


NATIVE GRASSLAND MITIGATION PLAN



LEGEND

	EXISTING NATIVE WILDRYE GRASSLAND TO REMAIN 0.1 ACRE
	PROPOSED MITIGATION NATIVE GRASSLAND - 2.1 ACRES

Native Grassland Mitigation Plan

The Homes at Deer Hill
Lafayette, California

Prepared for:

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Prepared

By

Rana Creek



May 28, 2014

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Plant sheet 1 – Wildrye Native Grassland Avoidance and Replacement Plan (LCA Architects)

Plan sheet 2 – Native Grassland Mitigation Plan (Gates & Associates)

Plan sheet 3 – Irrigation Plan (in preparation by Gates & Associates)

FIGURES

Figure 1 – Planting Details

Figure 2 – Example of Data Collection Sheet “Nested Frequency Field Data Sheet” & “Cover-Point Intercept for Species Sampling”

1.0 INTRODUCTION

At the request of David R. Baker of O'Brien Land Company, Rana Creek has prepared this Native Grassland Mitigation Plan (Plan) for the Homes at Deer Hill project located in the City of Lafayette, Contra Costa County, California. The Homes at Deer Hill 2014 Plan involves impacts to 90,400 square feet (2.1 acres) and preservation of 6,400 square feet (0.1 acres) of the wildrye grassland association.

The Homes at Deer Hill 2014 Plan includes several public improvements including a sports field, dog park, and a parking lot. The public dog park supports a small stand of the native wildrye grassland, which can be preserved. To ensure the restoration success and long-term viability of the preservation and re-establishment program, the applicant has consulted with grassland specialists David Amme and Paul Kephart to determine an optimal approach to re-establish the native grassland on site. Plan Sheet 1 shows the Wildrye Native Grassland Avoidance and Replacement Plan (LCA Architects).

1.1 Background Regulatory Compliance

CEQA is in effect to ensure that projects with the potential to impact California habitats and species will be adequately reviewed and that impacts to the environment are addressed through avoidance and/or mitigation measures. CEQA applies to all projects proposed to be implemented or approved by a California public agency, including private projects requiring discretionary government approval. The CEQA process requires studies and surveys that must determine if and how a special status plant, animal, or sensitive natural community will be impacted by a proposed project. CEQA guidelines require a description of the project environment and specific knowledge of the regional setting, which is critical to the assessment of impacts to special status or sensitive biological resources. After environmental studies are complete, the lead agency has the discretion to approve appropriate avoidance and/or mitigation measures required to offset potential project impacts.

The *Elymus x gouldii* native perennial grassland present at the site has been previously surveyed and studied in connection with the proposed Terraces of Lafayette development project, now known as The Homes at Deer Hill. Initially, the grassland was misidentified as blue wildrye (*Elymus glaucus*) in a Plant Survey Report (Olberding Environmental, August 2011) and the Environmental Impact Report (EIR). Two acres of native grassland was mapped and occurs primarily as a larger polygon at a location that was not graded during quarry operations and also as isolated patches primarily near the creek drainage at Pleasant Hill and Deer Roads. Subsequent surveys by botanist and native grass expert David Amme identified the species as *Elymus x gouldii* (formerly *Leymus x multiflorus*), a sterile hybrid of creeping ryegrass (*Elymus triticoides*) and giant wildrye (*Elymus condensatus*).

The California Department of Fish and Wildlife (CDFW) classifies terrestrial natural communities according to distinct vegetation alliances. Accepted vegetation alliances are based on the classification system presented in A Manual of California Vegetation, 2nd

Edition (Sawyer et. al., 2009). Natural communities are assigned a global and state rank (G1-G5 and S1-S5), which reflect the rarity and endangerment of a given community within its range and within the state, respectively (Table 1).

