HEAVENLY SKI RESORT

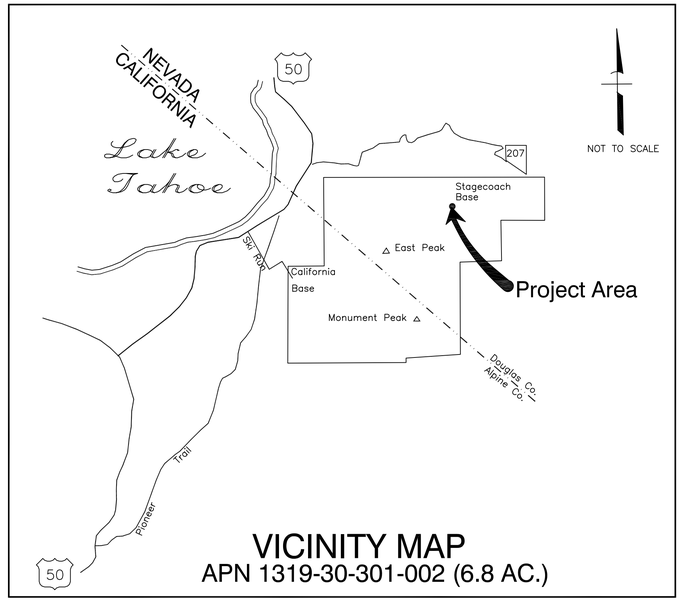
2006 IMPLEMENTATION

Northbowl Express Lift Replacement and Northbowl/Olympic Lifts Removal Project
Plan Revision
Douglas County, Nevada

HEAVENLY SKI RESORT
2005 CAPITAL PROJECTS
LAND COVERAGE CALCULATIONS 4/7/05

Maximum Allowable Land Coverage (per Master Plan)		2,053,854
Existing Coverage at Time of Master Plan Adoption		2,013,854
Additional Land Coverage Added Since Master Plan		**
Total Existing Coverage		
Existing Northbowl Lift		**
Lower Terminal Removal	(958)	
Lower Operator's Booth Removal	(33)	
Line Tower Footings (28 @ 4'x4') Removal	(448)	
Upper Terminal Removal	(375)	
Upper Operator's Booth Removal	(33)	
Sub-total		(1,847)
Existing Olympic Lift		
Lower Terminal Removal	(958)	
Lower Operator's Booth Removal	(33)	
Line Tower Footings (15 @ 4'x4') Removal	(240)	
Upper Terminal Removal	(375)	
Upper Operator's Booth Removal	(33)	
Lower Terminal Road Decommission (420'x12')	(5,040)	
Sub-total		(6,679)
Proposed Northbowl Express Lift		
Lower Terminal (27'x70')		1,890
Lower Operator's Booth (8'x20')		200
Chair Rail Footings (4 @ 3'x3')		36
Lower Terminal Road Decommission (280'x12')	(3,360)	
Lower Terminal Road Relocated (185'x12')		2,220
Lower Terminal Road Reconstructed (1,015'x12')	(12,180)	12,180
Line Tower Footings (23 @ 5'x5')		575
Upper Terminal (27'x70')		1,890
Upper Operator's Booth (8'x20')		200
Upper Terminal Road Decommission (860'x12')	(10,320)	
Upper Terminal Relocated Access (710'x12')		8,520
Sub-total		1,851
Project Difference (Existing v. Proposed)		(6,675)
Total Land Coverage with Project		**
Banked Land Coverage		65,106
Remaining Banked Coverage Available for Future Projects		**

** See Heavenly Master Plan Amendment and EIR/EIS for Combined Projects Proposed.



VICINITY MAP
APN 1319-30-301-002 (6.8 AC.)

GENERAL NOTES

1. PREPARED AND SUBMITTED AT THE REQUEST OF:
   ATTENTION: ANDREW STRAIN
   HEAVENLY SKI RESORT
   P.O. BOX 2180
   224 KINGSBURY GRADE
   STATELINE, NV 89449
2. PROJECT AREA SURVEY BY:
   RESOURCE CONCEPTS, INC.
   212 ELKS POINT ROAD, SUITE 443
   ZEPHYR COVE, NEVADA 89448
   PHONE: (775) 588 7500
3. BASIS OF BEARING: CALIFORNIA STATE PLANE, ZONE 2, NAD 27
   VERTICAL DATUM: NGVD29
   CONTOUR INTERVAL: ONE FOOT WITHIN PROJECT AREA
   25 FOOT OUTSIDE PROJECT AREA
4. AERIAL TOPOGRAPHY 1991 OUTSIDE OF THE PROJECT AREA PROVIDED BY CLIENT.
5. COVERAGE AREAS PROVIDED BY HEAVENLY SKI RESORT.
6. NORTHBOWL EXPRESS LIFT TOWER AND TERMINAL DESIGN BY:
   DOPPELMAYR CTCC, INC.
   14452 WEST 44TH AVENUE
   GOLDEN, CO 80403
7. EDGEWOOD CREEK RESTORATION DESIGN BY:
   SH & G ENGINEERING
   SUITE 202, 500 SEABRIGHT AVE.
   SANTA CRUZ, CA 95062
   (831) 427-0288

SHEET INDEX

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- G02 - LIFT ALIGNMENTS

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- VEGETATION
- 6660 TOPOGRAPHIC CONTOUR
- DRAINAGE FLOW LINE
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- LIFT TOWER – TO BE REMOVED AND REVEGETATED
- SEDIMENT BARIER
- BOUNDARY/PROTECTIVE FENCE
- NEW TRAIL LOCATIONS

