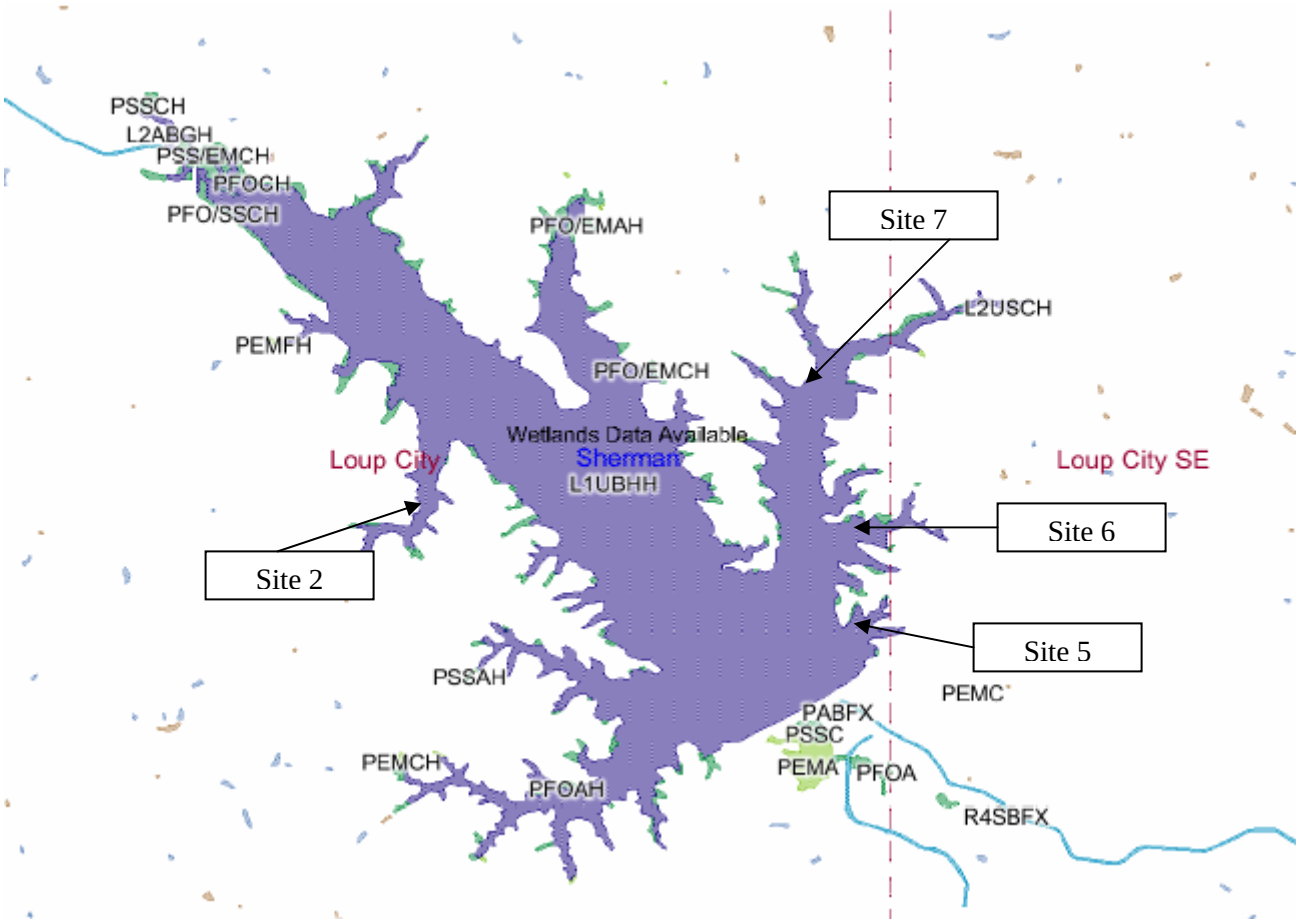
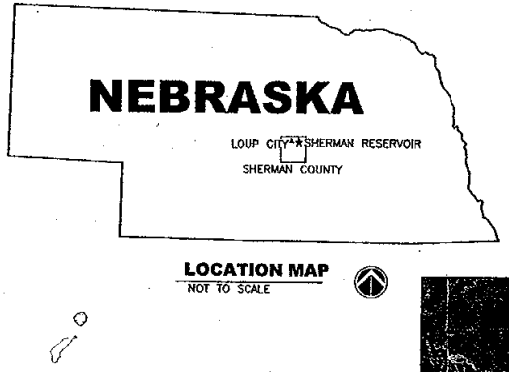

PSSCH
L2ABGH
PSS/EMCH
PFOCH
PFO/SSCH
PFO/EMAH
Site 7
L2USCH
PEMFH
PFO/EMCH
Wetlands Data Available
Loup City
Sherman
L1UBHH
Loup City SE
Site 6
Site 2
Site 5
PSSAH
PEMC
PABFX
PSSC
PEMCH
PEMA
PFOA
PFOAH
R4SBFX

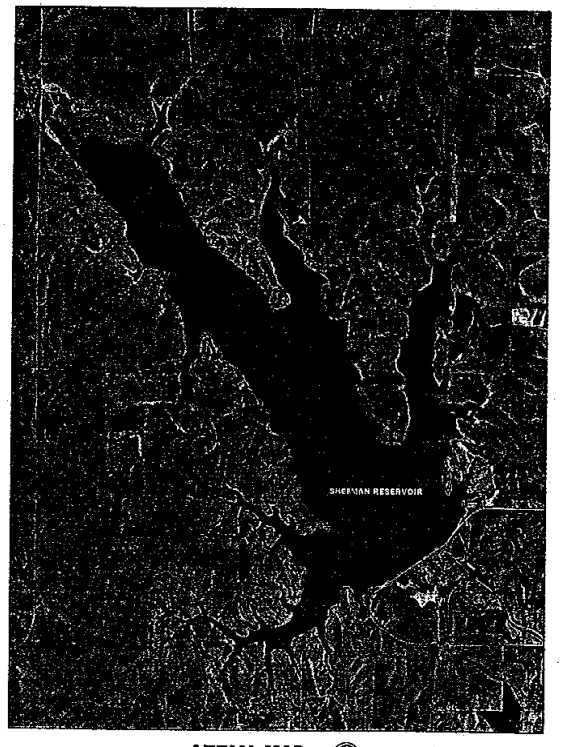
NEBRASKA GAME AND PARKS COMMISSION
SHERMAN RESERVOIR LAKE RESTORATION PROJECT
LOUP CITY, SHERMAN COUNTY, NEBRASKA



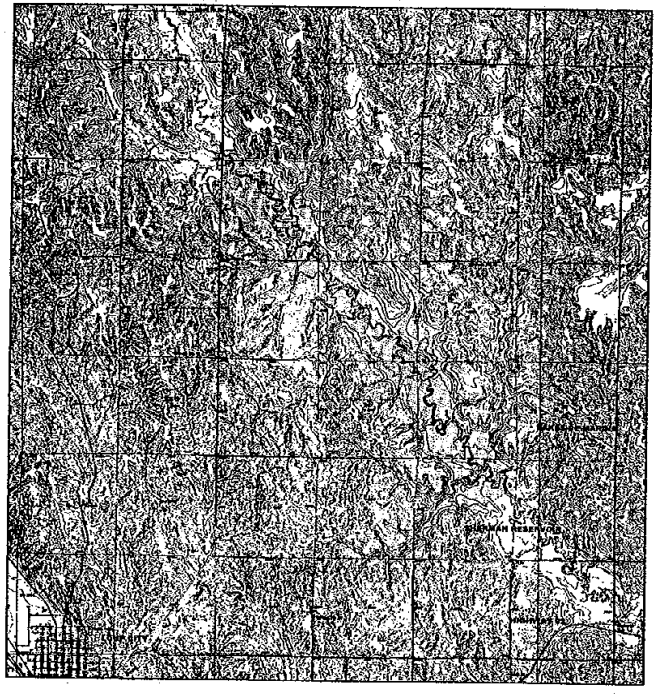
LOCATION MAP
NOT TO SCALE

INDEX OF SHEETS

1	COVER SHEET: VICINITY MAPS AND INDEX
2	AERIAL PHOTO/SITE MAP
3	SITE 2A - PARTIAL PLAN
4	SITE 2B - EXCAVATION PLAN AND DETAILS
5	SITE 3A - PARTIAL PLAN AND DETAILS
6	SITE 5 - PLAN AND DETAILS
7	SITE 5 - DETAILS
8	SITE 6A - PARTIAL PLAN AND DETAILS
9	SITE 6B - PARTIAL PLAN AND DETAILS
10	SITE 7A - PARTIAL PLAN AND DETAILS
11	SITE 7B - PARTIAL PLAN AND DETAIL
12	ANTERNATE 1: SITE 4 - PLAN AND DETAIL
13	ANTERNATE 2: SITE 3B - PARTIAL PLAN AND DETAIL