An *Elymus x gouldii* plant community or alliance is not specifically listed in the natural communities list maintained by CDFW. However, the *Elymus triticoides* (Creeping rye grass turfs) vegetation alliance and *Elymus condensatus* (Giant wildrye grassland) vegetation alliances are natural communities ranked by CDFW as G4/S3 and G3/S3, respectively. According to Evens (2011) and NatureServe (2009), a natural community ranked G3/S3 is “at moderate risk of extinction or elimination due to a restricted range, relatively few populations, recent and widespread declines, or other factors”. According to CDFW, natural communities with rankings of G3/S3 or lower are considered to be of “special concern” and should be evaluated during a CEQA impact analysis. California native perennial grasslands in particular are at risk due to factors including invasive Mediterranean grasses, over grazing, and development.

The City of Lafayette as CEQA lead agency reviewed the proposed Homes at Deer Hill project and identified impacts to native ryegrass grassland. Although native ryegrass species and its hybrids are not listed as rare species, the native ryegrass grassland community on site was afforded consideration under CEQA during the environmental review process for the proposed project because of its natural plant community G3/S3 ranking.

Table 1 - CDFW Natural Community Ranking Summary

Global/State Rank	Definition	Evaluate during CEQA Analysis?
G1/S1 Critically imperiled	At very high risk of extinction due to extreme rarity, very steep declines, or other factors	Yes
G2/S2 Imperiled	At high risk of extinction or elimination due to very restricted range, very few populations, steep declines, or other factors	Yes
G3/S3 Vulnerable	At moderate risk of extinction or elimination due to a restricted range, relatively few populations, recent and widespread declines, or other factors	Yes
G4/S4 Apparently secure	Uncommon but not rare; some cause for long-term concern due to declines or other factors	No
G5/S5 Secure	Community secure due to common and widespread abundance	No

Mitigation will be accomplished with a combination of preservation and re-establishment approaches, and will reduce impacts to a less than significant level. Based on Mr. Amme’s and Mr. Kephart’s experience with establishing creeping wildrye, it is feasible that the existing stands of native grass can be readily salvaged and transplanted to a range of sites within the proposed development. Suitable mitigation areas within the development for the creeping wildrye could include cut and fill slopes, stormwater retention ponds or swales, understory components of oak woodlands, roadsides, and/or transition areas between traditional landscaping and adjacent native vegetation. With proper implementation, maintenance, and monitoring, such a native grass replacement strategy could reduce the impacts of the proposed project on the existing grasslands to a less than significant level. Suitable areas on the project site for native grass re-establishment and preservation have been identified on the proposed site plan prepared by the project landscape architect (Plan Sheet 2).

Re-establishment will involve on-site salvage of plants prior to grading, propagation, and planting creeping wildrye. Salvaged plant material will come from an area requiring remedial grading repairs. The native soils supporting the creeping wildrye will be excavated, stored on site, and utilized on the receiver sites. All mitigation planning and implementation will avoid impacts to sensitive biological resources. Because the salvage operation is optimal in fall or winter months when the plant is dormant, and remedial grading must take place at the re-establishment sites, the salvaged grass will be delivered to an off-site native plant nursery where it can be clonally divided and propagated until such time it is transplanted to the restoration receiver sites. A detailed approach for the implementation of the re-establishment and monitoring program is provided in Sections 3 and 4.

1.1.1 Mitigation Goals

- Minimize impacts to native grasslands where feasible.
- Develop and implement salvage and replacement program that provides for a minimum 1:1 replacement for any native grassland lost as a result of grading and development. All mitigation areas utilized for the minimum 1:1 replacement program were assessed for other sensitive biological resources, to ensure no net loss of sensitive plant species or communities lost as a result of implementing the replacement program.
- Provide permanent protection of preserved and restored native grasslands to be retained on site, and ensure they are successfully monitored and managed.

