



## Special City Council Meeting

Monday, August 29, 2011

City Council Chambers

7:00 p.m.

### AGENDA

Call to Order

Pledge of Allegiance

1. Long Range Planning and Goal Setting – Springsted, Inc.
2. Old Business
3. New Business
  - Wastewater Treatment Improvements – Plans and Specifications
4. Adjourn





# BOLTON & MENK, INC.<sup>®</sup>

Consulting Engineers & Surveyors

12224 Nicollet Avenue • Burnsville, MN 55337

Phone (952) 890-0509 • Fax (952) 890-8065

www.bolton-menk.com

August 24, 2011

Windom City Council  
444 9<sup>th</sup> Street  
PO Box 38  
Windom, MN 56101

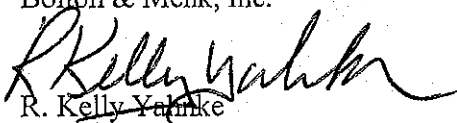
RE: Wastewater Treatment Improvements  
Windom, Minnesota

Dear Mayor and Council Members:

Attached is a Summary of the Recommended Improvements to the City of Windom's wastewater treatment facility approved by the Public Facilities Commission to receive bids on September 22, 2011 at 2: PM. Also attached is a copy of the Advertisement for Bids and pertinent plans sheets for your review. Electronic copies of the full set of plans and specifications have been forwarded to the City Administrator.

I plan to attend your council meeting on August 29<sup>th</sup> to answer any questions or concerns you may have regarding the project.

Sincerely,  
Bolton & Menk, Inc.



R. Kelly Yahnke  
Office/ Project Manager

Cc: Steve Nasby, City Administrator  
Mike Haugen, Water-Wastewater Superintendent

CAUSERSKELLYYA\DOCUMENTS\WINDOM\LTR TO COUNCIL ON AD.DOC

## RESOLUTION #2011-

**INTRODUCED:**

**SECONDED:**

**VOTED:**     **Aye:**  
              **Nay:**  
              **Absent:**

### **RESOLUTION APPROVING PLANS AND SPECIFICATIONS AND ORDERING ADVERTISEMENT FOR BIDS FOR THE WASTEWATER TREATMENT IMPROVEMENTS PROJECT**

---

**WHEREAS,** pursuant to review of the Feasibility Report and project schedule by the City Council on April 19, 2011, Engineer Bolton & Menk, Inc. has prepared final plans and specifications for the proposed Wastewater Treatment Improvements Project and has presented such plans and specifications to the Council for approval.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF  
WINDOM, MINNESOTA, AS FOLLOWS:**

1. Such plans and specifications, which are made a part hereof by reference as if fully set forth herein, are hereby approved and shall be filed in the office of the City Clerk.
2. The City Clerk shall prepare an advertisement for bids for the making of such improvements, pursuant to the approved plans and specifications, and cause such advertisement to be published in the official paper.
3. Bids will be received and accepted by the City Clerk until 2:00 p.m. on September 22, 2011. At said time, the bids will be publicly opened by the City Clerk and Project Engineer in the City Hall Council Chambers. Bids will then be tabulated and will thereafter be considered by the City Council. Any bidder whose responsibility is questioned during consideration of the bid will be given an opportunity to address the Council on the issue of responsibility. The bid for such improvements will be awarded on or before October 4, 2011, at the City Council Meeting scheduled for 7:30 p.m.

Adopted by the Council this 29<sup>th</sup> day of August, 2011.

\_\_\_\_\_  
Kirby Kruse, Mayor

Attest: \_\_\_\_\_  
Steven Nasby, City Administrator

**RECOMMENDED IMPROVEMENTS  
WASTEWATER TREATMENT FACILITY  
WINDOM, MINNESOTA  
AUGUST 2011**

Based on the Engineering Feasibility Report prepared for the Windom Public Facilities Commission dated February 2011 the following improvements have been included as part of the proposed Wastewater Treatment Improvements Project to be bid on September 22, 2011.

**1. Main Lift Station**

Construct a new three pump submersible lift station near the existing main lift station. The lift station will be a cast-in-place structure approximately 35 feet deep. The pumps will be sized so that two pumps will provide a firm capacity of 5.0 MGD (3,500 gpm), the wastewater treatment facilities peak flowrate. VFD's will be supplied on each pump to allow the pump speed to be varied to match the flow entering the station. In addition to supplying VFD's to control each pump, a new control panel will be installed in the existing control building and communicate with the existing plant SCADA system. It is also planned to install a new generator.