ABBREVIATIONS

CMP	CORRUGATED METAL PIPE CULVERT
CO	COUNTY
(E), EX.	EXISTING
(N)	NEW
REV	REVISION
TBD	TO BE DETERMINED
TYP	TYPICAL

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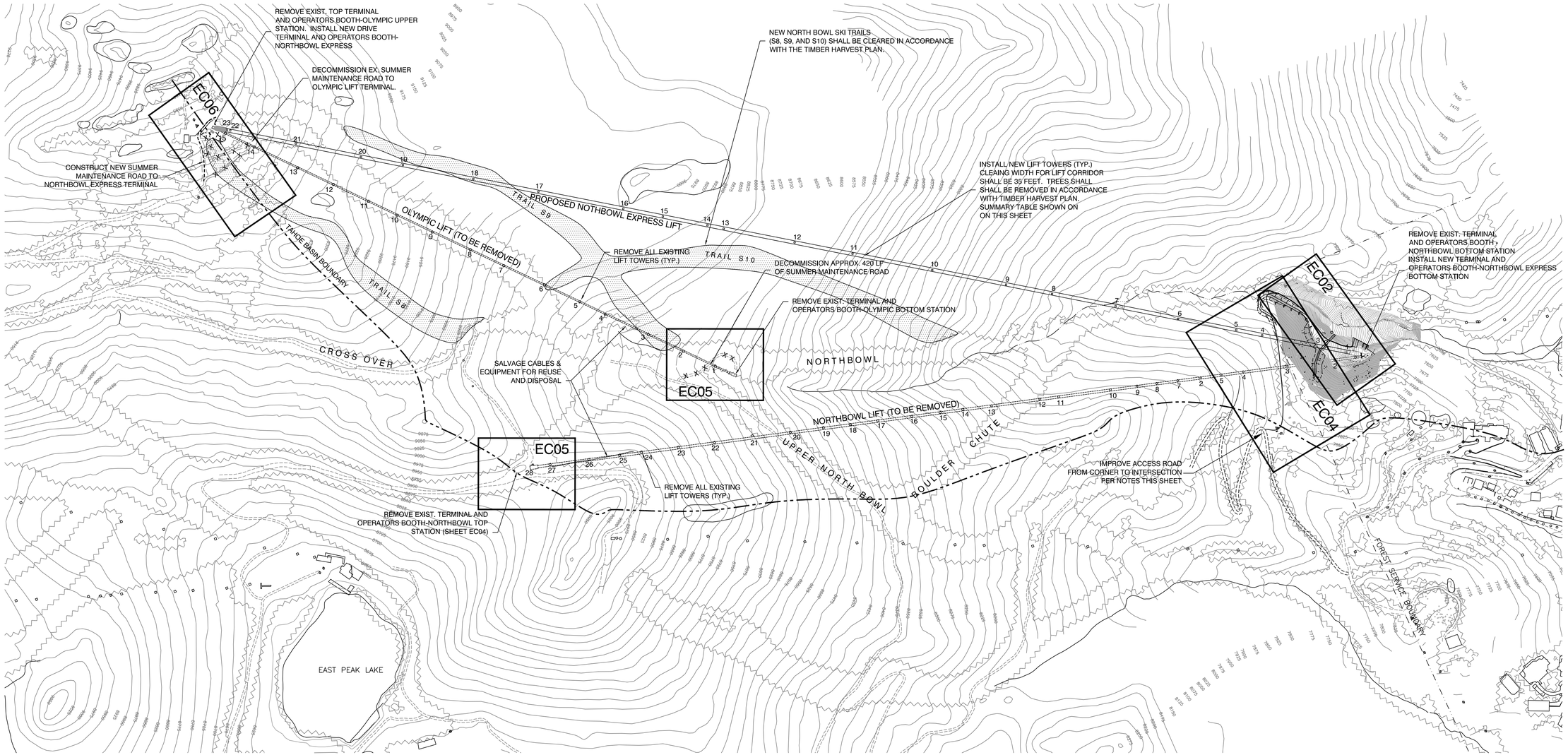
HEAVENLY SKI RESORT

REVISION	DATE

NORTHBOWL EXPRESS
TITLE SHEET

JOB NO.	00-607-32
DATE	11/18/05
DESIGNED:	JLS
DRAWN :	MLM
CHECKED:	JLS

SHEET G01



SCALE:1"=300'

NOTES:

ACCESS ROAD IMPROVEMENTS

1. ACCESS ROAD SHALL BE MAINTAINED IN ACCORDANCE WITH ALL FOREST SERVICE REQUIREMENTS AND HEAVENLY SKI RESORT MAINTENANCE PLANS.
2. ROAD GRADING MAINTENANCE SHALL OUTSLOPE EXISTING ROAD 2% TO 4% TO PROMOTE RUNOFF. OUTSLOPE SHALL BE REESTABLISHED UPON PROJECT COMPLETION.
3. DUST CONTROL SHALL BE PROVIDED ON A DAILY BASIS DURING CONSTRUCTION.
4. ROAD SURFACING SHALL BE TYPE 2 CLASS B CRUSHED AGGREGATE BASE ("STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", WASHOE COUNTY AND CARSON CITY, NEVADA) COMPACTED TO 90% MDD AS NEEDED TO STABILIZE SURFACE.
5. ROLLING DIPS SHALL BE CONSTRUCTED PER SHEET EC09. LOCATIONS SHALL BE LOCATED IN THE FIELD BASED ON SLOPE STABILITY AND EXISTING STRUCTURES.
6. ROLLING DIPS MAY BE REMOVED TEMPORARILY IF REQUIRED FOR LARGE EQUIPMENT ACCESS DURING CONSTRUCTION. DIPS SHALL BE RECONSTRUCTED WITHIN ONE WEEK AFTER EQUIPMENT ACCESS NOT REQUIRED.

TIBER HARVEST PLAN

1. NORTHBOWL EXPRESS PROJECT INCLUDES TIMBER HARVESTING FOR NEW SKI TRAILS AND THE PROPOSED LIFT LINE CORRESPONDING DIMENSIONS FOR EACH LOCATION ARE:

LOCATION	LENGTH	AVERAGE WIDTH (FT)	APPROX. AREA (AC.)	NO. TREES
S8	1,516	125	4.4	449
S9	2,311	125	6.6	296
S10	2,461	125	7.1	206
LIFT	6,900	35	5.5	444

2. TREE FELLING, SKIDDING/YARDING, SLASH DISPOSAL AND ACCESS SHALL CONFORM TO THE TIMBER HARVEST PLAN PREPARD FOR THE PROJECT.

