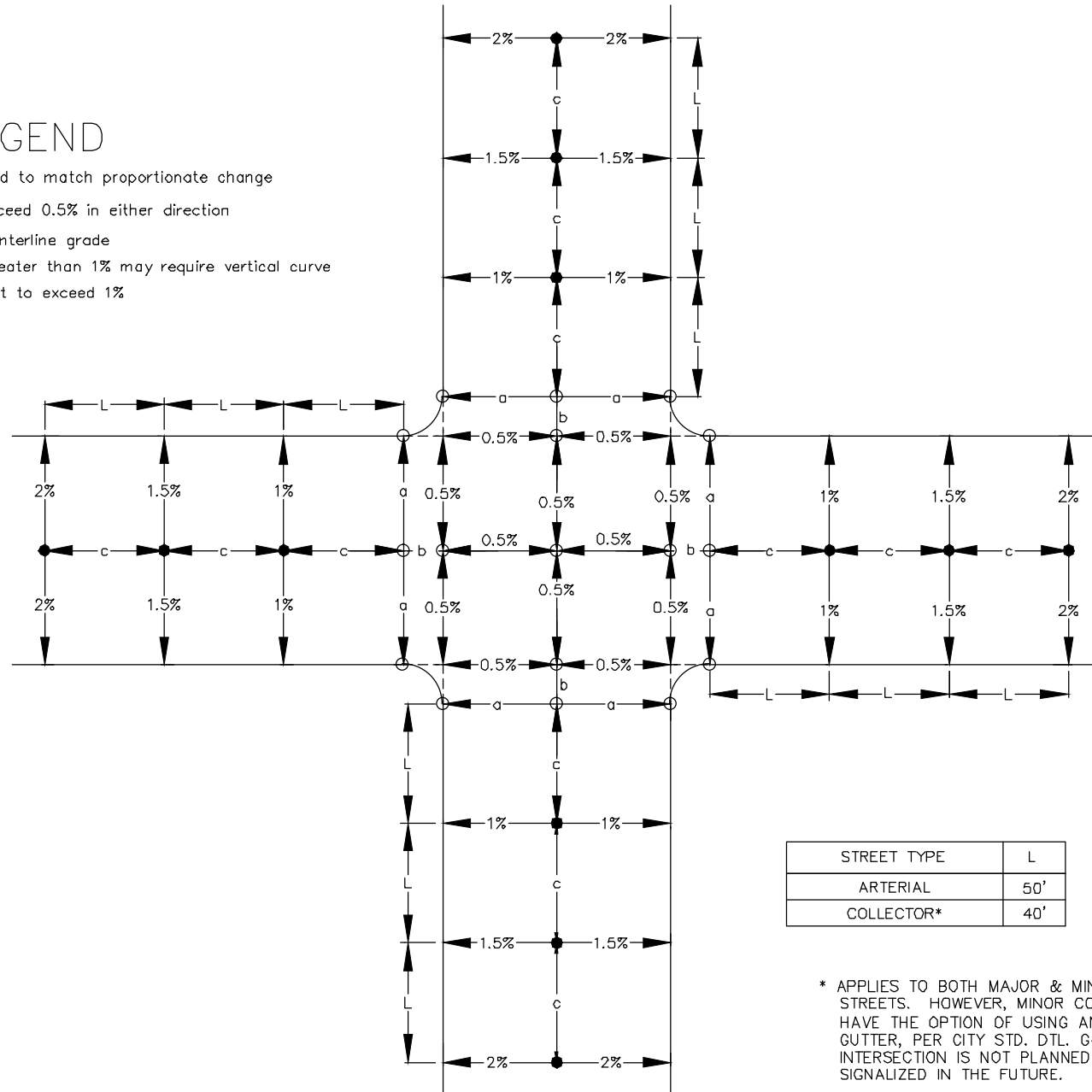
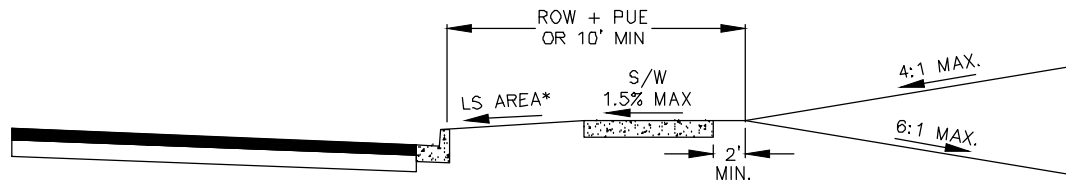


LEGEND

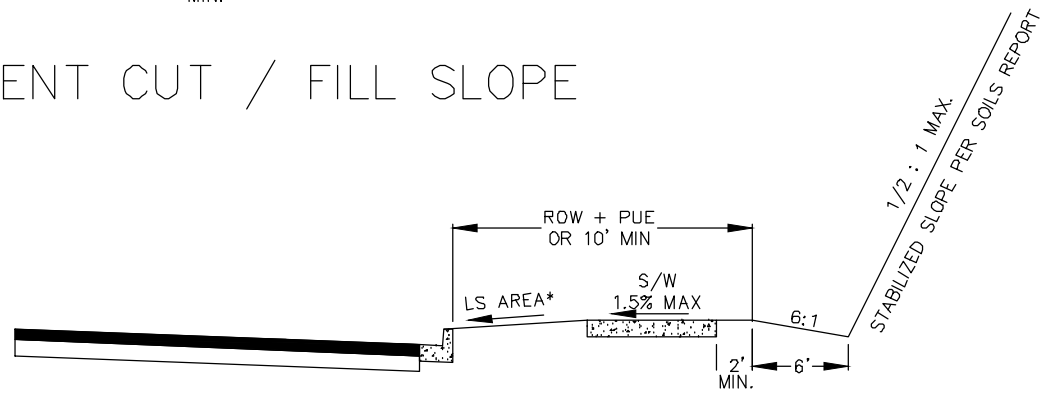
- ← = (a) As required to match proportionate change
- ↔ = (b) Not to exceed 0.5% in either direction
- = (c) Normal centerline grade
- = Grade break greater than 1% may require vertical curve
- = Grade break not to exceed 1%



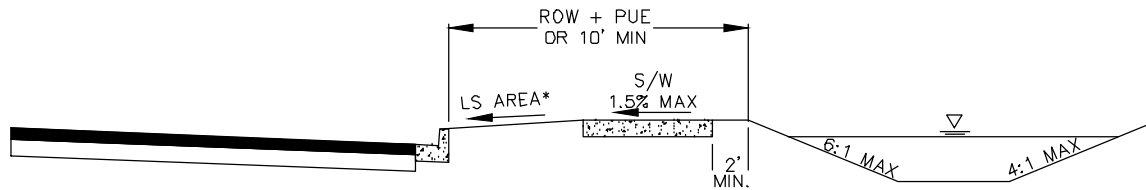
* APPLIES TO BOTH MAJOR & MINOR COLLECTOR STREETS. HOWEVER, MINOR COLLECTOR STREETS HAVE THE OPTION OF USING AN 8' WIDE VALLEY GUTTER, PER CITY STD. DTL. G-3226, IF THE INTERSECTION IS NOT PLANNED TO BE TRAFFIC SIGNALIZED IN THE FUTURE.



ROADWAY WITH ADJACENT CUT / FILL SLOPE

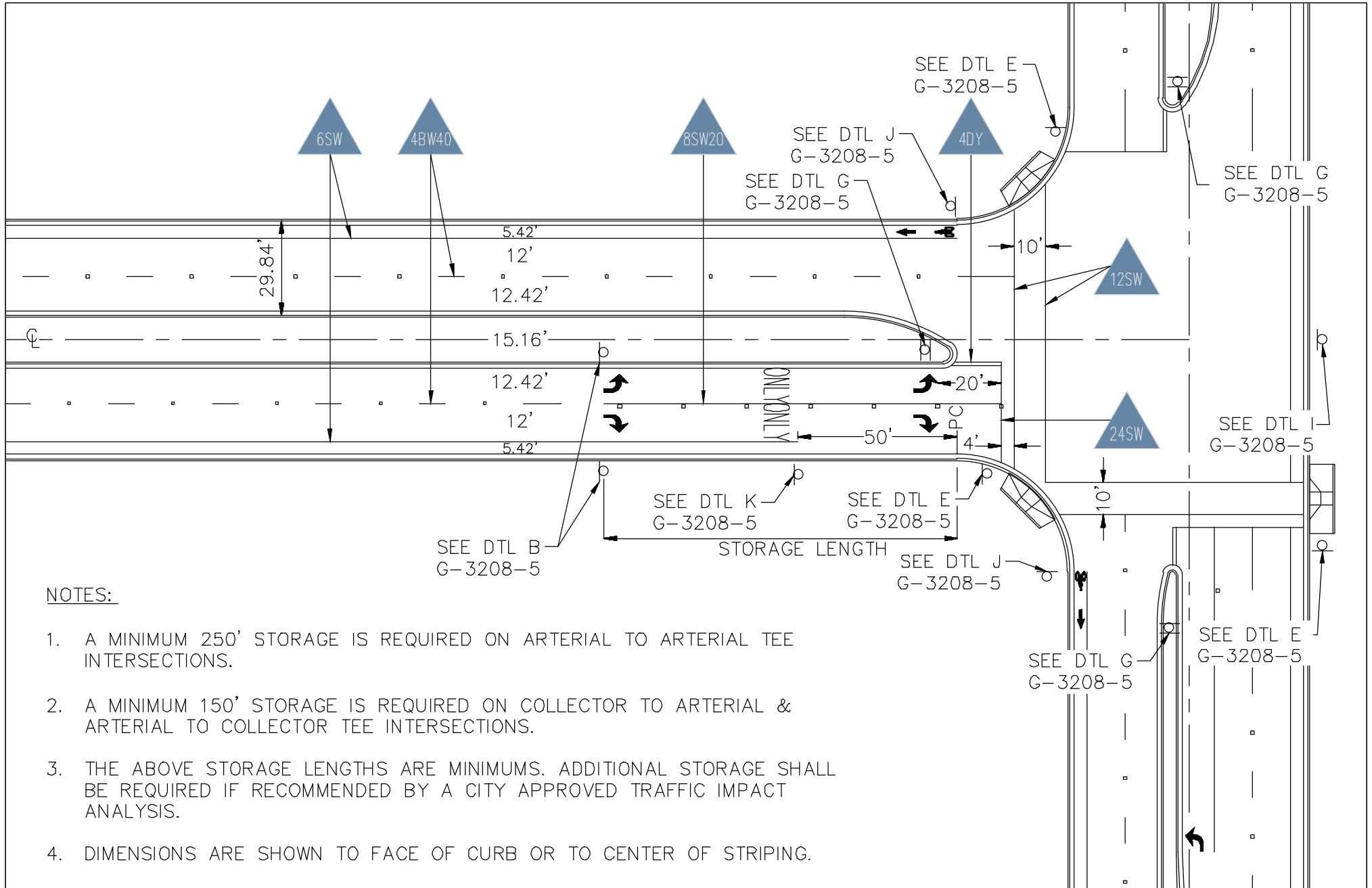


ROADWAY WITH ADJACENT MOUNTAINOUS SLOPE



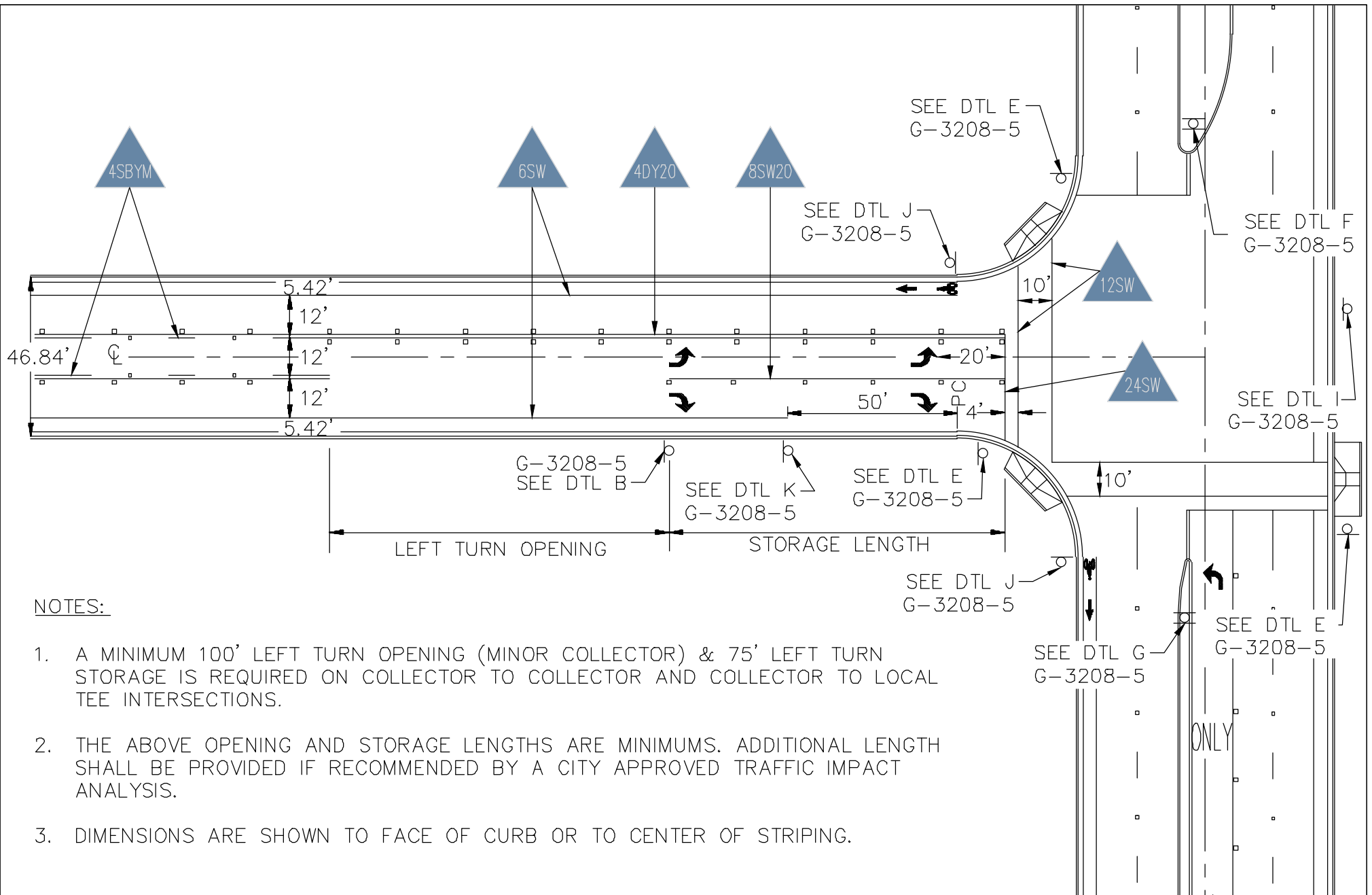
ROADWAY WITH ADJACENT RETENTION BASIN

* LANDSCAPE AREAS SHALL HAVE A MAXIMUM 6:1 SLOPE IN THE ROW AND 10:1 SLOPE IN THE PUE.



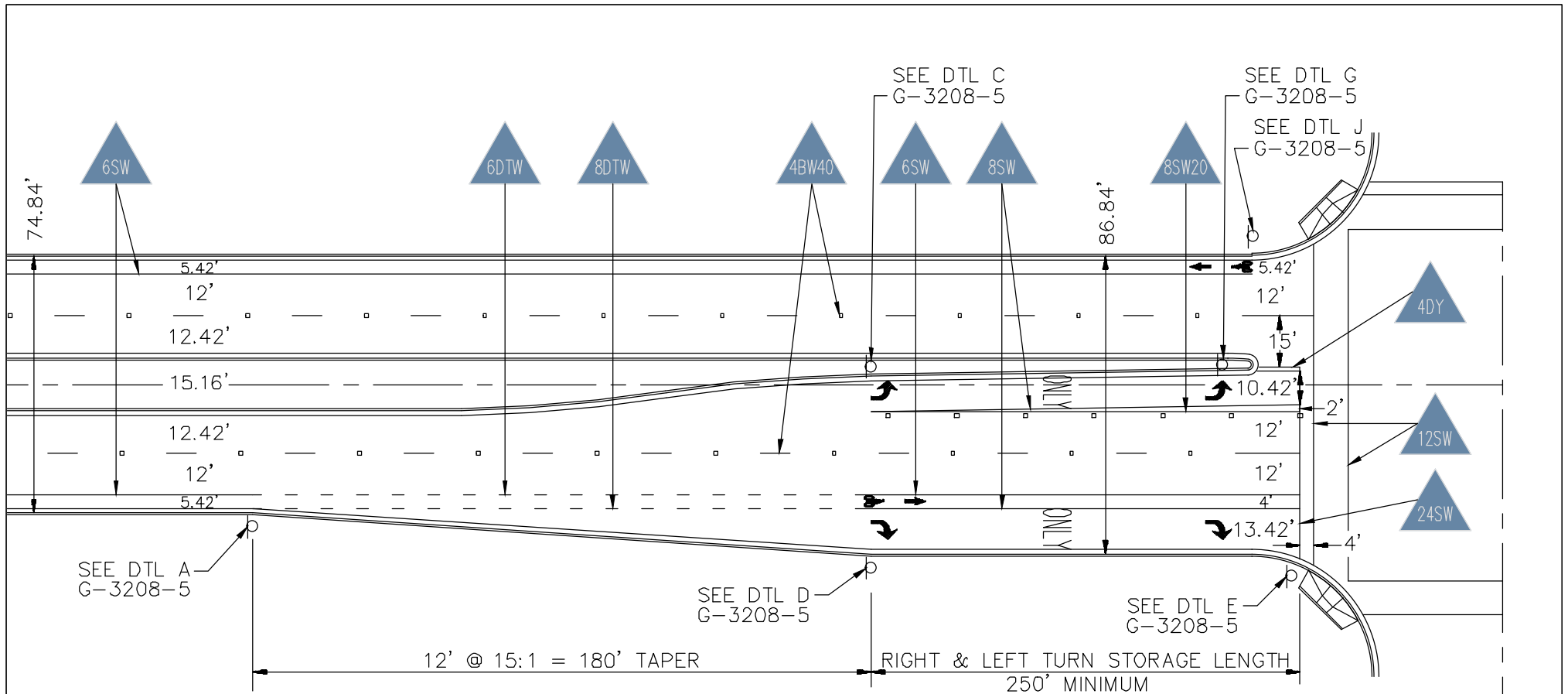
NOTES:

1. A MINIMUM 250' STORAGE IS REQUIRED ON ARTERIAL TO ARTERIAL TEE INTERSECTIONS.
2. A MINIMUM 150' STORAGE IS REQUIRED ON COLLECTOR TO ARTERIAL & ARTERIAL TO COLLECTOR TEE INTERSECTIONS.
3. THE ABOVE STORAGE LENGTHS ARE MINIMUMS. ADDITIONAL STORAGE SHALL BE REQUIRED IF RECOMMENDED BY A CITY APPROVED TRAFFIC IMPACT ANALYSIS.
4. DIMENSIONS ARE SHOWN TO FACE OF CURB OR TO CENTER OF STRIPING.



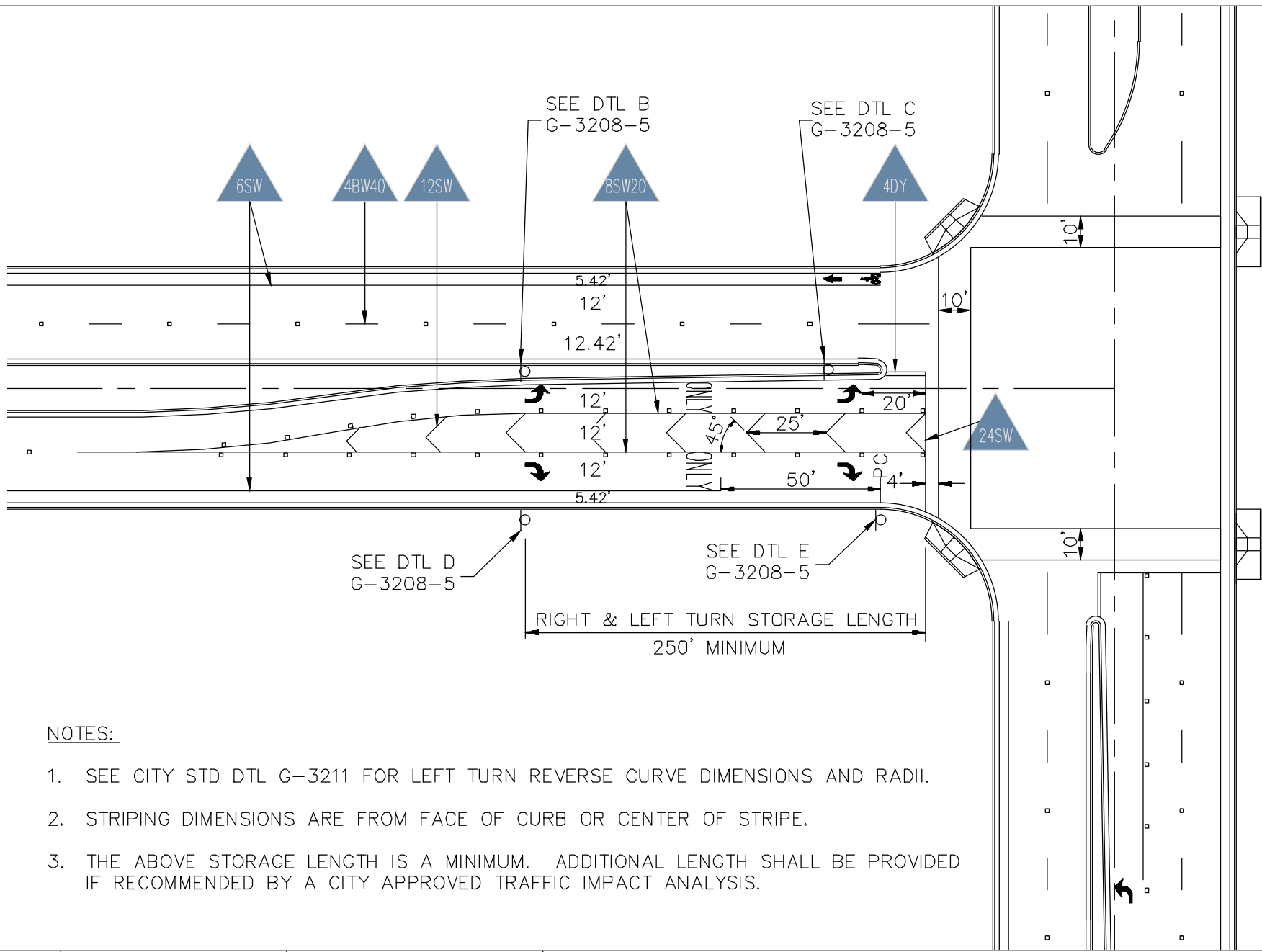
NOTES:

1. A MINIMUM 100' LEFT TURN OPENING (MINOR COLLECTOR) & 75' LEFT TURN STORAGE IS REQUIRED ON COLLECTOR TO COLLECTOR AND COLLECTOR TO LOCAL TEE INTERSECTIONS.
2. THE ABOVE OPENING AND STORAGE LENGTHS ARE MINIMUMS. ADDITIONAL LENGTH SHALL BE PROVIDED IF RECOMMENDED BY A CITY APPROVED TRAFFIC IMPACT ANALYSIS.
3. DIMENSIONS ARE SHOWN TO FACE OF CURB OR TO CENTER OF STRIPING.



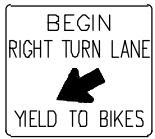
NOTES:

1. SEE CITY STD DTL G-3211 FOR LEFT TURN REVERSE CURVE DIMENSIONS AND RADII.
2. DIMENSIONS ARE SHOWN TO FACE OF CURB OR TO CENTER OF STRIPING.
3. THE ABOVE STORAGE AND TAPER LENGTHS ARE MINIMUMS. ADDITIONAL LENGTHS SHALL BE PROVIDED IF RECOMMENDED BY A CITY APPROVED TRAFFIC IMPACT ANALYSIS.



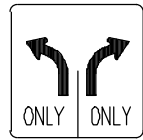
NOTES:

1. SEE CITY STD DTL G-3211 FOR LEFT TURN REVERSE CURVE DIMENSIONS AND RADII.
2. STRIPING DIMENSIONS ARE FROM FACE OF CURB OR CENTER OF STRIPE.
3. THE ABOVE STORAGE LENGTH IS A MINIMUM. ADDITIONAL LENGTH SHALL BE PROVIDED IF RECOMMENDED BY A CITY APPROVED TRAFFIC IMPACT ANALYSIS.



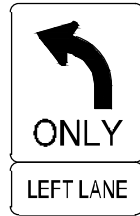
R4-4
(30"X36")

DETAIL A



R3-8LR
(30"X30")

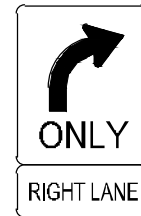
DETAIL B



R3-5L
(30"X36")

R3-5B
(30"X12")

DETAIL C



R3-5R
(30"X36")

R3-5F
(30"X12")

DETAIL D

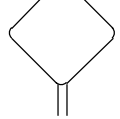


R1-1
(36"X36")

DETAIL E



R4-7
(24"X30")

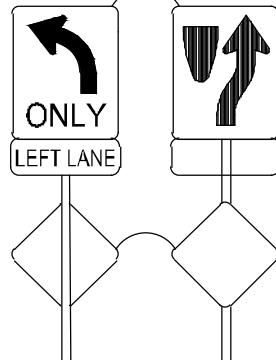


OM1-3
(18"X18")

DETAIL F

R3-5L
(24"X30")

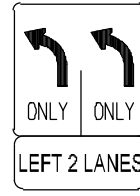
R3-5B
(30"X12")



R4-7
(24"X30")

OM1-3
(18"X18")

DETAIL G

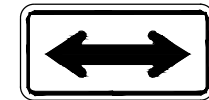


R3-8LL
(30"X30")

R3-5DL*
(30"X12")

DETAIL H

*SPECIALTY SIGN



W1-7
(36"X18")

DETAIL I



R7-9a
(12"X18")

DETAIL J



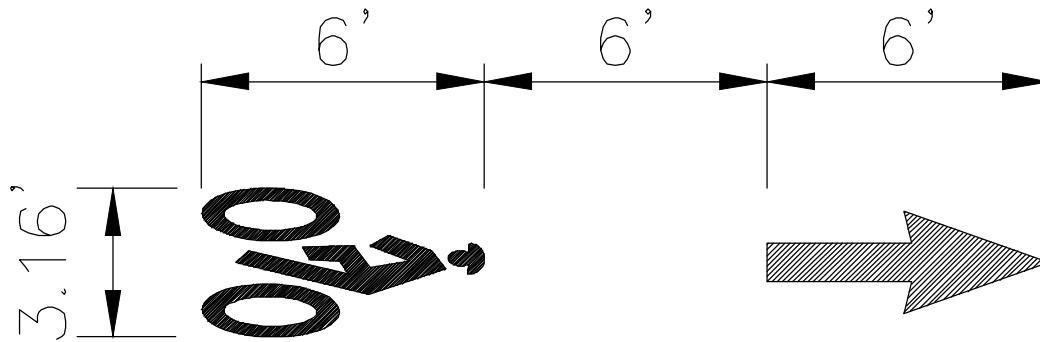
R3-17
(30"X24")

R3-17b
(30"X12")

DETAIL K

NOTES:

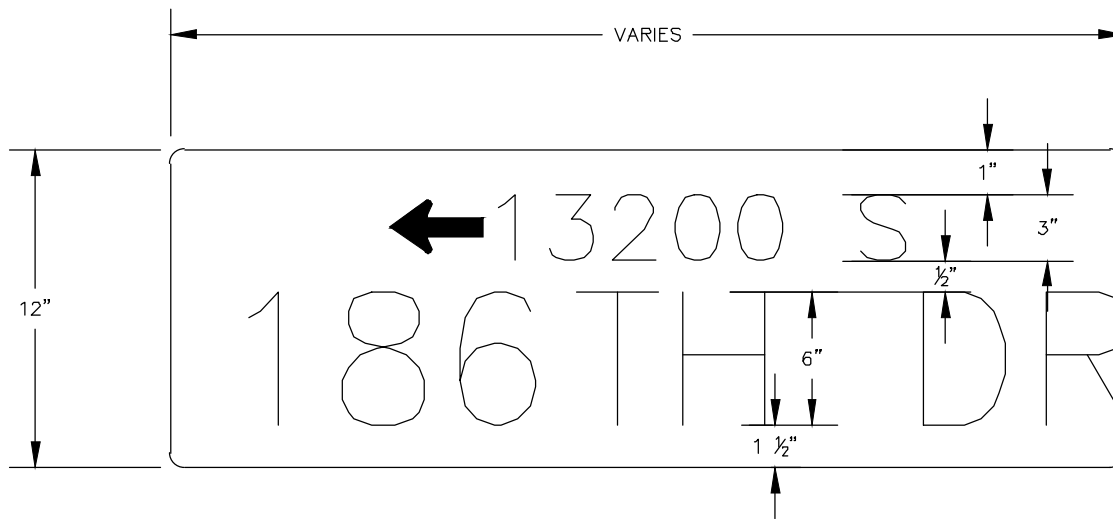
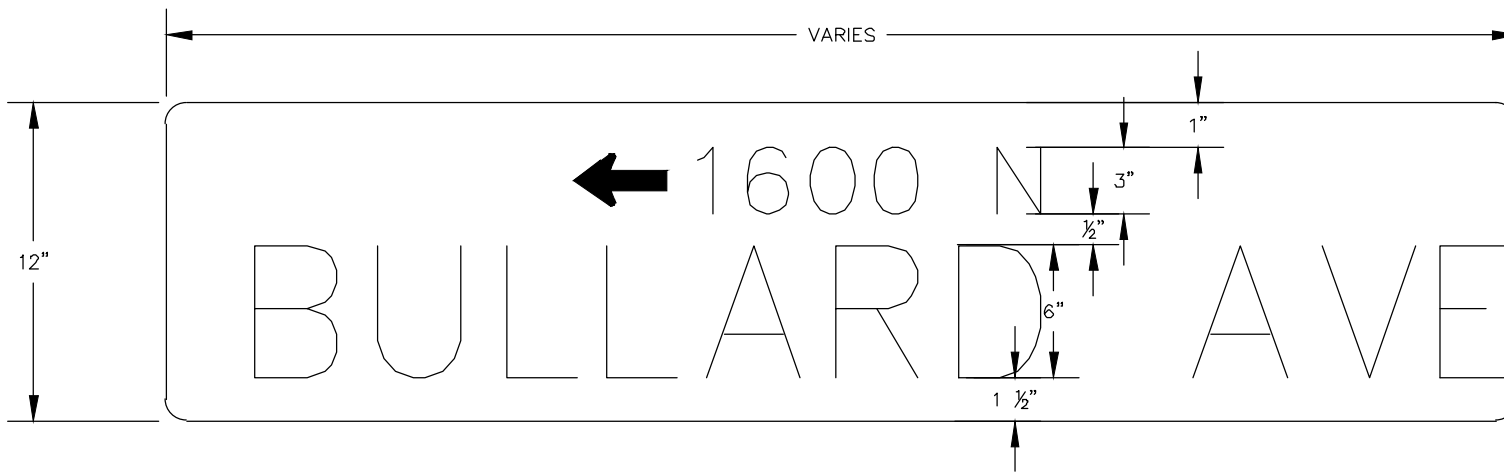
1. DETAIL J TO BE USED AT THE BEGINNING OF A BIKE LANE, AT THE FAR SIDE OF AN ARTERIAL OR COLLECTOR INTERSECTION, AND AT A SPACING OF 1320' ALONG CONTINUOUS LENGTHS OF BIKE LANE NOT INTERSECTED BY AN ARTERIAL OR COLLECTOR ROAD.



BIKE LANE PAVEMENT MARKING

NOTES:

1. BICYCLE PAVEMENT MARKINGS SHALL ONLY BE PLACED ON ARTERIAL AND COLLECTOR ROAD BIKE LANES.
2. PAVEMENT MARKING LOCATIONS AND STYLES SHALL MEET THE REQUIREMENTS OF MUTCD, THE CITY ENGINEERING DESIGN STANDARDS AND POLICIES MANUAL, AND THIS DRAWING.
3. BICYCLE PAVEMENT MARKINGS SHALL BE PLACED AT THE BEGINNING OF AN ARTERIAL OR COLLECTOR BIKE LANE, ON THE BIKE LANE ON THE FAR SIDE OF ARTERIAL OR COLLECTOR INTERSECTION, AT A SPACING OF 1320' ALONG CONTINUOUS LENGTHS OF BIKE LANE, AND IN LOCATIONS DESIGNATED BY THE CITY ENGINEER.
4. DISTANCES BETWEEN THE ARROW AND BICYCLE PAVEMENT MARKINGS SHALL BE NO GREATER THAN 20' AND NO LESS THAN 6'.
5. PAVEMENT MARKING MATERIAL SHALL BE 60 MIL THERMOPLASTIC.



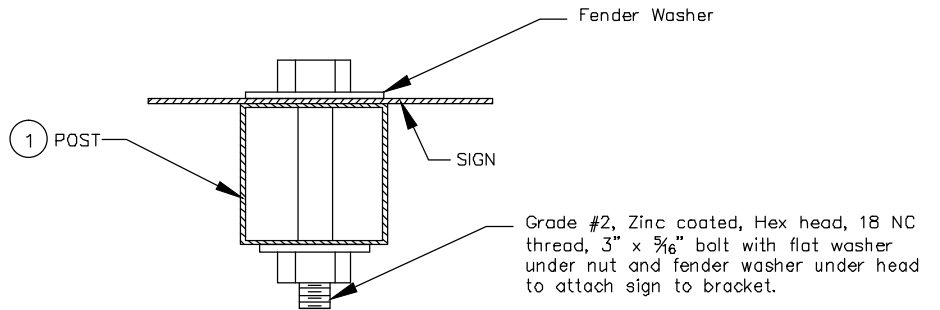
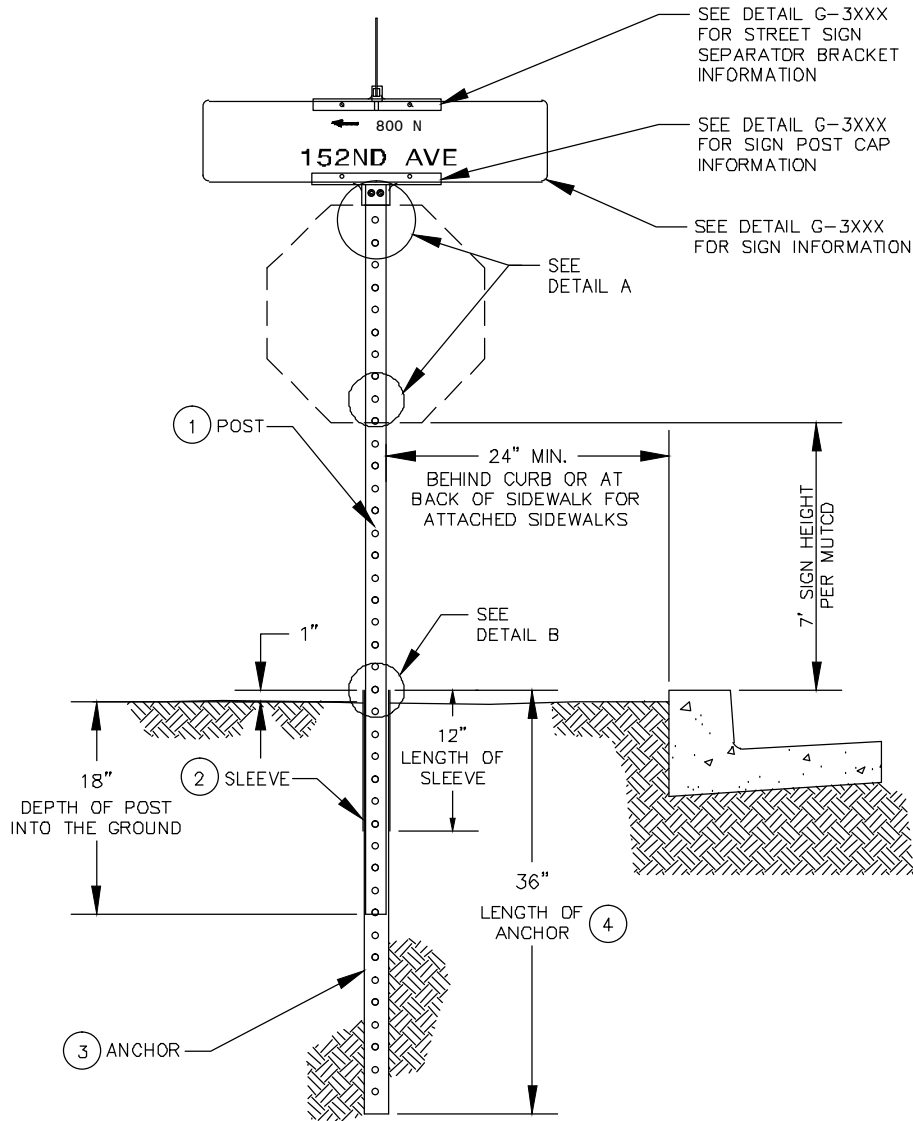
NOTES:

1. Highway Series "C" Lettering (Standard Highway Signs as Published by FHWA).
2. All Street Names Shall Be Formatted With 6 Inch White Upper-Case Letters. All Block Numbers And Directions Shall be Formatted With 3 Inch White Upper-Case Letters.
3. All City Signs Shall Use A Green Background. See Signing and Striping Notes For Sheeting Information.
4. See Current Version Of Standard Highway Signs Manual For Standard Arrow Details.

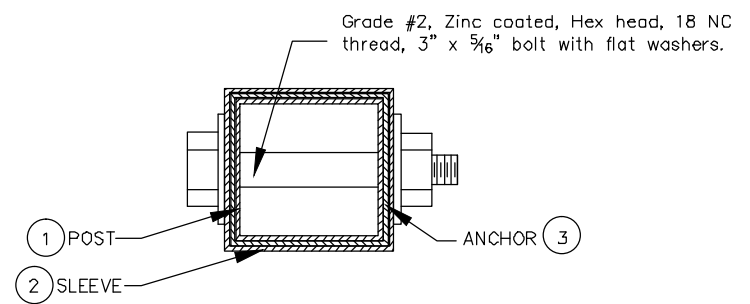


NOTES:

1. Highway Series "C" Lettering (Standard Highway Signs as Published by FHWA).
2. All Street Names Shall Be Formatted With 8 Inch White Upper-Case and Lower-Case Letters.
3. All City Signs Shall Use A Green Background. See Signing and Striping Notes For Sheeting Information.
4. All Signs Wider Than 36 Inches Shall Use Two Sign Posts.



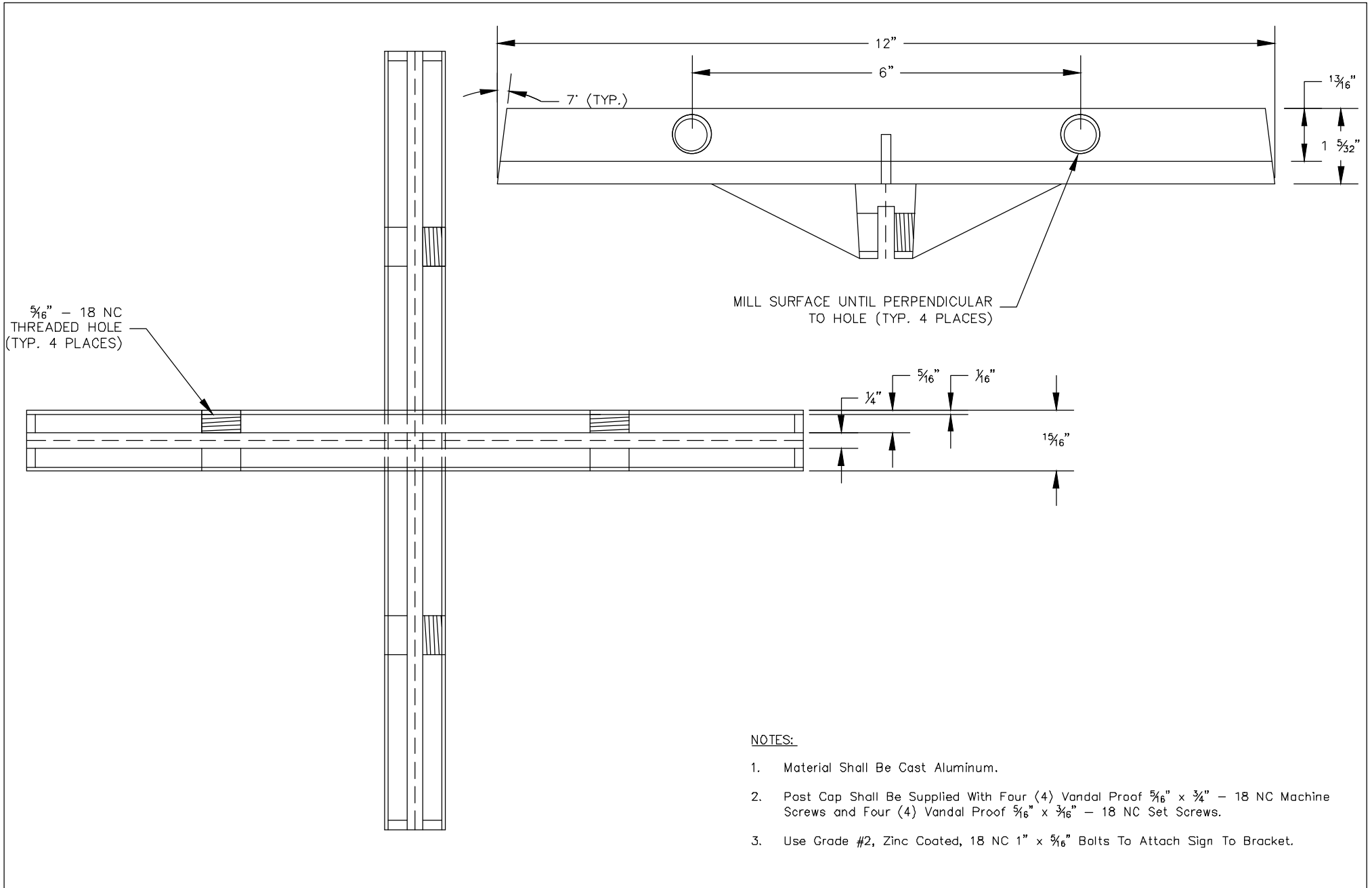
DETAIL A
SIGN MOUNTING



DETAIL B
ANCHOR ASSEMBLY

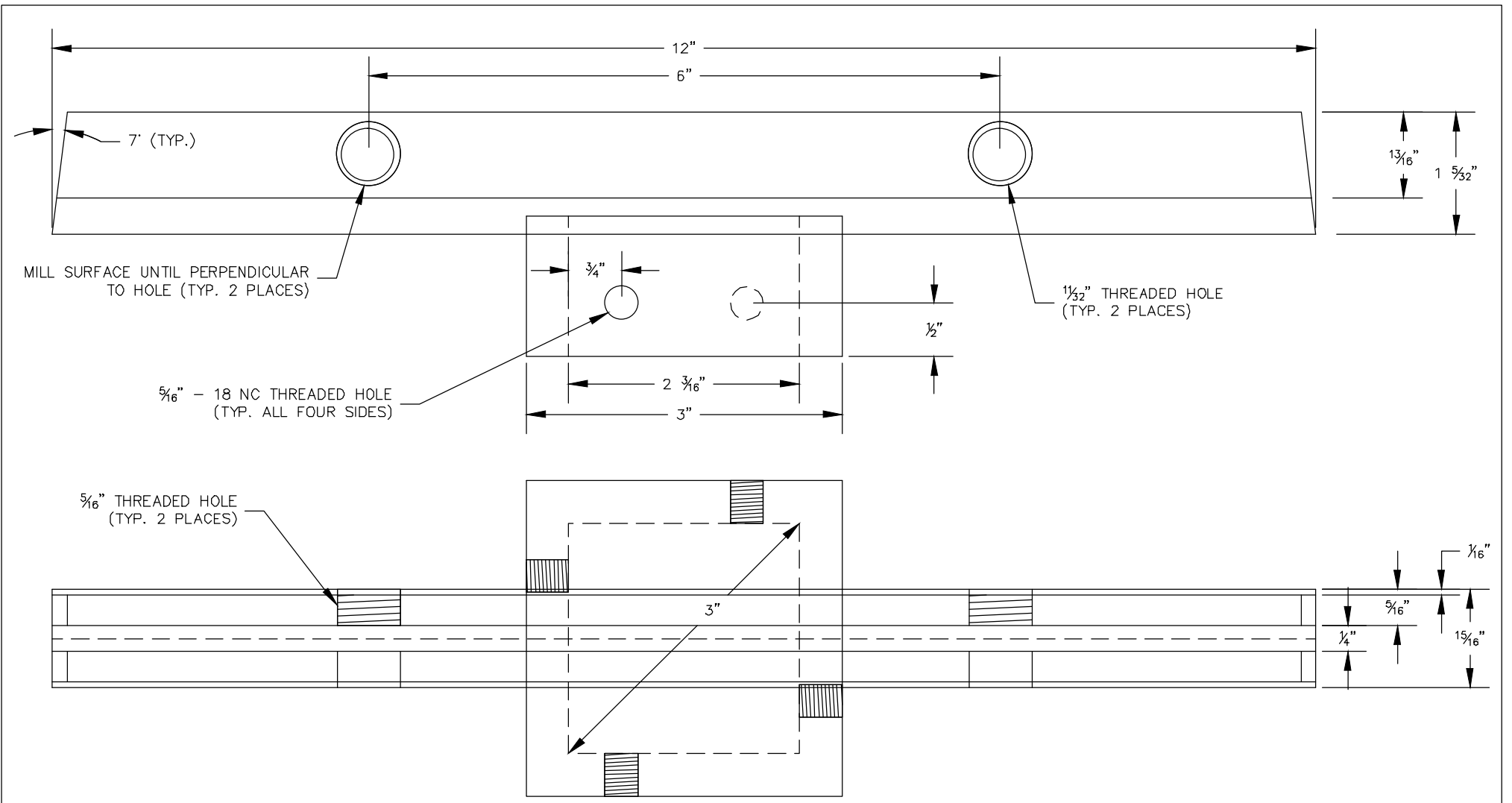
NOTES:

1. POST - 2" x 2", Square Perforated Galvanized Steel Tubing With 7/16" Diameter Perforations On 1" Centers, 0.105" Thick.
2. SLEEVE - 2 1/2" x 2 1/2" x 12", Square Perforated Galvanized Steel Tubing With 7/16" Diameter Perforations On 1" Centers, 0.105" Thick.
3. ANCHOR - 2 1/4" x 2 1/4" x 36", Square Perforated Galvanized Steel Tubing With 7/16" Diameter Perforations On 1" Centers, 0.105" Thick.
4. Below Top of Curb or Edge of Pavement If Not Curbed.
5. All Signs (Except Street Name Signs) With A Dimension Over 36" Shall Use A Minimum Of Two Sign Posts.



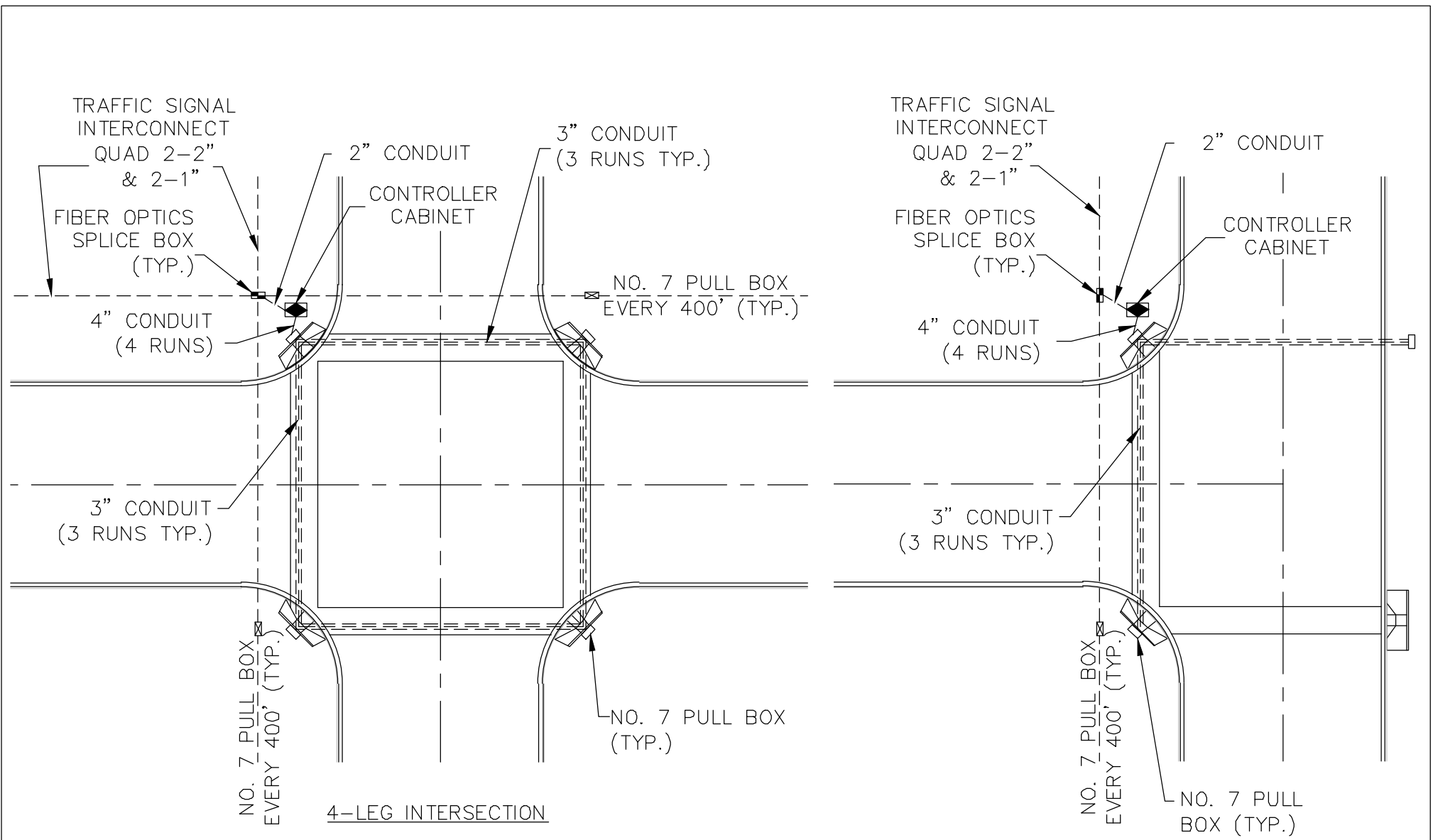
NOTES:

1. Material Shall Be Cast Aluminum.
2. Post Cap Shall Be Supplied With Four (4) Vandal Proof $\frac{5}{16}$ " x $\frac{3}{4}$ " - 18 NC Machine Screws and Four (4) Vandal Proof $\frac{5}{16}$ " x $\frac{3}{16}$ " - 18 NC Set Screws.
3. Use Grade #2, Zinc Coated, 18 NC 1" x $\frac{5}{16}$ " Bolts To Attach Sign To Bracket.

