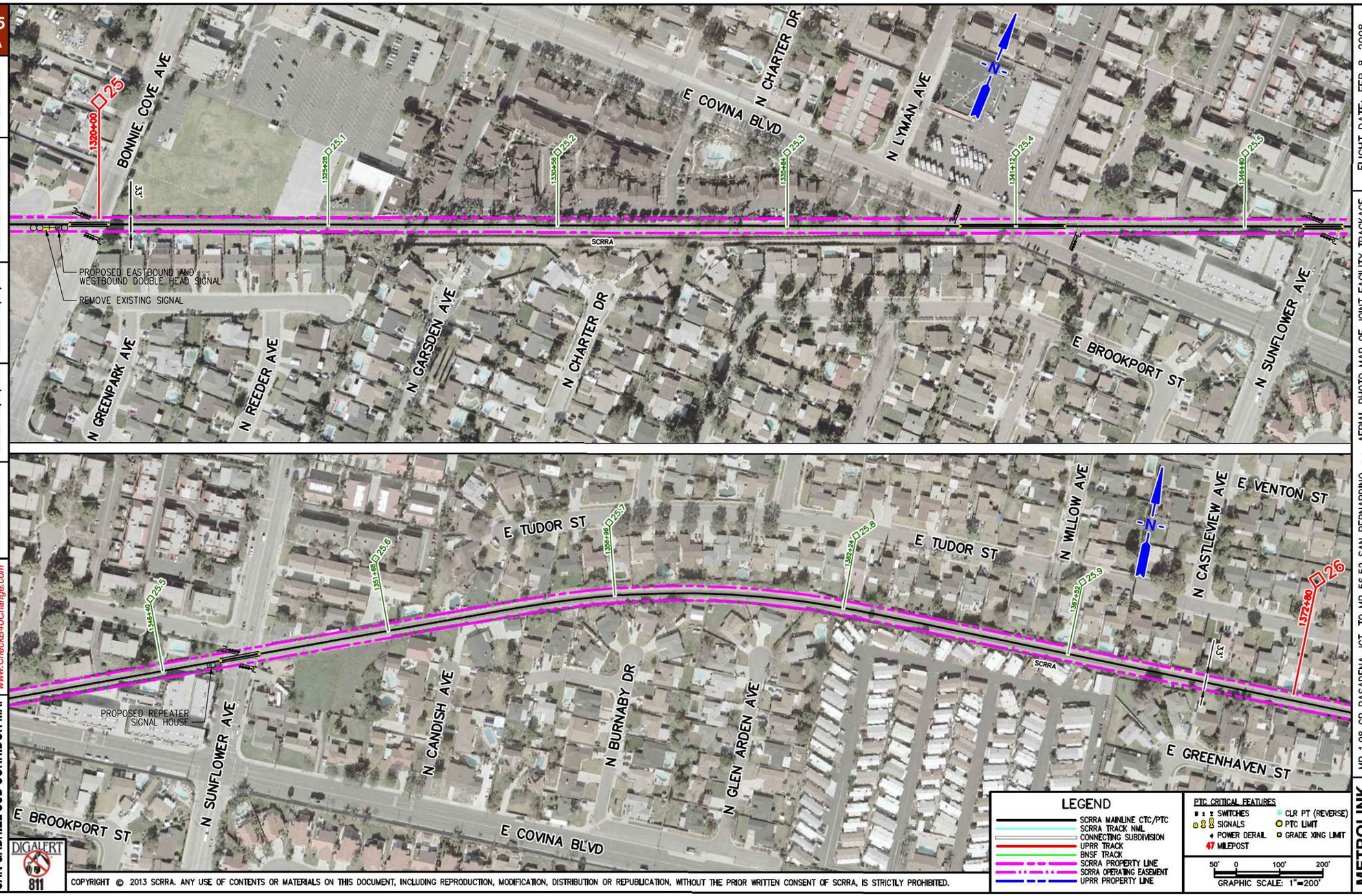
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SAN GABRIEL SUB CORRIDOR MAP

FLIGHT DATE: FEB 8, 2008

MP 1.08 CP PASADENA JCT. TO MP 56.52 SAN BERNARDINO – AERIAL PHOTO MAP OF JOINT FACILITY TRACKAGE

METROLINK




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DATE 7-1-2017

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JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

# LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

## ADDITIONAL OVERVIEWS MP 25 TO MP 26 SHEET 2 OF 5

CONTRACT NO AE4555000241519565
DRAWING NO N-002 REV
SCALE NTS
SHEET NO 163

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Mo Sep 05, 2013 - 5:06pm H:\Projects\SCRRA\2013-003\04-CAD\04.3-Sheets\04-Maps\PTC209SCVR001.dwg

30
A

MP 30 TO 31

FILENAME: PTC209SCVR001

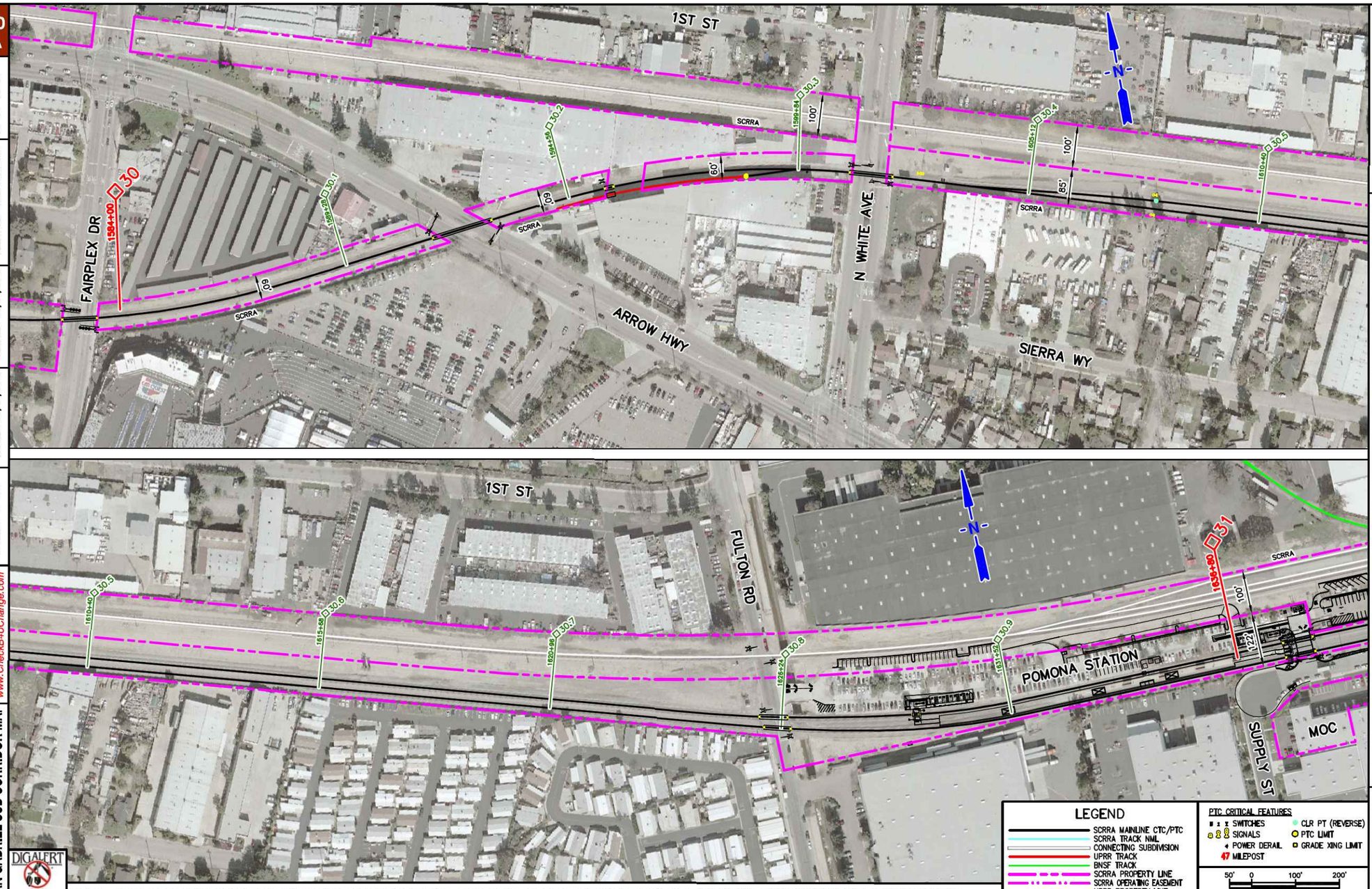
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SAN GABRIEL SUB CORRIDOR MAP




LEGEND

- SCRRA MAINLINE CTC/PTC
- SCRRA TRACK NML
- CONNECTING SUBDIVISION
- UPRR TRACK
- BNSF TRACK
- SCRRA PROPERTY LINE
- SCRRA OPERATING EASEMENT
- UPRR PROPERTY LINE

PTC CRITICAL FEATURES

- SWITCHES
- SIGNALS
- POWER DERAIL
- 47 MILEPOST
- CLR PT (REVERSE)
- PTC LIMIT
- GRADE XING LIMIT

GRAPHIC SCALE: 1"=200'

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METROLINK

MP 1.08 CP PASADENA JCT. TO MP 56.52 SAN BERNARDINO – AERIAL PHOTO MAP OF JOINT FACILITY TRACKAGE

FLIGHT DATE: FEB 8, 2008

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## LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

ADDITIONAL OVERVIEWS
MP 30 TO MP 31
SHEET 3 OF 5

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | N-003 |
| REV | |
| SCALE | NTS |
| SHEET NO | 164 |

31
A

MP 31 TO 32

FILENAME: PTC209SGVR001

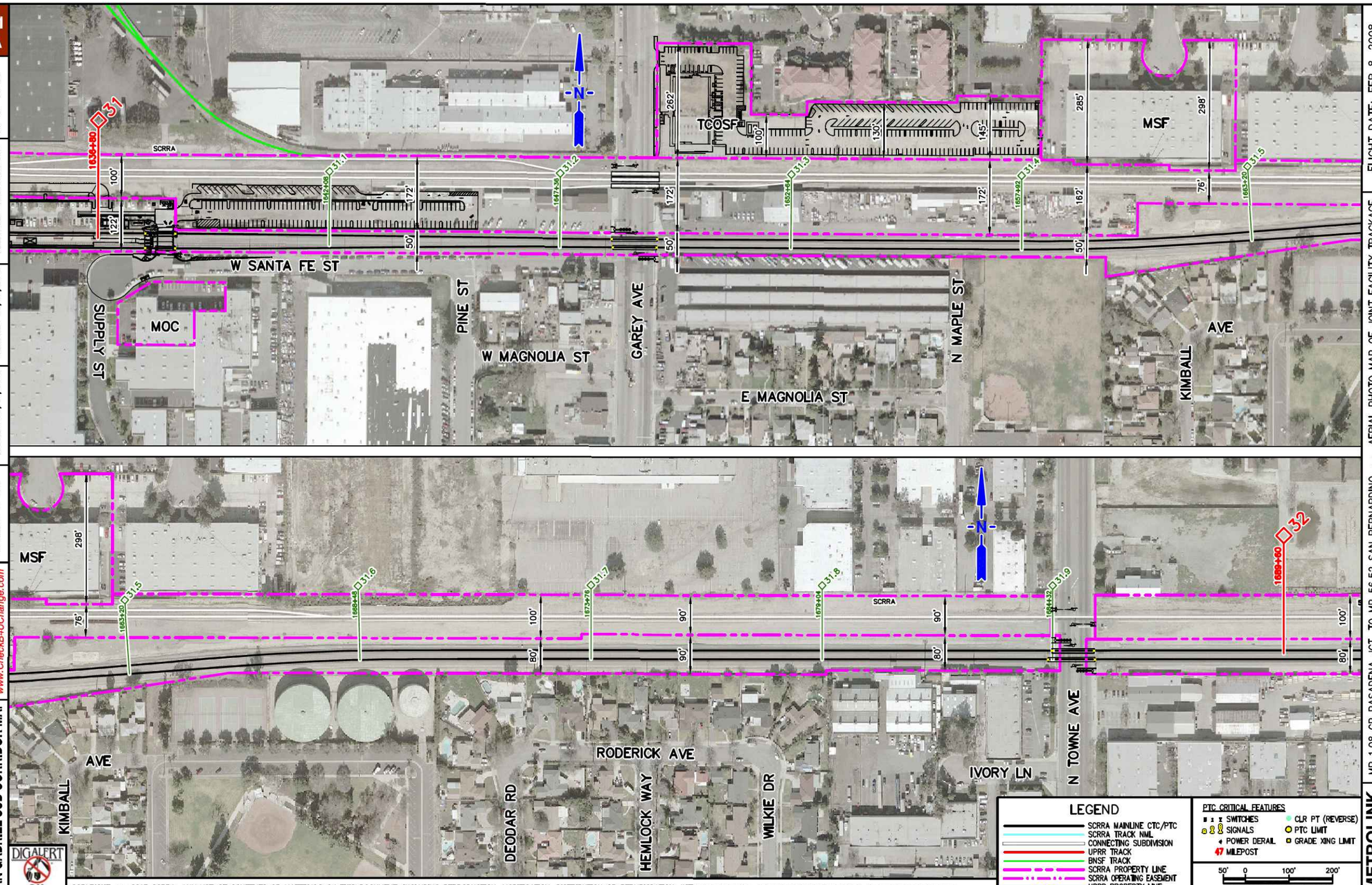
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ISSUED: 09/01/2013

SCALE: 1" = 200'

REVISIONS OR RECOMMENDATIONS:
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SAN GABRIEL SUB CORRIDOR MAP




LEGEND

- SCRRA MAINLINE CTC/PTC
- SCRRA TRACK NML
- CONNECTING SUBDIVISION
- UPRR TRACK
- BNSF TRACK
- SCRRA PROPERTY LINE
- SCRRA OPERATING EASEMENT
- UPRR PROPERTY LINE

PTC CRITICAL FEATURES

- SWITCHES
- SIGNALS
- POWER DERAIL
- 47 MILEPOST
- CLR PT (REVERSE)
- PTC LIMIT
- GRADE XING LIMIT

GRAPHIC SCALE: 1"=200'

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MP 1.08 CP PASADENA JCT. TO MP 56.52 SAN BERNARDINO – AERIAL PHOTO MAP OF JOINT FACILITY TRACKAGE

FLIGHT DATE: FEB 8, 2008

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| IN CHARGE | MG |
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JACOBS
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## LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

### ADDITIONAL OVERVIEWS MP 31 TO MP 32 SHEET 4 OF 5

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | N-004 |
| REV | |
| SCALE | NTS |
| SHEET NO | 165 |

32
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MP 32 TO 33

FILENAME: PTC209SCVR001

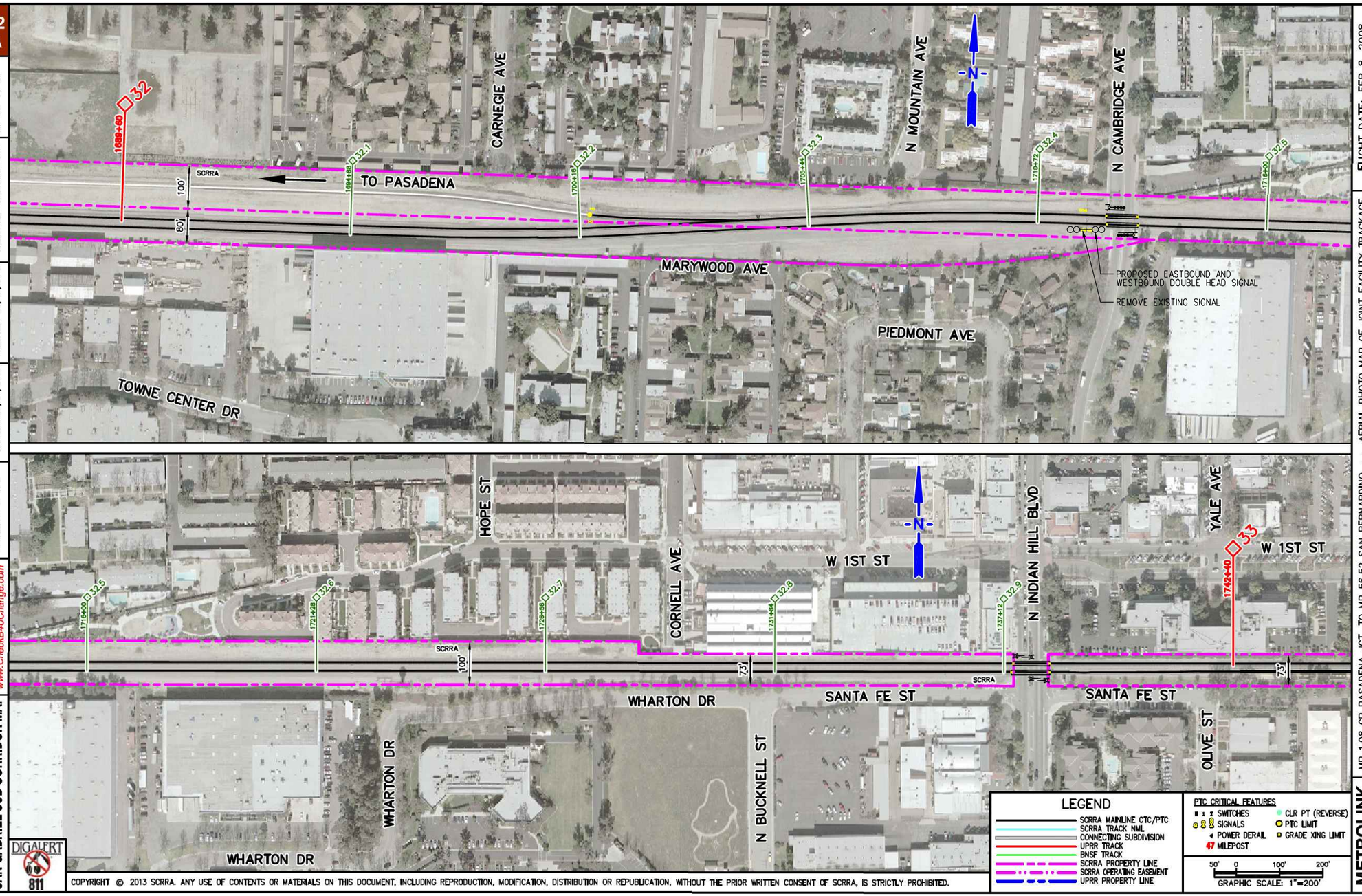
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SAN GABRIEL SUB CORRIDOR MAP




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FLIGHT DATE: FEB 8, 2008

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| DESIGNED BY | JS |
| DRAWN BY | JS |
| CHECKED BY | PM |
| IN CHARGE | MG |
| DATE | 7-1-2017 |

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JACOBS
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LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

ADDITIONAL OVERVIEWS
MP 32 TO MP 33
SHEET 5 OF 5

| | |
|---|---|
| CONTRACT NO | AE4555000241519565 |
| DRAWING NO | N-005 |
| REV | |
| SCALE | NTS |
| SHEET NO | 166 |

•• TIMETABLE FREIGHT SPEED
RESTRICTION ON DESCENDING GRADES
M.P. 20.4 - M.P. 29.85

| 80 OR LESS | NO RESTRICTION |
|---|---|
| GREATER THAN 80 TO 100 | 30 MPH |
| GREATER THAN 100 TO 130 | 25 MPH |
| GREATER THAN 130 TO 158 | 20 MPH |

MAIN 1 & 2 TIMETABLE SPEEDS
M.P. 20.41 TO M.P. 23.37

PASSENGER = 60 MPH, •• FREIGHT = 30 MPH

MAIN TIMETABLE SPEEDS
M.P. 23.37 TO M.P. 25.89

PASSENGER = 60 MPH, •• FREIGHT = 30 MPH

MAIN TIMETABLE SPEEDS
M.P. 25.89 TO M.P. 29.85

PASSENGER = 79 MPH, •• FREIGHT = 30 MPH

SG-21.90
(PROGRAM MC5UQ)

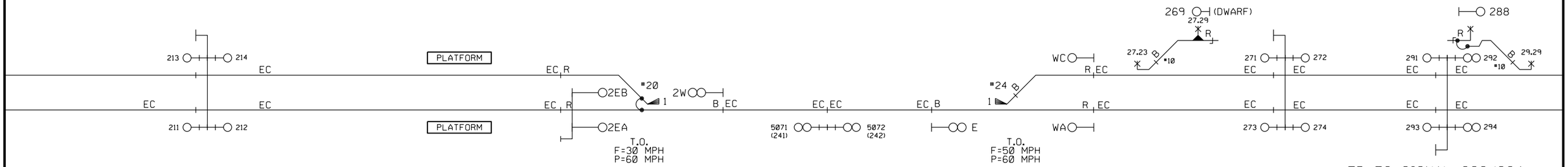
COVINA STA.
M.P. 23.0

CP BARRANCA
SG-23.40

SG-25.00
(PROGRAM MC4UP127)

CP LONE HILL
SG-26.5

SG-27.79
(PROGRAM MC4UP127)




## EB TO SIGNALS 212/214

BLOCK DATA

| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 8,187′ | 9,347′ | ELT |
| | AG | +0.85% | +0.85% | AG |
| @ | S | 4,826′ | 6,127′ | S |
| | N/A | N/A | 3,704′ | 60S |
| @ | 30S | 2,343′ | 1,803′ | 40S |
| | S2 | N/A | N/A | 2ELT |

@ ALL TPOB FREIGHT COMPLY

## EB TO BARRANCA 2EA/2EB

BLOCK DATA

| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 6,807′ | 8,146′ | ELT |
| | AG | +1.18% | +1.18% | AG |
| @ | S | 4,384′ | 6,127′ | S |
| @ | 30S | 2,084′ | 1,803′ | 40S |
| | S2 | 4,613′ | 17,493′ | 2ELT |

@ ALL TPOB FREIGHT COMPLY

## EB TO SIGNAL 242

BLOCK DATA

| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 9,308′ | 11,433′ | ELT |
| | AG | +1.37% | +1.37% | AG |
| @ | S | 4,169′ | 6,127′ | S |
| @ | 30S | 1,957′ | 1,803′ | 40S |
| @ | S2 | 4,256′ | 19,580′ | 2ELT |

@ ALL TPOB FREIGHT COMPLY

## EB TO LONE HILL E

BLOCK DATA

| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 8,369′ | 10,517′ | ELT |
| | AG | +1.54% | +1.54% | AG |
| @ | S | 3,997 | 6,127′ | S |
| @ | R30 | 3,479′ | 1,803′ | 40S |
| @ | 30S | 1,855′ | 3,704′ | 60S |
| @ | S2 | 4,086′ | 21,949′ | 2ELT |

@ ALL TPOB FREIGHT COMPLY

## EB TO SIGNAL 272/274

BLOCK DATA

| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 6,626′ | 8,316′ | ELT |
| | AG | +1.53% | +1.53% | AG |
| @ | S | 4,007′ | 6,127′ | S |
| | N/A | N/A | 3,704′ | 60S |
| @ | 30S | 1,860′ | 1,803′ | 40S |
| @ | S2 | 3,997′ | 18,884′ | 2ELT |

@ ALL TPOB FREIGHT COMPLY

## EB TO SIGNAL 292/294

BLOCK DATA

| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 7,832′ | 8,809′ | ELT |
| | AG | +1.16% | +1.16% | AG |
| @ | S | 4,408′ | 6,127′ | S |
| @ | 30S | 2,098′ | 1,803′ | 40S |
| @ | S2 | 4,201′ | 17,136′ | 2ELT |

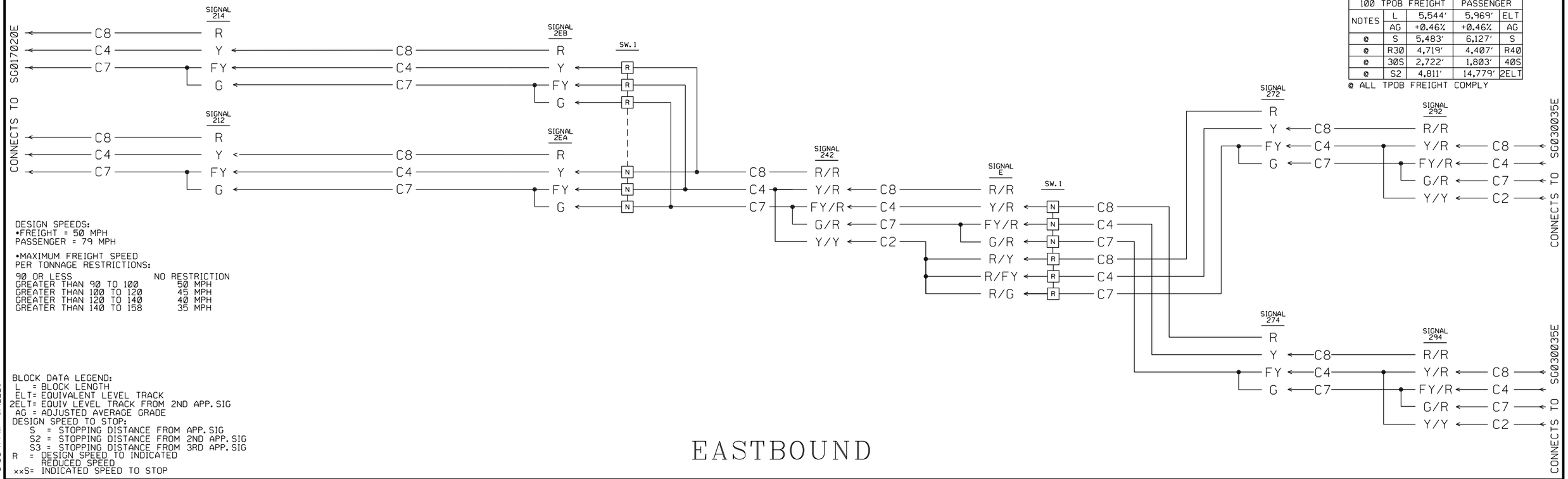
@ ALL TPOB FREIGHT COMPLY

## EB TO WHITE 2E/4E

BLOCK DATA

| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 5,544′ | 5,969′ | ELT |
| | AG | +0.46% | +0.46% | AG |
| @ | S | 5,483′ | 6,127′ | S |
| @ | R30 | 4,719′ | 4,407′ | R40 |
| @ | 30S | 2,722′ | 1,803′ | 40S |
| @ | S2 | 4,811′ | 14,779′ | 2ELT |

@ ALL TPOB FREIGHT COMPLY




DESIGN SPEEDS:
•FREIGHT = 50 MPH
PASSENGER = 79 MPH

•MAXIMUM FREIGHT SPEED
PER TONNAGE RESTRICTIONS:

| 90 OR LESS | NO RESTRICTION |
|---|---|
| GREATER THAN 90 TO 100 | 50 MPH |
| GREATER THAN 100 TO 120 | 45 MPH |
| GREATER THAN 120 TO 140 | 40 MPH |
| GREATER THAN 140 TO 158 | 35 MPH |

BLOCK DATA LEGEND:
L = BLOCK LENGTH
ELT= EQUIVALENT LEVEL TRACK
2ELT= EQUIV LEVEL TRACK FROM 2ND APP. SIG
AG = ADJUSTED AVERAGE GRADE
DESIGN SPEED TO STOP:
S = STOPPING DISTANCE FROM APP. SIG
S2 = STOPPING DISTANCE FROM 2ND APP. SIG
S3 = STOPPING DISTANCE FROM 3RD APP. SIG
R = DESIGN SPEED TO INDICATED REDUCED SPEED
××S= INDICATED SPEED TO STOP

# EASTBOUND

Know what's below. Call before you dig.

