

WATER DEPARTMENT

111 Shaver Road NE, Cedar Rapids, IA 52402-4595

Phone 319-286-3851 Fax 319-286-5911

FAX MEMO

19/03/02

MATTHEW GOOLSBY

DNR

319 286 8761

DON BERGER

Collector Well Soil Samples

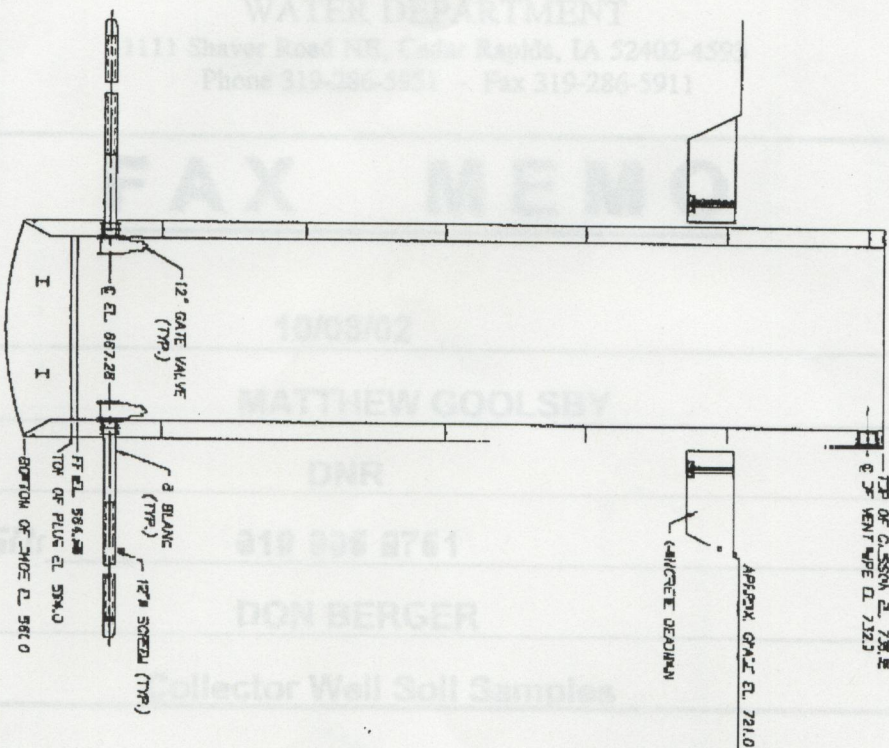
Number of pages including cover sheet: 7

Message:

Matthew, here are the as-builts with State Water coordinates.

