

**NORTHWOOD FOURTH ADDITION – PHASE 2  
DIVISION 1 – SANITARY SEWER & WATER MAIN  
DENISON, IOWA**

Bids shall be received until 12:00 o'clock noon on June 30, 2006 at  
Bohlmann Inc. Office  
2302 Yellow Smoke Road  
Denison, Iowa

Plans are available at the office of the Engineer for a deposit of \$25.00 (non-refundable) at  
Sundquist Engineering, P.C.  
120 South Main  
P.O. Box 220  
Denison, Iowa 51442

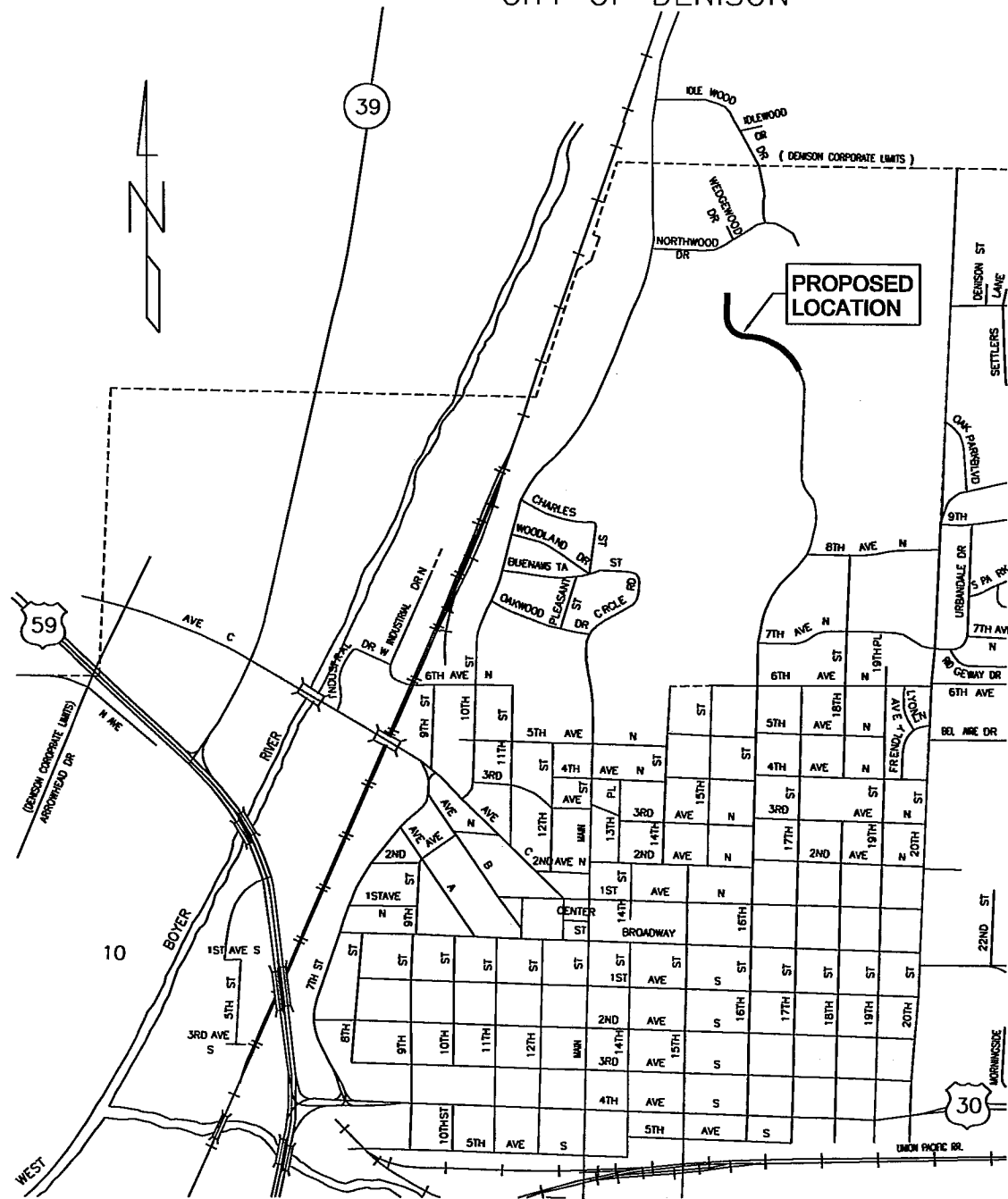
If you are interested in a set of Plans and Specs please call our office at 712-263-8118

# CONSTRUCTION PLANS FOR: NORTHWOOD FOURTH ADDITION - PHASE 2 - LOTS 8-14 DIVISION 1 - SANITARY SEWER AND WATER MAIN IMPROVEMENTS DENISON, IOWA

The Iowa Department of Transportation Standard Specifications for Highway and Bridge Construction, series of 2001, plus current Supplemental Specifications and Special Provisions shall apply to construction work on this project.

