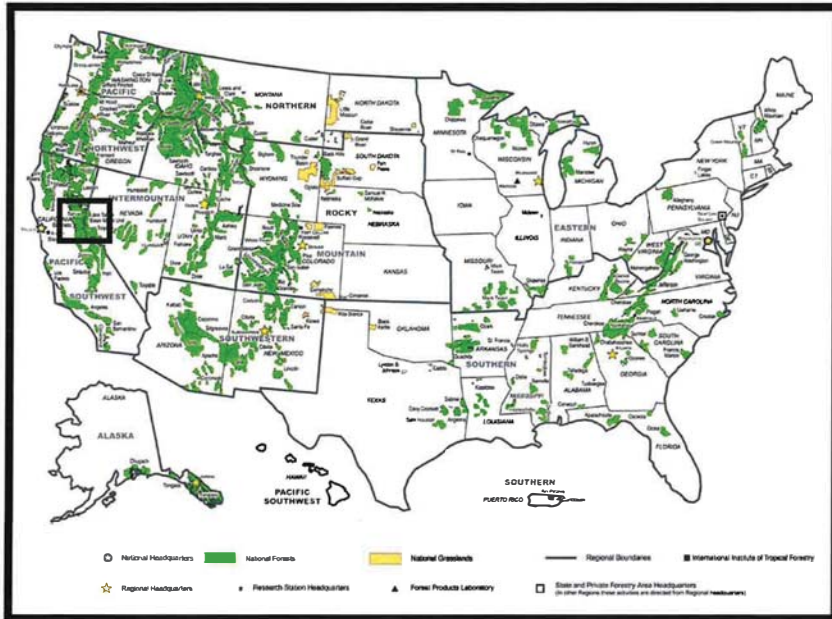


**United States Department of Agriculture  
Forest Service**

**(R05) PACIFIC SOUTHWEST REGION  
LAKE TAHOE BASIN MANAGEMENT UNIT**

**WASHOE COUNTY, NEVADA  
TOWNSHIP 15 NORTH, RANGE 18 EAST, SECTION 14**

**CHIMNEY BEACH TRAIL HEAD  
PARKING LOT UPGRADES PROJECT**



**PROJECT LOCATION**



**VICINITY MAP**

TRAVEL DIRECTIONS:  
FROM THE 35 COLLEGE DR. LAKE TAHOE BASIN MANAGEMENT UNIT SUPERVISOR'S OFFICE: TRAVEL NORTHEAST ON COLLEGE AVE TOWARD AL TAHOE BLVD FOR 305 FEET. CONTINUE NORTHEAST ON JOHNSON BLVD FOR 1.0 MILES. TURN RIGHT ONTO US HIGHWAY 50 FOR 14.1 MILES. TURN LEFT ONTO HIGHWAY 28 FOR 5.3 MILES. TURN RIGHT ONTO CHIMNEY BEACH TRAIL HEAD ROAD.

39.16775° N 119.92699° W

**INDEX OF SHEETS**

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G-02	GENERAL NOTES
C-01	SITE OVERVIEW AND FEATURES
C-02	UPPER LOOP PLAN
C-03	LOWER LOOP PLAN
C-04	DECOMMISSIONING
C-05	UPPER LOOP PROFILE 0+00 - 5+00
C-06	UPPER LOOP PROFILE 5+00 - 10+15
C-07	LOWER LOOP PROFILE
C-08	STORM DRAIN PLAN AND PROFILE
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D-09	REINFORCED CONCRETE PIPE DETAILS
D-10	GATE DETAILS
D-11	UTILITY POLE/SLOPE STABILIZATION

DATE PRINTED 3/6/2023

**RECOMMENDED BY:**

**MICHAEL GABOR** Digitally signed by MICHAEL GABOR  
Date: 2023.03.20 16:04:39 -07'00'  
FOREST ENGINEER DATE

**ROSALIE HERRERA** Digitally signed by ROSALIE HERRERA  
Date: 2023.03.20  
FOREST RECREATION STAFF DATE

**APPROVED: VICKI LANKFORD** Digitally signed by VICKI LANKFORD  
Date: 2023.04.07 14:09:49 -07'00'  
FOREST SUPERVISOR DATE

**G1 SHEET 001 OF 021**

GENERAL NOTES

1. NO EARTH MOVING ACTIVITIES SHALL BE COMPLETED PRIOR TO MAY 1, OR AFTER OCTOBER 15. NO GRADING WILL BE ALLOWED IF SOILS ARE SATURATED OR IF HEAVY PRECIPITATION IS OCCURRING.
2. PUBLIC SAFETY, TRAFFIC CONTROL, AND DUST CONTROL SHALL BE PROVIDED BY CONTRACTOR IN ACCORDANCE WITH STATE AND COUNTY REQUIREMENTS. CONTRACTOR MUST ALLOW FOR PEDESTRIAN ACCESS TO NATIONAL FOREST LAND AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN DETAILING PEDESTRIAN TRAFFIC ACCESS.
3. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE C.O.R. OF ANY DISCREPANCIES ENCOUNTERED IN THE FIELD OR ERRORS IDENTIFIED IN THE CONTRACT.
4. THE CONTRACTOR SHALL KEEP DETAILED RECORDS AND AS-BUILTS SHOWING ALL MODIFICATIONS MADE TO THESE PLANS. THESE RECORDS AND AS-BUILTS SHALL BE PROVIDED TO THE C.O.R. UPON PROJECT COMPLETION FOR USE IN PREPARING RECORD DRAWINGS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKING. STAKING SHALL ADHERE TO SECTION 152 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS (FP-14). AN AUTOCAD FILE CONTAINING ALL INFORMATION REQUIRED FOR CONSTRUCTION STAKING WILL BE PROVIDED.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING MONUMENTS AND OTHER SURVEY MARKERS. ANY MARKERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
7. STAGING AREAS FOR EQUIPMENT STORAGE OR MATERIAL STOCKPILES WILL BE ALLOWED ONLY WITHIN THE LIMITS OF DISTURBANCE AND IN AREAS SHOWN ON THE PLANS AND APPROVED BY THE C.O.R.
8. ALL VEGETATION OUTSIDE OF THE AREA TO BE CLEARED FOR NECESSARY CONSTRUCTION SHALL BE PROTECTED.
9. THE CONTRACTOR IS RESPONSIBLE FOR RESTROOMS.
10. ALL IMPORTED MATERIAL MUST BE CERTIFIED WEED FREE AND COME FROM A LOCATION APPROVED BY THE C.O.R.
11. ALL EQUIPMENT WILL ARRIVE ON SITE WASHED AND FREE OF ALL VISIBLE SOIL, DEBRIS, OR ORGANIC MATTER. ALL EQUIPMENT WILL BE INSPECTED AND APPROVED BY THE C.O.R. PRIOR TO UNLOADING ON THE PROJECT SITE.
12. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND VERIFYING LOCATION OF UTILITIES. UTILITY LOCATIONS SHOWN ON DRAWINGS ARE APPROXIMATE.
13. TREES WITHIN 10 FEET OF THE PROPOSED EDGE OF PAVEMENT NOT PLANNED TO BE REMOVED WILL REQUIRE TREE PROTECTION ACCORDING TO THE DETAILS. ADDITIONAL TREES MAY BE PROTECTED AT THE DISCRETION OF THE CONTRACTOR. THE COST OF TREE PROTECTION IS INCIDENTAL TO OTHER ITEMS. TREES WOUNDED BY CONTRACTOR ACTIVITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.

CONSTRUCTION NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR MATCHING EXISTING ASPHALT, SURROUNDING LANDSCAPE AND OTHER IMPROVEMENTS WITH SMOOTH TRANSITIONS AND FOR AVOIDING ANY ABRUPT OR APPARENT CHANGES IN GRADES OR CROSS SLOPES IN CONFORMANCE WITH THESE DESIGN DRAWINGS. BACKFILL OR EXCAVATION REQUIRED FOR SUCH TRANSITIONS SHALL BE INCLUDED IN THE CONTRACTOR'S EXPENSES.
2. GRADING ACTIVITIES SHALL BE SCHEDULED TO ENSURE THAT REPEATED GRADING WILL NOT BE REQUIRED, AND IMPLEMENTATION OF THE DESIRED LAND USE (E.G. CONSTRUCTION, PAVING) WILL OCCUR AS SOON AS POSSIBLE AFTER GRADING.
3. SOIL PROPERTIES AND BEDROCK ARE VISIBLE ALONG THE CUT SLOPE OF HIGHWAY 28 DIRECTLY WEST OF THE PROPOSED PARKING LOT. DEPTH TO BEDROCK RANGES BETWEEN 19" TO 38" THROUGHOUT THE SITE.
4. ASPHALT CONCRETE (AC) SHALL BE SAWCUT WHEN MATCHING NEW AND EXISTING ASPHALT OR WHEN REMOVING EXISTING ASPHALT PATHS OR ROADWAYS.
5. ALL EXCAVATED MATERIAL SHALL BE STOCKPILED AT AN APPROVED SITE AND MATERIAL MEETING THE SPECIFICATIONS MAY BE USED AS BACKFILL. IT IS ANTICIPATED THAT ALL EXCAVATED MATERIAL FREE OF DEBRIS AND ORGANICS WILL BE USED ON THE PROJECT SITE. ALL EXCAVATED MATERIAL NOT USED AS SUBGRADE, OR NOT SUITABLE AS BACKFILL WILL BE PLACED ON-SITE IN LOCATIONS APPROVED BY THE C.O.R. AT THE CONTRACTOR'S EXPENSE. NO MATERIAL WILL BE HAULED OFF SITE.
6. A PRE-PAVEMENT INSPECTION SHALL BE CONDUCTED BY THE C.O.R. A MINIMUM OF 2 DAYS PRIOR TO PLACING PAVEMENT. GRADES AND ELEVATIONS WILL BE CHECKED FOR COMPLIANCE WITH THE PLANS. IT IS THE CONTRACTORS RESPONSIBILITY TO ASSURE ELEVATIONS AND GRADES MEET THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS.
7. ALL PAVEMENT MARKINGS SHALL CONFORM TO FP-14 SECTION 634 AND THE MUTCD.

DEMOLITION NOTES

1. THE PAY ITEM FOR TREE REMOVAL INCLUDES REMOVAL OF TREES WITH A D.B.H. GREATER THAN 6", REMOVAL OF OTHER TREES AND VEGETATION LESS THAN 6" WILL BE INCLUDED IN THE PAY ITEM FOR CLEARING AND GRUBBING. ALL STUMPS AND ROOTS WITHIN THE LIMITS OF THE ROAD AND PARKING LOT PRISM SHALL BE REMOVED UNLESS THERE IS A UTILITY CONFLICT. BOTH PAY ITEMS INCLUDE REMOVING ALL SLASH (STUMPS, LIMBS, TOPS, ETC.) AND DISPOSING LEGALLY OFF-SITE, UNLESS IT IS CHIPPED AND USED AS MULCH ON-SITE.
2. ALL TREES TO BE REMOVED WILL BE MARKED BY THE GOVERNMENT AND THE CONTRACTOR WILL OBTAIN A FOREST SERVICE PERMIT TO PURCHASE THE TREES PRIOR TO REMOVAL FROM THE SITE BY THE CONTRACTOR.
3. IN AREAS OF DECOMPACTION, REMOVE ANY EXISTING OBSTRUCTIONS, DE-COMPACT TO A MINIMUM DEPTH OF 6"-12". RE-CONTOUR TO MATCH EXISTING GRADE. COVER WITH 2" WOOD MULCH.
4. ALL TREE ROOTS ENCOUNTERED WITHIN NEW PAVEMENT FOOTPRINT WILL BE REMOVED. ROOTS OF LIVE TREES GREATER THAN 3" IN DIAMETER SHALL BE CUT CLEANLY USING APPROPRIATE STERILIZED ROOT PRUNING EQUIPMENT. CUT ROOTS OF LIVE TREES SHALL NOT BE LEFT EXPOSED AND SHALL BE COVERED WITH SOIL AS SOON AS POSSIBLE.
5. INSTALL CONSTRUCTION FENCING ALONG ALL CONSTRUCTION BOUNDARIES THAT INTERFACE WITH PUBLIC TRAFFIC. COST FOR FENCING IS INCIDENTAL TO OTHER PAY ITEMS.



United States Department of Agriculture  
Forest Service

**R05**  
PACIFIC SOUTHWEST REGION

PROJECT NAME

**CHIMNEY BEACH  
TRAIL HEAD PARKING  
LOT UPGRADES  
PROJECT**

**LAKE TAHOE BASIN  
MANAGEMENT UNIT**

DRAWING TITLE

**GENERAL NOTES**

DATE

**3/6/2023**

ARCHIVE NO.

**CHIMNEY COVER.dwg**

DESIGNER

**MTA**

DRAWN

**MTA**

CHECKED

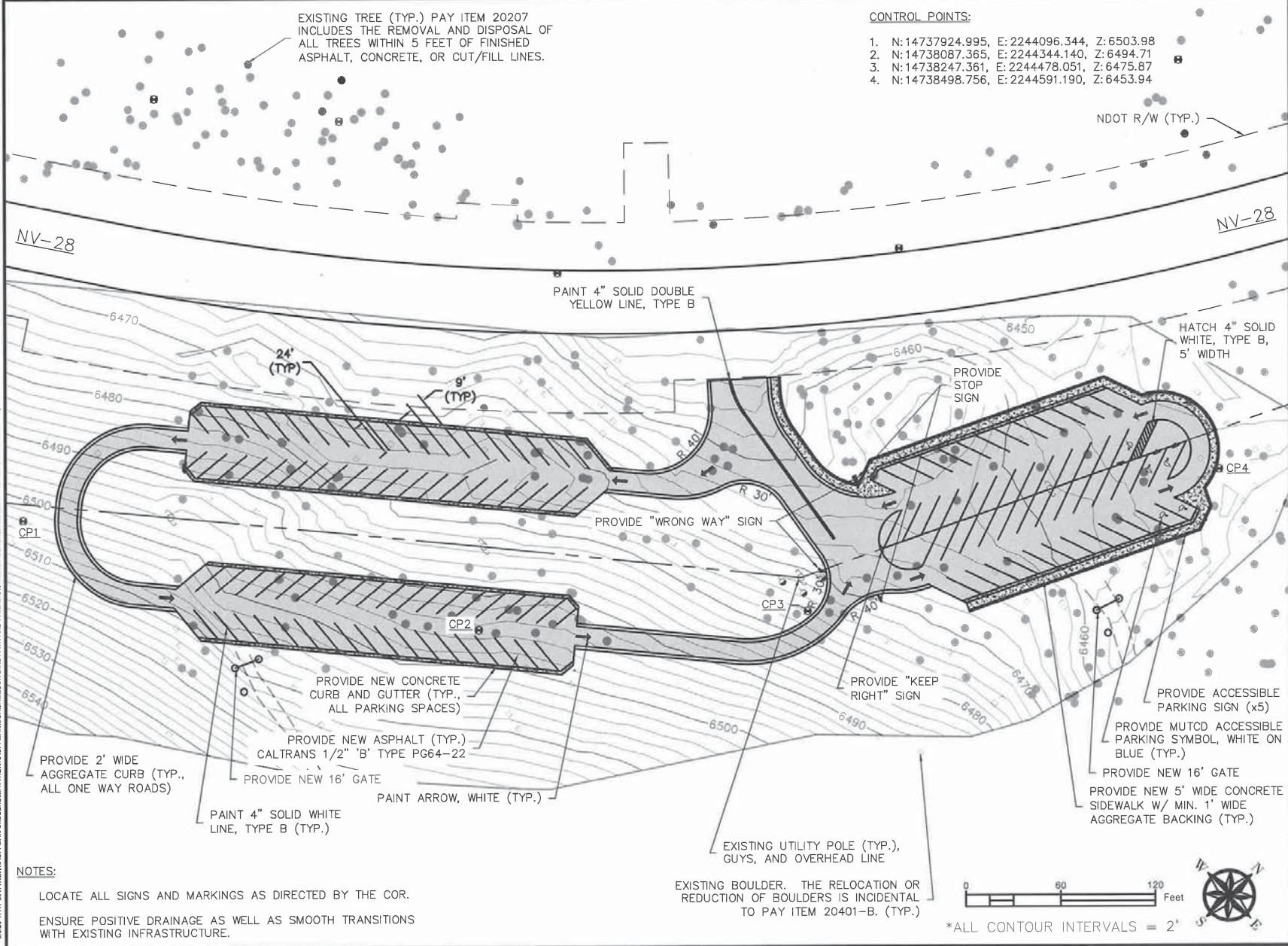
**MG**

PROJECT NO.

