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100 SERIES: GENERAL INFORMATION

DETAIL	TITLE
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100Q-2	INDEX
101Q-1	GENERAL NOTES
101Q-2	GENERAL NOTES
103Q-1	WATER PLAN GENERAL NOTES
103Q-2	WATER PLAN GENERAL NOTES
104Q-1	WASTEWATER PLAN GENERAL NOTES
105Q-1	GRADING AND DRAINAGE NOTES
105Q-2	EROSION AND SEDIMENTATION CONTROL NOTES
106Q-1	SIGNING AND STRIPING NOTES
106Q-2	TRAFFIC SIGNAL NOTES
106Q-3	PAVING NOTES
120Q	SURVEY MARKER
130Q-1	END OF ROAD BARRICADES - TYPE 'A' AND TYPE 'B'
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134Q-1	MAILBOX
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140Q	BOLLARD
145Q	SAFETY RAIL
160Q	SINGLE FAMILY SITE EROSION CONTROL PLAN
170Q	BASE MOUNTED LUMINAIRE
171P	ARCHITECTURAL LUMINAIRE
173P	ANTIQUE STREETLIGHT FOUNDATION

200 SERIES: STREET INFORMATION

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200Q-1	TRENCH BACKFILL AND SURFACE REPLACEMENT
200Q-2	TRENCH BACKFILL AND SURFACE REPLACEMENT
201Q	THICKENED EDGE PAVEMENT SECTION
210Q	SPEED HUMP
212Q	SOFT DIG POTHOLE REPAIR
213Q-1	MICRO-TRENCHING 2" WIDE AND LESS
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213Q-3	MICRO-TRENCHING NOTES
213Q-4	MICRO-TRENCHING NOTES
213Q-5	MICRO-TRENCHING NOTES
213Q-6	MICRO-TRENCHING NOTES
220Q-1	CURB AND GUTTER TYPES A & B
220Q-2	CURB AND GUTTER TYPES C, D & E
221Q	CURB AND GUTTER TRANSITION TYPE 'A' TO TYPE 'C' & INTEGRAL ROLL CURB AND SIDEWALK
222Q	SINGLE CURB - TYPES A, B AND TERMINATIONS
230Q	SIDEWALKS
231Q-1	LOCAL STREET SIDEWALK RAMP
231Q-2	STREET SIDEWALK RAMP & TRAIL TIE-IN
232Q	DIRECTIONAL SIDEWALK RAMPS
233Q-1	MIDBLOCK DETACHED SIDEWALK RAMP
233Q-2	MIDBLOCK ATTACHED SIDEWALK RAMP
235Q	TYPICAL CURB RAMP REPLACEMENT
240Q	6' VALLEY GUTTER AND SPANDRELS
250Q-1	DRIVEWAY ENTRANCE WITH DETACHED SIDEWALK
250Q-2	DRIVEWAY ENTRANCE WITH ATTACHED SIDEWALK
251PV	3' ROLL CURB DRIVEWAY
252Q	RETURN TYPE DRIVEWAY
255P	DRIVEWAY SECTION
270Q	8" FRAME AND COVER
275Q	UTILITY CASING

300 SERIES: WATER INFORMATION

DETAIL	TITLE
301Q	VALVE BLOCKING
303Q-1	JOINT RESTRAINT FOR DUCTILE IRON PIPE WATER PIPES
303Q-2	JOINT RESTRAINT FOR DUCTILE IRON PIPE WATER PIPES
303Q-3	REVERSE THRUST BLOCK ACP
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310PV-1	⅝" THROUGH 1" METER BOX APPLICATIONS
310PV-2	1½" THROUGH 2" METER BOX APPLICATIONS
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310PV-4	1½" TO 2" WATER SERVICE CONNECTIONS
316P-1	1" TO 2" WATER SERVICE CONNECTIONS
316P-2	1" TO 2" WATER SERVICE CONNECTION NOTES
317Q-1	1" AIR VACUUM RELEASE VALVE ASSEMBLY
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319Q-1	TRACER WIRE AND DETECTABLE WARNING TAPE
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321Q	LARGE METER AND VAULT
323Q-1	PRESSURE REDUCING VALVE STATION
323Q-2	PRESSURE REDUCING VALVE STATION
324Q-1	BACKFLOW PREVENTION ASSEMBLY NSTALLATION 3" AND UNDER
324Q-2	BACKFLOW PREVENTION ASSEMBLY NSTALLATION 4" OR LARGER
340Q-1	TAPPING SLEEVES AND VALVES
340Q-2	EXPOSING WATER MAIN FOR HOT TAP
346Q	FIRE LINE DETECTOR CHECK VALVES
360Q	FIRE HYDRANT INSTALLATION
362Q	LOCATIONS FOR NEW FIRE HYDRANTS
363Q	FIRE HYDRANT VERTICAL DEFLECTION
364Q	FIRE HYDRANT PROTECTION POLES
365Q-1	FIRE DEPARTMENT CONNECTION
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370Q	VERTICAL REALIGNMENT OF WATER MAINS
390PV-1	BLOW OFF
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390P	BLOW OFF
391Q	VALVE BOX
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QUAD CITY STANDARD DETAIL	INDEX	REVISED: 11/18/2025	DETAIL No. 100Q-1

396Q UTILITY ABANDONMENT IN PLACE

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400 SERIES: SEWER INFORMATION

DETAIL	TITLE
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405Q	BROKEN SEWER LINE REPLACEMENT
412Q	VAULT STEPS
414P	SEWER TAP MAIN EXPOSURE NEW SERVICE
416Q	SANITARY FORCE MAIN AIR/VACUUM RELEASE VALVE
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426Q-1	INSIDE DROP MANHOLE
426Q-2	BEAVER SLIDE MANHOLE
440P-1	SEWER SERVICE LATERAL GREATER THAN 2 FEET DEEP
440P-2	SEWER SERVICE LATERAL 2 FEET DEEP OR LESS
440P-3	BACKWATER VALVE
440PV-1	SANITARY SEWER TAP SADDLE
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441Q	SEWER MAIN LINE CLEANOUT
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444Q-1	SEWER AND STORM DRAIN CLEANING
444Q-2	SEWER AND STORM DRAIN CLEANING
445Q-1	TELEVISION INSPECTION
445Q-2	TELEVISION INSPECTION
445Q-3	TELEVISION INSPECTION
445Q-4	TELEVISION INSPECTION
446PV-1	CONSHIELD ADDITIVE
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500 SERIES: IRRIGATION & STORM DRAIN

DETAIL	TITLE
523PV-3	CMP MANHOLE ACCESS RISER
523PV-6	INLET DROP STRUCTURE
556PV	HYDROSEED REQUIREMENTS

600 SERIES: TRAFFIC ENGINEERING

DETAIL	TITLE
600Q	INTERSECTION APPROACH TYPICAL SECTION
601Q	RURAL LOCAL RESIDENTIAL X-SECTION
602Q	LOCAL RESIDENTIAL X-SECTION
603Q	RESIDENTIAL COLLECTOR X-SECTION
604Q	COMMERCIAL/INDUSTRIAL COLLECTOR X-SECTION
605Q-1	MINOR ARTERIAL X-SECTION
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606Q	MAJOR ARTERIAL X-SECTION
610Q	PRIVATE GATED ACCESS AT PUBLIC ROADWAY
611Q	INTERSECTION SIGHT VISIBILITY TRIANGLES
612Q	UTILITY ACCESS ROAD
614Q	FIRELANE ACCESS
620Q-1	CUL-DE-SAC FOR 50' R.O.W. STREET
620Q-2	CUL-DE-SAC FOR 60' R.O.W. STREET
621Q-1	OFFSET CUL-DE-SAC FOR 50' R.O.W. STREET
621Q-2	OFFSET CUL-DE-SAC FOR 60' R.O.W. STREET
622Q-1	KNUCKLE FOR 50' R.O.W.
622Q-2	KNUCKLE FOR 60' R.O.W.
630Q	PAINTED CROSSWALK AT INTERSECTION
631Q	STANDARD CROSSWALK MARKINGS
632Q	STOP MARKINGS
634Q	PAVEMENT MARKINGS
640Q	TRAFFIC SIGNAL INTERCONNECT CONDUIT INSTALLATION
650Q-1	RIGHT-IN/RIGHT-OUT ACCESS
650Q-2	RIGHT-IN/RIGHT-OUT ACCESS SUGGESTED SIGNAGE

700 SERIES:SOLID WASTE

DETAIL	TITLE
701Q-1	SINGLE-WIDE BIN ENCLOSURES
701Q-2	DOUBLE AND TRIPLE-WIDE BIN ENCLOSURES
702Q	SCREEN WALL DETAIL
702P	SOLID WASTE CART REPLACEMENT MARKER

1. ALL CONSTRUCTION SHALL CONFORM TO MARICOPA ASSOCIATION OF GOVERNMENTS (MAG), & QUAD CITY SUPPLEMENT TO MAG, (LATEST REVISIONS), UNLESS SPECIFICALLY APPROVED BY THE AGENCY AND MODIFIED ON THE PLANS.

2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COPIES OF MAG AND QUAD CITY SUPPLEMENT, AS WELL AS ALL OTHER STANDARDS AND SPECIFICATIONS NECESSARY TO COMPLETELY AND ACCURATELY INTERPRET THESE PLANS.

3. ALL PLANS ACCEPTED FOR CONSTRUCTION BY THE AGENCY ARE NULL AND VOID ONE YEAR FROM DATE OF SIGNATURE IF CONSTRUCTION HAS NOT STARTED. RESUBMITTAL AND REVIEW SHALL BE REQUIRED, AFTER ONE YEAR OF INACTIVITY.

4. ALL QUANTITIES SHOWN ON THE PLANS HAVE NOT BEEN VERIFIED BY THE CITY. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES AND MAKE THEIR BID BASED UPON THOSE VERIFICATIONS. IF A QUANTITY OR ITEM OF WORK DISCREPANCY IS FOUND, THE CONTRACTOR SHALL NOTIFY THE CITY IMMEDIATELY. THE CONTRACTOR SHALL NOT BE RELIEVED OF THEIR RESPONSIBILITY FOR INDEPENDENTLY ESTIMATING WORK QUANTITIES PRIOR TO BIDDING.

5. THE CONTRACTOR SHALL PROVIDE SUFFICIENT MEN, EQUIPMENT, & MATERIAL ON THE JOB AT ALL TIMES DURING CONSTRUCTION TO COMPLY WITH CONTRACT DOCUMENTS & TO COMPLETE THE WORK IN ACCORDANCE WITH CONTRACT LIMITS.

6. THE OWNER IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS REQUIRED TO COMPLETE ALL WORK COVERED BY THESE PLANS. A SEPARATE PERMIT WILL BE REQUIRED FOR ANY CONSTRUCTION EXTENDING BEYOND THE CONSTRUCTION SITE PROPERTY BOUNDARY. A RIGHT-OF-WAY (ROW) PERMIT AND TRAFFIC CONTROL PLAN PER SECTION WILL BE REQUIRED FOR ALL CONSTRUCTION WITHIN PUBLIC ROW AND EASEMENTS.

7. NO STREET IS TO BE CLOSED, RESTRICTED, OR CONSTRUCTED UPON UNTIL A TRAFFIC CONTROL PLAN IS PREPARED BY THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR SUBMITTING A TRAFFIC CONTROL PLAN TO THE AGENCY AS NEEDED TO PERFORM CONSTRUCTION ACTIVITIES. SUBMITTAL SHALL BE MADE AT LEAST FIVE WORKING DAYS (EXCLUDING HOLIDAYS) PRIOR TO COMMENCEMENT OF CONSTRUCTION. CONSTRUCTION CANNOT BEGIN UNTIL AGENCY APPROVAL OF THE PLAN IS GRANTED. THE DYNAMIC NATURE OF TRAFFIC RELATED ACTIVITIES MAY REQUIRE MODIFICATION OF AN APPROVED PLAN BASED ON AGENCY ANALYSIS. IF SO, THE CONTRACTOR WILL MODIFY THE TRAFFIC CONTROL PLAN AT NO EXPENSE TO THE AGENCY.

8. APPROPRIATE EMERGENCY AGENCIES SHALL BE NOTIFIED A MINIMUM OF 24 HOURS PRIOR TO ANY CLOSING OF STREETS.

9. CONTRACTOR SHALL NOTIFY AGENCY AT LEAST 72 HOURS (3 WORKING DAYS) PRIOR TO START OF CONSTRUCTION TO SCHEDULE CONSTRUCTION INSPECTION. PRIVATE DEVELOPMENTS SHALL PROVIDE FOR INDEPENDENT 3RD PARTY INSPECTIONS. CITY/TOWN ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS (2 WORKING DAYS) PRIOR TO START OF CONSTRUCTION.

10. ANY WORK PERFORMED WITHOUT THE KNOWLEDGE AND APPROVAL OF THE AGENCY OR ITS REPRESENTATIVE AND/OR ALL WORK MATERIALS NOT IN CONFORMATION WITH THE PLANS AND SPECIFICATIONS IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S SOLE EXPENSE.

11. A THOROUGH ATTEMPT HAS BEEN MADE TO SHOW THE LOCATION OF ALL UNDERGROUND OBSTRUCTIONS AND UTILITY LINES IN THE WORK AREA. THE CITY/TOWN ENGINEER AND THE AGENCY DO NOT GUARANTEE THE EXACT LOCATIONS OR ELEVATIONS OF ANY EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR MAKING A COMPLETE AND ACCURATE ON-SITE DETERMINATION OF THE LOCATIONS, MATERIAL, AND SIZE OF ALL UTILITIES, STRUCTURES, AND FIELD CONDITIONS WHICH MAY AFFECT THE PROGRESS OF THE WORK. THE CONTRACTOR SHALL FIELD EXPOSE EXISTING UNDERGROUND UTILITIES PRIOR TO TRENCHING IN THEIR VICINITY AND WILL BE RESPONSIBLE FOR ANY DAMAGE TO STRUCTURES AND UTILITIES ENCOUNTERED DURING CONSTRUCTION.

12. THE CONTRACTOR IS REQUIRED TO CONTACT ARIZONA 811 (1-800-STAKE-IT) A MINIMUM OF TWO WORKING DAYS (48) HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE APPROPRIATE UTILITY COMPANIES SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE RELOCATION AND/OR SUPPORT OF ALL UTILITIES, POWER POLES, ETC., THAT MAY BE NECESSARY TO FACILITATE CONSTRUCTION.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION SURVEYING AND LAYOUT WITH CONTROL PROVIDED BY THE DESIGN ENGINEER OR THEIR DESIGNEE.

15. THE CONTRACTOR IS RESPONSIBLE FOR QUALITY CONTROL MEASURES SUFFICIENT TO PRODUCE MATERIALS AND WORKMANSHIP OF ACCEPTABLE QUALITY. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL SUBMIT A QUALITY CONTROL PLAN. THE CONTRACTOR AT THEIR OWN EXPENSE SHALL PROVIDE AN INDEPENDENT GEOTECHNICAL FIRM TO PERFORM QUALITY CONTROL TESTING SUCH AS SOILS AND CONCRETE TESTING, AND FULL TIME ASPHALTIC CONCRETE LAYDOWN COMPACTION TESTING AND ADEQUATE PLANT CONTROL FOR EACH PAVING DAY. THE CITY, BY SEPARATE CONTRACT, MAY BE RESPONSIBLE FOR QUALITY ASSURANCE TESTING AS IT MAY DEEM NECESSARY.

16. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS OF TESTING AND INSPECTION, INCLUDING THE PRESENCE OF CITY INSPECTORS, REQUIRED AT NIGHT OR ON WEEKENDS.

17. ALL WORK & MATERIALS WHICH DO NOT CONFORM TO THE CONTRACT DOCUMENTS ARE SUBJECT TO REMOVAL & REPLACEMENT AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RE-WORK AND/OR REMOVAL AND REPLACEMENT OF ALL MATERIALS REPRESENTED BY FAILING TESTS OR SUBSTANDARD WORKMANSHIP. THE CONTRACTOR SHALL IMPLEMENT BEST-MANAGEMENT PRACTICES, AND EROSION AND SEDIMENT CONTROL MEASURES, TO PREVENT THE TRANSPORT OF CONSTRUCTION MATERIALS INTO DRAINAGE INLETS, STORM DRAIN MANHOLES, UTILITY STRUCTURES, OR ONTO ADJACENT STREETS AND PROPERTIES.

18. APPROVAL OF A PORTION OF THE WORK IN PROGRESS DOES NOT GUARANTEE ITS FINAL ACCEPTANCE. TESTING AND EVALUATION MAY CONTINUE UNTIL THE WRITTEN FINAL ACCEPTANCE OF A COMPLETE AND WORKABLE UNIT.

19. THE AGENCY MAY SUSPEND THE WORK BY WRITTEN NOTICE WHEN, IN ITS JUDGEMENT, PROGRESS IS UNSATISFACTORY, WORK BEING DONE IS UNAUTHORIZED OR DEFECTIVE, WEATHER CONDITIONS ARE UNSTABLE, OR THERE IS A DANGER TO THE PUBLIC HEALTH AND SAFETY.

20. ALL REVISIONS TO ORIGINAL PLANS MUST BE APPROVED BY THE AGENCY PRIOR TO CONSTRUCTION. ANY UNAPPROVED REVISIONS ARE SUBJECT TO REMOVAL & REPLACEMENT AT CONTRACTOR'S EXPENSE.

21. ALL OBSTRUCTIONS IN THE RIGHT OF WAY SHALL BE REMOVED BEFORE ANY CONSTRUCTION IS PERMITTED.

22. REMOVAL OF STRUCTURES AND OBSTRUCTIONS AS NECESSARY TO COMPLETE THE WORK, OTHER THAN SPECIFICALLY SCHEDULED IN THE BID, IS INCIDENTAL TO THE CONTRACT. NO SEPARATE MEASUREMENT OF OR PAYMENT FOR UNSCHEDULED REMOVAL ITEMS WILL BE MADE.

23. THE SITE OF ALL EXCAVATION, EMBANKMENTS, AND FILLS SHALL FIRST BE CLEARED OF STUMPS, TRASH, WEEDS, RUBBISH, TOPSOIL, AND LOOSE BOULDERS WHICH SHALL BE REMOVED AND LEGALLY DISPOSED OF. CLEARING AND GRUBBING IS CONSIDERED INCIDENTAL TO THE WORK UNLESS SPECIFICALLY IDENTIFIED IN THE BID SCHEDULE. NO SEPARATE MEASUREMENT OF OR PAYMENT FOR CLEARING AND GRUBBING, TREE REMOVAL AND OTHER UNSUITABLE SURFACE MATERIALS, WILL BE MADE. PRIOR TO BIDDING THE CONTRACTOR MUST VERIFY THEMSELVES REGARDING THE CHARACTER OF THE SUBSOILS TO INCLUDE THE AMOUNT OF LOAM, CLAY, SAND, QUICKSAND, HARDPAN, GRAVEL, ROCK, WATER, AND ALL OTHER MATERIAL TO BE ENCOUNTERED AND WORK TO BE PERFORMED.

24. THE CONTRACTOR SHALL GUARD AGAINST DAMAGE DURING CONSTRUCTION TO EXISTING PROPERTIES AND IMPROVEMENTS. ANY ITEMS DAMAGED BY THE CONTRACTOR'S ACTIVITIES SHALL BE REPLACED IN KIND OR BETTER AT THE CONTRACTOR'S EXPENSE, UNLESS SPECIFICALLY SCHEDULED IN THE BID.

25. THE CONTRACTOR SHALL KEEP SUITABLE EQUIPMENT ON HAND AT THE JOBSITE FOR MAINTENANCE DUST CONTROL, AND SHALL CONTROL DUST AS DIRECTED BY THE APPROPRIATE AGENCY.

26. STREET AND TRAFFIC SIGNS SHALL BE RELOCATED BY THE CONTRACTOR IF NECESSARY, AT THE DIRECTION OF THE AGENCY

27. BACKFILL COMPACTION SHALL BE TYPE 1 (MAG, SECTION 601) UNLESS OTHERWISE NOTED.

28. ACCEPTANCE OF THE COMPLETED WORK WILL NOT BE GIVEN UNTIL 'AS-BUILT' PLANS ON APPROVED SURVEY DATUM & COORDINATES HAVE BEEN SUBMITTED IN ACCORDANCE WITH AGENCY.

29. ALL CONCRETE TO BE AT LEAST 4000 PSI CLASS "AA" PORTLAND CEMENT CONCRETE PER MAG AND THE COP SUPPLEMENT, UNLESS OTHERWISE SPECIFIED ON THE PLANS, SPECIFICATIONS, OR IN STANDARD DETAILS.

30. EDGES OF CONCRETE STRUCTURES TO HAVE A 3/4" CHAMFER, UNLESS OTHERWISE SPECIFIED ON THE PLANS.

31. CONCRETE SURFACES TO HAVE A BROOM FINISH UNLESS OTHERWISE NOTED ON THE PLANS.

32. ALL EXPANSION JOINTS TO BE SEALED WITH 1/2" EXPANSION JOINT, PRE-FORMED JOINT FILLER AND SEALER, IN ACCORDANCE WITH MAG SECTION 729.

33. ALL DISTURBED FENCES SHALL BE REPLACED IN KIND UNLESS NOTED OTHERWISE. CONTRACTOR SHALL EXTEND FENCE REPLACEMENT TO THE CLOSEST UPRIGHT SUPPORT NECESSARY FOR STABILITY.

34. MAILBOXES SHALL BE REMOVED AND REINSTALLED AS DIRECTED BY THE U.S. POSTAL SERVICE AND THE AGENCY. TEMPORARY LOCATIONS SHALL BE PER U.S. POSTAL SERVICE.

35. NO JOB WILL BE CONSIDERED COMPLETE UNTIL ALL PIPES, STRUCTURES, CURBS, PAVEMENT, SIDEWALKS, MANHOLE COVERS, VALVES AND SURVEY MONUMENTS HAVE BEEN CLEANED OF ALL DIRT, DEBRIS, CONCRETE, ASPHALT AND ANY OTHER MATERIALS AS DETERMINED BY AGENCY INSPECTORS.

36. THE CONTRACTOR SHALL WARRANTY ALL WORK FOR A MINIMUM TWO YEAR PERIOD AFTER FORMAL ACCEPTANCE OF THE WORK BY THE AGENCY.

1. ALL WORK SHALL CONFORM TO MARICOPA ASSOCIATION OF GOVERNMENTS (MAG), CITY OF PRESCOTT,TOWN OF PRESCOTT VALLEY AND TOWN OF CHINO VALLEY(AGENCY), AND QUAD CITY STANDARD DETAILS (QCSD) CONSTRUCTION STANDARDS & SPECIFICATIONS AND DETAILS. WHEN IN CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL APPLY.

2. ALL WORK SHALL CONFORM TO ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) REQUIREMENTS. A SPECIFIC NOTE REFERENCING AAC R18-5-502, LATEST REVISION, MUST BE ON PLANS THAT WILL BE APPROVED BY ADEQ OR THEIR DELEGATED REVIEWER (YAVAPAI COUNTY). IF ADEQ CONFLICTS WITH THE CONTRACT DOCUMENTS, THE MORE STRINGENT REQUIREMENTS SHALL APPLY.

3. ALL MATERIALS, PRODUCTS & COMPONENTS THAT COME INTO CONTACT WITH POTABLE WATER OR POTABLE WATER TREATMENT CHEMICALS WILL COMPLY WITH ANSI / NATIONAL SANITATION FOUNDATION (NSF) STANDARD 61 AND BEAR THE ANSI / NSF STANDARD 61 SEAL AS REQUIRED BY AAC.

4. WATER MAIN TAPS, SERVICE TAPS, SHUTDOWN REQUESTS, AND METER REQUESTS MUST BE INITIATED WITH THE AGENCY INSPECTOR IN ACCORDANCE WITH AGENCY STANDARD OPERATING PROCEDURES. WATER SERVICE INTERRUPTION NOTICES SHALL BE GIVEN TO AFFECTED RESIDENTS BY THE CONTRACTOR AT HIS EXPENSE. ADVANCE NOTIFICATION REQUIREMENTS MUST BE APPROVED BY WATER OPERATIONS PRIOR TO SCHEDULING A SHUTDOWN.

5. VALVES SHALL ONLY BE OPERATED BY AGENCY DESIGNATED PERSONNEL.

6. THE CONTRACTOR SHALL UNCOVER ALL EXISTING LINES BEING TIED INTO AND VERIFY GRADES, MATERIAL, SIZE (O.D.) AND ELEVATIONS BEFORE COMMENCING CONSTRUCTION AND ORDERING MATERIALS.

7. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND PIPELINES, TELEPHONE & ELECTRICAL CONDUITS & STRUCTURES IN ADVANCE OF ANY CONSTRUCTION & MUST OBSERVE ALL POSSIBLE PRECAUTIONS TO AVOID ANY DAMAGE TO THE UTILITY. THE ENGINEER &/OR OWNER WILL NOT GUARANTEE ANY LOCATIONS AS SHOWN ON THESE PLANS, OR THOSE OMITTED FROM SAME.

8. WATER-SEWER SEPARATION SHALL BE PURSUANT TO ARIZONA ADMINISTRATIVE CODE (AAC) R18-5-502C AND APPLICABLE QCSD. CONCRETE ENCASEMENT OF WATER LINES IS NOT PERMITTED.

9. ALL TRENCHES & BEDDING SHALL BE PER QCSD 200Q-1 AND CONTRACT DOCUMENTS UNLESS OTHERWISE NOTED IN THE APPROVED PLANS.

10. WATER LINES SHALL BE INSTALLED WITH MECHANICAL RESTRAINTS WHEREVER JOINT RESTRAINTS ARE INDICATED BY CONTRACT DOCUMENTS.

11. ALL WATER LINES & APPURTENANCES SHALL BE EQUIPPED WITH TRACER WIRE PER QCSD 319Q-1.

12. ALL PIPELINE CONSTRUCTION SHALL BE PLUGGED WITH A MECHANICAL OR PNEUMATIC PLUG AT THE END OF THE WORK DAY. THE PLUG SHALL BE ADVANCED DURING THE DAYS WORK PROGRESS TO REMAIN WITHIN A REASONABLE DISTANCE AND TO BE USED IN THE EVENT OF TRENCH FLOODING TO MINIMIZE INFLOW OF DEBRIS INTO THE NEW SYSTEM.

13. IF FLOODING OF PIPELINE OCCURS ALL CONSTRUCTION SHALL CEASE UNTIL THE MAIN IS FLUSHED TO THE SATISFACTION OF THE AGENCY.

14. THE USE OF POLYETHYLENE PROTECTIVE WRAPPING 'POLYWRAP' SHALL BE PROHIBITED UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS. POLYWRAP, WHERE SPECIFIED, SHALL BE IN ACCORDANCE WITH MAG SECTION 610.6, 'POLYETHYLENE CORROSION PROTECTION'.

15. PER AAC R18-5-508, ALL QUALITY CONTROL TESTING SHALL BE PERFORMED BY THE CONTRACTOR AND OBSERVED BY THE ENGINEER OF RECORD (EOR) INCLUDING BUT NOT LIMITED TO MICROBIOLOGICAL, PRESSURE, AND DISINFECTION TESTING.

16. ALL WATER LINES SHALL BE SUBJECT TO A PRESSURE & LEAKAGE TEST IN ACCORDANCE WITH CONTRACT DOCUMENTS OR MAG SECTION 610 . TEST PRESSURE SHALL BE A MINIMUM OF 200 PSI OR 150 PERCENT OF THE WORKING PRESSURE, WHICHEVER IS GREATER. THE WORKING PRESSURE WILL BE BASED ON THE LOWEST ELEVATION/HIGHEST PRESSURE IN THE MAIN.

17. PRESSURE & LEAKAGE TESTS SHALL NOT BE PERFORMED AGAINST AN EXISTING SYSTEM VALVE.

18. WATER MAINS DISINFECTION TESTING:

    18.1 WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH ADEQ ENGINEERING BULLETIN NO. 8 'DISINFECTION OF WATER SYSTEMS'.

    18.2 DISINFECTION OF ALL COMPONENTS IS REQUIRED. A 25 PARTS PER MILLION (PPM) SODIUM HYPOCHLORITE SOLUTION MUST BE APPLIED TO ALL INTERIOR SURFACES INCLUDING VALVES, FLEX COUPLINGS, PIPE SEGMENTS OR OTHER INFRASTRUCTURE JUST PRIOR TO THEIR INSTALLATION.

    18.3 SYSTEM FLUSHING SHALL BE CONDUCTED FROM THE NEAREST FIRE HYDRANT, BLOWOFF ASSEMBLY, OR SIMILAR APPURTENANCE.

    18.4 DISCHARGE SHALL BE IN ACCORDANCE WITH AZDPES REGULATIONS.

19. WATER MAINS SHALL BE FLUSHED AT A MINIMUM OF 3 FT/SEC IN ACCORDANCE WITH AWWA C-605, SECTION 10 FOR ALL WATER MAIN MATERIALS.

20. HOT TAPS ARE AN EXCLUSIVE FUNCTION OF THE AGENCY OR THEIR DELEGATE. CONTRACTOR IS RESPONSIBLE FOR TRENCHING/CLEARANCE PER APPLICABLE SPECIFICATIONS AND DETAILS.

21. ACCEPTANCE OF THE COMPLETED WORK WILL NOT BE GIVEN UNTIL 'AS-BUILT' PLANS ON AGENCY SURVEY DATUM & COORDINATES HAVE BEEN SUBMITTED IN ACCORDANCE WITH GES AND APPROVED BY THE AGENCY.

22. CERTIFICATION FROM THE REGISTERED CIVIL ENGINEER AND/OR THE SOILS/GEOTECHNICAL ENGINEER STATING THAT THE ROUGH GRADING HAS BEEN COMPLETED PER THE APPROVED PLAN, AND A COMPACTION REPORT FROM THE SOILS ENGINEER ON ANY FILL AREAS SHALL BE PROVIDED PRIOR TO BUILDING PERMITS BEING ISSUED.

23. WATER MAINS SHALL BE INSTALLED TO MINIMUM AND MAXIMUM DEPTHS MEASURED FROM THE PROPOSED FINISHED GRADE TO TOP OF PIPE AS FOLLOWS:
    - 23.1 WATER MAIN SHALL HAVE A MINIMUM COVER OF FOUR (4') FEET
    - 23.2 PUBLIC WATER MAINS THAT ARE INSTALLED THROUGH UNDEVELOPED PROPERTY (I.E., LOCATIONS WHERE THE FINAL FINISHED GRADE ELEVATION IS NOT KNOWN, PARTICULARLY ALONG FUTURE STREET ALIGNMENTS), SHALL HAVE A MINIMUM COVER OF FIVE (5') FEET FROM THE EXISTING GRADES.
    - 23.3 SUBSEQUENT FILLS THAT PRODUCE A COVER DEPTH IN EXCESS OF SIX (6') FEET SHALL REQUIRE THE MAIN TO BE VERTICALLY REALIGNED WITHIN THE FOUR TO SIX (4'-6') FOOT ENVELOPE
    - 23.4 MAXIMUM COVER OVER WATER MAINS SHALL BE SIX (6') FEET, EXCEPT AT VERTICAL RE-ALIGNMENTS NECESSARY TO AVOID CONFLICTS WITH OTHER UTILITIES AND STORMDRAINS

QUAD CITY STANDARD DETAIL	WATER PLAN GENERAL NOTES	REVISED: 11/18/2025	DETAIL No. 103Q-1

24. A WATER METER SHALL BE APPROVED FOR INSTALLATION ONLY AFTER THE FOLLOWING CONDITIONS HAVE BEEN MET:

    24.1 APPROVAL TO OPERATE (ATO) OR ADEQ DOCUMENTATION SUBMITTED TO THE CITY/TOWN FROM THE ENGINEER OF RECORD (EOR).

    24.2 WATER INFRASTRUCTURE MUST HAVE BEEN INSPECTED AND APPROVED BY THE ENGINEER OF RECORD (EOR) AND THE AGENCY.

    24.3 WATER AND SEWER FEES MUST BE PAID.

    24.4 WATER METER BOXES AND METER SETTERS MUST RECEIVE A BUILDING INSPECTION THROUGH THE BUILDING PERMIT PROCESS. THE WATER SERVICE LINE BETWEEN THE METER AND THE STRUCTURE MUST EXTEND A MINIMUM OF 5-FEET AWAY FROM THE METER IN ORDER TO RECEIVE THE INSPECTION.

    24.5 ONCE THE WATER METER HAS BEEN SET, NO DISTURBANCE OF THE METER, LINE SETTER, BOX OR GROUND WITHIN 5-FEET SHALL OCCUR. ANY DISTURBANCE TO THE METER, METER BOX, OR LINE SETTER WILL RESULT IN DAMAGE AND/OR TAMPERING FEE PER AGENCY ACCOUNT REGULATIONS.

    24.6 APPROVED BACKFLOW PROTECTION HAS BEEN INSTALLED IF REQUIRED PER AGENCY CODE AND APPLICABLE DETAILS.

25. WATER LINE SERVICES UP TO AND INCLUDING THE METER, METER BOX, AND TRANSITION FITTING ON THE DISCHARGE/CUSTOMER SIDE OF THE SETTER (TAILSTOCK) ARE PUBLIC FACILIITES AND MUST BE PLACED IN A UTILITY EASEMENT OR RIGHT OF WAY PER APPLICABLE QCSD.

26. ALL WATER METER BOXES NOT SURROUNDED BY OR IMMEDIATELY ADJACENT TO PAVED SURFACE OR CURB SHALL BE AT LEAST 3-INCHES ABOVE ANY FINISHED GRADE WITHIN 3-FEET OF THE BOX. BOXES IMMEDIATELY ADJACENT TO PAVED SURFACES OR CURBS SHALL BE THE SAME HEIGHT AS THE ADJACENT PAVEMENT OR CURB.

27. A PRESSURE REDUCING VALVE/PRESSURE REGULATOR IS REQUIRED FOR ALL DOMESTIC SERVICES IF PRESSURE IN THE PUBLIC MAIN IS 80 PSI OR HIGHER. VALVES/REGULATORS ARE CONSIDERED AS PRIVATE PROPERTY AND SHALL BE MAINTAINED BY THE OWNER. THE VALVE SHALL BE LOCATED ON PRIVATE PROPERTY, OUT OF THE UTILITY EASEMENT OR RIGHT OF WAY, DOWNSTREAM OF THE METER AND PRIOR TO BRANCHING/ENTRY TO THE PROPERTY'S PLUMBING SUPPLY.

28. DOMESTIC AND FIRE LINES TO A STRUCTURE MUST BE SEPARATELY TAPPED INTO THE WATER DISTRIBUTION MAIN.

29. BACKLFOW PREVENTION REQUIREMENTS ARE NOTED PER AAC, AGENCY CODES AND STANDARDS, AND APPLICABLE QCSD.

30. WATER ISOLATION VALVES

    30.1 VALVE BOXES SHALL COMPLY WITH APPLICABLE QCSD AND BE FITTED WITH A DEBRIS CAP PER MAG DETAIL. HANDLES SHALL BE COLORED BASED ON AWWA CODE.

    30.2 VALVES SHALL BE MUELLLER 2360 SERIES RESILIENT WEDGE GATE VALVE, CLOW RESILIENT WEDGE GATE VALVE SERIES 2369-2640, OR AMERICAN FLOW CONTROL SERIES 2500 RESILIENT WEDGE GATE VALVE OR AN APPROVED EQUAL. VALVES SHALL BE NEW, GATE TYPE, BONDED RESILIENT SEAT, NON-RISING STEM, MECHANICAL JOINT, FUSE BONDED EPOXY COATED INSIDE AND OUT, 2-INCH OPERATING NUT AND OPEN COUNTER-CLOCKWISE.

1. ALL WORK SHALL CONFORM TO QUAD CITY STANDARD DETAIL (QCSD) 101Q AND TO THIS DETAIL.
2. ALL WORK SHALL CONFORM TO ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) REQUIREMENTS. IF ADEQ CONFLICTS WITH THE CONTRACT DOCUMENTS, THE MORE STRINGENT REQUIREMENTS SHALL APPLY (E.G. MAXIMUM ALLOWABLE SEWER LINE/PRESSURE SEWER LINE EXFILTRATION-INFILTRATION RATES). A SPECIFIC NOTE REFERENCING AAC R18-5-502, LATEST REVISION MUST BE ON THE PLANS THAT WILL BE APPROVED BY ADEQ OR THEIR DELEGATED REVIEWER (YAVAPAI COUNTY)
3. SEWER MANHOLE CONSTRUCTION WILL BE IN ACCORDANCE WITH APPLICABLE QCSD AND AAC REGULATIONS. PVC SWER PIPE AND FITTINGS SHALL BE INSTALLED PER ASTM STANDARDS.
4. SEWER SERVICE TAPS, GRAVITY BYPASS PUMPING, FORCE MAIN SHUTDOWN REQUESTS, AND OTHER OPERATIONAL REQUESTS MUST BE INITIATED WITH THE CITY/TOWN INSPECTOR IN ACCORDANCE WITH AGENGCY STANDARD OPERATING PROCEDURES. ADVANCE NOTIFICATION REQUIREMENTS MUST BE APPROVED BY WASTEWATER OPERATIONS PRIOR TO SCHEDULING A SHUTDOWN.
5. THE CONTRACTOR SHALL UNCOVER ALL EXISTING LINES BEING TIED INTO AND VERIFY GRADES, MATERIAL, SIZE & ELEVATIONS BEFORE COMMENCING CONSTRUCTION & ORDERING MATERIALS.
6. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND PIPELINES, TELEPHONE & ELECTRICAL CONDUITS & STRUCTURES IN ADVANCE OF ANY CONSTRUCTION & MUST OBSERVE ALL POSSIBLE PRECAUTIONS TO AVOID ANY DAMAGE TO THE UTILITY. THE ENGINEER &/OR OWNER WILL NOT GUARANTEE ANY LOCATIONS AS SHOWN ON THESE PLANS, OR THOSE OMITTED FROM SAME.
7. WATER-SEWER SEPARATION SHALL BE PURSUANT TO ARIZONA ADMINISTRATIVE CODE (AAC) R18-5-502C.
8. ALL TRENCHES & BEDDING SHALL BE PER QC STANDARD DETAIL 200Q-1 & 200Q-2 & CONTRACT DOCUMENTS.
9. ALL SEWER LINES & APPURTENANCES SHALL BE EQUIPPED WITH TRACER WIRE PER QCSD 200Q-1 AND 319Q-1.
10. ALL PIPELINE CONSTRUCTION SHALL BE PLUGGED WITH A MECHANICAL OR PNEUMATIC PLUG AT THE END OF THE WORK DAY. THE PLUG SHALL BE ADVANCED DURING THE DAYS WORK PROGRESS TO REMAIN WITHIN A REASONABLE DISTANCE AND TO BE USED IN THE EVENT OF TRENCH FLOODING TO MINIMIZE INFLOW OF DEBRIS INTO THE NEW SYSTEM.
11. MINIMUM COVER OVER EACH SEWER MAIN SHALL BE 7 FEET UNLESS OTHERWISE APPROVED BY THE AGENCY.
12. SEWER LINES WITH A BURY DEPTH OF 12-FEET OR MORE SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE.
13. SEWER LINE LOW PRESSURE AIR TESTS SHALL BE DONE ON ALL LINES AFTER PLACEMENT OF BACKFILL TO PAVEMENT SUBGRADE. TEST EACH SEGMENT OF THE SEWER LINE FOR LEAKAGE USING THE "STANDARD TEST METHOD FOR INSTALLATION OF ACCPEPTANCE OF PLASTIC GRAVITY SEWER LINES USING LOW-PRESSURE AIR, F1417-92 (1998)," PUBLISHED BY THE AMERICAN SOCIETY FOR TESTING AND MATERIALS.
14. SEWER LINE DEFLECTION TEST WITH AN APPROPRIATELY SIZED MANDREL SHALL BE DONE ON ALL NON-RIGID PIPE LINES NO SOONER THAN 30-DAYS AFTER INSTALLATION AND BACKFILL.
15. THE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL SEWER MAINS AND LATERALS INSTALLED WITHIN THE AGENCY'S COLLECTION SYSTEM UTILIZING A SEWER CCTV SYSTEM AFTER COMPLETE BACKFILL AND COMPACTION BUT BEFORE INSTALLING ANY PORTION OF THE PAVEMENT STRUCTURAL SECTION PER AGENCY CCTV REQUIREMENTS. THE INSPECTION SHALL COMPLY WITH THE AGENCY'S VIDEO ACCEPTANCE PROCEDURE. THE CONTRACTOR SHALL PROVIDE 72 HOURS ADVANCE NOTICE TO WASTEWATER OPERATIONS. AGENCY STAFF MUST BE PRESENT DURING THE VIDEO OPERATION AND THE CONTRACTOR SHALL PROVIDE THE AGENCY A VIDEO DVD AND HARD COPY OF THE INSPECTION REPORT UPON COMPLETION.
16. SEWER MANHOLES EXFILTRATION TESTS SHALL BE DONE ON ALL MANHOLES. VACUUM TESTING IN ACCORDANCE WITH AGENCY STANDARDS MAY BE USED IN LIEU OF EXFILTRATION TEST. THE CONTRACTOR SHALL TEST EACH MANHOLE USING ONE OF THE FOLLOWING TEST PROTOCOLS:

    16.1. NEGATIVE AIR PRESSURE TESTING USING THE "STANDARD TEST METHOD FOR CONCRETE SEWER MANHOLES BY NEGATIVE AIR PRESSURE" (VACUUM) TEST, C1244-02E1(2002), PUBLISHED BY THE AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM). THIS MATERIAL IS INCORPORATED BY REFERENCE & DOES NOT INCLUDE ANY LATER AMENDMENTS OR EDITIONS OF THE INCORPORATED MATERIAL, & MAY BE VIEWED AT ADEQ, OR OBTAINED FROM THE ASTM, 100 BAR HARBOR DRIVE, WEST CONSHOHOCKEN, PA.19428-2959

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    16.2. 'WATERTIGHTNESS TESTING'BY FILLING THE MANHOLE WITH WATER. THE CONTRACTOR SHALL ENSURE THAT THE DROP IN WATER LEVEL FOLLOWING PRESOAKING DOES NOT EXCEED 0.00034 OF THE TOTAL MANHOLE VOLUME PER HOUR.
17. SEWER FORCE MAIN LINES SHALL BE DESIGNED AND CONSTRUCTED OF A MATERIAL SUITABLE FOR SANITARY SEWER PRESSURE PIPE AS APPROVED BY THE CITY. SEWER LINES SHALL BE PRESSURE TESTED TO A MINIMUM OF 50 PSI ABOVE DESIGN WORKING PRESSURE AT THE LOWEST POINT IN THE SYSTEM FOR A MINIMUM OF 2 HOURS IN ACCORDANCE WITH AAC R18-9.
18. PRESSURE SEWER MAINS AND SERVICE LATERALS (LPS) SHALL BE SUBJECT TO A PRESSURE & LEAKAGE TEST IN ACCORDANCE WITH AWWA-C-600 STANDARD. TEST PRESSURE SHALL BE A MINIMUM OF 100 PSI, OR 50 PSI OVER WORKING PRESSURE, WHICHEVER IS GREATER. TESTING SHALL BE DONE AFTER BACKFILL TO SUBGRADE.
19. ACCEPTANCE OF THE COMPLETED WORK WILL NOT BE GIVEN UNTIL 'AS-BUILT' PLANS ON APPROVED SURVEY DATUM & COORDINATES HAVE BEEN SUBMITTED IN ACCORDANCE WITH AGENCY STANDARDS AND APPROVED BY THE AGENCY.
20. SEWER SAG IDENTIFIED IN THE VIDEO INSPECTION REPORT IS SUBJECT TO THE CORRECTIVE ACTIONS LISTED IN TABLE 1.
21. IF GROUNDWATER OR OTHER UNSUITABLE CONDITIONS ARE ENCOUNTERED DURING CONSTRUCTION, THE EOR AND THE AGENCY MUST BE NOTIFIED AND A RESOLUTION ACCEPTABLE TO ALL PARTIES MUST BE AGREED ON BEFORE WORK CONTINUES.
22. NO SEWER SERVICE TAPS WILL BE ALLOWED INTO A MANHOLE.
23. ALL NEW, REPLACEMENT, OR REFURBISHED MANHOLES INSTALLED IN PRESCOTT VALLEY SHALL BE COATED WITH INSECTA® CONTACT PESTICIDE, OR APPROVED EQUAL, PER PESTICIDE MANUFACTURER'S INSTRUCTIONS.
24. NO PAVING, ROAD-BASE, COVER, ETC SHALL OCCUR UNTIL SEWER INFRASTRUCTURE MEETS DEFLECTION, SAG, VACUUM, AND LOW PRESSURE AIR TESTING REQUIREMENTS.
25. CERTIFICATION FROM THE REGISTERED CIVIL ENGINEER AND/OR THE SOILS/GEOTECHNICAL ENGINEER STATING THAT THE ROUGH GRADING HAS BEEN COMPLETED PER THE APPROVED PLAN, AND A COMPACTION REPORT FROM THE SOILS ENGINEER ON ANY FILL AREAS SHALL BE PROVIDED PRIOR TO BUILDING PERMITS BEING ISSUED.

TABLE 1 - CORRECTIVE ACTION REQUIREMENTS FOR SAG

DESCRIPTION	OBSERVED SAG	CORRECTION ACTION REQUIRED
8" TO 12" DIA. PIPE	LESS THAN OR EQUAL TO ½"	NONE
8" TO 12" DIA. PIPE	GREATER THAN ½" BUT LESS THAN OR EQUAL TO 1"	YES IF LONGER THAN 10' OR MORE THAN 3 OCCURRENCES, OF ANY LENGTH WITHIN 100'
12" TO 24" DIA. PIPE	LESS THAN OR EQUAL TO 1"	NONE
12" TO 24" DIA. PIPE	GREATER THAN 1" BUT LESS THAN OR EQUAL TO 1 ½""	YES IF LONGER THAN 20' OR MORE THAN 6 OCCURRENCE IN 100'
GREATER THAN 24" DIA. PIPE	GREATER THAN 1 ½"	YES
PIPE ENTERING OR EXITING MANHOLE	ANY	YES

1. ALL WORK SHALL CONFORM TO CITY OF PRESCOTT STANDARD DETAIL 101Q AND TO THIS DETAIL.
2. ALL PROVISIONS OF THE PRELIMINARY (AND FINAL) SOILS REPORT SHALL BE COMPLIED WITH DURING CONSTRUCTION OPERATIONS.
3. THIS PLAN IS FOR GRADING PURPOSES ONLY. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF DRIVEWAY LOCATIONS OR SIZES, PARKING LOT LAYOUT, SEWER AND WATER FACILITIES, BUILDING LOCATIONS, OFF-SITE DRAINAGE FACILITIES OR OTHER ITEMS NOT RELATED DIRECTLY TO THE BASIC GRADING OPERATION.
4. CERTIFICATION FROM THE REGISTERED CIVIL ENGINEER AND/OR THE SOILS/GEOTECHNICAL ENGINEER STATING THAT THE ROUGH GRADING HAS BEEN COMPLETED PER THE APPROVED PLAN, AND A COMPACTION REPORT FROM THE SOILS ENGINEER ON ANY FILL AREAS SHALL BE PROVIDED PRIOR TO BUILDING PERMITS BEING ISSUED.
5. PARTIES NAMED ON ADEQ'S NOTICE OF INTENT (N.O.I.) ARE RESPONSIBLE FOR EROSION, DUST, MUD, SILT, DEBRIS, AND TEMPORARY DRAINAGE CONTROL DURING GRADING OPERATIONS AND MAY BE REQUIRED TO PROVIDE A SWPPP.
6. ANY ON-SITE RETAINING WALLS WILL REQUIRE APPROVAL AS PART OF THESE PLANS. ANY NECESSARY RETAINING WALLS ON THE PERIMETER OF THIS SITE MAY BE REQUIRED TO BE IN PLACE AND APPROVED BY THE CITY/TOWN BUILDING DEPARTMENT PRIOR TO THE START OF GRADING. A SEPARATE PLAN WITH REQUIRED STRUCTURAL CALCULATIONS MAY BE REQUESTED FOR RETAINING WALLS.
7. ANY INFRASTRUCTURE CONSTRUCTED IN THE PUBLIC RIGHT OF WAY WILL REQUIRE SEPARATE PLAN APPROVAL AND INSPECTION FROM THE CITY/TOWN ENGINEER OR THEIR DESIGNEE.
8. ANY WALLS, FENCES, STRUCTURES AND/OR APPURTENANCES ADJACENT TO THIS PROJECT SHALL BE PROTECTED IN PLACE. IF GRADING OPERATIONS DAMAGE OR ADVERSELY AFFECT SAID ITEMS IN ANY WAY, THE CONTRACTOR AND/OR DEVELOPER IS RESPONSIBLE FOR WORKING OUT AN ACCEPTABLE SOLUTION TO THE SATISFACTION OF THE AFFECTED PROPERTY OWNER(S).
9. THE CONTRACTOR/DEVELOPER IS RESPONSIBLE FOR ENSURING THAT RETAINING WALLS DO NOT INTERFERE WITH PROVISION OF UTILITIES. WALLS MUST BE CONSTRUCTED ON SITE AND OUTSIDE OF THE RIGHT OF WAY. THIS SHALL INCLUDE THE FOOTINGS OF ALL STRUCTURES.
10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT COMPACTION HAS BEEN ATTAINED ON THE ENTIRE GRADING SITE IN ACCORDANCE WITH THE GENERAL ENGINEERING PLAN, INCLUDING FILL AREAS OUTSIDE THE BUILDING PADS AND ON ALL FILL SLOPES, AND SHALL BE CERTIFIED BY THE SOIL'S ENGINEER.
11. CITY/TOWN APPROVAL OF PLANS DOES NOT RELIEVE THE DEVELOPER FROM THE RESPONSIBILITY FOR CORRECTION OF ERROR OR OMISSION DISCOVERED DURING CONSTRUCTION. UPON REQUEST, THE REQUIRED PLAN REVISIONS SHALL BE PROMPTLY SUBMITTED TO THE CITY/TOWN ENGINEER FOR APPROVAL.
12. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CALL THE AGENCY'S OFFICE FOR ANY REQUIRED ENGINEERING INSPECTION ON CAPITAL PROJECTS 24 HOURS PRIOR TO PERFORMING ANY WORK. WORK PERFORMED WITHOUT CALLING FOR INSPECTION MAY BE REJECTED AND, IF REJECTED, SHALL BE REMOVED SOLELY AT THE CONTRACTOR'S EXPENSE. ANY PRIVATE DEVELOPMENT INSPECTIONS SHALL USE THE AGENCY'S IVR SYSTEM FOR SCHEDULING INSPECTIONS.
13. NO GRADING SHALL COMMENCE WITHOUT OBTAINING A GRADING PERMIT. A SEPARATE PERMIT IS REQUIRED FOR OFF-SITE GRADING.
14. GRADING SHALL NOT BE STARTED WITHOUT FIRST NOTIFYING CITY/TOWN PUBLIC WORKS INSPECTION DEPARTMENT. A PRE-GRADING MEETING ON THE SITE IS REQUIRED BEFORE BEGINNING GRADING ACTIVITIES BY THE FOLLOWING PEOPLE PRESENT: OWNER, GRADING CONTRACTOR, DESIGN CIVIL ENGINEER, SOIL ENGINEER/GEOLOGIST, PUBLIC WORKS INSPECTOR, AND WHEN REQUIRED, THE ARCHAEOLOGIST AND PALEONTOLOGIST. THE REQUIRED INSPECTIONS FOR GRADING WILL BE EXPLAINED AT THE PRE-CONSTRUCTION MEETING.
15. PRIOR TO THE START OF GRADING ALL SWPPP MEASURES SHALL BE IN PLACE.
16. ALL DEBRIS, INCLUDING EXISTING STRUCTURES, FOOTINGS, FOUNDATIONS AND RUBBLE SHALL BE REMOVED FROM THE SITE. AFTER REMOVAL OF DEBRIS, ANY EXISTING FILL OR DISTURBED NATURAL SOILS SHALL BE EXCAVATED TO THE SATISFACTION OF THE SOILS ENGINEER.
17. THE EXPOSED SOILS SHALL THEN BE INSPECTED BY THE SOILS ENGINEER, AND ANY ADDITIONAL OVER-EXCAVATION SHALL THEN BE MADE IN ACCORDANCE WITH THE SOILS ENGINEER'S RECOMMENDATIONS AND AS CONTAINED IN THE SOIL'S REPORT.
18. THE EXPOSED SOILS SHALL THEN BE SCARIFIED TO PROVIDE A BOND WITH NEW FILL, BROUGHT TO PROPER MOISTURE CONTENT AND COMPACTED TO AT LEAST 90% OF THE MAXIMUM DENSITY, AS DETERMINED BY ASTM D1557-78 OR EQUIVALENT COMPACTION SHALL BE OBTAINED BY METHODS SPECIFIED BY THE SOILS ENGINEER. ROAD PRISM SUBGRADE SHALL BE COMPACTED TO AT LEAST 98% STANDARD OR MODIFIED PER SOILS ENGINEER'S RECOMMENDATIONS.
19. THE SOILS AND DESIGN ENGINEER OF RECORD SHALL ALSO BE RESPONSIBLE TO INSPECT, VERIFY AND REPORT THAT PROPER COMPACTION HAS BEEN OBTAINED BY EARTHWORK CONTRACTOR OR SUBCONTRACTOR AND PRIVATE UTILITY FRANCHISES CONCERNING UTILITY LINE BACKFILL, TO INCLUDE ELECTRICAL, GAS, CABLE, FIBEROPTIC, COMMUNICATION AND LANDSCAPE IRRIGATION LINES. ADDITIONALLY, WATER AND SEWER LINES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH GENERAL ENGINEERING REQUIREMENTS SECTION AND APPLICABLE STANDARD DETAILS.
20. AN AS-GRADED GRADING PLAN AND THE CERTIFICATION OF COMPLIANCE FORMS FOR SAID GRADING PLAN WITH THE PROPER STAMPS AND SIGNATURES ARE TO BE SUBMITTED TO THE CITY/TOWN ENGINEER PRIOR TO RELEASE OF GRADING BOND AND PRIOR TO FINAL GRADING INSPECTION. BUILDING PAD CERTIFICATION SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT WHEN REQUESTED.
21. NO FILL SHALL BE PLACED UNTIL STRIPPING OF VEGETATION, REMOVAL OF UNSUITABLE SOILS, AND INSTALLATION OF SUBDRAINS (IF ANY) HAVE BEEN INSPECTED AND APPROVED BY THE SOILS ENGINEER.
22. ALL EXISTING FILLS SHALL BE APPROVED AND CERTIFIED BY THE SOILS ENGINEER OR REMOVED PRIOR TO PLACING ADDITIONAL FILLS.
23. ENGINEER MUST SET GRADE STAKES FOR ALL DRAINAGE DEVICES AND OBTAIN INSPECTION BEFORE POURING.
24. THE COMPACTION REPORT AND APPROVAL FROM THE SOIL ENGINEER SHALL INDICATE THE TYPE OF FIELD TESTING PERFORMED. EACH TEST SHALL BE IDENTIFIED WITH THE METHOD OF OBTAINING THE IN-PLACE DENSITY, WHETHER SAND CONE OR NUCLEAR GAUGE, AND SHALL BE SO NOTED FOR EACH TEST.
25. EXPORT SOIL MUST BE TRANSPORTED TO A LEGAL DUMP OR TO A PERMITTED SITE SHOWN CLEARLY ON APPROVED PLANS OR PERMIT.
26. ALL EXISTING DRAINAGE COURSES THROUGH THIS SITE SHALL REMAIN OPEN UNTIL FACILITIES TO HANDLE STORM WATER ARE APPROVED AND FUNCTIONAL; HOWEVER, IN ANY CASE, THE PERMITTEE SHALL BE HELD LIABLE FOR ANY DAMAGE DUE TO OBSTRUCTING NATURAL DRAINAGE PATTERNS.
27. PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING, VISUAL AND/OR TV INSPECTION OF STORM DRAINAGE INFRASTRUCTURE PER APPLICABLE QCSD. THE AGENCY AND EOR SHALL RECEIVE COPIES OF APPLICABLE DOCUMENTATION FOR REVIEW. THE EOR SHALL:

    27.1. DETERMINE IF THE REQUIRED PROCEDURES AND SUBSEQUENT DOCUMENTATION WERE COMPLIED WITH.

    27.2. REVIEW ALL DOCUMENTATION AND FINDINGS FOR COMPLIANCE WITH AGENCY STANDARDS

    27.3. SUBMIT A REPORT TO THE AGENCY WITH REGARDS TO THE DISPOSITION.

28. NO STRUCTURES, TREES, OR VEGETATION SHALL BE CONSTRUCTED OR PLANTED WITHIN OR OVER ANY DRAINAGE EASEMENT IF SUCH PLACEMENT MAY OBSTRUCT, DIVERT, OR OTHERWISE REDUCE THE STORMWATER FLOW CAPACITY OF THE DRAINAGEWAY.

QUAD CITY STANDARD DETAIL	GRADING AND DRAINAGE NOTES	REVISED: 11/18/2025	DETAIL No. 105Q-1

1. ALL WORK SHALL CONFORM TO QUAD CITY STANDARD DETAIL 101Q AND TO THIS DETAIL.

2. A COPY OF THE APPROVED GRADING AND DRAINAGE PLAN FOR THIS PROJECT, EROSION AND SEDIMENT CONTROL (ESC) PLAN AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE MAINTAINED ON THE SITE AND AVAILABLE FOR REVIEW. THOSE ELEMENTS OF THE GRADING AND DRAINAGE PLAN PERTINENT TO OR REFERENCED ON THE SWPPP SHALL BE CONSIDERED A PART OF THE SWPPP.

3. THE ESC/SWPPP AND RELATED RECORDS MUST BE MADE AVAILABLE UPON REQUEST TO ADEQ AND THE AGENCY.

4. THE IMPLEMENTATION OF THESE PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE FACILITIES IS THE RESPONSIBILITY OF THE PERMITTEE/CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED AND A NOTICE OF TERMINATION HAS BEEN SUBMITTED.

5. THE SCHEMATIC EROSION CONTROL MEASURES SHOWN ON THE PLANS ARE A MINIMUM. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEANS TO PROTECT EXISTING FACILITIES AND ADJACENT PROPERTIES FROM NOISE, DUST, AND STORM WATER RUNOFF THROUGHOUT CONSTRUCTION OF THE PROJECT AND BUILDINGS ON LOTS, AND SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER THAT STORM WATER WILL BE CONTAINED ON SITE OR CHANNELED INTO A STORM DRAIN SYSTEM, PROVIDED THAT IT IS FREE FROM POLLUTANTS AND DEBRIS.

6. CONTRACTOR SHALL PERMANENTLY STABILIZE ALL DISTURBED SLOPES AS STATED ON APPROVED CONSTRUCTION PLANS. ALL EROSION CONTROL STRUCTURES SHALL REMAIN IN PLACE UNTIL EXPOSED SLOPES HAVE BEEN PERMANENTLY STABILIZED.

7. CONTRACTOR SHALL TAKE MEASURES TO PREVENT OR MINIMIZE THE GENERATION, EMISSION AND/OR TRANSPORT OF FUGITIVE DUST FROM CONSTRUCTION ACTIVITIES.

8. THE ESC PLAN SHALL INCLUDE A SCHEDULE FOR INSTALLING BOTH TEMPORARY AND PERMANENT BMPS. TEMPORARY BMPS SHALL REMAIN UNTIL ALL DISTURBED AREAS UNDER THE OPERATOR'S CONTROL HAVE ACHIEVED FINAL STABILIZATION, HAVE BEEN TRANSFERRED TO A NEW OPERATOR, OR ARE DEVELOPED UNDER FUTURE PLANS UNDER A NEW NOI, SWPPP, AND PERMIT. ONCE CONSTRUCTION ACTIVITIES ARE COMPLETED, TEMPORARY BMPS REMOVED, AND FINAL STABILIZATION ACHIEVED, AS DEFINED UNDER THE CONSTRUCTION GENERAL PERMIT (CGP), THE AUTHORIZED SITE REPRESENTATIVE SHALL SUBMIT A NOTICE OF TERMINATION (NOT) VIA MYDEQ TO ADEQ. THE OPERATOR MUST MAINTAIN COVERAGE AND COMPLY WITH ALL PERMIT TERMS UNTIL ADEQ ACKNOWLEDGES THE NOT, AND TERMINATES AUTHORIZATION UNDER THE CGP. PERMANENT BMPS SHALL REMAIN IN PLACE AFTER TERMINATION.

9. A CONCRETE WASHOUT SHALL BE INSTALLED FOR ALL PROJECTS THAT PROPOSE CONCRETE TO BE MIXED ON SITE OR BE DELIVERED FROM A BATCH PLANT. THE CONCRETE WASHOUT SHALL BE LOCATED A MINIMUM OF FIFTY (50) FEET FROM ANY DRAINAGE INFRASTRUCTURE OR NATURAL DRAINAGE FEATURES OR WATER BODIES AND INCORPORATE AN IMPERMEABLE LINER TO CONTAIN THE REQUIRED VOLUME. ALL DRIED CONCRETE WASTE SHALL BE BROKEN INTO MANAGEABLE PIECES AND DISPOSED OF OFF-SITE AT AN APPROVED FACILITY.

QUAD CITY STANDARD DETAIL	EROSION AND SEDIMENTATION CONTROL NOTES	REVISED: 11/18/2025	DETAIL No. 105Q-2

1. ALL WORK SHALL CONFORM TO QCSD 101Q AND TO THIS DETAIL.

2. THE CONTRACTOR SHALL SPOT LAYOUT THE ENTIRE PROJECT AND CONTACT THE CITY/TOWN INSPECTOR TO MAKE ARRANGEMENTS FOR INSPECTION PRIOR TO INSTALLING TRAFFIC SIGNS OR PAVEMENT MARKINGS. ANY SIGNING OR STRIPING INSTALLED BEFORE LAYOUT APPROVAL SHALL BE SUBJECT TO REMOVAL AND REINSTALLATION AT THE CONTRACTOR'S EXPENSE.

3. TRAFFIC SIGN DIMENSIONS, COLORS AND LETTERING SHALL CONFORM TO THE LATEST MUTCD WITH ARIZONA SUPPLEMENT, AND QCSD. TRAFFIC SIGN SIZE SHALL BE STANDARD UNLESS OTHERWISE SPECIFIED ON THE PLANS.

4. SIGN LOCATION SHALL BE COORDINATED WITH LANDSCAPING PLANS TO ENSURE SIGN VISIBILITY PER AASHTO AND MUTCD STANDARDS.

5. ALL R1-1 "STOP" SIGNS AND W11-2 PEDESTRIAN WARNING SIGNS SHALL BE RETRO-REFLECTIVE WITH SHEETING MATERIAL TO BE DIAMOND VIP GRADE, MEETING OR EXCEEDING ASTM 4956-04.

6. ALL OTHER SIGNS ARE TO BE RETRO-REFLECTIVE WITH SHEETING MATERIAL TO BE HIGH INTENSITY PRISMATIC MEETING OR EXCEEDING ASTM 4956-04.

7. SIGN BLANKS SHALL BE 5052-H38 ALLOY TREATED ALUMINUM WITH ALODINE 1200 CONVERSION COATING, 0.080" THICK WITH ROUNDED CORNERS.

8. SIGNS SHALL BE MOUNTED ON STREET LIGHT POLES WHEREVER FEASIBLE.

9. STRIPING SHALL CONFORM TO THE MOST RECENT EDITION OF THE MUTCD WITH REGARD TO SIZE, COLOR, REFLECTIVITY AND PLACEMENT UNLESS OTHERWISE SPECIFIED ON THE PLANS.

10. ALL THERMOPLASTIC APPLICATIONS SHALL CONFORM TO ADOT SPECIFICATION 704. TRANSVERSE MARKINGS, SYMBOLS AND LEGENDS SHALL BE 90 MIL (0.090 INCH) THICK, LONGITUDINAL MARKINGS SHALL BE 60 MIL (0.060 INCH) THICK ALKYD EXTRUDED THERMOPLASTIC.

11. ALL PAINT APPLICATION SHALL CONFORM TO ADOT SPECIFICATION 708.

12. ALL CONFLICTING STRIPING, PAVEMENT MARKINGS, AND CURB PAINT SHALL BE REMOVED BY WET SANDBLASTING OR OTHER APPROVED METHOD PRIOR TO THE INSTALLATION OF NEW STRIPING. SLURRY OR PAINT SHALL NOT BE USED TO COVER EXISTING PAINT. PAVEMENT THAT IS DAMAGED DUE TO THE REMOVAL OF MARKERS OR STRIPING SHALL BE REPAIRED TO THE SATISFACTION OF THE CITY/TOWN ENGINEER OR THEIR DESIGNEE.

QUAD CITY STANDARD DETAIL	SIGNING AND STRIPING NOTES	REVISED: 11/18/2025	DETAIL No. 106Q-1

1. ALL MATERIAL, EQUIPMENT AND INSTALLATION SHALL CONFORM TO THE LATEST MUTCD SPECIFICATIONS; THE ADOT TRAFFIC SIGNAL AND LIGHTING STANDARD DRAWINGS, ADOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, MAG SPECIFICATIONS AND QCSD.

2. ALL EQUIPMENT SHALL BE APPROVED BY THE AGENCY THROUGH THE ELECTRICAL EQUIPMENT SUBMITTAL PROCESS PRIOR TO THE ORDERING OF EQUIPMENT.

3. THE LOCATION OF EACH NEW POLE FOUNDATION, PULLBOX, CONTROLLER CABINET FOUNDATION, UPS CABINET FOUNDATION AND ELECTRICAL SERVICES PEDESTAL FOUNDATION SHALL BE MARKED IN THE FIELD AS SHOWN ON THE PLANS. THE EXACT LOCATION SHALL BE APPROVED BY THE CITY/TOWN TRAFFIC ENGINEER PRIOR TO WORK.

4. ALL VEHICLE AND PEDESTRIAN COUNTDOWN INDICATIONS SHALL BE LED.

5. PEDESTRIAN COUNTDOWN HEADS SHALL BE PROVIDED AT ALL VEHICULAR SIGNAL LOCATIONS WHENEVER SIDEWALK CONNECTIONS EXIST OR ARE INSTALLED.

6. ALL PEDESTRIAN PUSH BUTTON ASSEMBLIES SHALL CONFORM TO ADOT STANDARD DRAWINGS TS11-1 EXCEPT THAT THE PUSH BUTTON SHALL BE A MINIMUM OF TWO INCH IN DIAMETER. PUSH BUTTONS SHALL BE ACCESSIBLE TYPE AND MEET AGENCY SPECIFICATIONS PER GES.

7. CONTROLLER CABINET SHALL BE TYPE IV ECONOLITE TS2, TYPE 1 WITH ELEVATOR BASE. PROVISION FOR BATTERY BACK-UP SHALL BE PROVIDED IN ALL TRAFFIC SIGNAL CABINETS.

8. METER PEDESTAL CABINET SHALL BE MYERS PBM 2000 OR 1250 UPS WITH FOUNDATION OR APPROVED EQUAL.

9. TRAFFIC SIGNAL PULL BOXES SHALL BE NO. 7 OR NO. 5 AS CALLED FOR ON THE PLANS AND CONFORM TO THE TS 1-4, 1-5 AND 1-5 OF THE ADOT TRAFFIC SIGNALS AND LIGHTING STANDARD DRAWINGS. BOX LIDS SHALL BE LOCKING AND LABELED WITH “TRAFFIC SIGNAL” UNLESS OTHERWISE SPECIFIED BY THE CITY/TOWN TRAFFIC ENGINEER AND/OR THE APPROVED AGENCY REPRESENTATIVE.

10. ALL CONDUITS SHALL BE SCHEDULE 40 PVC, OF A DIAMETER AS CALLED FOR ON THE APPROVED PLANS.

11. INSTALL DETECTION PER GES SPECIFICATIONS. DETECTION CABLES SHALL RUN UNSPLICED FROM CONTROLLER CABINET TO DETECTION SYSTEMS.

12. THE TOP OF THE POLE FOUNDATION SHALL BE LEVEL WITH THE FINISHED GRADE. IF THE SLOPE OR SHOULDER DROPS OFF FROM FINISHED GRADE, THE CONTRACTOR SHALL GRADE AROUND THE POLE FOUNDATION. THE TOP OF THE FOUNDATION SHALL EXTEND NO MORE THAN 4 INCHES ABOVE THE ADJACENT ULTIMATE GRADE.

13. ALL CONCRETE USED FOR TRAFFIC SIGNAL POLE AND CABINET FOUNDATIONS SHALL BE MAG CLASS “AA”.

14. THE CONTRACTOR SHALL CONTACT THE CITY/TOWN TRAFFIC ENGINEER AND/OR THE APPROVED AGENCY REPRESENTATIVE TO ARRANGE FOR METER AND ELECTRICAL SERVICE CONNECTION FROM ARIZONA PUBLIC SERVICE (APS). THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING THE SERVICE CONDUIT RUN FROM THE POWER COMPANY SOURCE TO THE SIGNAL METER PEDESTAL.

15. EMERGENCY VEHICLE PREEMPTION SHALL BE INSTALLED AT ALL TRAFFIC SIGNAL INTERSECTIONS. THE CONTRACTOR SHALL PROVIDE AND INSTALL AN OPTICOM 700 SERIES SYSTEM OR APPROVED EQUAL TO INCLUDE, SENSORS, PROCESSORS, CONFIRMATION AND CONTROLLER HARDWARE, MOUNTING HARDWARE, INTERFACE CABLES, OPTICAL CABLES, AND ANY OTHER EQUIPMENT REQUIRED FOR A FULLY FUNCTIONING PRE-EMPTION SYSTEM.

16. CONTRACTOR SHALL PERFORM A GROUND RESISTANCE TEST FOR EACH INSTALLED GROUND ROD AND POLE FOUNDATION GROUNDING COIL IN ACCORDANCE WITH ADOT SPEC. 723-3.03.

17. CONTRACTOR SHALL BAG ALL NEWLY INSTALLED VEHICULAR AND/OR PEDESTRIAN TRAFFIC SIGNAL HEADS WITH BURLAP OR OTHER APPROVED MATERIAL UNTIL FINAL INSPECTION AND ACCEPTANCE BY THE CITY/TOWN TRAFFIC ENGINEER AND/OR THE APPROVED AGENCY REPRESENTATIVE.

18. CONTRACTOR SHALL REPLACE ALL LANDSCAPING AND/OR IRRIGATION FACILITIES THAT MAY BE DISTURBED OR DAMAGED DURING TRAFFIC SIGNAL CONSTRUCTION AT HIS EXPENSE CONTACT THE PROPERTY OWNER FOR INFORMATION ON THE LOCATION OF IRRIGATION EQUIPMENT.

19. CONTRACTOR SHALL PROVIDE AND INSTALL “TRAFFIC CONTROL CHANGE” SIGNS WITH FLAGS FOR 30 DAYS FOLLOWING TURN-ON.

20. CONTRACTOR SHALL RETURN ALL REMOVED/UNUSED TRAFFIC SIGNAL EQUIPMENT TO THE AGENCY.

21. CONTRACTOR SHALL PROVIDE A SIX-FOOT COILED CONTROL CORD IN THE POLICE PANEL OF THE CONTROLLER CABINET.

QUAD CITY STANDARD DETAIL	TRAFFIC SIGNAL NOTES	REVISED: 11/18/2025	DETAIL No. 106Q-2

1. NO STREET IS TO BE CLOSED, RESTRICTED, OR CONSTRUCTED UPON UNTIL A TRAFFIC CONTROL PLAN IS PREPARED BY THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR SUBMITTING A TRAFFIC CONTROL PLAN TO THE AGENCY AS NEEDED TO PERFORM CONSTRUCTION ACTIVITIES. SUBMITTAL SHALL BE MADE AT LEAST FIVE WORKING DAYS (EXCLUDING HOLIDAYS) PRIOR TO COMMENCEMENT OF CONSTRUCTION. CONSTRUCTION CANNOT BEGIN UNTIL AGENCY APPROVAL OF THE PLAN IS GRANTED. THE DYNAMIC NATURE OF TRAFFIC RELATED ACTIVITIES MAY REQUIRE MODIFICATION OF AN APPROVED PLAN BASED ON AGENCY ANALYSIS. IF SO, THE CONTRACTOR WILL MODIFY THE TRAFFIC CONTROL PLAN AT NO EXPENSE TO THE AGENCY.

2. APPROPRIATE EMERGENCY AGENCIES SHALL BE NOTIFIED A MINIMUM OF 24 HOURS PRIOR TO ANY CLOSING OF STREETS.

3. SUBGRADE, AGGREGATE BASE COURSE, AND ASPHALT CONCRETE PAVEMENT SHALL BE PLACED IN ACCORDANCE WITH THE ROADWAY STRUCTURAL SECTION FOUND IN THE APPROVED PLANS AND BASED ON THE RECOMMENDATION OF THE EOR AND THE GEOTECHNICAL REPORT. CONTRACTOR SHALL ADHERE TO THE THICKNESS, LIFT, AND COMPACTION REQUIREMENTS INCLUDED WITH THE STRUCTURAL SECTION.

4. AGGREGATE BASE COURSE SHALL NOT BE PLACED ON SUBGRADE UNTIL SUBGRADE REQUIREMENTS HAVE BEEN ACHIEVED.

5. ALL ASPHALT CONCRETE PAVEMENTS SHALL BE PER APPLICABLE MAG SPECIFICATIONS AS AMENDED BY THE AGENCY. ASPHALT CONCRETE MIX DESIGN SHALL BE SUBMITTED TO THE CITY/TOWN ENGINEER OR THEIR DESIGNEE FOR APPROVAL A MINIMUM OF ONE WEEK PRIOR TO START OF CONSTRUCTION.

6. NO PAVING CONSTRUCTION SHALL BE STARTED UNTIL ALL UNDERGROUND UTILITIES WITHIN THE ROADWAY PRISM ARE VERIFIED FOR DETAIL CONFORMANCE, COMPLETED AND TESTED (TO INCLUDE BUT NOT LIMITED TO) SEWER TESTING, LOW AIR TESTING OF MAIN LINE AND SERVICES, TRACE WIRE TESTING, DEFLECTION TESTING AND VERIFICATION OF MANHOLES CONFORMING TO QUAD CITY STANDARD DETAIL 420Q. WATER TESTING CHLORINATION/DISINFECTING OF MAIN LINE AND SERVICES, PRESSURE TESTING, TRACE WIRE TESTING AND VERIFICATION OF VALVE BOXES CONFORMING TO QUAD CITY STANDARD DETAIL 391Q, AND VIDEO TESTING OF SEWER AND DRAINAGE SYSTEMS PER MAG SPECIFICATIONS.

7. ALL UTILITY FRAMES, COVERS, VALVE BOXES, MANHOLES, ETC. SHALL BE ADJUSTED TO FINISH GRADE AFTER PLACEMENT OF SURFACE COURSE BY THE CONTRACTOR PER QUAD CITY STANDARD DETAILS.

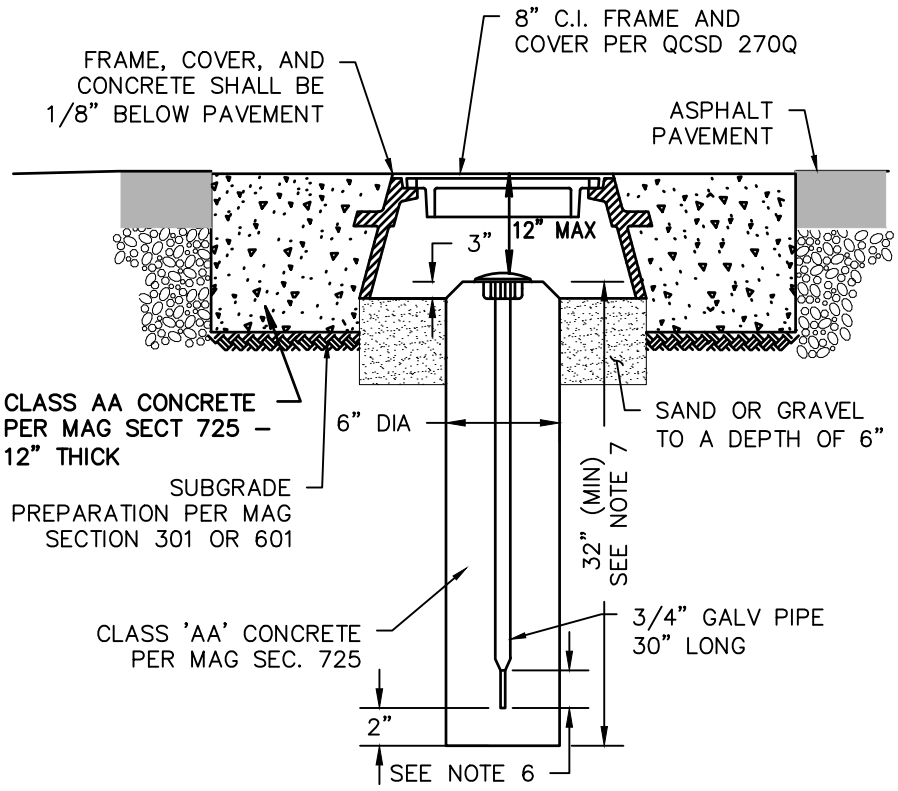
8. ALL CONCRETE TO BE AT LEAST 4000 PSI CLASS "AA" PORTLAND CEMENT CONCRETE PER MAG AND THE COP SUPPLEMENT, UNLESS OTHERWISE SPECIFIED ON THE PLANS, SPECIFICATIONS, OR IN STANDARD DETAILS.

9. EDGES OF CONCRETE STRUCTURES TO HAVE A 3/4" CHAMFER, UNLESS OTHERWISE SPECIFIED ON THE PLANS.

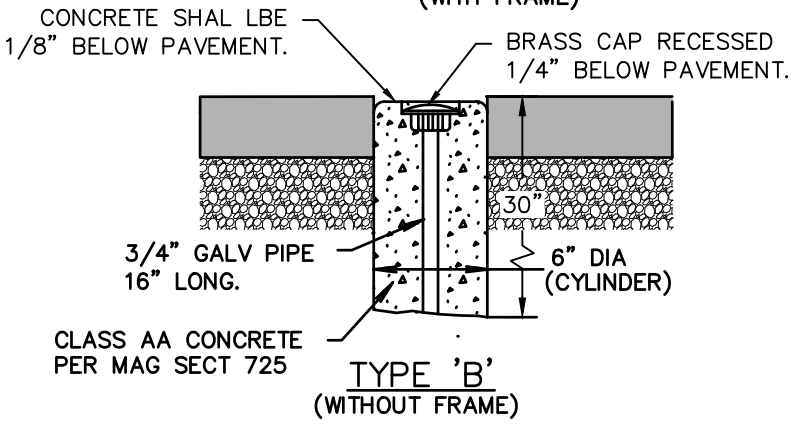
10. EXPOSED CONCRETE SURFACES TO HAVE A BROOM FINISH UNLESS OTHERWISE NOTED ON THE PLANS.

11. ALL EXPANSION JOINTS TO BE SEALED WITH 1/2" EXPANSION JOINT, PRE-FORMED JOINT FILLER AND SEALER, IN ACCORDANCE WITH MAG SECTION 729.

12. DRIVEWAY ENTRANCES WILL BE LOCATED AS SPECIFIED ON THE PLANS UNLESS MODIFIED BY THE DESIGN ENGINEER AND APPROVED BY THE AGENCY. ALL DRIVEWAY ENTRANCES SHALL BE CONSTRUCTED OVER 6" THICK AGGREGATE BASE COURSE PER MAG SPECIFICATION 702 AND COMPACTED TO 95% OF STANDARD PROCTOR DENSITY, UNLESS OTHERWISE NOTED.



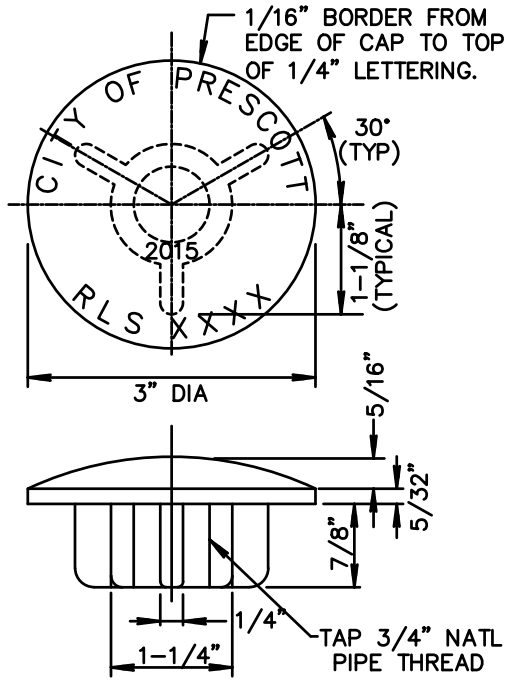
TYPE 'A'
(WITH FRAME)



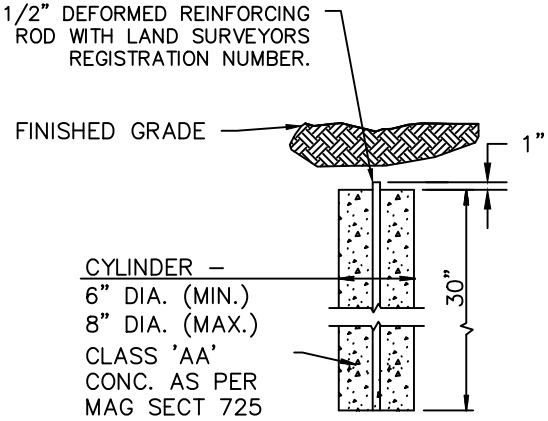
TYPE 'B'
(WITHOUT FRAME)

NOTES:

1. TYPE "A" TO BE USED AT INTERSECTION OF RIGHT OF WAY CENTERLINES; SECTION AND ALIQUOT SECTION CORNERS; ANGLE POINTS; PC'S AND PT'S OF CURVES; LYING WITHIN ARTERIAL AND COLLECTOR STREETS.
2. TYPE "B" TO BE USED AT INTERSECTION OF RIGHT OF WAY CENTERLINES; SECTION AND ALIQUOT SECTION CORNERS; ANGLE POINTS; PC'S AND PT'S OF CURVES; SUBDIVISION CORNERS & CHANGES IN ALIGNMENT OF SUBDIVISION BOUNDARIES; LYING WITHIN STREETS NOT DESIGNATED ARTERIAL OR COLLECTOR.
3. TYPE "C" TO BE USED AT CHANGES IN ALIGNMENT OF ROAD RIGHT OF WAY; LYING IN UNPAVED AREAS.
4. CAP TO BE CONSTRUCTED OF RED BRASS OR BRONZE.
5. LETTERS TO BE APPROX. 1/32" WIDE & 1/32" DEEP.
6. FLATTENING THE BOTTOM 2" OF THE GALVANIZED PIPE IS OPTIONAL.
7. TOP OF CONCRETE POST IS CHAMFERED 3/4" EXCEPT WHEN SET FLUSH WITH PAVEMENT.
8. THE CAP SHALL SHOW THE POINT SURVEYED BY A PUNCH MARK OR SCRIBED CROSS AND THE CAP SHALL BE STAMPED WITH THE YEAR AND THE REGISTERED LAND SURVEYOR'S (RLS) REGISTRATION NUMBER.
9. WHEN APPLICABLE, THE CAP SHALL BE STAMPED WITH THE APPROPRIATE PUBLIC LAND SURVEY SYSTEM MARKING PER CURRENT MANUAL OF INSTRUCTIONS FOR THE SURVEY OF PUBLIC LANDS OF THE UNITED STATES, PREPARED BY THE BUREAU OF LAND MANAGEMENT.
10. SUBMIT TO THE AGENCY A COPY OF THE RECORDED CORNER RECORD OR RESULTS OF SURVEY TO DOCUMENT COMPLIANCE WITH THE ARIZONA BOARD OF TECHNICAL REGISTRATION REQUIREMENTS.
11. THE MAXIMUM DISTANCE FROM TOP OF COVER TO TOP OF BRASS CAP SHALL NOT EXCEED 12 INCHES. SUBSEQUENT PAVEMENT LIFTS OR STREET CONSTRUCTION THAT CAUSES THIS DISTANCE TO BE EXCEEDED SHALL CAUSE THE STREET MONUMENT TO BE RECONSTRUCTED.
12. AT THE TIME OF CONSTRUCTION, THE BRASS CAP SHALL BE PLACED 6" BELOW THE COVER.

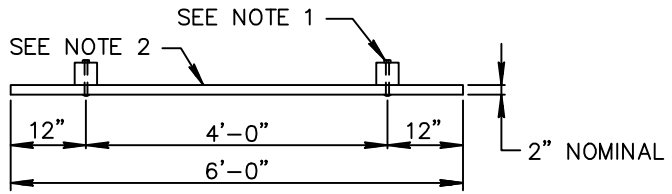


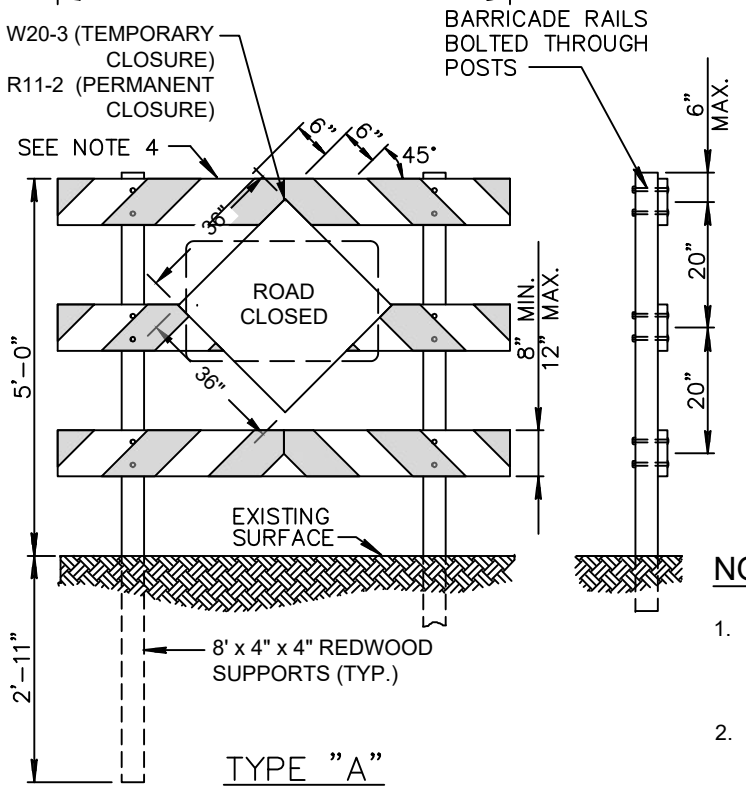
CAP DETAIL



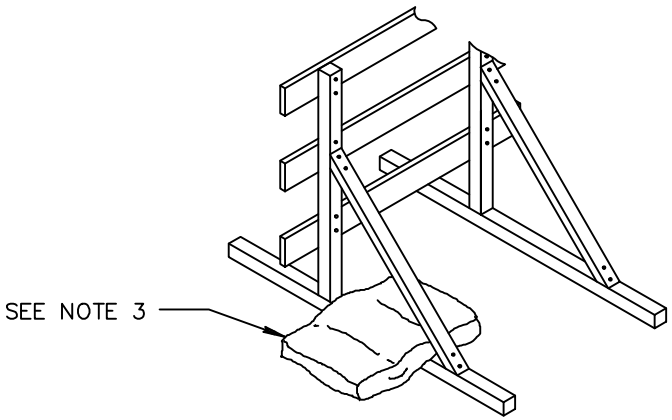
TYPE 'C'

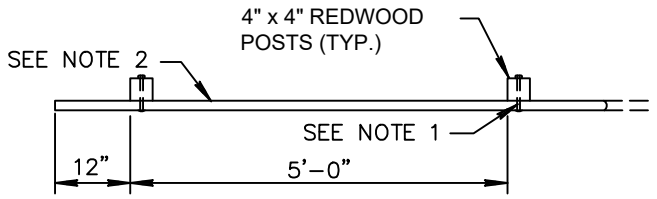
QUAD CITY STANDARD DETAIL	SURVEY MARKER	REVISED: 11/18/2025	DETAIL No. 120Q

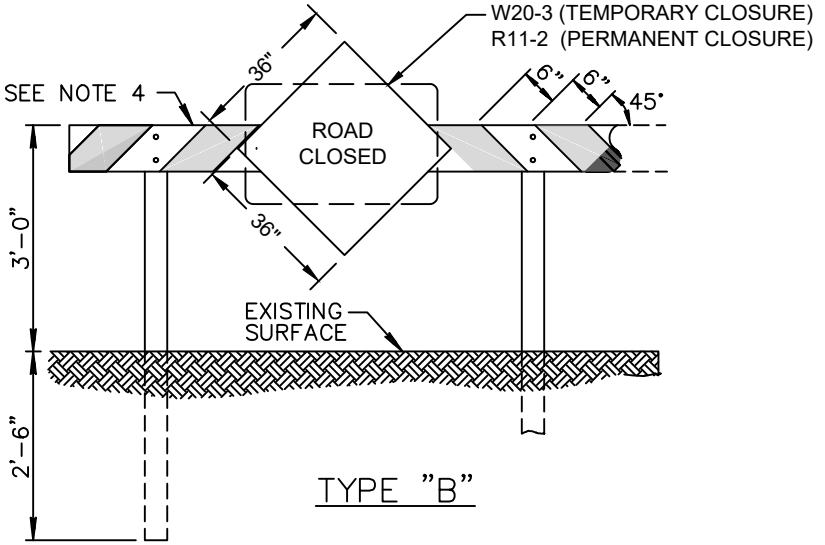




TYPE "A"







TYPE "B"

NOTES:

1. FASTEN WITH 1/2" x 5" LAG SCREWS WITH 2 FLAT WASHERS OR (2) 5/8" BOLTS, WITH 4 FLAT WASHERS.
2. 2" x 8"-12" DOUGLAS FIR PLANKS (LENGTH TO BE DETERMINED ON PLANS.)
3. IN A TEMPORARY CONDITION (LESS THAN 1 YEAR) BARRICADE (TYPE "A") IS PERMIITED TO BE CONSTRUCTED ON BASES INSTEAD OF POSTS SET INTO THE GROUND. THE BASES SHALL BE BALLAST WITH SAND BAGS OR BY STAKING TO PROVIDE RESISTANCE TO OVERTURNING DURING PERIODS OF HIGH WINDS.
4. HIGHWAY SAFETY SPHERES (BEADS) PER ADOT708-2.02 SHALL BE APPLIED BY HAND TO ALL CROSS MEMBERS, FRONT AND BACK AND ON BOTH COLORS, IMMEDIATELY AFTER PAINTING.
5. TWO COATS OF WHITE PAINT SHALL BE APPLIED TO ALL EXPOSED SURFACES OF THE BARRICADE.

A. TEMPORARY BARRICADES (TO BE IN PLACE FOR LESS THAN OR EQUAL TO 1 YEAR)

IN ADDITION TO THE TWO COATS OF WHITE PAINT, AN ADDITIONAL TWO COATS OF ORANGE PAINT SHALL BE APPLIED TO CREATE THE ALTERNATE ORANGE AND WHITE STRIPES

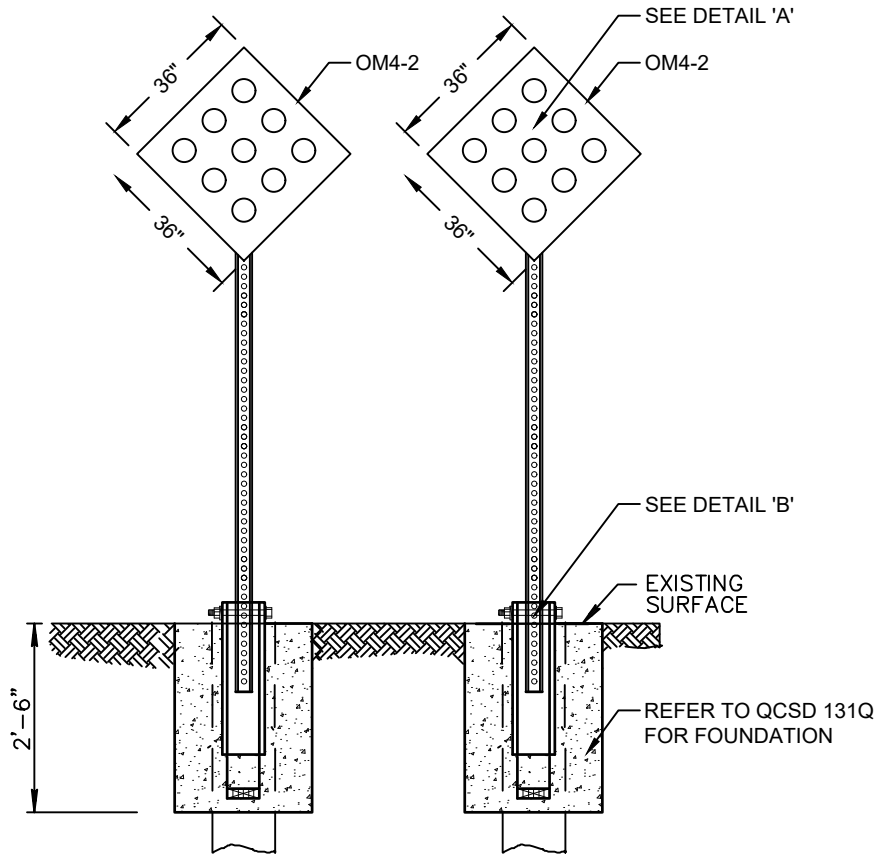
'ROAD CLOSED' W20-3 SHALL BE AFFIXED TO BARRICADE

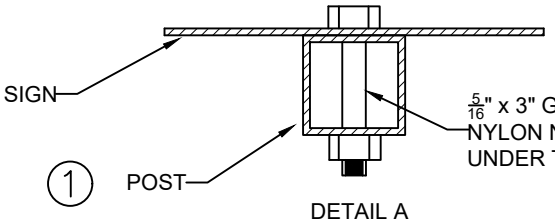
B. PERMANENT BARRICADES (TO BE IN PLACE LONGER THAN 1 YEAR)

IN ADDITION TO THE TWO COATS OF WHITE PAINT, TWO COATS OF RED PAINT SHALL BE APPLIED TO CREATE ALTERNATE RED AND WHITE STRIPES.

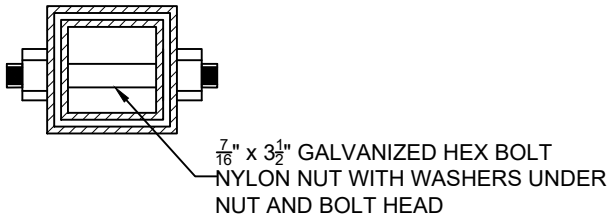
'ROAD CLOSED' R11-2 SHALL BE AFFIXED TO BARRICADE.

QUAD CITY STANDARD DETAIL	END OF ROAD BARRICADES - TYPE 'A' AND TYPE 'B'	REVISED: 11/18/2025	DETAIL No. 130Q-1





DETAIL A
SIGN MOUNTING



DETAIL B
ANCHOR ASSEMBLY

NOTES:

1. INSTALL ALL TRAFFIC SIGNS ON 12 GAUGE 2" SQUARE STEEL TUBING.

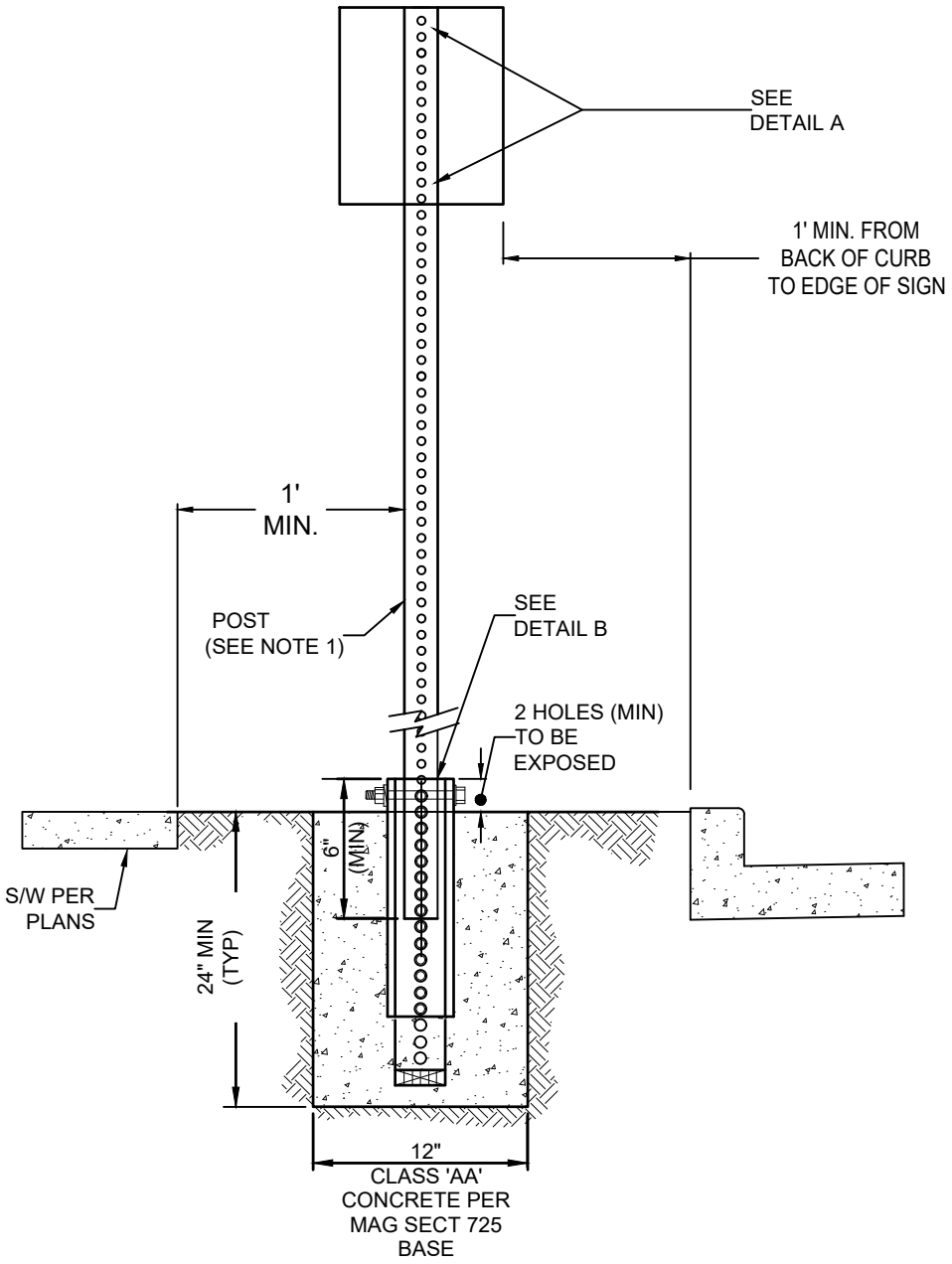
2. CONCRETE BASE 2' DEEP MIN. x 12" WIDE, 18" LONG ANCHOR & 12" SLEEVE COMPLETELY TAPED TO PREVENT SEEPAGE OF CONCRETE.