CITY OF DENISON

Scales: As Noted



0' 800' 1600' 2400'  
**LOCATION MAP**

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ROAD STANDARD PLANS					
The following Standard Plans shall be considered applicable to construction work on this project.					
Identification	Date	Identification	Date	Identification	Date
RS-26B	10-28-97				

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

*Terence E. Crawford* 6-15-06  
TERENCE E. CRAWFORD, P.E. & P.L.S. NO. 8893 DATE

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2007.

PAGES OR SHEETS COVERED BY THIS SEAL: ALL

## ESTIMATE REFERENCE INFORMATION

DATA LISTED BELOW IS FOR INFORMATIONAL PURPOSES ONLY AND SHALL NOT CONSTITUTE A BASIS FOR ANY EXTRA WORK ORDERS.

**2. MANHOLE, SANITARY SEWER, STANDARD**

UNIT PRICE INCLUDES EXCAVATING, TEMPORARY SHEETING AND SHORING, CONCRETE, REINFORCING STEEL, PRECAST REINFORCED CONCRETE MANHOLE BASE AND SECTIONS, GRANULAR BEDDING MATERIAL, CONNECTING TO SANITARY SEWERS, WATERPROOFING, ADJUSTING RINGS, CHIMNEY SEALS, CASTINGS, PLACING AND COMPACTING BACKFILL, TESTING AND ASSOCIATED WORK. MEASUREMENT FOR PAYMENT BASED ON EACH MANHOLE CONSTRUCTED AS SHOWN ON PLANS AND AS SPECIFIED HEREIN.

**3. SEWER, SANITARY, 8 IN. DIA.**

UNIT PRICE INCLUDES EXCAVATING, TEMPORARY SHEETING AND SHORING, TEMPORARY SUPPORT OF EXISTING UTILITIES, PIPE BEDDING, SEWER PIPE, HANDLING, LAYING, CONNECTING TO EXISTING MANHOLES, COMPACTING BACKFILL, TESTING AND ASSOCIATED WORK. MEASUREMENTS FOR PAYMENT BASED ON LENGTH MEASURED OF PIPE INSTALLED WITH NO DEDUCTIONS FOR MANHOLES.

**4. WYE, SEWER SERVICE, 8 IN. X 4 IN.**

**5. WYE, SEWER SERVICE, 8 IN. X 6 IN.**

UNIT PRICE INCLUDES EXCAVATING, TEMPORARY SHORING, TEMPORARY SUPPORT OF EXISTING UTILITIES, BEDDING, WYE, FITTING (IF NECESSARY), HANDLING, LAYING, COMPACTING BACKFILL, TESTING AND ASSOCIATED WORK.

**6. SEWER SERVICE, 4 IN. DIA.**

**7. SEWER SERVICE, 6 IN. DIA.**

UNIT PRICE INCLUDES EXCAVATING, TEMPORARY SHORING, TEMPORARY SUPPORT OF EXISTING UTILITIES, PIPE BEDDING, SEWER PIPE, HANDLING, LAYING, COMPACTING BACKFILL, TESTING AND ASSOCIATED WORK. MEASUREMENT FOR PAYMENT BASED ON FEET OF SEWER SERVICE INSTALLED.

**8. WATER MAIN, 6 IN. DIA.**

UNIT PRICE INCLUDES EXCAVATING, TEMPORARY SHEETING AND SHORING, TEMPORARY SUPPORT OF EXISTING UTILITIES, WATER MAIN PIPE, HANDLING, LAYING, THRUST BLOCKS, TEMPORARY BLOW-OFFS, PLACING AND COMPACTING BACKFILL, TESTING, DISINFECTING AND ASSOCIATED WORK.

ALSO INCLUDES BURYING A #14 AWG COPPER TRACER WIRE WITH TW INSULATION NEXT TO THE WATER MAIN ALONG ENTIRE LENGTH AND LOOPING TRACER WIRE TO SURFACE AT EACH VALVE AND HYDRANT.