30% SUBMITTAL
NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY M. BARTLETT
DRAWN BY A. PENA
CHECKED BY J. SECCOMBE
IN CHARGE J. PURCELL
DATE 03-10-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**CP PASADENA JCT. TO BERDOO**
**SG 21-29 EAST**
**SH. 1 OF 4**

CONTRACT NO
DRAWING NO ND-001
REV 0
SCALE NOT TO SCALE
SHEET NO 167

$USER$ 6/26/2017 3:58:11 PM $FILE$

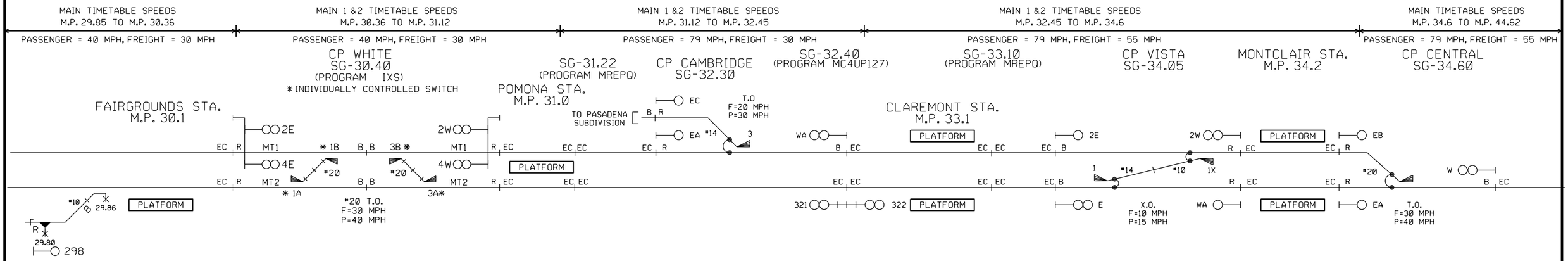
MAIN TIMETABLE SPEEDS
M.P. 29.85 TO M.P. 30.36
PASSENGER = 40 MPH, FREIGHT = 30 MPH

MAIN 1 &2 TIMETABLE SPEEDS
M.P. 30.36 TO M.P. 31.12
PASSENGER = 40 MPH, FREIGHT = 30 MPH

MAIN 1 &2 TIMETABLE SPEEDS
M.P. 31.12 TO M.P. 32.45
PASSENGER = 79 MPH, FREIGHT = 30 MPH

MAIN 1 &2 TIMETABLE SPEEDS
M.P. 32.45 TO M.P. 34.6
PASSENGER = 79 MPH, FREIGHT = 55 MPH

MAIN TIMETABLE SPEEDS
M.P. 34.6 TO M.P. 44.62
PASSENGER = 79 MPH, FREIGHT = 55 MPH




## EB TO SIGNAL 292/294

BLOCK DATA

| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 7,832′ | 8,809′ | ELT |
| | AG | +1.16% | +1.16% | AG |
| @ | S | 4,408′ | 6,127′ | S |
| @ | 30S | 2,098′ | 1,803′ | 40S |
| @ | S2 | 4,201′ | 17,136′ | 2ELT |

@ ALL TPOB FREIGHT COMPLY

## EB TO WHITE 2E/4E

BLOCK DATA

| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 5,544′ | 5,969′ | ELT |
| | AG | +0.46% | +0.46% | AG |
| @ | S | 5,483′ | 6,127′ | S |
| @ | R30 | 4,719′ | 4,407′ | R40 |
| @ | 30S | 2,722′ | 1,803′ | 40S |
| @ | S2 | 4,811′ | 14,779′ | 2ELT |

@ ALL TPOB FREIGHT COMPLY

## EB TO CAMBRIDGE EA

BLOCK DATA

| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 9,784′ | 10,913′ | ELT |
| | AG | +0.69% | +0.69% | AG |
| @ | S | 5,076′ | 6,127′ | S |
| | N/A | N/A | 1,803′ | 40S |
| @ | 30S | 2,488′ | 1,803′ | 40S |
| @ | S2 | 5,210′ | 16,890′ | 2ELT |

@ ALL TPOB FREIGHT COMPLY

## EB TO SIGNAL 322

BLOCK DATA

| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 9,787′ | 10,913′ | ELT |
| | AG | +0.69% | +0.69% | AG |
| @ | S | 5,076′ | 6,127′ | S |
| @ | 30S | 2,488′ | 1,803′ | 40S |
| @ | S2 | 5,210′ | 16,890′ | 2ELT |

@ ALL TPOB FREIGHT COMPLY

## EB TO VISTA 2E

BLOCK DATA

| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 9,587′ | 10,769′ | ELT |
| | AG | +0.74% | +0.74% | AG |
| @ | S | 4,995′ | 6,127′ | S |
| @ | 30S | 2,441′ | 1,803′ | 40S |
| | S2 | N/A | N/A | 2ELT |

@ ALL TPOB FREIGHT COMPLY

## EB TO VISTA E

BLOCK DATA

| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 8,444′ | 9,429′ | ELT |
| | AG | +0.70% | +0.70% | AG |
| @ | S | 5,059′ | 6,127′ | S |
| @ | R10 | 4,975′ | 5,439′ | R15 |
| @ | 30S | 2,478′ | 1,803′ | 40S |
| | S2 | N/A | N/A | 2ELT |

@ ALL TPOB FREIGHT COMPLY

## EB TO CENTRAL EA/EB

BLOCK DATA
(DESIGNED FOR 55 FREIGHT/79 PASS)

| 90 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 2,635′ | 2,903′ | ELT |
| | AG | +0.61% | +0.61% | AG |
| | S | 5,810′ | 6,127′ | S |
| @ | 30S | 2,538′ | 1,803′ | 40S |
| @ | 10S | 693′ | 363′ | 15S |
| @ | S2 | 5,887′ | 12,335′ | 2ELT |

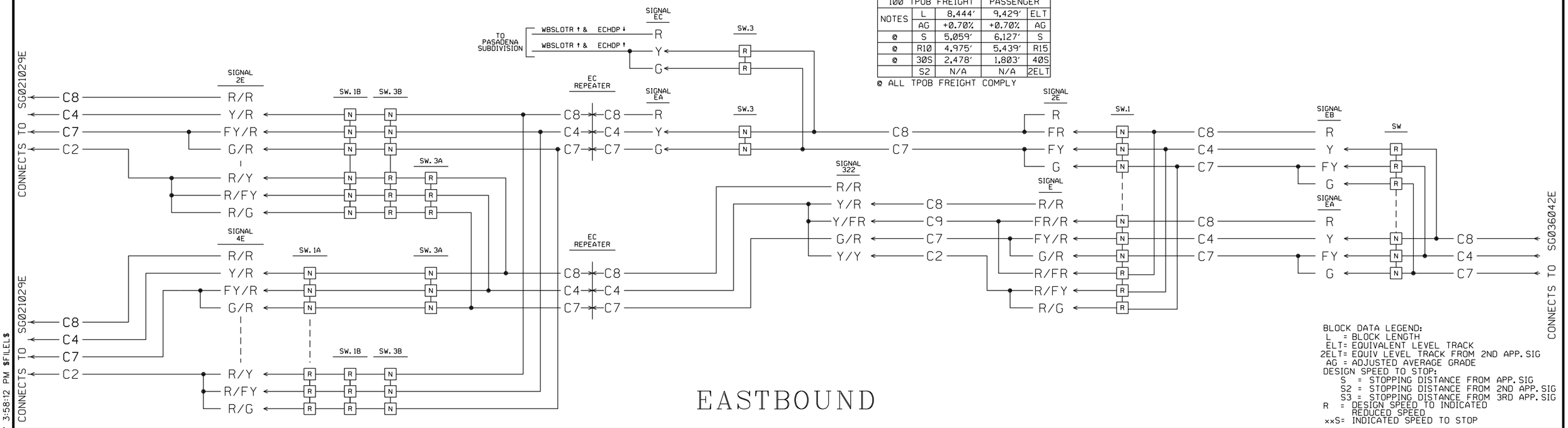
@ ALL TPOB FREIGHT COMPLY

## EB TO SIGNAL 362

BLOCK DATA
(DESIGNED FOR 55 FREIGHT/79 PASS)

| 90 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 12,035′ | 12,276′ | ELT |
| | AG | +0.12% | +0.12% | AG |
| @ | S | 6,826′ | 6,127′ | S |
| @ | 30S | 3,060′ | 1,803′ | 40S |
| | S2 | N/A | N/A | 2ELT |

@ ALL TPOB FREIGHT COMPLY




EASTBOUND

BLOCK DATA LEGEND:
L = BLOCK LENGTH
ELT= EQUIVALENT LEVEL TRACK
2ELT= EQUIV LEVEL TRACK FROM 2ND APP. SIG
AG = ADJUSTED AVERAGE GRADE
DESIGN SPEED TO STOP:
S = STOPPING DISTANCE FROM APP. SIG
S2 = STOPPING DISTANCE FROM 2ND APP. SIG
S3 = STOPPING DISTANCE FROM 3RD APP. SIG
R = DESIGN SPEED TO INDICATED REDUCED SPEED
××S= INDICATED SPEED TO STOP

Know what's below. Call before you dig. 811

30% SUBMITTAL
NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY M. BARTLETT
DRAWN BY A. PENA
CHECKED BY J. SECCOMBE
IN CHARGE J. PURCELL
DATE 03-10-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

# LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

## CP PASADENA JCT. TO BERDOO SG 30-35 EAST SH. 2 OF 4

CONTRACT NO
DRAWING NO ND-002 REV 0
SCALE NOT TO SCALE
SHEET NO 168

$USER$ 6/26/2017 3:58:12 PM $FILE$

MAIN 1 & 2 TIMETABLE SPEEDS
M.P. 20.41 TO M.P. 23.37

PASSENGER = 60 MPH, •• FREIGHT = 30 MPH

MAIN TIMETABLE SPEEDS
M.P. 23.37 TO M.P. 25.89

PASSENGER = 60 MPH, •• FREIGHT = 30 MPH

MAIN TIMETABLE SPEEDS
M.P. 25.89 TO M.P. 29.85

PASSENGER = 79 MPH, •• FREIGHT = 30 MPH

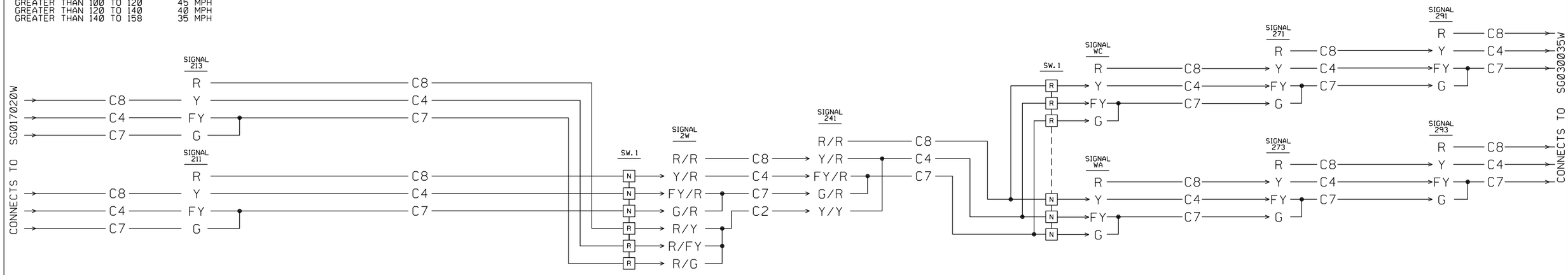
DESIGN SPEEDS:
•FREIGHT = 50 MPH
PASSENGER = 79 MPH

•MAXIMUM FREIGHT SPEED
PER TONNAGE RESTRICTIONS:

| | |
|---|---|
| 90 OR LESS | NO RESTRICTION |
| GREATER THAN 90 TO 100 | 50 MPH |
| GREATER THAN 100 TO 120 | 45 MPH |
| GREATER THAN 120 TO 140 | 40 MPH |
| GREATER THAN 140 TO 158 | 35 MPH |

•• TIMETABLE FREIGHT SPEED
RESTRICTION ON DESCENDING GRADES
M.P. 20.4 - M.P. 29.85

| | |
|---|---|
| 80 OR LESS | NO RESTRICTION |
| GREATER THAN 80 TO 100 | 30 MPH |
| GREATER THAN 100 TO 130 | 25 MPH |
| GREATER THAN 130 TO 158 | 20 MPH |




## WB TO IRWIN 2WA/2WB
BLOCK DATA

| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 7,594′ | 5,828′ | ELT |
| | AG | -1.01% | -0.93% | AG |
| | S | 10,119′ | 6,127′ | S |
| | 30S | 5,294′ | 1,803′ | 40S |
| @ | S2 | 10,673′ | 11,573′ | 2ELT |

@ ALL TPOB FREIGHT COMPLY

## WB TO SIGNALS 211/213
BLOCK DATA

| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 7,993′ | 5,635′ | ELT |
| | AG | -1.25% | -1.18% | AG |
| | S | 11,380′ | 6,127′ | S |
| | N/A | N/A | 3,704′ | 60S |
| | 30S | 5,973′ | 1,803′ | 40S |
| @ | S2 | 12,148′ | 10,878′ | 2ELT |

@ ALL TPOB FREIGHT COMPLY

## WB TO BARRANCA 2W
BLOCK DATA

| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 8,122′ | 5,300′ | ELT |
| | AG | -1.39% | -1.39% | AG |
| | S | 12,210′ | 6,127′ | S |
| | R30 | 10,730′ | 2,907′ | R60 |
| | 30S | 6,416′ | 1,803′ | 40S |
| @ | S2 | 12,982′ | 10,753′ | 2ELT |

@ ALL TPOB FREIGHT COMPLY

## WB TO SIGNAL 241
BLOCK DATA

| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 8,879′ | 5,461′ | ELT |
| | AG | -1.54% | -1.58% | AG |
| | S | 13,461′ | 6,127′ | S |
| | 30S | 7,081′ | 1,803′ | 40S |
| @ | S2 | 13,185′ | 11,905′ | 2ELT |

@ ALL TPOB FREIGHT COMPLY

## WB TO LONE HILL WA/WC
BLOCK DATA

| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 6,116′ | 3,715′ | ELT |
| | AG | -1.53% | -1.57% | AG |
| | S | 13,117′ | 6,127′ | S |
| | 30S | 6,898′ | 1,803′ | 40S |
| @ | S2 | 11,905′ | 9,241′ | 2ELT |

@ ALL TPOB FREIGHT COMPLY

## WB TO SIGNAL 271/273
BLOCK DATA

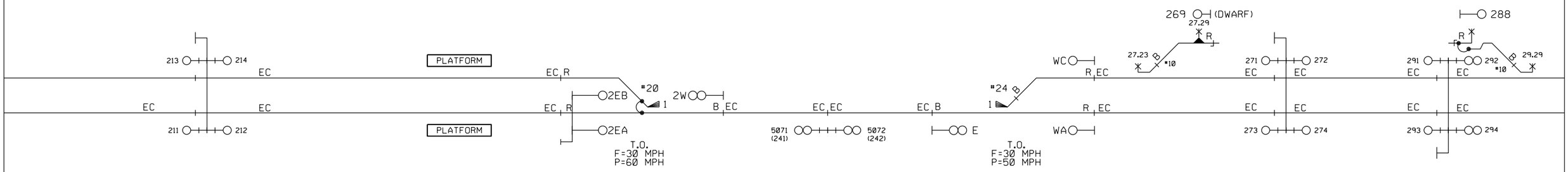
| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 7,832′ | 5,424′ | ELT |
| | AG | -1.16% | -1.25% | AG |
| | S | 11,380′ | 6,127′ | S |
| | 30S | 5,973′ | 1,803′ | 40S |
| @ | S2 | 9,336′ | 11,444′ | 2ELT |

@ ALL TPOB FREIGHT COMPLY

## WB TO SIGNAL 291/293
BLOCK DATA

| 100 TPOB | | FREIGHT | PASSENGER | |
|---|---|---|---|---|
| NOTES | L | 6,654′ | 5,889′ | ELT |
| | AG | -0.46% | -0.46% | AG |
| | S | 7,864′ | 6,127′ | S |
| @ | 30S | 4,061′ | 1,803′ | 40S |
| @ | S2 | 8,517′ | 13,837′ | 2ELT |

@ ALL TPOB FREIGHT COMPLY




BLOCK DATA LEGEND:
L = BLOCK LENGTH
ELT= EQUIVALENT LEVEL TRACK
2ELT= EQUIV LEVEL TRACK FROM 2ND APP. SIG
AG = ADJUSTED AVERAGE GRADE
DESIGN SPEED TO STOP:
S = STOPPING DISTANCE FROM APP. SIG
S2 = STOPPING DISTANCE FROM 2ND APP. SIG
S3 = STOPPING DISTANCE FROM 3RD APP. SIG
R = DESIGN SPEED TO INDICATED REDUCED SPEED
xxS= INDICATED SPEED TO STOP

# WESTBOUND

811 Know what's below. Call before you dig.

30% SUBMITTAL
NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY M. BARTLETT
DRAWN BY A. PENA
CHECKED BY J. SECCOMBE
IN CHARGE J. PURCELL
DATE 03-10-2017


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
METROLINK
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


LONE HILL AVE TO CP WHITE
DOUBLE TRACK PROJECT
CP PASADENA JCT. TO BERDOO
SG 21-29 WEST
SH. 3 OF 4

CONTRACT NO
DRAWING NO ND-003 REV 0
SCALE NOT TO SCALE
SHEET NO 169

$USER$ 6/26/2017 3:58:13 PM $FILE$

MAIN TIMETABLE SPEEDS
M.P. 29.85 TO M.P. 30.36
PASSENGER = 40 MPH, FREIGHT = 30 MPH

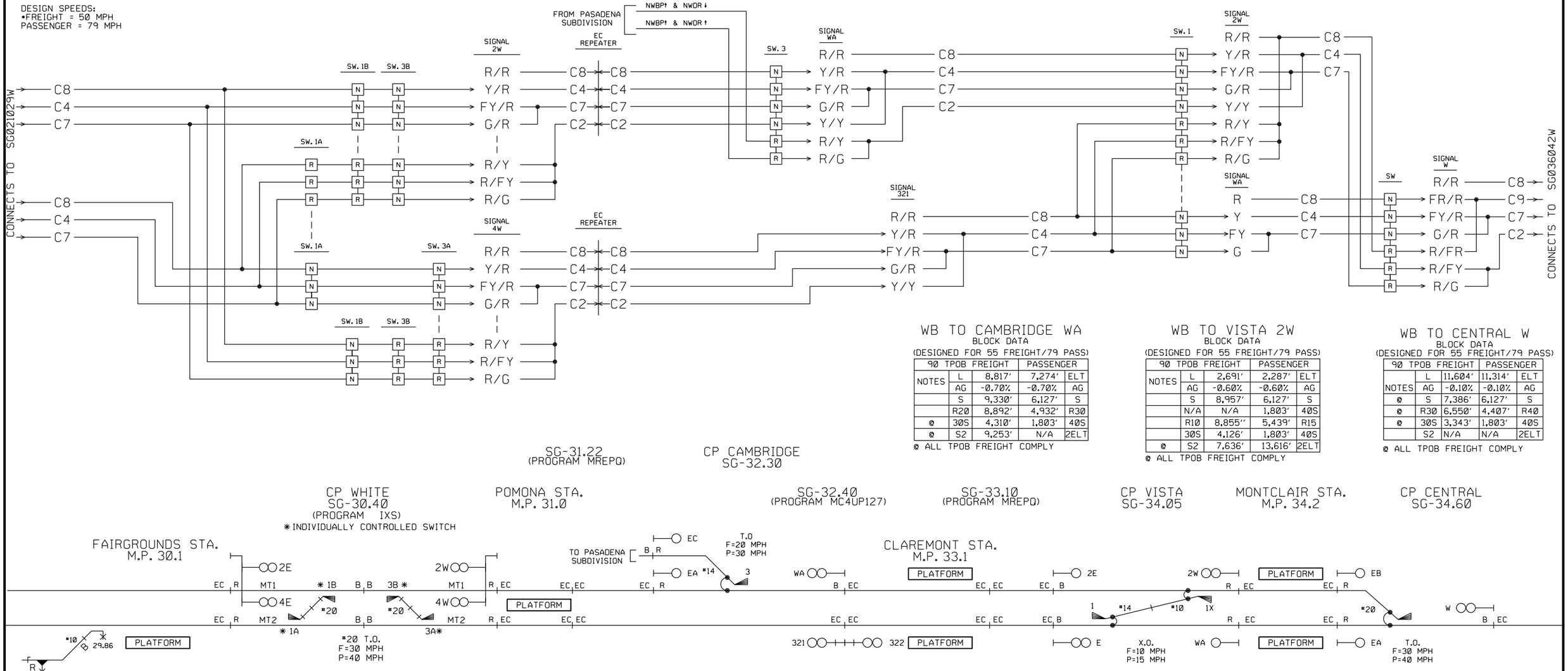
MAIN 1 &2 TIMETABLE SPEEDS
M.P. 30.36 TO M.P. 31.12
PASSENGER = 40 MPH, FREIGHT = 30 MPH