DWG SHEET NO.

**G-02**

SHEET **002** OF **021**



EXISTING TREE (TYP.) PAY ITEM 2027 INCLUDES THE REMOVAL AND DISPOSAL OF ALL TREES WITHIN 5 FEET OF FINISHED ASPHALT, CONCRETE, OR CUT/FILL LINES.

**CONTROL POINTS:**

1. N:14737924.995, E:2244096.344, Z:6503.98
2. N:14738087.365, E:2244344.140, Z:6494.71
3. N:14738247.361, E:2244478.051, Z:6475.87
4. N:14738498.756, E:2244591.190, Z:6453.94



United States Department of Agriculture  
Forest Service

**R05**  
PACIFIC SOUTHWEST

PROJECT NAME

**CHIMNEY BEACH  
PARKING**

**LAKE TAHOE BASIN  
MANAGEMENT UNIT**

DRAWING TITLE

**SITE OVERVIEW  
AND FEATURES**

DATE  
**02/2023**

ARCHIVE NO.

DESIGNER  
**MSK**

DRAWN  
**MSK**

CHECKED  
**MTA**

PROJECT NO.

DWG SHEET NO.

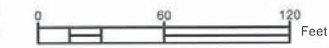
**C-01**

SHEET 03 OF 21

**NOTES:**

LOCATE ALL SIGNS AND MARKINGS AS DIRECTED BY THE COR.  
ENSURE POSITIVE DRAINAGE AS WELL AS SMOOTH TRANSITIONS WITH EXISTING INFRASTRUCTURE.

EXISTING UTILITY POLE (TYP.), GUYS, AND OVERHEAD LINE  
EXISTING BOULDER. THE RELOCATION OR REDUCTION OF BOULDERS IS INCIDENTAL TO PAY ITEM 20401-B. (TYP.)



\*ALL CONTOUR INTERVALS = 2'

3923 T1-17 MATTHEWKAUFFMAN;C:\USERS\MATTHEWKAUFFMAN\BICYCLE PATH AND PARKING\CHIMNEY BEACH\CHIMNEY BEACH RECOVER 24.15.DWG.

NV-28



United States Department of Agriculture  
Forest Service

R05  
PACIFIC SOUTHWEST

PROJECT NAME

CHIMNEY BEACH  
PARKING

LAKE TAHOE BASIN  
MANAGEMENT UNIT

DRAWING TITLE

UPPER LOOP  
PLAN

DATE  
02/2023

ARCHIVE NO.

DESIGNER  
MSK

DRAWN  
MSK

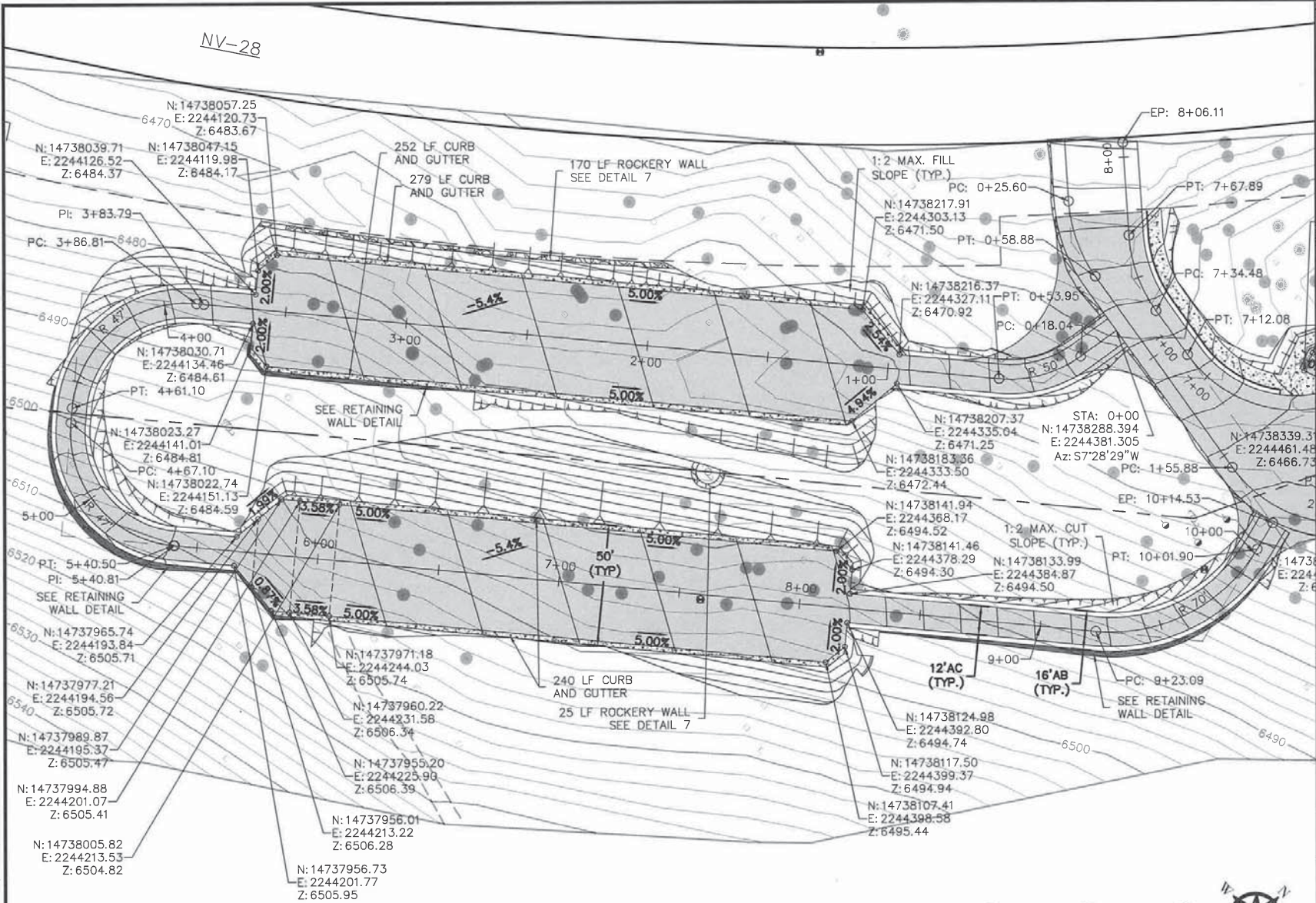
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PROJECT NO.

DWG SHEET NO.

C-02

SHEET 04 OF 21



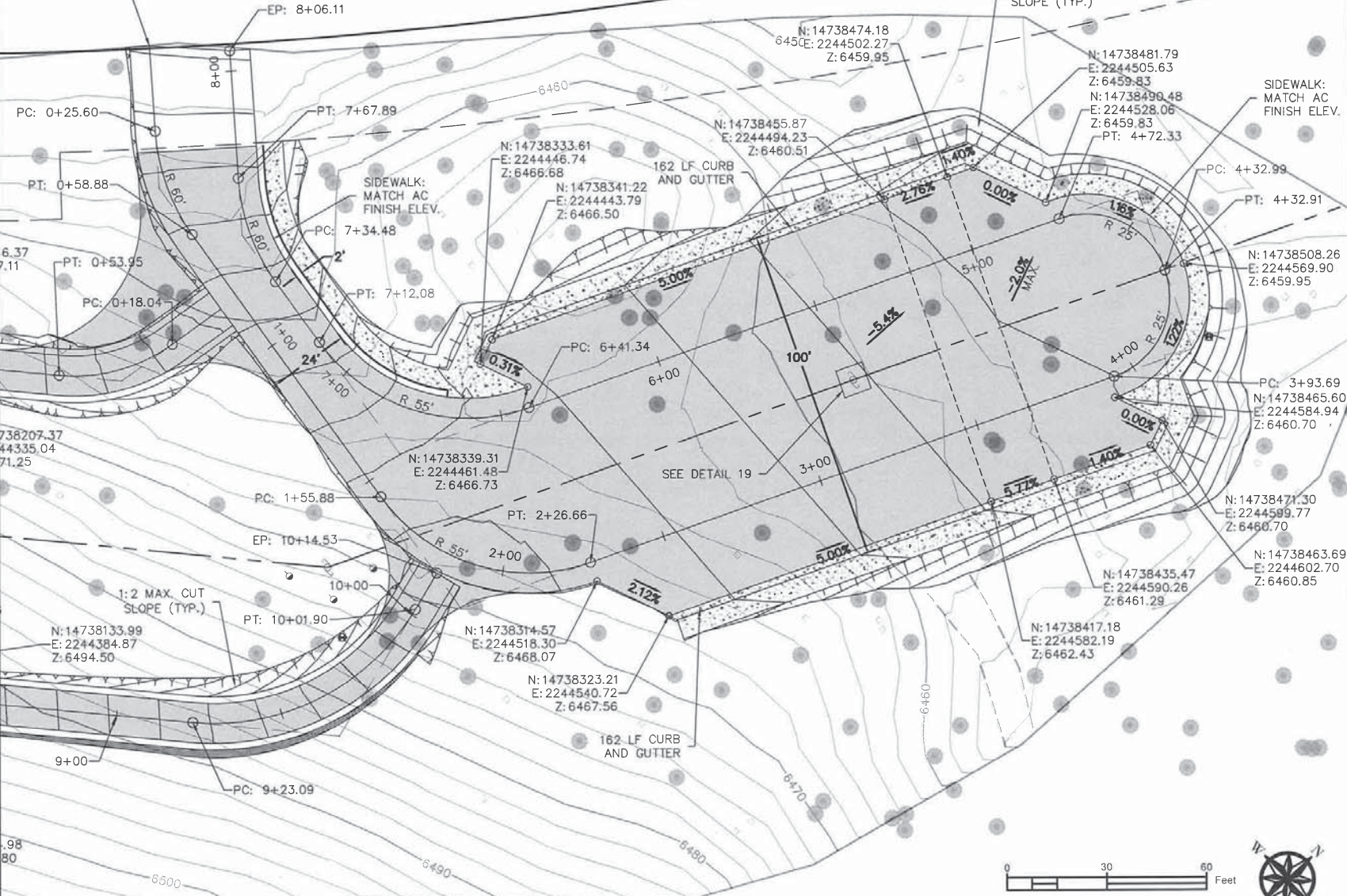
\*ALL CONTOUR INTERVALS = 2'

NOTE: ALL GIVEN ELEVATIONS ARE FINISHED GRADE.

3/23 11:17 MATTHEWKAUFFMAN CAUSERSMATTHEWKAUFFMAN@BIODOMAINS.BIKE PATH AND PARKING CHIMNEY BEACH RECOVER 25.DWG

STA: 0+00  
 N: 14738326.678  
 E: 2244309.157  
 Az: S50°41'13"E

NV-28



United States Department of Agriculture  
 Forest Service

**R05**  
 PACIFIC SOUTHWEST

PROJECT NAME

**CHIMNEY BEACH  
 PARKING**

**LAKE TAHOE BASIN  
 MANAGEMENT UNIT**

DRAWING TITLE

**LOWER LOOP  
 PLAN**

DATE  
**02/2023**

ARCHIVE NO.

DESIGNER

**MSK**

DRAWN

**MSK**

CHECKED

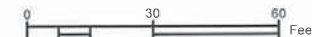
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PROJECT NO.

DWG SHEET NO.

**C-03**

SHEET 05 OF 21

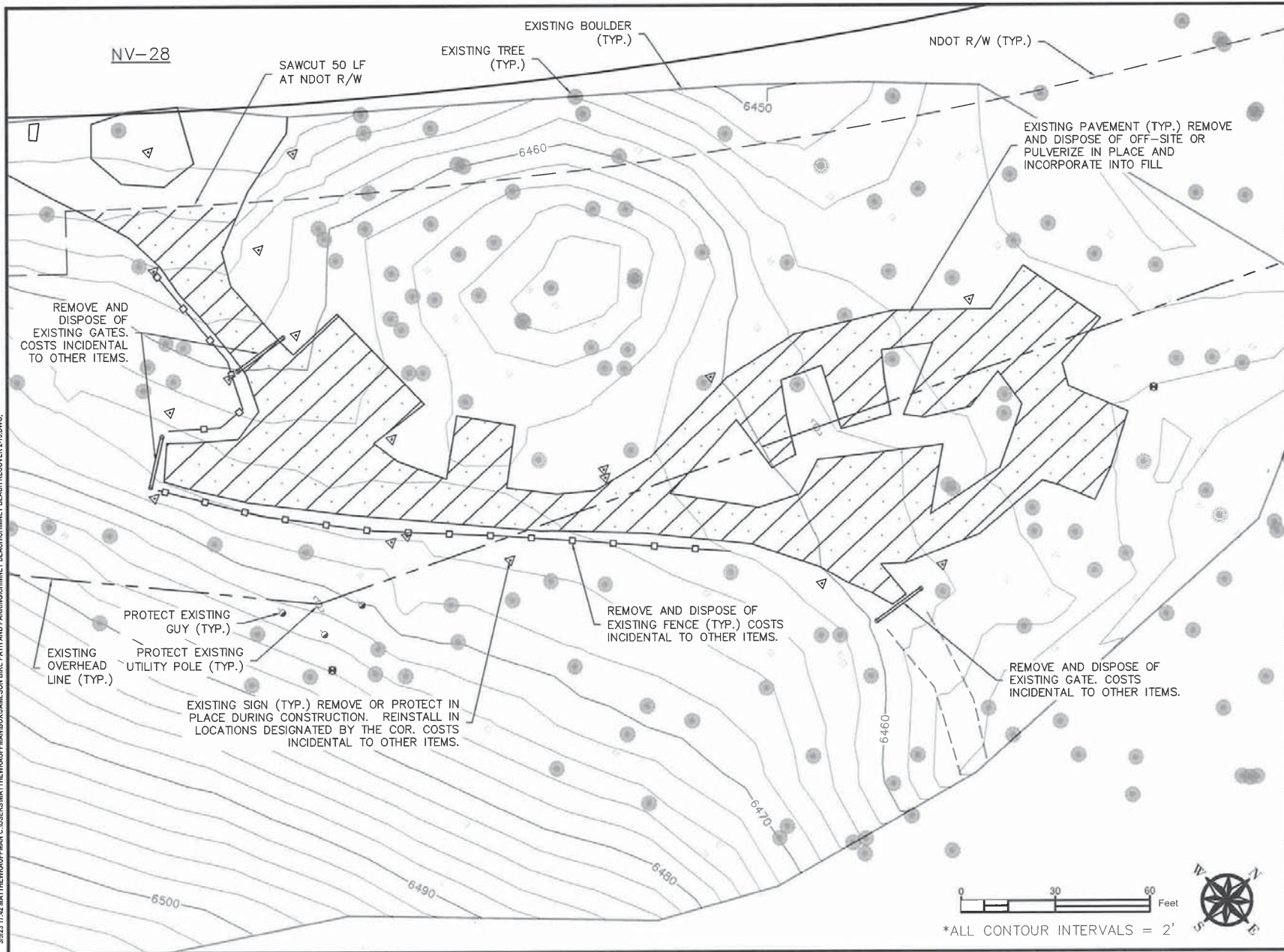


\*ALL CONTOUR INTERVALS = 2'

NOTE: ALL GIVEN ELEVATIONS ARE FINISHED GRADE.

