

ADDENDUM No. 8
TO THE
CITY OF FRESNO
PUBLIC WORKS STANDARD DRAWINGS AND SPECIFICATIONS
ADOPTED MARCH 4, 1970, BY RESOLUTION NO. 70-36

THIS UPDATED VERSION IS APPROVED: JANUARY 30, 2023

This addendum is attached to, and made a part of, the above-entitled standard specifications.

The following City Standard Drawings have been amended as indicated below:

1. The order of the Standard Drawings has been changed as follows: P, API, FAX, E, ITS, W, RW
2. Most drawings received minor drafting and typographical edits to detail and callouts for clarity, any such changes that result in practical differences are annotated below.

DPW – PUBLIC WORKS	
P-9	<ol style="list-style-type: none">1. Clarified/edited dimensions for “Residential Streets with Wedge Curbs”.2. Reduced sidewalk width by 1’-0” and added “1’-0” Clear” to detail: “Residential Streets with Wedge Curbs and Adjacent Sidewalks”.
P-31	<ol style="list-style-type: none">1. Ramp revised to graphically show grade breaks perpendicular to the path of travel to comply with ADA requirements and expectations.2. Added Note 14: “GRADE BREAKS AT THE TOP AND BOTTOM OF CURB RAMP RUNS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF RAMP RUNS AND TURNING SPACES. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.”3. Dimension: “5’ MIN.” moved to back of ramp.4. Dimension: “6’ MIN.” revised to read: “6.5’ MIN.”5. Added dimension: “3’ MIN.” behind truncated domes.6. Callout: “OPTIONAL: 12” GROOVED BORDER PER P-28, SEE NOTE 14, THIS SHEET” revised to read: “OPTIONAL: SEE NOTE 5”7. Callout: “POST-MOUNTED PEDESTRIAN PUSHBUTTON (WHEN NEEDED), SEE NOTES 11 & 12” revised to read: “POST-MOUNTED PEDESTRIAN PUSHBUTTON (WHEN NEEDED), SEE NOTES 12 & 13”8. Callout: “SEE NOTES 4 & 5” revised to read: “SEE NOTES 1 & 6”.
P-32	<ol style="list-style-type: none">1. Note 1: “THE DETECTABLE WARNING SHALL VISUALLY CONTRAST PER THE CALIFORNIA BUILDING CODE, LATEST REVISION. THE MATERIAL USED SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. THE COLOR SHALL BE YELLOW UNLESS DIRECTED OTHERWISE BY CONSTRUCTION MANAGEMENT.” revised to read: “THE DETECTABLE WARNING SHALL VISUALLY CONTRAST PER THE CALIFORNIA BUILDING CODE, LATEST REVISION. THE MATERIAL USED SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. THE COLOR SHALL BE YELLOW AND APPROXIMATE FS 33538 OF SAE AMS-STD-595A.”
P-52	<ol style="list-style-type: none">1. Incorporated Note 3 into Note 1: “USE 26’ MEDIAN WHEN DUAL LEFT TURNS ARE REQUIRED”, revised to read: “USE 26’ MEDIAN WIDTH WHEN DUAL LEFT TURNS ARE REQUIRED. USE OF A 22’ MEDIAN IS ALLOWED ONLY WHEN AN ARTERIAL HAS BEEN SPECIFICALLY PLANNED FOR A 22’ MEDIAN ISLAND.2. Note 2: “OFFSET CROWN REQUIRES APPROVAL OF THE ENGINEER DEVIATIONS FROM STANDARDS REQUIRE APPROVAL OF THE ENGINEER.” revised to read: “USE OF AN OFFSET

	<p>CROWN OR OTHER DEVIATIONS FROM THIS STANDARD REQUIRES PRIOR APPROVAL OF THE CITY TRAFFIC ENGINEER.”</p> <ol style="list-style-type: none"> 3. Note 3 removed. 4. Note 4 renumbered to Note 3. 5. Note 5 renumbered to Note 3 6. Case 1 Detail revised as follows: <ol style="list-style-type: none"> a. ROW width dimension: “100’ (106’)” revised to read: “100’-104’” b. Left half-street dimension: “50’” revised to read: “52’ (RESIDENTIAL)” c. Left sidewalk pattern dimension: “10’” revised to read: “12’” d. Left sidewalk width dimension: “4’” revised to read: “6’” e. Right half-street dimension: “50’” revised to read: “50’ (COMMERCIAL)” f. Median width dimension: “16’ (22’) MEDAIN” revised to read: “16’ MEDIAN SEE NOTE 1” 7. Case 2 Detail revised as follows: <ol style="list-style-type: none"> a. ROW width dimension: “110’” revised to read: “110’-114’” b. Left half-street dimension: “55’” revised to read: “55’ (RESIDENTIAL)” c. Left sidewalk pattern dimension: “10’” revised to read: “12’” d. Left sidewalk width dimension: “4’” revised to read: “6’” e. Left #2 travel lane dimension: “13’” revised to read: “18’” f. Right half-street dimension: “55’” revised to read: “55’ (COMMERCIAL)” g. Median width dimension: “16’ MEDAIN” revised to read: “16’ MEDIAN SEE NOTE 1” 8. Case 3 Detail revised as follows: <ol style="list-style-type: none"> a. ROW width dimension: “110’” revised to read: “110’-114’” b. Left half-street dimension: “55’” revised to read: “55’ (RESIDENTIAL)” c. Left sidewalk pattern dimension: “10’” revised to read: “12’” d. Left sidewalk width dimension: “4’” revised to read: “6’” e. Right half-street dimension: “55’” revised to read: “55’ (COMMERCIAL)” f. Bike lane dimensions: “5’” revised to read: “6’” g. #2 travel lane dimensions: “12’” revised to read: “11’” h. Median width dimension: “16’ MEDAIN” revised to read: “16’ MEDIAN SEE NOTE 1”
P-54	<ol style="list-style-type: none"> 1. Modified dimensions on “COLLECTOR STREET WITH PARKING” cross-section as follows: changed the bike lane width from 5’ to 6’ on both sides to comply with P-79 (Addendum 7). The two-way left -turn lane was reduced from 12’ to 10’ to provide the additional bike lane width. 2. Minor changes made to graphics and presentation.
P-56B	<ol style="list-style-type: none"> 1. Standard drawing title, “LOCAL STREET CROSS-SECTIONS (WITH WEDGE CURBS)” revised to read, “LOCAL STREET CROSS-SECTIONS ALTERNATIVE WIDTHS/WEDGE CURBS” 2. Modified detail dimensions to accurately reflect sidewalk pattern dimensions per Std. Det. P-9. 3. Supplemental note “ * “ revised to include reference to Std. Det. P-9. 4. Minor graphical edits for clarity.
P-71	<ol style="list-style-type: none"> 1. New Standard Drawing, “STANDARD PAVEMENT UNDULATION”.
P-72	<ol style="list-style-type: none"> 1. Renumbered to FAX-1. Refer to that Standard Drawing for additional details and changes in this Addendum.
P-73	<ol style="list-style-type: none"> 1. Renumbered to FAX-2; reinforced curb detail moved to FAX-4. Refer to those Standard Drawings for additional details and specific changes included with this Addendum.

P-81	1. New Standard Drawing , “TRAIL BENCH LAYOUT WITH OPTIONAL REPAIR STAND”.
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FAX – FRESNO AREA EXPRESS	
FAX-1	<ol style="list-style-type: none"> 1. New Standard Drawing based on P-72. 2. Drawing title changed from, “BUS STOP WITH SHELTER LAYOUT” to “BUS STOP WITH SHELTER LAYOUT PLAN”. 3. References to P-73 changed to reference FAX-3 or FAX-4, as appropriate. 4. Added callout, “2% CROSS SLOPE, MAX.” to bench area of plan view.
FAX-2	<ol style="list-style-type: none"> 1. New Standard Drawing based on P-73. 2. Reinforced curb and gutter “DETAIL” and construction notes #2 and #4 moved to Standard Drawing FAX-4. 3. The bus bay layouts were graphically modified to improve readability and reduce user confusion – no technical changes were made except as noted herein. 4. City ROW lines are shown in detail for orientation purposes. 5. Layout, “MID BLOCK” renamed: “MID BLOCK OPTION 2” 6. New layout, “MID BLOCK OPTION 1” added. 7. Note 3 renumbered to note 2 8. Note 5 renumbered to note 3 9. Note 6 renumbered to note 4 10. Added note #5, “USE WHEN TRAVEL LANE IS <20’ (LANE LINE TO FACE OF CURB). CITY ENGINEER MUST APPROVE USE.” 11. Dimension, “SEE BELOW FOR CURB & GUTTER IN THIS AREA” revised to read, “REINFORCED CURB AND GUTTER PER STD. DWG. FAX-4”. Multiple occurrences.
FAX-3	1. New Standard Drawing: “BUS LAYOVER PAD CONSTRUCTION DETAIL & NOTES”
FAX-4	<ol style="list-style-type: none"> 1. NEW Standard Drawing: “BUS BAY DETAILS”. 2. Includes detail, “REINFORCED CURB AND GUTTER” previously shown on Std. Dwg. P-73. 3. Callouts included on previous detail were converted to Notes 3-5. No technical changes were made to detail.

DPW – ELECTRICAL	
E-1	<ol style="list-style-type: none"> 1. Minor changes to BASE DETAIL, including clearer depiction of sidewalk concrete section and removal of linework and callouts referring to “FORMED” concrete. 2. Added callout to BASE DETAIL: “SIDEWALK”. 3. Added leader to “TOP OF FOUNDATION” callout.
E-1A	1. New Standard Drawing , “STREETLIGHT – OVERHEAD FEED”.
E-5	<ol style="list-style-type: none"> 1. Drawing modified to depict/require all leads to be pulled/looped in the pole handhole. 2. Added note 2: “ALL CONDUCTORS SHALL BE PULLED INTO HANDHOLLE WITH 18” MIN. SLACK PROVIDED”.
E-27	<ol style="list-style-type: none"> 1. Standard Drawing title: “SIGNAL LIGHT FOUNDATION WIRE-WAY DETAIL” revised to read: “SIGNAL & STREET LIGHT FOUNDATION AND WIRE-WAY DETAIL” 2. Drawing modified to depict sidewalk, show entire foundation including anchor bolts and light pole base plate mounting. 3. Added detail: “ANCHOR CONNECTION DETAIL” and table for min./max. offset between top of sidewalk and bottom of base plate.

	4. Added various callouts to base detail regarding materials and construction requirements.
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DPU – WATER	
W-3	1. Added Note 4 , “FIRE HYDRANTS SHALL BE PLACED AT INTERVALS OF 600' FOR RESIDENTIAL DEVELOPMENTS AND 450' FOR COMMERCIAL DEVELOPMENTS. LOCATION APPROVAL REQUIRED BY CITY FIRE DEPARTMENT.”

The following City Standard Specifications have been amended as indicated below:

1. Updated formatting and page numbering throughout specification document.
2. Update Caltrans standard specification references throughout document.

21-9.1	1. Updated reference to correct standard drawings identifying the location for underground utilities in local and major streets
22	1. Corrected subsection numbering to reflect correct specification section
23	1. Updated the State Standard Specification reference to from 1997 Edition to 1995 Edition, throughout 2. Updated the reference to State Standard Specification Subsection 56-3 to 86-3.01, throughout
23-1.7	1. Updated the language related to the anchor bolts and nuts regarding their distance to the sidewalk and provided a range in which they can be located vertically
23-3.7	1. Updated the language related to the location of the base plate relative to the sidewalk

Addendum 8 to the Public Works Standard Drawings and Specifications, dated January 30, 2023

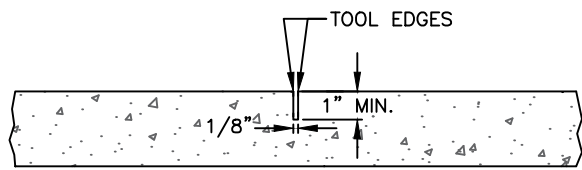
Reviewed and Approved:


 Andrew Benelli, P.E.
 City Engineer

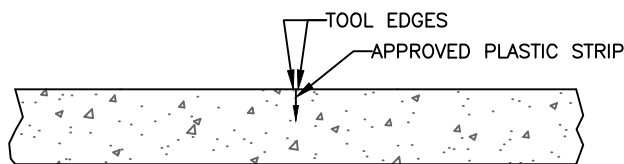

 Date


 Scott Mozier, P.E.
 Public Works Director

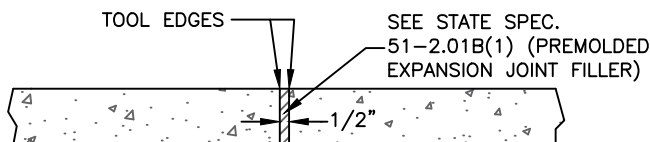

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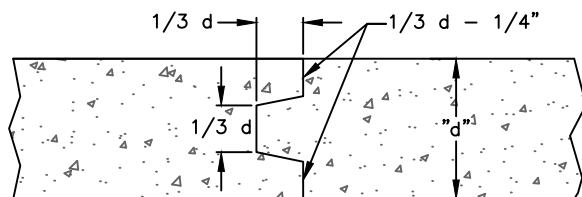
WEAKENED-PLANE JOINT DETAIL



