

# RECLAMATION DISTRICT NO. 900 SOUTH AREA DRAINAGE BASIN

## PROJECT PLANS FOR CONSTRUCTION ON BLACKER DRAINAGE CANAL SLOPE REHABILITATION PROJECT YOLO COUNTY, CALIFORNIA

### ISSUED FOR BID



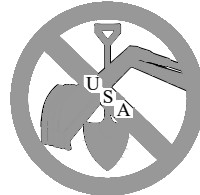
Rev.	Date	Description	Date	Approved

Date:	05-23-24	Design file no.:	16137	Drawing Code:	G1	File name:	16137_G1	Plot date:	05-23-24	Plot scale:	AS NOTED
Designed by:	M.H.M. INCORPORATED	Drawn by:	KAS	Reviewed by:	SMH	Submitted by:					

**OWNER:**

RECLAMATION DISTRICT NO. 900  
889 DREVER STREET  
WEST SACRAMENTO, CALIFORNIA 95691  
PHONE: (916) 371-1483

CALL BEFORE YOU DIG  
48 HOURS  
CALL "USA" TOLL FREE  
1-800-227-2600



**UNDERGROUND SERVICE ALERT**  
THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES TWO (2) WORKING DAYS PRIOR TO GRADING OR DIGGING

UTILITY REPRESENTATIVES			
UTILITY	AGENCY	CONTACT	PHONE NUMBER
FIRE PROTECTION	CITY OF WEST SAC. FIRE DEPT.	STEVE BINNS	(916) 617-4600
GAS	PACIFIC GAS & ELECTRIC	DWAYNE LEMMOND	(916) 386-5068
ELECTRICITY	PACIFIC GAS & ELECTRIC	BRIAN SWEENEY	(916) 386-5117
WATER	CITY OF WEST SACRAMENTO	WILLIAM ROBERTS	(916) 617-4850
SEWER	CITY OF WEST SACRAMENTO	WILLIAM ROBERTS	(916) 617-4850
STORM DRAINAGE	RD 900	BLAKE JOHNSON	(916) 204-6869
	UNDERGROUND SERVICE ALERT		(800) 227-2600

**PROJECT CONSULTANTS:**

1. CIVIL ENGINEER:  
MHM INCORPORATED (ATTN SEAN MINARD)  
1204 E STREET, P.O. BOX B  
MARYSVILLE, CALIFORNIA 95901  
PHONE: (530) 742-6485  
FAX: (530) 742-5639

2. LAND SURVEYORS:  
MHM INCORPORATED (ATTN JOHN MALLEN)  
1204 E STREET, P.O. BOX B  
MARYSVILLE, CALIFORNIA 95901  
PHONE: (530) 742-6485  
FAX: (530) 742-5639

4. ENVIRONMENTAL:  
ECORP (ATTN PETER BALFOUR)  
2525 WARREN DRIVE  
ROCKLIN, CALIFORNIA 95677  
PHONE: (916) 782-9100  
FAX: (916) 782-5323

#### HORIZONTAL CONTROL INFORMATION

THE BEARINGS SHOWN HEREON ARE BASED UPON CALIFORNIA COORDINATES ZONE 2, NAD 83 DATUM (EPOCH 2011) AND ORIGINATE FROM NGS SURVEY CONTROL POINTS AC9220 "HPGN D CA 03 CH" (N 1970975.88, E 6681965.29) A CALTRANS BM DISC LOCATED WITHIN THE LANDSCAPE AREA BOUNDED BY EAST BOUND INTERSTATE 80 AND THE ON/OFF RAMP TO ENTERPRISE BLVD AND CONTROL POINT DH6510 "PALA" (N 1966300.53, E 6693555.88) A CALTRANS BM DISK LOCATED IN THE CONCRETE SIDEWALK ON THE EAST SIDE OF LAKE WASHINGTON BLVD AT THE SOUTHERN END OF THE PALAMIDESSI BRIDGE OVER THE YOLO BARGE CANAL.

#### VERTICAL CONTROL INFORMATION

ELEVATIONS ORIGINATE FROM NGS SURVEY CONTROL POINT DH6510 "PALA" (N 1966300.53, E 6693555.88) A CALTRANS BM DISK, WITH AN NGS PUBLISH NAVD(1988) ELEVATION OF 42.5.