1.2 Project and Site Description

The Homes at Deer Hill site encompasses approximately 22 acres between Pleasant Hill Road and Deer Hill Road within the City of Lafayette just east of downtown. The southern property boundary is adjacent to Highway 24; 85 percent of the site was graded and terraced during a quarry operation from 1967 – 1970, and road construction, with cuts as much as 60-80 feet. Subsequently, Caltrans placed poorly compacted fill on the site during the construction of Highway 24. The project site reaches a maximum elevation of 462 feet along Deer Hill Road. The slopes between terraces generally range between 10-15 percent and eventually reach their lowest elevation of approximately 332 feet along Pleasant Hill Road. The project site includes a combination of existing land uses, including: office buildings, equipment storage, and staging area for a seasonal Christmas tree retail operation. There are approximately 5,000 square feet in structures and 27,000 square feet in paved surfaces.

Surrounding land uses include residential development and Acalanes High School to the east across Pleasant Hill Road and Highway 24 to the south. Residential parcels are present to the north/ northwest across Deer Hill Road, and beyond those parcels is Briones Park. An incised drainage occurs in the northwest corner and planted coast live oak woodland occurs along the eastern boundary of the Property. The grassland re-establishment receiver sites are located throughout the southern portion of this property (Plan Sheet 2).

2.0 MITIGATION PLAN

2.1 Background

As part of their environmental review process, the City of Lafayette requires that confirmation surveys be conducted on any mitigation properties prior to grading to determine whether any special-status plant species are present. The surveys shall be conducted by a qualified botanist and shall be appropriately timed to allow for detection of all species of concern (typically between March and July).

In the event that confirmation surveys identify any Federal- or State-listed plant species on the site that cannot be avoided, the applicant shall obtain all necessary permits and/or authorizations from CDFW and the U.S. Fish and Wildlife Service (USFWS) as required by Federal and State law for incidental take of those species. This shall include

preparation of a mitigation program acceptable to the respective agencies depending on the State and/or Federal-listing status of the species in question. The mitigation program shall define avoidance and long-term conservation measures to permanently protect and manage habitat around the occurrence(s), and provide for a minimum of three years of monitoring following installation of mitigation improvements to demonstrate that the occurrence(s) has not been adversely affected during construction. If a special-status species is encountered that is not a Federal- or State-listed species but is maintained on List 1B or List 2 of the California Native Plant Society's *Inventory of Rare and Endangered Plants of California* and the occurrence(s) cannot be avoided, a salvage/relocation plan shall be developed and approved by CDFW as part of the mitigation program prior to any disturbance in the vicinity.

Evidence that the applicant has secured any required authorization from these agencies shall be submitted to the City's Planning & Building Services Division prior to issuance of any grading or building permits for the Project. Direct and indirect impacts to sensitive resources can and will be avoided at the on-site mitigation area in compliance with the City's environmental review policy.

The applicant has fully complied with the above requirement. An April 2014 letter from Olberding Environmental summarizes the rare plant surveys conducted from 2011 to 2014 at the project site and the dog park located on the AMD property north of Deer Hill Road. No special status plant species were found within the project site nor the dog park during the rare plant surveys.

2.2 Mitigation Requirements

This mitigation plan complies with the following mitigation requirements for the proposed project:

- A Native Grassland Avoidance and Re-placement Program (Program) shall be developed by a qualified biologist to address the anticipated loss of native grasslands on the site, and ensure no native grasslands are destroyed or damaged as part of any off-site mitigation. The Program shall be subject to review and approval by the City, including peer-review by a qualified biologist selected by the City. The Program shall contain the following provisions during the required monitoring period. Performance standards, success criteria, and contingency measures shall be defined as part of the Program. Monitoring transects shall be established over each location to be vegetated as native grassland, and monitored on an annual basis. Within a three-year period, native grass shall be successfully established over all treatment areas and shall comprise a minimum 60 percent of the relative cover. Monitoring shall be extended where the success criteria are not met, and the minimum 1:1 replacement ratio is not reached. A total of 2.1 acres of native grassland shall be restored on receiver sites throughout the development. The Program and its requirements may be modified to require further measures if monitoring shows that performance standards are not being met.