3923 11/17 MATTHEWKAUFFMAN CAUSERS/MATTHEWKAUFFMAN/BIKE PATH AND PARKING/CHIMNEY BEACH/RECOVER 24/S.DWG.

3/23/23 17:42 MATTHEWKAUFMAN, CAUSERS/MATTHEWKAUFMAN@BOXCAMERSON BIKI PATH AND PARKING/CHIMNEY BEACH/CHIMNEY BEACH/CHIMNEY BEACH RECOVER 2:15.DWG



United States Department of Agriculture  
Forest Service

**R05**  
PACIFIC SOUTHWEST

PROJECT NAME

**CHIMNEY BEACH  
PARKING**

**LAKE TAHOE BASIN  
MANAGEMENT UNIT**

DRAWING TITLE

**DECOMMISSIONING**

DATE

**02/2023**

ARCHIVE NO.

DESIGNER

**MSK**

DRAWN

**MSK**

CHECKED

**MTA**

PROJECT NO.

DWG SHEET NO.

**C-04**

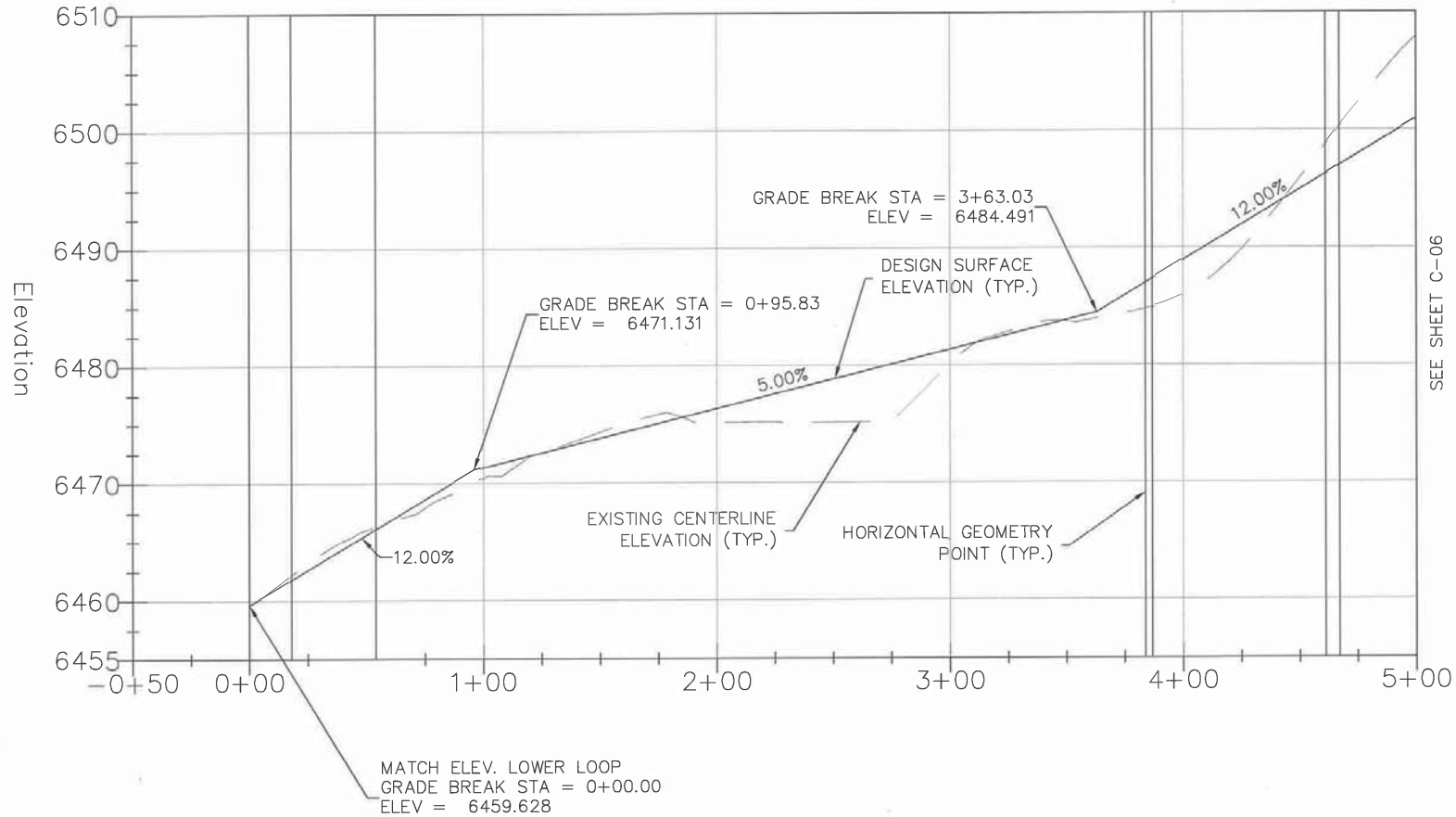
SHEET 06 OF 21



\*ALL CONTOUR INTERVALS = 2'



3823 1117 MATTHEWKAUFFMAN CAUSERS/MATTHEWKAUFFMAN/BOJAMESON BIKE PATH AND PARKING/CHIMNEY BEACH/CHIMNEY BEACH RECOVER 2-15.DWG



SEE SHEET C-06



United States Department of Agriculture  
Forest Service

**R05**  
PACIFIC SOUTHWEST

PROJECT NAME

**CHIMNEY BEACH  
PARKING**

**LAKE TAHOE BASIN  
MANAGEMENT UNIT**

DRAWING TITLE

**UPPER LOOP  
PROFILE  
0+00 - 5+00**

DATE  
**02/2023**

ARCHIVE NO.

DESIGNER

**MSK**

DRAWN

**MSK**

CHECKED

**MTA**

PROJECT NO.

DWG SHEET NO.

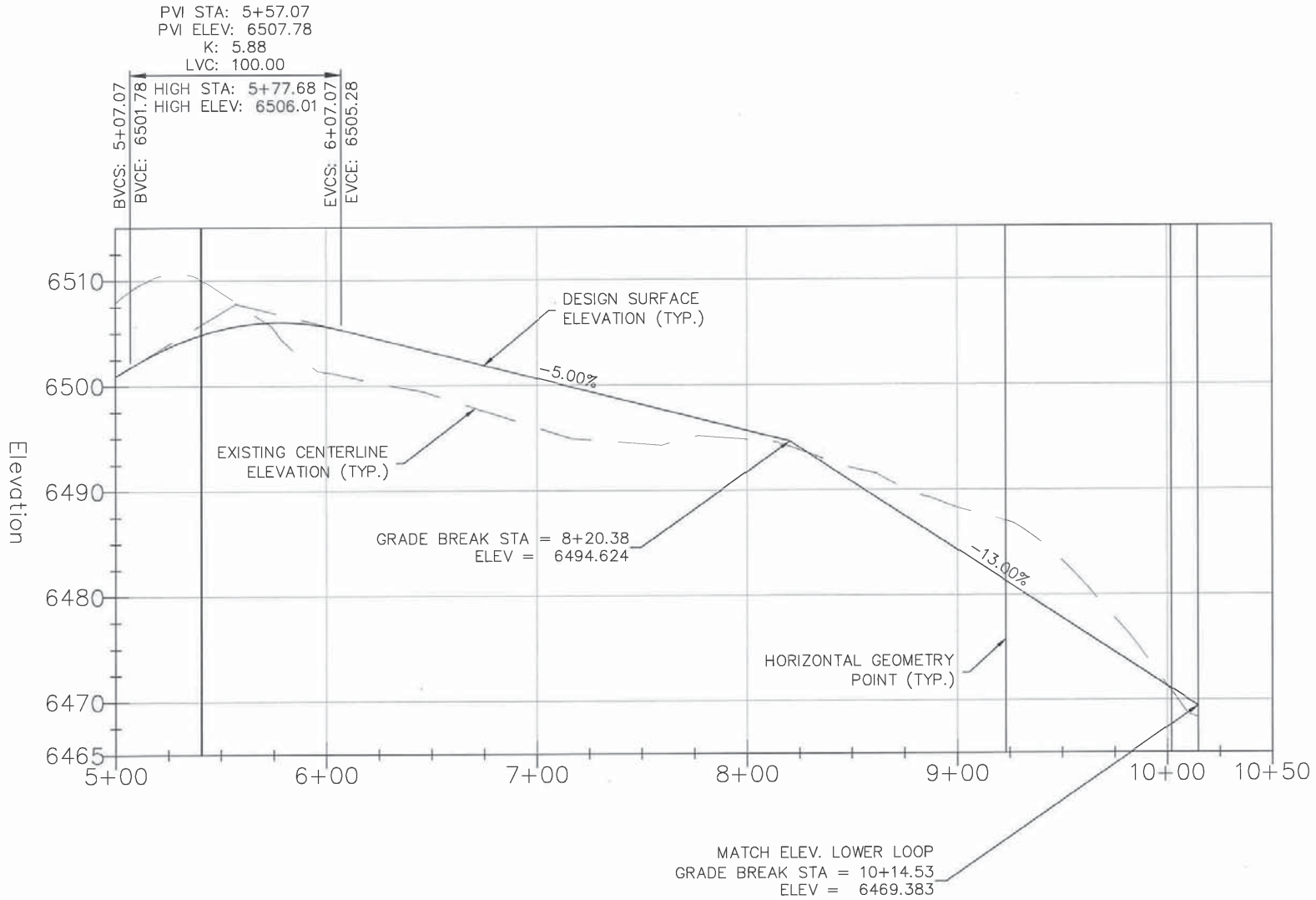
**C-05**

SHEET 07 OF 21

\*VERTICAL EXAGGERATION = 5

3923 T117 MATTHEWKAUFFMAN CAUSERSMATTHEWKAUFFMANBOLAMESON BIKE PATH AND PARKINGCHIMNEY BEACH RECOVER 2x15.DWG.

SEE SHEET C-05



\*VERTICAL EXAGGERATION = 5



United States Department of Agriculture  
Forest Service

**R05**  
**PACIFIC SOUTHWEST**

PROJECT NAME

**CHIMNEY BEACH  
PARKING**

**LAKE TAHOE BASIN  
MANAGEMENT UNIT**

DRAWING TITLE

**UPPER LOOP  
PROFILE  
5+00 - 10+15**

DATE  
**02/2023**

ARCHIVE NO.

DESIGNER

**MSK**

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**MSK**

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**MTA**

PROJECT NO.

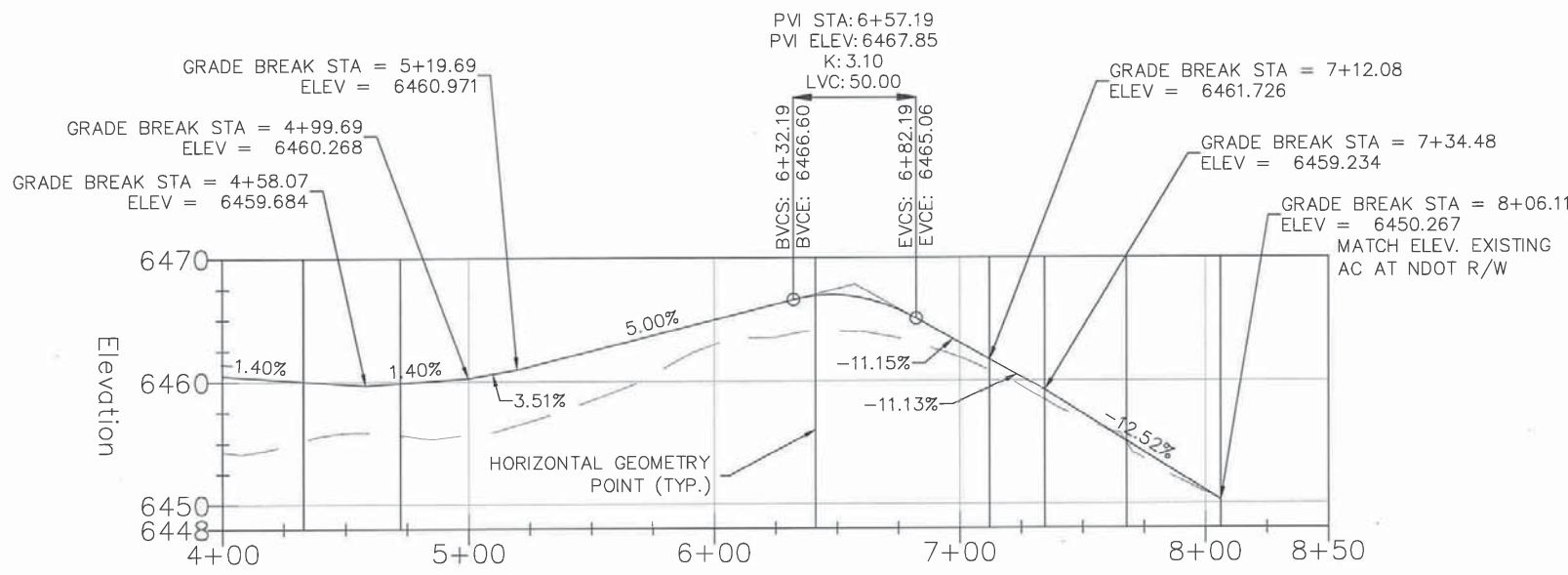
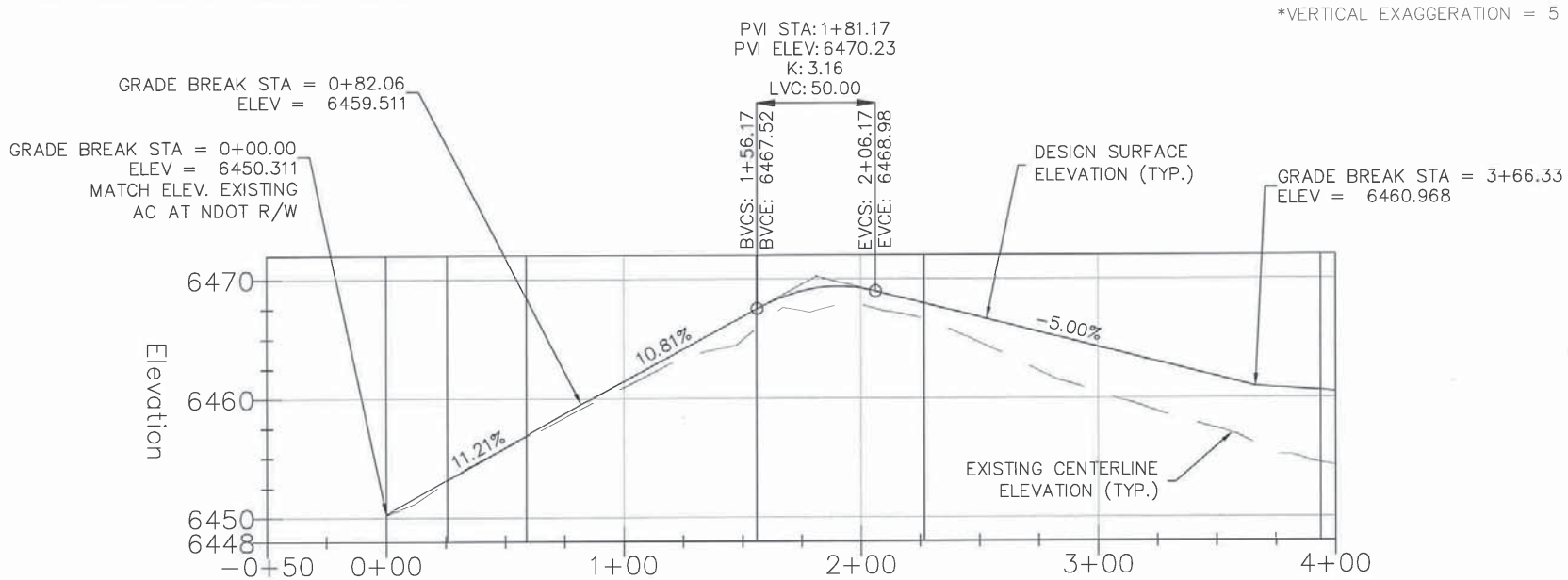
DWG SHEET NO.

