

*STANDARD
DRAWINGS*



LAVERKIN CITY STANDARD DRAWINGS

TABLE OF CONTENTS

SECTION I

Standard Drawing	Drawing	Page
Typical 50' Right of Way Sections	I-A	1/3
Typical 60' Right of Way Sections	I-A	2/3
Typical 100' Right of Way Sections	I-A	3/3
Typical Curb & Gutter Detail HB30-7	I-B	1/2
Typical Curb & Gutter Detail RU30	I-B	2/2
Typical Sidewalk Detail	I-C	1/2
Typical Sidewalk Detail	I-C	2/2
Typical Expansion Joint and Weakened Plane Joint Detail	I-D	1/1
Typical Sign Details	I-E	1/1
Typical Valley Gutter Details	I-F	1/1
Typical Catch Basin Details	I-G	1/4
Typical Catch Basin Details	I-G	2/4
Typical Catch Basin Details	I-G	3/4
Typical Catch Basin Details	I-G	4/4
General Pedestrian Access	I-H	1/1
Typical Parking Lot Details	I-I	1/5
Typical Parking Lot Details	I-I	2/5
Typical Parking Lot Details	I-I	3/5
Typical Parking Lot Details	I-I	4/5
Typical Parking Lot Details	I-I	5/5

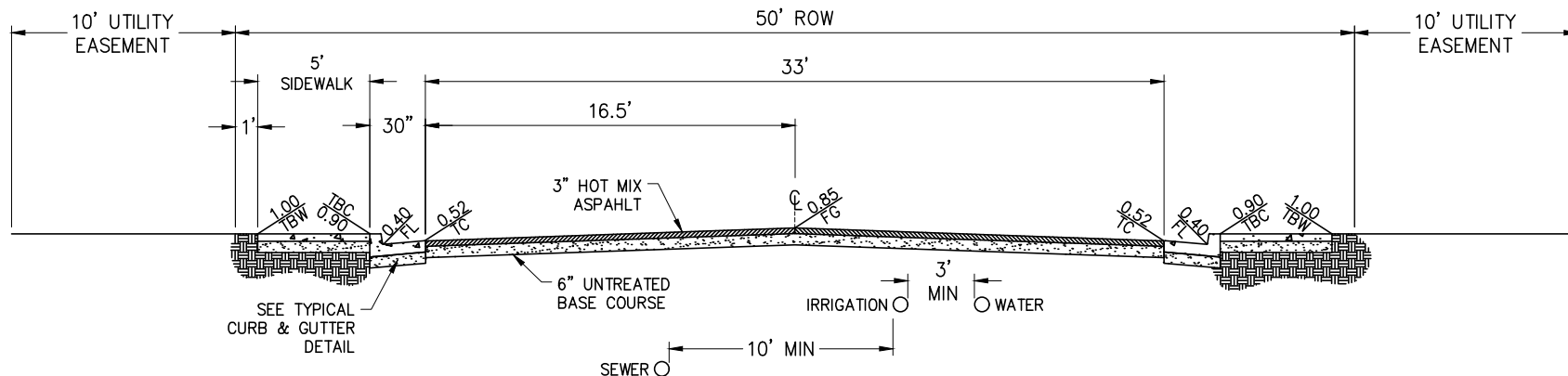
SECTION II

Standard Drawing	Drawing	Page
Typical Trench Detail	II-A	1/1
Typical Irrigation – Waterline Separation Detail	II-B	1/2
Typical Irrigation – Waterline Separation Detail	II-B	2/2
Typical Water and Storm Drain Crossing	II-C	1/1
Typical Thrust Restraint Details	II-D	1/2
Typical Thrust Restraint Details	II-D	2/2
Typical Main Line Valve and Pad Installation	II-E	1/1
Typical Fire Hydrant Installation Detail	II-F	1/1
Water Service Connection & Meter	II-G	1/2
Service Connection & Meter	II-G	2/2

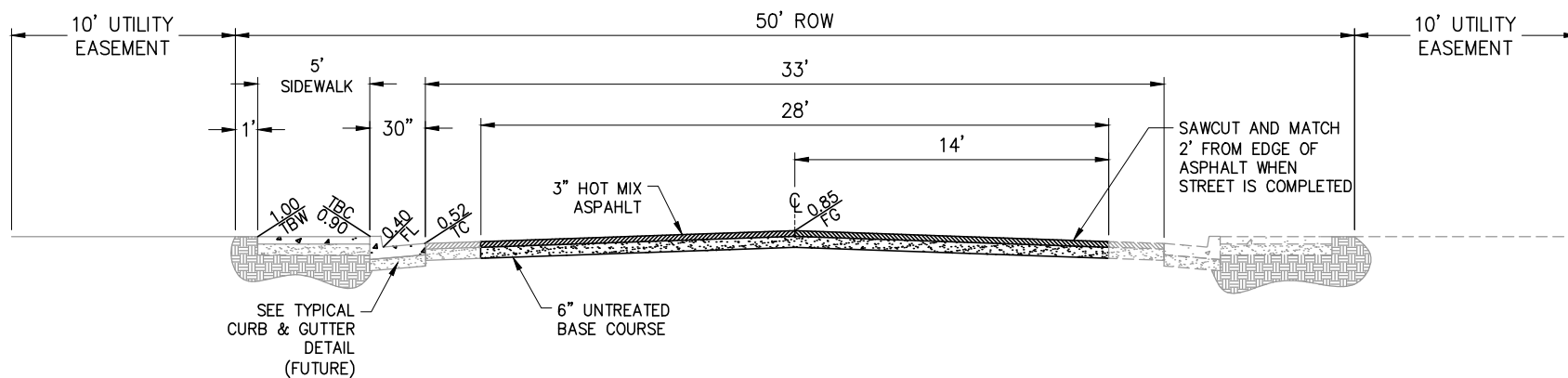
irrigation Service Connection & Meter	II-H	1/1
Construction Entrance Detail	II-I	1/1
Standard Pressure Reducing Valve	II-J	1/1
Cul-de-sac Hydrant & Service Connection Placement	II-K	1/1
Standard Swing Connection	II-L	1/1

SECTION III

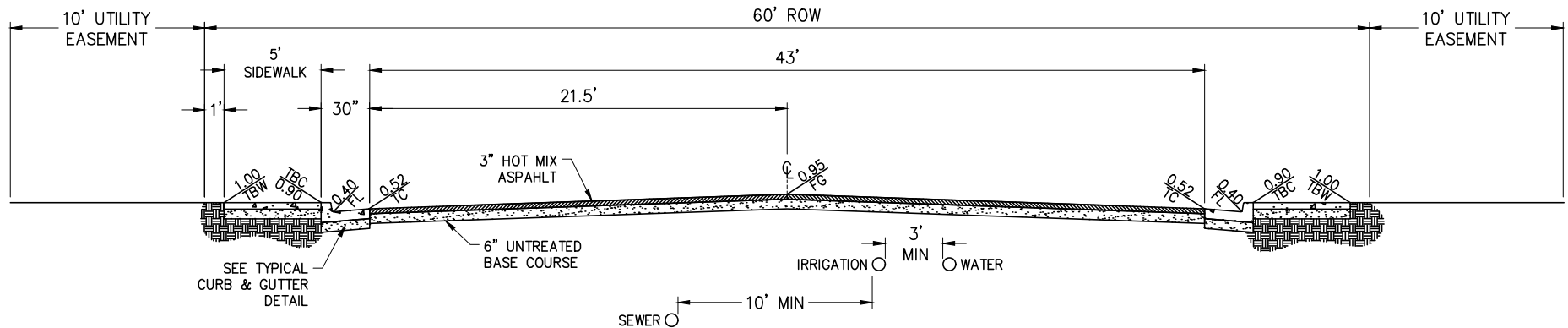
Standard Drawing	Drawing	Page
Typical Lot Grading Detail	III-A	1/1
Typical Line Utility Location and Joint Utilities Trench Detail	III-B	1/1
Typical Class I & II Standard Monument Details	III-C	1/1
Typical Light Pole Details	III-D	1/5
Typical Light Pole Details	III-D	2/5
Typical Light Pole Details	III-D	3/5
Alt. Light Pole Details	III-D	4/5
Alt. Light Pole Details	III-D	5/5
Alt. Light Pole Details	III-E	1A/5
Alt. Light Pole Details	III-E	2A/5
Alt. Light Pole Details	III-E	3A/5
Alt. Light Pole Details	III-E	4A/5
Alt. Light Pole Arm & Fixture Details	III-E	5A/5



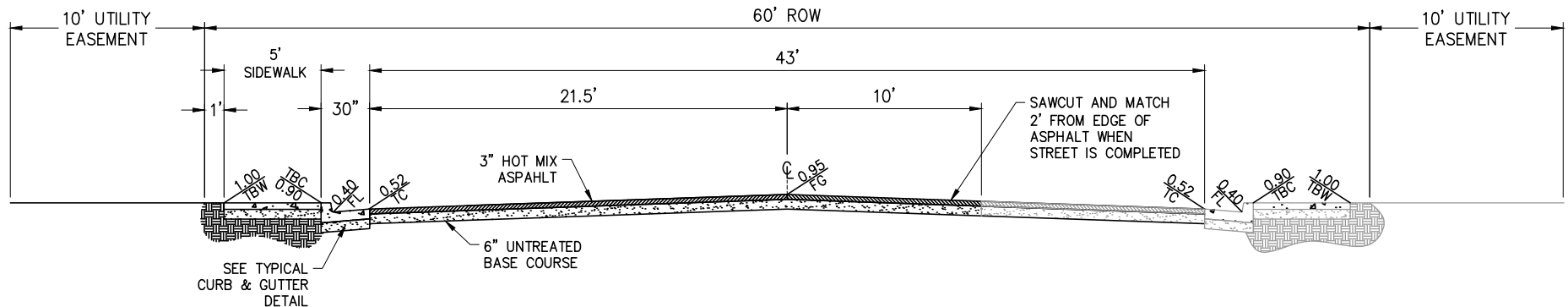
50' RIGHT OF WAY



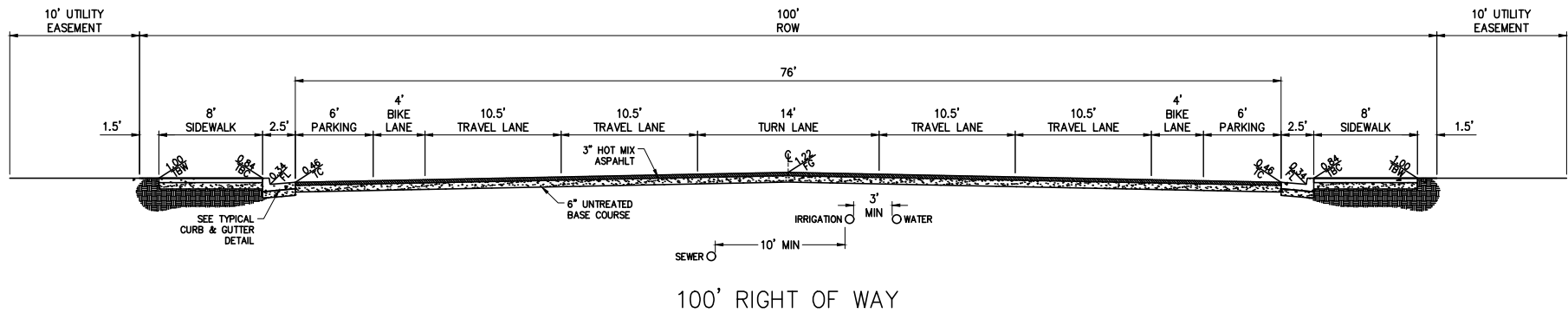
50' RIGHT OF WAY 28' PAVEMENT



60' RIGHT OF WAY



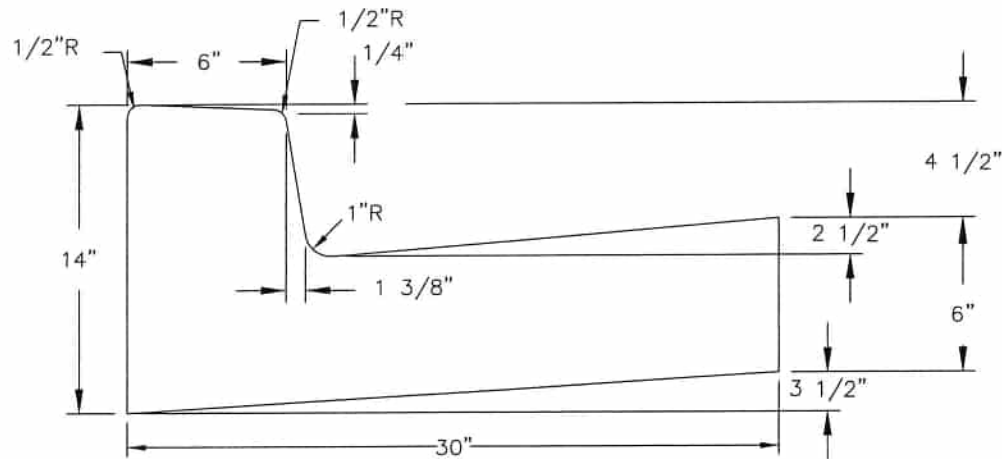
60' RIGHT OF WAY 1/2 WIDTH + 10'



CITY OF LA VERKIN – STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

TYPICAL 100' RIGHT OF WAY SECTIONS

I-A
3/3



HB30-7

NOTES:

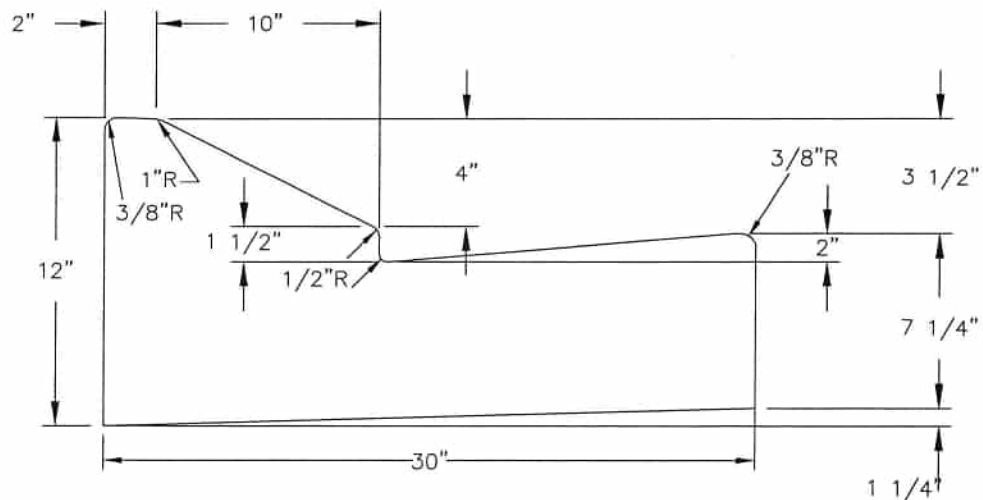
1. UNTREATED BASE COURSE ($3/4"$ MINUS) SHALL BE PLACED UNDER CURB WITH A THICKNESS OF NOT LESS THAN 6" AND COMPACTED TO 95% MINIMUM DENSITY.
2. FINAL ASPHALT PAVEMENT SURFACE TO BE $1/2"$ MAX. ABOVE LIP OF GUTTER.
3. WEAKENED PLANE JOINTS TO BE PLACED AT 10' MAX. INTERVALS.
4. EXPANSION JOINTS TO BE PLACED AT 30' MAX. INTERVALS.

CITY OF LA VERKIN – STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

TYPICAL CURB & GUTTER DETAIL HB30-7

I-B

1/2



RU30

NOTES:

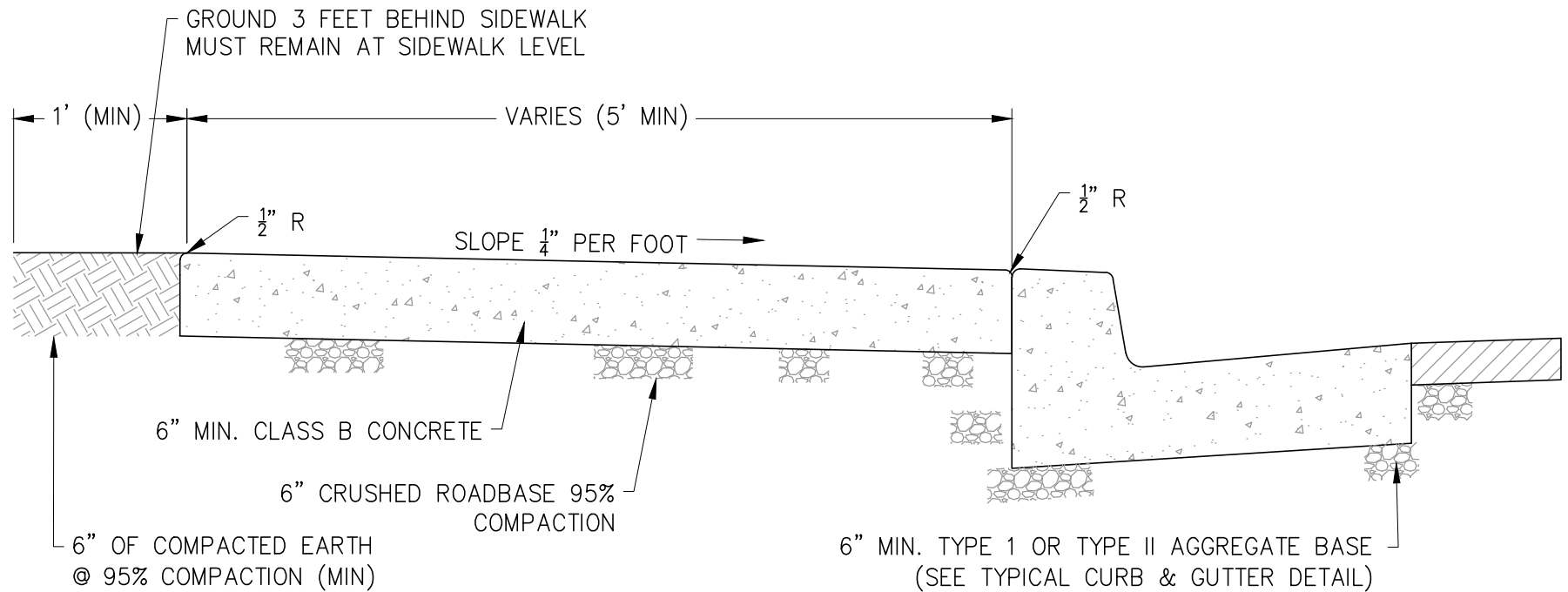
1. UNTREATED BASE COURSE (3/4" MINUS) SHALL BE PLACED UNDER CURB WITH A THICKNESS OF NOT LESS THAN 6" AND COMPACTED TO 95% MINIMUM DENSITY.
2. FINAL ASPHALT PAVEMENT SURFACE TO BE 1/2" MAX. ABOVE LIP OF GUTTER.
3. WEAKENED PLANE JOINTS TO BE PLACED AT 10' MAX. INTERVALS.
4. EXPANSION JOINTS TO BE PLACED AT 30' MAX. INTERVALS.

