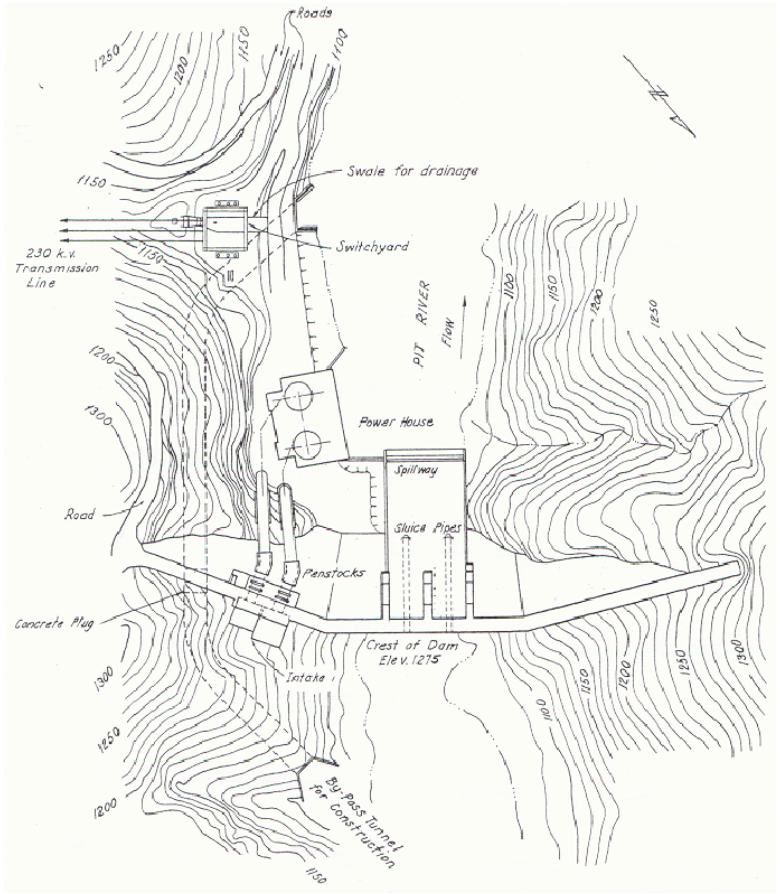
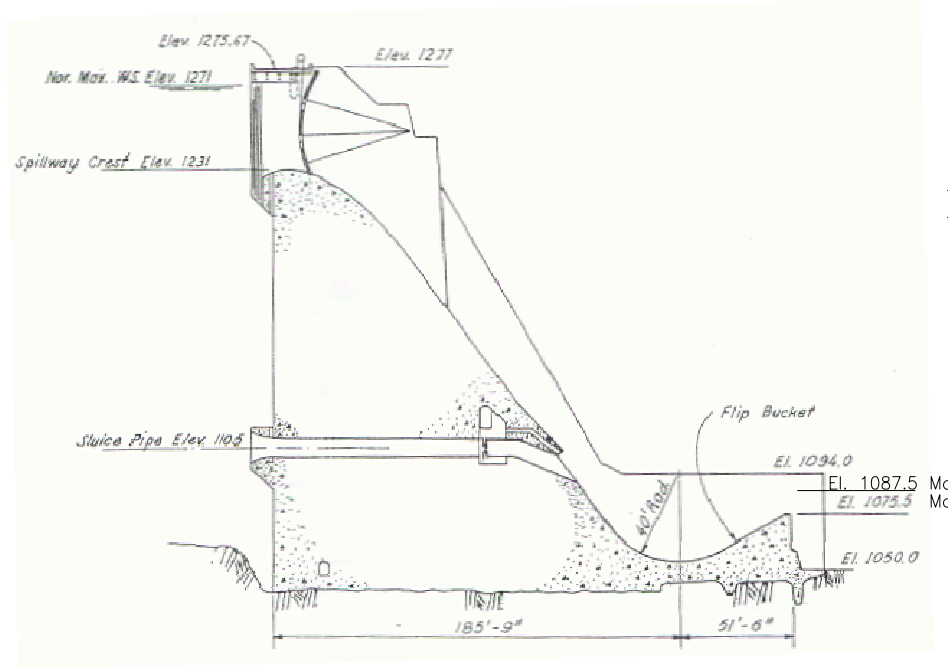


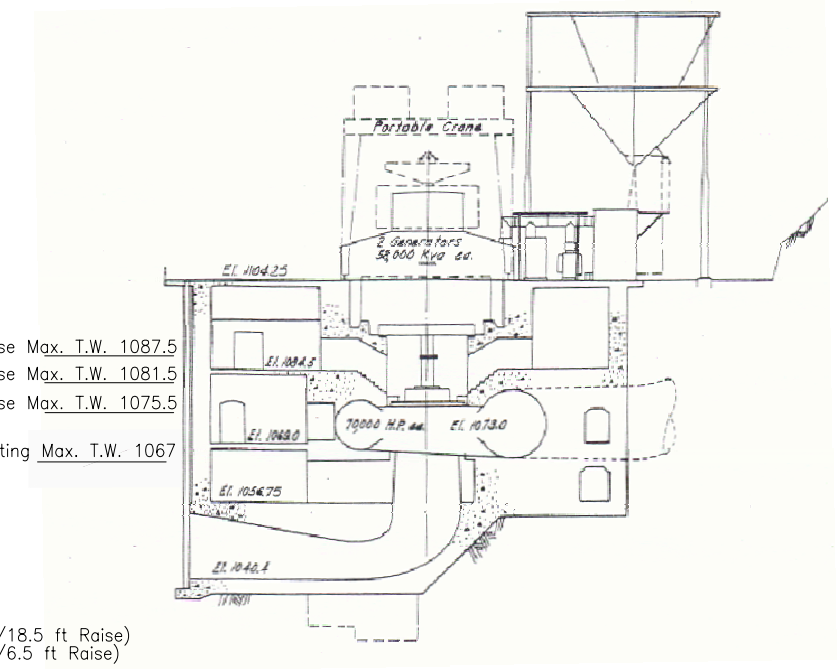
Dam and Powerhouse - Plan



Spillway - Section

18.5 ft Raise Max. T.W. 1087.5
12.5 ft Raise Max. T.W. 1081.5
6.5 ft Raise Max. T.W. 1075.5