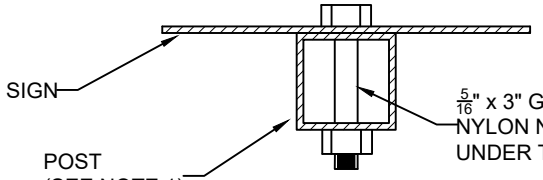
3. POST ANCHOR SHALL HAVE 2 HOLES EXPOSED AT FINISHED GRADE.

4. ALL TRAFFIC SIGNS, WITH THE EXCEPTION OF R6-1 & DELINEATORS, SHALL BE SET AT A HEIGHT OF 7' TO BOTTOM OF SIGN. POSTS WITH DUAL SIGN ASSEMBLIES SHALL BE SET AT A HEIGHT OF 6' TO BOTTOM OF SIGN. DELINEATORS SHALL BE MOUNTED AT A MINIMUM OF 4' TO THE BOTTOM OF THE SIGN. ALTERNATE HEIGHTS MUST BE APPROVED BY THE TRAFFIC ENGINEER PRIOR TO INSTALLATION.

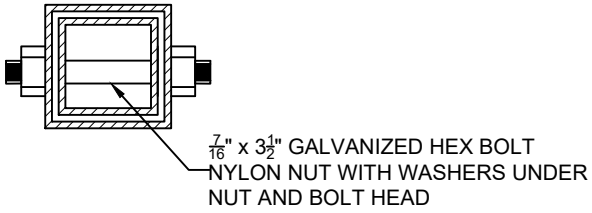
5. BOLT FOR THE BASE TO BE PERPENDICULAR TO THE FLOW OF TRAFFIC.

QUAD CITY STANDARD DETAIL	END OF ROAD BARRICADE - TYPE 'C'	REVISED: 11/18/2025	DETAIL No. 130Q-2





DETAIL A
SIGN MOUNTING

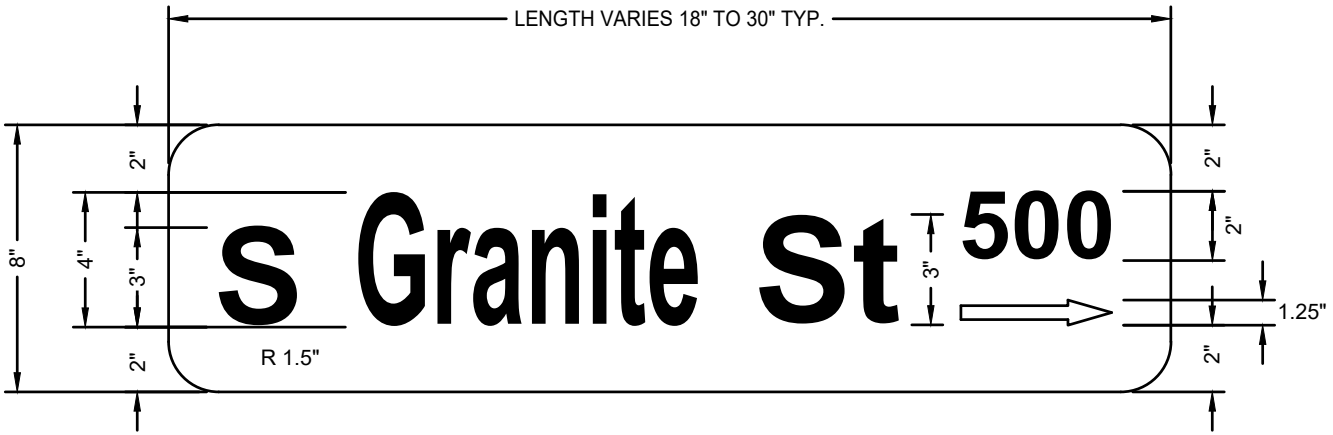


DETAIL B
ANCHOR ASSEMBLY

NOTES:

1. INSTALL ALL TRAFFIC SIGNS ON 12 GAUGE 2" SQUARE STEEL TUBING.
2. CONCRETE BASE 2' DEEP MIN. x 12" WIDE, 18" LONG ANCHOR & 12" SLEEVE COMPLETELY TAPED TO PREVENT SEEPAGE OF CONCRETE.
3. POST ANCHOR SHALL HAVE 2 HOLES EXPOSED AT FINISHED GRADE.
4. ALL TRAFFIC SIGNS, WITH THE EXCEPTION OF R6-1 & DELINEATORS, SHALL BE SET AT A HEIGHT OF 7' TO BOTTOM OF SIGN. POSTS WITH DUAL SIGN ASSEMBLIES SHALL BE SET AT A HEIGHT OF 6' TO BOTTOM OF SIGN. DELINEATORS SHALL BE MOUNTED AT A MINIMUM OF 4' TO THE BOTTOM OF THE SIGN. ALTERNATE HEIGHTS MUST BE APPROVED BY THE TRAFFIC ENGINEER PRIOR TO INSTALLATION.
5. BOLT FOR THE BASE TO BE PERPENDICULAR TO THE FLOW OF TRAFFIC.

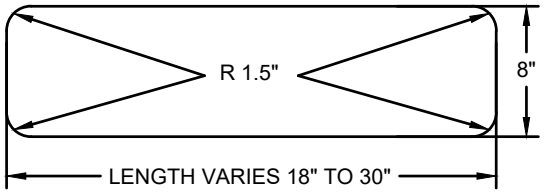
QUAD CITY STANDARD DETAIL	SIGN POST INSTALLATION	REVISED: 11/18/2025	DETAIL No. 131Q



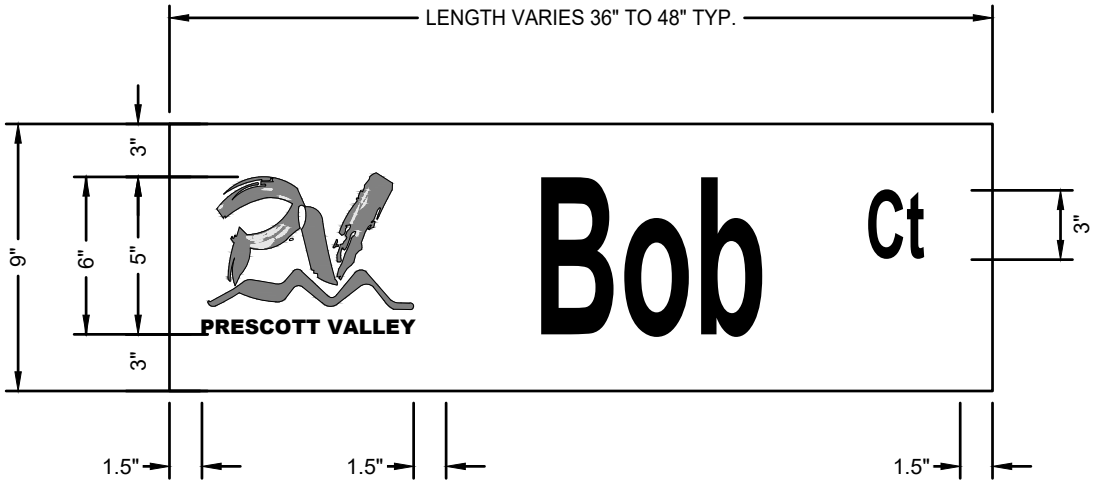
NOTES:

1. ALL REFLECTIVE SHEETING MATERIAL(S) SHALL BE HIGH INTENSITY PRISMATIC.
2. ALL TRANSPARENT ACRYLIC, PRESSURE-SENSITIVE FILM SHALL BE 3M #177 GREEN ELECTRO CUT FILM OR APPROVED EQUAL.
3. LETTER FONT SHALL BE UPPERCASE AND LOWERCASE FONT HWY C OR SIMILAR.
4. SEE DETAIL "A" FOR 8" STREET SIGN BLANK DIMENSIONS.
5. THESE SIGNS ARE CONSTRUCTED BY APPLYING WHITE HIP SHEETING TO THE ENTIRE BLANK. ON TOP OF THIS SHEETING A GREEN TRANSLUCENT PRESSURE-SENSITIVE FILM FROM WHICH THE LEGEND HAS BEEN CUT AND REMOVED IS APPLIED. THUS THE GREEN BACKGROUND IS APPLIED ON TOP OF THE WHITE SHEETING RESULTING IN A SIGN WITH A WHITE LEGEND AND A GREEN BACKGROUND.
6. SIGN BLANKS SHALL BE 5052-H38 ALLOY TREATED ALUMINUM WITH ALODINE 1200 CONVERSION COATING.
7. SIGN BLANK SHALL BE 0.100" THICK WITH ROUNDED CORNERS AS NOTED.
8. BLOCK NUMBERS ARE IN INCREMENTS OF 100 GOING UP IN NUMERICAL VALUE.
9. SIGNS THAT ARE LOCATED IN THE CENTER OF THE BLOCK SHALL HAVE "<- ->".
10. SIGNS THAT ARE AT THE BEGINNING AND END OF THE BLOCK HAVE "->" POINTING UP THE BLOCK.

DETAIL "A" - BLANK DIMENSIONS



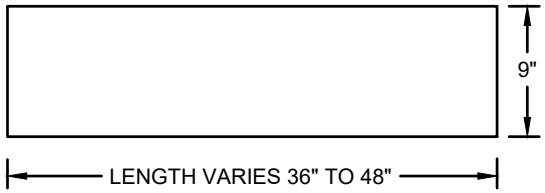
QUAD CITY STANDARD DETAIL	STREET NAME SIGN	REVISED: 11/18/2025	DETAIL No. 132P



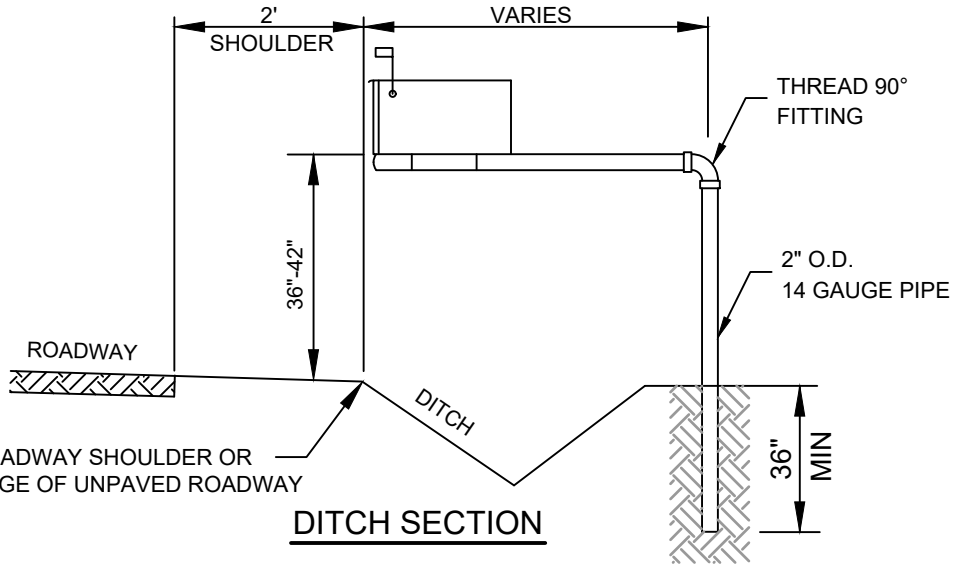
NOTES:

1. ALL REFLECTIVE SHEETING MATERIAL(S) SHALL BE HIGH INTENSITY PRISMATIC.
2. ALL TRANSPARENT ACRYLIC, PRESSURE-SENSITIVE FILM SHALL BE 3M #177 BLUE ELECTRO CUT FILM OR APPROVED EQUAL.
3. LETTER FONT SHALL BE UPPERCASE AND LOWERCASE FONT HWY C OR SIMILAR.
4. SEE DETAIL "A" FOR 8" STREET SIGN BLANK DIMENSIONS.
5. THESE SIGNS ARE CONSTRUCTED BY APPLYING WHITE HIP SHEETING TO THE ENTIRE BLANK. ON TOP OF THIS SHEETING A BLUE TRANSLUCENT PRESSURE-SENSITIVE FILM FROM WHICH THE LEGEND HAS BEEN CUT AND REMOVED IS APPLIED. THUS THE BLUE BACKGROUND IS APPLIED ON TOP OF THE WHITE SHEETING RESULTING IN A SIGN WITH A WHITE LEGEND AND A BLUE BACKGROUND.
6. SIGN BLANKS SHALL BE 5052-H38 ALLOY TREATED ALUMINUM WITH ALODINE 1200 CONVERSION COATING.
7. SIGN BLANK SHALL BE 0.100" THICK.

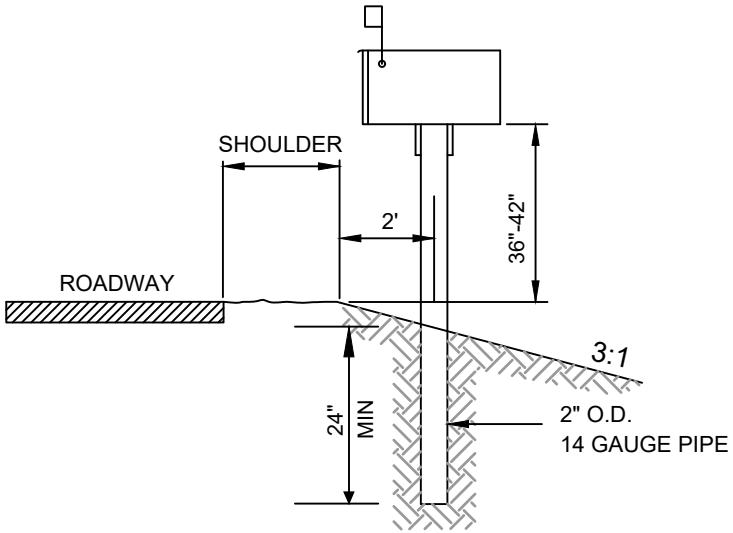
DETAIL "A" - BLANK DIMENSIONS



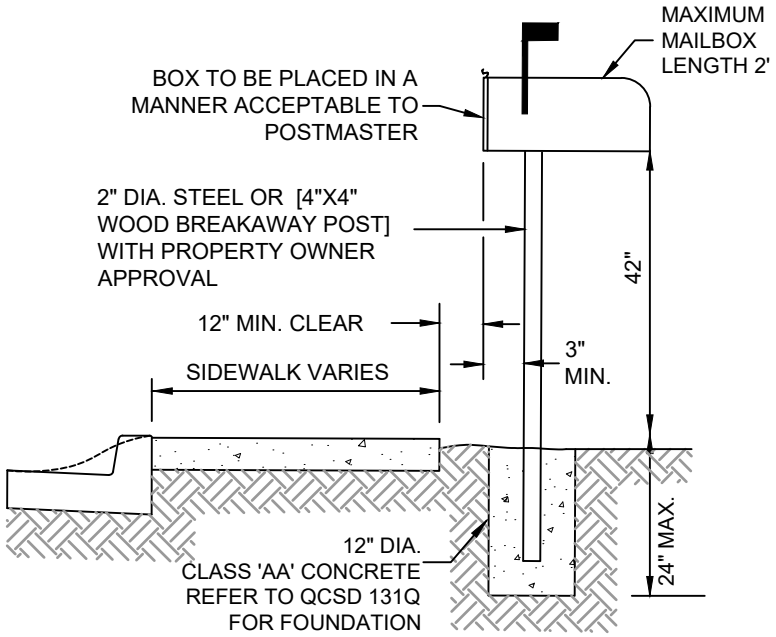
QUAD CITY STANDARD DETAIL	STREET NAME SIGN	REVISED: 11/18/2025	DETAIL No. 132PV



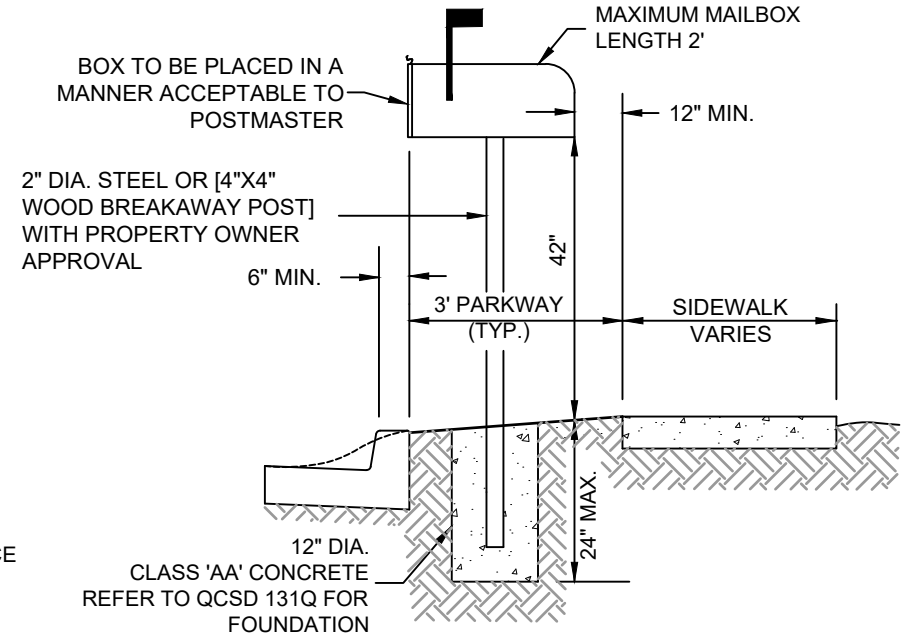
DITCH SECTION



SHOULDER SECTION



MAILBOX BEHIND SIDEWALK

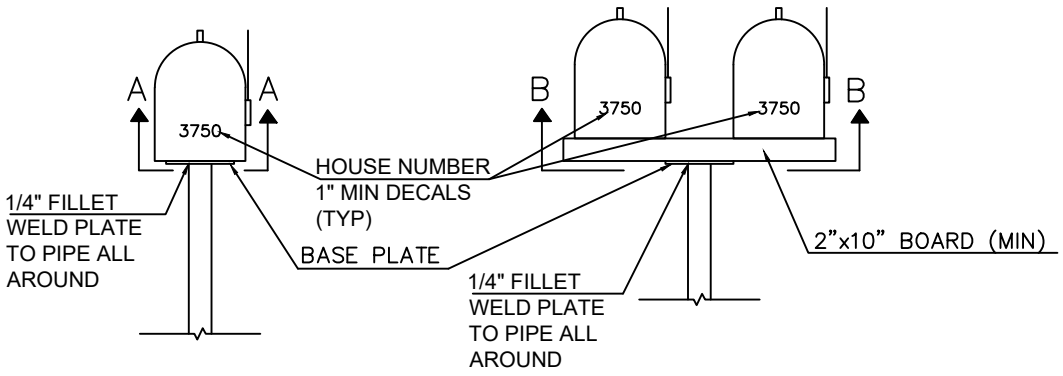


MAILBOX WITH PARKWAY

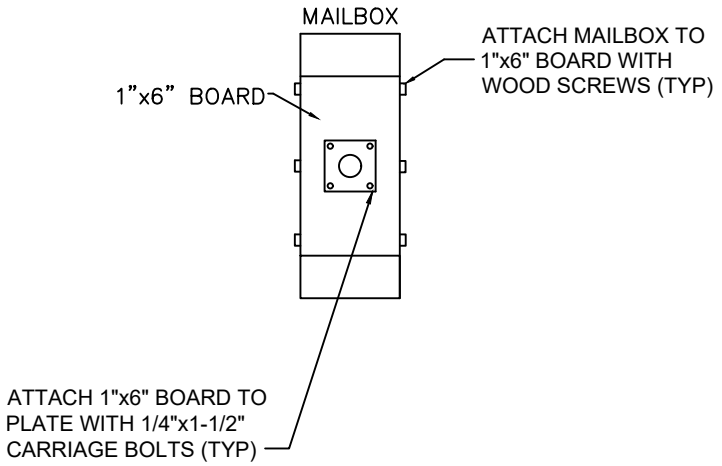
NOTES:

1. SOLID OR ANCHORED STRUCTURES IN RIGHT-OF-WAY SHALL BE BREAKAWAY CONSTRUCTION TO LIMIT DAMAGE AND INJURIES.
2. ALTERNATE POST MOUNTED MAILBOX DESIGNS MEETING UNITED STATES POSTAL SERVICE SPECIFICATIONS AND REQUIREMENTS WILL BE CONSIDERED.
3. ANY DEVIATION FROM THIS DETAIL OR STANDARD MAILBOX MUST BE APPROVED BY THE AGENCY ENGINEER.

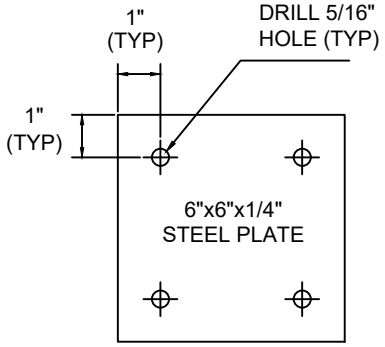
QUAD CITY STANDARD DETAIL	MAILBOX	REVISED: 11/18/2025	DETAIL No. 134Q-1



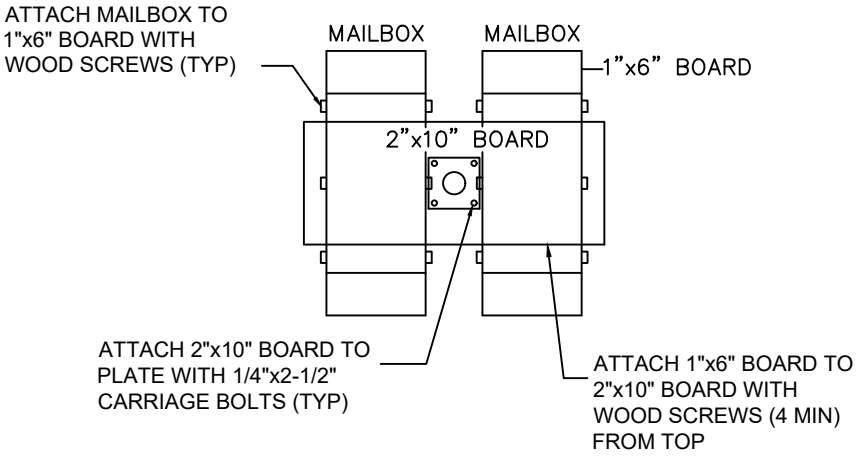
SINGLE MAILBOX INSTALLATION DOUBLE MAILBOX INSTALLATION



SECTION A-A



BASE PLATE

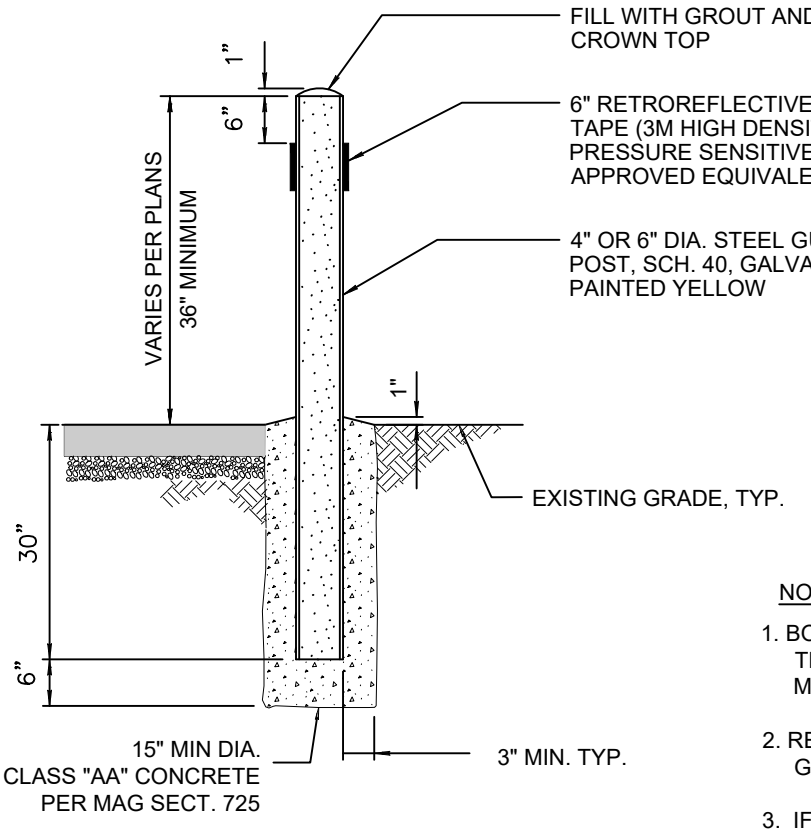


SECTION B-B

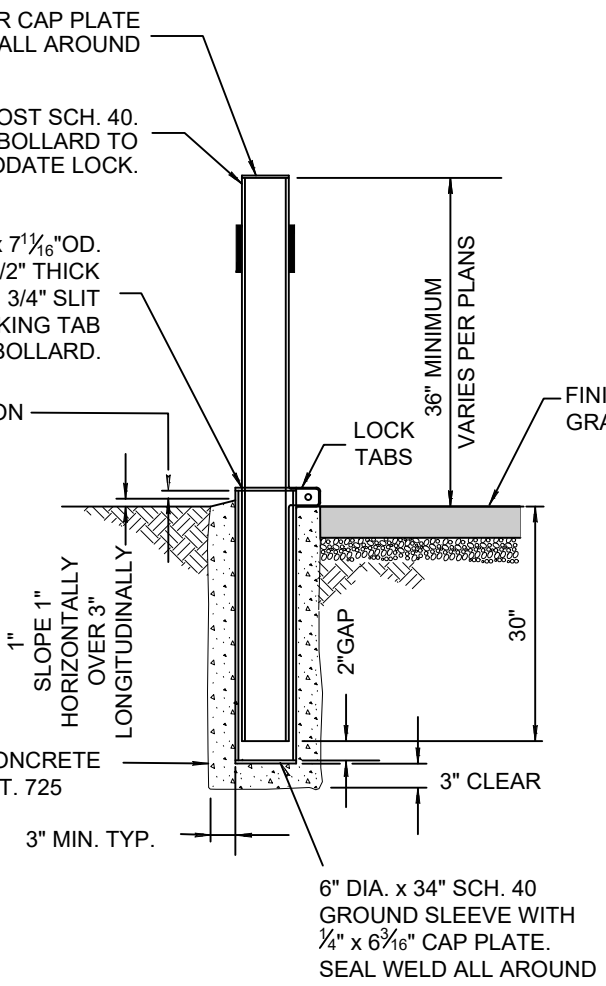
NOTE:

1. ALTERNATE POST MOUNTED MAILBOX DESIGNS MEETING UNITED STATES POSTAL SERVICE SPECIFICATIONS AND REQUIREMENTS WILL BE CONSIDERED.

QUAD CITY STANDARD DETAIL	MAILBOX	REVISED: 11/18/2025	DETAIL No. 134Q-2



TYPE 1 PERMANENT

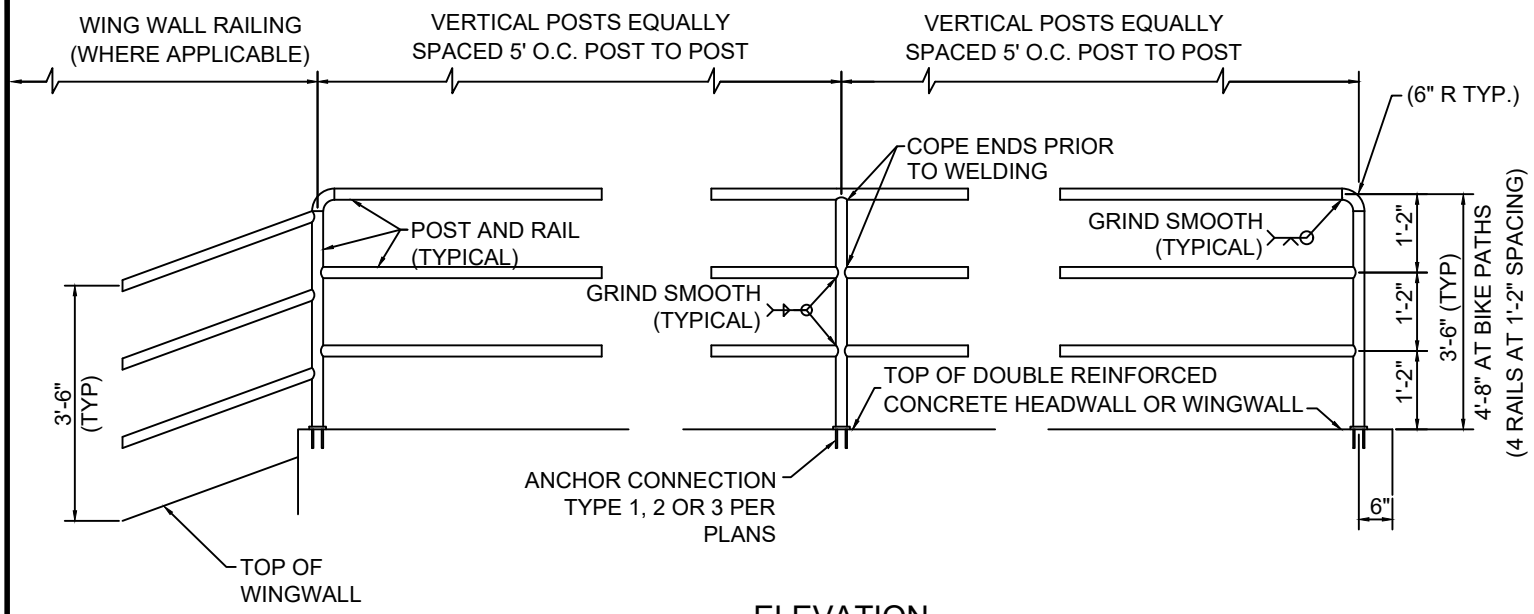


TYPE 2 REMOVABLE

NOTES

1. BOLLARDS SHALL HAVE A HEIGHT OF 3 FEET OR BE EQUAL TO THE HEIGHT OF THE BACK SCREEN WALL OF BIN ENCLOSURES. POSTS SHALL BE PLACED A MINIMUM OF 4" FROM THE WALL.
2. REMOVABLE POST - GRIND SMOOTH ALL SHARP EDGES PRIOR TO GALVANIZATION. GALVANIZE PER ASTM A54 AFTER FABRICATION.
3. IF REMOVABLE BOLLARD IS TO REMAIN REMOVED FOR AN EXTENDED DURATION, AS DETERMINED BY AGENCY, THE CONTRACTOR SHALL PROVIDE AND INSTALL A TRAFFIC RATED CAP.

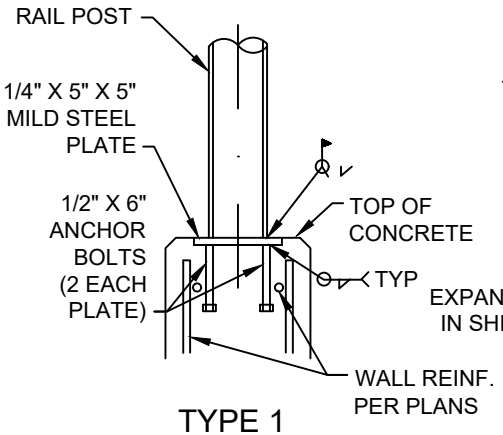
QUAD CITY STANDARD DETAIL	BOLLARD	REVISED: 11/18/2025	DETAIL No. 140Q



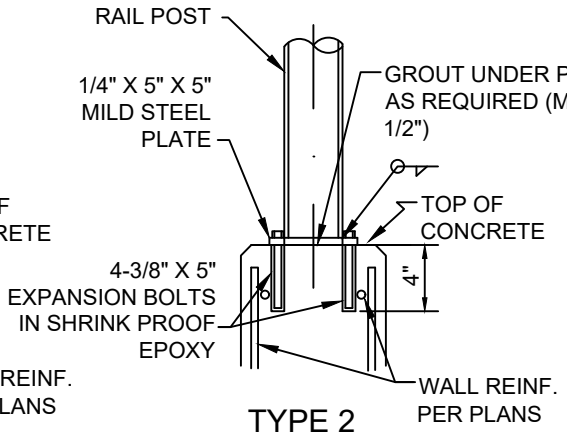
ELEVATION

NOTES:

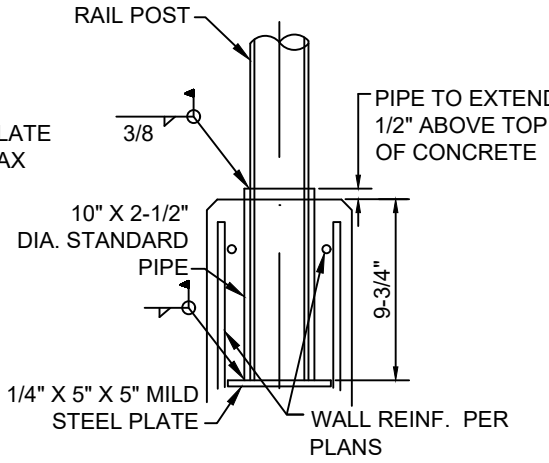
1. POSTS AND RAILS SHALL BE 1.5" SCHEDULE 40 STEEL PIPE ASTM A 53, GRADE B (2.72 #/LF, 1.9" O.D.)
2. PAINT RAIL PER MAG SPECIFICATIONS MAG SECTION 530 WHEN REQUIRED BY PLANS. SHOP PRIME WITH RUST INHIBITING PRIMER (FIELD REPAIR PRIMER AS NEEDED). COLOR TO BE PER AGENCY SPECIFICATIONS.
3. VERTICAL POSTS TO BE EVENLY SPACED PER DETAIL.
4. REMOVE ALL SHARP EDGES.
5. THE EMBEDMENT FOR ANCHOR TYPES 1, 2 AND 3 SHALL BE LOCATED INSIDE THE WALL REINFORCEMENT CAGE.
6. HANDRAIL IS REQUIRED WHEREVER THERE IS A SLOPE STEEPER THAN 2:1 WITHIN 3' OF A SIDEWALK.



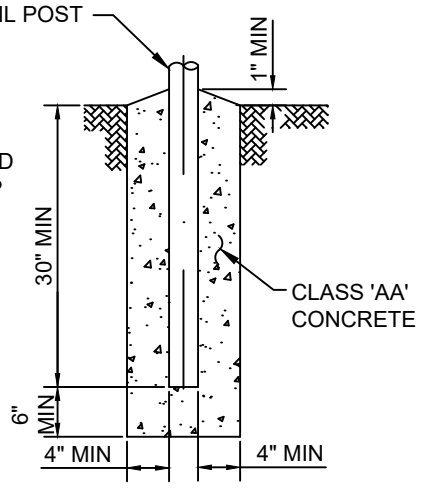
TYPE 1
ANCHOR PLATE DETAIL



TYPE 2
EXPANSION BOLT DETAIL



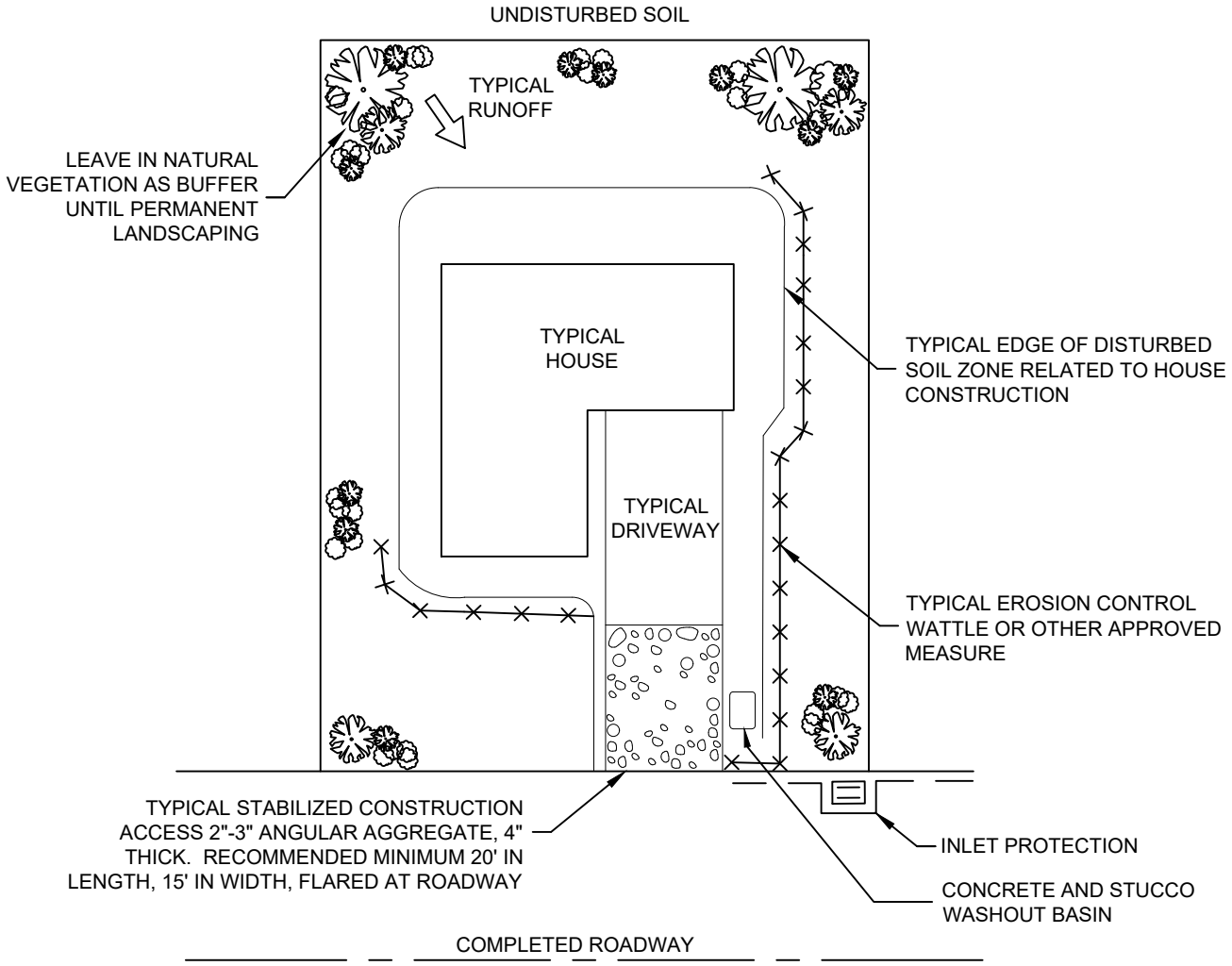
TYPE 3
PIPE SLEEVE DETAIL



TYPE 4
GROUND INSTALLATION DETAIL

NOTE: SEE PLANS FOR ANCHORAGE DETAILS FOR ATTACHMENT TO SINGULARLY REINFORCED AND NON-REINFORCED WALLS.

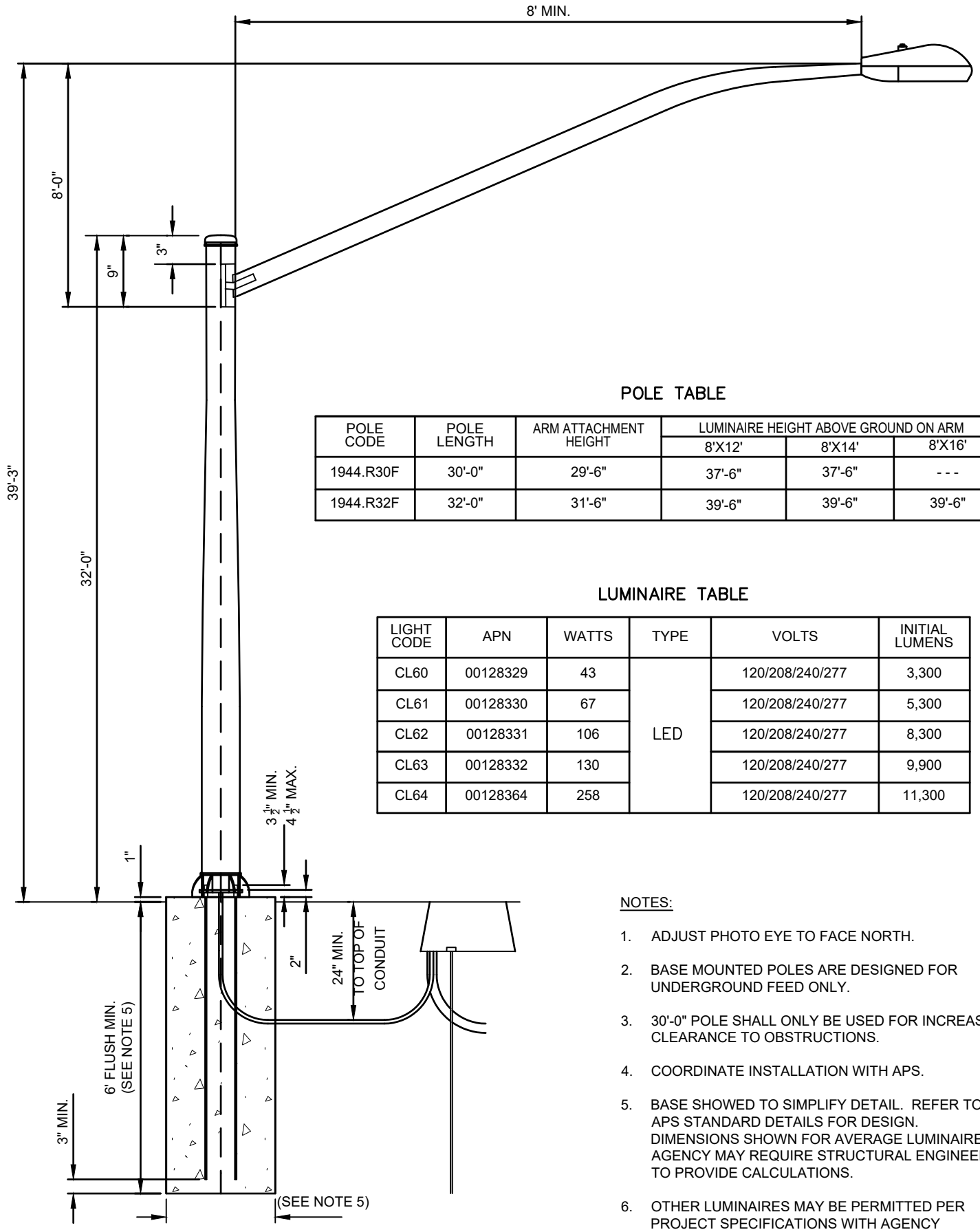
QUAD CITY STANDARD DETAIL	SAFETY RAIL	REVISED: 11/18/2025	DETAIL No. 145Q



NOTE:

DETAIL REPRESENTS A TYPICAL RESIDENTIAL APPLICATION. INDIVIDUAL SITE REQUIREMENTS WILL VARY.

QUAD CITY STANDARD DETAIL	SINGLE FAMILY SITE EROSION CONTROL PLAN	REVISED: 11/18/2025	DETAIL No. 160Q



POLE TABLE

POLE CODE	POLE LENGTH	ARM ATTACHMENT HEIGHT	LUMINAIRE HEIGHT ABOVE GROUND ON ARM		
			8'X12'	8'X14'	8'X16'
1944.R30F	30'-0"	29'-6"	37'-6"	37'-6"	- - -
1944.R32F	32'-0"	31'-6"	39'-6"	39'-6"	39'-6"

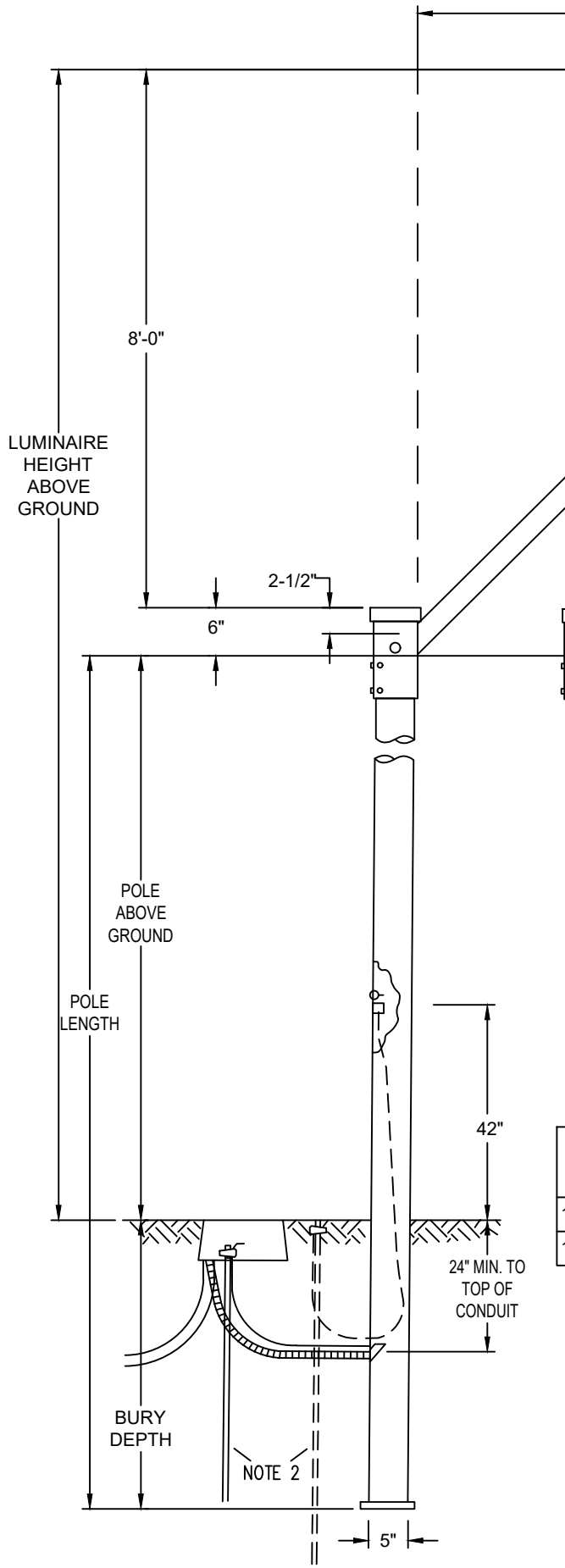
LUMINAIRE TABLE

LIGHT CODE	APN	WATTS	TYPE	VOLTS	INITIAL LUMENS
CL60	00128329	43	LED	120/208/240/277	3,300
CL61	00128330	67		120/208/240/277	5,300
CL62	00128331	106		120/208/240/277	8,300
CL63	00128332	130		120/208/240/277	9,900
CL64	00128364	258		120/208/240/277	11,300

NOTES:

1. ADJUST PHOTO EYE TO FACE NORTH.
2. BASE MOUNTED POLES ARE DESIGNED FOR UNDERGROUND FEED ONLY.
3. 30'-0" POLE SHALL ONLY BE USED FOR INCREASED CLEARANCE TO OBSTRUCTIONS.
4. COORDINATE INSTALLATION WITH APS.
5. BASE SHOWED TO SIMPLIFY DETAIL. REFER TO APS STANDARD DETAILS FOR DESIGN. DIMENSIONS SHOWN FOR AVERAGE LUMINAIRE. AGENCY MAY REQUIRE STRUCTURAL ENGINEER TO PROVIDE CALCULATIONS.
6. OTHER LUMINAIRES MAY BE PERMITTED PER PROJECT SPECIFICATIONS WITH AGENCY APPROVAL.

QUAD CITY STANDARD DETAIL	BASE MOUNTED LUMINAIRE	REVISED: 11/18/2025	DETAIL No. 170Q



LUMINAIRE TABLE

LIGHT CODE	APN	WATTS	TYPE	VOLTS	INITIAL LUMENS
AL56	00113722	89	LED	120/208/240/277	6,400
AL60	00113723	139		120/208/240/277	9,200
AL64	00107462	202		120/208/240/277	14,800

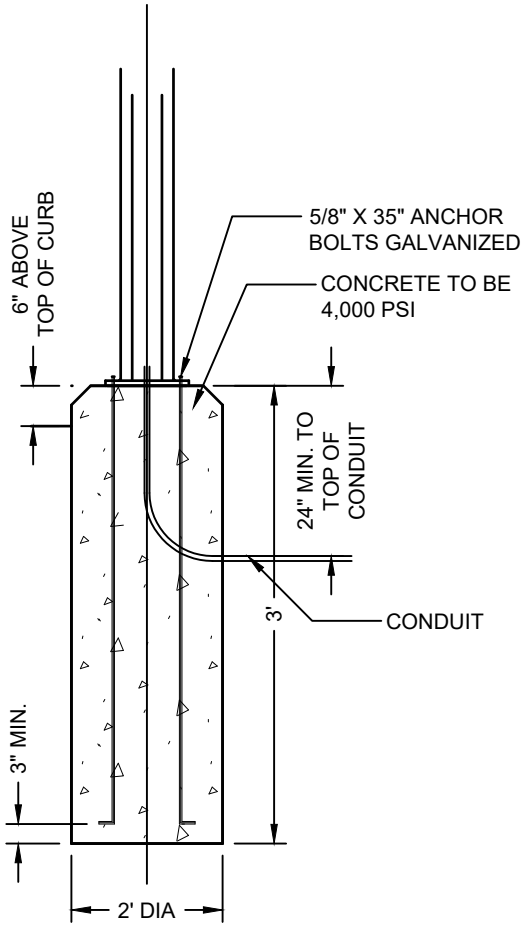
TABLE 2

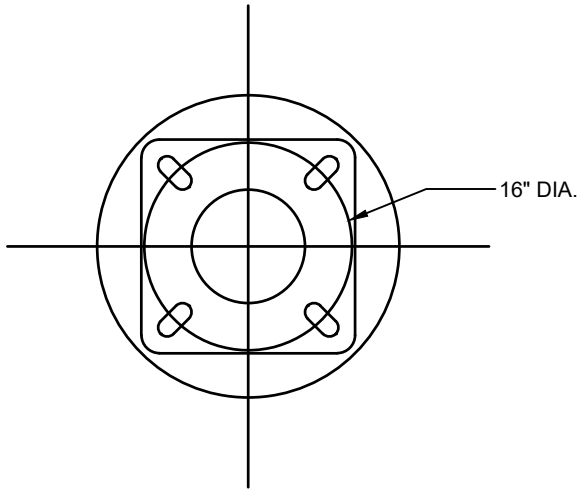
POLE CODE	POLE LENGTH	BURY DEPTH	POLE ABOVE GROUND	LUMINAIRE HEIGHT ABOVE GROUND			
				1FT ARM	2FT ARM	4FT ARM	8FT ARM
1940.30	30'-6"	5'-0"	25'-0"	25'-0"	25'-0"	25'-0"	33'-0"
1940.34	34'-0"	6'-0"	28'-0"	28'-0"	28'-0"	28'-0"	36'-0"

NOTES:

1. ADJUST PHOTO EYE TO FACE NORTH.
2. BASE MOUNTED POLES ARE DESIGNED FOR UNDERGROUND FEED ONLY.
3. 30'-0" POLE SHALL ONLY BE USED FOR INCREASED CLEARANCE TO OBSTRUCTIONS.
4. COORDINATE INSTALLATION WITH APS.

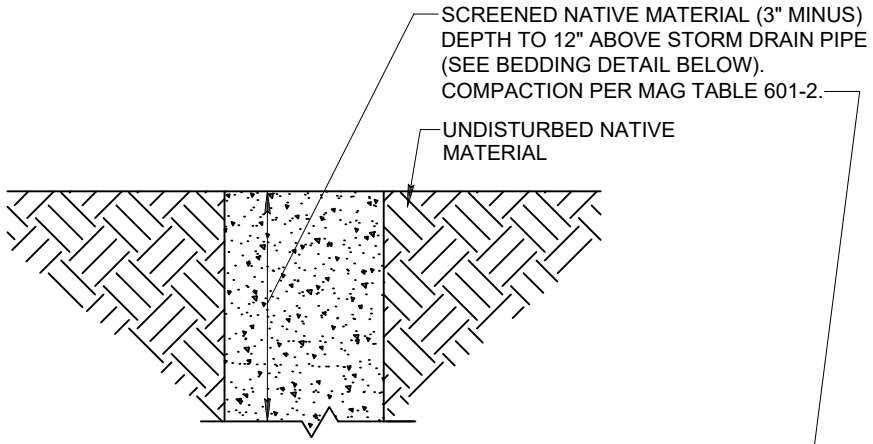
QUAD CITY STANDARD DETAIL	ARCHITECTURAL LUMINAIRE	REVISED: 11/18/2025	DETAIL No. 171P





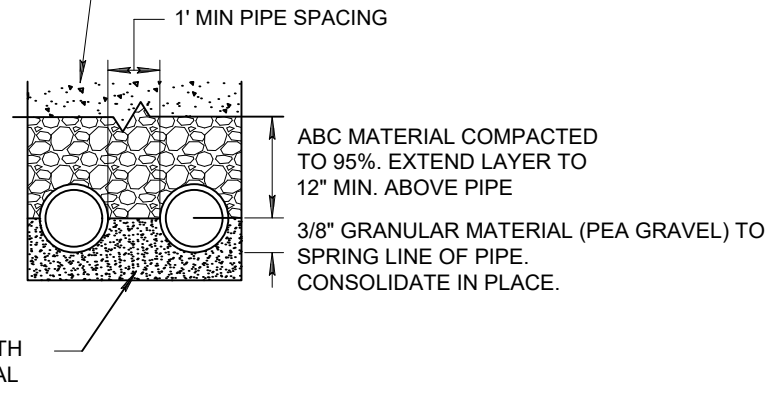
NOT TO SCALE

QUAD CITY STANDARD DETAIL	ANTIQUE STREET LIGHT FOUNDATION	REVISED: 11/18/2025	DETAIL No. 173P



STORM DRAIN TRENCH (36" DIA. AND LARGER PIPE)

GRANULAR MATERIAL (PEA GRAVEL)	
SLEEVE SIZE	PERCENT PASSING
1/2 INCH	100
3/8 INCH	85-100
NO. 4	10-30
NO. 8	0-12
NO. 200	0-5

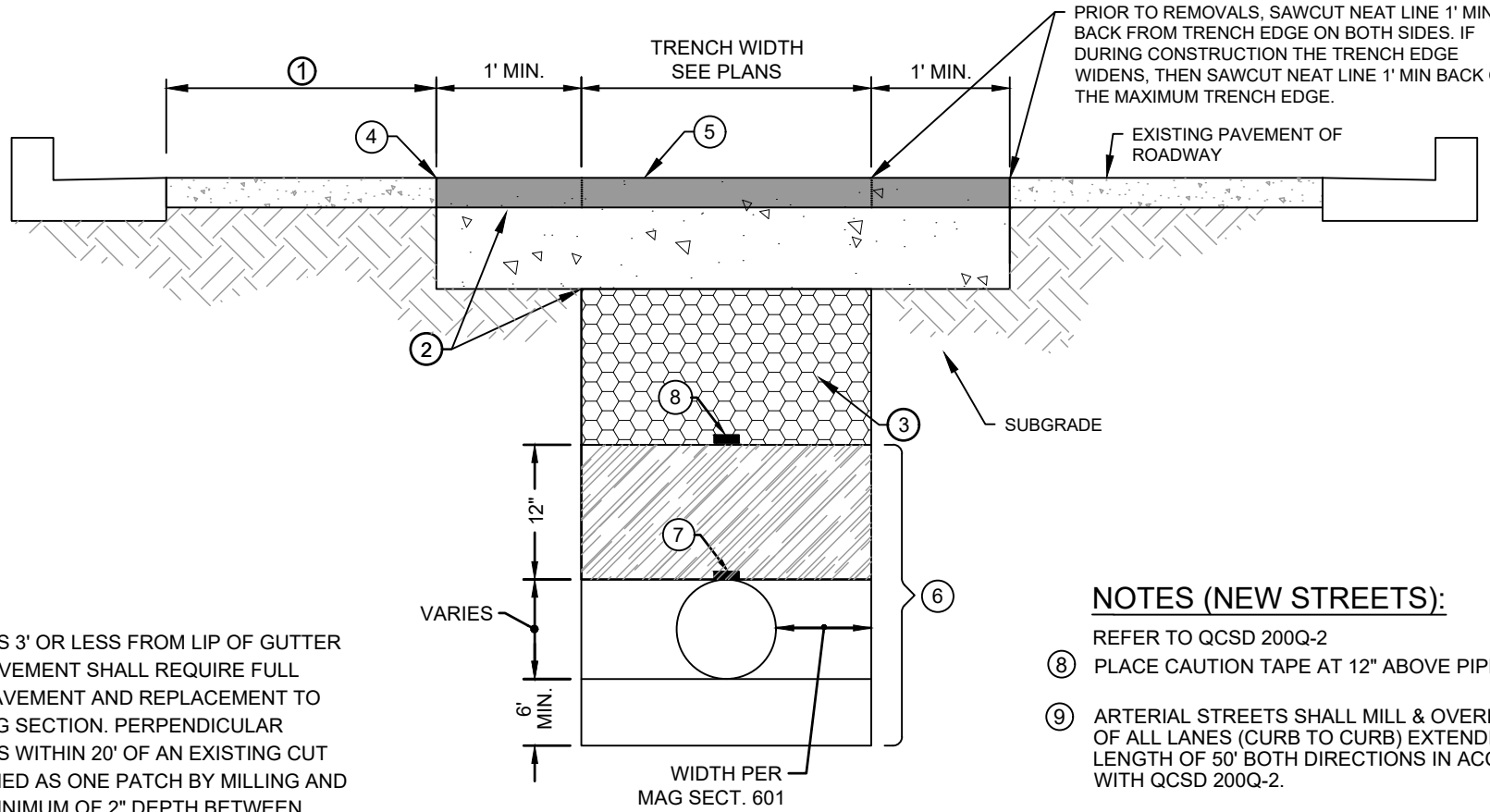


BEDDING DETAIL

NOTES:

1. USE MATERIALS PER MAG SECTION 601 & 702.
2. AB COMPACTION PER MAG TABLE 601-2, "TYPE III" BACKFILL FOR FOUNDATION AND BEDDING (95%).
3. GRANULAR MATERIAL (PEA GRAVEL) PER TABLE ABOVE.
4. TESTING FREQUENCY TO BE EVERY 300' PER 12" LIFT OR CHANGE IN MATERIAL.
5. CONTRACTOR MUST WARRANTEE REPAIR WORK FOR A PERIOD OF 24 MONTHS FROM DATE OF ACCEPTANCE.
6. WATER CONSOLIDATION JETTING IS NOT ALLOWED.
7. MAXIMUM PI NOT TO EXCEED 10. THE COMBINATION OF PERCENT MATERIAL PASSING THE 200 SIEVE AND PI NOT TO EXCEED 22.
8. SECURE A RIGHT OF WAY PERMIT PRIOR TO CONSTRUCTION.

QUAD CITY STANDARD DETAIL	LARGE STORM DRAIN TRENCH AND BEDDING	REVISED: 11/18/2025	DETAIL No. 200PV-2



SECTION VIEW

ALL PAVEMENT CUTS

NOTES :

① PAVEMENT CUTS 3' OR LESS FROM LIP OF GUTTER OR EDGE OF PAVEMENT SHALL REQUIRE FULL REMOVAL OF PAVEMENT AND REPLACEMENT TO MATCH EXISTING SECTION. PERPENDICULAR PAVEMENT CUTS WITHIN 20' OF AN EXISTING CUT MUST BE PATCHED AS ONE PATCH BY MILLING AND REPLACING A MINIMUM OF 2" DEPTH BETWEEN OUTSIDE EDGES OF THE MULTIPLE CUTS.

② MATCH EXISTING PAVEMENT STRUCTURAL SECTION OR 4" MIN AC OVER 8" MIN ABC.

③ BACKFILL TRENCHES IN PAVEMENT WITH 1/2 SACK CLSM PER MAG 728. FOR UNPAVED SURFACE (BACKFILL TRENCH WITH ABC. ABC SHALL NOT BE LIME TREATED) *

④ TACK EDGE OF SAWCUT WITH CSS-1H WHEN PAVING (TYP.)

⑤ ASPHALT PAVEMENT PER MAG SPECIFICATION 710.

⑥ GRANULAR BEDDING/SHADING MATERIAL SHALL BE PER MAG SECT. 601 WITH 100% PASSING 1" SIEVE, MAXIMUM 10 P.I.. THE COMBINATION OF PERCENT MATERIAL PASSING THROUGH #200 PLUS P.I. SHALL NOT EXCEED 22. BEDDING/SHADING AND BACKFILL SHALL BE COMPACTED TO 95% PROCTOR DENSITY PER ASTM D698. MIN. 1 TEST PER LIFT PER 200'. PEA GRAVEL IS NOT PERMITTED.

⑦ INSTALL TRACER WIRE PER QUAD CITY STANDARD DETAIL 319Q-1 ATTACHED TO TOP OF PIPE WITH 10 MIL PVC TAPE ON 6' CENTERS ON ALL AGENCY UTILITIES EXCEPT CITY OF PRESCOTT GRAVITY SEWER MAINS.

NOTES (NEW STREETS):

REFER TO QCSD 200Q-2

⑧ PLACE CAUTION TAPE AT 12" ABOVE PIPE.

⑨ ARTERIAL STREETS SHALL MILL & OVERLAY WIDTH OF ALL LANES (CURB TO CURB) EXTENDING A MIN. LENGTH OF 50' BOTH DIRECTIONS IN ACCORDANCE WITH QCSD 200Q-2.

⑩ ALL OTHER STREETS OTHER THAN ARTERIAL STREETS SHALL MILL & OVERLAY WIDTH OF ALL LANES (CURB TO CURB) EXTENDING A MIN. LENGTH OF 25' BOTH DIRECTIONS IN ACCORDANCE WITH QCSD 200Q-2.

* SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

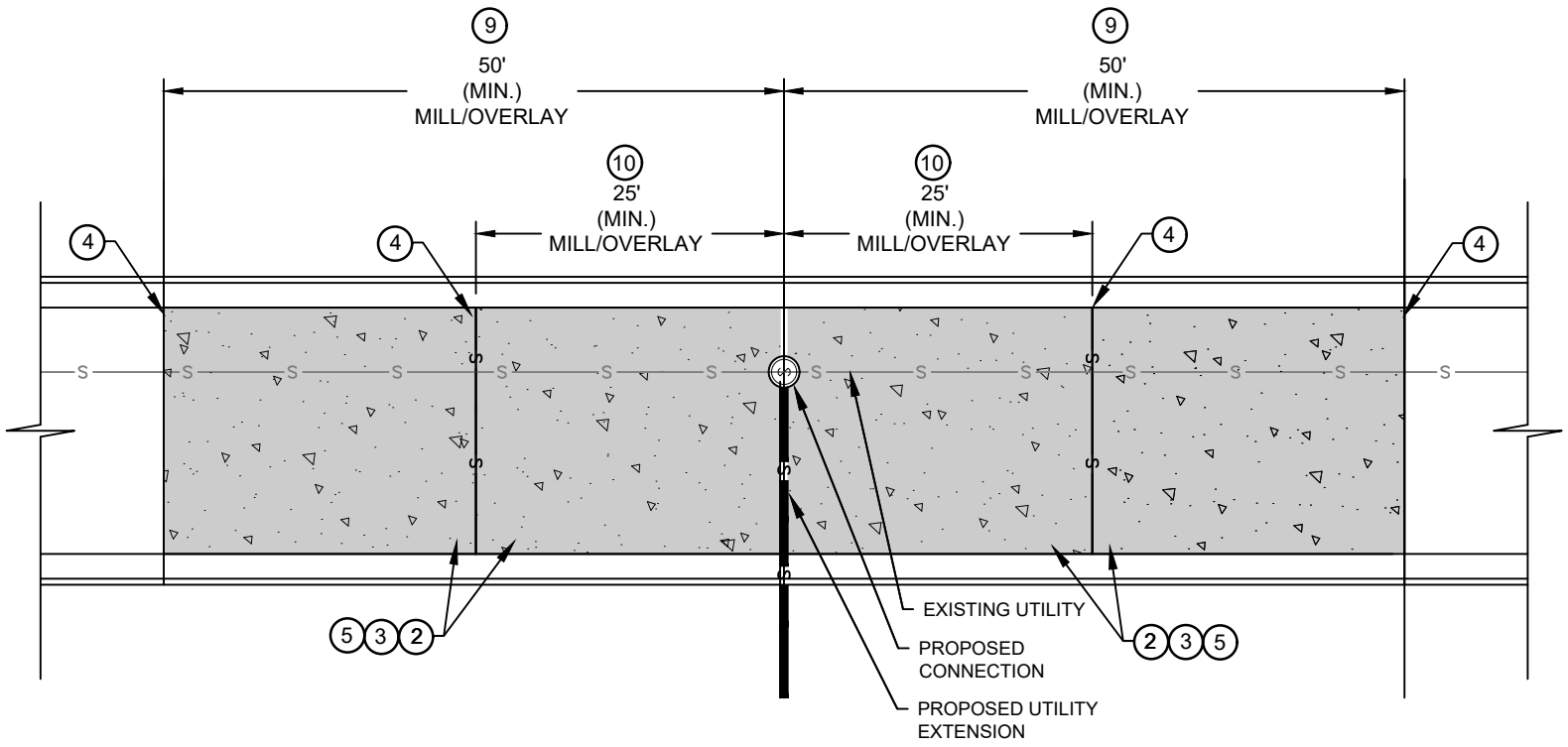
CITY OF PRESCOTT

AGGREGATE BASE COURSE & SUB-GRADE PREP AND COMPACTION PER COP MAG SUPPLEMENT 340.3.1

TOWN OF PRESCOTT VALLEY

AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE PREP AND COMPACTION PER MAG 301.3

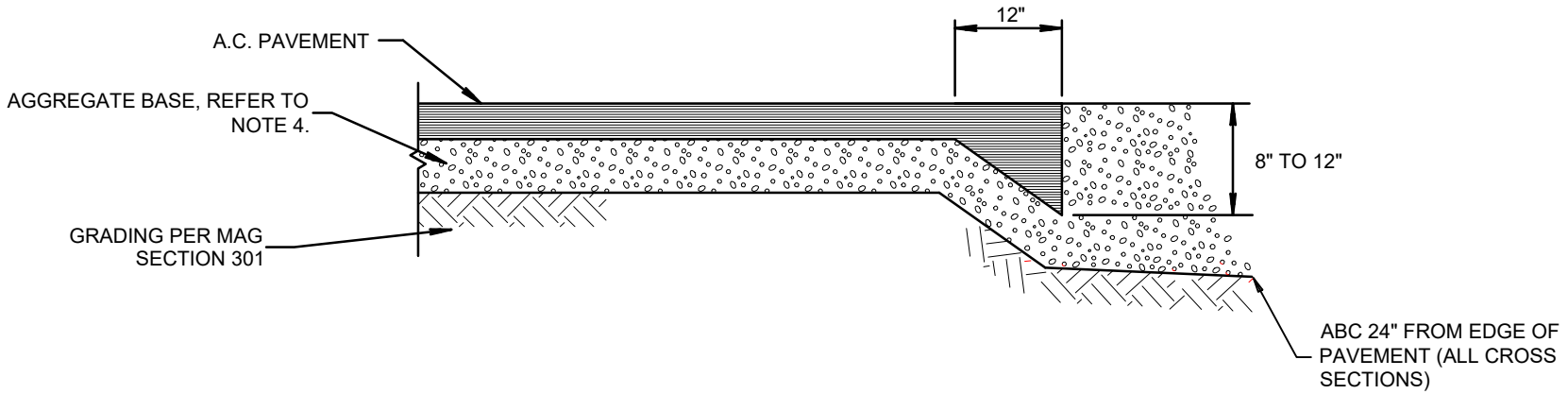
QUAD CITY STANDARD DETAIL	TRENCH BACKFILL AND SURFACE REPLACEMENT	REVISED: 11/18/2025	DETAIL No. 200Q-1



PLAN VIEW

ADDITIONAL REQUIREMENTS FOR
PAVEMENT CUTS IN NEW STREETS

QUAD CITY STANDARD DETAIL	TRENCH BACKFILL AND SURFACE REPLACEMENT	REVISED: 11/18/2025	DETAIL No. 200Q-2



NOTES:

1. THICKENED EDGE REQUIRED AT ALL TRANSVERSE TERMINATIONS OF PAVING AND AT LONGITUDINAL EDGES FOR ASPHALT PAVEMENTS UNCONFINED BY CURB & GUTTER.

2. MATCHLINE TO EXISTING PAVEMENTS SHALL BE SKEWED OR OFFSET FOR SMOOTHER TRANSITION. LOCATION OF SAWCUT SHALL BE AS DIRECTED BY THE AGENCY ENGINEER OR HIS DESIGNEE.

3. EXISTING EDGES SHALL BE UNDISTURBED NATIVE, FIRM, & UNYIELDING SOIL OR FORMED TO PROVIDE FULLY COMPACTED STRAIGHT EDGES.

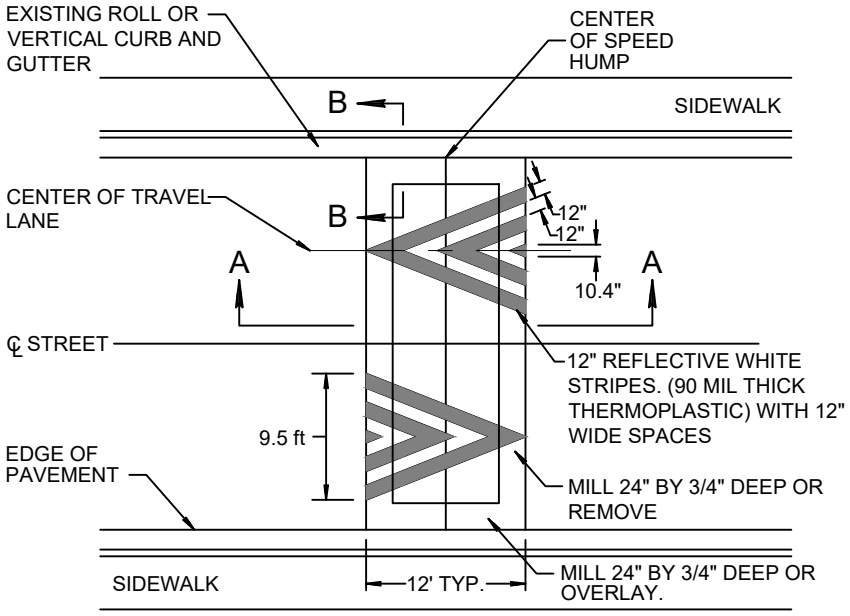
4. 6" ABC. SUBGRADE

   SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

   CITY OF PRESCOTT
   AGGREGATE BASE COURSE COMPACTION PER COP MAG SUPPLEMENT 310.3. SUB-GRADE PREP PER COP MAG SUPPLEMENT 301.3 AND SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 301.3.

   TOWN OF PRESCOTT VALLEY
   AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE PREP AND COMPACTION PER MAG 301.3

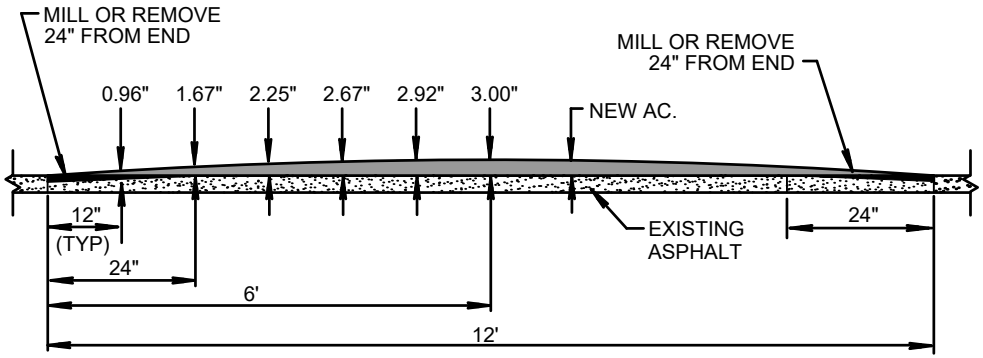
QUAD CITY STANDARD DETAIL	THICKENED EDGE PAVEMENT SECTION	REVISED: 11/18/2025	DETAIL No. 201Q



PLAN VIEW

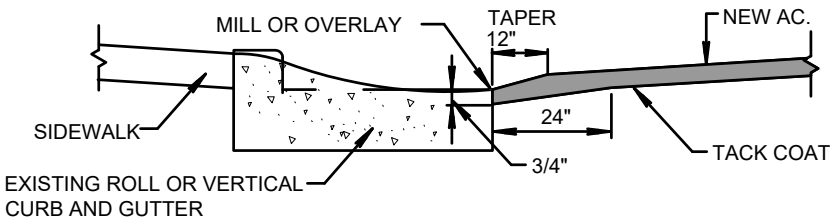
NOTES:

1. SPEED HUMPS SHALL NOT BE PLACED OVER MANHOLES, WATER VALVES, SURVEY MONUMENTS OR ANY SUBSURFACE INFRASTRUCTURE INDICATOR.
2. SPEED HUMPS SHALL NOT BE INSTALLED IN A LOCATION SUCH THAT ROADWAY DRAINAGE IS COMPROMISED.
3. SPEED HUMPS TO BE CONSTRUCTED WITH TYPE R-1.5 (D-1/2) COURSE, M.A.G. SPECIFICATIONS SECTION 710. A TACK COAT SHALL BE APPLIED PRIOR TO APPLICATION OF PAVEMENT MATERIAL.
4. CONTACT THE AGENCY ENGINEER ONE WEEK PRIOR TO INSTALLATION TO COORDINATE MARKINGS & SIGNING.
5. CONTRACTOR SHALL SUBMIT AS-BUILT SURVEY TO VERIFY 3" HUMP PER SECTION A-A.



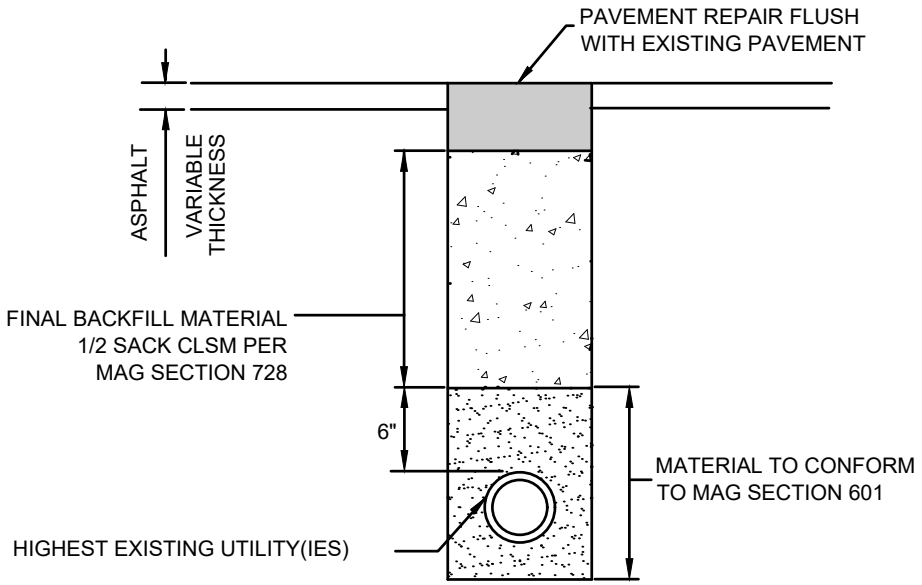
SECTION A-A

IMPORTANT: TO GAIN MAXIMUM EFFECT, HUMPS MUST BE THE FULL 3". CONTRACTORS MUST NOT EXCEED THIS HEIGHT BASED ON CONSIDERATION FOR EMERGENCY POLICE AND FIRE DEPARTMENT VEHICLES.



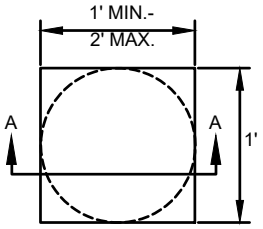
SECTION B-B

QUAD CITY STANDARD DETAIL	SPEED HUMP	REVISED: 11/18/2025	DETAIL No. 210Q



SECTION VIEW

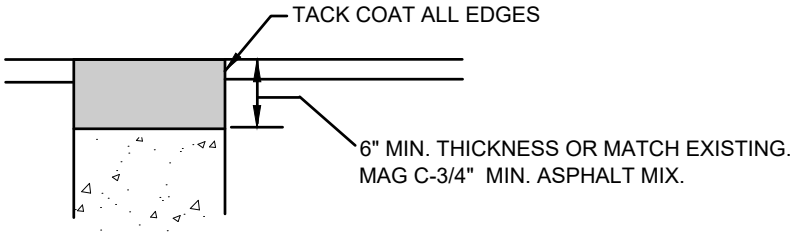
PAVEMENT REPAIR



PLAN VIEW

NOTES:

1. DIMENSIONS ARE NOMINAL.
2. EDGES SHALL BE CUT TO A NEAT VERTICAL FACE.
3 PLACE CLSM BACKFILL IN ACCORDANCE WITH MAG SECTION 604.
4. PLACE APPROVED 3/4" HOT MIX ASPHALT CONCRETE OR AGENCY APPROVED ASPHALT CONCRETE.



SECTION A-A

QUAD CITY STANDARD DETAIL	SOFT DIG POTHOLE REPAIR	REVISED: 11/18/2025	DETAIL No. 212Q

NOTES (TYPE A-E)

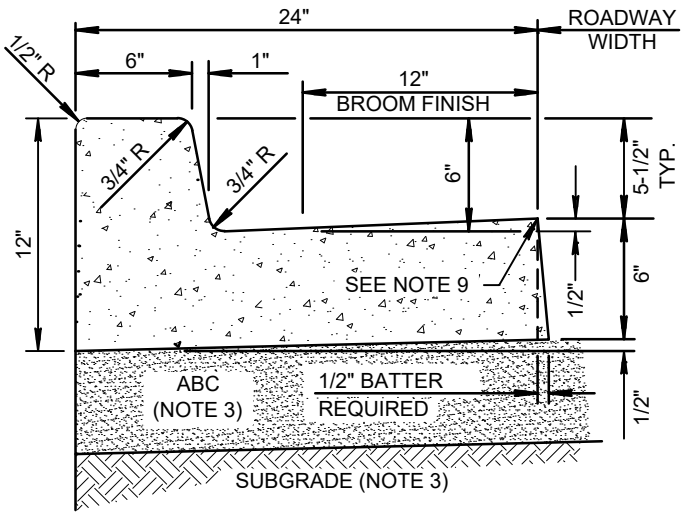
1. ALL WORK AND MATERIALS SHALL CONFORM TO MAG SECTION 340, 505, & 725 AND APPLICABLE AGENCY SUPPLEMENTS.
2. CONCRETE SHALL BE CLASS 'AA'.
3. SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

   CITY OF PRESCOTT

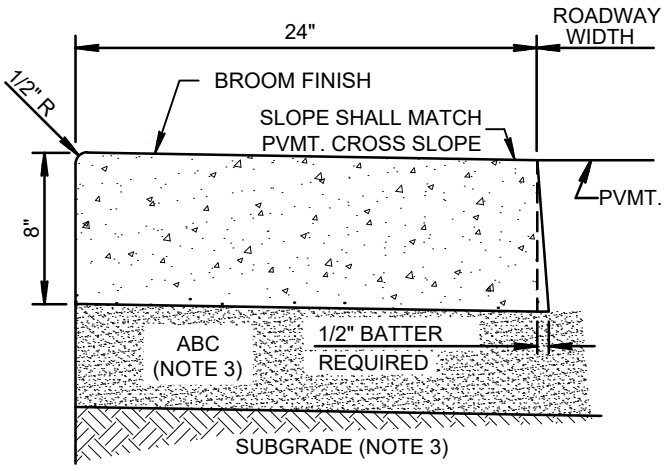
   AGGREGATE BASE COURSE & SUB-GRADE PREP AND COMPACTION PER COP MAG SUPPLEMENT 340.3.1

   TOWN OF PRESCOTT VALLEY

   AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE PREP AND COMPACTION PER MAG 301.3
4. ALL EXPOSED SURFACES TO BE TROWEL FINISHED EXCEPT AS SHOWN
5. CONTRACTION JOINT SPACING 10' MAXIMUM.
6. EXPANSION JOINTS PER MAG SECTION 340, 50' MAX. AND AT POINTS OF CURVATURE, DRIVEWAYS, ALLEYS & AT STRUCTURES.
7. WHEN THE ADJACENT PLACEMENT SECTION SLOPES AWAY FROM THE GUTTER, THE SLOPE OF THE GUTTER PAN SHALL BE 3% AND MATCH PAVEMENT CROSS-SLOPE DIRECTION. GUTTER PAN THICKNESS AND BATTER SHALL BE MAINTAINED.
8. FINAL PAVEMENT SURFACE SHALL BE ¼" ABOVE LIP OF GUTTER. WHERE GUTTER SLOPES TOWARD PAVEMENT, PAVEMENT SHALL BE FLUSH WITH LIP OF GUTTER
9. COLD JOINT IS REQUIRED WHEN PLACING CONCRETE ADJACENT TO CURB. CURG AND GUTTER SHALL NOT BE MONOLITHIC WITH SIDEWALK, UNLESS SPECIFIED ON PLANS.
10. UNLESS OTHERWISE SPECIFIED IN THE PLANS OR GEOTECHNICAL REPORT, AGGREGATE BASE COURSE THICKNESS SHALL BE 6" MINIMUM.

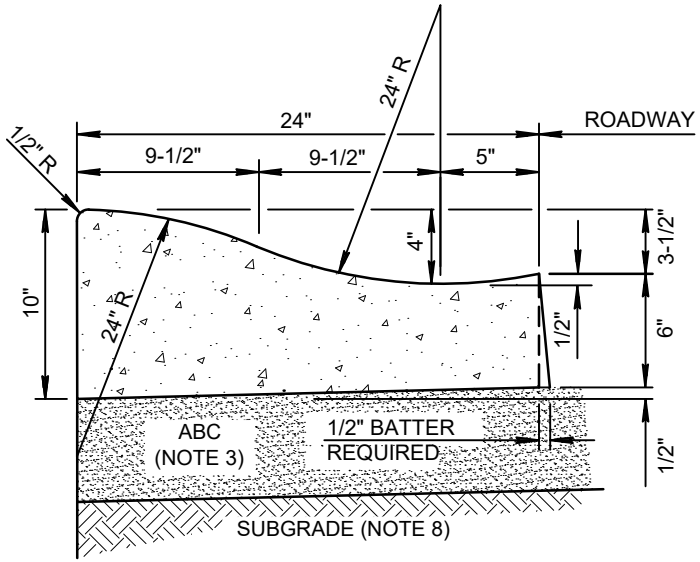


VERTICAL CURB AND GUTTER
(TYPE A)

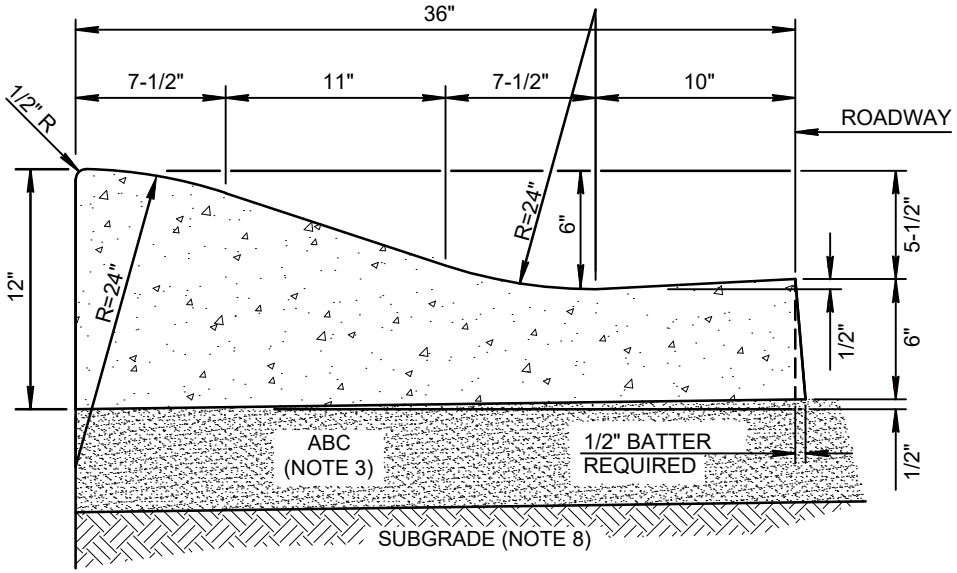


RIBBON CURB
(TYPE B)

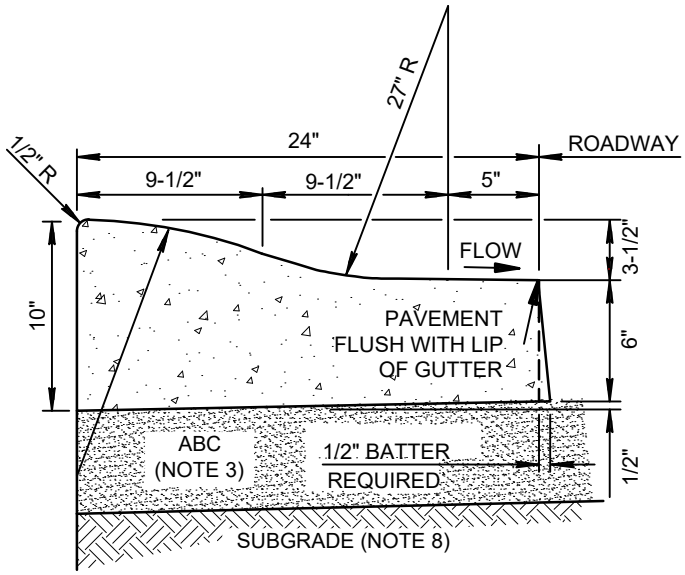
QUAD CITY STANDARD DETAIL	CURB AND GUTTER TYPES A & B	REVISED: 11/18/2025	DETAIL No. 220Q-1



4" ROLL CURB AND GUTTER (TYPE C)



6" ROLL CURB AND GUTTER (TYPE E)

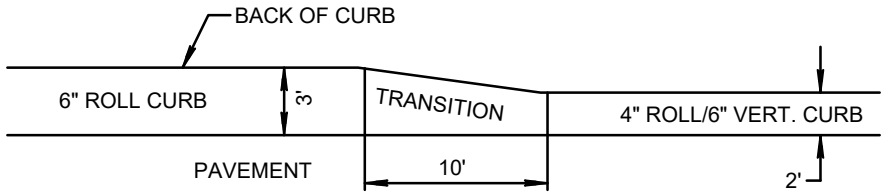


4" ROLL CURB AND GUTTER (TYPE D)

SPECIAL SECTION. USE FOR HIGH SIDE CURB WITH SHEET DRAINAGE REVERSE FLOW ACROSS STREET.

NOTES (TYPE A-E)

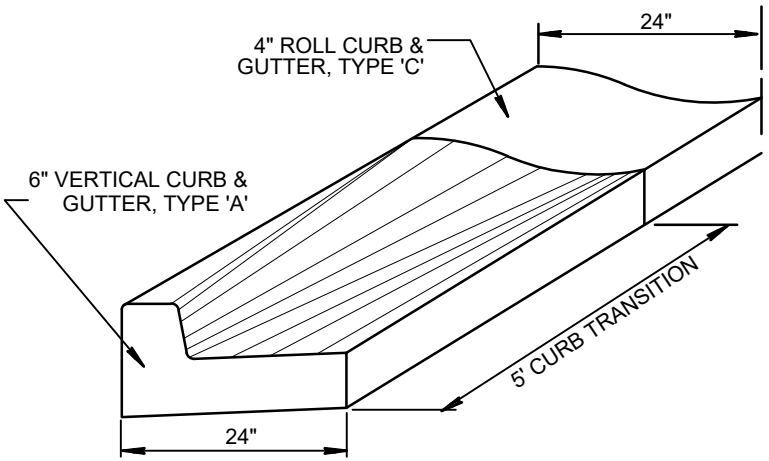
REFER TO NOTES ON QCSD 220Q-1.



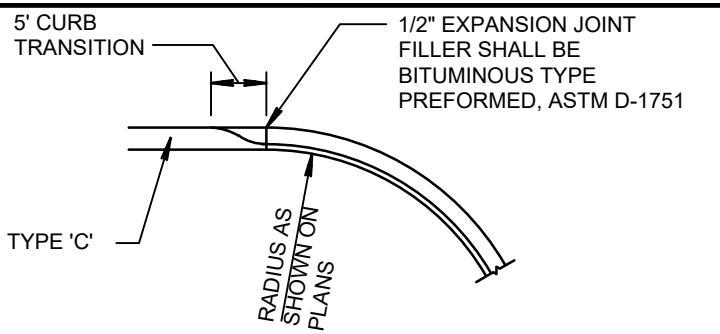
6" ROLL CURB AND GUTTER TRANSITION PLAN VIEW

TRANSITION FROM 6" ROLL CURB TO ANY OTHER CURB TYPE SHALL BE IN CONFORMANCE WITH QCSD 221Q MODIFIED TO 10 FEET IN LENGTH.

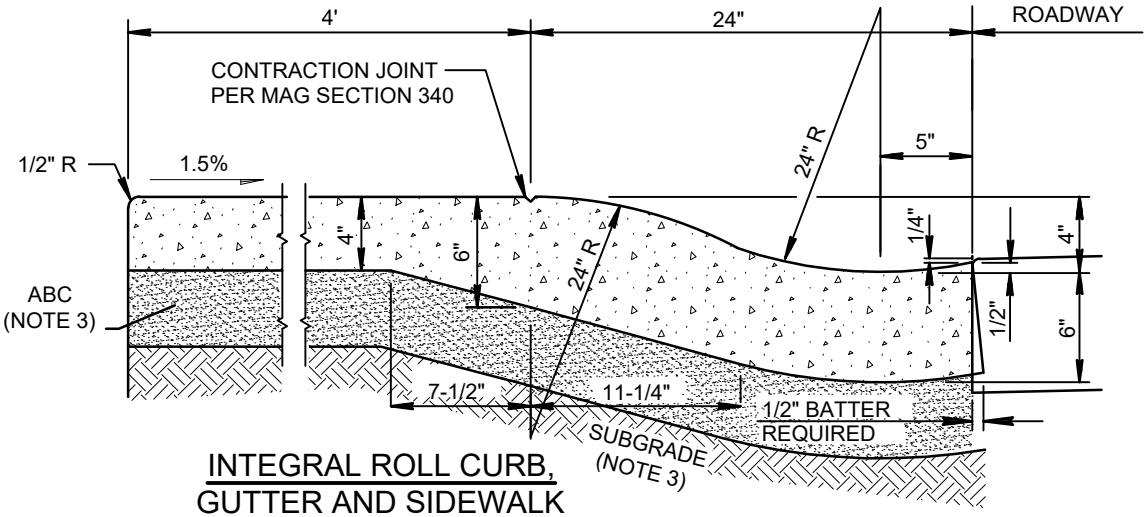
QUAD CITY STANDARD DETAIL	CURB AND GUTTER TYPES C, D & E	REVISED: 11/18/2025	DETAIL No. 220Q-2



CURB TRANSITION TYPE 'A' TO TYPE 'C'



CURB AND GUTTER TRANSITION



INTEGRAL ROLL CURB, GUTTER AND SIDEWALK

NOTES: (CURB AND GUTTER TRANSITIONS)

1. ALL WORK AND MATERIALS SHALL CONFORM TO MAG SECTION 340, 505, & 725 AND APPLICABLE AGENCY SUPPLEMENTS.
2. CONCRETE SHALL BE CLASS 'AA'.
3. SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

   CITY OF PRESCOTT

   AGGREGATE BASE COURSE & SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 340.3.1

   TOWN OF PRESCOTT VALLEY

   AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE COMPACTION PER MAG 301.3
4. TRANSITIONS WILL BE PAID FOR AS THE PREDOMINAT TYPE OF CURB AND GUTTER BEING TRANSITIONED. WHEN TYPE'A' CURB AND GUTTER ARE USED AT CURB RETURNS AND TYPE 'C' CURB AND GUTTER IS PREDOMINATELY USED ELSEWHERE, THE TYPE 'A' TO TYPE 'C' TRANSITIONS SHALL BE MEASURED AND PAID FOR AS TYPE 'C' CURB AND GUTTER.
5. WHERE PROPOSED CONSTRUCTION IS TO BE CONNECTED TO EXISTING CURB AND GUTTER, THE TRANSITION SHALL BE INDICATED ON PLANS.
6. TRANSITION BETWEEN TYPICAL SECTIONS SHALL BE ACCOMPLISHED BY THE USE OF DIRECT STRAIGHT LINE TRANSITIONS OF THE FLOW LINE AND OTHER SURFACE FEATURES.

NOTES: (INTEGRAL ROLL CURB, GUTTER AND SIDEWALK)

1. ALL WORK AND MATERIALS SHALL CONFORM TO MAG SECTION 340, 505, & 725 AND APPLICABLE AGENCY SUPPLEMENTS.
2. CONCRETE SHALL BE CLASS 'AA'.
3. SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

   CITY OF PRESCOTT

   AGGREGATE BASE COURSE & SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 340.3.1

   TOWN OF PRESCOTT VALLEY

   AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE COMPACTION PER MAG 301.3
4. CONCRETE TO BE MONLITHIC POUREXPOSED SURFACE FINISH AS PER SIDEWALK AND GUTTER DETAIL.
5. CONTRACTION JOINT SPACING 5' MAXIMUM.
6. EXPANSION JOINTS PER MAG SECTION 340.
7. TOPV: INTEGRAL ROLL CURB, GUTTER AND SIDEWALK IS NOT ALLOWED.

