



AGRICULTURAL ADVISORY COMMITTEE

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www.saccounty.gov

Steve Campbell – Member at Large
Morgan Doran – UCCE Farm Advisor
Brian Fishback – Commercial Bee Keeping
Charlotte Mitchell – Natural Resources; Poultry
Ken Oneto – Orchards, Vineyards, Row Crops
Brad van Loben Sels – Farm Management
Jim Viethier - Livestock
Michael Wackman – Natural Resources; Wineries
Vacant – Agricultural Economics

AGENDA

September 11, 2024; 6:30pm

Valley Oak Room

4137 Branch Center Rd., Sacramento, California

Public testimony will be received on each agenda item as it is called. The applicant is allocated 10 minutes to speak; individual comments are limited to 3 minutes; and individuals representing a group are allocated 5 minutes.

Items not on the agenda may be addressed by the general public during Public Forum. Comments are limited to 3 minutes per person. The Committee reserves the right to waive said rules by a majority vote. Public Forum is for general comments only. No action will be taken on these items unless they are scheduled on a future agenda.

To ensure timely delivery to the Agricultural Advisory Committee, written information from the public must be received by the Agricultural Commissioner by the last Wednesday prior to the meeting. The Agricultural Commissioner cannot guarantee that any FAX or mail received the day of the meeting will be delivered to the Committee prior to action on the subject matter.

All Agricultural Advisory Committee meetings are recorded. Anyone wishing to receive a copy of a recording of an Agricultural Advisory Committee meeting may do so under the California Public Records Act by requesting a copy through <https://saccounty.nextrequest.com/>.

Written minutes of the Agricultural Advisory Committee can be accessed at <http://www.agcomm.saccounty.gov> or by contacting the Agricultural Commissioner's Office utilizing the California Public Records Act request process.

Pursuant to Government Code §54954.2, any person with a disability who requires a modification or accommodation in order to participate in this public meeting is to contact the Agricultural Commissioner's Office by 4:00pm the day of the meeting.

1. Call to Order
2. Approval of Agenda
3. Approval of Minutes (Meeting of June 12, 2024)
4. Public Forum
5. New Business:
 - a. **PLNP2022-00319 Zacharias Ranch Mitigation Bank (BRB):** A Board Review to rescind existing Williamson Act contract (74-AP-035) and simultaneously enter into an Open Space Easement Agreement for a Floodplain-Tidal Marsh Mitigation Bank, consisting of approximately 600 acres, in the Delta Community – Leanne Mueller, Planning and Environmental Review
6. Industry/Association/Partner Agency Updates
7. Agricultural Commissioner Update – Chris Flores
8. Committee Member Updates
9. Adjournment – Next Meeting: October 9, 2024; 6:30 p.m.

**PLANNING AND ENVIRONMENTAL REVIEW
COUNTY OF SACRAMENTO
CALIFORNIA**

To: Agricultural Advisory Committee

Subject: PLNP2022-00319. Zacharias Ranch Mitigation Bank (BRB). A Board Review For Rescinding Existing Williamson Act Contract (74-AP-035) And Simultaneously Enter Into A New Contract That Will Include Open Space Easement Agreement Pursuant To The Williamson Act, For A Floodplain-Tidal Marsh Mitigation Bank, Consisting Of Approximately 600 Acres, Located In The Delta Community.

Decision Body: Board of Supervisors

APN: 146-0030-010, -025, 146-0070-002, -014

Supervisory

District: Hume

Contact: Leanne Mueller, Senior Planner,

Details of Request:

A **Board Review** to rescind an existing Williamson Act contract (74-AP-035) and simultaneously enter into a new contract that will include Open Space Easement Agreement pursuant to the Williamson Act, for a Floodplain-Tidal Marsh mitigation bank.

Applicant or Representative:

Westervelt Ecological Service
600 N. Market Blvd. Suite 3
Sacramento, CA 95834
ATTENTION: Brighton Heard

Summary of Key Points:

- Project Location and Setting. The subject properties are undeveloped located on the 1,700 feet south of Lambert Road adjacent to the Snodgrass Slough.
- Community Context. The Project site is located in the AG-80 Zoning District in an area that is largely undeveloped and used agriculturally.
- Site History. PAMP2021-00054 to discuss the CEQA process for a mitigation bank.
- Project Description. A Board Review and environmental document to rescind an Williamson Act contract and enter into a Open Space Easement Agreement pursuant to the Williamson Act for a mitigation bank on three parcels totalling 630 acres.
- The Board of Supervisors (Board) is the Decision Body for this item. The AAC's recommendation will be provided to the Board for their consideration.

PLNP2022-00319 Zacharias Mitigation Bank

Attachments:

ATT 1 - Project Maps (Aerial and Zoning Maps)

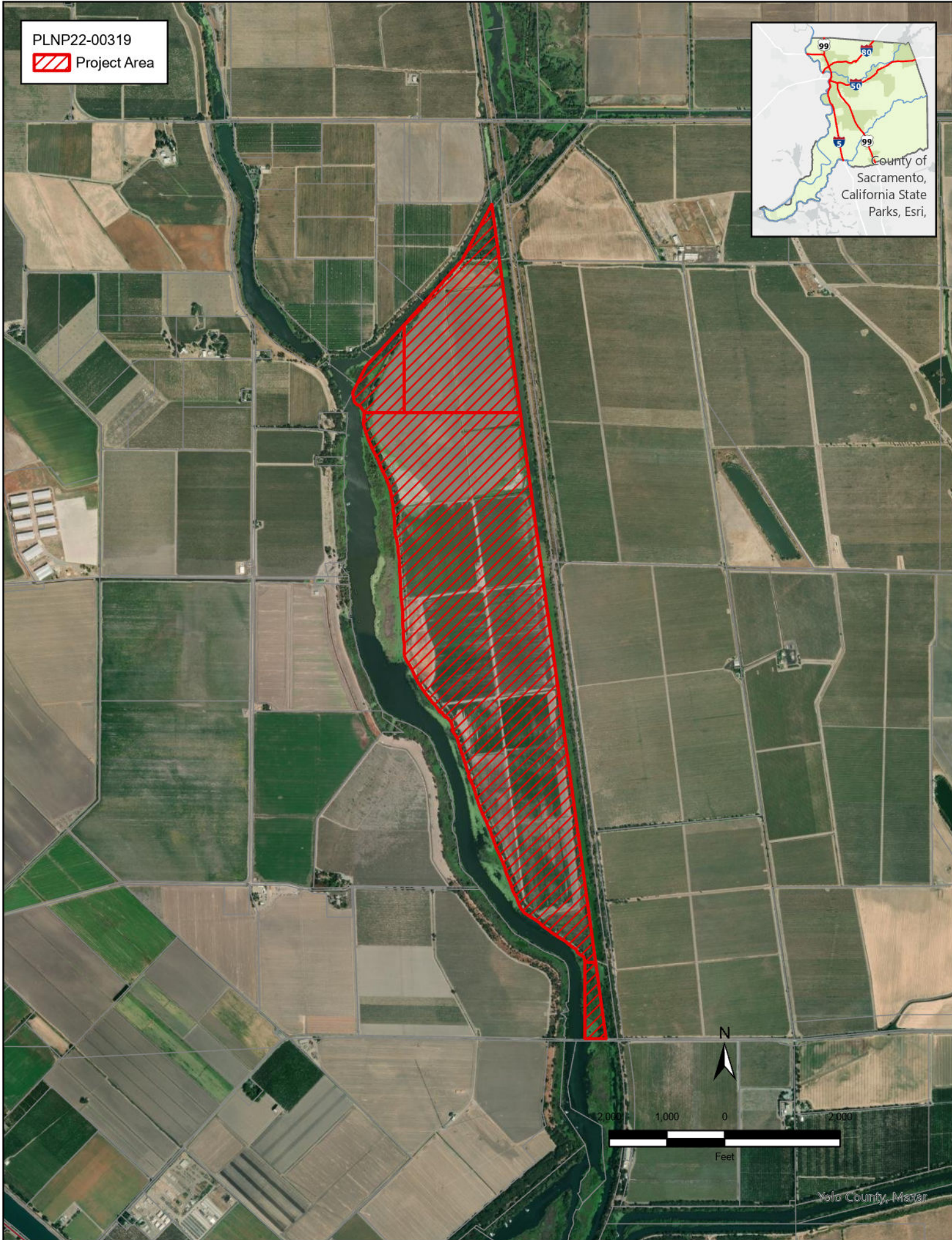
ATT 2 - Site Plan/Grading Plan

For more information about the project, visit the [Planning Project Viewer](#) enter the project application number, PLNP2022-00319.

For more information about the subject parcel(s), visit [parcel viewer](#) and enter the project address or assessor parcel number.

PLNP22-00319

 Project Area



PLNP22-00319

 Project Area

GENERAL PLAN LAND USE

 AG CROP

 INT IND

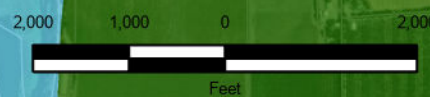
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Yolo County, Maxar

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SHEET INDEX	
COVER SHEET	T1
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PLANTING PLAN AND DETAILS SHEETS	L1–L3

- GENERAL NOTES
1.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING AND AVOIDING DAMAGE TO UNDERGROUND UTILITIES THAT ARE NOT NOTED FOR REMOVAL IN THE PLANS. THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES AT LEAST 48 HOURS PRIOR TO EXCAVATION. ANY RELOCATIONS OR TEMPORARY OUTAGES SHALL BE COORDINATED WITH THE ENGINEER. IF UTILITY CONFLICTS ARE IDENTIFIED, THE CONTRACTOR SHALL HALT ALL WORK IN THE AREA AFFECTED BY THE UTILITY CONFLICT AND SHALL IMMEDIATELY NOTIFY THE ENGINEER.
2.

THIS PROJECT IS SUBJECT TO REQUIREMENTS OF PERMITS ISSUED BY VARIOUS REGULATORY AGENCIES. THE CONTRACTOR IS RESPONSIBLE FOR UNDERSTANDING AND PERFORMING ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF PERMITS. COPIES OF THE PERMITS HAVE BEEN PROVIDED TO THE CONTRACTOR ALONG WITH THESE PLANS AND SHALL BE KEPT ONSITE AT ALL TIMES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO VERIFY THAT THE MOST RECENT COPY OF ALL PERMITS HAVE BEEN PROVIDED.
3.

TOPOGRAPHIC INFORMATION SHOWN IN THE PLANS WAS DEVELOPED FROM SUREYS BY LONGENOUR AND MIEKLE COLLECTED ON FEBRUARY 09, 2021, WESTERVELT ENVIRONMENTAL SERVICES ON MARCH 24, 2021, AND DWR LIDAR IN 2017.
4.

HORIZONTAL COORDINATES ARE BASED ON NAD 1983 CALIFORNIA STATE PLANE, ZONE II, US FEET.
5.

ELEVATIONS REFER TO NAVD 1988 DATUM IN FEET.
6.

THE PROJECT WORK CONSISTS OF EXCAVATION OF CHANNELS AND PLACEMENT OF THE EXCAVATED MATERIAL INTO MOUNDS. THE PROJECT WILL BALANCE EARTHWORK AND WILL ONLY REQUIRE ON-HAUL OF GRAVEL AGGREGATE FOR BOAT LAUNCH RAMP.
7.

ALL CHANNELS SHALL BE FULLY EXCAVATED TO THE FULL CROSS-SECTION SHAPE. IF ALL MOUNDS ARE CONSTRUCTED TO FINAL GRADE PRIOR TO FINISHING CHANNEL EXCAVATION, THE ENGINEER WILL DIRECT THE CONTRACTOR WHERE TO PLACE ADDITIONAL MOUNDS IN THE PROJECT AREA.
8.

TWO SENSITIVE AREAS ARE IDENTIFIED ON THE PLANS AS "PROTECTED AREA". THE CONTRACTOR MUST NOT TRAVERSE OVER, EXCAVATE IN, OR OTHERWISE DISTURB THESE AREAS.
9.

WHEN CONDITIONS IN THE FIELD DO NOT CONFORM WITH THE INFORMATION IN THESE PLANS AND/OR WHEN UNUSUAL CIRCUMSTANCES OCCUR DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER.
10.

SNODGRASS SLOUGH IS A TIDAL CHANNEL WHICH BOUNDS THE SOUTHERN, WESTERN, AND NORTHERN EXTENTS OF THE PROJECT. ELEVATIONS ON THE PROJECT SITE ARE GENERALLY AT OR BELOW MEAN TIDE ELEVATIONS IN SNODGRASS SLOUGH. BERMS SURROUNDING THE SITE GENERALLY PROTECT THE SITE FROM TIDAL INUNDATION. APPROXIMATE TIDE STATISTICS ARE SHOWN ON THIS SHEET. GROUNDWATER MAY BE PRESENT DURING EXCAVATION.
11.


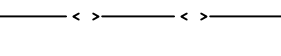





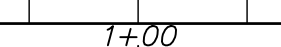




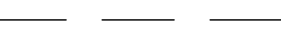
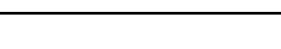
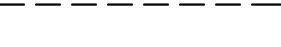







THE PROJECT SITE IS LOCATED WITHIN AN ACTIVE FLOODPLAIN. SOURCES OF FLOODING ONTO THE SITE INCLUDE HIGH FLOWS FROM THE MOKELUMNE RIVER AND/OR SACRAMENTO RIVER CREATING HIGH BACKWATER CONDITIONS IN SNODGRASS SLOUGH, HIGH TIDES CREATING HIGH BACKWATER CONDITIONS IN SNODGRASS SLOUGH, OR LOCAL RUNOFF FROM THE WATERSHED. HIGH RUNOFF EVENTS CAN OVERTOP THE FLOOD PROTECTION BERM SURROUNDING THE SITE.
12.

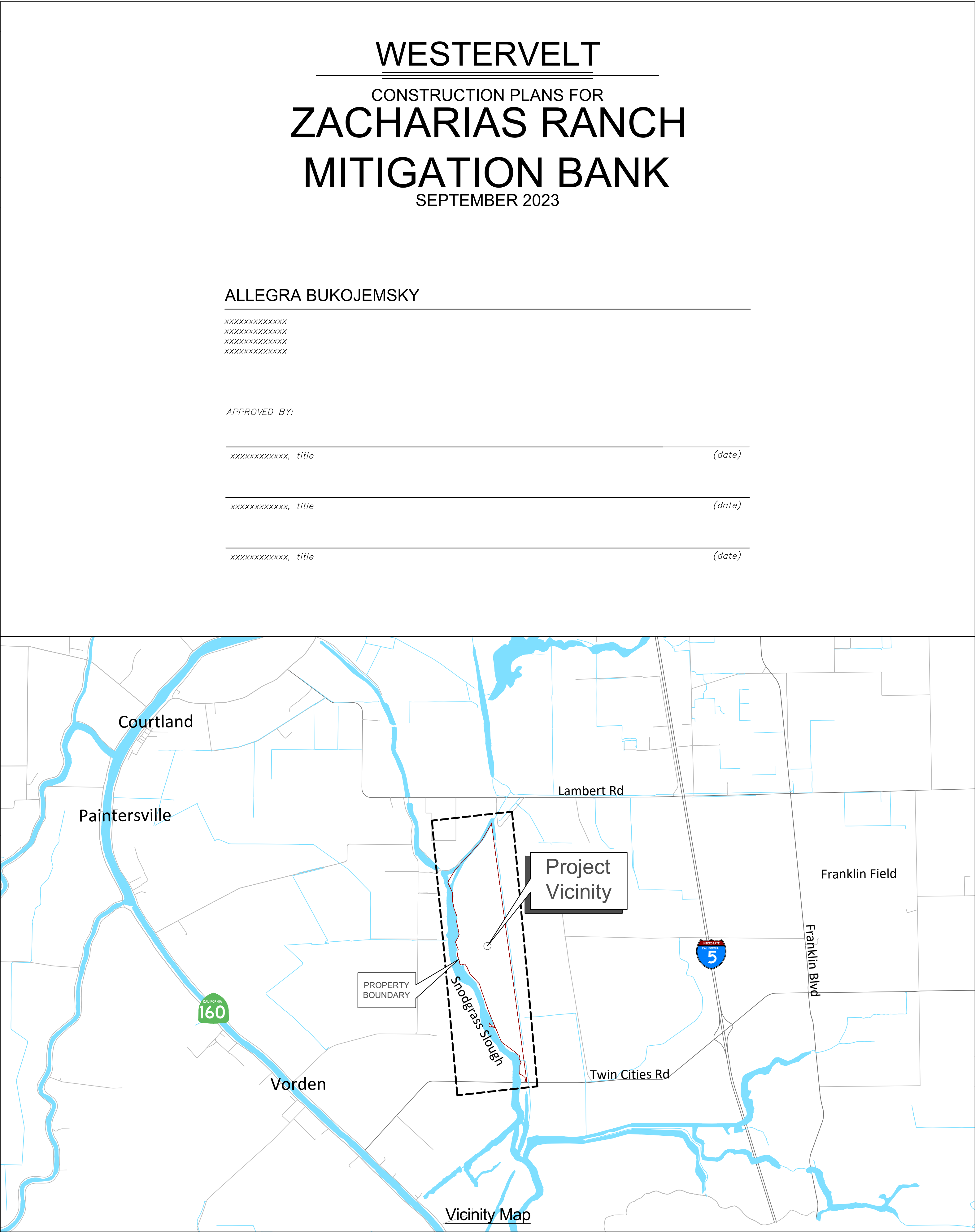
THE PROJECT SITE INCLUDES DRAINAGE PUMPS THAT HAVE BEEN USED TO LOWER GROUNDWATER LEVELS FOR AGRICULTURAL PURPOSES. THE CONTRACTOR SHOULD COORDINATE WITH THE ENGINEER TO DETERMINE IF THESE PUMPS ARE IN WORKING ORDER AND CAN BE OPERATED DURING CONSTRUCTION.
13.