AERIAL MAP
NOT TO SCALE



VICINITY MAP
SOURCE: USGS QUADRANGLE LOUP CITY & LOUP CITY SE, 1978

APPROVED

DIRECTOR DATE

DIVISION adm DATE

SET___ OF ___

NO.	DATE	BY	DESCRIPTION
1	10/20/05		FINAL DESIGN

REVISIONS

SEAL: THOMAS E. RILEY E-7137 — STATE OF NEBRASKA

SEAL: RICHARD J. KRUSHENISKY E-9059 — STATE OF NEBRASKA

NEBRASKA GAME AND PARKS COMMISSION
SHERMAN RESERVOIR RESTORATION PROJECT
LOUP CITY, SHERMAN COUNTY, NEBRASKA

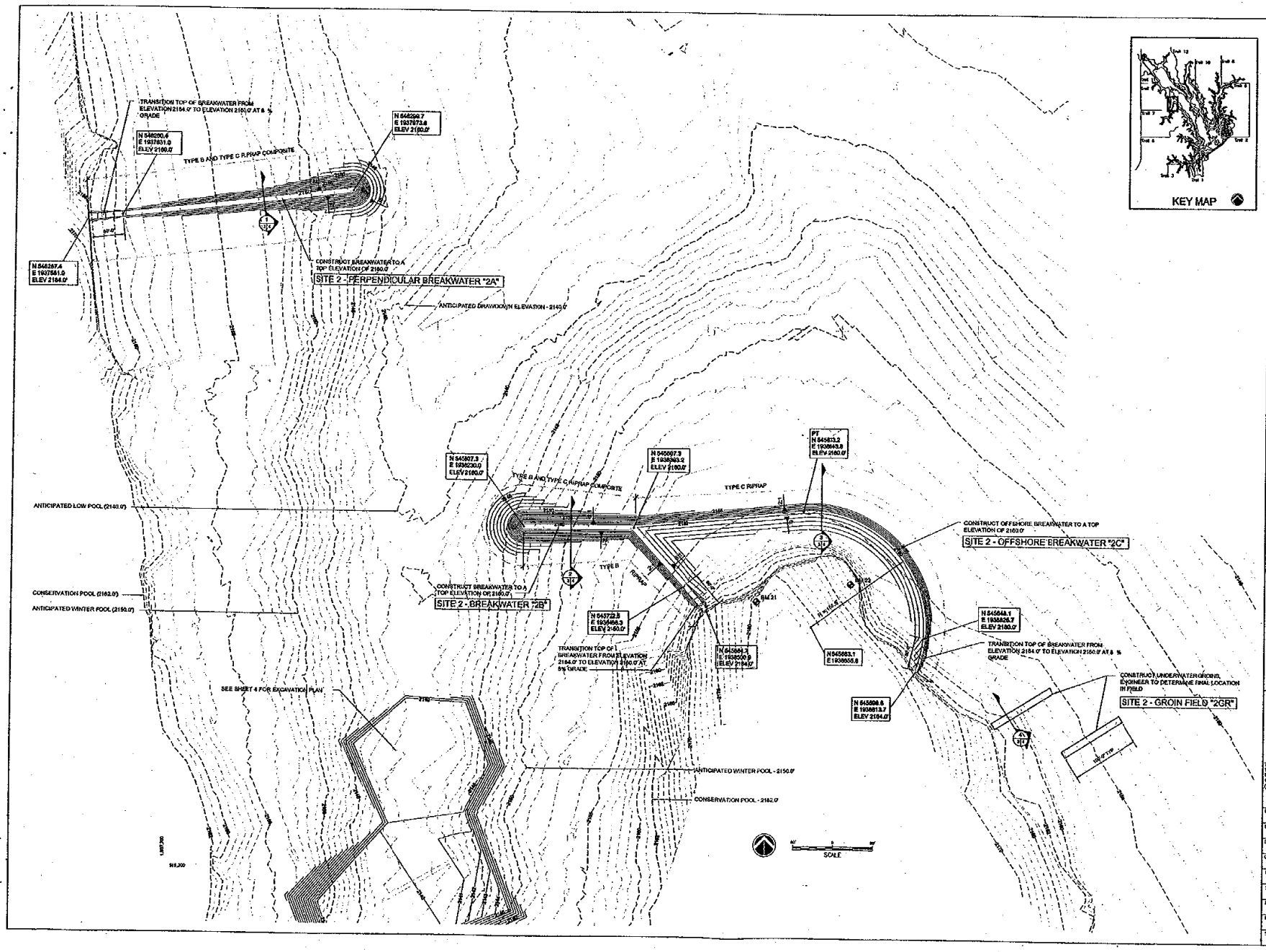
VICINITY MAPS AND INDEX

TFG
The Flatwater Group, Inc

The Flatwater Group, Inc.
1618 L Street
Lincoln, Nebraska 68508
(402) 435-2441
(402) 435-7108

DATE	JUNE 2005
DESIGNED BY	SMO, AJA
DRAWN BY	JSS
CHECKED BY	RJK
PROJECT NUMBER	NGPC-2004-01
SCALE	AS SHOWN
FILE NAME	COVER.DWG
PLAN SET NUMBER	
SHEET NUMBER	1 OF 13

RECEIVED IN FA JUL 20 2005



REVISIONS

NO.	DATE	BY	DESCRIPTION
1	6/22/05	SMD	FINAL DESIGN

PROFESSIONAL CIVIL ENGINEER THOMAS E. RILEY E-7137 STATE OF NEBRASKA

PROFESSIONAL CIVIL ENGINEER RICHARD J. KRUSHENISKY E-9059 STATE OF NEBRASKA

SHERMAN RESERVOIR SRA
LAKE RESTORATION PROJECT
SHERMAN COUNTY, NEBRASKA

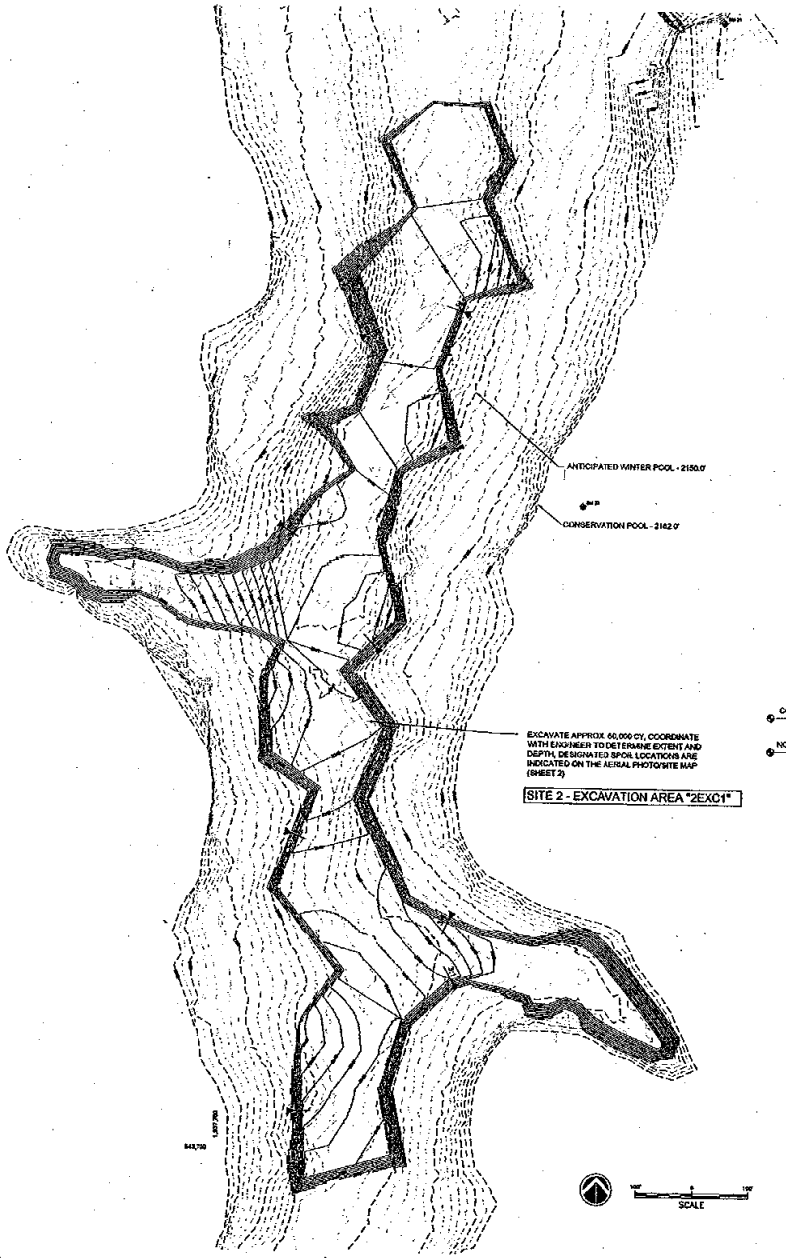
SITE 2A – PARTIAL PLAN

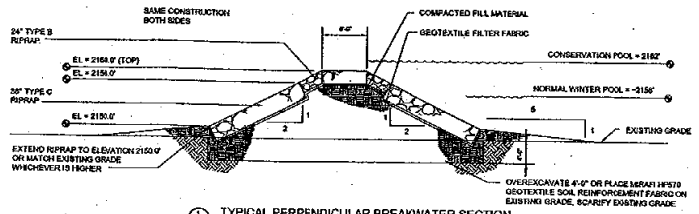
TFG
The Flatwater Group, Inc

The Flatwater Group, Inc.
1618 L Street
Lincoln, Nebraska 68508
(402) 435-8441
(402) 435-7106