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HEAVENLY SKI RESORT

REVISION	DATE

NORTHBOWL EXPRESS
LIFT ALIGNMENTS

JOB NO.	00-607-32
DATE	11/18/05
DESIGNED:	JLS
DRAWN :	MLM/FRB
CHECKED:	JLS

SHEET G02

GENERAL NOTES

Location of sediment barriers is approximate and installation will be reviewed by Heavenly Ski Resort and the Forest Service in field.

Utilities and proposed lift structure locations are approximate and plans are not to be used for final location of lift structures.

Owner will be responsible for locating, repairing, and restoring Heavenly Ski Resort owned and other utilities (snowmaking lines, power, etc.)

All construction activities to be constructed in accordance with federal, state, and local, health and safety regulations.

Lift terminals will be colored "Forest Green" and lift towers will be colored "Tower Gray".

The lift alignment will not be summer groomed or graded. There will be no access roads constructed to lift towers.

The "Owner" is Heavenly Ski Resort. The "Forest Service" is the Lake Tahoe Basin Management Unit (LTBMU). The "Revegetation Specialist" (RS) shall be a qualified third party, designated in writing to the LTBMU prior to construction.

Equipment access routes and parking areas shall be restricted to existing roads or staging areas shown on the plans. No construction access routes shall cross stream channels or SEZ except in corridors delineated with protective fencing prior to construction. Any disturbance outside project area boundary and designated staging areas must be restored prior to project completion.

EROSION CONTROL BMPs

Temporary BMPs

Vegetation protective fencing shall be placed and maintained to clearly identify construction limits. Protective fencing is not required on lift line corridors. The limits of construction will be 25 feet around lift towers to be constructed, 10 feet around lift towers to be removed, unless indicated otherwise on the plans.

Vegetation protective fencing will be placed to clearly identify "No Access Areas."

Topsoil and organic ground litter will be conserved throughout the project area by stockpiling topsoil separately from other excavated soils. Immediately upon completion of clearing and grubbing, topsoil and organic surface debris will be salvaged to a depth of approximately four inches, not to exceed six inches. Salvaged topsoil will be stockpiled separately from other excavated soils. Stockpiles will be configured as low as possible. Topsoil stockpiles will be temporarily stabilized with wood fiber mulch and tackifier application as described in the products and Execution of Treatments section of these plans.

Additional subsoil salvaged during grading will be stockpiled separately from topsoil and will be temporarily stabilized with a wood fiber mulch and tackifier treatment. Subsoil stockpiles will not be constructed if soils can be moved to a permanent fill location within two days following excavation.

Stockpiled soil (topsoil separated from other soils) will be placed within the construction site unless the site is an SEZ. No stockpiles of soil or materials shall be allowed in SEZ, except on existing access roads, and alternative staging areas will be identified on the plans. Sediment barriers will be placed around the downslope side of the stockpiled soil.

After footings or foundations are placed, suitable stockpiled subsoils will be used for backfill. Stockpiled topsoil will be spread evenly across designated revegetation treatment areas as directed by the RS.

Sediment barriers will be placed around the downslope side of the construction site and above drainage ways located nearby and below the construction site. Locations of sediment barriers shown on plans are approximate and installation will be reviewed by Heavenly Ski Resort and the Forest Service in the field. Sediment barriers (coir logs) shall be stockpiled and installed across the access roads in the event of inclement weather.

Roadways and staging areas used during construction will be provided with dust abatement (water truck)

Loose construction materials and packaging and litter will be cleaned up daily and will be disposed of or stored appropriately.

Maintenance of Erosion Control BMPs

Construction areas will be accessed from existing roadways. Roads used during construction will be inspected weekly for appropriate drainage and grading. Ruts will be repaired immedialtely. Water bars, culverts, and ditches (drainage structures) will be maintained by the Owner on a weekly basis and as needed during construction prior to October 15 and on a daily basis for construction activities after October 15.

Sediment barriers will be inspected by the owner on a weekly basis during construction, and before and after precipitation events, for damage and appropriate placement to reduce potential erosion. Existing barriers will be repaired or new barriers installed on a weekly basis and as needed during construction prior to October 15 and on a daily basis for construction activities after October 15.

Stabilized topsoil and subsoil stockpiles will be inspected and covering repaired as needed on a weekly basis during construction. No stockpiles located in SEZ.

Boundary/Protective fencing of "No Access Areas" will be inspected and repaired on a daily basis by the Owner.

Sediment barriers will be maintained until revegetation is approved by the RS.

Lift Replacement BMPs

Rroad access to the lift terminals or towers will be decommissioned as shown on the plans and road surfaces to be reclaimed will be graded to conform to natural contours and revegetated. All compacted areas shall be ripped and mixed with subsoil per specifications for decommissioning roads.

Whenever facilities are painted, oiled, lubricated, or other chemicals are used, drop cloths will be used to prevent chemicals from contaminating the soil.
Infiltration trenches will be provided to intercept runoff from the impervious surfaces of the lift top and bottom stations.

Stabilize lift loading and unloading ramps with revegetation treatment shown on the plans. Gravel or geoweb may be used if approved on a site specific basis by the TRPA or Forest Service in writing.

All parking areas and site access routes will be clearly delineated with protective fencing to prohibit encroachment into the Stream Environment Zone.

All roads to be reclaimed shall be in accordance with Forest Service standards for decommissioning roads.

REVEGETATION PLAN

General

All areas disturbed during construction including access corridors, storage areas, staging areas, and construction areas shall be revegetated according to these specifications. Upon completion of grading and construction, and prior to revegetation, all areas to be revegetated will be inspected by the Revegetation Specialist (RS). The Owner shall notify the Engineer at least five working days prior to planting to schedule the required inspection. Final planting and seeding treatment areas will be staked in the field at that time. Revegetation treatments shall not be initiated without the approval of the RS. Seeding to occur after October rain or as designated by the RS.

