29, CAST IRON WEDGE SHALL HAVE SEALING SURFACES OF THE WEDGE PERMANENTLY BONDED WITH RESILIENT MATERIAL TO MEET ASTM TEST FOR RUBBER TO METAL BOND (ASTM D429-73).

LOW FRICTION TORQUE REDUCTION THRUST BEARINGS SHALL BE LOCATED BOTH ABOVE AND BELOW THE STERN COLLAR.

32. STUFFING BOXED SHALL BE O-RING SEAL TYPE WITH TWO (2) RINGS' LOCATED IN STEM ABOVE THRUST COLLAR.

33. NRS STEMS SHALL BE IN FULL COMPLIANCE WITH AWWA SPECIFICATIONS WITH CAST INTEGRAL STEM AND COLLAR AND FURNISHED BRONZE CONFORMING TO ASTM BI32 ALLOY A, OS & Y STEMS SHALL BE BRONZE.

35, THE VALVE BOX SUPPLIED SHALL BE A THREE-PIECE BOX CONSISTING OF A SCREW TYPE TOP SECTION. A CENTER SECTION, AND AN OVAL BASE TO ACCOMMODATE THE VALVES. VALVE BOX LIDS SHALL MARKED "WATER".

36. VALVES SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER EACH FOR THE SIZE INDICATED.

37, FIRE HYDRANTS SHALL BE MECHANICAL JOINT HYDRANTS WITH DEPTH OF BURY COMPATIBLE TO THE WATERMAIN. THE OPERATING NUT SHALL BE NATIONAL STANDARD ONE AND ONE HALF INCH (1-1) PENTAGON. THE DIRECTION OF OPENING SHALL BE LEFT AND SHALL BE SO MARKED.

38. FIRE HYDRANTS SHALL HAVE A SIX INCH (6°) INLET CONNECTION, A FIVE AND ONE FOURTH INCH (5°) VALVE OPENING, TWO (2°) TWO AND ONE HALF INCH (2°)-2°) MOSE NOZZIE.S. WHERE MAYER MAIN EXTENSION CONNECT TO LESS THAN SIX INCHES (6°) DIAMETER MAINS THE STEAMER NOZZIE SHALL BE LIMIMATED FROM THE HYDRANT, ALL THREADS ON ALL CONNECTIONS SHALL BE NATIONAL STANDARD. FIRE HYDRANTS SHALL BINCLIDE A SIX INCH (6°) AMXILLARY VALUE FER VALVE SECPLIFICATIONS.

39. FIRE HYDRANTS WITH AUXILIARY VALVES SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER EACH FOR "FIRE HYDRANTS COMPLETE."

40. ALL WATER SERVICES SHALL BE CONSTRUCTED OF TYPE K COPPER PIPE, HAVING AN INTERNAL DIAMETER OF ONE INCH ("). SICHS SERVICES SHALL BE COUPPEN WITH CORPORATION COCK, CURB STOPS AND OTHER NECESSARY FITTINGS IN ACCORDANCE WITH CITY STANDARDS.

41. THE CONTRACTOR SHALL NOTIFY THE CITY WATER DEPARTMENT
TWENTY-FOUR (29) HOURS IN ADVANCE OF THE TIME OF ALL WATER TAPS.
NO SERVICE TAP SHALL BE ALLOWED WITHIN EIGHTEEN INCHES (18") OF
ANY OTHER SERVICE TAP OR ANY FITTING.

42. CORPORATION STOPS SHALL BE MCDONALD MODEL 4701 01 COMPRESSION.
STAINLESS STEEL TAPPING SADDLES SHALL BE USED WITH ALL CORPORATION
STOPS. AND SHALL BE CASCADE WOODL CS22 OR EQUAL.

44. CURB BOXES SHALL BE EXTENSION TYPE CAST IRON WITH LID AND PLUG AND BE LOCATED AS SHOWN ON THE PLANS OR AT THE APPROXIMATE PROPERTY LINE. SHOULD CURB BOXES BE SHOWN IN PROPOSED SIDEWALKS, A CURB-BOX SLEEVE SHALL BE USED.