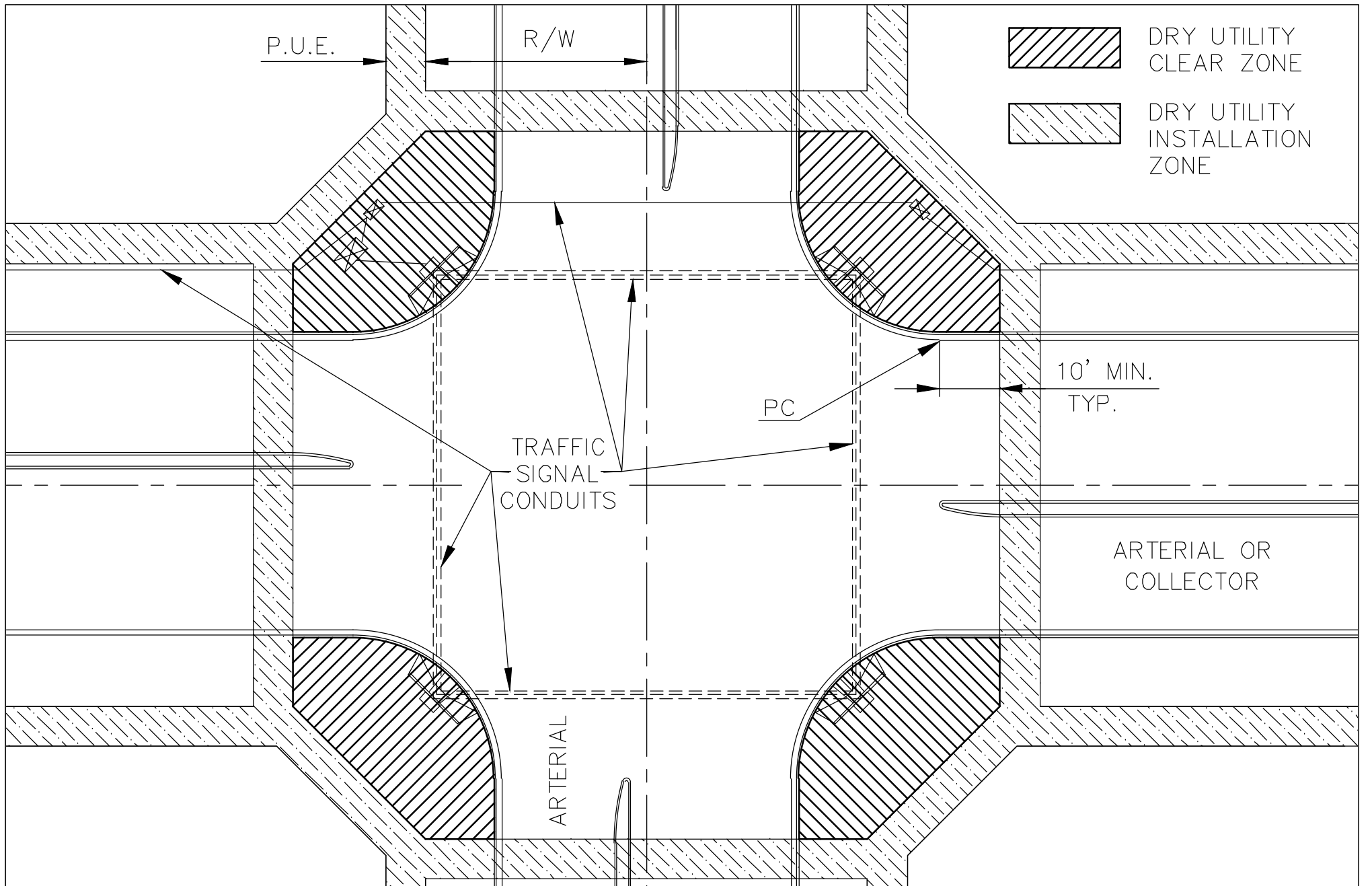


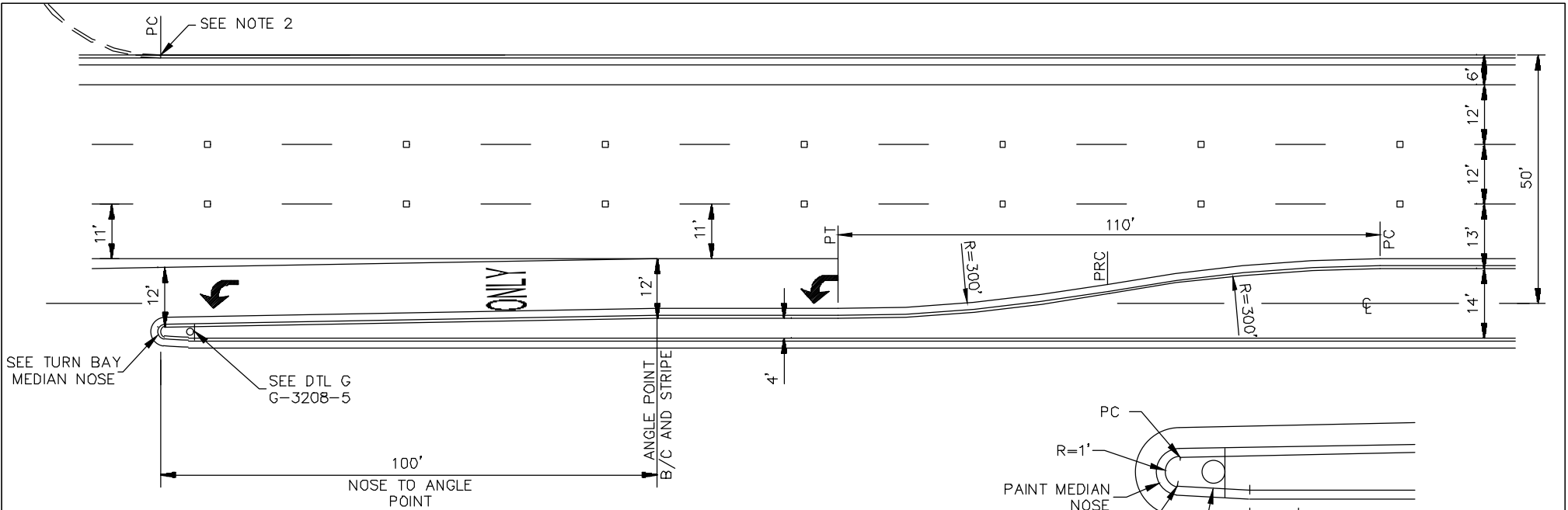
NOTES:

1. Material Shall Be Cast Aluminum.
2. Post Cap Shall Be Supplied With Two (2) Vandal Proof 5/16" x 3/4" - 18 NC Machine Screws and Two (2) Vandal Proof 5/16" x 3/16" - 18 NC Set Screws.
3. Use Grade #2, Zinc Coated, 18 NC 1 1/2" x 5/16" Bolts To Attach Sign Cap To Post.
4. Use Grade #2, Zinc Coated, 18 NC 1" x 5/16" Bolts To Attach Sign To Bracket.

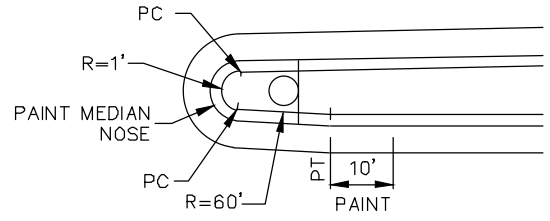


NOTE:
 1. ALL CONDUIT SHALL BE SCHEDULE 80 PVC.





SEE TURN BAY MEDIAN NOSE
SEE DTL G G-3208-5

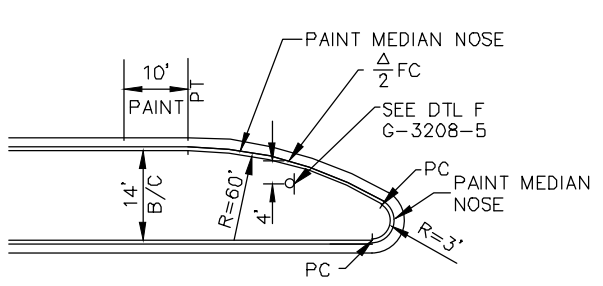


TURN BAY MEDIAN NOSE

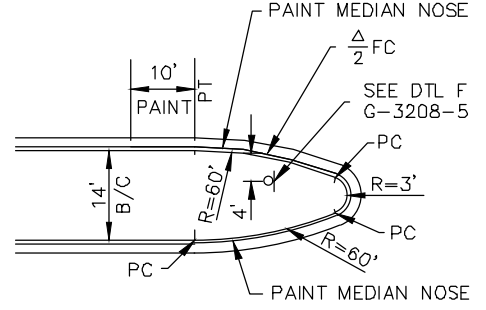
ABBREVIATIONS:
 - FC = HALF THE DISTANCE FROM THE PT AND END OF THE MEDIAN NOSE
 B/C = BACK OF CURB
 PC = POINT OF CURVATURE
 PT = POINT OF TANGENT
 PRC = POINT OF REVERSE CURVATURE
 R = RADIUS

NOTES:

- DIMENSIONS ARE FROM B/C TO B/C, B/C TO CENTER OF STRIPE, OR CENTER OF STRIPE TO CENTER OF STRIPE.
- AT A 4-LEGGED INTERSECTION, THE END OF THE MEDIAN NOSE SHALL ALIGN WITH THE PC OF THE RIGHT TURN CURB RETURN RADIUS (SEE REFERENCE).
- AT A TEE INTERSECTION, THE END OF THE MEDIAN NOSE SHALL ALIGN WITH THE PC OF THE OPPOSITE CURB RETURN RADIUS (SEE REFERENCE).
- MEDIAN NOSE PAINT SHALL BE YELLOW PAINT MEETING THE REQUIREMENTS ON THE SIGNING & STRIPING GENERAL NOTES.



FULL WIDTH MEDIAN NOSE



MEDIAN TERMINATION NOSE

Figure 1
TWO LANE STREET

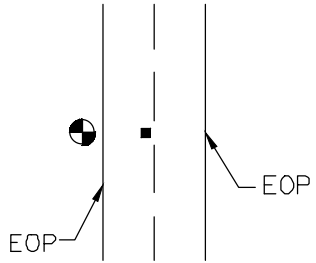


Figure 2
MULTI-LANE STREET

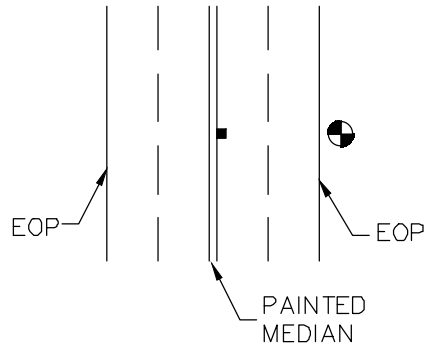


Figure 3
TWO LANE STREET
AT INTERSECTION

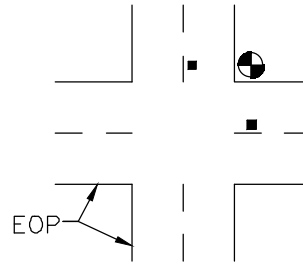


Figure 4
FOUR LANE STREET WITH
TURN LANE AT INTERSECTION

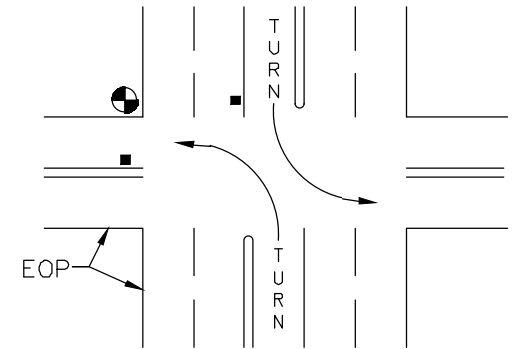


Figure 5
MULTI-LANE STREET WITH
TURN LANE

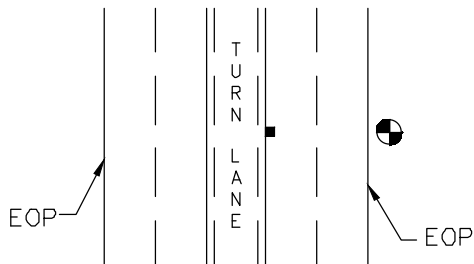
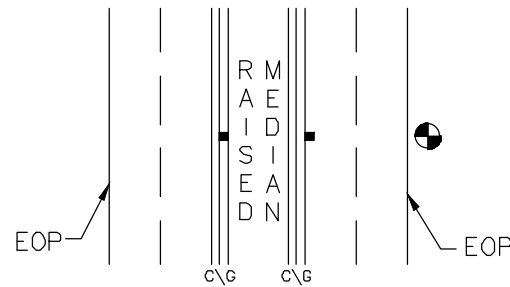
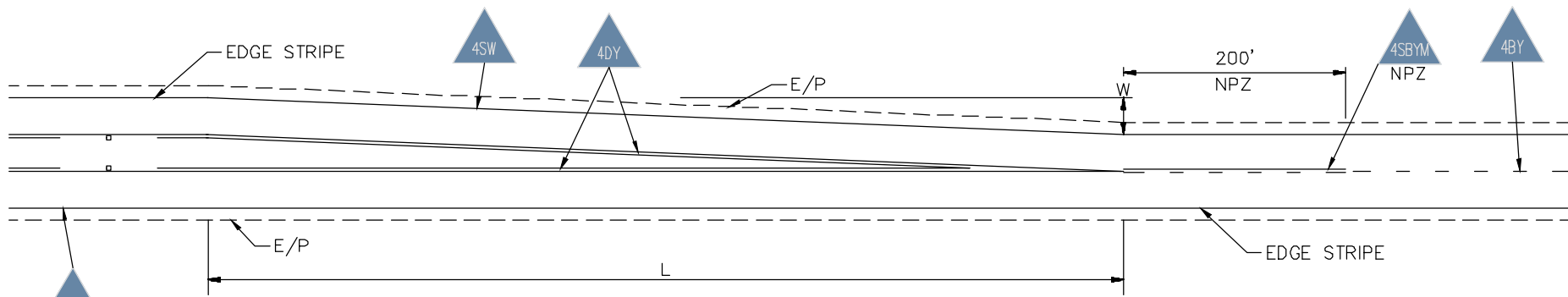
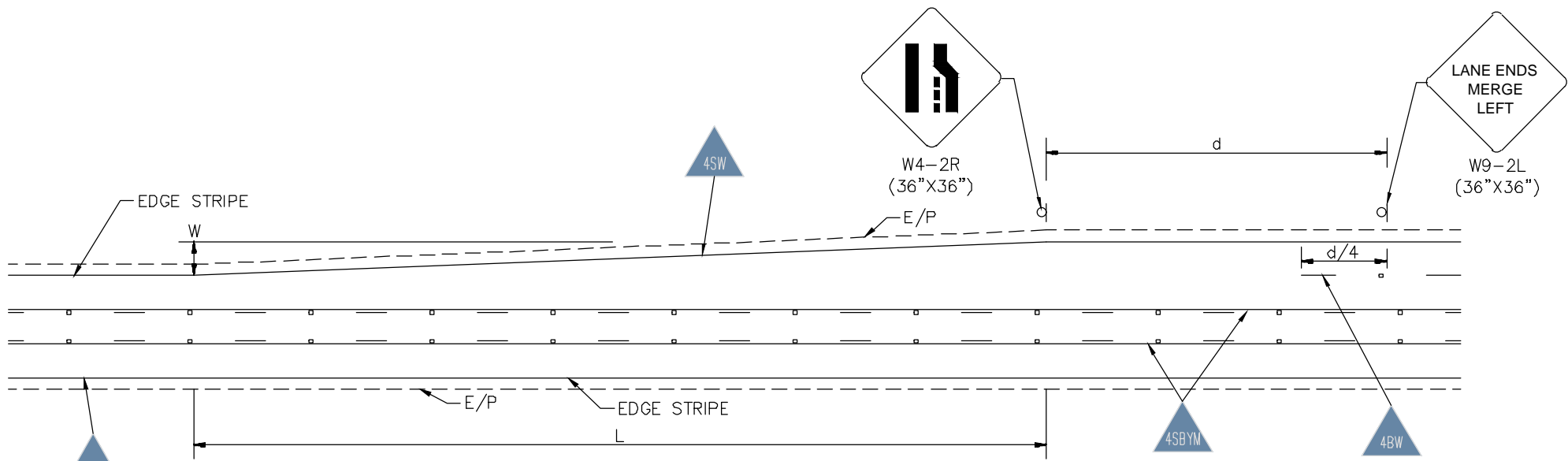


Figure 6
MULTI-LANE STREET
WITH RAISED MEDIAN





TYPICAL LANE DIVERGENCE

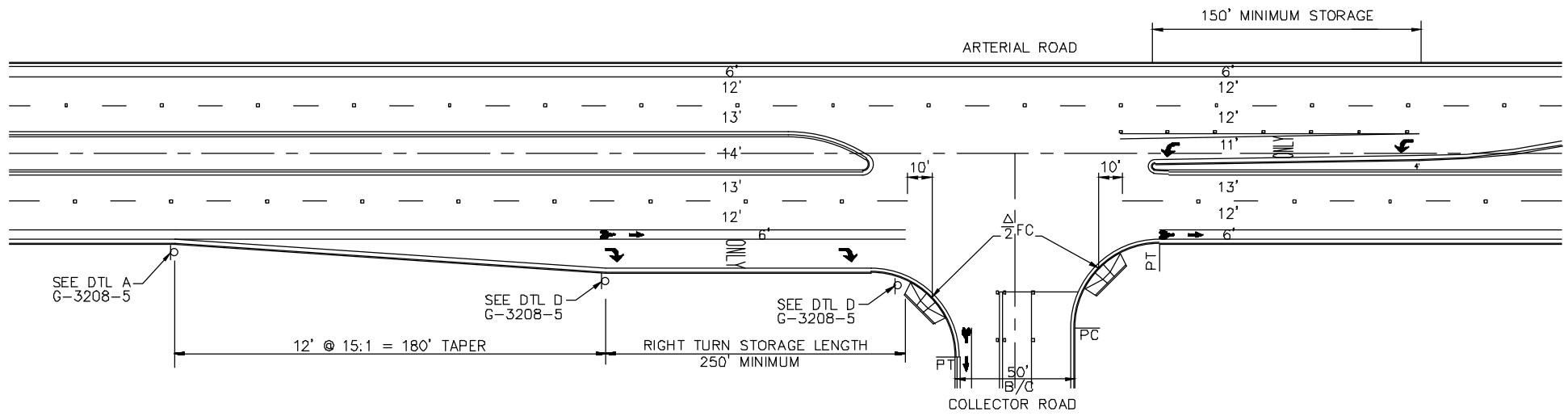


TYPICAL LANE MERGER

L = LENGTH
 S = POSTED SPEED + 5MPH
 W = OFFSET
 d = ADVANCE WARNING DISTANCE PER MUTCD LATEST EDITION
 NPZ = NO PASSING ZONE

FOR S = 45 OR GREATER:
 $L = WS$

FOR S = 40 OR LESS:
 $L = \frac{WS^2}{60}$



NOTES:

1. ALL DIMENSIONS ARE FROM B/C OR CENTER OF STRIP.
2. THE ABOVE STORAGE LENGTH IS A MINIMUM. ADDITIONAL LENGTH SHALL BE PROVIDED IF RECOMMENDED BY A CITY APPROVED TRAFFIC IMPACT ANALYSIS.

ABBREVIATIONS:

- $\Delta/2$ FC = HALFWAY POINT BETWEEN CURVE PC & PT
 B/C = BACK OF CURB
 PC = POINT OF CURVE
 PT = POINT OF TANGENT

DETAIL NO.
G-3215

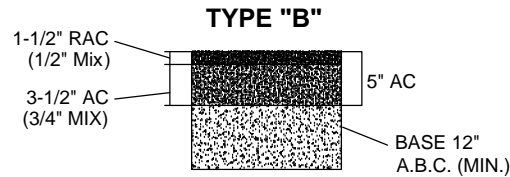
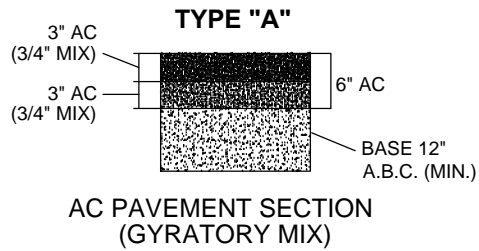
CITY OF GOODYEAR
STANDARD DETAIL

APPROVED:08/17

TYPICAL COLLECTOR TO ARTERIAL INTERSECTION

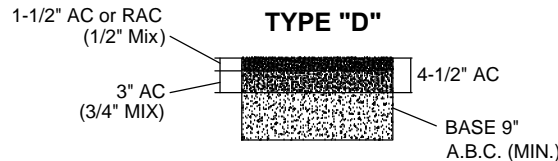
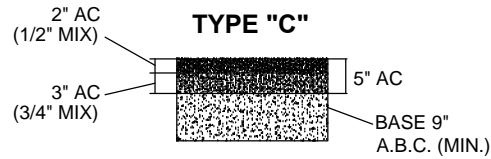
DETAIL NO.
G-3215

ARTERIAL STREETS



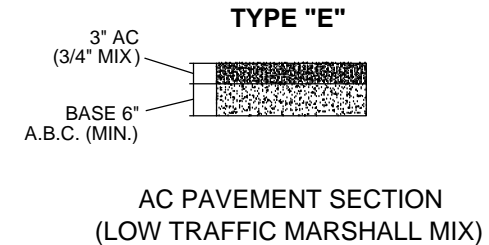
(RAC IS FOR USE ON ARTERIAL ROADS LOCATED WITHIN A SPECIFIED DISTANCE OF A RESIDENTIAL DEVELOPMENT, PER CHAPTER 4 OF THE EDS&PM)

COLLECTOR STREETS (RESIDENTIAL & INDUSTRIAL)



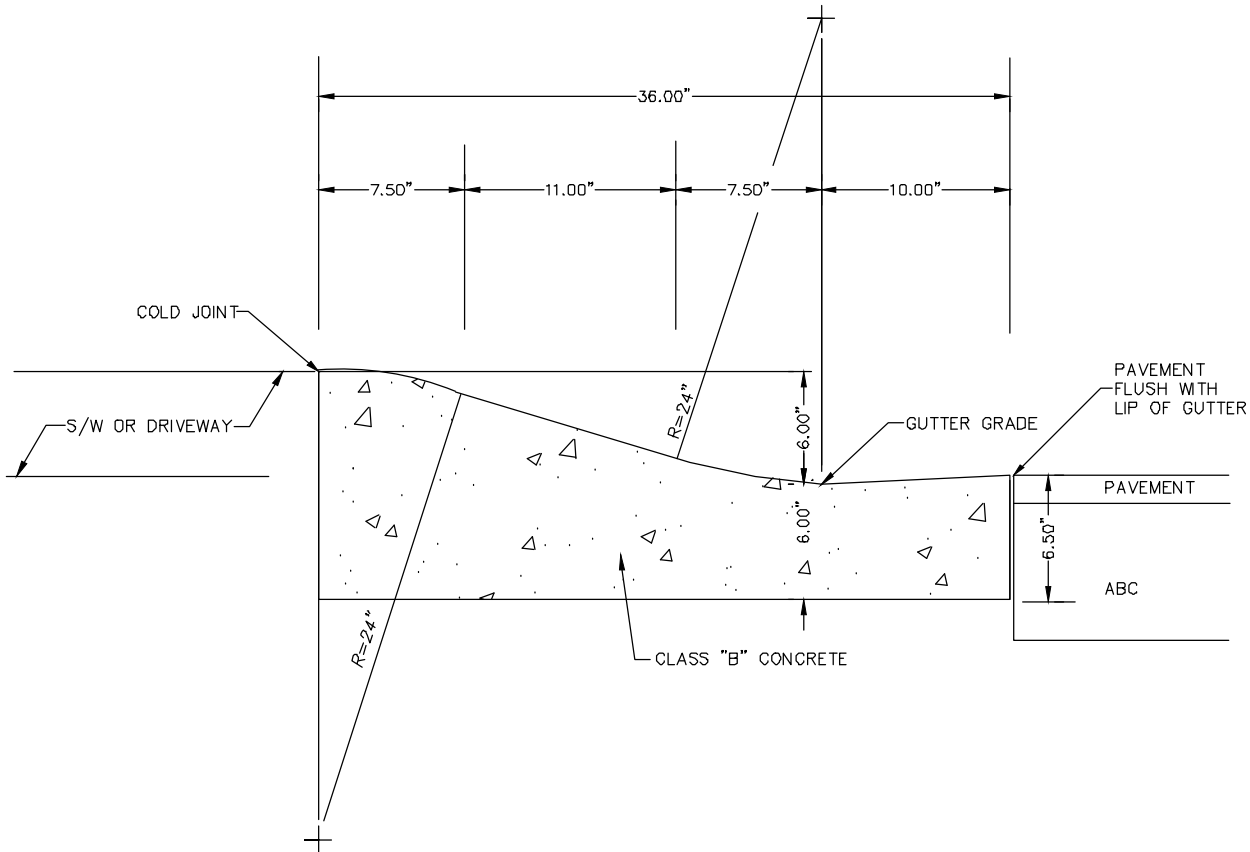
(RAC IS FOR USE ON MAJOR COLLECTOR ROADS LOCATED WITHIN A SPECIFIED DISTANCE OF A RESIDENTIAL DEVELOPMENT, PER CHAPTER 4 OF THE EDS&PM)

LOCAL STREETS (RESIDENTIAL & INDUSTRIAL)



NOTES:

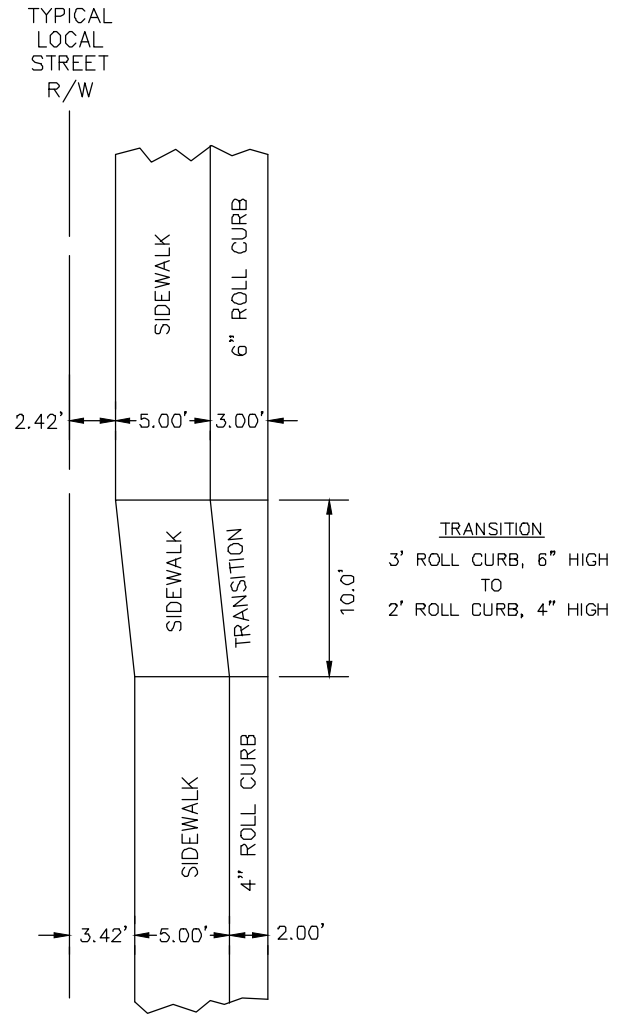
1. THE AC PAVEMENT SECTIONS IDENTIFIED HEREIN ARE MINIMUM THICKNESS. PAVEMENT STRUCTURAL DESIGN SHALL BE PERFORMED IN ACCORDANCE WITH MCDOT REQUIREMENTS WHEN ESTIMATED ARTERIAL TRAFFIC VOLUMES EXCEED 10 MILLION ESALS OVER 20 YEARS AND DESIGN OF OTHER CITY ROADWAYS SHALL BE PERFORMED ON A CASE-BY-CASE BASIS. A PAVEMENT CROSS-SECTION GREATER THAN THE MINIMUMS SHOWN HERE SHALL BE REQUIRED IF SO DETERMINED BY THE DESIGNING ENGINEER.
2. ALL MATERIALS SHALL AT A MINIMUM MEET MAG STANDARD SPECIFICATIONS AND THE CITY'S SPECIFICATIONS AS IDENTIFIED IN THE ENGINEERING DESIGN STANDARDS AND POLICY MANUAL AND APPROVED MATERIALS LIST.
3. APPROVED MIX DESIGNS ARE AVAILABLE ON THE ENGINEERING WEBSITE.
4. RAC MIXES SHALL USE ONLY CRUMB TIRE RUBBER PER MAG METHOD B.



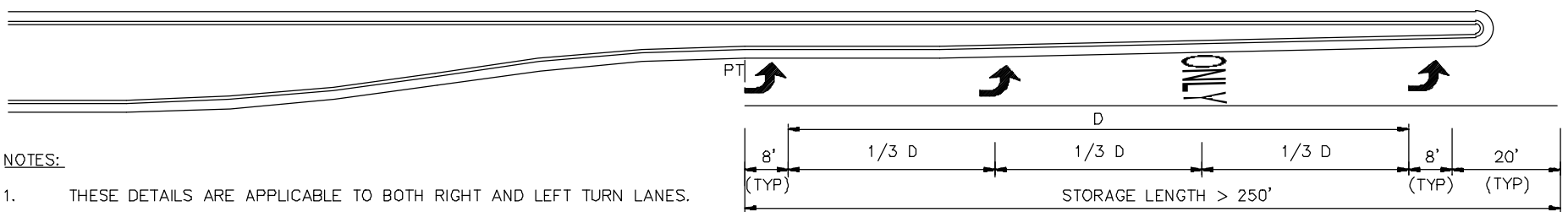
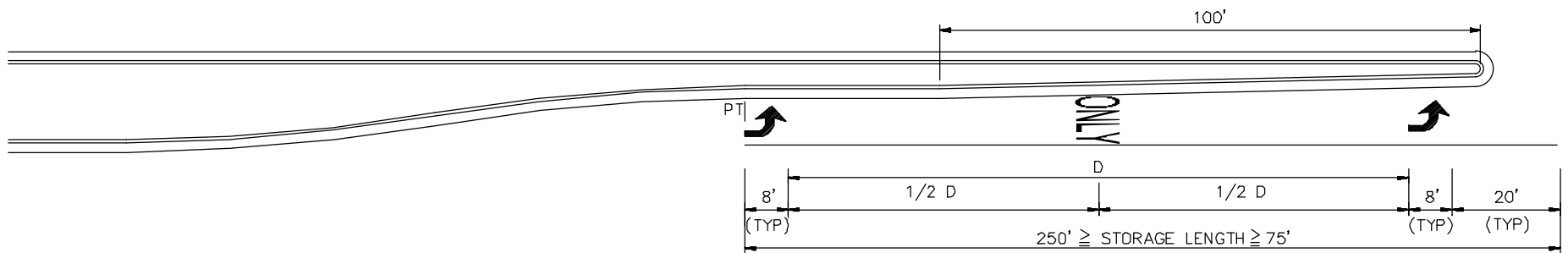
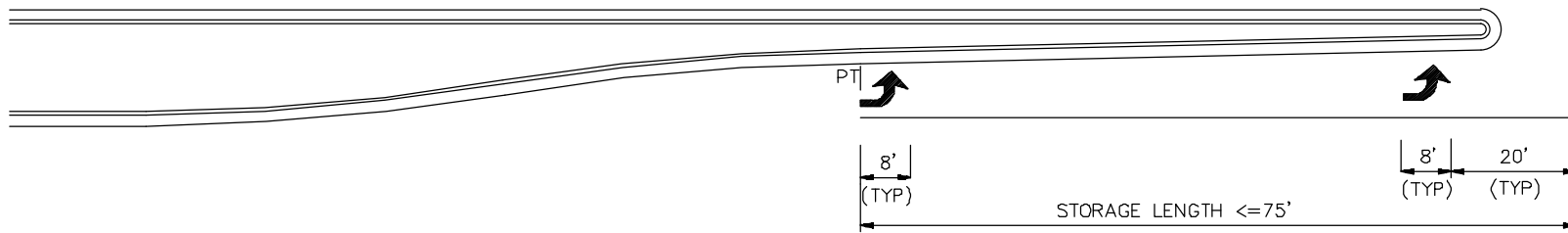
3' ROLL CURB 6" HIGH

NOTES:

1. ALL WORK AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECTIONS 340, 505, AND 725 BROOM FINISH EXPOSED SURFACE.
2. CONTRACTION JOINT SPACING SHALL BE A MAXIMUM OF 10 FEET.
3. EXPANSION JOINTS SHALL BE CONSTRUCTED AS PER MAG STANDARD SPECIFICATIONS SECTION 340.
4. MAY BE USED ON PRIVATE OR PUBLIC LOCAL ROADS UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEERING DEPARTMENT.



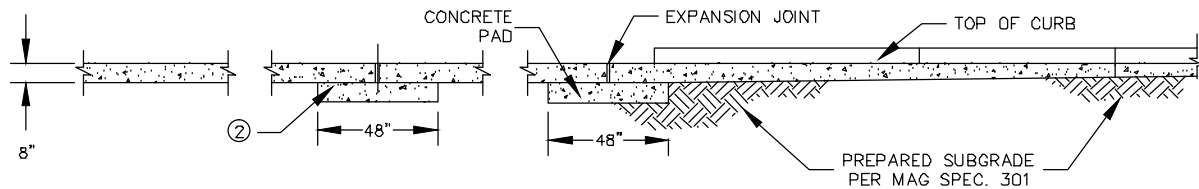
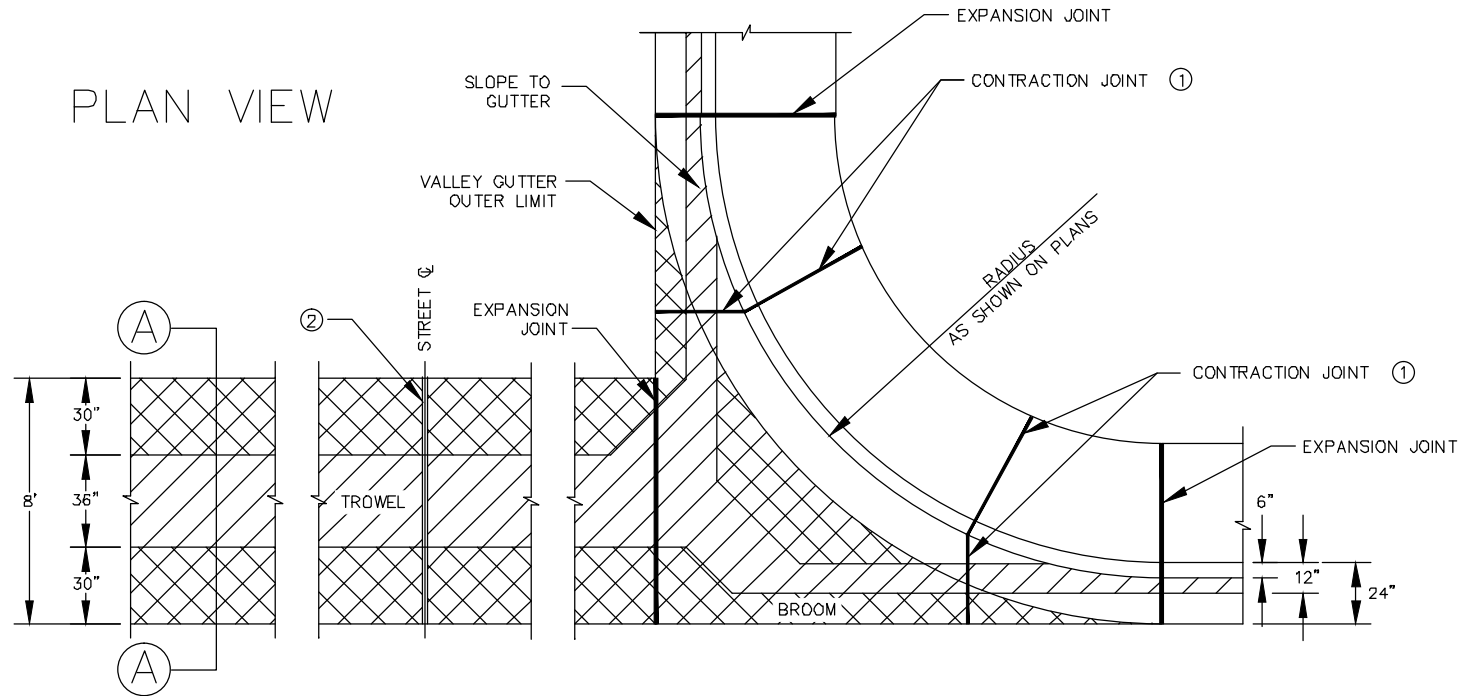
PLAN VIEW



NOTES:

1. THESE DETAILS ARE APPLICABLE TO BOTH RIGHT AND LEFT TURN LANES.
2. DUAL LEFTS AND RIGHTS SHALL MAINTAIN THE SAME SPACING FOR EACH LANE.
3. ALL ARROW AND "ONLY" PAVEMENT MARKINGS SHALL BE HOT SPRAYED THERMOPLASTIC.
4. PLACEMENT OF THE ARROW CLOSEST TO THE INTERSECTION IS MEASURED FROM THE STOP BAR OR 10' OFFSET OF A REFERENCE LINE FROM MIDPOINT OF CURB RETURN TO MIDPOINT OF CURB RETURN FOR THE INTERSECTION LEG.

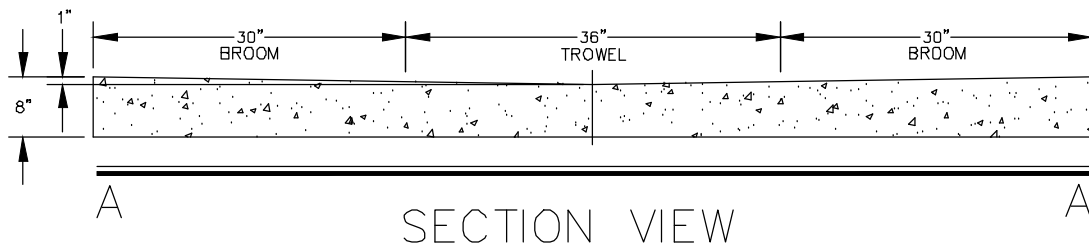
PLAN VIEW



PROFILE VIEW

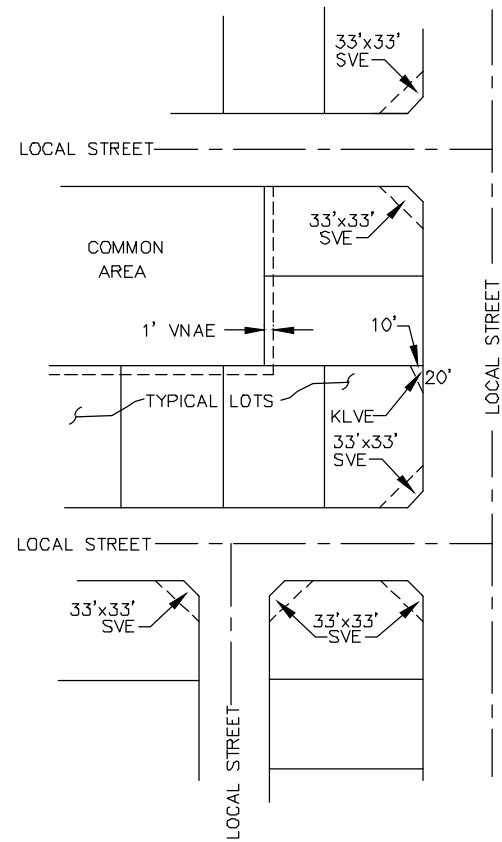
NOTES

1. CONTRACTION JOINTS SHALL BE LOCATED AT APPROXIMATELY 1/3 DISTANCE FROM EXPANSION JOINTS (MATCH TO JOINT IN SIDEWALK).
2. A SEPARATE CONCRETE PAD IS REQUIRED WHEN THE VALLEY GUTTER IS POURED HALF AT A TIME.
3. EXPANSION JOINTS SHALL BE CONSTRUCTED AS PER MAG STD. SPEC. 340.
4. EITHER CONSTRUCTION JOINT OR CONTRACTION JOINT IS REQUIRED AT CENTERLINE OF STREET.
5. ALL CONCRETE TO BE CLASS 'A' UNLESS OTHERWISE APPROVED (PER MAG STD. SECT. 725).

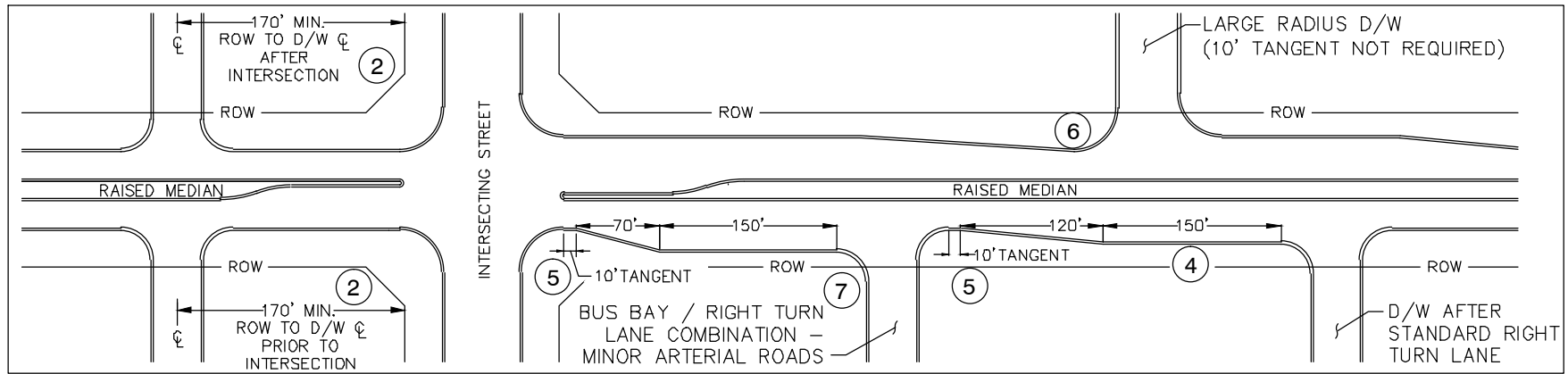


NOTES:

1. SIGHT VISIBILITY EASEMENTS (SVE): WITHIN THESE AREAS, NO OBSTRUCTION IN EXCESS OF 3' IN HEIGHT WILL BE PERMITTED. TREES PRUNED TO A HEIGHT OF 7' MAY BE PERMITTED SO LONG AS TRUNKS ARE NO LARGER THAN 8" IN DIAMETER AND AN UNOBSTRUCTED VISION OF AUTOMOBILES IS MAINTAINED.
2. MAXIMUM HEIGHT OF A FENCE WITHIN A VISIBILITY EASEMENT SHALL BE 3'. WHERE PERMISSIBLE, REAR OR SIDE YARDS MAY HAVE A MAXIMUM HEIGHT OF 6'.
3. KEY LOT VISIBILITY EASEMENTS (KLVE): A 10' BY 20' VISIBILITY EASEMENT SHALL BE PROVIDED ON KEY LOTS. EASEMENT RESTRICTIONS ARE THE SAME AS IN ITEM 1 ABOVE.
4. VEHICLE NO ACCESS EASEMENT (VNAE): A 1' VNAE SHALL BE PROVIDED ALONG THE INSIDE PORTION OF ALL LOTS THAT SHARE A COMMON PROPERTY LINE WITH ANY PUBLIC OR PRIVATE COMMON AREA.

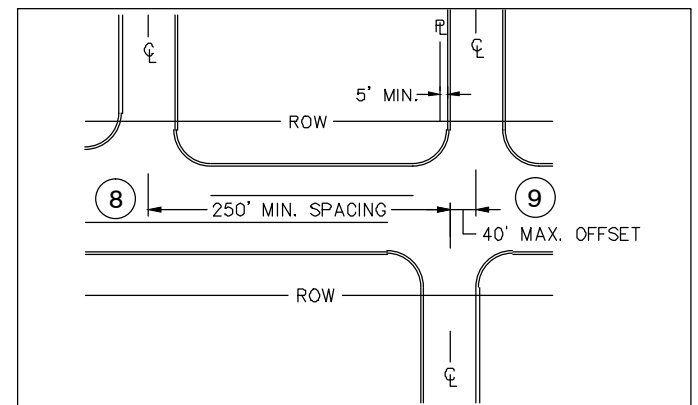
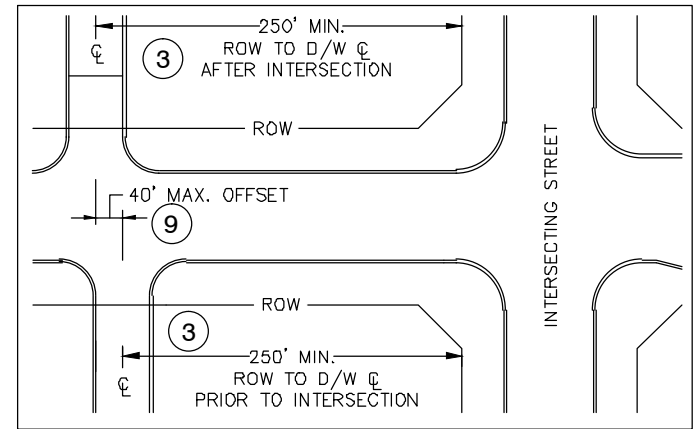


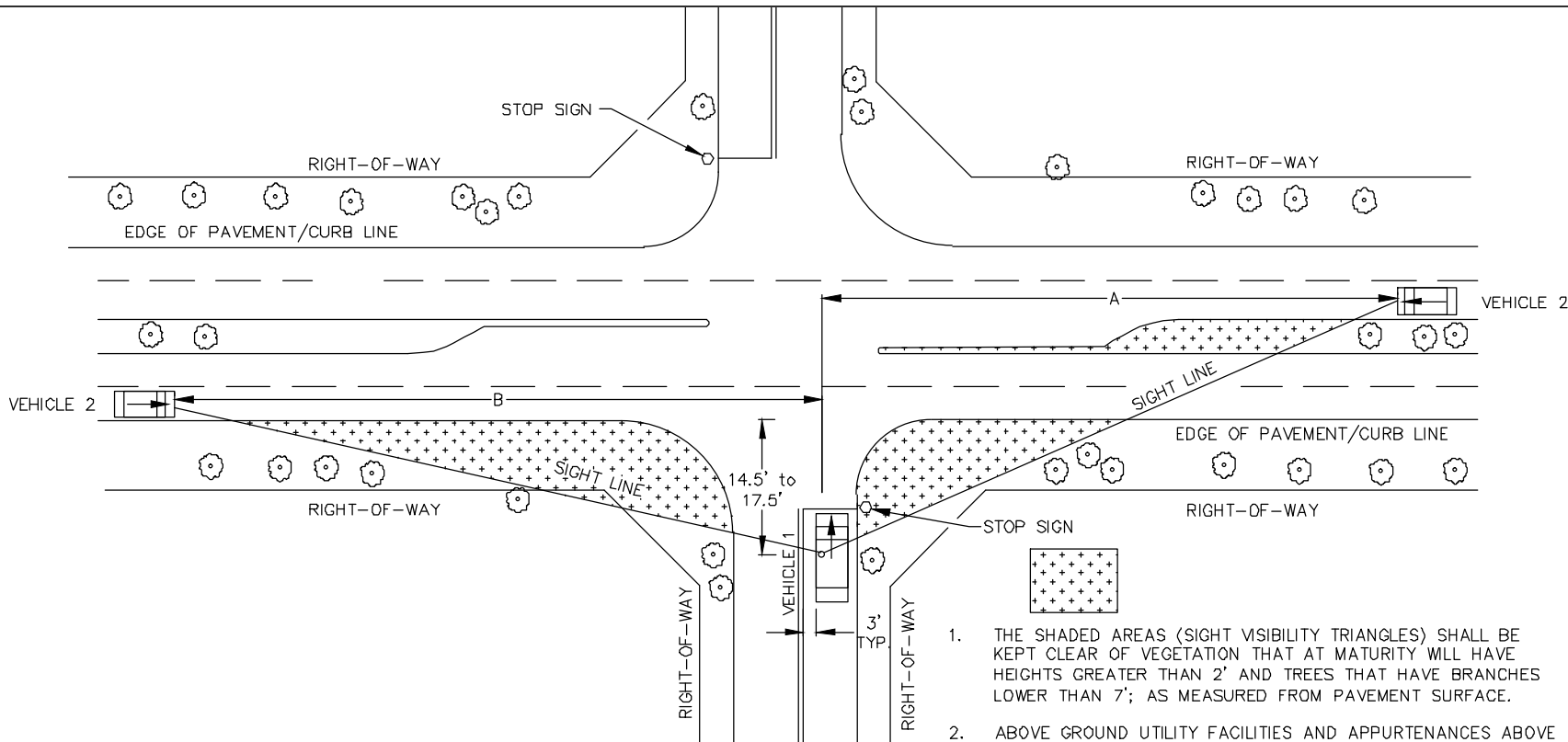
PLAN VIEW



NOTES:

1. AS AN OVERALL GUIDING PRINCIPLE, DRIVEWAYS (D/W) SHALL NOT BE LOCATED WITHIN THE TAPER OR STORAGE AREA OF A RIGHT TURN LANE.
2. FOR ROADS WITH RAISED MEDIANS, THE FIRST D/W LOCATED PRIOR TO OR AFTER AN INTERSECTION SHALL BE LOCATED A MIN. 170' FROM THE NEAREST INTERSECTING RIGHT-OF-WAY LINE, AS MEASURED TO THE D/W CENTERLINE.
3. FOR COLLECTOR, ARTERIAL, OR PARKWAY ROADS WITHOUT RAISED MEDIANS, THE FIRST COMMERCIAL/INDUSTRIAL D/W LOCATED PRIOR TO OR AFTER AN INTERSECTION SHALL BE LOCATED A MIN. 250' FROM THE NEAREST INTERSECTING RIGHT-OF-WAY LINE, AS MEASURED TO THE D/W CENTERLINE.
4. THE MIN. RIGHT TURN LANE TAPER LENGTH ON ARTERIAL AND PARKWAY ROADS SHALL BE 120'. THE MIN. STORAGE LENGTH SHALL BE 150'.
5. A MIN. 10' TANGENT LENGTH IS REQUIRED AFTER A CURB RETURN PC AND PRIOR TO BEGINNING A BUS BAY OR RIGHT TURN LANE TAPER.
6. WHEN A D/W CURB RETURN RADIUS IS 35' OR GREATER, THE 10' TANGENT LENGTH BETWEEN CURB RETURN PC AND START OF THE TAPER MAY BE OMITTED.
7. ONLY RIGHT TURN LANES ON MINOR ARTERIAL D/W MAY BE COMBINED WITH A BUS BAY. THE MIN. TAPER LENGTH SHALL BE 70' AND THE MIN. STORAGE LENGTH SHALL BE 150'.
8. A MIN. 250' SHALL BE PROVIDED BETWEEN COMMERCIAL/INDUSTRIAL D/W LOCATED ON OPPOSITE SIDES OF ROADS WITHOUT RAISED MEDIANS.
9. COMMERCIAL/INDUSTRIAL D/W LOCATED ON OPPOSITE SIDES OF A ROAD WITHOUT A MEDIAN MAY HAVE UP TO A MAX. 40' OFFSET.