IF ARTIFACTS OR OTHER MATERIALS ARE FOUND THAT INDICATE POTENTIAL ARCHEOLOGICAL OR HISTORICAL RESOURCES WITHIN WORK AREAS, WORK SHALL BE HALTED IMMEDIATELY AND THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

EARTHWORK QUANTITIES		
CHANNEL CUT (CY)	MOUND FILL (CY)	BOAT LAUNCH GRAVEL (CY)
116,000	116,000	470


TIDE HEIGHT	APPROX. ELEV. (FT)
MEAN HIGHER HIGH WATER (MHHW)	6.2
MEAN HIGH WATER (MHW)	5.7
MEAN TIDE LEVEL (MTL)	4.9
MEAN LOW WATER (MLW)	4.0
MEAN LOWER LOW WATER (MLLW)	3.5

LEGEND	
DEMOLITION	
ACCESS ROUTE	
EXISTING CONTOURS (MAJOR)	
EXISTING CONTOURS (MINOR)	
EXISTING BODY OF WATER	
EXISTING BUILDINGS & STRUCTURES	
EXISTING UTILITIES	
PROPOSED EARTHWORK	
CONSTRUCTION BASELINE	
CONTROL POINT	
PROPOSED CONTOUR	
PROTECTED AREA	
STAGING AREA	
SHEET MATCHLINE	
TYPE 1 CHANNEL	
TYPE 2 CHANNEL	
TYPE 3 CHANNEL	
TYPE 4 CHANNEL	
MARSH MOUND FILL	
TREES TO BE PROTECTED	
TREES TO BE REMOVED	
GRAVEL BOAT RAMP	






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PRELIMINARY
NOT FOR CONSTRUCTION

Brian G. Wardman
CALIFORNIA REGISTERED
PROFESSIONAL ENGINEER NO. # 74371
northwest hydraulic consultants

(date)



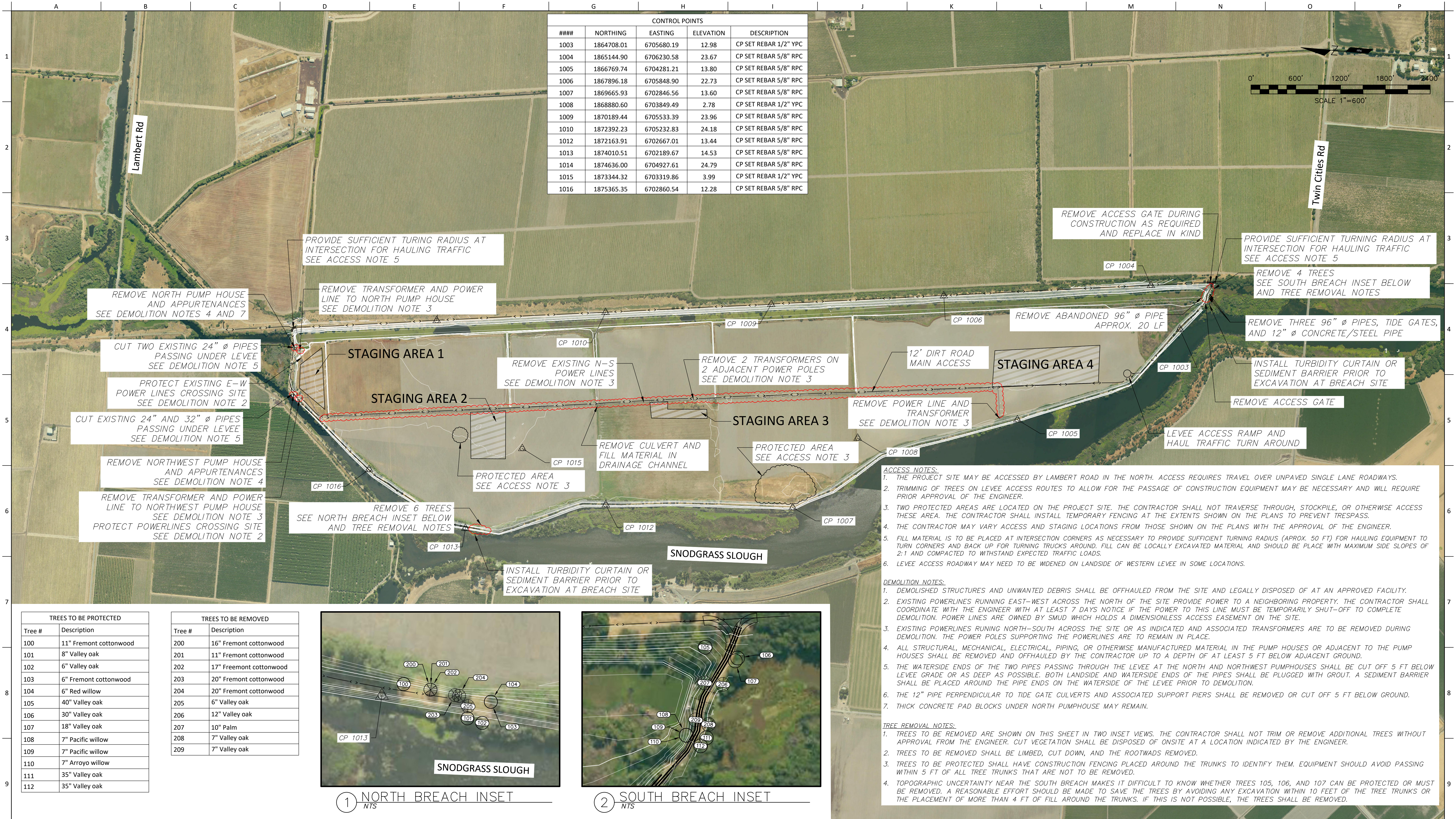
Project Location Map

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Drawing Status 65% Submittal	Designer RO	Drafter CF	Checked BW	Job Number 5006208
				Sheet Number

Sheet 1 of 17

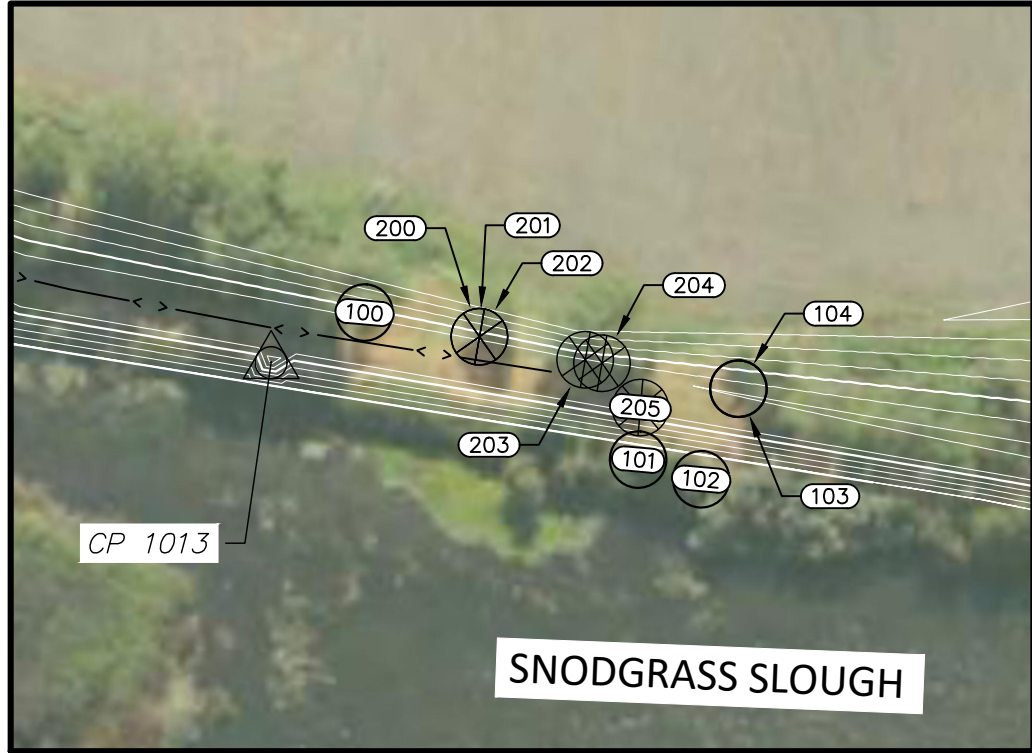
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DESIGNER: J. GREGORY

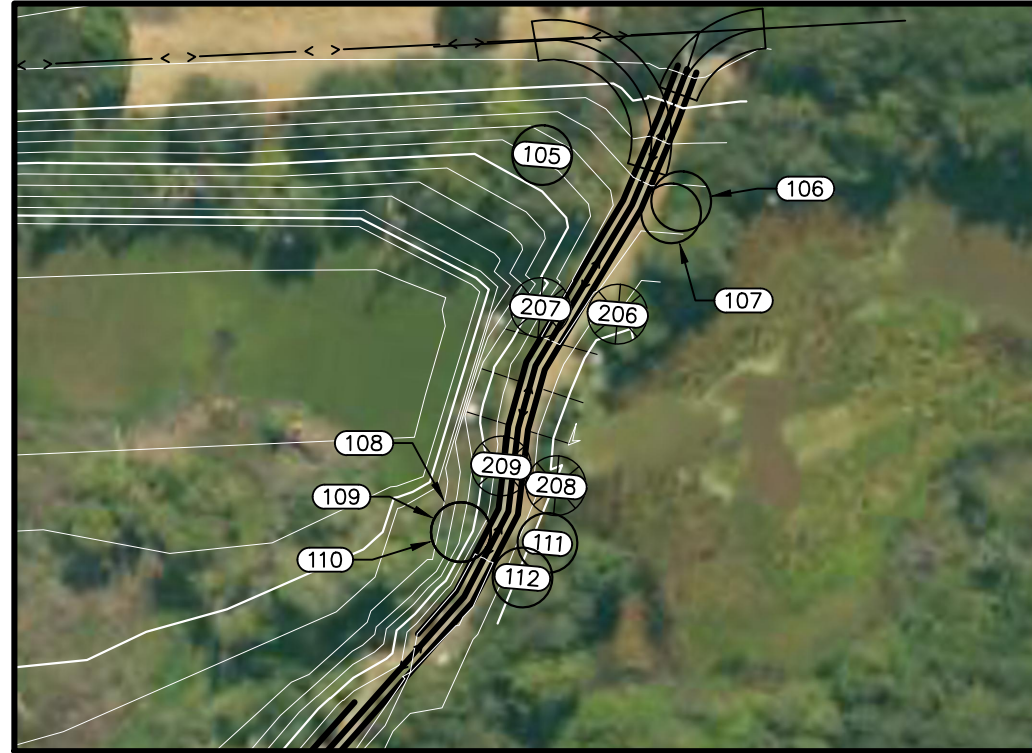


TREES TO BE PROTECTED	
Tree #	Description
100	11" Fremont cottonwood
101	8" Valley oak
102	6" Valley oak
103	6" Fremont cottonwood
104	6" Red willow
105	40" Valley oak
106	30" Valley oak
107	18" Valley oak
108	7" Pacific willow
109	7" Pacific willow
110	7" Arroyo willow
111	35" Valley oak
112	35" Valley oak

TREES TO BE REMOVED	
Tree #	Description
200	16" Fremont cottonwood
201	11" Fremont cottonwood
202	17" Fremont cottonwood
203	20" Fremont cottonwood
204	20" Fremont cottonwood
205	6" Valley oak
206	12" Valley oak
207	10" Palm
208	7" Valley oak
209	7" Valley oak



1 NORTH BREACH INSET
NTS



2 SOUTH BREACH INSET
NTS

- ACCESS NOTES:**
- THE PROJECT SITE MAY BE ACCESSED BY LAMBERT ROAD IN THE NORTH. ACCESS REQUIRES TRAVEL OVER UNPAVED SINGLE LANE ROADWAYS.
 - TRIMMING OF TREES ON LEVEE ACCESS ROUTES TO ALLOW FOR THE PASSAGE OF CONSTRUCTION EQUIPMENT MAY BE NECESSARY AND WILL REQUIRE PRIOR APPROVAL OF THE ENGINEER.
 - TWO PROTECTED AREAS ARE LOCATED ON THE PROJECT SITE. THE CONTRACTOR SHALL NOT TRAVERSE THROUGH, STOCKPILE, OR OTHERWISE ACCESS THESE AREAS. THE CONTRACTOR SHALL INSTALL TEMPORARY FENCING AT THE EXTENTS SHOWN ON THE PLANS TO PREVENT TRESPASS.
 - THE CONTRACTOR MAY VARY ACCESS AND STAGING LOCATIONS FROM THOSE SHOWN ON THE PLANS WITH THE APPROVAL OF THE ENGINEER.
 - FILL MATERIAL IS TO BE PLACED AT INTERSECTION CORNERS AS NECESSARY TO PROVIDE SUFFICIENT TURNING RADIUS (APPROX. 50 FT) FOR HAULING EQUIPMENT TO TURN CORNERS AND BACK UP FOR TURNING TRUCKS AROUND. FILL CAN BE LOCALLY EXCAVATED MATERIAL AND SHOULD BE PLACED WITH MAXIMUM SIDE SLOPES OF 2:1 AND COMPACTED TO WITHSTAND EXPECTED TRAFFIC LOADS.
 - LEVEE ACCESS ROADWAY MAY NEED TO BE WIDENED ON LANDSIDE OF WESTERN LEVEE IN SOME LOCATIONS.

- DEMOLITION NOTES:**
- DEMOLISHED STRUCTURES AND UNWANTED DEBRIS SHALL BE OFFHAULED FROM THE SITE AND LEGALLY DISPOSED OF AT AN APPROVED FACILITY.
 - EXISTING POWERLINES RUNNING EAST-WEST ACROSS THE NORTH OF THE SITE PROVIDE POWER TO A NEIGHBORING PROPERTY. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER WITH AT LEAST 7 DAYS NOTICE IF THE POWER TO THIS LINE MUST BE TEMPORARILY SHUT-OFF TO COMPLETE DEMOLITION. POWER LINES ARE OWNED BY SMUD WHICH HOLDS A DIMENSIONLESS ACCESS EASEMENT ON THE SITE.
 - EXISTING POWERLINES RUNNING NORTH-SOUTH ACROSS THE SITE OR AS INDICATED AND ASSOCIATED TRANSFORMERS ARE TO BE REMOVED DURING DEMOLITION. THE POWER POLES SUPPORTING THE POWERLINES ARE TO REMAIN IN PLACE.
 - ALL STRUCTURAL, MECHANICAL, ELECTRICAL, PIPING, OR OTHERWISE MANUFACTURED MATERIAL IN THE PUMP HOUSES OR ADJACENT TO THE PUMP HOUSES SHALL BE REMOVED AND OFFHAULED BY THE CONTRACTOR UP TO A DEPTH OF AT LEAST 5 FT BELOW ADJACENT GROUND.
 - THE WATERSIDE ENDS OF THE TWO PIPES PASSING THROUGH THE LEVEE AT THE NORTH AND NORTHWEST PUMPHOUSES SHALL BE CUT OFF 5 FT BELOW LEVEE GRADE OR AS DEEP AS POSSIBLE. BOTH LANDSIDE AND WATERSIDE ENDS OF THE PIPES SHALL BE PLUGGED WITH GROUT. A SEDIMENT BARRIER SHALL BE PLACED AROUND THE PIPE ENDS ON THE WATERSIDE OF THE LEVEE PRIOR TO DEMOLITION.
 - THE 12" PIPE PERPENDICULAR TO TIDE GATE CULVERTS AND ASSOCIATED SUPPORT PIERS SHALL BE REMOVED OR CUT OFF 5 FT BELOW GROUND.
 - THICK CONCRETE PAD BLOCKS UNDER NORTH PUMPHOUSE MAY REMAIN.

- TREE REMOVAL NOTES:**
- TREES TO BE REMOVED ARE SHOWN ON THIS SHEET IN TWO INSET VIEWS. THE CONTRACTOR SHALL NOT TRIM OR REMOVE ADDITIONAL TREES WITHOUT APPROVAL FROM THE ENGINEER. CUT VEGETATION SHALL BE DISPOSED OF ONSITE AT A LOCATION INDICATED BY THE ENGINEER.
 - TREES TO BE REMOVED SHALL BE LIMBED, CUT DOWN, AND THE ROOTWADS REMOVED.
 - TREES TO BE PROTECTED SHALL HAVE CONSTRUCTION FENCING PLACED AROUND THE TRUNKS TO IDENTIFY THEM. EQUIPMENT SHOULD AVOID PASSING WITHIN 5 FT OF ALL TREE TRUNKS THAT ARE NOT TO BE REMOVED.
 - TOPOGRAPHIC UNCERTAINTY NEAR THE SOUTH BREACH MAKES IT DIFFICULT TO KNOW WHETHER TREES 105, 106, AND 107 CAN BE PROTECTED OR MUST BE REMOVED. A REASONABLE EFFORT SHOULD BE MADE TO SAVE THE TREES BY AVOIDING ANY EXCAVATION WITHIN 10 FEET OF THE TREE TRUNKS OR THE PLACEMENT OF MORE THAN 4 FT OF FILL AROUND THE TRUNKS. IF THIS IS NOT POSSIBLE, THE TREES SHALL BE REMOVED.



