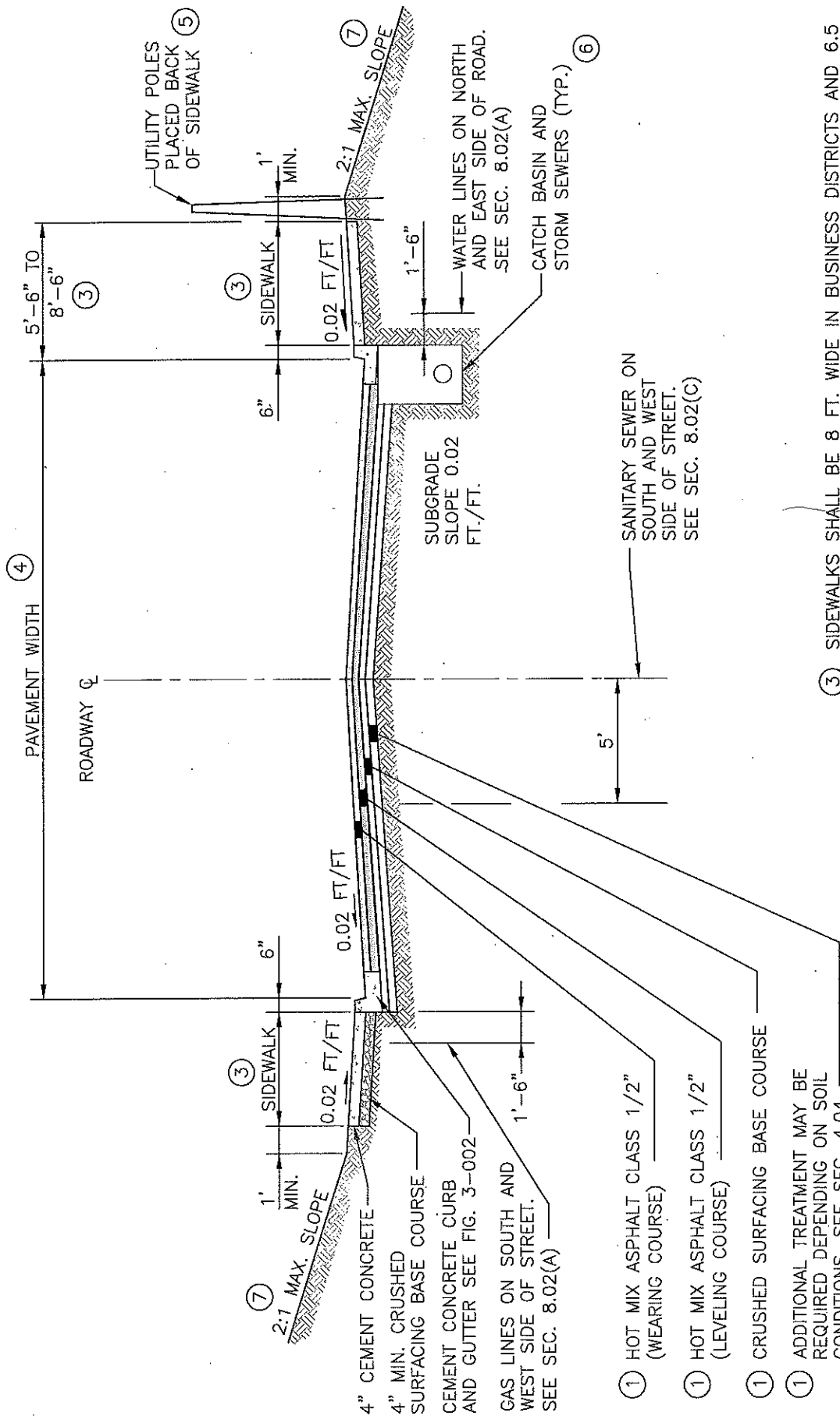


NOTES:

- ① THIS DRAWING ILLUSTRATES A TYPICAL HOT MIX ASPHALT RESIDENTIAL SECTION, ACTUAL SURFACING FOR ARTERIALS AND COMMERCIAL ACCESS STREETS SHALL BE BASED ON SECTION 4.05
- ② SHOULDERS SHALL BE SURFACED AS REQUIRED BY SECS. 3.07 AND 4.01. SHOULDER SLOPE SHALL MATCH CROWN SLOPE OR 0.02 FT./FT. IF PAVED.
3. GRADES:
MINIMUM 0.5%
MAXIMUM SEE SECS. 2.02 AND 2.11.
- ④ SEE SEC. 2.02 FOR WIDTHS OF PAVEMENT, SHOULDER, AND RIGHT-OF-WAY.
- ⑤ SEE SEC. 8.02G AND FIG. 5-001 FOR CLEARANCE OF UTILITY POLES.
6. SEE SEC. 3.08 FOR SEPARATED WALKWAY IF REQUIRED.
- ⑦ DITCH SECTIONS AND/OR LOCATIONS MAY VARY TO MEET REQUIREMENTS OF THE SURFACE WATER DESIGN MANUAL.
- ⑧ SEE SEC. 5.02 FOR SIDE SLOPE REQUIREMENTS.
- ⑨ PAVED SHOULDERS ARE REQUIRED FOR NEIGHBORHOOD COLLECTORS AND ARTERIALS SEC. 3.07(B).
10. SEE FIG. 3-017 THROUGH 3-019 WHEN A EQUESTRIAN TRAIL IS REQUIRED.

VERTICAL CURB TYPE ROADWAY

FIG. 2-002

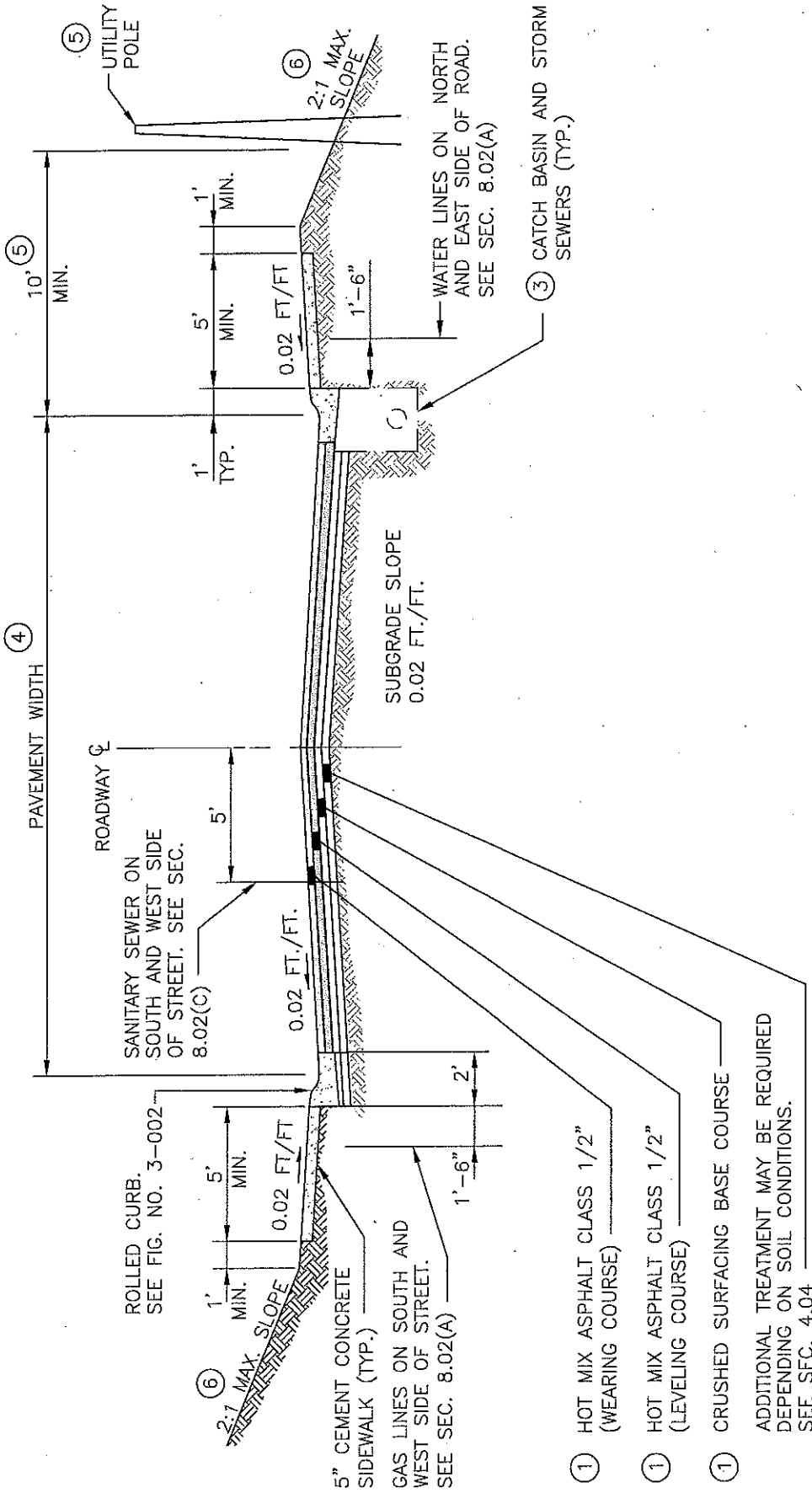


NOTES:

- ① THIS DRAWING ILLUSTRATES A TYPICAL HOT MIX ASPHALT RESIDENTIAL STREET SECTION. ACTUAL SURFACING DESIGN FOR ARTERIALS AND COMMERCIAL ACCESS STREETS SHALL BE BASED ON SECTION 4.05
- 2. GRADES:
MINIMUM 0.5%
MAXIMUM SEE SECS. 2.03 AND 2.11.

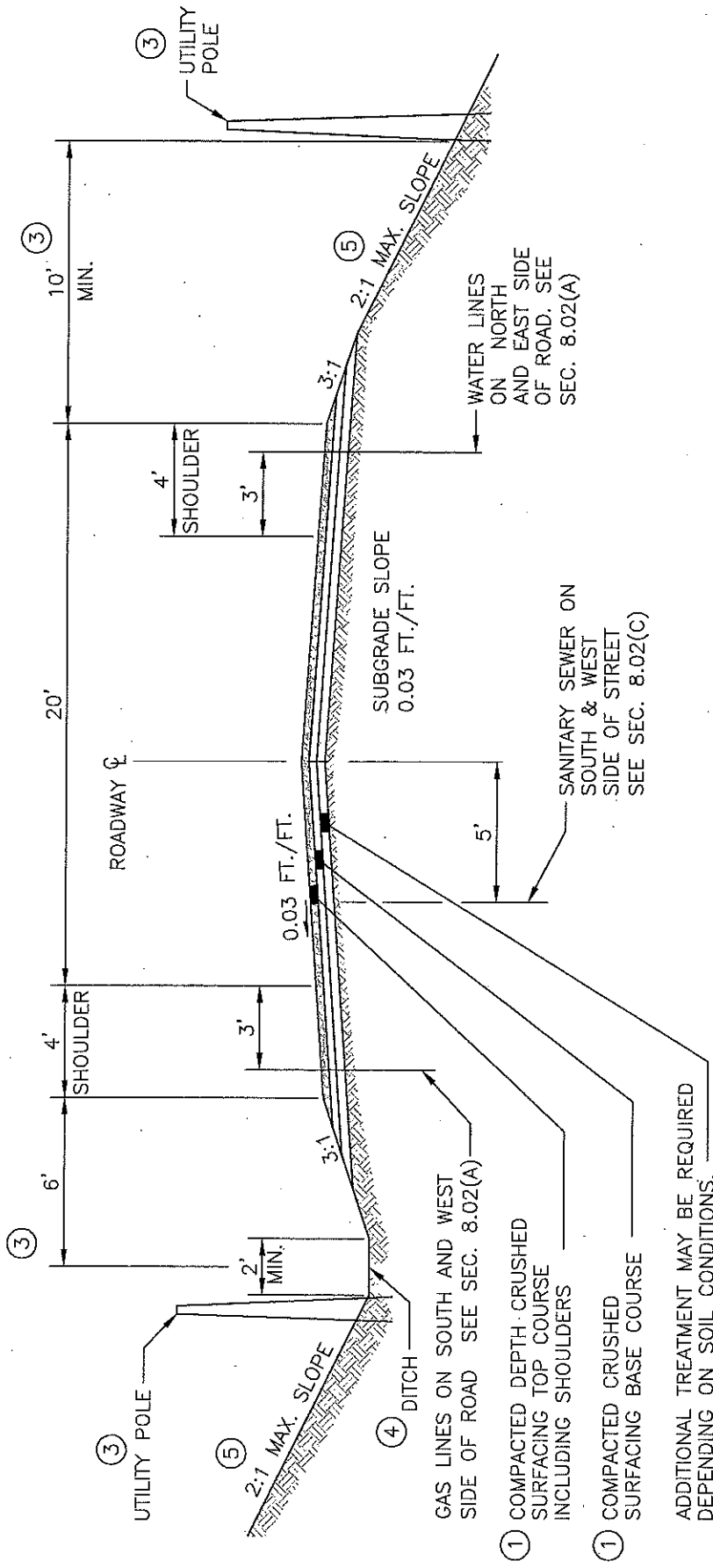
- ③ SIDEWALKS SHALL BE 8 FT. WIDE IN BUSINESS DISTRICTS AND 6.5 FT. WIDE ON ARTERIALS IF NEXT TO TRAFFIC LANE, 5 FT. WIDE IF NEXT TO PARKING OR BIKE LANE, OR BEHIND PLANTING STRIP OR WHEN LOCATED IN RESIDENTIAL AREAS. SEE SECTION 3.02. 3
- ④ SEE SECS. 2.02 AND 2.03. FOR WIDTHS OF PAVEMENT, SHOULDER, AND RIGHT-OF-WAY.
- ⑤ SEE SEC. 8.02G AND FIG. 5-001 FOR CLEARANCE OF UTILITY POLES.
- ⑥ SEE CHAPTER 7 FOR CATCH BASIN AND STORM SEWER LOCATIONS AND DRAINAGE DETAILS.
- ⑦ SEE SEC. 5.02 FOR SIDE SLOPE REQUIREMENTS.

- ① HOT MIX ASPHALT CLASS 1/2" (WEARING COURSE)
- ① HOT MIX ASPHALT CLASS 1/2" (LEVELING COURSE)
- ① CRUSHED SURFACING BASE COURSE
- ① ADDITIONAL TREATMENT MAY BE REQUIRED DEPENDING ON SOIL CONDITIONS. SEE SEC. 4.04



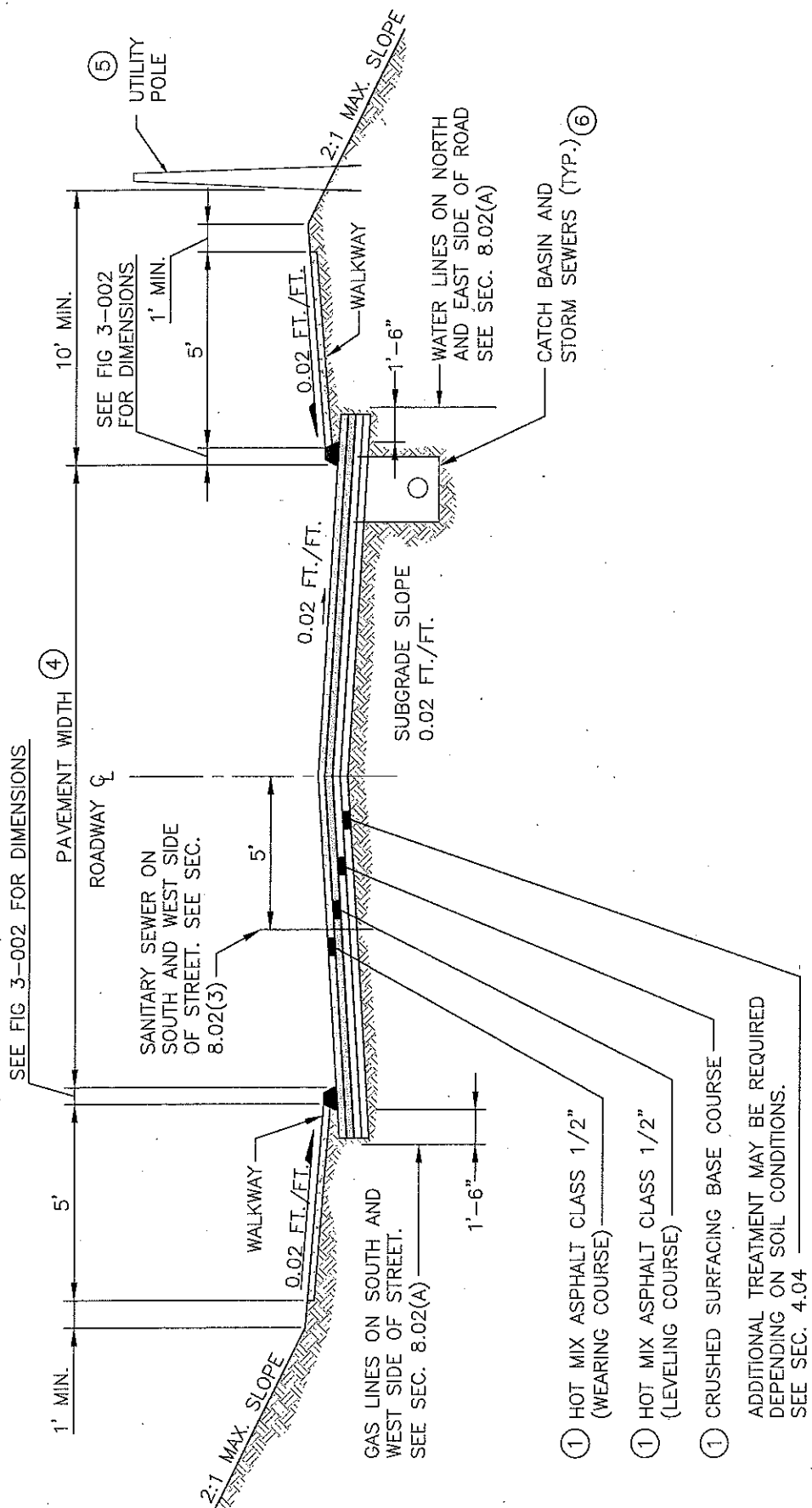
NOTES:

- ① THIS DRAWING ILLUSTRATES A TYPICAL HOT MIX ASPHALT RESIDENTIAL STREET SECTION.
- 2. GRADES:
MINIMUM 0.5%
MAXIMUM SEE SECS. 2.03 AND 2.11.
- ③ SEE CHAPTER 7 FOR CATCH BASIN AND STORM SEWER LOCATIONS AND DRAINAGE DETAILS.
- ④ SEE SECS. 2.03 FOR WIDTHS OF PAVEMENT AND RIGHT-OF-WAY.
- ⑤ SEE SEC. 8.02G AND FIG. 5-001 FOR CLEARANCE OF UTILITY POLES.
- ⑥ SEE SEC. 5.02 FOR SIDE SLOPE REQUIREMENTS.
- 7. A PAVEMENT WIDTH OF 20 FT. IS ALLOWED FOR URBAN 4-LOT SHORT PLATS. THE COUNTY ROAD ENGINEER OR DEVELOPMENT ENGINEER SHALL DETERMINE ANY NEED FOR SIDEWALKS.



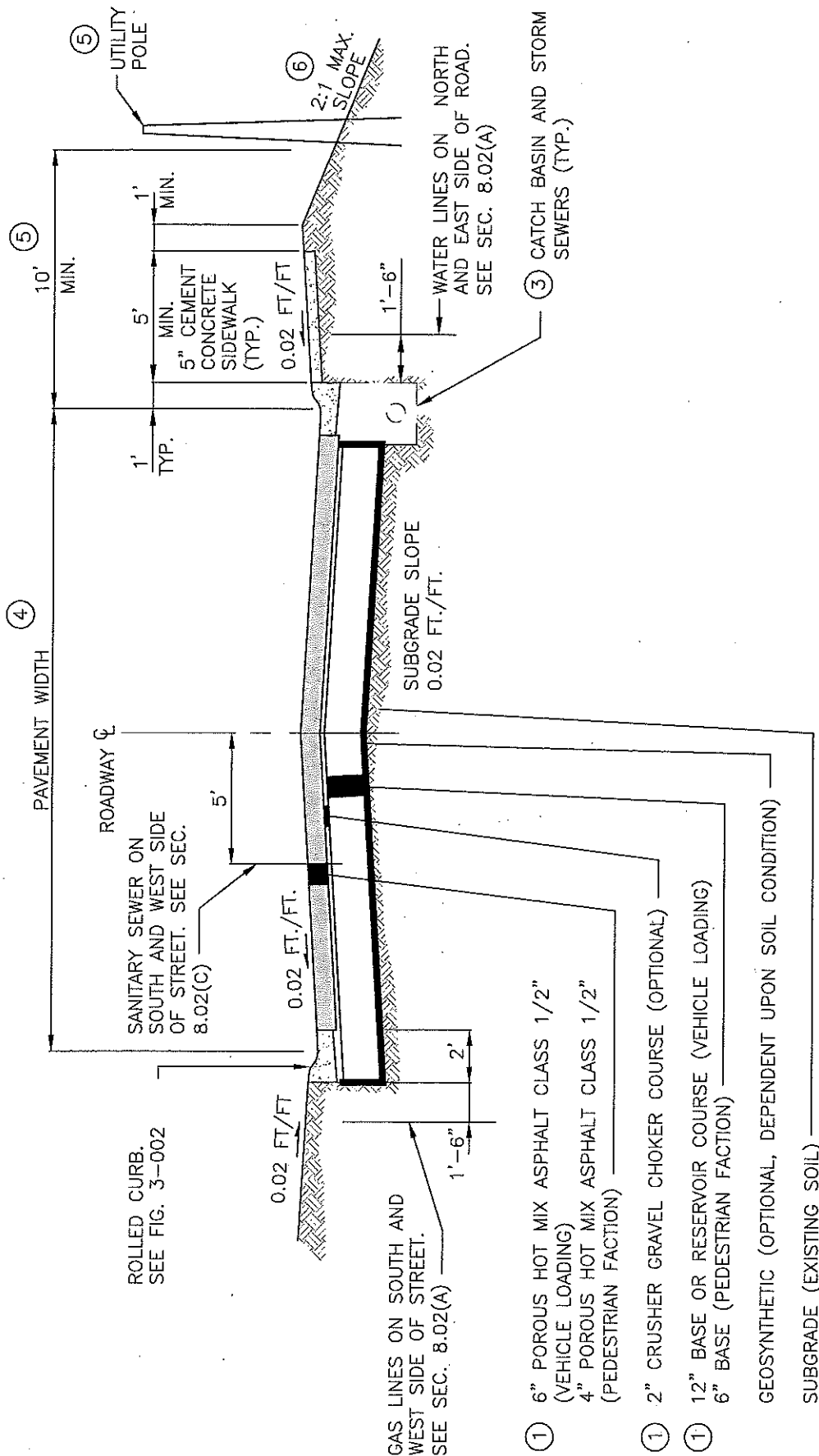
NOTES:

- ① GRAVEL SURFACING IS ACCEPTABLE ONLY ON RURAL MINOR ACCESS STREETS (RESIDENTIAL) WHICH ARE PRIVATE STREETS OR PRIVATE ROADWAYS WITHIN DESIGNATED AGRICULTURAL DISTRICTS. SEE TABLE 4-1
- ② GRADES:
MINIMUM 0.5%
MAXIMUM SEE SECS. 2.02 & 2.11.
- ③ FOR CLEARANCE OF UTILITY POLES SEE SEC. 8.02G & FIG. 5-001.
- ④ DITCH SECTIONS AND/OR LOCATIONS MAY VARY TO MEET REQUIREMENTS OF SURFACE WATER DESIGN MANUAL.
- ⑤ SEE SEC. 5.02 FOR SIDE SLOPE REQUIREMENTS.
- 6. ANY GRAVEL ROADS USED FOR FORESTRY PURPOSES MUST CONFORM TO RCW 76.09, FOREST PRACTICES ACT, WHICH MAY EXCEED STANDARDS IN SURFACE WATER DESIGN MANUAL.
- 7. THE SHOULDERS MAY BE REDUCED TO 2 FT. FOR RURAL MINOR ACCESS STREETS. SEE SEC. 2.02(B)
- 8. A PAVEMENT WIDTH OF 20 FT. IS REQUIRED FOR RURAL RESIDENTIAL 4-LOT SHORT PLATS.



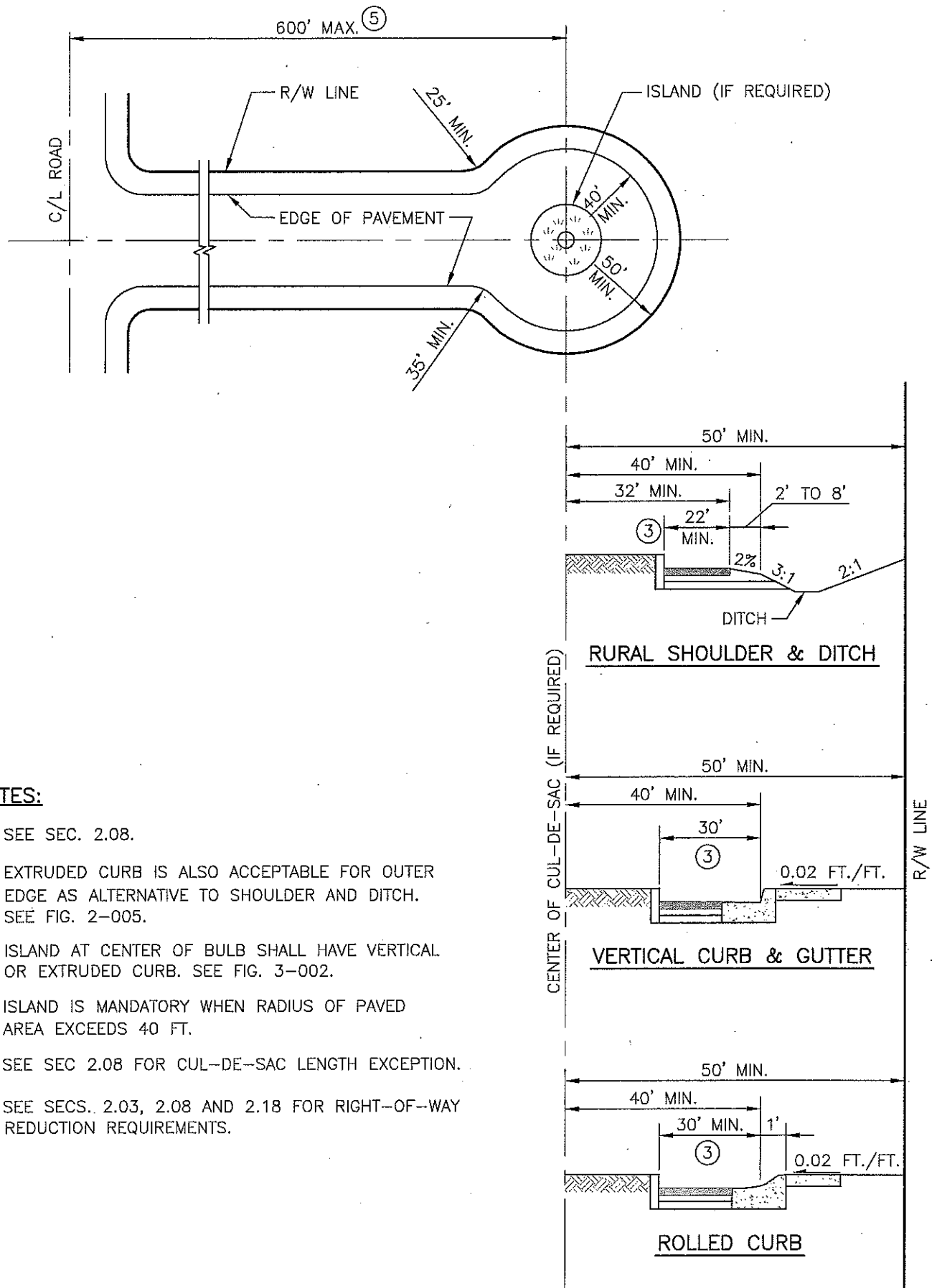
NOTES:

- THIS DRAWING ILLUSTRATES A TYPICAL HOT MIX ASPHALT ROAD SECTION.
- SEE FIG. 3-002 FOR EXTRUDED CURB DETAIL
- GRADES:
MINIMUM 0.5%
MAXIMUM SEE SECS. 2.02 AND 2.09.
- SEE SECS. 2.02 FOR WIDTHS OF PAVEMENT AND RIGHT-OF-WAY
- SEE SEC. 8.02(G) AND FIG. 5-001 FOR CLEARANCE OF UTILITY POLES.
- SEE CHAPTER 7 FOR CATCH BASIN AND STORM DRAIN LOCATIONS AND DRAINAGE DETAILS.
- WALKWAY SHALL BE CRUSHED SURFACING, ALTERNATIVE V, OR AS REQUIRED BY THE COUNTY ROAD ENGINEER OR DEVELOPMENT ENGINEER.
- SEE SEC. 5.02 FOR SIDE SLOPE REQUIREMENTS.



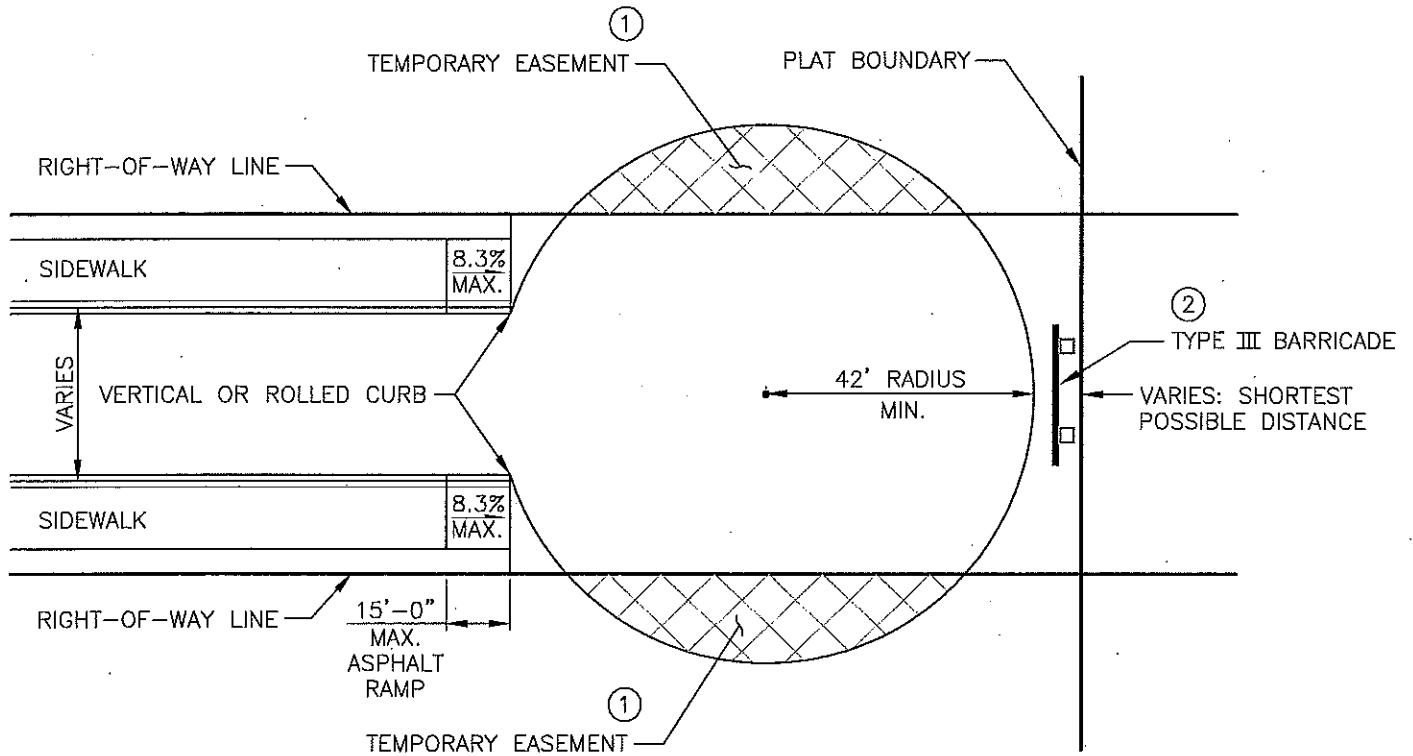
NOTES:

- ① THIS DRAWING ILLUSTRATES A TYPICAL HOT MIX ASPHALT PRIVATE PERVIOUS SECTION.
- ② GRADES:
MINIMUM 0.5%
MAXIMUM SEE SECS. 2.03 AND 2.11.
- ③ SEE CHAPTER 7 FOR CATCH BASIN AND STORM SEWER LOCATIONS AND DRAINAGE DETAILS.
- ④ SEE SECS. 2.03 FOR WIDTHS OF PAVEMENT AND RIGHT-OF-WAY.
- ⑤ SEE SEC. 8.02G AND FIG. 5-001 FOR CLEARANCE OF UTILITY POLES.
- ⑥ SEE SEC. 5.02 FOR SIDE SLOPE REQUIREMENTS.
- 7. A PAVEMENT WIDTH OF 20 FT. IS ALLOWED FOR A 9-LOT SHORT PLAT.
- 8. SEE CHAPTER 4 FOR POROUS HOT MIX ASPHALT DESIGN AND CONSTRUCTION.



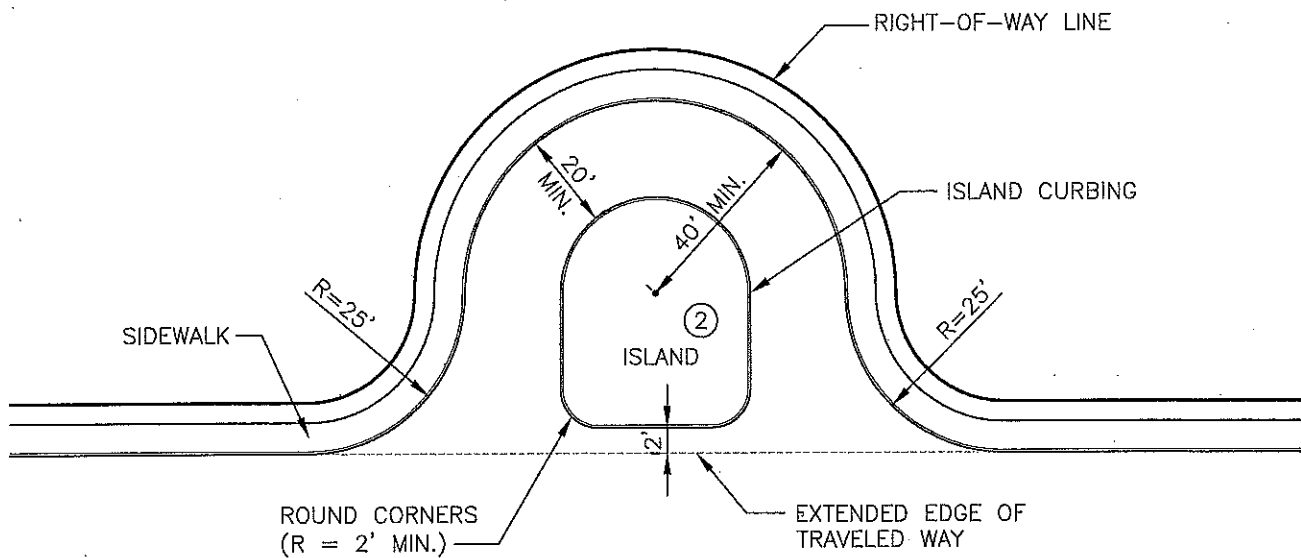
NOTES:

1. SEE SEC. 2.08.
2. EXTRUDED CURB IS ALSO ACCEPTABLE FOR OUTER EDGE AS ALTERNATIVE TO SHOULDER AND DITCH. SEE FIG. 2-005.
- ③ ISLAND AT CENTER OF BULB SHALL HAVE VERTICAL OR EXTRUDED CURB. SEE FIG. 3-002.
4. ISLAND IS MANDATORY WHEN RADIUS OF PAVED AREA EXCEEDS 40 FT.
- ⑤ SEE SEC 2.08 FOR CUL-DE-SAC LENGTH EXCEPTION.
6. SEE SECS. 2.03, 2.08 AND 2.18 FOR RIGHT-OF-WAY REDUCTION REQUIREMENTS.

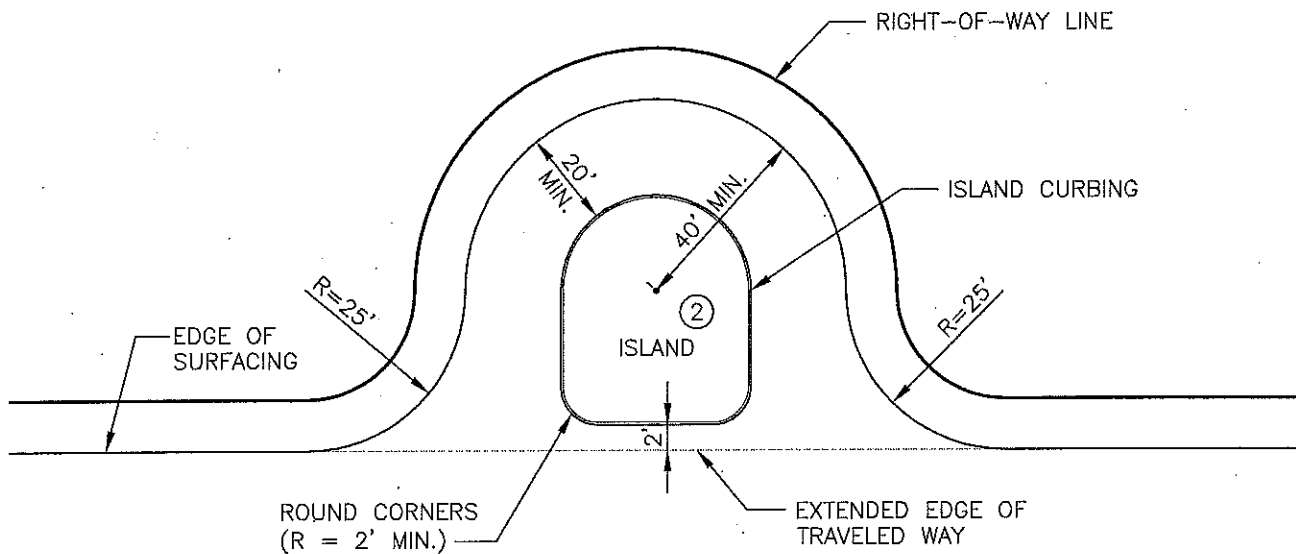


NOTES:

- ① SEE SEC. 2.08.
- ② BARRICADE REQUIRED AT END OF BULB. SEE SEC. 5.07.
3. ON NEIGHBORHOOD COLLECTOR ROADS, THE SIDEWALK SHALL NOT BE EXTENDED THRU THE TEMPORARY CUL-DE-SAC.



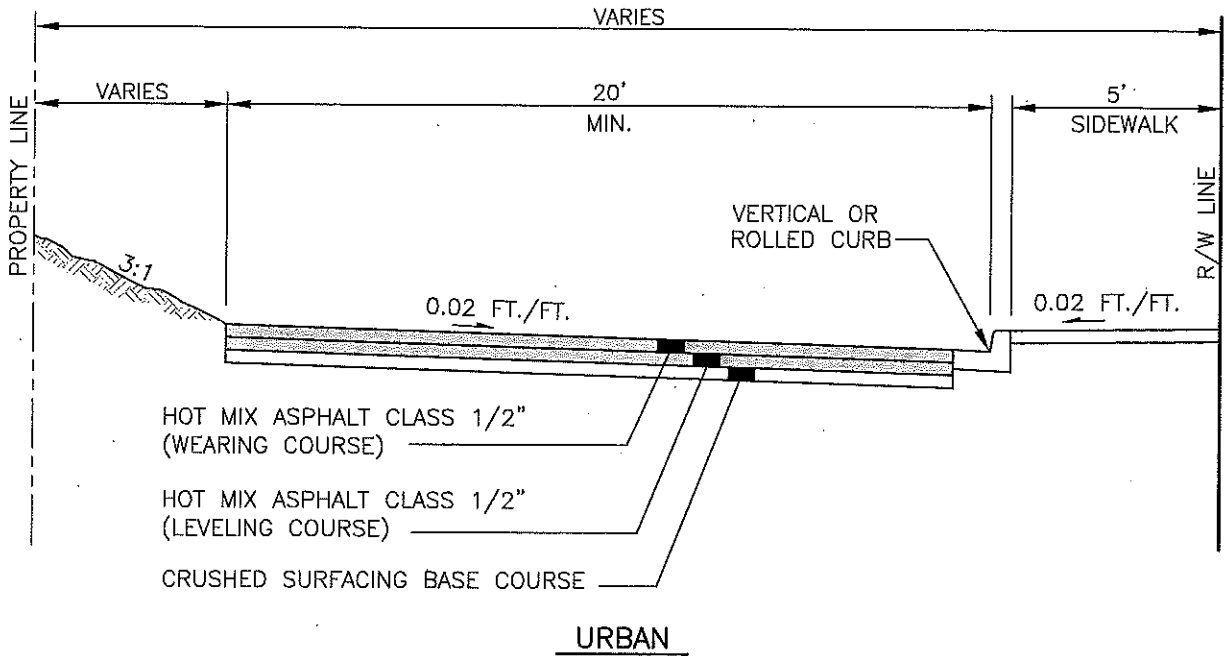
URBAN



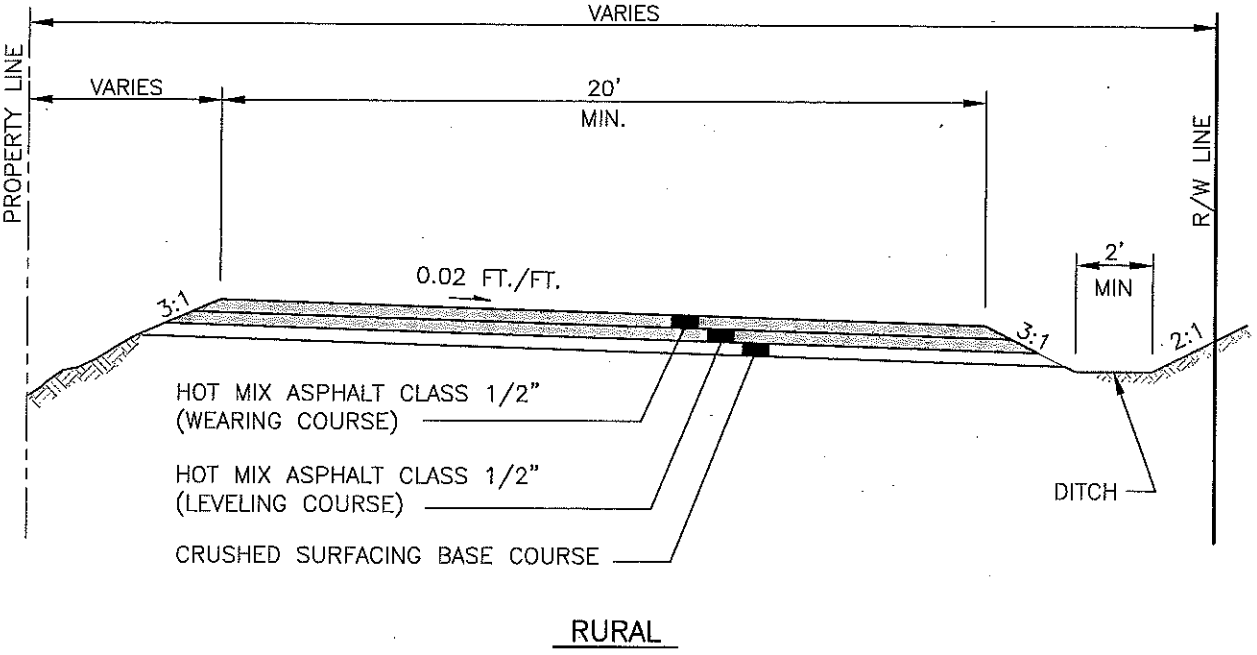
RURAL

NOTES:

1. SEE SEC. 2.08(A.8)
- ② ISLAND REQUIRED ON EYEBROWS WITH RADIUS GREATER THAN 25 FEET.
3. MIN. ISLAND DIAM. SHALL BE 10 FEET.
4. ISLAND SHALL HAVE VERTICAL OR EXTRUDED CURB. SEE FIG. 3-002
5. ISLAND LANDSCAPING AND CURBING SHALL BE PRIVATELY MAINTAINED



URBAN

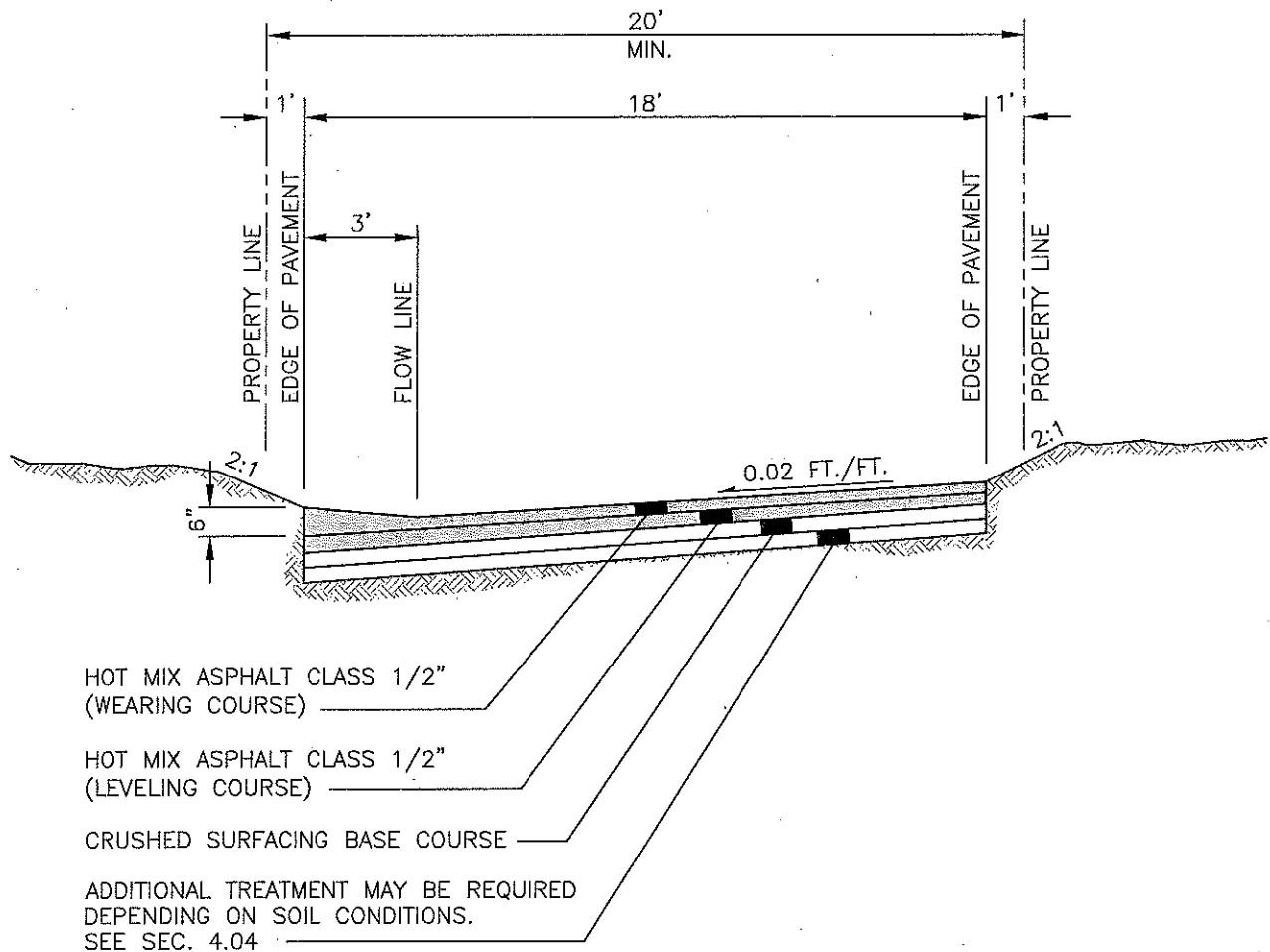


RURAL

NOTES:

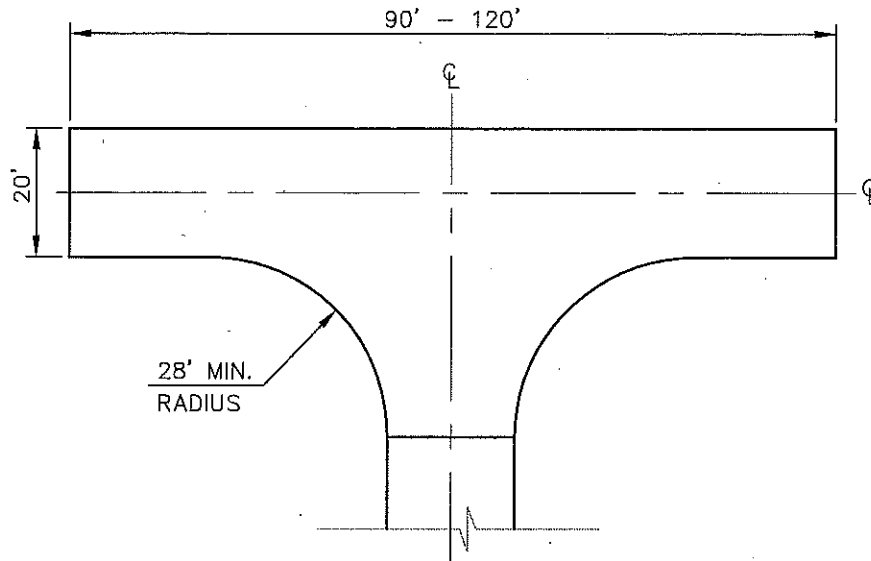
1. SEE CHAPTER 4 FOR SURFACING REQUIREMENTS
2. SEE SEC. 2.07 FOR HALF-STREET REQUIREMENTS.
3. SEE SEC. 3.02 FOR CONCRETE SIDEWALK REQUIREMENTS.
4. EDGE OF PAVEMENT TO BE CONSTRUCTED AS SHOWN FOR CUT OR FILL SECTION AS APPROPRIATE.



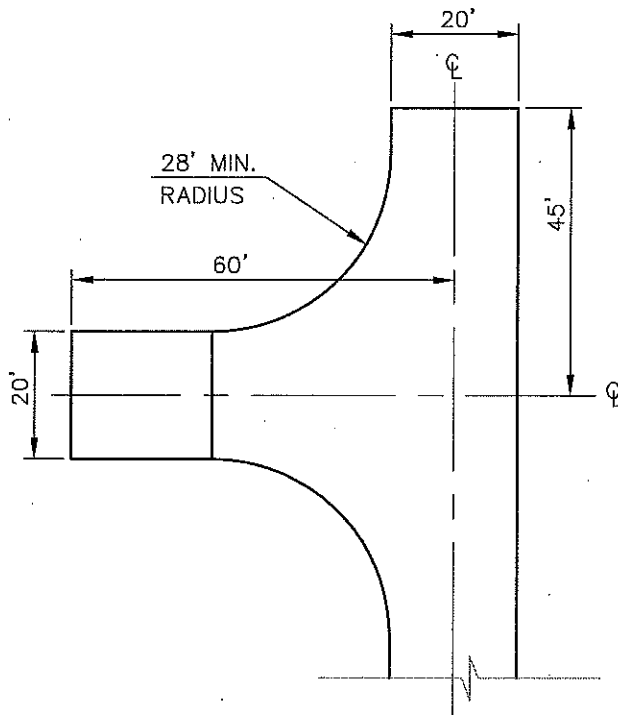


NOTES:

1. SEE SEC. 2.09 FOR ALLEY REQUIREMENTS.
2. SURFACING REQUIREMENTS FOR ALLEYS SHALL MEET THE APPLICABLE CRITERIA OF CHAPTER 4.



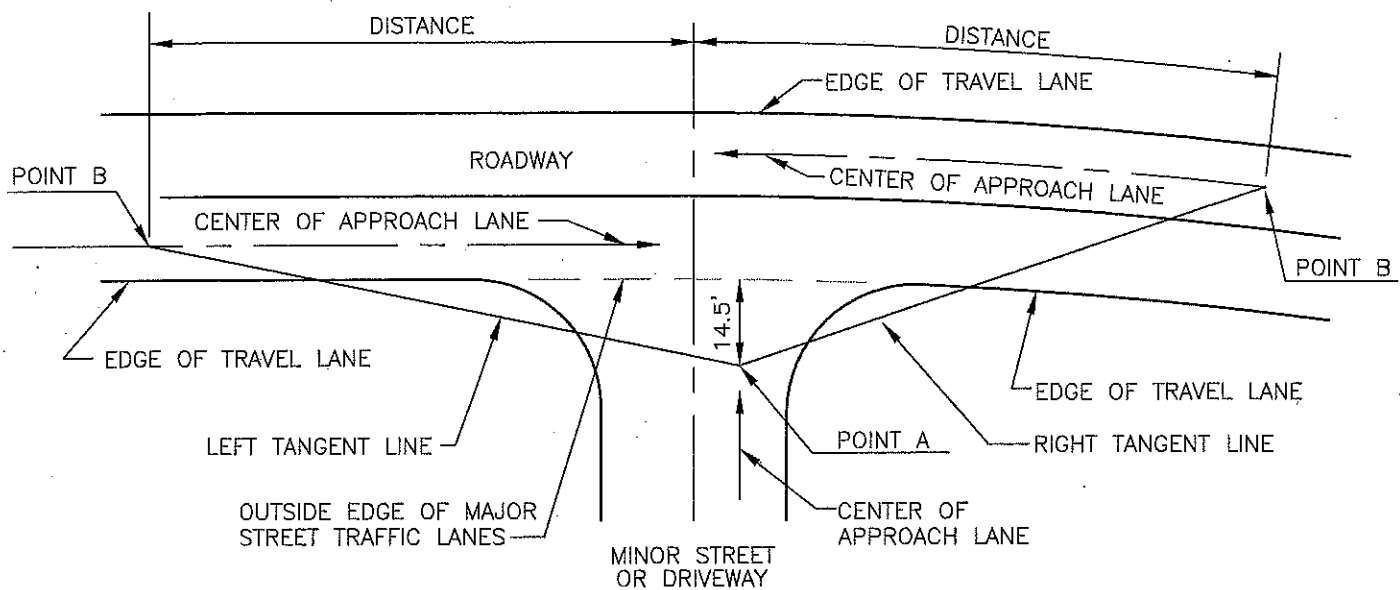
HAMMERHEAD



OFFSET HAMMERHEAD

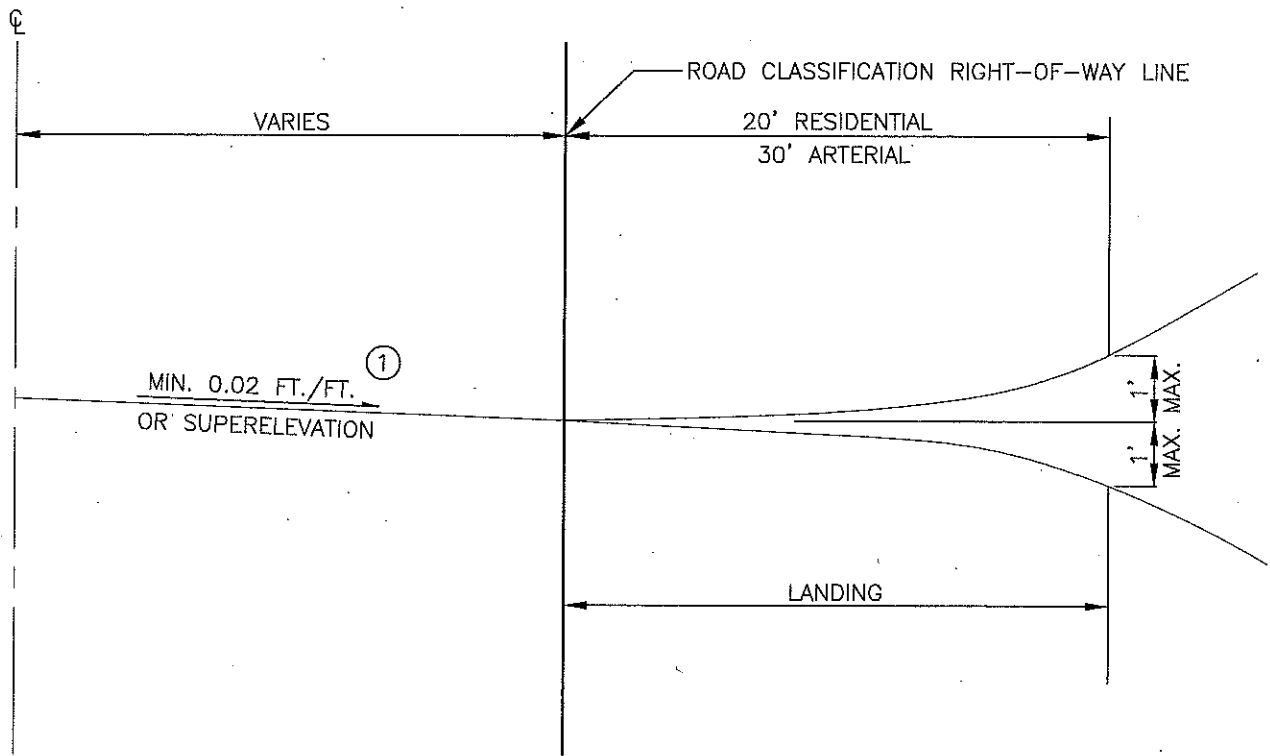
NOTES:

1. HAMMERHEAD WIDTH RANGES BETWEEN 90' TO 120', DEPENDENT UPON ROADWAY LENGTH. SIDEWALKS AND UTILITIES MAY BE LOCATED WITHIN PUBLIC EASEMENTS.
2. ALTERNATIVE DESIGNS BY APPROVAL OF THE COUNTY ROAD ENGINEER AND FIRE MARSHAL.
3. TURNAROUND FACILITIES CANNOT BE LOCATED ON DRIVEWAYS.
4. ALL STREET ENDS SHALL BE SIGNED PER THE MUTCD.



