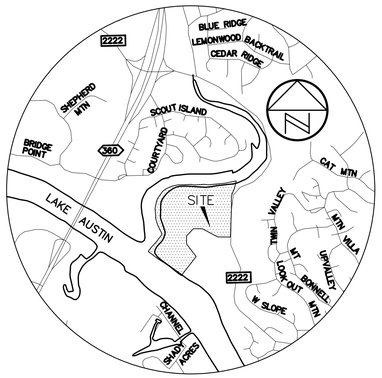
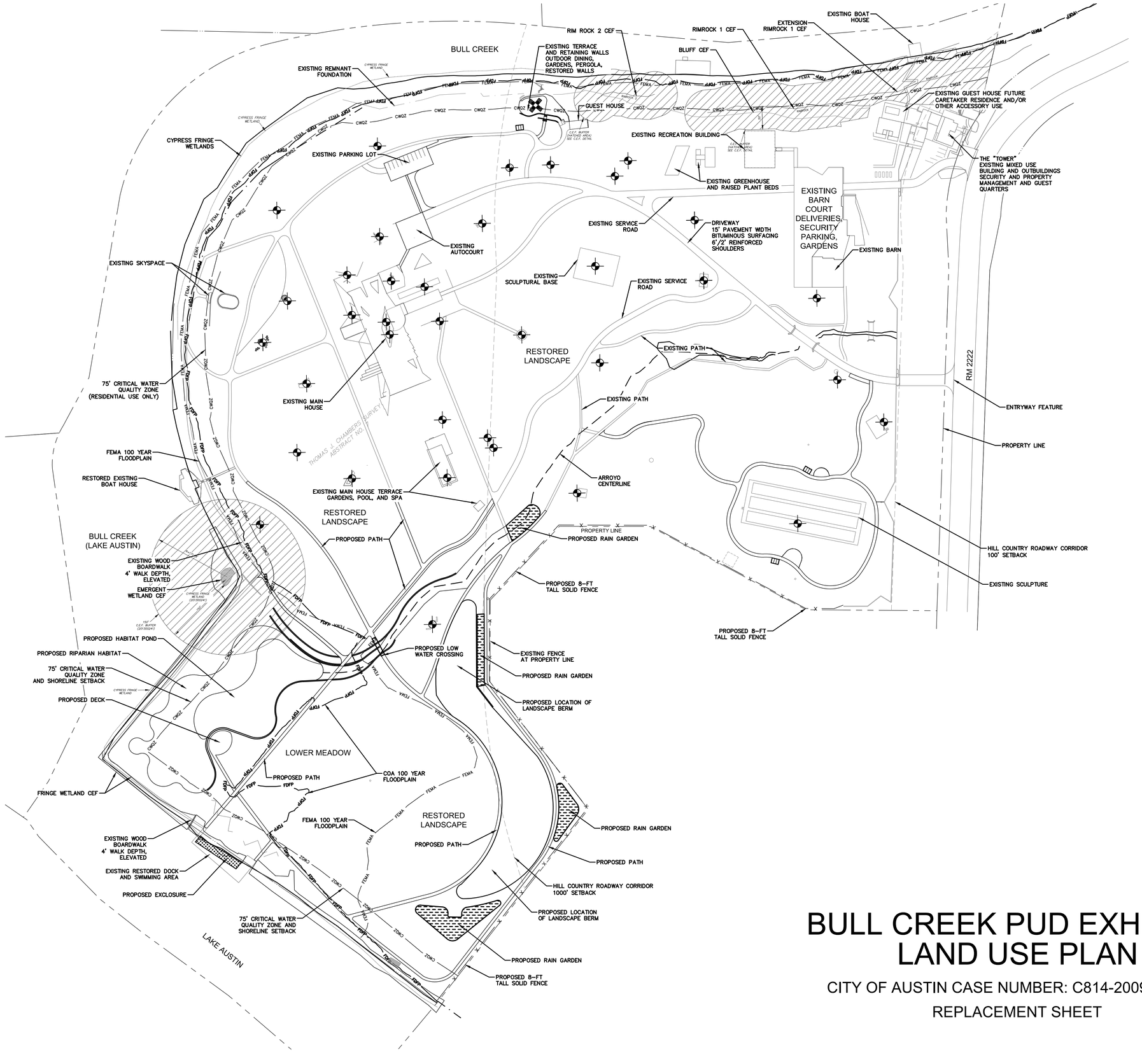


LOCATION MAP
NOT TO SCALE



LEGEND

EXISTING SCULPTURES

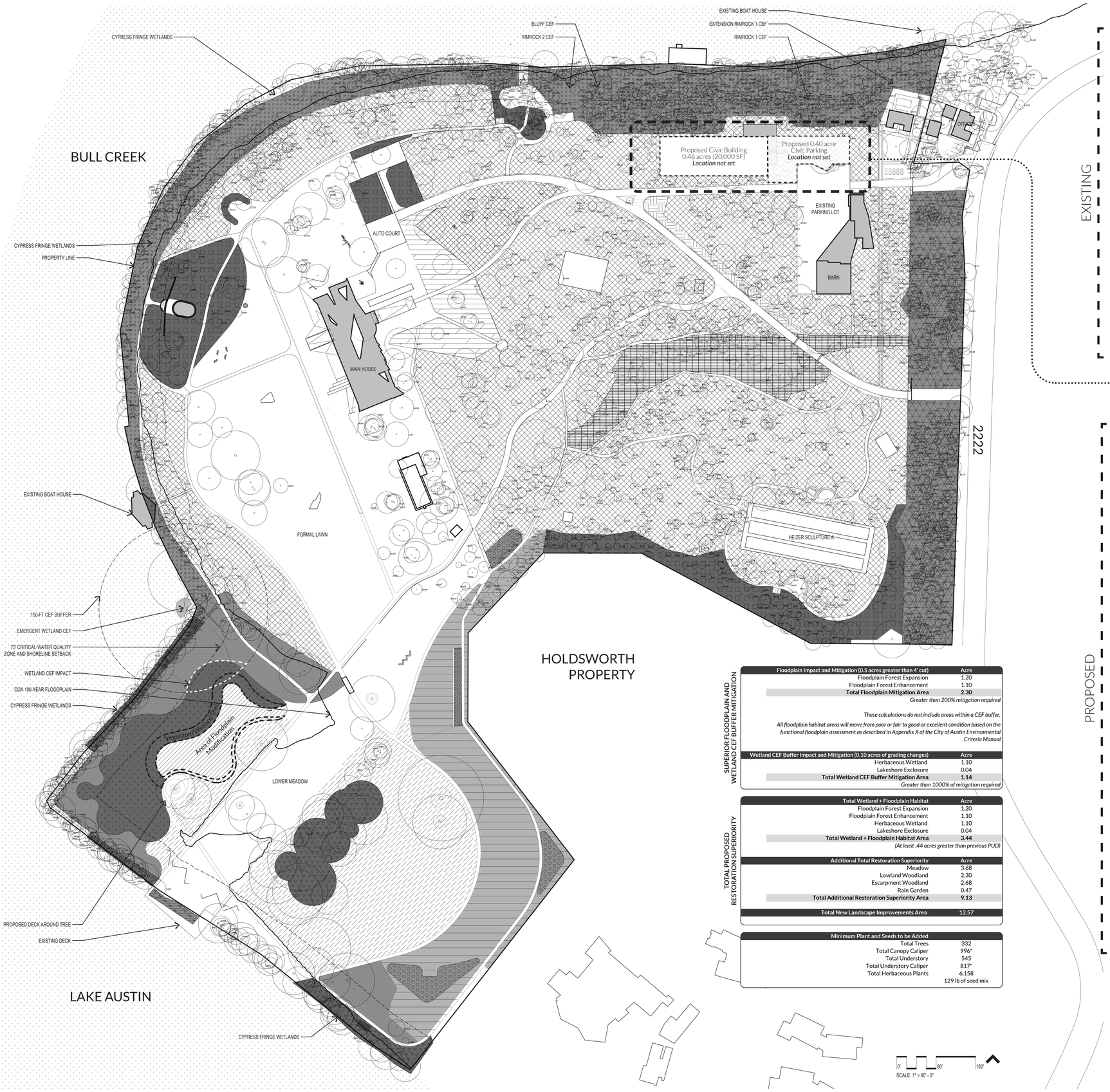
NOTES:

1. PROPOSED SITE DEVELOPMENT REGULATIONS, WAIVERS FROM AND MODIFICATIONS OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE ARE LISTED ON THE EXHIBITS SUPPORTING THE LAND USE PLAN.
2. THE LOCATIONS OF ALL BUILDINGS, STRUCTURES, AND IMPROVEMENTS ARE APPROXIMATE AND SUBJECT TO CHANGE UPON FINAL DESIGN.
3. INSTALLED FIRE PROTECTION SYSTEMS TO BE APPROVED AND INSPECTED BY AUSTIN FIRE DEPARTMENT, IN ACCORDANCE WITH EXHIBIT D, GENERAL NOTE 3.
4. THE LOCATION OF THE PROPOSED 20,000 SF CIVIC SPACE AND ASSOCIATED PARKING FACILITIES WILL BE DETERMINED AT THE SITE PLAN STAGE.
5. THE APPLICANT MUST COMPLY WITH REQUIRED AUSTIN ENERGY CRITERIA MANUAL DURING THE TIME OF REQUESTED ELECTRIC DESIGN.
6. ALL FUTURE BUILDINGS ASSOCIATED WITH THE CIVIC USE WILL ACHIEVE A TWO-STAR OR GREATER RATING UNDER THE AUSTIN ENERGY GREEN BUILDING PROGRAM USING THE APPLICABLE RATING VERSION IN EFFECT AT THE TIME A RATING REGISTRATION APPLICATION IS SUBMITTED FOR THE BUILDING.
7. AN 8-FT SOLID FENCE IS PERMITTED ALONG THE EASTERN PROPERTY LINE FROM FM 2222 TO LAKE AUSTIN.

BULL CREEK PUD EXHIBIT C
LAND USE PLAN

CITY OF AUSTIN CASE NUMBER: C814-2009-0139.03

REPLACEMENT SHEET



Floodplain Impact and Mitigation (0.5 acres greater than 4' cut)	Acre
Floodplain Forest Expansion	1.20
Floodplain Forest Enhancement	1.10
Total Floodplain Mitigation Area	**2.30**
Greater than 200% mitigation required	

SUPERIOR FLOODPLAIN AND WETLAND CEF BUFFER MITIGATION

These calculations do not include areas within a CEF buffer.

All floodplain habitat areas will move from poor or fair to good or excellent condition based on the functional floodplain assessment as described in Appendix X of the City of Austin Environmental Criteria Manual

Wetland CEF Buffer Impact and Mitigation (0.10 acres of grading changes)	Acre
Herbaceous Wetland	1.10
Lakeshore Exclosure	0.04
Total Wetland CEF Buffer Mitigation Area	**1.14**
Greater than 1000% of mitigation required	

Total Wetland + Floodplain Habitat	Acre
Floodplain Forest Expansion	1.20
Floodplain Forest Enhancement	1.10
Herbaceous Wetland	1.10
Lakeshore Exclosure	0.04
Total Wetland + Floodplain Habitat Area	**3.44**
(At least .44 acres greater than previous PUD)	

TOTAL PROPOSED RESTORATION SUPERIORITY

Additional Total Restoration Superiority	Acre
Meadow	3.68
Lowland Woodland	2.30
Escarpment Woodland	2.68
Rain Garden	0.47
Total Additional Restoration Superiority Area	**9.13**
Total New Landscape Improvements Area	**12.57**

Minimum Plant and Seeds to be Added	
Total Trees	332
Total Canopy Caliper	996"
Total Understory	545
Total Understory Caliper	817"
Total Herbaceous Plants	6,158
	129 lb of seed mix

0' 80' 160'
SCALE: 1" = 80' - 0"

EXISTING

Ash Juniper/Oak Woodland | 2.20 acres
Existing thicket, native woodland buffer between the site and 2222

Arroyo Woodland | 1.16 acres
Native woodland canopy over native shrubs and ground cover in wet and dry conditions

Native Planting | 0.68 acres
Perennial grasses and shrubs

Bioswale | 0.20 acres
Pocket planted native plants amongst limestone rocks

Cliff Habitat | 3.93 acres
Mature, intact, diverse oak juniper to riparian woodland. Continue current management practices including invasive species removal.