CITY OF LA VERKIN – STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

TYPICAL CURB & GUTTER DETAIL RU30

1-B

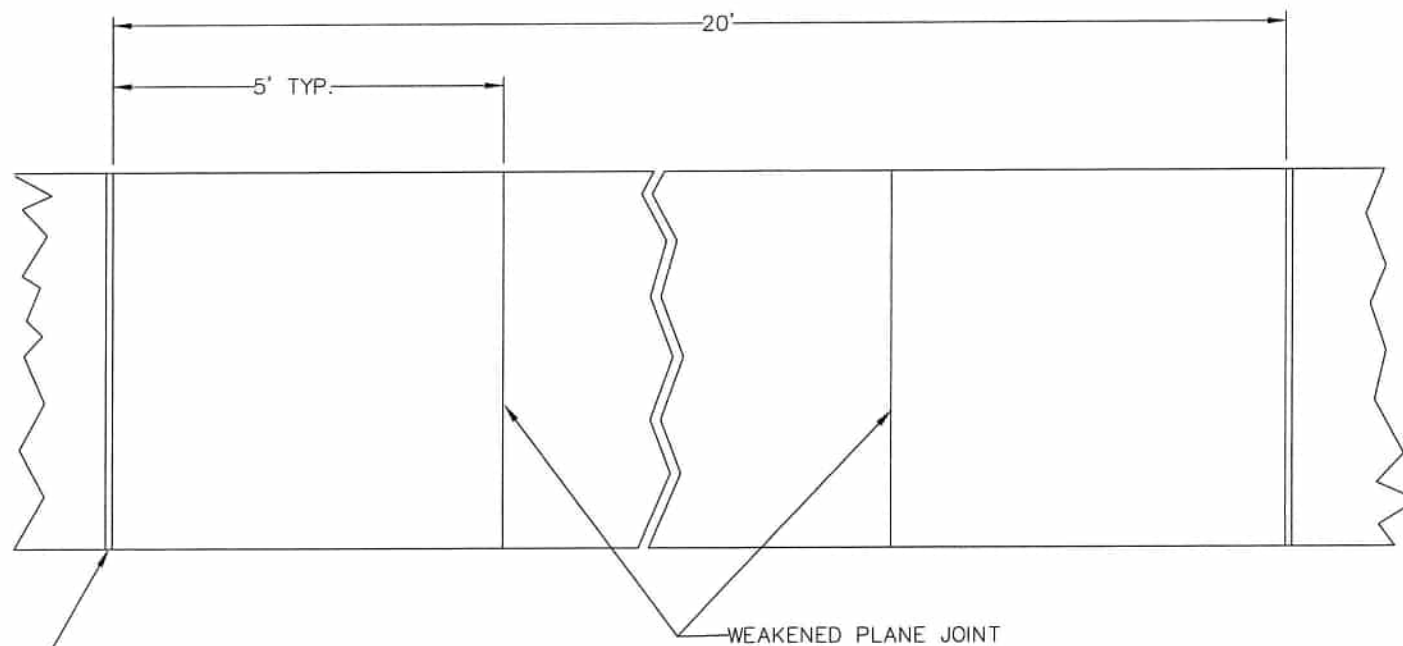
2/2



SECTION VIEW

NOTES:

1. ON CURB RETURNS A 1/2" EXPANSION JOINT SHALL BE CONSTRUCTED BETWEEN THE BACK OF CURB AND THE SIDEWALK FOR THE ENTIRE LENGTH OF THE RETURN
2. SEE CURB & SIDEWALK JOINT DETAILS.
3. LONGITUDINAL WEAKENED PLANE JOINT REQUIRED AT MIDPOINT OF SIDEWALK 10' OR WIDER.



1/2" EXPANSION JOINT AT 20' INTERVALS, AT COLD JOINTS AND AT BEGINNING AND END OF RETURN. EXPANSION JOINTS TO MATCH LOCATION OF CURB AND GUTTER EXPANSION JOINT.

PLAN VIEW

NOTES:

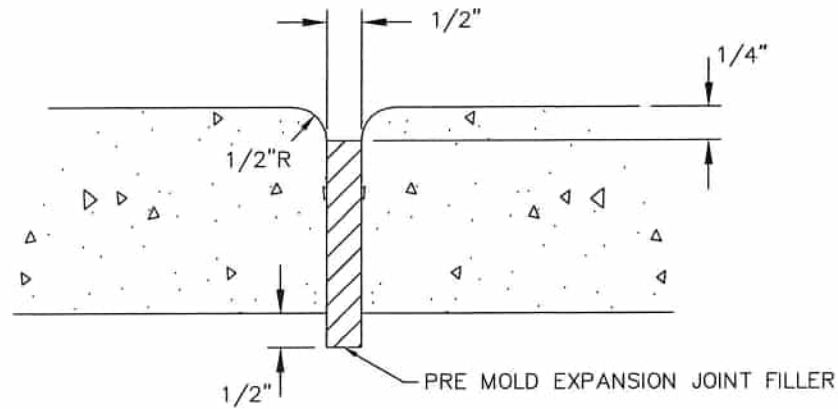
1. ON CURB RETURNS A 1/2" EXPANSION JOINT SHALL BE CONSTRUCTED BETWEEN THE BACK OF CURB AND THE SIDEWALK FOR THE ENTIRE LENGTH OF THE RETURN.
2. SEE CURB & SIDEWALK JOINT DETAILS.
3. LONGITUDINAL WEAKENED PLANE JOINT REQUIRED AT MIDPOINT OF SIDEWALK 10' OR WIDER.
4. FELT EXPANSION REQUIRED ON EACH END OF SIDEWALK REPLACEMENT.

CITY OF LA VERKIN – STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

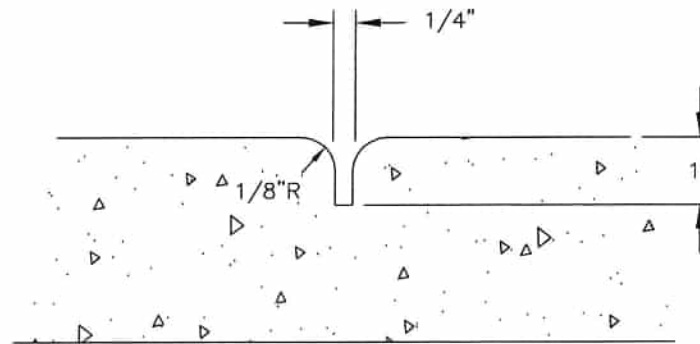
TYPICAL SIDEWALK DETAIL

I-C

2/2



CURB & SIDEWALK EXPANSION JOINT DETAIL



CURB & SIDEWALK WEAKENED PLANE JOINT DETAIL

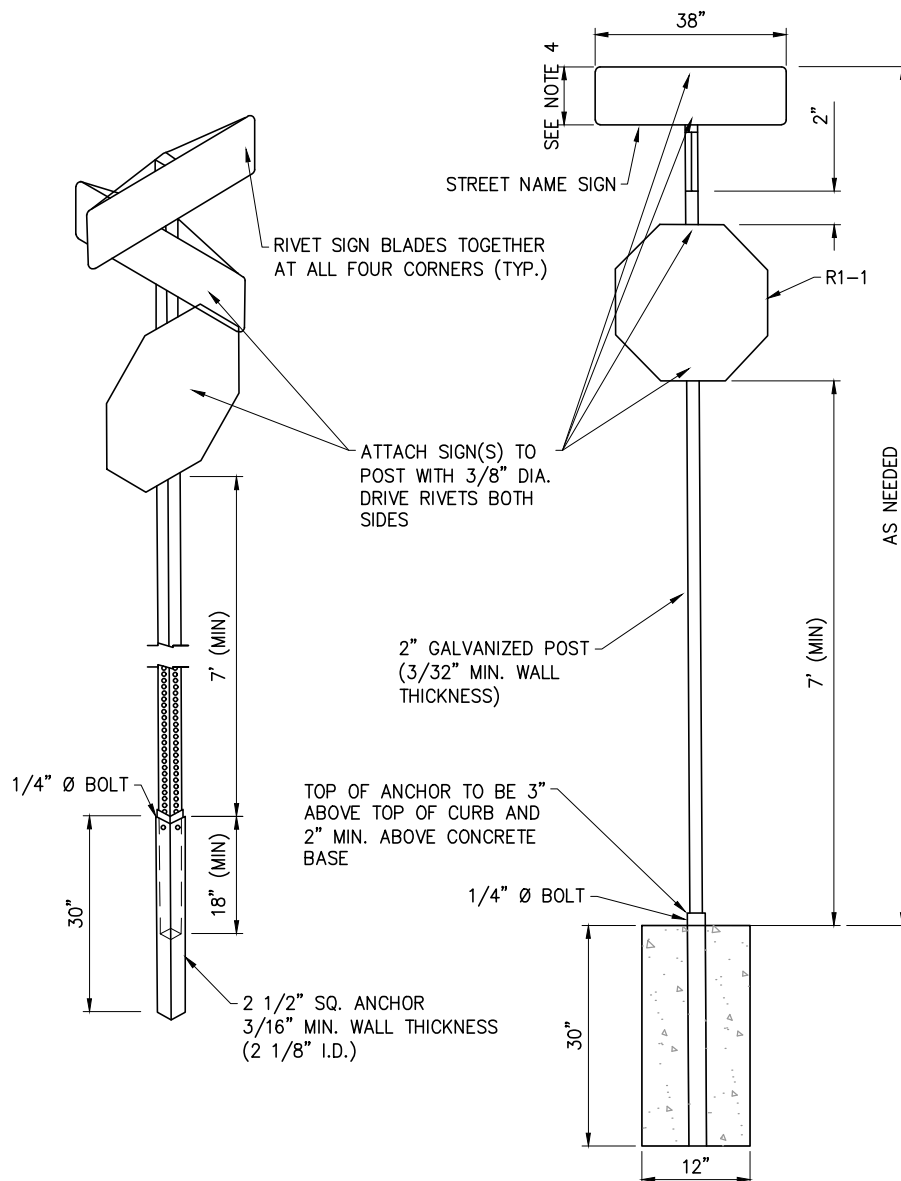
SEE CURB, GUTTER, & SIDEWALK DETAILS FOR SPACING

CITY OF LA VERKIN — STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

TYPICAL EXPANSION JOINT AND
WEAKENED PLANE JOINT DETAIL

I-D

1/1



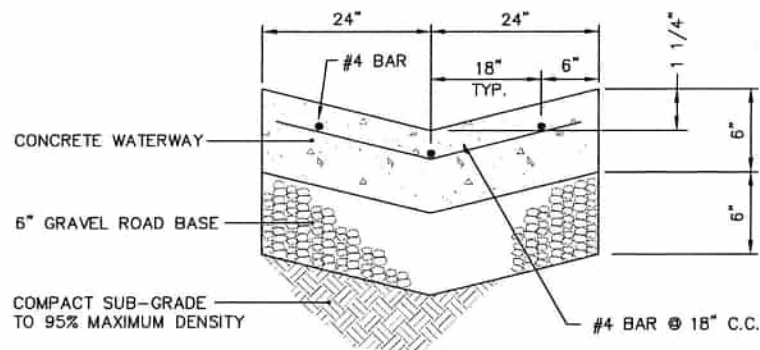
NOTES:

1. POSTS SHALL BE "QUICK PUNCH" TYPE. ALL POSTS AND ANCHORS SHALL BE GALVANIZED STEEL.

2. ALL SIGNS SHALL BE IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

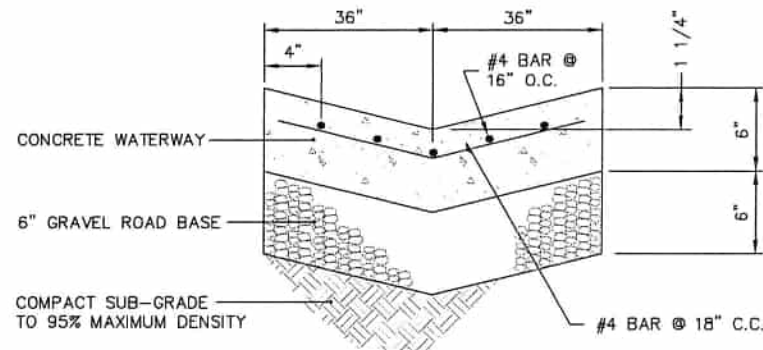
3. ALL SIGNS SHALL DISPLAY THE CITY LOGO ON THE LEFT SIDE.

4. ALL SIGNS SHALL HAVE A MINIMUM HEIGHT OF 6 INCHES AND INCLUDE A PROMINENTLY DISPLAYED NUMBERED STREET ADDRESS. WHERE APPLICABLE, A NAMED STREET ADDRESS SHALL BE PLACED BENEATH THE NUMBERED ADDRESS. IN SUCH CASES, THE SIGN HEIGHT SHALL BE INCREASED TO 8 INCHES. IF THE NAMED ADDRESS DOES NOT FIT WITHIN THIS HEIGHT, THE SIGN MAY BE INCREASED UP TO A MAXIMUM HEIGHT OF 10 INCHES.



4' VALLEY GUTTER DETAIL

N.T.S.

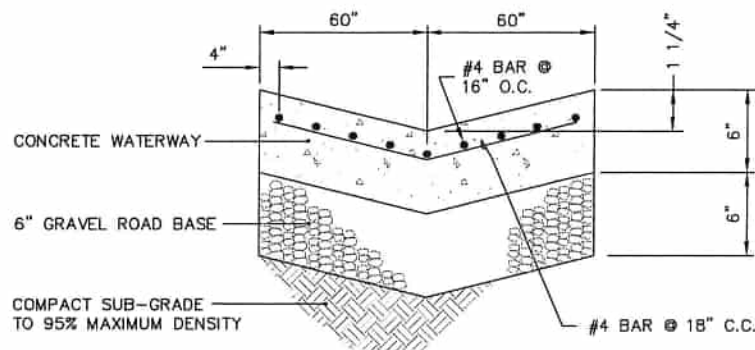


6' VALLEY GUTTER DETAIL

N.T.S.

NOTES:

1. A 6' WATERWAY IS REQUIRED AT ALL STOP INTERSECTIONS WHERE STORMWATER IS INTENDED TO CROSS THE ROADWAY.
2. A 10' WATERWAY IS REQUIRED WHERE THROUGH TRAFFIC IS ALLOWED AND WHERE STORMWATER IS INTENDED TO CROSS THE ROADWAY.

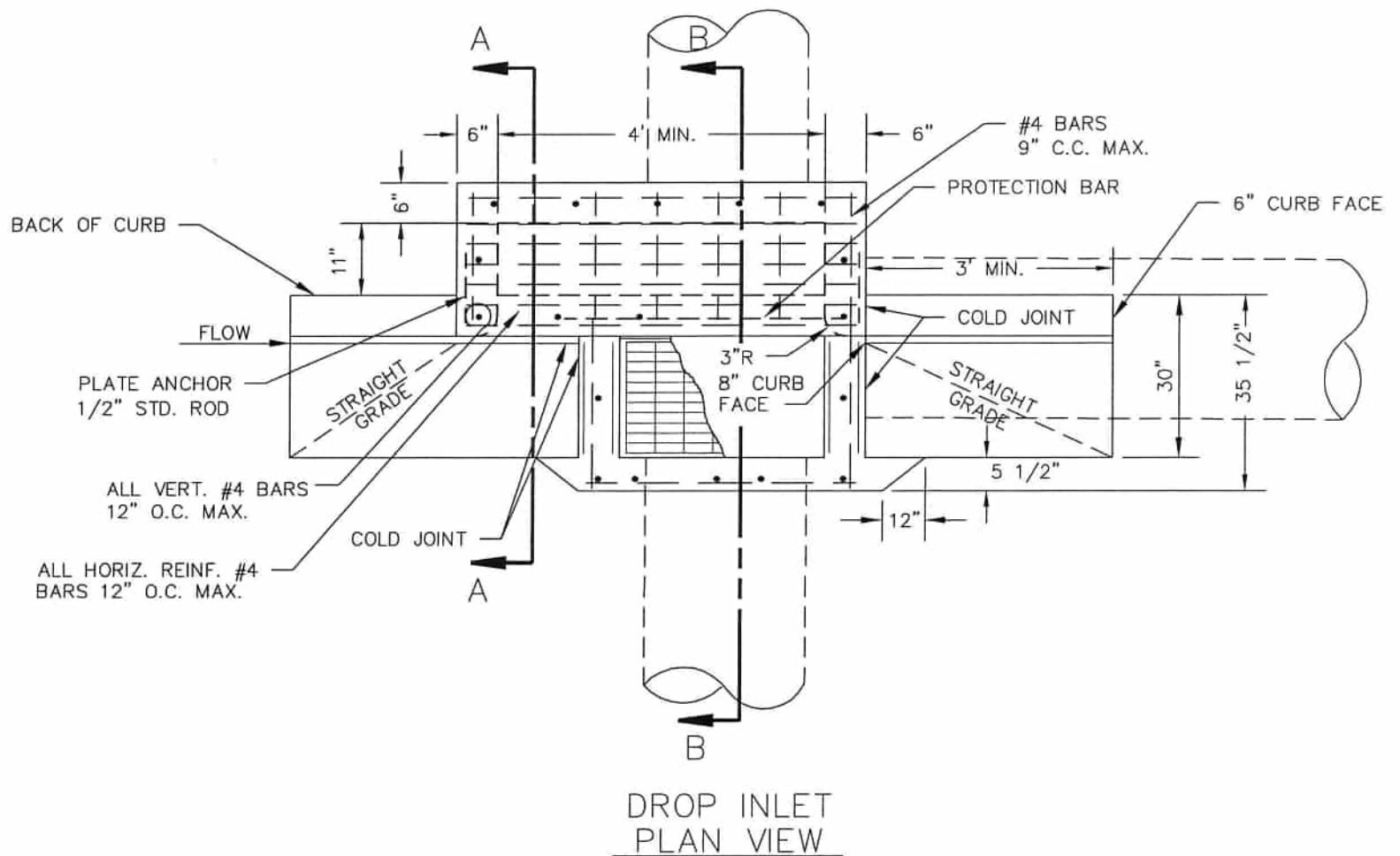


10' VALLEY GUTTER DETAIL

N.T.S.