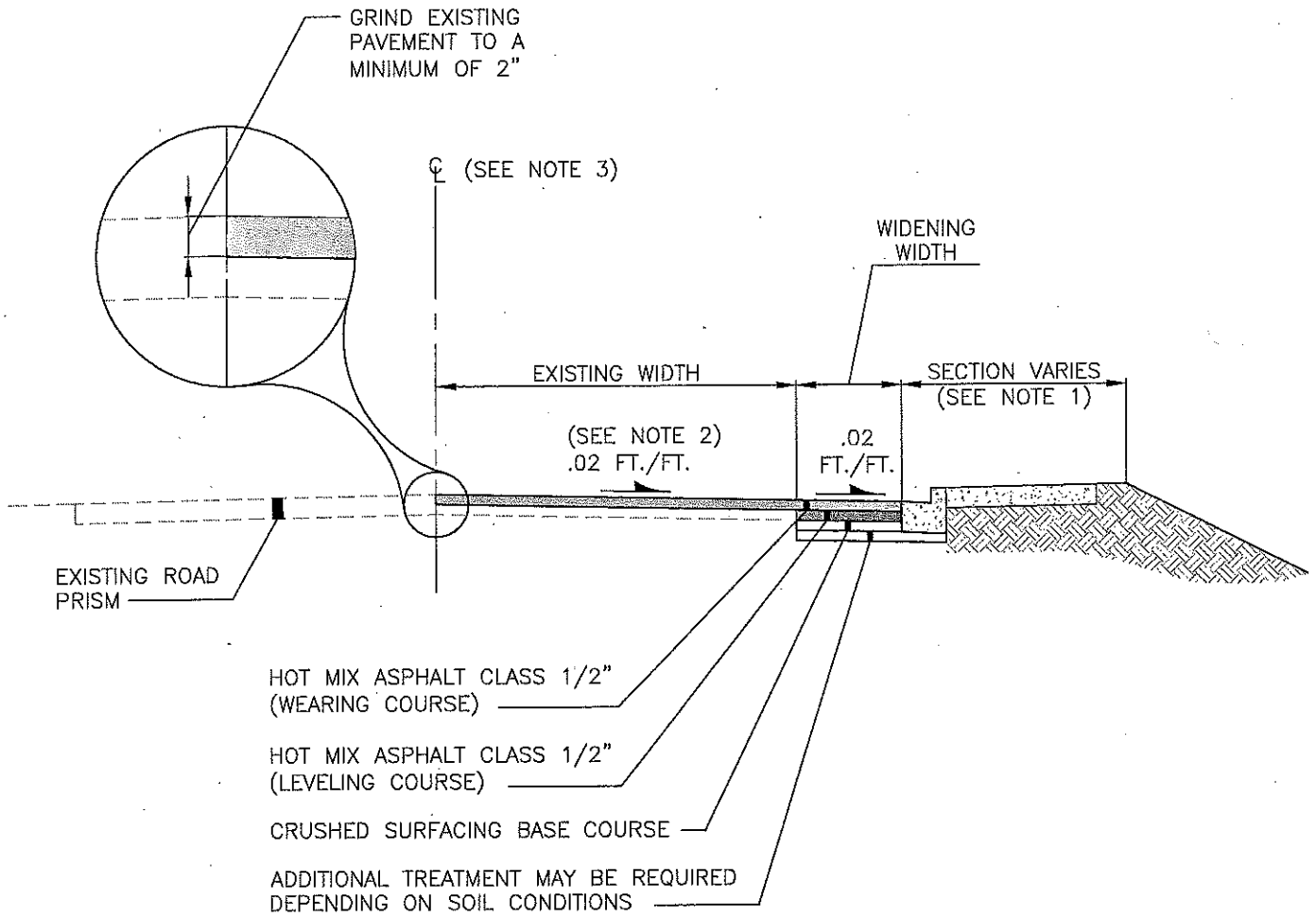
NOTES:

1. PARKING STRIPS OR LANES DESIGNATED FOR PARKING ONLY ARE OUTSIDE THIS REFERENCE LINE AND ARE NOT INCLUDED IN THE MAJOR STREET TRAFFIC LANES.
2. SEE STOPPING SIGHT DISTANCE SEC. 2.12
3. SEE INTERSECTIONS, SEC 2.10(D)
4. SEE ENTERING SIGHT DISTANCE, SEC. 2.13
5. ALL STREET ENDS SHALL BE SIGNED PER THE MUTCD



NOTES:

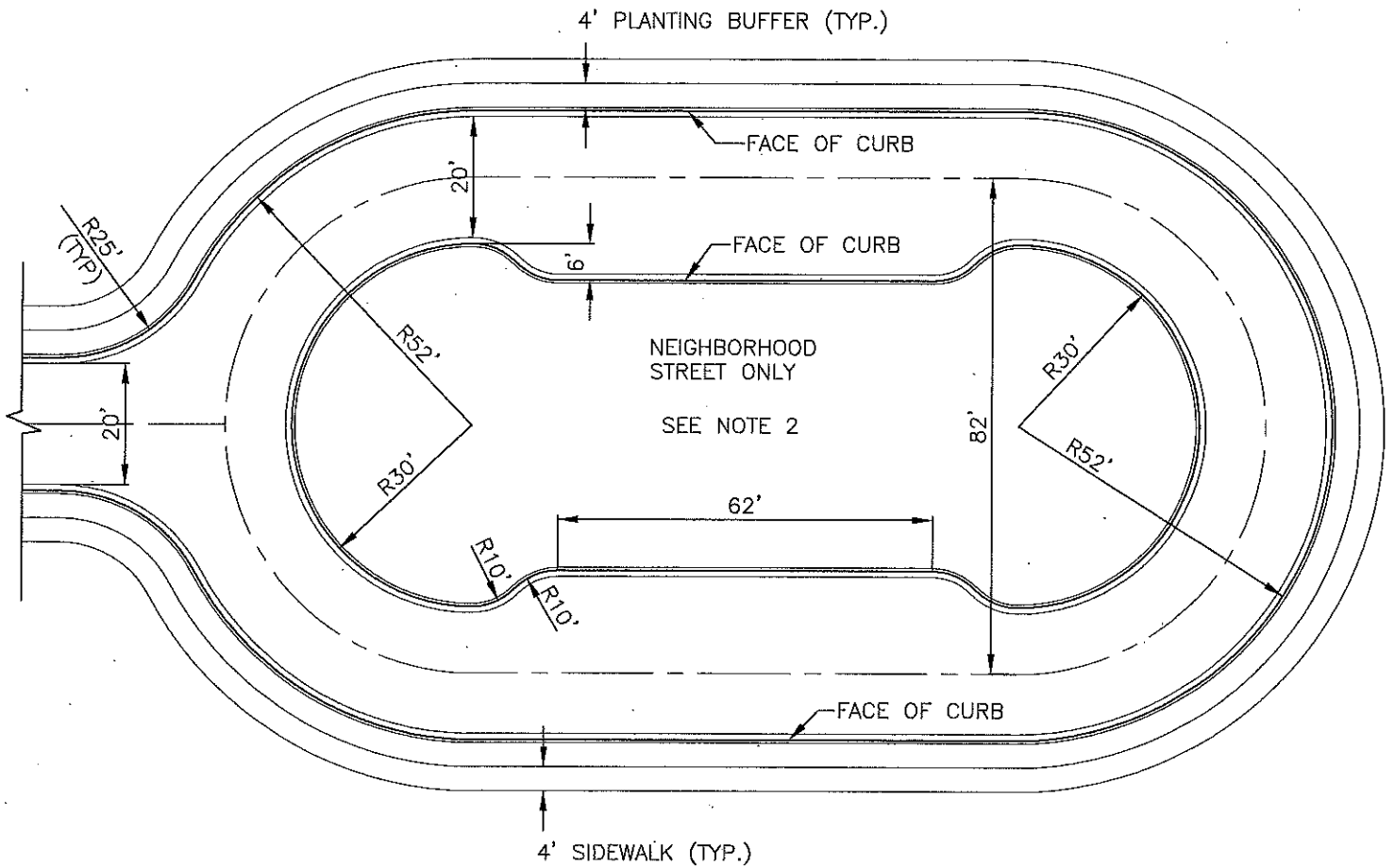
- ① SEE SECS. 2.02 AND 2.03 FOR SUPERELEVATION REQUIREMENTS.
- 2. SEE SEC. 2.10 FOR LANDING REQUIREMENTS.



NOTES:

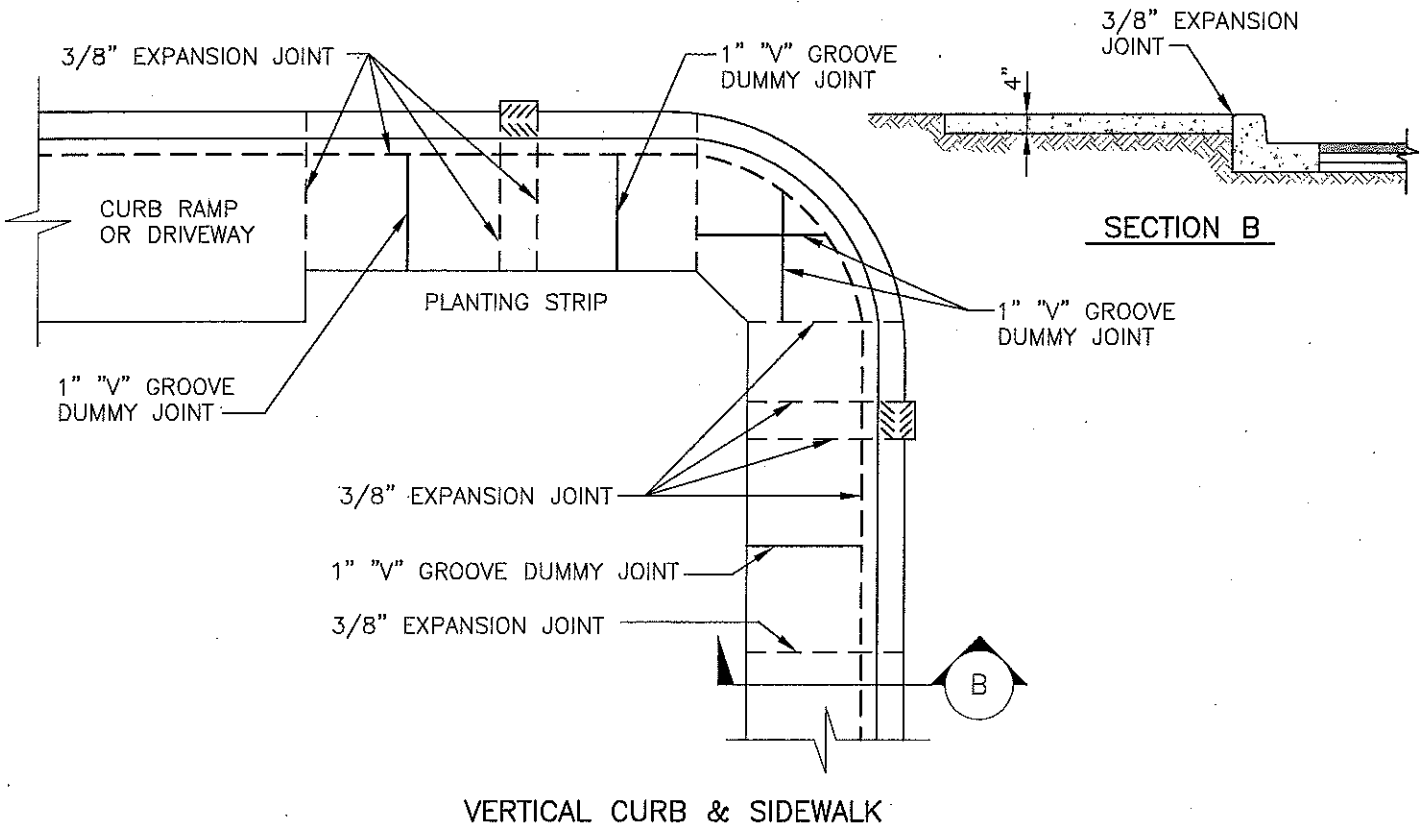
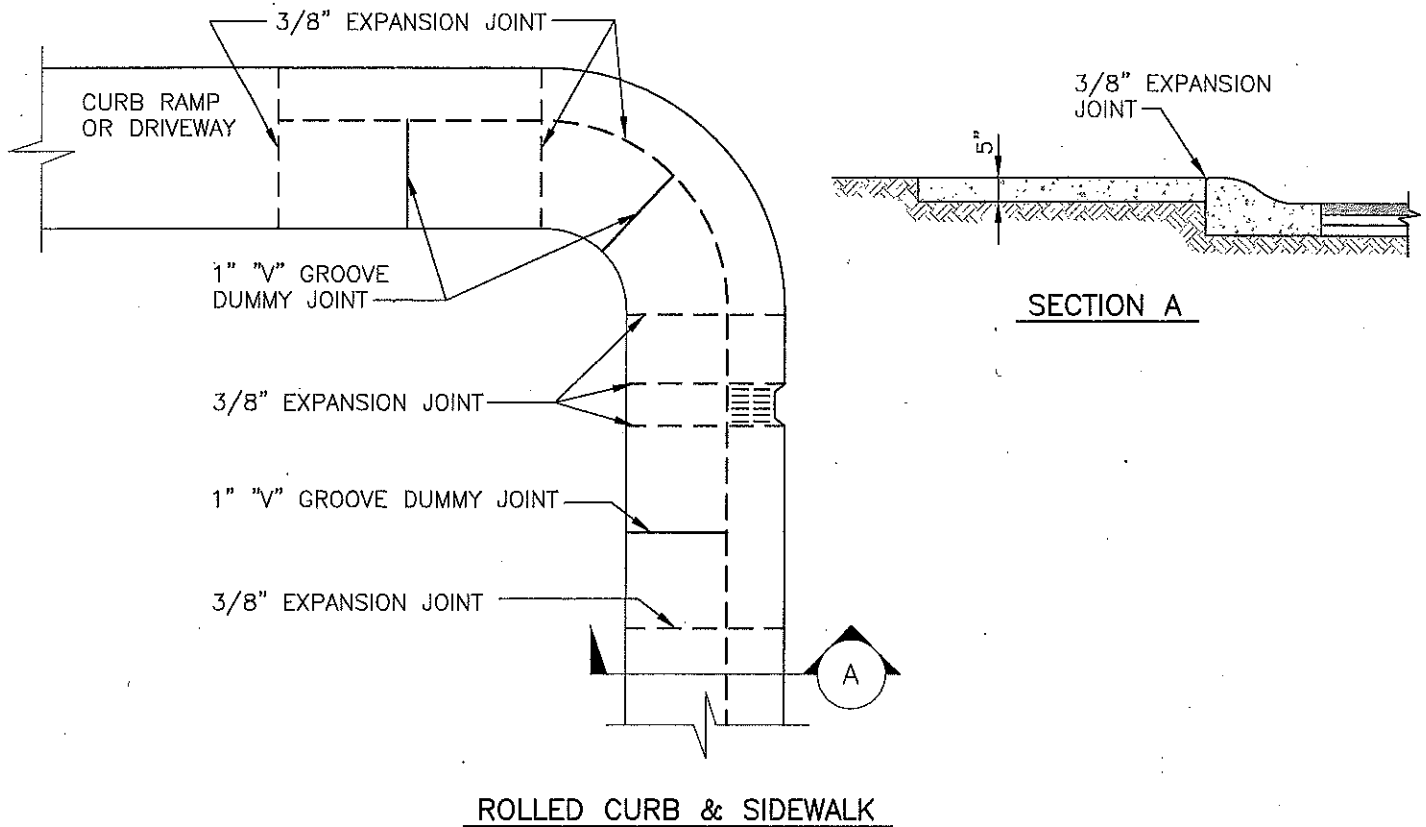
1. PRELEVELING AND GRINDING MAY BE NECESSARY TO MEET CROSS SLOPE.
2. NON-CONFORMING CENTERLINE AND CROWN PROFILE MAY REQUIRE THE OVERLAY OF THE ENTIRE ROADWAY.

ENGINEERED PAVEMENT DESIGN REQUIRED FOR ARTERIAL ROADWAYS.



NOTES:

1. SIGHT DISTANCE SHALL BE MAINTAINED AT ALL HORIZONTAL CURVES
2. ALLOWABLE USES WITHIN THE CENTER OF TURNAROUNDS:
 - LANDSCAPING
 - STORM WATER OR WATER QUALITY FACILITY
 - RECREATION AREA/PLAYGROUND
 USES SHALL NOT BLOCK SIGHT DISTANCES AROUND HORIZONTAL CURVES



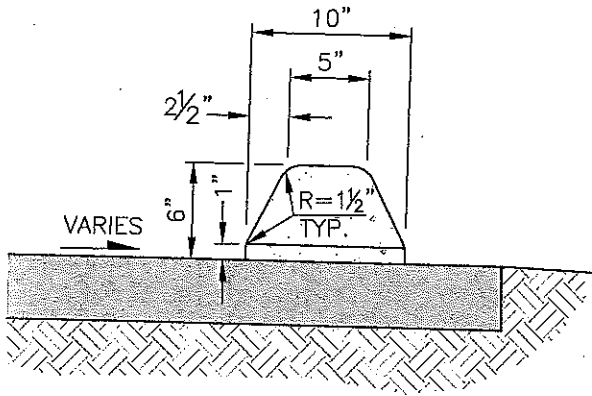
NOTE:

1. SEE SEC. 3.04 FOR JOINT REQUIREMENTS.

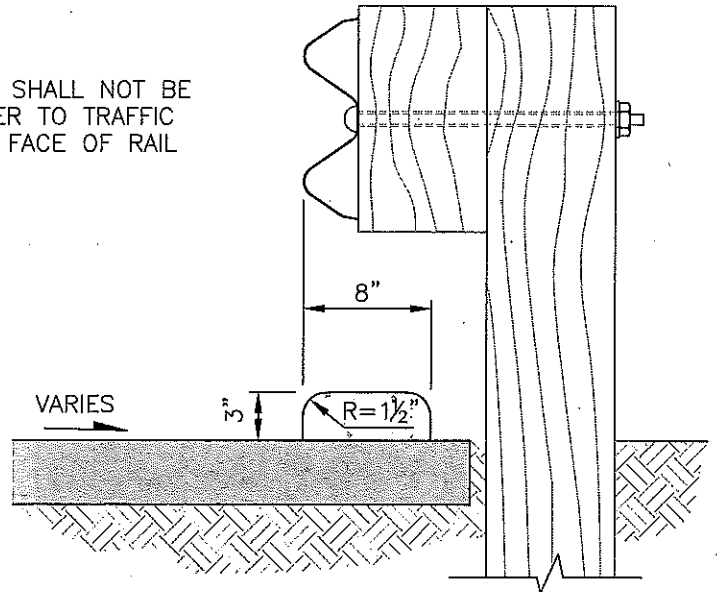
LEGEND

- 3/8" EXPANSION JOINT ALONG CURB AT MAX. 10' O.C.
- 1" "V" GROOVE DUMMY JOINT AT MAX. 5' O.C.

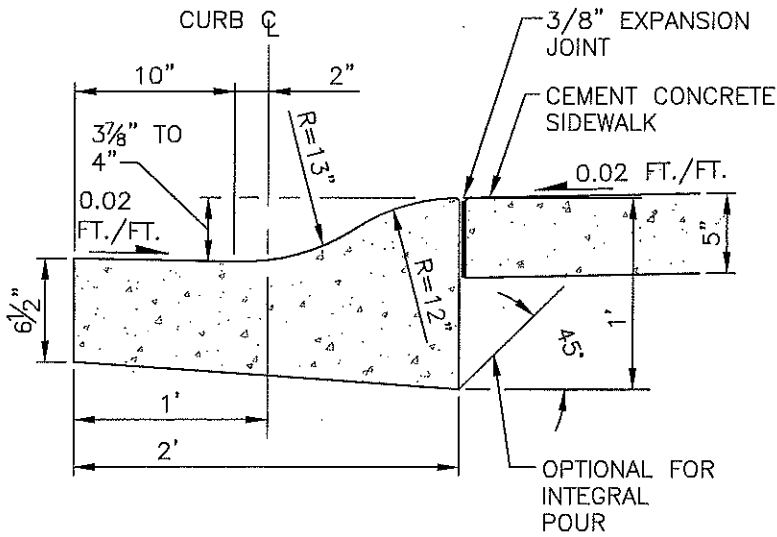
NOTE:
CURB SHALL NOT BE
CLOSER TO TRAFFIC
THAN FACE OF RAIL



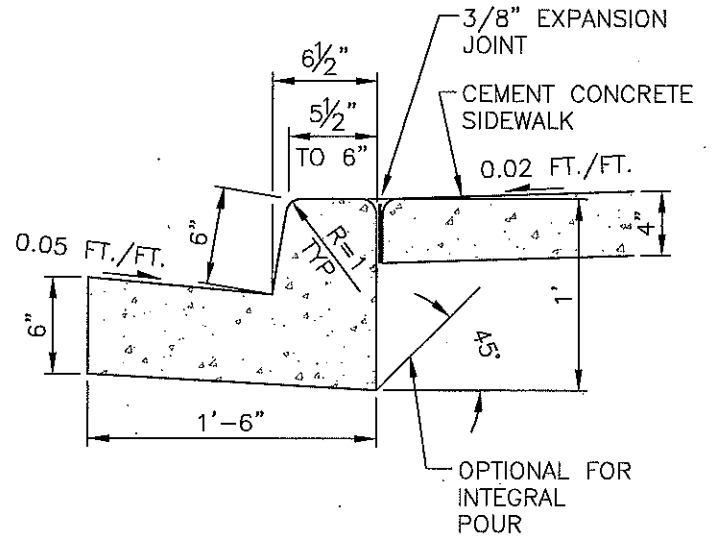
EXTRUDED ASPHALT OR CEMENT CONCRETE CURB (3) (5)



EXTRUDED CONCRETE CURB UNDER GUARDRAIL (4)



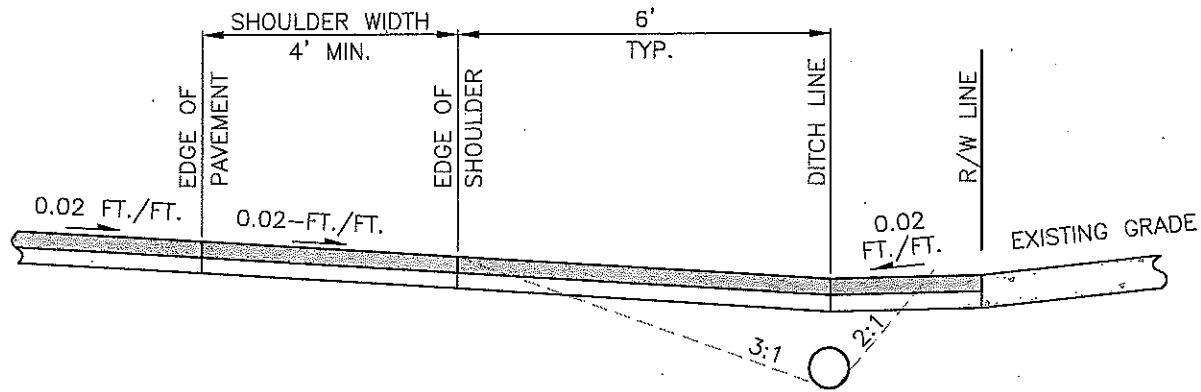
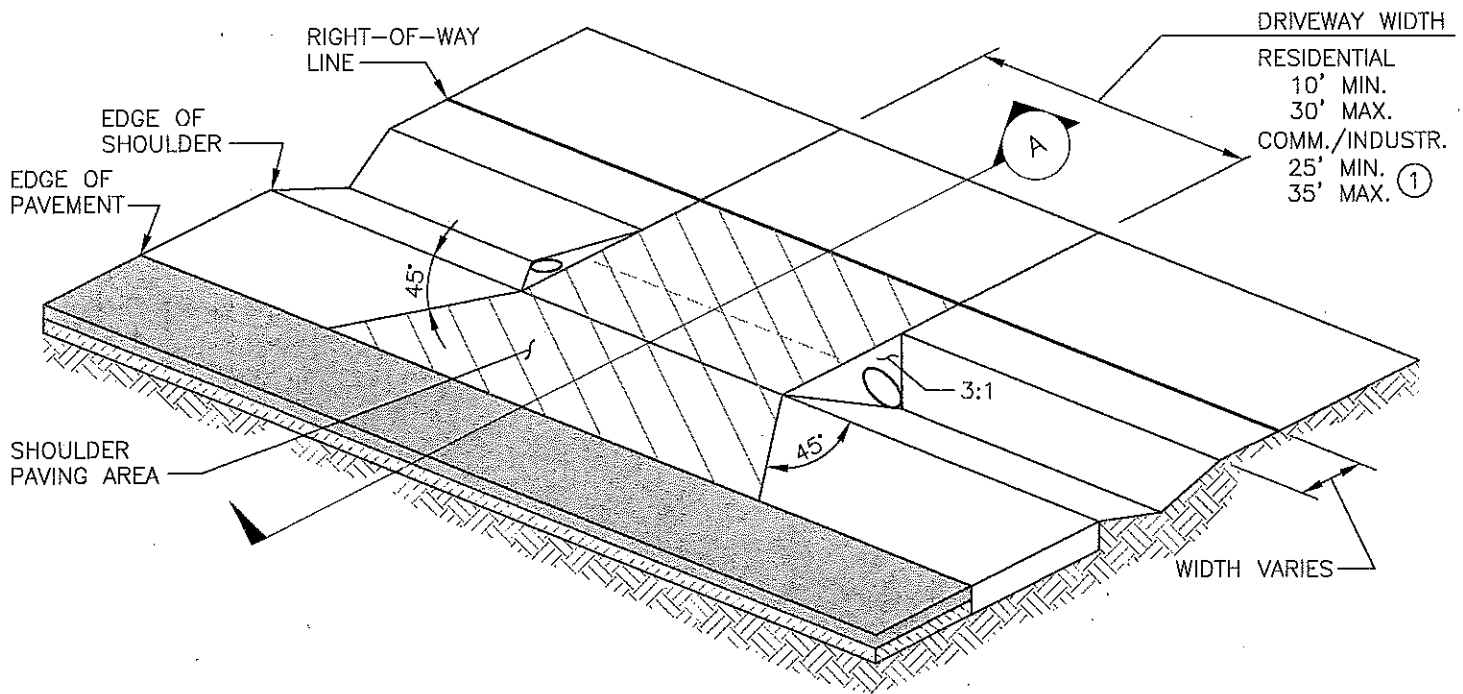
CEMENT CONCRETE ROLLED CURB



CEMENT CONCRETE VERTICAL CURB & GUTTER

NOTES:

1. SEE SEC. 3.04 K.C.R.S. FOR JOINT REQUIREMENTS.
2. ROLL AND VERTICAL GUTTER TO MATCH POSITIVE SUPERELEVATION.
- (3) SEE FIG. NO. 2-005 FOR CONFIGURATION OF FILL AND WALKWAY BEHIND CURB IF REQUIRED.
- (4) THIS IS A CURB LOCATION DETAIL, NOT A GUARDRAIL DETAIL.
- (5) SEE SEC. 3.03 FOR EXTRUDED CURB ANCHORAGE.



SECTION A

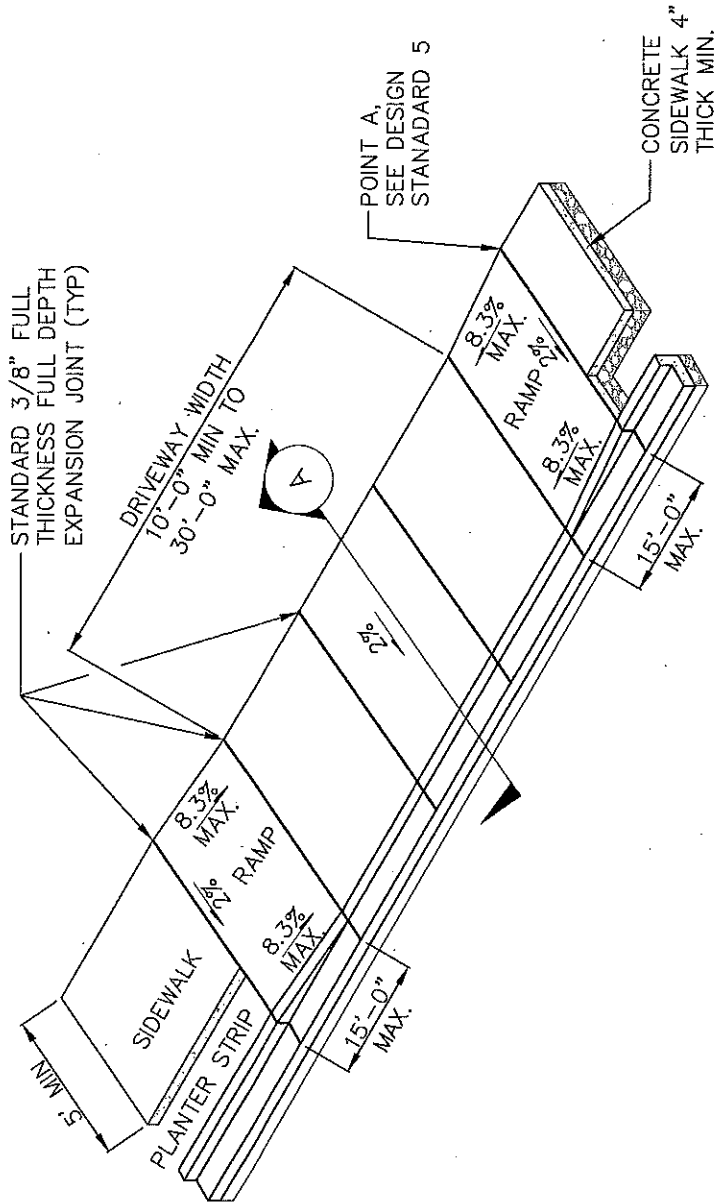
NOTES:

- ① WITHIN THE RIGHT-OF-WAY DRIVEWAYS SHALL BE PAVED FROM THE RIGHT-OF-WAY LINE TO THE EDGE OF PAVEMENT WITH HOT MIX ASPHALT. NO CONCRETE IS ALLOWED WITHIN THE RIGHT-OF-WAY UNLESS AS SPECIFIED IN SEC.4.02.
2. COMMERCIAL/INDUSTRIAL DRIVEWAYS WIDER THAN 35 FT. MAY BE APPROVED BY THE COUNTY ROAD ENGINEER CONSIDERING BOTH TRAFFIC SAFETY AND THE ACTIVITY BEING SERVED.
ALL COMMERCIAL/INDUSTRIAL DRIVEWAYS SHALL HAVE AN EXPANSION JOINT LOCATED MID-WIDTH. (SEE SEC. 3.04.)
3. PIPE SHALL BE:
 - A. SIZED TO CONVEY COMPUTED STORM WATER RUNOFF, AND
 - B. MIN. 12" DIAM., AND
 - C. EQUAL TO OR LARGER THAN EXISTING PIPES WITHIN 500 FT. UPSTREAM.
4. EXPOSED PIPE ENDS SHALL BE BEVELED TO MATCH THE SLOPE FACE AND PROJECT NO MORE THAN 2" BEYOND SLOPE SURFACE. PROJECTING HEADWALLS ARE NOT ACCEPTABLE.
5. ALL TYPES OF PIPE SHALL HAVE MIN. 12" COVER TO FINISH GRADE.
6. PIPE SHALL BE INSTALLED IN A STRAIGHT UNIFORM ALIGNMENT AT A MIN. 0.5% SLOPE (0.5 FT. PER 100 FT.) WITH THE DOWNSTREAM END LOWER THAN THE UPSTREAM END.
7. PIPE MAY BE OMITTED IF ROADSIDE DITCH DOES NOT EXIST AND DRIVEWAY DOES NOT BLOCK NATURAL FLOW.
8. DRIVEWAY SLOPE SHALL MATCH TO BACK EDGE OF SHOULDER, BUT SHOULDER SLOPE AND EDGE OF SHOULDER SHALL NOT BE ALTERED AS A RESULT OF DRIVEWAY CONSTRUCTION.
9. SEE SEC. 3.01 AND 4.01 FOR DRIVEWAY AND SURFACING STANDARDS.
10. PIPING OF DITCHES SHALL BE ALLOWED ONLY WHERE DRIVEWAY ACCESS IS NECESSARY.

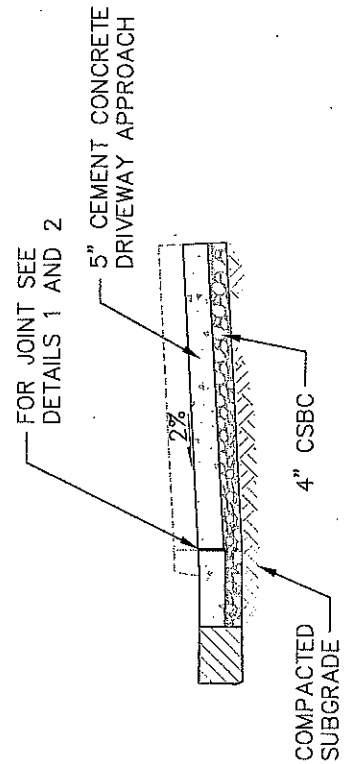
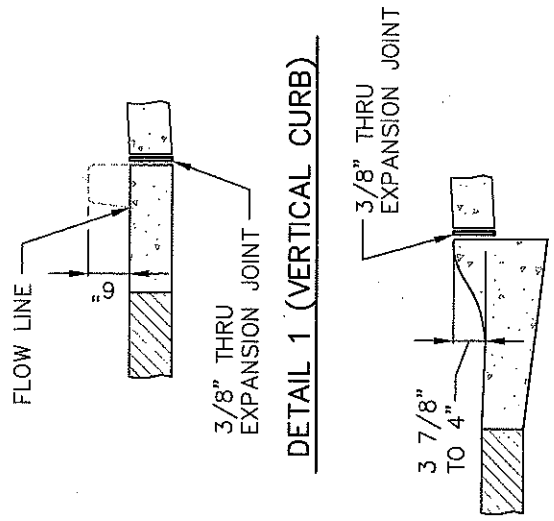


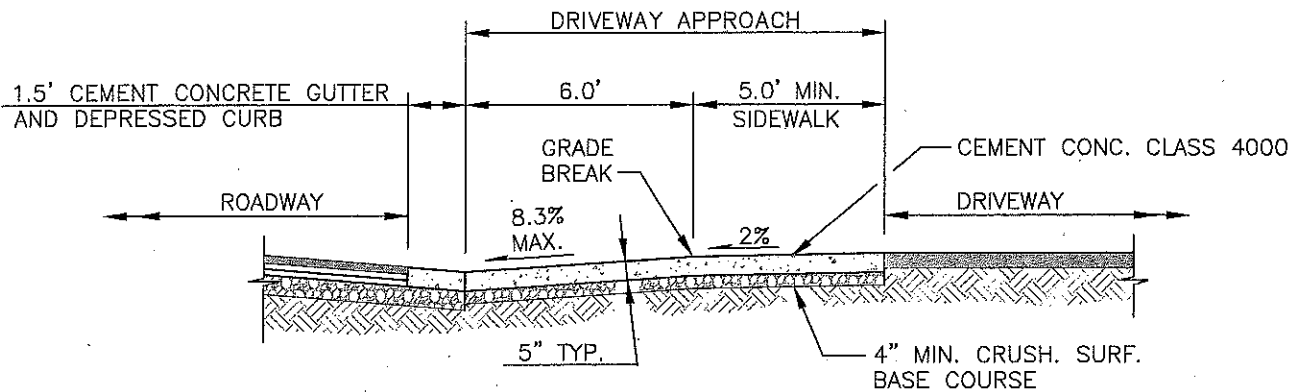
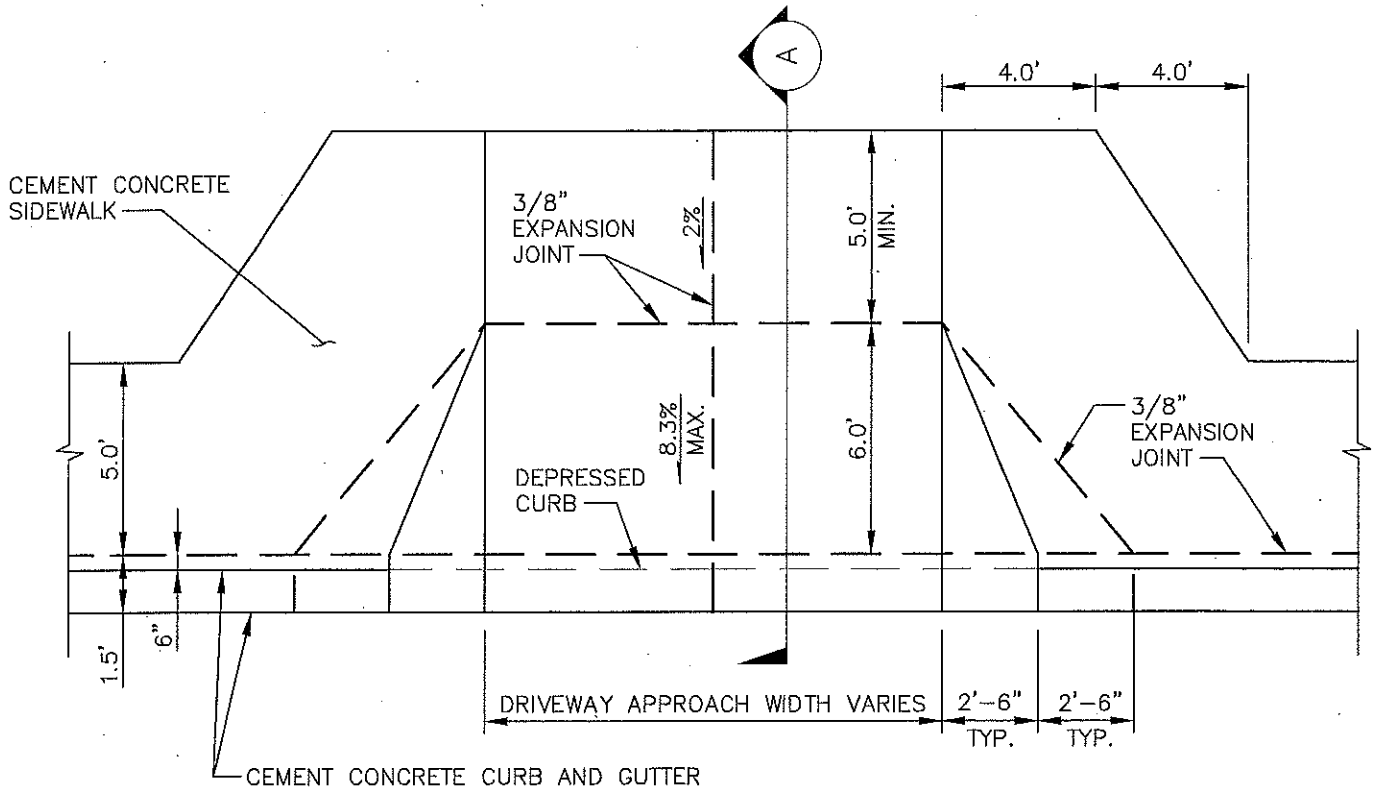
NOTES:

1. ALL JOINTS SHALL BE CLEANED AND EDGED.
2. SEE SECTION 4.01 FOR SURFACING REQUIREMENTS
3. CONCRETE PAVEMENT SHALL BE BRUSHED TRANSVERSELY WITH A FIBER OR WIRE BRUSH OF A TYPE APPROVED BY THE ENGINEER.
4. 3/8" THRU EXPANSION JOINTS SHALL BE PLACED AT BACK, SIDES AND FRONT. MAXIMUM EXPANSION JOINT SPACING IS 14' CENTER TO CENTER.
5. SEE SECTION 3.01 FOR ADDITIONAL DRIVEWAY REQUIREMENTS.



DRIVEWAY APPROACH DETAIL

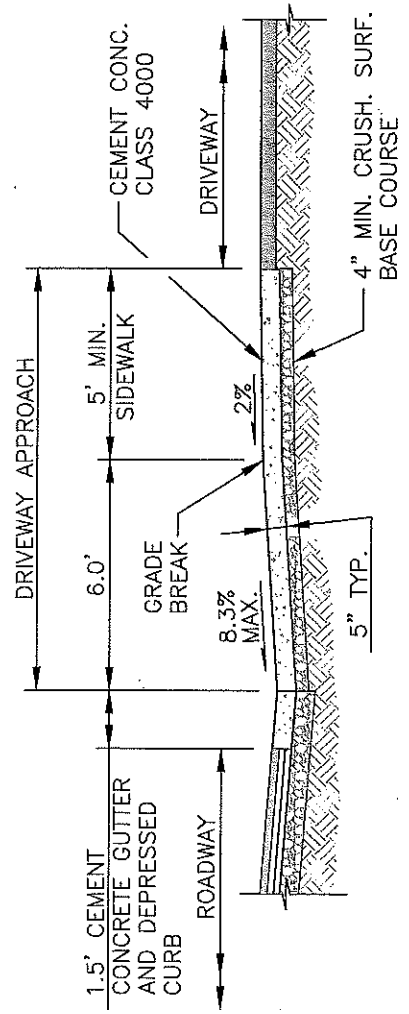
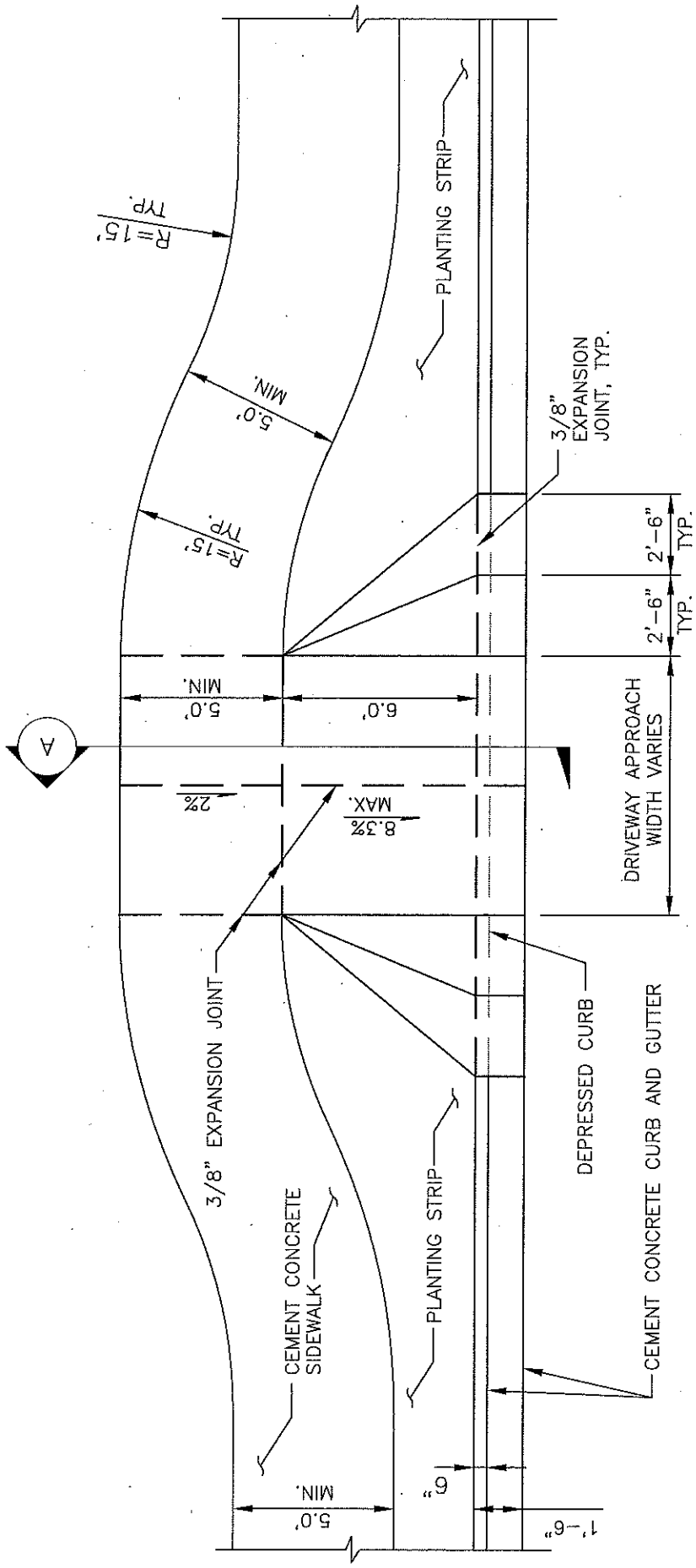




SECTION A

NOTES:

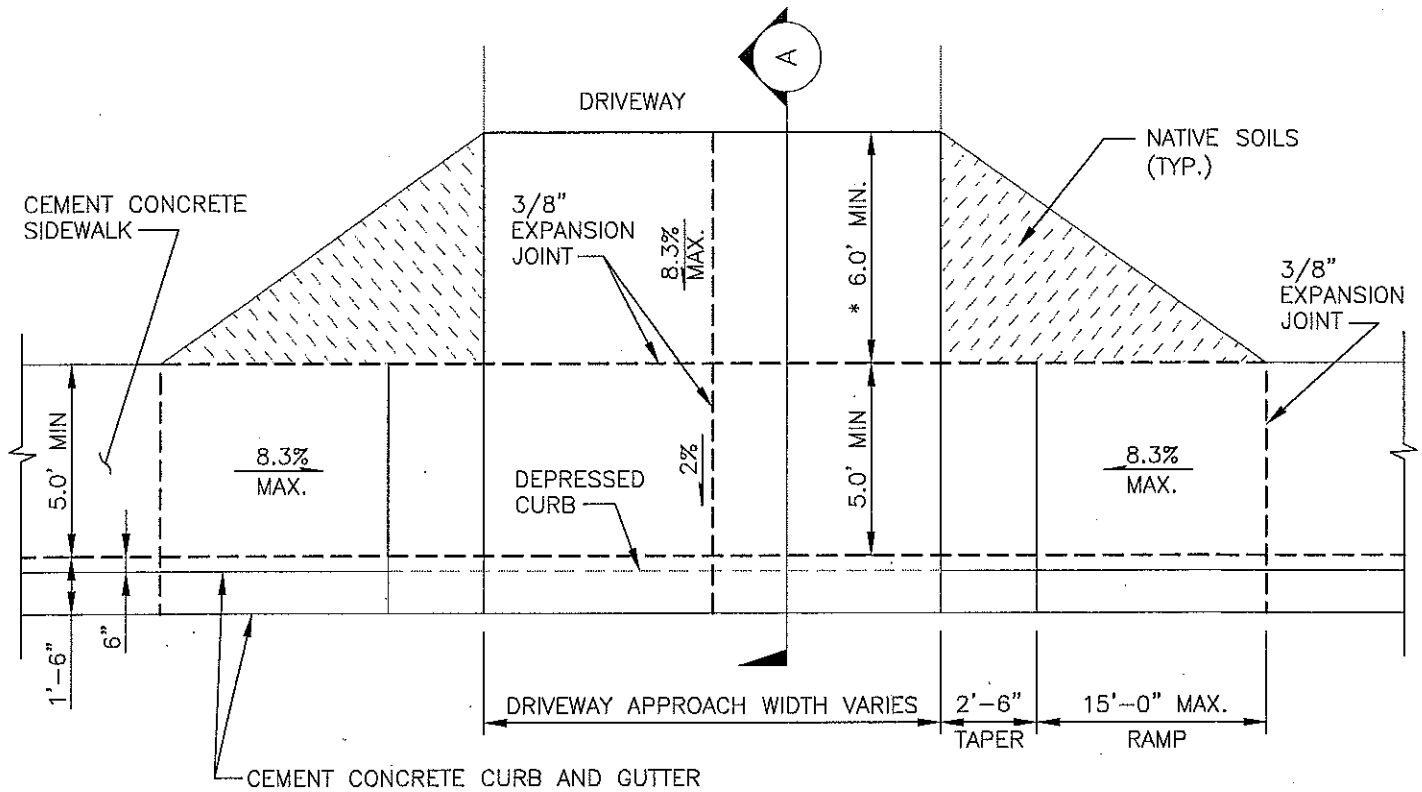
1. COMMERCIAL/INDUSTRIAL DRIVEWAYS WIDER THAN 35 FT. MAY BE APPROVED BY THE COUNTY ROAD ENGINEER CONSIDERING BOTH TRAFFIC SAFETY AND THE ACTIVITY BEING SERVED.
ALL COMMERCIAL/INDUSTRIAL DRIVEWAYS SHALL HAVE AN EXPANSION JOINT LOCATED MID-WIDTH. (SEE SEC 3.04)
2. SEE SEC 3.01 FOR DRIVEWAY STANDARDS.
3. SEE SEC 8.02(G) AND FIGURE 5-001 FOR ROADWAY CLEARANCE OF UTILITY POLES AND STRUCTURES.
4. DRIVEWAYS SHALL BE LOCATED AS FAR FROM THE INTERSECTION AS POSSIBLE.
5. SEE WSDOT STANDARD PLAN FOR ADDITIONAL DETAILS.



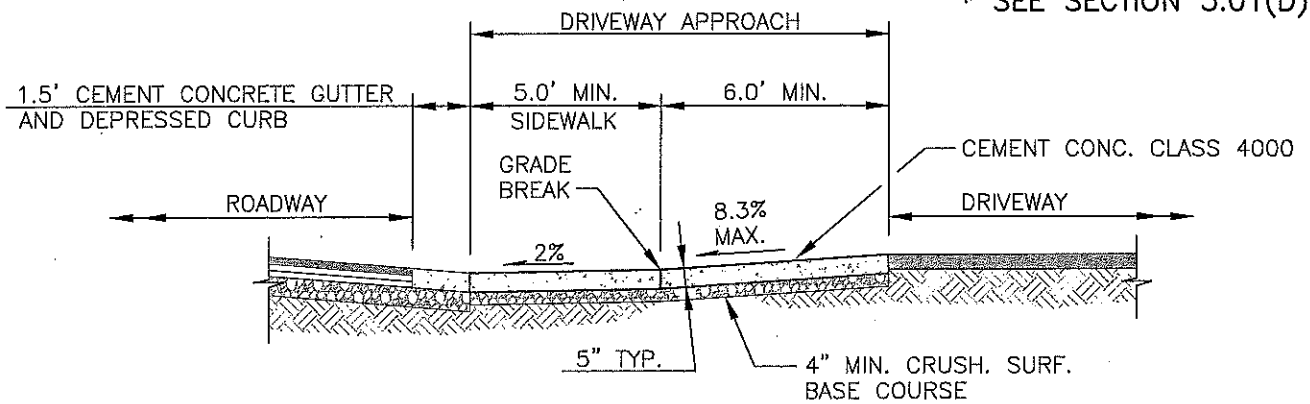
NOTES:

1. COMMERCIAL/INDUSTRIAL DRIVEWAYS WIDER THAN 35 FT. MAY BE APPROVED BY THE COUNTY ROAD ENGINEER CONSIDERING BOTH TRAFFIC SAFETY AND THE ACTIVITY BEING SERVED. ALL COMMERCIAL/INDUSTRIAL DRIVEWAYS SHALL HAVE AN EXPANSION JOINT LOCATED MID-WIDTH. (SEE SEC 3.04)
2. SEE SEC 3.01 FOR DRIVEWAY STANDARDS.
3. SEE SEC 8.02(G) AND FIGURE 5-001 FOR ROADWAY CLEARANCE OF UTILITY POLES AND STRUCTURES.
4. DRIVEWAYS SHALL BE LOCATED AS FAR FROM THE INTERSECTION AS POSSIBLE.
5. SEE WSDOT STANDARD PLAN FOR ADDITIONAL DETAILS.