**APPROVED BY:**

RECLAMATION DISTRICT NO. 900  
BLAKE JOHNSON  
GENERAL MANAGER

DATE \_\_\_\_\_

---

**SUBMITTED BY:**

PREPARED UNDER THE SUPERVISION OF

MHM INCORPORATED  
SEAN MINARD, P.E.  
R.C.E.# 52593 EXP. 12-31-24

DATE \_\_\_\_\_

NOTE: THE CONTRACTOR SHALL POSSESS THE FOLLOWING CONTRACTOR LICENSE(S) AT THE TIME THIS CONTRACT IS AWARDED:

A. GENERAL ENGINEERING

**PWGR 16-00XX  
WDID # XXXXXXXXXXXXXXXX**



TITLE SHEET  
BLACKER DRAINAGE CANAL

CONSTRUCTION DOCUMENTS FOR:  
Blacker Drainage Canal  
Slope Rehabilitation Project  
Yolo County, California  
Reclamation District No. 900

Sheet reference number:  
**G1**  
Sheet 1 of 14















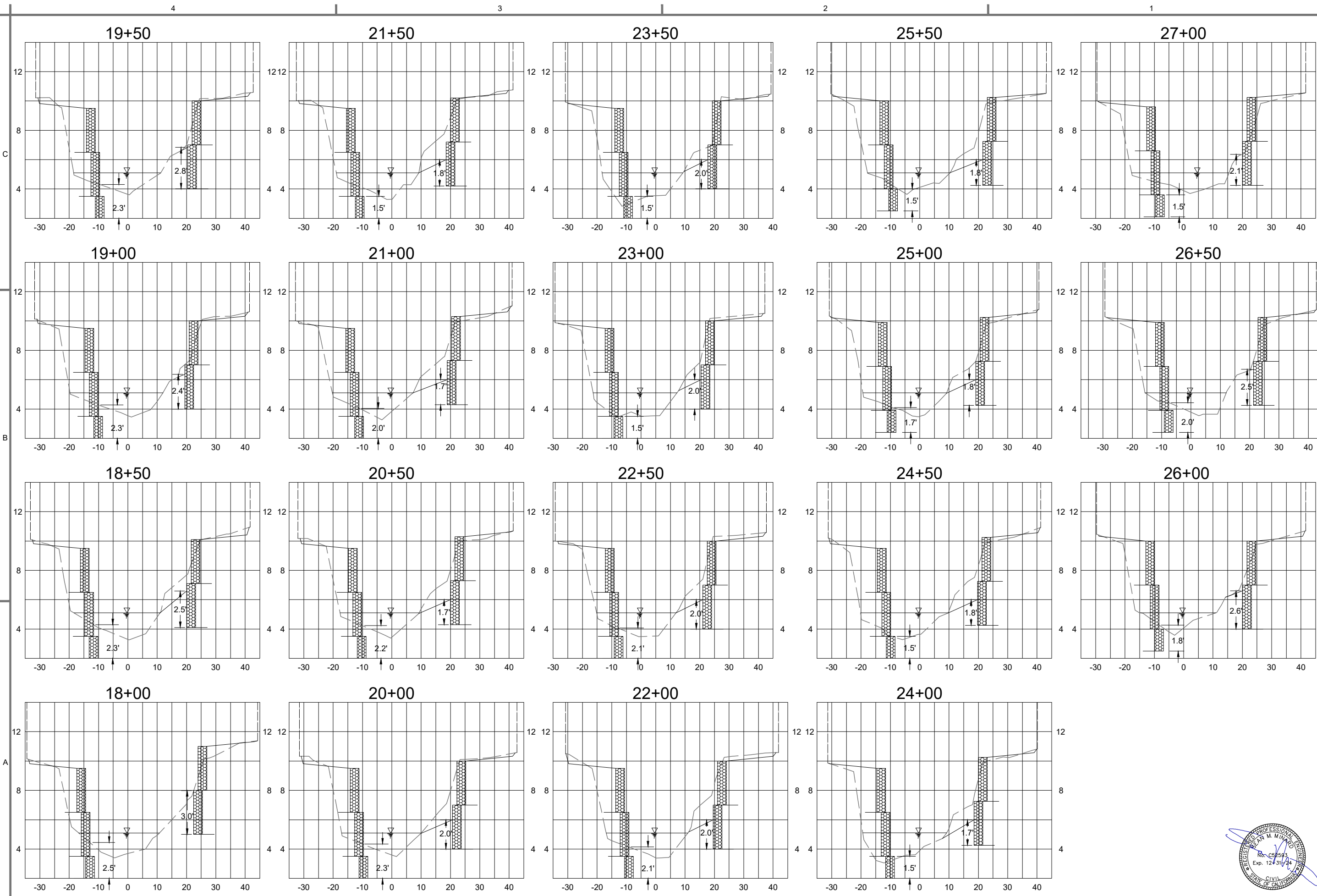












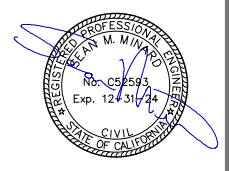
Rev.	Date	05-25-24
Design file no.	16137	
Drawing Code	SMM	
File name	06-23-24	
Plot date	06-23-24	
Plot scale	AS NOTED	

Designed by	M.H.M. INCORPORATED
Drawn by	KAS
Spec No.	16137
Reviewed by	SMM
Submitted by	
Civil Engineer	

