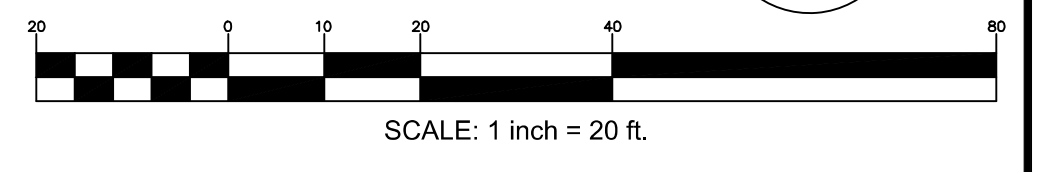


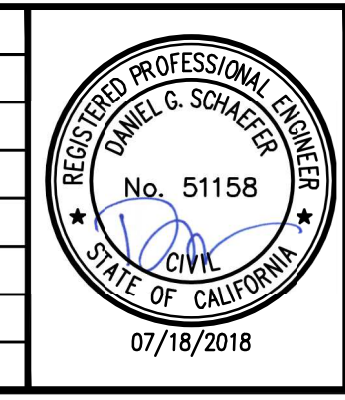
PROJECT NOTES:

- 1 EXISTING CONTROLLER CABINET TO REMAIN.
- 2 EXISTING SERVICE CABINET TO REMAIN.
- 3 INSTALL PUSH BUTTON ASSEMBLY (PBA) ON EXISTING POLE.
- 4 INSTALL PEDESTRIAN SIGNAL HEAD WITH LED COUNTDOWN ON EXISTING POLE.
- 5 REMOVE EXISTING TYPE I BARRICADE WITH R49(CA) SIGN.



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| No. | Date | Revisions |
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1646 N. CALIFORNIA BLVD
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WALNUT CREEK, CA 94596
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Date 07/18/18 Scale 1" = 20' Job No. 20145190
Design CG Drawn CC/SC Approved DS/ES



**CROSS ALAMEDA TRAIL
MAIN STREET TO CONSTITUTION WAY
TRAFFIC SIGNAL PLAN
FIFTH STREET AND RALPH APPEZZATO MEMORIAL PARKWAY**

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

Sheet Number:
C6.05

CONDUCTOR AND CONDUIT SCHEDULE

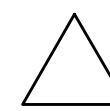
POLE AND EQUIPMENT SCHEDULE

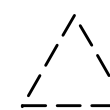
| AWG OR CABLE | CONDUIT RUN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---------------------------|------|------|----|----|----|----|----|----|
| 14 AWG | VEHICLE ϕ 2 | 3 | 3 | 3 | 3 | | | | |
| | ϕ 4 | 6 | 6 | 3 | 3 | | 3 | | |
| | ϕ 5 | 3 | 3 | 3 | | | | | |
| | ϕ 6 | | | | | 3 | 3 | | |
| | ϕ 8 | 3N | 3N | 3 | | | | 3N | 3 |
| | PED ϕ 4P | 4N | 4N | 2 | 2 | | 2 | | |
| | ϕ 6P | 2 | 2 | | | 2 | 2 | | |
| | ϕ 8P | 2N | 2N | 2 | | | | 2N | 2 |
| | PBA ϕ 4 | 1N | 1N | 1 | 1 | 1 | 1 | | |
| | ϕ 6 | 1 | 1 | | | | 1 | 1 | |
| | ϕ 8 | 1N | 1N | 1 | | | | | |
| | PPB NEUTRAL | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | SPARES | 6 | 6 | 3 | 3 | 3 | 3 | 3 | 3 |
| | TOTAL NO.14 | 33 | 33 | 22 | 13 | 10 | 16 | 10 | 8 |
| 8 AWG | LIGHTING (120V) | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | SIGNAL NEUTRAL (120V) | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | EQUIPMENT GROUND | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | TOTAL NO. 8 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| DLC | ϕ 2 DETECTORS | 4 | 4 | 4 | 4 | | | | |
| | ϕ 4 DETECTORS | 3 | 3 | | | | 3 | | |
| | ϕ 4 DETECTORS (BIKE) | 1 | 1 | | | | 1 | | |
| | ϕ 5 DETECTORS | 1 | 1 | 1 | 1 | | | | |
| | ϕ 6 DETECTORS | 4 | | | | | | | |
| | ϕ 8 DETECTORS (BIKE) | 1N | 1N | 1N | | | | | |
| | TOTAL DETECTOR CABLES | 15 | 11 | 6 | 5 | | 5 | | |
| BELDEN No. 8691 CABLE (FOR PED NAVIGATOR) | | | | | | | | 1 | |
| CONDUIT QUANTITY AND SIZE (INCHES) | | 2-3" | 2-3" | 3" | 3" | 2" | 3" | 2" | 3" |

| NO. | STANDARD | | | VEH SIG MTG | | PED SIGNAL | | PBA | | LED LUMINAIRE | SPECIAL REQUIREMENTS |
|-----|----------|----------|----------|-------------|--------|------------|--------|-------|-------|---------------|--|
| | TYPE | SIG M.A. | LUM M.A. | MAST ARM | POLE | MTG | ϕ | ARROW | | | |
| (A) | 1-B | | | | TV-1-T | SP-1-T | | | | | |
| (B) | PBA POST | | | | | | 6 | ← | | | |
| (C) | 15TS | | 12' | | SV-2-T | | 8* | → | 165 W | | *INSTALL PUSH BUTTON ASSEMBLY (PBA) ON EXISTING POLE. |
| (D) | 19-4-80 | 30' | 12' | MAS MAS | SV-2-T | | | | 165 W | | EXISTING R73-2(CA) SIGN TO REMAIN. EXISTING SNS "Fifth St" TO REMAIN. |
| (E) | 1-B | | | | TV-1-T | SP-1-T | 8 | → | | | INSTALL R10-22 SIGN ON SIGNAL POLE. |
| (F) | 19-3-80 | 25' | 12' | MAS | SV-2-T | SP-1-T* | 4* | ← | 165 W | | EXISTING R73-3(CA) SIGN TO REMAIN. *INSTALL PUSH BUTTON ASSEMBLY (PBA) ON EXISTING POLE. *INSTALL PEDESTRIAN SIGNAL HEAD WITH LED COUNT DOWN ON EXISTING POLE AND SP-1-T MOUNTING BRACKET. EXISTING SNS "Ralph Appezato/Memorial Parkway" TO REMAIN. |
| (G) | 19-3-80 | 25' | 12' | MAS | SV-1-T | SP-1-T* | 4* | ← | 165 W | | EXISTING R3-18 SIGN TO REMAIN. *INSTALL PUSH BUTTON ASSEMBLY (PBA) ON EXISTING POLE. *INSTALL PEDESTRIAN SIGNAL HEAD WITH LED COUNT DOWN ON EXISTING POLE AND SP-1-T MOUNTING BRACKET. |
| (H) | 1-B | | | | TV-1-T | SP-1-T | 6 | → | | | INSTALL R10-22 SIGN ON EXISTING SIGNAL POLE. |

- INSTALL NEW SIGNAL POLE AND EQUIPMENT
- ◌ EXISTING SIGNAL POLE AND EQUIPMENT TO REMAIN
- * INSTALL NEW EQUIPMENT ON EXISTING POLE

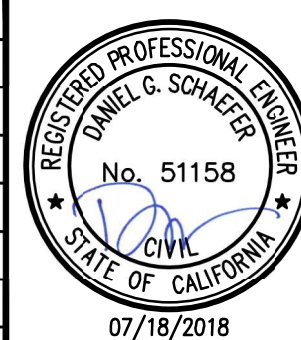
N: NEW CONDUCTOR OR CABLE IN EXISTING CONDUIT

 NEW CONDUCTOR/CABLE IN NEW CONDUIT

 EXISTING CONDUCTOR/CABLE IN EXISTING CONDUIT

DRAWING NAME: K:\2014\1451905\ENG\SHETS\06.06.dwg
PLOT DATE: 07-18-18 PLOTTED BY: meik

| No. | Date | Revisions |
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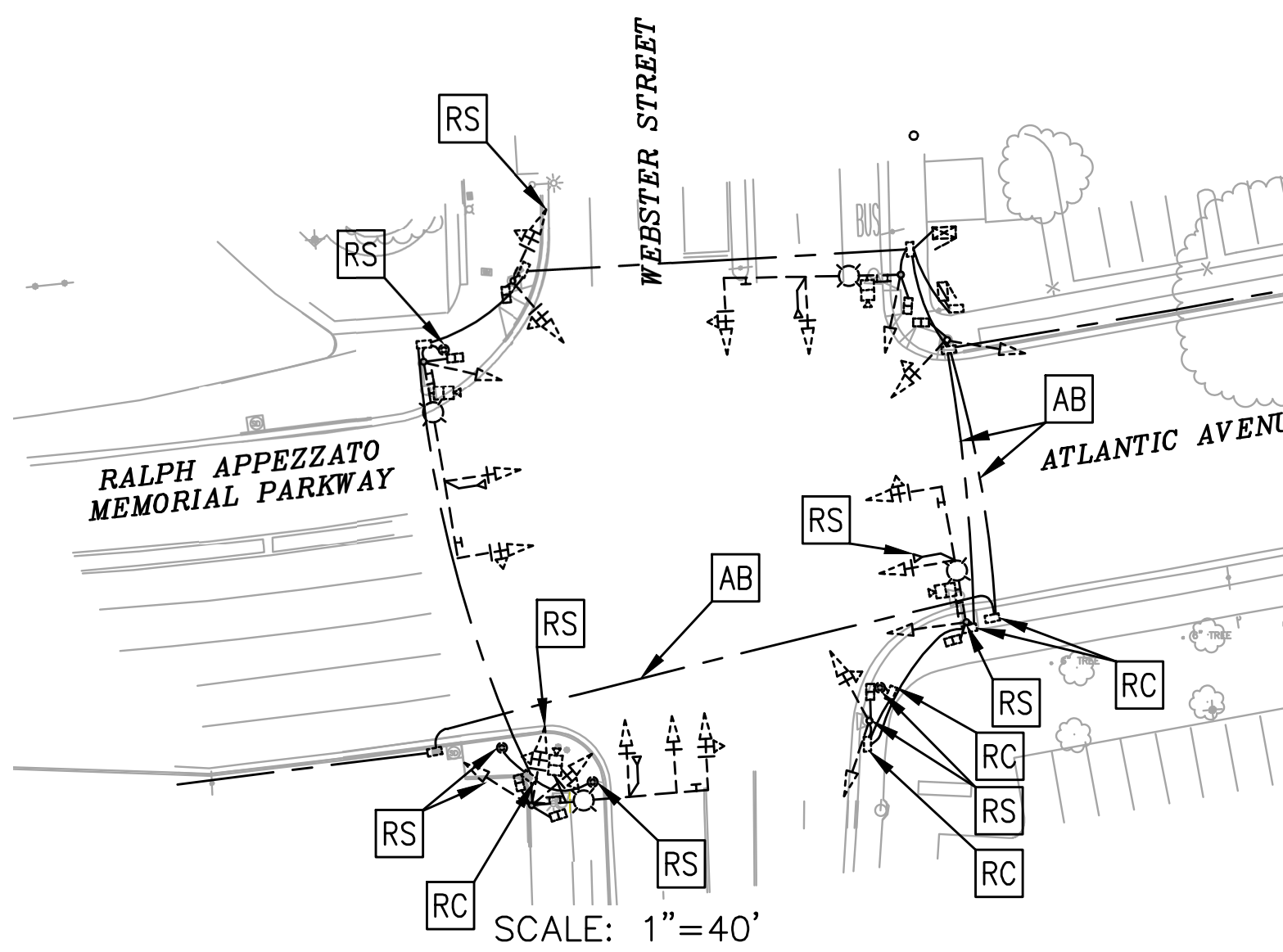
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Design CG Drawn CC/SC Approved DS/ES



**CROSS ALAMEDA TRAIL
MAIN STREET TO CONSTITUTION WAY
CONDUCTOR AND POLE SCHEDULE
FIFTH STREET AND RALPH APPEZZATO MEMORIAL PARKWAY**

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

Sheet Number:
C6.06



SCALE: 1"=40'

EXISTING EQUIPMENT TO BE REMOVED AND SALVAGED:

1. 1 TYPE 1-B
2. 1 TYPE 24-4-100
3. 2 PEDESTRIAN SIGNAL HEADS
4. 5 PEDESTRIAN PUSH BUTTONS
5. 8 VEHICLE SIGNAL HEADS
6. 4 PEDESTRIAN PUSH BUTTON POLES
7. 1 EVB

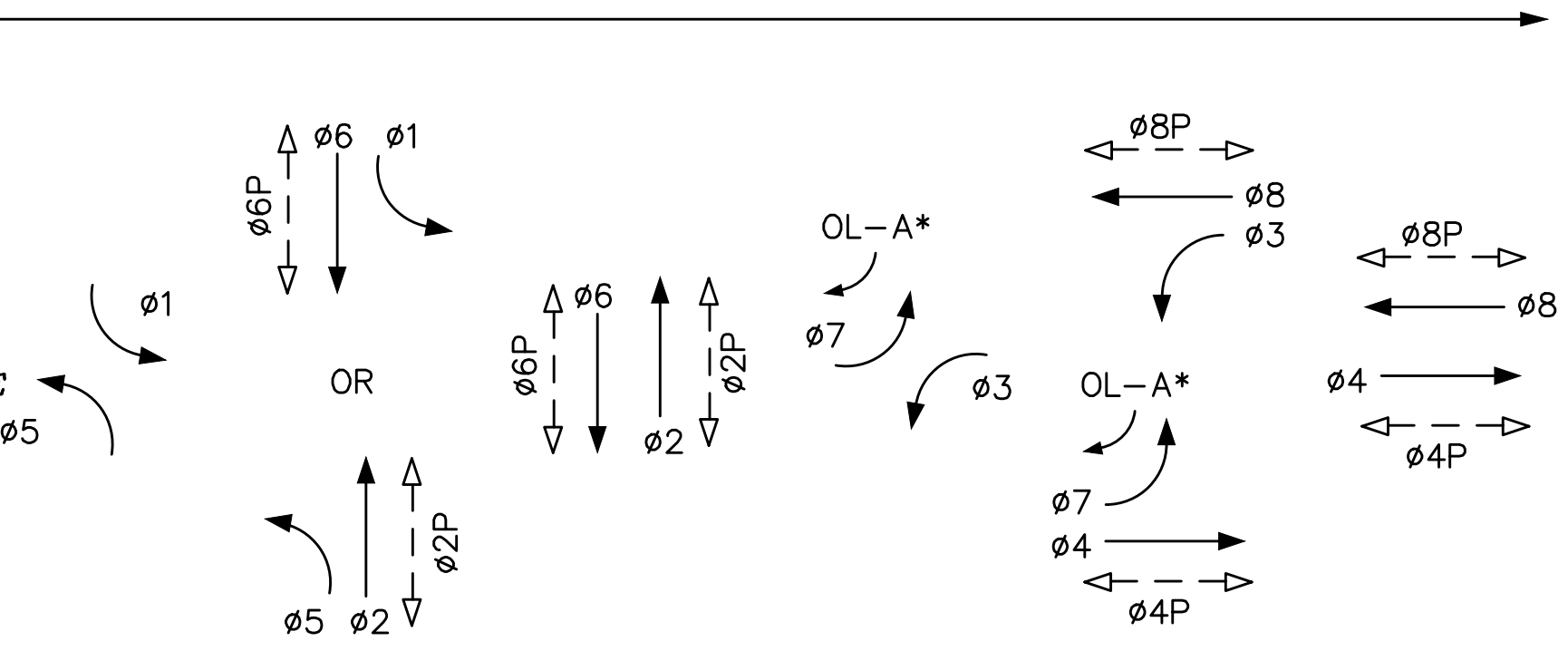
PROJECT NOTES:

1. EXISTING CONTROLLER CABINET TO REMAIN.
2. EXISTING SERVICE CABINET TO REMAIN.
3. INSTALL 4-SECTION SIGNAL HEAD. SEE DETAIL A ON THIS SHEET.
4. INSTALL 4-SECTION SIGNAL HEAD. SEE DETAIL B ON THIS SHEET.
5. RELOCATE VIDEO DETECTION FROM EXISTING LUMINAIRE ARM TO PROPOSED LUMINAIRE ARM.
6. INSTALL 24"x24" BLANK-OUT R3-1 SIGN.
7. CONTRACTOR SHALL CAREFULLY REMOVE EXISTING SIC CABLE FROM EXISTING CONDUITS LEADING TO THE EXISTING CONTROLLER CABINET. DO NOT CUT, SPLICE, OR DAMAGE THE EXISTING CABLES. UPON COMPLETION OF THE SIGNAL MODIFICATION, REINSTALL THE EXISTING CABLE AS INDICATED IN CONDUIT SCHEDULE TO THE EXISTING CONTROLLER. CONTRACTOR SHALL INSTALL NEW CABLES IF THE EXISTING CABLES ARE DAMAGED OR NOT LONG ENOUGH TO REACH THE CONTROLLER.
8. REMOVE EXISTING SIGN (TURNING VEHICLE MUST YIELD TO PEDESTRIAN) ON EXISTING TYPE 1-B POLE.
9. INSTALL EVB ON SIGNAL MAST ARM.
10. FURNISH AND INSTALL BIKE VIDEO DETECTION CAMERA ON SIGNAL POLE.

LEGEND:

VIDEO DETECTION ZONE

STEADY DEMAND SEQUENCE



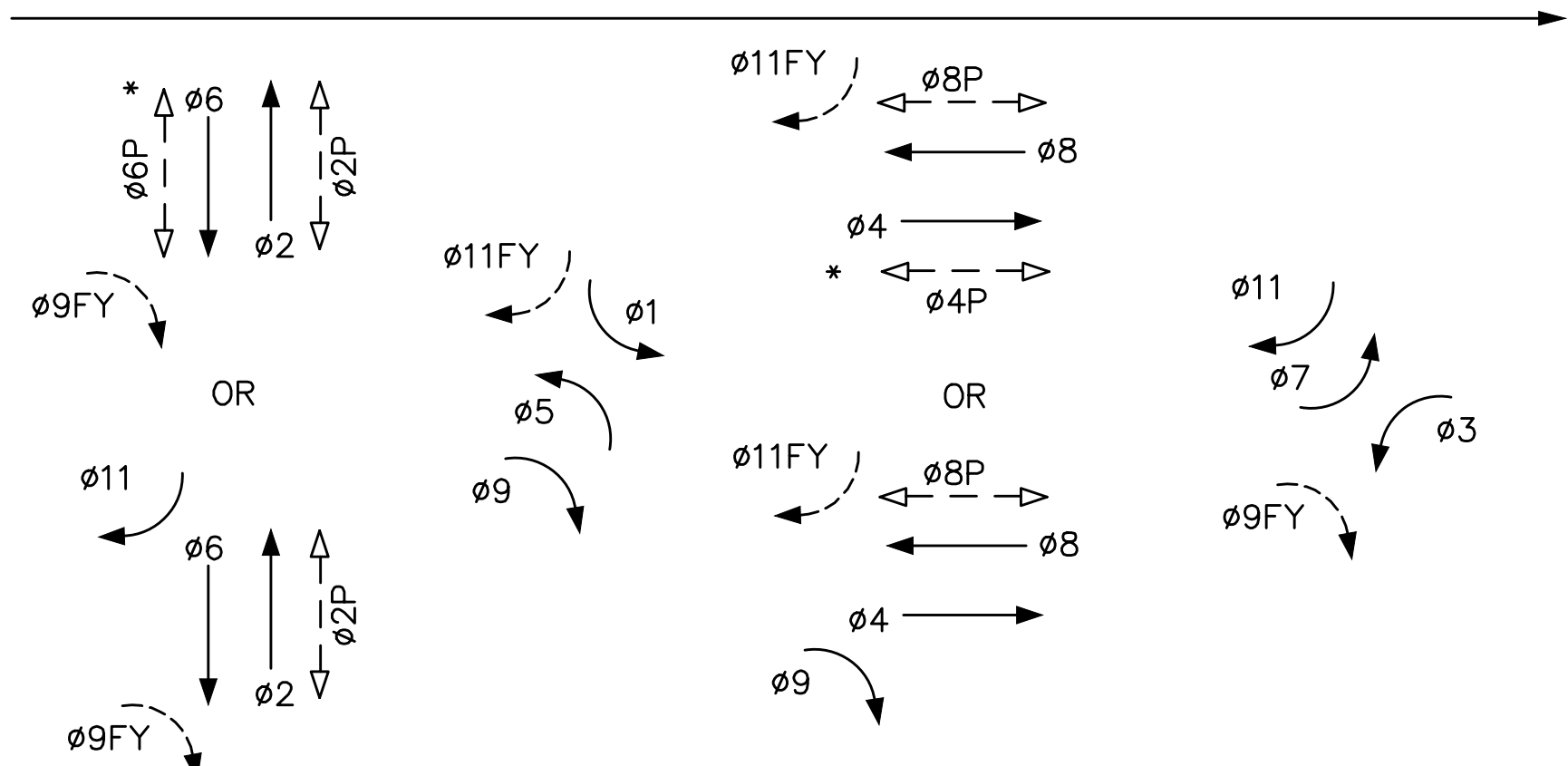
EXISTING PHASE DIAGRAM TO REMAIN

EMERGENCY VEHICLE PREEMPTION (EVP)