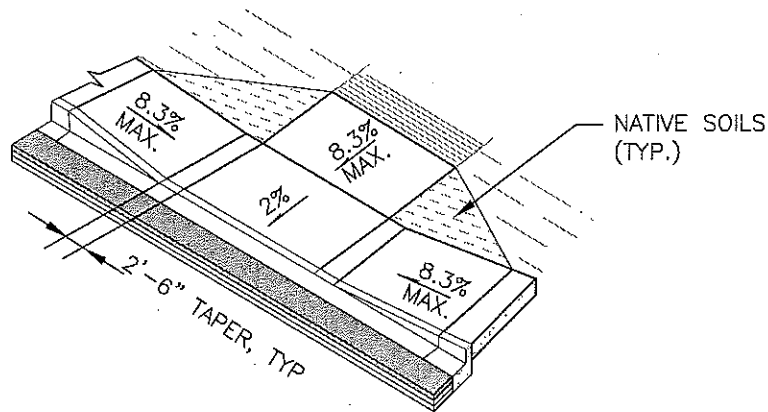
SECTION A



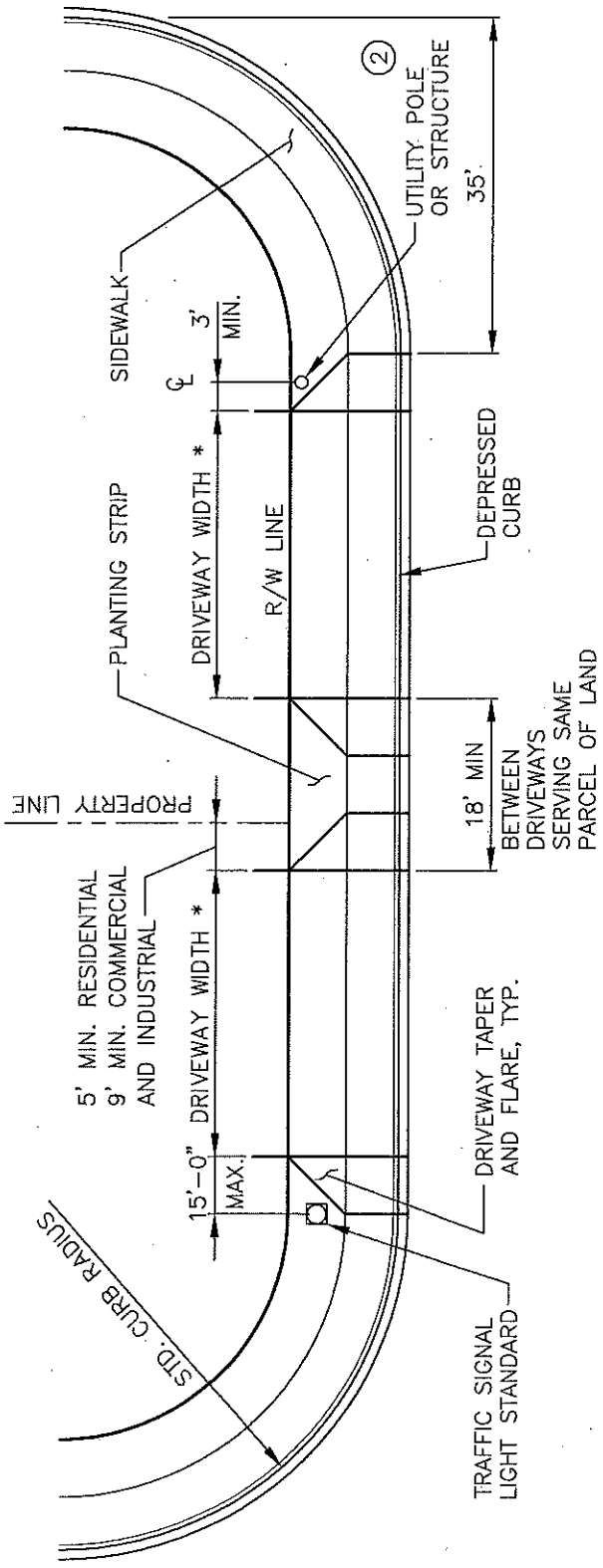
* SEE SECTION 3.01(D)



SECTION A



VIEW



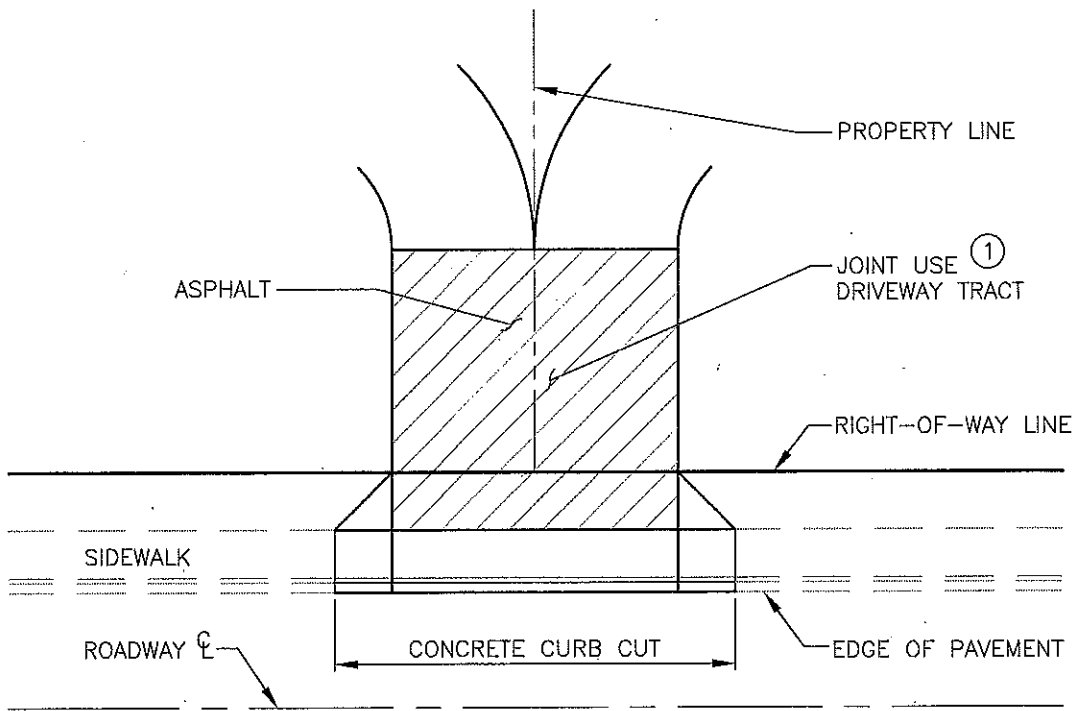
* RESIDENTIAL 10' MIN., 30' MAX.
 COMMERCIAL/INDUSTR. 25' MIN. 35' MAX.,
 EXCEPT ONE-WAY 20' MIN.

NOTES:

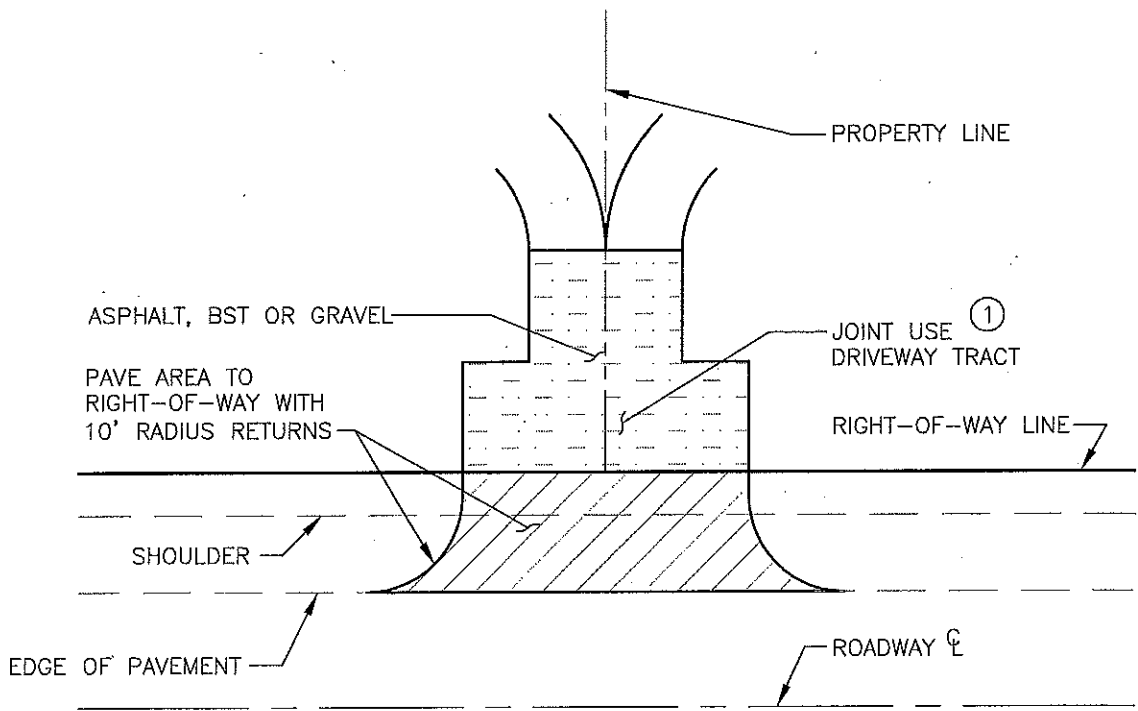
1. NO PORTION OF ANY DRIVEWAY SHALL ENCR OACH IN CURB RETURN.
- ② SEE SEC. 8.02(G) AND FIG. 5-001 FOR ROADWAY CLEARANCE OF UTILITY POLES AND STRUCTURES.
3. DRIVEWAYS SHALL BE LOCATED AS FAR FROM THE INTERSECTION AS POSSIBLE.
4. COMMERCIAL/INDUSTRIAL DRIVEWAYS WIDER THAN 35 FT. MAY BE APPROVED BY THE COUNTY ROAD ENGINEER CONSIDERING TRAFFIC SAFETY AND NEEDS OF THE ACTIVITY SERVED. ALL COMMERCIAL/INDUSTRIAL DRIVEWAYS SHALL HAVE AN EXPANSION JOINT LOCATED MID-WIDTH. (SEE SEC. 3.04)
5. SEE SEC. 3.01 FOR DRIVEWAY STANDARDS.
6. SEE SEC. 4.01 FOR SURFACING REQUIREMENTS.

LOCATION AND WIDTH OF NEW DRIVEWAYS

FIG. 3-008



URBAN



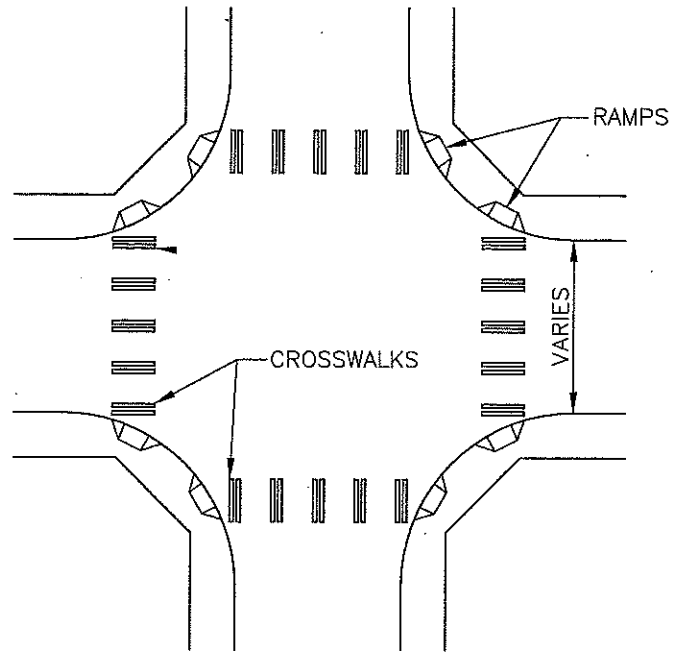
RURAL

NOTES:

① SEE SEC. 3.01

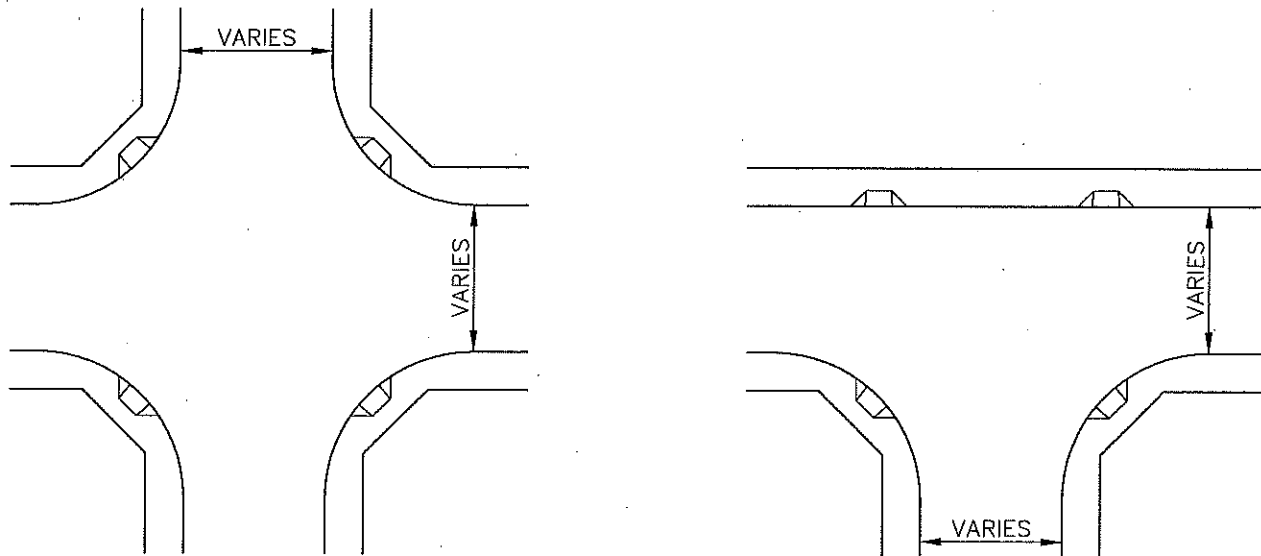
NOTES:

1. PLACEMENT OF GRATINGS, ACCESS COVERS AND OTHER APPURTENANCES SHALL NOT BE LOCATED ON CURB RAMPS, LANDINGS AND GUTTERS WITHIN THE PEDESTRIAN ACCESS ROUTE.
2. CONSTRUCT RAMP IN ACCORDANCE WITH FIGS. 3-011, 3-012, 3-013 AND 3-015.
3. CROSSWALKS ARE NOT ALWAYS MARKED.
4. CROSSWALKS (MARKED) SHALL NOT BE TERMINATED AT DRIVEWAYS. CURB RAMPS SHALL NOT BE LOCATED WITHIN A DRIVEWAY.



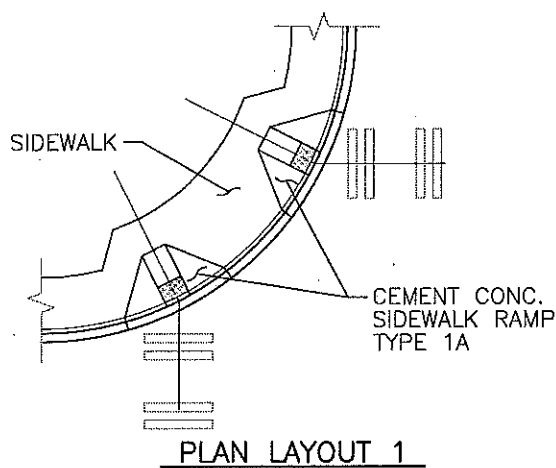
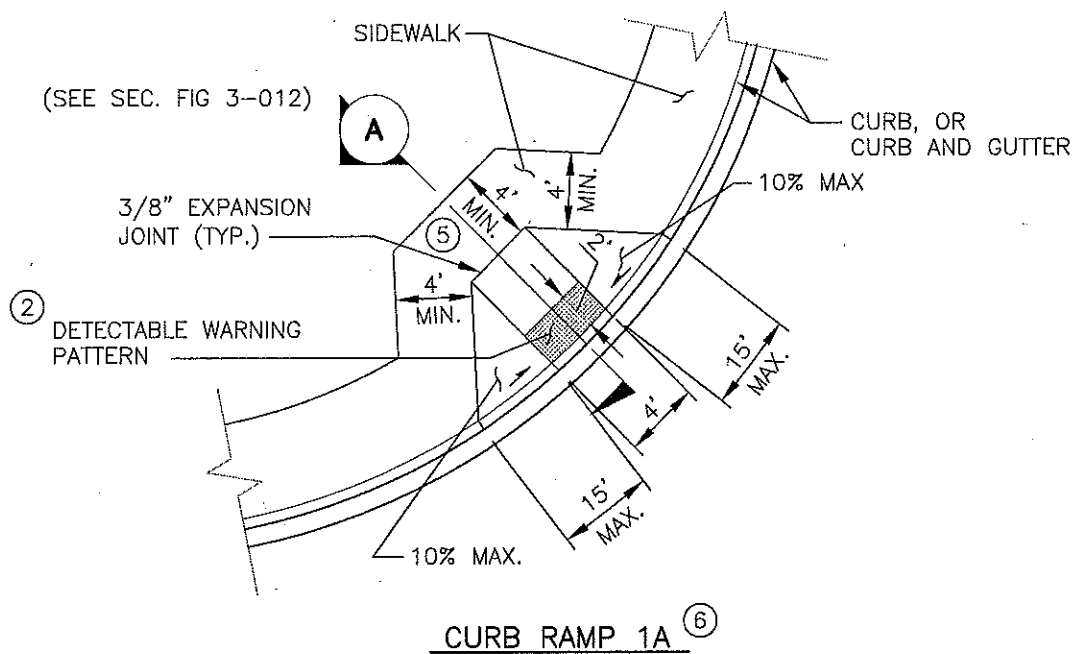
RAMP LOCATIONS

FOR NEW CONSTRUCTION OR
STANDARD RECONSTRUCTION



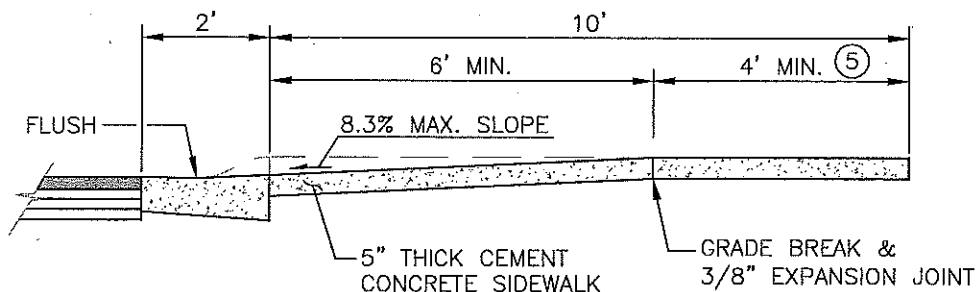
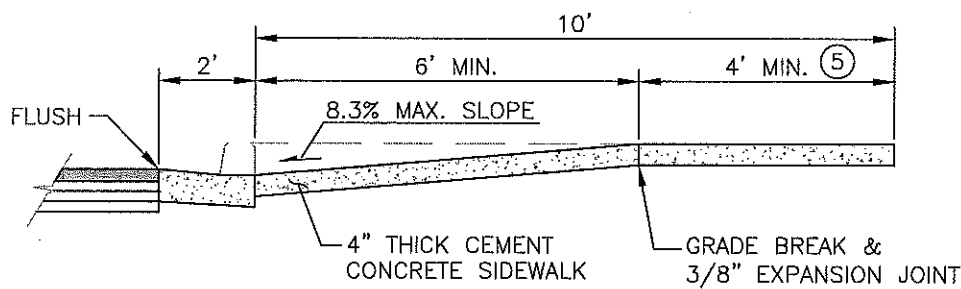
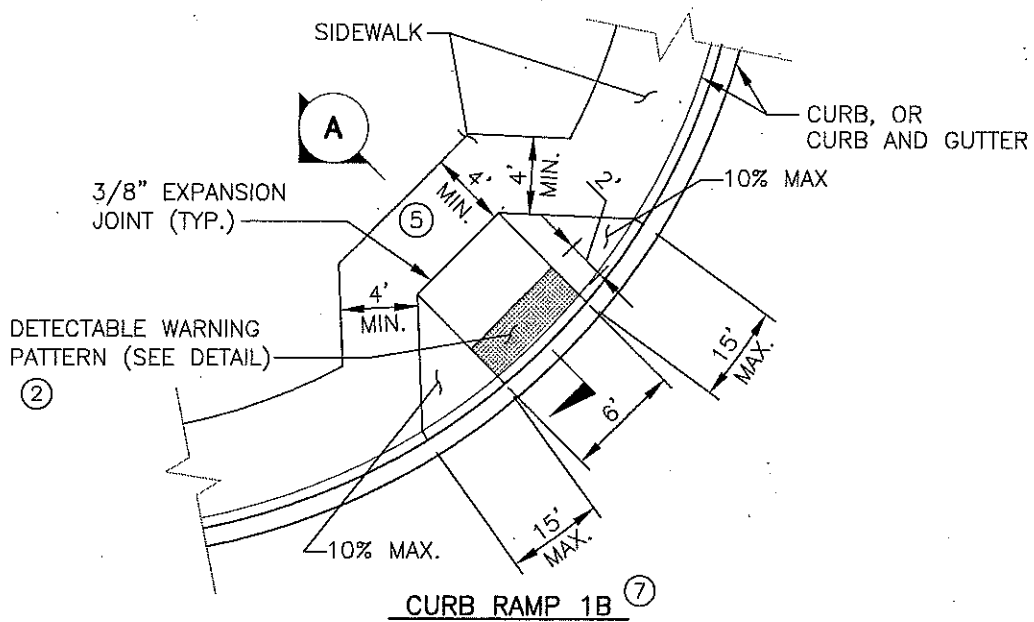
ACCEPTABLE RAMP LOCATIONS

FOR RETROFIT OR ALTERATION



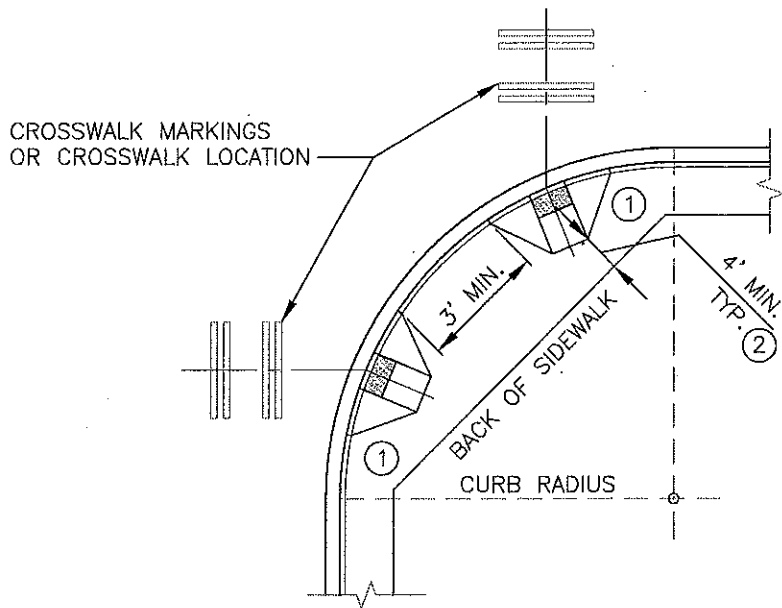
NOTES:

1. PLACEMENT OF GRATINGS, ACCESS COVERS AND OTHER APPURTENANCES SHALL NOT BE LOCATED ON CURB RAMPS, LANDINGS AND GUTTERS WITHIN THE PEDESTRIAN ACCESS ROUTE.
- (2) RAMPS SHALL BE TEXTURED USING TRUNCATED DOME PATTERN (SEE WSDOT STANDARDS). DETECTABLE WARNING PATTERN SHALL BE YELLOW IN COMPLIANCE WITH WSDOT STANDARD SPECIFICATION 8-14.3(3)
3. RAMP CENTER LINE SHALL BE PERPENDICULAR TO OR RADIAL TO CURB RETURNS UNLESS OTHERWISE APPROVED BY THE COUNTY ROAD ENGINEER.
4. RAMPS SHALL BE CONSTRUCTED AT CORRESPONDING SIDEWALK LOCATIONS ON OPPOSITE SIDE OF STREETS WHEN RAMPS ARE CONSTRUCTED ON ONE SIDE OF STREET. SEE FIG. 3-010.
- (5) LANDING SHALL BE MINIMUM 4' X 4'.
- (6) CURB RAMP 1A MUST BE INSTALLED UNLESS OTHERWISE APPROVED.
7. SEE FIGURE 3-001 FOR CURB AND SIDEWALK JOINT PLACEMENT.

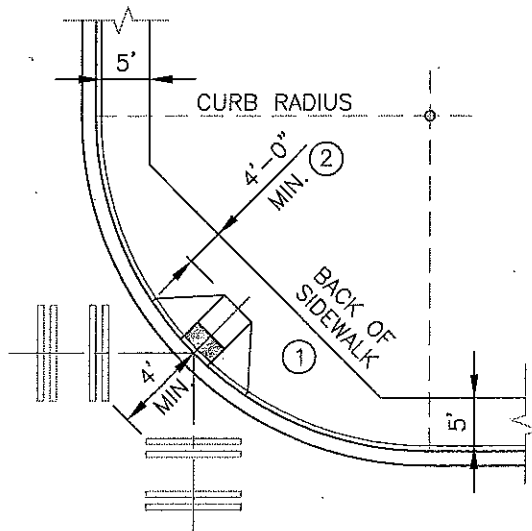


NOTES:

1. PLACEMENT OF GRATINGS, ACCESS COVERS AND OTHER APPURTENANCES SHALL NOT BE LOCATED ON CURB RAMPS, LANDINGS AND GUTTERS WITHIN THE PEDESTRIAN ACCESS ROUTE.
- ② RAMPS SHALL BE TEXTURED USING TRUNCATED DOME PATTERN (SEE WSDOT STANDARDS). DETECTABLE WARNING PATTERN SHALL BE YELLOW IN COMPLIANCE WITH WSDOT STANDARD SPECIFICATION 8-14.3(3).
3. RAMP CENTER LINE SHALL BE PERPENDICULAR TO OR RADIAL TO CURB RETURNS UNLESS OTHERWISE APPROVED BY THE COUNTY ROAD ENGINEER.
4. RAMPS SHALL BE CONSTRUCTED AT CORRESPONDING SIDEWALK LOCATIONS ON OPPOSITE SIDE OF STREETS WHEN RAMPS ARE CONSTRUCTED ON ONE SIDE OF STREET. SEE FIG. 3-010.
- ⑤ LANDING SHALL BE MINIMUM 4' X 4'.
6. CURB RAMP 1A (FIG 3-011) MUST BE INSTALLED UNLESS OTHERWISE APPROVED.
- ⑦ CURB RAMP 1B IS USED TO PROVIDE ACCESS TO TWO CROSSWALKS ONLY WHEN IT IS UNFEASIBLE TO INSTALL CURB RAMP 1A (FIG 3-011) FOR EACH CROSSWALK.
8. SEE FIGURE 3-001 FOR CURB AND SIDEWALK JOINT PLACEMENT.



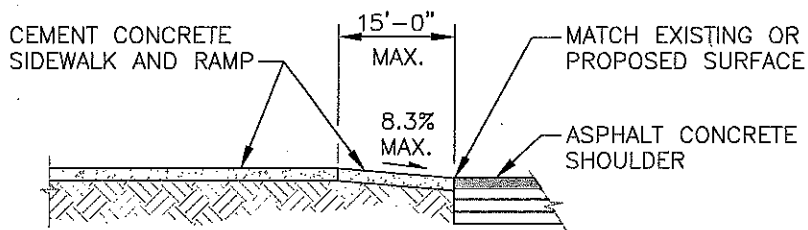
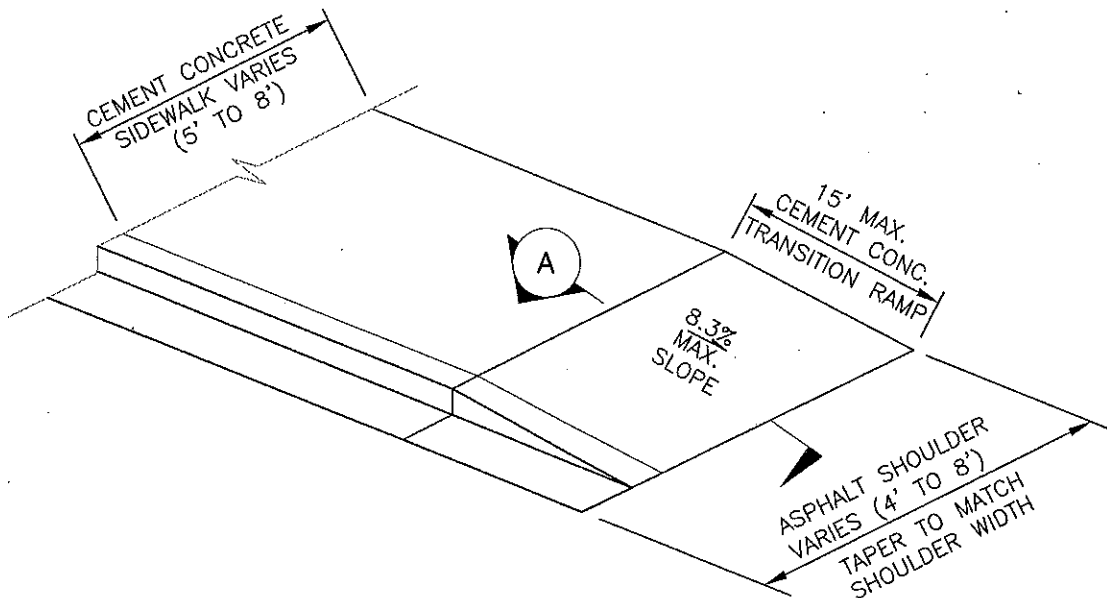
CURB RAMP 1A



CURB RAMP 1B

NOTES:

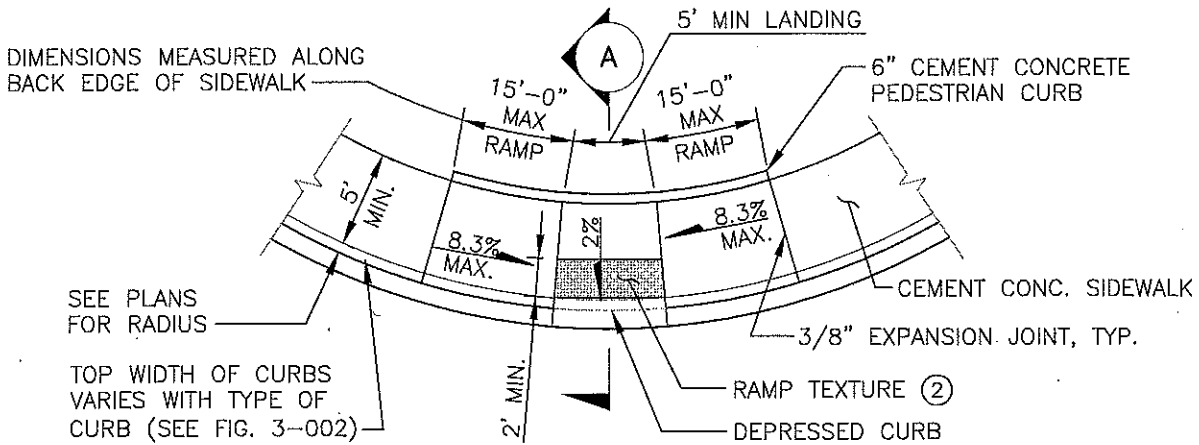
- ① RAMP SHALL BE CONTRASTING COLOR OF LIGHT TO DARK OR DARK TO LIGHT AND COLORING MUST BE AN INTEGRATED PART OF THE RAMP.
- ② LANDING SHALL BE MINIMUM 4' X 4'.



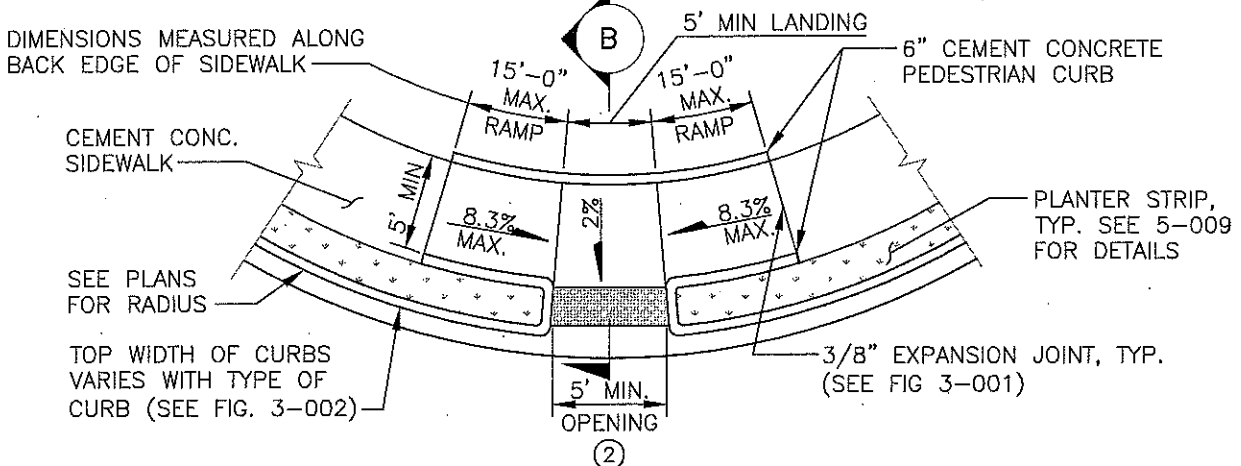
SECTION A

NOTES:

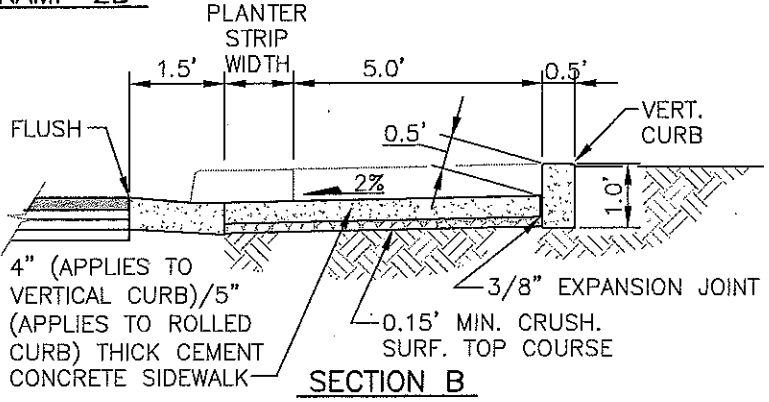
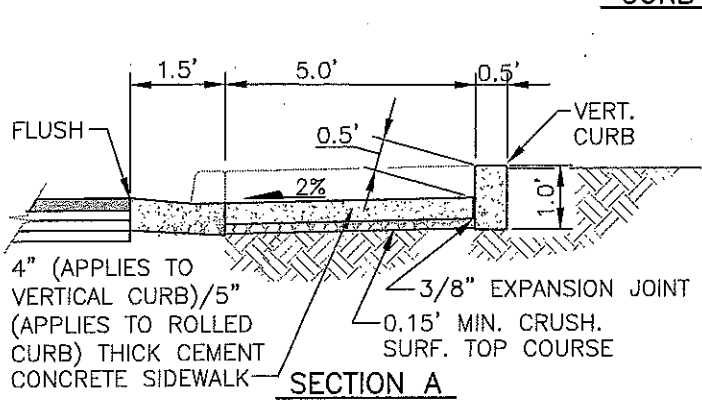
1. SEE SEC. 3.02 FOR SIDEWALK WIDTHS.
2. SEE SECS. 2.02 AND 2.03 FOR PAVEMENT AND SHOULDER WIDTHS.
3. SHOULDER SHALL BE SURFACED AS REQUIRED BY SECS. 3.07 AND 4.01. PAVED SHOULDER SLOPE SHALL MATCH CROWN SLOPE OR 0.02 FT./FT.
4. SEE FIG. 3-001 FOR CURB AND SIDEWALK JOINTS.
5. THIS DETAIL APPLIES TO ROLLED AND VERTICAL CURB ROADWAYS.



CURB RAMP 2A

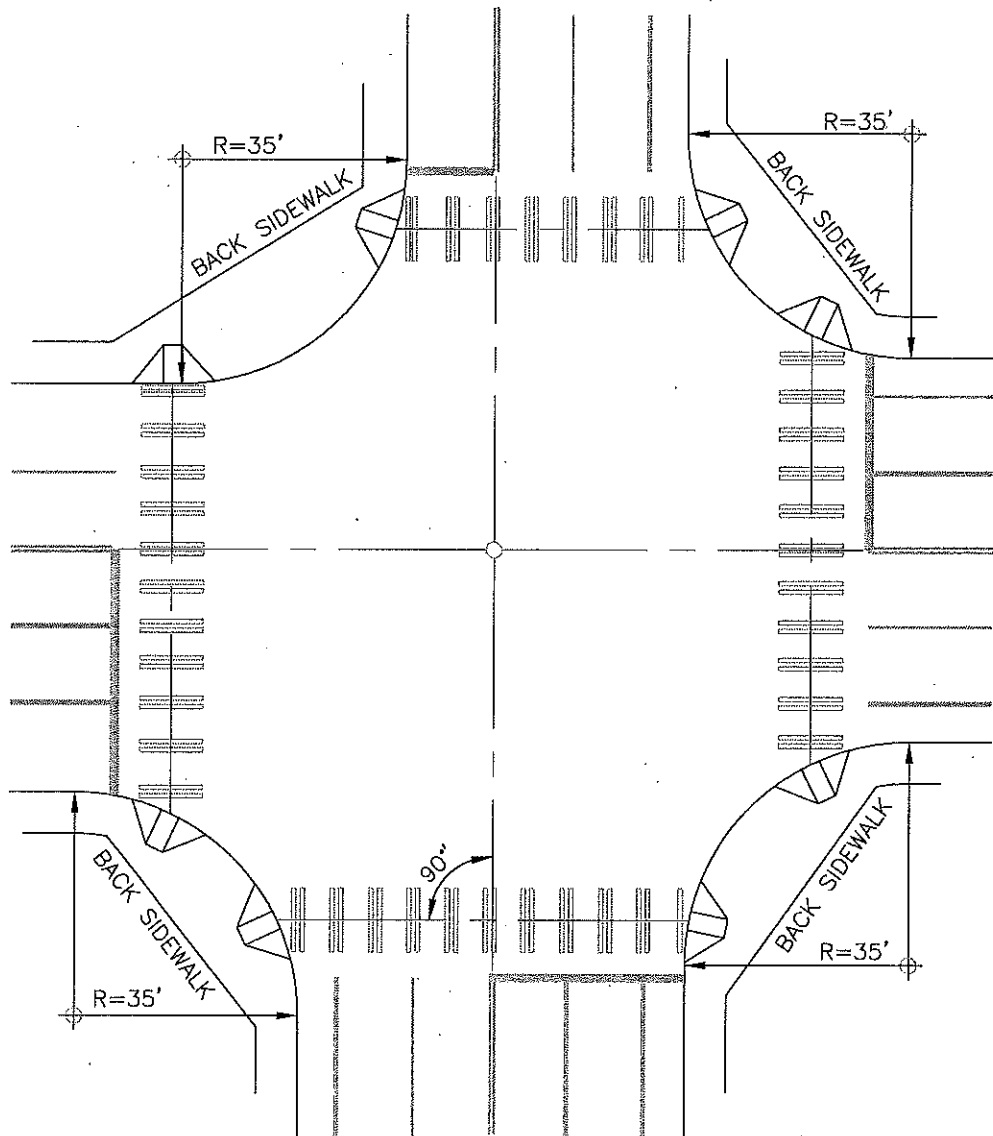


CURB RAMP 2B

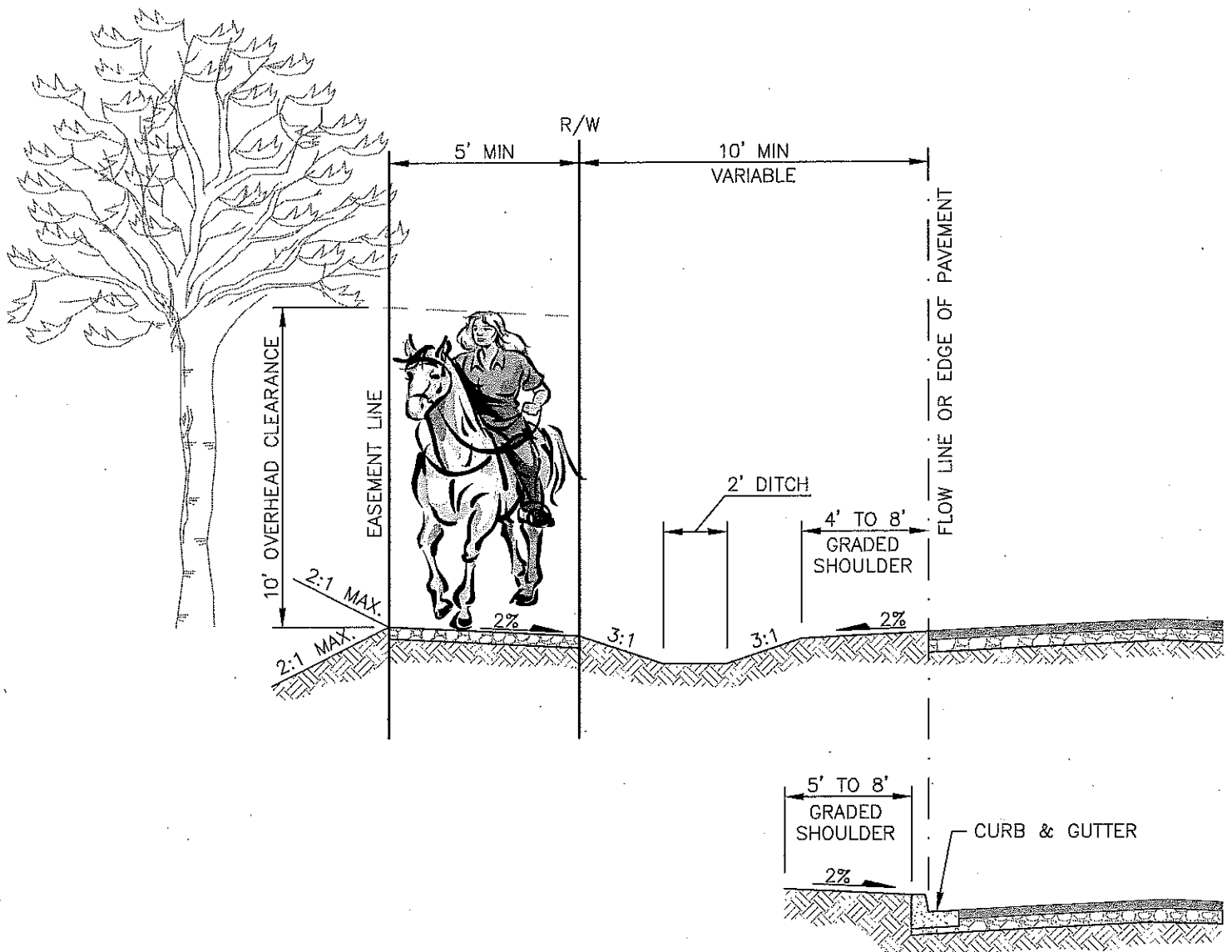


NOTES:

1. PLACEMENT OF GRATINGS, ACCESS COVERS AND OTHER APPURTENANCES SHALL NOT BE LOCATED ON CURB RAMPS, LANDINGS AND GUTTERS WITHIN THE PEDESTRIAN ACCESS ROUTE.
- ② RAMPS SHALL BE TEXTURED USING TRUNCATED DOME PATTERN (SEE WSDOT STANDARDS). DETECTABLE WARNING PATTERN SHALL BE YELLOW IN COMPLIANCE WITH WSDOT STANDARD SPECIFICATION 8-14.3(3)
3. RAMP CENTER LINE SHALL BE PERPENDICULAR TO OR RADIAL TO CURB RETURNS UNLESS OTHERWISE APPROVED BY THE COUNTY ROAD ENGINEER.
4. RAMPS SHALL BE CONSTRUCTED AT CORRESPONDING SIDEWALK LOCATIONS ON OPPOSITE SIDE OF STREETS WHEN RAMPS ARE CONSTRUCTED ON ONE SIDE OF STREET. SEE FIG. 3-010.
5. THIS DETAIL APPLIES TO BOTH ROLLED AND VERTICAL CURB ROADWAYS.
6. SEE FIGURE 3-001 FOR CURB AND SIDEWALK JOINT PLACEMENT.

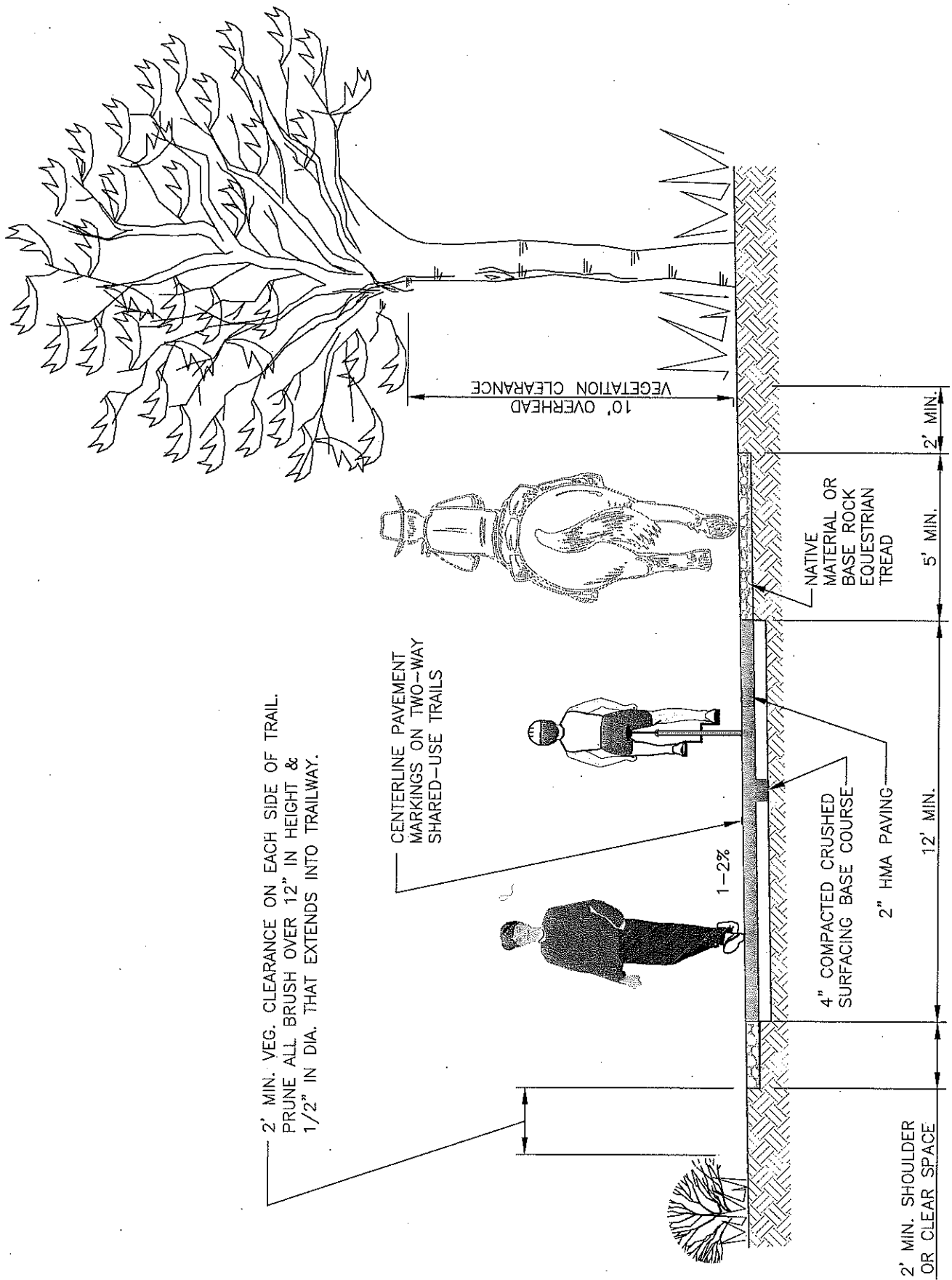


NOTE:
 SEE SEC. 2.02A AND 2.03A
 FOR ACTUAL LANE WIDTHS.



NOTES:

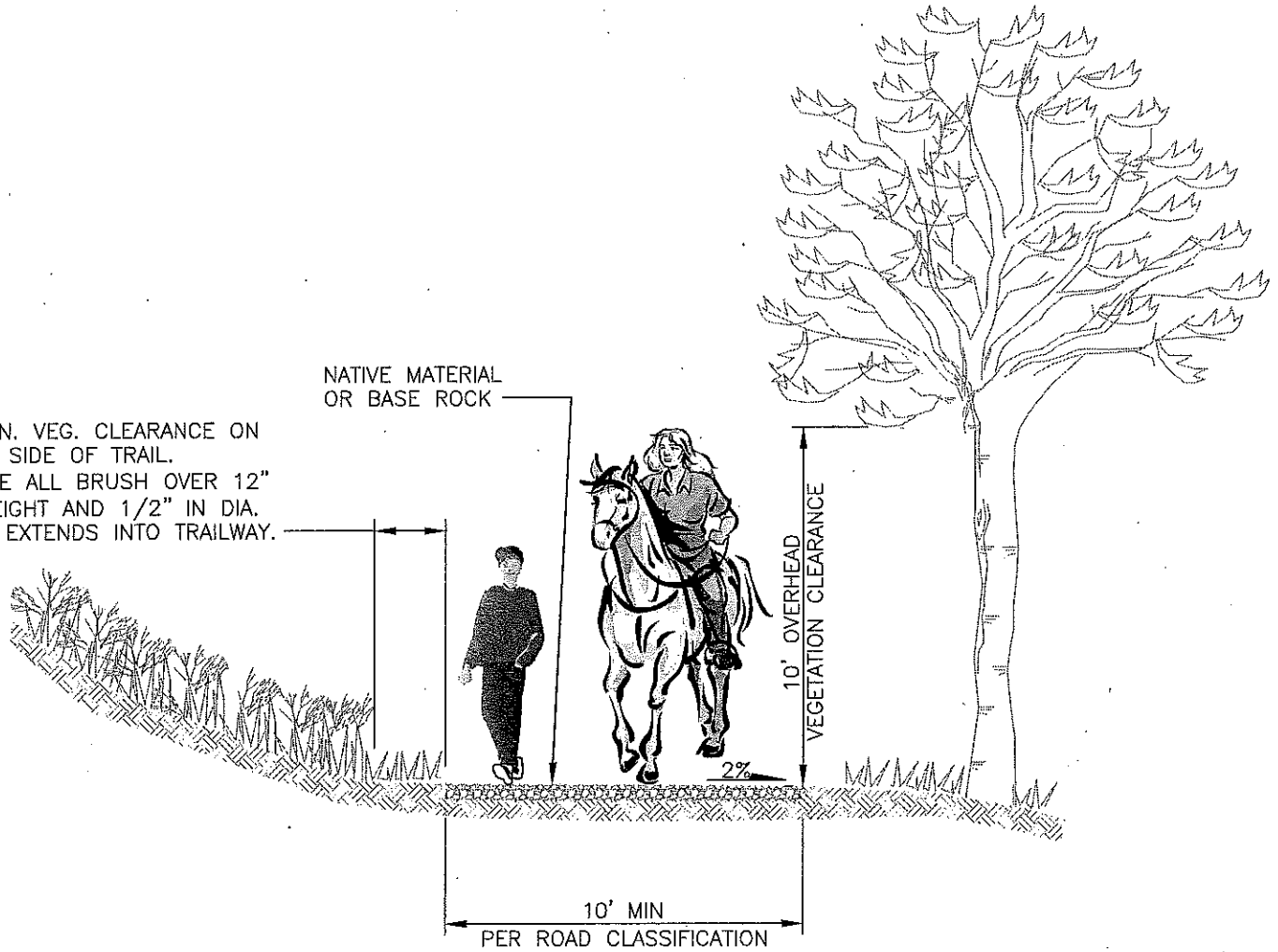
1. DITCH SECTION AS REQUIRED BY ROAD CLASSIFICATION.
2. PAVED SHOULDER IF ARTERIAL OR NEIGHBORHOOD COLLECTOR

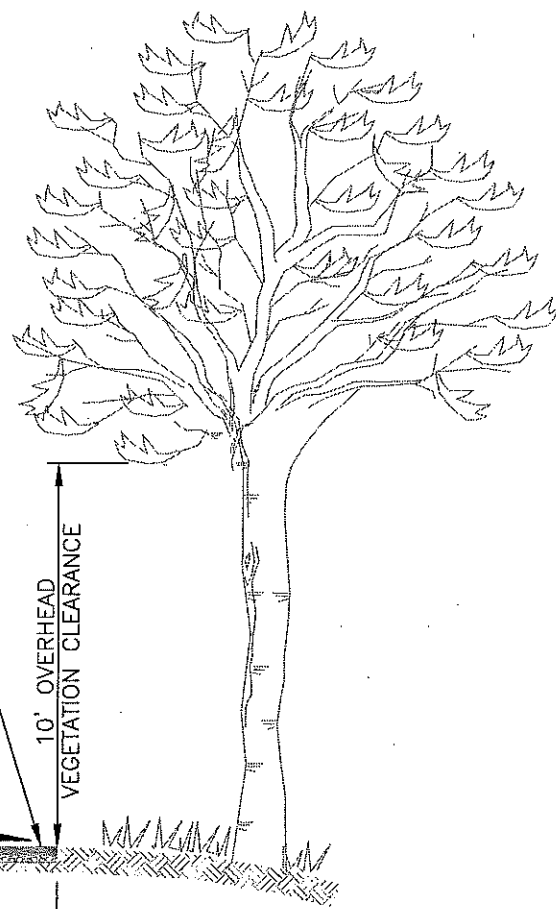


SHARED-USE TRAILS PAVED-TREAD, DOUBLE-TRACK

FIG. 3-018

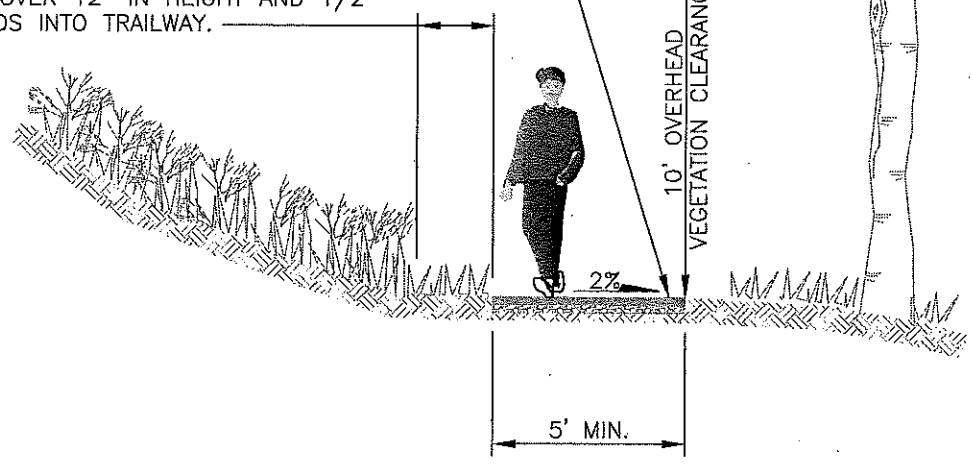
2' MIN. VEG. CLEARANCE ON EACH SIDE OF TRAIL. PRUNE ALL BRUSH OVER 12" IN HEIGHT AND 1/2" IN DIA. THAT EXTENDS INTO TRAILWAY.





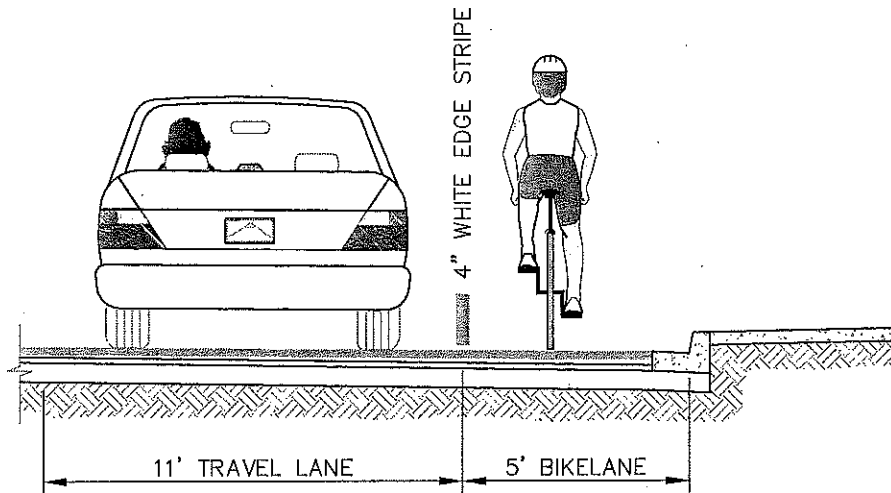
2" MIN. HMA, CLASS 1/2"
4" MIN. CSBC

2' MIN. VEG. CLEARANCE ON EACH SIDE OF TRAIL.
PRUNE ALL BRUSH OVER 12" IN HEIGHT AND 1/2" IN DIA. THAT EXTENDS INTO TRAILWAY.