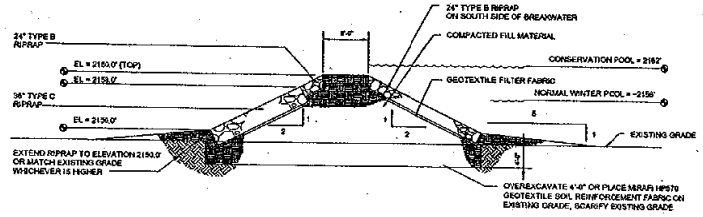
DATE	JUNE 2005
DESIGNED BY	SMD, AJA
DRAWN BY	SMD
CHECKED BY	RJK
PROJECT NUMBER	-
SCALE	AS SHOWN
FILE NAME	-
PLAN SET NUMBER	1
SHEET NUMBER	3 OF 13

RECEIVED IN FA JUL 0 2005





1 TYPICAL PERPENDICULAR BREAKWATER SECTION
SCALE: 1" = 10'



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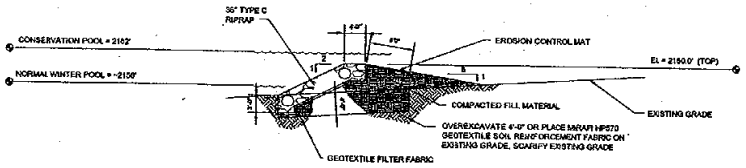

3 TYPICAL BREAKWATER SECTION
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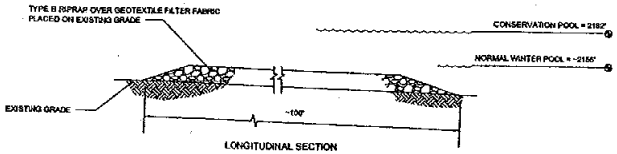
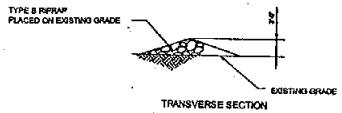
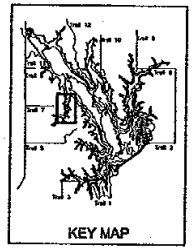


LONGITUDINAL SECTION



TRANSVERSE SECTION

4 TYPICAL GROIN SECTION
SCALE: 1" = 10'



NO.	DATE	BY	REVISIONS	DESCRIPTION
1	6-22-05	SMD		FINAL DESIGN

SEAL: PROFESSIONAL CIVIL ENGINEER THOMAS E. RILEY E-7137 STATE OF NEBRASKA

SEAL: PROFESSIONAL CIVIL ENGINEER RICHARD J. KRUSHENISKY E-5059 STATE OF NEBRASKA

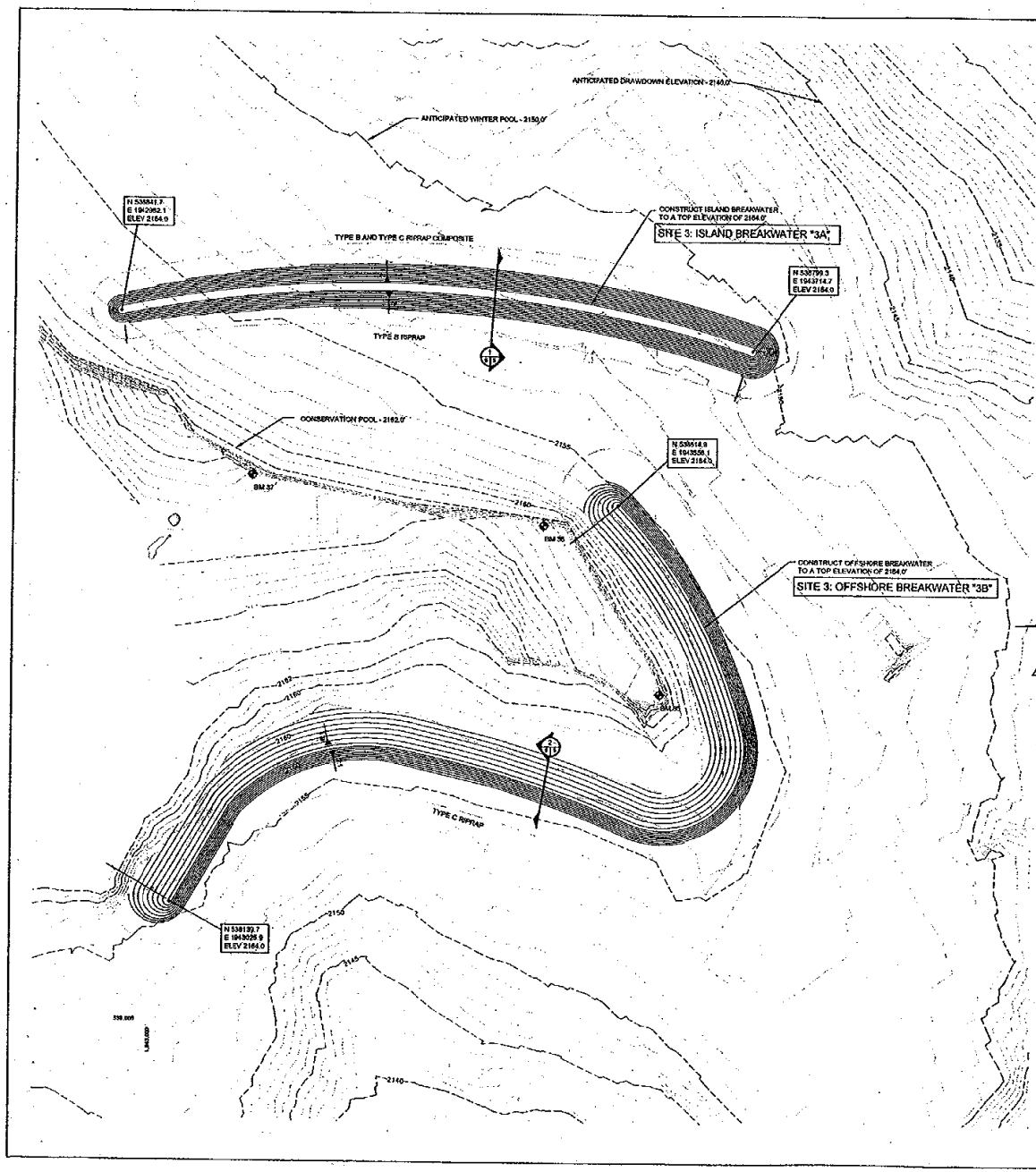
SHERMAN RESERVOIR SRA
LAKE RESTORATION PROJECT
SHERMAN COUNTY, NEBRASKA

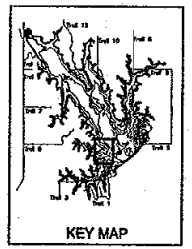
SITE 2B - EXCAVATION PLAN AND DETAILS

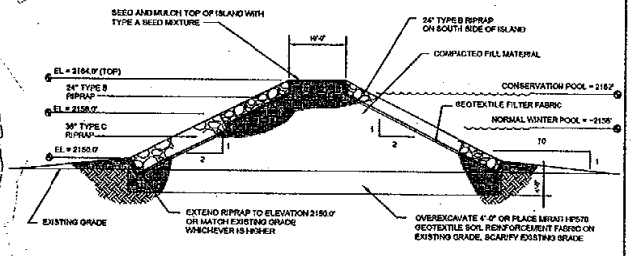
TFG
The Flatwater Group, Inc
The Flatwater Group, Inc.
1818 L Street
Lincoln, Nebraska 68508
(402) 435-5441
(402) 439-7108

DATE	JUNE 2005
DESIGNED BY	SMD, AJA
DRAWN BY	SMD
CHECKED BY	RJK
PROJECT NUMBER	-
SCALE	AS SHOWN
FILE NAME	-
PLAN SET NUMBER	1
SHEET NUMBER	4 OF 13