QUAD CITY STANDARD DETAIL	CURB AND GUTTER TRANSITION TYPE 'A' TO TYPE 'C' & INTEGRAL ROLL CURB AND SIDEWALK	REVISED: 11/18/2025	DETAIL No. 221Q

NOTES:

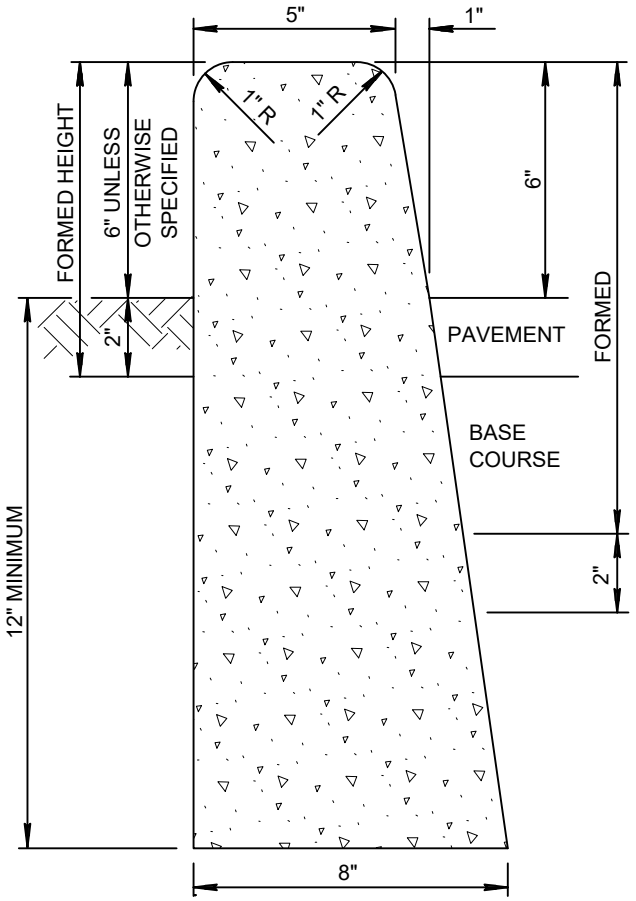
1. ALL WORK AND MATERIALS SHALL CONFORM TO MAG SECTION 340, & 725 AND APPLICABLE AGENCY SUPPLEMENTS .
2. CONCRETE SHALL BE CLASS 'AA' .
3. SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

   CITY OF PRESCOTT

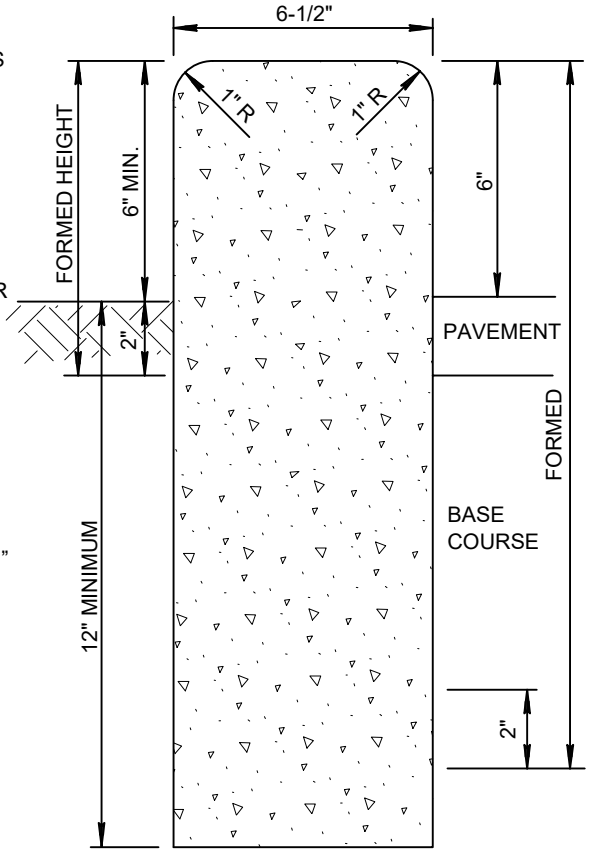
   AGGREGATE BASE COURSE & SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 340.3.1

   TOWN OF PRESCOTT VALLEY

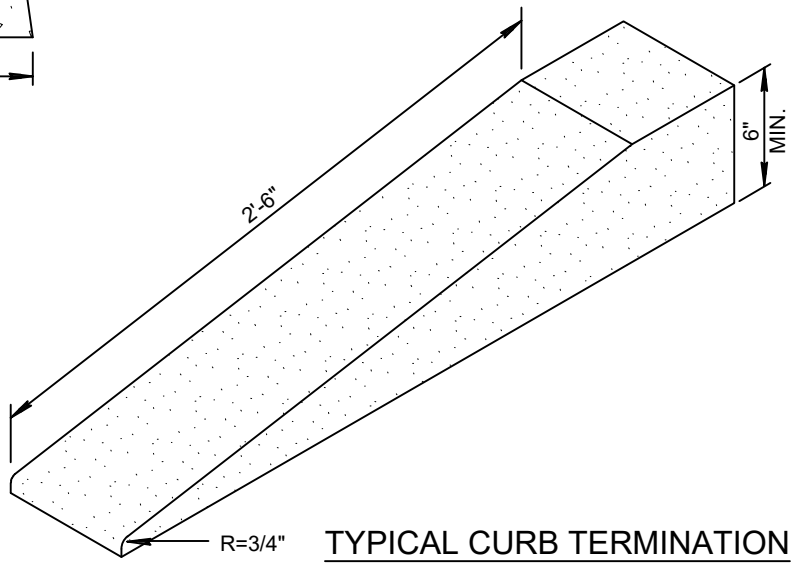
   AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE COMPACTION PER MAG 301.3
4. ALL VERTICAL SURFACES TO BE FORMED.
5. VERTICAL SURFACES DOWN FROM 2" BELOW UNDISTURBED SOIL MAY BE PLACED AGAINST NEAT CUT IF APPROVED BY THE ENGINEER. CONCRETE WILL NOT EXTEND MORE THAN 1" BEYOND THEORETICAL FACE
6.
7. ALL EXPOSED SURFACES TO BE STRIPPED GREEN AND TROWEL FINISHED.
8. MAXIMUM SPACING OF CONTRACTION JOINTS IS 10'.
9. WHEN PAVEMENT AND BASE COURSE EQUALS OR EXCEEDS 10" IN DEPTH, THE ENTIRE ROADWAY SIDE OF THE CURB HEIGHT REMAINS 18" UNLESS NOTED OTHERWISE.



TYPE "A"

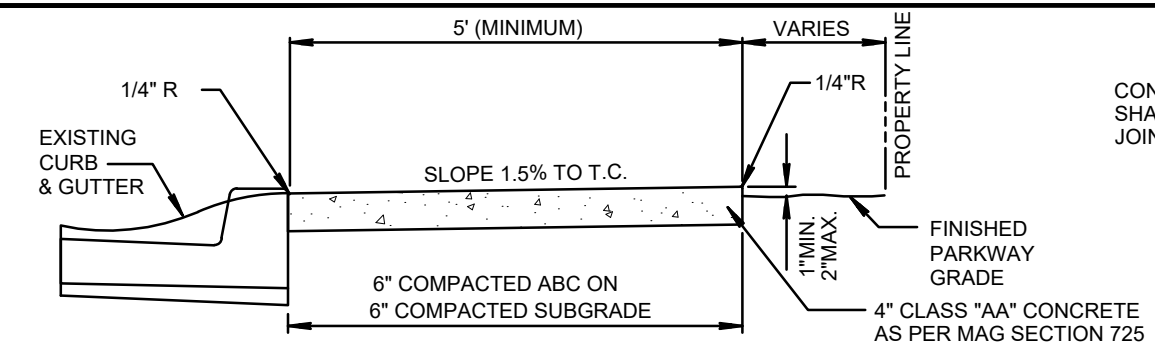


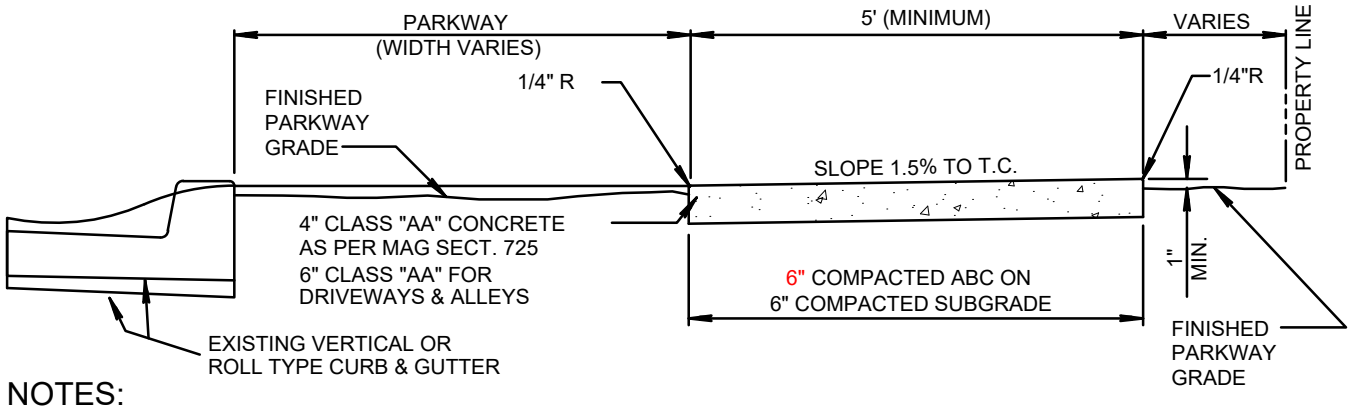
TYPE "B"

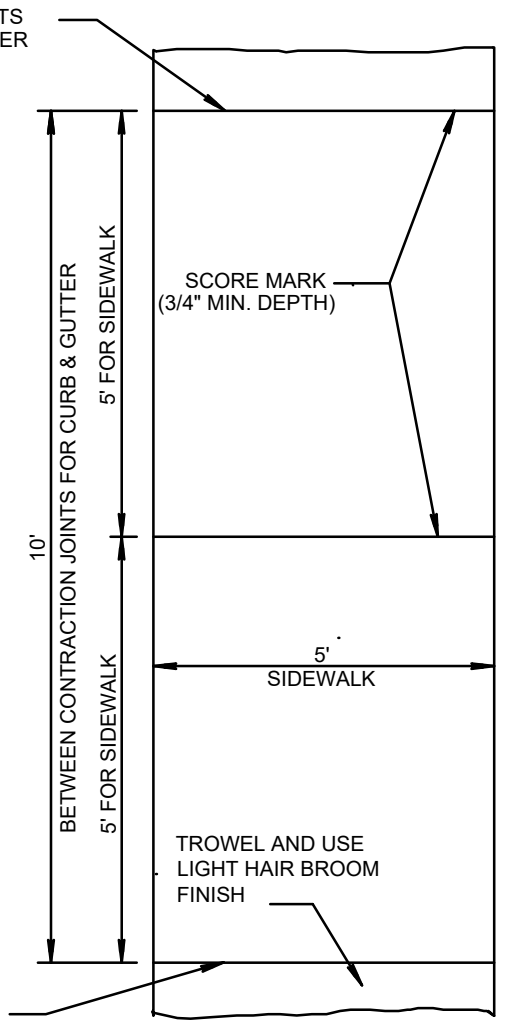


TYPICAL CURB TERMINATION

QUAD CITY STANDARD DETAIL	SINGLE CURB - TYPES A, B, AND TERMINATION	REVISED: 11/18/2025	DETAIL No. 222Q







NOTES:

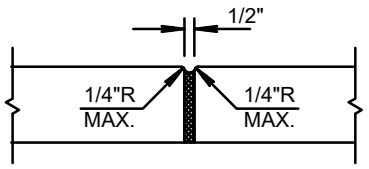
1. ALL WORK AND MATERIALS SHALL CONFORM TO MAG SECTION 340, & 725 AND APPLICABLE AGENCY SUPPLEMENTS.
2. CONCRETE SHALL BE CLASS 'AA'.
3. SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

   CITY OF PRESCOTT

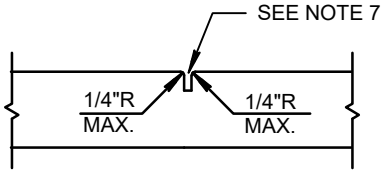
   AGGREGATE BASE COURSE & SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 340.3.1

   TOWN OF PRESCOTT VALLEY

   AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE COMPACTION PER MAG 301.3
4. ALL VERTICAL SURFACES TO BE FORMED
5. VERTICAL SURFACES DOWN FROM 2"BELOW UNDISTURBED SOIL MAY BE PLACED AGAINST NEAT CUT IF APPROVED BY THE ENGINEER AND CONCRETE WILL NOT EXTEND MORE THAN 1" BEYOND THEORETICAL FACE.
6. ALL EXPOSED SURFACES TO BE STRIPPED GREEN AND TROEL FINISHED.
7. MAXIMUM SPACING OF CONTRACTION JOINTS IS 10'.
8. WHEN PAVEMENT AND BASE COURSE EQUALS OR EXCEEDS 10" IN DEPTH, THE ENTIRE ROADWAY SIDE OF THE CURB SHALL BE FORMED. THE TOTAL CURB HEIGHT REMAINS 18" UNLESS NOTED OTHERWISE.

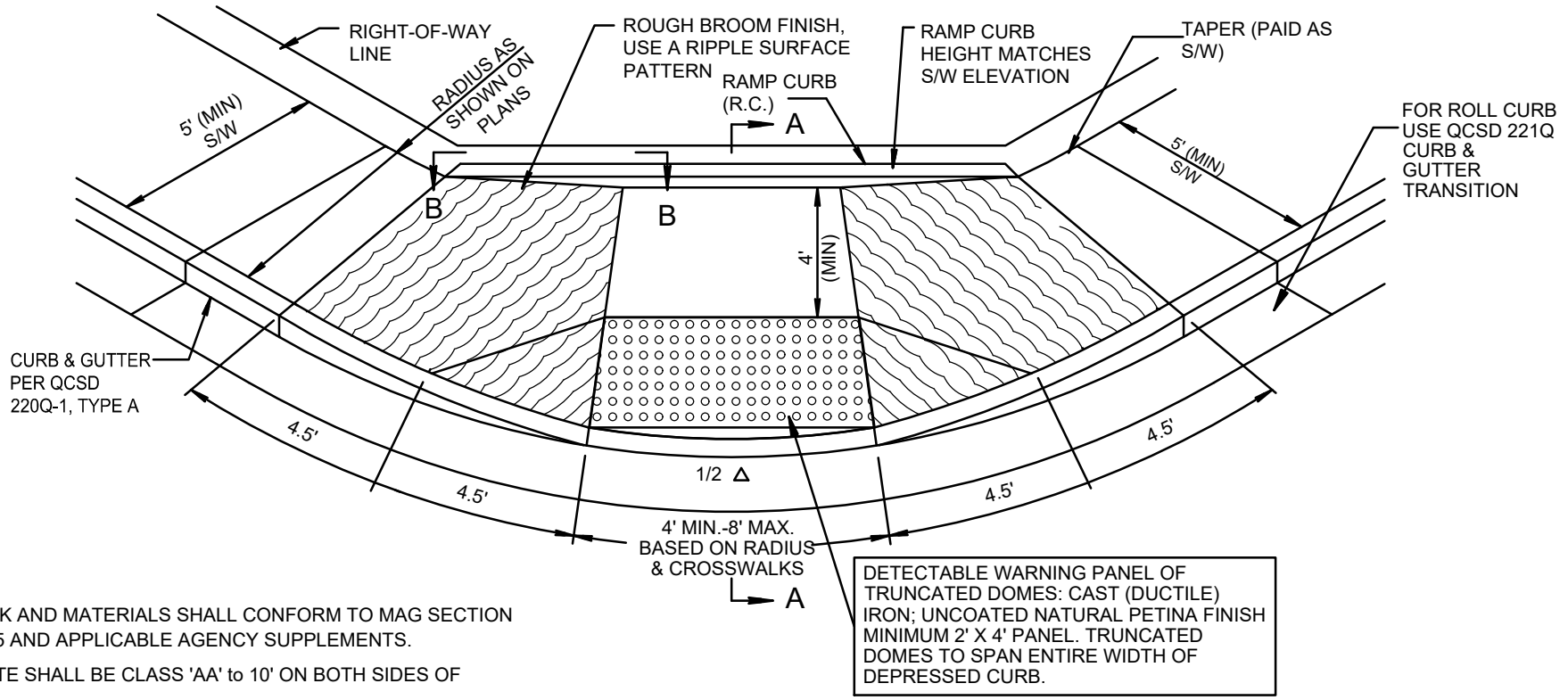


EXPANSION JOINT



CONTRACTION JOINT

QUAD CITY STANDARD DETAIL	SIDEWALKS	REVISED: 11/18/2025	DETAIL No. 230Q



NOTES

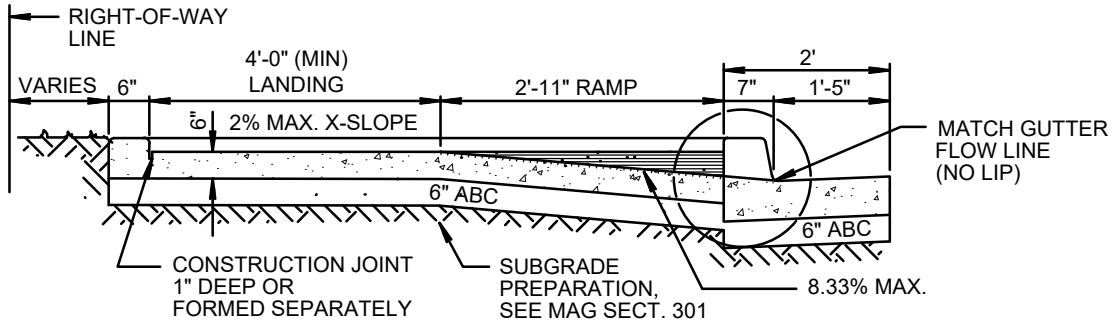
1. ALL WORK AND MATERIALS SHALL CONFORM TO MAG SECTION 340, & 725 AND APPLICABLE AGENCY SUPPLEMENTS.
2. CONCRETE SHALL BE CLASS 'AA' to 10' ON BOTH SIDES OF RAMP.
3. SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

   CITY OF PRESCOTT

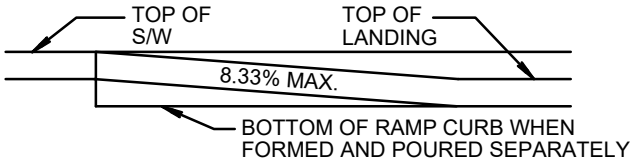
   AGGREGATE BASE COURSE & SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 340.3.1

   TOWN OF PRESCOTT VALLEY

   AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE COMPACTION PER MAG 301.3
4. CONTROL ELEVATIONS SHOWN ARE IN RELATION TO THE GUTTER AND ARE LOCATED RADIALLY. GUTTER ELEVATION =0
5. NON-DIRECTIONAL RAMP MAY BE USED ON LOCAL STREET/LOCAL STREET INTERSECTIONS ONLY.
6. LENGTH OF WINGS VARY WITH RUNNING SLOPE OF ROADS. MAXIMUM LONGITUDINAL SLOPE OF RAMPS SHALL NOT EXCEED ADA REQUIRED 8.33% AND MAXIMUM CROSS-SLOPE SHALL NOT EXCEED 2.0% IN ANY DIRECTION.

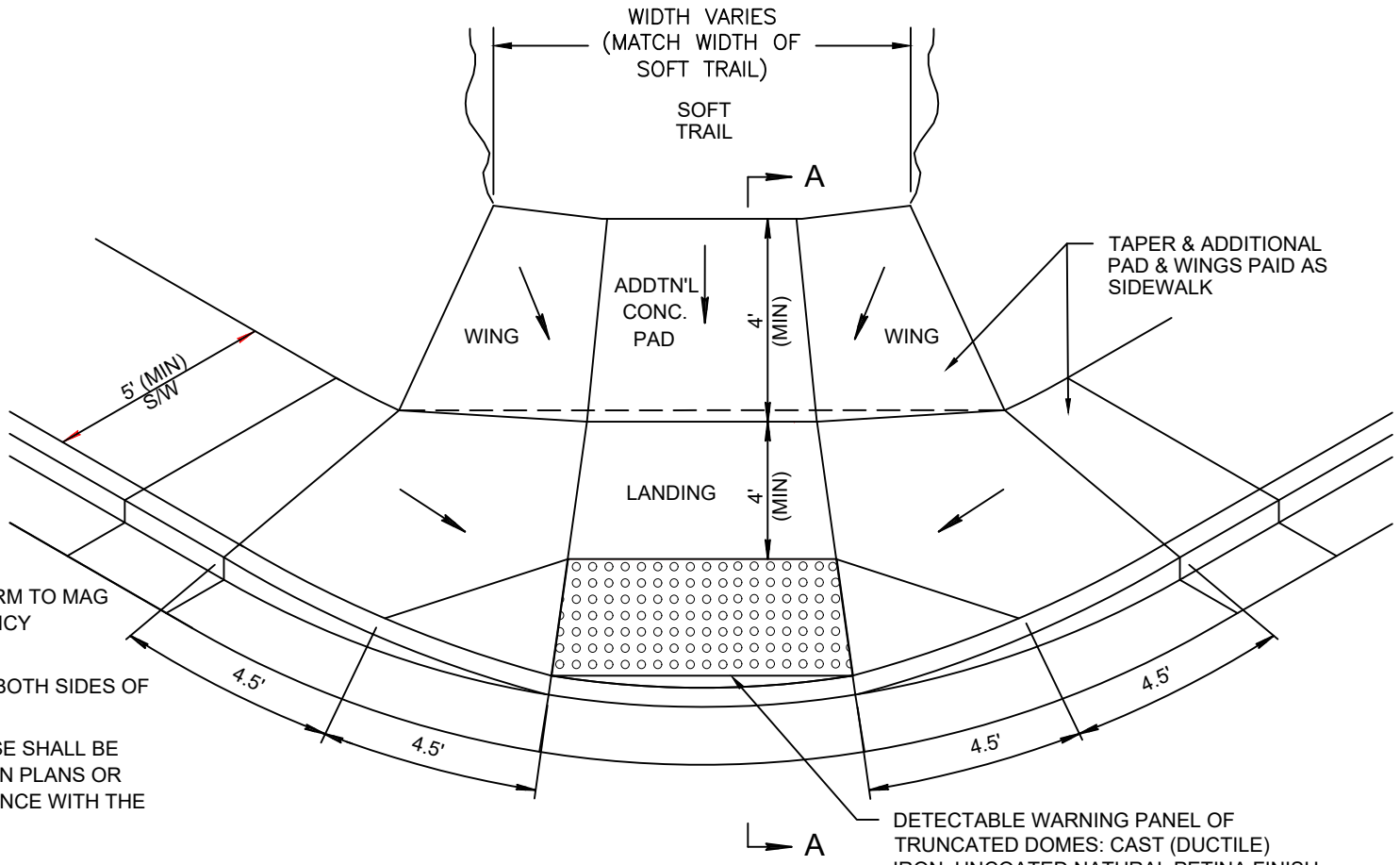


SECTION A-A



SECTION B-B

QUAD CITY STANDARD DETAIL	LOCAL STREET SIDEWALK RAMP	REVISED: 11/18/2025	DETAIL No. 231Q-1



NOTES

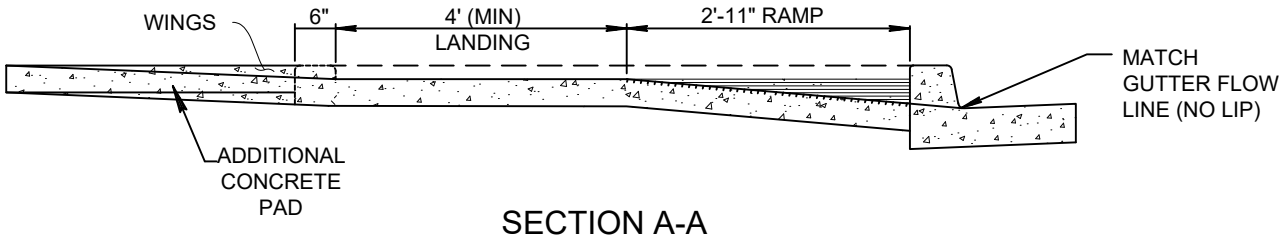
1. ALL WORK AND MATERIALS SHALL CONFORM TO MAG SECTION 340, & 725 AND APPLICABLE AGENCY SUPPLEMENTS.
2. CONCRETE SHALL BE CLASS 'AA' to 10' ON BOTH SIDES OF RAMP.
3. SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

   CITY OF PRESCOTT

   AGGREGATE BASE COURSE & SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 340.3.1

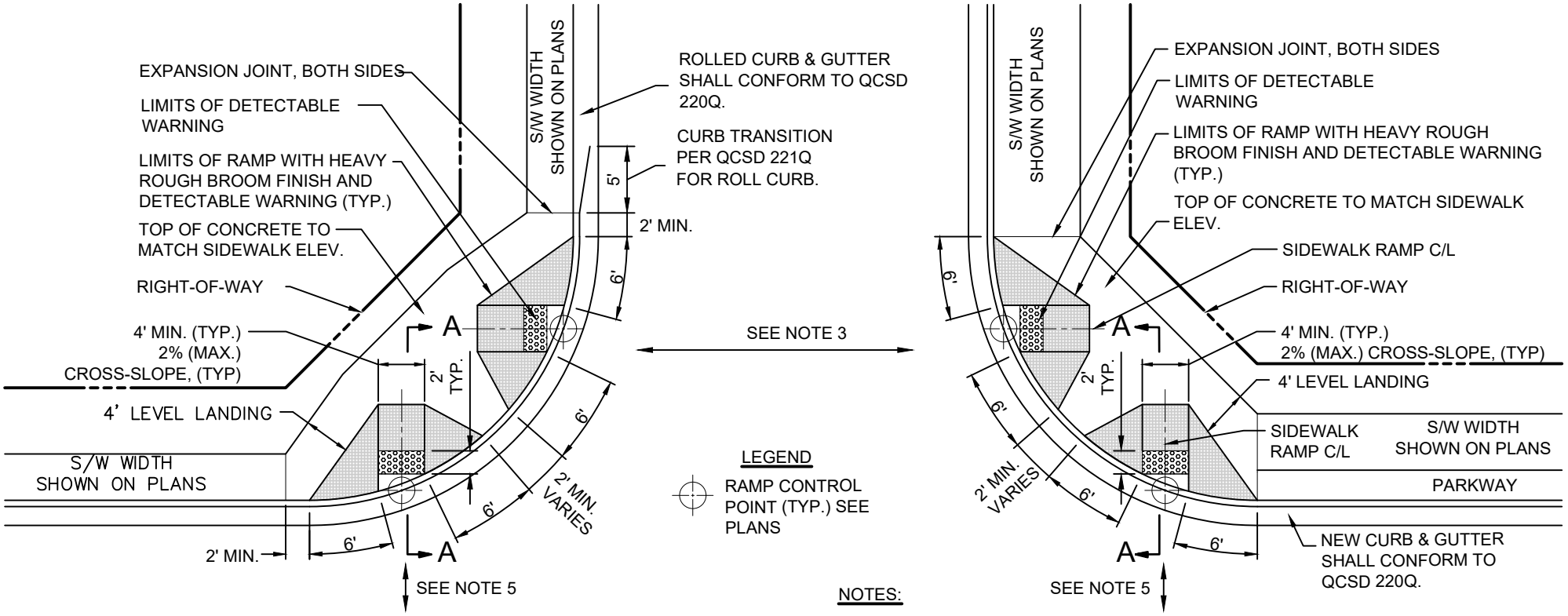
   TOWN OF PRESCOTT VALLEY

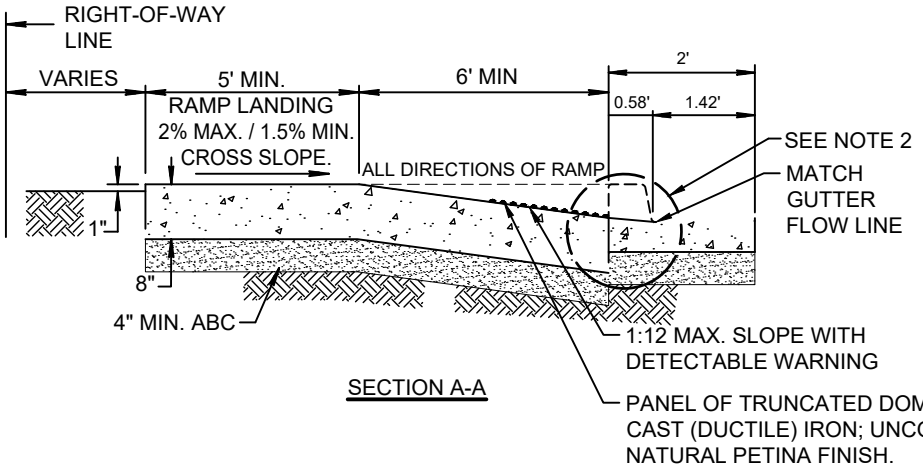
   AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE COMPACTION PER MAG 301.3
4. CONTROL ELEVATIONS SHOWN ARE IN RELATION TO THE GUTTER AND ARE LOCATED RADIALLY. GUTTER ELEVATION =0
5. NON-DIRECTIONAL RAMP MAY BE USED ON LOCAL STREET/LOCAL STREET INTERSECTIONS ONLY.
6. LENGTH OF WINGS VARY WITH RUNNING SLOPE OF ROADS. MAXIMUM LONGITUDINAL SLOPE OF RAMPS SHALL NOT EXCEED ADA REQUIRED 8.33% AND MAXIMUM CROSS-SLOPE SHALL NOT EXCEED 2.0% IN ANY DIRECTION.



SECTION A-A

QUAD CITY STANDARD DETAIL	STREET SIDEWALK RAMP & TRAIL TIE-IN	REVISED: 11/18/2025	DETAIL No. 231Q-2





SECTION A-A

NOTES:

1. ALL WORK AND MATERIALS SHALL CONFORM TO MAG SECTION 340, & 725 AND APPLICABLE AGENCY SUPPLEMENTS.
2. CONCRETE SHALL BE CLASS 'AA' TO 10' ON BOTH SIDES OF RAMP.
3. SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

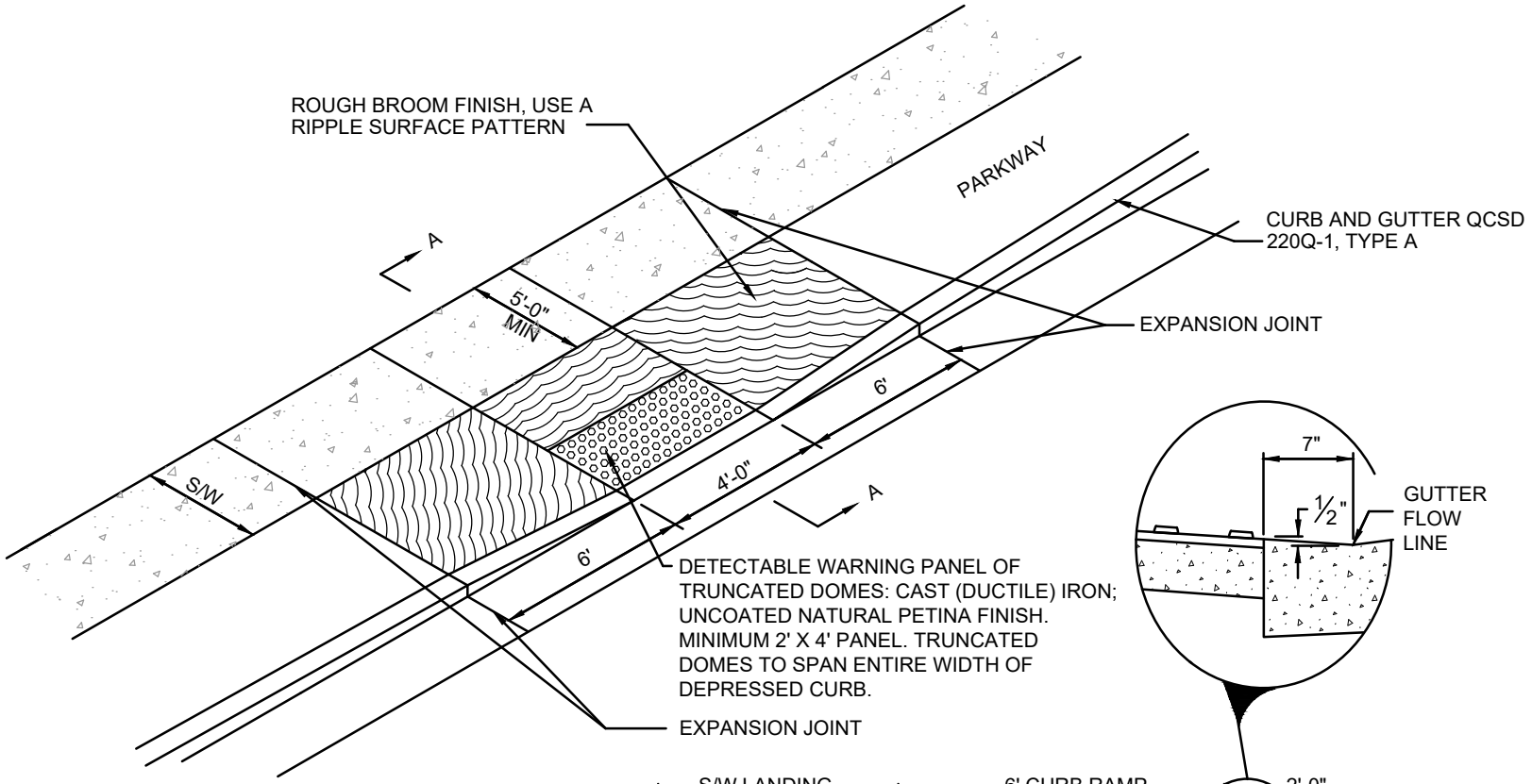
   CITY OF PRESCOTT

   AGGREGATE BASE COURSE & SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 340.3.1

   TOWN OF PRESCOTT VALLEY

   AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE COMPACTION PER MAG 301.3
4. ALL RAMPS AND DETECTABLE WARNINGS SHALL BE ALIGNED IN THE DIRECTION OF PEDESTRIAN TRAVEL AND DIRECTED TOWARD RAMP ON OPPOSITE SIDE.
5. THE USE OF ANY SIDEWALK RAMP OTHER THAN DIRECTIONAL SIDEWALK RAMPS ON COLLECTOR OR ARTERIAL STREETS REQUIRES APPROVAL FROM AGENCY ENGINEER.
6. SEE PLANS FOR LOCATION OF SIDEWALK RAMP CENTERLINE.
7. DETECTABLE WARNING PANEL OF TRUNCATED DOMES: CAST (DUCTILE) IRON: UNCOATED NATURAL PETINA FINISH MINIMUM 2'X4' PANEL. TRUNCATED DOMES TO SPAN ENTIRE WIDTH OF DEPRESSED CURB.

QUAD CITY STANDARD DETAIL	DIRECTIONAL SIDEWALK RAMPS	REVISED: 11/18/2025	DETAIL No. 232Q



SECTION A-A

NOTES:

1. ALL WORK AND MATERIALS SHALL CONFORM TO MAG SECTION 340, & 725 AND APPLICABLE AGENCY SUPPLEMENTS.
2. CONCRETE SHALL BE CLASS 'AA'.
3. SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

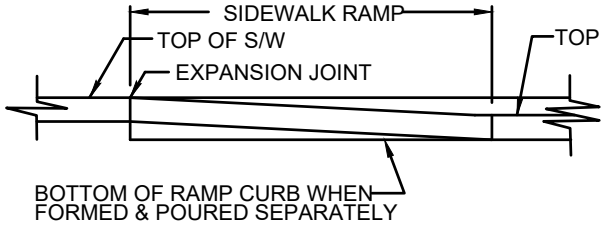
   CITY OF PRESCOTT

   AGGREGATE BASE COURSE & SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 340.3.1

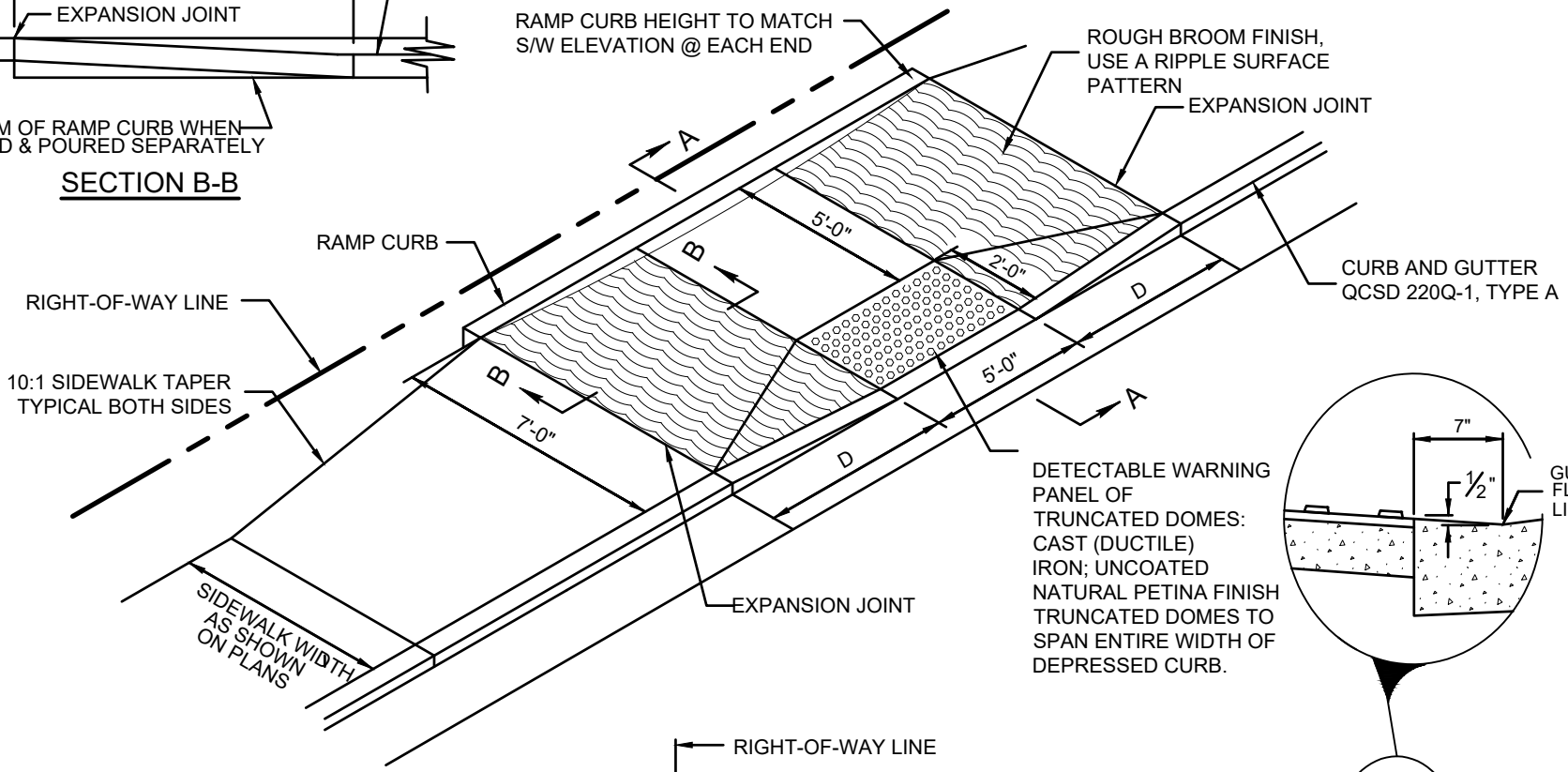
   TOWN OF PRESCOTT VALLEY

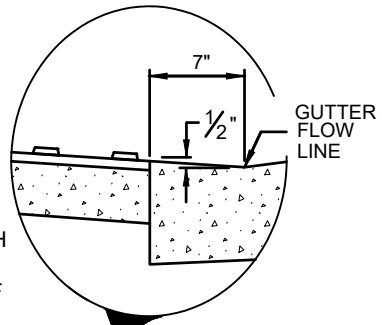
   AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE COMPACTION PER MAG 301.3
4. EXPANSION JOINTS SHALL CONFORM TO MAG SECTION 340
5. SIDEWALK SURFACE TO MATCH 1-1/2% FROM TOP OF CURB.

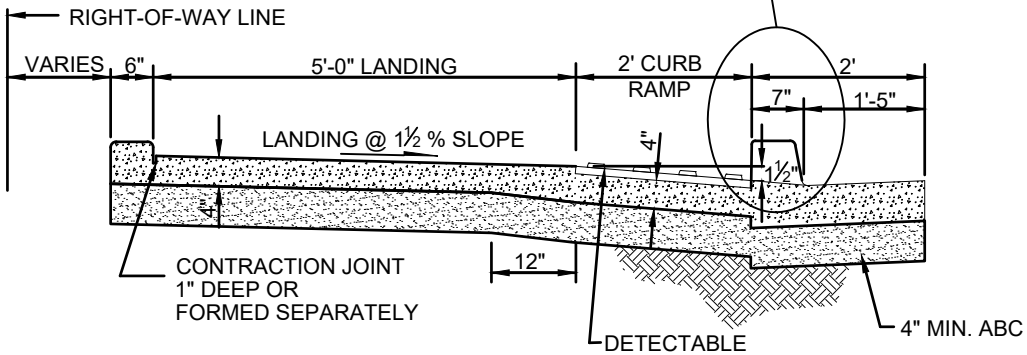
QUAD CITY STANDARD DETAIL	MIDBLOCK DETACHED SIDEWALK RAMP	REVISED: 11/18/2025	DETAIL No. 233Q-1



SECTION B-B







SECTION A-A

NOTES:

1. ALL WORK AND MATERIALS SHALL CONFORM TO MAG SECTION 340, & 725 AND APPLICABLE AGENCY SUPPLEMENTS.
2. CONCRETE SHALL BE CLASS 'AA'.
3. SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

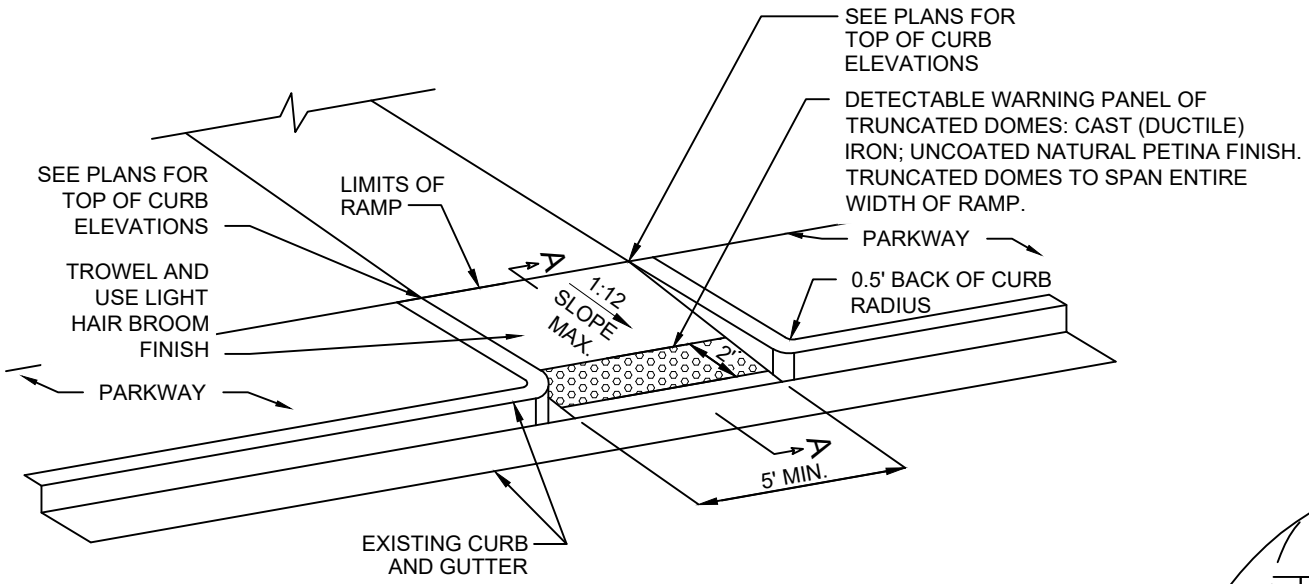
   CITY OF PRESCOTT

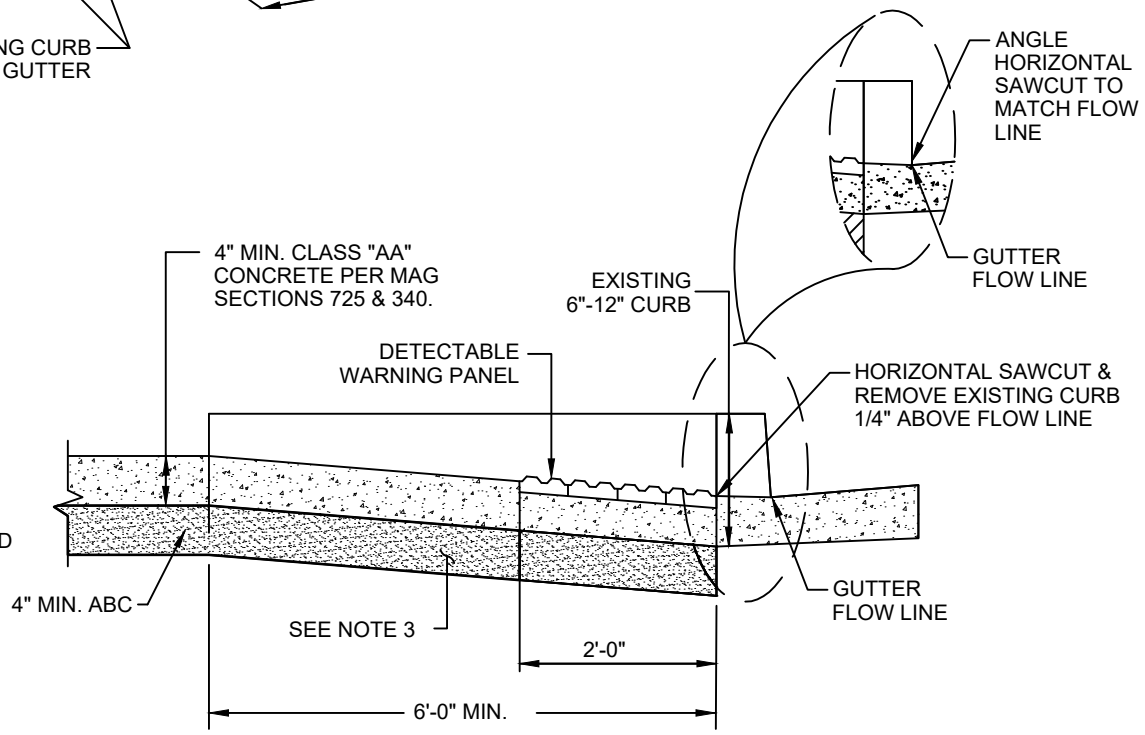
   AGGREGATE BASE COURSE & SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 340.3.1

   TOWN OF PRESCOTT VALLEY

   AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE COMPACTION PER MAG 301.3
4. EXPANSION JOINTS SHALL CONFORM TO MAG SECTION 340
5. SIDEWALK SURFACE TO MATCH 1-1/2% FROM TOP OF CURB.

QUAD CITY STANDARD DETAIL	MIDBLOCK ATTACHED SIDEWALK RAMP	REVISED: 11/18/2025	DETAIL No. 233Q-2





SECTION A-A

NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO MAG SECTION 340, 505 & 725 AND APPLICABLE AGENCY SUPPLEMENTS.
2. CONCRETE SHALL BE CLASS 'AA'.
3. SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

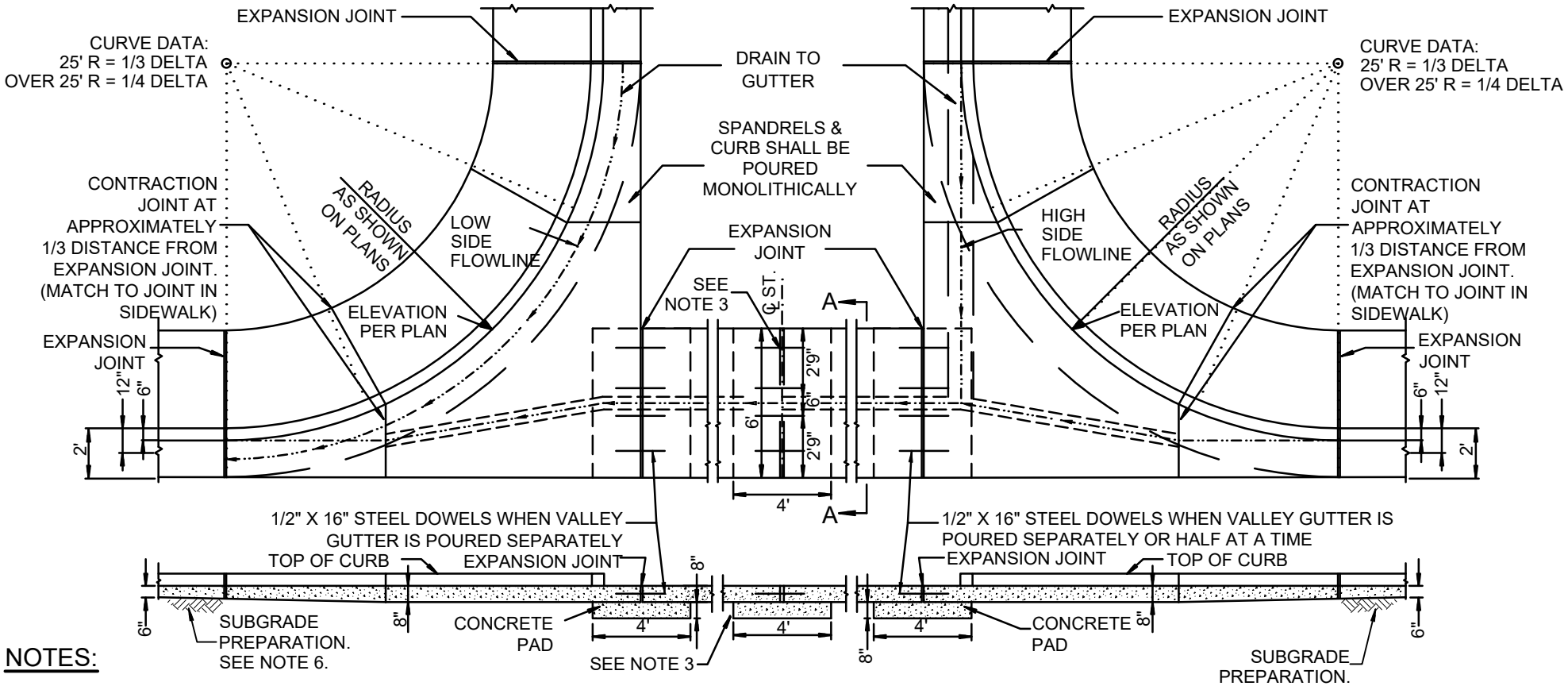
   CITY OF PRESCOTT

   AGGREGATE BASE COURSE & SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 340.3.1

   TOWN OF PRESCOTT VALLEY

   AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE COMPACTION PER MAG 301.3
4. ALL EXPOSED SURFACES TO BE TROWEL FINISHED EXCEPT AS SHOWN.

QUAD CITY STANDARD DETAIL	TYPICAL CURB RAMP REPLACEMENT	REVISED: 11/18/2025	DETAIL No. 235Q



NOTES:

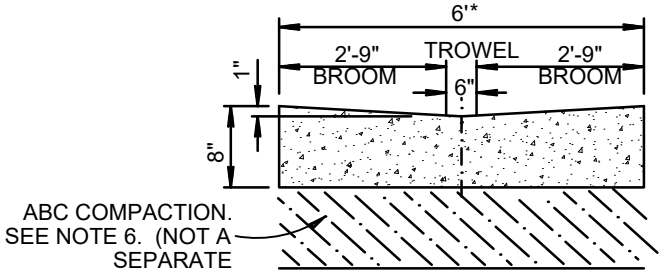
1. CONCRETE SHALL BE CLASS "AA" WITH 5%-7% ENTRAINED AIR PORTLAND CEMENT CONCRETE 600 LBS. WITH 3/4" AGGREGATE MAX., 4000 P.S.I. AT 28 DAYS & SHALL HAVE A SLUMP OF NOT MORE THAN 4 INCHES, PER MAG SECT. 340 & 725.
2. EITHER CONSTRUCTION JOINT OR CONTRACTION JOINT IS REQUIRED AT CENTERLINE OF STREET.
3. A SEPARATE CONCRETE PAD IS REQUIRED WHEN VALLEY GUTTER IS POURED SEPARATELY OR HALF AT A TIME. THE PAD, THE FULL WIDTH OF THE VALLEY GUTTER, SHALL BE CENTERED UNDER THE CONSTRUCTION JOINT AT THE VALLEY GUTTER.
4. EXPANSION JOINTS SHALL CONFORM TO MAG SECT. 340.
5. NO CONCRETE SHALL BE PLACED PRIOR TO FORM INSPECTION BY THE AGENCY ENGINEER OR DESIGNEE.
6. SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

   CITY OF PRESCOTT

   AGGREGATE BASE COURSE & SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 340.3.1

   TOWN OF PRESCOTT VALLEY

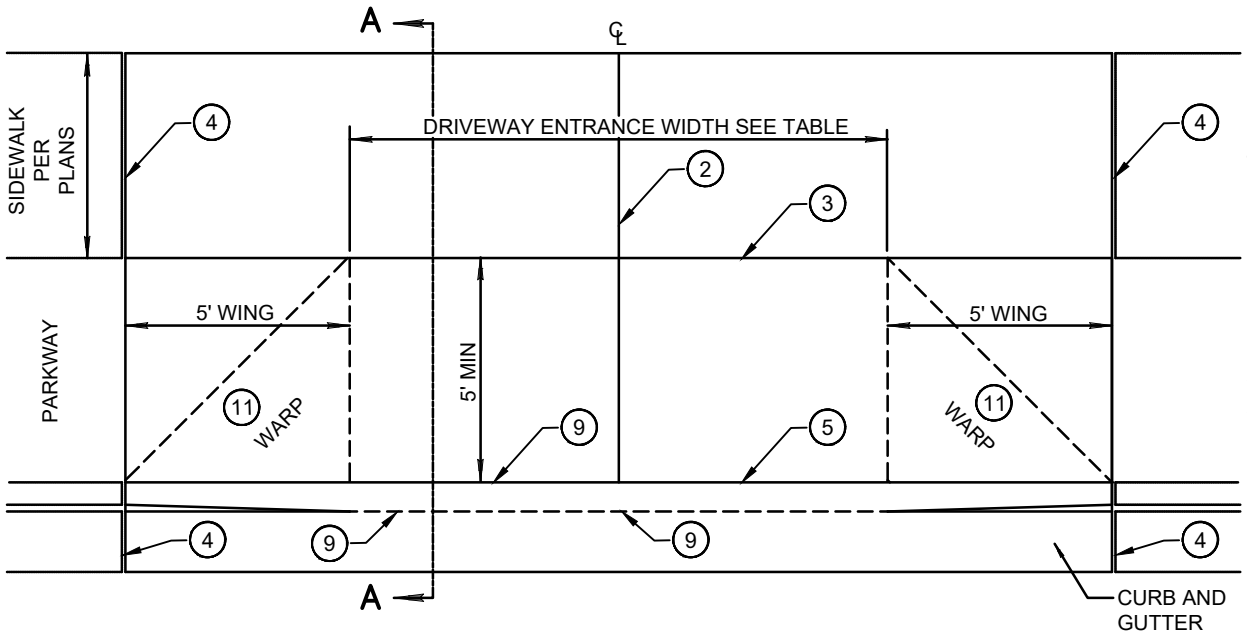
   AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE COMPACTION PER MAG 301.3



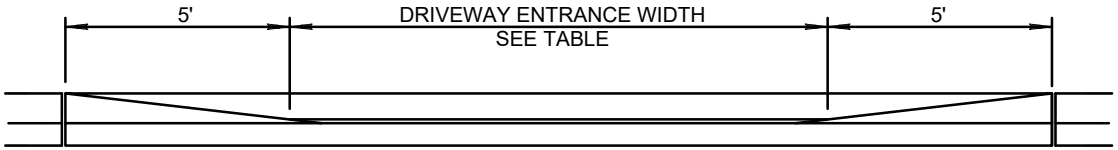
*WIDTH OF GUTTER MAY VARY AS REQUIRED BY DEPTH OF FLOW.

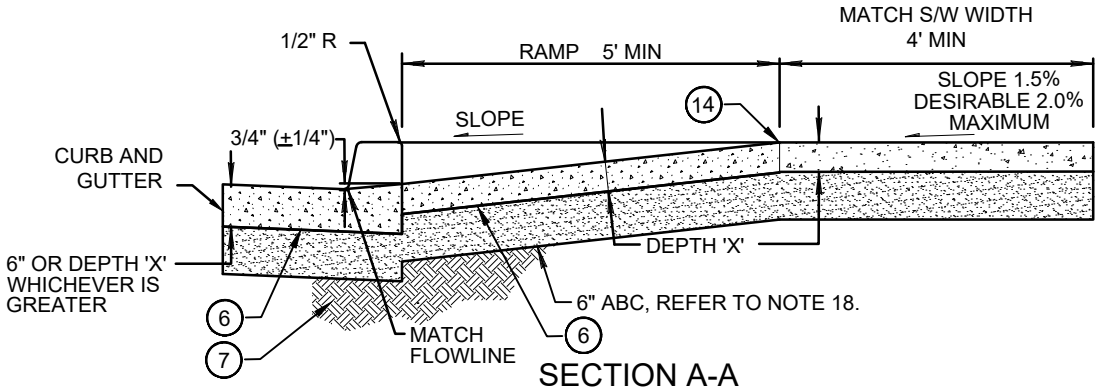
SECTION A-A
VALLEY GUTTER

QUAD CITY STANDARD DETAIL	VALLEY GUTTER & SPANDRELS	REVISED: 11/18/2025	DETAIL No. 240Q



DRIVEWAY WITH DETACHED SIDEWALK





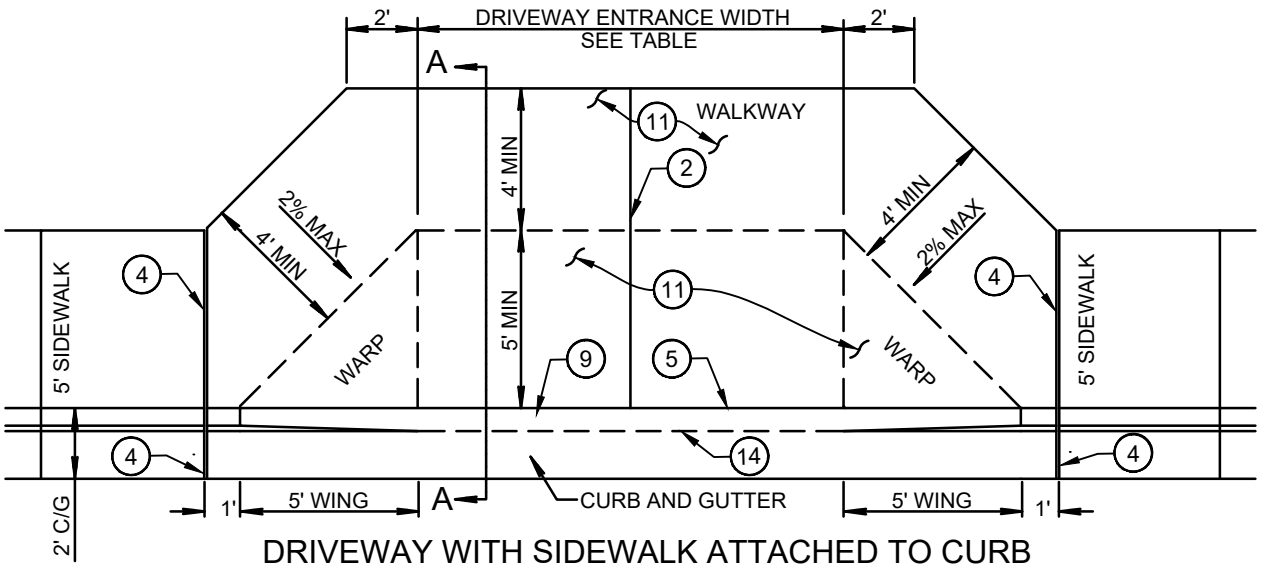
SECTION A-A

NOTES:

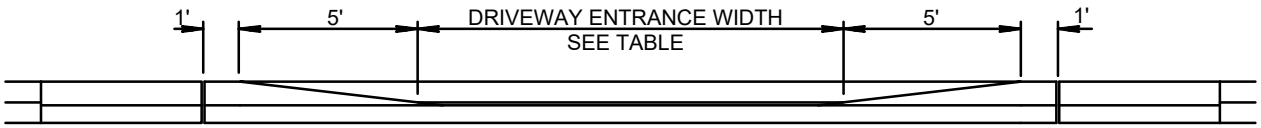
1. DEPRESSED CURB SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE TYPE OF CURB USED AT THAT LOCATION.
2. CONTRACTION JOINT ON D/W CENTERLINE.
3. CONTRACTION JOINT.
4. 1/2-INCH EXPANSION JOINTS SHALL COMPLY WITH MAG SECTION 340.
5. BACK OF CURB - CONSTRUCTION JOINT.
6. CLASS "AA" CONCRETE PER MAG SECTION 725.
7. SUBGRADE SHALL BE SCARIFIED TO A DEPTH OF 8", MOISTURE CONDITIONED, AND RECOMPACTED TO 98% PROCTOR, OR AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT.
8. SUBGRADE PREPARATION, MAG SECT. 301.
9. FLOW LINE OF GUTTER.
10. DEPRESSED CURB.
11. SECT. A-A AND ELEVATION: D/W SHOWN WITH VERTICAL CURB AND GUTTER, ROLL TYPE CURB AND GUTTER TREATED SIMILARLY.
12. ROUGH BROOM FINISH FULL WIDTH OF RAMP AND WINGS.
13. TROWEL AND USE LIGHT HAIR BROOM FINISH FOR WALKWAY AREA.
14. ELEVATION AT TOP OF DRIVEWAY RAMP SHALL BE EQUAL TO OR HIGHER THAN NORMAL CURB ELEVATION.
15. FLOWLINE/NO LIP
16. CURB GRINDING AND CUTTING NOT PERMITTED.
17. 6" MINIMUM DEPTH OF ABC SHALL BE PLACED BELOW THE GUTTER & SPANDRELS AND SHALL EXTEND TO BACK OF THE GUTTER & SPANDRELS. ABC SHALL BE COMPACTED 98% PROCTOR OR AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT.

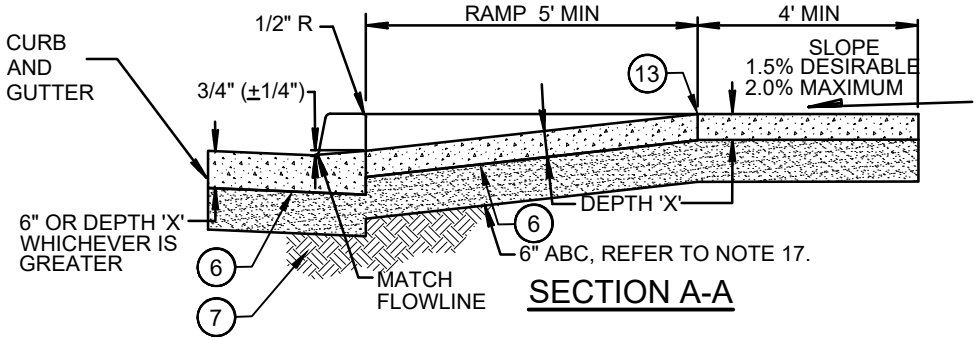
COMMERCIAL AND INDUSTRIAL			
DRIVEWAY ENTRANCE WIDTH	MIN.	MAX.	DEPTH 'X'
COMMERCIAL	* 16'	40'	9"
INDUSTRIAL	* 16'	40'	9"
* 24' MIN. FOR TWO WAY TRAFFIC			
RESIDENTIAL			
DRIVEWAY ENTRANCE WIDTH	MIN.	MAX.	DEPTH 'X'
ARTERIAL STREET	16'	30'	6"
COLLECTOR STREET	* 12'	30'	6"
LOCAL STREET	12'	30'	6"
* 16' DESIRABLE			

QUAD CITY STANDARD DETAIL	DRIVEWAY ENTRANCE WITH DETACHED SIDEWALKS	REVISED: 11/18/2025	DETAIL No. 250Q-1



DRIVEWAY WITH SIDEWALK ATTACHED TO CURB





SECTION A-A

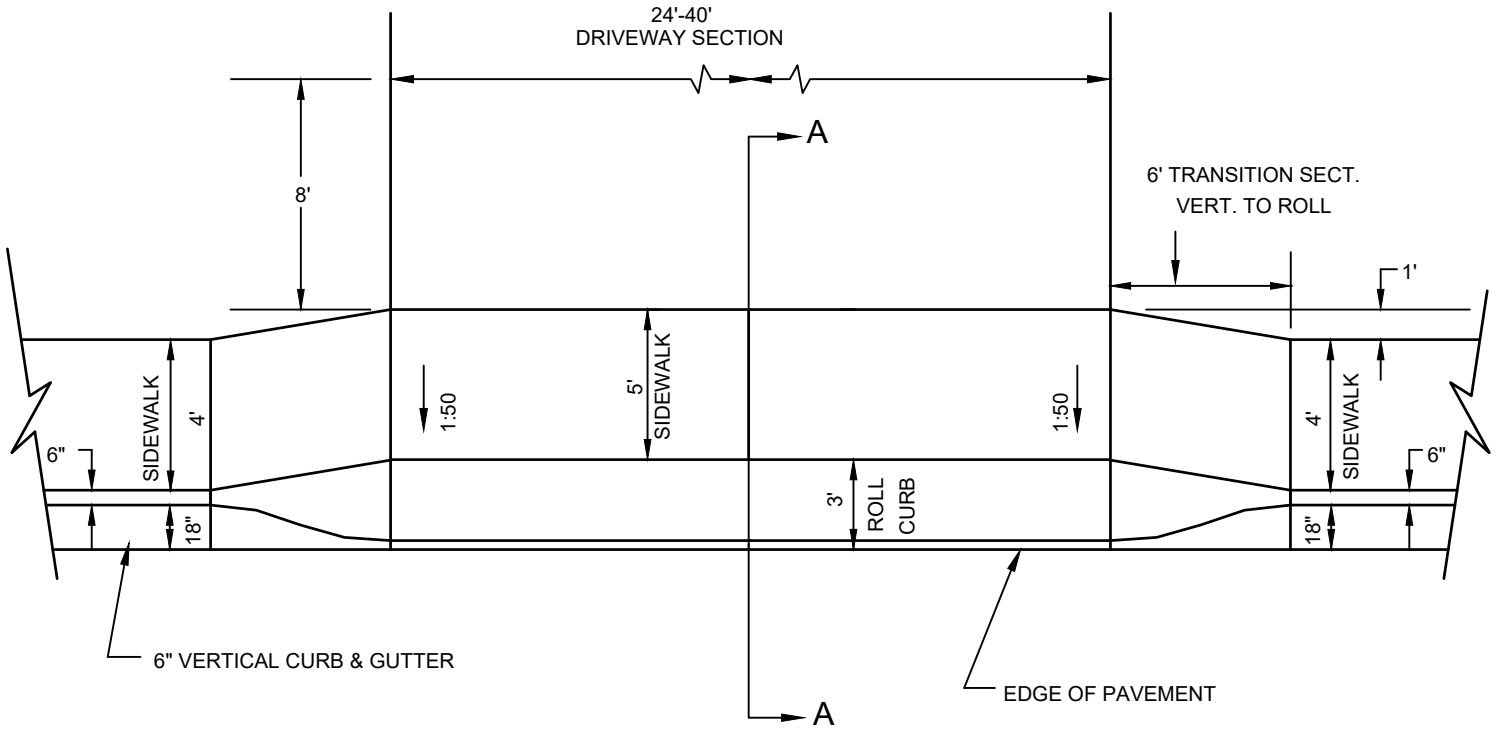
COMMERCIAL AND INDUSTRIAL			
DRIVEWAY ENTRANCE WIDTH	MIN.	MAX.	DEPTH 'X'
COMMERCIAL	*16'	40'	9"
INDUSTRIAL	*16'	40'	9"
*24' MIN. FOR TWO WAY TRAFFIC			

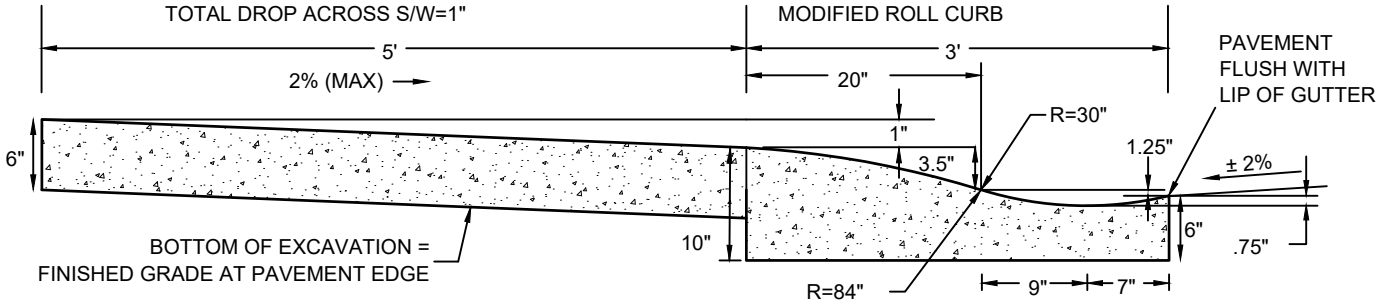
RESIDENTIAL			
DRIVEWAY ENTRANCE WIDTH	MIN.	MAX.	DEPTH 'X'
ARTERIAL STREET	16'	30'	6"
COLLECTOR STREET	**12'	30'	6"
LOCAL STREET	12'	30'	6"
**16' DESIRABLE			

NOTES:

1. DEPRESSED CURB SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE TYPE OF CURB USED AT THAT LOCATION.
2. CONTRACTION JOINT(S) FOR DRIVEWAY ENTRANCE: WIDTH LESS THAN 22' NONE REQUIRED; WIDTH GREATER THAN 22' AND LESS THAN 30' LOCATE SINGLE JOINT ON D/W CENTERLINE; WIDTH OF 30' OR GREATER LOCATE TWO JOINTS TO EQUALLY DIVIDE THE DRIVEWAY ENTRANCE WIDTH.
3. DETAIL GEOMETRICS ARE BASED ON A CURB HEIGHT OF SIX INCHES (6"), AN ATTACHED SIDEWALK WIDTH OF FIVE FEET (5'), AND A DRIVEWAY RAMP LENGTH NOT EXCEEDING SIX FEET (6'). GEOMETRIC MODIFICATIONS MAY BE REQUIRED WHEN CONDITIONS ARE MODIFIED.
4. 1/2-INCH EXPANSION JOINTS SHALL COMPLY WITH MAG SECTION 340.
5. BACK OF CURB - CONSTRUCTION JOINT.
6. CLASS "AA" CONCRETE PER MAG SECTION 725.
7. SUBGRADE SHALL BE SCARIFIED TO A DEPTH OF 8", MOISTURE CONDITIONED, AND RECOMPACTED TO 98% PROCTOR, OR AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT.
8. FLOW LINE OF GUTTER.
9. DEPRESSED CURB.
10. SECTION A-A AND ELEVATION: D/W SHOWN WITH VERTICAL CURB AND GUTTER, ROLL TYPE CURB AND GUTTER TREATED SIMILARLY.
11. ROUGH BROOM FINISH FULL WIDTH OF RAMP AND WINGS.
12. TROWEL AND USE LIGHT HAIR BROOM FINISH FOR WALKWAY AREA.
13. ELEVATION AT TOP OF DRIVEWAY RAMP SHALL BE EQUAL TO OR HIGHER THAN NORMAL CURB ELEVATION.
14. FLOWLINE/NO LIP
15. CURB GRINDING AND CUTTING NOT PERMITTED.
16. 6" MINIMUM DEPTH OF ABC SHALL BE PLACED BELOW THE GUTTER & SPANDRELS AND SHALL EXTEND TO BACK OF THE GUTTER & SPANDRELS. ABC SHALL BE COMPACTED 98% PROCTOR OR AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT.

QUAD CITY STANDARD DETAIL	DRIVEWAY ENTRANCE WITH SIDEWALK ATTACHED TO CURB	REVISED: 11/18/2025	DETAIL No. 250Q-2



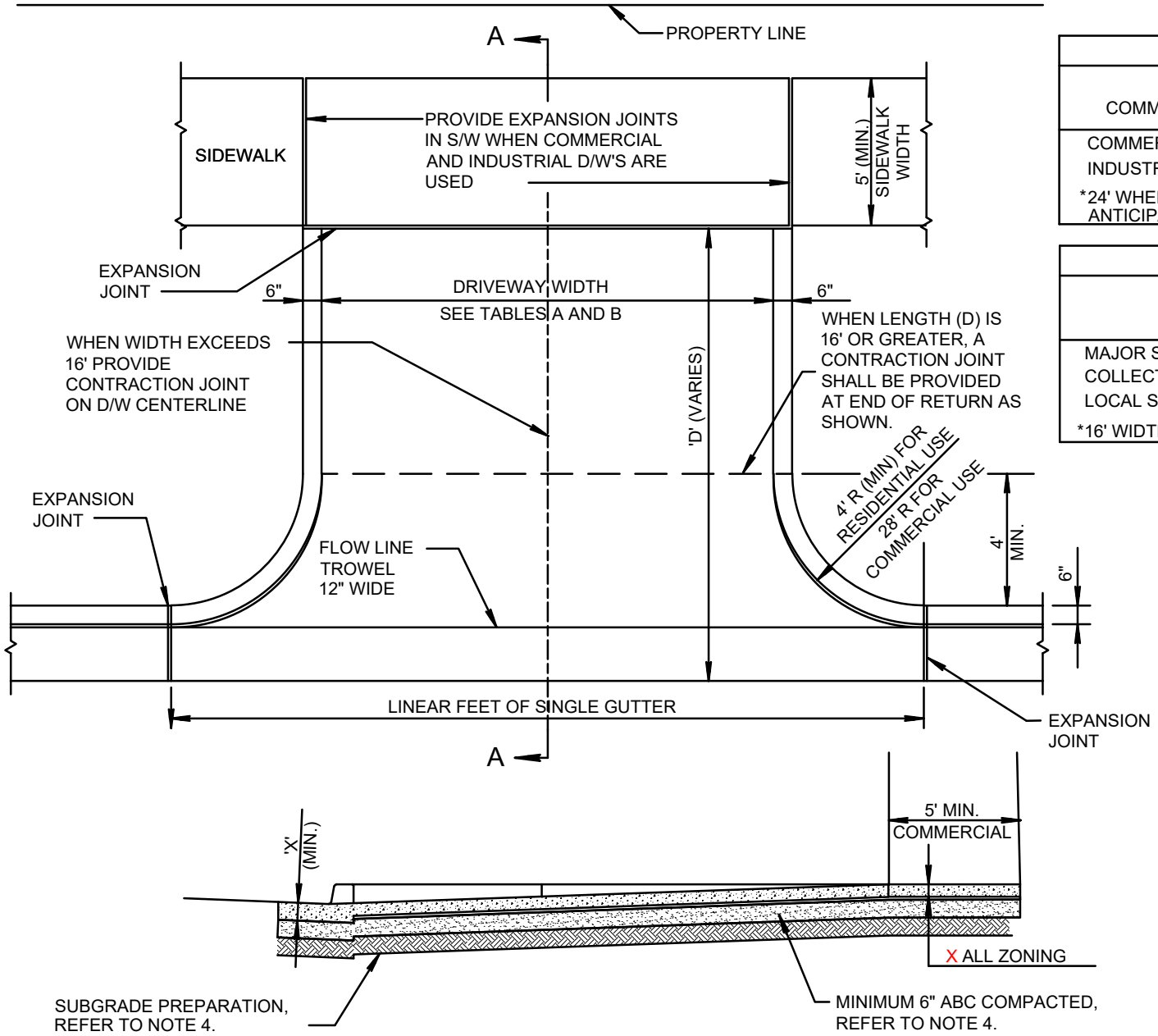


SECTION A-A

NOTES:

1. CLASS "AA" CONCRETE PER MAG SECTION 725.
2. EXPANSION JOINTS SHALL CONFORM TO MAG SECTION 340.
3. COMPACTION:
   AGGREGATE BASE COURSE PER MAG 310.3 AND
   SUB-GRADE COMPACTION PER MAG 301.3

QUAD CITY STANDARD DETAIL	3' ROLL CURB DRIVEWAY	REVISED: 11/18/2025	DETAIL No. 251PV



SECTION A-A

TABLE A			
ZONING COMMERCIAL AND INDUSTRIAL	DRIVEWAY WIDTH MIN.*	DRIVEWAY WIDTH MAX.	DEPTH 'X'
COMMERCIAL	16'	40'	9"
INDUSTRIAL	16'	40'	9"
*24' WHERE 2-WAY TRAFFIC IS ANTICIPATED			

TABLE B			
ZONING RESIDENTIAL	DRIVEWAY WIDTH MIN.*	DRIVEWAY WIDTH MAX.	DEPTH 'X'
MAJOR STREET	16'	30'	6"
COLLECTOR STREET	12'	30'	6"
LOCAL STREET	12'	30'	6"
*16' WIDTH IS DESIRABLE			

NOTES:

1. EXPANSION JOINTS SHALL COMPLY TO MAG SECTION 340.
2. THIS TYPE D/W TO BE USED ONLY UPON APPROVAL OF ENGINEER.
3. CLASS "AA" CONCRETE CONSTRUCTION AS PER MAG SECTION 725.
4. COMPACTION:

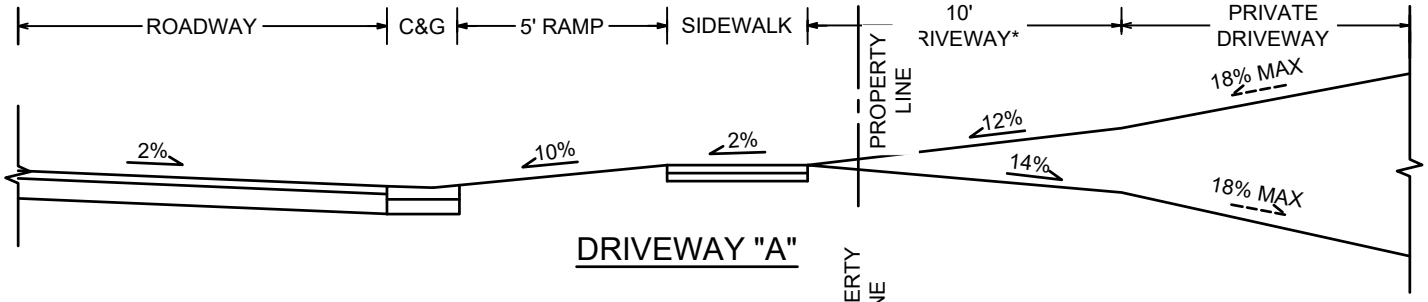
   CITY OF PRESCOTT

   AGGREGATE BASE COURSE & SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 340.3.1

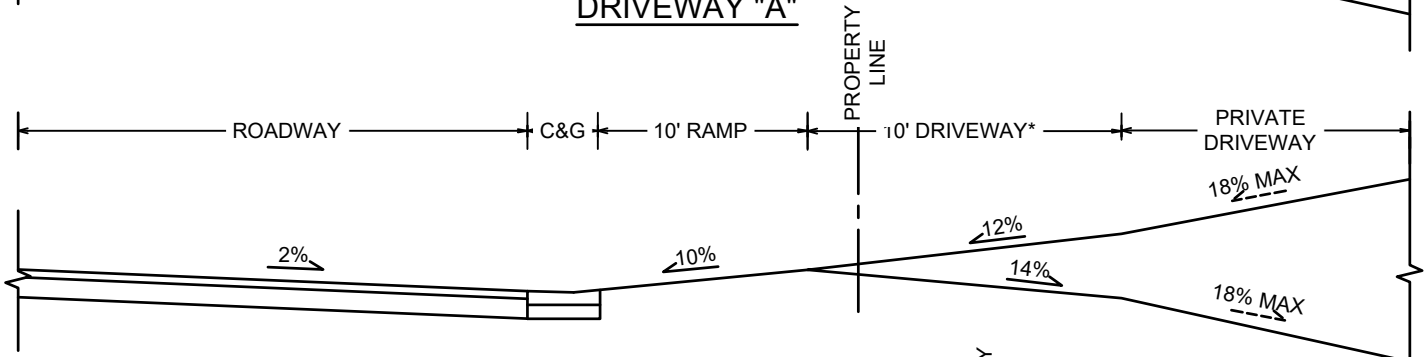
   TOWN OF PRESCOTT VALLEY

   AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE COMPACTION PER MAG 301.3
5. CURB GRINDING AND CUTTING NOT PERMITTED.

QUAD CITY STANDARD DETAIL	RETURN TYPE DRIVEWAY	REVISED: 11/18/2025	DETAIL No. 252Q



DRIVEWAY "A"



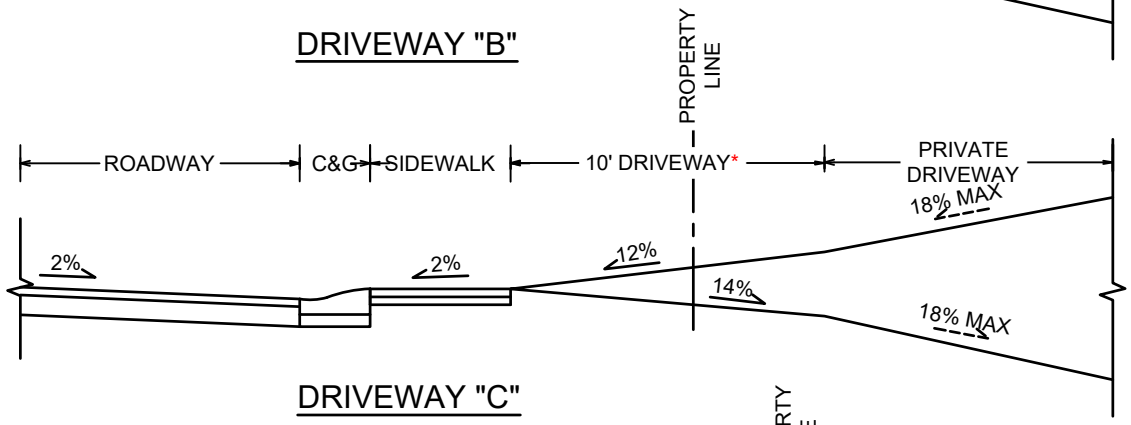
DRIVEWAY "B"

NOTES:

1. ALL SLOPE PERCENTAGES ARE THE MAXIMUM ALLOWED FOR ANY PORTION OF THE DRIVEWAY

COMMERCIAL AND INDUSTRIAL DRIVEWAY DETAILS					
TYPE OF ENTRANCE	DRIVEWAY ENTRANCE WIDTH		CONCRETE CLASS	CONCRETE THICKNESS (MIN.)	DRIVEWAY LENGTH (MIN.)
	MIN.	MAX.			
COMMERCIAL	* 16'	40'	AA	9"	30'
INDUSTRIAL	* 16'	40'	AA	9"	30'

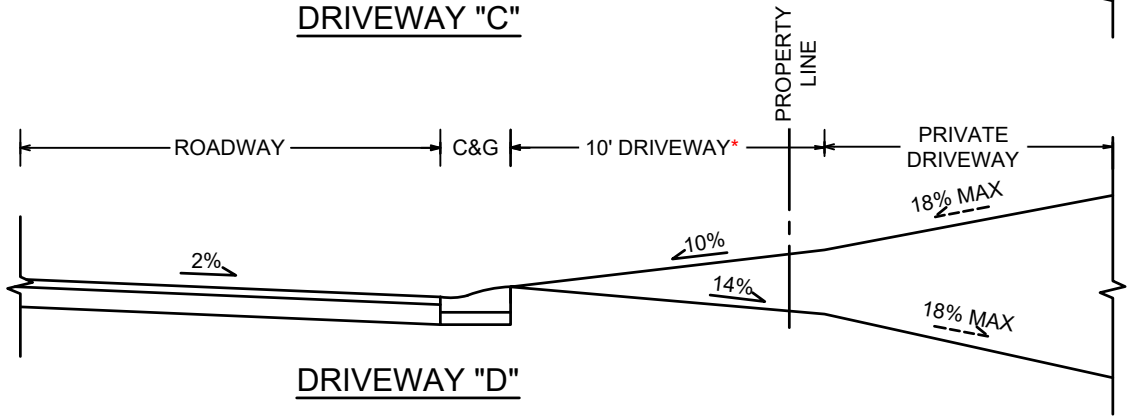
*24' MIN. WIDTH FOR 2-WAY TRAFFIC



DRIVEWAY "C"

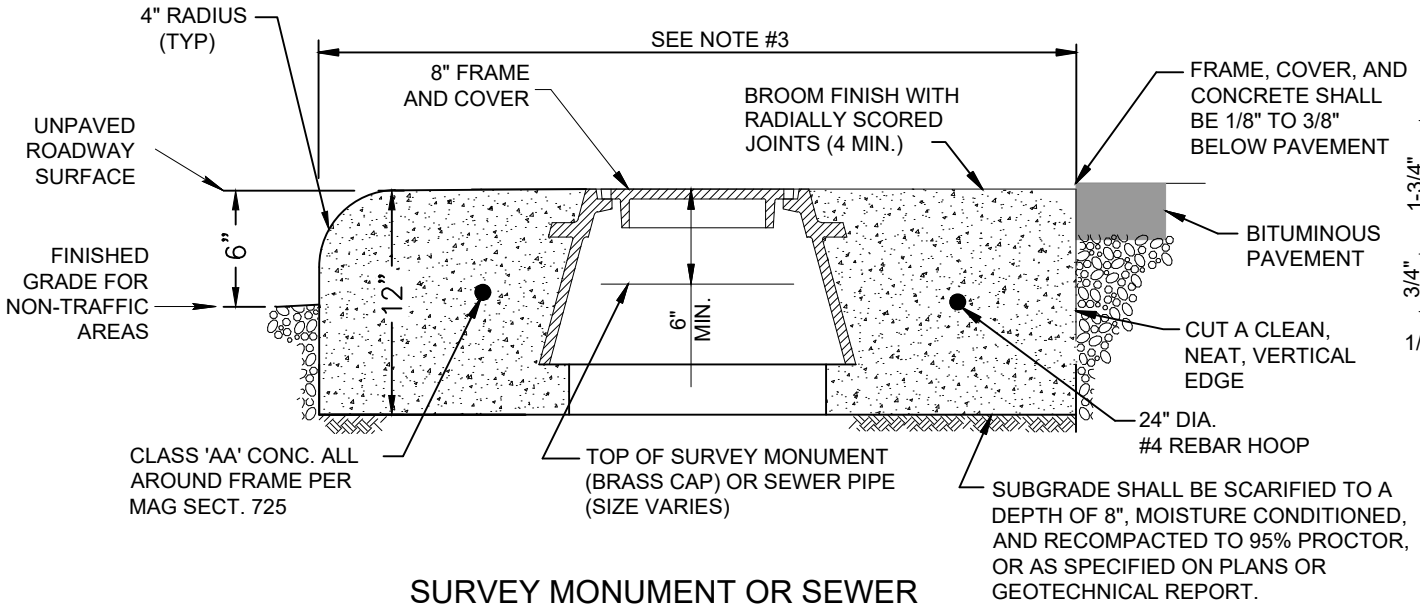
RESIDENTIAL DRIVEWAY GEOMETRY					
STREET TYPE	DRIVEWAY ENTRANCE WIDTH		CONCRETE CLASS	CONCRETE THICKNESS (MIN.)	DRIVEWAY LENGTH (MIN.)
	MIN.	MAX.			
ARTERIAL	*16'	** 24'	AA	6"	25'
COLLECTOR	*16'	** 24'	AA	6"	25'
LOCAL	*12'	** 24'	AA	6"	20'

**30' MAX. IF THREE CAR GARAGE

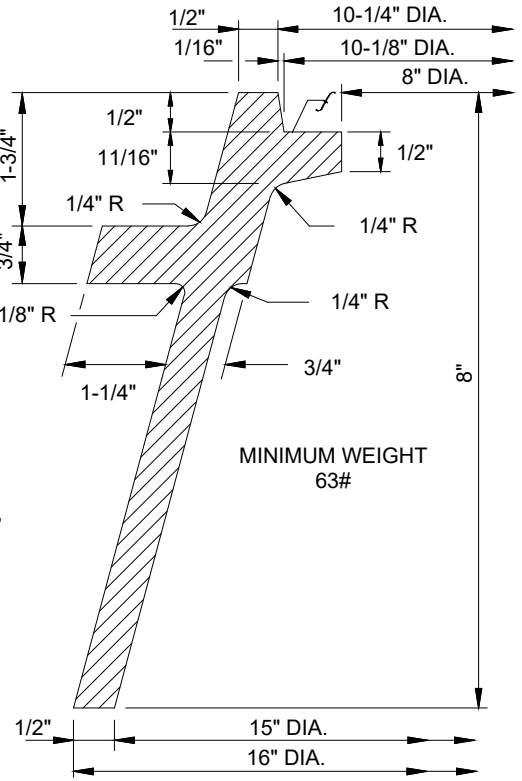


DRIVEWAY "D"

QUAD CITY STANDARD DETAIL	DRIVEWAY SECTION	REVISED: 11/18/2025	DETAIL No. 255P



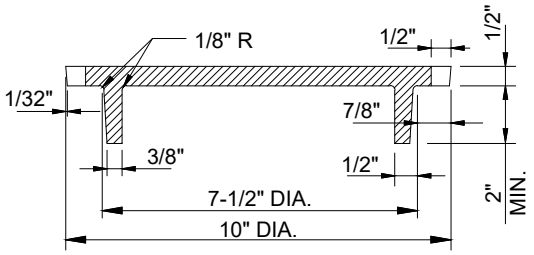
SURVEY MONUMENT OR SEWER CLEAN OUT FRAME & GRADE ADJUSTMENT



8" C.I. FRAME AND COVER

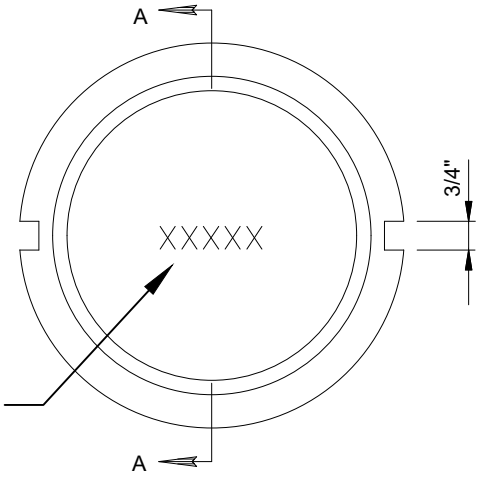
NOTES:

1. LETTERS ON COVER TO BE AS FOLLOWS: "SEWER", "PRIVATE SEWER", OR "SURVEY" AS DIRECTED TOTAL WIDTH OF WORD "SEWER" 3-3/4". TOTAL WIDTH OF WORD "SURVEY" 4-1/2". LETTER SIZE 5/8" x 3/4", RAISED 1/16" ABOVE LEVEL OF COVER, TYPE OF LETTERS TO BE SUBMITTED FOR APPROVAL.
2. U.S. MANUFACTURED IRON ONLY.
3. CONCRETE COLLAR SHALL BE 32" DIAMETER IN VEHICULAR TRAFFIC AREAS INCLUDING ALL EASEMENTS, AND 24" DIAMETER IN NON TRAFFIC AREAS.
4. FOR SURVEY MONUMENTS, PLACE SAND UNDER FRAME INSTEAD OF CONCRETE. REFER TO QCSD 120Q.