- EVA = $\phi 2 + \phi 5$
- EVB = $\phi 4 + \phi 7$
- EVC = $\phi 6 + \phi 1$
- EVD = $\phi 8 + \phi 3$

*OL-A= $\phi 6 + \phi 7$

STEADY DEMAND SEQUENCE

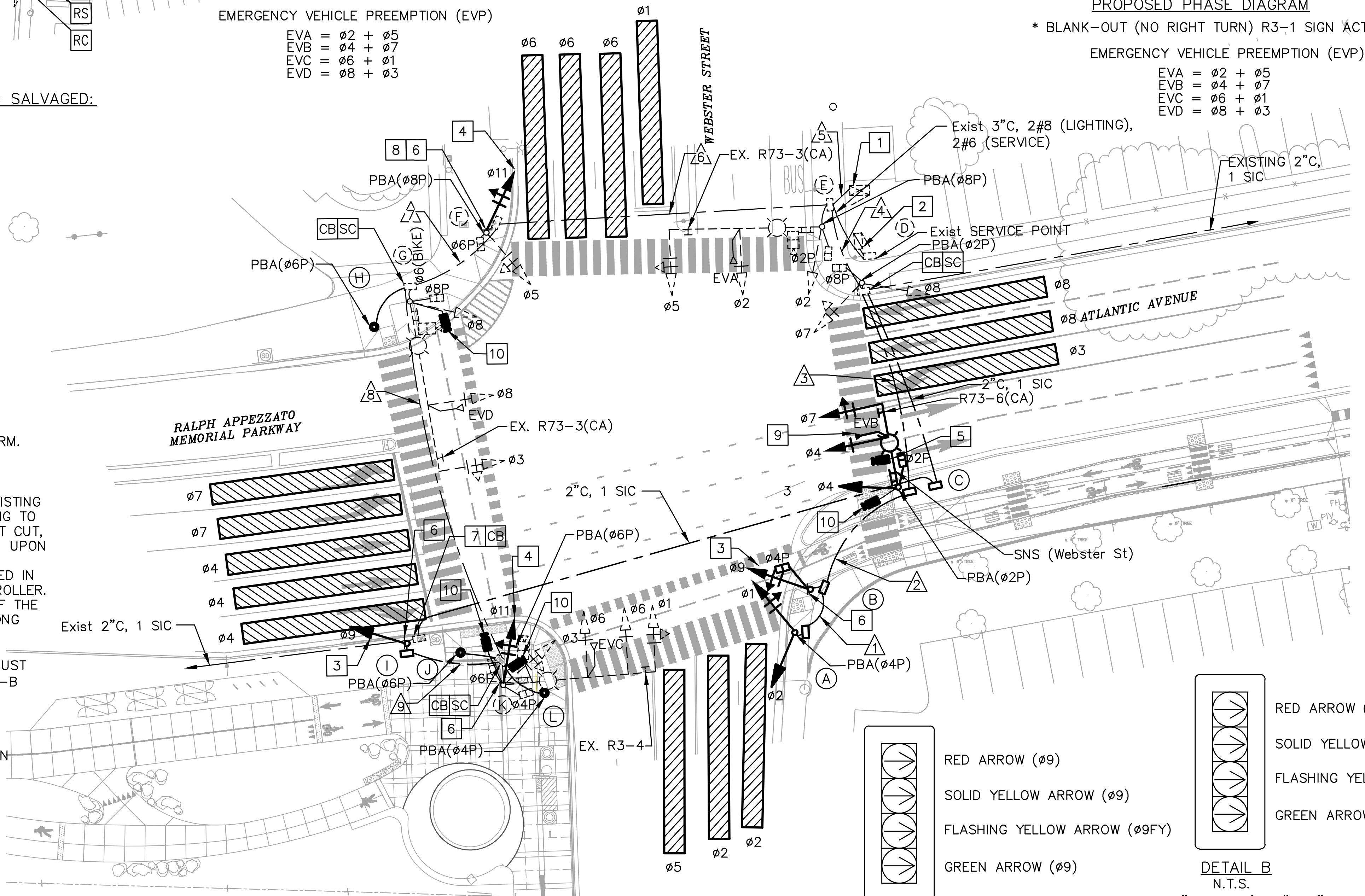


PROPOSED PHASE DIAGRAM

* BLANK-OUT (NO RIGHT TURN) R3-1 SIGN ACTIVE

EMERGENCY VEHICLE PREEMPTION (EVP)

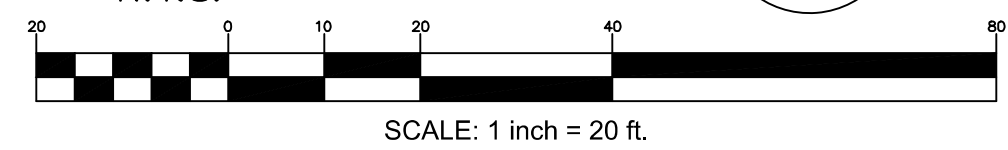
- EVA = $\phi 2 + \phi 5$
- EVB = $\phi 4 + \phi 7$
- EVC = $\phi 6 + \phi 1$
- EVD = $\phi 8 + \phi 3$



PROPOSED TRAFFIC SIGNAL PLAN

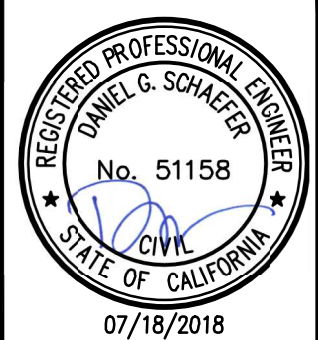
DETAIL A N.T.S.

DETAIL B N.T.S.



DRAWING NAME: K:\2014\1451905\JENG\SHEETS\06.07.dwg PLOT DATE: 07-18-18 PLOTTED BY: melk

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| | | | | | |
|--------|----------|-------|----------|----------|----------|
| Date | 07/18/18 | Scale | 1" = 20' | Job No. | 20145190 |
| Design | CG | Drawn | CC/SC | Approved | DS/ES |



**CROSS ALAMEDA TRAIL
MAIN STREET TO CONSTITUTION WAY
TRAFFIC SIGNAL PLAN**

CONSTITUTION STREET AND RALPH APPEZZATO MEMORIAL PARKWAY

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

Sheet Number:
C6.07

CONDUCTOR AND CONDUIT SCHEDULE

| AWG OR CABLE | CONDUIT RUN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
|---|-----------------------|----|----|----|-----|-----|----|----|----|----|---|
| 14 AWG | VEHICLE Ø1 | 3 | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 3 | |
| | Ø2 | 3 | 3 | 3 | 3 | 3 | | | | | |
| | Ø3 | | | | | 3 | 3 | 3 | 3 | | |
| | Ø4 | | | 3 | 3 | 3 | | | | | |
| | Ø5 | | | | | 3 | 3 | | | | |
| | Ø6 | | | | | 3 | 3 | 3 | 3 | | |
| | Ø7 | | | 3 | 3 | 3 | | | | | |
| | Ø8 | | | | 3 | 6 | 3 | 3 | | | |
| | Ø9 | | 4 | 4 | 4 | 8 | 4 | 4 | 4 | 4 | |
| | Ø11 | | | | | 4 | 4 | | | | |
| | R3-1 SIGN | | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 3 | |
| | PED Ø2P | | | | 2 | 2 | 2 | | | | |
| | Ø4P | | | 2 | 2 | 2 | 4 | 2 | 2 | 2 | |
| | Ø6P | | | | | 2 | 2 | 2 | 2 | | |
| Ø8P | | | | | 2 | 4 | 2 | 2 | | | |
| PBA Ø2 | | | | 1 | 1 | 1 | | | | | |
| Ø4 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | | |
| Ø6 | | | | | 1 | 1 | 1 | 1 | | | |
| Ø8 | | | | | 1 | 1 | | | | | |
| PBA NEUTRAL | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| SPARES | 3 | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 3 | 3 | |
| TOTAL NO.14 | 11 | 20 | 29 | 34 | 72 | 39 | 31 | 26 | 10 | | |
| 8 AWG | LIGHTING (120V) | | | 2 | 2 | 4 | 2 | 2 | 2 | | |
| | SIGNAL NEUTRAL (120V) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | EQUIPMENT GROUND | | | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | TOTAL NO. 8 | 1 | 1 | 4 | 4 | 6 | 4 | 4 | 4 | 1 | |
| VIDEO DETECTION CABLE | VIDEO CABLE | | | 2 | 2N | 5N | 3 | 3N | 2 | 2N | 1 |
| | POWER CALBE | | | 2 | 2N | 5N | 3 | 3N | 2 | 2N | 1 |
| | TOTAL CABLES | | | 4 | 4 | 16 | 10 | 10 | 6 | | |
| EVP | EVA | | | | | 1 | | | | | |
| | EVB | | | 1 | 1N | 1N | | | | | |
| | EVC | | | | | 1 | 1 | 1 | 1 | | |
| | EVD | | | | | 1 | 1 | 1 | | | |
| TOTAL EVP CABLES | | | 1 | 1 | 4 | 2 | 2 | 1 | | | |
| SIGNAL INTERCONNECT CABLE (SIC) | | | | | 1 | 1 | | | | | |
| BELDEN No. 8691 CABLE (FOR PED NAVIGATOR) | | | | | 2 | 2 | | | | | |
| CONDUIT QUANTITY AND SIZE (INCHES) | 3 | 3 | 3 | 3 | 1/2 | 2-3 | 3 | 3 | 3 | 3 | |

N: NEW CONDUCTOR OR CABLE IN EXISTING CONDUIT.

NEW CONDUCTOR/CABLE IN NEW CONDUIT

EXISTING CONDUCTOR/CABLE IN EXISTING CONDUIT

POLE AND EQUIPMENT SCHEDULE

| NO. | STANDARD | | | VEH SIG MTG | | PED SIGNAL | PPB | | LED LUMINAIRE | SPECIAL REQUIREMENTS |
|-----|----------|----------|----------|-------------|---------|------------|-----|---|---------------|---|
| | TYPE | SIG M.A. | LUM M.A. | MAST ARM | POLE | | MTG | Ø | | |
| (A) | 1-B | | | | TV-2-T | | 4 | → | | |
| (B) | 1-B | | | | TV-1-T | SP-1-T | | | | INSTALL 24"x24" BLANK-OUT R3-1 SIGN ON THE POLE. |
| (C) | 19-4-100 | 25' | 12' | | SV-1-T | SP-1-T | 2 | ← | 165 W | INSTALL R73-6(CA) AND SNS (Webster St) ON MAST ARM. SEE DETAIL A ON THIS SHEET. RELOCATE EXISTING VIDEO DETECTION CAMERA ON NEW LUMINAIRE ARM. INSTALL BIKE VIDEO DETECTION CAMERA ON SIGNAL POLE. |
| (D) | 1-B | | | | TV-2-T | SP-1-T | 2 | → | | |
| (E) | 26-4-100 | 45' | 12' | MAS MAS | SV-1-T | SP-1-T | 8 | ← | 165 W | EXISTING R73-3(CA) AND SNS ON MAST ARM TO REMAIN. EXISTING VIDEO DETECTION CAMERA ON LUMINAIRE ARM TO REMAIN. EXISTING SNS "Apezzato Memorial Parkway/Atlantic Ave" TO REMAIN. |
| (F) | 1-B | | | | TV-2-T* | SP-1-T | 8 | → | | *INSTALL Ø11 4-SECTION SIGNAL HEAD WITH NEW TV-2-T MOUNTING. INSTALL 24"x24" BLANK-OUT R3-1 SIGN ON THE POLE. REMOVE EXISTING SIGN (TURNING VEHICLE MUST YIELD TO PEDESTRIAN) ON EXISTING TYPE 1-B POLE. |
| (G) | 29-5-100 | 50' | 12' | MAS MAS | SV-1-T | SP-1-T | | | 165 W | EXISTING R73-3(CA) AND SNS ON MAST ARM TO REMAIN. EXISTING VIDEO DETECTION CAMERA ON LUMINAIRE ARM TO REMAIN. EXISTING SNS "Webster St" TO REMAIN. INSTALL BIKE VIDEO DETECTION CAMERA ON SIGNAL POLE. |
| (H) | PBA POST | | | | | | 6 | ← | | |
| (I) | 1-B | | | | TV-1-T | | | | | INSTALL 24"x24" BLANK-OUT R3-1 SIGN ON THE POLE. |
| (J) | PBA POST | | | | | | 6 | → | | |
| (K) | 26-3-70 | 45' | 12' | MAS MAS MAS | SV-2-T* | SP-2-T | | | 165 W | EXISTING R3-4 AND SNS ON MAST ARM TO REMAIN. EXISTING VIDEO DETECTION CAMERA ON LUMINAIRE ARM TO REMAIN. *INSTALL Ø11 4-SECTION SIGNAL HEAD WITH NEW SV-2-T MOUNTING. INSTALL 24"x24" BLANK-OUT R3-1 SIGN ON THE POLE. EXISTING SNS "Apezzato Memorial Parkway/Atlantic Ave" TO REMAIN. EXISTING R14-1 SIGN AND SNS ON POLE TO REMAIN. INSTALL BIKE VIDEO DETECTION CAMERAS ON SIGNAL POLE. |
| (L) | PBA POST | | | | | | 4 | ← | | |

- (A) INSTALL NEW SIGNAL POLE AND EQUIPMENT
- (B) EXISTING SIGNAL POLE AND EQUIPMENT TO REMAIN
- * INSTALL NEW EQUIPMENT ON EXISTING POLE

S.N.S. 72" x 22"



8" UC
6" LC
(SERIES D)

DETAIL A
N.T.S.

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PLOT DATE: 07-18-18
PLOTTED BY: meik

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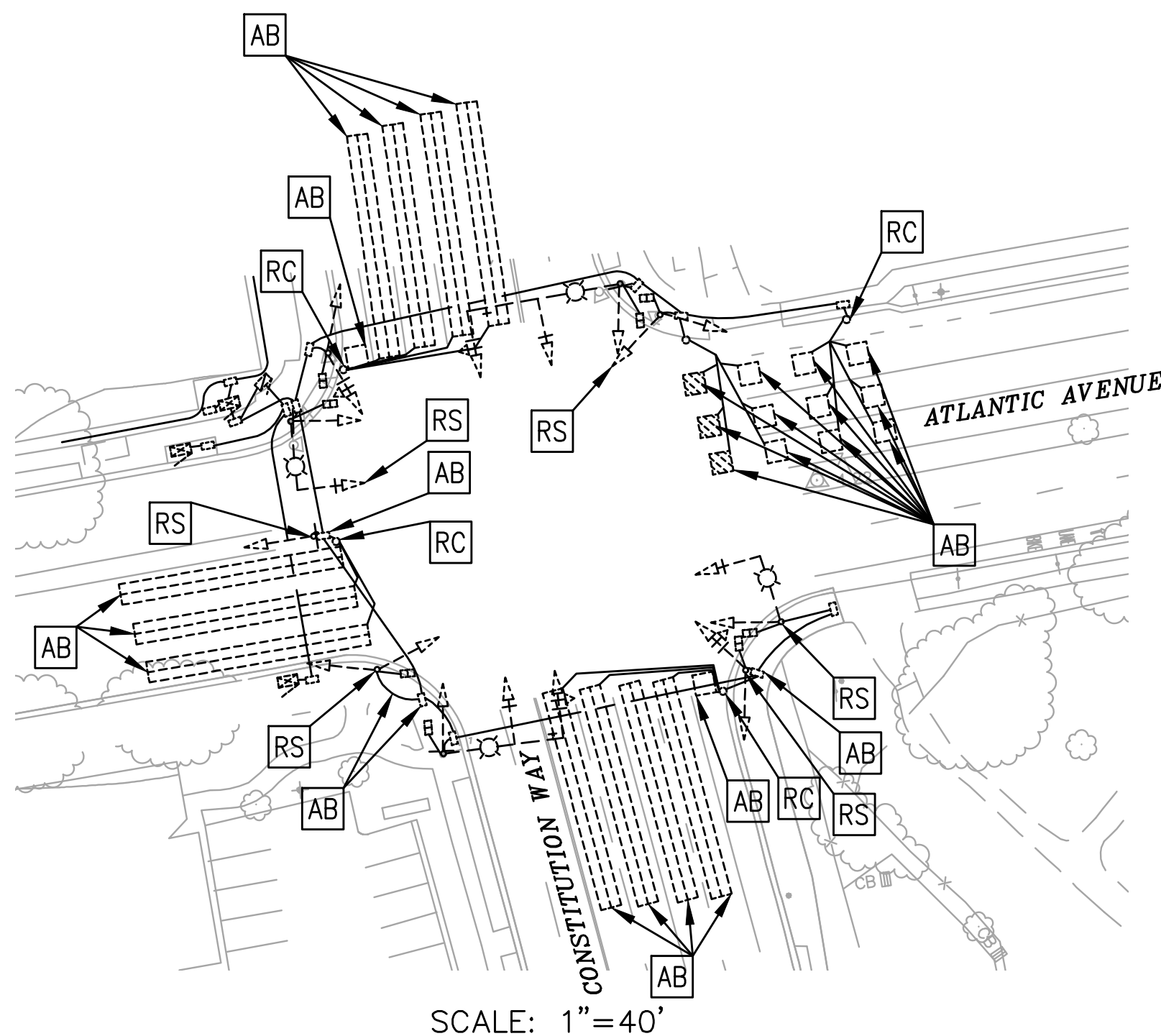
Date 07/18/18 Scale NO SCALE Job No. 20145190
Design CG Drawn CC/SC Approved DS/ES



**CROSS ALAMEDA TRAIL
MAIN STREET TO CONSTITUTION WAY
CONDUCTOR AND POLE SCHEDULE
WEBSTER STREET AND RALPH APEZZATO MEMORIAL PARKWAY**

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

Sheet Number:
C6.08



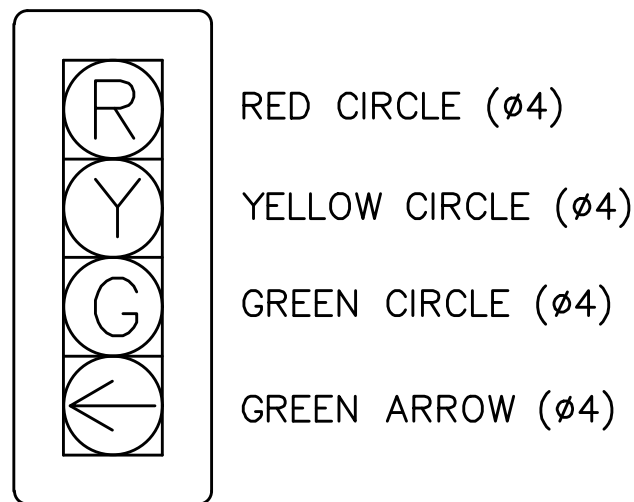
SCALE: 1" = 40'

EXISTING EQUIPMENT TO BE REMOVED AND SALVAGED:

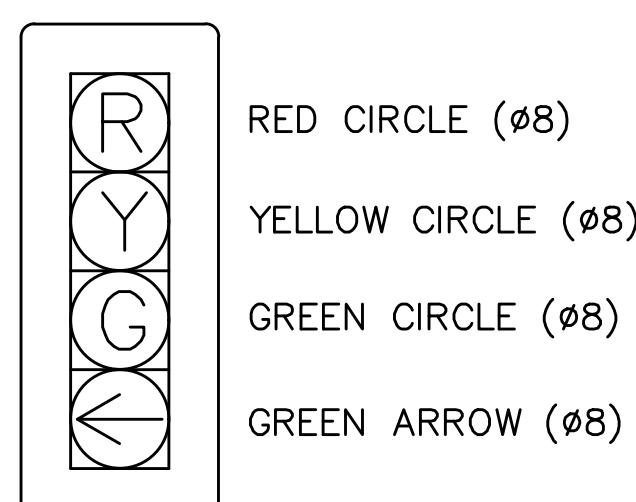
1. 3 TYPE 1-B
2. 1 TYPE 17-2-70
3. 3 PEDESTRIAN SIGNAL HEADS
4. 5 PEDESTRIAN PUSH BUTTONS
5. 8 VEHICLE SIGNAL HEADS

PROJECT NOTES:

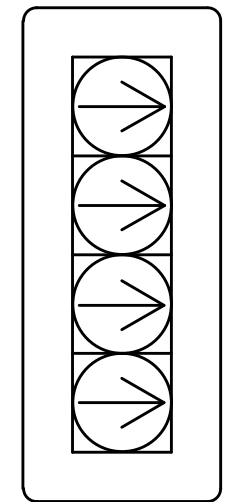
- 1 EXISTING CONTROLLER CABINET TO REMAIN.
- 2 EXISTING SERVICE CABINET TO REMAIN.
- 3 INSTALL VIDEO DETECTION CAMERA ON LUMINAIRE ARM.
- 4 INSTALL 4-SECTION SIGNAL HEAD. SEE DETAIL A ON THIS SHEET.
- 5 INSTALL 4-SECTION SIGNAL HEAD. SEE DETAIL B ON THIS SHEET.
- 6 INSTALL 4-SECTION SIGNAL HEAD. SEE DETAIL C ON THIS SHEET.
- 7 INSTALL 24"x24" BLANK-OUT R3-1 SIGN.
- 8 EXISTING IRRIGATION CONTROLLER TO REMAIN.
- 9 REMOVE EXISTING $\phi 4$ SIGNAL HEAD AND MOUNTING BRACKET. INSTALL $\phi 4$ 3-SECTION ALL ARROW SIGNAL HEAD AND TV-2-T MOUNTING BRACKET.