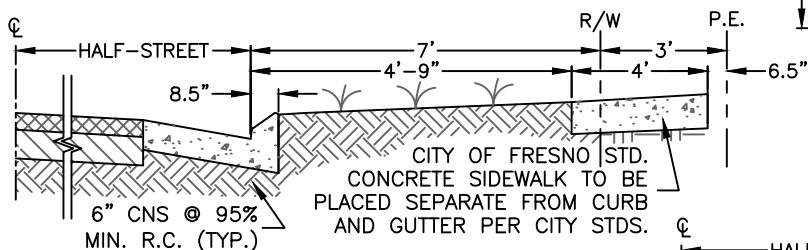
WEAKENED-PLANE JOINT DETAIL
ALTERNATE DESIGN



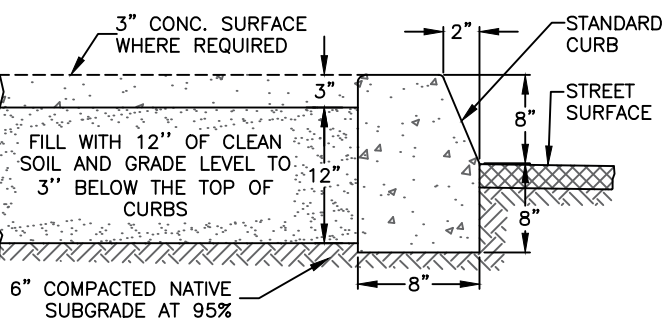
EXPANSION JOINT DETAIL



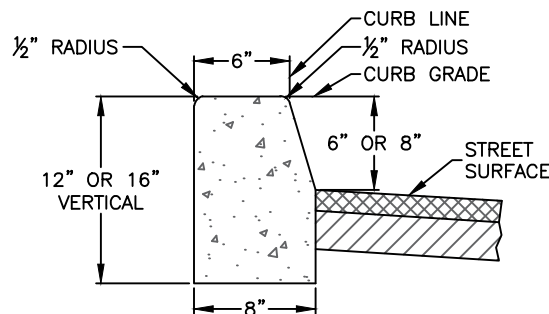
CONSTRUCTION JOINT DETAILS



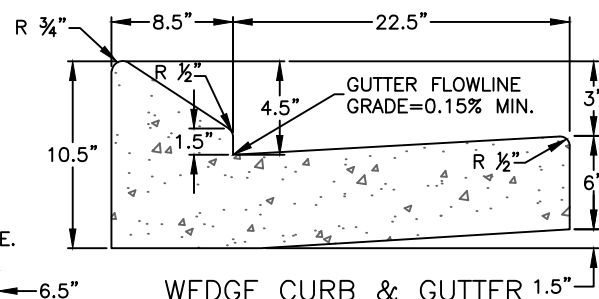
RESIDENTIAL STREET WITH
WEDGE CURBS



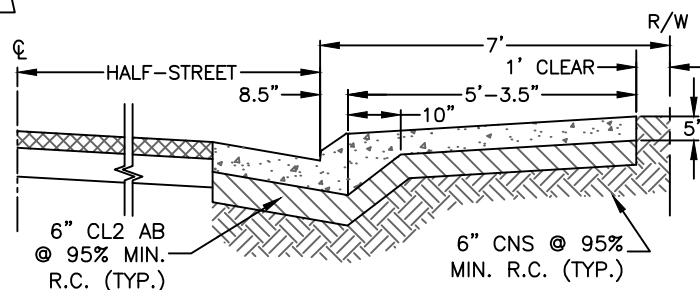
MEDIAN ISLAND CURB DETAIL



CROSS-SECTION OF CURB

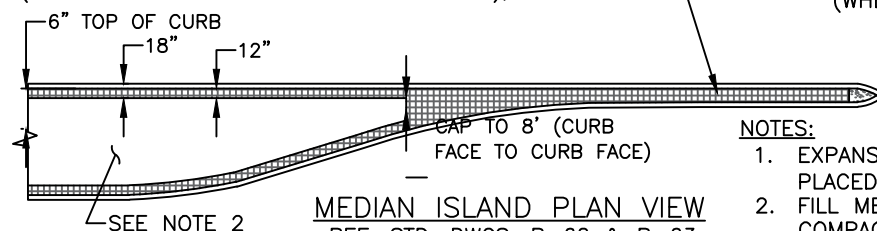


WEDGE CURB & GUTTER
DETAIL



RESIDENTIAL STREET WITH WEDGE
CURBS AND ADJACENT SIDEWALKS
(WHEN APPROVED BY CITY ENGINEER)

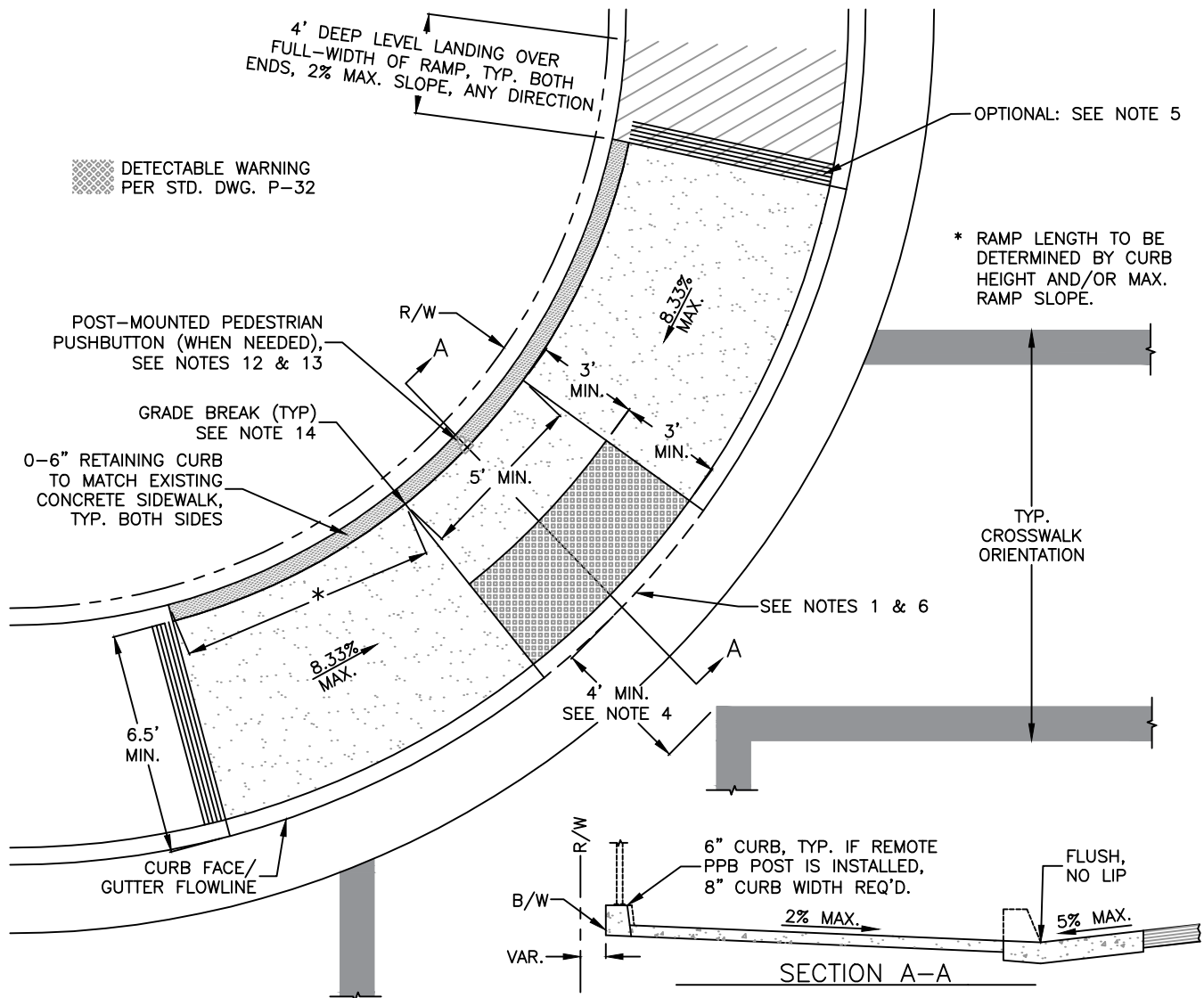
MEDIAN ISLAND CAP AND 12" MAINTENANCE BAND SHALL BE 3" THICK CONCRETE STAMPED IN A 12" SLATE PATTERN & COLORED WITH DAVIS COLORS SAN DIEGO BUFF (DOWNTOWN FRESNO SHALL BE MESA BUFF); SEE NOTE 1



MEDIAN ISLAND PLAN VIEW
REF. STD. DWGS. P-62 & P-63

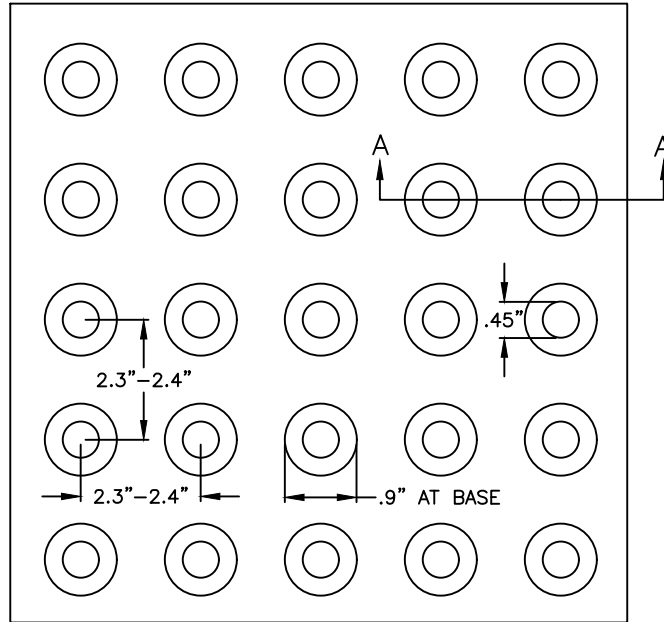
NOTES:

1. EXPANSION JOINTS (NOT SHOWN) SHALL BE PLACED EVERY 45' PER STD. DWG. P-5
2. FILL MEDIAN BEFORE PLACING BASE MATERIAL OR COMPACTING IN THE TRAVELED WAY

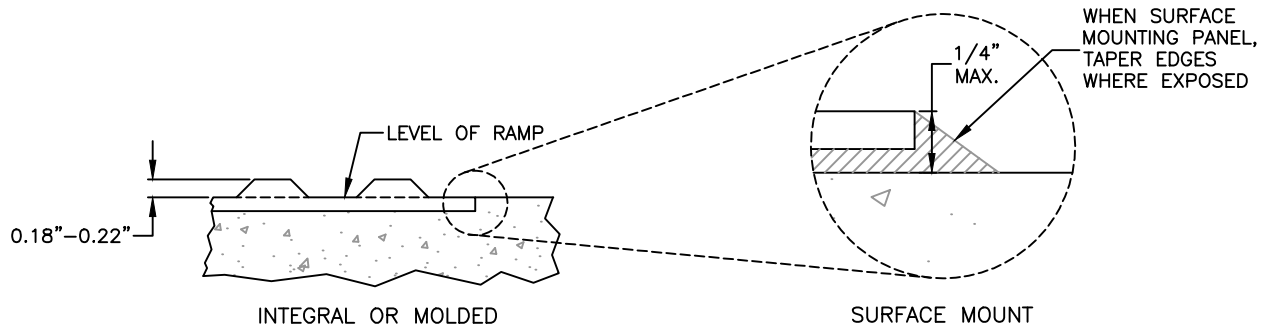


NOTES:

- TRANSITIONS FROM RAMPS AND LANDING TO WALK, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
- SURFACE OF CURB RAMP SIDES SHALL HAVE BROOM FINISH TRANSVERSE TO PATH OF TRAVEL AND SHALL BE OF CONTRASTING FINISH TO THAT OF ADJACENT SIDEWALK.
- RAMP SLOPE SHALL NEVER EXCEED 8.33%.
- THE SLOPE OF ADJOINING GUTTERS, ROAD SURFACE OR ACCESSIBLE ROUTE WITHIN 4' OF THE BOTTOM OF THE RAMP SHALL NOT EXCEED 5% SLOPE.
- (OPTIONAL) PROVIDE A 12" WIDE GROOVED BORDER AT THE LEVEL SURFACE OF THE SIDEWALK ALONG THE TOP OF THE RAMP. GROOVES SHALL BE APPROX. 1/4" DEEP, 1/4" WIDE AND SPACED 3/4" ON CENTER.
- THE LOWER LANDING AREA LEADING INTO VEHICULAR WAY SHALL TERMINATE WITHIN THE MARKED CROSSING.
- PROVIDE A MIN. 4' DEEP LEVEL LANDING ON UPPER ENDS AND OVER FULL-WIDTH OF RAMP. MAINTAIN A 2% MAX. SLOPE, ANY DIRECTION.
- RAMP AND LOWER LANDING SHALL BE MINIMUM OF 5' WIDE AND SHALL LIE GENERALLY IN A SINGLE SLOPED PLANE WITH A MINIMUM OF SURFACE WARPING AND CROSS SLOPE.
- CURB RAMPS SHALL BE LOCATED OR PROTECTED TO PREVENT THEIR OBSTRUCTION BY PARKED CARS.
- ON THE BOTTOM LANDING WITH A 2% MAX. SLOPE, WHERE WALK ADJOINS A VEHICULAR WAY, INSTALL A 36" BAND OF TRUNCATED DOMES, IN-LINE PATTERN PER P.W. STD. P-32, THE FULL WIDTH OF THE LANDING.
- THIS RAMP TYPE SHALL ONLY BE USED WHEN NECESSARY DUE TO R/W OR PHYSICAL CONSTRAINTS. IT MAY BE UTILIZED FOR DIAGONAL OR DUAL RAMP APPLICATIONS.
- MODIFIED RAMPS PLACED ON SIGNALIZED INTERSECTIONS SHALL HAVE A PEDESTRIAN PUSH BUTTON ON THE ADJACENT SIGNAL POLE PER CA-MUTCD 4E.08. IN INSTANCES WHERE THIS IS NOT FEASIBLE THE PEDESTRIAN PUSHBUTTON SHALL BE INSTALLED ON A REMOTE POST LOCATED AT THE LOWER LANDING AREA, THE CURB WIDTH SHALL BE INCREASED ACCORDINGLY TO ACCOMMODATE THE POST INSTALLATION.
- PUSH BUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS CLOSE AS POSSIBLE TO THE CROSSWALK LINE FURTHEST FROM THE CENTER OF THE THE INTERSECTION AND AS CLOSE AS POSSIBLE TO THE CURB RAMP. IF TWO ACCESSIBLE PEDESTRIAN PUSHBUTTONS ARE PLACED LESS THAN 10 FEET APART OR ON THE SAME POLE, EACH PEDESTRIAN PUSHBUTTON SHALL BE PROVIDED WITH A PUSHBUTTON LOCATOR TONE, TACTILE ARROW, SPEECH WALK MESSAGE FOR THE WALK INDICATION, AND A SPEECH PUSHBUTTON INFORMATION MESSAGE. REFER TO THE CA-MUTCD FOR SPECIFIC GUIDANCE.
- GRADE BREAKS AT THE TOP AND BOTTOM OF CURB RAMP RUNS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF RAMP RUNS AND TURNING SPACES. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.