CITY OF LA VERKIN – STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

TYPICAL VALLEY GUTTER
DETAILS

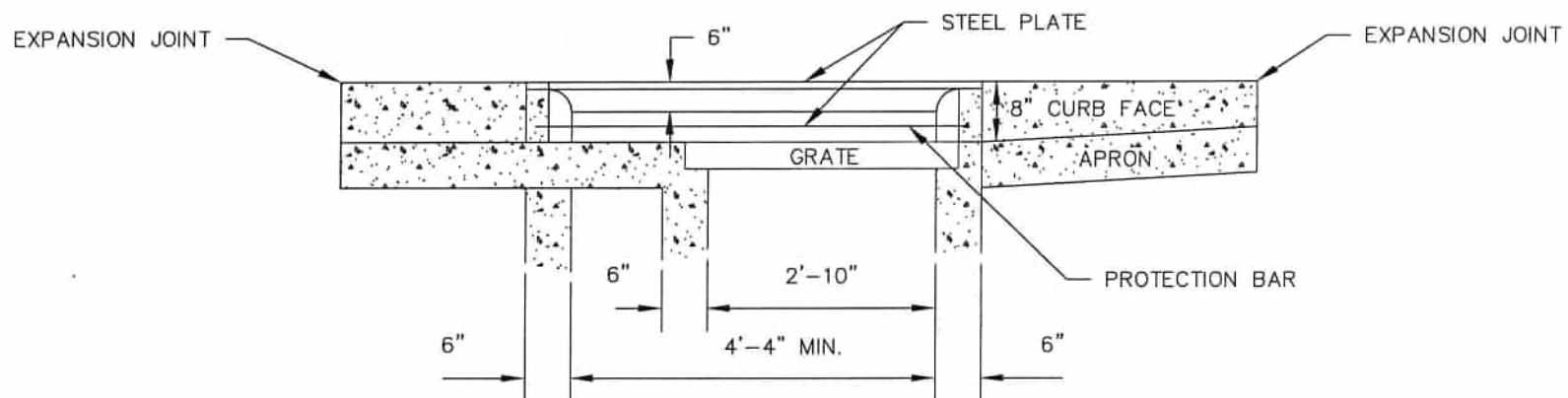


CITY OF LA VERKIN – STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

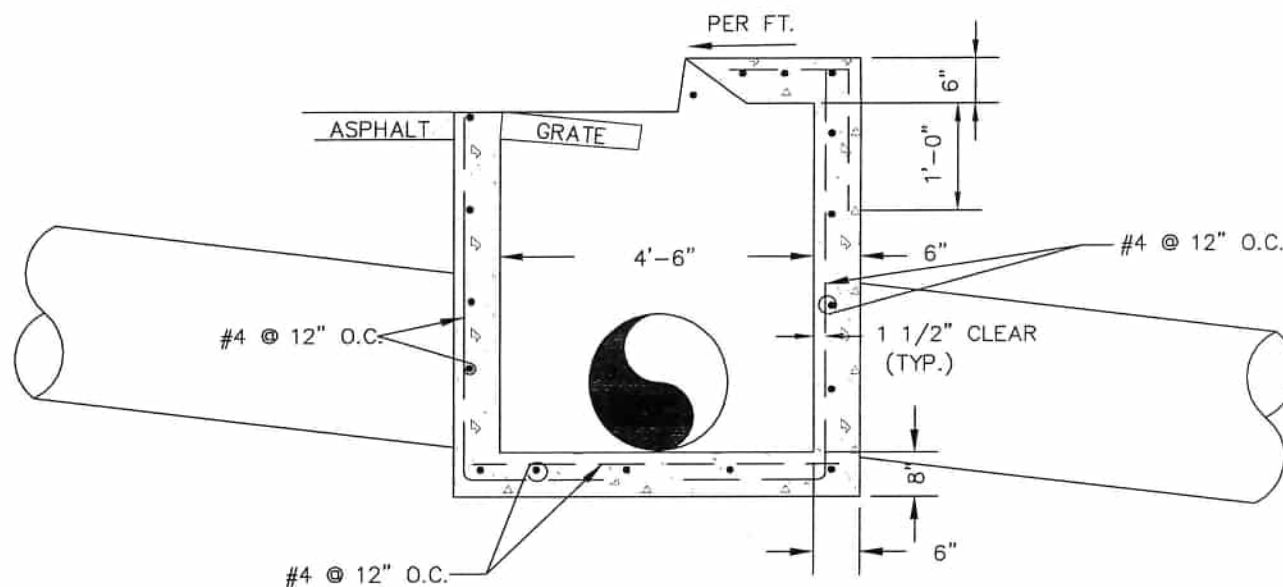
TYPICAL CATCH BASIN DETAILS

I-G

1/4



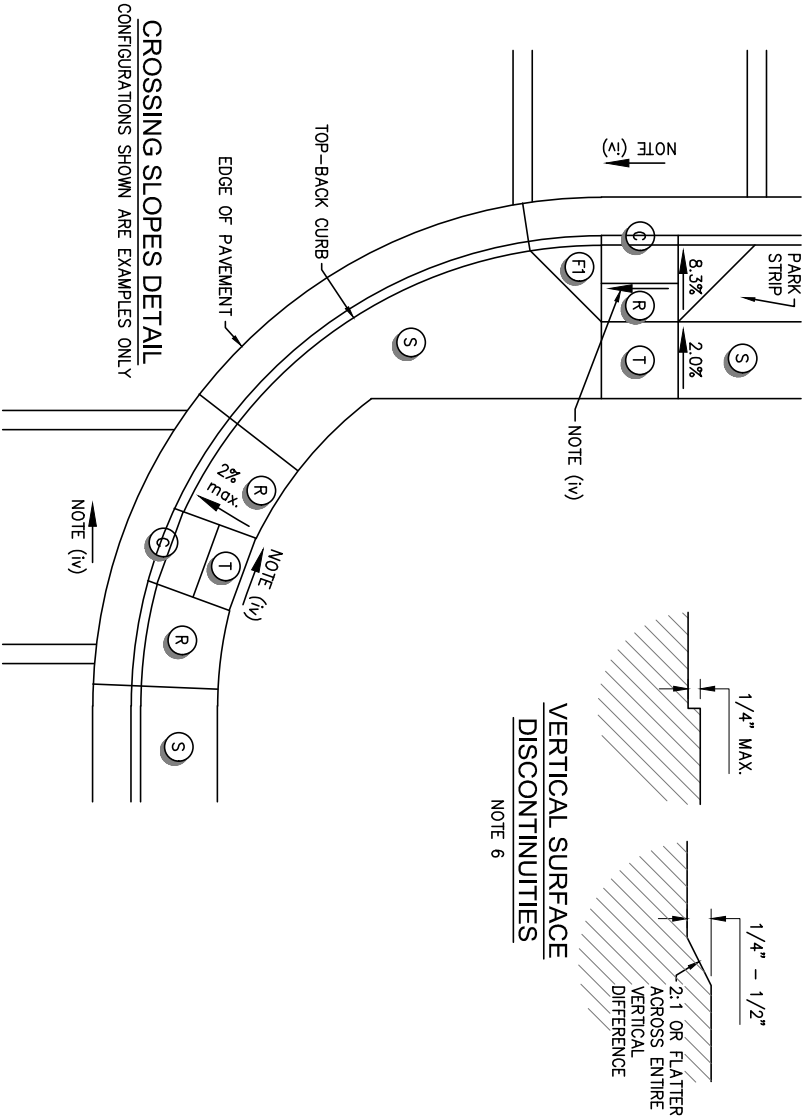
DROP INLET
FRONT VIEW

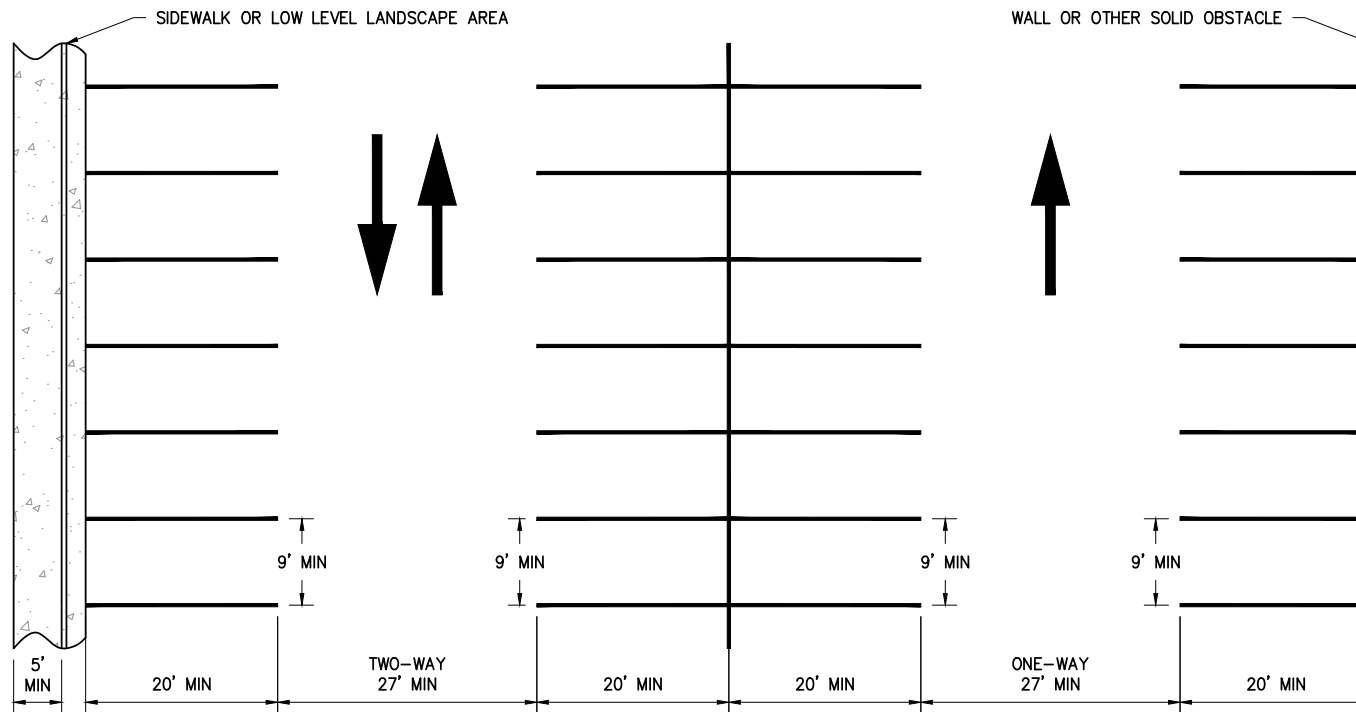


SECTION B-B

DIMENSION REFERENCE TABLE (PROWAG R302-R305)			
ITEM	MAX. RUNNING SLOPE	MAX. CROSS SLOPE	MIN. DIMENSIONS
(S) SIDEWALK	RD GRADE (IN ROW) 5.0% (OUT OF ROW)	2.0%	4' wide (i)
(T) TURNING SPACE	2.0%	2.0% (vi), (v)	4'x4' (ii), (vi)
(R) RAMP	8.3%	2.0% (vi), (v)	4' wide (vi)
(C) CLEAR SPACE	5.0%	2.0% (vi), (v)	4'x4'
AT-GRADE ACCESS	(SEE DEFINITION)	2.0% (vi), (v)	4' wide
CROSSWALK	5.0%	2.0% (vi), (v)	10' wide
(F1) FLARE WITHIN SIDEWALK	10.0% (vi)	-	-

- (i) SIDEWALK WIDTH IS EXCLUSIVE OF THE WIDTH OF THE CURB. PROVIDE 5'x5' PASSING SPACES AT 200' MAX. INTERVALS WHERE SIDEWALK WIDTH IS LESS THAN 5' (PROWAG R302.3 - R302.4). DRIVEWAYS OR OTHER PAVED SURFACES MAY BE USED AS A PASSING SPACE WHERE A MINIMUM 5' WIDE AREA MEETING SIDEWALK REQUIREMENTS IS PROVIDED.
- (ii) USE A 5' MIN. DEPTH IN THE DIRECTION OF THE RAMP RUN FOR PERPENDICULAR RAMPS WHERE TURNING SPACE IS CONSTRAINED AT THE BACK OF SIDEWALK (PROWAG R304.2.1). USE A 5' MIN. WIDTH IN THE DIRECTION OF THE STREET CROSSING FOR PARALLEL RAMPS WHERE TURNING SPACE IS CONSTRAINED ON 2 OR MORE SIDES (PROWAG R304.3.1). TURNING SPACE IS CONSTRAINED BY ANY VERTICAL DIFFERENCE GREATER THAN 3.0 INCHES.
- (iii) LENGTH OF 8.3% MAX. RUNNING SLOPE IS NOT REQUIRED TO EXCEED 15'. STEEPEN GRADE TO MATCH EXISTING WITHIN AT LEAST 15' OR THE NEXT NEAREST JOINT IF THE MAX. RUNNING SLOPE CAN NOT BE MET IN 15' (PROWAG R304.2.2, R304.3.2).
- (iv) DO NOT EXCEED 2.0% CROSS SLOPE FOR CROSSINGS WHERE THERE IS STOP OR YIELD SIGN. DO NOT EXCEED 5.0% CROSS SLOPE FOR CROSSINGS WHERE THERE IS NO STOP OR YIELD SIGN OR WHERE THERE IS A TRAFFIC SIGNAL DESIGNED FOR A GREEN PHASE (PROWAG R302.6).
- (iii) MATCH THE HIGHWAY GRADE AT MIDBLOCK CROSSINGS (PROWAG R302.6.2)
- (vi) FLATTEN GUTTER SLOPE TO 5.0% MAX. AND MAINTAIN CLEAR SPACE RUNNING SLOPE ACROSS ENTIRE CURB CUT. (PROWAG R304.5.4). SEE STD. DWG. PA 3, DETAIL A).
- (vii) MEASURE FLARE SLOPE PARALLEL TO CURB LINE. FLARES NOT IN THE SIDEWALK ARE PERMITTED TO BE A VERTICAL CURB FACE WHEN ACCESS FROM PLOWS IS NOT EXPECTED.
- (viii) MATCH TURNING SPACE, RAMP, AND AT-GRADE ACCESS WIDTH TO CURB CUT AT PROJECTED BACK OF CURB.
- (ix) THE CLEAR SPACE IS A SPACE BEYOND THE BOTTOM GRADE BREAK OF THE RAMP, PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN STREET CROSSING AND WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE (PROWAG R304.5.5).
- (x) NOT WITHSTANDING THE EXHIBITS AND REFERENCES GIVEN IN THIS DETAIL, THE CURRENT GUIDELINES PROMULGATED BY THE UNITED STATES ACCESS BOARD KNOWN AS THE ADA ACCESSIBILITY GUIDELINES (ADAAG) AND THE ENFORCEABLE STANDARDS SET BY THE UNITED STATES DEPARTMENT OF JUSTICE (DOJ) AND DEPARTMENT OF TRANSPORTATION (DOT) SHALL GOVERN.





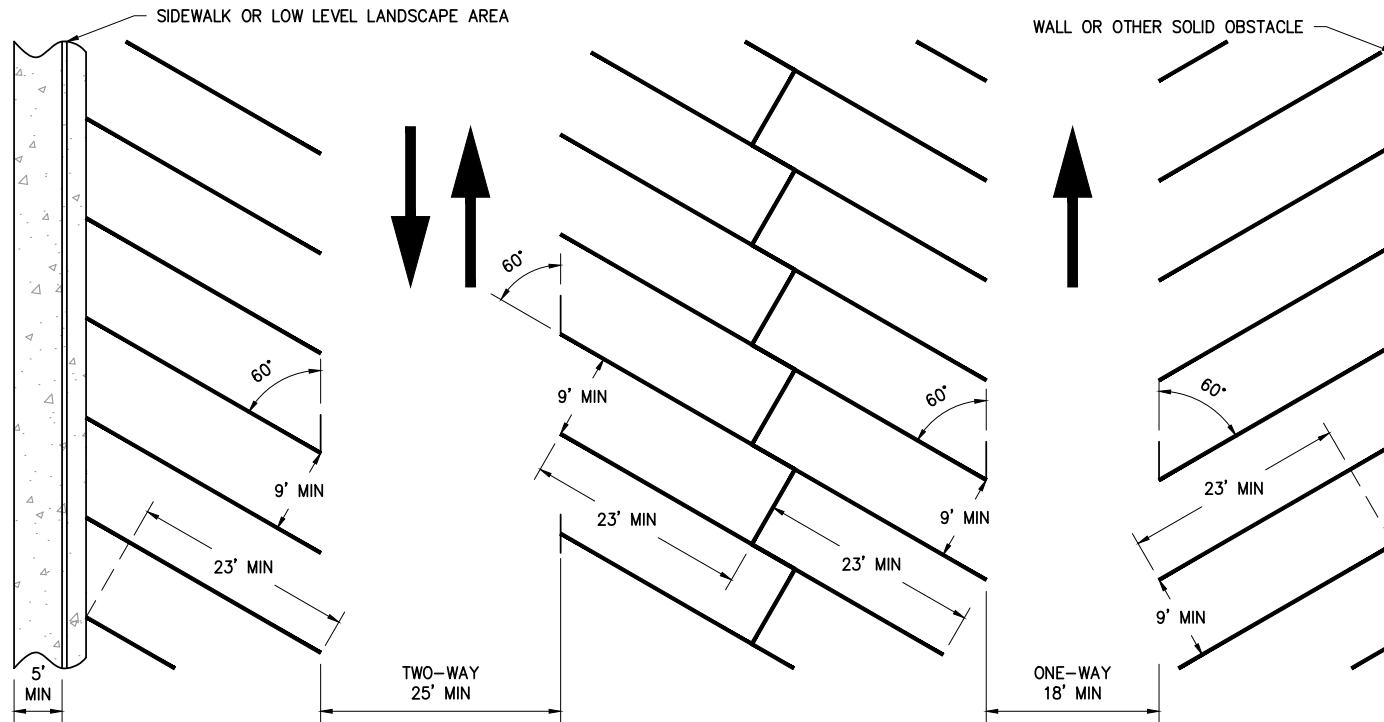
GENERAL NOTES:

1. MINIMUM STALL LENGTH SHALL BE AS SHOWN ABOVE.
2. MINIMUM STALL WIDTH SHALL BE 9-FOOT.
3. THE NUMBER OF ACCESSIBLE PARKING STALL REQUIRED SHALL BE PROVIDED PER FEDERAL GUIDELINES.
4. MINIMUM AISLE WIDTH SHALL BE AS SHOWN ABOVE. FIRE DEPT. MAY REQUIRE ADDITIONAL FOR FIRE ACCESS ROADS.

CITY OF LA VERKIN – STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

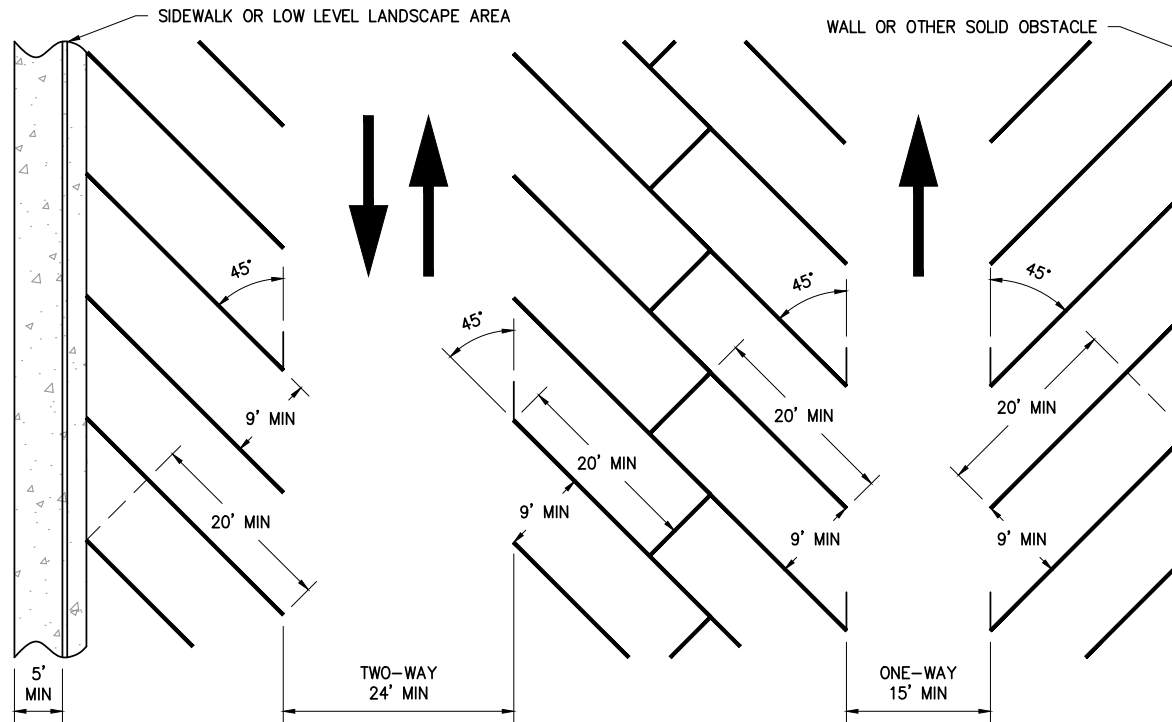
PARKING LOT DETAIL – 90 DEGREE ANGLE

I-I
1/5



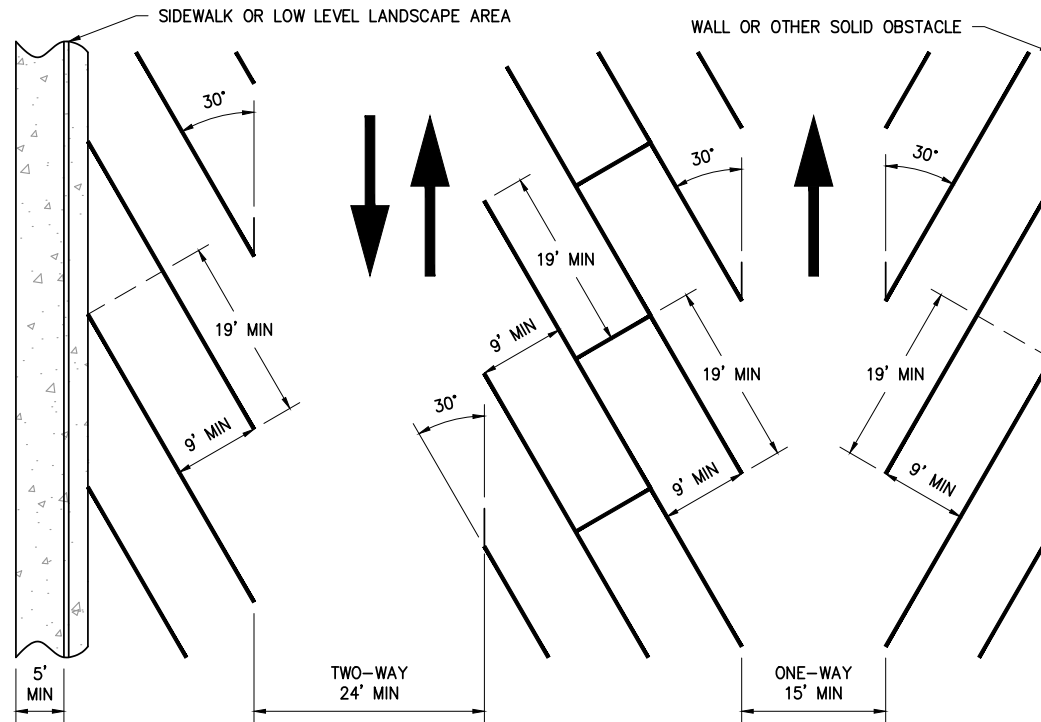
GENERAL NOTES:

1. MINIMUM STALL LENGTH SHALL BE AS SHOWN ABOVE.
2. MINIMUM STALL WIDTH SHALL BE 9-FOOT.
3. THE NUMBER OF ACCESSIBLE PARKING STALL REQUIRED SHALL BE PROVIDED PER FEDERAL GUIDELINES.
4. MINIMUM AISLE WIDTH SHALL BE AS SHOWN ABOVE. FIRE DEPT. MAY REQUIRE ADDITIONAL FOR FIRE ACCESS ROADS.



GENERAL NOTES:

1. MINIMUM STALL LENGTH SHALL BE AS SHOWN ABOVE.
2. MINIMUM STALL WIDTH SHALL BE 9-FOOT.
3. THE NUMBER OF ACCESSIBLE PARKING STALL REQUIRED SHALL BE PROVIDED PER FEDERAL GUIDELINES.
4. MINIMUM AISLE WIDTH SHALL BE AS SHOWN ABOVE. FIRE DEPT. MAY REQUIRE ADDITIONAL FOR FIRE ACCESS ROADS.