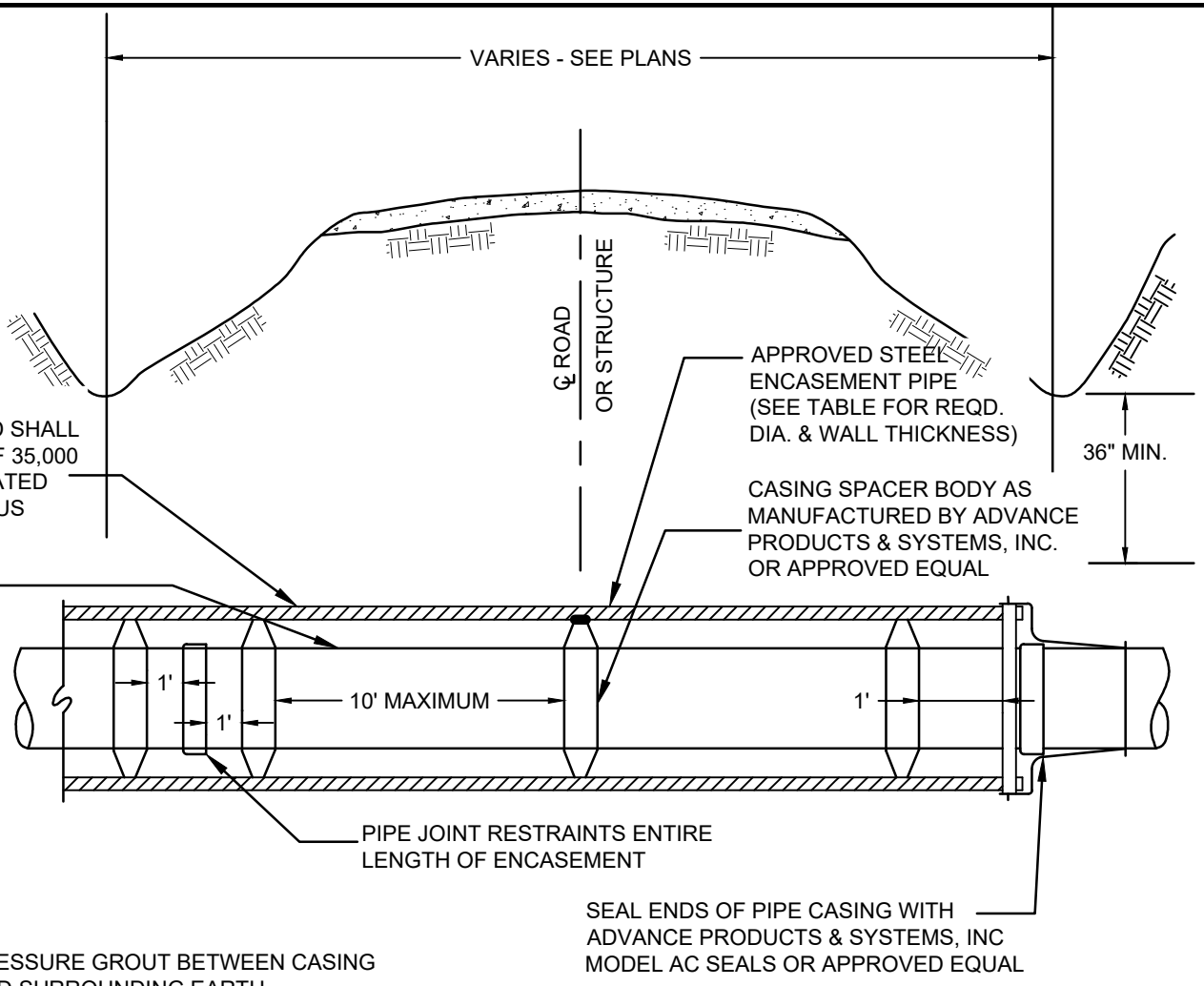
COVER SECTION A-A

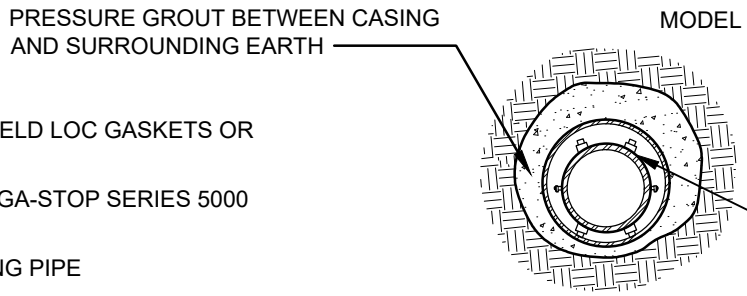
DETAIL TYPICAL
FOR BOTH FRAME
AND COVER



QUAD CITY STANDARD DETAIL	8" FRAME AND COVER	REVISED: 11/18/2025	DETAIL No. 270Q

CARRIER	STEEL ENCASEMENT	
PIPE SIZE (IN)	O.D. (IN MIN)	WALL THICKNESS (IN)
6	14	1/4
8	18	1/4
12	24	1/4
18	28	3/8
21	30	3/8
24	36	3/8
27	39	1/2



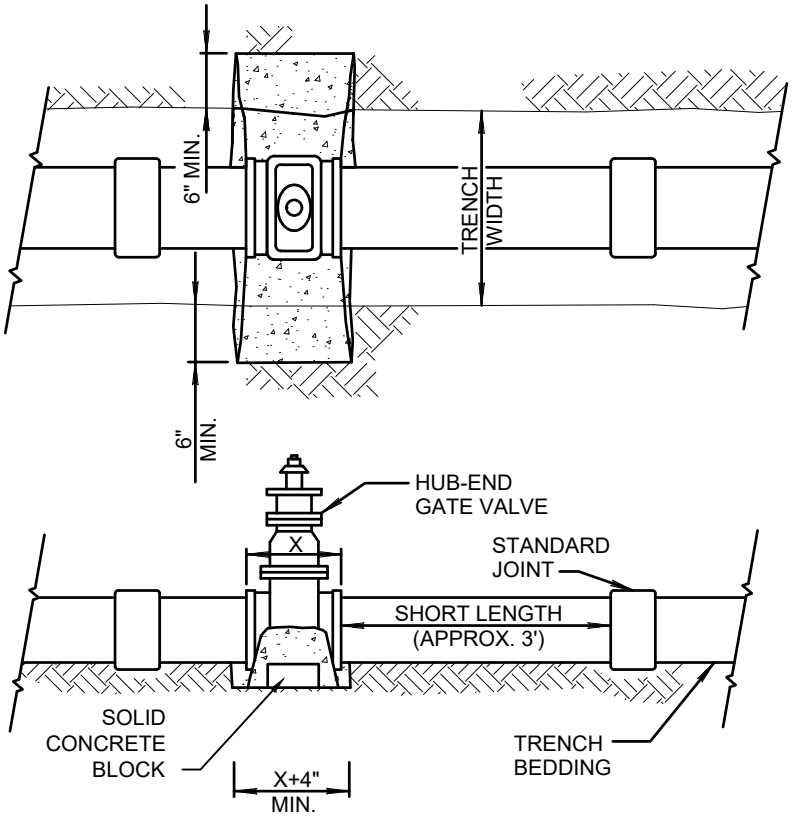


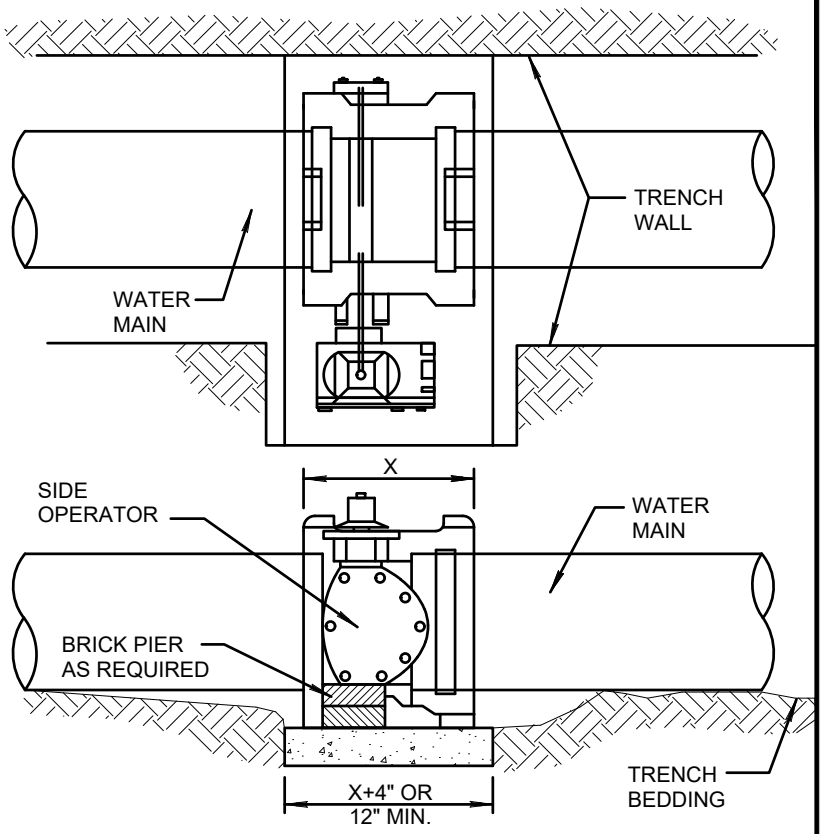
END VIEW

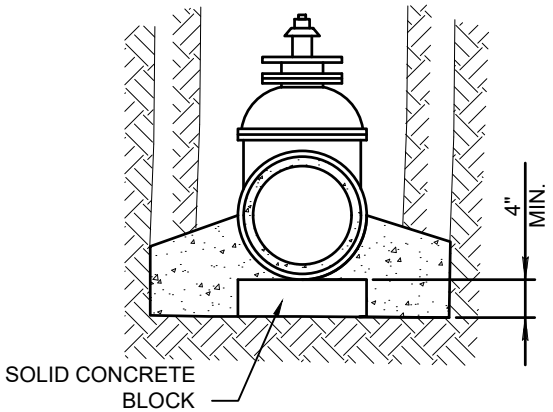
NOTES:

1. ALL FITTINGS SHALL BE RESTRAINED WITH FIELD LOC GASKETS OR APPROVED EQUAL
2. ALL BELLS SHOULD BE PROTECTED WITH MEGA-STOP SERIES 5000 BELL PROTECTION OR APPROVED EQUAL.
3. 1" MAXIUMUM BETWEEN SPACERS AND CASING PIPE
4. INSTALLATION SHALL BE IN ACCORDANCE WITH ADVANCE PRODUCTS & SYSTEMS, INC. RECOMENDATIONS OR APPROVED EQUAL.
5. TRACE WIRE PER AGENCY SPECIFICATIONS.
6. NO PIPE SHALL BE SUPPORTED BY BELL

QUAD CITY STANDARD DETAIL	UTILITY CASING	REVISED: 11/18/2025	DETAIL No. 275Q





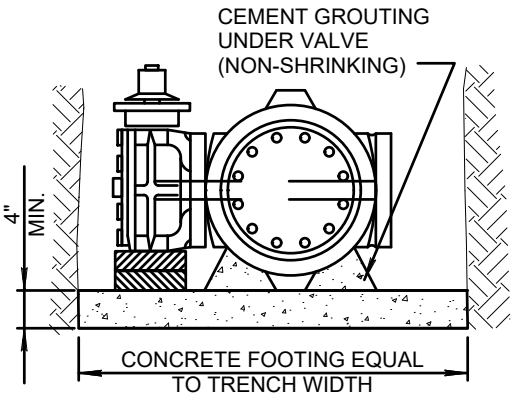


GATE VALVE

(4" TO 16")

NOTES:

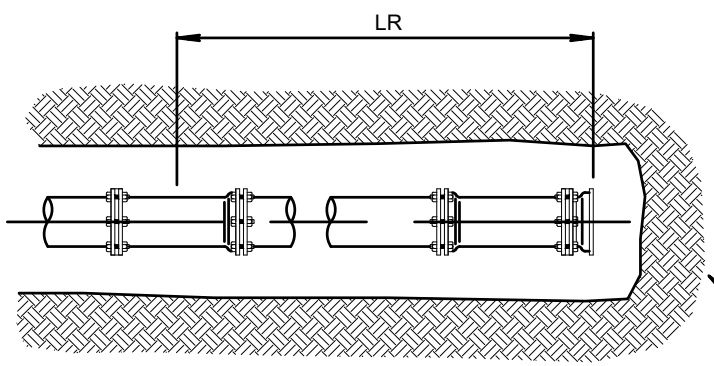
1. REFER TO APPROPRIATE AGENCY FOR VALVE BOX, COVER AND VALVE STABILIZER REQUIREMENTS.
2. ALL BOLTS AND JOINTS SHALL BE FREE AND CLEAR OF CONCRETE.
3. PROTECT ALL CONCRETE CONTACT AREAS WITH 8 MIL SHEET PLASTIC.
4. CLASS "AA" CONCRETE AS PER MAG SECT. 725. FORM AS REQUIRED TO KEEP CLEAR OF JOINTS.



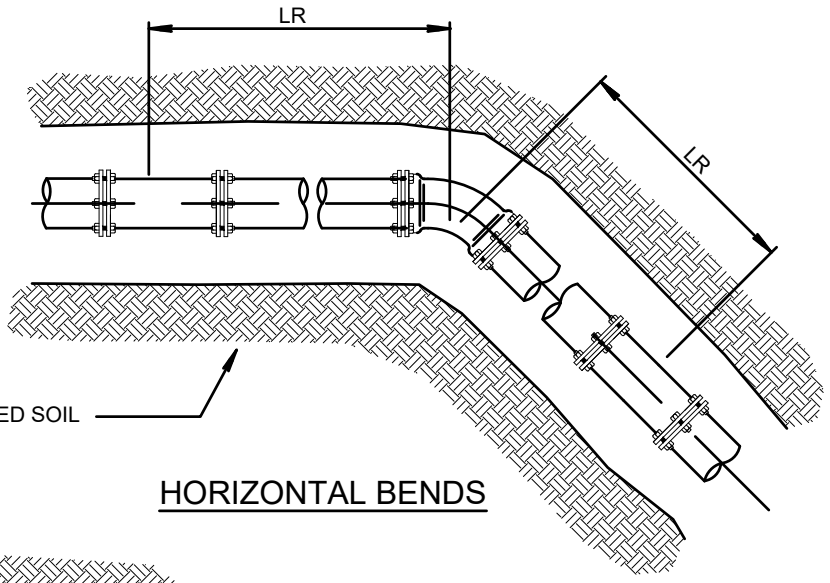
BUTTERFLY VALVE

(18" & LARGER)

QUAD CITY STANDARD DETAIL	VALVE BLOCKING	REVISED: 11/18/2025	DETAIL No. 301Q



DEAD ENDS



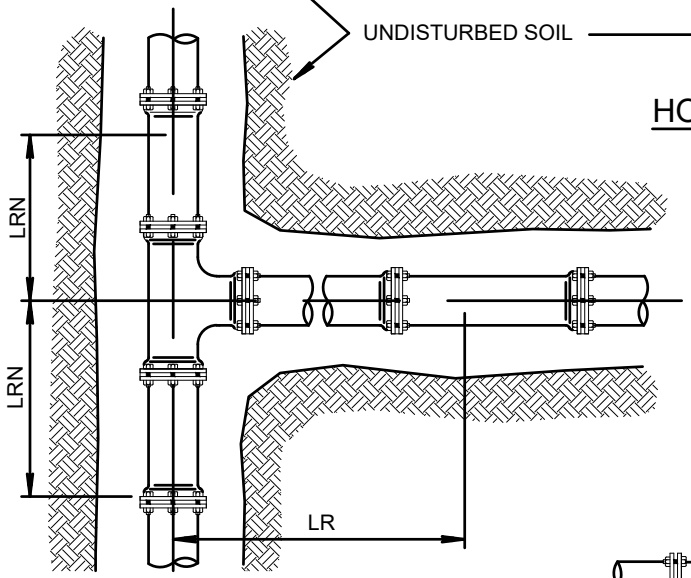
HORIZONTAL BENDS

UNDISTURBED SOIL

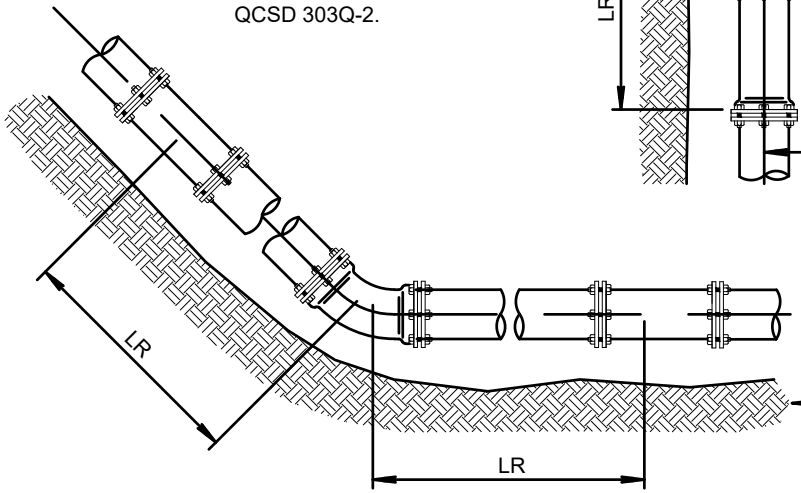
NOTES:

1. LRN = SHORTEST LENGTH OF PIPE RESTRAINED TO THE RUN OF THE TEE FITTING (BOTH SIDES OF TEE) PER QCSD 303Q-2.

2. LR = SHORTEST LENGTH OF PIPES RESTRAINED PER QCSD 303Q-2.

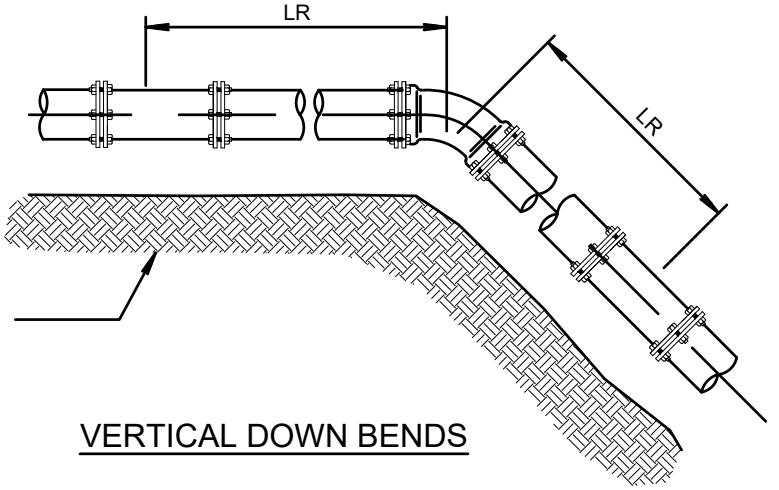


TEES



VERTICAL UP BEND

UNDISTURBED SOIL



VERTICAL DOWN BENDS

QUAD CITY STANDARD DETAIL	JOINT RESTRAINT FOR DUCTILE IRON WATER PIPES	REVISED: 11/18/2025	DETAIL No. 303Q-1

RESTRAINED LENGTHS, LR, FOR DUCTILE IRON PIPE

NOMINAL PIPE SIZE INCHES	HORIZONTAL BENDS			TEES		VERTICAL OFFSETS						VALVES & DEAD ENDS
						90° BEND FITTINGS		45° BEND FITTINGS		22-1/2° BEND FITTINGS		
	90°	45°	22-1/2°	LRN=0'	LRN=10'	DOWN BEND	UP BEND	DOWN BEND	UP BEND	DOWN BEND	UP BEND	
4	18	7	4	30	8	31	18	13	7	6	3	31
6	25	10	5	43	20	44	25	18	10	9	5	44
8	32	13	6	56	34	58	32	24	13	11	6	58
10	38	16	8	68	45	69	38	29	16	14	8	69
12	45	19	9	80	57	81	45	34	19	16	9	81
14	51	21	10	91	68	92	51	38	21	18	10	92
16	57	24	11	103	79	104	57	43	24	21	11	104
18	62	26	12	113	90	115	62	48	26	23	12	115
20	68	28	14	125	100	126	68	52	28	25	14	126
24	79	33	16	145	121	147	79	61	33	29	16	147

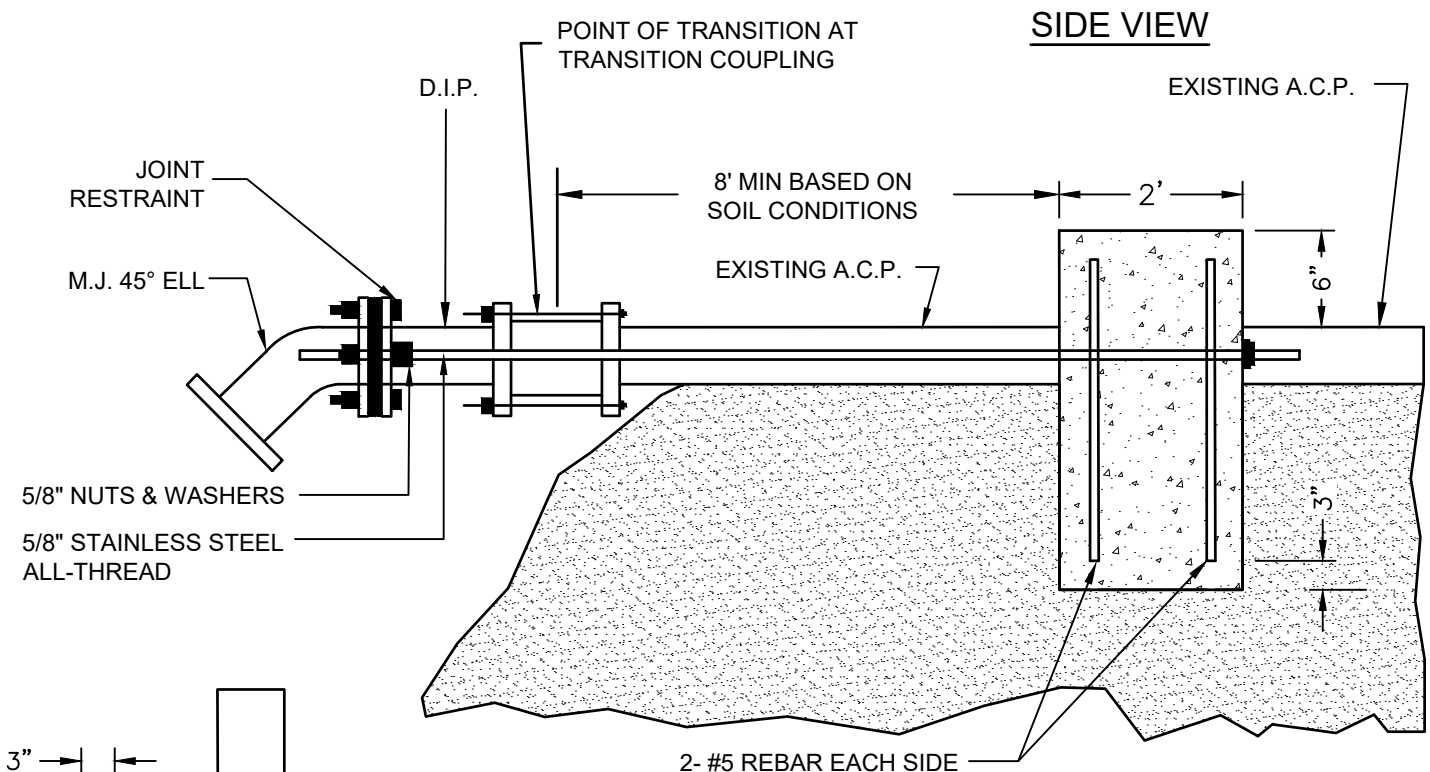
RESTRAINED LENGTHS, LR, FOR DUCTILE IRON PIPE WITH POLYETHYLENE WRAP OR PVC

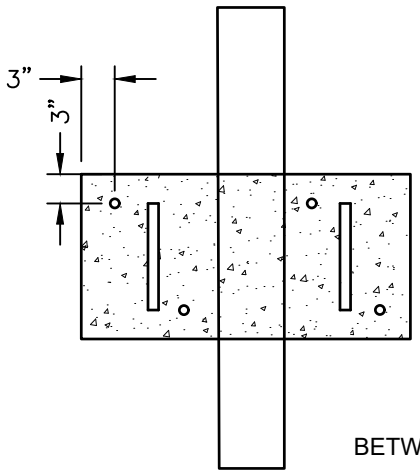
NOMINAL PIPE SIZE INCHES	HORIZONTAL BENDS			TEES		VERTICAL OFFSETS						VALVES & DEAD ENDS
						90° BEND FITTINGS		45° BEND FITTINGS		22-1/2° BEND FITTINGS		
	90°	45°	22-1/2°	LRN=0'	LRN=10'	DOWN BEND	UP BEND	DOWN BEND	UP BEND	DOWN BEND	UP BEND	
4	26	11	5	69	18	72	26	30	11	14	5	72
6	36	15	7	99	47	102	36	42	15	20	7	102
8	47	19	9	130	78	133	47	55	19	26	9	133
10	56	23	11	157	103	159	56	66	23	32	11	159
12	65	27	13	185	131	187	65	77	27	37	13	187
14	74	31	15	211	156	214	74	89	31	42	15	214
16	82	34	16	238	183	241	82	100	34	48	16	241
18	90	37	18	263	207	266	90	110	38	53	18	266
20	98	41	20	289	233	292	98	121	41	58	20	292
24	113	47	22	337	280	340	113	141	47	68	22	340

NOTES:

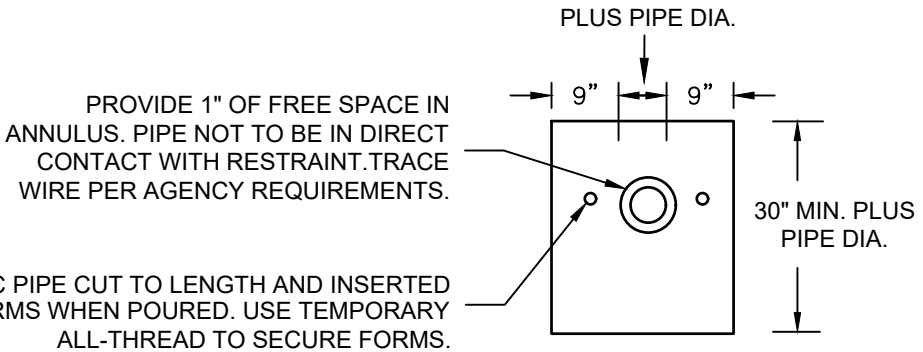
1. JOINT RESTRAINT FOR DUCTILE IRON, POLYETHYLENE WRAPPED DUCTILE IRON WATER PIPES
2. ALL JOINTS WITHIN THE SPECIFIED LENGTH LR MUST BE RESTRAINED. ALL LENGTHS ARE GIVEN IN FEET.
3. THE RESTRAINED LENGTHS SHOWN ARE FOR A MAXIMUM TEST PRESSURE OF 200 PSI. TEST PRESSURES IN EXCESS OF 200 PSI WILL REQUIRE ADDITIONAL CALCULATIONS BY THE ENGINEER OF RECORD.
4. THE MINIMUM DEPTH OF BURY SHALL BE 4' TO TOP OF PIPE.

QUAD CITY STANDARD DETAIL	JOINT RESTRAINT FOR DUCTILE IRON WATER PIPES	REVISED: 11/18/2025	DETAIL No. 303Q-2





TOP VIEW



FRONT VIEW

NOTES:

1. CONCRETE SHALL BE MAG CLASS "AA".
2. CONCRETE SHALL BE POURED AGAINST UNDISTURBED EARTH EXCEPT WHERE FORMWORK IS REQUIRED. AFTER CONCRETE IS CURED THE FORMWORK SHALL BE REMOVED.

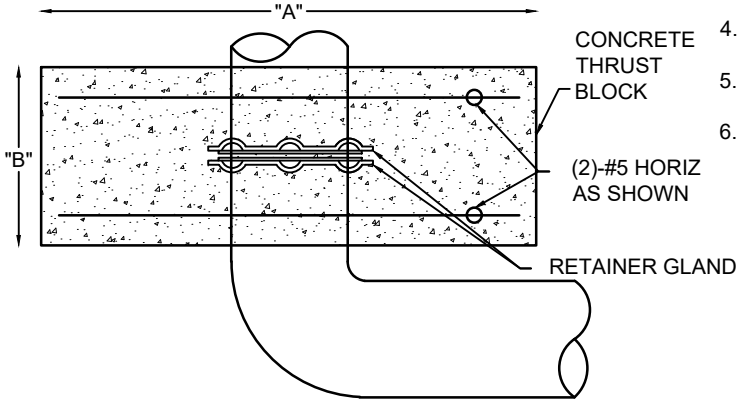
QUAD CITY STANDARD DETAIL	REVERSE THRUST BLOCK ACP	REVISED: 11/18/2025	DETAIL No. 303Q-3

PIPE SIZE	A	B	VERT REINF	C	VOL. (yd^3)	WEIGHT (LBS)	THRUST (LBS)
4" Ø	3'-0"	1'-6"	(2)-#5	1'-4"	0.23	932	3844
6" Ø	3'-8"	2'-0"	(2)-#5	2'-0"	0.55	2228	8594
8" Ø	4'-6"	2'-0"	(2)-#5	3'-0"	1.00	4050	15414
10" Ø	6'-0"	2'-4"	(4)-#5	3'-4"	1.73	7007	23751
12" Ø	6'-6"	2'-4"	(4)-#5	4'-6"	2.53	10247	34157
14" Ø	7'-0"	2'-6"	(4)-#5	5'-8"	3.68	14904	46448
16" Ø	8'-0"	2'-9"	(6)-#5	6'-4"	5.16	20898	60772
18" Ø	9'-0"	3'-0"	(6)-#5	7'-2"	7.17	29039	77018

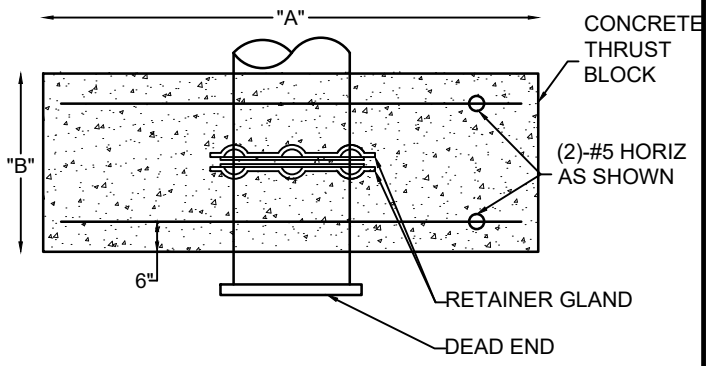
NOTES:

1. CONCRETE SHALL BE MAG CLASS "AA".
2. CONCRETE SHALL BE POURED AGAINST UNDISTURBED EARTH EXCEPT WHERE FORMWORK IS REQUIRED. AFTER CONCRETE IS CURED THE FORMWORK SHALL BE REMOVED.
3. PRIOR TO PRESSURE TEST LOADING, CONTRACTOR SHALL PROVIDE WRITTEN TEST REPORT FROM QUALITY CONTROL LAB VERIFYING MINIMUM 2500 PSI COMPRESSIVE STRENGTH.
4. BASED ON 200 PSI TEST PRESSURE.
5. HORIZONTAL AND VERTICAL BENDS OPTIONAL.
6. RETAINER GLAND = FORD SERIES 1300 UNI-FLANGE RETAINER GLAND OR EQUAL (TYP).

PIPE SIZE	A	B	VERT REINF	C	VOL. (yd^3)	WEIGHT (LBS)	THRUST (LBS)
4" Ø	2'-0"	1'-6"	(2)-#5	1'-4"	0.15	608	2718
6" Ø	3'-0"	1'-8"	(2)-#5	2'-0"	0.38	1539	6077
8" Ø	3'-6"	2'-0"	(2)-#5	2'-8"	0.70	2835	10900
10" Ø	5'-0"	2'-2"	(4)-#5	3'-0"	1.21	4901	16794
12" Ø	5'-6"	2'-4"	(4)-#5	4'-0"	1.90	7695	24153
14" Ø	6'-0"	2'-4"	(4)-#5	5'-0"	2.59	10490	32844
16" Ø	6'-6"	2'-8"	(6)-#5	5'-8"	3.65	14783	42973
18" Ø	7'-0"	3'-0"	(6)-#5	6'-6"	5.06	20493	54460

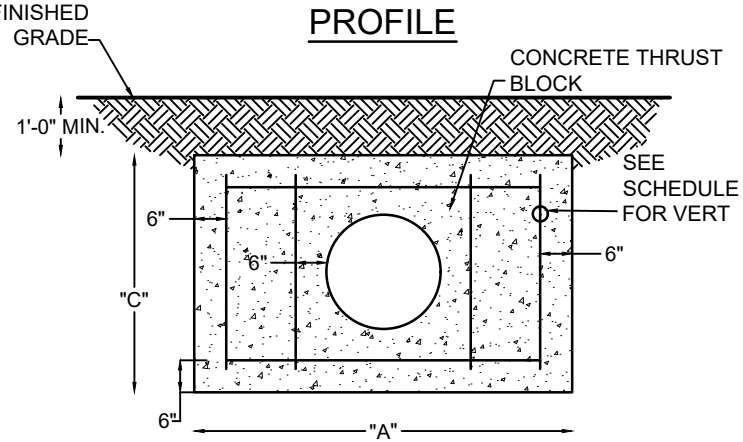


THRUST BLOCK AT ANGLE

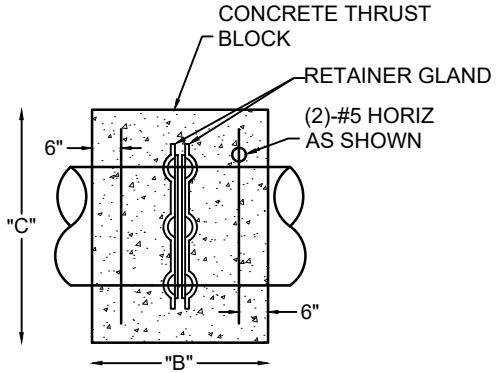


THRUST BLOCK AT DEAD END

PROFILE



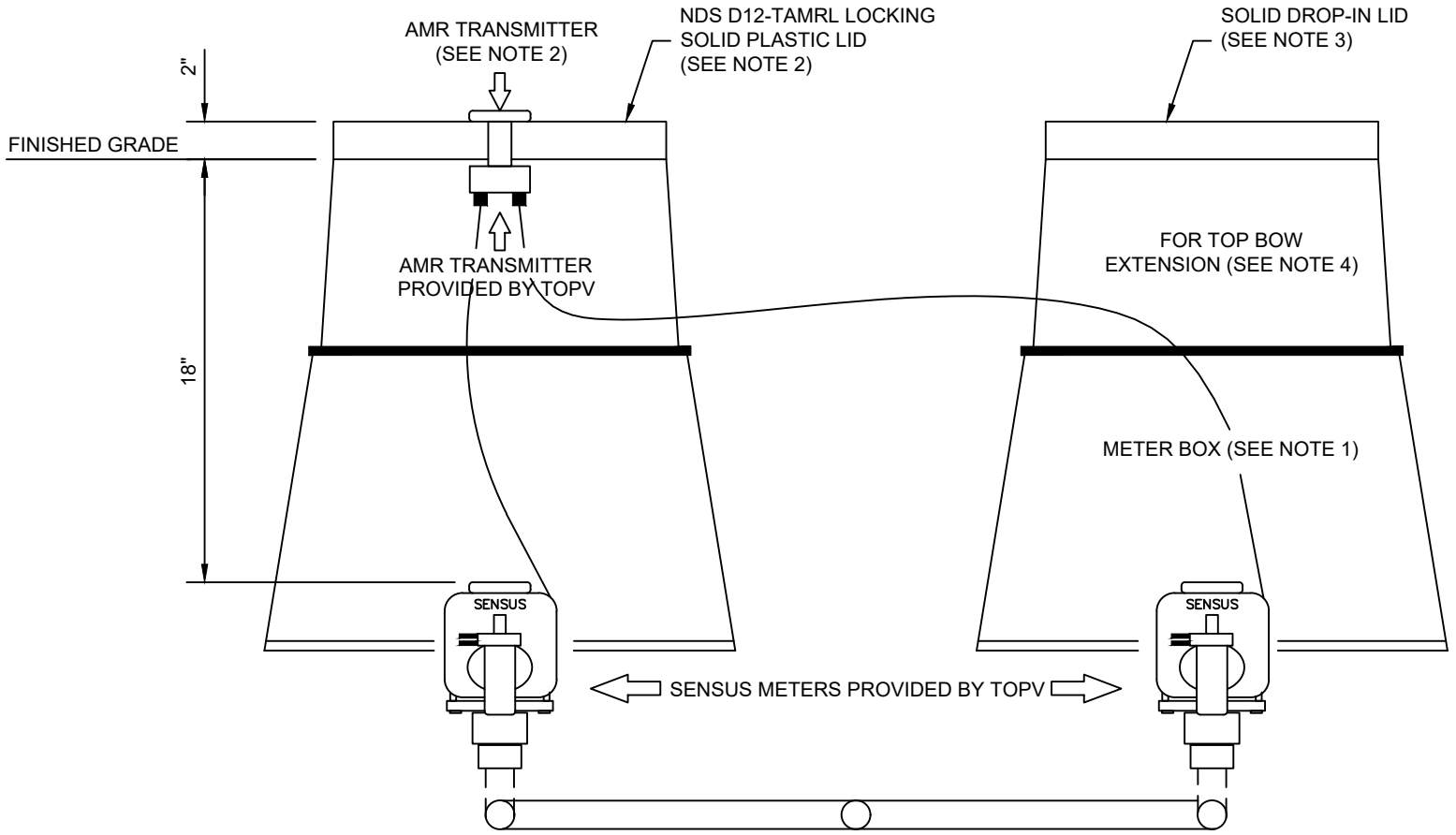
SECTION



QUAD CITY STANDARD DETAIL	REVERSE THRUST BLOCK PVC - DIP	REVISED: 11/18/2025	DETAIL No. 303Q-4

NOTES

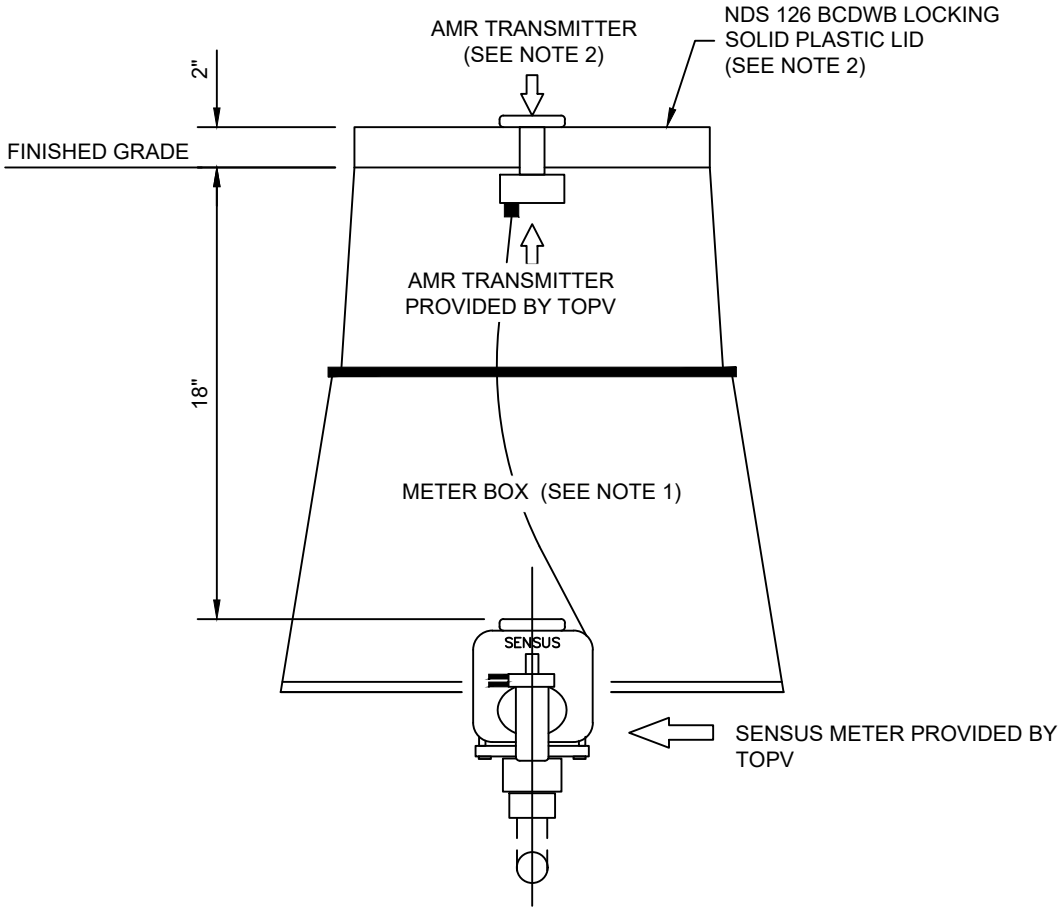
1. NDS D1800 B/O (METER BOX ONLY) OR APPROVED EQUAL - 14"Wx19"Lx18"D.
2. FOR SINGLE BOX APPLICATION, USE NDS D12-TAMRL LOCKING SOLID PLASTIC LID WITH 2 INCH AMR/TRANSMITTER HOLE WITH 7 INCH TOP RECESS COVER.
3. FOR DUAL BOX (SIDE BY SIDE METERS), USE SOLID DROP-IN LID ON THE SECOND BOX.
4. NDS D600E-EXT-TOP BOX EXTENSION OR APPROVED EQUAL.



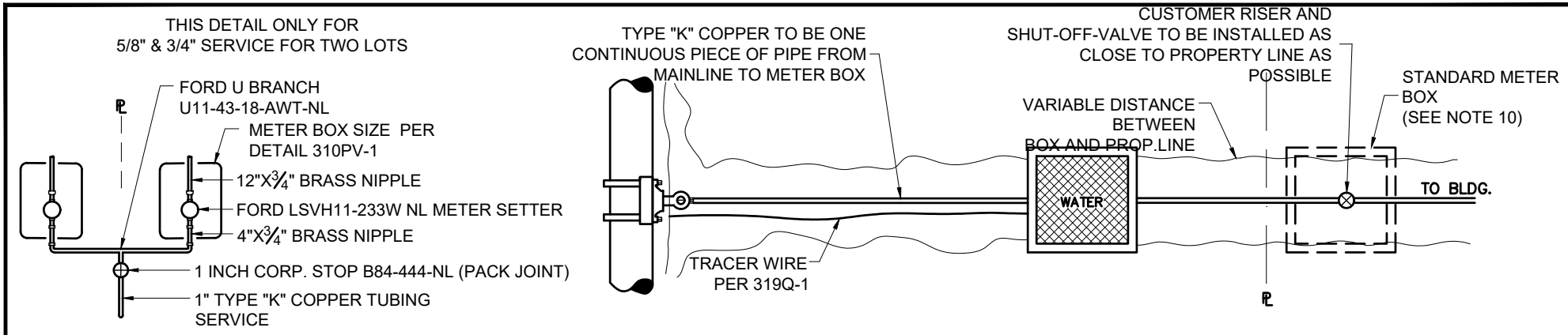
QUAD CITY STANDARD DETAIL	⅝" THROUGH 1" METER BOX APPLICATIONS	REVISED: 11/18/2025	DETAIL No. 310PV-1

NOTES

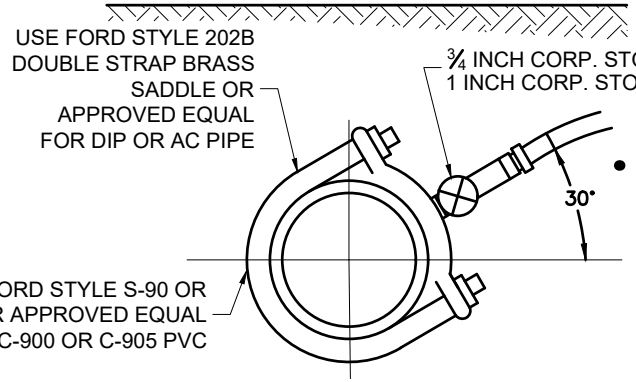
1. NDS 17" WIDE X 30" LONG METER BOX OR APPROVED EQUAL.
2. NDS 126 BCDWB METER BOX, BOLT DOWN DROP-IN SOLID PLASTIC LID OR APPROVED EQUAL.



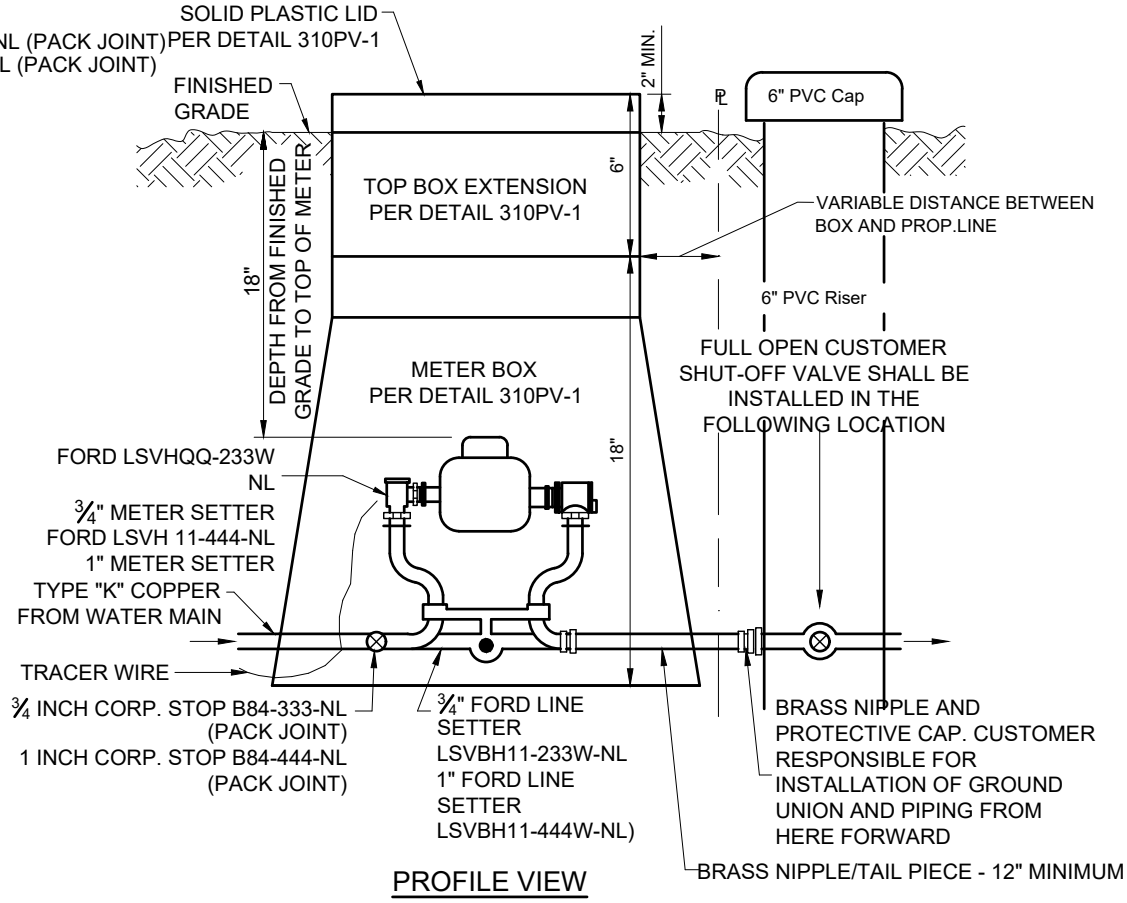
QUAD CITY STANDARD DETAIL	1½" THROUGH 2" METER BOX APPLICATIONS	REVISED: 11/18/2025	DETAIL No. 310PV-2



PLAN VIEW



SIDE VIEW

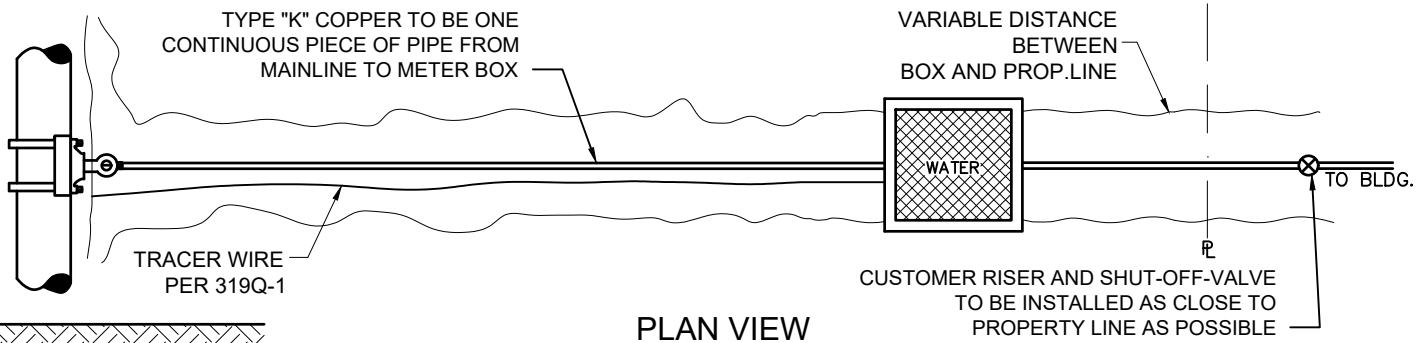


PROFILE VIEW

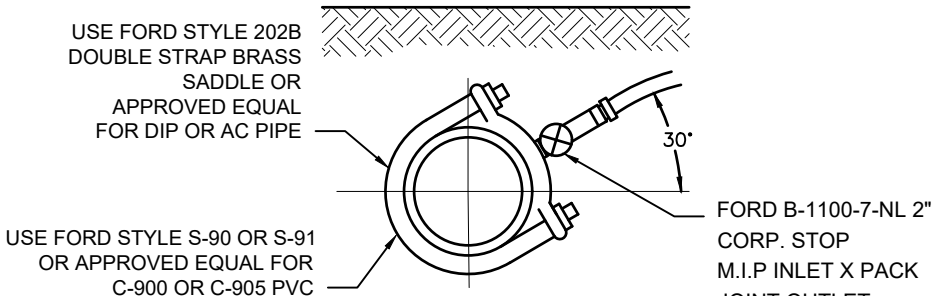
NOTES:

1. ALL BRASS PARTS LISTED ARE FORD METER BOX COMPANY OR APPROVED EQUAL.
2. SERVICE LINE SHALL BE TYPE "K" COPPER CONTAINING NO SPLICES.
3. METER BOX AND LID SHALL BE NDS OR APPROVED EQUAL .
4. METER BOXES SHALL BE PER DETAIL 310PV-1.
5. REFER TO DETAIL 200Q FOR WATER SERVICE BEDDING AND SHADING .
6. METER BOX SHALL NOT BE LOCATED IN DRIVEWAYS, SIDEWALKS OR STREETS.
7. NO LANDSCAPE FEATURES OR VEGETATION LOCATED WITHIN 5' OF METER BOXES.
8. SERVICE LINE IS TO HAVE A MIN. 3 FT COVER WITHIN ROAD PRISM.
9. FOR CUT OR FILL SLOPE METER LOCATIONS, CMU WALL OR APPROVED METHOD SHALL BE REQUIRED FOR PROTECTION OF METER SET.
10. STANDARD METER BOX CAN BE USED AS ALTERNATIVE TO 6" PVC RISER WITH CAP.
11. METERS TO BE INSTALLED BY PERMITTING AGENCY.

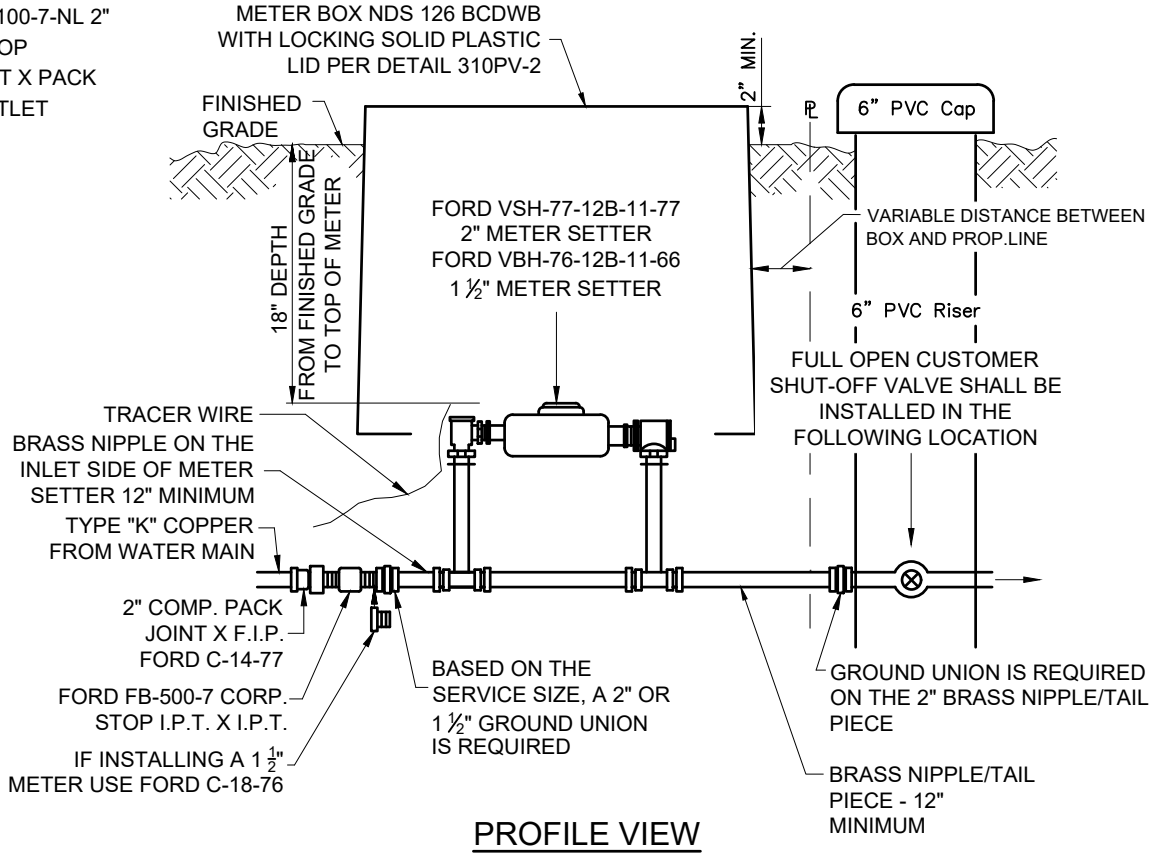
QUAD CITY STANDARD DETAIL	⅝" THROUGH 1" WATER SERVICE CONNECTION	REVISED: 11/18/2025	DETAIL No. 310PV-3



PLAN VIEW



SIDE VIEW

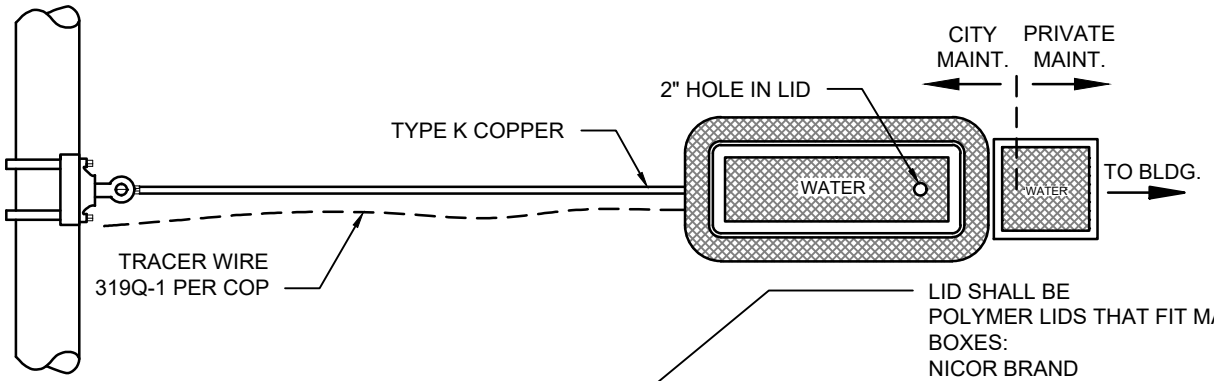


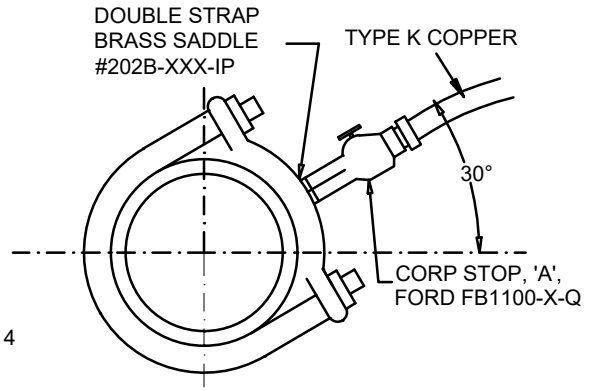
PROFILE VIEW

NOTES

1. ALL BRASS PARTS LISTED ARE FORD METER BOX COMPANY OR APPROVED EQUAL.
2. SERVICE LINE SHALL BE TYPE "K" COPPER CONTAINING NO SPLICES.
3. METER BOX AND LID SHALL BE NDS OR APPROVED EQUAL.
4. METER BOXES SHALL BE PER DETAIL 310PV-2.
5. REFER TO DETAIL 200Q FOR WATER SERVICE BEDDING AND SHADING.
6. METER BOX SHALL NOT BE LOCATED IN DRIVEWAYS, SIDEWALKS OR STREETS.
7. NO LANDSCAPE FEATURES OR VEGETATION LOCATED WITHIN 5' OF METER BOXES.
8. SERVICE LINE IS TO HAVE A MIN. 3 FT COVER WITHIN ROAD PRISM.
9. FOR CUT OR FILL SLOPE METER LOCATIONS, CMU WALL OR APPROVED METHOD SHALL BE REQUIRED FOR PROTECTION OF METER SET.
10. ALL 1-1/2" AND 2" SERVICES SHALL BE INSTALLED USING 2" SERVICE LINE FROM THE MAINLINE TO THE CORP STOP PRIOR TO THE METER.
11. METERS TO BE INSTALLED BY PERMITTING AGENCY.

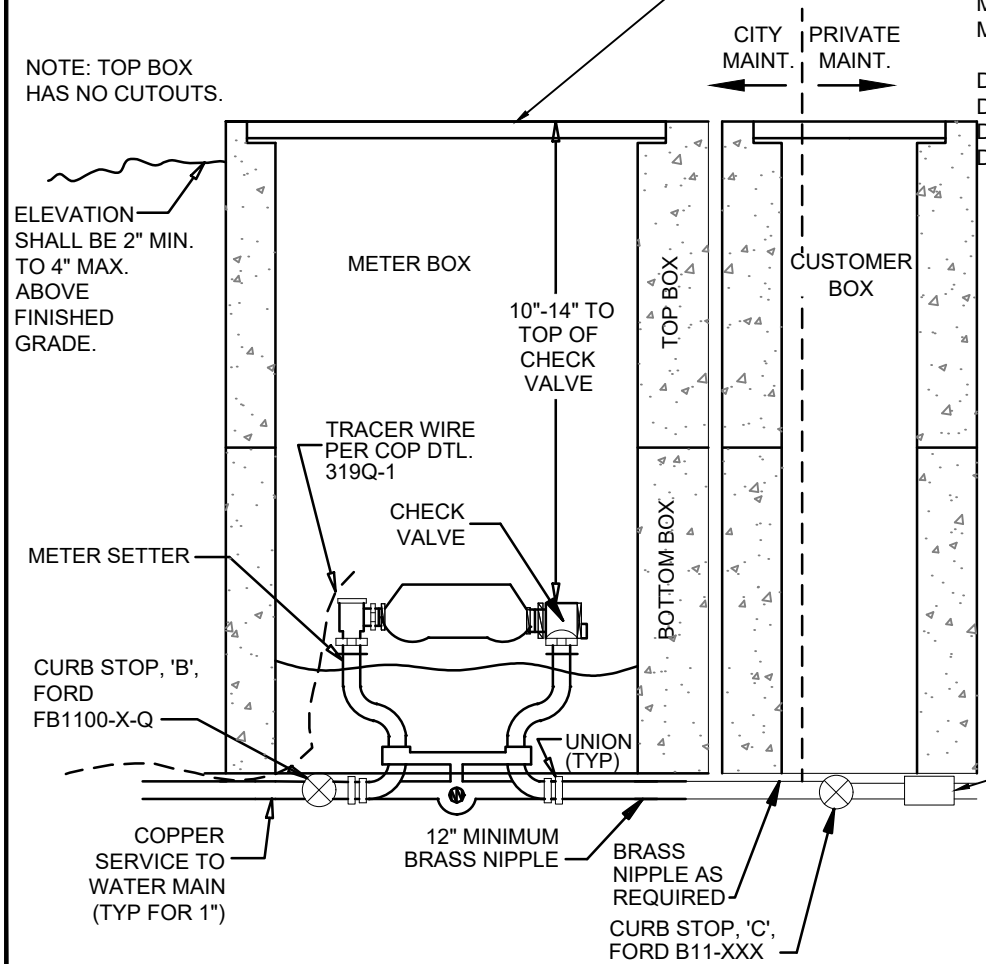
QUAD CITY STANDARD DETAIL	1 ½" THROUGH 2" WATER SERVICE CONNECTIONS	REVISED: 11/18/2025	DETAIL No. 310PV-4





LID SHALL BE
POLYMER LIDS THAT FIT MAG 2 - MAG 4 BOXES:
NICOR BRAND
MAG2NLBLKPRSTHO
MAG3NLBLKPRSTHO
MAG4NLBLKPRSTHO

DFW BRAND
DFWA2C-AF1MT SMALL PRES NHK-LID
DFWA3C-AF1MT SMALL PRES NHK-LID
DFWA4C-AF1MT SMALL PRES NHK-LID



SERVICE SIZE	'A' CORP STOP	'B' CURB STOP	METER SETTER	CITY BOX	CUSTOMER BOX	'C' CURB STOP
1"	FB1100-4-Q	FB1100-4-Q	VBH74-12W-11-44	#2	#1	B11-444
1.5"	FB1100-6-Q	FB1100-6-Q	VBH76-12W-11-66	#4	#2	B11-666
2"	FB1100-7-Q	FB1100-7-Q	VBH77-12W-11-77	#4	#2	B11-777

NOTES:
1. ALL PARTS LISTED ARE FORD METER BOX CO. OR APPROVED EQUAL.
2. FOR 5/8" X 3/4" METERS, INSTALL FORD A24 METER ADAPTERS.
3. ON 1.5" AND 2" METERS INSTALL UNIONS ON EACH SIDE OF THE METER SETTER USING 6" BRASS NIPPLES IN-LIEU OF 12" BRASS NIPPLES.
4. SEE ADDITIONAL NOTES ON 316P-2.

METER SIZE	SETTER FLANGE TO FLANGE LENGTH
5/8" x 3/4"	7.75"
1"	10.75"
1.5"	13.25"
2"	17.25"

QUAD CITY STANDARD DETAIL	1" - 2" WATER SERVICE CONNECTIONS	REVISED: 11/18/2025	DETAIL No. 316P-1

NOTES:

1. SERVICE LINE SHALL BE TYPE K COPPER WITH 8 MIL POLYWRAP.
2. BOXES SHALL BE PER MAG STD. DETAIL 320.
3. SERVICE LINE IS TO HAVE MIN. 3 FT. COVER WITHIN THE ROADWAY PRISM.
4. SERVICE LINE SHALL BE UNSPLICED FROM CORP. STOP AT MAIN TO CURB STOP AT METER BOX.
5. FOR CUT OR FILL SLOPE METER LOCATIONS, CMU WALL OR OTHER APPROVED METHOD SHALL BE REQUIRED FOR PROTECTION OF METER SET.
6. METER TO BE INSTALLED BY C.O.P. OR APPOINTED AGENCY REPRESENTATIVE PER PROJECT SPECIFICATIONS.
7. REFER TO QCSD 200Q-1 FOR WATER SERVICE BEDDING AND SHADING.
8. WATER SERVICE OR METER BOX SHALL NOT BE LOCATED IN DRIVEWAYS, SIDEWALKS, OR STREETS.
9. WATER METER SHALL BE PLACED IN PUBLIC R/W OR EASEMENT BETWEEN THE BACK OF CURB OR SIDEWALK AND R/W LINE OUTSIDE OF TRAFFIC AREAS. IN SIDEWALKS AND AREAS WITH VEHICULAR TRAFFIC, USE OLDCASTLE INFRASTRUCTURE, CHRISTY, TRAFFIC RATED METER BOXES.

   A. THE TRAFFIC RATED METER BOX EQUIVALENT TO A MAG#1 SIZE IS B1017

   B. THE TRAFFIC RATED METER BOX EQUIVALENT TO A MAG#2 SIZE IS B1324

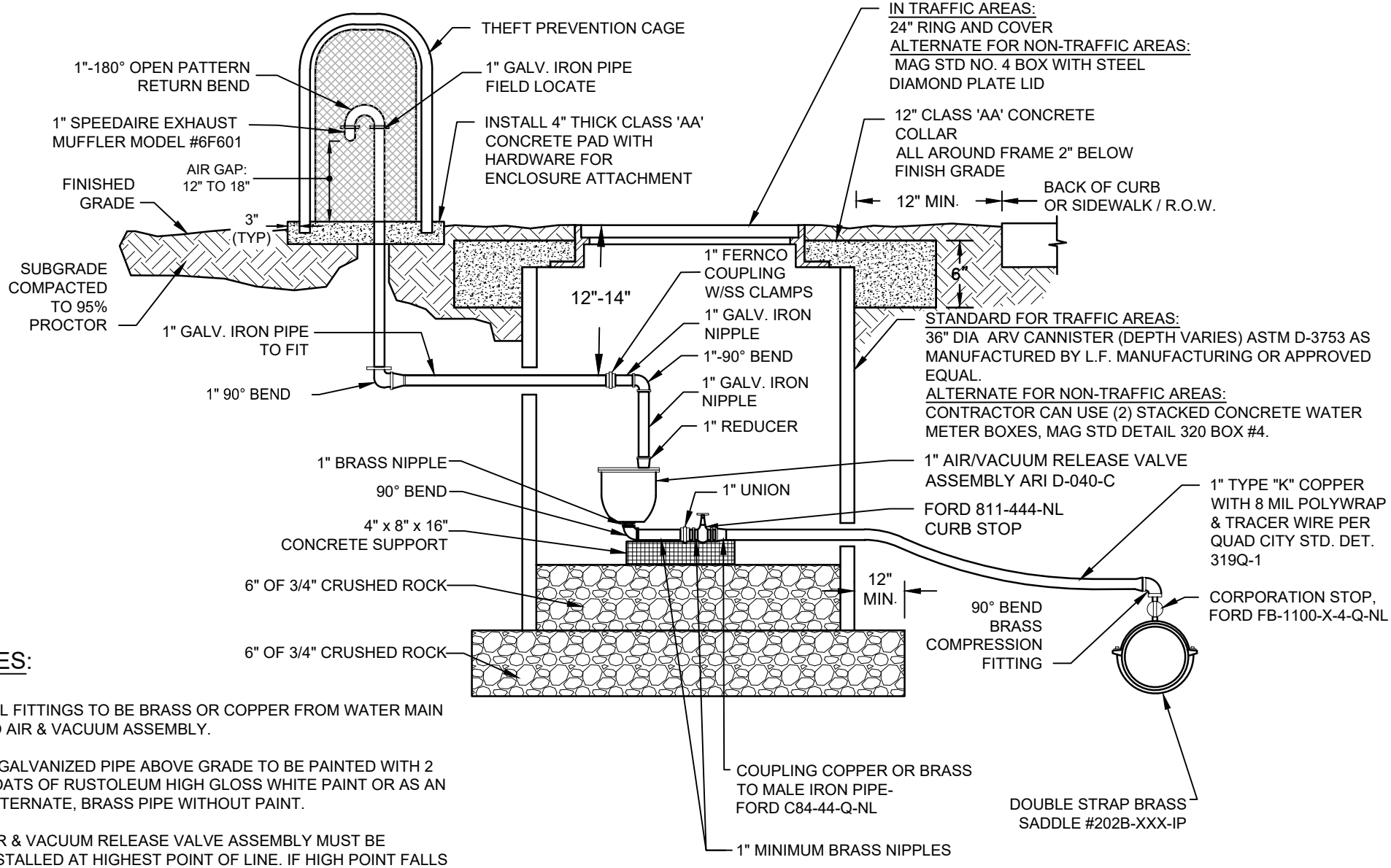
   C. THE TRAFFIC RATED METER BOX EQUIVALENT TO A MAG#4 SIZE IS B1730

10. NO LANDSCAPE FEATURES OR VEGETATION WITHIN 5' OF METER BOXES.
11. CONTRACTOR SHALL VERIFY 65 PSI ON PRESSURE REGULATOR.
12. PRIVATE MAINTENANCE RESPONSIBILITY STARTS AT THE CUSTOMER SHUTOFF VALVE AND BOX.

NOTES (DWELLINGS WITH FIRE SPRINKLERS):

13. NOTES 1-12 ABOVE APPLY
14. FOR DWELLINGS WITH RESIDENTIAL SPRINKLER APPLICATIONS, LOCATE THE DOMESTIC PLUMBING REGULATOR AT THE HOUSE ON THE DOMESTIC LINE.
15. DWELLINGS WITH FIRE SPRINKLERS WITH STATIC PRESSURES AT 120 PSI OR GREATER MUST HAVE A MINIMUM OF 1.5" PRESSURE REGULATOR OR LARGER PER FIRE SPRINKLER SYSTEM DESIGNER. PRESSURE REGULATOR SHALL BE A WATTS LF25AUB-HP OR APPROVED EQUAL. WATTS LFN45B OR APPROVED EQUAL IS PERMITTED IF MAX PRESSURE SETTING TO BE 75 PSI PER FIRE SPRINKLER DESIGNER. PRESSURE REGULATOR TO BE LOCATED AT THE METER SET IMMEDIATELY AFTER THE CUSTOMER BOX. INSTALLATION OF THE 1.5" PRESSURE REGULATOR DOES NOT NEGATE THE REQUIREMENT FOR A DOMESTIC REGULATOR INSTALLED AT THE HOUSE.
16. NFPA 13D-5.2.2.3 - PRESSURE REGULATOR NEEDS TO HAVE A MINIMUM RATED WORKING PRESSURE OF 130 PSI AT 120° FARENHEIT.
17. NFPA 13D-5.2.2.4 - REGULATOR MAXIMUM PRESSURE SETTING TO BE 80 PSI AND (IPC - P2903.3 MAXIMUM WATER PRESSURE FOR RESIDENCE IS 80 PSI). FIRE SPRINKLER SYSTEM DESIGNER MAY REQUIRE A LOWER MAX PRESSURE SETTING.
18. NFPA 13D-6.3.4 - SIGNAGE REQUIRED AT THE SHUT-OFF PER IFC 6.3.4, '*WARNING: THE WATER SYSTEM FOR THIS HOME SUPPLIES FIRE SPRINKLERS THAT REQUIRE CERTAIN FLOWS AND PRESSURES TO FIGHT A FIRE. DEVICES THAT RESTRICT THE FLOW OR DECREASE THE PRESSURE OR AUTOMATICALLY SHUT OFF WATER TO THE FIRE SPRINKLER SYSTEM, SUCH AS WATER SOFTENERS, FILTRATION SYSTEMS, AND AUTOMATIC SHUT-OFF VALVES SHALL NOT BE ADDED TO THE SYSTEM WITHOUT REVIEW OF THE FIRE SPRINKLER SYSTEM BY A FIRE PROTECTION SPECIALIST. DO NOT REMOVE THIS SIGN*'.
19. NFPA 13D-6.3.4 - SIGNAGE TO HAVE A MINIMUM OF $\frac{1}{4}$" LETTERS AND TO BE AFFIXED ADJACENT TO SHUT-OFF VALVE.
20. A #2 BOX IS REQUIRED.

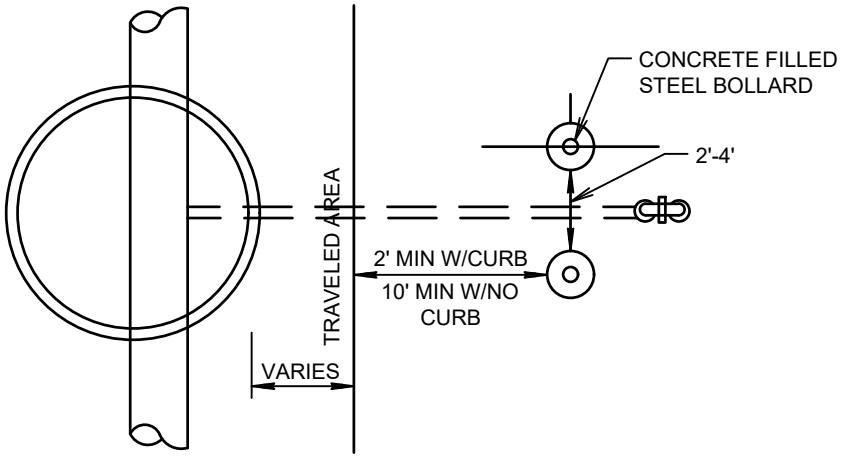
QUAD CITY STANDARD DETAIL	1" - 2" WATER SERVICE CONNECTION NOTES	REVISED: 11/18/2025	DETAIL No. 316P-2



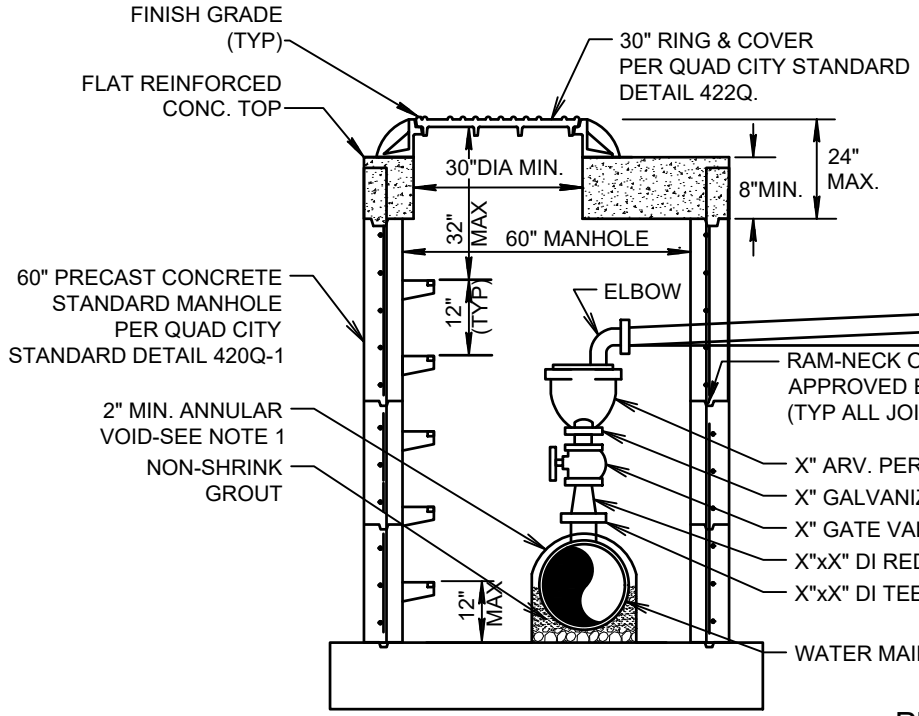
NOTES:

1. ALL FITTINGS TO BE BRASS OR COPPER FROM WATER MAIN TO AIR & VACUUM ASSEMBLY.
2. 1" GALVANIZED PIPE ABOVE GRADE TO BE PAINTED WITH 2 COATS OF RUSTOLEUM HIGH GLOSS WHITE PAINT OR AS AN ALTERNATE, BRASS PIPE WITHOUT PAINT.
3. AIR & VACUUM RELEASE VALVE ASSEMBLY MUST BE INSTALLED AT HIGHEST POINT OF LINE. IF HIGH POINT FALLS IN A LOCATION WHERE ASSEMBLY CANNOT BE INSTALLED, PROVIDE ADDITIONAL DEPTH OF LINE TO CREATE HIGHPOINT AT A LOCATION WHERE ASSEMBLY CAN BE INSTALLED.
4. LOCATE AIR & VACUUM METER BOX OUTSIDE OF TRAFFIC AREAS, BEHIND CURB. LOCATION IN SIDEWALKS OR AREAS WITH VEHICULAR TRAFFIC SHALL REQUIRE AGENCY APPROVAL.

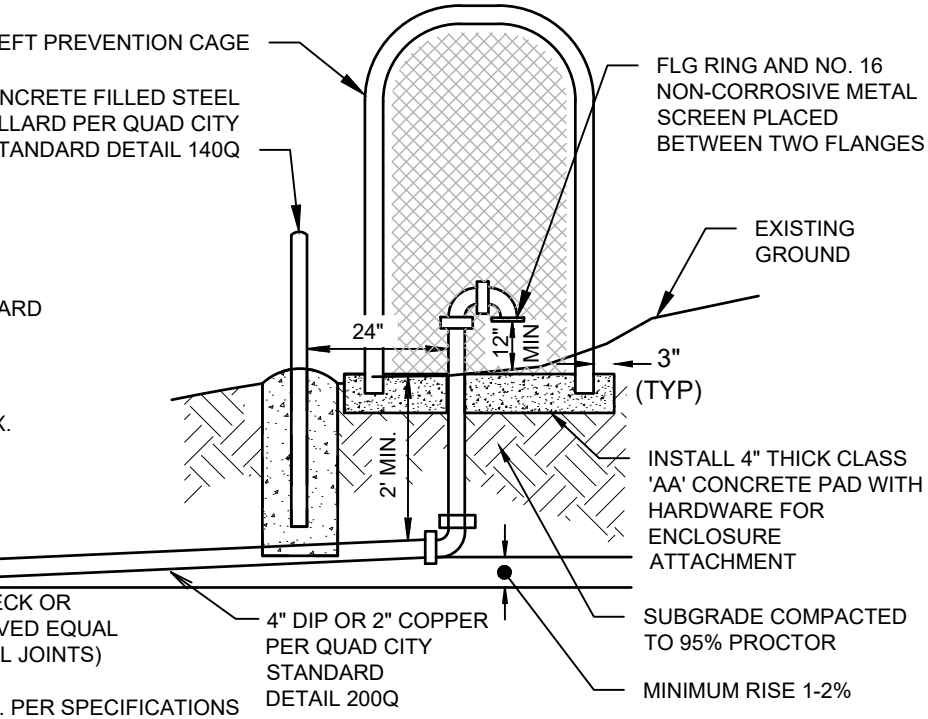
QUAD CITY STANDARD DETAIL	1" AIR VACUUM RELEASE VALVE ASSEMBLY	REVISED: 11/18/2025	DETAIL No. 317Q-1



PLAN
NTS



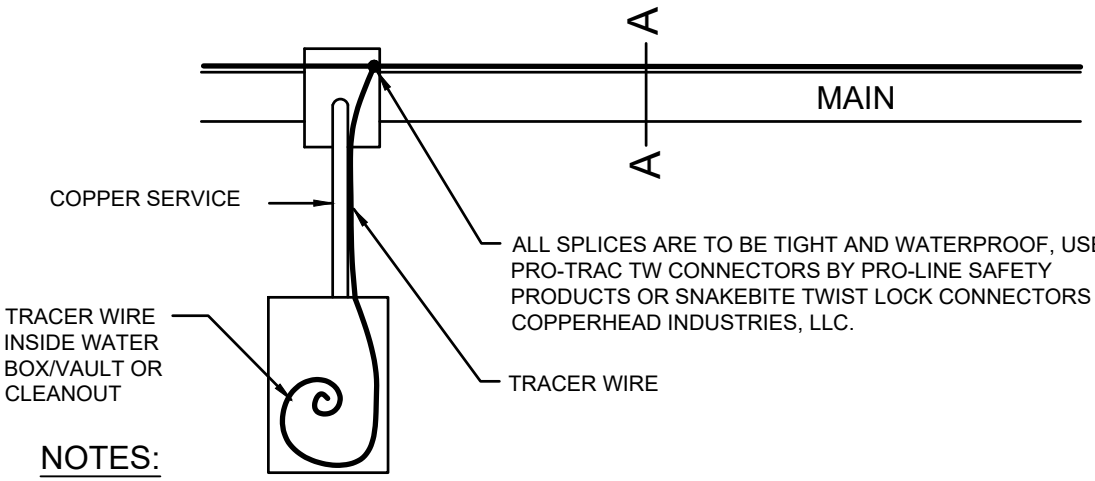
PROFILE
NTS

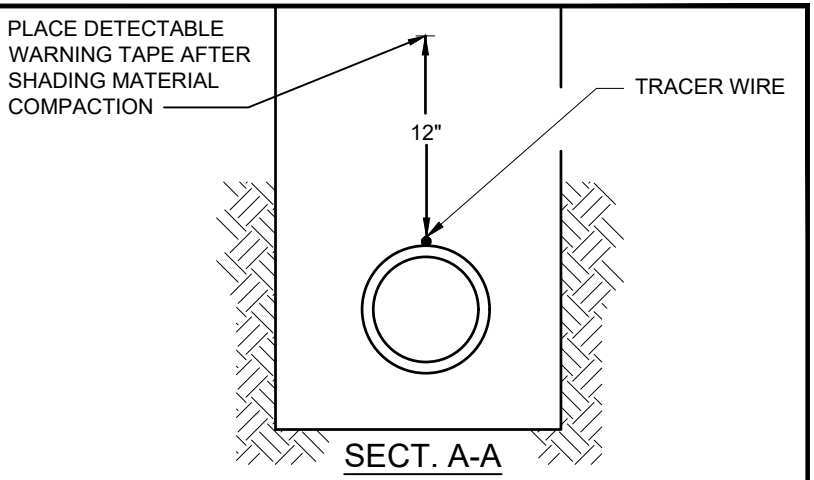


NOTE:

1. CONTRACTOR SHALL FILL ANNULAR VOID THROUGH VAULT WALL WITH BACKER ROD AND ELASTOMERIC SEALANT PER DETAIL.

QUAD CITY STANDARD DETAIL	2" TO 4" AIR RELEASE VALVE	REVISED: 11/18/2025	DETAIL No. 317Q-2





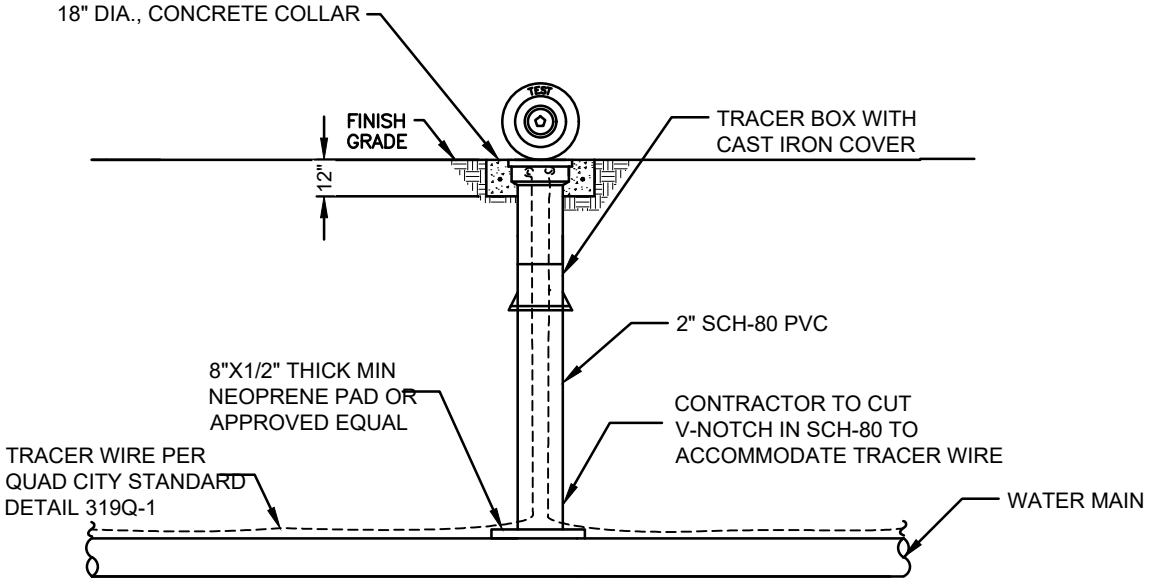
NOTES:

1. TRACER WIRE SHALL BE REQUIRED FOR ALL PRESSURE PIPE INSTALLATION AS INDICATED ON OTHER STANDARD DETAILS. TRACER WIRE SHALL BE #12 AWG HS-CCS, 45 MIL HDPE INSULATION.
2. FINAL CONTINUITY TESTING FOR ACCEPTANCE OF TRACER WIRE SHALL BE MADE AT PROJECT COMPLETION PRIOR TO PAVING.
3. WIRE IS TO BE ATTACHED TO ALL APPURTENANCES.
4. TRACER WIRE IS TO BE PLACED AT TOP CENTER OF PIPE AND SECURED BY TAPE AT A MINIMUM OF 6' INTERVALS.
5. THIS DETAIL ALSO PERTAINS TO STRAIGHT RUN GRAVITY SANITARY SEWER MAINS IN THE CITY OF PRESCOTT AND THE TOWN OF PRESCOTT VALLEY.
6. TRACER WIRE STATION SHALL BE USED AT ALL FIRE HYDRANTS, SEWER WET WELLS, FORCE MAIN DISCHARGE MANHOLES, FORCE MAIN CLEANOUTS, FORCE MAIN VALVE LOCATIONS AND LOW PRESSURE SEWER MAIN APPURTENANCES IN ACCORDANCE WITH QUAD CITY STANDARD DETAIL 319Q-2.
7. PASS A CONTINUITY TEST, CONDUCTED BY THE CONTRACTOR AND WITNESSED BY THE ENGINEER OF RECORD (EOR). THE EOR SHALL PROVIDE A CERTIFICATION OF PASSING TO THE CONTRACTOR AND AGENCY.
8. TO PASS A CONTINUITY TEST, THE FOLLOWING CONDITIONS MUST BE MET:
   A. CONTINUITY TEST SHALL BE PERFORMED BY USING A METALLIC LOCATOR WITH WITH AUDIBLE TONE AND NUMERIC VALUES FOR CERTIFICATION OF FACILITY LOCATIONS AND SHALL BE IDENTIFIABLE BETWEEN ACCESS POINTS.
   B. THE WIRE SHALL BE ACCESSIBLE AT ALL ACCESS POINTS AND FROM ACCESS POINT TO ACCESS POINT.
   C. DEPTH READINGS MUST BE ACCURATE AND CONSISTENT TO WITHIN 15 (DEPTH TO DIAMETER RATIO).
   D. ACCESS POINTS THAT ARE WIDELY SPACED CAN BE TRACED IN WORST CASE FROM EACH END TO A COMMON METTING POINT BETWEEN THEM.
9. CONTRACTOR MUST PROVIDE EOR AND TOWN WITH THE FOLLOWING:
   1. SAMPLE OF WIRE.
   2. SAMPLE OF CONNECTOR.
   3. INVOICE COPY SHOWING PURCHASE OF WIRE AND CONNECTOR.
10. TRACER WIRE INSULATION SHALL BE FREE OF NICKS & CUTS. ANY COMPROMISE IN THE INSULATION SHALL BE CUT OUT & TRACER WIRE SHALL BE SPLICED BACK TOGETHER WITH APPROVED CONNECTORS.

DETECTABLE TAPE SHALL BE:

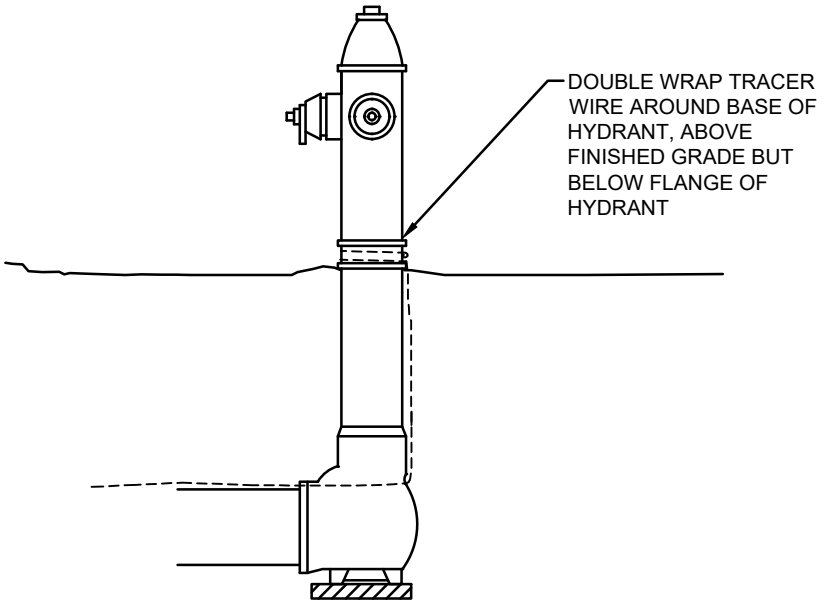
1. PRO-LINE SAFETY PRODUCTS OR HYTECH DETECTABLE TAPE (UNDERGROUND WARNING TAPE). NO EXCEPTIONS.
2. 3 INCHES IN WIDTH
3. 5 MIL OVERALL THICKNESS WITH A .35 MIL SOLID ALUMINUM FOIL CORE.
4. CONSTRUCTED WITH A .8 MIL CLEAR FILM, REVERSE PRINTED WITH A REPEATING WARNING MESSAGE A LAMINATE TO ALUMINUM FOIL WITH A 3.75 MIL CLEAR FILM BACKING.
5. LETTERED WITH A MINIMUM OF 1” INCH.
6. COLOR CODED FOR SPECIFIC UTILITY. WATER - BLUE, SANITARY SEWER - GREEN, RECLAIMED WATER - PURPLE IN ACCORDANCE WITH APWA UNIFORM COLOR CODE.
7. CONTRACTOR MUST PROVIDE EOR AND AGENCY WITH THE FOLLOWING:
   A. SAMPLE OF TAPE

QUAD CITY STANDARD DETAIL	TRACER WIRE AND DETECTABLE WARNING TAPE	REVISED: 11/18/2025	DETAIL No. 319Q-1

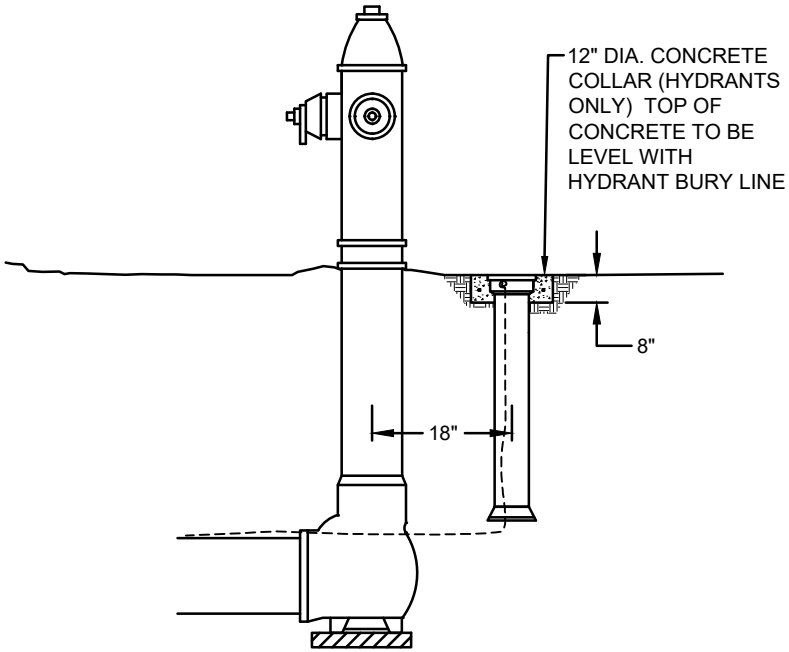


NOTES:

1. CONCRETE SHALL BE MAG CLASS 'AA'.
2. TRACER BOX AND CAST IRON COVER SHALL BE COPPERHEAD INDUSTRIES, LLC SNAKEPIT OR APPROVED EQUAL, MODEL RB14*TP OR CD14*TP AS APPROPRIATE, LID COLOR SHALL COINCIDE WITH TYPE OF UTILITY.
3. MAXIMUM DISTANCE BETWEEN TRACER WIRE POINT OF CONTACT SHALL BE 500'.
4. ATTACH TRACER WIRE TO PIPE AT 6' INTERVALS.

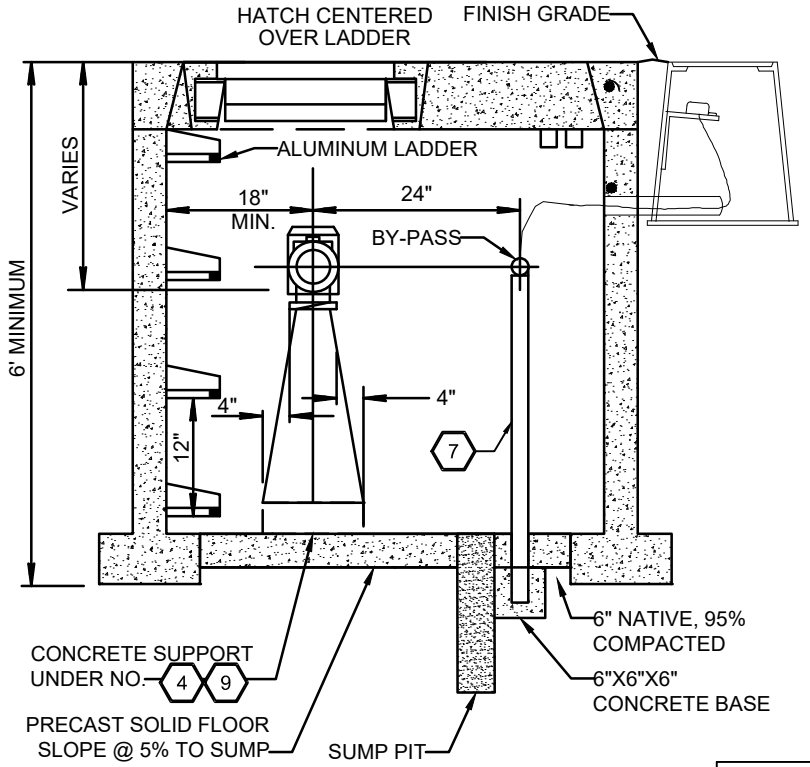


TOWN OF PRESCOTT VALLEY
FIRE HYDRANT TRACER WIRE

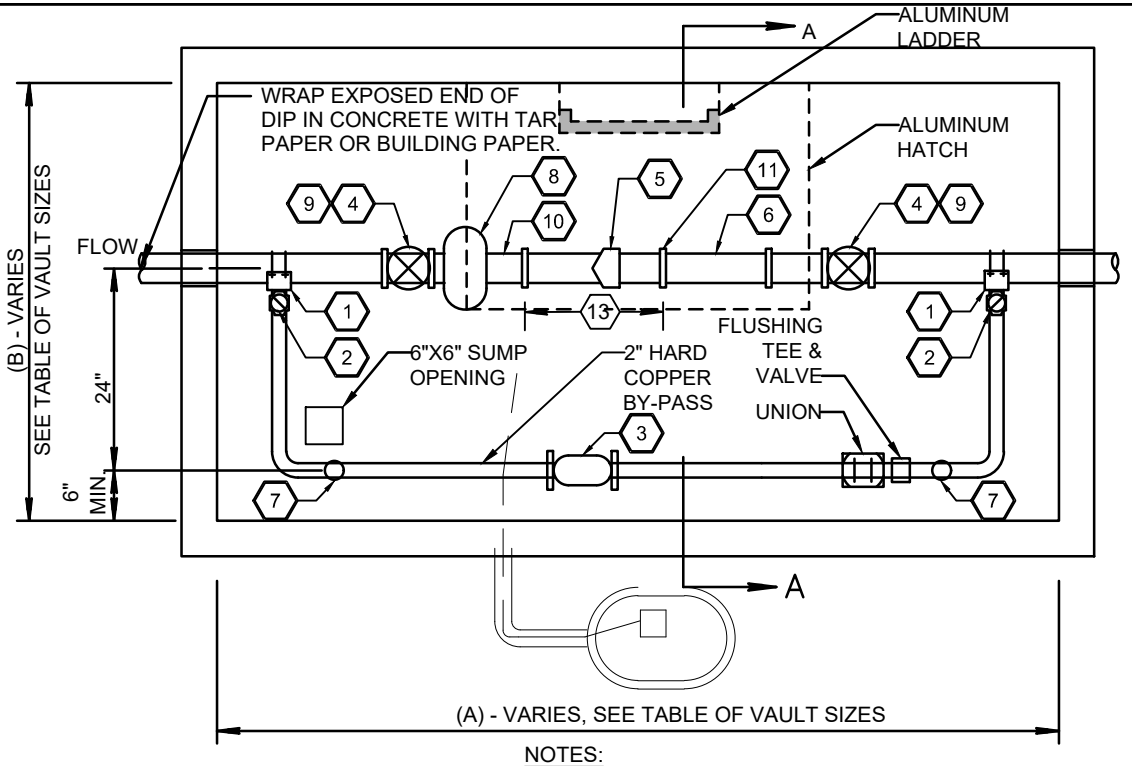


CITY OF PRESCOTT
FIRE HYDRANT TRACER STATION

QUAD CITY STANDARD DETAIL	TRACER WIRE STATION	REVISED: 11/18/2025	DETAIL No. 319Q-2



SECTION A-A



VAULT DIMENSION DETAILS (MINIMUM)				
METER SIZE	3"	4"	6"	8"
(A)	8'-4"	10'-6"	12'	15'
(B)	4'-4"	5'	5'	6'
HATCH				
(A)	6'	6'	6'	6'
(B)	3'	3'	4'	4'

1. DOUBLE STRAP ALL BRONZE SADDLE
2. CURB STOP 2" BALL TYPE, FORD B18-777W-Q-NL
3. BYPASS METER*
4. GATE VALVE R/S FLANGED WITH HAND WHEEL
5. RADIO READ* METER PER AGENCY
6. FLANGED SPOOL (MIN. 3 PIPE DIAMETERS IN LENGTH)
7. 2" BYPASS SUPPORT
8. STRAINER
9. ADJUSTABLE PIPE SUPPORT
10. FLANGED SPOOL. (MIN. 5 PIPE DIAMETERS IN LENGTH)
11. FLANGED COUPLING ADAPTER WITH RESTRAINT. ROMAC RFCA
12. 1" PIECE OF UNISTRUT FASTENED TO TOP OF VAULT
13. METER LAY LENGTHS PER CHART

METER LAY LENGTHS (TOWN OF PRESCOTT VALLEY)				
METER SIZE	3"	4"	6"	8"
LENGTH	17-1/4"	20-1/4"	24-1/4"	30-3/8"

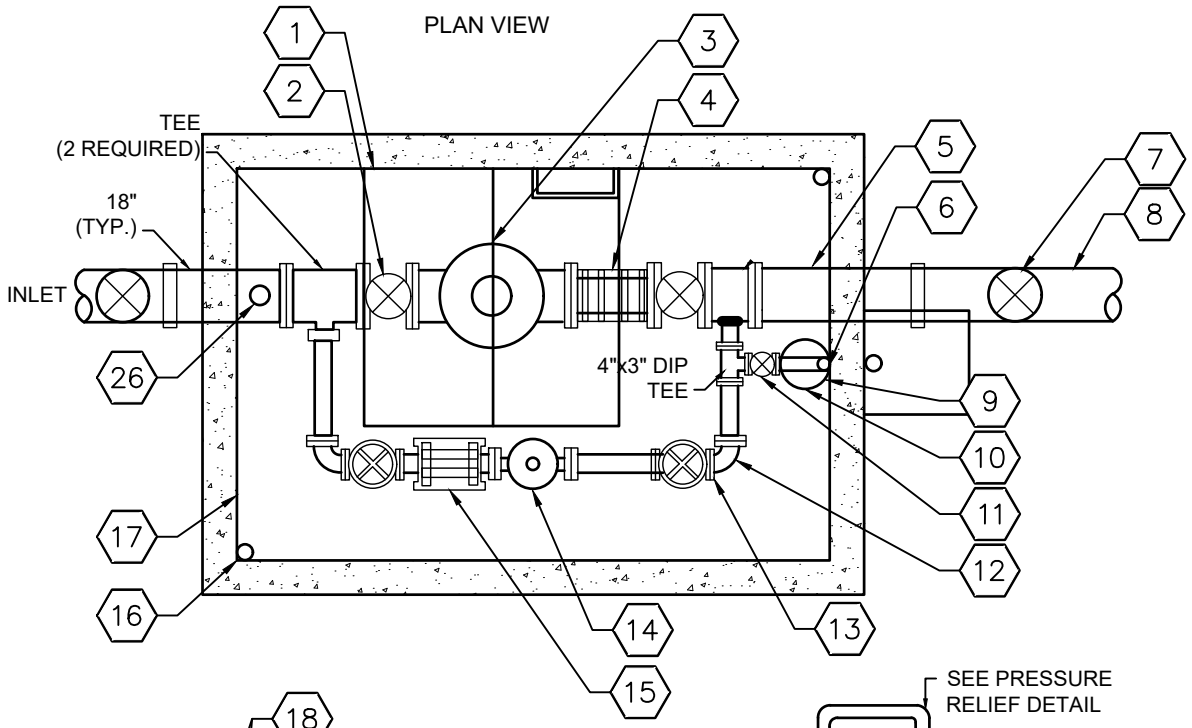
METER LAY LENGTHS (CITY OF PRESCOTT)				
METER SIZE	3"	4"	6"	8"
LENGTH	12-1/4"	14-1/4"	18-1/4"	30-1/4"

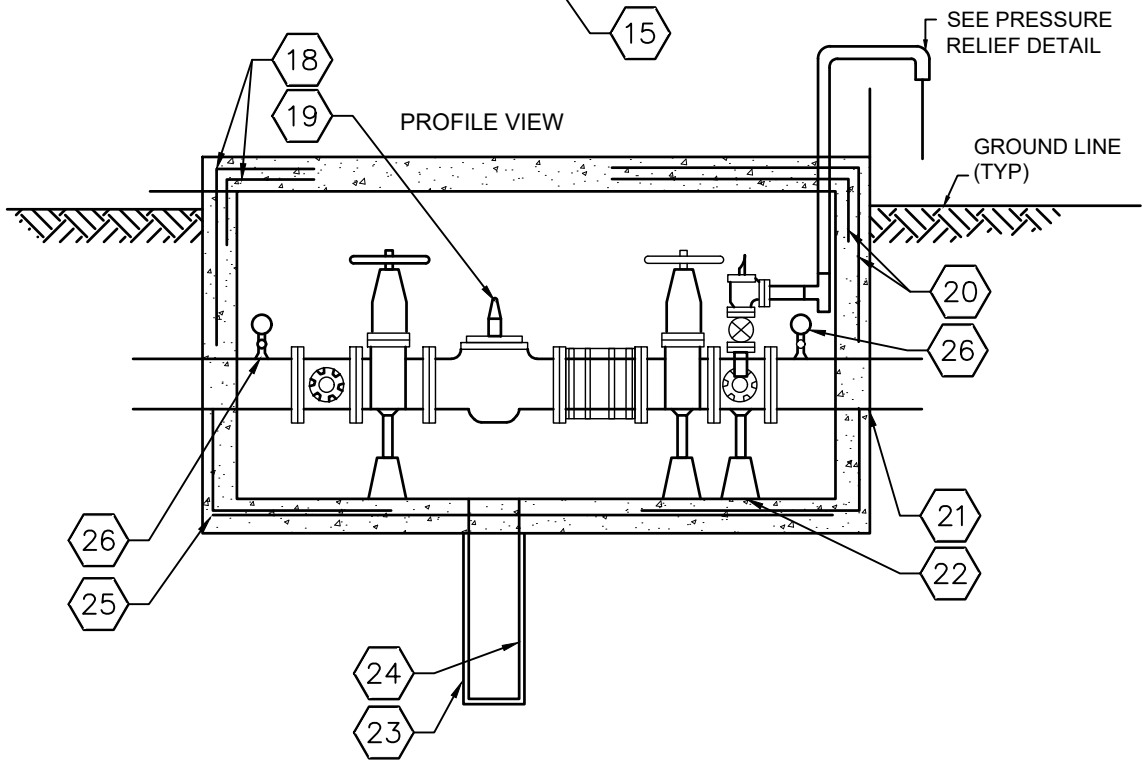
*METERS TO BE SUPPLIED BY AGENCY

NOTES:

1. BOTH METERS SHALL BE RADIO READ WITH ERT MOUNTED WITHIN 6" OF FINISH GRADE.
2. METER VAULTS TO BE PRE-CAST CONCRETE. POURED IN PLACED VAULTS MAY BE PERMITTED IF APPROVED BY AGENCY. DIMENSIONS AND REBAR TO BE VERIFIED BY EOR FOR ALL POURED IN PLACE VAULTS.
3. RESTRAIN EACH PIPE INSIDE & OUTSIDE OF VAULT PER QUAD CITY DETAILS 303Q-1 & 303Q-2 AS DEAD END
4. SUMP PIT TO BE 8 CUBIC FEET OF CLEAN #57 ROCK AND LINED WITH FABRIC FILTER LINER MIRAFI TYPE 14ONL OR APPROVED EQUAL.
5. ACCESS HATCH - USF FABRICATION INC. ALUMINUM SPRING OR TORSION BAR ASSISTED DOUBLE LIDS WITH 90 TO 180 DEGREE OPEN RANGE WITH RECESSED PADLOCK/HASP ASSEMBLY AND 30 PSF RATING.
6. PIPELINE PRODUCTS VL-100 EXTENDABLE LADDER. TELESCOPING LADDER MUST BE INSTALLED ON THE VERTICAL WALL JUST BELOW THE SAFETY NET. POSITION THE LADDER TO CENTER OF ACCESS HATCH OR EQUAL.
7. ACCESS HATCH SAFETY NET - U.S. NETTING OR APPROVED EQUAL.
8. JOINT RESTRAINT

QUAD CITY STANDARD DETAIL	LARGE METER AND VAULT	REVISED: 11/18/2025	DETAIL No. 321Q





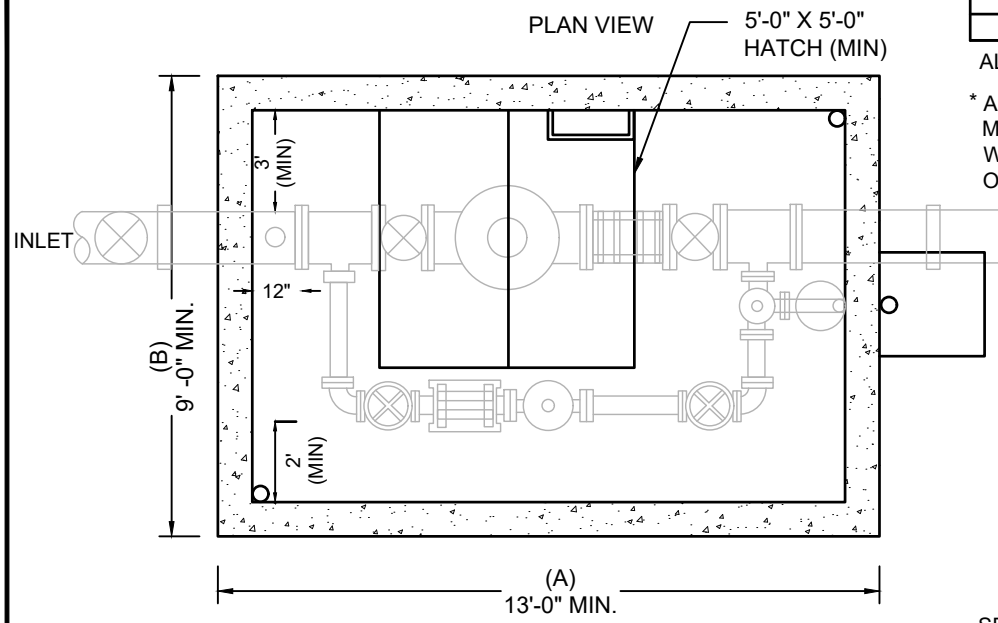
1. "USF" COVER TYPE S25 (300 PSF) 60"x60" AT WALL. ACCESS STEPS IN WALL WITH RECESSED PADLOCK HASP. TO BE CENTERED OVER LARGE PRV
2. RESILIENT SEAT GATE VALVE WITH HAND WHEEL (2 REQUIRED)
3. PRESSURE REDUCING VALVE, (CLAVAL XXX-XXX)
4. ROMAC RFCA
5. FJxPE DIP SPOOL
6. 3" GALVANIZED PIPE. ATTACH TO WALL FOR SUPPORT
7. RESILIENT SEAL GATE VALVE (2 REQUIRED)
8. RESTRAIN EACH PIPE OUTSIDE OF VAULT PER QUAD CITY DETAILS 303Q-1 & 303Q-2 AS DEAD END
9. SUMP PIT. SEE VAULT NOTES
10. PRESSURE RELIEF VALVE, (CLAVAL XX-XX)
11. RESILIENT SEAT GATE VALVE WITH HAND WHEEL
12. DIP 90° ELBOW (2 REQUIRED)
13. RESILIENT SEAT GATE VALVE WITH HAND WHEEL (2 REQUIRED)
14. PRESSURE REDUCING VALVE (CLAVAL XXX-XXX)
15. ROMAC RFCA
16. 4" GALVANIZED VENT PIPE (2 REQUIRED)
17. FJ x FJ SPOOL
18. #5 REBARS @ 8" O.C. EACH WAY
19. GLASS SIGHT POSITION INDICATOR
20. #5 REBARS @ 12" EACH WAY
21. INSTALL NON-SHRINK GROUT OR APPROVED WATER STOP, LINK-SEAL OR EQUAL
22. ADJUSTABLE PIPE SUPPORTS UNDER ALL ISOLATION VALVES
23. SUMP PIT
24. FILTER FABRIC LINER
25. 6"x6"x10d W.W.F.
26. INSTALL 2" SADDLE TAP WITH 2" BALL VALVE, 2" PLUG, AND PRESSURE GAUGE (2 EACH REQUIRED). THIS IS USED FOR FLOW MODELING & INSERTION PROBES.