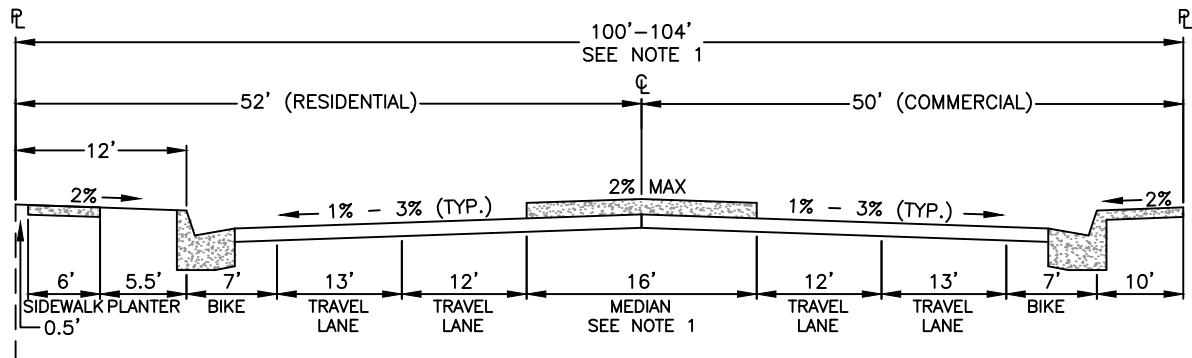
DOME PATTERN



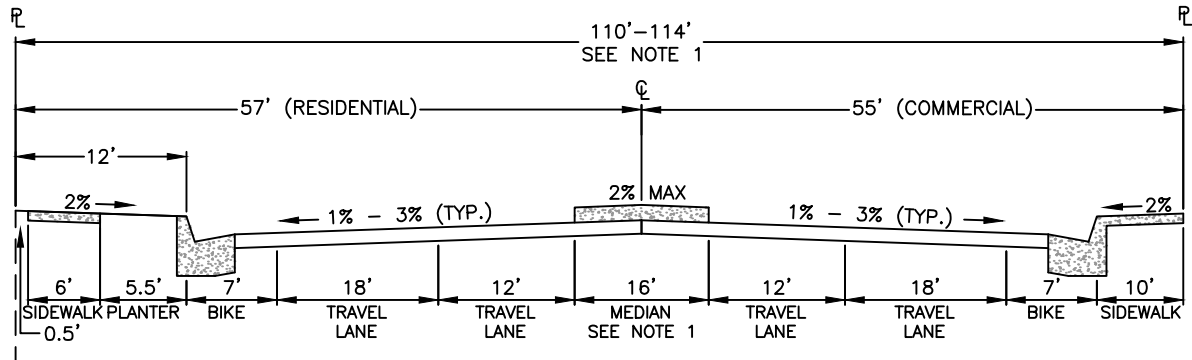
TYPICAL SECTION A-A

NOTES:

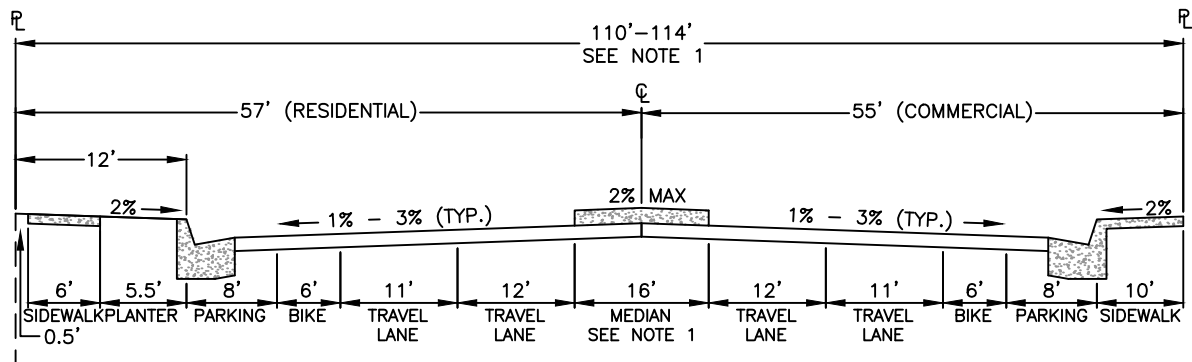
1. THE DETECTABLE WARNING SHALL VISUALLY CONTRAST PER THE CALIFORNIA BUILDING CODE, LATEST REVISION. THE MATERIAL USED SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. THE COLOR SHALL BE YELLOW AND APPROXIMATE FS 33538 OF SAE AMS-STD-595A.
2. THE DOMES MAY BE CONSTRUCTED IN A VARIETY OF METHODS INCLUDING CAST-IN-PLACE OR STAMPED. IT MAY ALSO BE PART OF A PREFABRICATED SURFACE TREATMENT, SEE SURFACE MOUNT DETAIL.
3. ONLY APPROVED DSA/AC DETECTABLE WARNING PRODUCTS AND DIRECTIONAL SURFACES SHALL BE INSTALLED AS PROVIDED IN THE CALIFORNIA CODE OF REGULATIONS (CCR), TITLE 24, PART 1, ARTICLES 2, 3 AND 4. REFER TO CCR TITLE 24, PART 12, CHAPTER 12-11A AND B FOR BUILDING FACILITY ACCESS SPECIFICATIONS FOR PRODUCT APPROVAL FOR DETECTABLE WARNING PRODUCTS AND DIRECTIONAL SURFACES.
4. DETECTABLE WARNING PRODUCTS AND DETECTABLE SURFACES SHALL BE EVALUATED BY AN INDEPENDENT ENTITY, SELECTED BY THE DEPARTMENT OF GENERAL SERVICES, DIVISION OF THE STATE ARCHITECT-ACCESS COMPLIANCE FOR ALL OCCUPANCIES, INCLUDING TRANSPORTATION AND OTHER OUTDOOR ENVIRONMENTS. SEE GOVERNMENT CODE SECTION 4460.



CASE 1: DIVIDED ARTERIAL — NO PARKING



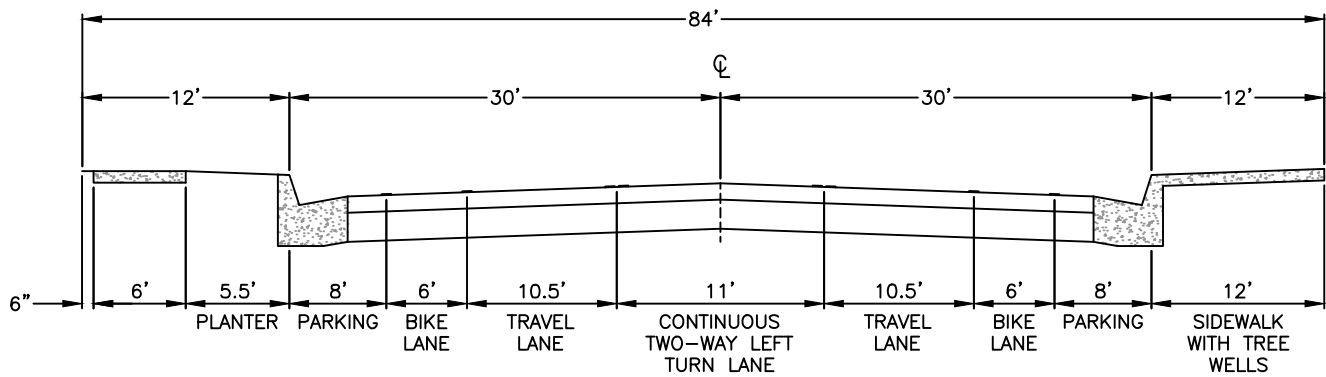
CASE 2: DIVIDED ARTERIAL — NO PARKING
AND WIDER OUTSIDE TRAVEL LANE



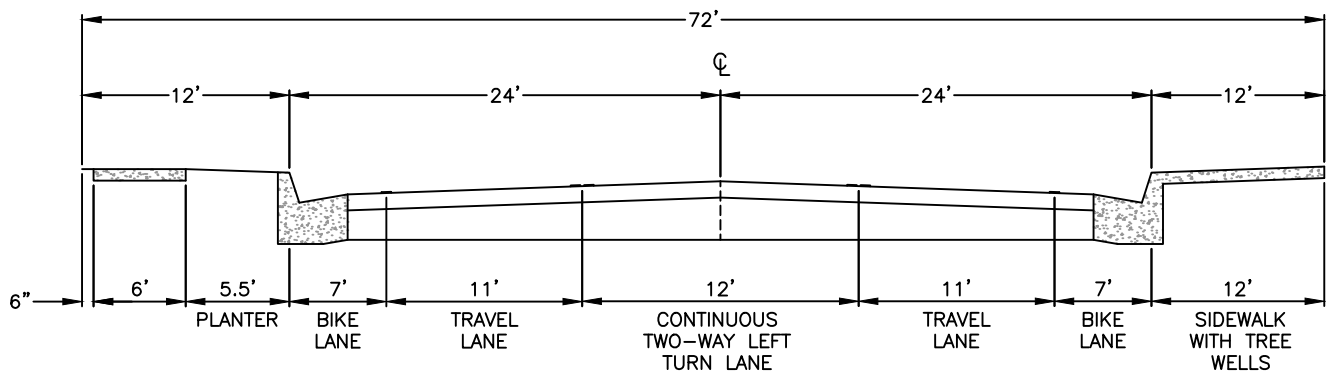
CASE 3: DIVIDED ARTERIAL — WITH PARKING
OR SCHOOL DROP OFF ZONES

NOTES:

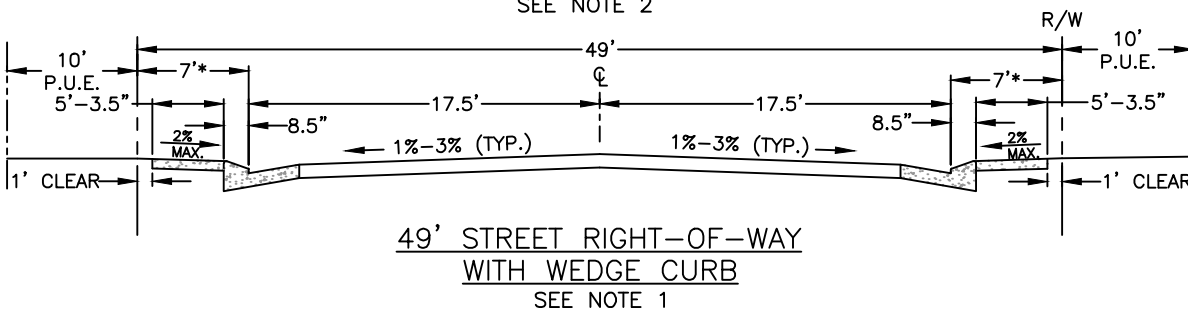
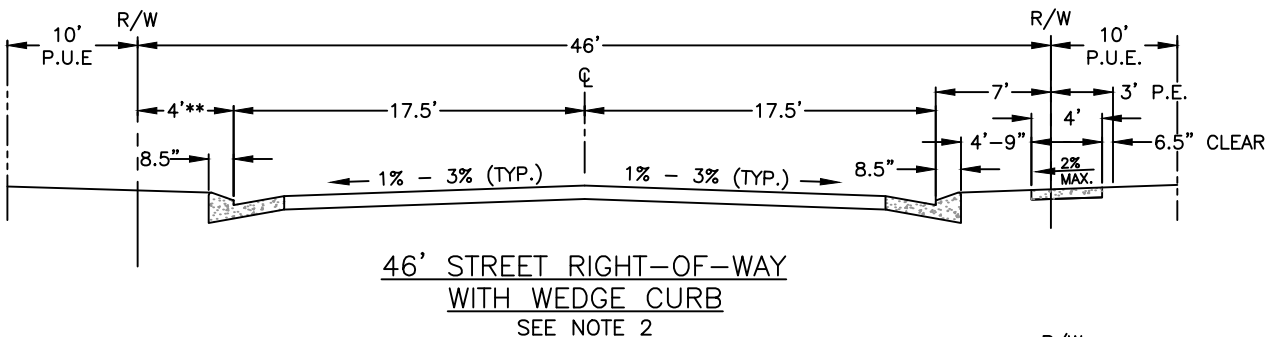
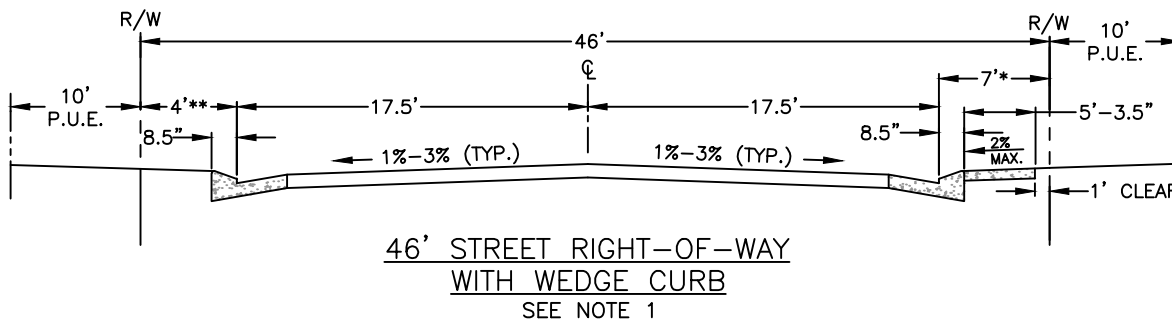
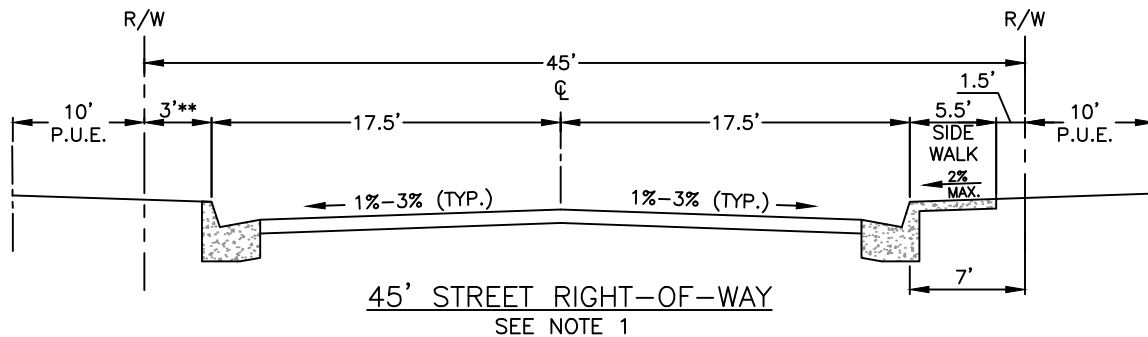
1. USE 26' MEDIAN WIDTH WHEN DUAL LEFT TURNS ARE REQUIRED. USE OF A 22' MEDIAN IS ALLOWED ONLY WHEN AN ARTERIAL HAS BEEN SPECIFICALLY PLANNED FOR A 22' MEDIAN ISLAND. ADDITIONAL RIGHT OF WAY IS REQUIRED FOR THE 22' OR 26' MEDIANS.
2. USE OF AN OFFSET CROWN OR OTHER DEVIATIONS FROM THIS STANDARD REQUIRES PRIOR APPROVAL OF THE CITY TRAFFIC ENGINEER.
3. CASE 2 SHALL ONLY BE USED FOR SHORT GAP FILLING BETWEEN EXISTING CASE 2 ARTERIALS.
4. CASE 3 SHALL NOT BE USED UNLESS APPROVED BY THE CITY TRAFFIC ENGINEER.



COLLECTOR STREET WITH PARKING
(2 TRAVEL LANES) 84' ROW



COLLECTOR STREET – NO PARKING
(2 TRAVEL LANES) 72' ROW



NOTES:

1. FOR DRIVEWAY DETAIL SEE STREET SECTIONS THAT MAY BE USED, SEE P.W. STD. DWGS. P-4 AND P-6.
 2. FOR DRIVEWAY DETAIL SEE STREET SECTIONS THAT MAY BE USED, SEE P.W. STD. DWGS. P-1, P-2, P-3 AND P-6.
 3. OFFSET CROWN DESIGN OR OTHER DEVIATIONS FROM STANDARDS REQUIRE THE APPROVAL OF THE CITY ENGINEER.
 4. SIDEWALKS MAY BE LOCATED PARTIALLY OR FULLY OUTSIDE THE STREET RIGHT-OF-WAY WITH THE DEDICATION OF A PEDESTRIAN EASEMENT.
 5. FRESNO IRRIGATION DISTRICT FACILITIES SHALL BE LOCATED OUTSIDE OF STREET AND PEDESTRIAN EASEMENT AREA.
 6. WEDGE CURB IS NOT ALLOWED IN FRONT OF FIRE HYDRANTS.
 7. SMALLER P.U.E. IS ACCEPTABLE WITH THE APPROVAL OF AFFECTED UTILITY COMPANIES.
- * MONOLITHIC SIDEWALK PATTERN WITH WEDGE CURB REQUIRES A NON-STANDARD SIDEWALK THICKNESS. SEE STD. DWG. P-5. REFERENCE STD. DET. P-9 FOR SPECIFIC LAYOUT DIMENSIONS.
- ** NO STREET LIGHTS ARE ALLOWED ON SIDE OF STREET WITHOUT SIDEWALK.

LOCAL STREET CROSS-SECTION

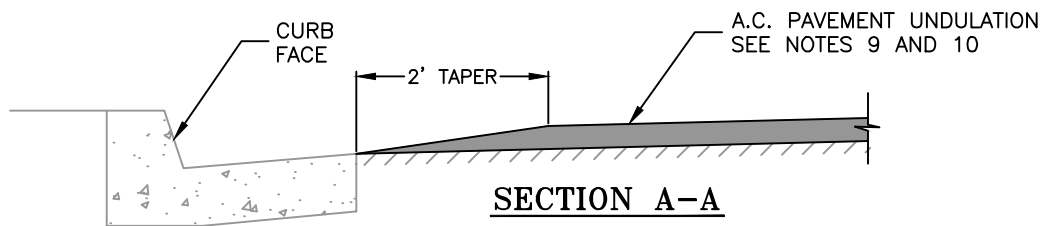
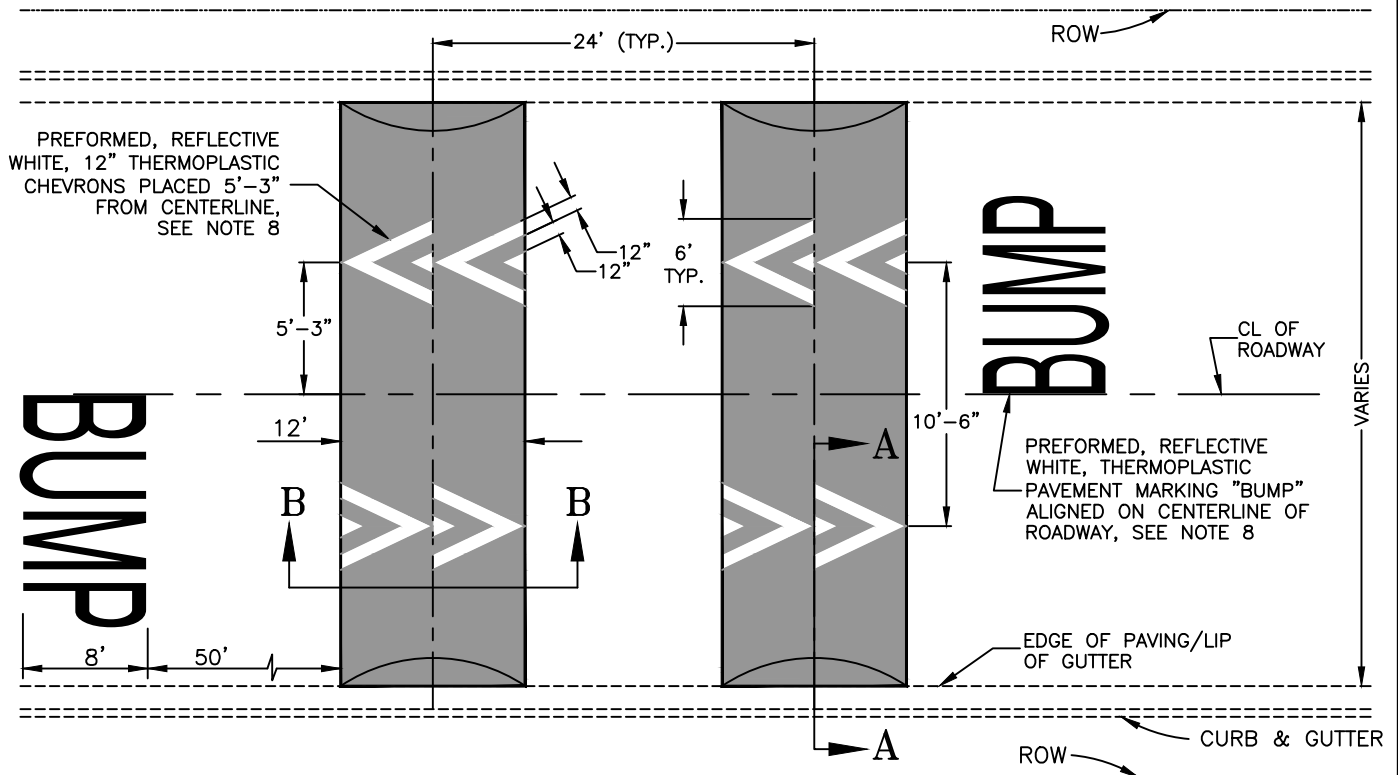
ALTERNATIVE WIDTHS/WEDGE CURBS

SEE API-4 THRU API-9 FOR S. MINNEWAWA AVE. BETWEEN BUTLER AVE. AND FANCHER CREEK AND FOR VAN NESS EXTENSION BETWEEN HERNDON AVE. AND SAN JOAQUIN RIVER BLUFF.

REF. & REV.
MAR. 2021 (A7)
JAN. 2023 (A8)

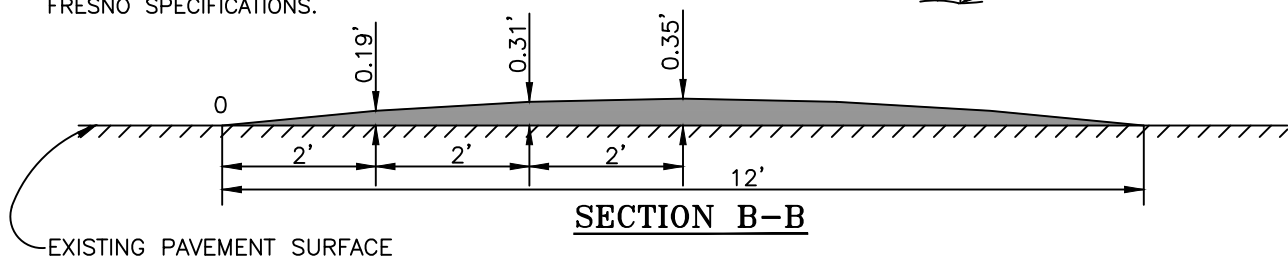
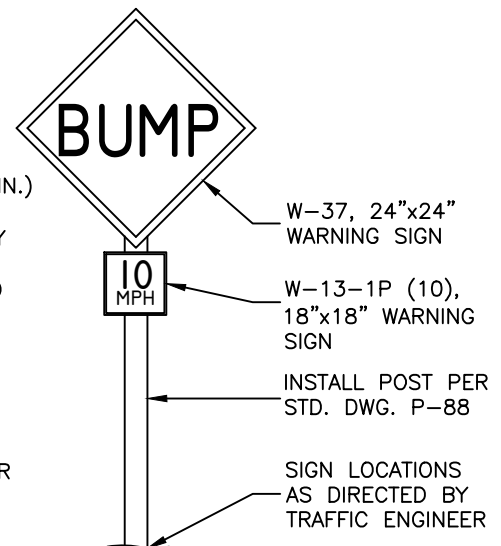
CITY OF FRESNO

P-56B



INSTALLATION NOTES:

1. TWO (2) UNDULATIONS LOCATED 24-FOOT ON-CENTER (O.C.) SHALL BE CONSTRUCTED AT GIVEN LOCATIONS UNLESS OTHERWISE NOTED.
2. UNDULATIONS SHALL NOT BE PLACED OVER EXISTING ROADWAY SERVICE COVERS, DRAIN INLETS, ETC.
3. WHENEVER POSSIBLE, EDGE OF UNDULATIONS SHALL BE 5-FOET (MIN.) FROM EDGE OF DRIVEWAY.
4. WHENEVER POSSIBLE, UNDULATIONS SHALL BE PLACED AT PROPERTY LINES.
5. WHENEVER POSSIBLE, UNDULATIONS SHALL BE PLACED ADJACENT TO STREET LIGHTS.
6. PARKING SHALL BE PROHIBITED AS DIRECTED BY CITY TRAFFIC ENGINEER.
7. CONSTRUCTION SHALL ONLY OCCUR MAY THROUGH OCTOBER.
8. CHEVRONS AND "BUMP" STENCIL SHALL BE PREFORMED THERMOPLASTIC.
9. TACK COAT SHALL BE APPLIED TO EXISTING PAVEMENT SURFACE PER CALTRANS SPECIFICATIONS SECTION 39.
10. ASPHALT CONCRETE SHALL BE 1/2" FINE PG 70-10, PER CITY OF FRESNO SPECIFICATIONS.



