Drawings For:
Phase 4 Feather River Levee Repair Project
Segment 3 Toe Access Corridor Improvements
and Segment 1 Erosion Protection Berm
Reclamation District No. 784
Marysville, California

Prepared for:
Three Rivers Levee Improvement Authority
Drawings - Issued for Bid
May 28, 2013
GENERAL NOTES

1. THE CONTRACTOR SHALL COORDINATE WORK WITH PG&E WHILE WORKING NEAR POWER LINES AND POWER POLES TO ARRANGE FOR PG&E TO CUT OFF POWER AS NEEDED FOR SAFETY.

2. THE CONTRACTOR SHALL INFORM ADJACENT LANDOWNERS OF SHARED ACCESS ROUTE SAFETY ISSUES, TRAFFIC PATTERNS, AND OPERATION AREAS ON A DAILY BASIS, OR AS REQUIRED TO ENSURE COORDINATION. THE METHOD FOR PROVIDING THE INFORMATION SHALL BE AGREED UPON BY CONTRACTOR AND LANDOWNERS.


4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS.

5. THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF YUBA COUNTY ORDNANCE CODE, SECTION XI, CHAPTER 11.25, AND THE STATE NOISE CONSTRUCTION ACTIVITY GENERAL PERMIT, INCLUDING PROVIDING EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH APPROVED STORMWATER POLLUTION PREVENTION PLAN.

6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, SIZES AND LOCATIONS OF ALL EXISTING FACILITIES AND FEATURES BEFORE STARTING WORK AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

7. PRIOR TO COMMENCING CONSTRUCTION, THE ACTUAL LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR. ALL EXISTING UNDERGROUND UTILITIES AND OVERHEAD UTILITIES TO REMAIN SHALL BE PROTECTED FROM CONSTRUCTION, EQUIPMENT AND OPERATIONS. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES WHO ARE INVOLVED WITH THIS PROJECT AND REQUEST TO HAVE ALL UNDERGROUND UTILITIES THAT MAY POSSIBLY CONFLICT WITH THE WORK OR WITH ACCESS TO THE WORK LOCATED IN THE FIELD. THE CONTRACTOR OR ANY SUBCONTRACTOR IS REQUIRED TO NOTIFY THE UNDERGROUND SERVICE AT LEAST 48 HOURS IN ADVANCE OF PERFORMING ANY EXCAVATION BY CALLING (800) 642-6444.

ABBREVIATIONS

AB – AGGREGATE BASE
NC – NOT IN CONTRACT
E – CENTERLINE
NTB – NOT TO SCALE
DIA – DIAMETER
P – PIEZOMETER
EA – EACH
PP – POWER POLE
EL – ELEVATION
R – RADIUS
FR – FEATHER RIVER
ROW – RIGHT OF WAY
FRL – FEATHER RIVER LEVEE
STA – STATION
ID – INSIDE DIAMETER
TAC – TOP ACCESS CORRIDOR
IE – INVERT ELEVATION
TCE – TEMPORARY CONSTRUCTION EASEMENT
KW – KNEE
TEM – TEMPORARY
MAX – MAXIMUM
TYP – TYPICAL
MIN – MINIMUM

VERTICAL CONTROL INFORMATION


HORIZONTAL CONTROL INFORMATION

BEARINGS SHOWN HEREON ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE 2, NAD 83, (EPOCH 2007.00) AND ARE BASED ON OBSERVATIONS BETWEEN GPS STATIONS RIO OSO, ALGONQUIN AND HPGN D CA 03 GH. DISTANCES SHOWN HEREON ARE GRID DISTANCES, TO CONVERT GRID DISTANCE TO GRID DISTANCE, MULTIPLY BY 0.99999703.

NOTES REGARDING TOPOGRAPHIC SURVEYS AND IMAGES

UNLESS NOTED OR SHOWN OTHERWISE, TOPOGRAPHIC INFORMATION SHOWN HERE IS BASED UPON FIELD SURVEY BY CTA ENGINEERING AND SURVEYING IN MAY 2012. THE FOLLOWING INFORMATION IS SPECIFIC TO THE SITE PLAN SHOWN ON DWG. G-3 & C-30:

• TOPOGRAPHIC SURVEY IS FROM MHI INC, DATED JUNE 2006.
• AERIAL PHOTOGRAPHY PERFORMED ON APRIL 14, 1988.