DETAIL B
N.T.S.

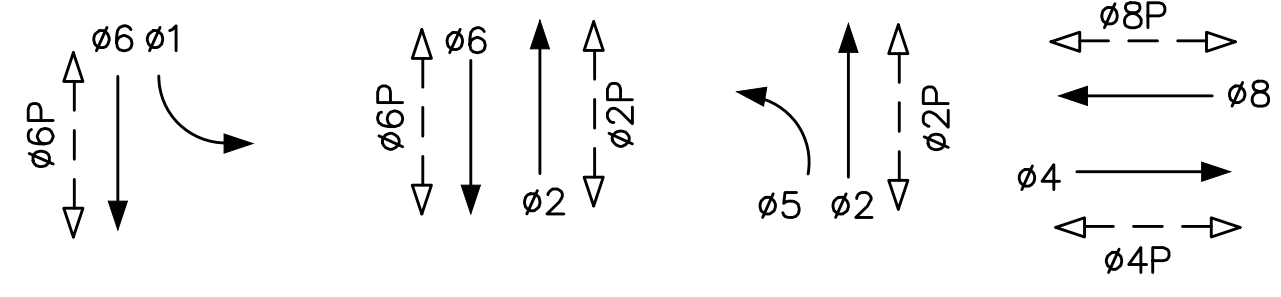


DETAIL C
N.T.S.



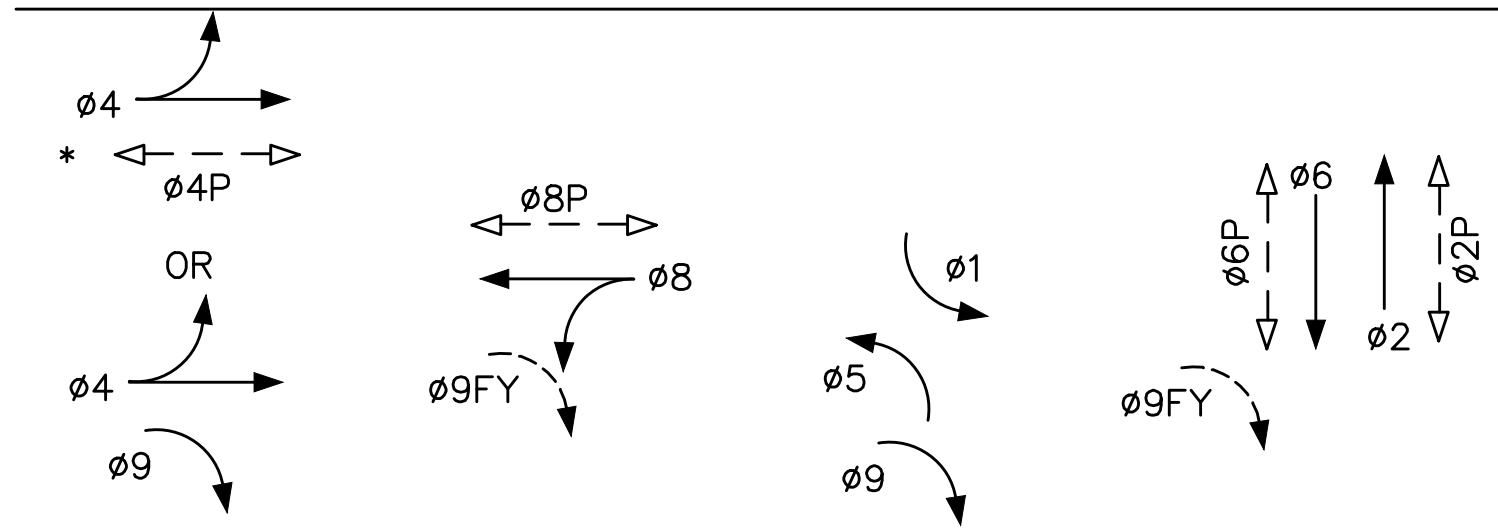
DETAIL A
N.T.S.

STEADY DEMAND SEQUENCE



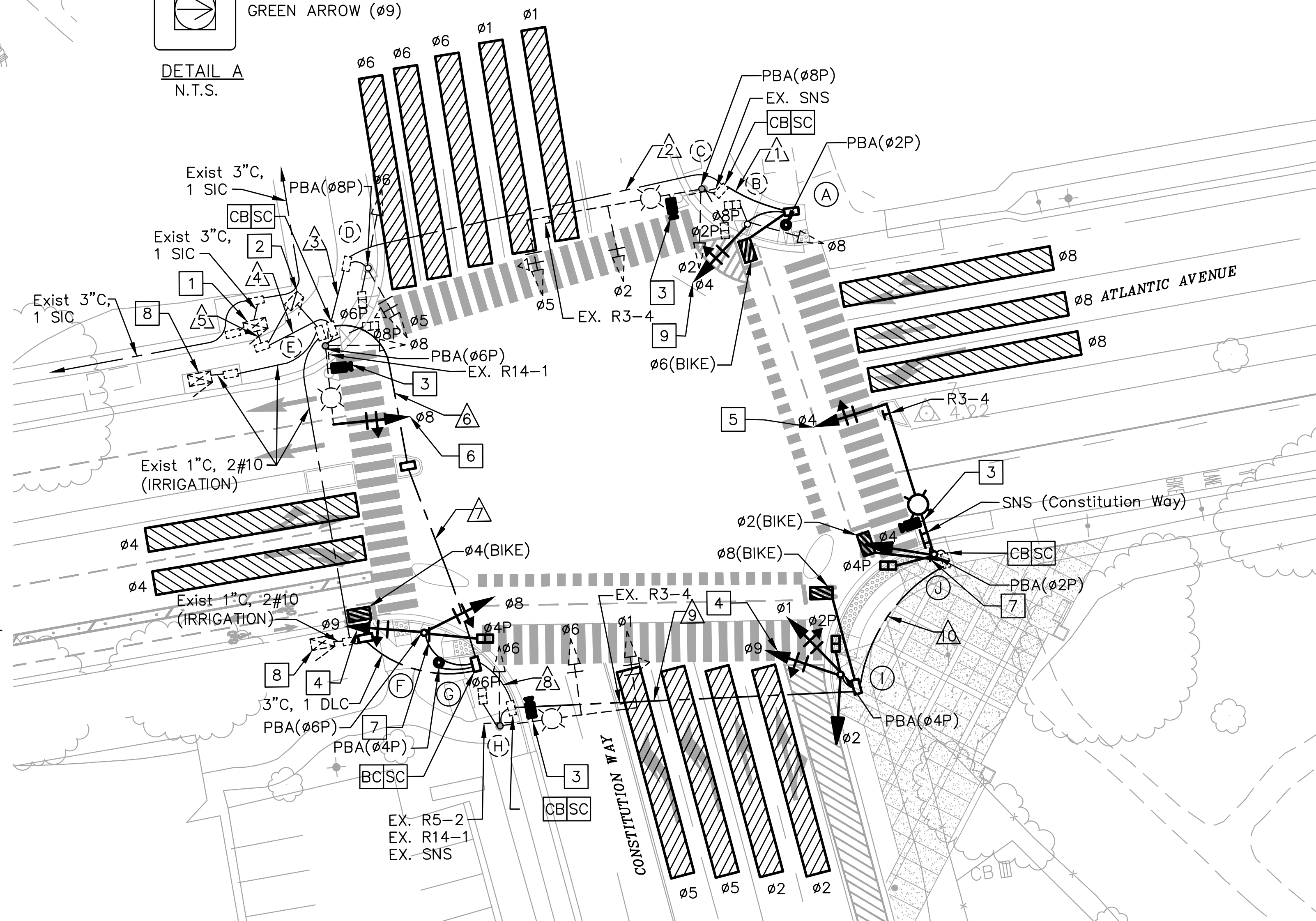
EXISTING PHASE DIAGRAM

STEADY DEMAND SEQUENCE



PROPOSED PHASE DIAGRAM

* BLANK-OUT (NO RIGHT TURN) R3-1 SIGN ACTIVE



PROPOSED TRAFFIC SIGNAL PLAN

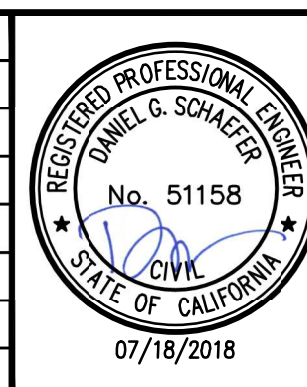
SCALE 1" = 20'



SCALE: 1 inch = 20 ft.

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PLOT DATE: 07-18-18
PLOT BY: melk

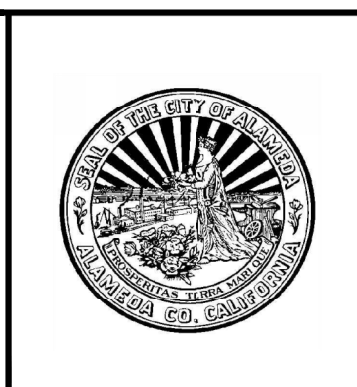
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**CROSS ALAMEDA TRAIL
MAIN STREET TO CONSTITUTION WAY
TRAFFIC SIGNAL PLAN**

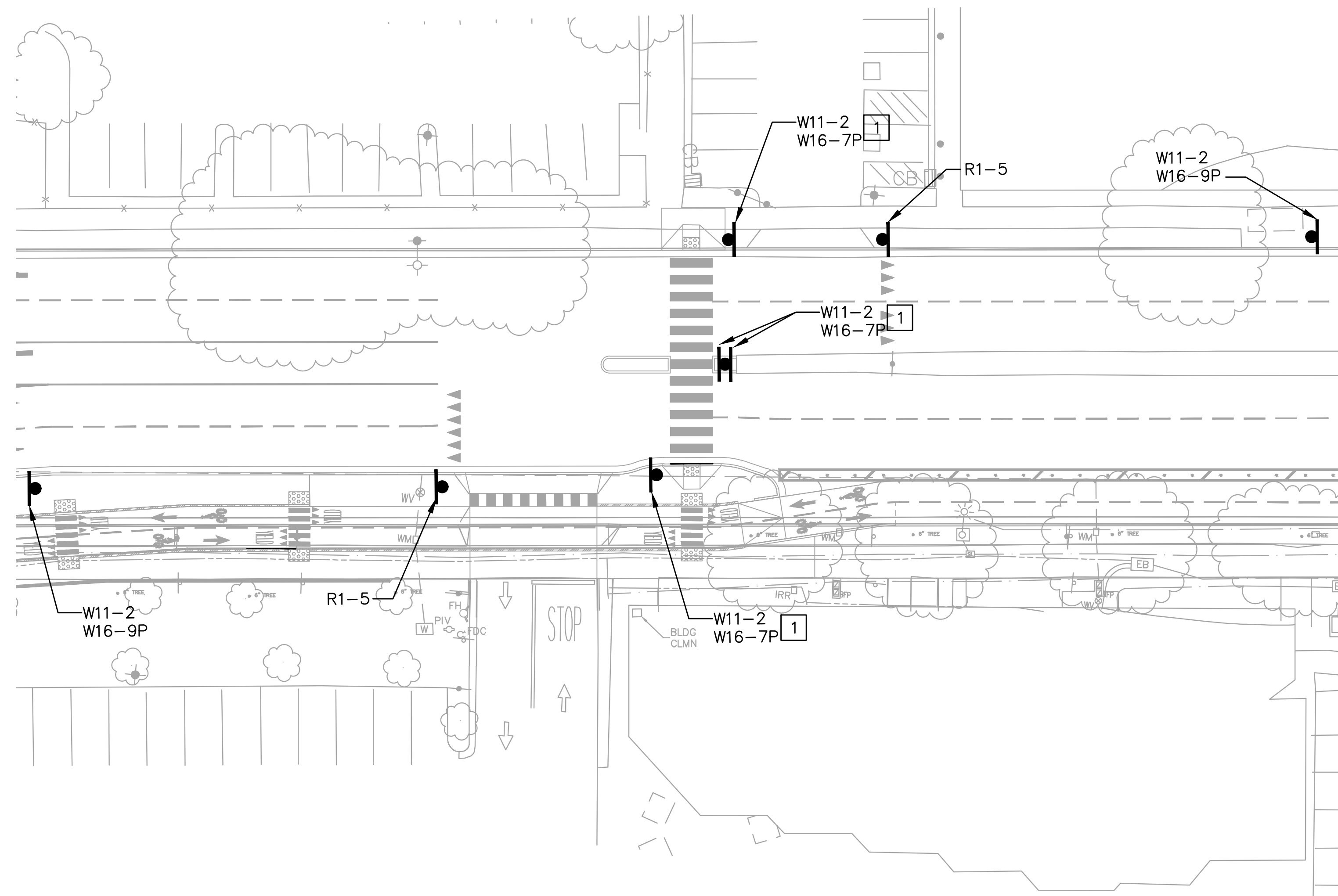
CONSTITUTION STREET AND RALPH APPEZZATO MEMORIAL PARKWAY

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

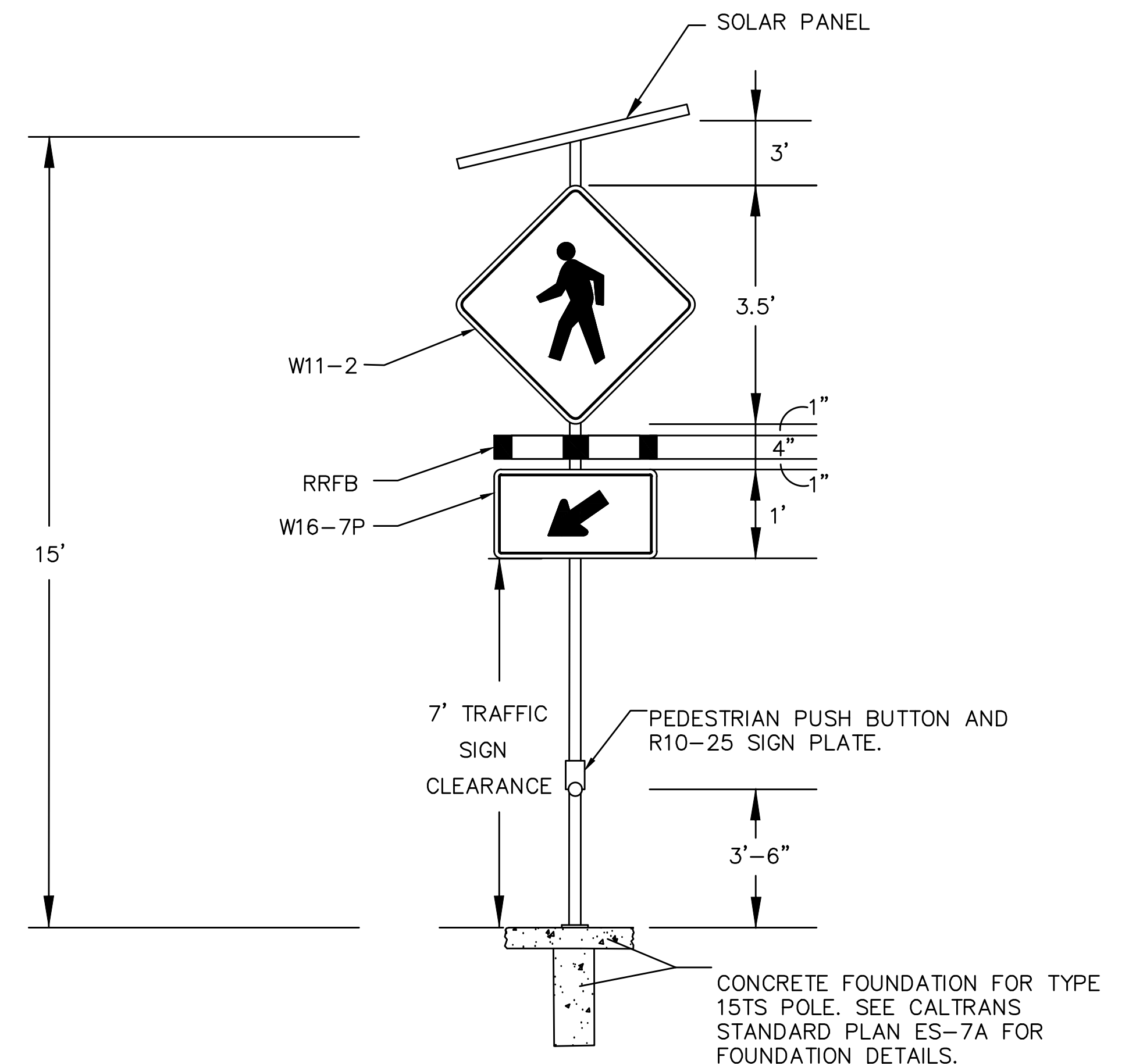
Sheet Number:
C6.09

PROJECT NOTES:

- 1 FURNISH AND INSTALL SOLAR POWERED CARMANAH R920 RRFB SYSTEM WITH DUAL LIGHT BARS, W11-2 SIGN, W16-7P SIGN AND APS BULLDOG PUSH BUTTON ASSEMBLY WITH R10-25 SIGN PLATE ON A 15' TYPE 15TS POLE. SEE DETAIL A ON THIS SHEET. FOR POLES PLACED WITHIN THE SIDEWALK AREA, CONTRACTOR SHALL ENSURE A MINIMUM 4' IS AVAILABLE BETWEEN THE POLE AND BACK OF WALK FOR ADA CLEARANCE.



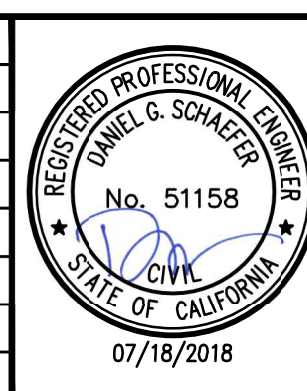
PROPOSED TRAFFIC SIGNAL PLAN
SCALE 1" = 20'



DETAIL A
NO SCALE

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PLOT DATE: 07-18-18 PLOTTED BY: melk

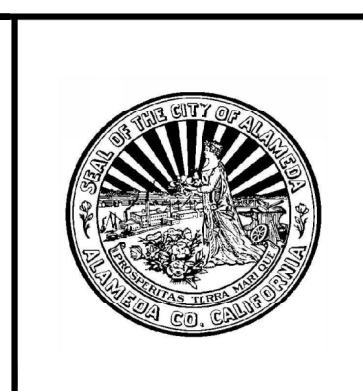
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1646 N. CALIFORNIA BLVD
SUITE 400
WALNUT CREEK, CA 94596
PHONE 925-940-2200
FAX 925-940-2299

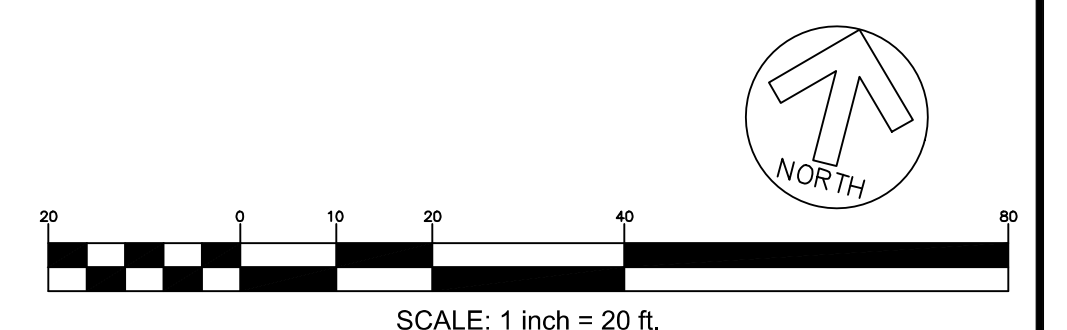
Date 07/18/18 Scale 1" = 20' Job No. 20145190
Design Q6 Drawn QW/SC Approved DB/ES