Native Woodland Understory | 16.12 acres
Buffalo Grass (*Bouteloua dactyloides)* under the canopy of native trees such as Live Oaks, Bur Oaks, and Pecans maintained 4 times a year

Total Acreage After Accounting for Civic Use (0.86 acres) = 15.26 acres

PROPOSED

Lowland Woodland | 2.30 acres
Canopy Trees: min. 51 trees per acre; min. 3" caliper; at least 3 species
Understory Trees: min. 80 trees per acre; min. min. 1.5" caliper; at least 6 species
Herbaceous Plants: min. 375 plants per acre; min. 4" container; at least 8 species

Escarpment Woodland | 2.68 acres
Canopy Trees: min. 51 trees per acre; min. 3" caliper; at least 3 species
Understory Trees: min. 80 trees per acre; min. 1.5" caliper at least 6 species
Herbaceous Plants: min. 375 plants per acre; min. 4" container; at least 8 species

Meadow | 3.68 acres
Herbaceous plant installed via seed mix: 35 lbs/acre

Floodplain Forest Expansion | 1.20 acres
Canopy Trees: min. 51 trees per acre; min. 3" caliper; at least 3 species
Understory Trees: min. 80 trees per acre; min. 1.5" caliper; at least 6 species
Herbaceous Plants: min. 375 plants per acre; min. 4" container; at least 8 species

Floodplain Forest Enhancement | 1.10 acres
Canopy Trees: min. 16 trees per acre; min. 3" caliper; at least 3 species
Understory Trees: min. 46 trees per acre; min. 1.5" caliper; at least 6 species
Herbaceous Plants: min. 375 plants per acre; min. 4" container; at least 8 species

Herbaceous Wetland (0"-24" depth) | 1.10 acres
Per Acre Planting Rate: min. 2,500 herbaceous plants; at least 5 species
Sizing: min. 4" container

Lakeshore Exclosure | 0.04 acres
Per Acre Planting Rate: min. 2,500 herbaceous plants; at least 5 species
Sizing: min. 4" container

Rain Garden | 0.47 acres
Per Acre Planting Rate: min. 2,500 herbaceous plants; at least 5 species
Sizing: min. 4" container

Open Water Habitat (<8' depth) | 0.67 acres

NOTES:
1. Rain gardens, or other green stormwater infrastructure, will be constructed with the civic use and will be located and designed at the time of site development permit.
2. Upon conversion of the property to a civic use, 100% of the water quality volume required by code will be provided using Green Stormwater Infrastructure as described in Section 1.6.7 of the Environmental Criteria Manual.

dwg. SIGLO GROUP

Bull Creek PUD - Exhibit F | restoration plan *(page 1 of 2)*

City of Austin Case Number: C814-2009-0139.03

Lakeshore Habitat/Herbaceous Wetland/Rain Garden			
Common Name	***Scientific Name***	***Stability Rating***	***Emergent***
Bald Cypress	*Taxodium distichum*	*9*	
Dwarf Palmetto	*Sabal minor*		Y
Southern Mainden Hair Fern	*Adiatum capillus-veneris*		
California bulrush	*Schoenoplectus californicus*	*9*	Y
Frogfruit	*Phyla nodiflora*	*4*	
Obedient Plant	*Physostegia angustifolia*		Y
Powdery Thalia	*Thalia dealbata*		Y
Buttonbush	*Cephalanthus occidentalis*	*8*	
Wooly Rose Mallow	*Hibiscus lasiocarpos*		Y
Coastal Water Hyssop	*Bacopa monnieri*		Y
American Water Willow	*Justicia americana*	*7*	Y
Squarestem Spikerush	*Eleocharis quadrangulata*	*6*	Y
Horsetail Reed	*Equisetum hymenale*	*6*	Y
Clover Fern	*Marselia macropoda*		Y
Bushy Bluestem	*Andropogon glomeratus*	*5*	
Giant Cut Grass	*Zizianiopsis miliacea*	*9*	Y
Common Three-Square Bulrush	*Scripus pungens*	*9*	Y
Starrush whitetop	*Rhynchospora colorata*	*6*	Y
White Spider Lily	*Hymenocallis liriosme*		Y
Texas Rush	*Juncus texanus*	*7*	Y
Berkeley Sedge	*Carex divulsa*		Y
Cherokee Sedge	*Carex cherokeensis*		
Pickerel Weed	*Pontederia cordata*		Y
White Water-Lily	*Nymphaea odorata*		Y
Yellow Cow-Lily	*Nuphar lutea*		Y
Pale Spikerush	*Eleocharis macostachya*	*6*	Y

Meadow	
Common Name	***Scientific Name***
American Basketflower	*Centaurea americana*
Clasping Coneflower	*Dracopis amplexicaulis*
Cusp Gayfeather	*Liatris punctata var. mucronata*
Eastern Gama Grass	*Tripsacum dactyloides*
Engelmann'S Daisy	*Engelmannia peristenia*
Gayfeather	*Liatris mucronata*
Blue Mistflower	*Conoclinium coelestinum*
Frogfruit	*Phyla nodiflora*
Horsemint	*Monarda citriodora*
Shrubby Boneset	*Ageratina havanensis*
Texas Persimmon	*Diospyros texana*
Blue Grama	*Bouteloua gracillis*
Silver Bluestem	*Bothriochloa saccaroides*
Little Bluestem	*Schyzachyrium scoparium*
Sideoats Grama	*Bouteloua curtipendula*
Meadow Sedge	*Carex perdentata*
Lyreleaf Sage	*Salvia Lyrata*
Rattlesnake Master	*Eryngium yuccifolium*
Indian Paintbrush	*Castilleja indivisa*
Mealy Cup Sage	*Salvia farinacea*
Indian Blanket	*Gaillardia pulchella*

Floodplain Forest Expansion	
Common Name	***Scientific Name***
American Beautyberry	*Callicarpa americana*
Bigtooth Maple	*Acer grandidentatum*
Aromatic Sumac	*Rhus aromatica*
Possumhaw Holly	*Ilex decidua*
Bald Cypress	*Taxodium distichum*
Red Buckeye	*Aesculus pavia*
Roughleaf Dogwood	*Cornus drummondii*
Dwarf Palmetto	*Sabal minor*
Shrubby Boneset	*Ageratina havanensis*
Turkscap	*Malvaviscus arboreus var. drummondii*
Northern Spicebush	*Lindera benzoin*
Yaupon Holly	*Ilex vomitoria*
Heartleaf Skullcap	*Scuttelaria ovata*
Blue Mistflower	*Conoclinium coelestinium*
Golden Groundsel	*Packera obovata*
Shrubby Boneset	*Ageratina havanensis*
Wood Fern	*Thelypteris kunthii*
Brazos Penstemon	*Penstemon tenuis*

Forested Wetland Enhancement	
Common Name	***Scientific Name***
American Beautyberry	*Callicarpa americana*
Aromatic Sumac	*Rhus aromatica*
Bur Oak	*Quercus macrocarpa*
Flame Acanthus	*Anisacanthus quadrifidus var. wrightii*
Pecan	*Carya illinoinensis*
Possumhaw Holly	*Ilex decidua*
Northern Spicebush	*Lindera benzoin*
Red Buckeye	*Aesculus pavia*
Roughleaf Dogwood	*Cornus drummondii*
Dwarf Palmetto	*Sabal minor*
Shrubby Boneset	*Ageratina havanensis*
Turkscap	*Malvaviscus arboreus var. drummondii*
Yaupon Holly	*Ilex vomitoria*
Virginia Wildrye	*Elymus virginicus*
Inland Sea Oats	*Chasmanthium latifolium*
Brazos Penstemon	*Penstemon tenuis*

Lowland Woodland	
Common Name	***Scientific Name***
Beargrass	*Nolina texana*
Monterrey Oak	*Quercus polymorpha*
Chinquapin Oak	*Quercus muehlenbergii*
Live Oak	*Quercus virginana*
Mexican Plum	*Prunus mexicana*
Prairie Flameleaf Sumac	*Rhus lanceolata*
Possumhaw Holly	*Ilex decidua*
Red Buckeye	*Aesculus pavia*
Shrubby Boneset	*Ageratina havanensis*
Turkscap	*Malvaviscus arboreus var. drummondii*
Virginia Creeper	*Parthenocissus quinquefolia*
Eve's Necklace	*Styphnolobium affine*
Yaupon Holly	*Ilex vomitoria*
Inland Sea Oats	*Chasmanthium latifolium*
Cherokee Sedge	*Carex cherokeensis*
Frogfruit	*Phyla nodiflora*
Straggler Daisy	*Calyptocarpus vialis*
River Fern	*Thelypteris kunthii*
Cedar Sage	*Salvia roemeriana*
Lyre Leaf Sage	*Salvia lyrata*
Golden Groundsel	*Packera obovata*
Texas Sedge	*Carex texensis*
Mountain Pea	*Orbexillum pedunculatum*

Escarpment Woodland	
Common Name	***Scientific Name***
Cedar Elm	*Ulmus crassifolia*
Monterrey Oak	*Quercus polymorpha*
Live Oak	*Quercus virginiana*
Eastern Red Cedar	*Juniperus virginiana*
Beargrass	*Nolina texana*
Elbowbush	*Forestiera pubescens*
Eve's Necklace	*Styphnolobium affine*
Mexican Buckeye	*Ungnadia speciosa*
Agarita	*Mahonia trifoliata*
Possumhaw Holly	*Ilex decidua*
Shrubby Boneset	*Ageratina havanensis*
Texas Mountain Laurel	*Sophora secundiflora*
Texas Persimmon	*Diospyros texana*
Texas Redbud	*Cercis canadensis var. texensis*
Prairie Flameleaf Sumac	*Rhus lanceolata*
Turkscap	*Malvaviscus arboreus var. drummondii*
Virginia Creeper	*Parthenocissus quinquefolia*
Yaupon Holly	*Ilex vomitoria*
Frogfruit	*Phyla nodiflora*
Straggler Daisy	*Calyptocarpus vialis*

All areas will be planted and seeded at densities and diversities 20% greater than those required by 609s as decribed in the City of Austin Environmental Criteria Manual of the City of Austin Environmental Criteria Manual. The meadow, herbaceous wetland, and lakeshore exclosure will not include woody species.

Plant material in Herbaceous Wetland, Lakeshore Exclosure, and Rain Garden will include at least 30% of species with a stability rating of 7 or greater.

A minimum of 20 large caliper transplanted Class A trees (predominately Live Oak and Cedar Elm at 8"-11" caliper) will be planted on the property

Refer to site plan for Herbaceous Wetland planting plans. Planting selection is subject to availability and final design.

SOIL DECOMPACTION REQUIREMENTS FOR THE STAGING, PARKING, AND LAYDOWN AREA ON THE RESTORATION PLAN FOR SUBMITTAL TO THE OWNER:

1. THIS WORK SHALL CONSIST OF PERFORMING ALL REQUIRED ACTIVITIES FOR SOIL DECOMPACTION IN AREAS SHOWN ON THE RESTORATION PLAN. THE SCOPE OF WORK INCLUDES ALL LABOR, MATERIALS, TOOLS, SUPPLIES, EQUIPMENT, FACILITIES, TRANSPORTATION AND SERVICES NECESSARY FOR PERFORMING ALL OPERATIONS IN CONNECTION WITH SOIL DECOMPACTION, COMPLETE AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING ALL SUPPLIES AND EQUIPMENT IN SUFFICIENT QUANTITIES SO AS TO PERFORM SOIL DECOMPACTION AS NECESSARY WITHOUT DELAYING CONSTRUCTION PROGRESS.

3. THE SUBMITTAL REQUIREMENTS OF THIS SPECIFICATION ITEM SHALL INCLUDE THE TEST RESULTS, INFORMATION ABOUT PROPOSED EQUIPMENT, AND SAMPLES NECESSARY FOR APPROVAL OF DECOMPACTION TECHNIQUES AND METHODS.

4. SOIL COMPACTION TESTING SHALL BE PERFORMED BOTH BEFORE AND AFTER MODIFICATION OF SOIL, UNLESS OTHERWISE SPECIFIED BY THE LANDSCAPE ARCHITECT.

5. SOIL COMPACTION TESTING SHALL INCLUDE WRITTEN RESULTS AND MAPPED LOCATIONS OF TESTS PROVIDED TO THE LANDSCAPE ARCHITECT AND OWNER. A MINIMUM OF TWO TESTS PER 5,000 SQUARE FEET ARE REQUIRED. TEST RESULTS SHALL BE REPORTED IN PERCENT OF STANDARD PROCTOR DENSITY OR BULK DENSITY (G/CM3) UNLESS OTHERWISE SPECIFIED BY THE LANDSCAPE ARCHITECT. FOR SURFACE DECOMPACTION, MEASURE AT BOTH THE SURFACE AND AT SIX (6) INCHES DEPTH. FOR SUBSURFACE DECOMPACTION, MEASURE AT A DEPTH OF BOTH 12 AND 18 INCHES.

6. PROVIDE WRITTEN INFORMATION ON TYPE AND SIZE OF EQUIPMENT PROPOSED TO PRODUCE THE DESIRED DECOMPACTION RESULTS.

7. PROVIDE A ONE GALLON SAMPLE OF THE COMPOST AND MULCH MATERIAL AT THE SAME TIME AS A LAB ANALYSIS SUPPLIED BY THE PRODUCER TO THE LANDSCAPE ARCHITECT VERIFYING THAT THE PRODUCTS MEET THE REQUIREMENTS OF THE CITY OF AUSTIN STANDARD SPECIFICATION 661S. LAB ANALYSES FOR COMPOST SHALL BE DATED WITHIN 90 CALENDAR DAYS OF THE TIME OF SUBMITTAL.

8. PRODUCER SHALL PROVIDE A LETTER STATING THE LENGTH OF THE COMPOSTING PERIOD FOR COMPOST, AND LISTING THE SOURCE MATERIALS BY VOLUME FOR COMPOST AND MULCH.

9. FOR DECOMPACTION WORK UNDER TREES, PROVIDE QUALIFIED ARBORIST CREDENTIALS, INCLUDING PROOF OF CERTIFICATION FROM THE LNTERNATIONAL SOCIETY OF ARBORICULTURE, LICENSES, RESUME AND REFERENCES FOR THE SUPERVISOR OF THE WORK TO BE PERFORMED WITHIN THE CRZ OF EXISTING TREES TO REMAIN.

CONSTRUCTION METHODS FOR THE STAGING, PARKING, AND LAYDOWN AREA ON THE RESTORATION PLAN:

1. BEFORE INITIATION OF DECOMPACTION ACTIVITIES, ALL REQUIRED EROSION CONTROL AND ENVIRONMENTAL MEASURES SHALL BE IN PLACE AS INDICATED AND THE DEPTH(S) AND LOCATION(S) OF ALL UNDERGROUND UTILITIES SHALL BE VERIFIED. THE SURFACE OF THE SUBGRADE SHALL BE SHAPED IN GENERAL CONFORMITY WITH THE TYPICAL SECTIONS, LINES, AND GRADES INDICATED ON THE DRAWINGS BY THE REMOVAL OF EXISTING MATERIAL OR BY THE ADDITION OF APPROVED MATERIAL AS ESTABLISHED BY THE ENGINEER OR LANDSCAPE ARCHITECT.