**C-06**

SHEET 08 OF 21



3/22 11:17 MATTHEW KAUFFMAN CAUSERS/MATTHEW KAUFFMAN/BOULDER BIKE PATH AND PARKING/CHIMNEY BEACH/RECOVER 2415.DWG



\*VERTICAL EXAGGERATION = 5



United States Department of Agriculture  
Forest Service

**R05**  
PACIFIC SOUTHWEST

PROJECT NAME

**CHIMNEY BEACH  
PARKING**

**LAKE TAHOE BASIN  
MANAGEMENT UNIT**

DRAWING TITLE

**LOWER LOOP  
PROFILE**

DATE

**02/2023**

ARCHIVE NO.

DESIGNER

**MSK**

DWG SHEET NO.

**C-07**

DRAWN

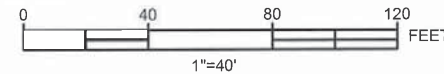
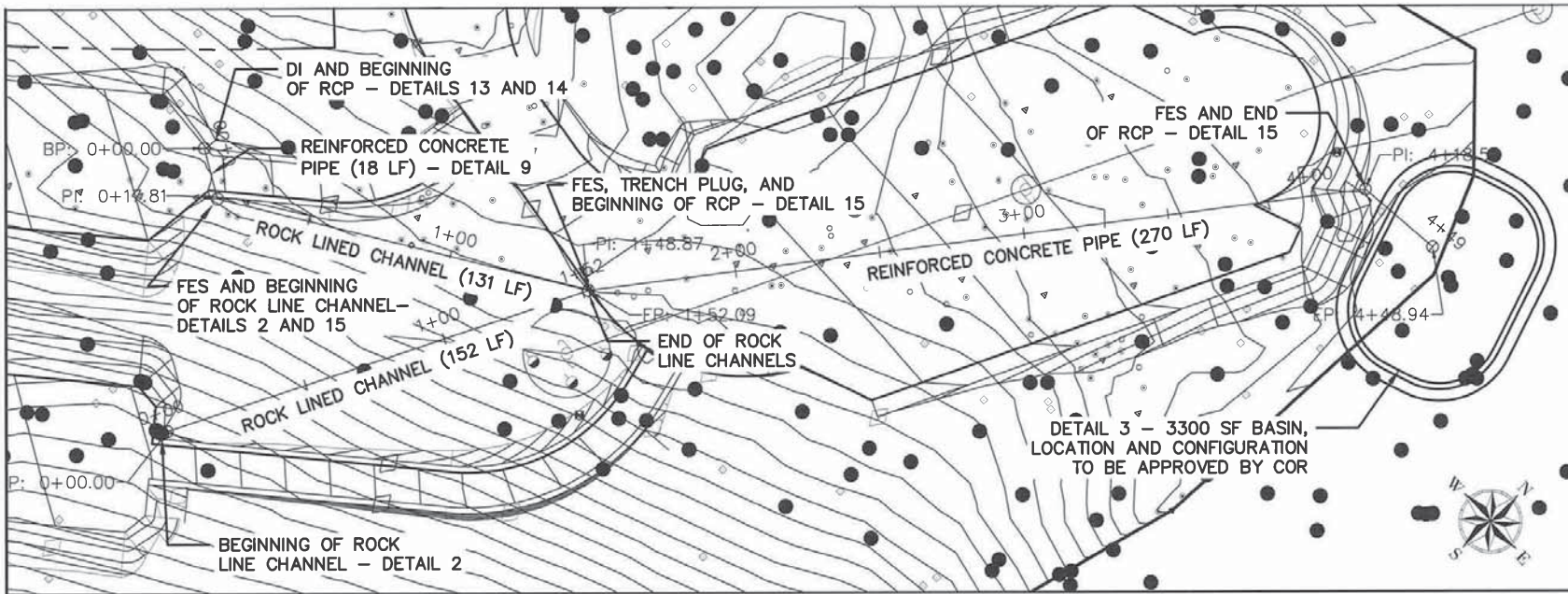
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**MTA**

PROJECT NO.

SHEET **09** OF **21**



United States Department of Agriculture  
Forest Service

**R05**  
PACIFIC SOUTHWEST REGION

PROJECT NAME  
**CHIMNEY BEACH TRAIL HEAD PARKING LOT UPGRADES PROJECT**  
LAKE TAHOE BASIN MANAGEMENT UNIT

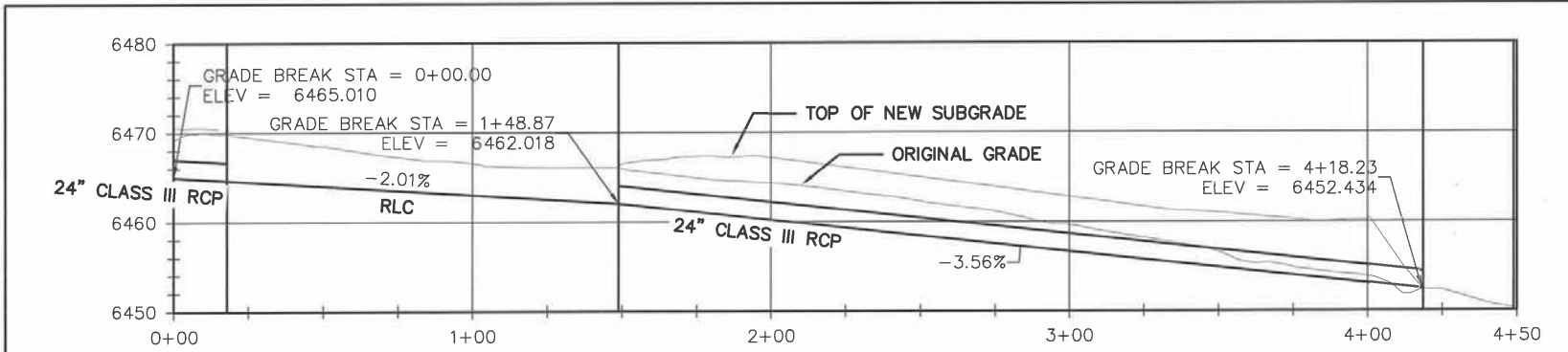
DRAWING TITLE  
**STORM DRAIN PLAN AND PROFILE**

DATE  
**2/28/2022**

ARCHIVE NO.  
**CHIMNEY BEACH PLANS.dwg**

DESIGNER <b>MTA</b>	DWG SHEET NO. <b>C-08</b>
DRAWN <b>MTA</b>	

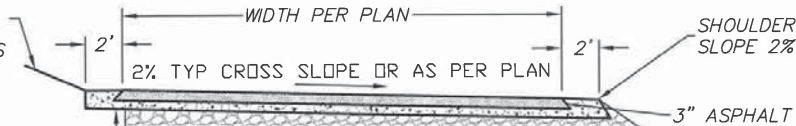
CHECKED <b>MG</b>	SHEET 10 OF 21
PROJECT NO.	



CUT SLOPE AT 1V:2H OR AS PER SLOPE RETAINING DETAILS

PLACE AND COMPACT 7" AGGREGATE BASE ALONG SHOULDER AND 4" BENEATH ASPHALT TO 95% MAX. DD.

EMBANKMENT CONSTRUCTION AS PER SECTION 204, COMPACT EMBANKMENT TO 95% MAX DD. CUT 10' WIDE TERRACES INTO EXISTING SLOPE AS FILL PLACEMENT PROGRESSES. SELECT BORROW AS PER 704.07

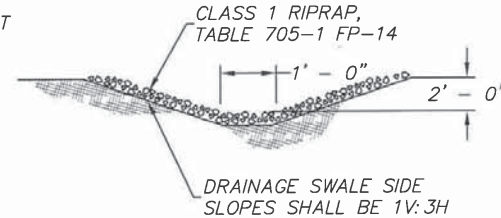


CLEAR AND GRUB STUMPS, ROOTS AND ORGANIC MATERIAL BENEATH FILL AS PER SECTION 201. PREPARE FOR EMBANKMENT CONSTRUCTION AS PER SECTION 204.09, RECOMPACT TO A DEPTH OF 6"

FILL SLOPE 1V:2H DAYLIGHT TO MATCH EXISTING GRADE.

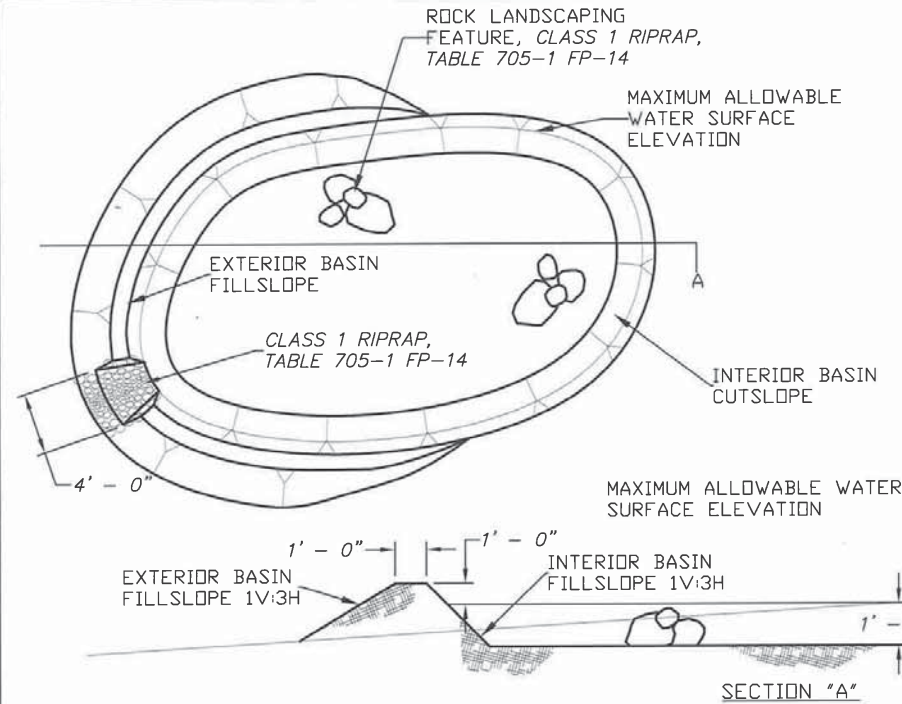
**GRADING NOTES:**

1. PAY ITEM 20401-A INCLUDES CUT AND PLACEMENT OF EARTH
2. PAY ITEM 20401-B INCLUDES CUT AND PLACEMENT OF ROCK.
3. PAY ITEM 20415 INCLUDES IMPORT AND PLACEMENT OF SELECT BORROW EMBANKMENT 704.07..
4. GRANITIC BEDROCK WAS ENCOUNTERED BETWEEN 19" AND 38" BELOW THE GROUND SURFACE THROUGHOUT THE UPPER PARKING LOT.



**1 ROAD AND PARKING SECTION**

**2 ROCK LINED CHANNEL**



**BASIN NOTES:**

1. WATER SURFACE ELEVATION SHALL BE AT LEAST 12" BELOW SURROUNDING ORIGINAL GROUND SURFACE.
2. BERM FILL SHALL BE FREE OF ORGANIC MATERIAL AND BE COMPACTED TO 90% MAXIMUM DRY DENSITY, PLACE PINE NEEDLE MULCH ON ALL DISTURBED SOIL.
3. BASIN SHALL BE CONSTRUCTED TO DIMENSIONS SHOWN ON PLANS, AND CONTRACTOR SHALL PROVIDE DRAINAGE FROM IMPERVIOUS SURFACES TO BASINS.
4. COST OF SWALE CONSTRUCTION IS INCIDENTAL AND INCLUDED IN COST OF BASIN CONSTRUCTION
5. BOTTOM OF BASINS SHALL BE CONSTRUCTED FLAT SUCH THAT 12" OF WATER IS STORED OVER THE ENTIRE BASE AREA BEFORE OVERFLOWING.
6. WEIR ARMOR SHALL BE 3" ANGULAR ROCK PLACED TO PROVIDE 12" OF IMPOUNDED WATER WITH 12" OF FREEBOARD BELOW BERMS
7. ROCK LANDSCAPING FEATURE SHALL BE A BLEND OF 2' AND 3' DIAMETER ANGULAR BOULDERS, TWO FEATURES PER BASIN AS DIRECTED BY FOREST SERVICE.
8. LOCATION OF SWALES AND BASIN SHALL BE CONFIRMED BY THE COR AND CONSTRUCTED OUTSIDE OF THE DRIP EDGE OF TREES.

**3 INFILTRATION BASIN**



United States Department of Agriculture  
Forest Service

**R05**  
PACIFIC SOUTHWEST REGION

PROJECT NAME

**CHIMNEY BEACH TRAIL HEAD PARKING LOT UPGRADES PROJECT**

**LAKE TAHOE BASIN MANAGEMENT UNIT**

DRAWING TITLE

**ROAD AND BASIN DETAILS**

DATE

6/3/2023

ARCHIVE NO.

CHIMNEY details.dwg

DESIGNER

MTA

DWG SHEET NO.