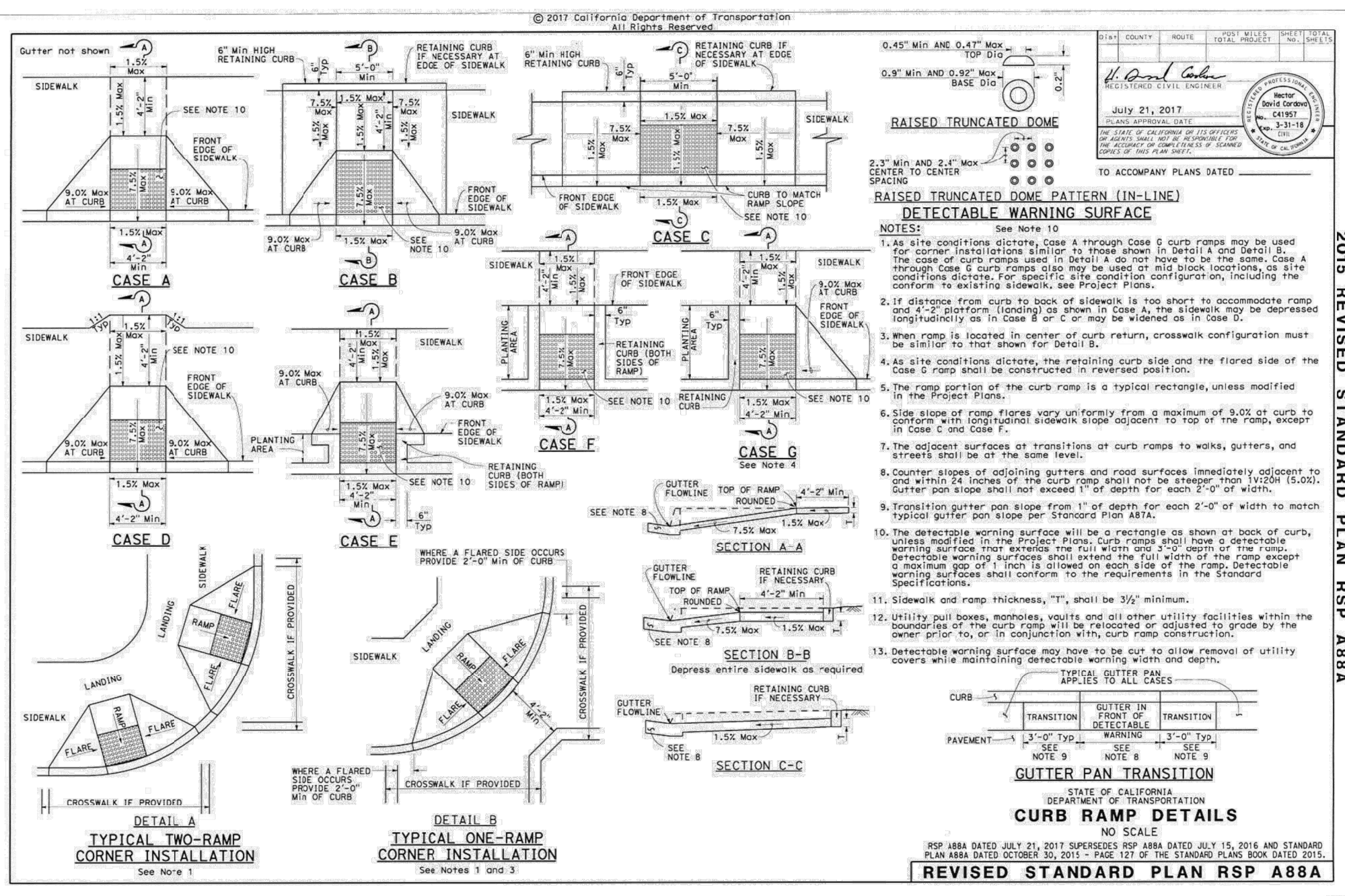


**CROSS ALAMEDA TRAIL
MAIN STREET TO CONSTITUTION WAY
PEDESTRIAN CROSSING RRFB SYSTEM
ATLANTIC AVENUE**

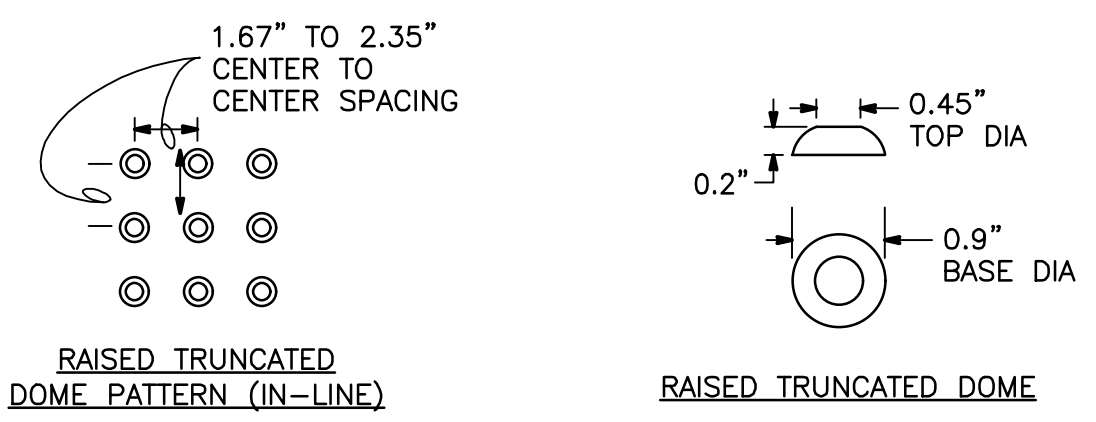
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

Sheet Number:
C6.11

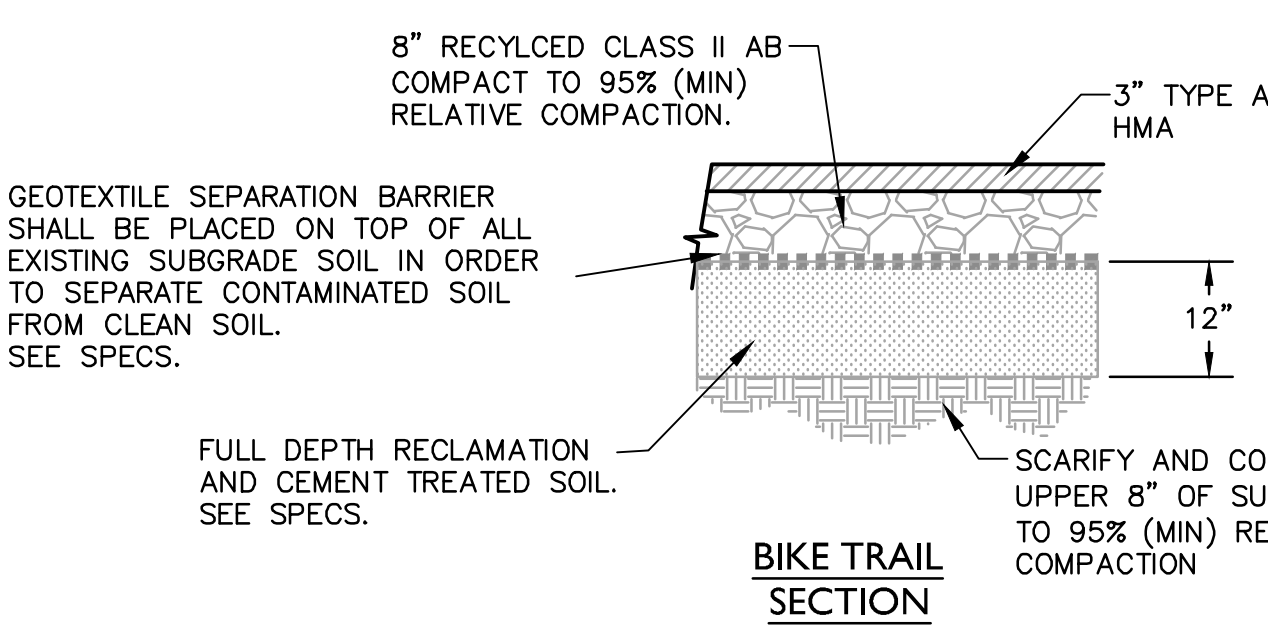
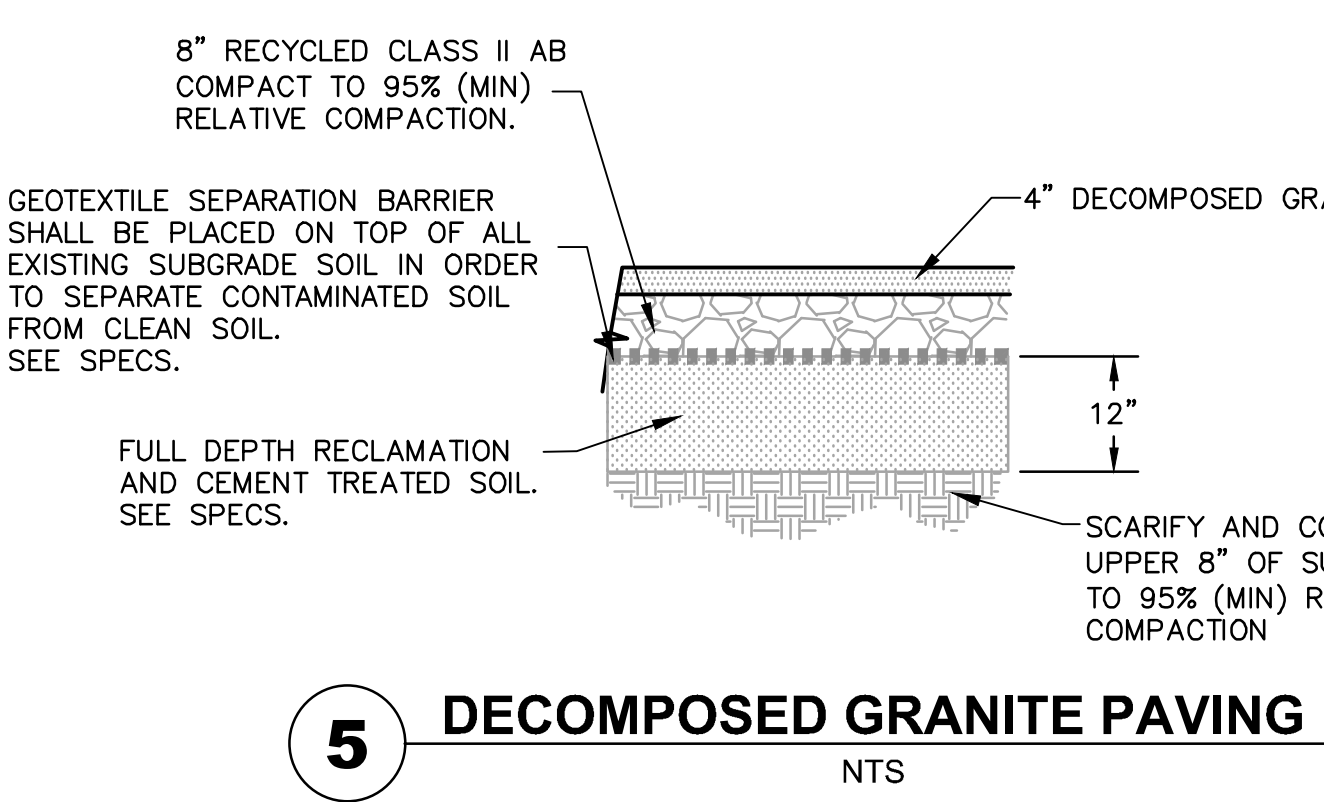




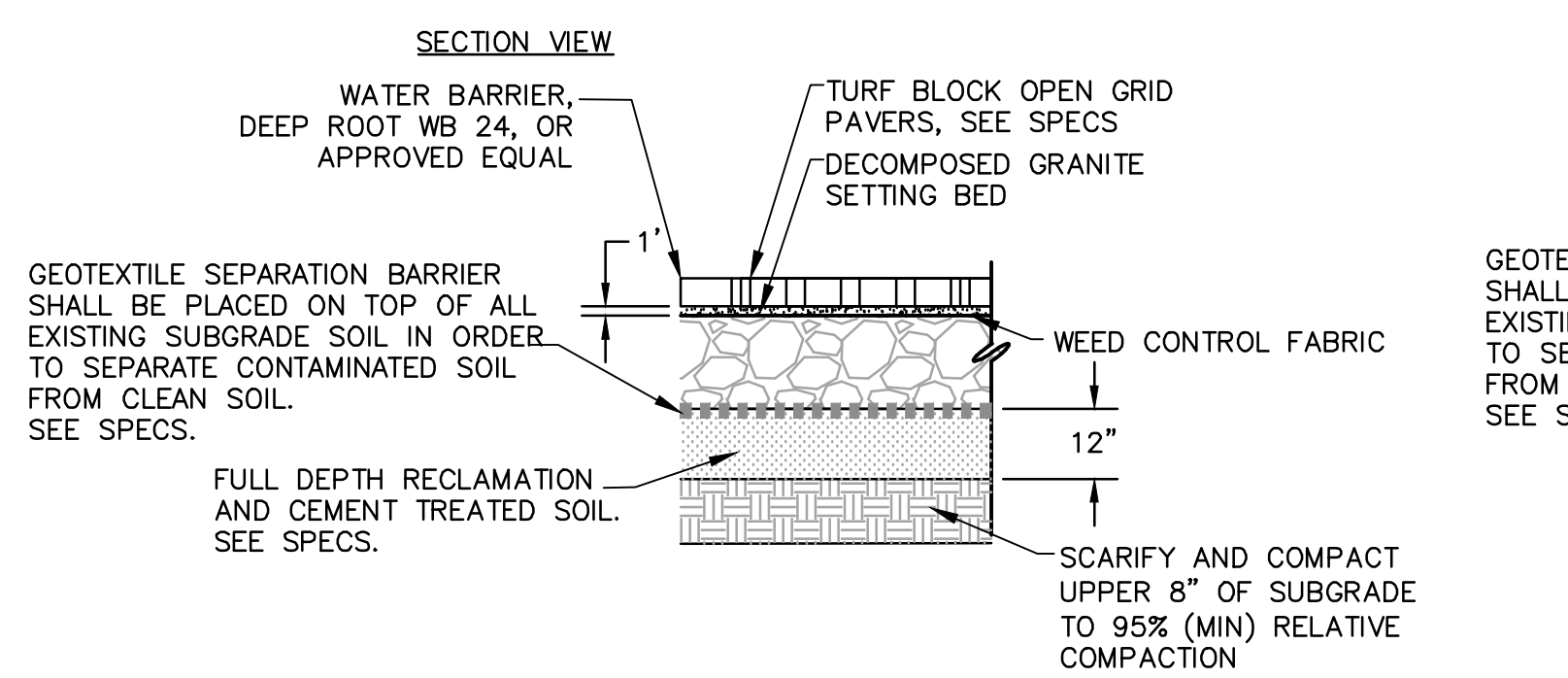
1 CURB RAMP
NTS



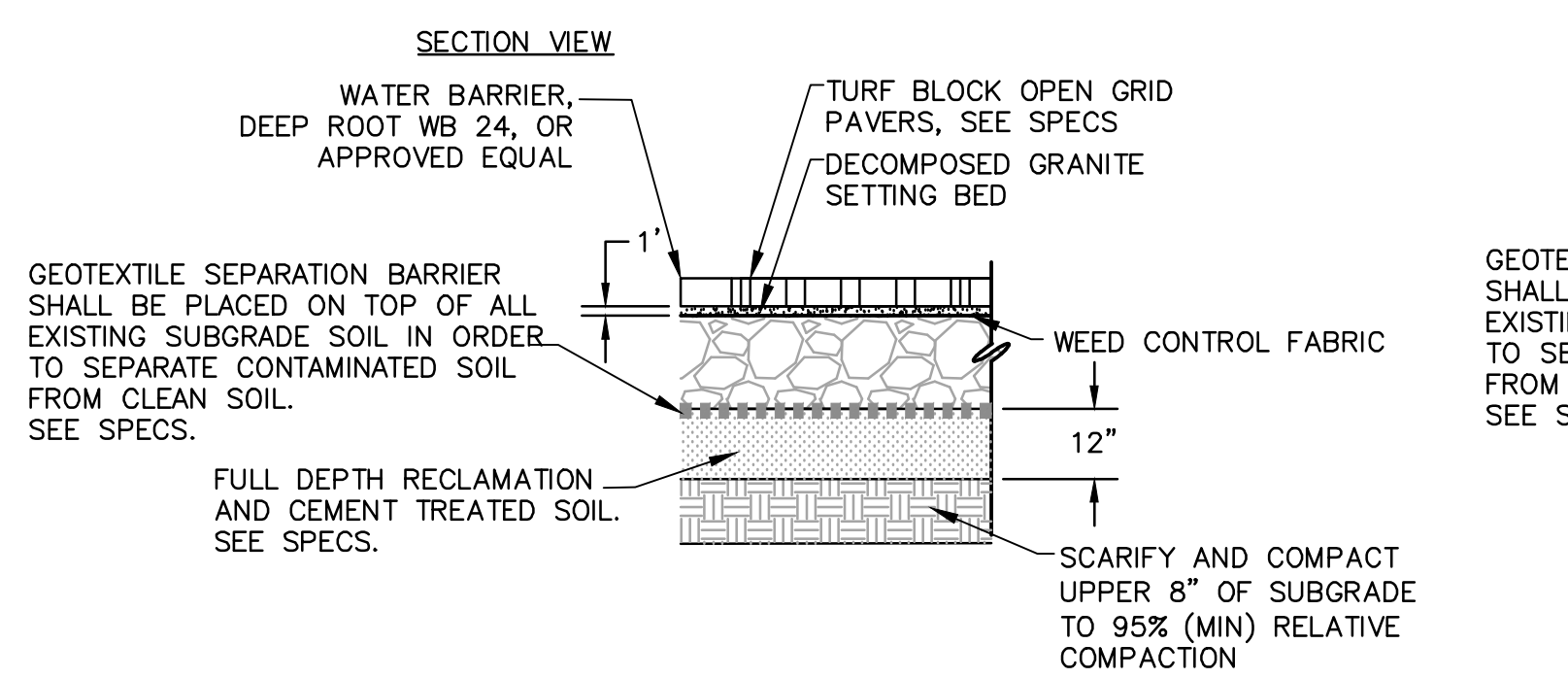
2 DETECTABLE WARNING SURFACE
(SEE NOTES 7-10, DETAIL 1 THIS SHEET)
NTS