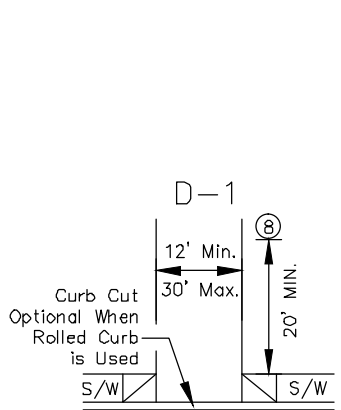
1. THE SHADED AREAS (SIGHT VISIBILITY TRIANGLES) SHALL BE KEPT CLEAR OF VEGETATION THAT AT MATURITY WILL HAVE HEIGHTS GREATER THAN 2' AND TREES THAT HAVE BRANCHES LOWER THAN 7'; AS MEASURED FROM PAVEMENT SURFACE.
2. ABOVE GROUND UTILITY FACILITIES AND APPURTENANCES ABOVE 3 FEET IN HEIGHT SHALL NOT BE LOCATED WITHIN THE SIGHT VISIBILITY TRIANGLES.
3. SIGNAGE APPROVED BY THE CITY FOR USE IN THE ROW MAY BE LOCATED WITHIN THE SIGHT VISIBILITY TRIANGLES.

NOTES:

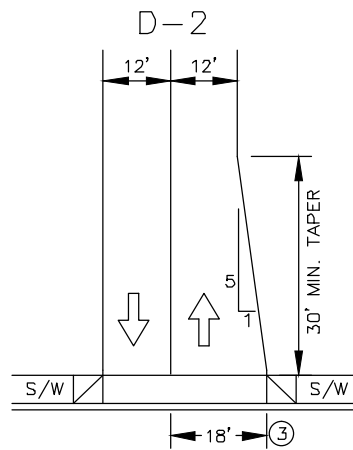
1. TO ESTABLISH THE LINE OF SIGHT, VEHICLE 1 SHOULD BE POSITIONED SO THAT THE DRIVERS EYE IS 14.5 TO 17.5' BACK FROM THE EDGE OF PAVEMENT/ FACE OF CURB AND 3.5' ABOVE THE PAVEMENT. DRIVER IS ASSUMED TO BE 3.0' RIGHT OF CENTER LINE IN LANE.
2. APPROACH VEHICLE (VEHICLE 2) IS POSITIONED IN THE CENTER OF ITS LANE AND ASSUMED TO BE 4.25' ABOVE THE PAVEMENT.
3. DRAWING DEPICTS TYPICAL PASSENGER CAR SITUATION WITHOUT GRADES. ADJUSTMENTS FOR GRADES SHALL BE MADE PER AASHTO.
4. EASEMENTS TO BE SHOWN AND DIMENSIONED ON FINAL PLAT.

A = SIGHT DISTANCE TO RIGHT FOR VEHICLE 1
 B = SIGHT DISTANCE TO LEFT FOR VEHICLE 1

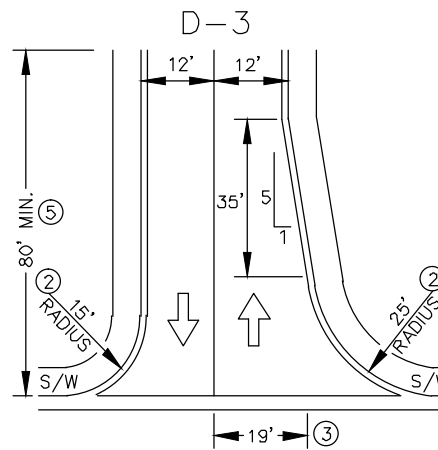
DESIGN SPEED (85th PERCENTILE) OF INTERSECTING ROADWAY	SIGHT DISTANCE FOR PASSENGER VEHICLE 1 TO TURN LEFT OR RIGHT				
	A				B
	1-LANE	2-LANE	3-LANE/2-LANE & MEDIAN	3-LANE & MEDIAN	
25 MPH	280'	295'			240'
30 MPH	335'	355'			290'
35 MPH	390'	415'	440'	465'	335'
40 MPH	445'	475'	500'	530'	385'
45 MPH	500'	530'	565'	600'	430'
50 MPH	555'	590'	625'	665'	480'
55 MPH	610'	650'	690'	730'	530'
60 MPH		710'	750'	795'	575'
65 MPH		765'	815'	860'	625'



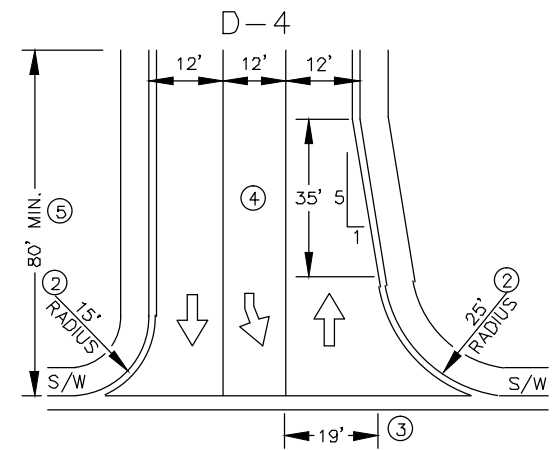
D-1
SINGLE FAMILY
(SEE MAG DTL 250-1&2)



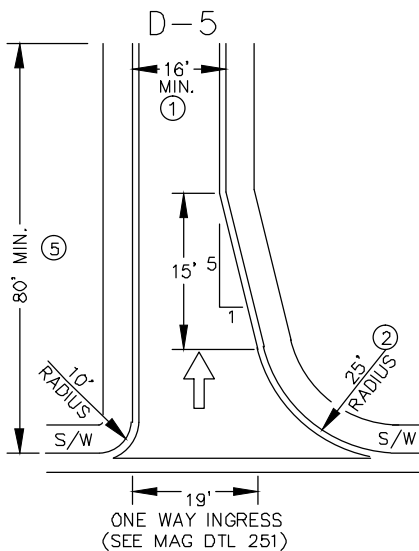
D-2
TWO WAY (LOW VOLUME)
(SEE MAG DTL 250-1&2)



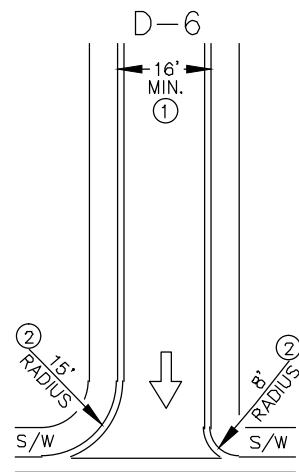
D-3
TWO WAY (HIGH VOLUME)
(SEE MAG DTL 251)



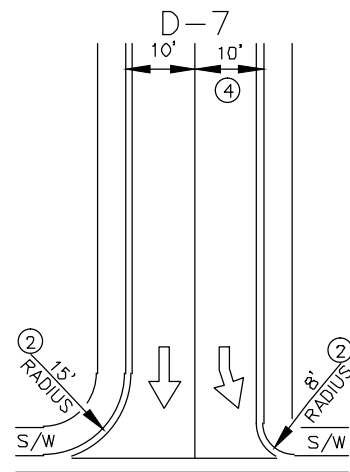
D-4
TWO WAY WITH TWO EGRESS LANES
(SEE MAG DTL 251)



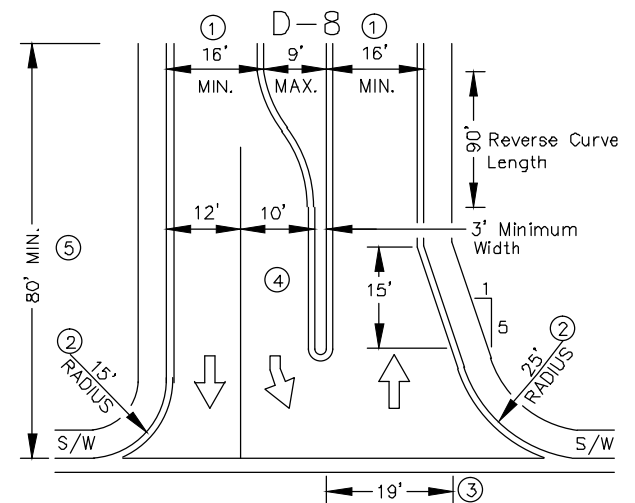
D-5
ONE WAY INGRESS
(SEE MAG DTL 251)



D-6
ONE WAY EGRESS
(SEE MAG DTL 251)



D-7
ONE WAY WITH TWO EGRESS LANES
(SEE MAG DTL 251)

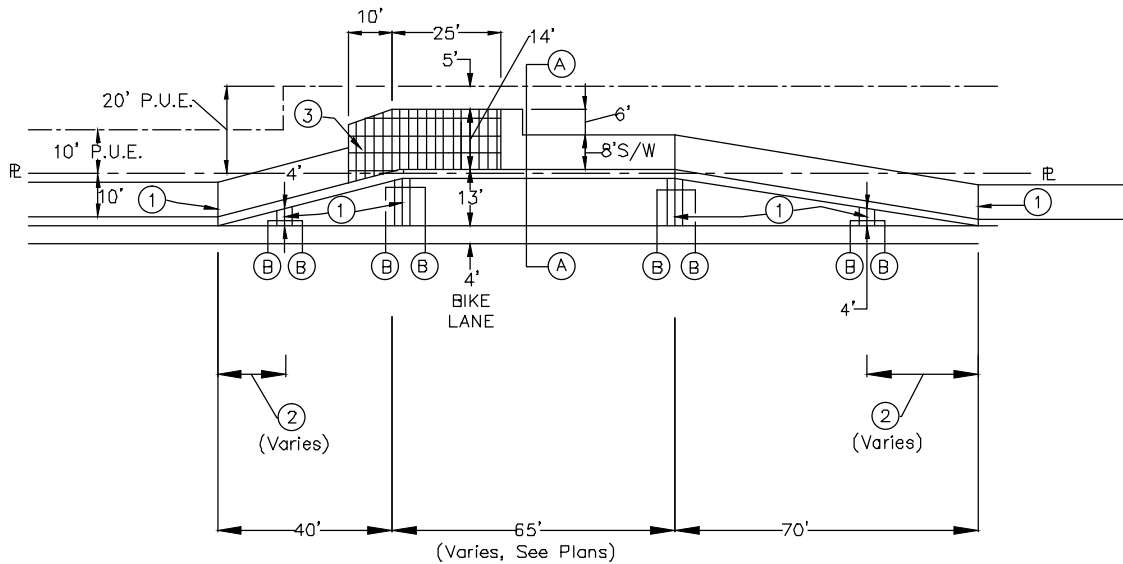


D-8
TWO WAY WITH TWO LANE EGRESS AND RAISED MEDIAN
(SEE MAG DTL 251)

NOTES

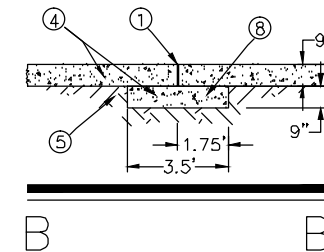
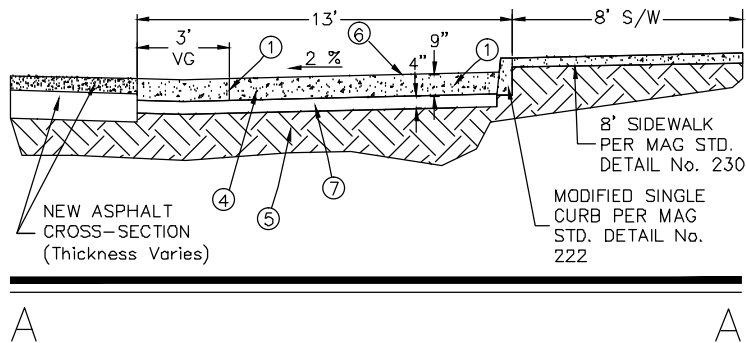
- IF DRIVE IS ALSO FOR FIRE EQUIPMENT ACCESS THEN THE MINIMUM WIDTH SHALL BE 20 FEET.
- A 35' RADIUS CURB RETURN WILL BE REQUIRED AT DRIVEWAYS THAT HAVE FREQUENT LARGE TRUCK TRAFFIC OR AS REQUIRED BY THE CITY ENGINEERING DEPARTMENT.
- WHEN THE INGRESS LANE IS GREATER THAN 19', A PAINTED OR RAISED MEDIAN IS REQUIRED.
- A MINIMUM LEFT TURN STORAGE LENGTH OF 75' SHALL BE PROVIDED.
- INTERSECTING DRIVE AISLES, D/W, OR PARKING STALLS SHALL NOT BE NEARER THAN 80'.
- D-1&2 WIDTHS ARE TO EDGE OF PAVEMENT. D-3 TO D-8 WIDTHS ARE TO BACK OF CURB

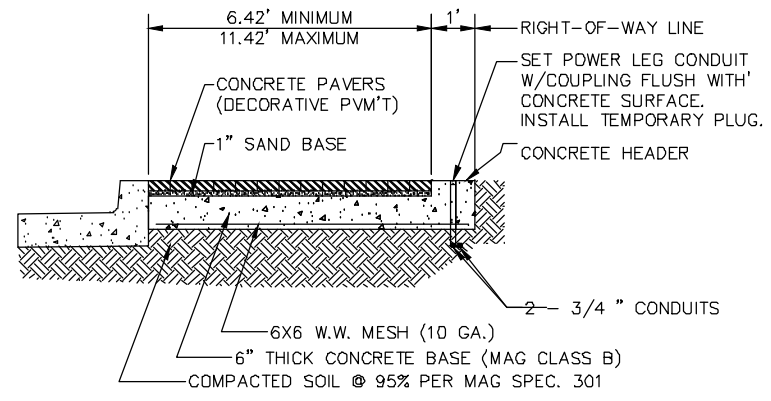
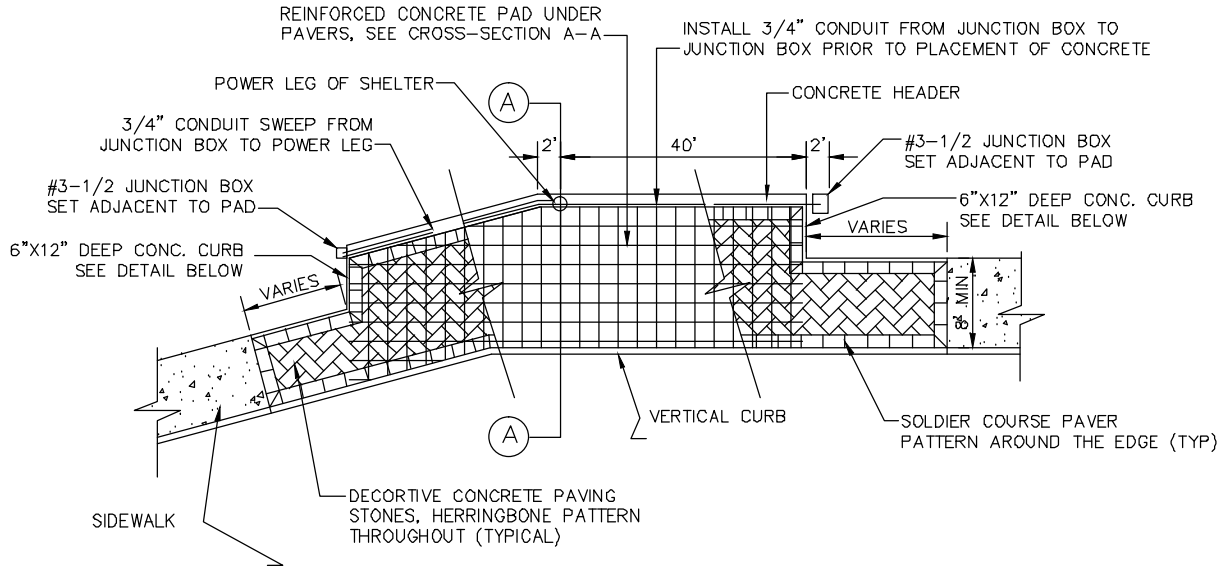
- INGRESS TAPER DIMENSIONS ARE SHOWN FOR D/W WITHOUT DECELERATION LANES.
- A MIN. 20' SHALL BE MAINTAINED BETWEEN THE BACK OF SIDEWALK (APPLIES TO ATTACHED & DETACHED WALKS) AND THE NEAREST STRUCTURE DIRECTLY IN FRONT OF THE D/W.
- RESIDENTIAL D/W WINGS SHALL NOT ENCROACH INTO THE P.C. OF THE STREET CURB RETURN.
- SINGLE FAMILY DRIVEWAYS SHALL BE LOCATED ONLY ON LOCAL RESIDENTIAL ROADWAYS.
- D/W WINGS OR PC'S SHALL BEGIN A MIN. 5' FROM NEAREST SIDE PROPERTY LINE EXTENDED.
- DIMENSIONS PROVIDED ON THIS DETAIL OVERRIDE WHAT IS SHOWN ON REFERENCED MAG DETAILS. ALL OTHER INFORMATION APPLIES.



NOTES:

1. 1/2" BITUMINOUS PREFORMED EXPANSION JOINT FILLER, ASTM D-1751.
2. ASPHALT TO CONCRETE BUS BAY TRANSITION (Length Varies).
3. BUS BAY ACCESSORY PAD (See City STD DTL. No. G-3242-2).
4. CONCRETE SHALL BE CLASS "A" PER MAG SPECS OR CLASS "S", f'c = 3000 psi PER ADOT SPECS.
5. SUBGRADE PREPARATION TO BE PER MAG SECTION 301.
6. CONCRETE BUS BAY PAVEMENT SHALL BE BROOM FINISHED.
7. ABC TO BE PLACED PER MAG SECTION 310.
8. CONCRETE VALLEY GUTTER TO BE POURED SEPARATELY FROM CONCRETE BUS BAY PAVEMENT.
9. FROM AN INTERSECTION CURB RETURN PROVIDE A MINIMUM TANGENTIAL LENGTH OF 10' PRIOR TO THE START OF THE BUS BAY TAPER.

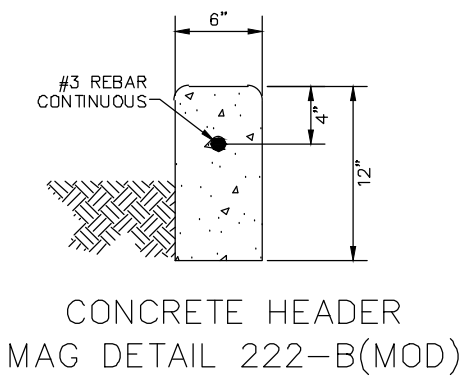




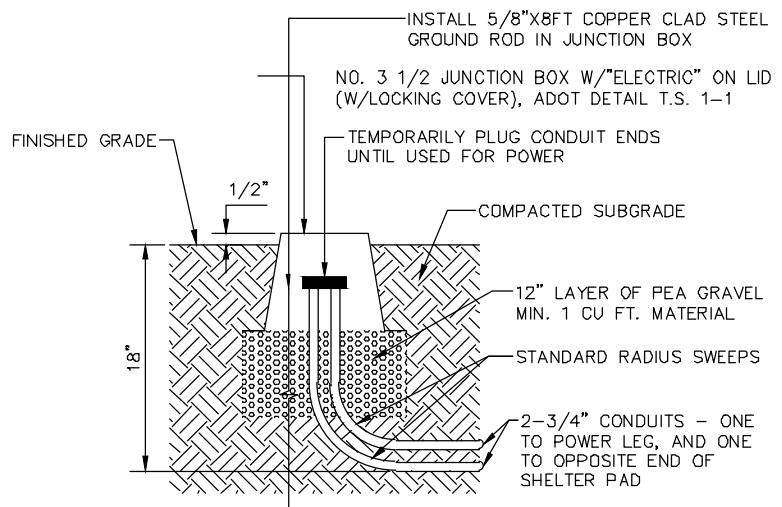
CROSS-SECTION A - A

NOTES:

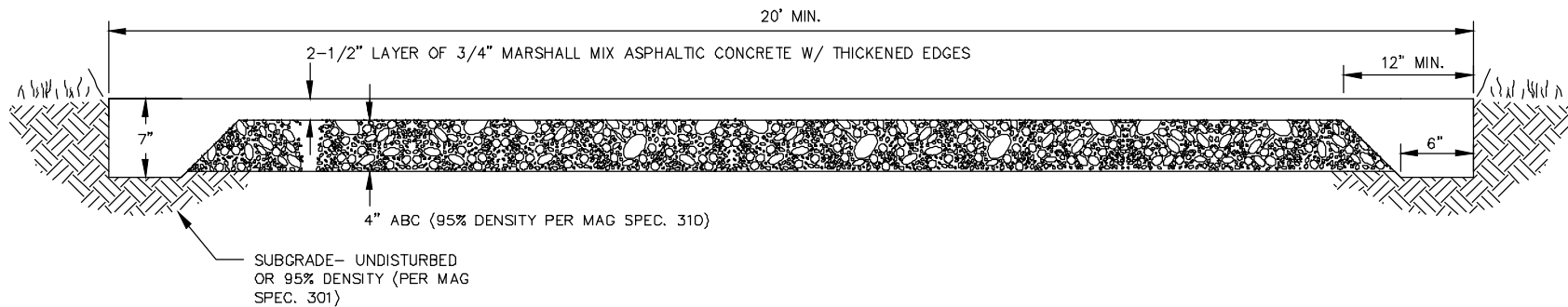
1. ALL CONDUIT SHALL BE P.V.C. SCHEDULE 40, U.L. LISTED.
2. ACTUAL PLAN LAYOUT MAY VARY. ALL DETAIL INFORMATION REMAINS THE SAME. SEE PLANS FOR SPECIFIC LOCATIONS AND DIMENSIONS OF BUS SHELTER PAD CONCRETE BASE AND DECORATIVE PAVEMENT TREATMENT.
3. ANY DECORATIVE PAVEMENT TREATMENT OUTSIDE THE AREA OF THE BUS SHELTER PAD CONCRETE BASE SHALL BE CONSTRUCTED ON A 1 INCH SAND BASE OVER 4 INCHES CEMENT-ENRICHED AGGREGATE BASE SLURRY (1 SACK TYPE II PORTLAND CEMENT PER CUBIC YARD OF AGGREGATE BASE COURSE MATERIAL) OVER 95% COMPACTED SUBGRADE SOIL (PER MAG SPEC. 301).
4. ANY SHELTER OR BUS STOP FURNITURE PLACEMENT SHALL BE LOCATED TO PROVIDE A MIN. 5 FT WIDE CLEAR SIDEWALK.
5. ALL COSTS ASSOCIATED WITH ELECTRICAL AND RELATED ITEMS SHOWN ON THESE DETAILS (CONDUITS, JUNCTION BOXES, GROUND ROD, ETC.) SHALL BE CONSIDEREED INCLUDED IN THE COST OF THE PAY ITEM FOR CONCRETE BUS SHELTER PAD.
6. BUS BAY PAVEMENT, DECORATIVE PAVEMENT (INCLUDING CEMENT-ENRICHED A.B.C. SLURRY AND SANDBASE), 6"x12" D CONCRETE CURB, SINGLE CURB, CURB & GUTTER, SIDEWALKS, & DRIVEWAYS ARE SEPARATE PAY ITEMS.



CONCRETE HEADER
MAG DETAIL 222-B(MOD)



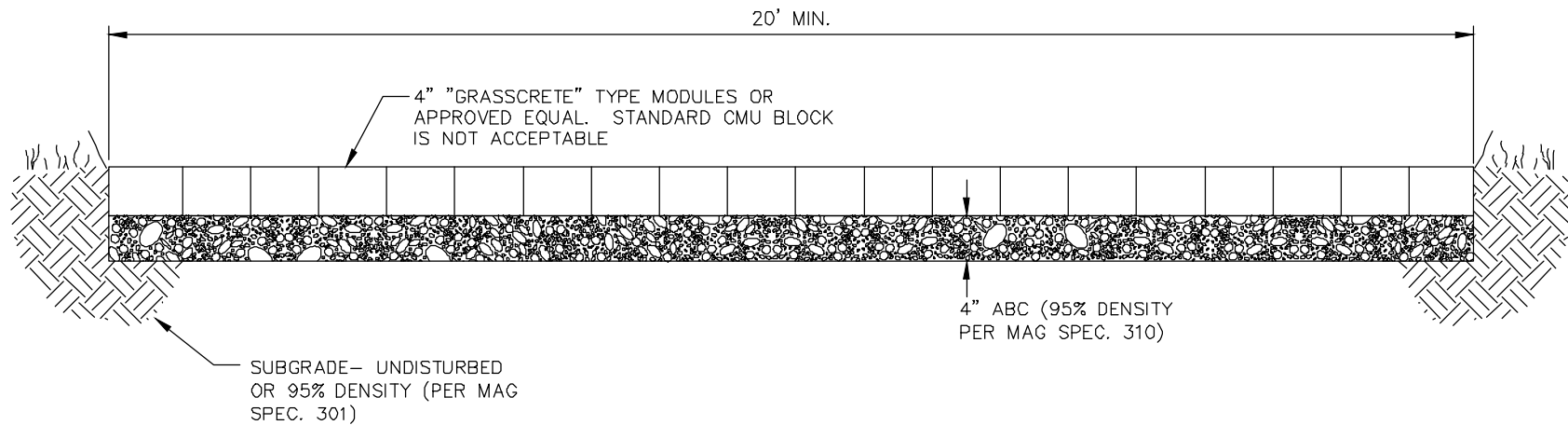
SLEEVE SWEEP &
JUNCTION BOX DETAIL



FIRE DEPARTMENT PERMANENT ACCESS ROADWAY

NOTES:

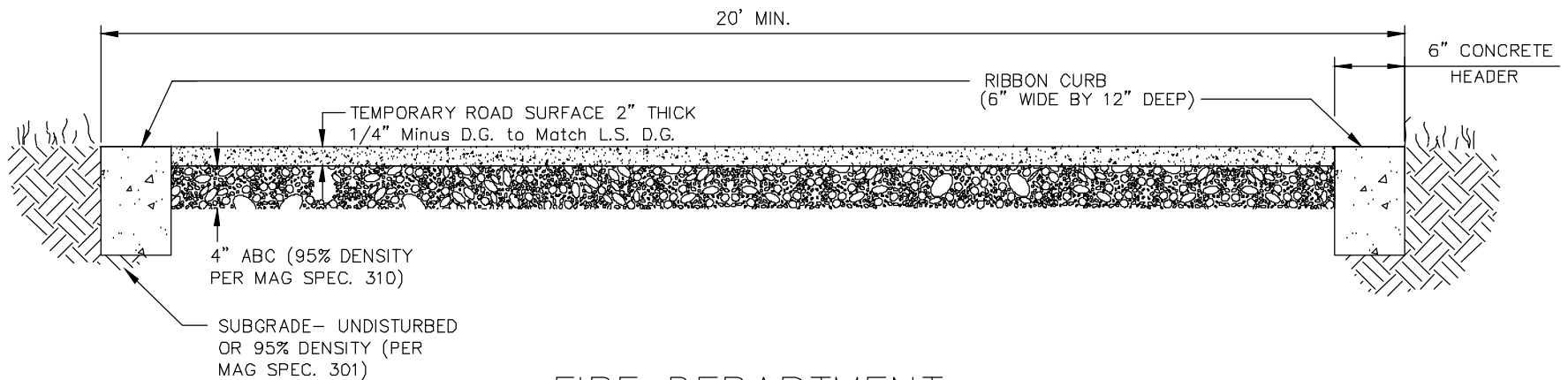
- 1 THE MAXIMUM GRADIENT OF A FIRE DEPARTMENT ACCESS ROAD SHALL NOT EXCEED 8% (8' IN 100').
- 2 WHERE BUILDINGS ARE LESS THAN 30' IN HEIGHT, A 20' UNOBSTRUCTED WIDTH SHALL BE MAINTAINED FOR THE ACCESS ROADWAY.
- 3 WHERE BUILDINGS ARE MORE THAN 30' IN HEIGHT, A 26' UNOBSTRUCTED WIDTH SHALL BE MAINTAINED FOR THE ACCESS ROADWAY.



FIRE DEPARTMENT ALTERNATIVE ACCESS ROADWAY

NOTES

1. THE MAXIMUM GRADIENT OF A FIRE DEPARTMENT ACCESS ROAD SHALL NOT EXCEED 8% (8' IN 100').
2. WHERE BUILDINGS ARE LESS THAN 30' IN HEIGHT, A 20' UNOBSTRUCTED WIDTH SHALL BE MAINTAINED FOR THE ACCESS ROADWAY.
3. WHERE BUILDINGS ARE MORE THAN 30' IN HEIGHT, A 26' UNOBSTRUCTED WIDTH SHALL BE MAINTAINED FOR THE ACCESS ROADWAY.
4. THIS IS AN ALTERNATIVE CROSS-SECTION TO THE CROSS-SECTION OF THE PERMANENT ACCESS ROADWAY.
5. CONSTRUCTION OF THIS ALTERNATIVE IS SUBJECT TO APPROVAL BY THE CITY OF GOODYEAR FIRE DEPARTMENT AND MUST ALSO INCLUDE AN ENGINEER'S STAMP AND SIGNATURE.
6. DOCUMENTATION THAT THIS CROSS-SECTION WILL SUPPORT FIRE VEHICLE LOADS MUST BE STAMPED AND SIGNED BY A PROFESSIONAL CIVIL ENGINEER AND SUBMITTED TO THE CITY FIRE AND ENGINEERING STAFF FOR REVIEW.



FIRE DEPARTMENT TEMPORARY ACCESS ROADWAY

NOTES

1. ALL CONCRETE SHALL BE MAG CLASS A.
2. THE MAXIMUM GRADIENT OF A FIRE DEPARTMENT ACCESS ROAD SHALL NOT EXCEED 8% (8' IN 100').
3. WHERE BUILDINGS ARE LESS THAN 30' IN HEIGHT, A 20' UNOBSTRUCTED WIDTH SHALL BE MAINTAINED FOR THE ACCESS ROADWAY.
4. WHERE BUILDINGS ARE MORE THAN 30' IN HEIGHT, A 26' UNOBSTRUCTED WIDTH SHALL BE MAINTAINED FOR THE ACCESS ROADWAY.

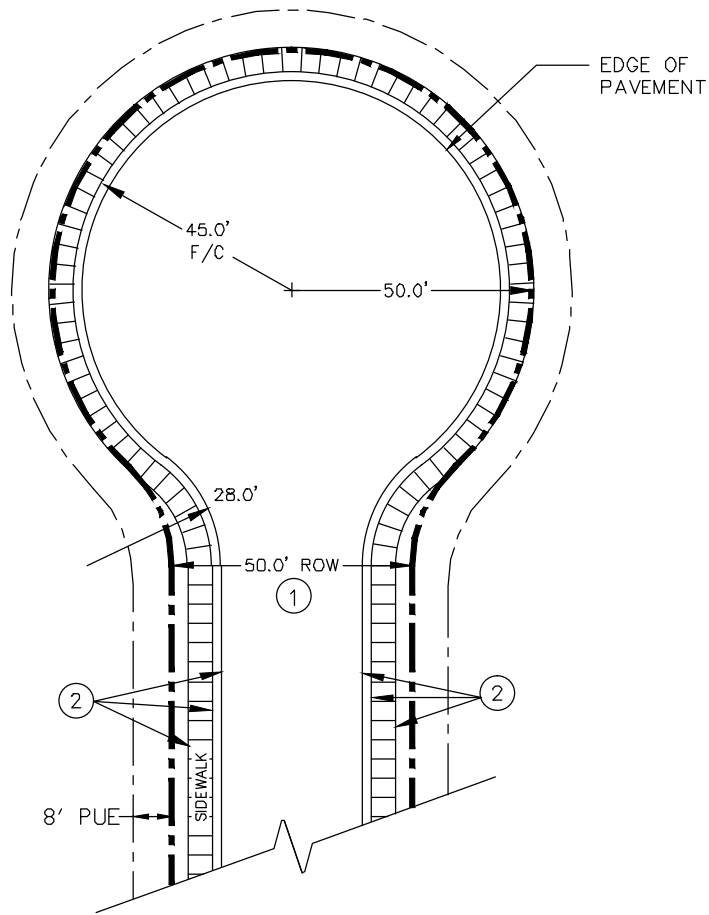
DETAIL NO.
G-3244-3

CITY OF GOODYEAR
STANDARD DETAIL

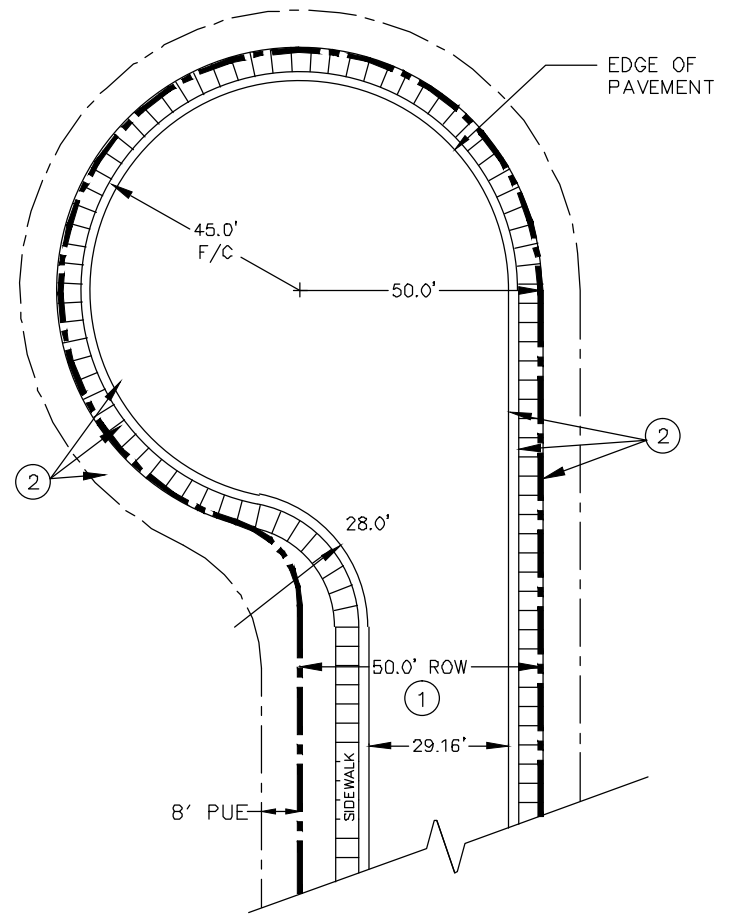
APPROVED:12/12

FIRE DEPARTMENT TEMPORARY ACCESS ROADWAY TYPICAL CROSS-SECTION

DETAIL NO.
G-3244-3



CUL-DE-SAC

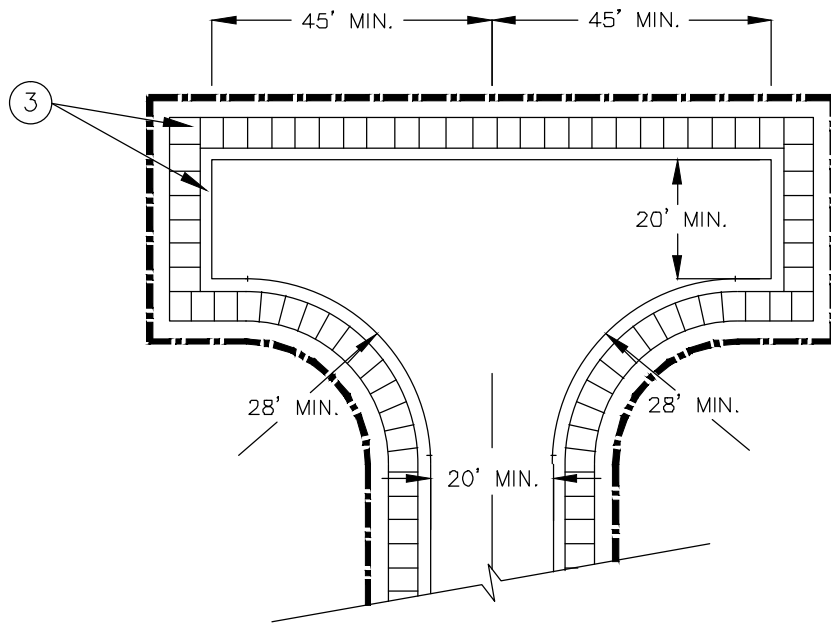


MODIFIED CUL-DE-SAC

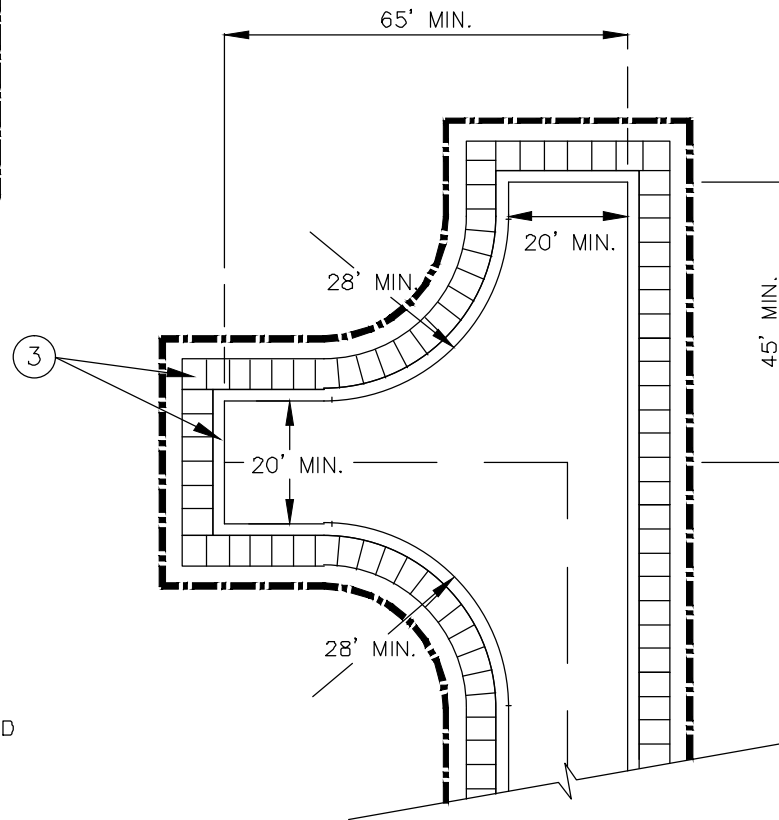
NOTES:

1. FIRE DEPARTMENT ACCESS ROADWAY WIDTHS SHALL MEET OR EXCEED THE WIDTHS INDICATED IN THE CITY STANDARD ROADWAY CROSS-SECTIONS. A MINIMUM 20' WIDE DRIVE SHALL BE PROVIDED FOR ALL OTHER CIRCUMSTANCES. A WIDER FIRE ACCESS ROADWAY WIDTH MAY BE REQUIRED AS DETERMINED BY CURRENT FIRE DEPARTMENT STANDARDS (TYPICALLY REQUIRED ADJACENT TO TALL BUILDINGS). WIDTHS SHOWN REFLECT THE CITY STANDARD LOCAL STREET CROSS-SECTION.
2. SIDEWALKS AND CURB & GUTTER SHALL BE INSTALLED AND A MINIMUM 8' PUE SHALL BE DEDICATED AROUND ALL PERMANENT PUBLIC AND PRIVATE STREET TURNAROUNDS AND IN OTHER CIRCUMSTANCES AS DETERMINED BY THE CITY ENGINEERING DEPARTMENT.
3. ROLL OR VERTICAL CURBING MAY BE USED ALONG FIRE DEPARTMENT ACCESS ROADWAYS. HOWEVER, A MINIMUM PAVED WIDTH OF 24' (B/C TO B/C) SHALL BE MAINTAINED.
4. DETACHED OR ATTACHED SIDEWALKS MAY BE USED.

DETAIL NO. G-3246-1	CITY OF GOODYEAR STANDARD DETAIL	APPROVED:08/17	FIRE DEPARTMENT ACCESS ROADWAYS & CUL-DE-SAC / MODIFIED CUL-DE-SAC TURNAROUNDS	DETAIL NO. G-3246-1
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HAMMERHEAD



MODIFIED HAMMERHEAD

NOTES:

1. THE HAMMERHEAD TURNAROUND SHALL NOT BE CONSTRUCTED WITHIN A PUBLIC OR PRIVATE ROADWAY.
2. THE WIDTH OF EACH LEG IN THE HAMMERHEAD SHALL BE A MINIMUM 20' WIDE. LEG WIDTHS GREATER THAN 20' MAY BE REQUIRED AS DETERMINED BY THE CITY'S FIRE CODE (TYPICALLY REQUIRED ADJACENT TO TALL BUILDINGS).
3. WHEN DETERMINED NECESSARY BY THE CITY ENGINEERING DEPARTMENT, SIDEWALKS AND CURB & GUTTER SHALL BE INSTALLED AROUND PERMANENT HAMMERHEAD IMPROVEMENTS.
4. ROLL OR VERTICAL CURBING MAY BE USED. HOWEVER, A MINIMUM PAVED WIDTH OF 24' (B/C TO B/C) SHALL BE MAINTAINED.
5. DETACHED OR ATTACHED SIDEWALKS MAY BE USED.

GRAY ROADWAY LED STREETLIGHT POLE AND LUMINAIRE SPECIFICATIONS

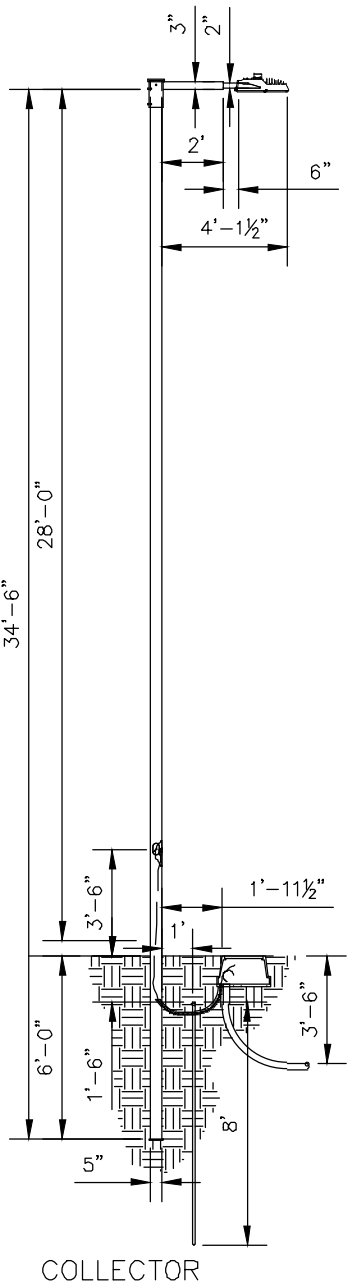
ITEM NUMBER	TYPE OF STREET	QUANTITY	MOUNTING HEIGHT	POLE LENGTH	MAST ARM	APPROVED POLE & ARM MANUFACTURERS	LUMEN	TYPE	WATTAGE	VOLTAGE	LUMINAIRE STYLE	APPROVED LUMINAIRE MANUFACTURERS
①	LOCAL	0	25'-11"	30'-6"	6'	CEM-TEC MS-1936 VALMONT CB09158 SOUTHWEST FABRICATION, LLC 306RDB	5,100	LED	60 W	120/208/240/277 AS POWER CO. REQUIRES	COBRAHEAD	GENERAL ELECTRIC ERS10A3B1740A GRAY R
②	COLLECTOR	0	32'-11"	38'-6"	6'	CEM-TEC MS-1944 VALMONT CB09159 SOUTHWEST FABRICATION, LLC 386RDB	8,200	LED	95 W	120/208/240/277 AS POWER CO. REQUIRES	COBRAHEAD	GENERAL ELECTRIC ERS10C3C1740A GRAY R
③	ARTERIAL	0	34'-3"	38'-6"	6'	CEM-TEC MS-1944 VALMONT CB09159 SOUTHWEST FABRICATION, LLC 386RDB	10,000	LED	113 W	120/208/240/277 AS POWER CO. REQUIRES	COBRAHEAD	GENERAL ELECTRIC ERS20D3E1740A GRAY R

ALL CATALOG NUMBERS SHALL BE CONFIRMED WITH POWER COMPANY PRIOR TO ORDERING

DARK BRONZE LED STREETLIGHT POLE AND LUMINAIRE SPECIFICATIONS

ITEM NUMBER	TYPE OF STREET	QUANTITY	MOUNTING HEIGHT	POLE LENGTH	MAST ARM	APPROVED POLE & ARM MANUFACTURERS	LUMEN	TYPE	WATTAGE	VOLTAGE	LUMINAIRE STYLE	APPROVED LUMINAIRE MANUFACTURERS
①	LOCAL	0	25'-11"	30'-6"	2'	CEM-TEC MS-1936 VALMONT CB09158 SOUTHWEST FABRICATION, LLC 306RDB	5,100	LED	60 W	120/208/240/277 AS POWER CO. REQUIRES	DKBZ LED	GENERAL ELECTRIC ERS10A3B1740A DKBZ R
②	COLLECTOR	0	32'-11"	38'-6"	2'	CEM-TEC MS-1944 VALMONT CB09159 SOUTHWEST FABRICATION, LLC 386RDB	8,200	LED	95 W	120/208/240/277 AS POWER CO. REQUIRES	DKBZ LED	GENERAL ELECTRIC ERS10C3C1740A DKBZ R
③	ARTERIAL	0	34'-3"	38'-6"	2'	CEM-TEC MS-1944 VALMONT CB09159 SOUTHWEST FABRICATION, LLC 386RDB	10,000	LED	113 W	120/208/240/277 AS POWER CO. REQUIRES	DKBZ LED	GENERAL ELECTRIC ERS20D3E1740A DKBZ R

ALL CATALOG NUMBERS SHALL BE CONFIRMED WITH POWER COMPANY PRIOR TO ORDERING



CONSTRUCTION NOTES:

1. ADJUST PHOTO EYE TO FACE NORTH
2. A GROUND ROD IS PROVIDED WITH THE JUNCTION BOX. WHERE A GROUND ROD CANNOT BE DRIVEN ALTERNATE GROUND SHALL BE USED. SEE 2449 THRU 2460 FOR APPROVED ALTERNATES.
3. THE 40'-6" SELF-SUPPORTING STEEL POLE AND ONE OF THE 38'-0", HAVE TWO, MANUFACTURED INSTALLED SIMPLEX FITTINGS 180 APART FOR DOUBLE ARMS, SEE CHART.
4. APN 33701054 IS A POLE BAND ADAPTOR WITH A SIMPLEX FITTING. ADAPTOR IS REQUIRED FOR THE SECOND ARM IN DOUBLE ARM APPLICATIONS ON EXISTING PLES IN THE FIELD WITHOUT TWO SIMPLEX FITTINGS. SEE 8198 FOR AVAILABLE SIZES.
5. POLES THAT HAVE MORE THAN ONE LUMINAIRE REQUIRE A SEPARATE CIRCUIT WITH FUSING FROM THE J-BOX TO EACH LUMINAIRE.