GENERAL LEGEND

### EXISTING LEVEE Q

#### SURVEY CONTROL POINT

#### PHASE 4 EXISTING LEVEE STATIONING

#### EMBANKMENT SLOPE

#### EXCAVATION SLOPE

#### DIRECTION AND GRADE OF SLOPE

#### DRAINAGE DITCH

#### POWER POLE

#### PARCEL BOUNDARY, ASSESSORS PARCEL NUMBER, AND OWNER DESIGNATION

#### ROW

#### TAC
1. NOTES AND TABLES FOR THE LEVEE TOE ACCESS CORRIDOR PLAN SHEETS ARE PROVIDED ON SHEET C-1.
NOTES:
1. UPSTREAM CONCRETE HEAD WALL SHALL BE SINGLE HEADWALL PER 2006 CALTRANS STANDARD PLAN D89. CUTPIPE FLUSH WITH OUTSIDE FACE OF CONCRETE HEAD WALL.
2. HDPE PIPE SHALL BE DUAL WALL HDPE PIPE N-12 ST IB OR APPROVED EQUAL.
3. FLAP GATE SHALL BE WATERMAN F-10 LIGHT DUTY DRAINAGE GATE WITH FLAT BACK OR APPROVED EQUAL.
4. CONTRACTOR SHALL ANCHOR PIPE PRIOR TO PLACING CLSM BACKFILL TO PREVENT FLOTATION.
5. GAS PIPELINE LOCATION MUST BE VERIFIED BEFORE TRENCH EXCAVATION PROCEEDS. COORDINATE WITH PG&E FOR FIELD VERIFICATION.
6. LOCALLY MOLDED CONCRETE DITCH SURFACE TO CONFORM TO THE EDGE OF THE PIPE. RETAIN INTEGRITY OF CONCRETE DITCH LINING.
TYPICAL SECTIONS AND DETAILS

1. PT A IS LOCATED HORIZONTALLY AND VERTICALLY BY A STRAIGHT LINE BETWEEN POINTS AC-1 AND AC2 (SEE TABLE 3, DWG C-1).
2. NOTIFY ENGINEER IF FILL HEIGHT EXCEEDS 12" CONCRETE BLOCKS.
3. THE WEST ACCESS CORRIDOR HINGE DEVIATES UP THE EXISTING LEVEE SLOPE FROM THE EXISTING HINGE BETWEEN STA 19+82 TO 23+91 AND 30+17 TO 32+66. NEW WEST HINGE IS DEFINED BY POINTS AC3 THROUGH AC-10 (SEE TABLE 3, DWG C-1).
4. ACCESS CORRIDOR WIDTH IS 15.0' BETWEEN STA 1+69± AND 4+40±, AND TRANSITIONS UNIFORMLY FROM 15.0' TO 20.0' BETWEEN STA 4+40± AND 5+40±. SEE DWG C-1.
5. STRIP ALL SURFACES OF GRASS AND ORGANIC SOIL AND PREPARE FOUNDATION BEFORE PLACING FILL.
6. KEY FILL INTO EXISTING LEVEE SLOPE BY BENCHING EACH LIFT INTO THE EXISTING LEVEE SLOPE (APPROXIMATELY TWO HORIZONTAL FEET) AND PLACING NEW FILL IN HORIZONTAL LIFTS AGAINST THE VERTICAL FACE CUT INTO THE EXISTING LEVEE MATERIAL. FOR SLIVER FILLS (FILLS WITH HORIZONTAL WIDTH LESS THAN WIDTH OF COMPACTION EQUIPMENT), OVERBUILT SLOPE THAN SPECIFIED MATERIALS TO SPECIFIED SLOPE.
7. CHAIN LINK FENCE SHALL BE PER CALTRANS STANDARD PLAN A-85 AND STANDARD SPECIFICATION 80-4.