46. WHERE INDICATED A WATER SERVICE COMPLETE SHALL BE INSTALLED BY "PUSHING" THE SERVICE PIPE UNDER THE ROADWAY AT THE LOCATION INDICATED ON THE PLANS, WHERE THIS TYPE OF INSTALLATION IS USED THE WATER SERVICE COMPLETE SHALL BE PEND FOR AT THE CONTROL UNIT PRICE BID PER EACH WATER SERVICE COMPLETE PUSHED LANDER THE ROADWAY.

TEATING THE DESCRIPTION OF THE NEWLY LAID WATER MAIN. THE WATER MAIN SHALL BE DISNIFFCETED IN ACCORDANCE WITH THE AMERICAN MAITE WORKS ASSOCIATION, PROPEDURE DESIGNATION, AWAY C-601. THE CONTRACTOR IS RESPONSIBLE FOR COLLECTING WATER SAMPLES AND HAVING BACTERIOLOGICAL TESTING PEPROPMED AS REQUIRED BY THE LEFA. THE CONTRACTOR SHALL FURNISH THE REQUIRED DOCUMENTATION, TEST RESULTS, ETC., REQUIRED BY THE LEFA BEFORE PLACENT THE WATER MAIN IN

48. HYDROSTATIC TEST - THE CONTRACTOR SHALL NOTIFY THE ENGINEER A . HYDROSTATIC TEST - THE CONTRACTION SHALL NOTIFY THE ENGINEER AND THE CITY OF WENDAM WATER DEPARTMENT THENT-FOUR 249 HOURS IN ADVANCE OF THE TIME REQUESTED FOR CONDUCTING THE PRESSURE AND LEAVAGE TESTS AND FOR DISINFECTION THE WATER MAIN. THE WATER MAIN STALL BE HYDROSTATICALLY TESTED AT A PRESSURE OF 125 PSIG FOR 1 HOUR AND FOLLOWED BY A LEAVAGE TEST AT SYSTEM PRESSURE FOR A DURATION OF 24 HOURS. TESTING SHALL BE CONSIDERED TO WATERMAIN INSTALLATION.

MUELLER CENTURION A423 CLOW MEDALLION

43. CURB STOPS SHALL BE McDONALD MODEL 6100 01.

TESTING AND DISINFECTION OF WATER MAIN

ACCEPTABLE PRODUCTS:

TYLER 664

FIRE HYDRANTS

WATER SERVICES

FED. ROAD DIST, NO. ILLINOIS FED. ATD PROJECT

D-93-053-03 CONTRACT NUMBER 66403 BITUMINGUS CONCRETE PAVEMENT REMOVAL AND REPLACEMENT - 3" ASPHALT OVER B" AGGREGATE BASE.

49. WHERE SHOWN ON THE DRAWINGS THE CONTRACTOR SHALL REMOVE THE EXISTING BITUMINOUS ROADWAY BITUMINOUS CONCRETE ON BUILDUP OF MANY A-3 DITUMINOUS SHORTER ERECENTED AND ADDRESSENT BASE AS USEN AS A STREET OF THE S

50. ALL EXISTING SITUMINOUS PAVEMENT WHICH IS REMOVED SHALL BE HALLED FROM THE SITE AND NOT MIKED WITH TRENCH BACKFILL MATERIAL PRIOR EXISTING SITUMINOUS CONCRETE PAVEMENT SHALL BE SAW CUIT ALONG A STRAIGHT LINE WHERE IT SHALL BE ADJACENT TO THE NEW SITUMINOUS CONCRETE. EXISTING SITUMINOUS CONCRETE. EXISTING SITUMINOUS CONCRETE. EXISTING SITUMINOUS TREATED SUFFACES (OIL AND CHIP) SHALL NOT REQUIRE SAW CUITTING BUT SHALL HAVE A REASONALTY STRAIGHT LINE WHERE IT ABUTS THE NEW BITUMINOUS CONCRETE

MATERIAL.

MATERIAL.

MATERIAL SHALL BE IN PLACE FOR 30 DAYS AND SHALL BE JETTED PRIOR

MATERIAL SHALL BE IN PLACE FOR 30 DAYS AND SHALL BE JETTED PRIOR

TO INSTALLATION OF THE BITUMBNOUS CONNECTE SUPPACE COURSE OVER

THE TRENCH. THE AGORGATE BASE COURSE SHALL BE INSTALLED AND

COMPACTED PRIOR TO INSTALLING THE BITUMBNOUS CONNECTE SUPPACE.