ENGINEERING NOTES:

- A. THE LIGHT CODE PROVIDES TWO SAME WATTAGE LUMINAIRES WHEN DOUBLE ARM ARE SPECIFIED.
- B. SEE SPEC 8130 - 8131 FOR IN-LINE FUSE FOR UNDERGROUND FEEDS.
- C. SEE 8100 THRU 8107 FOR OVERHEAD ATTACHMENTS.

LIGHT CODE	COLOR	APN	TYPE	WATTS	MULTIVOLT	INITIAL LUMENS	PHOTOMETRIC CURVE
RL50	DARK BRONZE	00128251	LED	45	120/208/240/277	DRIVER 4,100	454669
RL52		00126804		60	120/208/240/277	DRIVER 5,100	454659
RL53		00126805		95	120/208/240/277	DRIVER 8,200	454677
RL54		00126806		113	120/208/240/277	DRIVER 10,000	454688
RL56		00128365		257	120/208/240/277	DRIVER 19,200	454942

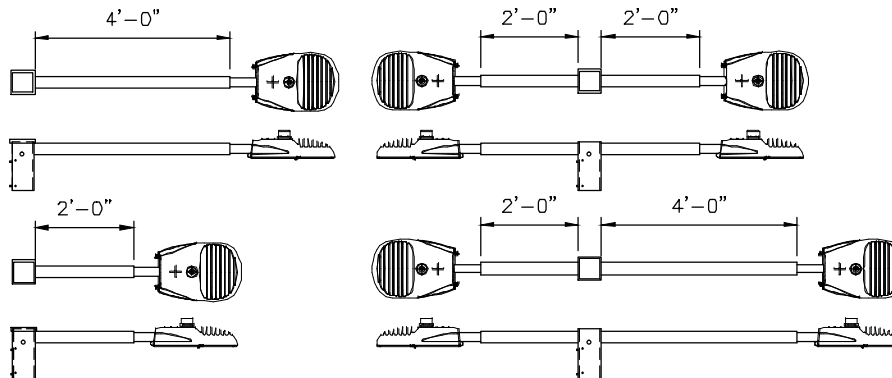
POLE TYPE	POLE CODE	POLE LENGTH	BURY DEPTH	POLE ABOVE GROUND	POLE BUTT DIAMETER		WEIGHT	LUMINAIRE HEIGHT ABOVE GROUND ON ARM		
					STEP	TAPER		20' X 6'	3' X 8'	8' X 8'
LOCAL	1944.30	30' - 6"	5' - 6"	25' - 0"	5-9/16"	7-5/16"	460	25' - 11"	27' - 3"	-
COLLECTOR	1944.38	38' - 6"	6' - 6"	32' - 0"	6-5/8"	9-3/4"	640	32' - 11"	34' - 3"	39' - 3"
ARTERIAL	1944.38X	38' - 6"	6' - 6"	32' - 0"	6-5/8"	9-3/4"	640	32' - 11"	34' - 3"	39' - 3"

****FOR NON-STANDARD POLES, CONTACT THE STREET TRANSPORTATION STREETLIGHTING SECTION FOR INFORMATION.**

1944. _ _

- 19 = 19' - 0" POLE SNG SIMPLEX
- 30 = 30' - 6" POLE SNG SIMPLEX
- 38 = 38' - 6" POLE SNG SIMPLEX
- 38X = 38' - 6" POLE DBL SIMPLEX
- ** SEE SPEC. NOTE

BRONZE SQUARE POLE LUMINAIRES



DARK BRONZE LUMINAIRE DESCRIPTIONS

APN# 128251
45W LED RWDB - PEDESTRIAN
ERS10A3B1540A DKBZ R

APN# 126804
60W LED RWDB - LOCAL
ERS10A3B1740A DKBZ R

APN# 126805
95W LED RWDB - COLLECTOR
ERS10CEC1740A DKBZ R

APN# 126806
113W LED RWDB - MAJOR
ERS20D3E1740A DKBZ R

APN# 128365
257W LED RWDB - SPECIAL MAJOR
ERS20G3C1140A DKBZ R

ELECTRICAL REQUIREMENTS FOR NEW POLE INSTALLATION

1. JUNCTION BOXES SHALL MEET UTILITY COMPANY STANDARDS.
2. CONDUIT, CONDUCTORS, AND FUSE HOLDERS SHALL BE LISTED AND LABELED FOR USE IN A WET LOCATION WHEN USED IN A JUNCTION BOX. NEC300.5(B), 310.8(C)
3. IN-LINE FUSE HOLDER USED IN HAND HOLE OR SERVICE DROP SHALL BE CONSIDERED AS DISCONNECTING MEANS. FUSE HOLDERS TO BE RATED AT 22,000 AIC MINIMUM. NEC 240.40
4. ELECTRICAL CONNECTIONS-CONDUCTORS OF DISSIMILAR METALS SHALL NOT BE INTERMIXED IN A TERMINAL OR SPLICING CONNECTOR WHERE PHYSICAL CONTACT OCCURS BETWEEN DISSIMILAR CONDUCTORS, (COPPER, ALUMINUM) UNLESS THE DEVICE IS IDENTIFIED FOR THE PURPOSE AND CONDITIONS OF USE. NEC 110.14
5. ELECTRICAL CONNECTIONS OR SPLICES IN AN UNDERGROUND INSTALLATION SHALL BE APPROVED FOR WET LOCATIONS. (NEC 300.5)
6. NON-CURRENT CARRYING CONDUCTIVE MATERIALS ENCLONG ELECTRICAL CONDUCTORS OR EQUIPMENT, OR FORMING PART OF SUCH EQUIPMENT, SHALL BE CONNECTED TO EARTH IN A MANNER THAT WILL LIMIT THE VOLTAGE IMPDSED BY LIGHTNING OR UNINTENTIONAL VOLTAGE DUE TO SHORT CIRCUITS AND LIMIT THE VOLTAGE TO GROUND ON THESE MATERIALS. NEC 250.4(B) (GROUND RODS)
7. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED FROM THE GROUND LUG IN THE HAND-HOLE TO THE LUMINAIRE WITH THE CURRENT CARRYING CONDUCTORS. NEC 410.30(B)(3).
8. CONNECTION TO THE GROUND ROD AND THE GROUNDING ELECTRODE SHALL BE LISTED AND LABELED FOR USE. NEC 250.8
9. CONNECT #6 BARE COPPER WIRE FROM THE GROUND ROD ADJACENT TO THE POLE OR IN JUNCTION BOX TO THE GROUND LUG IN THE POLE.

CONSTRUCTION NOTES:

1. ADJUST PHOTO EYE TO FACE NORTH
2. A GROUND ROD IS PROVIDED WITH THE JUNCTION BOX. WHERE A GROUND ROD CANNOT BE DRIVEN ALTERNATE GROUND SHALL BE USED. SEE 2449THRU 2460 FOR APPROVED ALTERNATES.
3. THE 40'-6" SELF-SUPPORTING STEEL POLE AND ONE OF THE 38'-0", HAVE TWO, MANUFACTURED INSTALLED SIMPLEX FITTINGS 180 APART FOR DOUBLE ARMS,SEE CHART.
4. APN 33701054 IS A POLE BAND ADAPTOR WITH A SIMPLEX FITTING. ADAPTOR IS REQUIRED FOR THE SECOND ARM IN DOUBLE ARM APPLICATIONS ON EXISTING POLES IN THE FIELD WITHOUT TWO SIMPLEX FITTINGS. SEE 8198 FOR AVAILABLE SIZES.
5. POLES THAT HAVE MORE THAN ONE LUMINAIRE REQUIRE A SEPARATE CIRCUIT WITH FUSING FROM THE J-BOX TO EACH LUMINAIRE.

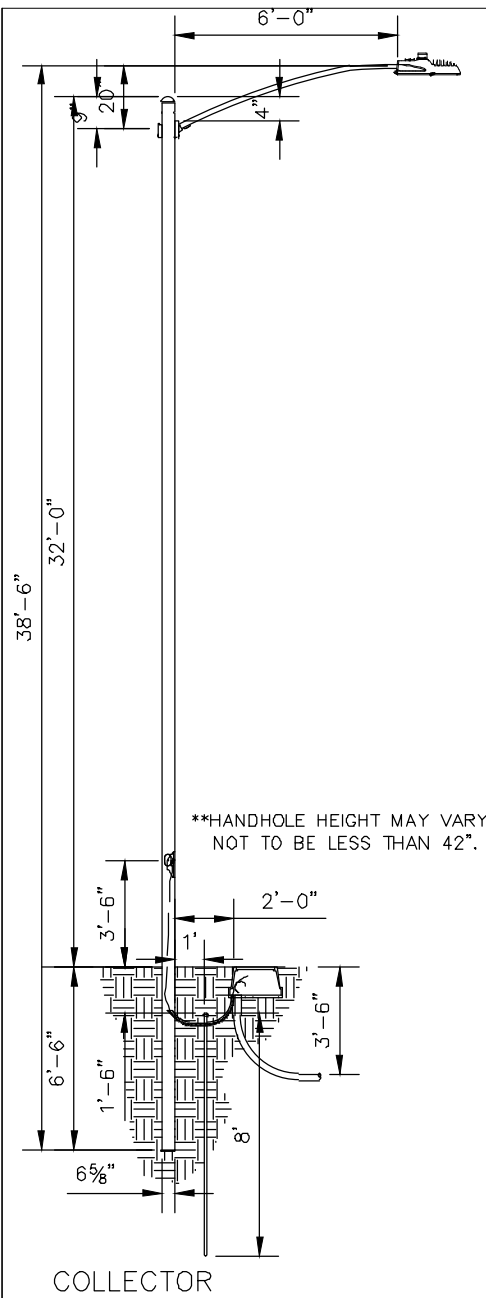
ENGINEERING NOTES:

- A. THE LIGHT CODE PROVIDES TWO SAME WATTAGE LUMINAIRES WHEN DOUBLE ARM ARE SPECIFIED.
- B. SEE SPEC 8130 - 8131 FOR IN-LINE FUSE FOR UNDERGROUND FEEDS.
- C. SEE 8100 THRU 8107 FOR OVERHEAD ATTACHMENTS.

20 YEAR PHOTOCCELL REQUIREMENTS

APN# 00073241 CONTROL PHOTO MULTI BR-20 CONTROL, PHOTO-ELECTRIC, BROWN, 20YEAR FAIL OFF, 120/208/240/277 MULTI-VOLT, SILICON, SOLID STATE, 2.40 TO 3.60 FC ON 1.2 TO 2.4 FC OFF, 60 HERTZ, 320 JOULE MOV, INVERSE ON/OFF RATIO .6:1 +/- .1, FAIL OFF, THREE PIN NEMA TWISTLOCK, 20 YEAR LIFE, 8483-SIDE SELC, MODEL #8483F2TMABR

GE Evolve II Dark Bronze Shoebox LED Fixtures				
WATT	LUMEN	DESCRIPTION	APN	MODEL#
45W	4,100	SCALABLE ROADWAY GE LED GRAY Pedestrian LUMINAIRE 45WATT, 4000K, 4,100 LUMEN, ROADWAY, LED, TERMINAL BOARD, 10KV SURGE PROTECTION, 90 DEGREE CUTOFF, DARK BRONZE, MULTIVOLT 120/208/240/277 DRIVER, IES NARROW ASYMMETRIC MEDIUM, ANSI C136.41 7 PIN TWISTLOCK PHOTO CONTROL RECEPTACLE, CSA OR UL CERTIFIED, ANSI C136.15 WATTAGE LABEL.	128251	ERS10A3B1540A DKBZ R
60W	5,100	SCALABLE ROADWAY GE LED GRAY Local Street LUMINAIRE 60WATT, 4000K, 5,100 LUMEN, ROADWAY, LED, TERMINAL BOARD, 10KV SURGE PROTECTION, 90 DEGREE CUTOFF, DARK BRONZE, MULTIVOLT 120/208/240/277 DRIVER, IES NARROW ASYMMETRIC MEDIUM, ANSI C136.41 7 PIN TWISTLOCK PHOTO CONTROL RECEPTACLE, CSA OR UL CERTIFIED, ANSI C136.15 WATTAGE LABEL.	126804	ERS10A3B1740A DKBZ R
95W	8,200	SCALABLE ROADWAY GE LED GRAY Collector Street LUMINAIRE 95WATT, 4000K, 8,200 LUMEN, ROADWAY, LED, TERMINAL BOARD, 10KV SURGE PROTECTION, 90 DEGREE CUTOFF, DARK BRONZE, MULTIVOLT 120/208/240/277 DRIVER, IES NARROW ASYMMETRIC MEDIUM, ANSI C136.41 7 PIN TWISTLOCK PHOTO CONTROL RECEPTACLE, CSA OR UL CERTIFIED, ANSI C136.15 WATTAGE LABEL.	126805	ERS10C3C1740A DKBZ R
113W	10,000	SCALABLE ROADWAY GE LED GRAY Major Roadway LUMINAIRE 113WATT, 4000K, 10,000 LUMEN, ROADWAY, LED, TERMINAL BOARD, 10KV SURGE PROTECTION, 90 DEGREE CUTOFF, DARK BRONZE, MULTIVOLT 120/208/240/277 DRIVER, IES NARROW ASYMMETRIC MEDIUM, ANSI C136.41 7 PIN TWISTLOCK PHOTO CONTROL RECEPTACLE, CSA OR UL CERTIFIED, ANSI C136.15 WATTAGE LABEL.	126806	ERS20D3E1740A DKBZ R
257W	19,200	SCALABLE ROADWAY GE LED GRAY Special Major Roadway LUMINAIRE 257WATT, 4000K, 19,200 LUMEN, ROADWAY, LED, TERMINAL BOARD, 10KV SURGE PROTECTION, 90 DEGREE CUTOFF, DARK BRONZE, MULTIVOLT 120/208/240/277 DRIVER, IES NARROW ASYMMETRIC MEDIUM, ANSI C136.41 7 PIN TWISTLOCK PHOTO CONTROL RECEPTACLE, CSA OR UL CERTIFIED, ANSI C136.15 WATTAGE LABEL.	128365	ERS20G3C1140A DKBZ R



CONSTRUCTION NOTES:

1. ADJUST PHOTO EYE TO FACE NORTH
2. A GROUND ROD IS PROVIDED WITH THE JUNCTION BOX. WHERE A GROUND ROD CANNOT BE DRIVEN ALTERNATE GROUND SHALL BE USED. SEE 2449 THRU 2460 FOR APPROVED ALTERNATES.
3. THE 40'-6" SELF-SUPPORTING STEEL POLE AND ONE OF THE 38'-0", HAVE TWO, MANUFACTURED INSTALLED SIMPLEX FITINGS 180 APART FOR DOUBLE ARMS, SEE CHART.
4. APN 33701054 IS A POLE BAND ADAPTOR WITH A SIMPLEX FITTING. ADAPTOR IS REQUIRED FOR THE SECOND ARM IN DOUBLE ARM APPLICATIONS ON EXISTING PLES IN THE FIELD WITHOUT TWO SIMPLEX FITTINGS. SEE 8198 FOR AVAILABLE SIZES.
5. POLES THAT HAVE MORE THAN ONE LUMINAIRE REQUIRE A SEPARATE CIRCUIT WITH FUSING FROM THE J-BOX TO EACH LUMINAIRE.

ENGINEERING NOTES:

- A. THE LIGHT CODE PROVIDES TWO SAME WATTAGE LUMINAIRES WHEN DOUBLE ARM ARE SPECIFIED.
- B. SEE SPEC 8130 - 8131 FOR IN-LINE FUSE FOR UNDERGROUND FEEDS.
- C. SEE 8100 THRU 8107 FOR OVERHEAD ATTACHMENTS.

LIGHT CODE	COLOR	APN	TYPE	WATTS	MULTIVOLT	INITIAL LUMENS	PHOTOMETRIC CURVE
RL50		00128251		45	120/208/240/277 DRIVER	4,100	454669
RL52		00126804		60	120/208/240/277 DRIVER	5,100	454659
RL53	GRAY	00126805	LED	95	120/208/240/277 DRIVER	8,200	454677
RL54		00126806		113	120/208/240/277 DRIVER	10,000	454688
RL56		00128365		257	120/208/240/277 DRIVER	19,200	454942

POLE TYPE	POLE CODE	POLE LENGTH	BURY DEPTH	POLE ABOVE GROUND	POLE BUTT DIAMETER		WEIGHT	LUMINAIRE HEIGHT ABOVE GROUND ON ARM		
					STEP	TAPER		20" X 6'	3' X 8'	8' X 8'
LOCAL	1944.30	30' - 6"	5' - 6"	25' - 0"	5-9/16"	7-5/16"	460	25' - 11"	27' - 3"	-
COLLECTOR	1944.38	38' - 6"	6' - 6"	32' - 0"	6-5/8"	9-3/4"	640	32' - 11"	34' - 3"	39' - 3"
ARTERIAL	1944.38X	38' - 6"	6' - 6"	32' - 0"	6-5/8"	9-3/4"	640	32' - 11"	34' - 3"	39' - 3"

**FOR NON-STANDARD POLES, CONTACT THE STREET TRANSPORTATION STREETLIGHTING SECTION FOR INFORMATION.

GRAY ROADWAY LUMINAIRE DESCRIPTIONS

- APN# 128329
45W LED RWGR - PEDESTRIAN
ERS10A3B1540A GRAY R
- APN# 128330
60W LED RWGR - LOCAL
ERS10A3B1740A GRAY R
- APN# 128331
95W LED RWGR - COLLECTOR
ERS10C3C1740A GRAY R
- APN# 128332
113W LED RWGR - MAJOR
ERS20D3E1740A GRAY R
- APN# 128364
257W LED RWGR - SPECIAL MAJOR
ERS20G3C1140A GRAY R

ELECTRICAL REQUIREMENTS FOR NEW POLE INSTALLATION

1. JUNCTION BOXES SHALL MEET UTILITY COMPANY STANDARDS.
2. CONDUIT, CONDUCTORS, AND FUSE HOLDERS SHALL BE LISTED AND LABELED FOR USE IN A WET LOCATION WHEN USED IN A JUNCTION BOX. NEC300.5(B), 310.8(C)
3. IN-LINE FUSE HOLDER USED IN HAND HOLE OR SERVICE DROP SHALL BE CONSIDERED AS DISCONNECTING MEANS. FUSE HOLDERS TO BE RATED AT 22,000 AIC MINIMUM. NEC 240.40
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CONSTRUCTION NOTES:

1. ADJUST PHOTO EYE TO FACE NORTH
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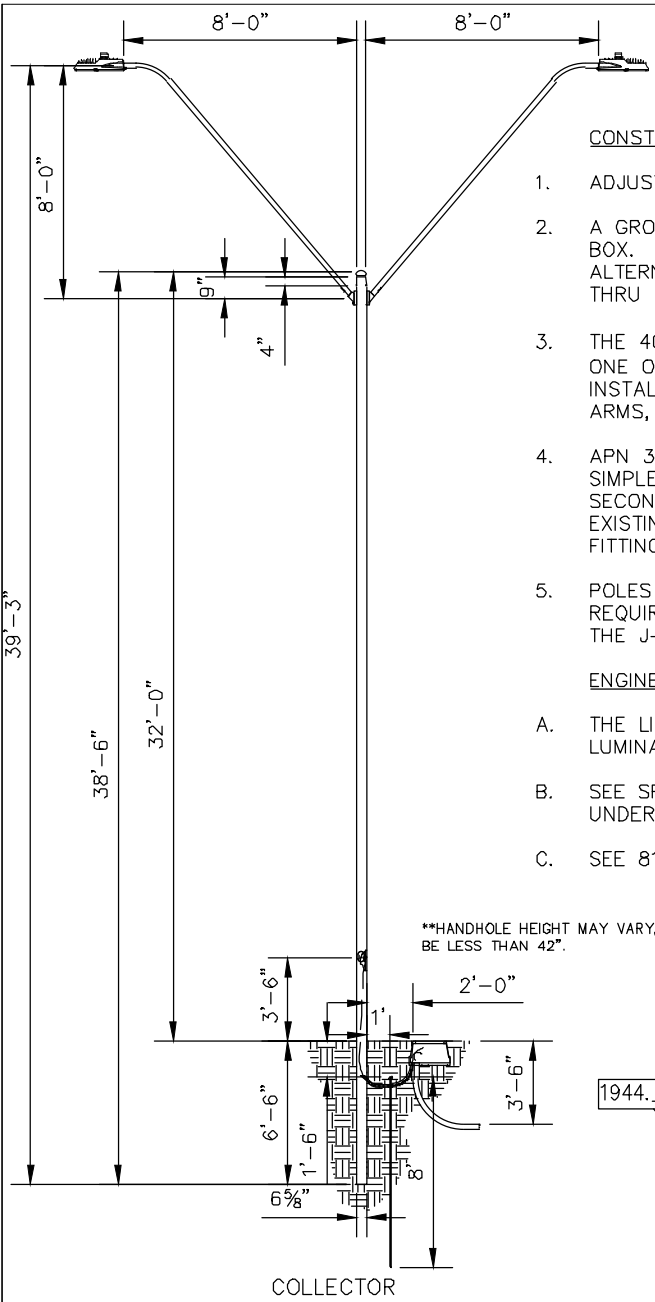
ENGINEERING NOTES:

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20 YEAR PHOTOCCELL REQUIREMENTS

APN# 00073241 CONTROL PHOTO MULTI BR-20 CONTROL, PHOTO-ELECTRIC, BROWN, 20YEAR FAIL OFF, 120/208/240/277 MULTI-VOLT, SILICON, SOLID STATE, 2.40 TO 3.60 FC ON 1.2 TO 2.4 FC OFF, 60 HERTZ, 320 JOULE MOV, INVERSE ON/OFF RATIO .6:1 +/- .1, FAIL OFF, THREE PIN NEMA TWISTLOCK, 20 YEAR LIFE, 8483-SIDE SELC, MODEL #8483F2TMABR

GE Evolve II Gray Cobra LED Fixtures				
WATT	LUMEN	DESCRIPTION	APN	MODEL#
45W	4,100	SCALABLE ROADWAY GE LED GRAY Pedestrian LUMINAIRE 45WATT, 4000K, 4,100 LUMEN, ROADWAY, LED, TERMINAL BOARD, 10KV SURGE PROTECTION, 90 DEGREE CUTOFF, GRAY, MULTIVOLT 120/208/240/277 DRIVER, IES NARROW ASYMMETRIC MEDIUM, ANSI C136.41 7 PIN TWISTLOCK PHOTO CONTROL RECEPTACLE, CSA OR UL CERTIFIED, ANSI C136.15 WATTAGE LABEL.	128329	ERS10A3B1540A GRAY R
60W	5,100	SCALABLE ROADWAY GE LED GRAY Local Street LUMINAIRE 60WATT, 4000K, 5,100 LUMEN, ROADWAY, LED, TERMINAL BOARD, 10KV SURGE PROTECTION, 90 DEGREE CUTOFF, GRAY, MULTIVOLT 120/208/240/277 DRIVER, IES NARROW ASYMMETRIC MEDIUM, ANSI C136.41 7 PIN TWISTLOCK PHOTO CONTROL RECEPTACLE, CSA OR UL CERTIFIED, ANSI C136.15 WATTAGE LABEL.	128330	ERS10A3B1740A GRAY R
95W	8,200	SCALABLE ROADWAY GE LED GRAY Collector Street LUMINAIRE 95WATT, 4000K, 8,200 LUMEN, ROADWAY, LED, TERMINAL BOARD, 10KV SURGE PROTECTION, 90 DEGREE CUTOFF, GRAY, MULTIVOLT 120/208/240/277 DRIVER, IES NARROW ASYMMETRIC MEDIUM, ANSI C136.41 7 PIN TWISTLOCK PHOTO CONTROL RECEPTACLE, CSA OR UL CERTIFIED, ANSI C136.15 WATTAGE LABEL.	128331	ERS10C3C1740A GRAY R
113W	10,000	SCALABLE ROADWAY GE LED GRAY Major Roadway LUMINAIRE 113WATT, 4000K, 10,000 LUMEN, ROADWAY, LED, TERMINAL BOARD, 10KV SURGE PROTECTION, 90 DEGREE CUTOFF, GRAY, MULTIVOLT 120/208/240/277 DRIVER, IES NARROW ASYMMETRIC MEDIUM, ANSI C136.41 7 PIN TWISTLOCK PHOTO CONTROL RECEPTACLE, CSA OR UL CERTIFIED, ANSI C136.15 WATTAGE LABEL.	128332	ERS20D3E1740A GRAY R
257W	19,200	SCALABLE ROADWAY GE LED GRAY Special Major Roadway LUMINAIRE 257WATT, 4000K, 19,200 LUMEN, ROADWAY, LED, TERMINAL BOARD, 10KV SURGE PROTECTION, 90 DEGREE CUTOFF, GRAY, MULTIVOLT 120/208/240/277 DRIVER, IES NARROW ASYMMETRIC MEDIUM, ANSI C136.41 7 PIN TWISTLOCK PHOTO CONTROL RECEPTACLE, CSA OR UL CERTIFIED, ANSI C136.15 WATTAGE LABEL.	128364	ERS20G3C1140A GRAY R



CONSTRUCTION NOTES:

1. ADJUST PHOTO EYE TO FACE NORTH
2. A GROUND ROD IS PROVIDED WITH THE JUNCTION BOX. WHERE A GROUND ROD CANNOT BE DRIVEN ALTERNATE GROUND SHALL BE USED. SEE 2449 THRU 2460 FOR APPROVED ALTERNATES.
3. THE 40'-6" SELF-SUPPORTING STEEL POLE AND ONE OF THE 38'-0", HAVE TWO, MANUFACTURED INSTALLED SIMPLEX FITINGS 180 APART FOR DOUBLE ARMS, SEE CHART.
4. APN 33701054 IS A POLE BAND ADAPTOR WITH A SIMPLEX FITTING. ADAPTOR IS REQUIRED FOR THE SECOND ARM IN DOUBLE ARM APPLICATIONS ON EXISTING PLES IN THE FIELD WITHOUT TWO SIMPLEX FITTINGS. SEE 8198 FOR AVAILABLE SIZES.
5. POLES THAT HAVE MORE THAN ONE LUMINAIRE REQUIRE A SEPARATE CIRCUIT WITH FUSING FROM THE J-BOX TO EACH LUMINAIRE.

ENGINEERING NOTES:

- A. THE LIGHT CODE PROVIDES TWO SAME WATTAGE LUMINAIRES WHEN DOUBLE ARM ARE SPECIFIED.
- B. SEE SPEC 8130 - 8131 FOR IN-LINE FUSE FOR UNDERGROUND FEEDS.
- C. SEE 8100 THRU 8107 FOR OVERHEAD ATTACHMENTS.

1944. _ _
- 19 = 19' - 0" POLE SNG SIMPLEX
 - 30 = 30' - 6" POLE SNG SIMPLEX
 - 38 = 38' - 6" POLE SNG SIMPLEX
 - 38X = 38' - 6" POLE DBL SIMPLEX
- ** SEE SPEC. NOTE

GRAY ROADWAY LUMINAIRE DESCRIPTIONS

APN# 128332
113W LED RWGR - MAJOR
ERS20D3E1740A GRAY R

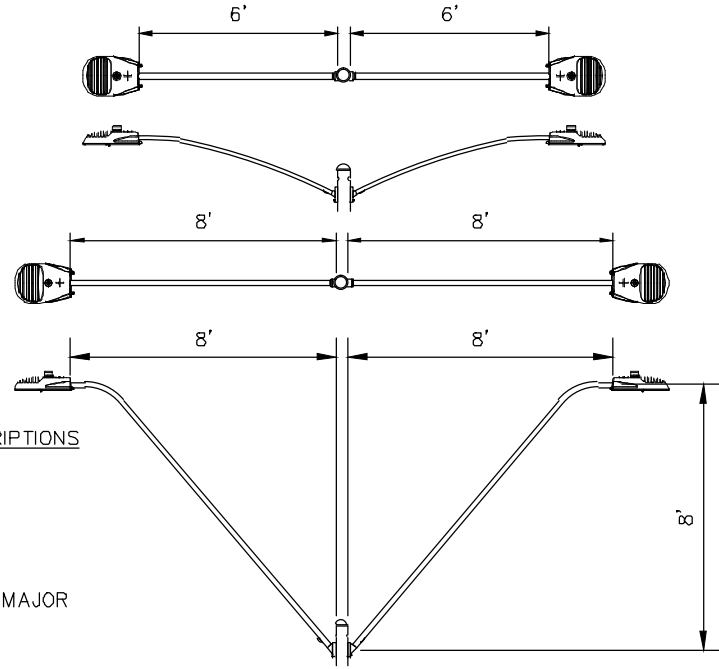
APN# 128364
257W LED RWGR - SPECIAL MAJOR
ERS20G3C1140A GRAY R

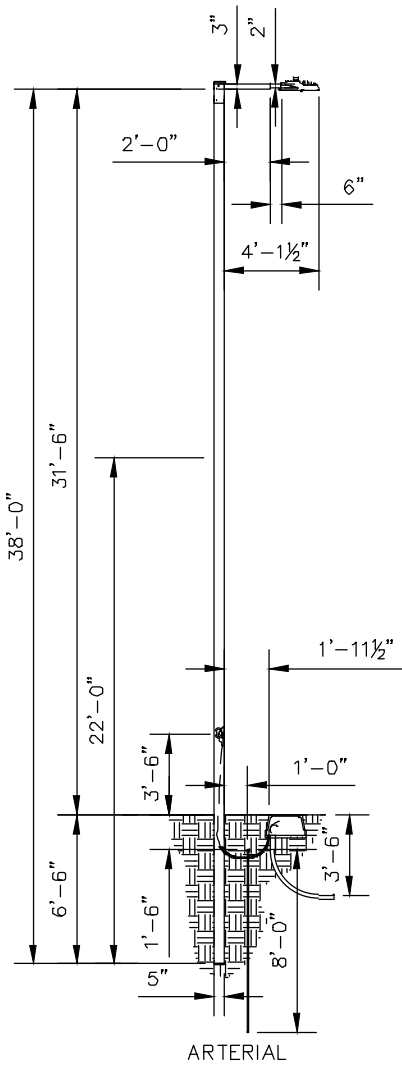
LIGHT CODE	COLOR	APN	TYPE	WATTS	MULTIVOLT	INITIAL LUMENS	PHOTOMETRIC CURVE
CL60		00128329		45	120/208/240/277 DRIVER	4,100	454669
CL61		00128330		60	120/208/240/277 DRIVER	5,100	454659
CL62	GRAY	00128331	LED	95	120/208/240/277 DRIVER	8,200	454677
CL63		00128332		113	120/208/240/277 DRIVER	10,000	454688
CL64		00128364		257	120/208/240/277 DRIVER	19,200	454942

POLE TYPE	POLE CODE	POLE LENGTH	BURY DEPTH	POLE ABOVE GROUND	POLE BUTT DIAMETER		WEIGHT	LUMINAIRE HEIGHT ABOVE GROUND ON ARM		
					STEP	TAPER		20" X 6'	3' X 8'	8' X 8'
LOCAL	1944.30	30' - 6"	5' - 6"	25' - 0"	5-9/16"	7-5/16"	460	25' - 11"	27' - 3"	-
COLLECTOR	1944.38	38' - 6"	6' - 6"	32' - 0"	6-5/8"	9-3/4"	640	32' - 11"	34' - 3"	39' - 3"
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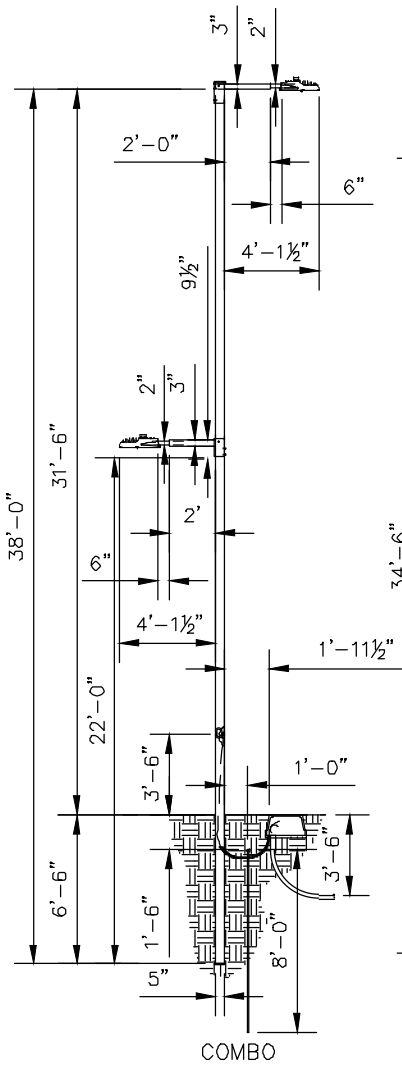
**FOR NON-STANDARD POLES, CONTACT THE STREET TRANSPORTATION STREETLIGHTING SECTION FOR INFORMATION.

DUAL MAST ARM POLE LUMINAIRES

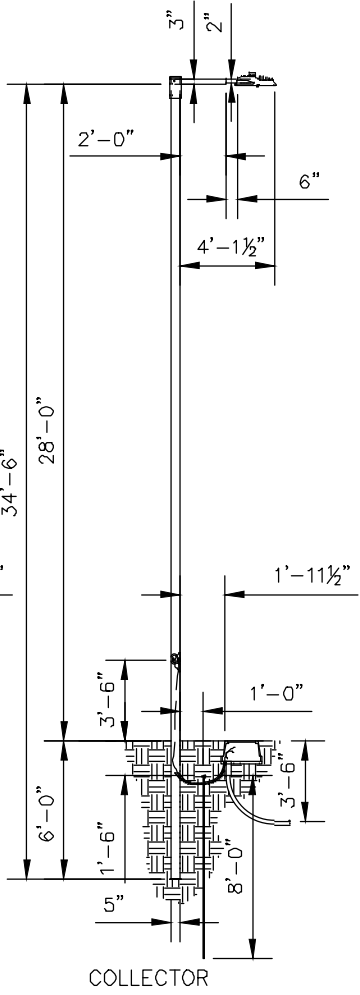




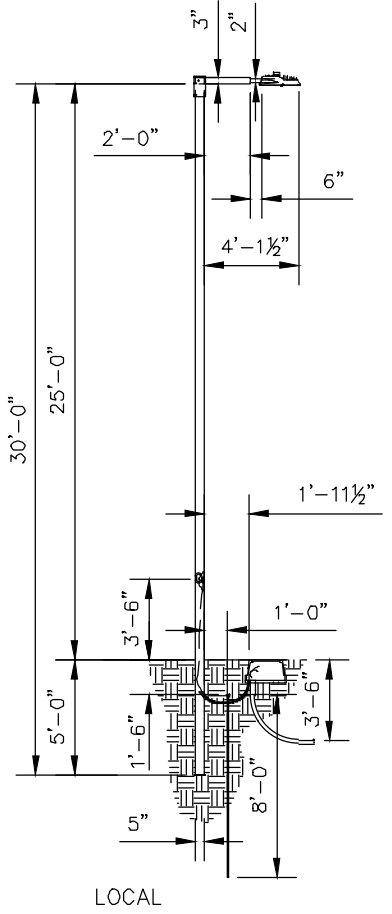
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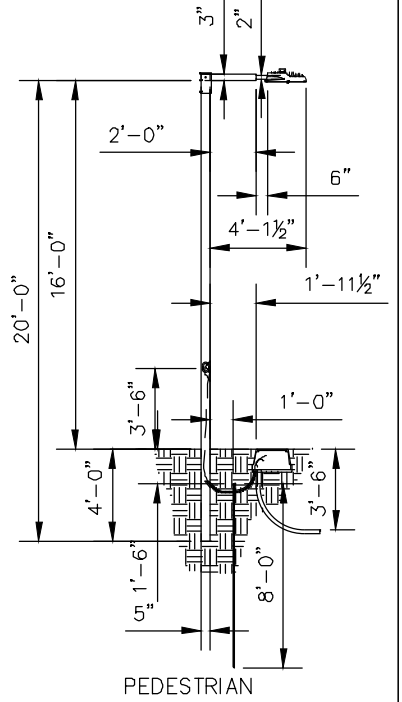
COMBO



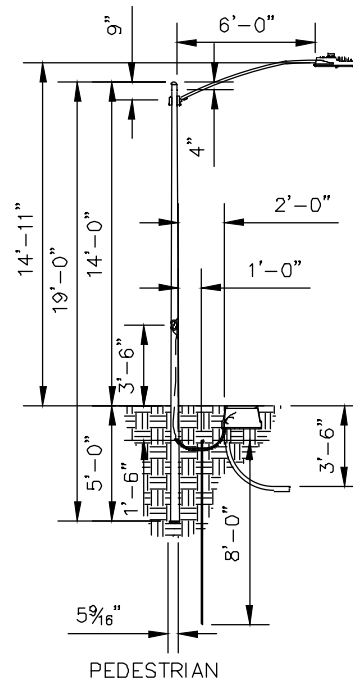
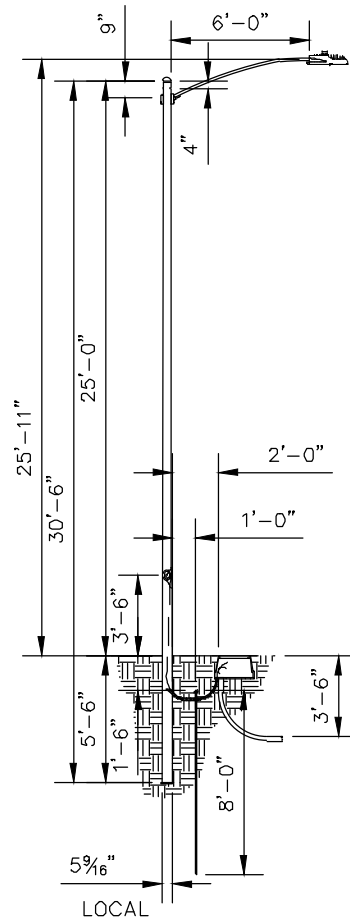
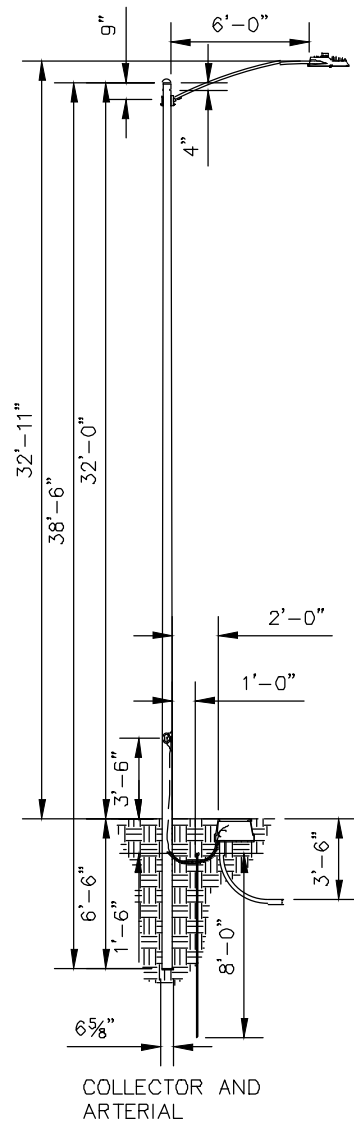
COLLECTOR

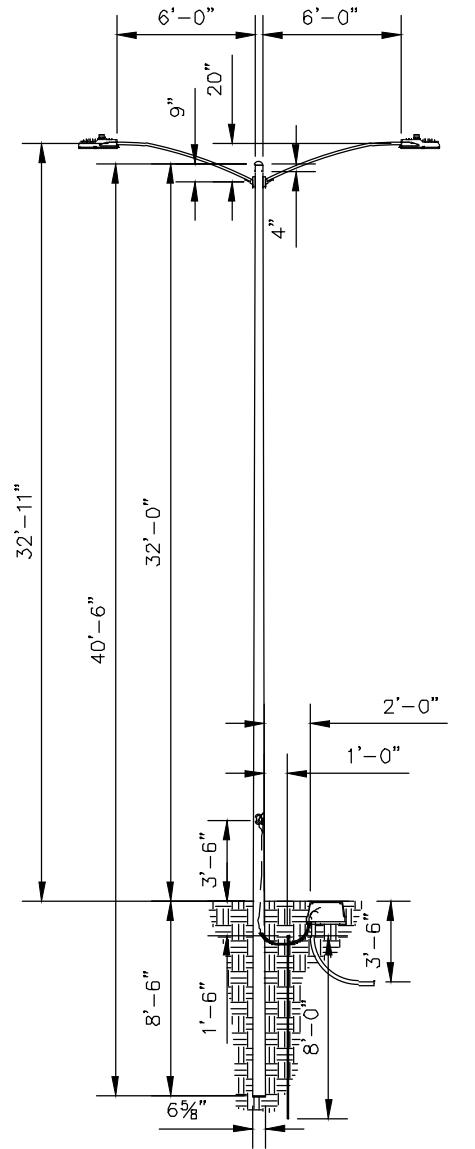


LOCAL

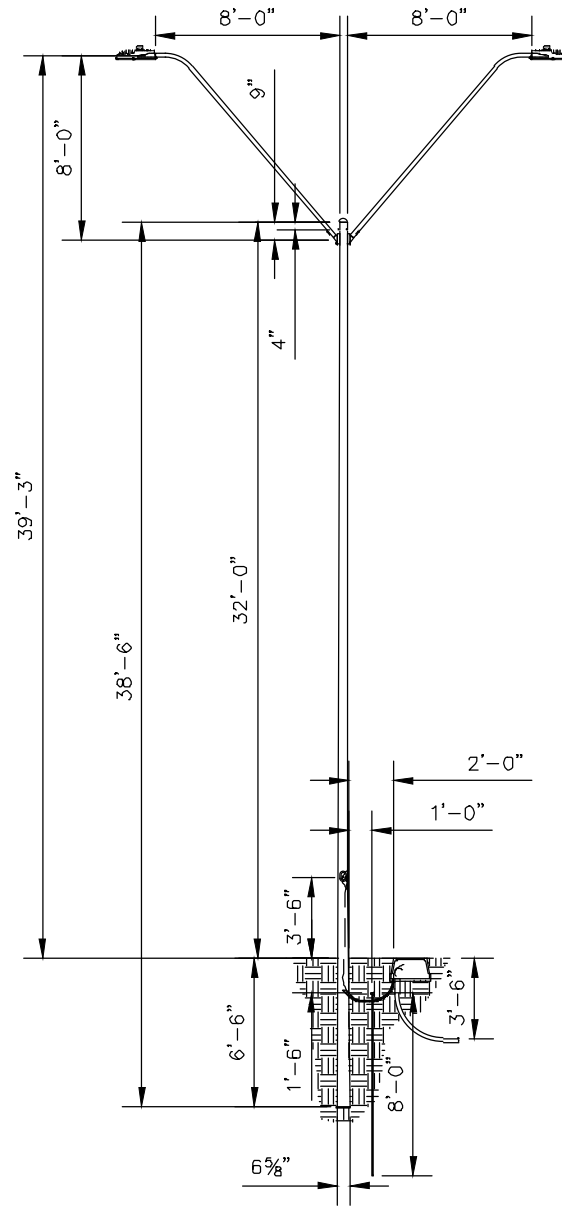


PEDESTRIAN



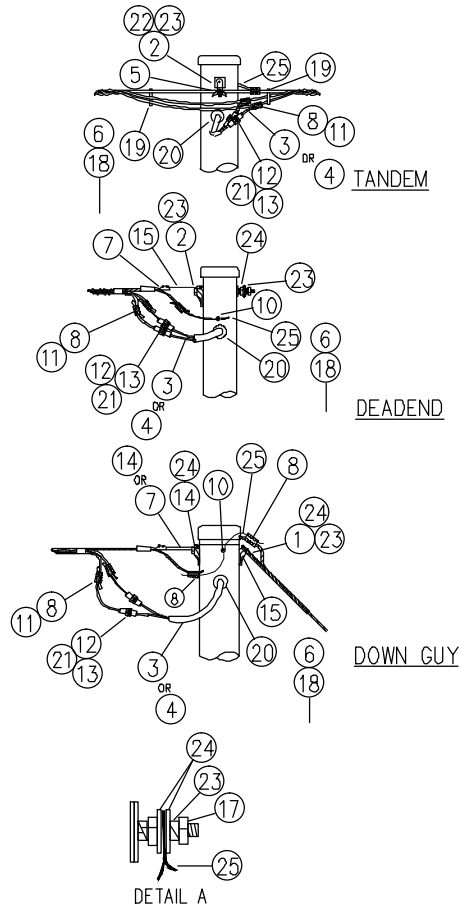


DUAL MAST ARM ARTERIAL



DUAL MAST ARM HI-RISE

**HANDHOLE HEIGHT MAY VARY,
NOT TO BE LESS THAN 42".



NOTES:

1. STEEL POLES AND ALL MAST ARMS MUST BE GROUNDED.
2. OVERHEAD ATTACHMENTS MUST BE GROUNDED TO THE STREET LIGHT POLE. A 1/16" HOLE HAS BEEN ADDED 6" BELOW TOP OF STREET LIGHT POLE TO INSTALL A GROUNDING INSERT APN 0005552. TOOL TO INSTALL RIVNUT IS APH 00053279. SEE STANDARD 2408. WHERE RIVNUTS ARE NOT AVAILABLE GROUND PER DETAIL A.
3. ALL OVERHEAD FED STREET LIGHT POLES SHALL HAVE A GROUND ROD INSTALLED AND A #6 GROUND WIRE BONDED TO THE GROUNDING LUG AT THE BACK OF THE HAND HOLE.
4. THESE CODES PROVIDE THE #14 CU FOR THE MAST ARMS, HARDWARE FOR ATTACHING TANGENT OR DEADEND SECONDARY, AND THE CONNECTORS.

