

Item: new item, regular session

Wednesday, August 3, 2022

Board of Directors meeting

The Natomas Basin Conservancy

For action by the Board

Introduction. This item requests that the Board of Directors authorize a new item to the August 3, 2022 Board of Directors meeting agenda. Since this is a late request, it will take a minimum of a 4/5th vote of the Board to place the item on the agenda for action today.

Item: BKS tract Giant garter snake enhancement project at Pond O.

Action requested: The Board is asked to authorize the Conservancy's Executive Director or Chief Financial Officer to execute and deliver all necessary documents for the purpose of engaging a contractor to conduct work on the Conservancy's BKS tract. The work entails modifying and enhancing the Pond O structure for the benefit of the Giant gartersnake, a "primary" Covered Species in the NBHCP. It calls on the adaptive management provisions of the NBHCP where the Conservancy is encouraged to use information it has learned to make modifications for the benefit of one or more of the NBHCP's Covered Species, in this case, the Giant gartersnake.

Reason for late notice. The need for the request on the August 3, 2022 Board of Directors meeting is that unless the Board entertains the matter now, the selected contractor will not have time to conduct the work in time to comply with the September 30 cut-off date for disturbance on preserves (e.g., the "GGS construction deadline"). Additionally, Conservancy management did not believe it would be possible to get multiple competitive bids in for the Board's consideration due to a well-known shortage of construction labor, with contractors evidencing they are booked up with existing work, and a roughly doubling of diesel fuel prices. However, multiple bids were submitted and referred to Conservancy management mid-morning, Wednesday, August 3, 2022. All three bids submitted were from reputable companies, two of whom have conducted substantial work for the Conservancy in the past.

The Conservancy engaged a construction manager for this project. The construction manager circulated a plan set and bidding documents. The low bid was lower than Conservancy management had estimated for the job. All three bidders indicated they could get to the project prior to the September 30 deadline.

Funding. The project will be funded by non-HCP funds. The monies will come from a restricted fund for projects intended to go above and beyond the requirements of the HCPs for Giant garter snake benefit.

Action. Conservancy management recommends the Board of Directors authorize this item for inclusion in today's (August 3, 2022) agenda. Separately, it recommends the Board authorize the Conservancy's Executive Director or Chief Financial Officer to execute and deliver all necessary documents to award a contract to and engage Triangle Properties, Inc. in the amount of \$44,240.00 to do the Pond O project at the BKS tract and begin the work immediately or as soon as practicable, but no later than September 30, 2022.

Project: BKS GGS Feature

Lump Sum Bid Proposal

Date Prepared: _____

Company Name: _____

Responder acknowledges that the work is an at-risk bid proposal and that the earthwork yardage is for reference only.

Authorized Signature: _____

Prepared By (print): _____

ITEM	QTY	DESCRIPTION	UNIT	REMARKS	Triangle	Glissman	Galloway
MOBILIZATION & PROJECT START-UP							
1	1	Mobilization	LS	Incl health & safety items	\$ 4,030.00	\$ 9,637.00	\$ 8,000.00
SITE PREPARATION							
2	1	Fence Removal	LS	Demo and disposal of fence materials per sheets C1, C2	\$ 1,240.00	\$ 2,950.00	\$ 2,500.00
3	1	Installation of Temporary Crossing	LS	Installation and removal of Temp. crossing. See sheet C2	\$ 620.00	\$ 2,337.00	\$ 4,000.00
4							
5							
EXCAVATION & FILL MATERIAL							
6	760	GGS Mound Excavation	CY	Includes all necessary cut, fill and hauling to establish GGS mounds	\$ 26,710.00	\$ 24,646.00	\$ 6,840.00
7							
8							
PLANTING & EROSION CONTROL							
9	1	Dust Control Water	LS	Water as needed to comply with applicable laws	\$ 1,250.00	\$ 6,600.00	\$ 8,000.00
10	0.95	Seeding fill areas	AC	Seeding GGS mounds and borrow areas, includes soil preparation	\$ 1,140.00	\$ 4,600.00	\$ 4,750.00
11	59	Container Planting	EA	Planting tree-pot and doc-pot container stock per sheet D1	\$ 1,130.00	\$ 4,420.00	\$ 5,900.00
12	18	Cottonwood Stakes	EA	Collection and installation of cottonwood stakes per sheet D1	\$ 310.00	\$ 1,218.00	\$ 1,620.00
13	77	Plant Protection	EA/LS	Installation of plant protection fencing per sheet D1	\$ 5,060.00	\$ -	\$ 9,240.00
MISCELLANEOUS ITEMS							
14	1	Irrigation Installation	LS	Installation of drip irrigation per sheets D1, I1	\$ 2,750.00	\$ 6,912.00	\$ 3,500.00
15							
16							
17							
18		TOTAL BASE BID AMOUNT:			\$ 44,240.00	\$ 63,320.00	\$ 54,350.00

Betts-Kismat-Silva Giant Garter Snake Habitat Improvements

MAINTENANCE WORK SACRAMENTO COUNTY, CALIFORNIA

Client: The Natomas Basin Conservancy
2150 River Plaza Dr., Suite 460
Sacramento, CA 95833

Phone: (916) 649-3331 Fax: (916) 649-3322

Contacts: John Roberts (jroberts@natomasbasin.org)

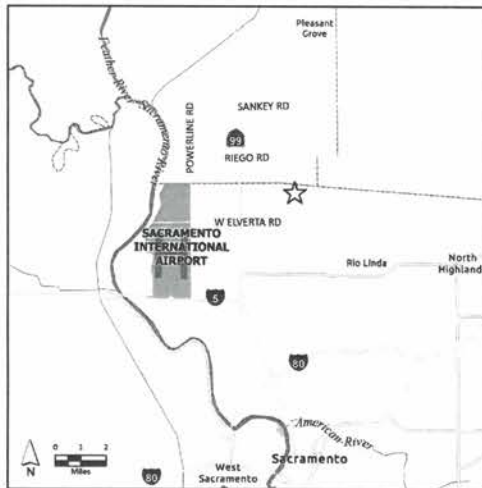
Design: Westervelt Ecological Services, LLC
600 North Market Boulevard, Suite #3
Sacramento, CA 95834

Phone: (916) 646-3644 Fax: (916) 646-3675

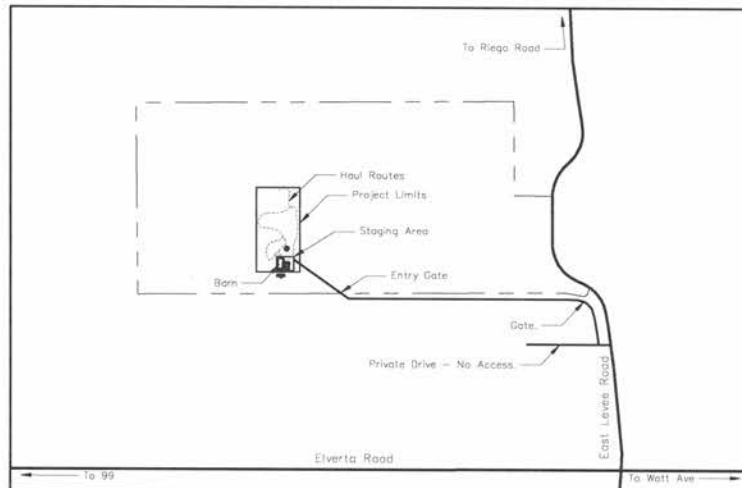
Contacts: Allegra Bukojemsky (abukojemsky@westervelt.com)
Mark Young (myoung@westervelt.com)