RECEIVED IN FA JUL 20 2005







1 TYPICAL ISLAND BREAKWATER SECTION
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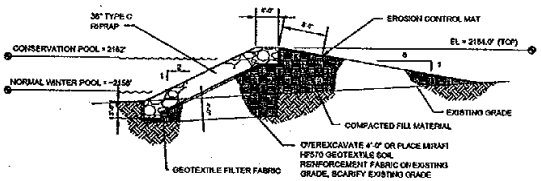


2 TYPICAL BREAKWATER SECTION
SCALE: 1" = 10'

SCALE

NO.	DATE	BY	DESCRIPTION
1	6/22/05	SMD	FINAL DESIGN

REVISIONS

SEAL

PROFESSIONAL CIVIL ENGINEER
THOMAS E. RILEY
E-7137
STATE OF NEBRASKA

PROFESSIONAL CIVIL ENGINEER
RICHARD J. KRUSHENISKY
E-9059
STATE OF NEBRASKA

SHERMAN RESERVOIR SRA
LAKE RESTORATION PROJECT
SHERMAN COUNTY, NEBRASKA

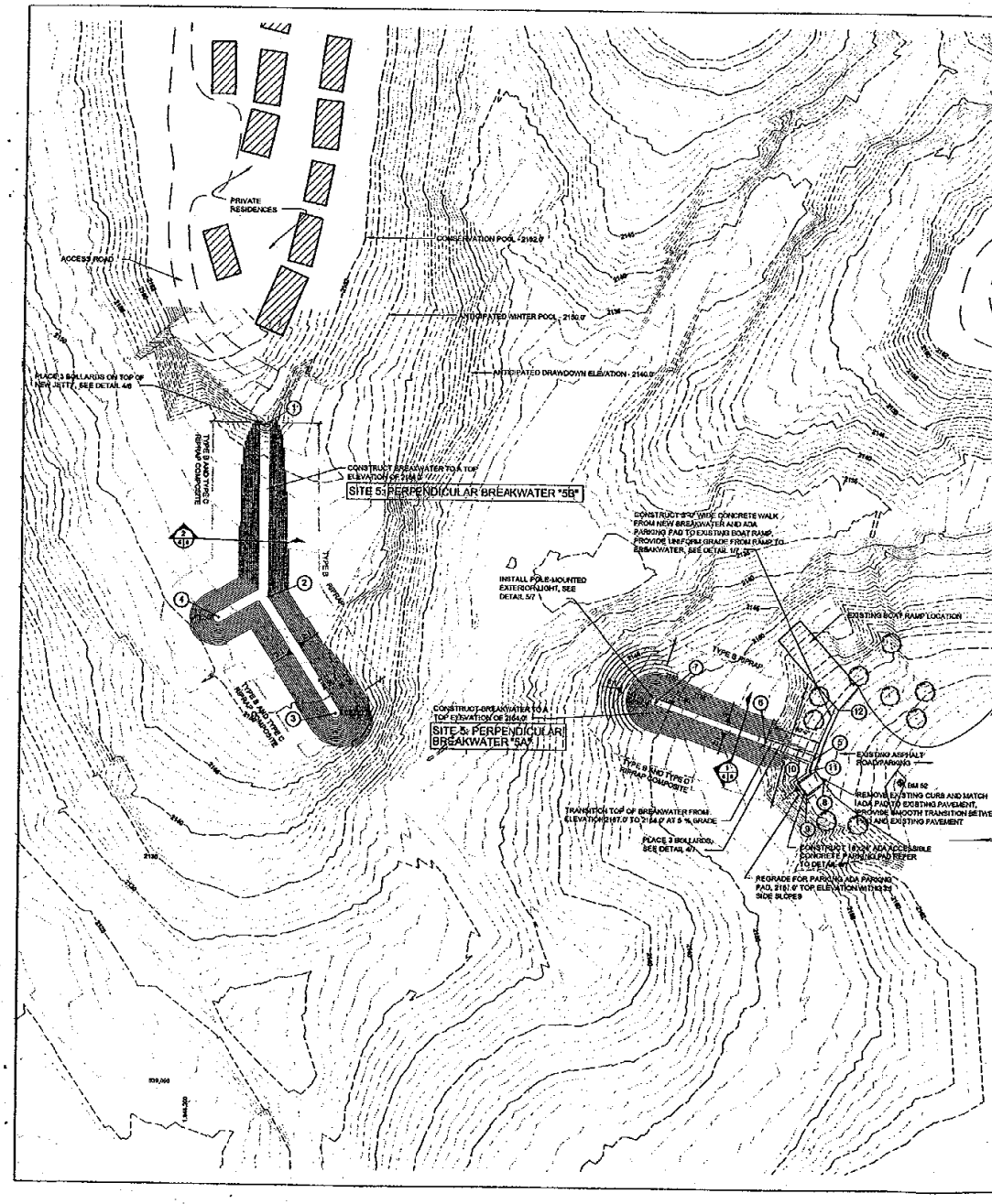
SITE 3A – PARTIAL PLAN AND DETAILS

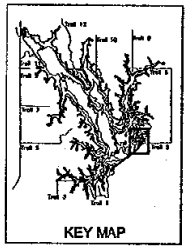
TFG
The Flatwater Group, Inc

The Flatwater Group, Inc.
1818 L Street
Lincoln, Nebraska 68508
(402) 435-5441
(402) 435-7108

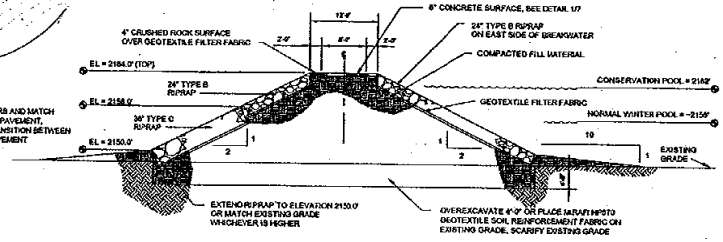
DATE	JUNE 2005
DESIGNED BY	SMD, AJA
DRAWN BY	SMD
CHECKED BY	RJK
PROJECT NUMBER	–
SCALE	AS SHOWN
FILE NAME	–
PLAN SET NUMBER	1
SHEET NUMBER	6 OF 13

RECEIVED IN FA JUL 20 2005

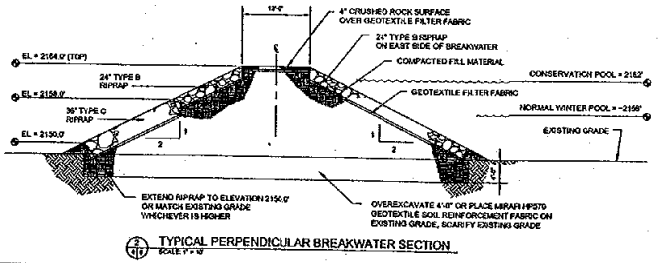




COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	ELEVATION
1	539784.4	1948284.9	2164.0
2	539564.1	1948290.9	2164.0
3	539450.8	1948370.3	2164.0
4	539539.5	1948233.2	2164.0
5	539383.4	1948028.4	2167.0
6	539403.2	1948071.7	2167.0
7	539447.7	1948163.7	2164.0
8	539356.8	1948040.2	2167.0
9	539347.2	1948021.1	2167.0
10	539355.1	1948011.4	2167.0
11	539370.2	1948023.9	2167.0
12	539440.5	1948056.2	2163.8



1/5 TYPICAL PERPENDICULAR BREAKWATER SECTION
SCALE: 1" = 10'



2/5 TYPICAL PERPENDICULAR BREAKWATER SECTION
SCALE: 1" = 10'

REVISIONS			
NO.	DATE	BY	DESCRIPTION
-	6/22/05	SMD	FINAL DESIGN

THOMAS E. RILEY E-7137 STATE OF NEBRASKA

RICHARD J. KRISHEWSKY E-9059 STATE OF NEBRASKA

SHERMAN RESERVOIR SRA
LAKE RESTORATION PROJECT
SHERMAN COUNTY, NEBRASKA

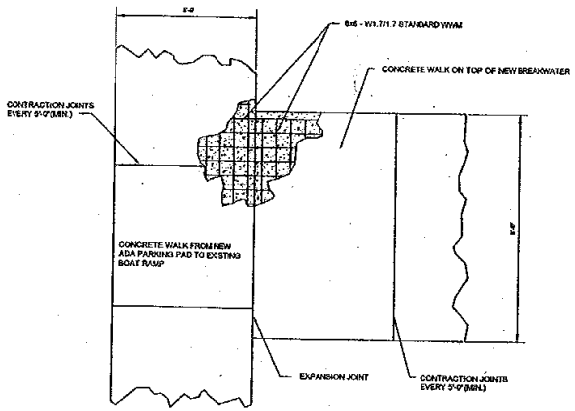
SITE 5 - PLAN AND DETAILS

TFG
The Flatwater Group, Inc

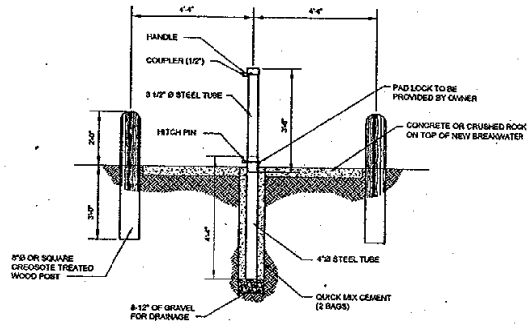
The Flatwater Group, Inc.
1818 L Street
Lincoln, Nebraska 68508
(402) 435-5441
(402) 435-7108