2.3 Preservation Site Protection Measures

The 0.1-acre area of native grassland to be preserved shall be flagged in the field, and fenced with temporary orange construction fencing, prior to any equipment activities or site disturbance (Plan Sheet 2). A qualified biologist will oversee the protection of all areas to be preserved. The general contractor operating equipment and responsible for grading shall be trained by a qualified biologist regarding the identification and location of the native grasslands, the purpose of the temporary orange construction flagging/fencing, and the prohibition of ground disturbance within fenced exclusion areas. Permanent protection shall be accomplished by placement of interpretive signs placed around the perimeter of the native grassland indicating its protection status and ecological values.

3.0 SALVAGE AND REPLACEMENT PLAN

3.1 Plant Material Salvage

Plant material salvage will occur in areas identified for remedial grading and permanent impact. Approximately 10,000 live plant rootstock will be collected using a backhoe. Prior to salvage, plants will be mown to a height of 4-6 inches. Dead stems and clippings will be discarded. Live rootstock shall be transported to an off-site nursery and any soil, weeds, and dead materials cleaned from the rootstock. Rootstock shall be used for propagation and increase of approximately 40,000 live plants. Plants shall be grown in sterilized nursery growing media. Plants shall be grown in standard Dee pot (D16) cylindrical containers 2 inch diameter and 7 inches deep. The container has a very slight taper to the bottom and is rounded at the bottom.

3.2 Timing of Plant Material Salvage

Propagation of salvaged plant material is anticipated to require an approximately 8 to 12 month lead time from the date of salvage activities to the time of fall/winter planting. This lead time is required to ensure that salvaged plants are fully rooted in the nursery containers prior to out-planting on site.

3.3 Soil Salvage and Stockpiling

Topsoil from the area of impact shall be harvested and temporarily stockpiled on the site for re-soiling the receiver sites. Approximately 400 cubic yards of topsoil shall be salvaged for later application. By harvesting the top 6 inches of topsoil, the nutrients, fungi, and live rootstocks will be harvested and transplanted to the receiver sites. Prior to grading and soil harvesting all biomass in the soil salvage area shall be mown to a 4-6 inch height. Clippings shall be discarded. Soil shall be graded off in 3-6 inch lifts, hauled to a stockpile and covered with a tarp until re-soiling occurs. The qualified biologist will identify the soil salvage locations and the limit of work. The soil stockpiled shall be demarcated with orange construction fencing. The biologist and project planners will locate an appropriate stockpile area, which would occupy approximately 1,100 square feet and contain a stockpile approximately ten feet high.

3.4 Re-soiling

Re-soiling the receiver sites shall take place at least three weeks prior to October 15th site work and grading/soil movement limitations in order to provide adequate time to install a

permanent irrigation system and erosion control measures. Soil shall be transported from the stockpile to the receiver site and track walked into the roughened sub soil surface. Track walking with cleats from a bulldozer shall compress (not compact) harvested soils.

3.5 Erosion Control

Receiver site soils will require protection from erosion during the first winter following the final grading activities. Further, plant material plantings may be delayed due to project conditions, thus erosion control must be in place by October 15th. Temporary erosion control measures shall include the following:

- Installation of jute netting: On slopes, jute will be secured at top by laying at least 6 inches of material below grade at least 6 inches deep and secured with staples spacing staples every 18 to 24 inches On Center . The steeper the slope, the closer the staples should be placed. Jute netting will be applied by unrolling it down the slope and terminate at a 12-foot contour terrace and install 6 inches of netting under itself and secured with staples. All seams will overlap at least 2 to 6 inches.
- Straw wattles shall be placed along each 12-foot contour of the slope and anchored with 12-inch wooden stakes placed at 4-foot-intervals. One wattle shall be installed for every 20 feet of slope length and each shall be keyed in to a shallow trench in order to prevent water from flowing beneath. Wooden stakes shall extend above the top of the wattle by 2 inches. Metal spikes may be substituted for wooden stakes where the soil is rocky.