Sheet Index

Cover Sheet	0
Notes	N 1-2
Key Plan	K 1
Grading	C 1-3
Planting & Erosion Control	L 1-3
Details	D 1



Vicinity Map
(Not to Scale)
T10N, R4E, Sec. 11 & 12
Taylor Monument Quad &
Rio Linda Quad



Site Plan
(Not to Scale)

SACRAMENTO COUNTY PUBLIC WORKS AGENCY	
Project Name/Plan:	
Parcel No. - parcel number (N)	
Map Coordinates: Lat & Long	
ORDER NO.	###

No.	Description	Eng. Init.	COUNTY APPROVAL By	Date

Grading and Erosion Control	
Construction Start Date	
Construction End Date	
Final Stabilization Date	
Area of Disturbance: 0.92 AC	
Total Cubic Yards of Material Moved: 1,800 CY	
All soil will remain on site and shall not be double handled or stockpiled Cut and Fill are equal	

NOT FOR CONSTRUCTION

BKS GGS Habitat Improvements

Cover
The Natomas Basin Conservancy, Sacramento
County, California

600 N. Market Blvd. Ste 3
Sacramento, CA 95834
Phone: (916) 646-3644
Fax: (916) 646-3675
www.westervelt.com



Revisions
XX
ZS/AB/GW
06-24-2022

Cover

0

CONSTRUCTION / RESTORATION NOTES

SCOPE OF WORK

This project is to enhance the natural landscape by creating additional vernal pools in the existing micro-watersheds on the site. To achieve this, the Contractor shall conduct all activities in accordance with the Construction Documents and conditions of the Permits set forth by the regulatory agencies having jurisdiction over the project. The Contractor shall construct the vernal pools as shown on these Construction Drawings and as field adjusted by the Restoration Ecologist. The Contractor shall furnish all materials, services, labor, transportation, equipment necessary for the complete implementation of the vernal pools restoration / creation shown on the landscaping plans and described in the notes and specifications, including all incidental work necessary to complete the project.

DEFINITIONS

- The term 'Access Point' is an allowable access spot to the construction site and shall be secured by the contractor to prevent after-hour access by unauthorized people.
- The terms 'Approval', 'Approval or Approve' means written authorization will be required from the Restoration Ecologist to the Contractor before that item may proceed.
- The term 'Best Management Practices' (BMPs) are the current and acceptable construction techniques to minimize environmental damages to the site during construction, and is not just limited to erosion control measures.
- The term 'Construction Documents' are the collection of drawings, notes, agreements, permits, etc. associated with the implementation of the restoration scope of work.
- The term 'Construction Drawings' is the approved set of plans for the project, and includes the location and layout of the new vernal pools and swales, access and haul routes, erosion control measures, and project notes.
- The term 'Construction Period' refers to the time that the Contractor is authorized to commence work on the project through to when the Contractor is deemed to have completed all required construction activities. There may be times when the Contractor is not physically doing work on the site, but is still considered within the Construction Period.
- The term 'Construction Window' or 'Construction Season' includes both the allowable hours for construction on a daily basis and the months that construction may proceed.
- The term 'Contractor' refers to the prime Contractor and subcontractors, material suppliers and service suppliers hired or contracted by the prime Contractor for work conducted on the project.
- The term 'Grading' is all the earthmoving activities associated with the landscaping for the project implementation. This includes, but is not limited to, digging, excavating, compacting, spoiling, finishing, and hauling of soils on the site.
- The term 'Haul Route' is the access corridor on the site where construction equipment is allowed to travel between access points, staging areas, and construction work.
- The term 'Not In Contract' (NIC) are those items that are shown on the plans for restoration work but are NOT part of the Contractor's Scope of Work.
- The term 'Permits' refers to the approval documents that have been issued by the Resource Agencies that allows the project to be implemented.
- The term 'Preservation Areas' refers to the natural landscape portions of the project site that are located outside of the construction limits.
- The term 'Resource Agencies' refers to the regulatory agencies that have jurisdictional authority over the site construction. These may include, but are not limited to, the US Army Corps of Engineers (Corps), US Environmental Protection Agency (EPA), US Fish and Wildlife Service (USFWS), Central Valley Regional Water Quality Control Board (Regional Board), and the County of Sacramento (County).
- The term 'Restoration Ecologist' is the Client or Client's representative overseeing or observing the construction activities, and providing technical review for the final configuration of each vernal pool shape and site's soil stabilization.

COUNTY NOTES

1. All construction and materials shall be in accordance with the County of Sacramento Standards, Specifications and Improvement Standards. Where inconsistencies exist, the latest shall prevail.
 2. Public convenience, public safety and traffic control shall be provided in accordance with the standards of the County of Sacramento.
 3. The consulting engineer shall notify the County of Sacramento Construction Inspection Office upon completion of staking (916-875-2700).
 4. The Contractor shall notify the County of Sacramento Construction Inspection Office on working days prior to intention to commence work. The Contractor shall not start any grading until the county completes a pre-construction meeting. (Phone 916-875-2700)
 5. The County of Sacramento is a member of the Underground Service Alert (U.S.A.) one call program. The Contractor or any sub-contractor for this contract shall notify members of the U.S.A. two working days in advance of performing any excavation work by calling the toll-free number 1-800-227-2600. Thomas Brothers Map page 361 Index D3, 2009 Edition.
 6. The Contractor shall be responsible for the protection of all existing survey monuments and other survey markers during construction. All such monuments or markers destroyed during construction shall be replaced at the Contractor's expense.
 7. Erosion control measures shall be in accordance with section 11 of the County of Sacramento Improvement Standards.
- The following note is required for projects grading/disturbing one acre or more:
8. Erosion and sediment control measures for this project shall be in substantial compliance with the Stormwater Pollution Prevention Plan (SWPPP) prepared for the project in accordance with the state's general permit for construction activities. According to the state law, it is the responsibility of the property owner that the SWPPP is kept up-to-date to reflect changing site conditions and is available on the project site at all times for review by local and state inspectors.

SUGGESTED CONSTRUCTION SEQUENCING

The following is the suggested construction sequencing for implementing the project and is not intended to dictate construction means or measures.

1. Attend kick-off meeting at the site with Resource Agencies
2. Attend biological training (all Contractor crews that will be working on site)
3. Install construction entrance stabilization(s) and site security
4. Field locate allowed haul routes
5. Install temporary crossing(s)
6. Set up staging area(s)
7. Implement construction activities
8. Implement seeding and other erosion control activities
9. Remove equipment and surplus materials from the site
10. Remove temporary crossing(s)

CONSTRUCTION DRAWINGS

Westervelt Ecological Services, LLC and its consultants have used the best available landscaping practices and applied a reasonable Standard of Care in the preparation of the Construction Drawings. This included collection of soils, biological and botanical data, site topography, cultural resource information and hazardous substance investigation. However, some features may not have been mapped or represented on the Construction Drawings. The Contractor shall review the drawings and report any discrepancies to the Restoration Ecologist for clarification.

The Contractor shall note that all scaled drawings are approximate for viewing the design features. Written dimension supersede scaled dimensions. AutoCad files for the design features are available for use by the Contractor for determining the specific location(s) of such features.

The Restoration Ecologist may make field adjustments to the final shape of the staging area(s), haul route(s), vernal pools & swales, and spoils piles, based on specific site conditions revealed during construction. Such adjustments are incidental to the work conducted for the project.