Revegetation treatments shall be installed as per these specifications and the plan sheets and shall consist of salvaging topsoil, replacing topsoil or incorporation endomycorrhizal inoculum, seedbed preparation, seeding, mulch application, geotextile installation, and wood fiber mulch and tackifier application. Products and applications shall be in accordance with the plans and specifications or as otherwise approved by the Forest Service and the RS.

No tree or boulder removal will be allowed except as shown on the plans. Where possible within the construction sites, existing vegetation will be trimmed to height necessary for construction yet keeping plants alive, typically no less than four feet above grade. Seedbed preparation, seed mixtures and mulch treatments will be specified on a site specific basis as shown on the plans.

The limbs of all removed or trimmed vegetation will be chipped or spread over disturbed areas after construction is finished, except in an SEZ as directed by the RS. All trimmed or removed vegetation in SEZ will be removed from the area for disposal off-site,
No straw shall be applied in an SEZ.

Products and Execution of Treatments

1. Installation of revegetation treatments and slope treatments will consist of combinations of the procedures listed in the table below, or as designated on the site plans.

PROCEDURE	TREATMENT 'A' Slope Treatment 1.5: to 2:1	TREATMENT 'B' Slope Treatment 2:1 to 3:1	TREATMENT 'C' Slopes 3:1 AND FLATTER
Seedbed Preparation	No	Yes	Yes
Salvaged Topsoil with Inculum Incorporation	No	Yes	No
Organic Matter Soil Amendment	No	Yes/No Site specific specification	Yes
Seeding	Yes	Yes	Yes
Straw, Pine Needle or Wood Chip Mulch	No	Yes/No Site specific specification	Yes
Rock Slope Protection	Yes	No	No
Erosion Control Netting	No	Yes	No
Wood Fiber/Mulch Tackifier	No	Yes	Yes

SEED

Seed shall be clean new crop seed, purchased pre-mixed on a Pure Live Seed (PLS) basis. Forest Service approved seed mixes shall be ordered for broadcasting in designated areas as shown on the plans. Seed shall be delivered to the site in original unopened containers bearing the dealer's guaranteed analysis and germination percentage, and shall meet the freedom from noxious weeds requirements as defined by the States of California and Nevada. No substitutions in the seed mixtures will be accepted without written approval from the RS.

Seed labels shall be removed from the seed sacks by the RS at the time of seeding. Seed labels will include documentation for each type of seed certifying that a recognized laboratory tested the seed within 6 months of the date of delivery. Certification shall include the following:

Name and address of testing laboratory.
1. Date of test.
2. Seed identification – Scientific and Variety names and Lot Number.
3. Test results showing the percentages of purity, germination, and weed content.
4. Certified weed-free seed.

SEED MIXTURES

Lower Terminal and New Lift Towers

SPECIES	PURE LIVE SEED POUNDS per ACRE		PERCENT OF MIX
	Small Size Seed	Large Size Seed	
Bromus marginatus 'Bromar' Mountain Brome		4.0	0.11
Elytrigia intermedia ssp. *trichophorum* 'Luna' Pubescent Wheatgrss		4.0	0.13
Elymus trachycaulis ssp. *trachycaulis* Slender Wheatgrass		3.0	0.15
Festuca ovina 'Durar' Sheep Fescue	0.5		0.11
Poa secunda 'Sherman' Big Bluegrass	0.25		0.08
Stipa columbiana Columbia Needlegrass		4.0	0.19
Balsamorhiza sagittata Arrowleaf balsamroot		4.0	0.03
Lupinus argenteus var. *meionanthus* Silver Lupine		5.0	0.03
Lupinus lepidus var. *sellulus* Pacific Lupine		5.0	0.025
Wyethia mollis Mule's Ear		3.0	0.025
Arctostaphylos nevadensis Pinemat Manzanita		10.0	0.12
Total PLS Pounds Per Acre	0.75	38	

Upper Terminal

SPECIES	PURE LIVE SEED POUNDS per ACRE		PERCENT OF MIX
	Small Size Seed	Large Size Seed	
Bromus marginatus 'Bromar' Mountain Brome		4.0	0.10
Elytrigia intermedia ssp. *trichophorum* 'Luna" Pubescent Wheatgrss		4.0	0.11
Elymus trachycaulis ssp. *trachycaulis* Slender Wheatgrass		2.0	0.09
Festuca ovina 'Durar' Sheep Fescue	0.5		0.10
Koeleria cristata Junegrass	0.25		0.17
Poa secunda 'Sherman' Big Bluegrass	0.25		0.07
Stipa columbiana Columbia Needlegrass		4.0	0.17
Lupinus argenteus var. meionanthus		5.0	0.03
Arctostaphylos nevadensis Pinemat Manzanita		15.0	0.16
Total PLS Pounds Per Acre	1.0	34.0	

SEEDBED PREPARATION - DECOMMISSIONING ROADS

No more than two days prior to seeding, roads to be decommissioned will be ripped to a minimum of 12 inches deep to alleviate compaction and be mixed with underlying subsoil. Extreme care shall be used during the ripping process to avoid existing, well established native vegetation. Areas to be avoided will be flagged in the field. Immediately following ripping, treated areas will be harrowed to break large dirt clods and create a suitable, roughened seedbed.

SEEDBED PREPARATION - FILL AREAS

Prior to inoculation, preferably during that same day but no more than two days prior to inoculation, treatment areas shall be scarified or disked parallel to the contour to a minimum depth of four (4) to six (6) inches in preparation for seeding. The Owner shall notify the RS at least 48 hours in advance of any seeding, and shall not begin seeding until the prepared treatment areas have been approved.

SEEDBED PREPARATION - CUT AREAS

Prior to inoculation, preferably during that same day but no more than two days prior to inoculation, cut areas with final graded slopes 2:1 or flatter shall be scarified or disked parallel to the slope contour to a minimum depth of four (4) to six (6) inches in preparation for topsoil application. Immediately following disking, a uniform loose application of 2 inches of topsoil will be uniformly applied where indicated on the plans, or as directed by the RS.