**D-1**

DRAWN

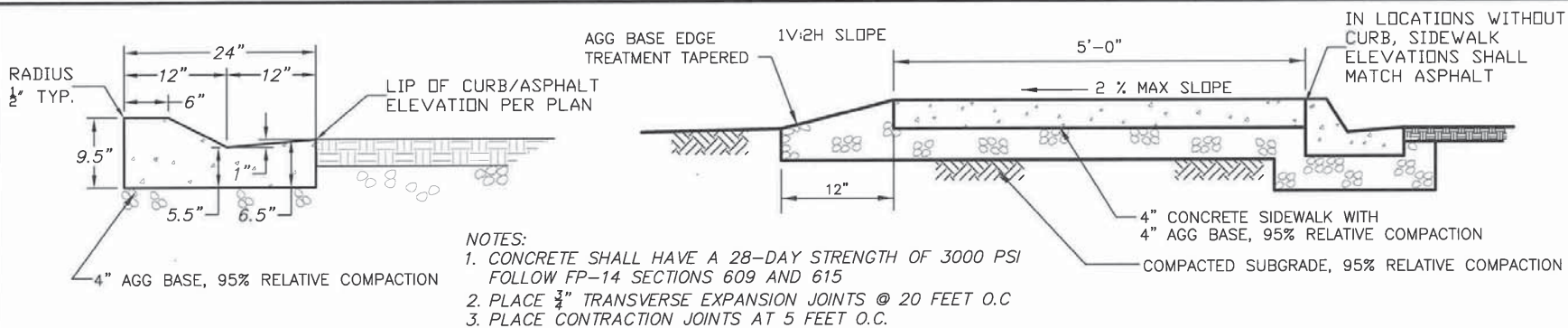
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CHECKED

MG

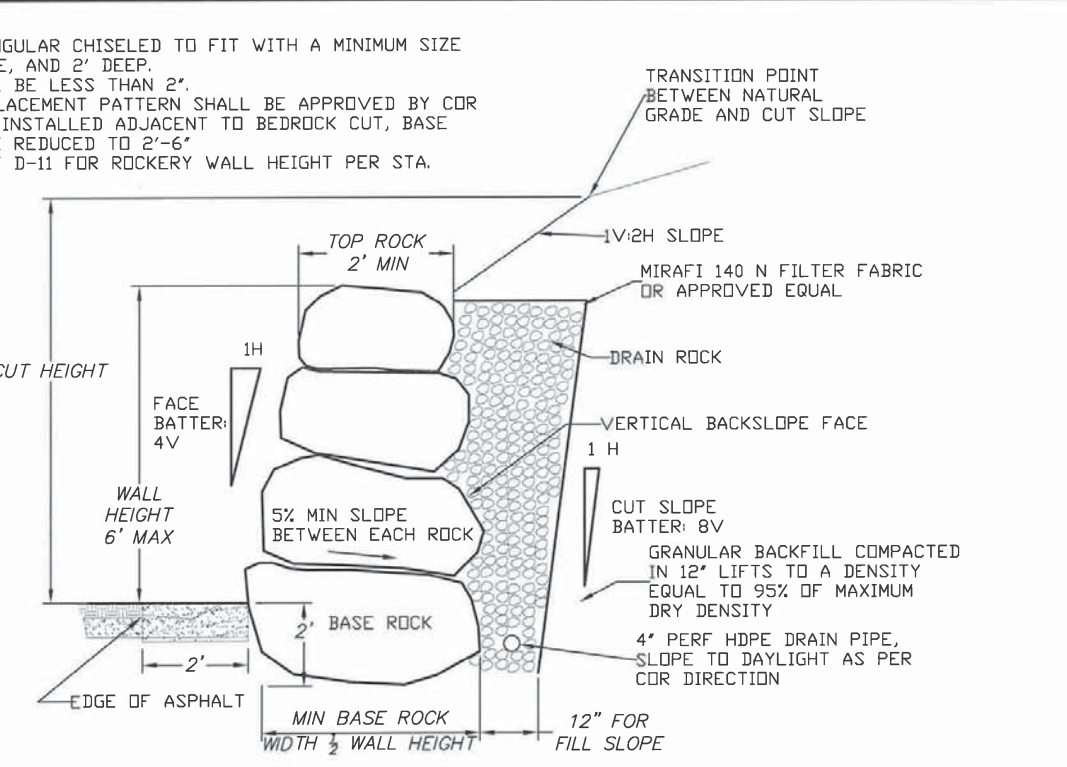
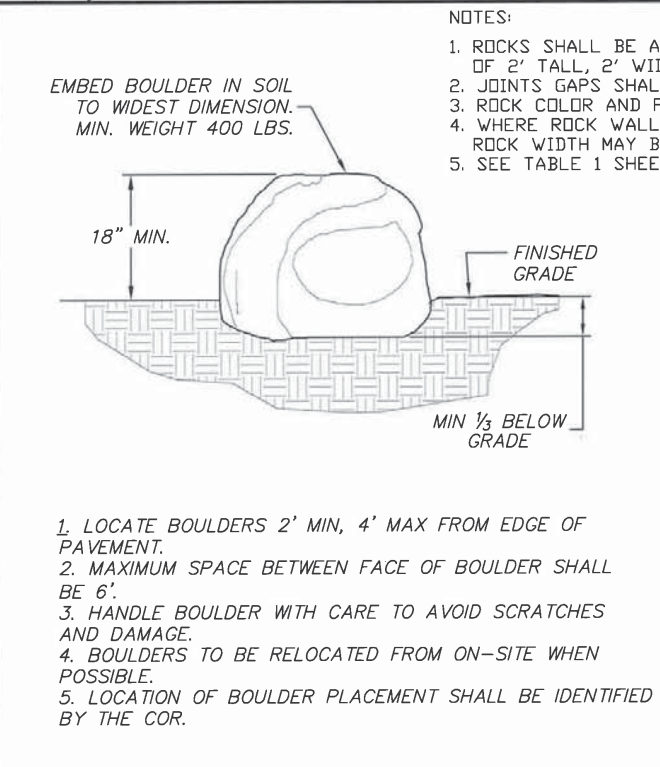
PROJECT NO.

SHEET 11 OF 21



**4 CONCRETE CURB AND GUTTER**

**5 CONCRETE SIDEWALK**



**6 BOULDER INSTALLATION**

**7 ROCKERY WALL**



United States Department of Agriculture  
Forest Service

**R05**  
PACIFIC SOUTHWEST REGION

PROJECT NAME

**CHIMNEY BEACH TRAIL HEAD PARKING LOT UPGRADES PROJECT**

**LAKE TAHOE BASIN MANAGEMENT UNIT**

DRAWING TITLE

**SIDEWALK AND ROCKERY DETAILS**

DATE

**6/3/2023**

ARCHIVE NO.

**CHIMNEY details.dwg**

DESIGNER

**MTA**

DWG SHEET NO.

**D-2**

DRAWN

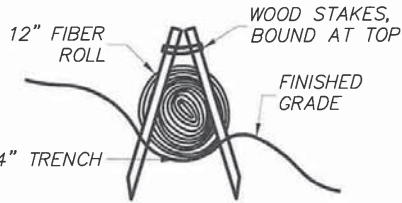
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PROJECT NO.

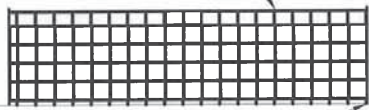
SHEET **12** OF **21**



NOTE: ALIGN FILTER ROLL ALONG CONTOURS

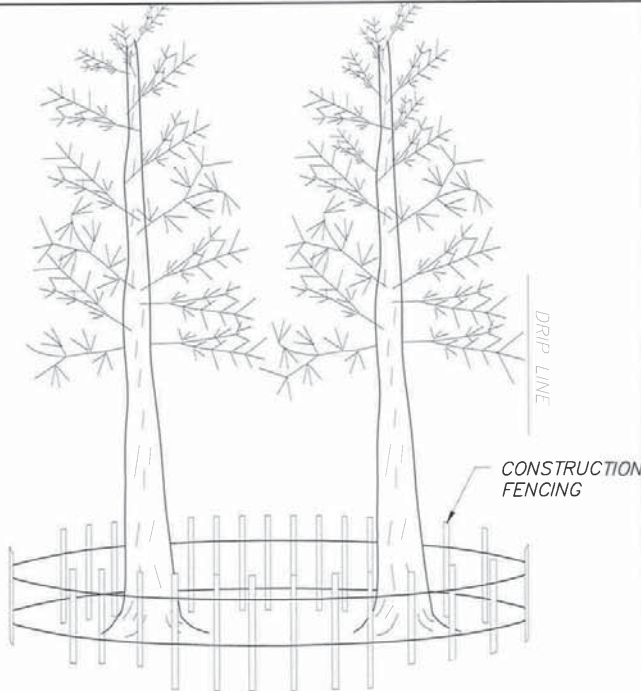
**8 FIBER ROLL INSTALLATION**

NTS  
SYNTHETIC CONSTRUCTION FENCING 48" TALL

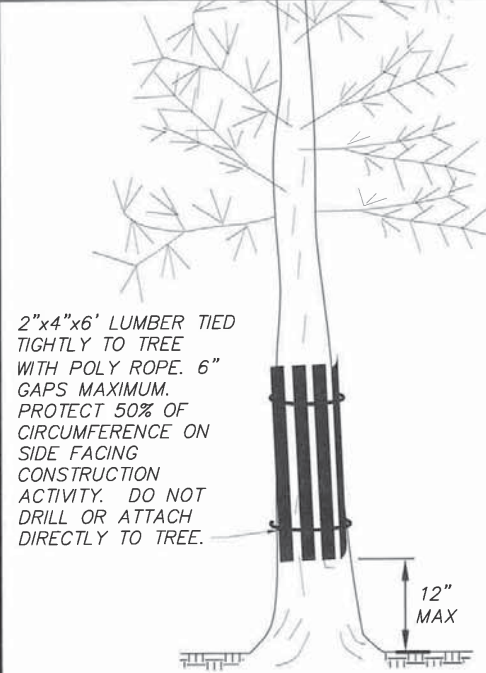


48" TALL METAL FENCE POSTS AT 10' O.C..

**9 CONSTRUCTION FENCING**



**10 TREE PROTECTION FENCING**



2"x4"x6' LUMBER TIED TIGHTLY TO TREE WITH POLY ROPE. 6" GAPS MAXIMUM. PROTECT 50% OF CIRCUMFERENCE ON SIDE FACING CONSTRUCTION ACTIVITY. DO NOT DRILL OR ATTACH DIRECTLY TO TREE.

**11 TREE PROTECTION**

1. THE COST OF ALL BMPS ARE INCIDENTAL TO OTHER ITEMS.
2. GRADING ACTIVITIES MAY ONLY OCCUR FROM MAY 1 TO OCTOBER 15.
3. TEMPORARY EROSION CONTROL MEASURES AND DETAILS AS SHOWN ON THIS PLAN ARE SUGGESTED MINIMUM METHODS OF CONTROLLING EROSION DURING CONSTRUCTION. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL MEASURES AS DICTATED BY FIELD CONDITIONS TO CONTROL EROSION AND SEDIMENTATION.
4. ALL TEMPORARY EROSION CONTROL FEATURES SHALL BE INSPECTED DAILY AND PRIOR TO INCLEMENT WEATHER; CORRECTIVE ACTION WILL BE TAKEN AS NECESSARY TO INSURE PROPER FUNCTION.
5. THE AREAS OF SOIL AND VEGETATION DISTURBANCE SHALL BE LIMITED TO THAT REQUIRED FOR CONSTRUCTION PURPOSES. EXCEPT WHERE REQUIRED FOR ACCESS, THERE SHALL BE NO DISTURBANCE IN AREAS TO BE LEFT IN A NATURAL STATE. CONSTRUCTION TRAFFIC SHALL BE LIMITED TO AREAS TO BECOME PERMANENT CIRCULATION (E.G., ROADWAYS AND PARKING AREAS, ETC.) OR OTHER DESIGNATED ROUTES APPROVED BY THE COR.
6. FIBER ROLLS SHALL BE PLACED ALONG THE DOWNSLOPE EDGE OF STAGING AREAS TO PREVENT CONTAMINATED RUNOFF.
7. STOCKPILES SHALL BE LOCATED IN ALREADY DISTURBED AND FLAT AREAS, AND SHALL BE SURROUNDED WITH FIBER ROLLS. IF A STOCKPILE IS INACTIVE FOR 14 DAYS, IT SHALL BE STABILIZED WITH HYDRAULIC MULCH OR PLASTIC.

8. REMOVAL OF NATIVE VEGETATION SHALL BE AVOIDED. CONTRACTOR WILL PLACE WOOD OR PINE NEEDLE MULCH 2"-4" THICK IN DISTURBED AREAS DESIGNATED BY THE COR. ALL DISTURBED AREAS SHALL BE MULCHED. ALL MATERIAL TO BE CHIPPED WILL BE OBTAINED FROM SLASH ONSITE. CONTRACTOR SHALL MAINTAIN ADEQUATE DUST CONTROL PER STANDARD SPECIFICATIONS AND ATTACHED SWPPP (PAYMENT FOR WATERING IS INCIDENTAL TO CONTRACT). MEASURES SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
  - A. CONSTRUCT MAJOR DUST-GENERATING ACTIVITIES WHEN WIND VELOCITIES ARE LOW.
  - B. SPRINKLE WORK AREAS, CONSTRUCTION EQUIPMENT TRAVEL ROUTES, AND EQUIPMENT TO CONTROL DUST.
  - C. RESTRICT ALL TRUCKS AND VEHICLES WITHIN CONSTRUCTION SITE TO A MAX. SPEED OF 15 MPH.
  - D. WATER APPLICATION RATES SHALL BE MINIMIZED AS NECESSARY TO PREVENT RUNOFF AND PONDING.
10. SPILL KITS WITH ABSORBENT PADS SHALL BE ON SITE AT ALL TIMES IN PREPARATION OF EQUIPMENT LEAKS. ALL VEHICLE MAINTENANCE SHALL TAKE PLACE AT LEAST 100 FEET FROM SURFACE WATER AND ON A LEVEL AREA.



United States Department of Agriculture  
Forest Service

**R05**  
PACIFIC SOUTHWEST REGION

PROJECT NAME

**CHIMNEY BEACH TRAIL HEAD PARKING LOT UPGRADES PROJECT**

**LAKE TAHOE BASIN MANAGEMENT UNIT**

DRAWING TITLE

**EROSION CONTROL DETAILS**

DATE

6/3/2023

ARCHIVE NO.

CHIMNEY details.dwg

DESIGNER

MTA

DWG SHEET NO.

**D-3**

DRAWN

MTA

CHECKED

MG

PROJECT NO.

SHEET 13 OF 21

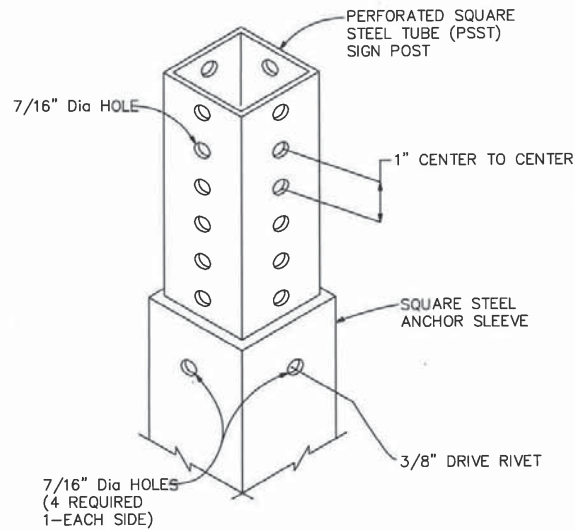
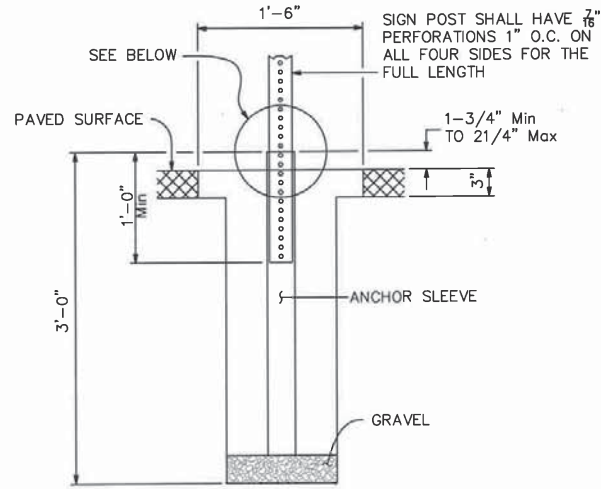
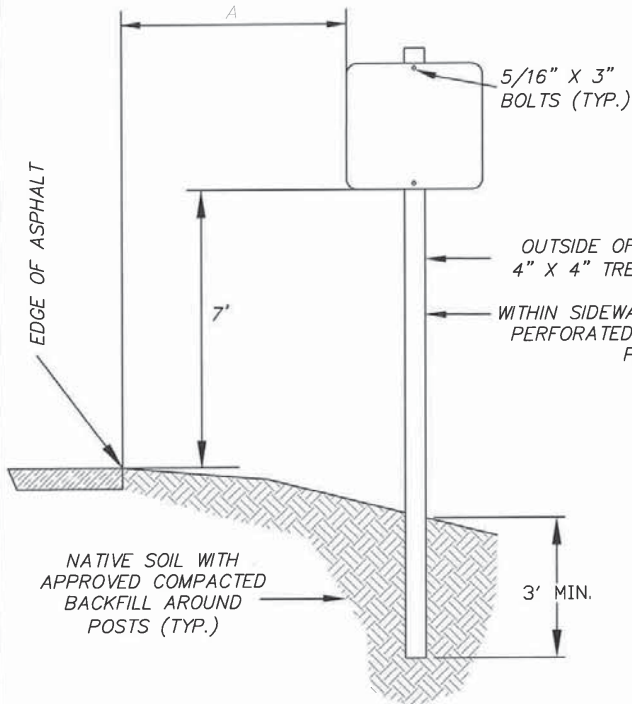
**SIGN LIST:**

SIGN #	TYPE	SIZE	HEIGHT	REQUIREMENTS
SIGN #1:	STOP	R1-1 24"	4' MIN.	(2 REQ.)
SIGN #2:	WRONG WAY	R5-1a 30x24"	4' MIN.	(2 REQ.)
SIGN #3:	ACCESSIBLE PARKING ONLY	703.7.2.1 12x18"	4' MIN.	(5 REQ.)
SIGN #4:	KEEP RIGHT	R4-7a 18X24"	4' MIN.	(1 REQ.)