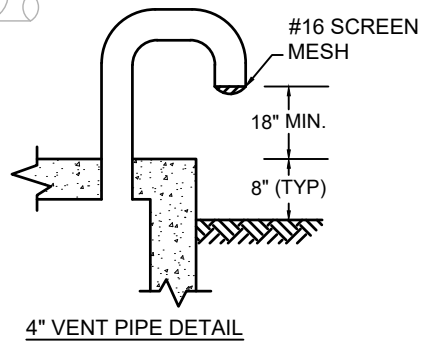
QUAD CITY STANDARD DETAIL	PRESSURE REDUCING VALVE STATION	REVISED: 11/18/2025	DETAIL No. 323Q-1

VAULT DIMENSION DETAILS * (MINIMUM)				
PIPE SIZE	6"	8"	10"	12"
(A)	13'	15'	15'	16'
(B)	9'	9'	9'	10'

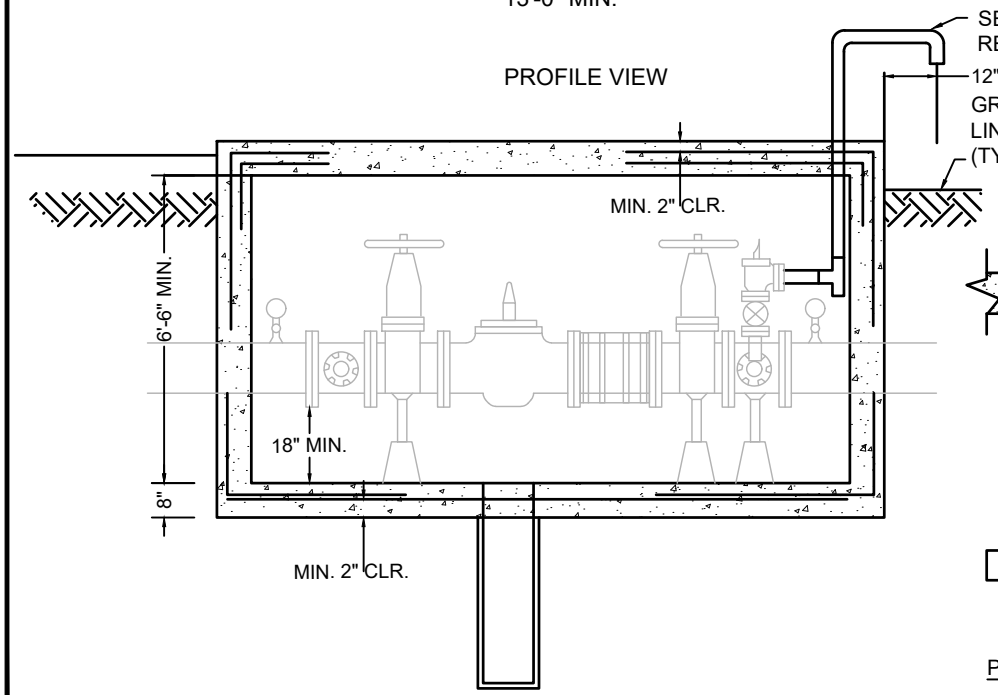
ALL HATCHES TO BE 5'-0" X 5'-0" (MIN)

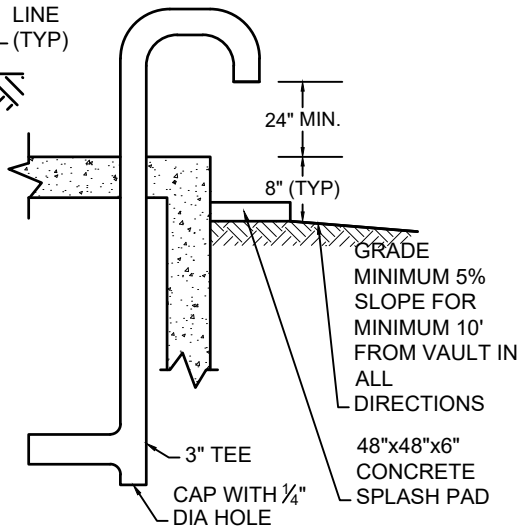
* ALTERNATE PREFABRICATED PRV STATION MAY BE SUBMITTED USING ESI FAB SYSTEMS, WWW.ESIWATER.COM, (816)468-9119 OR APPROVED EQUAL.





4" VENT PIPE DETAIL





PRESSURE RELIEF DETAIL

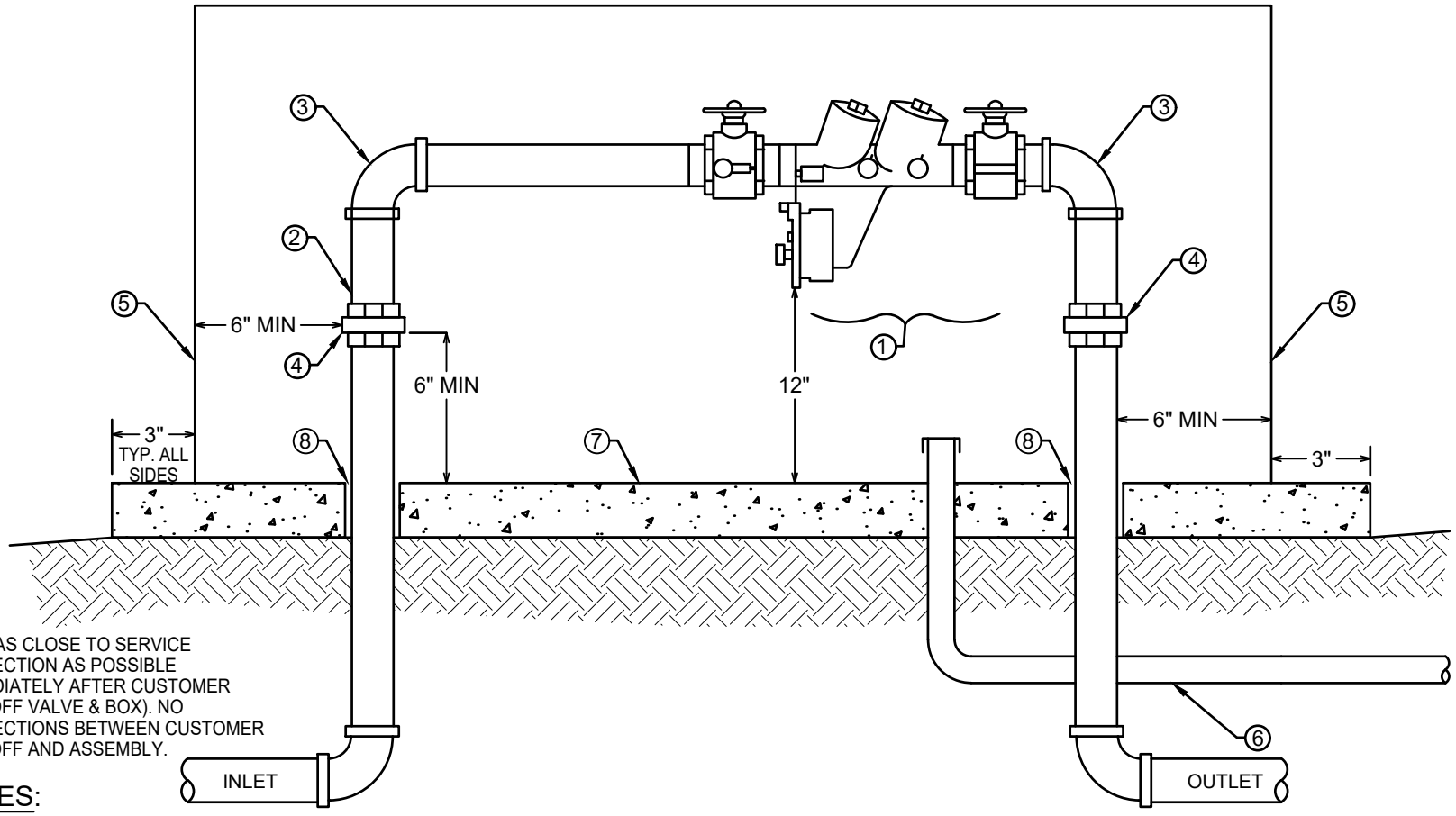
VAULT NOTES:

1. ALL PRECAST OR POUR IN PLACE CONCRETE TO BE CLASS "AA" PER M.A.G. STD. SPEC. 725. ALTERNATE DESIGN TO BE 8" C.M.U. WALLS, GROUT ALL CELLS SOLID, USE 2-#4 REBAR IN BOND BEAM AT TOP OF WALLS AND AT 30" ABOVE FOOTING. #4 REBAR AT 16" O.C. VERTICAL. DIMENSIONS AND REBAR TO BE VERIFIED BY EOR FOR ALL POURED IN PLACE VAULTS.
2. SUMP PIT TO BE 8 CUBIC FEET OF CLEAN #57 ROCK AND LINED WITH FABRIC FILTER LINER MIRAFI TYPE 14ONL OR APPROVED EQUAL.
3. ALL FITTINGS AND VALVES TO BE FLANGE JOINT DUCTILE IRON PIPE.
4. SLOPE FLOOR AT 5% TO SUMP.
5. ACCESS HATCH - USF FABRICATION INC. ALUMINUM SPRING OR TORSION BAR ASSISTED DOUBLE LIDS WITH 90 TO 180 DEGREE OPEN RANGE WITH RECESSED PADLOCK/HASP ASSEMBLY AND 30 PSF RATING.
6. PIPELINE PRODUCTS VL-100 EXTENDABLE LADDER. TELESCOPING LADDER MUST BE INSTALLED ON THE VERTICAL WALL JUST BELOW THE SAFETY NET. POSITION THE LADDER TO CENTER OF ACCESS HATCH OR EQUAL.
7. SAFETY NET - U.S. NETTING OR APPROVED EQUAL.
8. VAULT DIMENSIONS FOR PRV STATIONS LARGER THAN 12" SHALL BE SET BY ENGINEER OF RECORD (EOR) AND MAINTAIN MINIMUM INTERIOR SEPARATION DIMENSIONS.

VALVE NOTES:

1. PRESSURE REDUCING CLA-VAL SHALL INCLUDE THE FOLLOWING FEATURES:
   A. X46A FLOW CLEAN STRAINER
   B. CK2 COOK (ISOLATION VALVE)
   C. CV SPEED CONTROL (OPENING & CLOSING)
   D. ALL PRV PILOT SYSTEMS MUST BE STAINLESS STEEL HIGH PRESSURE TUBING.
2. FINAL PRESSURE SETTINGS TO BE DETERMINED BY AGENCY

QUAD CITY STANDARD DETAIL	PRESSURE REDUCING VALVE STATION	REVISED: 11/18/2025	DETAIL No. 323Q-2



INLET AS CLOSE TO SERVICE CONNECTION AS POSSIBLE (IMMEDIATELY AFTER CUSTOMER SHUTOFF VALVE & BOX). NO CONNECTIONS BETWEEN CUSTOMER SHUTOFF AND ASSEMBLY.

NOTES:

1. ALL PIPE/FITTINGS TO BE TYPE "K" COPPER INCLUDING PIPE BETWEEN CUSTOMER BOX AND BACKFLOW ASSEMBLY.
2. BACKFLOW PREVENTION ASSEMBLY SHALL BE LEVEL.
3. BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED A MINIMUM 12" DISTANCE FROM RELIEF VALVE PORT TO TOP OF CONCRETE PAD.
4. BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED IMMEDIATELY DOWNSTREAM OF THE WATER METER WITH NO FIXTURES OTHER THAN THE CUSTOMER SIDE VALVE BETWEEN THE METER AND BACKFLOW PREVENTION ASSEMBLY.
5. A COPPER OR BRASS UNION MUST BE INSTALLED IN THE MIDDLE OF BOTH RISERS.
6. ASSEMBLY SHALL BE ON USC '*FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH*' APPROVED LIST.

LIST OF MATERIALS:

(1) REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY.

(2) PIPE, TYPE "K" HARD COPPER, ¾" THRU 3".

(3) 90° ELBOW, COPPER, ¾" THRU 3"

(4) PIPE UNION, BRASS OR COPPER.

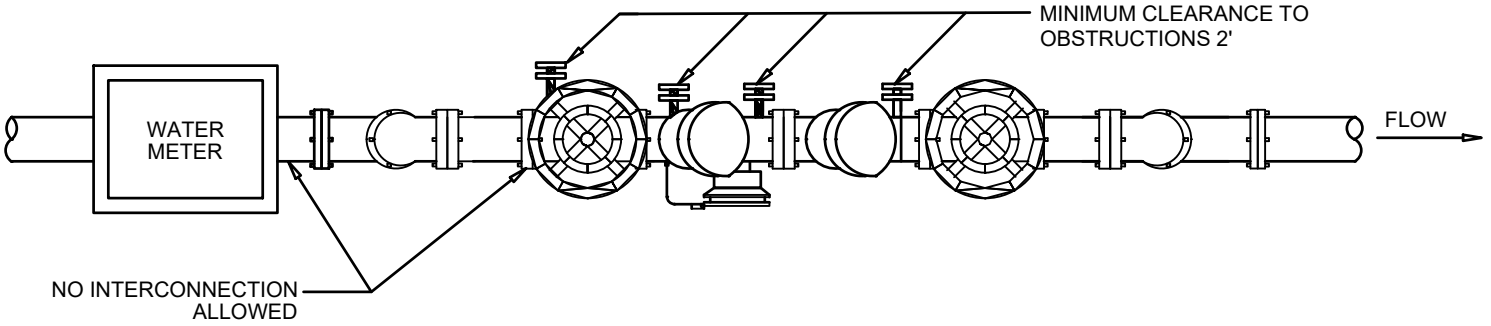
(5) ENCLOSURE SHALL BE AN ASSE 1060 CLASS 1 APPROVED.

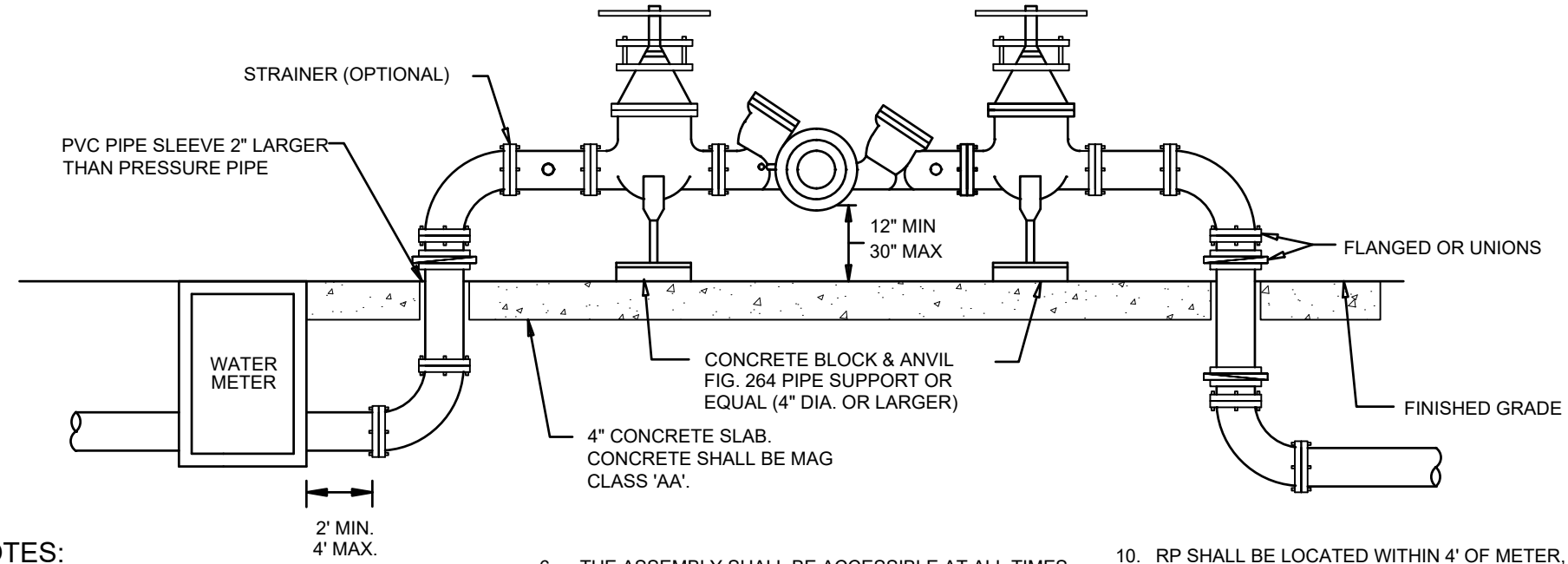
(6) ELECTRICAL CONDUIT FOR HEAT/TRACER WIRE (OPTIONAL)

(7) INSTALL 4" THICK CONCRETE PAD WITH HARDWARE FOR ENCLOSURE ATTACHMENT. CONCRETE SHALL BE MAG CLASS 'AA'.

(8) PVC PIPE SLEEVE MINIMUM 1" LARGER DIAMETER THAN WATER LINE.

QUAD CITY STANDARD DETAIL	BACKFLOW PREVENTION ASSEMBLY INSTALLATION 3" AND UNDER	REVISED: 11/18/2025	DETAIL No. 324Q-1

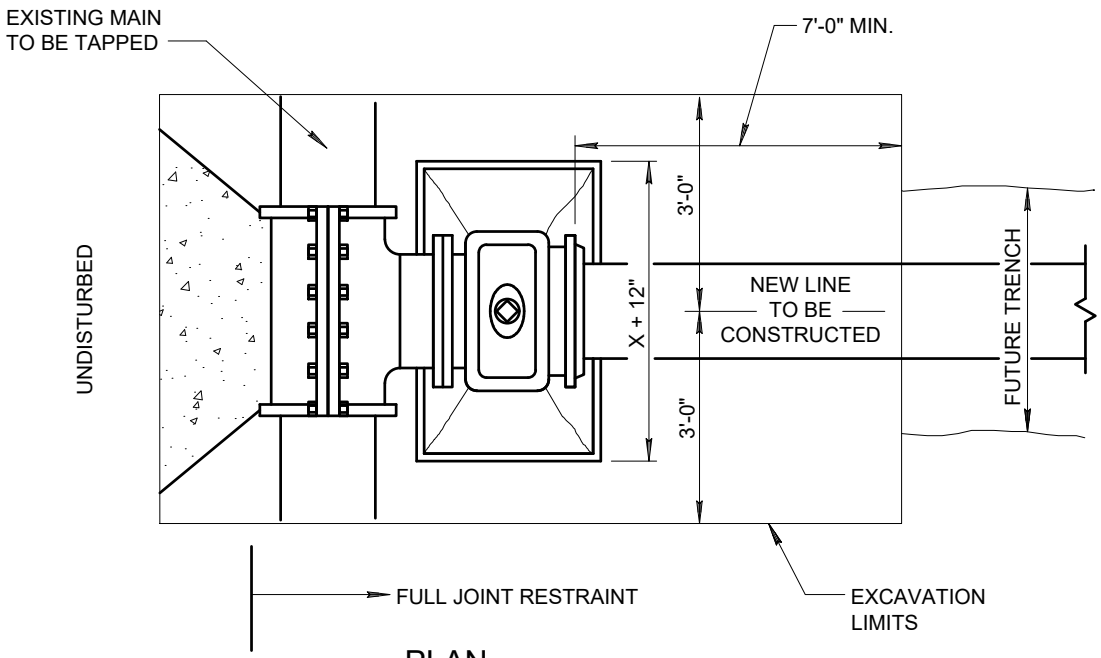




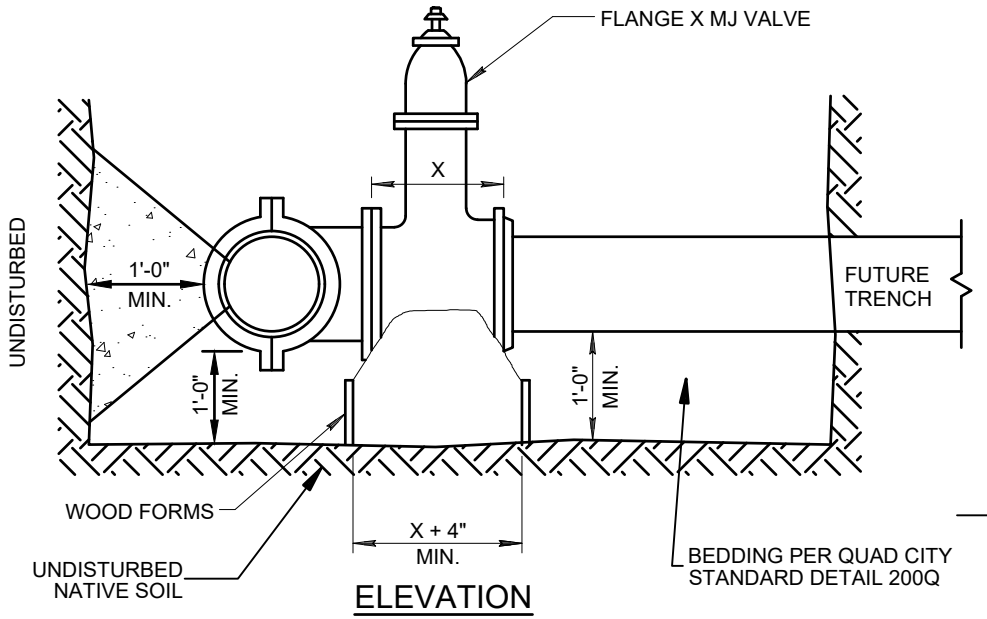
NOTES:

1. NO OBSTRUCTIONS ON ONE SIDE.
2. BACKFLOW PROTECTION REQUIRED PER CITY/TOWN CODE.
3. ENCLOSURE REQUIRED (ASSE 1060 CLASS 1).
4. ALL CONNECTIONS SHALL BE FLANGED OR MECHANICALLY RESTRAINED JOINTS.
5. THERE SHALL NOT BE ANY CONNECTIONS ON THE SERVICE LINE BETWEEN THE RP AND THE WATER METER. ENCLOSURES INSTALLED MUST MEET CLEARANCE REQUIREMENTS IN ADDITION TO PROVIDING SIDE AND TOP ACCESS. ENCLOSURES MUST NOT RETAIN WATER.
6. THE ASSEMBLY SHALL BE ACCESSIBLE AT ALL TIMES.
7. DISTANCE FROM THE BOTTOM OF PRESSURE RELIEF VALVE TO THE FINISHED GRADE SHALL BE A MINIMUM 12".
8. INSTALLATION MUST MEET INTERNATIONAL PLUMBING CODES IN ADDITION TO STANDARD WATER DETAILS. INSTALLATION MUST BE LEFT EXPOSED UNTIL INSPECTED AND APPROVED BY THE CITY/TOWN.
9. RP SHALL BE LOCATED ABOVE GROUND AND ENCLOSED IN AN ASSE 1060 CLASS 1 APPROVED ENCLOSURE PER INTERNATIONAL BUILDING CODES.
10. RP SHALL BE LOCATED WITHIN 4' OF METER, UNLESS OTHERWISE APPROVED.
11. DETECTOR METER MUST BE INSTALLED WITH BACKFLOWS THAT ARE NOT FOLLOWING AN AGENCY METER.
12. DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY ARE NOT PERMITTED ON FIRE LINES. USE SHALL BE REVIEWED AND APPROVED BY AGENCY.
13. ASSEMBLY SHALL BE ON USC '*FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH*' APPROVED USC LIST.

QUAD CITY STANDARD DETAIL	BACKFLOW PREVENTION ASSEMBLY INSTALLATION 4" AND LARGER	REVISED: 11/18/2025	DETAIL No. 324Q-2

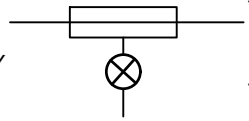


PLAN



ELEVATION

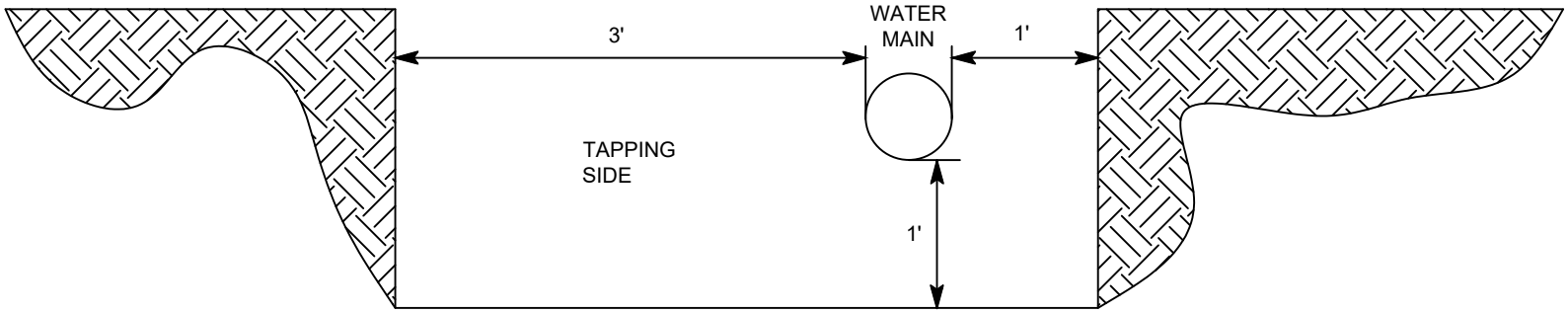
PLAN SYMBOL



NOTES:

1. VALVE BLOCKING PER QUAD CITY STANDARD DETAIL 301Q.
2. TAPS SHALL BE MADE BY CITY/TOWN CREWS AT PREVAILING RATES OR BY APPROVED CONTRACTORS WHEN ALLOWED BY CITY/TOWN.
3. INSTALL TEMPORARY BLOCKING UNDER VALVE BEFORE TAP IS MADE. ALL FLANGE BOLTS SHALL BE CLEAR OF FOOTING.
4. TAPPING SLEEVES SHALL BE FORD FTSS, ROMAC SST III OR APPROVED EQUAL.
5. INSTALLATION SHALL BE LEAK TESTED TO A MINIMUM OF 200 PSI FOR 30 MINUTES PRIOR TO TAP.
6. TAPPING SLEEVE SHALL BE PLACED AT A MINIMUM OF 3' FROM ANY BELL, COUPLING, VALVE, FITTING, OR OTHER OBSTRUCTION.
7. PROTECT ALL CONCRETE CONTACT AREAS WITH 8 MIL SHEET PLASTIC.
8. JOINT RESTRAINT PER QUAD CITY STANDARD DETAIL 303Q-1 AND 303Q-2 USING A DEAD END ON NEW CONSTRUCTION.
9. INSTALL BOX, COVER, AND VALVE BOX STABILIZER PER AGENCY REQUIREMENTS.
10. ALL EXCAVATIONS SHALL BE OSHA COMPLIANT.
11. ALL PIPE, VALVES, FITTINGS, AND APPURTENANCES SHALL BE MANUFACTURED IN THE U.S.A.
12. MIN. EXCAVATION LENGTH FOR THE TAPPING OPERATION SHALL BE 7' FROM THE FACE OF VALVE.
13. THRUST BLOCKS TO HAVE BEARING AREA AND FORMED PLACEMENT PER MAG STD. DTL. 380.
14. TAPS ON ASPHALT WRAPPED STEEL PIPE USE ROMAC FTS445 FABRICATED STEEL TAPPING SLEEVE AND WRAP THE TAPPING SLEEVE WITH POLYKEN 930 TAPE WRAP COMPLYING WITH AWWA STANDARD C-209.

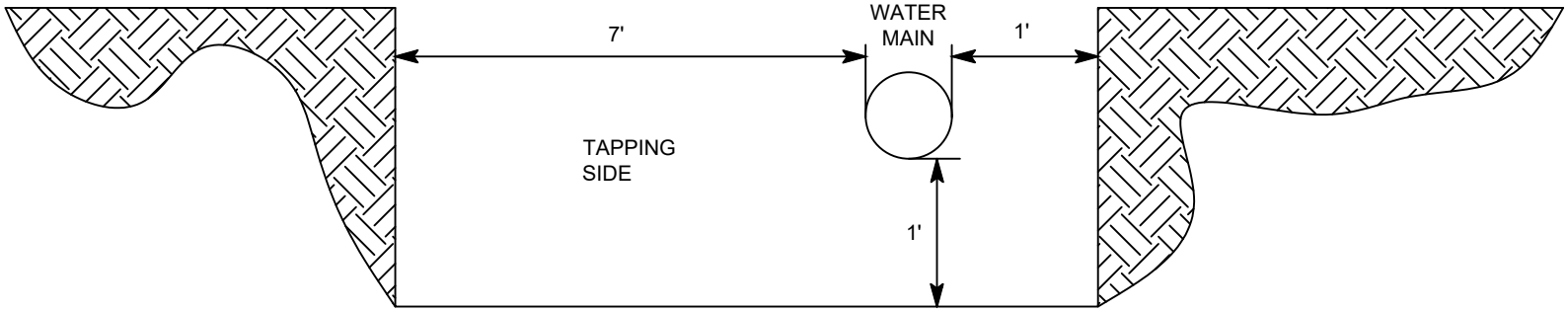
QUAD CITY STANDARD DETAIL	TAPPING SLEEVES AND VALVES	REVISED: 11/18/2025	DETAIL No. 340Q-1



NOTE

CONTRACTOR TO EXPOSE AND MAINTAIN TRENCH/EXCAVATION PER OSHA REGULATIONS.

3/4" THROUGH 2" SERVICE TAP



NOTE

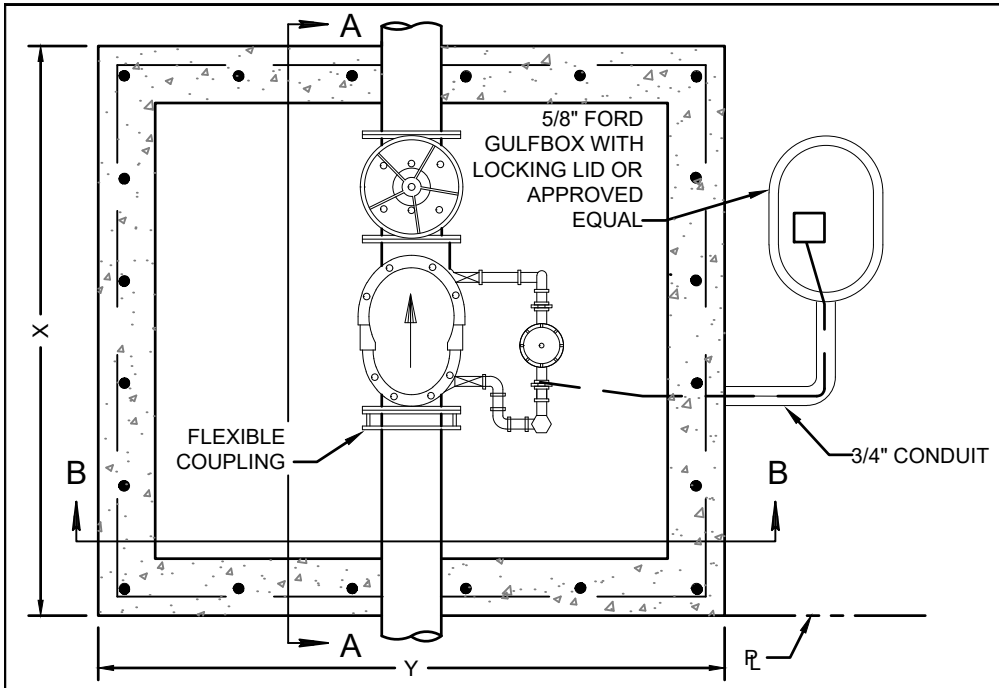
CONTRACTOR TO EXPOSE AND MAINTAIN TRENCH/EXCAVATION PER OSHA REGULATIONS.

3" THROUGH 12" SERVICE TAP

NOTE:

ALL TRENCHES FOR SERVICE TAPS SHALL BE MINIMUM 3' WIDE.

QUAD CITY STANDARD DETAIL	EXPOSING WATER MAIN FOR HOT TAP	REVISED: 11/18/2025	DETAIL No. 340Q-2

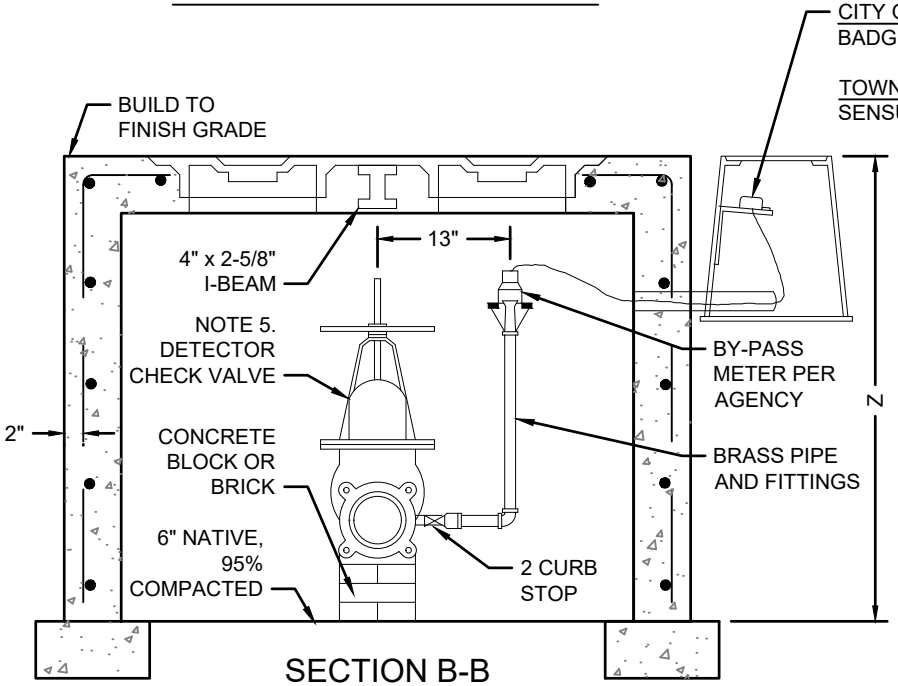


PLAN VIEW-BELOW COVER

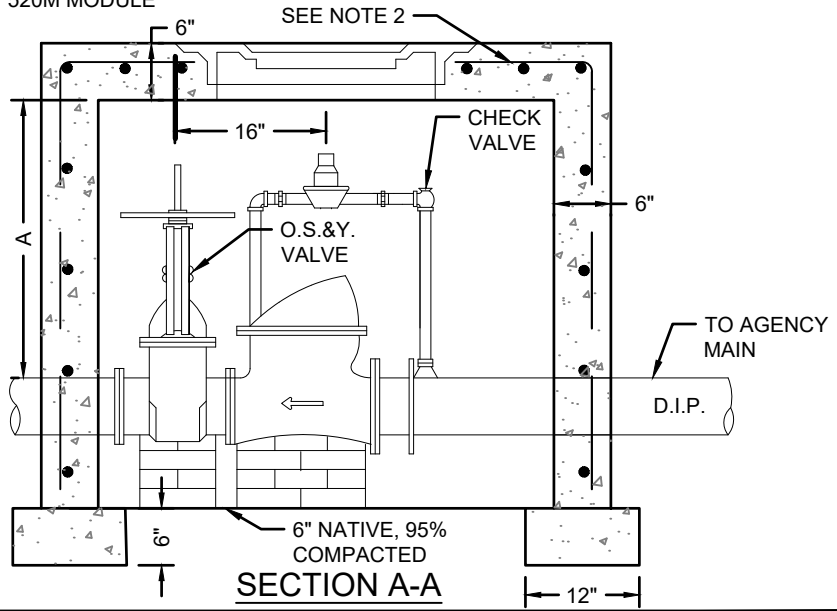
NOTES:

1. FIRELINE FROM AGENCY MAIN TO PROPERTY LINE SHALL BE CONSTRUCTED OF DUCTILE IRON.
2. REINFORCING TO BE 1/2" DIAMETER REBAR ON 6" CENTERS EACH WAY ON TOP AND 12" CENTERS EACH WAY ON THE SIDES.
3. COVERS TO CONSIST OF TWO METER BOX COVERS DETAIL PER AGENCY.
4. BY-PASS METER TO BE ACCORDING TO GOVERNING AGENCY.
5. CHECK VALVE TO BE LEAD-FREE, DCDA TYPE, FROM '*USC APPROVED LIST*' OF BACK-FLOW PREVENTION DEVICES OR APPROVED EQUAL.
6. VAULT SHALL BE CONSTRUCTED ON OWNERS PROPERTY AGAINST THE FRONT PROPERTY LINE OR AS APPROVED BY AGENCY. WALLS AND FENCES SHALL NOT OBSTRUCT ACCESS.
7. AGENCY CONTROL VALVE TO BE REQUIRED AT MAIN.
8. PARTS OF PIPE TO BE EMBEDDED IN CONC. SHALL BE WRAPPED WITH 30 LB ASPHALT ROOFING FELT.
9. REMOTE READING DEVICE SHALL BE OF SELF GENERATING ELECTRICAL TYPE. HYDRAULIC OR MECHANICAL DRIVE REGISTERS WILL NOT BE ACCEPTABLE.
10. CONCRETE TO BE CLASS 'AA' PER MAG SECT. 725.

DIA OF PIPE	X	Y	Z	BY-PASS METER SIZE	A
4"	60"	66"	49"	⅝" X ¾"	30"
6"	66"	72"	49"	⅝" X ¾"	30"
8"	72"	72"	58"	1"	36"
10"	78"	72"	69"	1-1/2"	36"

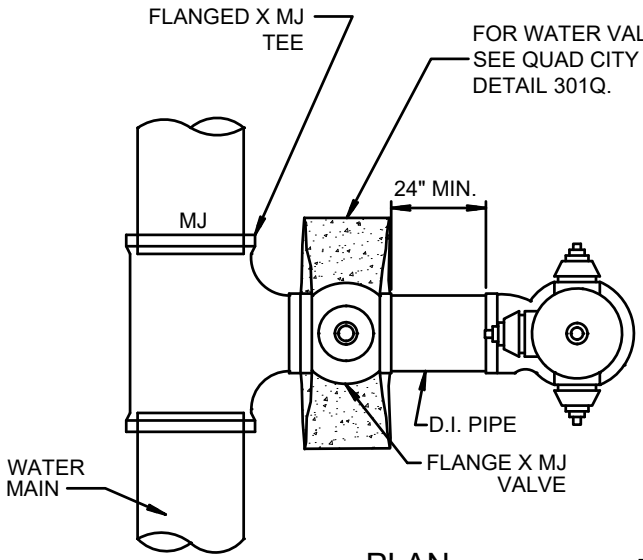


SECTION B-B



SECTION A-A

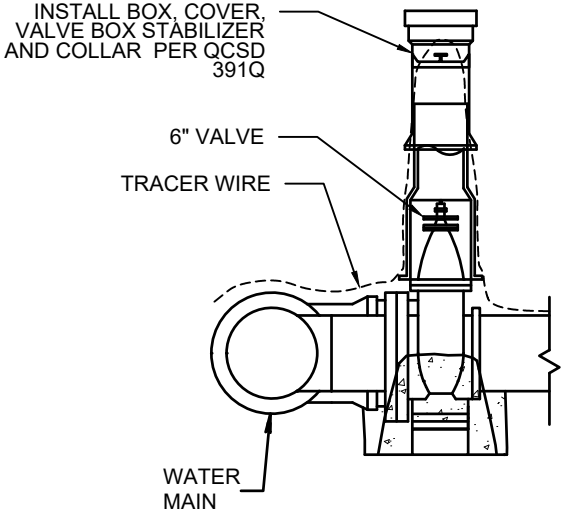
QUAD CITY STANDARD DETAIL	FIRE LINE DETECTOR CHECK VAULT	REVISED: 11/18/2025	DETAIL No. 346Q



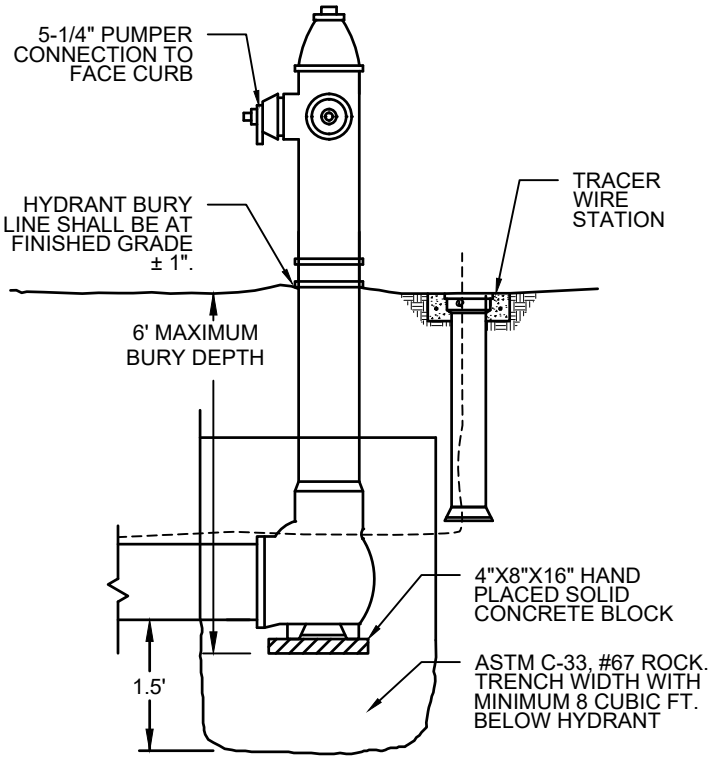
PLAN

NOTES:

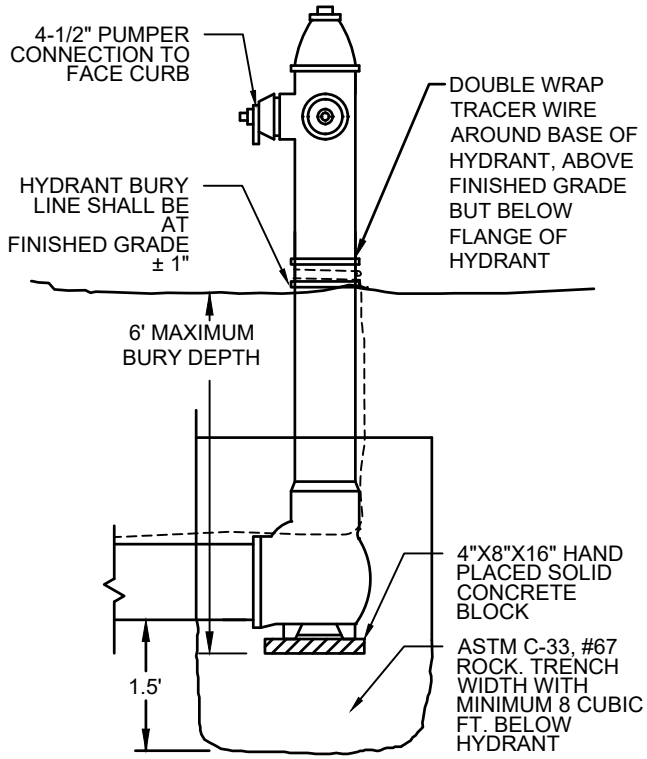
1. ALL HYDRANTS WHICH ARE PRIVATELY MAINTAINED AND OWNED ARE TO BE PAINTED RED.
2. ALL HYDRANTS TO BE WATEROUS, MUELLER OR CLOW.
3. HYDRANT LEADS SHALL HAVE NO HORIZONTAL BENDS.
4. TRACER WIRE SHALL CONFORM TO QUAD CITY STANDARD DETAIL 319Q-1
5. FULLY RESTRAIN HYDRANT LEAD AND HYDRANT. THRUST BLOCKS ARE NOT ALLOWED.
6. INSTALL TRACER WIRE STATION PER QUAD CITY STANDARD DETAIL 319Q-2.
7. SEE QUAD CITY STANDARD DETAIL 363Q FOR VERTICAL ADJUSTMENT.
8. ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE MANUFACTURED IN THE U.S.A.
9. MAXIMUM OF 1 HYDRANT EXTENSION- ORIGINAL MANUFACTURER.
10. WET BARREL HYDRANTS SHALL NOT BE ALLOWED.



PROFILE

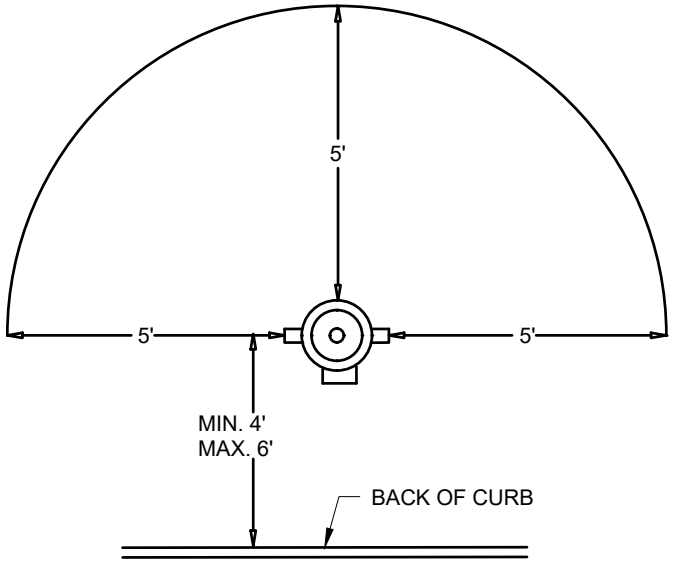


CITY OF PRESCOTT
FIRE HYDRANT



TOWN OF PRESCOTT VALLEY
FIRE HYDRANT

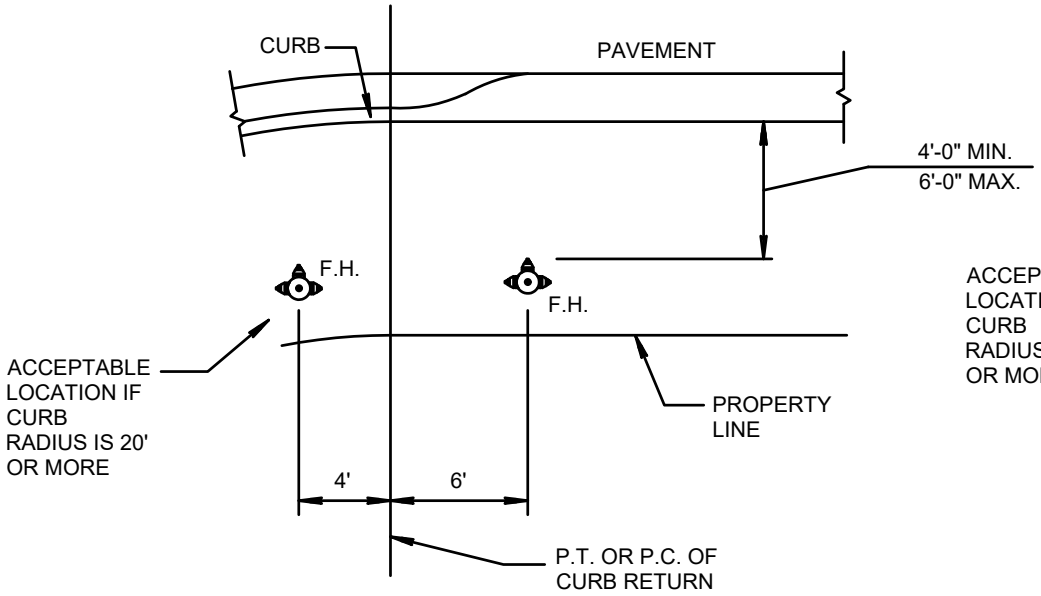
QUAD CITY STANDARD DETAIL	FIRE HYDRANT INSTALLATION	REVISED: 11/18/2025	DETAIL No. 360Q



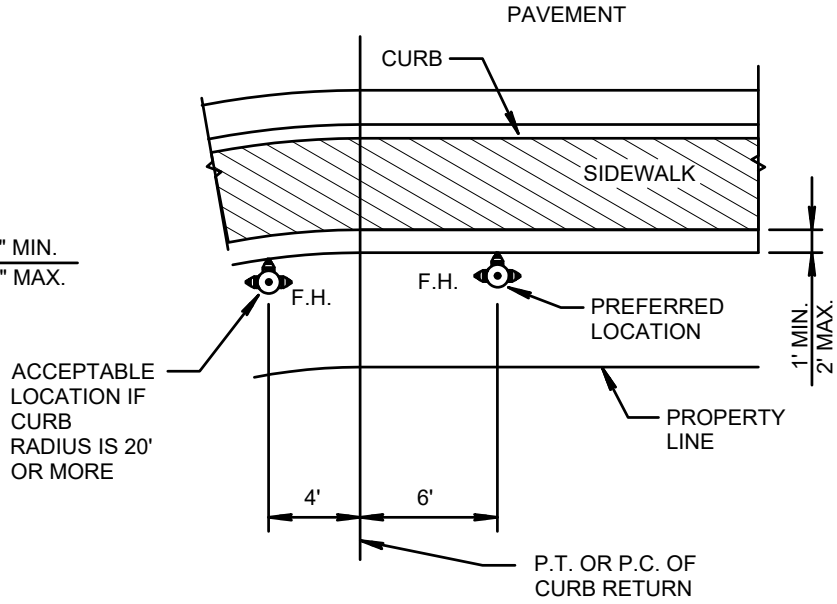
HYDRANT OBSTRUCTION CLEARANCE

NOTES:

1. OBSTRUCTIONS SUCH AS UTILITY POLES, STREET SIGNS, IRRIGATION BOXES, FENCES, LANDSCAPE VEGETATION, ETC. MUST NOT BE PLACED BETWEEN CURB AND HYDRANT.
2. IN PARKING LOT ISLANDS, HYDRANT TO BE MIN. 3' IN ALL DIRECTIONS FROM BACK OF CURB.
3. HYDRANTS TO BE CLEAR OF LANDSCAPE & VEGETATION, DRIVEWAYS, MAILBOXES, OR ANY OTHER VERTICAL OBSTRUCTIONS WITHIN A 5' RADIUS.
4. IF NO CURB AND GUTTER ON ROADWAY, PLACE HYDRANT 6' FROM EDGE OF PAVEMENT (EP) WITHIN RIGHT OF WAY OR UTILITY EASEMENT UNLESS OTHERWISE APPROVED BY THE PERMITTING AGENCY.



PARKWAY AREA OR NO SIDEWALK

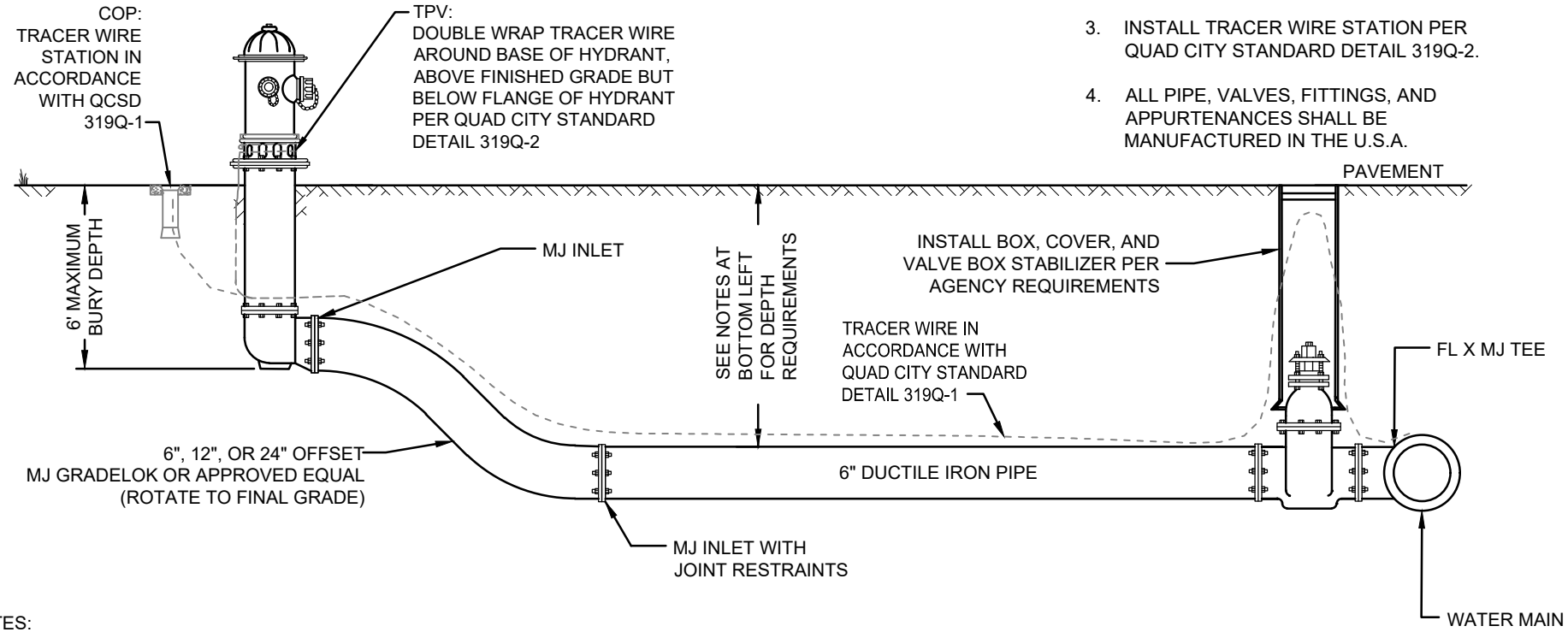


AREA WITH SIDEWALK

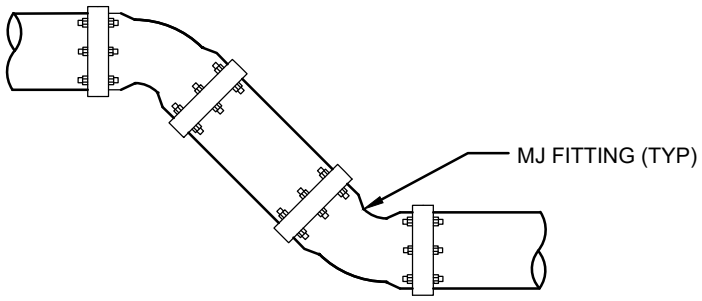
QUAD CITY STANDARD DETAIL	LOCATIONS FOR NEW FIRE HYDRANTS	REVISED: 11/18/2025	DETAIL No. 362Q

NOTES:

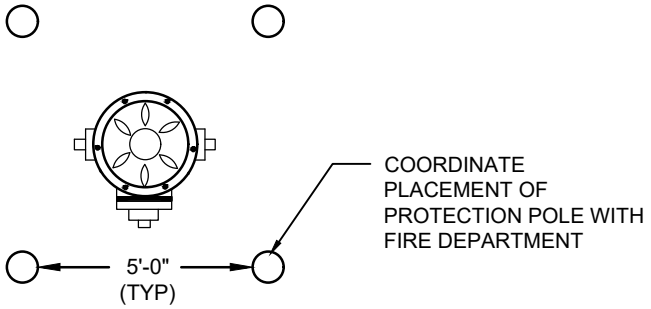
1. THIS DETAIL IS FOR VERTICAL DEFLECTION ONLY. REFER TO QUAD CITY STANDARD DETAIL 360Q FOR HYDRANT DETAILS.
2. MECHANICALLY RESTRAIN ALL JOINTS FROM HYDRANT TO HYDRANT TEE.
3. INSTALL TRACER WIRE STATION PER QUAD CITY STANDARD DETAIL 319Q-2.
4. ALL PIPE, VALVES, FITTINGS, AND APPURTENANCES SHALL BE MANUFACTURED IN THE U.S.A.



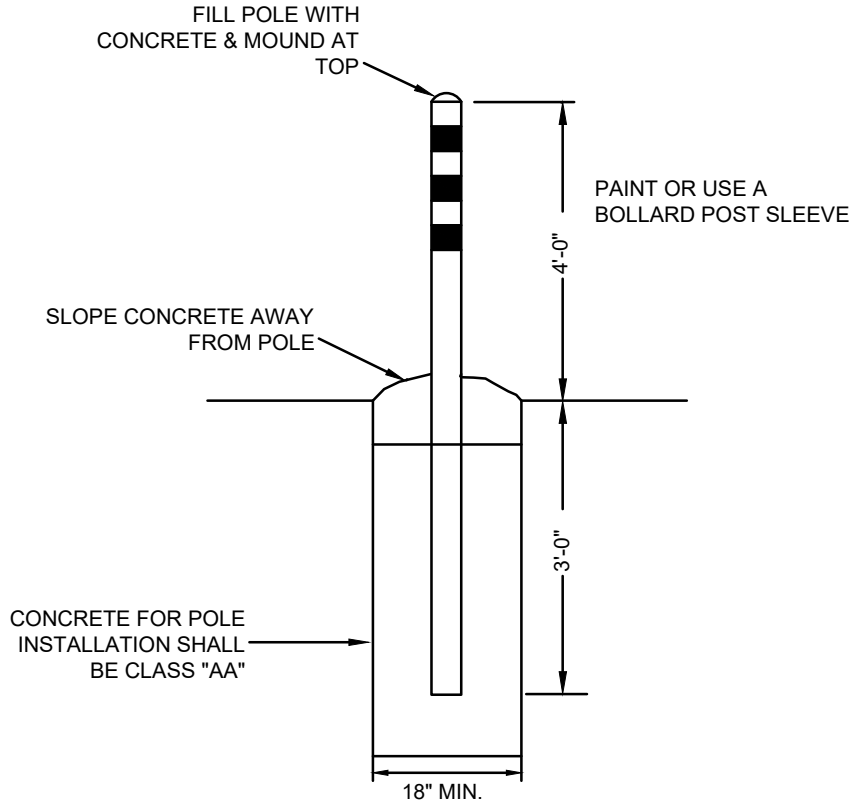
NOTES:
IF DEPTH OF MAIN EXCEEDS 8' CONTRACTOR SHALL INSTALL.
2-45° BENDS IN LIEU OF GRADE LOC



QUAD CITY STANDARD DETAIL	FIRE HYDRANT VERTICAL DEFLECTION	REVISED: 11/18/2025	DETAIL No. 363Q



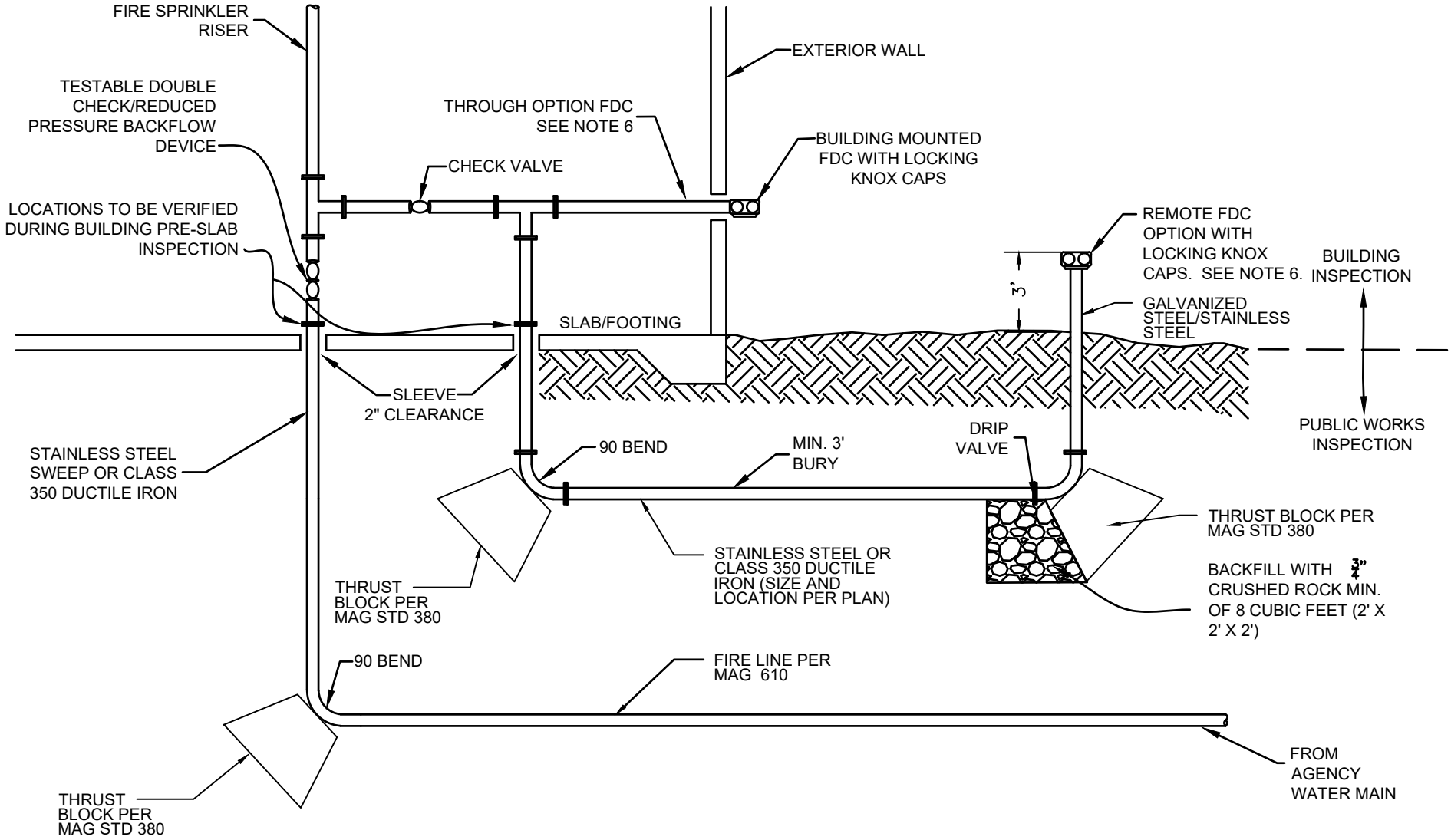
PROTECTION POLE PLACEMENT



NOTES:

1. DO NOT PLACE POLES IN FRONT OF NOZZLE.
2. POLES MAY BE CHANGED IN NUMBER AND ARRANGEMENT DEPENDING ON INDIVIDUAL NEED.
3. REQUIRED AT SPECIFIED LOCATIONS ONLY.
4. POLE SHALL BE SCHEDULE 40 4" STEEL.
5. PAINT POLE YELLOW.

QUAD CITY STANDARD DETAIL	FIRE HYDRANT PROTECTION POLE	REVISED: 11/18/2025	DETAIL No. 364Q



NOTES:
REFER TO 365Q-2 FOR PIPE MATERIAL AND NOTES.

QUAD CITY STANDARD DETAIL	FIRE DEPARTMENT CONNECTION	REVISED: 11/18/2025	DETAIL No. 365Q-1

NOTES

1. ALL PIPE AND FITTINGS TO BE CLASS 350 DUCTILE IRON WITH RESTRAINED JOINTS (MEGA-LUG).

2. AN APPROVED DRIP VALVE SHALL BE INSTALLED OVER A BED OF GRAVEL AS PER THIS DETAIL.

3. THE LINE SHALL INCLUDE TRACER WIRE PER QCSD 319Q-1.

4. REFERENCE RELATED FIRE CODE STDS (INT'L FIRE CODE)

5. REFERENCE RELATED FIRE LINE SPECS FROM MAG AND SUPPLEMENT

6. ALL FDC INSPECTIONS SHALL BE MADE BY THE FIRE DEPARTMENT.

7. FIRE FLUSH AND FDC'S SHALL BE MECHANICALLY CAPPED AFTER FLUSH.

8. PUBLIC WORKS/UTILITIES INSPECTION:
   - A. LINE INSTALLATION
   - B. DISINFECTION
   - C. BAC-T
   - D. HYDROSTATIC TEST
   - E. FIRE LINE FLUSH
   - F. UNDERGROUND FIRE LINE FLUSH
   - G. UNDERGROUND REMOTE FDC FLUSH*

9. BUILDING/FIRE INSPECTION:
   - B. FDC INSPECTION
   - C. ABOVE-GROUND FIRE LINE FLUSH
   - D. ABOVE-GROUND REMOTE FDC FLUSH*

*NOTE:
REMOTE FDC DOES NOT REQUIRE DISINFECTION OR BACTERIOLOGICAL (BAC-T) TESTING.

REMOTE FDC DO REQUIRE HYDROSTATIC TESTING.

FIRE SERVICE:

1. NO OBSTRUCTIONS ON ONE SIDE OF DEVICE ACCESS.

2. BACKFLOW PROTECTION REQUIREMENTS DETERMINED BY WATER PROTECTION OFFICE. IN ANY EVENT, THE BACKFLOW PREVENTION ASSEMBLY SHALL BE A DETECTOR CHECK/REDUCED PRESSURE WITH BY-PASS METER.

3. IF BACKFLOW PREVENTION ASSEMBLY IS INSTALLED OUTDOORS, AN ASSE 1060 CLASS I ENCLOSURE AND CONCRETE SLAB (PER 324Q-2) SHALL BE REQUIRED.

4. ALL CONNECTIONS SHALL CONFORM TO NFPA AND INTERNATIONAL PLUMBING REQUIREMENTS.

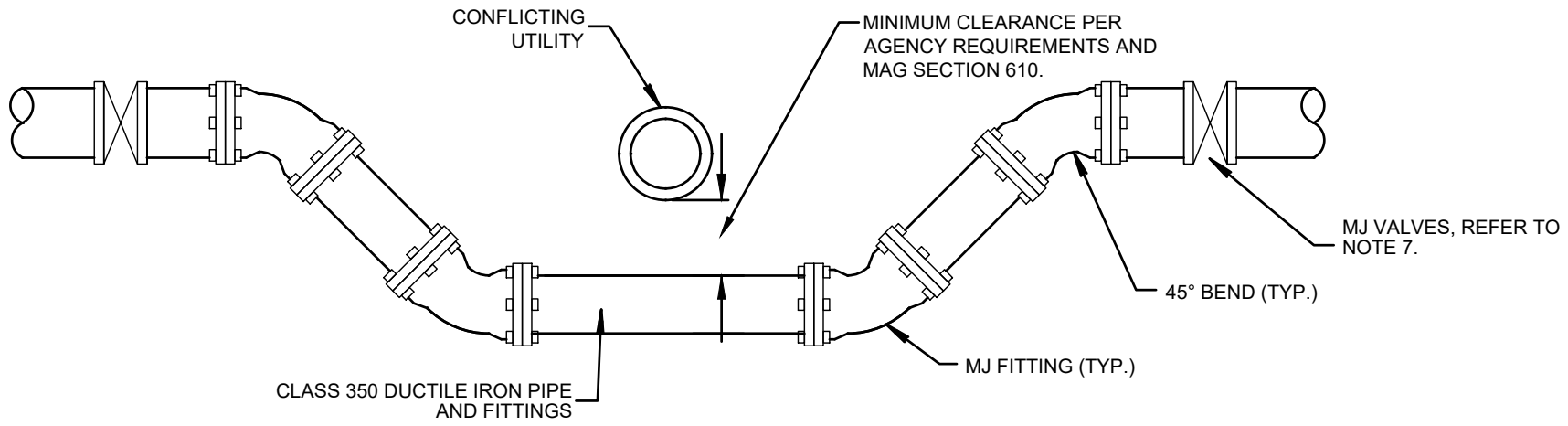
5. THERE SHALL BE NO TAPS ON THE LINE UPSTREAM OF THE BACKFLOW PREVENTION ASSEMBLY.

6. THE ASSEMBLY SHALL BE ACCESSIBLE AT ALL TIMES.

7. IF REDUCED PRESSURE PRINCIPAL DETECTOR ASSEMBLY (RPDA) IS INSTALLED, DISTANCE FROM RELIEF VALVE PORT TO GROUND SHALL BE 12" MINIMUM.

8. DOUBLE CHECK DETECTOR ASSEMBLY SHALL BE MINIMUM PROTECTION UNLESS FIRE SPRINKLER SYSTEM HAS ANTI-FREEZE LOOP OR ANY TYPE OF CHEMICAL ADDITIVES.

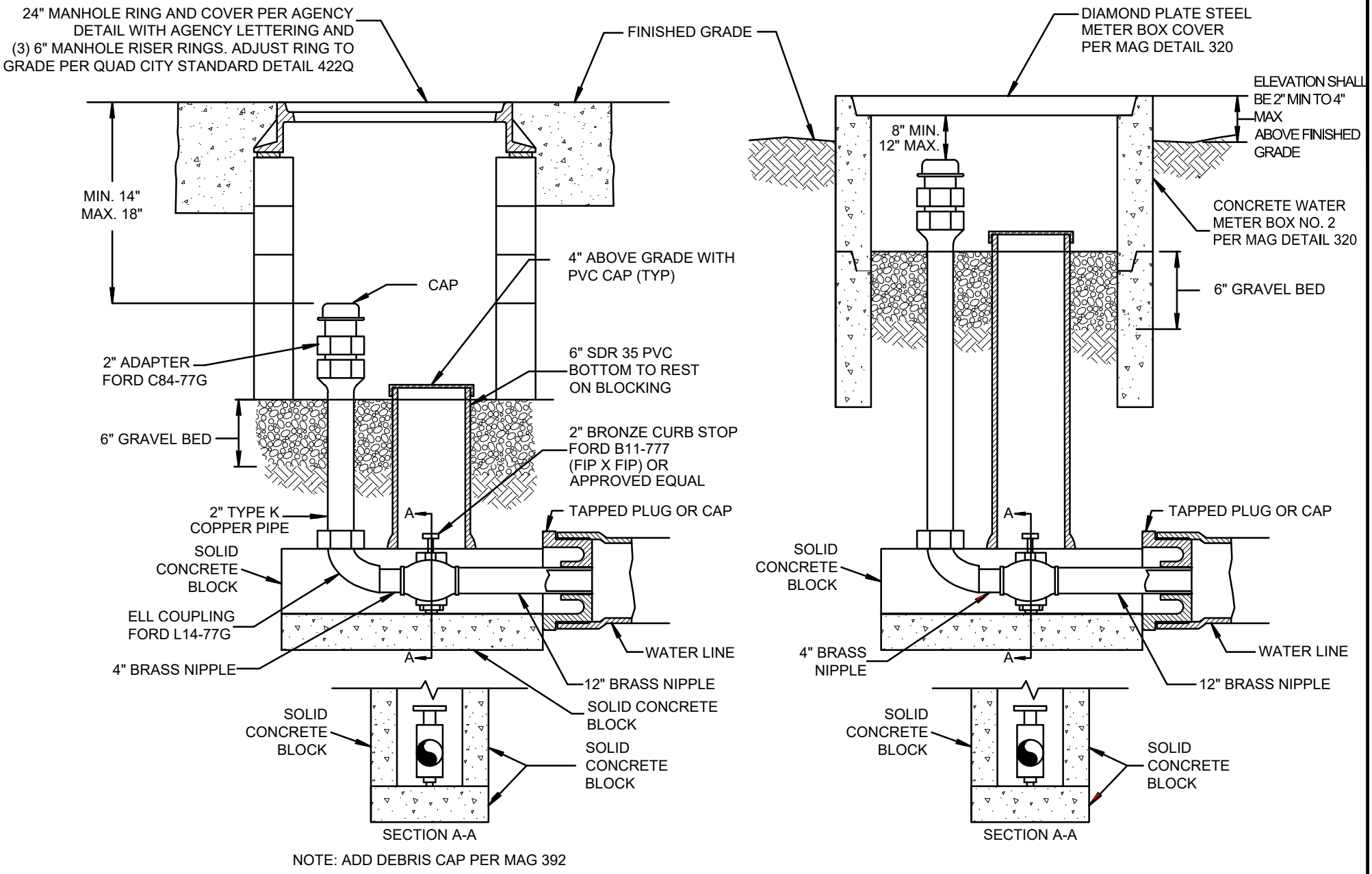
9. ASSEMBLY SHALL BE ON USC '*FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH*' APPROVED LIST.



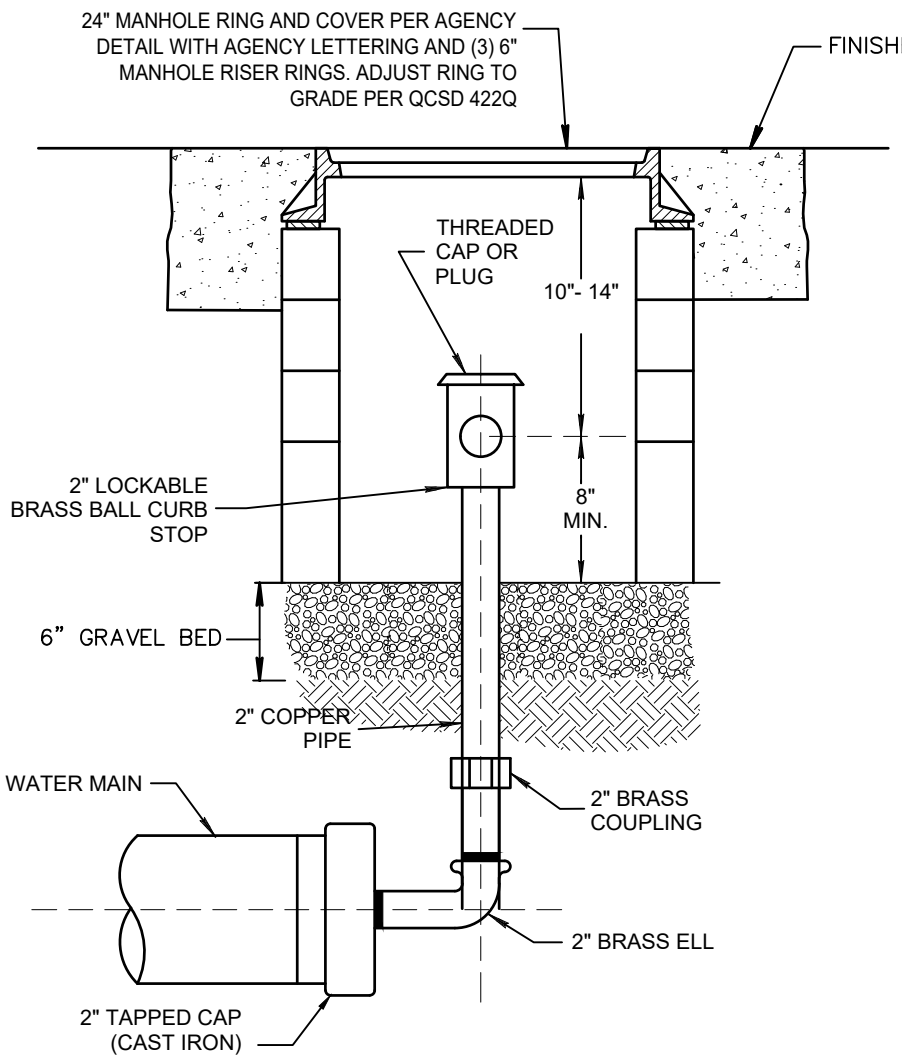
NOTES:

1. ALL PIPE, VALVES, FITTINGS, AND APPURTENANCES SHALL BE MANUFACTURED IN THE U.S.A.
2. ENTIRE VERTICAL REALIGNMENT SHALL BE MECHANICALLY RESTRAINED CL. 350 D.I.P. PER QCSD 303Q-1 AND 303Q-2. RESTRAINED LENGTHS FROM VALVES SHALL BE THE SAME AS DEAD ENDS ON NEW CONSTRUCTION.
3. BOTTOM OF VERTICAL ALIGNMENT SHALL BE ONE PIECE. IF JOINTS ARE REQUIRED, WATER MAIN SEGMENT SHALL BE CENTERED BELOW PIPE OR IN A CASING PIPE.
4. NO SERVICE CONNECTIONS SHALL BE LOCATED WITHIN VERTICAL REALIGNMENT.
5. AIR RELEASE VALVE TO BE INSTALLED ON THE VERTICAL REALIGNMENT AT THE HIGH POINT OF THE LOW SIDE.
6. VALVE(S) AND BLOCKING PER QCSD 301Q (MJ VALVE, TYP.)
7. COORDINATE MJ VALVE LOCATION WITH PERMITTING AGENCY.

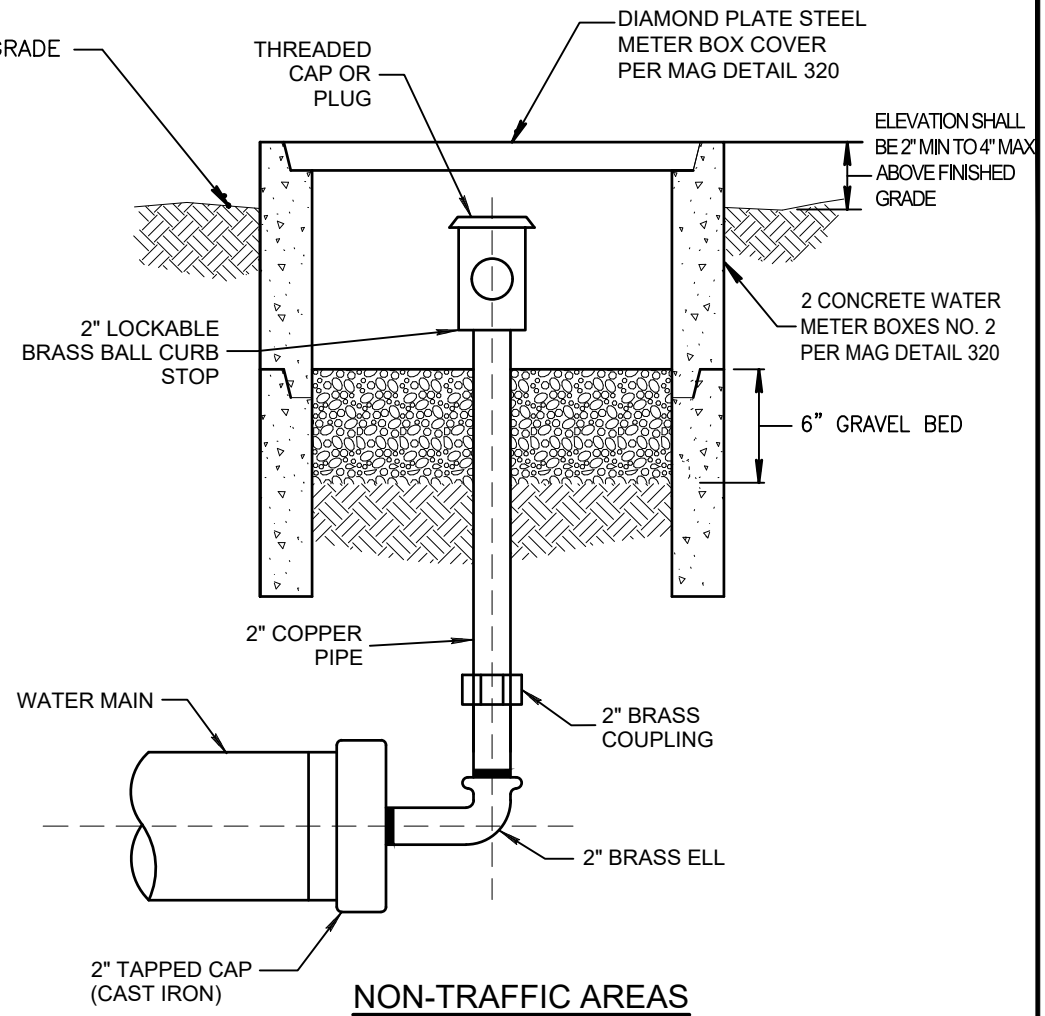
QUAD CITY STANDARD DETAIL	VERTICAL REALIGNMENT OF WATER MAINS	REVISED: 11/18/2025	DETAIL No. 370Q



QUAD CITY STANDARD DETAIL	BLOW OFF	REVISED: 11/18/2025	DETAIL No. 390P



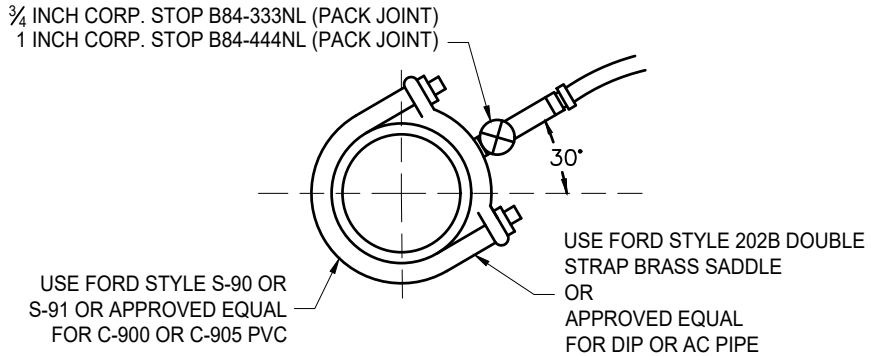
TRAFFIC AREAS



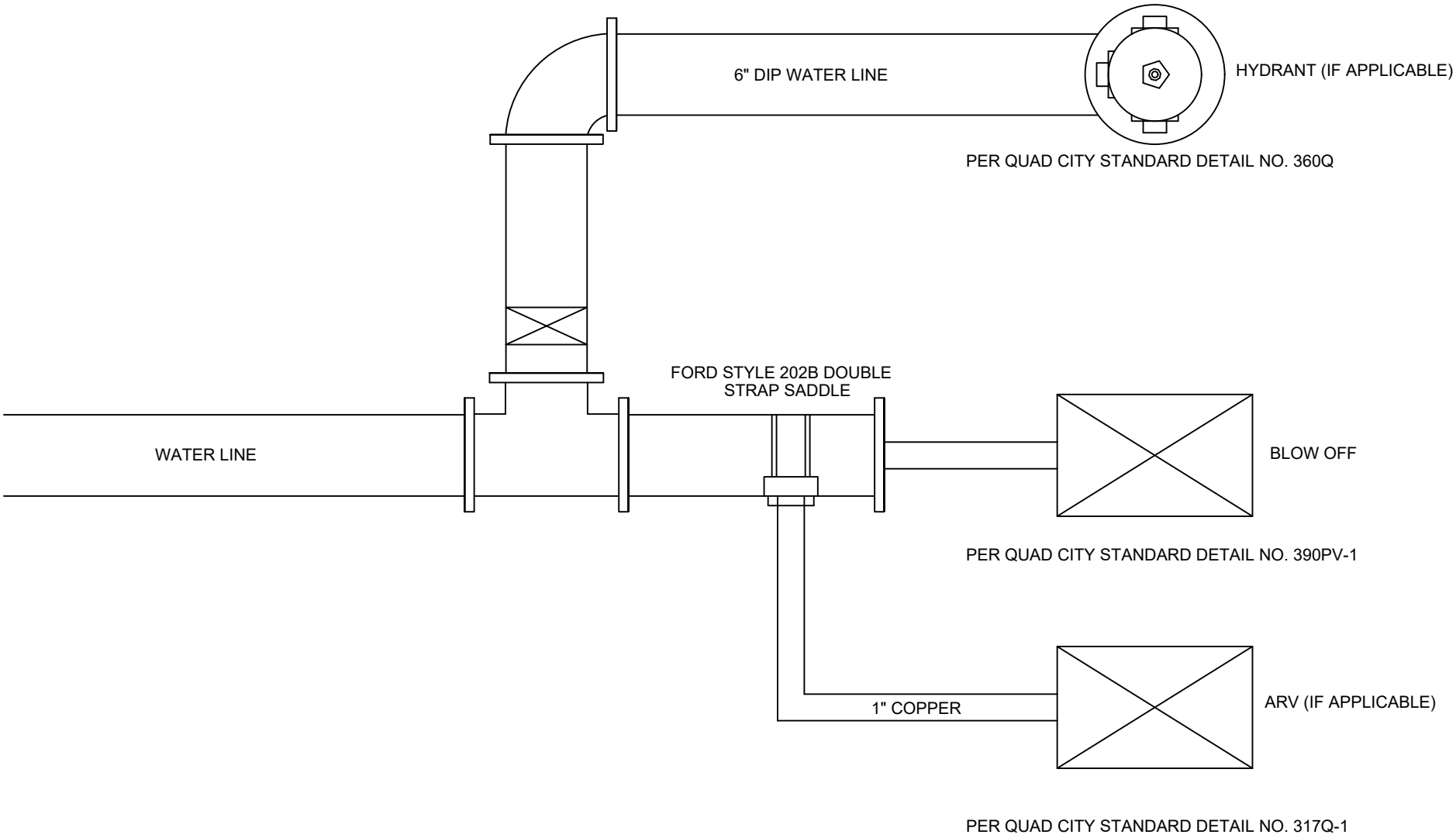
NON-TRAFFIC AREAS

NOTES:

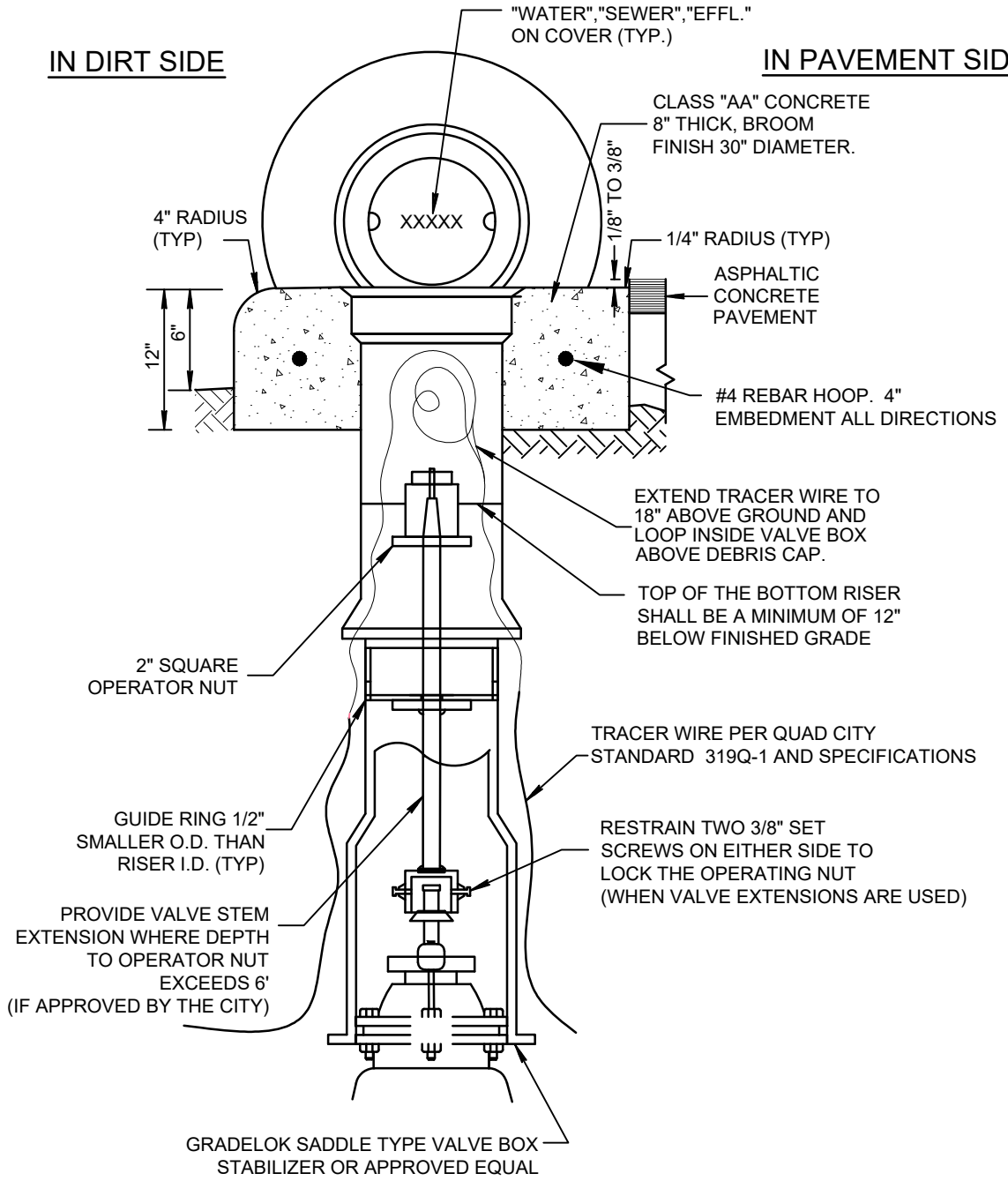
1. ADD DEBRIS CAP PER MAG 392.
2. FOR IN-LINE CONDITIONS PROVIDE A FORD STYLE 202B DOUBLE STRAP SADDLE. CONTRACTOR SHALL INSTALL 2" TYPE "K" COPPER PIPE BETWEEN SADDLE AND THE BLOW OFF ASSEMBLY.
3. BLOW-OFF SHALL BE INSTALLED ABOVE ANTICIPATED HIGH WATER ELEVATION.



QUAD CITY STANDARD DETAIL	BLOW OFF	REVISED: 11/18/2025	DETAIL No. 390PV-1



QUAD CITY STANDARD DETAIL	HYDRANT, BLOW OFF, & ARV ALIGNMENT AT MAIN LINE TERMINATIONS	REVISED: 11/18/2025	DETAIL No. 390PV-2



NOTES:

1. VALVE BOX SHALL BE ADJUSTED TO THE FINISHED GRADE AFTER PLACING OF THE FINISH PAVEMENT SURFACE.
2. USE PARKSON TYLER #6855, APCO OR EQUAL DEEP SKIRTED LID (4" OR MORE) TYPE, SLIDING ADJUSTABLE CAST IRON VALVE BOX C.I. MIN. T.S. 30,000 P.S.I.
3. ALL VALVES CONNECTED TO EXISTING MAINS ARE TO BE OPERATED BY AGENCY PERSONNEL ONLY.
4. U.S. MANUFACTURED IRON ONLY.
5. ALL STEEL FOR EXTENSION TO HAVE SHOP PRIME COAT ZINC CHROMATE, AND ONE HEAVY APPLICATION NO-OX-10 "A" IN ACCORDANCE WITH MANUFACTURE'S DIRECTION.
6. DEBRIS CAP PER MAG DETAIL 392.
7. VALVE BLOCKING REQUIRED PER QUAD CITY STANDARD DETAIL 301Q.