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Revisions		
No.	Date	Description

Drawing Information	
Date	09:35:28 20230929
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Drafter	CF
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Zacharias Ranch Mitigation Bank

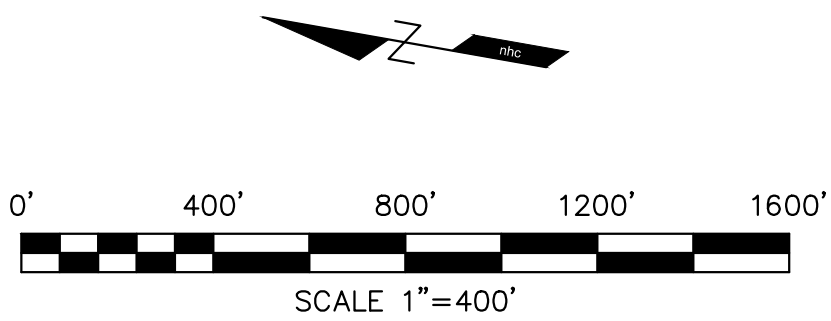
Access, Control, & Demolition

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G1
Sheet 2 of 17

1. THE PROJECT WORK CONSISTS OF EXCAVATION OF CHANNELS AND PLACEMENT OF THE EXCAVATED MATERIAL INTO MOUNDS. THE PROJECT WILL BALANCE EARTHWORK AND WILL ONLY REQUIRE ON-HAUL GRAVEL AGGREGATE FOR BOAT LAUNCH RAMP IN THE NORTH.
2. FILL MATERIAL SHALL BE FREE FROM WOODY VEGETATION, TOXIC SUBSTANCES, AND DEBRIS.
3. CHANNELS ARE INTENDED TO FACILITATE TIDAL FLOW OF WATER ONTO AND OFF OF THE SITE. FOUR STANDARD CHANNEL SIZES ARE SPECIFIED: TYPE 1, TYPE 2, TYPE 3, AND TYPE 4. SHEET C7 PROVIDES STANDARD CROSS-SECTIONS FOR EACH CHANNEL TYPE. SHEET C10 PROVIDES ADDITIONAL DETAILS ON THE TYPE 4 CHANNEL.
4. CHANNEL LENGTHS SHOWN ON THE PLANS ARE MEASURED ALONG THE CHANNEL CENTERLINE. LENGTHS SPECIFY THE DISTANCE BETWEEN THE FEARST CHANNEL CONFLUENCES OR ENDS OF CHANNEL. THE LENGTHS ARE PROVIDED FOR GENERAL REFERENCE, AND THE CONTRACTOR SHALL CONSTRUCT THE CHANNELS TO MATCH THE LINES AND GRADES SHOWN ON THE PLANS USING SURVEY GRADE RTK-GNSS EQUIPMENT.
5. ALL CHANNELS SHALL BE FULLY EXCAVATED TO THE FULL CROSS-SECTION SHAPE, IF ALL MOUNDS ARE CONSTRUCTED TO FINAL GRADE PRIOR TO FINISHING CHANNEL EXCAVATION, THE ENGINEER WILL DIRECT THE CONTRACTOR WHERE TO PLACE ADDITIONAL MOUNDS OR WHERE TO DISPOSE OF SURPLUS EXCAVATED MATERIAL.
6. SOME REMOVAL OF VEGETATION MAY BE REQUIRED PRIOR TO EXCAVATION AT THE BREACH AND CHANNEL OUTLET LOCATIONS. REMOVED VEGETATION SHALL BE DISPOSED OF ONSITE AT THE DIRECTION OF THE ENGINEER. IMPACTS TO EXISTING VEGETATION SHOULD BE MINIMIZED DURING CONSTRUCTION. TREES TO BE REMOVED AND PROTECTED ARE SHOWN ON SHEET G1.
7. MOUNDS ARE INTENDED TO PROVIDE ELEVATED HABITAT AREAS APPROPRIATE TO SUPPORT VEGETATION ESTABLISHMENT ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS FLOODED. THE CONTRACTOR DOES NOT NEED TO STRIP OR PREPARE THE GROUND FOOTPRINT PRIOR TO PLACEMENT OF MATERIAL. NO LABORATORY TESTING FOR COMPACTION OR MINIMUM COMPACTION TOLERANCES IS REQUIRED. MOUNDS SHOULD BE TRACKWALKED WITH TRACKED EQUIPMENT TO ENSURE MATERIAL REMAINS STABLE AND IN PLACE WHEN FLOODED.
8. MOUND TABLES PROVIDED IN THE PLANS PROVIDE AN AVERAGE FINISHED TOP ELEVATION FOR EACH MOUND AND AN APPROXIMATE VOLUME OF MATERIAL REQUIRED TO CONSTRUCT THE MOUND. THE CONTRACTOR SHOULD CONSTRUCT THE MOUNDS IN THE ENTIRE FOOTPRINT WITH AN AVERAGE TOP ELEVATION THAT APPROXIMATES THE ELEVATION SHOWN IN THE TABLE. FINAL GRADE OF THE MOUNDS SHOULD NOT BE PERFECTLY FLAT, BUT VARY NATURALLY BY ± 0.5 FT BETWEEN ELEVATIONS 3.5 FT AND 5 FT. THE VOLUMES LISTED ASSUME A 1:1 CUT TO FILL VOLUME BASED ON SIMILAR COMPACTIONS. ACTUAL VOLUME NEEDED TO COMPLETE EACH MOUND MAY VARY FROM THOSE SHOWN IN THE TABLES.

1. IF CONSTRUCTION ACTIVITY (WHICH INCLUDES CLEARING, GRUBBING, OR GRADING) IS TO COMMENCE BETWEEN FEBRUARY 1 AND SEPTEMBER 15, THE RESTORATION ECOLOGIST SHALL ARRANGE A SURVEY FOR NESTING BIRDS OF PREY SHALL BE CONDUCTED BY A QUALIFIED BIOLOGIST WITHIN 30 DAYS PRIOR TO THE START OF CONSTRUCTION.
2. THE SURVEY SHALL INCLUDE A FOCUSED SURVEY FOR SWAINSON'S HAWK NESTS WITHIN A 1/8 MILE RADIUS OF THE PROJECT SITE, AND SHALL COVER ALL POTENTIAL HABITAT ON-SITE AND OFF-SITE UP TO A DISTANCE OF 500 FEET FROM THE PROJECT BOUNDARY FOR OTHER SPECIAL STATUS BIRDS OF PREY. A LETTER REPORT DOCUMENTING SURVEY METHODS AND FINDINGS SHALL BE SUBMITTED TO THE ENVIRONMENTAL COORDINATOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3. IF NO ACTIVE NESTS ARE FOUND IN THE SURVEY AREA, NO FURTHER MITIGATION IS NECESSARY.
4. IF ACTIVE NESTS ARE FOUND, THE APPLICANT SHALL CONTACT THE ENVIRONMENTAL COORDINATOR AND CONSULT WITH CDFW PRIOR TO CONSTRUCTION TO DETERMINE THE APPROPRIATE PROTECTIVE MEASURES. PROTECTIVE MEASURES SHALL BE IMPLEMENTED PRIOR TO THE START OF CONSTRUCTION ACTIVITY. A NON-DISTURBANCE BUFFER SHALL BE ESTABLISHED AND MAINTAINED AROUND THE NEST(S). THE BUFFER AREA SHALL BE DETERMINED THROUGH CONSULTATION WITH CDFW. ALL CONSTRUCTION ACTIVITIES SHALL BE AVOIDED WITHIN THIS BUFFER AREA UNTIL A QUALIFIED BIOLOGIST DETERMINES THAT NESTLINGS HAVE FLEDGED, OR UNTIL SEPTEMBER 15 UNLESS OTHERWISE APPROVED BY CDFW.

1. IF SUBSURFACE DEPOSITS BELIEVED TO BE CULTURAL OR HUMAN IN ORIGIN ARE DISCOVERED DURING CONSTRUCTION, THEN ALL WORK MUST HALT WITHIN A 200-FOOT RADIUS OF THE DISCOVERY, THE RESTORATION ECOLOGIST SHALL BE NOTIFIED IMMEDIATELY, AND THE FOLLOWING MEASURES SHALL BE IMPLEMENTED:
2. A QUALIFIED PROFESSIONAL ARCHAEOLOGIST, MEETING THE SECRETARY OF THE INTERIOR'S PROFESSIONAL QUALIFICATION STANDARDS FOR PREHISTORIC AND HISTORIC ARCHAEOLOGY, SHALL BE RETAINED AT THE APPLICANT'S EXPENSE TO EVALUATE THE SIGNIFICANCE OF THE FIND. IF IT IS DETERMINED DUE TO THE TYPES OF DEPOSITS DISCOVERED THAT A NATIVE AMERICAN MONITOR IS REQUIRED, THE GUIDELINES FOR MONITORS/CONSULTANTS OF NATIVE AMERICAN CULTURAL, RELIGIOUS, AND BURIAL SITES AS ESTABLISHED BY THE NATIVE AMERICAN HERITAGE COMMISSION SHALL BE FOLLOWED, AND THE MONITOR SHALL BE RETAINED AT THE APPLICANT'S EXPENSE.
3. WORK CANNOT CONTINUE WITHIN THE 200-FOOT RADIUS OF THE DISCOVERY SITE UNTIL THE ARCHAEOLOGIST CONDUCTS SUFFICIENT RESEARCH AND DATA COLLECTION TO MAKE A DETERMINATION THAT THE RESOURCE IS EITHER 1) NOT CULTURAL IN ORIGIN; OR 2) NOT POTENTIALLY ELIGIBLE FOR LISTING ON THE NATIONAL REGISTER OF HISTORIC PLACES OR CALIFORNIA REGISTER OF HISTORICAL RESOURCES.
4. IF A POTENTIALLY-ELIGIBLE RESOURCE IS ENCOUNTERED, THEN THE ARCHAEOLOGIST, PLANNING AND ENVIRONMENTAL REVIEW DIVISION STAFF, AND PROJECT PROponent SHALL ARRANGE FOR EITHER 1) TOTAL AVOIDANCE OF THE RESOURCE, IF POSSIBLE; OR 2) TEST EXCAVATIONS OR TOTAL DATA RECOVERY AS MITIGATION. THE DETERMINATION SHALL BE FORMALLY DOCUMENTED IN WRITING AND SUBMITTED TO THE COUNTY ENVIRONMENTAL COORDINATOR AS VERIFICATION THAT THE PROVISIONS OF CEQA FOR MANAGING UNCHARTERED DISCOVERIES ARE MET.
5. PURSUANT TO SECTION 5097.97 OF THE STATE PUBLIC RESOURCES CODE AND SECTION 7050.5 OF THE STATE HEALTH AND SAFETY CODE, IN THE EVENT OF THE DISCOVERY OF HUMAN REMAINS, ALL WORK IS TO STOP AND THE COUNTY CORONER SHALL BE IMMEDIATELY NOTIFIED. IF THE REMAINS ARE DETERMINED TO BE NATIVE AMERICAN, GUIDELINES OF THE NATIVE AMERICAN HERITAGE COMMISSION SHALL BE ADHERED TO IN THE TREATMENT AND DISPOSITION OF THE REMAINS.

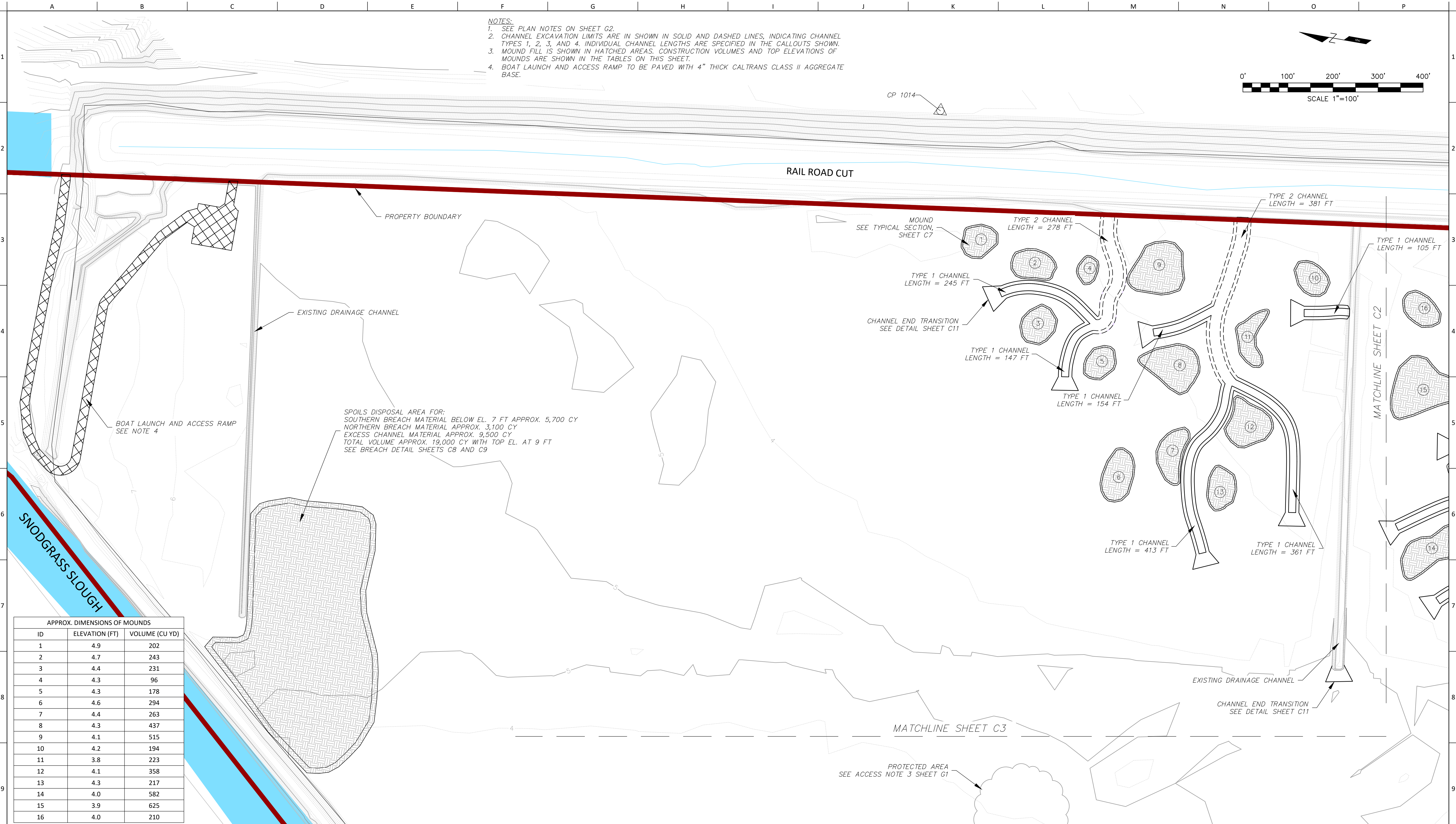


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Key Sheet

Sheet 3 of 17

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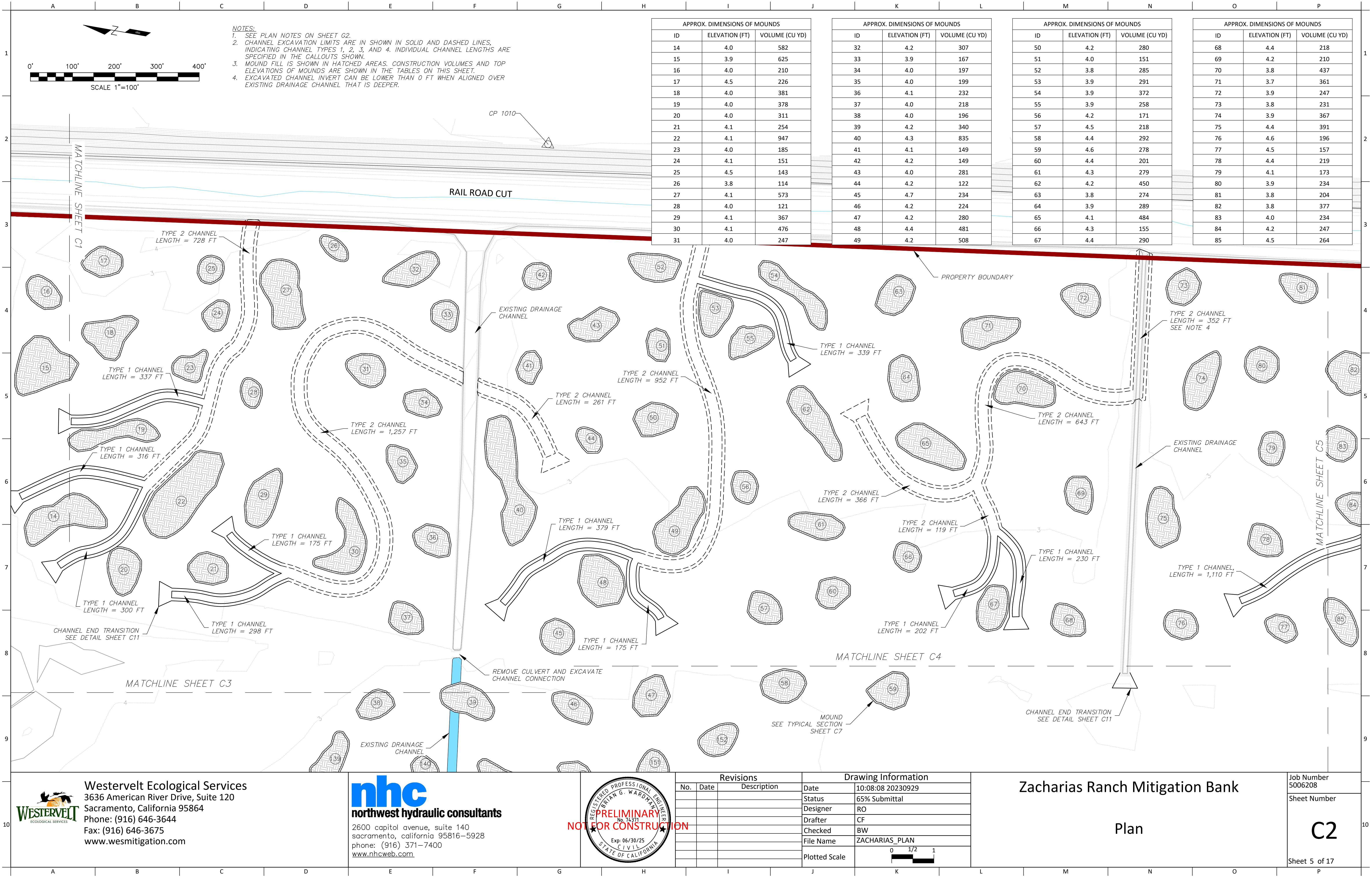
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Zacharias Ranch Mitigation Bank