MAIN 1 &2 TIMETABLE SPEEDS
M.P. 31.12 TO M.P. 32.45
PASSENGER = 79 MPH, FREIGHT = 30 MPH

MAIN 1 &2 TIMETABLE SPEEDS
M.P. 32.45 TO M.P. 34.6
PASSENGER = 79 MPH, FREIGHT = 55 MPH

MAIN TIMETABLE SPEEDS
M.P. 34.6 TO M.P. 44.62
PASSENGER = 79 MPH, FREIGHT = 55 MPH

DESIGN SPEEDS:
•FREIGHT = 50 MPH
PASSENGER = 79 MPH




SG-31.22
(PROGRAM MREPQ)

CP CAMBRIDGE
SG-32.30

CP WHITE
SG-30.40
(PROGRAM IXS)
✱INDIVIDUALLY CONTROLLED SWITCH

POMONA STA.
M.P. 31.0

SG-32.40
(PROGRAM MC4UP127)

SG-33.10
(PROGRAM MREPQ)

CP VISTA
SG-34.05

MONTCLAIR STA.
M.P. 34.2

CP CENTRAL
SG-34.60




BLOCK DATA LEGEND:
L = BLOCK LENGTH
ELT= EQUIVALENT LEVEL TRACK
2ELT= EQUIV LEVEL TRACK FROM 2ND APP. SIG
AG = ADJUSTED AVERAGE GRADE
DESIGN SPEED TO STOP:
S = STOPPING DISTANCE FROM APP. SIG
S2 = STOPPING DISTANCE FROM 2ND APP. SIG
S3 = STOPPING DISTANCE FROM 3RD APP. SIG
R = DESIGN SPEED TO INDICATED REDUCED SPEED
xxS= INDICATED SPEED TO STOP

### WB TO SIGNAL 291/293
BLOCK DATA

| NOTES | 100 TPOB FREIGHT | | PASSENGER | |
|---|---|---|---|---|
| | L | 6,654′ | 5,889′ | ELT |
| | AG | -0.46% | -0.46% | AG |
| | S | 7,864′ | 6,127′ | S |
| @ | 30S | 4,061′ | 1,803′ | 40S |
| @ | S2 | 8,517′ | 13,837′ | 2ELT |

@ ALL TPOB FREIGHT COMPLY

### WB TO WHITE 2W/4W
BLOCK DATA
(DESIGNED FOR 55 FREIGHT/79 PASS)

| NOTES | 90 TPOB FREIGHT | | PASSENGER | |
|---|---|---|---|---|
| | L | 9,819′ | 7,953′ | ELT |
| | AG | -.76% | -0.76% | AG |
| @ | S | 10,210′ | 6,127′ | S |
| @ | R30 | 9,029′ | 4,407′ | R40 |
| @ | 30S | 4,683′ | 1,803′ | 40S |
| | S2 | 10,073′ | 15,234 | 2ELT |

@ ALL TPOB FREIGHT COMPLY

## WESTBOUND

### WB TO CAMBRIDGE WA
BLOCK DATA
(DESIGNED FOR 55 FREIGHT/79 PASS)

| NOTES | 90 TPOB FREIGHT | | PASSENGER | |
|---|---|---|---|---|
| | L | 8,817′ | 7,274′ | ELT |
| | AG | -0.70% | -0.70% | AG |
| | S | 9,330′ | 6,127′ | S |
| | R20 | 8,892′ | 4,932′ | R30 |
| @ | 30S | 4,310′ | 1,803′ | 40S |
| @ | S2 | 9,253′ | N/A | 2ELT |

@ ALL TPOB FREIGHT COMPLY

### WB TO SIGNAL 321
BLOCK DATA
(DESIGNED FOR 55 FREIGHT/79 PASS)

| NOTES | 90 TPOB FREIGHT | | PASSENGER | |
|---|---|---|---|---|
| | L | 8,817′ | 7,274′ | ELT |
| | AG | -0.70% | -0.70% | AG |
| | S | 9,330′ | 6,127′ | S |
| @ | 30S | 4,310′ | 1,803′ | 40S |
| @ | 10S | 1,196′ | 363′ | 15S |
| @ | S2 | 9,253′ | N/A | 2ELT |

@ ALL TPOB FREIGHT COMPLY

### WB TO VISTA 2W
BLOCK DATA
(DESIGNED FOR 55 FREIGHT/79 PASS)

| NOTES | 90 TPOB FREIGHT | | PASSENGER | |
|---|---|---|---|---|
| | L | 2,691′ | 2,287′ | ELT |
| | AG | -0.60% | -0.60% | AG |
| | S | 8,957′ | 6,127′ | S |
| | N/A | N/A | 1,803′ | 40S |
| | R10 | 8,855′′ | 5,439′ | R15 |
| | 30S | 4,126′ | 1,803′ | 40S |
| @ | S2 | 7,636′ | 13,616′ | 2ELT |

@ ALL TPOB FREIGHT COMPLY

### WB TO VISTA WA
BLOCK DATA
(DESIGNED FOR 55 FREIGHT/79 PASS)

| NOTES | 90 TPOB FREIGHT | | PASSENGER | |
|---|---|---|---|---|
| | L | 2,691′ | 2,287′ | ELT |
| | AG | -0.61% | -0.61% | AG |
| | S | 9,506′ | 6,127′ | S |
| | 30S | 4,337′ | 1,803′ | 40S |
| @ | S2 | 7,999′ | 13,616′ | 2ELT |

@ ALL TPOB FREIGHT COMPLY

### WB TO CENTRAL W
BLOCK DATA
(DESIGNED FOR 55 FREIGHT/79 PASS)

| NOTES | 90 TPOB FREIGHT | | PASSENGER | |
|---|---|---|---|---|
| | L | 11,604′ | 11,314′ | ELT |
| | AG | -0.10% | -0.10% | AG |
| @ | S | 7,386′ | 6,127′ | S |
| @ | R30 | 6,550′ | 4,407′ | R40 |
| @ | 30S | 3,343′ | 1,803′ | 40S |
| | S2 | N/A | N/A | 2ELT |

@ ALL TPOB FREIGHT COMPLY

•MAXIMUM FREIGHT SPEED PER TONNAGE RESTRICTIONS:

| 90 OR LESS | NO RESTRICTION |
|---|---|
| GREATER THAN 90 TO 100 | 50 MPH |
| GREATER THAN 100 TO 120 | 45 MPH |
| GREATER THAN 120 TO 140 | 40 MPH |
| GREATER THAN 140 TO 158 | 35 MPH |

Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY M. BARTLETT
DRAWN BY A. PENA
CHECKED BY J. SECCOMBE
IN CHARGE J. PURCELL
DATE 03-10-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

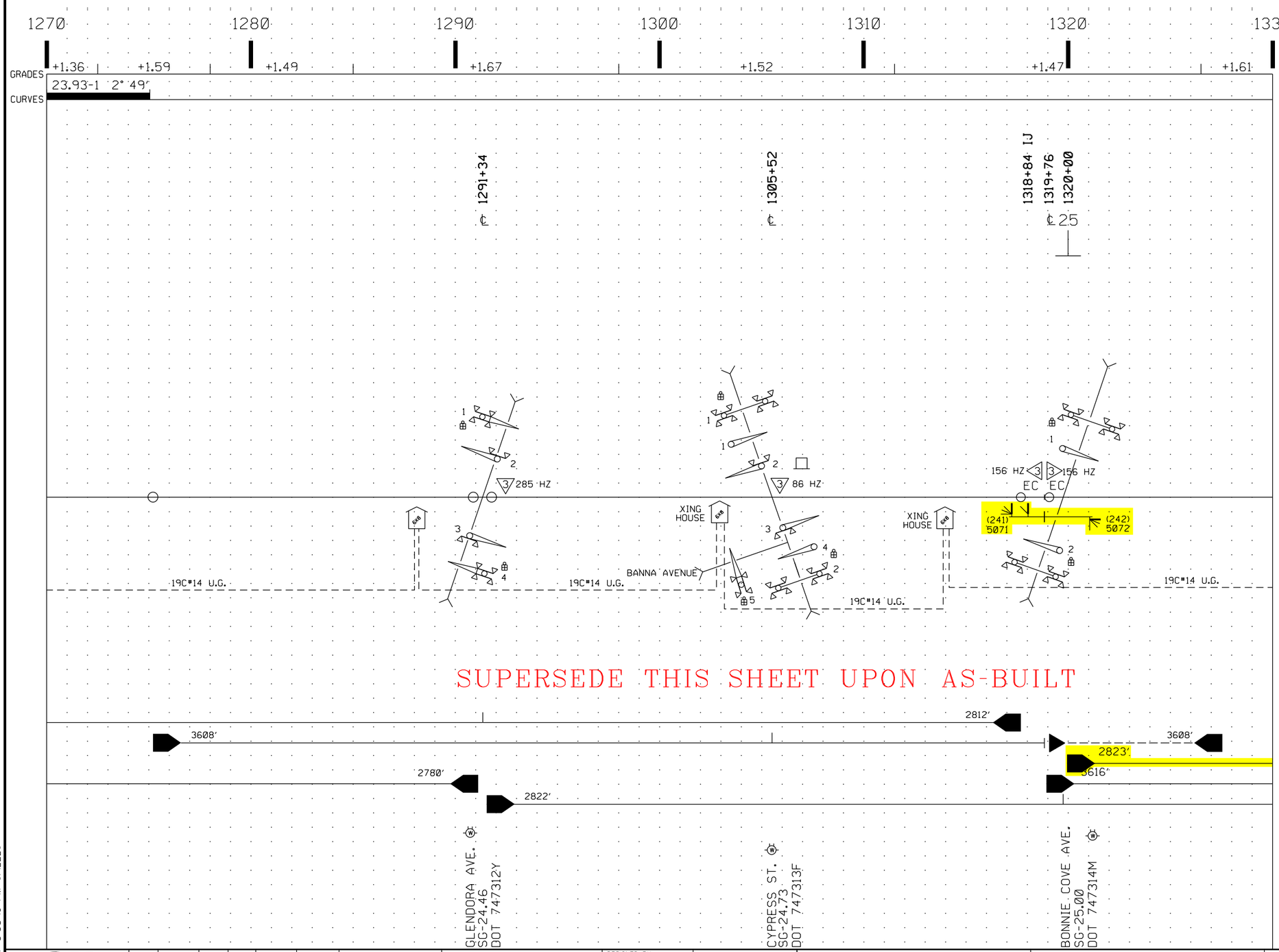
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

# LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

## CP PASADENA JCT. TO BERDOO
## SG 30-35 WEST
## SH. 4 OF 4

CONTRACT NO
DRAWING NO ND-004
REV 0
SCALE NOT TO SCALE
SHEET NO 170

$USER$ 6/26/2017 3:58:14 PM $FILEL$




LEGEND

- = METER SERVICE
- = GCP 4000 BI-DIRECTIONAL
- = GCP 4000 UNI-DIRECTIONAL
- = PREDICTION LIMITS
- = DAX FEED FROM THIS LOCATION
- = POWER SWITCH
- = POWER DERAIL
- = SLIDING DERAIL WITH WHEEL CROWDER & SWITCH CIRCUIT CONTROLLER
- = ELECTRIC LOCK
- = SWITCH CIRCUIT CONTROLLER
- PASSENGER SPEED / FREIGHT SPEED
- = NARROW BAND SHUNT
- EC = ELECTROCODE TRACK CIRCUIT
- B = TRACK BATTERY
- R = TRACK RELAY
- B/R = STYLE "C" TRACK CIRCUIT
- = SIGNAL SHELTER
- = SIGNAL CASE (DOUBLE WIDE)
- = SIGNAL CASE (SINGLE WIDE)
- = WAYSIDE SIGNAL

NOTES:

SEE SYSTEMS DUCT BANK PLAN FOR DETAILED INFORMATION REGARDING DUCT BANK AND PULL BOX REQUIREMENTS.

BEGIN/END CTC SIGNS, YARD LIMIT SIGNS AND BEGIN CHANNEL SIGNS REFERENCED ON THESE PLANS SHALL BE INSTALLED BY CONTRACTOR.

0 500

SCALE IN FEET

RED = IN YELLOW = OUT

811 Know what's below. Call before you dig.

# 30% SUBMITTAL NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY M. BARTLETT
DRAWN BY A. PENA
CHECKED BY J. SECCOMBE
IN CHARGE J. PURCELL
DATE 03-10-2017

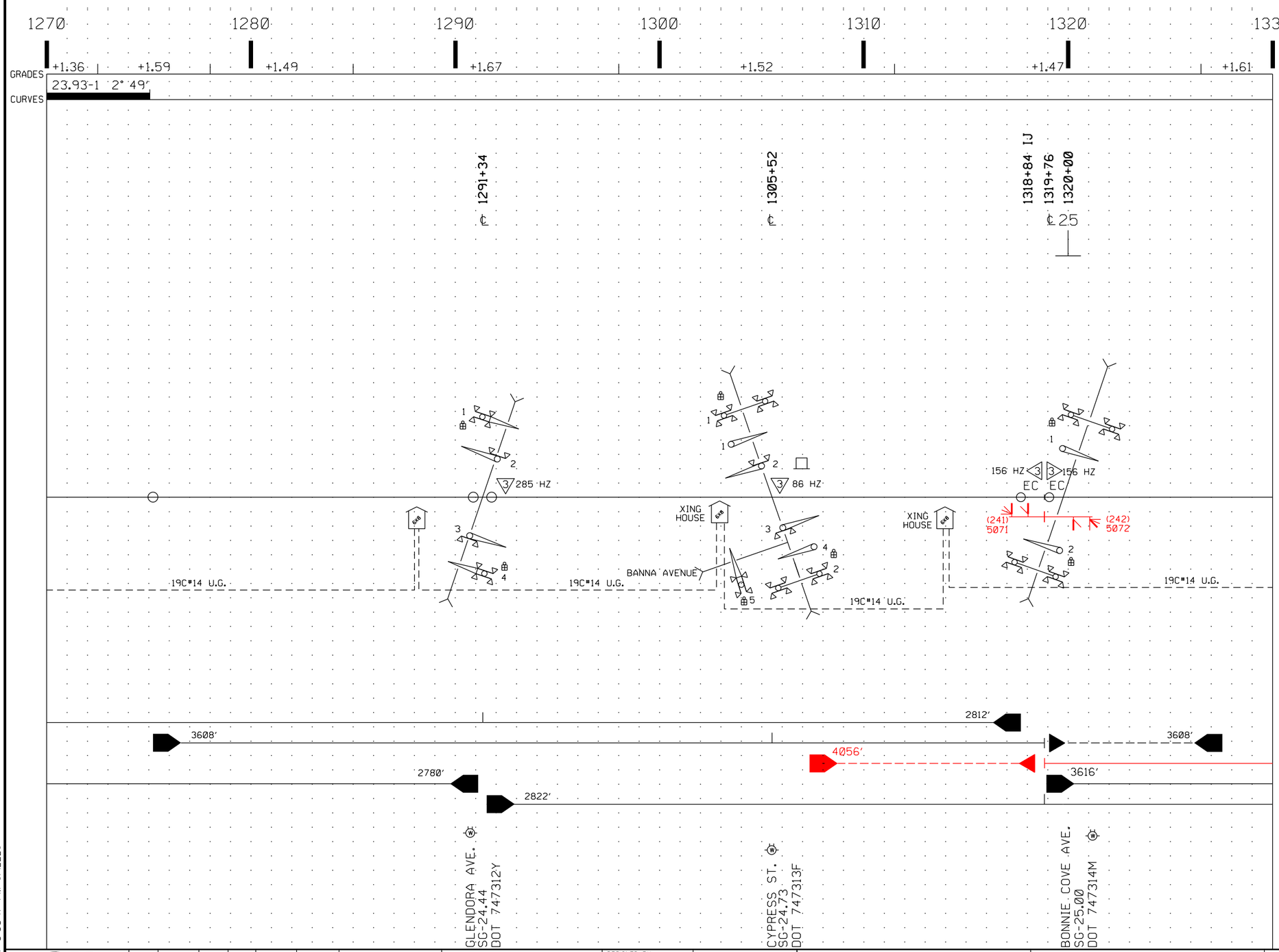
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
METROLINK
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**SCALED LAYOUTS SG 24-25 SHEET 1 OF 15**

CONTRACT NO
DRAWING NO ND-005 REV Ø
SCALE AS SHOWN
SHEET NO 171

$USER$ 6/26/2017 3:58:16 PM $FILE1$




LEGEND

- = METER SERVICE
- = GCP 4000 BI-DIRECTIONAL
- = GCP 4000 UNI-DIRECTIONAL
- = PREDICTION LIMITS
- = DAX FEED FROM THIS LOCATION
- = POWER SWITCH
- = POWER DERAIL
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- = ELECTRIC LOCK
- = SWITCH CIRCUIT CONTROLLER
- PASSENGER SPEED / FREIGHT SPEED
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- = SIGNAL SHELTER
- = SIGNAL CASE (DOUBLE WIDE)
- = SIGNAL CASE (SINGLE WIDE)
- = WAYSIDE SIGNAL

NOTES:

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0 500
SCALE IN FEET

RED = IN YELLOW = OUT

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# 30% SUBMITTAL
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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY M. BARTLETT
DRAWN BY A. PENA
CHECKED BY J. SECCOMBE
IN CHARGE J. PURCELL
DATE 03-10-2017

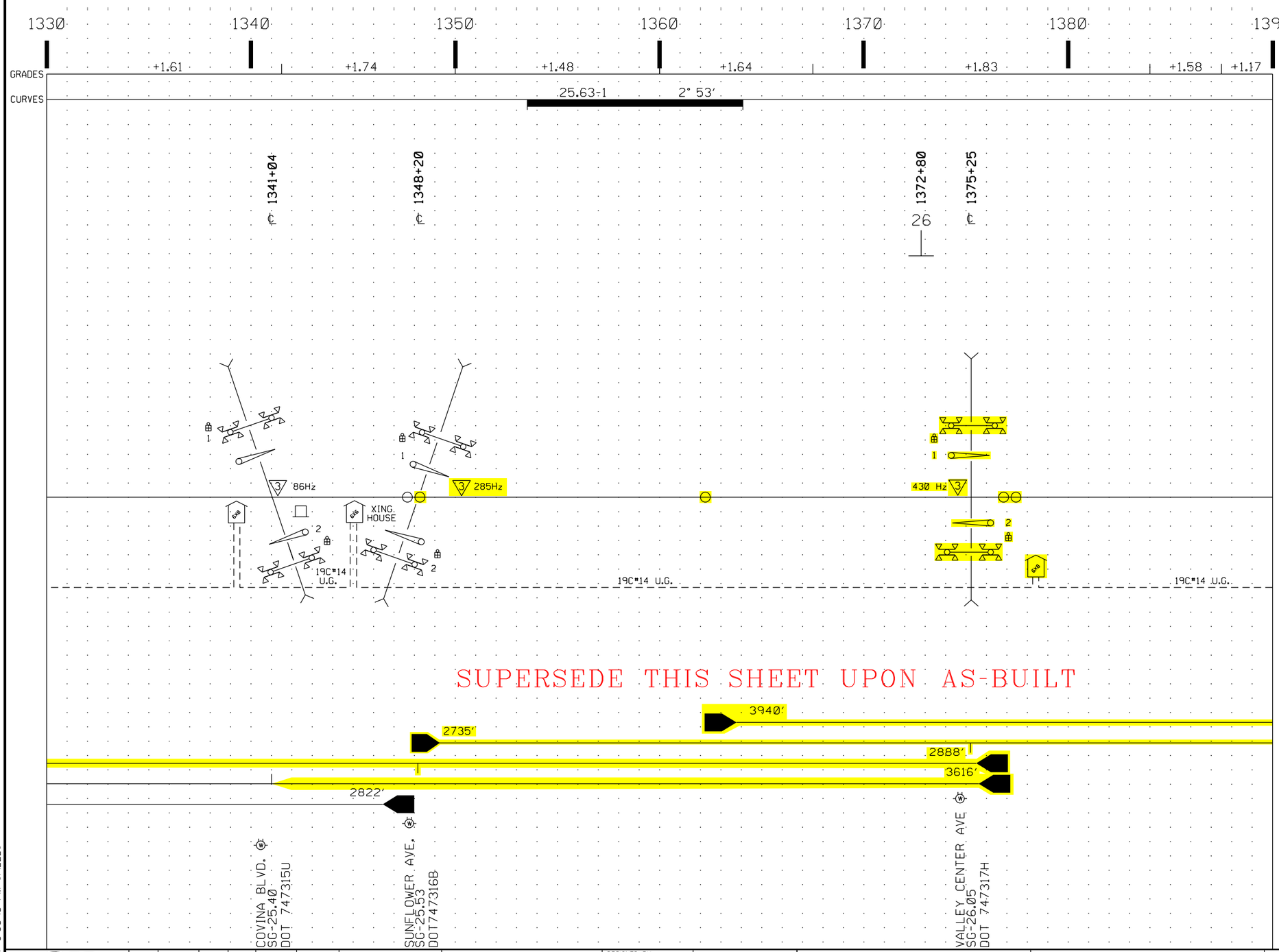
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
METROLINK
WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**SCALED LAYOUTS SG 24-25 SHEET 2 OF 15**

CONTRACT NO
DRAWING NO ND-006 REV Ø
SCALE AS SHOWN
SHEET NO 172

$USER$ 6/26/2017 3:58:17 PM $FILE$




LEGEND

- = METER SERVICE
- = GCP 4000 BI-DIRECTIONAL
- = GCP 4000 UNI-DIRECTIONAL
- = PREDICTION LIMITS
- = DAX FEED FROM THIS LOCATION
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- = SIGNAL CASE (DOUBLE WIDE)
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NOTES:

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0 500

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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY M. BARTLETT
DRAWN BY A. PENA
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IN CHARGE J. PURCELL
DATE 03-10-2017

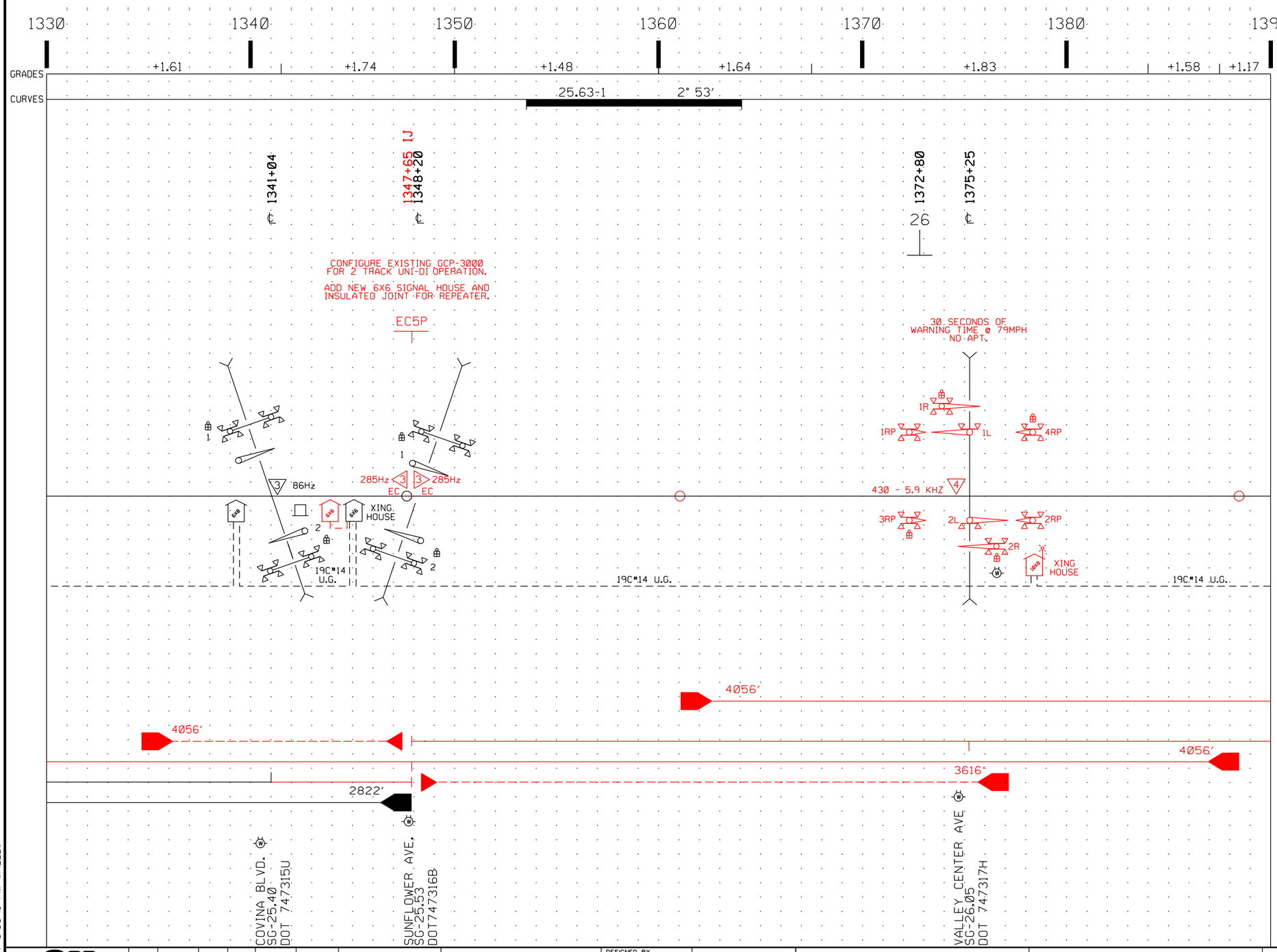
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
METROLINK
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JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**SCALED LAYOUTS SG 25-26 SHEET 3 OF 15**