MYCORRHIZAL INOCULUM

Endomycorrhizal inoculum shall consist of spores, mycelium, and mycorrhizal root fragments in a solid carrier suitable for broadcast application. The carrier material shall be the same material in which the inoculum was originally produced, and may include organic materials such as vermiculite, perlite, calcined clay or other approved materials consistent with mechanical application. Endomycorrhizal inoculum shall contain a minimum rate of 120 live propagules per cubic centimeter such as manufactured by Reforestation Technologies International (RTI) under the trade name of 'Am 120.'

Endomycorrhizal inoculum is a live material and shall be transported and stored at a temperature less than 90° Fahrenheit at all times and shall not be stored longer than 30 days prior to application. Endomycorrhizal inoculum shall be clearly labeled with the supplier's guarantee of number of propagules per unit weight or volume of bulk material. If more than one fungal species is claimed by the supplier, the label shall include a guarantee for each species included. Product labels shall be collected by the Revegetation Specialist prior to the time of application. Endomycorrhizal inoculum shall be applied to provide an equivalent of 3,600,000 live propagules per acre. For the product 'AM 120' this equates to 60 pounds per acre; or 1.4 pounds per 1,000 square feet.

Upon completion of seedbed scarification, salvaged topsoil shall be uniformly spread over treatment area slopes that are less than 3:1 (horizontal: vertical), as shown on the plan sheets or as directed by the RS. Topsoil shall be applied evenly at a depth of four to six inches. Endomycorrhizal inoculum shall be uniformly applied to topsoiled areas by broadcasting to distribute inoculum evenly across the seedbed. Any mechanical device used for broadcasting shall not grind or unduly compress the carrier granules of fungal spores. Inoculum shall be incorporated into the top one to four inches of soil within three hours of broadcasting by means of light hand-raking.

ORGANIC MATTER SOIL AMENDMENT

Organic matter shall consist of highly aerobic humified compost. Compost shall be reviewed and approved by TRPA for use in the Tahoe Basin such as produced by Full Circle compost under the trade name 'Integrated Tahoe Blends.' Upon completion of seedbed scarification, organic matter shall be uniformly applied at a depth of approximately 2 inches to scarified seedbeds on treatment areas with slopes 3:1 or flatter that do not receive topsoil/mycorrhizal applications, or as directed by the RS. Organic matter shall be thoroughly incorporated into the upper six inches of soil by hand raking or disking prior to seeding.

SEED APPLICATION

Prepared seedbeds shall be uniformly broadcast seeded with hand operated canister type seeders. Large and small size seed as indicated in the seedmixture tables shall be broadcast in separate applications. Seeding shall not occur under conditions that would allow the seed to become wind born. Seed shall not be incorporated and applied with the wood-fiber mulch. Immediately following broadcasting, the seeded areas shall be lightly hand-raked to place the seed at a depth of 1/4 to 1/2 inch into the soil. No further vehicular access will be allowed on treatment areas upon completion of seeding.

PINE NEEDLE MULCH

Pine needles shall be collected from Heavenly Ski Resort or another local source within the Lake Tahoe Basin. Pine needle collections shall be free of trash, large woody debris, and other impurities. The Owner shall furnish the engineer with the address of the supplier and/or the source of the pine needle mulch at least 4 weeks prior to installation such that inspection of the material can be scheduled prior to delivery.

Immediately following seeding, fresh clean, weed-free pine needles shall be applied uniformly to the seeded areas to a depth of 1-2 inches (measured immediately following a loose application). Pine needles shall be either hand applied or mechanically blown in place. If mechanical blowers are used for application, they shall produce a uniform distribution without cutting or breaking needles into stalks shorter than three inches. Pine needles will be secured to the treatment area with either the wood-fiber/tackifier or erosion control netting procedures described below.

WOOD CHIP MULCH

If wood sources are available from tree removal within the project area, wood chips may be substituted for pine needle mulch. A mobile wood chipper with capacity for a minimum 12" tree will be set up on the lift terminal pad. Tops and branches of trees removed for grading will be chipped to a minimum diameter of 2 inches, and a maximum length of 6 inches. Wood chips will be temporarily stockpiled then applied at a uniform depth; the chip layer will be equivalent to one chip thick. Wood chips will be used on flat terrain and will be secured with wood fiber/tackifier or erosion control netting procedures described below.

WOODFIBER MULCH / TACKIFIER

Wood fiber mulch shall be prepared from whole wood chips and contain no growth or germination inhibitors. Wood fiber shall be colored green with a non-toxic dye to facilitate visual metering during application. Wood fiber mulch shall disperse rapidly in water to form a homogeneous slurry, and remain in such state when agitated in the hydraulic mulching unit. Wood-fiber mulch shall be added to the mulch slurry at a rate of 50 pounds per 1,000 square feet. (approximately 2,000 pounds per acre).

The tackier must be psyllium-seed based natural tackier approved by the RS. The tackier shall include ingredients to prevent re-emulsifying when re-wetted, and shall not contain any growth inhibitors. The tackier shall be added to mulch slurry at the rate of 2.5 pounds per 1,000 square feet (100 pounds per acre).

Water shall be added to the mulch slurry at a rate of 200 gallons per 1,000 square feet, or per the manufacturer's recommendations, and form a net-like film when dried. Upon drying, the mulch/tackifier film shall be permeable and allow exchange of air and moisture, shall have an effective life of at least one year, and shall not re-emulsify when cured. No fertilizers shall be added to the wood-fiber mulch.

Wood-fiber mulch application shall not occur when temperatures are under 40 degrees F. All surfaces to be treated shall be lightly sprayed with water immediately prior to mulch application.

EROSION CONTROL NETTING

Upon completion of seeding and mulch application, a biodegradable natural fiber erosion control netting such as Bonterra CF7, or an approved equivalent as determined by the Engineer, shall be installed perpendicular to the slope contour and staked according to the plan sheets. A six by six inch cut-off trench shall be excavated parallel to the contour along up-slope and downslope edge of the netting,. The edge of the netting shall be laid into the trench and staked per the manufacturer's directions. The trench shall be backfilled and hand compacted to completely bury the edge of the netting.