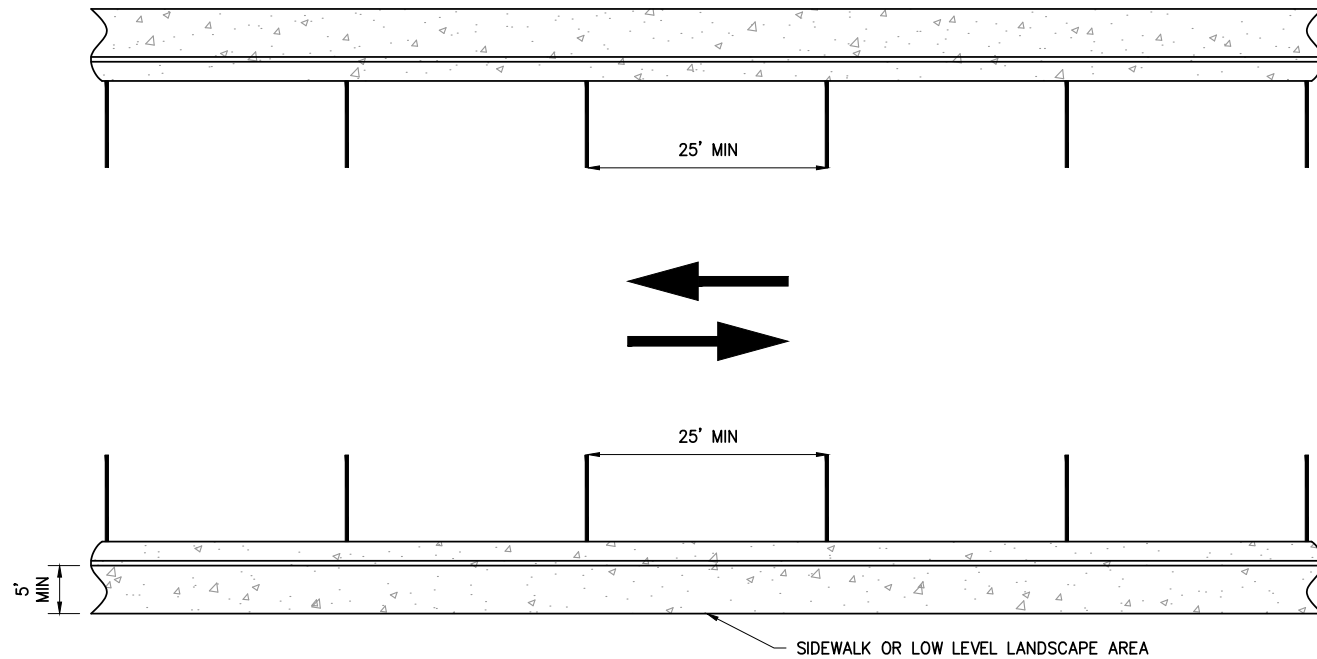
GENERAL NOTES:

1. MINIMUM STALL LENGTH SHALL BE AS SHOWN ABOVE.
2. MINIMUM STALL WIDTH SHALL BE 9-FOOT.
3. THE NUMBER OF ACCESSIBLE PARKING STALL REQUIRED SHALL BE PROVIDED PER FEDERAL GUIDELINES.
4. MINIMUM AISLE WIDTH SHALL BE AS SHOWN ABOVE. FIRE DEPT. MAY REQUIRE ADDITIONAL FOR FIRE ACCESS ROADS.

CITY OF LA VERKIN – STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

PARKING LOT DETAIL – 30 DEGREE ANGLE

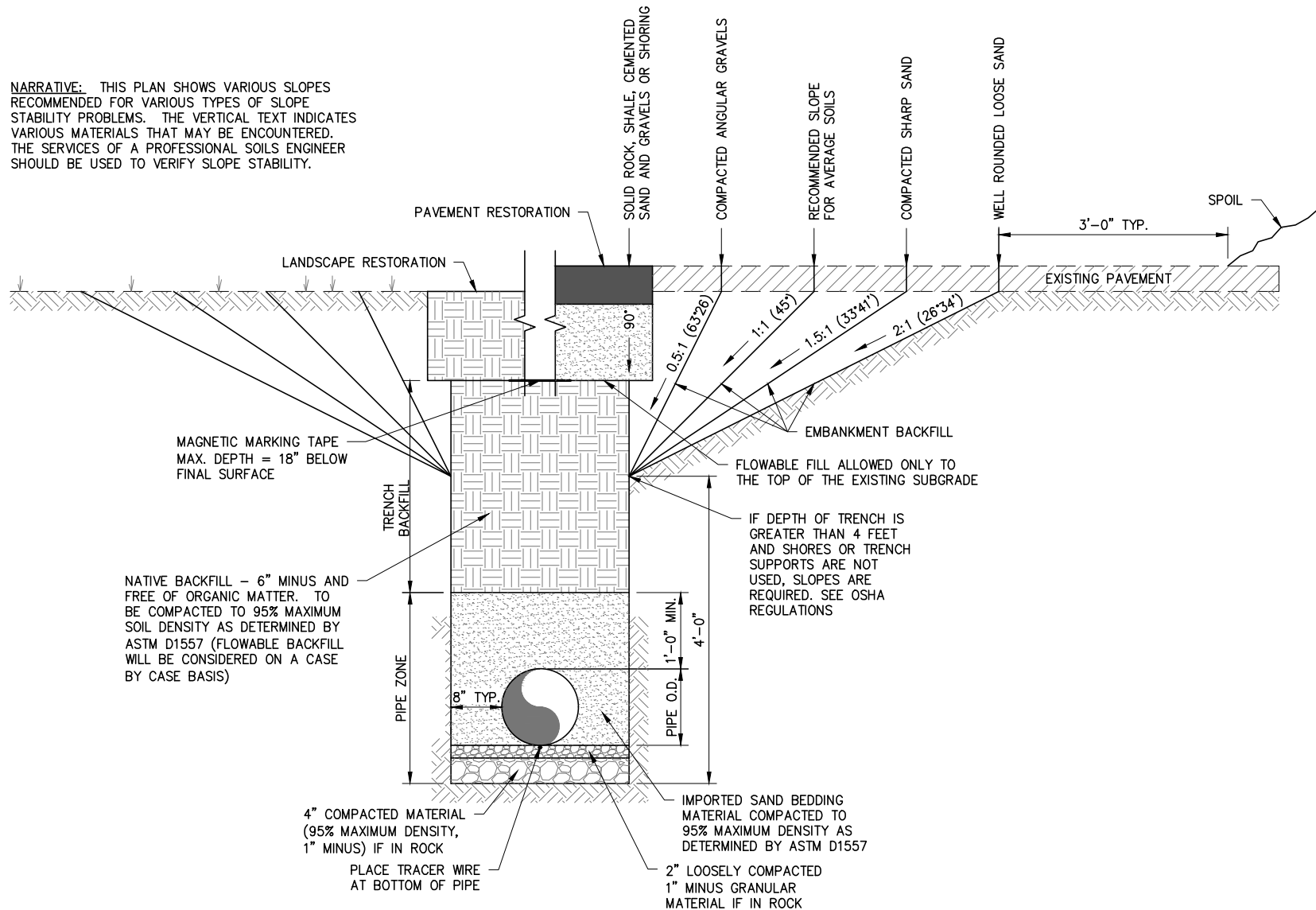
I-I
4/5

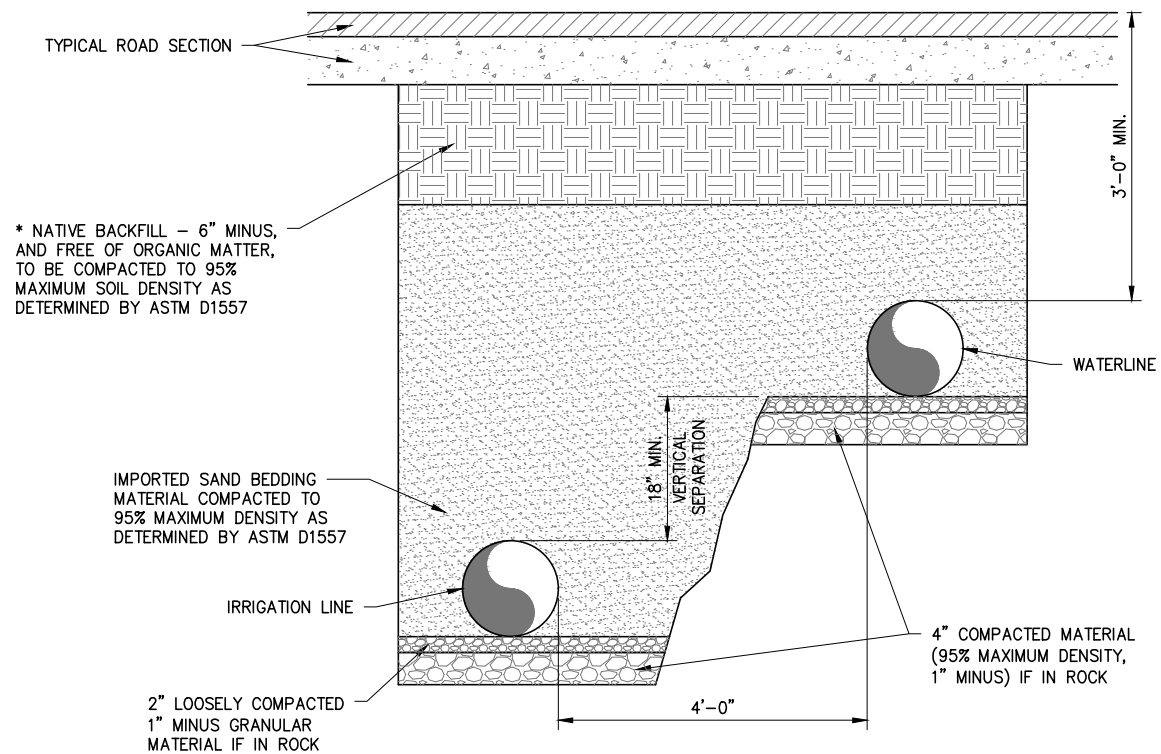


GENERAL NOTES:

1. MINIMUM STALL LENGTH SHALL BE AS SHOWN ABOVE.
2. MINIMUM STALL WIDTH SHALL BE 9-FOOT.
3. THE NUMBER OF ACCESSIBLE PARKING STALL REQUIRED SHALL BE PROVIDED PER FEDERAL GUIDELINES.
4. MINIMUM AISLE WIDTH SHALL BE AS SHOWN ABOVE. FIRE DEPT. MAY REQUIRE ADDITIONAL FOR FIRE ACCESS ROADS.

NARRATIVE: THIS PLAN SHOWS VARIOUS SLOPES RECOMMENDED FOR VARIOUS TYPES OF SLOPE STABILITY PROBLEMS. THE VERTICAL TEXT INDICATES VARIOUS MATERIALS THAT MAY BE ENCOUNTERED. THE SERVICES OF A PROFESSIONAL SOILS ENGINEER SHOULD BE USED TO VERIFY SLOPE STABILITY.





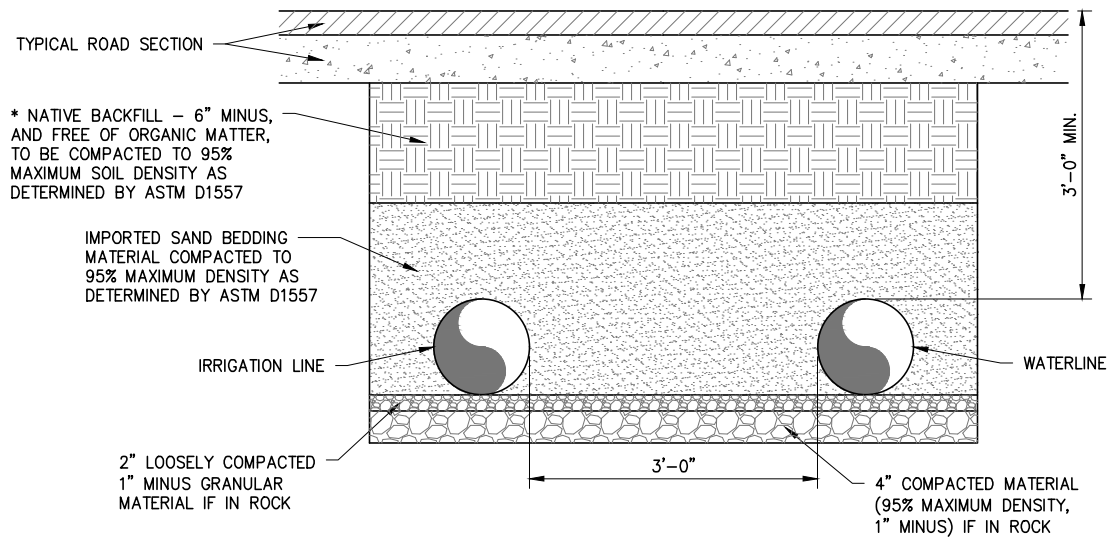
NOTE:
TRENCH SIDES TO BE SLOPED
TO MEET OSHA REQUIREMENTS

CITY OF LA VERKIN – STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

TYPICAL IRRIGATION – WATERLINE
SEPARATION DETAIL

II-B

1/2



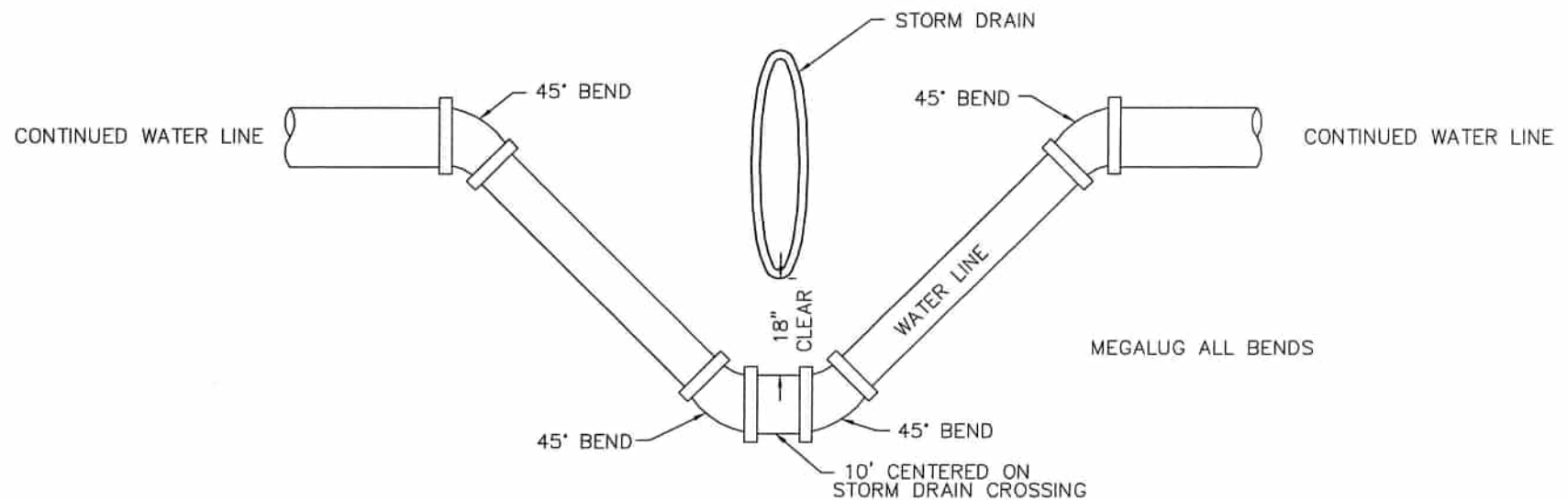
NOTE:
TRENCH SIDES TO BE SLOPED
TO MEET OSHA REQUIREMENTS

CITY OF LA VERKIN – STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

TYPICAL IRRIGATION – WATERLINE
SEPARATION DETAIL

II-B

2/2

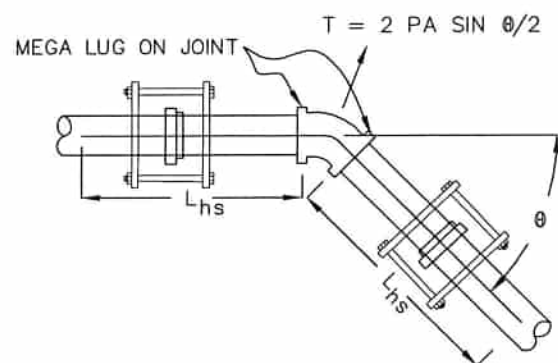
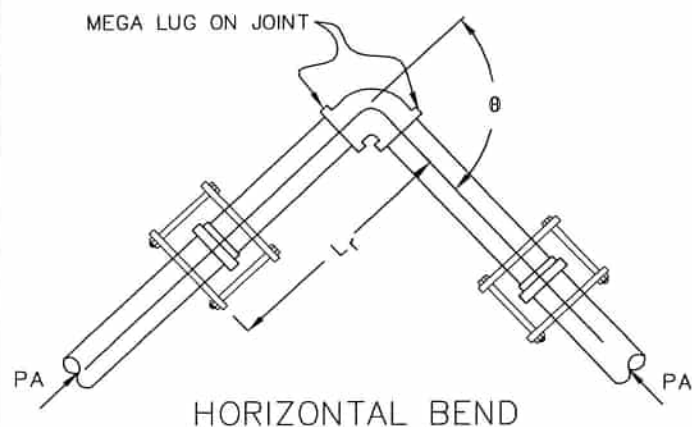


NOTES:

1. SEE SHEET II-D, 2/2, FOR THRUST RESTRAINT REQUIREMENTS.

CITY OF LA VERKIN – STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

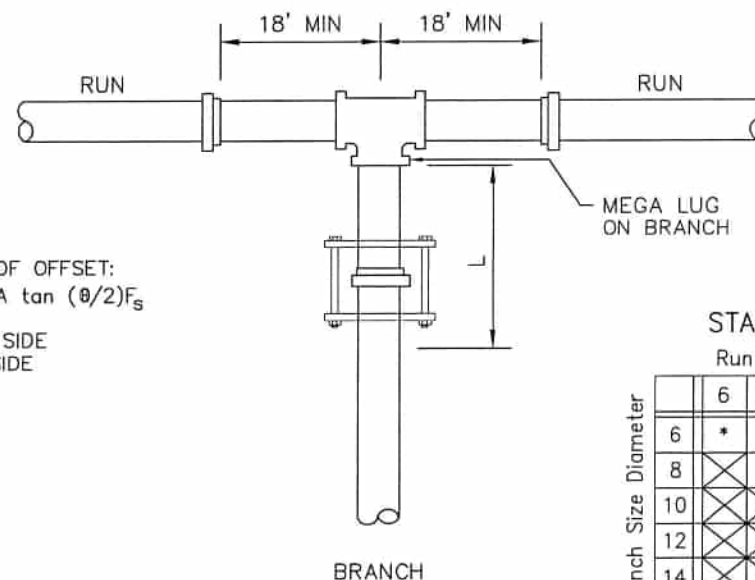
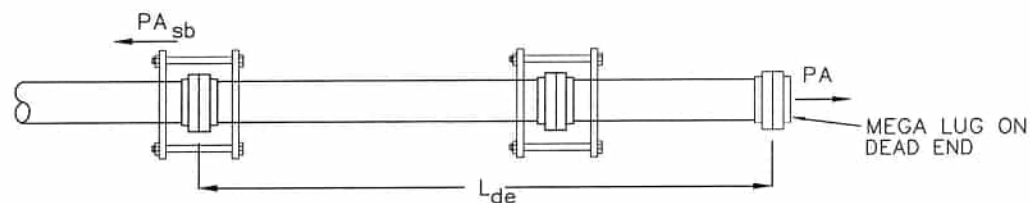
TYPICAL WATER AND STORM DRAIN CROSSING



HIGH SIDE OF OFFSET:
 $L_{hs} = S_f P A \tan (\theta/2) F_s$
 hs = HIGH SIDE
 ls = LOW SIDE

NOTE:

1. MEGALUGS SHALL BE INSTALLED PER MANUFACTURES RECOMMENDATIONS
2. SEE SHEET II-2, 2/2, FOR MEGALUG THRUST REQUIREMENTS.



STANDARD TEES

Run Size Diameter		6	8	10	12	14	16
Branch Size Diameter	6	*	*	*	*	*	*
	8		*	*	*	*	*
	10			10	*	*	*
	12				29	12	4
	14					45	31
	16						62

* - ONLY RESTRAIN THE BRANCH OUTLET OF THE TEE.