8100. ___ __ TWO WIRE 120V, 277V
TANGENT

8101. ___ __ THREE WIRE 208V, 240V
TANGENT

IF APPLICABLE:
DE = DUSK-TO-DAWN
WIRE CODE

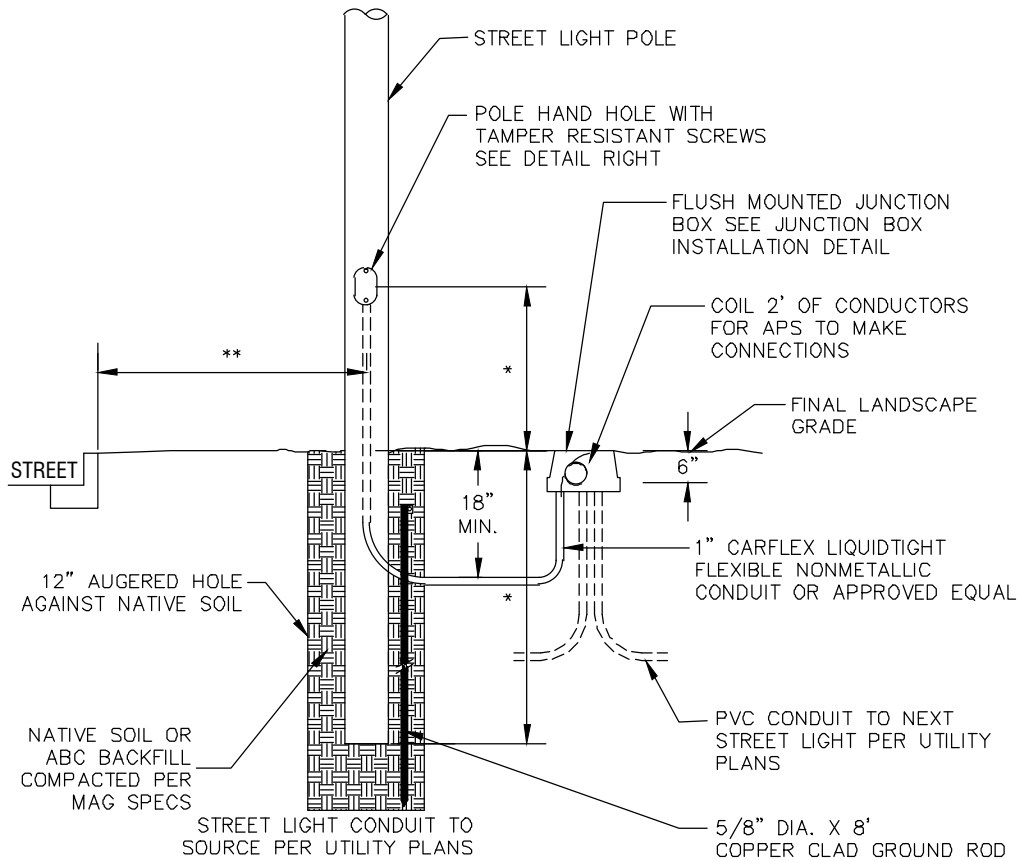
8102. ___ __ TWO WIRE 120V, 277V
DEADEND

8103. ___ __ THREE WIRE 208V, 240V

8106. ___ __ TWO WIRE 120V, 277V
DEADEND WITH GUY HOOK

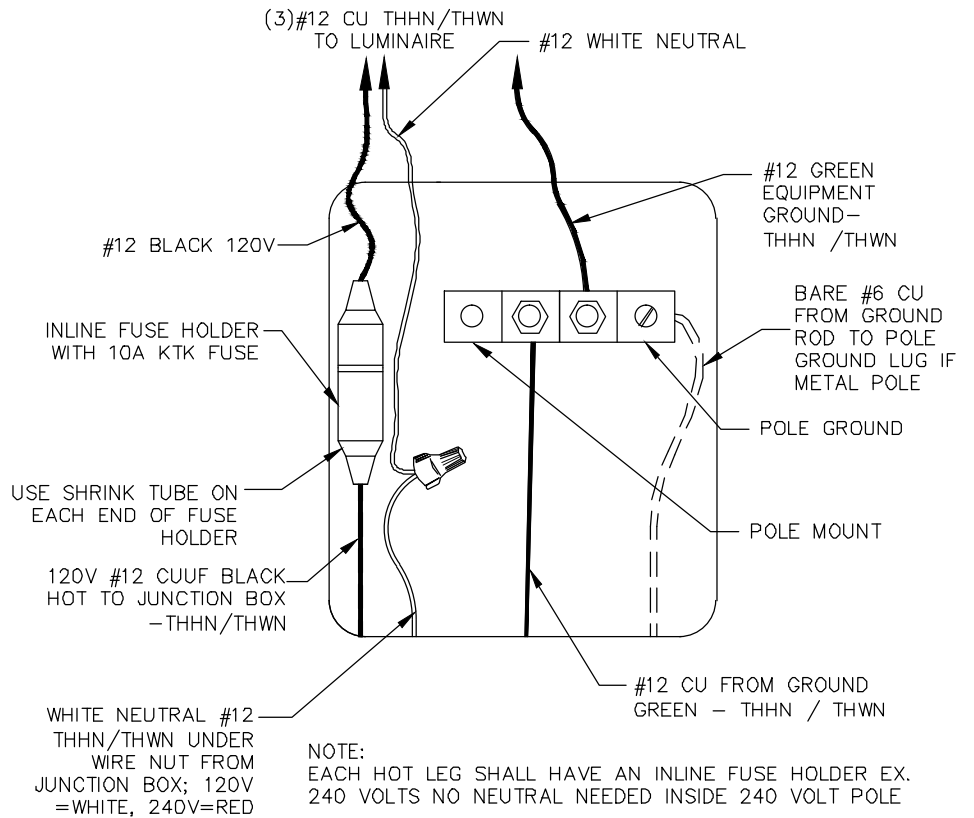
8107. ___ __ THREE WIRE 208V, 240V
DEADEND WITH GUY HOOK

CODE	MATERIAL LIST							DESCRIPTION	APN
	8100	8101	8102	8103	8106	8107	DETAIL A		
ITEM	QTY	QTY	QTY	QTY	QTY	QTY	QTY		
1	-	-	-	-	1	1	-	BOLT GALV MACH 5/8" X 10"	33001549
2	1	1	1	1	-	-	-	BOLT GALV MACH 5/8" X 8"	33001547
3	10	-	10	-	10	-	-	CABLE 2/C #14CU UF	31102132
4	-	10	-	10	-	10	-	CABLE 3/C #14CU UF	31102135
5	1	1	-	-	-	-	-	CLAMP ANGLE .162 TO .60	33002502
6	1	1	1	1	1	1	-	CLAMP GROUND ROD 5/8"	33002580
7	-	-	1	1	-	-	-	CLAMP WEDGE FELX 4-2AL	33002772
8	2	3	2	3	4	2	-	CONN AL PG - SEE 2250	
9	-	-	-	-	1	1	-	CONN CU "C" - SEE 2255	
10	1	1	1	1	1	1	-	CONN POST 1/2" S SS #6-1/0	00095704
11	1	2	1	2	1	2	-	COVER D DIE INSULATING	33003192
12	1	2	1	2	1	2	-	FUSE CARTRIDGE 15A	72602410
13	1	2	1	2	1	2	-	FUSEHOLDER IN-LINE 600V	00097502
14	-	-	-	-	1	1	-	GRIP DE PREF - SEE2135	
15	-	-	1	1	2	2	-	HOOK GUY - MED DUTY 5/8"	33003831
16	1	1	1	1	1	1	-	NUT INSERT RIVNUT	00055552
17	-	-	-	-	-	1	-	NUT SQ GALV 5/8"	33004176
18	1	1	1	1	1	1	-	ROD COPPERCLAD GRD 5/8" X 8"	33004805
19	2	2	-	-	-	-	-	SPACER MULTIPLEX CABLE	33006510
20	1	1	1	1	1	1	-	STOPPER BUG AND DUST	33806955
21	1	1	1	1	1	1	-	TUBING SHRINKABLE 1/4"	71606200
22	2	2	2	2	-	-	-	WASHER GALV CU 3X3X1/4"	33007126
23	1	1	1	1	1	1	1	WASHER GALV DBL COIL 5/8"	33007154
24	-	-	-	-	-	2	-	WASHER GALV RD 5/8"	33007185
25	2	2	2	2	2	2	-	WIRE BARE #6 SOLID CU	33007580



* SEE POLE DETAILS FOR DIMENSION

** SEE PLANS FOR POLE SETBACK



CODE	JUNCTION BARS
A	THREE-POSITION MOLDS
B	FIVE-POSITION MOLDS
C	EIGHT-POSITION MOLDS
D	TWO-POSITION GEL PACKS
N	NO CONNECTORS

8655. _ _ _ _ _	SEE NOTE 10 AND 11 SMALL BOX
8656. _ _ _ _ _	SEE NOTE 10 AND 12 MEDIUM BOX
8657. _ _ _ _ _	SEE NOTE 13 LARGE BOX

IF APPLICABLE
G = APS GROUT PROVIDED

IF APPLICABLE
L = LIGHTS
D = DUSK-TO-DAWN

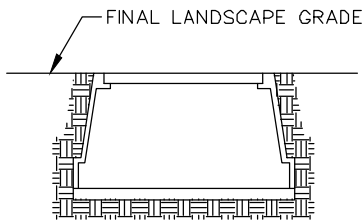
SECONDARY WIRE CODES
JUNCTION BARS

DESCRIPTION

15" X 21" X 12" JUNCTION BOX WITH 3/8" CAPTIVE PENTA HEAD BOLTS

WORD "ELECTRIC" ON COVER

BOX TO BE POLYMER CONCRETE MATERIAL WITH POLYMER CONCRETE BOLT DOWN (NON-CONDUCTIVE COVER).



FLUSH MOUNTED-BOLT ON COMPOSOLITE LID

SRP APPROVED SUPPLIERS

PART NUMBER

STRONGWELL

PC1118B513 BOX
PC1118C504-17/UH0390AA
COVER WITH ELECTRIC

ARMORCAST PRODUCTS

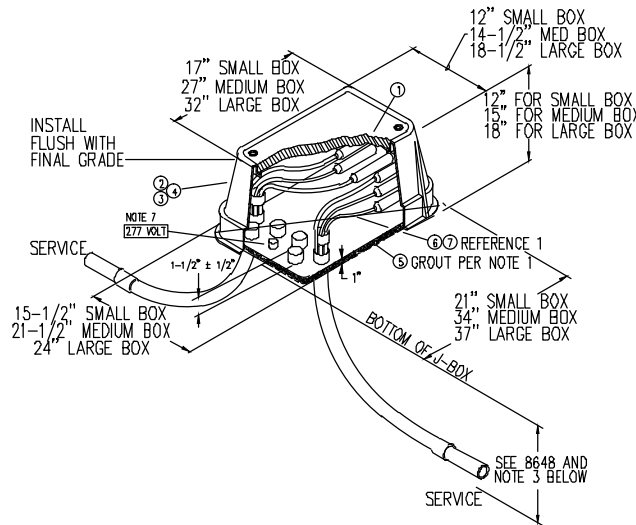
A6001429A

CDR SYSTEMS

PA40-1015-12

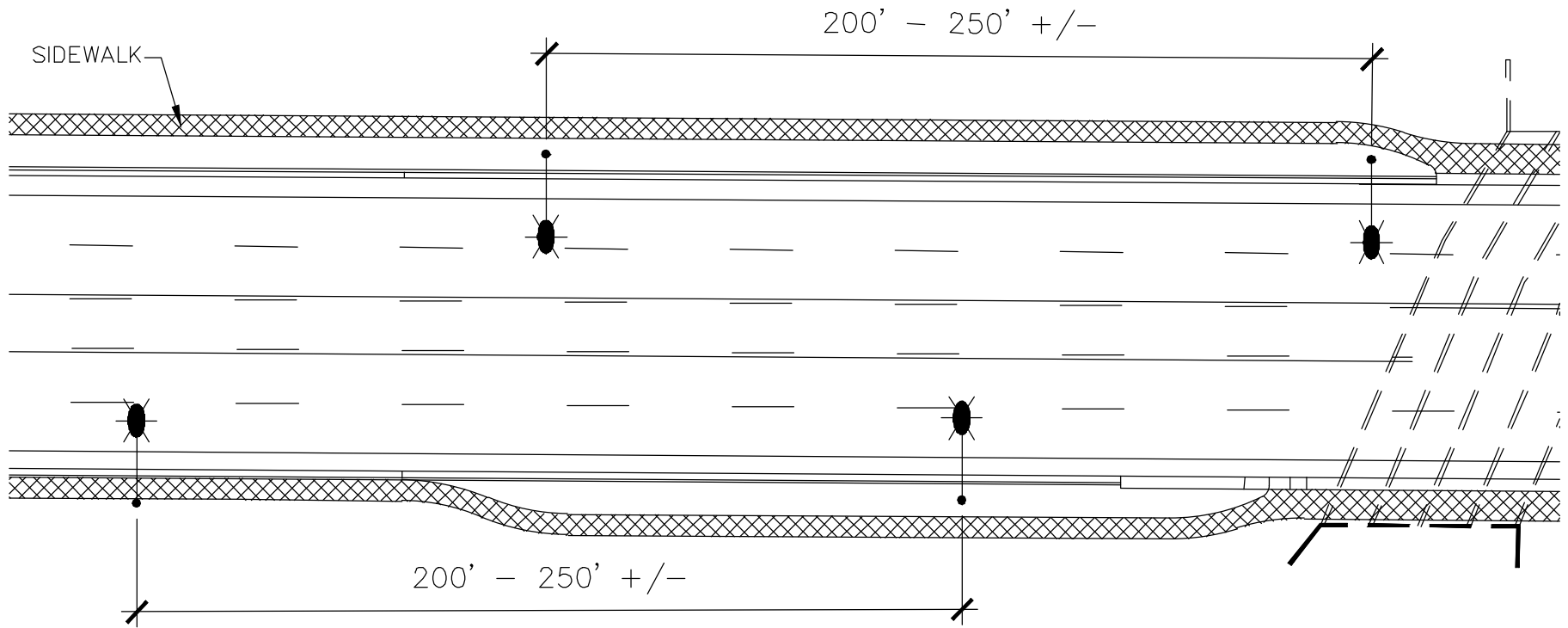
CARSON & ASSOCIATES

HLW111B-12 BOX
HLW1118-PO LID



NOTES:

1. CONCRETE GROUT SHALL BE PREMIX, APN 71301280 OR EQUIVALENT.
2. PENTA-HEAD BOLTS SHALL BE INSTALLED PRIOR TO ENERGIZING NEW UNDERGROUND SYSTEMS. LOST OR MISPLACED PENTA-HEAD BOLTS SHALL BE REPLACED WITH APN 71402608.
3. BRINGING ALL CABLE/CONDUITS AND GROUND ROD INTO THE SAME END OF THE BOX TO ENABLE CABLES TO BE RAISED AND LOWERED EASILY. CONDUIT SWEEPS SHALL BE POSITIONED AND ALIGNED SO THAT WHEN TWO AND FOUR POSITION JUNCTION BARS ARE SPECIFIED, THE ST. LT., SECONDARY AND SERVICE CONDUITS SHALL BE INSTALLED AS SHOWN IN DETAIL "A". WHEN SIX POSITION JUNCTION BARS ARE SPECIFIED, THE ST. LT., SECONDARY AND SERVICE CONDUITS SHALL BE INSTALLED AS SHOWN IN DETAIL "B".
4. COMPACTION BENEATH AND AROUND JUNCTION BOX SHALL BE A MINIMUM OF 85 PERCENT.
5. REPLACEMENT LID FOR MEDIUM PLASTIC JUNCTION BOX IS 33100981. PENTAHEAD BOLTS AND EMS MARKER MUST BE REUSED FROM OLD LID.
6. ADDITIONAL TRENCH DEPTH IS USUALLY REQUIRED AT ALL EQUIPMENT LOCATIONS. SEE 8648 FOR THE MINIMUM TRENCH DEPTHS AND THE DEGREE OF SLOPE ALLOWED AS THE TRENCH DEPTH CHANGES.
7. ON 277 VOLT STREET LIGHT CIRCUITS, INSTALL "277 VOLT" RED MICARTA TAG (APN 00080796) PROVIDED BY SPEC 8129.
8. TORQUE BOLTS TO 5 FT - LBS (60 IN - LBS).



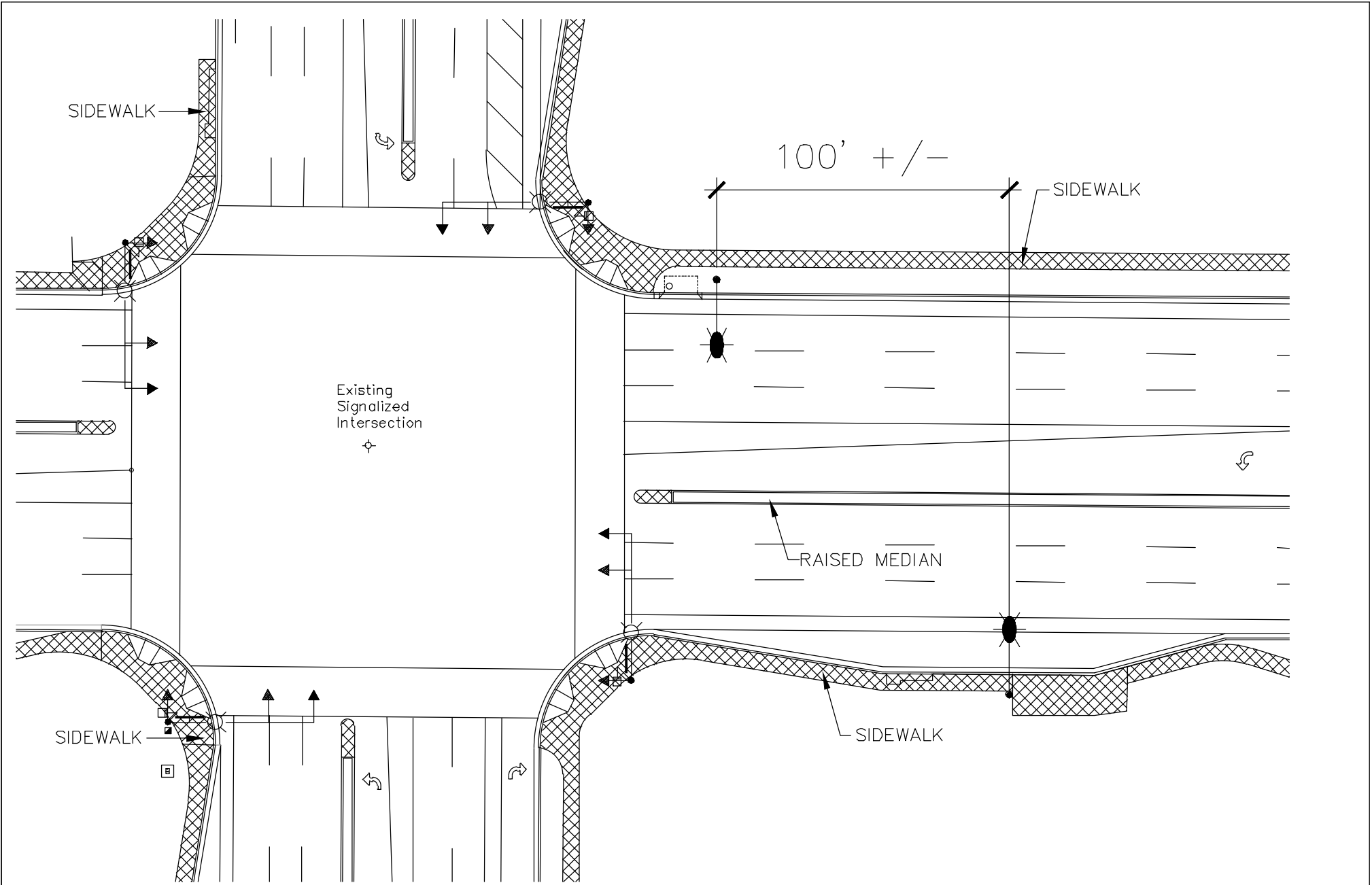
DETAIL NO.
G-3255-1

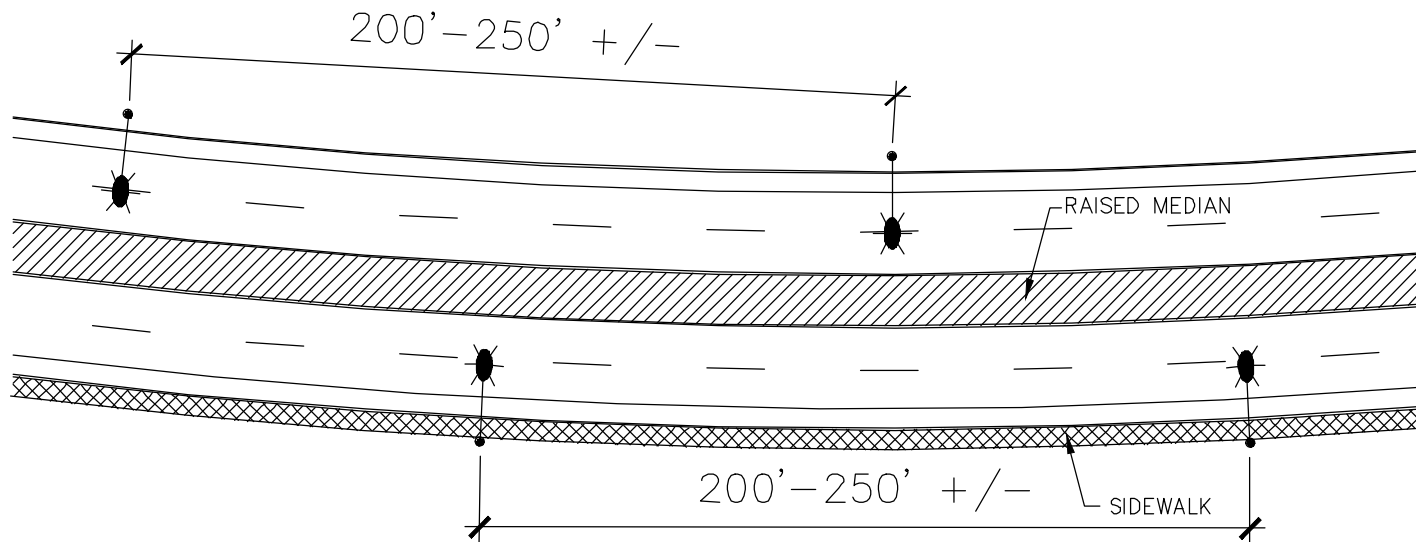
CITY OF GOODYEAR
STANDARD DETAIL

APPROVED:08/17

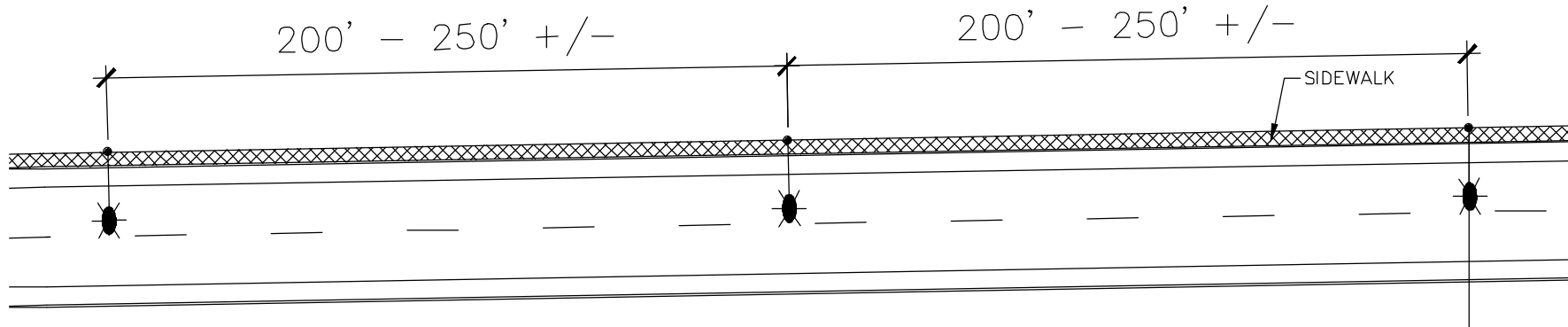
STREET LIGHTING - ARTERIAL STREET STAGGERED WITHOUT MEDIAN

DETAIL NO.
G-3255-1

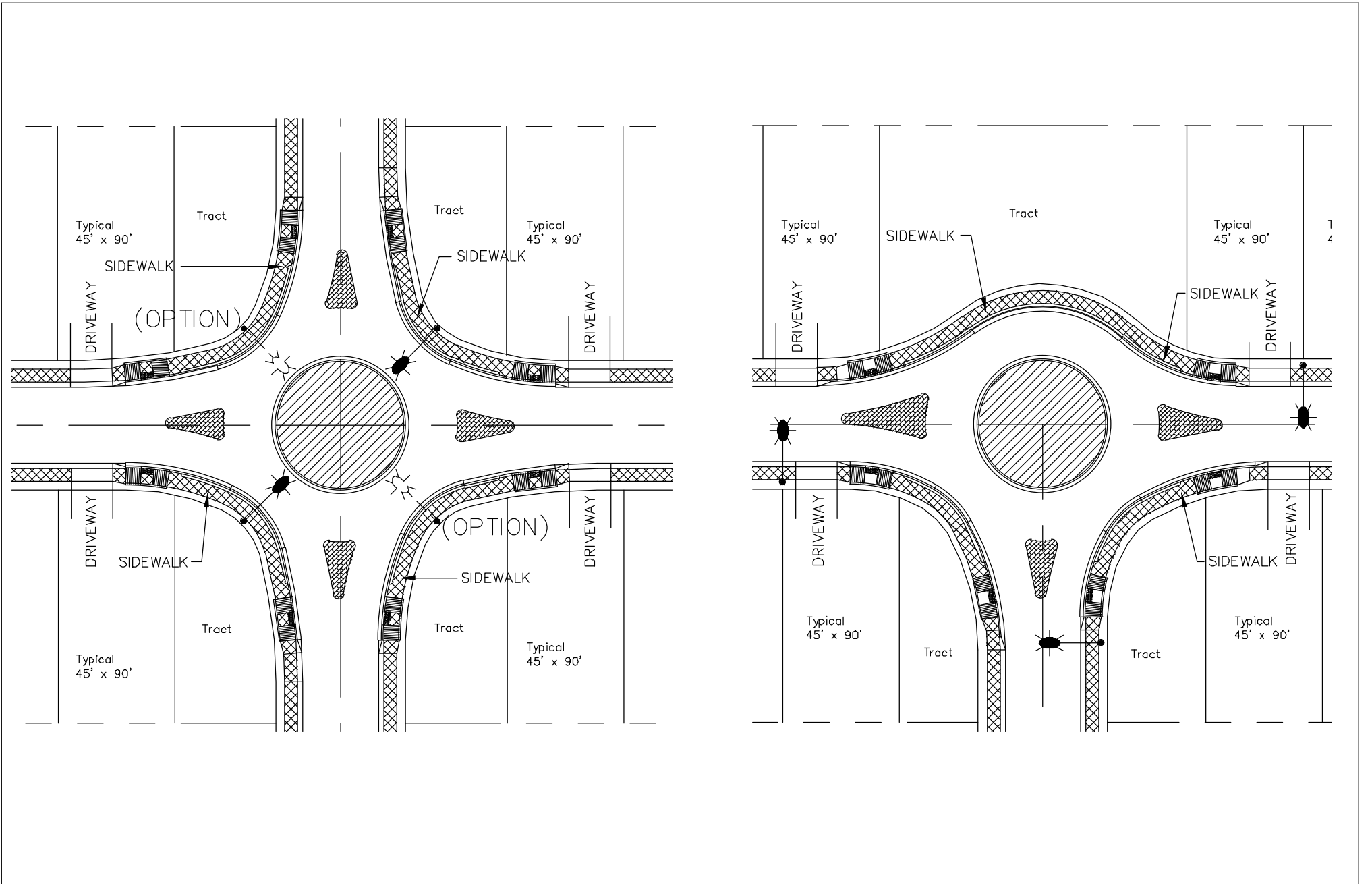


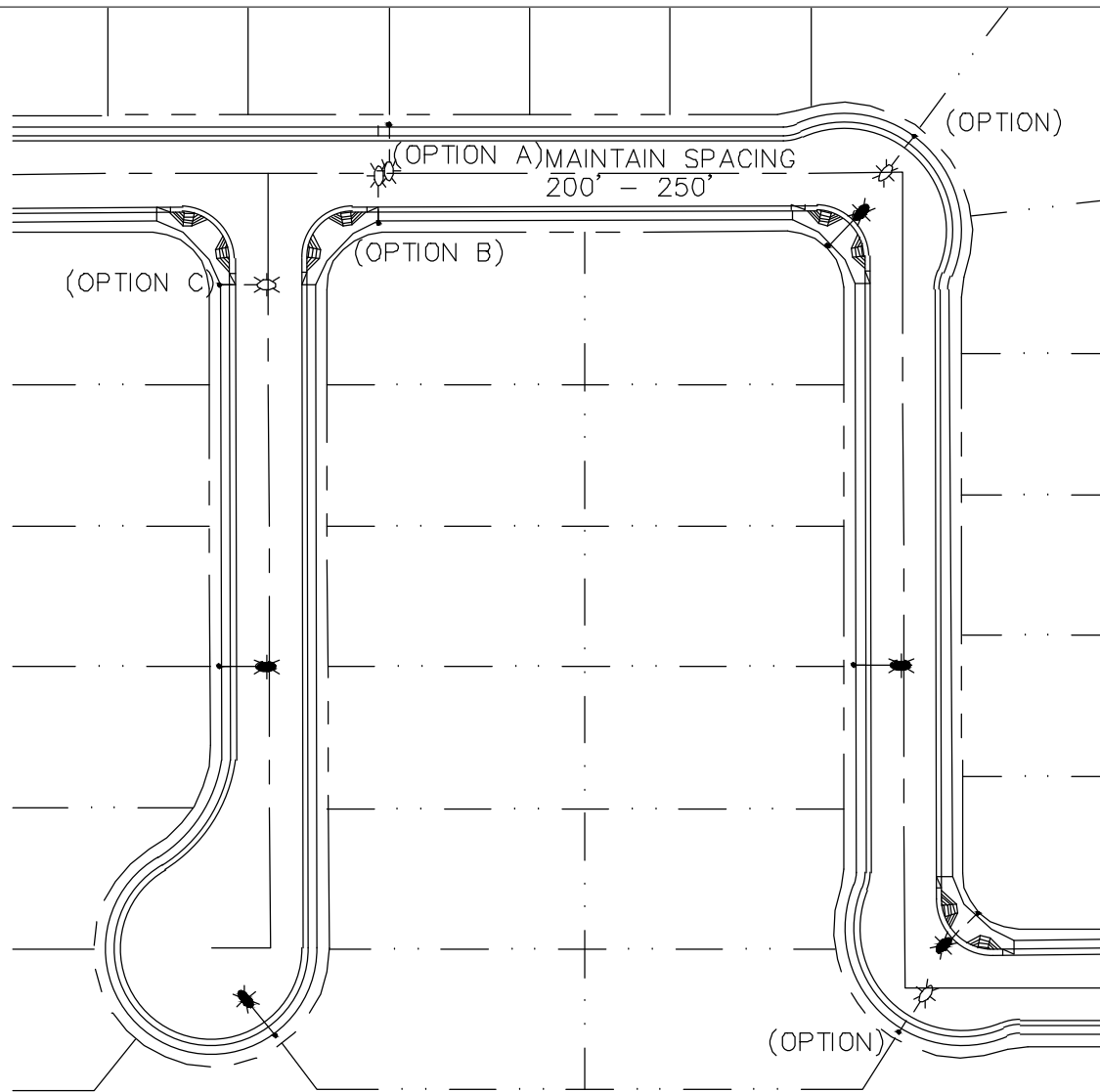


STAGGERED



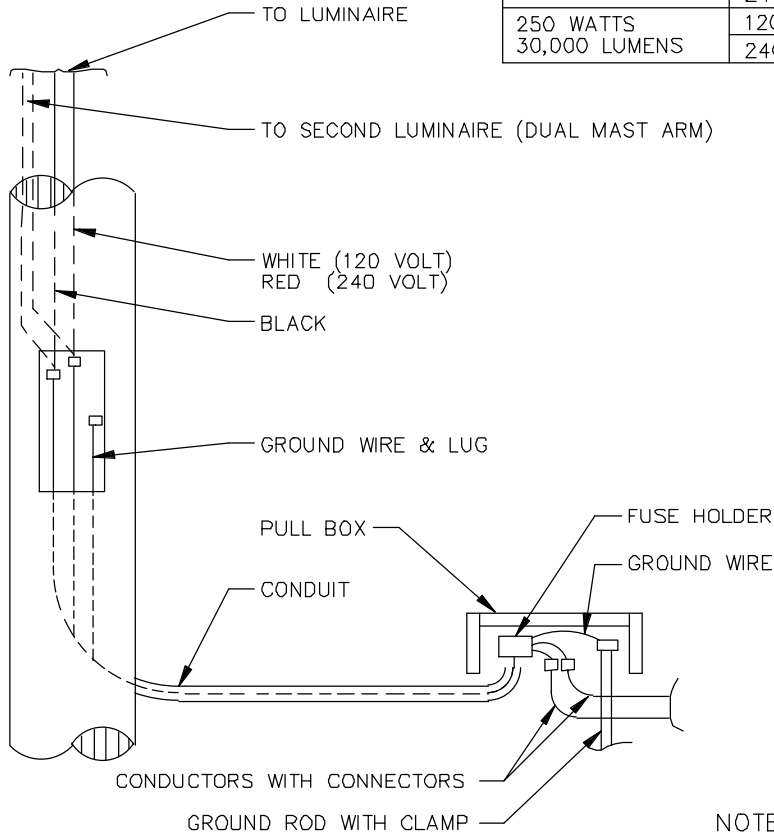
SINGLE SIDE



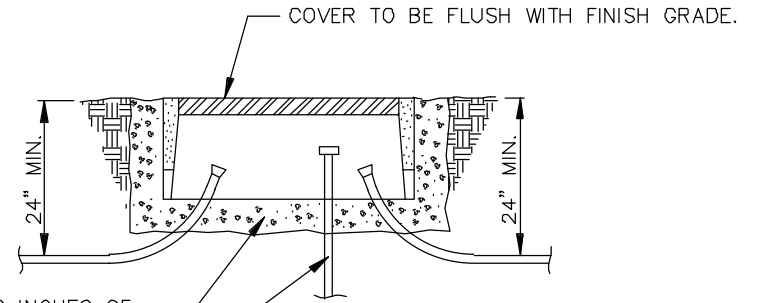


CUL-DE-SAC w/ DEPTH OF 150' +/- Tract
 REQUIRED STREETLIGHT

LAMP	VOLTAGE	FUSE SIZE
100 WATTS 9,500 LUMENS	120 Volts	8 Amps
	240 Volts	5 Amps
250 WATTS 30,000 LUMENS	120 Volts	10 Amps
	240 Volts	5 Amps



CONNECTION DETAIL



BACKFILL WITH MINIMUM OF 8 INCHES OF GRAVEL OR ABC TYPE MATERIAL

GROUND ROD (8' MIN. LENGTH)

PULL BOX DETAIL

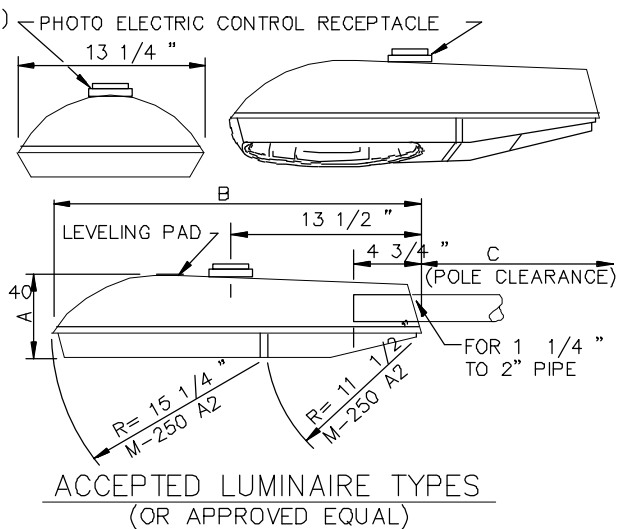
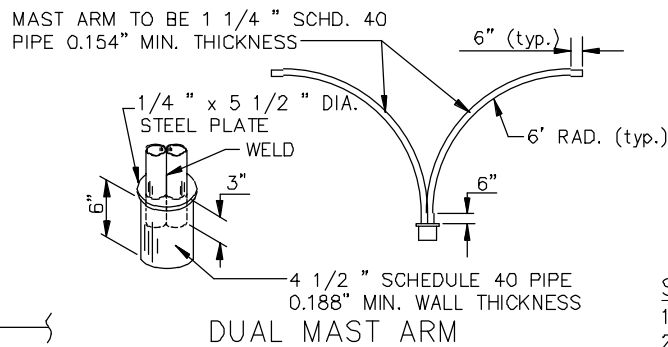
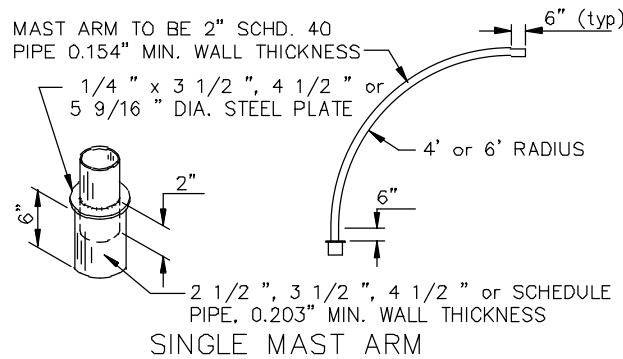
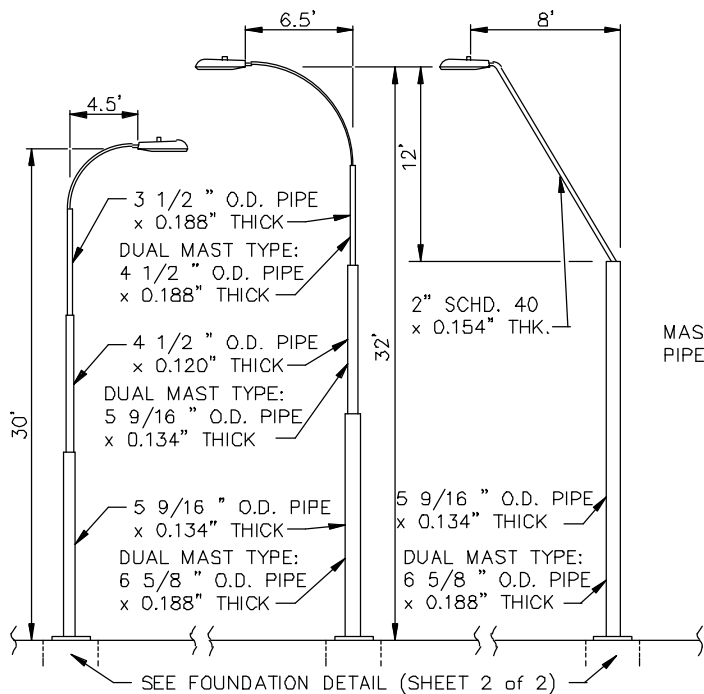
BOLT DOWN CONCRETE COVER MARKED "STREET LIGHTING"



COVER DETAIL

NOTES:

1. ALL PULL BOXES SHALL BE A.D.O.T. TYPE 3-1/2, OR APPROVED EQUAL.
2. ALL PULL BOXES SHALL BE PROVIDED BY ARIZONA PUBLIC SERVICES.



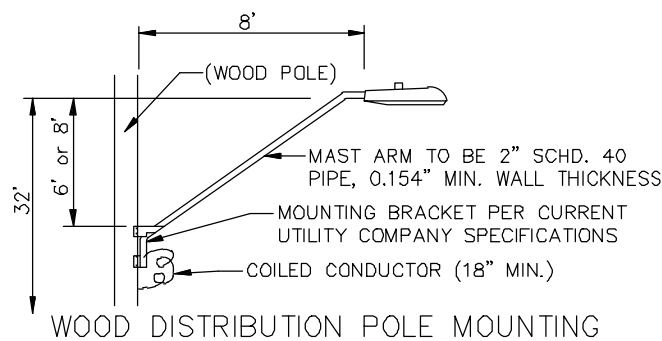
LUMINAIRE TYPE	A	B	C
M-250 A2 CUTOFF SERIES	6 1/2"	27 1/2"	12"
M-250 R2 CUTOFF SERIES	5 3/4"	26 1/4"	16"

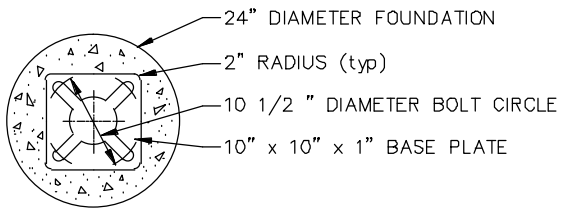
SPECIFICATION FEATURES:

- 1) POWER/MODULE BALLAST ASSEMBLY FOR M-256 A2 ONLY.
- 2) 1 1/2" TO 2" FOUR- BOLT SLIPFITTER.
- 3) DIE-CAST ALUMINUM HOUSING WITH ELECTROCOAT GRAY PAINT FINISH.
- 4) ADJUSTABLE MOGUL BASE SOCKET.
- 5) ALGLAS FINISH ON REFLECTOR.
- 6) NO-TOOL PE RECEPTACLE.
- 7) PLUG-IN STARTING AID.
- 8) TRUE 90 DEGREE CUTOFF.
- 9) EXTERNAL STAINLESS STEEL BAIL LATCH.

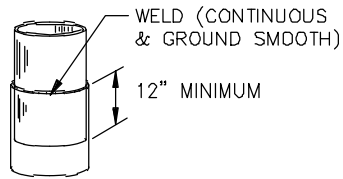
MNTG. HGT.	ARM	5 9/16\"/>			
28'	4'-6"	10'-0"	6'-9"	6'-9"	23'-6"
30'	4'-6"	10'-0"	7'-9"	7'-9"	25'-6"
32'	6'-6"	10'-0"	7'-9"	7'-9"	25'-6"

NOTE:
FOR PAINT SPECIFICATIONS SEE
STREET LIGHTING SPECIFICATION

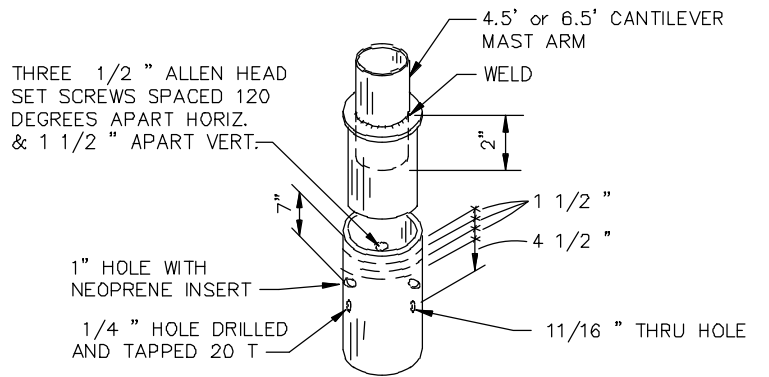




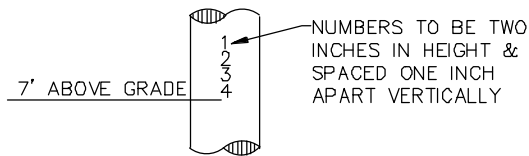
BASE PLATE SECTION



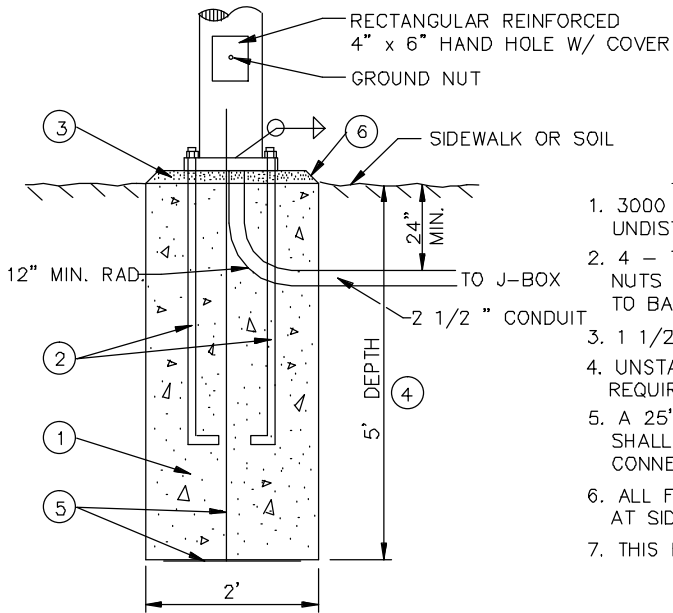
POLE JOINTS



MAST ARM CONNECTION



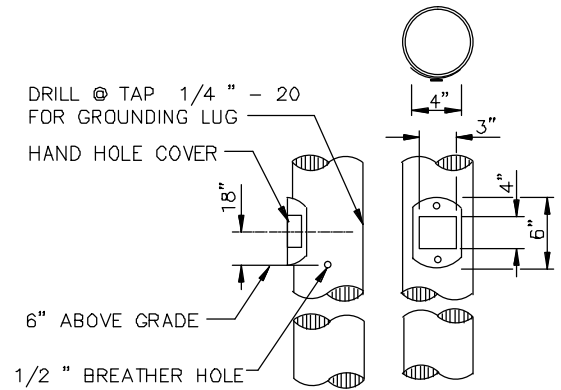
POLE NUMBER LOCATIONS



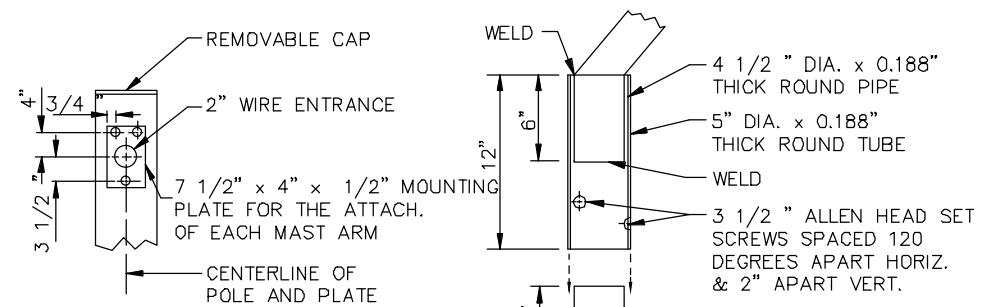
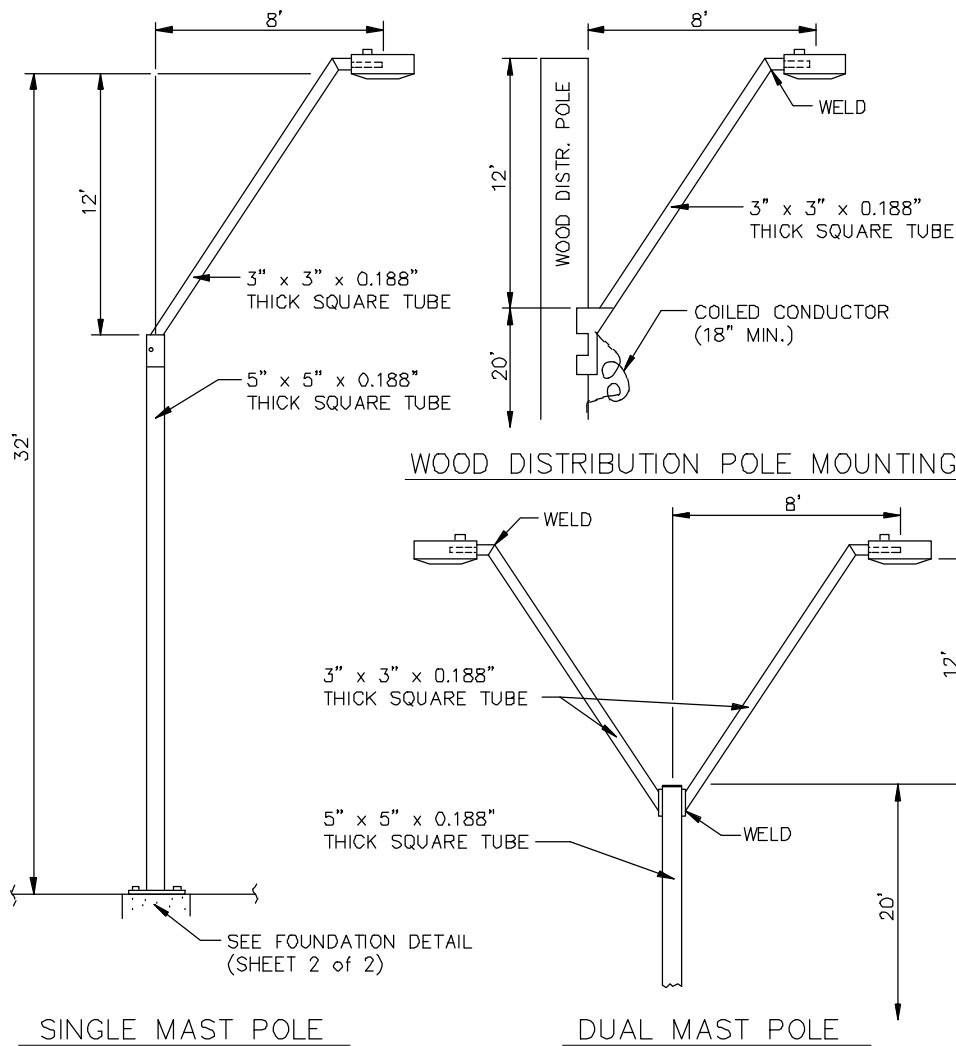
FOUNDATION SECTION

FOUNDATION NOTES

1. 3000 P.S.I. CLASS A CONCRETE PLACED NEXT TO UNDISTURBED EARTH.
2. 4 - 7/8" x 36" GALVANIZED ANCHOR BOLTS WITH LEVELING NUTS & WASHERS. TACK WELD NUTS TO WASHERS AND WASHERS TO BASE PLATE AFTER TIGHTENING. (2 1/2" PROJECTION)
3. 1 1/2" THICK EMBECO GROUT #636 OR APPROVED EQUAL.
4. UNSTABLE SOILS, AND/OR POLE HEIGHTS OVER 40', SHALL REQUIRE SPECIAL ENGINEERING.
5. A 25' COIL OF NO. 4 STRANDED A.W.G. BARE COPPER CONDUCTOR SHALL BE INSTALLED BEFORE THE CONCRETE IS POURED. IT SHALL BE CONNECTED TO POLE GROUNDING SCREW IN THE BASE OF THE POLE.
6. ALL FINISHED POLE FOUNDATIONS SHALL BE CHAMFERED, AND AT SIDEWALK GRADE UNLESS OTHERWISE NOTED.
7. THIS FOUNDATION MAY ALSO BE USED FOR DUAL MAST ARM POLES.

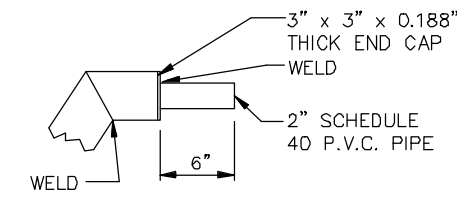


PENETRATIONS

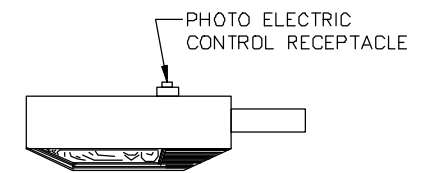


DUAL MAST ARM

SINGLE MAST ARM



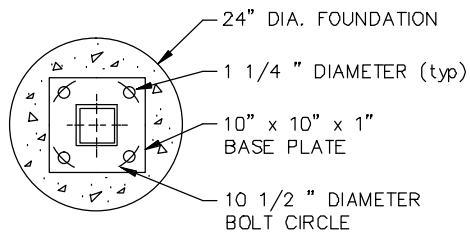
LUMINAIRE CONNECTION



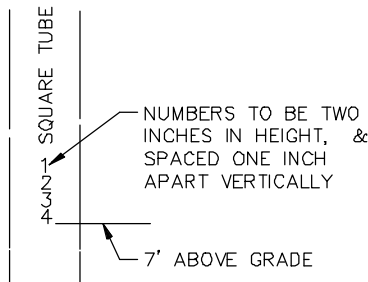
LUMINAIRE TYPE

SPECIFICATION FEATURES:

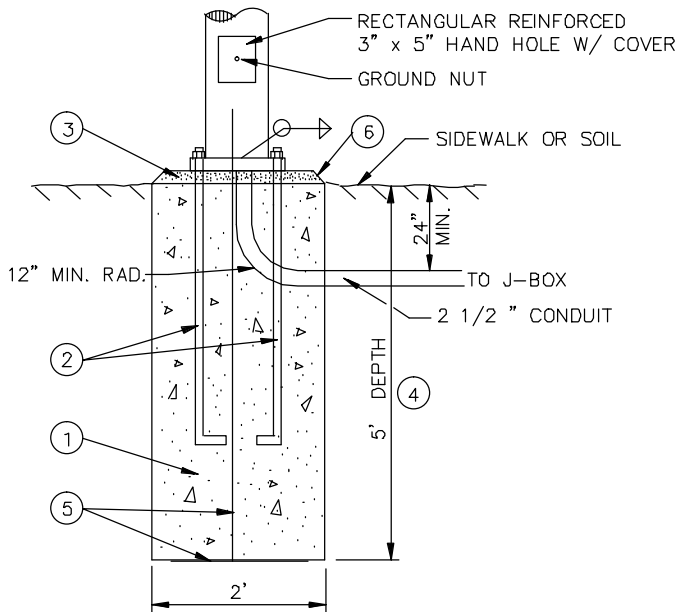
- 1) HEAVY GAUGE FORMED ALUMINUM HOUSING.
- 2) SEPARATE SWING DOWN OPTICAL AND BALLAST DOOR ACCESS.
- 3) ALGLAS FINISH ON REFLECTOR.
- 4) HEAT AND IMPACT RESISTANT TEMPERED FLAT GLASS LENS.
- 5) DECORATIVE MOUNTING ARM STANDARD.
- 6) MOGUI BASE SOCKET.
- 7) MULTITAP BALLAST-120/208/240/277.