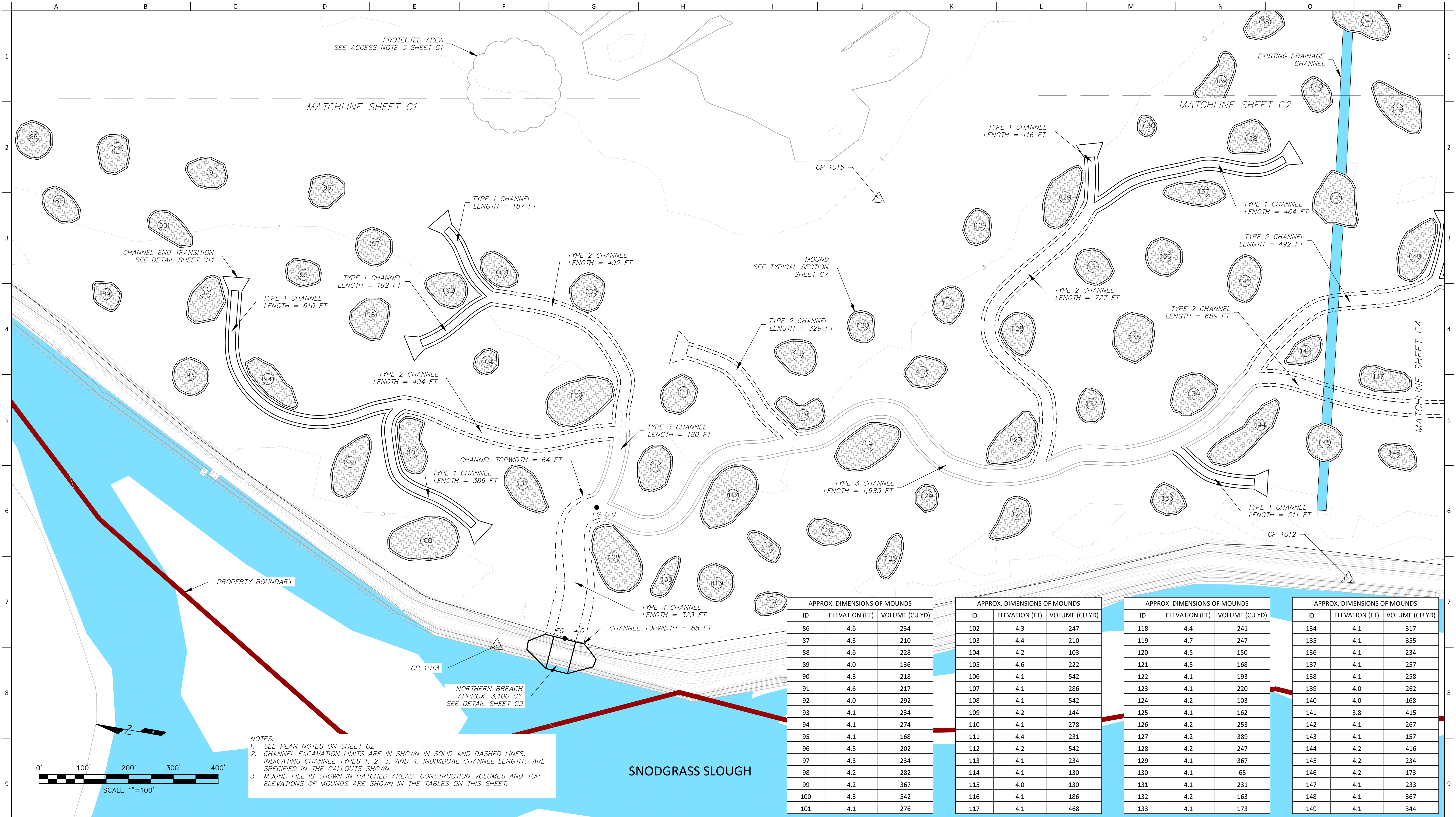
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Job Number
5006208
Sheet Number
C1
Sheet 4 of 17

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Zacharias Ranch Mitigation Bank

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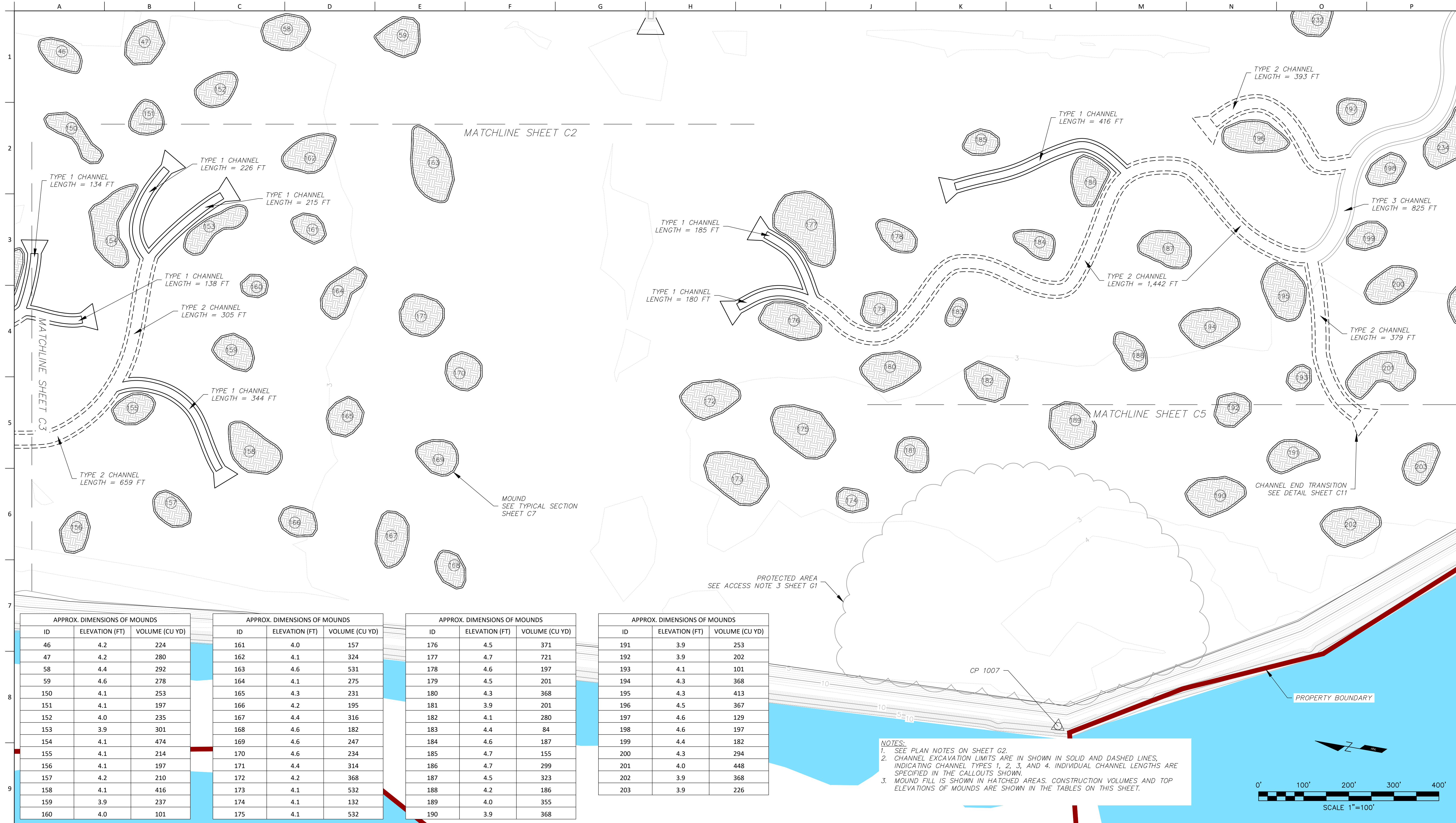
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Sheet Number

C3

Sheet 6 of 17

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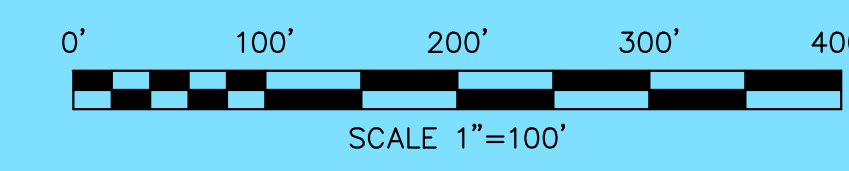
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46	4.2	224
47	4.2	280
58	4.4	292
59	4.6	278
150	4.1	253
151	4.1	197
152	4.0	235
153	3.9	301
154	4.1	474
155	4.1	214
156	4.1	197
157	4.2	210
158	4.1	416
159	3.9	237
160	4.0	101

APPROX. DIMENSIONS OF MOUNDS		
ID	ELEVATION (FT)	VOLUME (CU YD)
161	4.0	157
162	4.1	324
163	4.6	531
164	4.1	275
165	4.3	231
166	4.2	195
167	4.4	316
168	4.6	182
169	4.6	247
170	4.6	234
171	4.4	314
172	4.2	368
173	4.1	532
174	4.1	132
175	4.1	532

APPROX. DIMENSIONS OF MOUNDS		
ID	ELEVATION (FT)	VOLUME (CU YD)
176	4.5	371
177	4.7	721
178	4.6	197
179	4.5	201
180	4.3	368
181	3.9	201
182	4.1	280
183	4.4	84
184	4.6	187
185	4.7	155
186	4.7	299
187	4.5	323
188	4.2	186
189	4.0	355
190	3.9	368

APPROX. DIMENSIONS OF MOUNDS		
ID	ELEVATION (FT)	VOLUME (CU YD)
191	3.9	253
192	3.9	202
193	4.1	101
194	4.3	368
195	4.3	413
196	4.5	367
197	4.6	129
198	4.6	197
199	4.4	182
200	4.3	294
201	4.0	448
202	3.9	368
203	3.9	226

NOTES:
1. SEE PLAN NOTES ON SHEET G2.
2. CHANNEL EXCAVATION LIMITS ARE IN SHOWN IN SOLID AND DASHED LINES, INDICATING CHANNEL TYPES 1, 2, 3, AND 4. INDIVIDUAL CHANNEL LENGTHS ARE SPECIFIED IN THE CALLOUTS SHOWN.
3. MOUND FILL IS SHOWN IN HATCHED AREAS. CONSTRUCTION VOLUMES AND TOP ELEVATIONS OF MOUNDS ARE SHOWN IN THE TABLES ON THIS SHEET.



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Zacharias Ranch Mitigation Bank

Plan

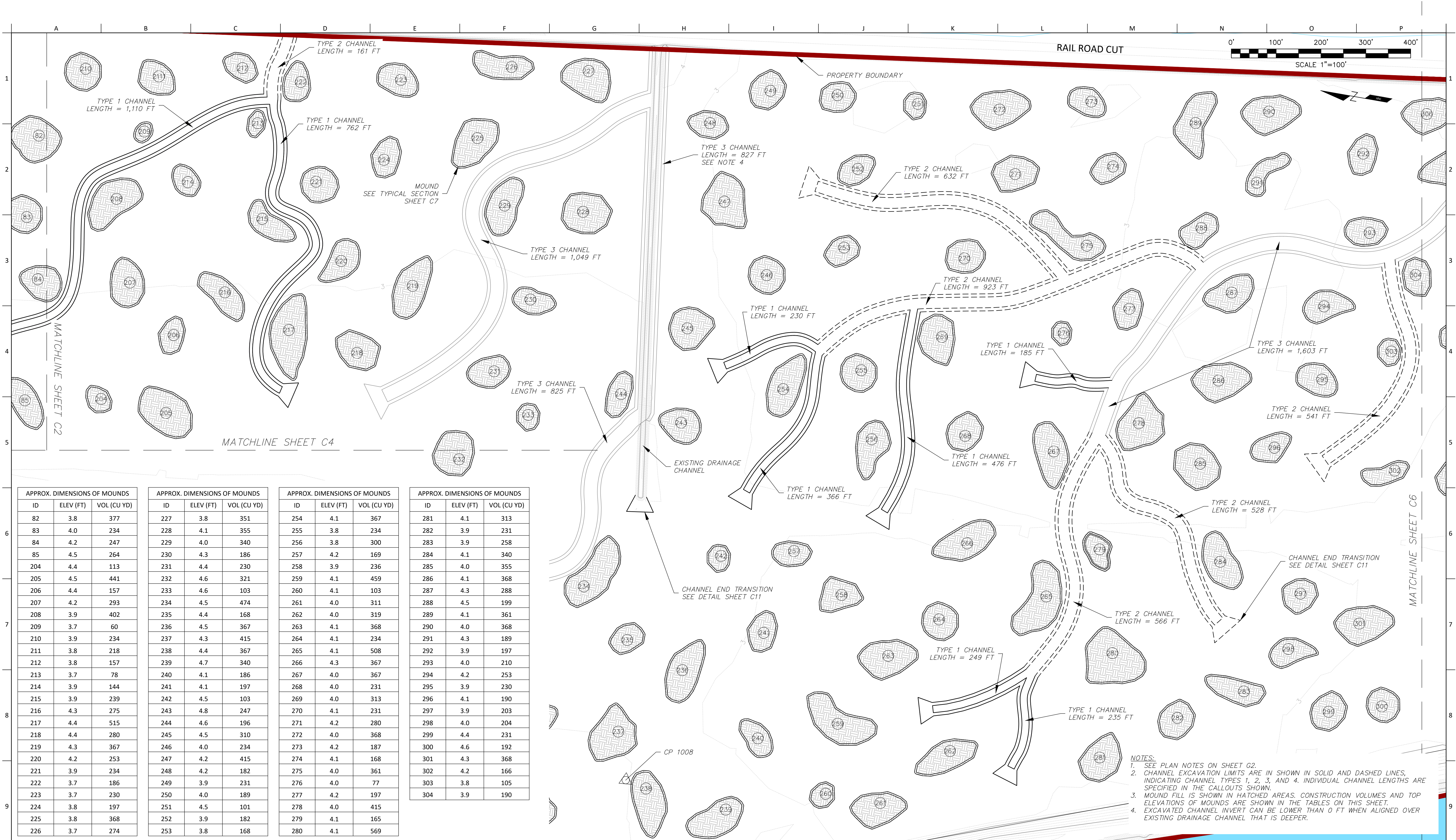
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APPROX. DIMENSIONS OF MOUNDS		
ID	ELEV (FT)	VOL (CU YD)
82	3.8	377
83	4.0	234
84	4.2	247
85	4.5	264
204	4.4	113
205	4.5	441
206	4.4	157
207	4.2	293
208	3.9	402
209	3.7	60
210	3.9	234
211	3.8	218
212	3.8	157
213	3.7	78
214	3.9	144
215	3.9	239
216	4.3	275
217	4.4	515
218	4.4	280
219	4.3	367
220	4.2	253
221	3.9	234
222	3.7	186
223	3.7	230
224	3.8	197
225	3.8	368
226	3.7	274

APPROX. DIMENSIONS OF MOUNDS		
ID	ELEV (FT)	VOL (CU YD)
227	3.8	351
228	4.1	355
229	4.0	340
230	4.3	186
231	4.4	230
232	4.6	321
233	4.6	103
234	4.5	474
235	4.4	168
236	4.5	367
237	4.3	415
238	4.4	367
239	4.7	340
240	4.1	186
241	4.1	197
242	4.5	103
243	4.8	247
244	4.6	196
245	4.5	310
246	4.0	234
247	4.2	415
248	4.2	182
249	3.9	231
250	4.0	189
251	4.5	101
252	3.9	182
253	3.8	168

APPROX. DIMENSIONS OF MOUNDS		
ID	ELEV (FT)	VOL (CU YD)
254	4.1	367
255	3.8	234
256	3.8	300
257	4.2	169
258	3.9	236
259	4.1	459
260	4.1	103
261	4.0	311
262	4.0	319
263	4.1	368
264	4.1	234
265	4.1	508
266	4.3	367
267	4.0	367
268	4.0	231
269	4.0	313
270	4.1	231
271	4.2	280
272	4.0	368
273	4.2	187
274	4.1	168
275	4.0	361
276	4.0	77
277	4.2	197
278	4.0	415
279	4.1	165
280	4.1	569

APPROX. DIMENSIONS OF MOUNDS		
ID	ELEV (FT)	VOL (CU YD)
281	4.1	313
282	3.9	231
283	3.9	258
284	4.1	340
285	4.0	355
286	4.1	368
287	4.3	288
288	4.5	199
289	4.1	361
290	4.0	368
291	4.3	189
292	3.9	197
293	4.0	210
294	4.2	253
295	3.9	230
296	4.1	190
297	3.9	203
298	4.0	204
299	4.4	231
300	4.6	192
301	4.3	368
302	4.2	166
303	3.8	105
304	3.9	190



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Zacharias Ranch Mitigation Bank