CONTRACT NO
DRAWING NO ND-007 REV 0
SCALE AS SHOWN
SHEET NO 173

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LEGEND

- = METER SERVICE
- = GCP 4000 BI-DIRECTIONAL
- = GCP 4000 UNI-DIRECTIONAL
- = PREDICTION LIMITS
- = DAX FEED FROM THIS LOCATION
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NOTES:

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|---|---|---|---|---|---|---|---|

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CHECKED BY J. SECCOMBE
IN CHARGE J. PURCELL
DATE 03-10-2017

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METROLINK

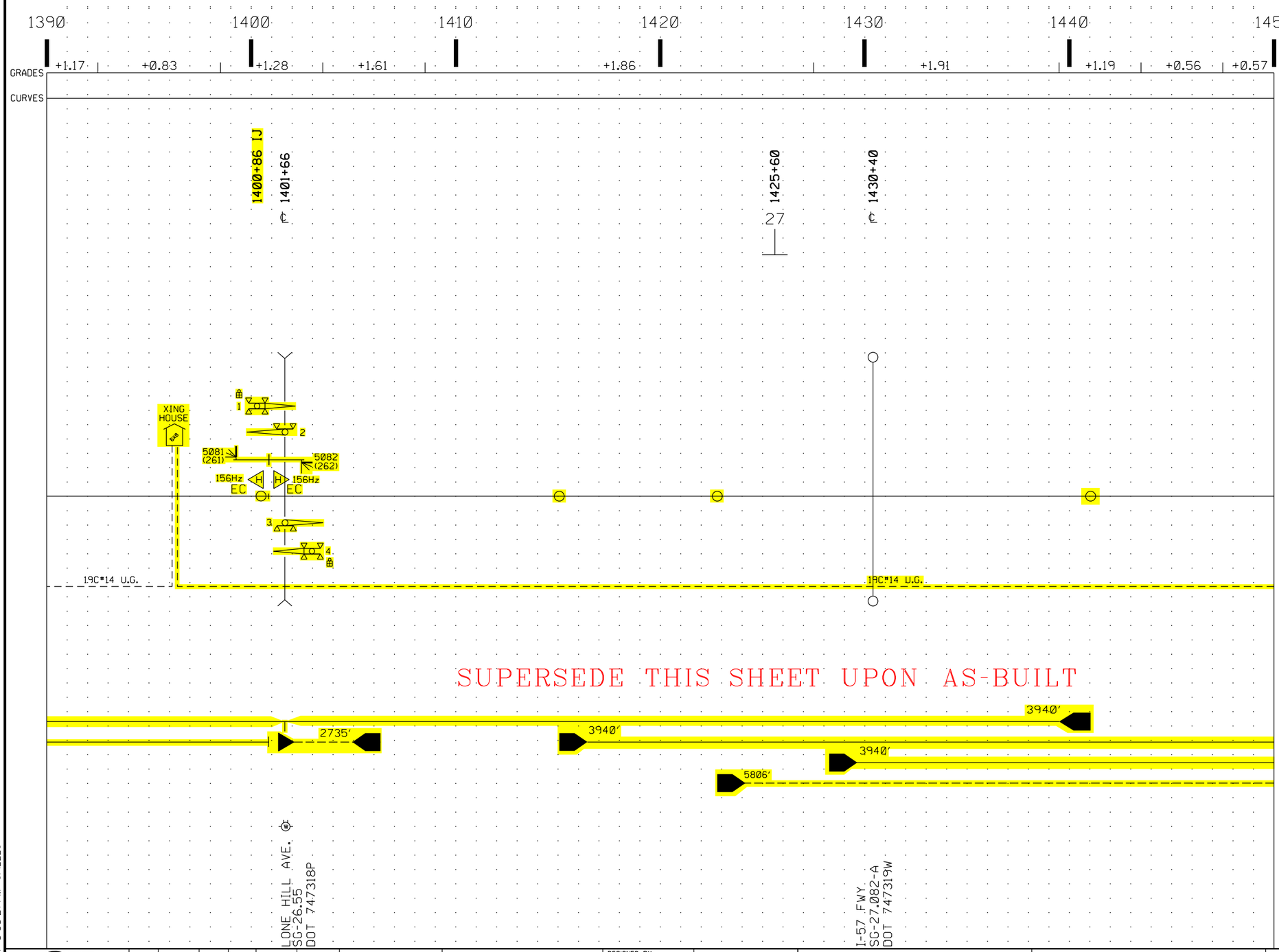
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**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**SCALED LAYOUTS SG 25-26 SHEET 4 OF 15**

CONTRACT NO
DRAWING NO ND-008 REV 0
SCALE AS SHOWN
SHEET NO 174

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LEGEND

- = METER SERVICE
- = GCP 4000 BI-DIRECTIONAL
- = GCP 4000 UNI-DIRECTIONAL
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NOTES:

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0 500

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|---|---|---|---|---|---|---|---|

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DATE 03-10-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

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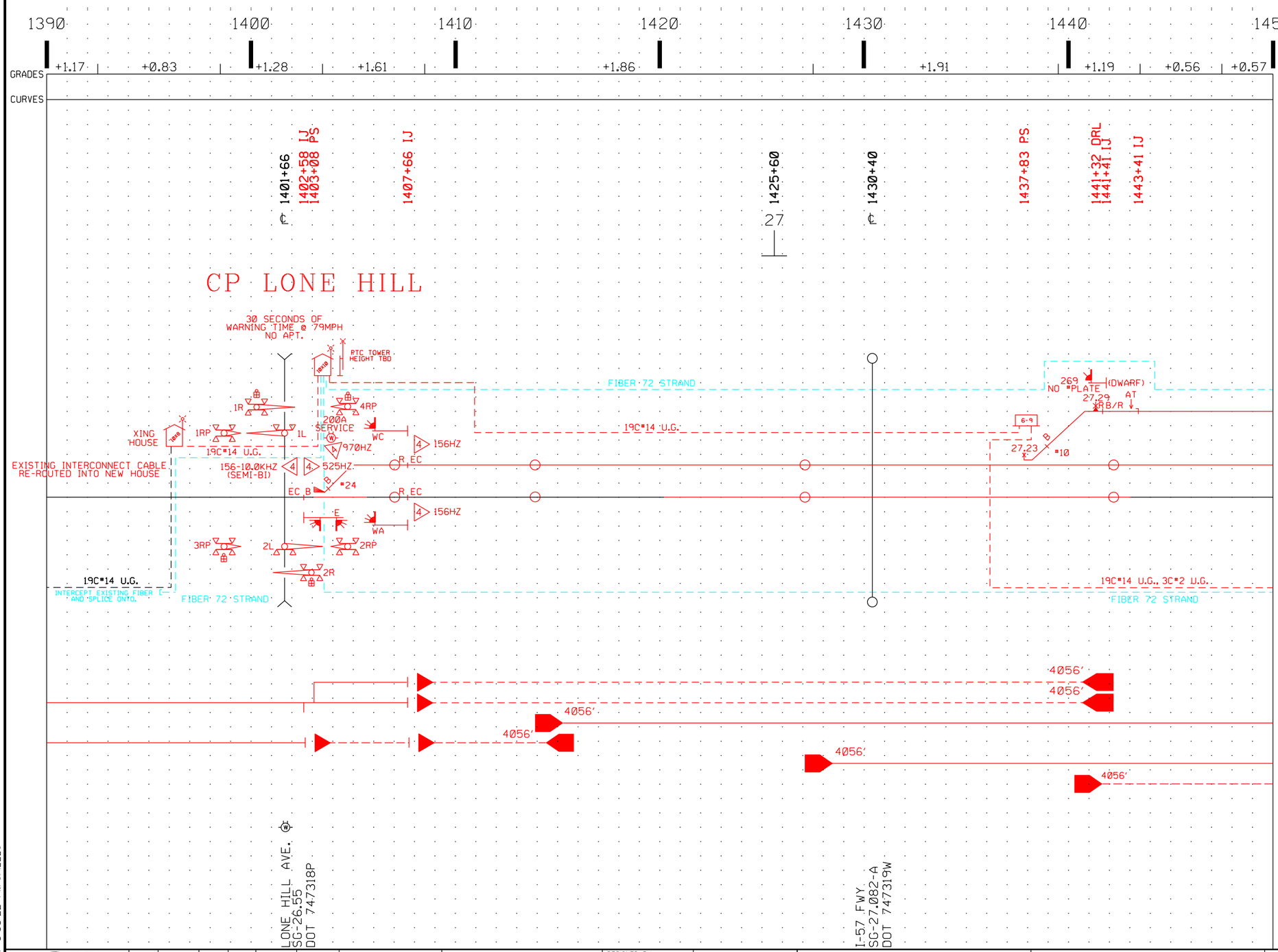
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**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**SCALED LAYOUTS SG 26-27 SHEET 5 OF 15**

CONTRACT NO
DRAWING NO ND-009 REV Ø
SCALE AS SHOWN
SHEET NO 175

$USER$ 6/26/2017 3:58:21 PM $FILEL$




LEGEND

- = METER SERVICE
- = GCP 4000 BI-DIRECTIONAL
- = GCP 4000 UNI-DIRECTIONAL
- = PREDICTION LIMITS
- = DAX FEED FROM THIS LOCATION
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- = POWER DERAIL
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- = SWITCH CIRCUIT CONTROLLER
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- = NARROW BAND SHUNT
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NOTES:

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0 500

SCALE IN FEET

RED = IN YELLOW = OUT

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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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# NOT FOR CONSTRUCTION

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CHECKED BY J. SECCOMBE
IN CHARGE J. PURCELL
DATE 03-10-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

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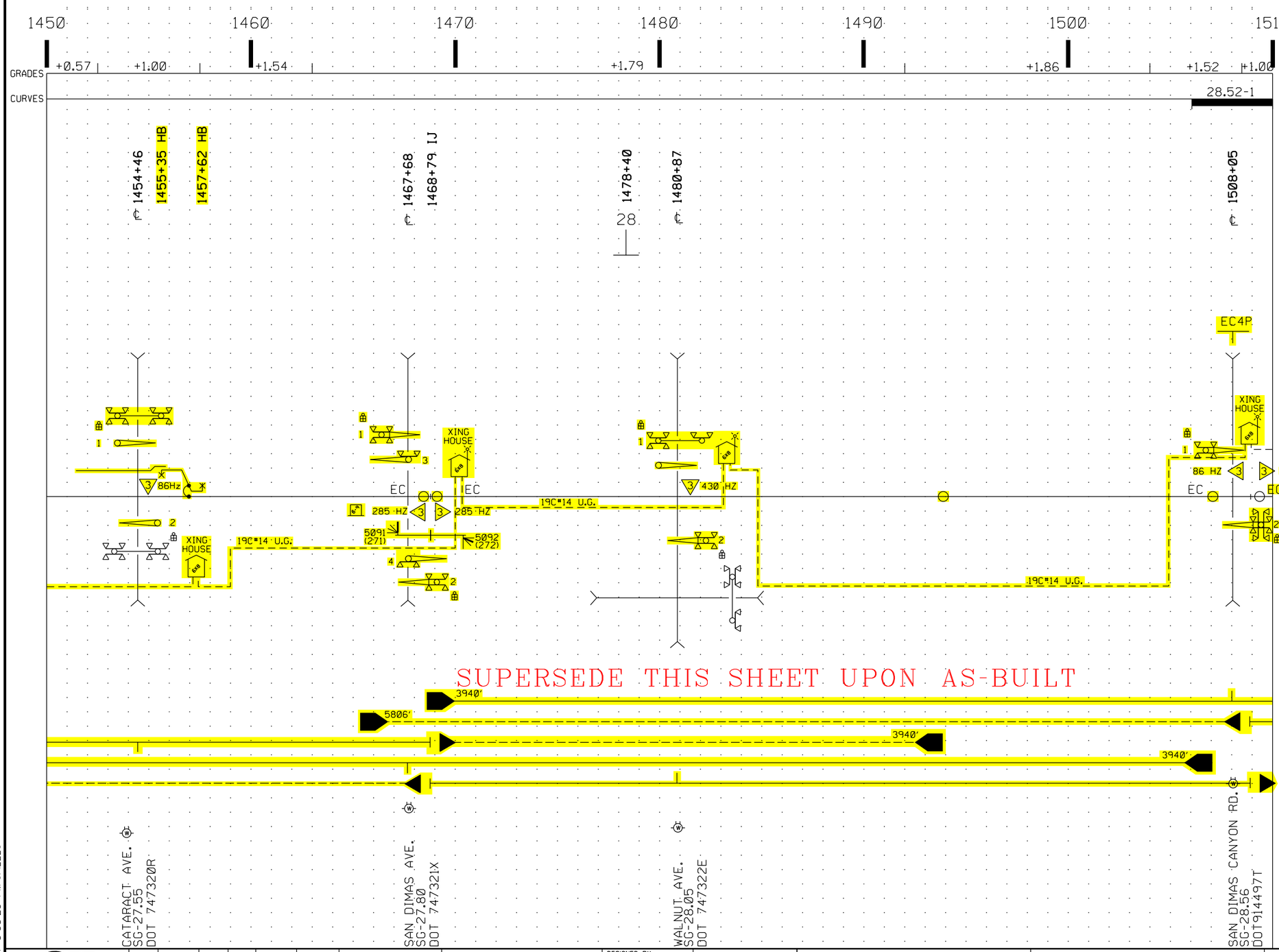
METROLINK

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**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**SCALED LAYOUTS SG 26-27 SHEET 6 OF 15**

CONTRACT NO
DRAWING NO ND-010 REV Ø
SCALE AS SHOWN
SHEET NO 176




LEGEND

- = METER SERVICE
- = GCP 4000 BI-DIRECTIONAL
- = GCP 4000 UNI-DIRECTIONAL
- = PREDICTION LIMITS
- = DAX FEED FROM THIS LOCATION
- = POWER SWITCH
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NOTES:

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0 500

SCALE IN FEET

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# 30% SUBMITTAL
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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY M. BARTLETT
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LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

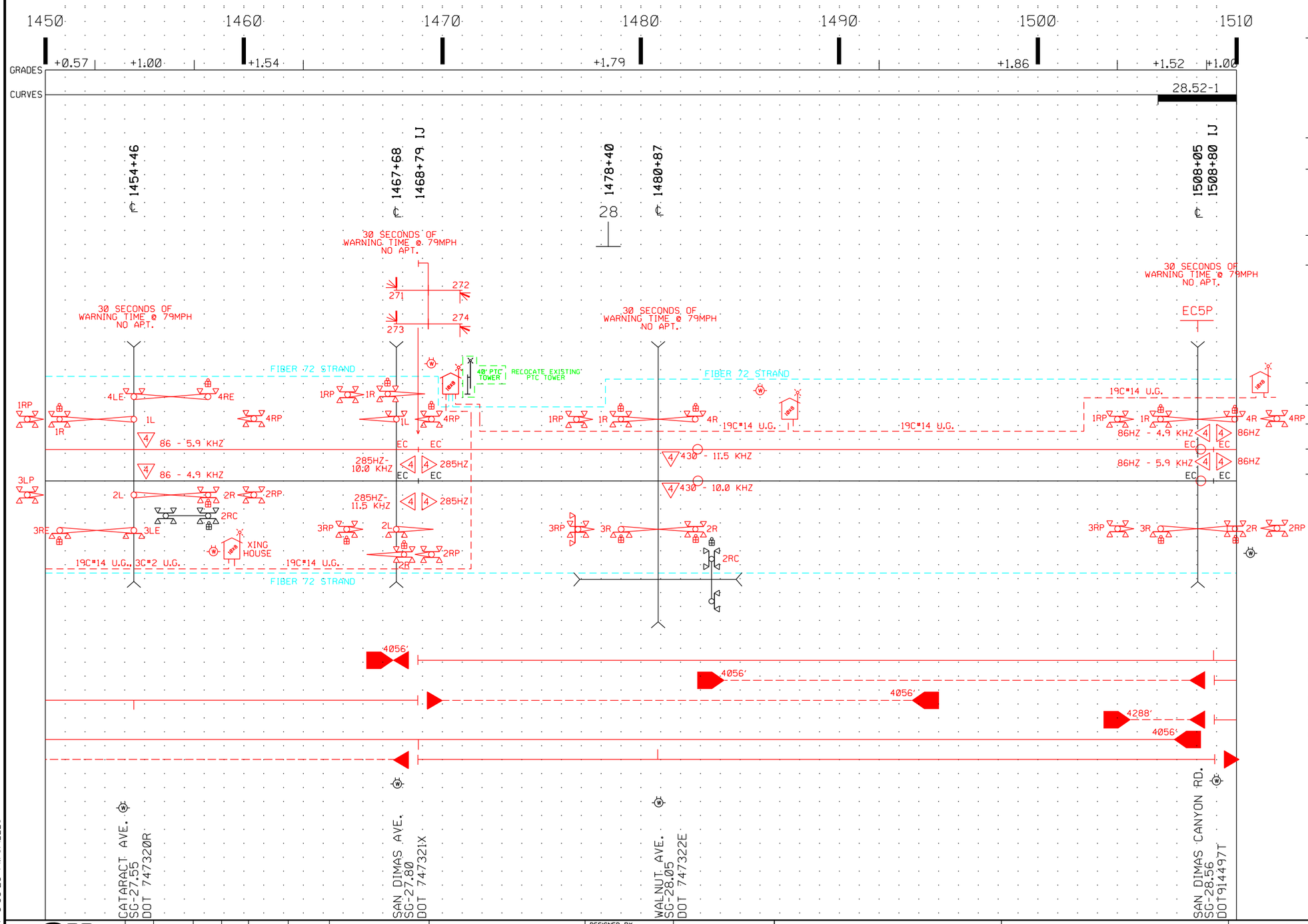
METROLINK

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**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**SCALED LAYOUTS SG 27-28 SHEET 7 OF 15**

CONTRACT NO
DRAWING NO ND-011 REV Ø
SCALE AS SHOWN
SHEET NO 177




LEGEND

- = METER SERVICE
- = GCP 4000 BI-DIRECTIONAL
- = GCP 4000 UNI-DIRECTIONAL
- = PREDICTION LIMITS
- = DAX FEED FROM THIS LOCATION
- = POWER SWITCH
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NOTES:

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0 500
SCALE IN FEET

RED = IN YELLOW = OUT

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# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY M. BARTLETT
DRAWN BY A. PENA
CHECKED BY J. SECCOMBE
IN CHARGE J. PURCELL
DATE 03-10-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

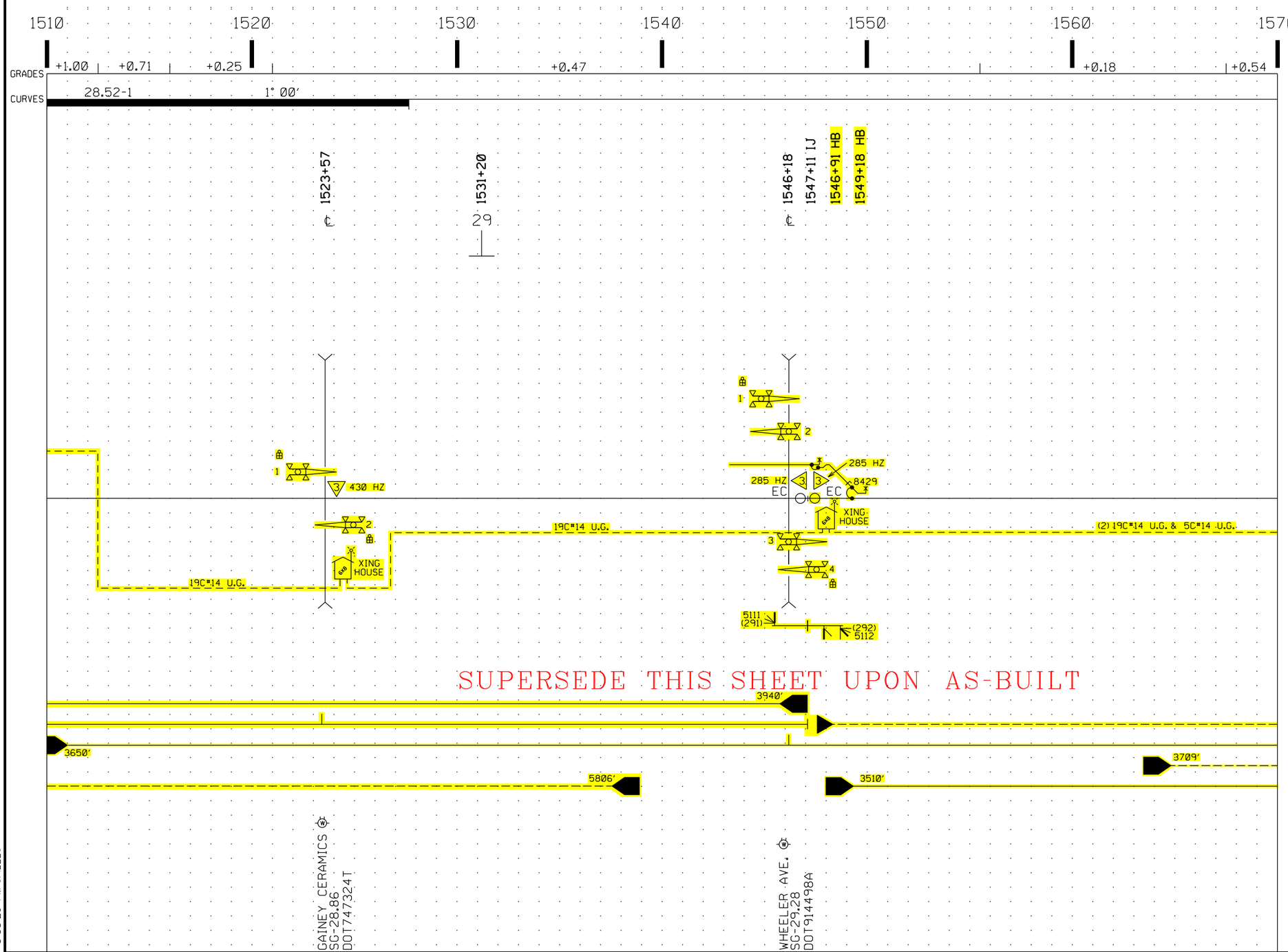
METROLINK

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## LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

SCALED LAYOUTS
SG 27-28
SHEET 8 OF 15

CONTRACT NO
DRAWING NO ND-012 REV Ø
SCALE AS SHOWN
SHEET NO 178




SUPERSEDE THIS SHEET UPON AS-BUILT

LEGEND

- = METER SERVICE
- = GCP 4000 BI-DIRECTIONAL
- = GCP 4000 UNI-DIRECTIONAL
- = PREDICTION LIMITS
- = DAX FEED FROM THIS LOCATION
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NOTES:

SEE SYSTEMS DUCT BANK PLAN FOR DETAILED INFORMATION REGARDING DUCT BANK AND PULL BOX REQUIREMENTS.

BEGIN/END CTC SIGNS, YARD LIMIT SIGNS AND BEGIN CHANNEL SIGNS REFERENCED ON THESE PLANS SHALL BE INSTALLED BY CONTRACTOR.