BASE PLATE SECTION



POLE NUMBER LOCATIONS



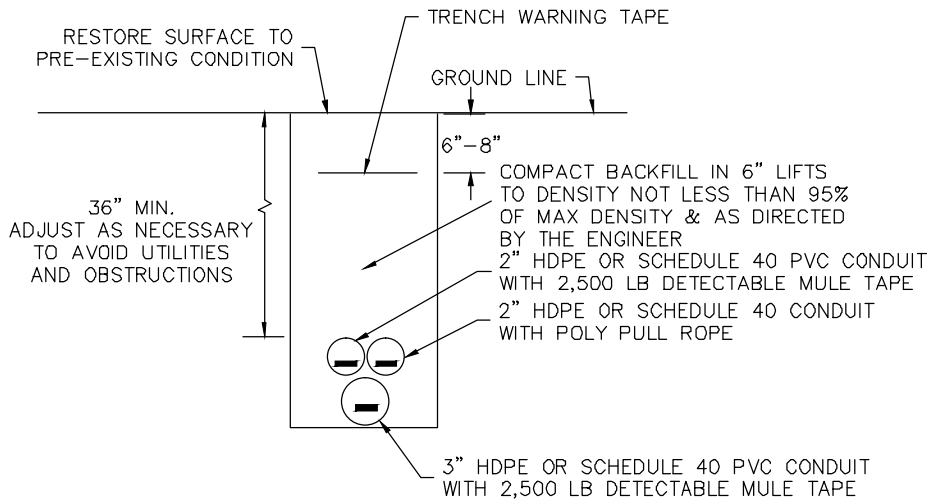
FOUNDATION SECTION

GENERAL NOTES

1. POLES ARE TO BE DESIGNED PER A.A.S.H.T.O. - 80 SPECIFICATIONS.
2. ALL TUBING IS TO BE A.S.T.M. A500 GRADE B (46,000 P.S.I. MIN. YIELD).
3. ACCEPTED POLE MANUFACTURER:
CEM-TEC CORPORATION OR APPROVED EQUAL.
4. ACCEPTED LUMINAIRE MANUFACTURER:
AMERICAN ELECTRIC SERIES 153/154 OR G.E. DECASHIELD III,
OR APPROVED EQUAL.
5. FOR PAINT SPECIFICATIONS SEE STREET LIGHTING SPECIFICATION.

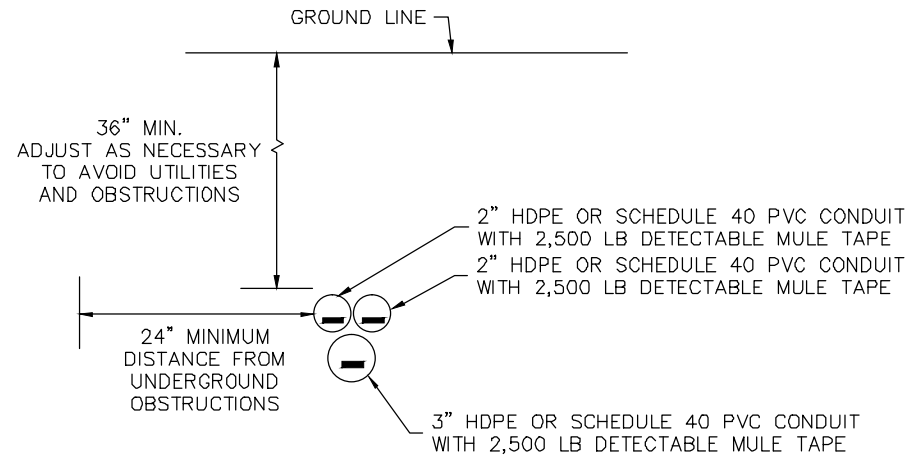
FOUNDATION NOTES

1. 3000 P.S.I. CLASS A CONCRETE PLACED NEXT TO UNDISTURBED EARTH.
2. 4 - 7/8" x 36" GALVANIZED ANCHOR BOLTS WITH LEVELING NUTS & WASHERS. TACK WELD NUTS TO WASHERS AND WASHERS TO BASE PLATE AFTER TIGHTENING. (2 1/2" PROJECTION)
3. 1 1/2" THICK EMBECO GROUT #636 OR APPROVED EQUAL.
4. UNSTABLE SOILS, AND/OR POLE HEIGHTS OVER 40', SHALL REQUIRE SPECIAL ENGINEERING.
5. A 25' COIL OF NO. 4 STRANDED A.W.G. BARE COPPER CONDUCTOR SHALL BE INSTALLED BEFORE THE CONCRETE IS POURED. IT SHALL BE CONNECTED TO POLE GROUNDING SCREW IN THE BASE OF THE POLE.
6. ALL FINISHED POLE FOUNDATIONS SHALL BE CHAMFERED, AND AT SIDEWALK GRADE UNLESS OTHERWISE NOTED.
7. THIS FOUNDATION MAY ALSO BE USED FOR DUAL MAST ARM POLES.

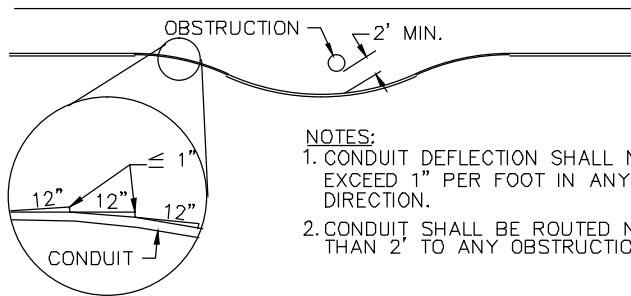


TRENCHED INSTALLATION DETAIL

TRENCHED INSTALLATION ALLOWED ONLY IF APPROVED BY ENGINEER

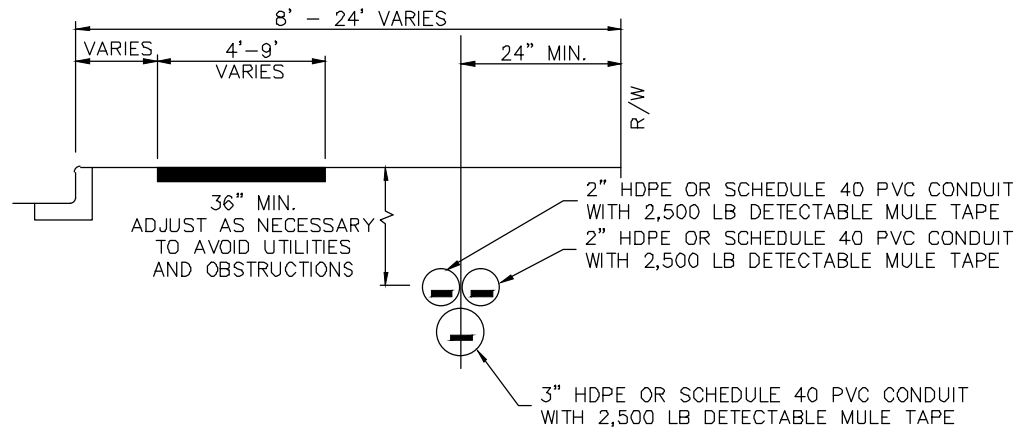


DIRECTIONAL BORE DETAIL
CONDUIT SIZE, QUANTITY AND CONTENTS PER PLANS AND SPECIFICATIONS

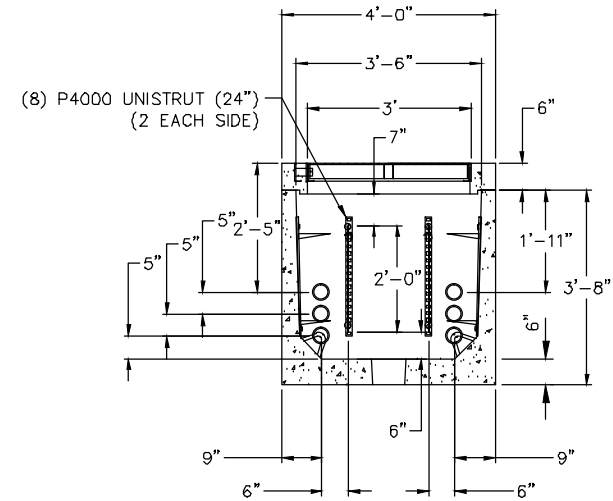
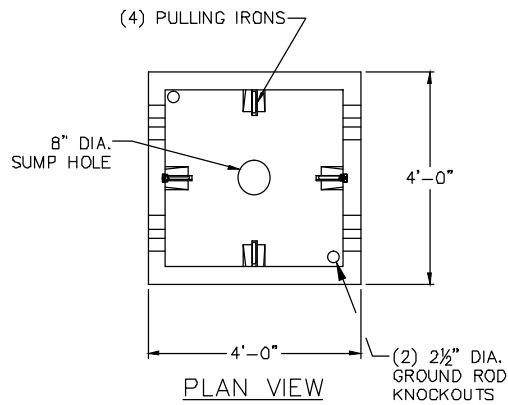
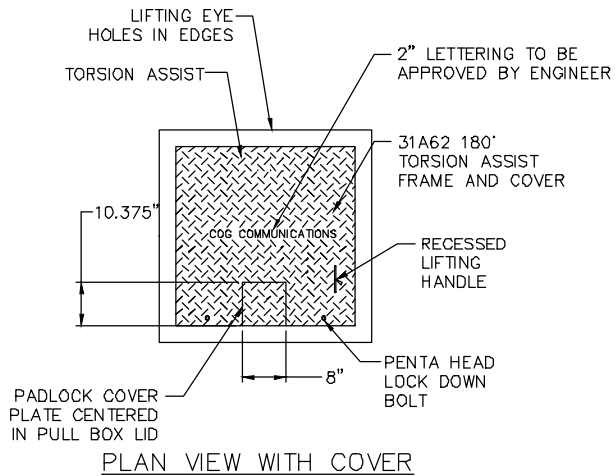


- NOTES:**
1. CONDUIT DEFLECTION SHALL NOT EXCEED 1" PER FOOT IN ANY DIRECTION.
 2. CONDUIT SHALL BE ROUTED NO CLOSER THAN 2' TO ANY OBSTRUCTION.

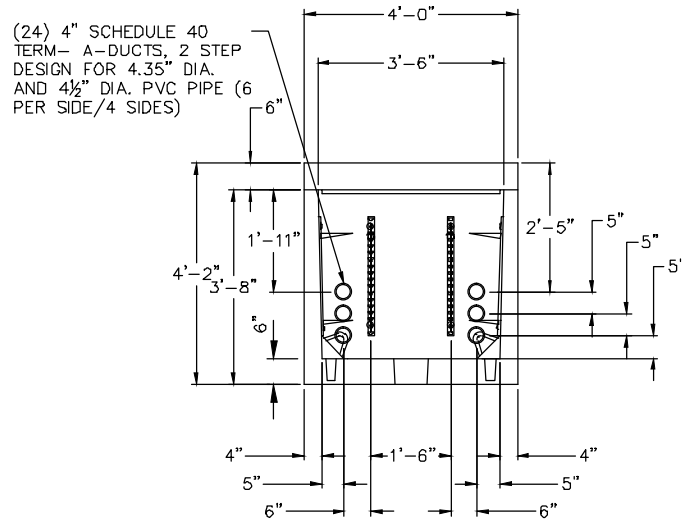
TYPICAL ROUTING OF CONDUIT AROUND AN OBSTRUCTION






TYPICAL CONDUIT PLACEMENT DETAIL
ALL CONDUIT PLACEMENT SHALL BE SUCH AS TO AVOID ALL EXISTING UTILITIES AND OBSTRUCTIONS AND MINIMIZING DAMAGE TO EXISTING LANDSCAPE AND TREES



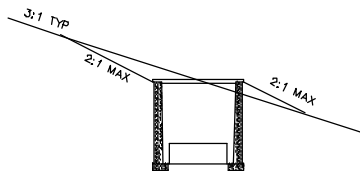
NOTE:
SEE SHEET G-3294-2 FOR GENERAL NOTES,
STRUCTURAL NOTES AND RACKING PACKAGE DETAIL.



RACKING PACKAGE DETAIL

-  8 - 18 HOLE RACK
-  16 - 1/2" SPRING NUTS AND BOLT
-  16 - 7/8" STRAIGHT HOOKS

PLAN SYMBOL



INSTALLATION IN SLOPED AREAS

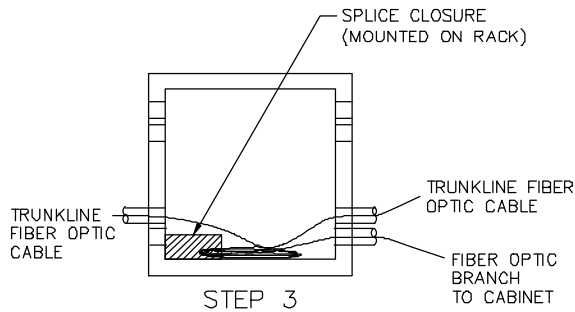
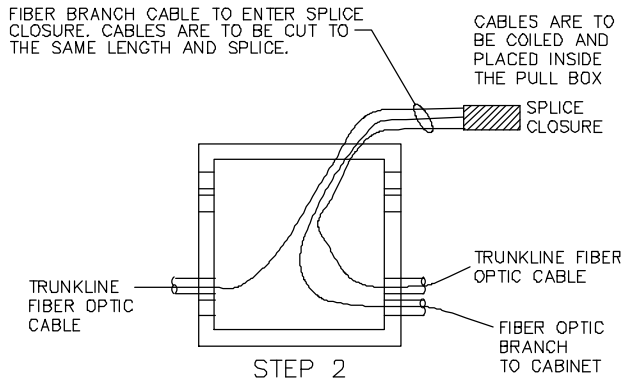
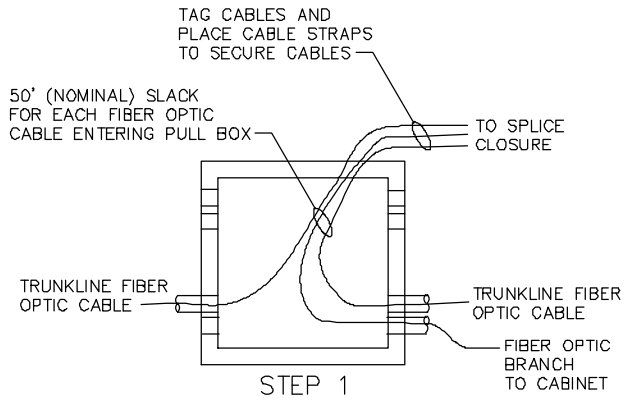
GENERAL NOTES:

1. BACKFILL WITH DESIGNATED SIZE NO. 57 AGGREGATE BELOW PULL BOX. BACKFILL AROUND SIDES OF PULL BOX WITH SELECT EXCAVATED MATERIAL AND THOROUGHLY COMPACT.
2. CONDUIT FROM THE TYPICAL TRENCH SECTION SHALL NOT DEFLECT BY MORE THAN 1"/12" FROM THE ALIGNMENT PRECEDING OR FOLLOWING THE PULL BOX.
3. TOP OF CONDUITS SHALL BE LOCATED AT 25" BELOW EXISTING GROUND. CONDUITS AT PULL BOXES SHALL DEFLECT NO MORE THAN 1"/12" TO ENTER PULL BOX. CONDUITS SHALL BE FLUSH WITH INSIDE OF PULL BOX.
4. LONGITUDINAL AND LATERAL CONDUITS ENTER AND EXIT SAME WALL. LATERAL CONDUITS AS REQUIRED.
5. ALL NEW PULL BOXES SHALL BE FURNISHED WITH RACKS AND HOOKS INSTALLED.
6. PLUG EACH UNUSED CONDUIT END WITH APPROVED, WATERPROOF DUCT PLUG.
7. "COG COMMUNICATIONS" SHALL BE THE TITLE EMBOSSED ON THE LID.
8. PULL BOX HEIGHT SHALL BE FINISHED GRADE TO MATCH EXISTING GRADE/SLOPE.
9. LID SHALL OPEN 180 DEGREES WITH A TORSION BAR LIFT ASSIST.
10. LID SHALL BE DIAMOND PLATE AND HAVE GALVANIZED FINISH.
11. BOX SHALL BE ORIENTED SO THAT LID OPENS AWAY FROM ANY ROADWAY LANE.
12. COVER HARDWARE SHALL BE CADMIUM PLATED.
13. RECESSED PADLOCK SHALL BE LOCATED IN THE CENTER OF THE OPENING SIDE OF THE COVER.
14. PULLING IRONS SHALL BE LOCATED AS SHOWN IN PLAN VIEW, NO DEVIATIONS ACCEPTED.
15. PULLING IRONS SHALL BE 3/4" Ø COLD ROLLED GALVANIZED STEEL.
16. WEIGHT COVER = 1075#, VAULT 3250# - 4250#, TOTAL 4325# - 5325#.
17. GROUT OR SEAL SHALL BE USED AROUND CONDUITS PENETRATING THE PULL BOX.
18. ALL JOINTS SHALL BE SEALED USING CONSEAL CS-101 BUTYL RUBBER ROPE.
19. ONE - 5/8" X 8' COPPER-CLAD GROUND ROD(10 MILS MINIMUM) SHALL BE INSTALLED INTO ONE OF THE GROUND ROD KNOCK-OUTS IN THE BOTTOM OF THE PULL BOX.

STRUCTURAL NOTES:

1. CONCRETE: 28 DAY COMPRESSIVE STRENGTH $f'_c = 4500$ PSI
2. REBAR ASTM A-615 GRADE 60
3. MESH: ASTM A-185 GRADE 65
4. DESIGN: ACI-318-99 BUILDING CODE AND ASTM C-857 "MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE LOADING STRUCTURES"
5. LOADS: HS20 WHEEL LOADING IN OFF-STREET LOCATIONS WHERE NOTE SUBJECTED TO HIGH DENSITY TRAFFIC
 - 80 PSF LATERAL LIVE LOAD SURCHARGE - UP TO 8'-0" DEPTH SOIL:
 - 40 PCF LATERAL SOIL PRESSURE ABOVE WATER TABLE
 - 80 PCF LATERAL SOIL PRESSURE BELOW WATER TABLE
 - 120 PCF SOIL DENSITY
6. SOIL COVER: 0' TO 5' (MAX.)
7. WATER TABLE: 5'-0" BELOW GRADE

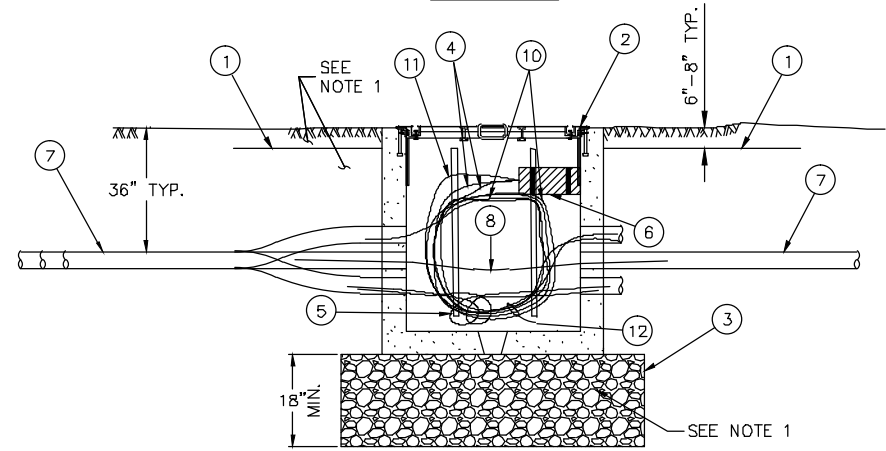
FIBER OPTIC SPLICE PROCEDURE



NOTES:

1. LOCATOR WIRES TO BE ATTACHED TO EACH OTHER.
2. PROVIDE 50 FEET OF EACH COILED FIBER OPTIC CABLE PER EACH ENTRY (100 FEET TOTAL) AND 10 FEET OF SLACK ON ANY CONDUCTORS.
3. ALL POWER AND COMMUNICATION CABLES SHALL BE TAGGED WITH CABLE IDENTIFICATION.
4. FIBER SLACK MOUNTED TO RACK OFF OF GROUND.

CONDUIT PLACEMENT AND COILING DETAIL SIDE VIEW

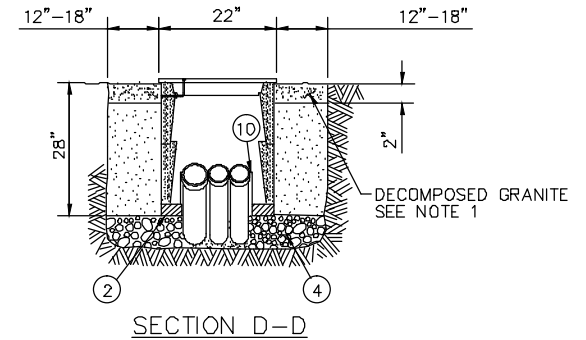
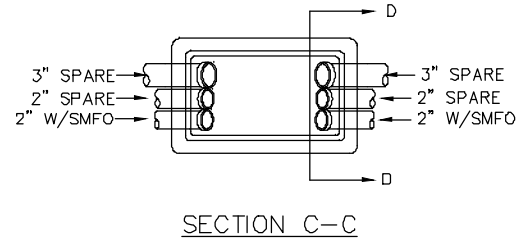
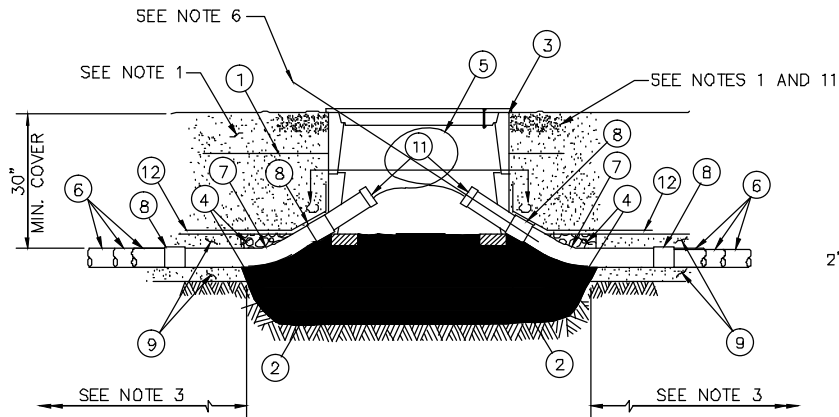


NOTES:

1. BACKFILL WITH DESIGNATED SIZE NO. 57 AGGREGATE BELOW PULL BOX. BACKFILL AROUND SIDES OF PULL BOX WITH SELECT EXCAVATED MATERIAL AND THOROUGHLY COMPACT.
2. NUMBERS IN CIRCLES REFER TO ITEMS IN MATERIAL LIST.

MATERIAL LIST

ITEM	DESCRIPTION
1	WARNING TAPE (AS REQUIRED)
2	NO. 9 PULL BOX
3	CLASS "B" CONC. AGG. DESIGNATED SIZE NO. 57
4	SINGLE MODE FIBER OPTIC CABLE (SMFO)
5	#8 GREEN BOND (AS REQUIRED)
6	FIBER OPTIC SPLICE CLOSURE
7	CONDUIT PER PLANS
8	2500 LB DETECTABLE MULE TAPE
9	RACK & HOOK (EACH WALL TYP)
10	SINGLE MODE FIBER OPTIC BRANCH CABLE (AS REQUIRED)
11	100' NOMINAL SLACK (50' ENTRY/50' EXIT)

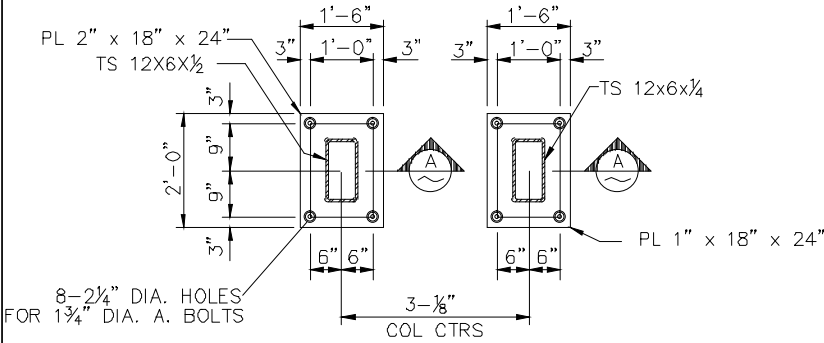
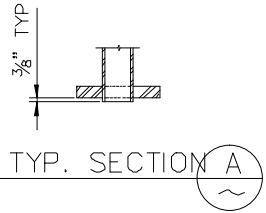
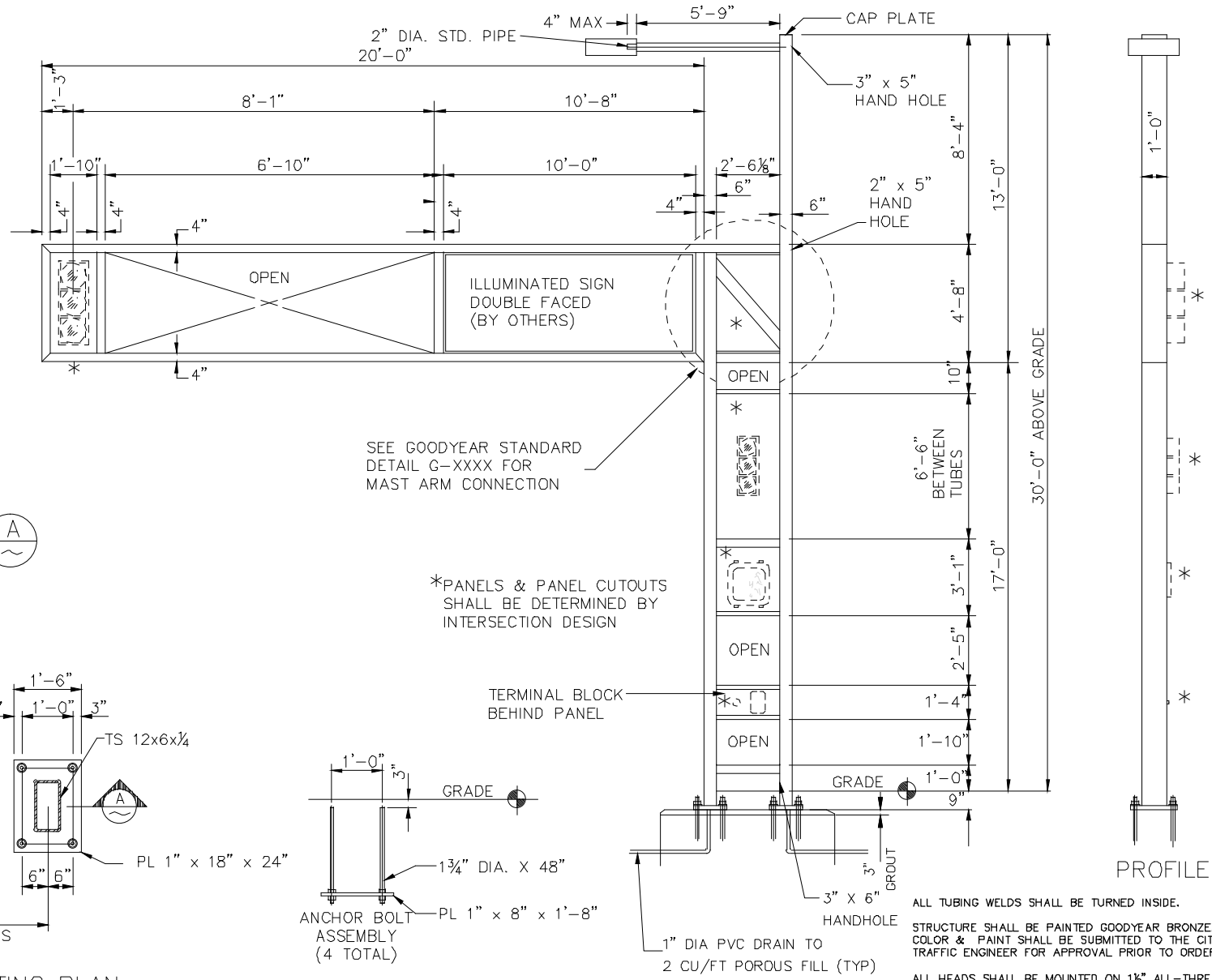


DETAIL D1
INSTALLATION FOR NO. 7 PULL BOX WITH EXTENSION
W/ CONDUITS SWEEPING INTO PULL BOX
 N.T.S.

MATERIAL LIST

ITEM	DESCRIPTION
①	WARNING TAPE
②	CONCRETE MASONRY BLOCK 2" X 4" X 8"
③	NO. 7 PULL BOX WITH EXTENSION WITH EXCEPTIONS AS DRAWN
④	CLASS 'B' CONCRETE AGGREGATE DESIGNATED SIZE NO. 57
⑤	SINGLE MODE FIBER OPTIC (SMFO) CABLE
⑥	2-2" AND 1-3" DIA SCH. 40 PVC OR HDPE CONDUITS - SEE NOTE 13
⑦	30 DEGREE SCH. 40 PVC ELBOW, WITH 15" RADIUS
⑧	SCH. 40 PVC-TO-PVC COUPLING
⑨	SELECT EXCAVATED BACKFILL
⑩	KNOCK OUT 6" X 12" -SEE NOTE 12
⑪	BELL END FOR PVC-SEE NOTE 9
⑫	30# FELT PAPER

- BACKFILL WITH SELECT EXCAVATED MATERIAL AND THOROUGHLY COMPACT TO WITHIN 2" OF ORIGINAL GRADE.
- THIS PULL BOX IS DESIGNED FOR NON-TRAFFIC AREAS. COMPOSITE COVERS SHALL BE USED.
- CONDUIT FROM THE TYPICAL TRENCH SECTION SHALL NOT DEFLECT BY MORE THAN 1 IN./FT. FROM THE ALIGNMENT PRECEDING OR FOLLOWING THE PULL BOX.
- CONDUITS SHALL ENTER PULL BOX AS SHOWN.
- LATERAL CONDUITS AS REQUIRED.
- CONDUIT CENTERLINE SHALL BE ALIGNED TO TOP EDGE OF PULL BOX TO FACILITATE CABLE PULLING.
- ALL COMMUNICATIONS CABLE SHALL BE TAGGED WITH CABLE IDENTIFICATION.
- "CITY OF GOODYEAR FIBER OPTIC" SHALL BE EMBOSSED ON THE LID.
- PVC USED TO EXTEND INTO PULL BOX.
- USE FELT PAPER TO BLOCK OPENING BETWEEN CONDUITS AND PREVENT BACKFILL MATERIAL FROM ENTERING PULL BOX.
- EXISTING PULL BOX CONFIGURATIONS MAY VARY. LOCATIONS WHERE NO. 7 PULL BOXES ARE BEING REPLACED SHALL BE INSTALLED AS SHOWN ON THIS SHEET UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
- EXISTING CONDUIT ENTERING A PULL BOX MAY NOT BE CORRECTLY ALIGNED TO FACILITATE PULLING CABLES THROUGH THE PULL BOX BY USE OF A PULLING SHOE. THE FORCE ACCOUNT ITEM FOR CONDUIT RECONDITIONING DOES NOT COVER REALIGNMENT OF CONDUIT.
- REFER TO CONDUIT AND CABLE SCHEDULE FOR SIZE OF CONDUITS.



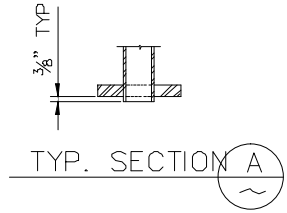
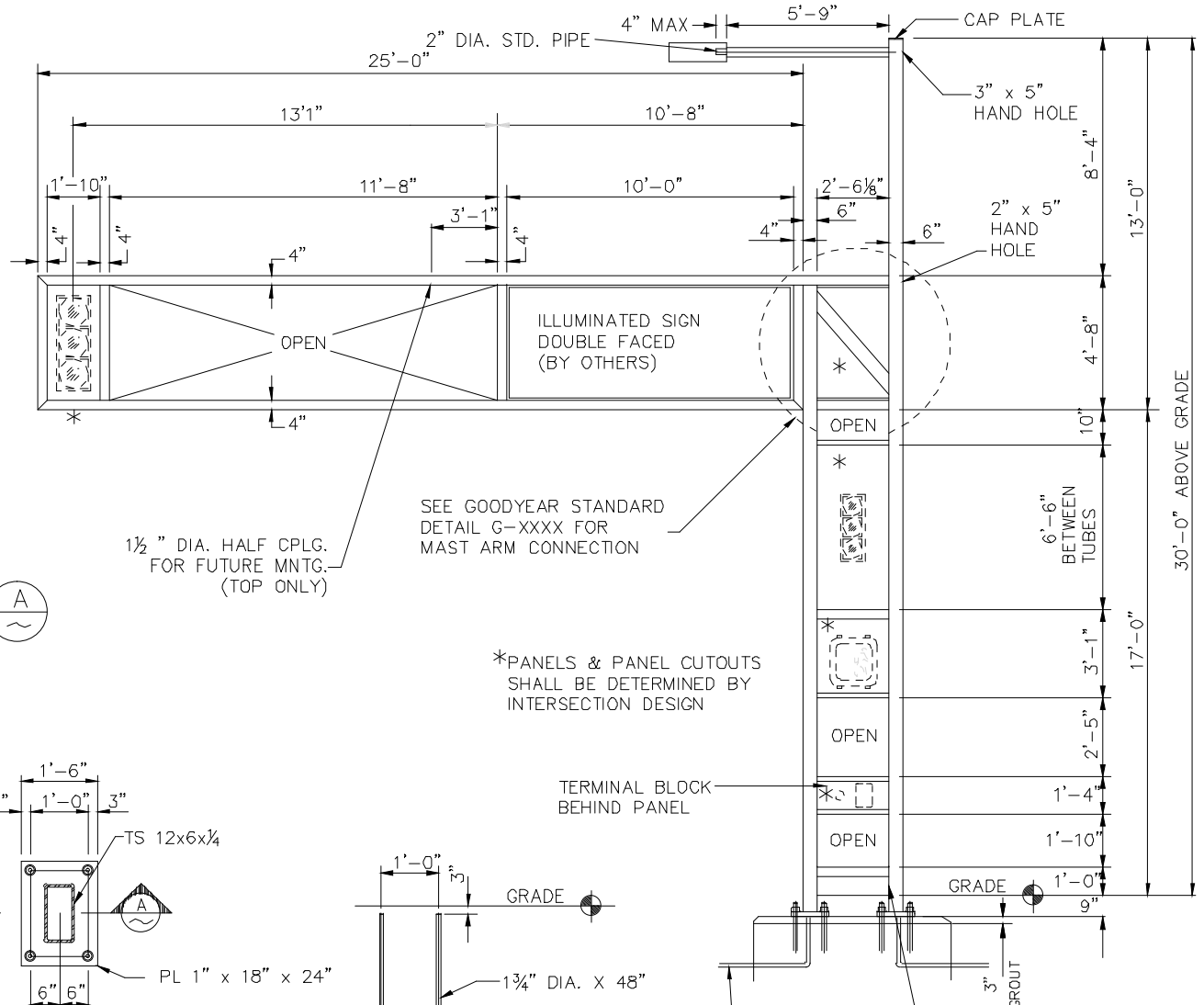
ANCHOR BOLT SETTING PLAN

SEE GOODYEAR STANDARD
DETAIL G-XXXX FOR
MAST ARM CONNECTION

*PANELS & PANEL CUTOUTS
SHALL BE DETERMINED BY
INTERSECTION DESIGN

ALL TUBING WELDS SHALL BE TURNED INSIDE.
STRUCTURE SHALL BE PAINTED GOODYEAR BRONZE,
COLOR & PAINT SHALL BE SUBMITTED TO THE CITY
TRAFFIC ENGINEER FOR APPROVAL PRIOR TO ORDERING.
ALL HEADS SHALL BE MOUNTED ON 1/2" ALL-THREAD
USING GROUNDING LOCKNUTS.
ALL PANELS SHALL BE FASTENED WITH 1/4" (#14) x 1"
BLACK TEK SCREWS.

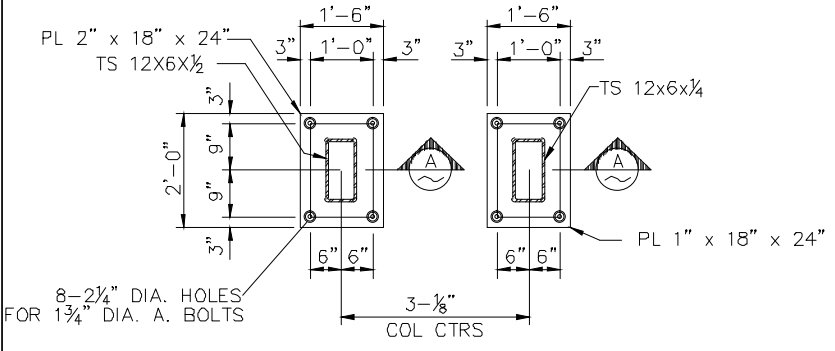
DETAIL NO. G-3296-1	CITY OF GOODYEAR STANDARD DETAIL	APPROVED:08/17	MODULAR POLE 'F' - 20' MAST ARM	ASSEMBLY DRAWING ONLY SPECIFICATIONS AND DESIGN BY T.A. CAID INDUSTRIES, INC. TUCSON, AZ	DETAIL NO. G-3296-1
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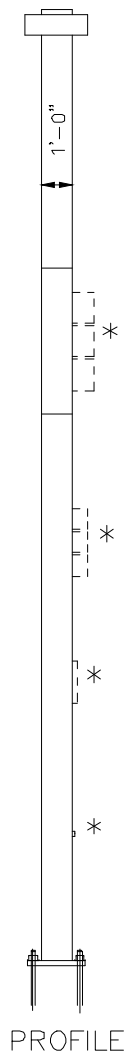
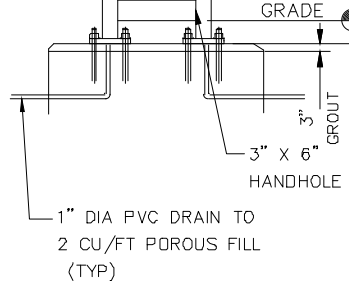
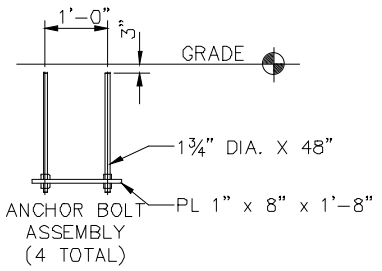
SEE GOODYEAR STANDARD
DETAIL G-XXXX FOR
MAST ARM CONNECTION

1 1/2" DIA. HALF CPLG.
FOR FUTURE MNTG.
(TOP ONLY)

*PANELS & PANEL CUTOUTS
SHALL BE DETERMINED BY
INTERSECTION DESIGN



ANCHOR BOLT SETTING PLAN



PROFILE

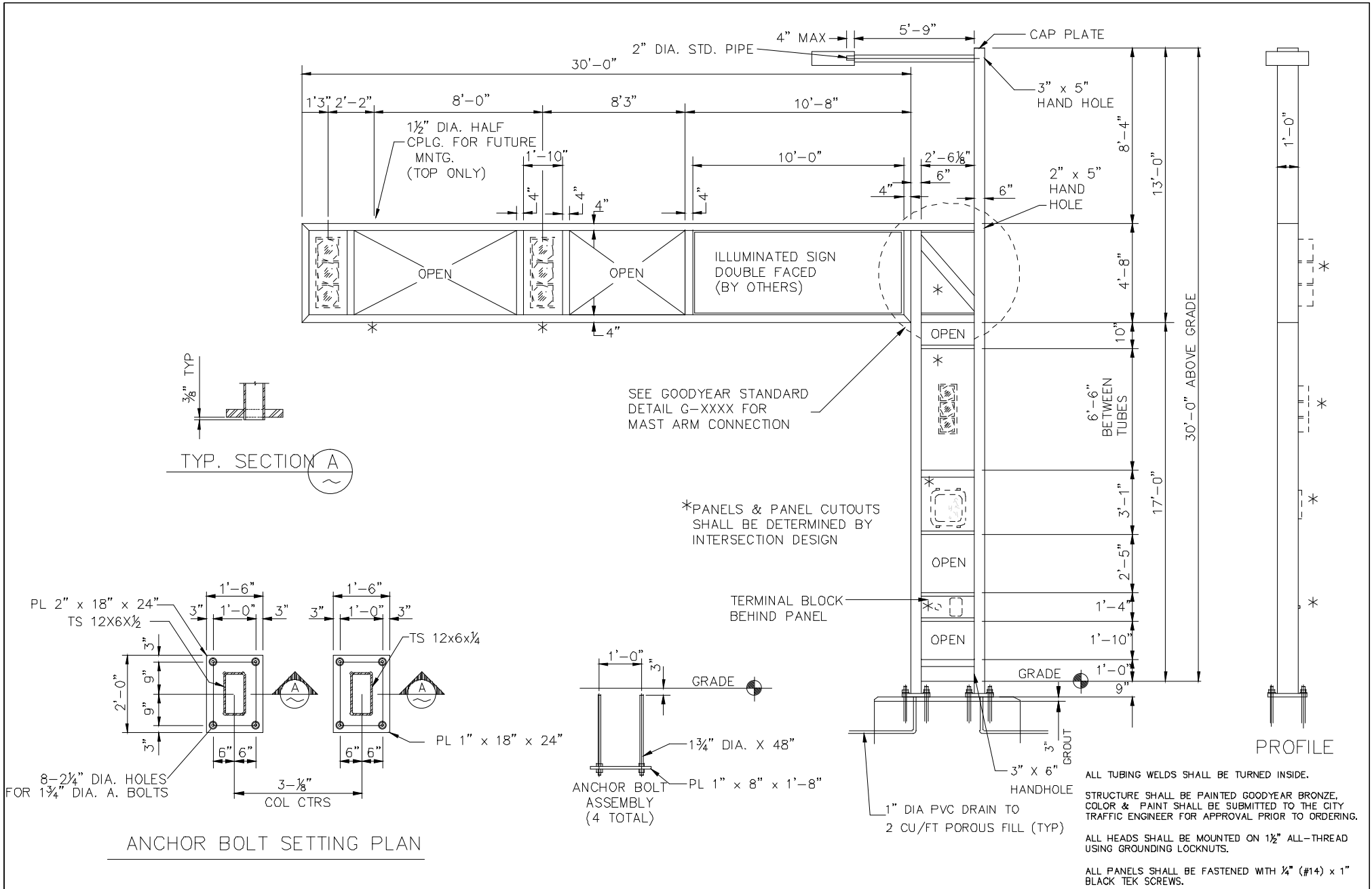
ALL TUBING WELDS SHALL BE TURNED INSIDE.

STRUCTURE SHALL BE PAINTED GOODYEAR BRONZE,
COLOR & PAINT SHALL BE SUBMITTED TO THE CITY
TRAFFIC ENGINEER FOR APPROVAL PRIOR TO ORDERING.

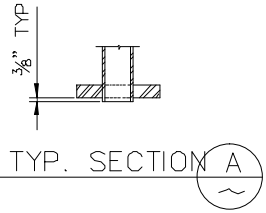
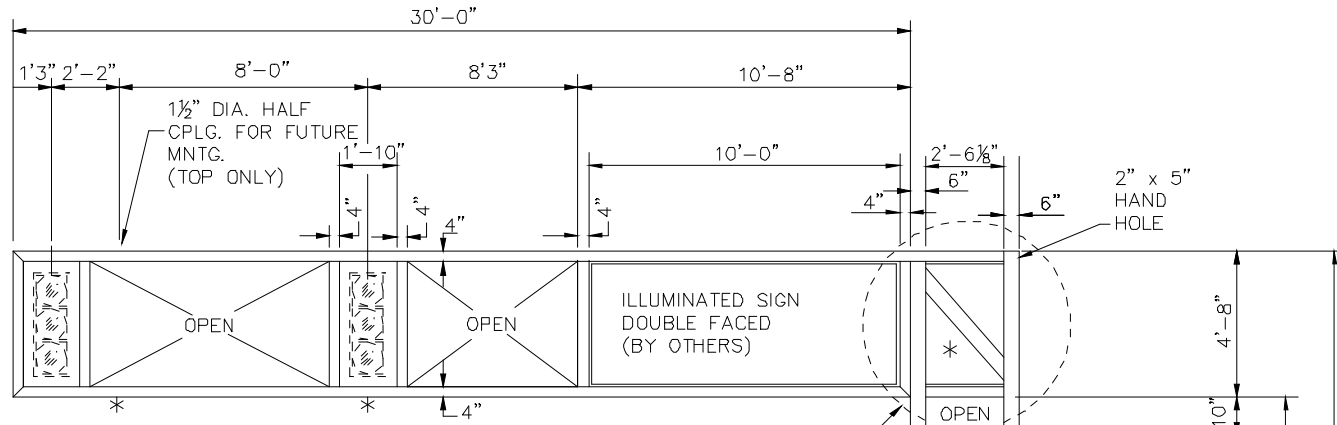
ALL HEADS SHALL BE MOUNTED ON 1/2" ALL-THREAD
USING LOCKNUTS.

ALL PANELS SHALL BE FASTENED WITH 1/4" (#14) x 1"
BLACK TEK SCREWS.

