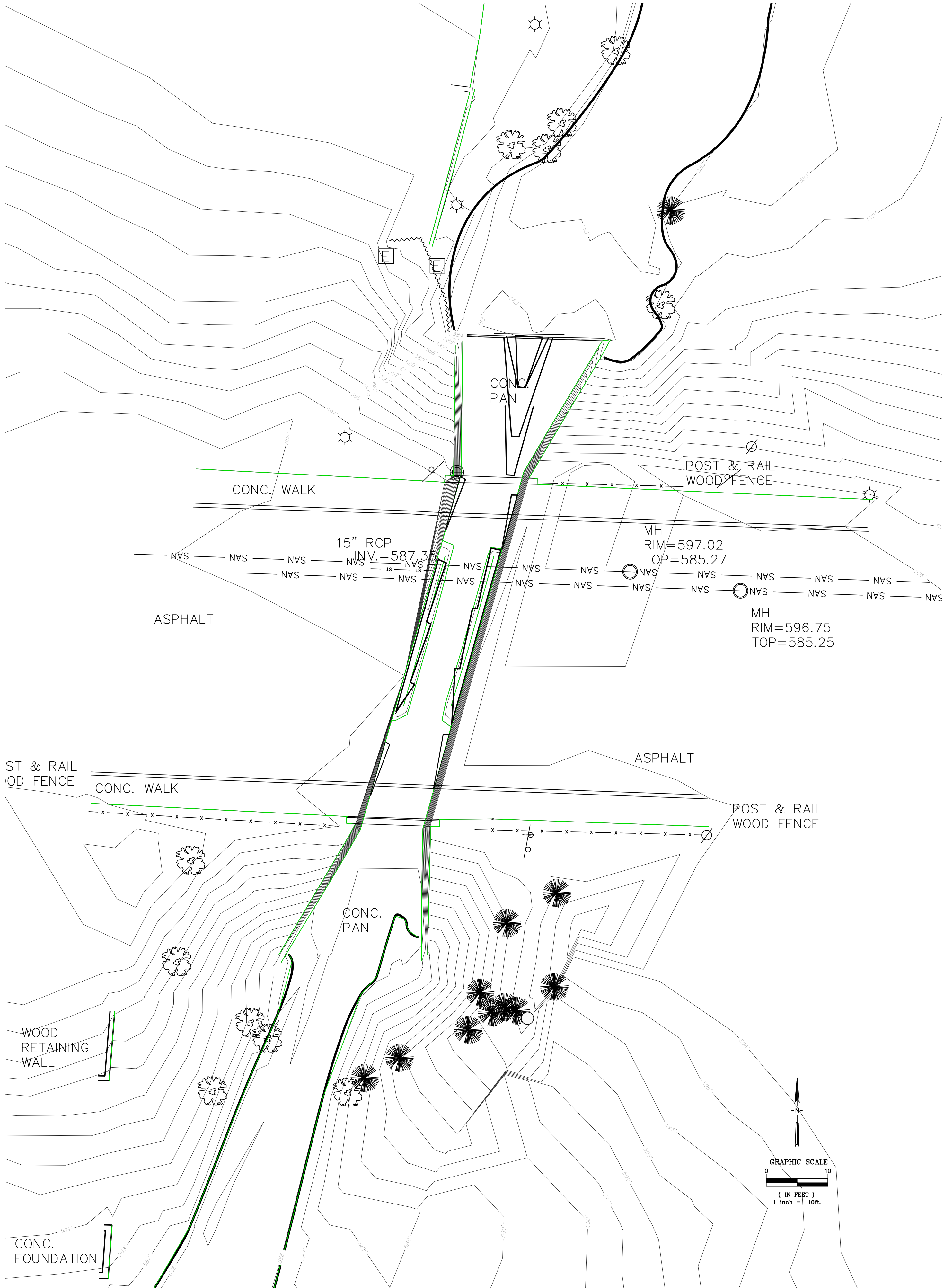


STH 42 BOX CULVERT CONVERGING BAFFLES



CONVERGING BAFFLES DESIGN FEATURES
ALLOWS FISH PASSAGE THROUGH THE BOX CULVERT BY ALTERING THE DOWNSTREAM APRON AND CREATING CURRENT BREAKS WITHIN THE CULVERT. ALTERATIONS OF THE DOWNSTREAM APRON CONSIST OF CUTTING A TRENCH THROUGH THE APRON AND REPLACING THIS SECTION WITH THREE ELONGATED 6" STEPS. CONVERGING BAFFLES WILL BE CUT OUT OF THE EXISTING CONCRETE 'CURBS' ALONG THE INTERIOR OF THE BOX CULVERT WITH THE ADDITION OF APPROXIMATELY FOUR WOODEN BAFFLES ON THE DOWNSTREAM AND UPSTREAM END OF THE BOX CULVERT.