BE REMOVED PRIOR TO INSTALLING THE BITUMBNOUS CONNECTE SUPPACE.

THE AGORGANE SHAPE AND ELEVATION ARE ADMITTED THE BITUMBNOUS CONNECTE SUPPACE.

THE AGORGAN BE SHAPE AND ELEVATION ARE ADMITTED UNTIL THE

PROPERS SHAPE AND ELEVATION ARE ADMITTED. SOURCE IN STALLED TO THE

PROPERS BITUMBNOUS CONNECTE SUPPACE COURSE IS TATALLED TO THE

BUTUMBNOUS CONNECTE SUPPACE COURSE IN STALLED TO THE

BUTUMBNOUS CONNECTED TO THE EXISTING PAVEMENT. THE

BUTUMBNOUS CONNECTED TO THE EXISTING PAVEMENT THE

52. AGGREGATE BASE COURSE MATERIAL SHALL BE CRUSHED STONE MEETING THE CA-6 OR CA-10 GRADATION AND THE CLASS ID OR BETTER GUALITY REQUIREDED AS DEFINED BY THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS. AGGREGATE BASE COURSE SHALL BE COMPACTED TO A NUMBRIM OF 95% OF THE STANDARD PROTON TEST.

53. THE MATERIALS AND INSTALLATION OF THE BITUMINOUS CONCRETE SHALL BE DONE IN ACCORDANCE WITH SECTION 405 OF THE CURRENT EDITION OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND ORDIDE CONSTRUCTION.

54. THE CONTRACTOR SHALL INSTALL THE BITMANDOUS CONCRETE SURFACE AT A WIDTH 50 THAT IT BEARS ON A LEDGE LY-O" VIDE OF UNDSTURBED EARTH FOR THE ENTIRE LENGTH OF THE TRENCH OF EACH SIZE OF THE FRENCH, ALL BITMANDUS CONCRETE SURFACES SHALL BE PLACED WITH AN APPROVED SPEEDING AND FINISHING MACHINE AS OUTLINED IN THE STANDARD SPECIFICATIONS.

56. MATERIAL FOR TEMPORARY SURFACE OVER TRENCH SHALL BE CRUSHED STONE CONFORMING TO THE CURRENT SPECIFICATIONS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION FOR CLASS D QUALITY OR BETTER AND MEETING GRADATION CAS OR CAIO.

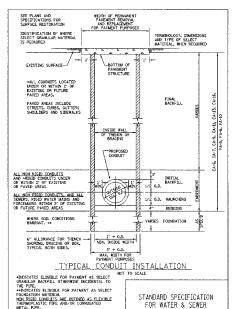
57. AT LOCATIONS WHERE A BITUMHOUS CONCRETE SURFACE COURSE WILL BE INSTALLED, THE TEMPORARY SURFACE OVER TRENCH SHALL BE INSTALLED STALLED OVER THE FINAL BACKFILL AND SHALL BE AT LEAST SIX INCRES 1697 HIGH.

58. THE TOP OF THE TEMPORARY SURFACE OVER TRENCH SHALL BE SMOOTH AND MEET THE GRADE OF ADJACENT UNDSTRUKED SURFACE. THE SURFACE SHALL BE MANTANED AT THE CONTRACTORS SEPTICES, DIVIDING FINAL BE SHALL BE THE CONTRACTOR SHALL BE REQUIRED TO ADD MATERIAL, AT HIS ONN EMPORACE SHALL BE THE CONTRACTOR SHALL BE THE CONTRACTOR SHALL BE REQUIRED TO ADD MATERIAL, AT HIS ONN EMPORACE IS SETTLEMENT OF THE TRENCH BACKFILL OCCURS AND CAUSES A DEPRESSION IN THE TEMPORARY SHAPECE OF TRENCH.

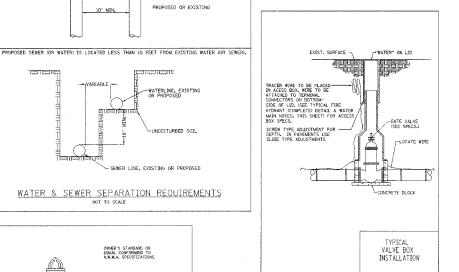
59. THE TEMPORARY SURFACE MATERIAL SHALL BE CORED OUT TO THE REQUIRED DEPTH IN ORDER TO CONSTRUCT THE PERMANENT SURFACE JUST PRIOR TO INSTALLATION OF THE PERMANENT SURFACE COURSE AND SHALL BE HAULED AWAY FROM THE JOBSITE.