Thanks,

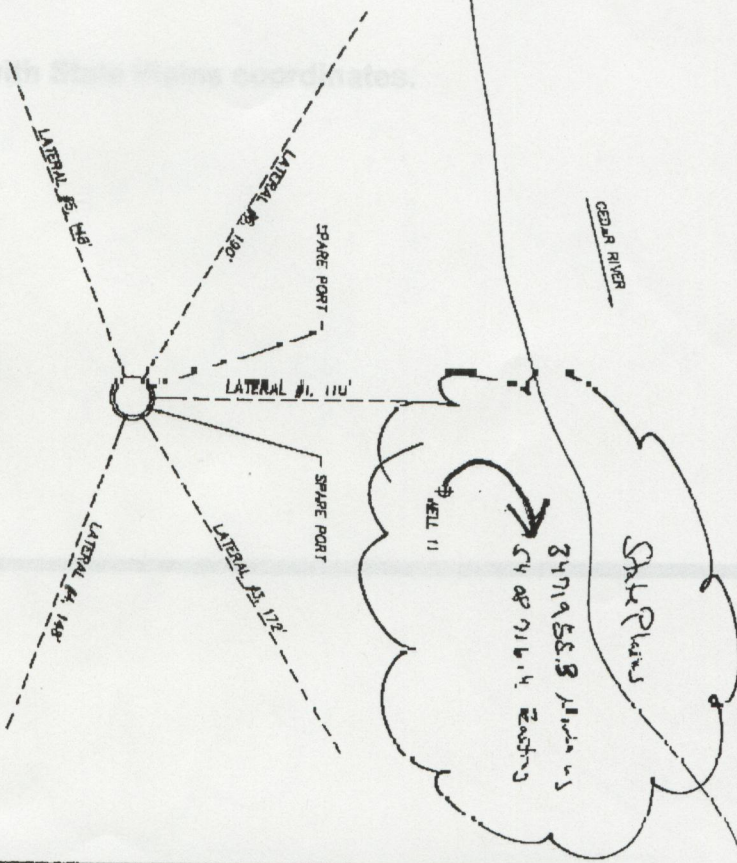
Don



VERTICAL SECTION THRU CAISSON

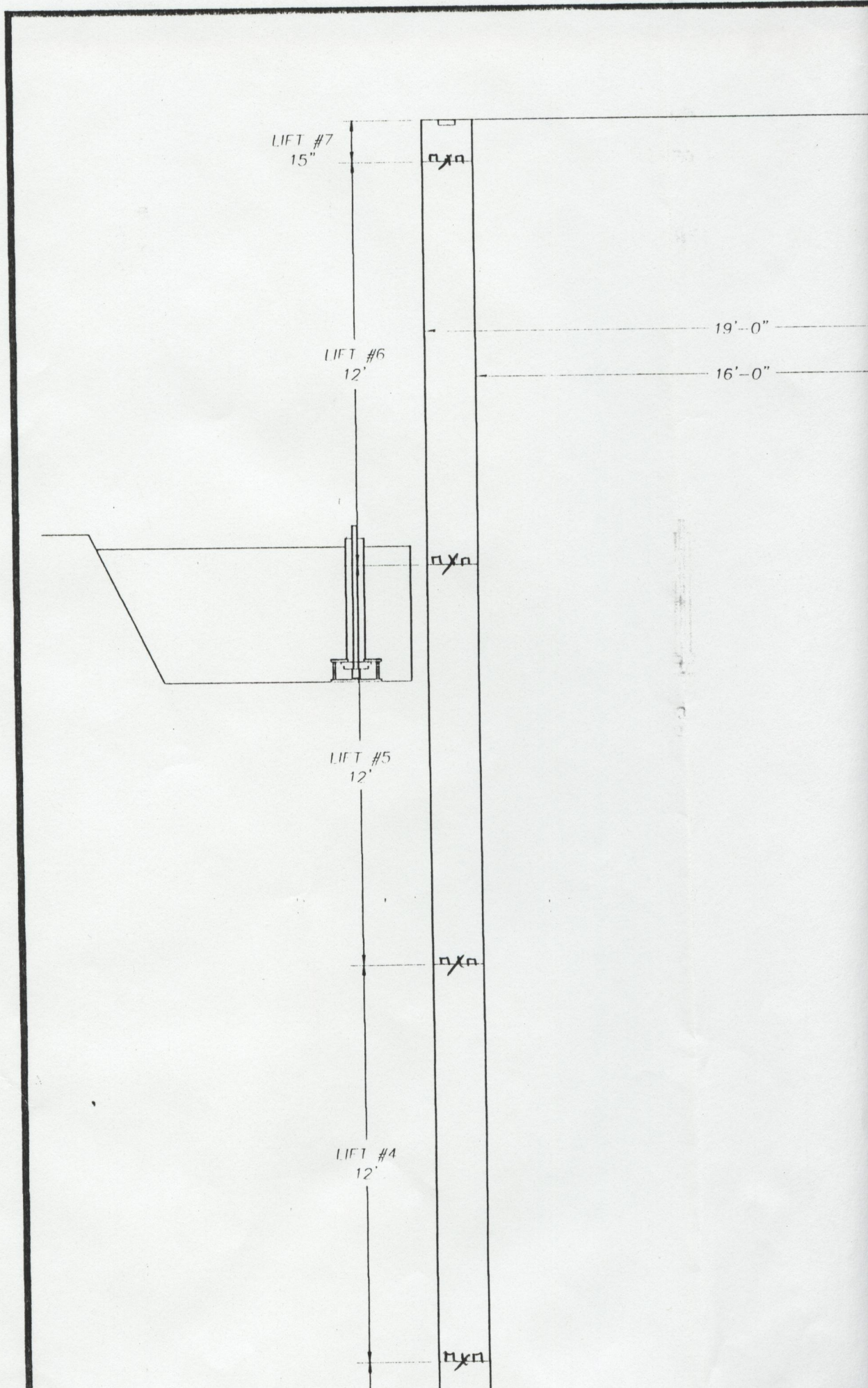
SCALE: 1"=10'

PLAN VIEW
SCALE: 1"=50'