PRELIMINARY

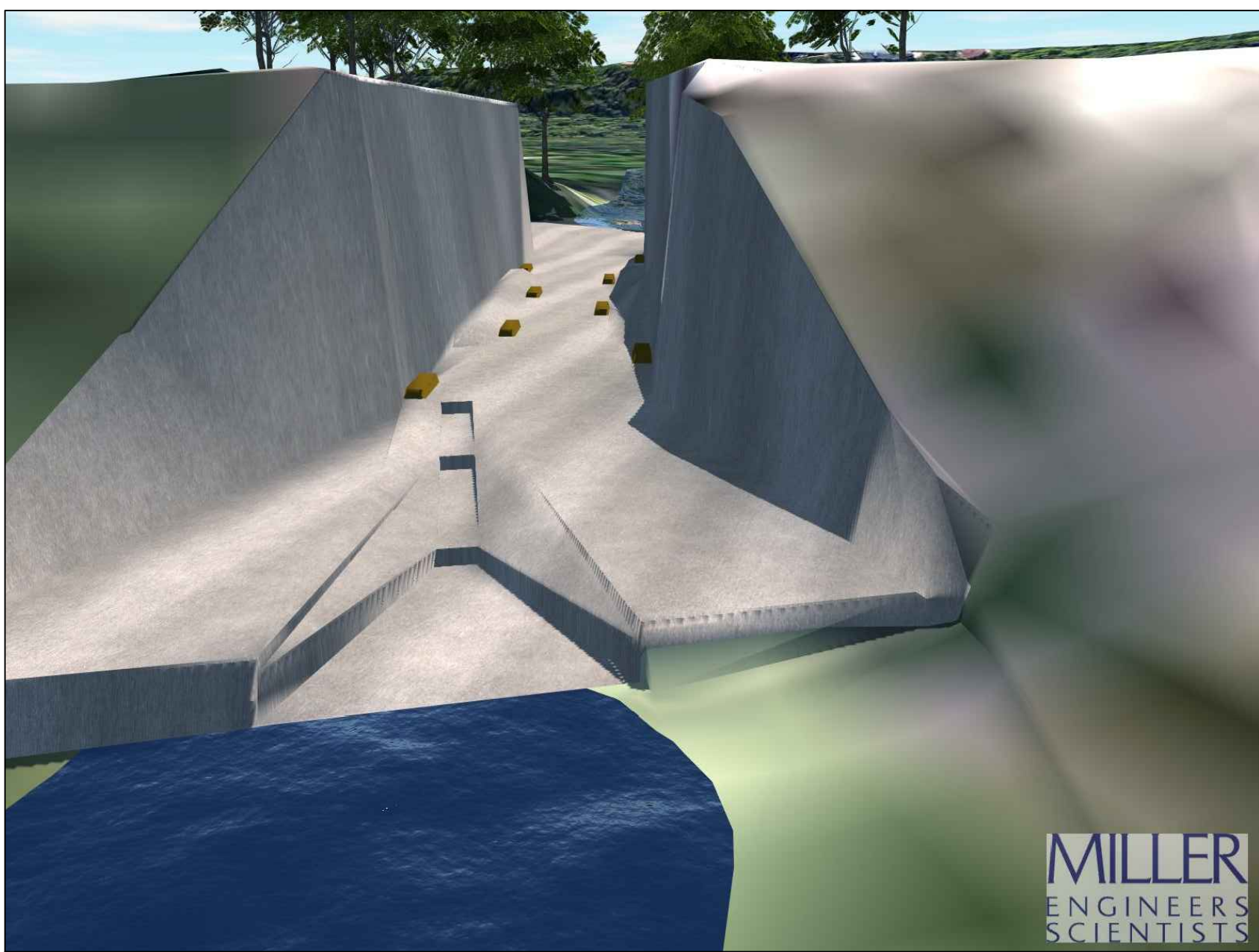
STH 42 BOX CULVERT - CONVERGING BAFFLES

NO.	DATE	DESCRIPTION	BY

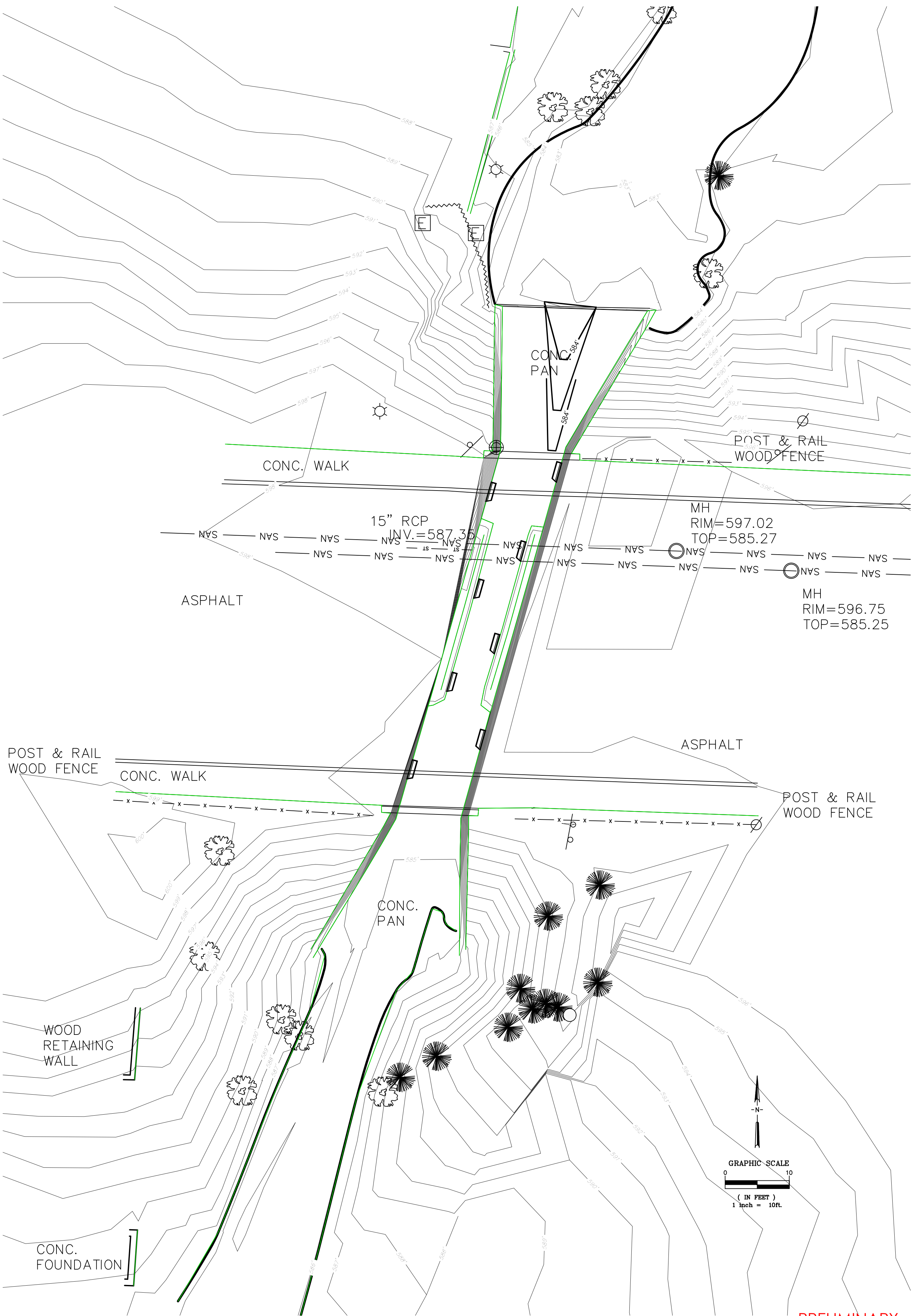
FISH CREEK FISH PASSAGE TOWN OF GIBRALTAR HWY 42, FISH CREEK DOOR COUNTY, WISCONSIN
--