**NOTES:**

- ATTACH ALL SIGN PANELS TO SIGN POSTS WITH BOLTS AT TOP AND BOTTOM.
- ALL SIGNS SHALL BE 0.060" THICK ALUMINUM PANELS WITH HIGH INTENSITY RETROREFLECTIVE SHEETING WHICH MEETS MUTCD STANDARDS UNDER SECTION 2A.08 (MAINTAINING MINIMUM RETROREFLECTIVITY).
- FINAL PLACEMENT OF ALL SIGNS SHALL BE APPROVED BY THE C.O.R. PRIOR TO INSTALLATION.
- ALL SIGNS SHALL BE INSTALLED USING VANDAL RESISTANT BOLTS AND NUTS.
- SEE FP-14 SECTION 633 FOR ADDITIONAL REQUIREMENTS.
- THE BACKS OF ALL SIGNS NOT MOUNTED BACK-TO-BACK SHALL BE PAINTED A SHADE OF BROWN APPROVED BY THE C.O.R.

**POSTS:** ACQ. 0.40 PCF. BROWNTONE (4 REQ.)  
 GALV STEEL 2" X 2" X 12 GAUGE (5 REQ.)  
 WITH 2-1/4" X 2-1/4" X 10 GA SLEEVE



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**R05**  
PACIFIC SOUTHWEST REGION

PROJECT NAME

**CHIMNEY BEACH  
TRAIL HEAD PARKING  
LOT UPGRADES  
PROJECT**

**LAKE TAHOE BASIN  
MANAGEMENT UNIT**

DRAWING TITLE

**SIGN DETAILS**

DATE

**6/3/2023**

ARCHIVE NO.

**CHIMNEY details.dwg**

DESIGNER

**MTA**

DWG SHEET NO.

**D-4**

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**MTA**

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**MG**

PROJECT NO.

SHEET 14 OF 21

**12 SIGN DETAILS**



United States Department of Agriculture  
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**R05**  
PACIFIC SOUTHWEST REGION

PROJECT NAME

**CHIMNEY BEACH  
TRAIL HEAD PARKING  
LOT UPGRADES  
PROJECT**

**LAKE TAHOE BASIN  
MANAGEMENT UNIT**

DRAWING TITLE

**DRAINAGE INLET  
DETAILS**

DATE

**6/3/2023**

ARCHIVE NO.

**CHIMNEY details.dwg**

DESIGNER

**MTA**

DWG SHEET NO.

**D-5**

DRAWN

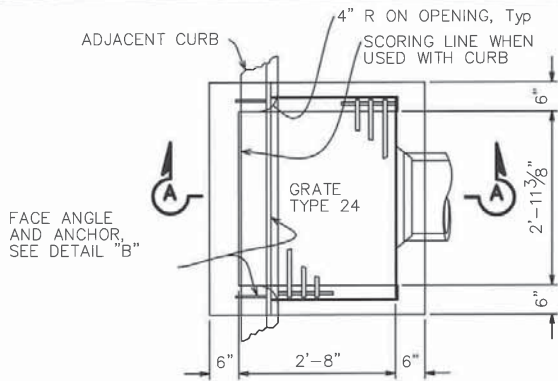
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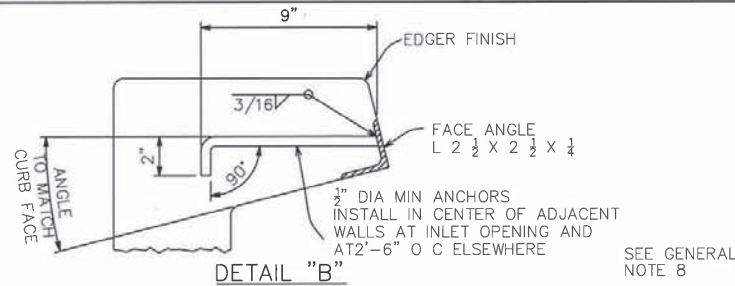
**MG**

PROJECT NO.

SHEET **15** OF **21**



**PLAN**



**DETAIL "B"**

SEE GENERAL NOTE 8

CURB TYPE	NORMAL CURB HEIGHT	CURB BATTER	"a" DIMENSION	"b" DIMENSION
A1-6	6"	11/2"	T+71/2"	T+61/2"
A1-8	8"	2"	T+7"	T+6"
B1-6	6"	4"	T+5"	T+4"
TYPE A DIKE	6"	3"	T+6"	T+5"

Height of curb opening will vary with the type of curb and the depth of the local depression.

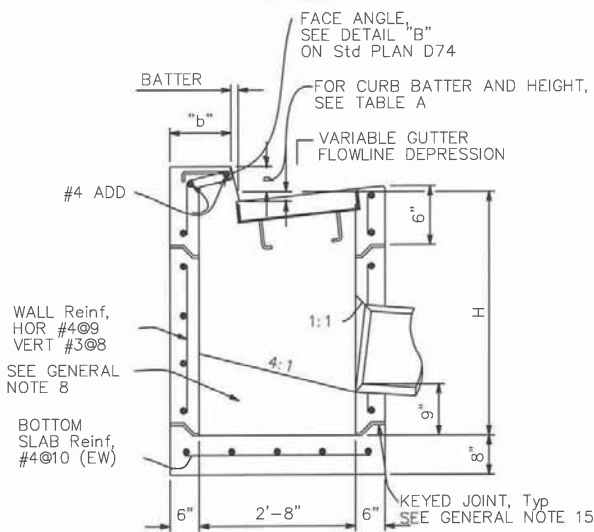
**NOTES:**

1. See Standard Plan D73F for General Notes and additional details. See Standard Plan D73G for tables, wall thickness "T" and quantities.

2. Where shown on the project plans, place a 3/4" plain round protection bar horizontally across the length of the opening and bend back 4" into the inlet wall on each side.

3. Complete joint penetration butt welds may be substituted for the fillet welds on all anchors.

4. Standard square, hexagon, round or equivalent headed anchors may be substituted for the right angle hooks on the anchors shown on this plan.



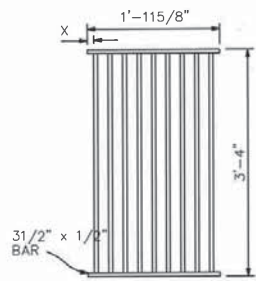
**SECTION A-A**

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**13**

**DRAINAGE INLET DETAILS**

NTS

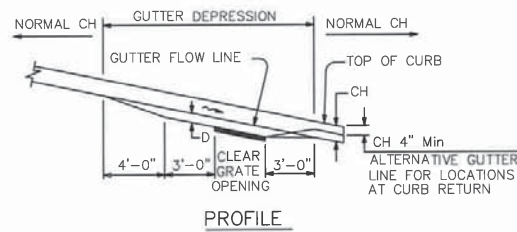


**TYPE 24-9**

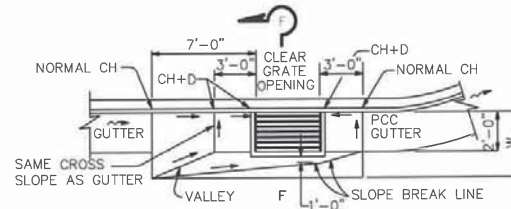
2" Clear spacing.  
Use in locations off the roadbed on all types of highways.

RECTANGULAR GRATE DETAILS

(See table below)

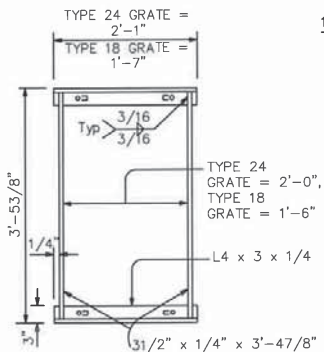


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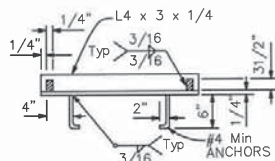


PLAN

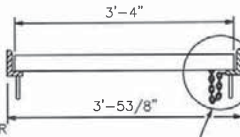
TYPE G0 AND G1 THRU G6 INLETS ON GRADE



TYPICAL FRAME



CROSS SECTION  
(Thru frame)



LONGITUDINAL SECTION  
(Thru frame and grate)

RECTANGULAR FRAME DETAILS

(For all rectangular grates)

NOTES:

1. Grate type numbers refer to approximate width of grate in inches and number of bars, respectively.
2. Rounded top of bars optional on all grates.
3. Pipe inlets with a grate shall be placed so that bars parallel direction of principle surface flow.
4. Complete joint penetration butt welds may be substituted for the fillet welds on all anchors.
5. Standard square, hexagon, round or equivalent headed anchors may be substituted for the right angle hooks on the anchors shown on this plan.
6. Grate and frame weights are based on welded grates (weights of face angles, steps, protection bars, etc. are not included).
7. Connect chain to grate and frame only at locations shown on the plans. When chain is required, do not use cast ductile iron grates.

NOTES:

1. W= Width of depressed apron. Depressed aprons shall be 4'-0" on shoulder and 4'-0" to 6'-0" in city street gutters unless otherwise shown.  
D= Gutter depression. The gutter depression shall be 11/4" for shoulder and 11/4" to 3" in city street gutter or locations outside of shoulder unless otherwise shown.  
CH= Curb Height.  
Straight grade, downward slope.  
Gutter or shoulders direction of flow.
2. Gutter depressions shall be 8" thick.
3. Establish curb opening height at midpoint of grate.
4. Details shown for concrete pavement. When hot mix asphalt pavement is used, corners to be cut off as shown on Detail of Hot Mix Asphalt Pavement.

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United States Department of Agriculture  
Forest Service

**R05**  
PACIFIC SOUTHWEST REGION

PROJECT NAME

**CHIMNEY BEACH  
TRAIL HEAD PARKING  
LOT UPGRADES  
PROJECT**

**LAKE TAHOE BASIN  
MANAGEMENT UNIT**

DRAWING TITLE

**DRAINAGE INLET  
DETAILS**

DATE

**6/3/2023**

ARCHIVE NO.

**CHIMNEY details.dwg**

DESIGNER

**MTA**

DWG SHEET NO.

**D-6**

DRAWN

**MTA**

CHECKED

**MG**

PROJECT NO.

SHEET **16** OF **21**

**14**

**DRAINAGE INLET DETAILS**

N.T.S.





United States Department of Agriculture  
Forest Service

**R05**  
PACIFIC SOUTHWEST REGION

PROJECT NAME

**CHIMNEY BEACH  
TRAIL HEAD PARKING  
LOT UPGRADES  
PROJECT**

**LAKE TAHOE BASIN  
MANAGEMENT UNIT**

DRAWING TITLE

**FLARED END SECTION  
DETAILS**

DATE

**6/3/2023**

ARCHIVE NO.

**CHIMNEY details.dwg**

DESIGNER

**MTA**

DRAWN

**MTA**

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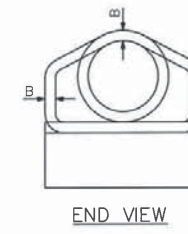
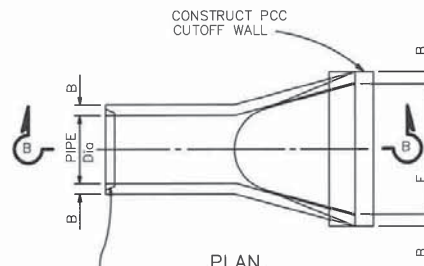
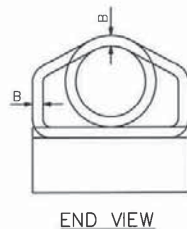
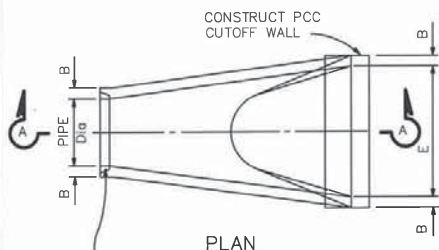
**MG**

PROJECT NO.

DWG SHEET NO.

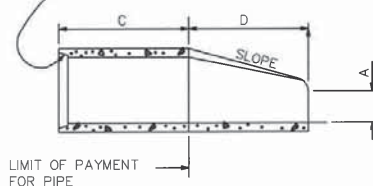
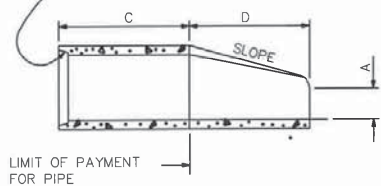
**D-7**

SHEET 17 OF 21



TONGUE END ON INLET SECTION  
GROOVE END ON OUTLET SECTION

TONGUE END ON INLET SECTION  
GROOVE END ON OUTLET SECTION



MINIMUM DIMENSIONS						
PIPE Dia	A	B	C	D	E	SLOPE
12"	4"	13/4"	SEE NOTE 2	2'-0"	2'-0"	2:1 OR FLATTER
18"	9"	21/4"		2'-3"	3'-0"	
24"	9 1/2"	23/4"		3'-7 1/2"	4'-0"	
30"	1'-0"	31/4"		4'-6"	5'-0"	
36"	1'-3"	33/4"		5'-3"	6'-0"	
42"	1'-9"	41/4"		5'-3"	6'-6"	
48"	2'-0"	43/4"		6'-0"	7'-0"	
54"	2'-3"	51/4"	5'-5"	7'-6"		

MINIMUM DIMENSIONS						
PIPE Dia	A	B	C	D	E	SLOPE
12"	4"	11/2"	SEE NOTE 2	1'-10"	2'-0"	2:1 OR FLATTER
18"	9"	13/4"		2'-1"	3'-0"	
24"	9 1/2"	21/4"		3'-6"	4'-0"	
30"	1'-0"	23/4"		4'-5"	5'-0"	
36"	1'-3"	31/4"		5'-2"	6'-0"	
42"	1'-9"	31/2"		5'-3"	6'-6"	
48"	2'-0"	4"		6'-0"	7'-0"	
54"	2'-3"	43/8"	5'-6"	6'-10"		

SECTION A-A

SECTION B-B

PRECAST CONCRETE FLARED END SECTION TYPE A

PRECAST CONCRETE FLARED END SECTION TYPE B

**NOTES:**

- Contractor has the option of using either Type A or B precast concrete flared end section.
- "C" dimension varies by manufacturer and will be paid for as concrete pipe.