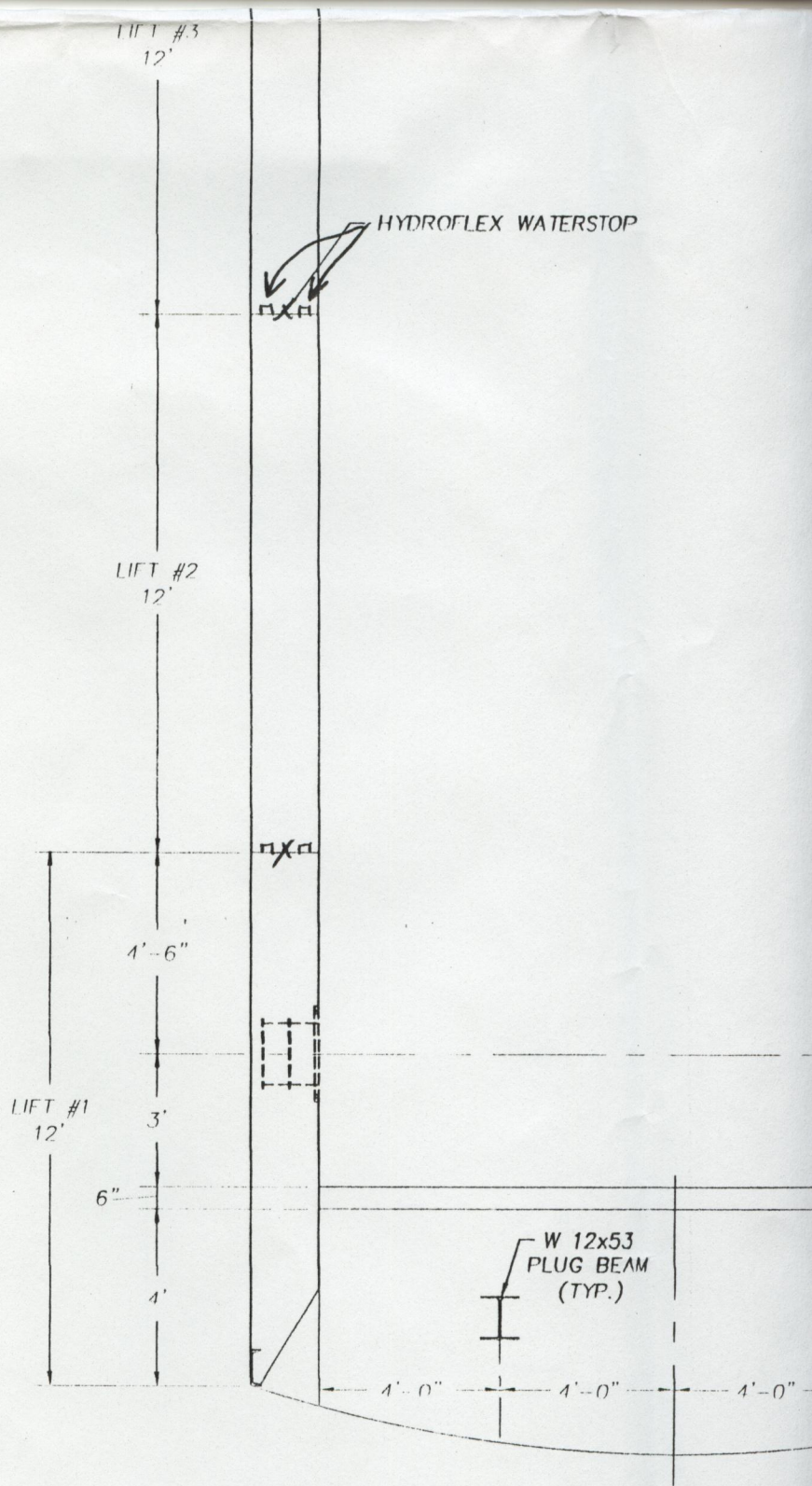


AS-BUILT PLAN AND SECTION COLLECTOR WELL #CW-5 CEDAR RAPIDS IOWA	
FILE NAME:	DATE:
PROJECT #:	SCALE:
101-187	1"=10'
TOTAL: 2	

W-56470

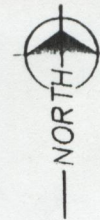


DRAWING NAME: 101-167-2 DATE: 5/11/01 SCALE: 1/4"=1'-0" COLLECTOR WELLS INTERNATIONAL, INC.



VERTICAL SECTION THRU
SCALE: 1/4"=1'-0"

LATERAL PORT
(7 TYP.)



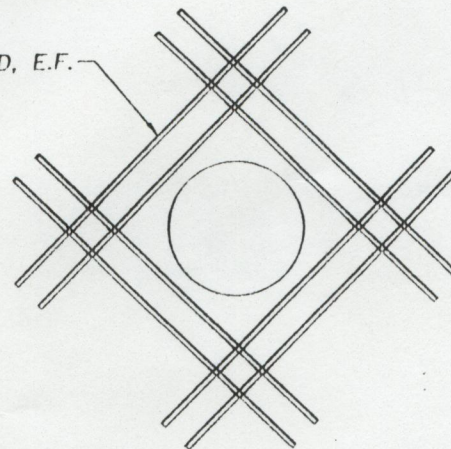
NOTE:

ALIGN THE POSITION OF THE WALL
PORTS OFF THE BASELINE THROUGH
THE VERTICAL WELL. POSITION NOT TO
INTERFERE WITH THE VERTICAL WELL.