SCALE HOR. 1"=10' VER. 1"=10'
DATE 05/07/2019
JOB 20435-C
BY EAS
CK RGM
SHEET 1 OF 1

STH 42 BOX CULVERT BLOCK BAFFLES



CONVERGING BAFFLES DESIGN FEATURES
ALLOWS FISH PASSAGE THROUGH THE BOX CULVERT BY ALTERING THE DOWNSTREAM APRON AND PLACING BAFFLES WITHIN THE CULVERT. ALTERATIONS OF THE DOWNSTREAM APRON CONSIST OF CUTTING A TRENCH THROUGH THE APRON AND REPLACING THIS SECTION WITH THREE ELONGATED 6" STEPS. ALTERNATING TIMBER BAFFLES WILL BE INSTALLED WITHIN THE INTERIOR OF THE BOX CULVERT TO PROVIDE CURRENT BREAKS AND FISH "RESTING AREAS". A TOTAL OF EIGHT BAFFLES (FOUR ON EACH SIDE) ARE PROPOSED.



PRELIMINARY

STH 42 BOX CULVERT - BLOCK BAFFLE

5308 S. 12th Street
Sheboygan, WI 53081-8099
Phone: (920) 458-8144
Fax: (920) 458-0369
www.stanwillmiller.com

MILLER
ENGINEERS
SCIENTISTS
Designing in Harmony with the Environment

NO.	DATE	DESCRIPTION	BY

FISH CREEK FISH PASSAGE
TOWN OF GIBRALTAR
HWY 42, FISH CREEK
DOOR COUNTY, WISCONSIN

SCALE
HOR. 1"=10'
VER. 1"=10'