3.6 Mulch Top Dressing

The top 2 inches of planting area shall be top-dressed with organic sterile composted mulch. The top dressing will be hydraulically blown in place with a mulch blower truck. By placing this top dressing on the surface, any weeds in the harvested grassland soil will be adequately buried yet the profile will allow for remnant native grass rhizomes to emerge. The top dressing will also augment erosion control.

3.7 Planting

Planting shall occur prior to winter rain events so plants have a cool season to establish healthy thriving root systems. This timeframe typically occurs during late October to early December. Container plants shall be delivered to the site and installed in a grid pattern at 18 inches On Center. Planting holes shall be excavated through the jute net grid and planted 7 inches deep to the root crowns.

3.8 Fertilization

Each plant shall receive one slow release feeder fertilizer pack (RTI Leap Start 8-4-4 or equal) placed in the bottom of the planting hole. After planting, loose soil shall be compressed around each live plant.

3.9 Irrigation

New plantings will be established using supplemental irrigation during summer/spring periods of dry weather and especially during the first summer after installation. Irrigation events are anticipated to occur on a monthly basis during the summer and as needed during dry periods during the winter/spring. Plants will be watered by an overhead sprinkler system. Irrigation within areas where coast live oaks occur may alternatively be

provided by a drip system in order to avoid damage to oak trees. The wildrye should establish with minimal irrigation, however the permanent irrigation system will be installed to assure a self-sustaining planting in case of drought. The project irrigation plan will be provided as a future submittal.

3.10 Weed Control

Invasive non-native weeds will be controlled in both the preservation and receiver site areas. However, naturalized annual grasses will not be controlled. Because of its current presence on site, yellow star thistle (*Centaurea solstitialis*) will likely be the focus of weed control activities. Target weed species for control are those species that are rated by the California Invasive Plant Council (Cal-IPC) as “High”. Weeds will be hand pulled in restoration areas before they are allowed to set viable seed.

3.11 Establishment and Long-term Maintenance

The restoration contractor will perform maintenance inspections and activities for two years following a 90-day plant establishment period. Maintenance visits will assess plant survival/growth and the presence of weeds. Weeds will continue to be controlled as described above. If installed plant material fails to become established in a given area, appropriately timed remedial planting at a rate of 1:1 shall be in accordance with the performance standards in this Plan. Maintenance will also inspect and maintain erosion control materials and the irrigation system including sprinkler heads, valves, and the controller. No other maintenance is recommended. Once the stand is established, it should thrive without significant on-going maintenance. The grassland specialist will prepare a maintenance manual and train landscaping staff in long-term maintenance for the preservation site and re-establishment receiver sites. The inspections and monitoring shall continue for three years and will be extended where success criteria have not met the 1:1 mitigation ratio or a net of 2.1-acres of native grassland. After the three-year monitoring is completed, a native grassland specialist will annually inspect the site in years four-ten to ensure compliance.

3.12 Plant Replacement

During a 90-day establishment period, dead plants shall be replaced at a 1:1 ratio, unless deemed unnecessary by the restoration biologist.

4.0 MONITORING

4.1 Requirements

The City of Lafayette requires that a Wildrye Native Grassland Avoidance and Replacement Plan be developed by a qualified biologist. The Plan shall contain the following provisions and performance standards related to monitoring:

- A monitoring program shall be implemented by the qualified biologist to oversee successful preservation and establishment of any native grasslands to be restored, on-site, and shall define both short-term and long-term requirements. Permanent monitoring transects shall be established as part of the program and vegetation data collected in the spring and summer months when plant identification is possible. Photo stations shall be established along each monitoring transect, and photographs taken every year during the required monitoring period. Performance standards, success criteria, and contingency measures are defined below. Monitoring transects shall be established over each location to be planted and maintained. Within a three-year period, native grass shall be successfully established over all receiver site areas and shall comprise a minimum 60 percent of the relative cover. Monitoring shall be extended where the success criteria are not met and the minimum 1:1 replacement ratio is not reached.
- Annual monitoring reports during a three-year monitoring period shall be prepared by the qualified biologist and submitted to the City's Planning & Building Services Division by December 31 of each monitoring year, for a minimum of three years or until the defined success criteria are met. The annual report shall summarize the results of the monitoring effort, performance standards, and any required contingency measures, and shall include photographs of the monitoring transects and Plan success. Maps shall be included in the monitoring report to show the location of monitoring transects and photo stations. After the three year monitoring period is completed, the grassland specialist will annually inspect compliance with the Plan in years four-ten. A brief letter report shall be submitted to the City of Lafayette summarizing findings and recommendations during years four-ten.

4.2 Photo-documentation

During the three-year monitoring period, digital photographs will be taken of the restoration areas from consistent locations and angles at 90-days post establishment and on an annual basis in both the receiver sites and preservation site. The monitoring biologist may increase frequency of photo-documentation if the 60 percent cover performance standard is not met at the 90-day milestone. Photo-documentation will provide a visual, qualitative assessment of the avoidance, preservation, maintenance, and re-establishment work.

4.3 Point Intercept Method

During the three-year monitoring period total percent cover (absolute) of native plants (grasses, forbs), non-native plants (grasses, forbs), bare soil/rock, gopher tailings, and dead plant litter will be measured using the point intercept method. This is a common

method of estimating percent cover in relatively low-lying vegetation types such as grasslands and scrubs where one can easily see over the major stand components (CNPS, 2004). Each distinct planting area should be sampled with a minimum of four transects

A 50-meter tape will be stretched between the endpoints of the transect and will be allowed to rest on the ground. The tape should be tightened enough so that it maintains a straight line. Beginning at the randomly selected starting point, vegetation (or bare ground, gopher tailings, plant litter) will be sampled at exactly 1.0 meter intervals along the entire length of the 50-meter transect (50 sampling points). The specific material (native plant, non-native plant, bare ground, gopher tailings, and dead plant litter) that occurs exactly at each sampling point will be recorded on a field form. Percent cover for each category along each transect will be determined as the percentage of points at which the species/category occurred. This method will also yield relative cover values for individual species. The average absolute percent cover for the sample area is simply calculated as the mean of the cover values of the four transects.

Prior to grading or any soil disturbance activity, point intercept method will be employed at no less than five transects within the existing wildrye stand order to establish minimum and maintainable baseline performance criteria. Measurements will be taken at the 90-day milestone and annually thereafter.

4.4 Frequency

Frequency can be defined as a percentage of possible plots within the sampling area that are occupied by the target native grass. Regardless of climatic or seasonal changes, frequency data will help determine if a species is increasing, relatively constant, or declining across the site. During the three-year monitoring period, frequency measurements will be collected from a 50 centimeter x 50 centimeter (cm) nested quadrat placed along the nine 50-meter transects at 2-meter intervals. The actual size of the sampling quadrat will be determined in the field and may be smaller or larger than 50 cm x 50 cm based on the size and density of the vegetation that is being sampled (i.e. smaller quadrat for higher density of plants). During the first year, the quadrat size should be selected so that a frequency value between approximately 30% and 70% is obtained. This practice will allow detection of upward and downward change in subsequent years, provided the same quadrat size is utilized. Regardless of size, quadrats used for measuring frequency should be square in shape. Frequency of native species will be collected as binary data (i.e. species either present or absent) from each quadrat with the transect serving as the sampling unit (n). Any target plants occurring along the edge of the quadrat frame will be counted as present if $\geq 50\%$ of the base of the plant is rooted within the quadrat. Examples of monitoring data collection sheets are provided in Figures 1 and 2.