PLAN VIEW OF PORT LOCATIONS

SCALE: N.T.S.

MK C7 - 8 REQ'D, E.F.
(TYP)



TYPICAL WALL PORT REINFORCING

SCALE: 1/2"=1'-0"

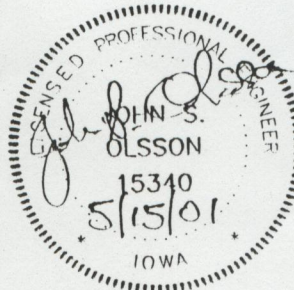
Q OF LATERALS EL. 667.5

FF EL. 664.5

TOP OF PLUG EL. 664.0

BOTTOM OF SHOE EL. 660.0

OLSSON
ASSOCIATES



I hereby certify that this engineering document was prepared
under my direct supervision and that I am a
Professional Engineer under the laws of the State of Iowa.

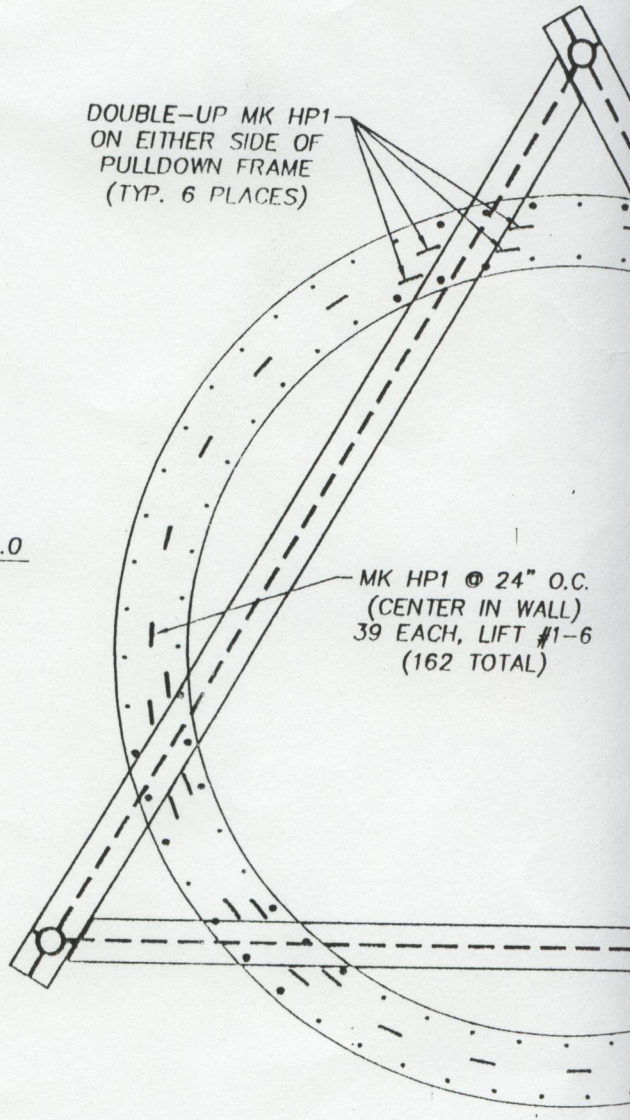
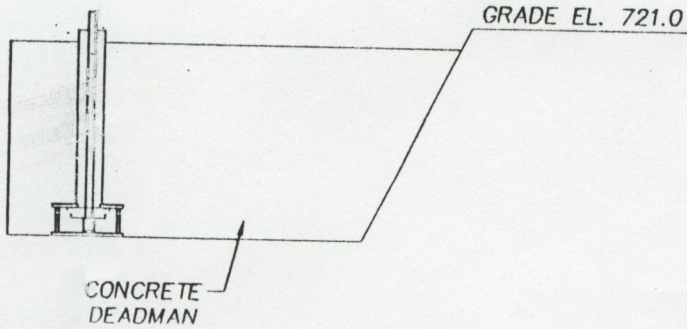
(signature) *John S. Olsson*
Printed or typed name John S. Olsson

My license renewal date is December 31, 2001.