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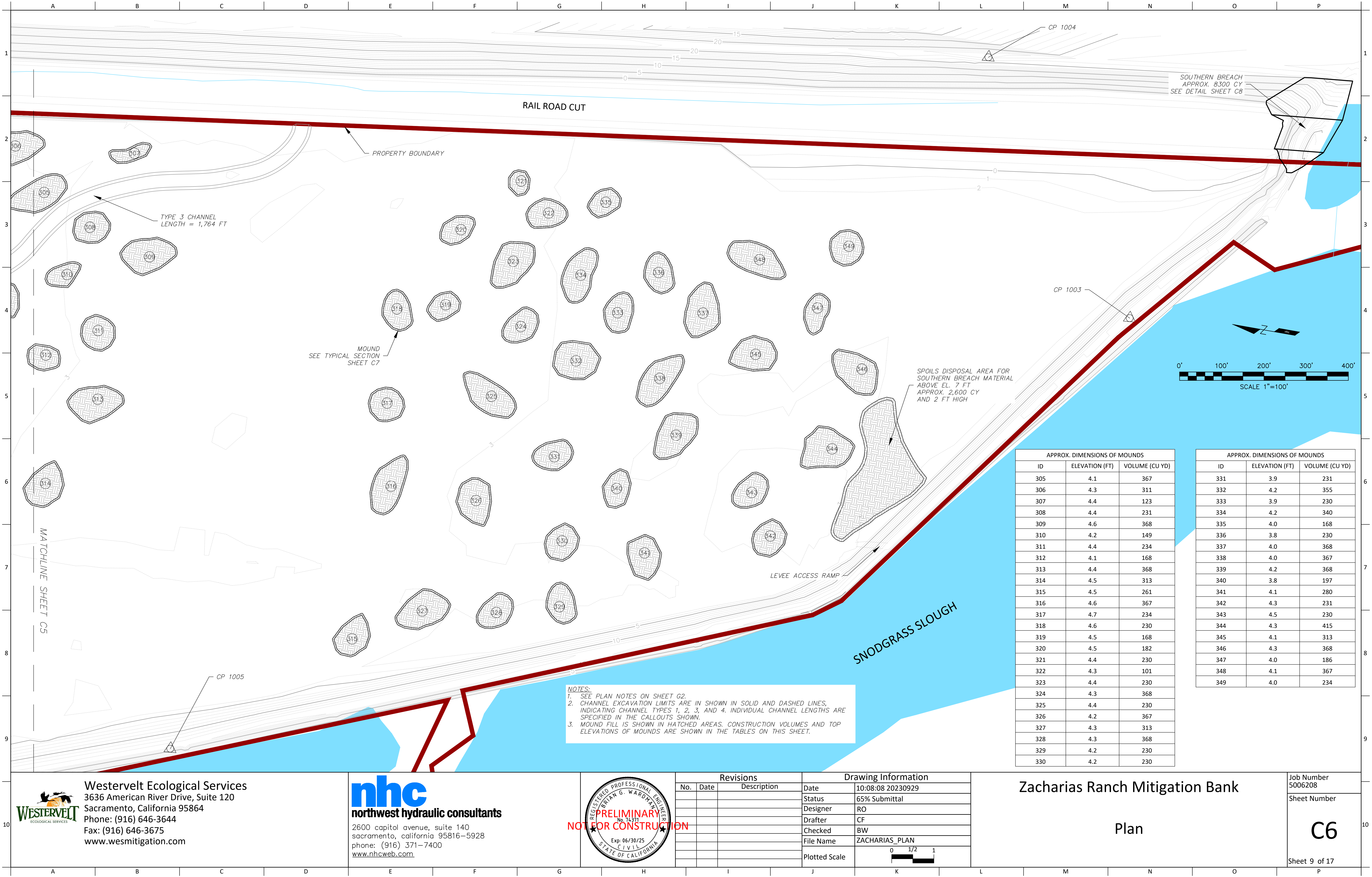
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APPROX. DIMENSIONS OF MOUNDS		
ID	ELEVATION (FT)	VOLUME (CU YD)
305	4.1	367
306	4.3	311
307	4.4	123
308	4.4	231
309	4.6	368
310	4.2	149
311	4.4	234
312	4.1	168
313	4.4	368
314	4.5	313
315	4.5	261
316	4.6	367
317	4.7	234
318	4.6	230
319	4.5	168
320	4.5	182
321	4.4	230
322	4.3	101
323	4.4	230
324	4.3	368
325	4.4	230
326	4.2	367
327	4.3	313
328	4.3	368
329	4.2	230
330	4.2	230

APPROX. DIMENSIONS OF MOUNDS		
ID	ELEVATION (FT)	VOLUME (CU YD)
331	3.9	231
332	4.2	355
333	3.9	230
334	4.2	340
335	4.0	168
336	3.8	230
337	4.0	368
338	4.0	367
339	4.2	368
340	3.8	197
341	4.1	280
342	4.3	231
343	4.5	230
344	4.3	415
345	4.1	313
346	4.3	368
347	4.0	186
348	4.1	367
349	4.0	234



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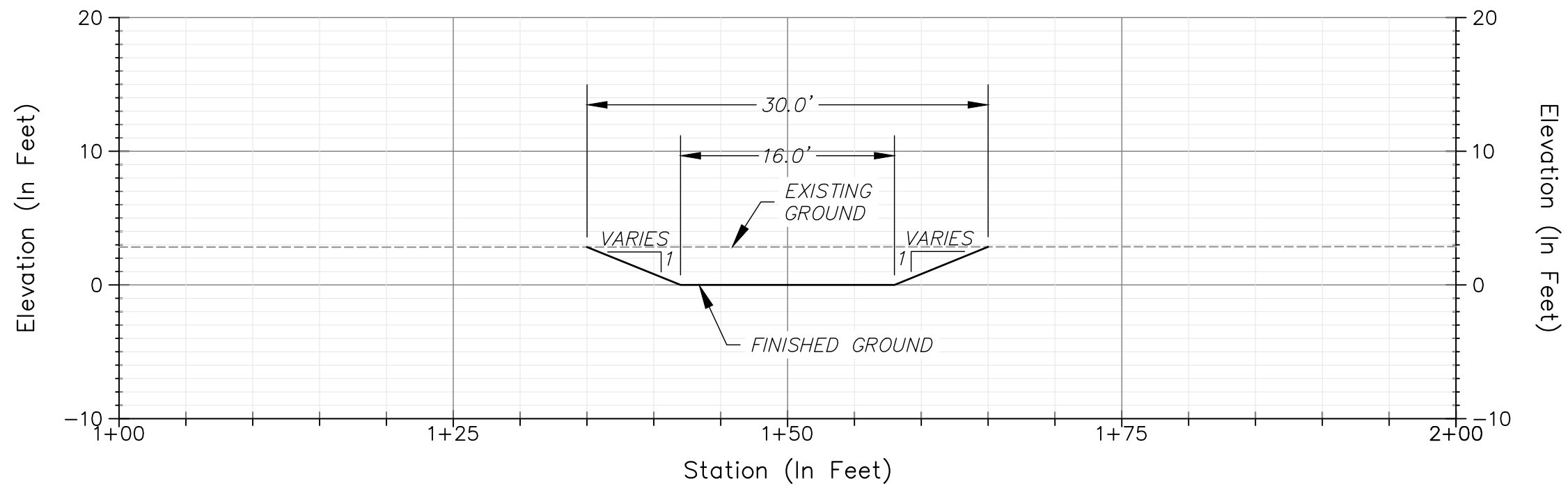
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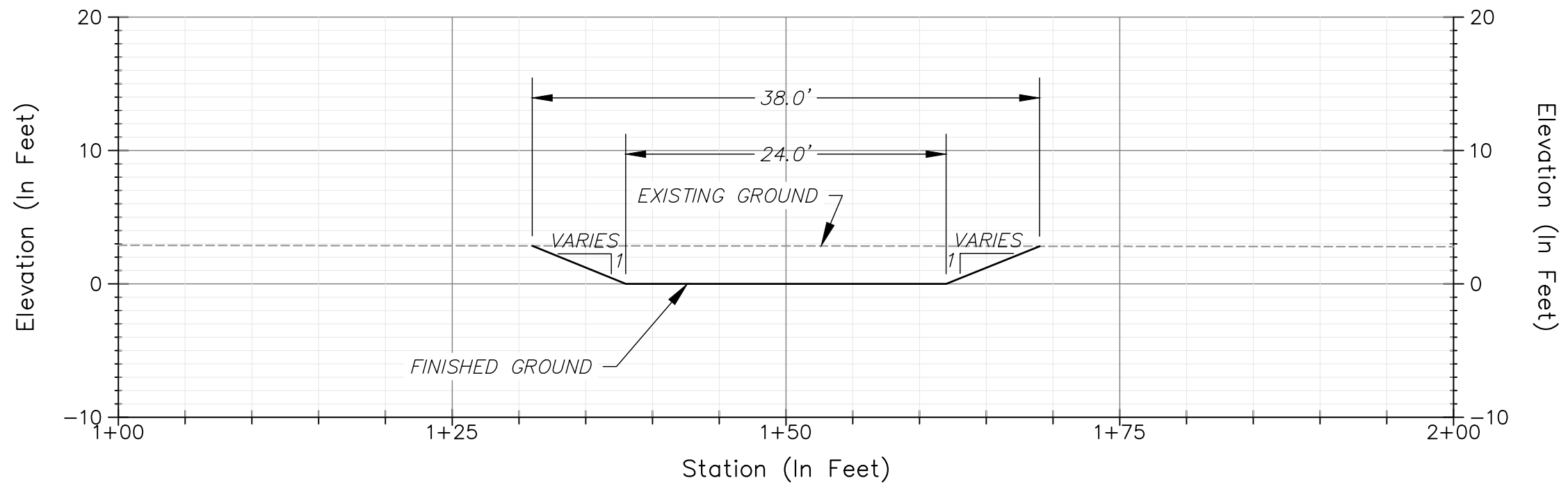
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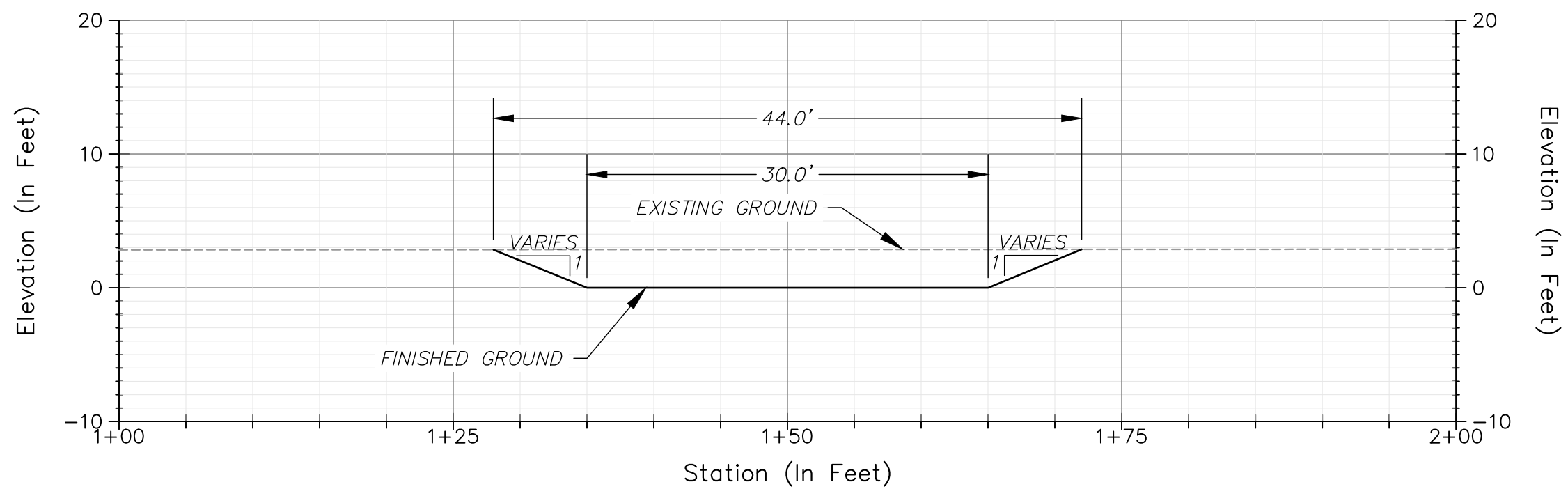
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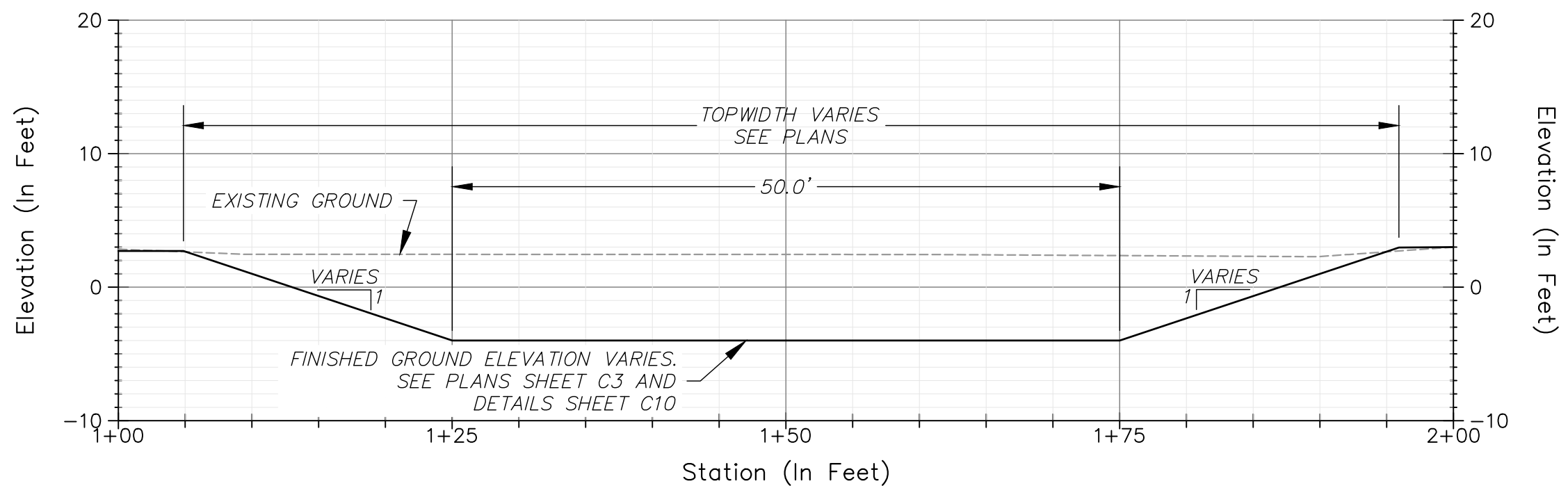
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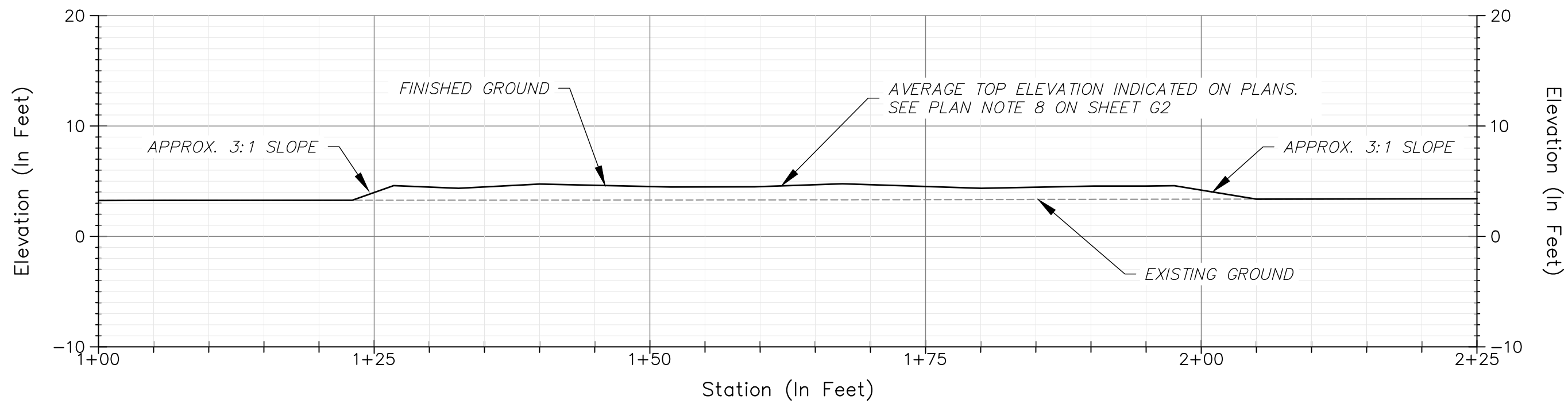
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TYPE 3 CHANNEL SECTION (TYP)
H: 1"=10' V: 1"=10'



TYPE 4 CHANNEL SECTION (TYP)
H: 1"=10' V: 1"=10'



MOUND SECTION (TYP)
H: 1"=10' V: 1"=10'



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Zacharias Ranch Mitigation Bank