NOTES:

- STA 0+00 TO 1+69± SCALE, FEET
- STA 44+50 TO 47+32 SCALE, FEET
- STA 1+69± TO 3+50 SCALE, FEET
- STA 3+50 TO 4+10± SCALE, FEET
- STA 7+51 TO 12+68 SCALE, FEET
- STA 15+84 TO 19+24 SCALE, FEET
1. DISTANCE BETWEEN NEW FENCE AND EDGE OF CONCRETE DITCH VARIES BETWEEN 6" AND 3'-6". SEE DWG C-1.

2. PROVIDE CONTRACTION GROOVES AT 8'-0" ± SPACING WITH CONTINUOUS REINFORCEMENT. PROVIDE CONSTRUCTION JOINTS FOR DRAINAGE DITCH AT 10'-0" ±. FOR CONSTRUCTION JOINTS, TERMINATE REINFORCEMENT MINIMUM 1" FROM JOINT CENTERLINE. IF NECESSARY, CONTRACTOR MAY USE CONSTRUCTION JOINT IN PLACE OF CONTRACTION JOINT.

3. DISTANCE BETWEEN NEW FENCE AND EXISTING GROUND SURFACE VARIES BETWEEN 3" CLR AND 2'-0". SEE DWG C-4.
NOTES:
1. ASSUMED GROUND SURFACE SHOWN IN AREAS WHERE TOPOGRAPHIC SURVEY DATA IS INCOMPLETE. ACTUAL FIELD CONDITIONS MAY VARY.
1. Paint all exposed steel surfaces.
2. All pipe shall be extra strong (Schedule 80) steel pipe.
3. All pipe sizes are nominal sizes.
4. All gates shall swing open as indicated in plans or as directed by engineer.

- Excavate 20" dia. auger hole in undisturbed soil.
- Paint all exposed steel surfaces.
- All pipe shall be extra strong (Schedule 80) steel pipe.
- All pipe sizes are nominal sizes.
- All gates shall swing open as indicated in plans or as directed by engineer.

**Notes:**

1. Paint all exposed steel surfaces.
2. All pipe shall be extra strong (Schedule 80) steel pipe.
3. All pipe sizes are nominal sizes.
4. All gates shall swing open as indicated in plans or as directed by engineer.

**Dimensions:**

- 3'-8" 6'-1" elevation
- 3" clearance
- 20" dia. auger hole in undisturbed soil
- 8" dia. pipe post and axis of gate hinge
- 1/4" bolt & nut
- 3/8" top plate
- 3/8" plate (typ)
- 4-5/16" PL (top plate not shown)
NOTES:

1. CONCRETE FOOTING:
   REINFORCING BARS SHALL BE DEFORMED GRADE 60 FOR BARS LARGER THAN #4 AND
   GRADE 40 FOR SMALLER BARS CONFORMING TO ASTM A-615 INCLUDING SUPPLEMENT
   2. LAP SPLICES SHALL BE IN ACCORDANCE WITH ACI 318 UNLESS NOTED OTHERWISE
      ON THE PLANS.

2. CONCRETE MASONRY UNITS (CMU)
   BLOCKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SSPWC 303-4.
   USE STANDARD 8" (200 MM) WIDE NORMAL WEIGHT CONCRETE PER SSPWC 202-2.
   REINFORCING BARS SHALL BE DEFORMED GRADE 40.
   GROUT CELLS WITH REINFORCEMENT AND AT EMBEDDED FENCE POST.

3. GROUT SHALL BE IN ACCORDANCE WITH SSPWC 202-2

4. CHAIN LINK FENCE SHALL CONFORM TO THE CALTRANS STANDARD PLANS 2010 DRAWING
   A85 AND CALTRANS SPECIFICATIONS 2010 SECTION 80-4 AS APPLICABLE. PROVIDE BRACE
   EACH END OF THE FENCE.

5. POUR FOOTING AGAINST UNDISTURBED NATURAL SOIL. FOOTING ON FILL SHALL BE
   COMPACTED TO 90% OPTIMUM MOISTURE CONTENT PER ASTM D1557-78.
NOTES
1. EXCAVATION BEYOND ORGANIC SOIL PROHIBITED.