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**FLARED END SECTION DETAILS**

NTS



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Forest Service

**R05**  
PACIFIC SOUTHWEST REGION

PROJECT NAME

**CHIMNEY BEACH  
TRAIL HEAD PARKING  
LOT UPGRADES  
PROJECT**

**LAKE TAHOE BASIN  
MANAGEMENT UNIT**

DRAWING TITLE

**REINFORCED  
CONCRETE PIPE  
DETAILS**

DATE

6/3/2023

ARCHIVE NO.

CHIMNEY details.dwg

DESIGNER

MTA

DWG SHEET NO.

**D-8**

DRAWN

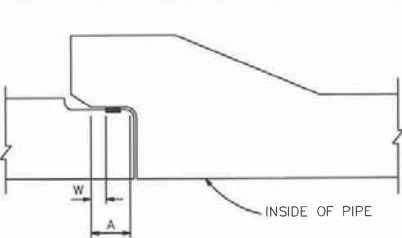
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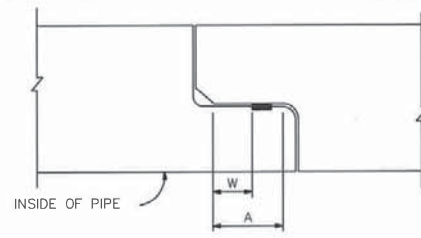
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PROJECT NO.

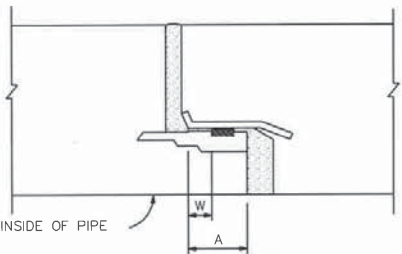
SHEET 18 OF 21



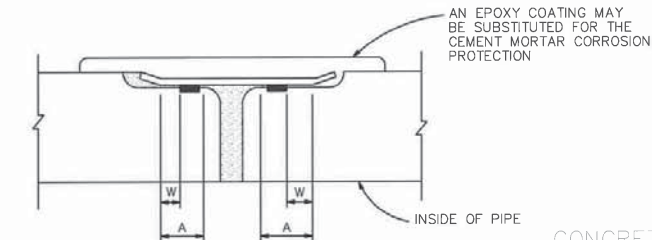
CONCRETE JOINT-FLARED BELL DESIGN



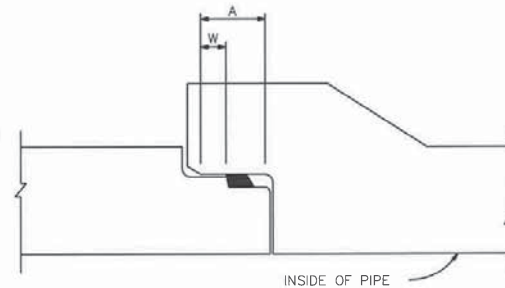
CONCRETE JOINT-FLUSH BELL DESIGN



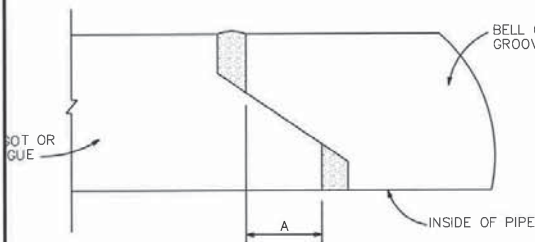
STEEL JOINT-FLUSH BELL DESIGN



CONCRETE JOINT-DOUBLE GASKET DESIGN

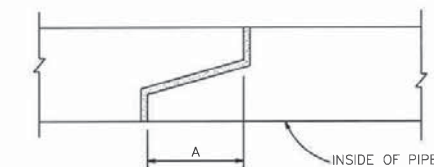


CONCRETE JOINT-SINGLE OR DOUBLE OFFSET DESIGN  
Flared or Flush Bell



SELF-CENTERING TONGUE & GROOVE

See Note 4



TONGUE & GROOVE DESIGN

**NOTES:**

1. For pipe sections installed on straight alignment, the pipe sections shall be joined to provide maximum joint overlap at all points on the joint periphery, but in no case less than the values shown in Table A for "W" if the installation is required to be watertight or "A" for all other installations.
2. For pipe sections installed on curved alignment, the pipe sections shall be joined to provide maximum joint overlap on one side of the joint and not less than 1/4" overlap on the other. The 1/4" overlap shall be the "W" dimension for installations required to be watertight, or the "A" dimension for all other installations.
3. Watertight joint requirement shall typically be met with the use of rubber gaskets as shown. Pipe installed with rubber gaskets shall have a minimum overlap meeting or exceeding the indicated "W" dimension shown in Table A or indicated in Note 2. Joints shown with rubber gaskets may be installed without gaskets in non-watertight applications, in which case the joint shall be sealed with sealing materials and the minimum joint overlap shall meet or exceed the "A" dimension shown in Table A or indicated in Note 2.
4. For Self-Centering Tongue and Groove Joints, the mortar shall be applied after the pipe ends are pushed together. The mortar shall be applied to the joint gap on the inside of the pipe for pipe diameters of 24" or more, or to the gap on the outside of the pipe for pipe smaller than 24" in diameter.
5. When watertight joints are required (See Note 3) and cement mortar joints are not allowed, the taper on surfaces within the "W" dimension at full joint closure and the opposing sealing surfaces of the bells and spigots on which the rubber gaskets may bear during closure of the joint and at any degree of partial closure shall form an angle of not more than 2 degrees with the longitudinal axis of the pipe.

TABLE A

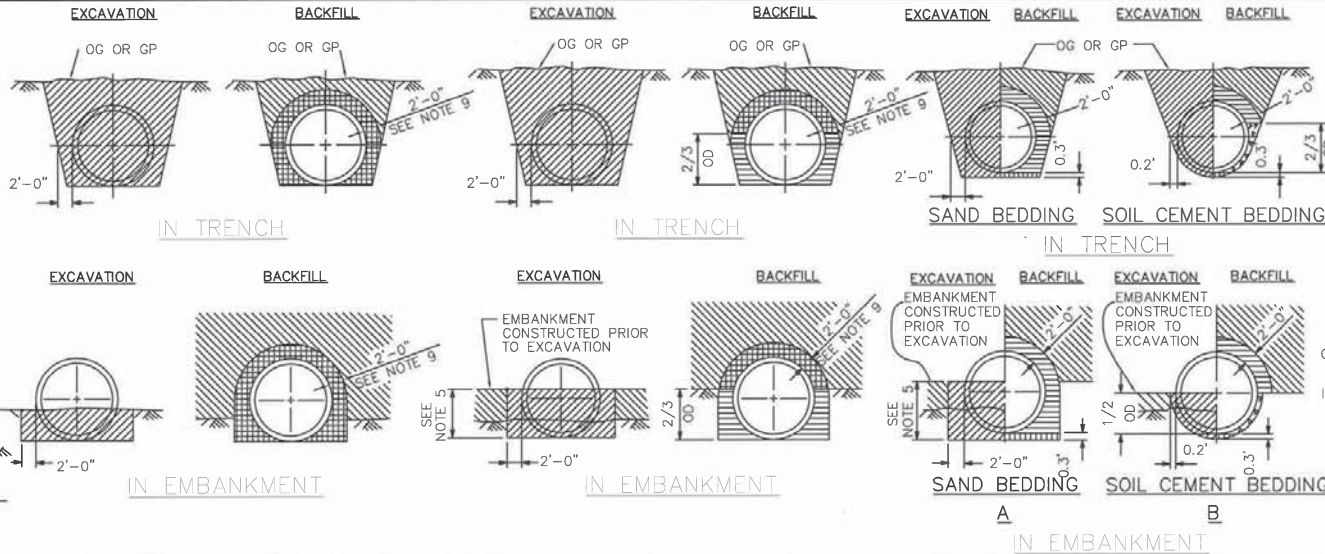
PIPE DIAMETER LIMITS	MINIMUM JOINT OVERLAP			
	STANDARD "A"	POSITIVE "A"	STANDARD "W"	POSITIVE "W"
6" THROUGH 12"	1/4"	1/2"	1/4"	3/8"
15" THROUGH 33"	1/2"	3/4"	1/4"	1/2"
GREATER THAN 33"	3/4"	1"	3/8"	5/8"

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**REINFORCED CONCRETE PIPE DETAILS**

NTS



- LEGEND:**
- STRUCTURE EXCAVATION (CULVERT)
  - STRUCTURE BACKFILL (CULVERT) 95% RELATIVE COMPACTION
  - STRUCTURE BACKFILL (CULVERT) 90% RELATIVE COMPACTION
  - ROADWAY EMBANKMENT
  - LOOSE BACKFILL
  - SOIL CEMENT BEDDING
  - SAND BEDDING

OD = OUTSIDE DIAMETER FOR CIRCULAR PIPES AND MAXIMUM VERTICAL DIMENSION FOR OTHER SHAPES  
 ID = INSIDE DIAMETER FOR CIRCULAR PIPES AND MINIMUM VERTICAL DIMENSION FOR OTHER SHAPES



United States Department of Agriculture  
Forest Service

**R05**  
PACIFIC SOUTHWEST REGION

PROJECT NAME

**CHIMNEY BEACH TRAIL HEAD PARKING LOT UPGRADES PROJECT**

**LAKE TAHOE BASIN MANAGEMENT UNIT**

REINFORCED CONCRETE PIPE					
METHOD 1		METHOD 2		METHOD 3	
MINIMUM ALLOWABLE CLASSES OF RCP FOR METHOD 1		MINIMUM ALLOWABLE CLASSES OF RCP FOR METHOD 2		MINIMUM ALLOWABLE CLASSES OF RCP FOR METHOD 3	
COVER	MINIMUM CLASS AND D-LOAD	COVER	MINIMUM CLASS AND D-LOAD	COVER	MINIMUM CLASS AND D-LOAD
5.9'	CLASS II 1000D	15.9'	CLASS II 1000D	25.9'	CLASS II 1000D
6.0' - 7.9'	CLASS III 1350D	16.0' - 19.9'	CLASS III 1350D	26.0' - 31.9'	CLASS III 1350D
8.0' - 9.9'	CLASS III SPECIAL 1700D	20.0' - 24.9'	CLASS III SPECIAL 1700D	32.0' - 37.9'	CLASS III SPECIAL 1700D
10.0' - 11.9'	CLASS IV 2000D	25.0' - 27.9'	CLASS IV 2000D	38.0' - 44.9'	CLASS IV 2000D
12.0' - 13.9'	CLASS IV SPECIAL 2500D	28.0' - 34.9'	CLASS IV SPECIAL 2500D	45.0' - 55.9'	CLASS IV SPECIAL 2500D
14.0' - 16.9'	CLASS V 3000D	35.0' - 41.9'	CLASS V 3000D	56.0' - 67.9'	CLASS V 3000D
17.0' - 20.0'	CLASS V SPECIAL 3600D	42.0' - 50.0'	CLASS V SPECIAL 3600D	68.0' - 80.0'	CLASS V SPECIAL 3600D
See Notes 6 and 9		See Notes 8 and 9			

- NOTES:**
- Unless otherwise shown on the plans or specified in the special provisions, the Contractor shall have the option of selecting the class of RCP and the method of backfill to be used, provided the height of cover does not exceed the value shown for the RCP selected.  
 Example:  
 2'-0" RCP culvert with maximum cover of 19'-0" the options are:  
 a) Class I Special or stronger with Method 1.  
 b) Class III or stronger with Method 2.  
 c) Class II or stronger with Method 3.  
 Cover is defined as the maximum vertical distance from top of pipe to finished grade within the length of any given culvert.
  - The class of RCP, method of backfill and bedding selected shall be the same throughout the length of any given culvert.
  - The "length of any culvert" is defined as the culvert between:  
 a) Successive drainage structures (inlets, junction boxes, headwalls, etc.).  
 b) A drainage structure and the inlet or outlet end of the culvert.  
 c) The inlet and outlet end of the culvert when there are no intervening drainage structures.  
 Slope or shore excavation sides as necessary.

- Embankment height prior to excavation for installation of all classes of RCP under Methods 2 and 3A shall be as follows:  
 Pipe sizes 1'-0" to 3'-6", ID = 2'-6"  
 Pipe sizes 4'-0" to 7'-0", ID = 2/3 OD  
 Pipe sizes larger than 7'-0", ID = 5'-0"
- The maximum size for all classes of RCP placed under Method 1 is 6'-6" ID.
- Non-reinforced precast pipe sizes 1'-0" or smaller may also be placed under Methods 1, 2 or 3.
- Elliptical shaped RCP shall be placed under Method 2 only.
- Embankment compaction requirements govern over the 90% relative compaction backfill requirement within 2'-6" of finished grade.
- Backfill shall be placed full width of excavation except where dimensions are shown for backfill width or thickness. Dimensions shown are minimums.
- Where the precast non-reinforced concrete pipe is used as a substitute for the cast-in-place pipe, both the wall thickness and the concrete strength shall be at least as great as that specified for the cast-in-place pipe. The fill height allowed shall not exceed that shown for the cast-in-place pipe.