Cross Sections

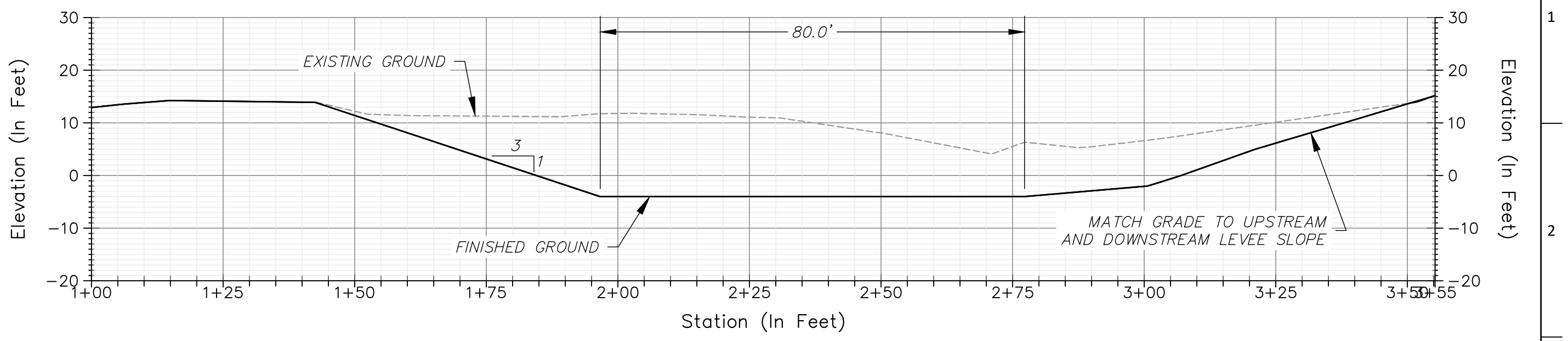
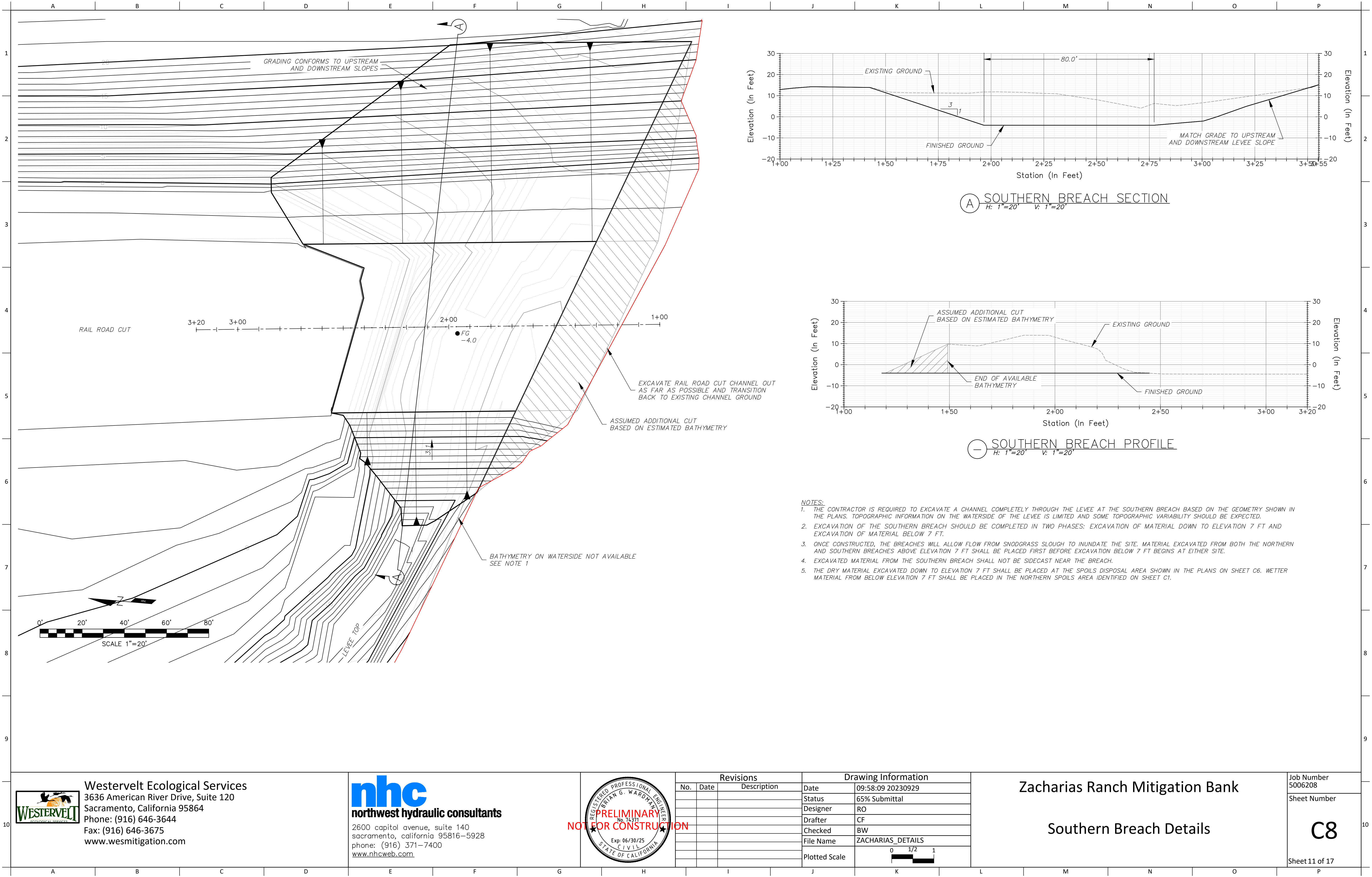
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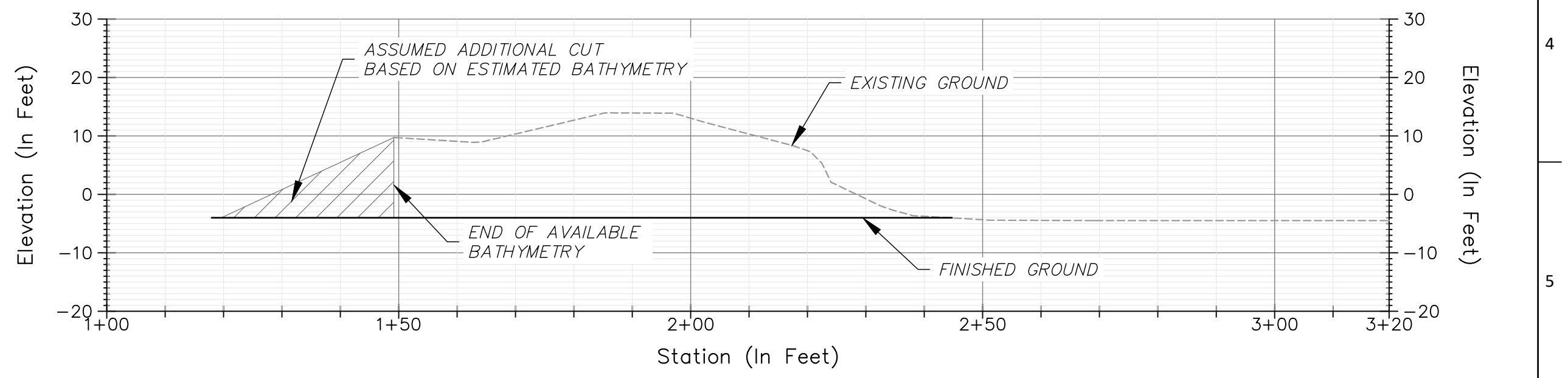
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(A) SOUTHERN BREACH SECTION
H: 1"=20' V: 1"=20'



(B) SOUTHERN BREACH PROFILE
H: 1"=20' V: 1"=20'

- NOTES:**
1. THE CONTRACTOR IS REQUIRED TO EXCAVATE A CHANNEL COMPLETELY THROUGH THE LEVEE AT THE SOUTHERN BREACH BASED ON THE GEOMETRY SHOWN IN THE PLANS. TOPOGRAPHIC INFORMATION ON THE WATERSIDE OF THE LEVEE IS LIMITED AND SOME TOPOGRAPHIC VARIABILITY SHOULD BE EXPECTED.
 2. EXCAVATION OF THE SOUTHERN BREACH SHOULD BE COMPLETED IN TWO PHASES: EXCAVATION OF MATERIAL DOWN TO ELEVATION 7 FT AND EXCAVATION OF MATERIAL BELOW 7 FT.
 3. ONCE CONSTRUCTED, THE BREACHES WILL ALLOW FLOW FROM SNODGRASS SLOUGH TO INUNDATE THE SITE. MATERIAL EXCAVATED FROM BOTH THE NORTHERN AND SOUTHERN BREACHES ABOVE ELEVATION 7 FT SHALL BE PLACED FIRST BEFORE EXCAVATION BELOW 7 FT BEGINS AT EITHER SITE.
 4. EXCAVATED MATERIAL FROM THE SOUTHERN BREACH SHALL NOT BE SIDECAST NEAR THE BREACH.
 5. THE DRY MATERIAL EXCAVATED DOWN TO ELEVATION 7 FT SHALL BE PLACED AT THE SPOILS DISPOSAL AREA SHOWN IN THE PLANS ON SHEET C6. WETTER MATERIAL FROM BELOW ELEVATION 7 FT SHALL BE PLACED IN THE NORTHERN SPOILS AREA IDENTIFIED ON SHEET C1.



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Zacharias Ranch Mitigation Bank

Southern Breach Details

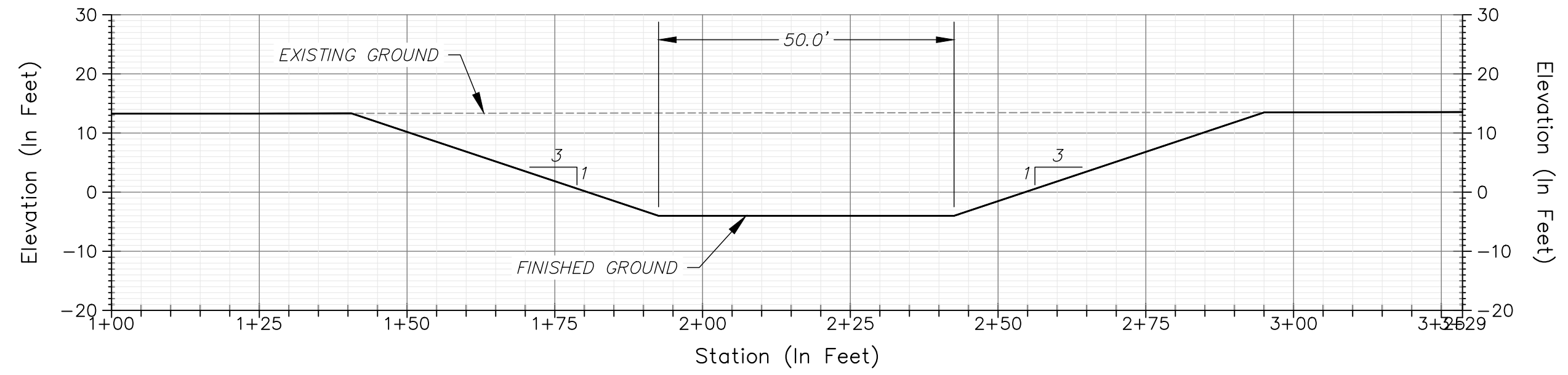
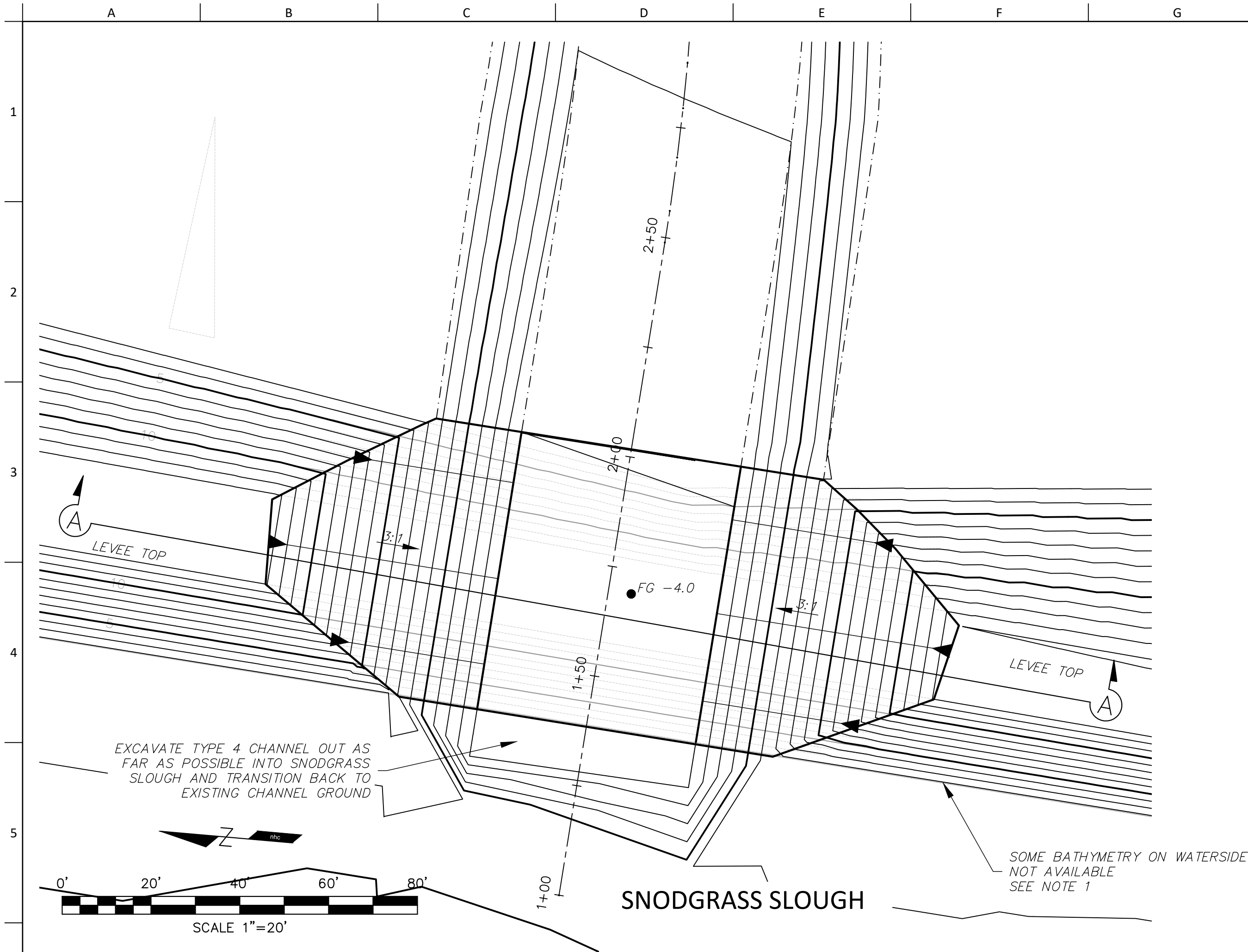
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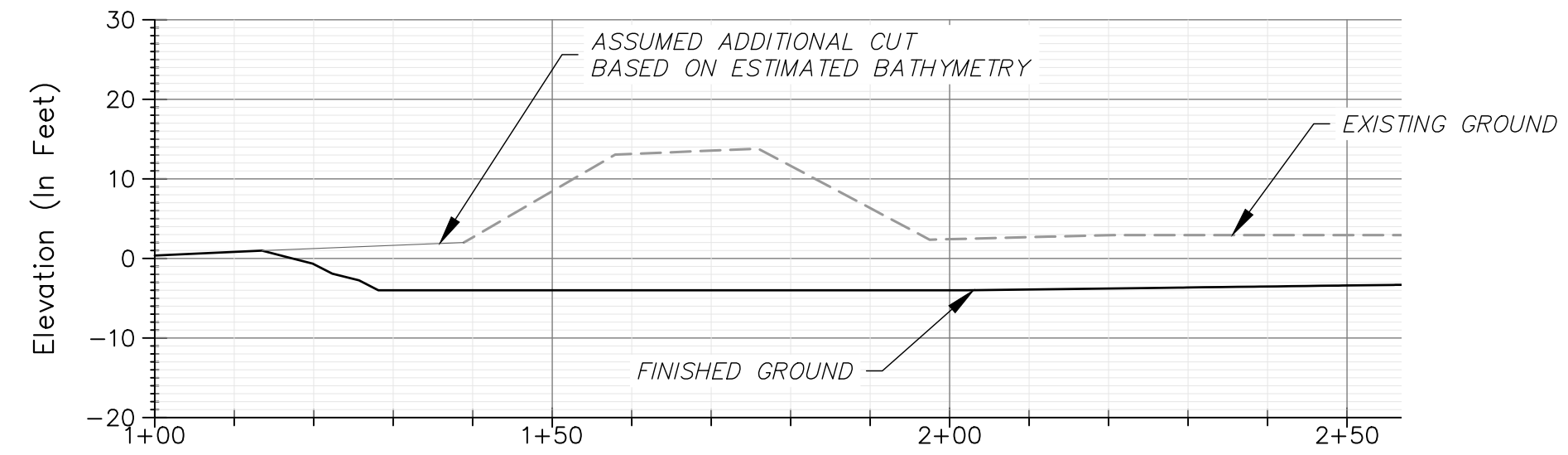
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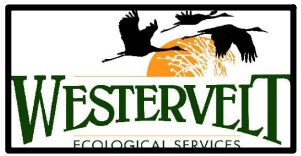


Ⓐ NORTHERN BREACH SECTION
H: 1"=20' V: 1"=20'



— NORTHERN BREACH PROFILE
H: 1"=20' V: 1"=20'

- NOTES:
1. THE CONTRACTOR IS REQUIRED TO EXCAVATE A CHANNEL COMPLETELY THROUGH THE LEVEE AT THE NORTHERN BREACH BASED ON THE GEOMETRY SHOWN IN THE PLANS. TOPOGRAPHIC INFORMATION ON THE WATERSIDE OF THE LEVEE IS LIMITED AND SOME TOPOGRAPHIC VARIABILITY SHOULD BE EXPECTED.
 2. EXCAVATION OF THE NORTHERN BREACH SHOULD BE COMPLETED IN TWO PHASES: EXCAVATION OF MATERIAL DOWN TO ELEVATION 7 FT AND EXCAVATION OF MATERIAL BELOW 7 FT.
 3. ONCE CONSTRUCTED, THE BREACHES WILL ALLOW FLOW FROM SNODGRASS SLOUGH TO INUNDATE THE SITE. MATERIAL EXCAVATED FROM BOTH THE NORTHERN AND SOUTHERN BREACHES ABOVE ELEVATION 7 FT SHALL BE PLACED FIRST BEFORE EXCAVATION BELOW 7 FT BEGINS AT EITHER SITE.
 4. EXCAVATED MATERIAL FROM THE NORTHERN BREACH SHALL NOT BE SIDECAST NEAR THE BREACH.
 5. MATERIAL FROM THE NORTHERN BREACH SHALL BE PLACED IN THE NORTHERN SPOILS DISPOSAL AREA IDENTIFIED ON SHEET C1.



