

CITY OF NEWNAN  
COWETA COUNTY, GEORGIA



**NEWNAN  
UTILITIES**

STANDARD DETAILS  
FOR WATER AND SEWER  
INSTALLATION AND IMPROVEMENT

JULY 2005

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|  <b>NEWNAN<br/>UTILITIES</b> |  | Rev. |
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| Drawn By: S. Tolar  |  |      |
| Inspected By:   |  |      |

## GENERAL NOTES

- 1) NEWNAN UTILITIES REQUEST THAT THE PROPERTY OWNER/ DEVELOPER AND ENGINEER DISCUSS SERVICES NEEDED PRIOR TO PLAN SUBMITTAL.
- 2) NEWNAN UTILITIES REQUIRES THAT ALL NEWNAN UTILITIES STANDARD DETAILS AND NOTES ARE INCLUDED IN THE CONSTRUCTION PLANS. THESE DETAILS AND NOTES SHALL NOT BE ALTERED IN ANYWAY.
- 3) NEWNAN UTILITIES REQUIRES THAT (4) FOUR SETS OF CONSTRUCTION PLANS AND (1) ONE DIGITAL SITE PLAN IN DWG OR DXF FORMAT FOR REVIEW.
- 4) THRUST BLOCKING OR APPROVED RESTRAINT SYSTEMS SHALL BE INSTALLED AS REQUIRED FOR ALL PRESSURE PIPE INSTALLATIONS.
- 5) ALL WATER AND SEWER DESIGNS MUST BE APPROVED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF GEORGIA. DRAWINGS MUST INCLUDE BUT ARE NOT LIMITED TO SEWER PLAN AND PROFILES, MANHOLES, TAPS, WATER METERS, VALVES, LINES AND ALL APPURTENANCES RELATED TO THE INSTALLATION AND CONSTRUCTION OF THE WATER AND SEWER SYSTEMS.
- 6) ALL MATERIALS SHALL BE NEW AND MANUFACTURERS APPROVED BY THE COMMISSION.
- 7) THE DEVELOPER SHALL NOTIFY NEWNAN UTILITIES A MINIMUM OF 48 HOUR PRIOR TO ANY WORK ON, OR ADJACENT TO, NEWNAN UTILITIES WATER AND SEWER SYSTEM. PHONE NUMBER (770) 683-0994.
- 8) THE DEVELOPER SHALL VERIFY AND BE PREPARED TO PROVIDE PROOF THAT NO WATER AND SEWER SYSTEM INFRASTRUCTURE IS PLACED UPON OR IN CLOSE PROXIMITY OF AN ABANDONED LAND FILL SITE OR ANY OTHER SITE USED FOR WASTE DISPOSAL.
- 9) THE PROPERTY DEVELOPER OR CONTRACTOR SHALL PROVIDE A 1 YEAR WARRANTY, FROM THE DATE OF ACCEPTANCE, FOR ALL WATER AND SEWER INFRASTRUCTURE. DATE OF ACCEPTANCE STARTS WHEN ADEQUATE AS-BUILTS INFRASTRUCTURE.
- 10) IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL UTILITY LOCATIONS PRIOR TO START OF WORK. ANY DAMAGE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE CORRECTED AT NO COST TO THE UTILITY OWNER.
- 11) NO SYSTEM SHALL BE ACCEPTED, NOR SHALL THE WARRANTY PERIOD BEGIN UNTIL ASBUILTS ARE RECEIVED ON AN ACCEPTABLE MEDIA BOTH PAPER AND ELECTRONIC (TIFF IMAGE OR DXF), AND APPROVED.
- 12) NO WATER METERS SHALL BE INSTALLED UNTIL SYSTEM IS ACCEPTED.
- 13) ALL SUBDIVISION ROADS SHALL HAVE A 5' UTILITY EASEMENT ON EACH SIDE OUTSIDE OF THE RIGHT-OF-WAY.
- 14) DEVELOPER MUST RESUBMIT PLANS IF CONSTRUCTION HAS NOT BEGAN WITHIN 6 MONTHS OF NEWNAN UTILITIES ACCEPTANCE OF PLANS.
- 15) THE UTILITY CONTRACTOR SHALL MAINTAIN A CURRENT UTILITIES CONTRACTORS LICENSE.

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|  <b>NEWNAN<br/>UTILITIES</b> | GENERAL NOTES | Rev. |
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| Inspected By:   |               |      |

## WATER SYSTEM NOTES

- 1) ALL WATER DISTRIBUTION PIPING SHALL BE A MINIMUM OF 4 INCH DIAMETER, CLASS 50, CEMENT AND ASPHALTIC LINED AND ASPHALTIC COATED AS PER AWWA C104, C110, C115, C151, AND C153 DUCTILE IRON PIPE.
- 2) ALL SERVICE LINES LESS THAN 2 INCHES SHALL BE TYPE "K" SOFT ANNEALED COPPER FROM THE CORPORATION STOP TO THE WATER METER. ALL 2" SERVICE LINES SHALL BE HIGH DENSITY (BLUE) POLYETHELENE PIPE.
- 3) ALL SERVICE TAPS LESS THAN 2 INCHES SHALL BE DIRECT TAP TO THE MAIN; TAP SADDLES ARE NOT ALLOWED.
- 4) ALL CORPORATION STOPS AND CURB STOPS SHALL BE MUELLER COMPRESSION FITTINGS OR EQUAL.
- 5) ALL FIRE HYDRANTS SHALL BE 5 1/4" AMERICAN DARLING B-62-B.
- 6) ALL NEW WATER LINE INSTALLATIONS SHALL BE LEAK AND PRESSURE TESTED AS PER AWWA C600, IN THE PRESENCE OF A NEWNAN UTILITIES REPRESENTATIVE AND CERTIFIED IN WRITING BY THE INSTALLER PRIOR TO ACCEPTANCE.
- 7) THE INTRODUCTION OF POTABLE WATER INTO AN UNDISINFECTED LINE MUST BE ACCOMPLISHED THROUGH AN APPROVED BACK FLOW PREVENTION DEVICE. AT NO TIME SHALL INSTALLERS ALLOW CROSS-CONNECTIONS BETWEEN POTABLE WATER SYSTEMS AND NON-POTABLE SYSTEMS.
- 8) ALL NEW LINES SHALL BE DISINFECTED AS PER AWWA C601 AND CERTIFIED IN WRITING BY THE INSTALLER PRIOR TO ACCEPTANCE.
- 9) ALL WATER SYSTEM IMPROVEMENTS WILL COMPLY WITH "THE MINIMUM STANDARDS FOR PUBLIC WATER SYSTEMS", MAY 2000 EDITION.
- 10) ALL WATER SYSTEM PIPING SHALL BE BURIED A MINIMUM OF FOUR FEET DEEP.
- 11) VALVES SHALL BE AWWA RESILANT GATE GATE VALVES WITH NRS, 2" OPERATING NUT AND OPENING TO THE LEFT BY AMERICAN DARLING OR APPROVED EQUAL.
- 12) VALVE BOXES WILL BE CAST IRON HEAVY TRAFFIC GRADE WITH ADJUSTABLE TOP, ALONG WITH 17 INCH (ROUND OR SQUARE) CONCRETE VALVE BOX PAD AND CONCRETE VALVE MARKER POST.
- 13) ALL METER BOXES USED OUTSIDE CONCRETE AREAS SHALL BE TYPE MSBC1416-12, MID-STATES PLASTICS OR EQUAL AS SHOWN IN THE DETAILS.
- 14) ALL METER BOXES USED IN CONCRETE AREAS SHALL BE C.I. RECTANGULAR METER BOX OR EQUAL AS SHOWN IN THE DETAILS.
- 15) NO FIELD CHANGES OR DEVIATIONS SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER AND NEWNAN UTILITIES.
- 16) ANY COMMERCIAL AND/OR RESIDENTIAL APPLICATION REQUIRING FIRE FLOW PROTECTION SYSTEM, SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER AND REQUIRES A SEPERATE SERVICE TAP OFF OF MAIN.

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|  <b>NEWNAN<br/>UTILITIES</b> | WATER SYSTEM<br>NOTES | Rev.<br><hr/> <hr/> <hr/> <hr/> |
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CON'T WATER SYSTEM NOTES

17) THE WATER SYSTEM MUST BE DESIGN TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI AT EACH SERVICE CONNECTION AND AT ALL POINTS IN THE DISTRIBUTION SYSTEM UNDER ALL CONDITIONS OF FLOW. THE NORMAL WORKING PRESSURE IN THE DISTRIBUTION SYSTEM SHOULD BE APPROXIMATELY 60 PSI AND NOT LESS THAN 35 PSI.

18) THE WATER SYSTEM SHALL BE DESIGNED TO MAINTAIN MINIMUM FIRE FLOW PROTECTION AS WELL AS, MAINTAIN MINIMUM PRESSURE IN THE SYSTEM.

19) VALVES ARE TO BE PLACE AT ALL INTERSECTIONS OF WATER MAINS. VALVES SHOULD BE LOCATED AT NOT MORE THAN 500 FOOT- INTERVALS IN COMMERCIAL DISTRICTS AND AT NOT MORE THAN ONE BLOCK OR 800-FOOT INTERVALS IN OTHER DISTRICTS. WHERE SYSTEMS SERVE WIDELY SCATTERED CUSTOMERS, THE VALVE SPACING SHOULD NOT EXCEED 4000 FEET.

20) AT HIGH POINTS IN WATER MAINS WHERE AIR CAN ACCUMULATE, PROVISIONS SHALL BE MADE TO REMOVE THE AIR BY MEANS OF HYDRANTS OR AIR RELIEF VALVES. AUTOMATIC AIR RELIEF VALVES SHALL NOT BE USED IN AREAS WHERE FLOODING OF MANHOLE OR CHAMBER MAY OCCUR.

21) THE INSTALLATION OF DUCTILE IRON PIPE WITH RESTRAINED PUSH-ON JOINTS AND ENCASED IN CONCRETE, MAY BE CONSIDERED WITH PRIOR APPROVAL OF THE DIVISION, OTHERWISE, WHEN CROSSING WATER COURSES WHICH ARE GREATER THAN 15 FEET IN WIDTH, ONLY PIPES OF SPECIAL CONTRUCTION, HAVING FLEXIBLE, WATERTIGHT JOINTS SHALL BE INSTALLED.

22) VALVES SHALL BE PROVIDED AT BOTH ENDS OF WATER CROSSINGS SO THAT THE SECTION CAN BE ISOLATED FOR TESTING OR REPAIR (VALVES SHALL BE ACCESSIBLE AND NOT SUBJECT TO FLOODING); THE VALVE CLOSEST TO THE SUPPLY SOURCE SHALL BE IN A MANHOLE.

23) SAMPLING TAPS SHALL BE INSTALLED AT EACH END OF THE CROSSING, AND PERMANENT TAPS SHALL BE MADE FOR TESTING AND DETERMINING LEAKS.

24) SOLVENT-CEMENTED JOINTS ARE NOT ALLOWED FOR BURIED PIPES.

25) WATER MAINS SHALL BE LAID AT LEAST TEN (10) FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SANITARY SEWER, STORM SEWER OR SEWER MANHOLE. THE DISTANCE SHALL BE MEASURE EDGE TO EDGE.

26) WHENEVER A STATE ROUTE OR HEAVILY TRAVELED OFF-SYSTEM ROAD OR A RAIL-ROAD IS CROSSED, THE AGENCY THAT HAS JURISDICTION OVER THE ROAD OR THE RAIL-ROAD MUST BE NOTIFIED, PRIOR TO INSTALLATION OF THE MAINS. AT THE CROSSING, A STEEL CASING WITH SUFFICIENT DIAMETER BE JACKED AND BORRED TO ACCOMMODATE THE CARRIER PIPE. ANY FREE BORING AT LOW TRAFFIC CITY STREETS AND COUNTY ROADS MUST CONFORM TO THE APPLICABLE LOCAL AND/OR STATE REQUIREMENTS.

27) 2" WATER LINES SHALL NOT EXTEND NO GREATER THAN 1000 FEET FROM MAIN. IF 2" INCH WATER LINE IS NOT LOOP BACK INTO MAIN THAN NO GREATER THAN 20 RESIDENT CAN BE ATTACHED ON 2 INCH SERVICE. IF 2" WATER LINE IS LOOPED THAN NO MORE THAN 40 RESIDENTS CAN BE ATTACHED



**NEWNAN  
UTILITIES**

Drawn By: S. Tolar

Inspected By:

WATER SYSTEM  
NOTES CON'T

Rev.

## SEWER SYSTEM

- 1) ALL GRAVITY SEWER COLLECTION PIPING SHALL BE A MINIMUM OF 8 INCH DIAMETER, SDR 26 PVC OR SEWER COATED DIP.
- 2) SIX INCH TAPS SHALL BE MADE IN THE LINE OR MANHOLE, ALL TAPS LARGER THAN 6 INCHES WILL BE MADE AT MANHOLES.
- 3) LINES SHALL BE RUN STRAIGHT, AND ON A CONSTANT GRADE BETWEEN MANHOLES WITH CONTROL BY A LASER SIGHTING OR SIMILAR DEVICE.
- 4) GENERALLY GRAVITY LINES SHALL BE INSTALLED UPHILL WITH THE BELLS POINTED UPHILL.
- 5) THE INSTALLER SHALL USE ONLY APPROVED PIPE LUBRICANT FOR PIPE MAKE UP. THE USE OF PETROLEUM BASED LUBRICANT SHALL NOT BE ALLOWED.
- 6) MANHOLES SHALL BE PRECAST REINFORCED CONCRETE MANUFACTURED IN ACCORDANCE WITH ASTM C478 WITH A MINIMUM CONCRETE COMPRESSIVE STRENGTH OF 4000 PSI.
- 7) MANHOLE BOTTOM AND WALLS SHALL BE A MINIMUM OF 5 INCHES THICK.
- 8) THE MINIMUM NOMINAL INSIDE DIAMETER OF A MANHOLE SHALL BE 4 FEET. THE ECCENTRIC TOP SECTION SHALL REDUCE TO 2 FEET NOMINAL INSIDE DIAMETER.
- 9) ALL MANHOLES SHALL HAVE PLASTIC COATED STEEL STEPS AT 12 INCH CENTERS EITHER CAST IN PLACE OR DRILLED AND EPOXIED.
- 10) ALL SANITARY SEWER LINES BURIED GREATER THAN 15 FEET OR LESS THAN 4 FEET SHALL BE DUCTILE IRON.
- 11) ALL SEWER MAINS SHALL BE SUBJECTED TO A LOW-PRESSURE AIR TEST AND A DEFLECTION TEST. ALLOWABLE DEFLECTION SHALL BE NO GREATER THAN 3% OF THE UNDEFLECTED DIAMETER.
- 12) ALL SEWER MAINS SHALL BE CAMERA VIDEO TAPED, AND JETTED AT END OF WARRANTY.
- 13) ALL SEWER TAPS SHALL BE 6" SDR-26 FITTINGS
- 14) ALL SEWER TAP CLEAN-OUTS SHALL BE LOCATED 3 FEET OUTSIDE THE RIGHT-OF-WAY WITH CONCRETE PAD.
- 15) ALL SANITARY SEWER MANHOLES LOCATED IN NON TRAFFIC AREAS, SHALL BE CAST IN PLACE, AND BE A MIN. OF 24" ABOVE THE ADJACENT GRADE.
- 16) BOLT DOWN MANHOLE COVER AS REQUESTED BY NEWMAN UTILITIES.
- 17) ASBUILT DRAWINGS SHALL INCLUDE ACCURATE DISTANCE FROM UPSTREAM, OR DOWNSTREAM MANHOLE TO ALL SEWER TAPS. ALSO VIDEO TAPE OF SEWER MAIN WITH DISTANCE TO TRAP WILL BE SUBMITTED WITH ASBUILTS.

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|  <b>NEWMAN<br/>UTILITIES</b> | SEWER SYSTEM | Rev. |
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## SEWER LIFT STATION REQUIREMENTS

THE FOLLOWING LIST, ALONG WITH THE NEWNAN WATER AND LIGHT COMMISSION RULES AND ORDINANCES, AND SEWER LIFT STATION SPECIFICATIONS, INDICATES THE MINIMUM REQUIREMENTS THAT DEVELOPERS MUST COMPLY WITH FOR SEWERAGE LIFT STATIONS TO BE ACCEPTED BY THE CITY.

- 1) ENGINEERING REPORT JUSTIFYING WET WELL AND PUMP CAPACITIES.
- 2) TWO PUMPS, EACH WITH THE CAPACITY TO PUMP AVERAGE DAILY FLOW CONFIGURED FOR LEAD/LAG STARTING.
- 3) ALARM SYSTEM WITH HIGH WATER, THERMAL OVER LOAD, SINGLE PHASING.
- 4) SITE FENCED WITH 6 FOOT HIGH GALVANIZED CHAIN LINK FENCE; 12 FOOT DOUBLE GATE.
- 5) PRE ENGINEERED, APPROVED, GORMAN-RUPP PUMP STATION OR APPROVED EQUAL.
- 6) PUMP STATION SHALL HAVE A 1500 WATT HEATER (MINIMUM).
- 7) PUMP MOTORS OPERATE ON 3 PHASE POWER IF AVAILABLE.
- 8) GRAVEL DRIVE INTO PUMP STATION.
- 9) MINIMUM 6 INCH DUCTILE IRON FORCE MAIN (SEWER COATED) EMPTYING INTO AN APPROVED MANHOLE.
- 10) EMERGENCY BYPASS PUMP CONNECTION PER NEWNAN UTILITIES.
- 11) 2 INCH WATER SERVICE TO STATION.
- 12) THE DEVELOPER SHALL PROVIDE A FIVE YEAR WARRANTY ON THE PUMP STATION, MATERIALS AND WORKMANSHIP.
- 13) DESIGN STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF GEORGIA.
- 14) DESIGN MUST BE APPROVED BY NEWNAN UTILITIES
- 15) ALL PUMP STATIONS WILL HAVE A MINIMUM OF A 10' BY 10' CONCRETE SLAB AT THE WET WELL WITH A 6' X 3' DOUBLE LOCKING HATCH.
- 16) ALL LIFT STATIONS SHALL HAVE THE FOLLOWING ACCESSORIES:
 

|                                       |                    |
|---------------------------------------|--------------------|
| 1) A CHEMICAL FEED PUMP               | 4) SPARE PARTS KIT |
| 2) CHEMICAL/ STORAGE TANK             | 5) DRAINAGE KIT    |
| 3) PRE-MOUNTED WARNING LIGHT AND HORN |                    |
- 17) PUMP FUNCTIONALITY SHALL BE CONTROLLED BY SONIC LEVEL SENSORS AT THE WET WELL WITH REDUNDENT BUBBLE OR FLOAT SYSTEM.
- 18) ALL STATIONS WITH 150 GPM OR GREATER CAPACITY SHALL BE EQUIPPED WITH A NATURAL GAS OR PROPANE DRIVE SECONDARY POWER TO AUTOMATICALLY RUN PUMPS DURING POWER FAILURE.
- 19) 6 INCHES OF #57 STONE SHALL BE APPLIED INSIDE ENTIRE FENCED AREA AND 2 FOOT OUTSIDE ENTIRE FENCED AREA.
- 20) PROVIDE A WIDE ANGLE FLOAT FOR EMERGENCIES PURPOSES.

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|  <b>NEWNAN<br/>UTILITIES</b> | SEWER LIFT STATION<br>REQUIREMENTS | Rev. |
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| Drawn By: S. Tolar  |                                    |      |
| Inspected By:   |                                    |      |

## INDUSTRIAL PRE-TREATMENT

1) ALL POTENTIAL INDUSTRIAL SEWER USERS SHALL SUBMIT AN "INDUSTRIAL PRE TREATMENT APPLICATION" PRIOR TO FINAL SEWER USE PERMITTING.

2) ALL INDUSTRIAL SEWER USERS SHALL INCLUDE AN INSPECTION MANHOLE DOWNSTREAM OF THE LAST CONNECTION AND PRIOR TO THE TAP FOR WASTE INSPECTION, MONITORING AND FLOW METERING. THIS IS REQUIRED ON RESTURANTS AND COMMERCIAL FACILITIES GREATER THAN 10000 SQUARE FEET GROSS FLOOR AREA.



Drawn By: S. Tolar

Inspected By:

INDUSTRIAL  
PRE-TREATMENT

Rev.

N-006

## GREASE INTERCEPTOR

- 1) INSTALLATION REQUIREMENTS FOR FOOD SERVICE FACILITIES  
ALL PROPOSED, FUTURE, AND NEWLY REMODELED FOOD SERVICE FACILITIES INSIDE NEWNAN UTILITIES WASTEWATER SERVICE SHALL BE REQUIRED TO INSTALL AN APPROVED GREASE INTERCEPTOR. ALL INTERCEPTOR UNITS SHALL BE INSTALLED OUTDOORS OF THE FOOD SERVICE FACILITY BUILDING UNLESS THE USER CAN DEMONSTRATE TO NEWNAN UTILITIES THAT AN OUTDOOR INTERCEPTOR WOULD NOT BE FEASIBLE. ALL INTERCEPTOR UNITS SHALL BE OF THE TYPE AND CAPACITY APPROVED BY NEWNAN UTILITIES.
- 2) PROHIBITED DISCHARGES - DOMESTIC WASTEWATER SHALL NOT BE DISCHARGED TO THE GREASE INTERCEPTOR UNLESS SPECIFICALLY APPROVED, IN WRITING, BY NEWNAN UTILITIES.
- 3) INSPECTIONS - NEWNAN UTILITIES WILL PERIODICALLY INSPECT EACH FOOD SERVICE FACILITY AND REMOVE ALL INTERCEPTED GREASE FROM THE INTERCEPTOR.
- 4) FEES - NEWNAN UTILITIES SHALL CHARGE EACH FOOD SERVICE FACILITY A FEE FOR REMOVAL OF GREASE FROM THE INTERCEPTOR.
- 5) FLOOR DRAINS - ONLY FLOOR DRAINS WHICH DISCHARGE OR HAVE POTENTIAL TO DISCHARGE GREASE SHALL BE CONNECTED TO INTERCEPTOR.
- 6) LOCATION - EACH GREASE INTERCEPTOR SHALL BE INSTALLED AND CONNECTED SO THAT IT IS EASILY ACCESSIBLE FOR INSPECTION, CLEANING, AND REMOVAL OF THE INTERCEPTED GREASE AT ANYTIME. GREASE TRAPS ARE TO BE INSTALLED OUTDOORS OF THE FOOD SERVICE FACILITY. THE BEST LOCATION IS IN AN AREA OUTSIDE OF AN EXTERIOR WALL, BUT UPSTREAM FROM THE DOMESTIC WASTEWATER DRAIN LINE(S). A GREASE INTERCEPTOR MAY NOT BE INSTALLED INSIDE ANY BUILDING UNLESS APPROVED IN WRITING BY NEWNAN UTILITIES.
- 7) CONSTRUCTION - GREASE INTERCEPTORS SHALL BE CONSTRUCTED AS PER NEWNAN UTILITIES GREASE INTERCEPTOR DETAIL. ALL ALTERNATIVE GREASE REMOVAL DEVICES OR TECHNOLOGIES SHALL BE SUBJECT TO WRITTEN APPROVAL BY NEWNAN UTILITIES.
- 8) ACCESS - EACH OUTDOOR GREASE INTERCEPTOR SHALL BE PROVIDED WITH TWO (2) MANHOLE TERMINATING 1-INCH ABOVE FINISH GRADE WITH CAST IRON FRAME AND COVER. ALL GREASE INTERCEPTORS SHALL BE DESIGNED AND INSTALLED TO ALLOW FOR COMPLETE ACCESS FOR INSPECTION.
- 9) LOAD-BEARING CAPACITY - IN AREAS WHERE ADDITIONAL WEIGHT LOADS MAY EXIST, THE GREASE INTERCEPTOR SHALL BE DESIGNED TO HAVE ADEQUATE LOAD-BEARING CAPACITY (EXAMPLE: VEHICULAR TRAFFIC IN PARKING OR DRIVING AREAS).
- 10) INTERCEPTOR SIZING - ALL FOOD SERVICE FACILITIES ARE REQUIRED TO CONTACT NEWNAN UTILITIES FOR PROPER SIZING OF GREASE INTERCEPTOR.

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|  <b>NEWNAN<br/>UTILITIES</b> | GREASE INTERCEPTOR | Rev. |
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| Inspected By:   |                    |      |

UTILITY IDENTIFICATION INSTALLATION

1) INSTALL CONTINUOUS METALLIC UNDERGROUND WARNING TAPE DURING BACK-FILLING OF TRENCH FOR UNDERGROUND WATER-SERVICE PIPING. DETECTION TAPE OR WIRE SHALL BE INSTALLED APPROXIMATELY TWO (2) FEET BELOW FINISHED GRADE.

2) SERVICE LINES AND VALVES SHALL BE LOCATED VIA MARKED CURBING OR OTHER APPROVED NEWNAN UTILITIES METHOD. ADJACENT STREET CURB TO SERVICE LINE AND VALVES SHALL BE MARKED VIA SAW-CUT AS FOLLOWS.

3) CURB MARKINGS SHALL BE A MINIMUM OF FOUR (4) INCHES IN HEIGHT.

- A) "W" FOR WATER SERVICE LOCATION.
- B) "V" FOR WATER SERVICE LOCATION.
- C) "X" FOR SEWER SERVICE LOCATION.

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|  <b>NEWNAN<br/>UTILITIES</b> | UTILITY<br>IDENTIFICATION<br>INSTALLATION | Rev. |
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| Drawn By: S. Tolar  |   |      |
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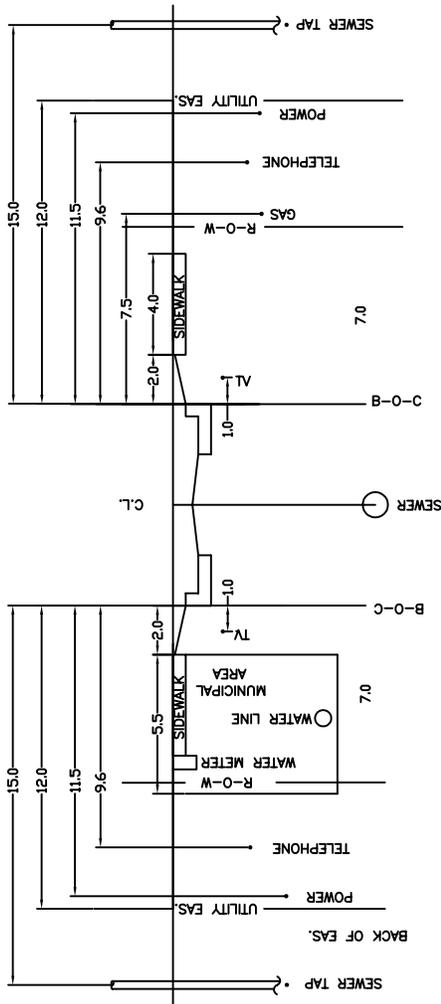
DESIGN AND PLAN PREARATION

1. GENERAL- THE DESIGN AND PLAN PREPARATION OF WATER DISTRIBUTION AND SANITARY SEWER SYSTEMS SHALL CONFORM TO NEWNAN UTILITIES SPECIFICATION, NOTES AND DETAILS.
2. LICENSED PROFESSIONALS - WATER DISTRIBUTION SYSTEM AND/OR GRAVITY FLOW SANITARY SEWER SYSTEM DESIGN AND PLAN PREPARATION FOR A RESIDENTIAL SUBDIVISION OR PARTS THEREOF ON A DEVELOPER'S PROPERTY, PROPERTY OFFSITE OF A DEVELOER'S PROPERTY, COMMERCIAL/ INDUSTRIAL PROPERTY, FORCE MAIN AND SANITARY SEWER LIFT STATION DESIGN SHALL BE PERFORMED BY A GEORGIA LICENSED PROFESSIONAL ENGINEER WHO HAS SUFFICIENT KNOWLEDGE TO PROPERLY PERFORM THE DESIGN.
3. THE PROFESSIONAL PERFORMING THE DESIGN AND PREPARING THE PLANS SHALL SEAL EACH SHEET WITH THEIR STAMP AND SIGN THEIR NAME ACROSS THE STAMP.
4. PLAND REQUIREMENTS - WATER DISTRIBUTION SYSTEM AND/OR SANITARY SEWER SYSTEM PLANS SHALL BE COMPRISED OF THE FOLLOWING SHEET AS REQUIRED.
  - A. COVER SHEET
  - B. SITE PLAN SHEET
  - C. GRADING PLAN SHEET
  - D. STORM WATER SYSTEM PLAN SHEET
  - E. WATER DISTRIBUTION PLAN SHEETS
  - F. SANITARY SEWER SYSTEM PLAN SHEETS
  - G. SANITARY SEWER SYSTEM PROFILE SHEETS
  - H. SANITARY SEWER LIFTSTATION AND CROSS-SECTION SHEET
  - I. ALL NEWNAN UTILITIES NOTES AND DETAILS
  - J ALL OTHER PERTINENT SHEETS
5. PLAN SUBMITTAL - WATER DISTRIBUTION SYSTEM AND/OR SANITARY SEWER SYSTEM PLANS SHALL BE SUBMITTED TO NEWNAN UTILITIES. TWO (2) SEPARATE FULL SET OF PLANS AND AutoCAD REV 14 OR NEWER DWG FILE ARE REQUIRED FOR EACH SUBMITTAL DURING THE NEWNAN. UTILITIES REVIEW PROCESS THE DESIGN ENGINEER SHALL ADDRESS NEWNAN UTILITIES COMMENTS. PLANS CONTAINING THE ORGINAL RED LINE COMMENTS SHALL ACCOMPANY EACH RE-SUBMITTAL TO THE NEWNAN UTILITIES. FOUR (4) SEPARATE SETS OF PLANS AND AutoCAD REV 14 OR NEWER DWG FILE SHALL BE REQUIRED FOR FINAL NEWNAN UTILITIES APPROVAL.
6. PERIOD OF PLAN APPROVAL - THE APPROVAL PERIOD OF WATER DISTRIBUTION SYSTEM AND/OR SANITARY SEWER SYSTEM PLANS SHALL BE SIX (6) MONTHS. APPROVED PLANS THAT ARE NOT INITIATED OR ARE ACTIVE FOR A SIX (6) MONTH PERIOD SHALL BECOME INVALID.

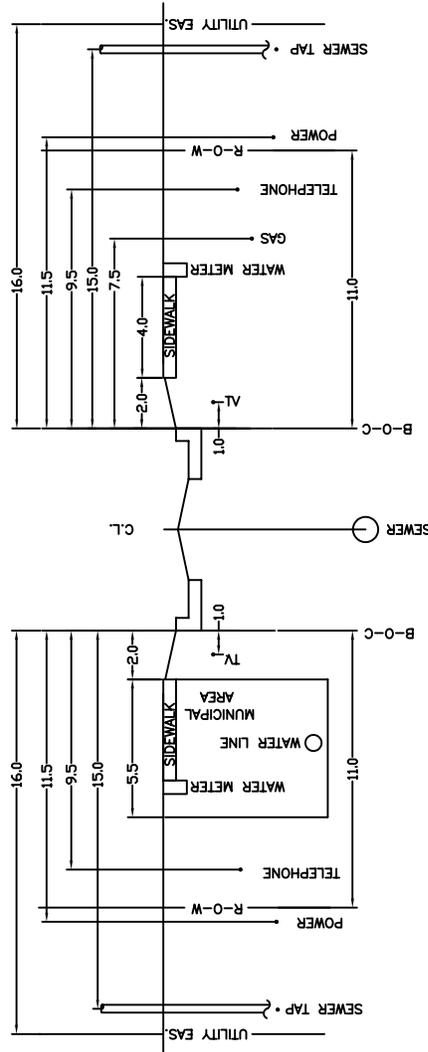
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|  <b>NEWNAN UTILITIES</b> | DESIGN AND<br>PLAN PREPARATION<br>NOTES | Rev. |
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| Drawn By: S. Tolar  |   |      |
| Inspected By:   |   |      |

**GENERAL NOTES:**

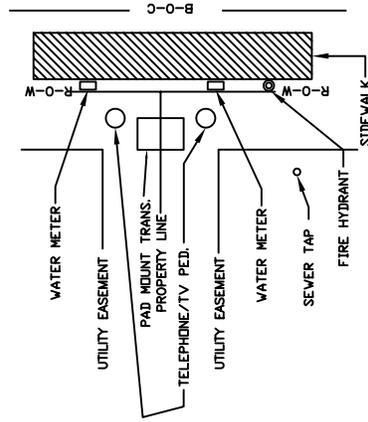
- 1) GAS AND WATER WILL BE ON OPPOSITE SIDES OF THE ROAD.
- 2) UTILITY LOCATIONS ARE MEASURED FROM THE BACK OF CURB (B-O-C).
- 3) POWER, CABLE TV, AND TELEPHONE WILL USE JOINT TRENCHES WHERE PRACTICAL. THE LOCATION SHALL BE THE UTILITY TRENCH FURTHEST FROM THE B-O-C.
- 4) UTILITY BURIAL DEPTHS:  
 WATER MAIN 3 FEET MINIMUM  
 WATER SERVICE 3 FEET MINIMUM  
 SEWER MAIN 3 FEET MINIMUM  
 GAS MAIN 3 FEET  
 GAS SERVICE 3 FEET  
 POWER 2 FEET MINIMUM  
 TELEPHONE 2 FEET  
 CABLE TV 1.5 FEET
- 5) BURIAL DEPTH MEASURED FROM THE TOP OF CURB TO THE TOP OF THE UTILITY.
- 6) ALL RESIDENTIAL ROADS REQUIRE AN ADDITIONAL 5 FOOT UTILITY EASEMENT AT THE FRONT OF THE LOT.
- 7) RESIDENTIAL STREET ABOVE GRADE PLAN SIMILAR TO MINOR RESIDENTIAL STREET PLAN.



STREET WIDTH



STREET WIDTH



MINOR RESIDENTIAL STREET ABOVE GRADE PLAN N.T.S.



**NEWMAN UTILITIES**

Drawn By: S. Tolar

Inspected By:

UTILITY PLACEMENT

Rev.