ADAPTED FROM CAL TRANS STANDARD PLANS 2022

DRAWING TITLE	
<b>REINFORCED CONCRETE PIPE DETAILS</b>	
DATE	6/3/2023
ARCHIVE NO.	CHIMNEY details.dwg
DESIGNER	DWG SHEET NO.
MTA	<b>D-9</b>
DRAWN	
MTA	
CHECKED	
MG	
PROJECT NO.	SHEET 19 OF 21

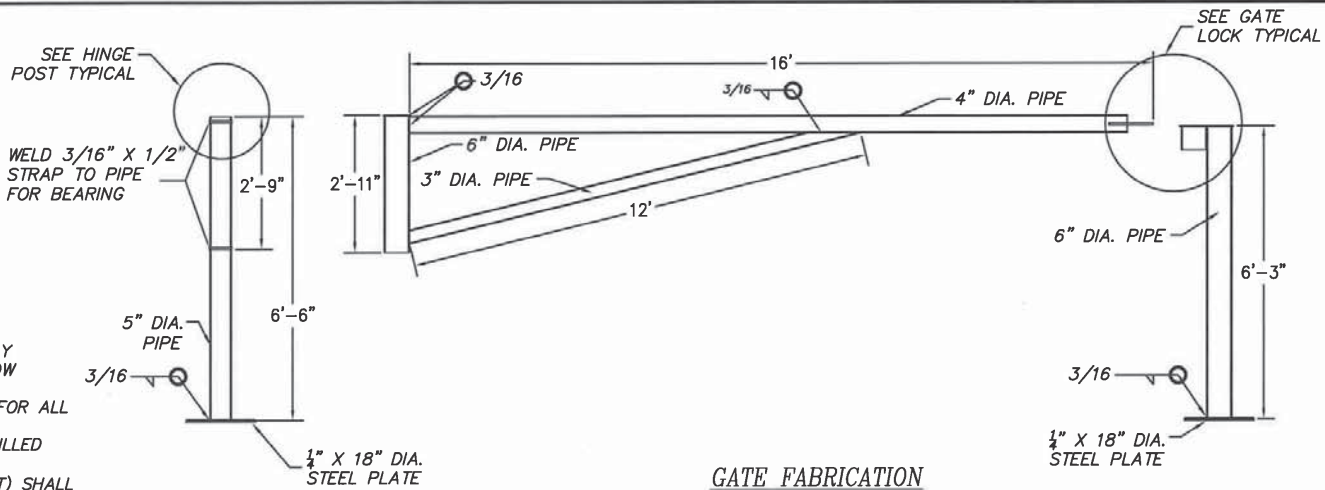
**17 REINFORCED CONCRETE PIPE DETAILS**

**GATE FABRICATION NOTES:**

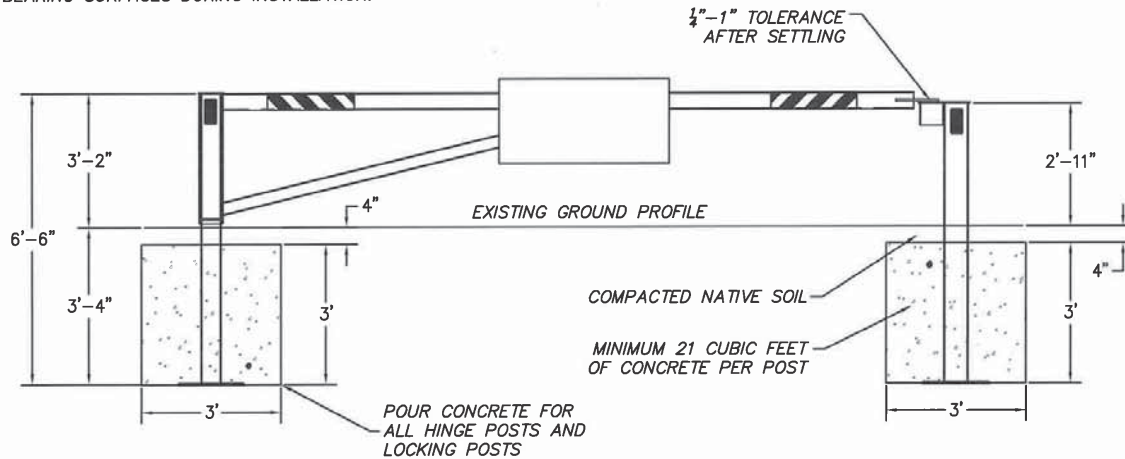
1. A SINGLE GATE FABRICATION AND INSTALLATION IS SHOWN.  
1 SWING ARM WITHOUT CUP  
1 HINGE POSTS  
2 LOCKING POSTS WITH CUP
2. ALL PIPE SHALL MEET THE REQUIREMENTS OF ASTM A53 GRADE B.
3. PIPE SIZES SHOWN ARE FOR STANDARD WEIGHT BLACK IRON PIPE (SCHEDULE 40).
4. POWDER COAT ALL STEEL FOREST SERVICE GREEN; FOLLOW MANUFACTURER'S RECOMMENDATIONS; COLOR SHALL BE APPROVED BY THE C.O.R.

**GATE INSTALLATION NOTES:**

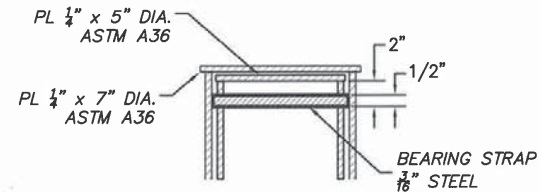
1. CONCRETE SHALL HAVE A 3000 PSI 28-DAY COMPRESSIVE STRENGTH, AND SHALL FOLLOW FP-14 SPECIFICATIONS 601.
2. CONCRETE SHALL BE POURED INTO HOLES FOR ALL HINGE POSTS AND ALL LOCKING POSTS.
3. OVER EXCAVATED POST HOLES SHALL BE FILLED WITH CONCRETE.
4. ALL CONCRETE WASTE (INCLUDING WASHOUT) SHALL BE COLLECTED AND DISPOSED OF OFF-SITE.
5. GATE AND LOCKING MECHANISMS SHALL BE INSPECTED BY THE C.O.R. PRIOR TO GATE INSTALLATION.
6. LOCATION OF ALL GATES SHALL BE APPROVED BY THE C.O.R. PRIOR TO INSTALLATION.
7. APPLY GREASE TO TOP OF ALL HINGE POSTS AND BEARING SURFACES DURING INSTALLATION.



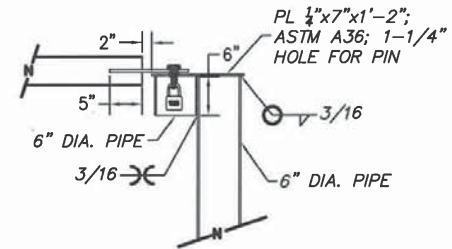
**GATE FABRICATION**



**GATE INSTALLATION**



**HINGE POST TYPICAL**



**GATE LOCK TYPICAL (CUP ON LOCK POST)**



United States Department of Agriculture  
Forest Service

**R05**  
PACIFIC SOUTHWEST REGION

PROJECT NAME

**CHIMNEY BEACH  
TRAIL HEAD PARKING  
LOT UPGRADES  
PROJECT**

**LAKE TAHOE BASIN  
MANAGEMENT UNIT**

DRAWING TITLE

**GATE DETAILS**

DATE

6/3/2023

ARCHIVE NO.

CHIMNEY details.dwg

DESIGNER

MTA

DRAWN

MTA

CHECKED

MG

PROJECT NO.

DWG SHEET NO.

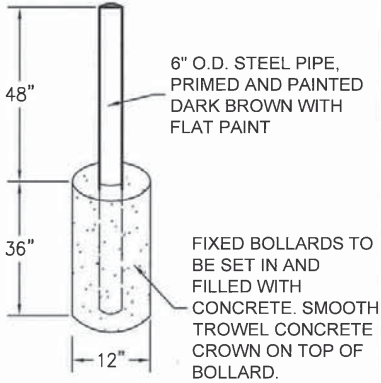
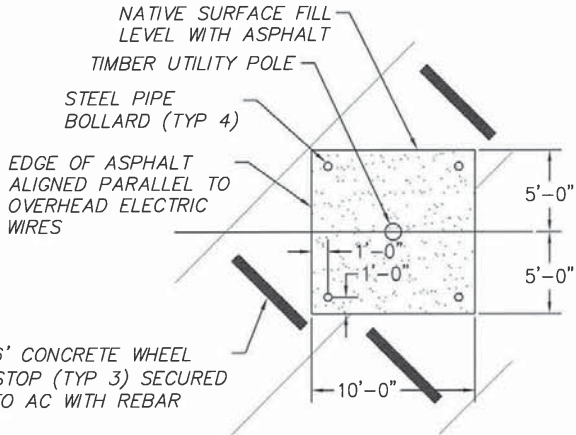
**D-10**

SHEET 20 OF 21

**18**

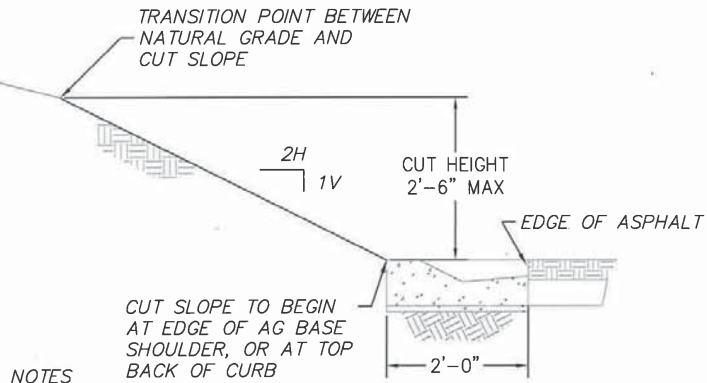
**GATE DETAILS**

NTS



**19 UTILITY POLE DETAIL**

N.T.S.



- NOTES**
1. COMPACT AND APPLY MULCH TO ALL FILL SLOPES.
  2. PAY ITEM AREA FOR THE ROCKERY WALL WILL BE CALCULATED BASED ON WALL HEIGHT (H) AS SHOWN IN TABLE 1.
  3. GRANITIC BEDROCK WAS ENCOUNTERED BETWEEN 19" AND 38" BELOW THE GROUND SURFACE THROUGHOUT THE UPPER PARKING LOT.
  4. SEE SHEET D-2 FOR ROCKERY WALL DETAIL FOR CUT SLOPES GREATER THAN 2.5 FEET.

**20 CUT SLOPES LESS THAN 2.5'**

N.T.S.

TABLE 1. ROCKERY WALL HEIGHT

ROAD SHOULDER				ROAD SHOULDER				TOE OF FILL			
STA	Cut Height (ft)	Rockery Height (H) (ft)	Area (sv)	STA	Cut Height (ft)	Rockery Height (H) (ft)	Area (sv)	STA	Cut Height (ft)	Rockery Height (H) (ft)	Area (sv)
1+10.95	2.25	0	0.0	5+50.17	5.27	3.33	1.9	1+93.66	0.43	0.00	0.0
1+14.48	3.52	2	1.1	5+55.17	4.33	3.33	1.9	1+98.66	1.26	1.33	1.1
1+19.36	3.38	2	1.1	5+60.17	3.49	2	1.1	2+03.66	2.09	2.00	1.1
1+24.36	3.27	2	1.1	5+65.17	2.73	2	1.1	2+08.66	2.50	2.66	1.5
1+29.36	3.25	2	1.1	5+69.48	3.13	2	1.1	2+13.66	2.83	2.66	1.5
1+34.36	3.26	2	1.1	5+73.02	3.65	2	1.1	2+18.66	3.18	3.33	1.9
1+39.36	3.28	2	1.1	5+76.55	4.25	2	1.1	2+23.66	3.53	3.33	1.9
1+44.36	3.29	2	1.1	5+80.09	4.8	2.66	1.5	2+28.66	3.80	4.00	2.2
1+49.36	3.31	2	1.1	5+83.62	5.13	2.66	1.5	2+33.66	4.05	4.00	2.2
1+54.36	3.32	2	1.1	5+88.17	4.52	2.66	1.5	2+38.66	4.28	4.00	2.2
1+59.36	3.28	2	1.1	5+93.17	2.97	2	1.1	2+43.66	4.52	4.66	2.6
1+64.36	3.07	2	1.1	7+52.30	1.42	0	0	2+48.66	4.75	4.66	2.6
1+69.36	2.75	2	1.1	7+67.30	2.43	0	0	2+53.66	4.97	5.33	3.0
1+74.36	2.44	0	0.0	7+72.30	2.77	2	1.1	2+58.66	5.19	5.33	3.0
2+74.36	2.16	0	0.0	7+77.30	3.05	2	1.1	2+63.66	5.44	5.33	3.0
2+79.36	2.57	2	1.1	7+82.30	3.09	2	1.1	2+68.66	5.70	5.33	3.0
2+84.36	3.13	2	1.1	7+87.30	3.16	2	1.1	2+73.66	5.43	5.33	3.0
2+89.36	3.74	2	1.1	7+92.30	3.22	2	1.1	2+78.66	4.77	4.66	2.6
2+94.36	4.22	2.66	1.5	7+97.30	3.29	2	1.1	2+83.66	4.10	4.00	2.2
2+99.36	4.71	2.66	1.5	8+02.30	3.38	2	1.1	2+88.66	3.43	3.33	1.9
3+04.36	5.11	2.66	1.5	8+07.30	3.47	2	1.1	2+93.66	2.74	2.66	1.5
3+09.36	5.43	4	2.2	8+12.30	3.56	2	1.1	2+98.66	2.80	2.66	1.5
3+14.36	5.75	4	2.2	8+16.34	3.26	2	1.1	3+03.66	2.86	2.66	1.5
3+19.36	6.04	4	2.2	8+19.93	2.53	0	0	3+08.66	2.92	2.66	1.5
3+24.36	5.87	4	2.2	8+44.04	2.27	0	0	3+13.66	2.99	2.66	1.5
3+29.36	5.69	3.33	1.9	8+49.04	2.68	2	1.1	3+18.66	3.05	3.33	1.9
3+34.36	5.58	3.33	1.9	8+54.04	3.1	2	1.1	3+23.66	3.13	3.33	1.9
3+39.36	5.50	3.33	1.9	8+59.04	3.51	2	1.1	3+28.66	3.17	3.33	1.9
3+44.36	5.41	3.33	1.9	8+64.04	3.85	2	1.1	3+33.66	3.23	3.33	1.9
3+49.36	5.33	3.33	1.9	8+69.04	3.94	2	1.1	3+38.66	2.97	3.33	1.9
3+54.36	5.24	3.33	1.9	8+74.04	4.11	2	1.1	3+43.66	2.32	2.66	1.5
3+58.57	4.32	2	1.1	8+79.04	4.53	2	1.1	3+48.66	1.69	2.00	1.1
3+62.15	3.51	2	1.1	8+84.04	4.95	3.33	1.9	3+53.66	1.79	2.00	1.1
3+63.03	2.40	0	0.0	8+89.04	5.31	3.33	1.9	3+58.66	1.67	2.00	1.1
4+58.16	2.28	0	0.0	8+94.04	5.6	3.33	1.9	3+63.66	0.43	0.00	0
4+62.66	3.07	2	1.1	8+99.04	5.93	4	2.2	7+47.31	0.43	0.00	0
4+67.58	3.74	2	1.1	9+04.04	6.29	4	2.2	7+50.01	1.44	2.00	1.1
4+71.85	4.42	3.33	1.9	9+09.04	6.65	4.66	2.6	7+52.69	2.44	2.66	1.5
4+76.13	5.05	3.33	1.9	9+14.04	7.01	4.66	2.6	7+58.91	2.52	2.66	1.5
4+80.40	5.82	3.33	1.9	9+19.04	7.37	5.33	3	7+63.08	1.57	2.00	1.1
4+84.67	6.54	4.66	2.6	9+23.94	7.68	5.33	3	7+67.24	0.52	0.00	0
4+88.94	7.18	4.66	2.6	9+28.43	8.01	6	3.3				
4+93.22	7.74	6	3.3	9+32.92	8	6	3.3				
4+97.49	8.19	6	3.3	9+37.40	7.82	6	3.3				
5+01.76	8.57	6	3.3	9+41.89	7.61	6	3.3				
5+06.03	8.82	6	3.3	9+46.38	7.26	6	3.3				
5+10.31	9.02	6	3.3	9+50.86	6.89	4.66	2.6				
5+14.58	9.01	6	3.3	9+55.35	6.45	4.66	2.6				
5+18.85	8.96	6	3.3	9+59.84	5.99	4	2.2				
5+23.12	8.72	6	3.3	9+64.33	5.37	4	2.2				
5+27.40	8.54	6	3.3	9+68.81	4.76	2.66	1.5				
5+31.67	8.20	6	3.3	9+73.30	4.18	2.66	1.5				
5+35.94	7.75	6	3.3	9+77.79	3.51	2	1.1				
5+40.22	6.99	4.66	2.6	9+82.27	2.85	2	1.1				
5+45.17	6.12	4.66	2.6	9+86.76	2.19	0	0				

TOTAL AREA = 253.0 SY



United States Department of Agriculture  
Forest Service

**R05**  
PACIFIC SOUTHWEST REGION

PROJECT NAME

**CHIMNEY BEACH TRAIL HEAD PARKING LOT UPGRADES PROJECT**

**LAKE TAHOE BASIN MANAGEMENT UNIT**

DRAWING TITLE

**UTILITY POLE AND SLOPE STABILIZATION DETAILS**

DATE

6/3/2023

ARCHIVE NO.

CHIMNEY details.dwg

DESIGNER

MTA

DWG SHEET NO.

**D-11**

DRAWN

MTA

CHECKED

MG

PROJECT NO.

SHEET 21 OF 21