THIS STANDARD IS
NO LONGER USED

NO LONGER USED

REF. & REV.
~~JULY 2011~~
~~MAR. 2021 (A.7)~~
JAN. 2023 (A.8)

CITY OF FRESNO

P-72

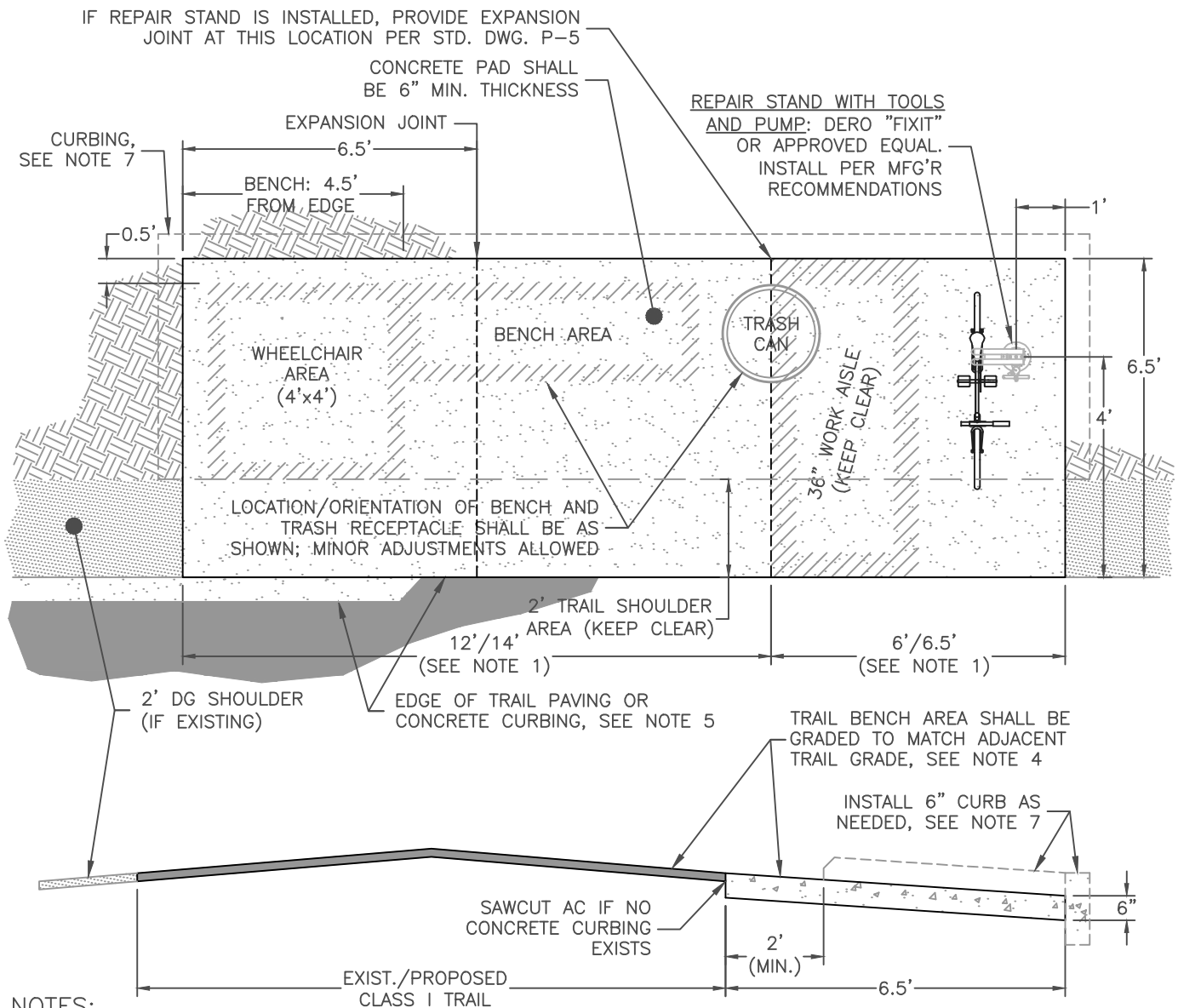
THIS STANDARD IS
NO LONGER USED

NO LONGER USED

REF. & REV.
AUG. 2002
~~MAR. 2021 (A.7)~~
JAN. 2023 (A.8)

CITY OF FRESNO

P-73



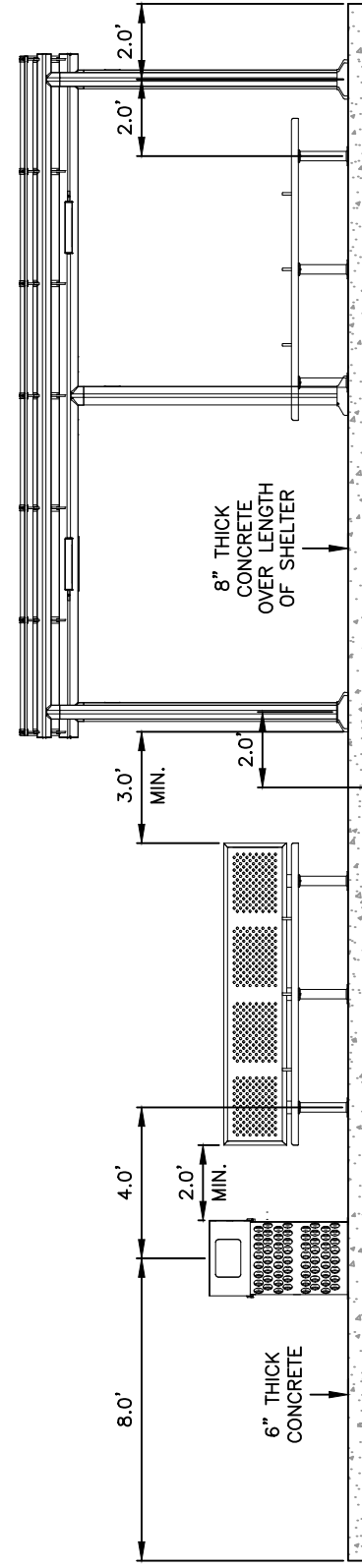
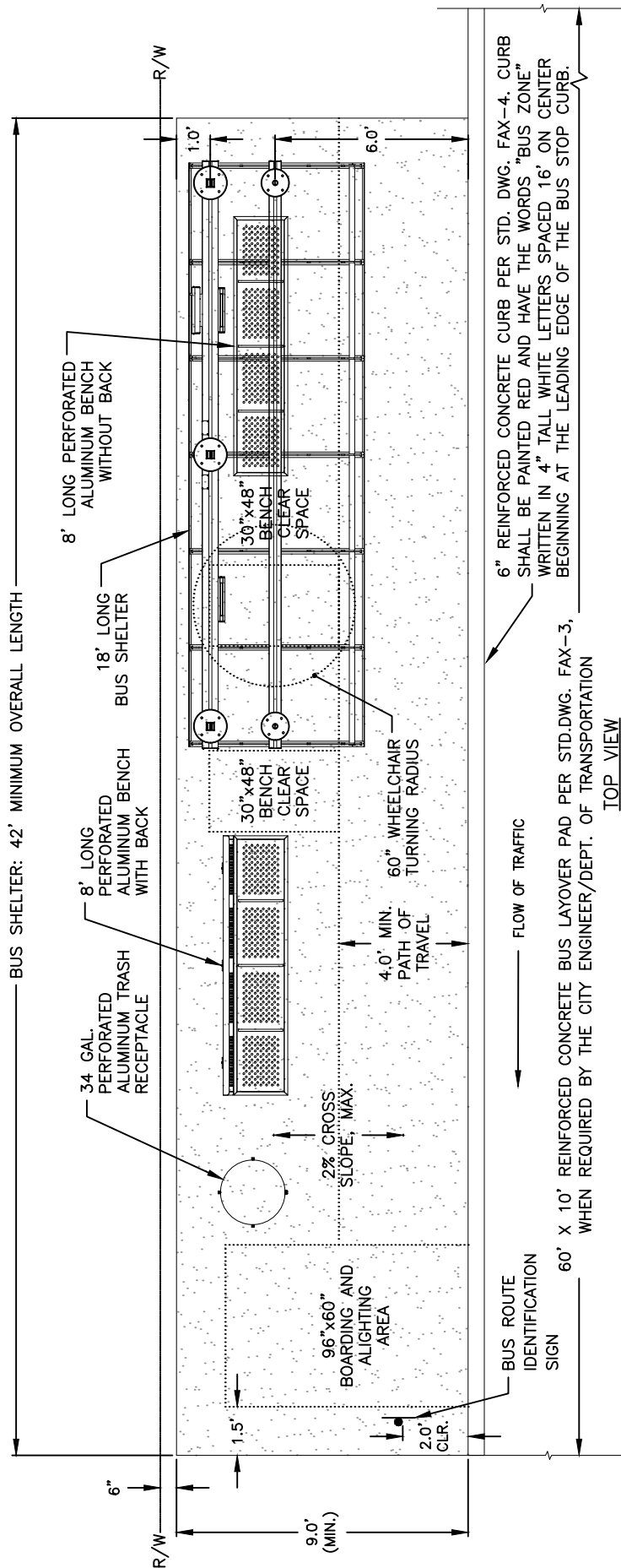
NOTES:

1. THE REPAIR STAND AND ITS CONCRETE PAD AREA ARE AN OPTIONAL FEATURE. IF THE REPAIR STAND IS TO BE INSTALLED SEPARATELY THE WIDTH SHALL BE 6.5' (MIN.) AND THE BENCH REST AREA SHALL BE 14' (MIN.)
2. THE REST AREA LAYOUT, INSTALLATION LOCATION, AND INCLUDED AMENITIES (REPAIR STAND, TRASH BIN) SHALL BE AS DIRECTED OR APPROVED BY PUBLIC WORKS. LAYOUT MAY BE FLIPPED (MIRRORED) TO BEST FIT THE LOCATION.
3. ALL CONSTRUCTION SHALL COMPLY WITH CURRENT PUBLIC WORKS STANDARDS. PROVIDE EXPANSION JOINTS PER STD. DWG. P-5 AS SHOWN. FINISH SURFACES SHALL RECEIVE A MEDIUM BROOM FINISH FOR SLIP RESISTANCE.
4. CONCRETE FLATWORK SHALL BE GRADED AT 1%-2%, EITHER AWAY FROM THE TRAIL OR TOWARDS THE TRAIL, WHICHEVER BEST SUITS THE TOPOGRAPHY AND DRAINAGE NEEDS. DO NOT CREATE A VALLEY AT THE EDGE OF THE TRAIL THAT COULD IMPOUND WATER BETWEEN THE TRAIL AND THE BENCH AREA. ALL WORK MUST COMPLY WITH CURRENT ADA REQUIREMENTS.
5. CONCRETE FLATWORK SHALL DIRECTLY ABUT THE PAVED TRAIL SURFACE OR CONCRETE EDGE STRIP (IF PRESENT) WITH NO DISCERNABLE LIP (NOT TO EXCEED 1/4"). IF NO CONCRETE EDGING EXISTS, SAWCUT AC TRAIL TO OBTAIN A STRAIGHT AND CLEAN EDGE.
6. THE REPAIR STAND SHOULD EITHER BE LOCATED NEAR AN EXISTING LIGHT SOURCE (STREET LIGHT, TRAIL LIGHT), OR LIGHTING SHALL BE INSTALLED WITH THE REPAIR FACILITY. EXCEPTIONS INCLUDE PROPOSED LOCATIONS WITHIN TRAIL SEGMENTS THAT ARE LOCKED AT NIGHT OR AS ALLOWED BY THE CITY ENGINEER.
7. A RETAINING CURB SHALL BE INSTALLED WHEN NEEDED TO HOLD BACK SOIL OR WHEN A 4" OR GREATER GRADE DIFFERENCE EXISTS BETWEEN TOP OF SLAB AND ADJACENT GRADES FOR DROP PROTECTION (6" CURB REQUIRED FOR THIS USE). IF INSTALLED, GRADE AREA SUCH THAT CURB SHALL NOT IMPOUND WATER.