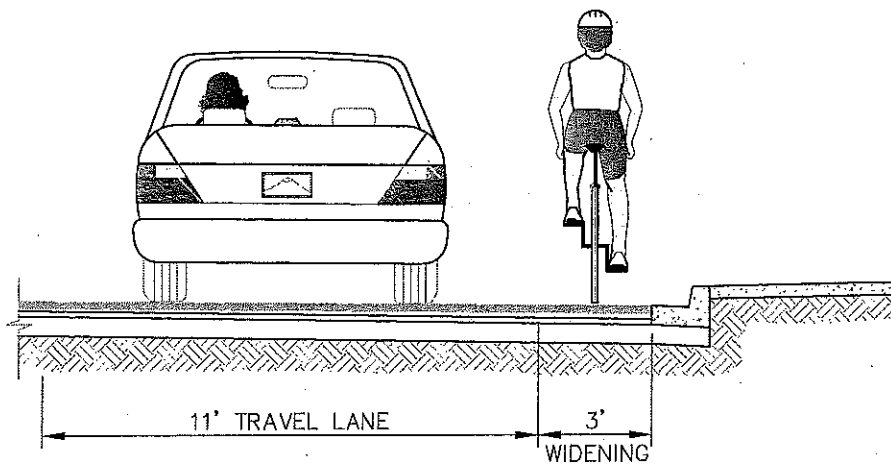


LIMITED-USE TRAILS,
PAVED-TREAD, SINGLE-TRACK

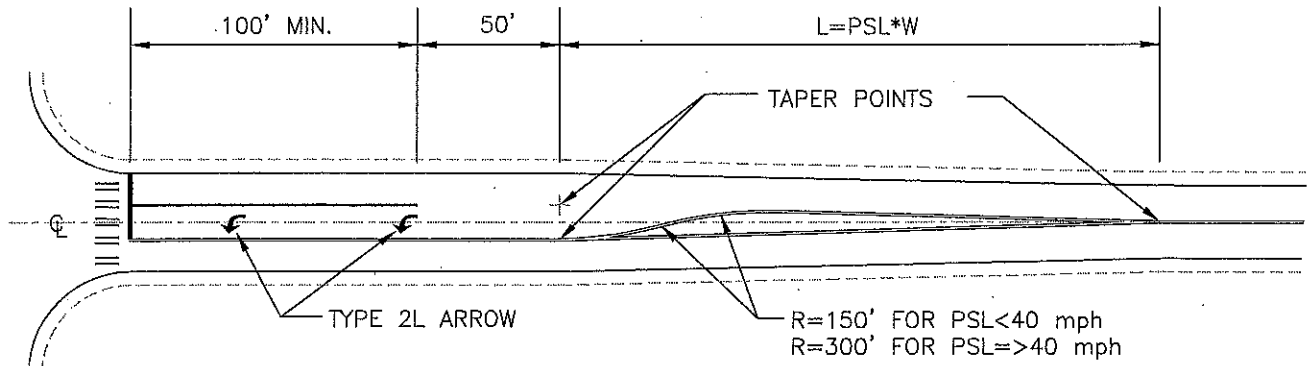
FIG. 3-020



DELINEATED BIKELANE



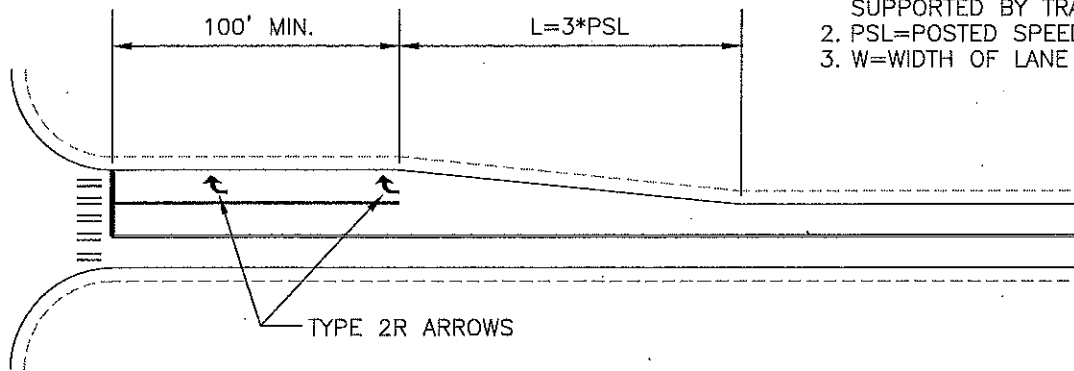
SHARED ROADWAY



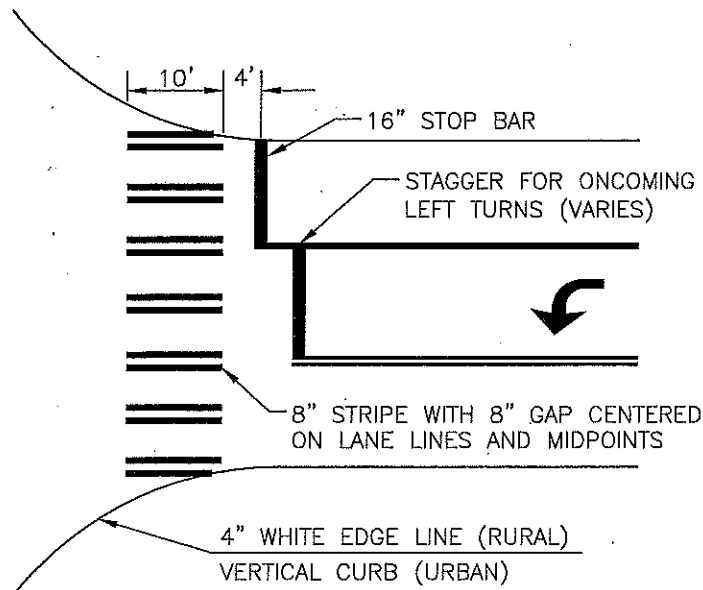
LEFT TURN MEDIAN

NOTES

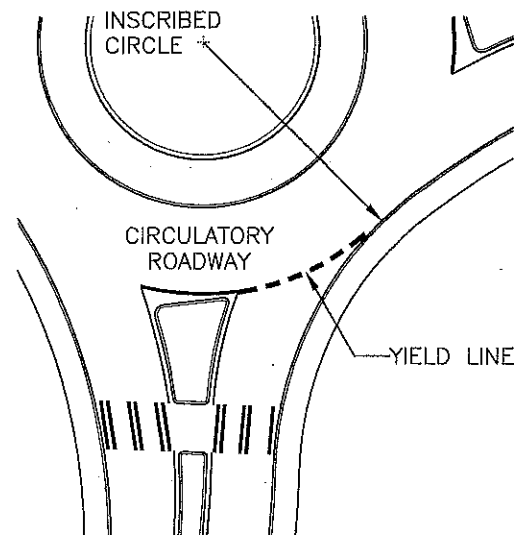
1. POCKET QUEUE LENGTHS SHOULD BE SUPPORTED BY TRAFFIC ANALYSIS
2. PSL=POSTED SPEED LIMIT IN MPH
3. W=WIDTH OF LANE SHIFT IN FEET



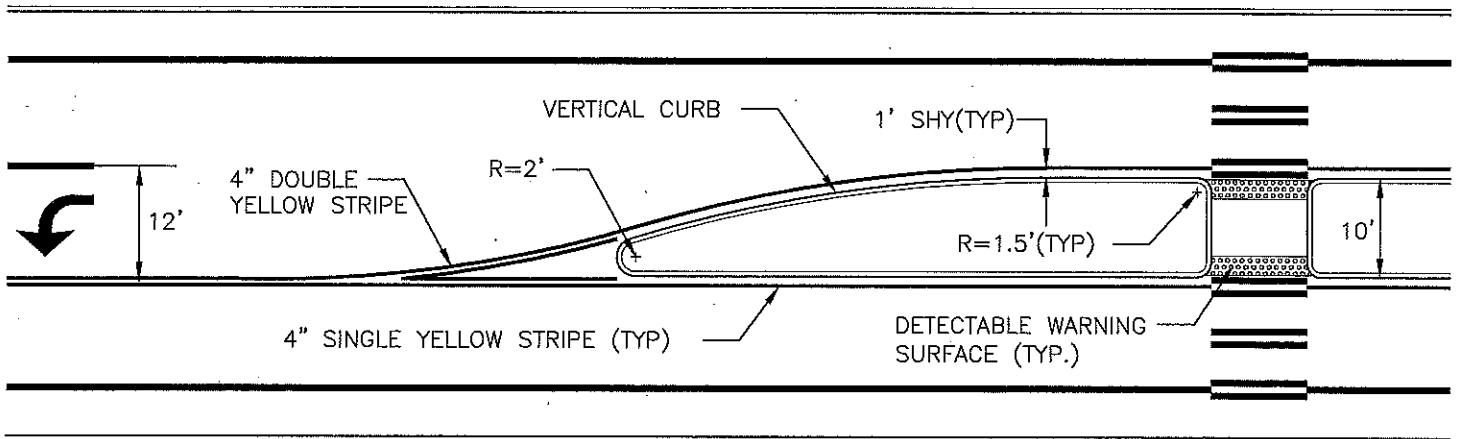
RIGHT TURN LANE



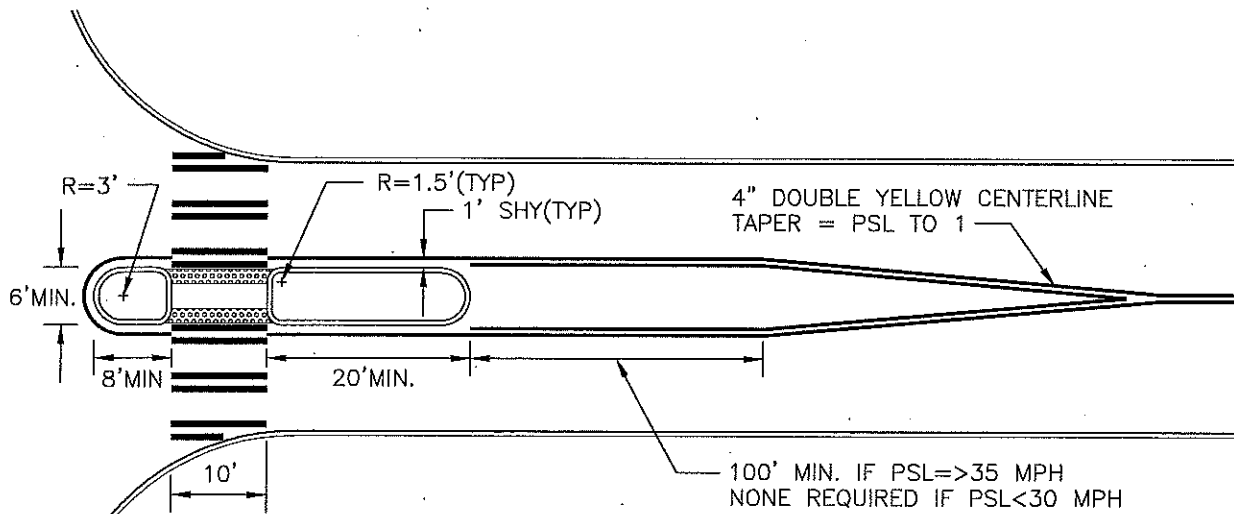
CROSSWALK AND STOP BARS



ROUNDAOBT YIELD LINES



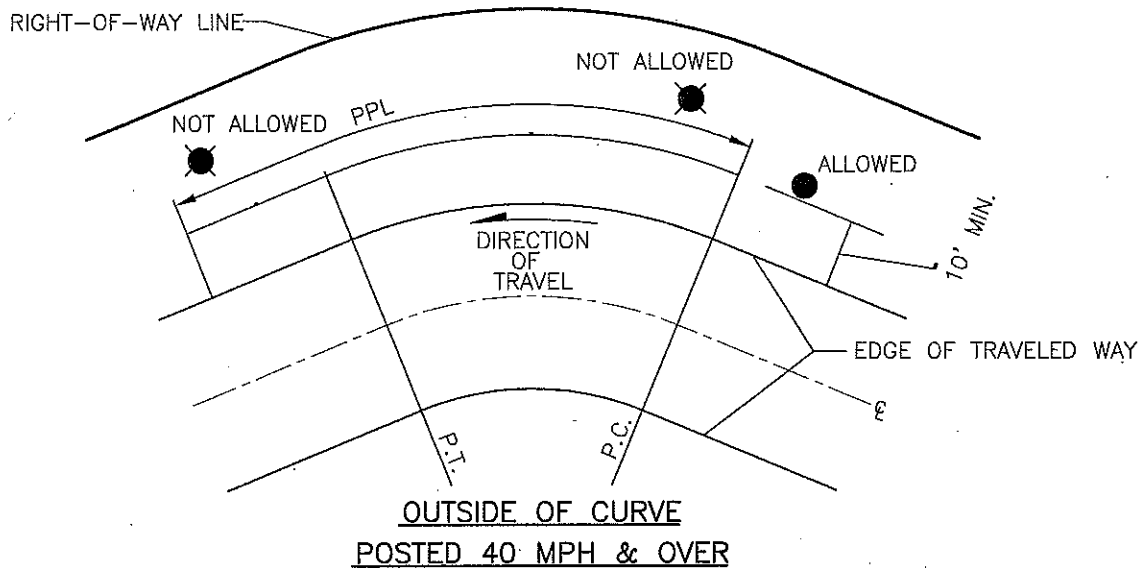
PEDESTRIAN REFUGE AT MIDBLOCK
FOR USE ON 3 OR 5-LANE ROADWAYS



PEDESTRIAN REFUGE AT INTERSECTION
FOR USE ON 2 OR 4-LANE ROADWAYS

NOTES

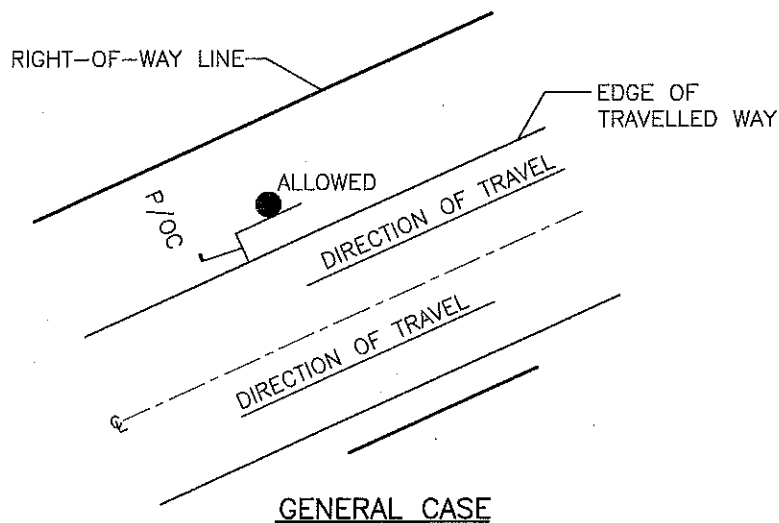
1. RAISED MEDIAN ISLANDS SHALL BE FULLY ILLUMINATED
2. LANDSCAPING FOR ISLANDS SHALL MAINTAIN SIGHTLINES FOR ALL VEHICLE MOVEMENTS
3. NOSE OF ISLAND AT INTERSECTION SHOULD ALLOW FOR TRUCK TURNING
4. CROSSWALK MARKINGS ARE REQUIRED IF NEAR EDGE OF CROSSWALK IS FURTHER THAN 10' FROM EDGE OF CONNECTING STREET



LOC: LENGTH OF CURVE (FEET) AT EDGE OF TRAVELED WAY FROM P.C. TO P.T.
 SOR: SAFETY OVERRUN (FEET) BEYOND P.T.
 PPL: PROHIBITED POLE LOCATION (PPL)- FEET-FEET (LOC + SOR) WHERE POLES OR OBSTACLES MUST BE REMOVED OR BARRICADED.

PPL (FEET) ON OUTSIDE OF CURVES WITH POSTED SPEED LIMIT OF 40 MPH & OVER	
40 MPH	LOC + 220 (SOR)
45	LOC + 255
50	LOC + 290
55	LOC + 325

APPLIES TO ROADWAY WITH SHOULDER OR MOUNTABLE CURB ON OUTSIDE OF CURVE, WITH:
 -RADIUS LESS THAN 2500 FT., AND
 -POSTED SPEED GREATER THAN OR EQUAL TO 40 M.P.H.



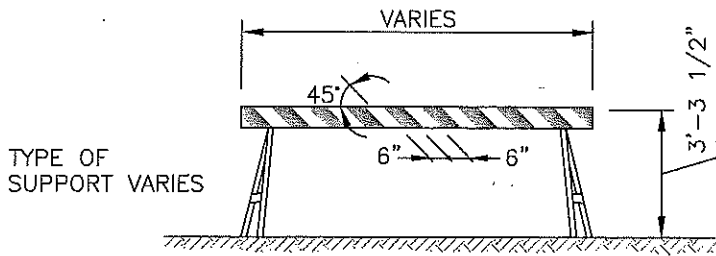
P/O/C: POLE/OBSTACLE CLEARANCE TO NEAREST FACE OF POLE/OBSTACLE.

APPLIES: TO ROADWAY WITH SHOULDER OR MOUNTABLE CURB ON:

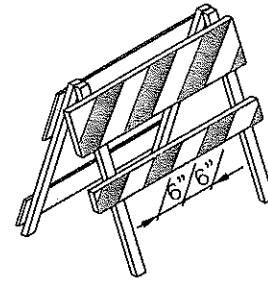
- TANGENT, OR
- INSIDE OF CURVE, OR
- OUTSIDE OF CURVE, EITHER WITH
 - POSTED SPEED LESS THAN 40 MPH OR
 - RADIUS GREATER THAN 3500 FT. ON ROADWAY MEETING ALL CURRENT DESIGN STANDARDS.

NOTES:

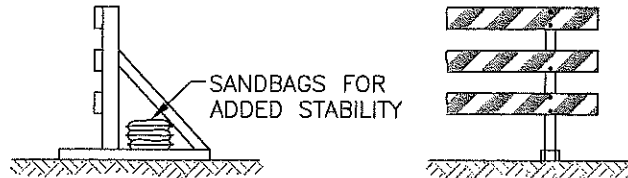
- THE STANDARDS SHALL APPLY TO EVERY NEW PLACEMENT AND EVERY PLANNED, NON-EMERGENCY REPLACEMENT OF EXISTING POLES AND OTHER UTILITY STRUCTURES WITHIN KING COUNTY RIGHT-OF-WAY.
- NO POLES MAY BE REPLACED ON THE OUTSIDE OF A CURVE WITH A POSTED SPEED LIMIT OF 40 MPH OR OVER UNLESS APPROVED THROUGH A VARIANCE REQUEST.
- SEE SECS. 5.10 & 8.02(G).



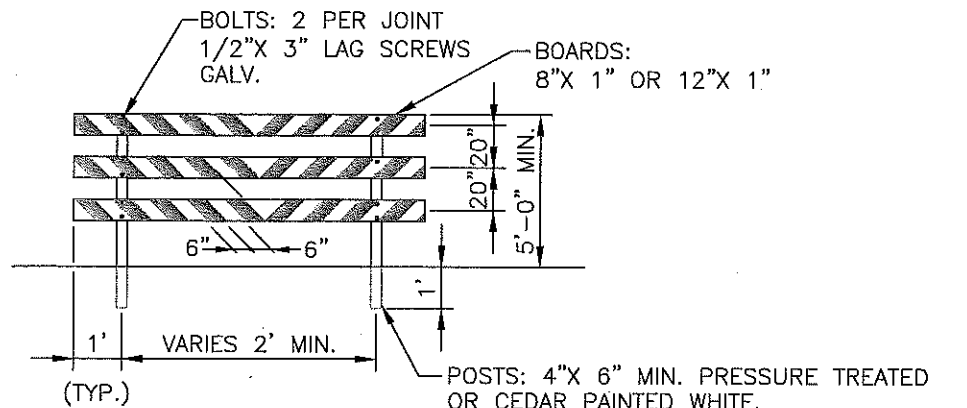
TYPE I BARRICADE



TYPE II BARRICADE



**TYPE III BARRICADE
MOVABLE (TEMPORARY)**



**TYPE III BARRICADE
FIXED (PERMANENT)**

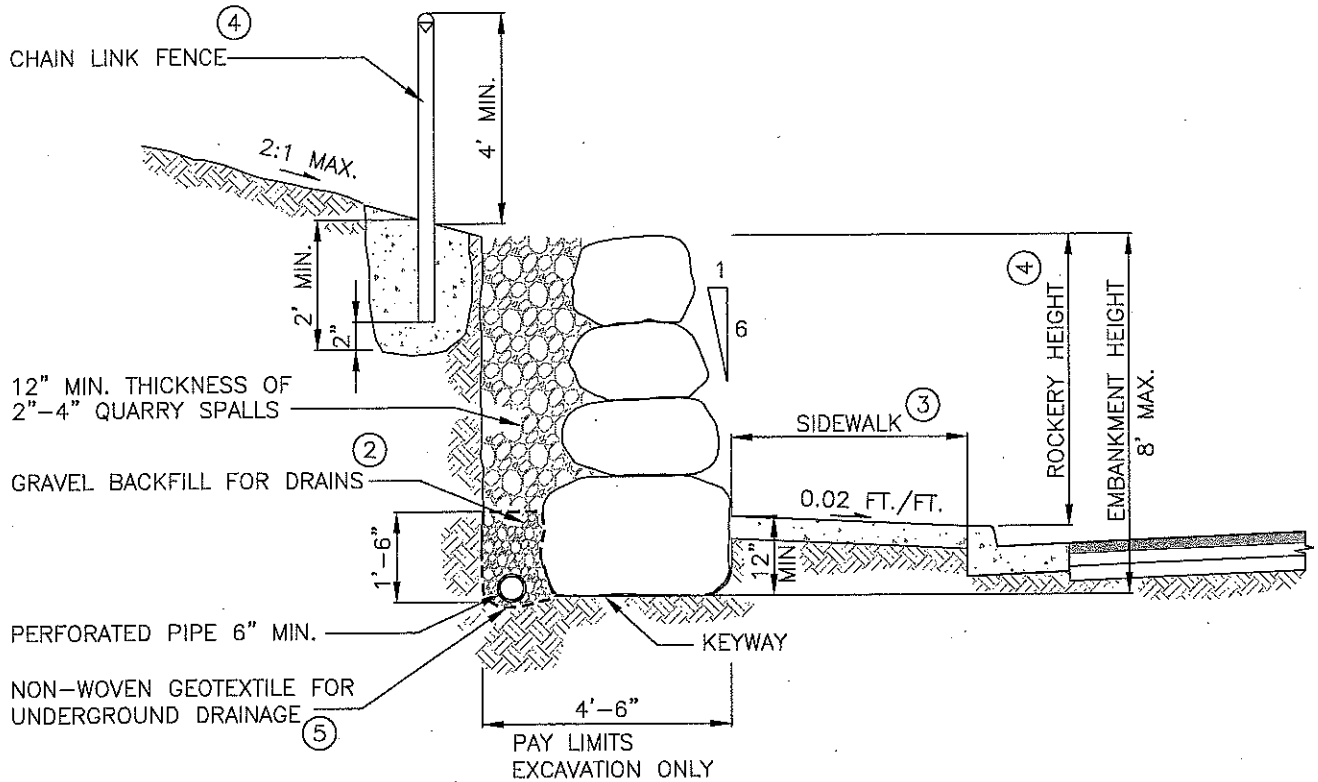
STRIPE NOTES

1. ORANGE & WHITE IF TEMPORARY.
2. RED & WHITE IF PERMANENT.
3. REFLECTORIZED
4. SLANT DOWNWARD, RIGHT OR LEFT, IN DIRECTION TRAFFIC WILL PASS.
5. SLANT BOTH DIRECTIONS FROM MIDDLE IF TRAFFIC PASSES BOTH ENDS.
6. WIDTH 6 IN. EXCEPT 4 IN. IF RAILS ARE LESS THAN 3 FT. LONG.
7. SLANT DOWNWARD TO MIDDLE AT END OF DEAD-END OR CLOSED ROAD.
8. SEE SEC. 5.07 AND MUTCD

NOTE:

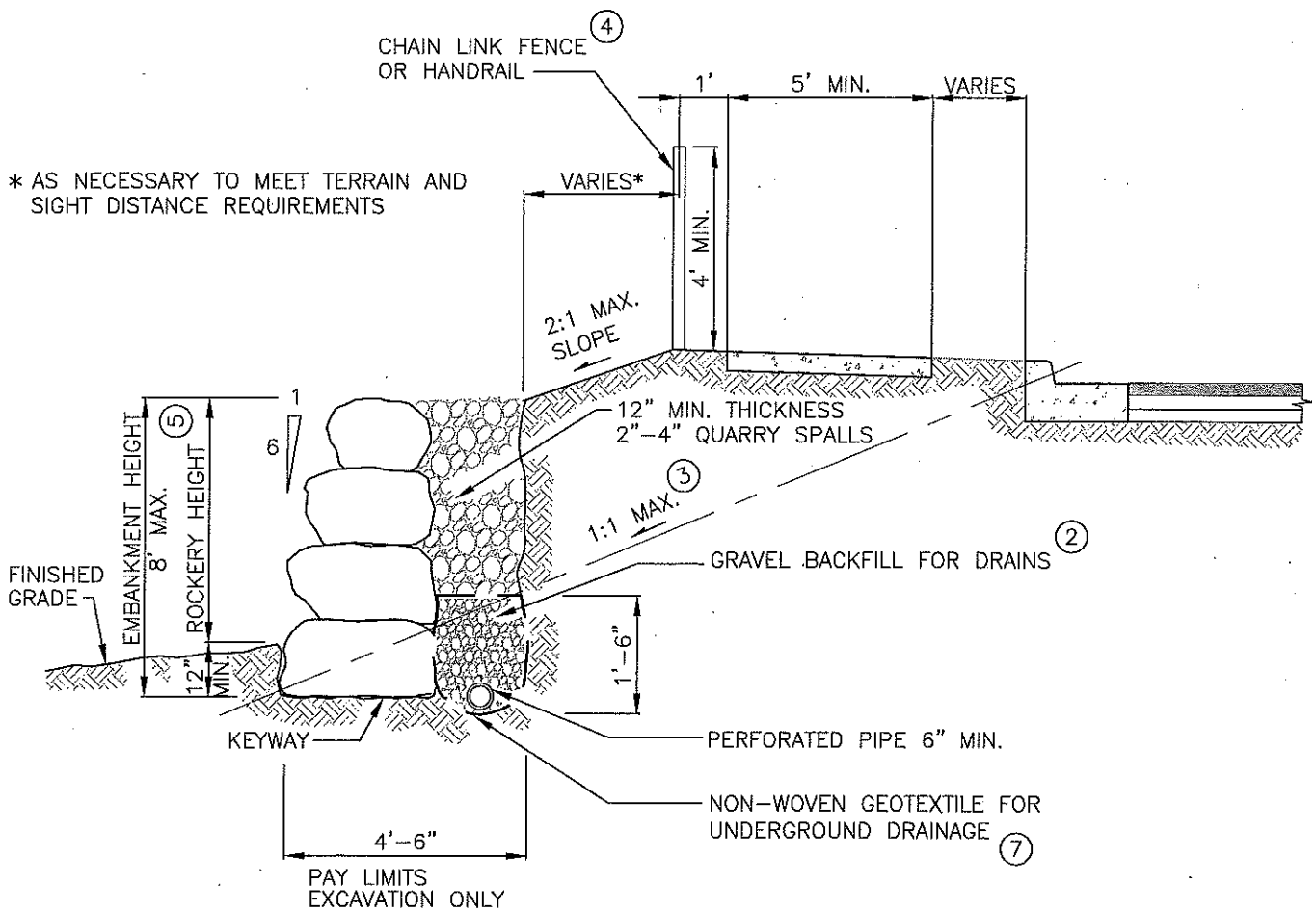
FOR DIMENSIONS NOT SHOWN, SEE BARRICADE NOTE TABLE

BARRICADE NOTES			
TYPE	I	II	III
WIDTH OF RAIL	8" MIN. 12" MAX.	8" MIN. 12" MAX.	8" MIN. 12" MAX.
LENGTH OF RAIL	2' MIN.	2' MIN.	4' MIN.
HEIGHT	3' MIN.	3' MIN.	5' MIN.
TYPE OF FRAME	DEMOUNTABLE OR HEAVY "A"	LIGHT "A" FRAME	POST OR SKIDS
FLEXIBILITY	ESSENTIALLY MOVABLE	PORTABLE	ESSENTIALLY PERMANENT



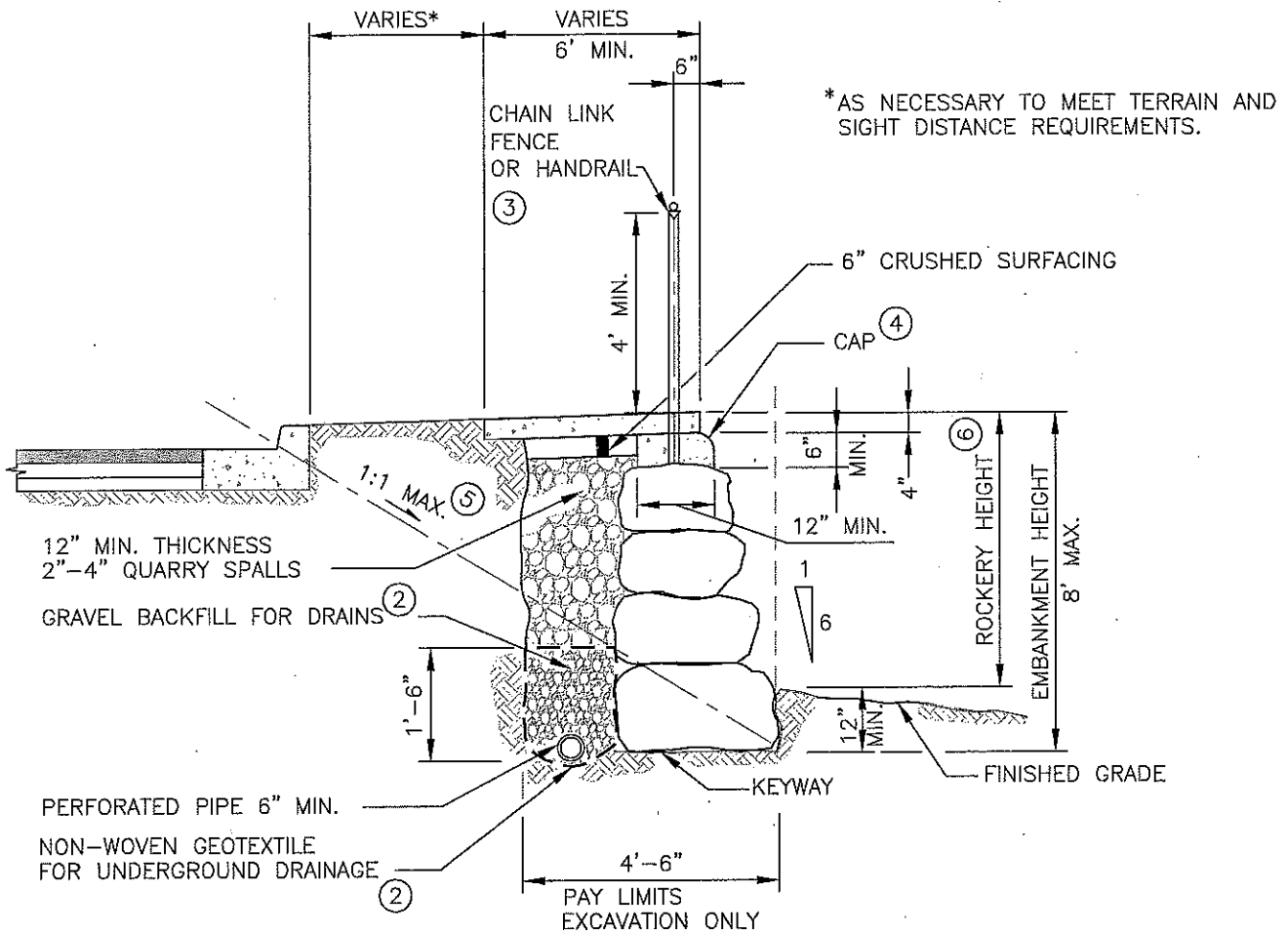
NOTES:

1. SEE SEC. 5.01.
- ② WSDOT/APWA STANDARD SPECIFICATION SECTION 9-03.12[4].
- ③ FACE OF ROCKERY OR RETAINING WALL MUST BE A MIN. OF 10 FT. FROM TRAVELED WAY IF ROCKERY OR RETAINING WALL IS BEHIND ROLLED CURB OR ON A RURAL SECTION.
- ④ CHAIN LINK FENCE, TYPE 4 (WSDOT/APWA STANDARD PLANS), REQUIRED WHEN ROCKERY HEIGHT IS 18 IN. OR GREATER.
- ⑤ WSDOT/APWA STANDARD SPECIFICATION SECTION 9-33.
6. THE ROCK FACING FOUNDATION AND/OR KEYWAY IS TO BE CLEARED OF ORGANIC MATTER AND DEBRIS AND THE UNDERLYING MINERAL SOIL COMPACTED TO A MINIMUM 95% OF THE MAXIMUM DRY DENSITY.



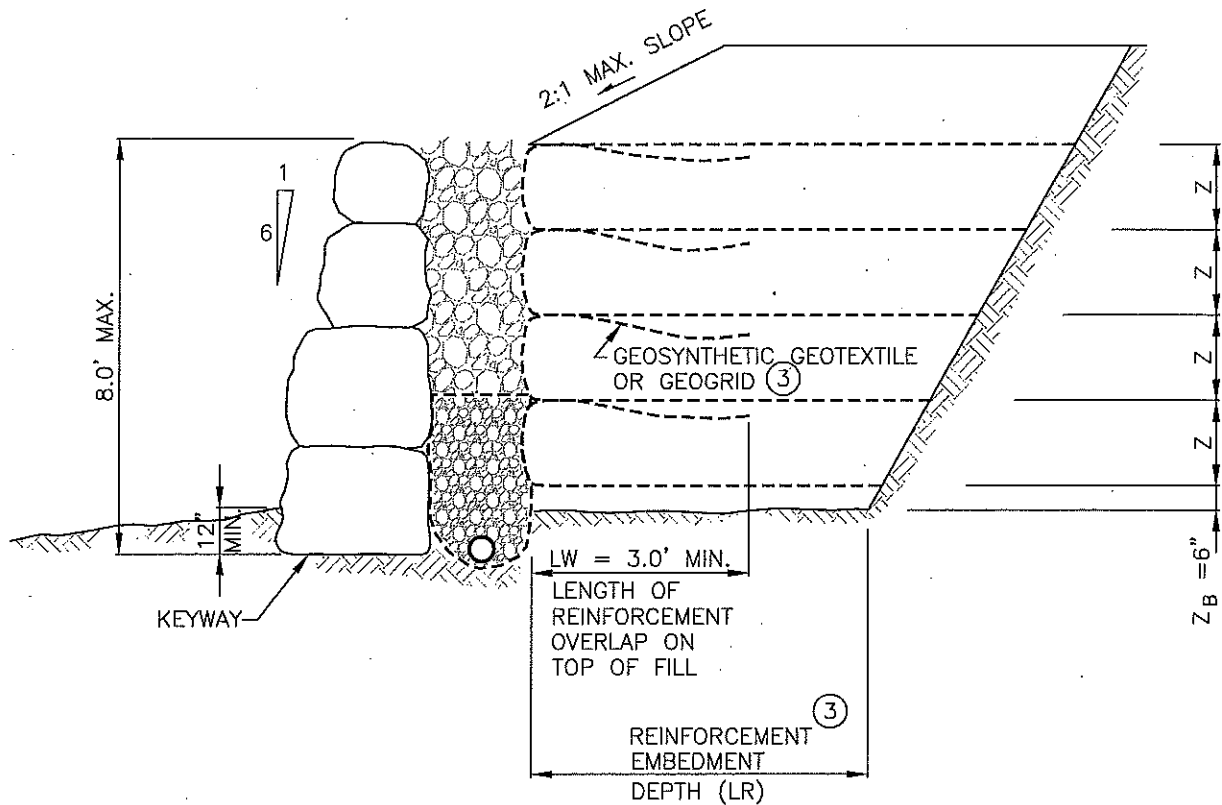
NOTES:

1. SEE SEC. 5.01.
- (2) WSDOT/APWA STANDARD SPECIFICATION SECTION 9-03.12[4].
- (3) FLATTER SLOPE MAY BE REQUIRED IN LESS STABLE SOIL.
- (4) CHAIN LINK FENCE, TYPE 4 (WSDOT/APWA STANDARD PLANS) OR HANDRAIL REQUIRED WHEN ROCKERY HEIGHT IS 18 IN. OR GREATER. SEE FIG. 5-008, NOTE 8.
- (5) FOR ROCKERY HEIGHTS EXCEEDING 4 FT., SEE FIG. 5-006.
6. TRAFFIC BARRIERS MAY BE REQUIRED ON ROADS WITH SPEED LIMITS OF 40 MPH OR GREATER, WHERE ROCKERY HEIGHTS EXCEED 6 FT. SEE CHAPTER 7 OF THE WSDOT DESIGN MANUAL.
- (7) WSDOT/APWA STANDARD SPECIFICATION SECTION 9-33.
8. SEE NOTE 6 OF FIG. 5-003.



NOTES:

1. SEE SEC 5.01.
- ② WSDOT/APWA STANDARD SPECIFICATION SECTION 9-03.12[4].
- ③ CHAIN LINK FENCE, TYPE 4 (WSDOT/APWA STANDARD PLANS) OR HANDRAIL REQUIRED WHEN ROCKERY/WALL HEIGHT IS 18 IN. OR GREATER. SEE FIG. 5-022.
- ④ CAP SHALL BE CONCRETE CLASS 4000. (SEE SEC. 5.01 (H))
- ⑤ FLATTER SLOPE MAY BE REQUIRED IN LESS STABLE SOILS.
- ⑥ FOR ROCKERY HEIGHTS EXCEEDING 4 FT., SEE FIG. 5-006.
7. TRAFFIC BARRIERS MAY BE REQUIRED ON ROADS WITH SPEED LIMITS OF 40 MPH OR GREATER, WHERE HEIGHTS EXCEED 6 FT. SEE CHAPTER 7 OF THE WSDOT DESIGN MANUAL.
8. SEE NOTE 7 ON FIG. 5-004
9. SEE NOTE 6 ON FIG. 5-003

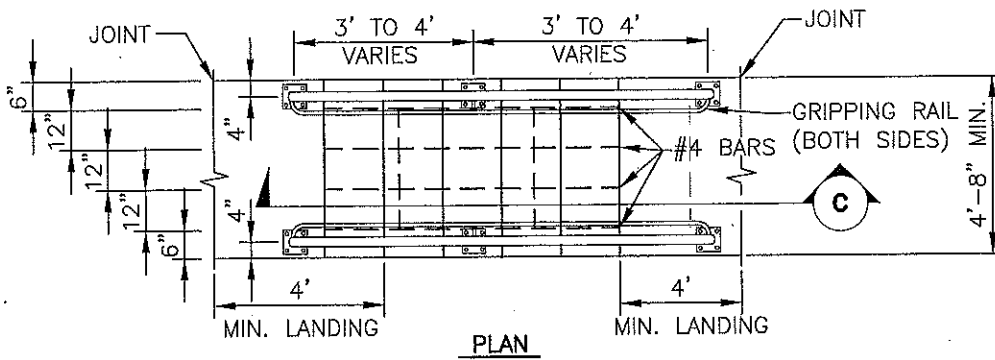


NOTES:

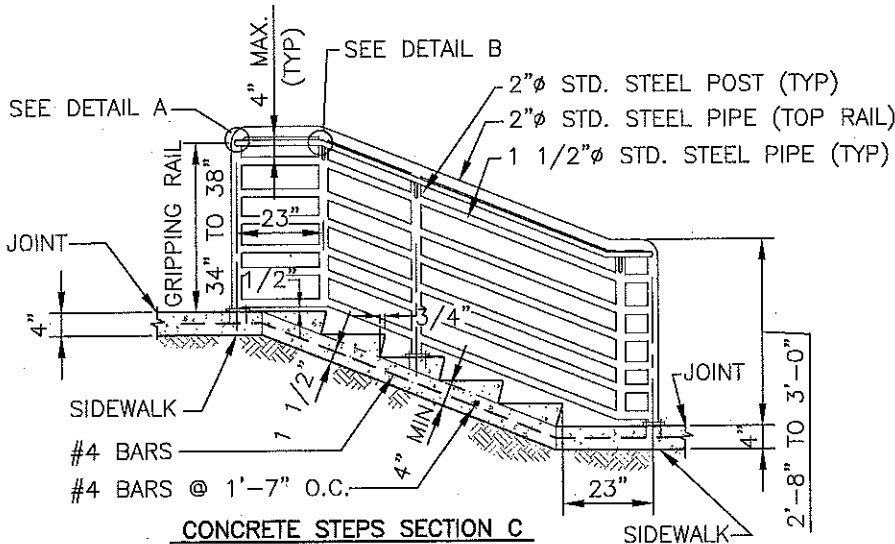
1. ROCKERY FACINGS ARE TO BE CONSTRUCTED TO KING COUNTY ROAD STANDARDS. SEE SEC. 5.01 AND FIG. 5-003 THROUGH 5-005.
2. THE WALL FOUNDATION IS TO BE CLEARED OF ORGANIC MATTER AND DEBRIS AND THE UNDERLYING MINERAL SOIL COMPACTED TO 95 PERCENT OF THE MAX. DRY DENSITY. THE BACK FILL FOR THE REINFORCED AND RETAINED ZONES SHALL MEET THE WSDOT STANDARD SPECIFICATION 9-03.14(4). THE BACKFILL IS TO BE PLACED IN THIN LIFTS, NOT EXCEEDING SIX INCHES IN THICKNESS AND COMPACTED TO 95 PERCENT OF THE MAX. DRY DENSITY.
- ③ GEOSYNTHETIC REINFORCEMENT REQUIREMENTS INCLUDING TYPE, VERTICAL SPACING (Z), AND EMBEDMENT (LR), WILL BE DETERMINED ON A ROCKERY BY ROCKERY BASIS BY A PROFESSIONAL ENGINEER REFER TO SECTION 6.05 FOR MINIMUM REQUIREMENTS.
4. Z_B IS HEIGHT OF FIRST LAYER OF REINFORCEMENT ABOVE COMPACTED SUBGRADE ELEVATION.
5. EMBANKMENTS BEHIND ROCKERIES EXCEEDING 4 FT. IN HEIGHT SHALL BE REINFORCED WITH GEOSYNTHETIC GEOTEXTILE OR GEOGRID.
6. CHAIN LINK FENCE TYPE 4 (WSDOT/APWA STANDARD) REQUIRED WHEN ROCKERY HEIGHT IS 18 IN. OR GREATER.

**ROCK FACING
FILL SECTION REINFORCEMENT**

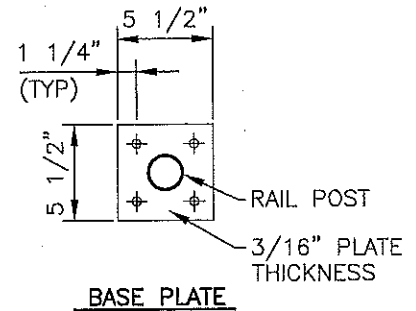
FIG. 5-006



PLAN



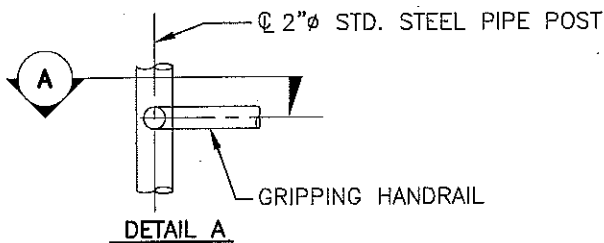
CONCRETE STEPS



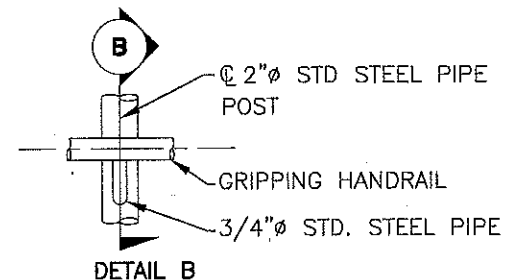
BASE PLATE

NOTES:

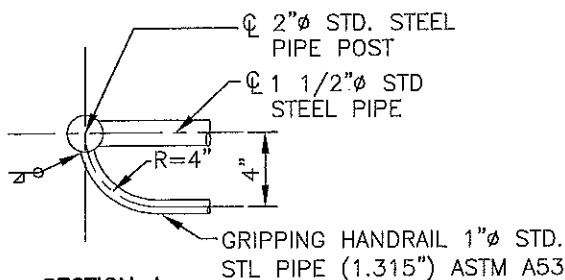
1. A307, 1/2 BOLTS MIN.
2. 2 1/2 INCH. CONCRETE EMBEDMENT MIN.
3. PLATE MATERIAL MIN. A36



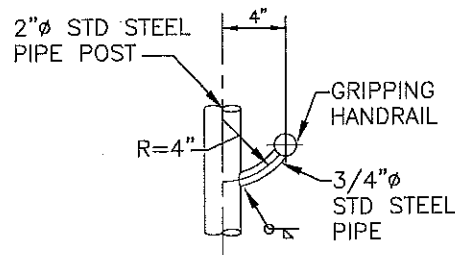
DETAIL A



DETAIL B



SECTION A

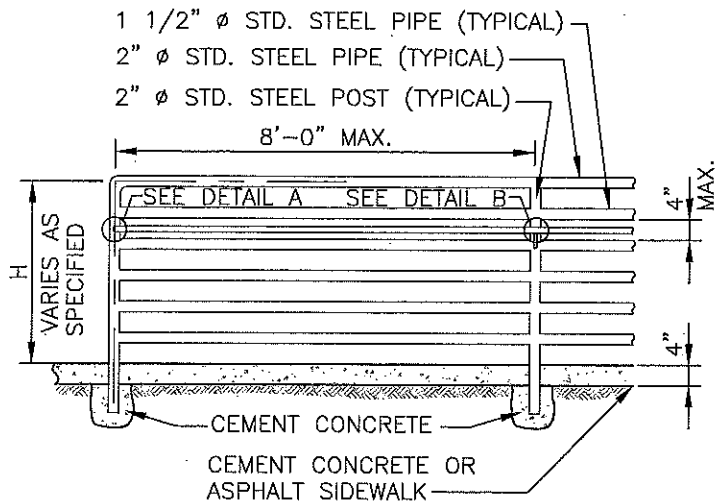


SECTION B

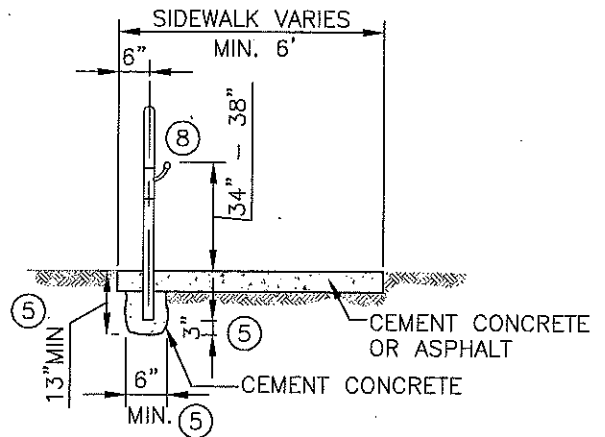
GRIPPING HANDRAIL

NOTES:

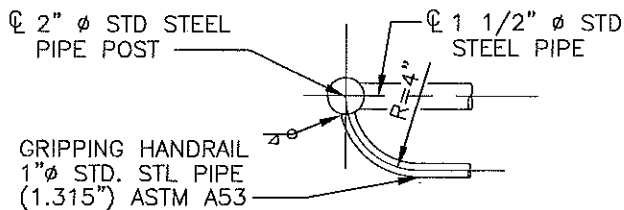
1. CONCRETE: CEMENT CONCRETE CLASS 4000.
2. ALL STEPS: SAME DIMENSIONS, WITHIN 3/8 IN. MAX. DIFFERENCE.
3. RISERS: 7 1/2 IN. MAX., 5 IN. MIN.
4. TREADS: 12 IN. MAX., 11 IN. MIN., WITH TRANSVERSE 0.01 FT./FT. SLOPE.
5. METAL HANDRAIL REQUIRED FOR 4 STEPS OR MORE SEE NOTES BELOW.
6. REINFORCING BARS SHALL CONFORM TO EITHER AASHTO M31 GRADE 60 OR ASTM A706 GRADE 60 AND ARE REQUIRED FOR 4 STEPS OR MORE.
7. SEE SEC. 3.06.
8. MAX. VERTICAL DISTANCE BETWEEN LANDINGS IS 12 FT.