DATE
05/07/2019

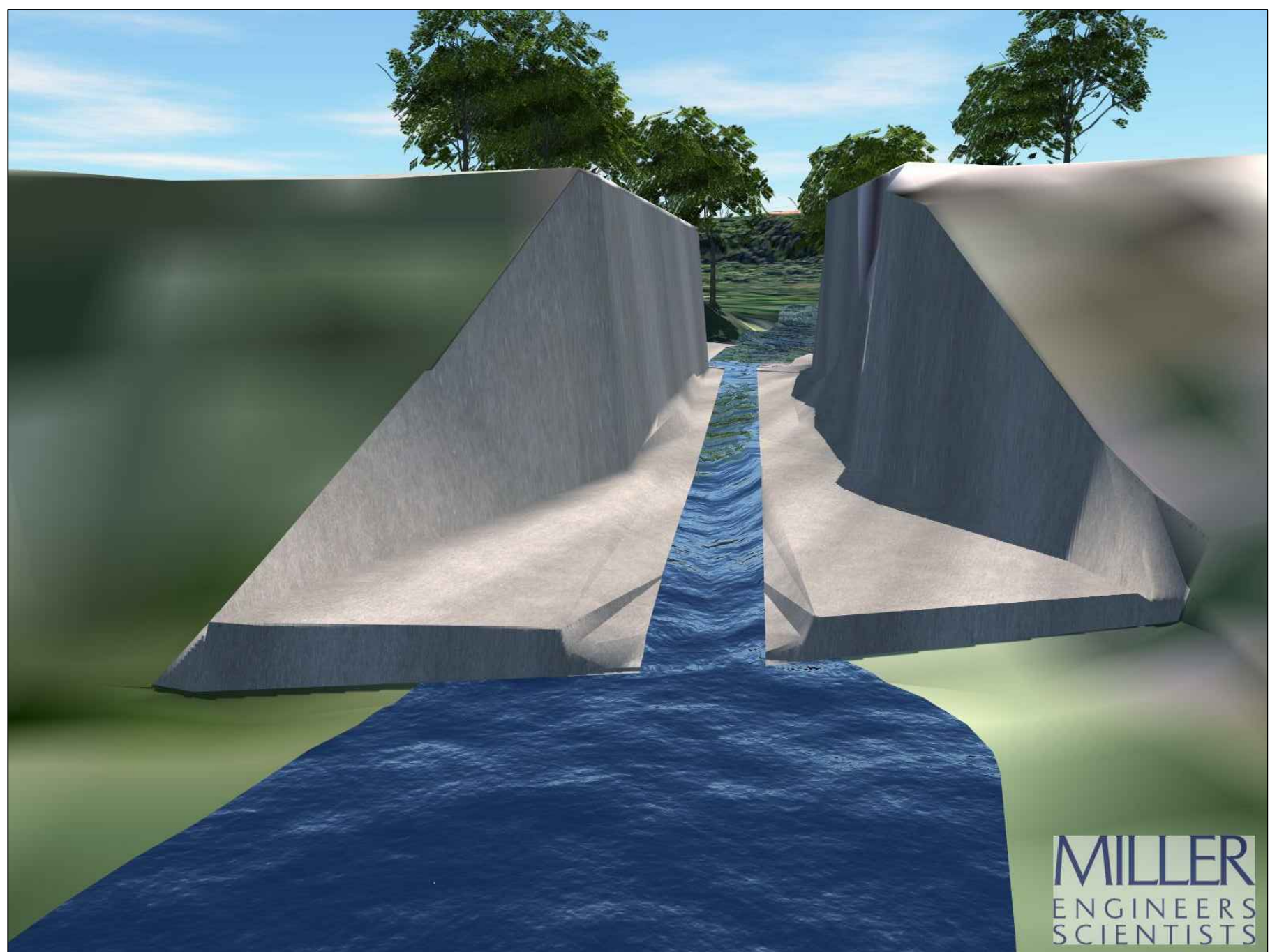
JOB
20435-C

BY
EAS

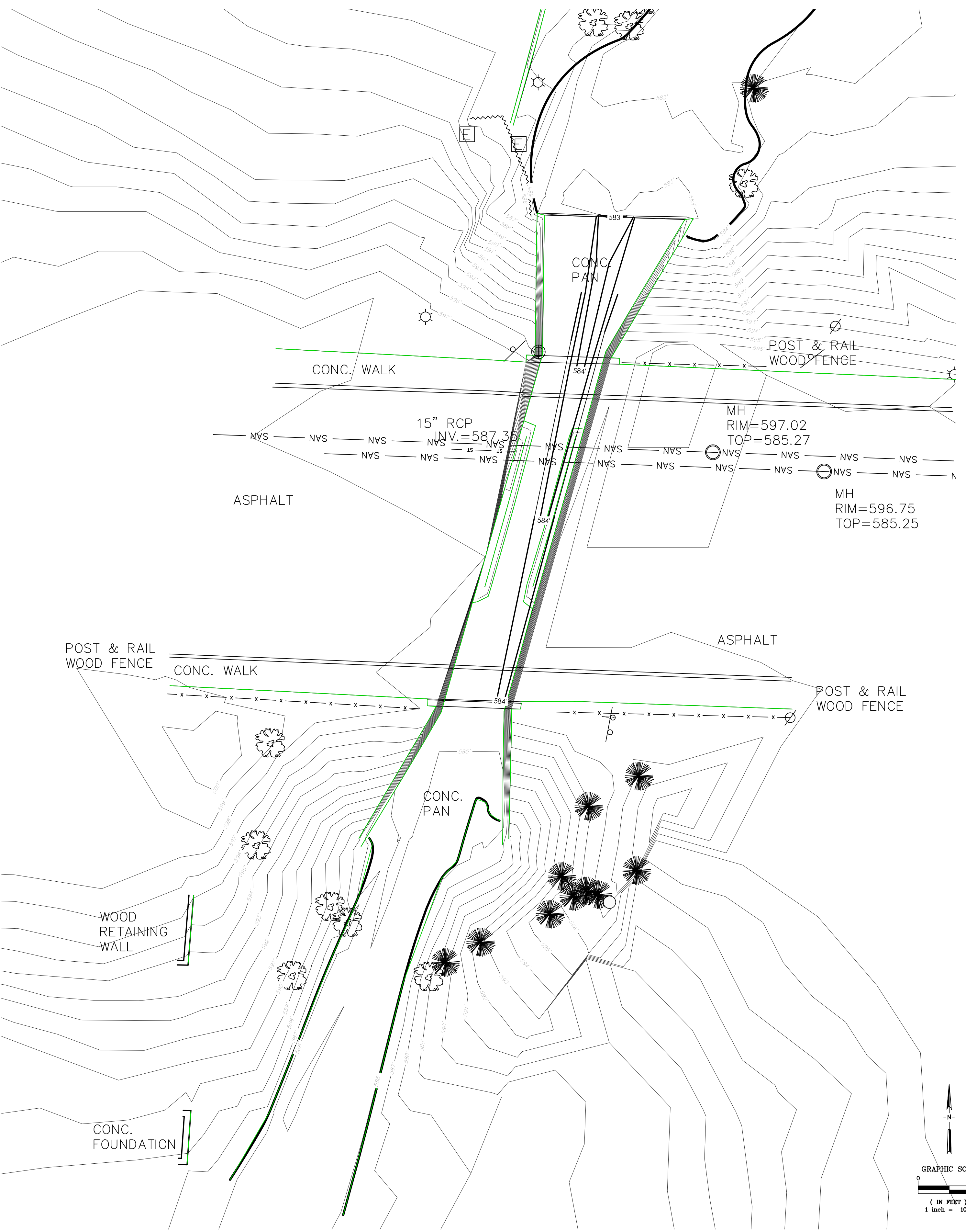
CK
RGM

SHEET
1
OF
1

STH 42 BOX CULVERT CHANNEL CUT



CHANNEL CUT DESIGN FEATURES
ALLOWS FISH PASSAGE BY ALTERING THE DOWNSTREAM APRON AND INTERIOR OF THE BOX CULVERT. ALTERATIONS CONSIST OF REMOVING CONCRETE FROM THE DOWNSTREAM APRON THROUGH THE BOX CULVERT AND REPLACING WITH A CONSTANT SLOPED CONCRETE CHANNEL.