Normal construction practices or Standards of Care for implementing the restoration project will be conducted by the Contractor even if these practices are not described or indicated on the Construction Drawings.

Approved design changes by the Restoration Ecologist will be considered as new parts of the Construction Drawings and shall adhere to all of the project requirements.

CONTRACTOR SUBMITTALS

The Contractor shall make the following submittals as part of the Scope of Work:

1. Construction safety plan, including emergency fire control measures
2. Any modifications to the Suggested Construction Sequencing
3. List of sub-consultants and their contact information
4. Schedule of activities for the entire project and shown on a weekly timeline
5. List of material supplier(s) within thirty a 30-day period after contract signature
6. Copy of material suppliers verifying compliance with specifications (e.g., seed bag)
7. Copy of inspection certificates for materials
8. Percent completion report for each biological monitoring meeting
9. Material samples that are reviewed by the Restoration Ecologist
10. Shop drawings that are reviewed by the Restoration Ecologist
11. Re-submittals(s) of items that require original design checked

SCHEDULE

The Contractor shall complete the Scope of Work within the Construction Window. The Contractor shall have all grading work completed by the end of the first and last day of the Construction Window. Seeding shall be per the schedule outlined in the Erosion and Sediment Control Notes. Work will be suspended if rainy weather occurs during this time period and will not be considered as a time delay factor for the project.

Construction may occur Monday through Saturday from dawn till dusk. No work may occur on a Sunday or federal holiday.

QUALITY OF WORK

The Contractor shall implement the project in accordance with the best practices and standard of care relating to the various professional trades required for implementing this project, and provide continuous direction to such trades from an experienced and qualified supervisor capable of interpreting the Construction Drawings and Specifications.

All construction crews shall attend training given by the Restoration Ecologist to learn about the required conditions that need to be followed to protect the sensitive plants and animals on the site, actions to be followed when working adjacent to these areas, and the responsibilities and reporting processes that need to be followed when such species are encountered.

To assure quality control in the construction site, the following restrictions and responsibilities shall be adhered to by the Contractor:

- Call Underground Service Alert (USA) at 1-800-227-2600, forty-eight (48) hours before commencing construction for determining existing utility locations).
 - No Contractor crews may enter areas outside of the construction limits unless permitted by the Restoration Ecologist.
 - No pets are permitted.
 - No catering trucks or unauthorized vendors are allowed on the site.
 - No dumping of litter or debris, including tobacco products and food wrappers, is allowed. A common trash receptacle is allowed but must be secured to prevent access by animals or topping by wind, and be emptied as needed, with the refuse deposited at an approved County facility. Trash or debris can not be burned on site.
 - Portable sanitary facilities, located at the main staging area, shall be supplied and clean by a licensed company specializing in such services. A self-contained, hand-washing station shall be part of the service. No wastes shall be deposited on the site.
 - Entry to and around the site shall be via the designated Access Points(s) and Haul Routes.
 - Stationary equipment (such as motors, generators, pumps, etc.) or parked machinery (such as scrapers, excavators, etc.) shall be supplied with spill prevention containment measures (e.g., drip pans) and checked / cleaned regularly in accordance with federal, state and county requirements.
 - Any spills of hazardous substances will be cleaned up immediately following federal, state and county requirements, including removal and disposal of contaminated soils, and the appropriate reporting submitted to such Regulatory Agencies with a copy to the Restoration Ecologist.
 - Equipment maintenance and fueling shall be done at the approved staging area(s) with full hazardous material containment measures in place. If emergency maintenance is needed outside of the staging area(s), all protection measures will be required, including, but not limited to, placement of drip pans, absorbent rags, etc.
- Contractor shall contact the Restoration Ecologist twenty-four (24) hours in advance to request technical review(s).

SPECIAL PROVISIONS

OVERVIEW

The Contractor shall assume sole responsibility for oversight of the construction crews and services as part of the implementation of the project, including safety for all personnel and minimizing impacts to the site.

EXISTING SITE CONDITIONS

The existing natural landscape is actively grazed to control grass cover and weed growth. Cattle will be removed from the site during the construction. Wetlands, including vernal pools and swales, sensitive plant and animal species, and a cattle stock pond exist on the site.

The Contractor shall contact the Restoration Ecologist immediately upon finding any discrepancies in the actual field conditions that what is shown on the plans.

CONSTRUCTION ACCESS AND HAUL ROUTES

Access to the project site will be made from a single point off of Riza Rd. by driving approximately 0.5 miles on private dirt road to the western staging area. The Contractor shall strictly follow the haul routes while traversing the site. Citations against the Contractor from the Resource Agencies for not following such routes shall be born solely by the Contractor and remedial actions and fines will not be reimbursed by the Client.

SURVEY CONTROL & GRADING TOLERANCE

Survey control points have been set by the Restoration Ecologist's team and coordinates will be provided to the Contractor. Shape files or polygon points for each vernal pool configuration will be supplied to the Contractor. Contractor shall set up temporary, supplemental control points as may be needed to implement the landscape grading. Contractor's grade staker / checker shall verify that the final vernal pool shape is within 0.25 inch in the horizontal direction, and the depth is within 0.10 inch in vertical elevation from what is shown on the plan. The Restoration Ecologist may make adjustments to the vernal pool configuration to account for sub-surface soil conditions. Any modifications are considered incidental work to the landscape grading and included as part of completion of the plans.

PRODUCT / MATERIAL QUALITY

Contractor shall verify that all material and products supplied for the project are either new or certified recyclable items. Any changes from the specifications, including "or equivalent" and "or equal" items will need approval from the Restoration Ecologist before purchase / installation. The cost and application of non-approved materials or products will not be reimbursed to the Contractor.

MATERIAL DELIVERY, HANDLING & STORAGE

Contractor shall be responsible for receiving materials delivered to the site and verifying that the material meets the specifications. Contractor is responsible make sure that the delivery vendor is in full compliance with the requirements for the project. Any restoration associated with failure to meet these requirements will be born solely by the Contractor and is incidental to the work.

Material or products shall be delivered in unopened, manufacturer's containers and include clearly-visible product labeling.

SACRAMENTO AIR QUALITY PROVISIONS

1. The Contractor shall ensure that all equipment used on the project is in compliance with the County of Sacramento and Sacramento Metropolitan Air Control District (SMACD) rules and regulations. All equipment shall be equipped with a diesel particulate filter (DPF) and a comprehensive inventory of all the off-road construction equipment, equal to or greater than 50 horsepower, that will be used on the project shall be maintained during the construction project. The inventory shall include the horsepower rating, engine production year, and hours of use or fuel throughput for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs.
2. The Prime Contractor shall ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed opacity shall be repaired immediately, and the County of Sacramento and SMAQMD shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supersede other SMAQMD or state rules or regulations.
3. The use of Lubrizol Corp. brand "PurNox" or TotalFinalfil Co. brand "AquaNox" water-based emulsion as a fuel for diesel powered equipment is also recommended. This alternative fuel operates in any diesel-powered equipment. These alternative fuels have been certified by the California Air Resources Board, and is commercially available. Use of this fuel in a diesel engine will reduce NOx emissions by 14% and PM10 emissions by 63%. Questions regarding the use of alternative fuels can be answered by calling the SMAQMD at (916) 874-4800.

SITE CLEAN-UP

On final approval of the project completion from the Restoration Ecologist, the Contractor shall verify that all temporary materials and features are removed, and staging area and haul routes are stabilized to allow natural re-vegetation of occur.