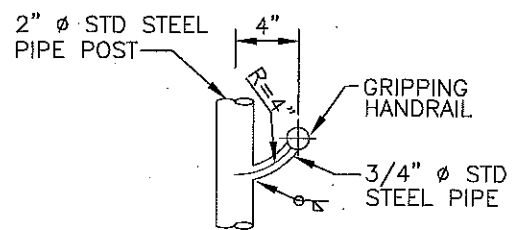
METAL HANDRAIL



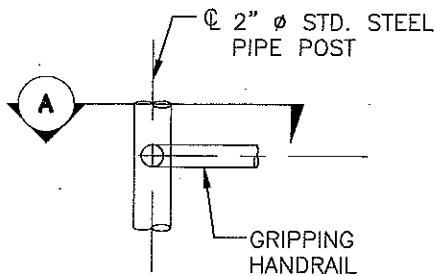
HANDRAIL SECTION



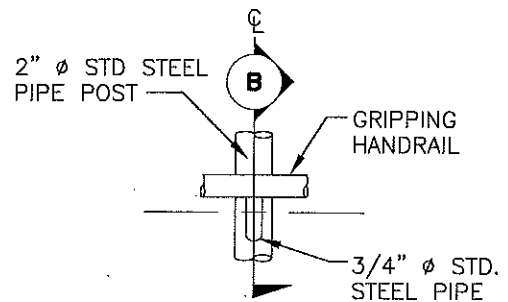
SECTION A



SECTION B



DETAIL A



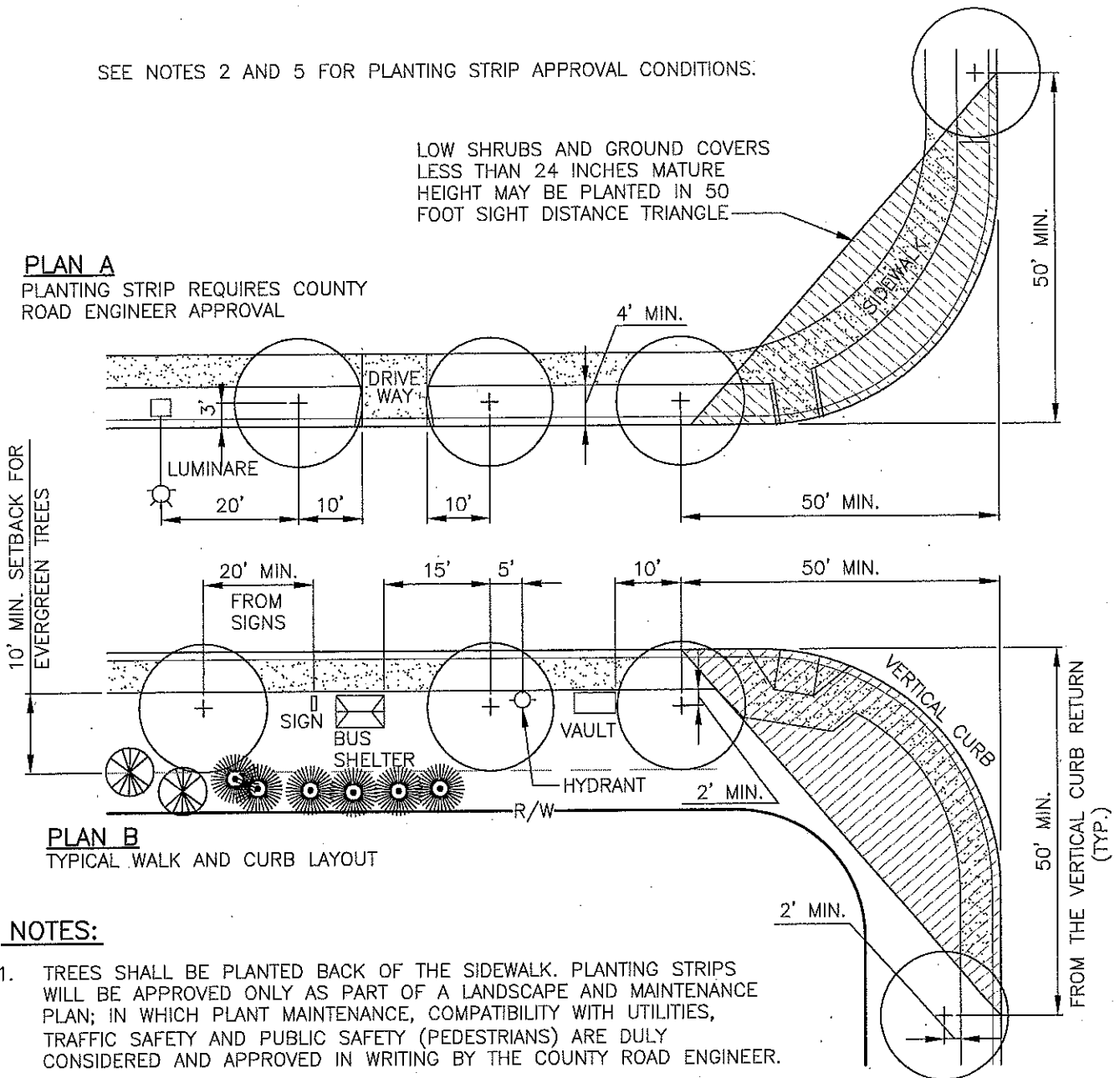
DETAIL B

GRIPPING HANDRAIL

NOTES

1. RAILS TO BE MINIMUM A53 TYPE E, GRADE B, 2 IN. NOMINAL DIAMETER, MINIMUM SECTION MODULUS 0.561 IN³ (GALV. STEEL OR ALUMINUM THAT HAS EQUAL OR BETTER STRENGTH).
2. POSTS, HANDRAILS, CONNECTIONS, JOINTS AND HARDWARE SHALL HAVE A SMOOTH SURFACE.
3. ALL STEEL SHALL BE GALVANIZED. ANY WELDING OR REPAIR IN THE FIELD SHALL BE PAINTED IN ACCORDANCE WITH MOST CURRENT WSDOT STANDARD SPECIFICATIONS.
4. FOOTINGS TO BE MINIMUM CONCRETE CLASS 4000.
- ⑤ POSTS SET DEPTH AND CONCRETE FOOTING DIMENSIONS SHALL BE REVIEWED AND DETERMINED BY ENGINEER BASED ON LOCAL SOIL AND SITE CONDITIONS.
6. SEE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR RAIL VERTICAL SPACING REQUIREMENTS.
7. SEE SEC. 3.06.
- ⑧ GRIPPING HANDRAIL IS REQUIRED IF SIDEWALK GRADE IS 5% OR GREATER.
9. THE RAILING SHALL MEET THE REQUIREMENTS OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

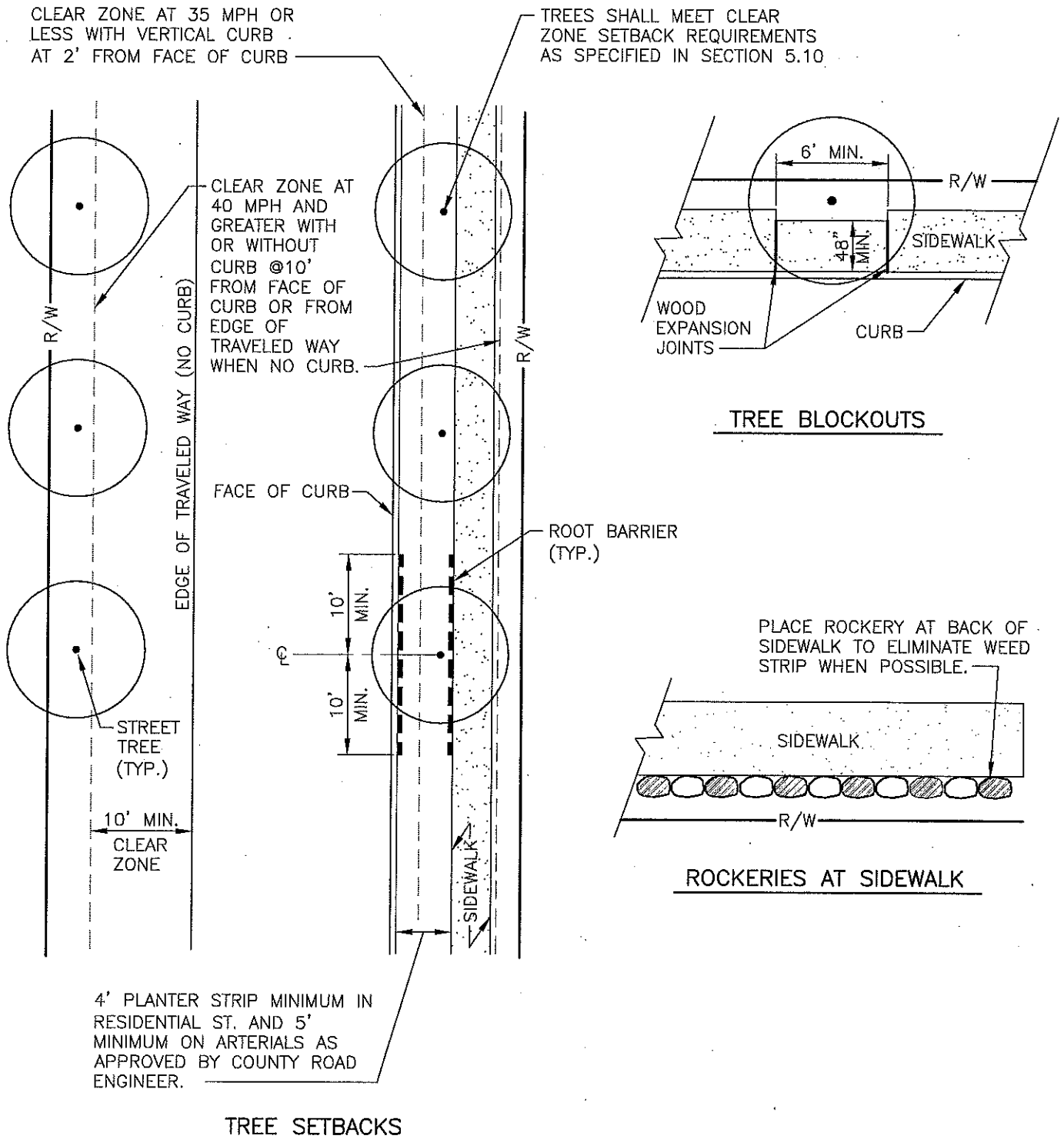
SEE NOTES 2 AND 5 FOR PLANTING STRIP APPROVAL CONDITIONS:



PLAN B
TYPICAL WALK AND CURB LAYOUT

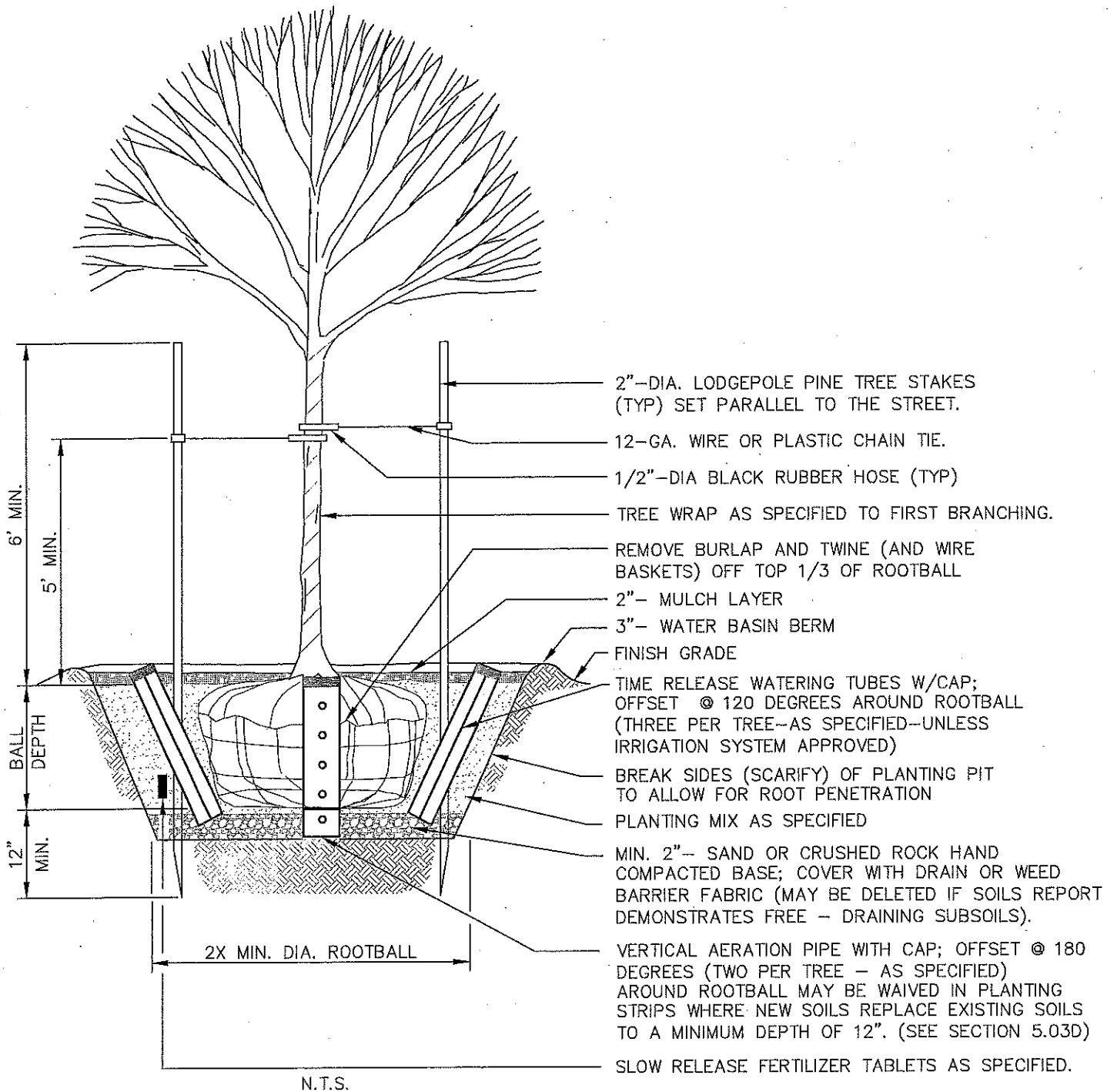
NOTES:

1. TREES SHALL BE PLANTED BACK OF THE SIDEWALK. PLANTING STRIPS WILL BE APPROVED ONLY AS PART OF A LANDSCAPE AND MAINTENANCE PLAN; IN WHICH PLANT MAINTENANCE, COMPATIBILITY WITH UTILITIES, TRAFFIC SAFETY AND PUBLIC SAFETY (PEDESTRIANS) ARE DULY CONSIDERED AND APPROVED IN WRITING BY THE COUNTY ROAD ENGINEER.
2. IF PLANTING STRIPS ARE APPROVED:
 - A. MIN. DISTANCE FROM CENTER OF TREE TRUNK TO FACE OF ANY VERTICAL CURB SHALL BE 3 FEET.
 - B. TREES SHALL BE STAKED IN A MANNER NOT TO OBSTRUCT SIDEWALK USERS.
 - C. MINIMUM SIDEWALK WIDTH SHALL BE 5 FEET IN RESIDENTIAL STREETS AND 8 FEET IN COMMERCIAL BUSINESS DISTRICTS. WHERE BLOCK-OUTS OCCUR, MINIMUM CLEAR SIDEWALK WIDTH SHALL BE 48" MINIMUM OR CURRENT ADA STANDARDS.
 - D. THE USE OF TREE GRATES MAY BE ALLOWED IF THEY COMPLY WITH ALL APPLICABLE A.D.A. STANDARDS.
3. PLANS SHALL BE COORDINATED WITH KING COUNTY METRO SERVICE PLANNING ON BUS ROUTES.
4. SEE SEC 5.03 FOR ADDITIONAL STREET TREE AND LANDSCAPE REQUIREMENTS.
5. NO TREES WITH MATURE TRUNKS GREATER THAN 4 INCHES DIAMETER (AS MEASURED AT GRADE) SHALL BE PLANTED WITHIN THE KING COUNTY CLEAR ZONE. LARGER TREES MAY BE APPROVED FOR PLANTING OUTSIDE THE CLEAR ZONE AREA. NO TREES SHALL BE PLANTED WITHIN THE 50 FOOT SIGHT DISTANCE TRIANGLE AT INTERSECTIONS. ALL SHRUB AND GROUND COVER PLANTINGS WITHIN THE RIGHT-OF-WAY SHALL HAVE A MATURE HEIGHT LESS THAN 24 INCHES.



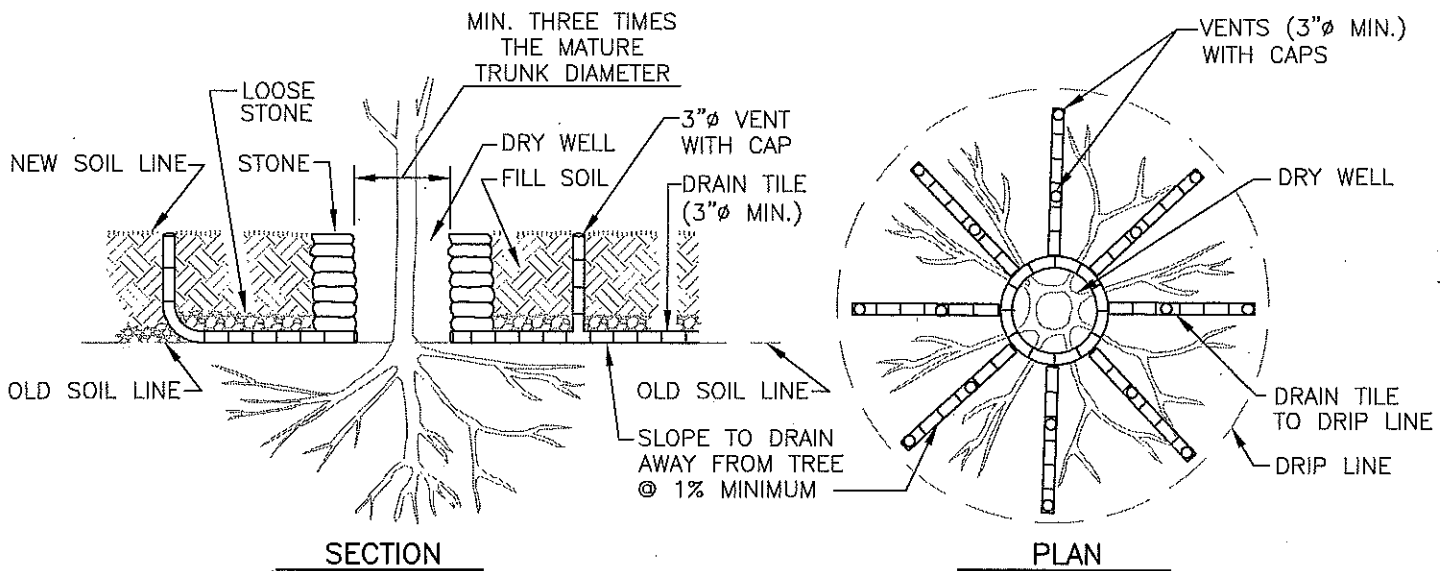
NOTES:

1. ROOTBARRIERS REQUIRED FOR ALL TREES IN PLANTER STRIP (UNLESS WAIVED BY K.C.D.O.T.)
2. REFER TO FIG. 5-009 FOR SPECIFIC SETBACKS.

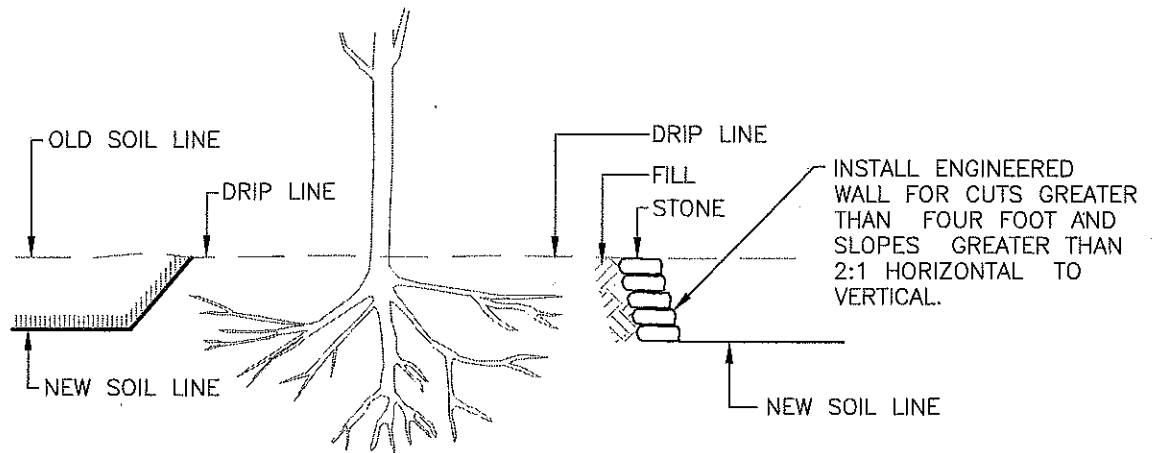


NOTES:

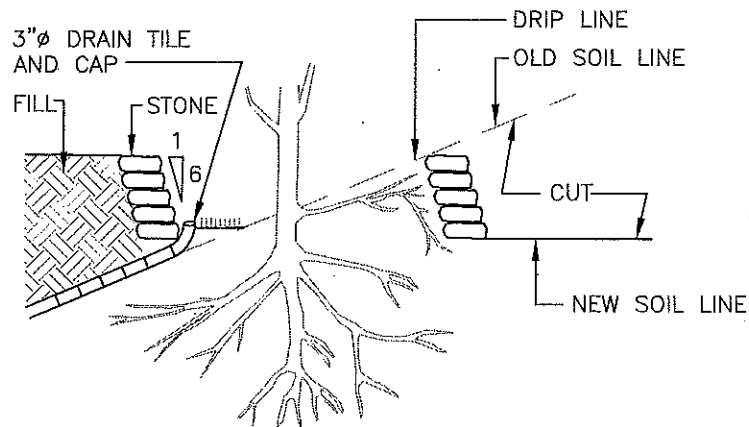
1. PLANT TREES 1 INCH HIGHER THAN DEPTH GROWN IN NURSERY. TREE PIT SHALL NOT BE LESS THAN (2) TIMES DIAMETER OF ROOTBALL.
2. ROOTBARRIER SHALL BE 12 INCHES DEEP AND MINIMUM 10 L.F. ON EACH SIDE OF ROOTBALL ADJACENT TO CURBS AND PAVED SURFACES.
3. THERE SHALL BE A MINIMUM ROOTBALL DIAMETER OF 10 INCHES PER TRUNK CALIPER INCH AS MEASURED 6 INCHES ABOVE ROOTBALL.
4. IF APPLICANT PROPOSES AN IRRIGATION PLAN WITHIN AN APPROVED PLANTING STRIP, TO BE PRIVATELY MAINTAINED (PER NOTE No. 1 FIG. 5-009), THE TIME RELEASE WATERING TUBES MAY BE DELETED.



RAISING THE GRADE



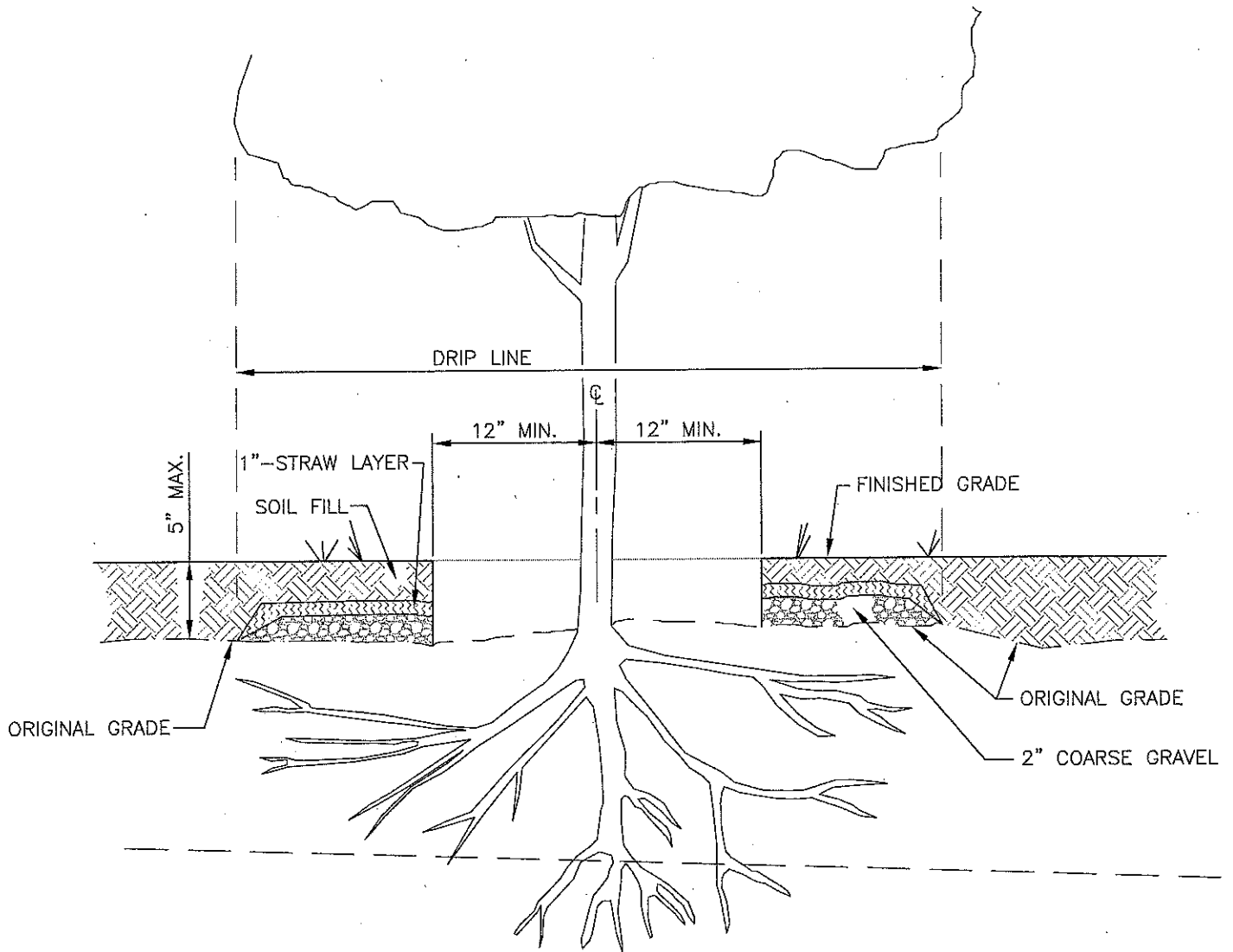
LOWERING THE GRADE



LOWERING AND RAISING THE GRADE

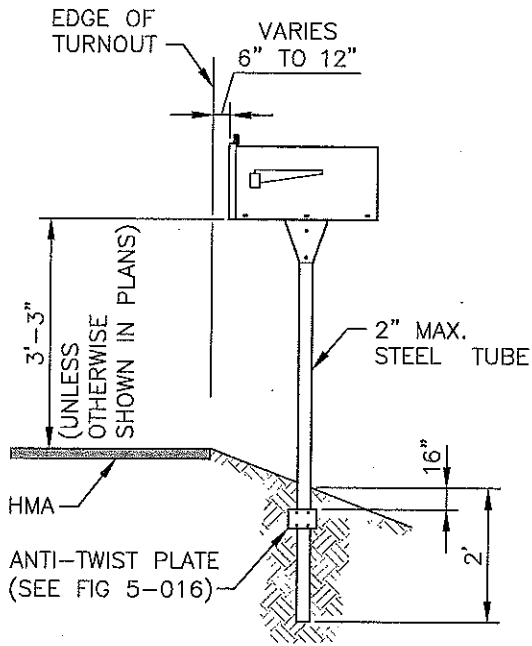
NOTE:

1. ALL DRAIN TILE SHALL BE PERFORATED AND WRAPPED IN PERMEABLE DRAIN FABRIC OR CLOTH SOCKS DESIGNED FOR PERFORATED PIPE.
2. MINIMUM BATTER ON DRY WELLS WALLS SHALL BE 1:6 HORIZONTAL TO VERTICAL.
3. ALL FILL SOIL SHALL BE COMPACTED BY HAND EQUIPMENT ONLY.

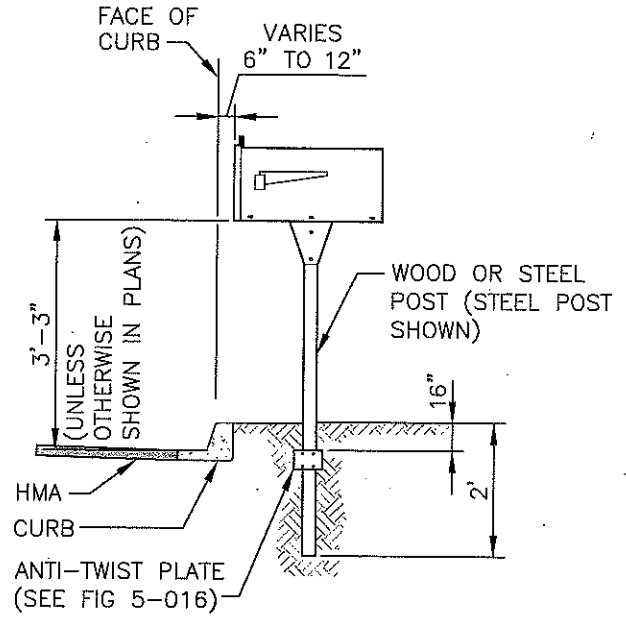


NOTES

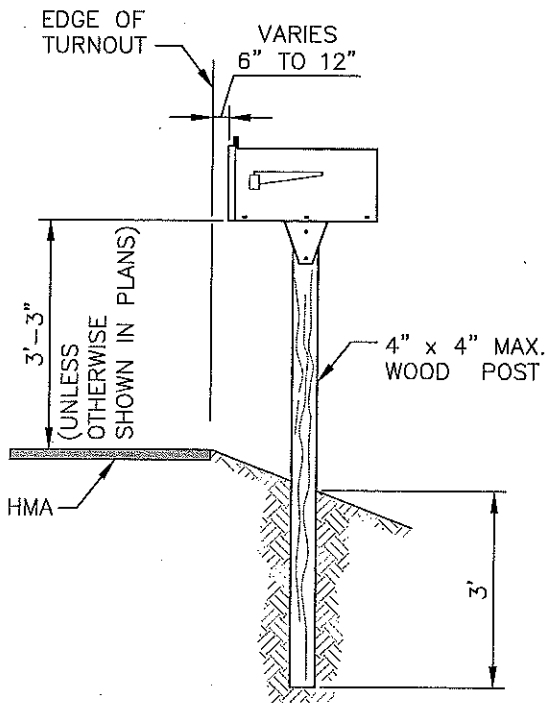
1. EXTEND GRAVEL AND STRAW OUT TO DRIPLINE OF TREE. NO FILL MATERIAL SHALL BE PLACED WITHIN 12" OF THE TREE TRUNK CENTER.
2. COMPACT SOIL BY HAND EQUIPMENT ONLY.
3. THIS DETAIL FOR MINOR FILLS IS THE MINIMUM REQUIREMENT. OTHER OR ADVANCED HORTICULTURAL METHODS MAY BE APPROVED BY THE KING COUNTY ROAD SERVICES DIVISION.



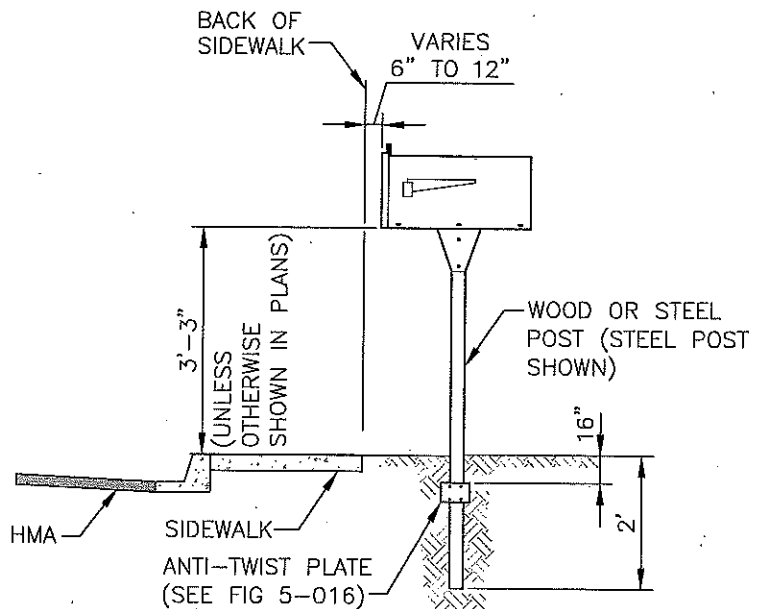
TYPE 1 (STEEL POST OPTION)



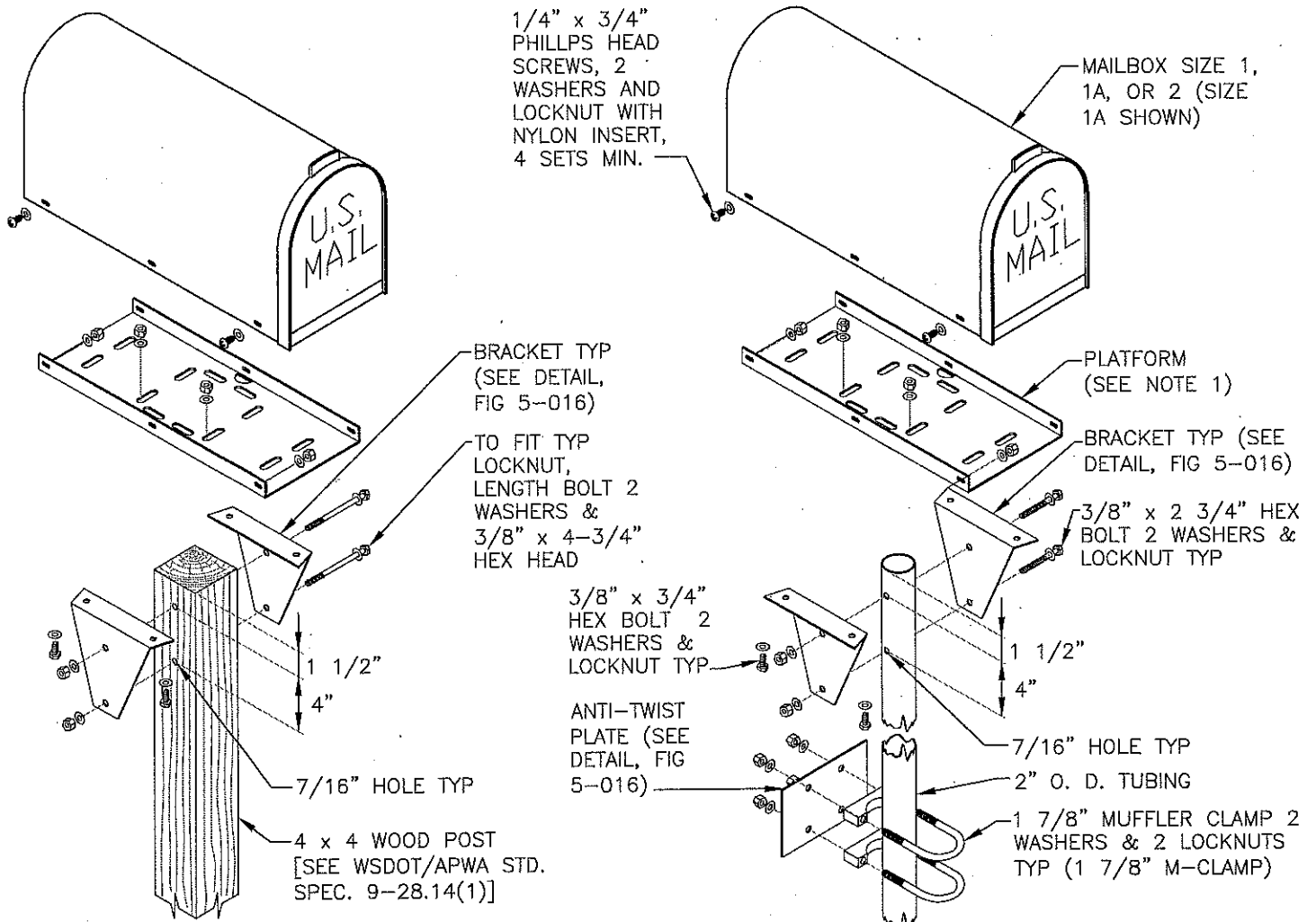
TYPE 1 INSTALLED BEHIND CURB



TYPE 1 (WOOD POST OPTION)



TYPE 1 INSTALLED BEHIND SIDEWALK



WOOD POST ASSEMBLY DETAIL

(SEE STEEL POST ASSEMBLY DETAIL FOR DETAILS NOT SHOWN)

STEEL POST ASSEMBLY DETAIL

NOTES:

1. AN ALTERNATE PLATFORM MAY BE INSTALLED, PROVIDED THAT IT IS COMPATIBLE WITH THE BRACKET SHOWN.
2. A TYPE 2 SUPPORT IS REQUIRED FOR INSTALLING MULTIPLE MAIL BOXES ON ONE SUPPORT. NO MORE THAN 5 MAILBOXES ARE ALLOWED ON A TYPE 2 SUPPORT.
3. ATTACH A NEWSPAPER BOX TO A STEEL POST WITH TWO 1 7/8" MUFFLER CLAMPS SPACED 4" APART. FIELD DRILL 7/16 IN. HOLES IN THE NEWSPAPER BOX TO FIT. USE 2 1/2" X 1/4" LAG BOLTS TO ATTACH NEWSPAPER BOXES TO WOOD POSTS. NEWSPAPER BOXES MUST NOT EXTEND BEYOND THE FRONT OF THE MAILBOX WHEN THE MAILBOX DOOR IS CLOSED.
4. SPACING OF MAILBOX MOUNTING HOLES VARIES AMONG MANUFACTURERS. ATTACHMENT OF THE MAILBOX TO THE PLATFORM MAY REQUIRE DRILLING ADDITIONAL HOLES THROUGH THE MAILBOX TO FIT THE PLATFORM.
5. CENTER THE MAILBOX ON THE PLATFORM TO ENSURE SPACE FOR THE MAILBOX DOOR TO OPEN AND TO ALLOW SPACE FOR INSTALLING THE FASTENERS.

MAILBOX & PLATFORM DIMENSIONS

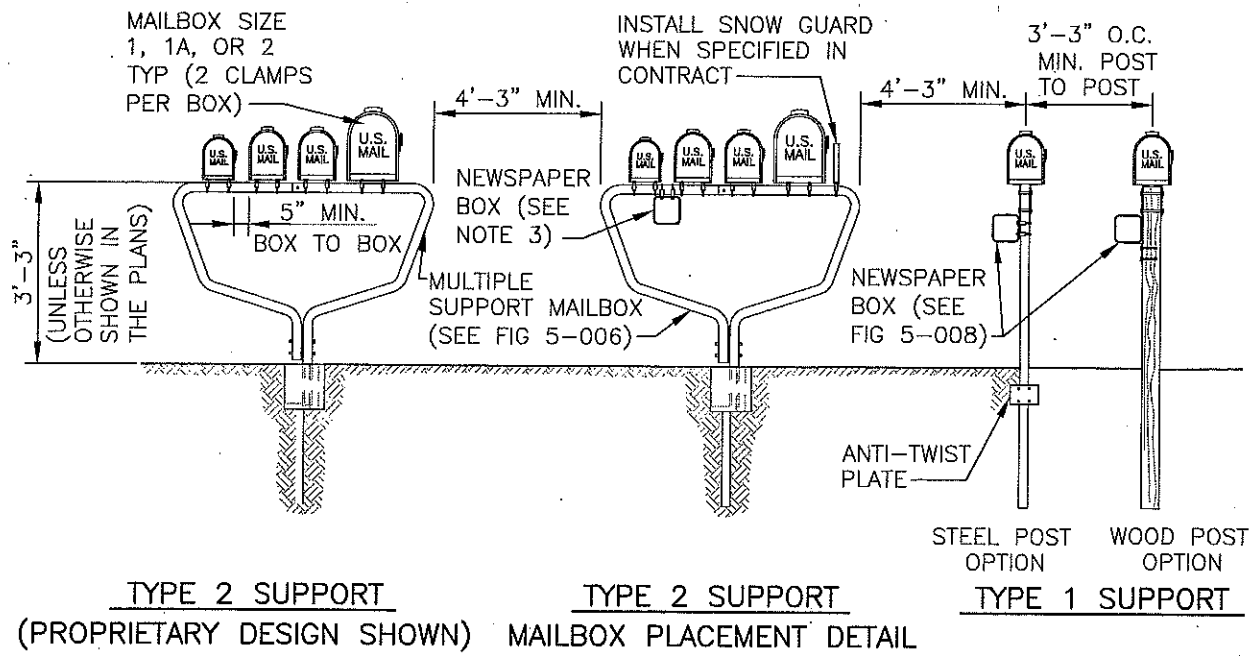
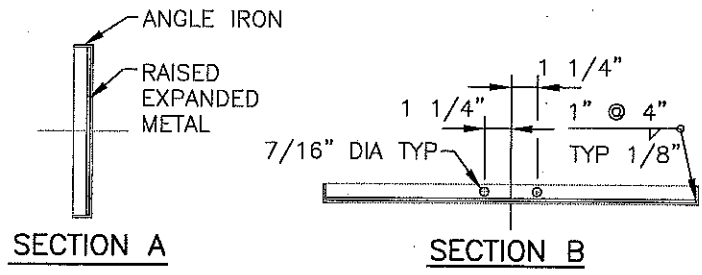
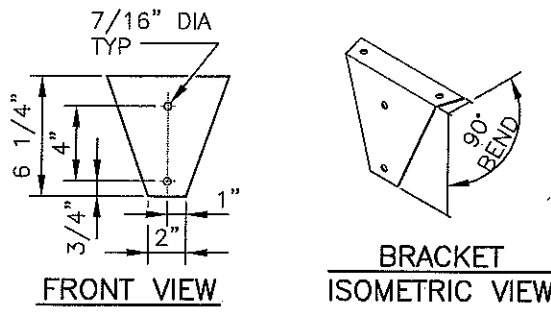
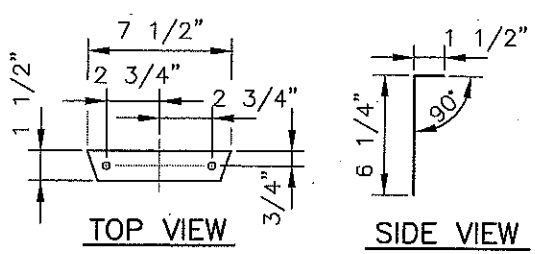
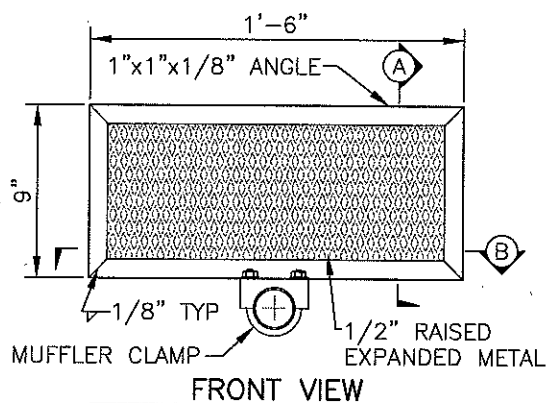
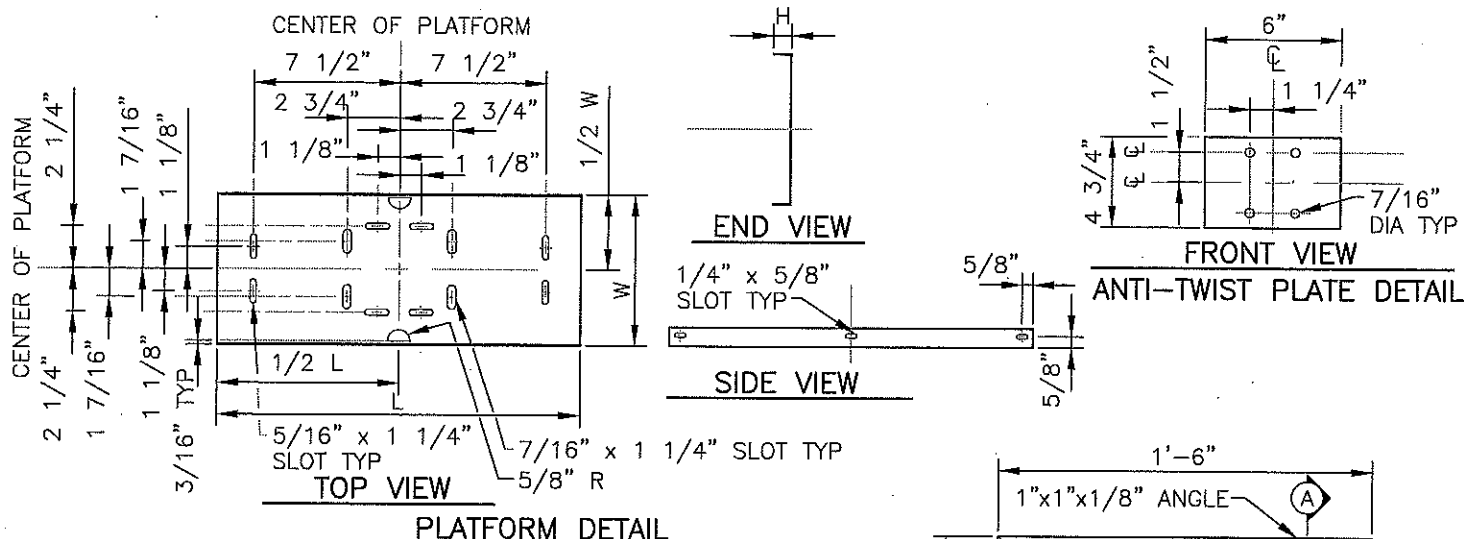
SIZE	MAILBOX DIM.			PLATFORM DIM.		
	L	W	H	L	W	H
1	19"	6 1/2"	8 1/2"	17"	6 3/8"	1"
1A	21"	8"	10 1/2"	19"	7 7/8"	1"
2	24"	11 1/2"	13 1/2"	21"	11 3/8"	1"

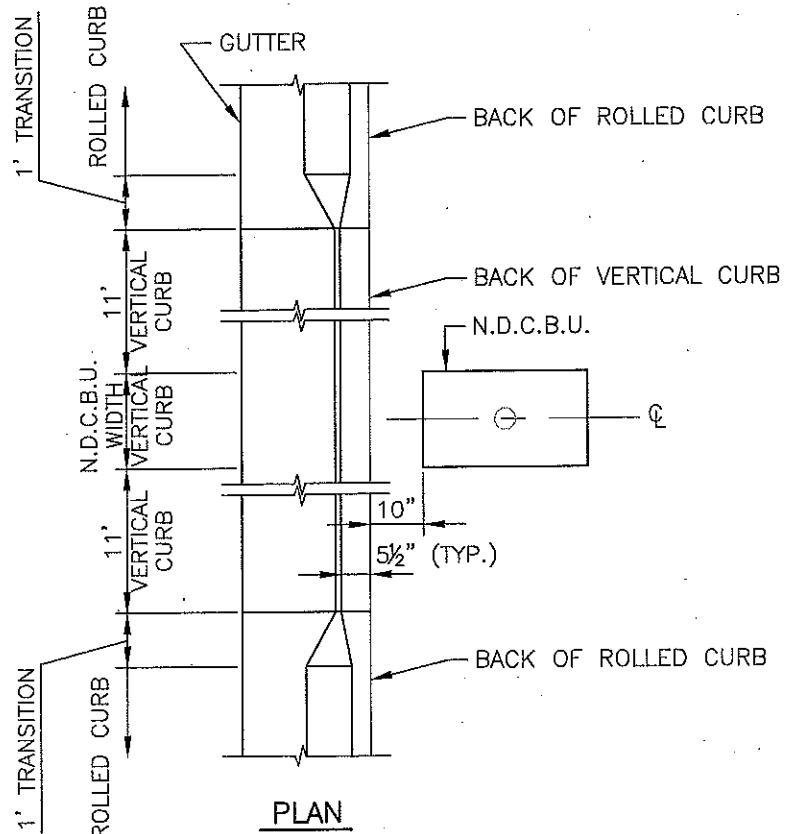
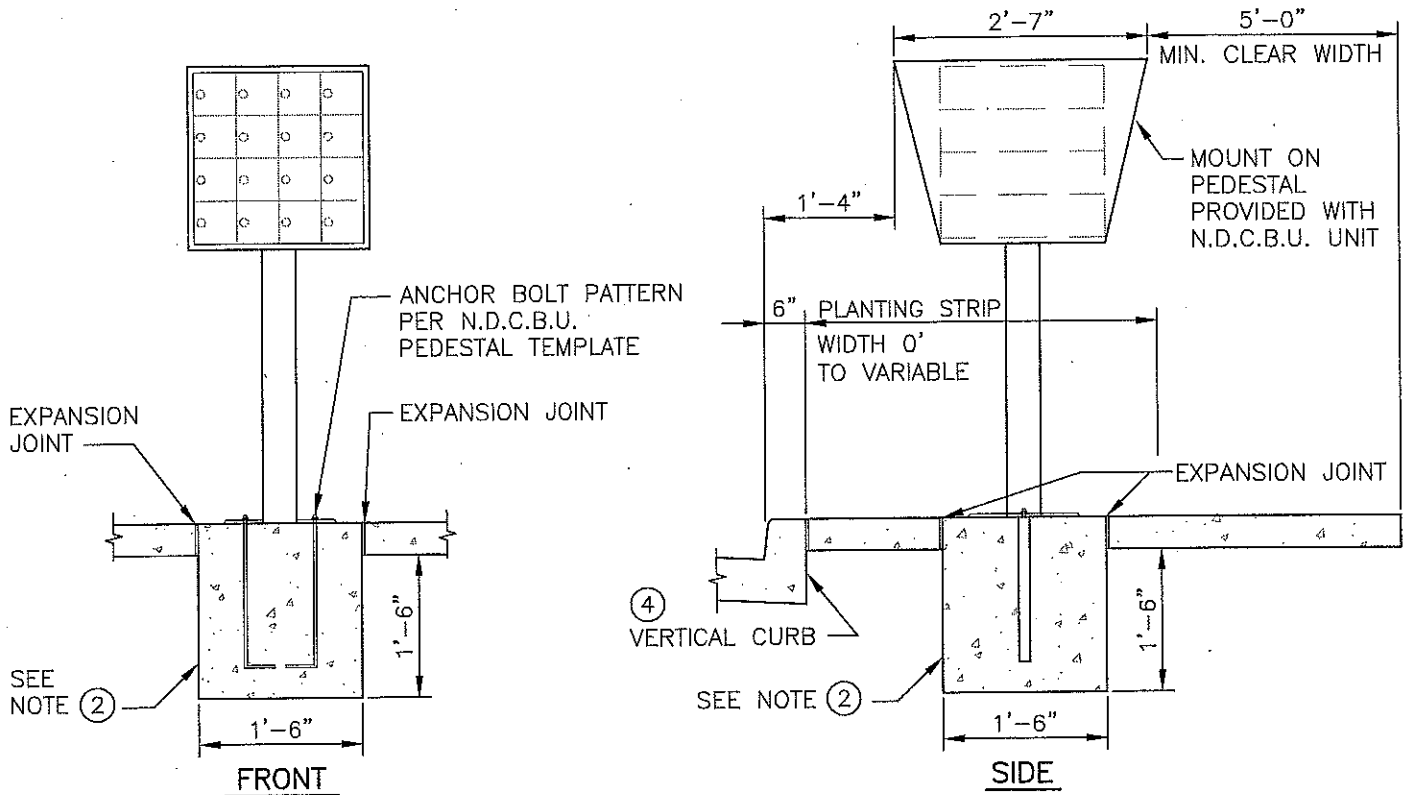
STEEL POST FASTENERS

BOLT SIZE	QUANTITY	WASHERS	LOCKNUTS
3/8" DIA x 2 3/4"	2	4	2
3/8" DIA x 3/4"	4	8	4
1/4" DIA x 3/4"	4	8	4
1 7/8" M-CLAMP	2	4	4

WOOD POST FASTENERS

BOLT SIZE	QUANTITY	WASHERS	LOCKNUTS
3/8" DIA x 4-3/4"	2	4	2
3/8" DIA x 3/4"	4	8	4
1/4" DIA x 3/4"	4	8	4

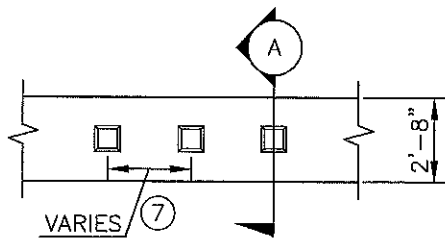




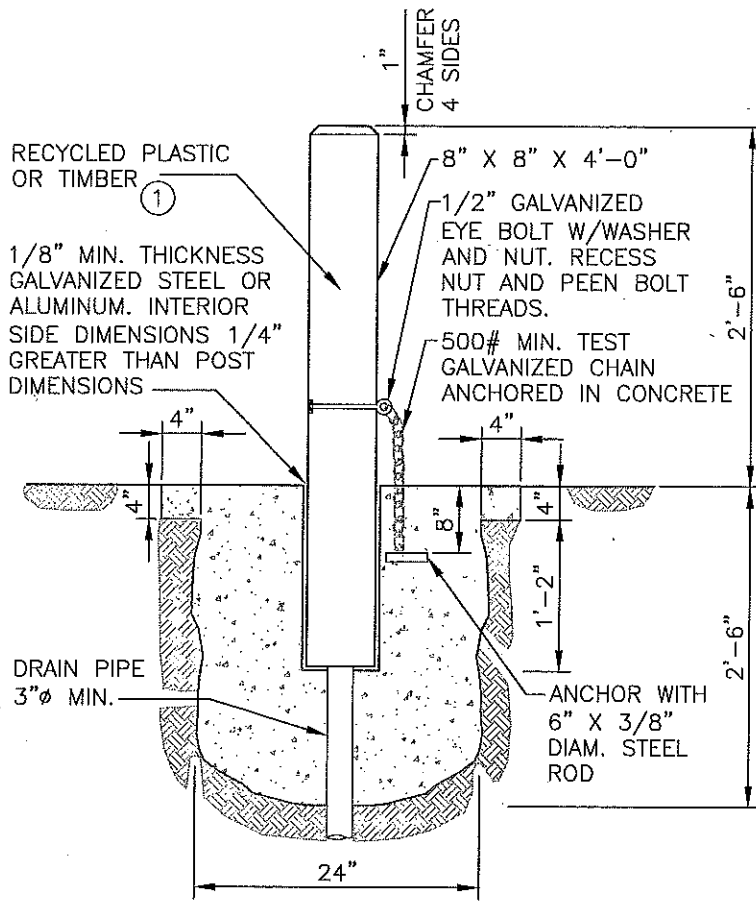
NOTES:

1. SEE SEC. 5.04
- ② INSTALLATION OF N.D.C.B.U. (INCLUDING CONSTRUCTION OF BASE) WILL BE DONE BY U.S. POSTAL SERVICE.
3. SEE SEC. 3.04 FOR JOINT REQUIREMENTS.
- ④ WHEN A N.D.C.B.U. IS INSTALLED ALONG A ROLLED CURB SECTION, IT SHALL COMPLY WITH SECTION 5.10

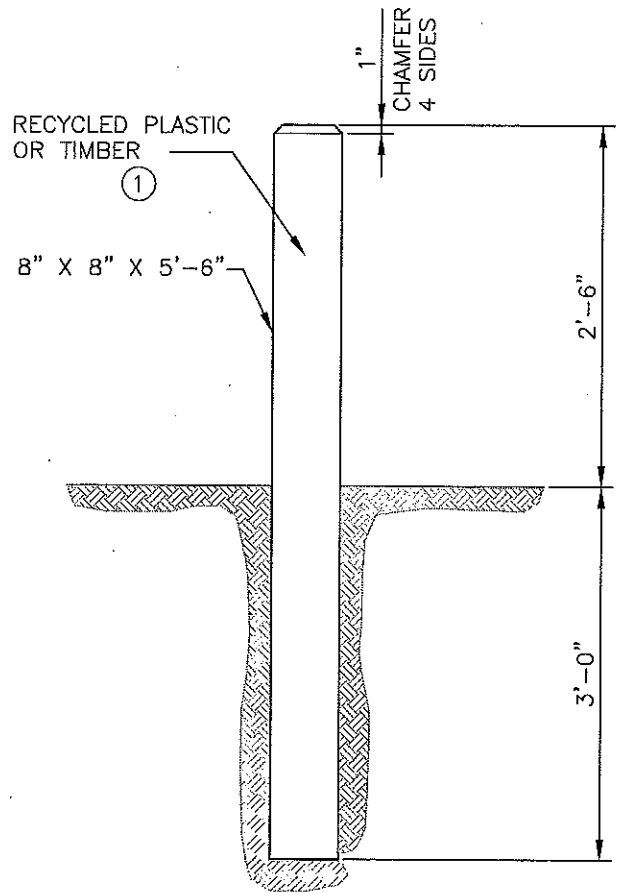




REMOVABLE BOLLARD PLAN



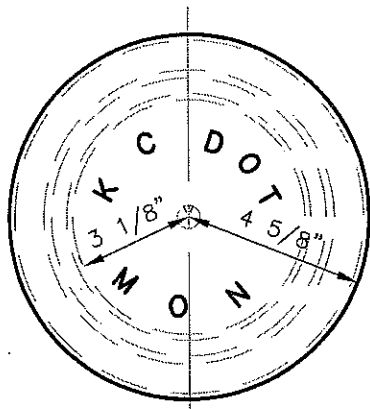
REMOVABLE BOLLARD SECTION A



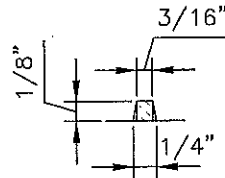
FIXED BOLLARD

NOTES:

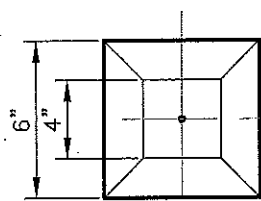
- ① RECYCLED PLASTIC BOLLARD SHALL BE WHITE. TIMBER SHALL BE DOUGLAS FIR, DENSE CONSTRUCTION GRADE, AND SHALL BE PRESSURE TREATED WITH A WATERBORNE PRESERVATIVE (ACA, CCA, ACZA) IN ACCORDANCE WITH THE REQUIREMENTS OF SEC. 9--09.3 (1) OF THE WSDOT/APWA STANDARD SPECIFICATIONS. TOP 5 IN. OF TIMBER SHALL BE PAINTED WHITE.
2. STEEL TUBE SHALL CONFORM TO ASTM A53 GRADE A.
3. NUTS, BOLTS, & WASHERS SHALL CONFORM TO ASTM A307.
4. ALL STEEL PARTS SHALL BE GALVANIZED.
5. CONCRETE SHALL BE CLASS 4000.
6. SEE SEC. 5.08.
- ⑦ MIN. 50 IN. SPACING ON TRAILS LESS THAN 10 FT. WIDE. 60 IN. SPACING ON TRAILS 10 FT. OR WIDER.



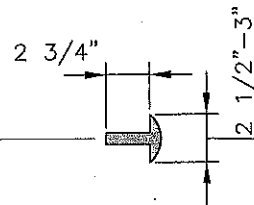
PLAN OF COVER



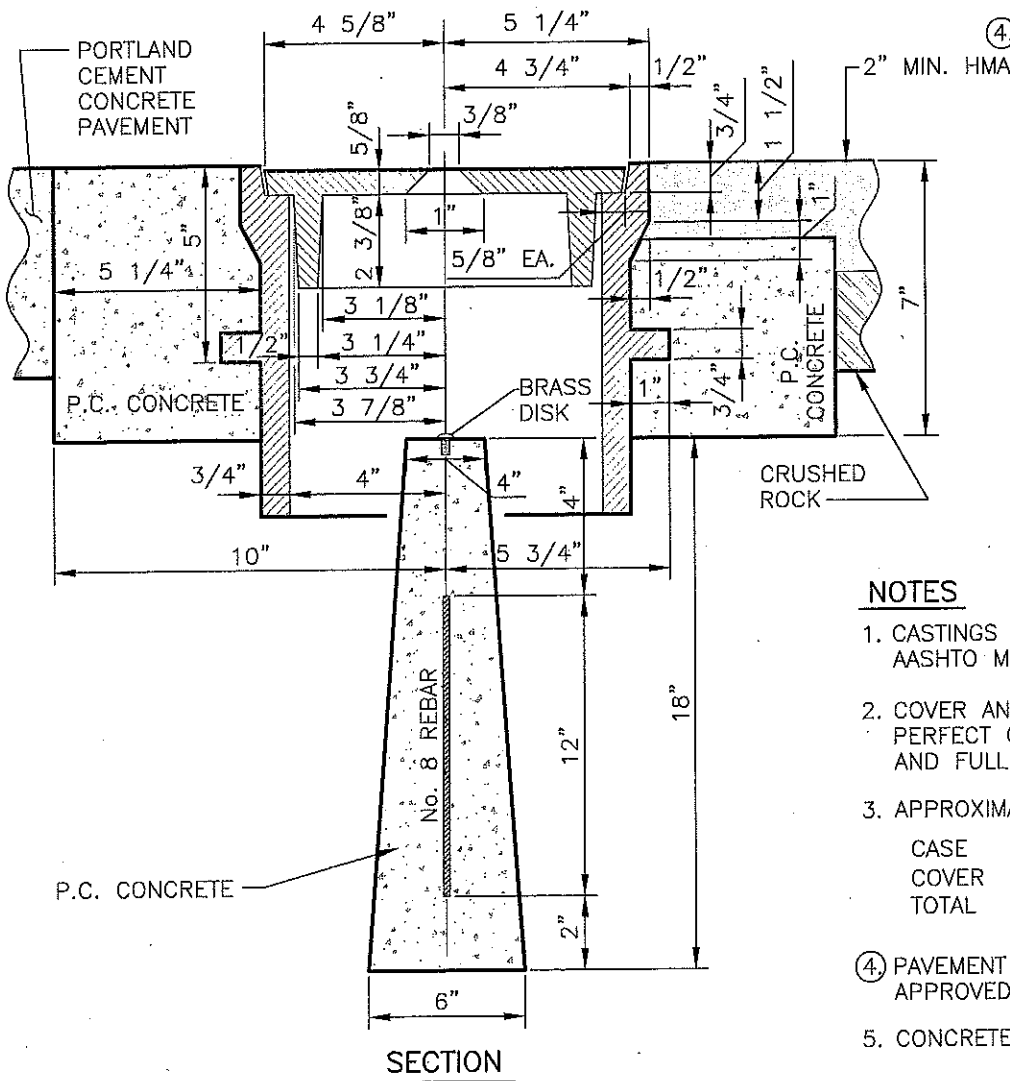
SECTION OF LETTER



PLAN OF MONUMENT



BRASS DISC

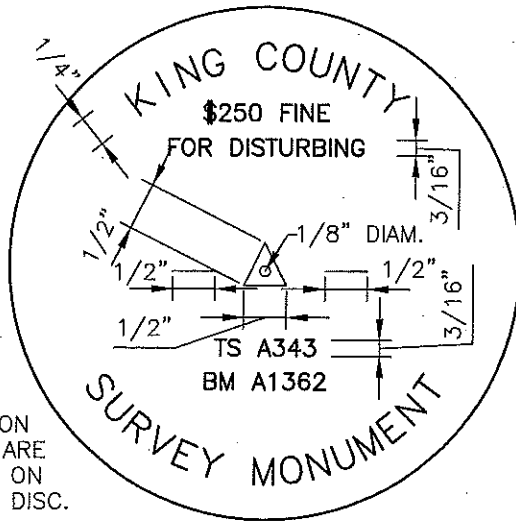


NOTES

1. CASTINGS SHALL BE GRAY IRON ASTM A48, AASHTO M 105, CLASS 30.
2. COVER AND SEAT SHALL BE MACHINED FOR PERFECT CONTACT AROUND CIRCUMFERENCE AND FULL WIDTH OF BEARING SURFACE.
3. APPROXIMATE WEIGHTS, STANDARD.