Existing Max. T.W. 1067



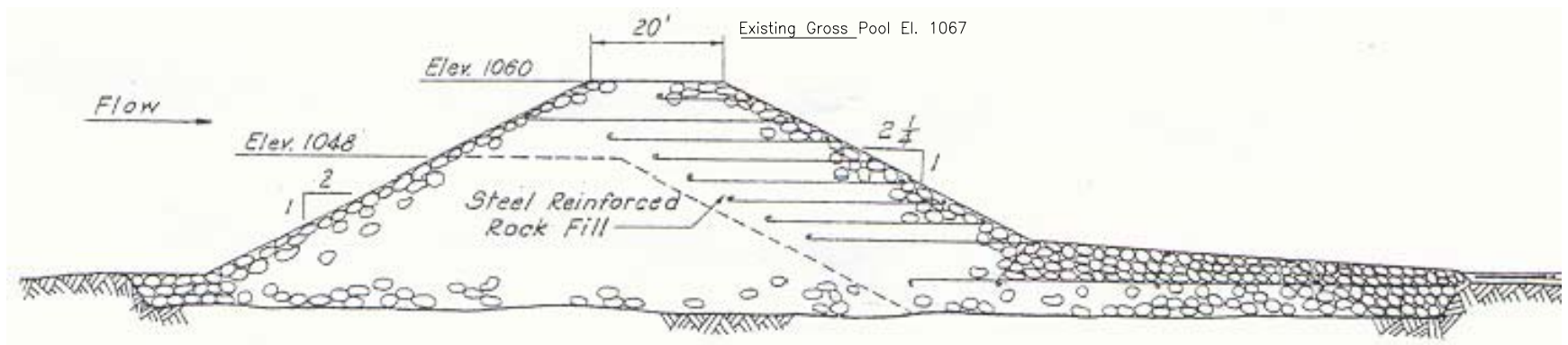
Powerhouse - Section

18.5 ft Dam Raise Gross Pool El. 1087.5

12.5 ft Dam Raise Gross Pool El. 1081.5

6.5 ft Dam Raise Gross Pool El. 1075.5

Existing Gross Pool El. 1067



Afterbay Dam

Note:
1. All elevations relative to NGVD 1929.
2. Reference Federal Energy Regulatory Commission (FERC) Exihibit Drawings L-8B, L-9A, Pit 7 Dam, Powerhouse, and Afterbay Dam, McCloud-Pit Development, Pacific Gas and Electric Company

Shasta Lake Water Resources Investigation, California

PIT 7 DAM AND POWERHOUSE

U.S. Bureau of Reclamation, Mid-Pacific Region
February 2011

Plate 24

XREF: BDR_shasta
FILE: Z:\Shared\Working Projects\U S B R\Shasta Lake Water Resources Investigation (SLWRI)\Pit 7 Dam & Powerhouse\Drawings\Pit 7 Drawing rev 7 24 08.dwg USER: mtluebke Jul 24, 2008 11:31am Job No: 1881349