Contractor will make sure that the site is always maintained in a neat and orderly manner during the Construction Period. This includes, but is not limited to, removal and disposal of litter and debris at a County-approved disposal site.

600 N. Market Blvd. Ste 3
Sacramento, CA 95834
Phone: (916) 446-9644
Fax: (916) 446-9674
www.westervelt.com



Notes

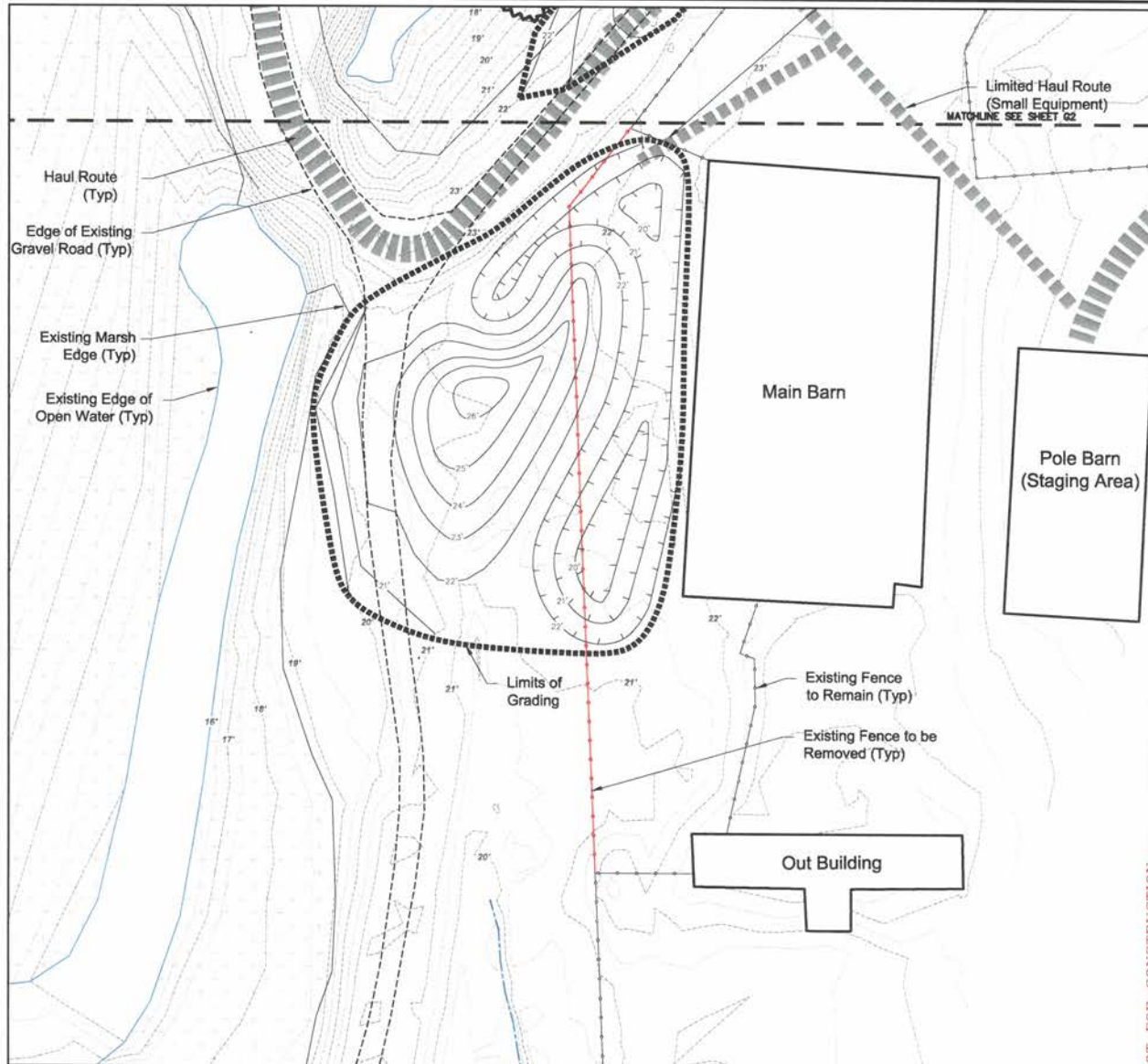
The National Bureau of Census, Sacramento
County, California