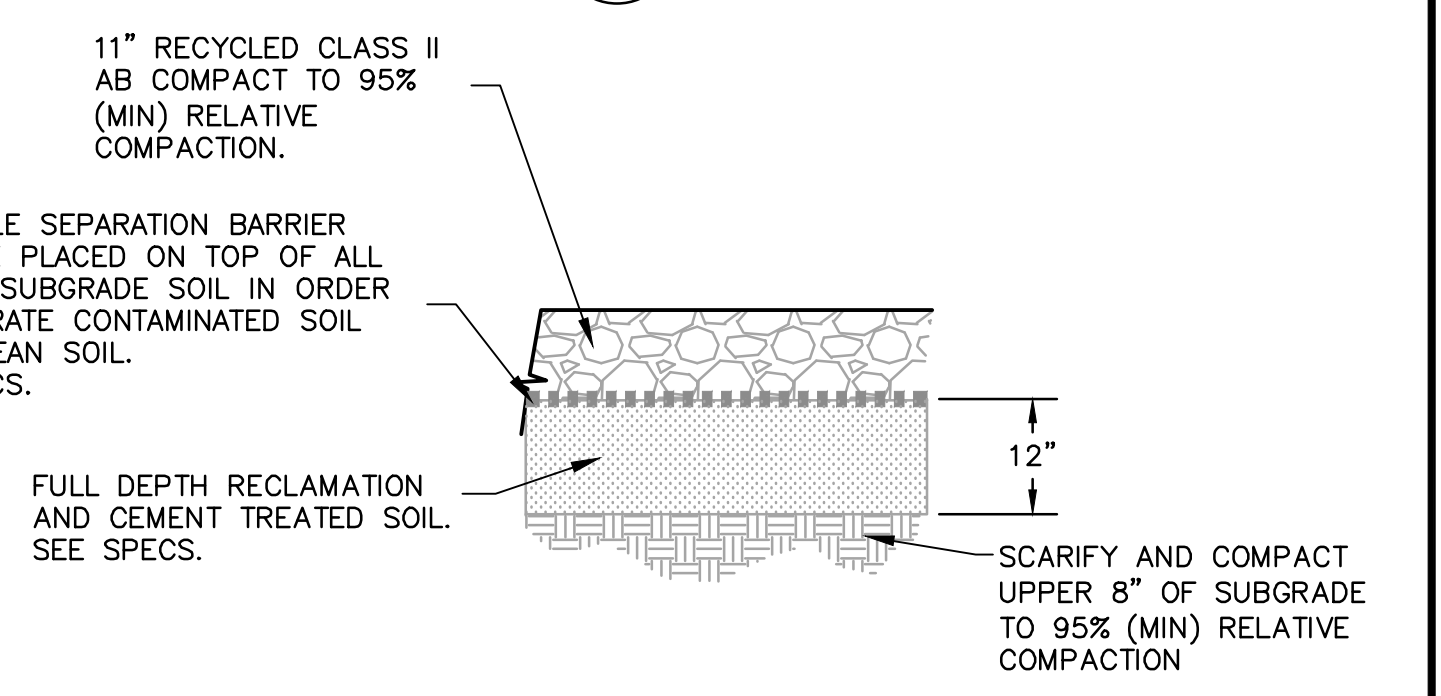
3 ASPHALT PAVING
NTS



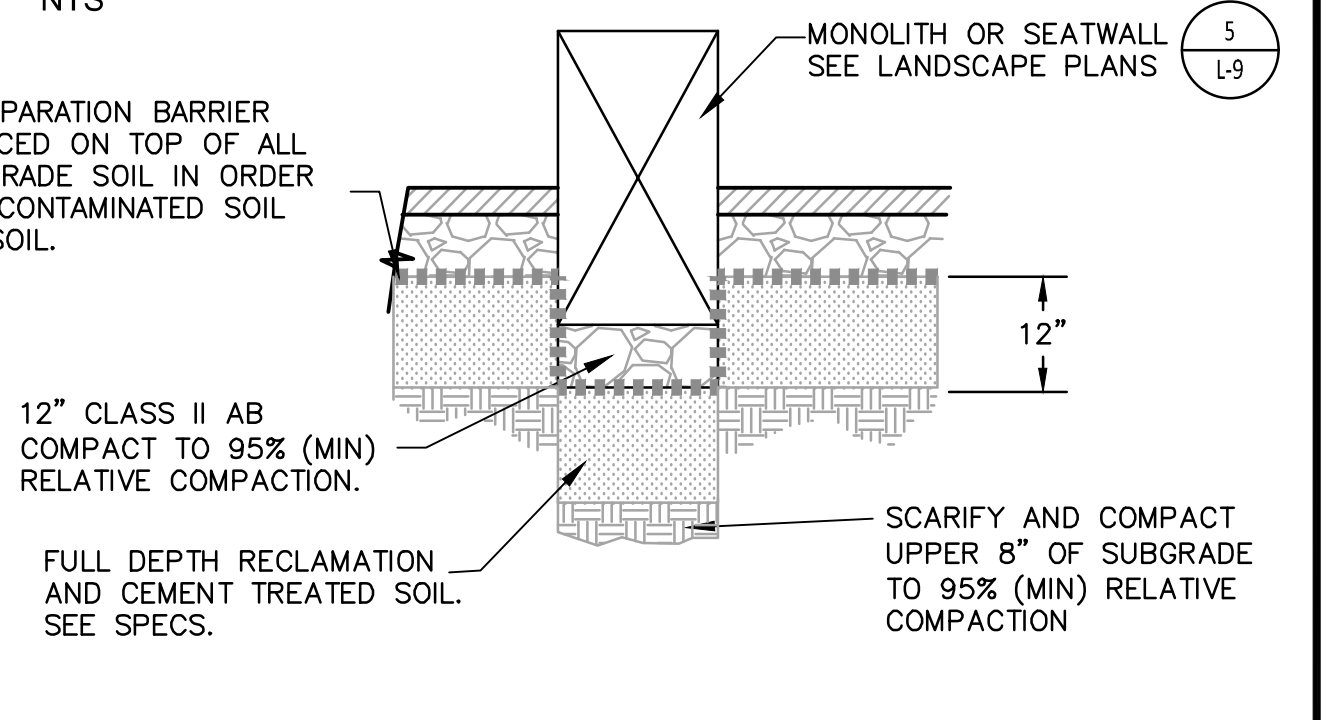
6 PAVERS AT EMERGENCY ACCESS
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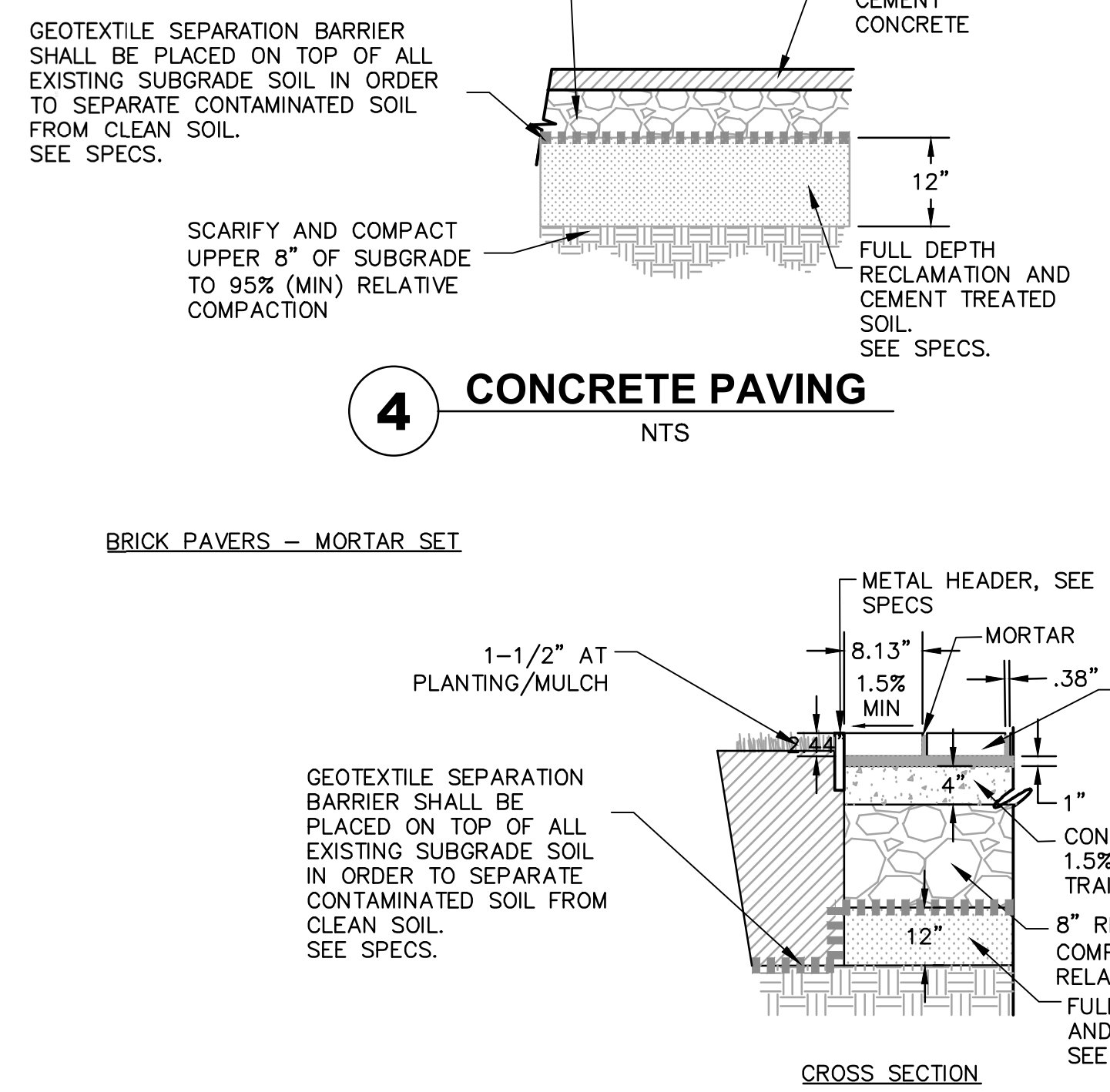
10 ASPHALT BASE SURFACING
NTS



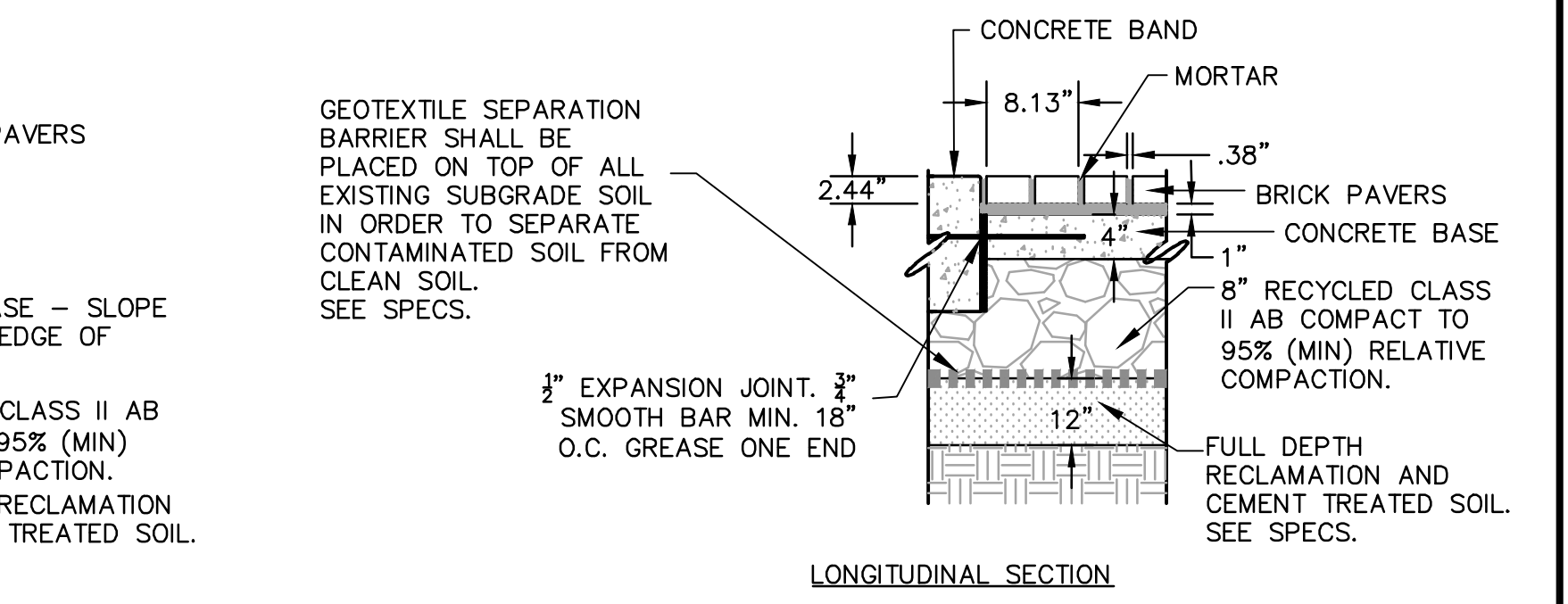
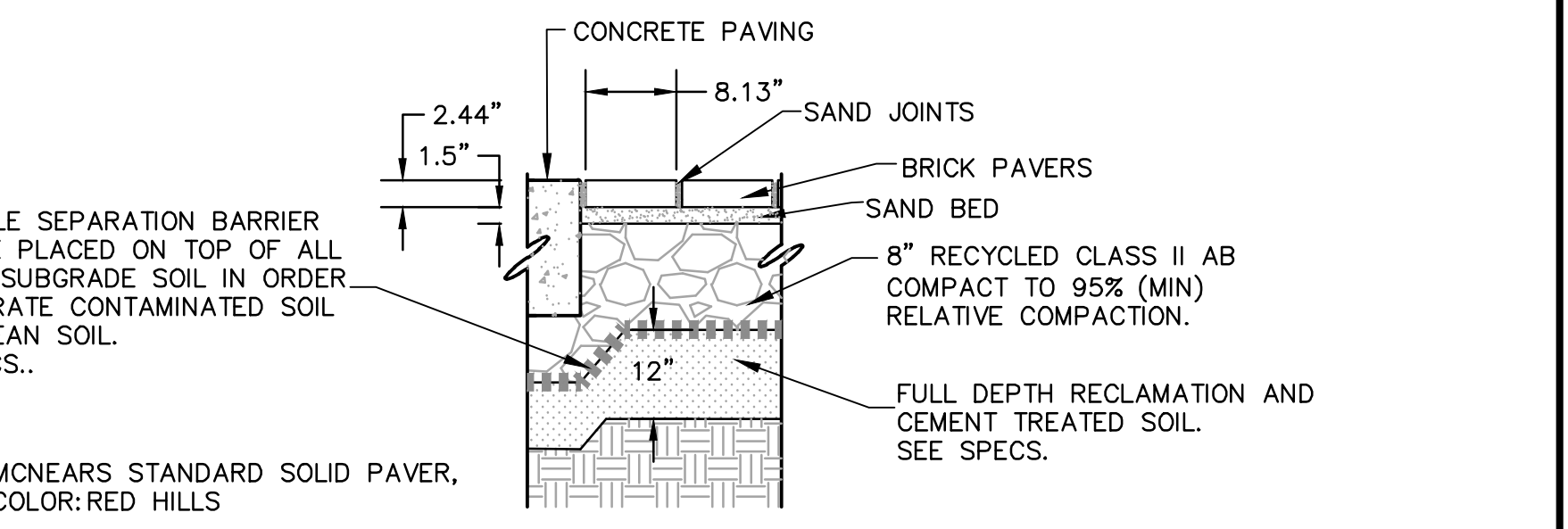
8 SUBGRADE AT MONOLITH / SEATWALL
REF DETAILS 5 AND 6 / SHEET L-9
NTS



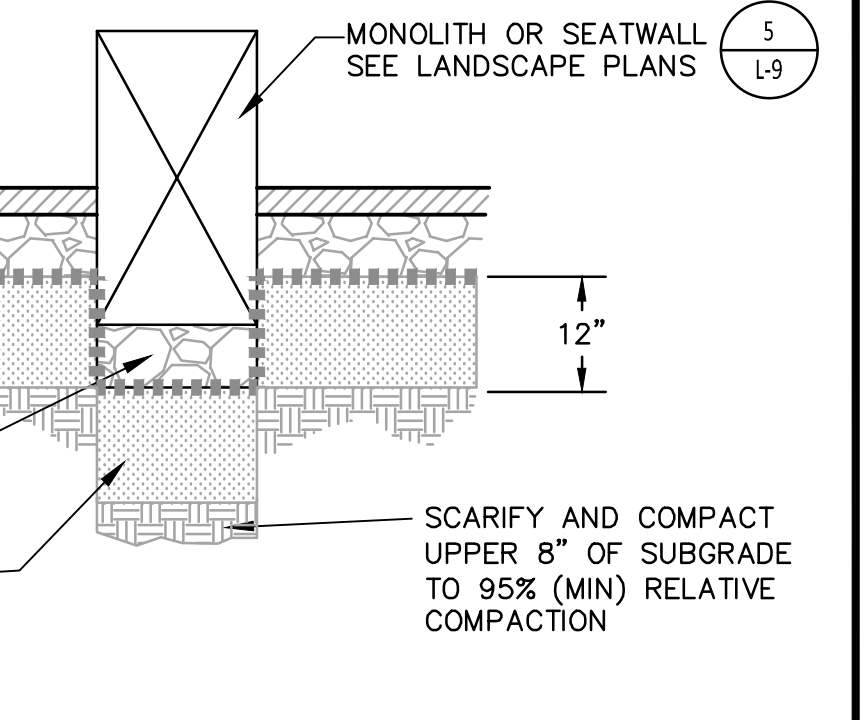
4 CONCRETE PAVING
NTS



BRICK PAVERS - SAND SET



LONGITUDINAL SECTION



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PLOTTED BY: chr
07-18-18

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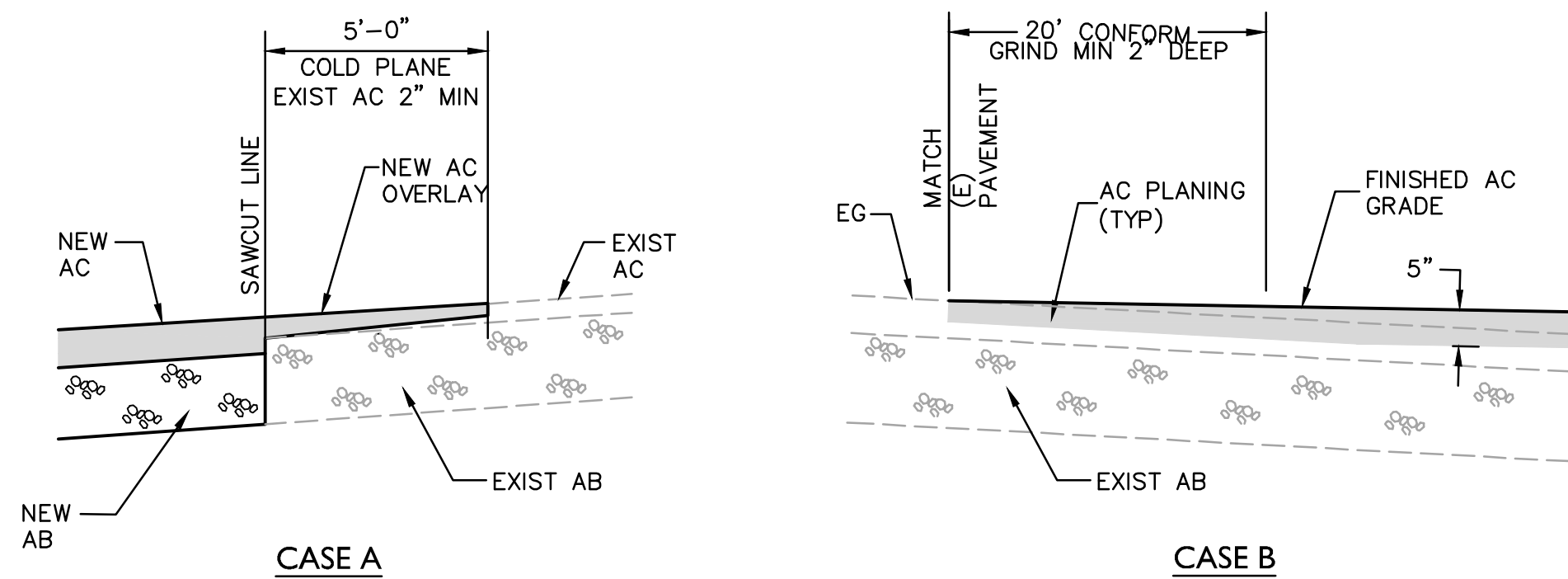
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| Date | 07/18/18 | Scale | NO SCALE | Job No. | 20145190 |
| Design | CKM | Drawn | CKC | Approved | DBES |