**BLACKER DRAINAGE CANAL  
CROSS SECTIONS**

CONSTRUCTION DOCUMENTS FOR:  
Blacker Drainage Canal  
Slope Rehabilitation Project  
Yolo County, California  
Reclamation District No. 900

Sheet reference number:  
**X2**  
Sheet 8 of 14













Rev.	Date	Description	Symbol	Date	Approval

Designed by:	M.H.M. INCORPORATED	Date:	05-23-24
Drawn by:	KAS	Design file no.:	16137
Reviewed by:	SMH	Drawing Code:	R1
Submitted by:	Civil Engineer	File name:	16137_R1_0046
		Plot date:	05-23-24
		Plot scale:	AS NOTED

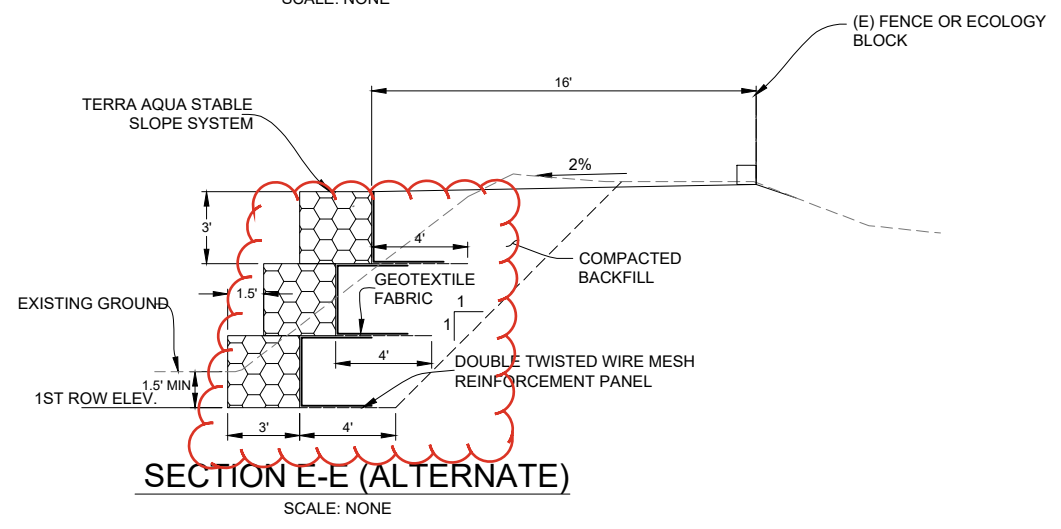
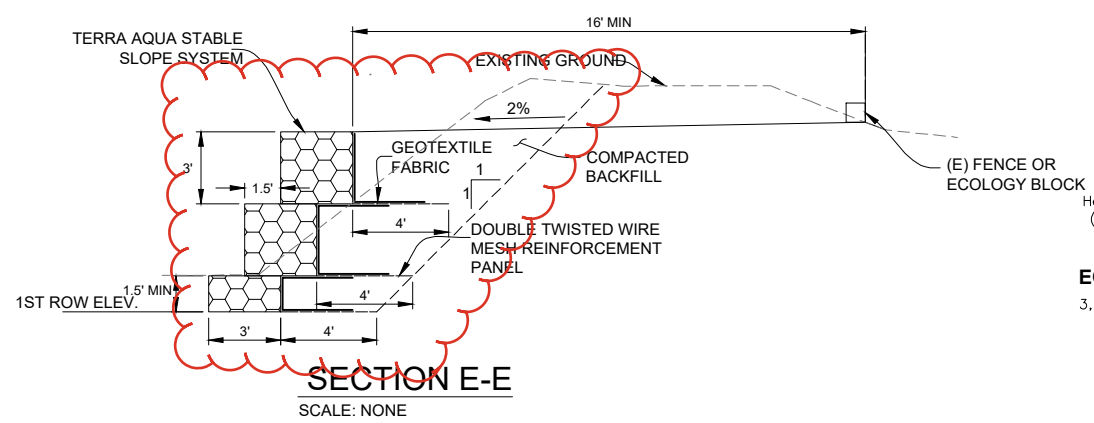
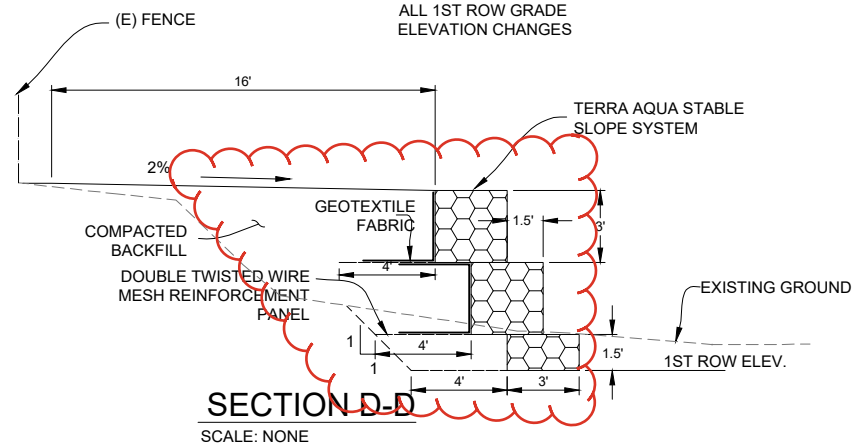
TYPICAL CROSS SECTIONS  
 AND ECOLOGY BLOCKS  
 BLACKER DRAINAGE CANAL