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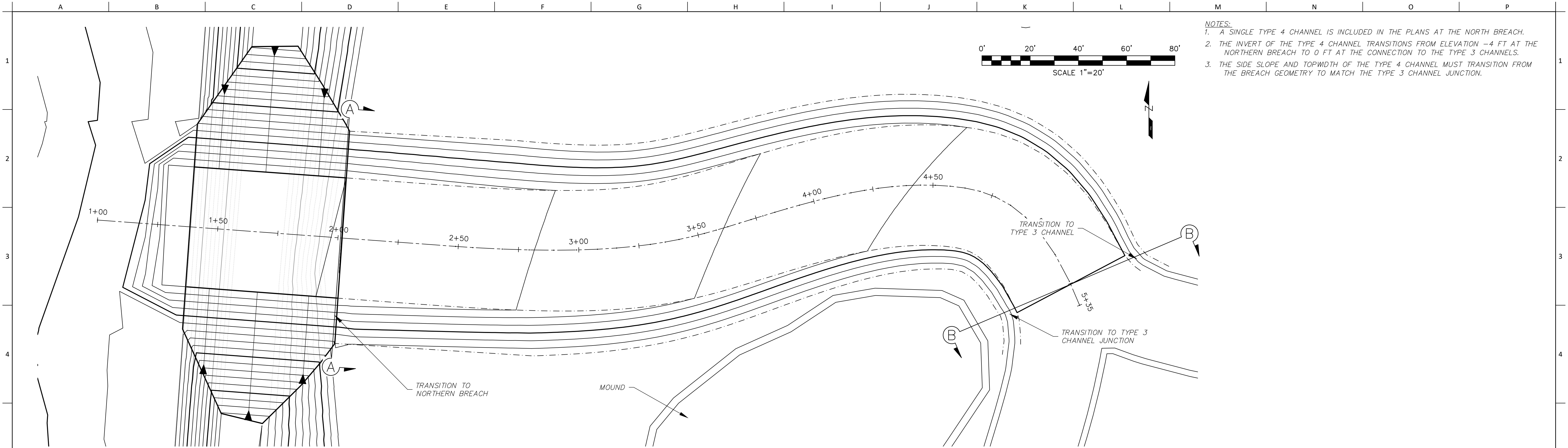


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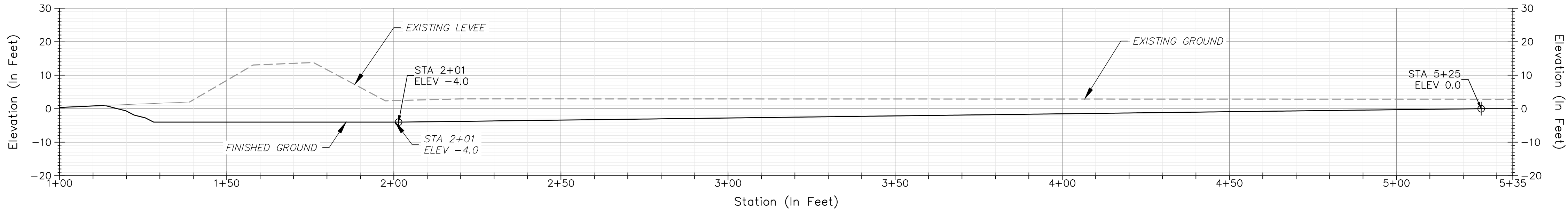
Zacharias Ranch Mitigation Bank
Northern Breach Details

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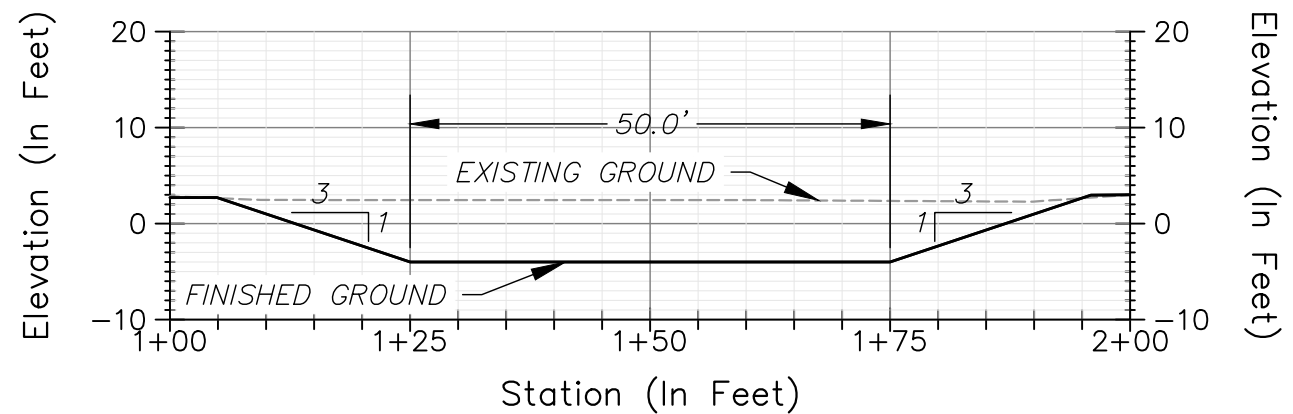


- NOTES:
1. A SINGLE TYPE 4 CHANNEL IS INCLUDED IN THE PLANS AT THE NORTH BREACH.
 2. THE INVERT OF THE TYPE 4 CHANNEL TRANSITIONS FROM ELEVATION -4 FT AT THE NORTHERN BREACH TO 0 FT AT THE CONNECTION TO THE TYPE 3 CHANNELS.
 3. THE SIDE SLOPE AND TOPWIDTH OF THE TYPE 4 CHANNEL MUST TRANSITION FROM THE BREACH GEOMETRY TO MATCH THE TYPE 3 CHANNEL JUNCTION.

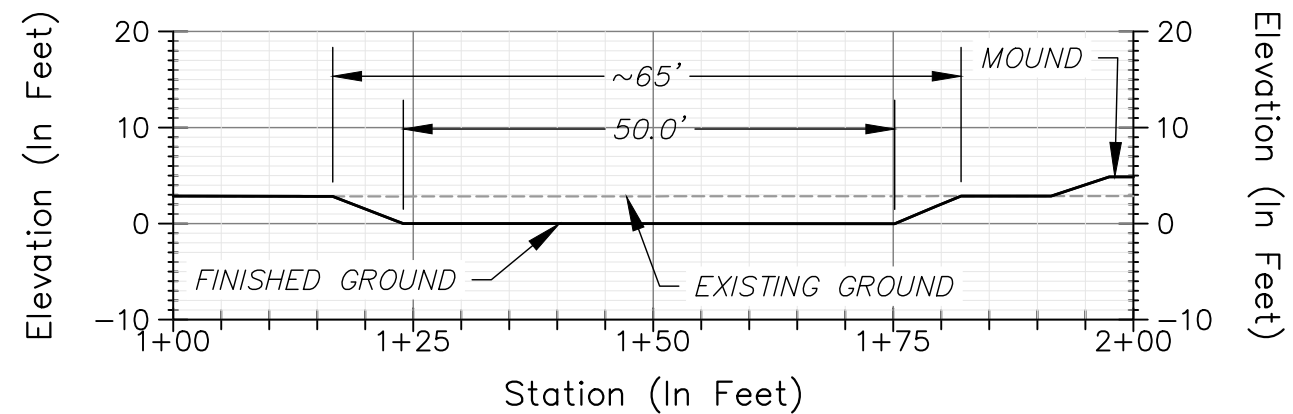
TYPE 4 CHANNEL PLAN



TYPE 4 CHANNEL PROFILE
H: 1"=20' V: 1"=20'



A TYPE 4 CHANNEL SECTION (STA 2+01.00)
H: 1"=20' V: 1"=20'



B TYPE 4 CHANNEL SECTION (STA 5+25.36)
H: 1"=20' V: 1"=20'



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Revisions		
No.	Date	Description

Drawing Information	
Date	09:58:09 20230929
Status	65% Submittal
Designer	RO
Drafter	CF
Checked	BW
File Name	ZACHARIAS_DETAILS
Plotted Scale	0 1/2 1

Zacharias Ranch Mitigation Bank

Channel Details

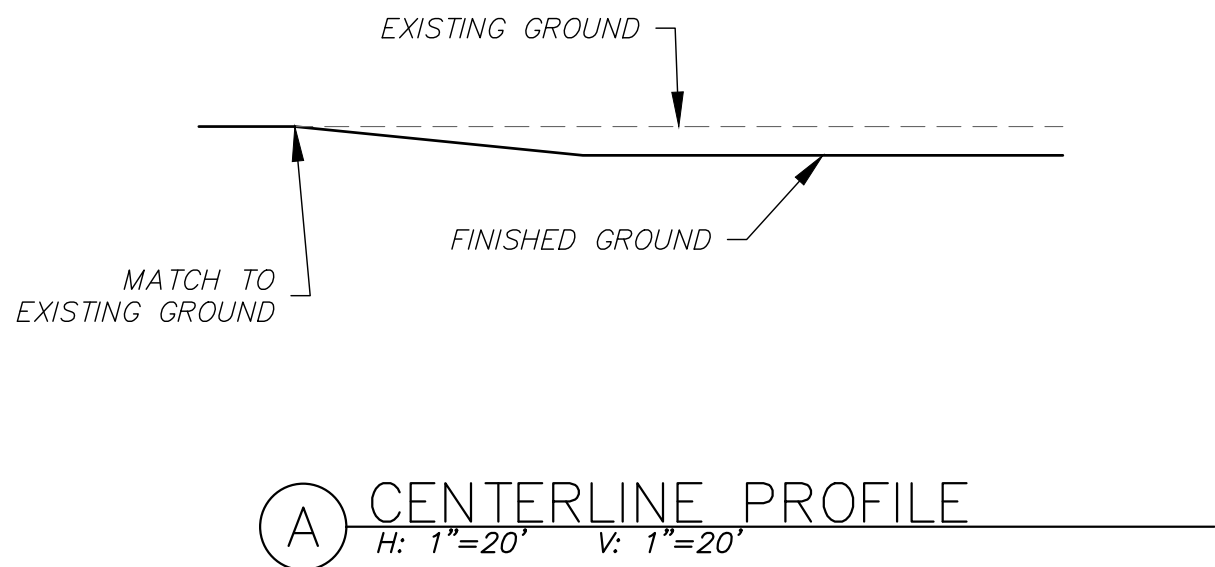
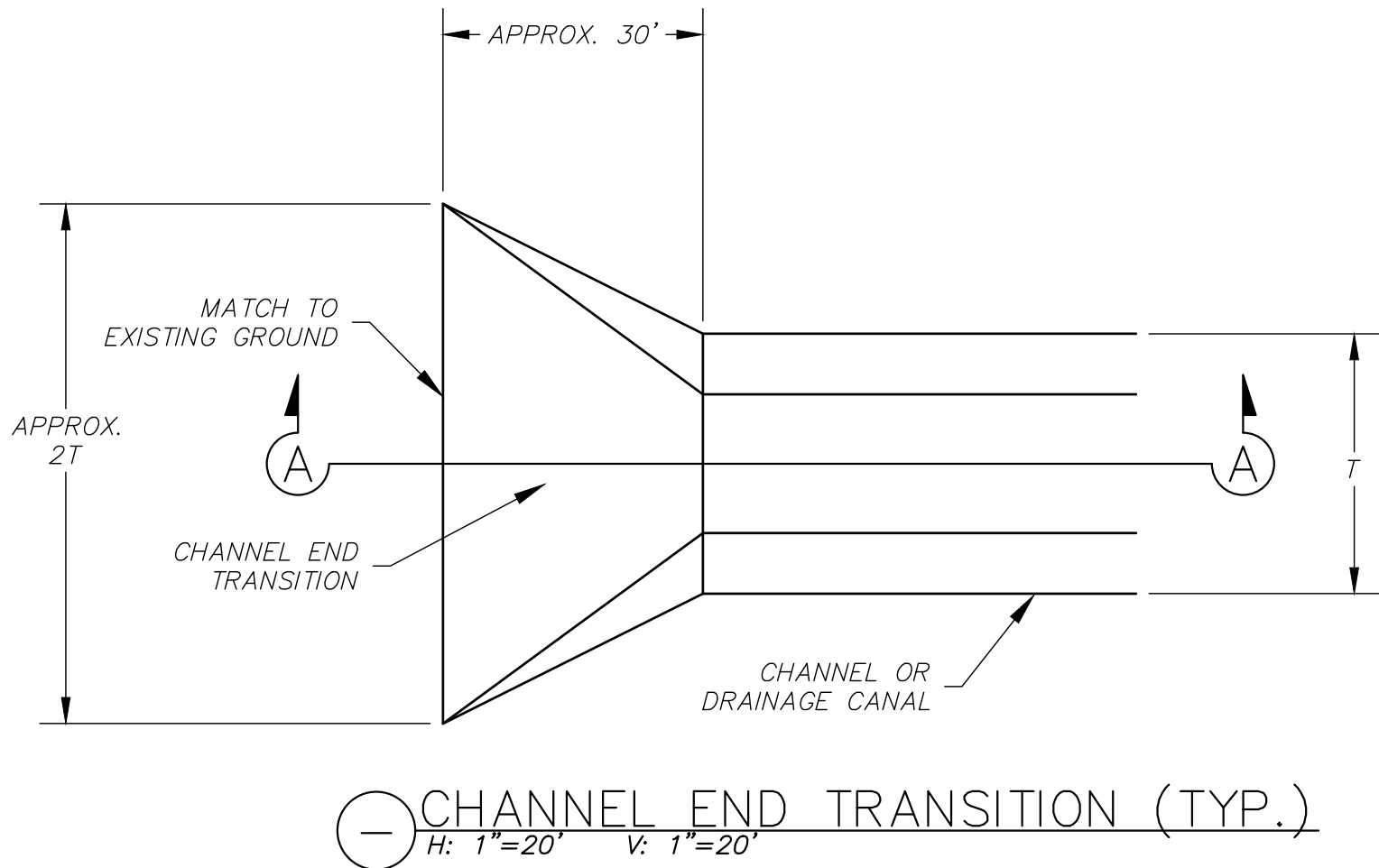
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Sheet Number

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NOTES:
1. CHANNEL END TRANSITIONS CONNECT THE INVERTS OF NEW CHANNELS AND EXISTING CHANNELS TO EXISTING GROUND ELEVATION OVER A DISTANCE OF APPROXIMATELY 30 FEET.



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PRELIMINARY
NOT FOR CONSTRUCTION

Revisions			Drawing Information	
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			Status	65% Submittal
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Zacharias Ranch Mitigation Bank

Channel Details

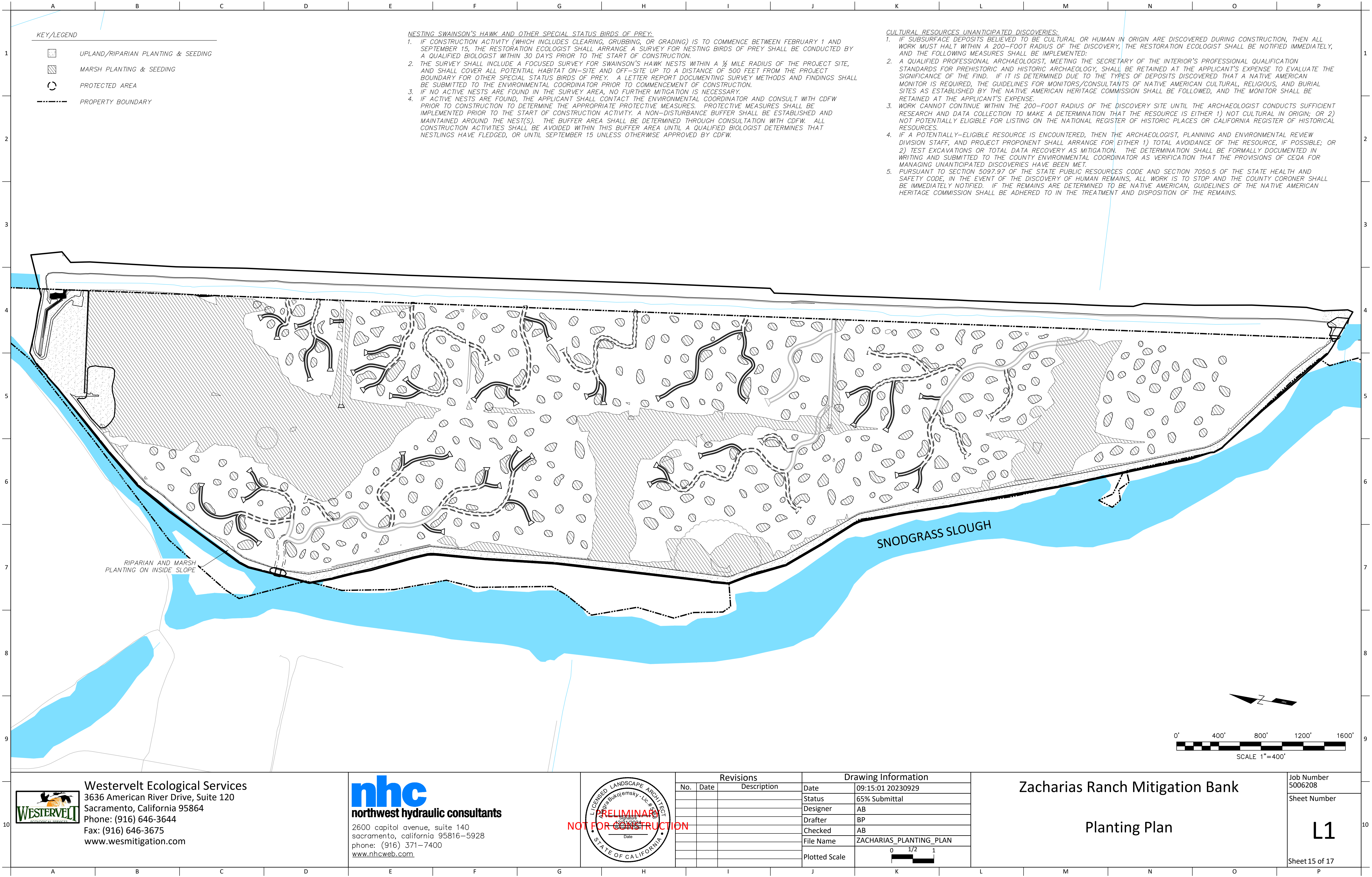
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Sheet Number