**2. River Crossing**

Construct a new inverted siphon and river crossing. The siphon will be a concrete structure located in the same vicinity as the existing siphon. Two pipes will be directionally drilled below the river. The pipe material will be HDPE.

**3. Main Interceptor**

Replace the last stretch of the main interceptor that runs along the edge of the Des Moines River. This work will include replacement of 320 lineal feet of 21 inch sewer at a depth of 15 to 30 feet along with three (3) new manholes.

**4. Wastewater Treatment Facility Improvements**

- Remove and replace the mechanical barscreen and screenings press, the grit separator and clarifier and the grit pump, piping and valves, replace

Recommended Improvements  
Wastewater Treatment Improvements  
City of Windom, Minnesota

the slide gates, replace the forcemain discharge piping and paint all of the existing and new piping and equipment.

- Install a 90 degree, two (2) feet deep V-notch weir with ultrasonic level monitoring on the treated effluent discharging from the existing chlorine contact basin.
- Widen the access road to allow sludge tankers access to the sludge storage pump facility.
- Purchase 6 inch trash pump.

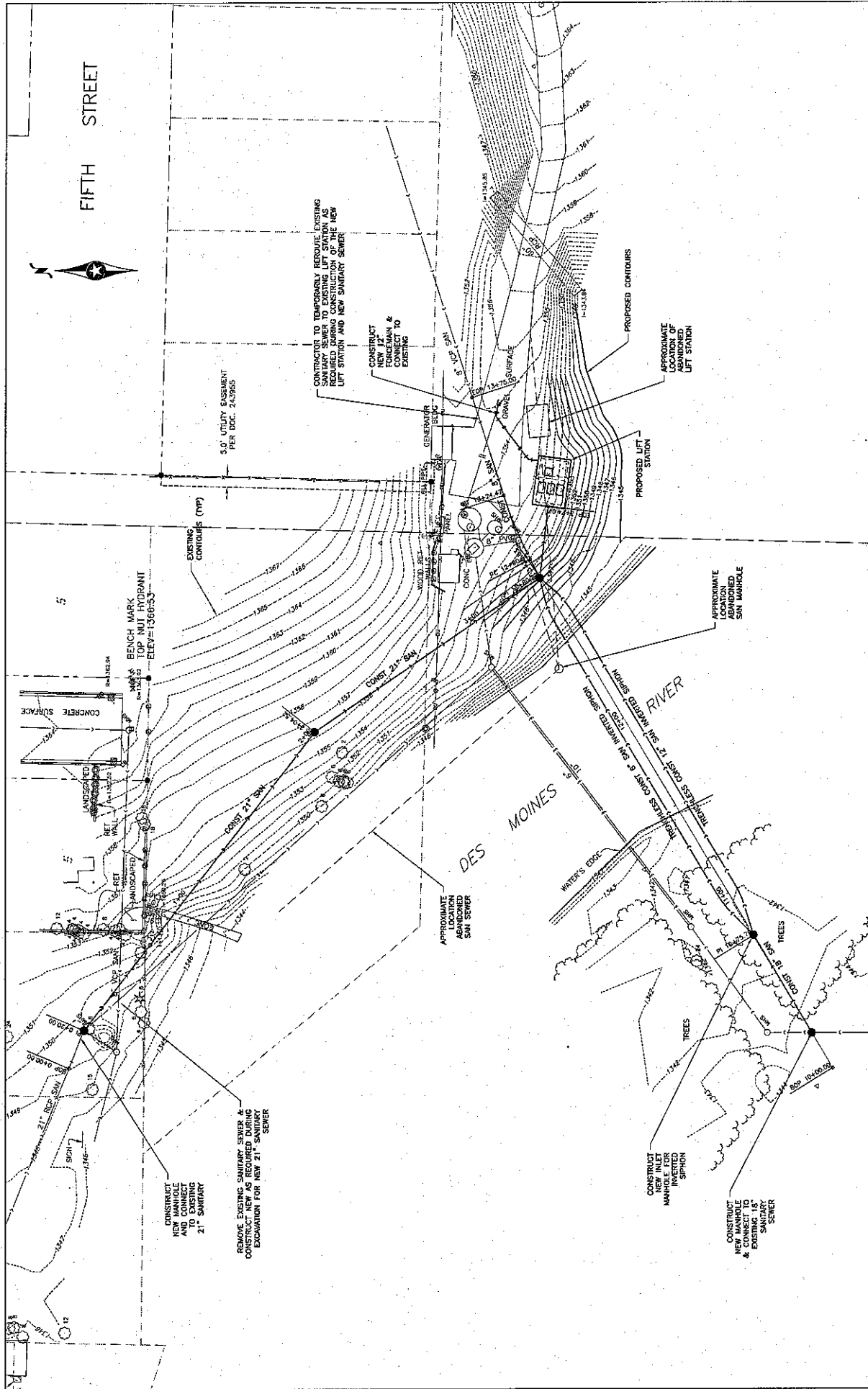
**5. SCADA Control Replacement**

After presentation of the Feasibility Report to the Commission, the SCADA Control System at the Wastewater Treatment Facility failed. Staff requested that this work be included as part of the project. The SCADA Control replacement will include the following:

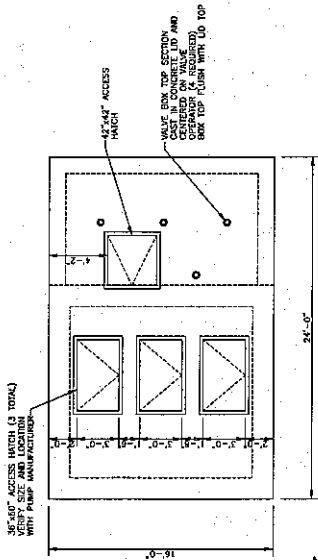
- The replacement the PLC (programmable logic controllers) and the operator interface in the facilities four (4) control panels.
- Replacement of obsolete or failed field instrumentation.