PRELIMINARY

STH 42 BOX CULVERT - CHANNEL CUT

5308 S. 12th Street
Sheboygan, WI 53081-8099
Phone: (920) 458-8144
Fax: (920) 458-0369
www.starwillmiller.com

MILLER

ENGINEERS
SCIENTISTS

Designing in Harmony with the Environment

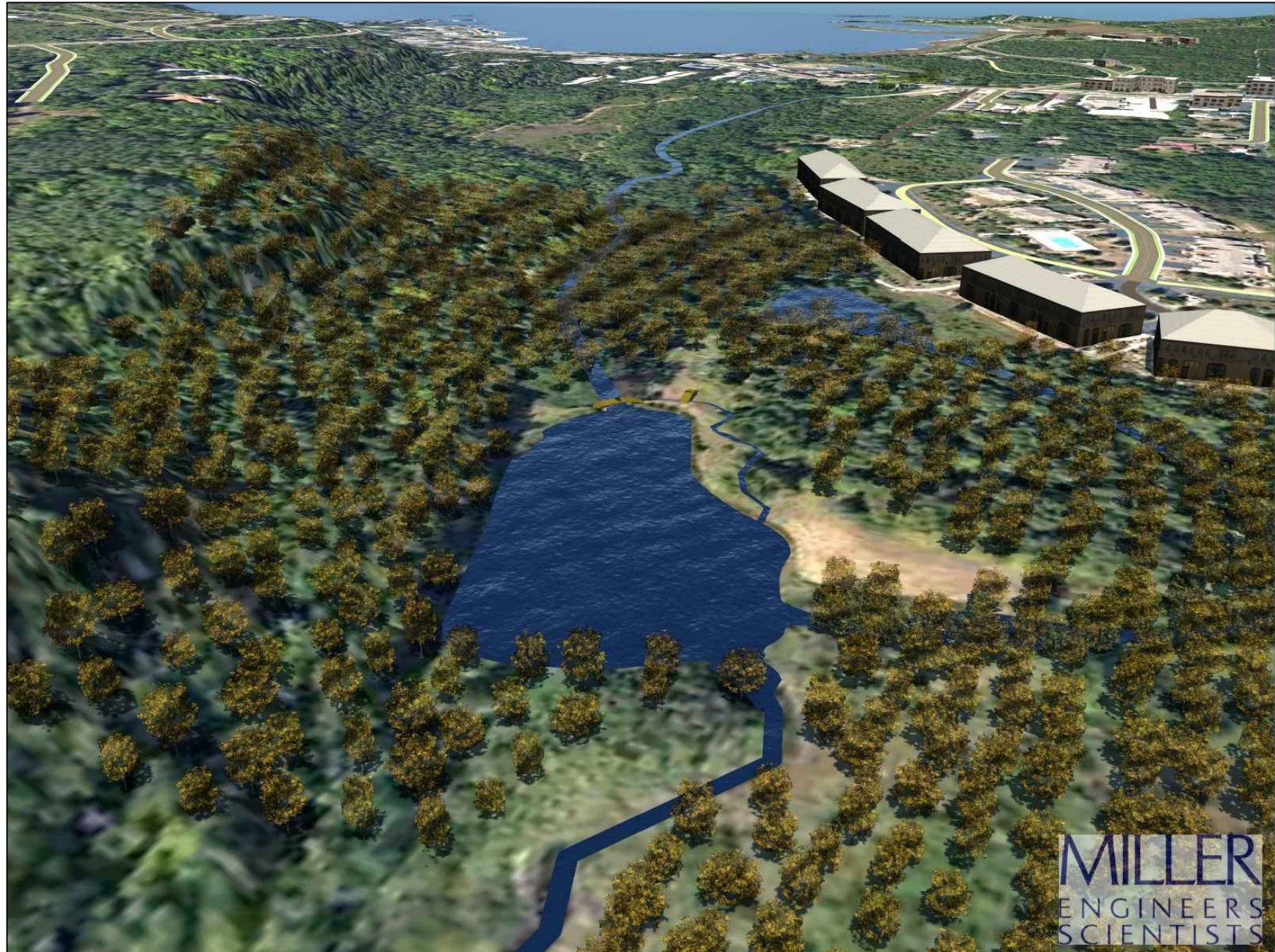
NO.	DATE	DESCRIPTION	BY

FISH CREEK FISH PASSAGE
TOWN OF GIBALTAR
HWY 42, FISH CREEK
DOOR COUNTY, WISCONSIN

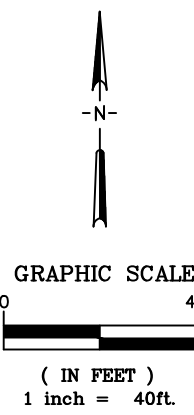
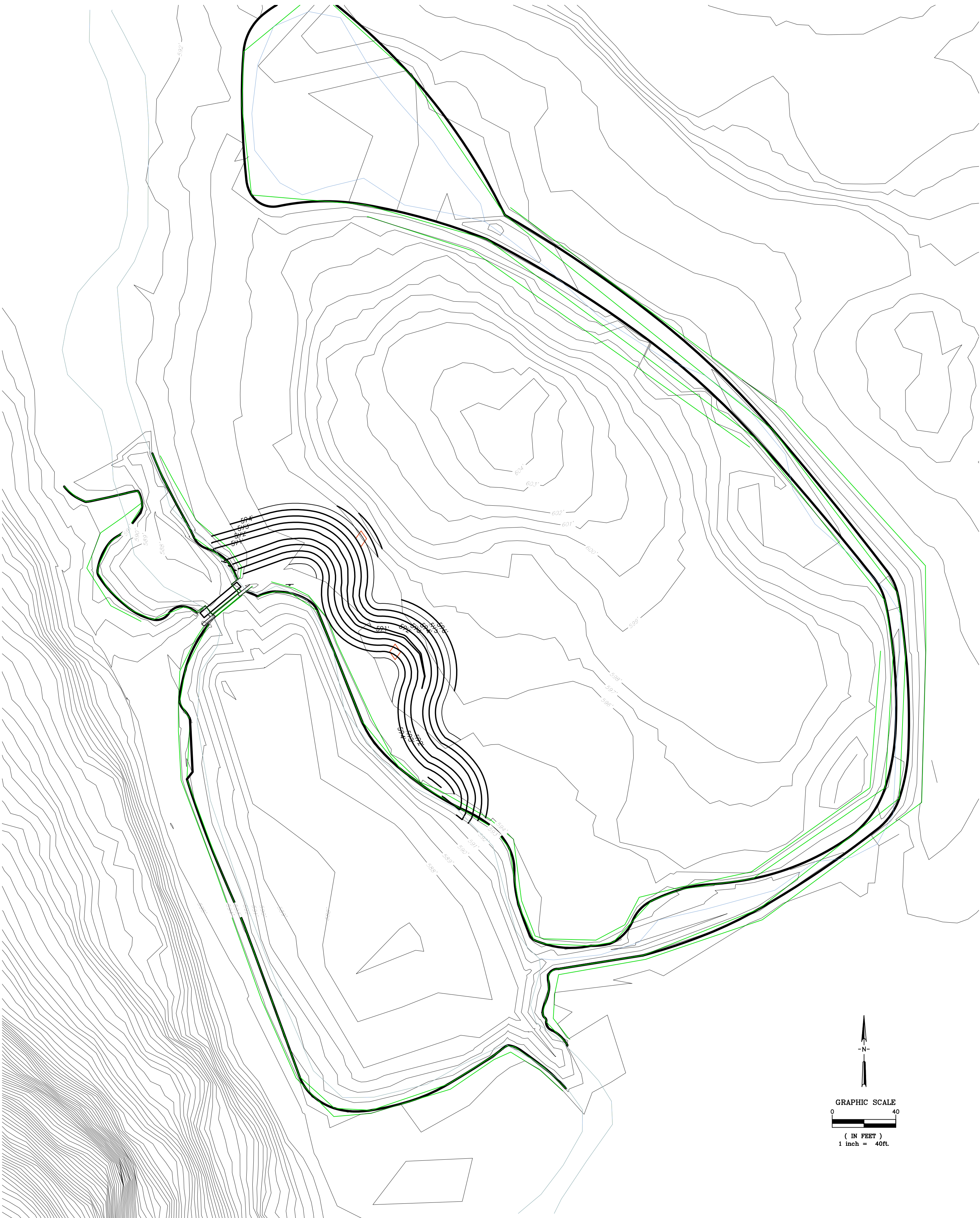
SCALE
HOR. 1"=10'
VER. 1"=10'
DATE
05/07/2019
JOB
20435-C
BY
EAS
CK
RGM
SHEET
1
OF
1

I:\DATA\20400\20435 - Fish Creek Fish Passage (Town of Gibraltar)\CAD\DESIGN\20435-C-Box Culvert Design Concept 3 - Channel Cut.dwg 6/13/2019 3:00 PM

HALF MILE DAM BYPASS MEANDER



BYPASS MEANDER DESIGN FEATURES
ALLOWS FISH PASSAGE THROUGH A SMALL MEANDERING STREAM,
APPROXIMATELY 300LF AROUND THE DAM. THE BYPASS MEANDER PROVIDES FISH
PASSAGE WITHOUT ALTERATIONS TO THE DAM ITSELF.



