



ELK RAPIDS HYDROELECTRIC PROJECT  
FERC PROJECT NUMBER 3030

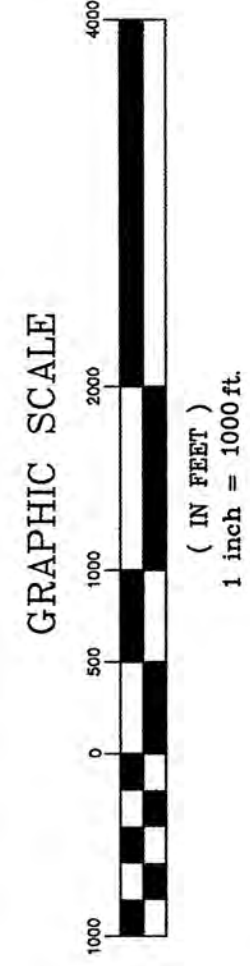
APPLICATION FOR RELICENSURE

NOTICE OF INTENT AND APPLICATION DOCUMENT

Exhibit G Full Size Maps

ANTRIM COUNTY  
BELLAIRE, MICHIGAN

December 21, 2012



**LEGEND**

- STATE HIGHWAY
- VILLAGE OF ELK RAPIDS
- PROJECT BOUNDARY
- SUMMER LEGAL LAKE LEVEL
- 590.80 FEET ELK RAPIDS DAM

ANTRIM COUNTY  
MILTON TOWNSHIP

PROJECT BOUNDARY  
LAT-44°55'11.766"N  
LONG-85°21'40.768"W

ANTRIM COUNTY  
ELK RAPIDS TOWNSHIP  
SEE SHEET 4 FOR  
FEE OWNERSHIP

US-31

GRAND TRAVERSE BAY

PROJECT POWERHOUSE  
SEE EXHIBIT G SHEET 4

END TOP CENTER  
OVER FLOW PIPE  
LAT-44°53'59.275"N  
LONG-85°24'48.441"W

VILLAGE OF ELK RAPIDS

US-31

PROJECT BOUNDARY  
LAT-44°52'43.067"N  
LONG-85°24'12.652"W

ELK LAKE

ANTRIM COUNTY  
ELK RAPIDS TOWNSHIP  
SEE SHEET 4 FOR  
FEE OWNERSHIP

COUNTY LINE  
GRAND TRAVERSE COUNTY  
WHITEWATER TOWNSHIP

MATCH LINE SHEET 1  
MATCH LINE SHEET 2

PROJECT BOUNDARY SUMMER  
LEGAL LAKE LEVEL OF 590.80  
FEET, ELK RAPIDS DAM;  
AS RECORDED IN LIBER 823, PAGE  
149-164 OF SURVEYS, IN ANTRIM  
COUNTY REGISTER OF DEEDS

THIS MAP IS PROJECTED ON THE MICHIGAN STATE  
PLANE GRID, CENTRAL ZONE (FEET).

DATUM: ELK RAPIDS DAM  
NAVD 88 = ELK RAPIDS DAM - 1.7 FEET

I HEREBY CERTIFY THAT THE PROJECT BOUNDARY  
DELINEATED FOR THE ELK RAPIDS HYDROELECTRIC  
PROJECT WAS CREATED WITHIN AS REQUIRED IN  
18CFR4.41 BASED ON MEASUREMENTS TAKEN ON THE  
GROUND NEAR THE POWERHOUSE AND PUBLISHED  
DATA FROM THE STATE OF MICHIGAN(MGDL 2011).

*William P. Mitchell*

William P. Mitchell  
Professional Surveyor No. 57370



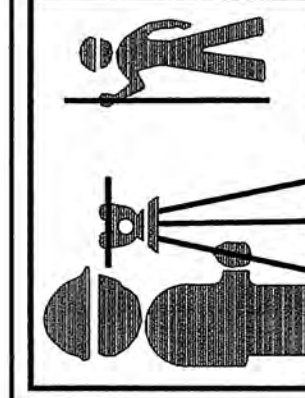
ELK RAPIDS HYDROELECTRIC PROJECT  
FERC PROJECT NUMBER 3030  
SCALE 1 INCH = 1000 FEET