- Two (2) new SCADA computer workstations with upgraded software.
- Installation of a new fiber-optic network between the four (4) PLC's including the PLC as part of new lift station control panel.

**Construction Cost Estimate  
Wastewater Treatment Improvements  
Windom, Minnesota  
August 2011**

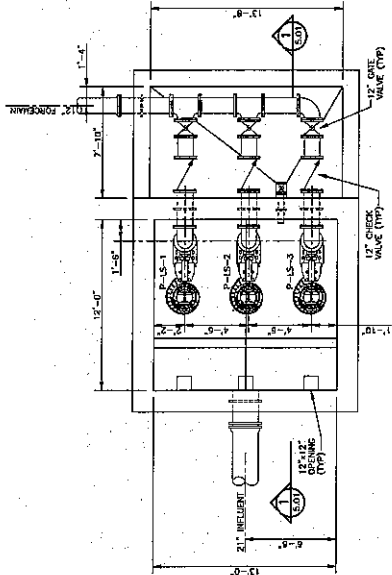
Item	Cost
1. Main Lift Station	
• Clearing/ grubbing	\$7,000
• Erosion control/ site restoration	25,000
• Lift station structure/valve vault, piping, valves	750,000
• 3 - 110 HP submersible pumps	195,000
• Electrical and controls	275,000
• Generator	250,000
<b>Subtotal Main Lift Station</b>	<b>\$1,502,000</b>
2. River Crossing	
• Clearing/ grubbing	\$7,000
• Inverted siphon structure/ sanitary manhole	50,000
• 12-inch HDPE	37,000
• 6-inch HDPE	32,000
• Erosion Control/ Restoration	18,000
<b>Subtotal River Crossing</b>	<b>\$144,000</b>
3. Main Interceptor	
• Clearing/ grubbing	\$23,000
• Erosion control/ driveway and site restoration	30,000
• Forcemain connection	6,000
• PVC sewer (15-30 ft. deep)	50,000
• 3 manhole structures (15-30 ft. deep)	38,000
<b>Subtotal Main Interceptor</b>	<b>\$147,000</b>
4. Wastewater Treatment Facility Improvements	
• Mechanical bar screen & screenings press	\$125,000
• Stainless steel grit classifier and separator	50,000
• Grit pump, piping and valves	25,000
• Effluent flow measurement device	50,000
• Widen access road	30,000
• 6-inch trash pump	30,000
<b>Subtotal Wastewater Treatment Facility Improvements</b>	<b>\$310,000</b>
5. SCADA Control Replacement	
• SCADA Controls	\$375,000
• Electrical	75,000
<b>Subtotal SCADA Control Replacement</b>	<b>\$450,000</b>
6. Contingencies	<b>\$255,000</b>
<b>Total Project Costs</b>	<b>\$2,808,000</b>



