WATER MAIN GENERAL NOTES

THESE NOTES SUPPLEMENT THE GENERAL NOTES INDICATED ON SHEET 3 AND 4 OF THIS PLAN SET AND ARE ONLY APPLICABLE TO THE WATER MAIN CONSTRUCTION.

ANY CONSTRUCTION OR WORK INDICATED IN THE PLANS OR SPECIFIED IN THE PROPOSAL SHALL BE COMPLETED BY THE CONTRACTOR. ANY CONSTRUCTION OR WORK NOT INCLUDED IN A PAY ITEM SHALL BE INCIDENTAL TO THE PROJECT COST.

ALL EXCAVATION AREAS SHALL BE KEPT DEWATERED DURING CONSTRUCTION OPERATIONS UNTIL BACKFILL IS IN PLACE.

TRENCH BACKFILL SHALL BE USED IN LOCATIONS WHERE THERE IS AN EXISTING OR PROPOSED PERMANENT SURFACE. TRENCH BACKFILL WILL BE MEASURED AND PAID FOR ACCORDING TO THE DETAIL INCLUDED IN THESE WATER MAIN PLANS FOR WATER MAIN INSTALLATION ONLY. THE COST FOR TRENCH BACKFILL FOR ALL OTHER WATER MAIN WORK ITEMS SHALL BE INCLUDED IN THE COST OF SAID ITEMS.

ALL UTILITY LOCATIONS AND DEPTHS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANIES FOR FIELD LOCATES PRIOR TO STARTING ANY CONSTRUCTION ACTIVITIES, NOT ALL UTILITIES/SERVICES ARE SHOWN (I.E. GAS SERVICES).

EXISTING WATER MAIN SHUT DOWN TIME SHALL BE KEPT TO A MINIMUM. WORK SHALL BE COORDINATED WITH CITY OF ROCKFORD WATER AND PUBLIC WORKS PERSONNEL. NO USER SHALL BE WITHOUT WATER FOR MORE THAN 24 HOURS, UNLESS SPECIAL APPROVAL IS OBTAINED.

DIMENSIONS SHOWING WATER MAIN LOCATIONS ARE APPROXIMATE. THE HORIZONTAL ALIGNMENT MAY BE ADJUSTED WITH THE ENGINEER'S APPROVAL WHERE EXISTING BURIED UTILITIES MAY CONFLICT.

ALL FITTINGS (BENDS, TEES, CROSSES, AND PLUGS) REQUIRED TO COMPLETE THE INSTALLATION OF DUCTILE IRON WATER MAINS, AS SHOWN ON THE PLANS, SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES FOR DUCTILE IRON WATER MAIN OF VARIOUS SIZES.

WATER VALVE BOX AND DOMESTIC WATER SERVICE BOX ADJUSTMENTS SHALL BE DETERMINED ON SITE.

ALL WATER MAIN SHALL BE PRESSURE TESTED FOR ACCEPTANCE IN ACCORDANCE WITH SECTION 41-2.14 OF THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS". THE COST FOR THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES FOR DUCTILE IRON WATER MAIN OF VARIOUS SIZES.

ALL WATER MAIN SHALL BE DISINFECTED IN ACCORDANCE WITH SECTION 41-2.15 OF THE STANDARD "SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS". THE COST FOR THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES FOR DUCTILE IRON WATER MAIN OF VARIOUS SIZES.

THE CONTRACTOR SHALL PROVIDE 'WHIPS' AS NECESSARY TO SUPPLEMENT HYDRANT LOCATIONS FOR FLUSHING AND AIR RELEASE ON THE NEWLY CONSTRUCTED WATER MAINS. WHIPS SHALL BE CONSTRUCTED USING 1-INCH MIN. TO 2-INCH MAX. DIAMETER CORPORATION STOPS AND COPPER TUBING. WHEN ALL TESTING AND FLUSHING OPERATIONS HAVE BEEN COMPLETED, THE CORPORATION STOPS SHALL BE CLOSED AND THE COPPER TUBING SHALL BE CUT AND CAPPED. THE COST TO FURNISH, INSTALL AND REMOVE THE WHIPS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES FOR DUCTILE IRON WATER MAIN OF VARIOUS SIZES. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

FOR THE WATER MAIN CONSTRUCTION ACROSS THE KENT CREEK BRIDGE (SN 101 6110), THE CONTRACTOR SHALL CEASE EXCAVATION AND CONTACT THE ENGINEER IF THE STONE MASONRY ARCH IS EXPOSED OR IF TRANSVERSE TIE RODS ARE ENCOUNTERED BY THE EXCAVATION.