4.5 Reporting

Unless required by the City of Lafayette, reporting activities will be limited to one per the 90-day establishment period and subsequent reports submitted annually for a period of three years thereafter. Reports shall be prepared by a qualified biologist and submitted to the City of Lafayette. Reports will indicate maintenance activities performed, provide a list of planting replacements, if any, and include photo-documentation. After the three

year monitoring is completed, a native grassland specialist will annually inspect the site in years four-ten to ensure compliance and provide the City of Lafayette with a letter of findings and recommendations.

4.6 Long-term Management and Assurances

On-site preserved (0.1 acres) and re-established native grasslands (2.1 acres) will be protected in perpetuity through a deed restriction and Covenant with the City of Lafayette. The deed restriction will ensure the 2.1-acres are not converted to any other use other than the intended native grassland. The Covenant shall establish the applicant's financial responsibility to ensure the 2.1-acres of native grassland will be managed in perpetuity according to the Long-term Maintenance and Monitoring Plan.

The applicant retained Rana Creek to prepare this Plan and believes Rana Creek is the most suitable professional entity to conduct the planning, implementation, monitoring, and reporting. Rana Creek's owner, Paul Kephart, was a founder of the California Native Grass Association and brings over 20-years experience to the project. In the event the City requires another outside review of the Plan, David Amme is a grassland specialist who is familiar with the region.

The 2.1-acres of native grasslands shall be well established and thriving in the absence of any management measures, including irrigation, therefore significant management is not anticipated. However, a maintenance and management plan prepared by Rana Creek will be attached to the Covenant to ensure continuance and protection of this resource. The Long-term Maintenance and Management Plan will stress protection of this resource and will be incorporated into the apartment landscaping practices. It will anticipate and address unusual circumstances, such as mowing, fire, fire-protection, soil instability, and weed infestation, among others.

After completion of the three-year monitoring program and compliance with performance standards, a qualified biologist will inspect the preserved and re-established native grasslands at the project site annually for years four-ten to ensure compliance with the Covenant deed restriction protecting the grasslands in perpetuity. The grassland monitor will have authority to train and instruct the maintenance staff on cultural practices (such as irrigation or weeding) or specific remedial actions. If the monitor believes the maintenance staff is not qualified, he or she may contract with others and the applicant is contractually and financially responsible. If the grassland specialist determines after the ten-year monitoring period that no additional measures are necessary, the monitoring will cease.

5.0 REMEDIAL MEASURES

5.1 Replanting and Weed Controls

- If any plant fails to establish in the 90-day establishment period then all dead plants shall be replaced at a 1:1 ratio unless deemed unnecessary by the grassland specialist.
- If any weeds are found in the receiver site during the 90-day establishment period, then remedial weed control shall occur.
- In years 1-3, if weed cover and frequency exceeds that found during baseline sampling, then remedial weed control shall be conducted.
- In years 1-3, if creeping wild rye grass cover and frequency falls below that found during baseline sampling, then remedial planting shall be conducted in those areas failing to reach targeted performance.
- If any yellow star thistle is found in receiver sites, it shall be completely controlled.

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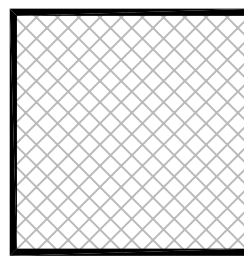
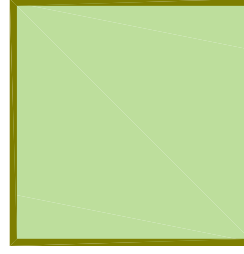
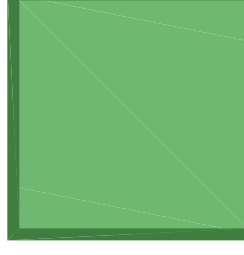
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-  NATIVE WILDRYE GRASSLAND TO BE IMPACTED BY PROJECT - 2.1 ACRES. GRASSES TO BE SALVAGED AND TRANSPLANTED AS SHOWN.
-  EXISTING NATIVE WILDRYE GRASSLAND TO REMAIN - 0.1 ACRE
-  PROPOSED MITIGATION GRASSLAND - 2.1 ACRES.