## ROAD AND CREEK CROSSING

- 1) BORE CASING PIPE SHALL BE STANDARD WALL, UNCOATED STEEL PIPE. JOINTS SHALL BE CONTINUOUS WELD WITH 70XX FILLER MATERIAL. THE INSIDE DIAMETER OF THE CASING SHALL BE A MINIMUM OF 6 INCHES LARGER THAN THE OUTSIDE DIAMETER, AT THE BELL, OF THE CARRIER PIPE.
- 2) ALL HIGHWAY AND RAILROAD CROSSINGS SHALL COMPLY WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS, AND IN THE CASE OF RAILWAY BORINGS WITH THE RAILROAD COMPANY.
- 3) CARE IS TO BE EXERCISED IN PUSHING OR PULLING THE CARRIER PIPE INTO CASING. USE WOOD CHOCKS OR SKIDS TO ENSURE APPROXIMATE CENTERING OF THE CARRIER PIPE WITHIN THE CASING.
- 4) ALL CARRIER PIPE SHALL BE CLASS 50, CEMENT AND ASPHALTIC LINED AND ASPHALTIC COATED WITH AMERICAN FAST GRIP OR EQUAL RESTRAINED JOINTS.
- 5) ALL PRESSURE PIPE INSTALLATIONS SHALL HAVE VALVES PLACED ON EACH SIDE OF A ROAD, BRIDGE OR CREEK CROSSING.
- 6) ALL BRIDGE CROSSING SHALL HAVE A VALVE LOCATED ON EACH SIDE



Drawn By: S. Tolar

Inspected By:

ROAD AND  
CREEK CROSSING

Rev.

N-011

## BACK-FLOW PREVENTERS

- 1) ALL BACK-FLOW PREVENTERS, INCLUDING ACCESSORIES, COMPONENTS, AND FITTINGS IN SIZES THROUGH 2" SHALL BE BRONZE WITH THREADED CONNECTIONS. SIZES ABOVE 2" SHALL BE BRONZE OR IRON THAT HAS BEEN FUSED EPOXY-COATED INSIDE AND OUT, AND HAVE FLANGED CONNECTIONS.
- 2) ALL BACK-FLOW PREVENTION DEVICES SHALL BE APPROVED IN ACCORDANCE WITH THE APPLICABLE STANDARDS OF THE AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE), THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), THE AMERICAN WATER WORKS ASSOCIATION (AWWA), AND THE CITY OF NEWNAN'S PLUMBING CODE (SBCCI).
- 3) THE FOLLOWING MANUFACTURERS ARE APPROVED BY THE NEWNAN WATER, SEWERAGE AND LIGHT COMMISSION FOR USE IN BACK-FLOW PREVENTION APPLICATIONS. ANY MODEL FROM THESE MANUFACTURERS THAT MEETS THIS CRITERIA IS AN APPROVED DEVICE.
  - \* WATTS
  - \* FEBCO
  - \* WILKINS
  - \* CONBRACO
- 4) LOCATION OF ALL BACK-FLOW PREVENTION DEVICES SHALL BE IN AN AREA THAT PROVIDES A SAFE WORKING ENVIRONMENT FOR TESTING AND MAINTENANCE. THE AREA SHALL BE READILY ACCESSIBLE, DRY, FREE FROM DIRT, EXTREME COLD, HEAT AND ELECTRICAL HAZARDS.
- 5) ALL BACK-FLOW PREVENTERS SHALL BE INSTALLED IN THE POSITION RECOMMENDED BY THE MANUFACTURER.
- 6) NO INTERVENING BRANCH CONNECTIONS SHALL BE ALLOWED BETWEEN THE COMMISSION'S CORPORATION STOP AND THE BACK-FLOW PREVENTER.
- 7) REDUCED PRESSURE ZONE BFP, MUST BE INSTALLED ABOVE GRADE OR IN A BUILDING.
- 8) ALL DOUBLE DETECTOR CHECK BACK-FLOW PREVENTERS SHALL BE EQUIPPED WITH CUBIC FEET METERS.
- 9) ALL BACK-FLOW PREVENTERS SHALL BE TESTED PRIOR TO SYSTEM PLACED IN SERVICE.

|   |                         |      |
|---|-------------------------|------|
|  <b>NEWNAN<br/>UTILITIES</b> | BACK-FLOW<br>PREVENTERS | Rev. |
|   |                         |      |
| Drawn By: S. Tolar  |                         |      |
| Inspected By:   |                         |      |

## ABOVE GROUND ENCLOSURE

- 1) ALL BACK-FLOW PREVENTION DEVICES LOCATED ABOVE GROUND SHALL BE IN A FREEZE PROOF ENCLOSURE. THE ENCLOSURE SHALL MOUNT ON A 4" MINIMUM THICKNESS CONCRETE PAD. RISER PIPES SHALL HAVE EXPANSION MATERIALS WHERE PENETRATING THROUGH THE CONCRETE.
- 2) IT IS RECOMMENDED THAT THE CUSTOMER PLACE A HEATING DEVICE OR HEAT TAPE IN THE ENCLOSURE OR ON THE DEVICE TO PREVENT THE DEVICE FROM FREEZING.
- 3) THE ENCLOSURE MUST BE LARGE ENOUGH TO ACCOMMODATE VALVE STEMS WITH VALVES OPEN.
- 4) DRAIN PORT MUST REMAIN CLOSED EXCEPT WHEN DEVICE IS DISCHARGING WATER.
- 5) ENCLOSURE SHALL BE EASILY REMOVABLE, HAVE DOORS OR ACCESS PANELS TO ALLOW EASY ACCESS FOR OPERATION, MAINTENANCE AND TESTING OF THE ASSEMBLY WITHOUT THE REMOVAL OF THE ASSEMBLY.
- 6) ENCLOSURE SHALL BE SECURELY FASTENED TO CONCRETE PAD WITH STAINLESS ANCHOR BRACKETS INSTALLED ON THE INTERIOR OF THE ENCLOSURE OR THROUGH THE FLANGE BASE.
- 7) ACCESS PANELS SHALL BE LOCKABLE.



Drawn By: S. Tolar

Inspected By:

ABOVE GROUND  
ENCLOSURE

Rev.

N-013

## BELOW GRADE VAULTS

- 1) BELOW GRADE VAULTS OTHER THAN RESIDENTIAL WATER METER VAULTS SHALL BE REINFORCED PRECAST CONCRETE WITH 4000 PSI. STRENGTH AFTER 28 DAYS. MINIMUM THICKNESS OF FLOOR, WALLS, AND TOP IS 6 INCHES. THE INSIDE HEIGHT OF THE VAULTS SHALL BE A MINIMUM OF 6 FEET.
- 2) VAULT BOTTOM - SHALL BE SLOPPED TO GRAVEL SUMP. VAULT SHALL BE SET PLUMB AND LEVEL ON A MINIMUM OF 12 INCHES OF COMPACTED #57 STONE.
- 3) VAULT TOP - SHALL BE REINFORCED CONCRETE, WITH HATCH OPENING OFFSET TO SIDE, AND LARGE ENOUGH FOR DEVICE REMOVAL.
- 4) ACCESS LADDER - DOWELED TO WALL AND CENTERED AT HATCH OPENING.
- 5) HATCH COVER - SHALL BE ALUMINUM WITH A LOCKING COVER AND DRAIN, CAST INTO THE VAULT TOP AND LARGE ENOUGH FOR EQUIPMENT REMOVAL, BILCO MODEL NO. J-4A OR EQUAL.
- 6) VAULT INLET/OUTLET PIPE OPENINGS SHALL BE SEALED WITH NON SHRINK GROUT PIPE MUST NOT SUPPORT VAULT.
- 7) VAULT SHALL BE SIZED TO PROVIDE A 2 FOOT CORRIDOR AROUND THE ENCLOSED DEVICE.
- 8) VAULT TO BE INSTALLED ON OWNER'S PRIVATE PROPERTY PROVIDED FOR BY A 15 x 30 FOOT EASEMENT AND/OR RIGHT OF ENTRY CLAUSE.

|   |                    |      |
|---|--------------------|------|
|  <b>NEWNAN<br/>UTILITIES</b> | BELOW GRADE VAULTS | Rev. |
|   |                    |      |
| Drawn By: S. Tolar  |                    |      |
| Inspected By:   |                    |      |

## DISINFECTING OF WATER MAINS

### A: DISINFECTION OF WATER MAINS

1. ALL NEW WATER MAINS, AS WELL AS THOSE TAKEN OUT OF SERVICE FOR INSPECTION, REPAIR, OR OTHER ACTIVITIES THAT MIGHT LEAD TO CONTAMINATION OF WATER SHALL BE DISINFECTED BEFORE THEY ARE PLACED IN OR RETURNED TO SERVICE.
2. DISINFECTION OF THE NEW MAINS AND THE DISPOSAL OF THE HEAVILY CHLORINATED WATER, FOLLOWING THE DISINFECTION, SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE LATEST ADDITION OF AWWA STANDARD C651.
3. THE "TABLET METHOD" OF DISINFECTION WHICH CONSISTS OF PLACING CALCIUM HYPOCHLORITE GRANULES OR TABLETS IN THE WATER MAIN AS IT IS BEING INSTALLED AND THEN FILLING THE MAIN WITH POTABLE WATER WHEN INSTALLATION IS COMPLETE IS NOT ALLOWED.
4. BEFORE THE MAIN IS CHLORINATED, IT SHALL BE FILLED TO ELIMINATE AIR POCKETS AND SHALL BE FLUSHED TO REMOVE PARTICULATES. A FLUSHING VELOCITY OF NOT LESS THAN 2.5 FEET/SECOND IS USUALLY MAINTAINED IN PIPE SIZES LESS THAN 24 INCHES IN DIAMETER. FOR LARGER DIAMETER MAINS, AN ALTERNATIVE TO FLUSHING, SUCH AS BROOM-SWEEPING OF THE MAIN, IS ACCEPTABLE TO CHLORINATING THE MAIN.
5. DURING DISINFECTION OF THE WATER MAINS, AN APPROPRIATE CROSS-CONNECTION CONTROL DEVICE, CONSISTENT WITH THE DEGREE OF HAZARD, SHALL BE PROVIDED FOR BACKFLOW PROTECTION OF THE ACTIVE DISTRIBUTION SYSTEM.
6. THE QUALITY OF THE WATER USED DURING THE DISINFECTION PROCEDURES SHALL MEET THE REQUIRED DRINKING WATER STANDARDS.
7. THE CHLORINE SOLUTION USED FOR DISINFECTION OF WATER MAINS SHALL HAVE A FREE CHLORINE RESIDUAL CONCENTRATION NOT LESS THAN 25 mg/L. THIS HEAVILY CHLORINATED WATER SHALL BE RETAINED IN THE MAIN FOR AT LEAST 24 HOURS, DURING WHICH TIME ALL VALVES AND HYDRANTS SHALL BE OPERATED TO ENSURE DISINFECTION OF THE APPURTENANCES. AT THE END OF THE 24-HOUR PERIOD, THE TREATED WATER IN ALL PORTIONS OF THE MAIN SHALL HAVE A RESIDUAL OF NOT LESS THAN 10 mg/L FREE CHLORINE. RE-CHLORINATE IF REQUIRED RESULTS ARE NOT OBTAINED ON ALL SAMPLES.
8. AFTER THE APPLICABLE RETENTION PERIOD, THE HEAVILY CHLORINATED WATER MUST NOT BE DISPOSED IN A MANNER THAT WILL HARM THE ENVIRONMENT. NEUTRALIZING CHEMICALS, SUCH AS SULFUR DIOXIDE, SODIUM BISULFITE, SODIUM SULFITE OR SODIUM THIOSULFATE CAN BE USED TO NEUTRALIZE THE CHLORINE RESIDUAL REMAINING IN THE WATER TO BE WASTED.



Drawn By: S. Tolar

Inspected By:

DISINFECTING OF  
WATER MAINS

Rev.

N-015

CON'T. DISINFECTING OF WATER MAINS

9. FLUSH ALL LINES UNTIL RESIDUAL IS EQUAL TO EXISTING SYSTEM. AFTER FINAL FLUSHING AND BEFORE THE WATER MAIN IS PLACED INTO SERVICE, WATER SAMPLES SHALL BE COLLECTED FROM THE MAIN AND TESTED FOR MICROBIOLOGICAL QUALITY IN ACCORDANCE WITH THE GEORGIA RULES FOR SAFE DRINKING WATER, CHAPTER 391-3-5. THE LABORATORY RESULTS MUST SHOW THE ABSENCE OF COLIFORM ORGANISMS IN THE WATER. REFLUSH AND REDISINFECT THE LINES, AS NECESSARY, UNTIL SATISFACTORY BACTERIOLOGICAL RESULTS ARE OBTAINED.

- B: DISINFECTION WHEN CUTTING INTO OR REPAIRING EXISTING MAINS
  - 1. SHALL BE PERFORMED WHEN MAINS ARE WHOLLY OR PARTIALLY DEWATERED.
  - 2. SHALL FOLLOW THE CURRENT AWWA C651 STANDARDS, INCLUDING TRENCH TREATMENT, SWABBING WITH HYPOCHLORITE SOLUTION, FLUSHING AND/OR SLUG CHLORINATION AS APPROPRIATE.
  - 3. BACTERIOLOGICAL TESTING SHALL BE PERFORMED AFTER THE REPAIRS ARE COMPLETE. HOWEVER, DEPENDING UPON THE CIRCUMSTANCES, THE WATER MAIN MAY BE RETURNED TO SERVICE PRIOR TO COMPLETION OF TESTING TO MINIMIZE THE TIME THE CUSTOMER ARE OUT OF SERVICE.
  - 4. LEAKS OR BREAKS THAT ARE REPAIRED WITH CLAMPING DEVICES WHILE THE MAINS REMAIN FULL OF WATER UNDER PRESSURE MAY REQUIRE NO DISINFECTION.
- C: PREPARE REPORTS FOR PURGING AND DISINFECTING ACTIVITIES.
- D: AMOUNT OF CHLORINE NECESSARY FOR DISINFECTION
  - 1. CHLORINE REQUIRED TO PRODUCE 25 mg/L CONCENTRATION IN 100 FEET OF PIPE DIAMETER:

| Pipe Diameter<br>Inches | 100% Chlorine |      | 1% Chlorine Solution |     |
|-------------------------|---------------|------|----------------------|-----|
|                         | (lbs)         | (g)  | (gal)                | (L) |
| 4                       | 0.013         | 5.9  | 0.16                 | 0.6 |
| 6                       | 0.030         | 13.6 | 0.36                 | 1.4 |
| 8                       | 0.054         | 24.5 | 0.65                 | 2.5 |
| 10                      | 0.085         | 38.6 | 1.02                 | 3.9 |
| 12                      | 0.120         | 54.4 | 1.44                 | 5.4 |
| 16                      | 0.217         | 98.4 | 2.60                 | 9.8 |

NOTE 1% CHLORINE SOLUTION MAY BE PREPARED WITH SODIUM HYPOCHLORITE (CONTAINS 5% TO 15% AVAILABLE CHLORINE) OR CALCIUM HYPOCHLORITE (CONTAINS APPROXIMATELY 65% CHLORINE BY WEIGHT). TO PREPARE 1% CHLORINE SOLUTION USING CALCIUM HYPOCHLORITE, ADD ONE (1) POUND (454 GRAMS) OF CALCIUM HYPOCHLORITE IN APPROXIMATELY 8 GALLONS OF WATER.



**NEWNAN  
UTILITIES**

Drawn By: S. Tolar

Inspected By:

DISINFECTING OF  
WATER MAINS

|      |
|------|
| Rev. |
|      |
|      |
|      |

## CON'T. DISINFECTING OF WATER MAINS

NOTE 1% CHLORINE SOLUTION MAY BE PREPARED WITH SODIUM HYPOCHLORITE (CONTAINS 5% TO 15% AVAILABLE CLORINE) OR CALCIUM HYPOCHLORITE (CONTAINS APPROXIMATELY 65% CHLORINE BY WEIGHT). TO PREPARE 1% CHLORINE SOLUTION USING CALCIUM HYPOCHLORITE, ADD ONE (1) POUND (454 GRAMS) OF CALCIUM HYPOCHLORITE IN APPROXIMATELY 8 GALLONS OF WATER.

2. AMOUNTS AND TYPES OF CHEMICALS ADVISED TO BE USED FOR NEUTRALIZING VARIOUS RESIDUAL CHLORINE CONCENTRATION IN 100,000 GALLONS OF WATER.

| Residual Chlorine Concentration | Chemicals                         |       |  |       |   |       |  |       |
|---------------------------------|-----------------------------------|-------|--|-------|---|-------|--|-------|
|                                 | Sulfur Dioxide (SO <sub>2</sub> ) |       | Sodium Bisulfate (NaHSO <sub>3</sub> ) |       | Sodium Sulfite (Na <sub>2</sub> SO <sub>3</sub> ) |       | Sodium Thiosulfate (Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 5H <sub>2</sub> O) |       |
| Mg/L                            | Lb                                | Kg    | Lb                                     | Kg    | Lb  | Kg    | Lb   | Kg    |
| 1                               | 0.8                               | 0.36  | 1.2                                    | 0.54  | 1.4   | 0.64  | 1.2  | 0.54  |
| 2                               | 1.7                               | 0.77  | 2.5                                    | 1.13  | 2.9   | 1.32  | 2.4  | 1.09  |
| 10                              | 8.3                               | 3.76  | 12.5                                   | 5.67  | 14.6  | 6.62  | 12.0   | 5.44  |
| 50                              | 41.7                              | 18.91 | 62.6                                   | 28.39 | 73.0  | 33.11 | 60.0   | 27.22 |



NEWNAN  
UTILITIES

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Drawn By: S. Tolar

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Inspected By:

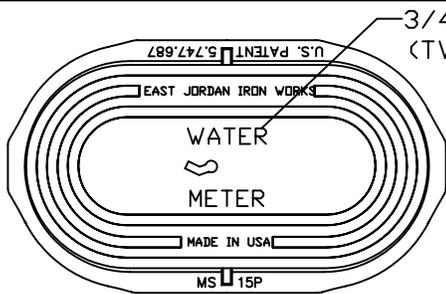
DISINFECTING OF  
WATER MAINS

|      |
|------|
| Rev. |
|      |
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## AS-BUILT AND ACCEPTANCE

1. AS-BUILT DRAWINGS
  - A. AS-BUILT DRAWING OF INSTALLED WATER DISTRIBUTION SYSTEM AND/OR SANITARY SEWER SYSTEM SHALL BE PREPARED AND SEALED BY A PROFESSIONAL ENGINEER AND/ OR REGISTERD LAND SURVEYOR.
  - B. AS-BUILT DRAWINGS SHALL BE COMPLETED AND ACCEPTED PRIOR TO NEWNAN UTILITIES ISSUING ANY SERVICES.
  - C. AS-BUILT DRAWINGS SHALL SHOW ALL STREET NAMES, RIGHT-OF-WAY WIDTHS, RELATED EASEMENTS, LOT NUMBERS, SITE LOCATION, LOCATION OF SERVICES, PIPE SIZE, PIPE LENGHTS, AND TYPE OF MATERIAL OF ALL WATER DISTRIBUTION SYSTEM AND/OR SANITARY SEWER SYSTEM COMPONENTS.
  - D. AS-BUILT DRAWINGS SHALL BE PREPARED USING SURVEY TO TIE THE DEVELOPMENT'S WATER DISTRIBUTION SYSTEM AND/OR SANITARY SEWER SYSTEMS HORIZONTALLY TO THE FOLLOWING STATE PLANE CORDINATE SYSTEM OR AS AMENDED BY NEWNAN UTILITIES.
    1. HORIZONTAL CONTROL: NORTH AMERICAN DATUM 83/84
    2. GRID ZONE: GEORGIA WEST
  - E. THE DEVELOPER'S WATER DISTRIBUTION SYSTEM AND/OR SANNITARY SEWER SYSTEM SHALL NOT BE CONSIDERED COMPLETE UNTIL THE AS-BUILT DRAWINGS HAVE BEEN REVIEWED AND APPROVED IN WRITING BY NEWNAN UTILITIES. NOTE THAT ONE (1) REPRODUCIBLE SET OF THE APPROVED AS-BUILT DRAWINGS SHALL BE SUBMITTED TO NEWNAN UTILITIES ENGINEER. THE APPROVED ASBUILT DRAWINGS SHALL ALSO BE SUBMITTED TO NEWNAN UTILITIES ENGINEER IN DIGITAL FORMAT (AutoCAD VER 14 OR NEWER VERSION).
2. ACCEPTANCE OF WATER DISTRIBUTION AND/OR SANITARY SEWER SYSTEM
  - A. ACCEPTANCE OF THE WATER DISTRIBUTION AND/OR SANITARY SEWER SYSTEM IS NOT FINAL UNTIL AS-BUILT HAVE BEEN ACCEPTED AND ANY DEFICIENCIES HAVE BEEN FIXED.
  - B. WATER METERS SHALL NOT BE INSTALLED UNTIL ASBUILTS HAVE BEEN ACCEPTED.
  - C. VIDED TAPE OF THE SANITARY SEWER SYSTEMS, ALONG WITH A DOCUMENT STATING DISTANCES OF LATERALS FROM UPSTREAM AND/OR DOWNSTREAM MANHOLES, SHALL BE SUBMITTEED ALONG WITH THE ASBUILTS, PRIOR TO ACCEPTANCE.

|   |                                    |                                       |
|---|------------------------------------|---------------------------------------|
|  <b>NEWNAN<br/>UTILITIES</b> | ASBUILT AND<br>ACCEPTANCE<br>NOTES | Rev. _____<br>_____<br>_____<br>_____ |
|   |                                    |                                       |
| Drawn By: S. Tolar  |                                    |                                       |
| Inspected By:   |                                    |                                       |



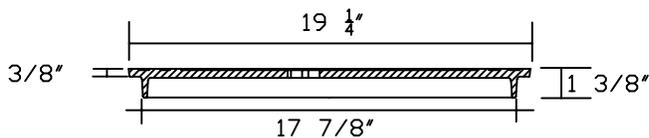
BOX & COVER TOP VIEW

3/4" LETTERING  
(TWO PLACES)

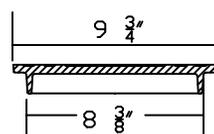
METER BOX IS A EAST JORDAN IRON WORKS MS15P BOX

METER BOX COVER IS A EAST JORDAN IRON WORKS 15-P COVER

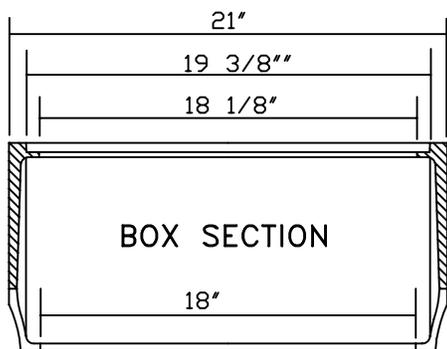
NOTE: IN RESIDENTIAL INSTALLATION THE DEVELOPER RESPONSIBLE FOR THE INSTALLATION OF ALL EQUIPMENT EXCEPT THE METER



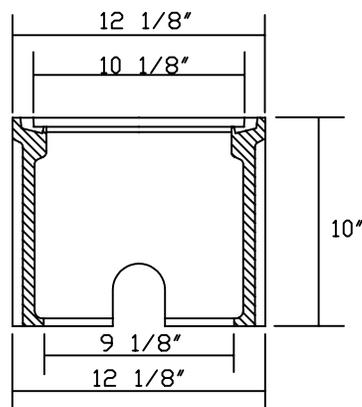
COVER SECTION



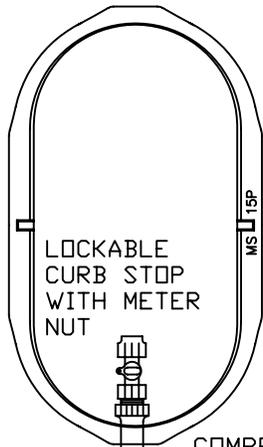
COVER SECTION



BOX SECTION



SHORT SIDE VIEW

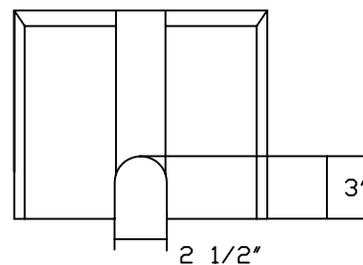


Q-NUT  
CORP STOP  
AND DIRECT TAP

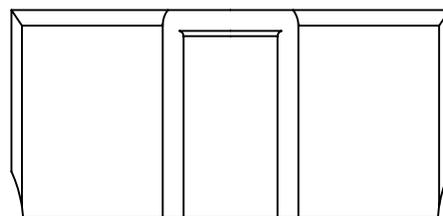
WATER MAIN

COMPRESSION BY METER  
COUPLING TYPE "K" COPPER

COMPRESSION FITTING  
TYPE "K" COPPER



SHORT SIDE VIEW



LONG SIDE VIEW



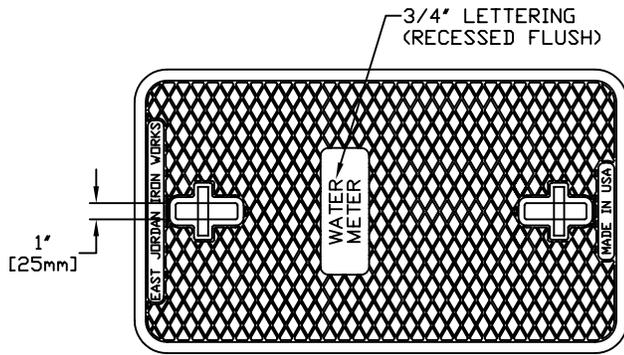
**NEWNAN  
UTILITIES**

SINGLE 3/4" or 1"  
RESIDENTIAL  
WATER TAP  
METER BOX

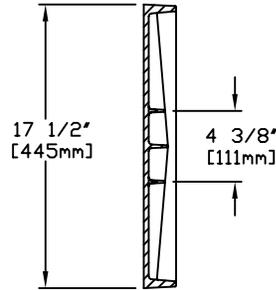
Rev.

Drawn By: S. Tolar

Inspected By:



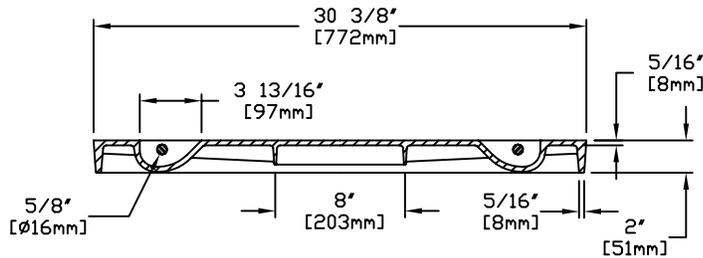
**PLAN VIEW**



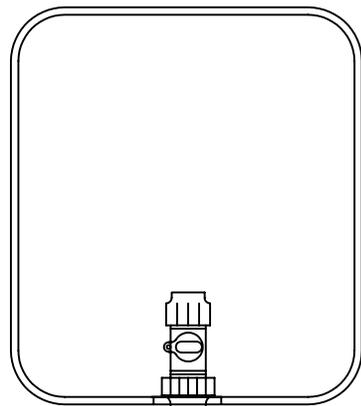
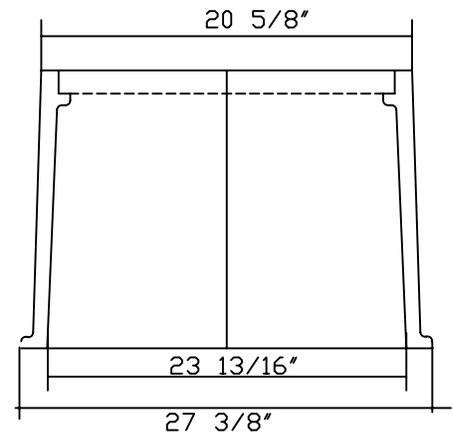
**COVER SECTION**

METER BOX IS A  
CARSON INDUSTRIES  
1730-15 SUPER JUMBO XL

THE METER BOX LID  
SHALL BE EAST JORDON  
IRON WORKS 1730 WATER  
METER COVER  
PRODUCT # 32131730



**COVER SECTION**



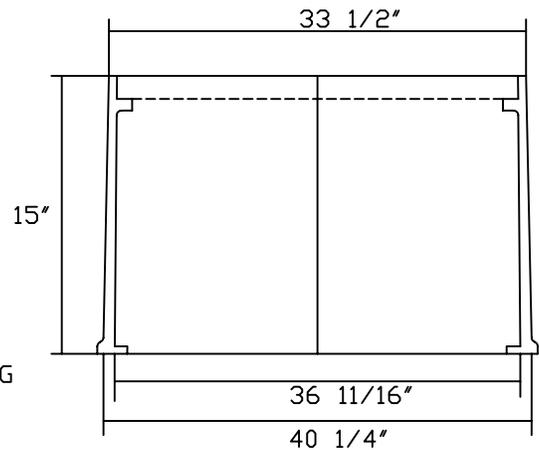
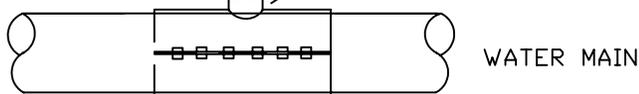
2" BLUE POLY PIPE WITH TRACING WIRE

2" COMPRESSION LOCKABLE CURB STOP

2" SADDLE TAP WITH GATE VALVE

2" COMPRESSION FITTING

BRASS NIPPLE



Drawn By: S. Tolar

Inspected By:

2" METER BOX  
AND  
WATER TAP

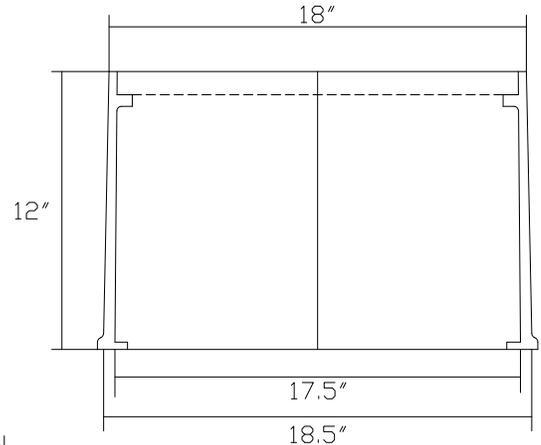
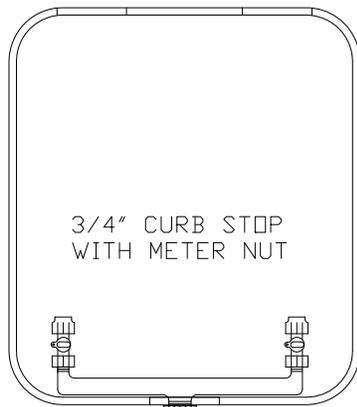
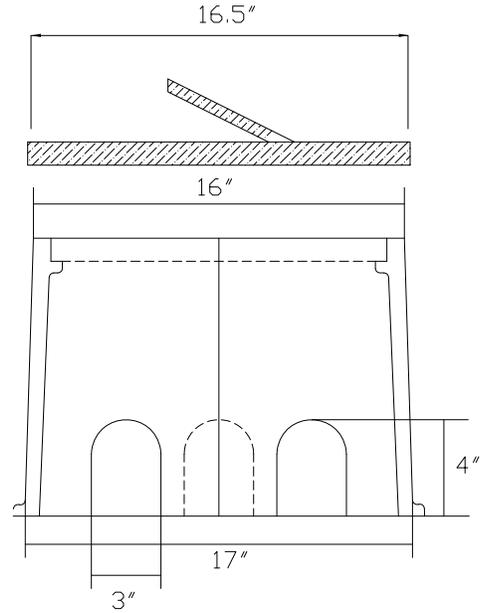
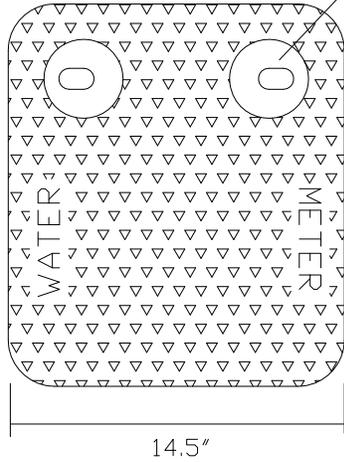
Rev.

METER BOX IS A DWF PLASTICS, INC.  
DFW39C-12-BODY METER BOX WITH DFW39C-1F XDEEP-LID

NOTE: THE DUAL METER BOX IS TO BE USED  
AT ALL LOTS WHERE IRRIGATION MAY BE INSTALLED

NOTE: IN RESIDENTIAL INSTALLATION THE DEVELOPER  
RESPONSIBLE FOR THE INSTALLATION OF ALL EQUIPMENT  
EXCEPT THE METER

4 <sup>5</sup>/<sub>8</sub>" X <sup>5</sup>/<sub>8</sub>" DEEP RECESS W/  
1.88" X 2.5" KNOCKOUT FOR ENDPOINT.