CONSTRUCTION DOCUMENTS FOR:  
 Blacker Drainage Canal  
 Slope Rehabilitation Project  
 Yolo County, California  
 Reclamation District No. 900

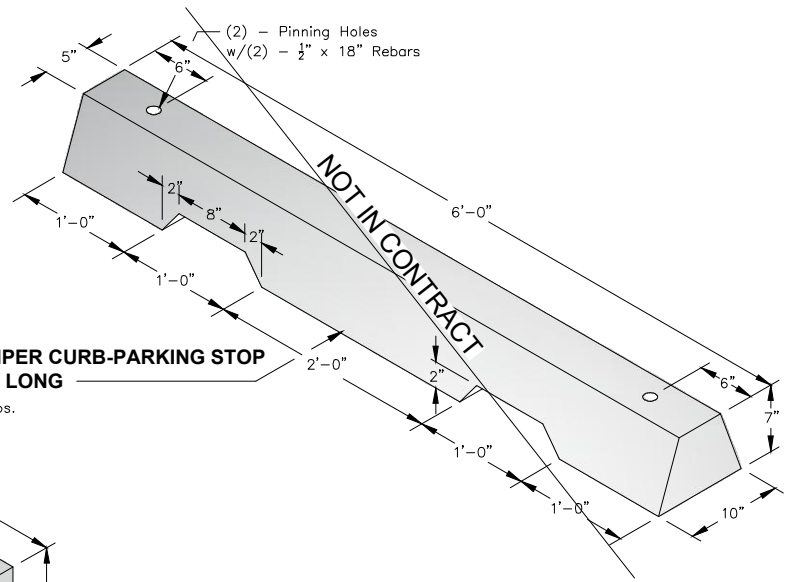
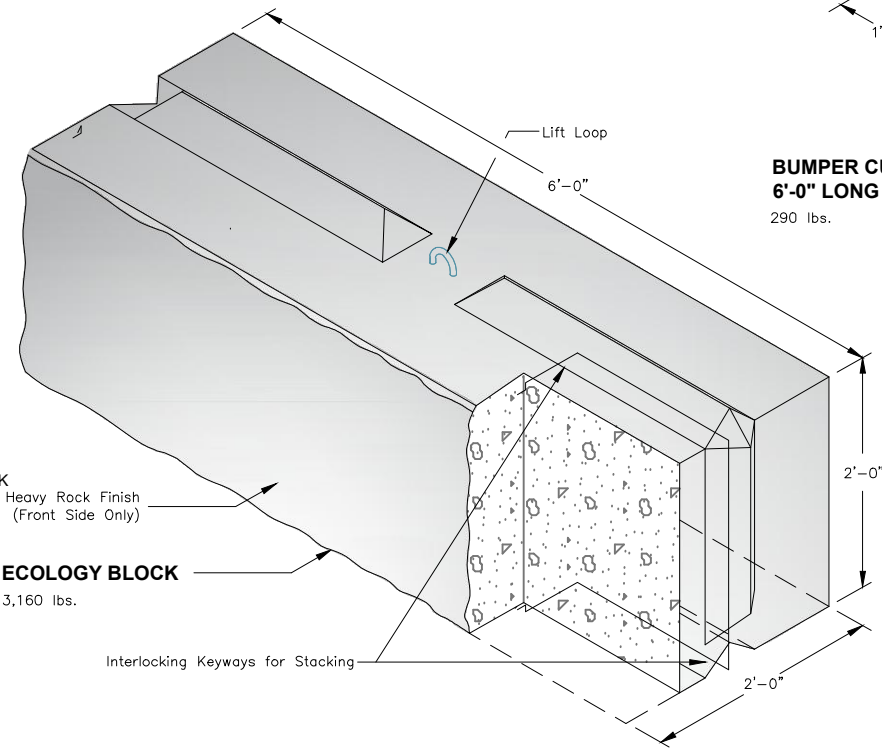
Sheet reference number:  
**R2**  
 Sheet 11 of 14