ROCK SLOPE PROTECTION TREATMENT

The work shall consist of furnishing, transporting, and placing rock for the construction of slope protection and rock aprons, to the dimension, lines and grades as shown on the drawings.

Selection of rock rip rap which conforms to the local environment shall be approved by the USDA Forest Service and Tahoe Regional Planning Agency for use on all slopes within the Tahoe Basin.

Rock used for the various rip rap treatments shall conform to the following gradations:

Light Rock

Rock Size	Percent Passing (by wt.)
12 in.	85-100
6 in.	45-65
3 in.	0-15

Medium Rock

Rock Size	Percent Passing (by wt.)
18 in.	85-100
12 in.	45-65
6 in.	0-15

Heavy Rock

Rock Size	Percent Passing (by wt.)
24 in.	85-100
18 in.	45-65
12 in.	0-15

Rocks shall be free from defects conducive to accelerated weathering, including cracks. The rock fragments shall be angular to sub-angular in shape, with the least dimension of each individual fragment not less than one-third the greatest dimension of the fragment.

Rocks conforming to these requirements may be obtained from the excavations being performed under this contract.

Rock shall not be placed until the subgrade surfaces have been inspected and approved by the Engineer. Install filter fabric per the plans. Placement of rock shall be per the direction of the Engineer in accordance to standard construction practices. The first row of rock shall be laid in the trench and in firm contact with adjacent rock. The rock shall be placed on the surfaces and to the depths specified with the larger rock at the bottom and graded with the smaller rock at the top.

Upon completion of rock slope treatments, broadcast seed the slopes and water with a water truck.

DECOMMISSIONING ROADS

Roads to be decommissioned shall be obliterated in accordance with U.S. Forest Service Standard Specifications and the Revegetation Plan for this project.

Obliterate the roadway by restoring to approximate original ground contours. Keep excavated material within the original construction limits. Finish slopes to provide gradual transitions in slope adjustments without noticeable breaks.

Close roads by filling ditches and outsloping the roadbed to drain. Remove and slope embankment material at localized drainages to restore the natural drainage patterns. Eliminate all ruts and low spots that could hold water.

Scarify or rip the gravel, crushed stone, or other nonrigid surface, base, and subbase material. Mix the scarified or ripped material with the underlying soil. Bury the mixture under at least 12 inches of soil.

Construct barriers to prevent vehicle assess and waterbars as shown in the plans.

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UNDERGROUND SERVICE ALERT (USA)

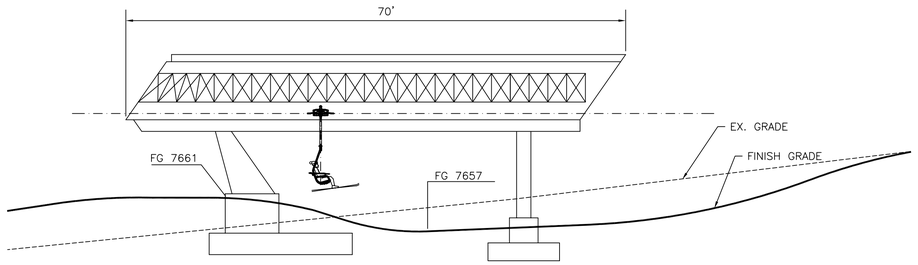
HEAVENLY SKI RESORT

DATE	REVISION

NORTHBOWL EXPRESS
2006 IMPLEMENTATION NOTES

JOB NO. 00-607-32
DATE 11/18/05
DESIGNED: JLS
DRAWN : MLM/FRB
CHECKED: JLS

SHEET EC01



SECTION A-A

NOT TO SCALE

NOTES:

1. REVEGETATION FOR NEW NORTHBOWL EXPRESS TERMINAL SHALL INCLUDE SEEDBED PREPARATION FOR CUT AND FILL AREAS PER REVEG PLAN; TOPSOIL APPLICATION AND INOCULATION OR ORGANIC MATERIAL AMENDMENT, SEED APPLICATION USING LOWER TERMINAL MIX AND PINE NEEDLE OR WOOD CHIP MULCH WITH TACKIFIER.
2. TOWERS TO BE INSTALLED OR REMOVED SHALL BE REVEGETATED WITH LOWER TERMINAL MIX. REVEGETATION AT ALL LOCATIONS SHALL INCLUDE SEEDBED PREPARATION FOR CUT AND FILL AREAS, SEED APPLICATION PINE NEEDLE OR WOOD CHIP MULCH, AND EROSION CONTROL NETTING AS APPLICABLE FOR SLOPE PLAN.
3. REVEGETATION FOR EDGEWOOD CREEK RESTORATION SHALL BE IN ACCORDANCE WITH DESIGN BY SH&G ENGINEERING, SHEETS C–1 THROUGH L–1.

CALIFORNIA

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SCALE:1"=20'

SNOWMAKING SYSTEM EX. ABOVE GROUND 6 IN. DIA. WATER & 8 IN. DIA. AIR TO REMAIN (APPROX. LOCATION)

NO ACCESS AREA DO NOT DISTURB WILLOWS

DISCHARGE TO EXISTING STABLE DRAINAGE

INSTALL SEDIMENT BARRIERS (TYP.) PRIOR TO DISTURBANCE

INSTALL NORTHBOW EXPRESS OPERATOR'S BOOTH. CONSTRUCT DRIPLINE TRENCHES UNDER EAVES.

FILL EX. GULLY W/NATIVE MATERIAL COMPACTED TO 90%. USE REVEGETATION TREATMENT B

REMOVE EXIST. NORTHBOWL LIFT TERMINAL AND OPERATORS BOOTH. A PORTION OF THE FOOTING MAY REMAIN. REMOVE CONCRETE TO A MINIMUM OF 6' BELOW FINISHED GRADE.

SEDIMENT BARRIER (TYP.)