BKS GGS Habitat Improvements

NOT FOR CONSTRUCTION

Revision	
1	XX
2	XX
3	XX
4	XX
5	XX
6	XX
7	XX
8	XX
9	XX
10	XX
11	XX
12	XX
13	XX
14	XX
15	XX
16	XX
17	XX
18	XX
19	XX
20	XX
21	XX
22	XX
23	XX
24	XX
25	XX
26	XX
27	XX
28	XX
29	XX
30	XX
31	XX
32	XX
33	XX
34	XX
35	XX
36	XX
37	XX
38	XX
39	XX
40	XX
41	XX
42	XX
43	XX
44	XX
45	XX
46	XX
47	XX
48	XX
49	XX
50	XX
51	XX
52	XX
53	XX
54	XX
55	XX
56	XX
57	XX
58	XX
59	XX
60	XX
61	XX
62	XX
63	XX
64	XX
65	XX
66	XX
67	XX
68	XX
69	XX
70	XX
71	XX
72	XX
73	XX
74	XX
75	XX
76	XX
77	XX
78	XX
79	XX
80	XX
81	XX
82	XX
83	XX
84	XX
85	XX
86	XX
87	XX
88	XX
89	XX
90	XX
91	XX
92	XX
93	XX
94	XX
95	XX
96	XX
97	XX
98	XX
99	XX
100	XX
101	XX
102	XX
103	XX
104	XX
105	XX
106	XX
107	XX
108	XX
109	XX
110	XX
111	XX
112	XX
113	XX
114	XX
115	XX
116	XX
117	XX
118	XX
119	XX
120	XX
121	XX
122	XX
123	XX
124	XX
125	XX
126	XX
127	XX
128	XX
129	XX
130	XX
131	XX
132	XX
133	XX
134	XX
135	XX
136	XX
137	XX
138	XX
139	XX
140	XX
141	XX
142	XX
143	XX
144	XX
145	XX
146	XX
147	XX
148	XX
149	XX
150	XX
151	XX
152	XX
153	XX
154	XX
155	XX
156	XX
157	XX
158	XX
159	XX
160	XX
161	XX
162	XX
163	XX
164	XX
165	XX
166	XX
167	XX
168	XX
169	XX
170	XX
171	XX
172	XX
173	XX
174	XX
175	XX
176	XX
177	XX
178	XX
179	XX
180	XX
181	XX
182	XX
183	XX
184	XX
185	XX
186	XX
187	XX
188	XX
189	XX
190	XX
191	XX
192	XX
193	XX
194	XX
195	XX
196	XX
197	XX
198	XX
199	XX
200	XX
201	XX
202	XX
203	XX
204	XX
205	XX
206	XX
207	XX
208	XX
209	XX
210	XX
211	XX
212	XX
213	XX
214	XX
215	XX
216	XX
217	XX
218	XX
219	XX
220	XX
221	XX
222	XX
223	XX
224	XX
225	XX
226	XX
227	XX
228	XX
229	XX
230	XX
231	XX
232	XX
233	XX
234	XX
235	XX
236	XX
237	XX
238	XX
239	XX
240	XX
241	XX
242	XX
243	XX
244	XX
245	XX
246	XX
247	XX
248	XX
249	XX
250	XX
251	XX
252	XX
253	XX
254	XX
255	XX
256	XX
257	XX
258	XX
259	XX
260	XX
261	XX
262	XX
263	XX
264	XX
265	XX
266	XX
267	XX
268	XX
269	XX
270	XX
271	XX
272	XX
273	XX
274	XX
275	XX
276	XX
277	XX
278	XX
279	XX
280	XX
281	XX
282	XX
283	XX
284	XX
285	XX
286	XX
287	XX
288	XX
289	XX
290	XX
291	XX
292	XX
293	XX
294	XX
295	XX
296	XX
297	XX
298	XX
299	XX
300	XX
301	XX
302	XX
303	XX
304	XX
305	XX
306	XX
307	XX
308	XX
309	XX
310	XX
311	XX
312	XX
313	XX
314	XX
315	XX
316	XX
317	XX
318	XX
319	XX
320	XX
321	XX
322	XX
323	XX
324	XX
325	XX
326	XX
327	XX
328	XX
329	XX
330	XX
331	XX
332	XX
333	XX
334	XX
335	XX
336	XX
337	XX
338	XX
339	XX
340	XX
341	XX
342	XX
343	XX
344	XX
345	XX
346	XX
347	XX
348	XX
349	XX
350	XX
351	XX
352	XX
353	XX
354	XX
355	XX
356	XX
357	XX
358	XX
359	XX
360	XX
361	XX
362	XX
363	XX
364	XX
365	XX
366	XX
367	XX
368	XX
369	XX
370	XX
371	XX
372	XX
373	XX
374	XX
375	XX
376	XX
377	XX
378	XX
379	XX
380	XX
381	XX
382	XX
383	XX
384	XX
385	XX
386	XX
387	XX
388	XX
389	XX
390	XX
391	XX
392	XX
393	XX
394	XX
395	XX
396	XX
397	XX
398	XX
399	XX
400	XX
401	XX
402	XX
403	XX
404	XX
405	XX
406	XX
407	XX
408	XX
409	XX
410	XX
411	XX
412	XX
413	XX
414	XX
415	XX
416	XX
417	XX
418	XX
419	XX
420	XX
421	XX
422	XX
423	XX
424	XX
425	XX
426	XX
427	XX
428	XX
429	XX
430	XX
431	XX
432	XX
433	XX
434	XX
435	XX
436	XX
437	XX
438	XX
439	XX
440	XX
441	XX
442	XX
443	XX
444	XX
445	XX
446	XX
447	XX
448	XX
449	XX
450	XX
451	XX
452	XX
453	XX
454	XX
455	XX
456	XX
457	XX
458	XX
459	XX
460	XX
461	XX
462	XX
463	XX
464	XX
465	XX
466	XX
467	XX
468	XX
469	XX
470	XX
471	XX
472	XX
473	XX
474	XX
475	XX
476	XX
477	XX
478	XX
479	XX
480	XX
481	XX
482	XX
483	XX
484	XX
485	XX
486	XX
487	XX
488	XX
489	XX
490	XX
491	XX
492	XX
493	XX
494	XX
495	XX
496	XX
497	XX
498	XX
499	XX
500	XX
501	XX
502	XX
503	XX
504	XX
505	XX
506	XX
507	XX
508	XX
509	XX
510	XX
511	XX
512	XX
513	XX
514	XX
515	XX
516	XX
517	XX
518	XX
519	XX
520	XX
521	XX
522	XX
523	XX
524	XX
525	XX
526	XX
527	XX
528	XX
529	XX
530	XX
531	XX
532	XX
533	XX
534	XX
535	XX
536	XX
537	XX
538	XX
539	XX
540	XX
541	XX
542	XX
543	XX
544	XX
545	XX
546	XX
547	XX
548	XX
549	XX
550	XX
551	XX
552	XX
553	XX
554	XX
555	XX
556	XX
557	XX
558	XX
559	XX
560	XX
561	XX
562	XX
563	XX
564	XX
565	XX
566	XX
567	XX
568	XX
569	XX
570	XX
571	XX
572	XX
573	XX
574	XX
575	XX
576	XX
577	XX
578	XX
579	XX
580	XX
581	XX
582	XX
583	XX
584	XX
585	XX
586	XX
587	XX
588	XX
589	XX
590	XX
591	XX
592	XX
593	XX
594	XX
595	XX
596	XX
597	XX
598	XX
599	XX
600	XX
601	XX
602	XX
603	XX
604	XX
605	XX
606	XX
607	XX
608	XX
609	XX
610	XX
611	XX
612	XX
613	XX
614	XX
615	XX
616	XX
617	XX
618	XX
619	XX
620	XX
621	XX
622	XX
623	XX
624	XX
625	XX
626	XX
627	XX
628	XX
629	XX
630	XX
631	XX
632	XX
633	XX
634	XX
635	XX
636	XX
637	XX
638	XX
639	XX
640	XX
641	XX
642	XX
643	XX
644	XX
645	XX
646	XX
647	XX
648	XX
649	XX
650	XX
651	XX
652	XX
653	XX
654	XX
655	XX
656	XX
657	XX
658	XX
659	XX
660	XX
661	XX
662	XX
663	XX
664	XX
665	XX
666	XX
667	XX
668	XX
669	XX
670	XX
671	XX
672	XX
673	XX
674	XX
675	XX
676	XX
677	XX
678	XX
679	XX
680	XX
681	XX
682	XX
683	XX
684	XX
685	XX
686	XX
687	XX
688	XX
689	XX
690	XX
691	XX
692	XX
693	XX

Legend	
Limits of Grading	
Buildings	
Exist. Contour (Major)	
Exist. Contour (Minor)	
Proposed Contour	
Edge of Water	
Exist. Fence (Remain)	
Exist. Fence (Remove)	
Limit of Vegetation Clearing	
Swale (Existing)	
Existing Gravel Road	
Haul Routes	
Existing Marsh	