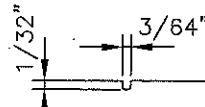
CASE	60 LBS
COVER	19 LBS
TOTAL	79 LBS
- ④ PAVEMENT SHALL BE HOT MIX ASPHALT OR APPROVED SUBSTITUTE.
5. CONCRETE SHALL BE CLASS 4000.



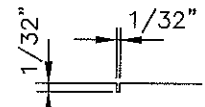


NOTES:
ONLY THE ASSIGNED IDENTIFICATION NUMBERS ARE TO APPEAR ON THE BRASS DISC.

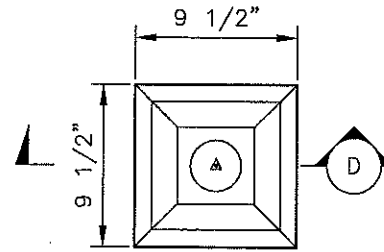
PLAN



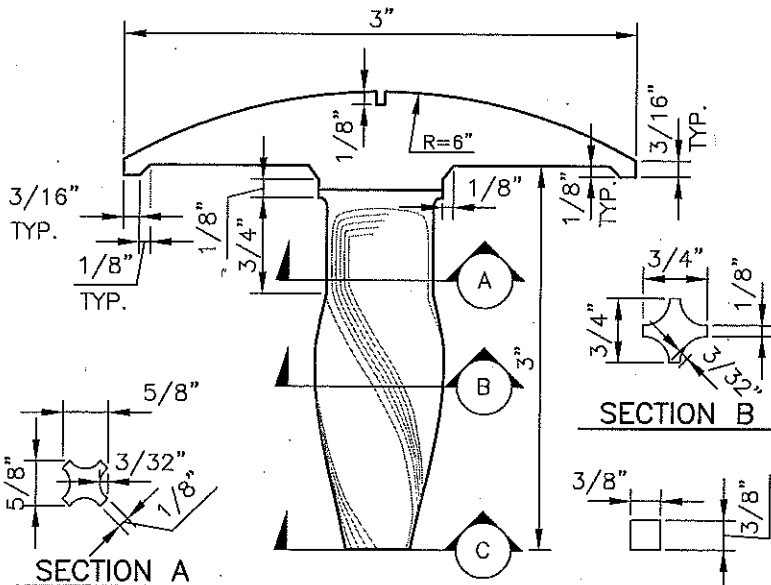
DETAIL OF GROOVE FOR 1/4" LETTERS



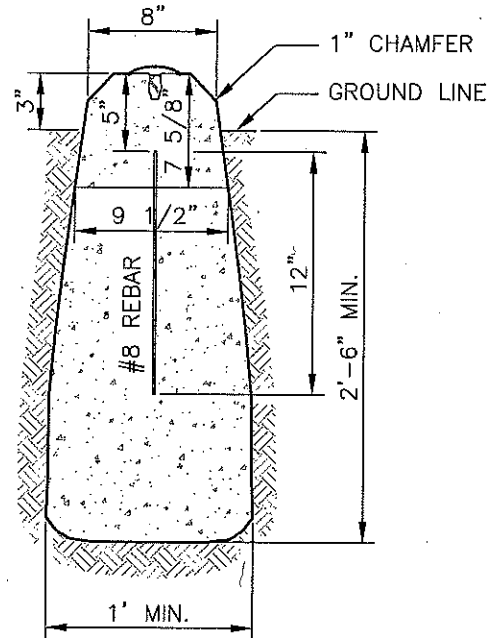
DETAIL OF GROOVE FOR 3/16" LETTERS AND LINES



PLAN



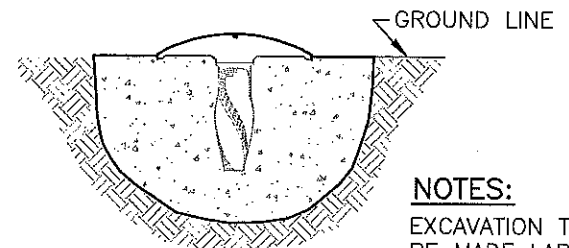
BRASS DISC ELEVATION



GENERAL INSTALLATION SECTION D

NOTES:

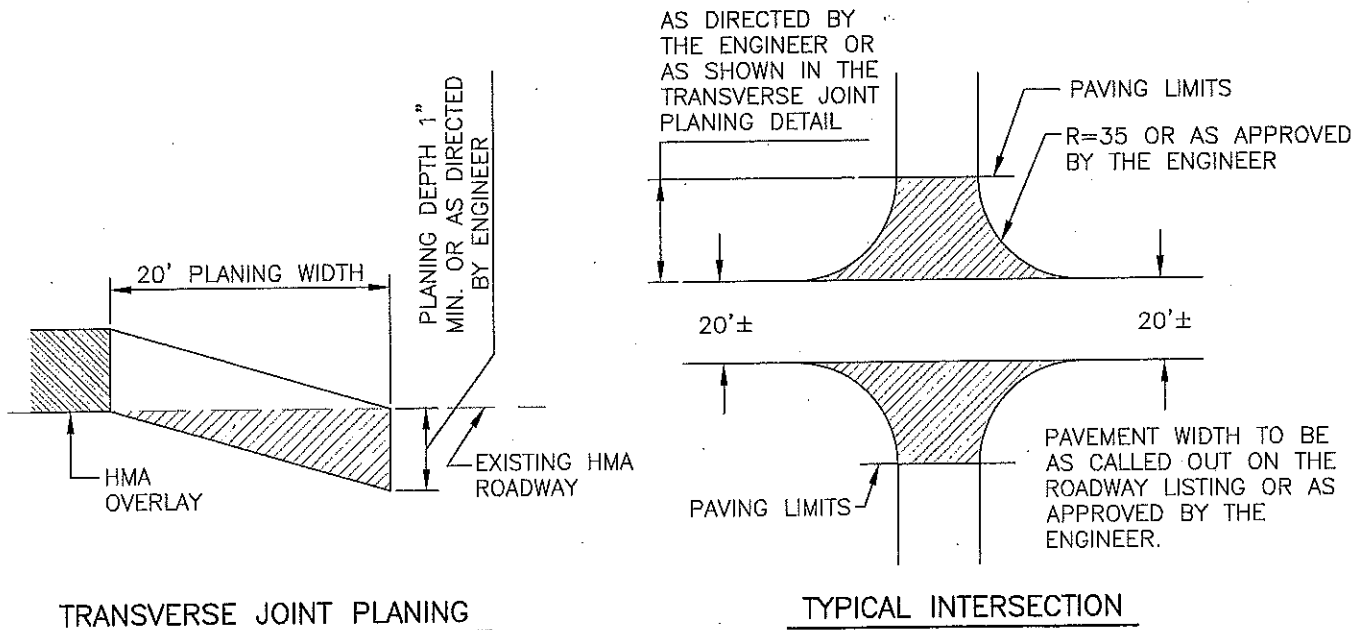
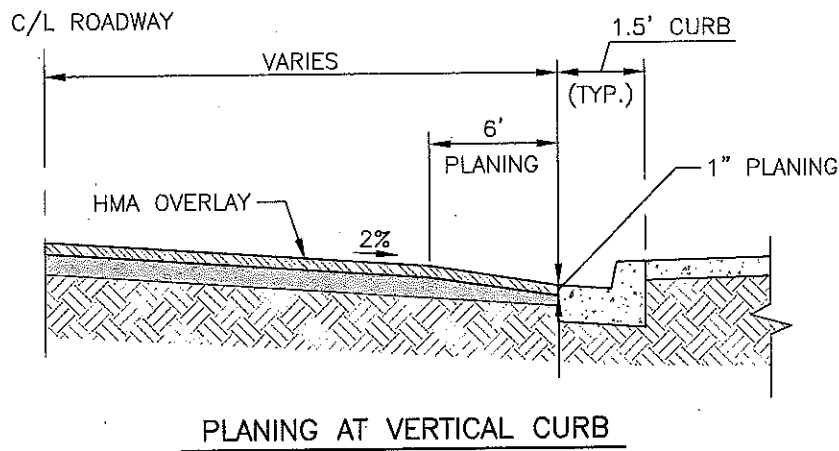
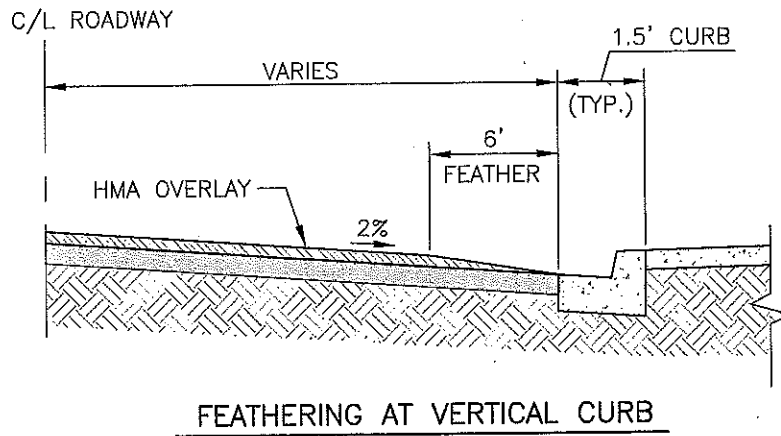
1. THE BRASS DISC SHALL BE CAST OF YELLOW BRASS SAE 41.
2. CONCRETE SHALL BE CLASS 4000.
3. THE HOLE SHALL BE 2.5 FT. MIN. IN DEPTH OR 0.5 FT BELOW THE DEEPEST RECORDED FROST LINE. ALL LOOSE MATERIAL SHALL BE REMOVED FROM THE BOTTOM OF THE HOLE SO THAT THE CONCRETE IS ON FIRM, UNDISTURBED EARTH.
4. THE TOP OF THE CONCRETE SHALL BE TROWLED SMOOTH AND THE BRASS DISC SET IN THE CENTER WITH ITS TOP EDGE FLUSH AND LEVEL.
5. COORDINATES OR ELEVATIONS SHALL NOT BE PLACED ON THE BRASS DISCS.

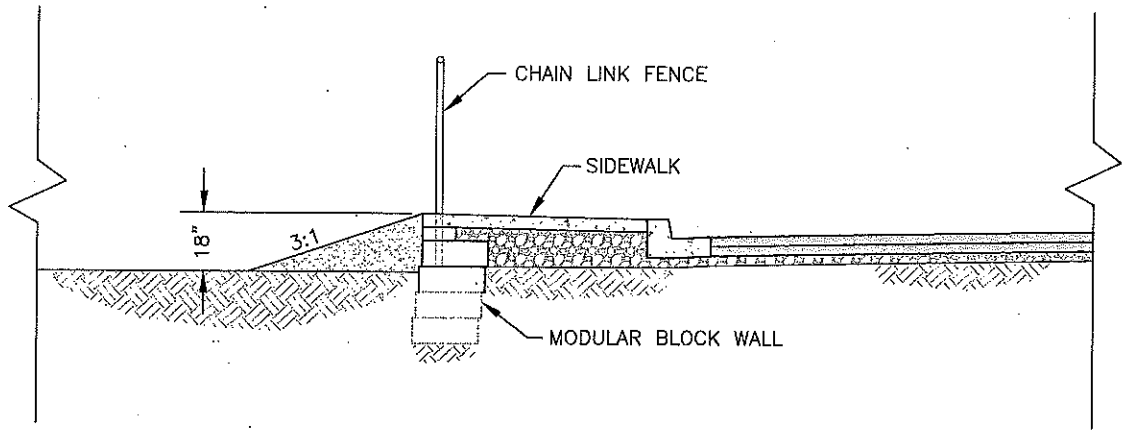


NOTES:

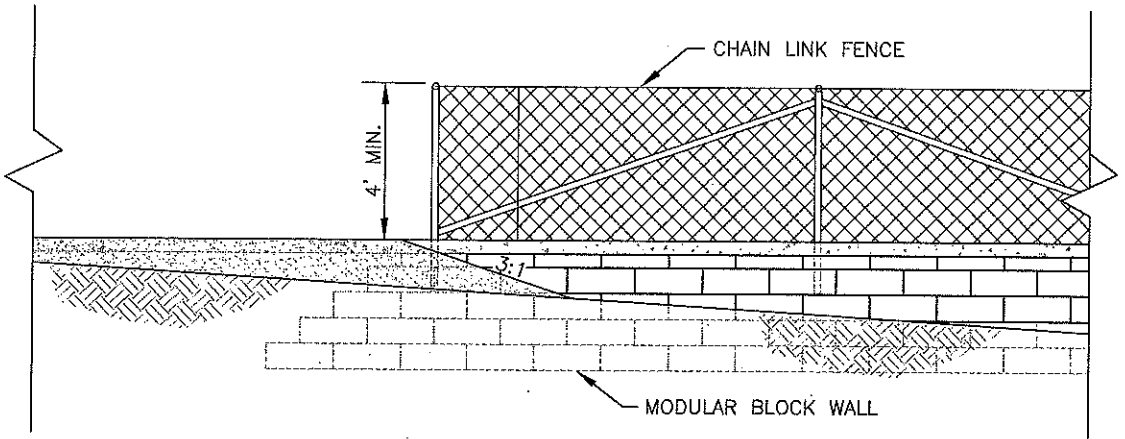
- EXCAVATION TO BE MADE LARGE ENOUGH TO CLEAR MARKER 1 1/2" AT ALL POINTS.

LEDGE ROCK OR CONCRETE INSTALLATION

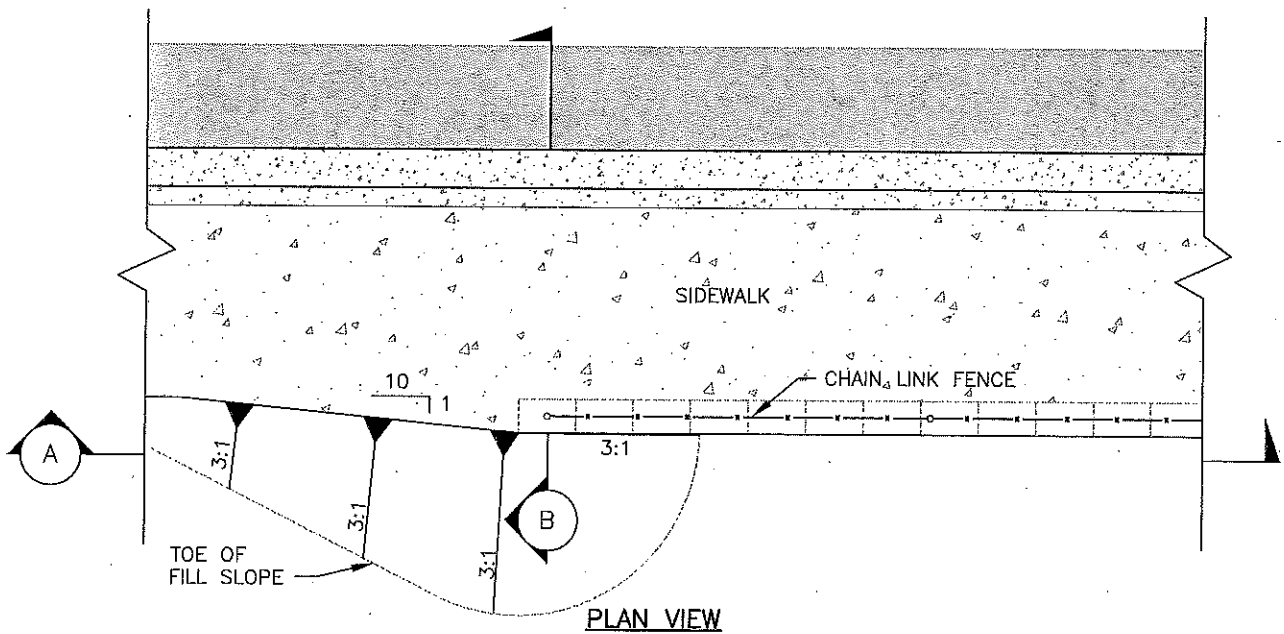




SECTION B



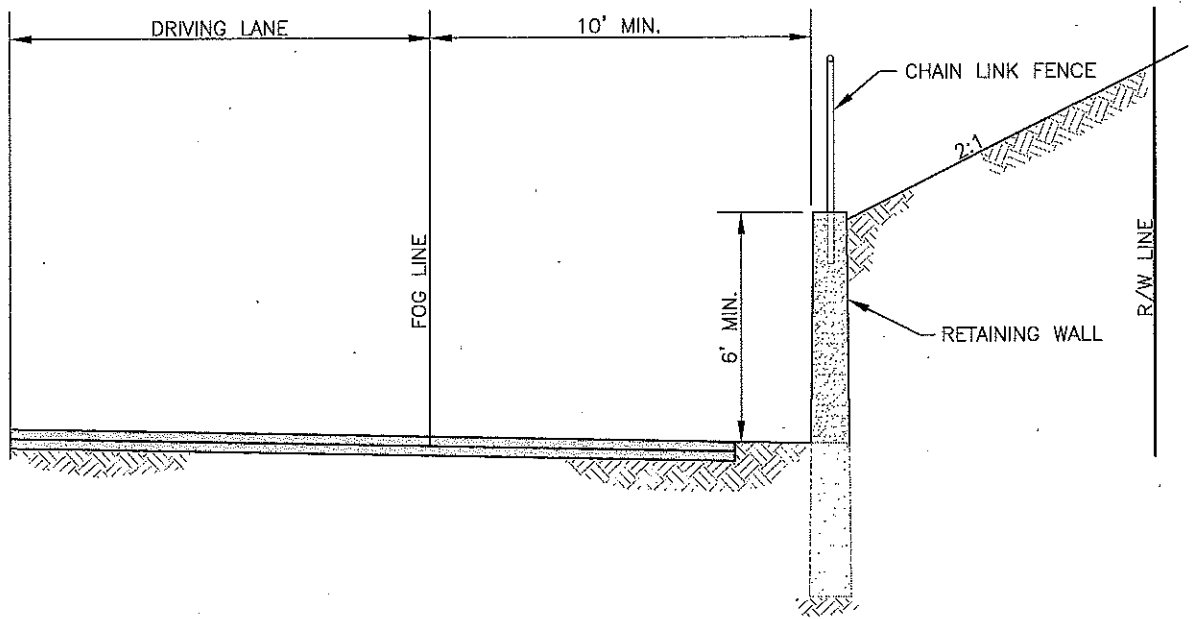
SECTION A



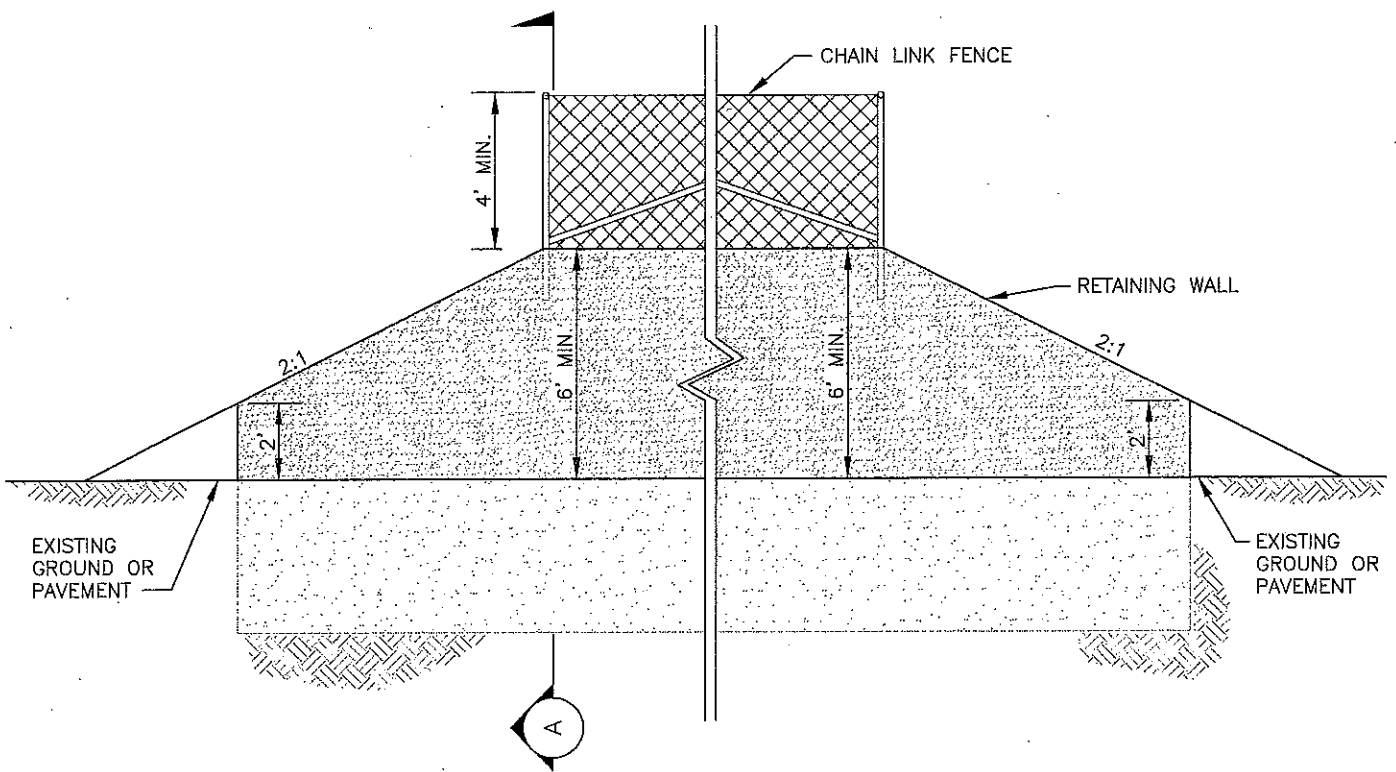
PLAN VIEW

NOTES:

CHAIN LINK FENCE/METAL HANDRAIL
 REQUIRED WHEN ROCKERY OR WALL HEIGHT
 IS 18" OR GREATER



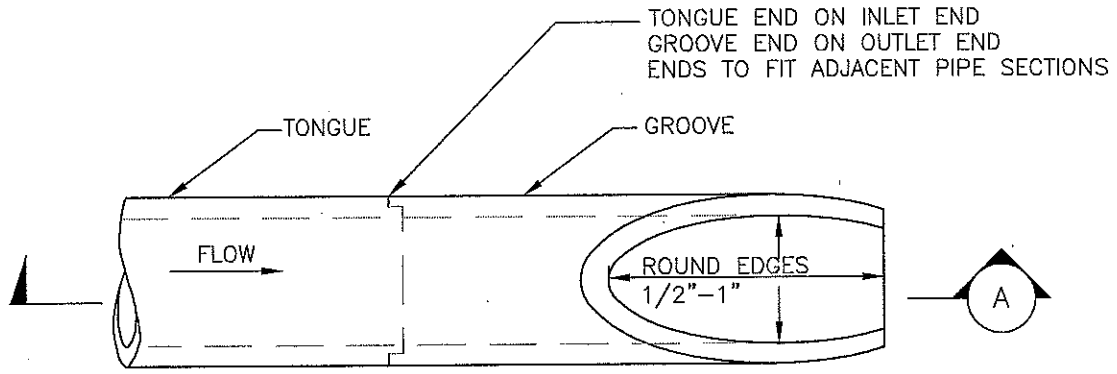
SECTION A



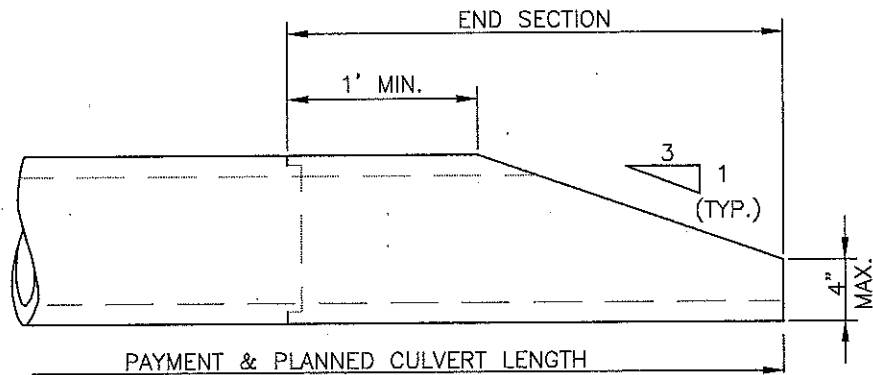
PLAN VIEW

NOTES:

CHAIN LINK FENCE FOR RETAINING WALL 6' OR HIGHER

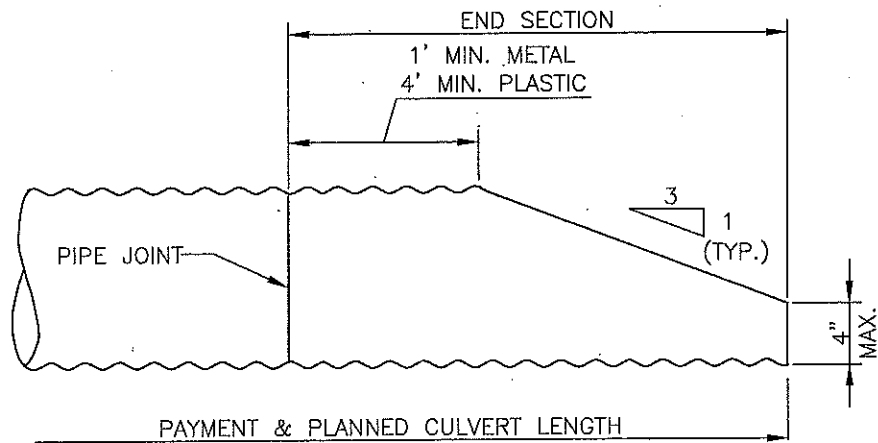


PLAN



SECTION A

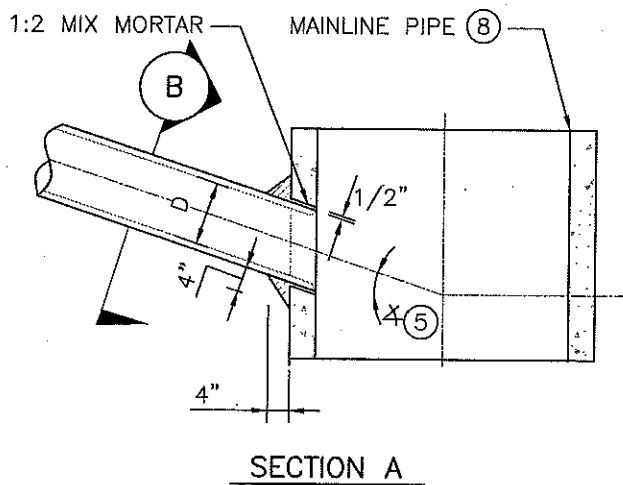
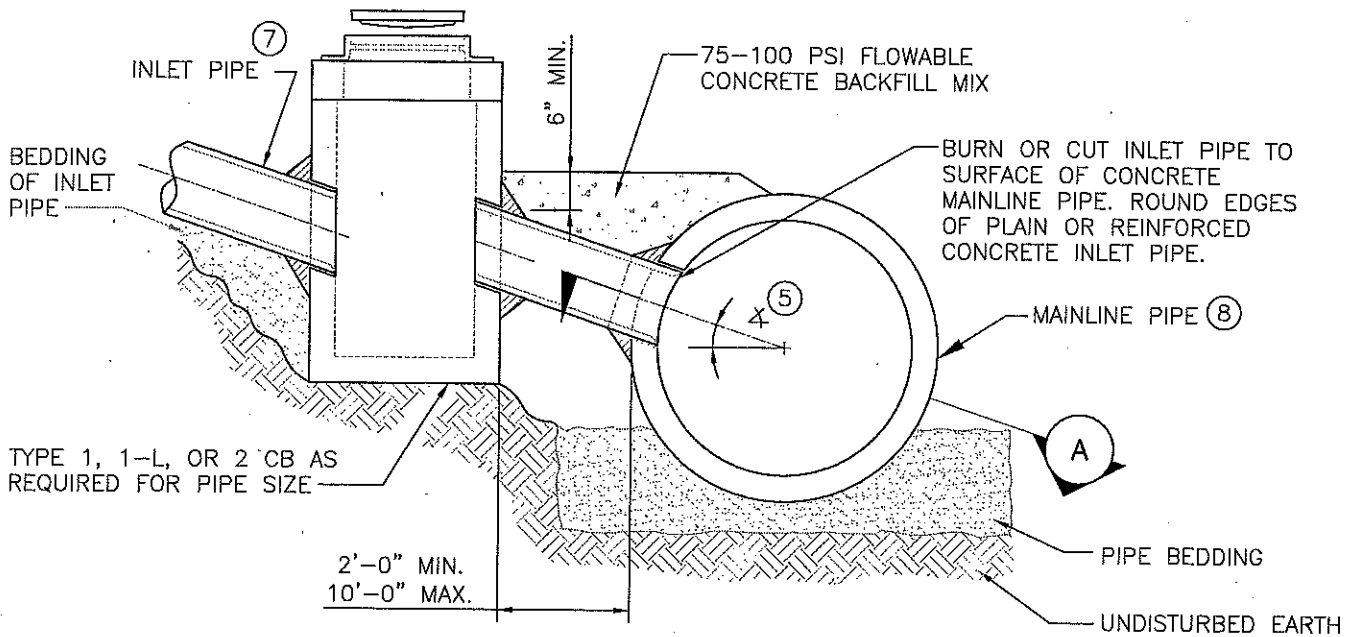
CONCRETE PIPE



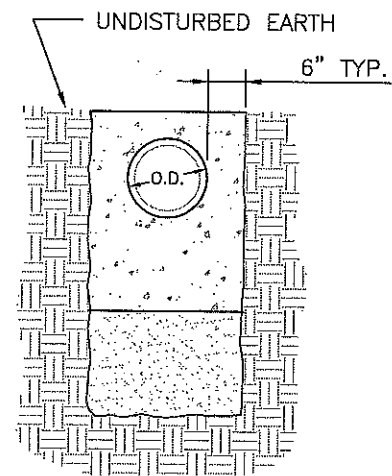
METAL & PLASTIC PIPE

NOTES:

1. SIDE SLOPE SHALL BE GRADED TO MATCH THE BEVELED PIPE END.
2. PIPE SHALL BE BEVELED TO MATCH SLOPE IF SLOPE DIFFERS FROM 3:1.
3. PIPE SHALL BE ROTATED TO CONFORM TO SLOPE WHEN ON SKEW.



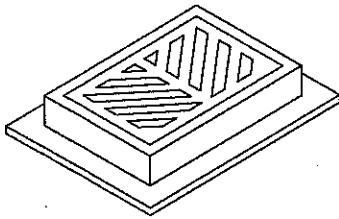
SECTION A



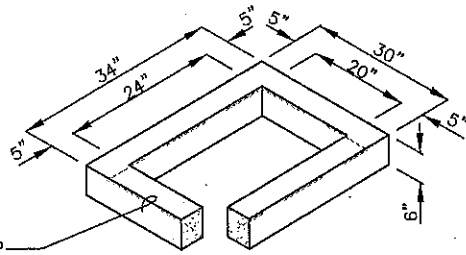
SECTION B

NOTES:

1. "D", THE INSIDE DIAM. OF THE INLET PIPE, SHALL BE 24 IN. OR LESS. FOR LARGER VALUES OF "D", USE AN APPROVED STRUCTURE.
2. IN NO CASE SHALL THE OUTSIDE DIAM. OF THE INLET PIPE EXCEED ONE-HALF THE INSIDE DIAM. OF THE MAIN STORM SEWER.
3. \varnothing OF INLET PIPE SHALL BE ON RADIUS OF MAIN STORM DRAIN.
4. THE MIN. OPENING INTO THE EXISTING STORM DRAIN SHALL BE THE OUTSIDE DIAM. OF THE INLET PIPE PLUS 1 IN.
- ⑤ FIELD TAPPING ONLY WHERE ANGLE IS 0 DEGREES TO 45 DEGREES.
6. SEE SEC. 7.04.
- ⑦ SEE SEC. 7.03 FOR ALLOWED INLET PIPE TYPE.
- ⑧ MAINLINE SHALL HAVE 48 IN. MIN. DIAM.

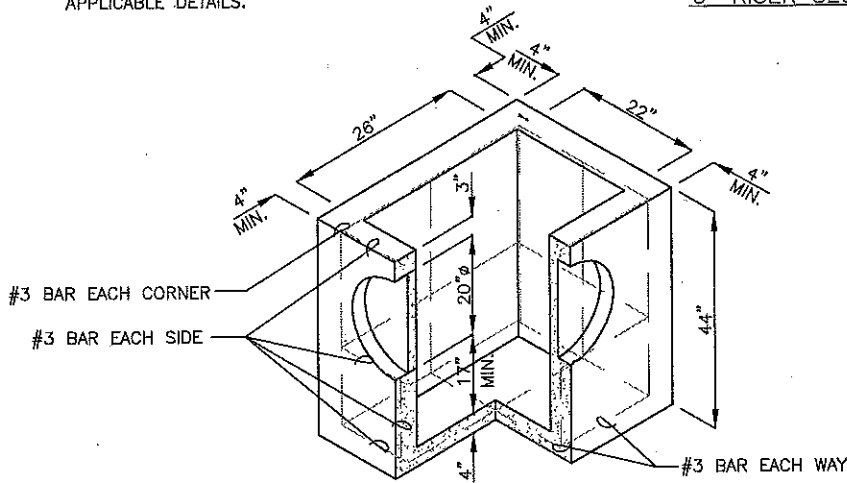


FRAME AND GRATE
SEE SEC. 7.05 AND
APPLICABLE DETAILS.



1 #3 BAR HOOP

6" RISER SECTION



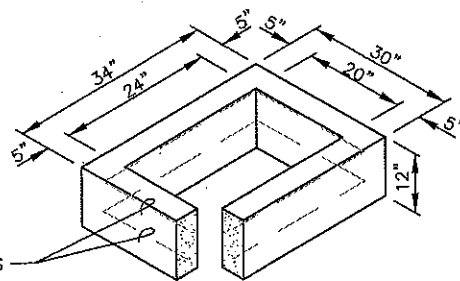
#3 BAR EACH CORNER

#3 BAR EACH SIDE

#3 BAR EACH WAY

PRECAST BASE SECTION

(MEASUREMENT AT THE TOP
OF THE BASE)

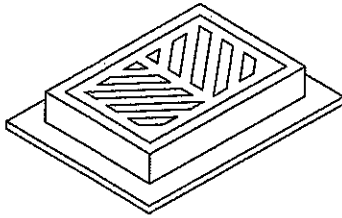


2 #3 BAR HOOPS

12" RISER SECTION

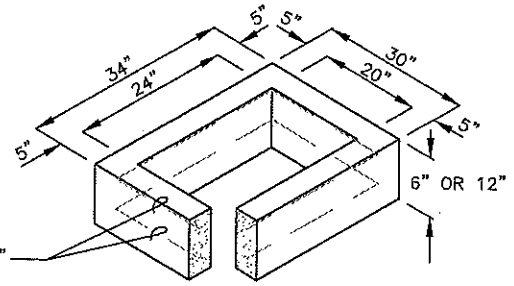
NOTES:

1. CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M 199 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
2. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQ. IN. PER FT. MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2 IN. MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAM. PLUS CATCH BASIN WALL THICKNESS.
6. ROUND KNOCKOUTS MAY BE ON ALL 4 SIDES, WITH MAX. DIAM. OF 20 IN. KNOCKOUTS MAY BE EITHER ROUND OR "D" SHAPE.
7. THE MAX. DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5 FT.
8. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2" PER FT.
9. CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621E. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
10. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
11. FOR CATCH BASINS IN PARKING LOTS REFER TO WSDOT/APWA STANDARD DWG. B-5.60-01.
12. EDGE OF RISER OR BRICK SHALL NOT BE MORE THAN 2 IN. FROM VERTICAL EDGE OF CATCH BASIN WALL.
13. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.

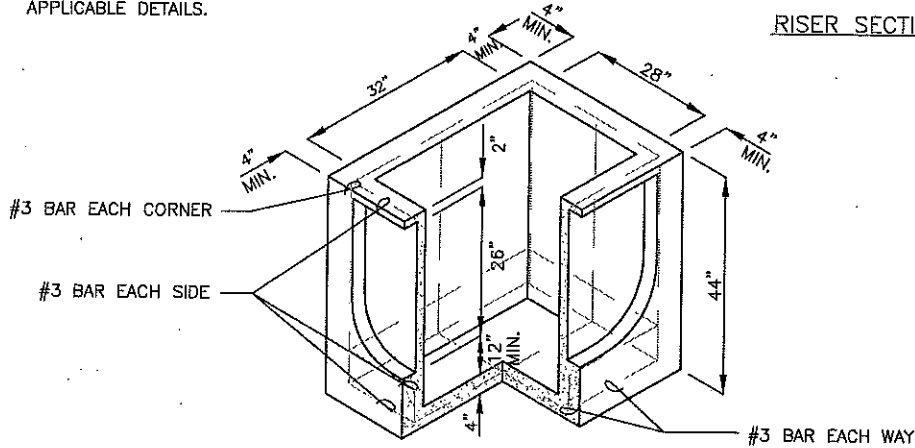


FRAME AND GRATE
SEE SEC. 7.05 AND APPLICABLE DETAILS.

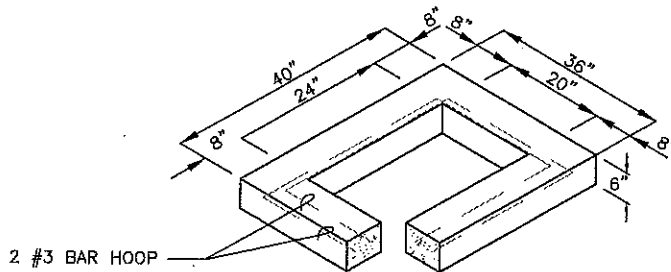
- 1 #3 BAR HOOP FOR 6"
- 2 #3 BAR HOOP FOR 12"



RISER SECTION



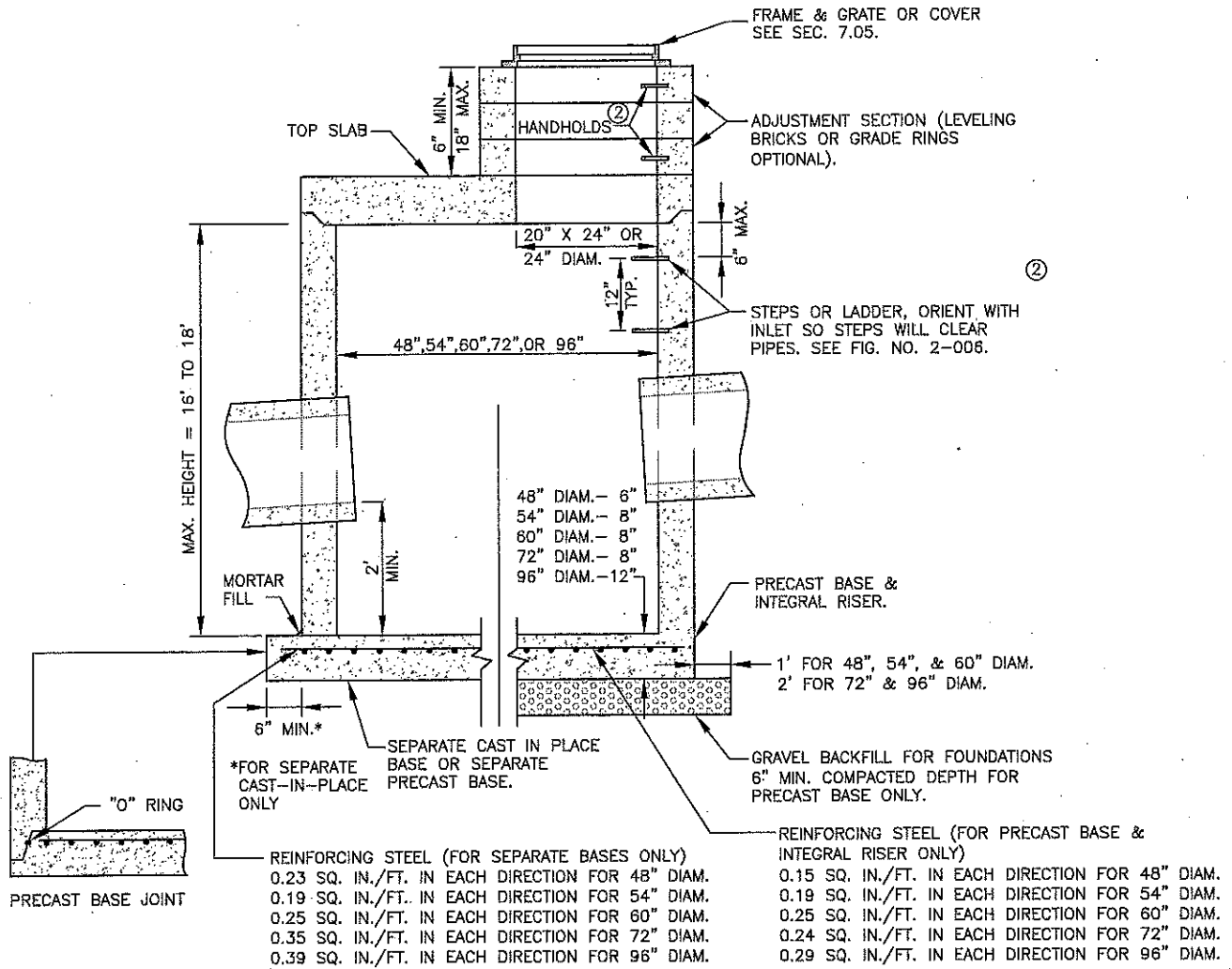
PRECAST BASE SECTION
(MEASUREMENT AT THE TOP OF THE BASE)



6" REDUCING SECTION

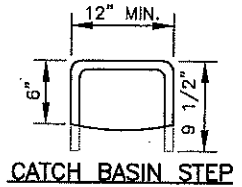
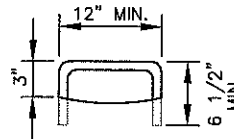
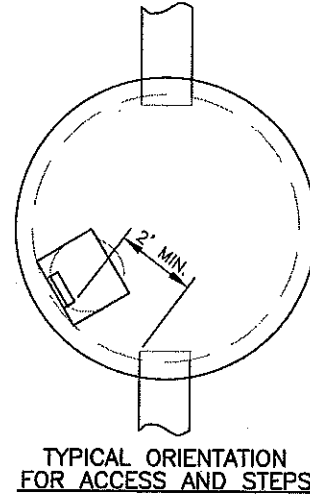
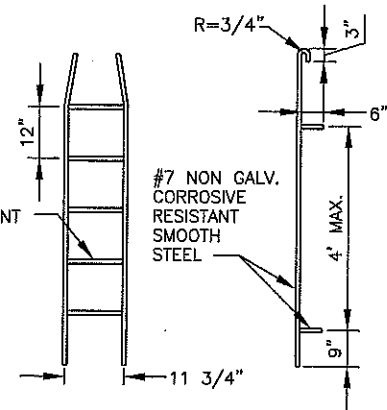
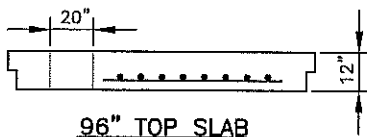
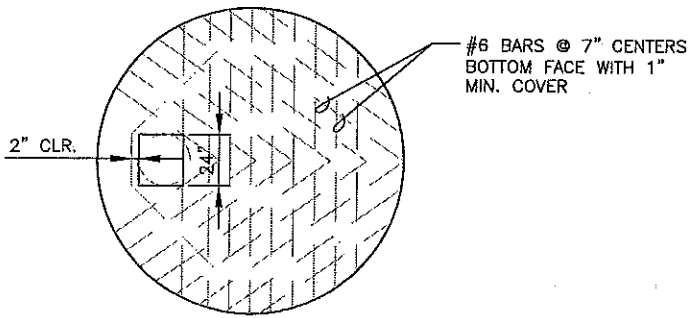
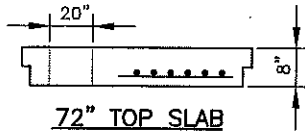
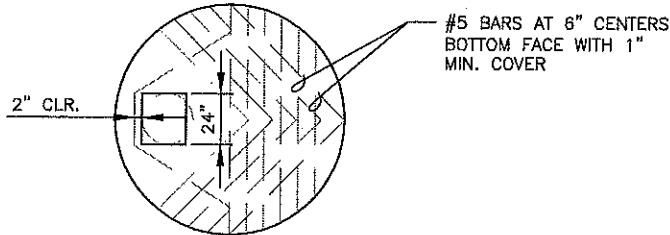
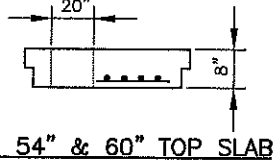
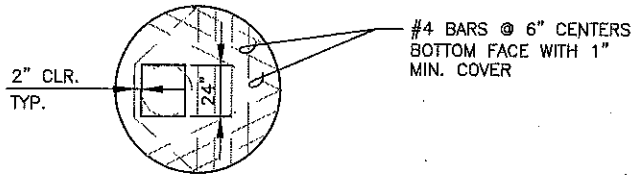
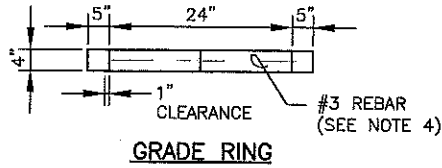
NOTES:

1. CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M199 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
2. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQ. IN. PER FT. MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2 IN. MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAM. PLUS CATCH BASIN WALL THICKNESS.
6. KNOCKOUTS MAY BE ON ALL 4 SIDES WITH MAX. DIAM. OF 28 IN. KNOCKOUTS MAY BE EITHER ROUND OR "D" SHAPE.
7. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2" PER FT.
8. CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621E. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
9. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
10. MAX. DEPTH FROM FINISHED GRADE TO PIPE INVERT SHALL BE 5 FT.
11. EDGE OF REDUCING SECTION OR BRICK SHALL NOT BE MORE THAN 2 IN. FROM VERTICAL EDGE OF CATCH BASIN WALL.
12. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.

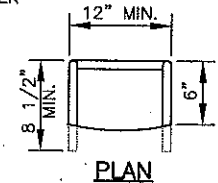
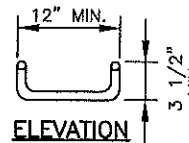


NOTES:

- CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M199 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
- HANDHOLDS IN ADJUSTMENT SECTION SHALL HAVE 3" MIN. CLEARANCE. STEPS IN CATCH BASIN SHALL HAVE 6" MIN. CLEARANCE. SEE FIG. NO. 7-006, CATCH BASIN DETAILS. HANDHOLDS SHALL BE PLACED IN ALTERNATING GRADE RINGS OR LEVELING BRICK COURSE WITH A MIN. OF ONE HANDHOLD BETWEEN THE LAST STEP AND TOP OF THE MANHOLE.
- ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000. ALL PRECAST CONCRETE SHALL BE CLASS 4000.
- PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE WALL THICKNESS OF 2 IN. MIN. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT. PIPES SHALL BE INSTALLED ONLY IN FACTORY KNOCKOUTS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- KNOCKOUT OR CUTOUT HOLE SIZE SHALL EQUAL PIPE OUTER DIAM. PLUS CATCH BASIN WALL THICKNESS. MAX. HOLE SIZE SHALL BE 36 IN. FOR 48 IN. CATCH BASIN, 42 IN. FOR 54 IN. C.B., 48 IN. FOR 60 IN. C.B., 60 IN. FOR 72 IN. C.B., 84 IN. FOR 96 IN. C.B. MIN. DISTANCE BETWEEN HOLES SHALL BE 8 IN. FOR 48 IN., 54 IN., AND 60 IN. C.B.; 12 IN. FOR 72 IN. AND 96 IN. C.B.
- CATCH BASIN FRAMES AND GRATES OR COVERS SHALL BE IN ACCORDANCE WITH SEC. 7.05 AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621E. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
- ALL BASE REINFORCING STEEL SHALL HAVE A MIN. YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1 IN. MIN. CLEARANCE.
- MIN. SOIL BEARING VALUE SHALL EQUAL 3,300 POUNDS PER SQUARE FOOT.
- FOR DETAILS SHOWING LADDER, STEPS, HANDRAILS AND TOP SLABS. SEE FIG. 7-006.
- SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SEC. 7-05.3 FOR JOINT REQUIREMENTS.
- SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.



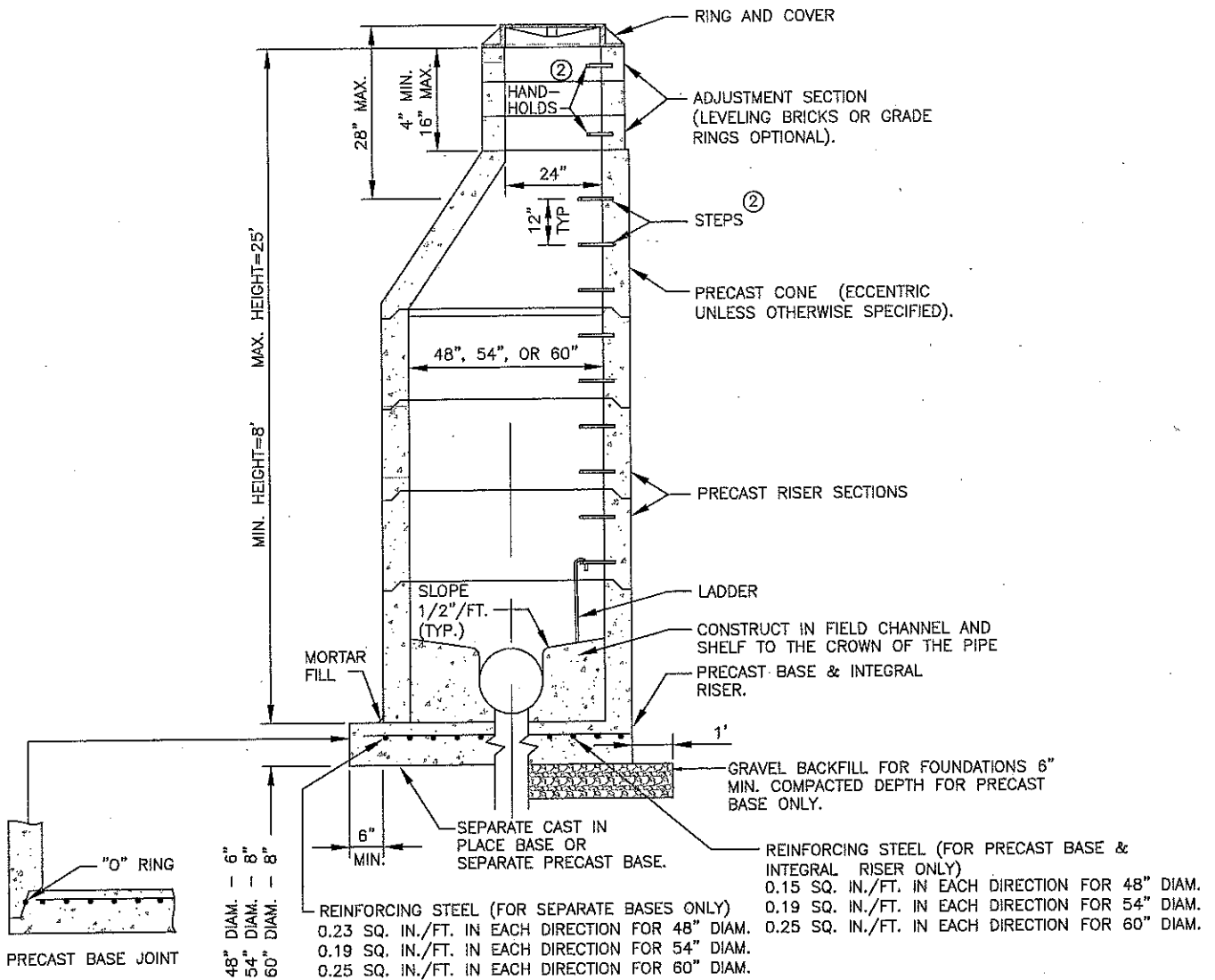
* ALL STEPS & RUNGS
#8 GALV. DEFORMED
REBAR OR COPOLYMER
PROPYLENE



**DROP RUNG
CATCH BASIN STEP**

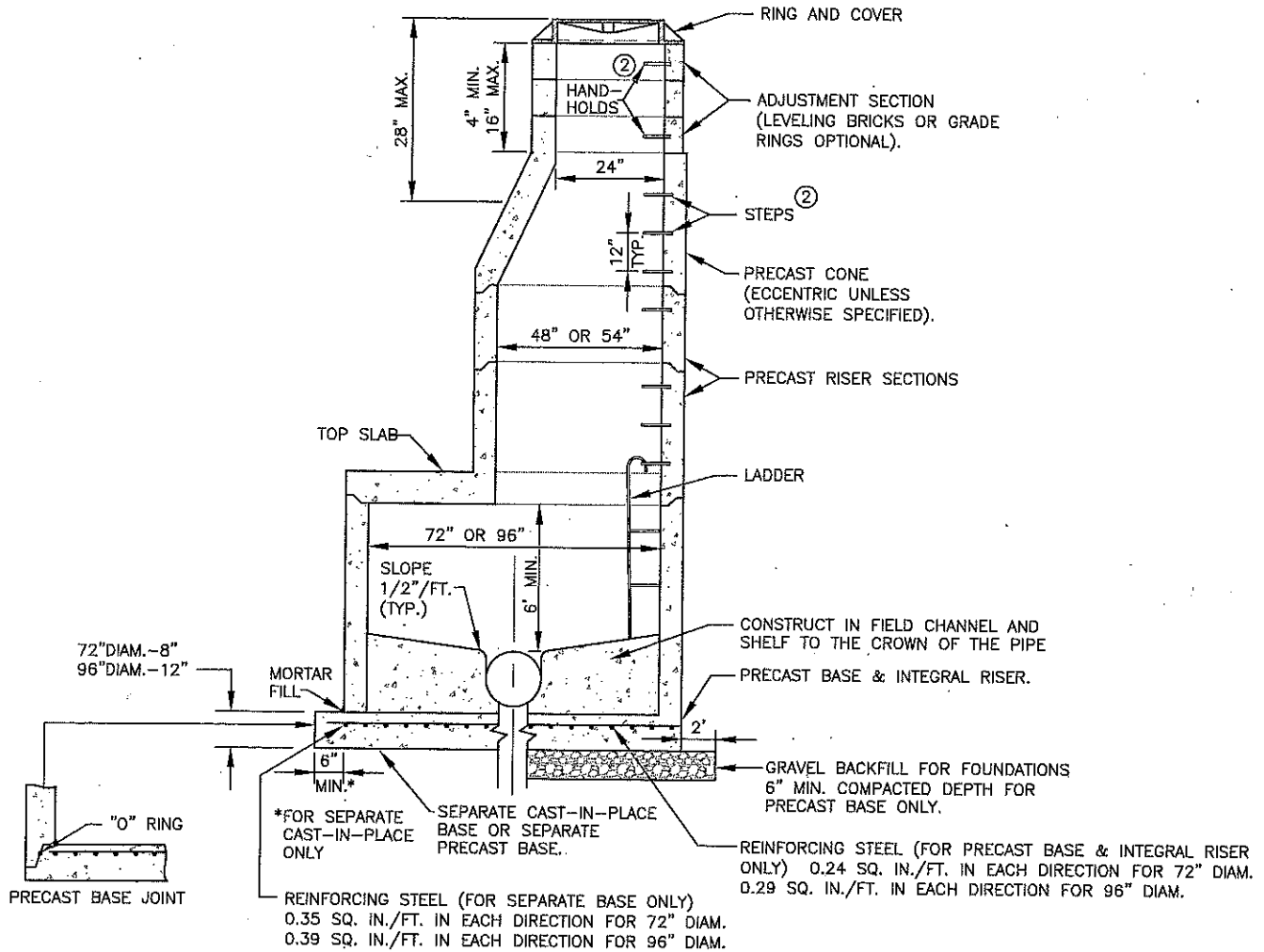
NOTES:

1. PROPRIETARY CATCH BASIN HANDHOLDS AND STEPS ARE ACCEPTABLE, PROVIDED THAT THEY CONFORM TO SEC. R, ASTM C478, AASHTO M-199 AND MEET ALL WISHA REQUIREMENTS.
2. CATCH BASIN STEP/HANDHOLD LEGS SHALL BE PARALLEL OR APPROXIMATELY RADIAL AT THE OPTION OF THE MANUFACTURER, EXCEPT THAT ALL STEPS IN ANY CATCH BASIN SHALL BE SIMILAR. PENETRATION OF OUTER WALL BY A LEG IS PROHIBITED.
3. HANDHOLDS AND STEPS SHALL HAVE "DROP" RUNGS AS SHOWN ON DETAIL OR PROTUBERANCES TO PREVENT SIDEWAYS SLIP.
4. SLAB OPENING MAY BE 24" x 20" OR 24" DIAM.
5. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.012 SQ. IN. PER FT. MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497.
6. LADDERS OR STEPS SHALL EXTEND TO WITHIN 16 IN. OF BOTTM OF CATCH BASIN.
7. HANGING LADDERS SHALL BE PERMANENTLY FASTENED AT TOP BY HANGING ON STEP OR BY BOLTING OR EMBEDDING IN CONCRETE. EASH SHALL BE EMBEDDED AT BOTTOM IN BASE.
8. ADDITIONAL SAFETY FEATURES MAY BE REQUIRED IN VERY DEEP OR UNUSUAL STRUCTURES.
9. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9--05.15 FOR METAL CASTINGS REQUIREMENTS.