ADD RISER TO EXISTING SNOWMAKING SYSTEM VALVE BOX (6 FT. DIA. CMP)

INSTALL ENERGY DISSIPATOR ON SLOPE BELOW VAULT USING PYRAMAT OR APPROVED EQUAL

TREE TO BE REMOVED (TYP.)

CONSTRUCT ROCK OR PYRAMAT LINED CHANNEL (SEE DETAIL) SEED USING REVEGETATION TREATMENT B FOR FULL WIDTH OF DISTURBED AREA

LIMITS OF CONSTRUCTION. EXTENT OF CUT SLOPE

EDGEWOOD CREEK RESTORATION PLAN SHEETS C-1 TO L-1 SH&G ENGINEERING

FG 7661.0

FG 7656.0

FG 7657.0

INSTALL NEW LIFT TERMINAL FOR NORTHBOWL EXPRESS, INCLUDING CHAIR RAIL AND OPERATORS BOOTH. CONSTRUCT INFILTRATION TRENCH (TYP.) UNDER ALL DRIPLINES

REMOVE EX. LIFT TOWER (TYP.)

1:1 CUT SLOPE TO BE STABILIZED WITH ROCK SLOPE PROTECTION (SEE DETAIL, SHEET EC09) AND REVEGETATION TREATMENT A (SEE SHEET EC01)

CONSTRUCT ROCK OR PYRAMAT LINED CHANNEL (SEE DETAIL) SEED USING REVEGETATION TREATMENT B FOR FULL WIDTH OF DISTURBED AREA

PROPOSED LIFT TOWER #1

LIMITS OF CONSTRUCTION INSTALL VEGETATION PROTECTIVE FENCE (TYP.)

EXISTING DIRECT BURY 250 MCM 480 VOLT POWER

SEZ 1b

MATERIAL STOCKPILE & STAGING AREA

SNOWMAKING SYSTEM EX. UNDERGROUND 6 IN. DIA. WATER AND 10 IN. DIA. AIR TO REMAIN (APPROX. LOCATION)

SNOWMAKING SYSTEM EX. UNDERGROUND 4 IN. DIA. WATER AND 6 IN. DIA. AIR

EXISTING BOULDER LIFT TERMINAL

PROPOSED LIFT TOWER #2

REMOVE EXIST. LIFT TOWER (TYP.)

CaF 1a

VEGETATION PROTECTIVE FENCING (TYP.)

SEZ BOUNDARY LINE

NO ACCESS AREA

EX. SUMMER MAINTENANCE ROAD

INSTALL SEDIMENT BARRIERS (TYP.) PRIOR TO DISTURBANCE

EX. SIGN

25' SEZ SETBACK LINE

EXISTING LIFT (TO BE REMOVED)

EX. ELEC. VAULT

40' APPROX.

1.5:1 CUT SLOPE STABILIZED WITH ROCK SLOPE PROTECTION AND REVEGETATION TREATMENT A

LIMITS OF CONSTRUCTION EXTENT OF CUT SLOPE

CONSTRUCT ROCK-LINED OR PYRAMAT-LINED CHANNEL AT TOE OF SLOPE (SEE SHEET EC08 & EC09)

REMOVE EX. TREE (TYP.)

REVIEW SET
NOT FOR CONSTRUCTION

HEAVENLY SKI RESORT

REVISION	DATE

NORTHBOWL EXPRESS
NORTHBOWL EXISTING AND PROPOSED BOTTOM TERMINALS GRADING & TEMP. BMPs

JOB NO.	00–607–32
DATE	11/18/05
DESIGNED:	JLS
DRAWN :	MLM
CHECKED:	JLS

SHEET EC02

NOTES:

1. REVEGETATION FOR NEW NORTHBOWL EXPRESS TERMINAL SHALL INCLUDE SEEDBED PREPARATION FOR CUT AND FILL AREAS PER REVEG PLAN; TOPSOIL APPLICATION AND INOCULATION OR ORGANIC MATERIAL AMENDMENT, SEED APPLICATION USING LOWER TERMINAL MIX AND PINE NEEDLE OR WOOD CHIP MULCH WITH TACKIFIER.
2. TOWERS TO BE INSTALLED OR REMOVED SHALL BE REVEGETATED WITH LOWER TERMINAL MIX. REVEGETATION AT ALL LOCATIONS SHALL INCLUDE SEEDBED PREPARATION FOR CUT AND FILL AREAS, SEED APPLICATION PINE NEEDLE OR WOOD CHIP MULCH, AND EROSION CONTROL NETTING AS APPLICABLE FOR SLOPE PLAN.
3. REVEGETATION FOR EDGEWOOD CREEK RESTORATION SHALL BE IN ACCORDANCE WITH DESIGN BY SH&G ENGINEERING, SHEETS C-1 THROUGH L-1.
4. SEE SHEET EC01-REVEGETATION PLAN FOR TREATMENTS A, B, AND C.
5. SEE SHEET EC08 AND EC09 FOR NETTING AND ROCK SLOPE PROTECTION DETAILS.

SCALE:1"=20'