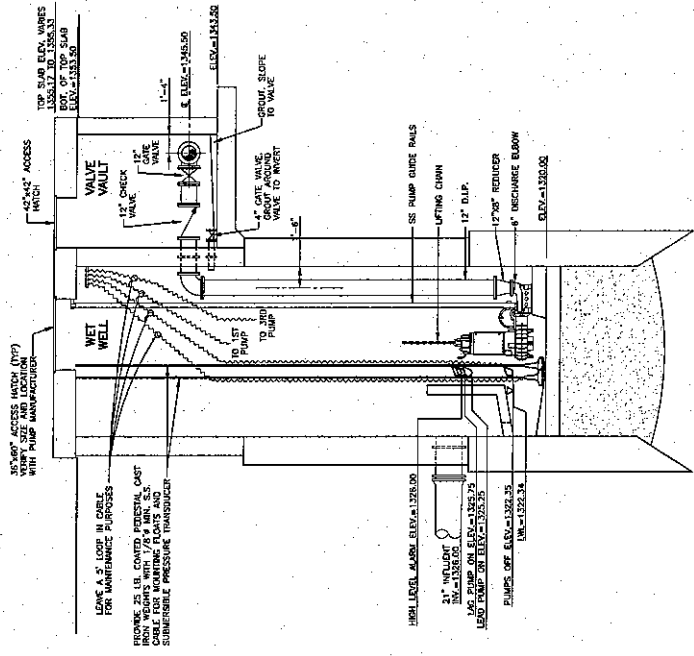
WINDOOL MINNESOTA WASTEWATER TREATMENT IMPROVEMENTS LIFT STATION/SANITARY SEWER SITE LAYOUT PLAN		SHEET 2.04
BOLTON & MENK, INC. Consulting Engineers & Surveyors 1000 W. WASHINGTON ST., SUITE 100, MINNEAPOLIS, MN 55401 TEL: 612-338-1111 FAX: 612-338-1112		DATE 8-22-2011
PROJECT NO. 11-000000-0000		SCALE 1" = 20'
DRAWN BY J. D. HANCOCK		CHECKED BY H. A. DIERMEYER
DATE 8-22-2011		PROJECT NO. 11-000000-0000



TOP SLAB PLAN  
SCALE: 1/4"=1'-0"