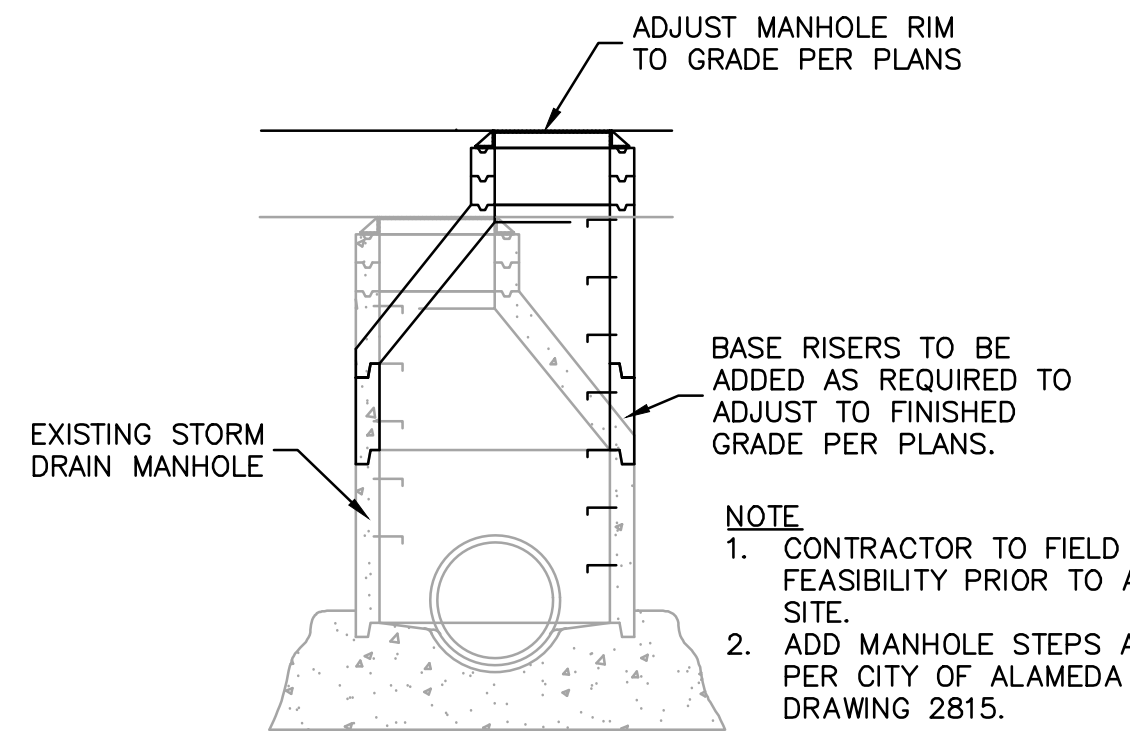
**CROSS ALAMEDA TRAIL
MAIN STREET TO CONSTITUTION WAY
CIVIL DETAILS**

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

Sheet Number:
C7.01



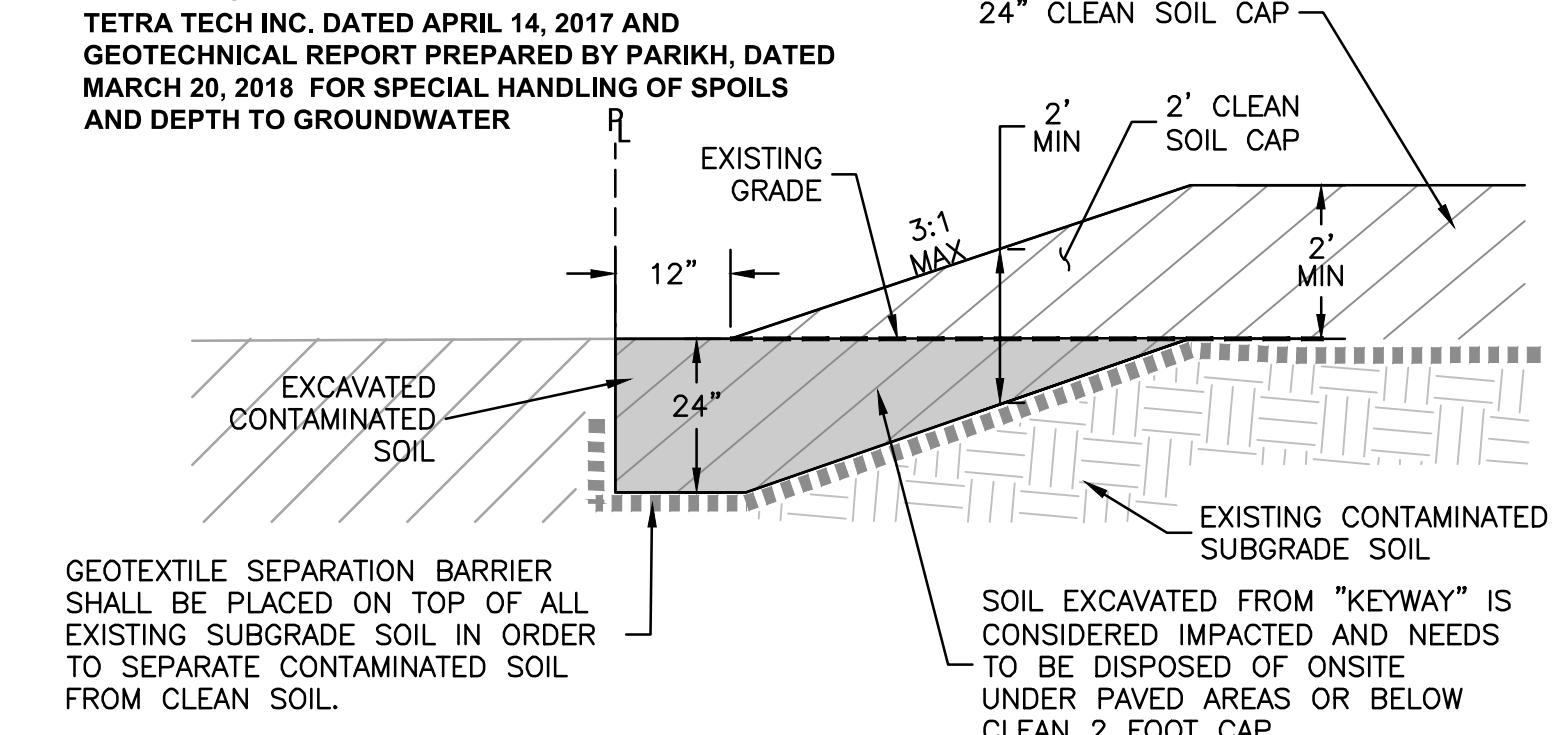
1 PAVEMENT CONFORM
NTS



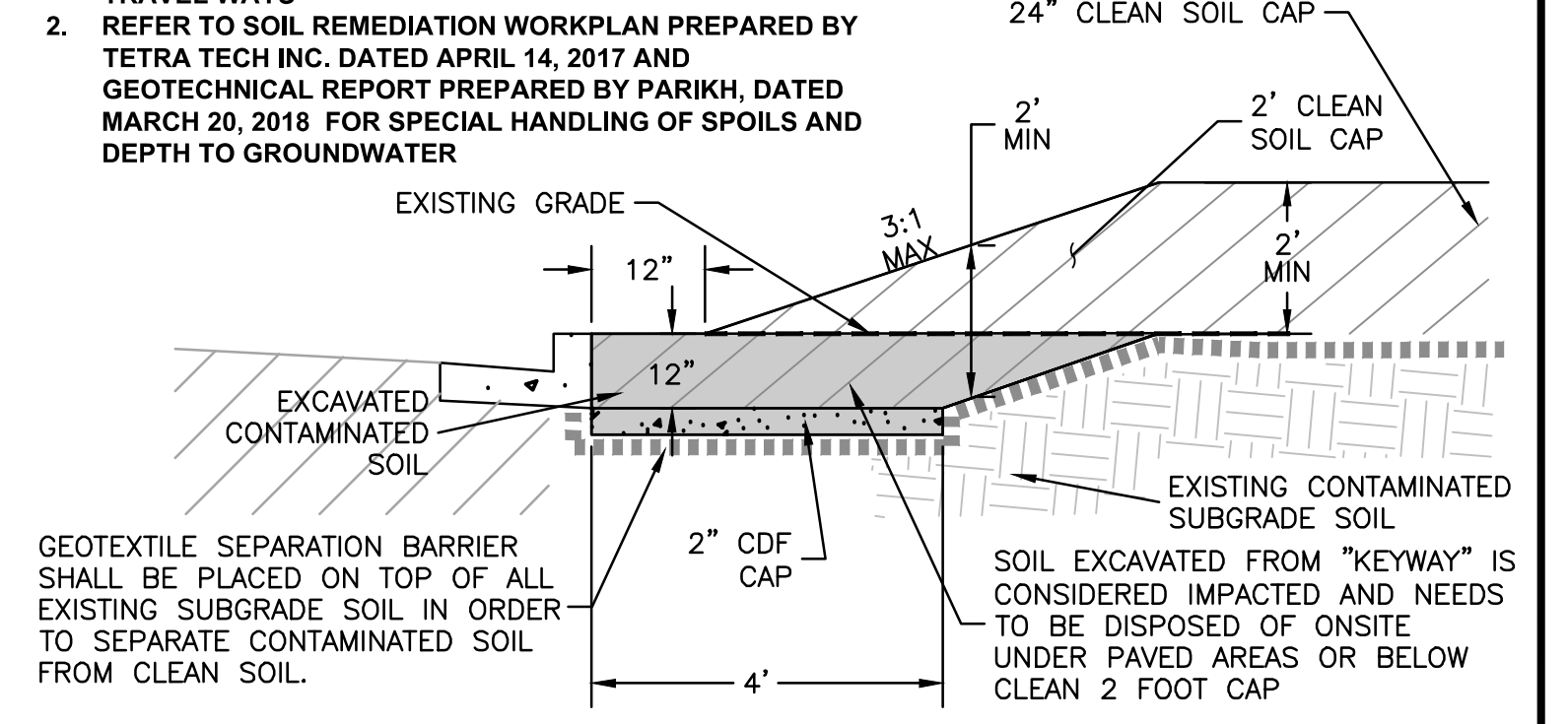
4 EXISTING MANHOLE CONE ADJUSTMENT
NTS

NOTE
1. CASE A SHALL BE USED AT LOCATIONS NOT ADJACENT TO TRAVEL WAYS
2. REFER TO SOIL REMEDIATION WORKPLAN PREPARED BY TETRA TECH INC. DATED APRIL 14, 2017 AND GEOTECHNICAL REPORT PREPARED BY PARIKH, DATED MARCH 20, 2018 FOR SPECIAL HANDLING OF SPOILS AND DEPTH TO GROUNDWATER

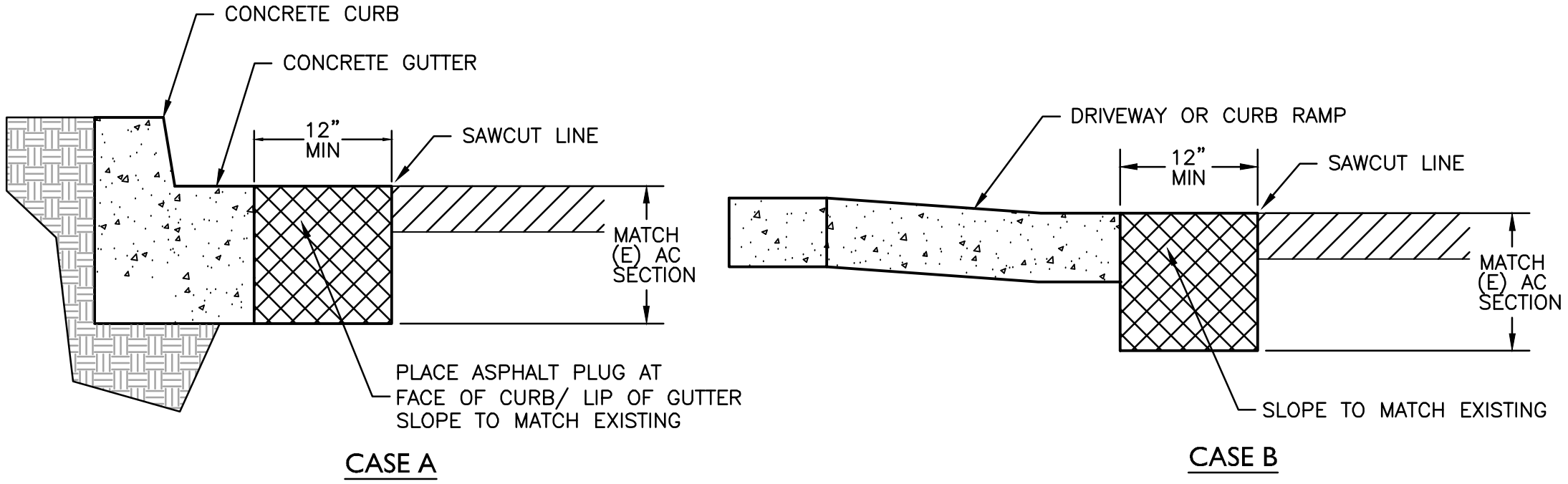
NOTE
1. CASE B SHALL BE USED AT LOCATIONS ADJACENT TO TRAVEL WAYS
2. REFER TO SOIL REMEDIATION WORKPLAN PREPARED BY TETRA TECH INC. DATED APRIL 14, 2017 AND GEOTECHNICAL REPORT PREPARED BY PARIKH, DATED MARCH 20, 2018 FOR SPECIAL HANDLING OF SPOILS AND DEPTH TO GROUNDWATER



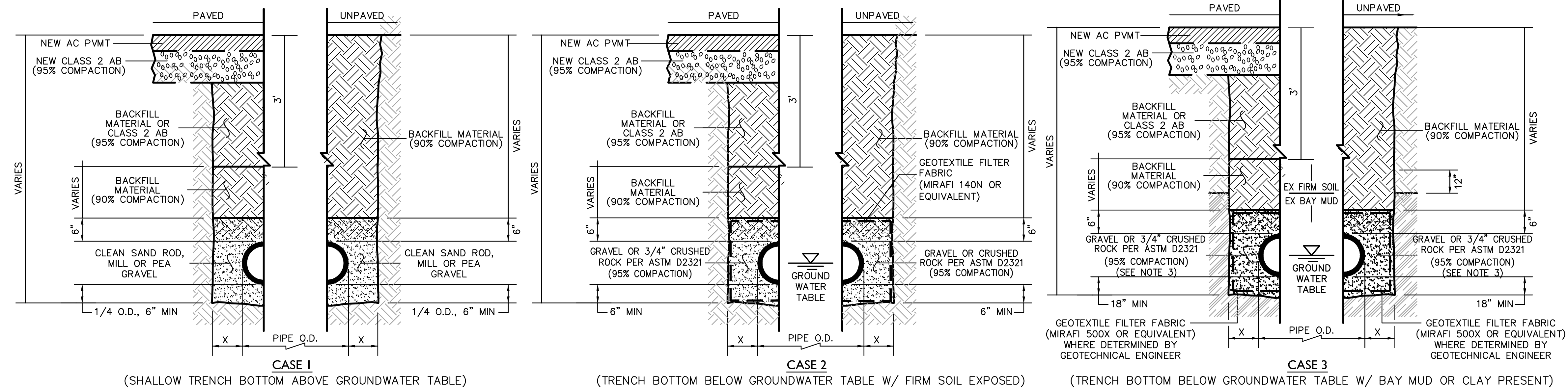
5A TYPICAL 2' KEYWAY (NOT ADJACENT TO TRAVEL WAYS)
NTS



5B TYPICAL 2' KEYWAY (ADJACENT TO TRAVEL WAYS)
NTS



2 AC PLUG
NTS



NOTES:
1. FOR ADDITIONAL REQUIREMENTS, REFER TO PROJECT SPECIFICATIONS AND GEOTECHNICAL REPORTS.
2. IF SANDY SOIL IS ENCOUNTERED BELOW GROUND WATER TABLE CRUSH ROCK SHALL BE WRAPPED IN FILTER FABRIC.
3. REFER TO SOIL REMEDIATION WORKPLAN PREPARED BY TETRA TECH INC. DATED APRIL 14, 2017 AND GEOTECHNICAL REPORT PREPARED BY PARIKH, DATED MARCH 20, 2018 FOR SPECIAL HANDLING OF SPOILS AND DEPTH TO GROUNDWATER

3 EXCAVATION OF TRENCHES FOR PIPES
NTS

TRENCH WIDTH TABLE

| PIPE MATERIAL | PIPE SIZE | LIMITS OF X | |
|---------------|-----------------|-------------|-----|
| | | MIN | MAX |
| HDPE or RCP | 15" & LESS | 8" | 12" |
| HDPE or RCP | 18" TO 48" | 12" | 18" |
| RCP | LARGER THAN 48" | 18" | 24" |
| PVC | 12" & LESS | 6" | 8" |

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PLOT DATE: 07-18-18 PLOTTED BY: chr

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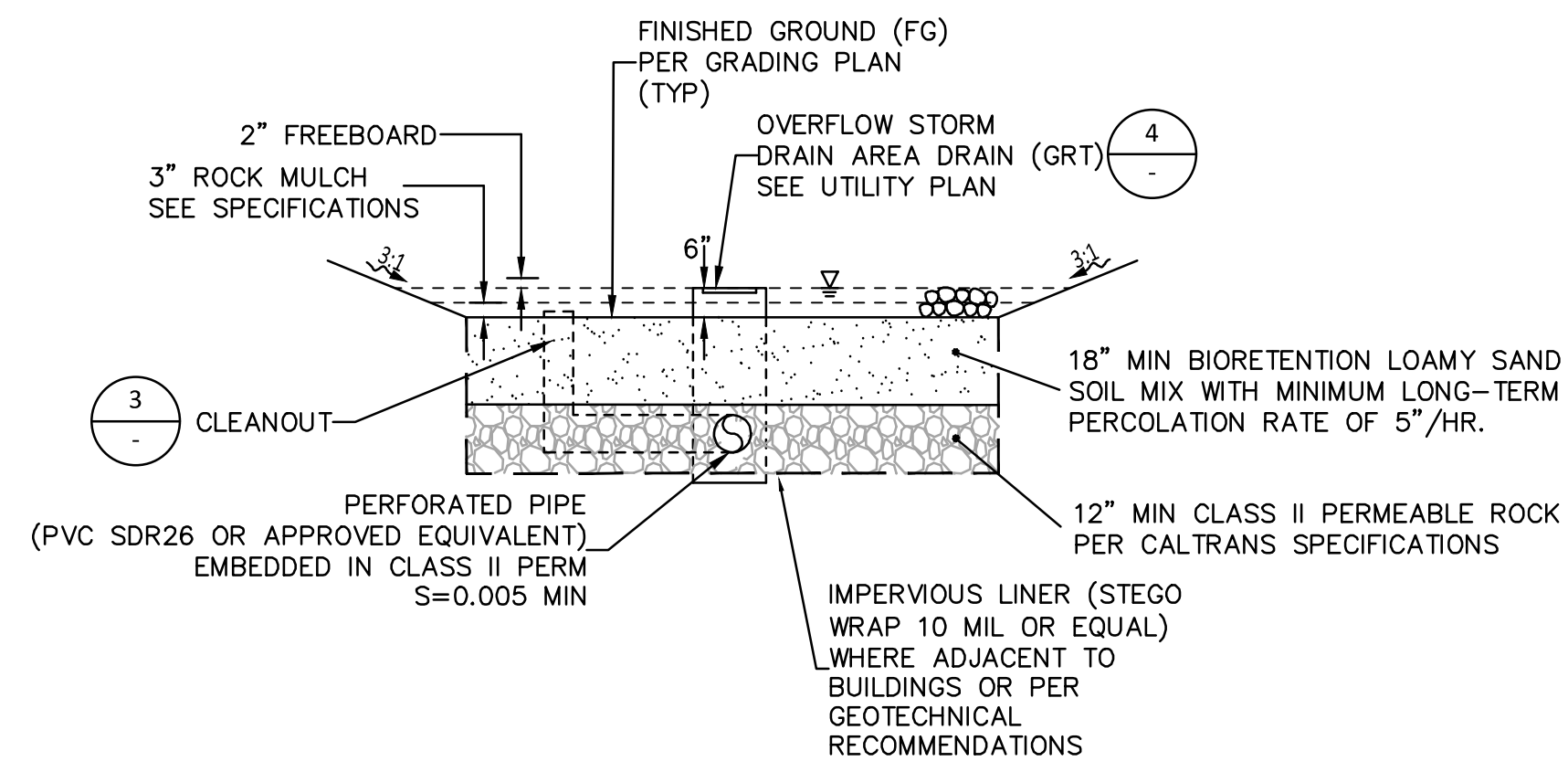
Date 07/18/18 Scale NO SCALE Job No. 20145190
Design QJM Drawn QJNC Approved DBES



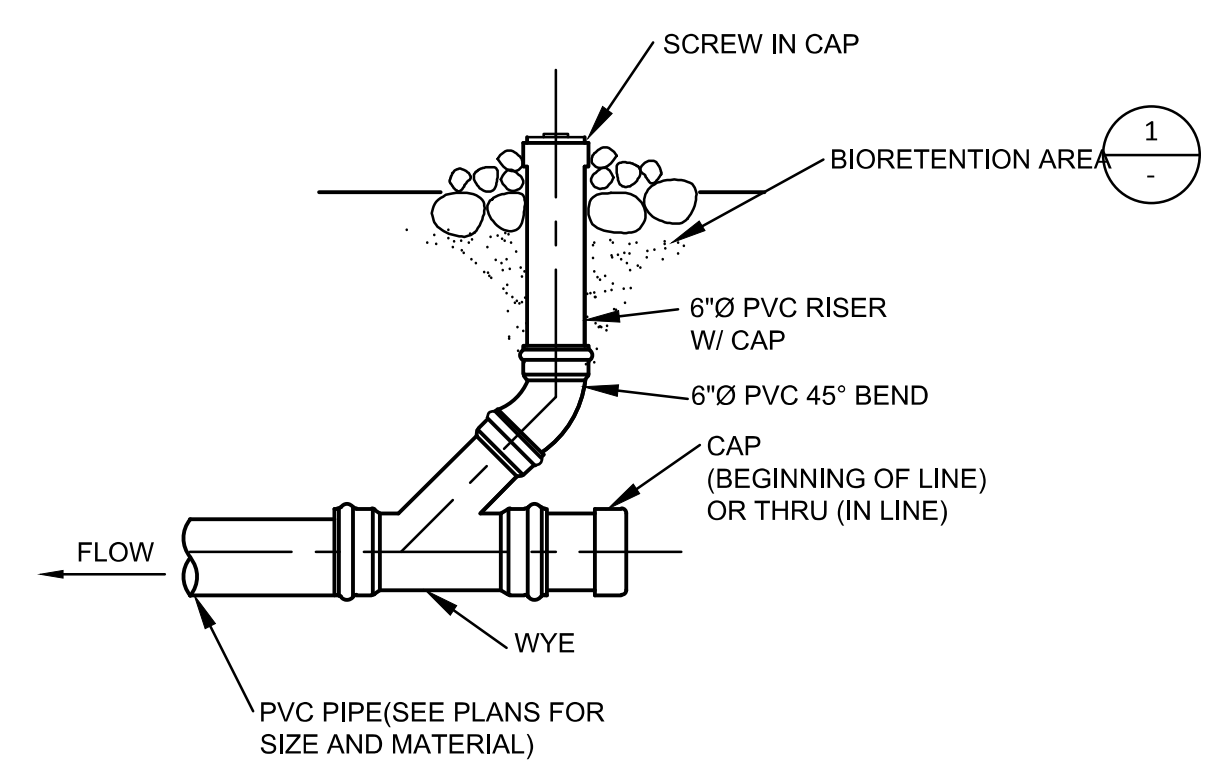
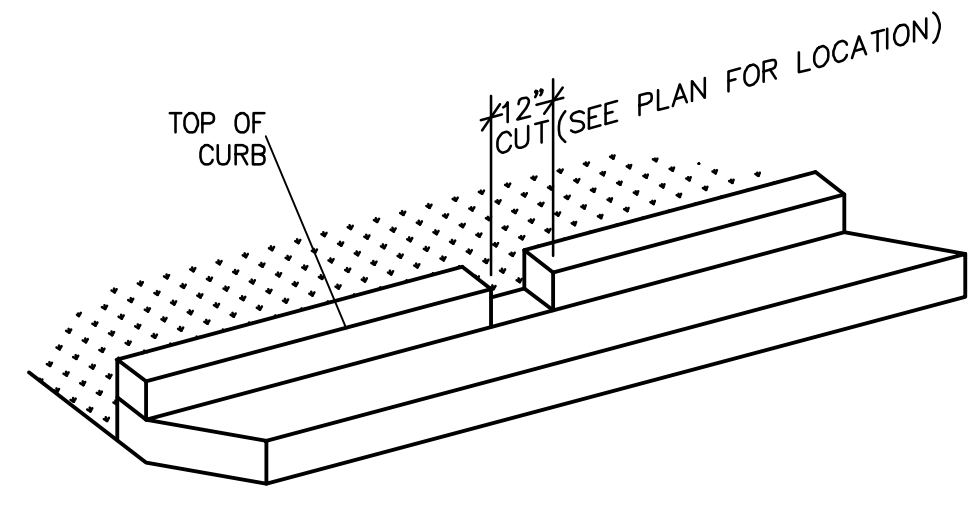
**CROSS ALAMEDA TRAIL
MAIN STREET TO CONSTITUTION WAY
CIVIL DETAILS**