**EXHIBIT G**

GRAPHIC SCALE



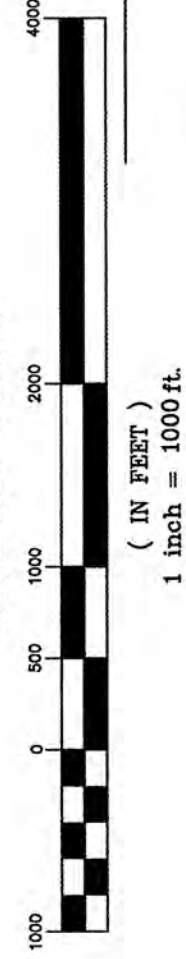
DATE: 11-23-11	EXHIBIT "G"	DESCRIPTION:
DATE: 12-5-11	EXHIBIT "G"	SHEET 1 REVISED
DATE: 3-26-12	EXHIBIT "G"	SHEET 1 REVISED
FILE NO:	20110246	
DWG. NAME:	SHEET1	
SCALE:	AS NOTED	
DWN. WPM	CHK. JEM	
DATE:	3-26-12	



**BOB MITCHELL & ASSOCIATES**  
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 Toll Free 1-800-533-6827 E-Mail: [WM@bobmitchell.com](mailto:WM@bobmitchell.com)

PROJECT:  
ELK RAPIDS  
HYDROELECTRIC  
PROJECT FERC  
PROJECT NUMBER 3030  
SHEET: EXHIBIT G

GRAPHIC SCALE



( IN FEET )  
1 inch = 1000 ft.

LEGEND

STATE HIGHWAY

PROJECT BOUNDARY  
SUMMER LEGAL LAKE LEVEL  
590.80 FEET ELK RAPIDS DAM



GRAND TRAVERSE COUNTY  
WHITEWATER TOWNSHIP

PROJECT BOUNDARY SUMMER  
LEGAL LAKE LEVEL OF 590.80  
FEET, ELK RAPIDS DAM;  
AS RECORDED IN LIBER 823, PAGE  
149-164 OF SURVEYS IN ANTRIM  
COUNTY REGISTER OF DEEDS

PROJECT BOUNDARY  
LAT -44°48'46.923"N  
LONG -85°23'12.005"W

PROJECT BOUNDARY  
LAT -44°47'51.410"N  
LONG -85°22'50.492"W

ANTRIM COUNTY  
MILTON TOWNSHIP

PROJECT BOUNDARY  
LAT -44°50'33.659"N  
LONG -85°21'49.090"W

MATCH LINE SHEET 2  
MATCH LINE SHEET 3

MATCH LINE SHEET 1  
MATCH LINE SHEET 2

THIS MAP IS PROJECTED ON THE MICHIGAN STATE  
PLANE GRID, CENTRAL ZONE (FEET).

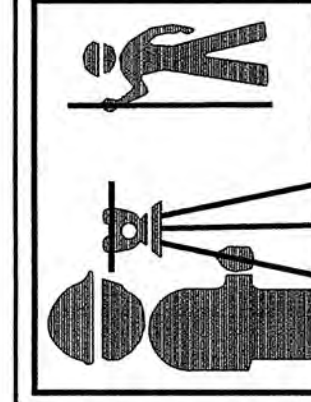
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William P. Mitchell  
Professional Surveyor No. 57370



DATE:	3-26-12	EXHIBIT:	G	SHEET:	2	OF	4
FILE NO.	20110246						
DWG. NAME	SHEET 1						
SCALE:	AS NOTED						
DWN. WPM	CHK.	JEM					
DATE	3-26-12						



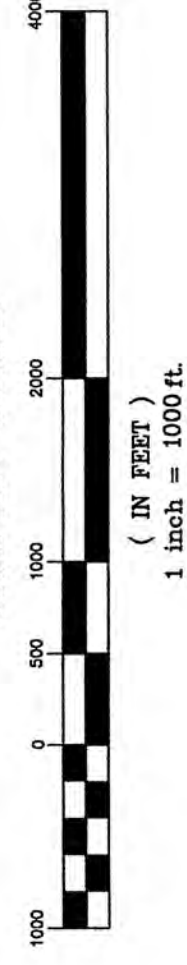
**BOB MITCHELL & ASSOCIATES**  
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 (231) 263-5443  
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 Toll Free 1-800-533-6827 E-mail: WM@mapchillsurvey.com

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 ELK RAPIDS  
 HYDROELECTRIC  
 PROJECT FERC  
 NUMBER 3030  
 SHEET: EXHIBIT G