HIGHWAY 24

Wildrye Native Grassland Avoidance and Replacement Plan
 1" = 80' 0 80 160

Loving & Campos Architects Inc.
 RESTRICTED ARCHITECTURAL DRAWINGS

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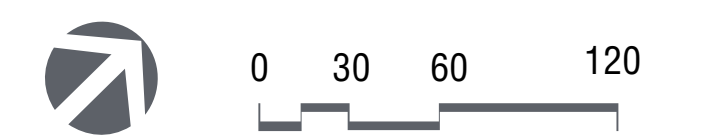
SCALE: AS SHOWN
 DATE: MAY 29, 2014

REVISIONS:



LEGEND

- EXISTING NATIVE WILD RYE GRASSLAND TO REMAIN
0.1 ACRE
- PROPOSED MITIGATION NATIVE GRASSLAND -
2.1 ACRES

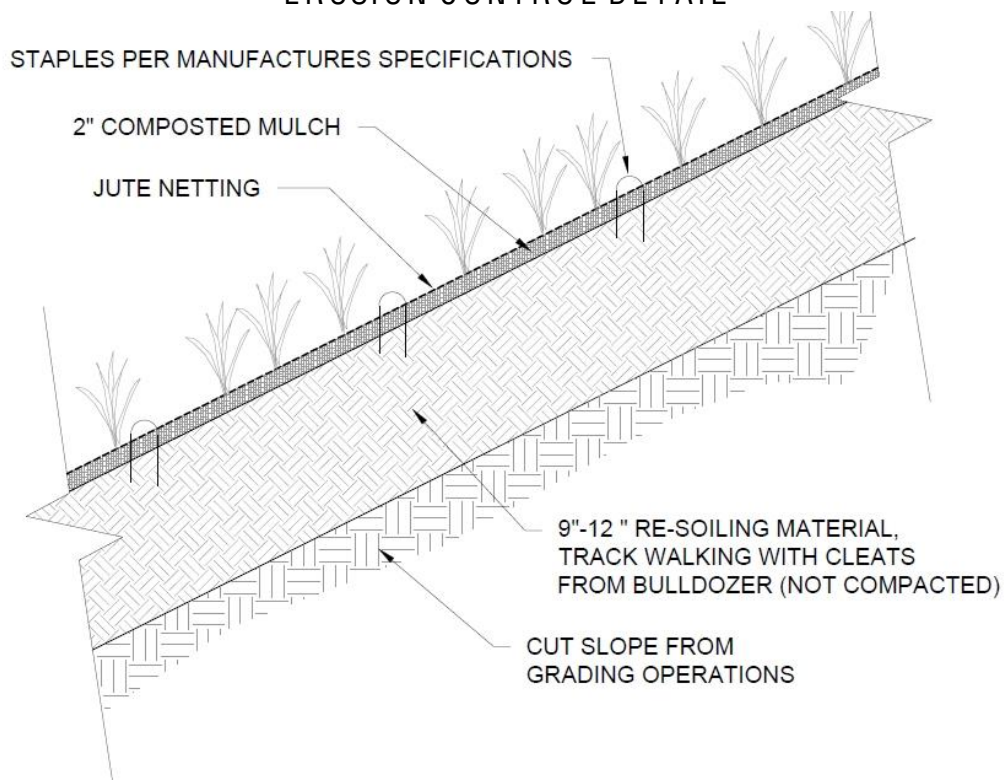


ATTACHMENTS

Figure 1 – Planting Details

Figure 2 – Example of Data Collection Sheets

EROSION CONTROL DETAIL



D-POT PLANTING DETAIL