SO, PAYMENT FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE TEMPORARY SURFACE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR "SITUMNIOUS CONCRETE PAYMENT REMOVAL AND REFLACEMENT." NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ADDITIONAL LAGOR OF MATERIALS USED IN THE CONSTRUCTION OF THE TEMPORARY SURFACE.

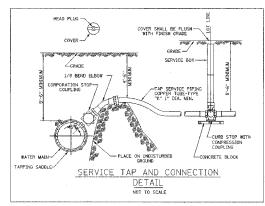
61. BITUMINDUS PAVEMENT REMOVAL AND REPLACEMENTS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LINEAR FOOT MEASURED ALONG THE CENTERLINE OF THE INSTALLED COMBUIL AND SHALL DEVLOIR REMOVAL OF ELECTRIC SYNTAL PLATE CONTRACTION, COMPACTION AND MAINTENANCE OF AND SHAPPING OF THE MATERIAL, PLRISHING, INSTALLEN, COMPACTION AND SHAPPING OF THE MATERIAL, PLRISHING, INSTALLEN, COMPACTION



FOR WATER & SEWER IN ILLINOIS



NOTE: TRENCH BOX SHALL NOT EXTEND BELOW TOP OF PIPE, HOWEVER IT SHALL NOT EXCEED 2 FEET FROM THE BOTTOM OF THE TRENCH.



WATERMAIN CONSTRUCTION

- L. WATER SERVICE LINES SHALL BE PROTECTED FROM CANTIARY SEWERS, STORM SERVICE CONNECTIONS AND ADMINISTRATION SEWERS, STORM SERVICE CONNECTIONS AND ADMINISTRATION SERVICE CONNECTIONS AND AGENCY SUBTITUE FF. PURICE WATER SUPPLIES, CHAPTER IJ. ENVIRONMENTAL PROTECTION ACENCY, PARTS 651-654 TECHNICAL POLICY STATEMENTS, SECTION 655119.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DIFFERENCES IN, OR CONTRADICTIONS BETWEEN THE PLANS AND THE SPECIFICATIONS.
- 30. EACH VALVE SHALL HAVE A SMOOTH UNOBSTRUCTED WATERWAY FREE FROM ANY SEDIMENT POCKETS, CAVITIES AND DEPRESSIONS. BODY AND COVER BOLTS SHALL MEET SPECIFICATION ASTM C-307 AND BE SUITABLY RISTPROOFED. 3. THE COST OF EXPLORATORY EXCAVATION FOR UTILITY LOCATIONS INCLUDING EXISTING WATER SERVICES SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT UNIT PRICE BID PER LINEAR FOOT FOR WATER AND/OR SEMER MAIN UNLESS SPECIFICALLY CALLED FOR AT LOCATIONS SHOWN ON THE PLANS. 31. STERN NUTS SHALL BE INDEPENDENT OF WEDGE AND SHALL BE MADE OF SOLID BRONZE CONFORMING TO ASTM B-62.
- 4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY FOR DEWATERING WHERE NECESSARY. THE COST FOR THIS ITEM SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT UNIT PRICE BID PER LINEAR FOOT FOR WATER AND/OR SEWER MAIN.
- 5. ALL RUBBLE AND EXCESS EXCAVATED MATERIAL GENERATED BY CONSTRUCTION SHALL BE KEPT SEPARATE AND DISPOSED OF BY THE CONTRACTOR AT LOCATIONS SECURED BY THE CONTRACTOR.
- 34. VALVES SHALL HAVE HYDROSTATIC SHELL TEST OF 400 PSI AND SHUT OFF TEST OF 200 PSI. AT THE 200 PSI SHUT OFF TEST, VALVE MUST BE BUBBLE-TIERT. ZERG 00 LERAGE WILL BE ALLOWED. VALVES SHALL BE PROVIDED WITH WECHANICAL JOINT ENDS AND ACCESSORIES WHICH CONSIST OF DUCK-TIPPED CASSETS. 6. TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" IN EFFECT ON THE DATE OF THE INVITATION FOR BIDS. THE COST OF TRAFFIC CONTROL SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT UNIT PRICE BID FEEL INSAL FOOT FOR WATER AND/OR SERVER MAIN.