2. COMPACTION LEVELS THAT ARE DETRIMENTAL TO ROOT GROWTH ARE DEPENDENT ON SOIL TYPE, WHICH TYPICALLY VARIES FROM SITE TO SITE AND MUST BE DETERMINED BY THE LANDSCAPE ARCHITECT OR SOILS CONSULTANT BEFORE TESTING OCCURS.

3. COMPACTION RATING OF ALL AFFECTED SOILS SHALL BE BETWEEN 75 AND 85 PERCENT STANDARD PROCTOR DENSITY WITH A PENETRATION RESISTANCE BETWEEN 75 TO 175 PSI.

4. ALL SOIL MANAGEMENT ACTIVITIES INCLUDING AMENDMENT AND/OR DECOMPACTION MUST OCCUR AT A SOIL MOISTURE CONTENT BETWEEN FIVE (5) AND 20 PERCENT MEASURED AT THE DEPTH OF THE WORK.

5. COMPACTED SURFACE SOIL (0 - 6 INCH SOIL DEPTH) - DO NOT USE ROTO-TILLER, USE DISC PLOW / HARROW TO LOOSEN SOIL TO UNIFORM CLOD SIZE. DO NOT OVER CULTIVATE IN ORDER TO PRESERVE EXISTING SOIL STRUCTURE. MAKE A MINIMUM OF TWO PASSES ALONG PERPENDICULAR PATHS. BETWEEN PASSES, TOP-DRESS WITH COMPOST AS REQUIRED TO BRING THE SOIL ORGANIC MATTER CONTENT TO THE LEVEL AS INDICATED WITHIN THE PLANS OR RELATED SPECIFICATIONS.

6. COMPACTED SUBSOIL (6 - 18 INCH SOIL DEPTH) : AFTER ROUGH GRADING AND REMOVING ALL PLANTS AND DEBRIS FROM THE SURFACE, LOOSEN THE SOIL BY DRAGGING A RIPPING SHANK OR CHISEL THROUGH THE SOIL TO A DEPTH OF 18 INCHES FROM FINISHED GRADE. THE LANDSCAPE ARCHITECT SHALL SPECIFY THE APPROPRIATE DEPTH OF RIPPING BASED UPON SITE CONDITIONS. SHANK SPACING VARIES WITH SOIL MOISTURE, SOIL TYPE, AND DEGREE AND DEPTH OF COMPACTION. SHANK SPACING SHALL BE AS SPECIFIED BY THE LANDSCAPE ARCHITECT. AT LEAST THREE (3) SEPARATE SERIES OR PATTERNS OF MOVEMENT ARE REQUIRED. THE FIRST SERIES OR PATTERN OF PASSES IS APPLIED LENGTHWISE, PARALLEL WITH THE LONGEST SPREAD OF THE SITE; GRADUALLY PROGRESSING ACROSS THE SITE'S WIDTH, WITH EACH SUCCESSIVE PASS. THE SECOND SERIES RUNS OBLIQUELY, CROSSING THE FIRST SERIES AT AN ANGLE OF ABOUT 45 DEGREES. THE THIRD SERIES RUNS AT RIGHT ANGLE OR 90 DEGREES TO THE FIRST SERIES. BETWEEN PASSES, TOP-DRESS WITH COMPOST AS REQUIRED TO BRING THE SOIL ORGANIC MATTER CONTENT TO A MINIMUM OF TWO (2) TO FOUR (4) PERCENT BY WEIGHT.

7. COMPACTED SOIL WITHIN THE CRITICAL ROOT ZONE OF EXISTING ESTABLISHED TREES: A.F.M. (AIR EXCAVATION, FERTILIZATION, MULCHING) OR VERTICAL MULCHING.

8. TWO TECHNIQUES ARE DESCRIBED BASED ON TREE LOCATION RELATIVE TO THE FLOODPLAIN AND POTENTIAL FOR ADVERSE EROSION. AN INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST SHOULD OVERSEE WORK UNDER TREES AT ALL TIMES.

9. UNDER NO CIRCUMSTANCES SHOULD DECOMPACTION WORK BE DONE IN THE ONE-QUARTER (¼) CRITICAL ROOT ZONE.

10. REMOVE THE TOPS OF ALL PLANTS TO BE REMOVED FROM THE ROOT ZONE. REMOVE SOD WITH A WALK BEHIND SOD CUTTER. ONLY GRUB-OUT THE ROOTS OF INVASIVE PLANTS TO BE REMOVED.

11. PRIOR TO BEGINNING WORK, THE PROPOSED AREA SHALL BE SUFFICIENTLY WETTED TWENTY-FOUR (24) HOURS IN ADVANCE TO MINIMIZE DUST TO THE GREATEST EXTENT POSSIBLE.

12. USE A PNEUMATIC AIR EXCAVATION TOOL.

13. METHOD 1 - A.F.M.: IN A LOCATION OUTSIDE THE FLOODPLAIN AND ON SLOPES OF 3:1 OR LESS, USE A PNEUMATIC AIR TOOL TO LOOSEN THE TOP NINE (9) INCHES OF THE SOIL WITHIN 50 PERCENT OF THE AREA WITHIN THE TREE DRIPLINE. SURFACE ROOTS MAY MOVE AND SEPARATE FROM SOIL DURING THIS PROCESS BUT THE BARK ON ROOTS SHOULD NOT BE BROKEN. INCORPORATE ORGANIC FERTILIZERS TO PROVIDE NUTRIENTS AS INDICATED AS DEFICIENT BY THE SOIL TEST AND AS RECOMMENDED BY THE LANDSCAPE ARCHITECT OR SOIL CONSULTANT. ANY FERTILIZER TREATMENT SHOULD BE APPLIED A CERTIFIED ARBORIST. ADD THREE (3) INCHES OF COMPOST OVER THE SOIL IMMEDIATELY AFTER AERATION. USE A PNEUMATIC AIR TOOL TO MIX THE COMPOST INTO THE TOP SIX (6) INCHES OF THE LOOSENED SOIL. APPLY A MINIMUM OF FOUR (4) INCHES OF SHREDDED HARDWOOD MULCH ACROSS THE AREA BETWEEN THE DRIPLINE TO WITHIN ONE (1) FOOT FROM THE TRUNK.

14. METHOD 2 - VERTICAL MULCHING: THIS TECHNIQUE IS SUITABLE FOR A FLOODPLAIN OR OTHER LOCATION SUBJECT TO ADVERSE EROSION. USE A PNEUMATIC AIR TOOL TO MAKE ONE (1) INCH MINIMUM DIAMETER HOLES TO A DEPTH OF TWELVE (12) INCHES WITH HOLES THREE (3) FEET ON CENTER FROM THE HALF CRITICAL ROOT ZONE (CRZ) TO THE DRIPLINE. FUNNEL COMPOST INTO THE HOLES. APPLY A MINIMUM OF FOUR (4) INCHES OF SHREDDED HARDWOOD MULCH ACROSS THE AREA BETWEEN THE DRIPLINE TO WITHIN ONE (1) FOOT FROM THE TRUNK.

15. WORK IN SECTIONS SUCH THAT THE ENTIRE PROCESS - INCLUDING ANY PROPOSED IRRIGATION - CAN BE COMPLETED IN ONE DAY FOR EACH SECTION. APPLY TEN (10) GALLONS OF WATER PER INCH IN DIAMETER OF DBH OVER THE LOOSENED SOIL AT THE COMPLETION OF EACH DAY'S WORK EXCEPT DURING PRECIPITATION EVENTS OF HALF INCH OR GREATER. DURING DROUGHT OR OTHER PROLONGED DRY PERIODS, CONTINUE TO PROVIDE SUPPLEMENTAL WATER FOR ONE (1) TO THREE (3) WEEKS MINIMUM AFTER TREATMENT.

16. DECOMPACTED TREE ROOT ZONES SHOULD BE ACCESS-RESTRICTED FOR ONE YEAR USING STEEL POSTS AND CHAIN BARRIERS, AT MINIMUM, OR APPROVED EQUAL. THE BARRIERS SHALL BE ERECTED AT THE EDGE OF THE DECOMPACTED ZONES AROUND AN ENTIRE TREE OR TREE CLUSTER, PER THE PLANS, WITHOUT DRIVING POSTS INTO ROOTS OVER TWO (2) INCHES IN DIAMETER.

17. PROTECTION OF DECOMPACTED SOILS: AFTER ANY DECOMPACTION ACTIVITIES HAVE TAKEN PLACE DO NOT ALLOW VEHICLES, EQUIPMENT, OR STOCKPILING OF CONSTRUCTION MATERIALS ON PREVIOUSLY-DECOMPACTED SOIL.

18. THE CONTRACTOR SHALL PROTECT DECOMPACTED SOIL FROM DAMAGE INCLUDING CONTAMINATION AND RE-COMPACTION DUE TO OTHER SOIL INSTALLATION, PLANTING OPERATIONS, AND OPERATIONS BY OTHER CONTRACTORS. MAINTAIN PROTECTION OF DECOMPACTED AREAS UNTIL PROJECT ACCEPTANCE. UTILIZE FENCING AND MATTING AS REQUIRED OR DIRECTED TO PROTECT THE FINISHED SOIL WORK. TREAT, REPAIR OR REPLACE DAMAGED DECOMPACTED SOIL IMMEDIATELY.

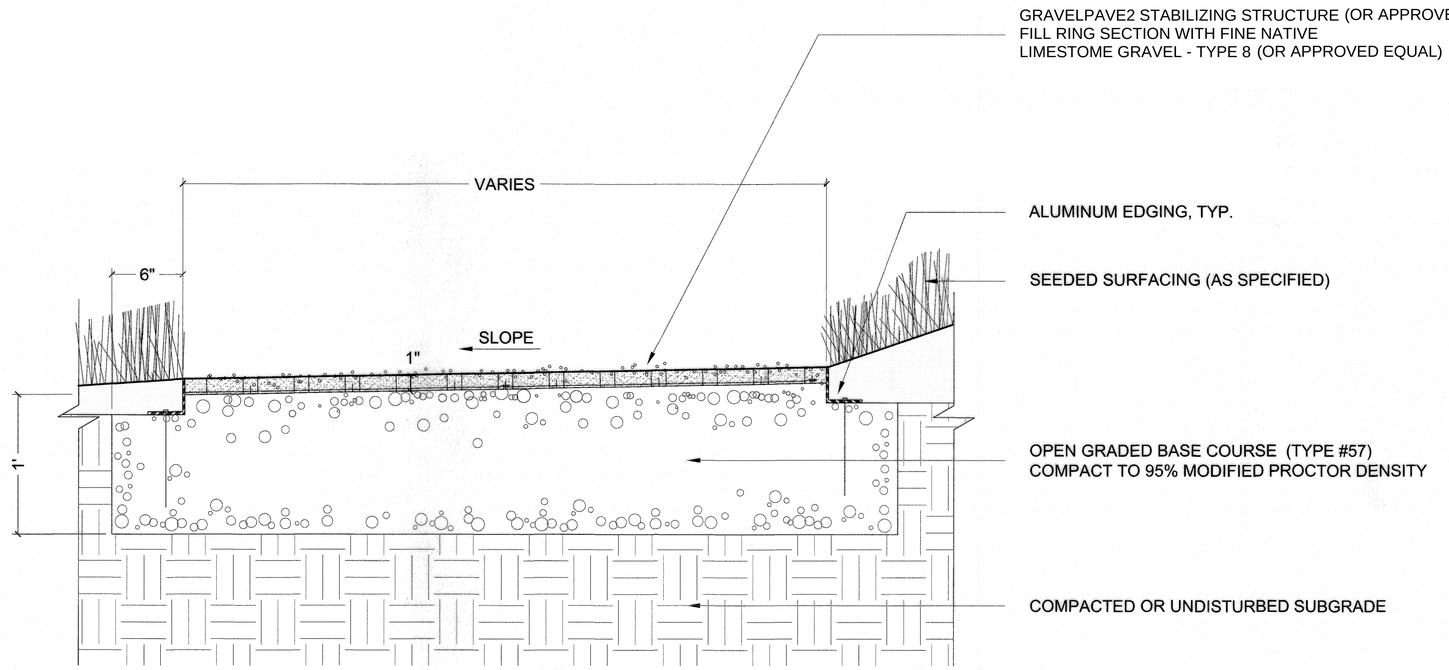
19. REPAIR OF RE-COMPACTED SOILS: AFTER DECOMPACTION HAS TAKEN PLACE, ANY SOIL THAT BECOMES RE-COMPACTED TO A DENSITY GREATER THAN 85% STANDARD PROCTOR DENSITY OR PENETRATION RESISTANCE OF 225 PSI SHALL BE DECOMPACTED AGAIN.

20. LOOSEN COMPACTED SOIL AND REPLACE SOIL THAT HAS BECOME CONTAMINATED AS DETERMINED BY THE LANDSCAPE ARCHITECT OR SOILS CONSULTANT. RE-COMPACTED AND/OR CONTAMINATED SOIL SHALL BE LOOSENED OR REPLACED AT NO EXPENSE TO THE OWNER.

21. WHERE MODIFIED EXISTING SOIL HAS BECOME COMPACTED OR CONTAMINATED AND NEEDS TO BE REPLACED, PROVIDE IMPORTED SOIL THAT IS OF SIMILAR COMPOSITION, DEPTH AND DENSITY AS THE SOIL THAT WAS REMOVED.