NOTE:  
 PROVIDE SMOOTH  
 TRANSITIONS BETWEEN  
 ALL 1ST ROW GRADE  
 ELEVATION CHANGES



**BUMPER CURBS / ECOLOGY BLOCK**



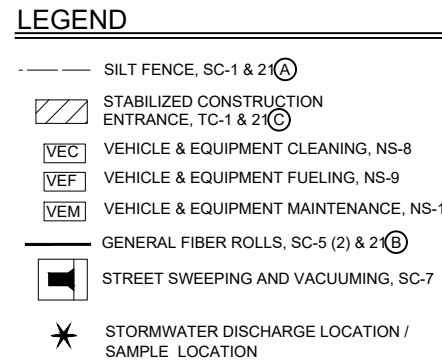
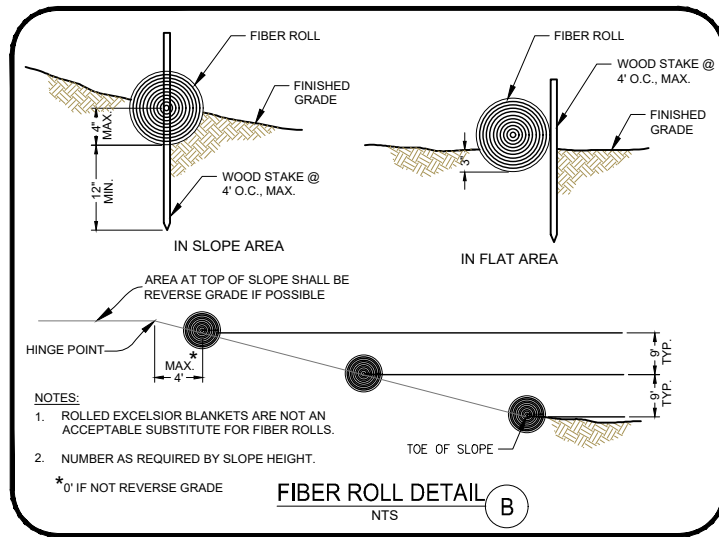
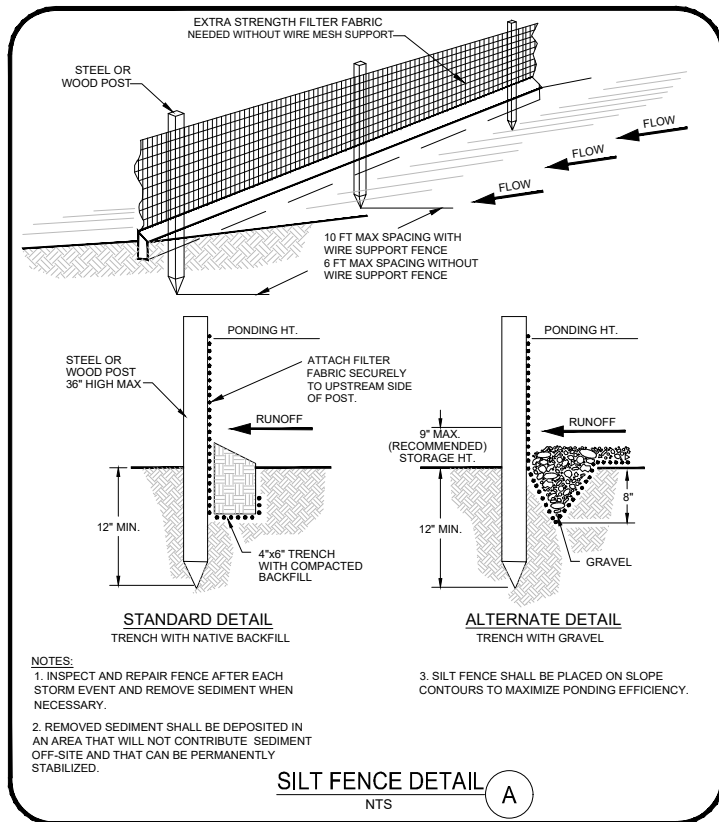
\*CONCRETE BLOCKS SHALL BE PLACED ON  
 SUBGRADE COMPACTED TO 90 PERCENT  
 RELATIVE COMPACTION.

 PO Box 323, Wilsonville, Oregon 97070-0323 Tel: (503) 682-2844 Fax: (503) 682-2657 <a href="http://oldcastleprecast.com/wilsonville">oldcastleprecast.com/wilsonville</a>	<b>B. CURB / E. BLOCK</b>	<b>BUMPER CURBS          ECOLOGY BLOCK</b>
	File Name: 020-CRBLK	
	Issue Date: 2016	