DETAIL NO. G-3296-3	CITY OF GOODYEAR STANDARD DETAIL	APPROVED:08/17	MODUAR POLE 'Q' - 25' MAST ARM	ASSEMBLY DRAWING ONLY SPECIFICATIONS AND DESIGN BY T.A. CAID INDUSTRIES, INC. TUCSON, AZ	DETAIL NO. G-3296-3
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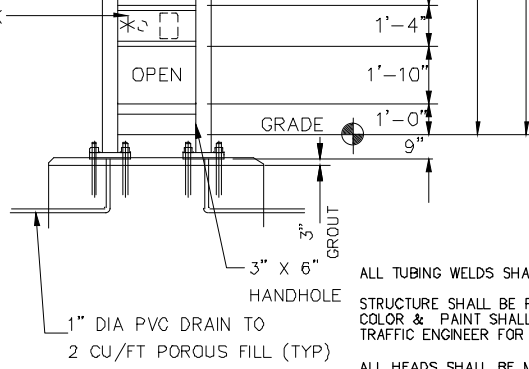
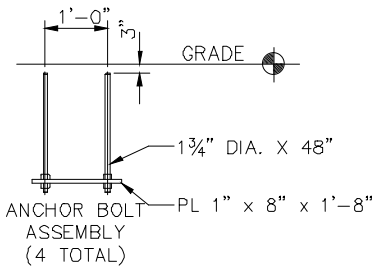
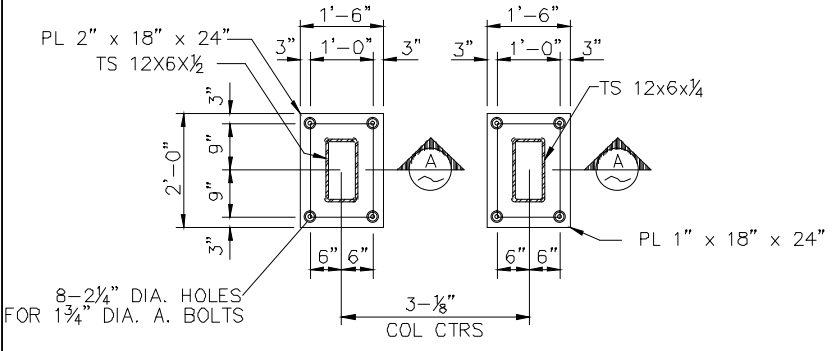


DETAIL NO. G-3296-5	CITY OF GOODYEAR STANDARD DETAIL	APPROVED:08/17	MODULAR POLE 'Q' - 30' MAST ARM	ASSEMBLY DRAWING ONLY SPECIFICATIONS AND DESIGN BY T.A. CAID INDUSTRIES, INC. TUCSON, AZ	DETAIL NO. G-3296-5
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SEE GOODYEAR STANDARD
DETAIL G-XXXX FOR
MAST ARM CONNECTION

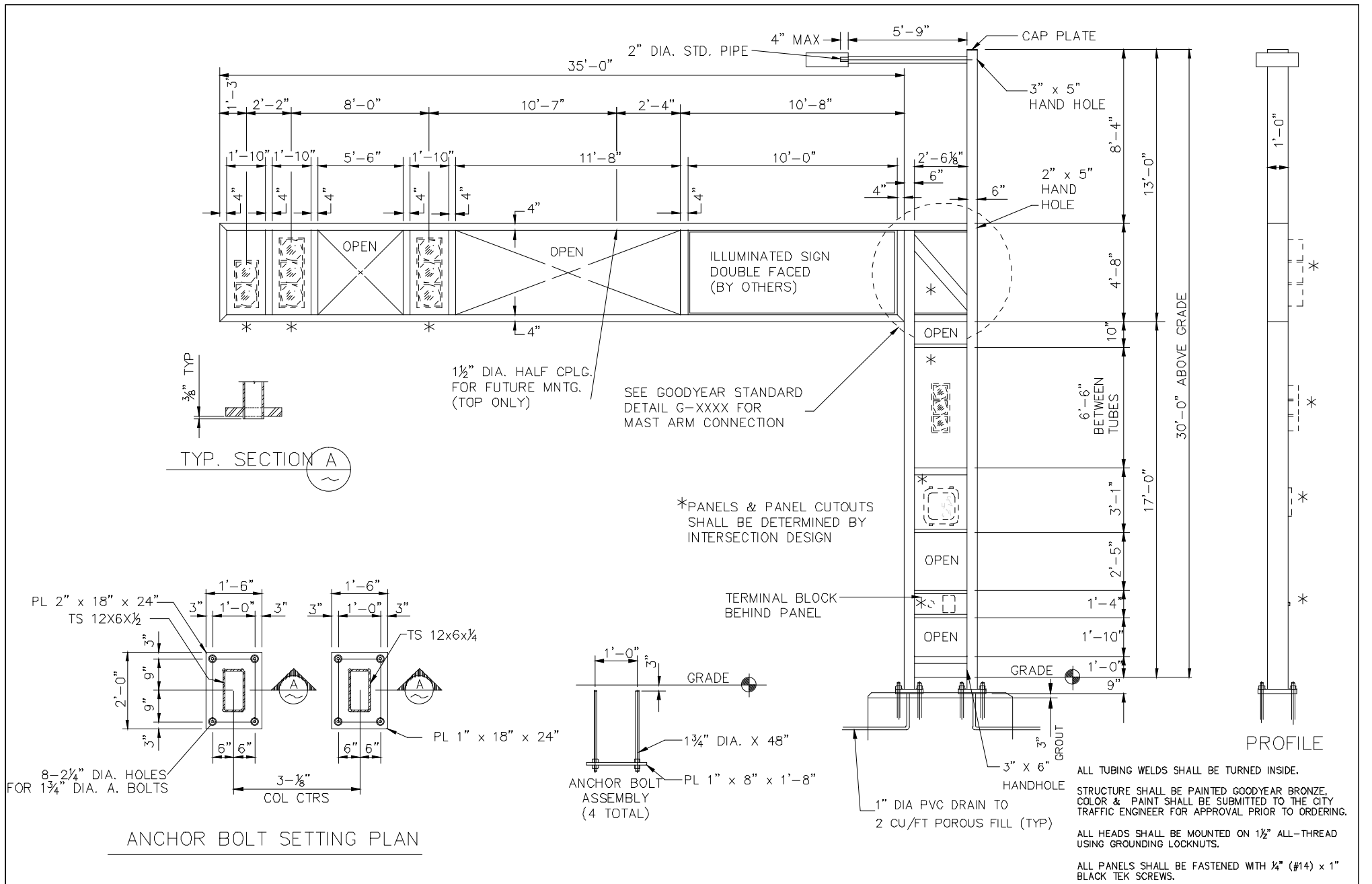
*PANELS & PANEL CUTOUTS
SHALL BE DETERMINED BY
INTERSECTION DESIGN



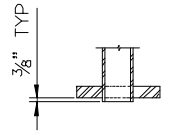
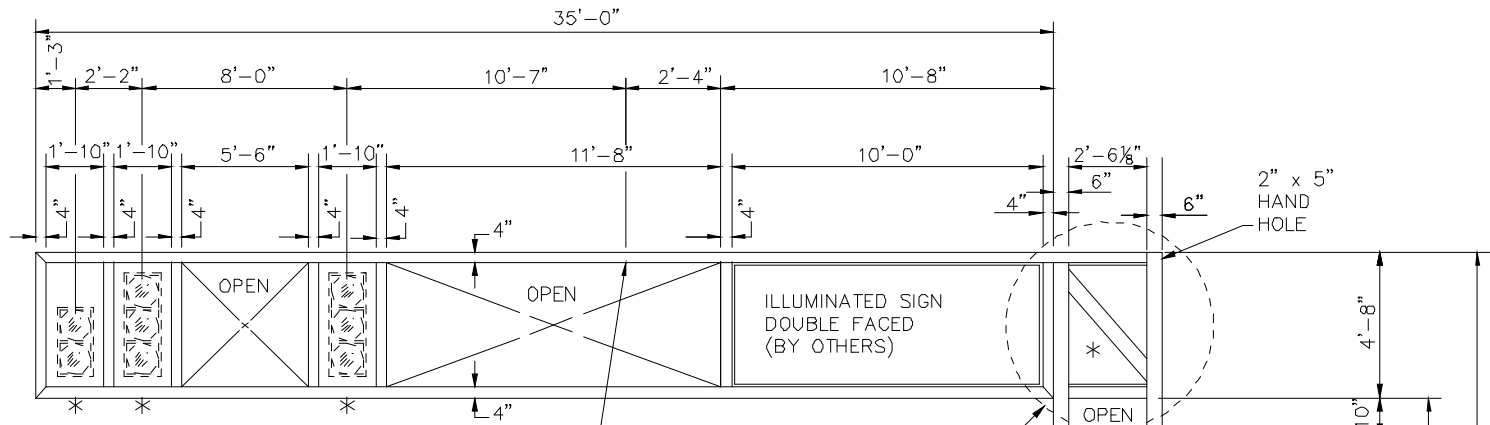
PROFILE

ALL TUBING WELDS SHALL BE TURNED INSIDE.
STRUCTURE SHALL BE PAINTED GOODYEAR BRONZE,
COLOR & PAINT SHALL BE SUBMITTED TO THE CITY
TRAFFIC ENGINEER FOR APPROVAL PRIOR TO ORDERING.
ALL HEADS SHALL BE MOUNTED ON 1/2" ALL-THREAD
USING GROUNDING LOCKNUTS.
ALL PANELS SHALL BE FASTENED WITH 1/4" (#14) x 1"
BLACK TEK SCREWS.

DETAIL NO. G-3296-6	CITY OF GOODYEAR STANDARD DETAIL	APPROVED:08/17	MODULAR POLE 'J' - 30' MAST ARM	ASSEMBLY DRAWING ONLY SPECIFICATIONS AND DESIGN BY T.A. CAID INDUSTRIES, INC. TUCSON, AZ	DETAIL NO. G-3296-6
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DETAIL NO. G-3296-7	CITY OF GOODYEAR STANDARD DETAIL	APPROVED:08/17	MODULAR POLE 'Q' - 35' MAST ARM	ASSEMBLY DRAWING ONLY SPECIFICATIONS AND DESIGN BY T.A. CAID INDUSTRIES, INC. TUCSON, AZ	DETAIL NO. G-3296-7
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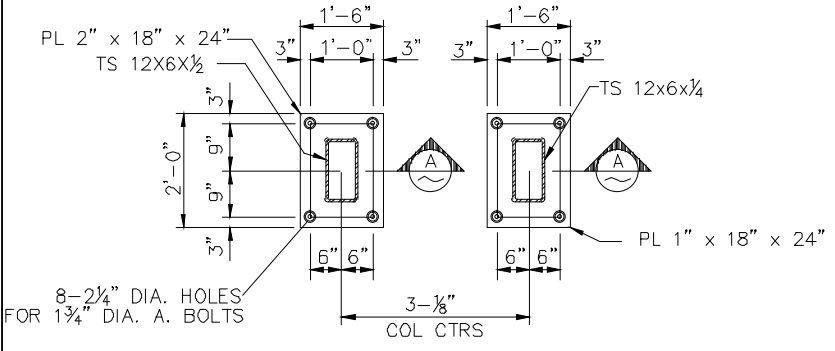


TYP. SECTION A

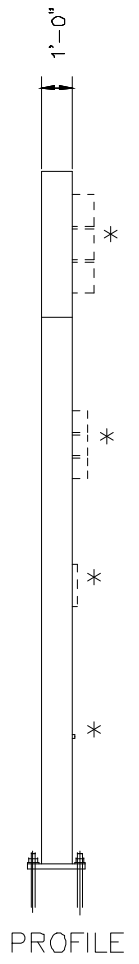
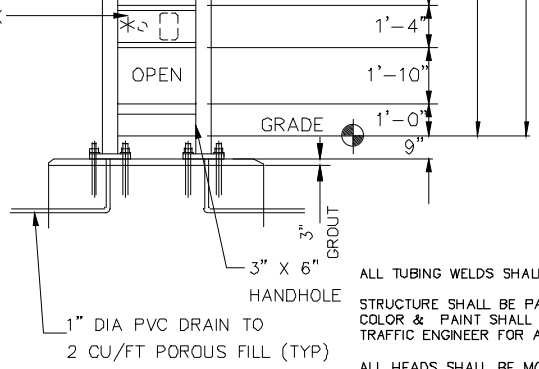
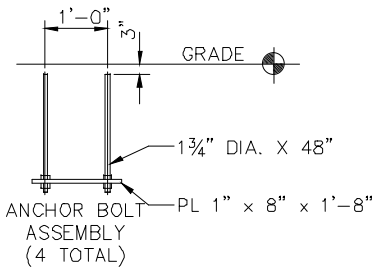
1/2" DIA. HALF CPLG. FOR FUTURE MNTG. (TOP ONLY)

SEE GOODYEAR STANDARD DETAIL G-XXXX FOR MAST ARM CONNECTION

*PANELS & PANEL CUTOUTS SHALL BE DETERMINED BY INTERSECTION DESIGN



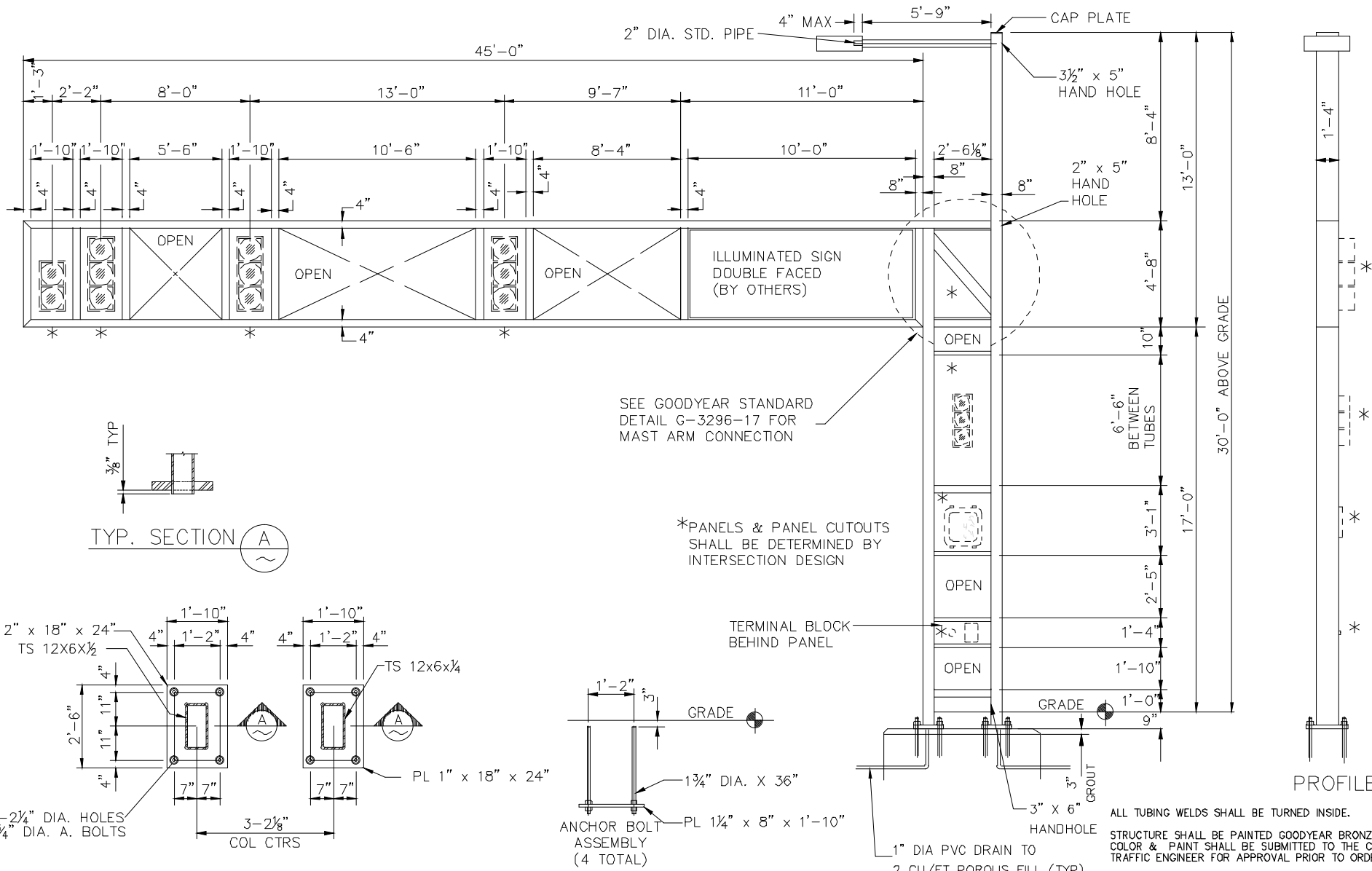
ANCHOR BOLT SETTING PLAN



PROFILE

ALL TUBING WELDS SHALL BE TURNED INSIDE.
 STRUCTURE SHALL BE PAINTED GOODYEAR BRONZE, COLOR & PAINT SHALL BE SUBMITTED TO THE CITY TRAFFIC ENGINEER FOR APPROVAL PRIOR TO ORDERING.
 ALL HEADS SHALL BE MOUNTED ON 1/2" ALL-THREAD USING GROUNDING LOCKNUTS.
 ALL PANELS SHALL BE FASTENED WITH 1/4" (#14) x 1" BLACK TEK SCREWS.

DETAIL NO. G-3296-8	CITY OF GOODYEAR STANDARD DETAIL	APPROVED:08/17	MODULAR POLE 'J' - 35' MAST ARM	ASSEMBLY DRAWING ONLY SPECIFICATIONS AND DESIGN BY T.A. CAID INDUSTRIES, INC. TUCSON, AZ	DETAIL NO. G-3296-8
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SEE GOODYEAR STANDARD
DETAIL G-3296-17 FOR
MAST ARM CONNECTION

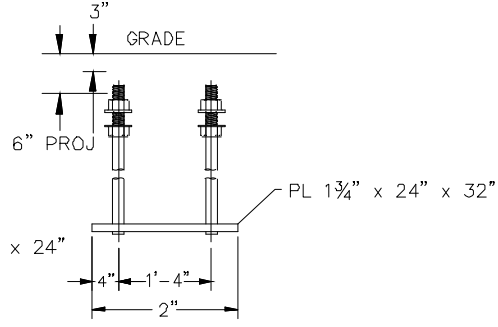
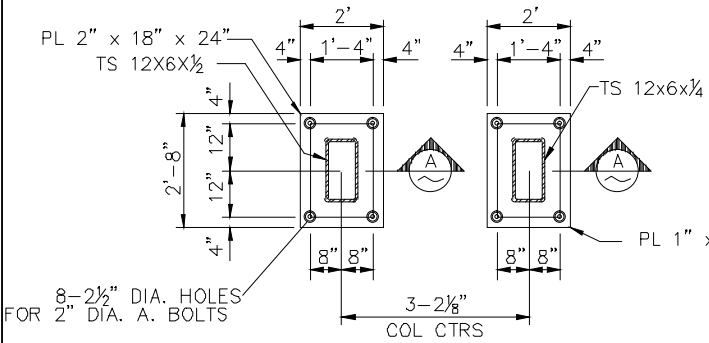
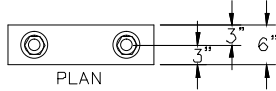
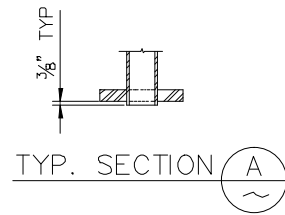
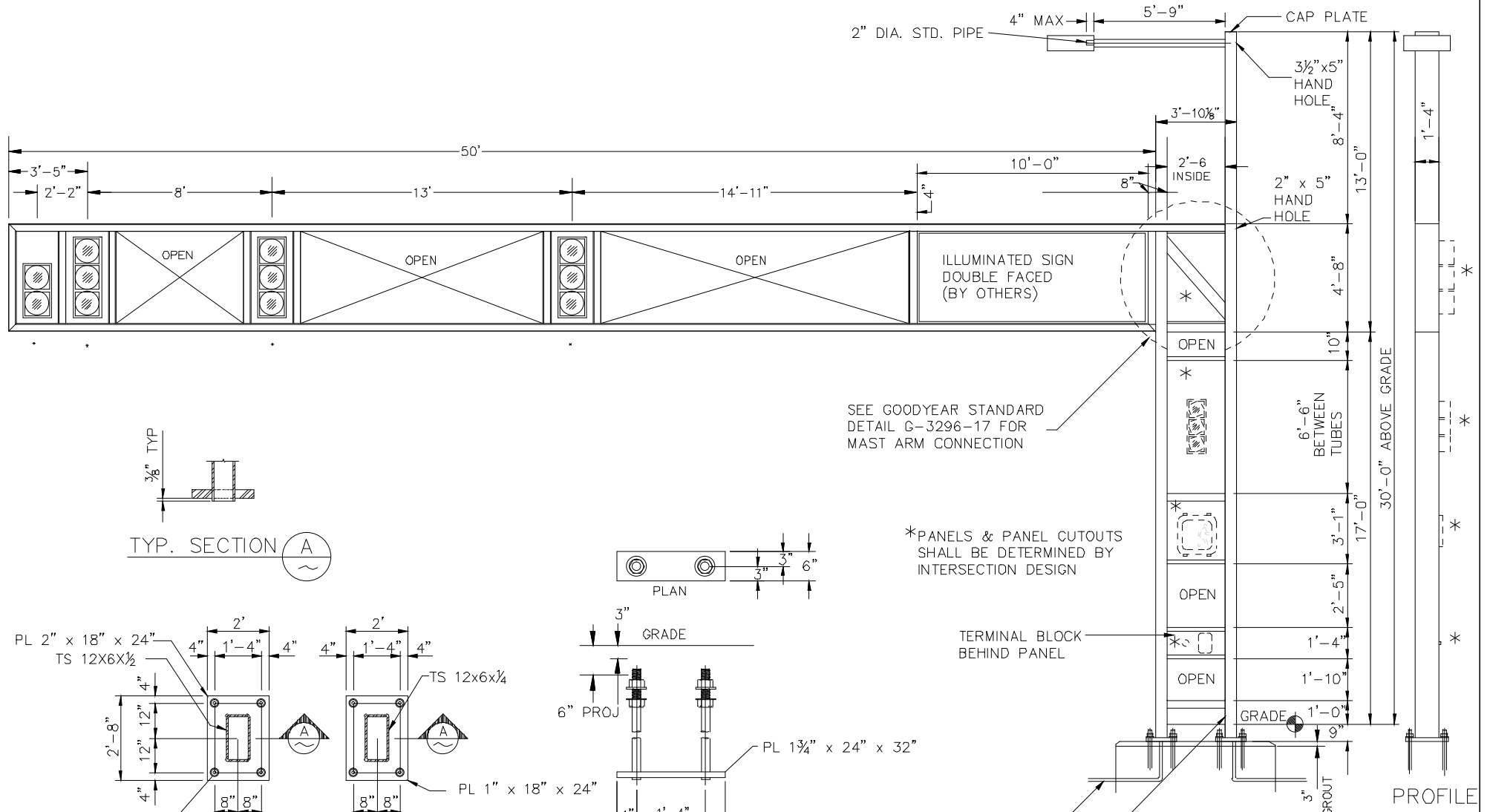
*PANELS & PANEL CUTOUTS
SHALL BE DETERMINED BY
INTERSECTION DESIGN

ALL TUBING WELDS SHALL BE TURNED INSIDE.
STRUCTURE SHALL BE PAINTED GOODYEAR BRONZE,
COLOR & PAINT SHALL BE SUBMITTED TO THE CITY
TRAFFIC ENGINEER FOR APPROVAL PRIOR TO ORDERING.
ALL HEADS SHALL BE MOUNTED ON 1/2" ALL-THREAD
USING GROUNDING LOCKNUTS.
ALL PANELS SHALL BE FASTENED WITH 1/4" (#14) x 1"
BLACK TEK SCREWS.

TYP. SECTION A

ANCHOR BOLT SETTING PLAN

DETAIL NO. G-3296-11	CITY OF GOODYEAR STANDARD DETAIL	APPROVED:08/17	MODULAR POLE 'Q' - 45' MAST ARM	ASSEMBLY DRAWING ONLY SPECIFICATIONS AND DESIGN BY T.A. CAID INDUSTRIES, INC. TUCSON, AZ	DETAIL NO. G-3296-11
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SEE GOODYEAR STANDARD
DETAIL G-3296-17 FOR
MAST ARM CONNECTION

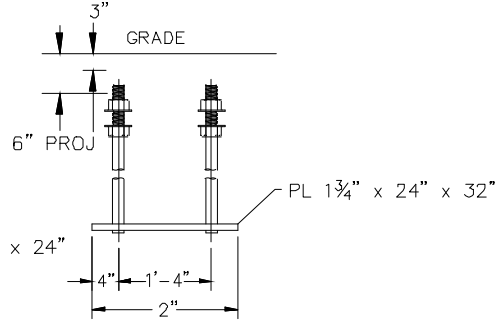
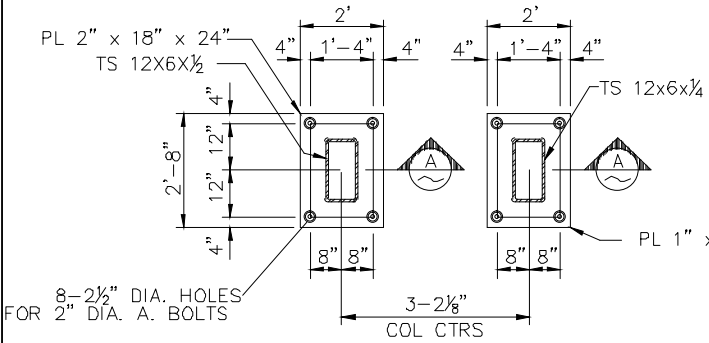
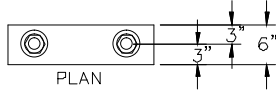
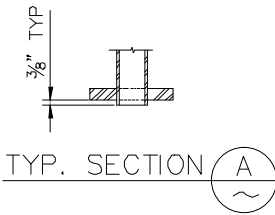
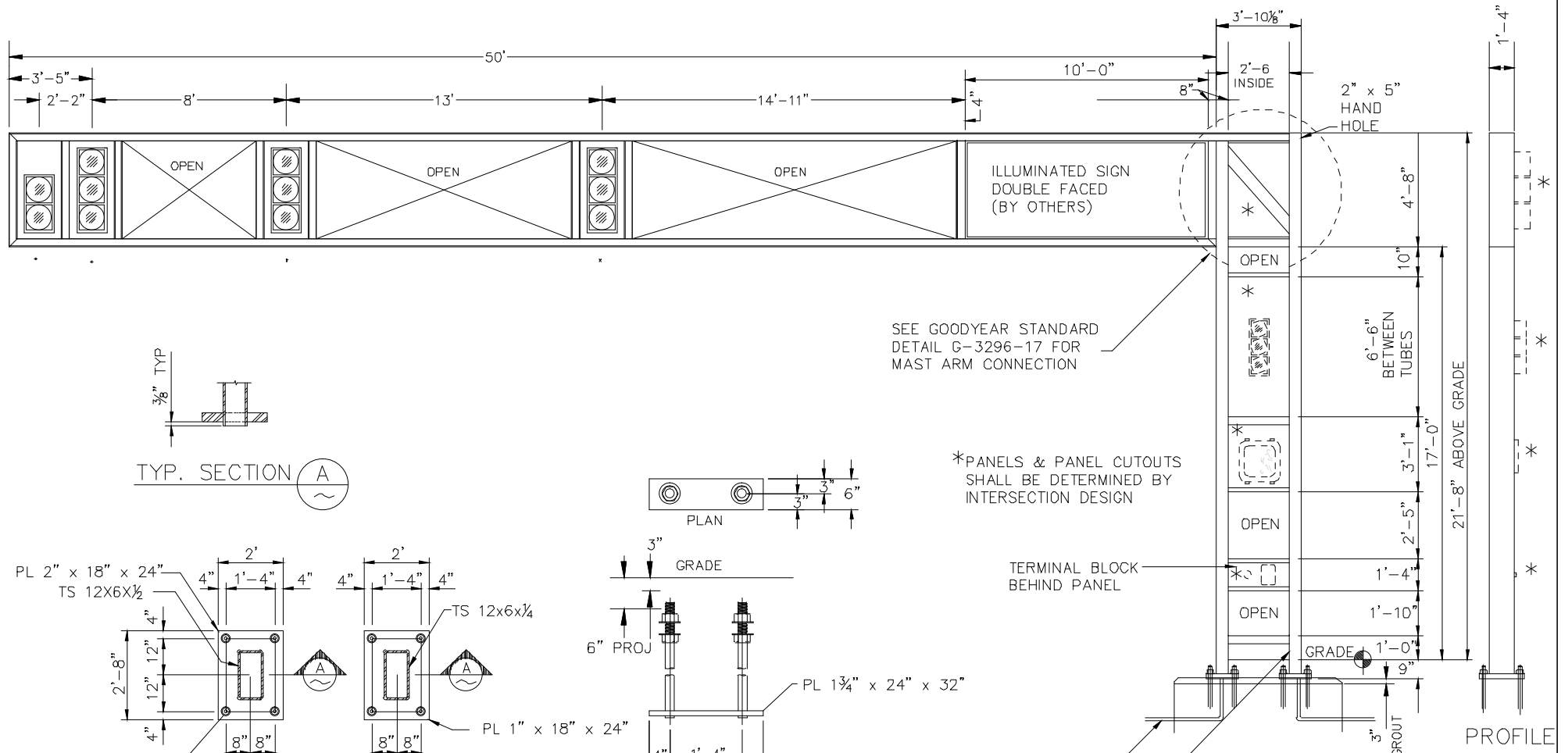
*PANELS & PANEL CUTOUTS
SHALL BE DETERMINED BY
INTERSECTION DESIGN

1" DIA PVC DRAIN TO
2 CU/FT POROUS FILL (TYP)

3" X 6" HANDHOLE

ALL TUBING WELDS SHALL BE TURNED INSIDE.
STRUCTURE SHALL BE PAINTED GOODYEAR BRONZE,
COLOR & PAINT SHALL BE SUBMITTED TO THE CITY
TRAFFIC ENGINEER FOR APPROVAL PRIOR TO ORDERING.
ALL HEADS SHALL BE MOUNTED ON 1/2" ALL-THREAD
USING GROUNDING LOCKNUTS.
ALL PANELS SHALL BE FASTENED WITH 1/4" (#14) x 1"
BLACK TEK SCREWS.

DETAIL NO. G-3296-13	CITY OF GOODYEAR STANDARD DETAIL	APPROVED:08/17	MODULAR POLE 'Q' - 50' MAST ARM	ASSEMBLY DRAWING ONLY SPECIFICATIONS AND DESIGN BY T.A. CAID INDUSTRIES, INC. TUCSON, AZ	DETAIL NO. G-3296-13
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SEE GOODYEAR STANDARD
DETAIL G-3296-17 FOR
MAST ARM CONNECTION

*PANELS & PANEL CUTOUTS
SHALL BE DETERMINED BY
INTERSECTION DESIGN

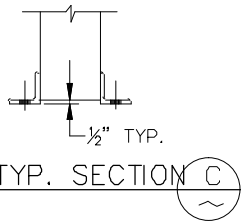
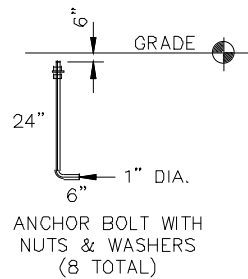
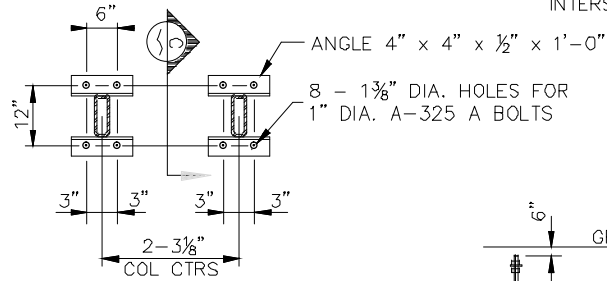
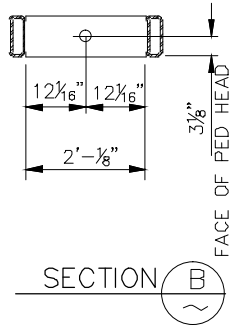
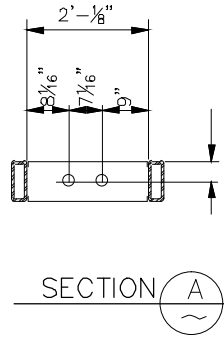
TERMINAL BLOCK
BEHIND PANEL

1" DIA PVC DRAIN TO
2 CU/FT POROUS FILL (TYP)

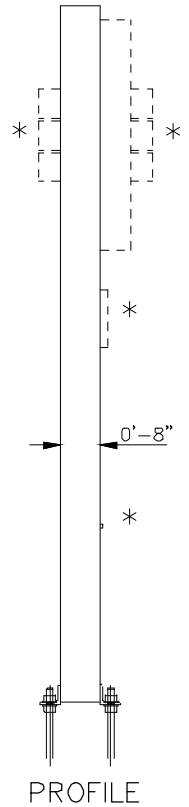
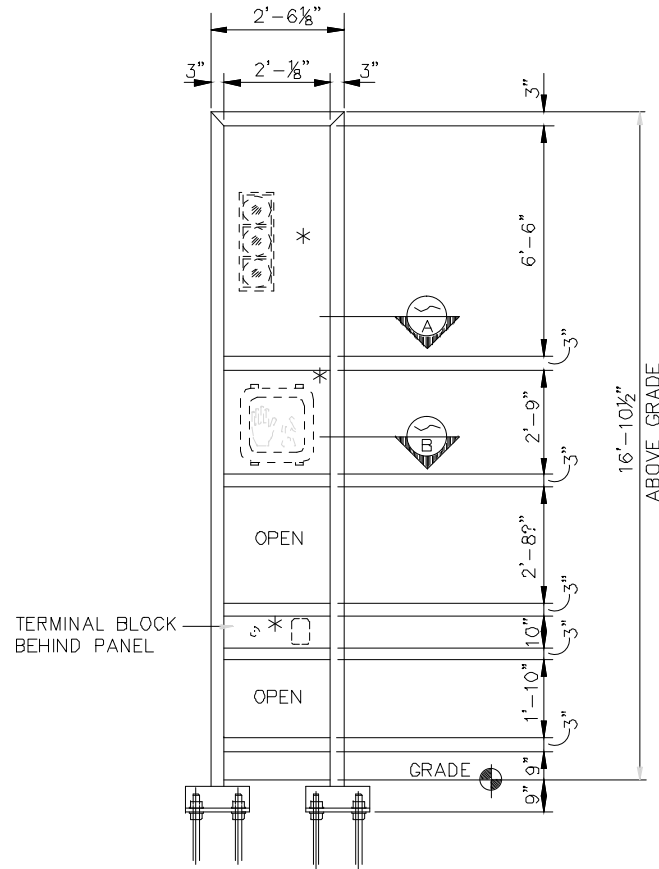
3" X 6" HANDHOLE

ALL TUBING WELDS SHALL BE TURNED INSIDE.
STRUCTURE SHALL BE PAINTED GOODYEAR BRONZE,
COLOR & PAINT SHALL BE SUBMITTED TO THE CITY
TRAFFIC ENGINEER FOR APPROVAL PRIOR TO ORDERING.
ALL HEADS SHALL BE MOUNTED ON 1/2" ALL-THREAD
USING GROUNDING LOCKNUTS.
ALL PANELS SHALL BE FASTENED WITH 1/4" (#14) x 1"
BLACK TEK SCREWS.

DETAIL NO. G-3296-14	CITY OF GOODYEAR STANDARD DETAIL	APPROVED:08/17	MODULAR POLE 'J' - 50' MAST ARM	ASSEMBLY DRAWING ONLY SPECIFICATIONS AND DESIGN BY T.A. CAID INDUSTRIES, INC. TUCSON, AZ	DETAIL NO. G-3296-14
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*PANELS & PANEL CUTOUTS SHALL BE DETERMINED BY INTERSECTION DESIGN

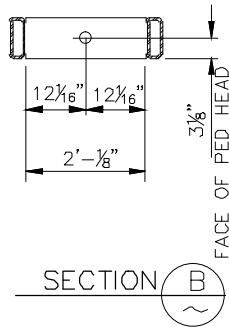
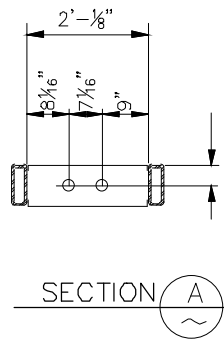


ALL TUBING WELDS SHALL BE TURNED INSIDE.

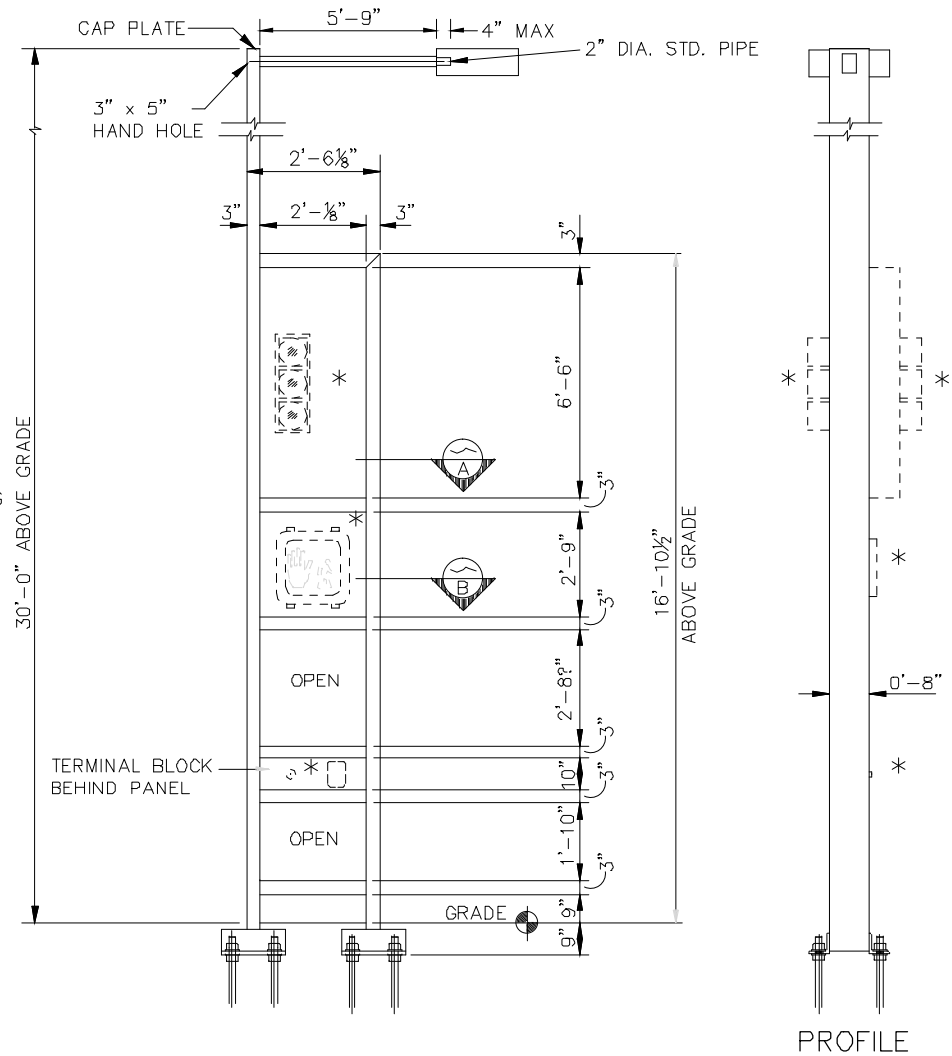
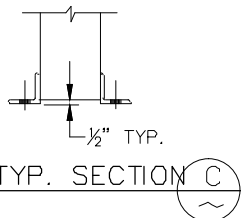
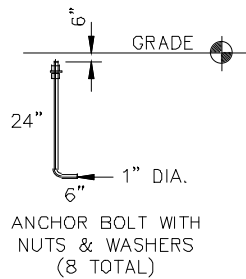
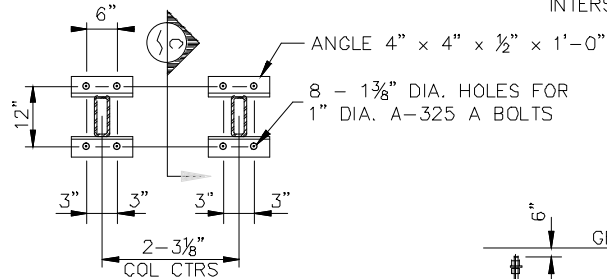
STRUCTURE SHALL BE PAINTED GOODYEAR BRONZE, COLOR & PAINT SHALL BE SUBMITTED TO THE CITY TRAFFIC ENGINEER FOR APPROVAL PRIOR TO ORDERING.

ALL HEADS SHALL BE MOUNTED ON 1/2\"/>

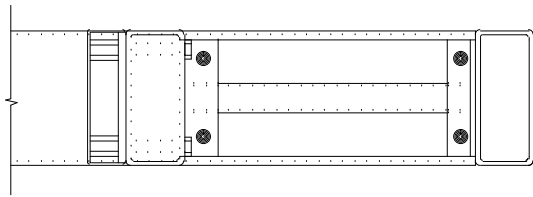
ALL PANELS SHALL BE FASTENED WITH 1/4\"/>



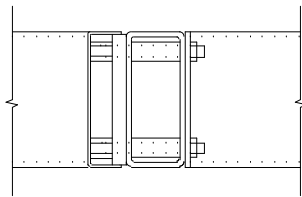
*PANELS & PANEL CUTOUTS SHALL BE DETERMINED BY INTERSECTION DESIGN



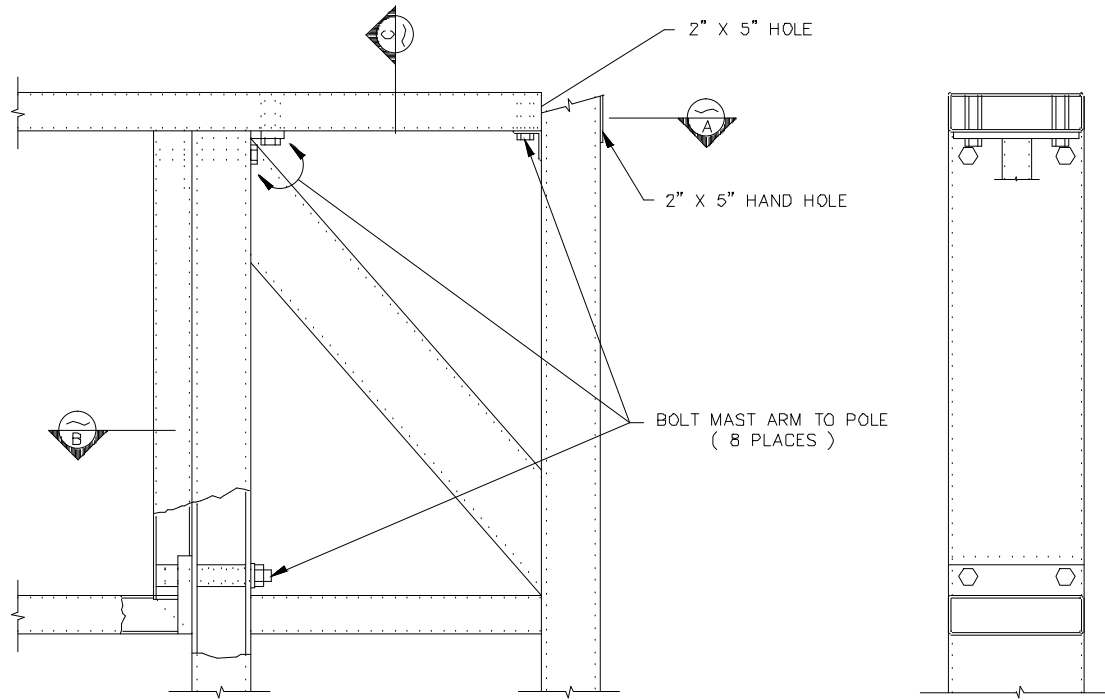
ALL TUBING WELDS SHALL BE TURNED INSIDE.
 STRUCTURE SHALL BE PAINTED GOODYEAR BRONZE, COLOR & PAINT SHALL BE SUBMITTED TO THE CITY TRAFFIC ENGINEER FOR APPROVAL PRIOR TO ORDERING.
 ALL HEADS SHALL BE MOUNTED ON 1/2\"/>



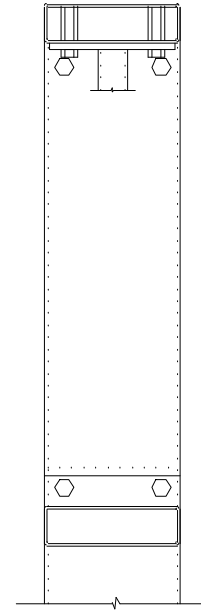
SECTION A



SECTION B



MAST ARM CONNECTION DETAIL



SECTION C

ALL TUBING WELDS SHALL BE TURNED INSIDE.
 STRUCTURE SHALL BE PAINTED GOODYEAR BRONZE, COLOR & PAINT SHALL BE SUBMITTED TO THE CITY TRAFFIC ENGINEER FOR APPROVAL PRIOR TO ORDERING.

DETAIL NO.
G-3296-17

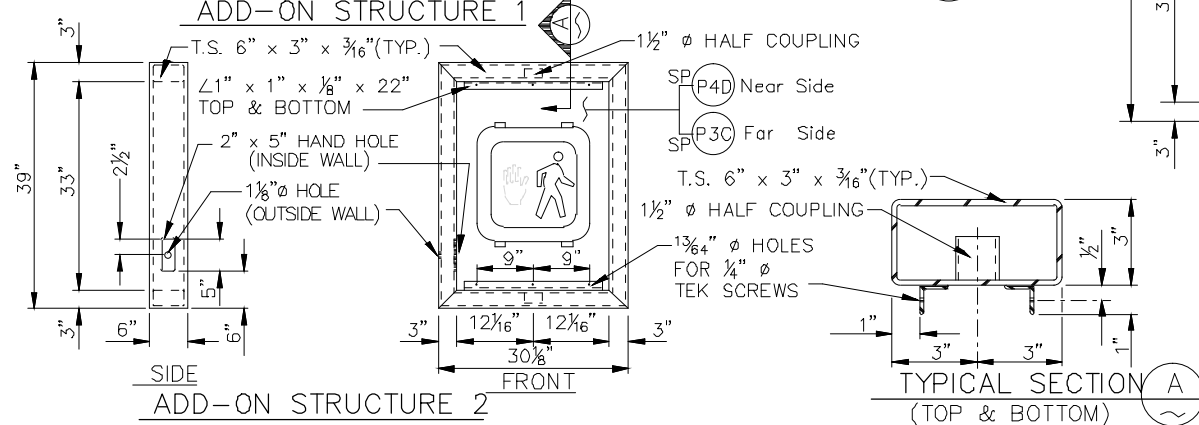
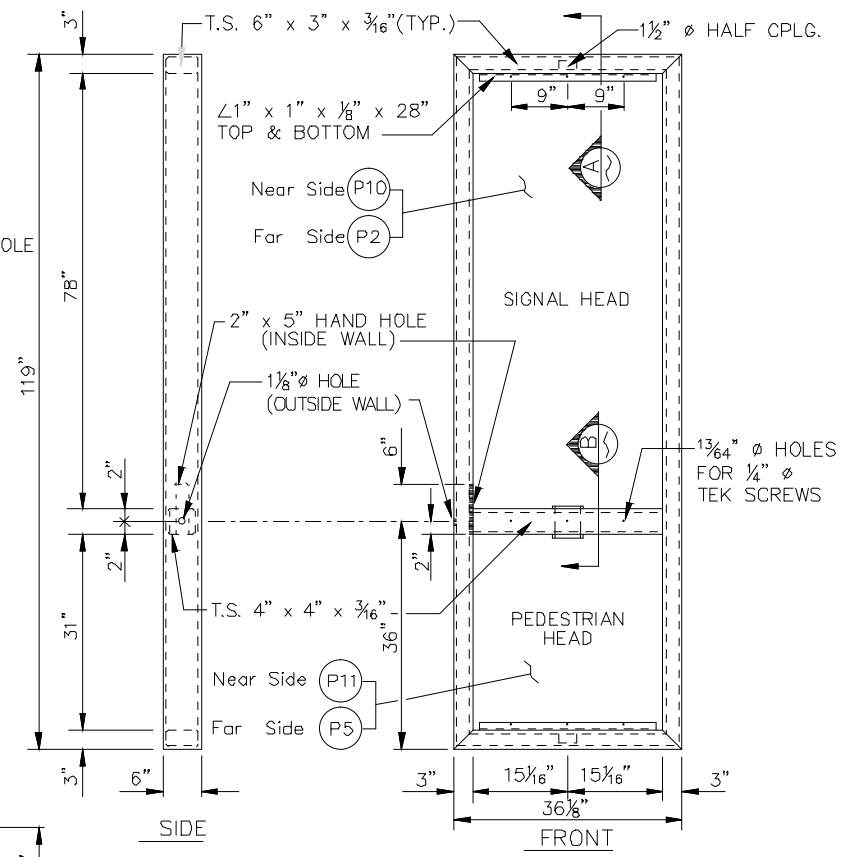
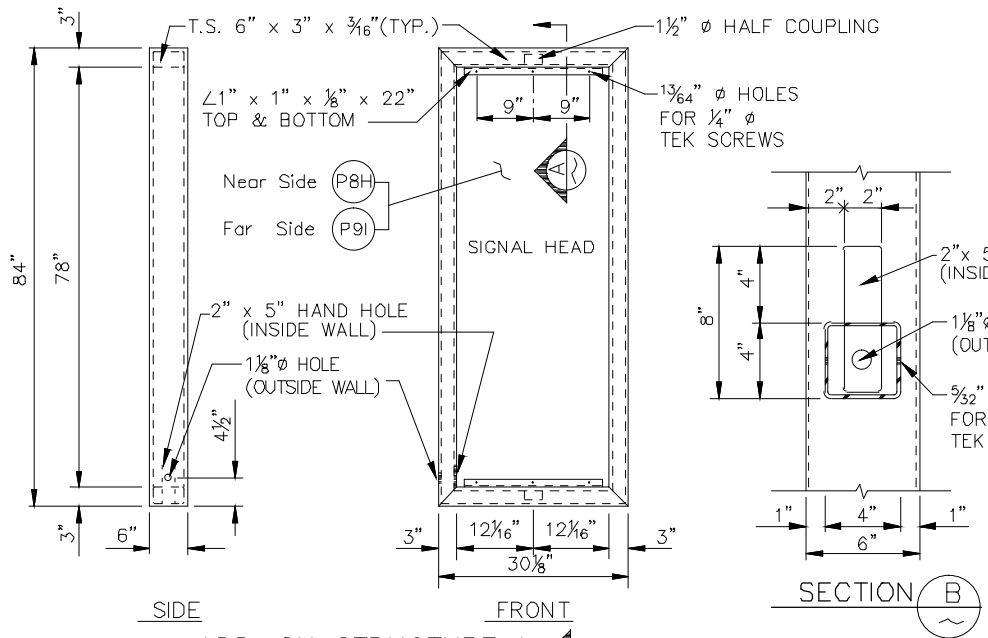
CITY OF GOODYEAR
STANDARD DETAIL

APPROVED:08/17

MODULAR POLE MAST ARM CONNECTION

ASSEMBLY DRAWING ONLY
SPECIFICATIONS AND DESIGN
BY T.A. CAID INDUSTRIES, INC.
TUCSON, AZ

DETAIL NO.
G-3296-17



ADD-ON STRUCTURE 3

ALL ADD-ON STRUCTURES SHALL BE ATTACHED TO THE MAIN STRUCTURE WITH A $\frac{3}{8}$ " CONTINUOUS WELDS ALONG THE ENTIRE HEIGHT OF THE ADD-ON STRUCTURE, FRONT AND BACK.

WELDING SHALL BE PERFORMED BY A CERTIFIED WELDER. NO WELDING SHALL BE PERFORMED UNTIL CERTIFICATION HAS BEEN APPROVED BY THE CITY ENGINEERING INSPECTOR.

WELDS SHALL BE GROUND SMOOTH AND PAINTED UPON COMPLETION.

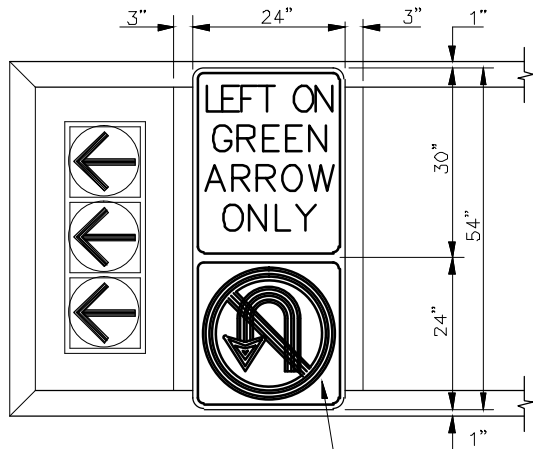
ALL ADD-ON STRUCTURE LOCATIONS SHALL BE APPROVED BY THE CITY ENGINEERING INSPECTOR PRIOR TO WELDING.

ALL TUBING WELDS SHALL BE TURNED INSIDE.