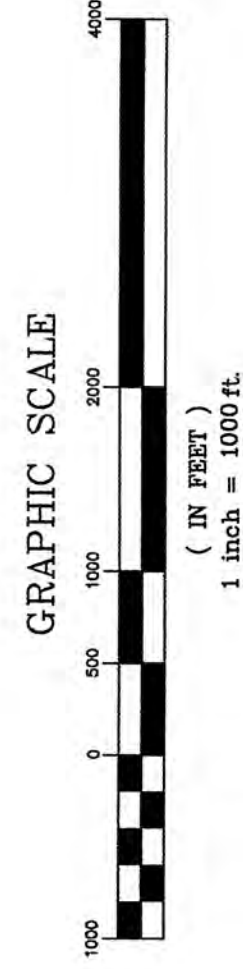
ELK RAPIDS HYDROELECTRIC PROJECT  
FERC PROJECT NUMBER 3030  
SCALE 1 INCH = 1000 FEET

EXHIBIT G

GRAPHIC SCALE



( IN FEET )  
1 inch = 1000 ft.



**LEGEND**  
 STATE HIGHWAY  
 PROJECT BOUNDARY  
 SUMMER LEGAL LAKE LEVEL  
 590.80 FEET ELK RAPIDS DAM

KALKASKA COUNTY  
 CLEARWATER TOWNSHIP

PROJECT BOUNDARY SUMMER  
 LEGAL LAKE LEVEL OF 590.80  
 FEET, ELK RAPIDS DAM;  
 AS RECORDED IN LIBER 823, PAGE  
 149-164 OF SURVEYS, IN ANTRIM  
 COUNTY REGISTER OF DEEDS

PROJECT BOUNDARY  
 LAT-44°47'27.349"N  
 LONG-85°17'43.591"W

PROJECT BOUNDARY  
 LAT-44°47'33.273"N  
 LONG-85°19'9.687"W

KALKASKA COUNTY  
 CLEARWATER TOWNSHIP

M-72

PROJECT BOUNDARY  
 LAT-44°50'3.318"N  
 LONG-85°20'29.872"W

ANTRIM COUNTY  
 MILTON TOWNSHIP

LAKE  
 SKEGEMOG

GRAND TRAVERSE COUNTY  
 WHITEWATER TOWNSHIP

COUNTY LINE

MATCH LINE SHEET 2  
 MATCH LINE SHEET 3

THIS MAP IS PROJECTED ON THE MICHIGAN STATE  
 PLANE GRID, CENTRAL ZONE (FEET).

DATUM: ELK RAPIDS DAM  
 NAVD 88 = ELK RAPIDS DAM - 1.7 FEET

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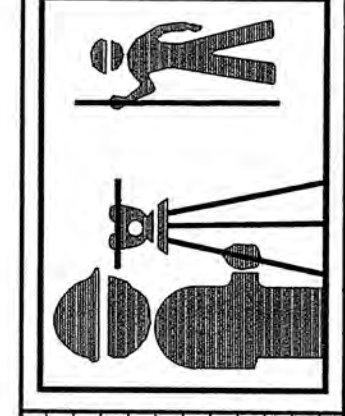