1" x 3/4" x 7.5"  
BRANCH PEICE

1" Q-NUT COMPRESSION  
FITTING, FROM COPPER  
TO BRANCH PEICE

Q-NUT  
1" CORP STOP  
AND DIRECT TAP

1" COMPRESSION FITTING  
TYPE "K" COPPER

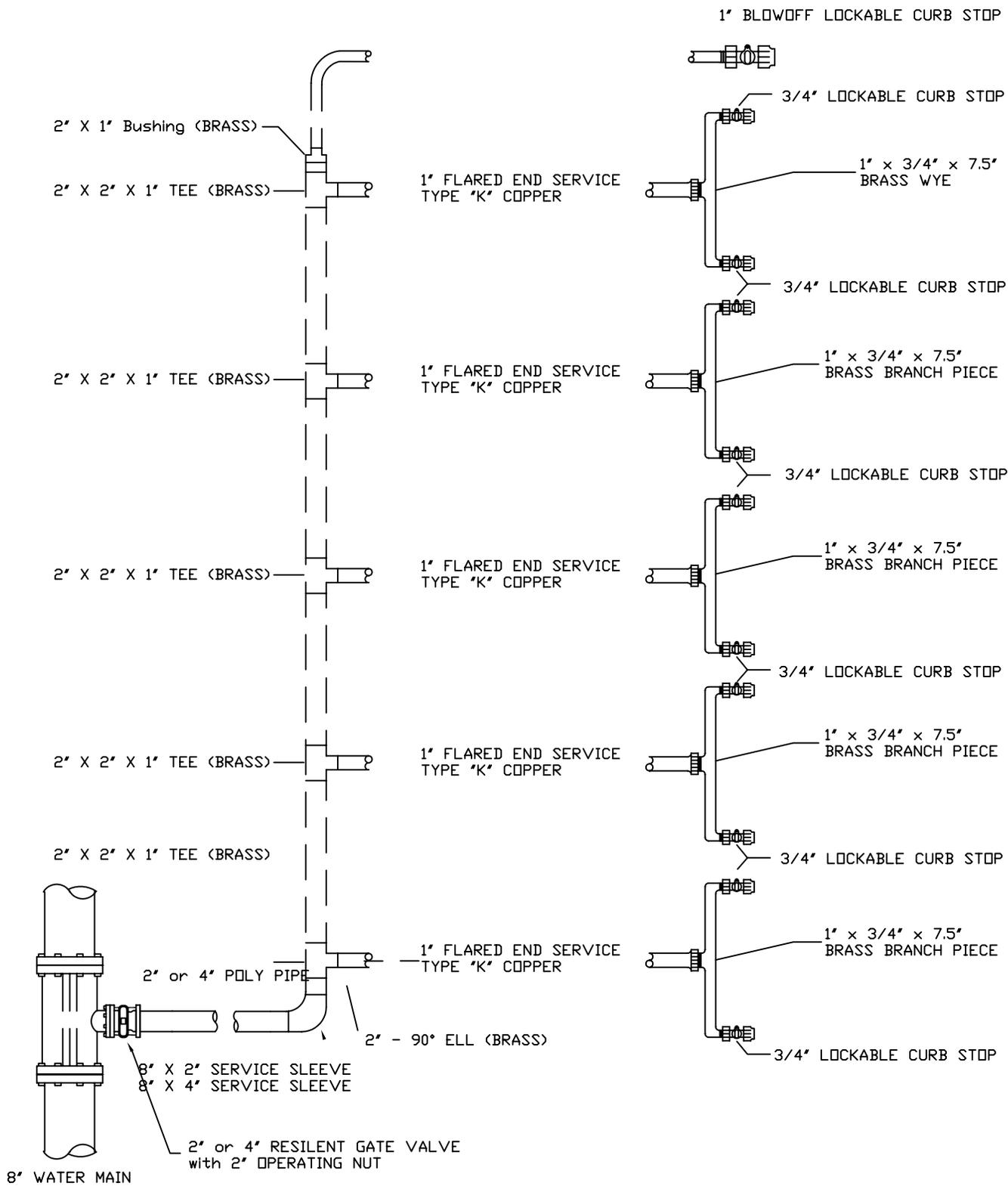


RESIDENTIAL  
WATER TAP  
METER BOX

Rev. 05/07/2019 Jeff Pecce

Drawn By: S. Tolar

Inspected By:



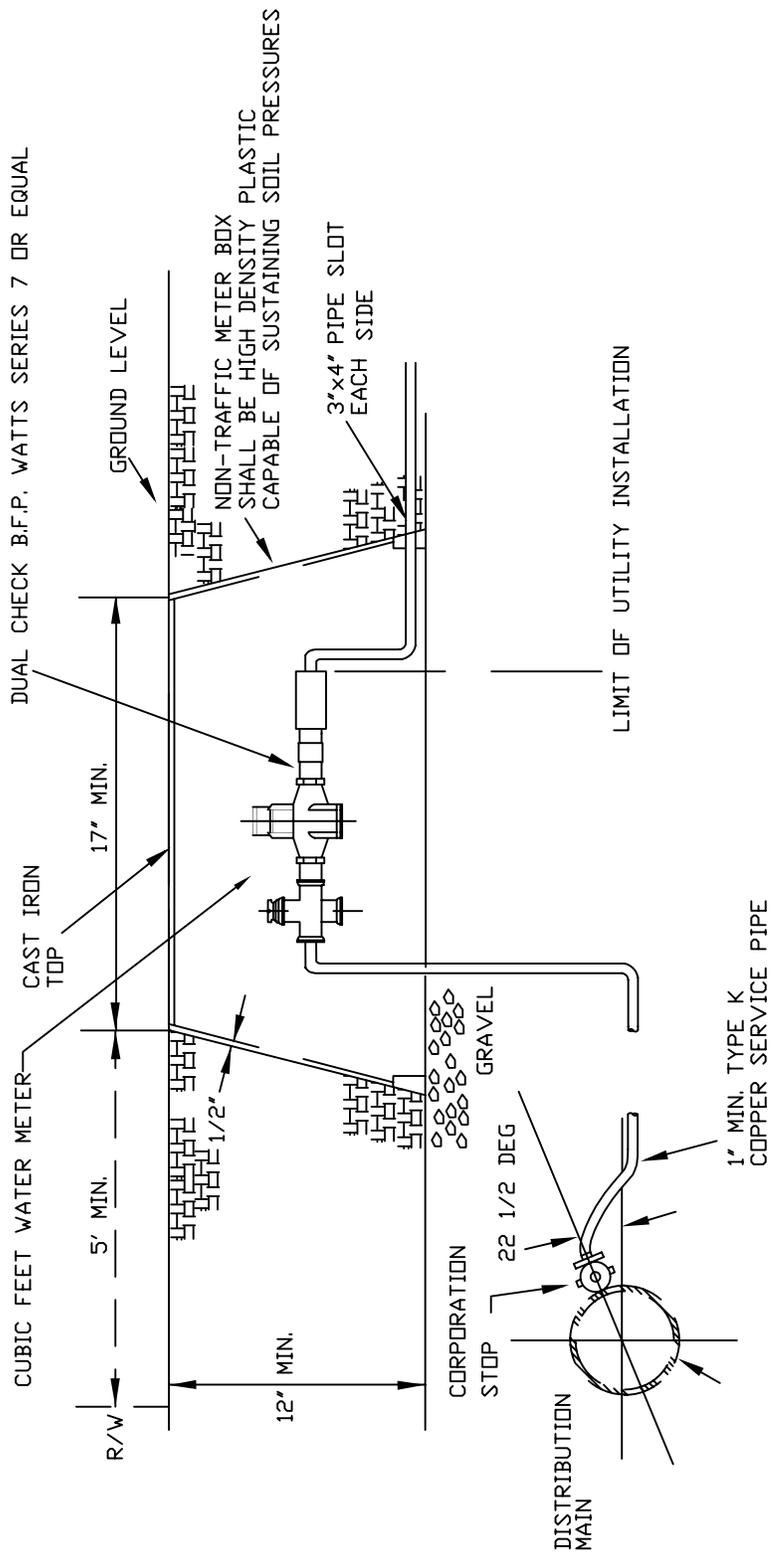
**NEWNAN UTILITIES**

Drawn By: S. Tolar

Inspected By:

METER BANK  
DETAIL

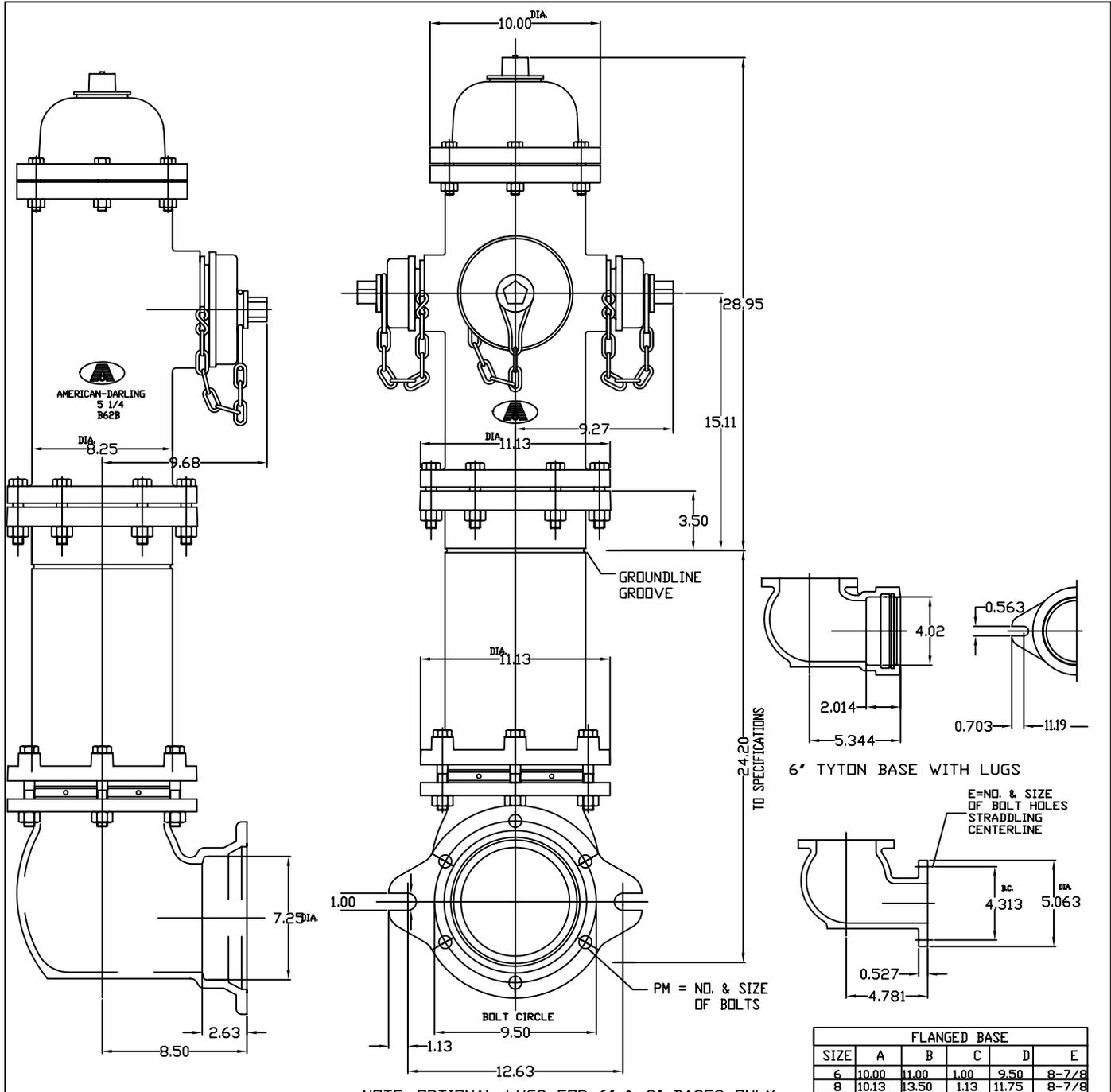
| Rev. |
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|      |
|      |



TYPICAL RESIDENTIAL WATER METER INSTALLATION

Drawn By: S. Tolar  
 Inspected By:

| Rev. |
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|      |
|      |



NOTE: OPTIONAL LUGS FOR 6' & 8' BASES ONLY

| MECHANICAL JOINT BASE |      |      |      |       |       |       |
|-----------------------|------|------|------|-------|-------|-------|
| SIZE                  | HM   | JM   | KM   | LM    | PM    | TM    |
| 4                     | 9.00 | 2.50 | 4.90 | 7.50  | 4-3/4 |       |
| 6                     | 8.50 | 2.50 | 7.00 | 9.50  | 6-3/4 | 12.63 |
| 8                     | 9.75 | 2.50 | 9.15 | 11.75 | 6-3/4 | 15.00 |

| FLANGED BASE |       |       |      |       |       |
|--------------|-------|-------|------|-------|-------|
| SIZE         | A     | B     | C    | D     | E     |
| 6            | 10.00 | 11.00 | 1.00 | 9.50  | 8-7/8 |
| 8            | 10.13 | 13.50 | 1.13 | 11.75 | 8-7/8 |



**NEWNAN UTILITIES**

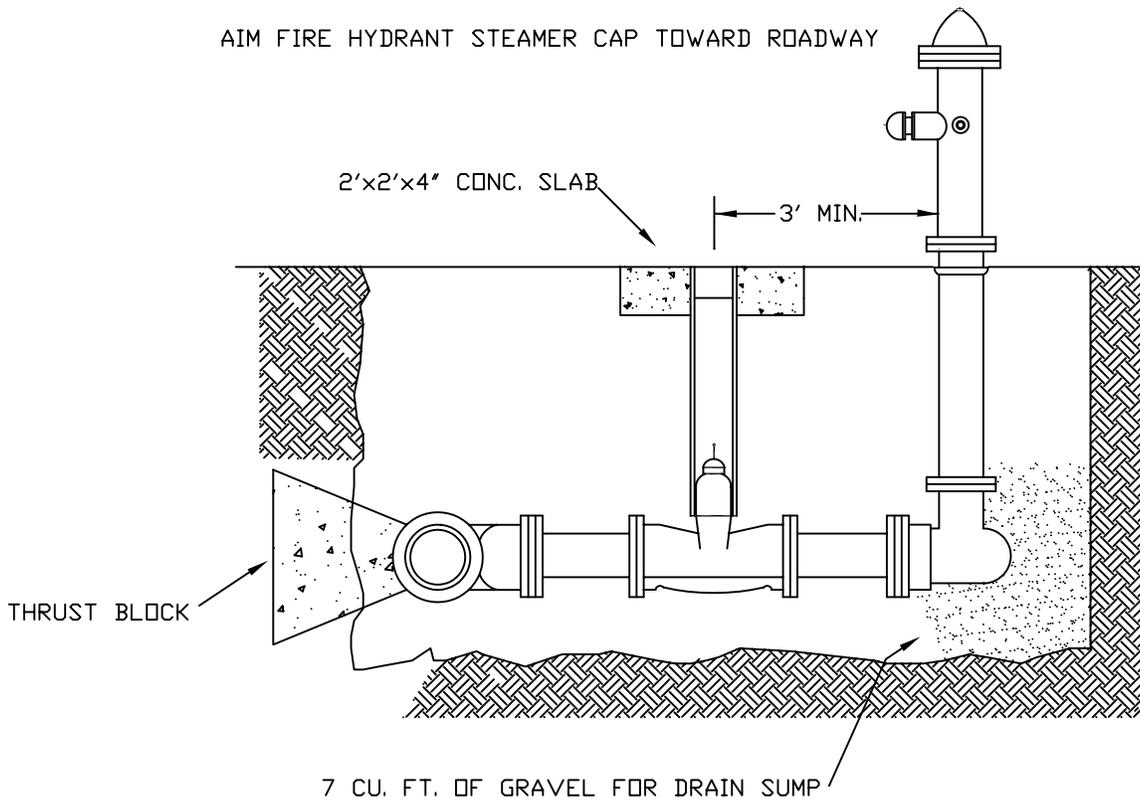
Drawn By: S. Tolar

Inspected By:

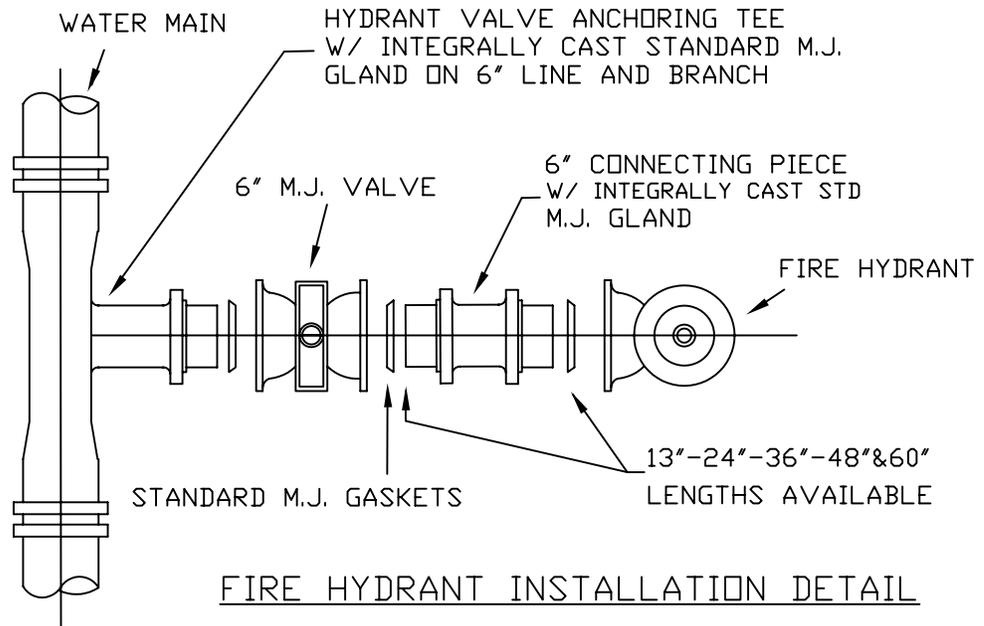
AMERICAN B-62-B  
5 1/4" FIRE  
HYDRANT DETAIL

| Rev. |
|------|
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AIM FIRE HYDRANT STEAMER CAP TOWARD ROADWAY



FIRE HYDRANT LOCATION DETAIL



FIRE HYDRANT INSTALLATION DETAIL



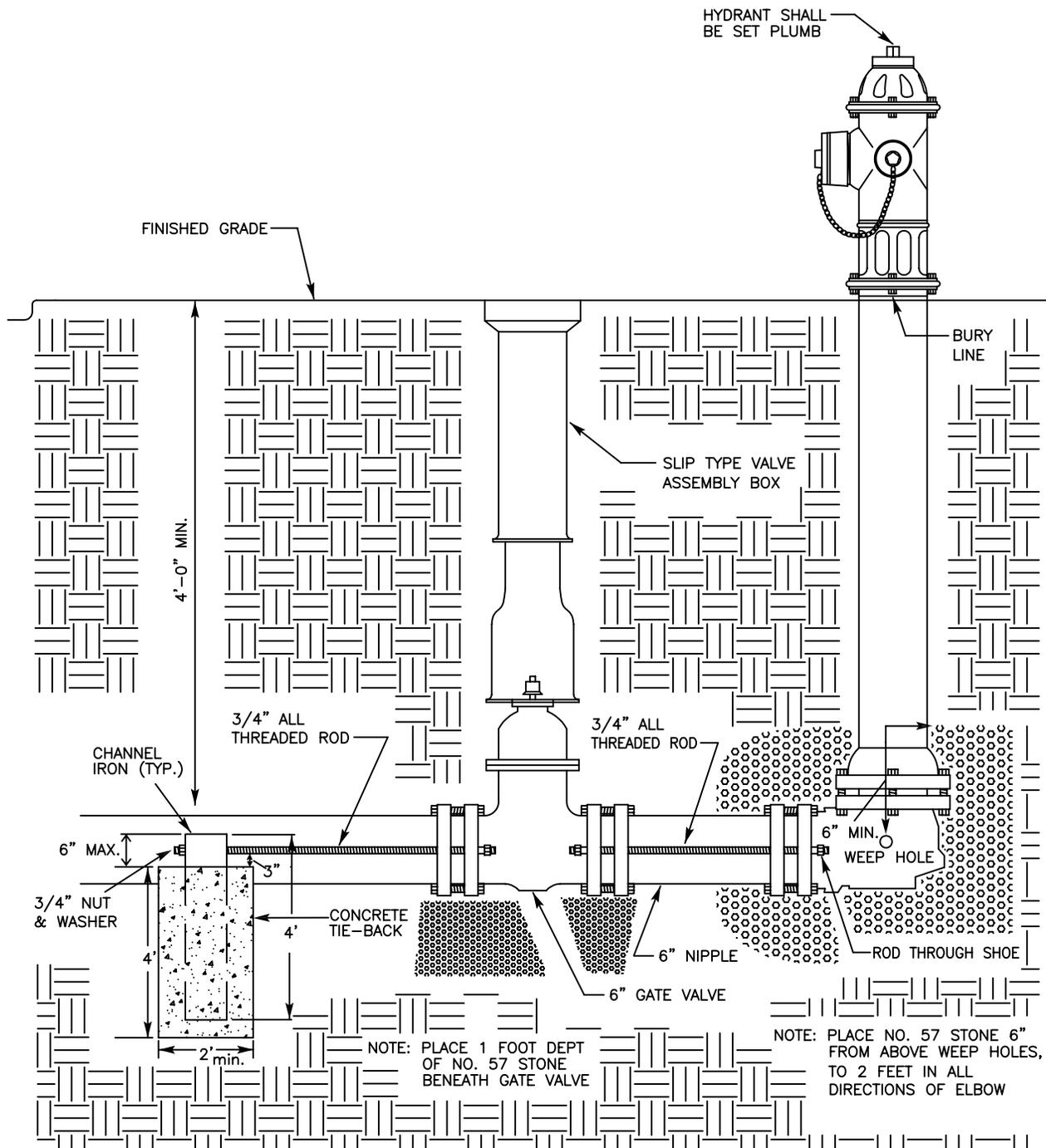
Drawn By: S. Tolar

Inspected By:

FIRE HYDRANT  
LOCATION  
DETAIL

Rev.

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**NEWNAN  
UTILITIES**

Drawn By: S. Tolar

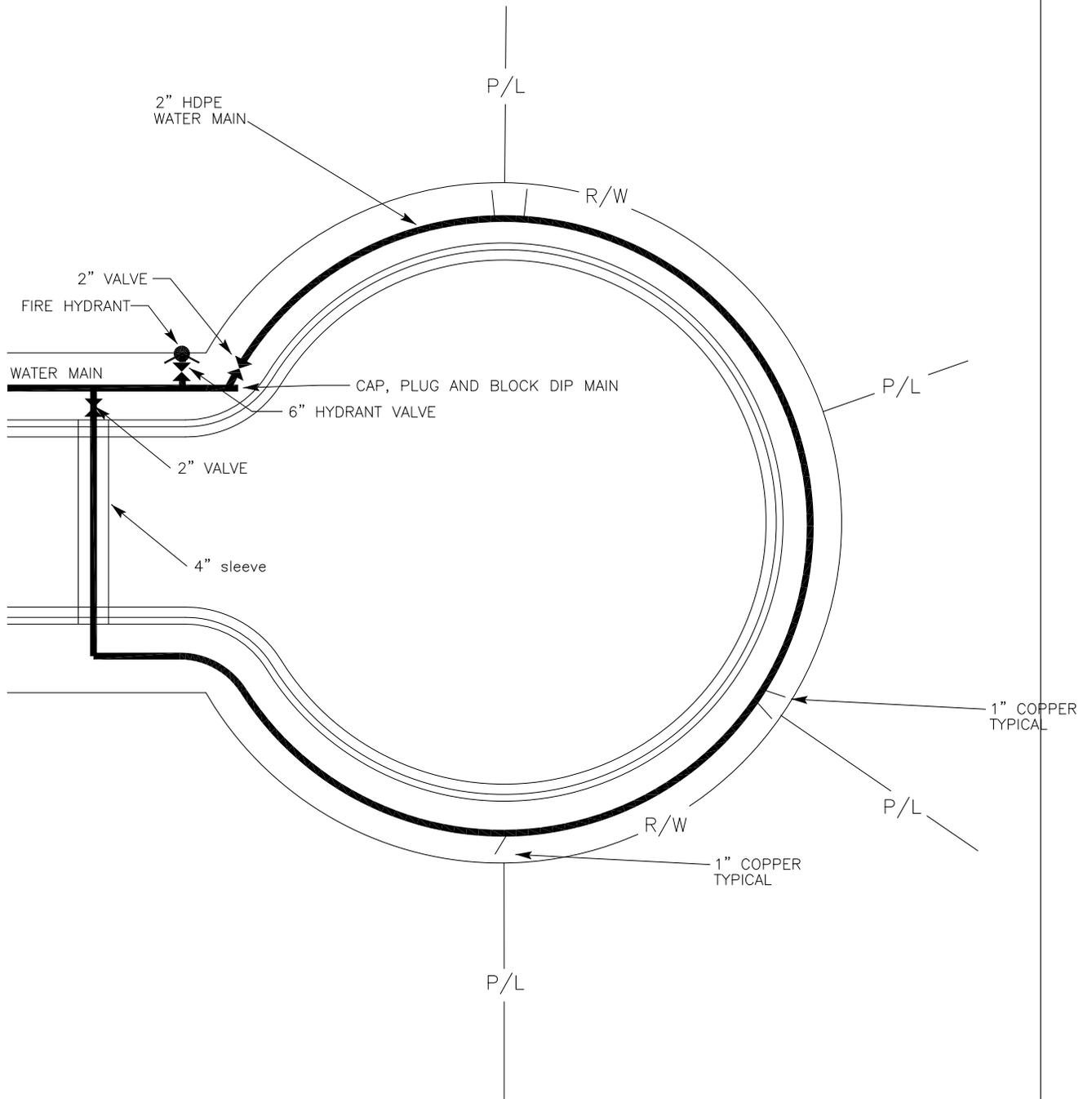
Inspected By:

FIRE HYDRANT  
RODDING  
DETAIL

Rev.

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W-008

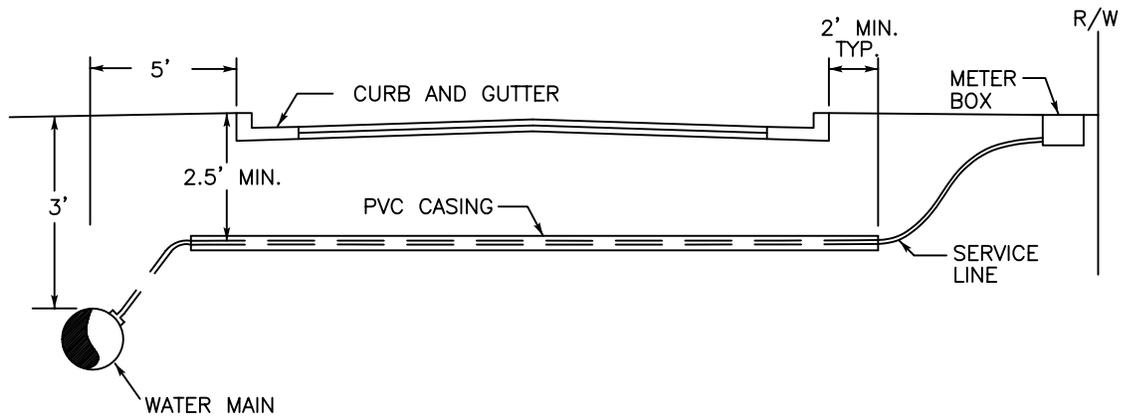
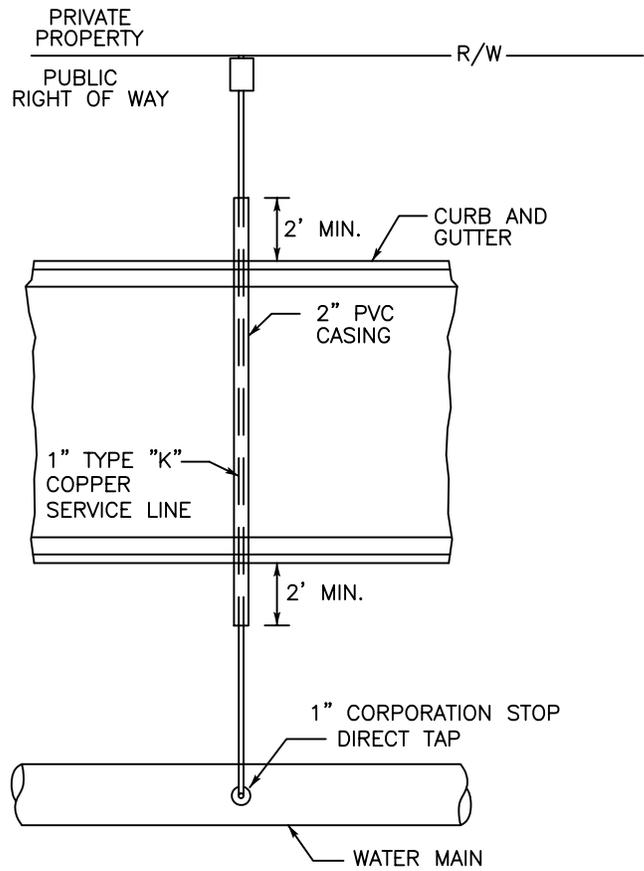


CUDELSAC  
DETAIL

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| Rev. |
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Drawn By: S. Tolar

Inspected By:



**NEWNAN  
UTILITIES**

Drawn By: S. Tolar

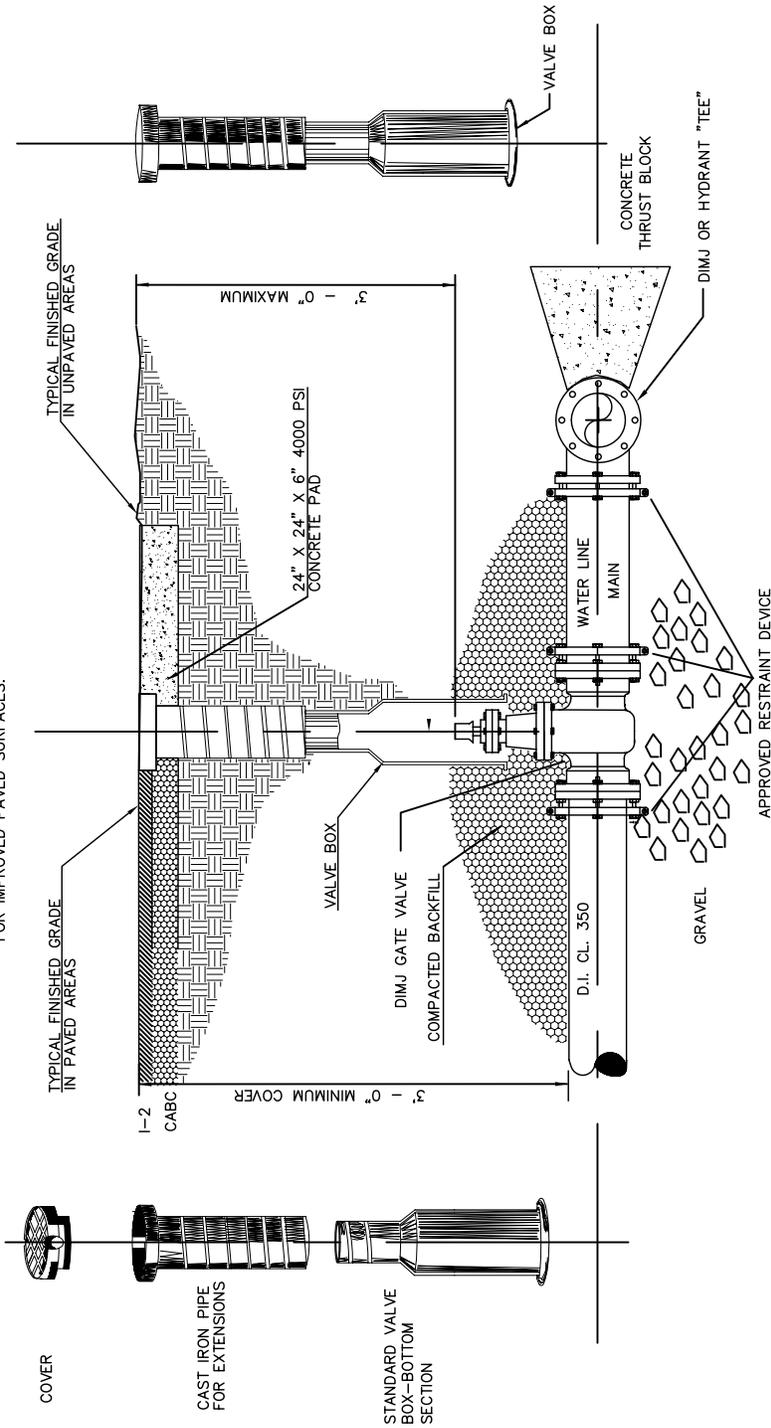
Inspected By:

LONG SIDE  
SERVICE  
DETAIL

Rev.

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- GENERAL NOTES:**
1. SEE STANDARD THRUST BLOCK DIMENSIONS.
  2. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL FITTINGS.
  3. VALVE BOX WILL NOT CONTACT WATER MAIN OR VALVE.
  4. VALVE PAD REQUIREMENTS SHALL NOT BE APPLICABLE FOR IMPROVED PAVED SURFACES.