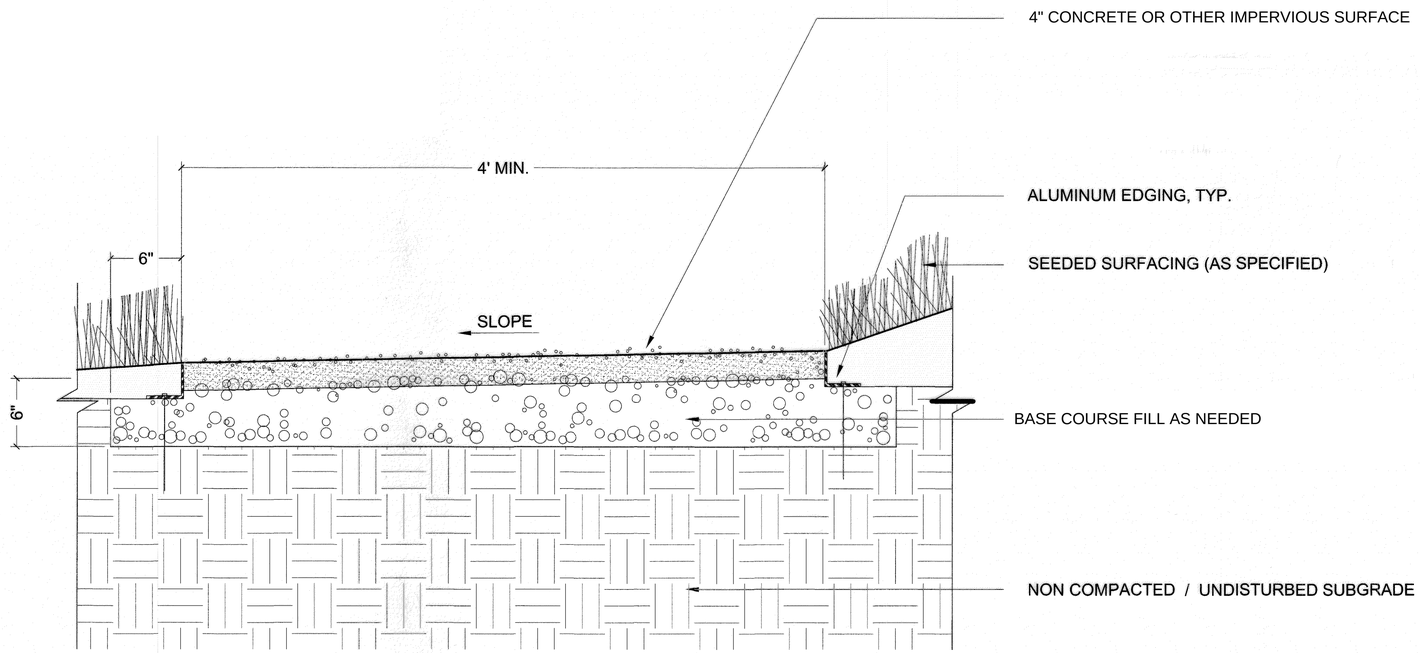
SUSTAINABLE LAND MANAGEMENT:

1. THE APPLICANT IS COMMITTED TO CREATING A SUSTAINABLE LAND MANAGEMENT PLAN FOR THE SITE. THE PLAN WILL USE AN ADAPTIVE MANAGEMENT FRAMEWORK THAT FOCUSES ON AN ENHANCED USER EXPERIENCE AND ECOLOGICAL FUNCTIONALITY THAT RESULTS IN LONG-TERM, SUSTAINABLE MANAGEMENT OF THE SITE. AT A MINIMUM, THE LAND MANAGEMENT PLAN WILL INCLUDE BI-ANNUAL MANAGEMENT OF INVASIVE SPECIES (AS LISTED BELOW), INCREASES IN DIVERSITY THROUGH PLANTING AND SEEDING, ENSURING NATIVE VEGETATIVE COVER, AND ANNUAL MONITORING.
2. INVASIVE SPECIES WILL BE MANAGED BY BEST PRACTICES PRESCRIBED IN THE CITY OF AUSTIN INVASIVE SPECIES MANAGEMENT PLAN THAT RESULTS IN LESS THAN 5% OF COVER OF ANY PARTICULAR INVASIVE SPECIES WITHIN ENVIRONMENTALLY SUPERIOR AREAS. INVASIVE SPECIES OF CONCERN AND OBSERVED ON THE SITE INCLUDE: BERMUDAGRASS (*CYNODON DACTYLON*), BIGLEAF PERIWINKLE (*VINCA MAJOR*), BRAZILIAN VERVAIN (*VERBENA BRASILIENSIS*), CHEATGRASS (*BROMUS TECTORUM*), CHINABERRYTREE (*MELIA AZEDARACH*), CHINESE TALLOW (*TRIADICA SEBIFERA*), COCO YAM (*COLOCASIA ESCULENTA*), DALLISGRASS (*PASPALUM DILATATUM*), ENGLISH IVY (*HEDERA HELIX*), FIDDLE DOCK (*RUMEX PULCHER*), FIELD BROME (*BROMUS ARVENSIS*), GLOSSY PRIVET (*LIGUSTRUM LUCIDUM*), JAPANESE HONEYSUCKLE (*LONICERA JAPONICA*), JOHNSONGRASS (*SORGHUM HALEPENSE*), LILAC CHASTETREE (*VITEX AGNUS-CASTUS*), SACRED BAMBOO (*NANDINA DOMESTICA*), SPREADING HEDGE PARSLEY (*TORILIS ARVENSIS*), ST. AUGUSTINE GRASS (*STENOTAPHRUM SECUNDATUM*), SWEET AUTUMN VIRGINSBOWER (*CLEMATIS TERNIFLORA*), TAIWANESE PHOTINIA (*PHOTINIA SERRATIFOLIA*), AND VASEY'S GRASS (*PASPALUM URVILLEI*).



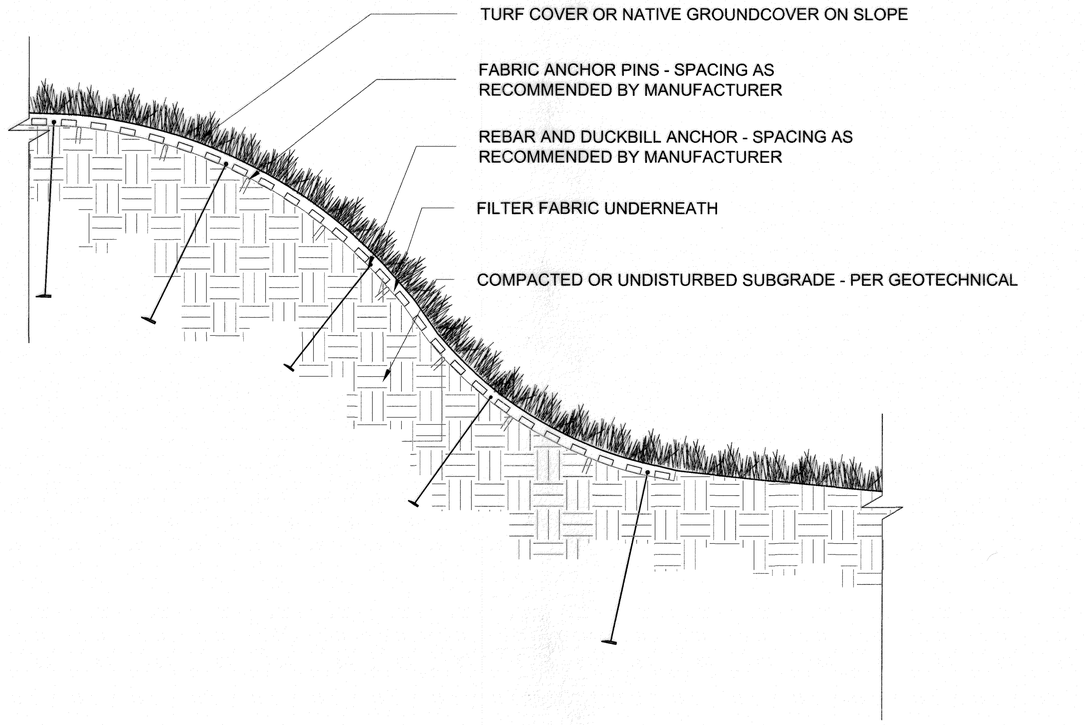
1 PERVIOUS WALKWAYS SECTION - TYP.

SCALE: 1"=1'-0"



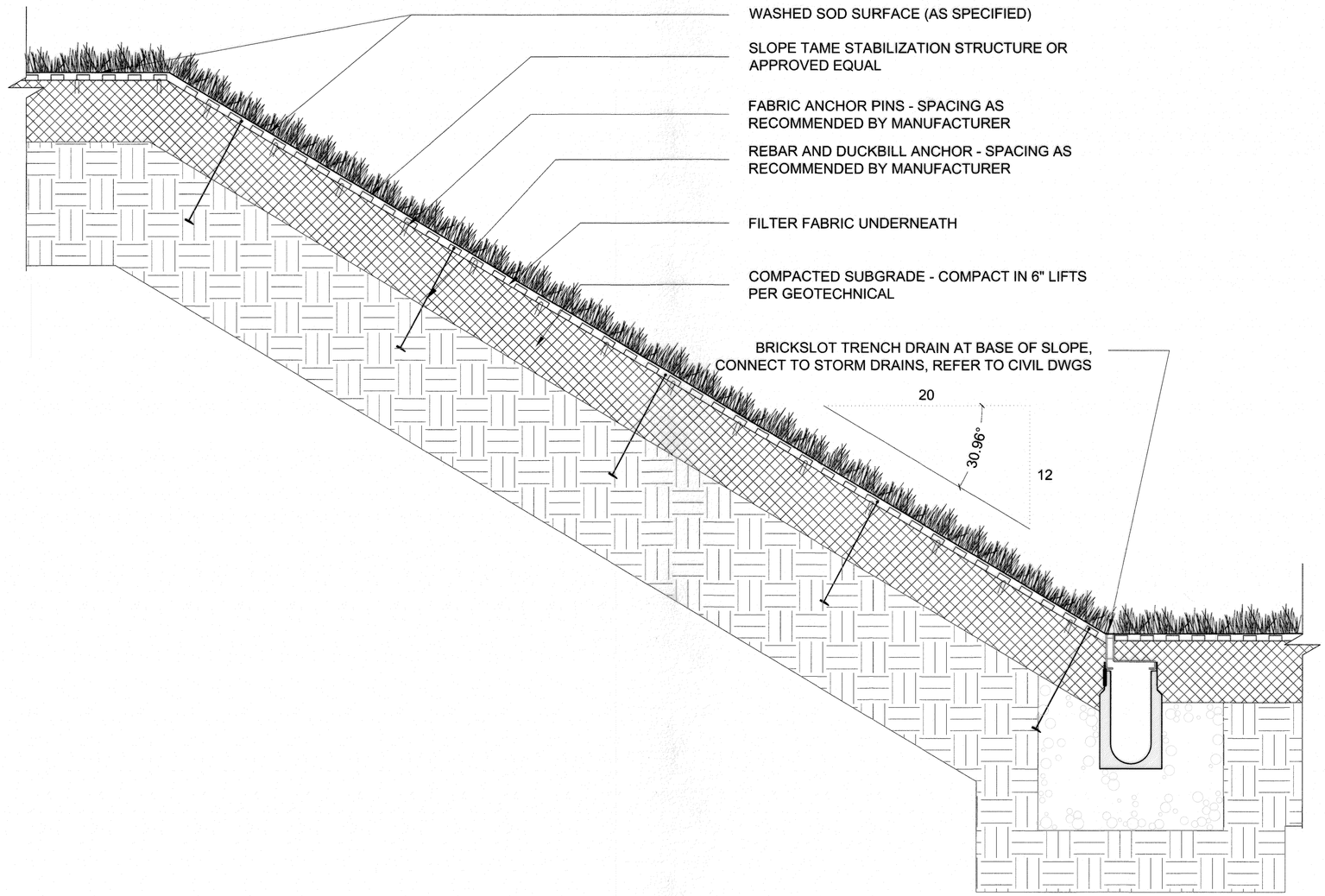
1 IMPERVIOUS WALKWAYS SECTION - TYP.

SCALE: 1"=1'-0"



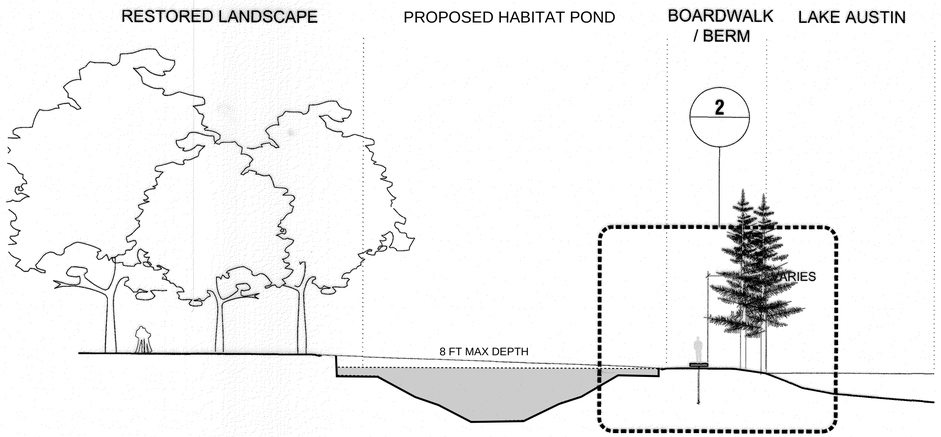
1 NATURAL SLOPE STABILIZATION DETAIL- GREATER THAN 3:1 - TYP.