TRAIL BENCH LAYOUT WITH OPTIONAL REPAIR STAND

REF. & REV.
JAN. 2023 (A.8)

CITY OF FRESNO
P-81



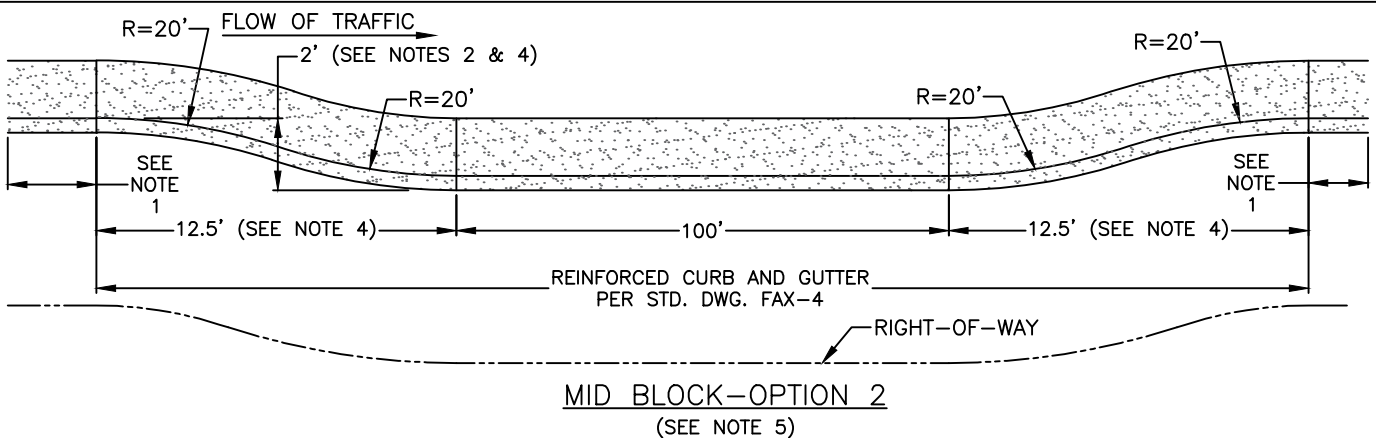
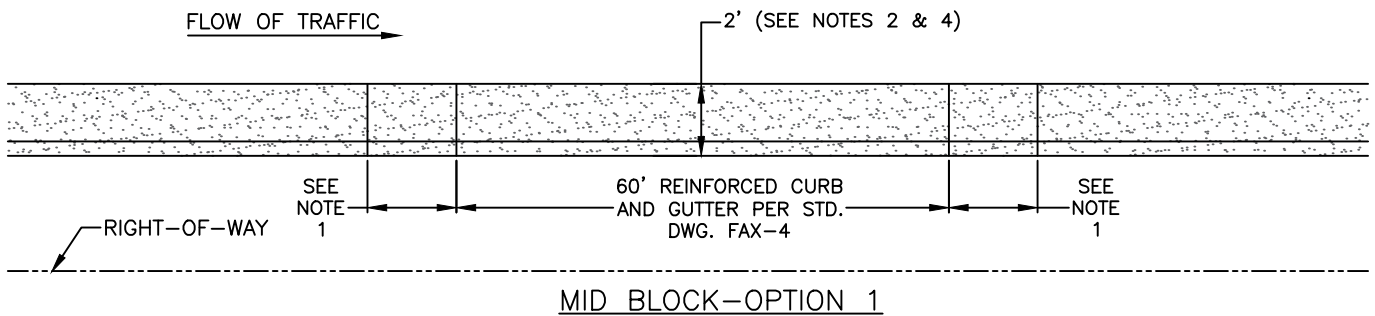
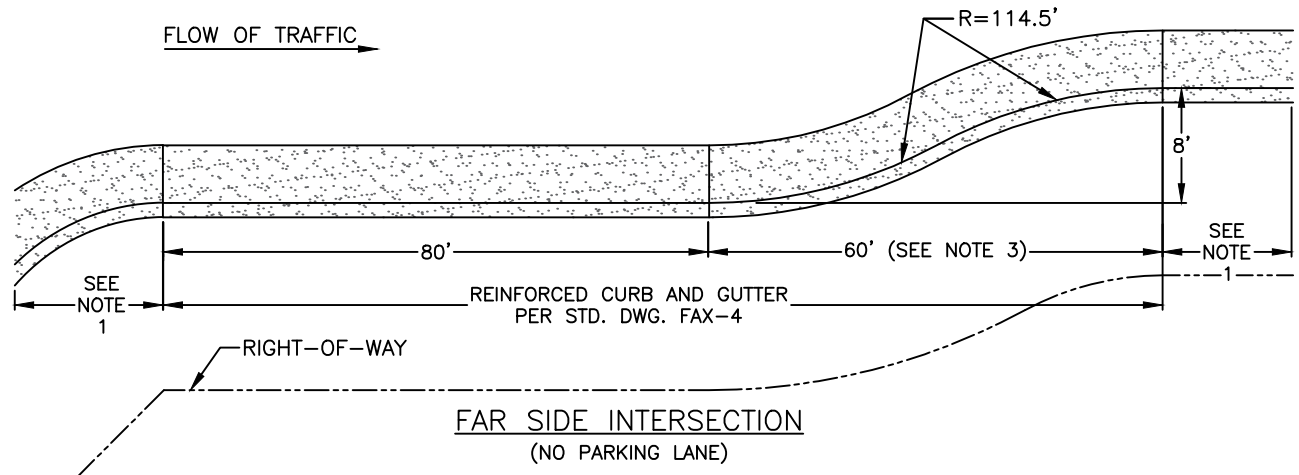
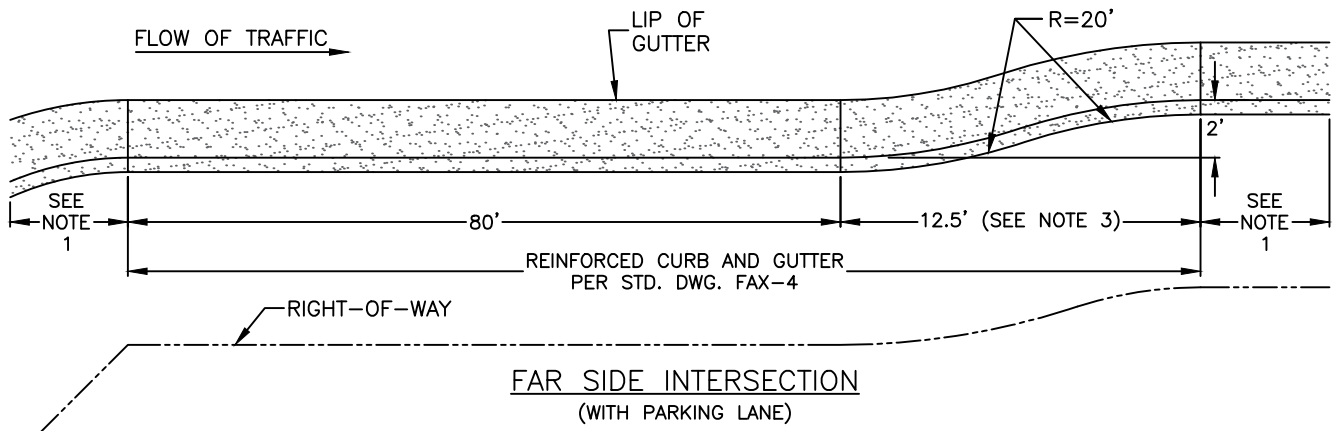
NOTES:

1. BUS SHELTERS SHALL BE PLACED IN CITY OF FRESNO RIGHT OF WAY. CONTACT CITY OF FRESNO TRAFFIC ENGINEERING/DEPT. OF TRANSPORTATION FOR EASEMENT REQUIREMENTS IF ADA CLEARANCE IS NOT MET.
2. A 8" CONCRETE PAD SHALL BE PLACED UNDER SHELTER. LIMITS OF PAD SHALL ALLOW FOR FUTURE ADDITION OF SHELTER. CONTACT TRAFFIC ENGINEERING/DEPT. OF TRANSPORTATION FOR REQUIREMENTS.
3. BUS STOPS WITH SHELTERS SHALL COMPLY WITH THE CURRENT EDITIONS OF THE CALIFORNIA BUILDING CODE SECTIONS 11B-209, 11B-218 AND 11B-903; AS WELL AS THE U.S. DEPARTMENT OF TRANSPORTATION ADA STANDARDS FOR TRANSPORTATION FACILITIES, SECTIONS 209, 218 AND 903.

BUS STOP WITH SHELTER LAYOUT PLAN

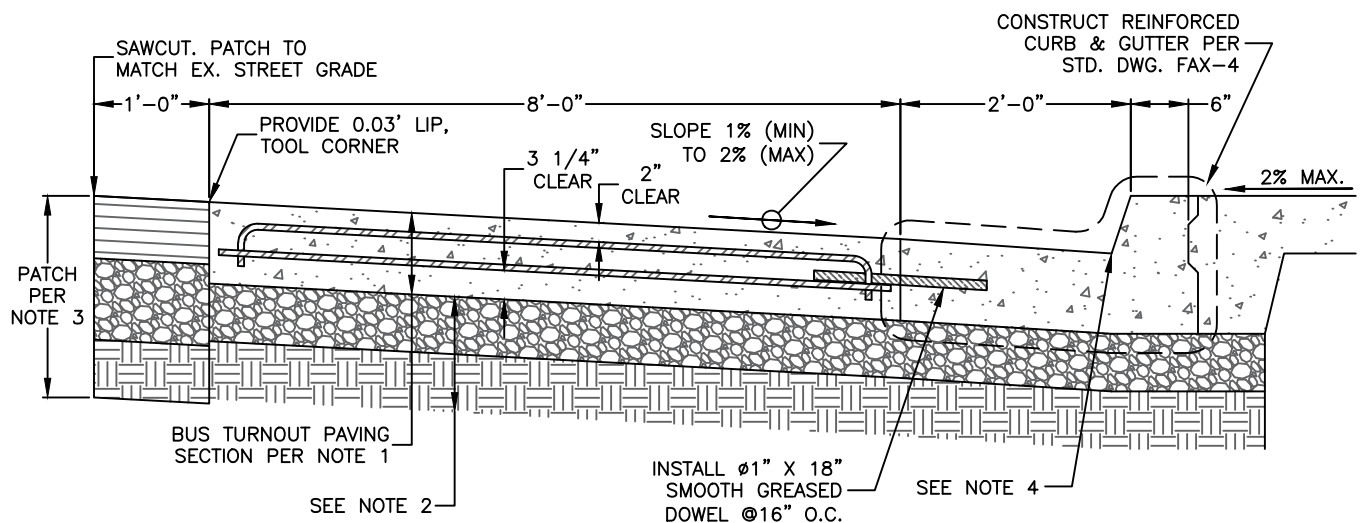
REF. & REV.
JAN. 2023 (A.8)

CITY OF FRESNO
FAX-1



NOTES:

1. 5' MIN. TRANSITION TO STD. CURB & GUTTER.
2. WHERE PARKING LANE DOES NOT EXIST, 8' BUS BAY WILL BE REQUIRED.
3. ON COLLECTOR STREETS IN NEW GROWTH AREAS, USE STD. DWG. P-69.
4. IF 8' BUS BAY, USE 114.50' RADIUS AND 60' TRANSITION.
5. USE WHEN TRAVEL LANE IS <20' (LANE LINE TO FACE OF CURB). CITY ENGINEER MUST APPROVE USE.



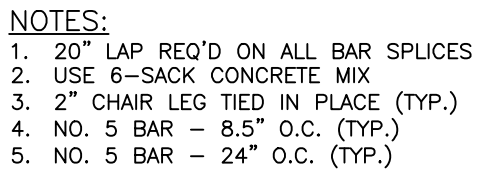
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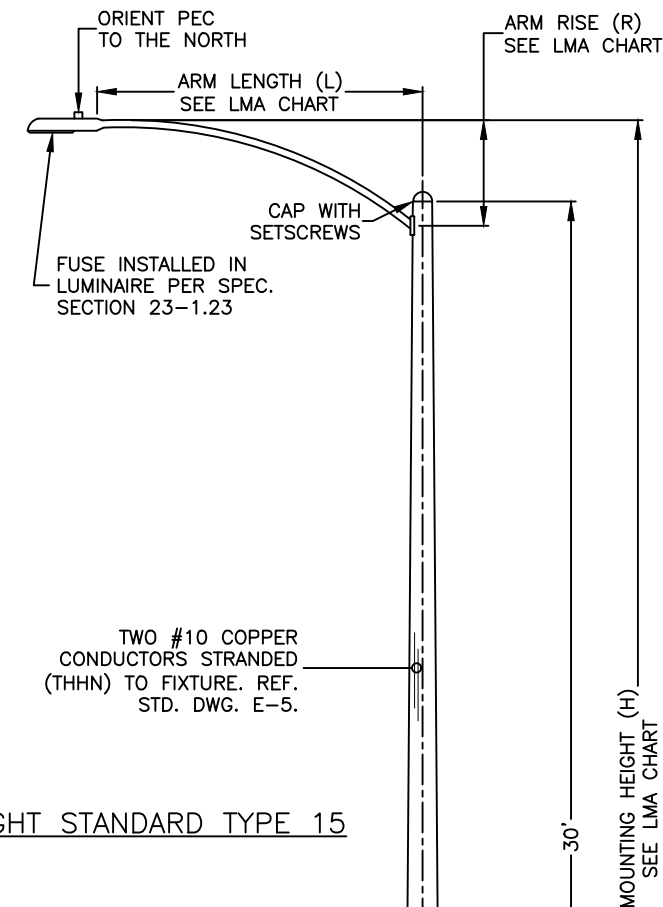
1. CONCRETE PAD SHALL BE 10" PCCP WITH #5 GRADE 60 REBAR AT 16" O.C., EACH WAY, TOP AND BOTTOM. USE 3" REBAR SPACERS WITH WIRE TIES (DOBIES). CONCRETE SHALL BE CLASS "A", 6-SACK. ALL FINISH SHALL BE MEDIUM BROOM.
2. PLACE 6" CLASS II AB (95% R.C.) OVER 6" CNS AT 95% R.C.
3. AC PATCH SHALL BE 6.5" AC (TYPE A) OVER 8.5" CLASS II AB ON 6" CNS AT 95% R.C.
OPTIONAL: 12" AC (TYPE A) ON 6" CNS AT 95% R.C. MAY BE USED AS AN ALTERNATIVE
4. PROVIDE GRADE BREAKS PER PLAN. IF SIGNIFICANT FIELD ADJUSTMENTS ARE NECESSARY DUE TO UNFORESEEN CONDITIONS CONTACT CONSTRUCTION MANAGEMENT IMMEDIATELY FOR GUIDANCE AND APPROVAL BY THE PROJECT ENGINEER

BUS LAYOVER PAD CONSTRUCTION DETAIL & NOTES

REF. & REV.
JAN. 2023 (A.8)