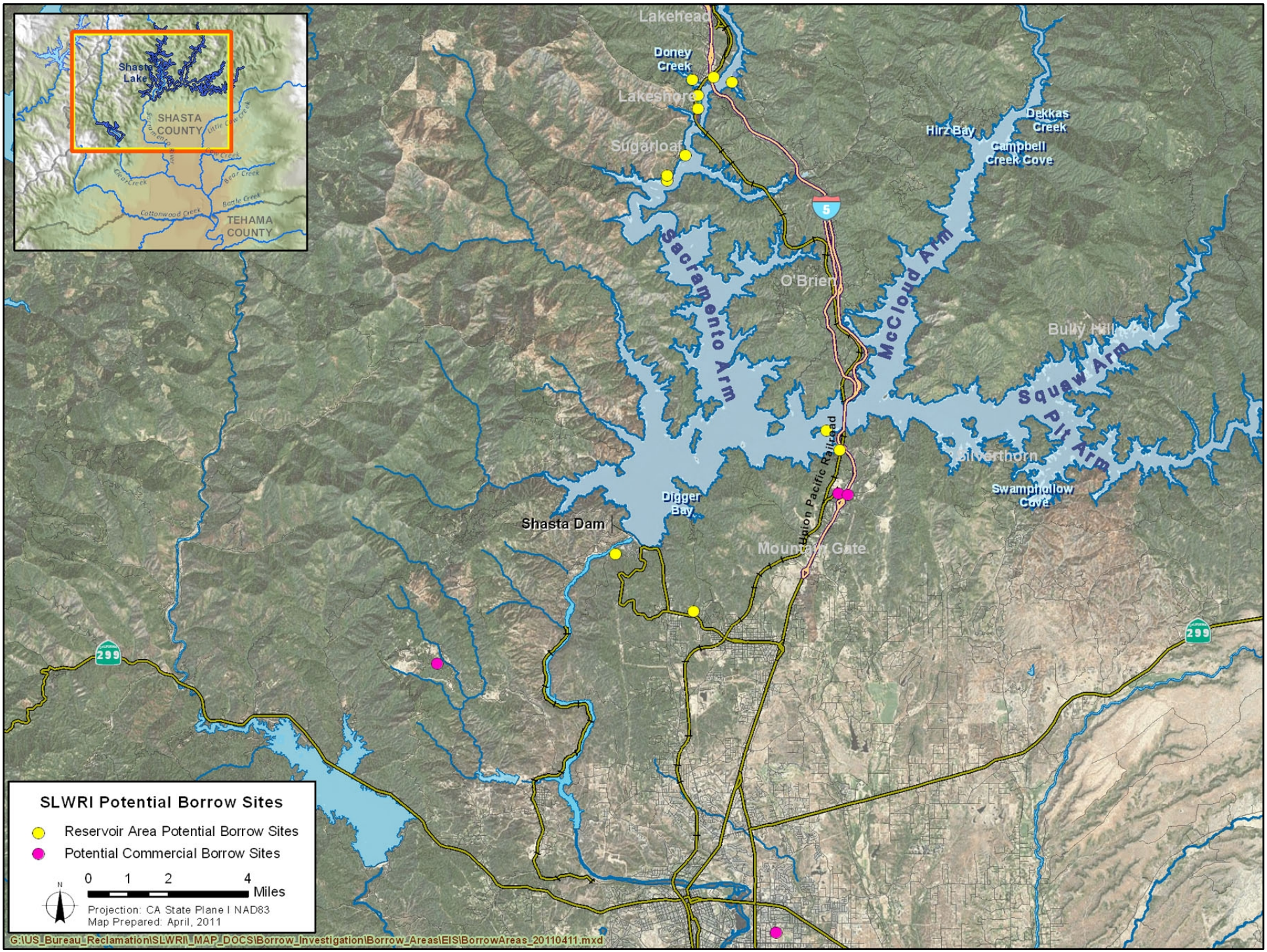
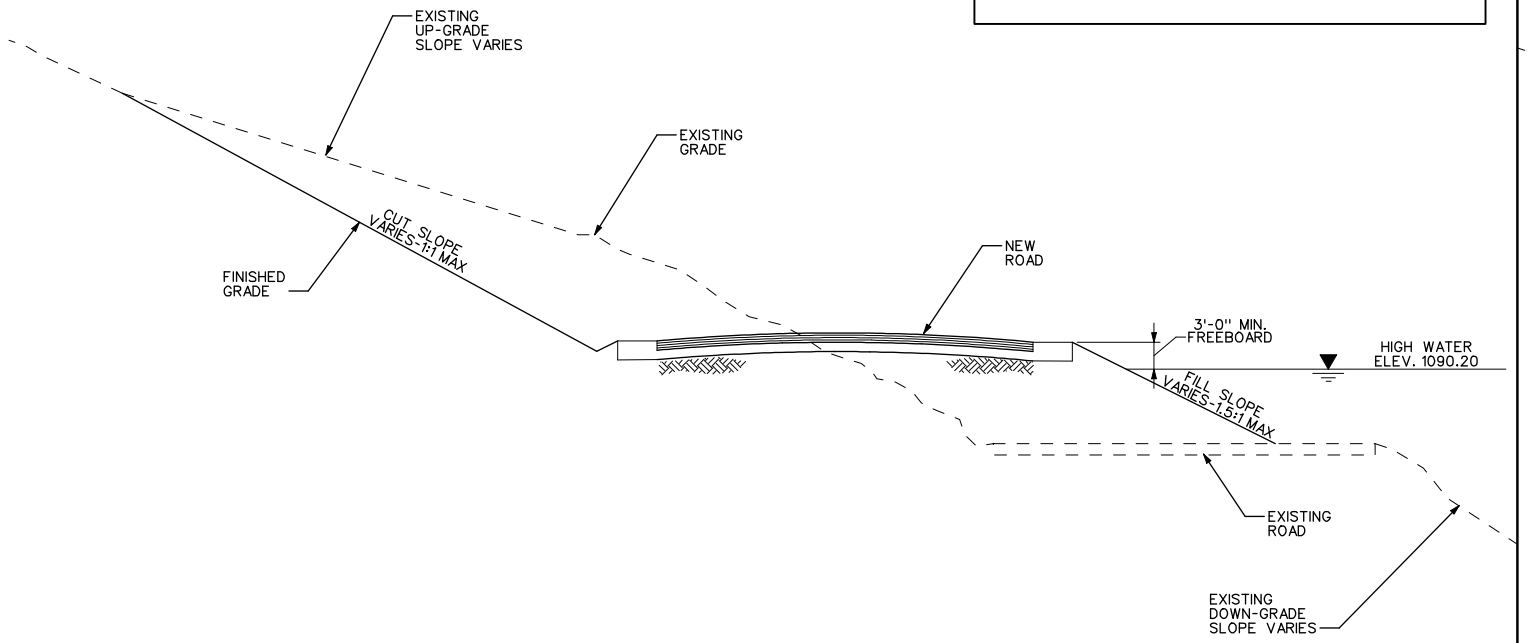

Lakehead
Doney Creek
Lakeshore
Sugarloaf
Hirz Bay
Dekkas Creek
Campbell Creek Cove
O'Brien
Sacramento Arm
McCloud Arm
Bully Hill
Squaw Arm
Pit Arm
Silverthorn
Swamphollow Cove
Digger Bay
Shasta Dam
Mountain Gate
Union Pacific Railroad
5
299
299
Shasta Lake
SHASTA COUNTY
TEHAMA COUNTY
Cottonwood Creek
Bear Creek
Battle Creek
Clear Creek
Little Cow Creek
SLWRI Potential Borrow Sites
Reservoir Area Potential Borrow Sites
Potential Commercial Borrow Sites
0 1 2 4
Miles
N
Projection: CA State Plane I NAD83
Map Prepared: April, 2011
G:\US_Bureau_Reclamation\SLWRI_MAP_DOCS\Borrow_Investigation\Borrow_Areas\EIS\BorrowAreas_20110411.mxd

Plate 25

Plot Date: 02-JAN-2008 13:16
User: mbcarpen
PlotScale: 1:1
DesignScript: MWH_Iplot_Pentable_v85.pen
ColorTable: bw.ctb
Model: Default
File: SLWRI_GC02.dgn

TYPE A EARTHWORK
CONCEPT APPLIED WHEN:

1. EXISTING SLOPES ARE FLAT ENOUGH TO MAKE CUT/FILL WORK FEASIBLE. IF EXISTING UP-GRADE OR DOWN-GRADE SLOPES ARE TOO STEEP THE EARTHWORK BECOMES INCREASINGLY DIFFICULT.