FOR THE PAY ITEMS LISTED BELOW, IT IS ANTICIPATED THAT THERE WILL BE A NEED FOR ADDITIONAL QUANTITIES BASED ON CONDITIONS ENCOUNTERED IN THE FIELD DURING CONSTRUCTION. THESE ADDITIONAL QUANTITIES HAVE BEEN INCLUDED IN BOTH THE SUMMARY AND SCHEDULE OF QUANTITIES. ON THE SCHEDULE OF QUANTITIES, THE LOCATIONS FOR THE ADDITIONAL QUANTITIES ARE INDICATED WITH AN "X" SINCE THE FINAL LOCATIONS ARE NOT KNOWN. THESE ADDITIONAL QUANTITIES SHOULD ONLY BE USED AT THE DIRECTION OF THE ENGINEER.

ROCK EXCAVATION
DOMESTIC WATER SERVICE BOX TO BE REMOVED
WATER MAIN LINE STOP 6" THROUGH 16"
WATER MAIN PROTECTION
TEMPORARY PAVEMENT VARIABLE DEPTH
SELECT FOUNDATION MATERIAL
DOMESTIC WATER SERVICE BOXS TO BE ADJUSTED
FIRE HYDRANTS TO BE ADJUSTED
VALVE VAULTS TO BE REMOVED

REQUIREMENTS FOR SCHEDULED WATER MAIN VALVE SHUT OFF

- A) THE CONTRACTOR SHALL OBTAIN THE PERMISSION OF THE WATER SUPERINTENDENT, OR HIS DESIGNEE, PRIOR TO ANY WATER MAIN VALVE SHUT OFF.
- B) THE CONTRACTOR SHALL NOTIFY ALL WATER CUSTOMERS AFFECTED BY THE WATER MAIN VALVE SHUT OFF AT LEAST 24 HOURS IN ADVANCE, USING FORMS SUPPLIED BY THE WATER DIVISION. CONTRACTOR IS RESPONSIBLE TO HANG TAGS ON EACH BUILDING AFFECTED.
- C) THE CONTRACTOR SHALL NOTIFY THE WATER DIVISION OPERATIONS CENTER OPERATOR (987-5712) PRIOR TO ANY WATER MAIN VALVE SHUT OFF AND PROVIDE THE FOLLOWING INFORMATION (PURSUANT TO ILLINOIS MUNICIPAL CODE 65 ILCS 5/11-20-10,5):

STREETS AND BOUNDARIES OF SHUT DOWN
TIME OF SHUT DOWN
APPROXIMATE DURATION OF SHUT DOWN
NUMBER OF CUSTOMERS AFFECTED
IF NON-RESIDENTIAL CUSTOMERS (HOSPITALS, NURSING HOMES, RESTAURANTS, ETC.) ARE AFFECTED, A
COUNT OF HOW MANY INDIVIDUALS AFFECTED WILL BE PROVIDED.

- D) NO SHUT DOWNS ARE ALLOWED ON FRIDAYS. WORK MUST BE COMPLETED TO ENSURE COMPLETION OF BACTERIOLOGICAL TESTING.
- E) THE CONTRACTOR SHALL NOTIFY WATER DIVISION OPERATIONS CENTER OPERATOR UPON COMPLETION OF REPAIRS AND RESTORATION OF WATER SERVICE.

G) THE CONTRACTOR SHALL MEET WITH WATER DIVISION PERSONNEL AT LEAST TWO (2) DAYS PRIOR TO START OF CONSTRUCTION TO COORDINATE EXERCISING VALVES AND DETERMINING VALVE SHUT OFF PATTERNS DURING CONSTRUCTION. THE SHUT DOWN SHALL BE ALLOWED TO PROCEED ONLY AFTER THE WATER DIVISION REPRESENTATIVE HAS DETERMINED THAT THE REGUIRED VALVES ARE FUNCTIONING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TURNING VALVES ON AND OFF DURING CONSTRUCTION AND ACCEPTS THE RESPONSIBILITY FOR ANY DAMAGES TO VALVES DURING CONSTRUCTION.

THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES FOR DUCTILE IRON WATER MAIN OF VARIOUS SIZES.