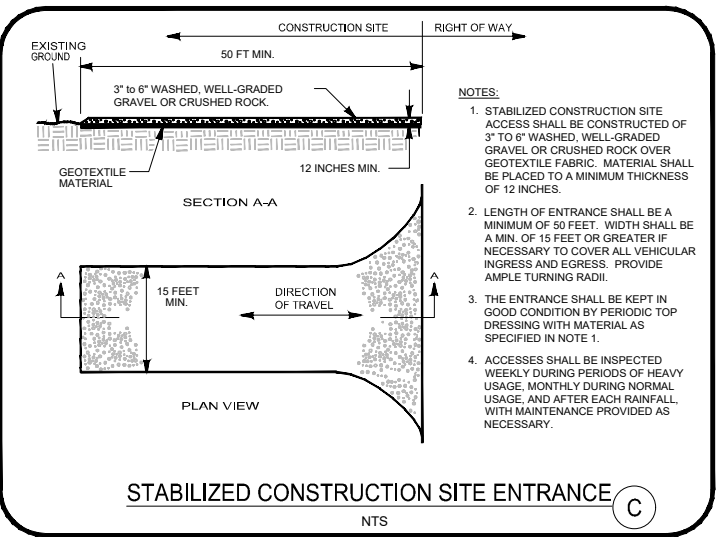






- NOTES:**
- CONTRACTOR SHALL KEEP THE SITE CLEAN UTILIZING "GOOD HOUSEKEEPING" PRACTICES DESCRIBED IN THE PROJECT "STORM WATER POLLUTION PREVENTION PLAN" (SWPPP) / PERMIT.
  - CONCRETE WASTE SHALL NOT BE DISPOSED OF TO THE CITY STORM DRAIN SYSTEM AT ANY TIME. ALL CONCRETE WASTE SHALL BE DISPOSED OF IN CONTRACTOR DESIGNATED CLEAN OUT AREAS AND IN CONFORMANCE WITH THE SWPPP. WASHED OUT CONCRETE SHALL BE ALLOWED TO DRY AND REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROPRIATE LOCATION.
  - CONTRACTOR SHALL PROVIDE Q.S.D.' / Q.S.P. SERVICES / MONITORING AND REPORTING TO CHECK THE SITE ON A DAILY BASIS. THE REPRESENTATIVE SHALL CHECK ALL EROSION CONTROL DEVICES AFTER EACH RAIN EVENT AND PRIOR TO ANY FORECASTED RAIN. THE SITE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO OCTOBER 1 AND READY FOR ANY STORM DURING THE PROJECT.
  - CONTRACTOR SHALL KEEP AN INSPECTION AND MAINTENANCE LOG IN ACCORDANCE WITH THE SWPPP / PERMIT.
  - THIS EROSION CONTROL PLAN AND SWPPP SHALL BE KEPT ONSITE AT ALL TIMES DURING CONSTRUCTION.
  - THE STABILIZED CONSTRUCTION ENTRANCE(S) SHALL BE INSPECTED MONTHLY AND AFTER EACH RAINFALL. GRAVEL MATERIAL SHALL BE REPLACED WITH 1" MIN - 3" MAX WASHED ROCK WHEN SURFACE VOIDS ARE VISIBLE.
  - ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL THE DISTURBED AREAS ARE STABILIZED. UNFORESEEN SITUATIONS MAY ARISE DURING CONSTRUCTION AND CHANGES TO THIS EROSION CONTROL PLAN SHALL BE MADE TO MEET THE FIELD CONDITIONS. THE CHANGES SHALL BE APPROVED IN ADVANCE OF BEING IMPLEMENTED BY YUBA COUNTY.
  - IN AREAS WHERE SOIL IS EXPOSED, PROMPT REPLANTING WITH NATIVE COMPATIBLE DROUGHT-RESISTANT VEGETATION SHALL BE PERFORMED. NO AREAS SHALL BE LEFT EXPOSED THROUGHOUT THE WINTER.
  - TRACKED SEDIMENT FROM THE SITE SHALL BE CLEANED DAILY USING A STREET SWEEPER. ALL SOLID WASTE SHALL BE PICKED UP AND DISPOSED OF IN THE PROPER MANNER.