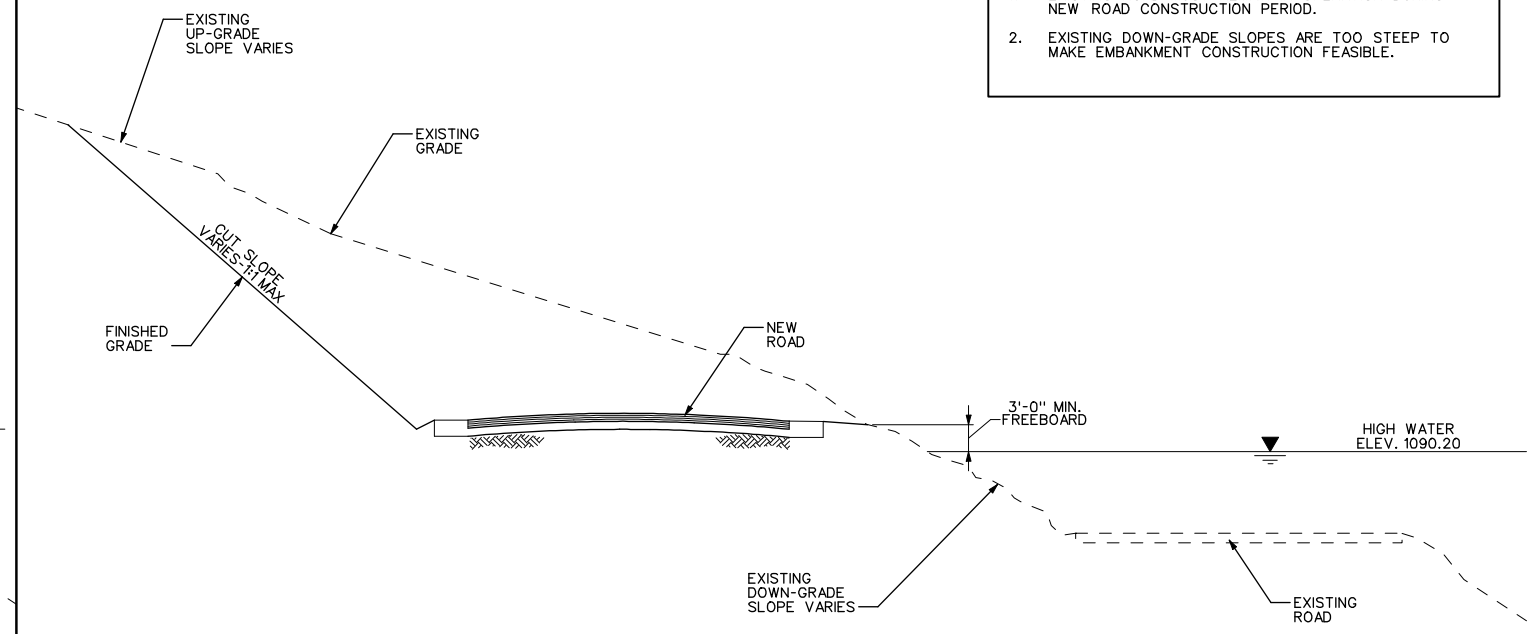


TYPICAL ROAD REPLACEMENT
EARTHWORK SECTION - TYPE A

SCALE: N.T.S.

TYPE B EARTHWORK
CONCEPT APPLIED WHEN:

1. EXISTING ROAD MUST REMAIN IN OPERATION DURING NEW ROAD CONSTRUCTION PERIOD.
2. EXISTING DOWN-GRADE SLOPES ARE TOO STEEP TO MAKE EMBANKMENT CONSTRUCTION FEASIBLE.