- 7. BEDDING, HAUNCHING, AND INITIAL BACKFILL SHALL BE PLACED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT UNIT PRICE BID PER LINEAR FOOT FOR WATER MAIN.
- FOUNDATION MATERIAL
- WHERE REQUESTED BY THE ENGINEER QUE TO UNSUITABLE SOIL OR OTHER SITE CONDITIONS, FOUNDATION MATERIAL, SHALL BE PLACED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THIS MATERIAL SHALL BE TYPE B (CA-7).
- FOUNDATION MATERIAL WHERE REQUESTED SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER BID PER CUBIC YARD FOR FOUNDATION
- 10. TRENCH BACKFILL SHALL BE REQUIRED FOR ALL UTILITIES THAT ARE CONSTRUCTED LINDER OR WITHIN TWO FEET (2') OF THE EDGE OF THE PROPOSED PAVEMENTS, SIDEWALKS OR CURB AND CUTTER.
- 11. WHERE INDICATED ON THE PLANS, CONTROLLED LOW-STRENGTH MATERIAL (CLSW) SHALL BE USED FOR FINAL BACKFILL IN ACCORDANCE WITH THE MINIMUM MEX DESIGN IN THE IDOT SUPPLEMENTAL SPECIFICATION AND RECURRING SPECIAL PROVISIONS.
- 12. TRENCH BACKFILL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LINEAR FOOT FOR SELECT GRANULAR BACKFILL.
- 13. CLSM SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER CUBIC YARD FOR CLSM FLOWABLE FILL. CONNECTION TO EXISTING WATER MAIN
- 14. THIS ITEM SHALL CONSIST OF ALL WORK, MATERIALS AND TOOLS NECESSARY TO CONNECT THE PROPOSED WATER MAIN TO THE EXISTING.
- 15. THE CONNECTIONS SHOULD BE MADE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
- 16. ALL UNFORESEEN FITTINGS NECESSARY TO SECURE THE CONNECTION SHALL BE INCLUDED IN THIS ITEM EXCEPT FOR THE FITTINGS SHOWN, WHICH SHALL BE PAID FOR SEPARATELY.
- 17. THIS ITEM SHOULD BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER EACH FOR CONNECTION TO EXISTING WATER MAIN.
- 18. ALL WATERMAIN FIFTING SHALL BE POLYVINYL CHLORIDE GYCT TYPE DR18. CLASS ISO PRESSURE FIPE IN ACCORDANCE WITH ARMA C-90GG OR IN
 18. CLASS IN THE STATE OF THE STATE AND SEWER
 MAIN CONSTRUCTION IN ILLINOIS, FIFTH EDITION, DATED MAY, 1996.
 ALL WATERMAIN SHALL HAVE A MINDIAN COURT OF FIVE FIET (5).
- WATERMAIN SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LINEAR FOOT FOR THE SIZE AND TYPE INDICATED. FITTINGS AND BENDS
- 20. FITTINGS SHALL BE MECHANICAL JOINT CAST IRON CONFORMING TO FITTINES SHALL BE MECHANICAL JOINT CAST IRON CONFORMING TO ANSI/AWRA-CILVALLI STAMOARDS SPECIFICATION ACILO, RETAINER (ASANS SHALL BE LISED WITH ALL MECHANICAL JOINT CONNECTIONS AND SHALL BE DESIGNED FOR INSTALLATION ON PYC WATER PIPE. CONGRETE THRUST BLOOKS SHALL BE MOVIDED AT ALL BEDNS. ALL TITTINGS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE "STAMDARD SPECIFICATIONS FOR WATER AND SECRETARY OF THE STAMBARD SPECIFICATIONS FOR WATER AND
- 21. FITTINGS AND BENDS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER EACH FOR THE SIZE AND TYPE INDICATED. THE COST OF RETAINER GLANDS AND THRUST BLOCKS SHALL BE INCIDENTAL TO THE FITTING.