DEBRIS CAP COLOR TABLE	
VALVE TYPE	COLOR
IN-LINE-RW	BLACK
HYDRANT	BLUE
BUTTERFLY	YELLOW
ZONE	RED
FIRE LINE	WHITE
EFFLUENT	PURPLE
SEWER FORCE MAIN	GREEN

QUAD CITY STANDARD DETAIL	VALVE BOX	REVISED: 11/18/2025	DETAIL No. 391Q

REMOVAL AND DISPOSAL OF ASBESTOS CEMENT PIPE

1. ASBESTOS CEMENT PIPE (ACP) IS A MIXTURE OF PORTLAND CEMENT AND ASBESTOS FIBERS.

2. THE ENVIRONMENTAL PROTECTION AGENCY (EPA) DETERMINED THAT ASBESTOS, IN AN AIRBORNE CONDITION, IS A HAZARDOUS MATERIAL AND ESTABLISHED LAWS/GUIDELINES FOR THE HANDLING AND DISPOSAL OF THE MATERIAL. THE ASBESTOS NATIONAL EMISSION STANDARD FOR HAZARDOUS AIR POLLUTANTS (NESHAP) ESTABLISHES REQUIREMENTS FOR THE REMOVAL AND DISPOSAL OF REGULATED ASBESTOS CONTAINING MATERIALS. THIS QCSD ESTABLISHES PROCEDURES AND ASSIGNS RESPONSIBILITIES FOR THE PROPER HANDLING OF ACP IN CONFORMANCE WITH THE ASBESTOS NESHAP REQUIREMENTS CURRENTLY IN EFFECT ALONG WITH ANY OTHER FEDERAL, STATE, LOCAL LAWS, RULES AND REGULATIONS INCLUDING BUT NOT LIMITED TO MAG, ANSI, AWWA, EPA AND OSHA STANDARDS

3. AS USED HEREIN, THE TERM "AGENCY" SHALL REFER TO THE CITY OF PRESCOTT, TOWN OF PRESCOTT VALLEY, OR DESIGNATED REPRESENTATIVE. THE TERM "EXCAVATOR" SHALL REFER TO THAT ENTITY (INDIVIDUAL OR CONTRACTOR) WHICH ACTUALLY EXCAVATES AND EXPOSES THE PIPE. THE TERM "GENERATOR" MEANS ANY OWNER OR OPERATOR WHOSE ACT OR PROCESS PRODUCES ASBESTOS CONTAINING WASTE MATERIAL.

4. IT IS THE INTENT OF THE AGENCY TO COMPLY WITH THE REQUIREMENTS OF THE ASBESTOS NESHAPS FOUND AT 40 CFR PART 61, SUBPART M. THIS QCSD ESTABLISHES PROCEDURES TO BE USED BY ALL EXCAVATORS IN THE REMOVAL AND DISPOSAL OF ACP IN COMPLIANCE WITH NESHAPS. NOTHING IN THIS QCSD SHALL BE CONSTRUED TO VOID ANY PROVISION OF A CONTRACT OR OTHER LAW, ORDINANCE, REGULATION OR POLICY WHOSE REQUIREMENTS ARE MORE STRINGENT.

5. IT IS THE INTENT OF THE AGENCY THAT ALL ACP SHALL BE REMOVED IN SUCH CAREFUL AND PRUDENT MANNER THAT IT REMAINS INTACT AND NON-FRIABLE. THE EXCAVATOR IS RESPONSIBLE TO EMPLOY THOSE MEANS, METHODS, TECHNIQUES, AND SEQUENCES TO ENSURE THIS RESULT.

6. THE EXCAVATOR OF NON-HAZARDOUS ACP AND THE GENERATOR OF HAZARDOUS ACP IS RESPONSIBLE FOR ALL IDENTIFICATION MEASURES, COSTS, NOTIFICATIONS, DOCUMENTATION, PROPER HANDLING, TRANSPORTATION, DISPOSAL OF THE MATERIAL, ETC. THIS WOULD INCLUDE COSTS TO RETAIN THE SERVICES OF A QUALIFIED, LICENSED ASBESTOS ABATEMENT CONSULTANT, IF REQUIRED. THEREFORE, IT IS THE POLICY OF THE AGENCY THAT IF THE ACTIONS OF THE EXCAVATOR CAUSE THE MATERIAL TO BECOME FRIABLE (HAZARDOUS), SAID EXCAVATOR BECOMES THE GENERATOR.

7. THE EXCAVATOR MAY NOT CUT THE PIPE IN A MANNER THAT WILL MAKE THE ACP FRIABLE.

8. THE EXCAVATOR SHALL NOT DIRECT-BURY ANY OF THE ACP WITHOUT APPROVAL FROM THE AGENCY. IF SECTIONS OF ACP ARE TO BE LEFT IN THE GROUND AND ABANDONED IN PLACE, THE AGENCY / CONSULTANT SHALL INSPECT THE VISIBLE SECTIONS THAT REMAIN TO INSURE THEY ARE INTACT AND NON-FRIABLE. THE ENDS OF THE ACP SHALL BE ENCAPSULATED AND ANY FRIABLE ACP SHALL BE REMOVED. ACP SHALL NOT BE CRUSHED AND LEFT IN PLACE. IF ACP IS CRUSHED OR OTHERWISE CAUSED TO BECOME FRIABLE, IT SHALL BE REMOVED.

9. THE AGENCY/ CONSULTANT SHALL NOT DIRECT THE MEANS, METHODS OR SEQUENCE OF WORK OF THE EXCAVATOR NOR SHALL HE/SHE BE RESPONSIBLE FOR THE EXCAVATOR'S SAFETY PROGRAMS OR PROCEDURES. COMPLIANCE WITH ALL ASPECTS OF WORKER SAFETY AND HEALTH REGULATIONS INCLUDING BUT NOT LIMITED TO THE OSHA ASBESTOS STANDARD IS THE RESPONSIBILITY OF THE EXCAVATOR. THE AGENCY ASSUMES NO RESPONSIBILITY FOR COMPLIANCE PROGRAMS, WHICH ARE THE RESPONSIBILITY OF THE EXCAVATOR. HOWEVER, SHOULD THE AGENCY / CONSULTANT DETERMINE THE MEANS, METHODS, SEQUENCES OR SAFETY MEASURES ARE CONTRARY TO THIS DETAIL OR ANY APPLICABLE LAW, ORDINANCE OR REGULATION, THE AGENCY MAY ISSUE A STOP WORK ORDER WHICH SHALL REMAIN IN EFFECT UNTIL SUCH TIME THAT THE EXCAVATOR HAS MADE THE NECESSARY CORRECTIONS

10. ACP MUST BE DISPOSED OF AT A LANDFILL LICENSED AND APPROVED FOR ACCEPTANCE OF SAID PRODUCTS.

11. THE EXCAVATOR SHALL PROVIDE DOCUMENTATION AND CERTIFICATION TO THE AGENCY DETAILING PROPER TRANSPORT AND DISPOSAL OF ACP.

12. CONTRACTOR TO USE APPROVED CHAIN BREAK OR OTHER BREAKING TOOL ON PIPE. HACKSAW, CHAINSAW, OR OTHER SAW USAGE IS NOT PERMITTED.

UTILITY ABANDONMENT IN PLACE

1. ABANDONMENT IN PLACE OF PUBLIC UTILITY INFRASTRUCTURE (WATER, SEWER, RECLAIMED WATER) SHALL BE AT THE DISCRETION OF THE AGENCY, REVIEWED ON A CASE BY CASE BASIS, AND SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

    1) ALL REQUESTS TO ABANDON UTILITY PIPE MUST BE SUBMITTED IN WRITING TO THE UTILITIES DEPARTMENT BY FORMAL LETTER OR EMAIL AND ACCOMPANIED BY 3 SETS OF DRAWINGS CERTIFIED BY AN ENGINEER REGISTERED IN THE STATE OF ARIZONA.

    2) UPON APPROVAL, THE APPLICANT SHALL PROVIDE TO THE AGENCY AN AS-BUILT MYLAR DRAWING (24" X 36") WITH APPROVAL STAMP AND AS-BUILT CERTIFICATION BY AN ENGINEER REGISTERED IN THE STATE OF ARIZONA.

    3) PLAN VIEW WITH PROFILE IS REQUIRED.

    4) ABANDONED PIPES ARE NOT ALLOWED IF NEW PIPE IS BEING INSTALLED IN THE SAME EASEMENT OR ROW.

    5) SURVEY GRADE GPS COORDINATES OF THE PIPE ARE REQUIRED. THE COORDINATES SHALL DESIGNATE START OF PIPE, ANY START AND FINISH OF BENDS, AND END OF PIPE.

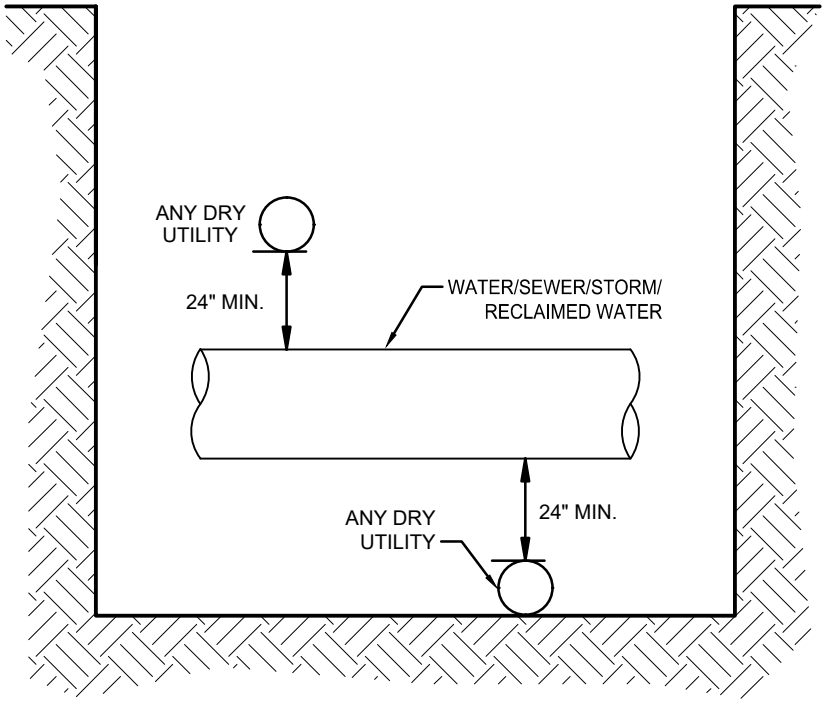
    6) THE ENDS OF THE PIPE MUST BE PLUGGED WITH WATERPROOF GROUT OR SEALED WITH A MANUFACTURED CAP MADE FOR SUCH PURPOSES.

    7) ABANDONMENT NOT ALLOWED FOR THE FOLLOWING INFRASTRUCTURE:
        - MANHOLES
        - CLEANOUTS
        - VALVES *
        - PRESSURE REDUCING VALVES *
        - AIR RELEASE VALVES *
        - METERS *
        - METER BOXES *
        - FIRE HYDRANTS *
        - BLOW-OFFS *

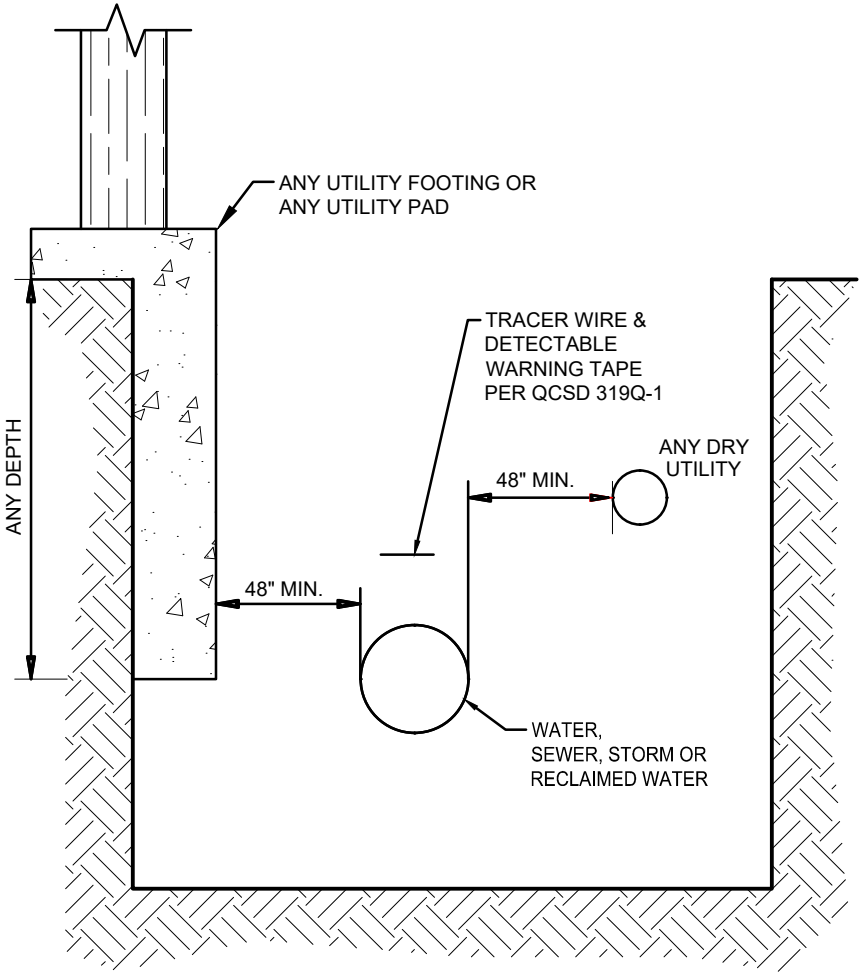
    *SALVAGE AND ARRANGE FOR THE ABOVE MATERIALS TO BE PICKED UP BY THE AGENCY'S MAINTENANCE AND OPERATIONS CONTRACT OPERATOR UNLESS OTHERWISE DIRECTED.

    8) ABANDON UNUSED SANITARY SEWER LATERALS IN PLACE FROM BACK OF THE RIGHT-OF-WAY (ROW) TO THE MAIN. THE END OF THE PIPE MUST BE PLUGGED WITH WATERPROOF GROUT OR SEALED WITH A MANUFACTURED CAP MADE FOR SUCH PURPOSES. SURVEY GRADE GPS COORDINATES OF THE END OF THE PIPE IS REQUIRED.

    9) ABANDON UNUSED WATER SERVICE LINES IN PLACE FROM THE FACE OF THE ROW TO THE MAIN. ISOLATE CORP-STOP AND CUT A SEGMENT OF THE COPPER TUBING WITHIN SIX (6) INCHES OF THE CORP-STOP. ALSO, REMOVE METER SETTER AND BOX AT CURB. TO ABANDON CONNECTIONS LARGER THAN TWO (2) INCHES, A MECHANICAL FITTING, CAP, PLUG OR VALVE MUST BE INSTALLED AS PART OF THE ABANDONMENT.



VERTICAL CLEARANCE



HORIZONTAL CLEARANCE

NOTES:

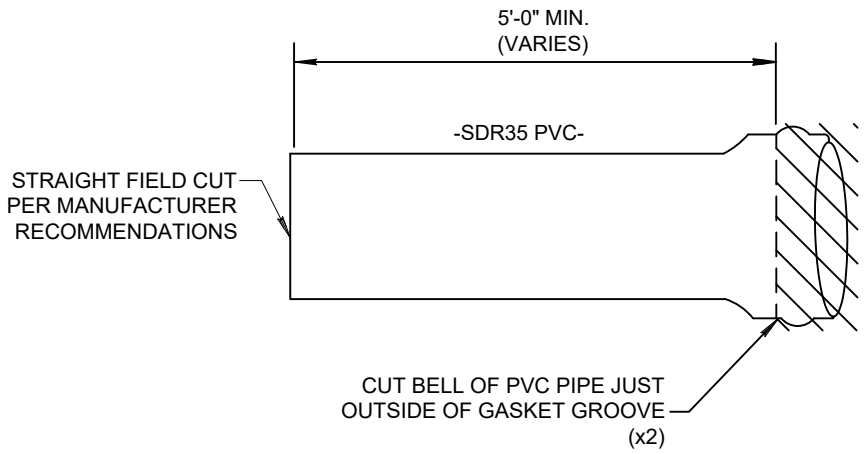
1. PRIMARY ELECTRIC, GAS, TELEPHONE, CABLE TV OR FIBER OPTIC LINES SHALL NOT CROSS ABOVE A WATER LINE WITHOUT WRITTEN AGENCY APPROVAL.

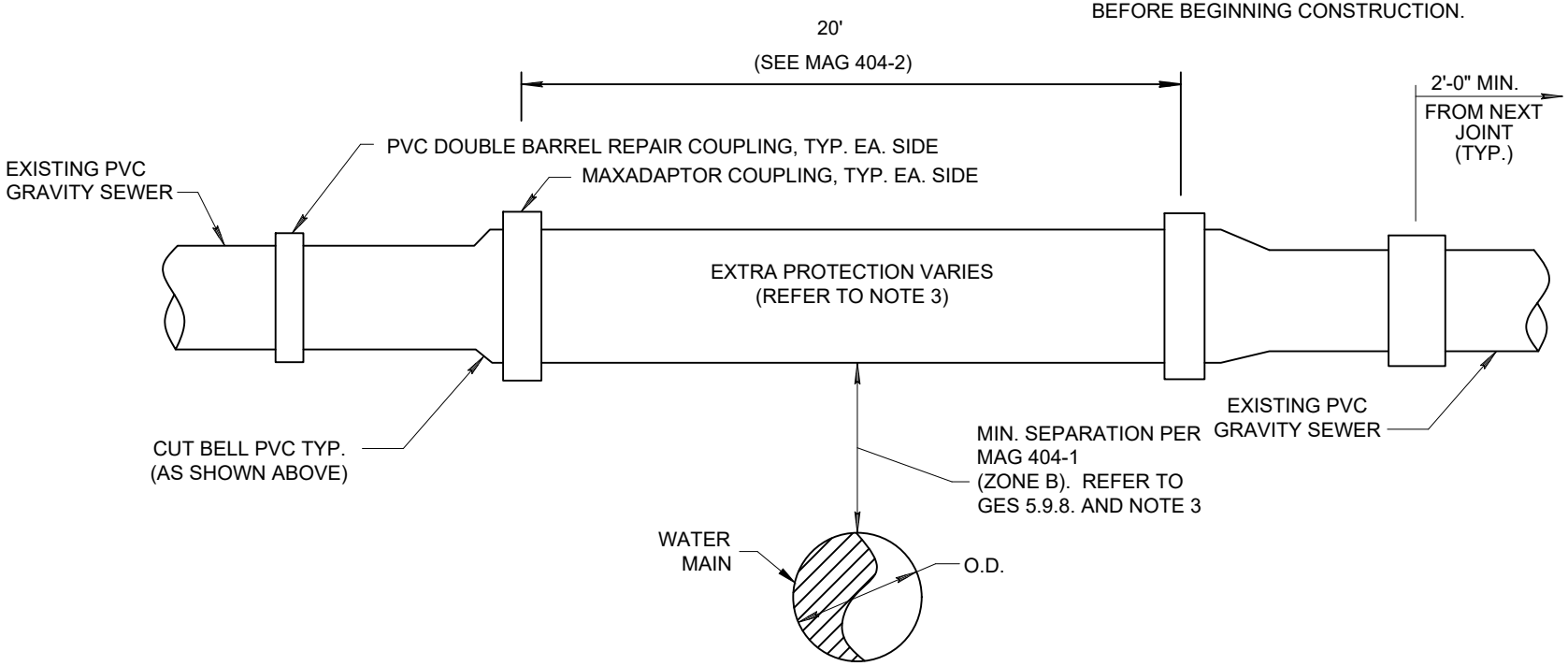
2. LOCATION OF EXISTING WATER, SEWER AND RECLAIMED WATER LINES MUST BE POTHOLED TO VERIFY ACTUAL LOCATION PRIOR TO DESIGN/INSTALLATION.

QUAD CITY STANDARD DETAIL	DRY UTILITY SEPARATION	REVISED: 11/18/2025	DETAIL No. 402Q

NOTES

1. THIS DETAIL SHALL ONLY BE APPLICABLE WHEN THE WATER MAIN CROSSING IS LOCATED IN 'ZONE B' PER MAG STD DETAIL 404-1 AND SEWER MAIN MATERIAL IS POLYVINYL CHLORIDE (PVC).
2. ALL SEWER MAIN CONSTRUCTION SHALL BE PER MAG SECT. 615 AND 611. IN CITY OF PRESCOTT(COP) SUPPLEMENT TO THE MAG, SECT 615 & 611 SHALL ALSO BE ADHERED TO .
3. EXTRA PROTECTION WILL BE BASED ON THE FOLLOWING:
   - A. IF SEWER PIPE IS ABOVE THE WATER MAIN, CONTRACTOR SHALL REMOVE EXISTING PIPE AND REPLACE WITH ONE FULL STICK OF D.I.P. CENTERED OVER CROSSING
   - B. IF SEWER PIPE IS BELOW THE WATER MAIN, PVC PIPE SHALL BE CONCRETE ENCASED.
   - C. REVIEWING AGENCY MAY REQUIRE ADDITIONAL EXTRA PROTECTION DEPENDING ON CONDITION OF PIPE AND FIELD CONDITIONS.
   - D. REVIEWING AGENCY MAY ALLOW HDPE PIPE AS AN ALTERNATE TO D.I.P. FOR REPLACEMENT PIPE.
4. CONTRACTOR SHALL EXPOSE AND FIELD VERIFY JOINT LOCATIONS BEFORE BEGINNING CONSTRUCTION.





QUAD CITY STANDARD DETAIL	PVC GRAVITY SEWER EXTRA PROTECTION	REVISED: 11/18/2025	DETAIL No. 404Q-1

NOTES

1. THIS DETAIL SHALL ONLY BE APPLICABLE WHEN THE WATER MAIN CROSSING IS LOCATED IN 'ZONE B' PER MAG STD DETAIL 404-1 AND SEWER MAIN MATERIAL IS VITRIFIED CLAY PIPE (VCP).

2. ALL SEWER MAIN CONSTRUCTION SHALL BE PER MAG SECT. 615 AND 611. IN CITY OF PRESCOTT(COP) SUPPLEMENT TO THE MAG, SECT 615 & 611 SHALL ALSO BE ADHERED TO .

3. EXTRA PROTECTION WILL BE BASED ON THE FOLLOWING:

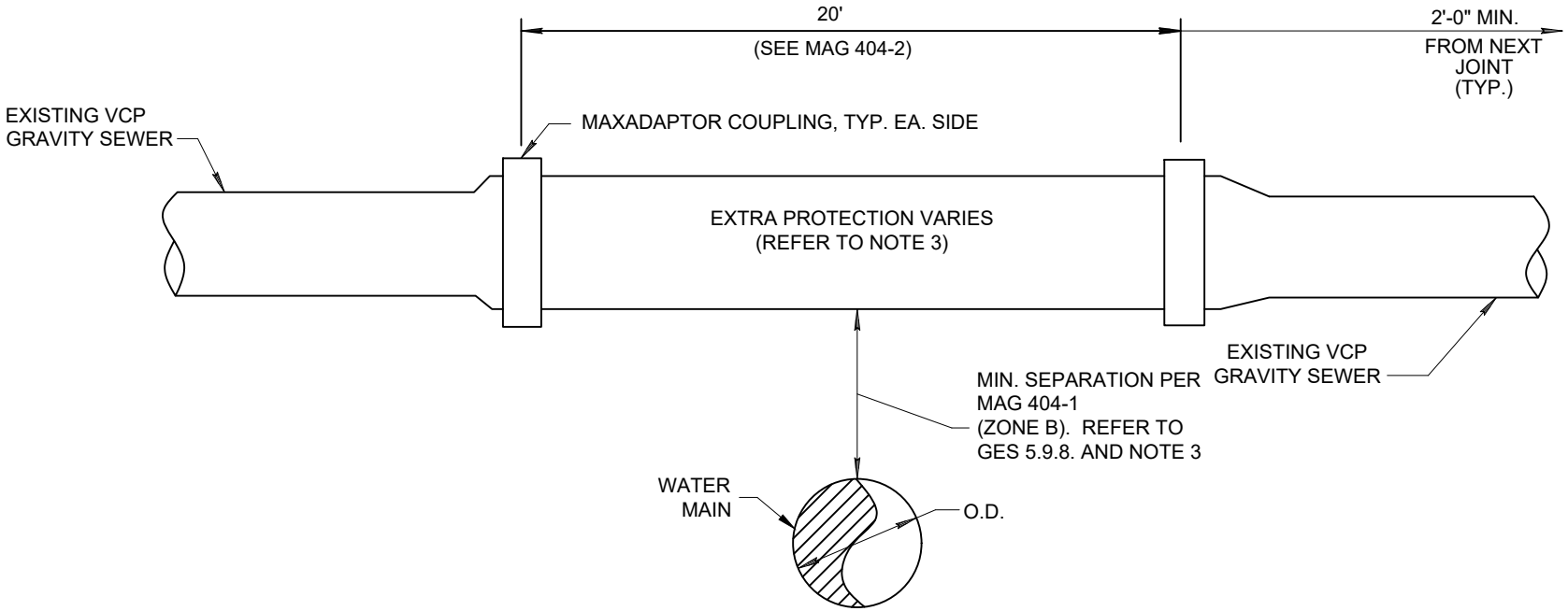
   A. IF SEWER PIPE IS ABOVE THE WATER MAIN, CONTRACTOR SHALL REMOVE EXISTING PIPE AND REPLACE WITH ONE FULL STICK OF D.I.P. (EPOXY COATED WITH PROTECTO COAT 401) CENTERED OVER CROSSING

   B. IF SEWER PIPE IS BELOW THE WATER MAIN, CONTRACTOR SHALL REMOVE EXISTING PIPE AND REPLACE WITH ONE FULL STICK OF D.I.P. CENTERED OVER CROSSING PER COP MAG SUPPLEMENT 610.5.1 AND MAG 610.5.5.

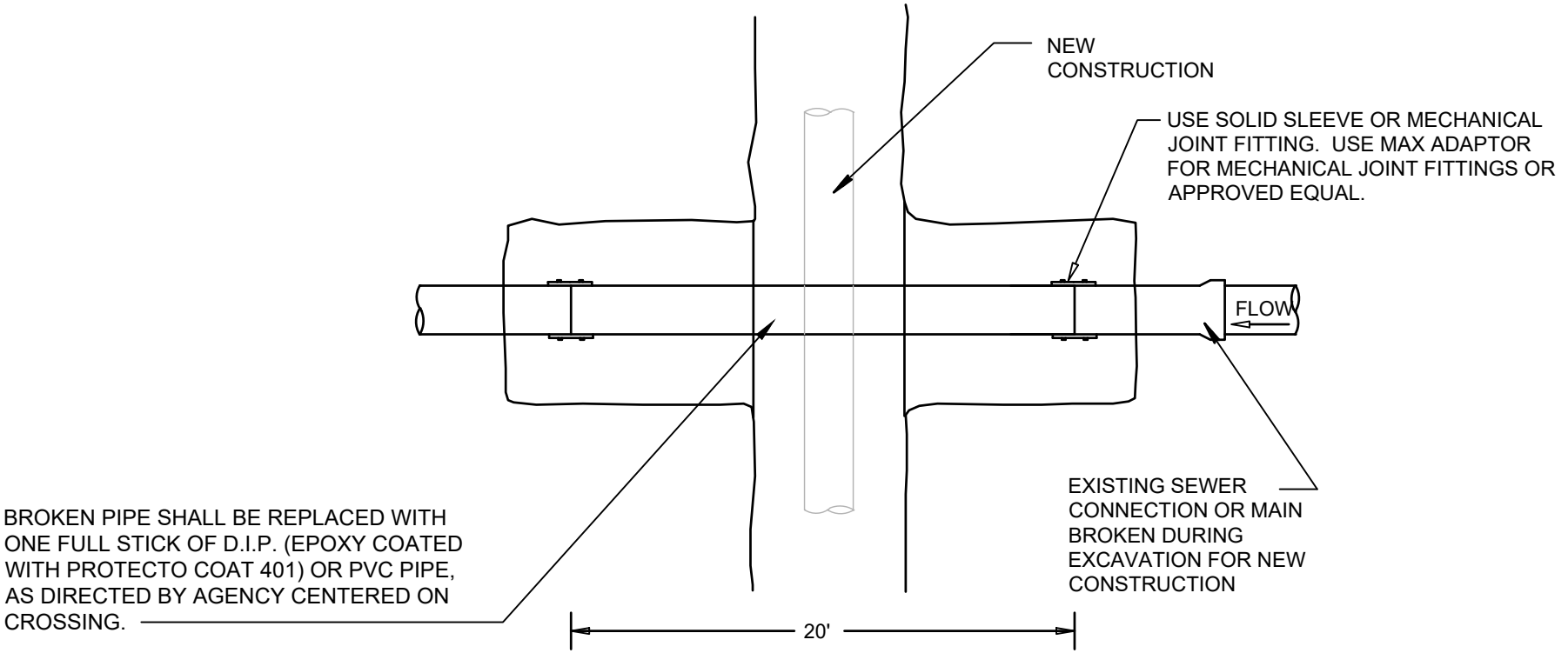
   C. REVIEWING AGENCY MAY REQUIRE ADDITIONAL EXTRA PROTECTION DEPENDING ON CONDITION OF PIPE AND FIELD CONDITIONS.

   D. REVIEWING AGENCY MAY ALLOW HDPE PIPE AS AN ALTERNATE TO D.I.P. FOR REPLACEMENT PIPE.

4. CONTRACTOR SHALL EXPOSE AND FIELD VERIFY JOINT LOCATIONS BEFORE BEGINNING CONSTRUCTION.

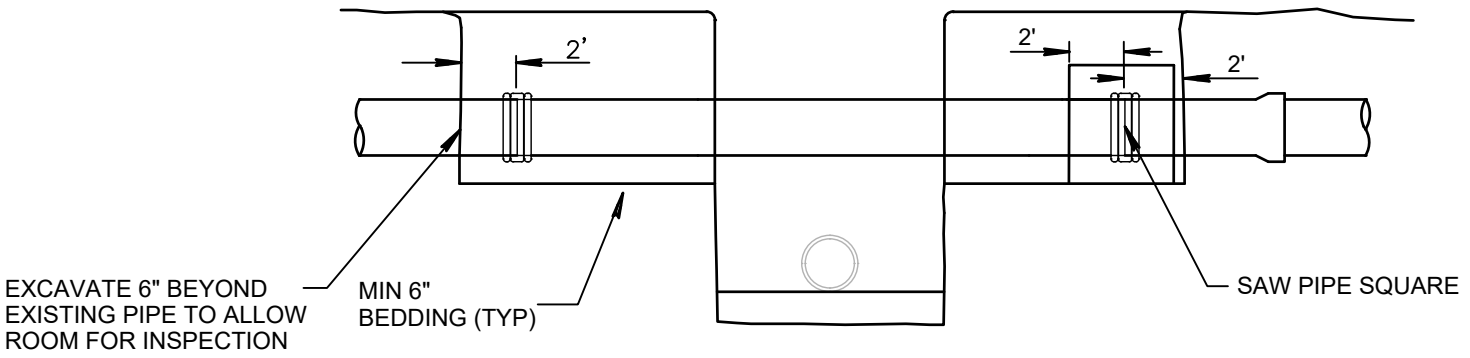


QUAD CITY STANDARD DETAIL	VCP GRAVITY SEWER EXTRA PROTECTION	REVISED: 11/18/2025	DETAIL No. 404Q-2

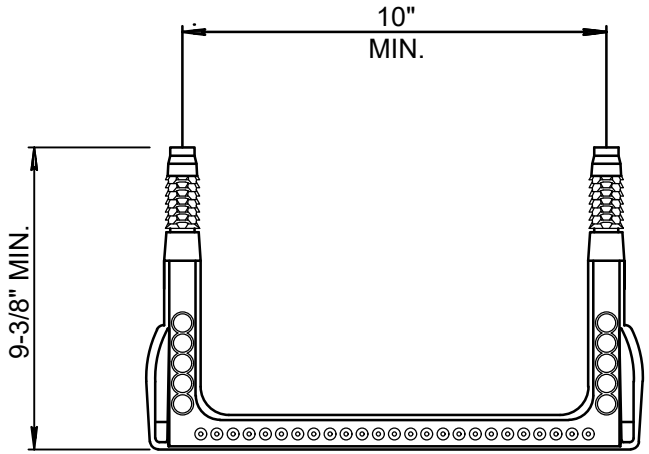


COMPACTION SHALL BE DONE IN ACCORDANCE WITH QUAD CITY STANDARD DETAIL 200Q

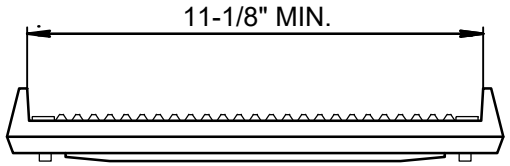
MAINTAIN EXISTING FLOW LINE



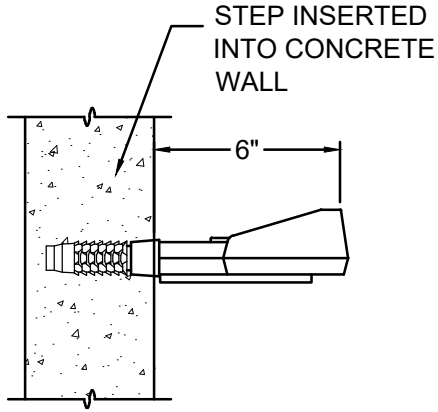
QUAD CITY STANDARD DETAIL	BROKEN SEWER LINE REPLACEMENT	REVISED: 11/18/2025	DETAIL No. 405Q



TOP VIEW



FRONT VIEW



SIDE VIEW

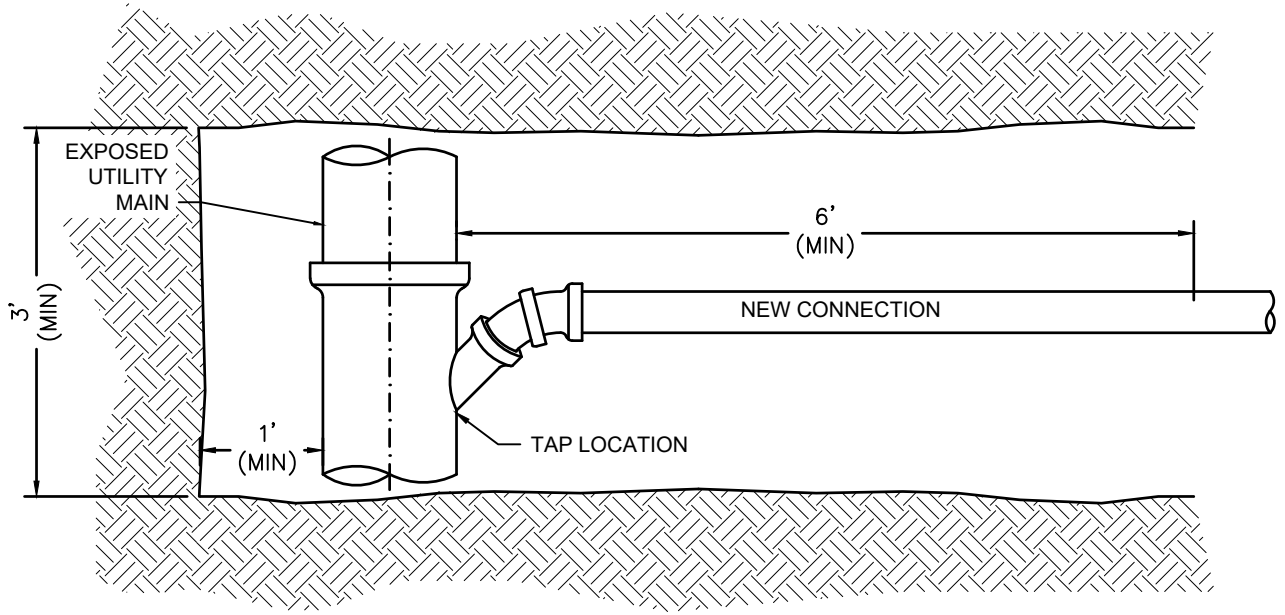
NOTES

1. VAULT STEPS, WHERE REQUIRED, SHALL BE PRESS FIT TYPE STEPS. INTEGRALLY CAST STEPS SHALL NOT BE ALLOWED.

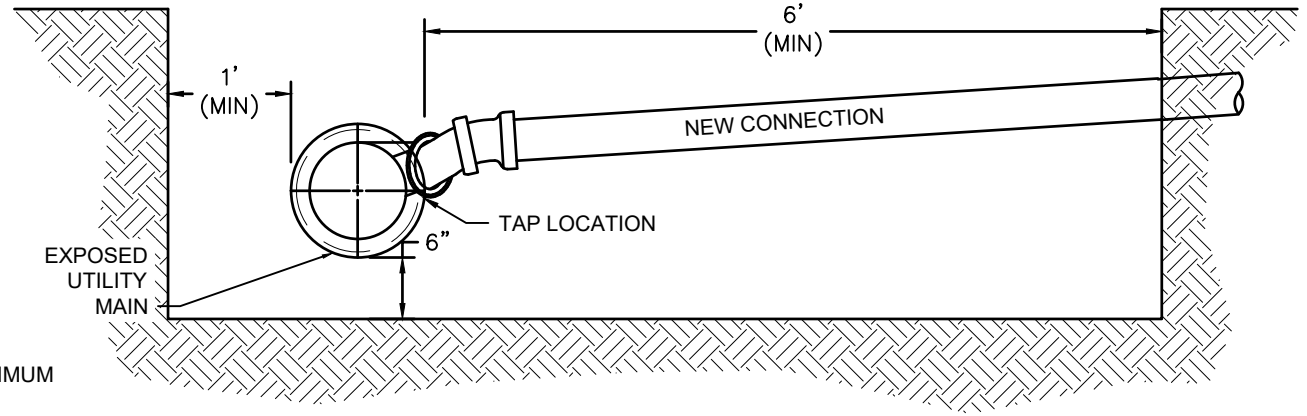
2. ALL STEPS SHALL MEET THE REQUIREMENTS OUTLINED IN ASTM D-4101, TYPE II.

3. THE STEEL USED IN MANUFACTURING IS A #4 DEFORMED REBAR GRADE 60, ASTM A615.

QUAD CITY STANDARD DETAIL	VAULT STEPS	REVISED: 11/18/2025	DETAIL No. 412Q



PLAN

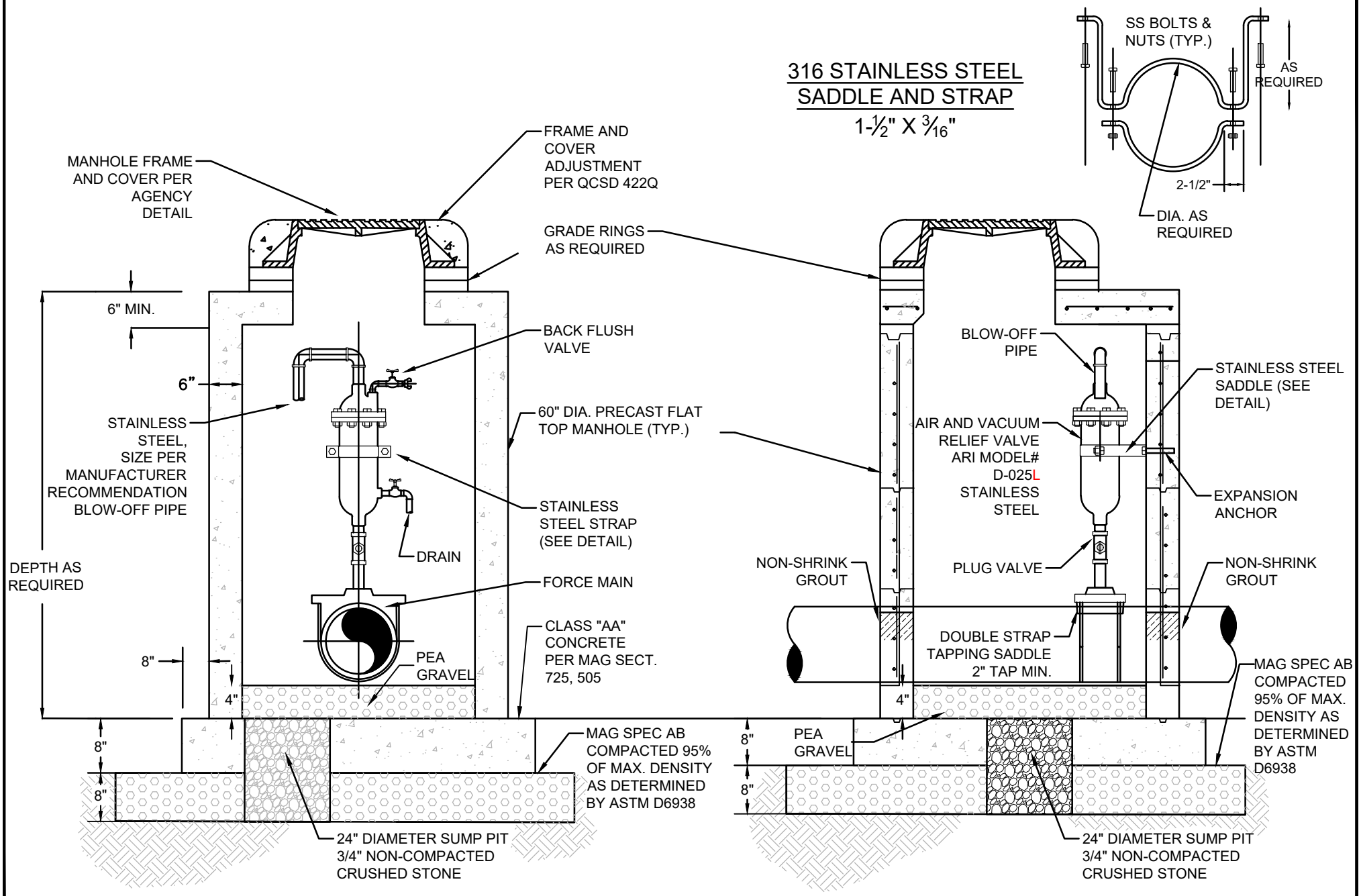


PROFILE

NOTES:

1. CONTRACTOR MUST EXPOSE MAIN TO THESE MINIMUM DIMENSIONS.
2. CONTRACTOR TO PROVIDE SAFE EXCAVATION CONFORMING TO O.S.H.A. REGULATIONS.
3. TAPS TO BE PERFORMED BY AGENCY PERSONNEL ONLY.

QUAD CITY STANDARD DETAIL	SEWER TAP MAIN EXPOSURE NEW SERVICE CONNECTION	REVISED: 11/18/2025	DETAIL No. 414P

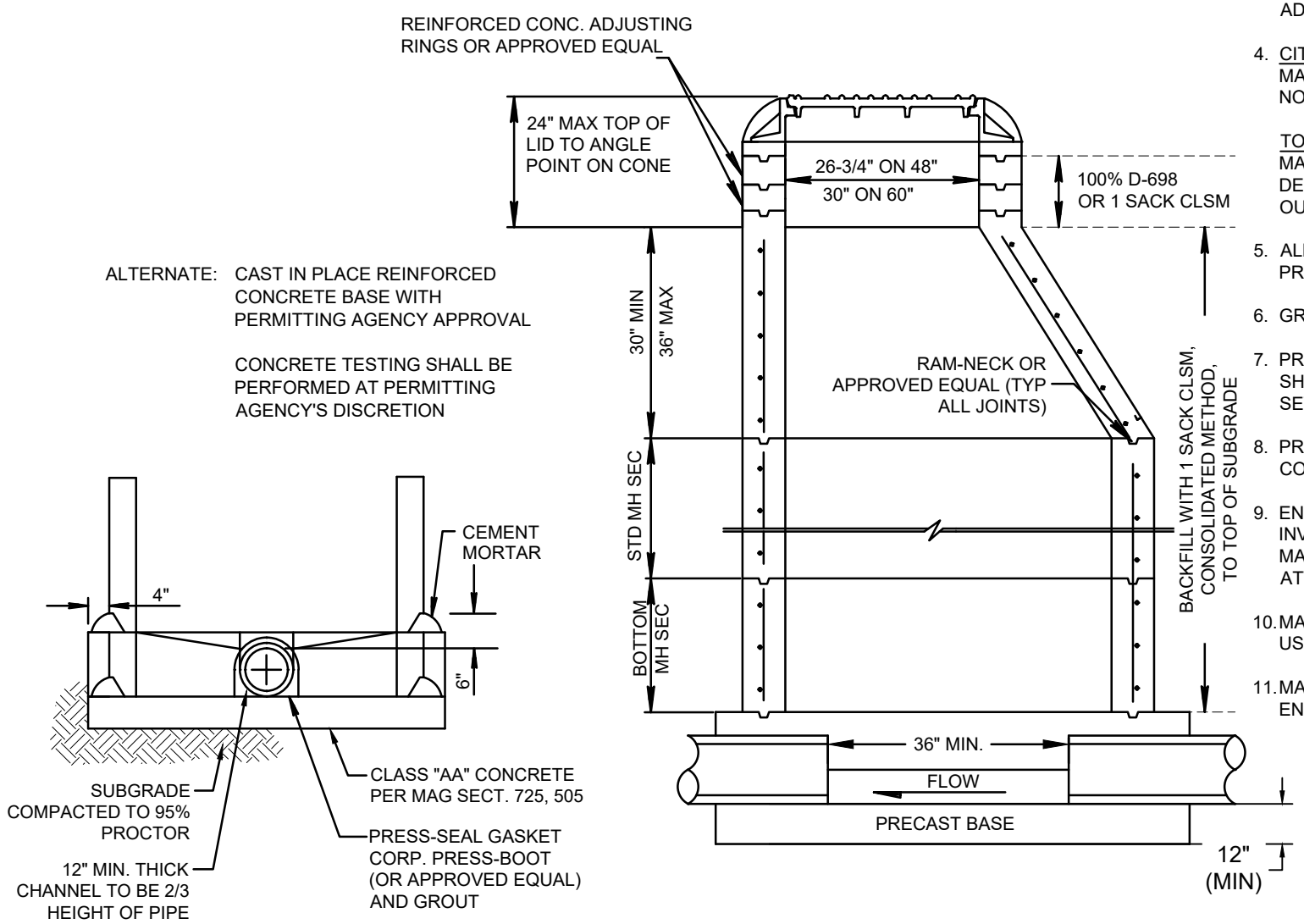


QUAD CITY STANDARD DETAIL	SANITARY FORCE MAIN AIR/ VACUUM RELEASE VALVE	REVISED: 11/18/2025	DETAIL No. 416Q

MANHOLE INSIDE DIAMETER REQUIREMENTS

PIPE DIAMETER	DEPTH OF MAIN	MANHOLE DIA	RING & COVER
8" - 12"	UP TO 12'	4'	24" DIA
8" - 12"	12' - 20'	5'	30" DIA
15" - 18"	UP TO 20'	5'	30" DIA
*21" AND LARGER	UP TO 20'	6'	30" DIA

*24" AND LARGER REQUIRE PERMITTING AGENCY APPROVAL

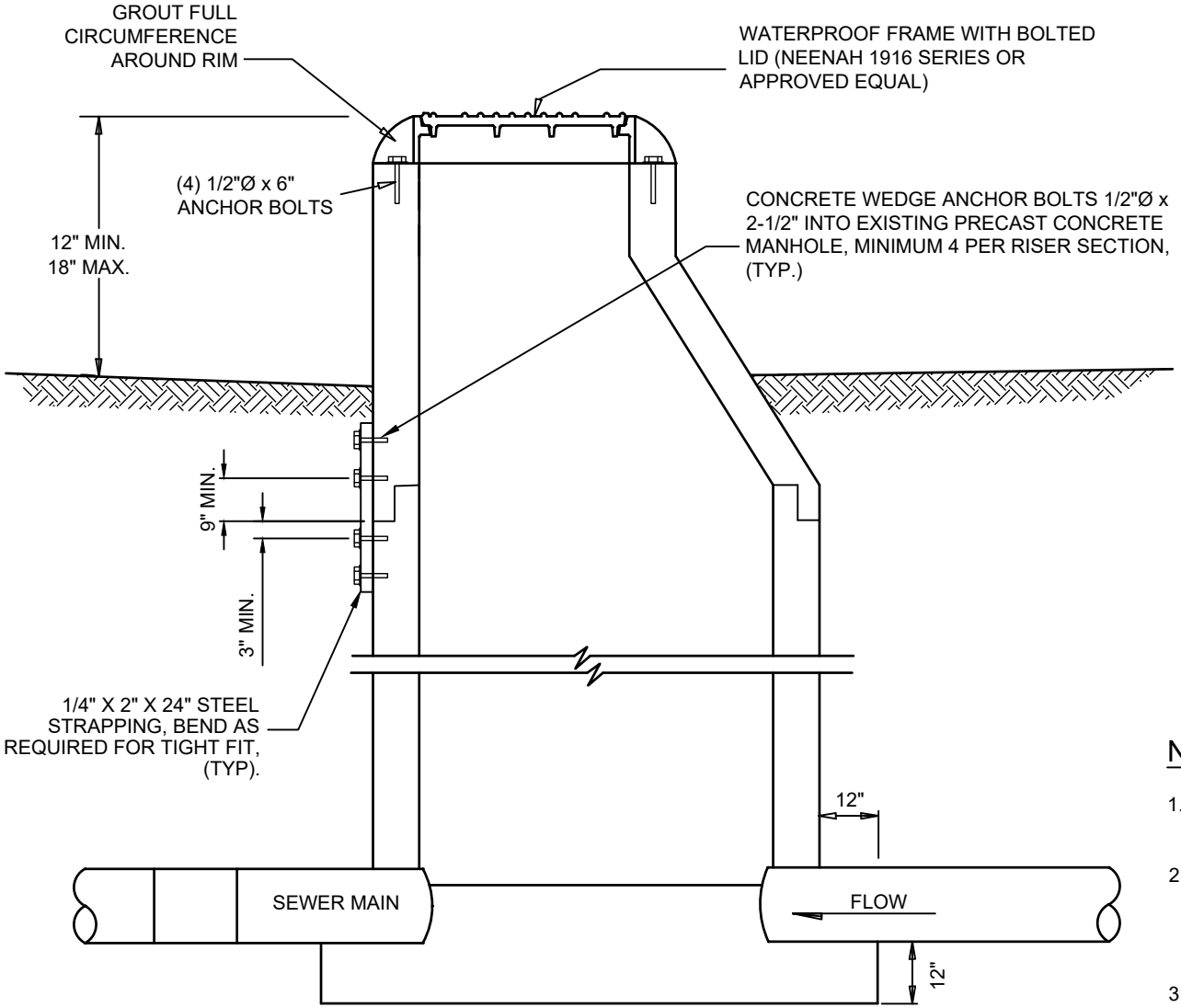


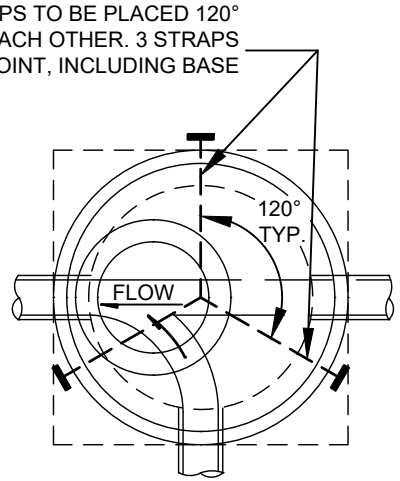
NOTES:

1. 24" MAX. DISTANCE FROM CONE TO RIM WILL BE ATTAINED PRIOR TO SETTING CONE.
2. PRE-CAST, REINFORCED MANHOLE SECTIONS SHALL BE MANUFACTURED IN ACCORDANCE WITH A.S.T.M. C-478
3. MANHOLE FRAME AND COVER PER AGENCY ADJUSTMENT PER 422Q.
4. CITY OF PRESCOTT
   MANHOLE STEPS SHALL NOT BE REQUIRED NOR ALLOWED IN SEWER MANHOLES.

   TOWN OF PRESCOTT VALLEY
   MANHOLE STEPS PER QUAD CITY STANDARD DETAIL 412Q. STEPS TO BE LOCATED ON OUTLET SIDE OF MANHOLE.
5. ALL CONCRETE TO BE CURED AND PROTECTED.
6. GROUT ALL JOINTS TO SMOOTH SURFACE.
7. PRESCOTT: WHERE REQUIRED, MANHOLES SHALL BE LINED WITH SEWER SHIELD 150, SEWERGARD 210XHB, OR RAVEN 405.
8. PRESCOTT VALLEY: ALL MANHOLES SHALL BE CONSTRUCTED WITH CONmicSHIELD.
9. ENGINEER OF RECORD SHALL CERTIFY INVERT AND RIM ELEVATIONS TO ENSURE 24" MAX. DISTANCE FROM CONE TO RIM WILL BE ATTAINED PRIOR TO SETTING CONE.
10. MANHOLE FLAT TOP COVER MAY ONLY BE USED IF APPROVED BY PERMITTING AGENCY.
11. MANHOLES OVER 20' DEEP REQUIRE ENGINEER (STRUCTURAL) CALCULATIONS.

QUAD CITY STANDARD DETAIL	PRECAST CONCRETE SEWER MANHOLE	REVISED: 11/18/2025	DETAIL No. 420Q-1

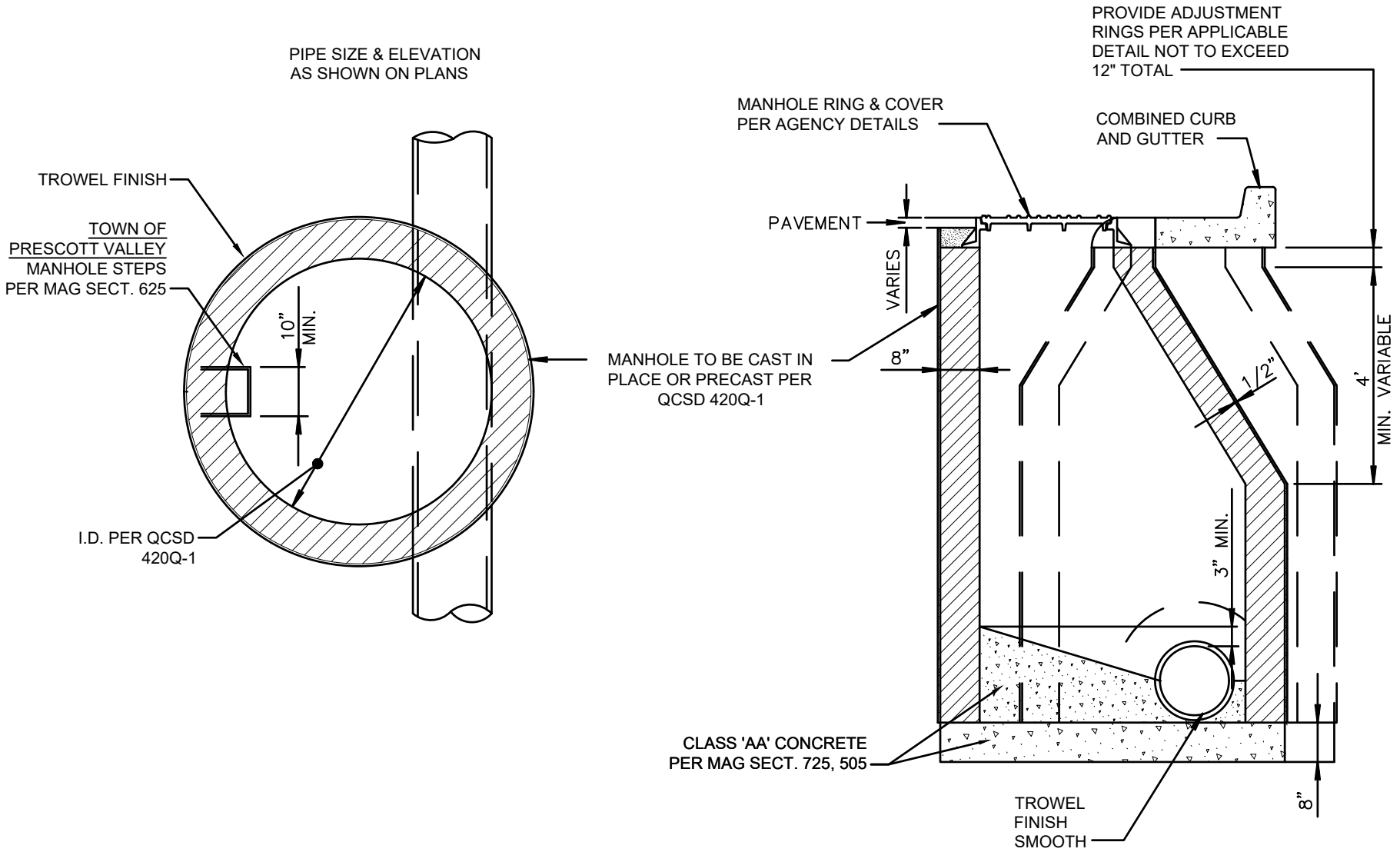




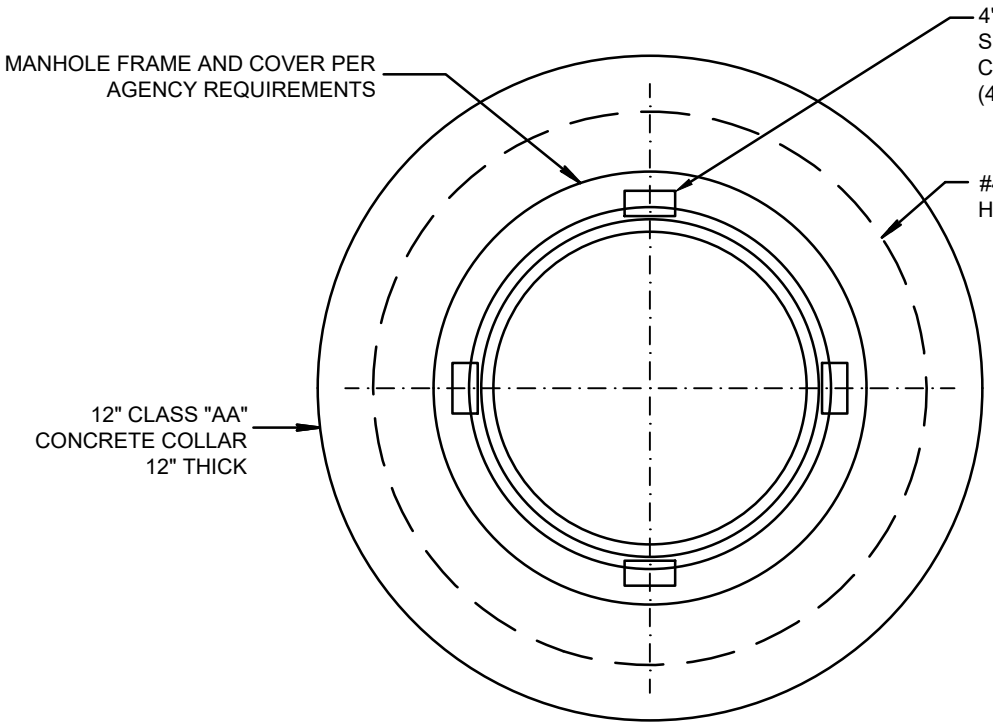
NOTES:

1. MANHOLE IN ACCORDANCE WITH QUAD CITY STANDARD DETAIL 420Q-1.
2. BASE SHALL BE SIZED FOR EXTERNAL FORCE AND BUOYANCY CALCULATIONS. BUOYANCY AND BALLAST CALCULATIONS SHALL BE COMPLETED BY THE ENGINEER OF RECORD.
3. PRESCOTT MANHOLES: MANHOLES REQUIRING LINING SHALL BE LINED WITH SEWER SHIELD 150, SEWERGARD 210XHB, OR RAVEN 405.
4. PRESCOTT VALLEY: ALL MANHOLES SHALL BE CONSTRUCTED WITH CONmicSHIELD®.
5. NO ADJUSTING RINGS SHALL BE USED.

QUAD CITY STANDARD DETAIL	MANHOLE IN DRAINAGEWAYS	REVISED: 11/18/2025	DETAIL No. 420Q-2



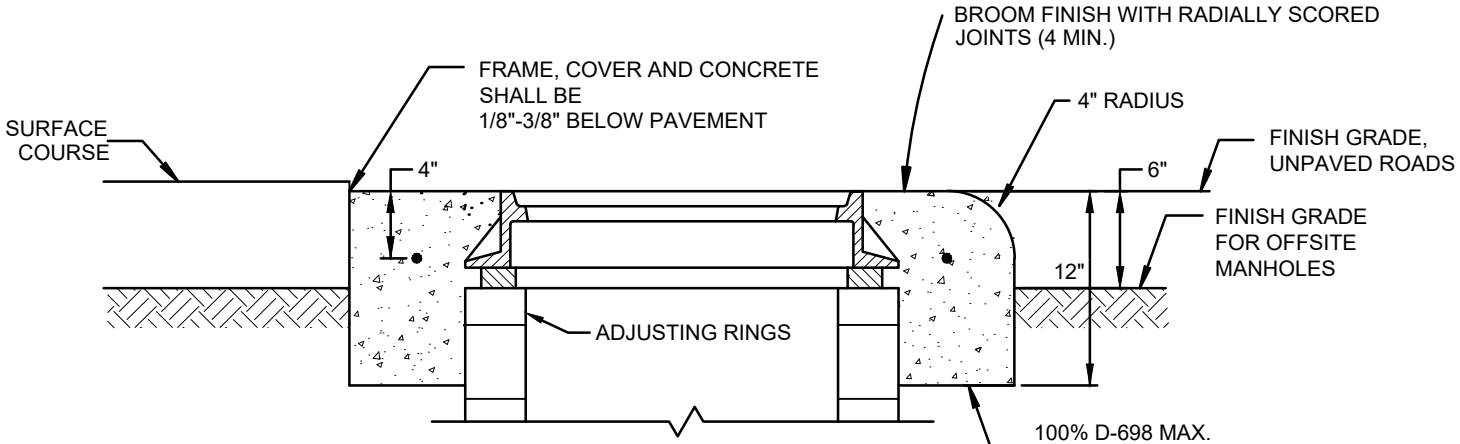
QUAD CITY STANDARD DETAIL	OFFSET MANHOLE 8" TO 30" PIPE	REVISED: 11/18/2025	DETAIL No. 421Q



PLAN

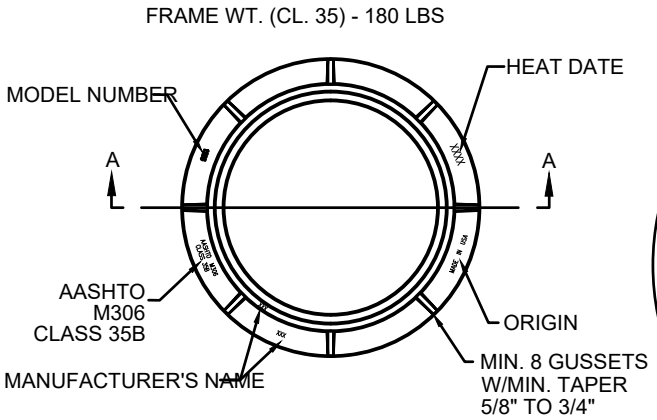
NOTES:

1. SPACERS SHALL BE FLAT STOCK STEEL ONLY. NO SHIMS SHALL BE USED WITH POLY ADJUSTMENT RINGS.
2. A MINIMUM OF FOUR SPACERS SHALL BE USED AND EQUALLY SPACED, MAXIMUM 4" THICKNESS.
3. AN INTERNAL FORM SHALL BE USED TO PREVENT CONCRETE FROM FALLING INTO MANHOLE.
4. A MINIMUM OF ONE RISER RING SHALL BE USED.
5. THE MAXIMUM ALLOWABLE DISTANCE FROM TOP OF FRAME TO HINGE POINT ON MANHOLE CONE SHALL BE 24".

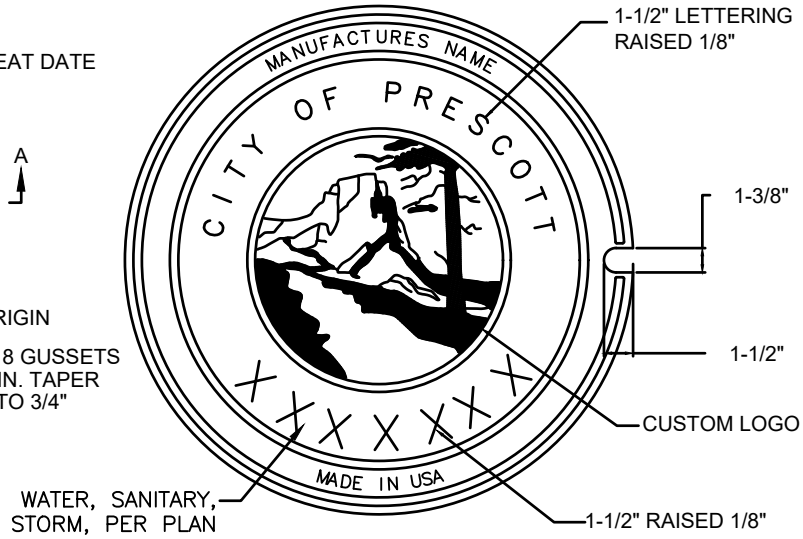


SECTION

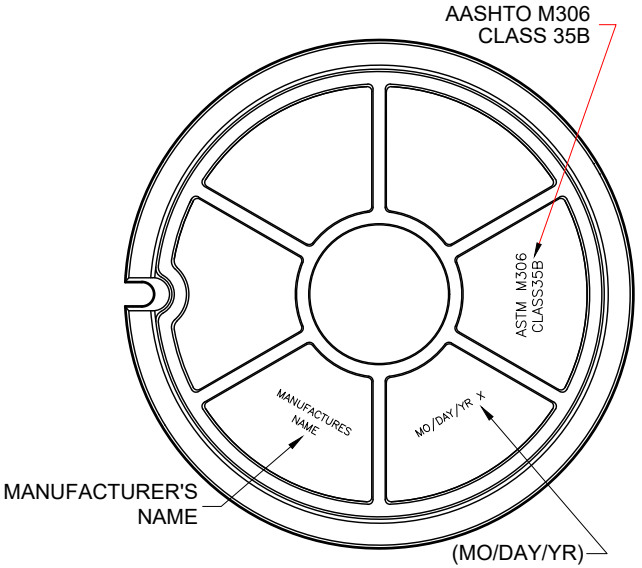
QUAD CITY STANDARD DETAIL	MANHOLE FRAME ADJUSTMENT	REVISED: 11/18/2025	DETAIL No. 422Q



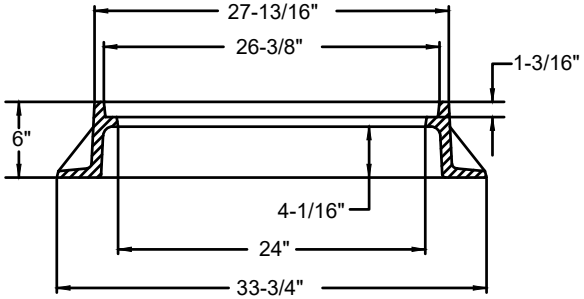
FRAME TOP VIEW



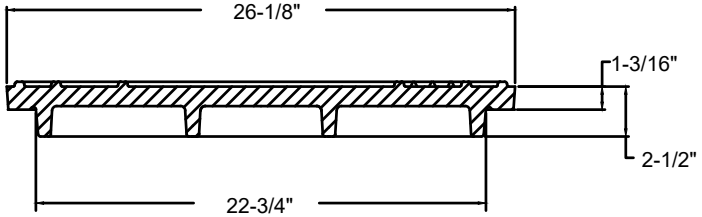
PLAN VIEW



BOTTOM VIEW



SECTION A



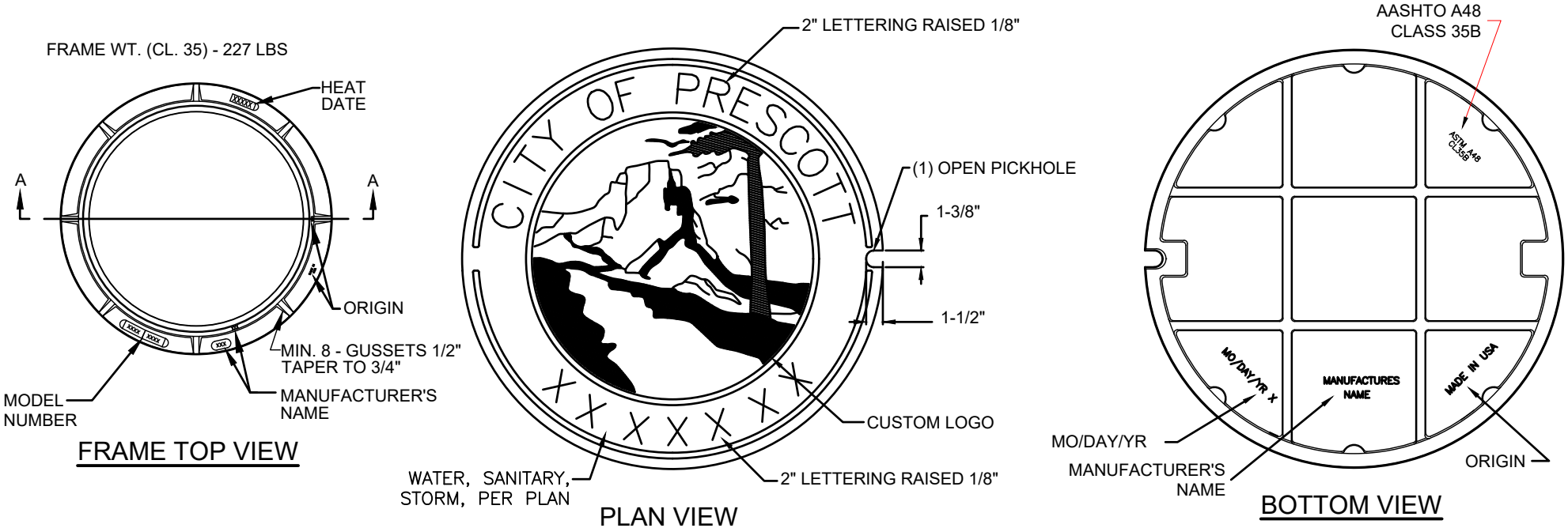
COVER WT. (CL 35) - 188 LBS

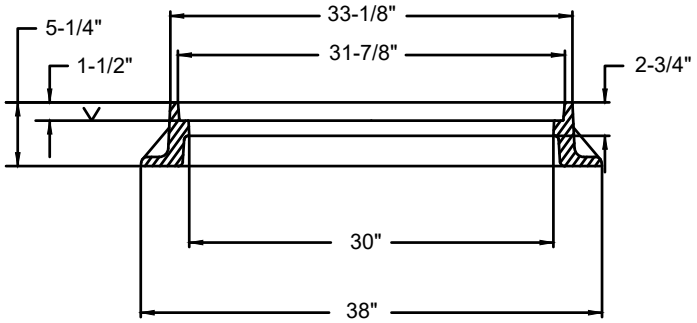
SECTION VIEW

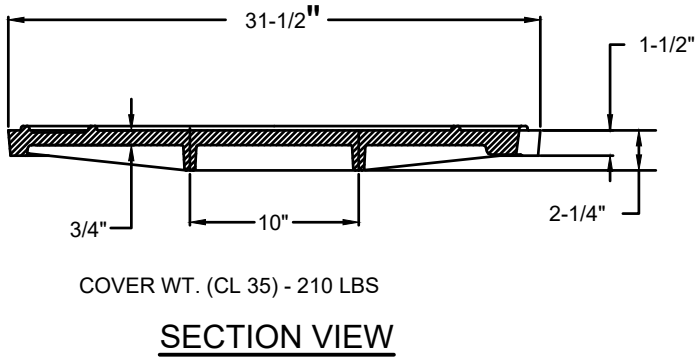
NOTES:

1. LETTERING ON MANHOLE COVER TO CONTAIN CITY OF PRESCOTT AND UTILITY FOR WHICH MANHOLE IS NEEDED, (I.E. "PRESCOTT SANITARY SEWER"), OR AS DIRECTED.
2. THE TOTAL WIDTH OF INDIVIDUAL LETTERS TO BE SUCH THAT LETTERS AND WORDS ARE EQUALLY SPACED AND BALANCED TO FORM A COMPLETE CIRCLE WITH SPACES BEFORE AND AFTER THE WORD IDENTIFYING THE AGENCY INVOLVED.
3. LETTERS TO BE 1-1/2" IN HEIGHT AND RAISED FLUSH W/TOP OF COVER.
4. TYPE OF LETTERS TO BE SUBMITTED FOR APPROVAL.
5. WEIGHT OF CASTINGS SHALL BE NO MORE THAN 2% MORE OR LESS THAN THE APPROXIMATE WEIGHT SPECIFIED.
6. CASTINGS SHALL CONFORM TO ASTM A-48, CLASS 35 AND AASHTO M306.
7. THE BEARING SURFACES OF THE FRAMES AND COVERS SHALL BE MACHINED AND THE COVERS SHALL SEAT FIRMLY WITHOUT ROCKING.
8. ALL DIMENSIONS SHALL HAVE A 1/16" TOLERANCE.
9. U.S. MANUFACTURED IRON ONLY.

QUAD CITY STANDARD DETAIL	24" CAST IRON MANHOLE FRAME AND COVER	REVISED: 11/18/2025	DETAIL No. 423P-1



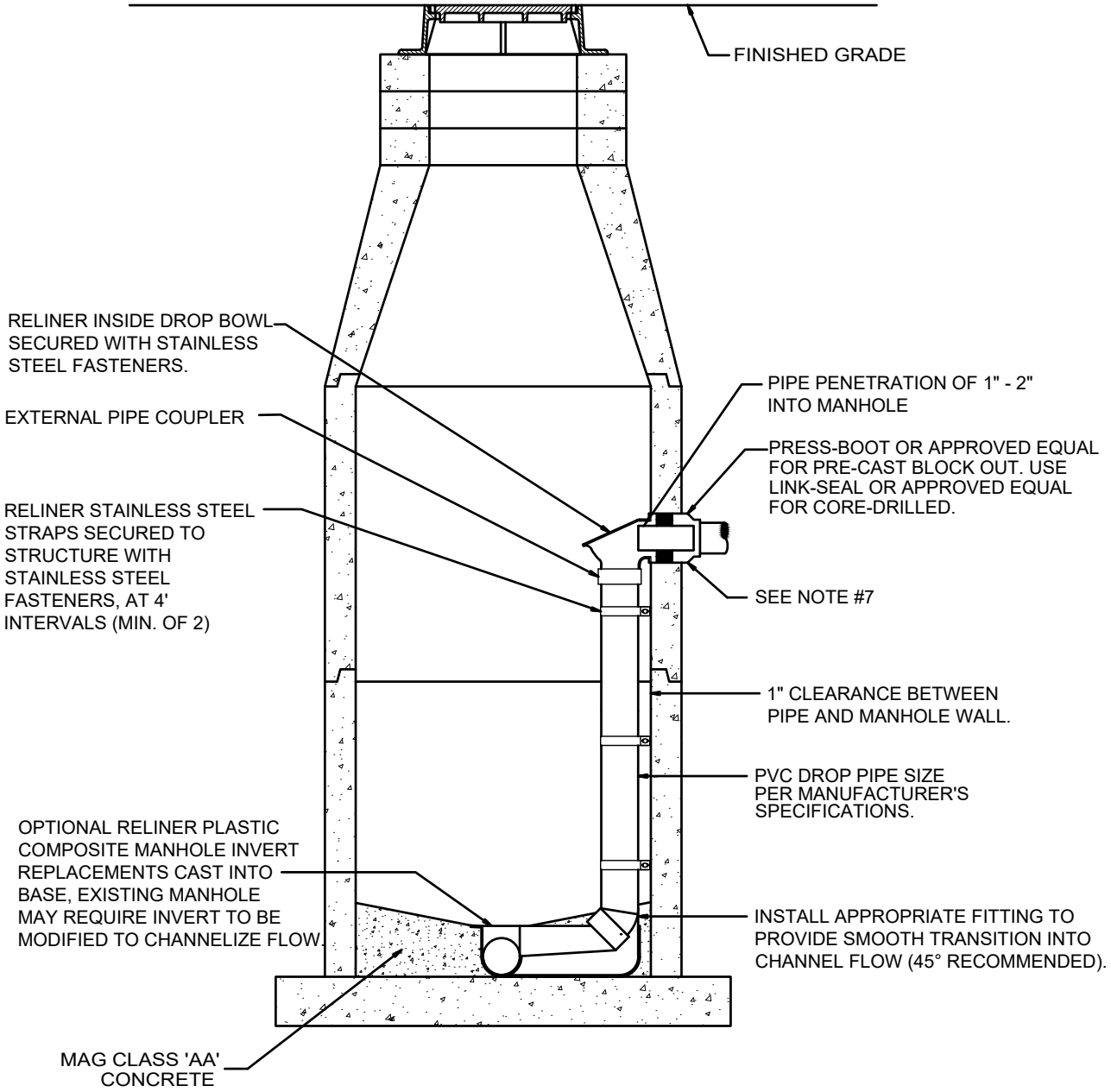




NOTES:

1. LETTERING ON MANHOLE COVER TO CONTAIN CITY OF PRESCOTT AND UTILITY FOR WHICH MANHOLE IS NEEDED, (I.E. "PRESCOTT SANITARY SEWER"), OR AS DIRECTED.
2. THE TOTAL WIDTH OF INDIVIDUAL LETTERS TO BE SUCH THAT LETTERS AND WORDS ARE EQUALLY SPACED AND BALANCED TO FORM A COMPLETE CIRCLE WITH SPACES BEFORE AND AFTER THE WORD IDENTIFYING THE AGENCY INVOLVED.
3. LETTERS TO BE 2" IN HEIGHT AND RAISED FLUSH W/TOP OF COVER.
4. TYPE OF LETTERS TO BE SUBMITTED FOR APPROVAL.
5. WEIGHT OF CASTINGS SHALL BE NO MORE THAN 2% MORE OR LESS THAN THE APPROXIMATE WEIGHT SPECIFIED.
6. CASTINGS SHALL CONFORM TO ASTM A-48, CLASS 35 AND AASHTO M306.
7. THE BEARING SURFACES OF THE FRAMES AND COVERS SHALL BE MACHINED AND THE COVERS SHALL SEAT FIRMLY WITHOUT ROCKING.
8. ALL DIMENSIONS SHALL HAVE A 1/16" TOLERANCE.
9. U.S. MANUFACTURED IRON ONLY.

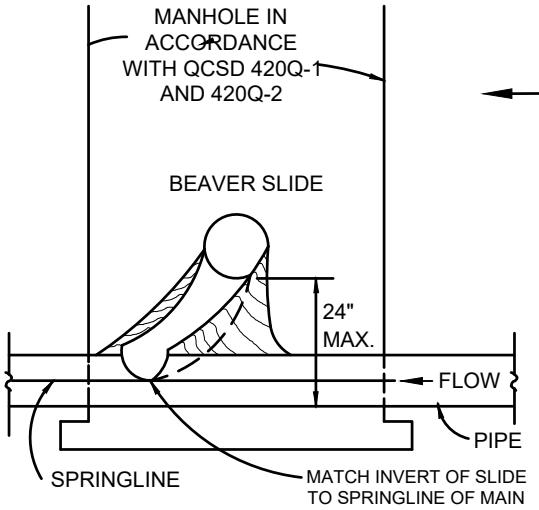
QUAD CITY STANDARD DETAIL	30" CAST IRON MANHOLE FRAME AND COVER	REVISED: 11/18/2025	DETAIL No. 423P-2

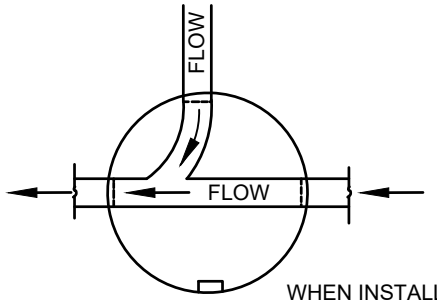


NOTES:

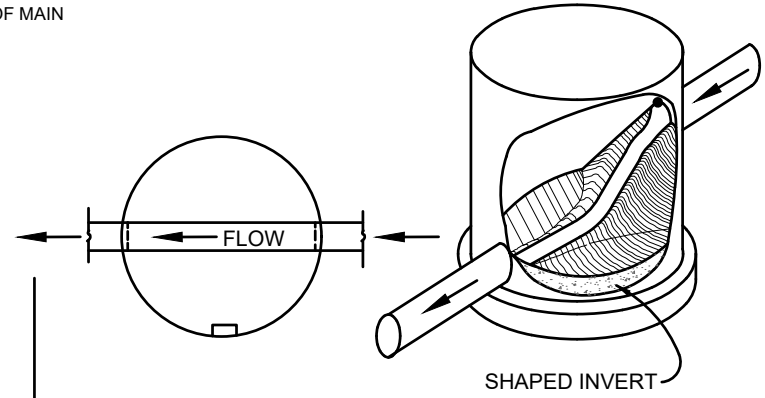
1. MANHOLE IN ACCORDANCE WITH QCSD 420Q-1.
2. DURAN, INC. RELINER (OR APPROVED EQUAL) SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
3. V-NOTCH SHALL BE CUT IN INFLUENT PIPE INVERT.
4. PRESCOTT: MANHOLES SHALL BE LINED WITH SEWER SHIELD 150, SEWERGARD 210XHB, OR RAVEN 405.
5. PRESCOTT VALLEY: ALL MANHOLES SHALL BE CONSTRUCTED WITH CONmicSHIELD®.
6. PRESCOTT VALLEY: MANHOLES SHALL BE COATED WITH INSECTA® CONTACT PESTICIDE OR APPROVED EQUAL.
7. WHEN CONNECTION IS FOR AN EXISTING MAIN, THE PIPE OPENING SHALL BE MADE BY CORE DRILLING MANHOLE IN ACCORDANCE WITH MAG SPECIFICATION SECTION 625.3.
8. FORCE MAIN DISCHARGE SHALL REQUIRE A HOOD ON THE DROP BOWL.
9. PRESCOTT VALLEY DROP MANHOLES SHOULD ONLY BE USED IF APPROVED BY THE TOWN.

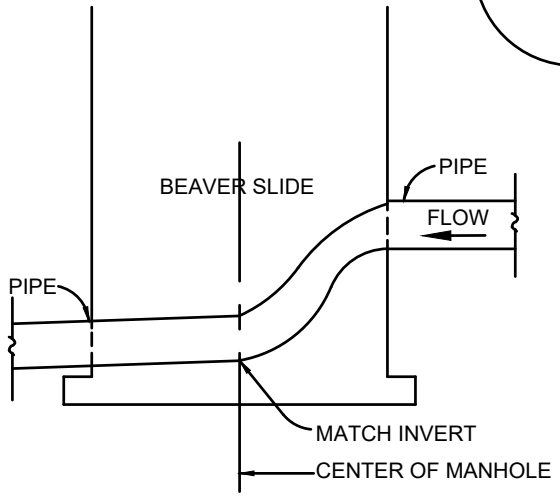
QUAD CITY STANDARD DETAIL	INSIDE DROP MANHOLE	REVISED: 11/18/2025	DETAIL No. 426Q-1





WHEN INSTALLING A BEAVER SLIDE THAT INTERCEPTS AN EXISTING SEWER AT A RIGHT ANGLE, THE CONNECTING INVERT OF THE BEAVER SLIDE IS TO INTERCEPT THE EXISTING SEWER SLIGHTLY ABOVE THE SPRINGLINE AS SHOWN. DISTANCE MEASURED FROM INVERT TO INVERT.





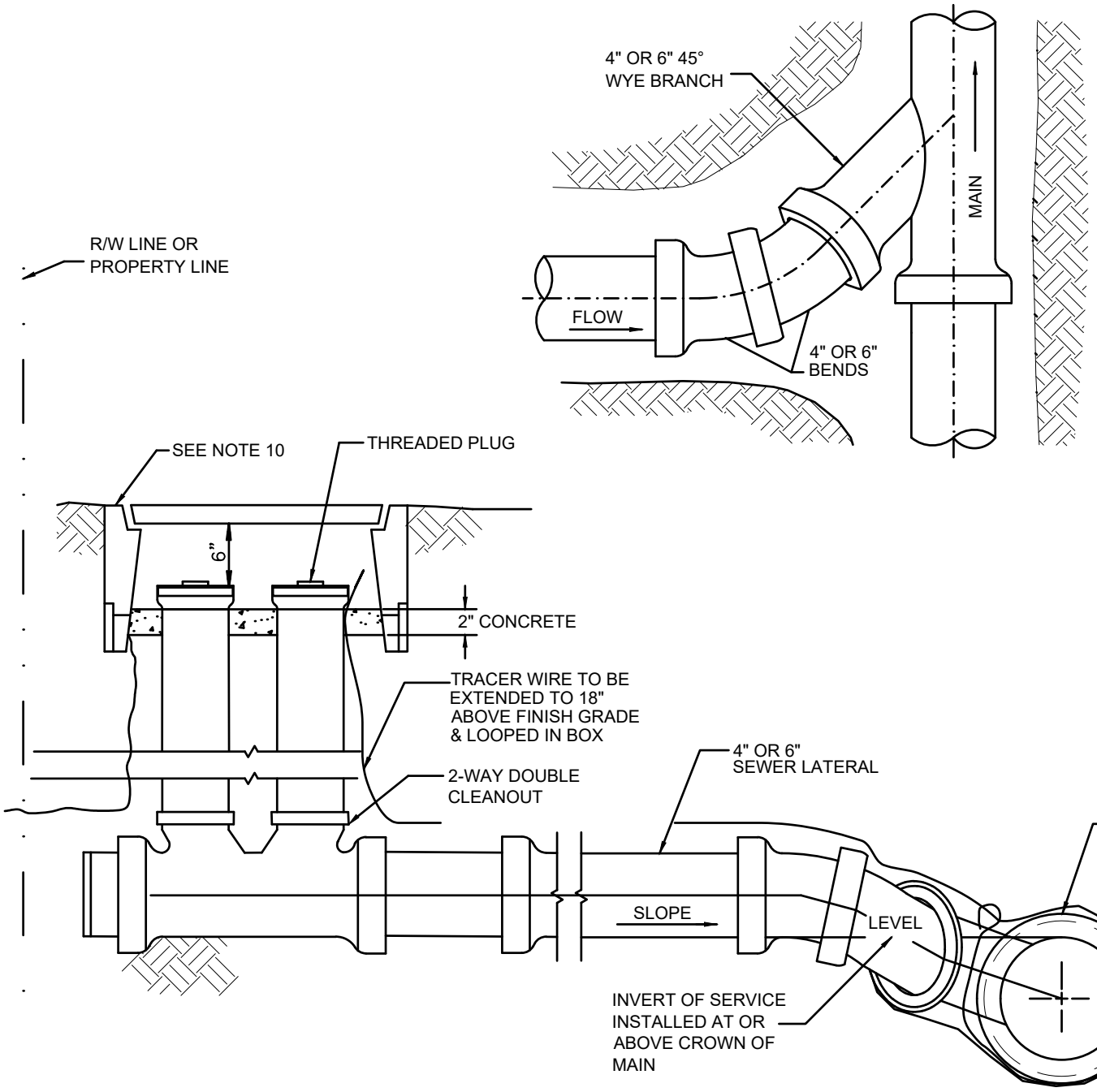
WHEN INSTALLING A BEAVER SLIDE WHERE THE FLOW IS STRAIGHT THROUGH THE MANHOLE, THE BEAVER SLIDE IS TO MATCH THE INVERT OF THE EXISTING LINE AND NOT TO EXTEND MORE THAN HALF-WAY THROUGH THE MANHOLE. DISTANCE MEASURED FROM INVERT TO INVERT.

PREMIX MORTAR PROHIBITED

NOTES

1. MAX BEAVER SLIDE ELEVATION CHANGE 2' UNLESS APPROVED BY THE CITY/TOWN ENGINEER.
2. BEAVER SLIDE CONCRETE SHALL BE CLASS 'AA'.
3. PRESCOTT VALLEY: BEAVER SLIDES SHOULD ONLY BE USED IF APPROVED BY THE TOWN.

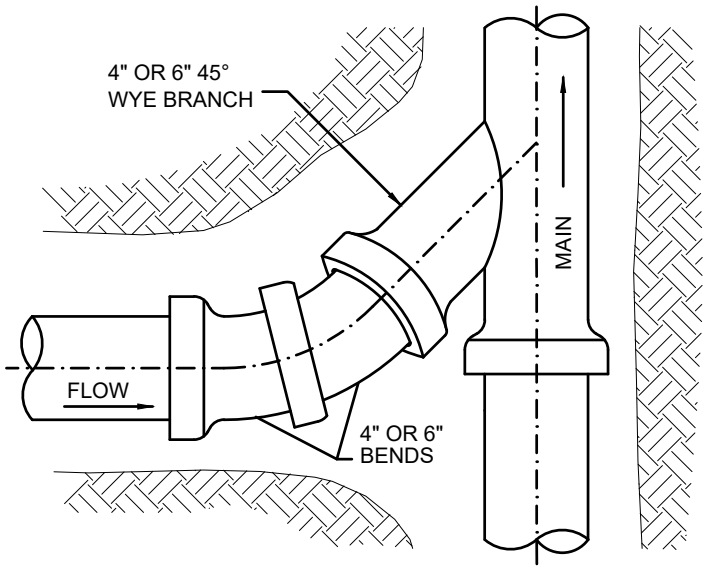
QUAD CITY STANDARD DETAIL	BEAVER SLIDE MANHOLE	REVISED: 11/18/2025	DETAIL No. 426Q-2



NOTES:

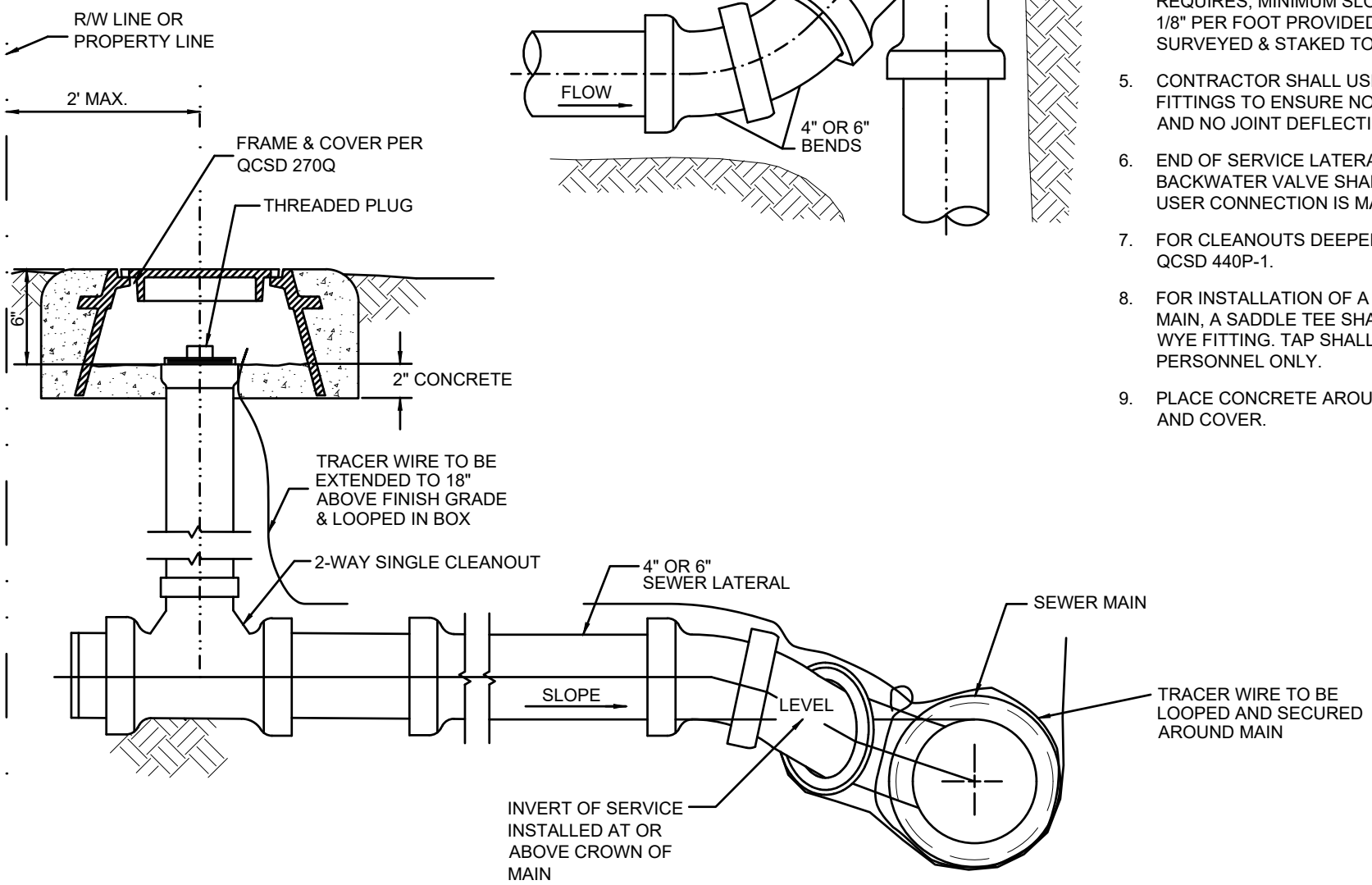
1. SERVICE LATERAL EXTENDS TO PROPERTY LINE OR TO EASEMENT LINE.
2. SIZE OF TAP AND SERVICE LATERAL SHALL BE DESIGNATED ON PLANS.
3. CONSTRUCT SERVICE LATERAL AT MINIMUM SLOPE OF 1/4" PER FOOT.
4. IF ALLOWED BY THE ADOPTED IPC AND IF DEPTH REQUIRES, MINIMUM SLOPE CAN BE REDUCED TO 1/8" PER FOOT PROVIDED SERVICE LATERAL IS SURVEYED & STAKED TO GRADE.
5. CONTRACTOR SHALL USE THE APPROPRIATE FITTINGS TO ENSURE NO MISALIGNMENT OF PIPE AND NO JOINT DEFLECTION.
6. END OF SERVICE LATERAL TO BE SEALED. BACKWATER VALVE SHALL BE INSTALLED WHEN USER CONNECTION IS MADE.
7. FOR CLEANOUTS LESS THAN 24", REFER TO QCSD 440P-2.
8. FOR INSTALLATION OF A TAP TO AN EXISTING MAIN, A SADDLE TEE SHALL BE USED IN LIEU OF A WYE FITTING. TAPS SHALL BE PERFORMED BY COP PERSONNEL ONLY.
9. PLACE CONCRETE AROUND PIPE INSIDE FRAME OR METER BOX.
10. CONTRACTOR SHALL INSTALL FRAMES AND COVERS ON DOUBLE BARREL TWO-WAY CLEANOUT, IF HORIZONTAL SPACING ALLOWS. IF FRAMES AND COVERS ARE NOT USED, A MINIMUM MAG #2 METER BOX SHALL BE USED. STAMP OR WELD A 2" TALL LETTER "S" ON LID OF METER BOX.