0 500

SCALE IN FEET

RED = IN YELLOW = OUT

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NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | M. BARTLETT |
| DRAWN BY | A. PENA |
| CHECKED BY | J. SECCOMBE |
| IN CHARGE | J. PURCELL |
| DATE | 03-10-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

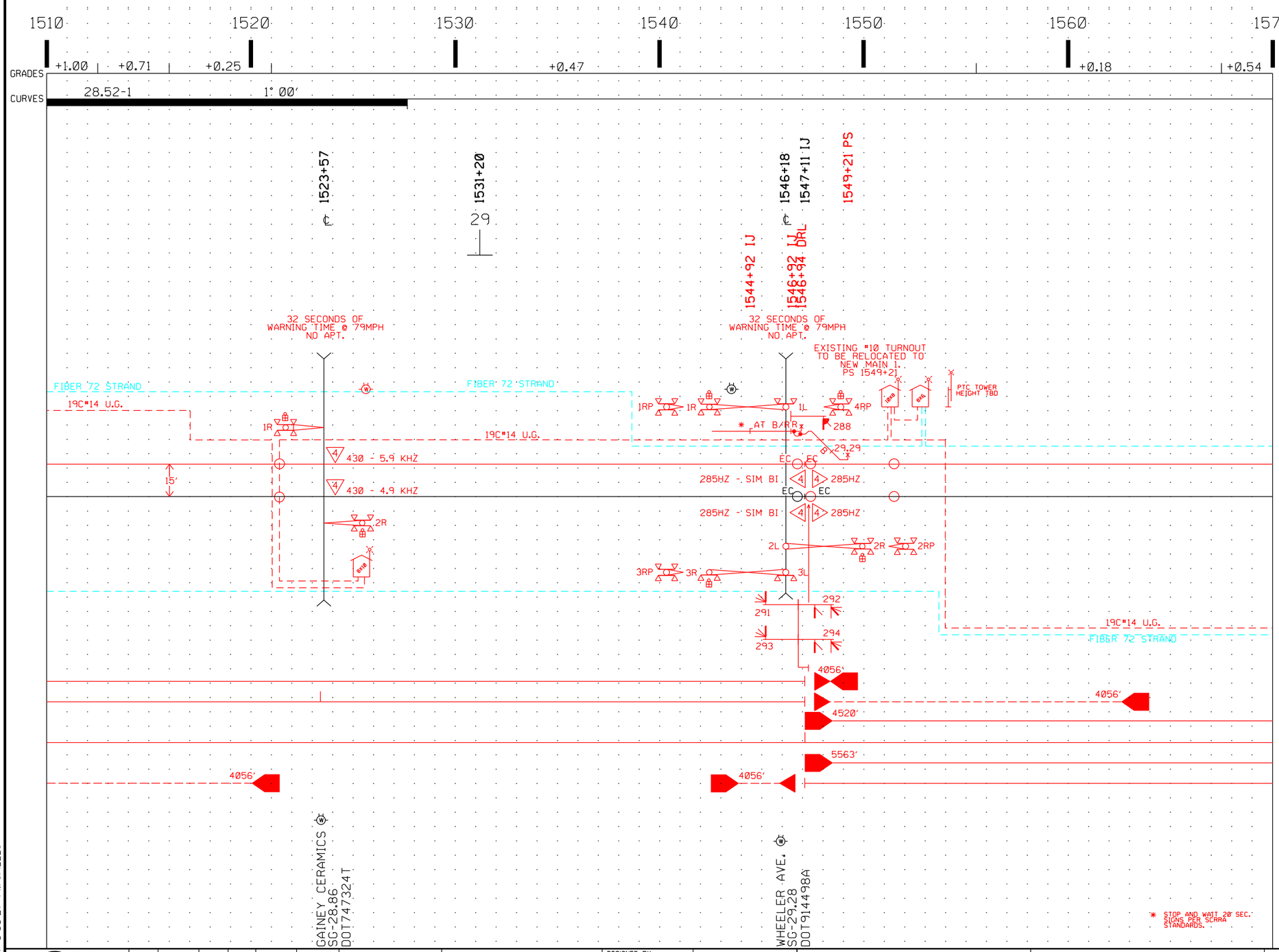
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**SCALED LAYOUTS SG 28-29 SHEET 9 OF 15**

| | |
|---|---|
| CONTRACT NO | |
| DRAWING NO | ND-013 |
| REV | 0 |
| SCALE | AS SHOWN |
| SHEET NO | 179 |

$USER$ 6/26/2017 3:58:26 PM $FILEL$




LEGEND

- = METER SERVICE
- = GCP 4000 BI-DIRECTIONAL
- = GCP 4000 UNI-DIRECTIONAL
- = PREDICTION LIMITS
- = DAX FEED FROM THIS LOCATION
- = POWER SWITCH
- = POWER DERAIL
- = SLIDING DERAIL WITH WHEEL CROWDER & SWITCH CIRCUIT CONTROLLER
- = ELECTRIC LOCK
- = SWITCH CIRCUIT CONTROLLER
- PASSENGER SPEED / FREIGHT SPEED
- = NARROW BAND SHUNT
- EC = ELECTROCODE TRACK CIRCUIT
- B = TRACK BATTERY
- R = TRACK RELAY
- B/R = STYLE "C" TRACK CIRCUIT
- = SIGNAL SHELTER
- = SIGNAL CASE (DOUBLE WIDE)
- = SIGNAL CASE (SINGLE WIDE)
- = WAYSIDE SIGNAL

NOTES:

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|---|---|---|---|---|---|---|---|

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# NOT FOR CONSTRUCTION

| | |
|---|---|
| DESIGNED BY | M. BARTLETT |
| DRAWN BY | A. PENA |
| CHECKED BY | J. SECCOMBE |
| IN CHARGE | J. PURCELL |
| DATE | 03-10-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK.

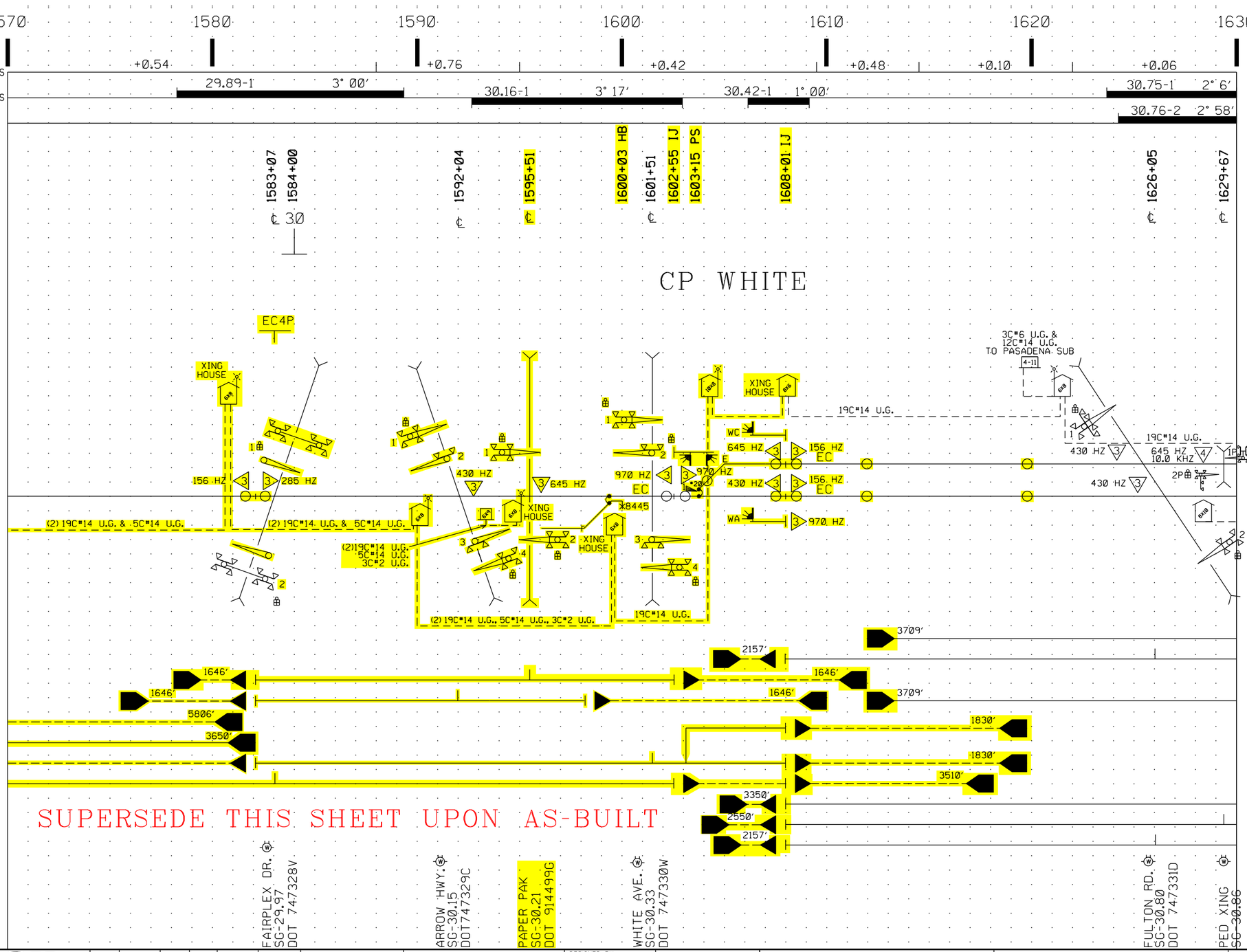
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**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**SCALED LAYOUTS SG 28-29 SHEET 10 OF 15**

| | |
|---|---|
| CONTRACT NO | |
| DRAWING NO | ND-014 |
| REV | Ø |
| SCALE | AS SHOWN |
| SHEET NO | 180 |

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LEGEND

- = METER SERVICE
- = GCP 4000 BI-DIRECTIONAL
- = GCP 4000 UNI-DIRECTIONAL
- = PREDICTION LIMITS
- = DAX FEED FROM THIS LOCATION
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- = SIGNAL CASE (DOUBLE WIDE)
- = SIGNAL CASE (SINGLE WIDE)
- = WAYSIDE SIGNAL

NOTES:

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|---|---|---|---|---|---|---|---|

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DESIGNED BY M. BARTLETT
DRAWN BY A. PENA
CHECKED BY J. SECCOMBE
IN CHARGE J. PURCELL
DATE 03-10-2017

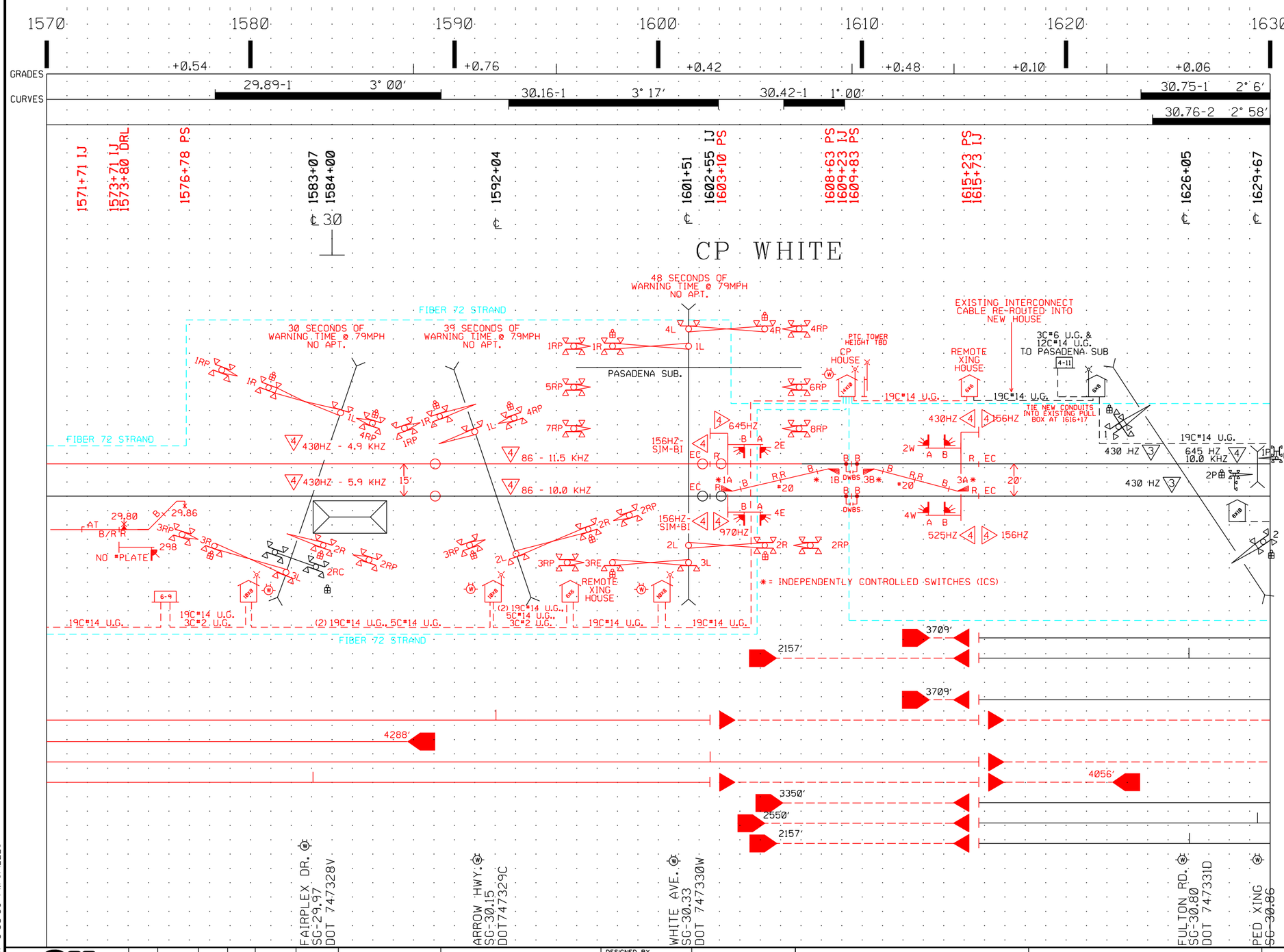

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
METROLINK
WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**SCALED LAYOUTS SG 29-30 SHEET 11 OF 15**

CONTRACT NO
DRAWING NO ND-015 REV Ø
SCALE AS SHOWN
SHEET NO 181

$USER$ 6/26/2017 3:58:29 PM $FILE$




LEGEND

- = METER SERVICE
- = GCP 4000 BI-DIRECTIONAL
- = GCP 4000 UNI-DIRECTIONAL
- = PREDICTION LIMITS
- = DAX FEED FROM THIS LOCATION
- = POWER SWITCH
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NOTES:

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IN CHARGE J. PURCELL
DATE 03-10-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

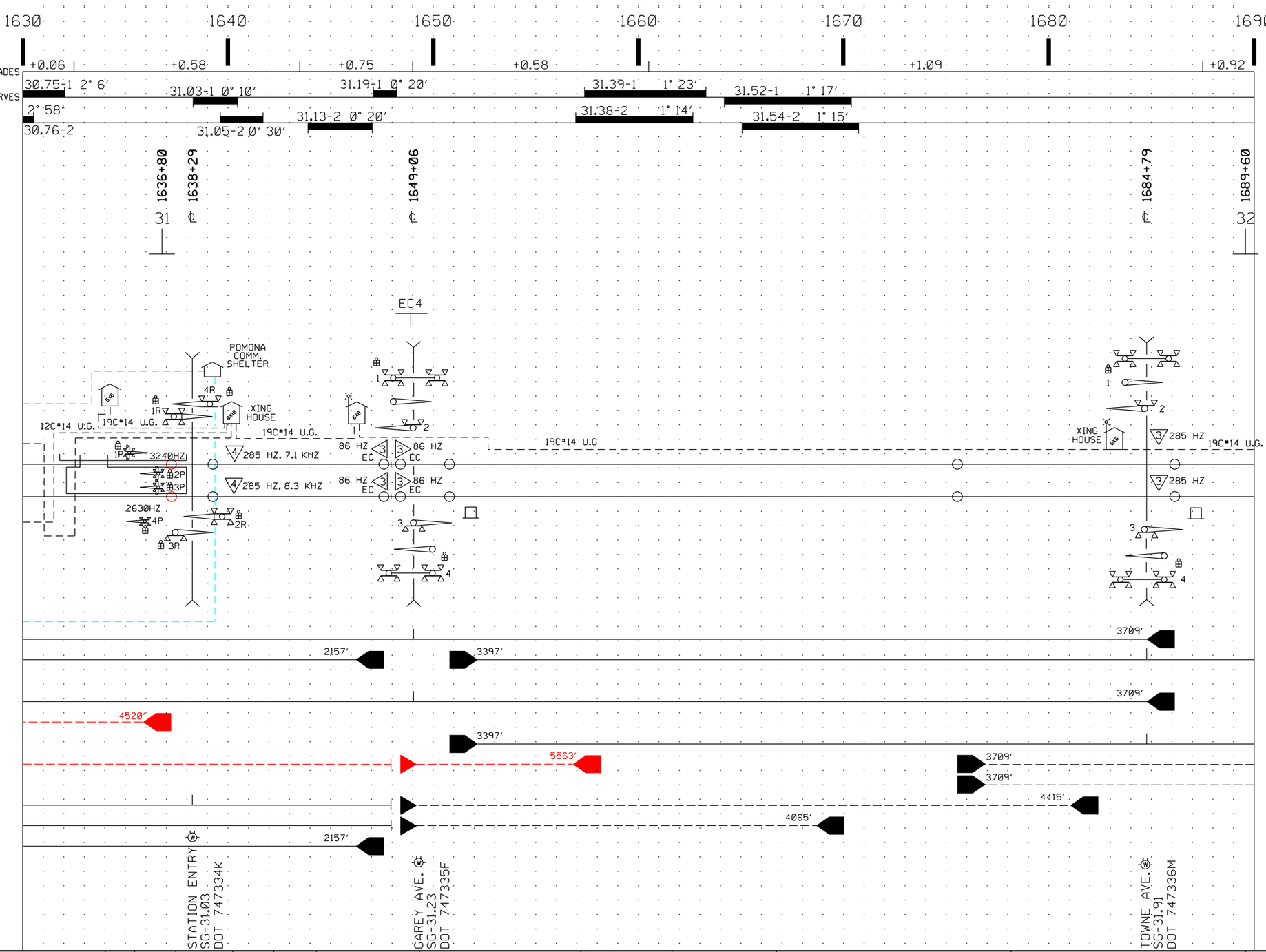
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## LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

SCALED LAYOUTS
SG 29-30
SHEET 12 OF 15

CONTRACT NO
DRAWING NO ND-016 REV Ø
SCALE AS SHOWN
SHEET NO 182

$USER$ 6/26/2017 3:58:30 PM $FILE$




LEGEND

- = METER SERVICE
- = GCP 4000 BI-DIRECTIONAL
- = GCP 4000 UNI-DIRECTIONAL
- = PREDICTION LIMITS
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- = POWER DERAIL
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- = SWITCH CIRCUIT CONTROLLER
- PASSENGER SPEED / FREIGHT SPEED
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- = SIGNAL CASE (DOUBLE WIDE)
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NOTES:

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CHECKED BY J. SECCOMBE
IN CHARGE J. PURCELL
DATE 03-10-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

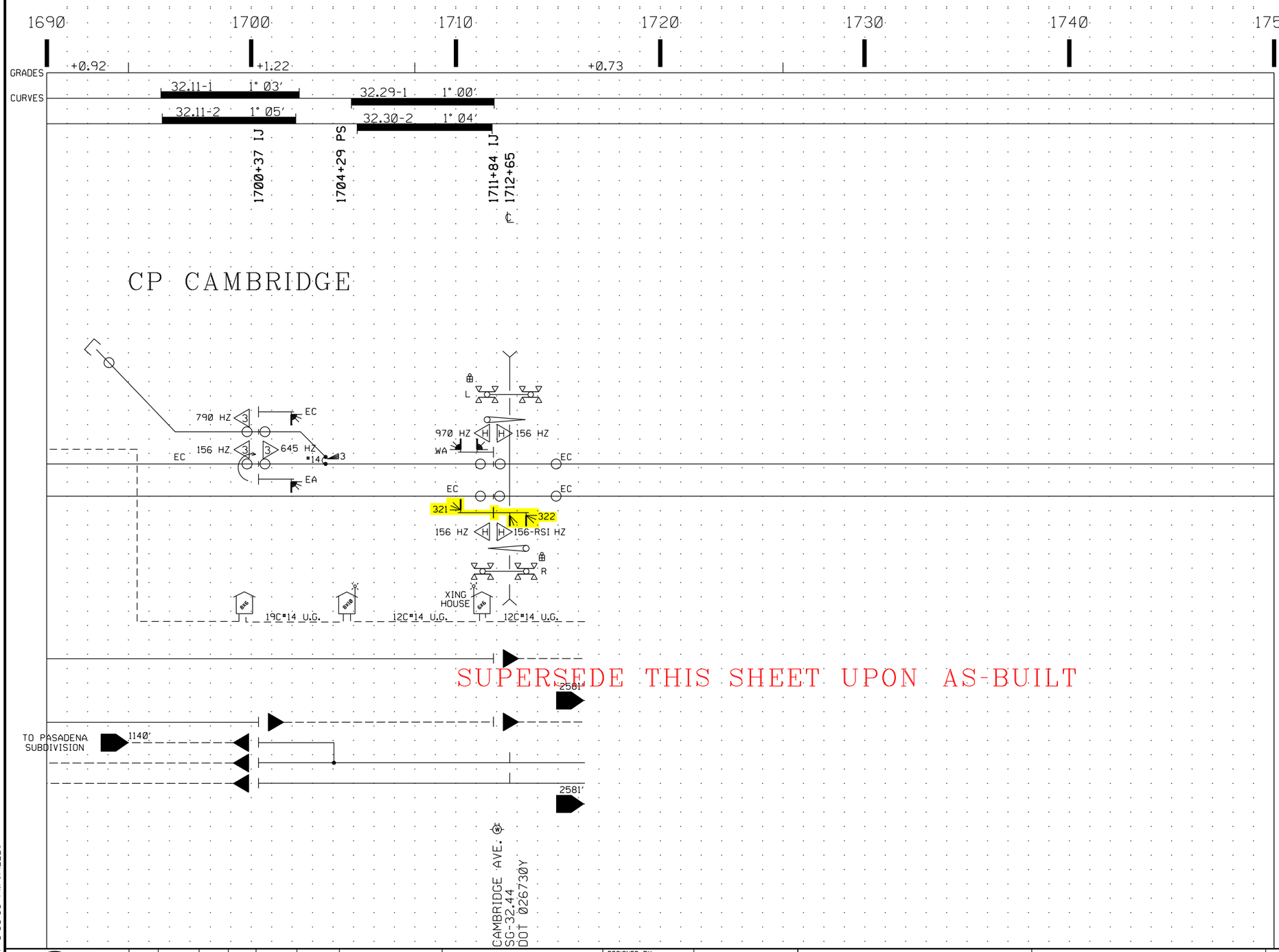
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**SCALED LAYOUTS SG 30-32 SHEET 13 OF 15**

CONTRACT NO
DRAWING NO ND-017 REV Ø
SCALE AS SHOWN
SHEET NO 183

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SUPERSEDE THIS SHEET UPON AS-BUILT

LEGEND

- = METER SERVICE
- = GCP 4000 BI-DIRECTIONAL
- = GCP 4000 UNI-DIRECTIONAL
- = PREDICTION LIMITS
- = DAX FEED FROM THIS LOCATION
- = POWER SWITCH
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|---|---|---|---|---|---|---|---|

DESIGNED BY M. BARTLETT
DRAWN BY A. PENA
CHECKED BY J. SECCOMBE
IN CHARGE J. PURCELL
DATE 03-10-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