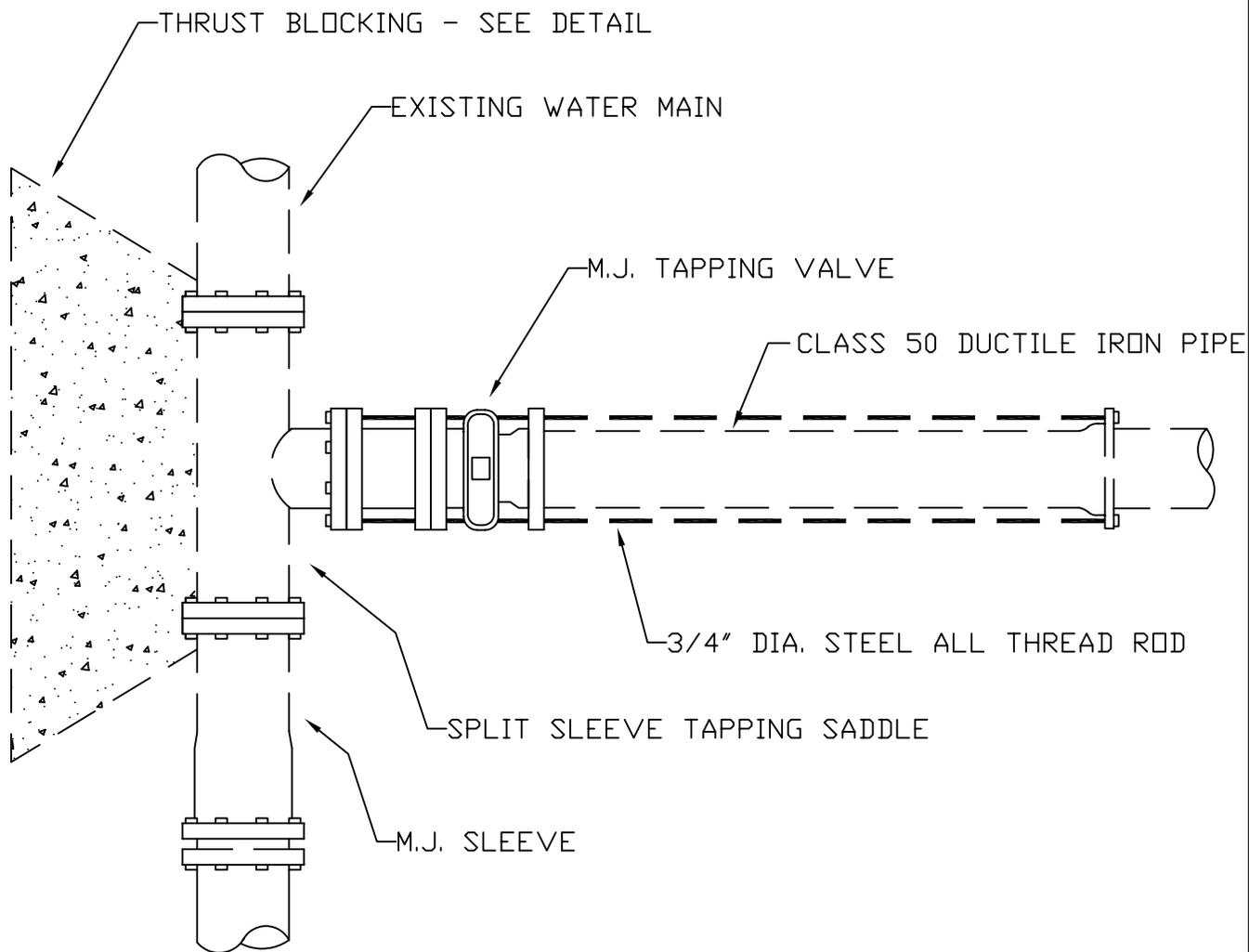
RESILIENT SEAT NON-RISING  
STEM GATE VALVES BY PASS REQUIRED  
FOR ALL VALVES GREATER THAN 20"



Drawn By: S. Tolar  
Inspected By:

# TYPICAL VALVE INSTALLATION

| Rev. |
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**NEWNAN  
UTILITIES**

Drawn By: S. Tolar

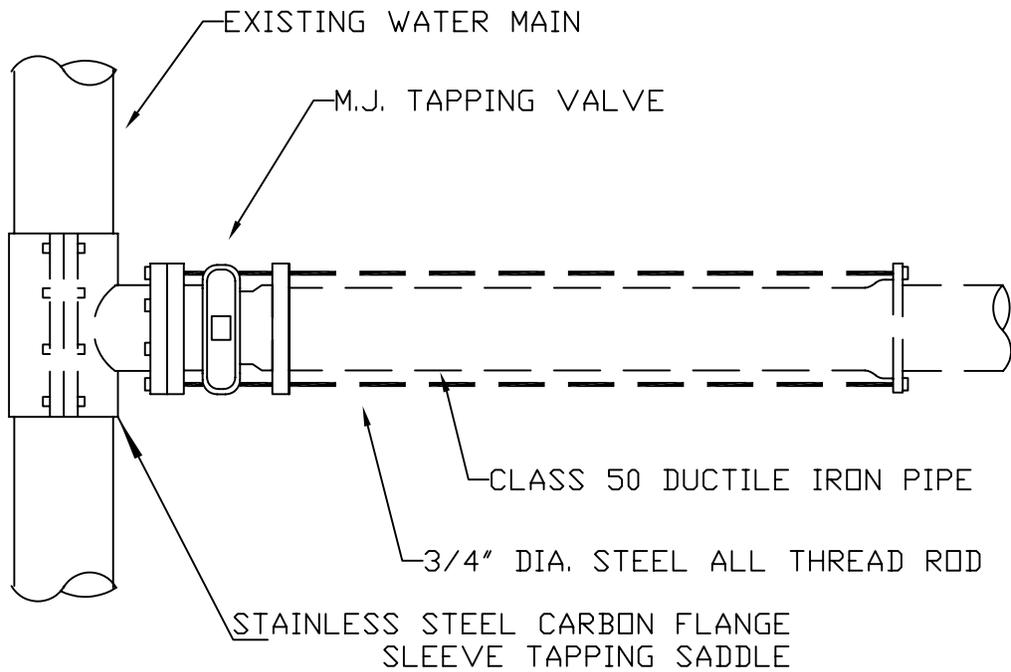
Inspected By:

TYPICAL  
CUT-IN TEE  
INSTALLATION

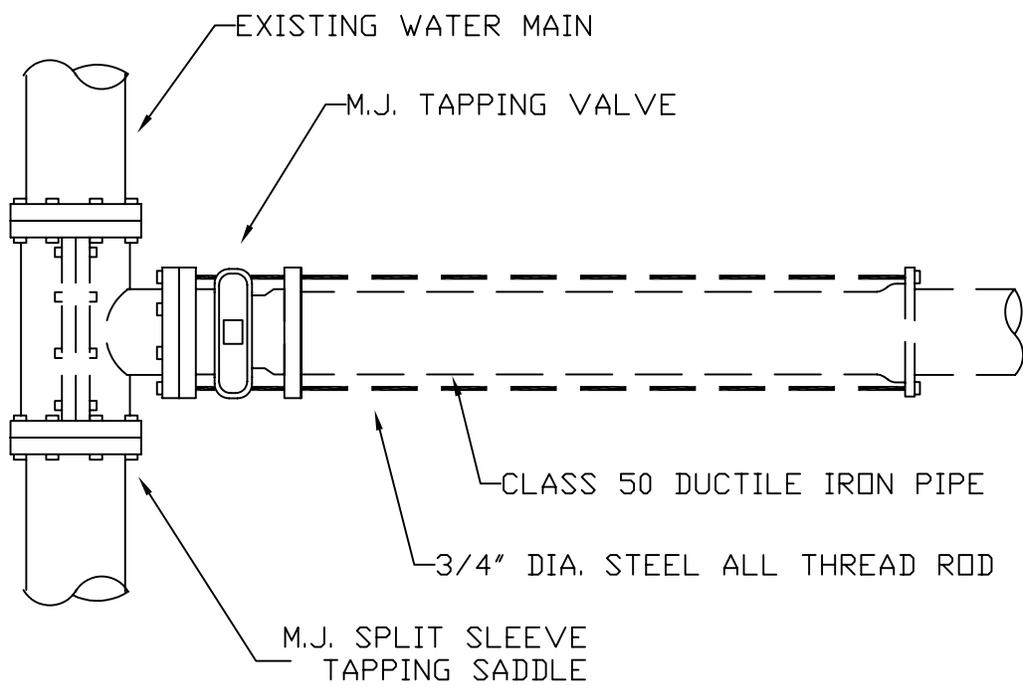
Rev.

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TYPICAL STAINLESS STEEL CARBON FLANGE  
WET TAP INSTALLATION DETAIL



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|  <b>NEWNAN<br/>UTILITIES</b> | TYPICAL STAINLESS<br>STEEL WET TAP TEE<br>INSTALLATION | Rev. |
|   |  |      |
| Drawn By: S. Tolar  |  |      |
| Inspected By:   |  |      |



TYPICAL WET TAP INSTALLATION DETAIL



**NEWNAN  
UTILITIES**

Drawn By: S. Tolar

Inspected By:

TYPICAL  
WET TAP TEE  
INSTALLATION

Rev.

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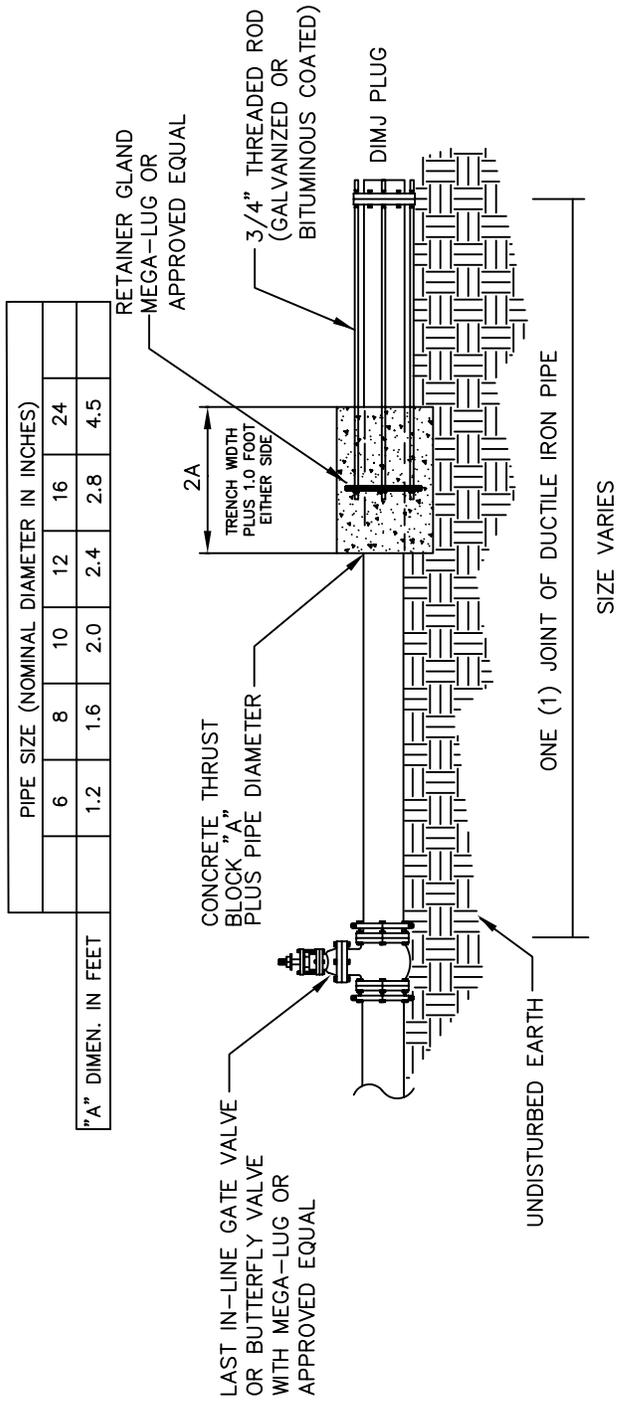
Drawn By: S. Tolar

Inspected By:

END OF  
LINE PLUG  
DETAIL

Rev.

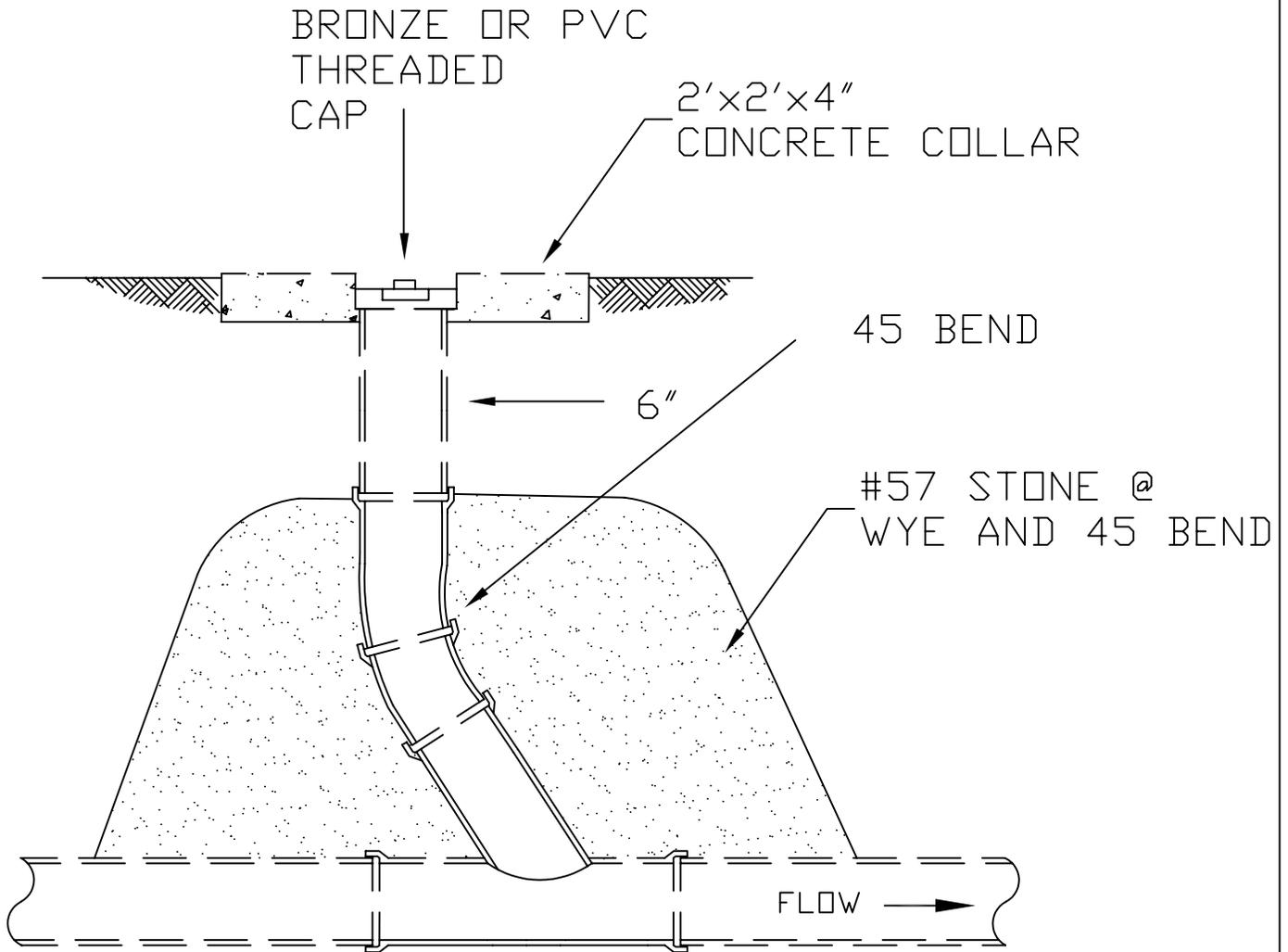
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| "A" DIMEN. IN FEET                     | 1.2 | 1.6 | 2.0 | 2.4 | 2.8 | 3.2 | 4.5 |
|--|-----|-----|-----|-----|-----|-----|-----|
| PIPE SIZE (NOMINAL DIAMETER IN INCHES) | 6   | 8   | 10  | 12  | 16  | 24  | 30  |

1. DIMENSION TABLE GIVEN IS A GUIDE ONLY. ENGINEER SHALL BE RESPONSIBLE TO CALCULATE THRUST BLOCK DIMENSIONS BASED ON ACTUAL SOIL AND OPERATING
2. FITTING JOINTS SHALL BE KEPT FREE OF CONCRETE. A LAYER OF POLYETHYLENE PLASTIC SHALL BE PLACED BETWEEN THE FITTING AND THE CONCRETE.

SANITARY SEWER CLEAN-OUT DETAIL



Drawn By: S. Tolar

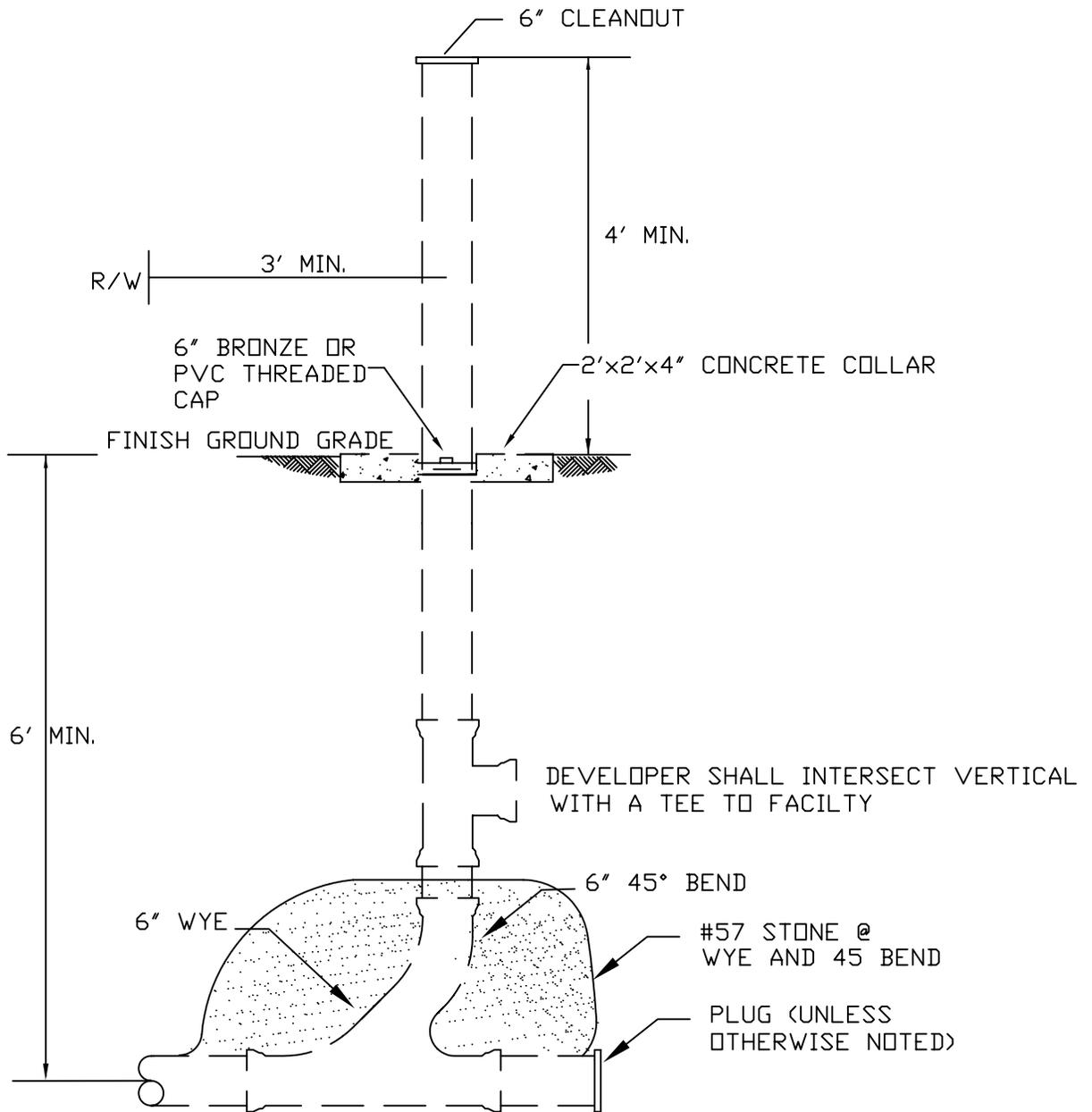
Inspected By:

SANITARY SEWER  
CLEAN-OUT  
DETAIL

Rev.

S-001

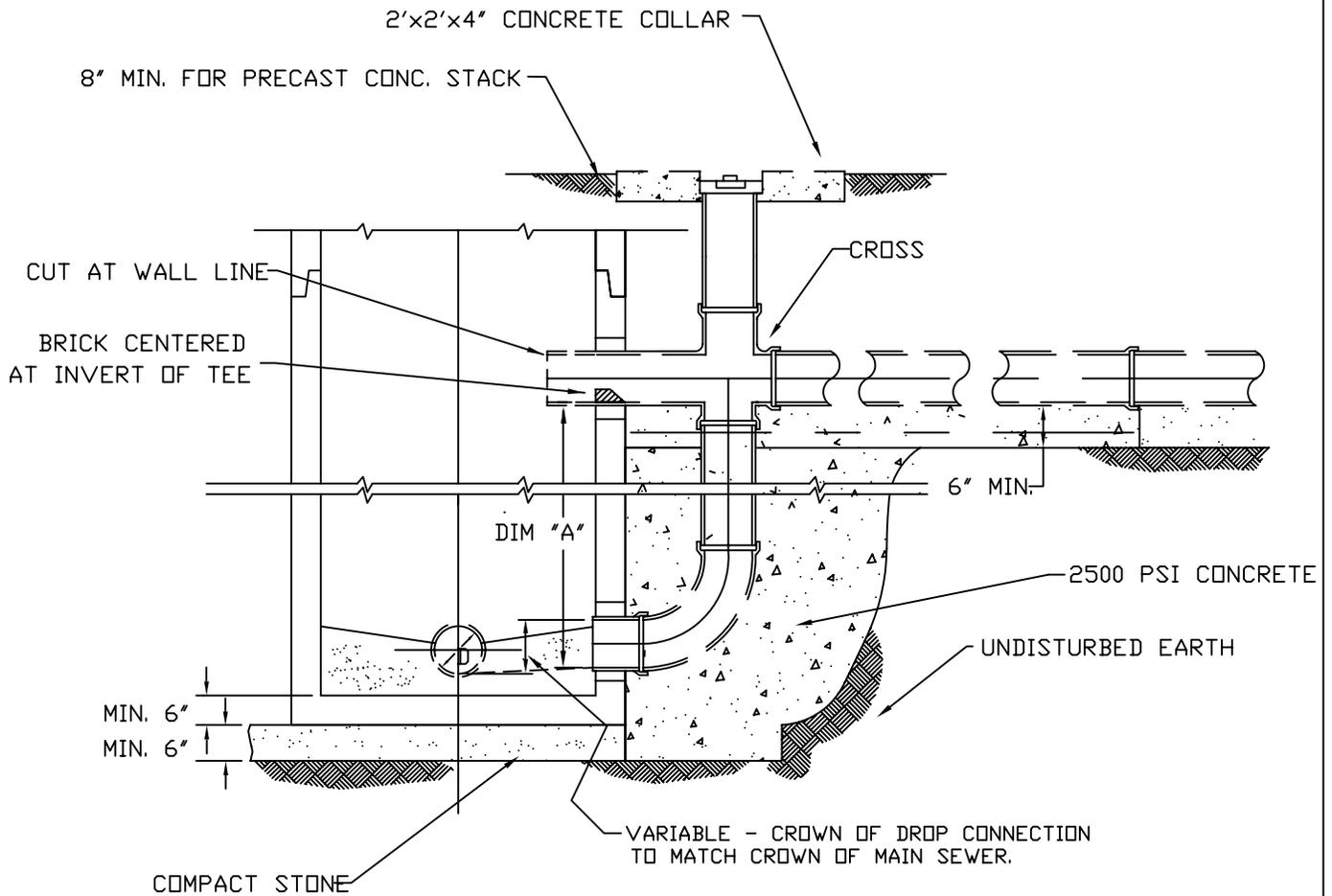
# SANITARY SEWER STUB-OUT/ CLEAN-OUT DETAIL



NOTE: ONCE SEWER TAP HAS PASS INSPECTION AND FINAL GRADING IS DONE THE DEVELOPER IS TO CUT OFF EXCESS PIPE ABOVE GROUND AND CAP AS SHOWN

|   |   |      |
|---|---|------|
|  <b>NEWNAN<br/>UTILITIES</b> | SANITARY SEWER<br>STUB-OUT/CLEAN-OUT<br>ADJACENT TO R/W<br>DETAIL | Rev. |
|   |   |      |
| Drawn By: S. Tolar  |   |      |
| Inspected By:   |   |      |

# TYPICAL MANHOLE DROP CONNECTION



NOTE - ALL OUTSIDE DROP SEWER MAIN PIPE SHALL BE DUCTILE IRON PIPE

| SCHEDULE FOR DROP CONNECTIONS |           |           |
|-------------------------------|-----------|-----------|
| DIM "A"                       |           |           |
| PIPE SIZE                     | DROP SIZE | MIN. DROP |
| 8"                            | 8"        | 24"       |
| 10"                           | 8"        | 24"       |
| 12"                           | 10"       | 35"       |
| 15"                           | 12"       | 37"       |
| 21"                           | 18"       | 41"       |



**NEWNAN  
UTILITIES**

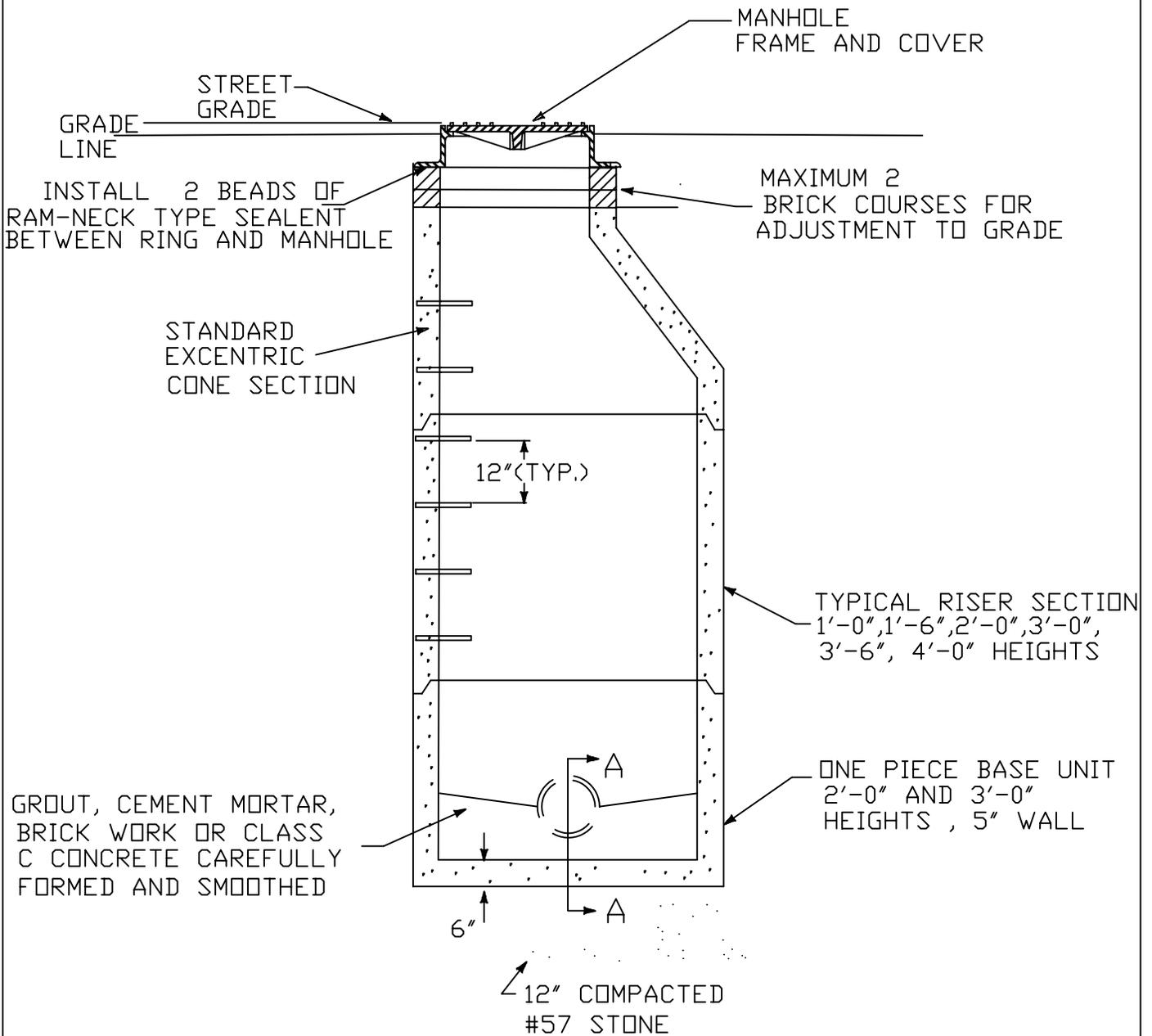
Drawn By: S. Tolar

Inspected By:

TYPICAL  
MANHOLE DROP  
CONNECTION

Rev.

# MANHOLE DETAIL

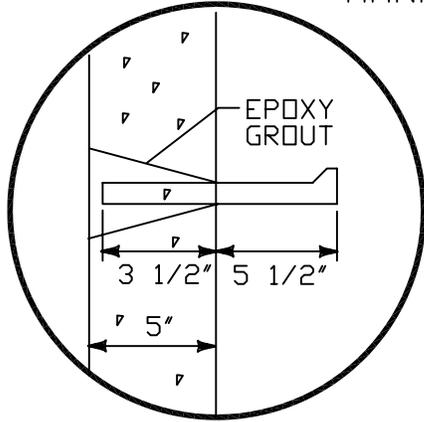


**NOTES:**

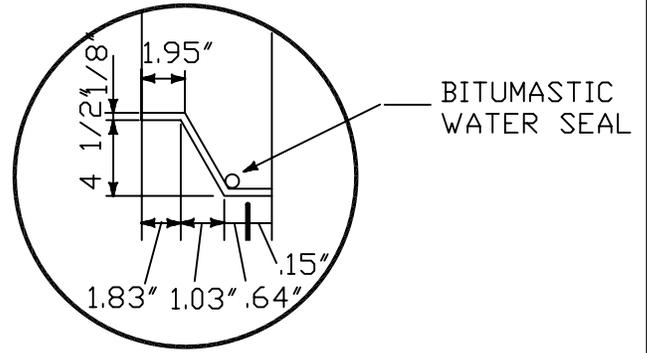
1. ALL HOLES MUST BE PRECAST OR CORED.
2. MAXIMUM HOLE SIZE = PIPE O.D. + 4"

|   |                |      |
|---|----------------|------|
|  <b>NEWNAN UTILITIES</b> | MANHOLE DETAIL | Rev. |
|   |                |      |
| Drawn By: S. Tolar  |                |      |
| Inspected By:   |                |      |

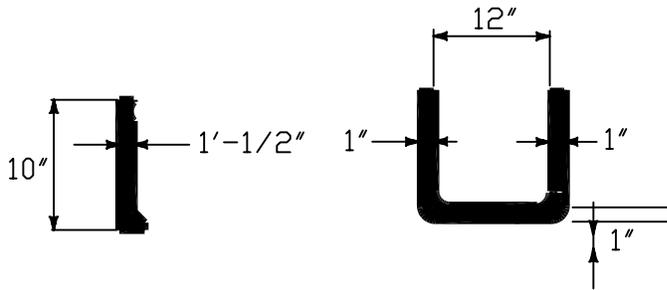
MANHOLE DETAIL 2



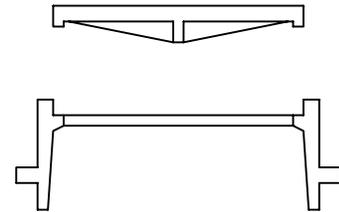
TYPICAL STEP  
N.T.S.



TYPICAL JOINT  
N.T.S.

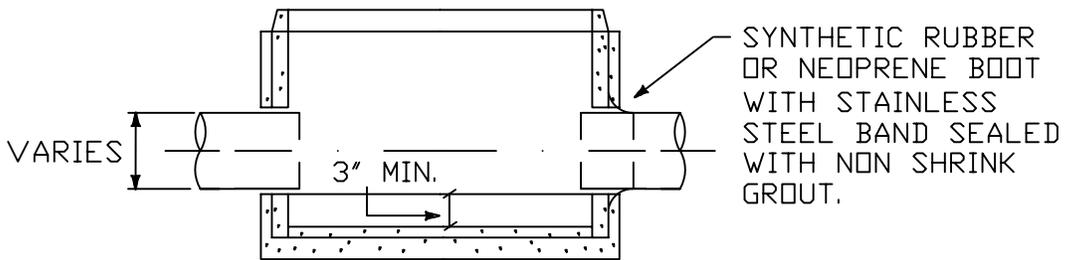


STEP DETAILS  
N.T.S.



RING AND COVER DETAIL  
N.T.S.

NOTE: PLASTIC COATED STEEL STEPS ARE REQUIRED IN ALL MANHOLES @ 12" C.C.



SECTION "A"  
THRU ONE PIECE BASE UNIT  
N.T.S.