- WHEN WINDS EXCEED 20 MPH ALL GRADING OPERATIONS SHALL STOP.
  - AFTER THE FIRST STORM THE CONTRACTOR SHALL DETERMINE IF ADDITIONAL MEASURES ARE REQUIRED TO REDUCE SEDIMENT FROM SITE AND SWALES.
  - CONTRACTOR SHALL PROVIDE EROSION CONTROL BLANKETS IN SWALES AND ON SLOPES, ESPECIALLY NEAR GUTTERS AND INLETS.
  - CONTRACTOR SHALL PROVIDE PROTECTION FOR AREAS OF DISTURBED SOIL TAKING INTO ACCOUNT SLOPE, AND PROXIMITY TO GUTTERS, INLETS, AND NATURAL DRAINAGE COURSES.
  - CONTRACTOR SHALL PROVIDE PROTECTION FOR STOCKPILED SOIL TAKING INTO ACCOUNT LOCATION OF PILES WITH RESPECT TO RUNOFF, DIVERSION OF RUNOFF AROUND PILES, TAPERS, EROSION CONTROL BLANKETS AND NETTING, STRAW PROTECTION, AND SEEDING IF PILES WILL REMAIN FOR EXTENDED PERIODS. PERIMETER WADDLES SHALL ALSO BE PROVIDED).
- EROSION CONTROL AND WINTERIZATION:**
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PREVENT DISCHARGE OF SEDIMENT FROM THE SITE TO ANY WATERCOURSE, DRAINAGE SYSTEM, OR ONTO ADJACENT PROPERTIES AND TO PREVENT DAMAGE BY EROSION OR DEPOSITION OF SEDIMENT WHICH MAY RESULT FROM THE WORK.
  - THE CONTRACTOR MUST COMPLY WITH ALL FEDERAL, STATE AND LOCAL GOVERNMENT LAWS AND REGULATIONS RELATING TO THE DISCHARGE OF STORM WATER RUNOFF ASSOCIATED WITH CONSTRUCTION ACTIVITIES WHETHER OR NOT THE REQUIRED WORKS OR METHODS ARE STATED ON THESE PLANS.
  - THE CONTRACTOR SHALL CONDUCT INSPECTIONS OF THE SITE BEFORE AND AFTER STORM EVENTS AND ONCE EACH 24-HOUR PERIOD DURING EXTENDED STORM EVENTS TO IDENTIFY BMP EFFECTIVENESS AND IMPLEMENT REPAIRS OR DESIGN CHANGES AS FEASIBLE DEPENDING UPON FIELD CONDITIONS.
  - THE CONTRACTOR SHALL HAVE ON SITE AT ALL TIMES THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE PROJECT. A COPY SHALL BE PROVIDED TO THE COUNTY ENGINEER PRIOR TO START OF CONSTRUCTION.



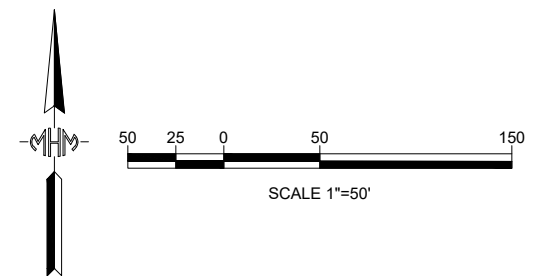
- DUST CONTROL:**
- ALL GRADING OPERATIONS ON A PROJECT SHALL BE SUSPENDED WHEN WINDS EXCEED 20 MPH OR WHEN WINDS CARRY DUST BEYOND THE PROPERTY LINE DESPITE IMPLEMENTATION OF ALL FEASIBLE DUST CONTROL MEASURES.
  - CONSTRUCTION SITES SHALL BE WATERED AS DIRECTED BY THE DEPARTMENT OF PUBLIC WORKS OR AIR QUALITY MANAGEMENT DISTRICT AND AS NECESSARY TO PREVENT FUGITIVE DUST IMPACTS.
  - AN OPERATIONAL WATER TRUCK SHOULD BE ONSITE AT ALL TIMES. APPLY WATER TO CONTROL DUST AS NEEDED TO PREVENT VISIBLE EMISSIONS VIOLATIONS AND OFFSITE DUST IMPACTS.
  - ONSITE DIRT PILES OR OTHER STOCKPILED PARTICULATE MATTER SHOULD BE COVERED. WIND BREAKS INSTALLED, AND WATER AND/OR SOIL STABILIZERS EMPLOYED TO REDUCE WIND BLOWN DUST EMISSIONS. INCORPORATE THE USE OF APPROVED NON-TOXIC SOIL STABILIZERS ACCORDING TO MANUFACTURER'S SPECIFICATIONS TO ALL ACTIVE CONSTRUCTION AREAS.
  - ALL TRANSFER PROCESSES INVOLVING A FREE FALL OF SOIL OR OTHER PARTICULATE MATTER SHALL BE OPERATED IN SUCH A MANNER AS TO MINIMIZE THE FREE FALL DISTANCE AND FUGITIVE DUST EMISSIONS.
  - APPLY APPROVED CHEMICAL SOIL STABILIZERS ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. TO ALL INACTIVE CONSTRUCTION AREAS (PREVIOUSLY GRADED AREAS THAT REMAIN INACTIVE FOR 96 HOURS) INCLUDING UNPAVED ROADS AND EMPLOYEE/EQUIPMENT PARKING AREAS.
  - TO PREVENT TRACK-OUT, WHEEL WASHERS SHALL BE INSTALLED WHERE PROJECT VEHICLES AND/OR EQUIPMENT EXIT ONTO PAVED STREETS FROM UNPAVED ROADS. VEHICLES AND/OR EQUIPMENT SHALL BE WASHED PRIOR TO EACH TRIP. ALTERNATIVELY, A GRAVEL BED MAY BE INSTALLED AS APPROPRIATE AT VEHICLE/EQUIPMENT SITE EXIT POINTS TO EFFECTIVELY REMOVE SOIL BUILDUP ON TIRES AND TRACKS TO PREVENT/DIMINISH TRACK-OUT.
  - PAVED STREETS SHALL BE SWEEPED FREQUENTLY (WATER SWEEPER WITH RECLAIMED WATER RECOMMENDED, WET BRUSH) IF SOIL MATERIAL HAS BEEN CARRIED ONTO ADJACENT PAVED, PUBLIC THOROUGHFARES FROM THE PROJECT SITE. HOWEVER, DO NOT WASH SEDIMENT OR DIRT LADEN WATER INTO THE STORM SYSTEM.
  - PROVIDE TEMPORARY TRAFFIC CONTROL AS NEEDED DURING ALL PHASES OF CONSTRUCTION TO IMPROVE TRAFFIC FLOW, AS DEEMED APPROPRIATE BY THE DEPARTMENT OF PUBLIC WORKS AND/OR CALTRANS AND TO REDUCE VEHICLE DUST EMISSIONS. AN EFFECTIVE MEASURE IS TO ENFORCE VEHICLE TRAFFIC SPEEDS AT OR BELOW 15 MPH.
  - REDUCE TRAFFIC SPEEDS ON UNPAVED SURFACES TO 15 MPH MORE OR LESS AND REDUCE UNNECESSARY VEHICLE TRAFFIC BY RESTRICTING ACCESS. PROVIDE APPROPRIATE TRAINING, ONSITE ENFORCEMENT, AND SIGNAGE.
  - REESTABLISH GROUND COVER ON THE CONSTRUCTION SITE AS SOON AS POSSIBLE AND PRIOR TO FINAL OCCUPANCY, THROUGH SEEDING AND WATERING.
  - OPEN BURNING IS YET ANOTHER SOURCE OF FUGITIVE GAS AND PARTICULATE EMISSIONS AND SHALL BE PROHIBITED AT THE PROJECT SITE. NO OPEN BURNING OF VEGETATIVE WASTE (NATURAL PLANT GROWTH WASTES) OR OTHER ILLEGAL BURN MATERIALS (TRASH, DEMOLITION DEBRIS, ETC.) MAY BE CONDUCTED AT THE PROJECT SITE. VEGETATIVE WASTES SHOULD BE CHIPPED, COMPOSTED, OR USED FOR FIREWOOD. IT IS UNLAWFUL TO HALL WASTE MATERIALS OFFSITE FOR DISPOSAL BY OPEN BURNING.