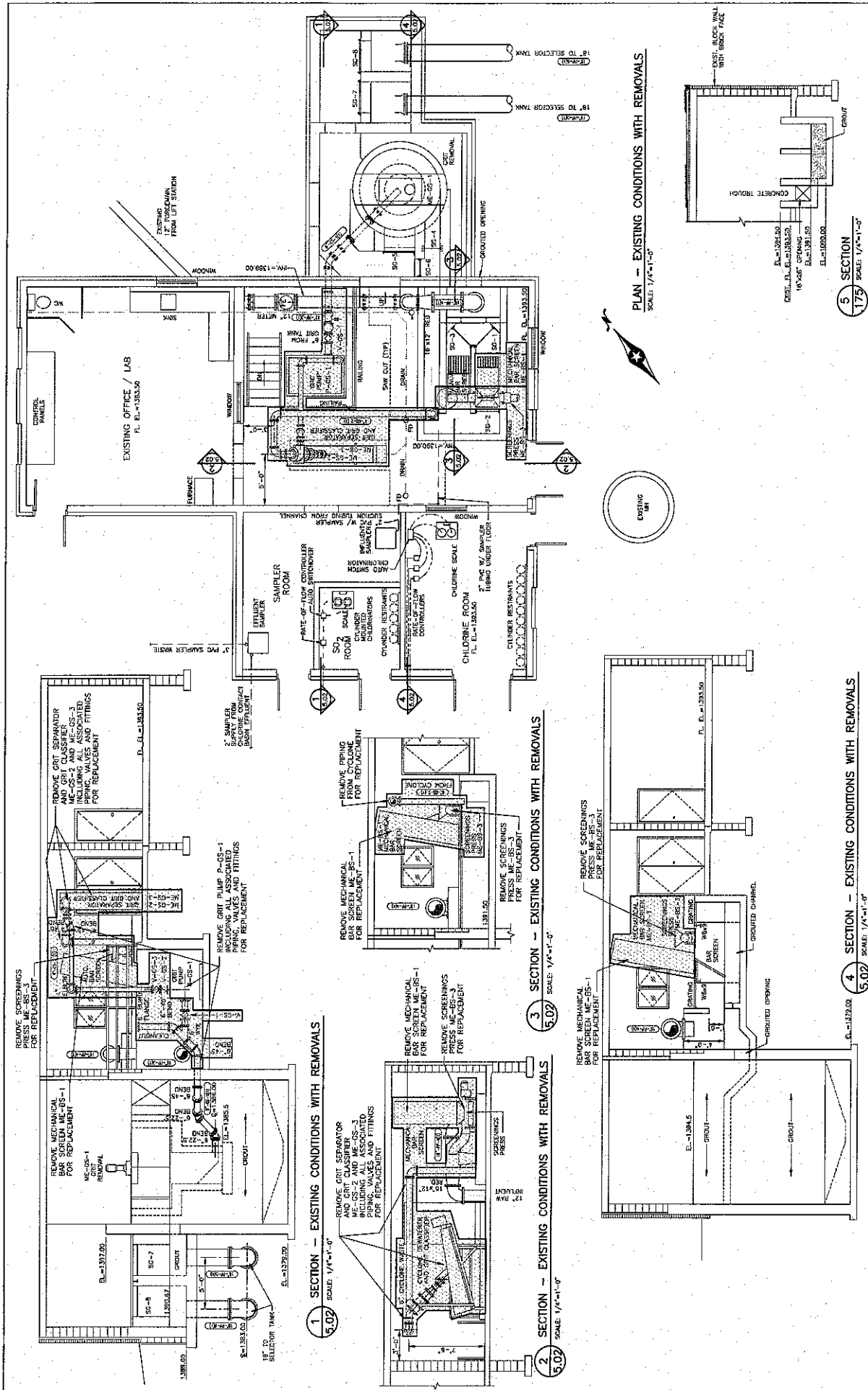
PLAN  
SCALE: 1/4"=1'-0"



SECTION 5.01  
SCALE: 1/4"=1'-0"

<p>© Bolton &amp; Menk, Inc. 2011. All Rights Reserved.          315 W. WISCONSIN ST. SUITE 1000, WISCONSIN, WI 53588-1000</p>		<p>PROJECT: WASTEWATER TREATMENT IMPROVEMENTS          PLANS AND SECTIONS</p>
<p>DATE: 8-22-11</p>		<p>SHEET: 5.01</p>
<p>PROJECT: WASTEWATER TREATMENT IMPROVEMENTS          PLANS AND SECTIONS</p>		<p>WISCONSIN, MINNESOTA</p>
<p>BOLTON &amp; MENK, INC.          Consulting Engineers &amp; Surveyors          315 W. WISCONSIN ST. SUITE 1000, WISCONSIN, WI 53588-1000</p>		<p>PROJECT: WASTEWATER TREATMENT IMPROVEMENTS          PLANS AND SECTIONS</p>





PLAN - EXISTING CONDITIONS WITH REMOVALS  
SCALE: 1/4"=1'-0"