PRELIMINARY

HALF MILE DAM - BYPASS MEANDER

5308 S. 12th Street
Sheboygan, WI 53081-8099
Phone: (920) 458-8144
Fax: (920) 458-0369
www.stanwillmiller.com

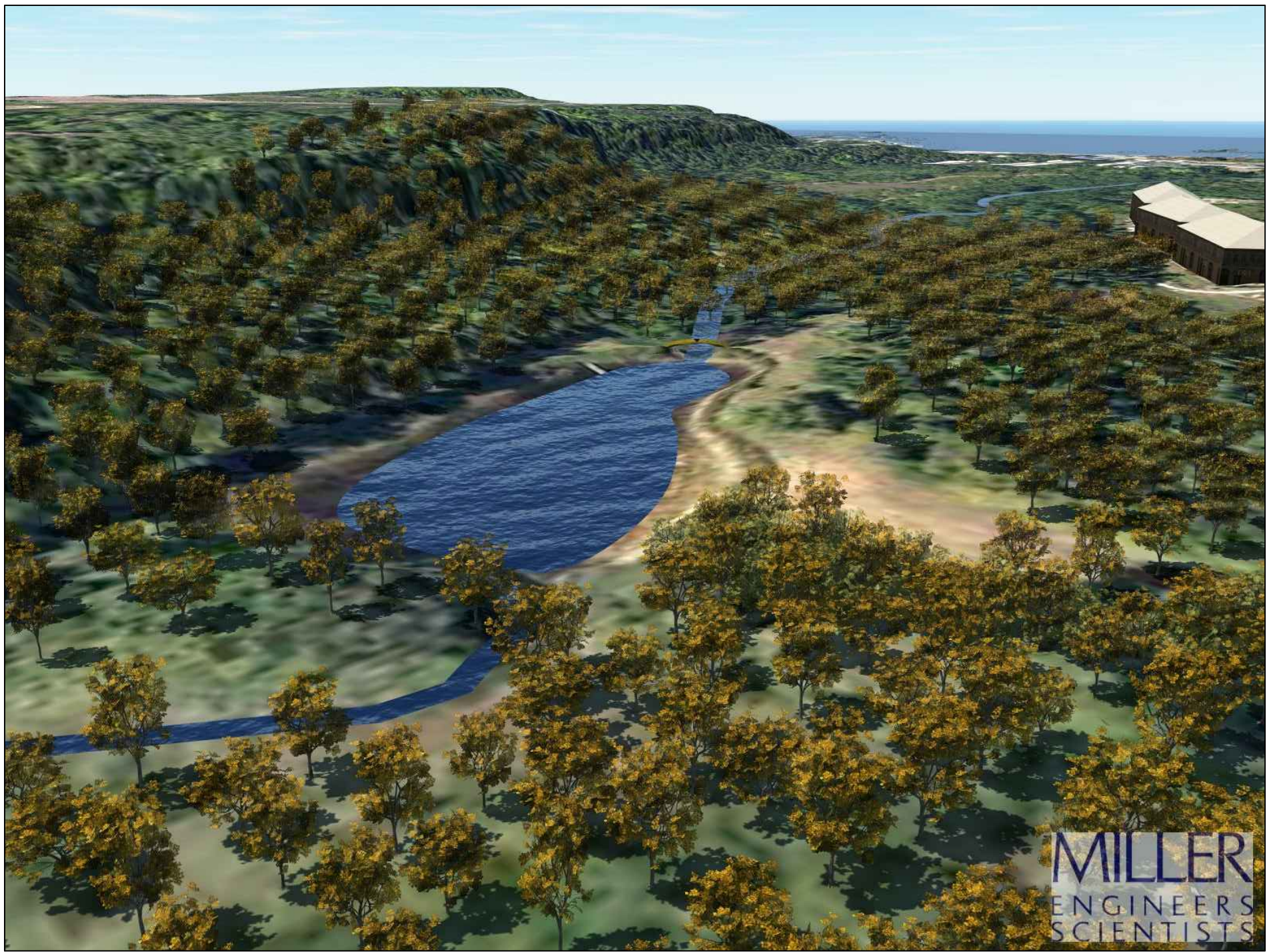
MILLER
ENGINEERS
SCIENTISTS
Designing in Harmony with the Environment