SCALE: 1"=1'-0"



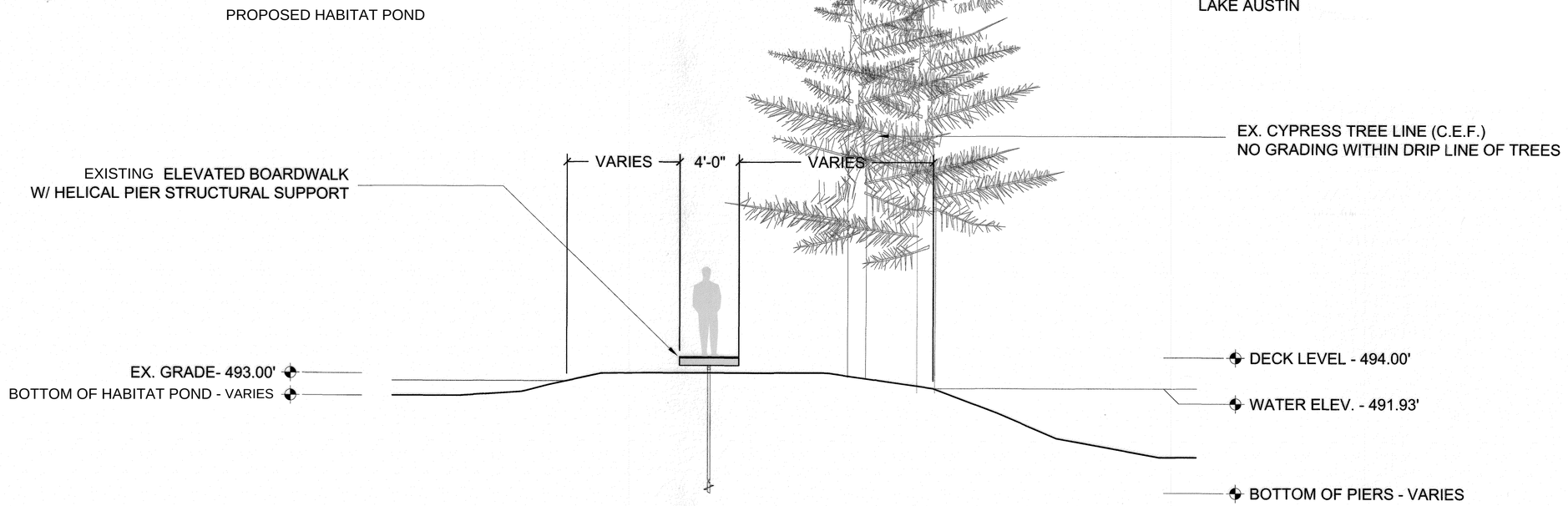
1 ARCHITECTURAL SLOPE STABILIZATION DETAIL - TYP.

SCALE: 1"=1'-0"



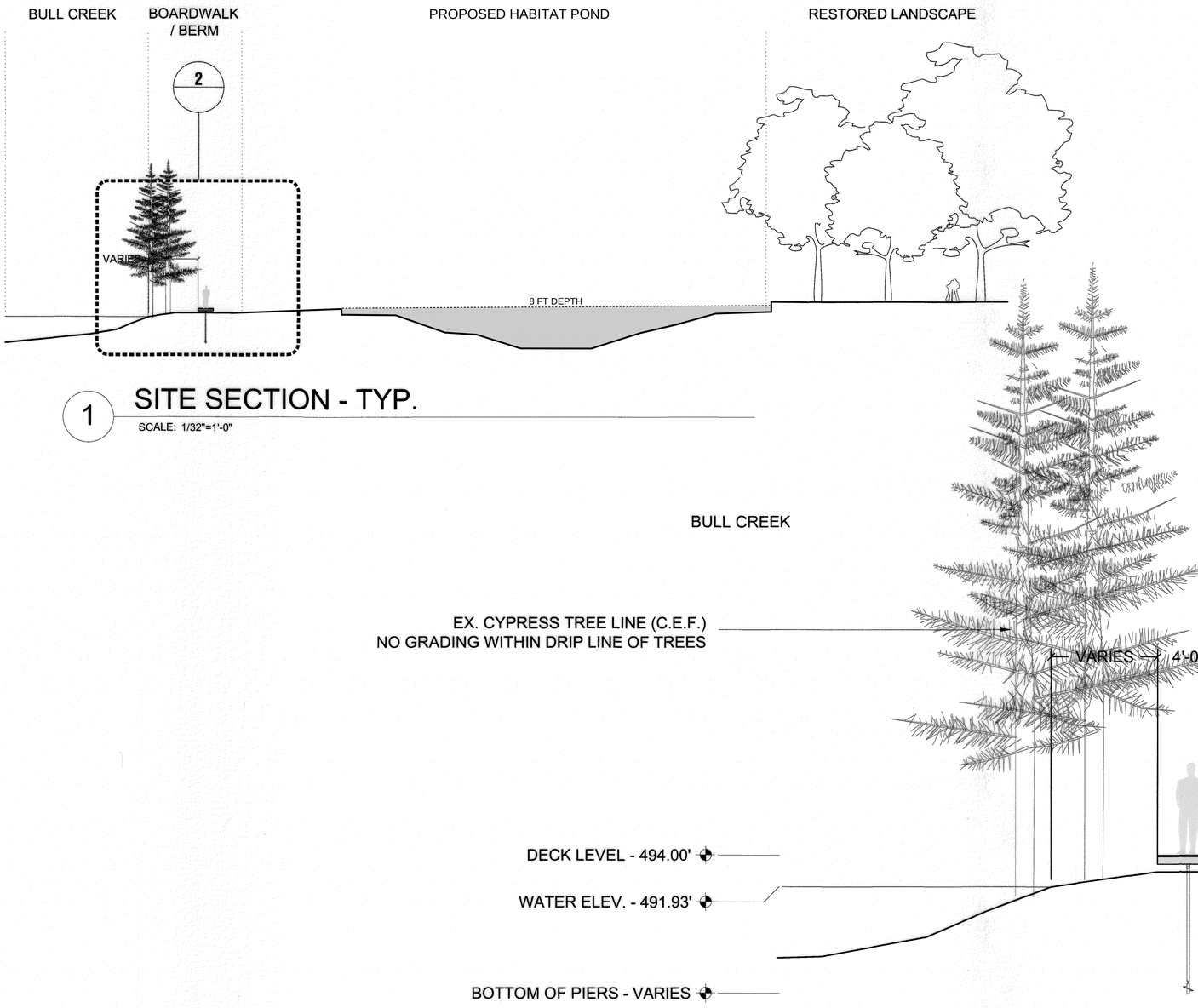
1 SITE SECTION - TYP.

SCALE: 1/32"=1'-0"



2 BOARDWALK SECTION - TYP. @ LAKE AUSTIN

SCALE: 1/8"=1'-0"



1 SITE SECTION - TYP.

SCALE: 1/32"=1'-0"

2 BOARDWALK SECTION - TYP. @ BULL CREEK

SCALE: 1/8"=1'-0"

FILL Color	Elevation	Area
	0-4 FT	28,023 SQ FT
	4-8 FT	34,534 SQ FT
CUT Color	**Elevation**	**Area**
	0-4 FT	69,737 SQ FT
	4-8 FT	27,540 SQ FT

100 0 50 100 200

1" = 100'

BULL CREEK

EXISTING REMNANT FOUNDATION

CYPRESS FRINGE WETLANDS

EXISTING TERRACE AND RETAINING WALLS OUTDOOR DINING, GARDENS, PERGOLA, RESTORED WALLS

RIM ROCK 2 CEF

RIMROCK 1 CEF

EXTENSION RIMROCK 1 CEF

BLUFF CEF

EXISTING BOAT HOUSE

GUEST HOUSE

EXISTING GUEST HOUSE FUTURE CARETAKER RESIDENCE AND/OR OTHER ACCESSORY USE

EXISTING RECREATION BUILDING

EXISTING PARKING LOT

AREA #1

EXISTING GREENHOUSE AND RAISED PLANT BEDS

THE "TOWER" EXISTING MIXED USE BUILDING AND OUTBUILDINGS SECURITY AND PROPERTY MANAGEMENT AND GUEST QUARTERS

EXISTING BARN COURT DELIVERIES SECURITY PARKING GARDENS

EXISTING SERVICE ROAD

DRIVEWAY 15' PAVEMENT WIDTH BITUMINOUS SURFACING 6"/2' REINFORCED SHOULDERS

EXISTING AUTOCOURT

EXISTING SKYSPACE

AREA #2

EXISTING SCULPTURAL BASE

EXISTING SERVICE ROAD

EXISTING BARN

RESTORED LANDSCAPE

EXISTING PATH

75' CRITICAL WATER QUALITY ZONE AND SHORELINE SETBACK

EXISTING MAIN HOUSE

EXISTING PATH

RM 2222

ENTRYWAY FEATURE

PROPERTY LINE

FEMA 100 YEAR FLOODPLAIN

AREA #3

RESTORED EXISTING BOAT HOUSE

EXISTING MAIN HOUSE TERRACE GARDENS, POOL, AND SPA

ARROYO CENTERLINE

RESTORED LANDSCAPE

PROPOSED RAIN GARDEN

EXISTING WOOD BOARDWALK 4' WALK DEPTH, ELEVATED

PROPOSED 8-FT TALL SOLID FENCE

HILL COUNTRY ROADWAY CORRIDOR 100' SETBACK

EXISTING SCULPTURE

BULL CREEK (LAKE AUSTIN)

EMERGENT WETLAND CEF

PROPOSED PATH

PROPOSED HABITAT POND

EXISTING FENCE AT PROPERTY LINE

PROPOSED RAIN GARDEN

PROPOSED RIPARIAN HABITAT

PROPOSED LOW WATER CROSSING

PROPOSED DECK

PROPOSED LOCATION OF LANDSCAPE BERM

LOWER MEADOW

PROPOSED PATH

COA 100 YEAR FLOODPLAIN

FRINGE WETLAND CEF

FEMA 100 YEAR FLOODPLAIN

RESTORED LANDSCAPE

PROPOSED RAIN GARDEN

PROPOSED PATH

EXISTING WOOD BOARDWALK 4' WALK DEPTH, ELEVATED

EXISTING RESTORED DOCK AND SWIMMING AREA

HILL COUNTRY ROADWAY CORRIDOR 1000' SETBACK

PROPOSED EXCLOSURE

75' CRITICAL WATER QUALITY ZONE AND SHORELINE SETBACK

PROPOSED LOCATION OF LANDSCAPE BERM

LAKE AUSTIN

CYPRESS FRINGE WETLANDS

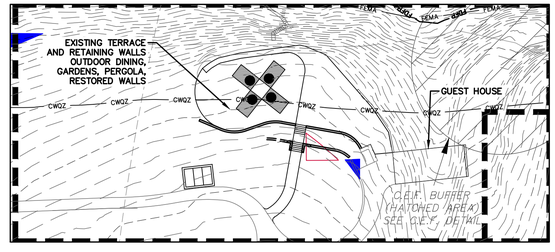
PROPOSED RAIN GARDEN

LEGEND

EXISTING SCULPTURES

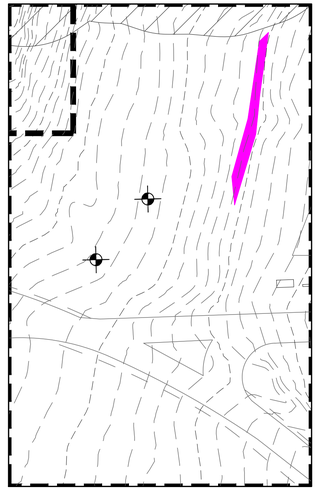
NOTES:

1. ALL GRADING ASSOCIATED WITH TRAILS, PEDESTRIAN AND CART PATHWAYS ARE DEPICTED HERE FOR REFERENCE ONLY. THE ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR THE DESIGN AND/OR CODE COMPLIANCE OF THESE ITEMS. REFER TO LANDSCAPE PLANS FOR DESIGN, DETAILS, AND SPECIFICATIONS. THE LANDSCAPE ARCHITECT IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY, AND ADEQUACY OF THEIR DESIGN, DETAILS, AND SPECIFICATIONS FOR THESE ITEMS REGARDLESS OF WHETHER OR NOT THE ENGINEER REVIEWED AND/OR DEPICTED THEM ON THE PLANS.
2. THE LIMITS OF CUT/FILL AND CONSTRUCTION ON SLOPES WILL CHANGE UPON FINALIZING THE SITE LAYOUT AND PROPOSED GRADING.



AREA #1

SCALE: 1"=40'



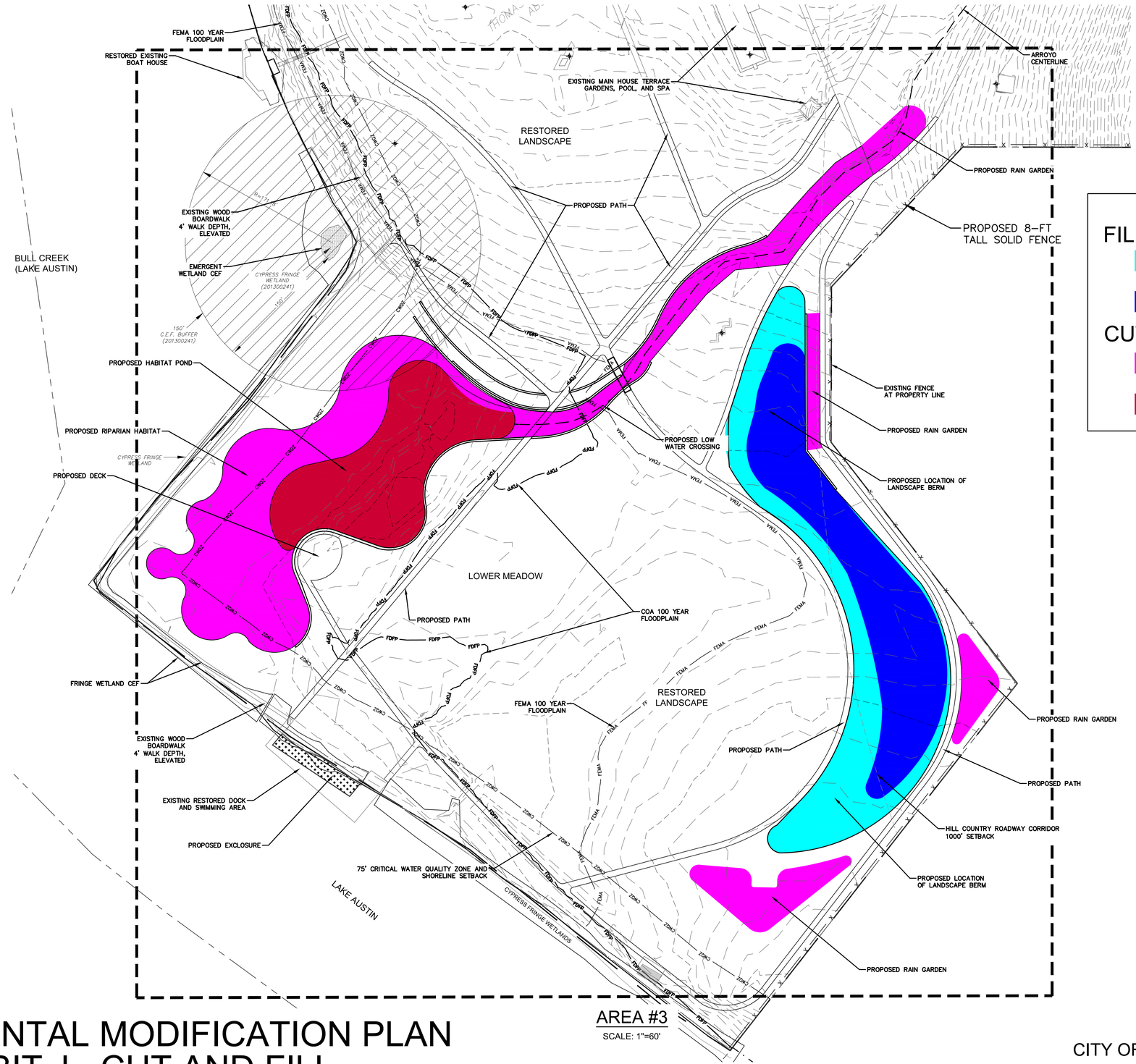
AREA #2

SCALE: 1"=40'