MEGALUG® THRUST RESTRAINT DETAILS

CITY OF LA VERKIN – STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

TYPICAL THRUST RESTRAINT DETAIL

THRUST RESTRAINT REQUIREMENTS FOR 6" PVC PIPE				
Horizontal Bend Angle	Restrained Length (ft.)	Vertical Bend Angle	Restrained Length on High Side (ft.)*	Restrained Length on Low Side (ft.)*
11.25	3	11.25	8	2
22.5	6	22.5	16	4
45	12	45	33	99
90	28			

THRUST RESTRAINT REQUIREMENTS FOR 8" PVC PIPE				
Horizontal Bend Angle	Restrained Length (ft.)	Vertical Bend Angle	Restrained Length on High Side (ft.)*	Restrained Length on Low Side (ft.)*
11.25	4	11.25	10	3
22.5	7	22.5	21	6
45	15	45	44	12
90	37			

DESIGN DATA:

Test Pressure = 200 psi
 Soil Type = Sandy Clay
 Burial = 3 feet
 Trench Type = #3

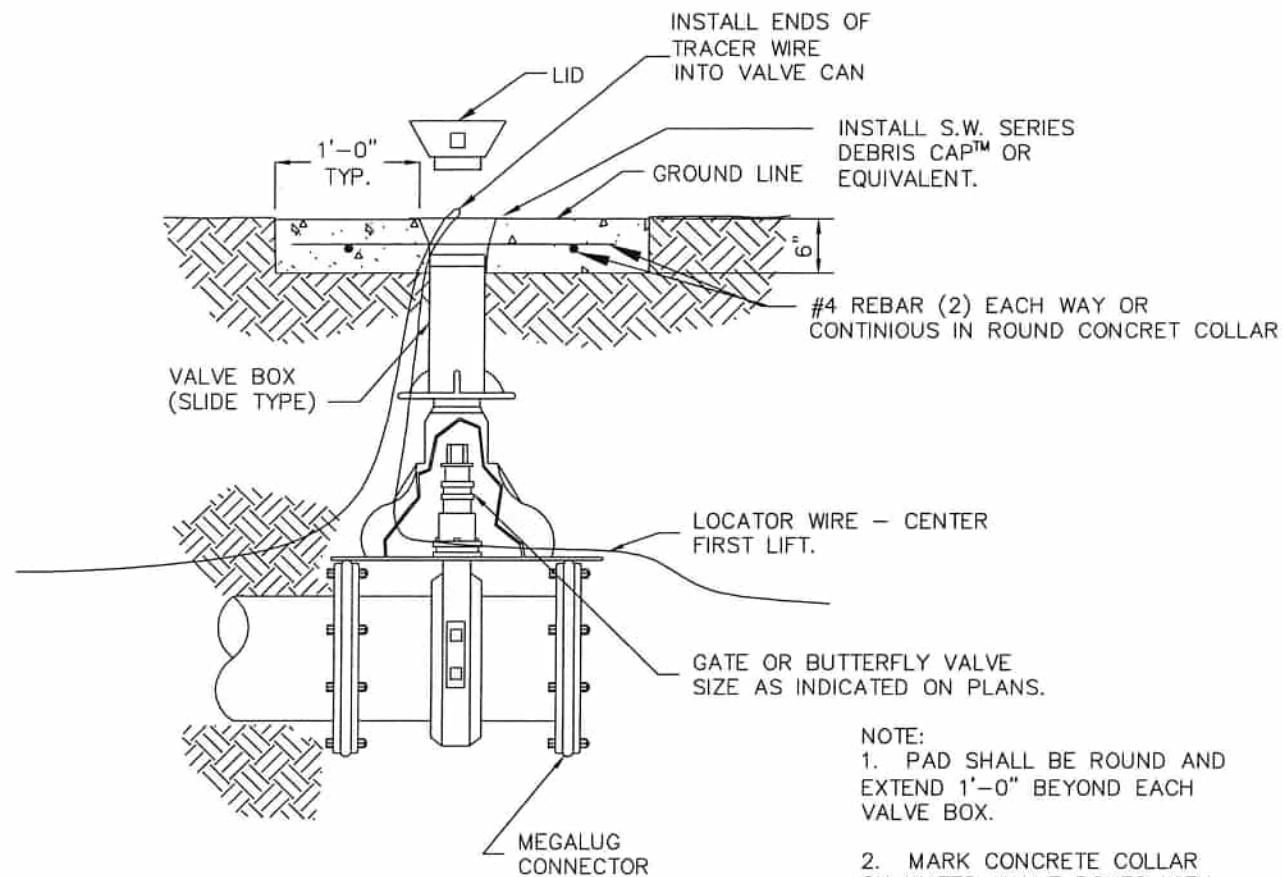
THRUST RESTRAINT REQUIREMENTS FOR IN LINE VALVE/DEAD END ON PVC PIPE							
Pipe Size (in.)	4	6	8	10	12	14	16
Restrained Length "L" (ft.)	44	62	82	99	118	135	153

THRUST RESTRAINT REQUIREMENTS FOR 10" PVC PIPE				
Horizontal Bend Angle	Restrained Length (ft.)	Vertical Bend Angle	Restrained Length on High Side (ft.)*	Restrained Length on Low Side (ft.)*
11.25	4	11.25	13	3
22.5	9	22.5	25	7
45	18	45	53	15
90	44			

THRUST RESTRAINT REQUIREMENTS FOR 12" PVC PIPE				
Horizontal Bend Angle	Restrained Length (ft.)	Vertical Bend Angle	Restrained Length on High Side (ft.)*	Restrained Length on Low Side (ft.)*
11.25	5	11.25	15	4
22.5	10	22.5	30	8
45	21	45	63	17
90	52			

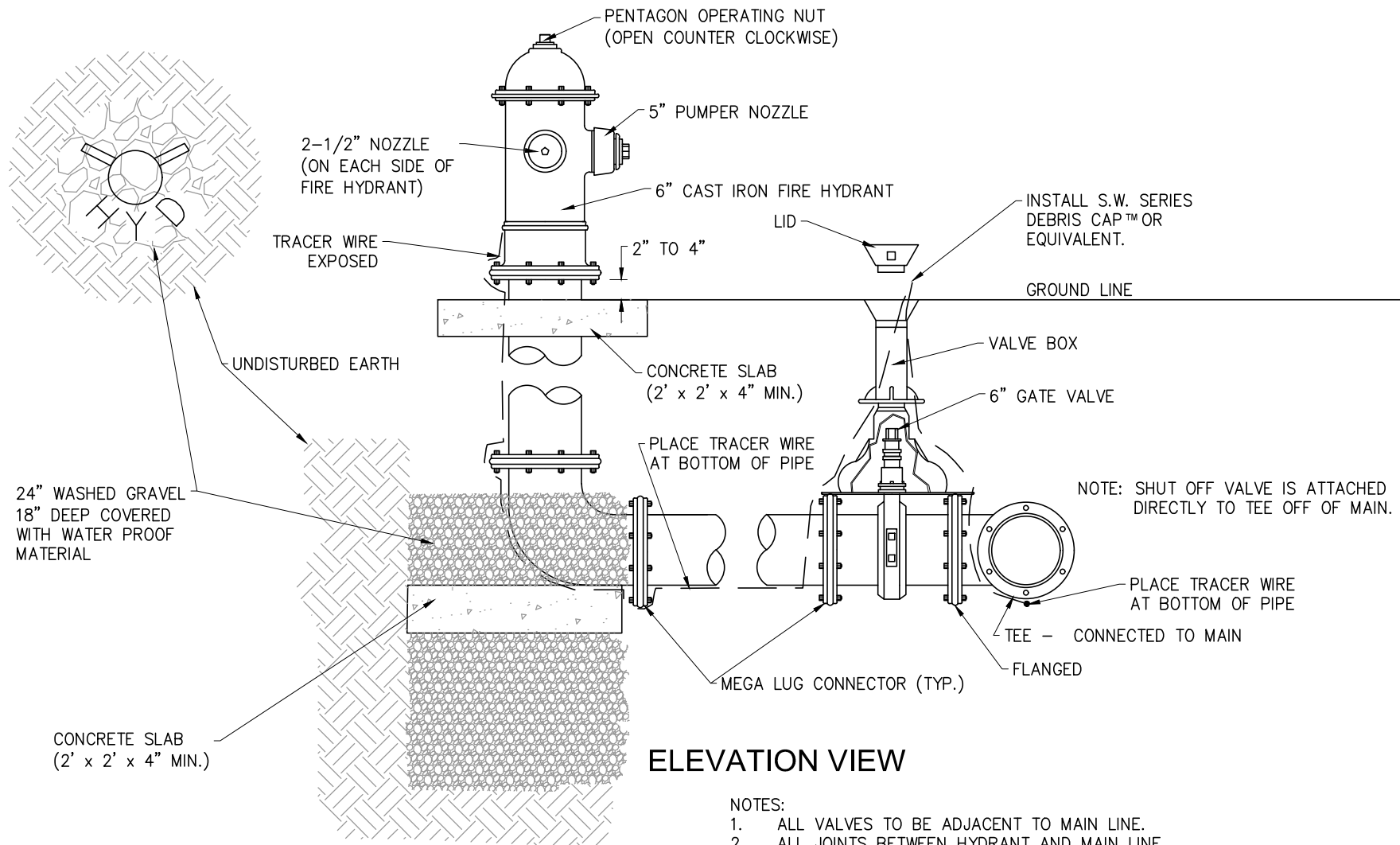
NOTES:

- *1. VERTICAL BEND ANGLE RESTRAINED LENGTHS BASED ON 3 FEET OF COVER ON HIGH SIDE AND 6 FEET OF COVER ON LOW SIDE.
2. DEFLECTION ANGLES FOR CLASS 51 DUCTILE IRON PIPE LESS THAN 11.25° (AS SHOWN ON THE PLANS) SHALL BE ACCOMPLISHED BY DEFLECTING PIPE JOINTS A MAXIMUM OF 19 INCHES FOR EACH 18 FT. LENGTH OF PIPE. THE CURVATURE RADIUS SHALL BE NO LESS THAN 212 FT.
3. DEAD ENDS AND VALVES TO BE RESTRAINED FOR 62 FEET.
4. ALL FITTINGS, VALVES, BENDS, ETC. ARE TO HAVE JOINT RESTRAINTS AS REQUIRED BY CITY STANDARDS. THRUST BLOCKS MAY ONLY BE USED WHERE SPECIFICALLY NOTED ON PLANS.



CITY OF LA VERKIN - STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

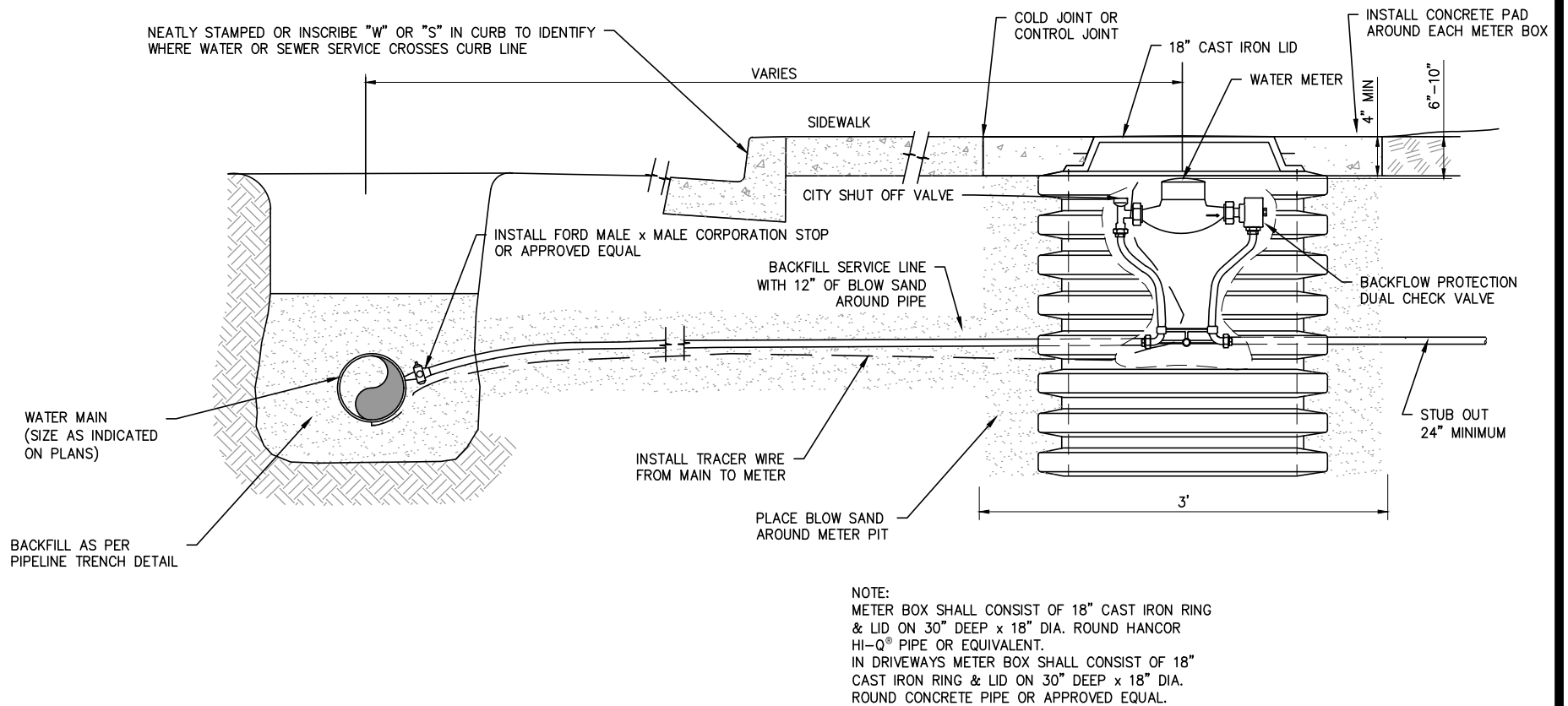
TYPICAL MAIN LINE VALVE
AND PAD INSTALLATION



ELEVATION VIEW

NOTES:

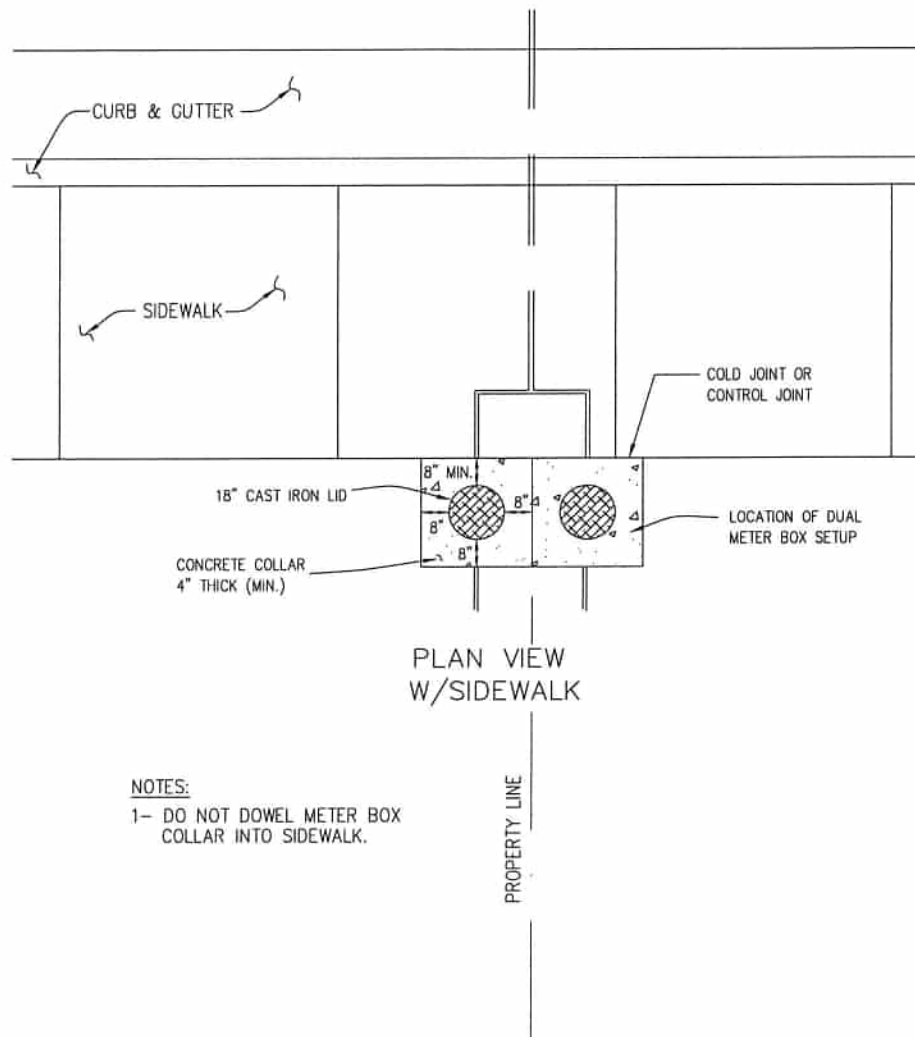
1. ALL VALVES TO BE ADJACENT TO MAIN LINE.
2. ALL JOINTS BETWEEN HYDRANT AND MAIN LINE SHALL HAVE JOINT RESTRAINTS.
3. HYDRANT TO HAVE 3' MINIMUM CLEARANCE TO ANY OBSTRUCTIONS.



CITY OF LA VERKIN – STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

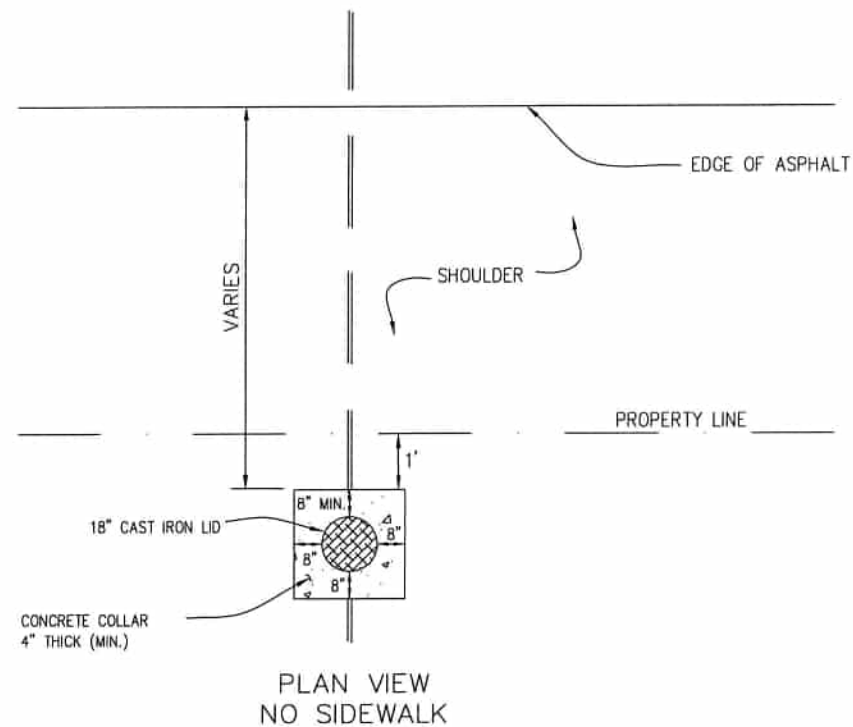
WATER SERVICE CONNECTION & METER

II-G
1/2



NOTES:

- 1- DO NOT DOWEL METER BOX COLLAR INTO SIDEWALK.