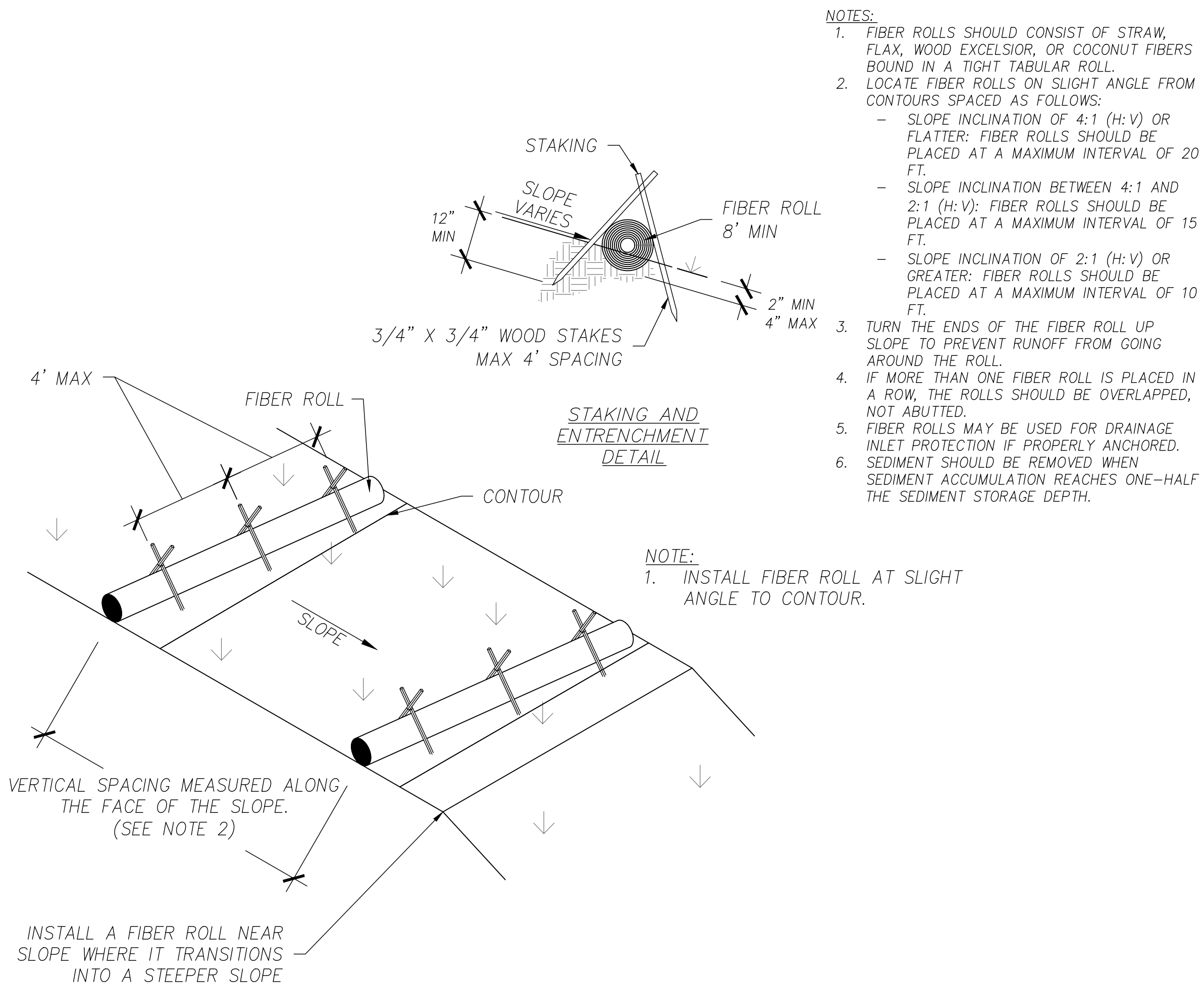
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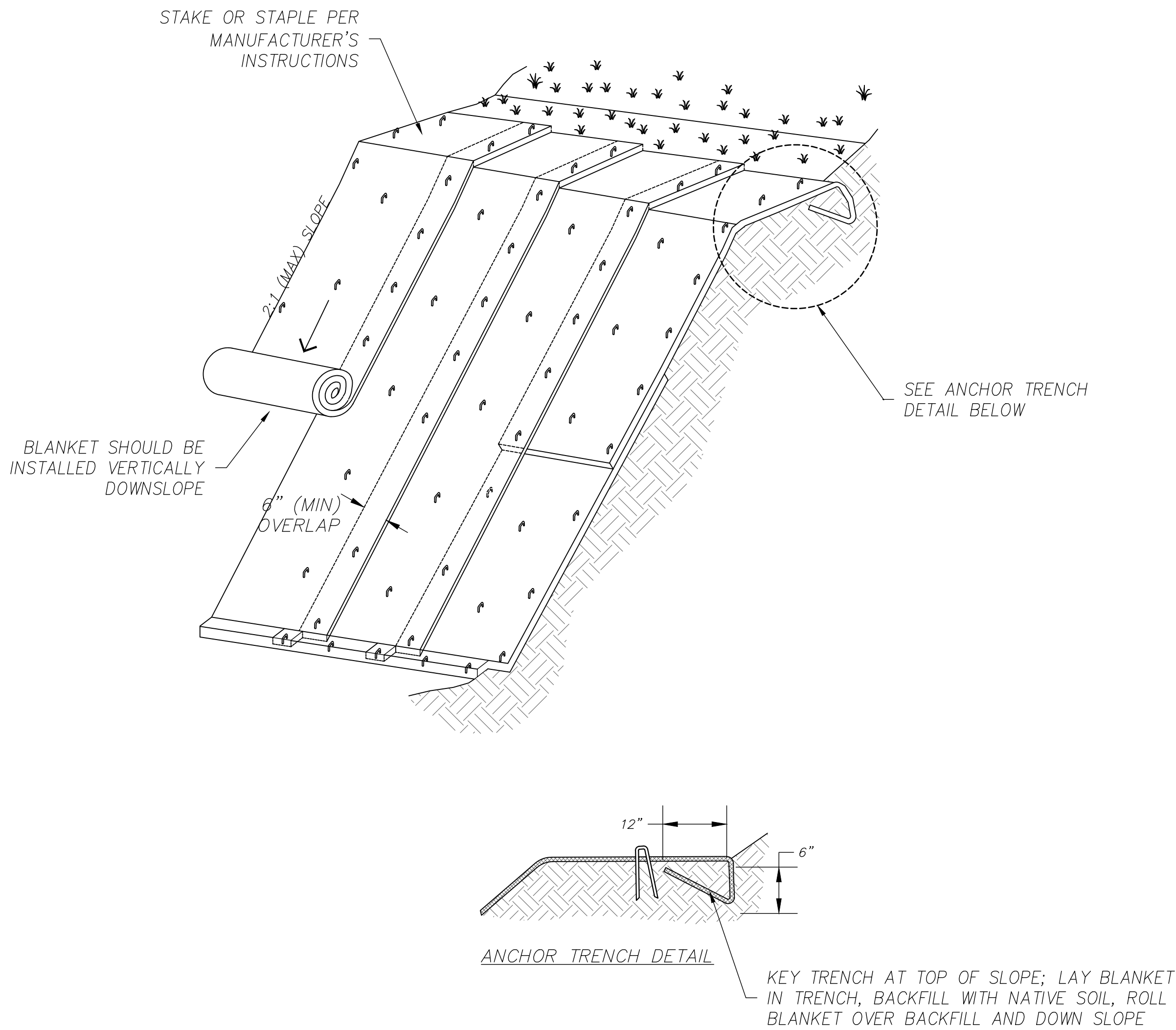
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(A) FIBER ROLL INSTALLATION TYPICAL SECTION
NOT TO SCALE



(B) EROSION CONTROL SECTION
NOT TO SCALE



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Zacharias Ranch Mitigation Bank

Erosion Details

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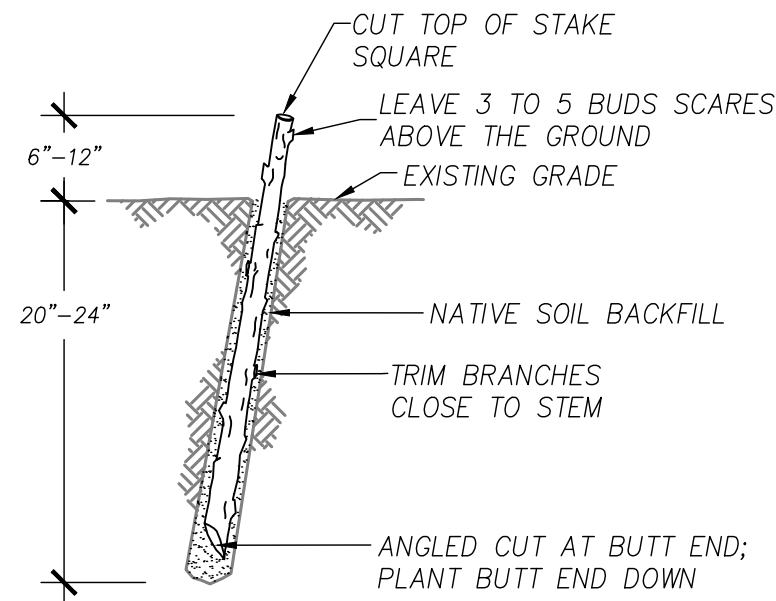
1. SEEDING SHALL OCCUR IMMEDIATELY FOLLOWING GRADING AND PRIOR TO CONTAINER OR CUTTING PLANTING.
2. SEEDING SHALL BE DONE USING A DRILL SEEDER, NO-TILL DRILL SEEDER, OR IMPRINT SEEDER.
3. GRADED AREAS TOO STEEP FOR MECHANICAL SEEDING SHALL BE SEED BY HAND OR BELLY GRINDER AND RAKED OR HARROWED TO ENSURE APPROPRIATE SOIL CONTACT AND COVERAGE.
4. PLANTS SHALL BE LAID OUT ON SITE FOR RESTORATION ECOLOGIST APPROVAL PRIOR TO PLANTING. PLANT LOCATIONS ARE SUBJECT TO FIELD ADJUSTED BY RESTORATION ECOLOGIST PRIOR TO PLANTING.

RIPARIAN PLANTING SCHEDULE (#AC)			
SCIENTIFIC NAME	COMMON NAME	SIZE	QTY
AESCULUS CALIFORNICA	CALIFORNIA BUCKEYE	TBD	TBD
APOCYNUM CANNABINUM	INDIAN HEMP	TBD	TBD
BIDENS LAEVIS	BUR MARIGOLD	TBD	TBD
CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH	TBD	TBD
CORNUS SERICEA	DOGWOOD	TBD	TBD
ROSA WOODSII	ROSE	TBD	TBD
RUBUS URSINUS	CALIFORNIA BLACKBERRY	TBD	TBD
VERBENA HASTATA	SWAMP VERBENA	TBD	TBD

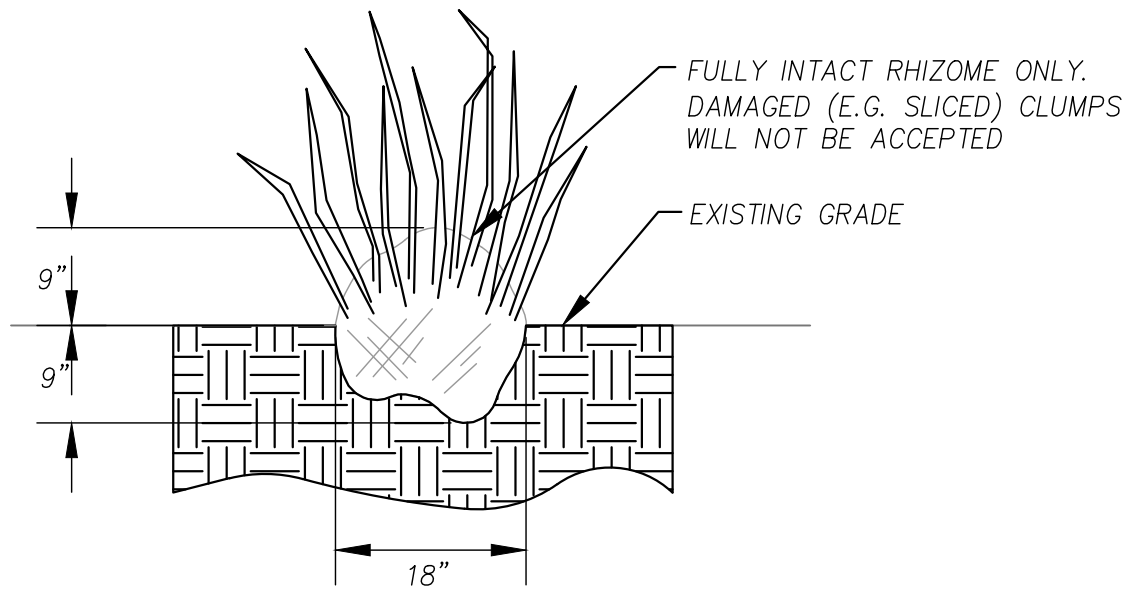
WETLAND PLANTING SCHEDULE (#AC)			
SCIENTIFIC NAME	COMMON NAME	SIZE	QTY
SCHOENOPLECTUS ACUTUS VAR. OCCIDENTALIS	TULE	TBD	TBD
SCHOENOPLECTUS CALIFORNICUS	CALIFORNIA TULE	TBD	TBD

SEED SCHEDULE		
SCIENTIFIC NAME	COMMON NAME	PLS/AC
ACHILLEA MILLEFOLIUM	YARROW	TBD
ALLIUM SP	ONION	TBD
ARTEMESIA DOUGASIANA	MUGWORT	TBD
ASCLEPIAS SPECIOSA	SHOWY MILKWEED	TBD
ASCLEPIAS ERIOCARPA	INDIAN MILKWEED	TBD
ASCLEPIAS FASCICULARIS	NARROW LEAF MILKWEED	TBD
CAREX	WHITE SEDGE	TBD
ELYMUS TRITICOIDES	CREeping WILD RYE, BEARDLESS WILD RYE	TBD
EQUISETUM ARVENSE	SCOURING RUSH/HORSETAIL	TBD
EQUISETUM HYMALE	HORSETAIL	TBD
IRIS	IRIS	TBD
MALVELLA LEPROSA	ALKALI MALLOW	TBD
POPULUS FREMONTII	COTTONWOOD	TBD
PTERIS AQUILINA	EAGLE/BRAKE FERN	TBD
SALIX	WILLOW	TBD

1. HARVEST AND PLANT WILLOW STAKES WHILE DORMANT (DURING LATE FALL OR EARLY WINTER).
2. USE HEALTHY, STRAIGHT AND LIVE WOOD AT LEAST 1 YEAR OLD.
3. BUTT END DIAMETER SHOULD BE MIN 3/4" MAX 3".
4. USE POST-HOLE DIGGER / AUGER / PILOT BAR TO DIG HOLES.
5. MAKE CLEAN CUTS AND DO NOT DAMAGE STAKES OR SPLIT ENDS DURING INSTALLATION.
6. SOAK BOTTOM 1/2 OF CUTTINGS IN WATER FOR 48 HOURS MIN., PRIOR TO INSTALLATION.
7. PROTECT CUTTINGS FROM SUN AND WIND EXPOSURE AT ALL TIMES, PRIOR TO PLANTING.
8. TAMP OR OTHERWISE COMPACT THE SOIL AROUND THE STAKE SEVERAL TIMES AS HOLE IS BACKFILLED TO ENSURE GOOD CONTACT BETWEEN CUTTING AND SOIL.
9. SOAK PLANTED CUTTING IMMEDIATELY AFTER PLANTING.



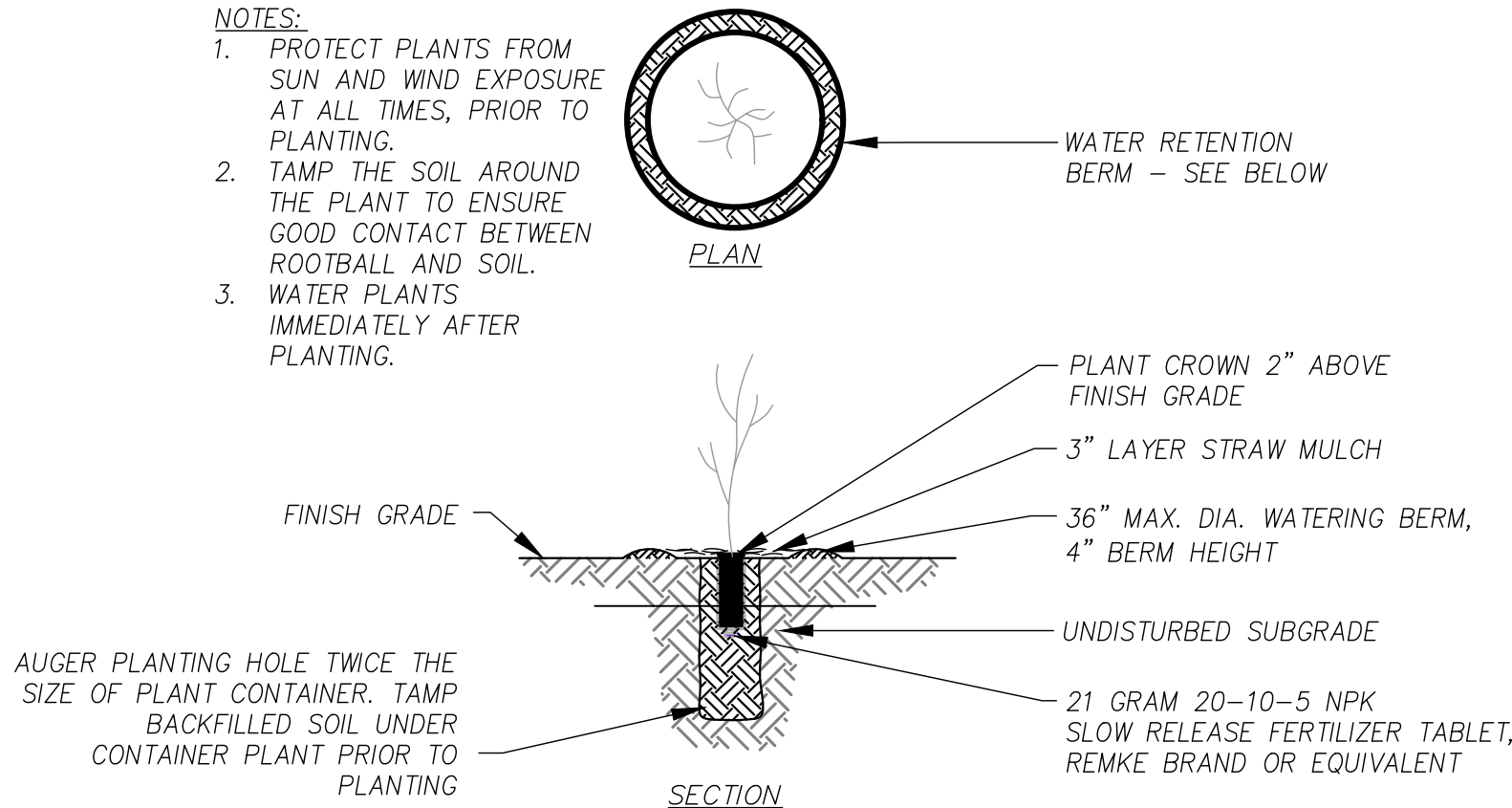
(A) 3' LIVE STAKE SECTION
NOT TO SCALE



1. HEEL IN TULE CLUMP.
2. CAT TAILS WILL NOT BE ACCEPTED.

(B) TULE CLUMP SECTION
NOT TO SCALE

1. PROTECT PLANTS FROM SUN AND WIND EXPOSURE AT ALL TIMES, PRIOR TO PLANTING.
2. TAMP THE SOIL AROUND THE PLANT TO ENSURE GOOD CONTACT BETWEEN ROOTBALL AND SOIL.
3. WATER PLANTS IMMEDIATELY AFTER PLANTING.

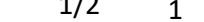


C CONTAINER PLANTING
NOT TO SCALE



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			Plotted Scale	

Zacharias Ranch Mitigation Bank

Planting Details

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