CITY OF FRESNO
FAX-3



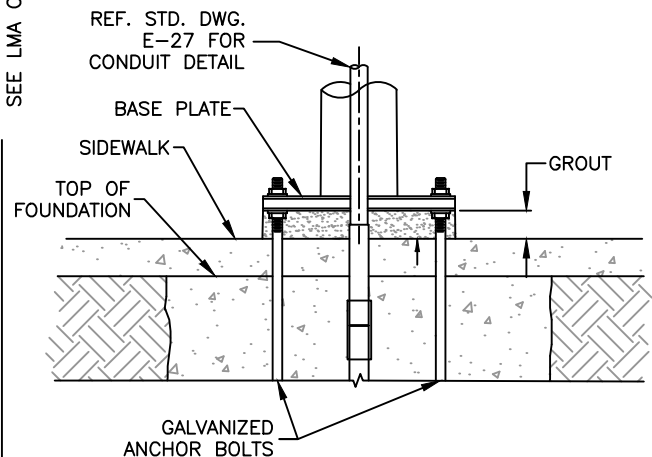


NOTES:

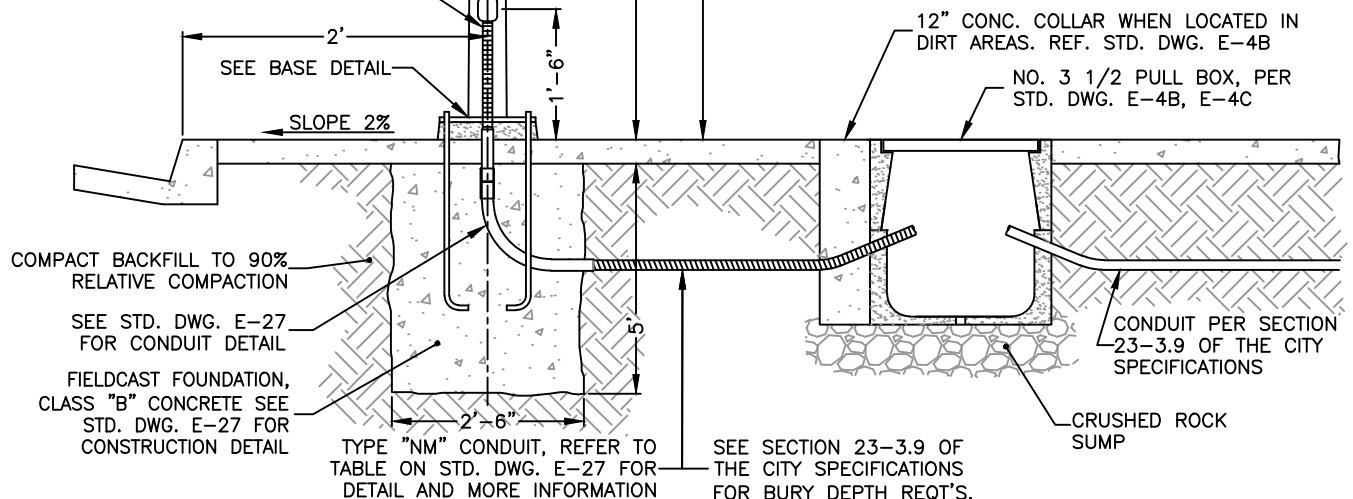
1. ALL WORK SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE SPECIFICATIONS ENTITLED "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, BUSINESS AND TRANSPORTATION AGENCY, DEPARTMENT OF TRANSPORTATION" (1997 REVISION) AND THE NATIONAL ELECTRICAL CODE.
2. LUMINAIRE SHALL BE COBRA HEAD TYPE, 120V LIGHT EMITTING DIODE (LED). PHOTOELECTRIC CELL SHALL BE EXTENDED LIFE, QUICK ACTING.
3. ALL STREET LIGHTS SHALL BE NUMBERED. NUMERICAL SEQUENCE TO BE OBTAINED FROM P.G.&E. NUMBERS TO BE 2-1/2" HIGH AND INSTALLED 10'-6" ABOVE FINISHED GRADE PER STD. DWG. E-25.

LMA CHART

ROADWAY CLASSIFICATION	L	R	H
LOCAL STREET:	8'	2'-6"	33'-0"
COLLECTOR, ARTERIAL, OR EXPRESSWAY:	12'	4'-3"	33'-9"



BASE DETAIL
PER STD. DWG. E-27

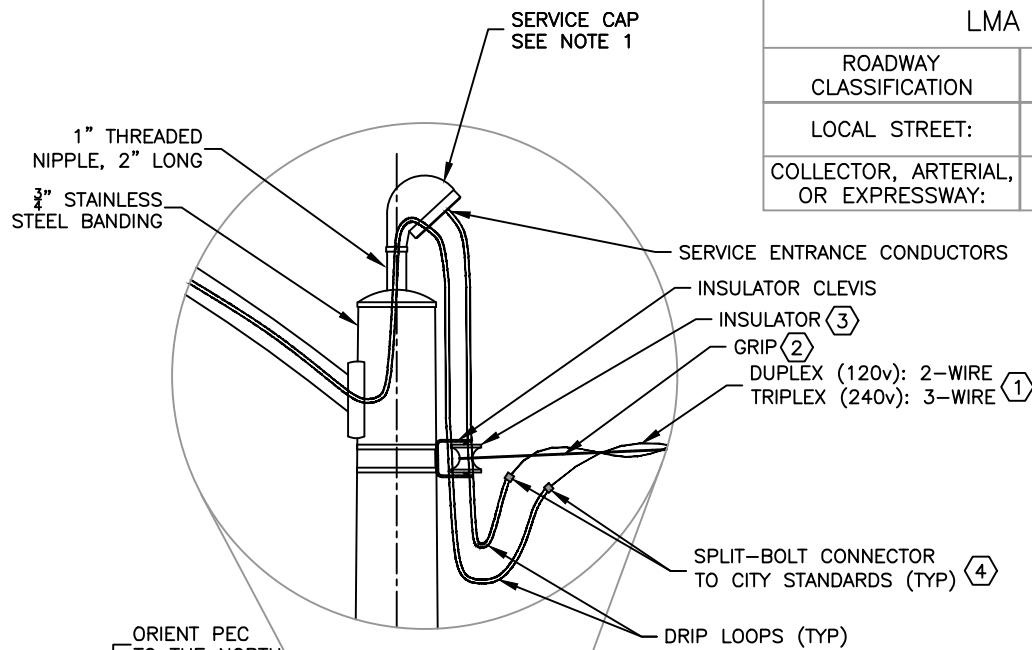


STREETLIGHT-WITH BASE
INCLUDES PULL BOX & PVC CONDUIT

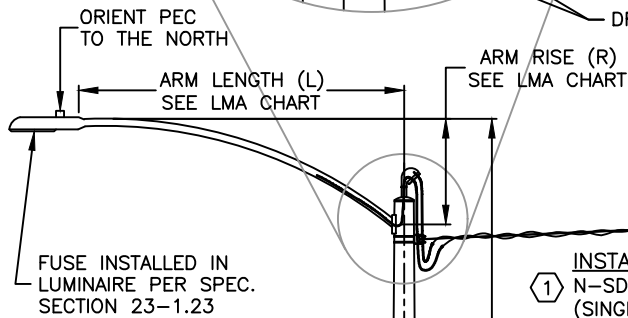
REF. & REV.
AUG. 2015
JAN. 2023 (A.8)

CITY OF FRESNO

E-1



LMA CHART			
ROADWAY CLASSIFICATION	L	R	H
LOCAL STREET:	8'	2'-6"	33'-0"
COLLECTOR, ARTERIAL, OR EXPRESSWAY:	12'	4'-3"	33'-9"



GENERAL NOTES:

1. CONTRACTOR TO SOURCE SERVICE CAP; FABRICATE/MODIFY TO ACCEPT/INSTALL NIPPLE.
2. PROVIDE AND INSTALL #10 AWG BONDING WIRE FROM POLE TO PULLBOX; TERMINATE INSIDE BOX WITH EARTH GROUND.

INSTALLATION NOTES:

- (1) N-SD SERVICE DROP / SECONDARY CABLE (SINGLE LIGHT - DUPLEX) (MULTIPLE LIGHTS - TRIPLEX) (SEE SPECIAL PROVISIONS)

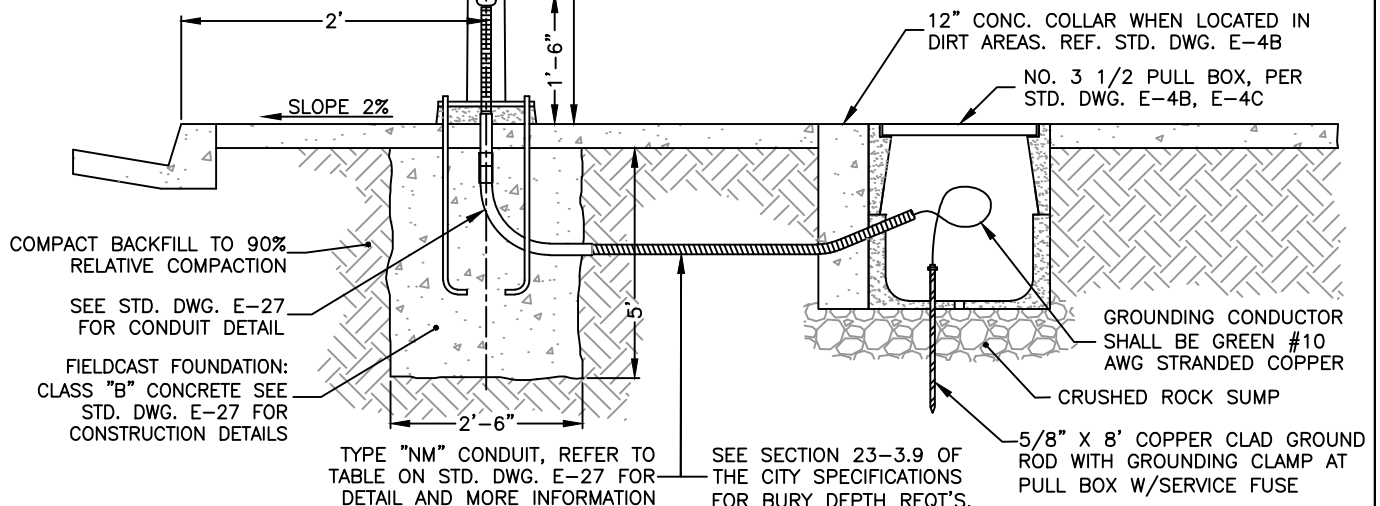
STREET LIGHT DROP SAGS										
SPAN LENGTH	40'	60'	80'	100'	120'	140'	150'	175'	200'	225'
SAG	2"	5"	9"	1'-2"	1'-9"	2'-4"	3'-2"	4'-4"	5'-7"	7'-1"

OVERHEAD CONDUCTORS NOT TO SPAN MORE THAN 225'

LIGHT STANDARD TYPE 15

POLE NUMBERING PER CITY STD. DWG. E-25

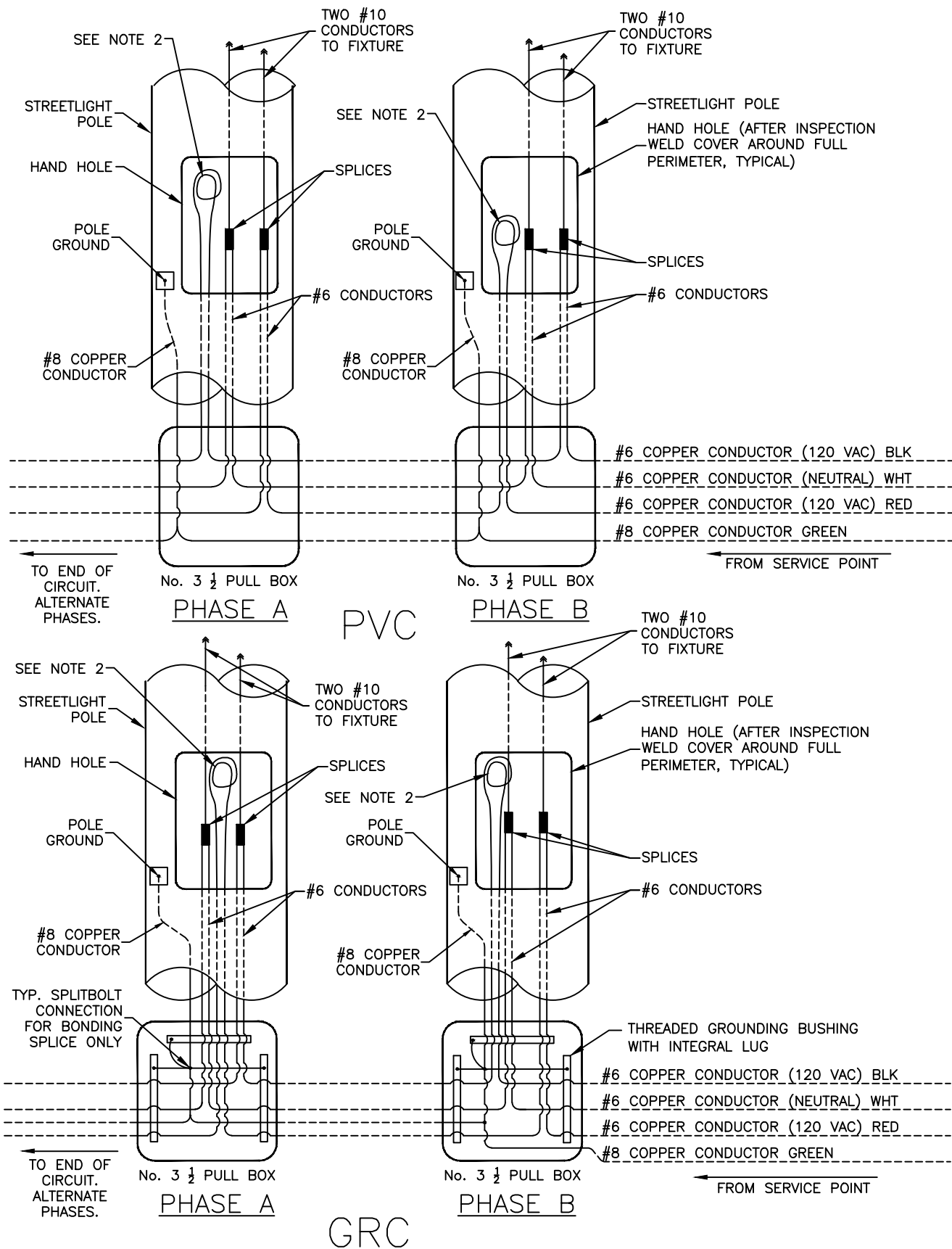
- (2) CHANCE: DEADEND - 10 AWCC
LAND TIE - 10 AWTY-56
- (3) JOSLYN J101/J1398 (SPOOL & CLEVIS)
- (4) CONNECTOR (SEE SPECIAL PROVISIONS)