BULL CREEK PUD
ENVIRONMENTAL MODIFICATION PLAN
EXHIBIT J - CUT AND FILL

CITY OF AUSTIN CASE NUMBER: C814-2009-0139.03

REPLACEMENT SHEET



FILL Color	Elevation	Area
	0-4 FT	28,023 SQ FT
	4-8 FT	34,534 SQ FT
CUT Color	**Elevation**	**Area**
	0-4 FT	69,737 SQ FT
	4-8 FT	27,540 SQ FT

LEGEND

EXISTING SCULPTURES

AREA #3

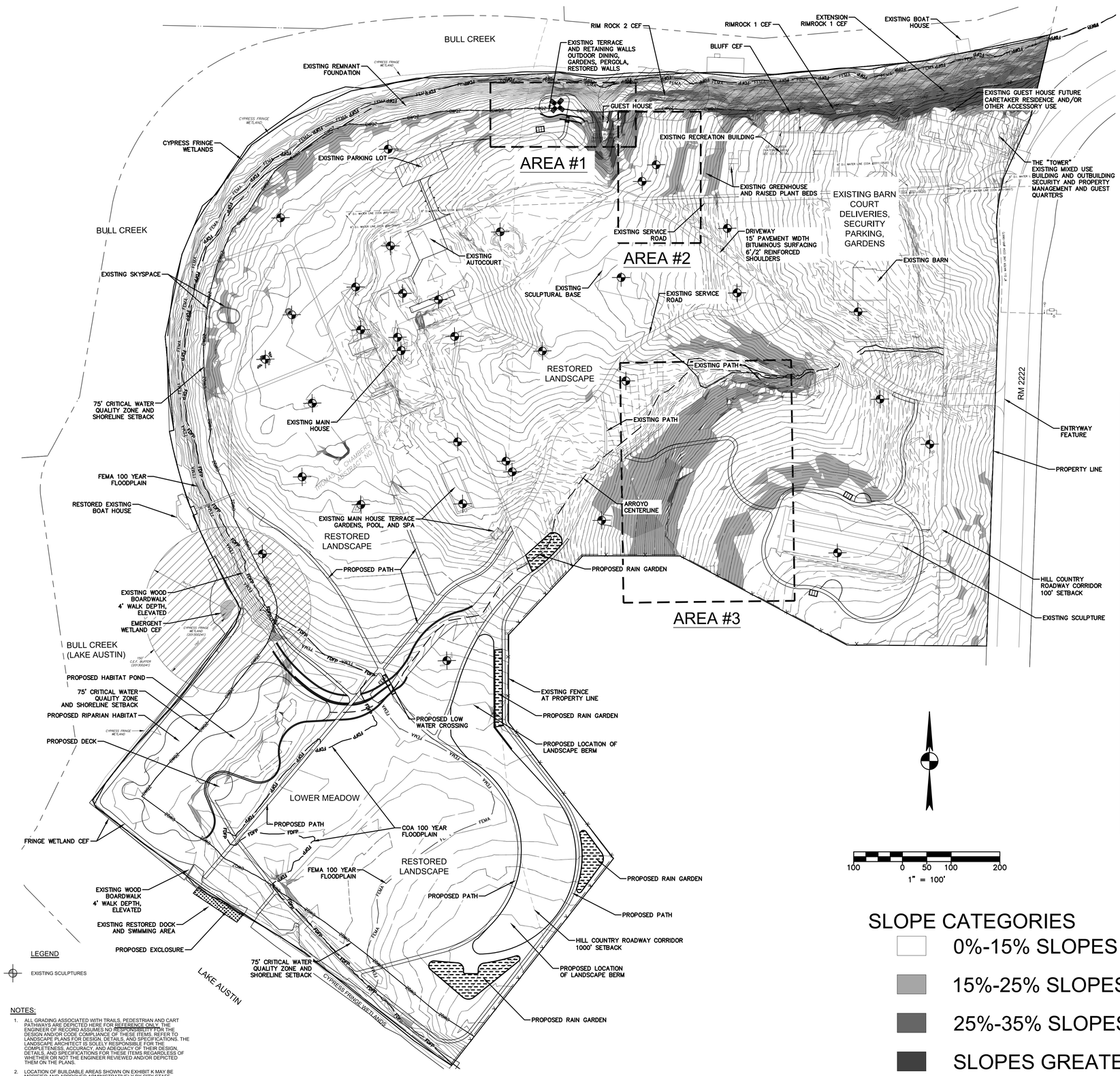
SCALE: 1"=60'

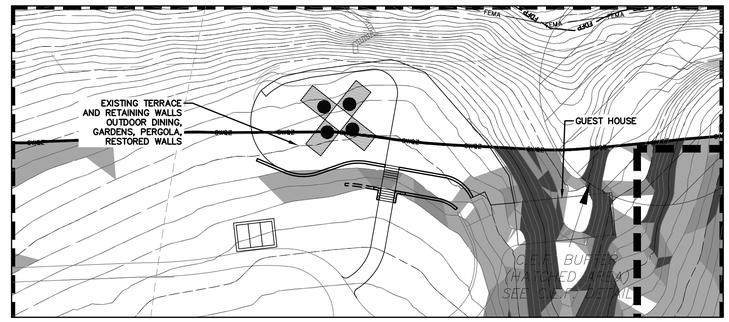
ENVIRONMENTAL MODIFICATION PLAN
EXHIBIT J - CUT AND FILL

CITY OF AUSTIN CASE NUMBER: C814-2009-0139.03

REPLACEMENT SHEET

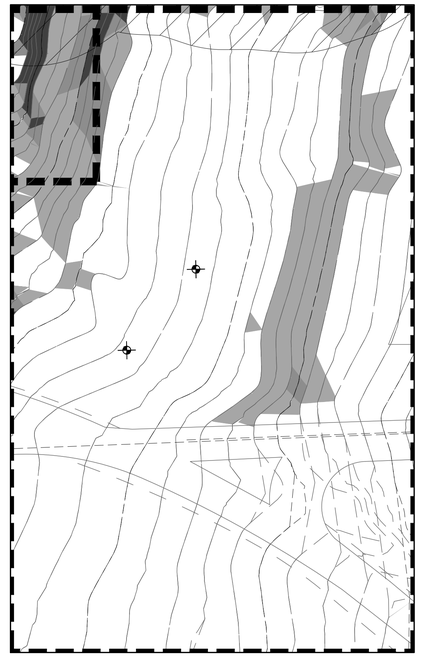
BULL CREEK P.U.D.





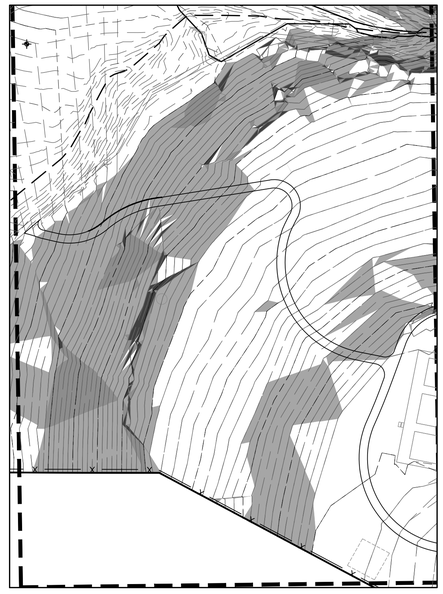
AREA #1

SCALE: 1"=30'



AREA #2

SCALE: 1"=30'



AREA #3

SCALE: 1"=60'

SLOPE CATEGORIES

- 0%-15% SLOPES
- 15%-25% SLOPES
- 25%-35% SLOPES
- SLOPES GREATER THAN 35%

LEGEND

EXISTING SCULPTURES

NOTES:

1. ALL GRADING ASSOCIATED WITH TRAILS, PEDESTRIAN AND CART PATHWAYS ARE DEPICTED HERE FOR REFERENCE ONLY. THE ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR THE DESIGN AND/OR CODE COMPLIANCE OF THESE ITEMS. REFER TO LANDSCAPE PLANS FOR DESIGN, DETAILS, AND SPECIFICATIONS. THE LANDSCAPE ARCHITECT IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY, AND ADEQUACY OF THEIR DESIGN, DETAILS, AND SPECIFICATIONS FOR THESE ITEMS REGARDLESS OF WHETHER OR NOT THE ENGINEER REVIEWED AND/OR DEPICTED THEM ON THE PLANS.
2. LOCATION OF BUILDABLE AREAS SHOWN ON EXHIBIT K MAY BE MODIFIED AND APPROVED ADMINISTRATIVELY BY CITY STAFF.
3. MAN MADE SLOPES HAVE BEEN EXCLUDED IN SLOPE CATEGORY CALCULATIONS.

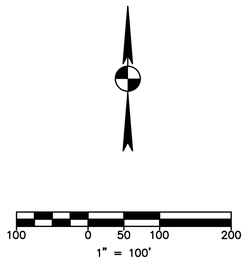
STATE OF TEXAS
THUY-MINH HOANG
139285
LICENSED
PROFESSIONAL ENGINEER
03/15/2022
F-14629

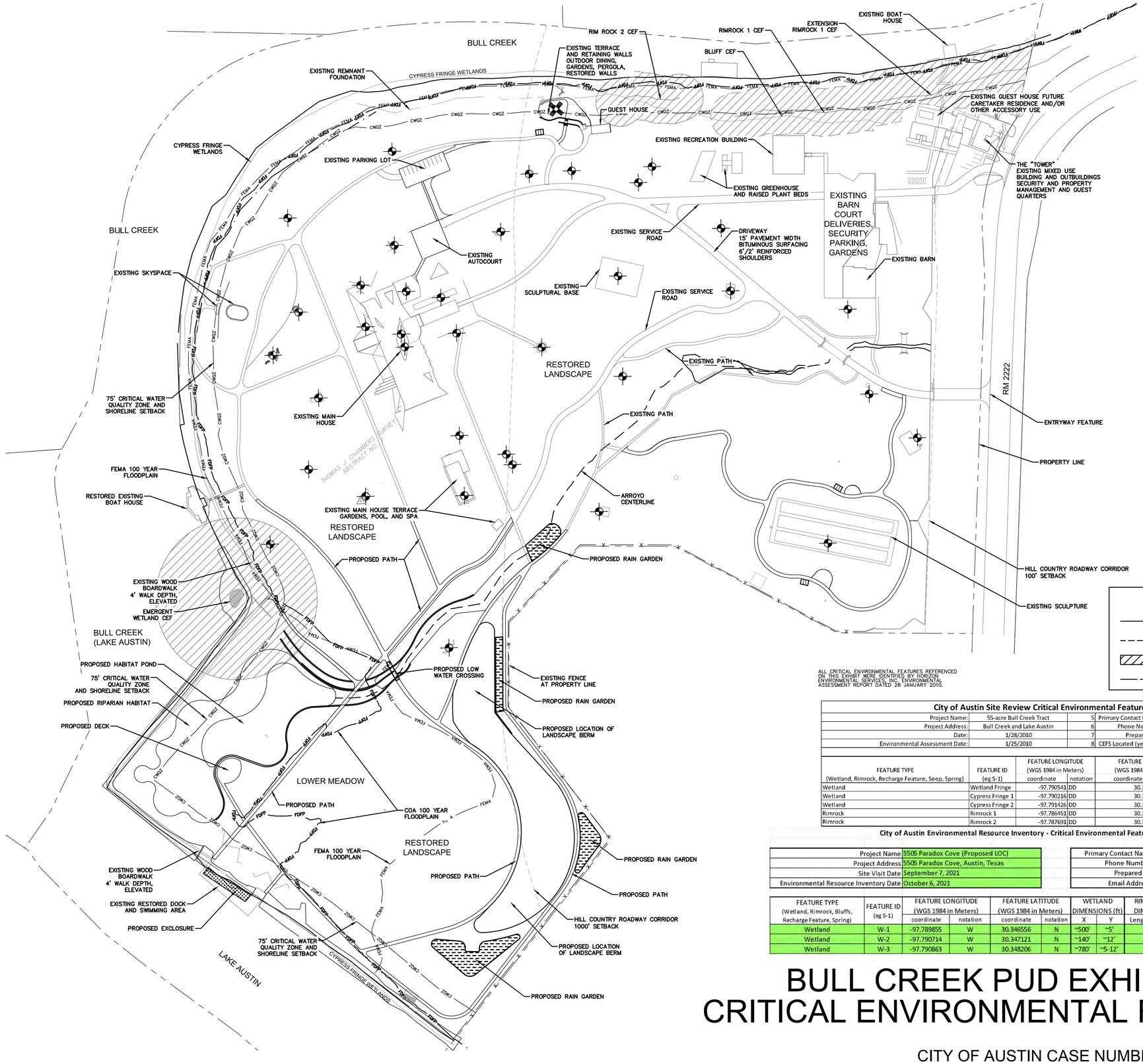
Slopes Table

Number	Minimum Slope	Maximum Slope	Area (Acres)	Color
1	0.00%	15.00%	44.3	
2	15.00%	25.00%	2.6	
3	25.00%	35.00%	0.4	
4	35.00%	100.00%	0.5	

ENVIRONMENTAL MODIFICATION PLAN
EXHIBIT K - CONSTRUCTION ON SLOPES

CITY OF AUSTIN CASE NUMBER: C814-2009-0139.03
REPLACEMENT SHEET





ALL CRITICAL ENVIRONMENTAL FEATURES REFERENCED ON THIS EXHIBIT WERE IDENTIFIED BY HORIZON ENVIRONMENTAL SERVICES, INC. ENVIRONMENTAL ASSESSMENT REPORT DATED 28 JANUARY 2010.