DATE	JUNE 2005
DESIGNED BY	SMD, AJA
DRAWN BY	SMD
CHECKED BY	RJK
PROJECT NUMBER	-
SCALE	AS SHOWN
FILE NAME	-
PLAN SET NUMBER	1
SHEET NUMBER	6 OF 13

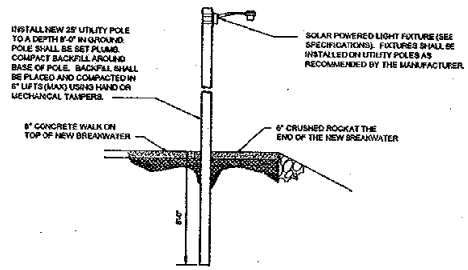
RECEIVED IN FA JUL 20 2005



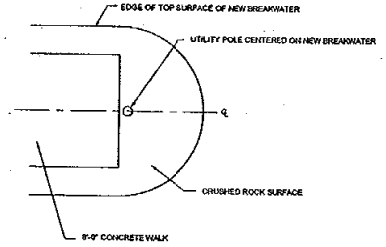
1 TYPICAL CONCRETE WALK DETAIL
NO SCALE



4 TYPICAL LOCKING BOLLARD DETAIL
SCALE: 3/8" = 1'-0"

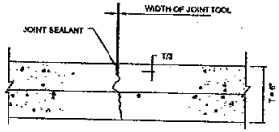


SECTION



PLAN VIEW

5 UTILITY POLE DETAIL
SCALE: 1/4" = 1'-0"

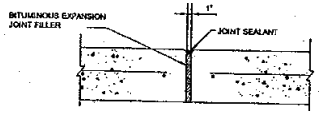


NOTE:

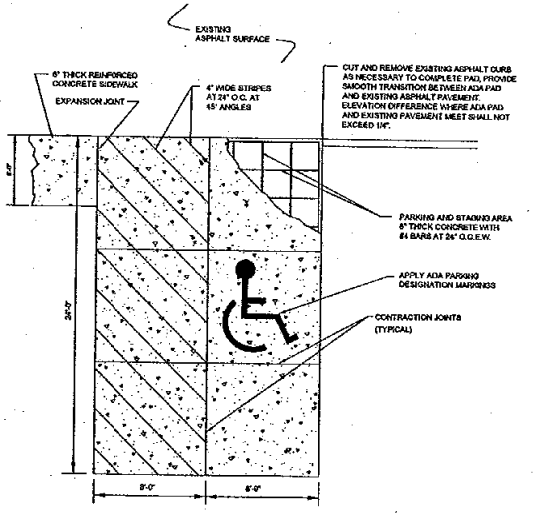
CONTRACTION JOINTS SHALL BE TOOLED.

CONTRACTION JOINTS SHALL BE PLACED AS SHOWN OR NOT MORE THAN 5'-0" SPACING.

2 TYPICAL CONTRACTION JOINT
NO SCALE



3 TYPICAL EXPANSION JOINT
NO SCALE



1% SLOPE TO DRAIN TOWARD LAKE.

PAINT SHALL BE ALKYD-RESIN TRAFFIC PAINT IN LIGHT BLUE OR APPROVED EQUAL.

6 ADA PARKING PAD DETAIL
NO SCALE

REVISIONS			
NO.	DATE	BY	DESCRIPTION
1	1/27/05	SMD	FINAL DESIGN

SEAL: PROFESSIONAL CIVIL ENGINEER — THOMAS E. RILEY E-7137 — STATE OF NEBRASKA

SEAL: PROFESSIONAL CIVIL ENGINEER — RICHARD J. KRUSHENISKY E-9059 — STATE OF NEBRASKA

SHERMAN RESERVOIR SRA
LAKE RESTORATION PROJECT
SHERMAN COUNTY, NEBRASKA

SITE 5 DETAILS

TFG
The Flatwater Group, Inc

The Flatwater Group, Inc.
1618 L Street
Lincoln, Nebraska 68508
(402) 435-5441
(402) 435-7108

DATE	JUNE 2005
DESIGNED BY	SMD, AJA
DRAWN BY	SMD
CHECKED BY	RJK
PROJECT NUMBER	-
SCALE	AS SHOWN
FILE NAME	-
PLAN SET NUMBER	1
SHEET NUMBER	7 OF 13

RECEIVED IN FA JUL 20 2005

EXCAVATE APPROX. 20,000 CY, COORDINATE WITH ENGINEER TO DETERMINE EXTENT AND DEPTH. DESIGNATED BORW LOCATIONS ARE INDICATED ON THE AERIAL PHOTO/SITE MAP (SHEET 2)

SITE 6A: EXCAVATION AREA "6EXC2"

ANTICIPATED DRAWDOWN ELEVATION - 2140.0'

ANTICIPATED WINTER POOL - 2150.0'

CONSTRUCT OFFSHORE BREAKWATER TO A TOP ELEVATION OF 2156.0

SITE 6A: OFFSHORE BREAKWATER "6B"

N 842507.9
E 1949054.7
ELEV 2150.0'

CONSERVATION POOL - 2152.0'

PRIVATE RESIDENCES

EXCAVATE APPROX. 20,000 CY, COORDINATE WITH ENGINEER TO DETERMINE EXTENT AND DEPTH. DESIGNATED BORW LOCATIONS ARE INDICATED ON THE AERIAL PHOTO/SITE MAP (SHEET 2)

SITE 6A: EXCAVATION AREA "6EXC1"

N 842229.8
E 1948771.2
ELEV 2150.0'

N 841977.7
E 1947558.8
ELEV 2162.0'

TYPE B RIPRAP

TYPE B AND TYPE C RIPRAP COMPOSITE

N 841760.9
E 1948365.0
ELEV 2162.0'

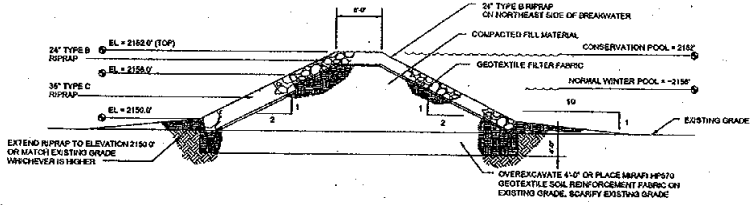
CONSTRUCT BREAKWATER TO A TOP ELEVATION OF 2162.0'

SITE 6A: PERPENDICULAR BREAKWATER "6C"