**SLOPE SEEDING:**

- BASIN SLOPES SHALL HAVE EROSION CONTROL PLACED (WITH LIMITS TO EXTEND 3 FEET MINIMUM BEYOND THE HINGE POINT AT TOP OF SLOPE AND 5 FEET BEYOND TOE OF SLOPE AT BOTTOM) IN CONFORMANCE WITH SECTION 20 OF THE STANDARD SPECIFICATIONS AND THESE SPECIAL PROVISIONS:
- HYDRO-SEEDING SHALL CONSIST OF THE FOLLOWING SEED MIXTURE OF EQUAL PARTS OF:
    - A. ZORRO ANNUAL FESCUE @ 20 lb/ACRE
    - B. BLANDO BROME @ 20 lb/ACRE
    - C. COMMON OAT @ 15 lb/ACRE
    - D. FERTILIZER, (16-20-0 AND 15% SULFER) @ 350 lb/ACRE
    - E. WOOD FIBER @ 1500 lb/ACRE
  - FOR IMMEDIATE EROSION CONTROL, STRAW SHOULD BE DISTRIBUTED AT A RATE OF APPROXIMATELY 100 lbs PER 1000 sq. ft.
  - SEEDING SHALL BE PLACED IMMEDIATELY AFTER AN AREA IS FINISHED, IF WORK STOPS, OR AS DIRECTED BY THE DISTRICT OR COUNTY.

DETAILS CAN BE FOUND IN THE PROJECT SWPPP OR THE CALTRANS STORM WATER QUALITY HANDBOOK "CURRENT EDITION"



Rev.	Date	Description

Designed by: M.H.M. INCORPORATED	Date: 05-25-24	Rev:
Drawn by: KAS	Spec No.: 16137	Design file no.: 16137
Reviewed by: SHM	Drawing Code: EC1	File name: 16137_EC1_6066
Submitted by:	Plot date: 05-25-24	Plot scale: AS NOTED
Civil Engineer:		

**EROSION CONTROL PLAN  
BLACKER DRAINAGE DITCH**

**CONSTRUCTION DOCUMENTS FOR:**  
Blacker Drainage Canal  
Slope Rehabilitation Project  
Yolo County, California  
Reclamation District No. 900

Sheet reference number:  
**EC1**  
Sheet 13 of 14