LEGEND

- ENVIRONMENTAL FEATURE (CEF) REFER TO PLAN FOR TYPE
- ENVIRONMENTAL FEATURE SETBACK
- SETBACK BUFFER AREA
- BOUNDARY LINE

LEGEND

- EXISTING SCULPTURES

NOTES:

1. ALL GRADING ASSOCIATED WITH TRAILS, PEDESTRIAN AND CART PATHWAYS ARE DEPICTED HERE FOR REFERENCE ONLY. THE ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR THE DESIGN AND/OR CODE COMPLIANCE OF THESE ITEMS. REFER TO LANDSCAPE PLANS FOR DESIGN, DETAILS, AND SPECIFICATIONS. THE LANDSCAPE ARCHITECT IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY, AND ADEQUACY OF THEIR DESIGN, DETAILS, AND SPECIFICATIONS FOR THESE ITEMS REGARDLESS OF WHETHER OR NOT THE ENGINEER REVIEWED AND/OR DEPICTED THEM ON THE PLANS.
2. DEVELOPMENT WITHIN THE FLOODPLAIN, INCLUDING PLACEMENT OF ARTWORK, MUST SEEK THE APPROPRIATE APPROVALS.

City of Austin Site Review Critical Environmental Feature Worksheet

Project Name:	55-acre Bull Creek Tract	5	Primary Contact Name:		
Project Address:	Bull Creek and Lake Austin	6	Phone Number:		
Date:	1/28/2010	7	Prepared By:		
Environmental Assessment Date:	1/25/2010	8	CEFS Located (yes, no):	YES	

FEATURE TYPE (Wetland, Rimrock, Recharge Feature, Seep, Spring)	FEATURE ID (eg S-1)	FEATURE LONGITUDE (WGS 1984 in Meters) coordinate	notation	FEATURE LATITUDE (WGS 1984 in Meters) coordinate	notation	WETLAND DIMENSIONS (ft) X	Y	RIMROCK DIMENSIONS (ft) Length	Avg. Height
Wetland	Wetland Fringe	-97.790541	DD	30.348763	DD	30	40		
Wetland	Cypress Fringe 1	-97.790216	DD	30.351438	DD	1180			
Wetland	Cypress Fringe 2	-97.791426	DD	30.347695	DD	1500			
Rimrock	Rimrock 1	-97.786451	DD	30.351509	DD			400	8
Rimrock	Rimrock 2	-97.787691	DD	30.351618	DD			133	6

City of Austin Environmental Resource Inventory - Critical Environmental Feature Worksheet

Project Name	5505 Paradox Cove (Proposed LOC)	Primary Contact Name:	Bridgette S. Zapalac
Project Address	5505 Paradox Cove, Austin, Texas	Phone Number:	(512) 358-9935
Site Visit Date	September 7, 2021	Prepared By:	Bridgette S. Zapalac
Environmental Resource Inventory Date	October 6, 2021	Email Address:	bridgette.zapalac@terracon.com

FEATURE TYPE (Wetland, Rimrock, Bluffs, Recharge Feature, Spring)	FEATURE ID (eg S-1)	FEATURE LONGITUDE (WGS 1984 in Meters) coordinate	notation	FEATURE LATITUDE (WGS 1984 in Meters) coordinate	notation	WETLAND DIMENSIONS (ft) X	Y	RIMROCK/BLUFF DIMENSIONS (ft) Length	Avg Height	RECHARGE FEATURE DIMENSIONS X	Y	Z	Trend	Springs Est. Discharge cfs
Wetland	W-1	-97.789855	W	30.346556	N	~500'	~5'							
Wetland	W-2	-97.790714	W	30.347121	N	~140'	~12'							
Wetland	W-3	-97.790863	W	30.348206	N	~780'	~5-12'							

BULL CREEK PUD EXHIBIT N
CRITICAL ENVIRONMENTAL FEATURES

CITY OF AUSTIN CASE NUMBER: C814-2009-0139.03

REPLACEMENT SHEET

PLAN KEY

- EXISTING TREE ≥ 19” DIAMETER
- EXISTING TREE ≥ 19” DIAMETER , TO BE REMOVED DUE TO IMMINENT HAZARD/DEAD
- EXISTING TREE ≥ 19”, REMOVED VIA TORA
- EXISTING TREE ≥ 19”, FALLEN/DEAD
- TRANSPLANTED LIVE OAK ≥ 8”, PLANTED BEFORE 2022
- PROPOSED LOCATION OF RELOCATED TREES ≤19” IN CONFLICT WITH PROPOSED BERM, LOCATION TO BE VERIFIED IN FIELD
- EXISTING TREE ≤19”, TO BE REMOVED DUE TO POOR HEALTH AND IN CONFLICT WITH PROPOSED BERM

1. PROTECT AND SAVE EXISTING TREES WITHIN LIMITS OF CONSTRUCTION AS IDENTIFIED ON THE SITE PLAN FOR BULL CREEK LOWER MEADOW IMPROVEMENTS. FINAL LOCATIONS TO BE VERIFIED BY LANDSCAPE ARCHITECT IN FIELD.

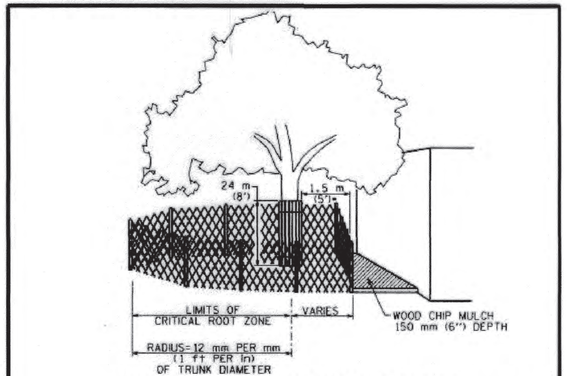
2. ALL FENCING PROTECTS CRITICAL ROOT ZONE (CRZ) OF SIGNIFICANT TREES PER CITY OF AUSTIN TREE PROTECTION ORDINANCE. SEE DETAIL PROVIDED IN THE SITE PLAN FOR BULL CREEK LOWER MEADOW IMPROVEMENTS.

3. THE CRITICAL ROOT ZONE (CRZ) IS ONE FOOT FROM THE TREE TRUNK FOR EACH DIAMETER INCH OF TRUNK SIZE.

4. FENCING IS REQUIRED TO BE CHAIN-LINK MESH AT A MINIMUM HEIGHT OF FIVE FEET. A SIX INCH LAYER OF MULCH WITHIN THE ENTIRE AVAILABLE ROOT ZONE AREA IS REQUIRED FOR TREES WHICH HAVE ANY DISTURBANCE.

5. ALL TREES LESS THAN 19” DIAMETER ARE NOT SHOWN.

PROTECTION DETAIL



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TREE PROTECTION FENCE MODIFIED TYPE A - CHAIN LINK	
RECORD COPY SIGNED BY J. PATRICK MURPHY 11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-4

1”=100’

BULL CREEK PUD

EXHIBIT O ‘TREE PROTECTION’
C814-2009-0139.03

SHEET 1 OF 2

SAVED TREES, ≥ 19”