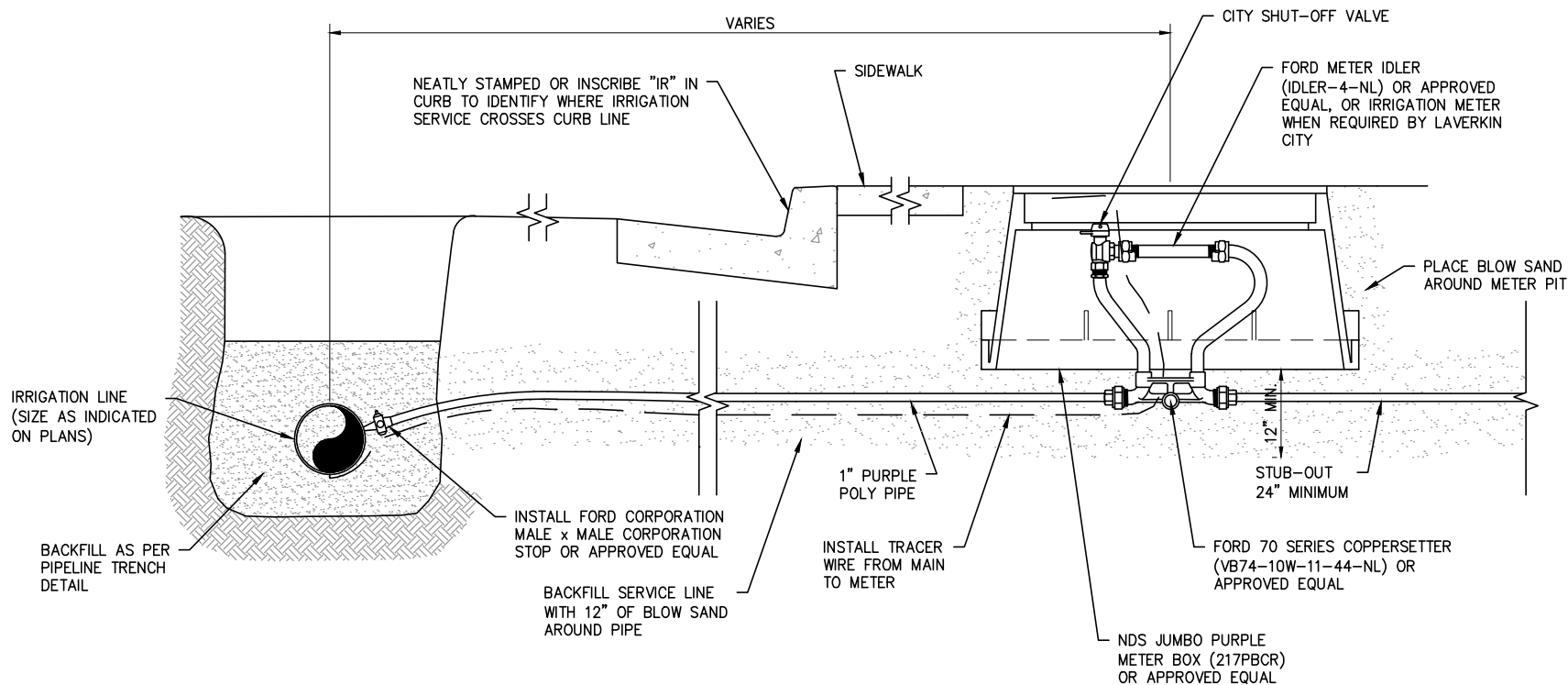


CITY OF LA VERKIN — STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

SERVICE CONNECTION & METER

II—G

2/2

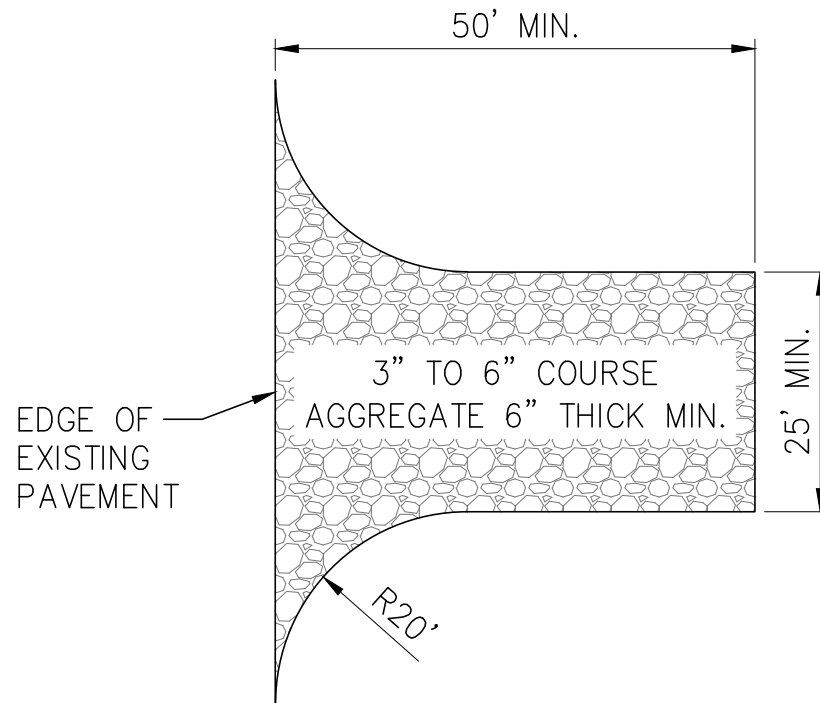


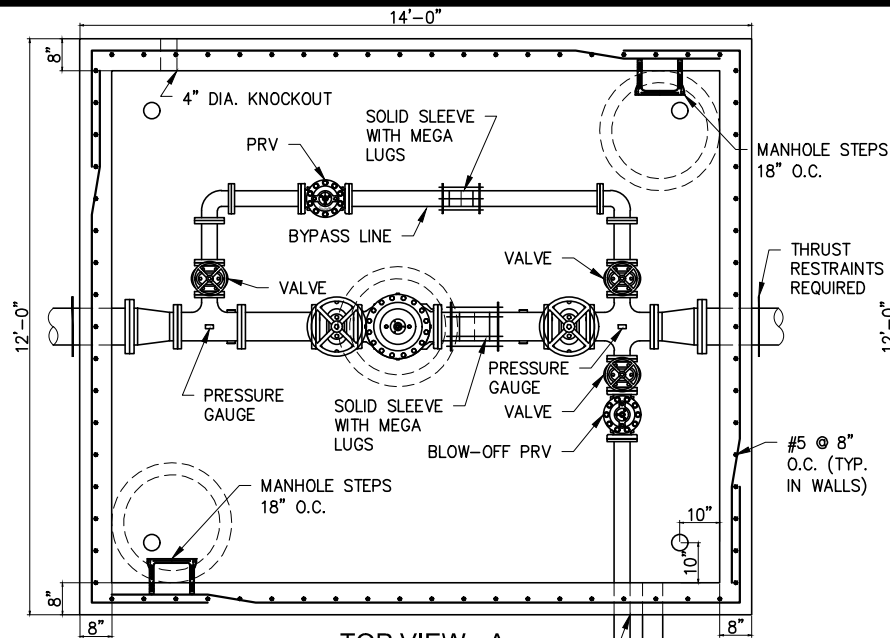
NOTE: IN DRIVEWAYS AND OTHER TRAFFIC
AREAS, METER BOX SHALL BE RATED FOR
HS20 LOADING.

CITY OF LA VERKIN – STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

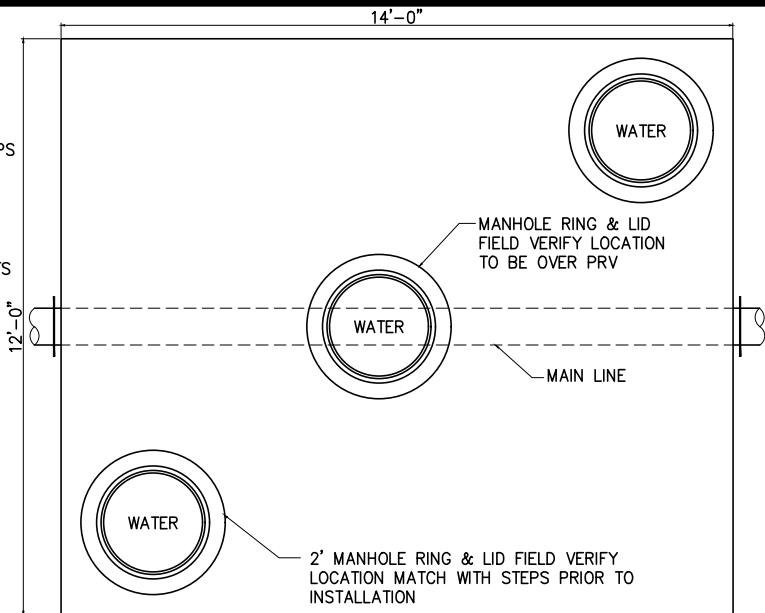
IRRIGATION SERVICE CONNECTION & METER

II-H
1/1



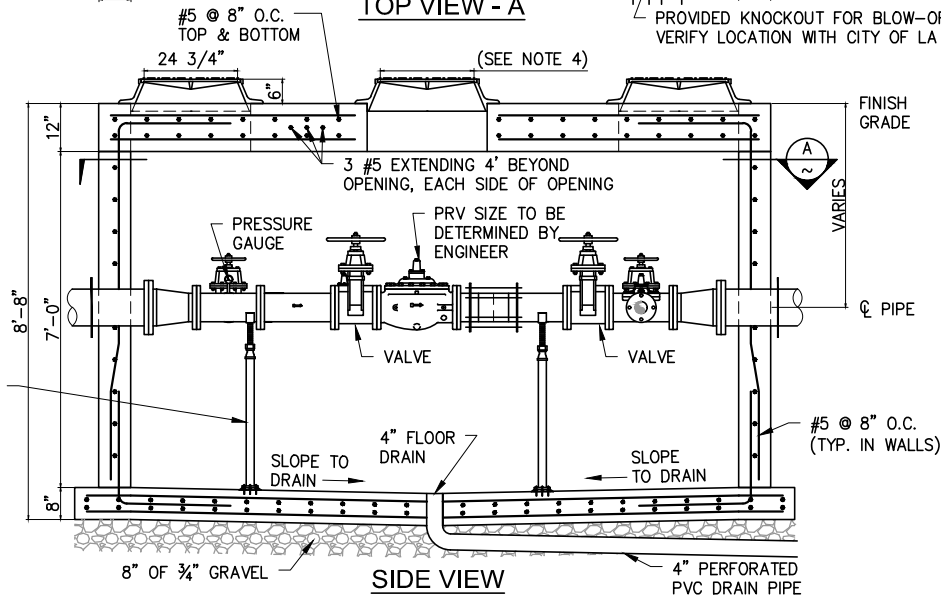


TOP VIEW - A



TOP VIEW LID

NOTE: SIZE OF MANHOLE RING & LID WILL VARY WITH SIZE OF PRV.



SIDE VIEW

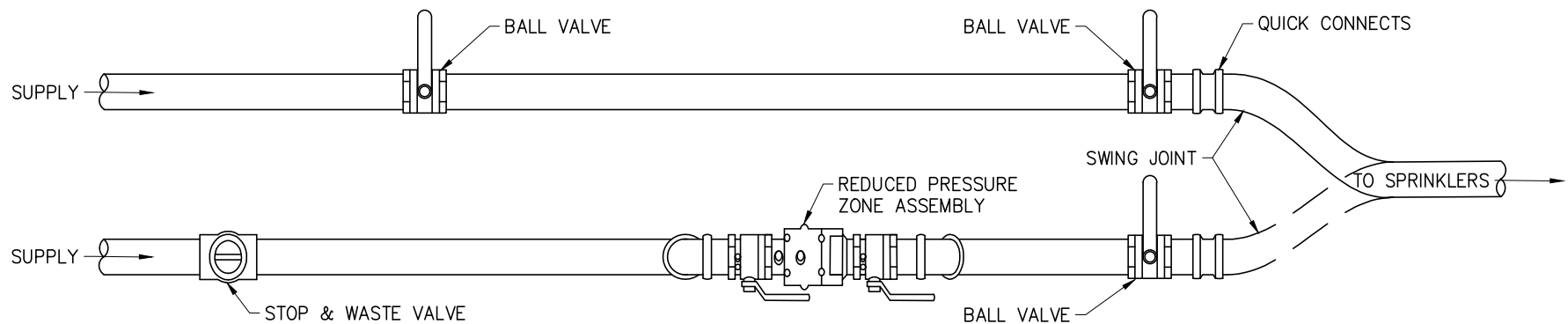
PRV STATION NOTES:

1. IF VAULT IS IN SIDEWALK THE FINISH GRADE OF VAULT SHALL MATCH SLOPE OF EXISTING SIDEWALK.
2. IF VAULT IS IN ROADWAY, THE FINISH GRADE OF VAULT SHALL MATCH THE SUBGRADE.
3. ALL FITTINGS SHALL BE FLANGED AND MEGA LUGGED.
4. MANHOLE RING & LID WILL VARY WITH SIZE OF PRV. (24" MIN. ACCESS PORTS REQUIRED).
5. SIZES OF ALL LINES AND VALVES TO BE DETERMINED BY THE CITY ENGINEER.
6. REQUIREMENTS FOR BLOW-OFF VALVE AND Y-STRAINER MAY BE WAIVED UPON APPROVAL FROM CITY WATER DEPARTMENT.
7. VAULT DIMENSIONS MAY BE REDUCED (DEPENDING ON EXISTING UTILITY CONSTRAINTS) UPON APPROVAL FROM CITY WATER DEPARTMENT.

CITY OF LA VERKIN – STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

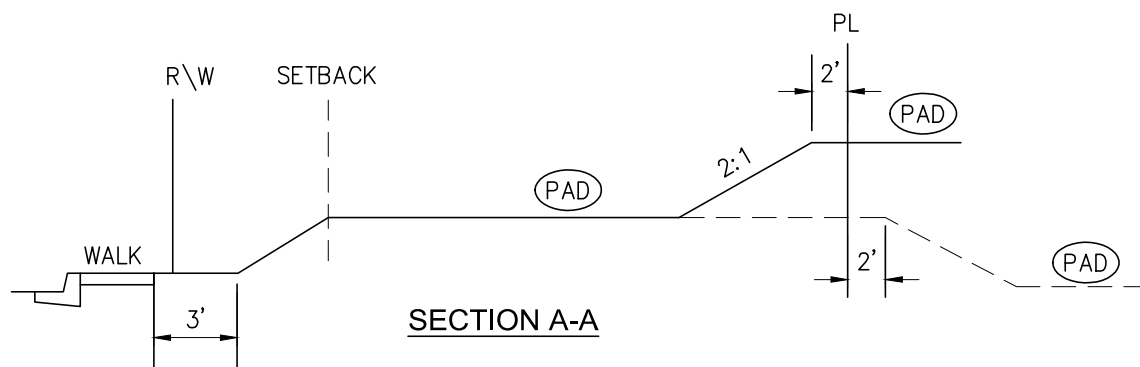
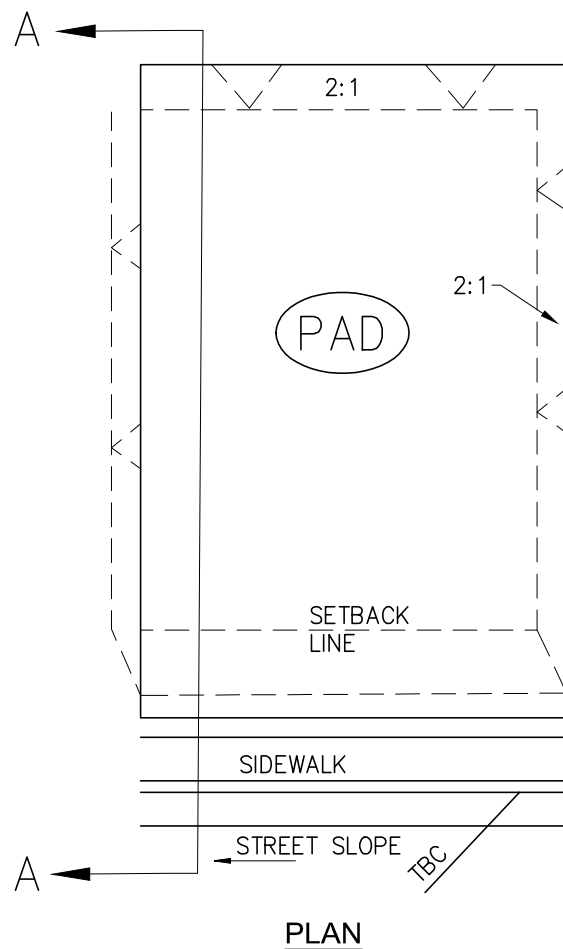
STANDARD PRESSURE REDUCING VALVE

II-J
1/1



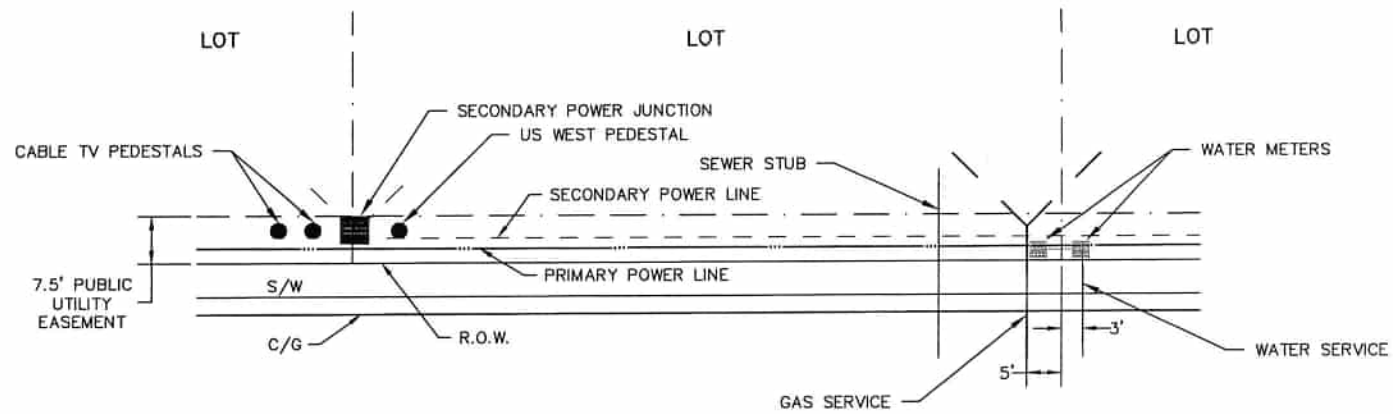
NOTES:

1. ONLY REDUCED PRESSURE ZONE ASSEMBLY IS ACCEPTED AS A BACKFLOW DEVICE.
2. BACK FLOW DEVICE MUST BE INSTALLED ON THE CULINARY WATER LINE BEFORE THE SWING CONNECTION.
3. AFTER INITIAL BACK FLOW DEVICE TESTING THE DEVICE MUST BE TESTED YEARLY AND STAY IN COMPLIANCE, FAILURE TO DO SO WILL RESULT IN WATER BEING CUT OFF TO HOME.
4. INSPECTION IS REQUIRED OF SWING CONNECTION PRIOR TO USE, PLEASE REACH OUT TO LA VERKINS BACKFLOW ADMIN.

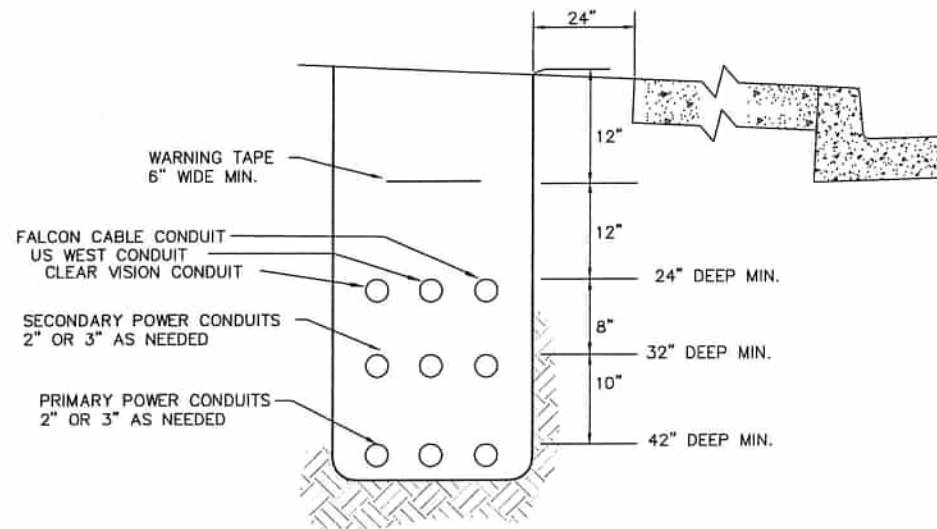


NOTE:

1. ALL LOTS SHALL BE DESIGNED AND GRADED IN A MANNER AND AT AN ELEVATION THAT WILL ALLOW RUNOFF FROM ANY POINT ON THE LOT TO FLOW TO THE STREET AT A MINIMUM SLOPE OF ONE PERCENT.
2. GROUND 3 FEET BEHIND SIDEWALK MUST REMAIN AT SIDEWALK LEVEL. SEE 1-C-1/2
3. ALL LOTS SHALL BE GRADED TO PAD-READY CONDITION FOR BUILDING.