QUAD CITY STANDARD DETAIL	SEWER SERVICE LATERAL GREATER THAN 2 FEET DEEP	REVISED: 11/18/2025	DETAIL No. 440P-1

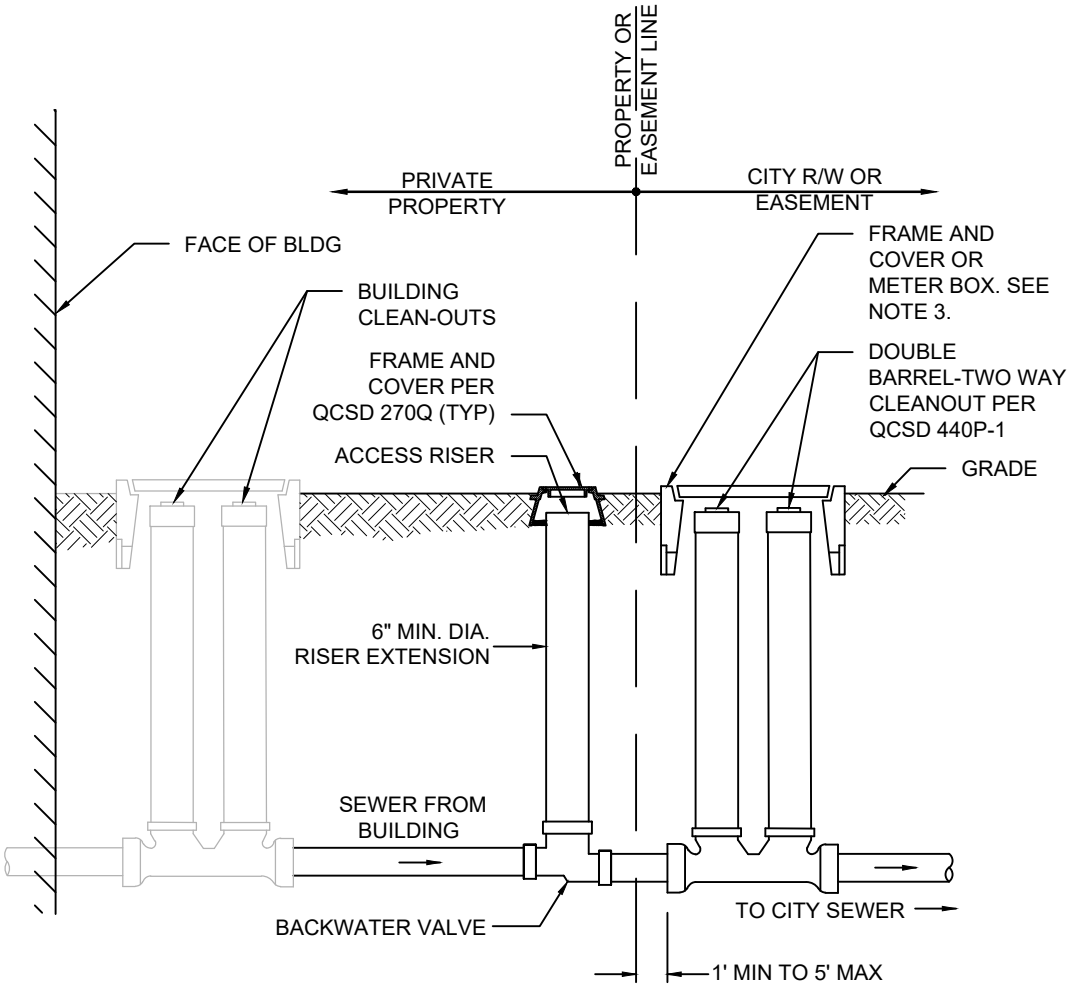


NOTES:

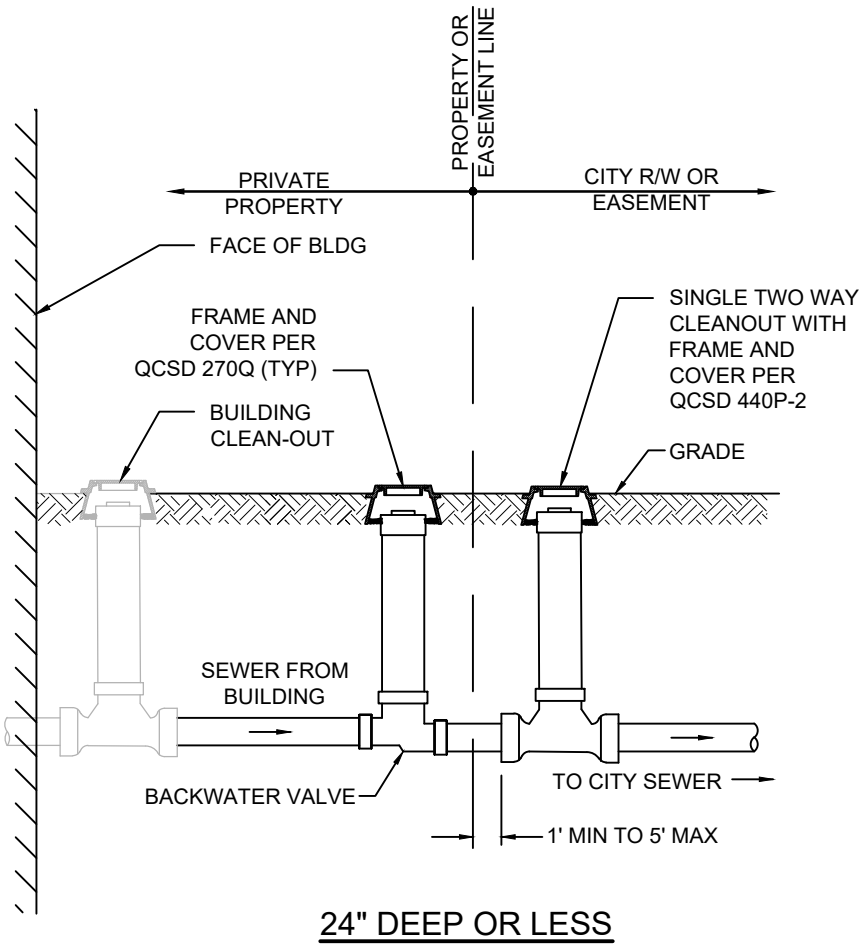
1. SERVICE LATERAL EXTENDS TO PROPERTY LINE OR TO EASEMENT LINE.
2. SIZE OF TAP AND SERVICE LATERAL SHALL BE DESIGNATED ON PLANS.
3. CONSTRUCT SERVICE LATERAL AT MINIMUM SLOPE OF 1/4" PER FOOT.
4. IF ALLOWED BY THE ADOPTED IPC AND IF DEPTH REQUIRES, MINIMUM SLOPE CAN BE REDUCED TO 1/8" PER FOOT PROVIDED SERVICE LATERAL IS SURVEYED & STAKED TO GRADE.
5. CONTRACTOR SHALL USE THE APPROPRIATE FITTINGS TO ENSURE NO MISALIGNMENT OF PIPE AND NO JOINT DEFLECTION.
6. END OF SERVICE LATERAL TO BE SEALED. BACKWATER VALVE SHALL BE INSTALLED WHEN USER CONNECTION IS MADE.
7. FOR CLEANOUTS DEEPER THAN 24", REFER TO QCSD 440P-1.
8. FOR INSTALLATION OF A TAP TO AN EXISTING MAIN, A SADDLE TEE SHALL BE USED IN LIEU OF A WYE FITTING. TAP SHALL BE PERFORMED BY COP PERSONNEL ONLY.
9. PLACE CONCRETE AROUND PIPE INSIDE FRAME AND COVER.



QUAD CITY STANDARD DETAIL	SEWER SERVICE LATERAL 2 FEET DEEP OR LESS	REVISED: 11/18/2025	DETAIL No. 440P-2



GREATER THAN 24" DEEP

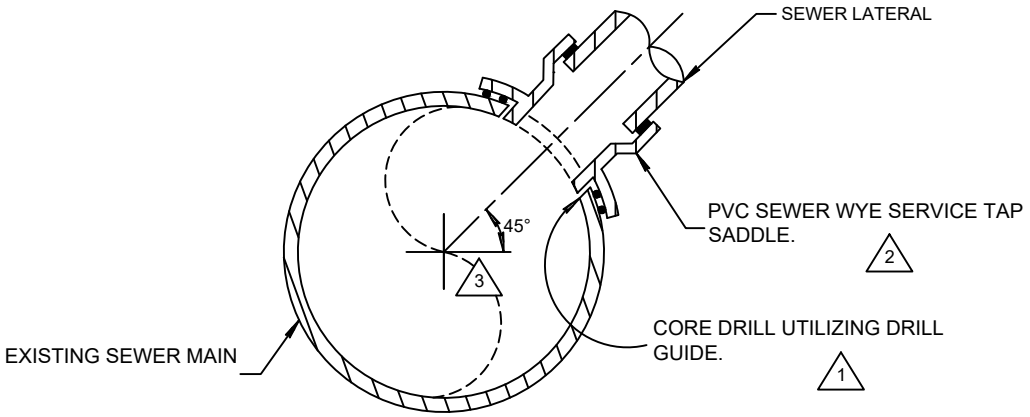


24" DEEP OR LESS

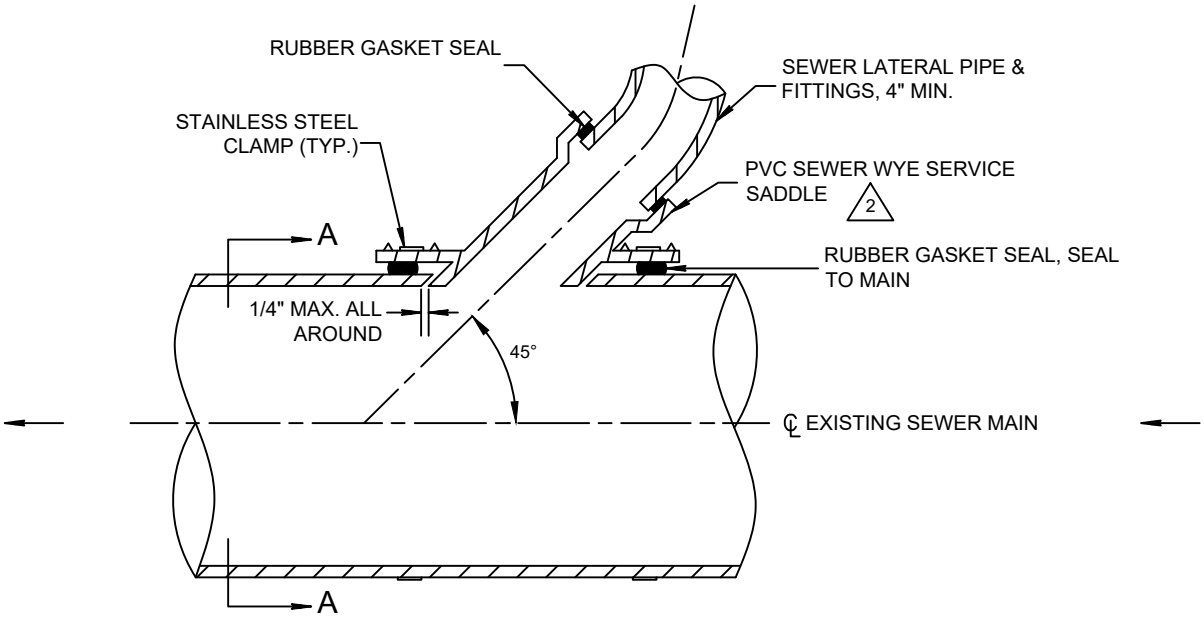
NOTES:

1. BACKWATER VALVE SHALL BE LOCATED ON PRIVATE PROPERTY BETWEEN THE BUILDING CLEANOUTS AND PROPERTY LINE, RIGHT-OF-WAY OR EASEMENTS.
2. AN EXTENDABLE TYPE BACKWATER VALVE SHALL BE INSTALLED WHEN VALVES ARE DEEPER THAN 24".
3. CONTRACTOR SHALL INSTALL FRAMES AND COVERS ON DOUBLE BARREL TWO-WAY CLEANOUT, IF HORIZONTAL SPACING ALLOWS. IF FRAMES AND COVERS ARE NOT USED, A MINIMUM OF A MAG #2 METER BOX SHALL BE USED. STAMP OR WELD A 2" TALL LETTER "S" ON LID OF METER BOX.

QUAD CITY STANDARD DETAIL	BACKWATER VALVE	REVISED: 11/18/2025	DETAIL No. 440P-3



SECTION A-A



SIDE VIEW

NOTES:

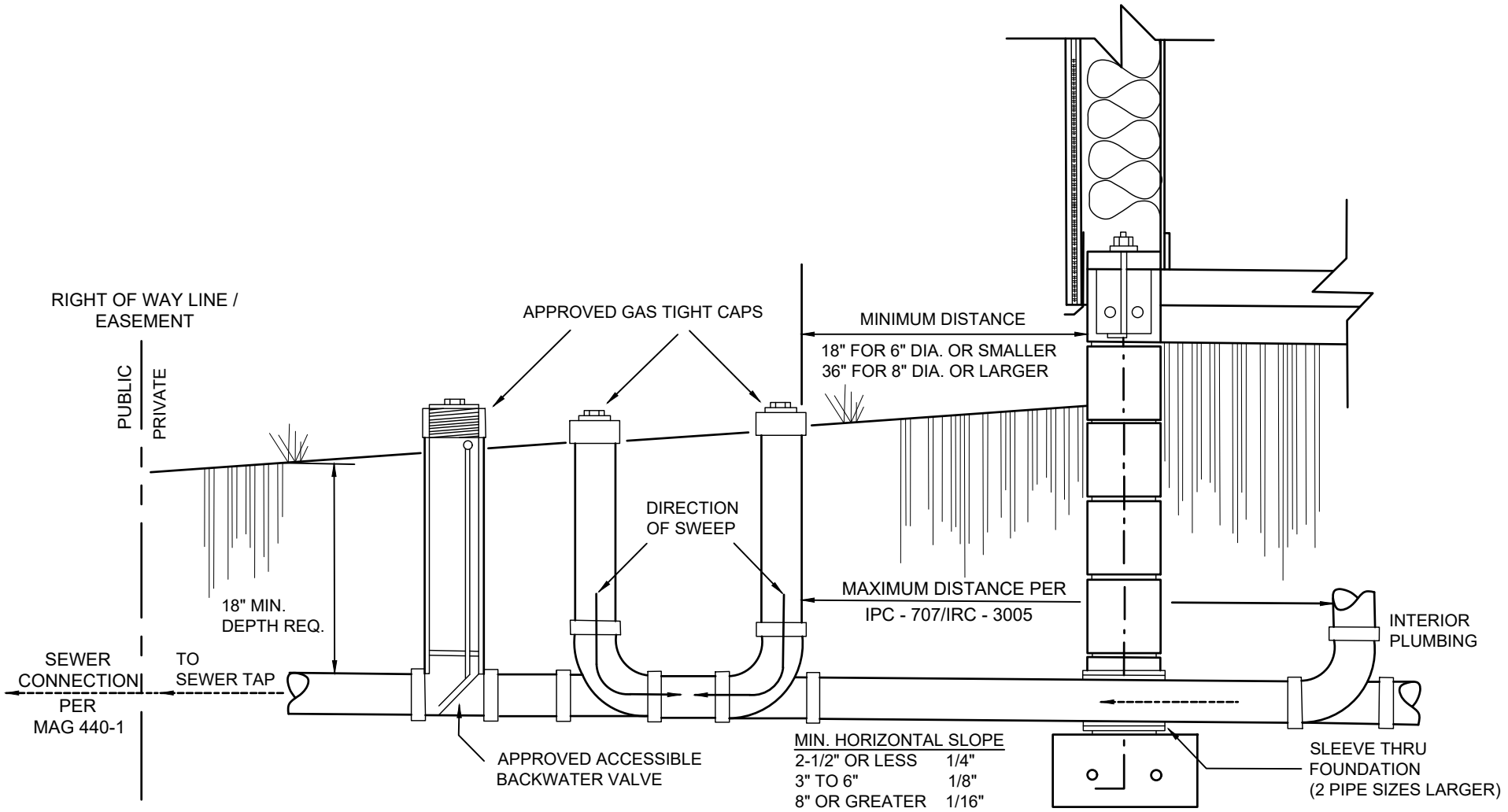
1. EXISTING SEWER MAINS SHALL BE CORE DRILLED UTILIZING A DRILL GUIDE FOR A WYE SADDLE AND A CORE DRILL WITH A LENGTH EXCEEDING THE LATERAL DIAMETER, INSERT-A-DRILL IDY75 & EXTRA LONG HOLE SAW OR APPROVED EQUAL. DIAMOND CORE BITS SHALL BE USED ON NON-PVC MAINS.

2. SERVICE TAP SADDLES SHALL BE PVC SEWER WYE SADDLES. A ROMAC STYLE "CB" SEWER SADDLE OR APPROVED EQUAL MAY BE USED ON EXISTING SEWER MAINS ONLY WHEN MAIN IS NOT PVC.

3. SADDLES SHALL BE INSTALLED AT 45 DEGREES TO MAIN AS SHOWN IN SECTION A-A. IN NO CASE SHALL A LATERAL CONNECTING TO THE EXISTING SEWER MAIN BE LOCATED DIRECTLY ON TOP OF THE PIPE, NOR SHALL IT MATCH THE FLOWLINE OF THE PIPE.

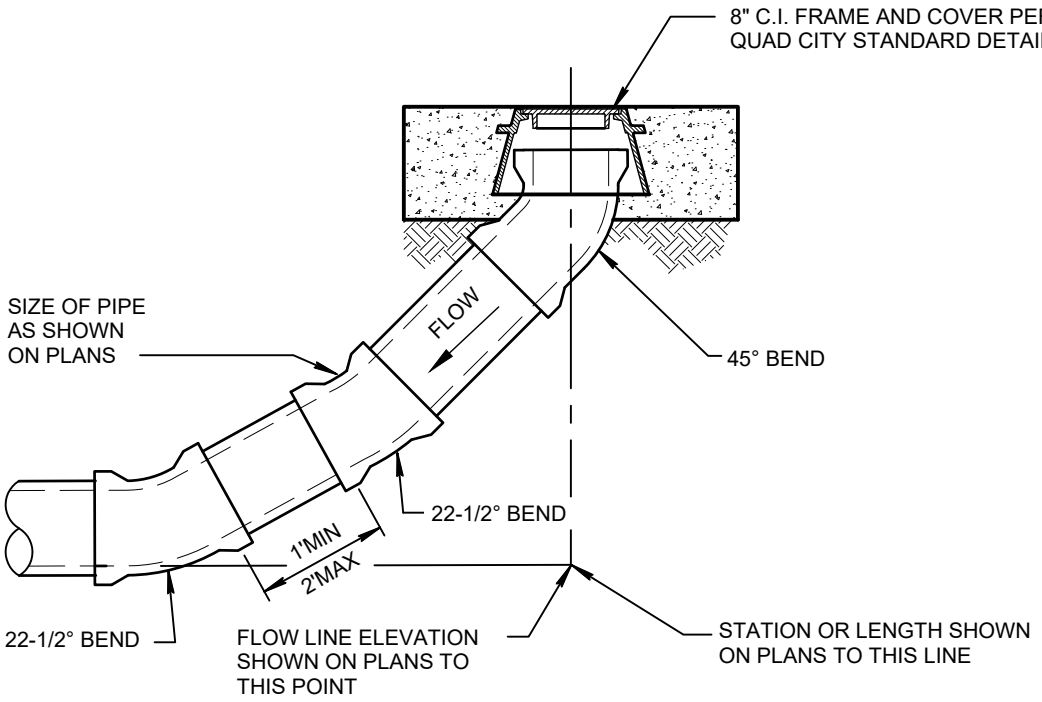
4. SERVICE TAP SHOULD BE SPACED AT A MINIMUM OF 3' AWAY FROM EXISTING SEWER TAP.

QUAD CITY STANDARD DETAIL	SANITARY SEWER TAP SADDLE	REVISED: 11/18/2025	DETAIL No. 440PV-1



SEWER 2-WAY CLEANOUT & BACKFLOW PREVENTION

QUAD CITY STANDARD DETAIL	SEWER CLEANOUT - DOUBLE	REVISED: 11/18/2025	DETAIL No. 440PV-2



NOTES:

1. NO SERVICE TAPS SHALL BE LOCATED CLOSER THAN 4 FEET DOWNSTREAM OF BOTTOM 22-1/2° BEND.
2. ALL JOINTS ARE TO BE WATER TIGHT.
3. CLEAN OUTS SHALL NOT BE PLACED IN VALLEY GUTTERS, SPANDRELS, CURB & GUTTERS, CATCH BASINS, OR OTHER DRAINAGE STRUCTURES.
4. CLEAN OUTS INSTALLED OFF SITE REQUIRE CARSONITE MARKERS RUNNING PARALLEL TO THE LINE, AS DIRECTED BY PERMITTING AGENCY.
5. BEDDING AND SHADING PER QUAD CITY STANDARD DETAIL 200Q.
6. PLACE CONCRETE AROUND 45° BEND INSIDE FRAME AND COVER.
7. REFER TO GENERAL ENGINEERING STANDARDS (GES) 5.9.6.
8. SEWER MAIN CLEANOUT SHALL ONLY BE USED PER GES 5.9.6 J AS AUTHORIZED BY THE AGENCY.

QUAD CITY STANDARD DETAIL	SEWER MAIN LINE CLEANOUT	REVISED: 11/18/2025	DETAIL No. 441Q

SEWER MANHOLE VACUUM TESTING

1. VACUUM TESTING IS REQUIRED FOR ALL NEW OR REPLACEMENT SEWER MANHOLES IN ACCORDANCE WITH THE AMERICAN SOCIETY FOR TESTING AND MATERIALS ASTM C-1244, ARIZONA ADMINISTRATIVE CODE (AAC), AND INSTRUCTION PER DOCUMENT.

2. EXFILTRATION TESTING (WATERTIGHTNESS) OR HOLIDAY TESTING IS NOT PERMITTED.

3. TESTING MUST BE CONDUCTED AFTER MANHOLE HAS BEEN ADJUSTED TO FINAL GRADE, AT TOP OF CONE, AND PRIOR TO BACKFILL.

4. THE DEVELOPER / CONTRACTOR SHALL ENSURE THAT TESTING PERSONNEL ARE QUALIFIED AND/OR DIRECTLY SUPERVISED BY PERSONS COMPETENT TO PERFORM THE VACUUM TESTS.

5. TEST RESULTS SHALL BE CERTIFIED BY A CIVIL ENGINEER, REGISTERED IN THE STATE OF ARIZONA. THE CERTIFICATION REPORT SHALL BE PROVIDED TO THE TOWN INSPECTOR PRIOR TO PUNCH LIST INSPECTION PERFORMED BY THE TOWN.

6. THE TOWN INSPECTOR SHALL BE NOTIFIED WHEN TESTING WILL BE PERFORMED AND BY WHOM AT LEAST 48 HOURS IN ADVANCE OF TEST. THE INSPECTOR, AT HIS/HER DISCRETION, MAY WITNESS TESTING TO VERIFY PROCEDURES ARE BEING FOLLOWED CORRECTLY.

7. THE VACUUM GAGE MUST HAVE A CALIBRATION STICKER WITH DATE OF CERTIFICATION. VACUUM TEST MUST BE PERFORMED WITHIN ONE YEAR OF CALIBRATION CERTIFICATION DATE. CALIBRATION CERTIFICATION OF THE GAGE MUST BE PERFORMED BY A LAB / FIRM ACCREDITED BY THE AMERICAN ASSOCIATION FOR LABORATORY ACCREDITATION (A2LA) OR TOWN APPROVED EQUAL.

8. THE MANHOLE VACUUM TESTING CERTIFICATION FIELD REPORT PER THIS DOCUMENT IS THE ONLY FORMAT ACCEPTABLE BY THE TOWN FOR MANHOLE VACUUM TESTING.

9. AIR VACUUM TESTS MUST BE IN ACCORDANCE WITH THE FOLLOWING PROCEDURES AND TABLE 1. THE MANHOLE SHALL BE PLACED UNDER A VACUUM OF TEN (10) INCHES OF MERCURY (HG), THE VACUUM LINE CLOSED, AND THE PUMP SHUT OFF. THE VACUUM LEVEL SHALL NOT BE ALLOWED TO DROP BY MORE THAN ONE (1) INCH OF MERCURY IN LESS THAN THE NOTED TIMES.

TABLE 1 - TEST CRITERIA

DIAMETER	DEPTH	TIME
48 INCHES	0 FEET TO 10 FEET	60 SECONDS
48 INCHES	GREATER THAN 10 FEET TO 15 FEET	70 SECONDS
48 INCHES	GREATER THAN 15 FEET	75 SECONDS

DIAMETER	DEPTH	TIME
60 INCHES	0 FEET TO 10 FEET	75 SECONDS
60 INCHES	GREATER THAN 10 FEET TO 15 FEET	90 SECONDS
60 INCHES	GREATER THAN 15 FEET	105 SECONDS

SEWER MANHOLE VACUUM TESTING CERTIFICATION REPORT

DATE _____
PROJECT NAME _____
PHASE IF AVAILABLE _____
CIP NUMBER IF AVAILABLE _____
PERMIT NUMBER _____
ADDRESS / LOCATION _____
DEVELOPER / CONTACTOR NAME _____
GAGE CALIBRATION DATE _____

THE FOLLOWING VACUUM TESTS WERE PERFORMED UNDER MY SUPERVISION OR AS NOTED, AND "TO THE BEST OF MY KNOWLEDGE AND BELIEF", ARE FOUND TO BE IN CONFORMANCE WITH TOWN MANHOLE TESTING REQUIREMENTS."

CIVIL ENGINEER REGISTERED IN THE STATE OF ARIZONA
NAME _____
SIGNATURE _____
DATE _____

IF WITNESSED BY TOWN INSPECTOR
NAME _____
SIGNATURE _____
DATE _____

STAMP/SEAL

MANHOLE #	DIAMETER (INCHES)	DEPTH (FEET)	STATE MATERIAL CONCRETE PRECAST CONCRETE POURED OTHER	PASS (CHECK)	FAIL (CHECK)

QUAD CITY STANDARD DETAIL	SEWER MANHOLE VACUUM TESTING	REVISED: 11/18/2025	DETAIL No. 443PV-2

DESIGN AND CONSTRUCTION STANDARDS
SANITARY SEWER AND STORM DRAIN CLEANING

STATEMENT OF PURPOSE

ALL NEW, REPAIRED AND/OR MODIFIED SANITARY SEWER AND STORM DRAINAGE INFRASTRUCTURE IS SUBJECT TO CLEANING AND FOLLOW-UP TV INSPECTION PRIOR TO APPROVAL OF AS-BUILT DRAWINGS AND FINAL ACCEPTANCE BY THE AGENCY. THIS SPECIFICATION OUTLINES TOWN REQUIREMENTS FOR CLEANING PROTOCOL.

PART 1 - GENERAL

1.01 BACKGROUND SUMMARY

A. SECTION INCLUDES SANITARY SEWER AND STORM DRAINAGE (SSSD) LINE CLEANING, MANHOLE CLEANING, AND INTERNAL OBSTRUCTION REMOVAL.

1.02 SYSTEM DESCRIPTION

A. CLEANING SHALL REMOVE SEDIMENT, ROCKS, DEBRIS, ROOTS, GREASE ACCUMULATIONS, AND OBSTRUCTIONS FROM LENGTH OF SEWER AND MANHOLES TO BE LINED.

B. CLEANING OF SEWER AND MANHOLE WALLS IN VICINITY OF LINING SHALL REMOVE GREASE, SCALE, ENCRUSTATION, AND LOOSE MORTAR SO THAT NO FOREIGN INTRUSION SHALL CAUSE IMPERFECTIONS IN LINING (E.G. BUMPS, FOLDS, DIMPLES).

C. SEWER CLEANING METHODS SHALL BE WASHING WITH HIGH PRESSURE WATER OR OTHER METHOD APPROVED BY AGENCY.

1.03 SUBMITTALS

SUBMIT LETTER THAT IDENTIFIES METHODS THAT WILL BE USED TO REMOVE SEDIMENT, DEBRIS, GREASE, SCALE, ENCRUSTATIONS, LOOSE CONCRETE, AND ROOTS THROUGHOUT SECTION OF SEWER TO BE CLEANED. THE LETTER SHALL INCLUDE THE FOLLOWING:

A. DETAILED DESCRIPTION OF CLEANING PROCESS.

B. SCHEDULE OF ACTIVITIES.

C. LIST OF THE ACTIONS TO MITIGATE IMPACT TO TOWN DURING CLEANING OPERATION.

PART 2 - PRODUCTS

2.01 MATERIALS

DO NOT USE CHEMICALS WITHOUT WRITTEN APPROVAL OF THE AGENCY.

2.02 EQUIPMENT

HIGH-VELOCITY HYDRAULIC (HYDRO-CLEANING) EQUIPMENT: EQUIPMENT SHALL BE CAPABLE OF REMOVING DIRT, GREASE, ROCKS, SAND, ROOTS, AND OTHER MATERIALS AND OBSTRUCTIONS FROM SEWER LINES AND MANHOLES.

A. NOZZLES SHALL BE CAPABLE OF PRODUCING SCOURING ACTION FROM 15 TO 45 DEGREES IN ALL SIZE LINES DESIGNATED TO BE CLEANED.

B. EQUIPMENT SHALL CARRY ITS OWN WATER TANK, AUXILIARY ENGINES, AND HIGH PRESSURE WATER PUMP.

C. COMBINATION UNIT PUMP: CAPABLE OF PUMPING AT A MINIMUM OF 50 GALLONS PER MINUTE (GPM) UP TO 80 GPM AT A MINIMUM OF 2,000 POUNDS PER SQUARE INCH (PSI) MEASURED AT BEGINNING OF HOSE REEL.

D. WATER PUMP: ABLE TO RUN A MINIMUM OF 2,000 PSI DISCHARGE PRESSURE TO THE NOZZLE WHILE PULLING FULL VACUUM.

2.03 WATER

A. WHEN WATER FROM FIRE HYDRANTS IS NECESSARY, THE CONTRACTOR WILL BE REQUIRED TO APPLY FOR A HYDRANT METER WITH THE AGENCY.

B. PROVIDE TEMPORARY PIPING, VALVES, CERTIFIED REDUCED PRESSURE ZONE ASSEMBLY, AND OTHER REQUIRED ITEMS FOR HANDLING POTABLE WATER AND WASTEWATER.

(CONTINUED NEXT PAGE)

DESIGN AND CONSTRUCTION STANDARDS
SANITARY SEWER AND STORM DRAIN CLEANING (CONT'D)

PART 3 - EXECUTION

3.01 EXAMINATION

CONTRACTOR SHALL BE AWARE OF FLOW CONDITIONS, AND BE ABLE TO IDENTIFY POTENTIAL ACCESS PROBLEMS TO SEWER ACCESS POINTS.

3.02 APPLICATION

A. LINE CLEANING: CLEAN DESIGNATED SSSD LINES USING APPROVED METHODS AND EQUIPMENT.

B. MANHOLE CLEANING: INCLUDE ENTIRE MANHOLE INTERIOR, INCLUDING MANHOLE BENCHES AND WALLS. INCORPORATE INTO LINE CLEANING OPERATION BY SCOURING WALLS WITH HIGH VELOCITY NOZZLE AFTER PIPE SEGMENT CLEANING OPERATION IS COMPLETE.

C. REMOVAL OF DEBRIS, SEWAGE AND SOLIDS: REMOVE AND DISPOSE. DO NOT DISCHARGE TO OTHER TOWN INFRASTRUCTURE SUCH AS MANHOLES, DITCHES, CATCH BASINS, STORM DRAINS, ETC. DISPOSAL COSTS AND REGULATORY COMPLIANCE IS THE RESPONSIBILITY OF THE CONTRACTOR.

3.03 FIELD QUALITY CONTROL

A. INSPECTION: PROVIDE TELEVISION INSPECTION PER APPLICABLE QCSD 445PV-1, 2, 3, & 4.

3.04 CLEANING

A. KEEP PREMISES FREE FROM ACCUMULATIONS OF WASTE MATERIALS, RUBBISH AND OTHER DEBRIS RESULTING FROM WORK.

B. REMOVE WASTE MATERIALS, RUBBISH, AND DEBRIS FROM AND ABOUT PREMISES.

C. REMOVE TOOLS, CONSTRUCTION EQUIPMENT AND MACHINERY, AND SURPLUS MATERIALS.

D. RESTORE TO ORIGINAL CONDITION PORTIONS OF SITE NOT DESIGNATED FOR ALTERATIONS BY ANY CONTRACT DOCUMENTS.

DESIGN AND CONSTRUCTION STANDARDS
TELEVISION INSPECTION

STATEMENT OF PURPOSE

ALL NEW PUBLIC SEWER AND STORM CONSTRUCTION IS SUBJECT TO TELEVISION (TV) INSPECTION PRIOR TO APPROVAL OF AS-BUILT DRAWINGS AND FINAL ACCEPTANCE BY THE AGENCY. SAID REQUIREMENT IS BASED ON ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) REGULATIONS. THE ALSO EXTENDS THIS REQUIREMENT TO: 1) ALL SEWER AND STORM DRAINAGE INFRASTRUCTURE THAT HAS UNDERGONE REPAIR OR MODIFICATION AND 2) ALL SEWER AND STORM DRAINAGE INFRASTRUCTURE THAT IS SITUATED IN AREAS WHERE NEARBY EXCAVATION IS OCCURRING OR HAS OCCURRED. PLEASE NOTE THAT THE REQUIREMENT FOR TV INSPECTION OF STORM DRAINAGE ONLY PERTAINS TO PIPES 24 INCHES OR LARGER.

PART 1 - GENERAL

1.01 BACKGROUND SUMMARY

A. THIS SECTION INCLUDES TV INSPECTION OF SANITARY SEWER AND STORM DRAINAGE (SSSD) INFRASTRUCTURE.

1. INSPECT SSSD INTERIORS USING COLOR, CLOSED-CIRCUIT TELEVISION (CCTV) CAMERA. DOCUMENT INSPECTION ON DVD WITH AUDIO LOCATION AND DATE INFORMATION, DVD TITLE INFORMATION, AND CONTINUOUS TAPE COUNTER. PROVIDE AN ELECTRONIC VERSION IN PDF AND A HARD COPY OF INSPECTION REPORTS.
2. ADDITIONAL TV INSPECTIONS MAY BE REQUIRED AT OTHER STAGES OF OPERATION IF NECESSARY TO MEET THIS SPECIFICATION.

B. RELATED SECTIONS: REFER TO THE FOLLOWING SECTION FOR RELATED WORK:

1. "SANITARY SEWER AND STORM DRAINAGE CLEANING" PER APPLICABLE QCSD.

1.02 SEQUENCE OF WORK

1. TV INSPECTION MUST BE PERFORMED PRIOR TO AS-BUILT ACCEPTANCE.
2. TV INSPECTION SHALL OCCUR NO EARLIER THAN SEVEN (7) DAYS AFTER COMPLETION OF BACKFILL COMPACTION AND AFTER MIRROR AND LEAKAGE TESTING.
3. CLEAN SSSD LINES AND MANHOLES PER APPLICABLE QCSD PRIOR TO TV INSPECTION. ALL PIPES AND MANHOLES SHALL BE FREE FROM ROCKS, MUD, CONSTRUCTION DEBRIS, OR ANY OTHER OBJECTS WHICH HINDER OR LIMIT THE INSPECTION.
4. TV INSPECTION AND CLEANING SHALL BE COORDINATED WITH STAFF A MINIMUM OF TWO (2) WORKDAYS IN ADVANCE.
5. TV INSPECTION SHALL OCCUR PRIOR TO ANY FINAL GRADING OR ASPHALT / CONCRETE WORK IN THE RIGHT OF WAY.
6. ON THE DAY PRIOR TO TV INSPECTION, THE CONTRACTOR SHALL SUPPLY ADEQUATE WATER TO EACH SECTION OF PIPE SUCH THAT WATER RUNS THROUGH EACH DOWNSTREAM MANHOLE. WATER IS NECESSARY IN ORDER TO PROVIDE THE NECESSARY VISUAL INDICATORS OF SAG IN THE PIPE / MANHOLES AND TO PROPERLY MIRROR INSPECT THE LINE. PLEASE NOTE THAT SAG IN A PIPE IS ALSO REFERRED TO IN THE INDUSTRY AS A “BELLY”.

DESIGN AND CONSTRUCTION STANDARDS
TELEVISION INSPECTION (CONT'D)

1.03 SUBMITTALS

A. QUALITY ASSURANCE: SUBMIT ONE EXAMPLE DVD OF PREVIOUS SEWER INSPECTION WORK THAT SHOWS OPERATIONAL AND STRUCTURAL DEFECTS IN SSSD, COMPLETE WITH AUDIO COMMENTARY AND INSPECTION REPORT(S). AGENCY RESERVES THE RIGHT TO BE PRESENT DURING INSPECTION AND RECORDING TO ASSURE QUALITY. PRIOR TO SUBMITTAL FINALIZE THE DVD TO PREVENT RERECORDING.

1. DVD AND INSPECTION REPORTS WILL BE REVIEWED TO DETERMINE IF QUALITY OF CCTV IMAGE IS ACCEPTABLE, IF DEFECTS WERE PROPERLY IDENTIFIED AND DOCUMENTATION WAS IN ACCORDANCE TO THE SPECIFICATIONS OUTLINED IN THIS DETAIL. AGENCY RESERVES THE RIGHT TO REFUSE DVD IF IT IS DEEMED POOR QUALITY.
2. MODIFY EQUIPMENT AND/OR INSPECTION PROCEDURES TO ACHIEVE REPORT MATERIAL OF ACCEPTABLE QUALITY.
3. DO NOT COMMENCE WORK PRIOR TO APPROVAL OF REPORT MATERIAL QUALITY BY AGENCY INSPECTION STAFF.

B. INSPECTION REPORTS: UNLESS OTHERWISE INDICATED, SUBMIT INSPECTION REPORTS TO THE AGENCY THAT INCLUDE THE FOLLOWING AS A MINIMUM:

1. PROJECT TITLE
2. NAME OF: AGENCY
3. STREET NAME OR GENERAL LOCATION
4. TIME OF DAY
5. MANHOLE TO MANHOLE PIPE SECTION WITH AGENCY GEOGRAPHICAL INFORMATION SYSTEM (GIS) DESIGNATIONS. REFERENCE GIS MANHOLE NUMBERS IN REPORT
6. PIPE SEGMENT LENGTH
7. PIPE MATERIAL
8. LINE SIZE
9. COMPASS DIRECTION OF VIEWING
10. DIRECTION OF CAMERA'S TRAVEL
11. OPERATOR NAME AND CERTIFICATION I.D.
12. DIRECTION OF NORMAL WATER FLOW
13. TAPE COUNTER READING AT BEGINNING AND END OF EACH MANHOLE TO MANHOLE PIPE SEGMENT.
14. SAG DOCUMENTATION. A MECHANICAL GAUGE WILL BE MOUNTED IN FRONT OF THE CAMERA TO SHOW THE DEPTH OF ANY STANDING WATER DUE TO SAG IN THE INVERT. THE GAUGE SHALL CLEARLY INDICATE MARKINGS OF ¼ " INCREMENTS. CORRECTIVE ACTION REQUIREMENTS FOR SAG ARE DESCRIBED PER QCSD 445PV-3, TABLE 1.

C. DVDS: PRIOR TO SUBMITTAL, FINALIZE THE DVD TO PREVENT RE-RECORDING. DVDS MUST BE READABLE WITH STANDARD WINDOWS MEDIA PLAYER VIEWING SOFTWARE.

D. MAINTAIN COPY OF ALL INSPECTION DOCUMENTATION (DVDS, DATABASES, AND REPORTS) FOR DURATION OF WORK AND WARRANTY PERIOD.

E. THE CONTRACTOR SHALL BEAR ALL COSTS INCURRED IN CORRECTING DEFICIENCIES FOUND DURING THE TV INSPECTION AND SHALL BEAR THE COST OF FOLLOW-UP TV VERIFICATION FOR REPAIRS. ONLY THE REPAIRED REACHES SHALL REQUIRE FOLLOW-UP TV INSPECTION, MIRROR, AND LEAKAGE TESTING.

F. THE CONTRACTOR SHALL PROVIDE CCTV CAMERA INSPECTION ON RUNS OF SEWER MAIN THAT HAVE BEEN IDENTIFIED AS HAVING DEFICIENCIES OR REQUIRING WARRANTY REPAIRS DURING THE WARRANTY PERIOD.

DESIGN AND CONSTRUCTION STANDARDS
TELEVISION INSPECTION (CONT'D)

TABLE 1 - CORRECTIVE ACTION REQUIREMENTS FOR SAG

DESCRIPTION	OBSERVED SAG	CORRECTION ACTION REQUIRED
8” TO 12” DIA. PIPE	LESS THAN OR EQUAL TO ½”	NONE
8” TO 12” DIA. PIPE	GREATER THAN ½” BUT LESS THAN OR EQUAL TO 1“	YES IF LONGER THAN 10' OR MORE THAN 3 OCCURRENCES IN 100'
12” TO 24” DIA. PIPE	LESS THAN OR EQUAL TO 1”	NONE
12” TO 24” DIA. PIPE	GREATER THAN 1” BUT LESS THAN OR EQUAL TO 1 ½”	YES IF LONGER THAN 20' OR MORE THAN 3 OCCURRENCE IN 100'
GREATER THAN 24” DIA. PIPE	GREATER THAN 1 ½”	YES
PIPE ENTERING OR EXITING MANHOLE	ANY	YES

PART 2 - PRODUCTS

2.01 MATERIALS AND EQUIPMENT

A. DVD: 120 MINUTE MINIMUM, HIGH-QUALITY COLOR, TYPE DVD-R, DVD-RW, OR DVD+R, OR DIGITAL SUBMISSION.

1. AUDIO PORTION OF COMPOSITE DVD SHALL BE SUFFICIENTLY FREE FROM ELECTRICAL INTERFERENCE AND BACKGROUND NOISE TO PROVIDE COMPLETE INTELLIGIBILITY OF ORAL REPORT.
2. STORE IN UPRIGHT POSITION WITH TEMPERATURE RANGE OF 45 TO 80 DEGREES F (7 TO 27 DEGREES C) IN AN APPROPRIATE DVD CASE.
3. IDENTIFY EACH DISK WITH TAPE LABELS SHOWING AGENCY'S NAME, PROJECT NAME, STREET NAME OR GENERAL LOCATION, CONTRACTOR'S NAME, OPERATOR NAME, AND EACH MANHOLE-TO-MANHOLE PIPE SEGMENT OF SEWER LINE REPRESENTED ON DVD. CONTRACTOR SHALL PROVIDE AN INDEX OR TABLE OF CONTENTS IF MORE THAN ONE SEGMENT IS ON THE DISK.

B. TELEVISION INSPECTION CAMERA(S): EQUIPPED WITH ROTATING HEAD, CAPABLE OF 90-DEGREE ROTATION FROM HORIZONTAL AND 360-DEGREE ROTATION ABOUT ITS CENTERLINE.

1. MINIMUM CAMERA RESOLUTION: 400 VERTICAL LINES AND 460 HORIZONTAL LINES.
2. CAMERA LENS: NOT LESS THAN 140 DEGREE VIEWING ANGLE, WITH AUTOMATIC OR REMOTE FOCUS AND IRIS CONTROLS.
3. FOCAL DISTANCE: ADJUSTABLE THROUGH RANGE OF 2 INCHES TO INFINITY.
4. CAMERA(S) SHALL BE INTRINSICALLY SAFE AND OPERATIVE IN 100 PERCENT HUMIDITY CONDITIONS OR FLAMMABLE / EXPLOSIVE CONDITIONS.
5. LIGHTING INTENSITY: REMOTE-CONTROLLED AND ADJUSTED TO MINIMIZE REFLECTIVE GLARE.
6. LIGHTING AND CAMERA QUALITY: PROVIDE CLEAR, IN-FOCUS PICTURE OF ENTIRE INSIDE PERIPHERY OF SEWER

C. FOOTAGE COUNTER: MEASURES DISTANCE TRAVELED BY CAMERA IN SEWER, ACCURATE TO PLUS OR MINUS 2 FEET (0.6 M) IN 1,000 FEET (305 M). ONSCREEN TEXT MUST BE CLEARLY LEGIBLE.

D. DVD TITLING: EACH SEGMENT SHOWN ON THE DVD SHOULD HAVE ITS OWN CHAPTER TITLED WITH THE BEGINNING AND END POINT OF THE PIPE SEGMENT.

DESIGN AND CONSTRUCTION STANDARDS
TELEVISION INSPECTION (CONT'D)

PART 3 - EXECUTION

3.01 INSPECTION REQUIREMENTS

A. ACCESS: AGENCY STAFF SHALL HAVE ACCESS TO OBSERVE TELEVISED OPERATIONS AT ALL TIMES.

B. DVD COMMENTARY: RECORD THE FOLLOWING INFORMATION ON AUDIO TRACK OF INSPECTION DVD: NARRATIVE OF LOCATION, DIRECTION OF VIEW, MANHOLE NUMBERS, PIPE DIAMETER, MATERIAL, DATE, TIME OF INSPECTION, AND LOCATION OF LATERALS AND OTHER KEY FEATURES.

1. DVD SHALL VISUALLY DISPLAY THIS INFORMATION AT BEGINNING AND END OF EACH MANHOLE-TO-MANHOLE PIPE SEGMENT.
2. DVD BETWEEN MANHOLES SHALL VISUALLY DISPLAY LENGTH IN FEET FROM STARTING POINT OF GIVEN SEGMENT.

C. SSSD IDENTIFICATION: DVD AND INSPECTION DOCUMENTATION SHALL INCLUDE LINE AND MANHOLE IDENTIFIERS SHOWN ON DRAWINGS PROVIDED BY CONTRACTOR OR ENGINEER OF RECORD.

D. IMAGE PERSPECTIVE: CAMERA IMAGE SHALL BE DOWN CENTER AXIS OF PIPE WHEN CAMERA IS IN MOTION.

1. PROVIDE 360-DEGREE SWEEP OF PIPE INTERIOR AT JOINTS AND POINTS OF INTEREST, TO MORE FULLY DOCUMENT EXISTING CONDITION OF SEWER.

E. POINTS OF INTEREST INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: DEFECTS, CRACKS, VOIDS, JOINTS, LATERALS, ENCRUSTATIONS, MINERAL DEPOSITS, DEBRIS, SAG, SEDIMENT, AND ANY LOCATION DETERMINED NOT TO BE CLEAN OR PART OF AN IMPROPER LINER INSTALLATION, AND DEFECTS IN LINER THAT INCLUDE, BUT ARE NOT LIMITED TO BUMPS, FOLDS, TEARS, AND DIMPLES.

1. CONTRACTOR SHALL PROVIDE STILL PHOTOS OF ALL CALL-OUTS OR DEFICIENCIES AS PART OF THE INSPECTION REPORT.
2. CABLING SYSTEM EMPLOYED TO TRANSPORT CAMERA AND TRANSMIT ITS SIGNAL SHALL NOT OBSTRUCT CAMERA'S VIEW.

F. SSSD REACH LENGTH: PHYSICALLY MEASURE AND RECORD LENGTH OF EACH SEWER SEGMENT OF PIPE FROM CENTERLINE OF ITS TERMINAL MANHOLES.

G. INSPECTION RATE: CAMERA SHALL BE PULLED THROUGH SEWER IN EITHER DIRECTION, BUT BOTH INSPECTIONS ARE TO BE IN SAME DIRECTION. MAXIMUM RATE OF TRAVEL SHALL BE 30 FEET PER MINUTE WHEN RECORDING.

3.04 FIELD QUALITY CONTROL

A. AGENCY AND ENGINEER OF RECORD WILL REVIEW DVD VIDEO AND REPORTS TO ENSURE COMPLIANCE WITH REQUIREMENTS LISTED IN THIS SPECIFICATION.

B. IF SSSD LINE IS NOT ADEQUATELY CLEAN, IT SHALL BE CLEANED AND TV RE-INSPECTED BY CONTRACTOR AT NO ADDITIONAL COST TO THE AGENCY.

C. ALL TV PIPE INSPECTION OPERATORS MUST BE CERTIFIED BY THE PIPELINE ASSESSMENT CERTIFICATION PROGRAM (PACP) OR THE NATIONAL ASSOCIATION OF SEWER SERVICE COMPANIES (NASSCO).

CONMICSHIELD® ADDITIVE

SPECIFICATIONS FOR SANITARY SEWER STRUCTURES UTILIZING PRECAST CONCRETE, CAST-IN-PLACE AND SHOTCRETE

PRECAST AND CAST-IN-PLACE CONCRETE MANHOLES / SEWER STRUCTURES

- ANTIMICROBIAL ADDITIVE, CONMICSHIELD®, SHALL BE USED TO RENDER THE CONCRETE UNINHABITABLE FOR BACTERIA GROWTH.
- THE LIQUID ANTIBACTERIAL ADDITIVE SHALL BE AN EPA REGISTERED MATERIAL AND THE REGISTRATION NUMBER SHALL BE SUBMITTED FOR APPROVAL PRIOR TO USE IN THE PROJECT.
- THE AMOUNT TO BE USED SHALL BE AS RECOMMENDED BY THE MANUFACTURER OF THE ANTIBACTERIAL ADDITIVE. THIS AMOUNT SHALL BE INCLUDED IN THE TOTAL WATER CONTENT OF THE CONCRETE MIX DESIGN.
- THE ADDITIVE SHALL BE ADDED INTO THE CONCRETE MIX WATER TO INSURE EVEN DISTRIBUTION OF THE ADDITIVE THROUGHOUT THE CONCRETE MIXTURE.
- THE ANTIBACTERIAL ADDITIVE SHALL HAVE SUCCESSFULLY DEMONSTRATED PREVENTION OF MIC IN SANITARY SEWERS FOR TEN OR MORE YEARS.
- FOR PRECAST: THE ANTIBACTERIAL SHALL BE USED BY FACTORY CERTIFIED PRECAST CONCRETE PLANTS.
- FOR CAST-IN-PLACE: THE READY-MIX SUPPLIER SHALL SUBMIT A LETTER OF CERTIFICATION TO THE TOWN AND EOR STATING THAT THE CORRECT AMOUNT AND CORRECT MIXING PROCEDURE WERE FOLLOWED FOR ALL ANTIMICROBIAL CONCRETE.
- AFTER THE CONCRETE TAKES INITIAL SET, THE ANTIMICROBIAL ADDITIVE SHALL BE PLAINLY STENCILED ON THE INTERIOR (AND EXTERIOR FOR PRECAST CONCRETE). CS IDENTIFIER™, GREEN COLORED SEALER SHALL BE USED.

ACCEPTANCE: ACCEPTANCE SHALL BE A LETTER OF CERTIFICATION FROM THE PRECASTER TO THE TOWN AND ENGINEER OF RECORD (EOR) STATING THAT THE CORRECT AMOUNT AND CORRECT MIXING PROCEDURE WERE FOLLOWED FOR ALL ANTIMICROBIAL CONCRETE.

QUALITY ASSURANCE: THE CONCRETE PRECASTER/PRODUCER SHALL RETAIN TWO LABELED SPECIMENS FROM EACH PRODUCTION RUN. ONE SET SHALL BE RETAINED BY THE PRECASTER/PRODUCER AND THE OTHER SET SHALL BE SENT TO CONSHIELD TECHNOLOGIES, INC. OR INDEPENDENT LABORATORY AS DIRECTED BY THE EOR FOR VERIFICATION ON A RANDOM OR AS NEEDED BASIS.

FIELD REPAIRS: FIELD REPAIRS TO THE CONCRETE SHALL BE MADE USING CONMICSHIELD® JOINT SET GROUT PRE-PORTIONED AND FACTORY PACKAGED THAT REQUIRES THE ADDITION OF NO OTHER COMPONENTS. THIS REPAIR GROUT MAY BE USED FOR FILLING JOINTS, LIFT HOLES, DAMAGED AREAS, BENCHES AND SIMILAR.

CONTINUED NEXT PAGE

SHOTCRETE FOR SEWER STRUCTURES

- ANTIMICROBIAL ADDITIVE, CONMICSHIELD® SHALL BE USED TO RENDER THE SHOTCRETE UNINHABITABLE FOR BACTERIA GROWTH.
- THE LIQUID ANTIBACTERIAL ADDITIVE SHALL BE AN EPA REGISTERED MATERIAL AND THE REGISTRATION NUMBER SHALL BE SUBMITTED FOR APPROVAL PRIOR TO USE IN THE PROJECT.
- THE AMOUNT TO BE USED SHALL BE AS RECOMMENDED BY THE MANUFACTURER OF THE ANTIBACTERIAL ADDITIVE. THIS AMOUNT SHALL BE INCLUDED IN THE TOTAL WATER CONTENT OF THE SHOTCRETE MIX DESIGN FOR WET MIX SHOTCRETE.
- FOR BOTH WET AND DRY SHOTCRETE, THE ADDITIVE SHALL BE ADDED INTO THE SHOTCRETE MIX WATER TO ENSURE EVEN DISTRIBUTION OF THE ADDITIVE THROUGHOUT THE SHOTCRETE.
- THE CONTRACTOR PERFORMING THE SHOTCRETE WORK SHALL SUBMIT A LETTER OF CERTIFICATION TO THE TOWN AND EOR STATING THAT THE CORRECT AMOUNT AND CORRECT MIXING PROCEDURE WAS FOLLOWED FOR ALL ANTIMICROBIAL SHOTCRETE.
- THE ANTIBACTERIAL ADDITIVE SHALL HAVE SUCCESSFULLY DEMONSTRATED PREVENTION OF MIC IN SANITARY SEWERS FOR TEN OR MORE YEARS.
- THE ANTIBACTERIAL SHALL BE USED BY FACTORY CERTIFIED APPLICATORS.
- FOR REHABILITATION OF EXISTING SEWER STRUCTURES, CONMICSHIELD® SOLUTION SHALL BE SPRAY APPLIED TO THE CLEANED AND PREPARED INTERIOR SURFACE PRIOR TO APPLYING SHOTCRETE TO ENSURE REMOVAL OF ALL RESIDUAL BACTERIA.
- CONMICSHIELD® COLOR IDENTIFIER-INDICATOR (CS IDENTIFIER ®) SHALL BE SPRAY APPLIED TO THE SURFACE AFTER THE INITIAL SET.

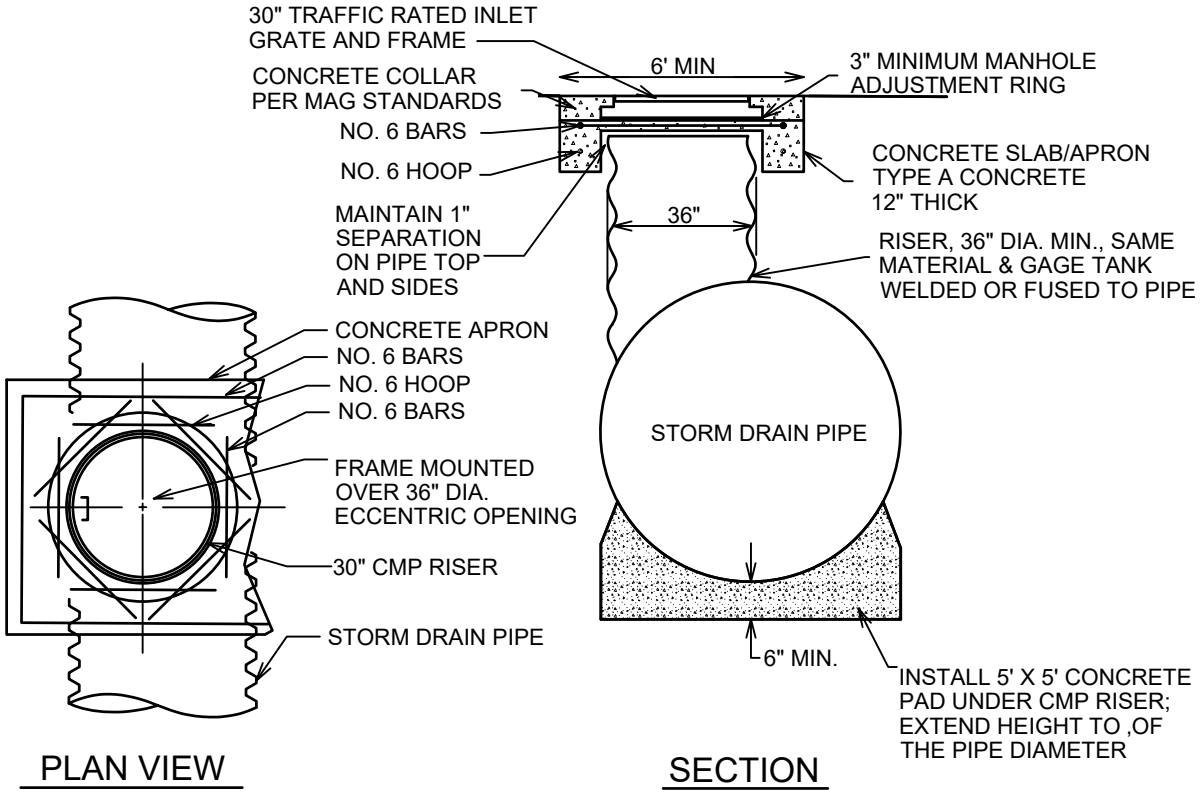
ACCEPTANCE: ACCEPTANCE SHALL BE A LETTER OF CERTIFICATION FROM THE CONCRETE PROVIDER TO THE TOWN AND EOR STATING THAT THE CORRECT AMOUNT AND CORRECT MIXING PROCEDURE WERE FOLLOWED FOR ALL ANTIMICROBIAL CONCRETE.

QUALITY ASSURANCE: THE CONTRACTOR SHALL RETAIN TWO LABELED SPECIMENS FROM EACH BATCH. ONE SET SHALL BE RETAINED BY THE CONTRACTOR AND THE OTHER SET SHALL BE SENT TO CONSHIELD TECHNOLOGIES, INC. OR INDEPENDENT LABORATORY AS DIRECTED BY THE EOR FOR VERIFICATION ON A RANDOM OR AS NEEDED BASIS.

FIELD REPAIRS: FIELD REPAIRS TO THE PRECAST CONCRETE SHALL BE MADE USING CONMICSHIELD® JOINT SET GROUT PRE-PORTIONED AND FACTORY PACKAGED THAT REQUIRES THE ADDITION OF NO OTHER COMPONENTS. THIS REPAIR GROUT MAY BE USED FOR FILLING JOINTS, LIFT HOLES, DAMAGED AREAS, BENCHES AND SIMILAR.

CONMICSHIELD® LIQUID ANTIMICROBIAL ADMIXTURE SHALL BE OBTAINED FROM CONSHIELD TECHNOLOGIES, INC. ACTIVE INGREDIENT EPA REGISTRATION 75174-2-47000.

CONSHIELD TECHNOLOGIES INC.
1779 CHESSIE LANE
OTTAWA, IL 61350
PHONE: 515-276-9610
FAX: 815-433-0107
HTTP://WWW.CONSHIELD.COM INFO@CONSHIELD.COM

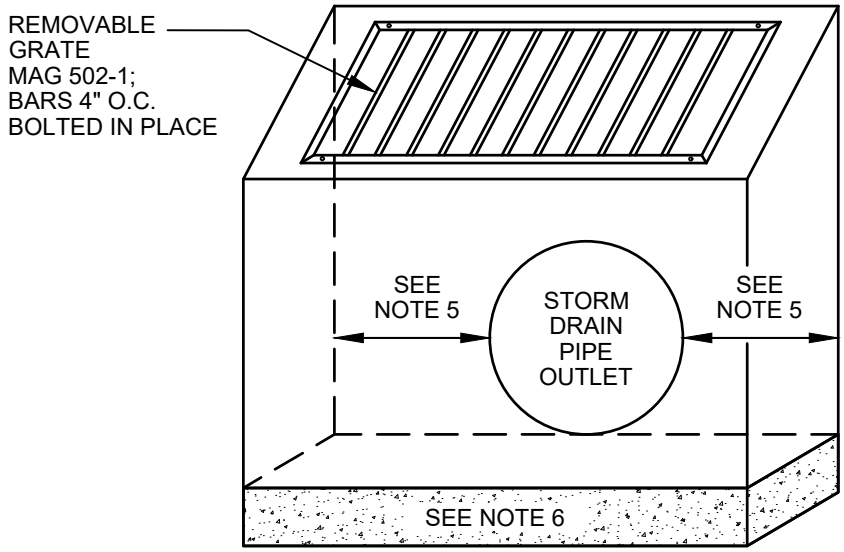


NOTES:

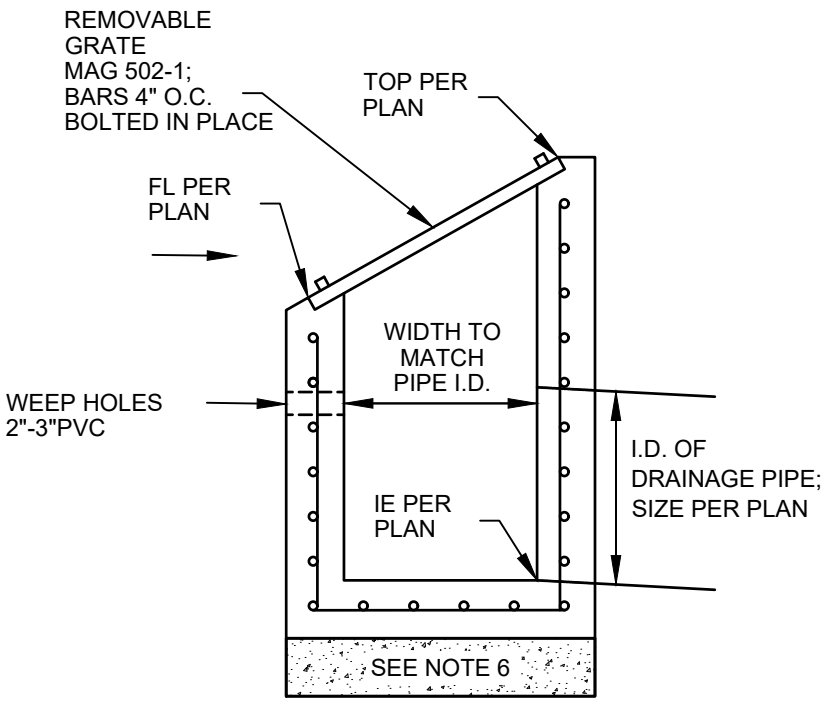
1. USE ADJUSTING BLOCKS AS REQUIRED TO BRING FRAME TO GRADE
2. ALL MATERIALS MUST BE CORROSION RESISTANT.
3. PREFABRICATED TEES ARE PERMITTED INSTEAD OF CMP ACCESS RISERS

CMP MANHOLE ACCESS RISER

QUAD CITY STANDARD DETAIL	CMP MANHOLE ACCESS RISER	REVISED: 11/18/2025	DETAIL No. 523PV-3



FRONT VIEW



SIDE VIEW

NOTES:

1. HIGH POINT OF HEADWALL SHALL NOT PROJECT MORE THAN 3" ABOVE GROUND.
2. ALL CONCRETE SHALL BE CLASS A.
3. ALL REBAR SHALL BE NO. 4, 12" O.C. AND 3" CLEAR TO INSIDE OF WALLS AND FLOOR.
4. ALL CONCRETE THICKNESS SHALL BE 6".
5. 12" FROM OUTSIDE OF PIPE TO OUTSIDE OF CONCRETE.
6. MINIMUM 6" A.B. UNDER CONCRETE, COMPACTED TO 95%.

QUAD CITY STANDARD DETAIL	INLET DROP STRUCTURE	REVISED: 11/18/2025	DETAIL No. 523PV-6

HYDROSEED REQUIREMENTS

HYDROSEEDING CONSISTS OF SCARIFYING THE SURFACE OF DISTURBED AREAS AND APPLYING A MIXTURE OF FIBER, SEED, FERTILIZER, AND STABILIZING EMULSION.

CONTRACTOR / DEVELOPER SHALL UTILIZE THE SEED MIX NOTED PER TABLE 1 FOR RESTORATION UNLESS OTHERWISE APPROVED BY THE TOWN. THE TOWN INSPECTOR SHALL BE NOTIFIED WHEN HYDROSEEDING WILL BE PERFORMED AND BY WHOM AT LEAST 48 HOURS IN ADVANCE. THE INSPECTOR, AT HIS/HER OPTION, MAY WITNESS APPLICATION TO VERIFY PROCEDURES ARE BEING FOLLOWED CORRECTLY.

THE DEVELOPER / CONTRACTOR IS RESPONSIBLE FOR PROVIDING CERTIFICATION OF SEED MIX TO THE TOWN INSPECTOR DURING WITNESS ACTIVITIES OR IF NO WITNESS OCCURS, PRIOR TO PUNCH LIST INSPECTION PERFORMED BY THE TOWN. STABILIZING EMULSION AND FERTILIZER MIX SHALL BE DETERMINED BY THE CONTRACTOR TO INSURE GERMINATION AT THE RATES SPECIFIED BY THE TOWN.

ACCEPTANCE CRITERIA SHALL BE 70% SEED GERMINATION WITHIN A ONE YEAR PERIOD. AREAS NOT EVIDENCING A MINIMUM OF 70% GERMINATION WITHIN THE ONE YEAR PERIOD, AS DETERMINED BY THE TOWN, SHALL BE RE-SEEDED AT NO COST TO THE TOWN. WHEN ACCEPTABLE FINAL STABILIZATION HAS BEEN DETERMINED, IF REQUIRED, A NOTICE OF TERMINATION SHALL BE FILED BY THE CONTRACTOR.

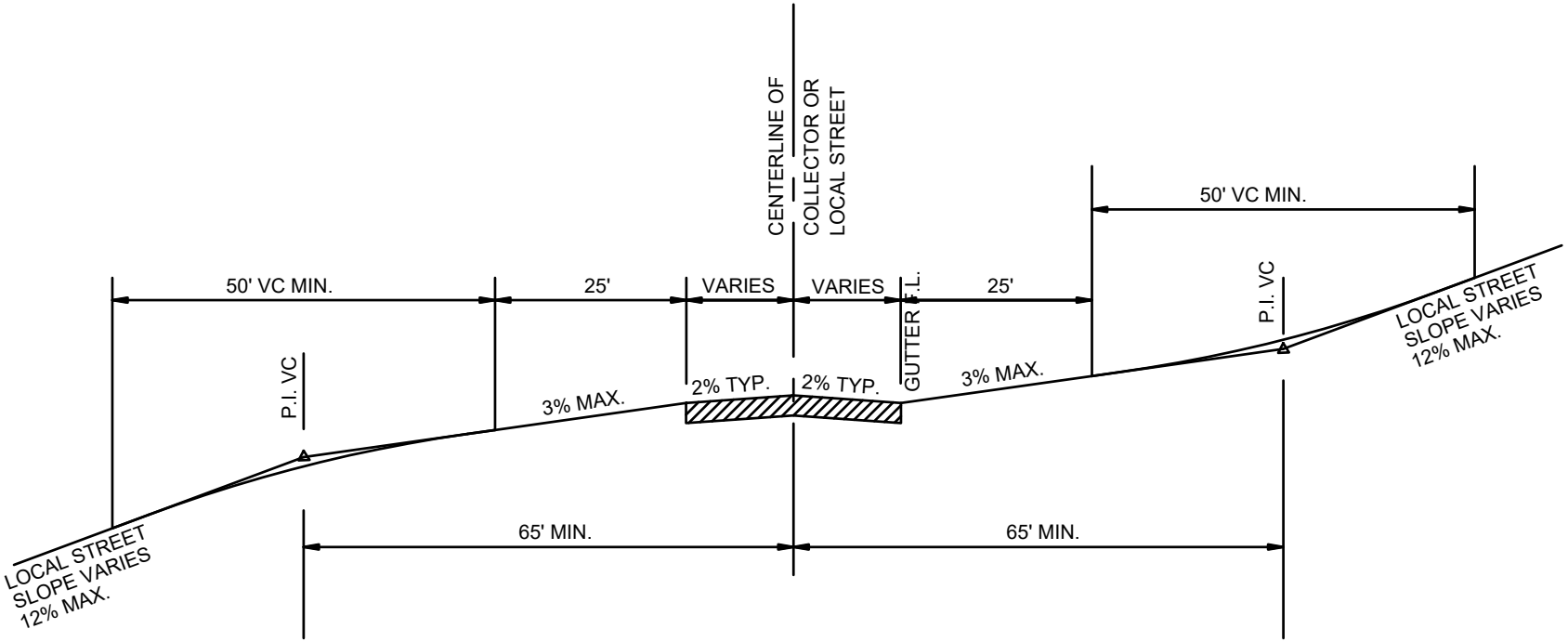
TABLE 1 - SOUTHWEST NATIVE GRASS SEED MIX

BOTANICAL NAME	COMMON NAME
BOUTELOUA CURTIPENDULA	SIDEOATS GRAMA
BOUTELOUA GRACILIS	BLUE GRAMA
SETARIA VULPISETA	PLAINS BRISTLEGRASS
SPOROBOLUS AIROIDES	ALKALI SACATON
ACHNATHERUM HYMENOIDES	INDIAN RICEGRASS
MUHLENBERGIA WRIGHTII	SPIKE MUHLY
SPOROBOLUS CRYPTANDRUS	SAND DROPSEED

THE SEED MIX SHALL BE DISPERSED AT A MINIMUM OF 8 POUNDS PER ACRE. THE SOUTHWEST NATIVE GRASS SEED MIX IS AVAILABLE FROM A NUMBER OF VENDORS. TWO OF THEM, CURRENT PER DEVELOPMENT OF THIS PVSD, ARE AS FOLLOWS:

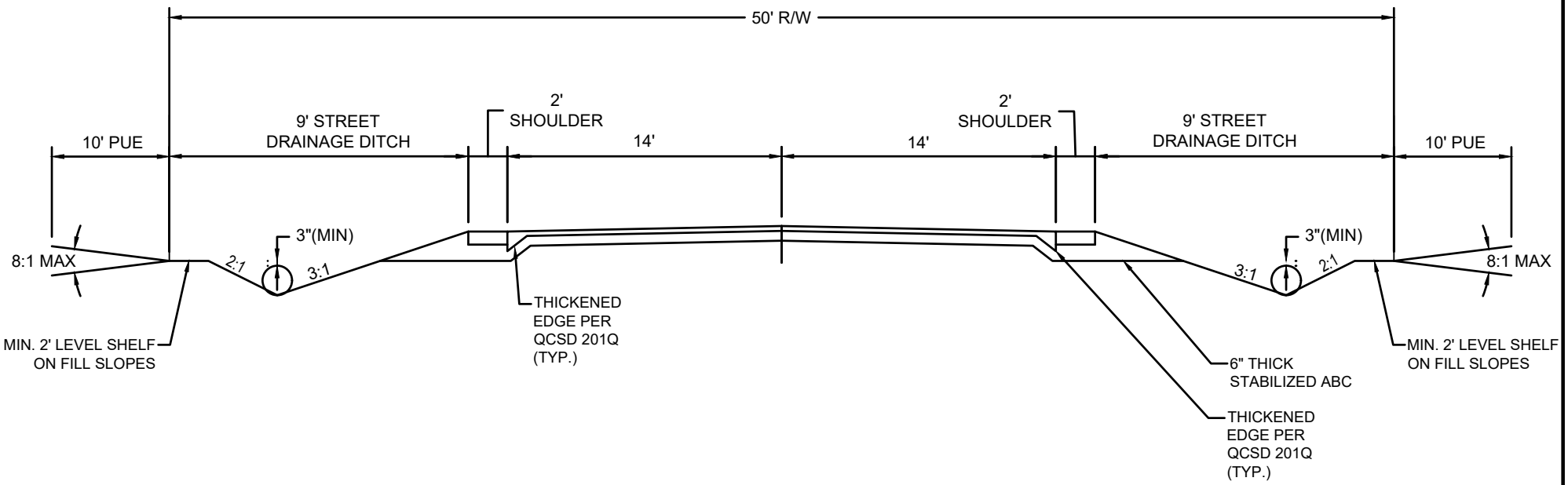
OUTSIDE PRIDE
HTTP://WWW.OUTSIDEPRIDE.COM

SEEDLAND
HTTP://WWW.SEEDLAND.COM



THIS STANDARD SHALL BE APPLIED TO EACH MINOR LEG OF AN INTERSECTION THAT EXCEEDS 8% RUNNING SLOPE WITHIN THE INTERSECTION. 3% MAY BE ALLOWED WITHIN THE INTERSECTION TO BE DETERMINED BY AGENCY ENGINEER. GRADES SHOWN ARE AT MINOR STREET CENTERLINE. INDIVIDUAL CONSIDERATION SHALL BE GIVEN AT THE CURB LINE TO INSURE POSITIVE DRAINAGE AT THE VALLEY GUTTER. SUITABLE MEASURES SHALL BE TAKEN WHERE NECESSARY TO INSURE THAT THE PROPER DRAINAGE PATTERN IS OBTAINED AT THE INTERSECTION. LARGER SCALE INTERSECTION DETAILS MAY BE REQUIRED.

QUAD CITY STANDARD DETAIL	INTERSECTION APPROACH TYPICAL SECTION	REVISED: 11/18/2025	DETAIL No. 600Q



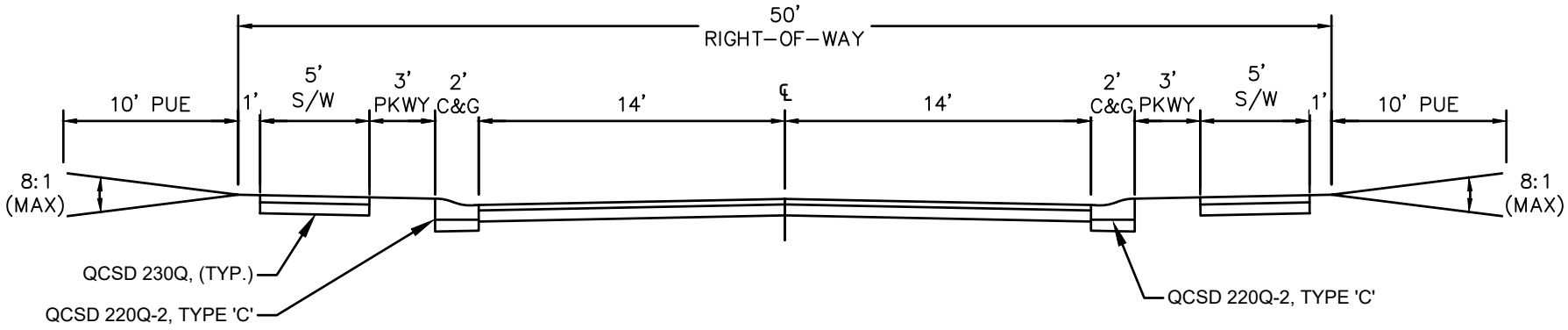
NOTES:

1. PLACE "NO PARKING" SIGNS ON BOTH SIDES OF STREET AT 300' SPACING.
2. MINIMUM 3" AC OVER 6" ABC PAVEMENT STRUCTURE OR PER APPROVED PAVEMENT DESIGN REPORT, WHICHEVER IS GREATER.
3. SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

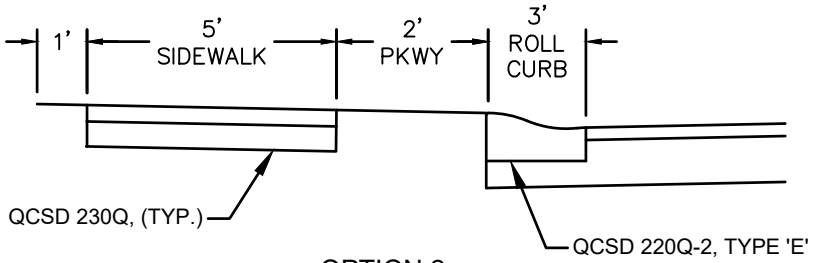
   CITY OF PRESCOTT
   AGGREGATE BASE COURSE COMPACTION PER COP MAG SUPPLEMENT 310.3. SUB-GRADE PREP PER COP MAG SUPPLEMENT 301.3 AND SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 301.3.

   TOWN OF PRESCOTT VALLEY
   AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE PREP AND COMPACTION PER MAG 301.3

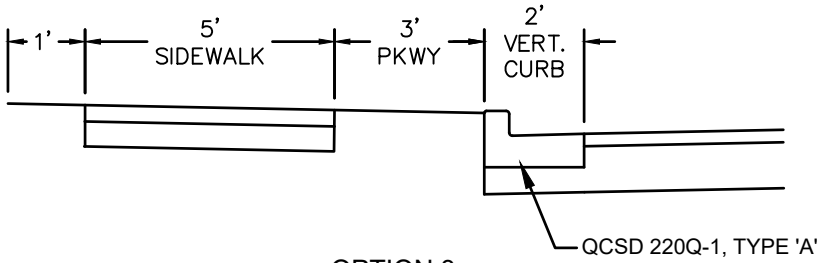
QUAD CITY STANDARD DETAIL	RURAL LOCAL RESIDENTIAL X-SECTION	REVISED: 11/18/2025	DETAIL No. 601Q



OPTION 1
QCSD 220Q-2, TYPE 'C'



OPTION 2
QCSD 220Q-1, TYPE 'E'



OPTION 3
QCSD 220Q-1, TYPE 'A'

NOTES:

1. VERTICAL CURB SHALL BE USED AT CURB RETURNS, ADJACENT TO COMMON AREAS, AND OTHER AREAS TO RESTRICT VEHICLE ACCESS.
2. ROLLED CURB SHALL BE USED ADJACENT TO RESIDENTIAL LOTS.
3. SIX INCH HIGH ROLLED CURB, QCSD 220Q-2, 'TYPE E', MAY BE USED TO INCREASE STREET DRAINAGE CAPACITY.
4. MINIMUM 4" AC OVER 6" ABC PAVEMENT STRUCTURE OR PER APPROVED PAVEMENT DESIGN REPORT, WHICHEVER IS GREATER.
3. SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

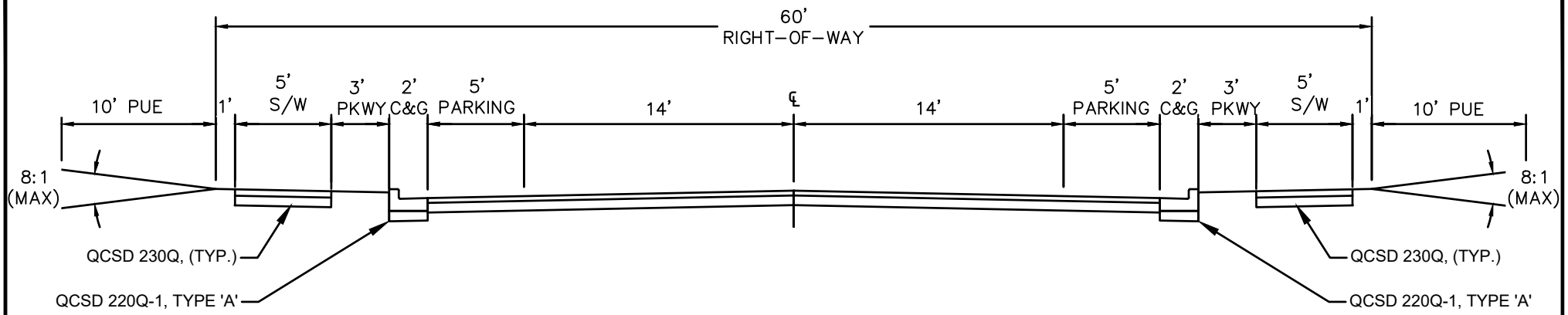
CITY OF PRESCOTT

AGGREGATE BASE COURSE COMPACTION PER COP MAG SUPPLEMENT 310.3. SUB-GRADE PREP PER COP MAG SUPPLEMENT 301.3 AND SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 301.3.

TOWN OF PRESCOTT VALLEY

AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE PREP AND COMPACTION PER MAG 301.3

QUAD CITY STANDARD DETAIL	LOCAL RESIDENTIAL X-SECTION	REVISED: 11/18/2025	DETAIL No. 602Q



OPTION 1
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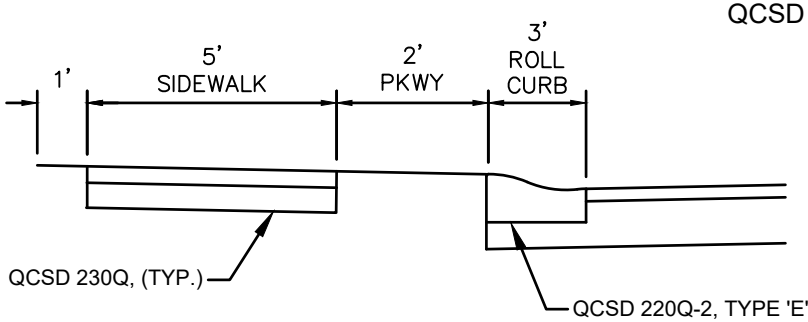
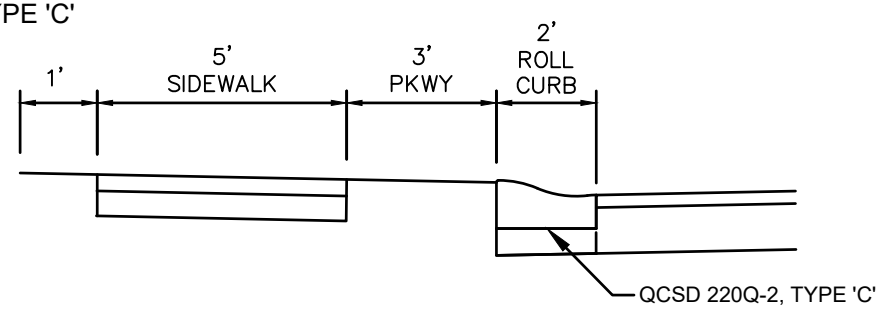


OPTION 2
QCSD 220Q-1, TYPE 'E'



OPTION 3
QCSD 220Q-1, TYPE 'A'

NOTES:

1. VERTICAL CURB SHALL BE USED AT CURB RETURNS, ADJACENT TO COMMON AREAS, AND OTHER AREAS TO RESTRICT VEHICLE ACCESS.
2. ROLLED CURB SHALL BE USED ADJACENT TO RESIDENTIAL LOTS.
3. SIX INCH HIGH ROLLED CURB, QCSD 220Q-2, TYPE 'E', MAY BE USED TO INCREASE STREET DRAINAGE CAPACITY.
4. MINIMUM 4" AC OVER 6" ABC PAVEMENT STRUCTURE OR PER APPROVED PAVEMENT DESIGN REPORT, WHICHEVER IS GREATER.
3. SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

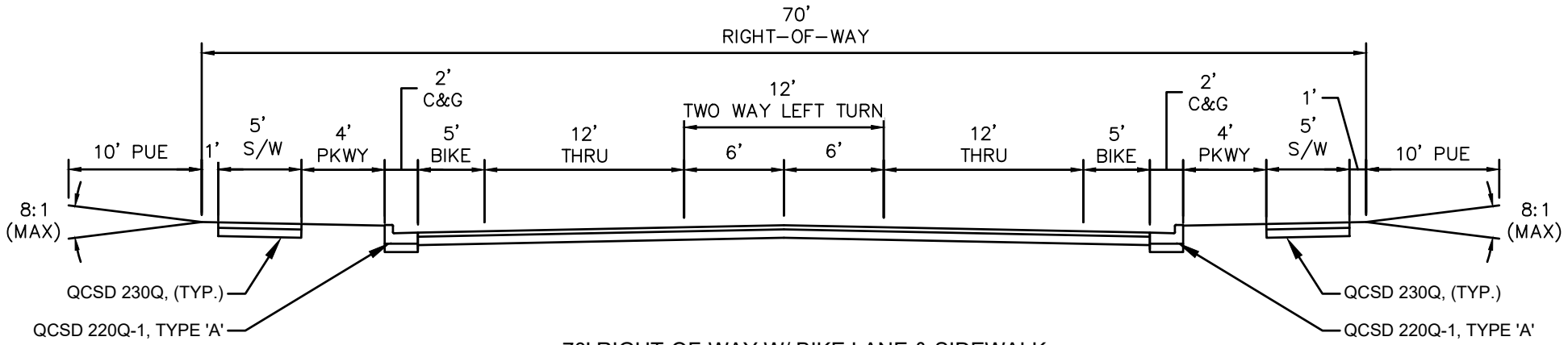
CITY OF PRESCOTT

AGGREGATE BASE COURSE COMPACTION PER COP MAG SUPPLEMENT 310.3. SUB-GRADE PREP PER COP MAG SUPPLEMENT 301.3 AND SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 301.3.

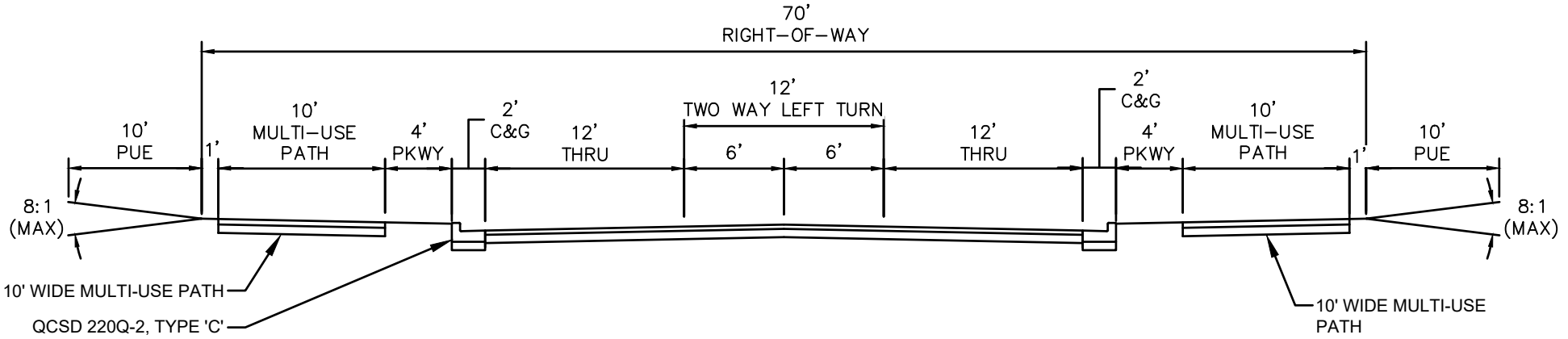
TOWN OF PRESCOTT VALLEY

AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE PREP AND COMPACTION PER MAG 301.3

QUAD CITY STANDARD DETAIL	RESIDENTIAL COLLECTOR X-SECTION	REVISED: 11/18/2025	DETAIL No. 603Q



70' RIGHT-OF-WAY W/ BIKE LANE & SIDEWALK



70' RIGHT-OF-WAY W/ MULTI-USE PATH

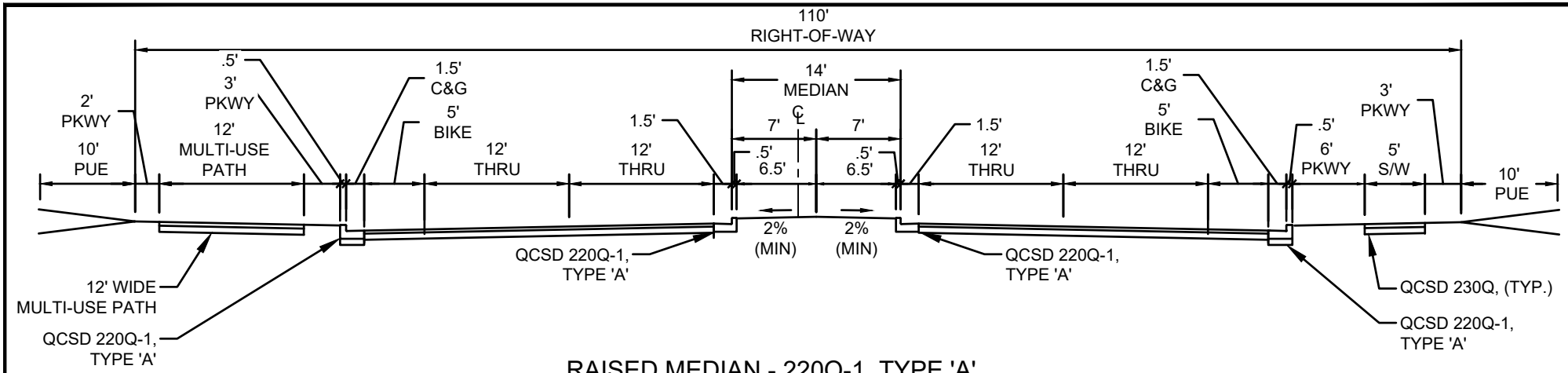
NOTES:

1. MINIMUM 5" AC OVER 8" ABC PAVEMENT STRUCTURE OR PER APPROVED PAVEMENT DESIGN REPORT, WHICHEVER IS GREATER.
2. MULTI-USE PATH IS TO BE 12' (MIN) WIDE IF ON ONE SIDE OF THE STREET. MULTI-USE PATH CAN BE REDUCED TO 10' (MIN) WIDE IF ON BOTH SIDES OF THE STREET OR A COMBINATION THEREOF IF APPROVED THROUGH REVIEW PROCESS. MULTI-USE PATH SHALL BE 5" AC OR CONCRETE OVER 7" ABC OR PER APPROVED GEOTECHNICAL RECOMMENDATION.
3. SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

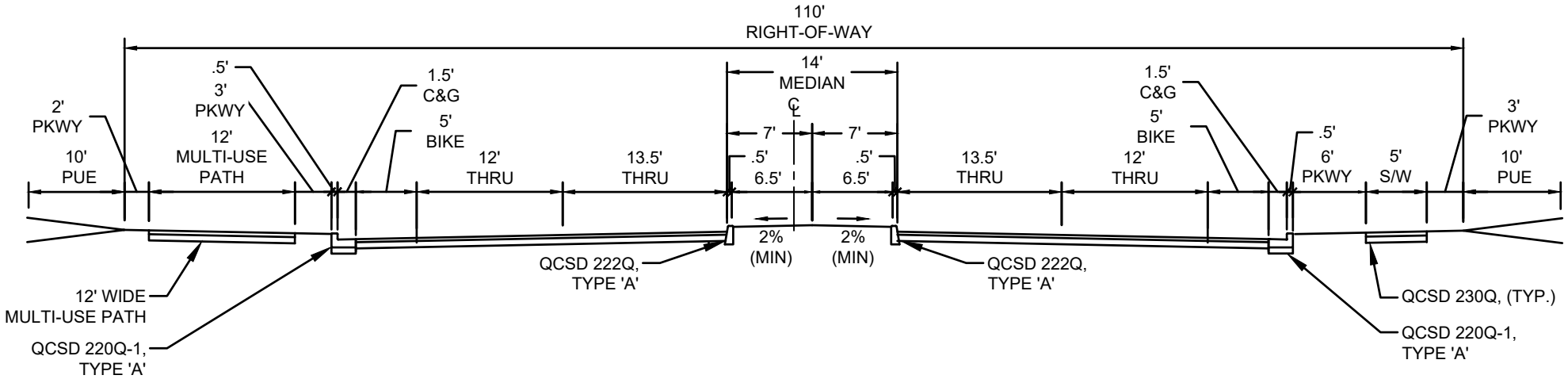
CITY OF PRESCOTT
AGGREGATE BASE COURSE COMPACTION PER COP MAG SUPPLEMENT 310.3. SUB-GRADE PREP PER COP MAG SUPPLEMENT 301.3 AND SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 301.3.

TOWN OF PRESCOTT VALLEY
AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE PREP AND COMPACTION PER MAG 301.3

QUAD CITY STANDARD DETAIL	COMMERCIAL/INDUSTRIAL COLLECTOR X-SECTION	REVISED: 11/18/2025	DETAIL No. 604Q



RAISED MEDIAN - 220Q-1, TYPE 'A'



RAISED MEDIAN - 222Q, TYPE 'A'

NOTE:

1. MINIMUM 6" AC OVER 10" ABC PAVEMENT STRUCTURE OR PER APPROVED PAVEMENT DESIGN REPORT, WHICHEVER IS GREATER.

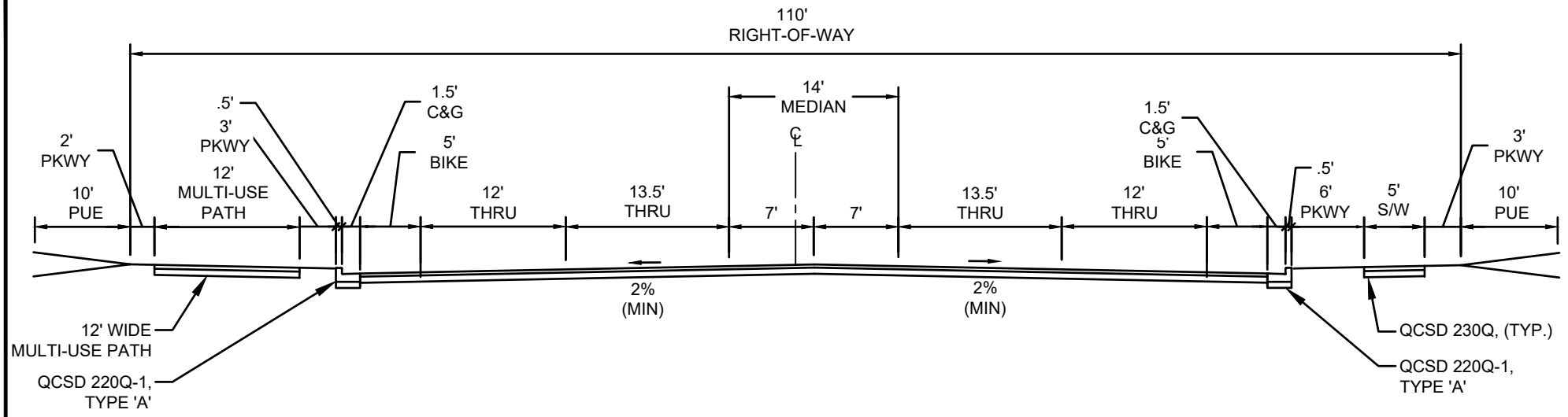
2. SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

   CITY OF PRESCOTT
   AGGREGATE BASE COURSE COMPACTION PER COP MAG SUPPLEMENT 310.3. SUB-GRADE PREP PER COP MAG SUPPLEMENT 301.3 AND SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 301.3.

   TOWN OF PRESCOTT VALLEY
   AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE PREP AND COMPACTION PER MAG 301.3

3. MULTI-USE PATH IS TO BE 12' (MIN) WIDE IF ON ONE SIDE OF THE STREET. MULTI-USE PATH CAN BE REDUCED TO 10' (MIN) WIDE IF ON BOTH SIDES OF THE STREET. UNLESS APPROVED THROUGH REVIEW PROCESS. MULTI-USE PATH SHALL BE 5" AC OR CONCRETE OVER 7" ABC OR PER APPROVED GEOTECHNICAL RECOMMENDATION.

QUAD CITY STANDARD DETAIL	MINOR ARTERIAL X-SECTION	REVISED: 11/18/2025	DETAIL No. 605Q-1



CENTER TWO-WAY LEFT TURN LANE

NOTE:

1. MINIMUM 6" AC OVER 10" ABC PAVEMENT STRUCTURE OR PER APPROVED PAVEMENT DESIGN REPORT, WHICHEVER IS GREATER.

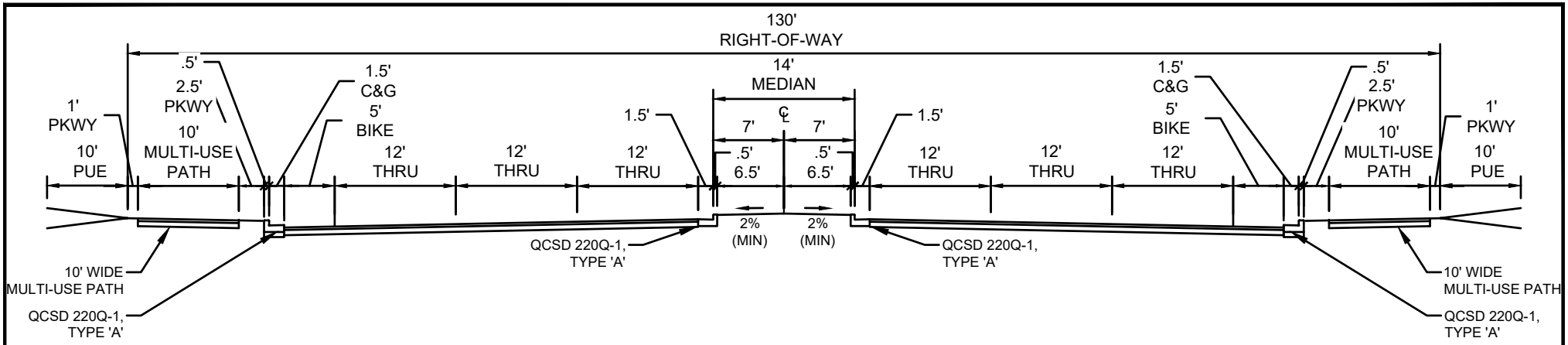
2. SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

3. CITY OF PRESCOTT
   AGGREGATE BASE COURSE COMPACTION PER COP MAG SUPPLEMENT 310.3. SUB-GRADE PREP PER COP MAG SUPPLEMENT 301.3 AND SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 301.3.