Pages or sheets covered by this seal: 7

IRU CAISSON

TOP OF CAISSON EL. 733.25
 CL OF VENT PIPE EL. 732.0
 16" MJ WALL PLAIN END SLEEVE

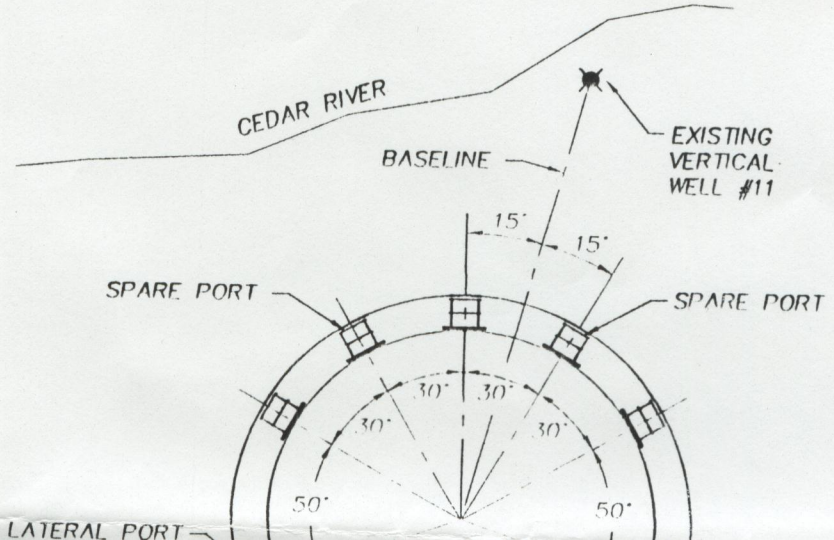


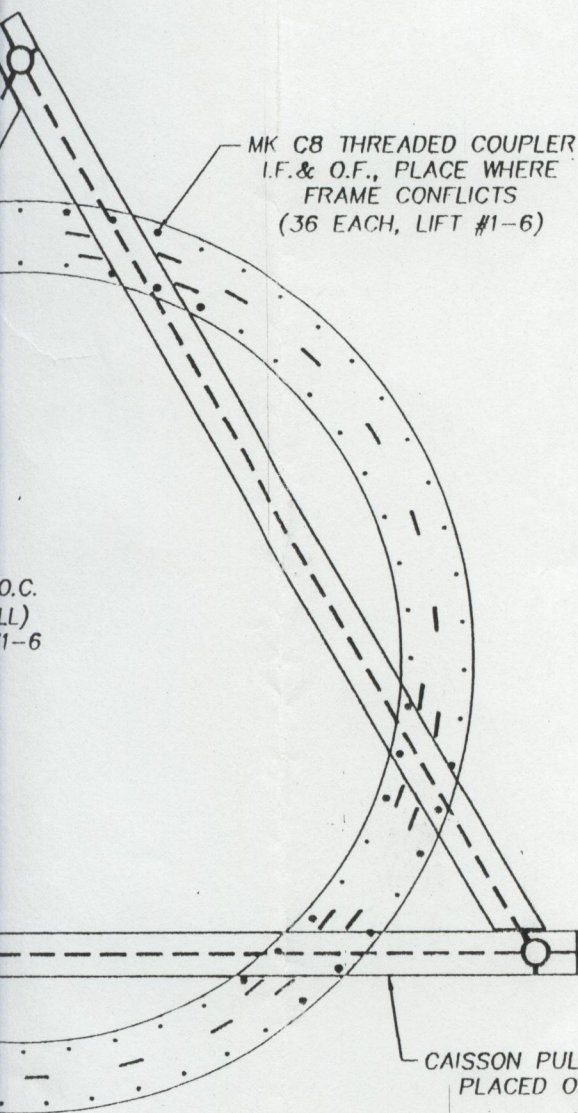
NOTE:

WHERE FRAME CONFLICTS WITH VERTICAL REBAR, PLACE MK C8 IN PLACE OF STANDARD MARK REBAR. THREAD MK C9 INTO MK C8 IN NEXT LIFT, AFTER PULldOWN IS COMPLETE (SEE THREADED COUPLER DETAIL).

HAIRPIN & THREADED COUPLER

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



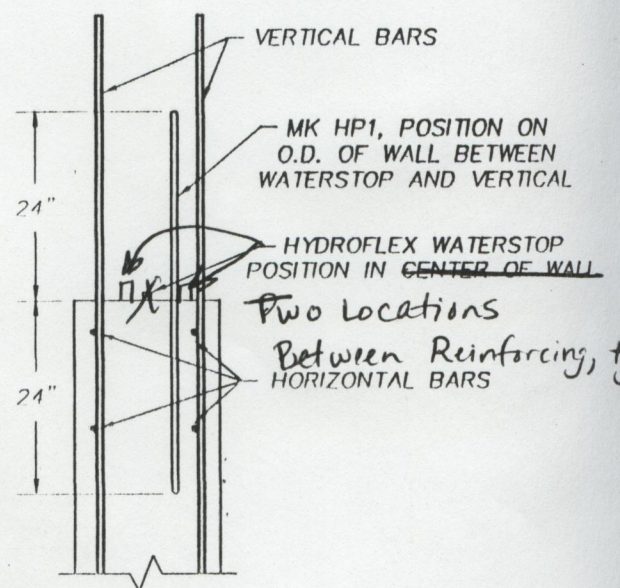


AR, PLACE
THREAD
LDOWN
(L).