MEASUREMENT FOR PAYMENT BASED ON LENGTH MEASURED FOR EACH SIZE OF PIPE AND TYPE OF PIPE MATERIAL INSTALLED WITH NO DEDUCTIONS FOR VALVES OR FITTINGS.

**9. FIRE HYDRANT ASSEMBLY**

UNIT PRICE INCLUDES EXCAVATING, TEMPORARY SHEETING AND SHORING, TEMPORARY SUPPORT OF EXISTING UTILITIES, BEDDING, AUXILIARY GATE VALVE, VALVE BOX AND COVER, ALL THREAD TIE RODS, HANDLING, INSTALLING, THRUST BLOCKS, COMPACTING BACKFILL, TESTING, DISINFECTING AND ASSOCIATED WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. **(MUST BE RED COLOR)**

**10. WATER SERVICE LINE, COPPER 3/4 IN., TYPE K.**

UNIT PRICE INCLUDES EXCAVATING, HANDLING, INSTALLING, WATER SERVICE LINE, COMPACTING BACKFILL, TESTING, DISINFECTING AND ASSOCIATED WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

**11. CURB STOP AND RISER BOX, 3/4 IN.**

UNIT PRICE INCLUDES EXCAVATING, HANDLING, INSTALLING, CURB STOP AND RISER BOX, COMPACTING BACKFILL, TESTING, DISINFECTING AND ASSOCIATED WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

**12. CORPORATION STOP W/SERVICE SADDLE, 3/4 IN.**

UNIT PRICE INCLUDES EXCAVATION, HANDLING, INSTALLING, CORPORATION STOP, SERVICE SADDLE, COMPACTING BACKFILL, TESTING, DISINFECTING AND ASSOCIATED WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

**13. GATE VALVE AND BOX, 6 IN.**

UNIT PRICE INCLUDES EXCAVATION, HANDLING, INSTALLING, GATE VALVE WITH BOX, COMPACTING BACKFILL, TESTING, DISINFECTING AND ASSOCIATED WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

**14. TEE, 6 IN. X 6 IN.**

UNIT PRICE INCLUDES ADDITIONAL EXCAVATING, TEMPORARY SHEETING AND SHORING, FITTING, HANDLING, INSTALLING, THRUST BLOCKS, PLACING AND COMPACTING BACKFILL, TESTING, DISINFECTING AND ASSOCIATED WORK. MEASUREMENT FOR PAYMENT BASED ON EACH TYPE OF FITTING INSTALLED.

**INCIDENTAL CONTRACT ITEMS**

THE FOLLOWING LIST INCLUDES MAJOR ITEMS THAT ARE INCIDENTAL TO THE PROJECT AND WILL NOT BE PAID FOR AS SEPARATE BID ITEMS. OTHER ITEMS MAY BE DESIGNATED AS INCIDENTAL UNDER CERTAIN BID ITEMS OR TO OTHER WORK ON THE PROJECT.

**MATERIAL TESTS.**

**FIELD TESTS.**

CONSTRUCTION FENCING AND BARRICADING.

EXCAVATION AND VERIFICATION OF EXISTING UTILITIES.

COORDINATION AND COOPERATION WITH UTILITY COMPANIES.

TESTING OF SANITARY SEWER AND WATER MAIN.

TRAFFIC CONTROL DURING CONSTRUCTION.

TEMPORARY EROSION CONTROL DURING CONSTRUCTION.

### ESTIMATE OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QTY.	AS-BUILT
1.	MOBILIZATION	LS	1	
2.	MANHOLE, SANITARY SEWER, STANDARD	EA	5	
3.	SEWER, SANITARY, 8 IN. DIA.	LF	1230	
4.	WYE, SEWER SERVICE, 8 IN. X 4 IN.	EA	15	
5.	WYE, SEWER SERVICE, 8 IN. X 6 IN.	EA	2	
6.	SEWER SERVICE, 4 IN. DIA.	LF	600	
7.	SEWER SERVICE, 6 IN. DIA.	LF	20	
8.	WATER MAIN, 6 IN. DIA.	LF	1065	
9.	FIRE HYDRANT ASSEMBLY	EA	2	
10.	WATER SERVICE LINE, COPPER 3/4 IN.	LF	350	
11.	CURB STOP & RISER BOX, 3/4 IN.	EA	15	
12.	CORPORATION STOP W/SERVICE SADDLE, 3/4 IN.	EA	15	
13.	GATE VALVE & BOX, 6 IN.	EA	3	
14.	TEE, 6 IN. X 6 IN.	EA	4	