600 N. Market Blvd. Ste. 3
Sacramento, CA 95834
Phone: (916) 646-3644
Fax: (916) 646-3675
www.westervelt.com



BKS GGS Habitat Improvements

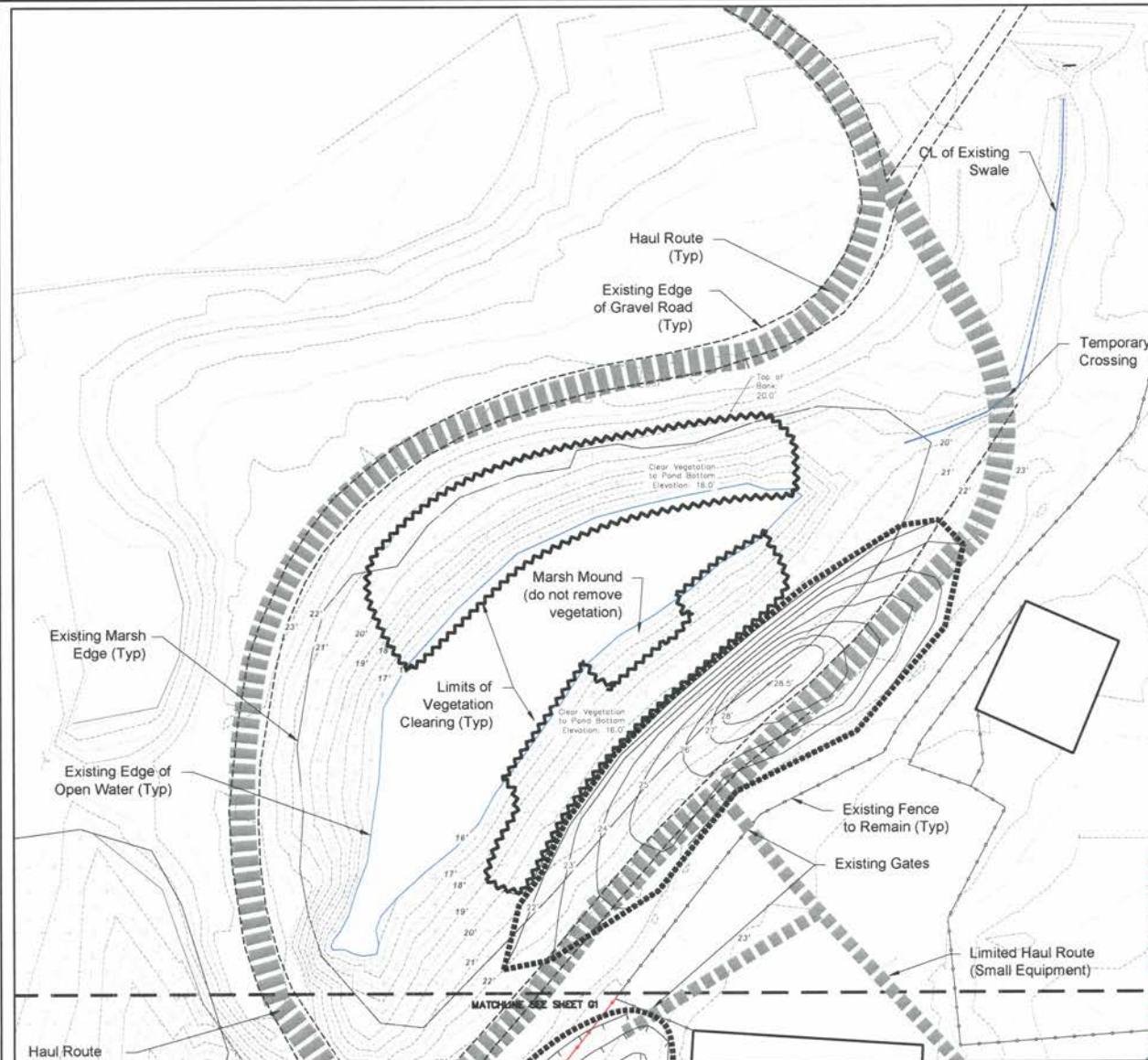
Grading Plan
The Natemas Basin Conservancy, Sacramento
County, California

Revised By:	
Revised Date:	XX/XX/XX
Revised By:	XX
Revised Date:	07-20-2022
REVISIONS	

Grading Plan

C1

Legend	
Limits of Grading	
Buildings	
Exist. Contour (Major)	
Exist. Contour (Minor)	
Proposed Contour	
Edge of Water	
Exist. Fence (Remain)	
Exist. Fence (Remove)	
Limit of Vegetation Clearing	
Swale (Existing)	
Existing Gravel Road	
Haul Routes	
Existing Marsh	



600 N. Market Blvd. Ste. 3
 Sacramento, CA 95834
 Tel: (916) 446-3444
 Fax: (916) 446-3675
 www.westernet.com



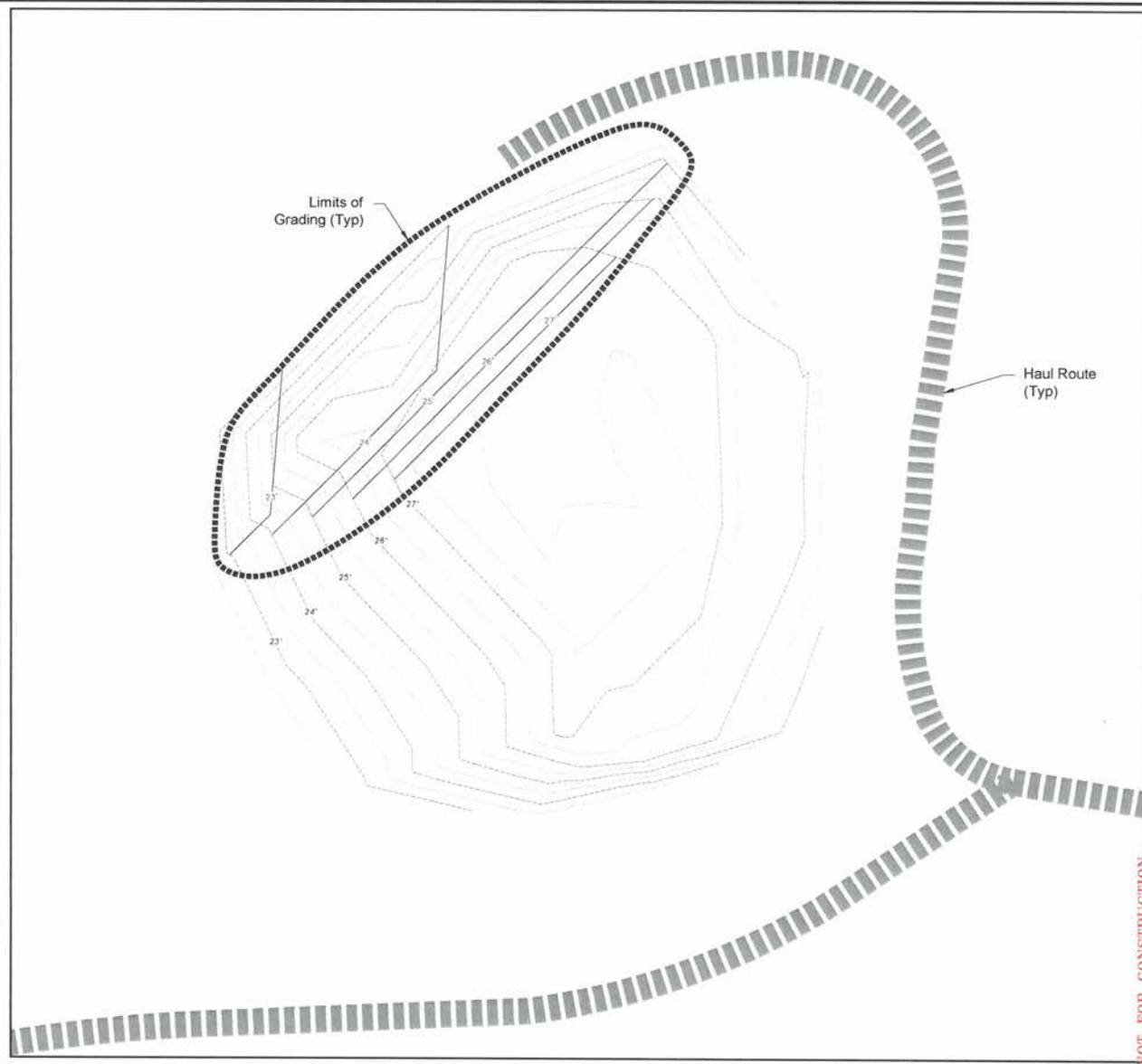
BKS GGS Habitat Improvements

Grading Plan
 The National Basin Conservancy, Sacramento
 County, California

REVISIONS	
Revised By	XX
Checked By	XX
Date	07-20-2022
Sheet Title	
C2	

Legend

Limits of Grading	
Buildings	
Exist. Contour (Major)	
Exist. Contour (Minor)	
Proposed Contour	
Edge of Water	
Exist. Fence (Remain)	
Exist. Fence (Remove)	
Limit of Vegetation Clearing	
Swale (Existing)	
Existing Gravel Road	
Haul Routes	
Existing Marsh	