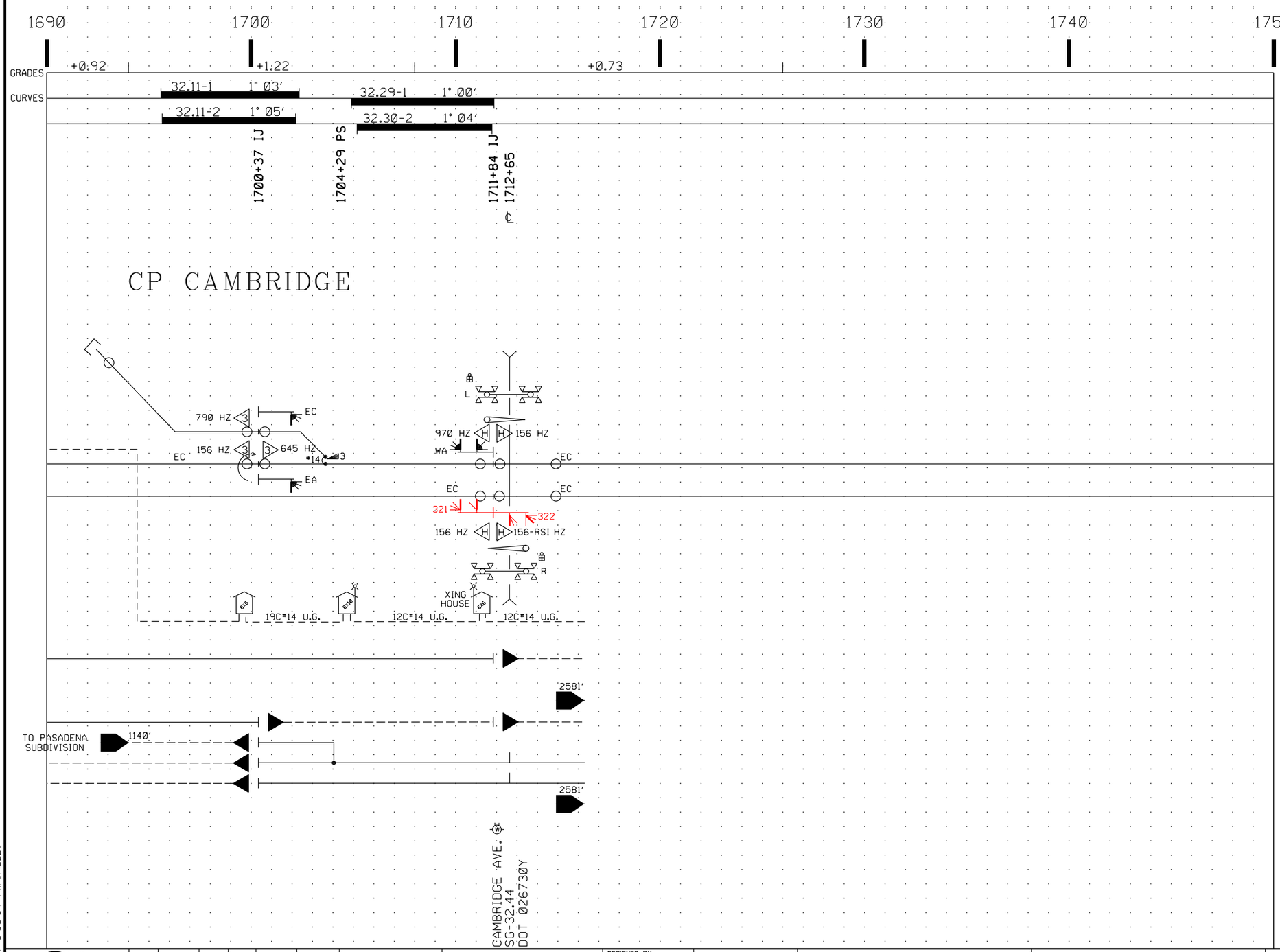
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**SCALED LAYOUTS SG 32-33 SHEET 14 OF 15**

CONTRACT NO
DRAWING NO ND-018 REV Ø
SCALE AS SHOWN
SHEET NO 184

$USER$ 6/26/2017 3:58:33 PM $FILE$




LEGEND

- = METER SERVICE
- = GCP 4000 BI-DIRECTIONAL
- = GCP 4000 UNI-DIRECTIONAL
- = PREDICTION LIMITS
- = DAX FEED FROM THIS LOCATION
- = POWER SWITCH
- = POWER DERAIL
- = SLIDING DERAIL WITH WHEEL CROWDER & SWITCH CIRCUIT CONTROLLER
- = ELECTRIC LOCK
- = SWITCH CIRCUIT CONTROLLER
- PASSENGER SPEED / FREIGHT SPEED
- = NARROW BAND SHUNT
- EC = ELECTROCODE TRACK CIRCUIT
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NOTES:

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0 500

SCALE IN FEET

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# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY M. BARTLETT
DRAWN BY A. PENA
CHECKED BY J. SECCOMBE
IN CHARGE J. PURCELL
DATE 03-10-2017


LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro
METROLINK.
WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355


**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**SCALED LAYOUTS SG 32-33 SHEET 15 OF 15**

CONTRACT NO
DRAWING NO ND-019 REV 0
SCALE AS SHOWN
SHEET NO 185

$USER$ 6/26/2017 3:58:34 PM $FILE$

GENERAL NOTES (FOR DRAWINGS):

1. ALL WORK PERFORMED AND MATERIALS USED SHALL CONFORM TO APPROPRIATE CODES, STANDARDS, AND IN ACCORDNACE WITH LOCAL LAWS.
2. ALL CONDUIT ENTRANCES FOR ENCLOSURES AND HOUSES SHALL BE SEALED AFTER CABLE INSTALLATION IS COMPLETE.
3. OUTSIDE PLANT FIBER OPTIC CABLES SHALL TERMINATE AT THE FIBER DISTRIBUTION PANEL (FDP) USING PATCH CORDS OR SIMILAR MEANS.
4. EQUIPMENT SIDE FIBER OPTIC CABLES SHALL TERMINATE AT THE FDP.
5. INTERNAL ROUTING OF FIBER OPTIC CABLE SHALL BE VIA OVERHEAD LADDER ONLY.
6. ALL CABLES SHALL BE LABELED ON BOTH ENDS USING A LABELING SCHEME APPROVED BY LOS ANGELES COUNTY METROPOLITAN TRANSPORT AUTHORITY (METRO).
7. ALL SITE SPECIFIC WORK PLANS SHALL MEET SOUTHERN CALIFORNIA REGIONAL RAIL'S (SCRRA) STANDARDS AND SHALL BE APPROVED PRIOR TO IMPLEMENTING.
8. ALL CONTRACTOR'S STAFF PLANNING TO WORK ON SCRRA PROPERTY SHALL BE SAFETY CERTIFIED.
9. NETWORK OPTICS SHALL BE SUCH THAT AT LEAST 10 dB LINK MARGIN SHALL BE MAINTAINED FROM FDP TO FDP.

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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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DESIGNED BY S. BHANJI
DRAWN BY A. PENA
CHECKED BY J. SECCOMBE
IN CHARGE J. PURCELL
DATE 03-10-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK.

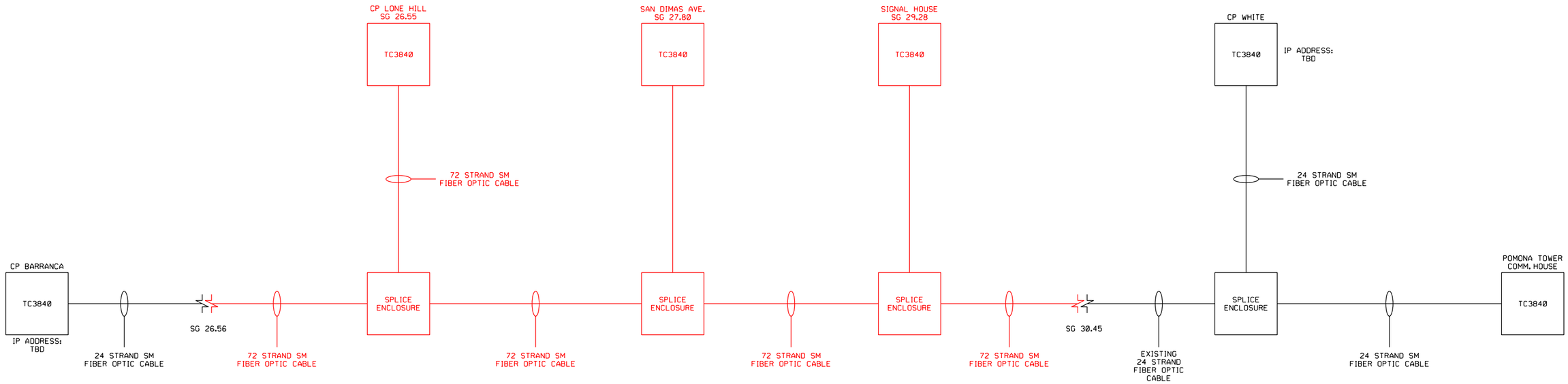
JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

LONE HILL AVE TO CP WHITE
DOUBLE TRACK PROJECT

SG 26.4 TO SG 30.6
GENERAL NOTES
SH. 1 OF 5

CONTRACT NO
DRAWING NO ND-020 REV 0
SCALE NOT TO SCALE
SHEET NO 186

$USER$ 6/26/2017 3:58:35 PM $FILE1$




NOTES:

1. CONDUITS AND FIBER OPTIC CABLE BETWEEN SG26.4 TO SG30.5 TO BE REPLACED WITH NEW CONDUITS AND CABLE AS SHOWN IN THESE DRAWINGS.
2. EACH FIBER OPTIC CABLE SEGMENT SHALL BE ASSIGNED A UNIQUE IDENTIFIER AS INDICATED IN THESE DRAWINGS.
3. EVERY CONTROL POINT (CP), SPLICE ENCLOSURE SHALL BE ASSIGNED A UNIQUE SITE/LOCATION CODE USING THE NEAREST MILE POST.
4. SM - SINGLE MODE

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|---|---|---|---|---|---|---|---|

| | |
|---|---|
| DESIGNED BY | S. BHANJI |
| DRAWN BY | A. PENA |
| CHECKED BY | J. SECCOMBE |
| IN CHARGE | J. PURCELL |
| DATE | 03-10-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST.
SUITE 200
NORTHRIDGE, CA 91325
TEL 818-892-6565

METROLINK

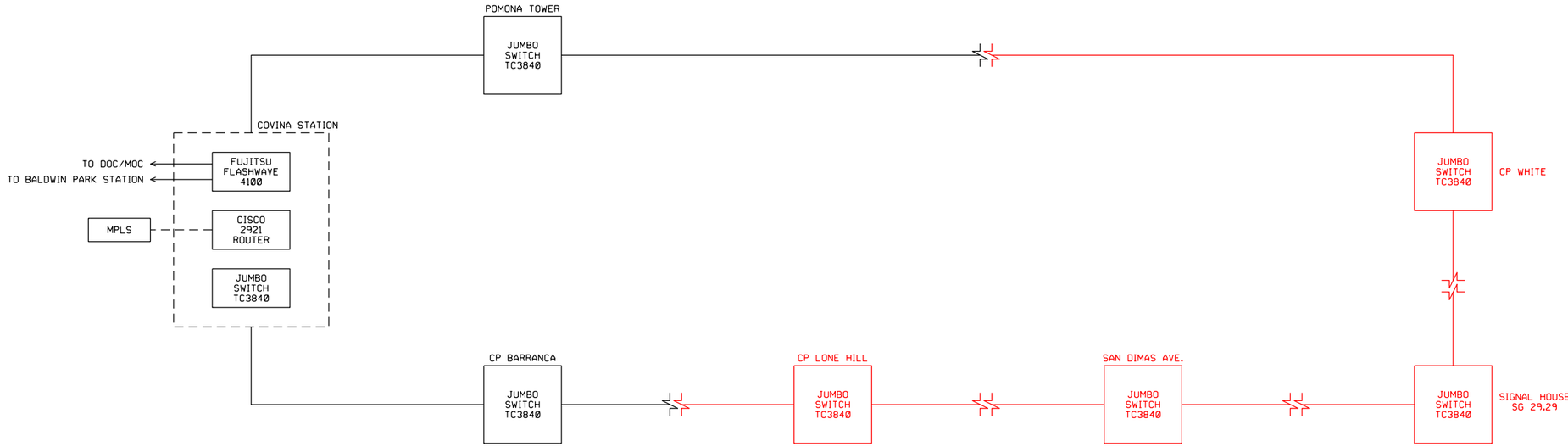
JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

# LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

## SG 26.4 TO SG 30.6 CONDUIT AND FIBER DRAWING SH. 2 OF 5

| | |
|---|---|
| CONTRACT NO | |
| DRAWING NO | ND-021 |
| REV | 0 |
| SCALE | NOT TO SCALE |
| SHEET NO | 187 |

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NOTES:

1. ALL EQUIPMENT SHALL BE AS SHOWN OR APPROVED EQUIVALENT.
2. JUMBO SWITCH SHALL BE INDUSTRIAL QUALITY AND WEATHER HARDENED.
3. MAINTAIN THE EXISTING FIBER OPTIC CABLE IN CONDUITS UNTIL THE NEW CABLE IS INTERFACED AND TESTED.
4. METROLINK SERVICE SHALL NOT BE DISRUPTED DURING ANY CONTRACTOR'S ACTIVITIES.

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|---|---|---|---|---|---|---|---|

DESIGNED BY S. BHANJI
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CHECKED BY J. SECCOMBE
IN CHARGE J. PURCELL
DATE 03-10-2017

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

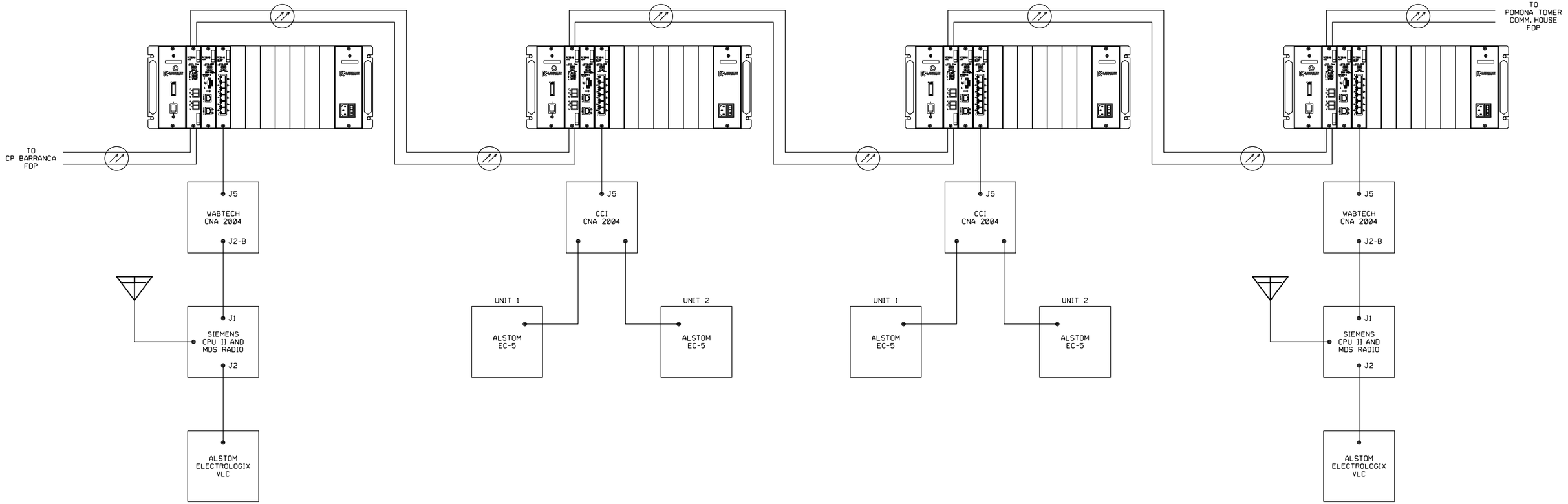
JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

## LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

## SG 26.4 TO SG 30.6 CONDUIT AND FIBER DRAWING SH. 3 OF 5

CONTRACT NO
DRAWING NO ND-022
REV 0
SCALE NOT TO SCALE
SHEET NO 188

$USER$ 6/26/2017 3:58:36 PM $FILE$




| NETWORK SETTINGS | |
|---|---|
| CNA2004 | |
| IP ADDRESS | TBD |
| SUBNET MASK | TBD |
| DEFAULT GATEWAY | TBD |

| SWITCH CONFIGURATION | |
|---|---|
| JUMBOSWITCH TC3840 | |
| IP ADDRESS | TBD |
| SUBNET MASK | TBD |
| DEFAULT GATEWAY | TBD |

| CCI NETWORK SETTINGS | |
|---|---|
| CNA2004 | |
| IP ADDRESS | TBD |
| SUBNET MASK | TBD |
| DEFAULT GATEWAY | TBD |

| SWITCH CONFIGURATION | |
|---|---|
| JUMBOSWITCH TC3840 | |
| IP ADDRESS | TBD |
| SUBNET MASK | TBD |
| DEFAULT GATEWAY | TBD |

| CCI NETWORK SETTINGS | |
|---|---|
| CNA2004 | |
| IP ADDRESS | TBD |
| SUBNET MASK | TBD |
| DEFAULT GATEWAY | TBD |

| SWITCH CONFIGURATION | |
|---|---|
| JUMBOSWITCH TC3840 | |
| IP ADDRESS | TBD |
| SUBNET MASK | TBD |
| DEFAULT GATEWAY | TBD |

| NETWORK SETTINGS | |
|---|---|
| CNA2004 | |
| IP ADDRESS | TBD |
| SUBNET MASK | TBD |
| DEFAULT GATEWAY | TBD |

| SWITCH CONFIGURATION | |
|---|---|
| JUMBOSWITCH TC3840 | |
| IP ADDRESS | TBD |
| SUBNET MASK | TBD |
| DEFAULT GATEWAY | TBD |

NOTES:

1. XX - CONTRACTOR TO OBTAIN IP ADDRESS FROM SCRRA.
2. VLC - VITAL LOGIC CONTROLLER
3. ALL PRODUCTS SHALL BE AS SHOWN OR APPROVED EQUIVALENT.
4. EC5 - ELECTROCODE 5.

ALL NEW

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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

30% SUBMITTAL
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| | |
|---|---|
| DESIGNED BY | S. BHANJI |
| DRAWN BY | A. PENA |
| CHECKED BY | J. SECCOMBE |
| IN CHARGE | J. PURCELL |
| DATE | 03-10-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro
WAGNER ENGINEERING & SURVEY, INC.
17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565
METROLINK
JACOBS
725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

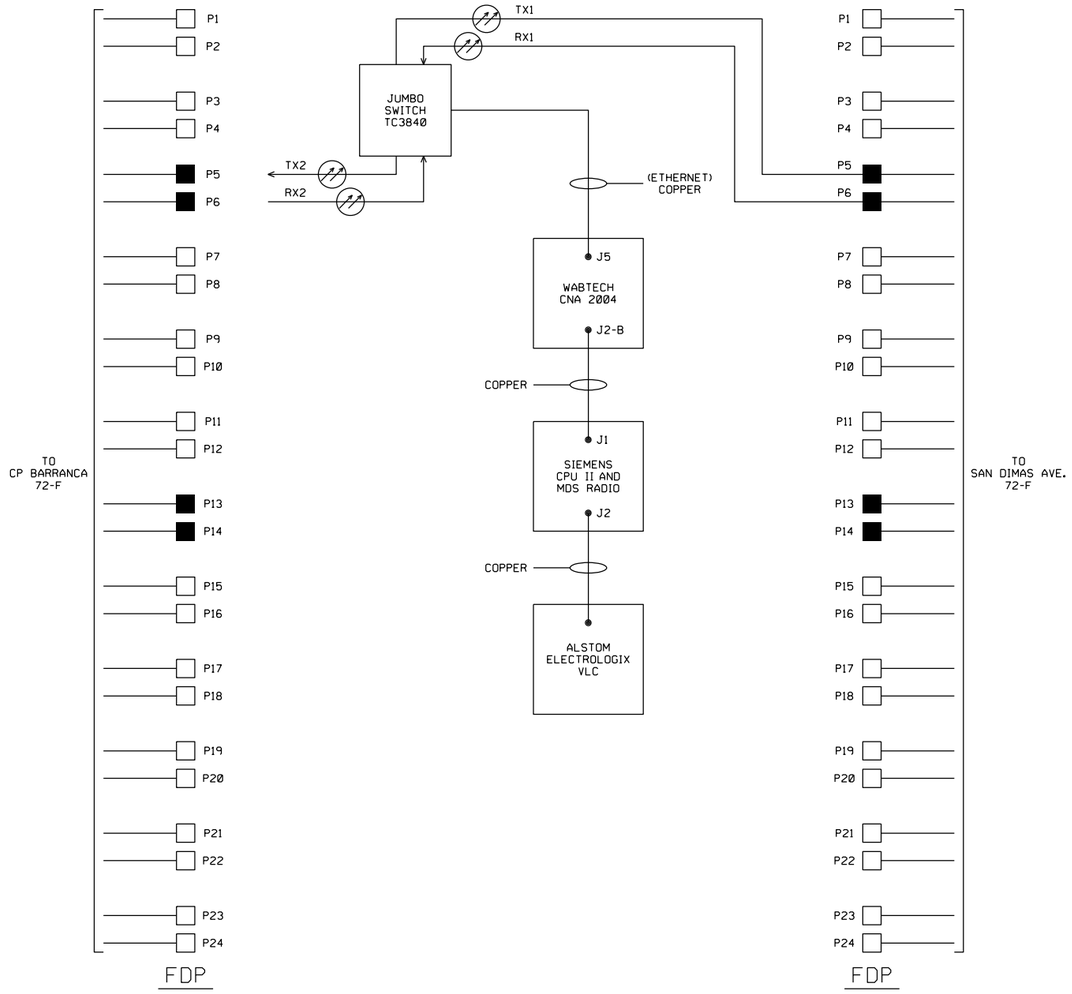
# LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT

## SG 26.4 TO SG 30.6 CONNECTION DETAILS SH. 4 OF 5

| | |
|---|---|
| CONTRACT NO | |
| DRAWING NO | ND-023 |
| REV | 0 |
| SCALE | NOT TO SCALE |
| SHEET NO | 189 |

$USER$ 6/26/2017 3:58:37 PM $FILEL$

# CP LONE HILL




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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

**30% SUBMITTAL**
**NOT FOR CONSTRUCTION**

| | |
|---|---|
| DESIGNED BY | S. BHANJI |
| DRAWN BY | A. PENA |
| CHECKED BY | J. SECCOMBE |
| IN CHARGE | J. PURCELL |
| DATE | 03-10-2017 |

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WAGNER ENGINEERING & SURVEY, INC. 17134 DEVONSHIRE ST. SUITE 200 NORTHRIDGE, CA 91325 TEL 818-892-6565

METROLINK

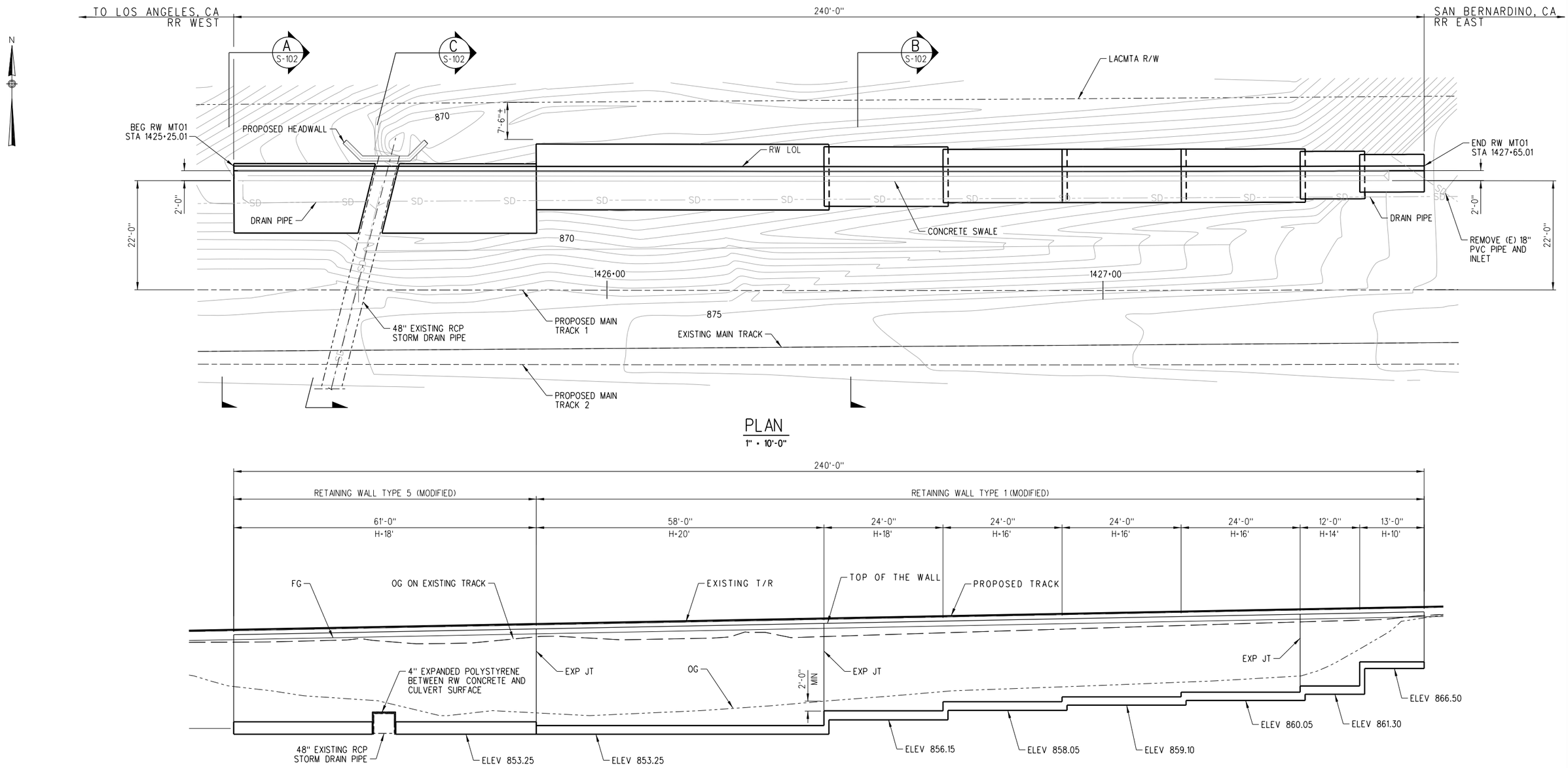
JACOBS 725 TOWN & COUNTRY RD SUITE 300 ORANGE, CA 92868 TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