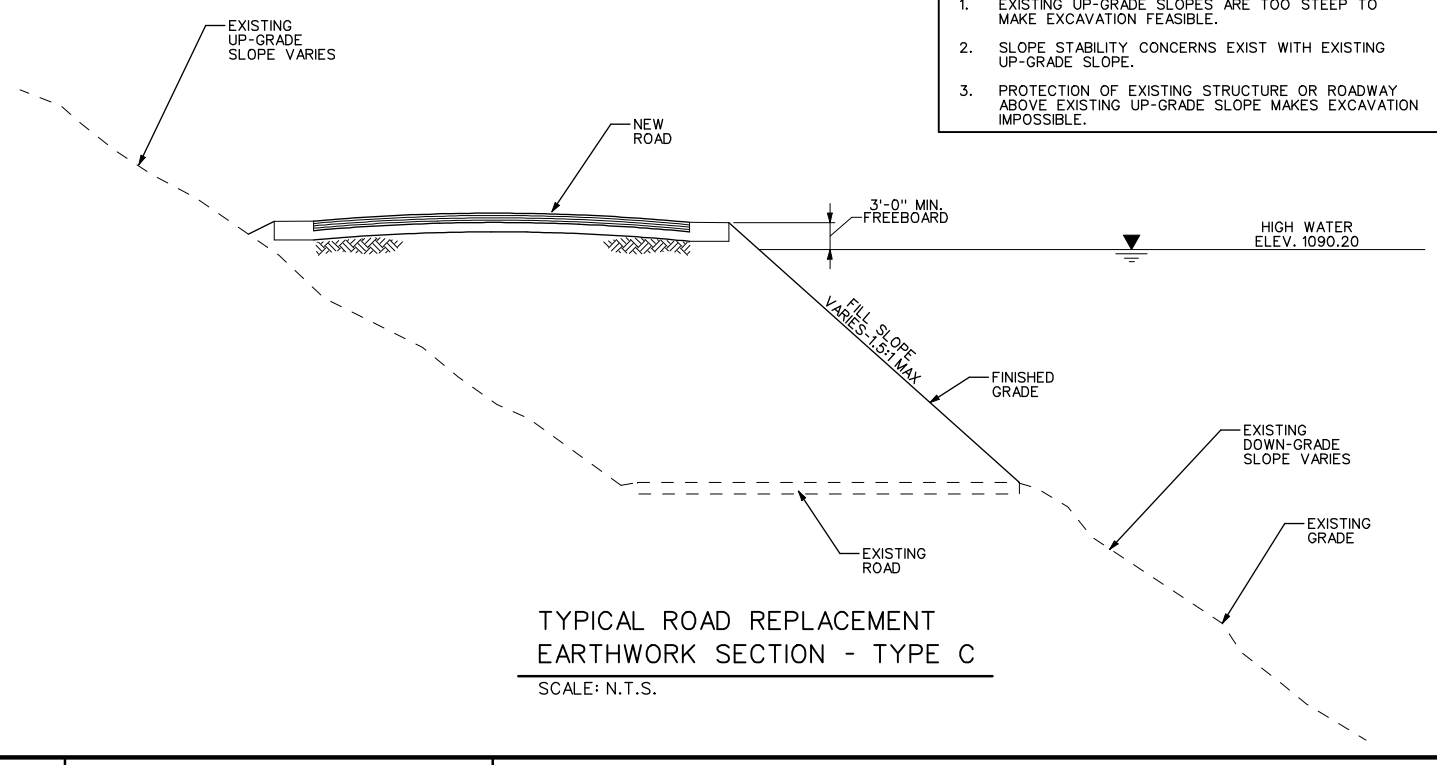


TYPICAL ROAD REPLACEMENT
EARTHWORK SECTION - TYPE B

SCALE: N.T.S.

TYPE C EARTHWORK
CONCEPT APPLIED WHEN:

1. EXISTING UP-GRADE SLOPES ARE TOO STEEP TO MAKE EXCAVATION FEASIBLE.
2. SLOPE STABILITY CONCERNS EXIST WITH EXISTING UP-GRADE SLOPE.
3. PROTECTION OF EXISTING STRUCTURE OR ROADWAY ABOVE EXISTING UP-GRADE SLOPE MAKES EXCAVATION IMPOSSIBLE.

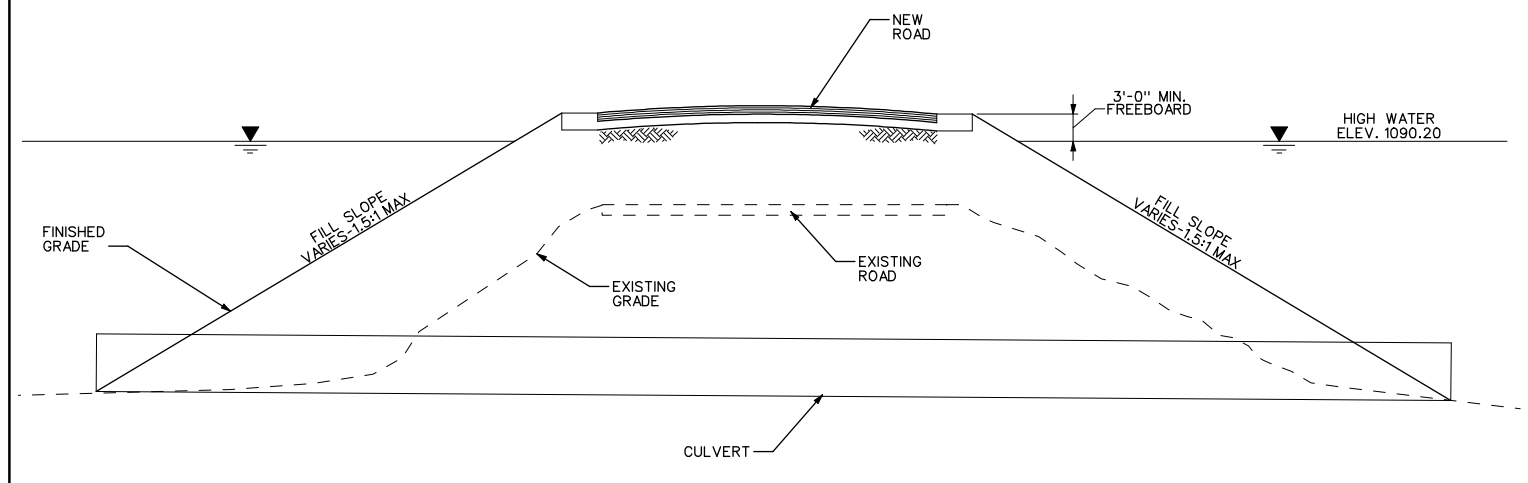


TYPICAL ROAD REPLACEMENT
EARTHWORK SECTION - TYPE C

SCALE: N.T.S.

TYPE D EARTHWORK
CONCEPT APPLIED WHEN:

1. EXISTING ROAD HAS SIMILAR BERM-TYPE CONSTRUCTION.



TYPICAL ROAD REPLACEMENT
EARTHWORK SECTION - TYPE D

SCALE: N.T.S.