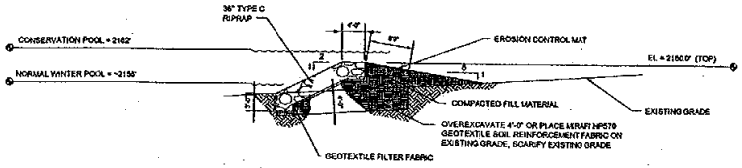
PRIVATE RESIDENCES

SCALE

KEY MAP



1 TYPICAL PERPENDICULAR BREAKWATER SECTION
SCALE: 1" = 10'



2 TYPICAL BREAKWATER SECTION
SCALE: 1" = 10'

NO.	DATE	BY	DESCRIPTION
1	6/23/05	SMD	FINAL DESIGN

REVISIONS

PROFESSIONAL CIVIL ENGINEER THOMAS E. RILEY E-7137 STATE OF NEBRASKA

PROFESSIONAL CIVIL ENGINEER RICHARD J. KRUSHENSKY E-9059 STATE OF NEBRASKA

SHERMAN RESERVOIR SRA
LAKE RESTORATION PROJECT
SHERMAN COUNTY, NEBRASKA

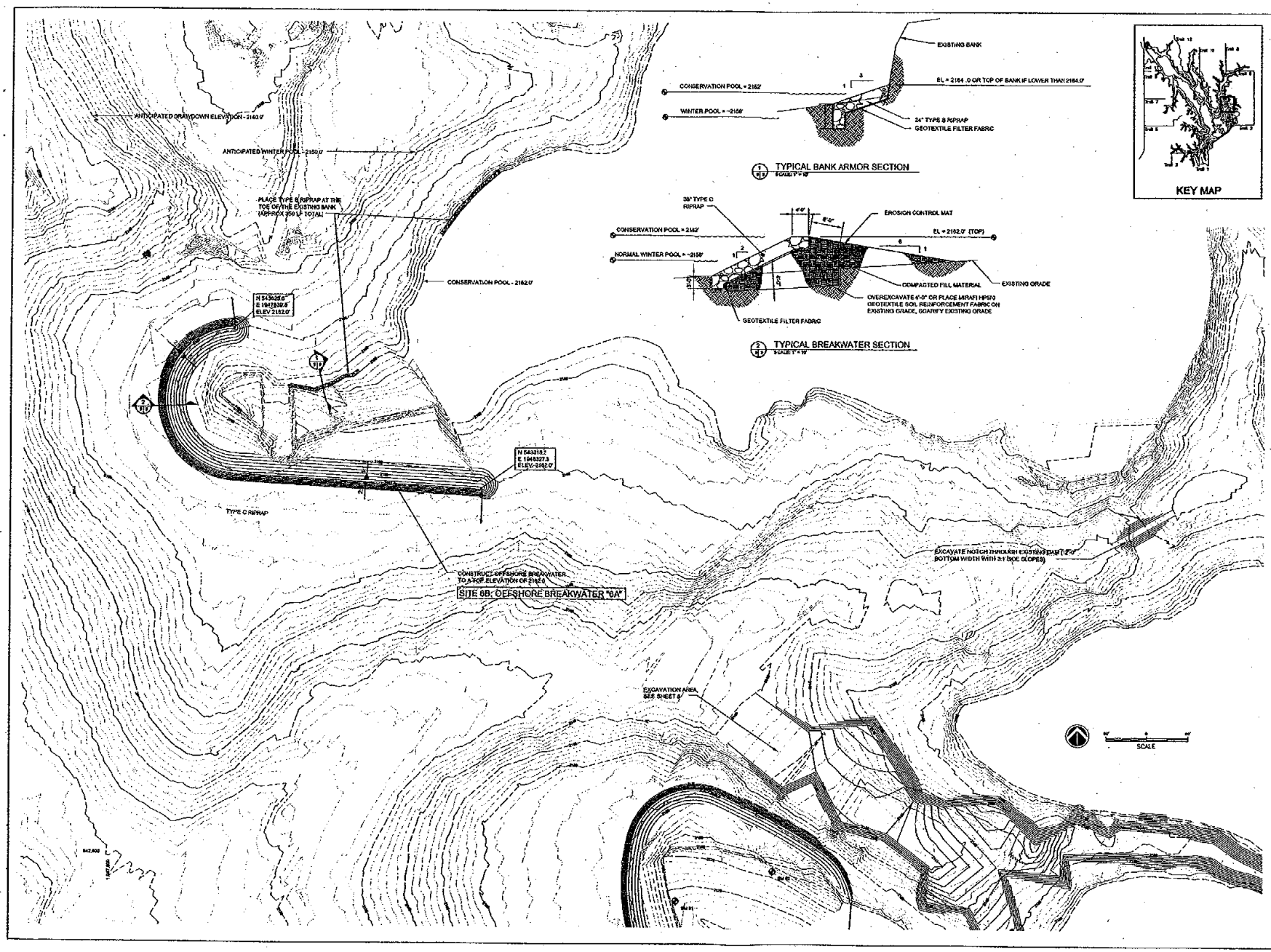
SITE 6A – PARTIAL PLAN AND DETAILS

TFG
The Flatwater Group, Inc

The Flatwater Group, Inc.
1618 L Street
Lincoln, Nebraska 68508
(402) 435-5441
(402) 435-7108

	JUNE 2005
DRAWN BY	SMD, AJA
CHECKED BY	SMD
PROJECT NUMBER	RJK
SCALE	–
FILE NAME	AS SHOWN
PLAN SET NUMBER	–
SHEET NUMBER	1
	6 OF 13

RECEIVED IN FA JUL 20 2005



NO.	DATE	BY	DESCRIPTION
1	6/22/05	SMD	FINAL DESIGN

REVISIONS

SEAL: PROFESSIONAL CIVIL ENGINEER THOMAS E. RILEY E-7137 STATE OF NEBRASKA

SEAL: PROFESSIONAL CIVIL ENGINEER RICHARD J. KRUSHENSKY E-9056 STATE OF NEBRASKA

SHERMAN RESERVOIR SRA
LAKE RESTORATION PROJECT
SHERMAN COUNTY, NEBRASKA

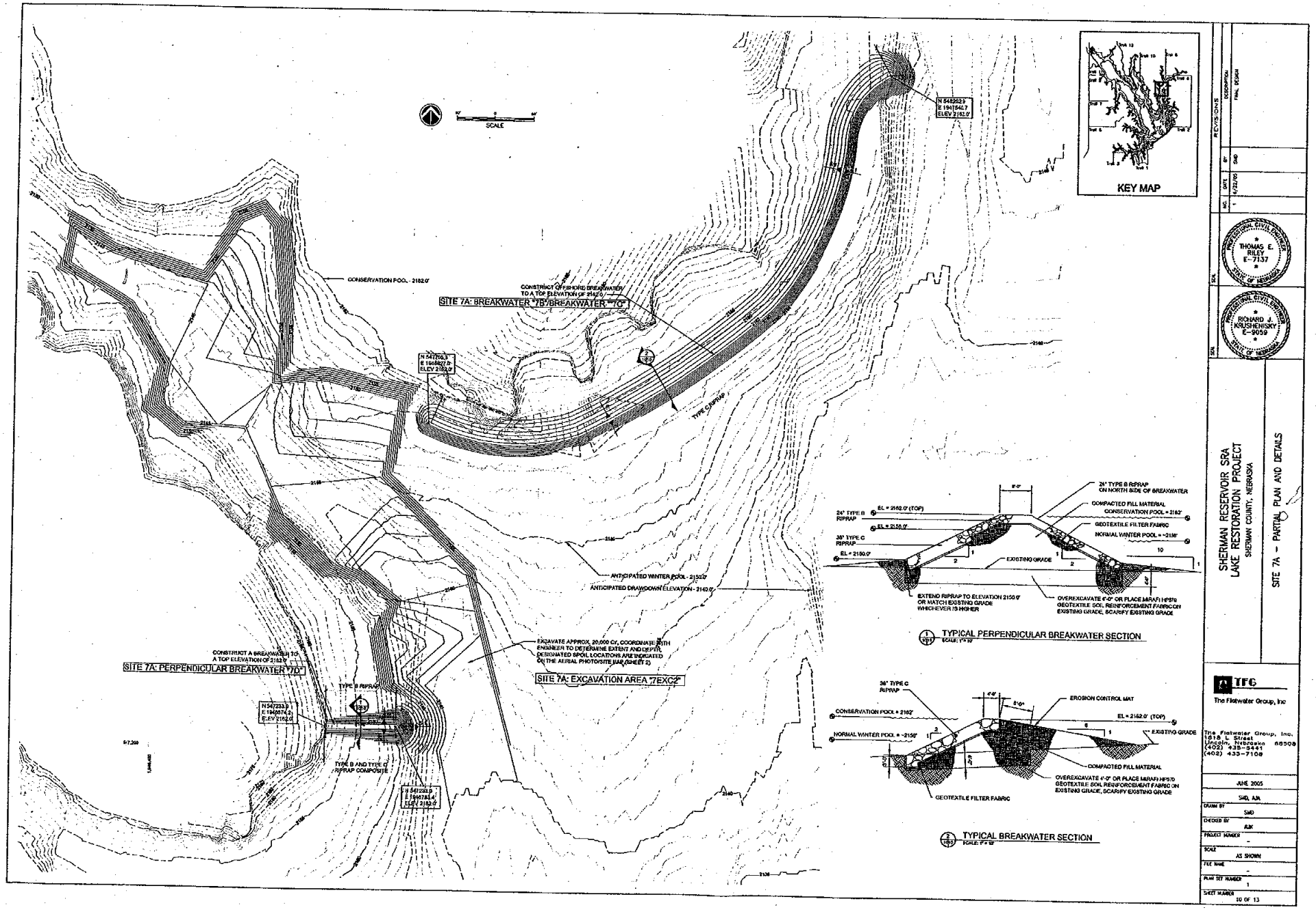
SITE 6B - PARTIAL PLAN AND DETAILS

TFG
The Flatwater Group, Inc

The Flatwater Group, Inc.
1818 L Street
Lincoln, Nebraska 68508
(402) 435-5441
(402) 435-7109