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

Sheet Number:
C7.02



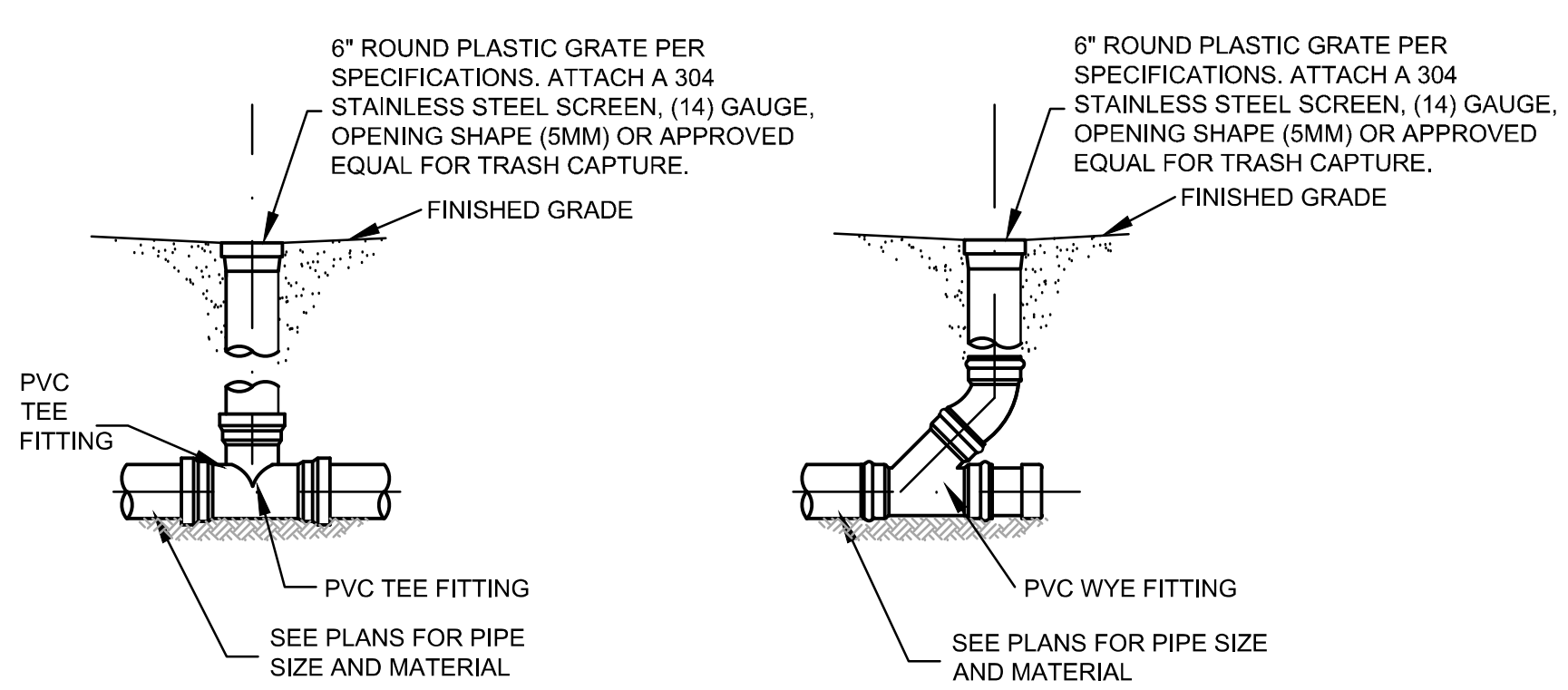
NOTES:
 1. FOR SOIL MIX SPECIFICATION REFER TO THE BIOTREATMENT SOIL MIX SPECIFICATION IN APPENDIX K OF THE ALAMEDA COUNTY CLEAN WATER PROGRAM C3 TECHNICAL GUIDANCE MANUAL.



1 BIORETENTION AREA
NTS

2 CURB CUT
NTS

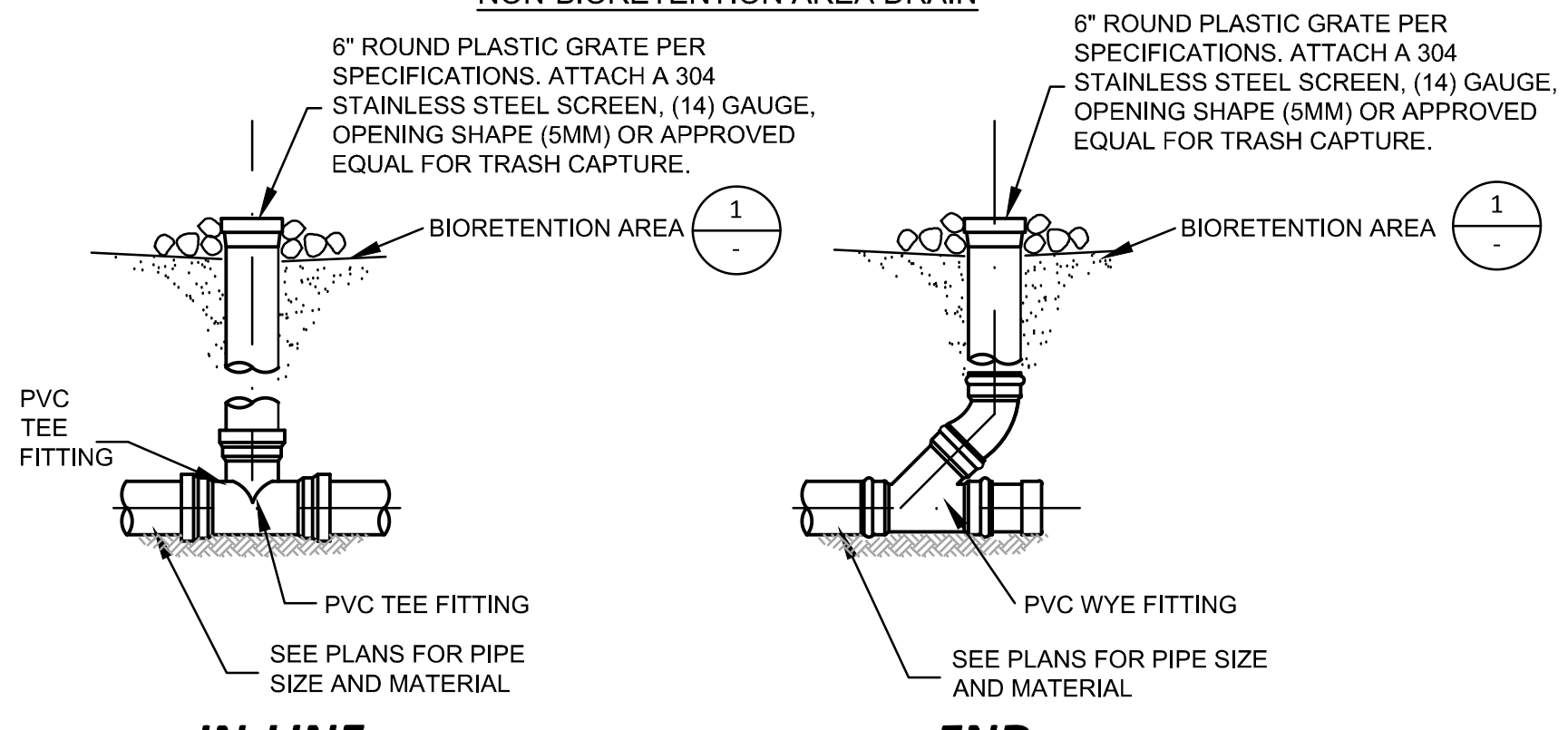
3 CLEANOUT
NTS



IN-LINE

END

NON-BIORETENTION AREA DRAIN

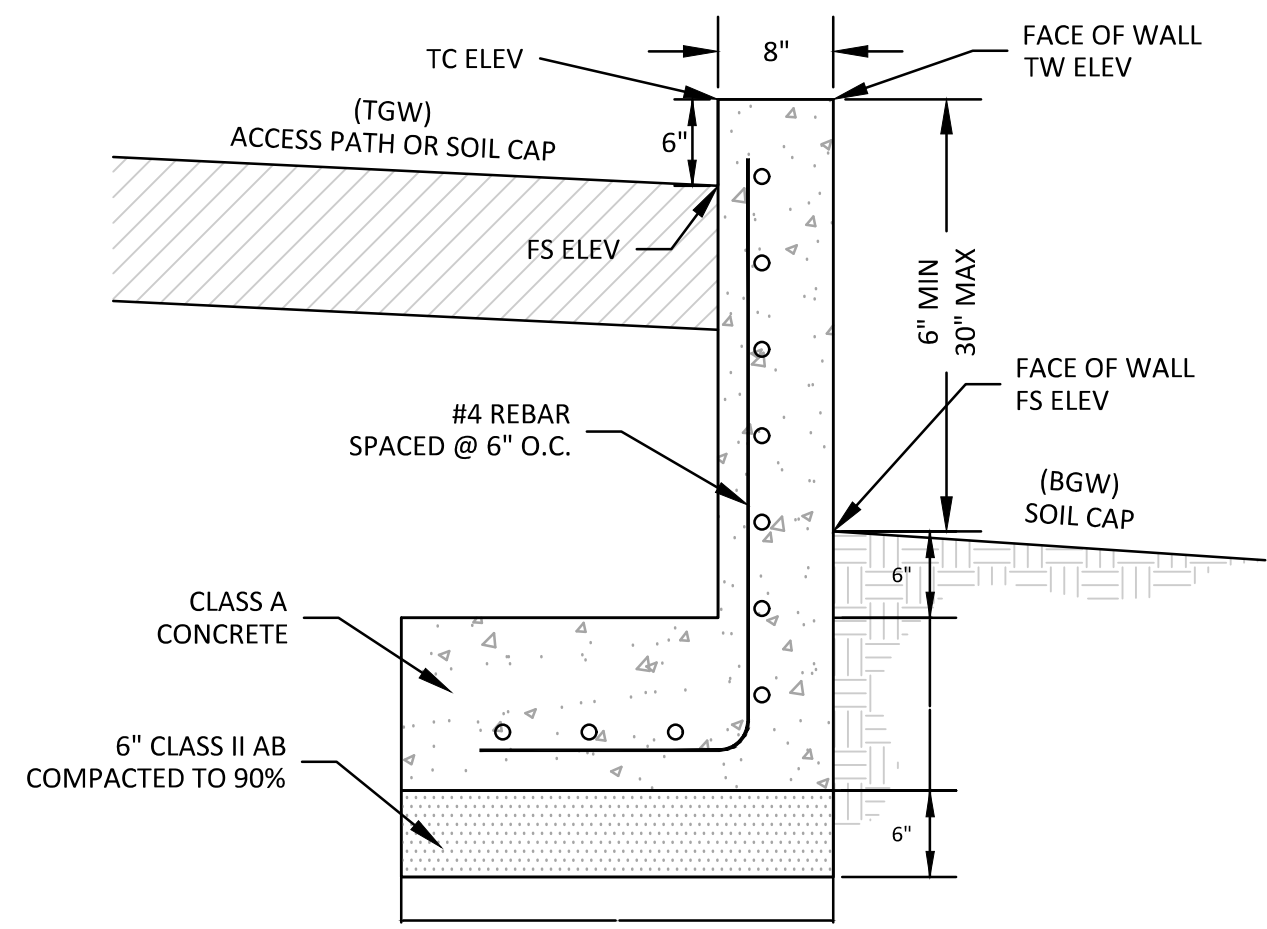


IN-LINE

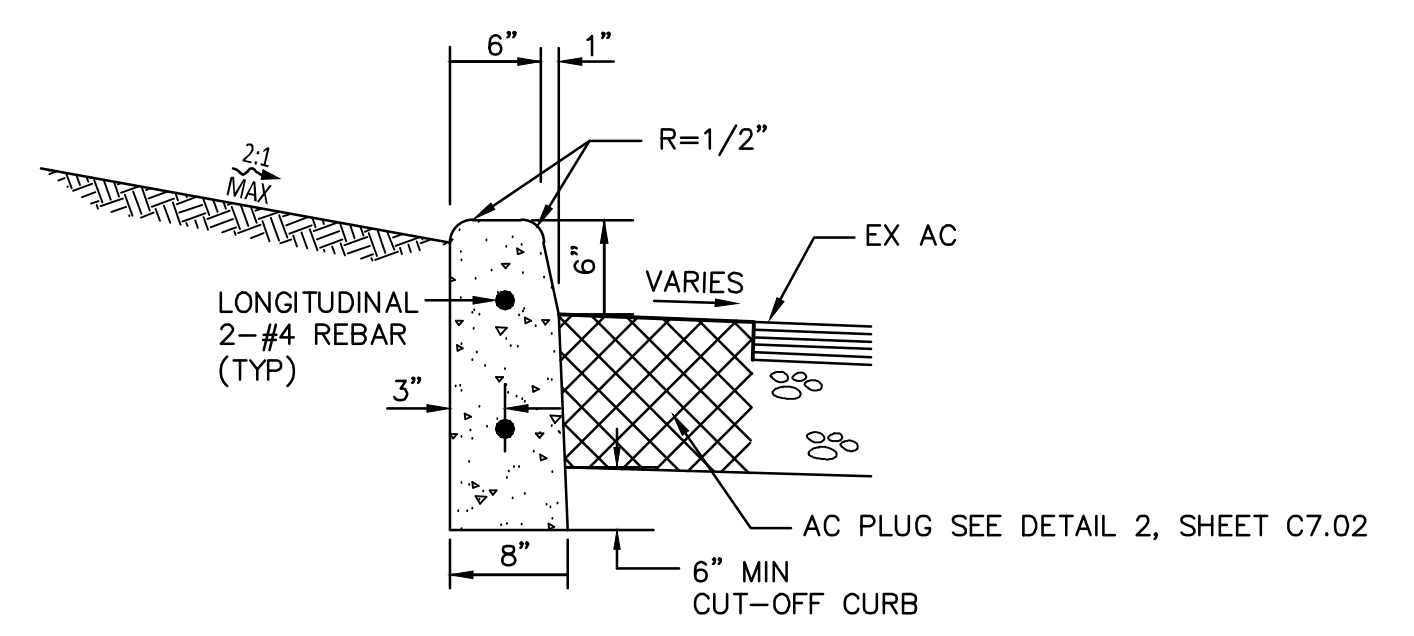
END

BIORETENTION AREA DRAIN

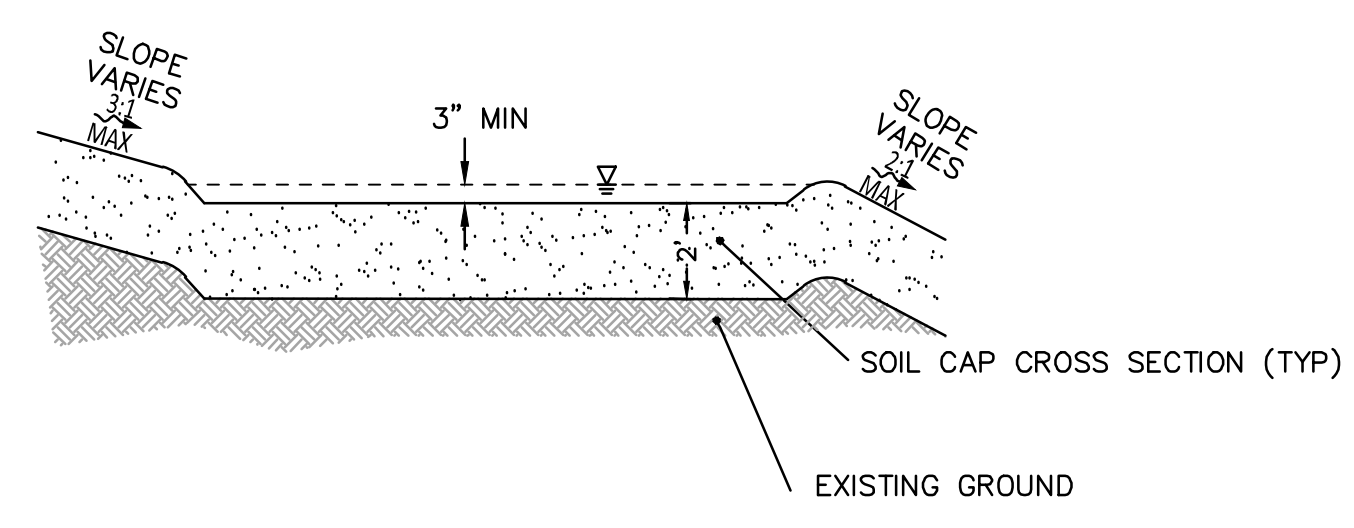
4 AREA DRAIN
NTS



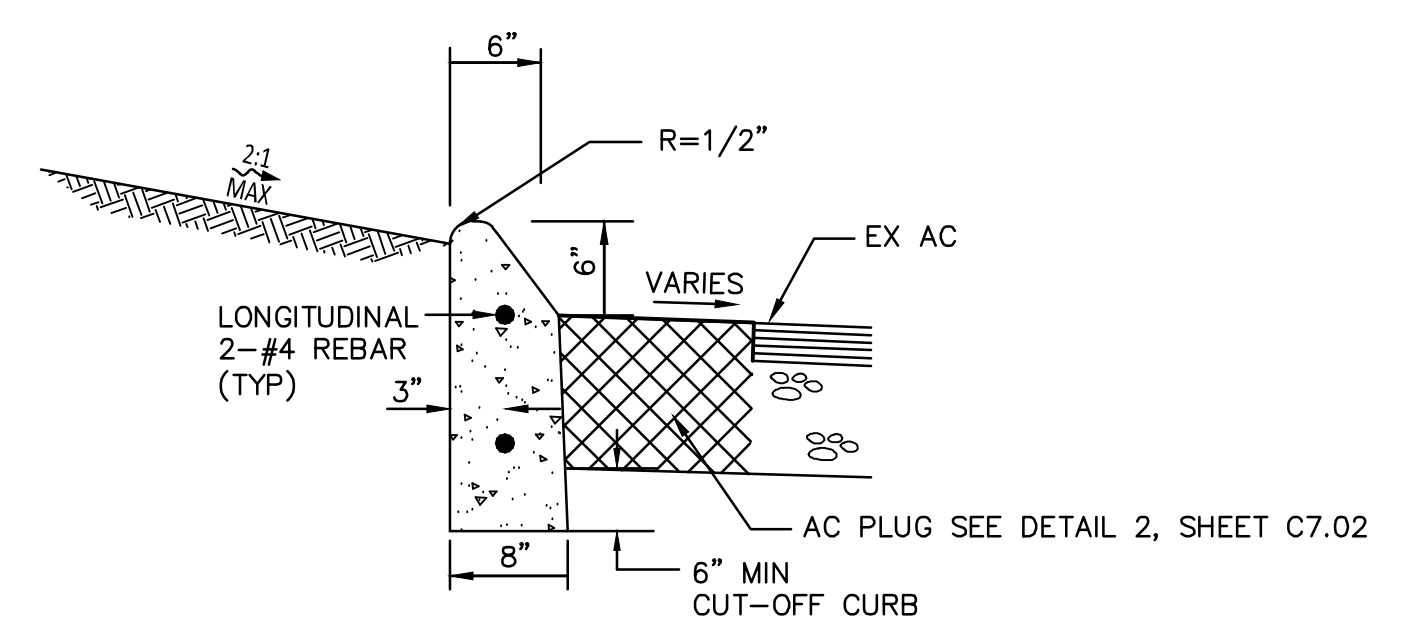
5 SHORT WALL
NTS



6 VERTICAL CURB
NTS



7 SELF-RETAINING AREA
NTS

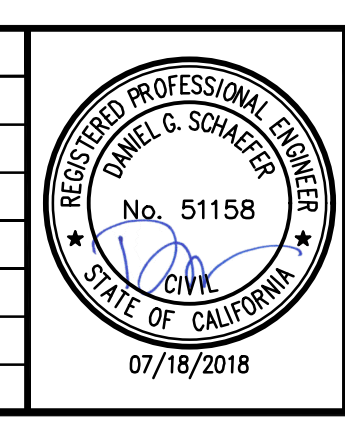


8 BEVELED CURB
NTS

NOTES:
 1. SELF RETAINING AREA SHALL BE PROTECTED FROM CONSTRUCTION TRAFFIC AND COMPACTION

DRAWING NAME: \\BKF-WC\vol4\2014\145190_Alameda_Cross_Alameda_Trail\ENG\SHEETS\07_A.TDT.dwg PLOTTED BY: chr