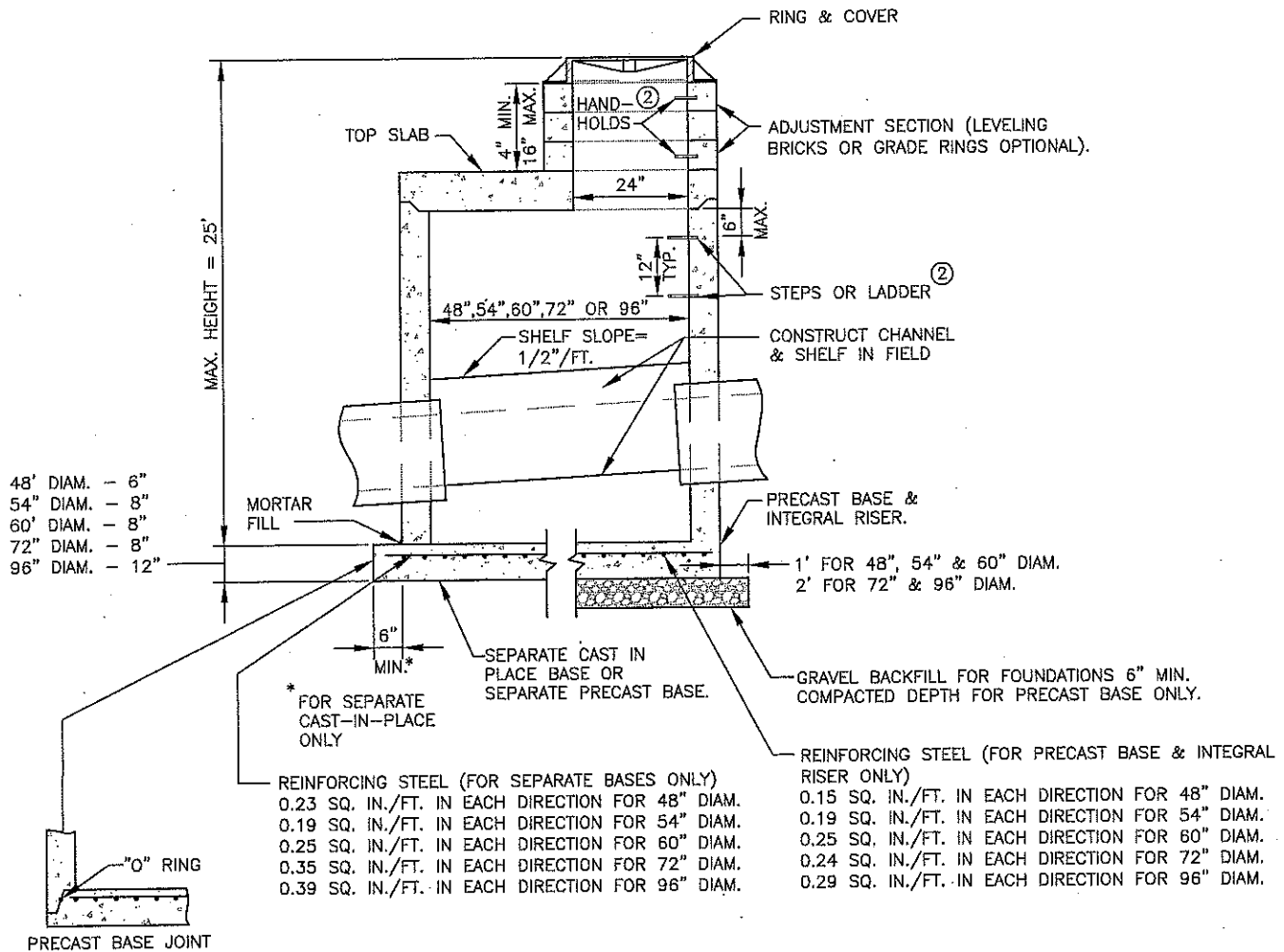
NOTES:

1. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M199 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
2. HANDHOLDS IN ADJUSTMENT SECTION SHALL HAVE 3 IN. MIN. CLEARANCE. STEPS IN MANHOLE SHALL HAVE 6 IN. MIN. CLEARANCE. SEE FIG. 7-011, "MANHOLE DETAILS." HANDHOLDS SHALL BE PLACED IN ALTERNATING GRADE RINGS OR LEVELING BRICK COURSE WITH A MIN. OF ONE HAND HOLD BETWEEN THE LAST STEP AND THE TOP OF THE MANHOLE.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000. ALL PRECAST CONCRETE SHALL BE CLASS 4000. NON-REINFORCED CONCRETE IN CHANNEL AND SHELF SHALL BE CLASS 3000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE WALL THICKNESS OF 2 IN. MIN. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT. PIPES SHALL BE INSTALLED ONLY IN FACTORY KNOCKOUTS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
5. KNOCKOUT OR CUTOUT HOLE SIZE SHALL EQUAL PIPE OUTER DIAM. PLUS MANHOLE WALL THICKNESS. MAX. HOLE SIZE SHALL BE 36 IN. FOR 48 IN. MANHOLE, 42 IN. FOR 54 IN. MANHOLE, 48 IN. FOR 60 IN. M.H. MIN. DISTANCE BETWEEN HOLES SHALL BE 8 IN.
6. MANHOLE RINGS AND COVERS SHALL BE IN ACCORDANCE WITH SEC. 7.05 AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621D. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
7. ALL BASE REINFORCING STEEL SHALL HAVE A MIN. YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1 IN. MIN. CLEARANCE.
8. FOR HEIGHTS OF 12 FT. OR LESS, MIN. SOIL BEARING VALUE SHALL EQUAL 3,300 LBS. PER SQ. FT. FOR HEIGHTS OVER 12 FT. MIN. SOIL BEARING VALUE SHALL EQUAL 3,800 LBS. PER SQ. FT.
9. FOR DETAILS SHOWING GRADE RING, LADDER, STEPS, HANDHOLDS, AND TOP SLABS, SEE FIG. 7-011, "MANHOLE DETAILS."
10. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SEC. 7-05.3 FOR JOINT REQUIREMENTS.
11. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.



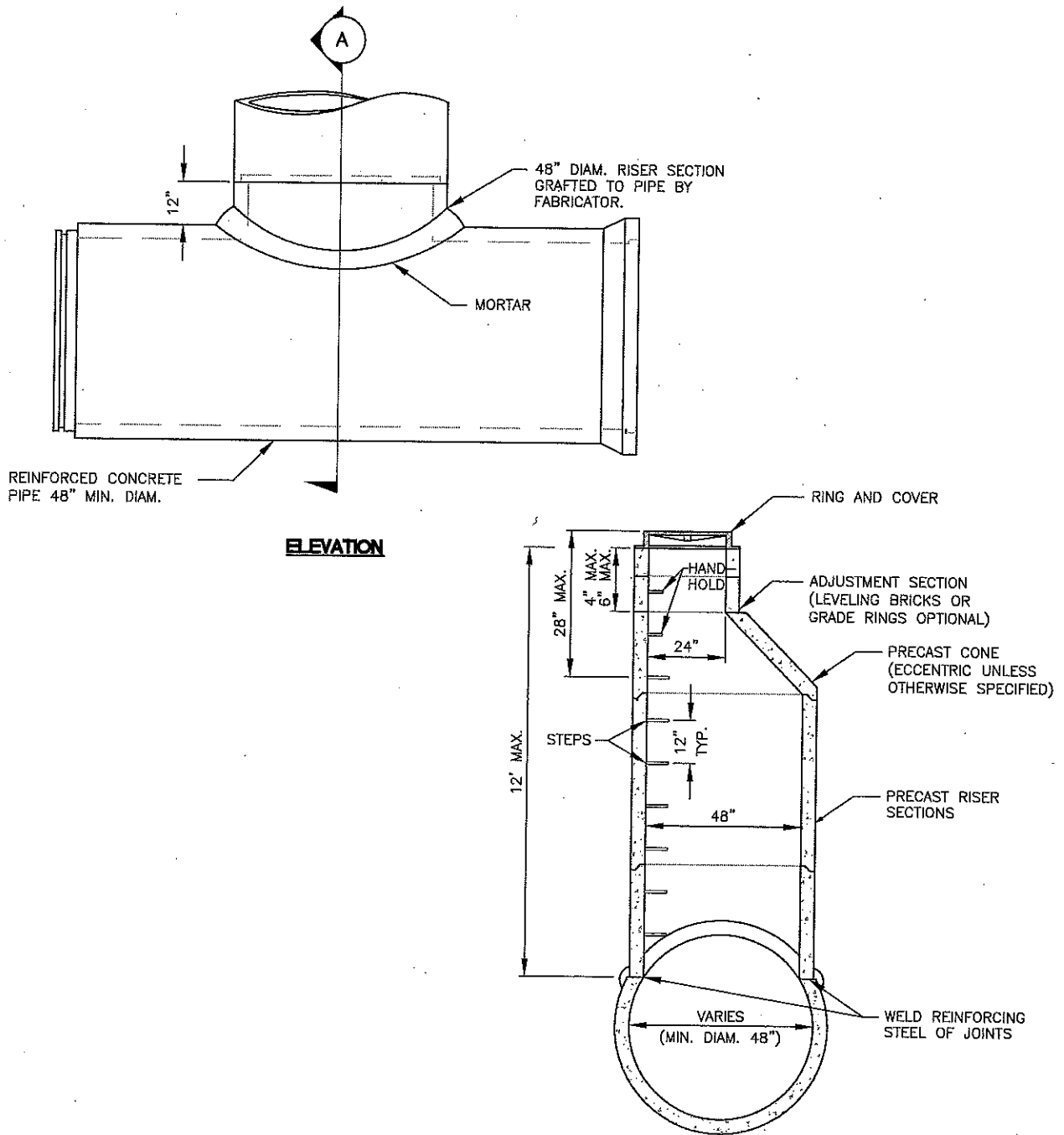
NOTES:

1. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M199 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
2. HANDHOLDS IN ADJUSTMENT SECTION SHALL HAVE 3 IN. MIN. CLEARANCE. STEPS IN MANHOLE SHALL HAVE 6 IN. MIN. CLEARANCE. SEE FIG. 7-011, "MANHOLE DETAILS." HANDHOLDS SHALL BE PLACED IN ALTERNATING GRADE RINGS OR LEVELING BRICK COURSE WITH MIN. OF ONE HANDHOLD BETWEEN THE LAST STEP AND THE TOP OF THE MANHOLE.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000. NON-REINFORCED CONCRETE IN CHANNEL AND SHELF SHALL BE CLASS 3000. ALL PRECAST CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE WALL THICKNESS OF 2 IN. MIN. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT. PIPES SHALL BE INSTALLED ONLY IN FACTORY KNOCKOUTS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
5. KNOCKOUT OR CUTOUT HOLE SIZE SHALL EQUAL PIPE OUTER DIAM. PLUS MANHOLE WALL THICKNESS. MAX. HOLE SIZE SHALL BE 60 IN. FOR 72 IN. MANHOLE, 84 IN. FOR 96 IN. MANHOLE. MIN. DISTANCE BETWEEN HOLES SHALL BE 12 IN.
6. MANHOLE RINGS AND COVERS SHALL BE IN ACCORDANCE WITH SEC. 7.05 AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621D. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
7. ALL BASE REINFORCING STEEL SHALL HAVE A MIN. YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1 IN. MIN. CLEARANCE.
8. FOR HEIGHTS OF 12 FT. OR LESS, MIN. SOIL BEARING VALUE SHALL EQUAL 3,300 POUNDS PER SQUARE FOOT. FOR HEIGHTS OVER 12', MIN. SOIL BEARING VALUE SHALL EQUAL 3,800 POUNDS PER SQUARE FOOT.
9. FOR DETAILS SHOWING GRADE RING, LADDER, STEPS, HANDHOLDS, AND TOP SLABS, SEE FIG. 7-011, "MANHOLE DETAILS."
10. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SEC. 7-05.3 FOR JOINT REQUIREMENTS.
11. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.



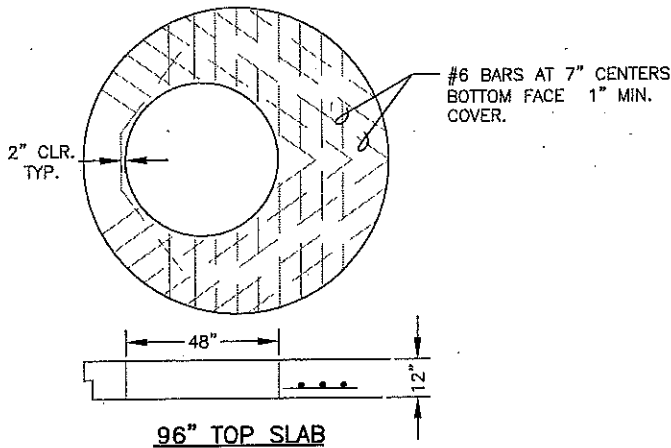
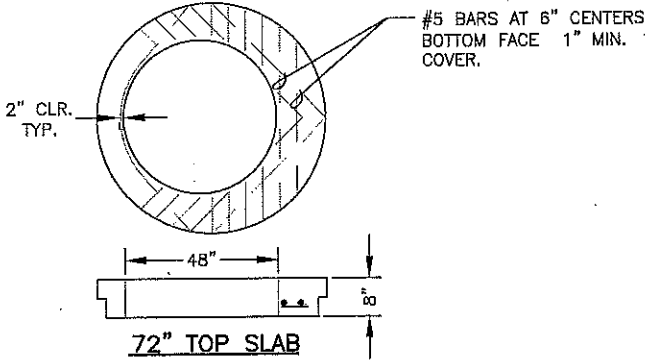
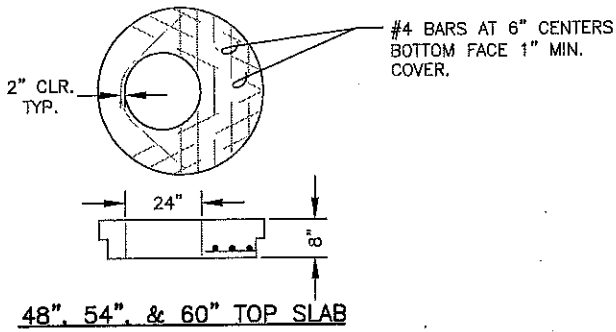
NOTES:

- MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M199 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
- HANDHOLDS IN ADJUSTMENT SECTION SHALL HAVE 3 IN. MIN. CLEARANCE. STEPS IN MANHOLE SHALL HAVE 6 IN. MIN. CLEARANCE. SEE FIG. 7-011, "MANHOLE DETAILS." HANDHOLDS SHALL BE PLACED IN ALTERNATING GRADE RINGS OR LEVELING BRICK COURSE WITH A MIN. OF ONE HANDHOLD BETWEEN THE LAST STEP AND THE TOP OF THE MANHOLE.
- ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000. NON-REINFORCED CONCRETE IN CHANNEL AND SHELF SHALL BE CLASS 3000. ALL PRECAST CONCRETE SHALL BE CLASS 4000.
- PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE WALL THICKNESS OF 2 IN. MIN. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT. PIPES SHALL BE INSTALLED ONLY IN FACTORY KNOCKOUTS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- KNOCKOUT OR CUTOUT HOLE SIZE SHALL EQUAL PIPE OUTER DIAM. PLUS MANHOLE WALL THICKNESS. MAX. HOLE SIZE SHALL BE 36 IN. FOR 48 IN. M.H., 42 IN. FOR 54 IN. M.H., 48 IN. FOR 60 IN. M.H., 84 IN. FOR 96 IN. M.H. MIN. DISTANCE BETWEEN HOLES SHALL BE 8 IN. FOR 48 IN., 54 IN., AND 60 IN. M.H. 12 IN. FOR 72 IN. AND 96 IN. M.H.
- MANHOLE RINGS AND COVERS SHALL BE IN ACCORDANCE WITH SEC. 7.05 AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621D. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
- ALL BASE REINFORCING STEEL SHALL HAVE A MIN. YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1 IN. MIN. CLEARANCE.
- FOR HEIGHTS OF 12 FT. OR LESS, MIN. SOIL BEARING VALUE SHALL EQUAL 3,300 LBS. PER SQ. FT. FOR HEIGHTS OVER 12 FT., MIN. SOIL BEARING VALUE SHALL EQUAL 3,800 LBS. PER SQ. FT.
- FOR DETAILS SHOWING GRADE RING, LADDER, STEPS, HANDHOLDS, AND TOP SLABS, SEE FIG. 7-011, "MANHOLE DETAILS."
- SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SEC. 7-05.3 FOR JOINT REQUIREMENTS.
- SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.



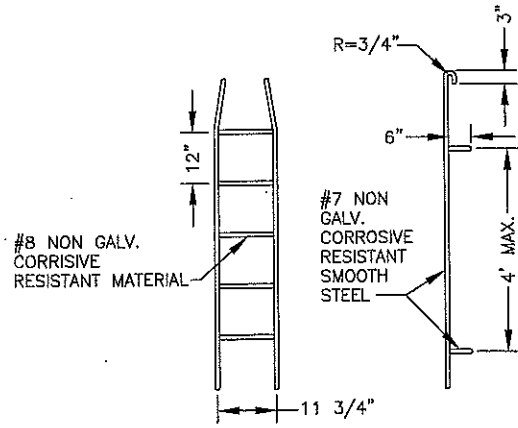
NOTES:

1. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M199 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
2. HANDHOLDS IN ADJUSTMENT SECTION SHALL HAVE 3 IN. MIN. CLEARANCE. STEPS IN MANHOLE SHALL HAVE 6 IN. MIN. CLEARANCE. SEE FIG. 7-011, "MANHOLE DETAILS."
3. MANHOLE RINGS AND COVERS SHALL BE IN ACCORDANCE WITH SEC. 7.05 AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621D. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
4. ALL PRECAST CONCRETE SHALL BE CLASS 4000.
5. FOR DETAILS SHOWING GRADE RING, LADDER, STEPS, HANDHOLDS, AND TOP SLABS, SEE FIG. 7-011, "MANHOLE DETAILS".
6. NOT FOR USE IN TRAFFIC BEARING AREAS.
7. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS



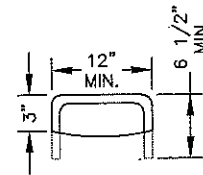
NOTES:

1. PROPRIETARY MANHOLE HANDHOLDS AND STEPS ARE ACCEPTABLE, PROVIDED THAT THEY CONFORM TO SEC. R, ASTM C478, AASHTO M199 AND MEET ALL WISHA REQUIREMENTS.
2. MANHOLE STEP/HANDHOLD LEGS SHALL BE PARALLEL OR APPROXIMATELY RADIAL AT THE OPTION OF THE MANUFACTURER, EXCEPT THAT ALL STEPS IN ANY MANHOLE SHALL BE SIMILAR. PENETRATION OF OUTER WALL BY A LEG IS PROHIBITED.
3. HANHOLDS AND STOPS SHALL HAVE "DROP" RUNGS OR PROTUBERANCES TO PREVENT SIDEWAYS SLIP.
4. LADDERS OR STEPS SHALL EXTEND TO WITHIN 16" OF BOTTOM OF MANHOLE.
5. HANGING LADDERS SHALL BE PERMANENTLY FASTENED AT TOP BY HANGING ON STEP OR BY BOLTING OR EMBEDDING IN CONCRETE. EACH SHALL BE EMBEDDED AT BOTTOM IN BASE.
6. ADDITIONAL SAFETY FEATURES MAY BE REQUIRED IN VERY DEEP OR UNUSUAL STRUCTURES.
7. SEE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.

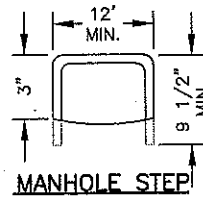


PREFABRICATED LADDER

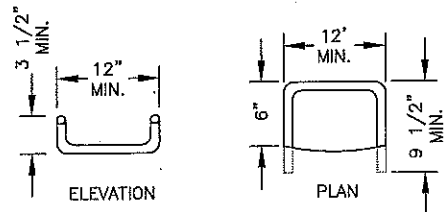
* ALL STEPS & RUNGS
1" DIAM. GALV. REBAR OR
COPOLYMER PROPYLENE.



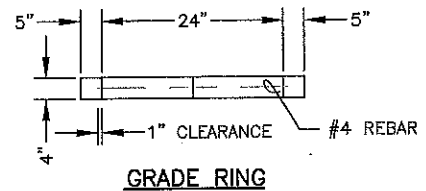
HANDHOLD



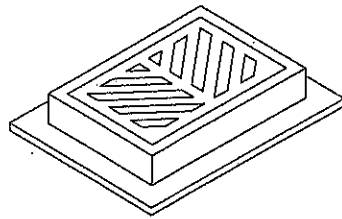
MANHOLE STEP



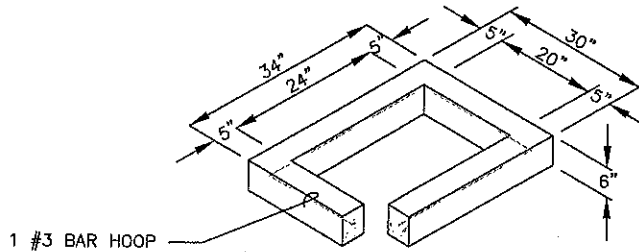
MANHOLE DROP RUNG STEP



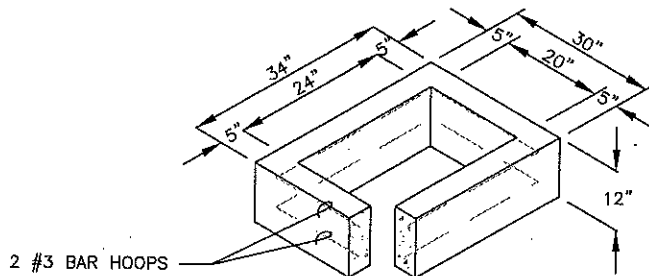
GRADE RING



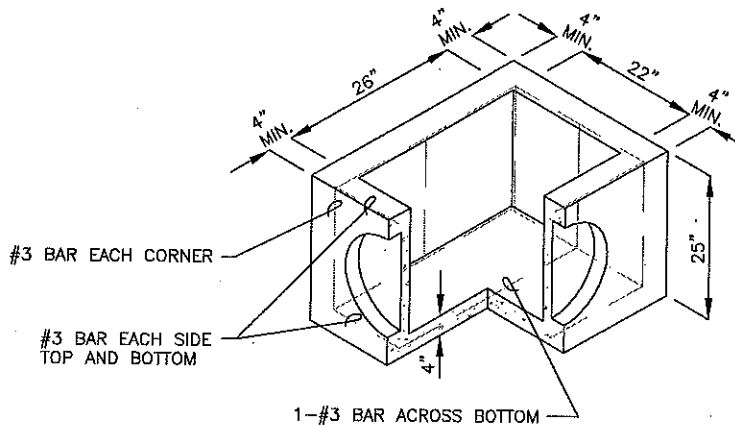
FRAME AND GRATE
SEE SEC. 7.05 AND
APPLICABLE DETAILS.



6" RISER SECTION



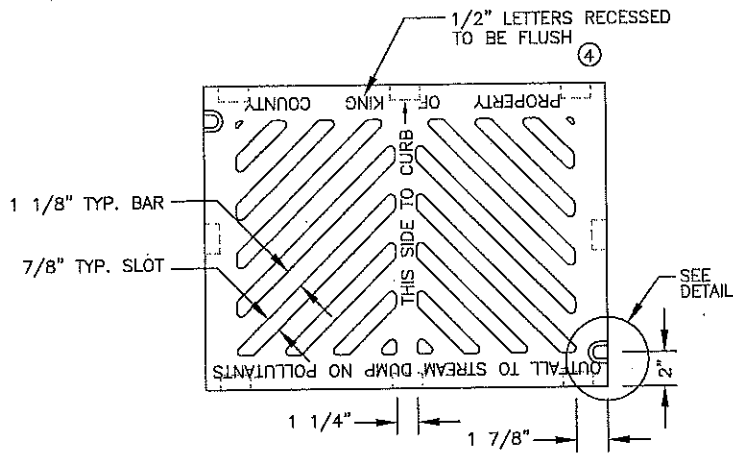
12" RISER SECTION



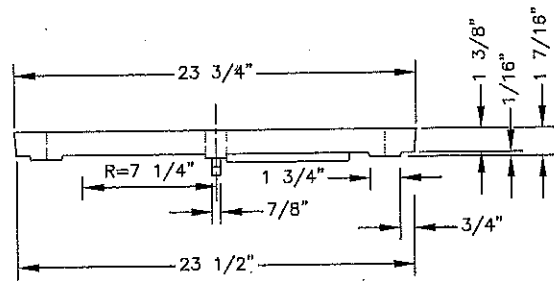
PRECAST BASE SECTION
(MEASUREMENT AT THE
TOP OF THE BASE)

NOTES:

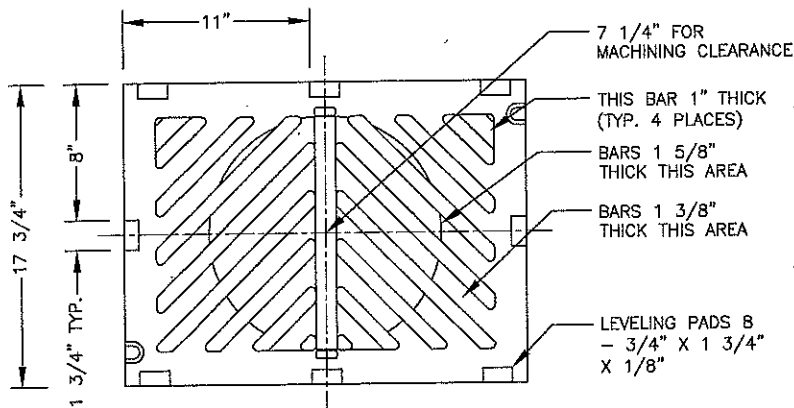
1. CURB INLET TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 & C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
2. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQ. IN. PER FT. MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497. WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAM. PLUS CURB INLET WALL THICKNESS.
6. ROUND KNOCKOUTS MAY BE ON ALL 4 SIDES WITH MAX. DIAM. OF 17 IN..
7. THE MAX. DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5 FT.
8. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2 IN. PER FT.
9. CONCRETE INLET FRAME AND GRATES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-62ID. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY OTHER COVER POSITION.
10. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
11. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.



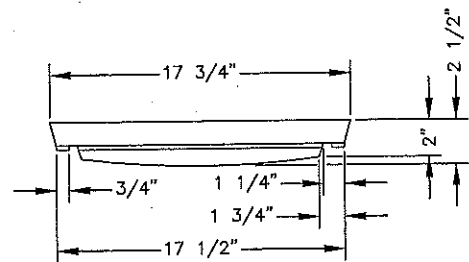
TOP VIEW



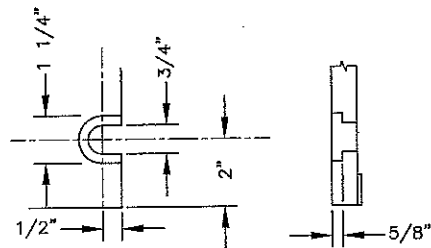
SIDE VIEW



BOTTOM VIEW



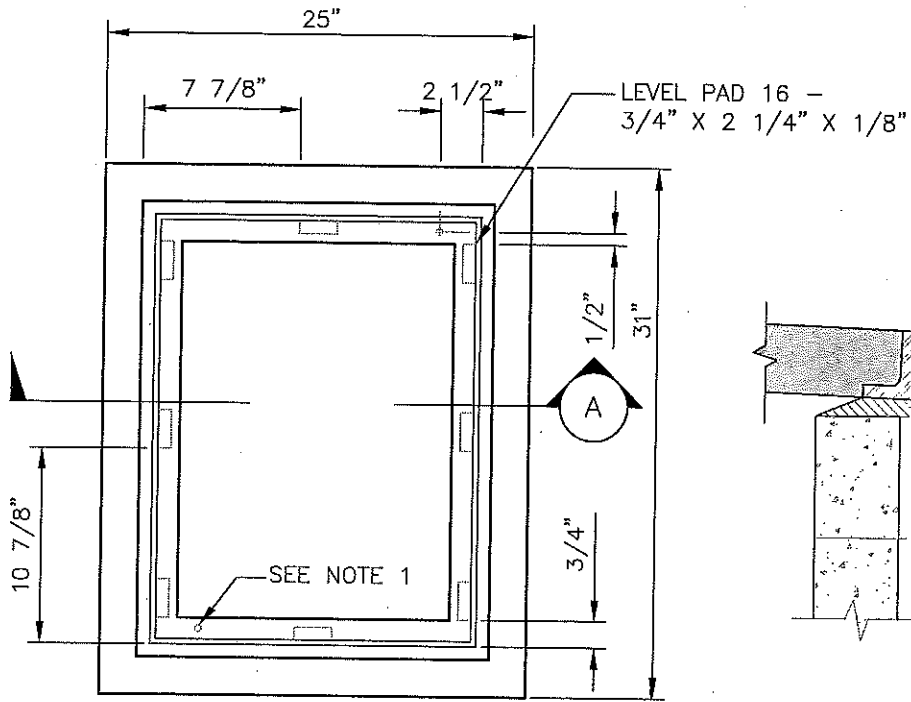
END VIEW



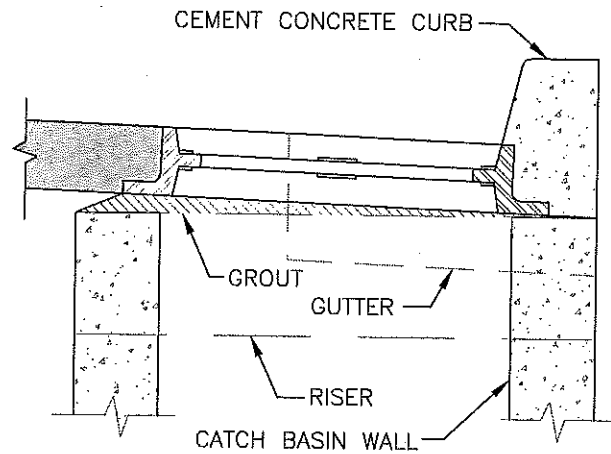
SLOT DETAIL
SEE NOTE 1

NOTES:

1. SLOT FORMED AND RECESSED FOR 5/8 IN.-11 NC X 2 IN. SOCKET HEAD (ALLEN HEAD) CAP SCREW.
2. GRATE SHALL BE CAST IRON PER ASTM A48 CLASS 30 UNLESS OTHERWISE SPECIFIED.
3. SEE SEC. 7.05.
- ④ THE WORDS "PROPERTY OF KING COUNTY" SHALL BE OMITTED IF GRATE IS ON PRIVATE SYSTEM.
5. GRATES SHALL BE MIN 32 IN. CLEAR OF WHERE WHEELCHAIR RAMPS ARE FLUSH WITH PAVEMENT.
6. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.

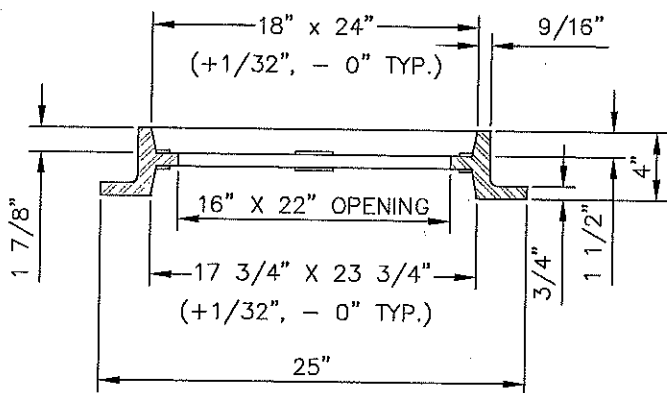


PLAN

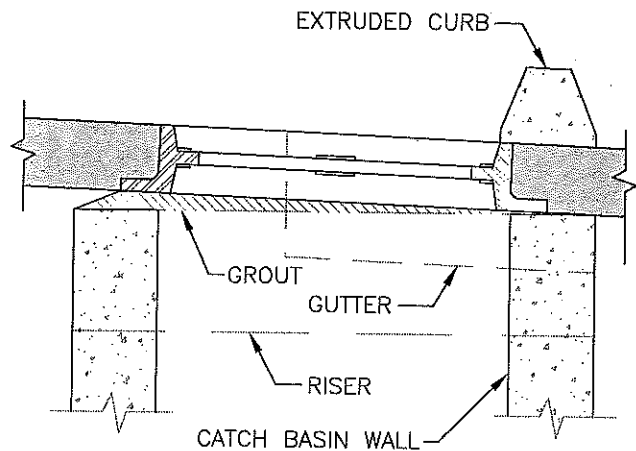


VERTICAL CURB

SEE NOTE 4



SECTION A

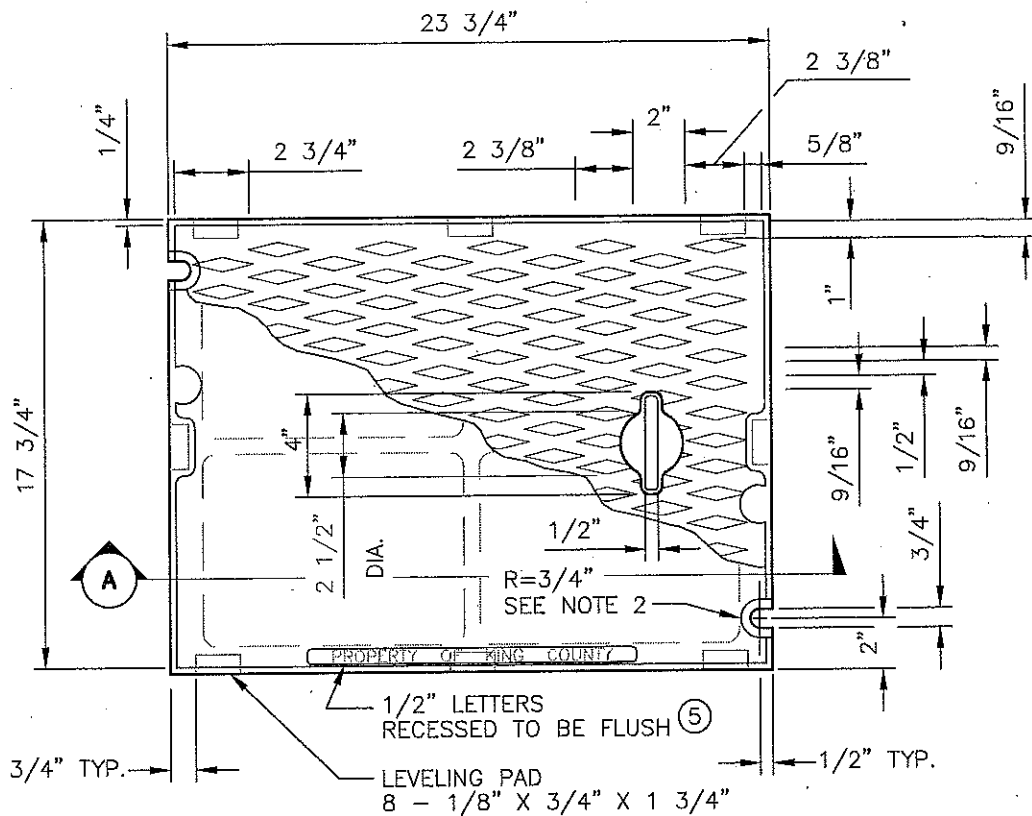


EXTRUDED CURB

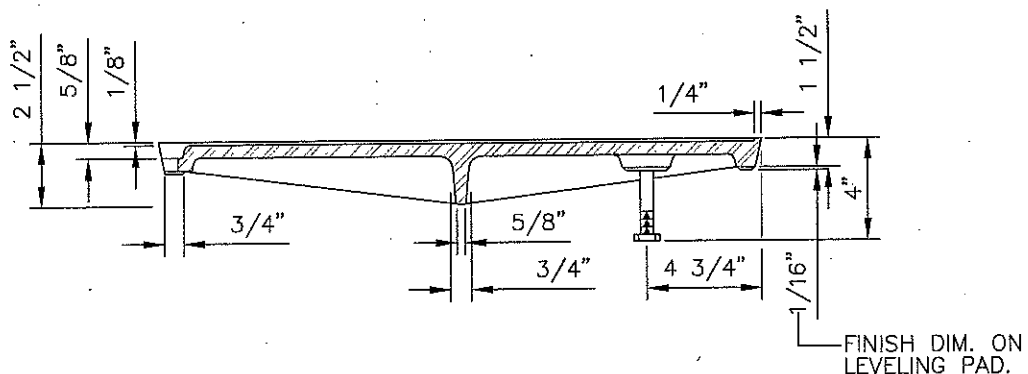
SEE NOTE 4

NOTES:

1. DRILL AND TAP FOR, AND PROVIDE, TWO LOCKING BOLTS 5/8 IN.-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) CAP SCREWS 2 IN. LONG WHEN USED WITH SOLID COVER (FIG. 7-015) OR WHEN SPECIFIED BY ENGINEER.
2. FRAME MATERIAL IS DUCTILE IRON PER ASTM A48 CLASS 30.
3. SET FRAME TO GRADE AND CONSTRUCT ROAD AND GUTTER TO BE FLUSH WITH FRAME.
4. SEE SEC. 7.05.
5. SEE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.



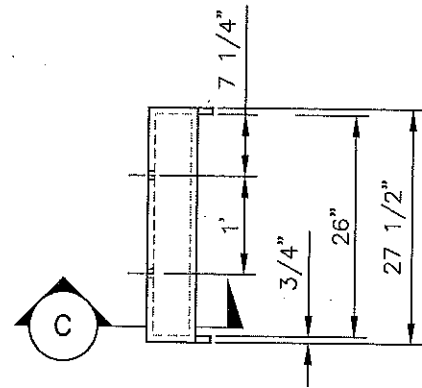
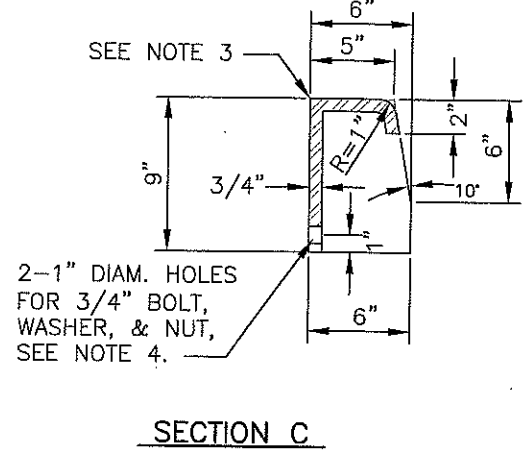
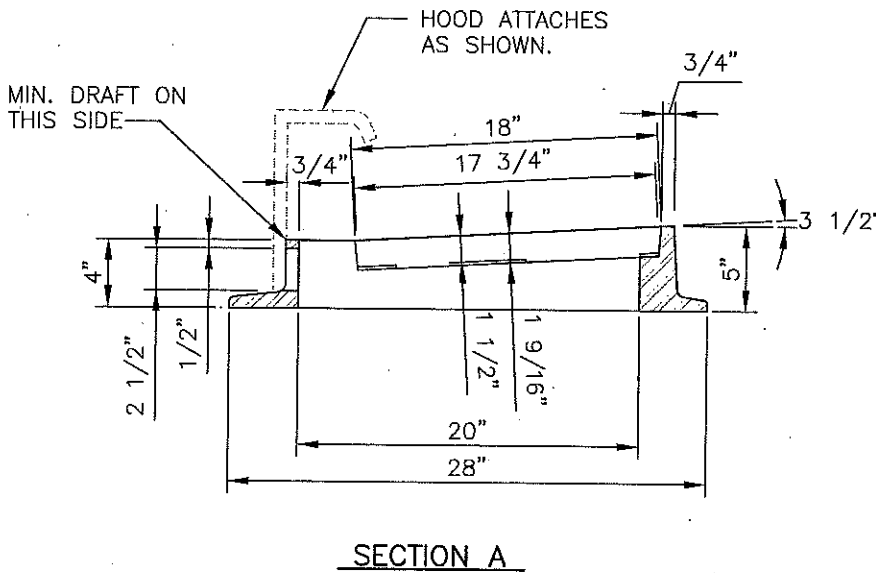
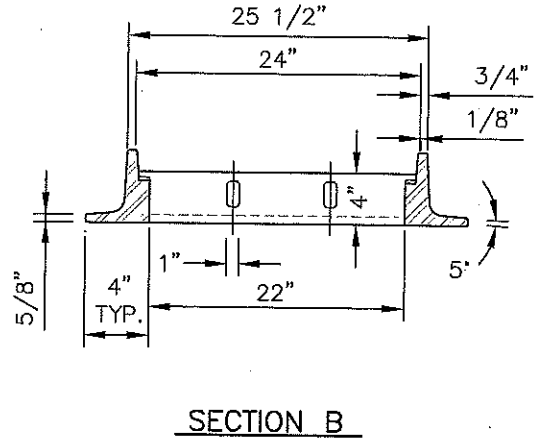
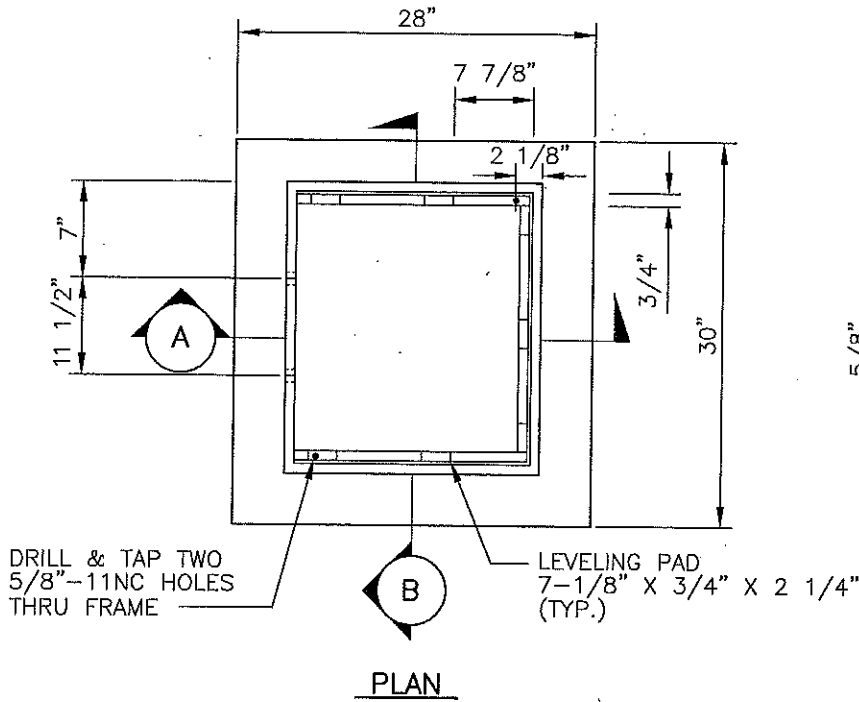
PLAN COVER



SECTION A

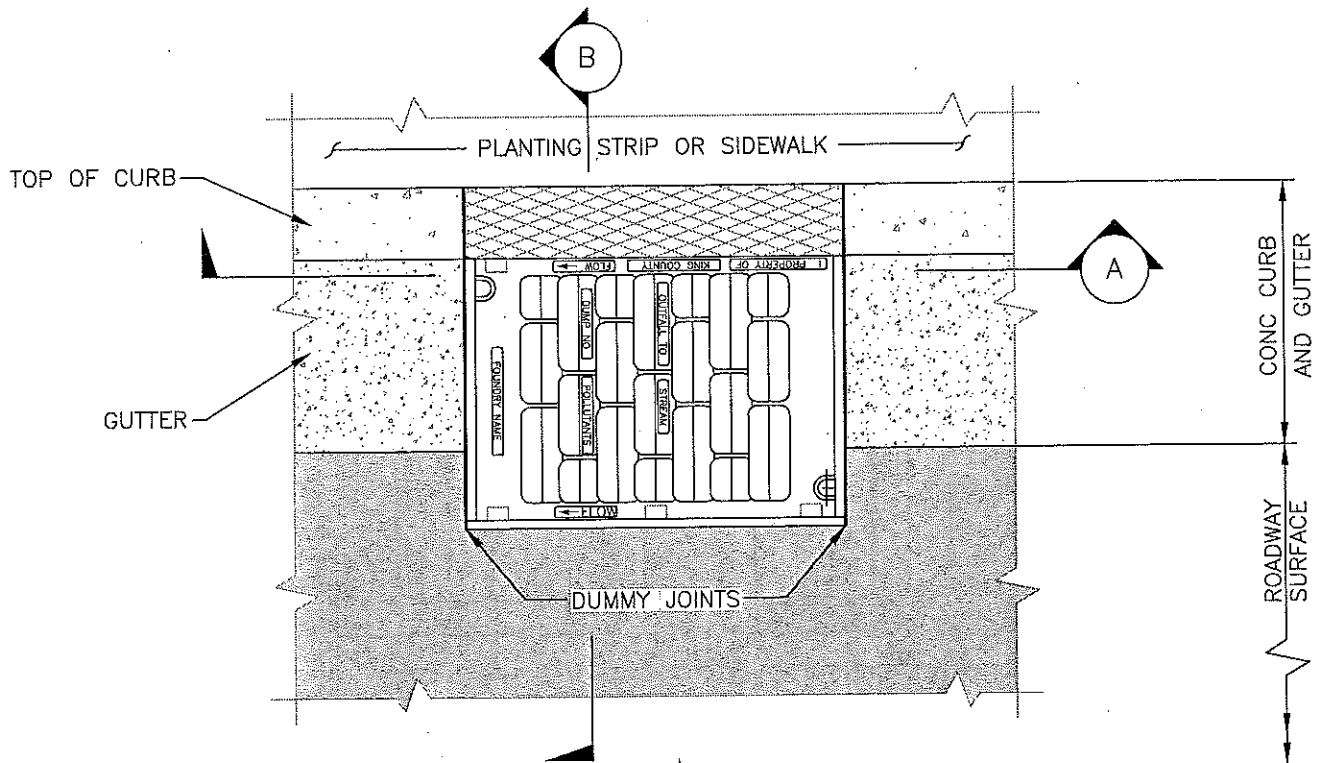
NOTES:

1. USE WITH FRAME (FIG. 7-014) DRILLED AND TAPPED FOR LOCKING BOLTS.
2. USE WITH TWO LOCKING BOLTS $5/8$ IN.-11 NC STAINLESS STEEL TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) CAP SCREWS, MIN. 2 IN. LONG.
3. MATERIAL IS CAST IRON PER ASTM A48 CLASS 30.
4. SEE SEC. 7.05.
- ⑤ THE WORDS "PROPERTY OF KING COUNTY" SHALL BE OMITTED IF COVER IS ON A PRIVATE SYSTEM.
6. SEE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.

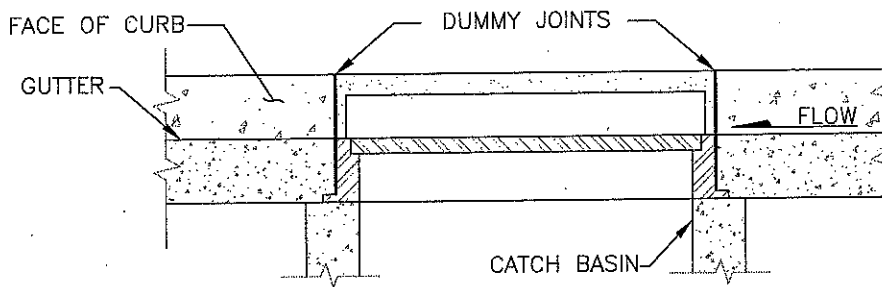


NOTES:

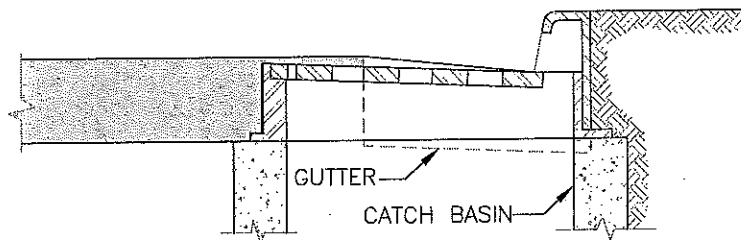
1. MATERIAL IS CAST IRON ASTM A48 CLASS 30.
2. SEE FIG. 7-018 FOR VANED GRATE.
3. PATTERN ON TOP SURFACE OF HOOD SHALL BE 3/16 IN. NON-SKID DIAMOND.
4. BOLT, WASHER, AND NUT SHALL BE GALVANIZED OR CORROSION RESISTANT.
5. SEE SEC. 7.05.
6. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.



PLAN



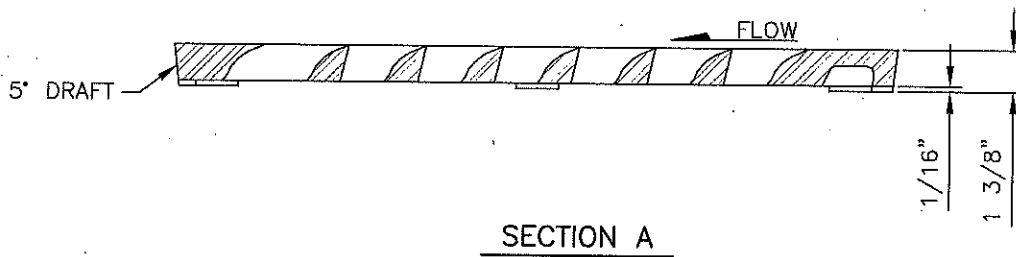
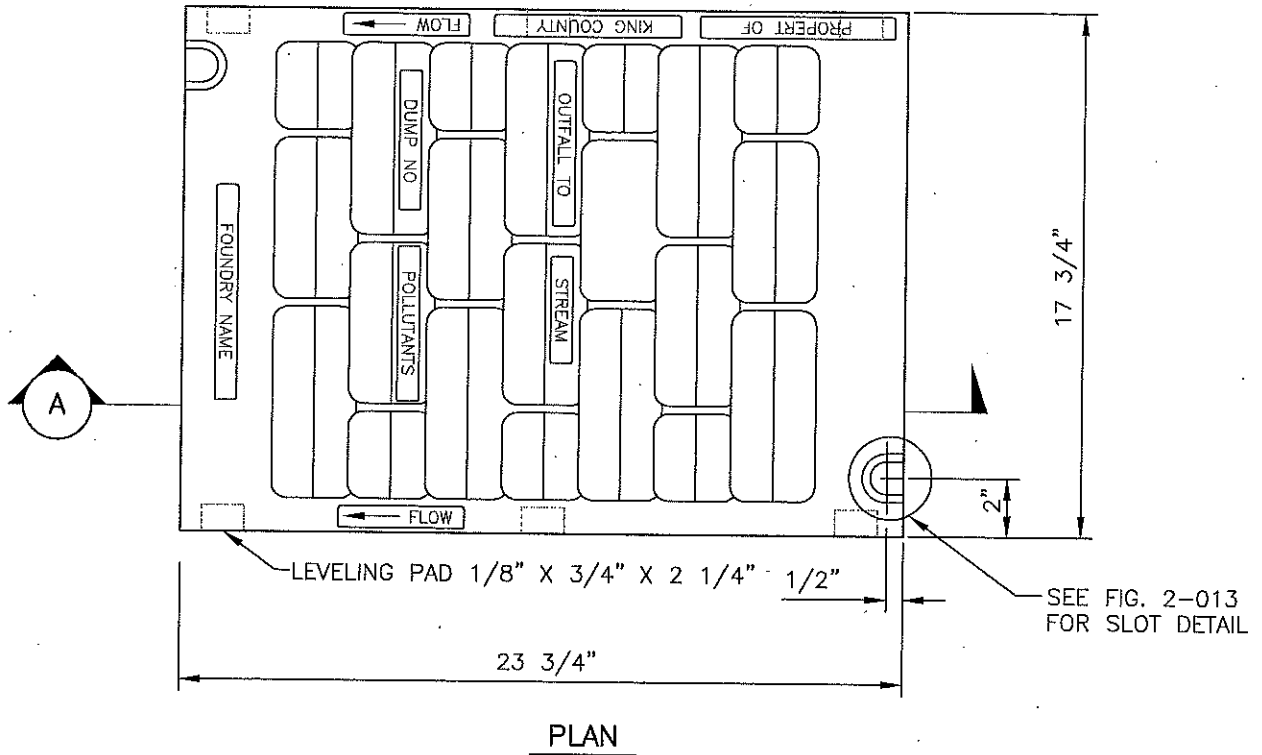
SECTION A



SECTION B

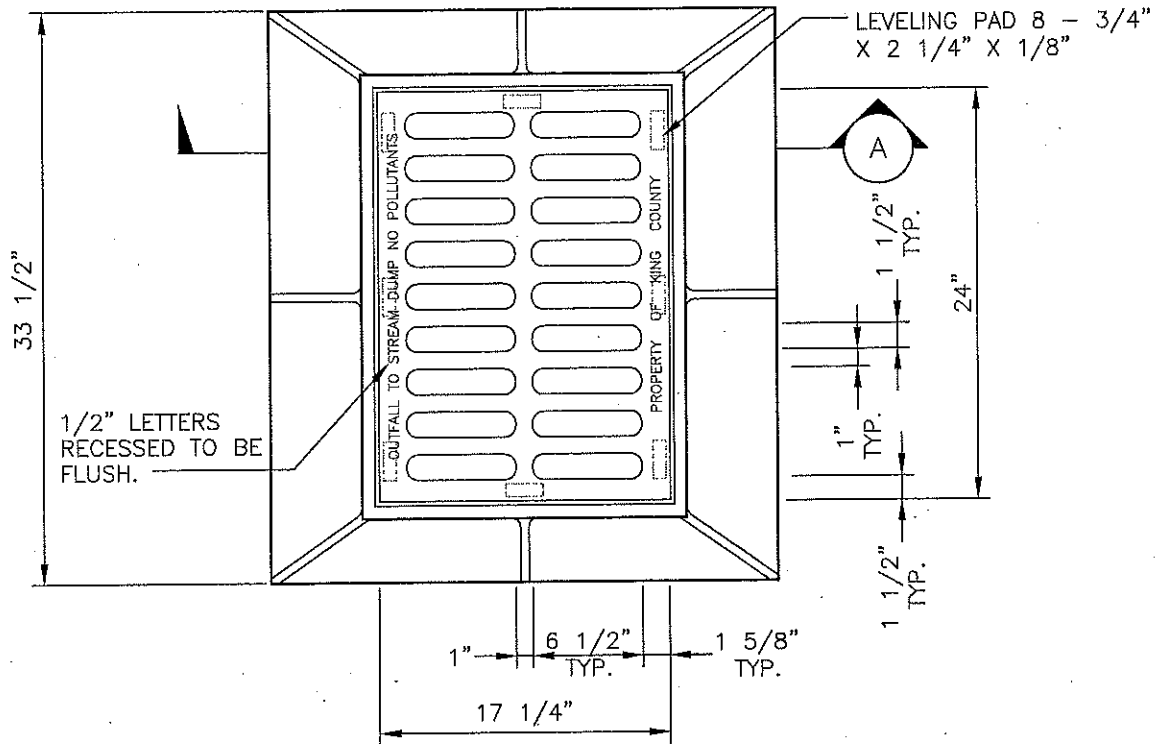
NOTES:

1. SET TO GRADE AND CONSTRUCT ROAD AND GUTTER TO BE FLUSH WITH FRAME.
2. SEE SEC. 3.04 FOR JOINT REQUIREMENTS.
3. SEE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL GRATINGS REQUIREMENTS.