ELK RAPIDS HYDROELECTRIC PROJECT  
 FERC PROJECT NUMBER 3030  
 SCALE 1 INCH = 1000 FEET

**EXHIBIT G**  
 GRAPHIC SCALE  
 ( IN FEET )  
 1 inch = 1000 ft.

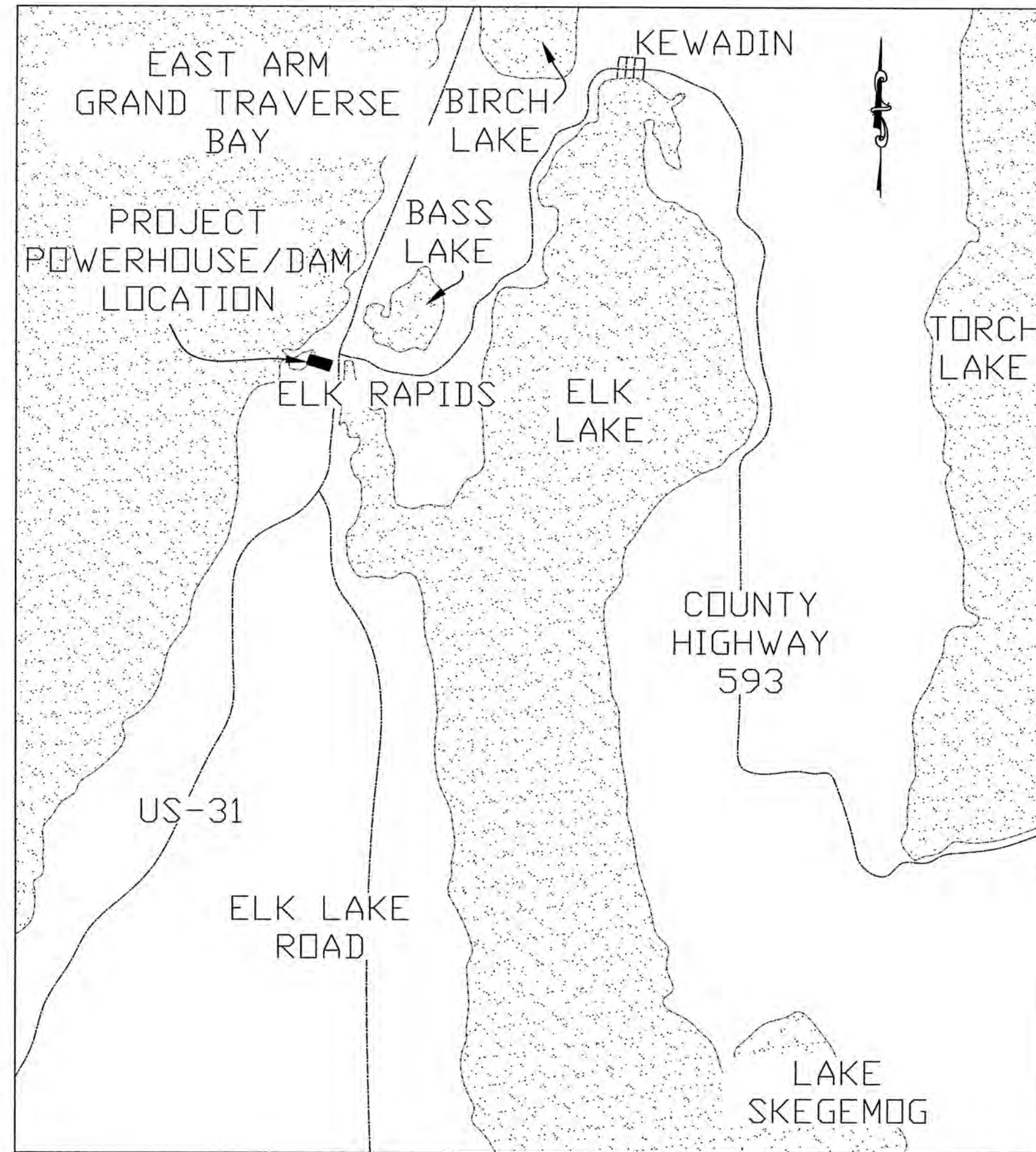


DATE:	3-26-12	EXHIBIT "G" SHEET "3"
DESCRIPTION:		
FILE NO.	20110246	
DWG. NAME	SHEET1	
SCALE:	AS NOTED	
DWN. WPM	CHK.	JEM
DATE	3-26-12	
<b>3</b> OF <b>4</b>		