NOT FOR CONSTRUCTION

600 N. Market Blvd. Ste. 3
Sacramento, CA 95834
Phone (916) 446-3644
Fax (916) 446-3645
www.westervet.com
















BKS GGS Habitat Improvements

Grading Plan
The National Bureau of Geology, Sacramento
County, California



Checked by:	
Drawn by:	XX
Reviewed by:	XX
Date:	07-20-2022
REVISIONS	

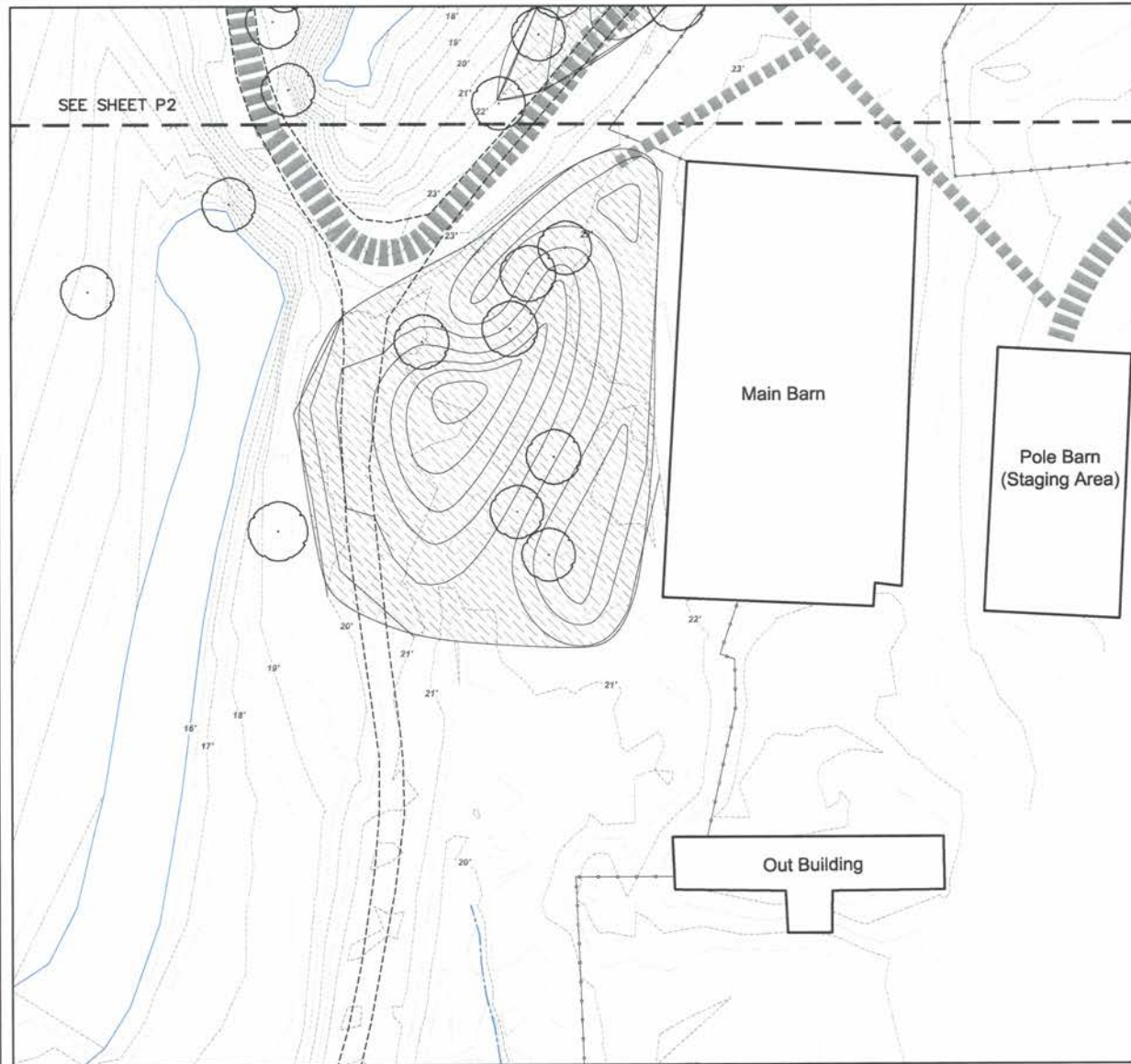
Sheet Title

C3

Legend	
Limits of Grading	
Buildings	
Exist. Contour (Major)	 10'
Exist. Contour (Minor)	
Proposed Contour	 20'
Edge of Water	
Exist. Fence (Remain)	
Exist. Fence (Remove)	
Limit of Vegetation Clearing	
Swale (Existing)	
Existing Gravel Road	
Haul Routes	
Existing Marsh	



Legend	
Seeding Area	
Tree Planting	



NOT FOR CONSTRUCTION

600 N. Market Blvd, Ste 3
Sacramento, CA 95834
Phone: (916) 846-7244
Fax: (916) 846-7245
www.westernell.com

WESTERNELL
landscape services

BKS GGS Habitat Improvements

Planting Plan
The National Resource Conservation Agency, Sacramento
County, California

Revisions
<div style="display: flex; justify-content: space-between;"> <div> <p>Revised By: AB</p> <p>Revised By: ZSGW</p> <p>Date: 07-20-2022</p> </div> <div> <p>REVISIONS</p> </div> </div>
<div style="display: flex; justify-content: space-between;"> <div> <p>Planting Plan</p> </div> <div> <p>L1</p> </div> </div>

Legend	
Limits of Grading	
Buildings	
Exist. Contour (Major)	
Exist. Contour (Minor)	
Proposed Contour	
Edge of Water	
Exist. Fence (Remain)	
Exist. Fence (Remove)	
Limit of Vegetation Clearing	
Swale (Existing)	
Existing Gravel Road	
Haul Routes	
Existing Marsh	