5 SECTION  
SCALE: 1/4"=1'-0"

1 SECTION - EXISTING CONDITIONS WITH REMOVALS  
SCALE: 1/4"=1'-0"

2 SECTION - EXISTING CONDITIONS WITH REMOVALS  
SCALE: 1/4"=1'-0"

3 SECTION - EXISTING CONDITIONS WITH REMOVALS  
SCALE: 1/4"=1'-0"

4 SECTION - EXISTING CONDITIONS WITH REMOVALS  
SCALE: 1/4"=1'-0"

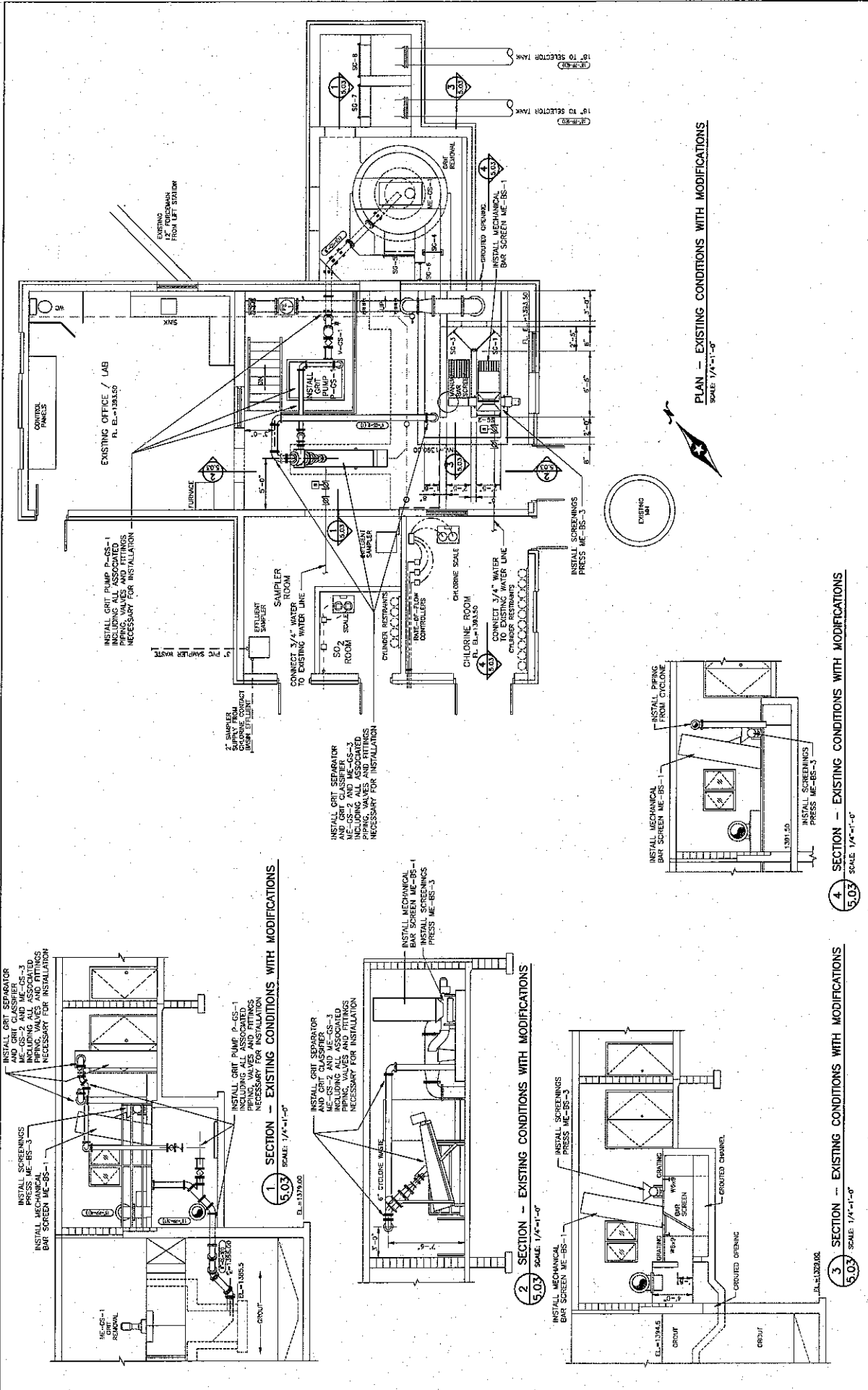
SHEET  
**5.02**

**BOLTON & MENK, INC.**  
Consulting Engineers & Surveyors  
MINNAPARC, 10000 W. 100TH AVENUE, SUITE 100, WESTMINSTER, CO. 80031

*Handwritten Signature*  
DATE: 8-22-2011

PROJECT: WASTEWATER TREATMENT IMPROVEMENTS  
EXISTING PRETREATMENT BUILDING  
EXISTING CONDITIONS WITH REMOVALS - PLAN & SECTIONS

© Bolton & Menk, Inc. 2011. All Rights Reserved.  
J:\PROJECTS\110000\110000-500.dwg 8/22/11 9:28 am



PLAN - EXISTING CONDITIONS WITH MODIFICATIONS  
SCALE 1/4"=1'-0"