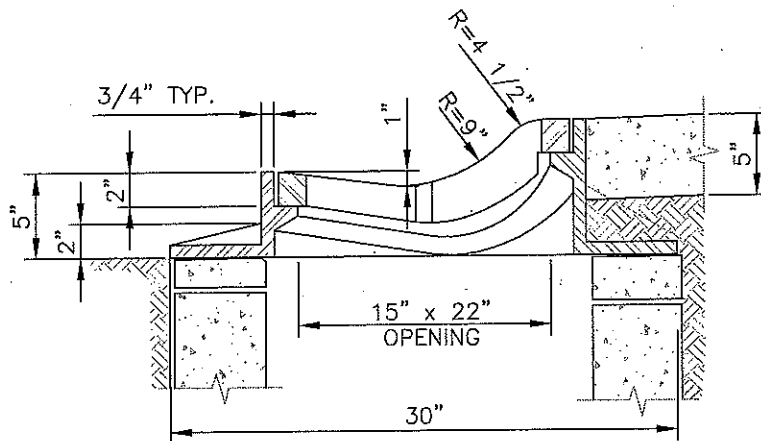


NOTES:

1. SELF-LOCK VANED GRATE MANUFACTURER SUBJECT TO APPROVAL BY ENGINEER.
2. USE WITH TWO LOCKING BOLTS 5/8 IN.-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) CAP SCREWS 2 IN. LONG. NOTE SLOT DETAIL.
3. MATERIAL IS DUCTILE IRON ASTM A536 GRADE 80-55-06.
4. "OUTFALL TO STREAM DUMP NO POLLUTANTS" MAY BE LOCATED ON BORDER AREA.
5. SEE SEC. 7.05.
6. THE WORDS "PROPERTY OF KING COUNTY" SHALL BE OMITTED IF GRATE IS ON PRIVATE SYSTEM.
7. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.



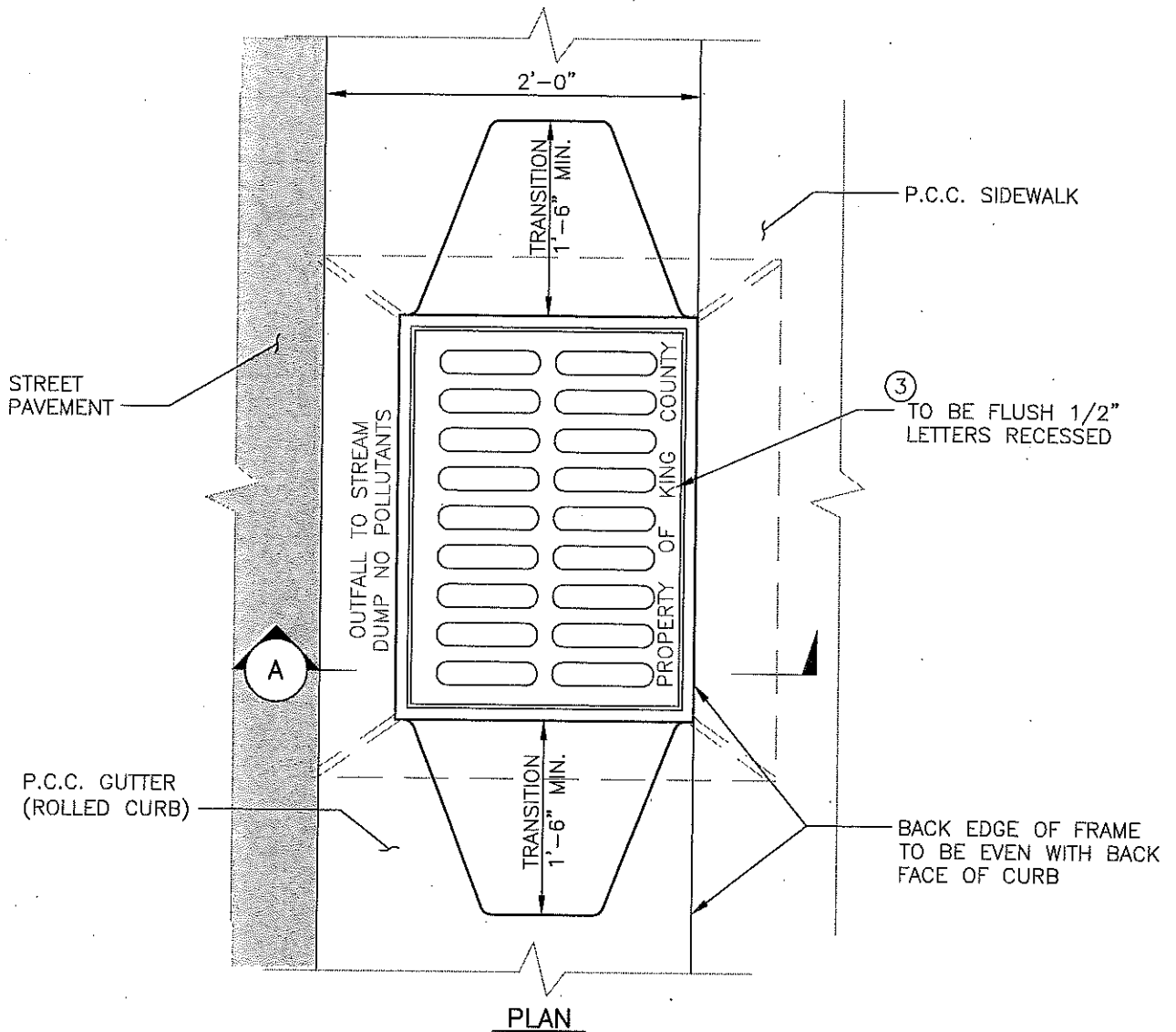
PLAN



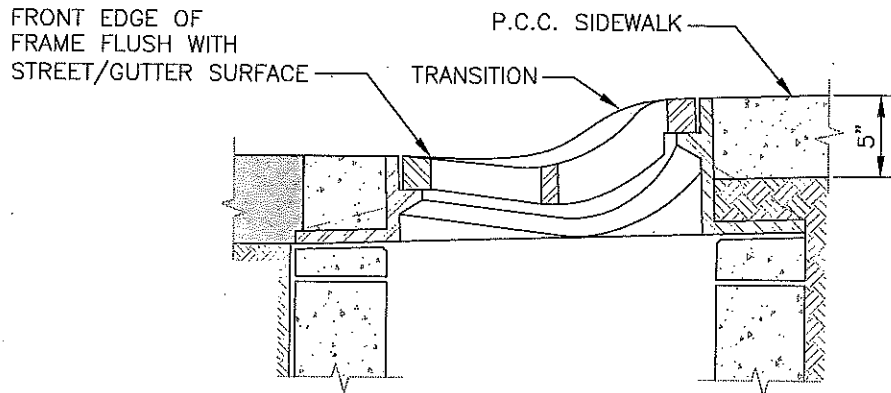
SECTION A

NOTES:

1. MATERIAL IS CAST IRON ASTM A48 CLASS 30.
2. SEE SEC. 7.05.
3. THE WORDS "PROPERTY OF KING COUNTY" SHALL BE OMITTED IF ON A PRIVATE SYSTEM.
4. NOT TO BE USED ON THICKENED EDGE ROADWAYS.
5. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9--05.15 FOR METAL CASTINGS REQUIREMENTS.



PLAN

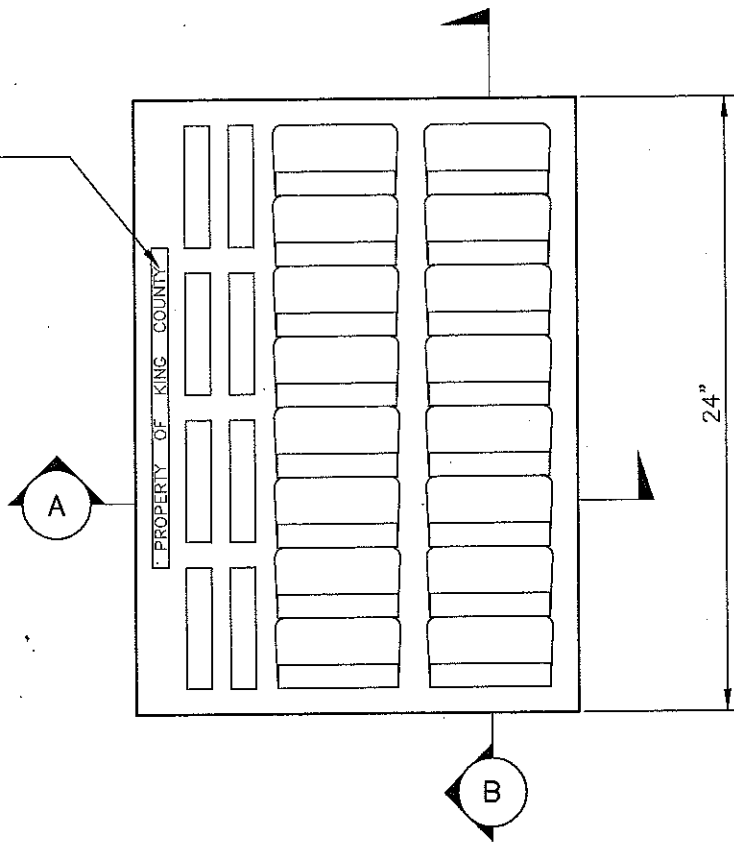


SECTION A

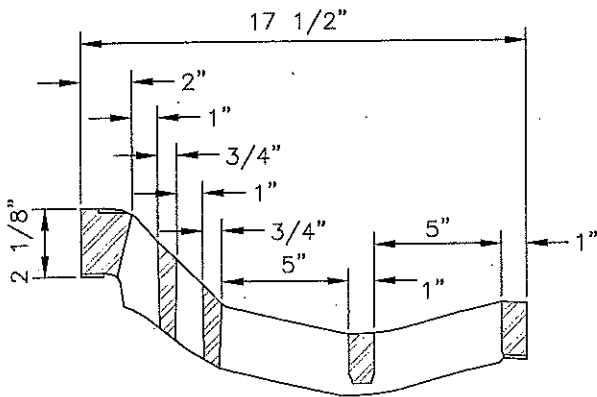
NOTES

1. SET FRAME TO GRADE AND CONSTRUCT ROAD AND CURB TO BE FLUSH AT FRONT AND BACK OF FRAME.
2. SEE SEC. 7.05.
- ③ THE WORDS "PROPERTY OF KING COUNTY" SHALL BE OMITTED IF GRATE IS ON A PRIVATE SYSTEM.
4. NOT TO BE USED ON THICKENED EDGE ROADWAYS.
5. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.

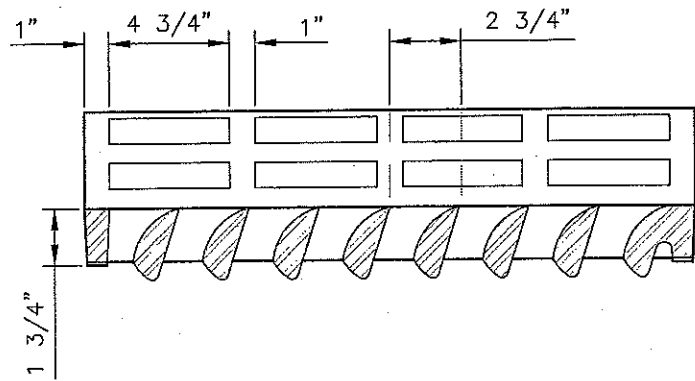
1/2" LETTERS
RECESSED TO
BE FLUSH



PLAN



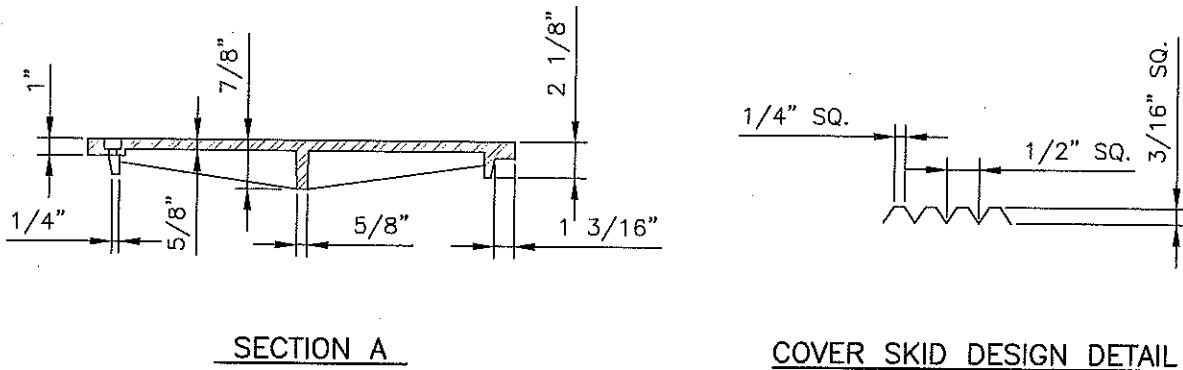
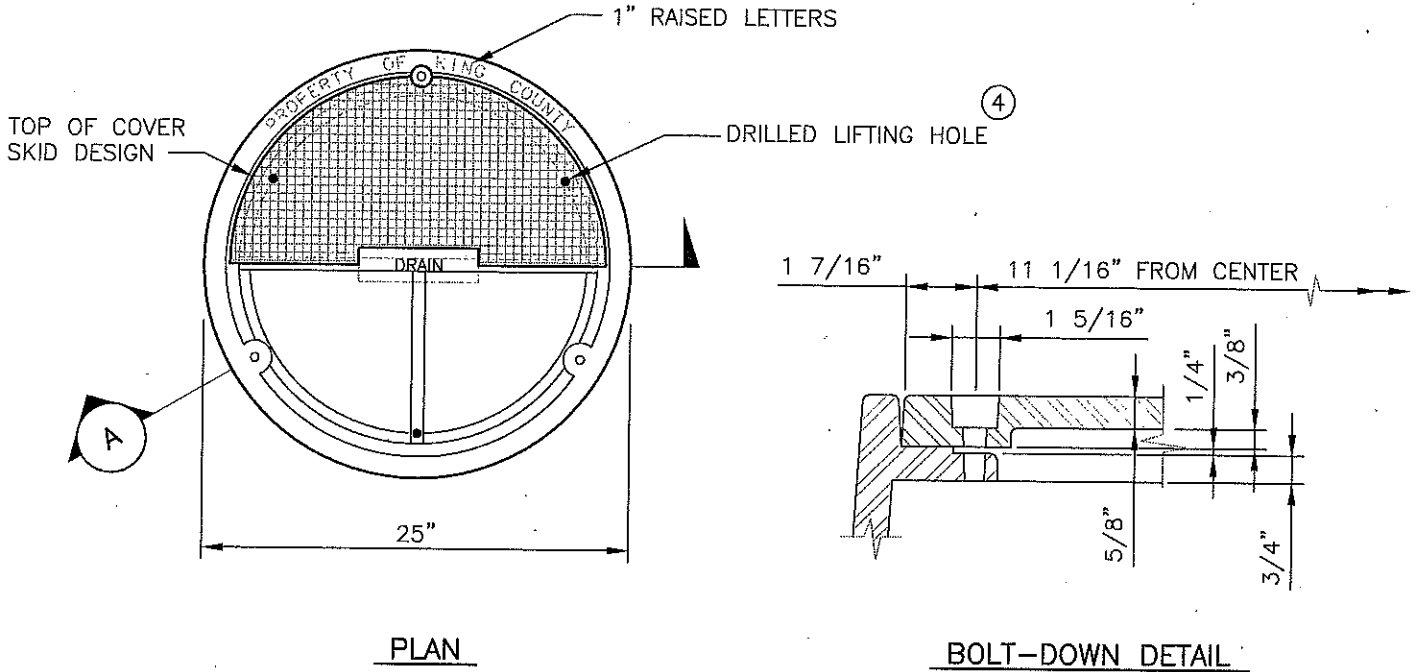
SECTION A



SECTION B

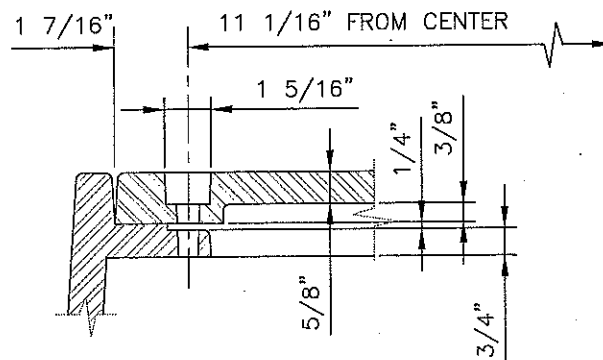
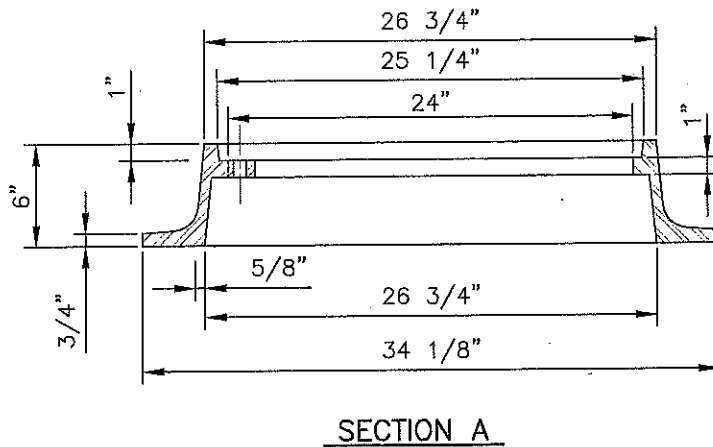
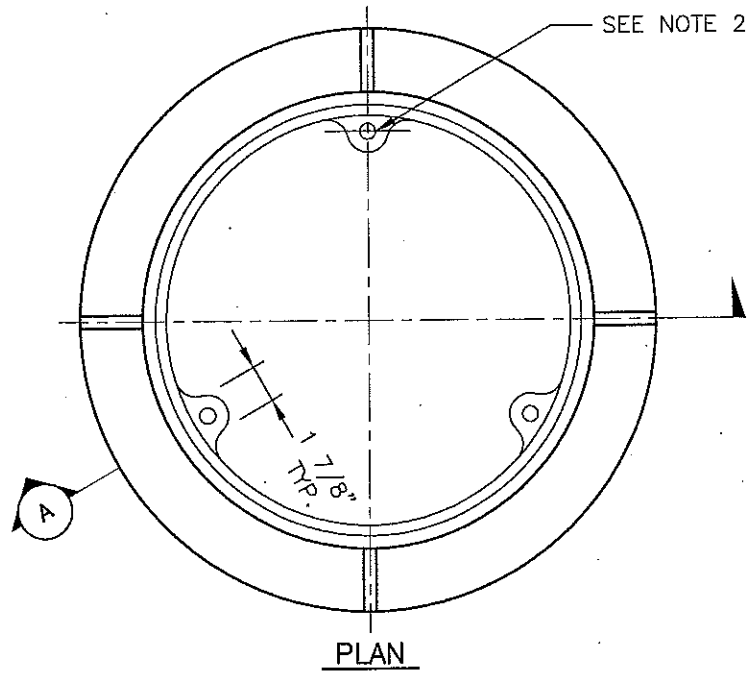
NOTES:

1. MATERIAL IS CAST IRON ASTM A48 CLASS 30.
2. SEE SEC. 7.05.
3. THE WORDS "PROPERTY OF KING COUNTY" SHALL BE OMITTED IF ON A PRIVATE SYSTEM.
4. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.



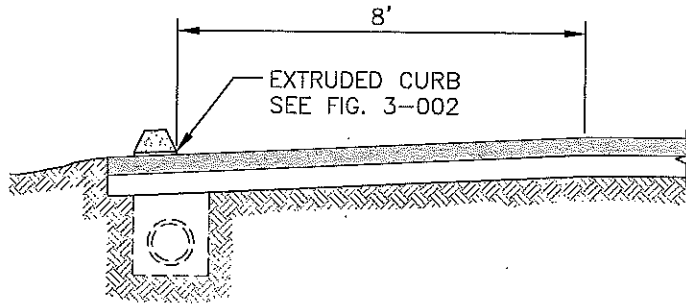
NOTES:

1. USE WITH THREE LOCKING BOLTS 5/8 IN.-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) CAP SCREWS 2 IN. LONG. DRILL HOLES SPACED 120° AT 11 1/16 IN. RADIUS.
2. MATERIAL IS DUCTILE IRON ASTM A536 GRADE 80-55-06.
3. SEE SEC. 7.05.
- ④ DRILL THREE 1 IN. HOLES SPACED AT 120° AND 9 1/2 IN. RADIUS.
5. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.

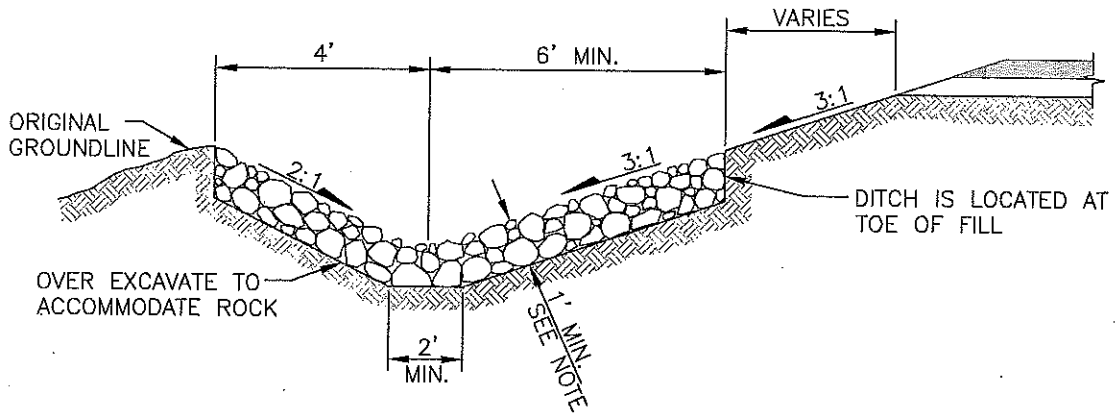


NOTES:

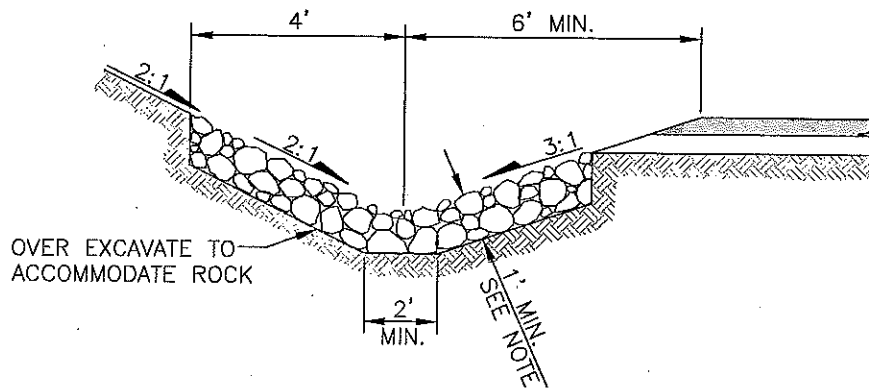
1. MATERIAL IS CAST IRON ASTM A48 CLASS 30.
2. DRILL AND TAP THREE 5/8 IN.-11 NC HOLES THROUGH FRAME AT 120° AND 11 1/16 IN. RADIUS.
3. SEE SEC. 7.05.
4. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.



CURBED SHOULDER



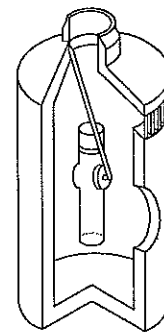
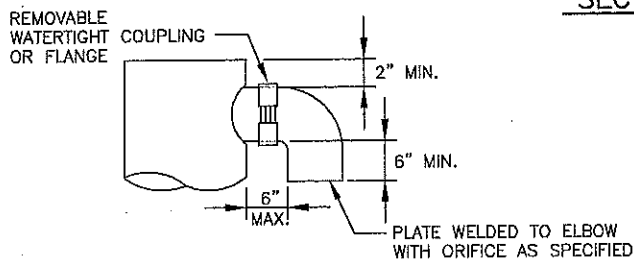
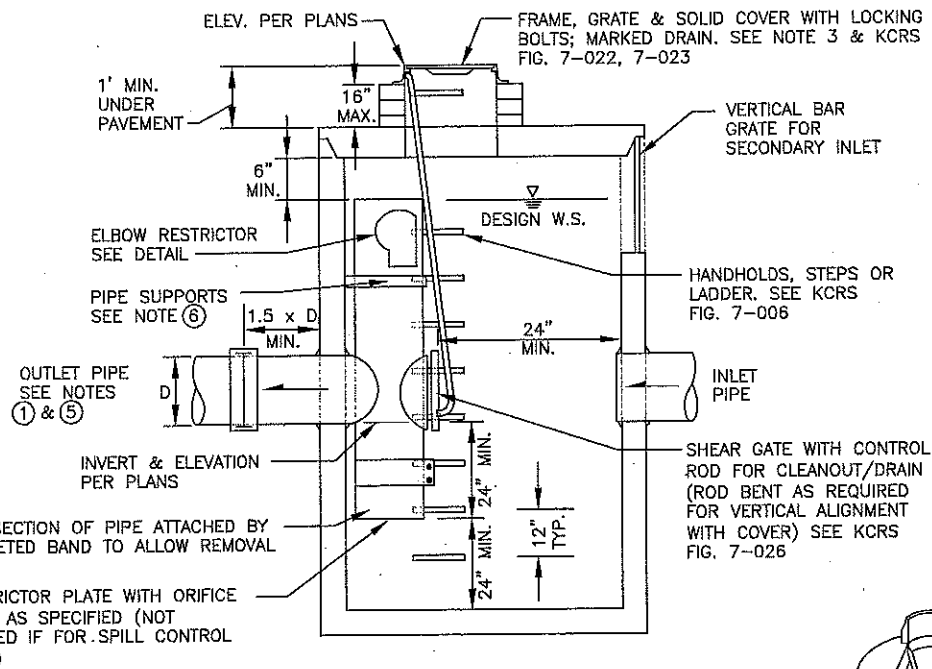
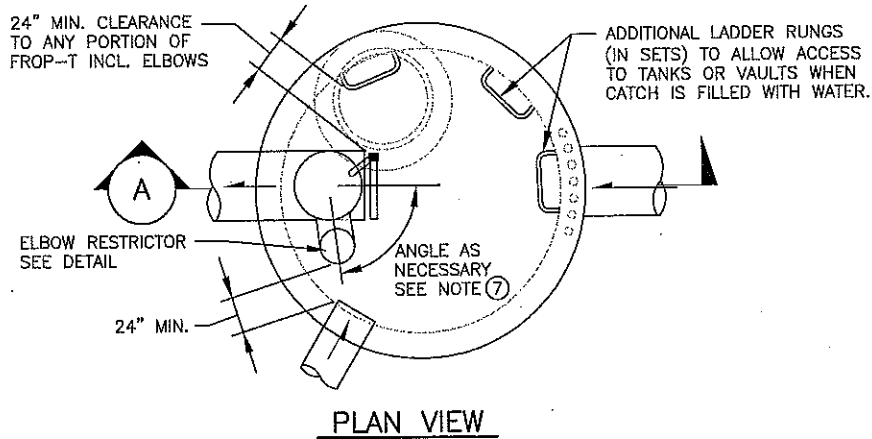
ROCK-LINED SHOULDER DITCH IN FILL SECTION



ROCK-LINE SHOULDER DITCH IN CUT SECTION

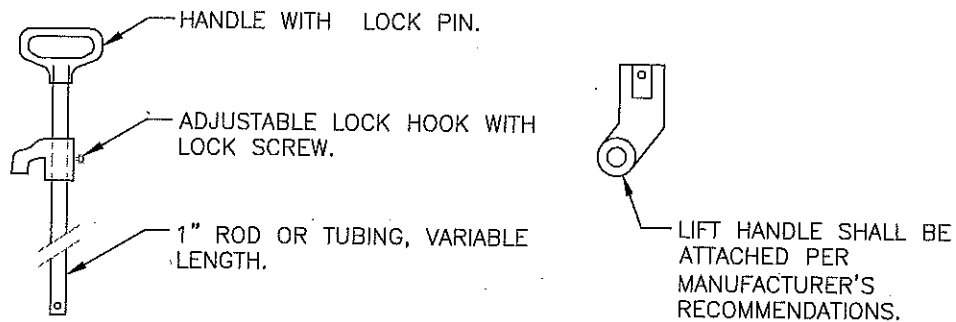
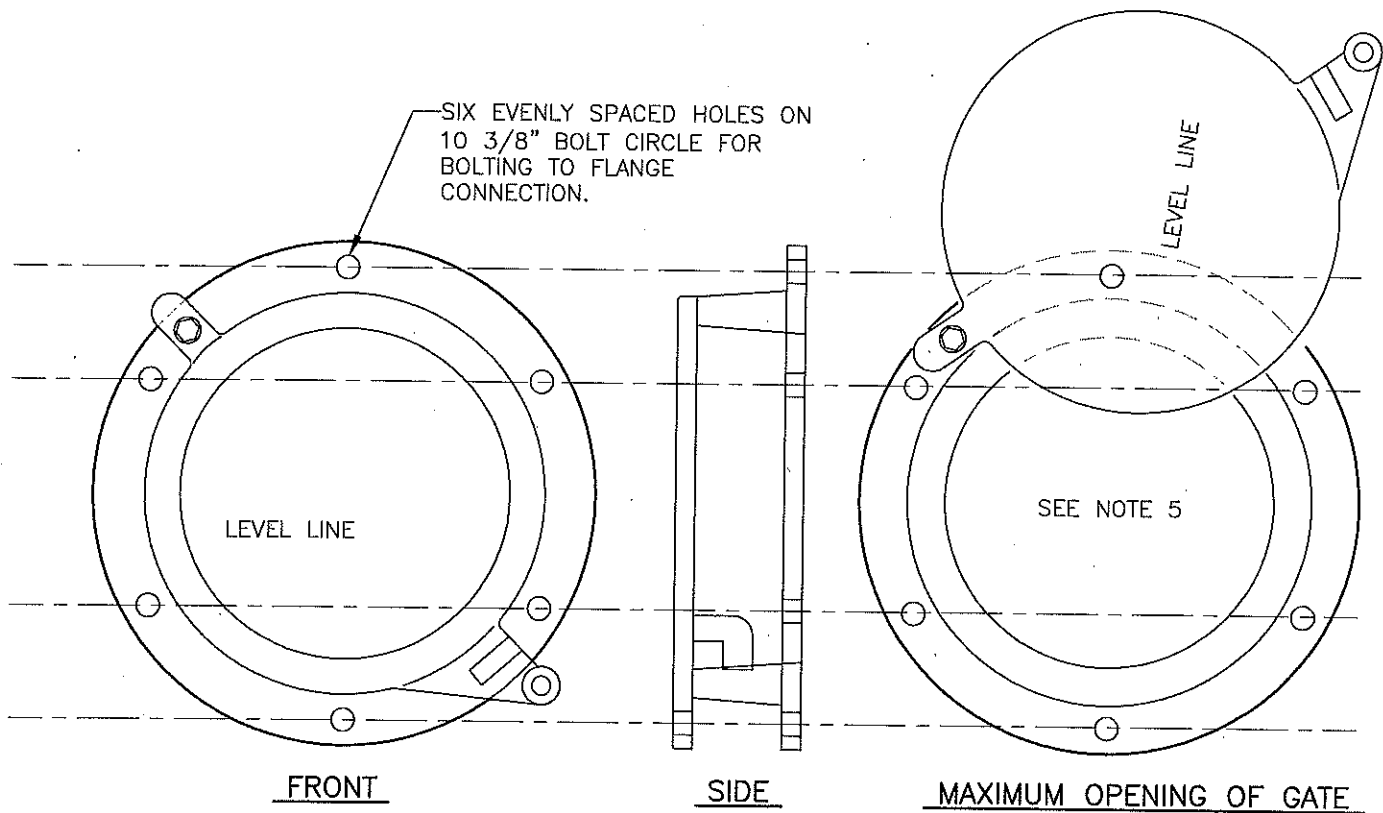
NOTES:

1. DEEPER ROCK FILL MAY BE SPECIFIED.
2. SEE SEC. 7.02.



NOTES:

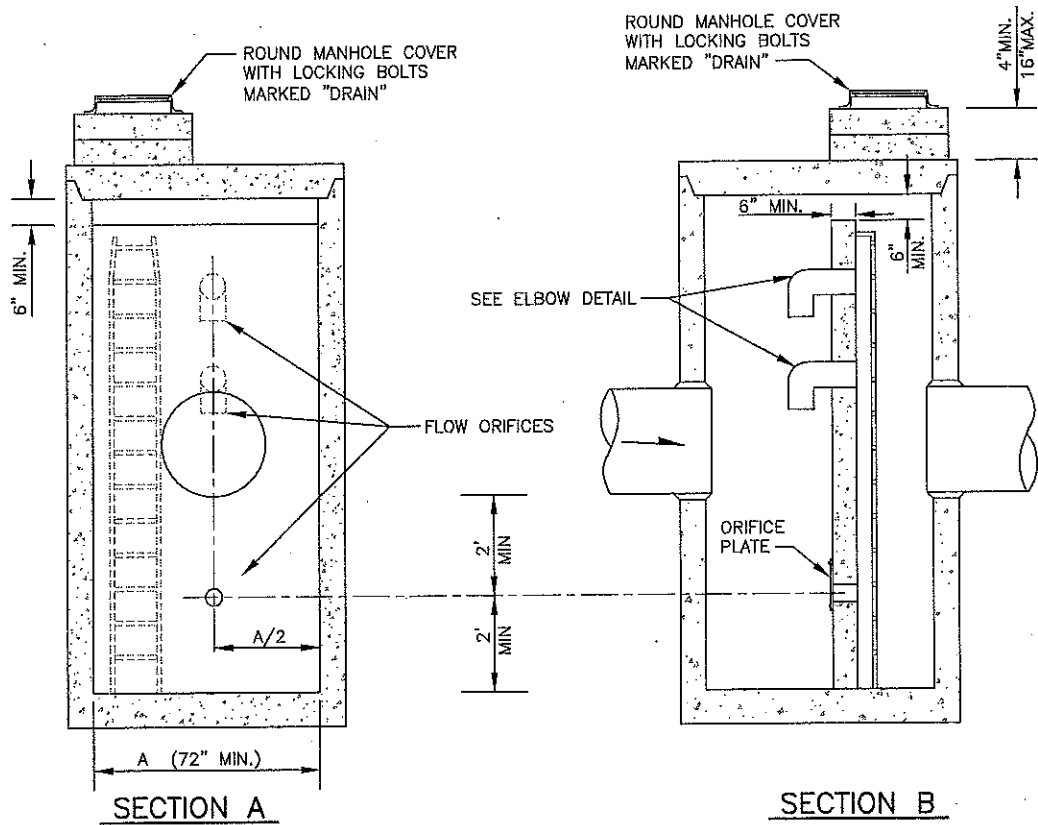
- ① USE A MINIMUM 54 IN. DIAM. TYPE 2 CATCH BASIN.
- ② OUTLET CAPACITY: 100-YEAR DEVELOPED PEAK FLOW.
- 3. METAL PARTS: CORROSION RESISTANT. NON-GALVANIZED PARTS PREFERRED. GALVANIZED PIPE PARTS TO HAVE ASPHALT TREATMENT 1.
- 4. FRAME AND LADDER OR STEPS OFFSET SO:
 - A. CLEANOUT GATE IS VISIBLE FROM TOP;
 - B. CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE;
 - C. FRAME IS CLEAR OF CURB.
- ⑤ IF METAL OUTLET CONNECTS TO CEMENT CONCRETE PIPE, OUTLET PIPE TO HAVE SMOOTH O.D. EQUAL TO CONCRETE PIPE I.D. LESS 1/4 IN.
- ⑥ PROVIDE AT LEAST ONE 3 X 0.090 GAUGE SUPPORT BRACKET ANCHORED TO CONCRETE WALL WITH 5/8 IN. STAINLESS STEEL EXPANSION BOLTS OR EMBEDDED SUPPORTS 2 IN. INTO M/H WALL (VERTICAL SPACING).
- ⑦ LOCATE ELBOW RESTRICTOR(S) AS NECESSARY TO PROVIDE MIN. CLEARANCE AS SHOWN.
- 8. LOCATE ADDITIONAL LADDER RUNGS IN STRUCTURES USED AS ACCESS TO TANKS OR VAULTS TO ALLOW ACCESS WHEN CATCH BASIN IS FILLED WITH WATER.
- 9. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.



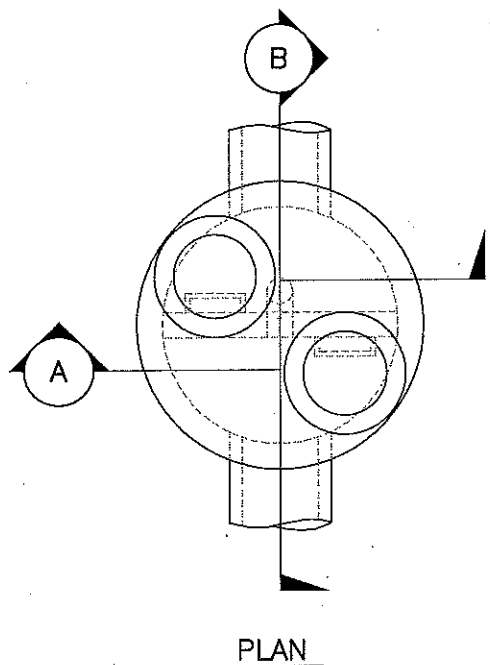
LIFT HANDLE

NOTES:

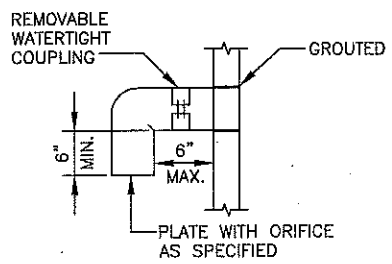
1. SHEAR GATE SHALL BE ALUMINUM ALLOY PER ASTM B-26-ZG-32a OR CAST IRON ASTM A48 CLASS 30B AS REQUIRED.
2. GATE SHALL BE 8 IN. DIAM. UNLESS OTHERWISE SPECIFIED.
3. GATE SHALL BE JOINED TO TEE SECTION BY BOLTING (THROUGH FLANGE), WELDING, OR OTHER SECURE MEANS.
4. LIFT ROD: AS SPECIFIED BY MFR. WITH HANDLE EXTENDING TO WITHIN ONE FOOT OF COVER AND ADJUSTABLE HOOK LOCK FASTENED TO FRAME OR UPPER HANDHOLD.
5. GATE SHALL NOT OPEN BEYOND THE CLEAR OPENING BY LIMITED HINGE MOVEMENT, STOP TAB, OR SOME OTHER DEVICE.
6. NEOPRENE RUBBER GASKET REQUIRED BETWEEN RISER MOUNTING FLANGE AND GATE FLANGE.
7. MATING SURFACES OF LID AND BODY TO BE MACHINED FOR PROPER FIT.
8. FLANGE MOUNTING BOLTS SHALL BE 3/8 IN. DIAM. STAINLESS STEEL.
9. ALTERNATE CLEANOUT/SHEAR GATES TO THE DESIGN SHOWN ARE ACCEPTABLE, PROVIDED THEY MEET THE MATERIAL SPECIFICATIONS ABOVE AND HAVE A SIX BOLT, 10 3/8 IN. BOLT CIRCLE FOR BOLTING TO THE FLANGE CONNECTION.
10. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.



ELEVATION



PLAN

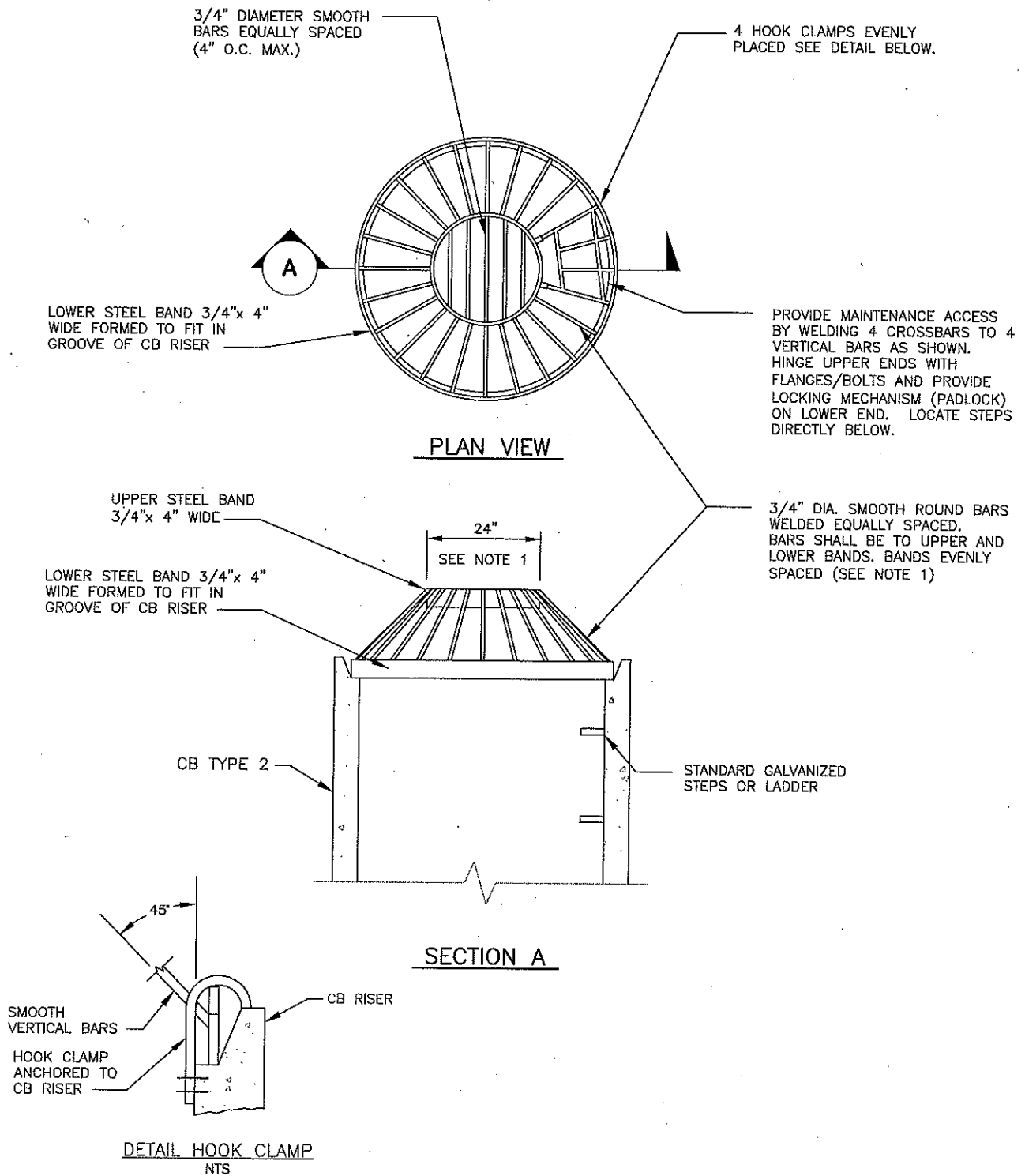


ELBOW DETAIL

NOTES:

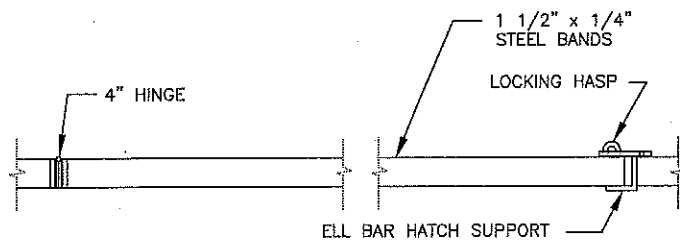
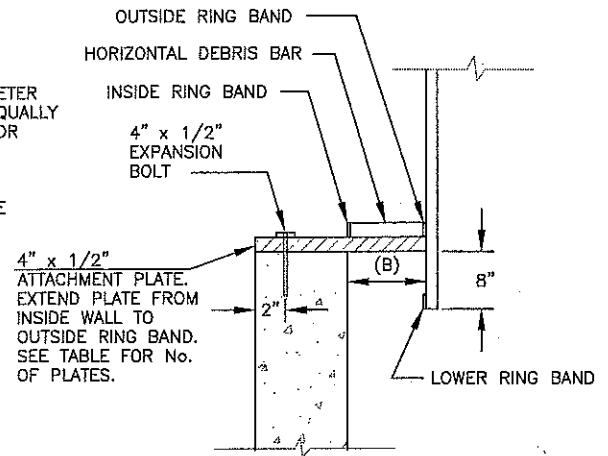
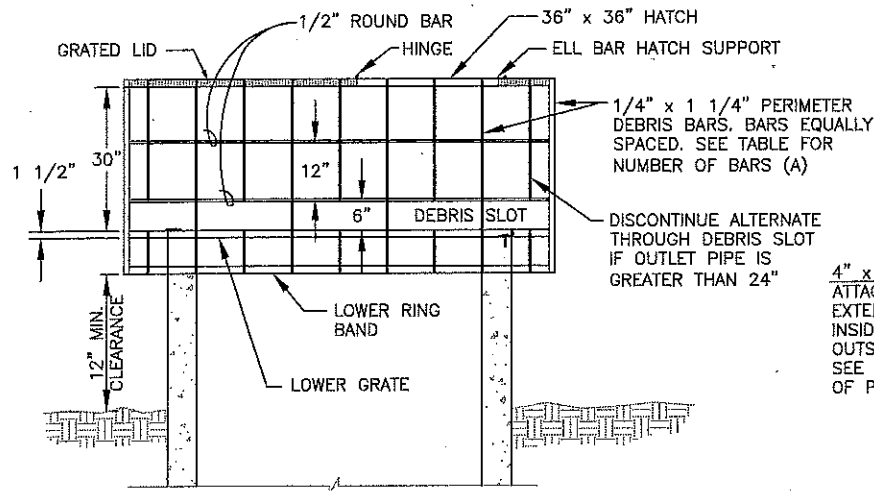
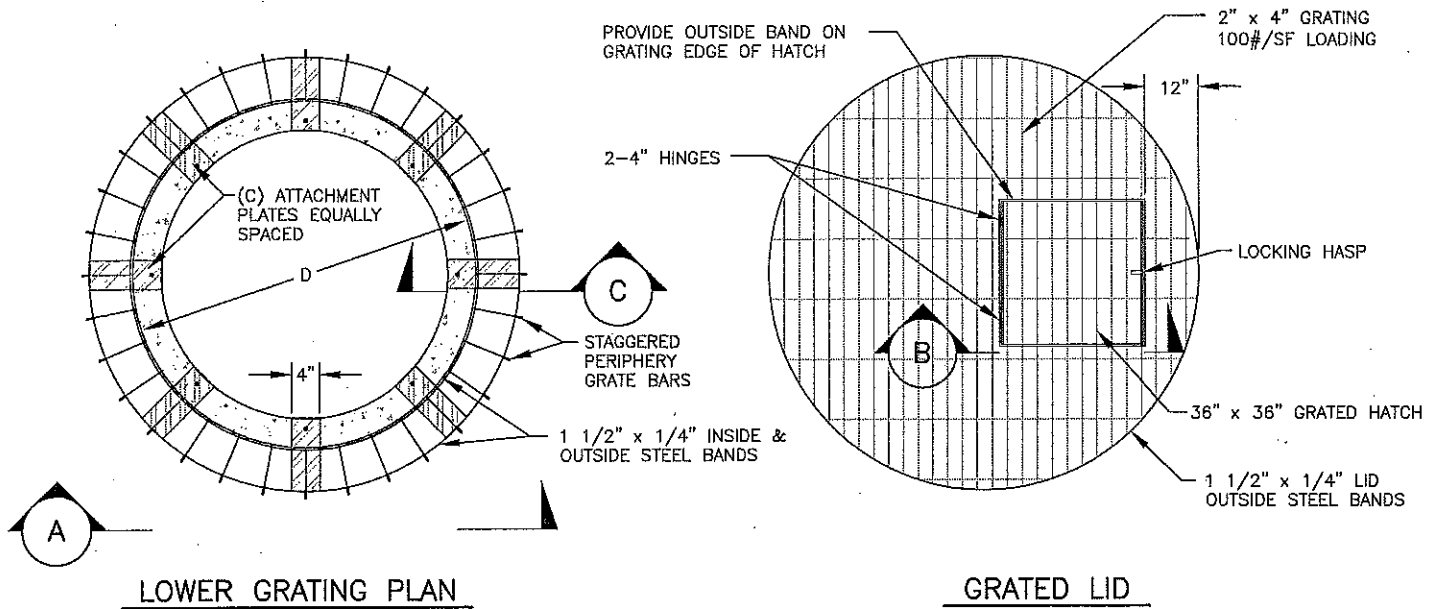
1. PIPE SIZE, SLOPES AND ALL ELEVATIONS: PER PLANS.
2. OUTLET CAPACITY: NOT LESS THAN COMBINED INLETS.
3. CATCH BASIN: TYPE 2, TO BE CONSTRUCTED IN ACCORDANCE WITH FIG. 7-005 AND AASHTO M199 UNLESS OTHERWISE SPECIFIED.
4. COVERS: ROUND, SOLID MARKED "DRAIN," WITH LOCKING BOLTS SEE FIG. 7-022 AND 7-023.
5. ORIFICES: SIZED AND LOCATED AS REQUIRED, WITH LOWEST ORIFICE MIN. 2 FT. FROM BASE.
6. BAFFLE WALL SHALL HAVE #4 BAR AT 12 IN. SPACING EACH WAY.
7. PRECAST BAFFLE WALL SHALL BE KEYED AND GROUTED IN PLACE.
8. BOTTOM ORIFICE PLATE TO BE 1/4 IN. MIN. NON-GALVANIZED CORROSIVE RESISTANT MATERIAL AND ATTACHED WITH 1/2 IN. STAINLESS STEEL BOLTS. OMIT ORIFICE PLATE IF ONLY FOR OIL SEPARATION.
9. UPPER FLOW ORIFICE SHALL BE ALUMINUM, ALUMINIZED STEEL OR GALVANIZED STEEL. SEE FIG. 7-025. NON GALVANIZED CORROSIVE RESISTANT MATERIAL SHALL HAVE TREATMENT 1.
10. SEE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR THE METAL CASTINGS REQUIREMENTS.





NOTES:

1. DIMENSIONS ARE FOR ILLUSTRATION ON 54 IN. DIAMETER CB. FOR DIFFERENT DIAMETER CB'S, ADJUST TO MAINTAIN 45 DEGREE ANGLE ON "VERTICAL" BARS AND 7 IN. O.C. MAXIMUM SPACING OF BARS AROUND LOWER STEEL BAND.
2. METAL PARTS MUST BE CORROSION RESISTANT, STEEL BARS MUST BE GALVANIZED.
3. THIS DEBRIS BARRIER IS ALSO RECOMMENDED FOR USE ON THE INLET TO ROADWAY CROSS-CULVERTS WITH HEIGHT POTENTIAL FOR DEBRIS COLLECTION (EXCEPT ON TYPE 2 STREAMS)
4. USE OF THIS STRUCTURE WITHIN THE ROAD RIGHT-OF-WAY SHALL MEET THE MINIMUM CLEAR ZONE REQUIREMENTS.
5. SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.



NOTES:

- ALL PARTS OF THE CAGE SHALL BE GALVANIZED STEEL AND JOINTS WELDED. IN ADDITION WERE SPECIFIED. DEBRIS CAGE SHALL BE SHOP PAINTED FLAT BLACK. WHERE PAINTING IS SPECIFIED PRE-TREAT GALVANIZED METAL PER MIL-P-15328 THEN FINISH WITH FLAT BLACK ETCHING PRIMER 2 MILS DRY.
- UNLESS INDICATED OTHERWISE, ALL BANDS AND BARS SHALL BE 1 1/2" x 1/4".
- GRATED LID SHALL BE CONSTRUCTED TO WITHSTAND A 100 PSF LOADING.
- SEE THE WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9-05.15 FOR METAL CASTINGS REQUIREMENTS.

TABLE OF VARIABLES

CB DIA. INSIDE	No. OF BARS (A)	(B)	No. OF ATTACHED- MENT PLATES (C)	(D)
48"	26	8"	4	60"
54"	29	8"	6	67"
60"	32	10"	6	74"
72"	39	12"	8	88"
96"	50	12"	8	116"