D COUPLER LOCATIONS

1/4"=1'-0"

MARK	BAR SIZE	NO. REQ'D	LENGTH	A	B	C	DE
C1	6	32	14'-11"	12'-5"	2'-6"	-	
C2	6	18	11'-8"	9'-2"	2'-6"	-	
C3	6	448	15'-0"	-	-	-	
C4	6	18	11'-2"	-	-	-	
C5	6	180	11'-10"	-	-	-	STR.
-	-	-	-	-	-	-	
C7	6	128	4'-0"	-	-	-	
C8	6	216	3'-0"	WITH FEMALE COUPLER			
C9	6	216	3'-0"	WITH MALE COUPLER			
HB1	7	110	7'-0"	-	-	-	



MK HP1 & WATERSTOP LOCATION

SCALE: N.T.S.

MK C4 @ 12" O.C.
OUTSIDE FACE, PLACE
WHERE FRAME CONFLICTS
SEE THREADED COUPLER DETAIL
(18 TOTAL)

MK C3 @ 12" O.C.
OUTSIDE FACE TYP.
(42 TOTAL)

MK C18 @ 12" O.C.
OUTSIDE FACE TYP.
(57 TOTAL)

MK C2 @ 12" O.C.
I.F., PLACE WHERE
FRAME CONFLICTS
SEE THREADED COUPLER
(18 TOTAL)

MIN. 2" CLEAR
COVER (TYP.)

MK C1 @ 12" O.C.
I.F. (32 TOTAL)

12"
TYP.

HORIZONTAL BARS
7'-6"
6" O.C. IN THIS SPACE

MK C13 @ 18" O.C.
(40 TOTAL)

MK C17 @ 6" & 12" O.C.
I.F. (48 TOTAL)

MK C12 @ 18" O.C.
(40 TOTAL)

MK C16
(3 TOTAL)

MK C11 @ 18" O.C.
(40 TOTAL)

MK C15
(3 TOTAL)

MK C14
(3 TOTAL)

MK C10 @ 18" O.C.
(40 TOTAL)

14"

6"
TYP.

LIFT DETAIL #1

SCALE: 1/2"=1'-0"

LIFT DETAIL #2 THRU

SCALE: 1/2"=1'-0"

Document was prepared by me or
by a duly licensed
Professional Engineer in the State of Iowa.

5/15/01 (date)