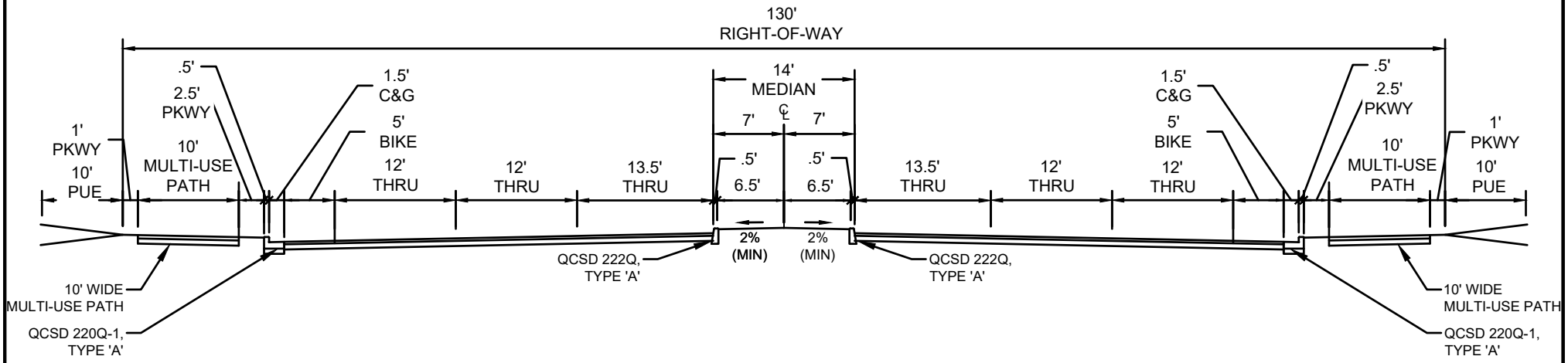
   TOWN OF PRESCOTT VALLEY
   AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE PREP AND COMPACTION PER MAG 301.3

4. MULTI-USE PATH IS TO BE 12' (MIN) WIDE IF ON ONE SIDE OF THE STREET. MULTI-USE PATH CAN BE REDUCED TO 10' (MIN) WIDE IF ON BOTH SIDES OF THE STREET. UNLESS APPROVED THROUGH REVIEW PROCESS. MULTI-USE PATH SHALL BE 5" AC OR CONCRETE OVER 7" ABC OR PER APPROVED GEOTECHNICAL RECOMMENDATION.

QUAD CITY STANDARD DETAIL	MINOR ARTERIAL X-SECTION	REVISED: 11/18/2025	DETAIL No. 605Q-2



RAISED MEDIAN - 220Q-1, TYPE 'A'



RAISED MEDIAN - 222Q, TYPE 'A'

NOTE:

1. MINIMUM 6" AC OVER 10" ABC PAVEMENT STRUCTURE OR PER APPROVED PAVEMENT DESIGN REPORT, WHICHEVER IS GREATER.

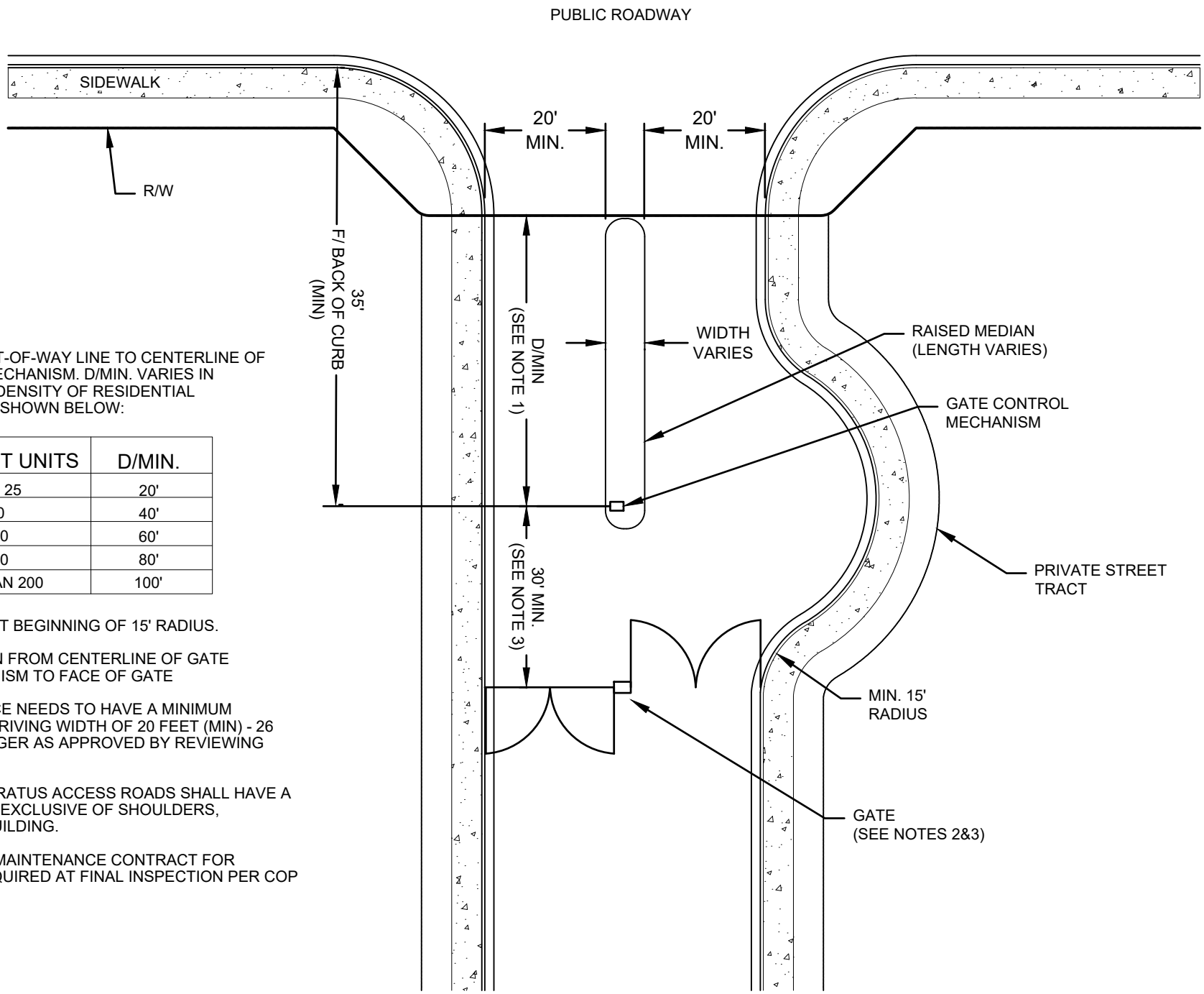
2. SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

   CITY OF PRESCOTT
   AGGREGATE BASE COURSE COMPACTION PER COP MAG SUPPLEMENT 310.3. SUB-GRADE PREP PER COP MAG SUPPLEMENT 301.3 AND SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 301.3.

   TOWN OF PRESCOTT VALLEY
   AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE PREP AND COMPACTION PER MAG 301.3

3. MULTI-USE PATH IS TO BE 12' (MIN) WIDE IF ON ONE SIDE OF THE STREET. MULTI-USE PATH CAN BE REDUCED TO 10' (MIN) WIDE IF ON BOTH SIDES OF THE STREET. UNLESS APPROVED THROUGH REVIEW PROCESS. MULTI-USE PATH SHALL BE 5" AC OR CONCRETE OVER 7" ABC OR PER APPROVED GEOTECHNICAL RECOMMENDATION.

QUAD CITY STANDARD DETAIL	MAJOR ARTERIAL X-SECTION	REVISED: 11/18/2025	DETAIL No. 606Q



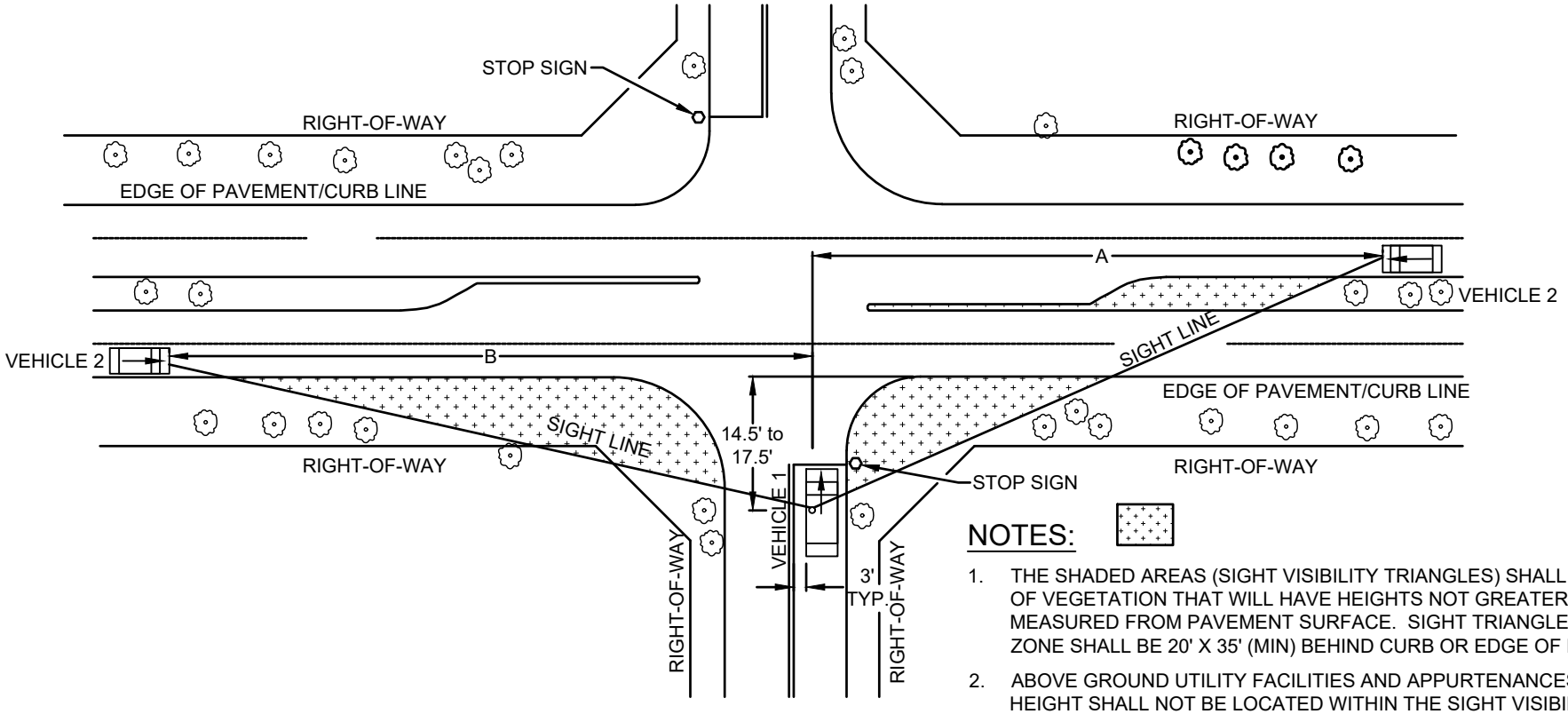
NOTES:

1. D/MIN. FROM RIGHT-OF-WAY LINE TO CENTERLINE OF GATE CONTROL MECHANISM. D/MIN. VARIES IN ACCORDANCE TO DENSITY OF RESIDENTIAL DEVELOPMENT AS SHOWN BELOW:

DEVELOPMENT UNITS	D/MIN.
LESS THAN 25	20'
25 TO 100	40'
101 TO 150	60'
151 TO 200	80'
GREATER THAN 200	100'

2. GATE INSTALLED AT BEGINNING OF 15' RADIUS.
3. 30' MIN. DIMENSION FROM CENTERLINE OF GATE CONTROL MECHANISM TO FACE OF GATE
4. ROADWAY SURFACE NEEDS TO HAVE A MINIMUM UNOBSTRUCTED DRIVING WIDTH OF 20 FEET (MIN) - 26 FEETWIDE OR LARGER AS APPROVED BY REVIEWING AGENCY.
5. AERIAL FIRE APPARATUS ACCESS ROADS SHALL HAVE A MIN. WIDTH OF 26', EXCLUSIVE OF SHOULDERS, ADJACENT TO A BUILDING.
6. COPY OF YEARLY MAINTENANCE CONTRACT FOR ACCESS GATE REQUIRED AT FINAL INSPECTION PER COP FIRE CODE 103P.

QUAD CITY STANDARD DETAIL	PRIVATE GATED ACCESS AT PUBLIC ROADWAY	REVISED: 11/18/2025	DETAIL No. 610Q



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

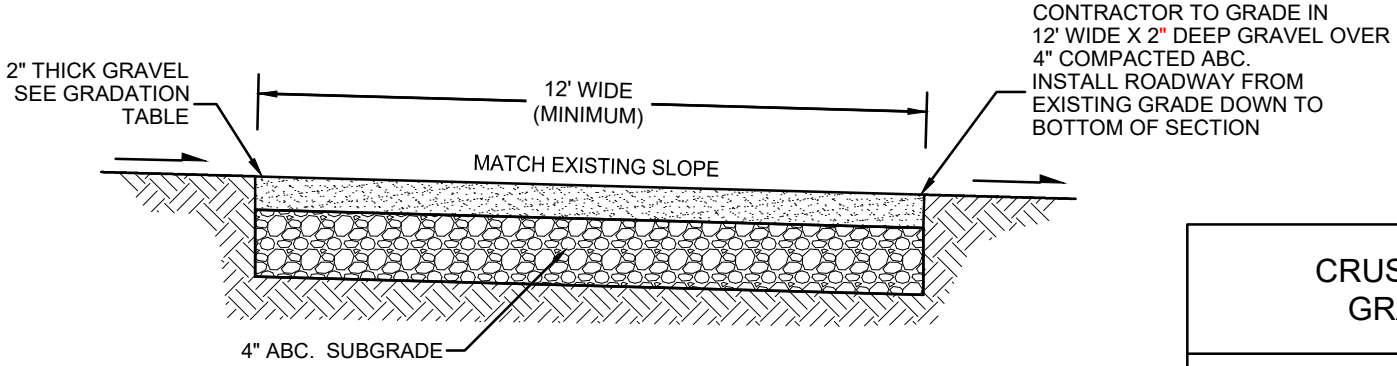
* 'DESIGN SPEED' REFERS TO NEW ROADS. PER REVIEWING AGENCY DISCRETION, FOR EXISTING ROADS, 'POSTED SPEEDS + 5 MPH' MAY BE USED IF 'DESIGN SPEED' IS NOT AVAILABLE.

NOTES:

1. THE SHADED AREAS (SIGHT VISIBILITY TRIANGLES) SHALL BE KEPT CLEAR OF VEGETATION THAT WILL HAVE HEIGHTS NOT GREATER THAN 3' AS MEASURED FROM PAVEMENT SURFACE. SIGHT TRIANGLE MINIMUM CLEAR ZONE SHALL BE 20' X 35' (MIN) BEHIND CURB OR EDGE OF PAVEMENT.
2. ABOVE GROUND UTILITY FACILITIES AND APPURTENANCES ABOVE 3 FEET IN HEIGHT SHALL NOT BE LOCATED WITHIN THE SIGHT VISIBILITY TRIANGLES.
3. SIGNAGE APPROVED BY THE CITY FOR USE IN THE ROW MAY BE LOCATED WITHIN THE SIGHT VISIBILITY TRIANGLES.
4. THE LINE OF SIGHT SHALL BE SHOWN AT INTERSECTIONS ON ALL LANDSCAPING PLANS, GRADING PLANS, AND TENTATIVE TRACT PLANS WHERE SAFE SIGHT DISTANCE IS QUESTIONABLE. IN CASES WHERE AN INTERSECTION IS LOCATED ON A VERTICAL CURVE, A PROFILE OF THE SIGHT LINE MAY BE REQUIRED.
5. TO ESTABLISH THE LINE OF SIGHT, VEHICLE 1 SHOULD BE POSITIONED SO THAT THE DRIVERS EYE IS 14.5 TO 17.5' BACK FROM THE EDGE OF PAVEMENT/ FACE OF CURB AND 3.5' ABOVE THE PAVEMENT. DRIVER IS ASSUMED TO BE 3.0' RIGHT OF CENTER LINE IN LANE.
6. APPROACH VEHICLE (VEHICLE 2) IS POSITIONED IN THE CENTER OF ITS LANE AND ASSUMED TO BE 4.25' ABOVE THE PAVEMENT.
7. DRAWING DEPICTS TYPICAL PASSENGER CAR SITUATION WITHOUT PROFILE GRADES AND/OR HORIZONTAL CURVES. ADJUSTMENTS FOR GRADES SHALL BE MADE PER AASHTO.
8. EASEMENTS TO BE SHOWN AND DIMENSIONED ON FINAL PLAT.

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

QUAD CITY STANDARD DETAIL	INTERSECTION SIGHT VISIBILITY TRIANGLES	REVISED: 11/18/2025	DETAIL No. 611Q



DETAIL "A"
NOT TO SCALE

SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PLACED AND COMPACTED AS SPECIFIED ON PLANS OR GEOTECHNICAL REPORT AND IN ACCORDANCE WITH THE FOLLOWING:

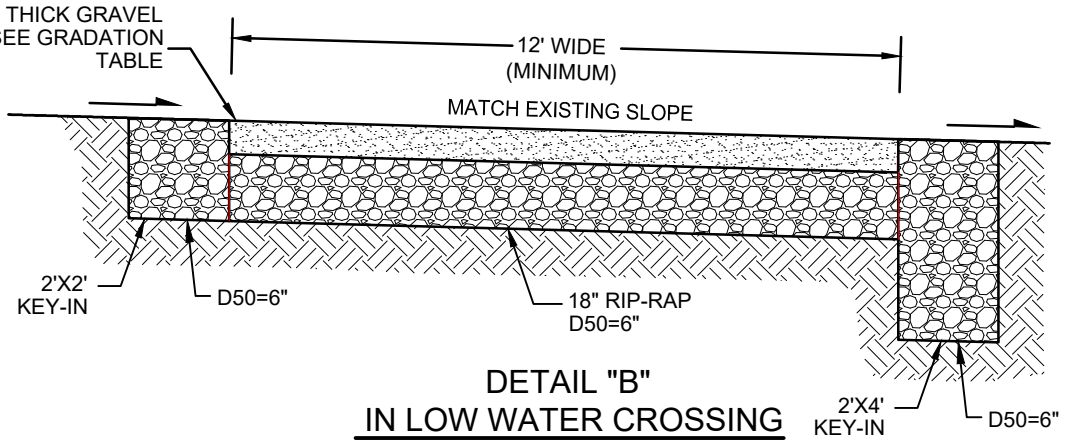
CITY OF PRESCOTT
AGGREGATE BASE COURSE COMPACTION PER COP MAG SUPPLEMENT 310.3. SUB-GRADE PREP PER COP MAG SUPPLEMENT 301.3 AND SUB-GRADE COMPACTION PER COP MAG SUPPLEMENT 301.3.

TOWN OF PRESCOTT VALLEY
AGGREGATE BASE COURSE PER MAG 310.3 AND SUB-GRADE PREP AND COMPACTION PER MAG 301.3

CRUSHED AGGREGATE* GRADATION TABLE	
SIEVE SIZES (SQUARE OPENINGS)	PERCENTAGE BY WEIGHT PASSING SIEVE
2"	100
1.5"	50-90
1.25"	30-50
1"	20-30
0.75"	0-20

*CRUSHED AGGREGATE SHALL CONSIST OF CRUSHED ROCK WITH 75% OF THE SPECIFIED SIZE HAVING AT LEAST TWO FRACTURED FACE TESTED IN ACCORDANCE WITH ARIZ-212.

GRADATION TABLE FOR
ROAD SECTIONS A & B

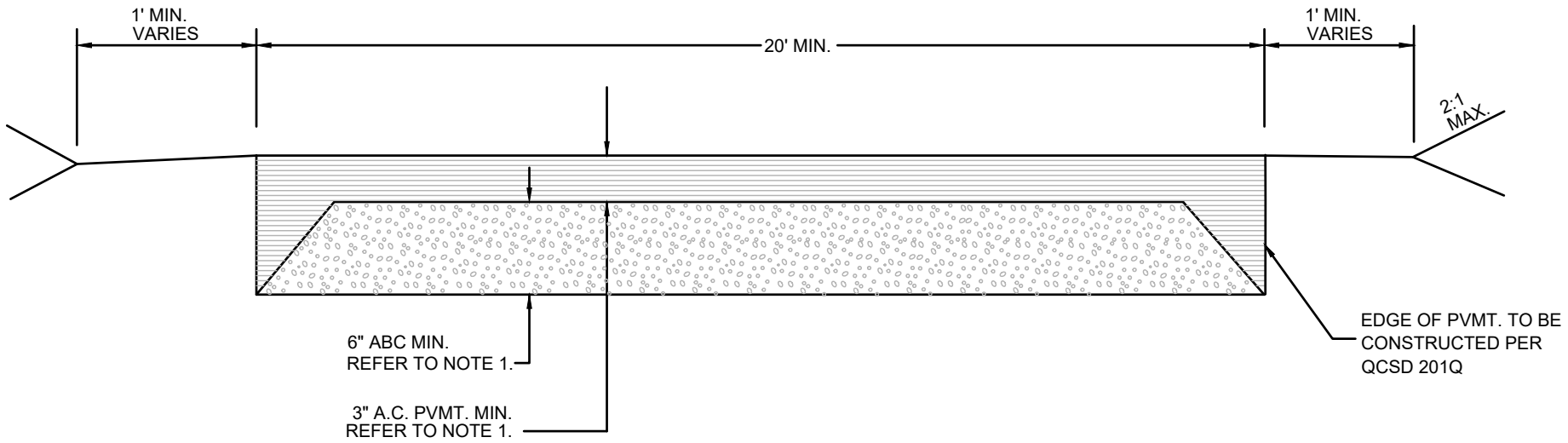


DETAIL "B"
IN LOW WATER CROSSING
NOT TO SCALE

NOTES:

1. MATCH EXISTING GRADES AND TOPOGRAPHY.
2. ROAD AT WASH CROSSINGS TO BE D50 = 6" RIPRAP, 2'-WIDE KEY-IN TO DEPTH, 2' UPSTREAM AND 4' DOWNSTREAM.
3. FILL VOIDS WITH NATIVE MATERIAL AFTER PLACEMENT
4. ACTUAL STRUCTURAL SECTION SHALL BE DETERMINED BY GEO-TECHNICAL ENGINEER & DESIGNED FOR MINIMUM 90,000 LB VEHICLE IF USED AS A FIRE ACCESS, REFER TO QCSD 614Q.

QUAD CITY STANDARD DETAIL	UTILITY EASEMENT ACCESS ROAD	REVISED: 11/18/2025	DETAIL No. 612Q

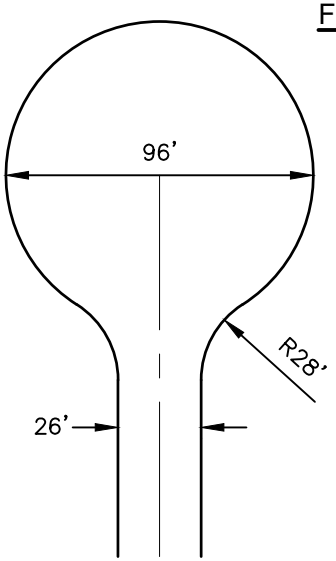


TYPICAL CROSS SECTION

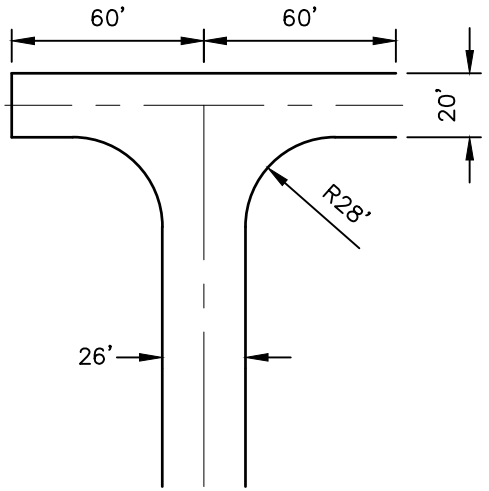
(NO SCALE)

TEMPORARY TURN-AROUNDS FOR FIRE ACCESS

(NO SCALE)



96' DIA CUL-DE-SAC

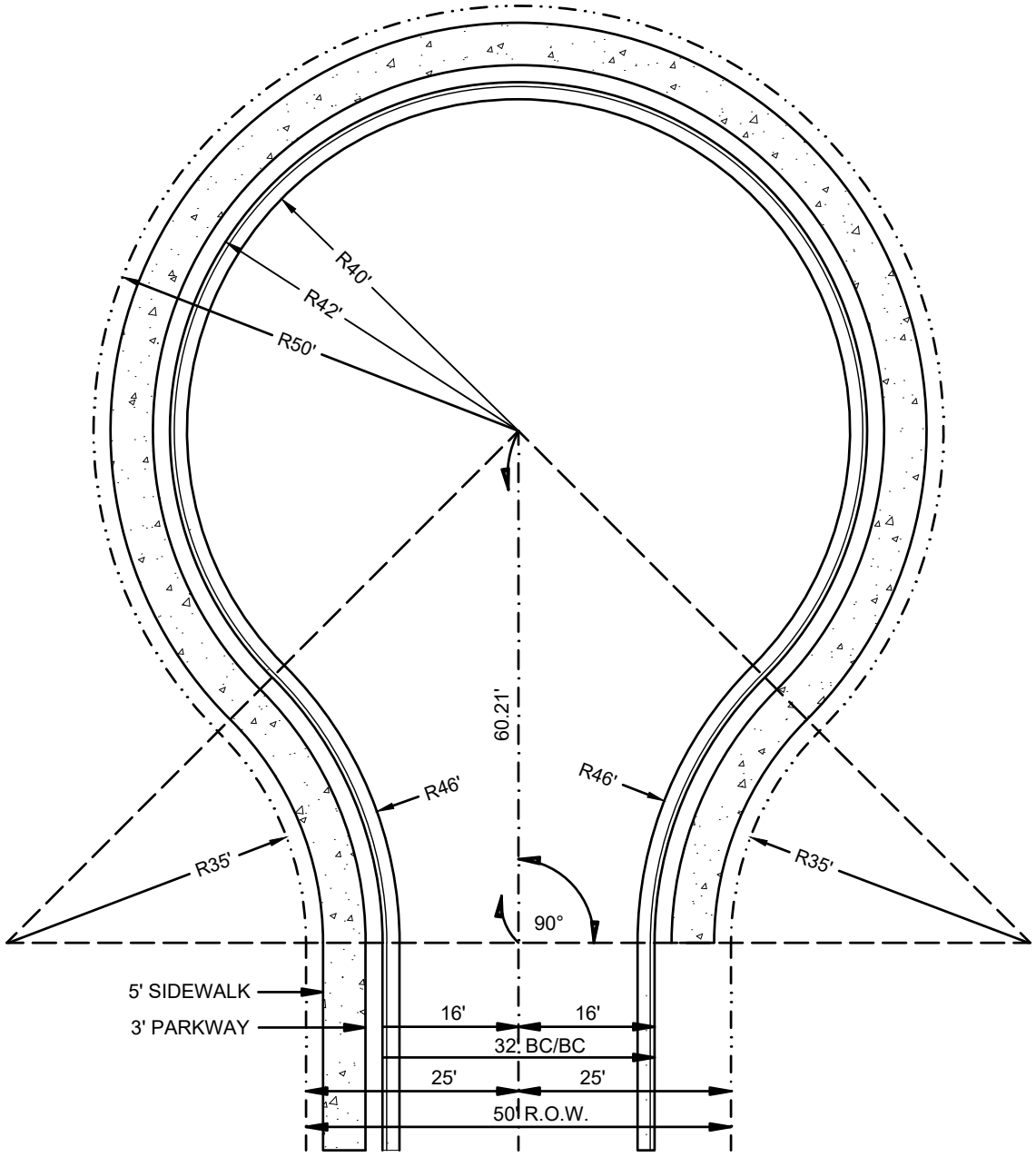


120' HAMMERHEAD

NOTES:

1. ACTUAL STRUCTURAL SECTION SHALL BE DETERMINED BY GEO-TECHNICAL ENGINEER & DESIGNED FOR MINIMUM 90,000 LB VEHICLE.
2. AT FIRE DEPARTMENT AND REVIEWING AGENCY'S DISCRETION, CRUSHED AGGREGATE SURFACE IN ACCORDANCE WITH QCSD 612Q MAY BE PERMITTED.
3. ROADWAY SURFACE NEEDS TO HAVE A MINIMUM UNOBSTRUCTED DRIVING WIDTH OF 20 FEET AS APPROVED BY REVIEWING AGENCY.
4. AERIAL FIRE APPARATUS ACCESS ROADS SHALL HAVE A MIN. WIDTH OF 26', EXCLUSIVE OF SHOULDERS AND ADJACENT TO A BUILDING.

QUAD CITY STANDARD DETAIL	FIRE ACCESS/UTILITY ROAD	REVISED: 11/18/2025	DETAIL No. 614Q

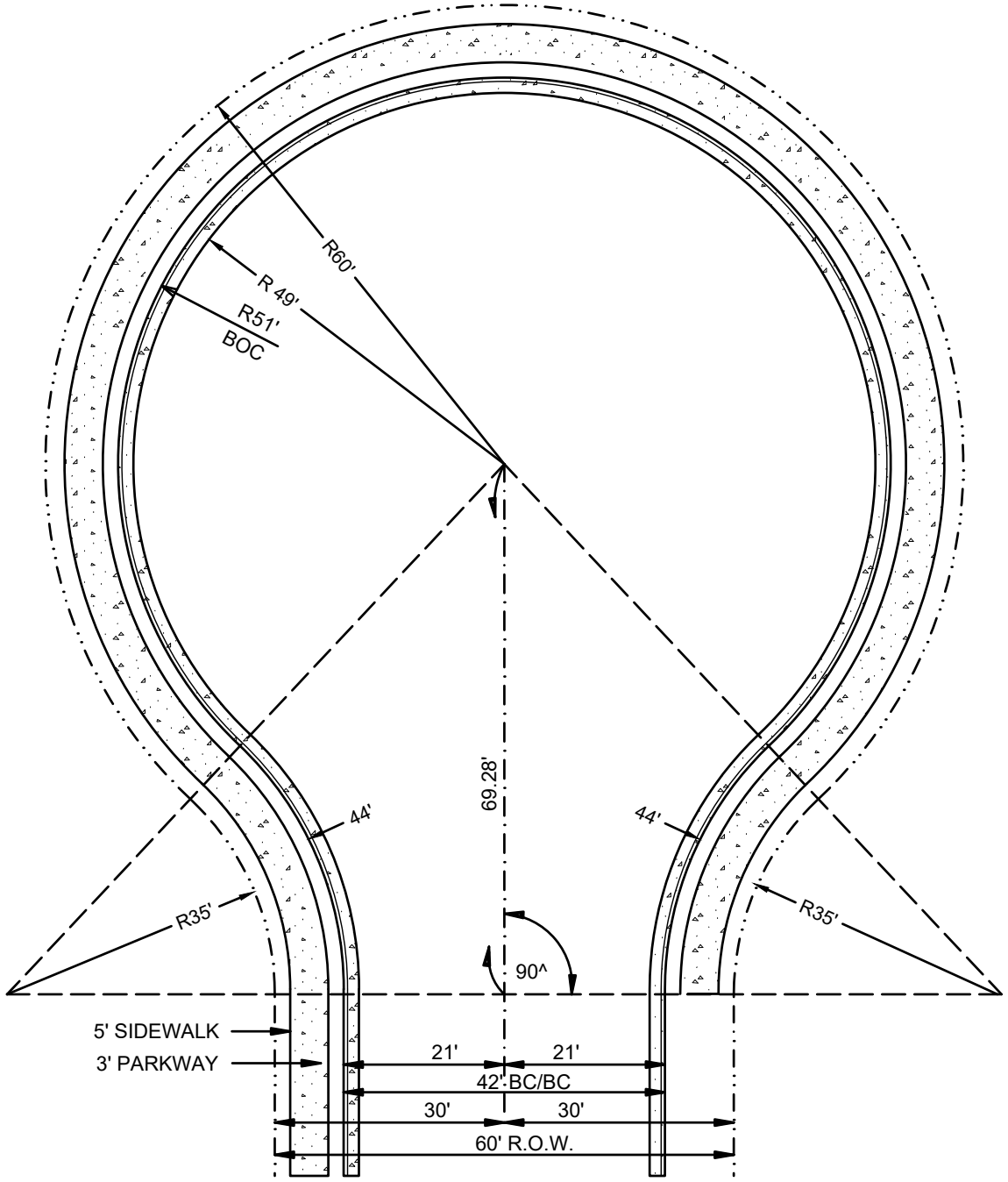


NOTE:

1. ADD 1' TO BACK OF CURB DIMENSION WHERE 6" ROLL CURB IS USED.

2. SUFFICIENT GRADES MUST BE PROVIDED TO ENSURE POSITIVE DRAINAGE OF THE CUL-DE-SAC. ALL ASPHALT SURFACES SHALL HAVE A MIN. OF 2% CROSS-SLOPE.

QUAD CITY STANDARD DETAIL	CUL-DE-SAC FOR 50' R.O.W. STREET	REVISED: 11/18/2025	DETAIL No. 620Q-1



NOTE:

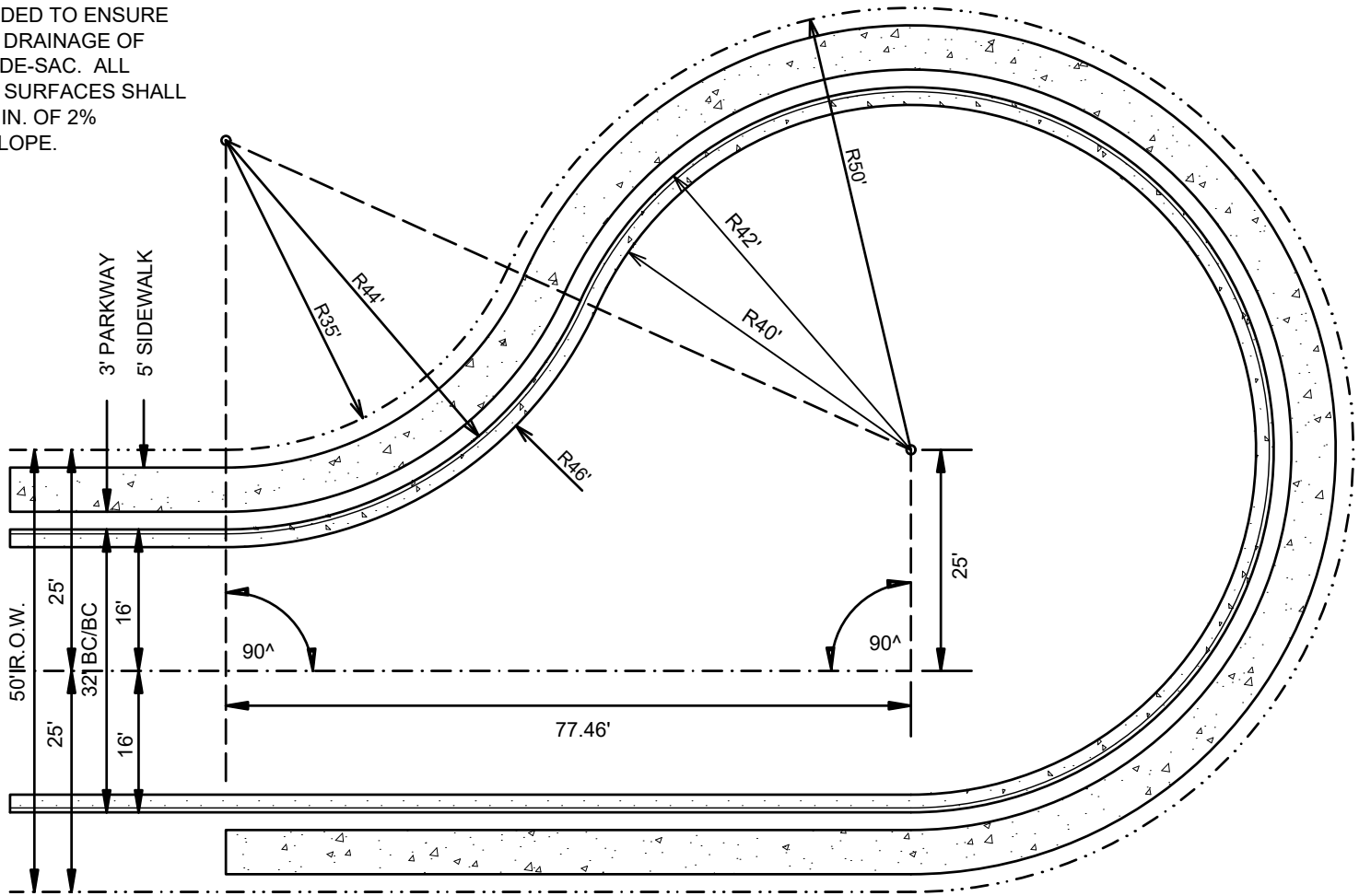
1. ADD 1' TO BACK OF CURB DIMENSION WHERE 6" ROLL CURB IS USED.
2. SUFFICIENT GRADES MUST BE PROVIDED TO ENSURE POSITIVE DRAINAGE OF THE CUL-DE-SAC. ALL ASPHALT SURFACES SHALL HAVE A MIN. OF 2% CROSS-SLOPE.
3. A TEMPORARY FIRE ACCESS TURNAROUND MAY BE CONSTRUCTED USING THE PAVEMENT SECTION IN QCSD 614P AND THAT MEETS THE MINIMUM DIMENSIONS FOR THE CENTRAL ARIZONA FIRE AND MEDICAL AUTHORITY (CAFMA) 'APPROVED FIRE ACCESS TURNAROUNDS'.

QUAD CITY STANDARD DETAIL	CUL-DE-SAC FOR 60' R.O.W. STREET	REVISED: 11/18/2025	DETAIL No. 620Q-2

NOTE:

1. ADD 1' TO BACK OF CURB DIMENSION WHERE 6" ROLL CURB IS USED.

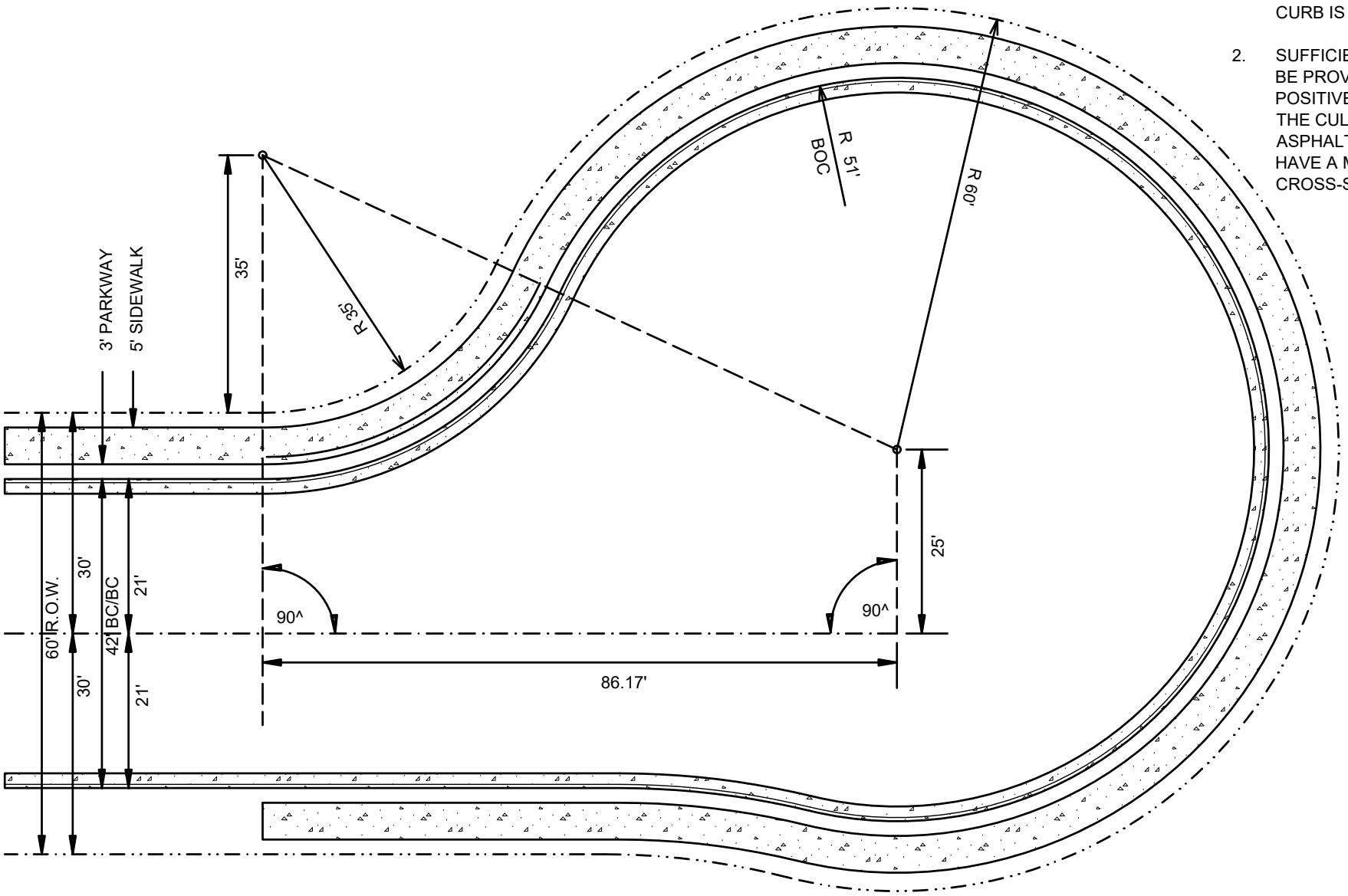
2. SUFFICIENT GRADES MUST BE PROVIDED TO ENSURE POSITIVE DRAINAGE OF THE CUL-DE-SAC. ALL ASPHALT SURFACES SHALL HAVE A MIN. OF 2% CROSS-SLOPE.



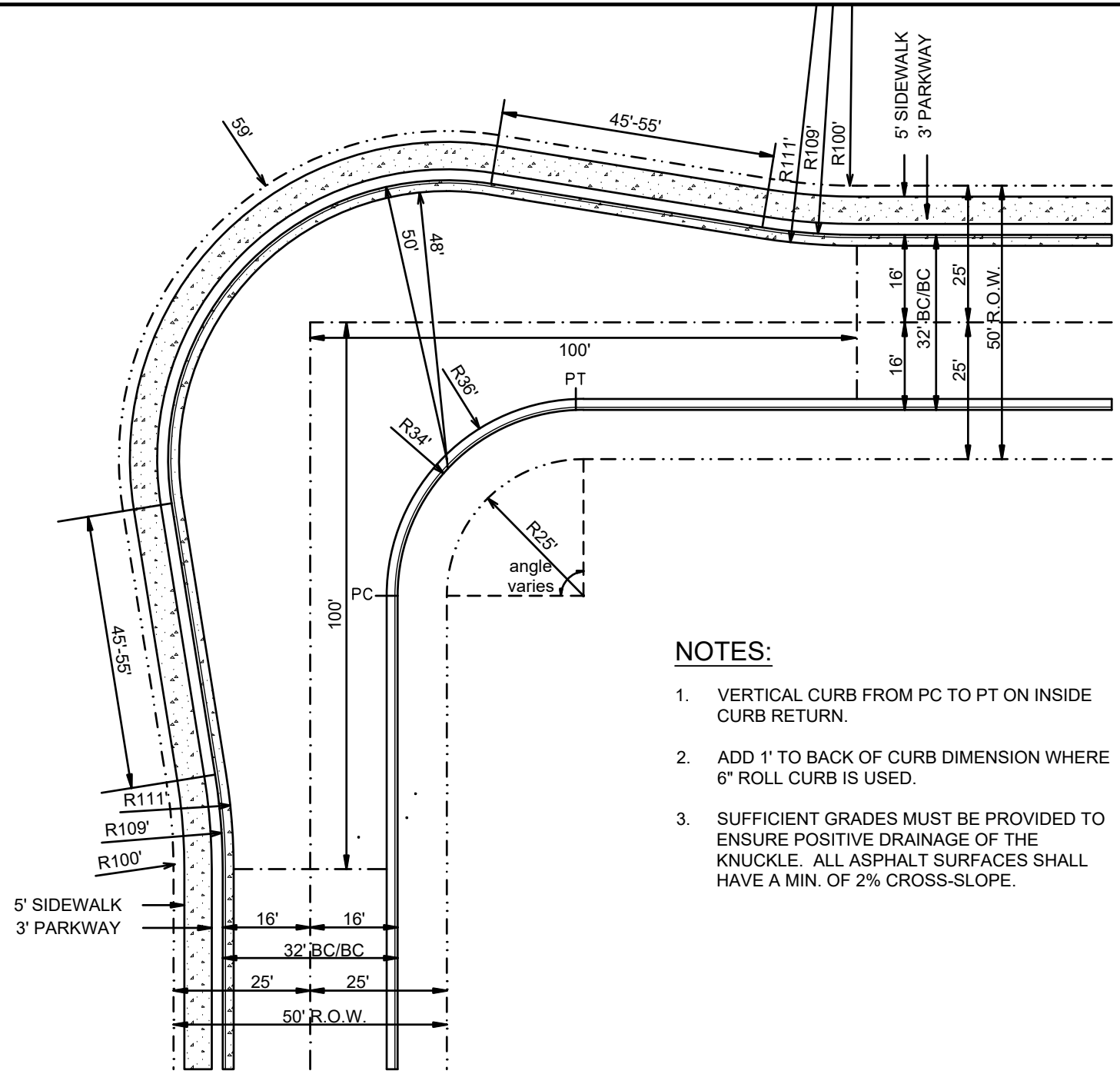
QUAD CITY STANDARD DETAIL	OFFSET CUL-DE-SAC FOR 50' R.O.W. STREET	REVISED: 11/18/2025	DETAIL No. 621Q-1

NOTE:

1. ADD 1' TO BACK OF CURB DIMENSION WHERE 6" ROLL CURB IS USED.
2. SUFFICIENT GRADES MUST BE PROVIDED TO ENSURE POSITIVE DRAINAGE OF THE CUL-DE-SAC. ALL ASPHALT SURFACES SHALL HAVE A MIN. OF 2% CROSS-SLOPE.



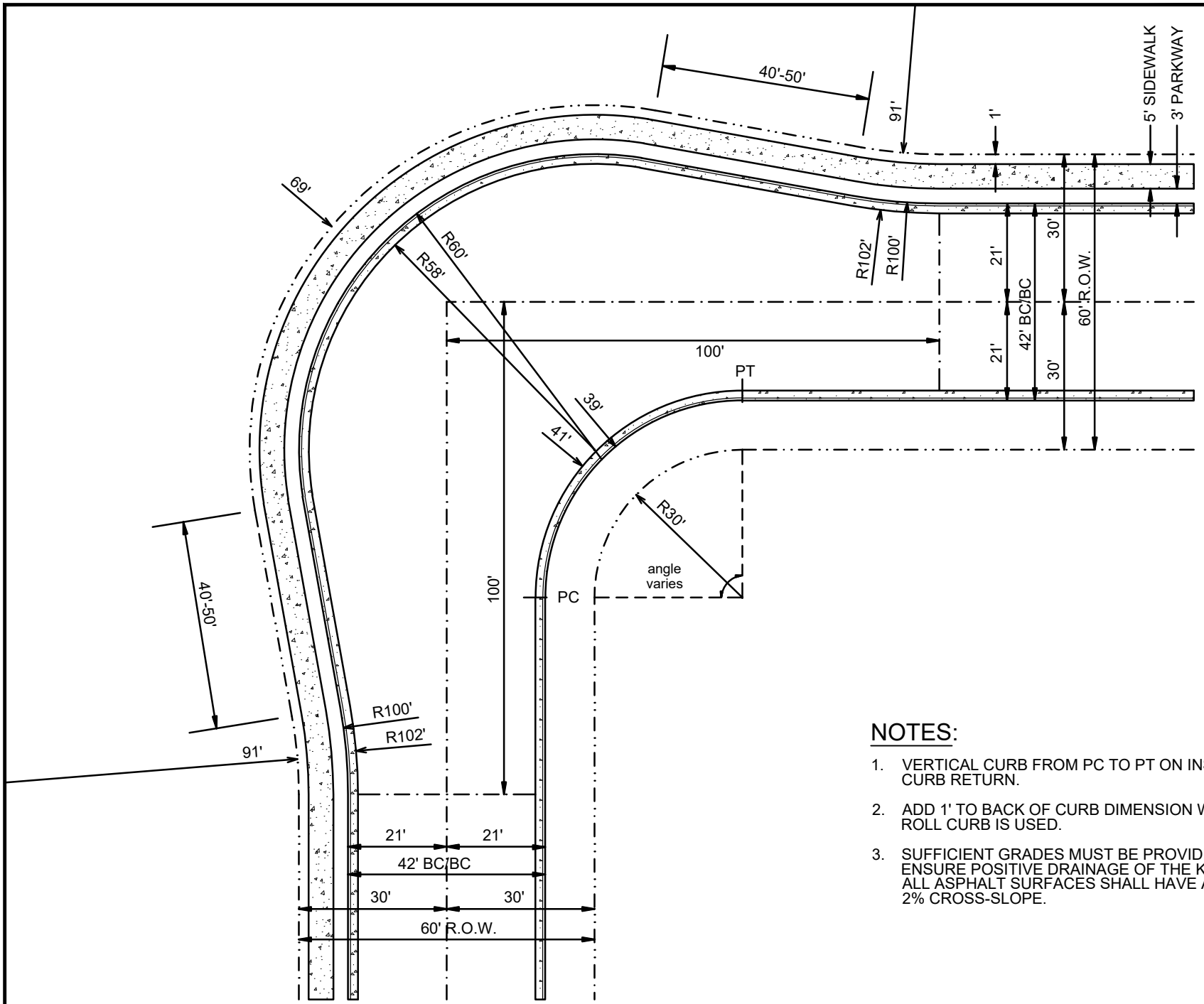
QUAD CITY STANDARD DETAIL	OFFSET CUL-DE-SAC FOR 60' R.O.W. STREET	REVISED: 11/18/2025	DETAIL No. 621Q-2



NOTES:

1. VERTICAL CURB FROM PC TO PT ON INSIDE CURB RETURN.
2. ADD 1' TO BACK OF CURB DIMENSION WHERE 6" ROLL CURB IS USED.
3. SUFFICIENT GRADES MUST BE PROVIDED TO ENSURE POSITIVE DRAINAGE OF THE KNUCKLE. ALL ASPHALT SURFACES SHALL HAVE A MIN. OF 2% CROSS-SLOPE.

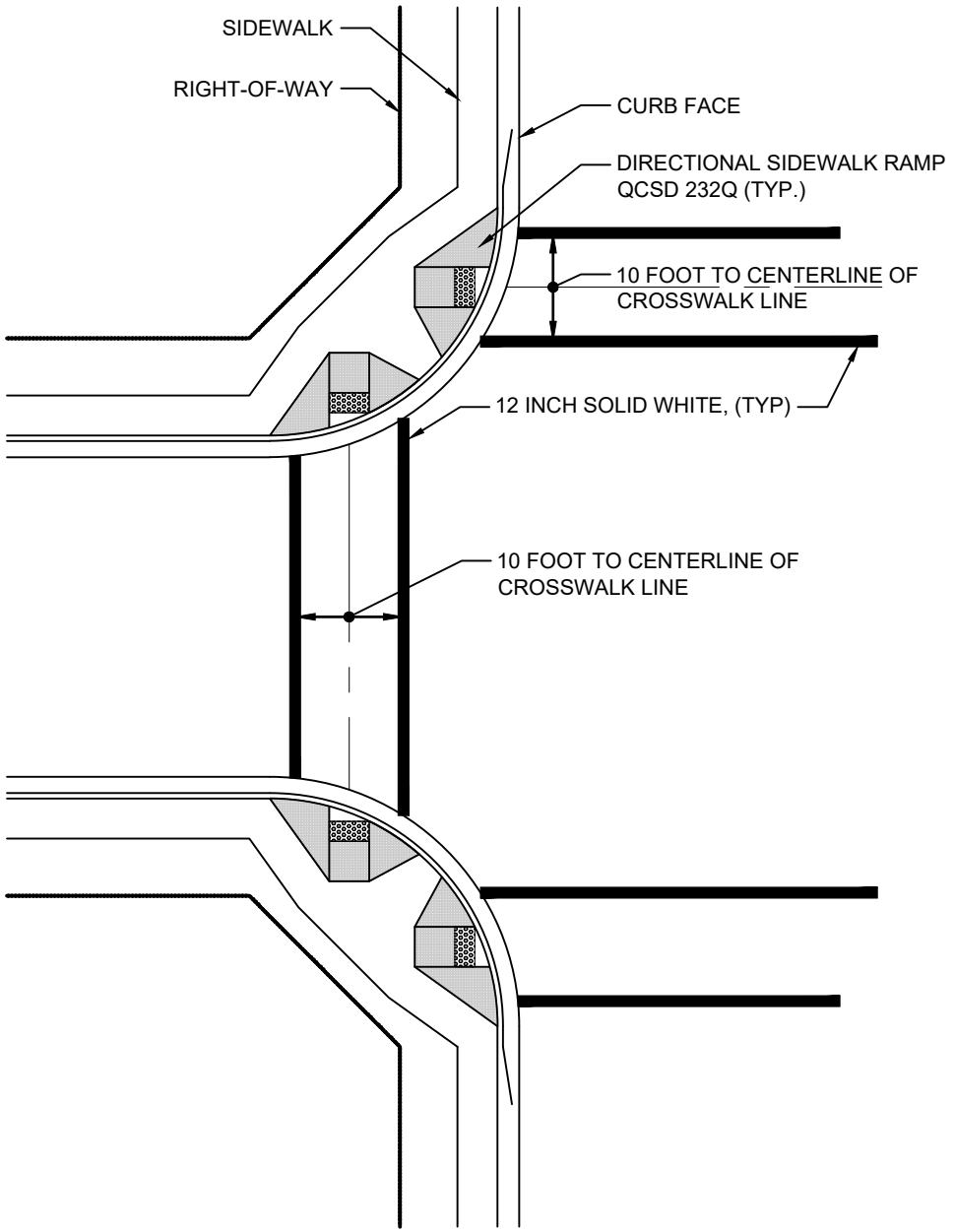
QUAD CITY STANDARD DETAIL	KNUCKLE FOR 50' R.O.W.	REVISED: 11/18/2025	DETAIL No. 622Q-1



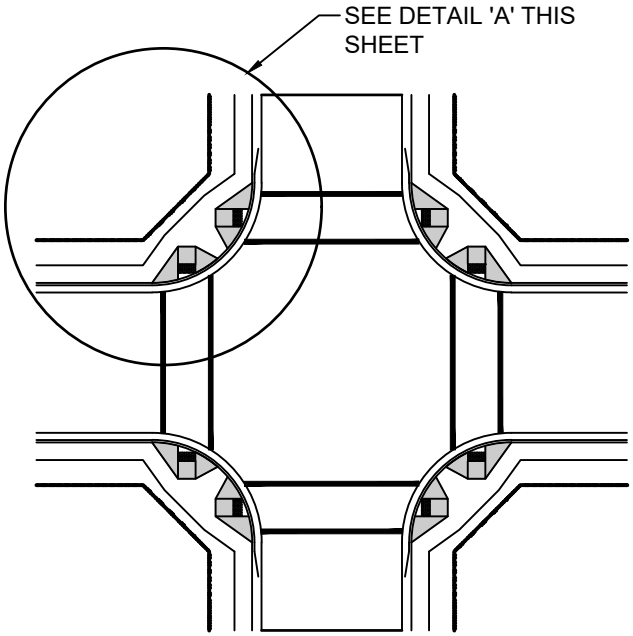
NOTES:

1. VERTICAL CURB FROM PC TO PT ON INSIDE CURB RETURN.
2. ADD 1' TO BACK OF CURB DIMENSION WHERE 6" ROLL CURB IS USED.
3. SUFFICIENT GRADES MUST BE PROVIDED TO ENSURE POSITIVE DRAINAGE OF THE KNUCKLE. ALL ASPHALT SURFACES SHALL HAVE A MIN. OF 2% CROSS-SLOPE.

QUAD CITY STANDARD DETAIL	KNUCKLE FOR 60' R.O.W.	REVISED: 11/18/2025	DETAIL No. 622Q-2

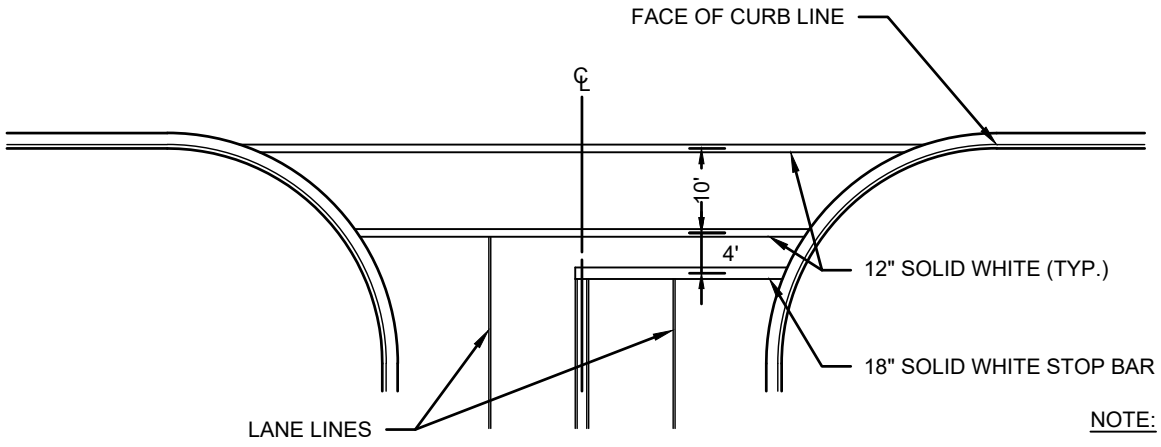


DETAIL 'A'



OVERALL PLAN

QUAD CITY STANDARD DETAIL	MARKED CROSSWALK AT INTERSECTION	REVISED: 11/18/2025	DETAIL No. 630Q

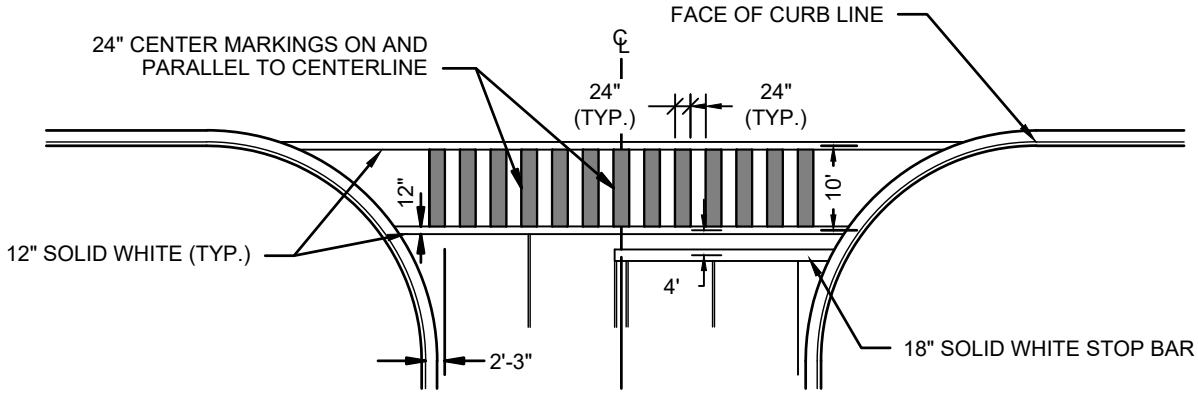


STANDARD CROSSWALK MARKING

WIDTH OF LINES 12" STANDARD
WIDTH OF WALK 10' STANDARD

NOTE:

1. DIMENSIONS ARE FROM CENTERLINE TO CENTERLINE.
2. ALL LANE LINES TO TERMINATE AT STOP BAR



24" BLOCK (LONGITUDINAL)

USE ONLY WHERE SPECIFIED

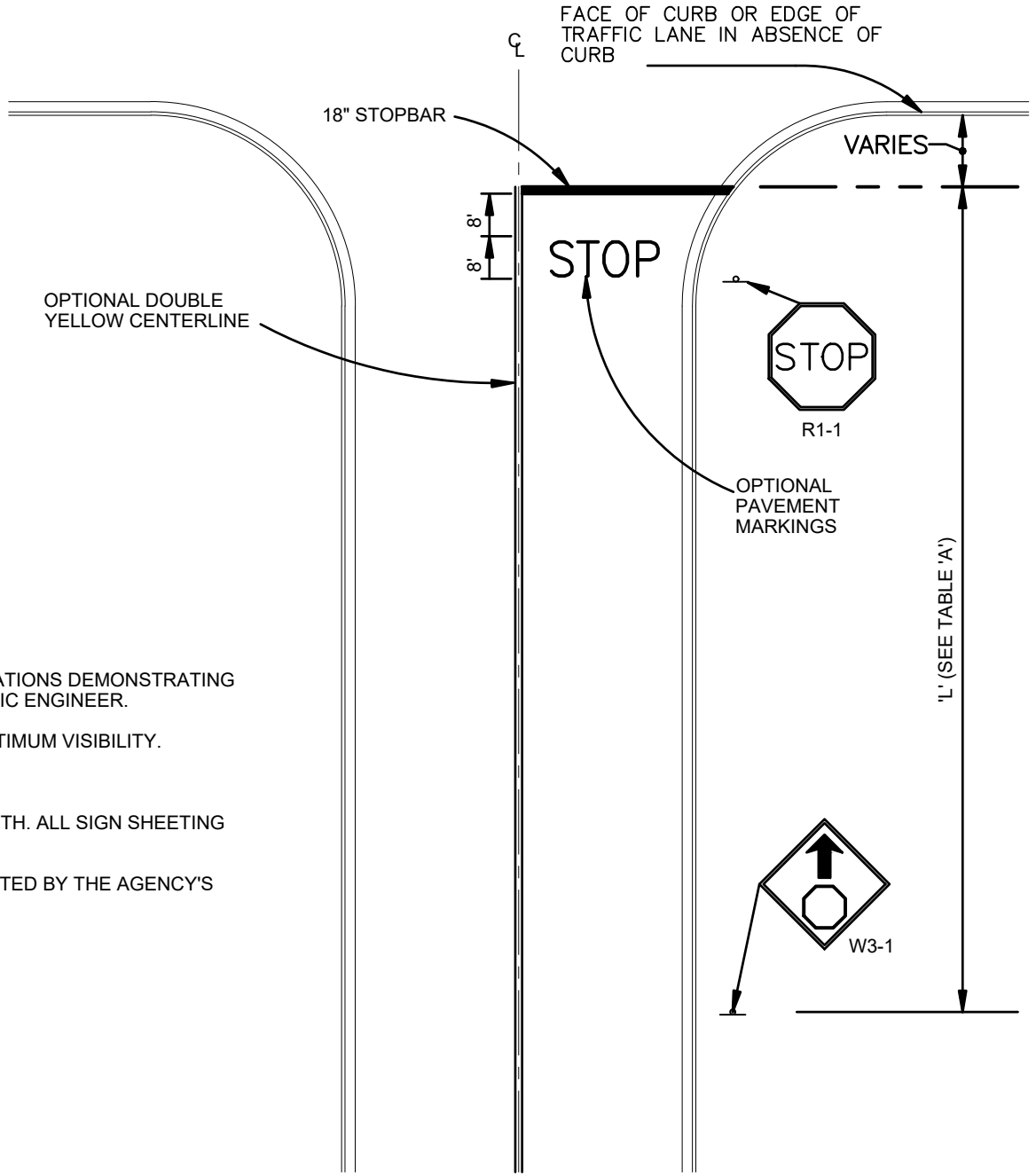
NOTE:

1. DIMENSIONS ARE FROM CENTERLINE TO CENTERLINE.
2. ALL LANE LINES TO TERMINATE AT STOP BAR

QUAD CITY STANDARD DETAIL	STANDARD CROSSWALK MARKINGS	REVISED: 11/18/2025	DETAIL No. 631Q

TABLE 'A'
'L' VALUES (FT.)

MPH	DOWNGRADES			
	0%	3%	6%	9%
25 OR NOT POSTED	250	260	270	290
30	305	315	335	355
35	360	380	400	430



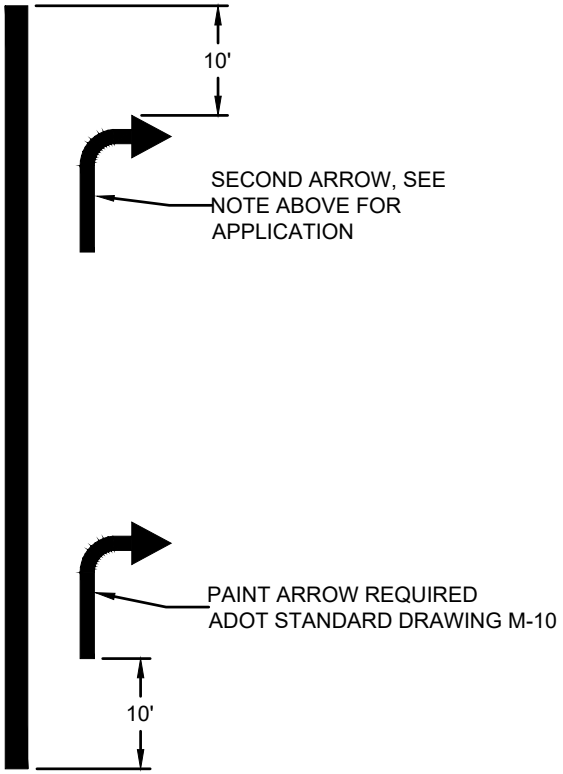
NOTES:

1. THE USE OF W3-1 'STOP AHEAD' SIGNS SHALL BE AT SPECIFIED LOCATIONS DEMONSTRATING LIMITED SIGHT DISTANCE OR AS DIRECTED BY THE AGENCY'S TRAFFIC ENGINEER.
2. STOP SIGN NORMALLY LOCATED AT CURB RETURN OR POINT OF OPTIMUM VISIBILITY.
3. CENTER PAVEMENT MARKINGS IN TRAVEL LANE.
4. R1-1 STOP SIGN SHALL BE A MINIMUM OF THIRTY (30") INCHES IN WIDTH. ALL SIGN SHEETING MATERIAL TO BE DIAMOND GRADE VIP.
5. OPTIONAL "STOP" PAVEMENT MARKING MAY BE REQUIRED AS DIRECTED BY THE AGENCY'S TRAFFIC ENGINEER.

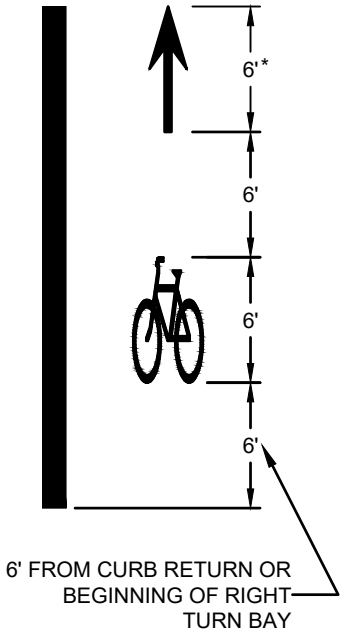
QUAD CITY STANDARD DETAIL	STOP MARKINGS	REVISED: 11/18/2025	DETAIL No. 632Q

NOTE:

IF TURN LANE EXCEEDS 100', ADD SECOND ARROW 10' FROM BACK END OF LANE LINE.

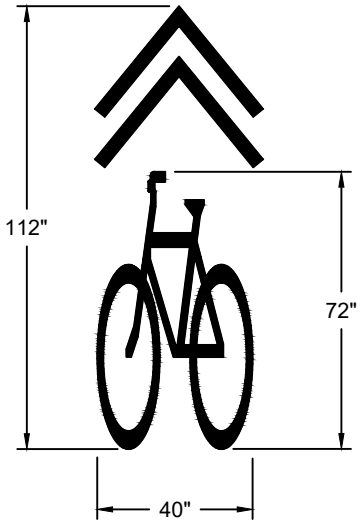


TURN LANE ARROWS



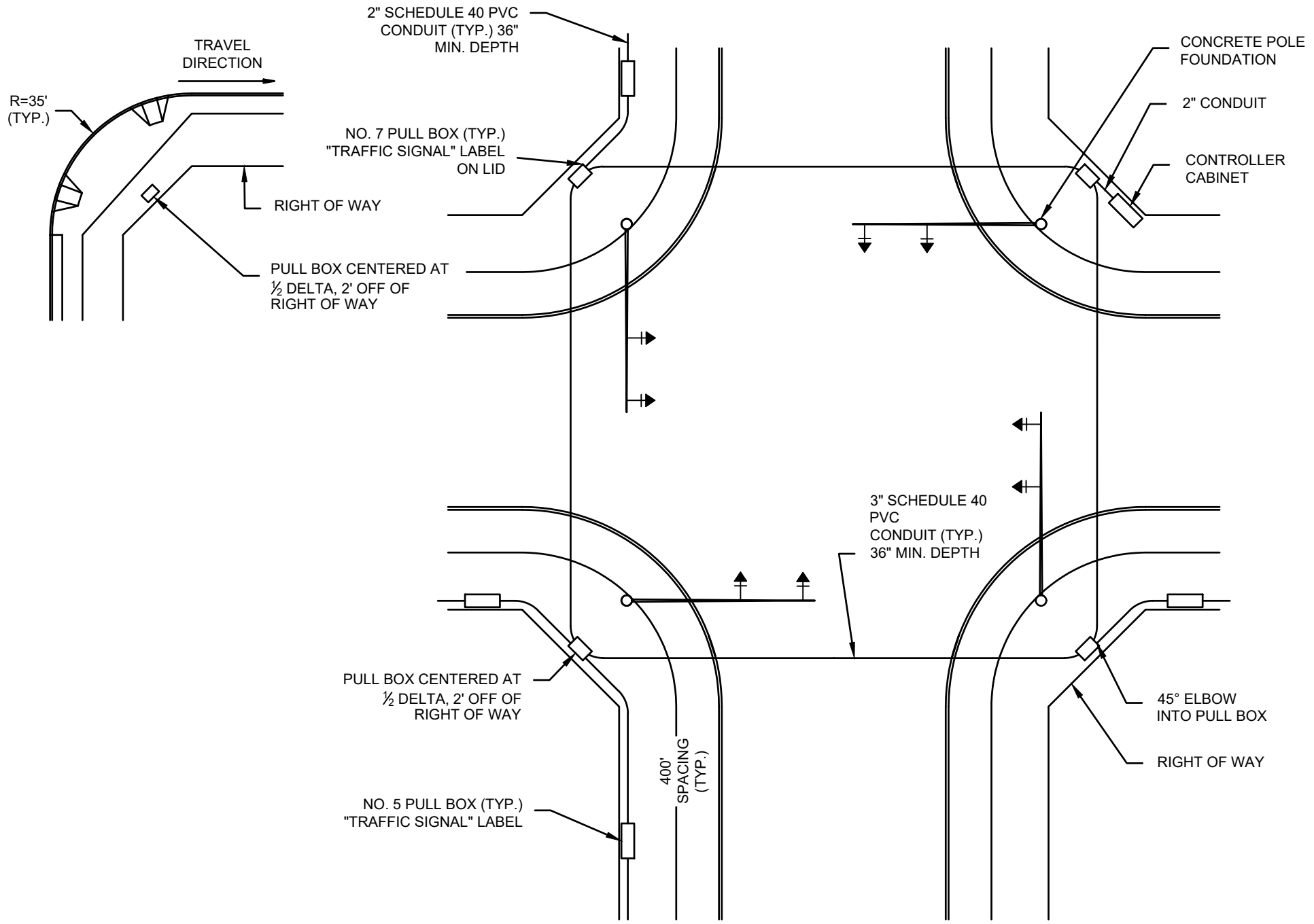
BIKE LANE MARKINGS

* ARROW IS OPTIONAL

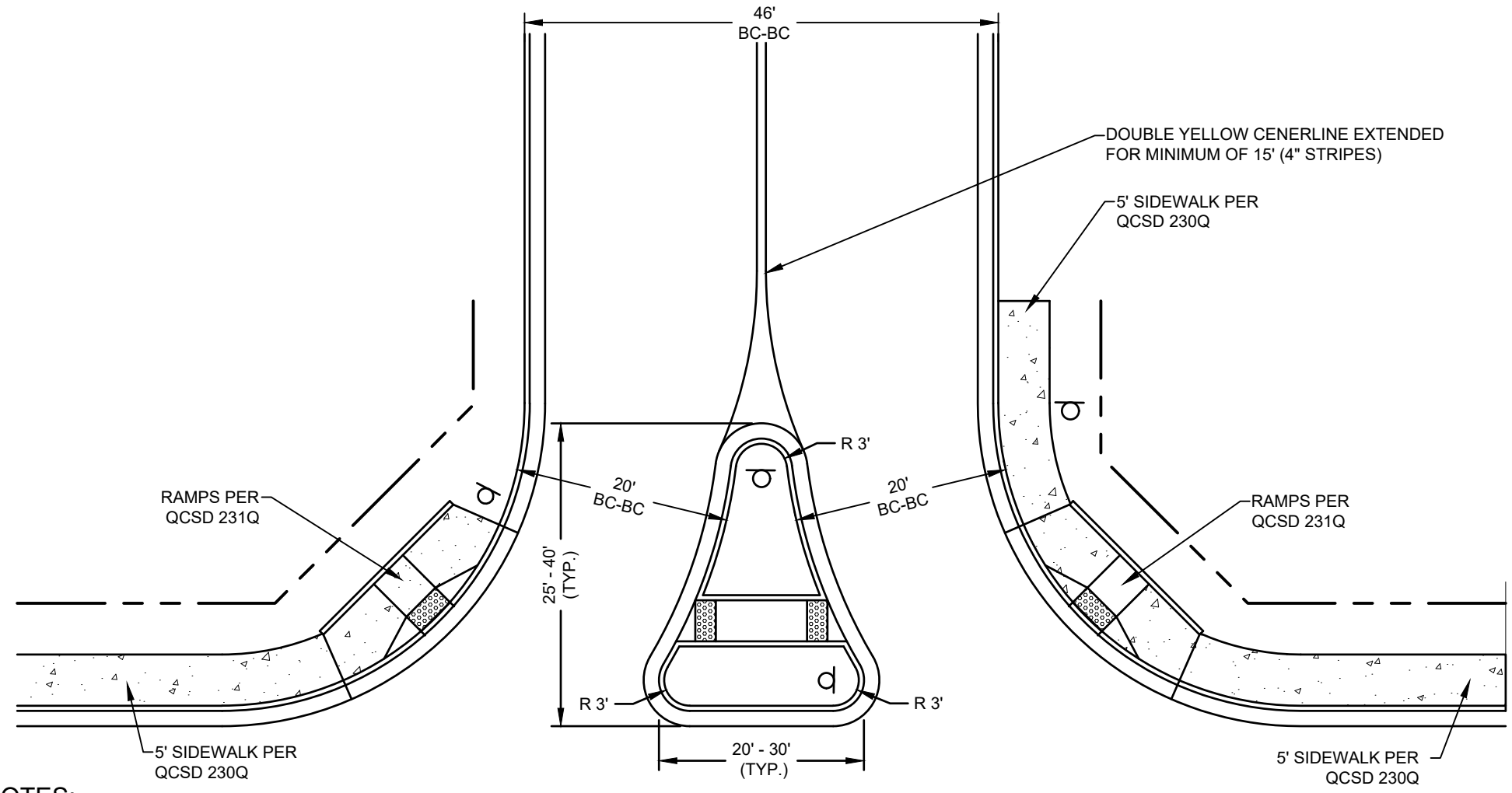


SHARED LANE MARKINGS

QUAD CITY STANDARD DETAIL	PAVEMENT MARKINGS	REVISED: 11/18/2025	DETAIL No. 634Q



QUAD CITY STANDARD DETAIL	TRAFFIC SIGNAL INTERCONNECT CONDUIT INSTALLATION	REVISED: 11/18/2025	DETAIL No. 640Q

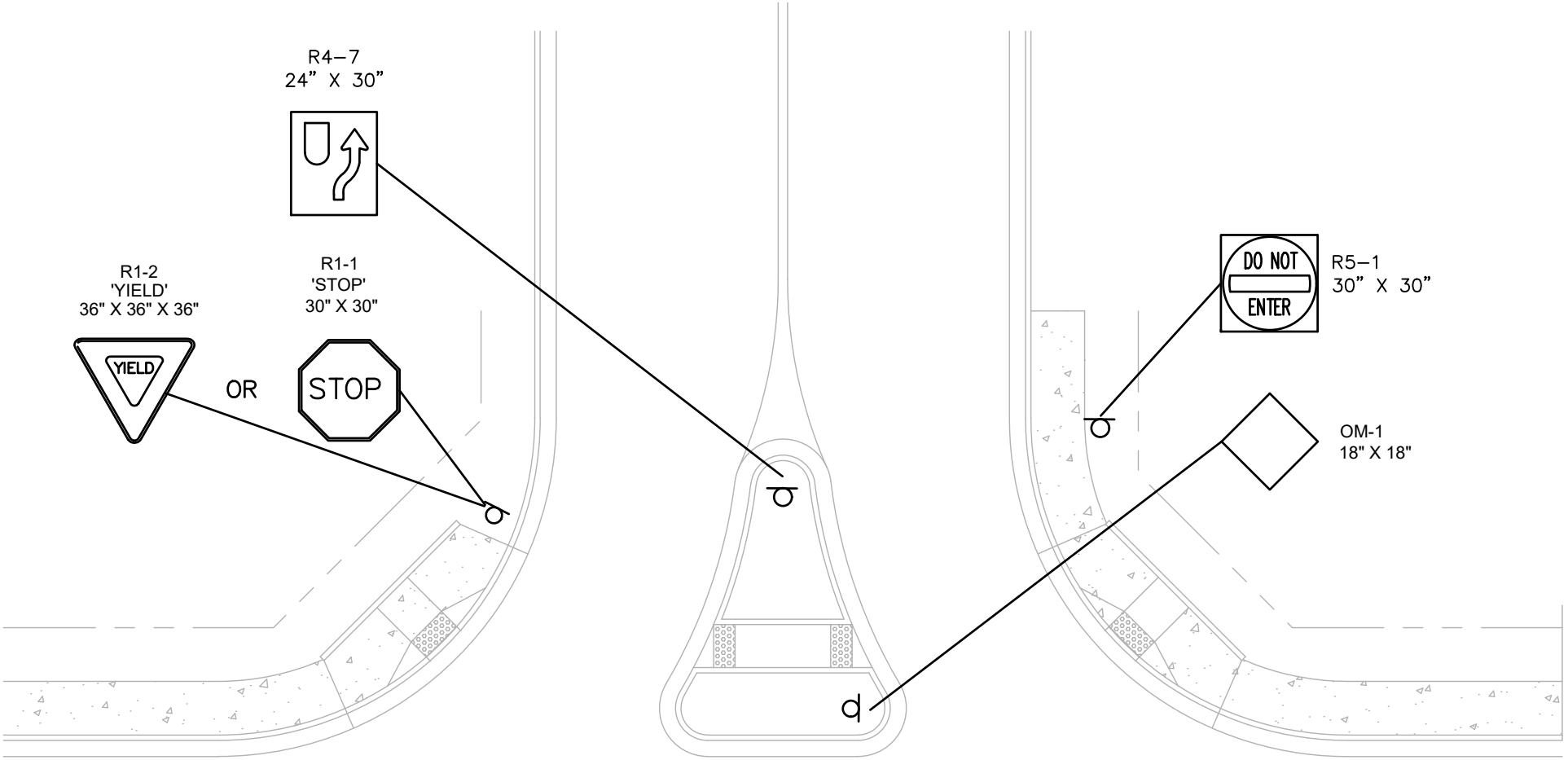


NOTES:

1. CONCRETE ISLAND SHALL BE TYPE 'AA' CONCRETE.
2. TURNING LANES NOT SHOWN.
3. CONCRETE ISLANDS SHALL INCLUDE ADA COMPLIANT PEDESTRIAN ACCESS WITH TRUNCATED DOMES. CITY OF PRESCOTT REQUIRES CAST IRON TRUNCATED DOMES.
4. IF SIDEWALK CONTINUES ONTO SITE, THEN QCSD 231Q SIDEWALK RAMP SHALL BE USED.
5. SIGN LOCATIONS SHOWN FOR PLANNING PURPOSES. REFER TO 650Q-2 FOR SUGGESTED SIGNAGE.

ENGINEER IS RESPONSIBLE FOR ENSURING COMPLIANCE WITH 'PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (WITH SUP)'

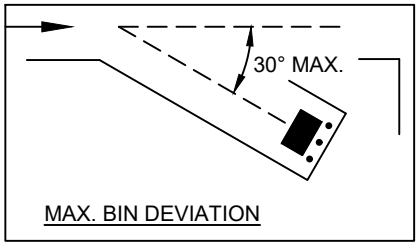
QUAD CITY STANDARD DETAIL	RIGHT-IN/RIGHT-OUT ACCESS	REVISED: 11/18/2025	DETAIL No. 650Q-1

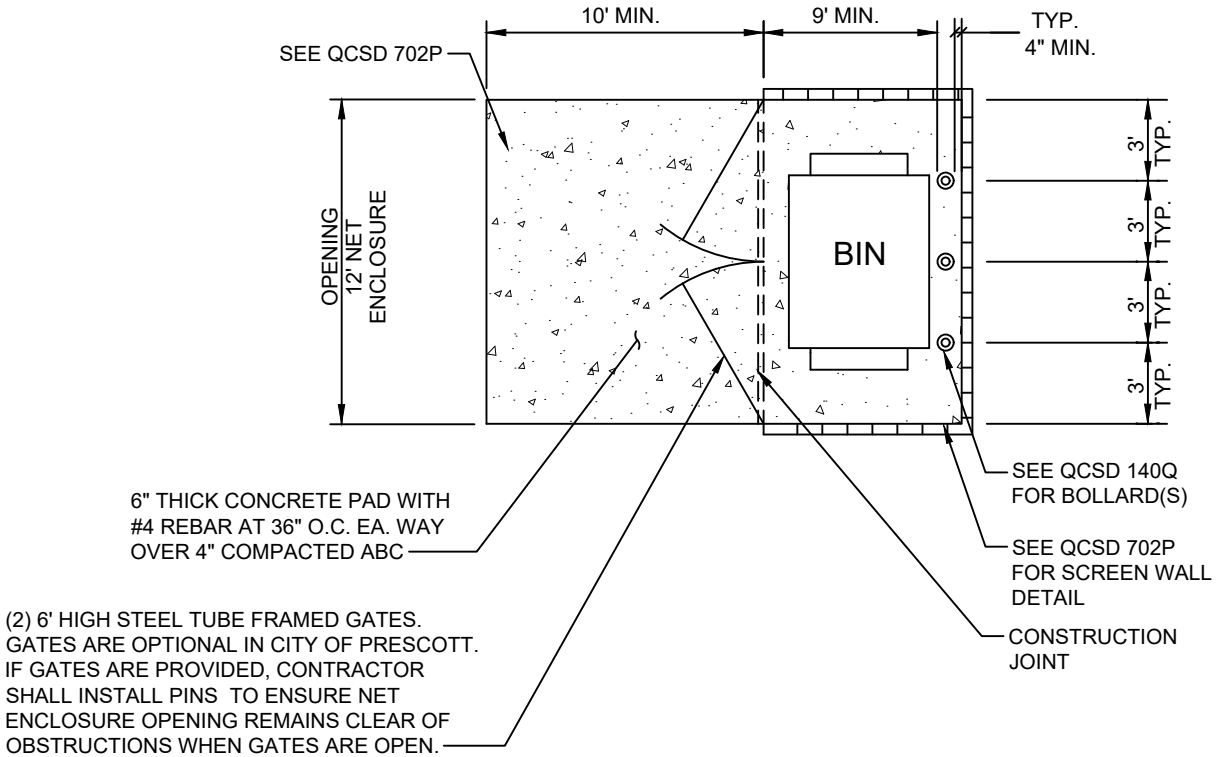


NOTES:

1. SIGN LOCATIONS AND SUGGESTED SIGNAGE SHOWN FOR PLANNING PURPOSES. ENGINEER SHALL REVIEW EACH INTERSECTION WITH REGARD TO INDIVIDUAL INTERSECTION CONSTRAINTS, TRAFFIC COUNTS, AND MASTER PLANS
2. APPROVAL OF SIGNAGE IS AT THE DISCRETION OF THE REVIEWING AGENCY.

QUAD CITY STANDARD DETAIL	RIGHT-IN/RIGHT-OUT ACCESS SUGGESTED SIGNAGE	REVISED: 11/18/2025	DETAIL No. 650Q-2

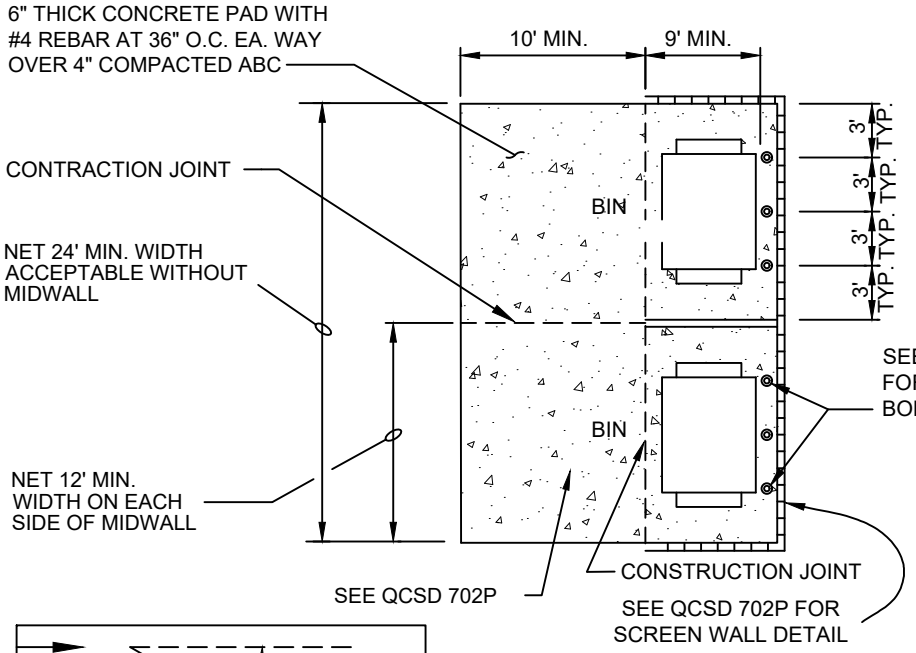


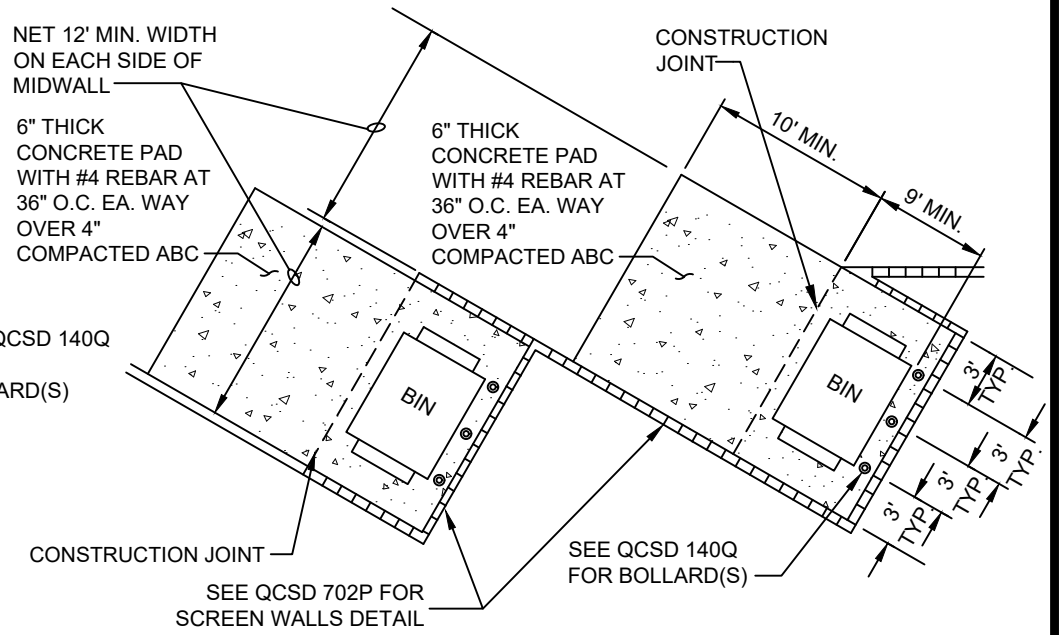


SEE QCSD 702P FOR REFERENCED NOTES

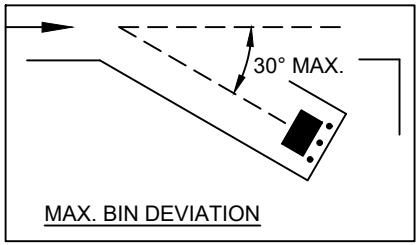
SINGLE-WIDE BIN ENCLOSURE CONFIGURATION

QUAD CITY STANDARD DETAIL	SINGLE-WIDE BIN ENCLOSURES	REVISED: 11/18/2025	DETAIL No. 701Q-1

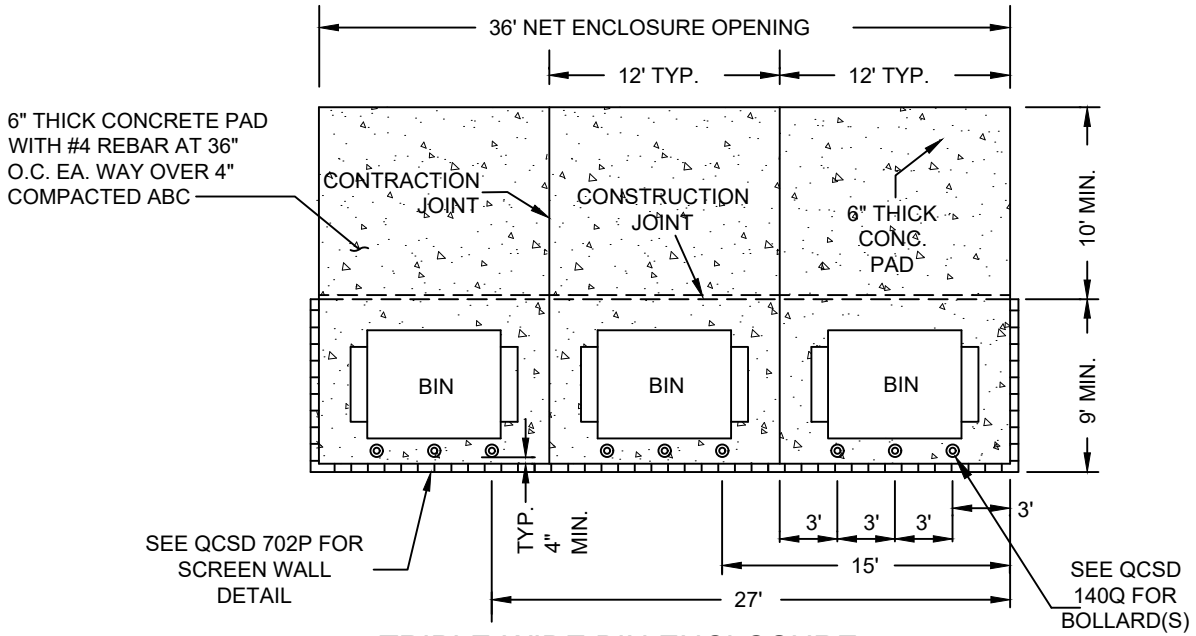




DOUBLE-WIDE BIN ENCLOSURE CONFIGURATIONS



SEE QCSD 702P FOR REFERENCED NOTES

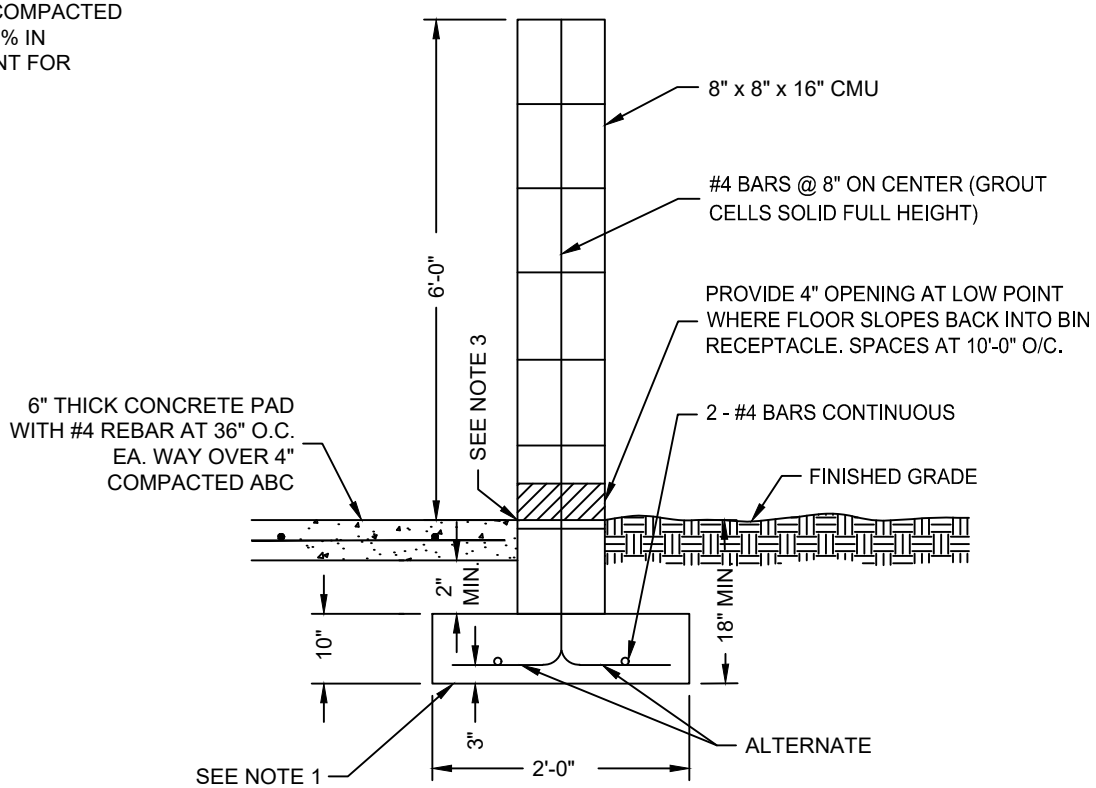


TRIPLE-WIDE BIN ENCLOSURE

QUAD CITY STANDARD DETAIL	DOUBLE AND TRIPLE-WIDE BIN ENCLOSURES	REVISED: 11/18/2025	DETAIL No. 701Q-2

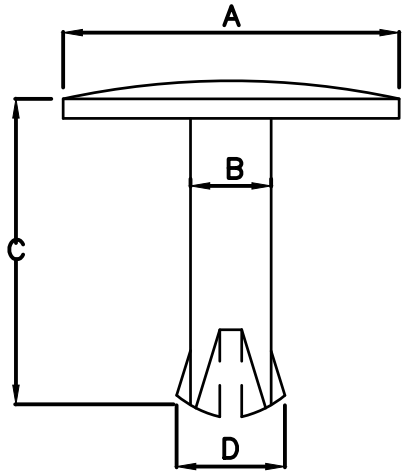
NOTES

1. USE CLASS "AA" CONCRETE AS PER SECTION 725 EXCEPT AS NOTED IN BOLLARD DETAIL ON QCSD 140Q.
2. STEEL REINFORCEMENT SHALL BE GRADE 40.
3. EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS TYPE PREFORMED EXPANSION JOINT FILLER ASTM D-1751.
4. SOIL BELOW THE WALL FOOTER AND CONCRETE PAD SHALL BE COMPACTED TO A DEPTH OF 6 INCHES AND TO A MINIMUM DRY DENSITY OF 95% IN ACCORDANCE WITH ASTM D-2922 AND D-3017, AFTER ADJUSTMENT FOR ROCK CORRECTION.

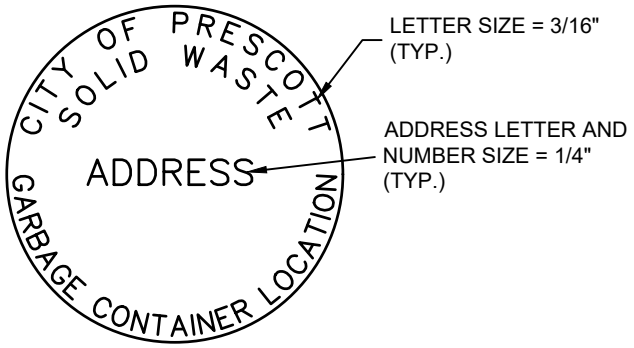


6-FOOT MASONRY SCREEN WALL

QUAD CITY STANDARD DETAIL	SCREEN WALL DETAIL	REVISED: 11/18/2025	DETAIL No. 702Q



A = 3.5" (89 MM)
B = 0.72" (18 MM)
C = 3.3125" (84 MM)
D = 0.875" (22 MM)
CAP THICKNESS = 3/16" MATERIAL:
BRASS OR BRONZE



GARBAGE CONTAINER MARKER

RECYCLING CONTAINER MARKER

NOTE

CONTAINER MARKERS SHALL BE SPACED A MINIMUM DISTANCE OF 5-FEET BETWEEN MARKERS.

QUAD CITY STANDARD DETAIL	SOLID WASTE CART PLACEMENT MARKER	REVISED: 11/18/2025	DETAIL No. 702P