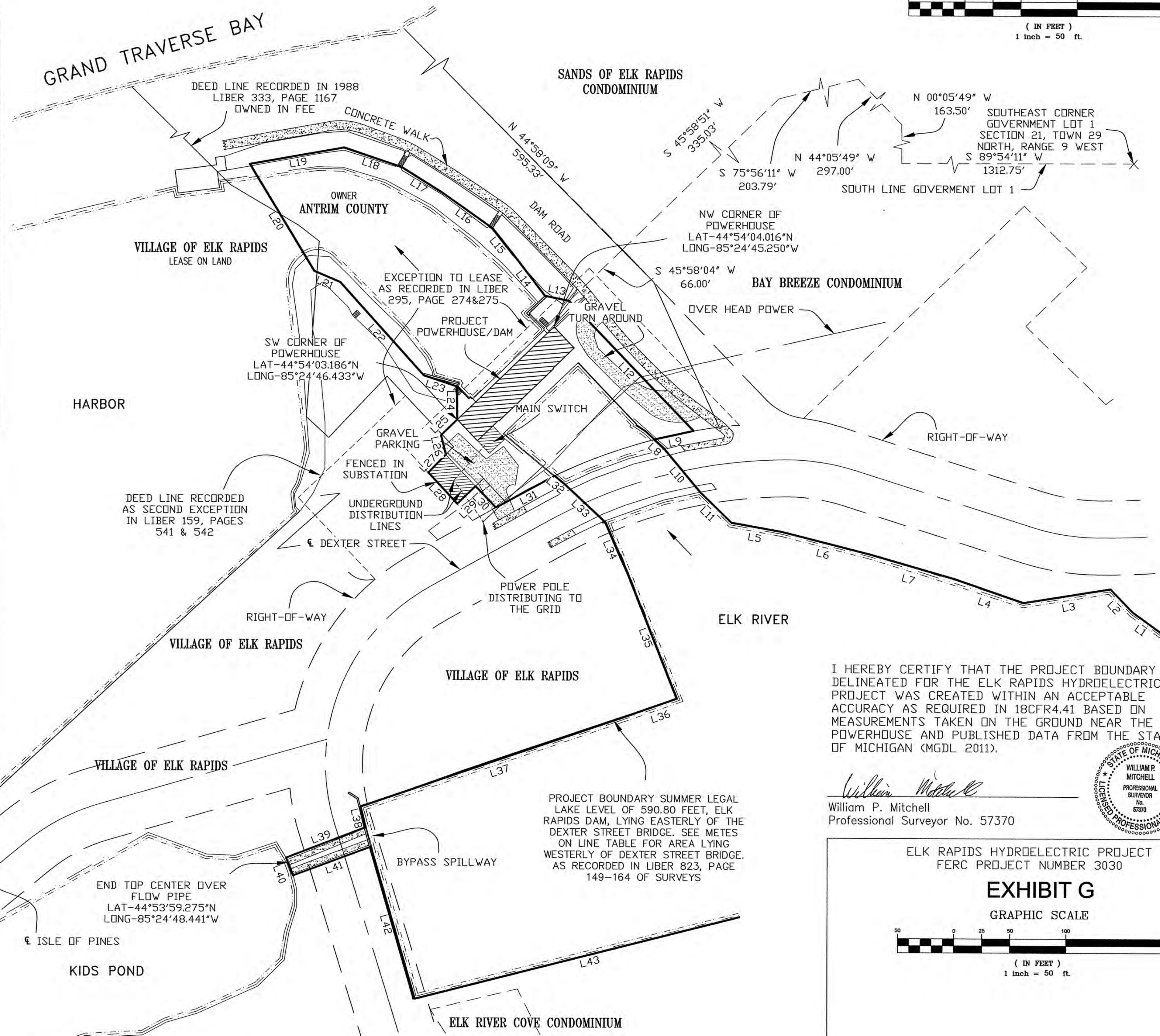
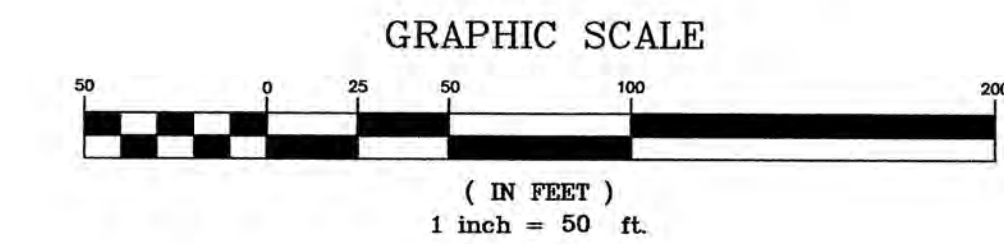
**BOB MITCHELL & ASSOCIATES**  
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 PROJECT  
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 SHEET: EXHIBIT G