SCALE

AS SHOWN

MWH

U.S. BUREAU OF RECLAMATION
SHASTA LAKE WATER RESOURCES INVESTIGATION
ENGINEERING FEASIBILITY DESIGNS

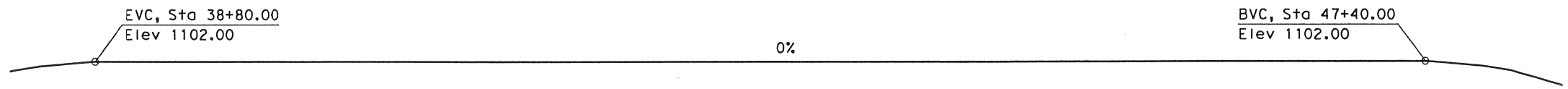
MAJOR ROADS AND ROAD SEGMENTS
GENERAL CIVIL DETAILS
TYPICAL ROAD REPLACEMENT EARTHWORK SECTIONS

Plate 26

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT
2	Sha		

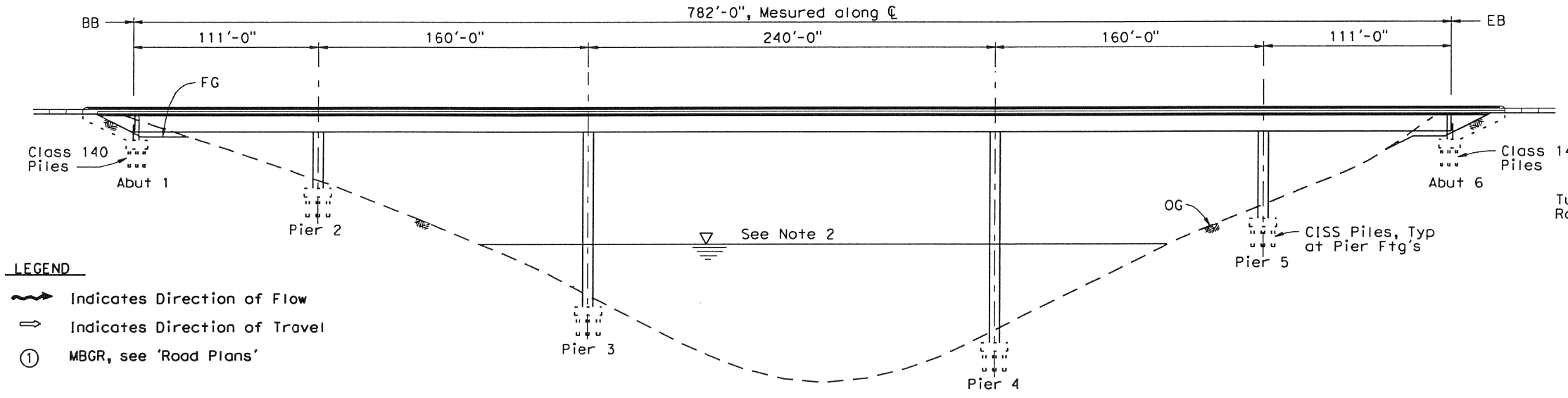
MWH AMERICAS, INC.
3321 POWER INN ROAD, SUITE 300
SACRAMENTO, CA 95826-3889