	JUNE 2005
	SMD, AJR
DRAWN BY	SMD
CHECKED BY	RJK
PROJECT NUMBER	-
SCALE	AS SHOWN
FILE NAME	-
PLAN SET NUMBER	1
SHEET NUMBER	9 OF 13

RECEIVED IN FA JUL 20 2005
RECEIVED IN FA JUL 20 2005



NO.	DATE	BY	DESCRIPTION
1	6/22/05	SMD	FINAL DESIGN

REVISIONS

SEAL: PROFESSIONAL CIVIL ENGINEER THOMAS E. RILEY E-7137 STATE OF NEBRASKA

SEAL: PROFESSIONAL CIVIL ENGINEER RICHARD J. KRUSHENISKY E-9059 STATE OF NEBRASKA

SHERMAN RESERVOIR SRA
LAKE RESTORATION PROJECT
SHERMAN COUNTY, NEBRASKA

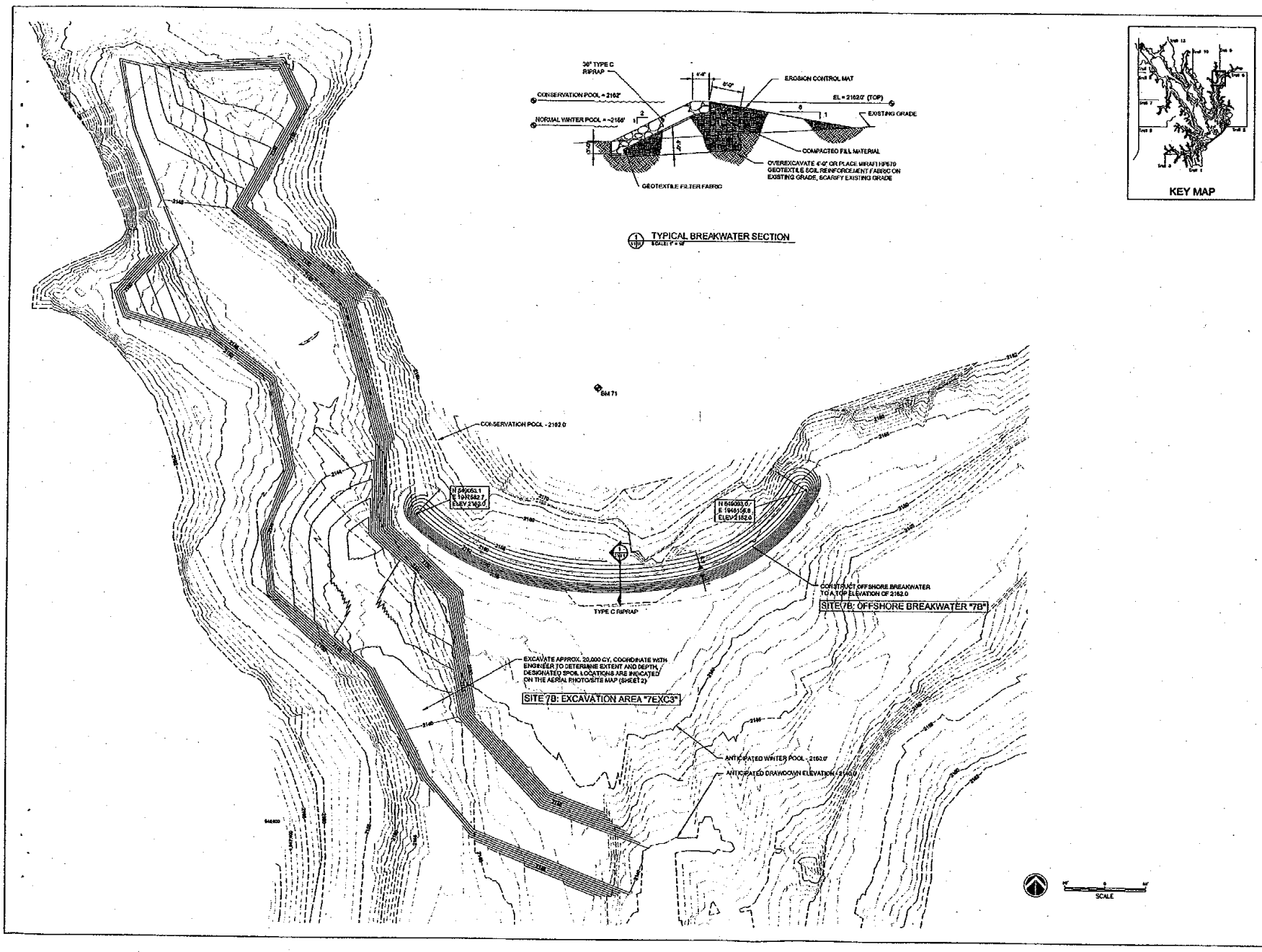
SITE 7A – PARTIAL PLAN AND DETAILS

TFG
The Flatwater Group, Inc

The Flatwater Group, Inc.
1018 L Street
Lincoln, Nebraska 68508
(402) 435-5441
(402) 435-7108

	JUNE 2005
	SMD, AJM
DRAWN BY	SMD
CHECKED BY	RJK
PROJECT NUMBER	-
SCALE	AS SHOWN
FILE NAME	-
PLAN SET NUMBER	1
SHEET NUMBER	10 OF 13