ID	Total Diameter	Tree Type	Status
23259	19	Cedar	Saved
23311	19	Cedar	Saved
23391	19	Cedar	Saved
23437	19	Cedar	Saved
23561	19	Cedar	Saved
23681	19	Cedar	Saved
23723	19	Cedar	Saved
23970	19	Cedar	Saved
24133	19	Cedar	Saved
25064	19	Cedar	Saved
25073	19	Cedar	Saved
18311	19	Cedar Elm	Saved
16706	19	Cypress	Saved
16716	19	Cypress	Saved
16748	19	Cypress	Saved
16766	19	Cypress	Saved
16940	19	Cypress	Saved
16963	19	Cypress	Saved
16964	19	Cypress	Saved
16973	19	Cypress	Saved
6329	19	Live Oak	Saved
6332	19	Live Oak	Saved
6470	19	Live Oak	Saved
23039	19	Live Oak	Saved
23318	19	Live Oak	Saved
23360	19	Live Oak	Saved
23361	19	Live Oak	Saved
23363	19	Live Oak	Saved
23901	19	Live Oak	Saved
23902	19	Live Oak	Saved
24112	19	Live Oak	Saved
25104	19	Live Oak	Saved
25213	19	Live Oak	Saved
23824	20	Ash	Saved
9675	20	Cedar	Saved
18371	20	Cedar	Saved
18378	20	Cedar	Saved
23444	20	Cedar	Saved
23445	20	Cedar	Saved
23923	20	Cedar	Saved
24185	20	Cedar	Saved
25020	20	Cedar	Saved
25050	20	Cedar	Saved
25283	20	Cedar	Saved
18308	20	Cedar Elm	Saved
18313	20	Cedar Elm	Saved
16708	20	Cypress	Saved
16732	20	Cypress	Saved
16746	20	Cypress	Saved
16789	20	Cypress	Saved
16906	20	Cypress	Saved
16911	20	Cypress	Saved
16918	20	Cypress	Saved
16919	20	Cypress	Saved
16953	20	Cypress	Saved
23679	20	Cypress	Saved
6358	20	Elm	Saved
23907	20	Hackberry	Saved
24187	20	Hackberry	Saved
6334	20	Live Oak	Saved
6405	20	Live Oak	Saved
6453	20	Live Oak	Saved
18318	20	Live Oak	Saved
23346	20	Live Oak	Saved
24103	20	Live Oak	Saved
25366	20	Live Oak	Saved
6323	21	American Elm	Saved
6395	21	American Elm	Saved
18391	21	American Elm	Saved
6387	21	Cedar	Saved
9527	21	Cedar	Saved
9548	21	Cedar	Saved
23083	21	Cedar	Saved
23223	21	Cedar	Saved
23241	21	Cedar	Saved
23375	21	Cedar	Saved
23438	21	Cedar	Saved
23502	21	Cedar	Saved
23558	21	Cedar	Saved
23568	21	Cedar	Saved
23570	21	Cedar	Saved
23704	21	Cedar	Saved
23754	21	Cedar	Saved
23915	21	Cedar	Saved
24179	21	Cedar	Saved
24182	21	Cedar	Saved
25068	21	Cedar	Saved
16727	21	Cypress	Saved
16736	21	Cypress	Saved
16787	21	Cypress	Saved
16936	21	Cypress	Saved
16956	21	Cypress	Saved
23773	21	Cypress	Saved
6371	21	Live Oak	Saved
6392	21	Live Oak	Saved
6466	21	Live Oak	Saved
6482	21	Live Oak	Saved
9524	21	Live Oak	Saved
18317	21	Live Oak	Saved
23047	21	Live Oak	Saved
23053	21	Live Oak	Saved
23335	21	Live Oak	Saved
23347	21	Live Oak	Saved
23394	21	Live Oak	Saved
23402	21	Live Oak	Saved
23763	21	Live Oak	Saved
23909	21	Live Oak	Saved
23977	21	Live Oak	Saved
24120	21	Live Oak	Saved
16993	21	Pecan	Saved
18361	22	American Elm	Saved
6321	22	Cedar	Saved
6322	22	Cedar	Saved
6327	22	Cedar	Saved
6473	22	Cedar	Saved
23028	22	Cedar	Saved
23155	22	Cedar	Saved
23193	22	Cedar	Saved
23571	22	Cedar	Saved
23685	22	Cedar	Saved
23896	22	Cedar	Saved
23900	22	Cedar	Saved
16750	22	Cypress	Saved
16771	22	Cypress	Saved
16946	22	Cypress	Saved
16949	22	Cypress	Saved
16971	22	Cypress	Saved
23775	22	Cypress	Saved
23786	22	Cypress	Saved
6398	22	Live Oak	Saved
6483	22	Live Oak	Saved
9636	22	Live Oak	Saved
23303	22	Live Oak	Saved
23342	22	Live Oak	Saved
23367	22	Live Oak	Saved
23713	22	Live Oak	Saved
23760	22	Live Oak	Saved
24178	22	Live Oak	Saved
24184	22	Live Oak	Saved
25088	22	Live Oak	Saved
25362	22	Live Oak	Saved
23654	22	Sycamore	Saved
23815	22	Sycamore	Saved
23310	23	Cedar	Saved
23969	23	Cedar	Saved
25136	23	Cedar	Saved
16703	23	Cypress	Saved
16786	23	Cypress	Saved
16791	23	Cypress	Saved
16917	23	Cypress	Saved
16951	23	Cypress	Saved
23041	23	Live Oak	Saved
23116	23	Live Oak	Saved
23359	23	Live Oak	Saved
23755	23	Live Oak	Saved
23772	23	Live Oak	Saved
24087	23	Live Oak	Saved
24096	23	Live Oak	Saved
24104	23	Live Oak	Saved
24109	23	Live Oak	Saved
25358	23	Live Oak	Saved
25363	23	Live Oak	Saved
24221	23	Post Oak	Saved
18307	24	Cedar	Saved
18387	24	Cedar	Saved
23309	24	Cedar	Saved
23427	24	Cedar	Saved
23461	24	Cedar	Saved
23547	24	Cedar	Saved
23922	24	Cedar	Saved
24183	24	Cedar	Saved
16702	24	Cypress	Saved
16745	24	Cypress	Saved
6319	24	Live Oak	Saved
6452	24	Live Oak	Saved
6479	24	Live Oak	Saved
9616	24	Live Oak	Saved
23710	24	Live Oak	Saved
24092	24	Live Oak	Saved
18369	24	Mesquite	Saved
18301	24	Pecan	Saved
23841	24	Sycamore	Saved
18316	25	Cedar	Saved
23376	25	Cedar	Saved
23499	25	Cedar	Saved
23562	25	Cedar	Saved
23224	25	Cedar Elm	Saved
16741	25	Cypress	Saved
16751	25	Cypress	Saved
16762	25	Cypress	Saved
16794	25	Cypress	Saved
16924	25	Cypress	Saved
16952	25	Cypress	Saved
16959	25	Cypress	Saved
6330	25	Live Oak	Saved
9606	25	Live Oak	Saved
9625	25	Live Oak	Saved
9645	25	Live Oak	Saved
23305	25	Live Oak	Saved
23344	25	Live Oak	Saved
23345	25	Live Oak	Saved
23351	25	Live Oak	Saved
23917	25	Live Oak	Saved
24121	25	Live Oak	Saved
24139	25	Live Oak	Saved
25000	25	Live Oak	Saved
25023	25	Live Oak	Saved
25030	25	Live Oak	Saved
25049	25	Live Oak	Saved
25349	25	Live Oak	Saved
25359	25	Live Oak	Saved
25360	25	Live Oak	Saved
23383	25	White Oak	Saved
6320	26	Cedar	Saved
23284	26	Cedar	Saved
23456	26	Cedar	Saved
23698	26	Cedar	Saved
23921	26	Cedar	Saved
16926	26	Cypress	Saved
16967	26	Cypress	Saved
23785	26	Cypress	Saved
6354	26	Live Oak	Saved
6391	26	Live Oak	Saved
9598	26	Live Oak	Saved
23430	26	Live Oak	Saved
23912	26	Live Oak	Saved
23914	26	Live Oak	Saved
23951	26	Live Oak	Saved
24089	26	Live Oak	Saved
24105	26	Live Oak	Saved
24106	26	Live Oak	Saved
24195	26	Live Oak	Saved
16997	26	Pecan	Saved
23326	26	Post Oak	Saved
23320	26	Red Oak	Saved
23971	27	Cedar	Saved
16735	27	Cypress	Saved
16915	27	Cypress	Saved
16928	27	Cypress	Saved
16929	27	Cypress	Saved
16931	27	Cypress	Saved
16960	27	Cypress	Saved
6388	27	Live Oak	Saved
9601	27	Live Oak	Saved
23296	27	Live Oak	Saved
24110	27	Live Oak	Saved
25029	27	Live Oak	Saved
25371	27	Live Oak	Saved
16994	27	Pecan	Saved
16998	27	Pecan	Saved
16722	28	Cypress	Saved
16961	28	Cypress	Saved
16965	28	Cypress	Saved
23801	28	Cypress	Saved
24027	28	Cypress	Saved
6344	28	Live Oak	Saved
9580	28	Live Oak	Saved
23880	28	Live Oak	Saved
23887	28	Live Oak	Saved
18315	29	Cedar	Saved
23029	29	Cedar	Saved
23662	29	Cedar	Saved
16948	29	Cypress	Saved
16950	29	Cypress	Saved
9592	29	Live Oak	Saved
9640	29	Live Oak	Saved
23036	29	Live Oak	Saved
23037	29	Live Oak	Saved
23403	29	Live Oak	Saved
24095	29	Live Oak	Saved
25281	29	Live Oak	Saved
25367	29	Live Oak	Saved
16980	29	Pecan	Saved
18306	30	Cedar	Saved
23727	30	Cedar	Saved
16755	30	Cypress	Saved
16907	30	Cypress	Saved
16923	30	Cypress	Saved
16970	30	Cypress	Saved
9610	30	Live Oak	Saved
23270	30	Live Oak	Saved
24113	30	Live Oak	Saved
16978	30	Pecan	Saved
16981	30	Pecan	Saved
16989	30	Pecan	Saved
18305	30	Pecan	Saved
25418	30	Red Oak	Saved
16731	31	Cypress	Saved
16909	31	Cypress	Saved
16954	31	Cypress	Saved
16968	31	Cypress	Saved
16974	31	Cypress	Saved
9631	31	Live Oak	Saved
23319	31	Live Oak	Saved
23683	31	Live Oak	Saved
24191	31	Live Oak	Saved
16719	32	Cypress	Saved
16958	32	Cypress	Saved
16972	32	Cypress	Saved
23541	32	Live Oak	Saved
24097	32	Live Oak	Saved
16798	33	Cypress	Saved
23670	33	Cypress	Saved
25416	33	Cypress	Saved
23906	33	Live Oak	Saved
23919	33	Live Oak	Saved
6345	33	Pecan	Saved
16920	34	Cypress	Saved
16947	34	Cypress	Saved
18395	34	Live Oak	Saved
23759	34	Live Oak	Saved
23913	34	Live Oak	Saved
16966	35	Cypress	Saved
23944	35	Live Oak	Saved
25222	35	Live Oak	Saved
6352	36	Cottonwood	Saved
23918	36	Live Oak	Saved
6348	36	Pecan	Saved
23768	37	Live Oak	Saved
6349	37	Pecan	Saved
18303	37	Pecan	Saved
23784	38	Cypress	Saved
25333	38	Live Oak	Saved
16979	38	Pecan	Saved
16761	39	Cypress	Saved
25417	39	Cypress	Saved
6339	39	Live Oak	Saved
18319	39	Live Oak	Saved
6347	39	Pecan	Saved
6351	40	Cottonwood	Saved
16935	40	Cypress	Saved
16976	40	Pecan	Saved
23937	41	Live Oak	Saved
16977	41	Pecan	Saved
23455	42	Cedar	Saved
16991	42	Pecan	Saved
18304	42	Pecan	Saved
16957	43	Cottonwood	Saved
9666	45	Live Oak	Saved
18302	47	Pecan	Saved
23766	49	Live Oak	Saved
23767	49	Live Oak	Saved
24177	49	Live Oak	Saved
23916	50	Live Oak	Saved
6346	50	Pecan	Saved
18320	54	Pecan	Saved
18322	55	Pecan	Saved
16990	57	Cottonwood	Saved
6350	64	Cottonwood	Saved
16986	65	Pecan	Saved
23966	66	Cypress	Saved
18321	87	Pecan	Saved

REMOVED TREES, ≥ 19”

ID	Total Diameter	Tree Type	Status
9612	19	Red Oak	Dead
9613	19	Red Oak	Dead
23312	20	Cedar	Removed
9611	22	Red Oak	Dead
16982	49	Cottonwood	Dead
16983	54	Cottonwood	Dead
6353	56	Cottonwood	Fallen/Dead
16985	56	Cottonwood	Dead
16984	57	Cottonwood	Dead

Reference September 2020 Bartlett Tree Inspection Report for arborist recommended removal of the Cottonwood trees due to imminent health heath and safety risk.

TREES IN CONFLICT WITH PROPOSED BERM TO BE RELOCATED OR REMOVED DUE TO POOR HEALTH, ≤ 19”

ID	Total Diameter	Tree Type	Status
18323	10	Pecan	Relocate
18324	10	Pecan	Removed
18325	12	Pecan	Relocate
18326	10	Pecan	Relocate
18327	11	Pecan	Relocate
18328	9	Pecan	Removed
18329	10	Pecan	Removed
18330	10	Pecan	Relocate
18331	10	Pecan	Relocate
18332	7	Pecan	Removed
18333	9	Pecan	Relocate
18334	12	Pecan	Removed
18335	11	Pecan	Relocate
18336	10	Pecan	Relocate
18337	11	Pecan	Relocate
18338	11	Pecan	Removed
18339	11	Pecan	Relocate
18340	10	Pecan	Relocate
18341	10	Pecan	Removed
18342	12	Pecan	Relocate
18343	11	Pecan	Relocate
18344	7	Burr Oak	Relocate
18345	7	Pecan	Relocate
18346	9	Burr Oak	Relocate
18347	9	Burr Oak	Relocate
18348	8	Burr Oak	Relocate
18349	7	Burr Oak	Relocate
18350	7	Burr Oak	Relocate
18351	7	Burr Oak	Relocate
18352	9	Burr Oak	Relocate
18353	8	Burr Oak	Relocate
18354	9	Burr Oak	Relocate
18355	9	Burr Oak	Relocate
18356	7	Burr Oak	Relocate
18357	7	Burr Oak	Relocate
18358	8	Burr Oak	Relocate

TREE SUMMARY

	TOTAL CALIPER INCH	PERCENTAGE
TOTAL SAVED TREES *≥ 19” diameter*	9,560	96.45%
TOTAL REMOVED TREES *≥ 19” diameter*	352	3.55%
TOTAL RELOCATED TREES IN CONFLICT WITH BERM *≤ 19” diameter*	226	76.61%
TOTAL REMOVED TREES IN CONFLICT WITH BERM *≤ 19” diameter*	69	23.39%

Date: May 3, 2022

To: Environmental Commission, City of Austin

From: A Coalition of neighborhoods, including:
Courtyard HOA (neighborhood with "standing," boundaries adjoin the property in question)
Lake Austin Collective (LAC)
Shepherd Mountain Neighborhood Association
2222 Coalition of Neighborhood Associations (CONA)
Northwest Austin Civic Association (NWACA)

Subject: Bull Creek PUD Amendment #3 (C814-2009-0139.03) – Conversion to Civic Use

Dear Commission Members:

We understand that the City's environmental staff continues to review the Bull Creek PUD Amendment, but in the meantime, we would like to express concerns about the project's environmental impact. Please note that besides these concerns, we support the proposed PUD amendment to convert the PUD to ***civic use***, as we understand it. We hope your commission will help us address these three primary concerns:

1) ***Request #1: Require 100' setback from the CEF for siting of the artist's education building***.
A 20,000 square foot building is planned to be sited along the cliff bordering Bull Creek, 55' from the CEF. Based on our understanding of the sensitivity of Bull Creek, we are asking that the setback from the CEF be increased to 100'.
History: The Bull Creek PUD is surrounded on one side by Bull Creek, a watershed which deposits directly into Lake Austin, and on another side by Lake Austin itself. Since Bull Creek is a small waterway, we are concerned that it will not be able to absorb any additional impacts. In 2010, a bridge was constructed on RM 2222 near Capital of Texas Highway to replace a low water crossing. Unfortunately, this caused a change in water flow velocity and a significant increase in sedimentation. Over time, these impacts have reduced the navigable depth of Bull Creek for many residents who have owned waterfront property on Bull Creek for 40 years. We have been experiencing firsthand the effects of increased development on Bull Creek, and the runoff from more and more impervious cover.

2) ***Request #2:***
   a. ***Require Right In, Right Out only access to the property***
   b. ***Require the BOE consultant's modified TIA (required by staff) Findings and Recommendations to be implemented***
   c. ***Require a Transportation Demand Management plan prior to approval of the PUD***
   d. ***Require, in perpetuity, an annual report submitted to the director of ATD demonstrating compliance with the agreed daily trip max of 400 (200 in; 200 out)***
   e. ***Require a reservation system to limit public access to the site***
   f. ***Require the applicant to participate in necessary transportation improvements***

The current plans, as we understand them from the Booth team, are to allow for ingress and egress for traffic at the existing west-most entrance to the property. This entrance is located at a sharp bend in RM2222. The current plan is to widen RM2222 to allow for a left turn lane across RM2222 immediately preceding that sharp bend in the road. The only way to accommodate left in, left out access to the property would be to widen RM2222. This will wipe out the trees in the Hill Country Roadway buffer. We do not want the trees to be removed and we believe that right in, right out access is the only safe and environmentally feasible way to accommodate the increased traffic that will be entering and exiting the property once converted to the art museum.

3) ***Request #3: Limit the land use to Code section 25-2-6 Civic Uses, described in (15) Cultural services. Omit "commercial use" from the PUD amendment language to prevent potential other uses not defined for the intent of an art museum.***
   We believe that commercial uses, whether intended or not, would allow for future uses not currently intended which will significantly change the potential for environmental burdens not planned or mitigated by the PUD amendment or the site plans under consideration by City Staff.

We have other and secondary concerns or questions that we would like to better understand, including:

1) Runoff, and specifically the size and location of water quality ponds
2) Fertilizer on the approximately 54 acres of largely grassy land
3) How the grass will be watered (from Bull Creek or Lake Austin) and the quantity of water for irrigation that would be permitted

May we suggest that the Commission consider a special committee to further evaluate these concerns.

If you have any questions or would like additional backup information, please email or call Denise Hogan, Courtyard HOA Board President at denise.1.hogan@gmail.com or 214.403.4454.

Thank you for your consideration.

Denise Hogan, Courtyard HOA
Linda Bailey, LAC
Marisa Lipscher, Shepherd Mountain NA
Tom Smith, CONA
Ben Luckens, NWACA
Charlie Galvin, NWACA