REQUIREMENTS FOR UNSCHEDULED (EMERGENCY) WATER MAIN VALVE SHUT

- A) IN THE EVENT THE CONTRACTOR MUST PERFORM AN UNSCHEDULED WATER MAIN VALVE SHUT OFF; THE CONTRACTOR SHALL NOTIFY THE WATER DIVISION OPERATIONS CENTER OPERATOR (987-5712) AS SOON AS POSSIBLE.
- B) THE CONTRACTOR SHALL NOTIFY ALL WATER CUSTOMERS AFFECTED BY THE WATER MAIN VALVE SHUT OFF AND THE NEED TO BOIL WATER AS SOON AS POSSIBLE, USING FORMS SUPPLIED BY THE WATER DIVISION
- C) THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION (PURSUANT TO ILLINOIS

STREETS AND BOUNDARIES OF SHUT DOWN
TIME OF SHUT DOWN
APPROXIMATE DURATION OF SHUT DOWN
NUMBER OF CUSTOMERS AFFECTED
IF NON-RESIDENTIAL CUSTOMERS (HOSPITALS, NURSING HOMES, RESTAURANTS, ETC.) ARE AFFECTED, A
COUNT OF HOW MANY INDIVIDUALS AFFECTED WILL BE PROVIDED.

D) IF THE CONTRACTOR IS INVOLVED IN REPAIRS, THE CONTRACTOR SHALL NOTIFY WATER DIVISION OPERATIONS CENTER OPERATOR UPON COMPLETION OF REPAIRS WHEN WATER SERVICE HAS BEEN RESTORED.

THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES FOR DUCTILE IRON WATER MAIN OF VARIOUS SIZES.

EXCAVATION AND BACKFILL

THE WATER MAIN SHALL BE CONSTRUCTED IN CONFORMANCE WITH DIVISION 11 OF THE ILLINOIS STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION, LATEST EDITION.

REVISE THE TERMS SELECTED GRANULAR MATERIAL IN SAID SPECIFICATION TO TRENCH BACKFILL.

BEDDING, HAUNCHING, AND INITIAL BACKFILL WILL BE INCLUDED IN THIS ITEM AND SHALL BE CONSTRUCTED OF FA-6 FINE AGGREGATE.

NATIVE MATERIALS LOCATED IN NON-STRUCTURAL AREAS SHALL BE COMPACTED TO 90% STANDARD PROCTOR OPTIMUM DENSITY.

THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES FOR DUCTILE IRON WATER MAIN OF VARIOUS SIZES.

WATER MAIN REMOVAL

THIS WORK SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION, LATEST EDITION, AND THE REQUIREMENTS OF THE ENGINEER. THE EXISTING WATER MAIN LINE SHALL BE EXCAVATED, REMOVED, AND DISPOSED OF OFF-SITE WHERE IT IS IN CONFLICT WITH THE WATER MAIN AND WATER SERVICE CONSTRUCTION. THE PIPE REMAINING IN THE GROUND SHALL BE PLUGGED WITH NEAT CEMENT.

THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES FOR DUCTILE IRON WATER MAIN OF VARIOUS SIZES.

BACTERIOLOGICAL SAMPLING

BACTERIOLOGICAL SAMPLING SHALL BE DONE IN ACCORDANCE WITH AWWA C651-99 REGULATIONS AND EPA REGULATION SECTION 652.203. BACTERIOLOGICAL SAMPLING WILL BE REQUIRED FOR ALL NEW WATER MAINS AND EXISTING WATER MAINS SHUT DOWN AND RE-PRESSURIZED DURING CONSTRUCTION. SAMPLES WILL BE SUBMITTED IN ROCKFORD WATER DIVISION LABORATORY APPROVED CONTAINERS. ALL BACTERIOLOGICAL ANALYSIS WILL BE PERFORMED BY THE CITY OF ROCKFORD ENVIRONMENTAL LABORATORY, 1111 CEDAR STREET, ROCKFORD, ILLINOIS.

THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES FOR DUCTILE IRON WATER MAIN OF VARIOUS SIZES.

RECORD DRAWINGS

THE CONTRACTOR SHALL KEEP ON-SITE A SET OF THE PLANS TO BE MAINTAINED AS THE OFFICIAL PROJECT RECORD DRAWINGS. THE CONTRACTOR SHALL MARK UP THE SET OF PLANS WITH ANY REVISIONS IN THE DRAWINGS ON A DAILY BASIS.

THE CONTRACTOR SHALL RECORD MEASUREMENTS TO ALL REDUCERS, BENDS, TEES, AND OTHER BURIED FITTINGS AND APPURTENANCES ASSOCIATED WITH THE WATER CONSTRUCTION. THE CONTRACTOR SHALL ALSO NOTE FIELD MEASUREMENTS TO SURFACE APPURTENANCES SUCH AS MANHOLES, CLEANOUTS, TAPPING VALVES, GATE VALVES, CURB STOPS, AND FIRE HYDRANTS.