REVEGETATION TREATMENTS KEY

TREATMENT A

TREATMENT B

TREATMENT C

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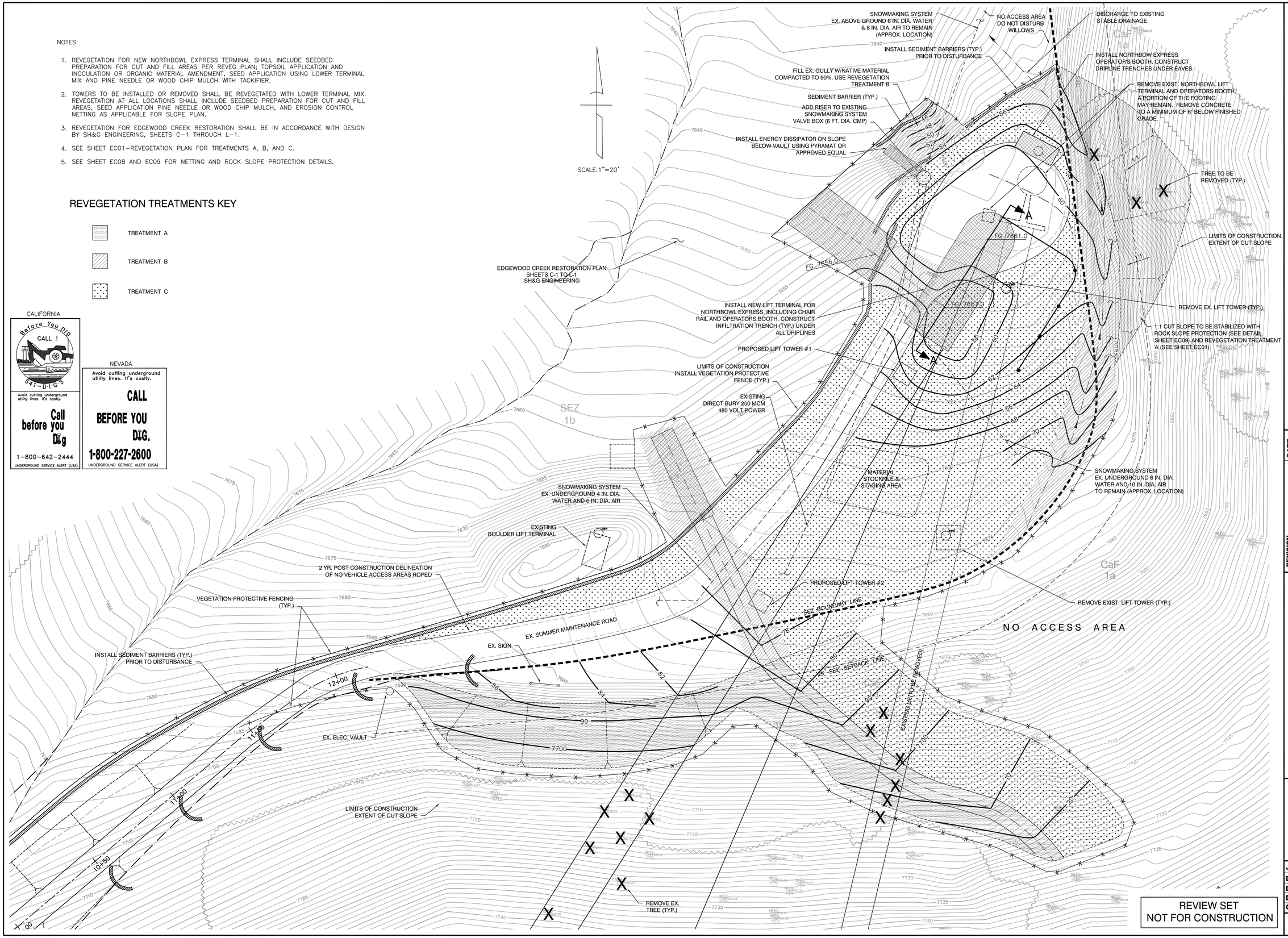

REVIEW SET
NOT FOR CONSTRUCTION

HEAVENLY SKI RESORT

DATE	REVISION

NORTHBOWL EXPRESS
NORTHBOWL EXISTING AND PROPOSED BOTTOM TERMINALS
REVEGETATION TREATMENTS

JOB NO.	00-607-32
DATE	11/18/05
DESIGNED:	JLS
DRAWN :	MLM
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SHEET EC03

HEAVENLY SKI RESORT

CONSTRUCT NEW STREAM CHANNEL

CONSTRUCT ROCK OR PYRAMAT LINED DITCH (SEE DETAIL) REVEG. USING TREATMENT B

INSTALL SEDIMENT BARRIER (TYP.)

FG 7688 MATCH EX.

FG 7709

FG 7719

FG 7780 MATCH EX.

FG 7732

CONSTRUCT NEW SUMMER MAINTENANCE ROAD, 12' WIDE (SHEET EC09) ROAD SHALL HAVE 4" COMPACTED ROAD BASE SURFACING

1:1 CUT SLOPE STABILIZED W/ROCK SLOPE PROTECTION USING REVEG. TREATMENT A

1:1 CUT SLOPE STABILIZED W/ROCK SLOPE PROTECTION USING REVEG. TREATMENT A

LIMITS OF CONSTRUCTION INSTALL VEGETATION PROTECTIVE FENCE (TYP.)

PROPOSED NORTHBOWL EXPRESS LIFT

EXISTING NORTHBOWL LIFT TO BE REMOVED

EX. SUMMER MAINTENANCE ROAD

CONSTRUCT RIP RAP ENERGY DISSIPATER (10'x15' MIN.)

VEGETATION PROTECTIVE FENCE, TYP.

FILL AND STABILIZE EX. CROSS DRAIN WITH RIP RAP. (10'x10' APPROX.)

DECOMMISSION EXIST. ROAD (SHEET EC01) GRADE TO APPROX. NATURAL CONTOURS

INSTALL SEDIMENT BARRIER, TYP.

CONSTRUCT ROLLING DIP (SEE DETAIL)

CONSTRUCT 185 LF OF NEW ACCESS ROAD
CUT SLOPE 2:1
FILL SLOPE 2:1
CROSS SLOPE 3% TO INSIDE DITCH
SEE SECTION SHEET EC09

SECTION EC09

SECTION EC09

NO ACCESS AREA

EX. MAINT. ROAD TO BE DECOMMISSIONED

EXIST. ELEC. VAULT

PLACE ROCK (24" DIA. MIN.) OR WOODY DEBRIS TO PREVENT VEHICLE ACCESS

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SCALE: 1"=30'

REVIEW SET
NOT FOR CONSTRUCTION

REVISION	DATE

NORTHBOWL EXPRESS

NORTHBOWL EXPRESS ROAD ALIGNMENT

JOB NO.	00-607-32
DATE	11/18/05
DESIGNED:	JLS
DRAWN :	MLM
CHECKED:	JLS

SHEET EC04.1