TYPICAL LOT LINE UTILITY LOCATION



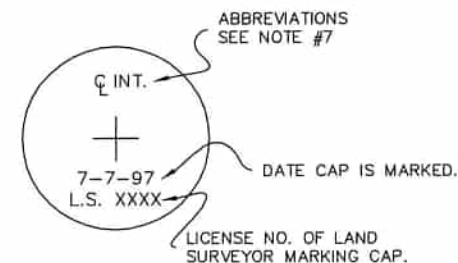
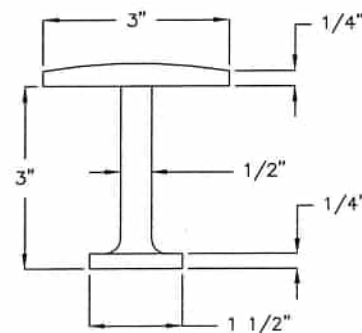
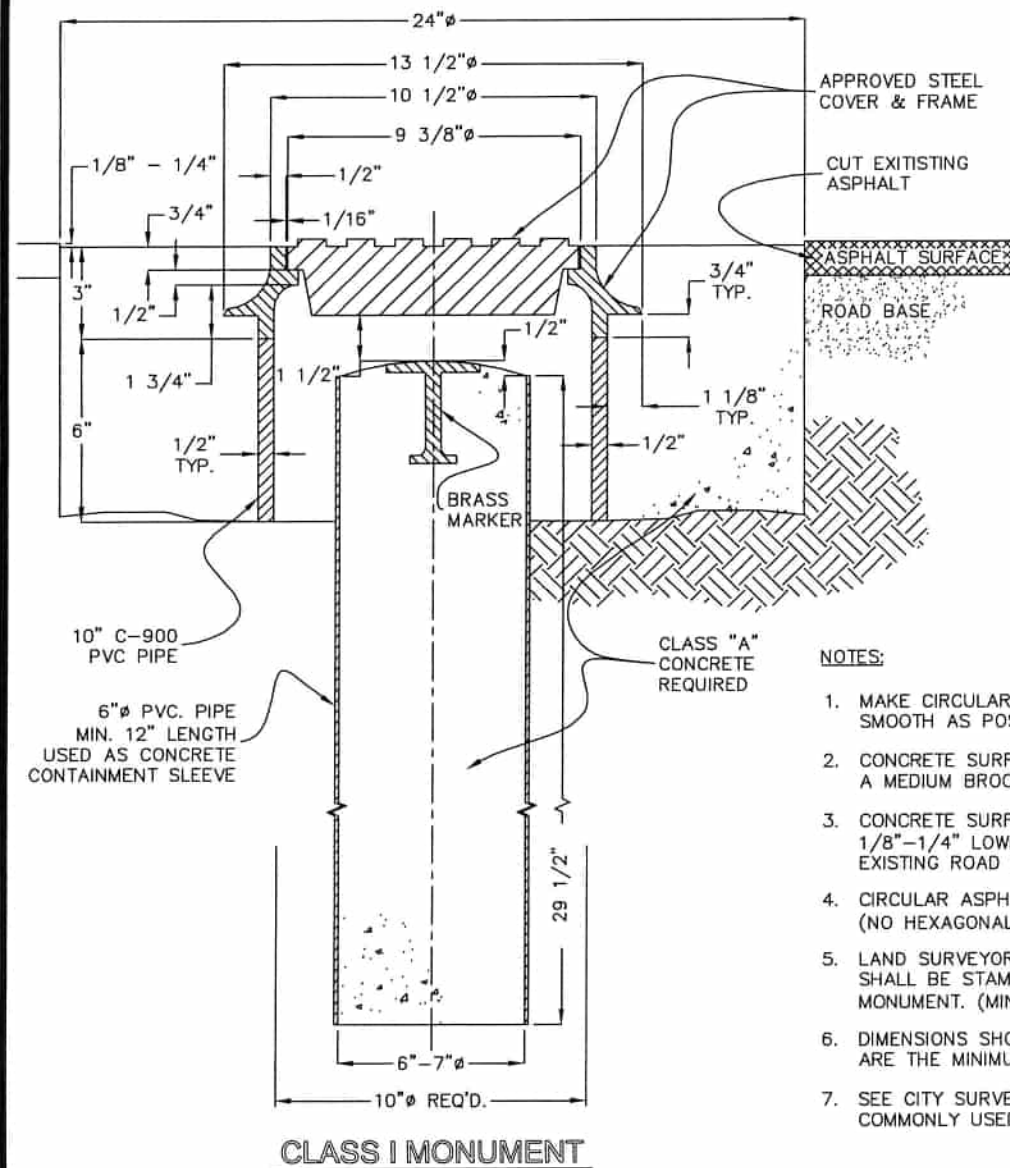
JOINT UTILITIES TRENCH DETAIL

CITY OF LA VERKIN – STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

TYPICAL LINE UTILITY LOCATION
AND JOINT UTILITIES TRENCH DETAIL

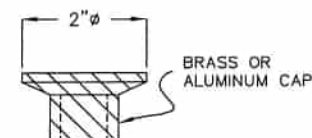
III-B

1/1



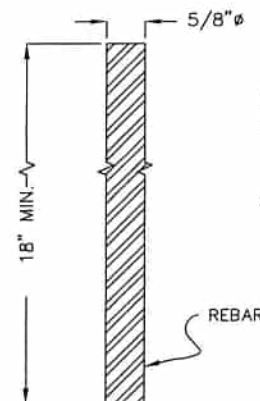
NOTES:

1. MAKE CIRCULAR CUT EDGES AS SMOOTH AS POSSIBLE.
2. CONCRETE SURFACE SHALL HAVE A MEDIUM BROOM FINISH.
3. CONCRETE SURFACE SHALL BE 1/8" - 1/4" LOWER THAN THE EXISTING ROAD SURFACE.
4. CIRCULAR ASPHALT CUTS ONLY. (NO HEXAGONAL OR SQUARE CUTS)
5. LAND SURVEYOR LICENSE NUMBER SHALL BE STAMPED IN THE BRASS MONUMENT. (MIN. SIZE 1/4 LETTERS)
6. DIMENSIONS SHOWN FOR BRASS MARKER ARE THE MINIMUM.
7. SEE CITY SURVEYOR FOR LIST OF COMMONLY USED ABBREVIATIONS.



NOTES:

1. MINIMUM 2" ϕ BRASS OR ALUMINUM CAP ONLY, (NO PLASTIC).
2. 5/8" ϕ REBAR (MIN.) LENGTH 18" (MIN.)



CITY OF LA VERKIN - STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

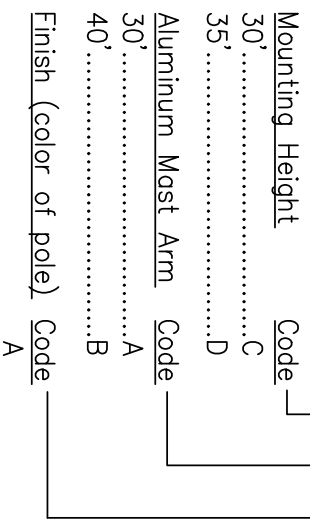
TYPICAL CLASS I & II STANDARD
MONUMENT DETAILS

Street Lighting Pole Assembly Fiberglass, Direct-Buried Underground Service

FP 122
RCMS Code: BA

Scope

This standard should be used whenever a fiberglass light pole is required in conjunction with a "cobra head" type luminaire, with underground service exclusively.



Standard References

FC 001 Lighting Cable and Conductor – General Information
FC 201 Cable, Street Lighting, Underground
FL 511 Photoelectric Controls
FP 001 Lighting Poles – General Information
FP 141 Lighting Pole Assembly – Galvanized Steel – Overhead Service
FL 402 Luminaire – Horizontal Lighting, LED, Street Light luminaires

Notes

1. Burial depth should be 10% of the pole length plus 2 feet.

Table 1 – Component Assemblies

No.	S.I. No.	Description
1.	1008036	25 foot, mounting height fiberglass streetlight pole, direct–buried, for use with "cobra head" type fixture, smooth gray finish, with 8 foot aluminum cantilever mast arm, 30 foot overall length. For use on local streets per City of LaVerkin Construction Standards.
	1008032	35 foot, mounting height fiberglass streetlight pole, direct–buried, for use with "cobra head" type fixture, smooth gray finish, with 8 foot aluminum cantilever mast arm, 40 foot overall length. For use on collector streets per City of LaVerkin Construction Standards.

Street Lighting Pole
Assembly
Fiberglass, Direct-Buried
Underground Service

FP 122
Page 1 of 2

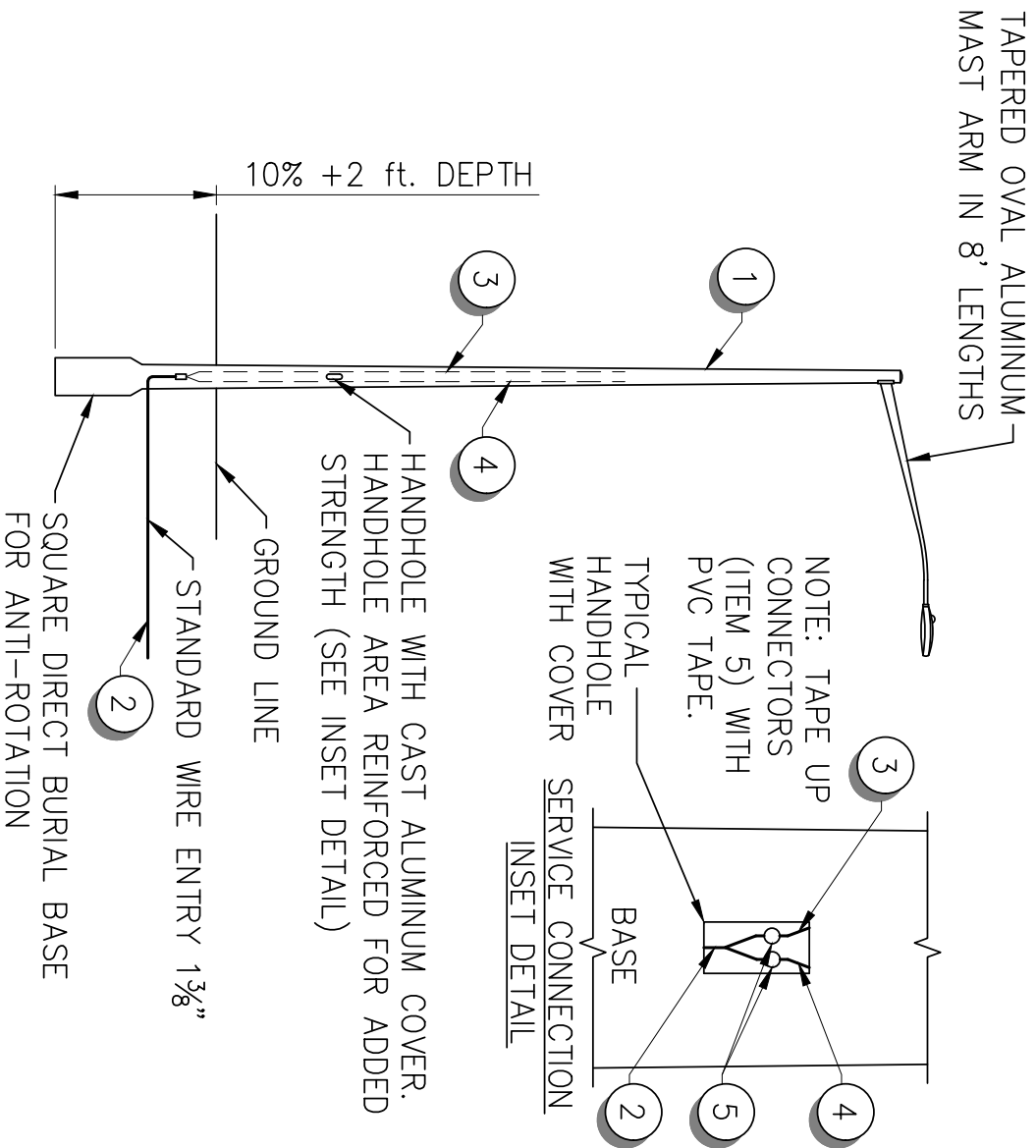


FIGURE 1

Street Lighting Pole
Assembly
Fiberglass, Direct-Buried
Underground Service

Luminaire - Horizontal Lighting, LED, Street Light luminaires

FL 402

III-D
3/5

Scope

This standard provides information on light-emitting diode (LED) type street light luminaires with a photo cell for mounting on wood, metal, or fiberglass poles. These units are rated to accept voltage from 120V to 277V.

Notes

- 50W and 135W LED luminaires.
- All luminaires are to be self activating, utilizing photoelectric control.
- In residential areas, consideration shall be given to light pattern adjustment to preclude light intrusion into homes.
- Night sky protection is provided by the luminaire design which prevents light above the horizontal plane of the fixture.
- Color temperature, measured in Kelvins (K), refers to how "warm" or "cool" light appears. 3,000 K LEDs have a slightly amber color relative to the 4,000K LEDs. While the 4,000K option is preferred, 3,000 K LEDs may be installed in environmentally sensitive areas.

Table 1 – List of Materials

No.	S.I. No.	Description	Application
1.	8002148	Luminaire, LED, 50W, 4,000K, 120–277V, Type 2, PE	Local Streets
	8002150	Luminaire, LED, 135W, 4,000K, 120–277V, Type 3, PE	Collector Streets

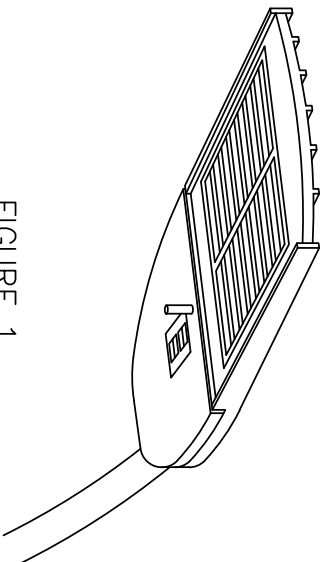
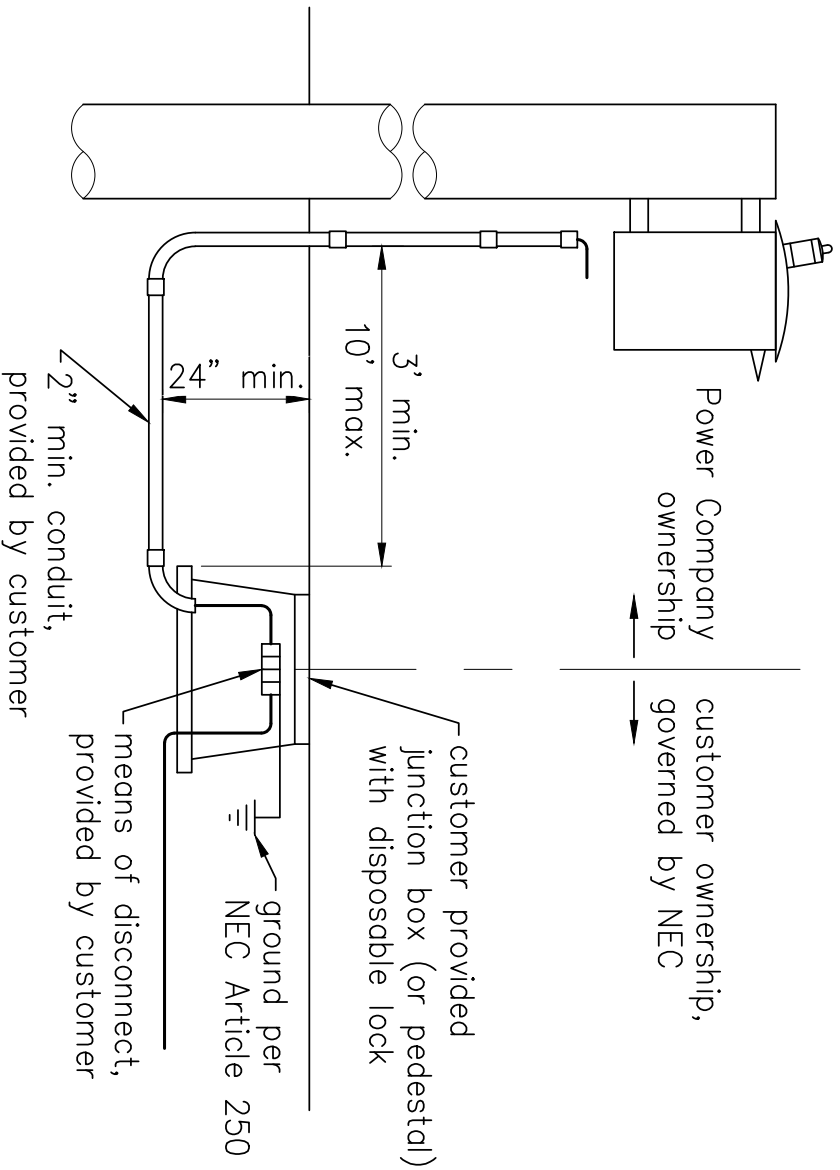
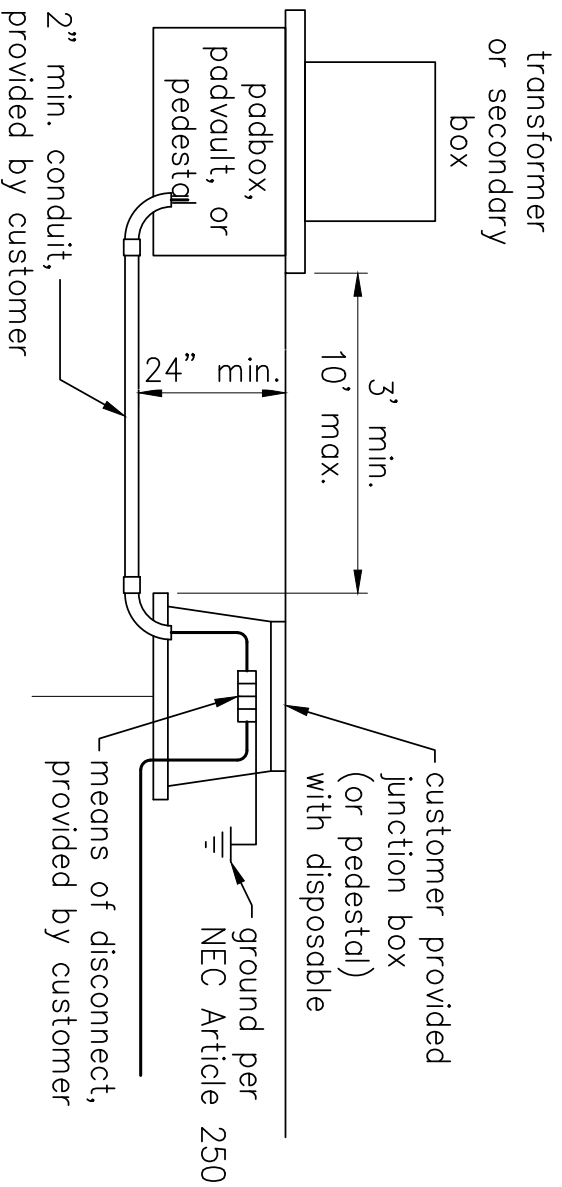


FIGURE 1

Luminaire - Horizontal
Lighting



Customer is responsible for:

1. Providing and installing a junction box or pedestal, conduit, fusing and customer-owned wire. The junction box or pedestal must be strong enough for incidental traffic areas.
2. Coordinating with Power Company on junction box or pedestal location and all digging within the vicinity of Power Company facilities.
3. Ensuring that construction of new or remodeled installations conform to applicable provisions of the NEC State Rules, as well as city and county codes.

Power Company is responsible for:

1. Making the connection within Power Company facilities (transformer or secondary box).

Street Light Point-of Disconnect Diagram

Cable Street Lighting, Underground

FC 201
RCMS Code: BA

III-D
5/5

Scope

This standard issues underground cables used to supply street lighting luminaires.

Street Lighting Cable	Code
#6 AAC duplex cable.....	A
#4 AAC single cable.....	B
#2 AAC single cable.....	C
#1/0 AAC single cable.....	D
#10 USE-RHH copper, single cable....	E
#8 USE-RHH copper, single cable.....	F

Standard References

FC 001 Lighting Cable and Conductor – General Information

Notes

1. This standard issues #6 AAC duplex cable by the duplex cable foot, not the single-conductor cable foot.
2. This standard issues #4 AAC and larger single-conductor cable by the foot.