THE DIMENSIONS SHALL BE INDICATED FROM PHYSICAL FEATURES INDICATED ON THE DRAWINGS AND FROM THE RIGHT-OF-WAY LINES AND PROPERTY LINES INDICATED ON THE DRAWINGS.

THE CONTRACTOR SHALL TAKE FIELD MEASUREMENTS AND INDICATE THE MEASUREMENTS ON THE RECORD DRAWINGS WHERE THE MAINS VARY FROM PLAN DEPTH/GRADE. THE CONTRACTOR SHALL DELIVER THE RECORD DRAWINGS TO THE ENGINEER, ALONG WITH THE FINAL REQUEST FOR PAYMENT ON THE PROJECT.

THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES FOR DUCTILE IRON WATER MAIN OF VARIOUS SIZES.

SCALE: N/A

WATER MAIN CONSTRUCTION NOTES

THE WATER MAIN CONSTRUCTION SHALL BE STAGED TO CONFORM WITH THE ROADWAY MAINTENANCE OF TRAFFIC PLANS INDICATED IN THE CONSTRUCTION DOCUMENTS. WATER MAIN ITEMS CROSS THE STAGE LINE OR OTHERWISE CONFLICT WITH THIS STAGING, TEMPORARY WATER MAIN PAY ITEMS HAVE BEEN INDICATED ON THE PLANS AND HAVE BEEN SPECIFIED. THE WORK FOR THESE PAY ITEMS IS SUGGESTED FOR "PRE-STAGE" CONSTRUCTION. ANY TEMPORARY PAVEMENT REQUIRED FOR THIS WORK SHALL BE 4.75-INCHES IN THICKNESS AND SHALL BE MEASURED AND PAID FOR AS TEMPORARY PAVEMENT VARIABLE DEPTH.

ALL TEMPORARY WATER SERVICES SHOULD BE RECONNECTED TO THE NEW WATER MAIN PRIOR TO THE EXISTING MAIN BEING ABANDONED.

AT ISOLATED LOCATIONS, THE BURY DEPTH OF THE DUCTILE IRON WATER MAINS MAY BE REDUCED, WITH THE APPROVAL OF THE ENGINEER, TO 4-FEET IN ORDER TO MAINTAIN A MINIMUM VERTICAL SEPARATION OF 18-INCHES BETWEEN THE WATER MAIN AND ANY STORM SEWER, SANITARY SEWER, OR SANITARY SERVICE.

CONCRETE CRADLES SHALL BE CONSTRUCTED PER DETAIL AT ALL LOCATIONS WHERE THE DUCTILE IRON WATER MAIN CROSSES OVER A SANITARY SEWER WITH LESS THAN 18-INCHES OF VERTICAL CLEARANCE.

WATER MAIN EQUIVALENT STORM SEWER OR WATER MAIN PROTECTION SHALL BE PROVIDED AT ALL LOCATIONS WHERE THE DUCTLLE IRON WATER MAIN CROSSES UNDER A STORM SEWER AND AT LOCATIONS WHERE THE WATER MAIN CROSSES OVER A STORM SEWER WITH LESS THAN 18-INCHES OF VERTICAL CLEARANCE.

THE MARCHESANO DRIVE / 15TH AVENUE WATER MAIN (STA 370+21) SHALL BE MAINTAINED IN THE 'LIVE' CONDITION ACROSS SOUTH MAIN STREET DURING STAGE 1 CONSTRUCTION. THE 16X12 REDUCER IS INDICATED TO TEMPORARILY CONNECT THE PROPOSED 16-INCH WATER MAIN FOR 15TH AVENUE TO THE EXISTING 12-INCH WATER MAIN FOR MARCHESANO DRIVE. DURING STAGE 2 CONSTRUCTION, THE REDUCER SHALL BE REMOVED AND THE 16-INCH WATER MAIN FOR 15TH AVENUE SHALL BE EXTENDED AND CONNECTED TO THE PROPOSED 16-INCH WATER MAIN FOR SOUTH MAIN STREET AS INDICATED.