NO.	DATE	DESCRIPTION	BY

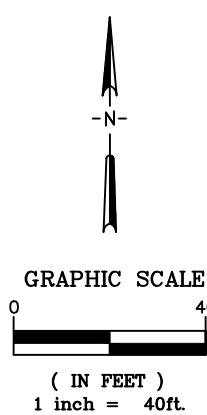
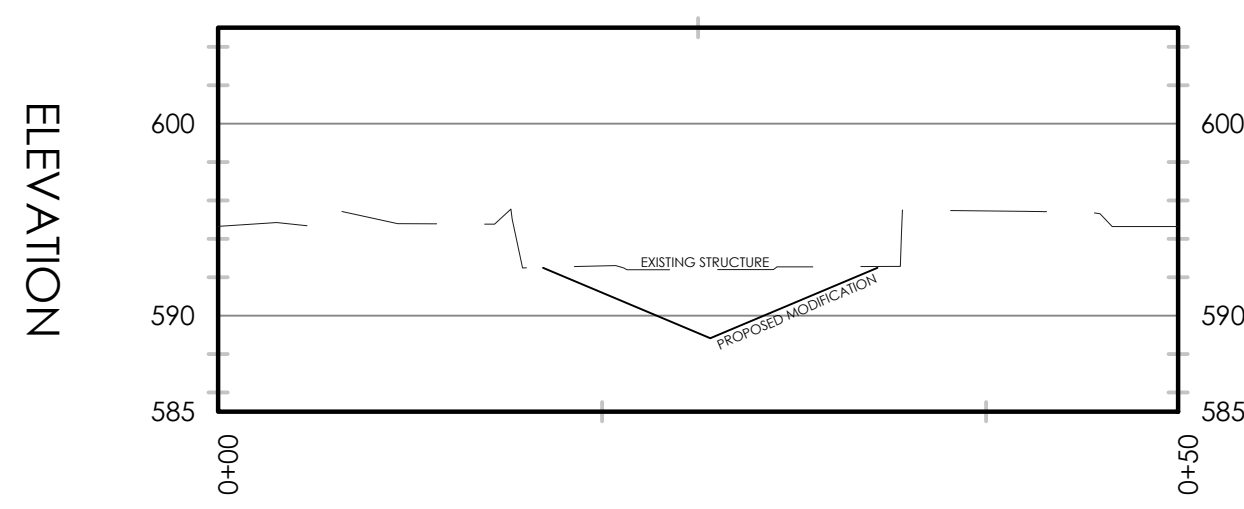
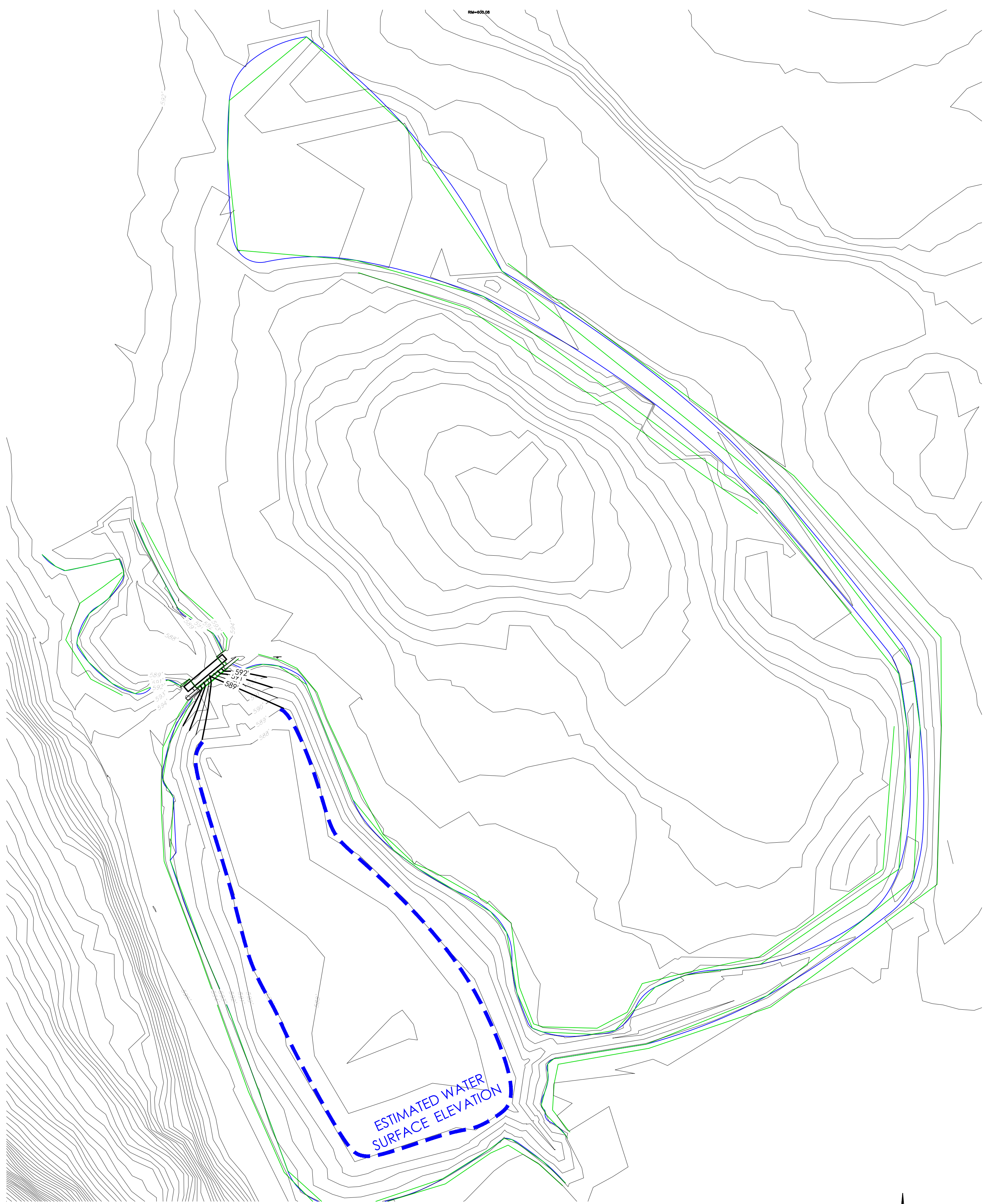
FISH CREEK FISH PASSAGE
TOWN OF GIBALTAR
HWY 42, FISH CREEK
DOOR COUNTY, WISCONSIN

SCALE HOR. 1"=40' VER. 1"=40'	DATE 05/07/2019	JOB 20435-C	BY EAS	CK RGM	SHEET 1 OF 1
-------------------------------------	--------------------	----------------	-----------	-----------	-----------------------

HALF MILE DAM STRUCTURE MODIFICATIONS



STRUCTURE MODIFICATION - DESIGN FEATURES
ALLOWS FISH PASSAGE THROUGH THE EXISTING DAM WITH MODIFICATION OF
DAM STRUCTURE. ALTERATIONS CONSISTING OF SAW CUTTING A V-NOTCH IN THE
CENTER OF THE DAM WHICH IS PRESENTLY A WEIR. THIS DESIGN OPTION ALLOWS
FOR VARIABLE FLOW THROUGH THE DAM AS WELL AS MAINTAINING THE
STRUCTURE. PONDING OF WATER BEHIND THE DAM IS STILL ANTICIPATED,
HOWEVER THE SIZE OF THE POND WILL BE REDUCED.



PRELIMINARY
HALF MILE DAM- STRUCTURE MODIFICATION

5308 S. 12th Street
Sheboygan, WI 53081-8099
Phone: (920) 458-8144
Fax: (920) 458-0369
www.stanwillmiller.com

MILLER
ENGINEERS
SCIENTISTS
Designing in Harmony with the Environment

NO.	DATE	DESCRIPTION	BY

FISH CREEK FISH PASSAGE
TOWN OF GIBRALTAR
HWY 42, FISH CREEK
DOOR COUNTY, WISCONSIN

SCALE
HOR. 1"=40'
VER. 1"=40'
DATE
05/07/2019
JOB
20435-C
BY
EAS
CK
RGM
SHEET
1
OF
1