RECEIVED IN FA



REVISIONS			
NO.	DATE	BY	DESCRIPTION
1	6/23/05	SMD	FINAL DESIGN

PROFESSIONAL CIVIL ENGINEER THOMAS E. RILEY E-7137 STATE OF NEBRASKA

PROFESSIONAL CIVIL ENGINEER RICHARD J. KRUSHENSKY E-9059 STATE OF NEBRASKA

SHERMAN RESERVOIR SRA
LAKE RESTORATION PROJECT
SHERMAN COUNTY, NEBRASKA

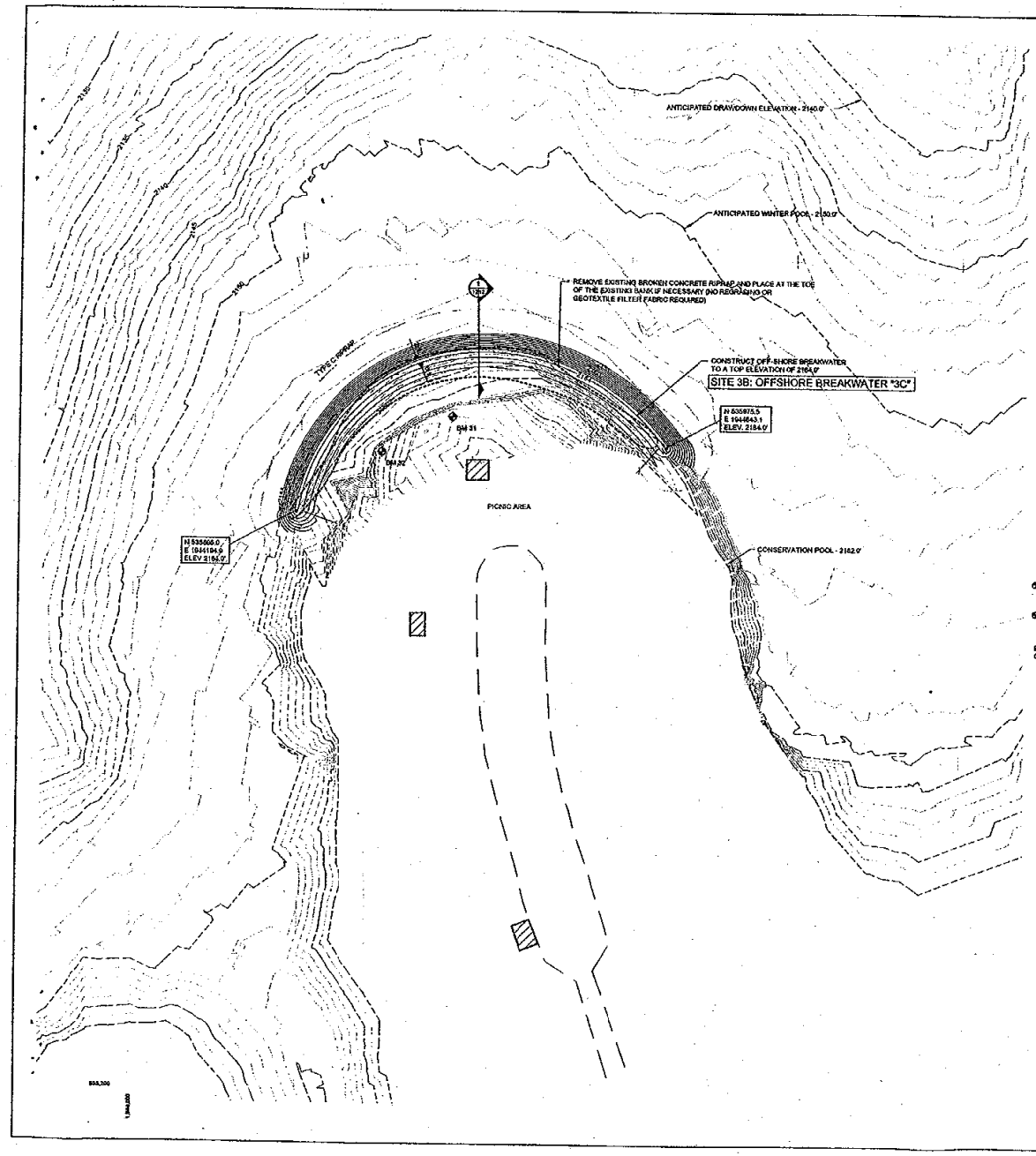
SITE 7B – PARTIAL PLAN AND DETAIL

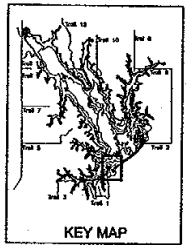
TFG
The Flatwater Group, Inc

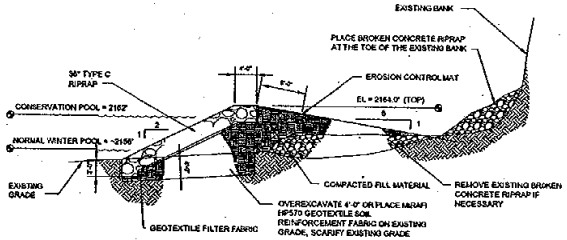
The Flatwater Group, Inc.
1618 L Street
Lincoln, Nebraska 68508
(402) 438-8441
(402) 435-7108

	JUNE 2005
	SMD, AJK
DRAWN BY	SMD
CHECKED BY	RJK
PROJECT NUMBER	–
SCALE	AS SHOWN
FILE NAME	–
PLAN SET NUMBER	1
SHEET NUMBER	11 OF 13

RECEIVED IN FA JUL 20 2005







1 TYPICAL BREAKWATER SECTION
SCALE: 1" = 10'

SCALE

REVISIONS			
NO.	DATE	BY	DESCRIPTION
1	6/22/05	SMD	FINAL DESIGN

PROFESSIONAL CIVIL ENGINEER THOMAS E. RILEY E-7137 STATE OF NEBRASKA

PROFESSIONAL CIVIL ENGINEER RICHARD J. KRUSHENISKY E-9055 STATE OF NEBRASKA

SHERMAN RESERVOIR SRA
LAKE RESTORATION PROJECT
SHERMAN COUNTY, NEBRASKA

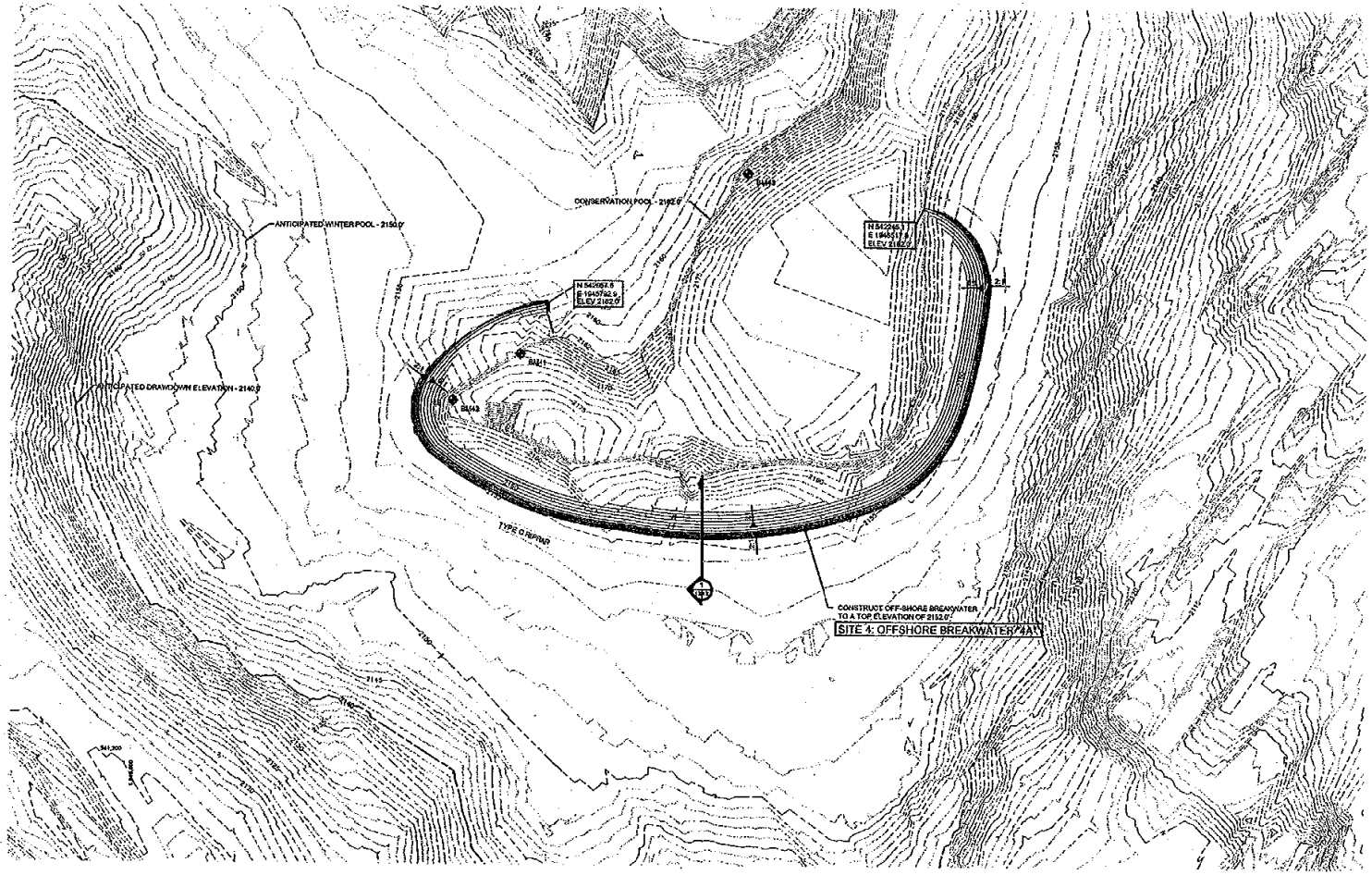
ALTERNATE 1
SITE 3B – PARTIAL PLAN AND DETAIL

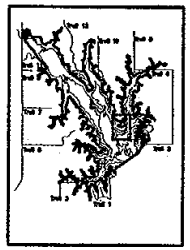
TFG
The Flatwater Group, Inc.

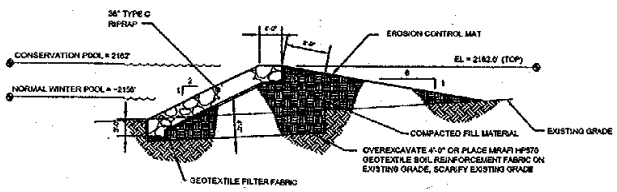
The Flatwater Group, Inc.
1618 L Street
Lincoln, Nebraska 68508
(402) 435-5441
(402) 435-7108

DATE	JUNE 2005
DESIGNED BY	SMD, AJA
DRAWN BY	SMD
CHECKED BY	RJK
PROJECT NUMBER	-
SCALE	AS SHOWN
FILE NAME	-
PLAN SET NUMBER	1
SHEET NUMBER	12 OF 13

RECEIVED IN FA JUL 20 2005







1 TYPICAL BREAKWATER SECTION
SCALE: 1" = 10'

SCALE

NO.	DATE	BY	REVISIONS DESCRIPTION
1	6/22/05	SMD	FINAL DESIGN

SEAL: THOMAS E. RILEY E-7137 — STATE OF NEBRASKA

SEAL: RICHARD A. KRUSHENSKY E-9058 — STATE OF NEBRASKA

SHERMAN RESERVOIR SRA LAKE RESTORATION PROJECT

SHERMAN COUNTY, NEBRASKA

ALTERNATE 2
SITE 4 – PLAN AND DETAIL

TFG
The Flatwater Group, Inc

The Flatwater Group, Inc.
1516 L Street
Lincoln, Nebraska 68508
(402) 435-5441
(402) 435-7108

DATE	JUNE 2005
DESIGNED BY	SMD, AJA
DRAWN BY	SMD
CHECKED BY	RAK
PROJECT NUMBER	-
SCALE	AS SHOWN
FILE NAME	-
PLAN SIZE NUMBER	1
SHEET NUMBER	13 OF 13

RECEIVED IN FA JUL 20 2005