Table 1 – List of Materials

No.	S.I. No.	Description
1.	4213013	#6 AAC duplex cable "Clafin"
2.	4217907	#4 AAC single-conductor cable "Mercer"
2.	4218004	#2 AAC single-conductor cable "Clemson"
2.	4218103	#1/0 AAC single-conductor cable "Harvard"
2.	1100048	#10 CU. USE-RHH single conductor cable
2.	1100050	#8 CU. USE-RHH single conductor cable

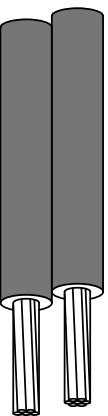


FIGURE 1 – Duplex Cable



FIGURE 2 – Single Conductor Cable

Cable, Street Lighting,
Underground

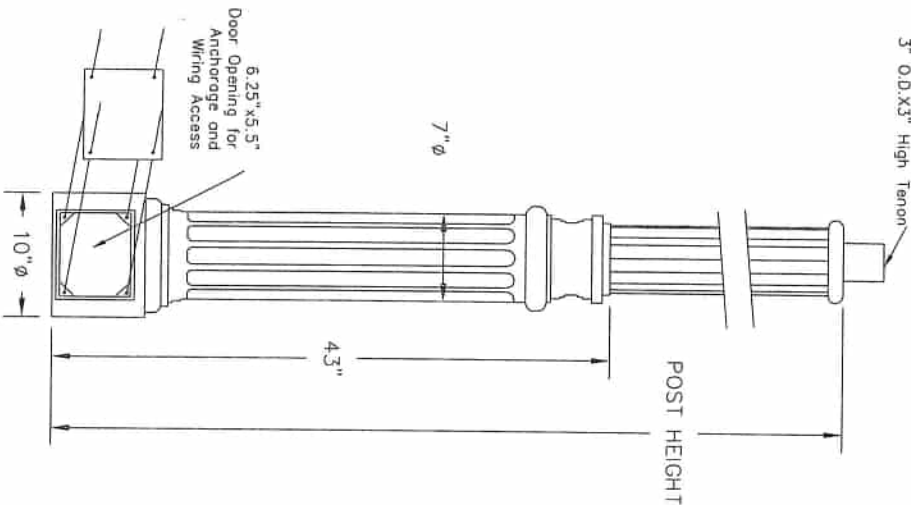
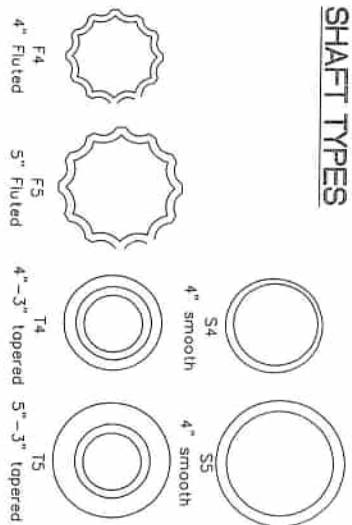
HARTFORD SERIES

Cast Aluminum Posts

ORDERING INFORMATION

Choose the bulletin catalog merchandise that best suits your needs and write it on the appropriate line

Example: PX H10 12 S5 ANBK Options



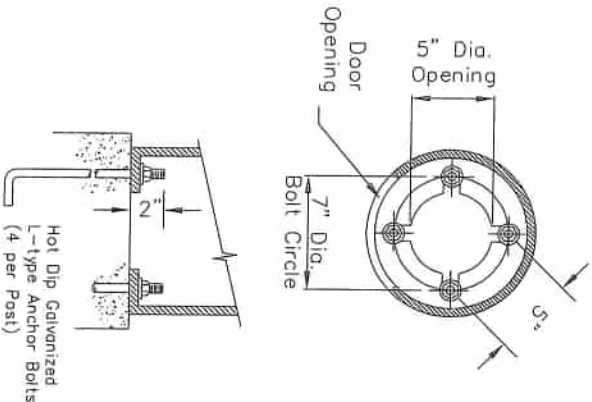
Post Series	Height	Finish 1
PX H10	8 10 12 14 16"	ANBK Black ANDG Dark Bronze ANVG Dark Green ANPP Verde Green CM Prime Painted CS Custom Match RAL colors

- Shaft Type**
- S4 Smooth 4" ϕ
 - S5 Smooth 5" ϕ
 - F4 Fluted 4" ϕ
 - F5 Fluted 5" ϕ
 - T4 Tapered 4"-3" ϕ
 - T5 Tapered 5"-3" ϕ

- Options**
- Receptacles
 - Banner Arms
 - Flagpole Holders
 - Custom Logos
 - Signage
- (see Signage & Accessories section in the catalog or contact Antique Street Lamps)

- NOTES:**
- For finish specifications and color options, see Finish section in catalog or contact Antique Street Lamps.
 - 16" height not available for S4, F4, or T4 (any 4" ϕ) Shaft Type.

ANCHORAGE GUIDE



CITY OF LA VERKIN – STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

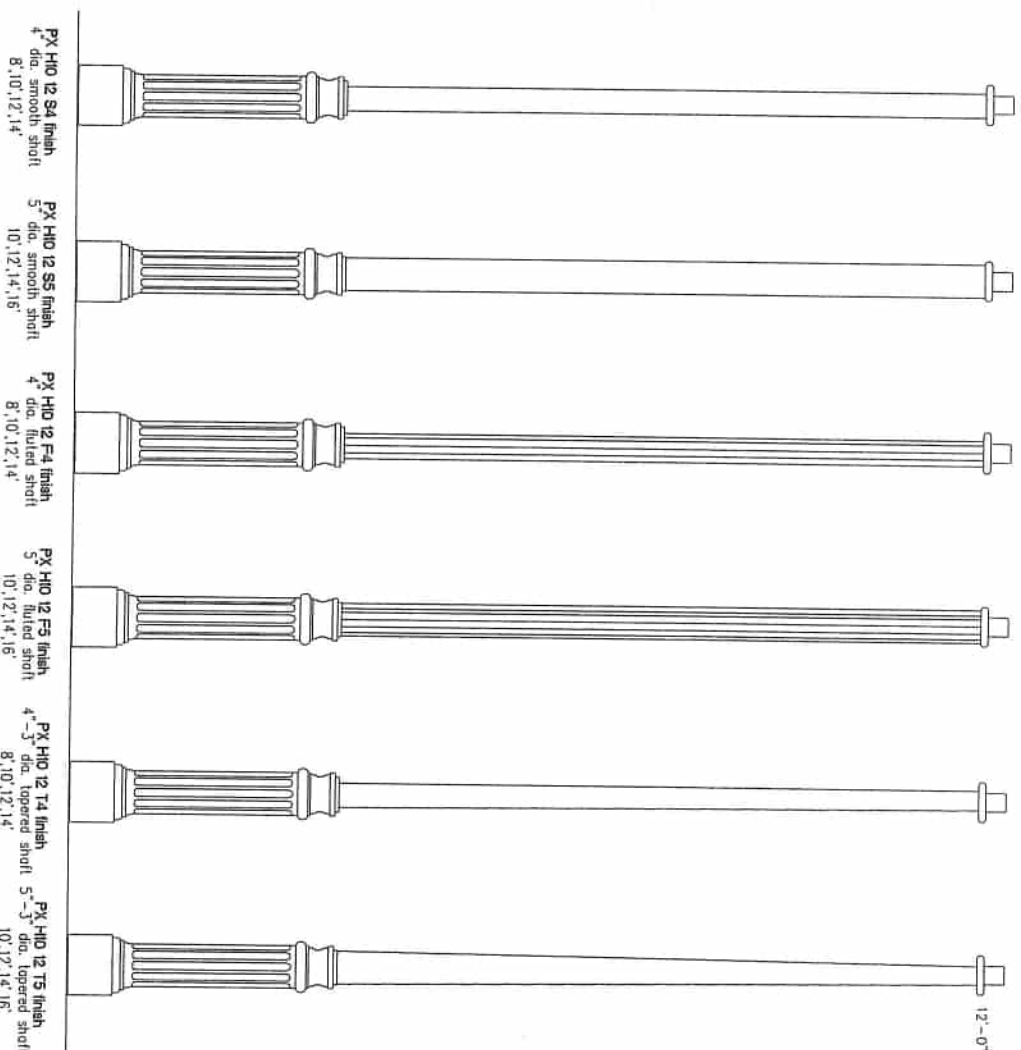
ALT. LIGHT POLE DETAILS

III-E

1A/5

Cast Aluminum Posts extruded shafts

HARTFORD Series 10" dia. base



SPECIFICATIONS

DESCRIPTION The lighting post shall be oil aluminum, one-piece construction, with a 12-flute base design. The shaft shall be _____ (insert shaft options from back page). The post shall be Antique Street Lamps' catalog number P/h10 XX XX finish.

MATERIALS The base shall be heavy wdl. copper free, cast aluminum produced from certified ASTM 356.1 ingot per ASTM B-179-95a or ASTM B26-95. The straight shafts shall be extruded from aluminum, ASTM 6061 alloy, heat treated to a T6 temper. The tapered shaft shall be extruded from aluminum, ASTM 6063 alloy, spun to a tapered shape, then heat treated to a T6 temper. All hardware shall be temper resistant stainless steel. Anchor bolts to be completely hot-dip galvanized.

CONSTRUCTION The shaft shall be double welded to the base casting and shaped as one piece for maximum structural integrity. The shaft shall be circumferentially welded inside the base casting at the top of the access door, and externally where the shaft exits the base. All exposed welds below 8' shall be ground smooth. All welding shall be per AWS/AWS

D1.2-90. All welders shall be certified per Section 5 of AWS/AWS D1.2-90.

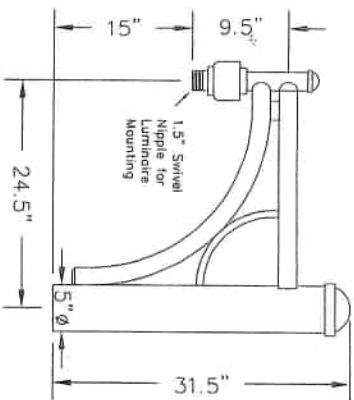
DESCRIPTION The post shall be X"-XX" in height with a 10" diameter base. The shaft diameter shall be XX" (see back page) At the top of the post, on integral 3" O.D. x 3" tenon with a transitional donut shall be provided for luminaire mounting.

INSTALLATION The post shall be provided with four, hot-dip galvanized L-type anchor bolts to be installed on a 7" diameter bolt circle. A door shall be provided in the base for anchorage and wiring access. A grounding screw shall be provided inside the base opposite the door.

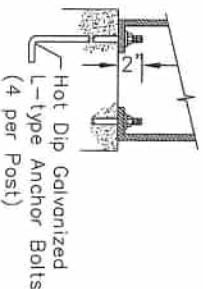
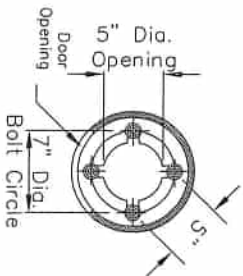
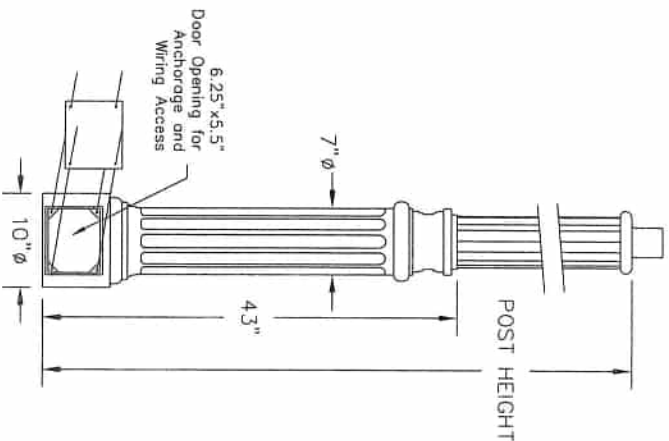
For finish specifications and color options see "Finish" section in catalog.

ANTIQUE Street Lamps

201-BW Rundberg L.A. • Austin, TX 78726 *ph(512) 377-8444*fax(512) 377-8622



EAE5/1



PX H10 12 TS

DESCRIPTION The lighting post shall be all aluminum, one-piece construction 12-flute base design.

MATERIALS The base shall be heavy wall, copper free, cast aluminum produced from certified ASTM 356.1 ingot per ASTM B-179-95a or ASTM 6061 alloy, heat treated to a T6 temper. The tapered shaft shall be extruded from aluminum, ASTM 6063 alloy, spun to a tapered shape, then heat treated to a T6 temper. All hardware shall be temper resistant stainless steel. Anchor bolts to be completely hot-dip galvanized.

CONSTRUCTION The shaft shall be double welded to the base casting and shipped as one piece for maximum structural integrity. The shaft shall be circumferentially welded inside the base casting at the top of the access door, and externally where the shaft exits the base. All exposed welds below 8' shall be ground smooth. All welding shall be per ANSI/AWS D1.2-90. All welders shall be certified per Section 5 of ANSI/AWS D1.2-90

DIMENSIONS The post shall be 16' in height with a 10" diameter base. At the top of the post on integral 3" O.D. x 3" tenon with a transitional donut shall be provided for luminaire mounting.

INSTALLATION The post shall be provided with four, hot-dip galvanized L-type anchor bolts to be installed on a 7" diameter bolt circle. A door shall be provided in the base for anchorage and wiring access. A grounding screw shall be provided inside the base opposite the door.

EUROTQUE Architectural Lighting
Street Lighting Pole
Assembly
Underground Service

EUROTQUE™ ARMS **EAE Series * 5" dia. Arms** **& Wall Brackets**

SPECIFICATIONS

CONSTRUCTION

The arms and wall brackets shall be one-piece construction. The round tubing arms shall be welded to a center spool and plumbizer housing. For the wall bracket, the arm shall be welded to a flat wall plate. All welding shall be per ANSI/AWS D1.2. All welders shall be certified.

MATERIALS

The finish, plumb housing and swivel nipple shall be cast aluminum. The arm, center spool, arm spools and wall bracket mounting plate shall be aluminum. All hardware shall be stainless steel. All exterior hardware shall be tamper resistant.

INSTALLATION

The arms shall slip fit a 4.375" O.D. x 11" post top lenon and attach with (8) socket set screws. Matching Eurotique poles shall be 5" diameter or 5 7/8" diameter. The center finl and arm finl shall be removable. The wall bracket shall have six 1/2" dia. holes for mounting to the wall. (Bracket mounting hardware furnished by others. 2" x 3" vertical junction box recommended) Both arms and wall bracket shall have 1.5" NPT swivel nipples for luminaire mounting. Optional twist-lock photocentral installed at center spool top instead of finl.

For finish specifications and color options, see "Finish" section in catalog.

ORDERING INFORMATION

Choose the baseline catalog monochromatic that best suits your needs and write it on the appropriate line Example: EAE5/ ANBK PER PE1

Series	Finish 1
EAE5WB one	ANBK Black
EAE5/ one	ANDB Dark Bronze
EAE5/2 two	ANDG Dark Green
/ of luminaires required	ANVP Verde Green
	CP Prime Painted
	CS Custom Select
	CS RAL colors

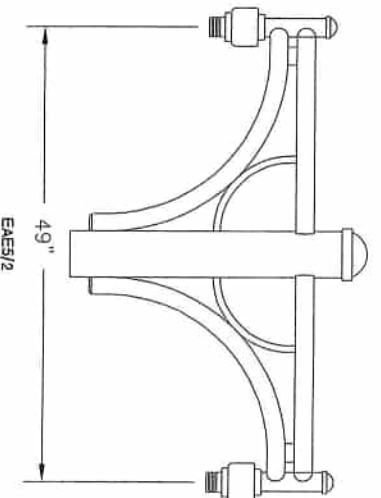
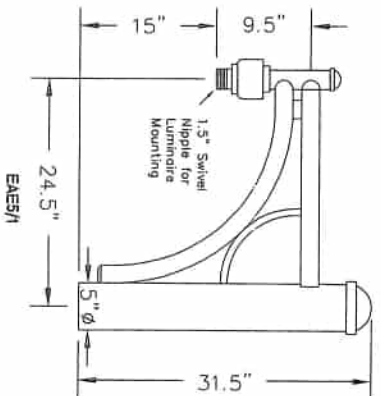
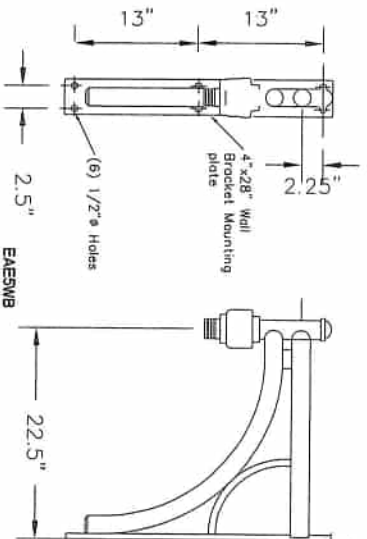
Options 2

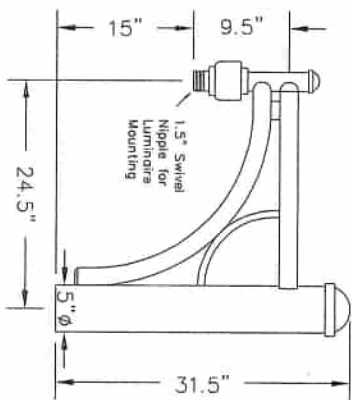
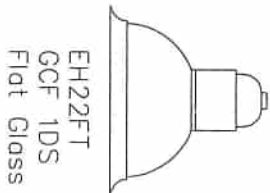
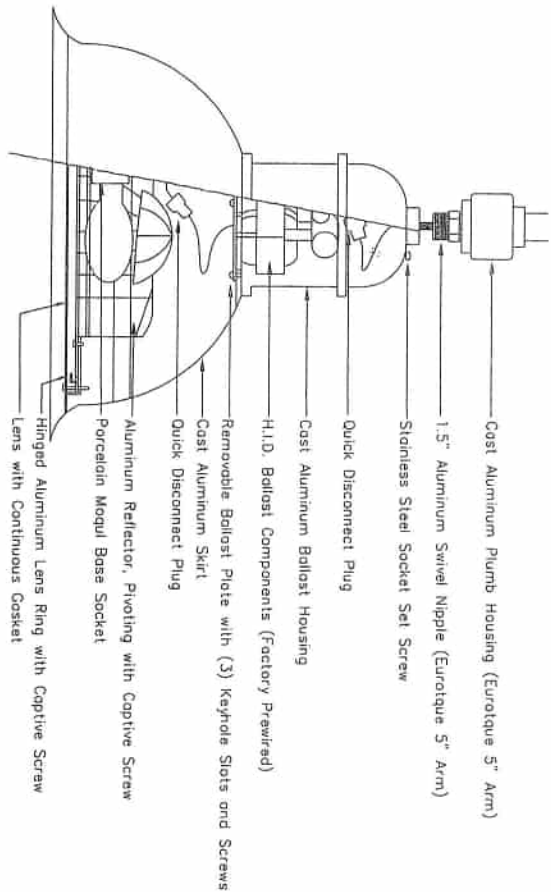
PER NEUA Teel-Lock Receipte only
 PE1 NEUA Teel-Lock Photocentral 120/208/204V
 PE3 NEUA Teel-Lock Photocentral 347V
 PE4 NEUA Teel-Lock Photocentral 480V
 PE7 NEUA Teel-Lock Photocentral 277V

NOTES: 1. for finish specifications and color options, see "Finish" section in catalog.
 2. Twist-Lock Photocentral not available with wall bracket.

ANTIQUE Street Lamps

2011-BW, Runberg Ln., Austin, TX 78758
 ph(512) 977-8444*fax(512) 977-9622
 www.antiquestreetslamps.com





EAES/1

CONSTRUCTION The arm and wall bracket shall be one-piece construction. The round tubing arms shall be welded to a center spool and plumbizer housing. For the wall bracket, the arm shall be welded to a flat wall plate. All welding shall be per ANSI/AWS D1.2. All welders shall be certified.

MATERIALS The finials, plumb housing and swivel nipple shall be cast aluminum. The arm, center spool, arm spools and wall bracket mounting plate shall be aluminum. All hardware shall be stainless steel. All exterior hardware shall be tamper resistant.

INSTALLATION The arms shall slip-fit a 4.375" O.D. x 11" post top tenon and attach with (8) socket set screws. Matching Eurotque poles shall be 5" diameter or 5"/7" diameter. The center finial and arm finial shall be removable. The wall bracket shall have six 3/4" diameter holes for mounting to the wall. Both arms and wall bracket shall have 1.5" NPT swivel nipples for luminaire mounting. Optional twist-lock photocontrol installed at center spool top instead of finial.

EUROTQUE Architectural Lighting

Luminaire - Horizontal

Lighting

CITY OF LA VERKIN — STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION

ALT. LIGHT POLE ARM & FIXTURE DETAILS