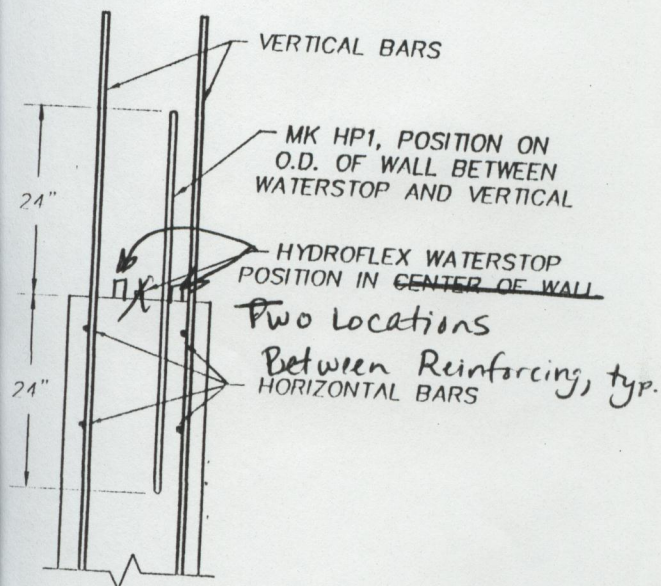
OLSSON

2001

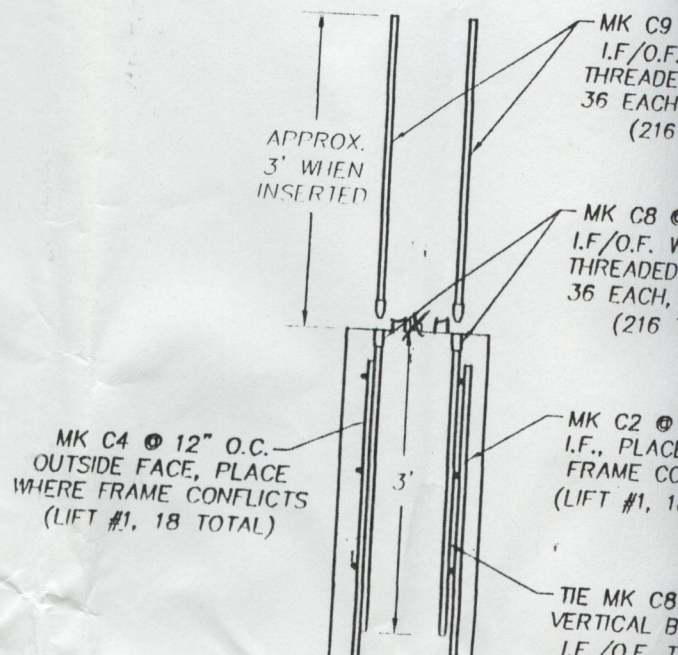
THIS SHEET

REINFORCING STEEL SCHEDULE

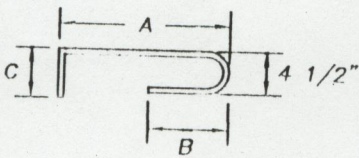
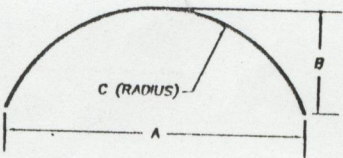
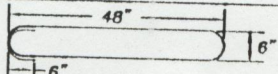
BAR SIZE	NO. REQ'D	LENGTH	A	B	C	DESCRIPTION	MARK	BAR SIZE	NO. REQ'D	LENGTH	A	B	C
6	32	14'-11"	12'-5"	2'-6"	-		C10	4	40	20 3/8"	5 3/8"	3"	5"
6	18	11'-8"	9'-2"	2'-6"	-		C11	4	40	25 1/2"	8 3/4"	4 3/4"	5"
6	448	15'-0"	-	-	-	STRAIGHT BARS	C12	4	40	30 1/4"	12 1/4"	6"	5"
6	18	11'-2"	-	-	-		C13	4	40	32 1/2"	14 1/2"	6"	5"
6	180	11'-10"	-	-	-		C14	6	3	21'-6"	16'-10"	5'-8"	9'-1"
-	-	-	-	-	-		C15	6	3	20'-11"	16'-4"	5'-6"	8'-10"
6	128	4'-0"	-	-	-		C16	6	3	20'-4"	15'-10"	5'-5"	8'-6"
216	3'-0"	WITH FEMALE COUPLER			-		C17	6	234	19'-10"	15'-5"	5'-3"	8'-3"
216	3'-0"	WITH MALE COUPLER			-		C18	6	243	22'-0"	17'-3"	5'-9"	9'-4"
110	7'-0"	-	-	-	-		HP1	6	234	11'-0"	-	-	-



1 & WATERSTOP LOCATION
SCALE: N.T.S.