**NEWNAN UTILITIES**

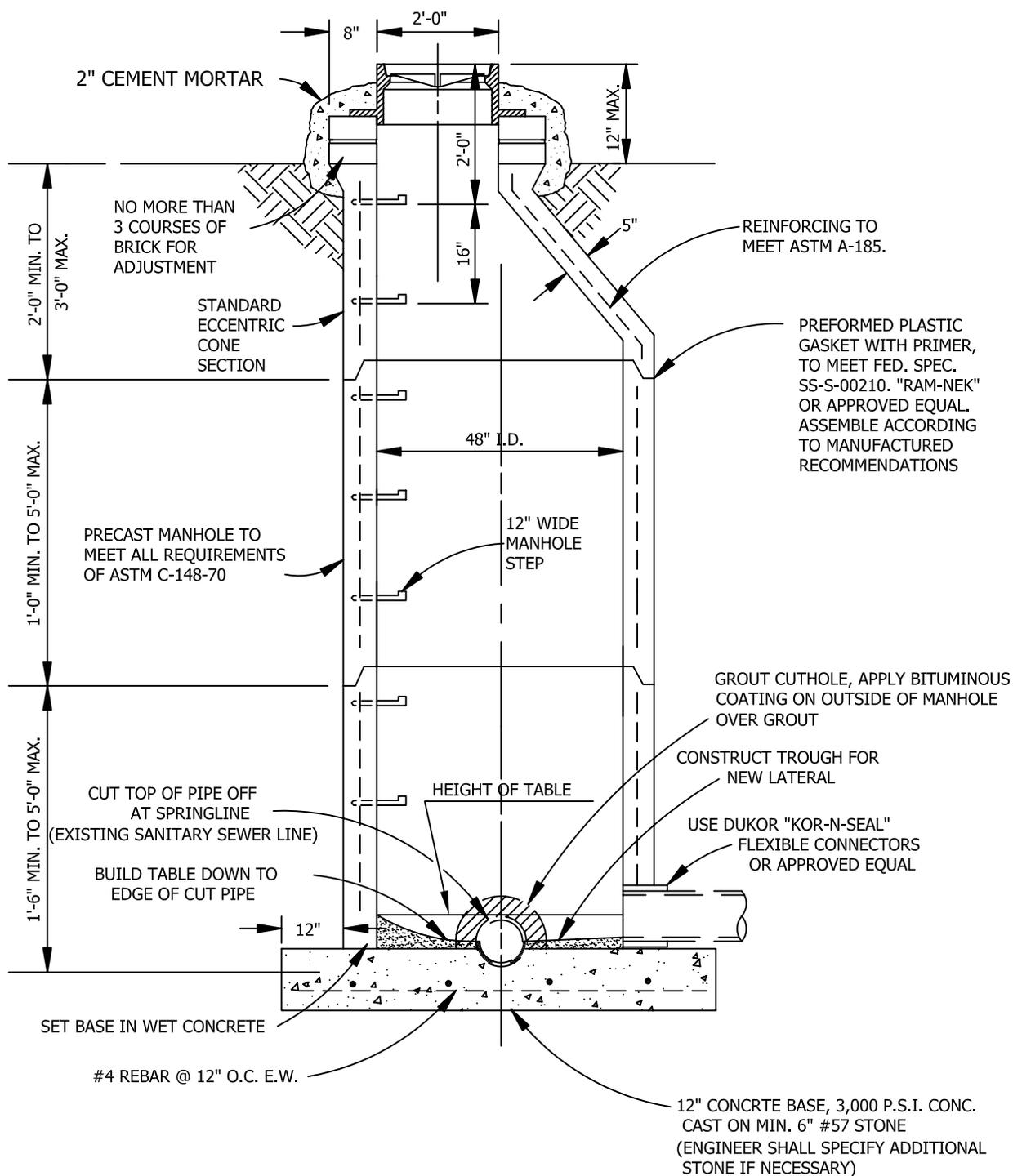
Drawn By: S. Tolar

Inspected By:

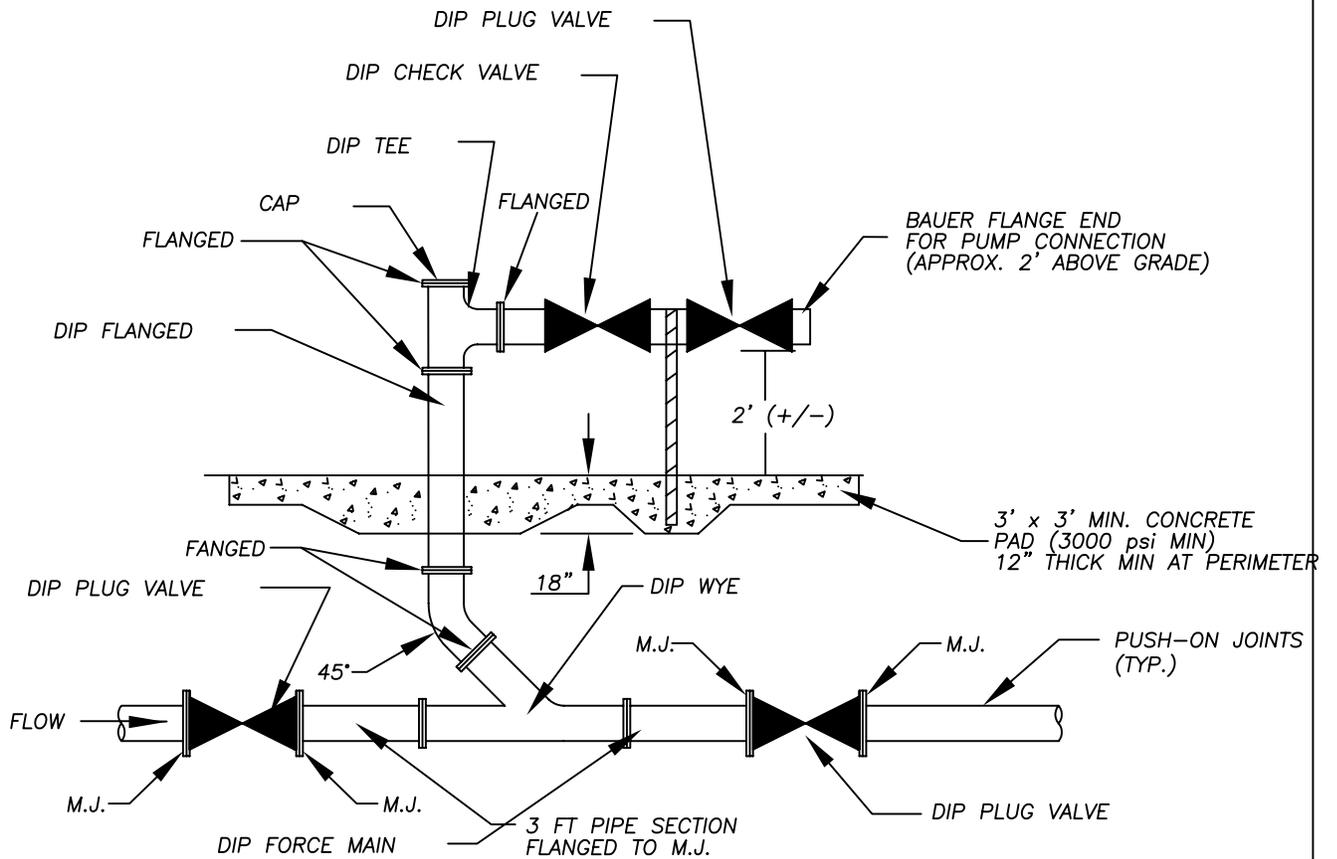
MANHOLE DETAIL 2

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| Rev. |
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# DOGHOUSE MANHOLE DETAIL



|                         |                            |      |
|-------------------------|----------------------------|------|
| <b>NEWNAN UTILITIES</b> | DOGHOUSE MANHOLE<br>DETAIL | Rev. |
|                         |                            |      |
| Drawn By: S. Tolar      |                            |      |
| Inspected By:           |                            |      |



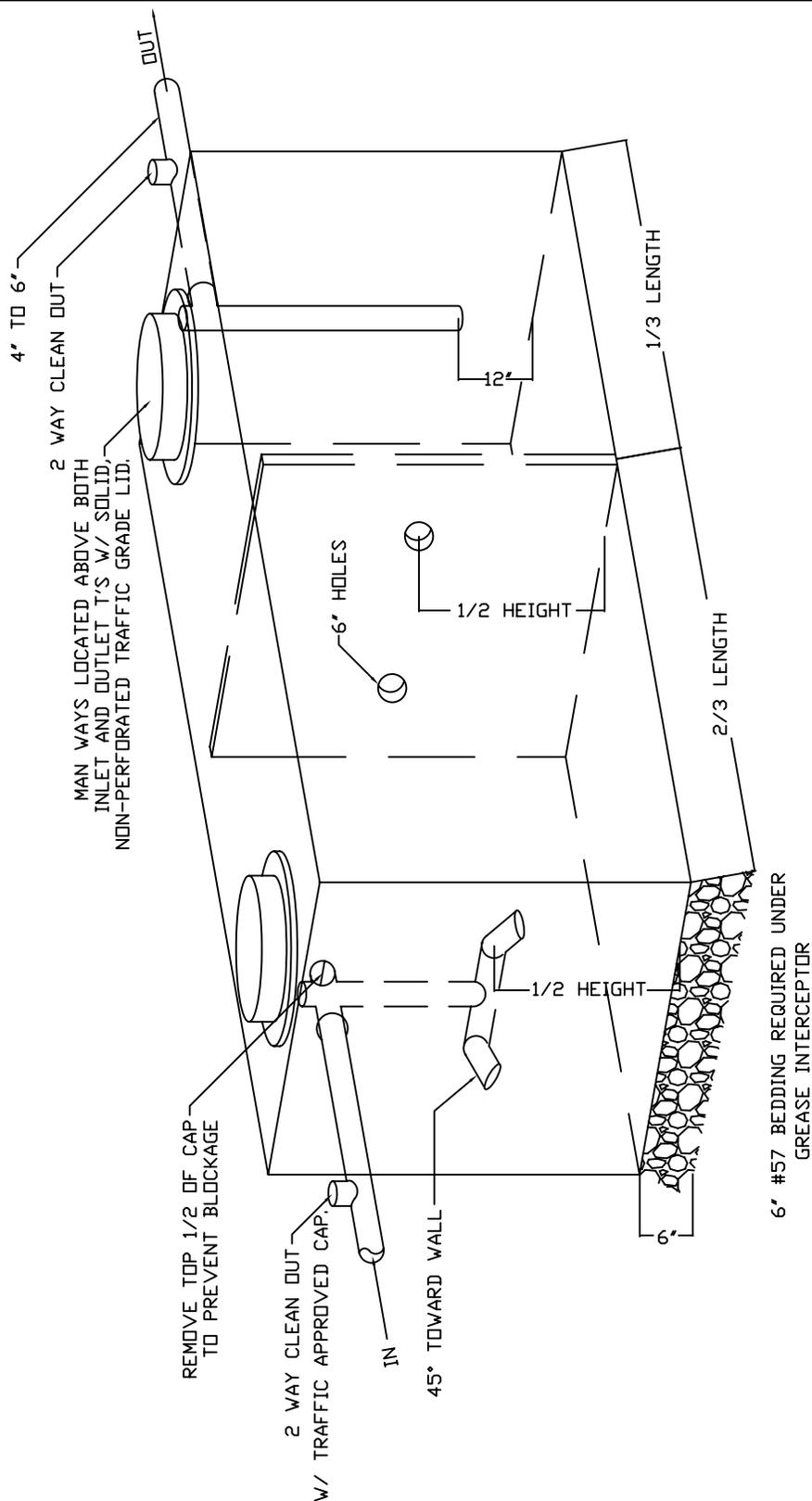

**NEWNAN  
UTILITIES**

Drawn By: S. Tolar

Inspected By:

PUMP STATION  
EMERGENCY PUMP  
CONNECTION

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| Rev. |
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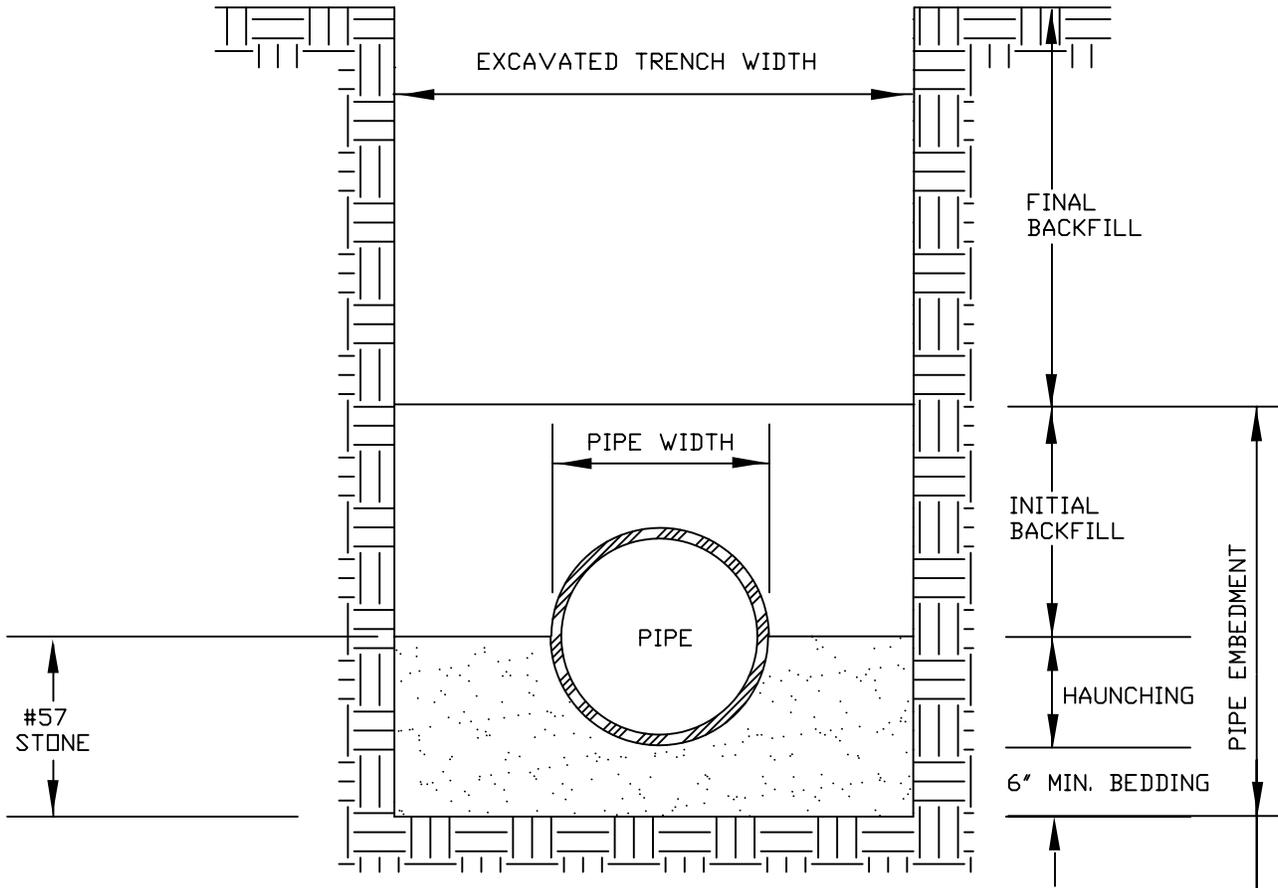
TYPICAL GREASE INTERCEPTOR  
DETAIL

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| Rev. |
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Drawn By: S. Tolar

Inspected By:

# PVC PIPE BURIAL DETAIL



NOTE: ALL BEDDING AND HAUNCHING TO BE #57 STONE TO SPRING LINE OF PIPE.



Drawn By: S. Tolar

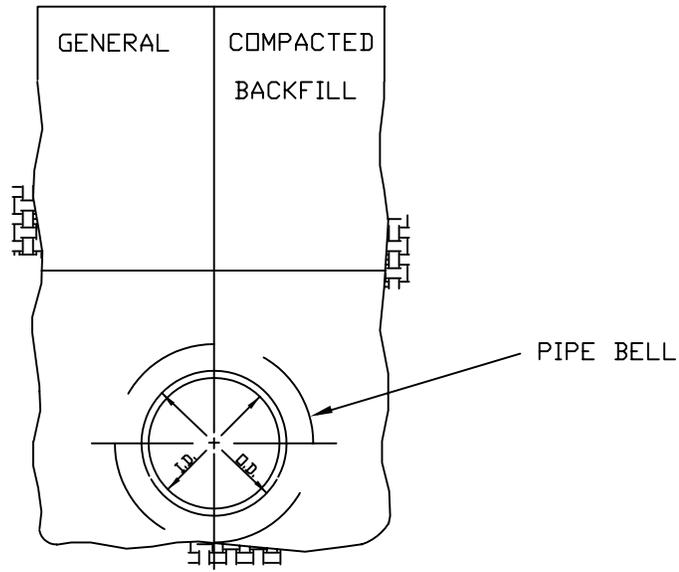
Inspected By:

PVC  
PIPE BURIAL  
DETAIL

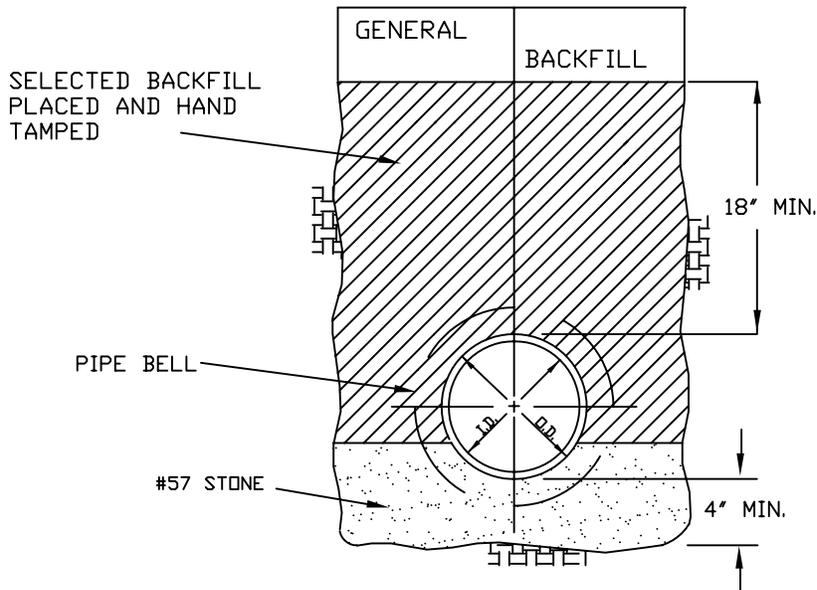
Rev.

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# DUCTILE IRON PIPE BURIAL DETAIL



TYPE 1



TYPE 2



**NEWNAN  
UTILITIES**

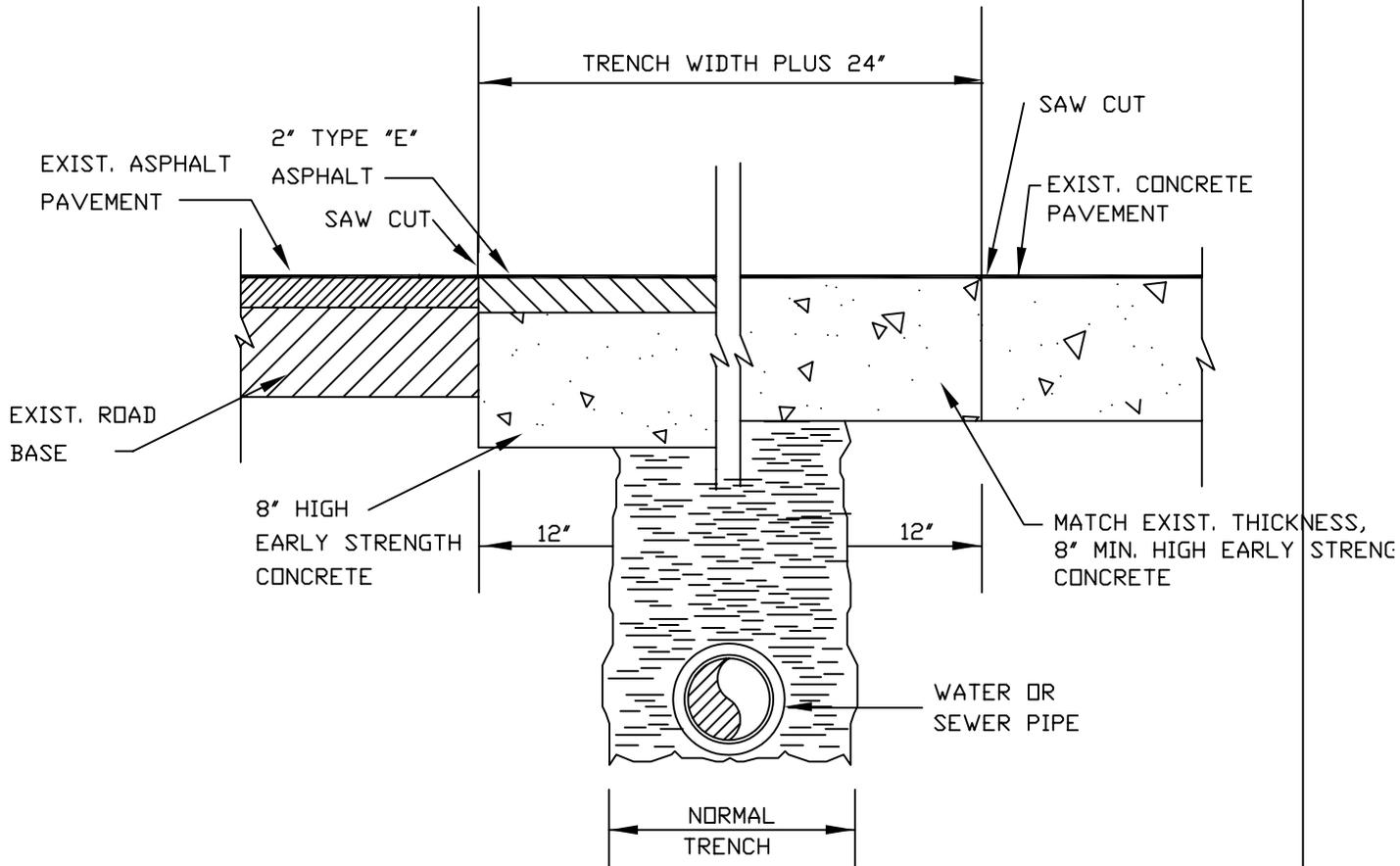
Drawn By: S. Tolar

Inspected By:

DUCTILE IRON  
PIPE BURIAL  
DETAIL

Rev.

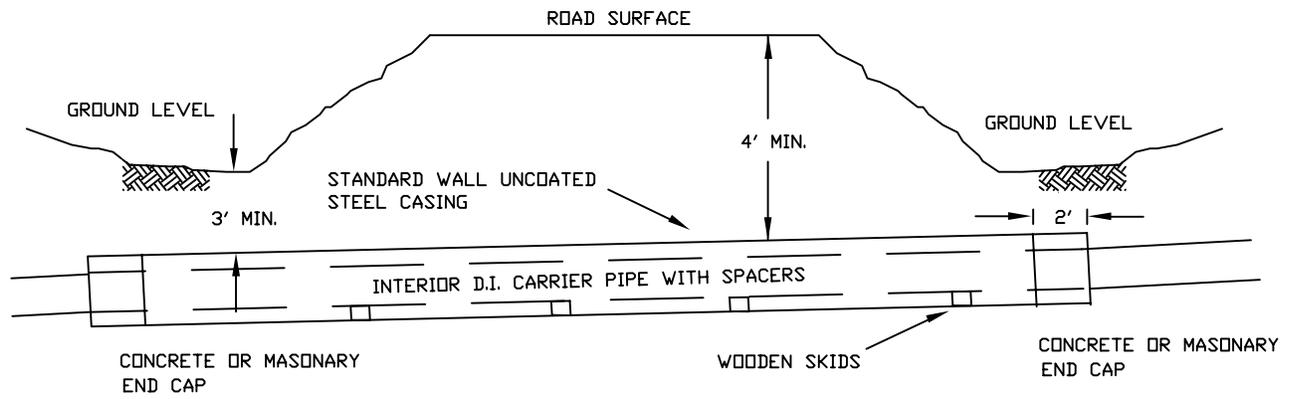
# STREET REPAIR DETAIL



NOTES:  
 TRENCH TO BE BACKFILLED IN MAXIMUM 8"  
 (LOOSE) LIFTS AND THOROUGHLY COMPACTED TO  
 NOT LESS THAN 95% STANDARD PROCTOR DENSITY  
 AT OPTIMUM MOISTURE BY METHODS SATISFACTORY  
 TO THE COMMISSION.

|   |                         |      |
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|  <b>NEWNAN<br/>UTILITIES</b> | STREET REPAIR<br>DETAIL | Rev. |
|   |                         |      |
| Drawn By: S. Tolar  |                         |      |
| Inspected By:   |                         |      |

# ROAD BORE DETAIL



## ROAD BORE DETAIL

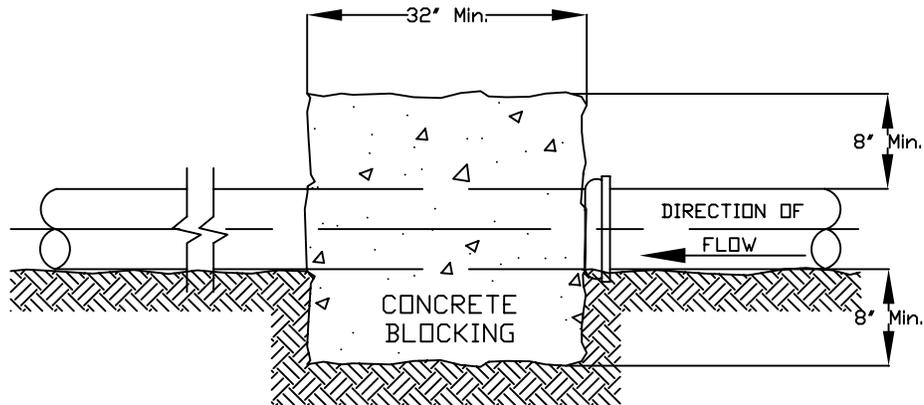
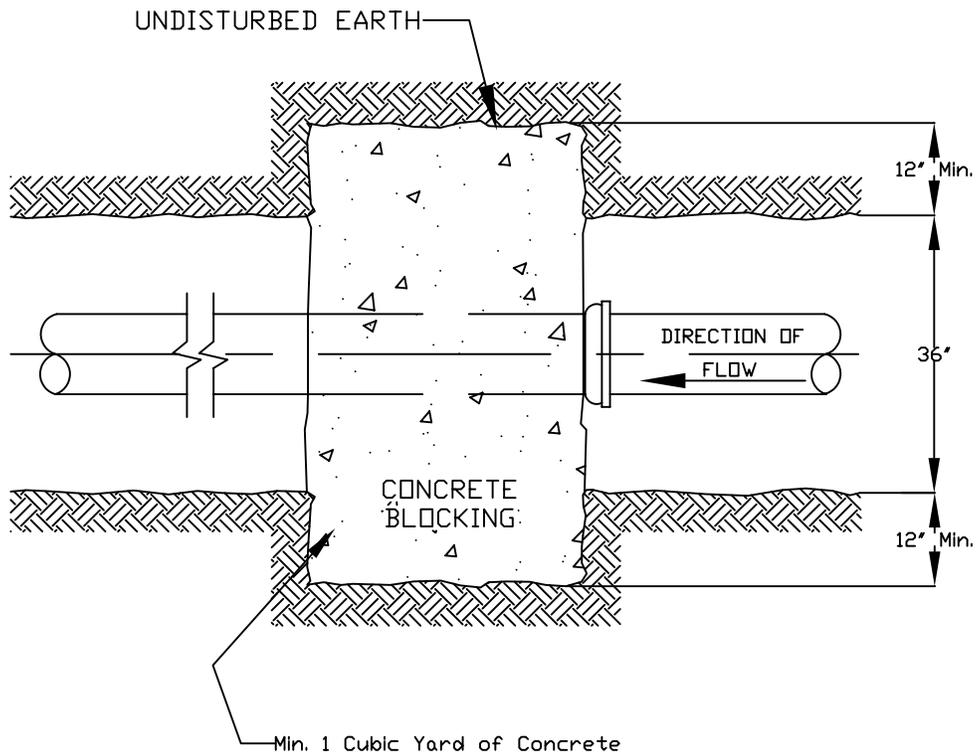
Drawn By: S. Tolar

Inspected By:

Rev.

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# SADDLE BLOCKING



**NEWNAN  
UTILITIES**

SADDLE BLOCKING

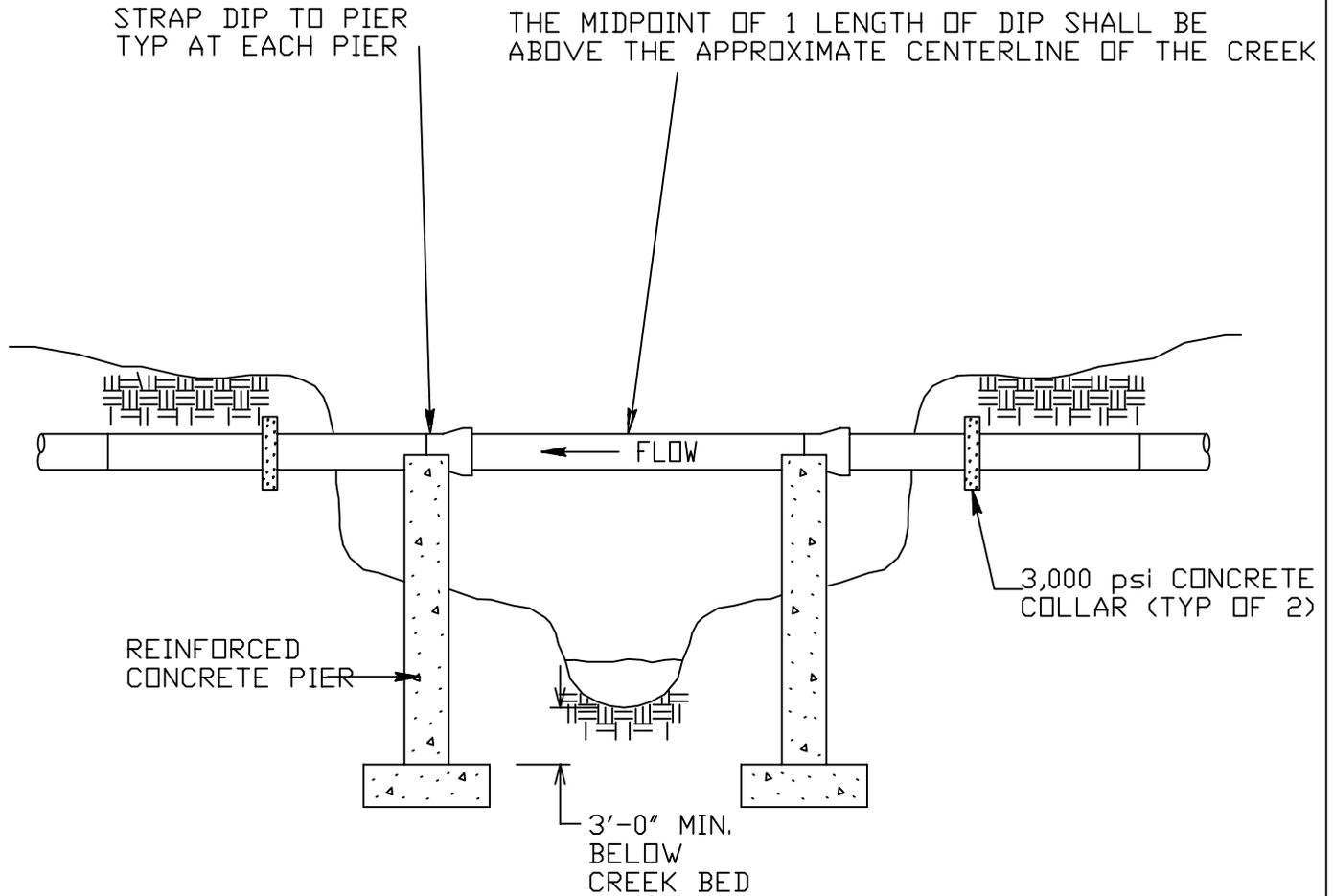
Rev.