2. ACCESS TO SITE SHALL BE INSIDE THE EXISTING RIGHT-OFF-WAY VIA THE EXISTING LEVEE, LANDSIDE RAMPS AT STATION 126 AND RAMP STATION NO. 2, AND ERECTED TOE ACCESS CORRIDOR ALONG LANDSIDE TOE OF LEVEE AND/OR ACCESS INTO, THROUGH, OR ACROSS PRIVATE PROPERTY BEYOND EAST OF THE TOE ACCESS CORRIDOR SHALL NOT BE ALLOWED.

MATERIAL TYPE
1. FILTERDRAIN SAND
2. RANDOM FILL

SECTION: TYPICAL EROSION CONTROL BERM

EXISTING LEVEE (TYP)
LANDSIDE
WATERSIDE

TOP OF EROSION PROTECTION BERM
EXPLODED FILTERDRAIN SAND LAYER
EXISTING LANDSIDE SEEPAGE BERM (PRESERVE AND PROTECT)

REVEGETATE DISTURBED GROUND

MIN. 1 FOOT THICK FILTERDRAIN LAYER
TYPE 2 FILL

STRIP ORGANIC SOIL (8" MIN)

REVEGETATE SLOPE AND CREST OF BERM
EXISTING DRAIN ENCAPSULATED WITH GEOTEXTILE
(PRESERVE AND PROTECT)

TOP OF EROSION PROTECTION BERM

REVEGETATE SLOPE AND CREST OF BERM
EXISTING DRAIN ENCAPSULATED WITH GEOTEXTILE
(PRESERVE AND PROTECT)

TOP OF FILTERDRAIN LAYER

1:18

TOP OF EROSION PROTECTION BERM

EXPOSED FILTERDRAIN SAND LAYER

REVEGETATE DISTURBED GROUND
EXISTING LANDSIDE SEEPAGE BERM (PRESERVE AND PROTECT)

MIN. 1 FOOT THICK FILTERDRAIN LAYER
TYPE 2 FILL

STRIP ORGANIC SOIL (8" MIN)

REVEGETATE SLOPE AND CREST OF BERM
EXISTING DRAIN ENCAPSULATED WITH GEOTEXTILE
(PRESERVE AND PROTECT)

SECTION: TYPICAL EROSION CONTROL BERM

TOP OF EROSION PROTECTION BERM

REVEGETATE DISTURBED GROUND
EXISTING LANDSIDE SEEPAGE BERM (PRESERVE AND PROTECT)

MIN. 1 FOOT THICK FILTERDRAIN LAYER
TYPE 2 FILL

STRIP ORGANIC SOIL (8" MIN)

REVEGETATE SLOPE AND CREST OF BERM
EXISTING DRAIN ENCAPSULATED WITH GEOTEXTILE
(PRESERVE AND PROTECT)
Riverside Drive

5894 Riverside Drive

5900 Riverside Drive

5906 Riverside Dr.

5910 Riverside Dr.

Vacant

Vacant

Vacant

Vacant

Riverside Drive

5882 Riverside Drive

N20°43'26"E          77.57'

N20°45'40"E 82.87'

N21°30'46"E                   114.70'

N 2172190.4963
E 6678455.0419

N 2172263.0486
E 6678482.4916

N 2172340.5407
E 6678511.8679

N09°42'11"W  190.45'

N 2171827.6616
E 6678468.3892

N02°37'18"E  80.79'

N 2172015.3860
E 6678436.2908

N 2172096.0952
E 6678439.9864

N 2172150.7964
E 6678448.1246

N08°27'43"E  55.30'

N08°27'43"E 39.79'

N72°13'14"E         1.11'

2'X2' CONCRETE BLOCKS
AT PROPERTY LINE

2'X2' CONCRETE BLOCKS
AT PROPERTY LINE

NEW FENCE LINE

NEW FENCE LINE

END OF ACQUISITION AND
PROJECT STATIONING

END OF ACQUISITION AND
PROJECT STATIONING

MATCHLINE

MATCHLINE

FIGURE

05/29/13

Marysville, CA 95901

1114 Yuba Street, Suite 218

Marysville, CA 95901

CTA-5

THREE RIVERS LEVEE
IMPROVEMENT AUTHORITY
1114 Yuba Street, Suite 218
Marysville, CA 95901

FENCE LAYOUT
STATION 47+32 TO 64+60 +/-