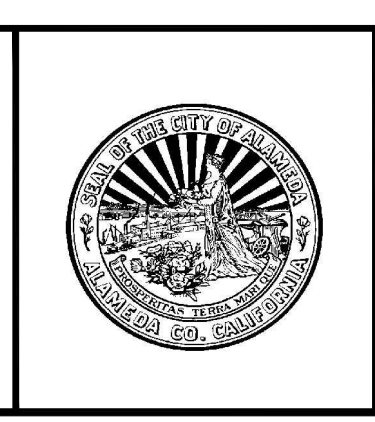
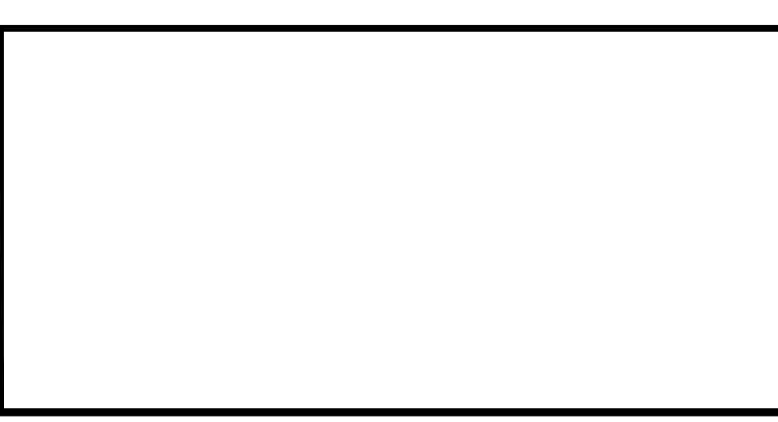
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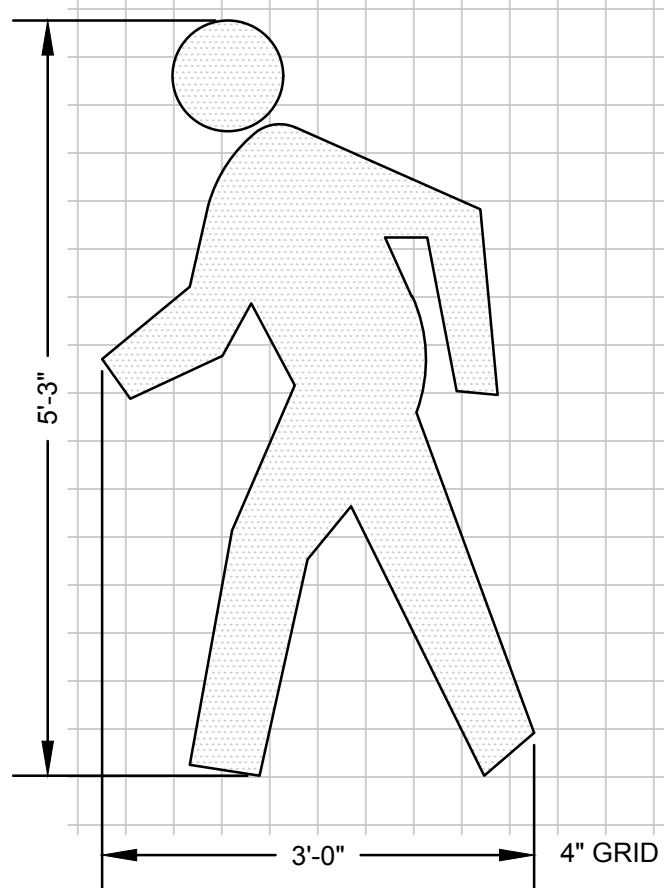
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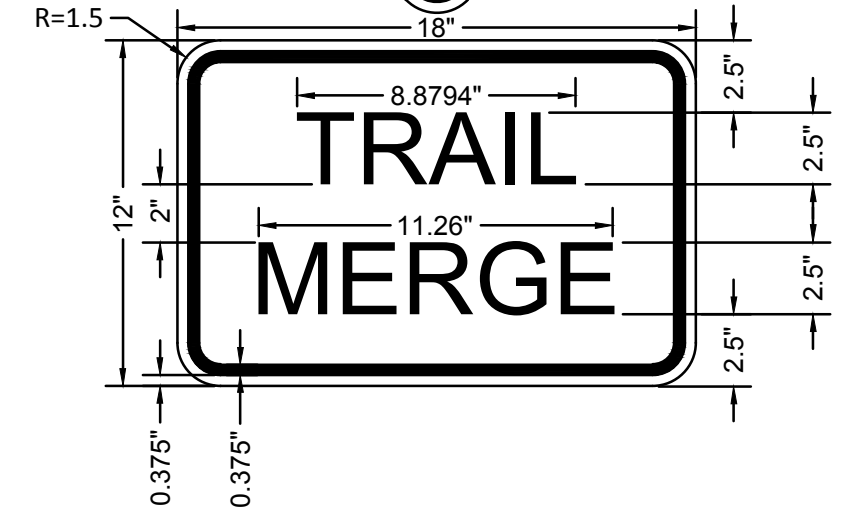
**CROSS ALAMEDA TRAIL
 MAIN STREET TO CONSTITUTION WAY
 CIVIL DETAILS**

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

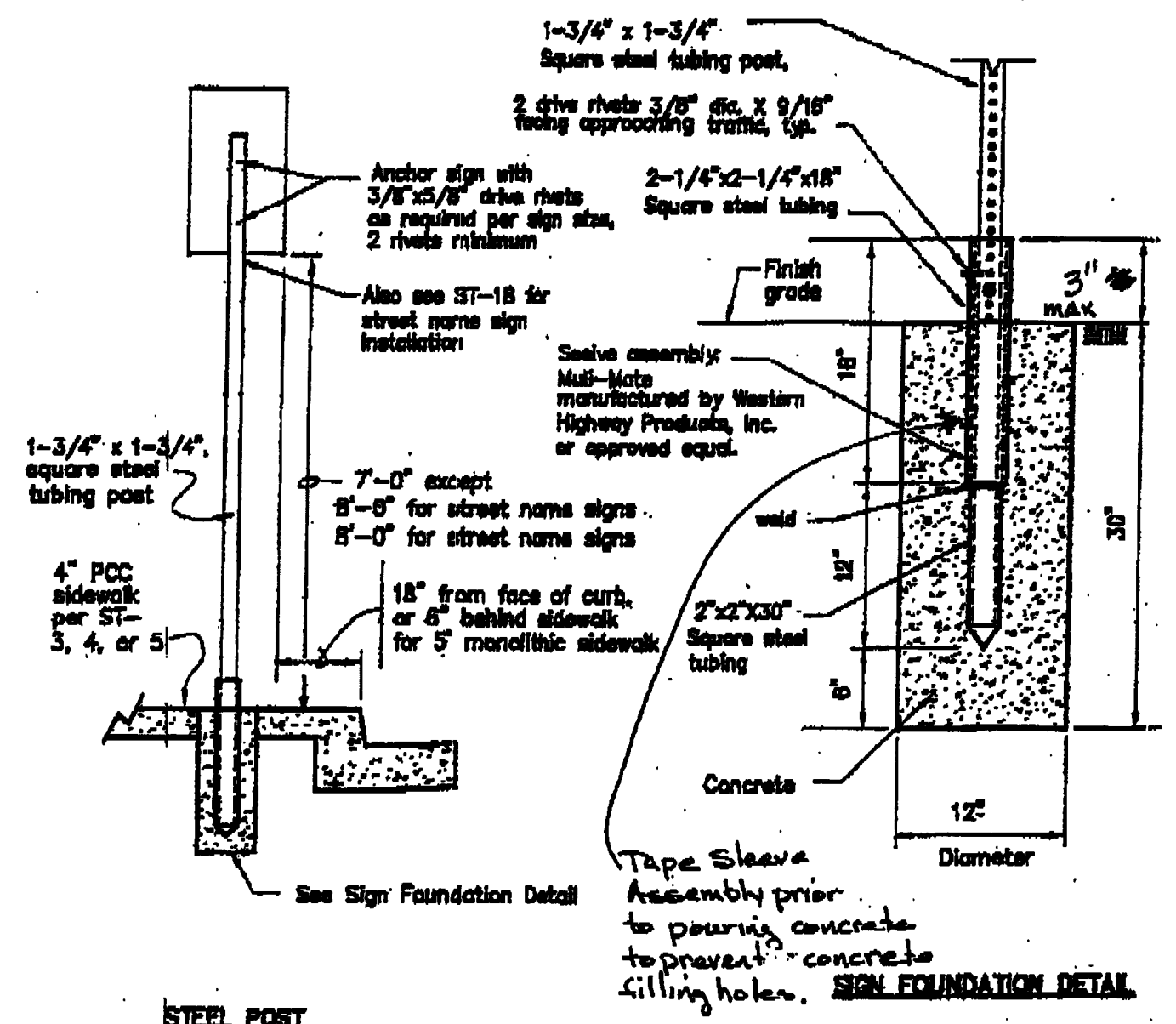
Sheet Number:
C7.03



1 PEDESTRIAN MARKING
NTS



2 W11-15 SIGN ABOVE TRAIL MERGE SIGN
NTS



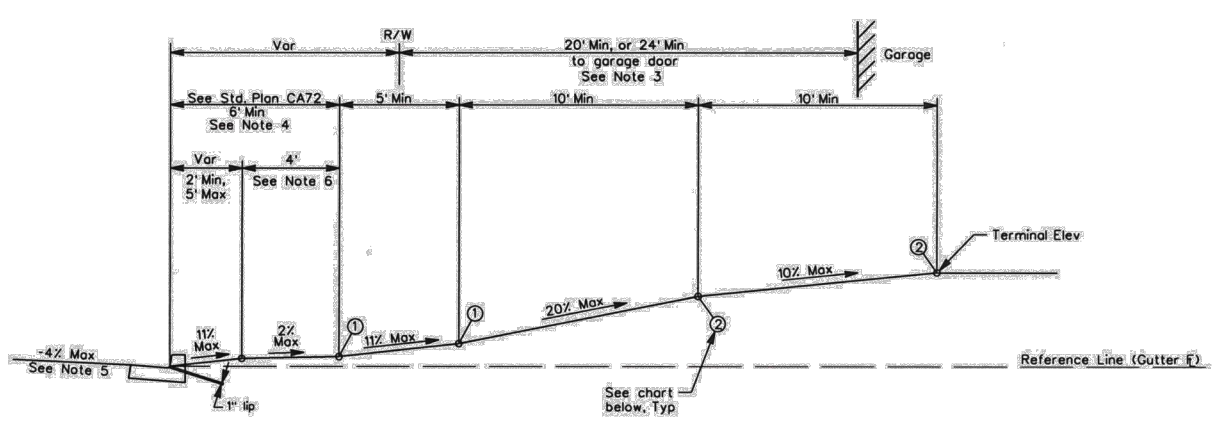
NOTES:
1. See ST-18 for street name sign requirements.
2. See ST-22 for median island sign requirements.

User note:
These details shall be used in conjunction with all the City standard details and specifications. Refer to the City standard specifications for the materials, installation, testing, protection coatings, and other requirements.

3 TRAFFIC CONTROL SIGN
NTS

| SIGN | DESIGNATION | SIZE | LETTERS ON BACKGROUND | H | L |
|------------------------------|----------------------|-----------|-----------------------|------|---------|
| STOP | R1 | 24" x 30" | White on Red | 7' | 11" |
| SPEED LIMIT | R2-1 | 24" x 30" | Black on White | 7' | 11-1/2" |
| KEEP RIGHT (AHEAD) | R7 | 24" x 30" | Black on White | 5' | 10" |
| KEEP RIGHT | R7A | 24" x 18" | Black on White | 5' | 10" |
| ONE WAY | R10-1 () | 36" x 12" | Black on White | 5' | 7" |
| DO NOT ENTER | R11-1 | 36" x 36" | Red on White | 7' | 12" |
| NO RIGHT TURN | R12-1 with 24" x 24" | 36" x 36" | Red & Black on White | 8.5' | 12-1/2" |
| NO LEFT TURN | R13-1 with 24" x 24" | 36" x 36" | Red & Black on White | 8.5' | 12-1/2" |
| RIGHT LANE MUST TURN RIGHT | R14-1 | 30" x 30" | Black on White | 7' | 12" |
| NO PARKING ANY TIME | R16-1.1 | 12" x 18" | Red on White | 7' | 10-1/2" |
| NO STOPPING ANY TIME | R16 (S)-1.1 | 12" x 18" | Red on White | 7' | 10-1/2" |
| NO PARKING ANY TIME | R16-1.1 () | 12" x 18" | Red on White | 7' | 10-1/2" |
| 2 HOUR PARKING | R16-1.1 () | 12" x 18" | Green on White | 7' | 10-1/2" |
| NO LEFT TURN | R17-1.1 () | 24" x 36" | Black on White | 7' | 12" |
| NO LEFT TURN | R17-1 with 24" x 24" | 36" x 36" | Red & Black on White | 8.5' | 12-1/2" |
| TRUCK ROUTE | R19-1.1 | 24" x 24" | Black on White | 7' | 11" |
| YIELD | R20-1 | 36" x 36" | Red on White | 7' | 11-1/2" |
| RIGHT TURN ONLY | R21-1 | 30" x 36" | Black on White | 7' | 12" |
| LEFT TURN ONLY | R22-1.1 | 30" x 36" | Black on White | 7' | 12" |
| NO PEDESTRIAN CROSSING | R23-1 | 36" x 18" | Black on White | 7' | 10-1/2" |
| BIKE ROUTE | R24-1.1 | 24" x 18" | White on Green | 7' | 10-1/2" |
| BIKE ROUTE with (Bike Route) | R24-1 | 12" x 5" | White on Green | 8.5' | 11" |
| BIKE ROUTE with (Bike Route) | R24B-1 | 8" x 5" | White on Green | 8.5' | 11" |
| Curve (90°) | W1-1 () | 30" x 30" | Black on Yellow | 7' | 12-1/2" |
| Curve | W1-1 () | 30" x 30" | Black on Yellow | 7' | 12-1/2" |
| T-Intersection | W7 | 30" x 30" | Black on Yellow | 7' | 12-1/2" |

| SIGN | DESIGNATION | SIZE | LETTERS ON BACKGROUND | H | L |
|---------------------------|----------------------|--------------|-------------------------|------|---------|
| LANE REDUCTION | W11-1 | 30" x 30" | Black on Yellow | 7' | 11-1/2" |
| END | W12-1.1 | 24" x 24" | Black on Yellow | 5' | 9" |
| SIGNAL AHEAD | W13-1 | 60" x 42" | Black on Yellow | 7.5' | 13-1/2" |
| R R Advance Warning | W17-1.1 | 30" Diameter | Black on Yellow | 7' | 11-1/2" |
| NO A THROUGH STREET | W19-1.1 | 24" x 24" | Black on Yellow | 7' | 12" |
| Directional Arrow | W26-1.1 | 36" x 18" | Black on Yellow | 5' | 8-1/2" |
| Directional Arrow | W27-1 | 36" x 18" | Black on Yellow | 5' | 8-1/2" |
| REMOVING TRAFFIC | W28 () | 30" x 30" | Black on Yellow | 7' | 11-1/2" |
| SCHOOL | W29-1 with 30" x 30" | 36" x 36" | Black on Yellow | 7.5' | 12" |
| SCHOOL XING | W30-1.1 | 24" x 36" | Black on Yellow | 5.5' | 11" |
| Reflector | Type R-1 | 12" x 12" | Yellow Reflective Sheet | 2.5' | 6-1/2" |
| Reflector | Type R-2 | 18" x 18" | Red Reflective Sheet | 2.5' | 6-1/2" |
| Reflector | Type R-3 | 18" x 18" | Orange Reflective Sheet | 2.5' | 6-1/2" |
| Reflector (L or R) | Type R-4 | 18" x 18" | Red Reflective Sheet | 2.5' | 6-1/2" |
| Reflector (Top or Bottom) | Type R-5 | 18" x 18" | Red Reflective Sheet | 2.5' | 6-1/2" |
| BIKE LANE | R21-2 | 24" x 18" | Black on White | 7' | 10-1/2" |
| "Bike" with R21-2 | R21A-1 | 12" x 5" | Black on White | 8.5' | 11" |
| "Bike" with R21-2 | R21B-1 | 8" x 5" | Black on White | 8.5' | 11" |

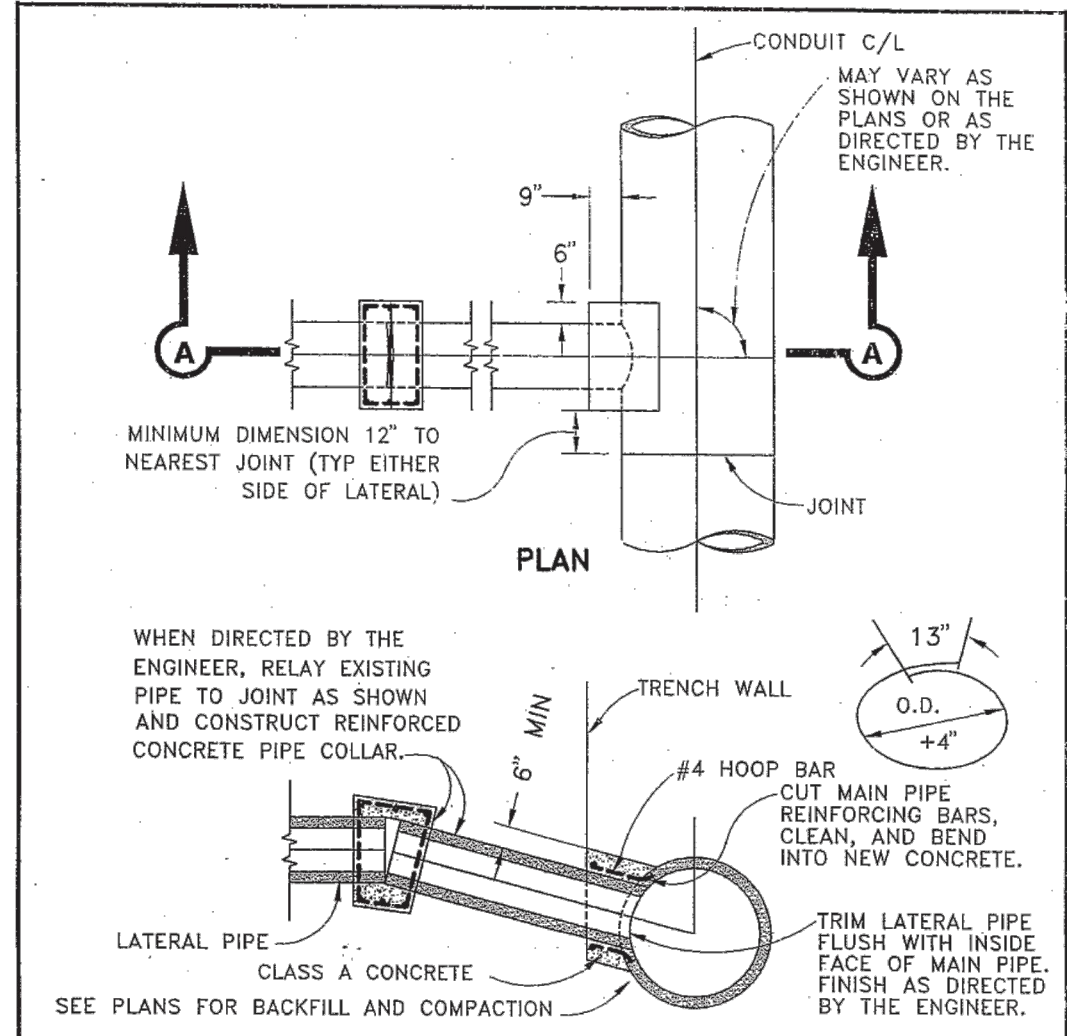


GRADE BREAK CHART

| Max Grade Break | Min. Grade Break |
|-----------------|------------------|
| 1 | 1/2" |
| 2 | 1/2" |
| 3 | 1/2" |
| 4 | 1/2" |
| 5 | 1/2" |
| 6 | 1/2" |
| 7 | 1/2" |
| 8 | 1/2" |

NOTES:
1. Cor dimensions were obtained from the 1991 edition of "Traffic Dimensions" Motor Vehicle Manufacturers Association. This design and construction is based on the most unfavorable dimensions of cars listed for single or over-sized cars, a special design is required.
2. For maximum grade breaks at numbered points, see chart on this plan. Wherever possible, grades should be as flat as possible.
3. 20' minimum allowed if garage has sectional doors. Observe 24' minimum to garage.
4. See Standard Plan C422 for driveway ramp details.
5. If pavement cross slope exceeds 4%, a modified driveway profile shall be used with the slope of the driveway ramp reduced such that the difference in slope of the driveway ramp and the slope of the line between the gutter and a point on the roadway 2' from gutter shall not exceed 10%. Reduce driveway ramp slope, not the gutter slope. Other dimensions shall be modified as approved by the Public Works Department.
6. If the Public Works Department determines that no sidewalk will ever be constructed, the 4" segment at 26' may be deleted.
7. If () is not a minimum of 0.5' above reference line, the grade at () shall be a minimum of 0.5' above reference line. Exceptions to this requirement are subject to the approval of the Public Works Department.

5 FIRE ACCESS DETAIL
NTS



NOTES:
1. LATERAL PIPE SIZE NOT TO EXCEED 16".
2. MAIN PIPE SIZE TO LATERAL PIPE SIZE SHALL BE AT LEAST 3:1 RATIO.
3. MINIMUM LATERAL PIPE SIZE NOT TO BE LESS THAN 12".

| LATERAL SIZE | MIN MAIN SIZE |
|--------------|---------------|
| 12" | 36" - 33" |
| 14" | 48" - 36" |
| 16" | 54" - 45" |

COUNTY OF ALAMEDA ★ PUBLIC WORKS AGENCY
MODIFIED LATERAL PIPE CONNECTION TYPE I
APPROVED: [Signature]
APPROVED: [Signature]
REVISIONS: JC CHECKED DATE DEC 1994 SCALE NONE FILE NO. SD-509 1 of 1

6 MODIFIED LATERAL PIPE CONNECTION
NTS

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CROSS ALAMEDA TRAIL MAIN STREET TO CONSTITUTION WAY CIVIL DETAILS

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

Sheet Number: **C7.04**