Drawn By: S. Tolar

Inspected By:

PI-005

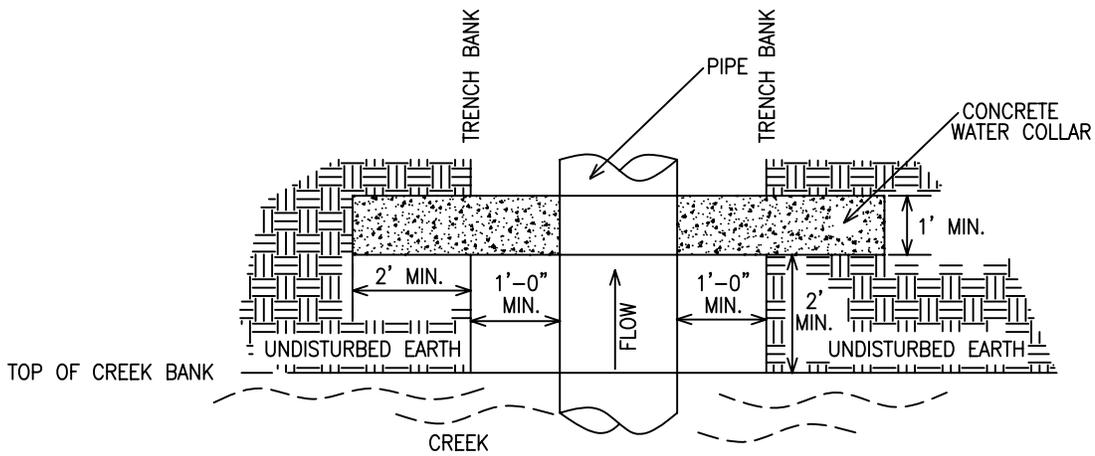
# STANDARD AERIAL STREAM CROSSING DETAIL



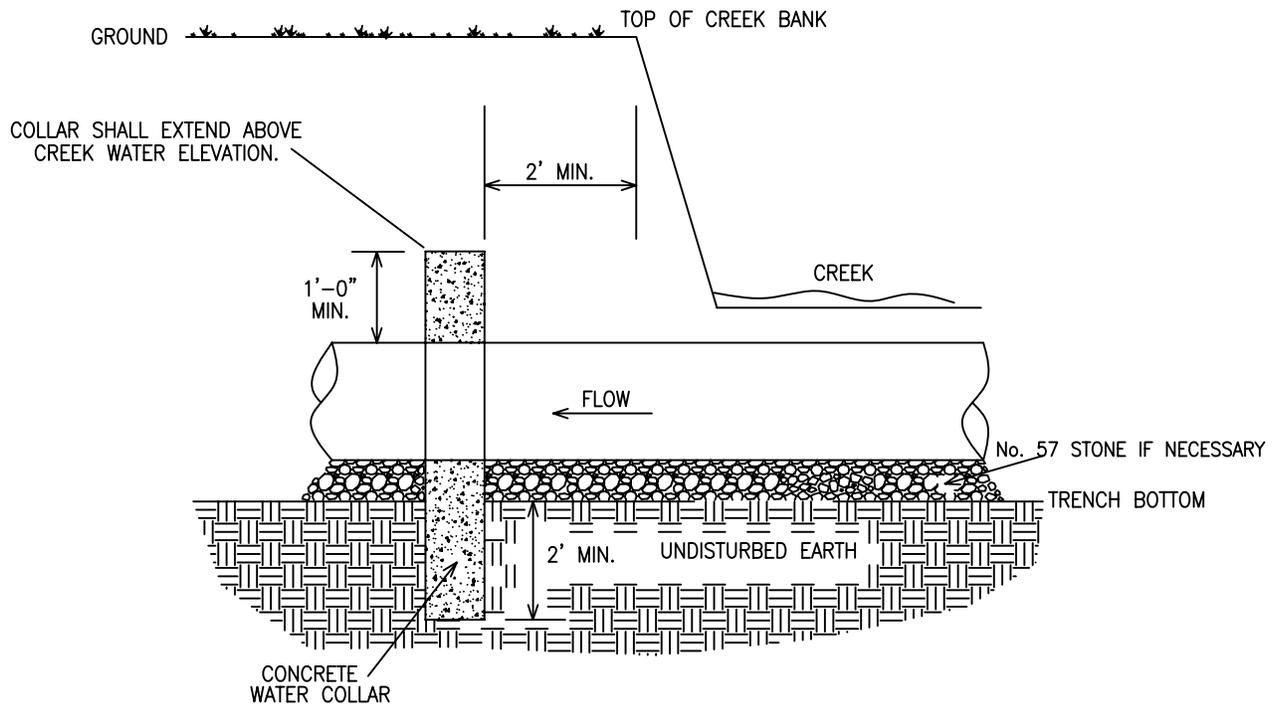
**NOTES:**

1. PIERS SHALL NOT BE PLACED WITHIN CENTERLINE OF CREEK. CONTRACTOR LOCATE PIERS ON EACH SIDE OF THE CREEK SUCH THAT PIERS ARE EQUAL DISTANCE FROM THE CENTERLINE OF THE CREEK.
2. REINFORCED CONCRETE PIERS SHALL BE PLACED BEHIND BELL OF EACH JOINT OF DUCTILE IRON PIPE AND THE JOINTS SHALL BE STRAPPED TO THE PIERS.
3. CONCRETE PIERS MAY BE CAST IN PLACE OR PRECAST. THE CONTRACTOR SHALL SUBMIT PIER DESIGN TO THE ENGINEER FOR APPROVAL.

|  |   |                           |
|--|---|---------------------------|
|  <p><b>NEWNAN<br/>UTILITIES</b></p> | <p>STANDARD AERIAL<br/>STREAM<br/>CROSSING DETAIL</p> | <p>Rev.</p>               |
|  |   | <p>Drawn By: S. Tolar</p> |
| <p>Inspected By:</p>   |   |                           |



PLAN VIEW



SIDE VIEW



**NEWNAN  
UTILITIES**

Drawn By: S. Tolar

Inspected By:

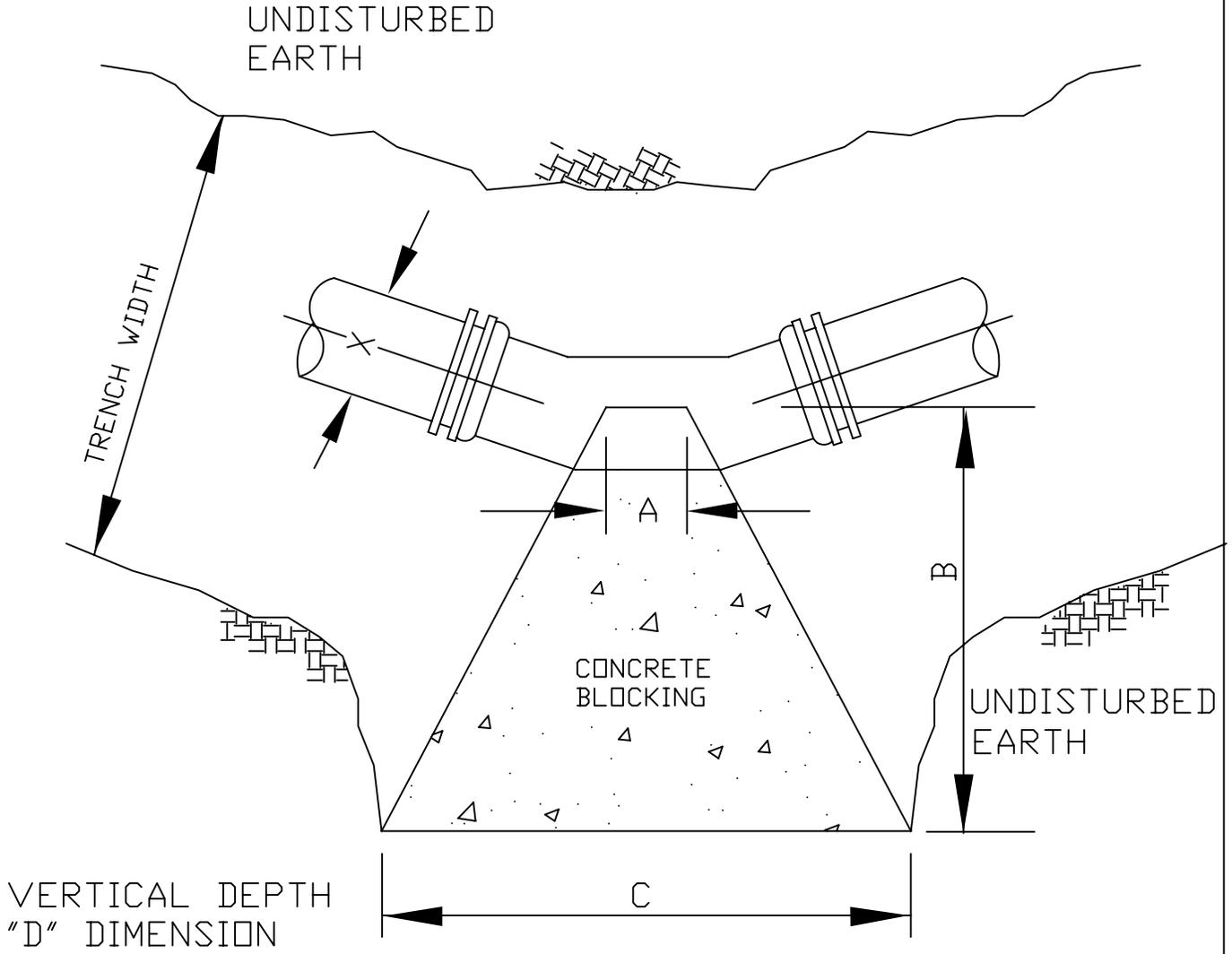
PIPE  
COLLAR  
DAM

Rev.

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BLOCKING DETAIL 1



Drawn By: S. Tolar

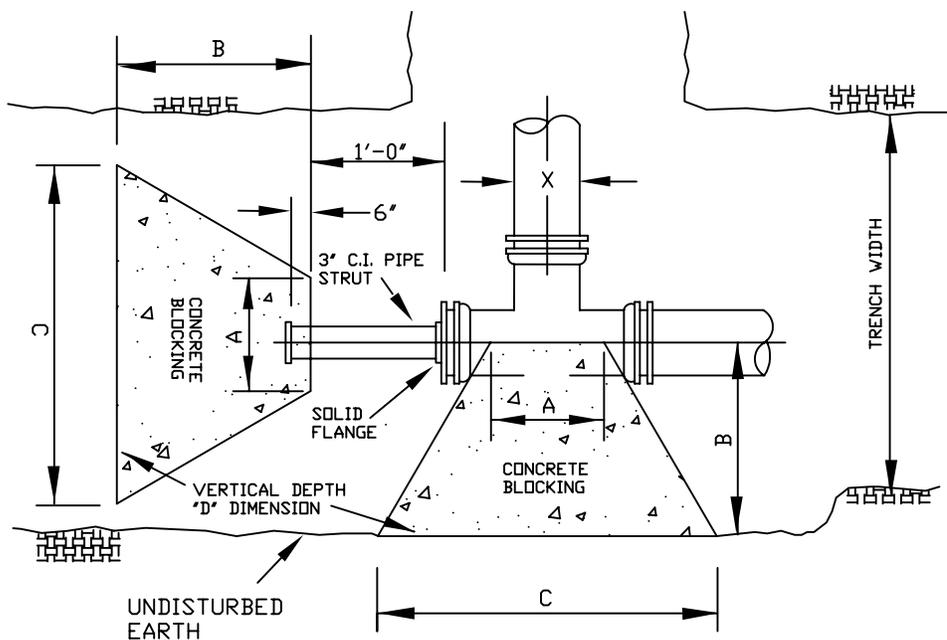
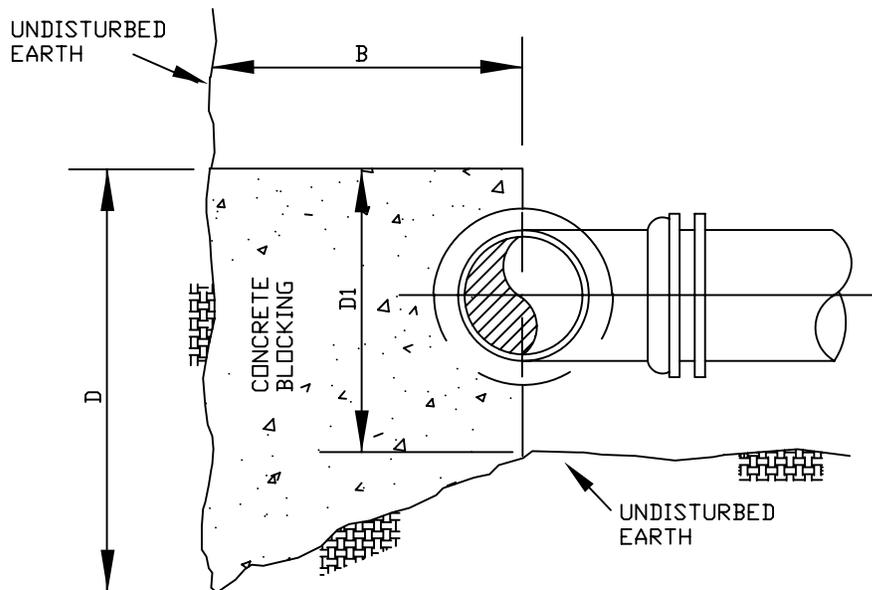
Inspected By:

BLOCKING DETAIL 1

Rev.

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# BLOCKING DETAIL 2



**NEWMAN UTILITIES**

Drawn By: S. Tolar

Inspected By:

## BLOCKING DETAIL 2

| Rev. |
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| HORIZONTAL CONCRETE BLOCKING DIMENSIONS |      |        |        |        |        |        |                    |
|---|------|--------|--------|--------|--------|--------|--------------------|
| FITT.                                   | SIZE | A      | B      | C      | D      | D1     | NOTE               |
| TEE                                     | 30"  |        |        |        |        |        | SPEC. BLKG.        |
|   | 24"  | 2'-2"  | 2'-9"  | 6'-9"  | 4'-0"  | 3'-4"  |                    |
|   | 16"  | 1'-10" | 2'-6"  | 2'-8"  | 3'-0"  | 3'-0"  |                    |
|   | 12"  | 1'-2"  | 2'-6"  | 2'-4"  | 3'-0"  | 2'-2"  |                    |
|   | 8"   | 0'-10" | 2'-4"  | 1'-2"  | 2'-8"  | 1'-10" |                    |
|   | 6"   | 0'-8"  | 2'-3"  | 1'-0"  | 2'-6"  | 1'-8"  |                    |
|   | 4"   | "      | "      | "      | "      | "      |                    |
| 90<br>BEND                              | 30"  | 2'-6"  | 6'-9"  | 13'-4" | 4'-6"  | 3'-10" | SEE<br>VERT. BLKG. |
|   | 24"  | 2'-0"  | 4'-6"  | 9'-6"  | 4'-0"  | 3'-4"  |                    |
|   | 16"  | 1'-6"  | 3'-0"  | 4'-6"  | 3'-10" | 2'-4"  |                    |
|   | 12"  | 1'-0"  | 2'-6"  | 3'-2"  | 3'-0"  | 2'-2"  |                    |
|   | 8"   | 0'-8"  | 2'-4"  | 1'-8"  | 2'-8"  | 1'-10" |                    |
|   | 6"   | 0'-6"  | 2'-3"  | 1'-0"  | 2'-6"  | 1'-8"  |                    |
|   | 4"   | "      | "      | "      | "      | "      |                    |
| 45<br>BEND<br>OR<br>WYE                 | 24"  | 1'-0"  | 2'-6"  | 5'-3"  | 4'-0"  | 3'-4"  | SEE<br>VERT. BLKG. |
|   | 16"  | 0'-10" | 2'-2"  | 3'-0"  | 3'-2"  | 2'-4"  |                    |
|   | 12"  | 0'-6"  | 2'-6"  | 2'-0"  | 3'-0"  | 2'-2"  |                    |
|   | 8"   | 0'-4"  | 2'-4"  | 1'-0"  | 2'-8"  | 1'-10" |                    |
|   | 6"   | 0'-3"  | 2'-4"  | 1'-0"  | 2'-6"  | 1'-8"  |                    |
|   | 4"   | "      | "      | "      | "      | "      |                    |
| 22 1/2"<br>BEND                         | 30"  |        |        |        |        |        | SEE<br>VERT. BLKG. |
|   | 20"  | 0'-10" | 2'-10" | 2'-0"  | 3'-8"  | 2'-10" |                    |
|   | 8"   | 0'-4"  | 2'-4"  | 1'-0"  | 2'-8"  | 1'-10" |                    |
|   | 6"   | 0'-3"  | 2'-3"  | 1'-0"  | 2'-6"  | 1'-8"  |                    |
|   | 4"   | "      | "      | "      | "      | "      |                    |
| 11 1/4"<br>BEND                         | 12"  | 0'-6"  | 2'-6"  | 1'-0"  | 3'-0"  | 2'-2"  |                    |
|   | 8"   | 0'-4"  | 2'-4"  | 1'-0"  | 2'-8"  | 1'-10" |                    |
|   | 6"   | 0'-3"  | 2'-3"  | 1'-0"  | 2'-6"  | 1'-8"  |                    |
|   | 4"   | "      | "      | "      | "      | "      |                    |



**NEWNAN  
UTILITIES**

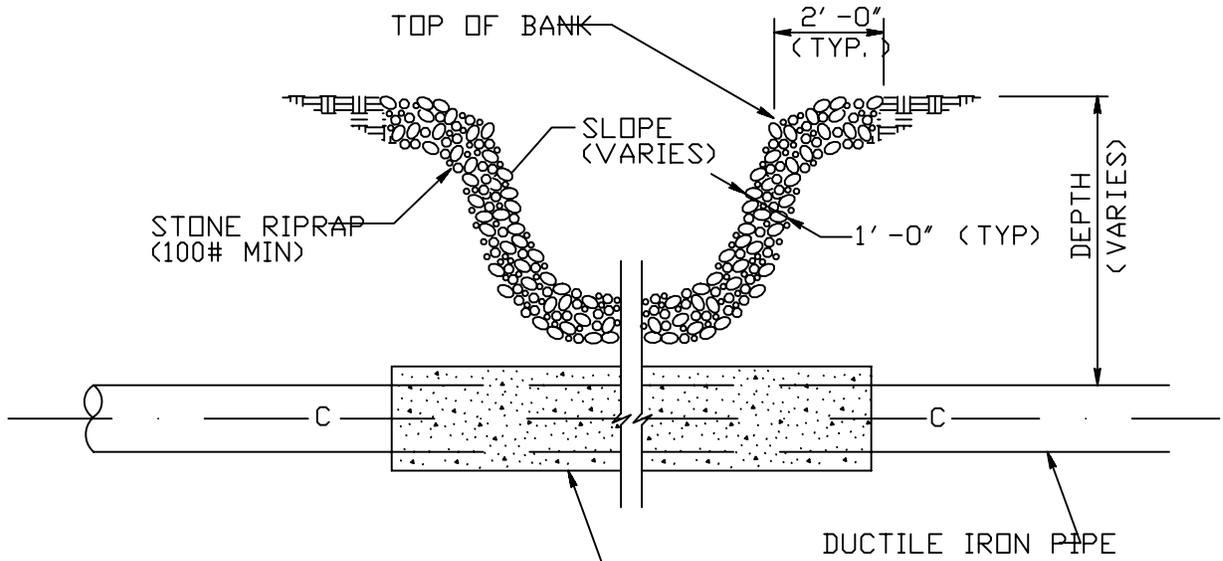
Drawn By: S. Tolar

Inspected By:

CONCRETE BLOCKING  
TABLE

Rev.

# STANDARD SWALE CROSSING DETAIL



CONCRETE ENCASMENT TO BE 20 LF OR EXTEND 2 FEET ON EITHER SIDE OF THE TOP OF THE BANK, WHICHEVER IS THE GREATER LENGTH. MINIMUM WIDTH SHALL BE 1' EITHER SIDE OF PIPE.



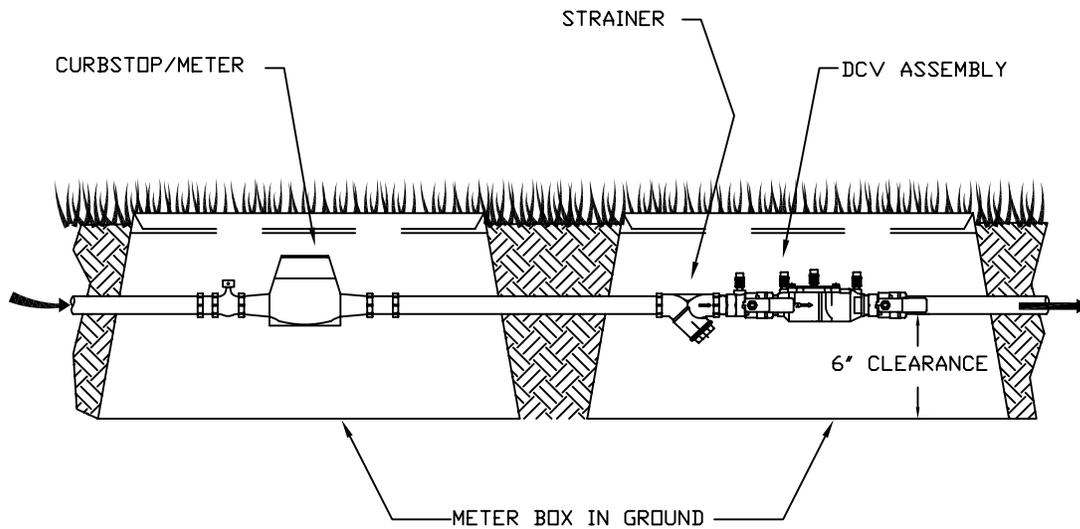
Drawn By: S. Tolar

Inspected By:

STANDARD SWALE CROSSING DETAIL

Rev.

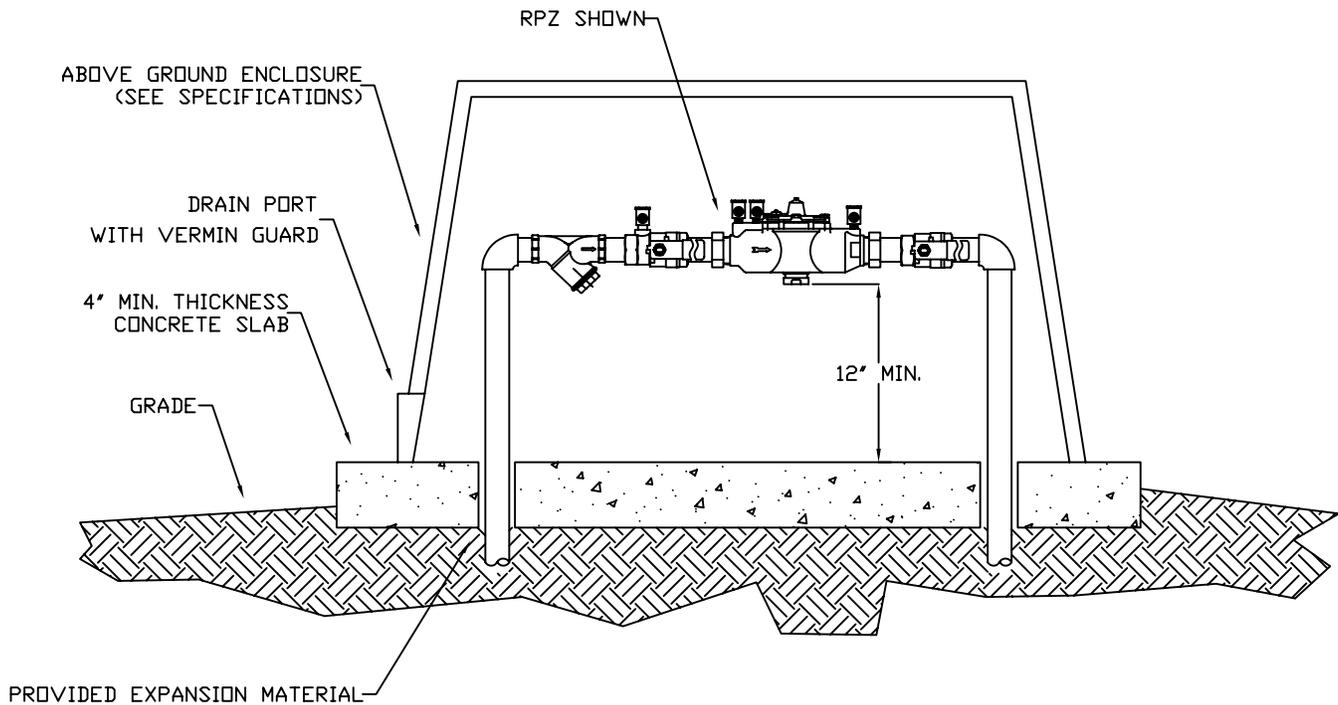
TYPICAL UNDERGROUND INSTALLTION FOR DCVA  
 SIZE 1/2" THROUGH 2"



**NOTE:**  
 THE ABOVE INSTALLATION DETAIL REPRESENTS  
 THE MINIMUM REQUIREMENTS FOR AN IRRIGATION  
 SYSTEM, BUT IS NOT LIMITED TO IRRIGATION  
 SYSTEMS.

|  |   |      |
|--|---|------|
|  <b>NEWNAN<br/>                 UTILITIES</b> | TYPICAL UNDERGROUND<br>INSTALATION FOR<br>DCVA - SIZES<br>1/2" THROUGH 2" | Rev. |
|  |   |      |
| Drawn By: S. Tolar   |   |      |
| Inspected By:  |   |      |

TYPICAL ABOVE GROUND INSTALLTION FOR RPZ  
 SIZE 1/2" THROUGH 2"



**NEWNAN UTILITIES**

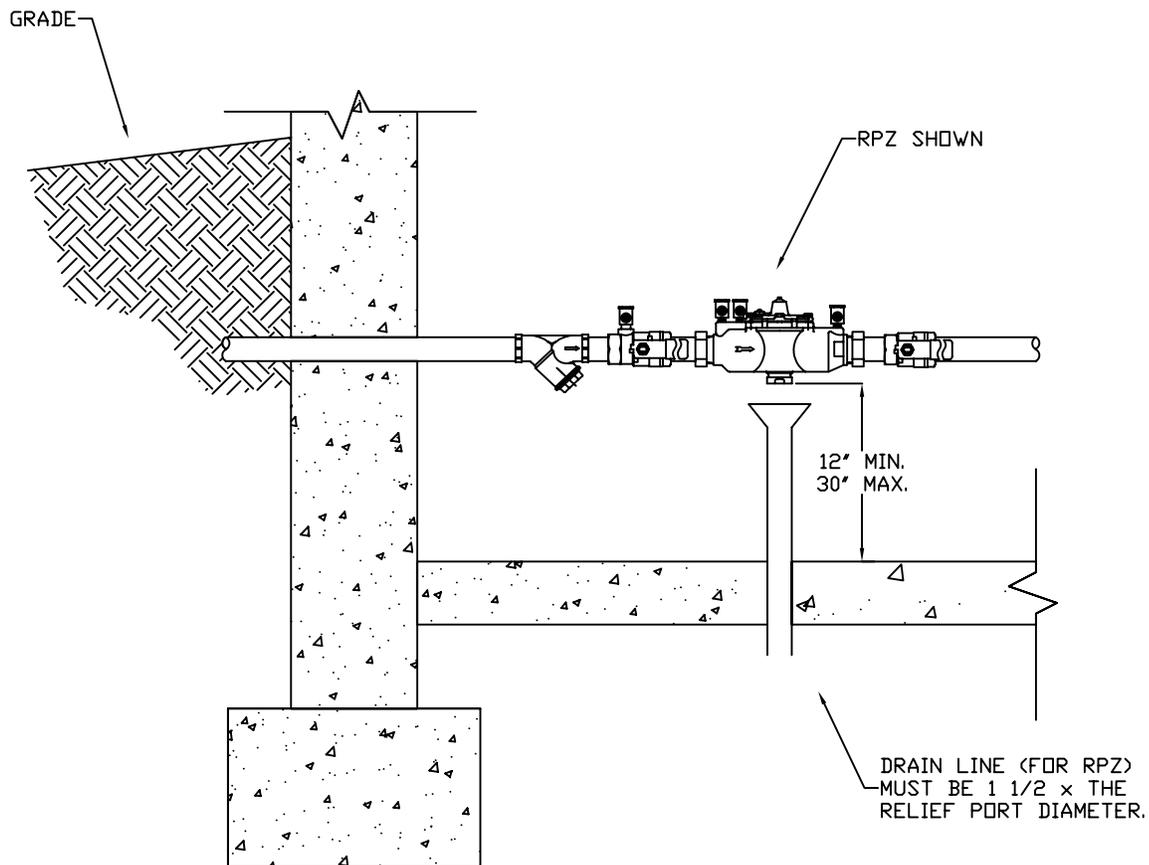
Drawn By: S. Tolar

Inspected By:

TYPICAL ABOVE GROUND  
 INSTALATION FOR  
 RPZ - SIZES  
 1/2" THROUGH 2"

|      |
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| Rev. |
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TYPICAL INSTALLTION FOR RPZ  
IN BUILDING SIZE 1/2" THROUGH 2"



NOTE:

- MAINTAIN A MINIMUM OF 12"  
CLEARANCE FROM ANY WALL.

- A DCVA MAY ALSO BE  
INSTALLED IN THIS MANOR,  
HOWEVER A DCVA DOES  
NOT HAVE A DRAIN.



**NEWNAN  
UTILITIES**

Drawn By: S. Tolar

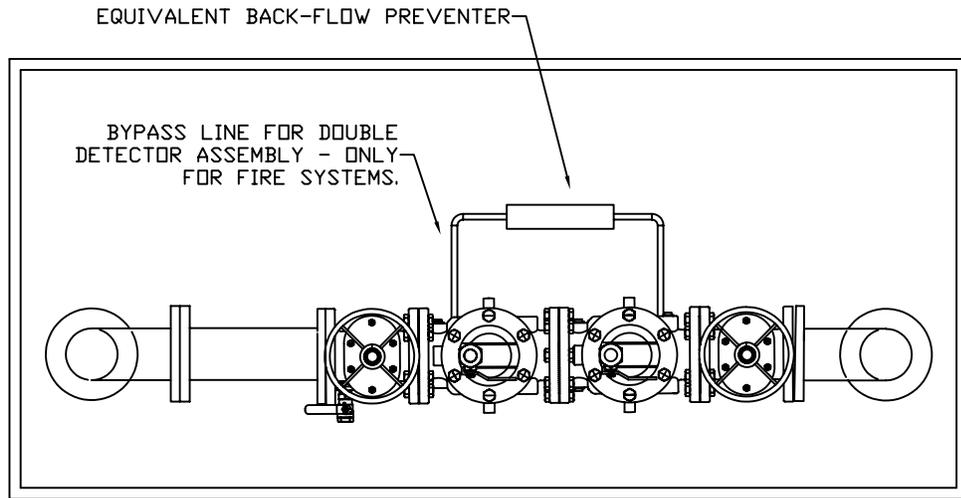
Inspected By:

TYPICAL INSTALLATION  
FOR RPZ IN  
BUILDING - SIZES  
1/2" THROUGH 2"

Rev.

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# TYPICAL INSTALLTION FOR SINGLE BACKFLOWS - SIZES 4" THROUGH 10"



## NOTE:

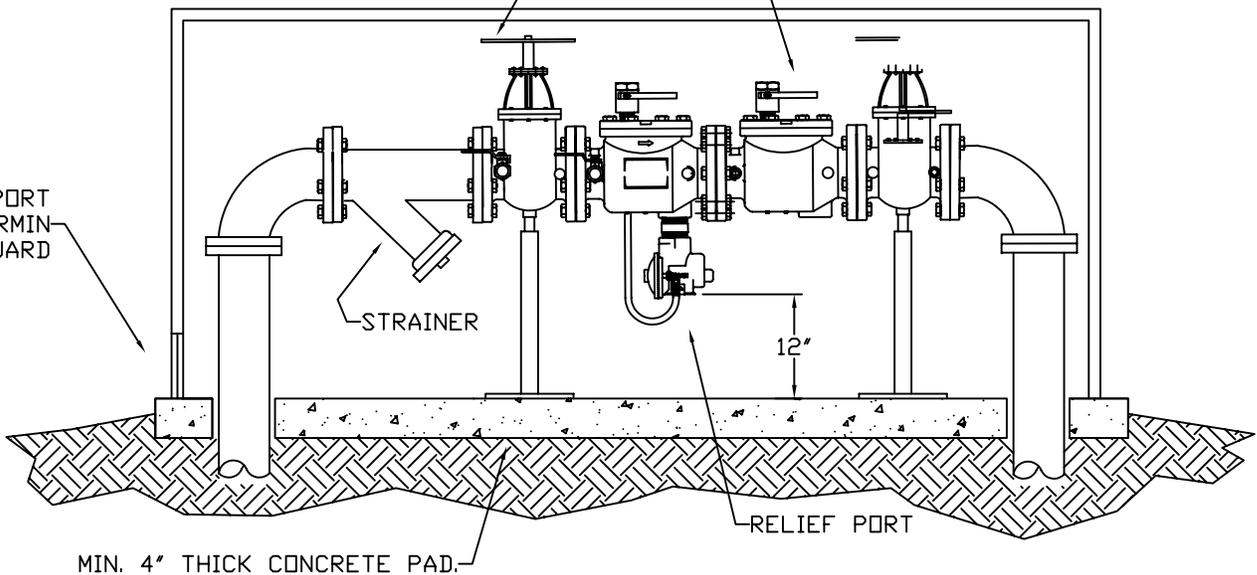
THESE DETAILS REPRESENT THE TYPICAL ABOVE GROUND INSTALLATION OF 4" TO 10" DOUBLE CHECK VALVE ASSEMBLIES (DCVA) OR REDUCED PRESSURE ZONE (RPZ) ASSEMBLIES.

ABOVE GROUND ENCLOSURE

OS&Y (OPERATING STEM & YOKE) VALVES FOR FIRE LINES - NRS (NON-RISING-STEM) VALVES FOR POTABLE WATER SYSTEMS.

RPZ SHOWN

DRAIN PORT W/ VERMIN GUARD



MIN. 4" THICK CONCRETE PAD.



**NEWNAN UTILITIES**

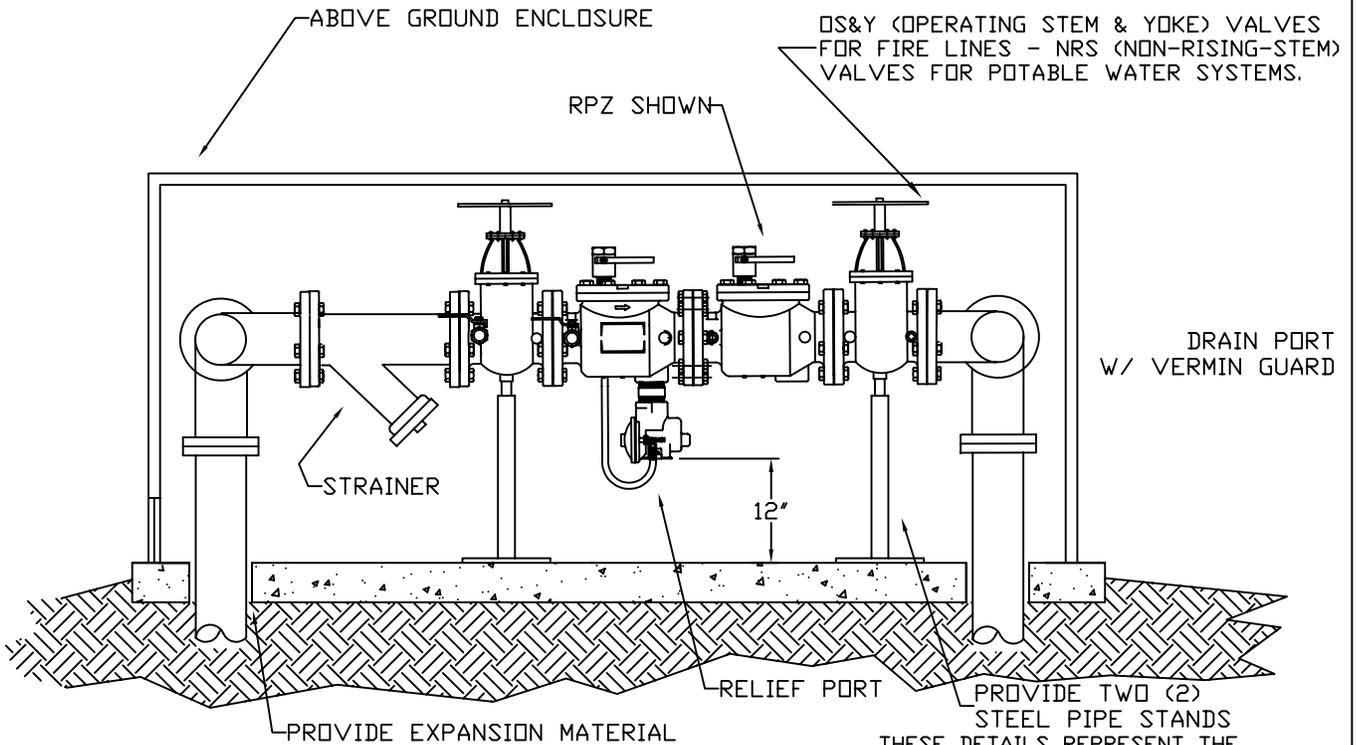
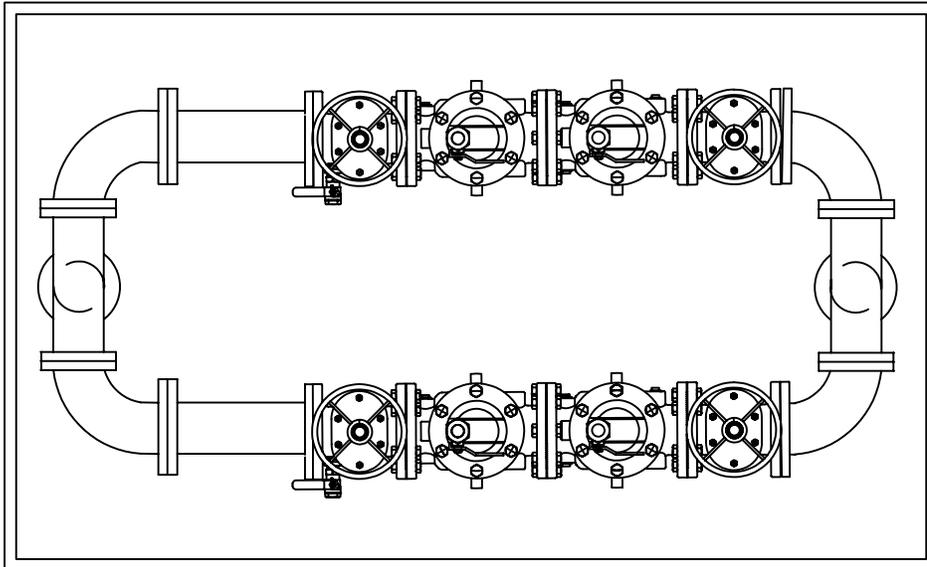
Drawn By: S. Tolar

Inspected By:

TYPICAL INSTALLATION FOR SINGLE BACKFLOWS - SIZES 4" THROUGH 10"

|      |
|------|
| Rev. |
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TYPICAL INSTALLTION FOR PARALLEL  
BACKFLOWS - SIZES 4" THROUGH 10"



NOTE: PARALLEL INSTALLATIONS ARE RECOMMENDED WHEN UNINTERRUPTED WATER SERVICE IS REQUIRED.