MGE ENGINEERING, INC.
7415 GREENHAVEN DRIVE, SUITE 100
SACRAMENTO, CA 95831



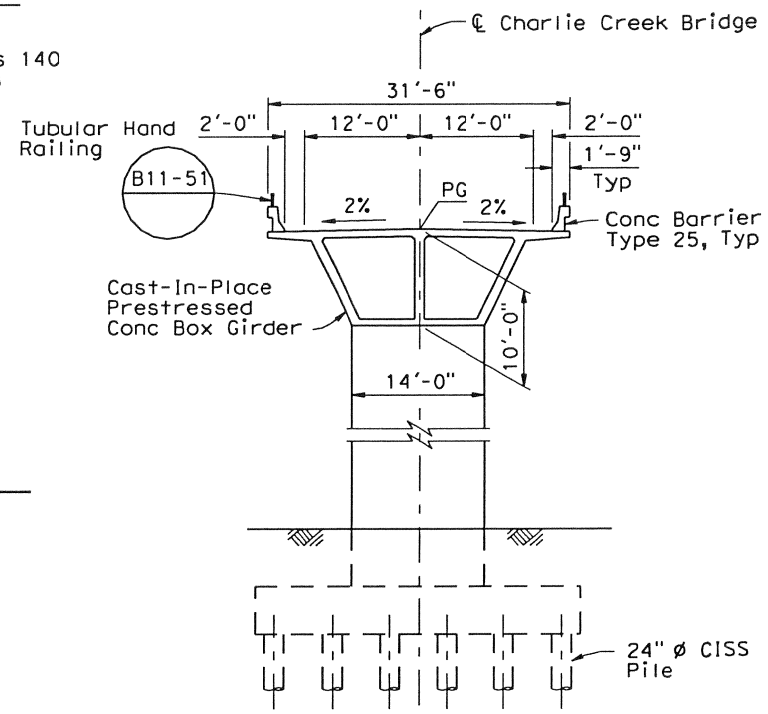
PROFILE GRADE

No Scale



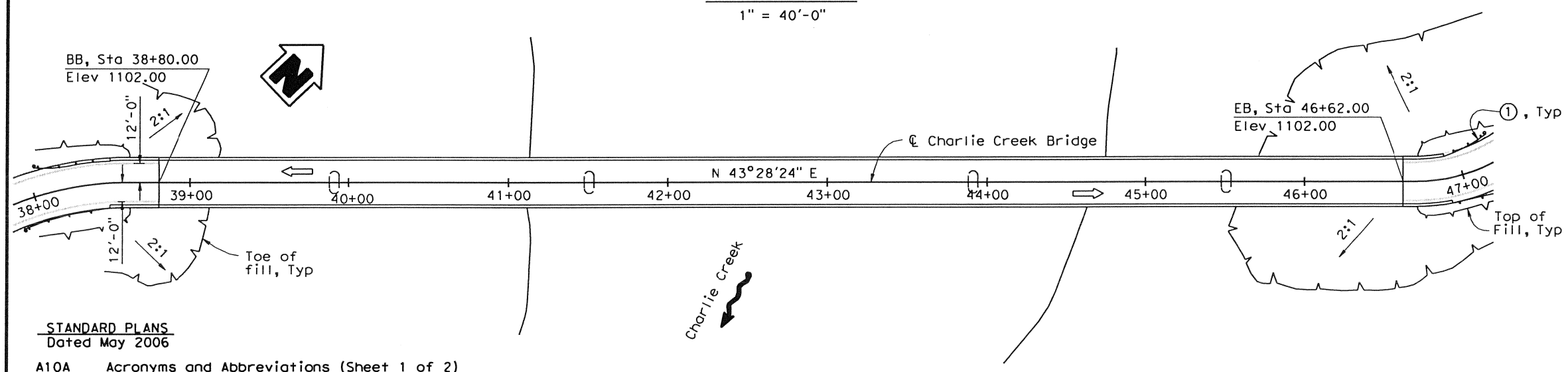
ELEVATION

1" = 40'-0"



TYPICAL SECTION

1" = 10'-0"



PLAN

1" = 40'-0"

STANDARD PLANS
Dated May 2006

A10A	Acronyms and Abbreviations (Sheet 1 of 2)
A10B	Acronyms and Abbreviations (Sheet 2 of 2)
A10C	Symbols (Sheet 1 of 2)
A10D	Symbols (Sheet 2 of 2)
A62C	Limits of Payment for Excavation and Backfill - Bridge
B0-1	Bridge Details
B0-3	Bridge Details
B0-5	Bridge Details
B0-13	Bridge Details
B2-5	Pile Details Class 90 and Class 140
B3-1	Retaining Wall Type 1 H=4' Through 30'
B3-8	Retaining Wall Details No. 1
B3-9	Retaining Wall Details No. 2
B7-1	Box Girder Details
B7-5	Deck Drains
B8-5	Cast-in-Place Prestressed Girder Details
B11-51	Tubular Hand Railing
B11-53	Concrete Barrier Type 25

Notes:

1. Removal of existing Charlie Creek Bridge is not shown.
2. Grass pool elevation 1087.50 feet (NGVD 1929).

DESIGNED BY	G. Xu	DATE 7/1/2008
DRAWN BY	P. Zhao	DATE 7/1/2008
CHECKED BY	R. Sennett	DATE 7/1/2008
APPROVED	R. Sennett	DATE 7/1/2008

Guoping Xu
PROJECT ENGINEER

ADVANCE PLANNING STUDY

CHARLIE CREEK BRIDGE

BRIDGE NO.

SCALE: As Shown

Plate 27

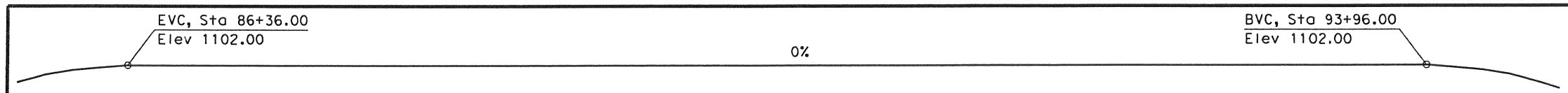
FILE => $REQUEST

DATE PLOTTED => $DATE
TIME PLOTTED => $TIME
USERNAME => $USER

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT
2	Sha		

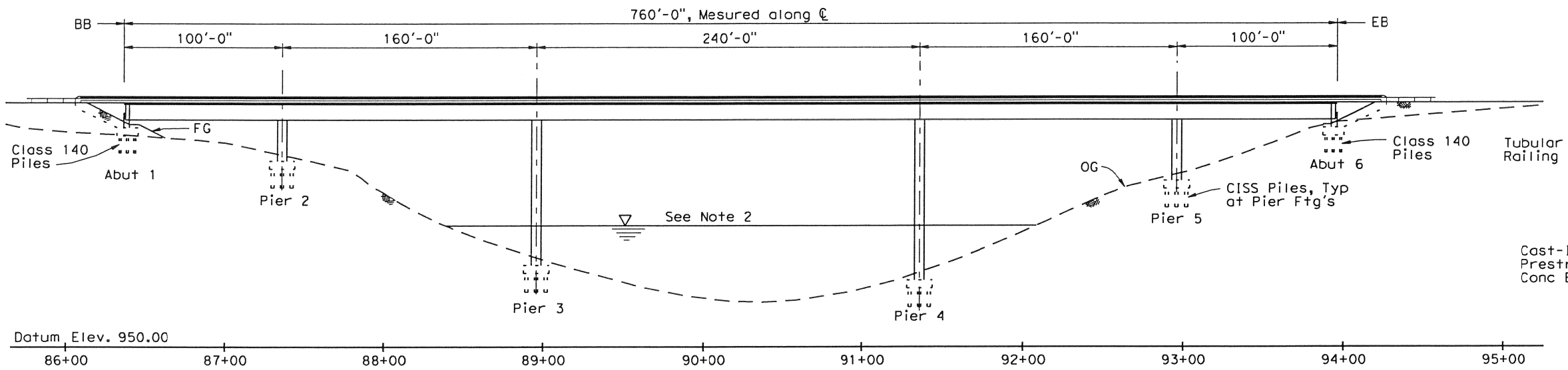
MWH AMERICAS, INC.
3321 POWER INN ROAD, SUITE 300
SACRAMENTO, CA 95826-3889