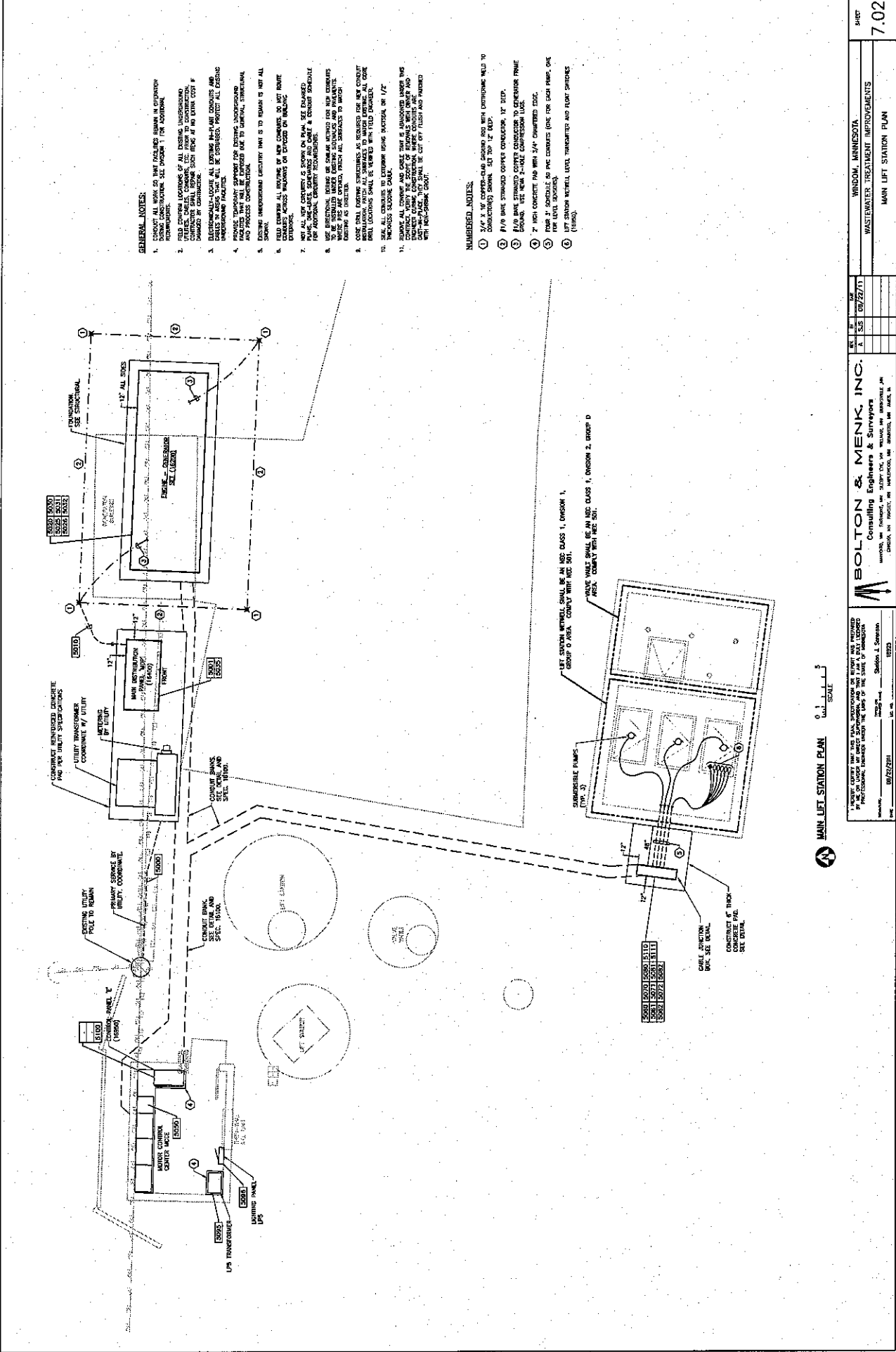
1 SECTION - EXISTING CONDITIONS WITH MODIFICATIONS  
SCALE 1/4"=1'-0"  
E.L. = 1379.00