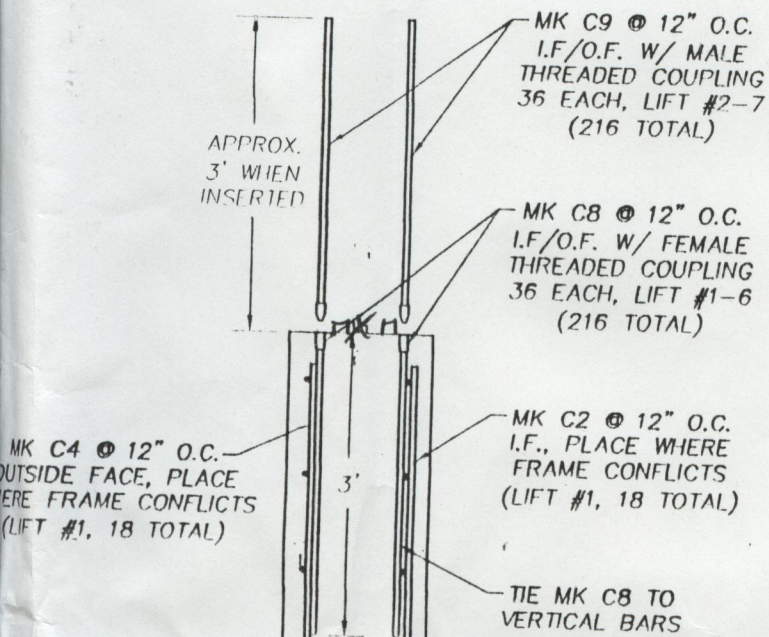


EDULE

BAR SIZE	NO. REQ'D	LENGTH	A	B	C	DESCRIPTION
4	40	20 3/8"	5 3/8"	3"	5"	
4	40	25 1/2"	8 3/4"	4 3/4"	5"	
4	40	30 1/4"	12 1/4"	6"	5"	
4	40	32 1/2"	14 1/2"	6"	5"	
6	3	21'-6"	16'-10"	5'-8"	9'-1"	
6	3	20'-11"	16'-4"	5'-6"	8'-10"	
6	3	20'-4"	15'-10"	5'-5"	8'-6"	
6	234	19'-10"	15'-5"	5'-3"	8'-3"	
6	243	22'-0"	17'-3"	5'-9"	9'-4"	
6	234	11'-0"	-	-	-	

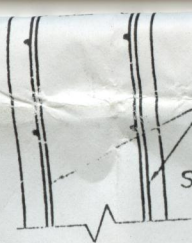


6360 HUNTLEY ROAD
COLUMBUS, OHIO 43229
(614) 888-6263 / FAX (614) 888-9208



#101-167
HORIZONTAL COLLECTOR WELLS
CAISSON CONTRACT NO. 625038-02
CEDAR RAPIDS IOWA

CITY OF CEDAR RAPIDS



MK C5 @ 12" O.C.
I.F./O.F., PLACE WHERE
FRAME CONFLICTS
SEE THREADED COUPLER DETAIL
36 EACH, LIFTS #2-6
(180 TOTAL)

REBAR W/ THREADED COUPLER DETAIL

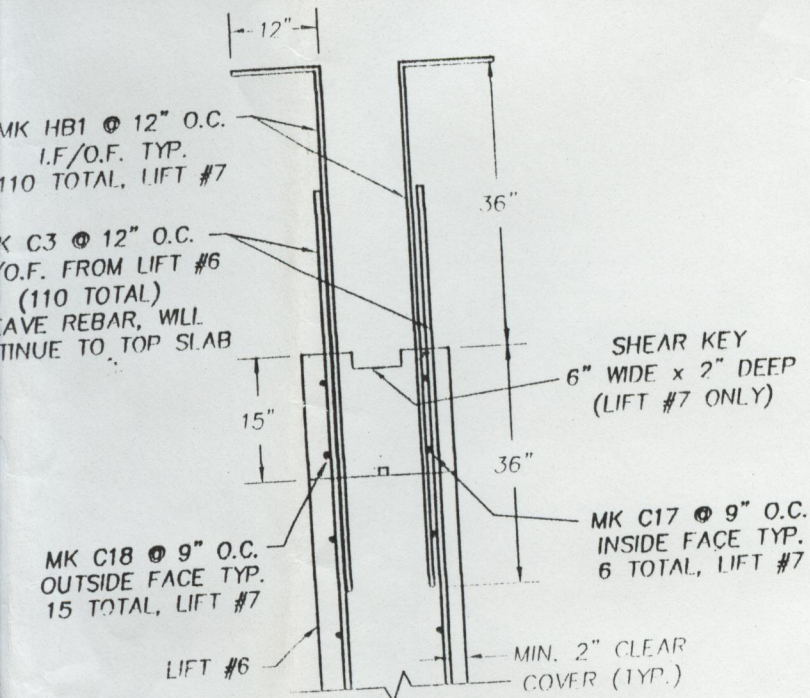
SCALE: 1/2"=1'-0"

Also—
SEE BLACK & VEATCH CORPORATION
LETTER FOR COMMENTS

- ☐ NO EXCEPTIONS NOTED
- ☒ EXCEPTIONS NOTED
- ☐ RETURNED FOR CORRECTION
- ☐ RECORD COPY

MAY 31 2001

REVIEW DOES NOT RELIEVE CONTRACTOR FROM
SOLE RESPONSIBILITY FOR ERRORS, OMISSIONS,
OR DEVIATIONS FROM CONTRACT REQUIREMENTS.
BLACK & VEATCH CORPORATION



LIFT DETAIL #7 AND TOP OF LIFT #6

SCALE: 1/2"=1'-0"

REINFORCING STEEL WILL COMPLY WITH ASTM A-615, GRADE 60.
CONCRETE WILL BE 4000 PSI, 28 DAY COMPRESSIVE STRENGTH, MINIMUM.
ALL THREADED REBAR COUPLINGS SHALL DEVELOP AT LEAST 125% OF
THE YIELD STRENGTH OF THE REINFORCING BAR.

Project Referen

CAISSON REINFORCING
FOR HCW-3 IN THE
WEST WELLFIELD

56470- WELL #3

1

CC: Dow B