MGE ENGINEERING, INC.
7415 GREENHAVEN DRIVE, SUITE 100
SACRAMENTO, CA 95831



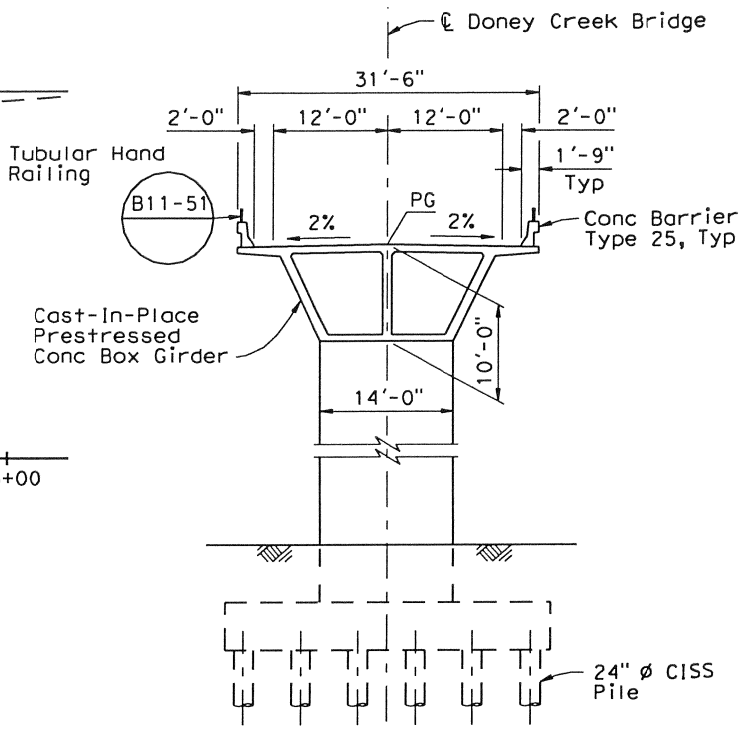
PROFILE GRADE

No Scale



ELEVATION

1" = 40'-0"



TYPICAL SECTION

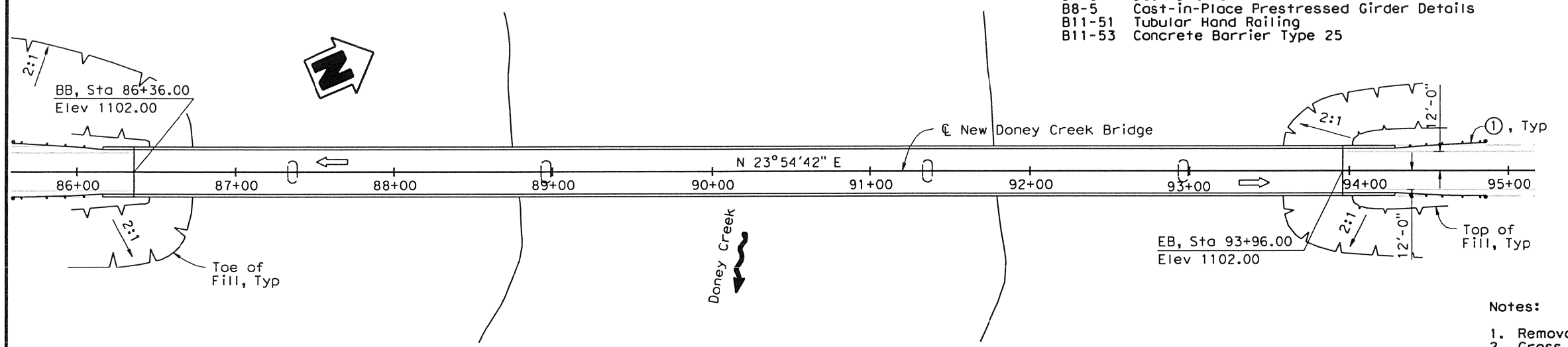
1" = 10'-0"

LEGEND

- Indicates Direction of Flow
- Indicates Direction of Travel
- (1) MBGR, see 'Road Plans'

STANDARD PLANS
Dated May 2006

A10A	Acronyms and Abbreviations (Sheet 1 of 2)
A10B	Acronyms and Abbreviations (Sheet 2 of 2)
A10C	Symbols (Sheet 1 of 2)
A10D	Symbols (Sheet 2 of 2)
A62C	Limits of Payment for Excavation and Backfill - Bridge
B0-1	Bridge Details
B0-3	Bridge Details
B0-5	Bridge Details
B0-13	Bridge Details
B2-5	Pile Details Class 90 and Class 140
B3-1	Retaining Wall Type 1 H=4' Through 30'
B3-8	Retaining Wall Details No. 1
B3-9	Retaining Wall Details No. 2
B7-1	Box Girder Details
B7-5	Deck Drains
B8-5	Cast-in-Place Prestressed Girder Details
B11-51	Tubular Hand Railing
B11-53	Concrete Barrier Type 25



PLAN

1" = 40'-0"

Notes:

1. Removal of existing Doney Creek Bridge is not shown.
2. Gross pool elevation 1087.50 feet (NAVD 1929).

DESIGNED BY G. Xu	DATE 7/1/2008	Guoping Xu PROJECT ENGINEER	ADVANCE PLANNING STUDY
DRAWN BY P. Zhao	DATE 7/1/2008		DONEY CREEK BRIDGE
CHECKED BY R. Sennett	DATE 7/1/2008		BRIDGE NO.
APPROVED R. Sennett	DATE 7/1/2008		SCALE: As Shown — Plate 28

FILE => $REQUEST

USERNAME => $USER DATE PLOTTED => $DATE TIME PLOTTED => $TIME