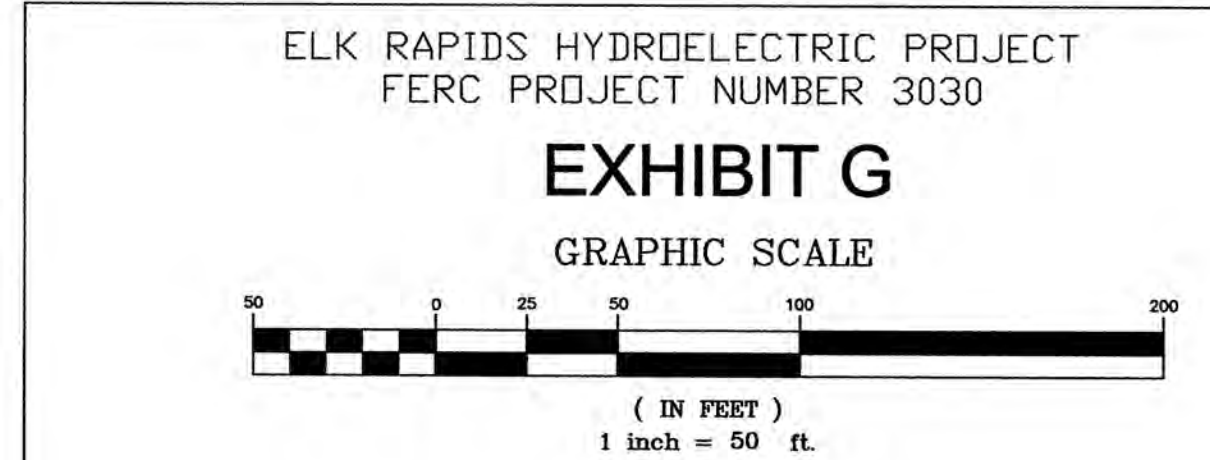
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 DATUM: ELK RAPIDS DAM  
 NAVD 88 = ELK RAPIDS DAM - 1.7 FEET

**Legend**  
 — PROJECT BOUNDARY  
 - - - LEASE LINES  
 - - - PROPERTY LINES  
 - - - ANTRIM COUNTY FEE OWNERSHIP  
 - - - ROAD RIGHT-OF-WAY  
 - - - EDGE OF WATER



I HEREBY CERTIFY THAT THE PROJECT BOUNDARY DELINEATED FOR THE ELK RAPIDS HYDROELECTRIC PROJECT WAS CREATED WITHIN AN ACCEPTABLE ACCURACY AS REQUIRED IN 18CFR4.41 BASED ON MEASUREMENTS TAKEN ON THE GROUND NEAR THE POWERHOUSE AND PUBLISHED DATA FROM THE STATE OF MICHIGAN (MGDL 2011).

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 William P. Mitchell  
 Professional Surveyor No. 57370



LINE TABLE					
LINE	LENGTH	BEARING	LINE	LENGTH	BEARING
L1	30.48	N54°19'46"W	L23	31.09	S71°41'14"E
L2	28.44	N44°09'34"W	L24	29.69	S00°49'47"E
L3	78.63	S80°54'52"W	L25	19.94	S46°06'39"W
L4	64.64	N71°03'30"W	L26	17.82	S13°47'06"E
L5	46.37	N79°55'52"W	L27	22.26	S44°18'32"W
L6	80.31	N75°49'16"W	L28	37.89	S42°55'35"E
L7	78.80	N73°59'06"W	L29	22.67	N46°09'10"E
L8	12.74	N47°46'23"W	L30	26.35	S43°59'23"E
L9	36.14	N77°33'58"E	L31	59.62	N61°36'43"E
L10	49.59	N39°54'23"W	L32	12.03	S50°37'06"E
L11	38.91	N45°56'49"W	L33	49.53	S47°12'35"E
L12	160.22	S44°01'56"E	L34	48.01	S23°43'45"E
L13	22.07	N78°26'34"W	L35	121.10	S21°38'52"E
L14	46.84	N37°41'44"W	L36	40.74	S70°34'21"W
L15	29.38	N38°54'42"W	L37	257.98	S71°08'00"W
L16	53.92	N55°00'19"W	L38	18.98	S14°03'25"E
L17	43.58	N57°57'26"W	L39	76.07	S68°58'21"W
L18	54.39	N71°32'51"W	L40	16.86	S21°18'43"E
L19	85.46	S80°00'58"W	L41	74.16	N69°43'54"E
L20	111.18	S31°18'57"E	L42	140.68	S16°15'20"E
L21	25.21	S66°58'59"E	L43	319.97	N75°45'08"E
L22	111.32	S42°14'33"E			

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 FILE NO. 20110246  
 DWG. NAME SHEET 4  
 SCALE: AS NOTED  
 DWN. WPM CHK. JEM  
 DATE 3-26-12  
 4 OF 4