STREETLIGHT-OVERHEAD FEED
USE ONLY AS APPROVED BY THE CITY ENGINEER

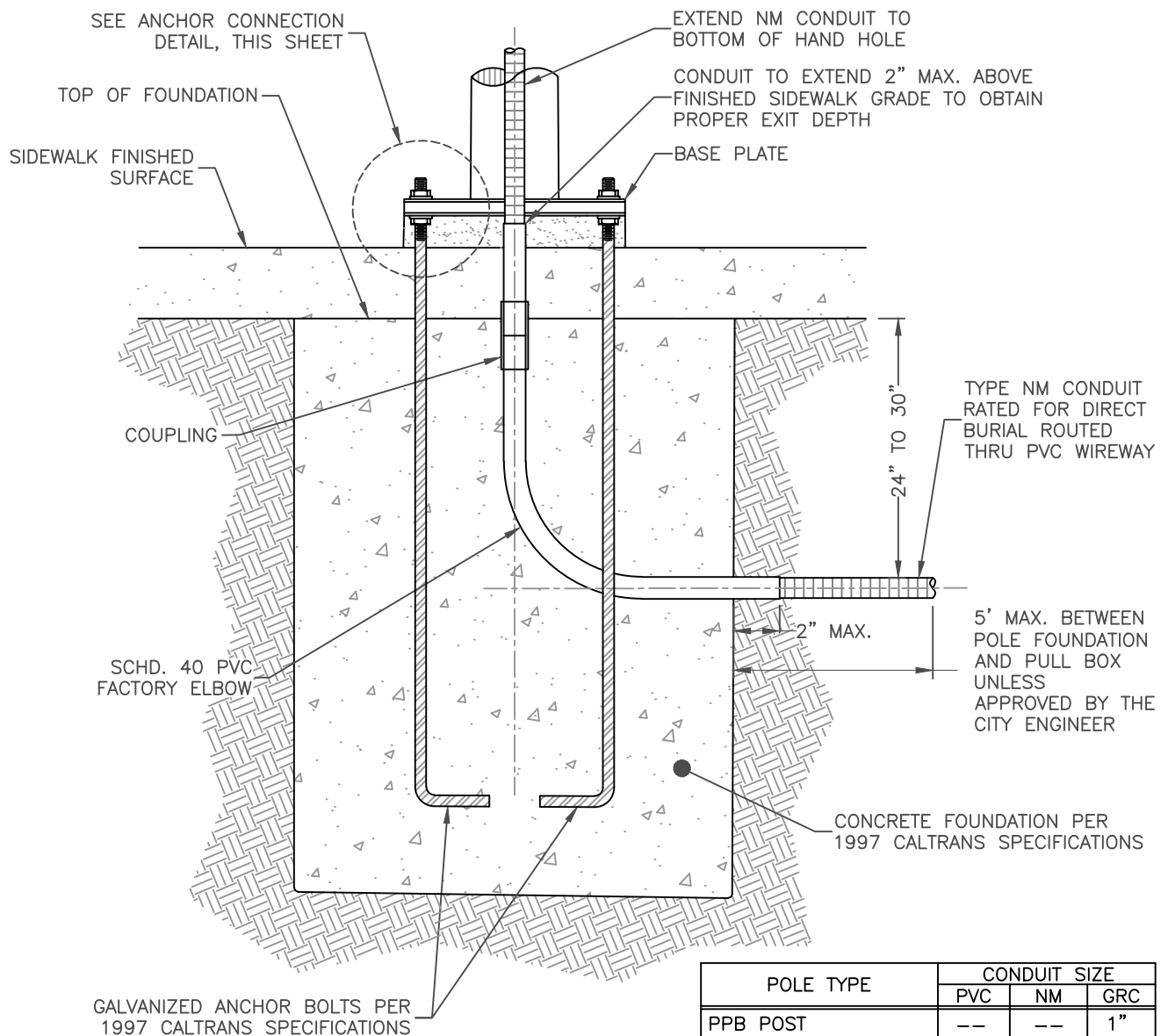
REF. & REV.
JAN. 2023 (A.8)

CITY OF FRESNO
E-1A



NOTES:

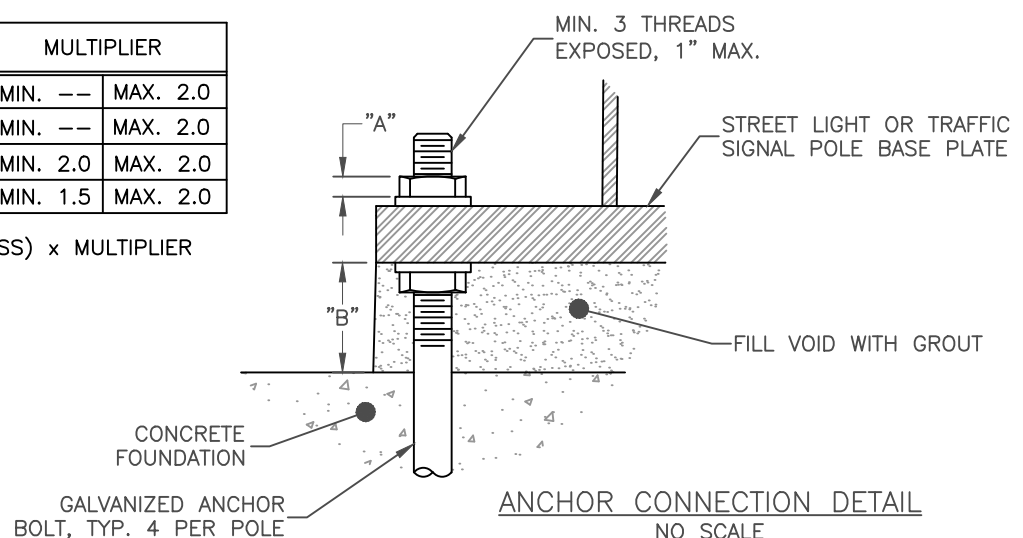
1. WITH EXCEPTION OF BONDING JUMPERS, NO SPLICES WILL BE ALLOWED IN PULL BOXES WITHOUT PRIOR APPROVAL AND THE INSTALLATION OF AN APPROVED LOCKING LID PER SECTION 23-1.10 OF CITY SPECIFICATIONS.
2. ALL CONDUCTORS SHALL BE PULLED TO HANDHOLE WITH 18" MIN. SLACK PROVIDED.



POLE TYPE	CONDUIT SIZE		
	PVC	NM	GRC
PPB POST	--	--	1"
TYPE 1A	2.5"	1.5"	--
TYPE 15	2.5"	1.5"	--
TYPES 16-61	3"	2"	--

POLE TYPE	MULTIPLIER	
PPB POST	MIN. --	MAX. 2.0
TYPE 1A	MIN. --	MAX. 2.0
TYPE 15	MIN. 2.0	MAX. 2.0
TYPES 16-61	MIN. 1.5	MAX. 2.0

"B" = "A" (NUT THICKNESS) x MULTIPLIER



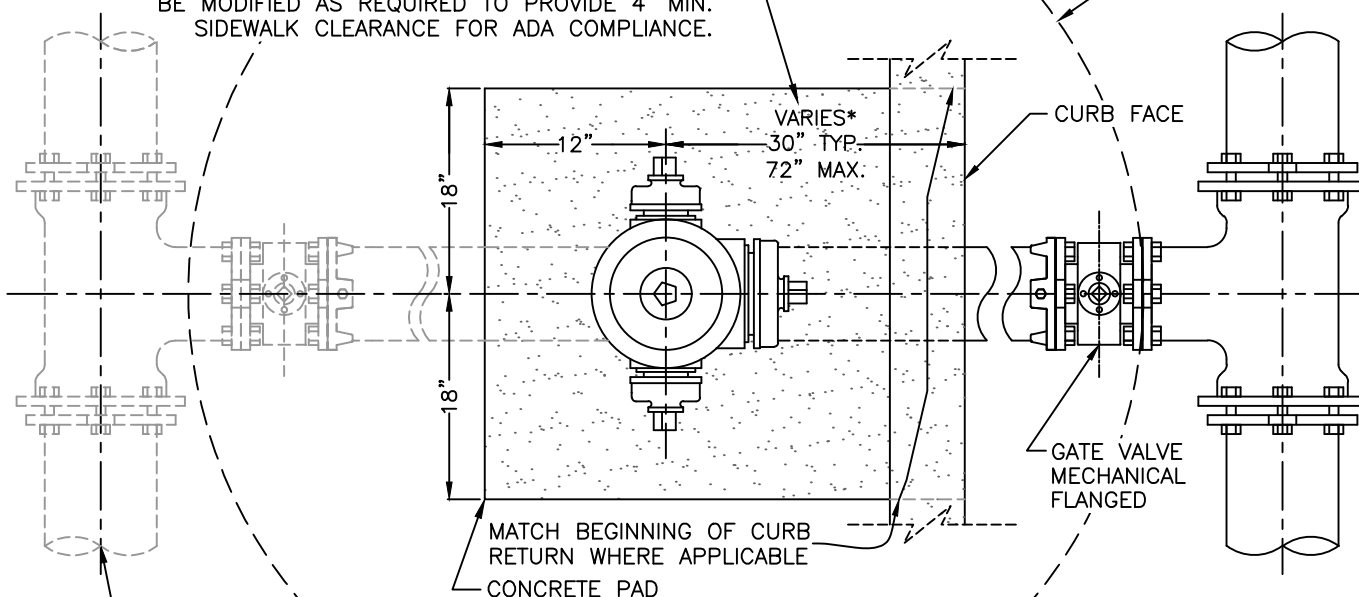
SIGNAL & STREET LIGHT FOUNDATION AND WIRE-WAY DETAIL

REF. & REV.
JUNE 2015
JAN. 2023 (A.8)

CITY OF FRESNO
E-27

*FOR ALL FIRE HYDRANTS INSTALLED, THE SETBACK SHALL TYPICALLY BE 30", BUT SHALL BE MODIFIED AS REQUIRED TO PROVIDE 4' MIN. SIDEWALK CLEARANCE FOR ADA COMPLIANCE.

MAINTAIN 36" CLEAR, MIN.



SEE NOTE 3

AVK 2780, MUELLER A-423, AMERICAN DARLING B-84-B, OR OTHER APPROVED EQUAL DRY BARREL FIRE HYDRANT.

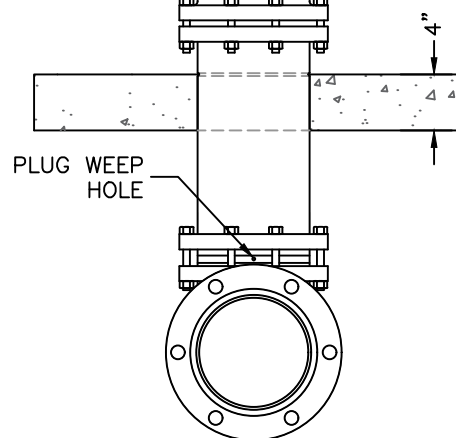
SLOPE CONCRETE SLAB 1/4" PER FT., SWEAT FINISH

CONCRETE PAD
STANDARD CURB

BREAKABLE FLANGE

MAX BURY BARREL LENGTH 54"

2"-4"



HYDRANT RUN BETWEEN VALVE & BURY SHALL BE ADJUSTED SO ELEVATION OF HYDRANT BURY FLANGE IS LEVEL & TO GRADE AS SHOWN, OR AS DIRECTED. BURY DEPTH: 54" MAX., USE 45-DEGREE FITTINGS TO MAINTAIN BURY MAX LENGTH.

NOTES:

1. GATE VALVE TO BE TIED TO MAIN PER STD DWG W-37
2. CAP AND OPERATING NUTS ARE 1-1/8" PENTAGON
3. WHERE MAIN LIES BEHIND CURB, PIPE & VALVE DETAILS SHALL BE REVERSED
4. FIRE HYDRANTS SHALL BE PLACED AT INTERVALS OF 600' FOR RESIDENTIAL DEVELOPMENTS AND 450' FOR COMMERCIAL DEVELOPMENTS. LOCATION APPROVAL REQUIRED BY CITY FIRE DEPARTMENT.

FIRE HYDRANT INSTALLATION

REF. & REV.
JAN. 1997
DEC. 2003
DEC. 2013
MAR. 2021 (A.7)
JAN. 2023 (A.8)

CITY OF FRESNO

W-3