2 SECTION - EXISTING CONDITIONS WITH MODIFICATIONS  
SCALE 1/4"=1'-0"

3 SECTION - EXISTING CONDITIONS WITH MODIFICATIONS  
SCALE 1/4"=1'-0"

4 SECTION - EXISTING CONDITIONS WITH MODIFICATIONS  
SCALE 1/4"=1'-0"

5.03 8-22-2011 Bolton & Menk, Inc. Consulting Engineers & Surveyors 10000 Highway 101, Suite 200 Minneapolis, MN 55425 Tel: 763-425-1100 Fax: 763-425-1101 www.boltonandmenk.com	10000 Highway 101, Suite 200 Minneapolis, MN 55425 Tel: 763-425-1100 Fax: 763-425-1101 www.boltonandmenk.com	CONSULTING ENGINEERS & SURVEYORS 8-22-2011 Bolton & Menk, Inc. Consulting Engineers & Surveyors 10000 Highway 101, Suite 200 Minneapolis, MN 55425 Tel: 763-425-1100 Fax: 763-425-1101 www.boltonandmenk.com	SHEET 5.03
			PROJECT WASTEWATER TREATMENT IMPROVEMENTS EXISTING PRETREATMENT BUILDING EXIST. CONDITIONS W/ MODIFICATIONS - PLAN & SECTIONS



**GENERAL NOTES:**

1. VERIFY ALL WORK IS IN ACCORDANCE WITH THE SPECIFICATIONS AND PERMITS. SEE SECTION 1 FOR ADDITIONAL INFORMATION.
2. FIELD COVER LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHALL BE IDENTIFIED AND MARKED PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES.
3. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES ARE CORRECTLY IDENTIFIED AND MARKED. PROTECT ALL EXISTING UTILITIES FROM DAMAGE.
4. PROVIDE TEMPORARY SUPPORT FOR EXISTING UNDERGROUND UTILITIES TO BE MAINTAINED THROUGHOUT CONSTRUCTION AND POST-CONSTRUCTION.
5. EXISTING UNDERGROUND UTILITIES ARE TO REMAIN UNLESS OTHERWISE NOTED.
6. FIELD VERIFY ALL WORKING OF ALL CONCRETS TO BE CAST AND FINISHED TO THE REQUIRED FINISH AND CURE PER SPECIFICATIONS.
7. NOT ALL NEW CONCRETS IS SHOWN ON PLAN. SEE ENCLAVES FOR ADDITIONAL CONCRETE REQUIREMENTS.
8. USE REINFORCED CONCRETE FOR ALL CONCRETS TO BE CAST. REINFORCEMENT SHALL BE CAST AND PLACED PRIOR TO THE POURING OF CONCRETE. PROVIDE ALL REINFORCEMENT AS SHOWN.
9. CLOSE SHALL EXISTING STRUCTURES AS REQUIRED FOR NEW CONCRETE. ALL LOCATIONS SHALL BE VERIFIED WITH FIELD SURVEYS.
10. SEAL ALL JOINTS TO EXISTING USING EPICRETE OR 1/2" THICKNESS SOLUBLE CEMENT.
11. VERIFY ALL WORK IS IN ACCORDANCE WITH THE SPECIFICATIONS AND PERMITS. SEE SECTION 1 FOR ADDITIONAL INFORMATION.

**NUMBERED NOTES:**

1. 3/4" X 1/2" W/ CORRUGATED GROUND ROD WITH DOWELBARS WELD TO CONCRETING SHALL BE USED TO HOLD CONCRETE TO 12" DIA.
2. #1/8 BARE STRANDED COPPER CONDUCTOR, 12' DIA.
3. #1/8 BARE STRANDED COPPER CONDUCTOR TO GENERATOR FRAME GROUND. SEE NEW 1000 CONSTRUCTION LOG.
4. 2" HIGH CONCRETE PAD WITH 3/4" DIA. REINFORCED EDGE.
5. 4" DIA. CONCRETE PAD WITH 3/4" DIA. REINFORCED EDGE.
6. 1/2" DIA. CONCRETE PAD WITH 3/4" DIA. REINFORCED EDGE.
7. 1/2" DIA. CONCRETE PAD WITH 3/4" DIA. REINFORCED EDGE.

**MAIN LIFT STATION PLAN**  
SCALE: 0.1" = 1'-0"

**BOLTON & MENK, INC.**  
Consulting Engineers & Surveyors  
10000 W. 100th St., Suite 100, Minneapolis, MN 55438  
Phone: (612) 922-2211  
Fax: (612) 922-2212

PROJECT: WASTEWATER TREATMENT IMPROVEMENTS  
SHEET: 7.02  
DATE: 08/22/11