**SG 26.4 TO SG 30.6**
**CONDUIT AND FIBER DRAWING**
**SH. 5 OF 5**

| | |
|---|---|
| CONTRACT NO | |
| DRAWING NO | ND-024 |
| REV | 0 |
| SCALE | NOT TO SCALE |
| SHEET NO | 190 |

$USER$ 6/26/2017 3:58:38 PM $FILEL$




IDCNET 6/27/2017 5:03:42 PM Z:\Dropbox\IDC\CAD\111-04-10 Lone Hill\LWJEGS-S101.sht

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# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY G.WEI
DRAWN BY T.KORPRASERTSUD
CHECKED BY X.WU
IN CHARGE X.WU
DATE 04-01-2017

REGISTERED PROFESSIONAL ENGINEER
XIAOYUN WU
No. 051245
Exp. 09-30-17
CIVIL
STATE OF CALIFORNIA

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

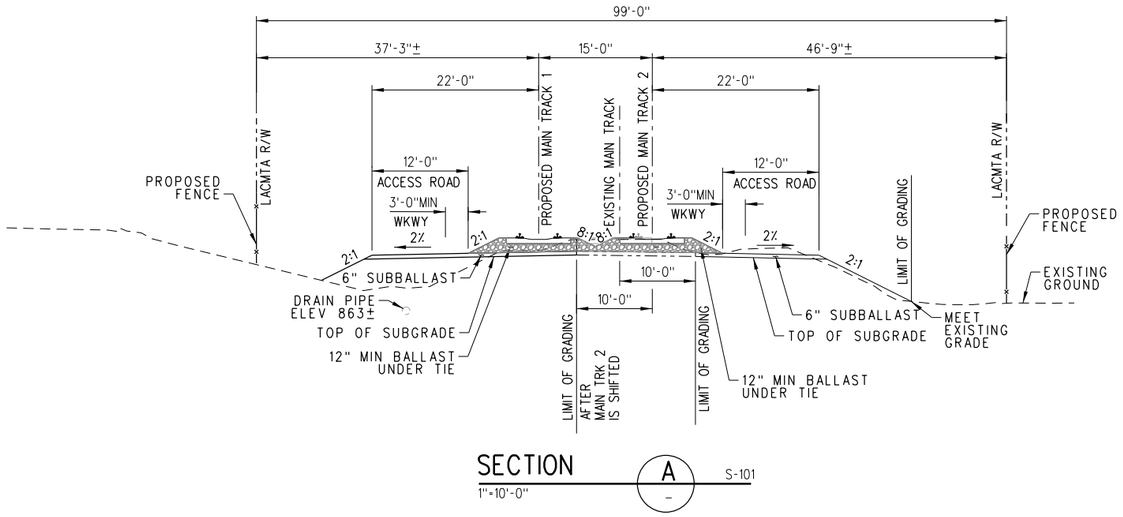
METROLINK

Consulting Engineers, Inc.
300 South Harbor Boulevard, Suite 710
Anaheim, CA 92805
Tel (714) 520-9070 Fax (714) 520-9068

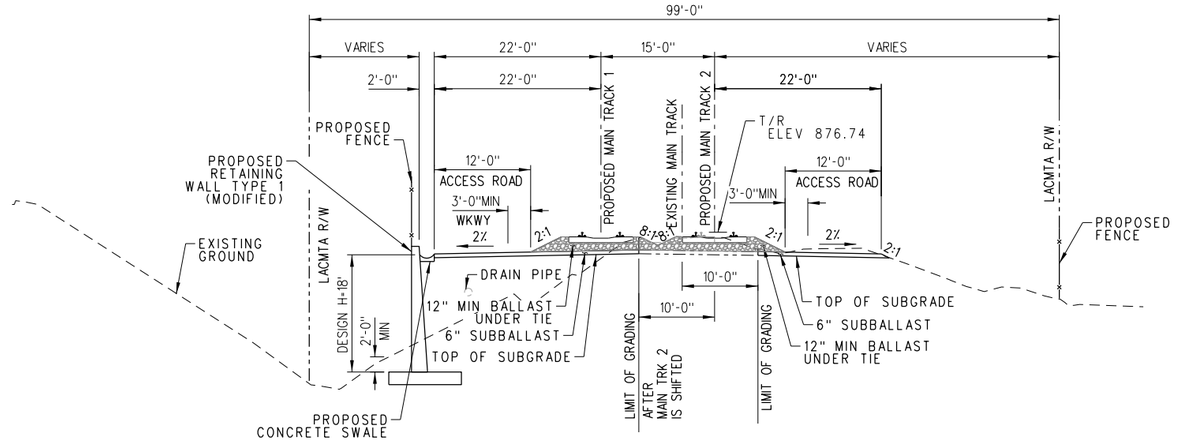
JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**
RETAINING WALL STA 1425+25 TO 1427+65
GENERAL PLAN

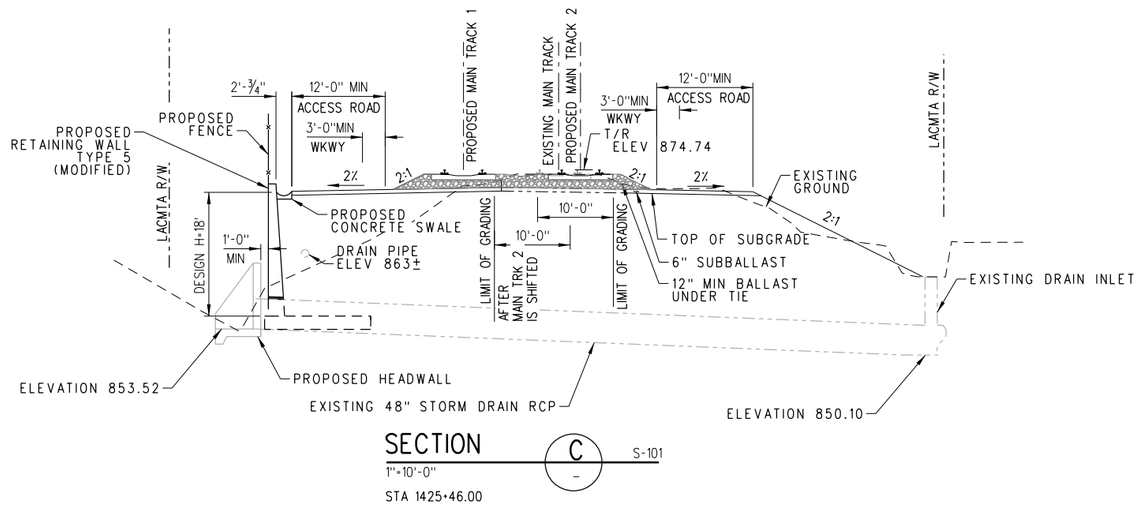
CONTRACT NO
DRAWING NO S-101
REV 0
SCALE 1" = 10'-0"
SHEET NO 191




SECTION A S-101
1"=10'-0"




SECTION B S-101
1"=10'-0"
STA 1426+50.00




SECTION C S-101
1"=10'-0"
STA 1425+46.00

NOTE: THIS DRAINAGE CROSS SECTION IS NOT PARALLEL TO RAILROAD CENTERLINE. IT IS PARALLEL TO CENTERLINE OF 48" RCP STORM DRAIN PIPE. SKEW ANGLE = 104°24'41"

NOTES:

1. FOR LOCATION OF EXISTING RCP STORM DRAIN PIPE, SEE S-101 SHEET.

IDCNET 6/27/2017 5:03:46 PM Z:\Dropbox\IDC\CAD\111-04-10 Lone Hill\WJEGS-S102.sht

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|---|---|---|---|---|---|---|---|

DESIGNED BY G.WEI
DRAWN BY T.KORPRASERTSUD
CHECKED BY X.WU
IN CHARGE X.WU
DATE 04-01-2017

REGISTERED PROFESSIONAL ENGINEER
XIAOYUN WU
No. 051245
Exp. 09-30-17
CIVIL
STATE OF CALIFORNIA

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

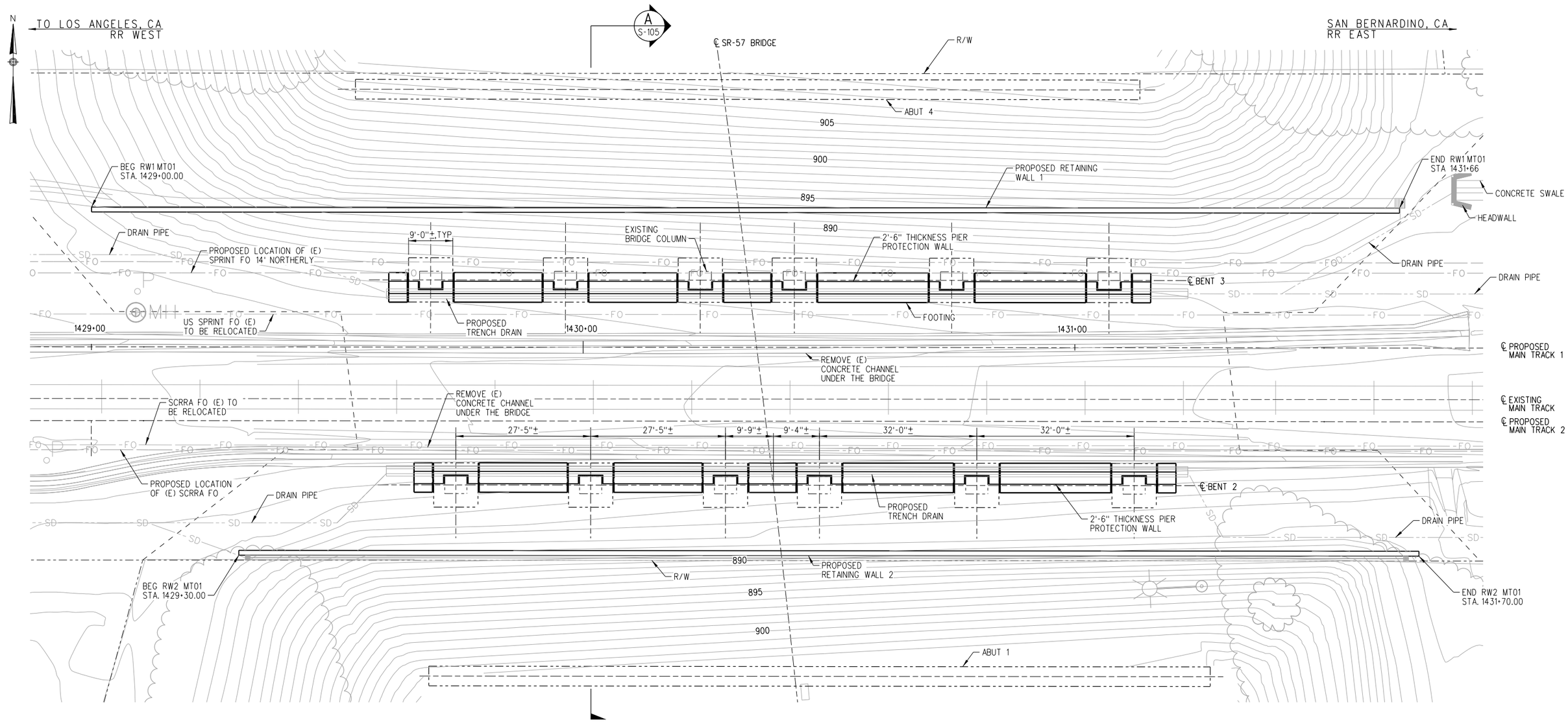
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300 South Harbor Boulevard, Suite 710
Anaheim, CA 92805
Tel (714) 520-9070 Fax (714) 520-9068

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**
RETAINING WALL STA 1425+25 TO 1427+65
CROSS SECTION

CONTRACT NO
DRAWING NO S-102 REV 0
SCALE 1"=10'-0"
SHEET NO 192




## PLAN

1" = 10'-0"

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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| | |
|---|---|
| DESIGNED BY | G.WEI |
| DRAWN BY | T.KORPRASERTSUD |
| CHECKED BY | X.WU |
| IN CHARGE | X.WU |
| DATE | 04-01-2017 |

REGISTERED PROFESSIONAL ENGINEER
XIAOYUN WU
No. 051245
Exp. 09-30-17
CIVIL
STATE OF CALIFORNIA

LOS ANGELES COUNTY
METROPOLITAN
Metro TRANSPORTATION AUTHORITY

METROLINK

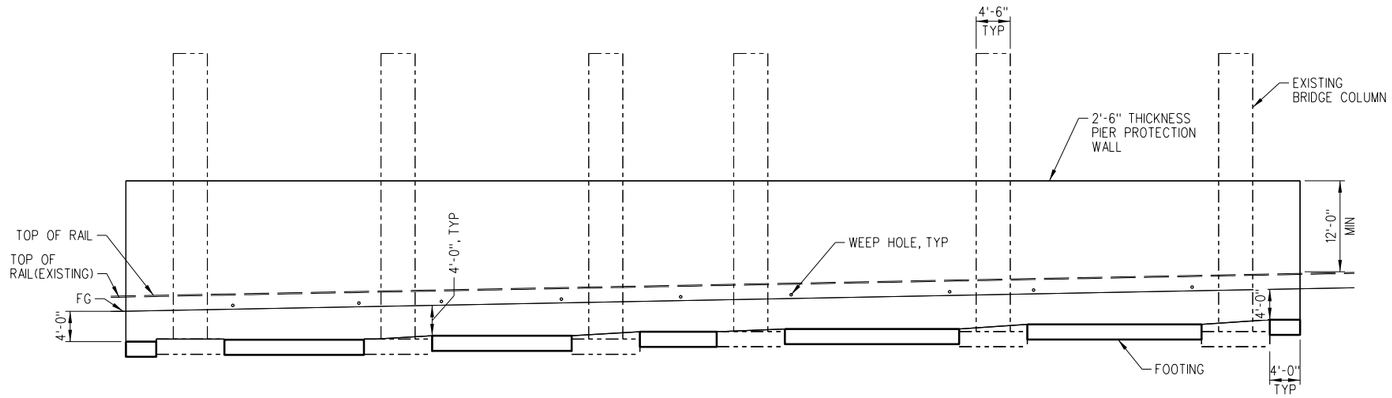
Consulting Engineers, Inc.
300 South Harbor Boulevard, Suite 710
Anaheim, CA 92805
Tel (714) 520-9070 Fax (714) 520-9068

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725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

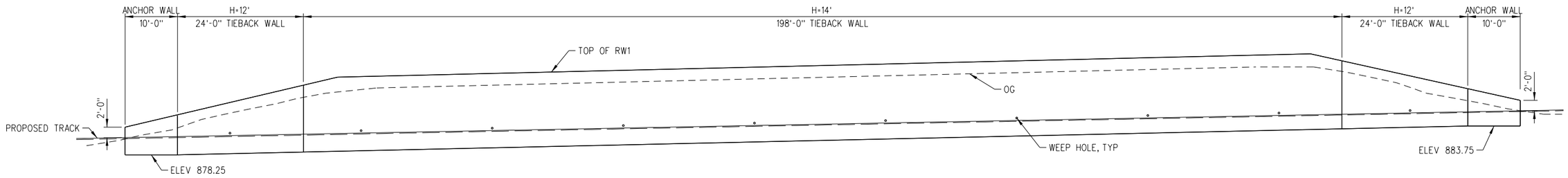
SR-57 RETAINING WALL AND
PIER PROTECTION WALL STA 1430+00
GENERAL PLAN

| | |
|---|---|
| CONTRACT NO | |
| DRAWING NO | S-103 |
| REV | 0 |
| SCALE | AS SHOWN |
| SHEET NO | 193 |



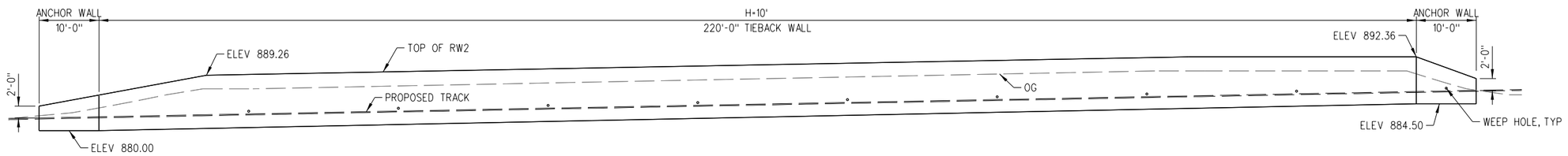

## ELEVATION OF PIER PROTECTION WALL

1" = 10'-0"




## ELEVATION OF RW1

1" = 10'-0"




## ELEVATION OF RW2(MIRROR)

1" = 10'-0"

IDCNET 6/27/2017 5:03:54 PM Z:\Dropbox\IDC\CAD\111-04-10 Lone Hill\LW\EGS-S104.sht

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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY G.WEI
DRAWN BY T.KORPRASERTSUD
CHECKED BY X.WU
IN CHARGE X.WU
DATE 04-01-2017

REGISTERED PROFESSIONAL ENGINEER — XIAOYUN WU — No. 051245 — Exp. 09-30-17 — CIVIL — STATE OF CALIFORNIA

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

Consulting Engineers, Inc.
300 South Harbor Boulevard, Suite 710
Anaheim, CA 92805
Tel (714) 520-9070 Fax (714) 520-9068

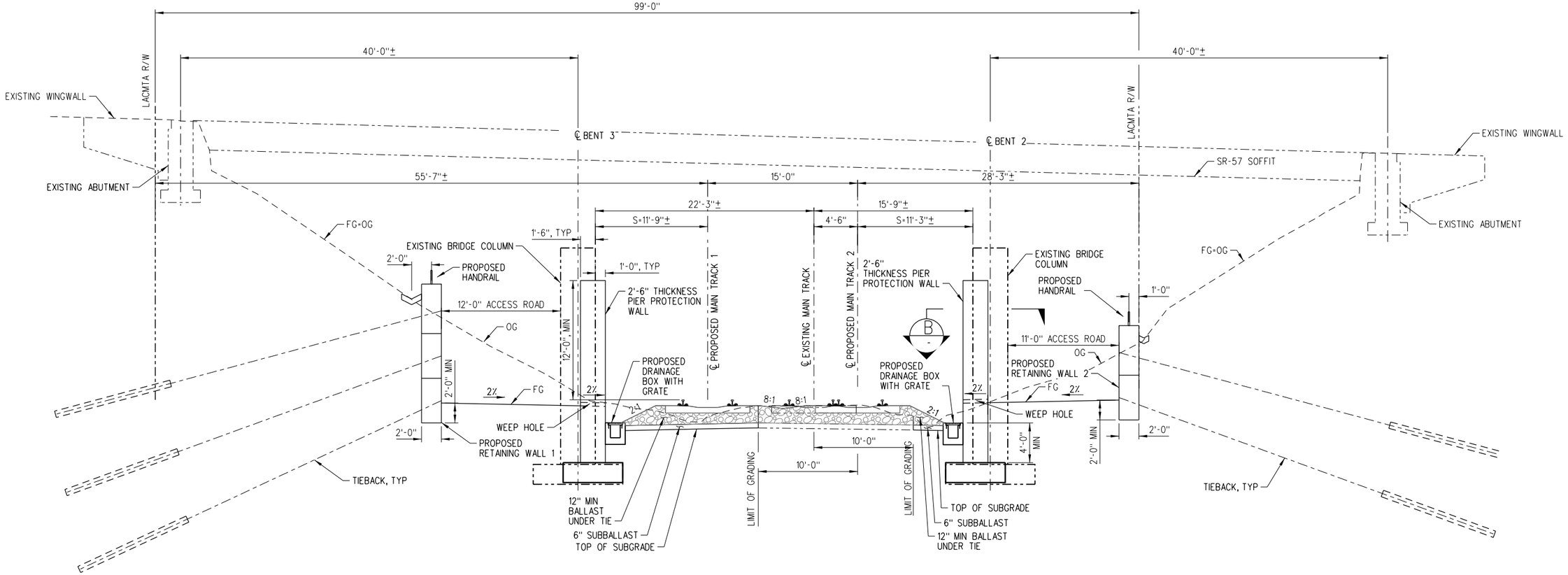
METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

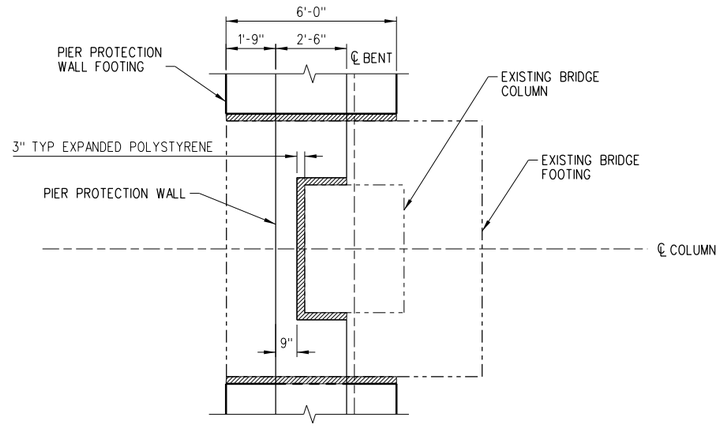
**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**

SR-57 PIER RETAINING WALL AND PIER PROTECTION WALL STA 1430+00 ELEVATION

CONTRACT NO
DRAWING NO S-104
REV 0
SCALE AS SHOWN
SHEET NO 194




SECTION A - S-103
3/16"=1'-0"




SECTION B - -
3/8"=1'-0"

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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

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DRAWN BY T.KORPRASERTSUD
CHECKED BY X.WU
IN CHARGE X.WU
DATE 04-01-2017

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LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

Consulting Engineers, Inc.
300 South Harbor Boulevard, Suite 710
Anaheim, CA 92805
Tel (714) 520-9070 Fax (714) 520-9068