NOTE: THESE DETAILS REPRESENT THE TYPICAL ABOVE GROUND INSTALLATION OF 4" TO 10" DOUBLE CHECK VALVE ASSEMBLIES (DCVA) OR REDUCED PRESSURE ZONE (RPZ) ASSEMBLIES.



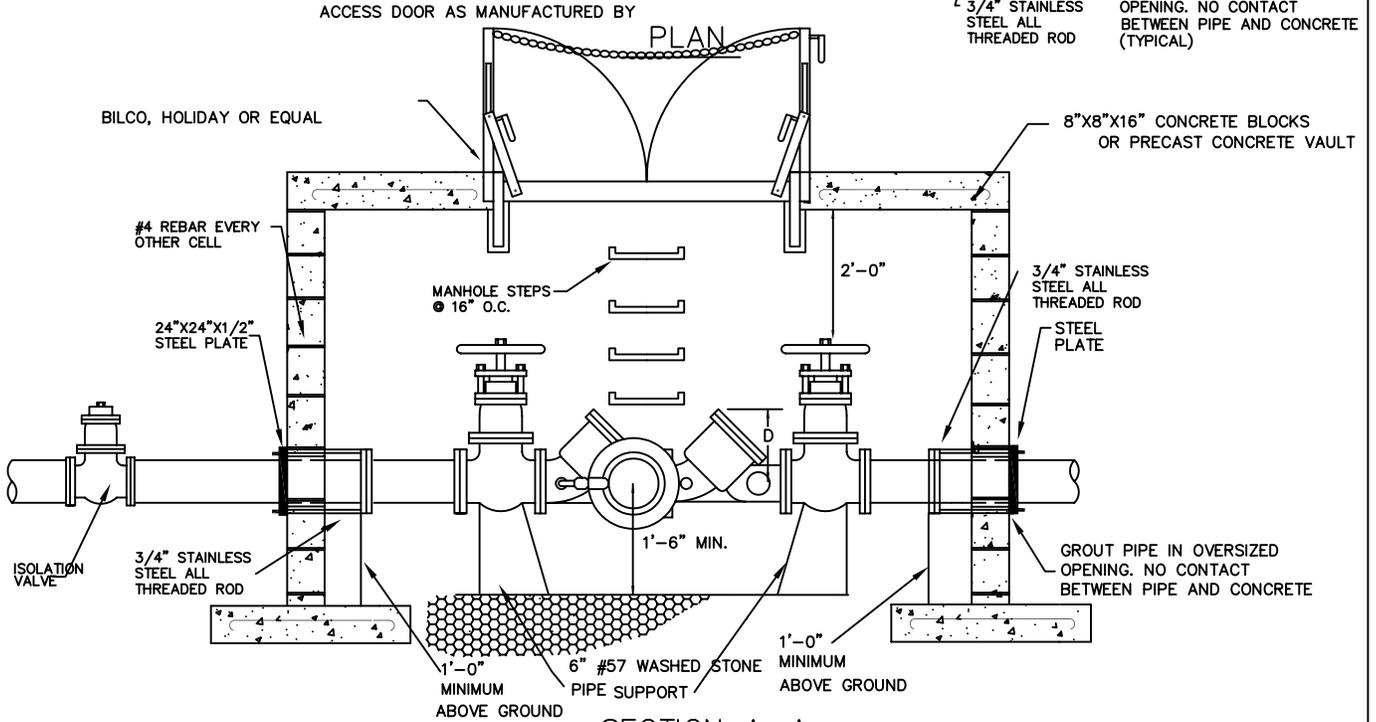
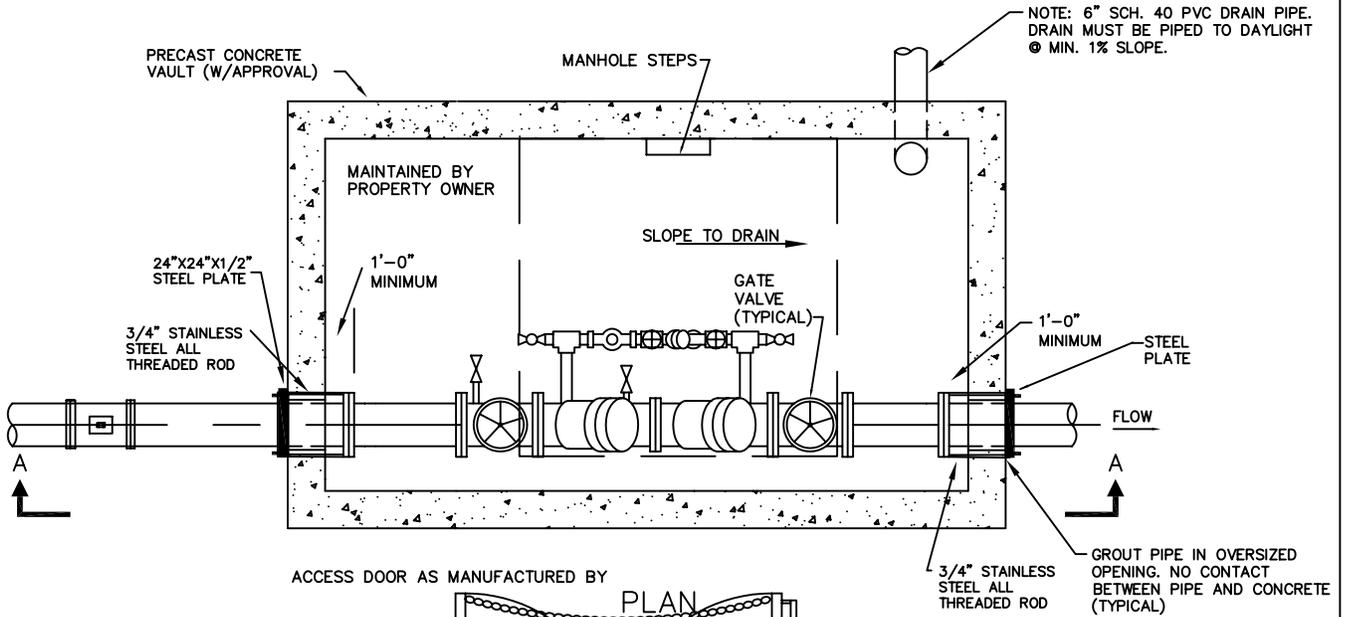
Drawn By: S. Tolar

Inspected By:

TYPICAL INSTALLATION  
FOR PARALLEL  
BACKFLOWS - SIZES  
4" THROUGH 10"

Rev.

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SECTION A-A

NOT TO SCALE

| FIRE LINE SIZE | INSIDE PIT DIMENSIONS |       |       | ACCESS DOOR SIZE             |
|----------------|-----------------------|-------|-------|------------------------------|
|                | LENGTH                | WIDTH | DEPTH |                              |
| 6 INCH         | 8'-0"                 | 6'-0" | 6'-6" | DOUBLE LEAF<br>4'-0" x 4'-0" |
| 8 INCH         | 10'-0"                | 6'-0" | 7'-0" | DOUBLE LEAF<br>4'-0" x 4'-0" |
| 10 INCH        | 10'-0"                | 6'-0" | 7'-6" | DOUBLE LEAF<br>4'-0" x 6'-0" |

DOUBLE DETECTOR CHECK BACKFLOW WITH METER



**NEWNAN UTILITIES**

Drawn By: S. Tolar

Inspected By:

TYPICAL INSTALLATION  
FOR A BELOW  
GROUND  
VAULT

| Rev. |
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# GEORGIA UNIFORM CODING SYSTEM FOR SOIL, EROSION AND SEDIMENT CONTROL PRACTICES

STATE SOIL AND WATER CONSERVATION COMMISSION OF GEORGIA

## STRUCTURAL PRACTICES

| CODE | PRACTICE                        | DETAIL | MAP SYMBOL | DESCRIPTION  |
|------|---------------------------------|--------|------------|--|
| Cd   | CHECKDAM                        |        |            | A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.  |
| Ch   | CHANNEL STABILIZATION           |        |            | Improving, constructing or stabilizing an open channel, existing stream, or ditch.   |
| Co   | CONSTRUCTION EXIT               |        |            | A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.                                |
| Cr   | CONSTRUCTION ROAD STABILIZATION |        |            | A travelway constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on-site vehicle transportation routes.           |
| Dc   | STREAM DIVERSION CHANNEL        |        |            | A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.  |
| Di   | DIVERSION                       |        |            | An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.   |
| Dn1  | TEMPORARY DOWNDRAIN STRUCTURE   |        |            | A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.                       |
| Dn2  | PERMANENT DOWNDRAIN STRUCTURE   |        |            | A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.   |
| Fr   | FILTER RING                     |        |            | A temporary stone barrier constructed at storm drain inlets and pond outlets.  |
| Ga   | GABION                          |        |            | Rock filter baskets which are hand-placed into position forming soil stabilizing structures.   |
| Gr   | GRADE STABILIZATION STRUCTURE   |        |            | Permanent structures installed to protect natural or artificial channels or waterways where otherwise the slope would be sufficient for the running water to form gullies. |
| Lv   | LEVEL SPREADER                  |        |            | A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.                                      |
| Rd   | ROCK FILTER DAM                 |        |            | A permanent or temporary stone filter dam installed across small streams or drainage ways.   |
| Re   | RETAINING WALL                  |        |            | A wall installed to stabilize out and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.                         |
| Rt   | RETROFITTING                    |        |            | A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.                                   |
| Sd1  | SEDIMENT BARRIER                |        |            | A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.               |
| Sd2  | INLET SEDIMENT TRAP             |        |            | An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.       |

| CODE | PRACTICE  | DETAIL | MAP SYMBOL | DESCRIPTION   |
|------|---|--------|------------|---|
| Sd3  | TEMPORARY SEDIMENT BASIN                            |        |            | A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out. |
| Sr   | TEMPORARY STREAM CROSSING                           |        |            | A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.                         |
| St   | STORMDRAIN OUTLET PROTECTION                        |        |            | A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.                       |
| Su   | SURFACE ROUGHENING                                  |        |            | A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.                                    |
| Tp   | TOPSOILING  |        |            | The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities. |
| Wt   | VEGETATED WATERWAY OR STORMWATER CONVEYANCE CHANNEL |        |            | Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.   |

## VEGETATIVE PRACTICES

| CODE | PRACTICE  | DETAIL | MAP SYMBOL | DESCRIPTION  |
|------|---|--------|------------|--|
| Bf   | BUFFER ZONE   |        |            | A strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams. |
| Cs   | COASTAL DUNE STABILIZATION (WITH VEGETATION)          |        |            | Planting vegetation on dunes that are denuded, artificially constructed, or re-nourished.  |
| Ds1  | DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)     |        |            | Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.                                |
| Ds2  | DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING) |        |            | Establishing a temporary vegetative cover with fast growing seedlings on disturbed areas.  |
| Ds3  | DISTURBED AREA STABILIZATION (WITH PERMANENT SEEDING) |        |            | Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, sod or legumes on disturbed areas.  |
| Ds4  | DISTURBED AREA STABILIZATION (WITH SODDING)           |        |            | A permanent vegetative cover using sods on highly erodible or critically eroded lands.   |
| Du   | DUST CONTROL ON DISTURBED AREAS                       |        |            | Controlling surface and air movement of dust on construction site, roadways and similar sites.   |
| Mb   | EROSION CONTROL MATTING AND BLANKETS                  |        |            | The installation of a protective covering (blanket) or soil stabilization mat on a prepared planting area of a steep slope, channel, or shoreline.                                 |
| Pm   | POLYCRYLAMIDE (PAM)                                   |        |            | The land application of product containing anionic polyacrylamide (PAM) as temporary soil binding agents to reduce soil erosion.   |
| Sb   | STREAMBANK STABILIZATION (USING PERMANENT VEGETATION) |        |            | The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.                   |
| Tb   | TACKIFIERS AND BINDERS                                |        |            | Substance used to anchor straw or hay mulch by causing the organic material to bind together.  |

STATE SOIL AND WATER CONSERVATION COMMISSION OF GEORGIA



**NEWNAN  
UTILITIES**

Drawn By: S. Tolar

Inspected By:

GEORGIA UNIFORM  
CODING SYSTEM  
FOR BMP

|      |
|------|
| Rev. |
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# EROSION CONTROL MANAGEMENT PLAN

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED DAILY AND AFTER EACH HEAVY-RUNOFF PRODUCING RAINFALL. ALL NEEDED REPAIRS SHALL BE MADE IMMEDIATELY TO MAINTAIN A FUNCTIONING EROSION CONTROL SYSTEM. THE FAILURE OF ANY EROSION CONTROL DEVICE TO FUNCTION AS INTENDED, FOR ANY REASON, SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION BY THE OWNER, ENGINEER OR COUNTY INSPECTOR. STRUCTURES THAT SHALL BE INSPECTED INCLUDE:

SEEDING, AND FERTILIZING

|     |     |
|-----|-----|
| Ds2 | Ds3 |
|-----|-----|

SEEDED AREA SHALL BE INSPECTED FOR FAILURE AND NECESSARY REPAIRS SHALL BE MADE WITHIN THE SAME SEASON, IF POSSIBLE.

SILT FENCE

(Sd1)

ANY FABRIC WHICH COLLAPSES, TEARS, DECOMPOSES, OR BECOMES INEFFECTIVE WILL BE REPLACED IMMEDIATELY. REMOVE SEDIMENT DEPOSITS BEHIND FENCE WHEN SEDIMENT ACCUMULATES TO 6 INCHES.

INLET PROTECTION

(Sd2)

REMOVE SEDIMENT WHEN 6 INCHES OF SEDIMENT HAS ACCUMULATED IN THE SEDIMENT AROUND THE INLET.

STORM DRAIN OUTLET PROTECTION

(St)

INSPECT RIPRAP OUTLET STRUCTURES AFTER HEAVY RAINS TO SEE IF ANY EROSION HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

TEMPORARY SEDIMENT BASIN

(Sd3)

REMOVE SEDIMENT WHEN SEDIMENT HAS ACCUMULATED TO THE ELEVATION INDICATED IN TABLE FOR EACH BASIN ON SHEET C-3.

STONE CHECK DAM

(Cd)

INSPECT FOR SIGNIFICANT EROSION AROUND THE EDGES AND BETWEEN DAMS. INSTALL PROTECTIVE RIP RAP LINERS IN PORTIONS OF THE CHANNEL WHERE EROSION OCCURS. REMOVE SEDIMENT ACCUMULATED BEHIND THE DAMS AS REQUIRED TO PREVENT DAMAGE TO CHANNEL VEGETATION. ADD STONES TO DAMS AS REQUIRED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.

CONSTRUCTION EXIT

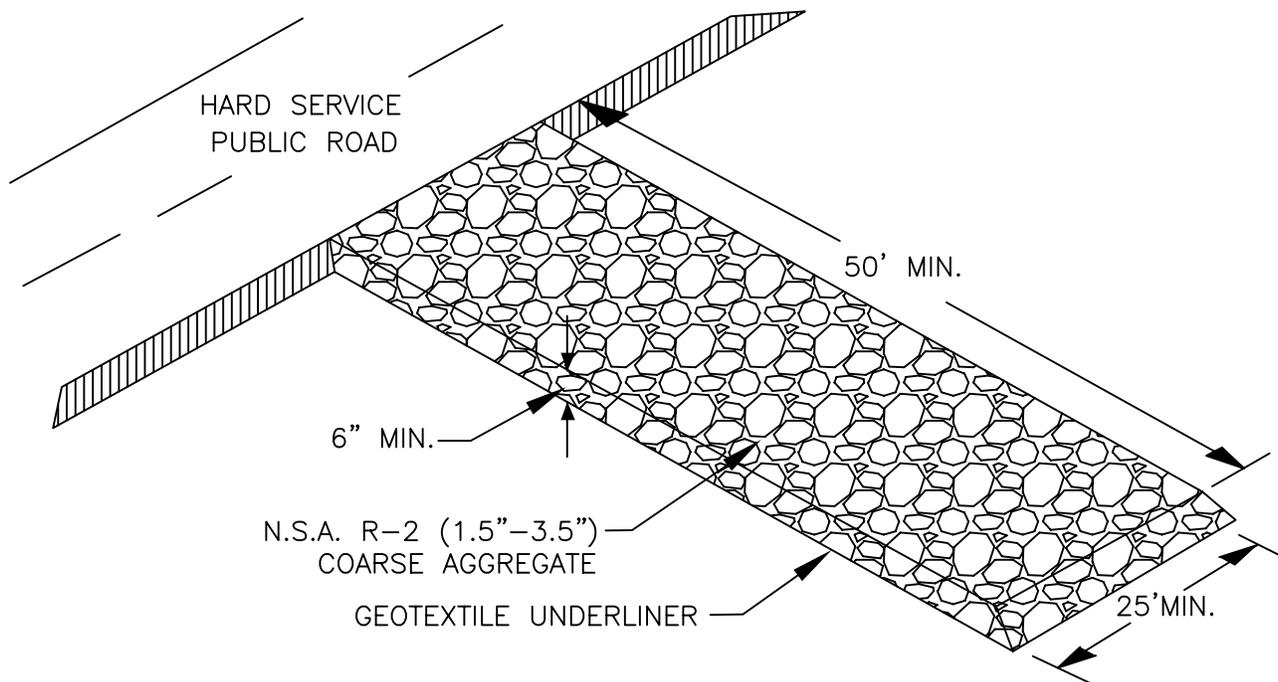
(Co)

MAINTAIN IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1.5-3.5 INCH STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES OR SITE ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

|   |   |
|---|---|
|  | <p style="font-size: 1.2em; font-weight: bold; margin: 0;">NEWNAN<br/>UTILITIES</p>           |
| <p>Drawn By: S. Tolar</p>   | <p style="text-align: center; font-weight: bold;">EROSION CONTROL<br/>MANAGEMENT<br/>PLAN</p> |
| <p>Inspected By:</p>  |   |

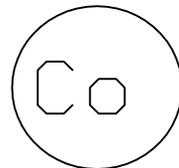
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|  | <p>Rev.</p> |
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# CRUSHED STONE CONSTRUCTION EXIT



**MAINTENANCE**

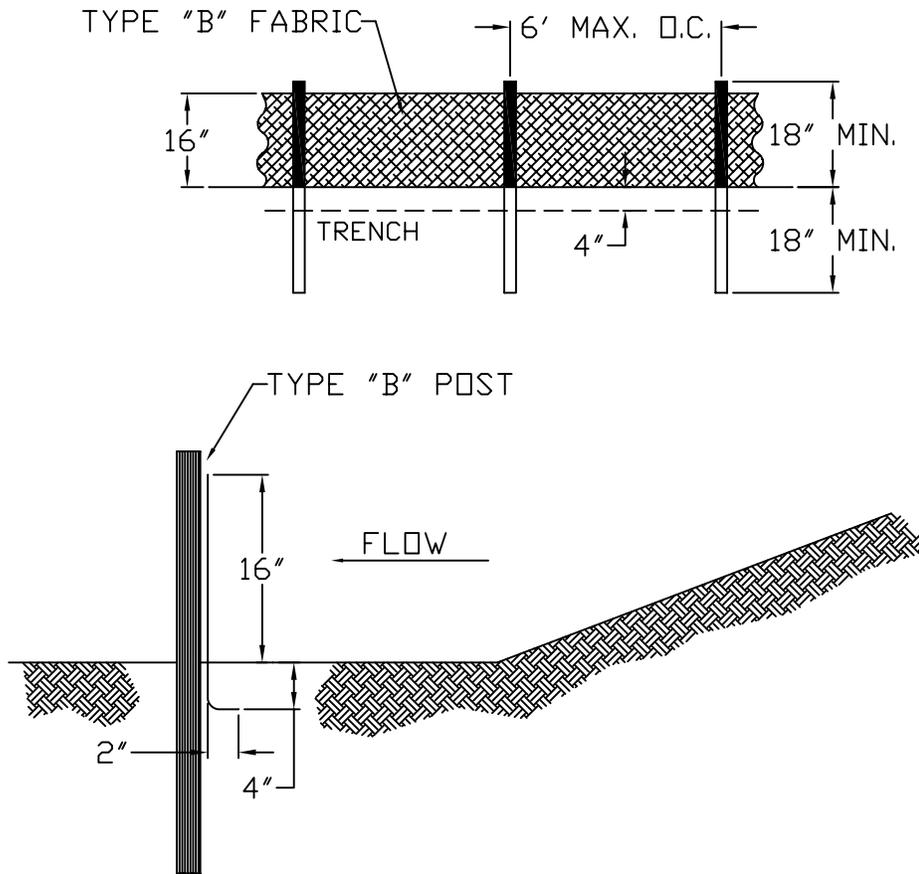
THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS- OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1.5-3.5 INCH STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES OR SITE ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.



|   |                                    |
|---|------------------------------------|
|  | <p><b>NEWNAN<br/>UTILITIES</b></p> |
| Drawn By: S. Tolar  | CONSTRUCTION<br>EXIT<br>DETAIL     |
| Inspected By:   |                                    |

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| Rev. |
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# SILT FENCE TYPE "B" DETAIL



**NOTE:** Temporary silt fence installations shall conform to the type "B" standard set forth in the "Manual for Erosion and Sediment Control in Georgia".

Sd1

|   |                                  |      |
|---|----------------------------------|------|
|  <b>NEWNAN UTILITIES</b> | SILT FENCE<br>TYPE "B"<br>DETAIL | Rev. |
|   |                                  |      |
| Drawn By: S. Tolar  |                                  |      |
| Inspected By:   |                                  |      |

# SILT FENCE TYPE "C" DETAIL

1. DESCRIPTION: WATER PERMEABLE FILTER FENCE MATERIAL COMPOSED OF STRONG ROT PROOF SYNTHETIC FIBERS FORMED INTO A MATRIX OF WOVEN OR NON-WOVEN FABRIC. EITHER TYPE OF FABRIC SHALL BE FREE OF ANY TREATMENT OF COATING WHICH MIGHT SIGNIFICANTLY ALTER ITS PHYSICAL PROPERTIES AFTER INSTALLATION. THE FABRIC SHALL CONTAIN STABILIZER AND/OR INHIBITORS TO MAKE THE FILAMENTS RESISTANT TO DETERIORATION RESULTING FROM EXPOSURE TO SUNLIGHT OR HEAT. THE FABRIC SHALL BE A PERVIOUS SHEET OF SYNTHETIC FIBERS ORIENTED INTO A NETWORK SO THAT FIBERS RETAIN THEIR RELATIVE POSITION WITH RESPECT TO EACH OTHER. EDGES OF THE FABRIC SHALL BE FINISHED TO PREVENT THE OUTER YARN FROM PULLING AWAY FROM THE MATERIAL. THE FABRIC SHALL BE FREE OF DEFECTS OR FLAWS WHICH SIGNIFICANTLY AFFECT THE PHYSICAL AND/OR FILTERING PROPERTIES. THE FABRIC SHALL HAVE A MINIMUM WIDTH OF THIRTY SIX (36) INCHES. SHEETS OF FABRIC MAY BE PERMITTED DUE TO THE PRESENCE OF THE SEAM. THE FABRIC MAY BE MANUFACTURED WITH POCKETS FOR POSTS, HEMS WITH CORD POSTS PREATTACHED.

2. MATERIALS

A. POSTS

1. STEEL: POSTS SHALL BE ROUND, U.T. OR C SHAPED WITH A MINIMUM WEIGHT OF 1.3 POUNDS PER FOOT AND HAVE PROJECTIONS FOR FASTENING THE WIRE TO THE FENCE FOR TYPE A OR C FABRIC. WITH A MINIMUM LENGTH OF FOUR (4) FEET. SPACING FOUR (4) FOOT CENTER MAXIMUM.

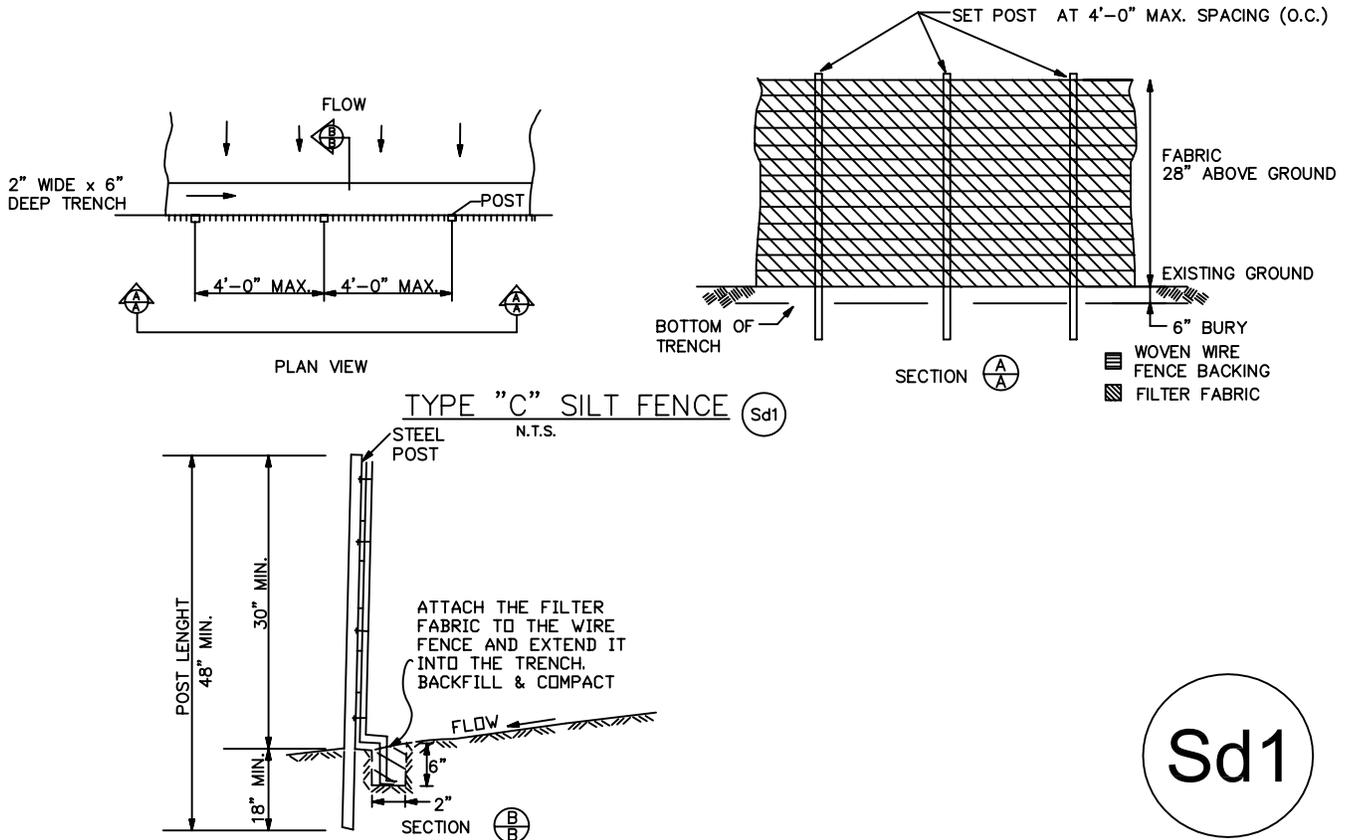
B. FABRIC: USE TYPE C 36" GA. D.O.T. APPROVED FABRIC.

C. FASTENERS: SECURELY FASTEN FILTER FABRIC TO WOVEN WIRE FENCE BACKING & POSTS WITH WIRE.

3. INSTALLATION: TEMPORARY SILT FENCE INSTALLATION SHALL CONFORM TO THE STANDARDS SET FORTH IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.

4. MAINTENANCE: THE DEVELOPER/CONTRACTOR SHALL MAINTAIN THE SILT FENCE UNTIL THE LDA IS COMPLETE AND FINAL STABILIZATION IS ACHIEVED. FILTER FABRIC SHALL BE REMOVED AND REPLACED WHENEVER IT HAS DETERIORATED OR BEEN OTHERWISE DAMAGED TO SUCH EXTENT THAT IT REDUCES THE EFFECTIVENESS OF THE

INSTALLATION OF FABRIC FENCE MATERIAL IN AREAS OF CONCENTRATED FLOW IS NOT RECOMMENDED UNLESS PROPER PROVISIONS ARE MADE TO SUPPLEMENT OR OTHERWISE STRENGTHEN THE FENCE TO WITHSTAND INCREASED DRAINAGE WATER VELOCITIES. NOTE: VENDOR MUST SUPPLY LETTER OF WARRANTY FOR AFORMENTIONED SPECIFICATIONS. IN ADDITION, THIS LETTER SHOULD STATE THAT THE FABRIC IS ON THE GEORGIA QPL #36.



Sd1

**NEWNAN UTILITIES**

Drawn By: S. Tolar

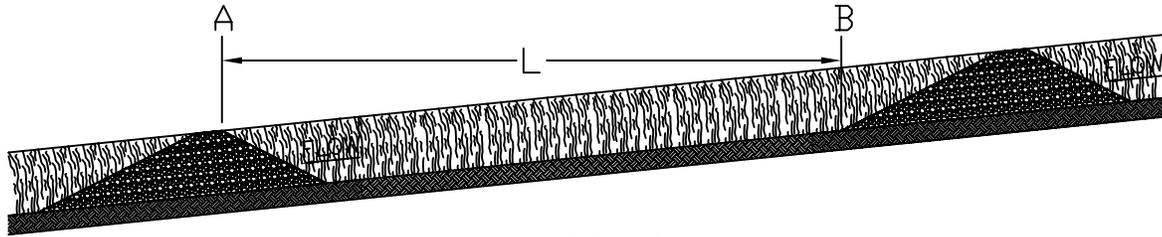
Inspected By:

SILT FENCE TYPE "C" DETAIL

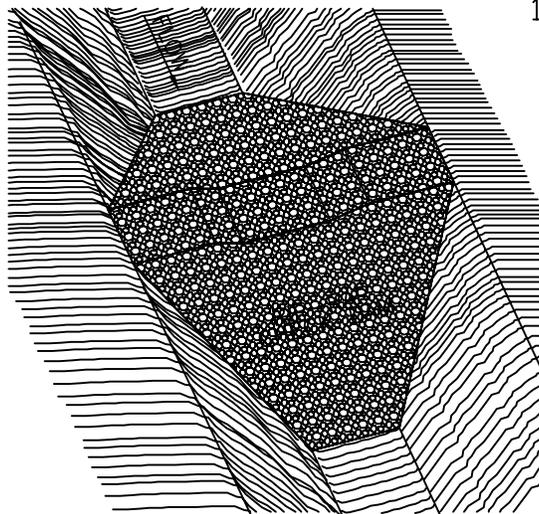
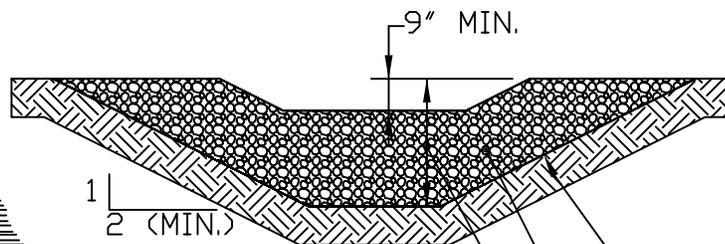
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| Rev. |
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# STONE CHECK DAM DETAIL

L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION



SIDE VIEW

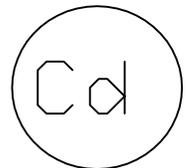


2' MAX.  
2"-10" STONE  
10 OZ. GEOTEXTILE FILTER FABRIC  
UNDER STONE CHECK DAM

UPSTREAM VIEW

## MAINTENANCE

PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED. SEDIMENT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF ONE-HALF THE ORIGINAL DAM HEIGHT OR BEFORE. IF THE AREA IS TO BE MOWED, CHECK DAMS SHALL BE REMOVED ONCE FINAL STABILIZATION HAS OCCURRED. OTHERWISE, CHECK DAMS MAY REMAIN IN PLACE PERMANENTLY. AFTER REMOVAL, THE AREA BENEATH THE DAM SHALL BE SEEDED AND MULCHED IMMEDIATELY.