THE GRAHAM STREET WATER MAIN (STA 389+38 O/S RT) SHALL MAINTAIN A 'LIVE' CONNECTION TO THE EXISTING 6-INCH SOUTH MAIN STREET WATER MAIN DURING STAGE 1 CONSTRUCTION. THE 6X6 PRESSURE CONNECTION AND 8X6 REDUCER ARE INDICATED TO TEMPORARILY CONNECT THE PROPOSED 8-INCH WATER MAIN FOR GRAHAM STREET TO THE EXISTING 6-INCH WATER MAIN IN SOUTH MAIN STREET, DURING STAGE 2 CONSTRUCTION, THE GRAHAM STREET WATER MAIN SHALL BE DISCONNECTED FROM THE EXISTING 6-INCH WATER MAIN AND CONNECTED TO THE PROPOSED 16-INCH WATER MAIN WITH THE 16X8 TEE INDICATED.

THE MONTAGUE STREET WATER MAIN (STA 402+72 O/S RT) SHALL MAINTAIN A 'LIVE' CONNECTION TO THE EXISTING 8-INCH SOUTH MAIN STREET WATER MAIN DURING STAGE I CONSTRUCTION. THE 8X8 PRESSURE CONNECTION IS INDICATED TO TEMPORARILY CONNECT THE PROPOSED 8-INCH WATER MAIN FOR MONTAGUE STREET TO THE EXISTING 8-INCH WATER MAIN IN SOUTH MAIN STREET, DURING STAGE 2 CONSTRUCTION, THE MONTAGUE STREET WATER MAIN SHALL BE DISCONNECTED FROM THE EXISTING 8-INCH MAIN AND CONNECTED TO THE PROPOSED 16-INCH WATER MAIN WITH THE 16X8 TEE INDICATED.

THE MORGAN STREET WATER MAIN (STA 411+10 O/S RT) SHALL MAINTAIN A 'LIVE' CONNECTION TO THE EXISTING 10-INCH SOUTH MAIN STREET WATER MAIN DURING STAGE 1 CONSTRUCTION, THE 16X10 TEE IS INDICATED TO TEMPORARILY CONNECT THE PROPOSED 8-INCH WATER MAIN FOR MORGAN STREET TO THE EXISTING 10-INCH WATER MAIN IN MORGAN STREET/SOUTH MAIN STREET, DURING STAGE 2 CONSTRUCTION, THE 16X10 TEE SHALL BE CAPPED, AND THE 16-INCH WATER MAIN SHALL BE EXTENDED TO THE WEST DOWN MORGAN STREET AND CONNECTED AS INDICATED.

THE 8-INCH MILL STREET WATER MAIN (STA 420+83 O/S RT) SHALL MAINTAIN A 'LIVE' CONNECTION TO THE EXISTING 10-INCH SOUTH MAIN STREET WATER MAIN DURING STAGE 1 CONSTRUCTION, THE PROPOSED 8-INCH WATER MAIN SHALL BE TEMPORARILY CONNECTED TO THE EXISTING 10-INCH WATER MAIN USING THE 6-INCH PIPE FOR THE PROPOSED FIRE HYDRANT COMPLETE AND THE 8X6 REDUCER AS INDICATED. DURING STAGE 2 CONSTRUCTION, THE 8X6 REDUCER SHALL BE REMOVED AND THE FIRE HYDRANT SHALL BE COMPLETED AS INDICATED.

THE EXISTING 12-INCH SOUTH MAIN STREET WATER MAIN BE MAINTAINED IN THE 'LIVE' CONDITION ALONG SOUTH MAIN STREET DURING STAGE 1 CONSTRUCTION BOTH NORTH AND SOUTH OF THE TEMPORARY WATER MAIN CONNECTION AT STA 433+05 0/S LT. THE PROPOSED 12-INCH WATER MAIN SHALL BE TEMPORARILY CONNECTED TO THE EXISTING 12-INCH WATER MAIN BY CUTTING IN THE 12X12 TEE AS INDICATED, DURING STAGE 2 CONSTRUCTION, THE EXISTING MAIN SHALL BE CUT AND PLUGGED SOUTH OF THE 12X12 TEE, THE SOUTH SIDE OF THE TEE SHALL BE CAPPED, AND CONNECTIONS SHALL BE MADE TO THE EXISTING 8-INCH AND 12-INCH WATER MAINS AS INDICATED.

	US
FEHR-GRAHAM & ASSOCIATES, LLC	
ENGINEERING AND SCIENCE CONSULTANTS	Pl

USER NAME = ROBERT FREY	DESIGNED	BDA	REVISED	07/16/2012 BPF
	DRAWN	BPF	REVISED	10/30/12 MJS
PLOT SCALE = N/A	CHECKED	MLP	REVISED	11/27/2012 BPF
PLOT DATE = 07/16/2012	DATE	02/17/12	REVISED	-