Legend	
Seeding Area	
Tree Planting	



NOT FOR CONSTRUCTION

600 N. Market Blvd. Ste. 3
 Sacramento, CA 95834
 Phone (916) 446-3644
 Fax (916) 446-3645
 www.westervet.com



BKS GGS Habitat Improvements

Planting Plan
 The National Bureau of Geographical Names
 County, California

Drawn by:
 AB
 Checked by:
 ZSAGW
 Date:
 07-20-2022

REVISIONS

Planting Plan

L2

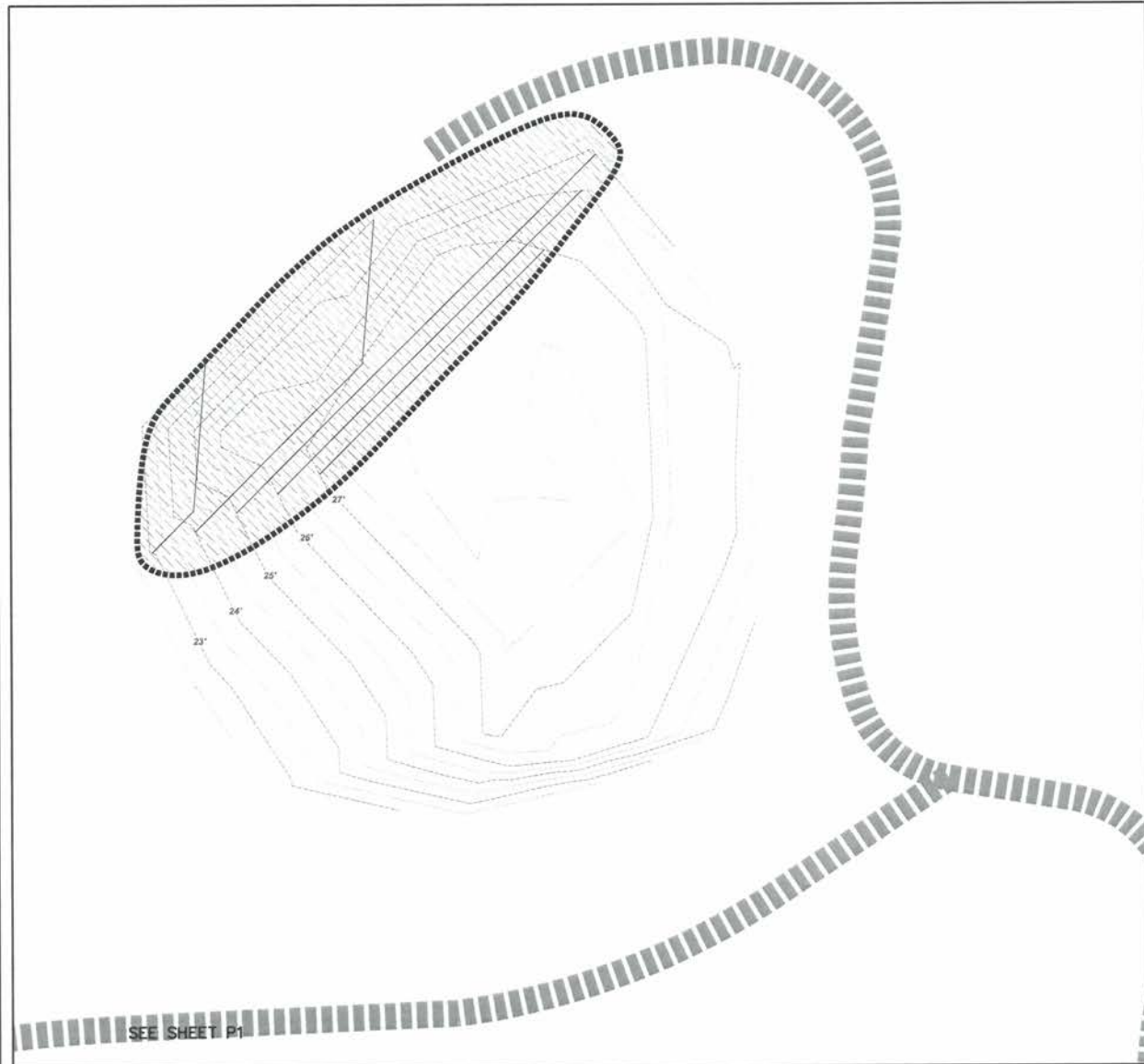
Legend

Limits of Grading	
Buildings	
Exist. Contour (Major)	
Exist. Contour (Minor)	
Proposed Contour	
Edge of Water	
Exist. Fence (Remain)	
Exist. Fence (Remove)	
Limit of Vegetation Clearing	
Swale (Existing)	
Existing Gravel Road	
Haul Routes	
Existing Marsh	



Legend

Seeding Area	
Tree Planting	



600 N. Market Blvd. Ste. 3
Sacramento, CA 95834
Phone: (916) 446-5644
Fax: (916) 446-5672
www.westernvet.com



BKS GGS Habitat Improvements

Planting Plan
The National Fish and Wildlife Foundation
County, California

Revisions
Author
ALH
ZSGW
07-20-2022
REVISIONS

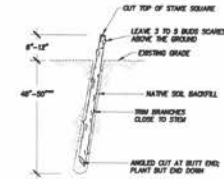
Planting Plan

L3

Common Name	Scientific Name	Live Stake
Evermore cottonwood	Populus fremontii	
Valley oak	Quercus lobata	
Interior Live Oak	Quercus wislizeni	
Box elder	Acer negundo	
Oregon ash	Fraxinus latifolia	
Coyote brush	Baccharis pilularis	
Mule fat	Baccharis salicifolia	
California wild rose	Rosa californica	
Rose mallow	Hibiscus lasiocarpus	
Button willow	Cephaelis occidentalis	
Total Number:		

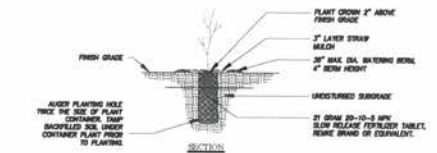
Common Name	Botanical Name	Lbs/acre
Purple Needlegrass	Stipa pulchra	5.00
Slender Wheatgrass	Elymus trachycarpus	7.00
Meadow Barley	Hordium brochanthetum	3.00
California Barley	Hordium b. ssp. californicum	3.00
Sandberg Bluegrass	Poa secunda	1.00
California Poppy	Eschscholzia californica	1.00
Pigmy Leaf Lupine	Lupinus micranthus	1.00
Desertweed	Acmispum glabrum	1.00
Yarrow	Achillea millefolium	1.00
Tamart Clover	Trifolium arvense	1.00
Total pounds/acre		24.00

- Harvest and plant live stakes while dormant (during late fall or early winter).
- Use healthy, straight and free wood at least 1 year old.
- But and diameter should be min 3/4" max 2".
- Cut off 2' of tip of stake with horizontal cut, cut off butt-end of stake at a 45 degree angle.
- Use point-hole digger / auger / pilot bar to dig hole.
- Place stake into hole and do not damage stake or soil while during installation.
- Stake bottom 1/2 of outcrop is water for 48 hours min, prior to installation.
- Protect outcrops from sun and soil exposure of all stakes, prior to planting.
- Temp or otherwise compact the soil around the stake several times so hole is backfilled to ensure good contact between cutting and soil.
- Stake planted cutting immediately after planting.



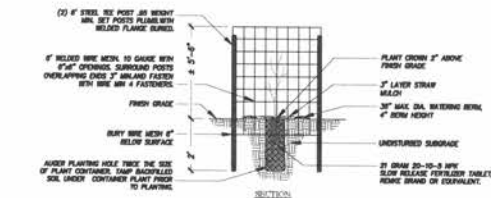
5' Live Stake
Not to Scale

- Protect plants from sun and soil exposure of all stakes, prior to planting.
- Temp the soil around the plant to ensure good contact between soil and stake.
- Stake plants immediately after planting.



Container Planting
Not to Scale

- Protect plants from sun and soil exposure of all stakes, prior to planting.
- Temp the soil around the plant to ensure good contact between soil and stake.
- Stake plants immediately after planting.



Tree Planting and Cage
Not to Scale

800 N. Market Blvd. Ste. 3
Sacramento, CA 95834
Phone: (916) 646-9844
Fax: (916) 646-2875
www.westernvet.com



BKS GGS Habitat Improvements

Details
The National Bureau of Geology, Sacramento
County, California

Revisions

Revisions

Revisions

Revisions

Revisions

Revisions

Revisions

Revisions

Revisions

Revisions

Revisions

Revisions

Revisions

Revisions

Revisions

Revisions

Revisions

Revisions

Revisions