- 20. THE CONTRACTOR WILL BE REQUIRED TO FURNISH AND BURY WITH THE MATERMAIN A SUITABLE DETECTOR WIRE MEETING THE APPROVAL OF THE ENGINEER TO EMBALE LOCATING THE WATERMAIN IN THE FUTURE. THIS WIFE MAY BE 12 GAJOE SINGLE STRAND WIRE THAT IS COVERED AND INSULATED. ALL WIFES SHALL BE TAPED ADOUND THE WATERMAIN AT 20 FOOT MANUAUM INTERVALS AND ENQUENT TO THE SURFACE AND LODGED AT ALL VALVE BOXES.
- TRACER WIRE SHALL EXTEND OUTSIDE ALL VALVE BOXES TO TRACER WIRE ACCESS BOX.
- 24. TRACING WIRE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LINEAR FOOT FOR TRACING WIRE.
- 25. ALL VALVES SHALL BE EPOXY COATED RESILIENT WEDGE MECHANICAL JOINT GATE VALVES AS MANUFACTURED BY "AUBLLER" OR "CLOW" AND SHALL MEET ALL APPLICABLE REQUIREMENTS OF AWAN SPECIFICATION C-509 COVERING RESILIENT SEATED GATE VALVES AND APPROVED BY ULFM.
- 26. VALVES SHALL HAVE NON-RISING STEMS, OPENING BY TURNING LEFT AND PROVIDED WITH A TWO INCH (2") CAST NUT WITH ARROW CAST IN METAL TO INDICATE DIRECTION OF OPENING.
- 27. EACH VALVE SHALL HAVE MAXER'S NAME, PRESSURE RATING AMD YEAR IN WHICH MANUFACTURED CAST ON THE BODY. PRIOR TO SHIPMENT FROM THE FACTORY, EACH NALVE SHALL BE TESTED BY HYDROSTATIC PRESSURE EQUAL TO TWICE THE SPECIFIED WORKING PRESSURE.
- 28. EACH VALVE TO HAVE BOX ALIGNER INSTALLED ON BOTTOM AND ALIGNMENT RING (CLOW C-515, MODEL 2638) OR APPROVED EQUAL.



1138 Columbus Street (815) 433-2080

Ottawa. Illinois 61350 FAX (815) 433-5930

COLLINS ENGINEERS 2 123 N. WACKER DR., SUITE 300 CHICAGO, IL. 60606 (312) 704-9300 ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000993 REVISIONS DATE 2005 CITY OF WENONA

STANDARD WATERMAIN NOTES

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: 1:200

DRAWN BY DR CHECKED BY JM

NOTES: 1. CONCRETE BASE AND BLOCKING MATERIAL SHALL NOT BLOCK NOR OBSTRUCT HYDRANT DRAIN AS SHOWN IN AWWA MANUAL M 17.

TYPICAL FIRE HYDRANT (COMPLETE)

VERTICAL BEND

PLUGGED CROSS N.T.S.

BEND N.T.S.

PIPE TEE 11 1/4" BEND

THRUST BLOCKING DETAIL

PROPOSED SEWER (OR WATER) IS LOCATED 10 FEET OR MORE FROM

1. ALL BLOCKS MUST BEAR AGAINST UNDISTURBED EARTH.

2. ARROWS INDICATE DIRECTION OF TH

ALL FITTINGS SHOWN IN PLAN EXCEPT VERTICAL BEND.

CONCRETE COMPRESSIVE STRENGTH SHALL BE MINIMUM 3000 PSI AT 28 DAYS.

PLUGGED TEE N.T.S.

TEE N.T.S.

PROPOSED OR EXISTING-SEWER LINE

- SEWER LINE, EXISTING OR PROPOSED

TRACER WIRE ACCESS
80X URSA-BLUBBOOK *2240
OR APPROVED EQUAL
TRACER WIRE TO BE
ATTACHED TO TERMINAL
CONNECTORS ON BOTTOMSIDE OF LID. LOCATION O
BOX TO BE DETERMINED IN

WATER & SEWER SEPARATION REQUIREMENTS

PO

TO CONFORM TO MANUFACTURER'S SPECIFICATIONS

SPECI

VALVE TO BE BOLTED---DIRECTLY TO TEE

FOR DEPTH OF BURY
SEE PLANS AND
SPECIFICATIONS SPECIFICATIONS

INSTALL LAYER OF FILTER
FABRIC OVER DRAIN FIELD
TO BE AS
SPECIFIED

DATE MARCH, 2005