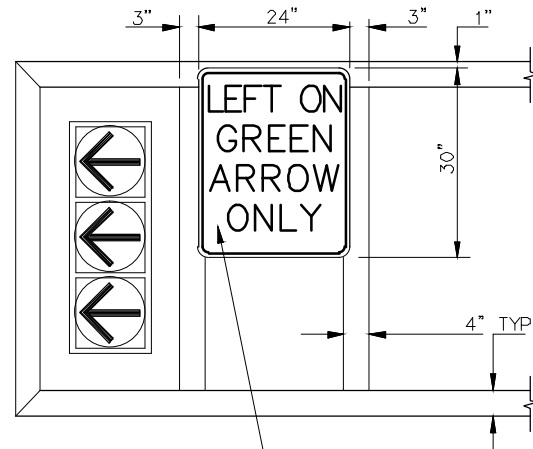
STRUCTURE SHALL BE PAINTED GOODYEAR BRONZE, COLOR & PAINT SHALL BE SUBMITTED TO THE CITY TRAFFIC ENGINEER FOR APPROVAL PRIOR TO ORDERING.

ALL HEADS SHALL BE MOUNTED ON $1\frac{1}{2}$ " ALL-THREAD USING GROUNDING LOCKNUTS.

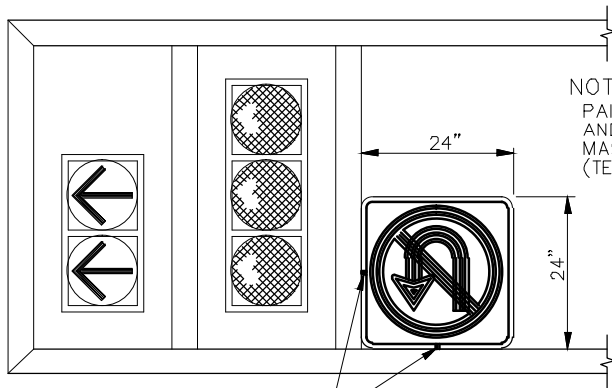
ALL PANELS SHALL BE FASTENED WITH $\frac{1}{4}$ " (#14) x 1" BLACK TEK SCREWS.



MOUNT DUAL SIGN ON SINGLE UNIT, CENTER OVER BLANK PANEL ON SIGNAL MAST ARM

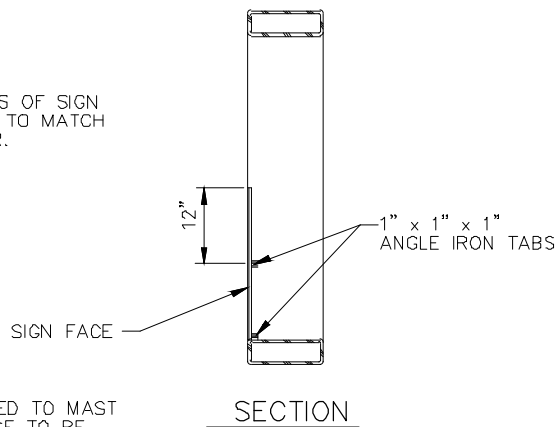


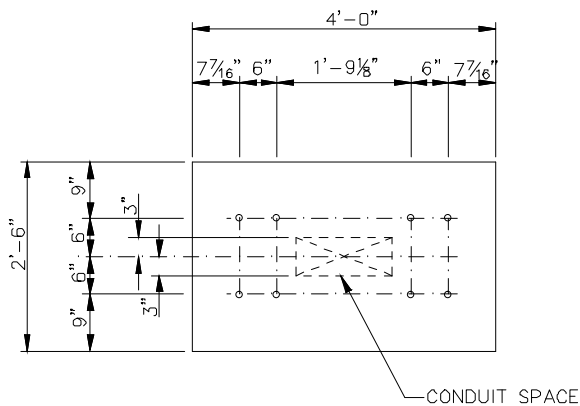
MOUNT SINGLE SIGN, CENTER OVER BLANK PANEL ON SIGNAL MAST ARM



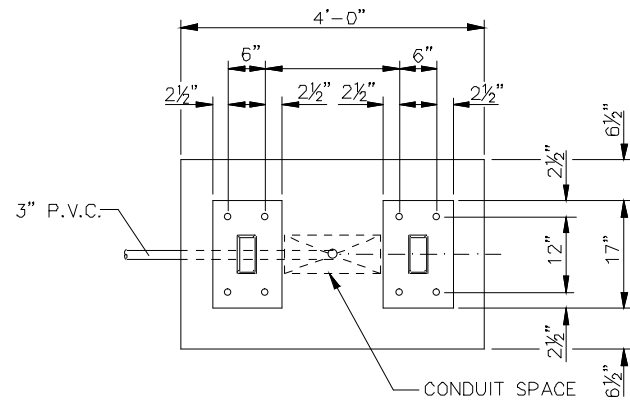
NOTE:
PAINT BACK SIDES OF SIGN
AND ANGLE IRON TO MATCH
MAST ARM COLOR.
(TEMPE BRONZE)

1" x 1" x 1" ANGLE IRON TABS WELDED TO MAST ARM FOR SIGN MOUNTING. (SIGN FACE TO BE FLUSH WITH APPROACH SIDE OF MAST ARM)





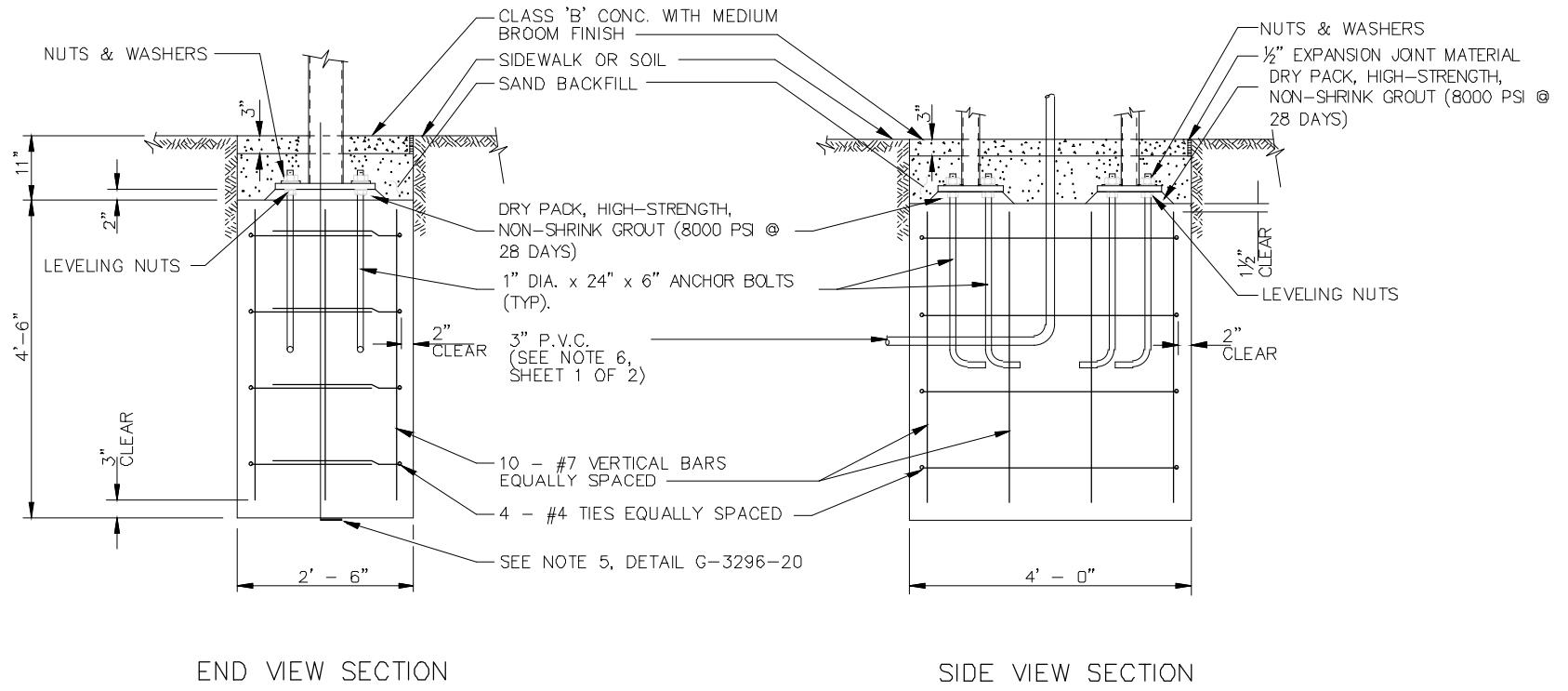
ANCHOR BOLT LAYOUT PLAN



BASE PLATE LAYOUT PLAN

GENERAL NOTES

1. CONCRETE 4000 P.S.I. @ 28 DAYS
2. REBAR GRADE 60
3. ANCHOR BOLTS A-36 FULLY GALVANIZED
4. EXISTING SOIL CONDITIONS TO BE DETERMINED PRIOR TO FINAL FOUNDATION DESIGN.
5. A 25' COIL OF NO. 4 STRANDED A.W.G. BARE COPPER CONDUCTOR SHALL BE INSTALLED BEFORE THE CONCRETE IS POURED.
6. ADDITIONAL 2" P.V.C. CONDUIT MAY BE REQUIRED FOR LOOPS, SEE SIGNAL PLAN.



DETAIL NO.
G-3296-21

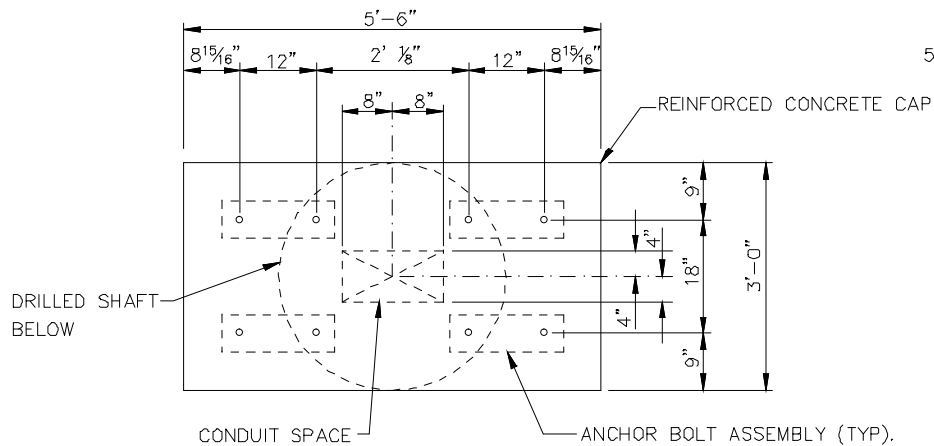
CITY OF GOODYEAR
STANDARD DETAIL

APPROVED:08/17

TRAFFIC SIGNAL FOUNDATION DETAIL TYPE 'A'
FOUNDATION (SHEET 2 OF 2)

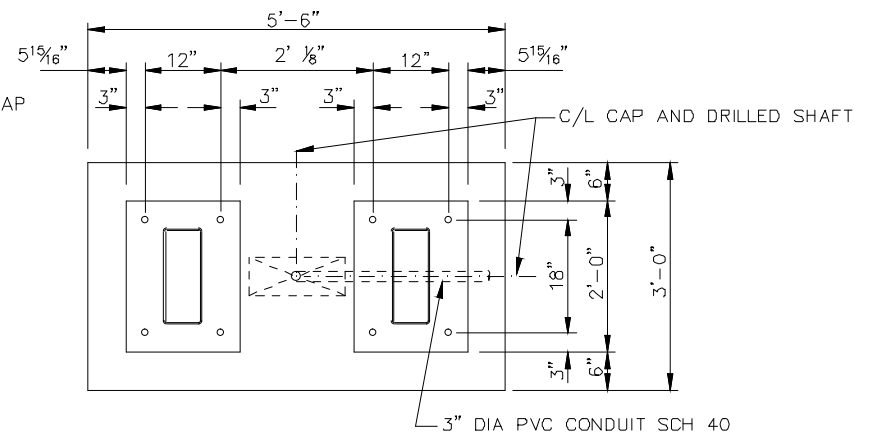
ASSEMBLY DRAWING ONLY
SPECIFICATIONS AND DESIGN
BY T.A. CAID INDUSTRIES, INC.
TUCSON, AZ

DETAIL NO.
G-3296-21



ANCHOR BOLT LAYOUT PLAN

N.T.S.

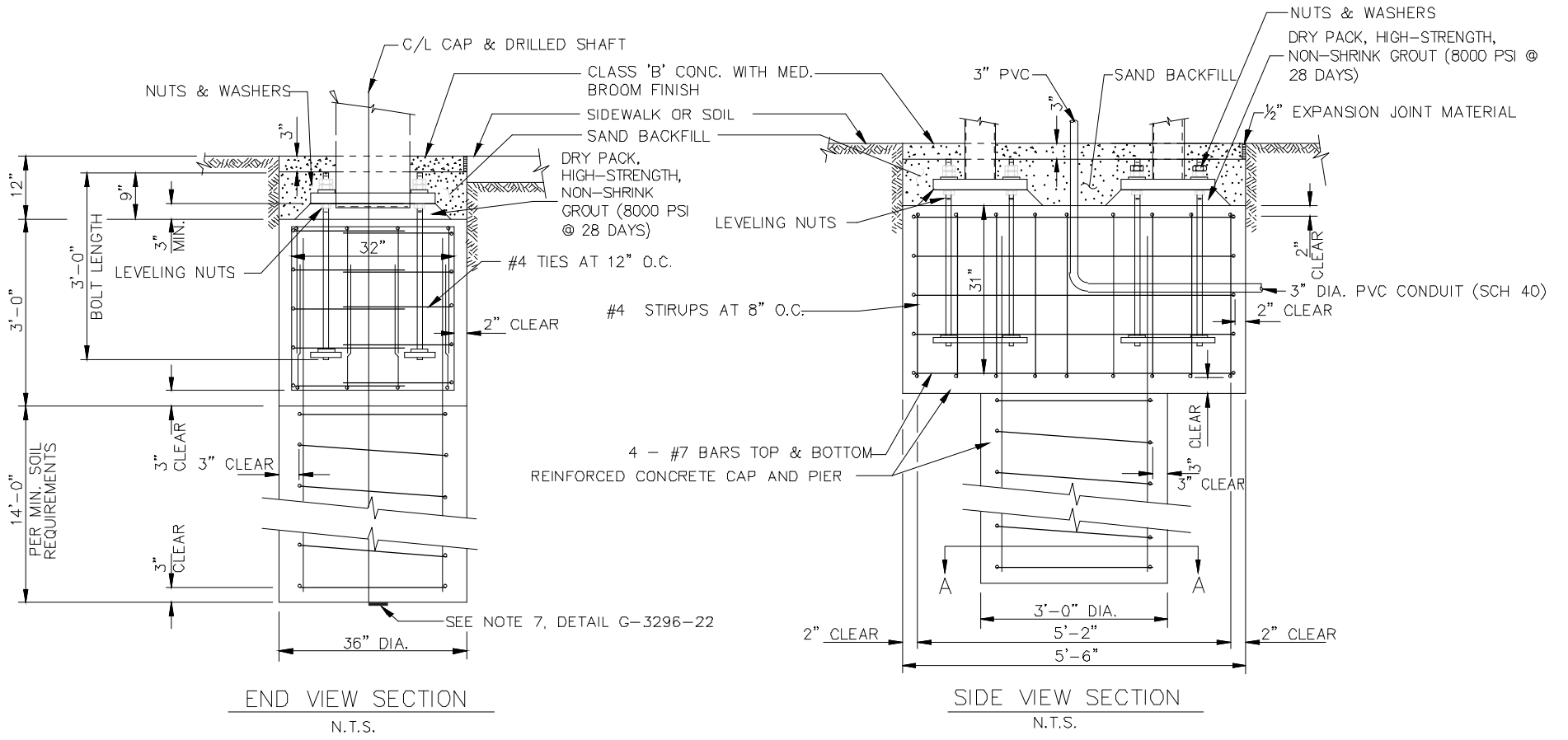


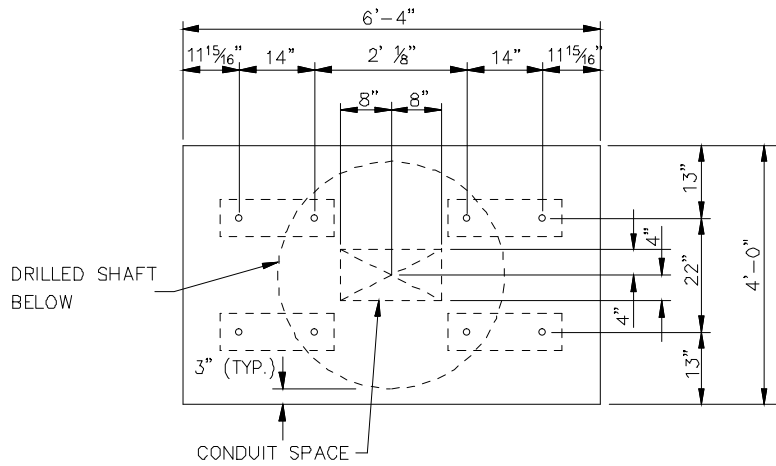
BASE PLATE LAYOUT PLAN

N.T.S.

GENERAL NOTES

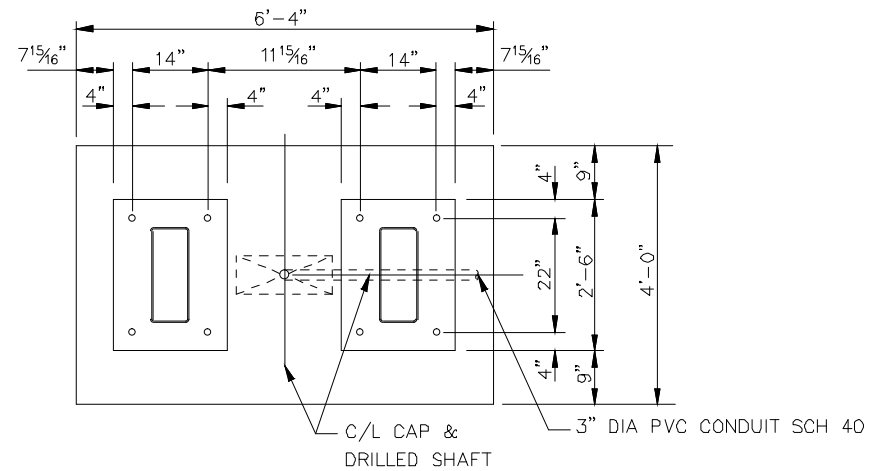
1. MINIMUM SOIL REQUIREMENTS:
THIS FOUNDATION DESIGN IS BASED ON SOILS ABLE TO DEVELOP THE FOLLOWING VALUES FOR CONCRETE FILLED DRILLED IN PLACE PIERS, SKIN FRICTION AT 500 LBS/SQ. FT., LATERAL BEARING PRESSURE = 200 LBS/ SQ. FT. PER FOOT OF DEPTH.
2. EXISTING SOIL CONDITIONS TO BE DETERMINED PRIOR TO FINAL FOUNDATION DESIGN.
3. CONCRETE 4000 P.S.I. @ 28 DAYS.
4. REBAR - ASTM 615 GRADE 60.
5. EMBEDDED PLATES - ASTM A-36.
6. ANCHOR BOLTS - A-36 FULLY GALVANIZED (ASTM 123)
7. A 25' COIL OF NO. 4 STRANDED A.W.G. BARE COPPER CONDUCTOR SHALL BE INSTALLED BEFORE THE CONCRETE IS POURED.





ANCHOR BOLT LAYOUT PLAN

N.T.S.

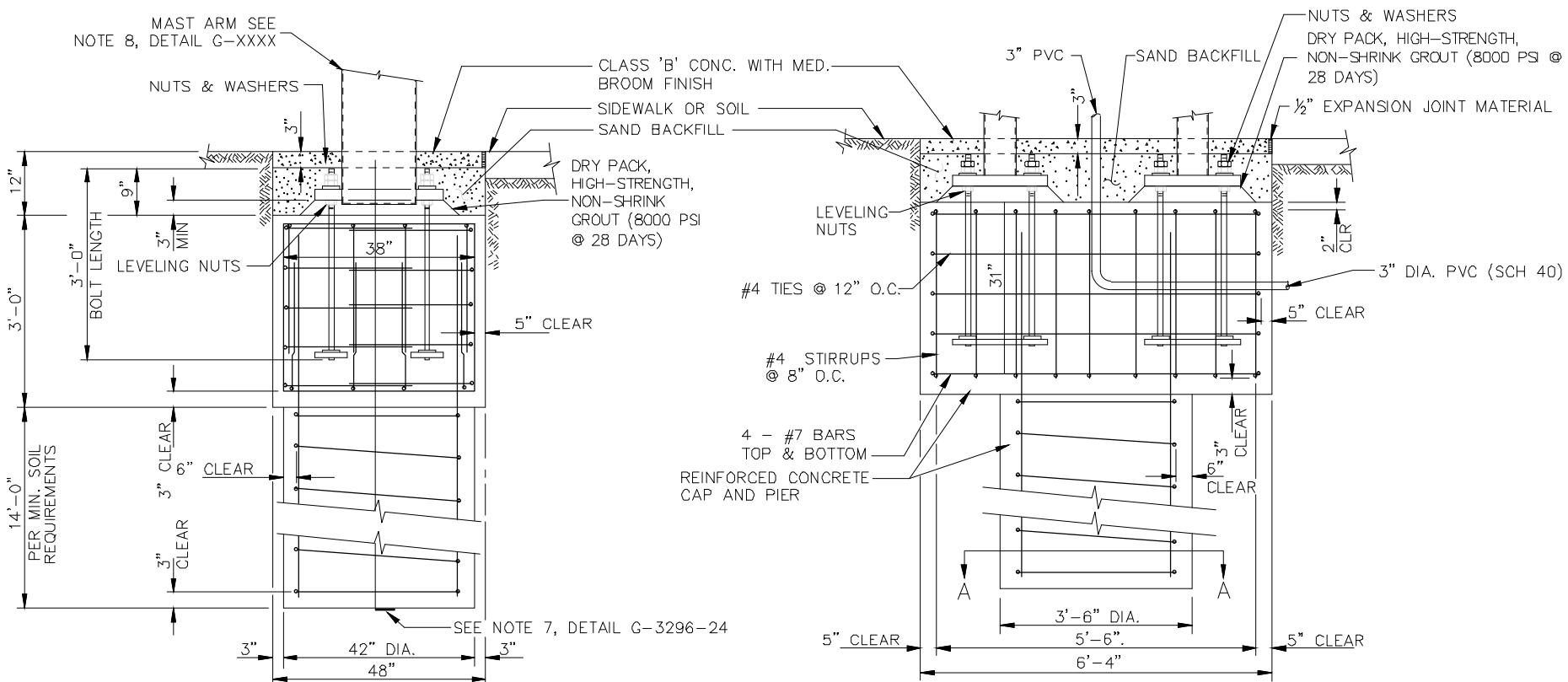


BASE PLATE LAYOUT PLAN

N.T.S.

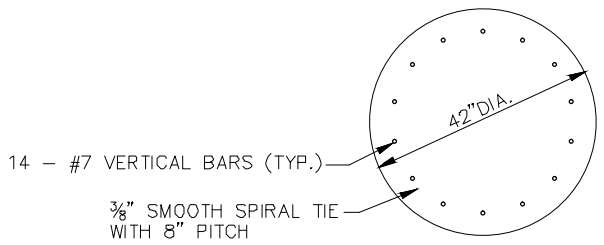
GENERAL NOTES

1. MINIMUM SOIL REQUIREMENTS:
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SKIN FRICTION AT 500 LBS/SQ. FT., LATERAL BEARING PRESSURE = 200 LBS/SQ. FT. PER FOOT OF DEPTH.
2. EXISTING SOIL CONDITIONS TO BE DETERMINED PRIOR TO FINAL FOUNDATION DESIGN.
3. CONCRETE 4000 P.S.I. AT 28 DAYS.
4. REBAR ASTM-A615 GRADE 60.
5. EMBEDDED PLATES ASTM A-36.
6. ANCHOR BOLTS - A-36 FULLY GALVANIZED (ASTM 123)
7. A 25' COIL OF NO. 4 STRANDED A.W.G. BARE COPPER CONDUCTOR SHALL BE INSTALLED BEFORE THE CONCRETE IS POURED.

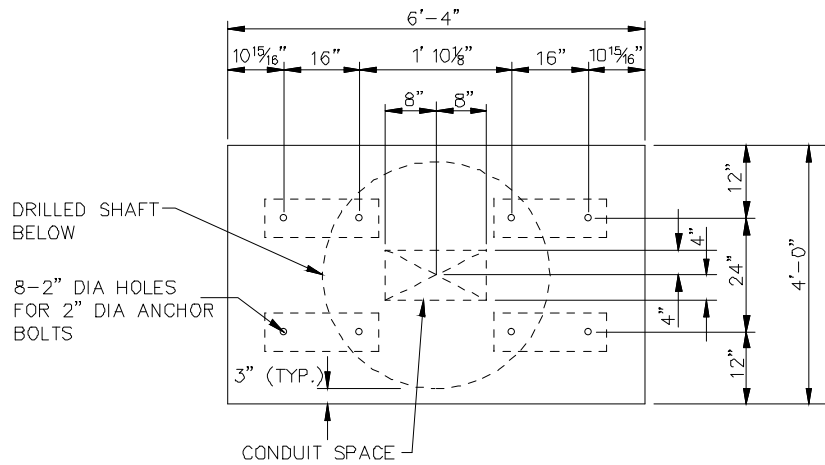


END VIEW SECTION
N.T.S.

SIDE VIEW SECTION
N.T.S.

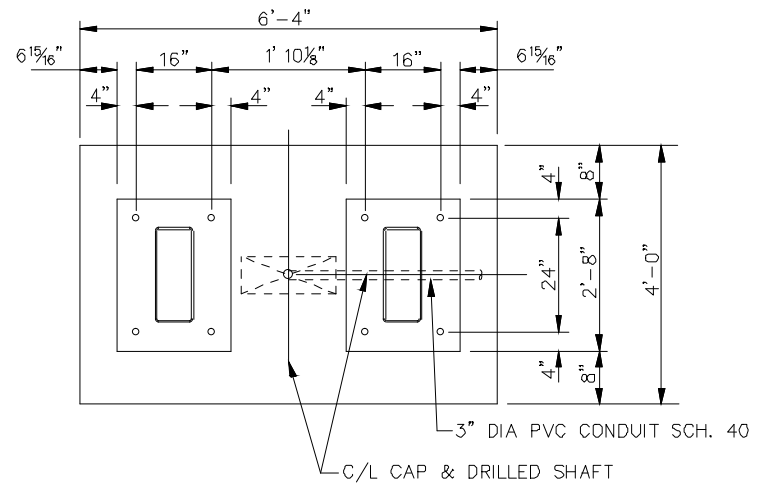


SECTION A - A
N.T.S.



ANCHOR BOLT LAYOUT PLAN

N.T.S.

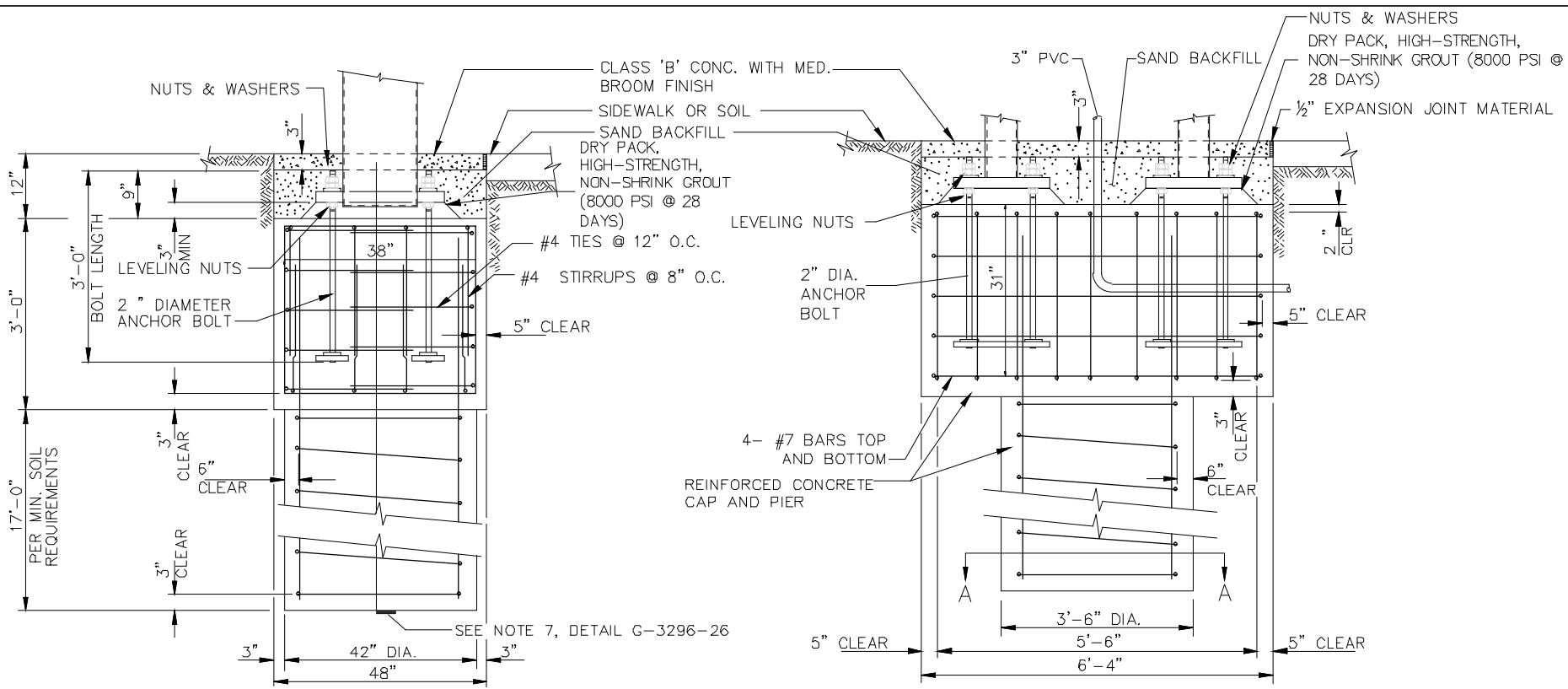


BASE PLATE LAYOUT PLAN

N.T.S.

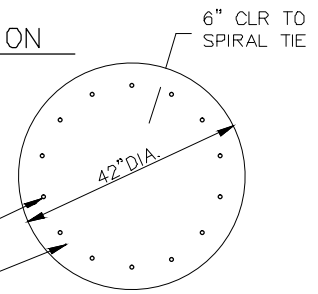
GENERAL NOTES

1. MINIMUM SOIL REQUIREMENTS:
THIS FOUNDATION DESIGN IS BASED ON SOILS ABLE TO DEVELOP THE FOLLOWING VALUES FOR CONCRETE FILLED DRILLED IN PLACE PIERS. SKIN FRICTION AT 500 LBS/SQ. FT., LATERAL BEARING PRESSURE = 200 LBS/SQ. FT. PER FOOT OF DEPTH.
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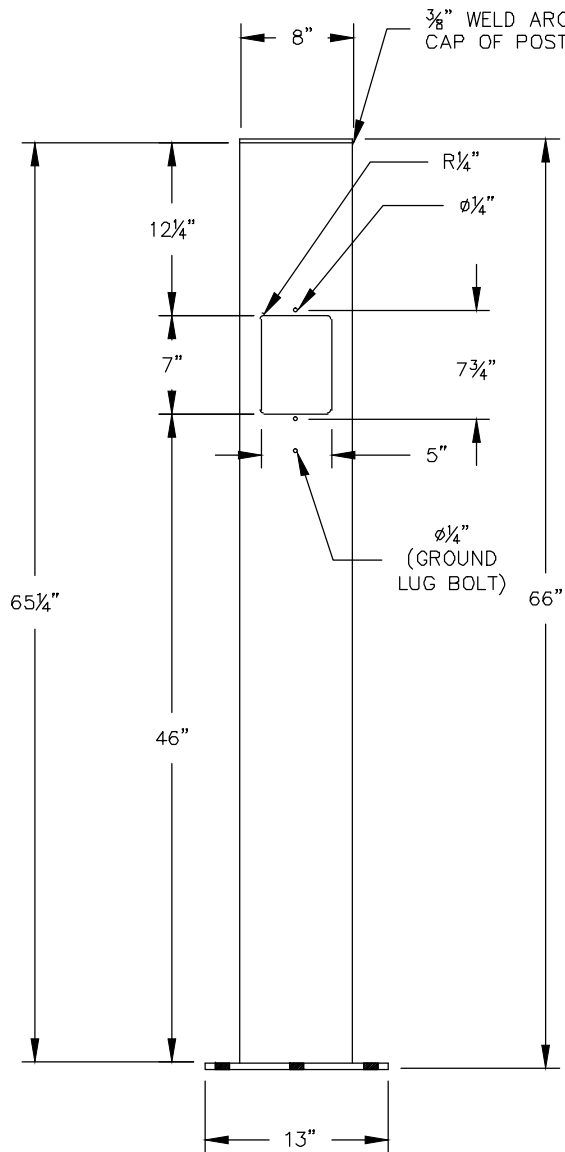


END VIEW SECTION

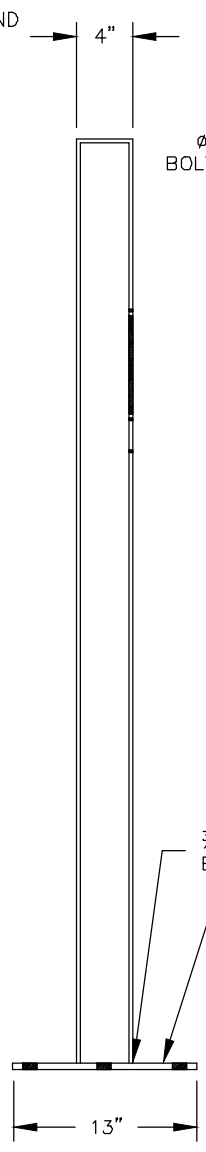
SIDE VIEW SECTION



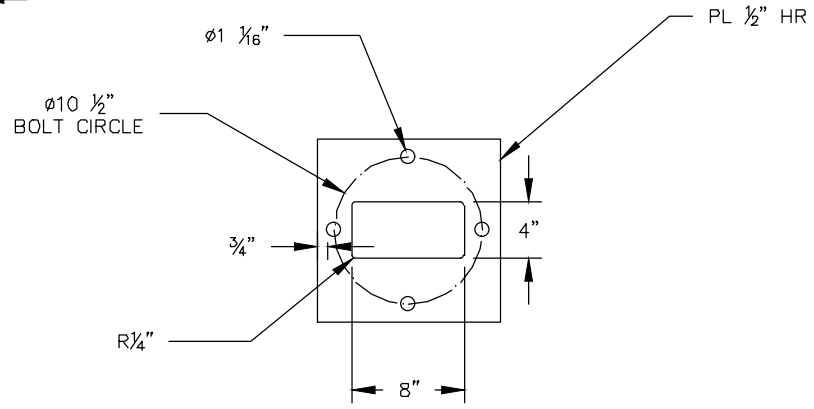
SECTION A - A



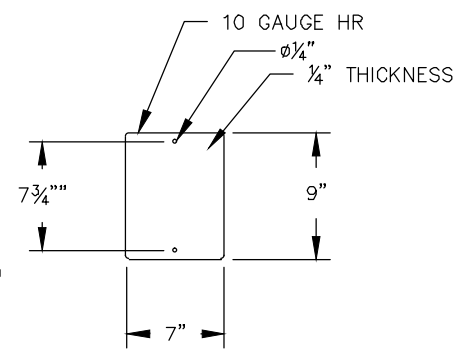
FRONT VIEW



SIDE VIEW



BASE PLATE DETAIL



HANDHOLE COVER DETAIL

ALL PEDESTRIAN POSTS SHALL USE A 2' DIAMETER x 3' DEEP CONCRETE FOUNDATION WITH $10\frac{1}{2}$ " BOLT CIRCLE AND $1\frac{1}{2}$ " PVC SCH. 40 CONDUIT.

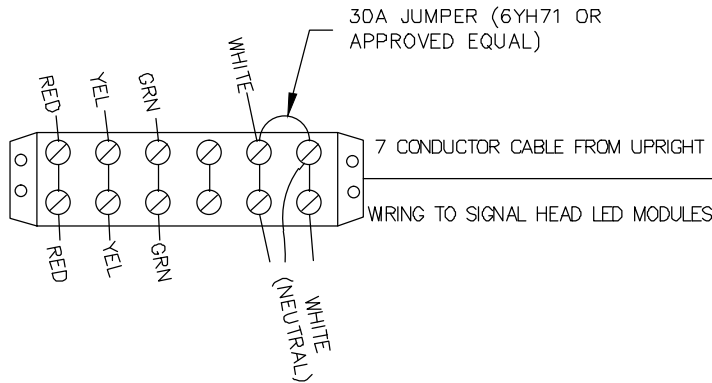
ALL TUBING WELDS SHALL BE TURNED INSIDE.

STRUCTURE SHALL BE PAINTED GOODYEAR BRONZE, COLOR & PAINT SHALL BE SUBMITTED TO THE CITY TRAFFIC ENGINEER FOR APPROVAL PRIOR TO ORDERING.

TRAFFIC SIGNAL WIRING SCHEDULE

Phase/Corner	UPRIGHT	A-POLE	A3-POLE	Add On/Leading	Ped Post
1	R/Bk, O/Bk, G/Bk	R/Bk, O/Bk, G/Bk	R/Bk, O/Bk, G/Bk	Bk/R, O/R, BI/R	
2	R, O, G	R, O, G	R, O, G	R/W, Bk/W, G/W	
3	R/Bk, O/Bk, G/Bk	R/Bk, O/Bk, G/Bk	R/Bk, O/Bk, G/Bk	Bk/R, O/R, BI/R	
4	R, O, G	R, O, G	R, O, G	R/W, Bk/W, G/W	
5	R/Bk, O/Bk, G/Bk	R/Bk, O/Bk, G/Bk	R/Bk, O/Bk, G/Bk	Bk/R, O/R, BI/R	
6	R, O, G	R, O, G	R, O, G	R/W, Bk/W, G/W	
7	R/Bk, O/Bk, G/Bk	R/Bk, O/Bk, G/Bk	R/Bk, O/Bk, G/Bk	Bk/R, O/R, BI/R	
8	R, O, G	R, O, G	R, O, G	R/W, Bk/W, G/W	
2 PED	Bk, BI	Bk, BI	Bk, BI	R/Gr, BI/Bk	
4 PED	Bk, BI	Bk, BI </td <td>Bk, BI</td> <td>R/Gr, BI/Bk</td> <td></td>	Bk, BI	R/Gr, BI/Bk	
6 PED	Bk, BI	Bk, BI	Bk, BI	R/Gr, BI/Bk	
8 PED	Bk, BI	Bk, BI	Bk, BI	R/Gr, BI/Bk	
PED BUTTON DC+	W/Bk	W/Bk	W/Bk		W/Rd
PED BUTTON COM	W	W	W		W
NORTHEAST	RED TAPE	Double Red Tape	3x Red Tape		4x Red Tape
SOUTHEAST	WHITE TAPE	Double White Tape	3x White Tape		4x White Tape
SOUTHWEST	BLUE TAPE	Double Blue Tape	3x Blue Tape		4x Blue Tape
NORTHWEST	GREEN TAPE	Double Green Tape	3x Green Tape		4x Green Tape

TERMINAL BLOCK DIAGRAM:
INSIDE SIGNAL HEADS

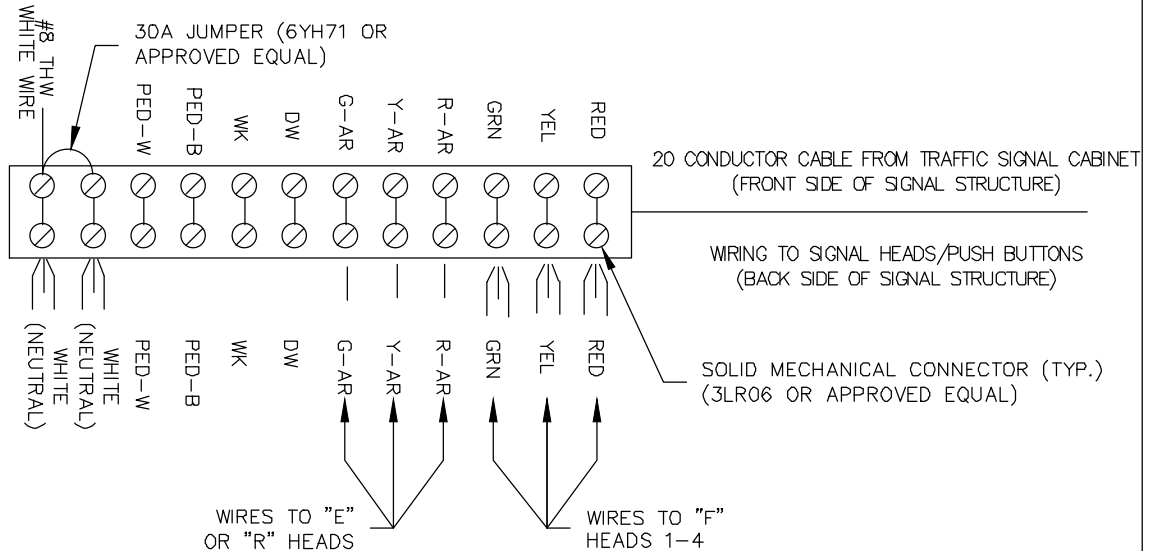


ALL TRAFFIC SIGNAL CABLE SHALL BE IMSA 19-1 SOLID CORE COPPER.

WIRING STANDARD:

- 20 CONDUCTOR (IMSA 19-1) UNSPLICED BETWEEN EACH STRUCTURE AND TRAFFIC SIGNAL CABINET
- 7 CONDUCTOR (IMSA 19-1) TO ALL VEHICLE SIGNAL HEADS
- 4 CONDUCTOR (IMSA 19-1) TO ALL PEDESTRIAN SIGNAL HEADS
- 4 CONDUCTOR (IMSA 19-1) TO ALL PEDESTRIAN PUSH BUTTONS

TERMINAL BLOCK DIAGRAM:
INSIDE SIGNAL STRUCTURE UPRIGHT



JACKRABBIT TRAIL
19500 W

PERRYVILLE RD
18700 W

CITRUS RD
17900 W

COTTON LN
17100 W

SARIVAL AVE
16300 W

REEMS RD
15500 W

BULLARD AVE
14700 W

LITCHFIELD RD
13900 W

DYSART RD
13100 W

CAMELBACK RD
5000 N

INDIAN SCHOOL RD
4100 N

THOMAS RD
2900 N

MCDOWELL RD
1600 N

VAN BUREN ST
300 N

YUMA RD
1200 S

LOWER BUCKEYE RD
2800 S

BROADWAY RD
4400 S



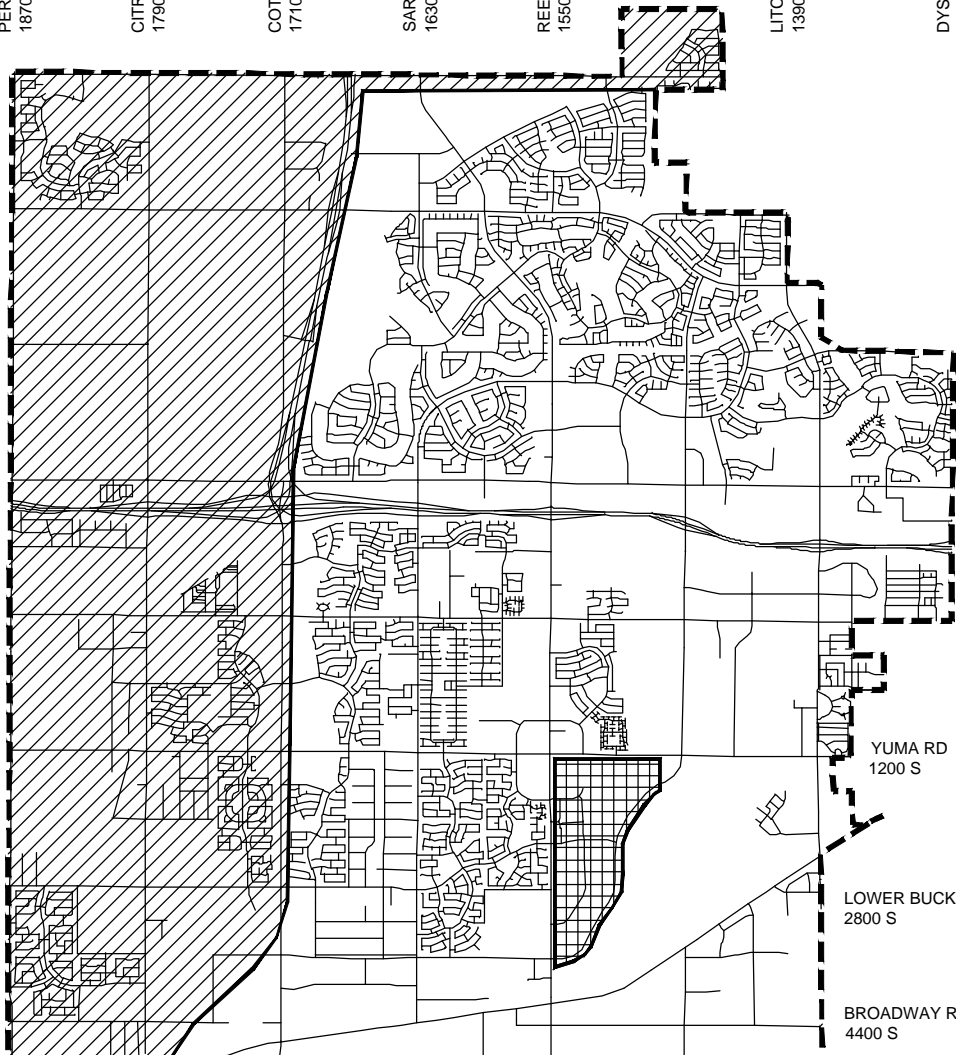
LEGEND

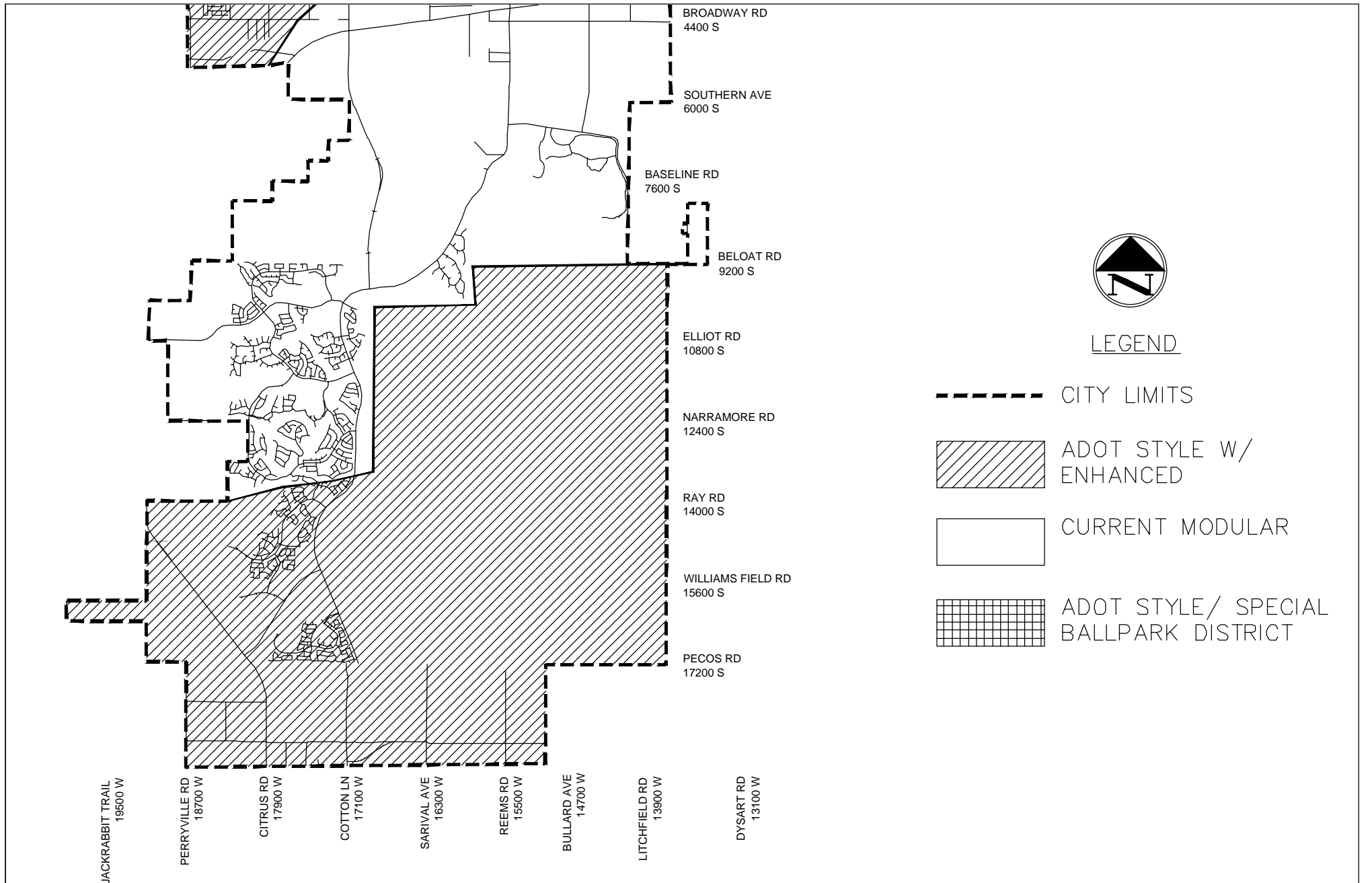
--- CITY LIMITS

 ADOT STYLE W/
ENHANCED




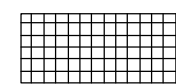
 CURRENT MODULAR

 ADOT STYLE/ SPECIAL
BALLPARK DISTRICT





LEGEND

-  CITY LIMITS
-  ADOT STYLE W/
ENHANCED
-  CURRENT MODULAR
-  ADOT STYLE/ SPECIAL
BALLPARK DISTRICT