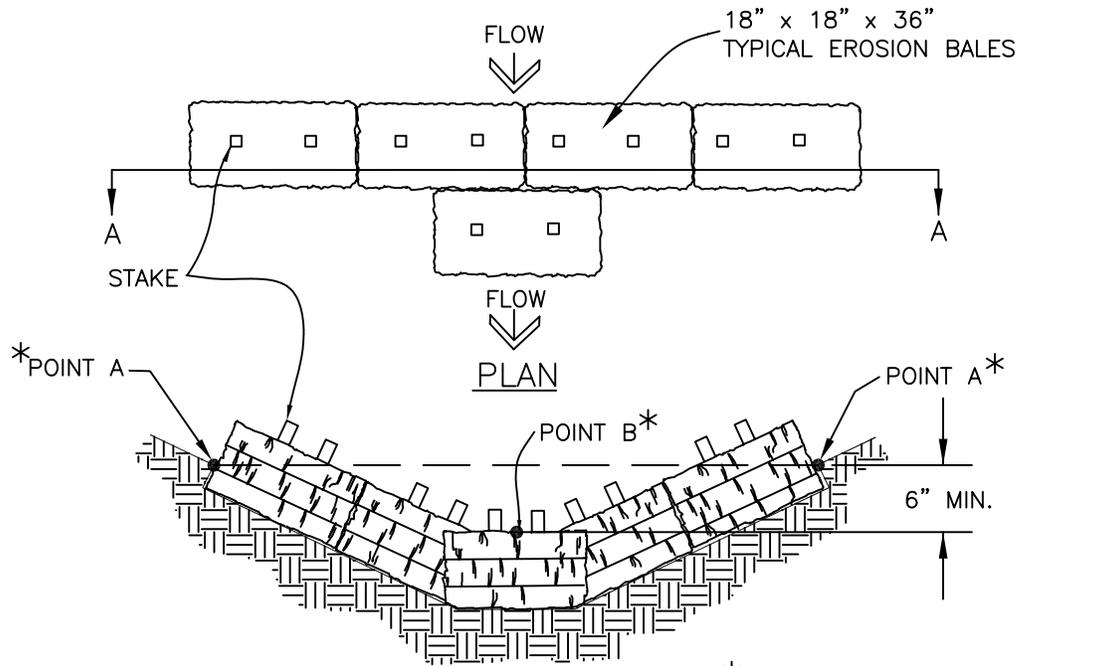


Drawn By: S. Tolar

Inspected By:

STONE  
CHECK DAM  
DETAIL

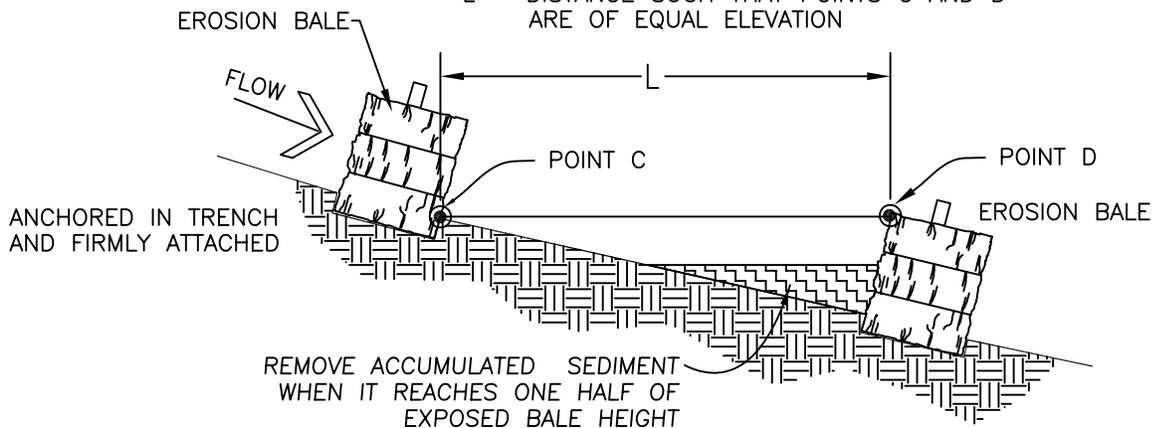
Rev.



**SECTION A-A**

\* POINTS A MUST BE HIGHER THAN POINT B

L = DISTANCE SUCH THAT POINTS C AND D ARE OF EQUAL ELEVATION

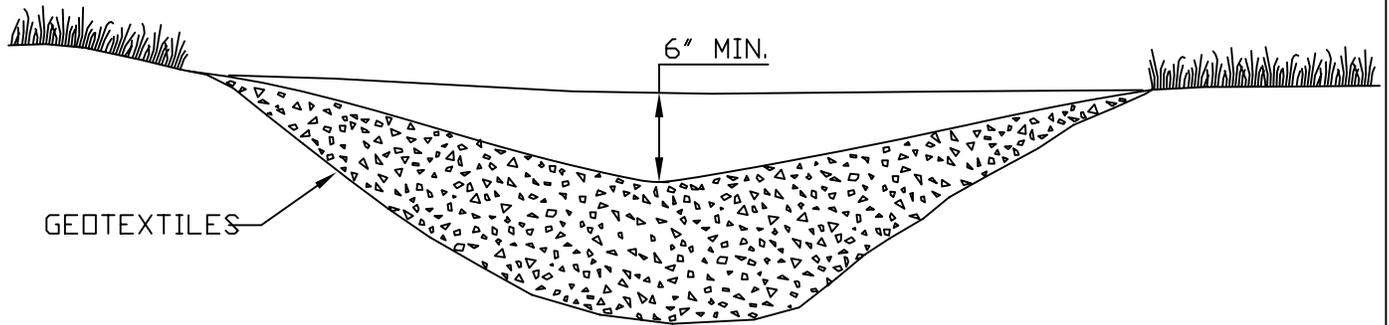


**CHANNEL PROFILE  
SPACING BETWEEN EROSION BALES**

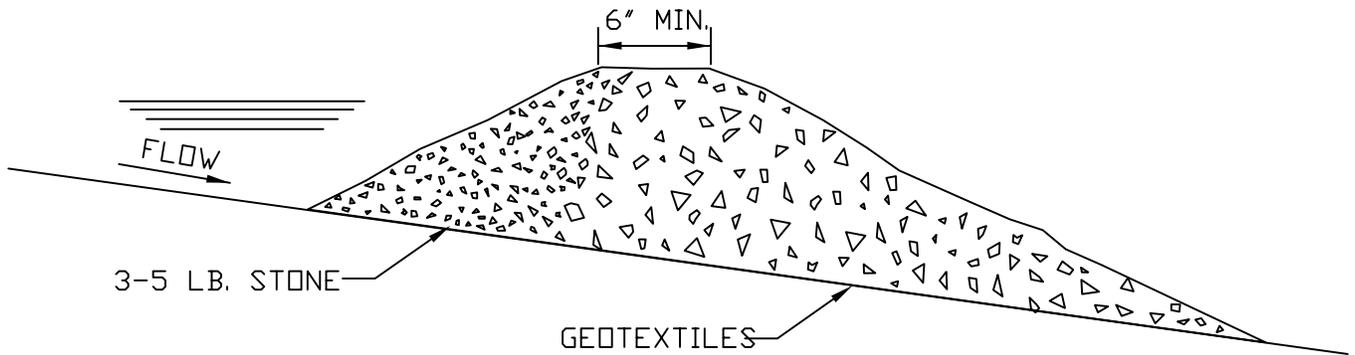
**MAINTENANCE**  
PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED. SEDIMENT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF ONE-HALF THE ORIGINAL DAM HEIGHT OR BEFORE. IF THE AREA IS TO BE MOWED, CHECK DAMS SHALL BE REMOVED ONCE FINAL STABILIZATION HAS OCCURRED. OTHERWISE, CHECK DAMS MAY REMAIN IN PLACE PERMANENTLY. AFTER REMOVAL, THE AREA BENEATH THE DAM SHALL BE SEEDED AND MULCHED IMMEDIATELY.

Cd-Hb

|   |                            |      |
|---|----------------------------|------|
|  <b>NEWNAN UTILITIES</b> | TYPICAL HAY-BALE CHECK DAM | Rev. |
|   |                            |      |
| Drawn By: S. Tolar  |                            |      |
| Inspected By:   |                            |      |



NOTE: SEDIMENT TRAP IS TO BE CLEANED OUT WHEN VOLUME BECOMES HALF FULL.



NOTE: ROCK SIZE DETERMINED ACCORDING TO SPECIFICATIONS SET FORTH IN APPENDIX C OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, FIFTH EDITION

**MAINTENANCE**

ROCK DAMS SHOULD BE REMOVED ONCE DISTURBED AREAS HAVE BEEN STABILIZED. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED. SEDIMENT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF ONE-HALF THE ORIGINAL DAM HEIGHT OR BEFORE.

Rd

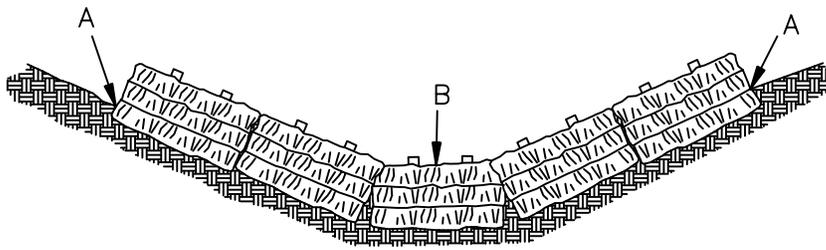
**NEWNAN UTILITIES**

Drawn By: S. Tolar

Inspected By:

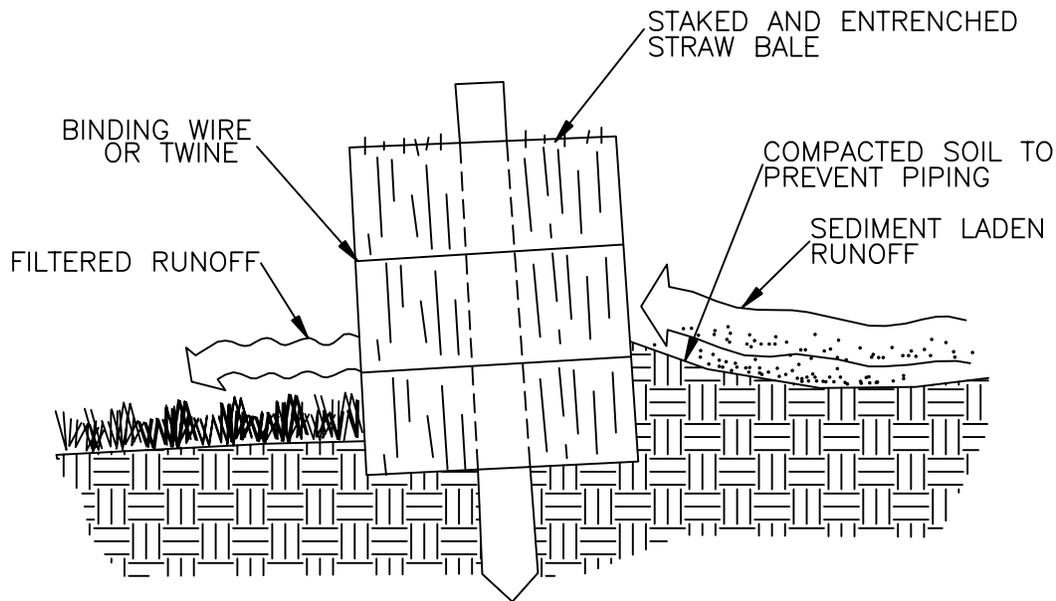
ROCK FILTER DAM

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| Rev. |
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POINTS A SHOULD BE HIGHER THAN POINT B

PROPER PLACEMENT OF STRAW BALE BARRIER IN DRAINAGE WAY



NOTE: EMBED HAY BALES A MINIMUM OF 4 INCHES

CROSS SECTION OF A PROPERLY INSTALLED STRAW BALE

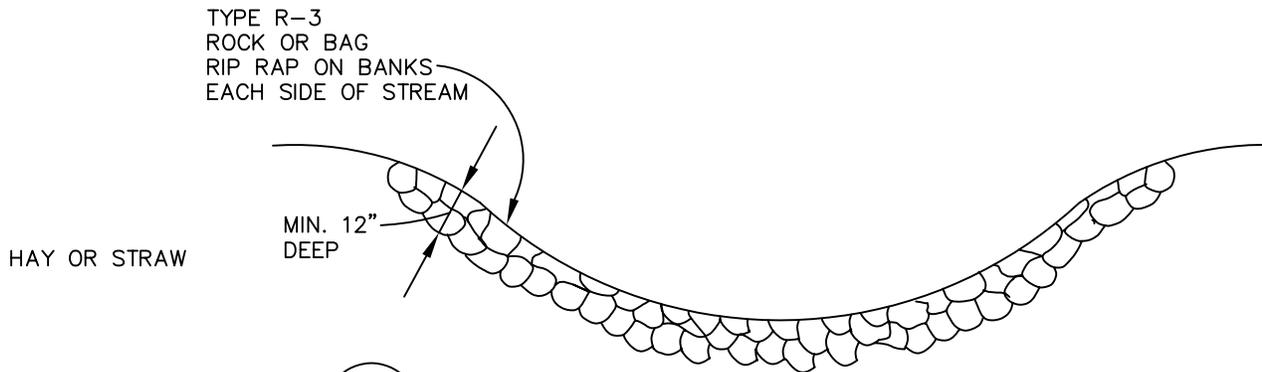
**MAINTENANCE**

PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED. SEDIMENT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF ONE-HALF THE ORIGINAL DAM HEIGHT OR BEFORE. IF THE AREA IS TO BE MOWED, CHECK DAMS SHALL BE REMOVED ONCE FINAL STABILIZATION HAS OCCURRED. OTHERWISE, CHECK DAMS MAY REMAIN IN PLACE PERMANENTLY. AFTER REMOVAL, THE AREA BENEATH THE DAM SHALL BE SEEDED AND MULCHED IMMEDIATELY.

Sd1-Hb

|   |                                     |                           |
|---|-------------------------------------|---------------------------|
|  <b>NEWNAN<br/>UTILITIES</b> | <p>HAYBALE<br/>SILT<br/>BARRIER</p> | Rev.                      |
|   |                                     | <p>Drawn By: S. Tolar</p> |
| <p>Inspected By:</p>  |                                     |                           |

# GRADED RIP RAP STONE



## TYPICAL DETAIL FOR RIP RAP

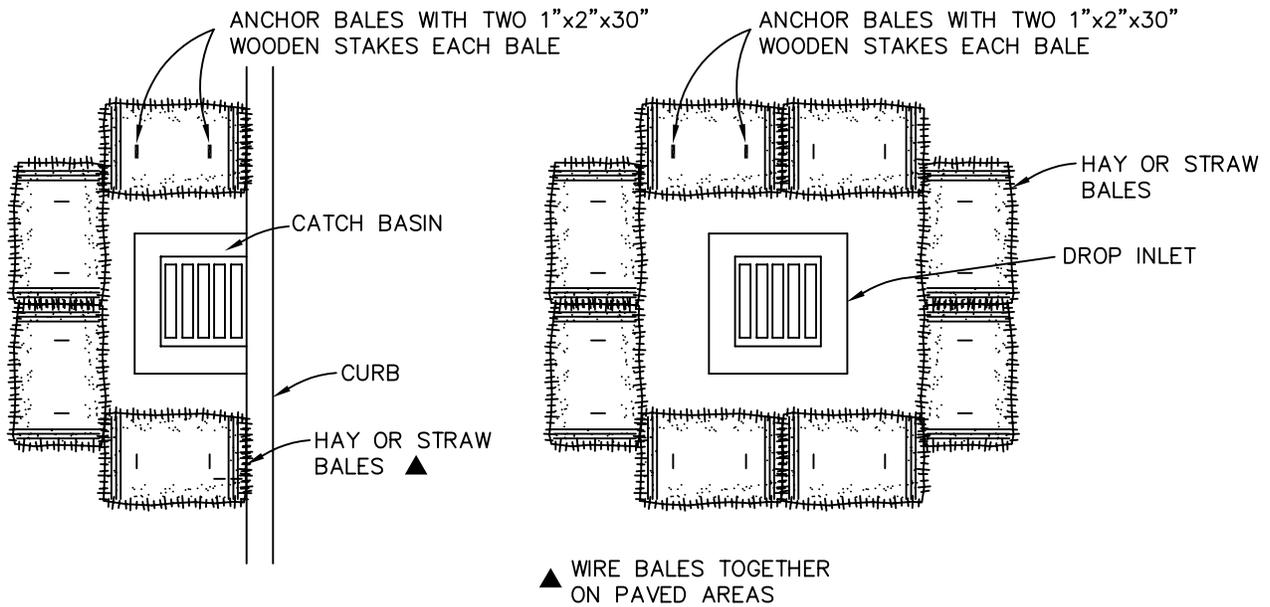
N.T.S

| FLOW VELOCITY<br>(FT./SEC.) | NSA NO.<br>(FT./SEC.) | SIZE, INCHES |       |       | PARTICLE<br>WEIGHT (LBS) |
|-----------------------------|-----------------------|--------------|-------|-------|--------------------------|
|                             |                       | MAX.         | AVG.  | MIN.  |                          |
| 2.5                         | R-1                   | 1 1/2        | 3/4   | NO. 8 | --                       |
| 4.5                         | R-2                   | 3            | 1 1/2 | 1     | --                       |
| 6.5                         | R-3                   | 6            | 3     | 2     | 20                       |
| 9.0                         | R-4                   | 12           | 6     | 3     | 60                       |
| 11.5                        | R-5                   | 18           | 9     | 5     | 150                      |
| 13.0                        | R-6                   | 24           | 12    | 7     | 300                      |
| 14.5                        | R-7                   | 30           | 15    | 12    | 700                      |
| --                          | R-8                   | 48           | 24    | 15    | 1500                     |

NSA = NATIONAL STONE ASSOCIATION  
 AT LEAST 50% OF ALL INDIVIDUAL PARTICLES MUST WEIGH AT LEAST THE AMOUNT SHOWN.  
 RIP RAP DOWN EMBANKMENT SLOPES TO BE R-5; OTHER RIP RAP TO BE R-3 EXCEPT WHERE  
 NOTED. RIP RAP LAYER THICKNESS SHALL BE 1.5 TIMES THE MINIMUM STONE SIZE.

|                             |                         |      |
|-----------------------------|-------------------------|------|
| <b>NEWNAN<br/>UTILITIES</b> | GRADED RIP<br>RAP STONE | Rev. |
|                             |                         |      |
| Drawn By: S. Tolar          |                         |      |
| Inspected By:               |                         |      |

# DRAINAGE STRUCTURE DETAIL

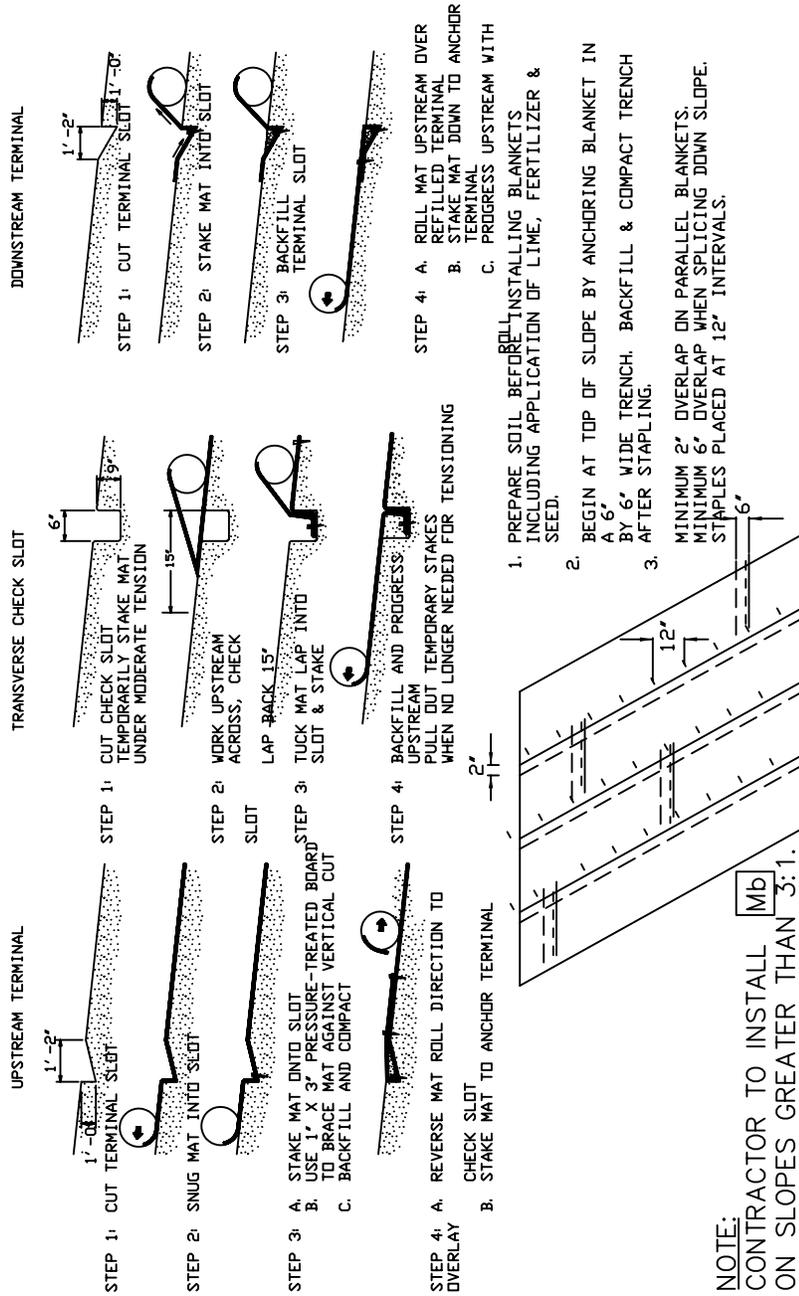


NOTE:  
 AT ALL DROP INLETS AND CATCH BASINS, EXISTING AND PROPOSED, PROVIDE SEDIMENTATION CONTROL AS REQUIRED.

Sd2

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|---|----------------------------|------|
|  <b>NEWNAN UTILITIES</b> | DRAINAGE STRUCTURES DETAIL | Rev. |
|   |                            |      |
| Drawn By: S. Tolar  |                            |      |
| Inspected By:   |                            |      |

# EROSION CONTROL MATTING AND BLANKETS

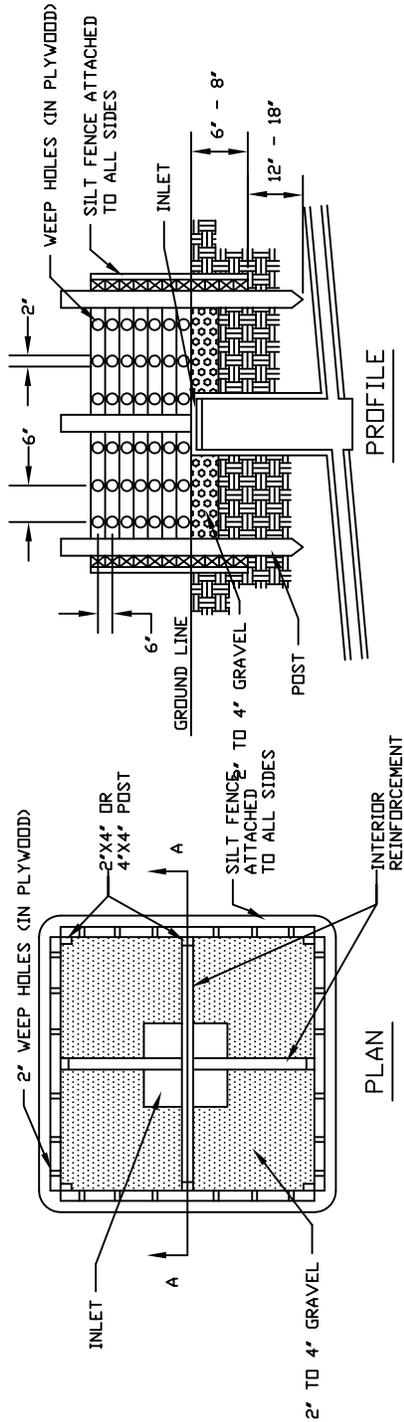


Drawn By: S. Tolar  
Inspected By:

## EROSION CONTROL MATTING AND BLANKETS DETAIL

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| Rev. |  |
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# SEDIMENT BOX DETAIL



**NOTES:** BOX TO BE MADE OF BOARDS SPACED 1" TO 2" APART, OR MADE OF PLYWOOD WITH 2" WEEP HOLES SPACED APPROX. 6" VERTICAL - 6" HORIZONTAL (IN PLYWOOD BOX). SILT FENCE TO BE ATTACHED TO ALL SIDES OF THE SEDIMENT BOX. PLACE 2" TO 4" OF GRAVEL ON THE INSIDE AROUND THE INLET. DIMENSIONS OF THE BOX WILL VARY ACCORDING TO THE SIZE OF THE INLET AND DEPTH OF BASIN. EXCAVATE 1' BELOW TOP OF INLET IN 10' RADIUS AROUND BOX FOR SILT CONTROL DURING CONSTRUCTION.

**WIRE STAPLES** GAUGE 17 MIN. CROWN 3/4" WIDE LEGS 1/2" LONG STAPLES/POST 5 MIN.

**GAUGE** 14 MIN. LENGTH 1" BUTTON HEADS 3/4" NAILS/POST 4 MIN.

**FASTENERS FOR WOOD POST**

| MINIMUM LENGTH | TYPE OF POST              | SIZE OF POST                                      |
|----------------|---------------------------|---|
| 4'             | SOFT WOOD<br>DAK<br>STEEL | 3" DIA, DR 2"x4"<br>1.5"x1.5"<br>1.3 LB./FT. MIN. |
| 4'             | STEEL                     | 1.3 LB./FT. MIN.                                  |

AN IMPOUNDING AREA CREATED BY EXCAVATING AROUND A STORM DRAIN INLET. THE EXCAVATED AREA WILL BE FILLED AND STABILIZED ON COMPLETION OF CONSTRUCTION ACTIVITIES.

Sd2

**NEWNAN UTILITIES**

Drawn By: S. Tolar

Inspected By:

SEDIMENT  
BOX  
DETAIL

|      |  |
|------|--|
| Rev. |  |
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# VEGETATIVE COVER SCHEDULE

| Month     | Ds2<br>Temporary                           |                             | Rate/Acre         |     | Permanent<br>Ds3  | Rate/Acre                     |        |
|-----------|--|-----------------------------|-------------------|-----|---|-------------------------------|--------|
|           | Alone                                      | Mix                         | Alone             | Mix |   | Alone                         | Mix    |
| January   | Rye<br>Annual Ryegrass                     | 3 bu.<br>40 lbs.            | .5 bu.            |     | Sericea Lespedeza<br>Unhulled Bermuda<br>Kentucky 31 Fescue | 75 lbs.<br>10 lbs.<br>30 lbs. |        |
| February  | Rye<br>Annual Ryegrass<br>Annual Lespedeza | 3 bu.<br>40 lbs.<br>40 lbs. | .5 bu.<br>10 lbs. |     | Sericea Lespedeza<br>Kentucky 31 Fescue                     | 75 lbs.<br>30 lbs.            |        |
| March     | Annual Ryegrass                            | 40 lbs.                     |                   |     | Sericea Lespedeza<br>Hulled Bermuda<br>Kentucky 31 Fescue   | 60 lbs.<br>6 lbs.<br>30 lbs.  |        |
| April     | Sudangrass<br>Brown Top Millet             | 60 lbs.<br>40 lbs.          | 10 lbs.           |     | Same as March   |                               |        |
| May       | Same as April                              |                             |                   |     | Same as March   |                               |        |
| June      | Same as April                              |                             |                   |     | Hulled Bermuda  | 10 lbs.                       | 6 lbs. |
| July      | Sudangrass<br>Pearl Millet                 | 60 lbs.<br>50 lbs.          |                   |     |   |                               |        |
| August    | Pearl Millet                               | 50 lbs.                     |                   |     |   |                               |        |
| September | Same as January                            |                             |                   |     | Sericea Lespedeza   | 75 lbs.                       |        |
| October   | Wheat<br>Annual Ryegrass<br>Rye            | 3 bu.<br>40 lbs.<br>3 bu.   | .5 bu.<br>.5 bu.  |     | Same as September<br>Kentucky 31 Fescue                     | 50 lbs.<br>30 lbs.            |        |
| November  | Same as October                            |                             |                   |     | Same as January   |                               |        |
| December  | Same as October                            |                             |                   |     | Same as January   |                               |        |

**NOTES:**

1. Seed should be scarified.
2. Inoculate seed.
3. For temporary vegetation, provide 500-700 lbs. of 10-10-10 fertilizer per acre.
4. For permanent vegetation, provide agricultural lime at 1.5 tons per acre and 10-10-10 fertilizer at 1500 lbs. per acre.

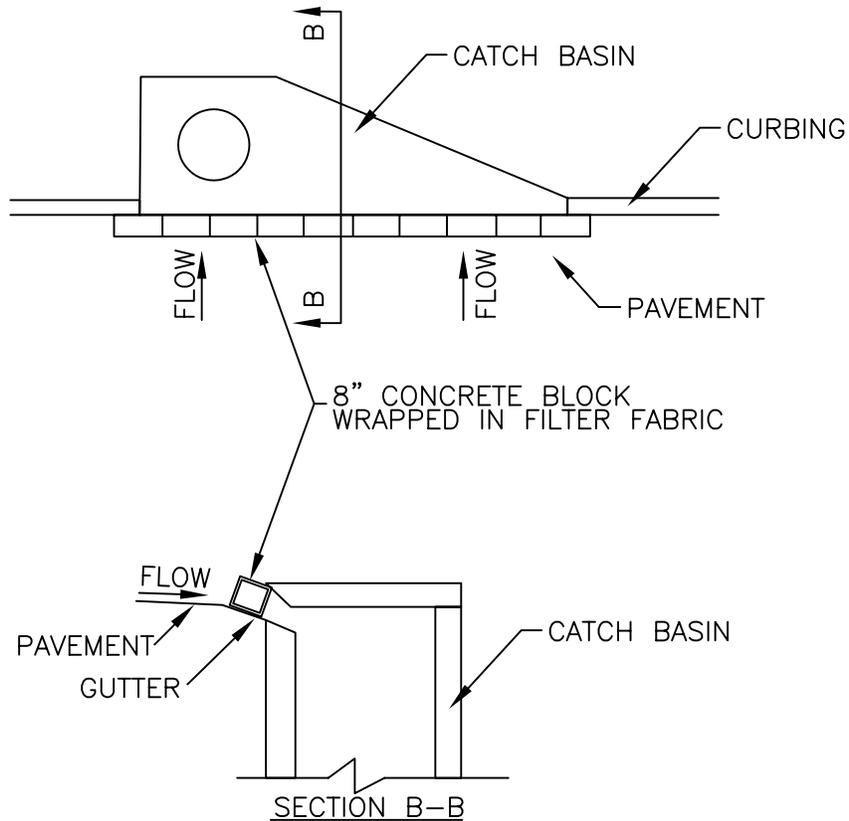


Drawn By: S. Tolar

Inspected By:

## VEGETATIVE COVER SCHEDULE

Rev.



NOTE: INSTALL FILTER AFTER ANY ASPHALT PAVEMENT INSTALLATION.

**MAINTENANCE**

THE TRAP SHALL BE INSPECTED DAILY AND AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.  
 SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE HEIGHT OF THE TRAP. SEDIMENT SHALL BE REMOVED FROM CURB INLET PROTECTION IMMEDIATELY.  
 SEDIMENT SHALL NOT BE WASHED INTO THE INLET. IT SHALL BE REMOVED FROM THE SEDIMENT TRAP AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLET, AGAIN.  
 WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, ALL MATERIALS AND ANY SEDIMENT SHALL BE REMOVED, AND EITHER SALVAGED OR DISPOSED OF PROPERLY. THE DISTURBED AREA SHALL BE BROUGHT TO PROPER GRADE, THEN SMOOTHED AND COMPACTED. APPROPRIATELY STABILIZE ALL DISTURBED AREAS AROUND THE INLET.

Sd2-P

|   |                    |
|---|--------------------|
|  <b>NEWNAN UTILITIES</b> | Drawn By: S. Tolar |
|   | Inspected By:      |

INLET  
SEDIMENT  
TRAP

|      |
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| Rev. |
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## EROSION CONTROL MEASURES CONSTRUCTION SEQUENCE

1. CONFIRM LOCATION OF AND CONSTRUCT/INSTALL SILT FENCES, CHECK DAMS, TEMPORARY SEDIMENT BASINS AND THE CONSTRUCTION ENTRANCE AS SHOWN ON THE DRAWINGS AND IN ACCORDANCE WITH CONTRACT SPECIFICATIONS.
2. CLEAR, GRUB, AND STRIP TOPSOIL IN ACCORDANCE WITH CONTRACT SPECIFICATIONS (IF REQUIRED).
3. BEGIN EXCAVATION AND GRADING ACTIVITIES AFTER ALL REQUIRED EROSION CONTROL MEASURES HAVE BEEN INSTALLED AND CONSTRUCTED.
4. BEGIN CONSTRUCTION AND APPLY PERMANENT SOIL STABILIZATION, WHEN APPROPRIATE, IN ACCORDANCE WITH CONTRACT SPECIFICATIONS.
5. AREAS TO BE LEFT DORMANT FOR LONGER THAN 7 DAYS THAT HAVE NOT ALREADY BEEN PERMANENTLY SEEDED MUST BE TEMPORARILY STABILIZED.
6. CLEAN AND REMOVE TEMPORARY SEDIMENT BASINS PRIOR TO FINAL GRADING.
7. AFTER GROUND COVER IS WELL ESTABLISHED AND THE SITE IS STABILIZED, RETURN TO THE SITE AND REMOVE ALL TEMPORARY MEASURES INCLUDING SILT FENCES AND ROCK CHECK DAMS. INSTALL PERMANENT VEGETATION TO ALL AREAS DISTURBED BY THE TEMPORARY MEASURES.
8. REMOVE EROSION CONTROL MEASURES WITHIN 30 CALENDAR DAYS AFTER FINAL SITE STABILIZATION.

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|  <p><b>NEWNAN<br/>UTILITIES</b></p> | EROSION CONTROL<br>MEASURES CONST.<br>SEQUENCE | Rev. |
|  |  |      |
| Drawn By: S. Tolar   |  |      |
| Inspected By:  |  |      |