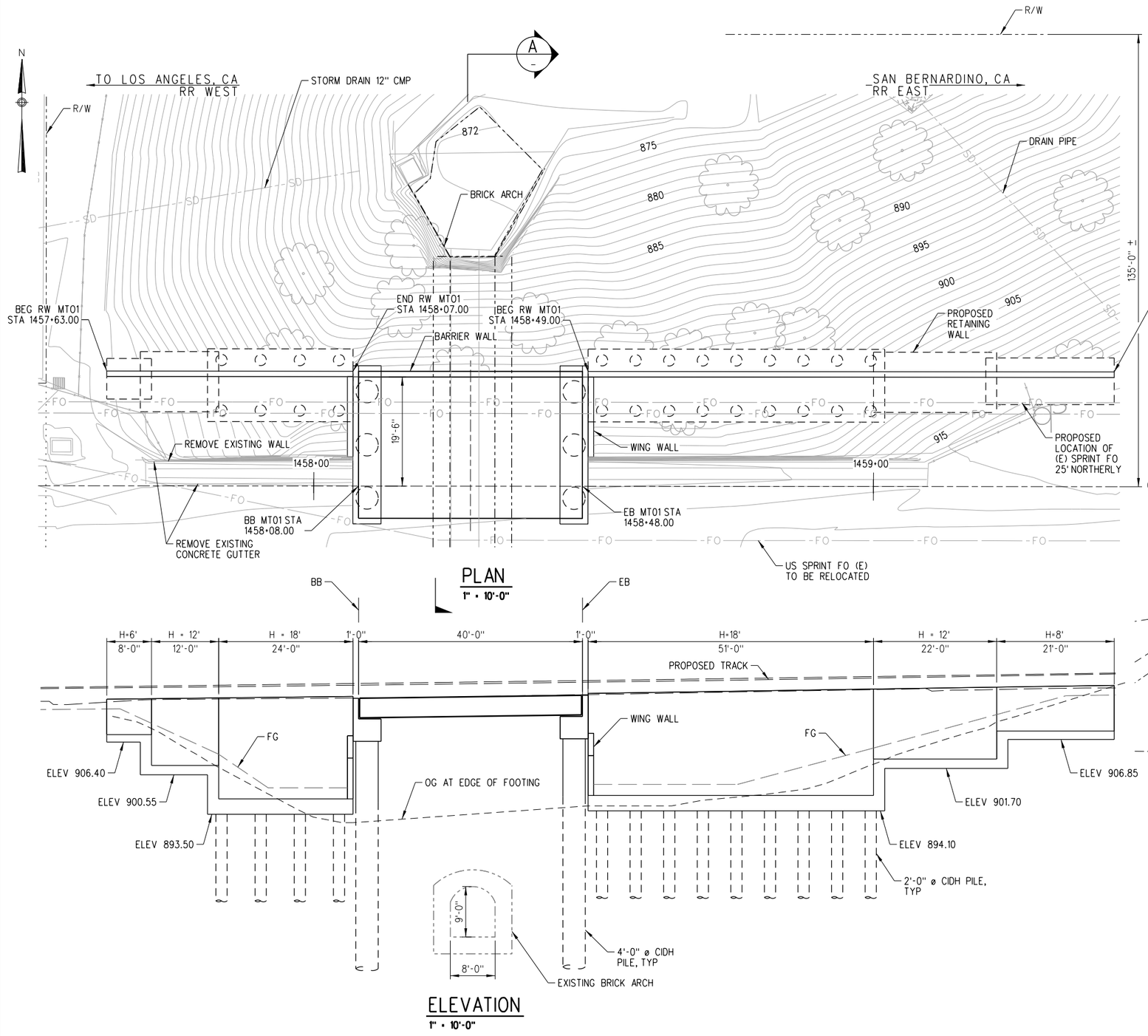
METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**
SR-57 PIER RETAINING WALL AND PIER PROTECTION WALL STA 1430+00
TYPICAL SECTION

CONTRACT NO
DRAWING NO S-105
REV 0
SCALE AS SHOWN
SHEET NO 195

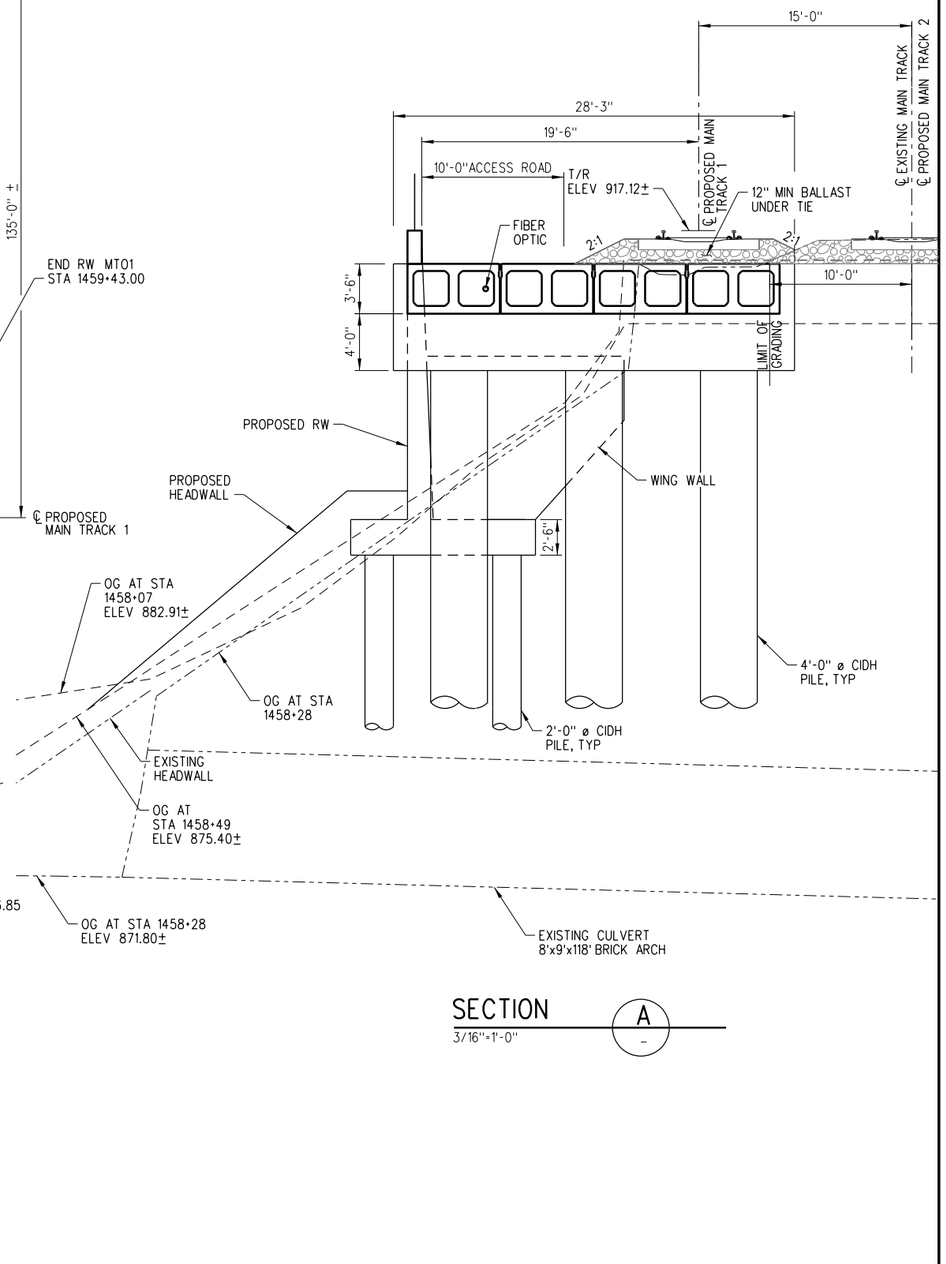
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## PLAN
1" = 10'-0"




## ELEVATION
1" = 10'-0"




## SECTION A
3/16"=1'-0"

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| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY G.WEI
DRAWN BY T.KORPRASERTSUD
CHECKED BY X.WU
IN CHARGE X.WU
DATE 04-01-2017

REGISTERED PROFESSIONAL ENGINEER
XIAOYUN WU
No. 051245
Exp. 09-30-17
CIVIL
STATE OF CALIFORNIA

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

METROLINK

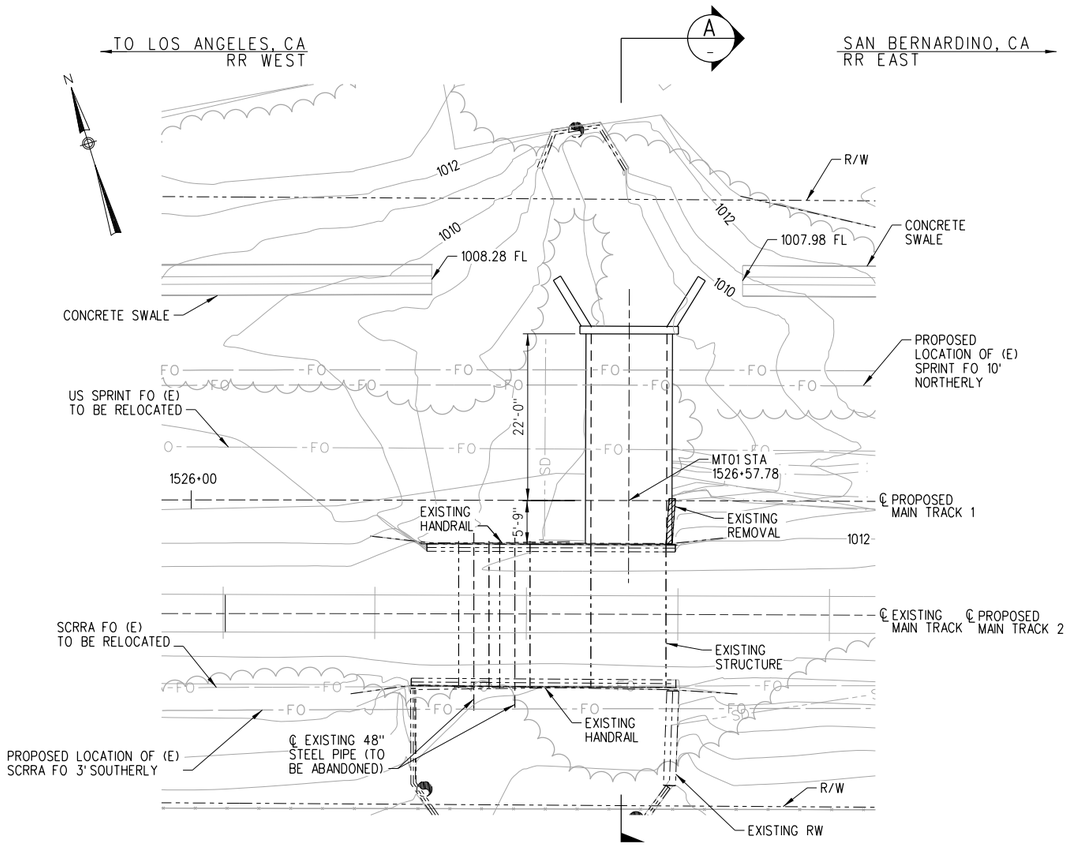
Consulting Engineers, Inc.
300 South Harbor Boulevard, Suite 710
Anaheim, CA 92805
Tel (714) 520-9070 Fax (714) 520-9068

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

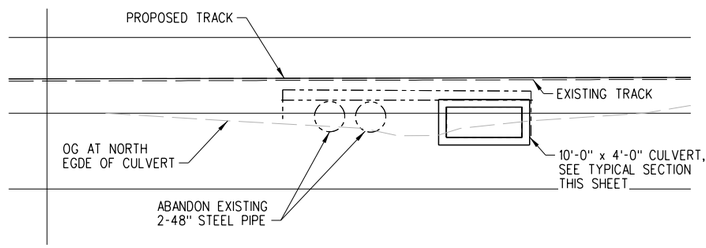
**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**
BRICK ARCH OVER PASS STA 1458+28
GENERAL PLAN

CONTRACT NO
DRAWING NO S-106
REV 0
SCALE AS SHOWN
SHEET NO 196

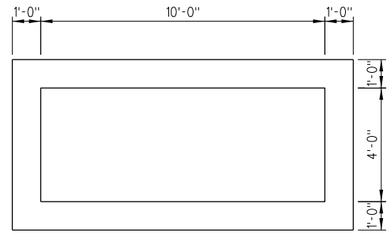
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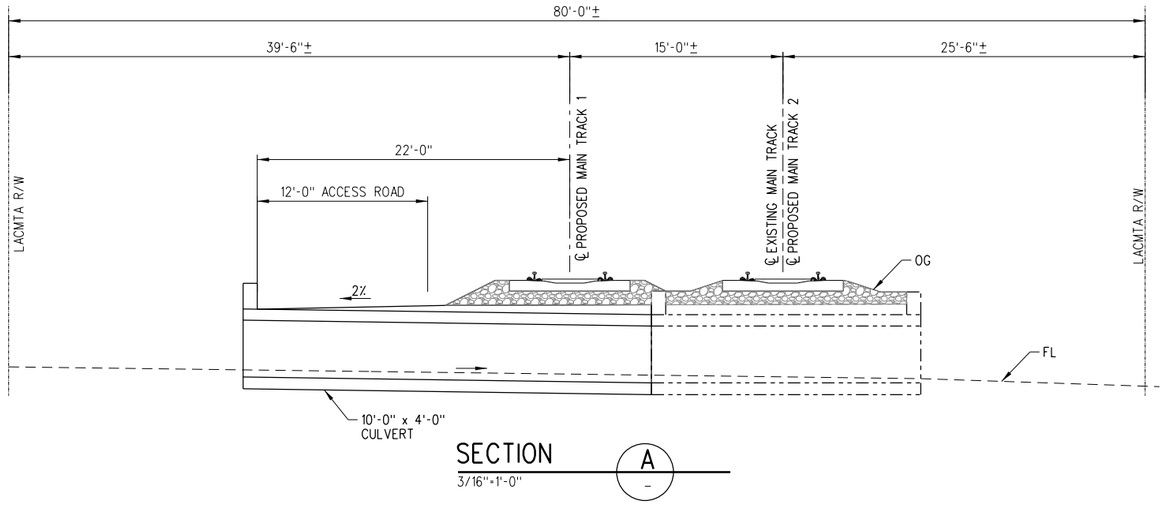

## PLAN
1" • 10'-0"




## ELEVATION
1" • 10'-0"




## CULVERT TYPICAL SECTION
3/8" • 1'-0"




## SECTION A
3/16"=1'-0"

NOTES:

1. EXISTING 2-48" ABANDONED STEEL PIPE WILL NOT BE EXTENDED.
2. RELOCATED FO LINE WILL BE 5' BELOW THE CULVERT EXTENSION.

Know what's below. Call before you dig. 811

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

DESIGNED BY G.WEI
DRAWN BY T.KORPRASERTSUD
CHECKED BY X.WU
IN CHARGE X.WU
DATE 04-01-2017

REGISTERED PROFESSIONAL ENGINEER — XIAOYUN WU — No. 051245 — Exp. 09-30-17 — CIVIL — STATE OF CALIFORNIA

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
Metro

METROLINK

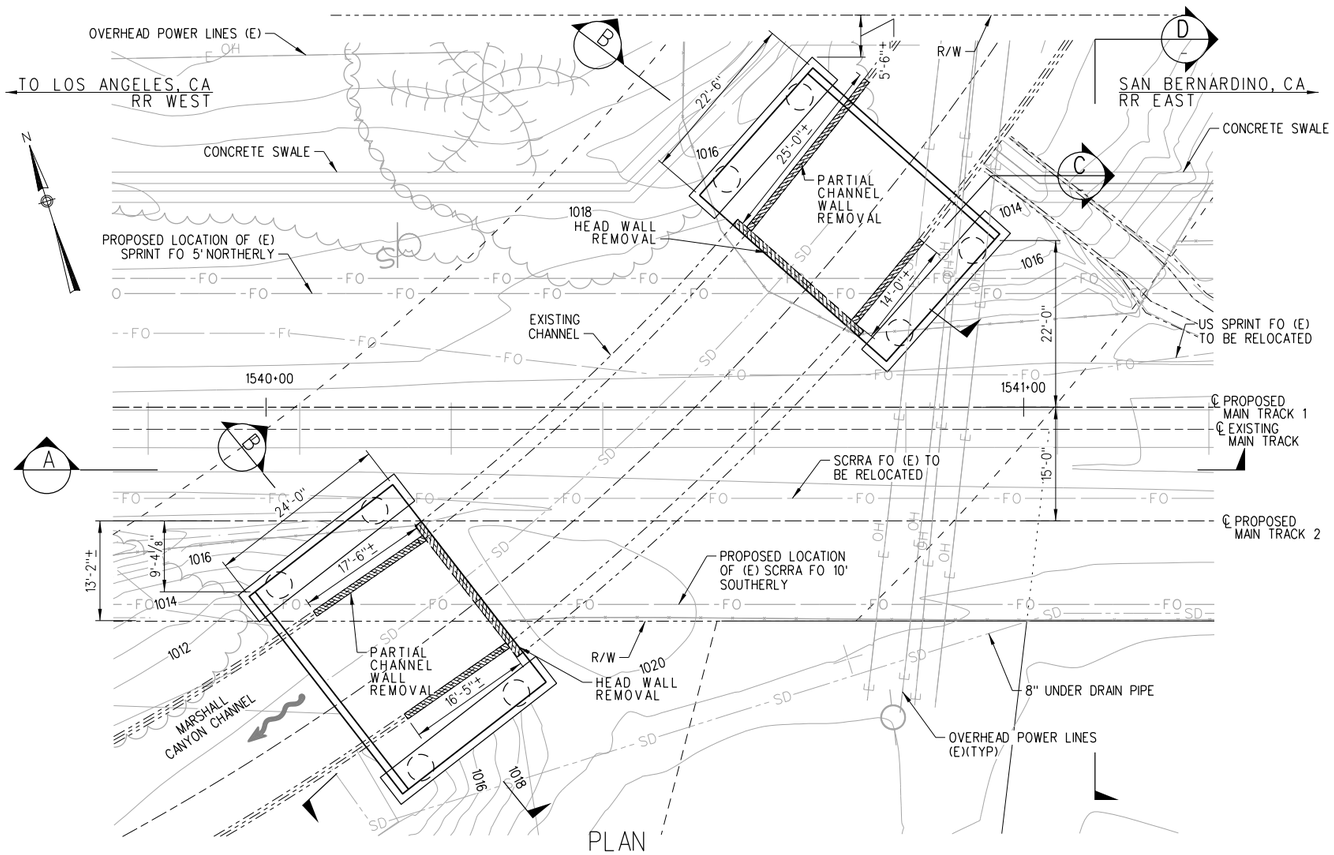
Consulting Engineers, Inc.
300 South Harbor Boulevard, Suite 710
Anaheim, CA 92805
Tel (714) 520-9070 Fax (714) 520-9068

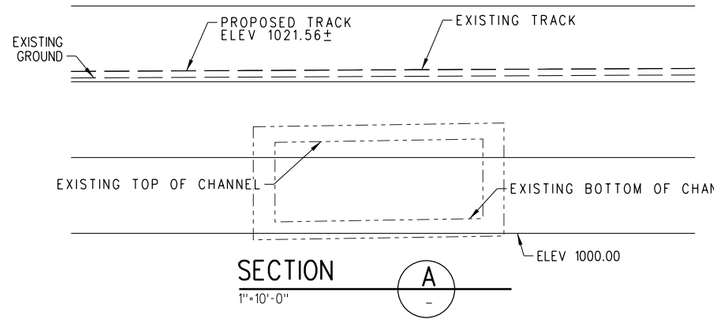
JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

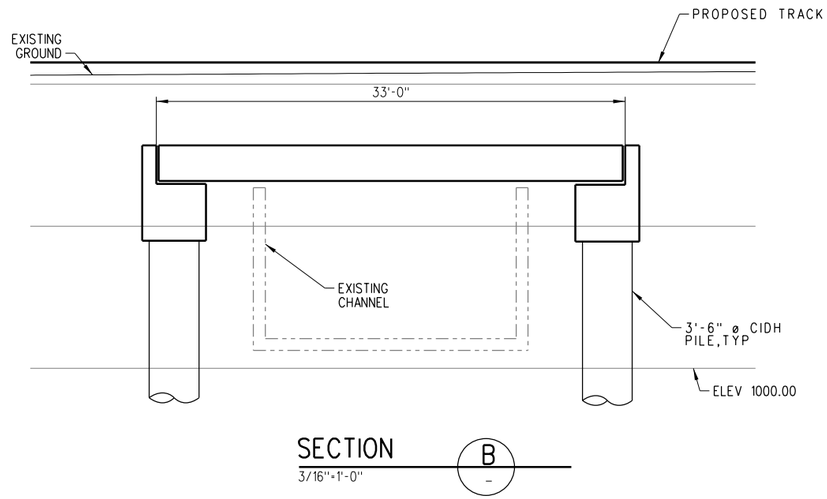
**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**
CULVERT EXTENSION STA 1526+58
GENERAL PLAN

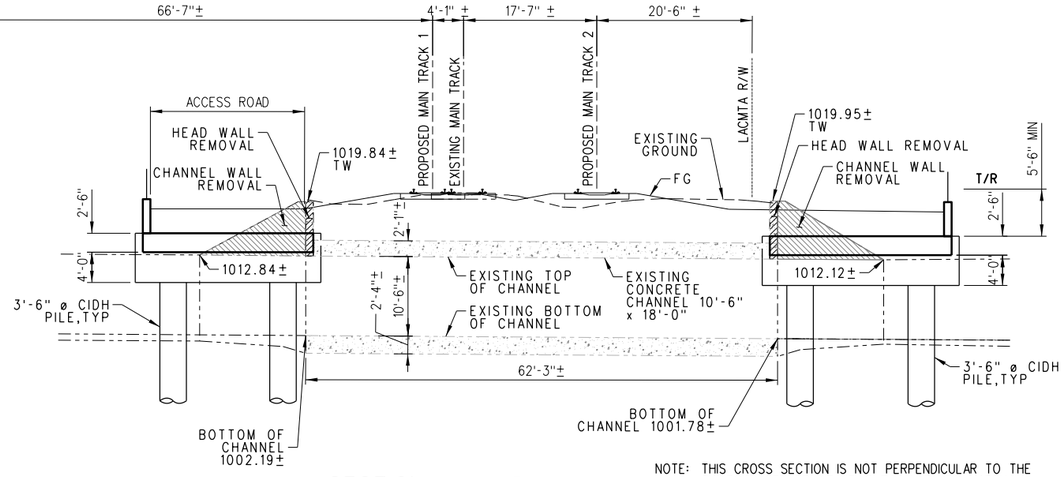
CONTRACT NO
DRAWING NO S-107
REV 0
SCALE AS SHOWN
SHEET NO 197

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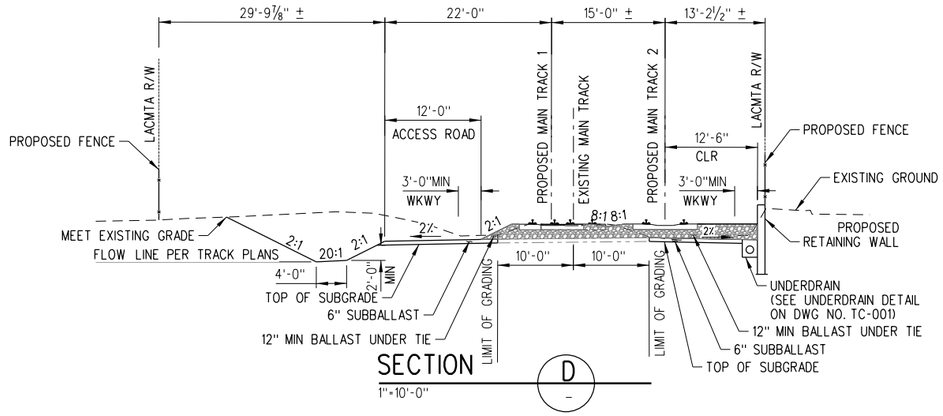



NOTE: THIS CROSS SECTION IS NOT PERPENDICULAR TO THE RAILROAD CENTERLINE. IT IS PARALLEL TO MARSHALL CANYON CHANNEL CENTERLINE. SKEW ANGLE = 47.5°.




811 Know what's below. Call before you dig.

# 30% SUBMITTAL
# NOT FOR CONSTRUCTION

| REV | DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION |
|---|---|---|---|---|---|---|---|

DESIGNED BY G.WEI
DRAWN BY T.KORPRASERTSUD
CHECKED BY X.WU
IN CHARGE X.WU
DATE 04-01-2017

REGISTERED PROFESSIONAL ENGINEER — XIAOYUN WU — No. 051245 — Exp. 09-30-17 — CIVIL — STATE OF CALIFORNIA

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
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Tel (714) 520-9070 Fax (714) 520-9068

METROLINK

JACOBS
725 TOWN & COUNTRY RD
SUITE 300
ORANGE, CA 92868
TEL 714-835-6355

**LONE HILL AVE TO CP WHITE DOUBLE TRACK PROJECT**
STRUCTURE WIDEN STA 1540+43
GENERAL PLAN

CONTRACT NO
DRAWING NO S-108
REV 0
SCALE AS SHOWN
SHEET NO 198

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